Full wwPDB X-ray Structure Validation Report ⓘ

May 16, 2020 – 09:40 am BST

PDB ID	:	4V8G
Title	:	Crystal structure of RMF bound to the 70S ribosome.
Authors	:	Polikanov, Y.S.; Blaha, G.M.; Steitz, T.A.
Deposited on	:	2011-12-11
Resolution	:	3.00 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

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

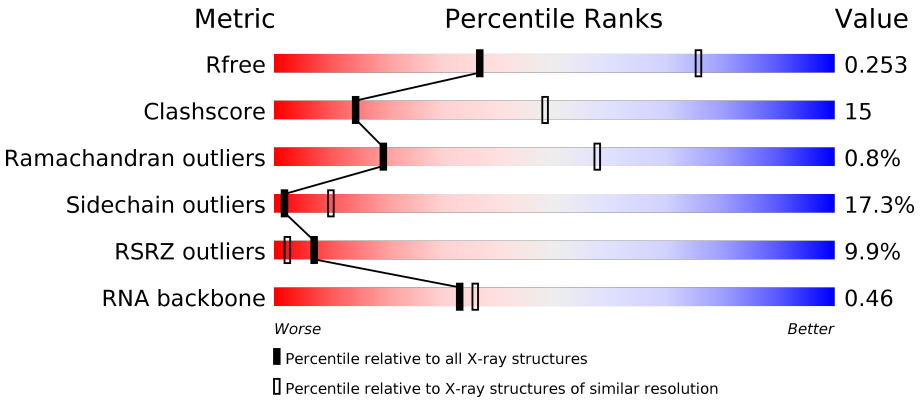
MolProbity	:	4.02b-467
Xtriage (Phenix)	:	1.13
EDS	:	2.11
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation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

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.00 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	2092 (3.00-3.00)
Clashscore	141614	2416 (3.00-3.00)
Ramachandran outliers	138981	2333 (3.00-3.00)
Sidechain outliers	138945	2336 (3.00-3.00)
RSRZ outliers	127900	1990 (3.00-3.00)
RNA backbone	3102	1173 (3.30-2.70)

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

Mol	Chain	Length	Quality of chain
1	AA	1522	20% 28% 42% 22% 7%
1	CA	1522	14% 30% 44% 20%
2	AB	256	7% 39% 41% 9% 11%
2	CB	256	10% 39% 40% 11% 11%

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Mol	Chain	Length	Quality of chain
3	AC	239	35% 43% 33% 10% 14%
3	CC	239	27% 39% 36% 10% 14%
4	AD	209	11% 53% 36% 11%
4	CD	209	7% 53% 37% 9%
5	AE	162	11% 41% 45% 6% 9%
5	CE	162	7% 40% 45% 7% 9%
6	AF	101	7% 59% 35% 5%
6	CF	101	5% 65% 30%
7	AG	156	69% 34% 50% 15%
7	CG	156	44% 51% 40% 8%
8	AH	138	4% 50% 45% 5%
8	CH	138	5% 54% 41% 5%
9	AI	128	70% 45% 44% 9%
9	CI	128	48% 44% 45% 9%
10	AJ	105	55% 44% 38% 9% 9%
10	CJ	105	52% 59% 23% 10% 9%
11	AK	129	53% 34% 12%
11	CK	129	7% 53% 33% 12%
12	AL	132	5% 50% 37% 5% 8%
12	CL	132	5% 52% 35% 5% 8%
13	AM	126	71% 40% 39% 10% 10%
13	CM	126	33% 48% 36% 7% 10%
14	AN	61	61% 28% 56% 15%
14	CN	61	34% 34% 54% 8%
15	AO	89	3% 54% 42%

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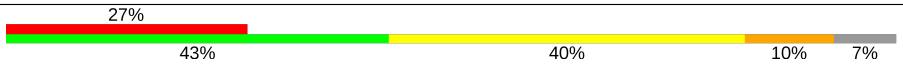
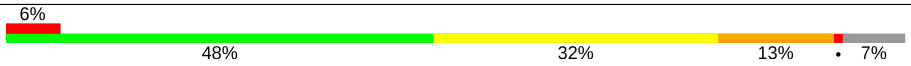
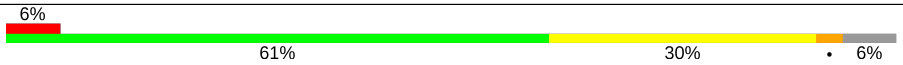
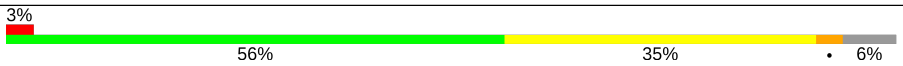
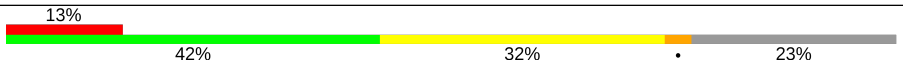
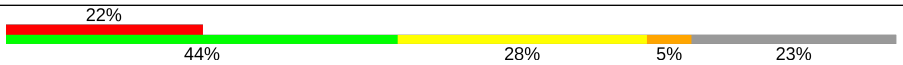
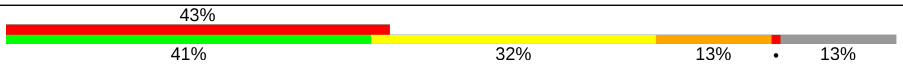
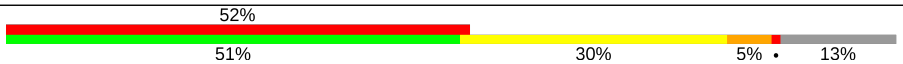
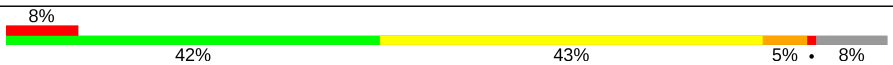
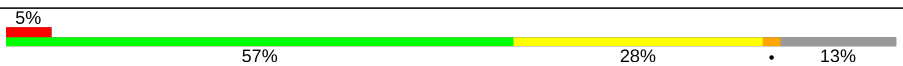
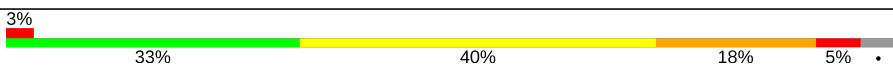
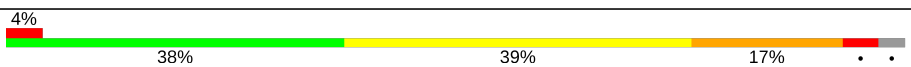
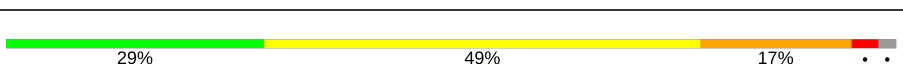
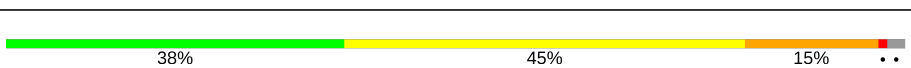
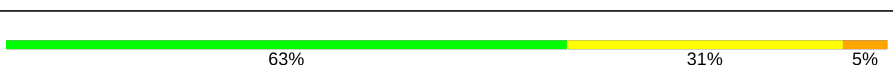
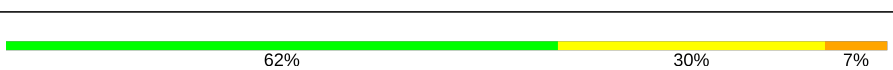
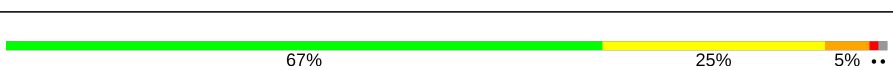
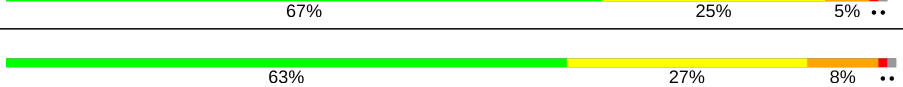
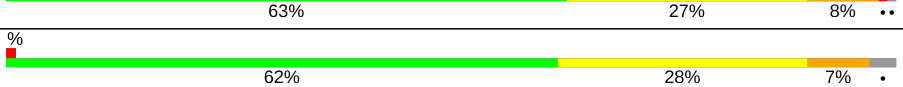
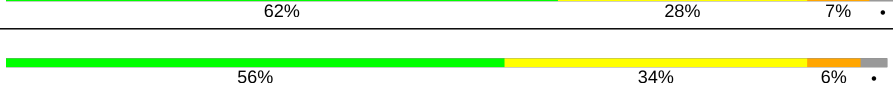
Mol	Chain	Length	Quality of chain
15	CO	89	
16	AP	88	
16	CP	88	
17	AQ	105	
17	CQ	105	
18	AR	88	
18	CR	88	
19	AS	93	
19	CS	93	
20	AT	106	
20	CT	106	
21	AU	27	
21	CU	27	
22	AV	61	
22	CV	61	
23	BA	2915	
23	DA	2915	
24	BB	122	
24	DB	122	
25	BD	276	
25	DD	276	
26	BE	206	
26	DE	206	
27	BF	210	
27	DF	210	

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Mol	Chain	Length	Quality of chain
28	BG	182	10% 53% 40% 7%
28	DG	182	23% 53% 39% 8%
29	BH	180	% 66% 27%
29	DH	180	12% 66% 28%
30	BI	148	% 47% 41% 11%
30	DI	148	9% 57% 28% 13%
31	BN	140	58% 34% 8%
31	DN	140	% 56% 35% 8%
32	BO	122	69% 28%
32	DO	122	63% 34%
33	BP	150	64% 28% 7%
33	DP	150	2% 64% 30% 5%
34	BQ	141	% 69% 26% 5%
34	DQ	141	58% 35% 6%
35	BR	118	71% 22% 7%
35	DR	118	63% 33%
36	BS	112	54% 35% 10%
36	DS	112	4% 50% 41% 7%
37	BT	146	51% 31% 8% 10%
37	DT	146	% 51% 30% 8% 10%
38	BU	118	% 70% 25%
38	DU	118	2% 66% 29%
39	BV	101	61% 32% 6%
39	DV	101	57% 35% 8%
40	BW	113	73% 23%

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Mol	Chain	Length	Quality of chain
40	DW	113	69% 27%
41	BX	96	73% 23%
41	DX	96	72% 25%
42	BY	110	54% 39% 5%
42	DY	110	6% 57% 34% 5%
43	BZ	206	60% 31% 5%
43	DZ	206	7% 59% 31% 6%
44	B0	85	60% 26% 11%
44	D0	85	5% 51% 35% 11%
45	B1	98	64% 28% 6%
45	D1	98	65% 23% 9%
46	B2	72	57% 38%
46	D2	72	4% 54% 39%
47	B3	60	72% 22% 5%
47	D3	60	3% 65% 27% 7%
48	B4	71	30% 24% 8% 35%
48	D4	71	30% 23% 11% 35%
49	B5	60	70% 25%
49	D5	60	70% 23% 5%
50	B6	54	4% 46% 37% 15%
50	D6	54	9% 44% 37% 17%
51	B7	49	4% 59% 31% 8%
51	D7	49	59% 35%
52	B8	65	55% 34% 9%
52	D8	65	51% 40% 6%

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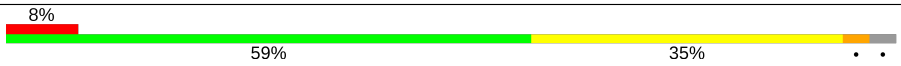
Mol	Chain	Length	Quality of chain
53	B9	37	
53	D9	37	

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	1616	-	-	-	X
54	MG	AA	1620	-	-	-	X
54	MG	AA	1622	-	-	-	X
54	MG	AA	1627	-	-	-	X
54	MG	AA	1630	-	-	-	X
54	MG	AA	1643	-	-	-	X
54	MG	AA	1652	-	-	-	X
54	MG	AA	1656	-	-	-	X
54	MG	AA	1661	-	-	-	X
54	MG	AA	1663	-	-	-	X
54	MG	AA	1665	-	-	-	X
54	MG	AA	1675	-	-	-	X
54	MG	AA	1678	-	-	-	X
54	MG	BA	3118	-	-	-	X
54	MG	BA	3145	-	-	-	X
54	MG	BA	3169	-	-	-	X
54	MG	BA	3201	-	-	-	X
54	MG	BA	3205	-	-	-	X
54	MG	BA	3267	-	-	-	X
54	MG	BA	3280	-	-	-	X
54	MG	BB	207	-	-	-	X
54	MG	CA	1606	-	-	-	X
54	MG	CA	1608	-	-	-	X
54	MG	CA	1609	-	-	-	X
54	MG	CA	1612	-	-	-	X
54	MG	CA	1619	-	-	-	X
54	MG	CA	1624	-	-	-	X
54	MG	CA	1631	-	-	-	X
54	MG	CA	1636	-	-	-	X
54	MG	DA	3037	-	-	-	X
54	MG	DA	3047	-	-	-	X
54	MG	DA	3048	-	-	-	X
54	MG	DA	3075	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
54	MG	DA	3102	-	-	-	X
54	MG	DA	3143	-	-	-	X
54	MG	DA	3327	-	-	-	X
54	MG	DB	202	-	-	-	X
54	MG	DP	201	-	-	-	X

2 Entry composition

There are 56 unique types of molecules in this entry. The entry contains 283930 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	1505	Total	C	N	O	P	0	0	0
			32353	14399	5995	10454	1505			
1	CA	1501	Total	C	N	O	P	0	0	0
			32270	14362	5983	10424	1501			

- 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
			1775	1132	318	320	5			
2	CB	229	Total	C	N	O	S	0	0	0
			1775	1132	318	320	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
			1450	906	279	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
			1526	963	283	274	6			
4	CD	208	Total	C	N	O	S	0	0	0
			1526	963	283	274	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
			1105	699	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
			777	493	137	144	3			
6	CF	100	Total	C	N	O	S	0	0	0
			777	493	137	144	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
			1164	726	224	208	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
			1045	665	188	190	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
			852	533	163	156			

- 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
			663	410	132	121			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
10	CJ	96	Total	C	N	O	0	0	0
			663	410	132	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
			905	567	178	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
			804	497	164	142	1			
13	CM	114	Total	C	N	O	S	0	0	0
			804	497	164	142	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
			478	303	99	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
			651	416	123	111	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
			823	528	151	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	81	Total	C	N	O	S	0	0	0
			560	351	108	99	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	97	Total	C	N	O	S	0	0	0
			713	438	152	121	2			
20	CT	97	Total	C	N	O	S	0	0	0
			713	438	152	121	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
			199	122	48	29			

- Molecule 22 is a protein called Ribosome modulation factor.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AV	53	Total	C	N	O	S	0	0	0
			333	204	66	61	2			
22	CV	53	Total	C	N	O	S	0	0	0
			353	218	67	66	2			

There are 12 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AV	56	HIS	-	EXPRESSION TAG	UNP P0AFW2
AV	57	HIS	-	EXPRESSION TAG	UNP P0AFW2
AV	58	HIS	-	EXPRESSION TAG	UNP P0AFW2
AV	59	HIS	-	EXPRESSION TAG	UNP P0AFW2
AV	60	HIS	-	EXPRESSION TAG	UNP P0AFW2
AV	61	HIS	-	EXPRESSION TAG	UNP P0AFW2
CV	56	HIS	-	EXPRESSION TAG	UNP P0AFW2
CV	57	HIS	-	EXPRESSION TAG	UNP P0AFW2
CV	58	HIS	-	EXPRESSION TAG	UNP P0AFW2
CV	59	HIS	-	EXPRESSION TAG	UNP P0AFW2
CV	60	HIS	-	EXPRESSION TAG	UNP P0AFW2
CV	61	HIS	-	EXPRESSION TAG	UNP P0AFW2

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	BA	2809	Total	C	N	O	P	0	0	0
			60512	26930	11328	19446	2808			
23	DA	2814	Total	C	N	O	P	0	0	0
			60620	26978	11348	19481	2813			

- 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
			1580	1007	298	273	2			
27	DF	203	Total	C	N	O	S	0	0	1
			1580	1007	298	273	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
			1040	669	180	190	1			
30	DI	146	Total	C	N	O	S	0	0	0
			1038	668	180	189	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
			865	544	172	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	131	Total	C	N	O	S	0	0	0
			1063	666	213	183	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	100	Total	C	N	O	S	0	0	0
			760	490	136	133	1			
39	DV	101	Total	C	N	O	S	0	0	0
			771	495	140	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	112	Total	C	N	O	S	0	0	0
			881	554	172	153	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
			742	483	134	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
			785	503	145	131	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	198	Total	C	N	O	S	0	0	0
			1522	972	269	279	2			

- 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	76	Total	C	N	O	S	0	0	0
			594	368	125	100	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	70	Total	C	N	O	S	0	0	0
			588	365	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
			458	293	87	78			

- 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
			455	286	90	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
			449	278	90	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
			418	257	104	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	BA	618	Total	Mg	0	0
			618	618		
54	CA	69	Total	Mg	0	0
			69	69		
54	DF	2	Total	Mg	0	0
			2	2		
54	B8	3	Total	Mg	0	0
			3	3		
54	BE	6	Total	Mg	0	0
			6	6		
54	B1	1	Total	Mg	0	0
			1	1		
54	BP	1	Total	Mg	0	0
			1	1		
54	D6	1	Total	Mg	0	0
			1	1		
54	B5	2	Total	Mg	0	0
			2	2		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
54	BB	17	Total Mg 17 17	0	0
54	D8	1	Total Mg 1 1	0	0
54	B9	1	Total Mg 1 1	0	0
54	BF	2	Total Mg 2 2	0	0
54	B2	2	Total Mg 2 2	0	0
54	AA	106	Total Mg 106 106	0	0
54	BQ	3	Total Mg 3 3	0	0
54	D7	1	Total Mg 1 1	0	0
54	BU	2	Total Mg 2 2	0	0
54	AD	1	Total Mg 1 1	0	0
54	DD	1	Total Mg 1 1	0	0
54	B3	2	Total Mg 2 2	0	0
54	BR	2	Total Mg 2 2	0	0
54	DA	430	Total Mg 430 430	0	0
54	BV	1	Total Mg 1 1	0	0
54	DE	1	Total Mg 1 1	0	0
54	DP	1	Total Mg 1 1	0	0
54	BD	3	Total Mg 3 3	0	0
54	B0	2	Total Mg 2 2	0	0
54	BW	1	Total Mg 1 1	0	0
54	DB	5	Total Mg 5 5	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	145	Total O 145 145	0	0
56	AF	1	Total O 1 1	0	0
56	AK	1	Total O 1 1	0	0
56	AQ	1	Total O 1 1	0	0
56	BA	1422	Total O 1422 1422	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	BB	31	Total O 31 31	0	0
56	BD	10	Total O 10 10	0	0
56	BE	8	Total O 8 8	0	0
56	BF	11	Total O 11 11	0	0
56	BH	2	Total O 2 2	0	0
56	BN	2	Total O 2 2	0	0
56	BO	3	Total O 3 3	0	0
56	BP	6	Total O 6 6	0	0
56	BQ	2	Total O 2 2	0	0
56	BR	6	Total O 6 6	0	0
56	BT	1	Total O 1 1	0	0
56	BU	2	Total O 2 2	0	0
56	BV	2	Total O 2 2	0	0
56	BW	4	Total O 4 4	0	0
56	BX	2	Total O 2 2	0	0
56	BY	1	Total O 1 1	0	0
56	B0	4	Total O 4 4	0	0
56	B3	1	Total O 1 1	0	0
56	B4	1	Total O 1 1	0	0
56	B5	3	Total O 3 3	0	0
56	B7	3	Total O 3 3	0	0

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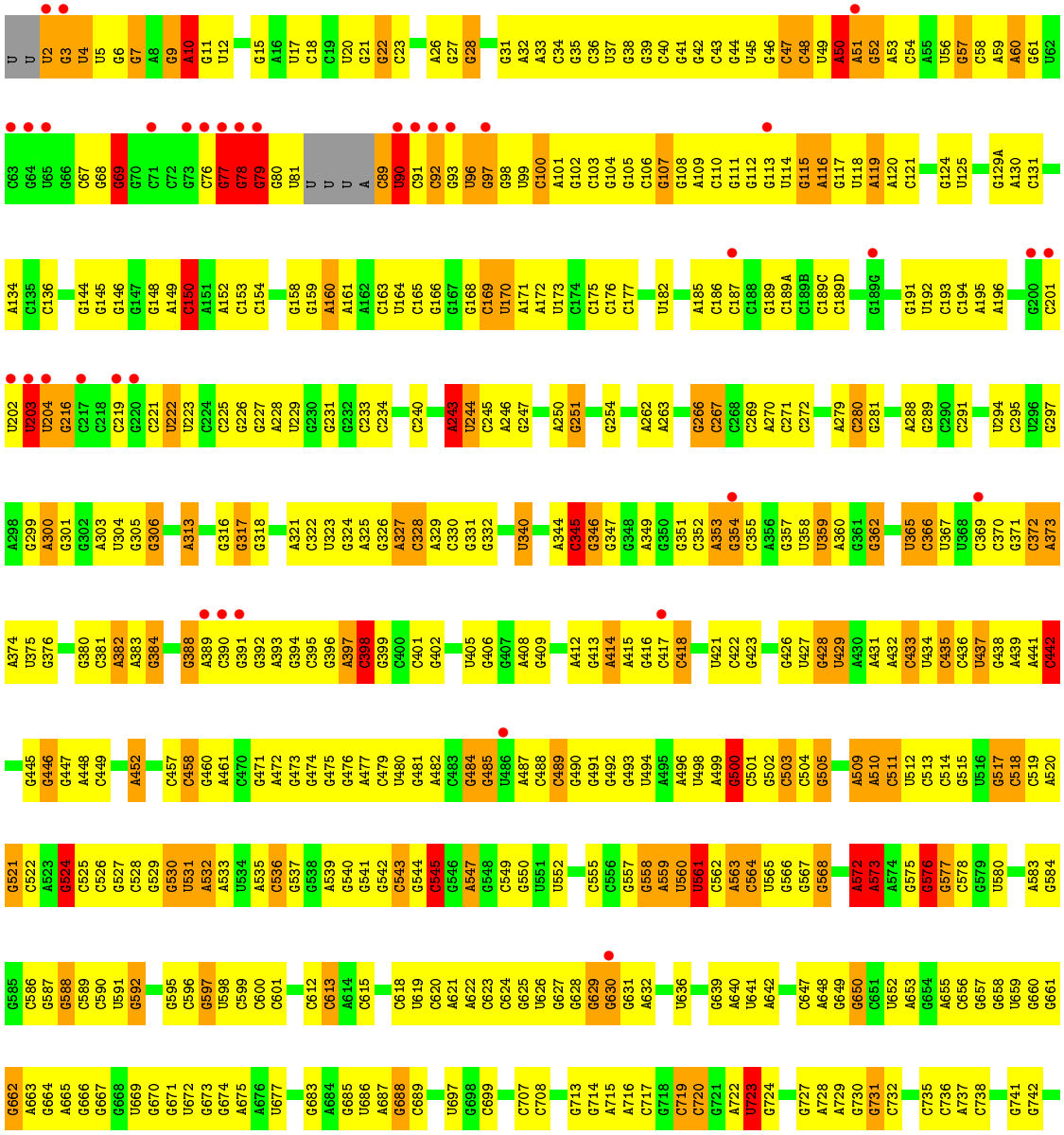
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	B8	7	Total O 7 7	0	0
56	B9	2	Total O 2 2	0	0
56	CA	119	Total O 119 119	0	0
56	CD	1	Total O 1 1	0	0
56	CK	2	Total O 2 2	0	0
56	CP	1	Total O 1 1	0	0
56	CT	2	Total O 2 2	0	0
56	DA	696	Total O 696 696	0	0
56	DB	9	Total O 9 9	0	0
56	DD	3	Total O 3 3	0	0
56	DE	2	Total O 2 2	0	0
56	DF	5	Total O 5 5	0	0
56	DP	5	Total O 5 5	0	0
56	DQ	2	Total O 2 2	0	0
56	DR	1	Total O 1 1	0	0
56	DV	1	Total O 1 1	0	0
56	DX	1	Total O 1 1	0	0
56	DY	1	Total O 1 1	0	0
56	D0	1	Total O 1 1	0	0
56	D1	2	Total O 2 2	0	0

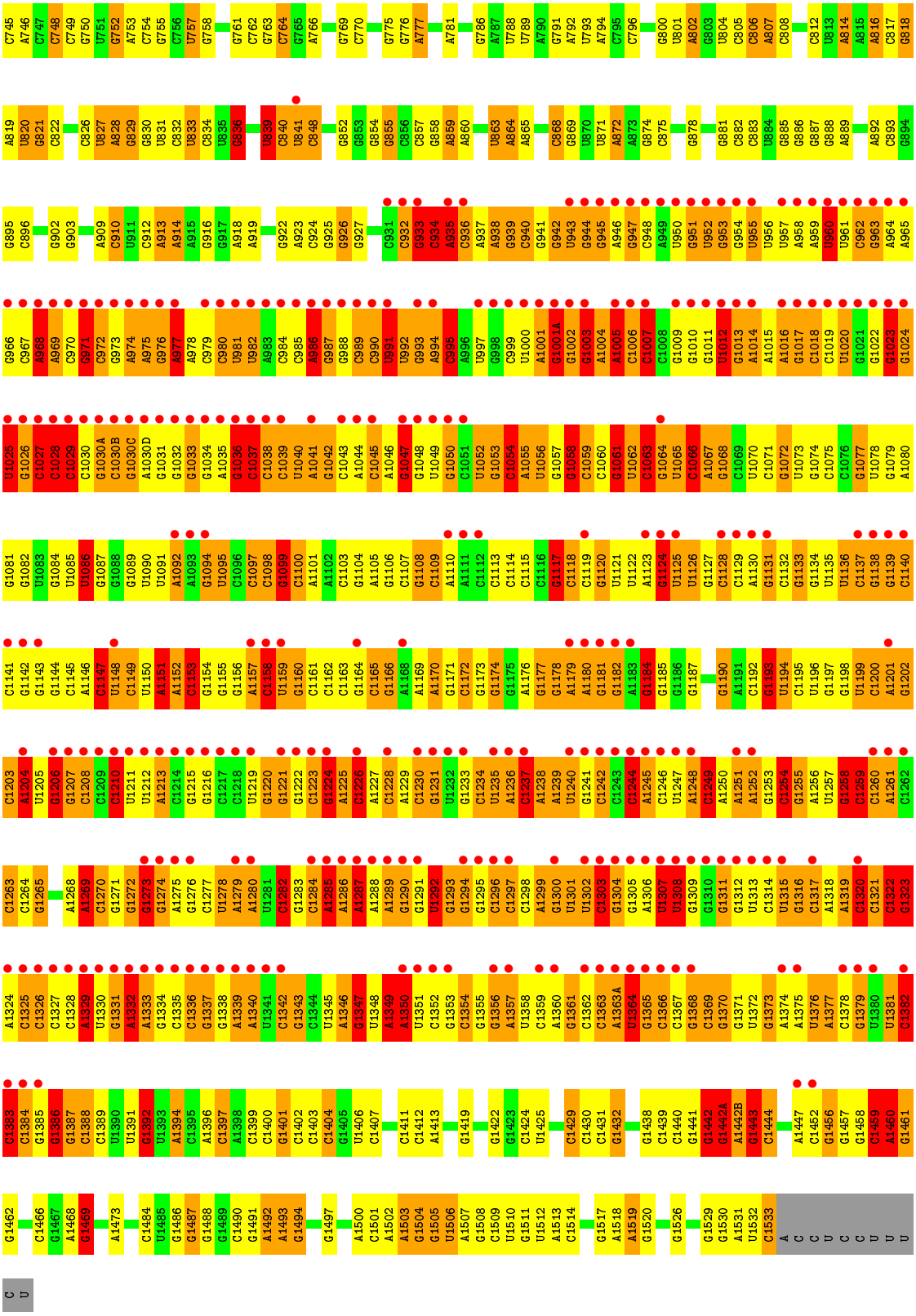
3 Residue-property plots (i)

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

- Molecule 1: 16S Ribosomal RNA

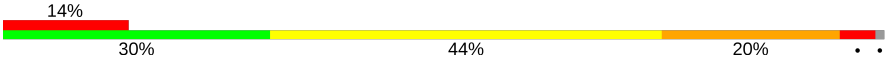
Chain AA:

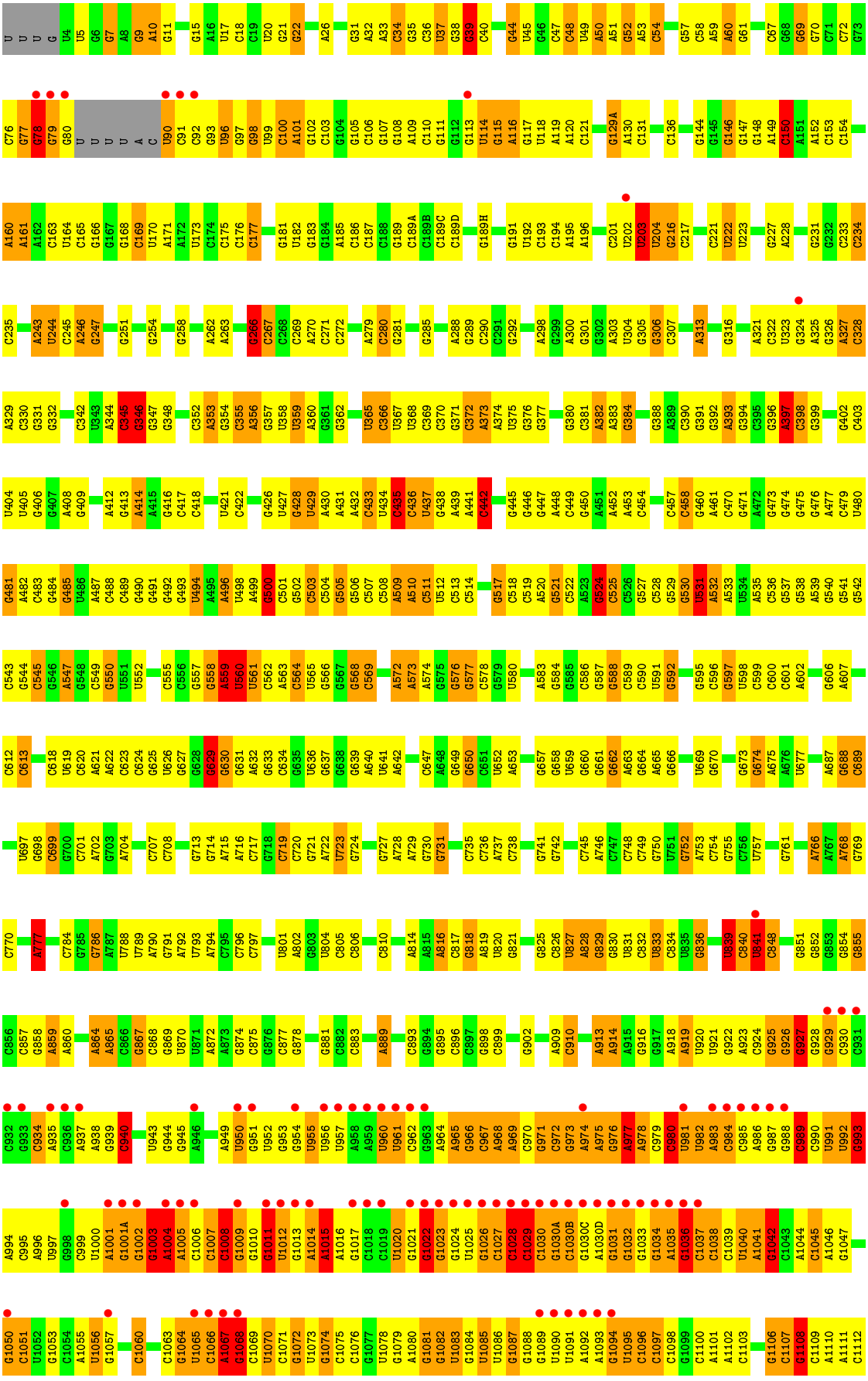


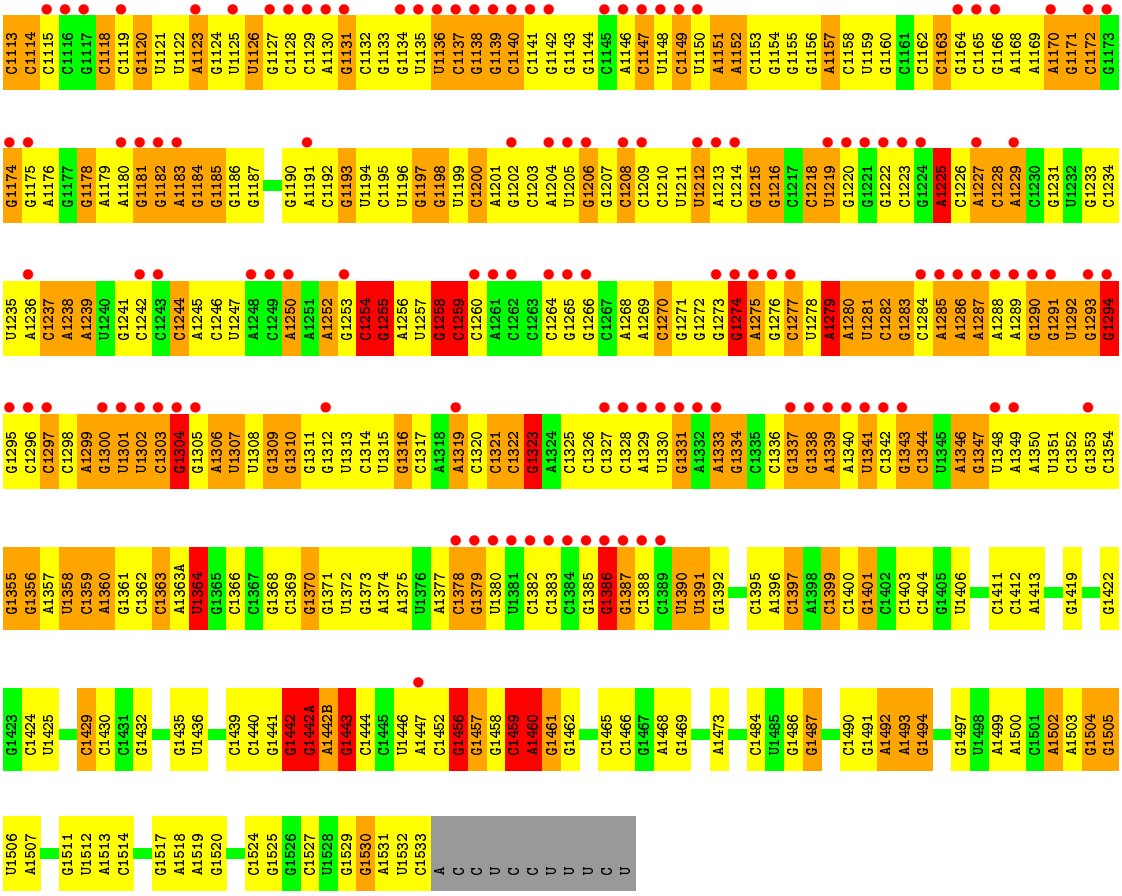


• Molecule 1: 16S Ribosomal RNA

Chain CA:

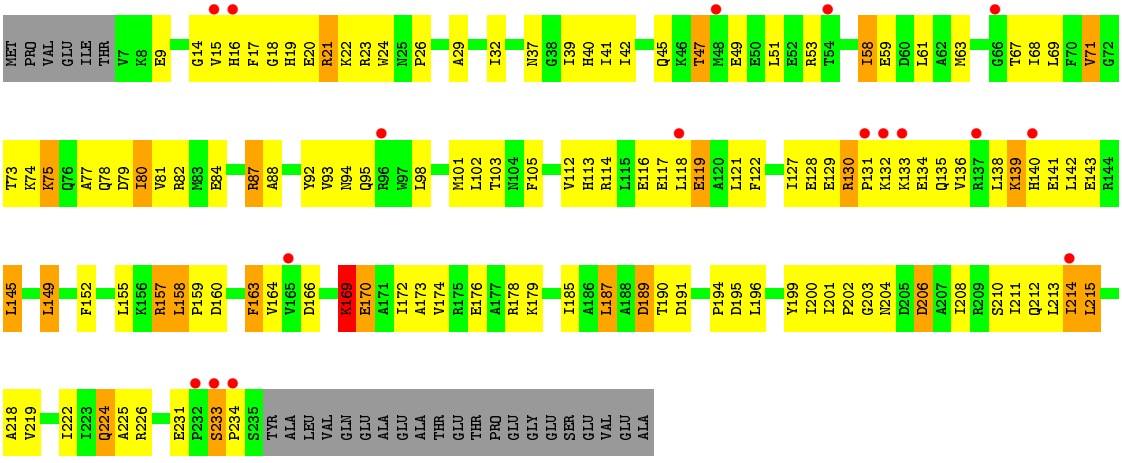






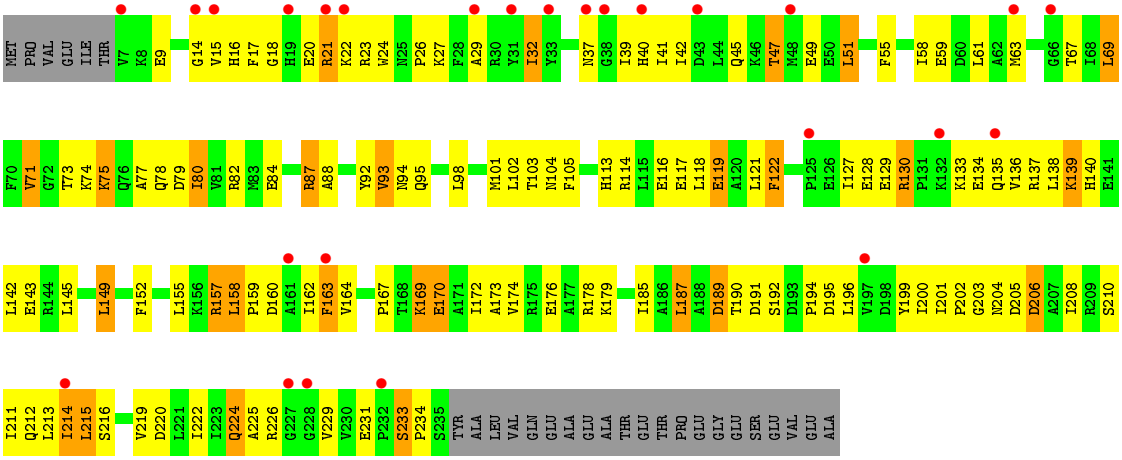
• Molecule 2: 30S Ribosomal Protein S2

Chain AB:



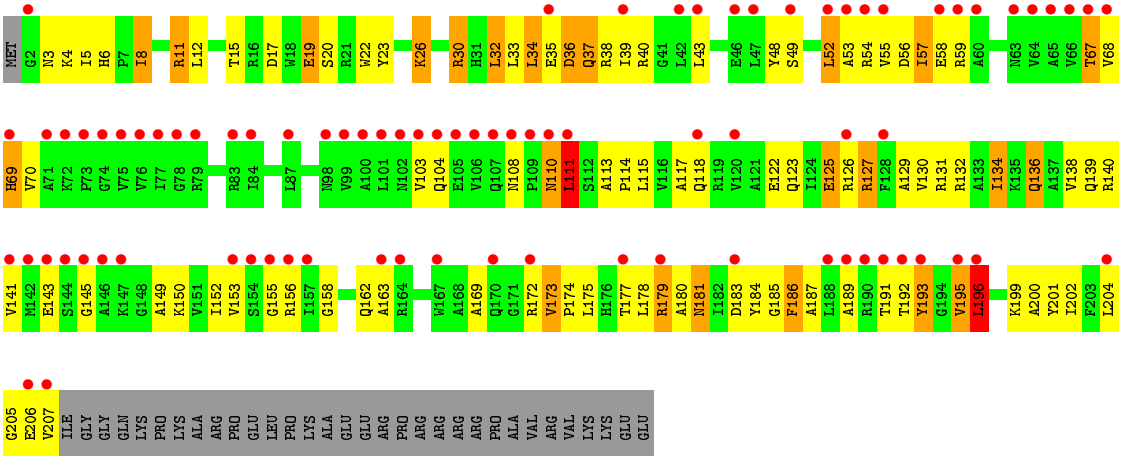
• Molecule 2: 30S Ribosomal Protein S2

Chain CB:



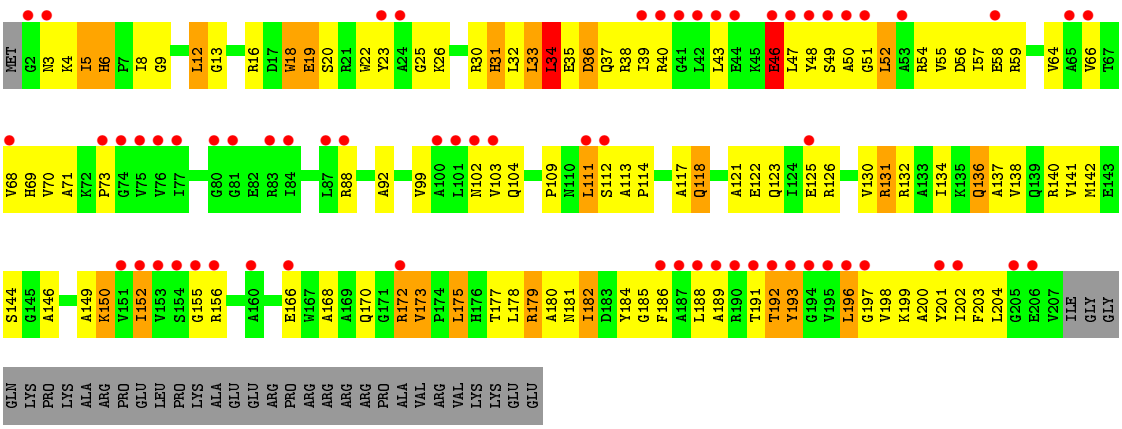
• Molecule 3: 30S Ribosomal Protein S3

Chain AC:



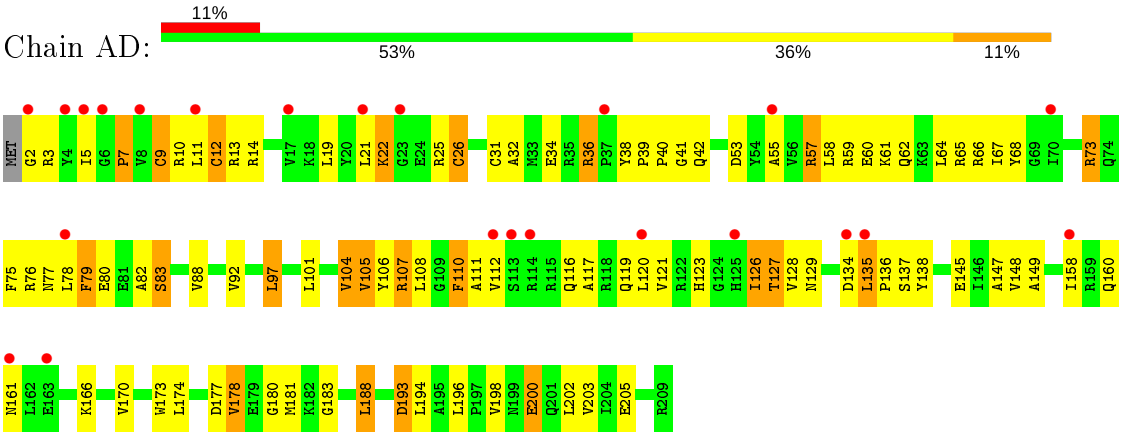
• Molecule 3: 30S Ribosomal Protein S3

Chain CC:



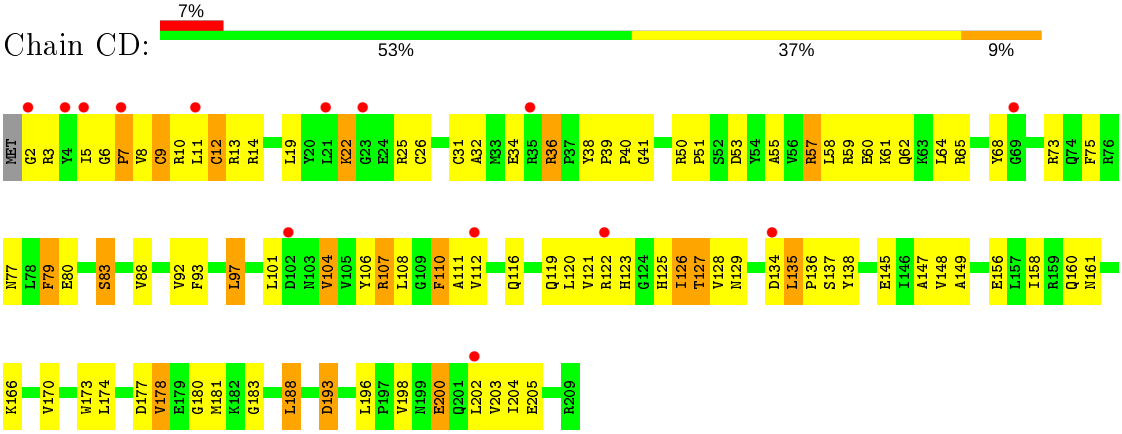
• Molecule 4: 30S Ribosomal Protein S4

Chain AD:



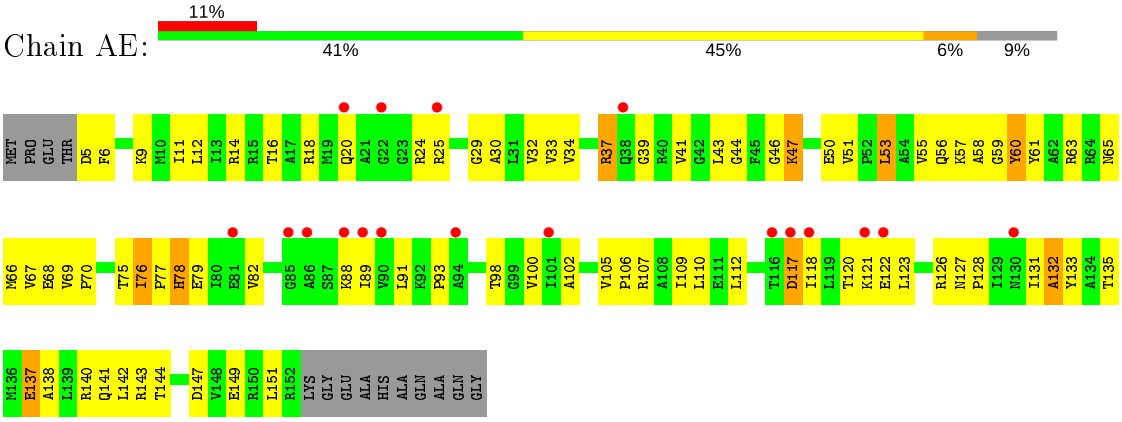
• Molecule 4: 30S Ribosomal Protein S4

Chain CD:



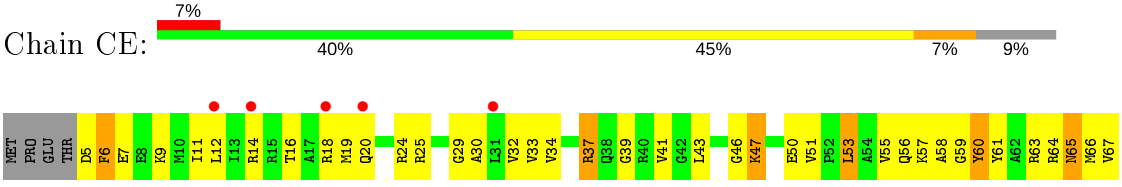
• Molecule 5: 30S Ribosomal Protein S5

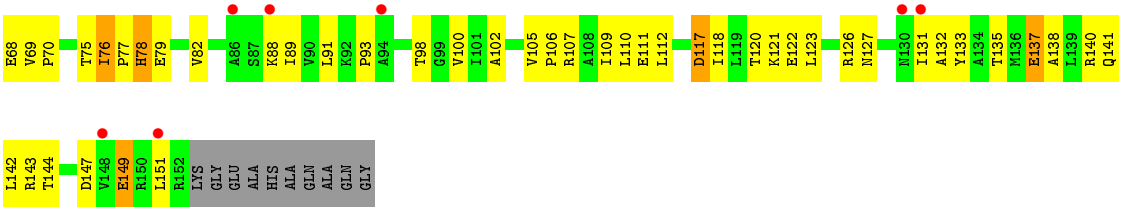
Chain AE:



• Molecule 5: 30S Ribosomal Protein S5

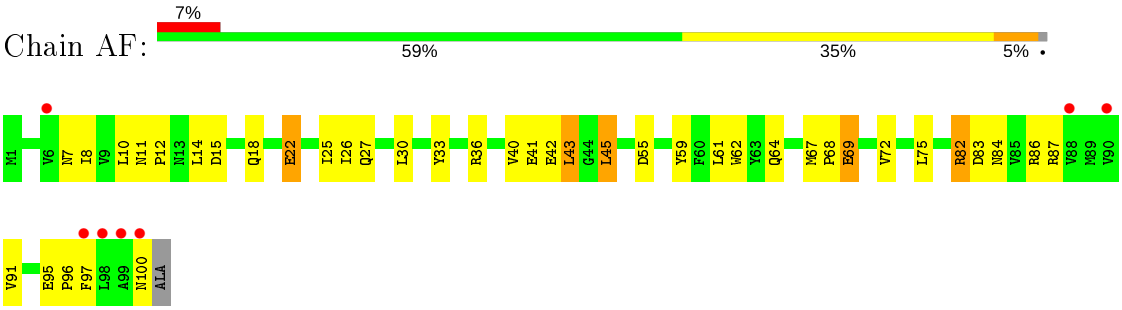
Chain CE:





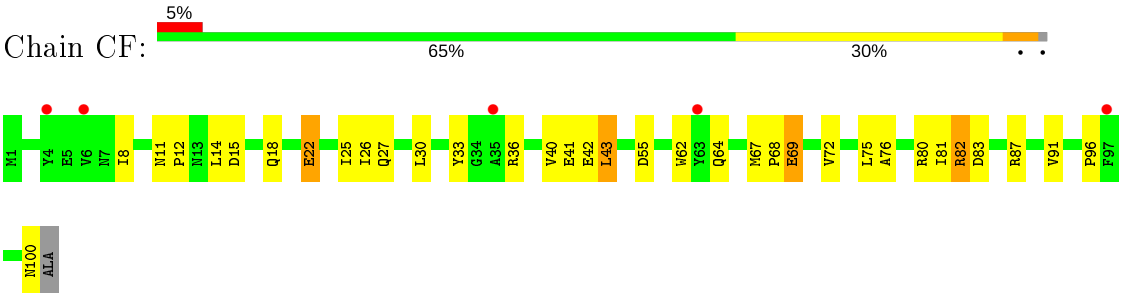
• Molecule 6: 30S Ribosomal Protein S6

Chain AF:



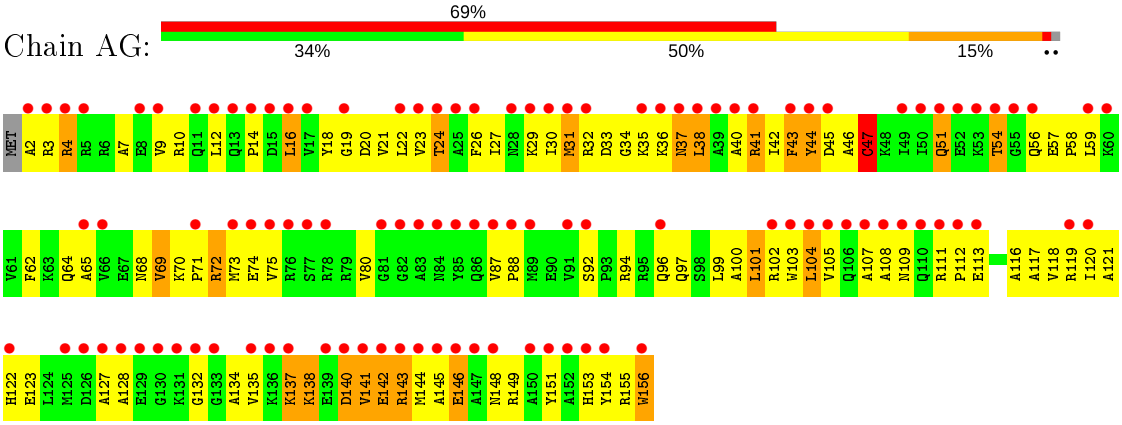
• Molecule 6: 30S Ribosomal Protein S6

Chain CF:



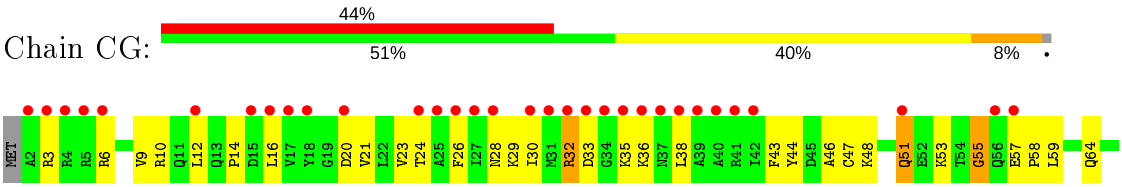
• Molecule 7: 30S Ribosomal Protein S7

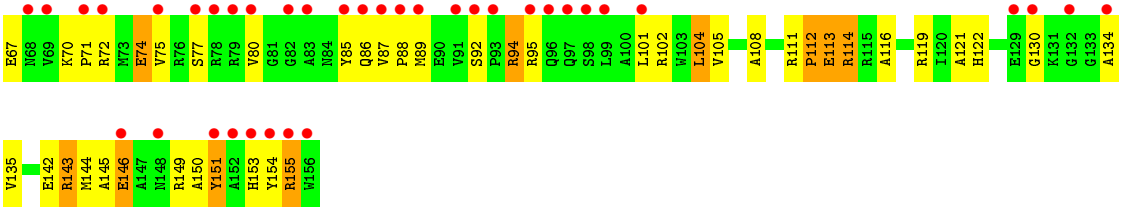
Chain AG:



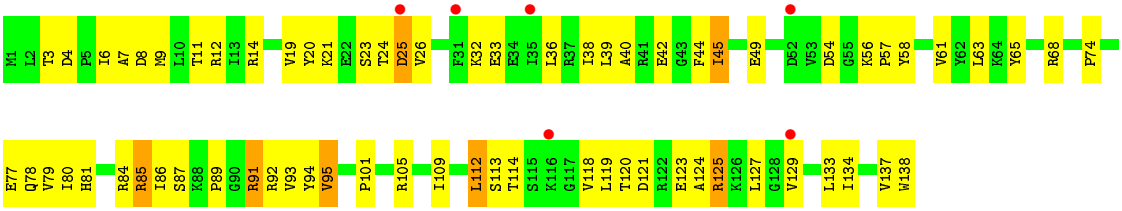
• Molecule 7: 30S Ribosomal Protein S7

Chain CG:

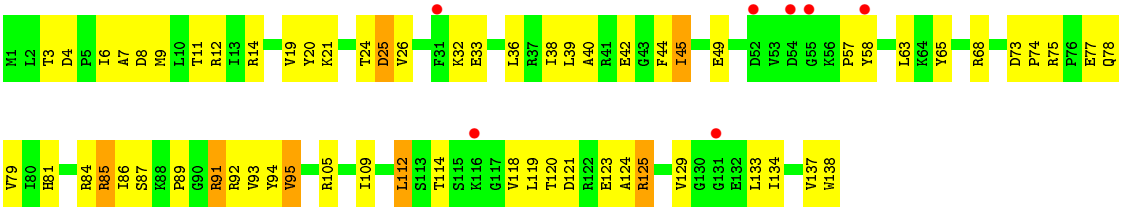




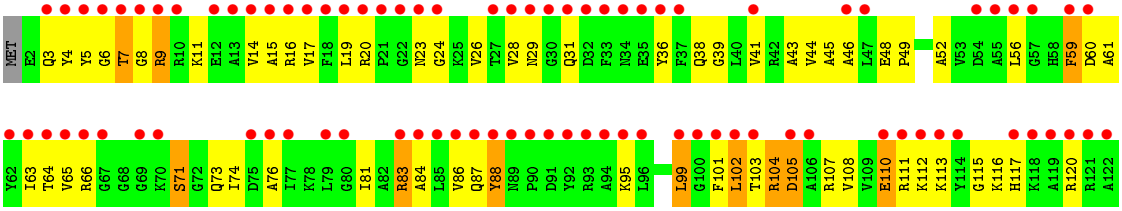
• Molecule 8: 30S Ribosomal Protein S8



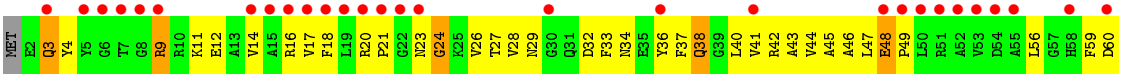
• Molecule 8: 30S Ribosomal Protein S8

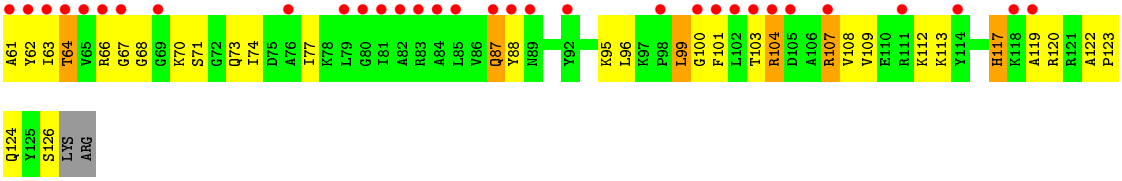


• Molecule 9: 30S Ribosomal Protein S9



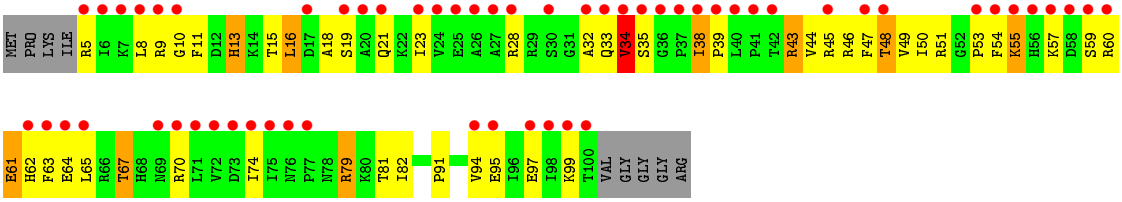
• Molecule 9: 30S Ribosomal Protein S9





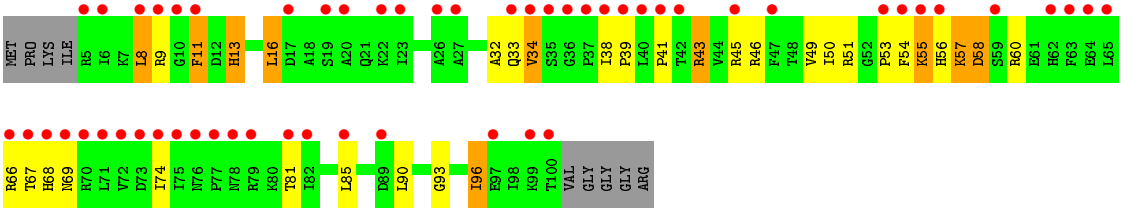
• Molecule 10: 30S Ribosomal Protein S10

Chain AJ:



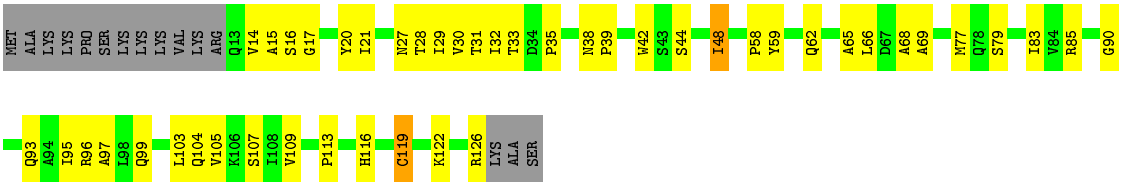
• Molecule 10: 30S Ribosomal Protein S10

Chain CJ:



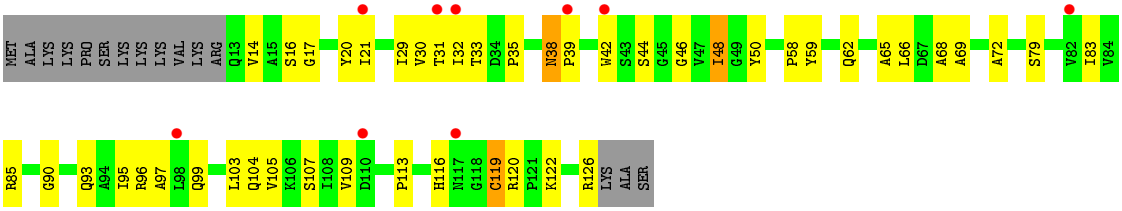
• Molecule 11: 30S Ribosomal Protein S11

Chain AK:



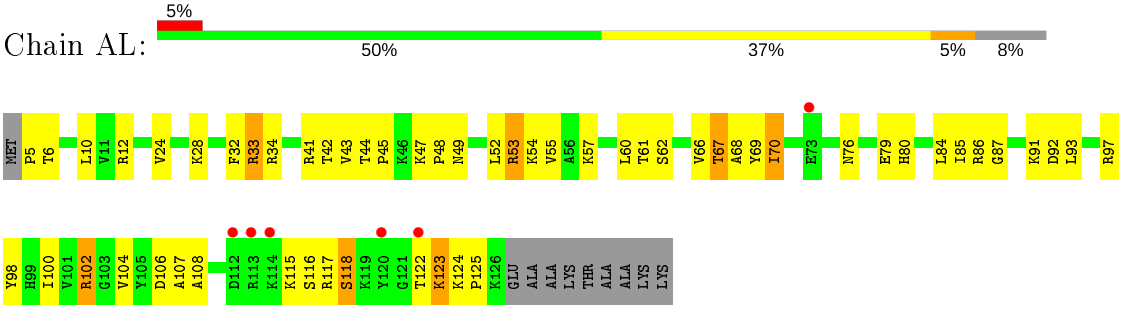
• Molecule 11: 30S Ribosomal Protein S11

Chain CK:



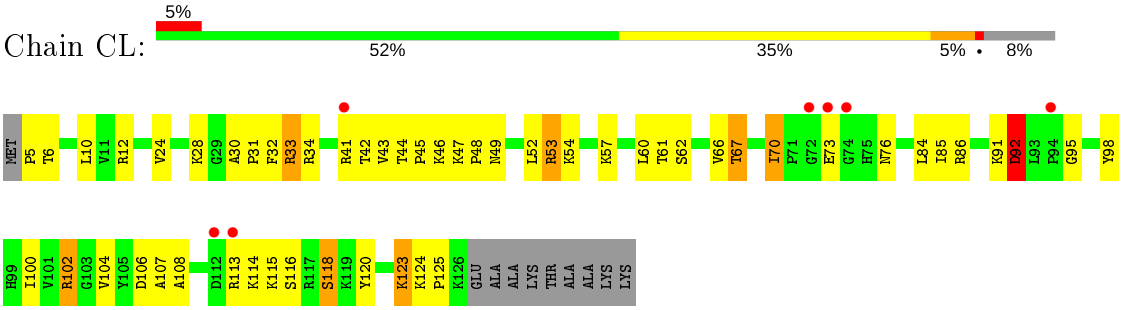
• Molecule 12: 30S Ribosomal Protein S12

Chain AL:



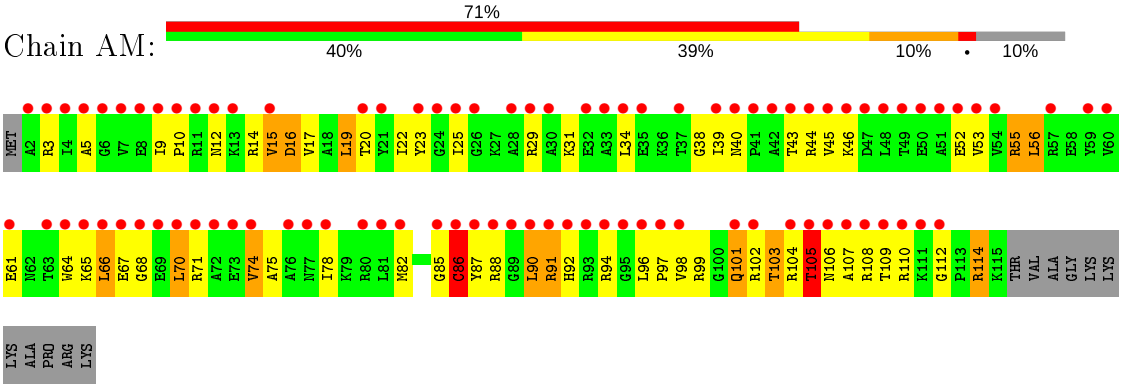
• Molecule 12: 30S Ribosomal Protein S12

Chain CL:



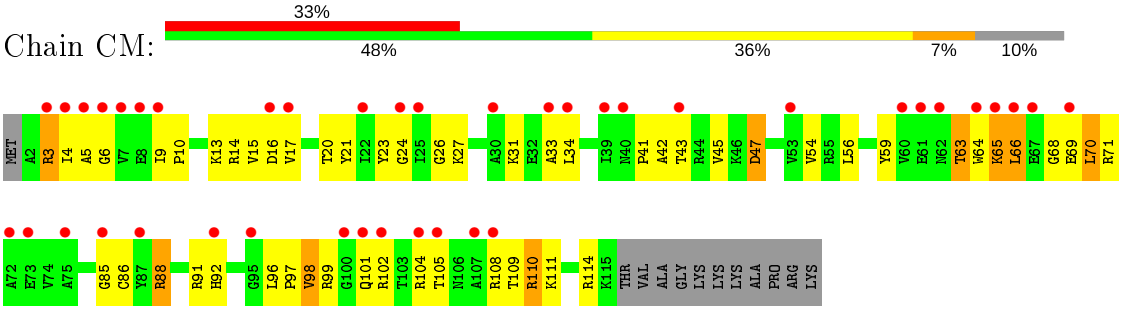
• Molecule 13: 30S Ribosomal Protein S13

Chain AM:



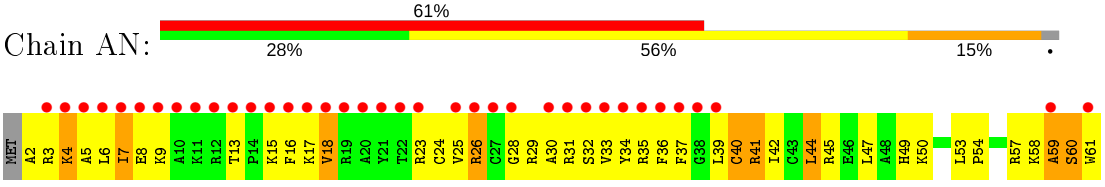
• Molecule 13: 30S Ribosomal Protein S13

Chain CM:



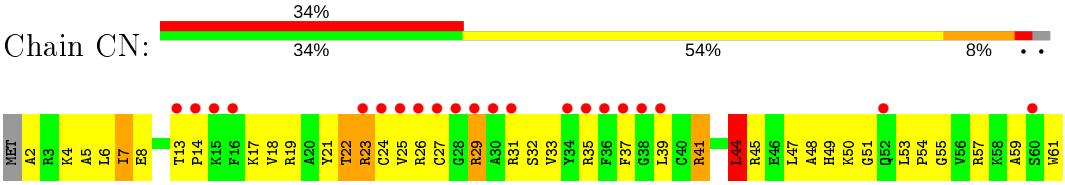
• Molecule 14: 30S Ribosomal Protein S14

Chain AN:



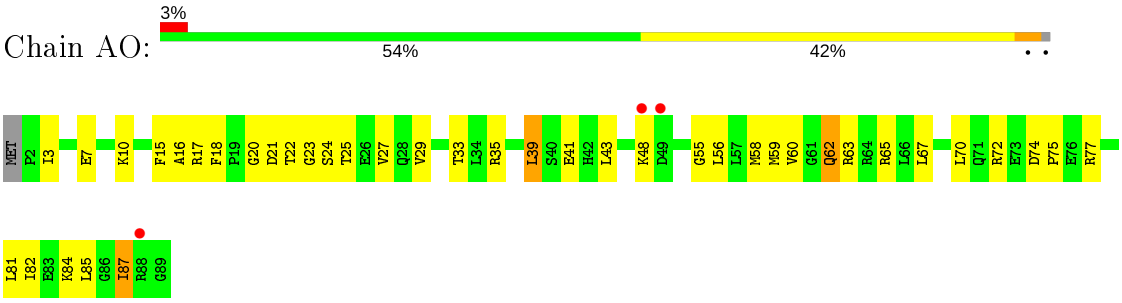
• Molecule 14: 30S Ribosomal Protein S14

Chain CN:



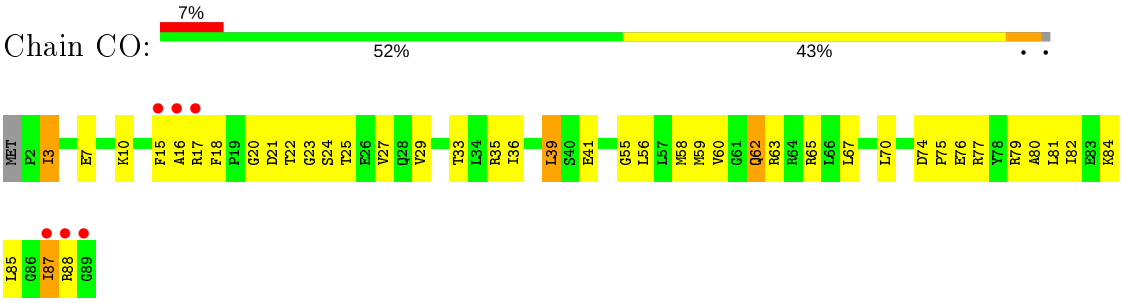
• Molecule 15: 30S Ribosomal Protein S15

Chain AO:



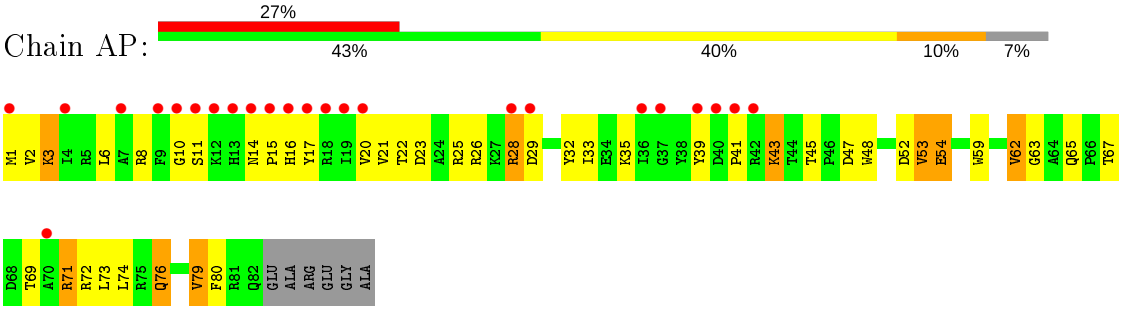
• Molecule 15: 30S Ribosomal Protein S15

Chain CO:



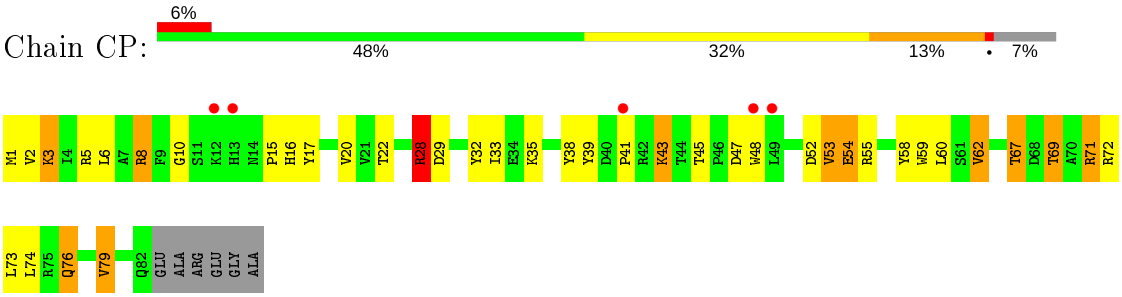
• Molecule 16: 30S Ribosomal Protein S16

Chain AP:



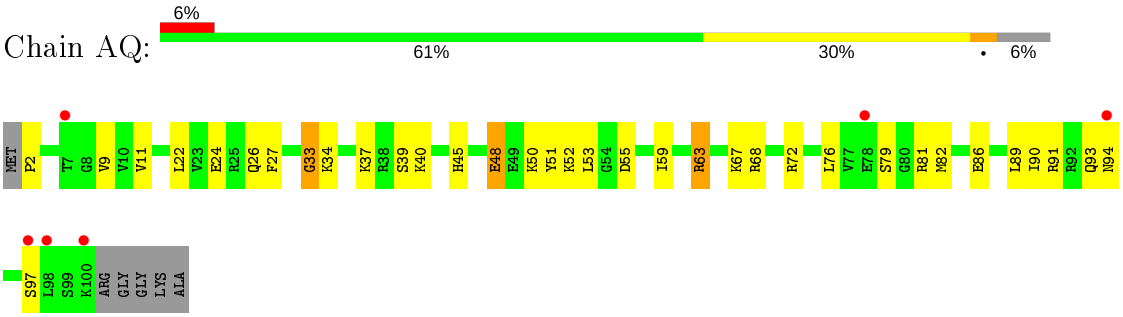
• Molecule 16: 30S Ribosomal Protein S16

Chain CP:



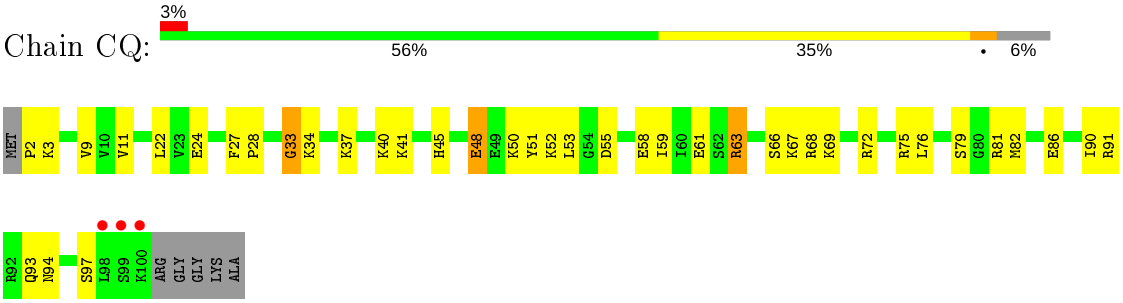
• Molecule 17: 30S Ribosomal Protein S17

Chain AQ:



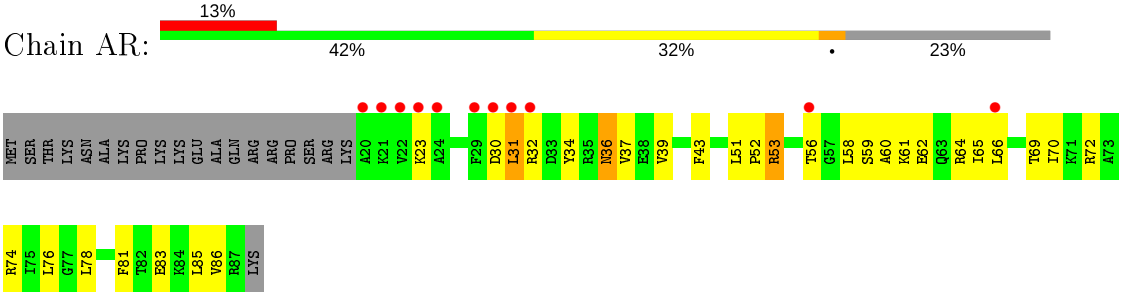
- Molecule 17: 30S Ribosomal Protein S17

Chain CQ:



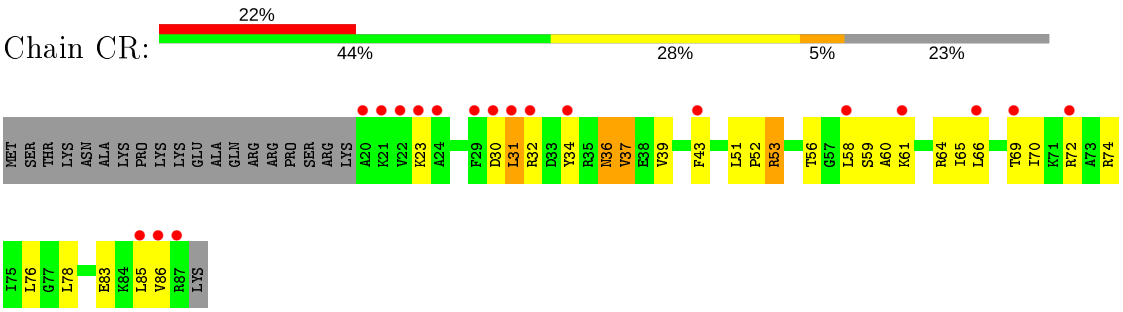
- Molecule 18: 30S Ribosomal Protein S18

Chain AR:



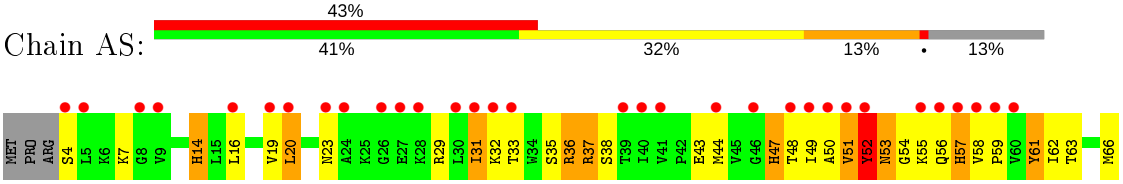
- Molecule 18: 30S Ribosomal Protein S18

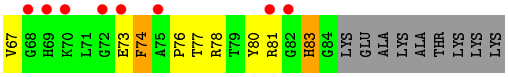
Chain CR:



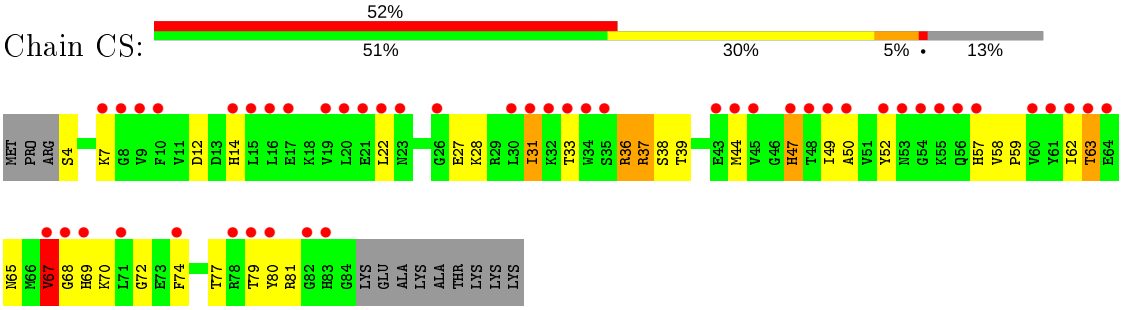
- Molecule 19: 30S Ribosomal Protein S19

Chain AS:

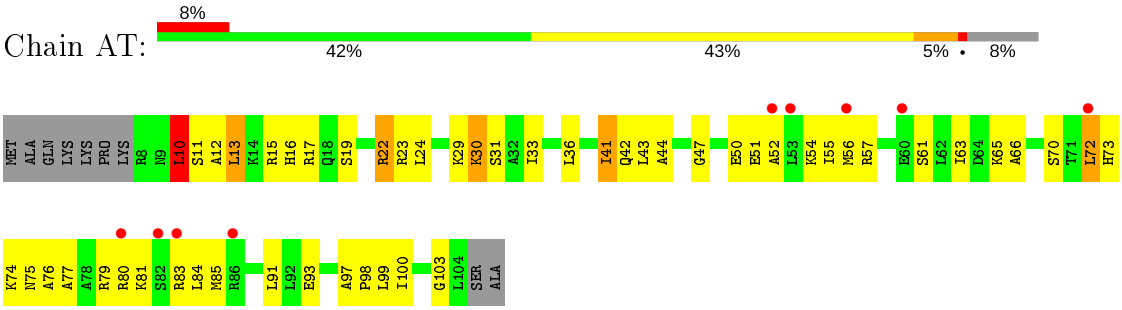




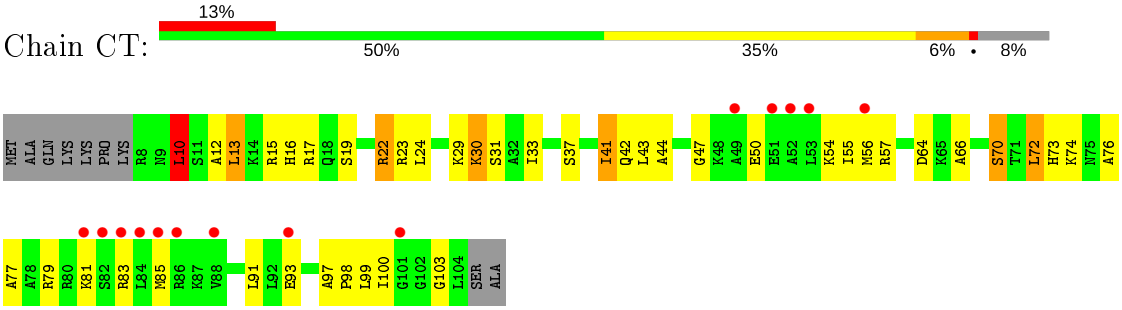
• Molecule 19: 30S Ribosomal Protein S19



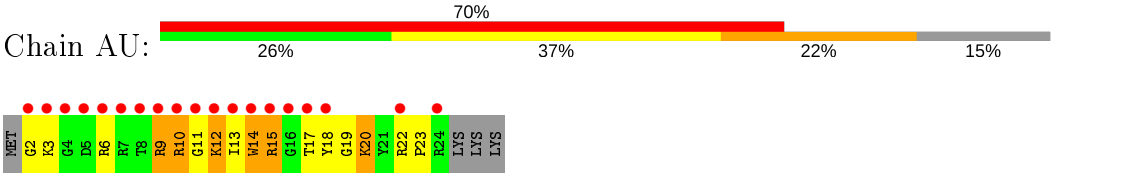
• Molecule 20: 30S Ribosomal Protein S20



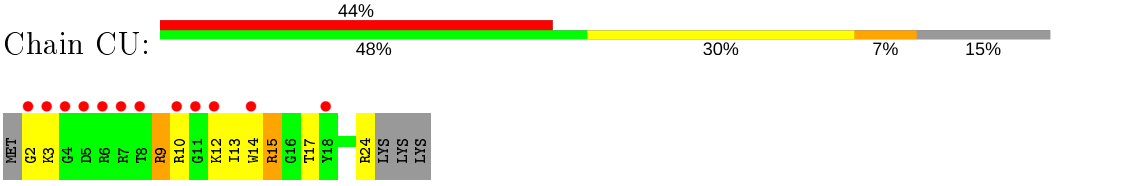
• Molecule 20: 30S Ribosomal Protein S20



• Molecule 21: 30S Ribosomal Protein THX

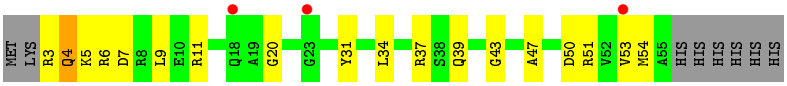


• Molecule 21: 30S Ribosomal Protein THX



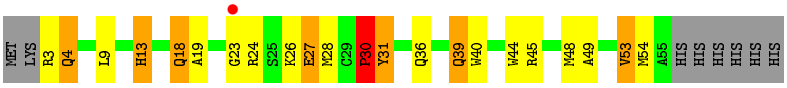
• Molecule 22: Ribosome modulation factor

Chain AV:



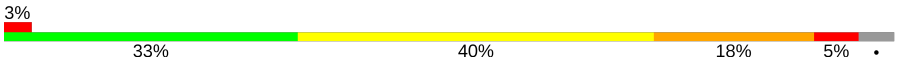
• Molecule 22: Ribosome modulation factor

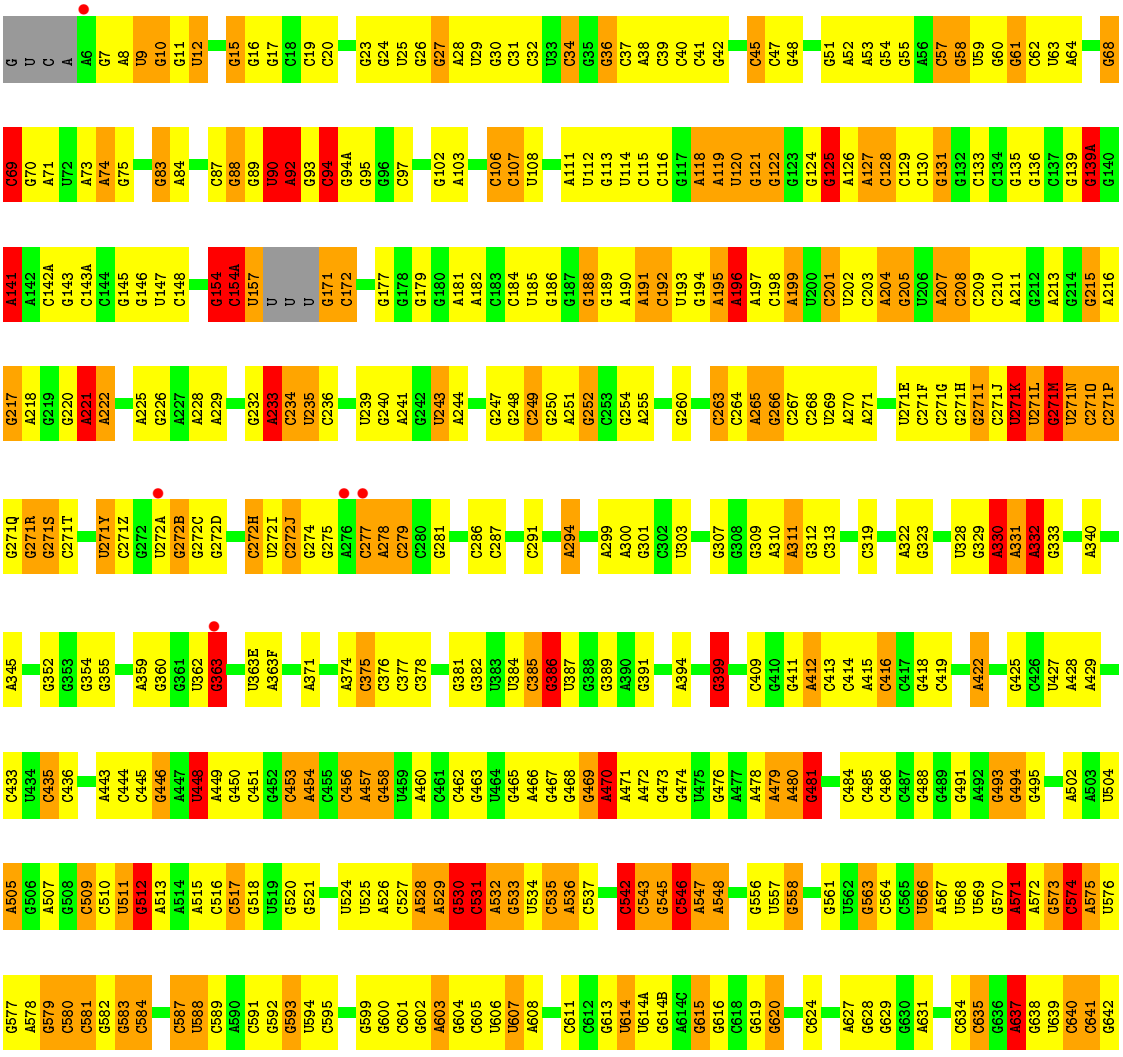
Chain CV:

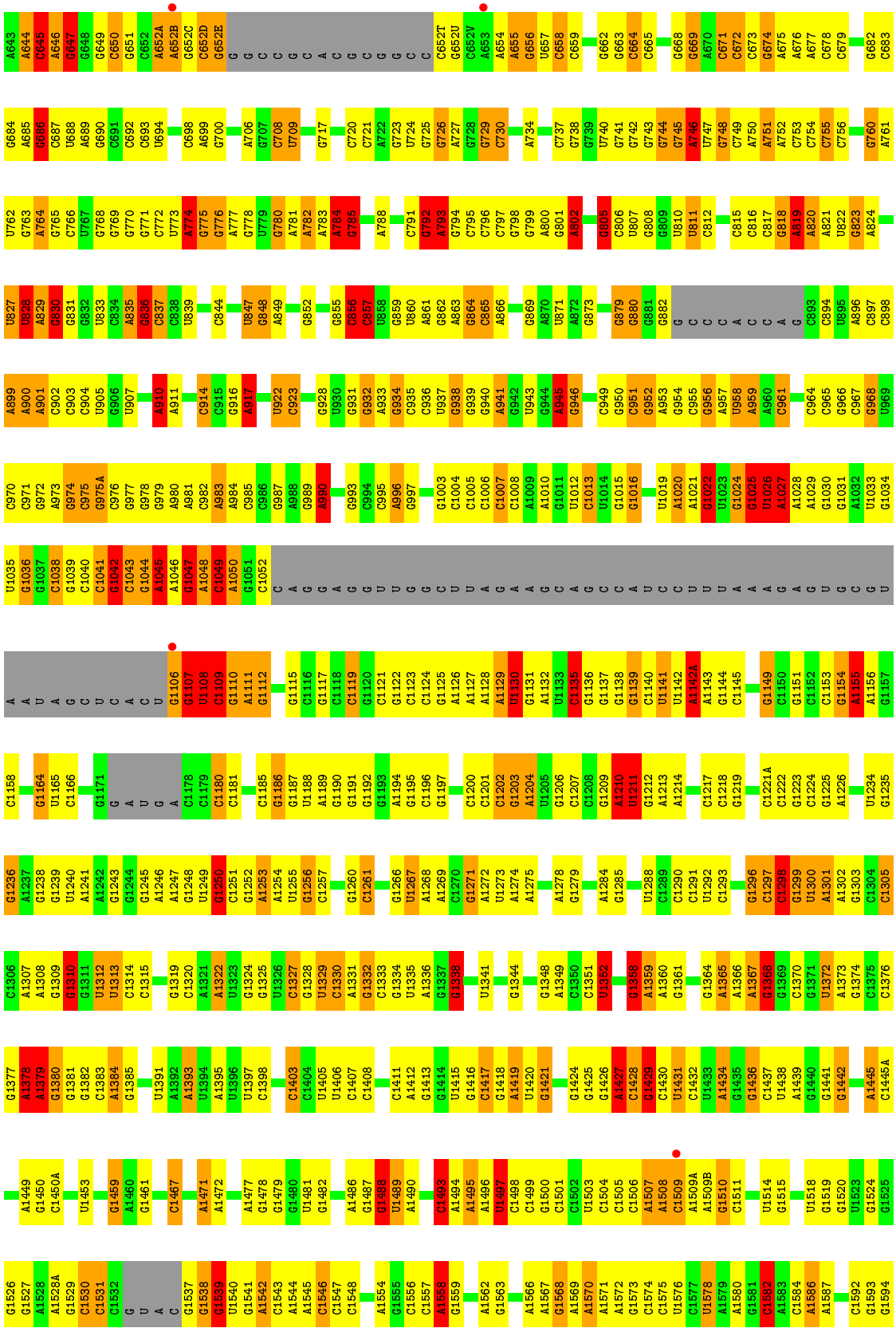


• Molecule 23: 23S Ribosomal RNA

Chain BA:



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G684 A685 G686 C687 U688 A689 G690 C691 C692 C693 U694 G698 A699 G700 A706 G707 C708 U709 G717 C720 C721 A722 G723 U724 G725 G726 A727 G728 G729 C730 A734 C737 G738 G739 U740 C741 G742 G743 G744 G745 A746 U747 G748 C749 A750 A751 A752 C753 C754 C755 C756 G760 A761
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C1306 A1307 A1308 G1309 G1310 G1311 U1312 U1313 C1314 C1315 G1319 C1320 A1321 A1322 U1323 G1324 G1325 U1326 C1327 G1328 U1329 C1330 A1331 G1332 C1333 G1334 U1335 A1336 G1337 G1338 U1341 G1344 G1348 A1349 G1350 C1351 U1352 G1388 A1359 A1360 G1361 G1364 A1365 A1366 A1367 G1368 C1369 C1370 G1371 U1372 A1373 G1374 C1375 C1376
G1377 A1378 A1379 G1380 G1381 G1382 C1383 A1384 G1385 U1391 A1392 A1393 U1394 A1395 U1396 U1397 C1398 C1403 C1404 U1405 U1406 C1407 C1408 C1411 A1412 G1413 G1414 U1415 G1416 C1417 G1418 A1419 U1420 G1421 G1424 G1425 G1426 A1427 C1428 G1429 C1430 U1431 C1432 U1433 A1434 G1435 G1436 C1437 U1438 A1439 G1440 G1441 G1442 A1445 C1445A
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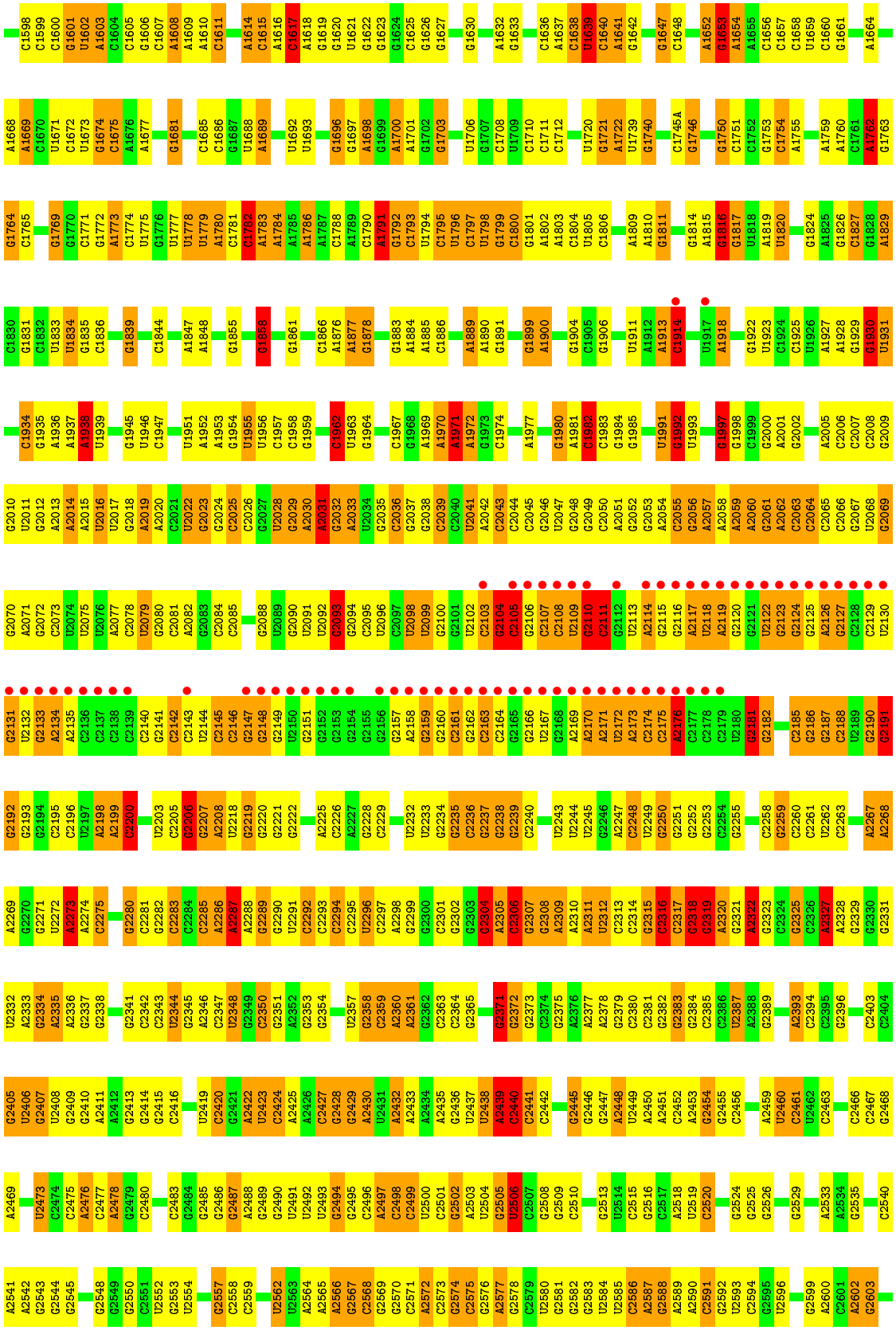
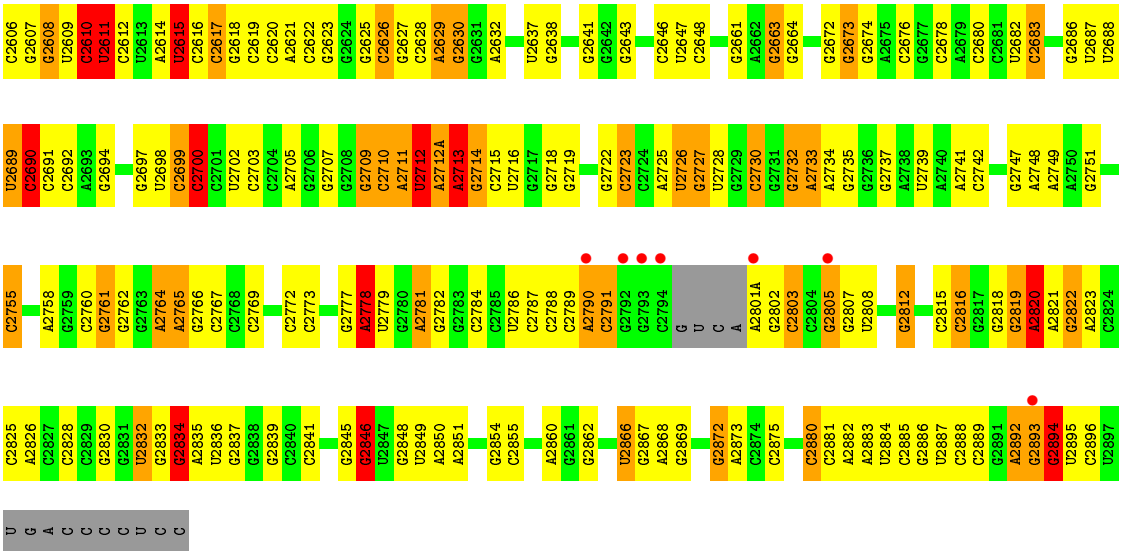
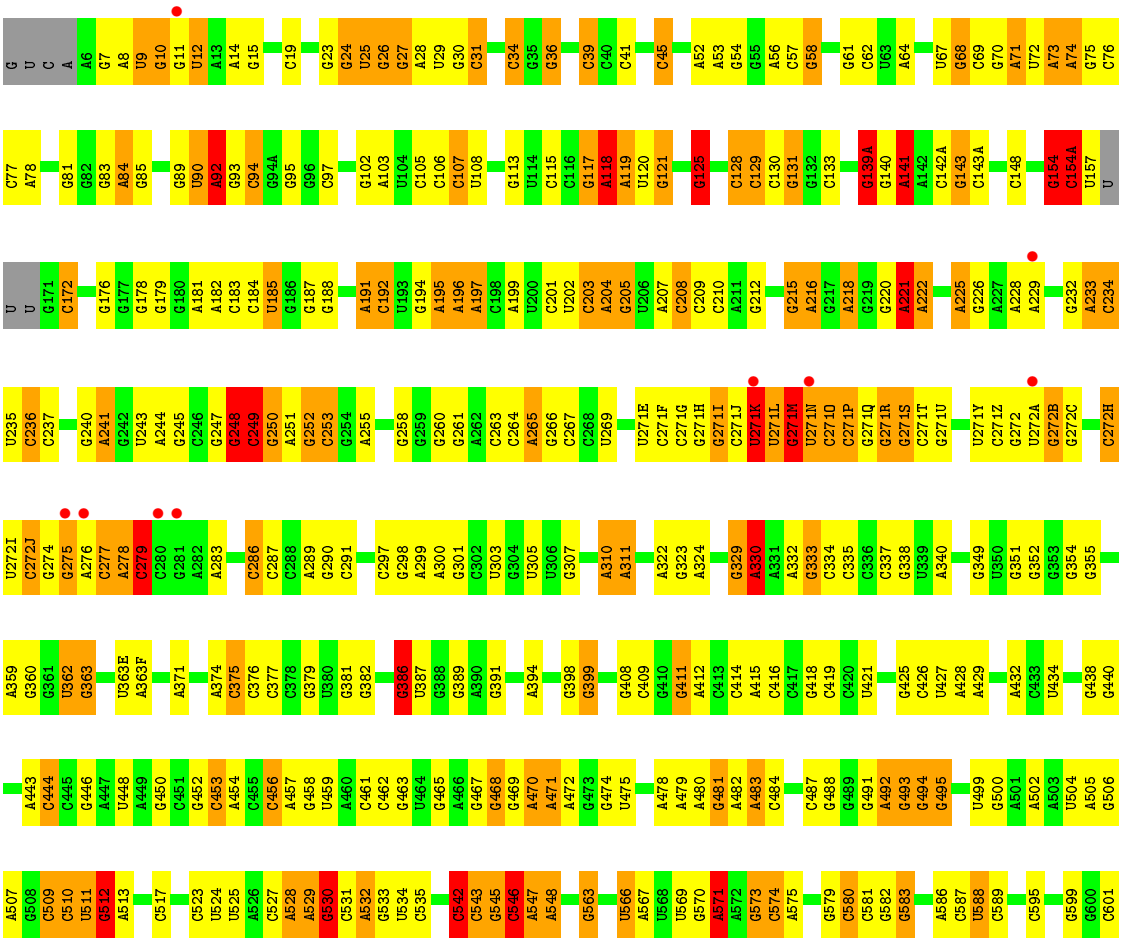
G1526 G1527 A1528 A1528A G1529 C1530 C1531 C1532 G U A C G1537 G1538 G1539 U1540 G1541 A1542 C1543 A1544 A1545 C1546 C1547 C1548 A1554 G1555 C1556 C1557 A1558 G1559 A1562 G1563 A1566 A1567 G1568 A1569 A1570 A1571 A1572 G1573 C1574 C1575 U1576 C1577 U1578 A1579 A1580 G1581 C1582 A1583 C1584 A1586 A1587 C1592 G1593 G1594

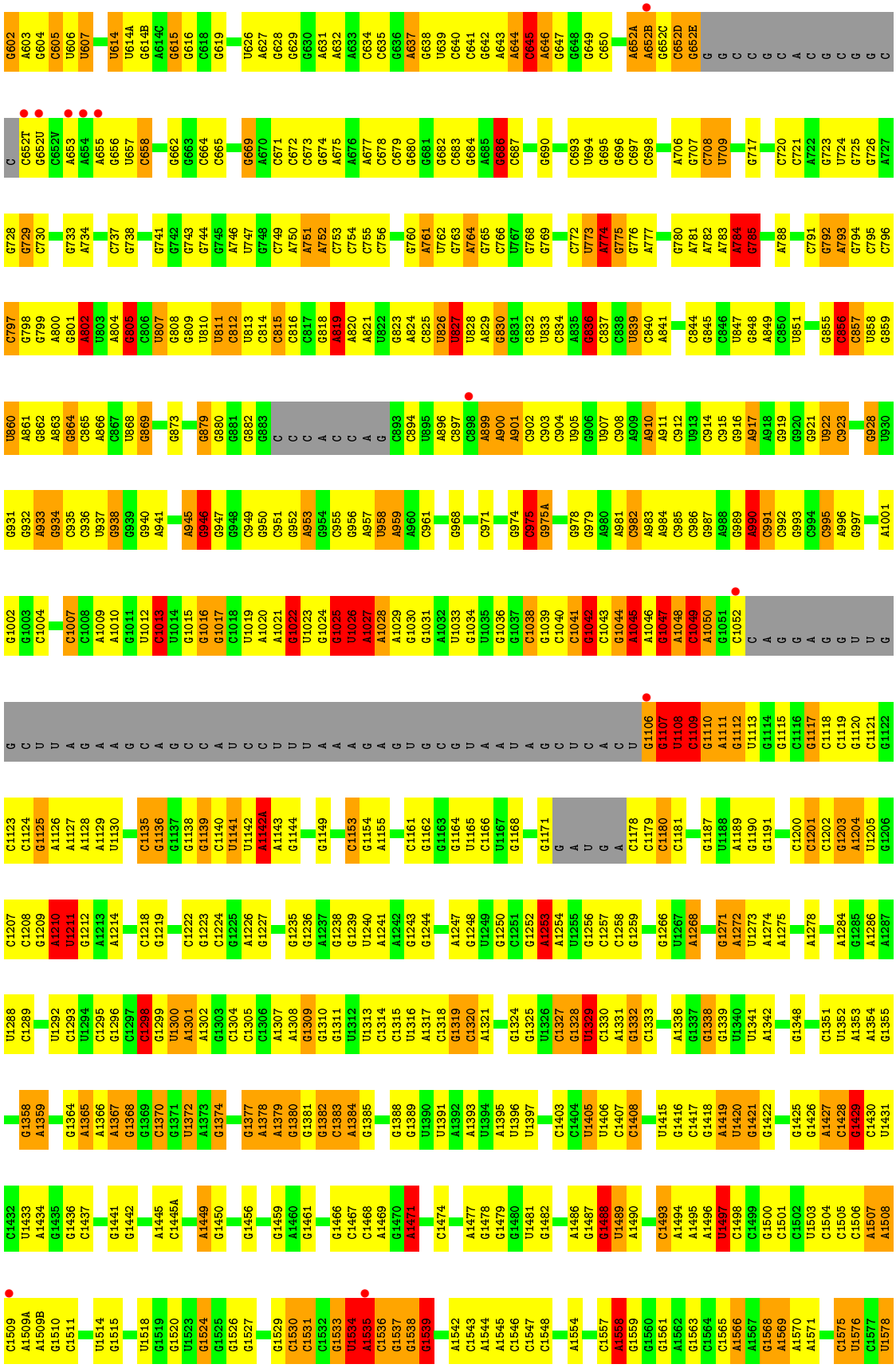


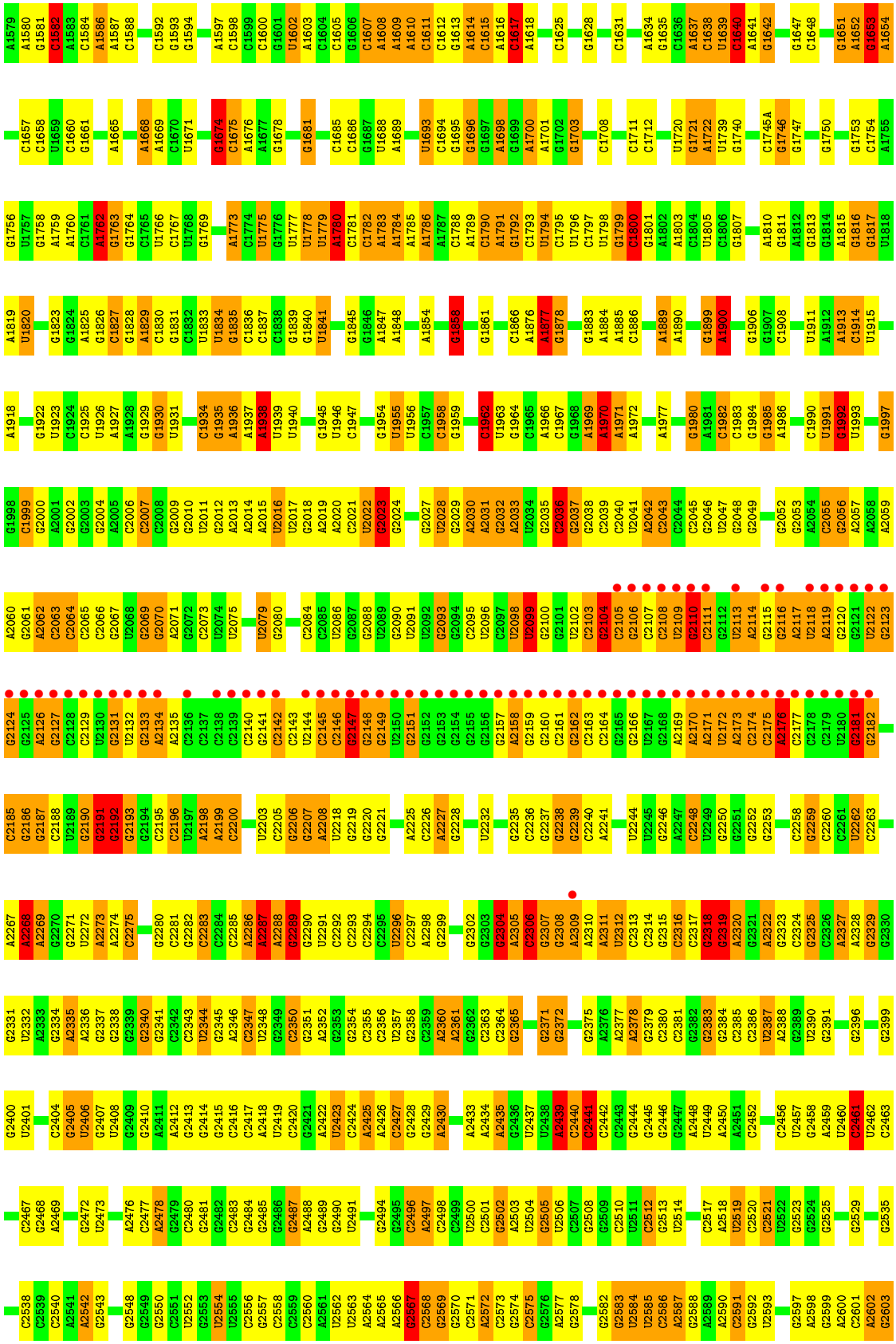


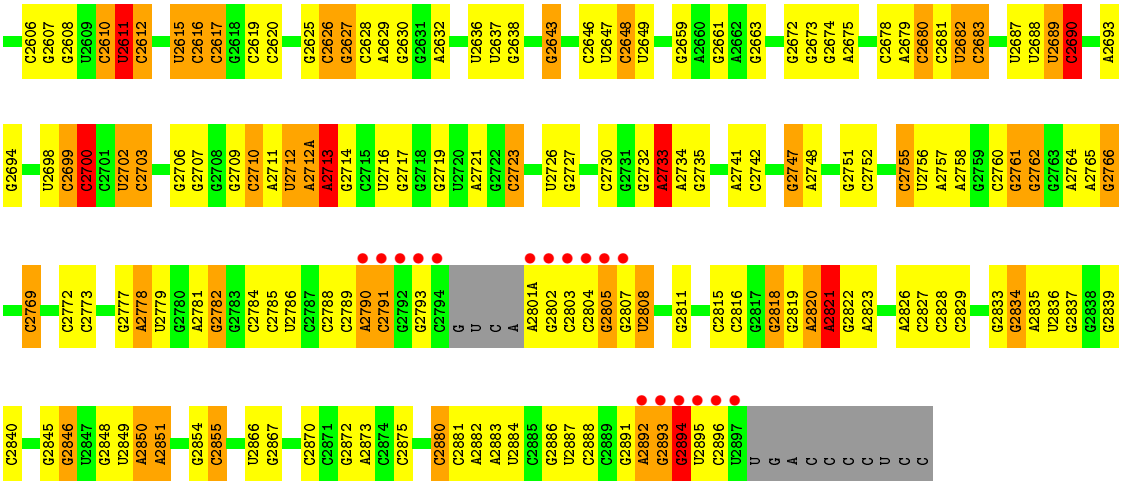
• Molecule 23: 23S Ribosomal RNA

Chain DA:



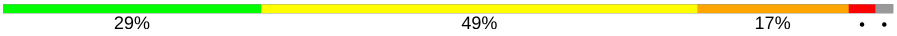


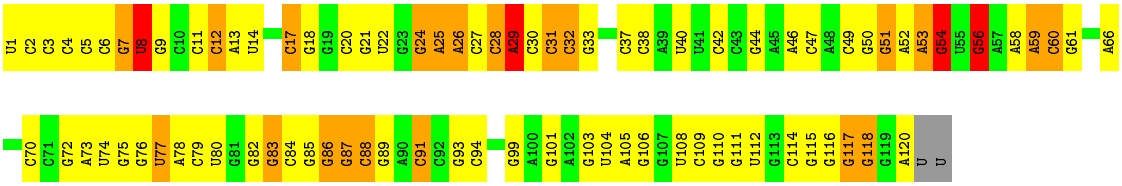




• Molecule 24: 5S Ribosomal RNA

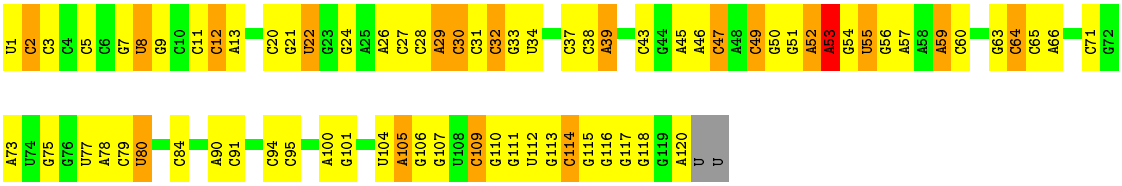
Chain BB:





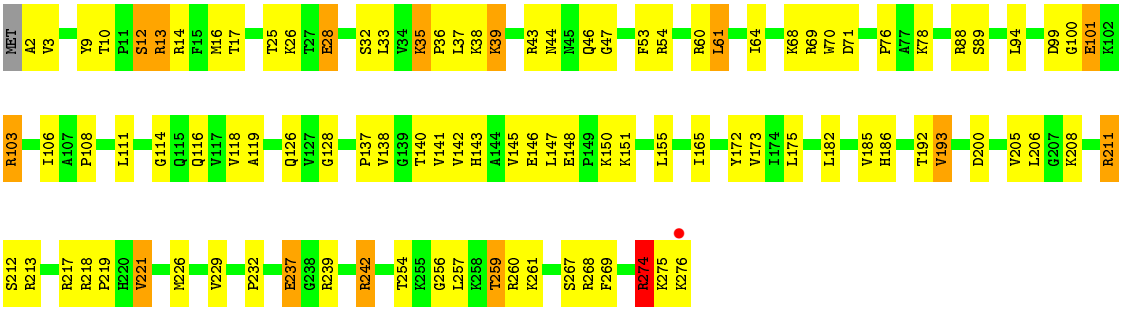
• Molecule 24: 5S Ribosomal RNA

Chain DB:



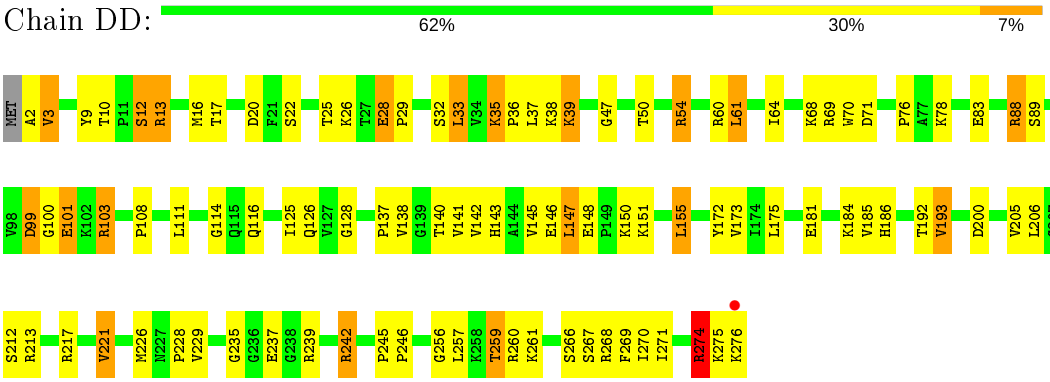
• Molecule 25: 50S Ribosomal Protein L2

Chain BD:



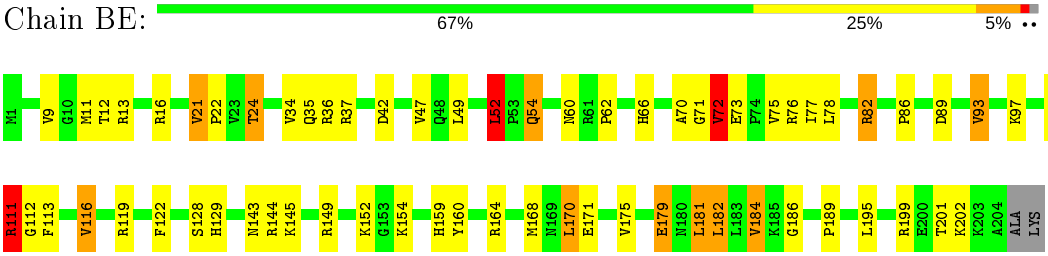
• Molecule 25: 50S Ribosomal Protein L2

Chain DD:



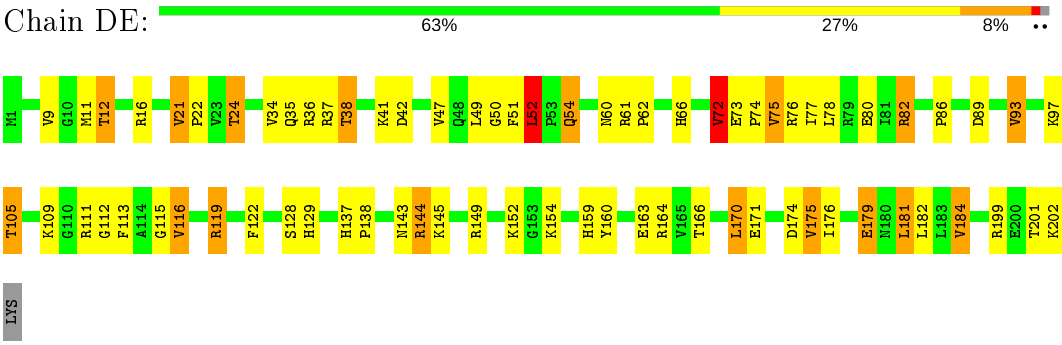
• Molecule 26: 50S Ribosomal Protein L3

Chain BE:



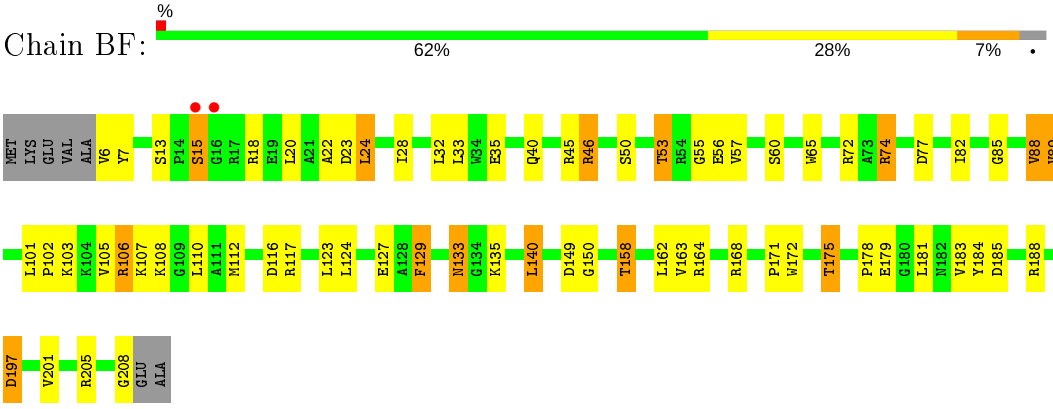
• Molecule 26: 50S Ribosomal Protein L3

Chain DE:



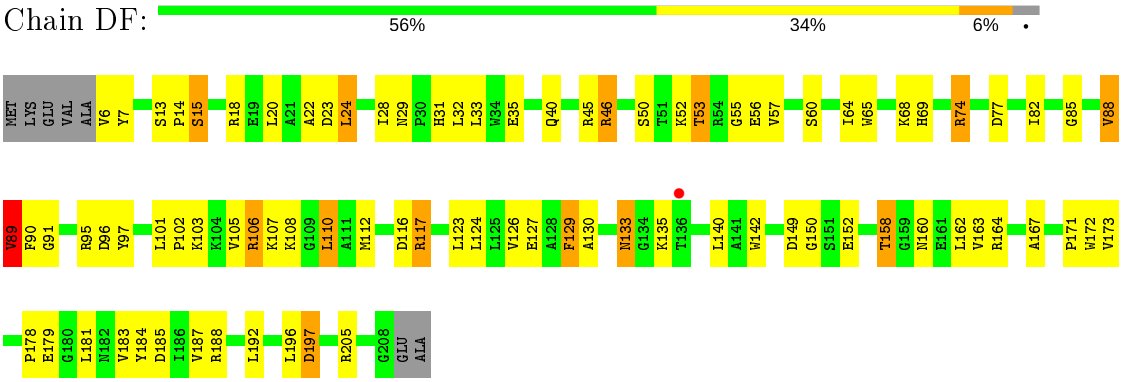
• Molecule 27: 50S Ribosomal Protein L4

Chain BF:



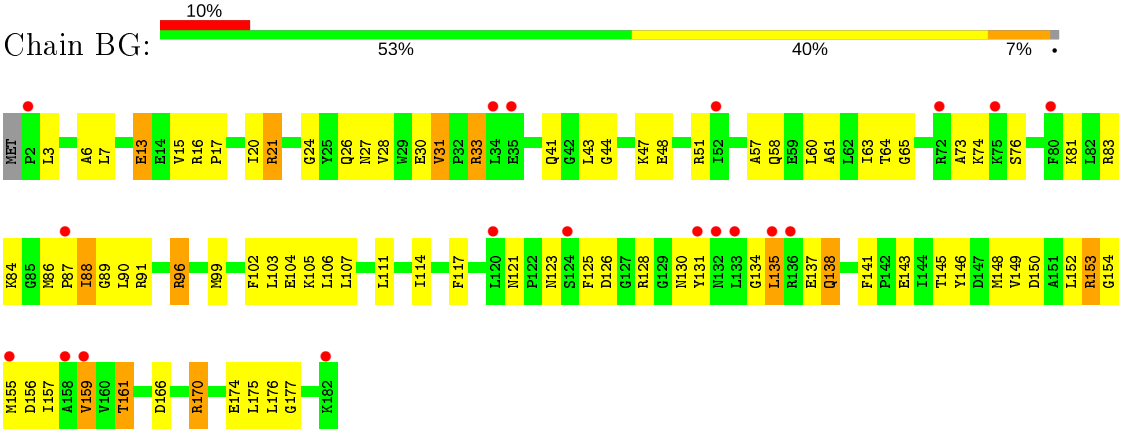
• Molecule 27: 50S Ribosomal Protein L4

Chain DF:



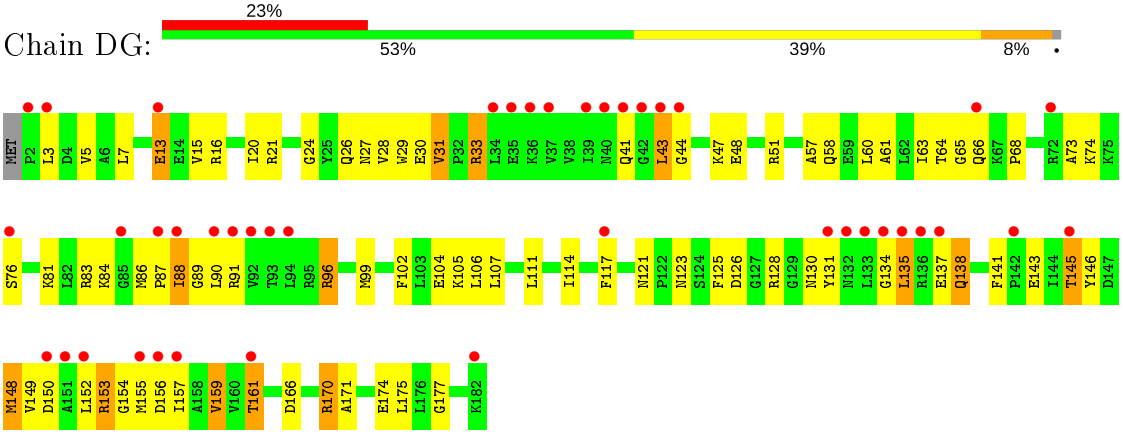
- Molecule 28: 50S Ribosomal Protein L5

Chain BG:



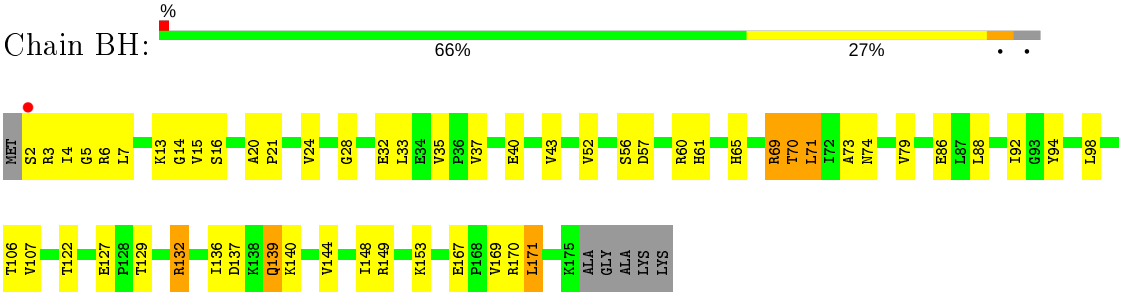
- Molecule 28: 50S Ribosomal Protein L5

Chain DG:



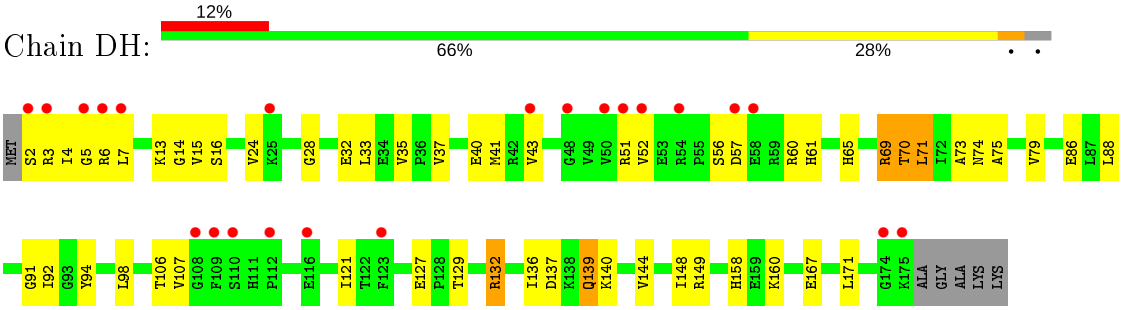
- Molecule 29: 50S Ribosomal Protein L6

Chain BH:



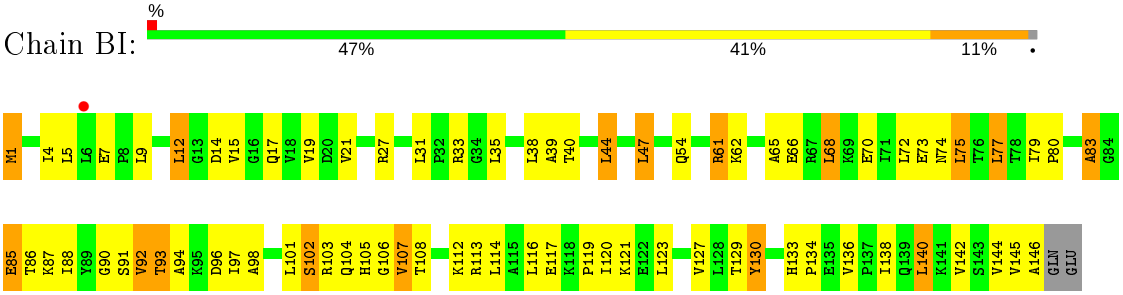
• Molecule 29: 50S Ribosomal Protein L6

Chain DH:



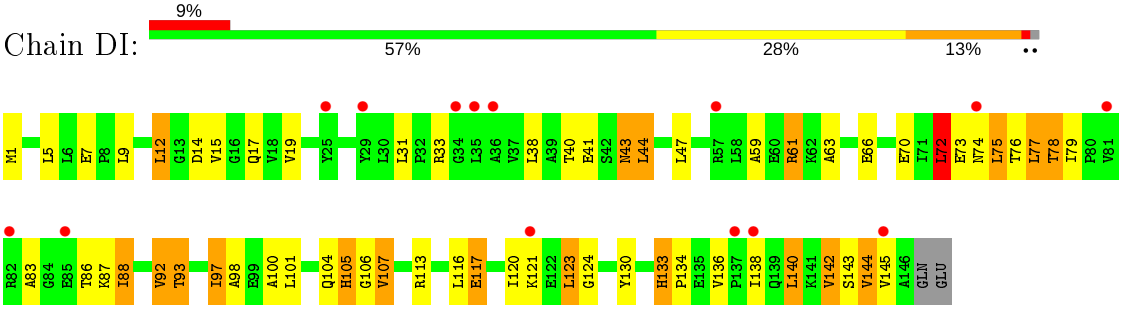
• Molecule 30: 50S Ribosomal Protein L9

Chain BI:



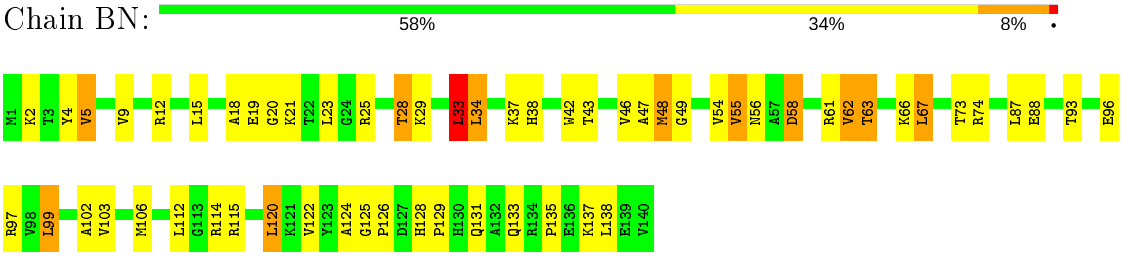
• Molecule 30: 50S Ribosomal Protein L9

Chain DI:



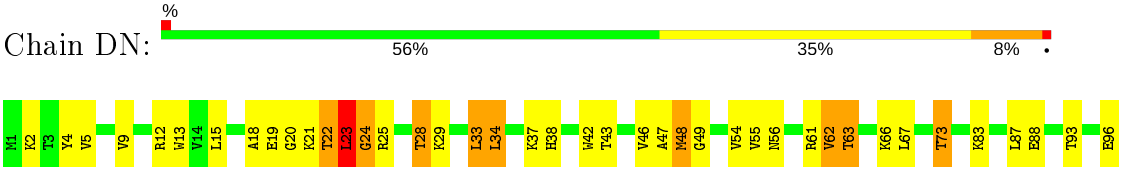
• Molecule 31: 50S Ribosomal Protein L13

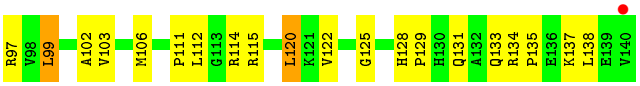
Chain BN:



• Molecule 31: 50S Ribosomal Protein L13

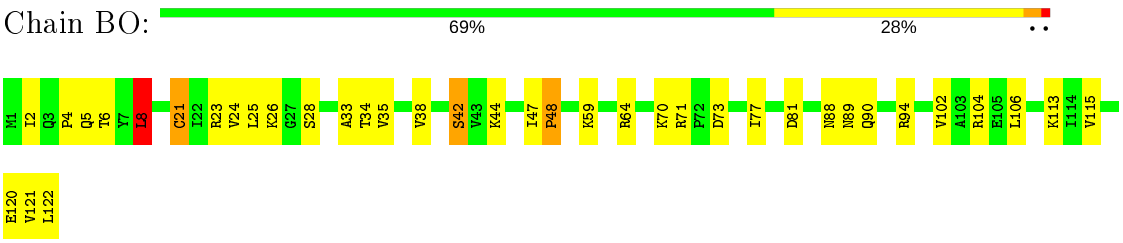
Chain DN:





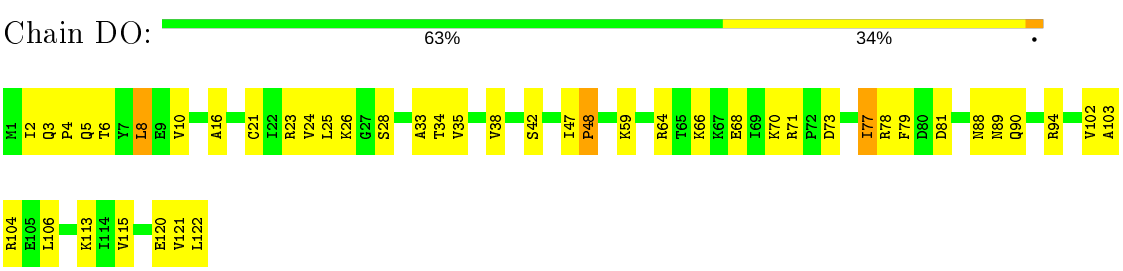
- Molecule 32: 50S Ribosomal Protein L14

Chain BO:



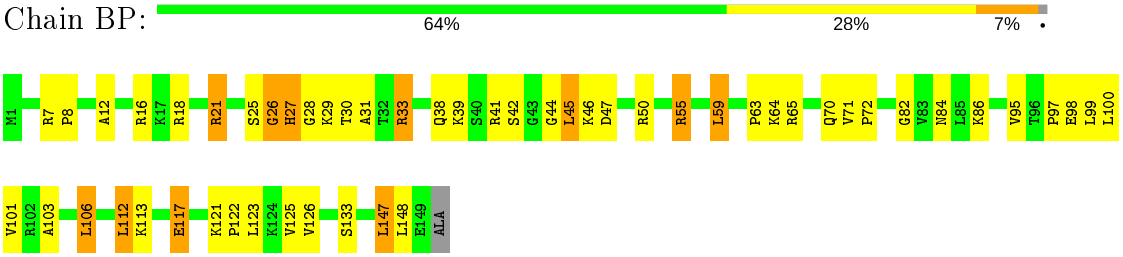
- Molecule 32: 50S Ribosomal Protein L14

Chain DO:



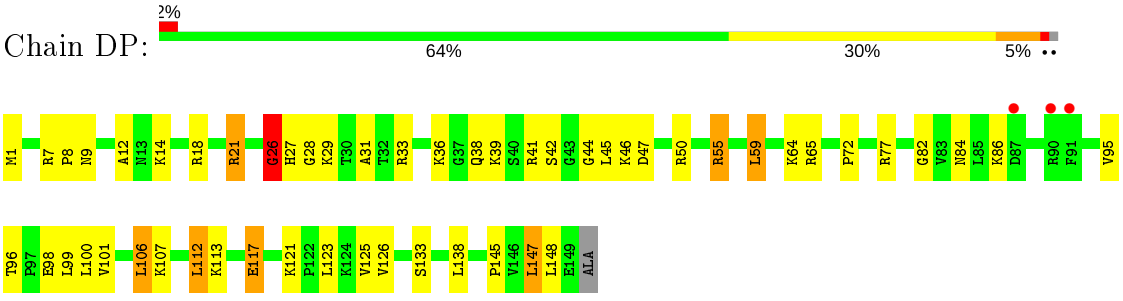
- Molecule 33: 50S Ribosomal Protein L15

Chain BP:



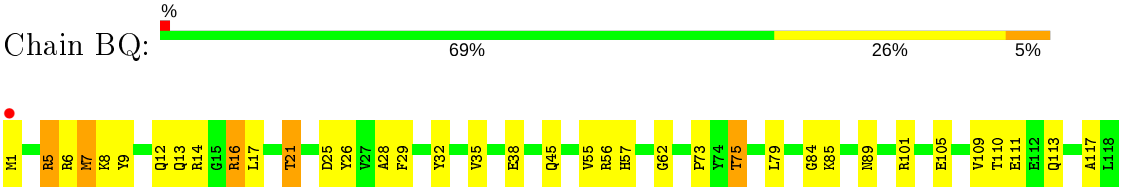
- Molecule 33: 50S Ribosomal Protein L15

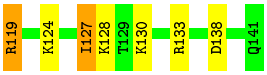
Chain DP:



- Molecule 34: 50S Ribosomal Protein L16

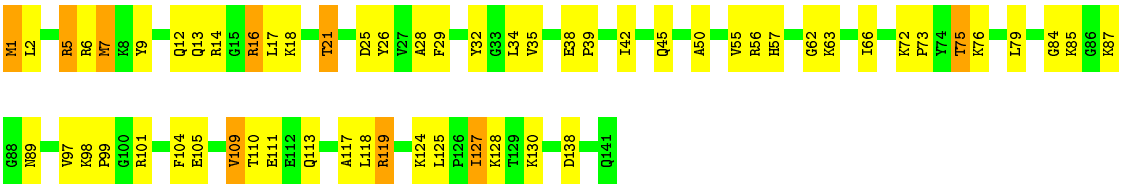
Chain BQ:





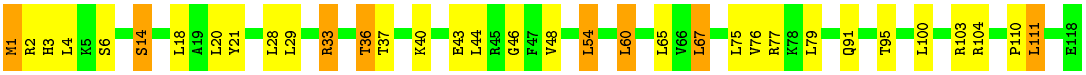
- Molecule 34: 50S Ribosomal Protein L16

Chain DQ:



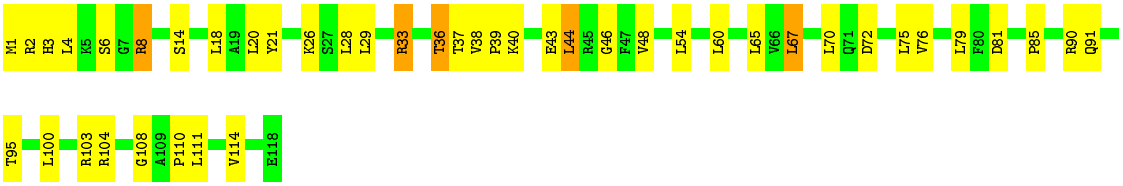
- Molecule 35: 50S Ribosomal Protein L17

Chain BR:



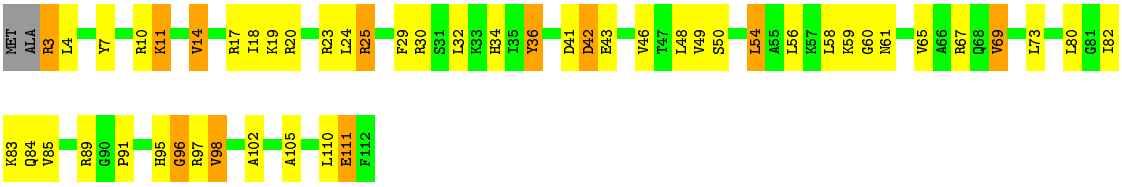
- Molecule 35: 50S Ribosomal Protein L17

Chain DR:



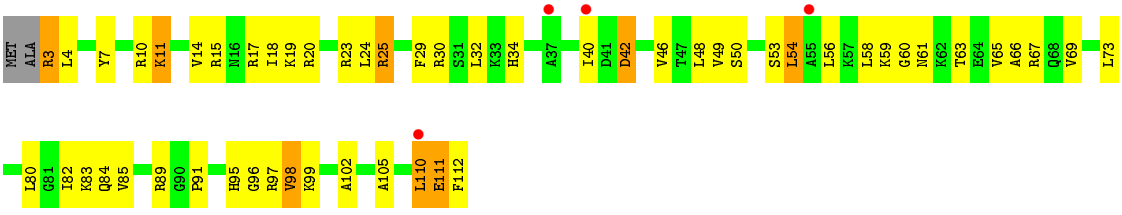
- Molecule 36: 50S Ribosomal Protein L18

Chain BS:



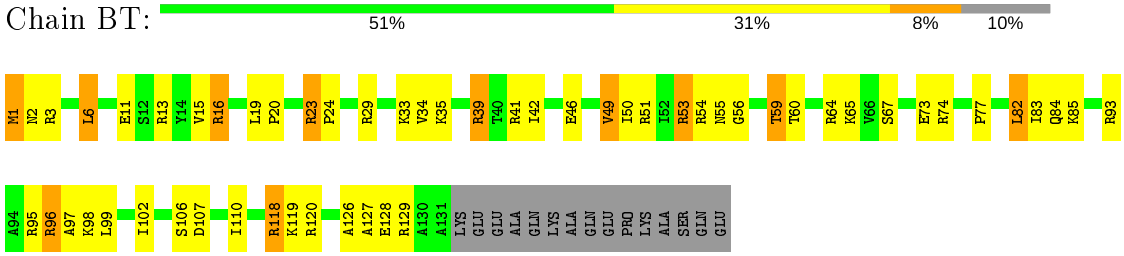
- Molecule 36: 50S Ribosomal Protein L18

Chain DS:



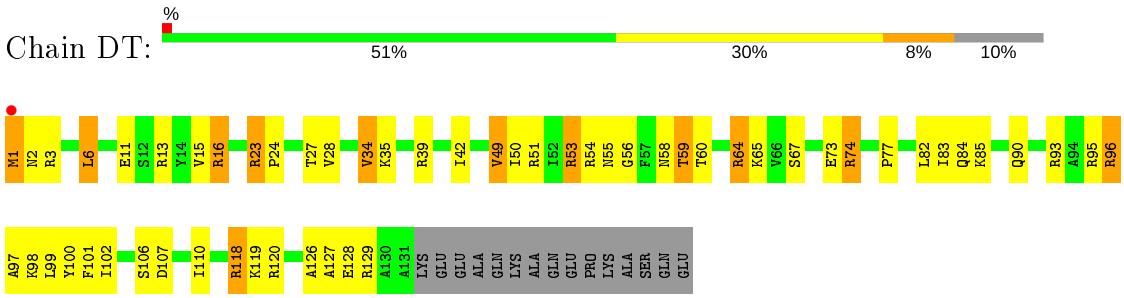
• Molecule 37: 50S Ribosomal Protein L19

Chain BT:



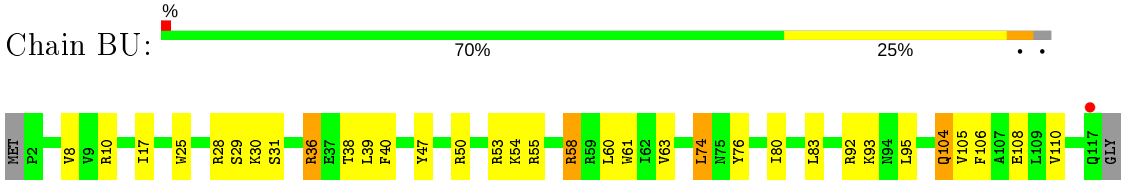
• Molecule 37: 50S Ribosomal Protein L19

Chain DT:



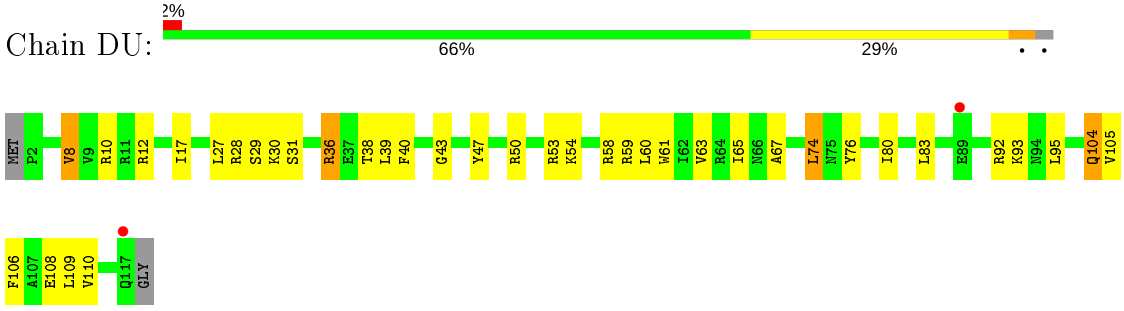
• Molecule 38: 50S Ribosomal Protein L20

Chain BU:



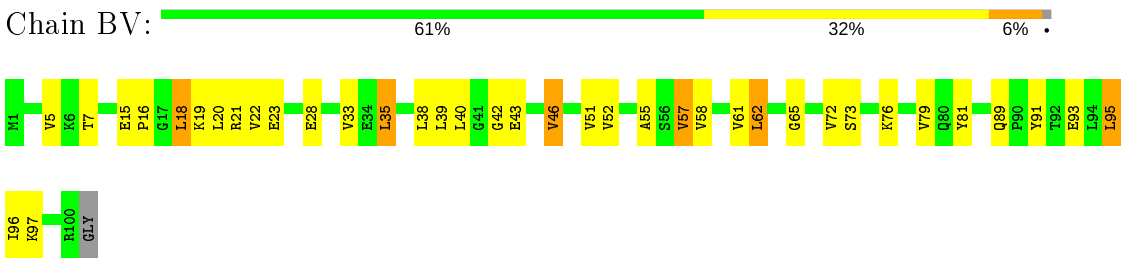
• Molecule 38: 50S Ribosomal Protein L20

Chain DU:



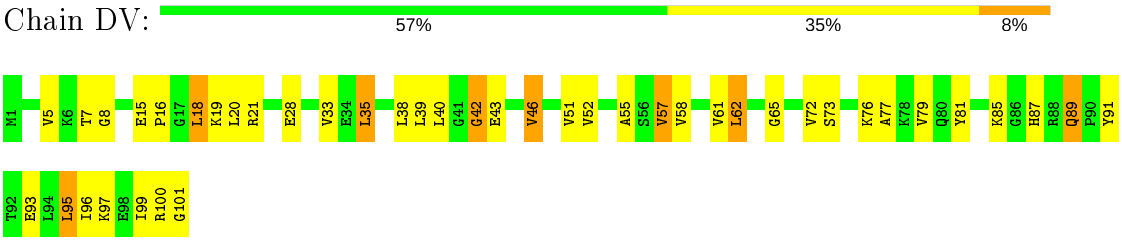
• Molecule 39: 50S Ribosomal Protein L21

Chain BV:



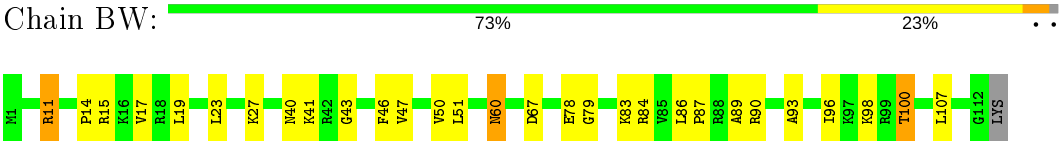
• Molecule 39: 50S Ribosomal Protein L21

Chain DV:



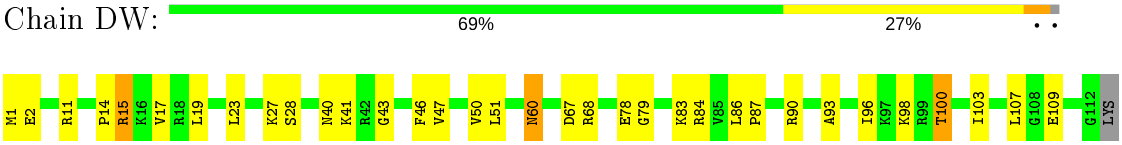
• Molecule 40: 50S Ribosomal Protein L22

Chain BW:



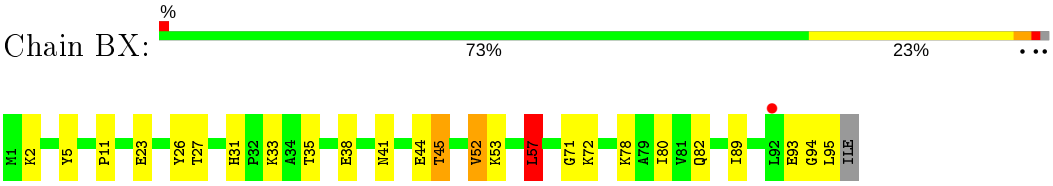
• Molecule 40: 50S Ribosomal Protein L22

Chain DW:



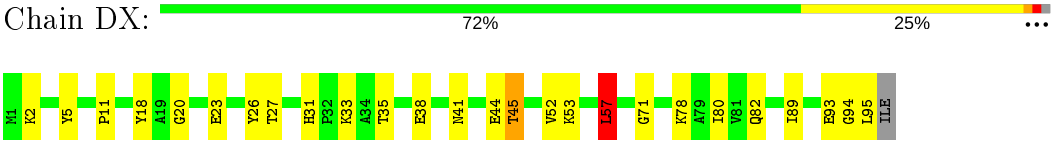
• Molecule 41: 50S Ribosomal Protein L23

Chain BX:



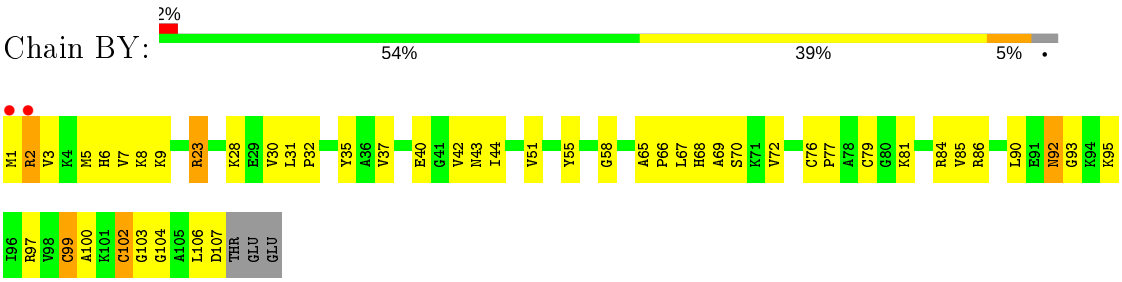
• Molecule 41: 50S Ribosomal Protein L23

Chain DX:



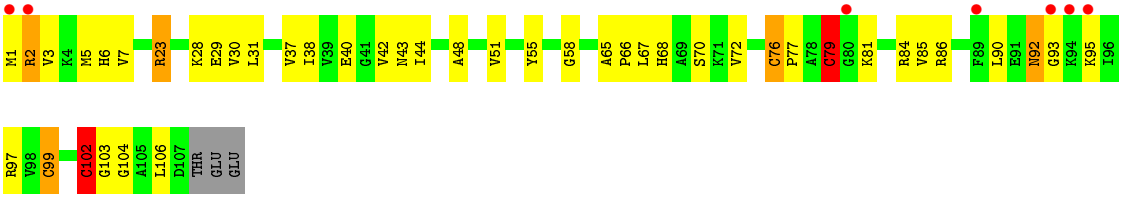
• Molecule 42: 50S Ribosomal Protein L24

Chain BY:



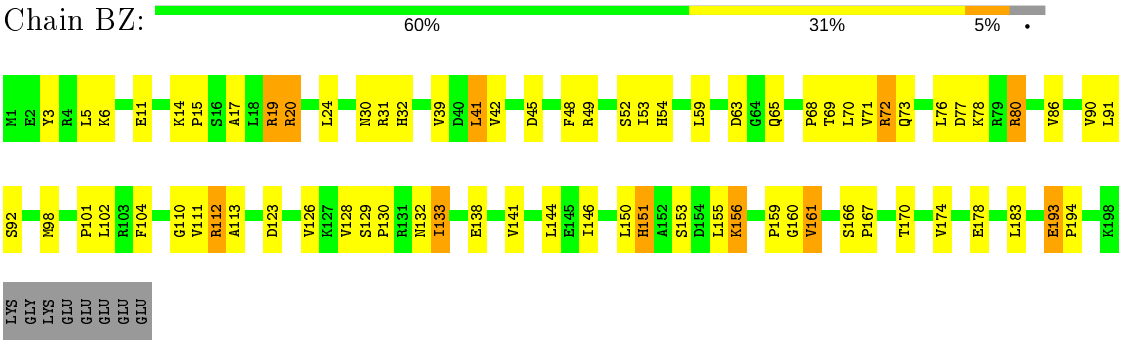
• Molecule 42: 50S Ribosomal Protein L24

Chain DY:



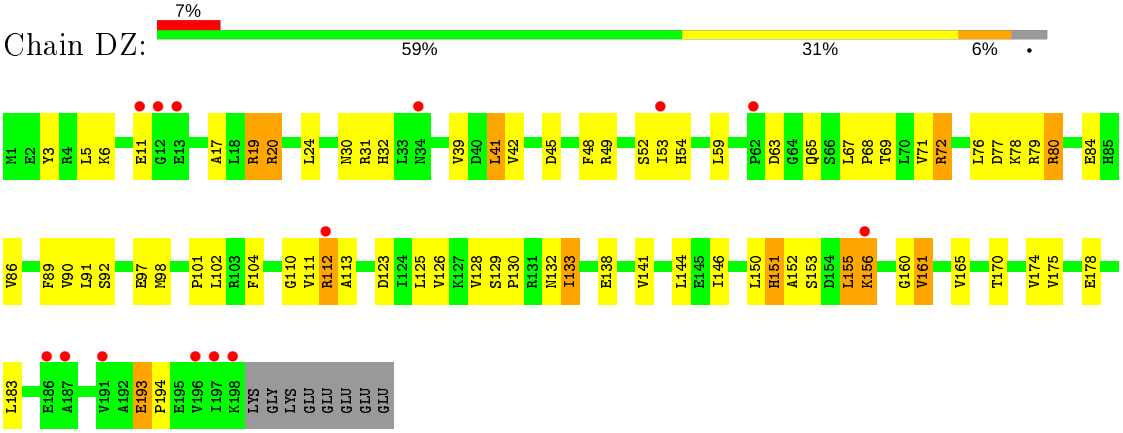
- Molecule 43: 50S Ribosomal Protein L25

Chain BZ:



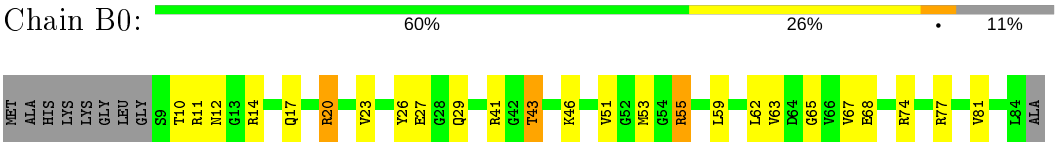
- Molecule 43: 50S Ribosomal Protein L25

Chain DZ:



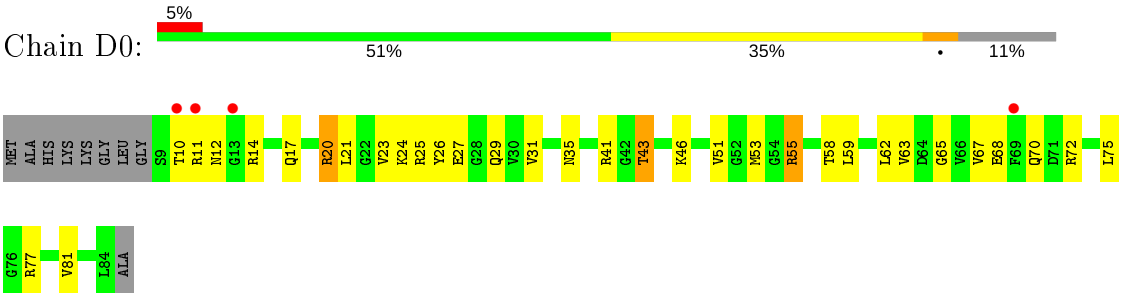
- Molecule 44: 50S Ribosomal Protein L27

Chain B0:



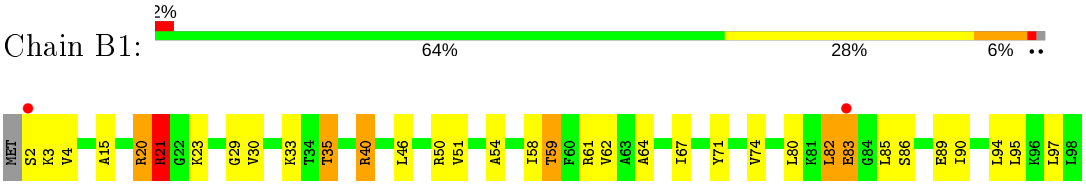
- Molecule 44: 50S Ribosomal Protein L27

Chain D0:



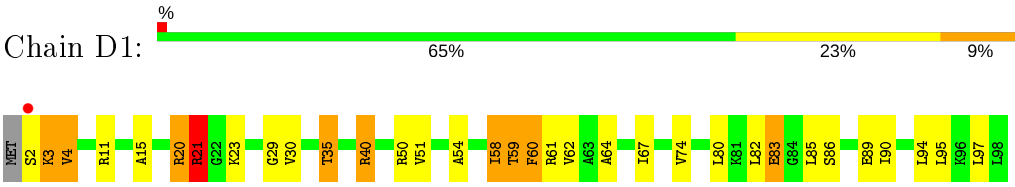
• Molecule 45: 50S Ribosomal Protein L28

Chain B1:



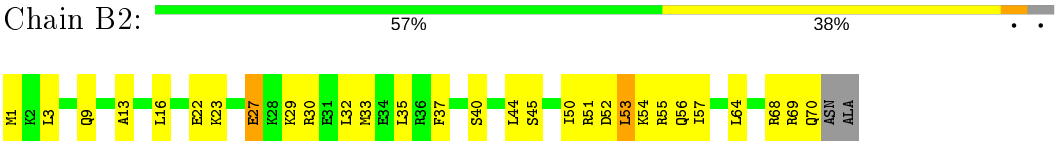
• Molecule 45: 50S Ribosomal Protein L28

Chain D1:



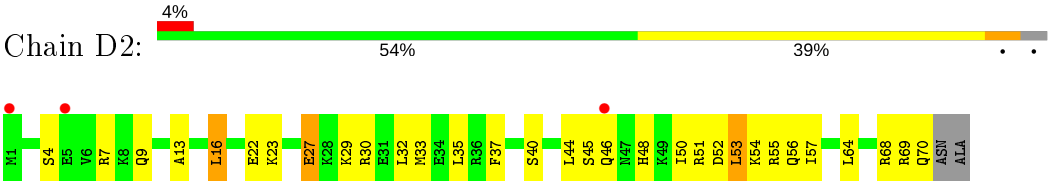
• Molecule 46: 50S Ribosomal Protein L29

Chain B2:



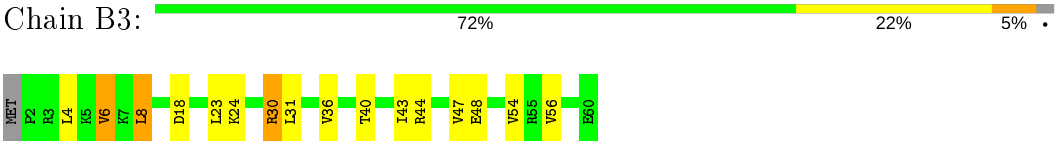
• Molecule 46: 50S Ribosomal Protein L29

Chain D2:



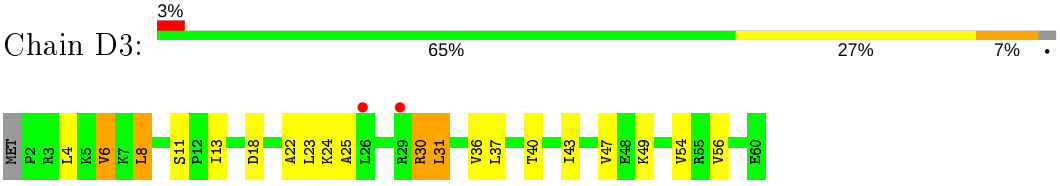
• Molecule 47: 50S Ribosomal Protein L30

Chain B3:



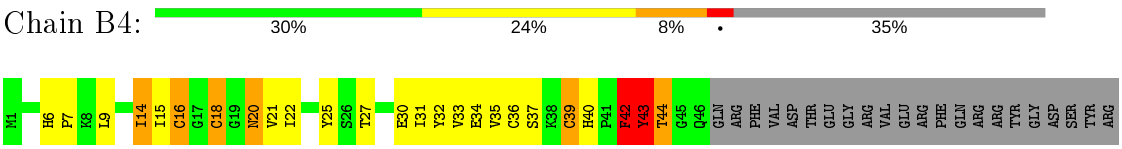
• Molecule 47: 50S Ribosomal Protein L30

Chain D3:



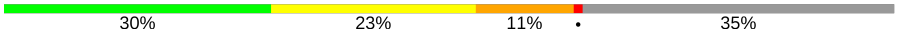
• Molecule 48: 50S Ribosomal Protein L31

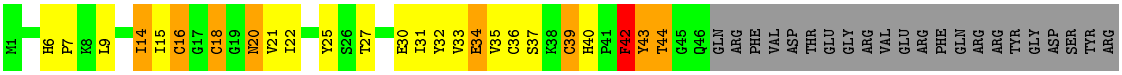
Chain B4:



• Molecule 48: 50S Ribosomal Protein L31

Chain D4:



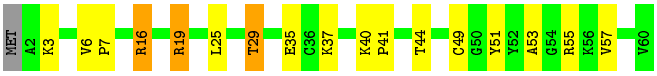


• Molecule 49: 50S Ribosomal Protein L32

Chain B5:

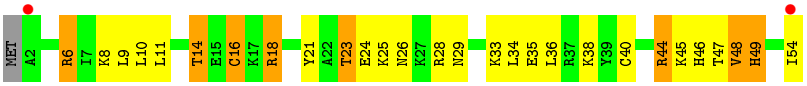
• Molecule 49: 50S Ribosomal Protein L32

Chain D5:



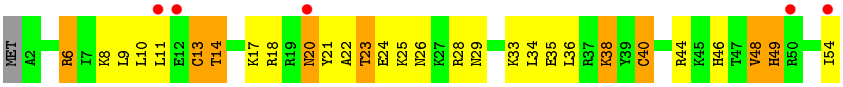
• Molecule 50: 50S Ribosomal Protein L33

Chain B6:



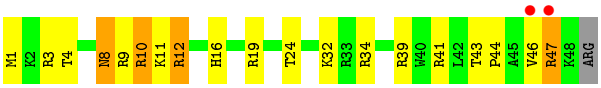
• Molecule 50: 50S Ribosomal Protein L33

Chain D6:



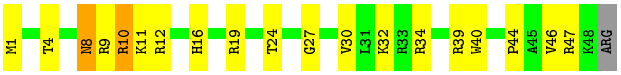
• Molecule 51: 50S Ribosomal Protein L34

Chain B7:



• Molecule 51: 50S Ribosomal Protein L34

Chain D7:



• Molecule 52: 50S Ribosomal Protein L35

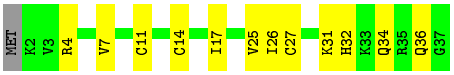
Chain B8:

• Molecule 52: 50S Ribosomal Protein L35

Chain D8:

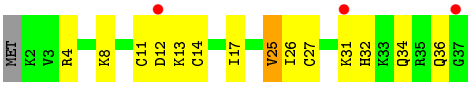
• Molecule 53: 50S Ribosomal Protein L36

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	210.24Å 451.44Å 621.64Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.75 – 3.00 49.75 – 3.00	Depositor EDS
% Data completeness (in resolution range)	97.9 (49.75-3.00) 98.0 (49.75-3.00)	Depositor EDS
R_{merge}	0.27	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.34 (at 3.01Å)	Xtriage
Refinement program	PHENIX 1.7.2_869	Depositor
R, R_{free}	0.218 , 0.254 0.217 , 0.253	Depositor DCC
R_{free} test set	57194 reflections (5.01%)	wwPDB-VP
Wilson B-factor (Å^2)	68.3	Xtriage
Anisotropy	0.254	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.28 , 59.7	EDS
L-test for twinning[2]	$< \|L\| > = 0.45$, $< L^2 > = 0.27$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.92	EDS
Total number of atoms	283930	wwPDB-VP
Average B, all atoms (Å^2)	85.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.58% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|>5$	RMSZ	#$\|Z\|>5$
1	AA	0.99	24/36215 (0.1%)	1.43	546/56522 (1.0%)
1	CA	0.91	21/36123 (0.1%)	1.38	452/56379 (0.8%)
2	AB	0.59	0/1809	0.73	1/2450 (0.0%)
2	CB	0.61	0/1809	0.73	1/2450 (0.0%)
3	AC	0.72	0/1474	0.82	2/2003 (0.1%)
3	CC	0.68	0/1474	0.79	2/2003 (0.1%)
4	AD	0.69	3/1556 (0.2%)	0.76	2/2113 (0.1%)
4	CD	0.64	2/1556 (0.1%)	0.74	2/2113 (0.1%)
5	AE	0.58	0/1121	0.79	0/1517
5	CE	0.58	0/1121	0.78	1/1517 (0.1%)
6	AF	0.55	0/790	0.71	0/1077
6	CF	0.54	0/790	0.70	0/1077
7	AG	0.83	0/1183	0.89	1/1599 (0.1%)
7	CG	0.72	0/1183	0.77	0/1599
8	AH	0.51	0/1065	0.67	0/1445
8	CH	0.50	0/1065	0.67	0/1445
9	AI	0.84	0/867	0.84	0/1180
9	CI	0.74	0/867	0.84	1/1180 (0.1%)
10	AJ	0.78	0/676	0.86	0/924
10	CJ	0.75	0/676	0.88	2/924 (0.2%)
11	AK	0.51	0/843	0.71	0/1144
11	CK	0.53	0/843	0.69	0/1144
12	AL	0.56	0/921	0.74	0/1247
12	CL	0.54	0/921	0.73	0/1247
13	AM	0.92	0/814	0.92	2/1107 (0.2%)
13	CM	0.72	0/814	0.83	0/1107
14	AN	0.79	0/487	0.93	0/649
14	CN	0.66	0/487	0.71	1/649 (0.2%)
15	AO	0.52	0/735	0.72	0/981
15	CO	0.52	0/735	0.72	0/981
16	AP	0.56	0/667	0.82	0/905
16	CP	0.54	0/667	0.84	1/905 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	AQ	0.56	0/836	0.72	0/1117
17	CQ	0.57	0/836	0.72	0/1117
18	AR	0.54	0/519	0.79	0/699
18	CR	0.56	0/519	0.79	0/699
19	AS	0.92	0/574	0.92	0/781
19	CS	0.69	0/574	0.81	0/781
20	AT	0.54	0/715	0.78	0/947
20	CT	0.52	0/715	0.77	0/947
21	AU	0.78	0/203	0.77	0/266
21	CU	0.73	0/203	0.68	0/266
22	AV	0.63	0/339	0.75	0/464
22	CV	0.65	0/360	0.85	1/492 (0.2%)
23	BA	1.60	727/67771 (1.1%)	1.72	2179/105789 (2.1%)
23	DA	1.16	149/67893 (0.2%)	1.60	1664/105982 (1.6%)
24	BB	1.11	3/2878 (0.1%)	1.57	62/4490 (1.4%)
24	DB	0.97	4/2878 (0.1%)	1.46	37/4490 (0.8%)
25	BD	0.88	3/2186 (0.1%)	0.96	0/2944
25	DD	0.80	2/2186 (0.1%)	0.91	1/2944 (0.0%)
26	BE	0.89	0/1588	0.96	3/2145 (0.1%)
26	DE	0.75	0/1588	0.92	0/2145
27	BF	0.88	1/1615 (0.1%)	0.86	0/2188
27	DF	0.70	0/1615	0.90	2/2188 (0.1%)
28	BG	0.53	0/1393	0.71	0/1892
28	DG	0.59	0/1393	0.71	0/1892
29	BH	0.68	0/1343	0.80	3/1820 (0.2%)
29	DH	0.60	0/1343	0.77	2/1820 (0.1%)
30	BI	0.64	0/1055	0.83	0/1445
30	DI	0.65	0/1053	0.84	1/1442 (0.1%)
31	BN	0.86	0/1139	0.87	2/1538 (0.1%)
31	DN	0.65	0/1139	0.87	1/1538 (0.1%)
32	BO	0.79	1/933 (0.1%)	0.86	1/1257 (0.1%)
32	DO	0.70	0/933	0.86	1/1257 (0.1%)
33	BP	0.80	0/1148	0.93	1/1529 (0.1%)
33	DP	0.67	0/1148	0.93	2/1529 (0.1%)
34	BQ	0.79	0/1143	0.89	0/1527
34	DQ	0.70	0/1143	0.86	0/1527
35	BR	0.82	0/982	0.94	2/1312 (0.2%)
35	DR	0.74	0/982	0.93	2/1312 (0.2%)
36	BS	0.65	0/875	0.88	0/1168
36	DS	0.66	0/875	0.84	0/1168
37	BT	0.74	0/1077	0.87	0/1444
37	DT	0.66	0/1077	0.85	0/1444
38	BU	1.02	0/977	0.89	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	DU	0.79	0/977	0.88	0/1301
39	BV	0.89	0/771	0.84	0/1037
39	DV	0.70	0/782	0.84	1/1049 (0.1%)
40	BW	1.04	0/891	0.99	2/1197 (0.2%)
40	DW	0.87	0/891	0.91	0/1197
41	BX	0.87	0/756	0.88	1/1016 (0.1%)
41	DX	0.78	0/756	0.84	1/1016 (0.1%)
42	BY	0.81	0/798	0.88	0/1073
42	DY	0.72	1/798 (0.1%)	0.87	1/1073 (0.1%)
43	BZ	0.62	0/1555	0.82	1/2118 (0.0%)
43	DZ	0.63	0/1555	0.80	1/2118 (0.0%)
44	B0	0.83	0/602	0.86	0/804
44	D0	0.73	0/602	0.81	0/804
45	B1	0.80	0/752	1.00	3/1003 (0.3%)
45	D1	0.77	0/752	0.99	2/1003 (0.2%)
46	B2	0.81	0/590	0.82	0/781
46	D2	0.71	0/590	0.83	0/781
47	B3	0.79	0/463	0.86	1/623 (0.2%)
47	D3	0.64	0/463	0.82	0/623
48	B4	0.64	0/358	0.82	1/487 (0.2%)
48	D4	0.70	0/358	0.82	1/487 (0.2%)
49	B5	1.01	0/469	0.99	1/634 (0.2%)
49	D5	0.75	0/469	0.95	1/634 (0.2%)
50	B6	0.84	1/456 (0.2%)	0.86	0/609
50	D6	0.92	2/456 (0.4%)	0.89	2/609 (0.3%)
51	B7	1.07	0/426	1.16	2/561 (0.4%)
51	D7	0.92	0/426	1.00	0/561
52	B8	0.88	0/516	1.00	2/679 (0.3%)
52	D8	0.73	1/516 (0.2%)	0.92	1/679 (0.1%)
53	B9	0.85	0/300	0.91	0/395
53	D9	0.68	0/300	0.83	0/395
All	All	1.12	945/304490 (0.3%)	1.42	5009/455973 (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	3
2	CB	0	3
3	AC	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
3	CC	0	2
5	CE	0	1
7	AG	0	4
7	CG	0	1
9	AI	0	2
9	CI	0	1
10	AJ	0	3
12	AL	0	1
12	CL	0	1
13	AM	0	3
13	CM	0	1
14	AN	0	3
17	AQ	0	1
17	CQ	0	1
19	AS	0	1
20	AT	0	2
20	CT	0	1
22	CV	0	3
25	BD	0	1
25	DD	0	1
26	BE	0	2
26	DE	0	1
27	BF	0	2
27	DF	0	3
28	BG	0	1
28	DG	0	1
30	BI	0	1
30	DI	0	1
31	BN	0	1
31	DN	0	2
32	BO	0	1
32	DO	0	1
33	BP	0	4
33	DP	0	2
36	BS	0	2
36	DS	0	1
37	BT	0	1
37	DT	0	1
41	BX	0	1
41	DX	0	1
42	BY	0	1
42	DY	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
43	BZ	0	1
45	B1	0	1
45	D1	0	1
48	B4	0	3
48	D4	0	2
52	D8	0	2
All	All	0	83

All (945) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	CA	1459	C	N1-C2	17.17	1.57	1.40
1	AA	1459	C	N1-C2	16.97	1.57	1.40
1	AA	1442(A)	G	N9-C4	16.14	1.50	1.38
1	CA	1442(A)	G	N9-C4	15.91	1.50	1.38
23	DA	528	A	N9-C4	-14.88	1.28	1.37
23	BA	530	G	C2-N3	-14.25	1.21	1.32
23	BA	1142(A)	A	N9-C4	-13.60	1.29	1.37
1	CA	90	U	C4-O4	13.40	1.34	1.23
23	BA	2335	A	C6-N6	-12.80	1.23	1.33
1	AA	1442(A)	G	C2-N3	11.82	1.42	1.32
24	DB	120	A	C6-N6	-11.72	1.24	1.33
1	CA	1442(A)	G	C2-N3	11.63	1.42	1.32
23	BA	2296	U	C4-C5	11.32	1.53	1.43
23	BA	528	A	N9-C4	-11.10	1.31	1.37
24	BB	120	A	C6-N6	-10.88	1.25	1.33
50	D6	13	CYS	CB-SG	-10.86	1.63	1.82
23	BA	478	A	N3-C4	-10.54	1.28	1.34
23	DA	2296	U	C4-C5	10.51	1.53	1.43
1	CA	1459	C	C1'-N1	10.41	1.64	1.48
1	AA	1442(A)	G	N3-C4	10.30	1.42	1.35
23	BA	1142(A)	A	N3-C4	-10.26	1.28	1.34
1	AA	1459	C	C1'-N1	10.20	1.64	1.48
23	DA	2335	A	C6-N6	-9.99	1.25	1.33
23	BA	1762	A	N9-C4	9.95	1.43	1.37
23	BA	1325	G	P-O5'	-9.34	1.50	1.59
23	BA	467	G	P-OP1	-9.32	1.33	1.49
4	CD	9	CYS	CB-SG	9.32	1.98	1.82
1	CA	1442(A)	G	N3-C4	9.30	1.42	1.35
23	BA	2296	U	N1-C2	9.29	1.47	1.38
23	BA	2296	U	C4-O4	9.21	1.31	1.23
23	BA	2825	C	N1-C6	-9.20	1.31	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	330	A	N9-C4	-9.13	1.32	1.37
23	BA	467	G	P-O5'	-9.09	1.50	1.59
1	AA	1459	C	C2-N3	9.07	1.43	1.35
23	BA	1210	A	N7-C5	-9.07	1.33	1.39
23	DA	530	G	C2-N3	-9.04	1.25	1.32
23	BA	1204	A	N7-C5	-8.98	1.33	1.39
23	BA	198	C	N1-C6	-8.97	1.31	1.37
23	BA	1254	A	P-OP1	-8.91	1.33	1.49
23	BA	530	G	N9-C8	8.80	1.44	1.37
23	BA	2058	A	N3-C4	-8.78	1.29	1.34
23	BA	1210	A	N9-C4	-8.74	1.32	1.37
23	BA	2070	G	N7-C5	-8.74	1.34	1.39
1	AA	69	G	O3'-P	8.70	1.71	1.61
1	CA	1459	C	C2-N3	8.70	1.42	1.35
23	BA	965	C	N3-C4	-8.54	1.27	1.33
23	BA	26	G	N7-C5	-8.52	1.34	1.39
23	BA	2252	G	C5-C4	-8.48	1.32	1.38
23	BA	1614	A	N9-C4	-8.47	1.32	1.37
1	CA	69	G	O3'-P	-8.45	1.51	1.61
23	BA	2570	G	N9-C4	-8.37	1.31	1.38
1	AA	1332	A	N9-C4	8.35	1.42	1.37
23	DA	530	G	N9-C8	8.33	1.43	1.37
23	BA	2499	C	N1-C6	-8.31	1.32	1.37
23	BA	1393	A	N3-C4	-8.21	1.29	1.34
23	BA	2452	C	N1-C6	-8.20	1.32	1.37
23	DA	1142(A)	A	N9-C4	-8.10	1.32	1.37
23	DA	2296	U	C4-O4	8.06	1.30	1.23
23	BA	2060	A	C6-N1	-8.05	1.29	1.35
23	BA	2620	C	N1-C6	-8.05	1.32	1.37
23	DA	1762	A	N9-C4	8.02	1.42	1.37
23	BA	2055	C	P-OP2	-8.00	1.35	1.49
23	BA	2515	C	C4-C5	-7.89	1.36	1.43
23	BA	528	A	N9-C8	7.89	1.44	1.37
23	BA	2055	C	P-OP1	-7.86	1.35	1.49
23	BA	2497	A	N7-C5	-7.84	1.34	1.39
23	BA	2017	U	C2-N3	-7.83	1.32	1.37
23	BA	469	G	N9-C8	-7.81	1.32	1.37
23	DA	2296	U	N1-C2	7.81	1.45	1.38
23	BA	2497	A	N9-C8	-7.79	1.31	1.37
23	BA	1137	G	C5-C4	-7.77	1.32	1.38
50	D6	40	CYS	CB-SG	7.76	1.95	1.82
23	BA	2515	C	N3-C4	-7.73	1.28	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	DA	1605	C	N1-C6	-7.71	1.32	1.37
23	BA	2032	G	C6-N1	-7.70	1.34	1.39
23	BA	2244	U	N3-C4	-7.70	1.31	1.38
23	BA	1638	C	N1-C6	-7.70	1.32	1.37
23	BA	530	G	C8-N7	7.67	1.35	1.30
23	BA	567	A	N7-C5	-7.64	1.34	1.39
23	BA	1204	A	C5-C6	-7.60	1.34	1.41
23	BA	2287	A	N9-C4	-7.60	1.33	1.37
23	BA	272(A)	U	C1'-N1	7.59	1.60	1.48
23	BA	2600	A	N7-C5	-7.51	1.34	1.39
23	BA	467	G	C5-C4	-7.46	1.33	1.38
23	BA	2617	C	N1-C6	-7.46	1.32	1.37
23	BA	2361	A	N9-C4	-7.43	1.33	1.37
23	BA	1210	A	C5-C6	-7.34	1.34	1.41
23	BA	2445	G	N9-C8	-7.34	1.32	1.37
23	BA	2456	C	N1-C6	-7.32	1.32	1.37
23	DA	1817	G	N7-C5	-7.31	1.34	1.39
23	BA	2032	G	N7-C5	-7.30	1.34	1.39
23	BA	980	A	N9-C4	-7.29	1.33	1.37
23	BA	2063	C	N1-C6	-7.29	1.32	1.37
23	BA	964	C	N3-C4	-7.28	1.28	1.33
23	BA	2441	C	P-O5'	-7.28	1.52	1.59
23	BA	1791	A	N9-C4	-7.26	1.33	1.37
23	BA	2730	C	N3-C4	-7.26	1.28	1.33
23	BA	2502	G	N9-C8	-7.24	1.32	1.37
23	DA	194	G	N7-C5	-7.24	1.34	1.39
23	BA	189	G	N7-C5	-7.22	1.34	1.39
23	BA	2542	A	C5-C4	-7.22	1.33	1.38
23	DA	530	G	C8-N7	7.21	1.35	1.30
23	DA	2104	G	N1-C2	-7.19	1.31	1.37
23	DA	2104	G	C6-N1	-7.17	1.34	1.39
23	BA	2335	A	C5-C6	-7.17	1.34	1.41
23	BA	2028	U	C2-N3	-7.15	1.32	1.37
23	BA	1322	A	N7-C5	-7.15	1.34	1.39
23	DA	2031	A	C5-C6	-7.14	1.34	1.41
23	BA	582	G	N9-C8	-7.14	1.32	1.37
23	BA	1131	G	C6-N1	-7.13	1.34	1.39
23	BA	2499	C	N3-C4	-7.13	1.28	1.33
23	BA	1779	U	N3-C4	-7.12	1.32	1.38
23	BA	1022	G	N3-C4	-7.10	1.30	1.35
23	BA	37	C	N1-C6	-7.07	1.32	1.37
23	DA	310	A	N9-C4	-7.07	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	1254	A	P-O5'	-7.05	1.52	1.59
23	BA	579	G	N9-C8	-7.05	1.32	1.37
23	BA	2104	G	N1-C2	-7.05	1.32	1.37
23	BA	2822	G	N9-C8	-7.04	1.32	1.37
4	AD	12	CYS	CB-SG	7.03	1.94	1.82
1	CA	1123	A	N9-C4	7.03	1.42	1.37
23	BA	195	A	N9-C4	-7.02	1.33	1.37
24	BB	120	A	C6-N1	7.02	1.40	1.35
23	BA	1325	G	P-OP1	-7.01	1.37	1.49
1	CA	1087	G	N9-C4	7.01	1.43	1.38
23	DA	687	C	N1-C6	-7.01	1.32	1.37
23	BA	801	G	N9-C8	-7.00	1.32	1.37
1	CA	1031	G	N3-C4	7.00	1.40	1.35
23	BA	467	G	P-OP2	-6.97	1.37	1.49
23	BA	1572	A	N3-C4	-6.97	1.30	1.34
23	BA	2044	C	N1-C6	-6.96	1.32	1.37
23	BA	2026	C	N1-C6	-6.95	1.32	1.37
23	BA	1379	A	N9-C4	-6.95	1.33	1.37
23	BA	2018	G	N3-C4	-6.94	1.30	1.35
23	DA	1638	C	N1-C6	-6.92	1.32	1.37
23	BA	1614	A	N3-C4	-6.91	1.30	1.34
24	DB	120	A	C6-N1	6.91	1.40	1.35
23	BA	1427	A	C6-N1	-6.90	1.30	1.35
23	BA	27	G	N3-C4	-6.89	1.30	1.35
23	DA	1204	A	N9-C4	-6.89	1.33	1.37
23	BA	2730	C	C2-N3	-6.87	1.30	1.35
23	BA	1332	G	C6-O6	-6.86	1.18	1.24
23	BA	2030	A	C5-C4	-6.85	1.33	1.38
23	BA	975	C	N3-C4	-6.84	1.29	1.33
23	BA	2045	C	N1-C6	-6.83	1.33	1.37
23	BA	2500	U	C4-O4	-6.82	1.18	1.23
23	DA	1127	A	N7-C5	-6.82	1.35	1.39
23	BA	1325	G	P-OP2	-6.82	1.37	1.49
23	BA	2104	G	C6-N1	-6.82	1.34	1.39
23	BA	794	G	N1-C2	-6.81	1.32	1.37
23	BA	195	A	N3-C4	-6.80	1.30	1.34
23	BA	1660	C	C2-O2	-6.77	1.18	1.24
23	BA	1403	C	N1-C6	-6.77	1.33	1.37
23	BA	794	G	C6-N1	-6.76	1.34	1.39
4	AD	26	CYS	CB-SG	6.74	1.93	1.82
23	BA	1633	G	N7-C5	-6.74	1.35	1.39
23	DA	272(A)	U	C1'-N1	6.74	1.58	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	DA	686	G	N7-C5	-6.72	1.35	1.39
23	BA	1571	A	N9-C4	-6.72	1.33	1.37
23	BA	2515	C	N1-C6	-6.71	1.33	1.37
23	BA	1608	A	N7-C5	-6.70	1.35	1.39
23	BA	126	A	N7-C5	-6.68	1.35	1.39
23	BA	2504	U	P-O5'	-6.67	1.53	1.59
23	BA	756	C	N1-C6	-6.67	1.33	1.37
23	BA	2872	G	N7-C5	-6.67	1.35	1.39
23	BA	2286	A	N7-C5	-6.66	1.35	1.39
23	BA	2015	A	N7-C5	-6.66	1.35	1.39
23	DA	528	A	N3-C4	-6.66	1.30	1.34
23	BA	2727	G	N7-C5	-6.65	1.35	1.39
23	DA	1142(A)	A	N3-C4	-6.64	1.30	1.34
23	BA	31	C	N1-C6	-6.64	1.33	1.37
23	BA	27	G	P-OP2	-6.64	1.37	1.49
23	BA	2690	C	N1-C6	-6.62	1.33	1.37
23	BA	2055	C	P-O5'	-6.62	1.53	1.59
23	BA	1137	G	N7-C5	-6.62	1.35	1.39
23	BA	1195	G	N7-C5	-6.61	1.35	1.39
23	BA	2055	C	O3'-P	-6.61	1.53	1.61
23	BA	2430	A	N9-C4	-6.60	1.33	1.37
23	BA	532	A	N7-C5	-6.59	1.35	1.39
23	BA	529	A	N3-C4	-6.59	1.30	1.34
23	BA	678	C	N1-C6	-6.58	1.33	1.37
23	BA	578	A	N7-C5	-6.58	1.35	1.39
23	BA	2041	U	N1-C2	-6.58	1.32	1.38
23	BA	780	G	N7-C5	-6.57	1.35	1.39
23	BA	2503	A	C5-C6	-6.57	1.35	1.41
23	BA	1605	C	N3-C4	-6.57	1.29	1.33
1	AA	1001	A	N9-C4	6.57	1.41	1.37
23	BA	1322	A	N9-C4	-6.56	1.33	1.37
23	BA	1251	C	P-O5'	-6.55	1.53	1.59
23	BA	448	U	N3-C4	-6.54	1.32	1.38
23	BA	16	G	N3-C4	-6.54	1.30	1.35
23	BA	515	A	N7-C5	-6.54	1.35	1.39
23	BA	2587	A	N7-C5	-6.54	1.35	1.39
23	BA	466	A	P-OP2	-6.53	1.37	1.49
23	DA	2287	A	N9-C4	-6.52	1.33	1.37
23	BA	1132	A	N3-C4	-6.52	1.30	1.34
23	BA	818	G	C6-N1	-6.50	1.34	1.39
23	BA	819	A	N3-C4	-6.50	1.30	1.34
23	BA	73	A	N3-C4	-6.49	1.30	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	1755	A	C6-N1	-6.48	1.31	1.35
23	BA	818	G	N3-C4	-6.48	1.30	1.35
23	BA	1393	A	C5-C4	-6.48	1.34	1.38
23	BA	566	U	C2-N3	-6.47	1.33	1.37
23	BA	2578	G	N1-C2	-6.47	1.32	1.37
23	DA	139(A)	G	N9-C8	6.46	1.42	1.37
23	BA	983	A	C6-N1	-6.45	1.31	1.35
23	BA	788	A	N7-C5	-6.45	1.35	1.39
23	BA	682	G	C5-C4	-6.44	1.33	1.38
23	BA	2834	G	N7-C5	-6.44	1.35	1.39
23	BA	2424	C	N1-C6	-6.43	1.33	1.37
23	BA	1250	G	N7-C5	-6.43	1.35	1.39
23	BA	2059	A	C5-C4	-6.42	1.34	1.38
23	BA	582	G	N7-C5	-6.42	1.35	1.39
23	BA	675	A	C6-N1	-6.42	1.31	1.35
23	BA	1791	A	N7-C5	-6.42	1.35	1.39
23	BA	24	G	N1-C2	-6.42	1.32	1.37
23	BA	1254	A	P-OP2	-6.42	1.38	1.49
23	BA	2689	U	N3-C4	-6.41	1.32	1.38
23	DA	2572	A	N3-C4	-6.41	1.31	1.34
23	DA	1289	C	N1-C6	-6.40	1.33	1.37
23	BA	516	C	N1-C6	-6.40	1.33	1.37
23	BA	2011	U	C4-O4	-6.39	1.18	1.23
23	BA	2335	A	N9-C4	-6.39	1.34	1.37
23	BA	793	A	N3-C4	-6.38	1.31	1.34
23	BA	2056	G	P-OP2	-6.38	1.38	1.49
23	BA	981	A	C5-C4	-6.38	1.34	1.38
23	BA	1248	G	C2-N3	-6.37	1.27	1.32
23	DA	2607	G	N7-C5	-6.37	1.35	1.39
23	BA	780	G	N9-C8	-6.37	1.33	1.37
23	BA	2741	A	N9-C4	-6.36	1.34	1.37
23	BA	528	A	N3-C4	-6.36	1.31	1.34
23	BA	2524	G	N9-C8	-6.36	1.33	1.37
23	BA	1226	A	N7-C5	-6.35	1.35	1.39
23	BA	1204	A	N3-C4	-6.34	1.31	1.34
23	BA	676	A	P-O5'	-6.33	1.53	1.59
23	BA	973	A	P-O5'	-6.33	1.53	1.59
23	BA	2070	G	C2-N2	-6.32	1.28	1.34
23	BA	2030	A	N3-C4	-6.32	1.31	1.34
23	BA	575	A	P-OP1	-6.32	1.38	1.49
23	BA	1315	C	N3-C4	-6.32	1.29	1.33
23	DA	2322	A	C5-C6	6.32	1.46	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	47	C	N3-C4	-6.30	1.29	1.33
23	BA	235	U	C2-N3	-6.30	1.33	1.37
4	AD	9	CYS	CB-SG	6.29	1.93	1.82
23	BA	760	G	N9-C8	-6.28	1.33	1.37
23	BA	2346	A	N3-C4	-6.28	1.31	1.34
23	BA	2621	A	P-O5'	-6.28	1.53	1.59
23	BA	2327	A	N9-C4	-6.27	1.34	1.37
23	BA	2490	G	N3-C4	-6.27	1.31	1.35
23	BA	70	G	C6-N1	-6.27	1.35	1.39
23	BA	564	C	N3-C4	-6.27	1.29	1.33
23	BA	233	A	N3-C4	-6.26	1.31	1.34
23	BA	457	A	C6-N1	-6.25	1.31	1.35
23	BA	575	A	N7-C5	-6.25	1.35	1.39
23	BA	2577	A	N7-C5	-6.25	1.35	1.39
23	BA	2581	G	N1-C2	-6.24	1.32	1.37
23	BA	469	G	N7-C5	-6.24	1.35	1.39
23	BA	1335	U	N1-C6	-6.24	1.32	1.38
23	BA	2064	C	N1-C6	-6.24	1.33	1.37
23	DA	2617	C	N1-C6	-6.24	1.33	1.37
23	DA	2335	A	C5-C6	-6.23	1.35	1.41
23	BA	781	A	C5-C4	-6.23	1.34	1.38
23	DA	793	A	N3-C4	-6.23	1.31	1.34
23	BA	933	A	N9-C4	-6.22	1.34	1.37
23	BA	1131	G	N1-C2	-6.22	1.32	1.37
23	BA	769	G	C2-N3	-6.22	1.27	1.32
23	DA	2017	U	N1-C6	-6.22	1.32	1.38
23	BA	2050	C	N1-C6	-6.21	1.33	1.37
23	DA	27	G	N3-C4	-6.21	1.31	1.35
23	BA	2557	G	C2-N3	-6.21	1.27	1.32
23	BA	2625	G	C2-N3	-6.21	1.27	1.32
23	BA	570	G	C6-N1	-6.20	1.35	1.39
23	BA	2614	A	P-O5'	-6.20	1.53	1.59
23	BA	570	G	C5-C4	-6.20	1.34	1.38
23	BA	533	G	C6-N1	-6.19	1.35	1.39
23	BA	190	A	C6-N1	-6.19	1.31	1.35
23	BA	1600	C	N1-C6	-6.19	1.33	1.37
23	BA	467	G	N9-C8	-6.18	1.33	1.37
23	BA	467	G	C8-N7	-6.17	1.27	1.30
23	DA	2821	A	C5-C6	-6.17	1.35	1.41
23	BA	2002	G	N7-C5	-6.17	1.35	1.39
23	DA	1785	A	N7-C5	-6.16	1.35	1.39
23	BA	939	G	C5-C4	-6.16	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	2765	A	N7-C5	-6.15	1.35	1.39
23	BA	2239	G	N1-C2	-6.15	1.32	1.37
1	AA	816	A	N9-C4	-6.14	1.34	1.37
23	BA	575	A	P-OP2	-6.14	1.38	1.49
23	BA	2610	C	N1-C6	-6.13	1.33	1.37
23	BA	2030	A	N9-C4	-6.13	1.34	1.37
23	BA	571	A	N9-C4	-6.13	1.34	1.37
23	BA	1247	A	N7-C5	-6.13	1.35	1.39
23	DA	1660	C	N1-C6	-6.13	1.33	1.37
23	DA	1635	G	N7-C5	-6.12	1.35	1.39
23	BA	1432	C	N1-C6	-6.12	1.33	1.37
23	DA	205	G	N9-C4	6.12	1.42	1.38
23	BA	964	C	C4-C5	-6.11	1.38	1.43
23	BA	389	G	N3-C4	-6.10	1.31	1.35
23	BA	453	C	P-OP1	-6.09	1.38	1.49
23	BA	2578	G	P-OP2	-6.09	1.38	1.49
23	BA	738	G	N7-C5	-6.09	1.35	1.39
23	BA	2346	A	N7-C5	-6.09	1.35	1.39
23	BA	1992	G	P-O5'	-6.08	1.53	1.59
25	BD	237	GLU	CD-OE1	6.08	1.32	1.25
23	BA	1190	G	N7-C5	-6.08	1.35	1.39
23	BA	2007	C	P-OP2	-6.08	1.38	1.49
23	BA	265	A	C5-C6	-6.07	1.35	1.41
23	BA	2765	A	N9-C4	-6.07	1.34	1.37
23	DA	697	C	N1-C6	-6.07	1.33	1.37
23	BA	466	A	P-OP1	-6.07	1.38	1.49
23	BA	955	C	N3-C4	-6.07	1.29	1.33
23	DA	2252	G	C5-C4	-6.06	1.34	1.38
23	BA	57	C	N1-C6	-6.05	1.33	1.37
23	BA	48	G	N1-C2	-6.05	1.32	1.37
23	BA	2286	A	C5-C6	-6.05	1.35	1.41
23	BA	2516	G	C6-N1	-6.05	1.35	1.39
23	BA	2014	A	C5-C4	-6.04	1.34	1.38
23	BA	1570	A	N9-C4	-6.04	1.34	1.37
23	DA	2430	A	N9-C4	-6.04	1.34	1.37
23	BA	130	C	N1-C6	-6.04	1.33	1.37
23	BA	1786	A	N3-C4	-6.03	1.31	1.34
23	BA	330	A	N3-C4	-6.02	1.31	1.34
23	BA	2383	G	N7-C5	-6.02	1.35	1.39
23	BA	2043	C	N3-C4	-6.02	1.29	1.33
23	BA	2515	C	C5-C6	-6.02	1.29	1.34
23	DA	2625	G	N3-C4	-6.02	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	DA	2430	A	N3-C4	-6.01	1.31	1.34
23	BA	1605	C	N1-C6	-6.01	1.33	1.37
23	BA	27	G	C2-N3	-6.01	1.27	1.32
1	AA	1377	A	N9-C4	6.01	1.41	1.37
23	BA	2466	C	N1-C6	-6.01	1.33	1.37
23	DA	506	G	N9-C4	-6.01	1.33	1.38
23	DA	2070	G	N9-C8	-6.01	1.33	1.37
23	BA	19	C	N1-C6	-6.00	1.33	1.37
23	BA	1137	G	N1-C2	-6.00	1.32	1.37
23	BA	567	A	C5-C6	-6.00	1.35	1.41
23	BA	2069	G	C5-C4	-6.00	1.34	1.38
23	BA	2020	A	C6-N6	-5.99	1.29	1.33
23	BA	73	A	C6-N1	-5.98	1.31	1.35
23	BA	265	A	N9-C4	-5.98	1.34	1.37
23	DA	1614	A	N9-C4	-5.98	1.34	1.37
23	BA	465	G	C6-N1	-5.98	1.35	1.39
23	BA	527	C	N3-C4	-5.97	1.29	1.33
23	DA	1571	A	N9-C4	-5.96	1.34	1.37
23	BA	819	A	P-OP1	-5.96	1.38	1.49
23	BA	23	G	N3-C4	-5.95	1.31	1.35
23	BA	1204	A	N9-C4	-5.95	1.34	1.37
23	BA	2790	A	N9-C4	5.95	1.41	1.37
23	DA	462	C	N3-C4	-5.95	1.29	1.33
23	BA	528	A	C5-C6	-5.94	1.35	1.41
23	BA	197	A	N9-C4	-5.94	1.34	1.37
23	BA	37	C	N3-C4	-5.93	1.29	1.33
23	BA	777	A	C6-N1	-5.93	1.31	1.35
23	BA	2577	A	N9-C8	-5.93	1.33	1.37
23	BA	2718	G	N3-C4	-5.93	1.31	1.35
23	BA	516	C	P-O5'	-5.92	1.53	1.59
23	DA	1569	A	C6-N1	-5.92	1.31	1.35
23	BA	2712	U	P-O5'	-5.92	1.53	1.59
23	BA	1783	A	N7-C5	-5.92	1.35	1.39
23	BA	970	C	N3-C4	-5.92	1.29	1.33
23	BA	2622	C	N3-C4	-5.91	1.29	1.33
23	BA	528	A	C2-N3	-5.91	1.28	1.33
23	BA	1266	G	C5-C4	-5.91	1.34	1.38
23	BA	1338	G	C8-N7	-5.91	1.27	1.30
23	DA	1698	A	C5-C4	5.90	1.42	1.38
1	AA	1459	C	C2-O2	5.90	1.29	1.24
23	BA	60	G	C5-C4	-5.90	1.34	1.38
23	BA	2826	A	C5-C4	-5.90	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	1131	G	C5-C4	-5.89	1.34	1.38
23	DA	933	A	N3-C4	-5.89	1.31	1.34
23	BA	2045	C	N3-C4	-5.88	1.29	1.33
23	BA	800	A	N3-C4	-5.88	1.31	1.34
23	BA	1271	G	N9-C8	-5.88	1.33	1.37
23	BA	2079	U	P-O5'	-5.88	1.53	1.59
23	BA	678	C	C2-N3	-5.88	1.31	1.35
23	BA	1202	C	N1-C6	-5.87	1.33	1.37
23	DA	2288	A	N9-C4	5.87	1.41	1.37
23	BA	119	A	P-O5'	-5.87	1.53	1.59
23	BA	1020	A	N7-C5	-5.87	1.35	1.39
23	BA	1158	C	N3-C4	-5.87	1.29	1.33
23	BA	2430	A	N3-C4	-5.86	1.31	1.34
23	BA	209	C	N3-C4	-5.86	1.29	1.33
42	DY	79	CYS	CB-SG	-5.86	1.72	1.81
23	BA	119	A	N9-C8	-5.85	1.33	1.37
23	BA	58	G	C6-N1	-5.85	1.35	1.39
23	DA	990	A	N3-C4	-5.85	1.31	1.34
23	DA	2503	A	N7-C5	-5.85	1.35	1.39
23	BA	2641	G	P-O5'	-5.84	1.53	1.59
23	BA	23	G	N1-C2	-5.84	1.33	1.37
23	BA	818	G	C5-C4	-5.84	1.34	1.38
23	BA	1261	C	N3-C4	-5.83	1.29	1.33
23	BA	2070	G	N9-C8	-5.83	1.33	1.37
23	BA	2497	A	P-O5'	-5.83	1.53	1.59
23	DA	1786	A	N9-C4	-5.83	1.34	1.37
23	BA	1328	G	C8-N7	-5.83	1.27	1.30
23	BA	493	G	C2-N3	-5.82	1.28	1.32
1	CA	977	A	N9-C4	5.82	1.41	1.37
23	BA	2580	U	P-O5'	-5.82	1.53	1.59
23	BA	2044	C	N3-C4	-5.82	1.29	1.33
23	BA	2499	C	C4-N4	-5.82	1.28	1.33
23	BA	2873	A	C6-N1	-5.82	1.31	1.35
23	BA	2017	U	N1-C6	-5.81	1.32	1.38
23	BA	984	A	C6-N1	-5.81	1.31	1.35
23	BA	1030	G	C6-N1	-5.81	1.35	1.39
23	BA	192	C	N3-C4	-5.80	1.29	1.33
23	BA	820	A	N9-C4	-5.80	1.34	1.37
23	DA	1535	A	N9-C4	5.80	1.41	1.37
23	DA	1779	U	C2-N3	-5.80	1.33	1.37
23	BA	2608	G	N3-C4	-5.80	1.31	1.35
23	BA	488	G	N9-C8	-5.80	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	2623	G	N1-C2	-5.80	1.33	1.37
23	BA	2823	A	C5-C6	-5.79	1.35	1.41
23	DA	330	A	N9-C4	-5.79	1.34	1.37
23	BA	202	U	N1-C6	-5.79	1.32	1.38
23	BA	1773	A	C5-C4	-5.78	1.34	1.38
23	BA	2015	A	C5-C6	-5.77	1.35	1.41
23	BA	1783	A	C6-N1	-5.77	1.31	1.35
23	BA	141	A	C5-C6	-5.77	1.35	1.41
23	BA	463	G	C6-N1	-5.77	1.35	1.39
23	BA	939	G	N9-C8	-5.77	1.33	1.37
23	BA	1378	A	N3-C4	-5.77	1.31	1.34
23	BA	1647	G	C5-C4	-5.77	1.34	1.38
23	DA	788	A	N7-C5	-5.77	1.35	1.39
23	BA	1324	G	O3'-P	-5.77	1.54	1.61
23	BA	2000	G	C6-N1	-5.77	1.35	1.39
25	DD	237	GLU	CD-OE1	5.76	1.31	1.25
23	BA	2730	C	N1-C6	-5.76	1.33	1.37
23	DA	777	A	N7-C5	-5.76	1.35	1.39
23	BA	1608	A	N9-C8	-5.76	1.33	1.37
23	DA	463	G	C6-N1	-5.76	1.35	1.39
23	BA	806	C	C4-C5	-5.76	1.38	1.43
4	CD	12	CYS	CB-SG	5.75	1.92	1.82
23	BA	2574	G	C5-C4	-5.75	1.34	1.38
23	BA	2620	C	N3-C4	-5.75	1.29	1.33
1	AA	1339	A	N9-C4	5.74	1.41	1.37
23	DA	1325	G	C2-N3	5.74	1.37	1.32
23	BA	1572	A	C6-N1	-5.74	1.31	1.35
23	BA	945	A	N9-C4	-5.74	1.34	1.37
23	DA	2512	C	C4-C5	5.74	1.47	1.43
23	BA	512	G	P-O5'	-5.74	1.54	1.59
23	BA	2587	A	N9-C8	-5.74	1.33	1.37
23	DA	191	A	N7-C5	-5.74	1.35	1.39
23	BA	2781	A	C6-N1	-5.73	1.31	1.35
23	BA	783	A	N7-C5	-5.72	1.35	1.39
23	BA	38	A	N3-C4	-5.72	1.31	1.34
23	BA	1424	G	N3-C4	-5.72	1.31	1.35
23	BA	2061	G	N7-C5	-5.72	1.35	1.39
23	DA	463	G	N1-C2	-5.72	1.33	1.37
23	BA	2502	G	N7-C5	-5.72	1.35	1.39
23	BA	2489	G	N9-C8	-5.72	1.33	1.37
23	BA	28	A	N7-C5	-5.71	1.35	1.39
23	BA	1786	A	C5-C4	-5.71	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	1360	A	N9-C4	-5.71	1.34	1.37
23	BA	2063	C	C4-C5	-5.71	1.38	1.43
23	BA	70	G	N1-C2	-5.70	1.33	1.37
23	BA	2013	A	O3'-P	-5.70	1.54	1.61
23	DA	2016	U	C2-O2	5.70	1.27	1.22
23	BA	746	A	N9-C4	-5.70	1.34	1.37
23	BA	2020	A	P-O5'	-5.70	1.54	1.59
23	DA	1829	A	N9-C4	-5.70	1.34	1.37
23	BA	2053	G	N9-C8	-5.70	1.33	1.37
23	BA	2333	A	N7-C5	-5.69	1.35	1.39
23	BA	2084	C	N1-C6	-5.69	1.33	1.37
23	BA	2725	A	N9-C4	-5.69	1.34	1.37
23	BA	2611	U	P-OP2	-5.69	1.39	1.49
23	BA	1601	G	N1-C2	-5.68	1.33	1.37
23	BA	2024	G	C8-N7	-5.68	1.27	1.30
23	BA	530	G	N3-C4	-5.68	1.31	1.35
23	BA	774	A	N7-C5	-5.68	1.35	1.39
23	BA	2037	G	C8-N7	-5.68	1.27	1.30
25	DD	28	GLU	CG-CD	5.68	1.60	1.51
23	BA	1359	A	C6-N6	-5.67	1.29	1.33
23	BA	2053	G	C5-C4	-5.67	1.34	1.38
23	DA	2513	G	C8-N7	5.67	1.34	1.30
23	DA	2287	A	C5-C6	-5.67	1.35	1.41
23	DA	2689	U	C3'-O3'	5.67	1.50	1.42
23	BA	1269	A	N3-C4	-5.66	1.31	1.34
23	BA	1611	C	C2-N3	-5.66	1.31	1.35
23	BA	20	C	N1-C6	-5.66	1.33	1.37
23	BA	848	G	N9-C8	-5.66	1.33	1.37
23	BA	454	A	N7-C5	-5.66	1.35	1.39
23	BA	1771	C	N3-C4	-5.66	1.29	1.33
23	BA	2200	C	N1-C6	-5.66	1.33	1.37
23	BA	2574	G	C6-N1	-5.66	1.35	1.39
23	BA	2719	G	N1-C2	-5.66	1.33	1.37
23	DA	2335	A	N9-C4	-5.66	1.34	1.37
23	BA	2497	A	C5-C4	-5.65	1.34	1.38
23	BA	1008	C	N1-C6	-5.65	1.33	1.37
23	DA	506	G	N3-C4	-5.65	1.31	1.35
23	BA	1661	G	N9-C8	-5.64	1.33	1.37
23	BA	90	U	C2-N3	5.64	1.41	1.37
23	BA	1784	A	C8-N7	-5.64	1.27	1.31
23	BA	194	G	N9-C8	-5.64	1.33	1.37
23	BA	2442	C	N3-C4	-5.64	1.30	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	234	C	N3-C4	-5.63	1.30	1.33
23	BA	566	U	C5-C6	-5.63	1.29	1.34
23	BA	2611	U	C2-O2	-5.63	1.17	1.22
23	BA	2872	G	N9-C8	-5.62	1.33	1.37
24	BB	76	G	C5-C4	-5.62	1.34	1.38
23	BA	800	A	N7-C5	-5.62	1.35	1.39
23	BA	16	G	C6-N1	-5.62	1.35	1.39
23	BA	1698	A	N9-C4	-5.62	1.34	1.37
23	BA	2393	A	C6-N1	-5.62	1.31	1.35
23	BA	191	A	N7-C5	-5.62	1.35	1.39
23	BA	266	G	N7-C5	-5.61	1.35	1.39
23	BA	2382	G	N7-C5	-5.61	1.35	1.39
23	BA	139(A)	G	N9-C8	5.61	1.41	1.37
23	BA	2711	A	N9-C4	-5.61	1.34	1.37
23	BA	2268	A	N7-C5	-5.61	1.35	1.39
23	BA	593	G	N7-C5	-5.61	1.35	1.39
23	BA	686	G	N7-C5	-5.60	1.35	1.39
23	DA	741	G	N1-C2	-5.60	1.33	1.37
23	BA	119	A	C6-N1	-5.60	1.31	1.35
23	BA	466	A	O3'-P	-5.60	1.54	1.61
23	BA	2543	G	C5-C4	-5.60	1.34	1.38
23	BA	2068	U	N1-C2	-5.60	1.33	1.38
23	BA	2466	C	C4-C5	-5.60	1.38	1.43
23	BA	793	A	C6-N1	-5.60	1.31	1.35
23	DA	1308	A	N7-C5	-5.60	1.35	1.39
23	BA	2052	G	C2-N3	-5.59	1.28	1.32
23	BA	750	A	C6-N1	-5.59	1.31	1.35
23	BA	1257	C	N1-C6	-5.58	1.33	1.37
23	DA	805	G	N9-C8	-5.58	1.33	1.37
23	DA	1854	A	N7-C5	-5.58	1.35	1.39
23	BA	684	G	N1-C2	-5.58	1.33	1.37
23	BA	211	A	C5-C4	-5.58	1.34	1.38
23	BA	815	C	N1-C6	-5.58	1.33	1.37
23	DA	832	G	C6-N1	-5.57	1.35	1.39
23	BA	458	G	N3-C4	-5.57	1.31	1.35
23	DA	2587	A	N7-C5	-5.57	1.35	1.39
23	BA	574	C	N3-C4	-5.57	1.30	1.33
23	BA	125	G	P-O5'	-5.56	1.54	1.59
23	BA	265	A	N7-C5	-5.56	1.35	1.39
23	BA	678	C	C5-C6	-5.56	1.29	1.34
23	BA	2497	A	N3-C4	-5.56	1.31	1.34
23	BA	2020	A	C5-C6	-5.55	1.36	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	2432	A	C5-C4	-5.55	1.34	1.38
23	BA	1972	A	C5-C4	-5.55	1.34	1.38
23	BA	1195	G	C6-N1	-5.55	1.35	1.39
23	BA	2447	G	N7-C5	-5.55	1.35	1.39
23	BA	1132	A	C6-N1	-5.55	1.31	1.35
23	BA	2333	A	N9-C4	-5.54	1.34	1.37
23	BA	2515	C	C4-N4	-5.54	1.28	1.33
23	DA	2597	G	N7-C5	-5.54	1.35	1.39
23	DA	1613	G	N7-C5	-5.54	1.35	1.39
23	BA	989	G	N9-C8	-5.53	1.33	1.37
23	BA	478	A	C6-N1	-5.53	1.31	1.35
23	BA	1022	G	N1-C2	-5.53	1.33	1.37
23	BA	2505	G	N1-C2	-5.53	1.33	1.37
23	DA	2084	C	N1-C6	-5.53	1.33	1.37
23	BA	1786	A	C6-N1	-5.53	1.31	1.35
23	BA	1798	U	C2-N3	-5.52	1.33	1.37
23	BA	55	G	C5-C4	-5.52	1.34	1.38
23	BA	2344	U	N3-C4	-5.52	1.33	1.38
23	BA	413	C	N1-C6	-5.52	1.33	1.37
23	BA	451	C	N1-C6	-5.52	1.33	1.37
23	BA	967	C	C2-N3	-5.52	1.31	1.35
23	BA	771	G	N1-C2	-5.51	1.33	1.37
23	BA	2060	A	N9-C8	-5.51	1.33	1.37
23	BA	2267	A	N3-C4	-5.51	1.31	1.34
23	BA	469	G	C5-C4	-5.51	1.34	1.38
23	BA	2578	G	P-OP1	-5.51	1.39	1.49
23	BA	678	C	N3-C4	-5.50	1.30	1.33
1	CA	1459	C	P-O5'	5.50	1.65	1.59
23	BA	1154	G	C5-C4	-5.50	1.34	1.38
23	BA	579	G	C8-N7	-5.50	1.27	1.30
23	BA	837	C	C4-C5	-5.50	1.38	1.43
23	BA	1217	C	N1-C6	-5.50	1.33	1.37
23	DA	1665	A	N3-C4	-5.50	1.31	1.34
23	BA	128	C	C2-N3	-5.50	1.31	1.35
23	DA	2017	U	N3-C4	-5.50	1.33	1.38
24	DB	54	G	N9-C8	5.50	1.41	1.37
23	BA	1127	A	N3-C4	-5.50	1.31	1.34
23	BA	2335	A	C6-N1	-5.49	1.31	1.35
23	DA	2851	A	N9-C4	-5.49	1.34	1.37
23	BA	20	C	N3-C4	-5.49	1.30	1.33
23	BA	192	C	N1-C6	-5.49	1.33	1.37
23	DA	1296	G	N7-C5	-5.49	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	DA	70	G	C6-N1	-5.49	1.35	1.39
23	DA	1308	A	N9-C4	-5.49	1.34	1.37
23	DA	463	G	N7-C5	-5.48	1.35	1.39
23	BA	763	G	N3-C4	-5.48	1.31	1.35
23	BA	1131	G	N3-C4	-5.48	1.31	1.35
23	BA	567	A	N9-C4	-5.48	1.34	1.37
23	BA	2716	U	C2-N3	-5.48	1.33	1.37
23	BA	673	C	N1-C6	-5.48	1.33	1.37
23	BA	2000	G	C5-C4	-5.47	1.34	1.38
23	BA	195	A	N7-C5	-5.47	1.35	1.39
23	BA	1129	A	C6-N1	-5.47	1.31	1.35
23	BA	1779	U	C2-N3	-5.47	1.33	1.37
23	BA	2490	G	C5-C4	-5.47	1.34	1.38
23	BA	2778	A	P-O5'	-5.47	1.54	1.59
23	BA	835	A	C5-C4	-5.47	1.34	1.38
23	BA	2722	G	C6-N1	-5.47	1.35	1.39
23	BA	2271	G	C6-N1	-5.46	1.35	1.39
23	BA	818	G	P-O5'	-5.46	1.54	1.59
23	BA	2066	C	N1-C6	-5.46	1.33	1.37
23	DA	1779	U	N3-C4	-5.46	1.33	1.38
23	BA	1027	A	N7-C5	-5.46	1.35	1.39
23	BA	2000	G	N1-C2	-5.46	1.33	1.37
23	BA	2697	G	N7-C5	-5.45	1.35	1.39
23	BA	2057	A	N9-C8	-5.45	1.33	1.37
23	DA	1605	C	N3-C4	-5.45	1.30	1.33
1	CA	1170	A	N9-C4	5.44	1.41	1.37
23	BA	394	A	N9-C4	-5.44	1.34	1.37
23	BA	1132	A	N7-C5	-5.44	1.35	1.39
23	BA	1982	C	N3-C4	-5.44	1.30	1.33
23	BA	2072	G	C2-N3	-5.44	1.28	1.32
23	DA	2883	A	N7-C5	-5.44	1.35	1.39
23	BA	2051	A	N7-C5	-5.44	1.35	1.39
23	DA	2790	A	N9-C4	5.44	1.41	1.37
23	BA	2497	A	N9-C4	-5.43	1.34	1.37
23	BA	2823	A	N7-C5	-5.43	1.35	1.39
23	BA	777	A	N3-C4	-5.43	1.31	1.34
23	BA	570	G	N1-C2	-5.42	1.33	1.37
23	BA	1312	U	N3-C4	-5.42	1.33	1.38
23	BA	2564	A	C5-C4	-5.42	1.34	1.38
23	BA	561	G	N1-C2	-5.42	1.33	1.37
23	BA	972	G	C2-N3	-5.42	1.28	1.32
23	BA	2820	A	P-OP2	-5.42	1.39	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	793	A	P-OP2	-5.42	1.39	1.49
23	BA	1126	A	N3-C4	-5.41	1.31	1.34
23	DA	2071	A	P-O5'	-5.41	1.54	1.59
23	BA	964	C	N1-C6	-5.41	1.33	1.37
23	DA	118	A	N9-C4	-5.41	1.34	1.37
23	BA	472	A	N3-C4	-5.41	1.31	1.34
23	BA	2451	A	C6-N1	-5.41	1.31	1.35
23	BA	2621	A	N9-C4	-5.40	1.34	1.37
23	BA	1275	A	C6-N1	-5.40	1.31	1.35
23	BA	2822	G	O3'-P	-5.40	1.54	1.61
23	BA	807	U	C2-N3	5.40	1.41	1.37
23	DA	471	A	N3-C4	-5.40	1.31	1.34
23	BA	207	A	N7-C5	-5.39	1.36	1.39
23	BA	1328	G	C6-O6	-5.39	1.19	1.24
23	DA	2296	U	C5-C6	5.39	1.39	1.34
23	BA	1367	A	N3-C4	-5.39	1.31	1.34
23	BA	1608	A	C5-C4	-5.39	1.34	1.38
32	BO	21	CYS	CB-SG	-5.39	1.73	1.81
23	BA	2032	G	N3-C4	-5.39	1.31	1.35
23	BA	1213	A	N3-C4	-5.38	1.31	1.34
23	BA	2692	C	N3-C4	-5.38	1.30	1.33
23	DA	775	G	C6-N1	-5.38	1.35	1.39
23	BA	530	G	C6-O6	-5.38	1.19	1.24
23	DA	298	G	N7-C5	-5.38	1.36	1.39
1	AA	1326	C	C2-N3	5.38	1.40	1.35
23	BA	799	G	C2-N3	-5.38	1.28	1.32
23	DA	2335	A	C5-C4	-5.38	1.34	1.38
23	BA	1568	G	C6-N1	-5.38	1.35	1.39
23	BA	706	A	N3-C4	-5.37	1.31	1.34
1	CA	346	G	N7-C5	-5.37	1.36	1.39
23	BA	836	G	C6-N1	-5.37	1.35	1.39
23	BA	1303	G	C6-N1	-5.37	1.35	1.39
23	BA	1754	C	N1-C6	-5.37	1.33	1.37
23	BA	2249	U	C2-N3	-5.37	1.33	1.37
23	BA	27	G	P-OP1	-5.37	1.39	1.49
23	BA	454	A	N3-C4	-5.37	1.31	1.34
23	BA	2764	A	N9-C4	-5.37	1.34	1.37
23	BA	2589	A	N9-C4	-5.36	1.34	1.37
23	BA	791	C	N1-C6	-5.36	1.33	1.37
23	BA	2619	C	N1-C6	-5.36	1.33	1.37
23	BA	980	A	C5-C4	-5.36	1.34	1.38
23	BA	2041	U	C2-N3	-5.36	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	2233	U	C2-O2	-5.36	1.17	1.22
23	DA	1612	C	N1-C6	-5.36	1.33	1.37
23	DA	671	C	N1-C6	-5.35	1.33	1.37
23	BA	2830	G	N1-C2	-5.35	1.33	1.37
23	DA	2689	U	C2-N3	-5.35	1.34	1.37
1	CA	1093	A	N9-C4	5.35	1.41	1.37
23	BA	2454	G	N1-C2	-5.35	1.33	1.37
23	DA	959	A	N9-C4	5.35	1.41	1.37
23	BA	87	C	N3-C4	-5.34	1.30	1.33
23	DA	532	A	P-O5'	-5.34	1.54	1.59
23	BA	20	C	C4-C5	-5.34	1.38	1.43
23	BA	801	G	N9-C4	-5.33	1.33	1.38
23	BA	800	A	P-OP1	-5.33	1.39	1.49
23	DA	2322	A	N9-C4	5.33	1.41	1.37
23	BA	1384	A	N7-C5	-5.33	1.36	1.39
23	BA	583	G	C5-C6	-5.33	1.37	1.42
23	BA	1190	G	C5-C4	-5.33	1.34	1.38
23	BA	776	G	P-O5'	-5.32	1.54	1.59
23	BA	2548	G	C5-C4	-5.32	1.34	1.38
23	BA	1154	G	N3-C4	-5.32	1.31	1.35
23	BA	2024	G	N9-C8	-5.32	1.34	1.37
23	BA	2504	U	P-OP2	-5.32	1.40	1.49
23	BA	310	A	N9-C4	-5.32	1.34	1.37
23	BA	502	A	C6-N1	-5.32	1.31	1.35
23	BA	2678	C	N1-C6	-5.32	1.33	1.37
25	BD	28	GLU	CG-CD	5.32	1.59	1.51
23	DA	2823	A	N7-C5	-5.32	1.36	1.39
23	BA	131	G	N3-C4	-5.31	1.31	1.35
1	AA	1302	U	N1-C2	5.31	1.43	1.38
23	BA	1617	C	N1-C6	-5.31	1.33	1.37
23	DA	780	G	N9-C8	-5.30	1.34	1.37
23	DA	2177	C	N1-C6	5.30	1.40	1.37
23	BA	202	U	C4-C5	-5.30	1.38	1.43
23	BA	1214	A	C6-N1	-5.30	1.31	1.35
23	BA	2346	A	N9-C8	-5.30	1.33	1.37
23	BA	570	G	C5-C6	-5.30	1.37	1.42
23	BA	2029	G	N9-C8	-5.29	1.34	1.37
23	BA	196	A	N9-C8	-5.29	1.33	1.37
23	BA	2051	A	C5-C4	-5.29	1.35	1.38
23	BA	2359	C	C2-O2	-5.29	1.19	1.24
23	BA	118	A	C5-C4	-5.28	1.35	1.38
23	BA	2044	C	P-OP1	-5.28	1.40	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	2822	G	N9-C4	-5.28	1.33	1.38
23	BA	1367	A	N9-C8	-5.28	1.33	1.37
23	BA	2577	A	N3-C4	-5.28	1.31	1.34
1	CA	1459	C	C2-O2	5.28	1.29	1.24
23	DA	2053	G	N7-C5	-5.28	1.36	1.39
23	BA	828	U	C2-N3	-5.27	1.34	1.37
23	BA	520	G	N1-C2	-5.27	1.33	1.37
23	BA	2542	A	N7-C5	-5.27	1.36	1.39
23	BA	462	C	C4-C5	-5.27	1.38	1.43
23	DA	1284	A	N3-C4	5.27	1.38	1.34
23	BA	748	G	C6-N1	-5.26	1.35	1.39
23	BA	744	G	N3-C4	-5.26	1.31	1.35
23	BA	769	G	N9-C8	-5.26	1.34	1.37
23	BA	107	C	C4-C5	-5.26	1.38	1.43
23	BA	2018	G	C6-N1	-5.26	1.35	1.39
50	B6	16	CYS	CB-SG	-5.26	1.73	1.81
23	BA	770	G	C6-N1	-5.26	1.35	1.39
23	DA	1209	G	C6-N1	-5.26	1.35	1.39
1	AA	977	A	N9-C4	5.26	1.41	1.37
23	BA	2456	C	C4-C5	-5.26	1.38	1.43
23	BA	1809	A	C6-N1	-5.25	1.31	1.35
23	BA	2372	G	C6-N1	5.25	1.43	1.39
1	CA	346	G	C6-N1	-5.25	1.35	1.39
23	BA	967	C	N1-C6	-5.25	1.33	1.37
23	DA	2322	A	C6-N1	5.25	1.39	1.35
23	BA	1653	G	C3'-O3'	5.24	1.49	1.42
23	BA	2568	C	N1-C6	-5.24	1.34	1.37
23	BA	1344	G	C2-N3	-5.24	1.28	1.32
23	BA	1367	A	C5-C4	-5.24	1.35	1.38
23	BA	2014	A	N9-C8	-5.24	1.33	1.37
1	AA	816	A	N3-C4	-5.24	1.31	1.34
23	BA	954	G	N1-C2	-5.24	1.33	1.37
23	BA	1003	G	N3-C4	-5.24	1.31	1.35
23	BA	1614	A	P-OP1	-5.24	1.40	1.49
23	BA	2243	U	N1-C2	-5.24	1.33	1.38
23	DA	529	A	N9-C4	-5.24	1.34	1.37
23	BA	2617	C	C4-C5	-5.23	1.38	1.43
23	BA	2488	A	C5-C4	-5.23	1.35	1.38
23	BA	574	C	C2-N3	-5.23	1.31	1.35
23	BA	837	C	N3-C4	-5.23	1.30	1.33
23	DA	761	A	P-O5'	-5.23	1.54	1.59
23	DA	2826	A	C6-N1	-5.23	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	1006	C	N3-C4	-5.23	1.30	1.33
23	DA	450	G	N7-C5	-5.23	1.36	1.39
23	BA	51	G	C6-N1	-5.22	1.35	1.39
23	BA	1674	G	N7-C5	-5.22	1.36	1.39
23	BA	817	C	C4-N4	-5.22	1.29	1.33
23	BA	1638	C	N3-C4	-5.22	1.30	1.33
23	BA	211	A	N9-C4	-5.22	1.34	1.37
23	DA	1780	A	C6-N1	-5.22	1.31	1.35
23	BA	502	A	N3-C4	-5.21	1.31	1.34
23	DA	1210	A	N9-C4	-5.21	1.34	1.37
23	BA	2520	C	N1-C6	-5.21	1.34	1.37
23	DA	784	A	N9-C8	-5.21	1.33	1.37
23	DA	677	A	N7-C5	-5.21	1.36	1.39
23	BA	807	U	P-O5'	-5.21	1.54	1.59
23	BA	2541	A	N7-C5	-5.21	1.36	1.39
23	BA	2296	U	C5-C6	5.21	1.38	1.34
23	BA	2452	C	C4-C5	-5.21	1.38	1.43
23	BA	2322	A	N9-C4	5.20	1.41	1.37
23	BA	2488	A	N7-C5	-5.20	1.36	1.39
23	DA	1617	C	N1-C6	-5.20	1.34	1.37
23	BA	88	G	N7-C5	-5.20	1.36	1.39
23	BA	1303	G	C5-C4	-5.20	1.34	1.38
23	BA	2081	C	N1-C6	-5.20	1.34	1.37
23	DA	2502	G	C2-N3	5.20	1.36	1.32
23	BA	1269	A	C6-N1	-5.20	1.31	1.35
23	BA	1290	C	C2-O2	-5.20	1.19	1.24
23	BA	836	G	N1-C2	-5.19	1.33	1.37
23	BA	1154	G	C8-N7	-5.19	1.27	1.30
23	BA	1210	A	N3-C4	-5.19	1.31	1.34
23	DA	249	C	N3-C4	-5.19	1.30	1.33
23	BA	1642	G	C6-N1	-5.19	1.35	1.39
23	BA	763	G	C6-N1	-5.19	1.35	1.39
23	BA	2020	A	C6-N1	-5.19	1.31	1.35
23	BA	1125	G	N9-C4	-5.18	1.33	1.38
23	BA	1627	G	N1-C2	-5.18	1.33	1.37
23	BA	2732	G	C6-N1	-5.18	1.35	1.39
23	BA	191	A	N9-C8	-5.18	1.33	1.37
23	BA	446	G	C2-N3	-5.18	1.28	1.32
23	DA	783	A	N3-C4	-5.18	1.31	1.34
23	BA	469	G	P-O5'	-5.18	1.54	1.59
23	BA	1672	C	N1-C6	-5.18	1.34	1.37
1	AA	1289	A	N9-C4	5.18	1.41	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	2056	G	P-O5'	-5.18	1.54	1.59
23	BA	511	U	N3-C4	-5.17	1.33	1.38
23	BA	957	A	N9-C4	-5.17	1.34	1.37
23	BA	2073	C	N1-C6	-5.17	1.34	1.37
23	BA	2600	A	C5-C6	-5.17	1.36	1.41
23	DA	2444	G	P-O5'	-5.17	1.54	1.59
23	BA	194	G	C6-N1	-5.17	1.35	1.39
23	BA	198	C	P-OP1	-5.17	1.40	1.49
23	BA	2548	G	N7-C5	-5.17	1.36	1.39
23	BA	516	C	C2-O2	-5.16	1.19	1.24
23	BA	1190	G	N9-C8	-5.16	1.34	1.37
23	BA	535	C	N3-C4	-5.16	1.30	1.33
23	BA	2051	A	N3-C4	-5.16	1.31	1.34
1	CA	839	U	N1-C2	5.16	1.43	1.38
23	BA	107	C	N1-C6	-5.16	1.34	1.37
23	BA	976	C	N3-C4	-5.16	1.30	1.33
23	BA	2046	G	N7-C5	-5.16	1.36	1.39
23	BA	2490	G	N1-C2	-5.16	1.33	1.37
23	BA	2508	G	N1-C2	-5.15	1.33	1.37
23	BA	1782	C	N1-C6	-5.15	1.34	1.37
23	BA	446	G	N9-C8	-5.15	1.34	1.37
23	BA	480	A	N7-C5	-5.15	1.36	1.39
23	BA	2229	C	N1-C6	-5.15	1.34	1.37
23	BA	312	G	P-O5'	-5.14	1.54	1.59
23	BA	2822	G	N7-C5	-5.14	1.36	1.39
23	BA	983	A	N9-C4	-5.14	1.34	1.37
23	BA	1778	U	N3-C4	-5.14	1.33	1.38
23	BA	802	A	N7-C5	-5.13	1.36	1.39
23	BA	2054	A	O3'-P	-5.13	1.54	1.61
23	BA	2081	C	N3-C4	-5.13	1.30	1.33
23	BA	2403	C	N1-C6	-5.13	1.34	1.37
23	BA	2497	A	C6-N1	-5.13	1.31	1.35
23	BA	495	G	N9-C8	-5.13	1.34	1.37
23	BA	1132	A	C5-C6	-5.13	1.36	1.41
23	BA	2730	C	C4-C5	-5.13	1.38	1.43
23	BA	1671	U	C2-N3	-5.13	1.34	1.37
52	D8	34	TRP	CB-CG	-5.13	1.41	1.50
23	BA	2570	G	N3-C4	-5.13	1.31	1.35
23	BA	683	C	C4-C5	-5.12	1.38	1.43
23	BA	2333	A	N9-C8	-5.12	1.33	1.37
23	DA	513	A	C5-C4	-5.12	1.35	1.38
23	BA	805	G	N7-C5	-5.12	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	474	G	N7-C5	-5.12	1.36	1.39
23	BA	580	C	N1-C6	-5.12	1.34	1.37
23	BA	698	C	N1-C6	-5.12	1.34	1.37
23	BA	2271	G	N7-C5	-5.12	1.36	1.39
23	BA	748	G	C5-C4	-5.12	1.34	1.38
23	BA	933	A	C5-C4	5.12	1.42	1.38
23	BA	1269	A	C5-C4	-5.12	1.35	1.38
23	BA	2621	A	C6-N6	-5.12	1.29	1.33
23	DA	933	A	N9-C8	5.12	1.41	1.37
23	DA	1823	G	C2-N3	-5.12	1.28	1.32
23	DA	2286	A	C5-C4	5.12	1.42	1.38
1	AA	69	G	C3'-O3'	5.11	1.49	1.42
23	BA	520	G	C6-N1	-5.11	1.35	1.39
24	DB	53	A	N9-C4	5.11	1.41	1.37
23	BA	1675	C	N3-C4	-5.11	1.30	1.33
23	BA	1284	A	N3-C4	5.11	1.38	1.34
23	BA	1365	A	C5-C6	-5.11	1.36	1.41
23	BA	1122	G	N9-C8	-5.11	1.34	1.37
23	BA	1128	A	C5-C6	-5.11	1.36	1.41
23	BA	1826	G	C6-N1	-5.11	1.35	1.39
23	BA	2252	G	C5-C6	-5.10	1.37	1.42
23	BA	2360	A	N3-C4	-5.10	1.31	1.34
23	DA	780	G	C5-C4	-5.10	1.34	1.38
23	DA	1788	C	N1-C6	-5.10	1.34	1.37
23	BA	1556	C	N3-C4	-5.10	1.30	1.33
23	DA	1954	G	N3-C4	-5.10	1.31	1.35
23	BA	2244	U	C2-O2	-5.10	1.17	1.22
23	BA	31	C	P-OP1	-5.10	1.40	1.49
23	BA	1332	G	N7-C5	-5.10	1.36	1.39
23	BA	2594	C	N1-C6	-5.10	1.34	1.37
23	DA	2607	G	N9-C8	-5.10	1.34	1.37
1	AA	1169	A	N9-C4	5.10	1.41	1.37
23	BA	822	U	P-O5'	-5.10	1.54	1.59
23	BA	684	G	C6-N1	-5.09	1.35	1.39
23	BA	1297	C	N3-C4	-5.09	1.30	1.33
23	BA	567	A	N3-C4	-5.09	1.31	1.34
23	BA	569	U	N1-C2	-5.09	1.33	1.38
23	BA	1754	C	N3-C4	-5.09	1.30	1.33
23	BA	2235	G	C8-N7	-5.09	1.27	1.30
1	CA	928	G	C6-N1	5.09	1.43	1.39
23	BA	2572	A	N9-C4	-5.09	1.34	1.37
23	BA	1647	G	C2-N3	-5.09	1.28	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1033	G	N9-C4	5.08	1.42	1.38
23	DA	1309	G	C8-N7	-5.08	1.27	1.30
23	BA	1393	A	C6-N1	-5.08	1.31	1.35
23	BA	2007	C	P-O5'	-5.08	1.54	1.59
23	DA	675	A	C6-N6	-5.08	1.29	1.33
23	DA	1191	G	N9-C8	-5.08	1.34	1.37
23	BA	952	G	N1-C2	-5.08	1.33	1.37
23	BA	2570	G	N9-C8	-5.08	1.34	1.37
23	BA	1620	G	C6-N1	-5.08	1.35	1.39
23	BA	2691	C	N1-C6	-5.08	1.34	1.37
23	DA	1660	C	N3-C4	-5.08	1.30	1.33
23	BA	377	C	N1-C6	-5.07	1.34	1.37
23	BA	573	G	N7-C5	-5.07	1.36	1.39
23	BA	755	C	N1-C6	-5.07	1.34	1.37
23	BA	189	G	C5-C4	-5.07	1.34	1.38
1	AA	1350	A	N9-C4	5.07	1.40	1.37
23	BA	450	G	N9-C8	-5.07	1.34	1.37
23	BA	1778	U	O3'-P	-5.07	1.55	1.61
23	BA	2030	A	N9-C8	-5.07	1.33	1.37
27	BF	89	VAL	C-O	-5.07	1.13	1.23
23	BA	2327	A	C5-C4	-5.07	1.35	1.38
23	BA	751	A	P-OP1	-5.06	1.40	1.49
1	AA	1030(D)	A	N9-C4	5.06	1.40	1.37
23	BA	1324	G	N9-C8	-5.06	1.34	1.37
23	BA	2013	A	N9-C4	-5.06	1.34	1.37
23	DA	1383	C	C2-N3	5.06	1.39	1.35
23	BA	700	G	C5-C4	-5.06	1.34	1.38
23	BA	2588	G	C6-N1	-5.05	1.36	1.39
23	DA	746	A	N9-C4	-5.05	1.34	1.37
23	BA	1376	C	N1-C6	-5.05	1.34	1.37
23	BA	1953	A	N7-C5	-5.05	1.36	1.39
23	BA	2424	C	N3-C4	-5.05	1.30	1.33
23	BA	2819	G	C6-N1	-5.05	1.36	1.39
23	BA	1570	A	N3-C4	-5.05	1.31	1.34
23	BA	32	C	N3-C4	-5.05	1.30	1.33
23	BA	1659	U	N1-C2	-5.05	1.34	1.38
23	BA	2621	A	C6-N1	-5.05	1.32	1.35
23	DA	687	C	C4-C5	-5.05	1.39	1.43
23	DA	1899	G	N7-C5	-5.05	1.36	1.39
23	BA	663	G	C5-C4	-5.04	1.34	1.38
23	BA	532	A	N9-C4	-5.04	1.34	1.37
23	BA	971	C	C2-O2	-5.04	1.20	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	1334	G	C6-N1	-5.04	1.36	1.39
23	BA	1677	A	N9-C4	-5.04	1.34	1.37
23	BA	1797	C	N1-C6	-5.04	1.34	1.37
23	BA	2248	C	N1-C6	-5.04	1.34	1.37
25	BD	28	GLU	CB-CG	5.04	1.61	1.52
23	DA	687	C	N3-C4	-5.04	1.30	1.33
23	BA	215	G	N1-C2	-5.04	1.33	1.37
23	BA	254	G	N7-C5	-5.04	1.36	1.39
23	DA	523	C	N1-C6	-5.04	1.34	1.37
23	BA	943	U	C2-O2	-5.03	1.17	1.22
23	BA	1029	A	C5-C6	-5.03	1.36	1.41
23	BA	1904	G	N7-C5	-5.03	1.36	1.39
23	BA	684	G	P-O5'	-5.03	1.54	1.59
23	BA	1197	G	C6-N1	-5.03	1.36	1.39
23	BA	2428	G	N1-C2	-5.03	1.33	1.37
23	BA	2505	G	C6-N1	-5.03	1.36	1.39
1	CA	1191	A	N9-C4	5.03	1.40	1.37
23	DA	195	A	N7-C5	-5.03	1.36	1.39
23	DA	472	A	N3-C4	-5.02	1.31	1.34
23	BA	131	G	C6-N1	-5.02	1.36	1.39
23	BA	476	G	C2-N3	-5.02	1.28	1.32
23	BA	2553	G	N7-C5	-5.02	1.36	1.39
23	DA	573	G	N3-C4	-5.02	1.31	1.35
23	BA	465	G	O3'-P	-5.02	1.55	1.61
23	BA	1274	A	N3-C4	-5.02	1.31	1.34
23	BA	2692	C	N1-C6	-5.02	1.34	1.37
23	BA	2335	A	C5-C4	-5.01	1.35	1.38
1	AA	1442(A)	G	C6-N1	5.01	1.43	1.39
23	BA	2360	A	N9-C4	-5.01	1.34	1.37
23	BA	2441	C	N1-C6	-5.01	1.34	1.37
23	BA	2446	G	N9-C8	-5.01	1.34	1.37
23	BA	517	C	P-O5'	-5.00	1.54	1.59

All (5009) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	1442(A)	G	N3-C4-C5	-27.29	114.95	128.60
1	CA	1459	C	N3-C2-O2	-27.00	103.00	121.90
1	AA	1442(A)	G	N3-C4-C5	-26.82	115.19	128.60
1	CA	1459	C	C6-N1-C2	-26.34	109.77	120.30
1	AA	1459	C	N3-C2-O2	-25.91	103.77	121.90
23	BA	1779	U	C5-C6-N1	-24.54	110.43	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1459	C	C6-N1-C2	-24.17	110.63	120.30
1	AA	1442(A)	G	N3-C4-N9	23.83	140.30	126.00
1	CA	1442(A)	G	N3-C4-N9	23.46	140.08	126.00
23	DA	1779	U	C5-C6-N1	-22.12	111.64	122.70
1	AA	1459	C	N1-C2-O2	21.67	131.90	118.90
1	CA	1459	C	N1-C2-O2	21.61	131.87	118.90
1	CA	1030	C	N1-C2-O2	21.33	131.70	118.90
23	BA	2296	U	C5-C6-N1	-19.55	112.93	122.70
23	DA	2296	U	C5-C6-N1	-19.00	113.20	122.70
1	CA	1442(A)	G	C6-N1-C2	-18.82	113.81	125.10
1	CA	1442(A)	G	C4-N9-C1'	18.22	150.19	126.50
1	AA	1442(A)	G	C6-N1-C2	-18.18	114.19	125.10
23	BA	2296	U	C2-N3-C4	-18.06	116.16	127.00
1	AA	1442(A)	G	C5-C6-N1	18.05	120.52	111.50
1	CA	1442(A)	G	C5-C6-N1	17.80	120.40	111.50
1	AA	1442(A)	G	C4-N9-C1'	17.72	149.53	126.50
23	DA	2104	G	N3-C2-N2	17.67	132.27	119.90
23	BA	2296	U	N1-C2-N3	17.62	125.47	114.90
23	DA	2296	U	N1-C2-N3	17.55	125.43	114.90
23	BA	530	G	N3-C2-N2	-17.53	107.63	119.90
1	AA	1442(A)	G	C2-N3-C4	17.53	120.66	111.90
23	BA	1142(A)	A	C2-N3-C4	-17.48	101.86	110.60
23	BA	2104	G	N3-C2-N2	17.45	132.12	119.90
23	DA	2296	U	C2-N3-C4	-17.29	116.62	127.00
1	CA	1459	C	C2-N1-C1'	17.05	137.55	118.80
23	BA	141	A	C5-N7-C8	-16.96	95.42	103.90
23	BA	528	A	C2-N3-C4	-16.90	102.15	110.60
23	BA	2296	U	N3-C4-O4	-16.80	107.64	119.40
23	BA	528	A	N3-C4-C5	16.40	138.28	126.80
1	AA	1459	C	C2-N1-C1'	16.34	136.77	118.80
23	DA	130	C	C6-N1-C2	16.32	126.83	120.30
23	BA	141	A	N7-C8-N9	16.09	121.84	113.80
23	BA	2296	U	C2-N1-C1'	-15.91	98.60	117.70
23	DA	2296	U	C2-N1-C1'	-15.87	98.66	117.70
23	BA	528	A	N3-C4-N9	-15.85	114.72	127.40
23	DA	528	A	C2-N3-C4	-15.78	102.71	110.60
23	BA	2296	U	C5-C4-O4	15.77	135.36	125.90
23	DA	528	A	N3-C4-N9	-15.63	114.90	127.40
1	CA	1442(A)	G	C2-N3-C4	15.44	119.62	111.90
23	DA	528	A	N3-C4-C5	15.39	137.57	126.80
23	DA	530	G	N3-C2-N2	-15.35	109.16	119.90
23	BA	2322	A	C6-N1-C2	-15.01	109.60	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2335	A	C5-C6-N1	14.94	125.17	117.70
23	DA	2296	U	N3-C4-O4	-14.77	109.06	119.40
1	AA	1442(A)	G	C8-N9-C1'	-14.65	107.96	127.00
23	BA	2185	C	N1-C2-O2	14.54	127.62	118.90
1	CA	1442(A)	G	C8-N9-C1'	-14.54	108.10	127.00
23	BA	330	A	C2-N3-C4	-14.43	103.39	110.60
1	CA	1442(A)	G	C8-N9-C4	-14.43	100.63	106.40
1	CA	1031	G	N3-C2-N2	14.29	129.90	119.90
23	BA	1779	U	C4-C5-C6	14.21	128.22	119.70
23	BA	130	C	C6-N1-C2	14.18	125.97	120.30
23	DA	2296	U	C5-C4-O4	14.09	134.35	125.90
23	BA	530	G	N3-C4-N9	-13.88	117.67	126.00
23	DA	2104	G	N1-C2-N2	-13.86	103.73	116.20
23	BA	1698	A	C2-N3-C4	-13.86	103.67	110.60
23	DA	2296	U	N3-C2-O2	-13.73	112.59	122.20
23	DA	2322	A	C6-N1-C2	-13.72	110.37	118.60
23	BA	2296	U	N3-C2-O2	-13.71	112.61	122.20
23	BA	933	A	C5-N7-C8	-13.63	97.08	103.90
23	BA	2104	G	C5-C6-O6	13.54	136.73	128.60
23	BA	2296	U	C6-N1-C1'	13.53	140.14	121.20
23	DA	2296	U	C6-N1-C1'	13.49	140.08	121.20
23	DA	2335	A	C5-C6-N1	13.43	124.42	117.70
23	DA	2104	G	C5-C6-O6	13.38	136.62	128.60
1	CA	1003	G	C5-C6-O6	13.36	136.62	128.60
23	BA	530	G	C8-N9-C4	-13.32	101.07	106.40
23	BA	2104	G	N1-C2-N2	-13.30	104.23	116.20
24	BB	120	A	C5-C6-N1	-13.28	111.06	117.70
23	BA	2322	A	N1-C6-N6	-13.27	110.64	118.60
23	BA	933	A	N7-C8-N9	13.12	120.36	113.80
23	DA	2185	C	N1-C2-O2	13.12	126.77	118.90
23	BA	1332	G	C5-C6-N1	13.11	118.06	111.50
23	DA	2104	G	N1-C6-O6	-13.10	112.04	119.90
1	CA	1442(A)	G	C5-C6-O6	-13.09	120.75	128.60
23	DA	1779	U	C2-N3-C4	-13.07	119.16	127.00
23	BA	221	A	C8-N9-C4	-13.05	100.58	105.80
24	DB	120	A	C5-C6-N1	-13.03	111.18	117.70
23	BA	2104	G	N1-C6-O6	-12.89	112.16	119.90
1	AA	1158	C	N1-C2-O2	12.80	126.58	118.90
23	DA	330	A	C2-N3-C4	-12.73	104.23	110.60
23	BA	2515	C	N3-C4-C5	12.68	126.97	121.90
23	BA	530	G	N1-C2-N2	12.65	127.58	116.20
1	AA	1442(A)	G	C8-N9-C4	-12.62	101.35	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1107	G	C4-N9-C1'	12.62	142.90	126.50
23	DA	1107	G	C4-N9-C1'	12.60	142.88	126.50
1	CA	1030	C	N3-C2-O2	-12.56	113.11	121.90
23	BA	1359	A	N1-C6-N6	-12.54	111.07	118.60
23	BA	2296	U	C4-C5-C6	12.53	127.22	119.70
23	BA	1779	U	N1-C2-N3	12.48	122.39	114.90
24	BB	5	C	C6-N1-C2	12.44	125.28	120.30
23	DA	2322	A	N1-C6-N6	-12.41	111.15	118.60
23	BA	141	A	N1-C6-N6	12.39	126.03	118.60
23	BA	139(A)	G	C4-C5-N7	12.37	115.75	110.80
23	BA	139(A)	G	C5-N7-C8	-12.36	98.12	104.30
23	BA	2346	A	N9-C4-C5	12.33	110.73	105.80
23	BA	1142(A)	A	C5-C6-N1	-12.31	111.54	117.70
23	BA	1107	G	C6-C5-N7	-12.29	123.03	130.40
1	CA	90	U	N3-C4-C5	12.26	121.95	114.60
23	DA	1142(A)	A	C2-N3-C4	-12.25	104.48	110.60
23	BA	856	C	C6-N1-C2	-12.25	115.40	120.30
23	BA	1210	A	C5-N7-C8	-12.24	97.78	103.90
23	BA	141	A	C4-C5-N7	12.20	116.80	110.70
23	BA	2322	A	C5-C6-N1	12.18	123.79	117.70
23	BA	2286	A	N1-C6-N6	12.17	125.90	118.60
1	CA	1031	G	N9-C4-C5	-12.12	100.55	105.40
24	BB	120	A	C6-N1-C2	12.11	125.86	118.60
23	DA	2296	U	C4-C5-C6	12.06	126.94	119.70
23	DA	1107	G	C8-N9-C1'	-12.05	111.34	127.00
23	BA	1107	G	C8-N9-C1'	-12.04	111.34	127.00
23	DA	409	C	C6-N1-C2	12.04	125.12	120.30
23	BA	2286	A	C6-C5-N7	-11.97	123.92	132.30
1	AA	1442(A)	G	C5-C6-O6	-11.94	121.44	128.60
1	CA	346	G	C4-N9-C1'	11.88	141.95	126.50
23	BA	1107	G	N1-C6-O6	11.87	127.02	119.90
23	DA	148	C	C6-N1-C2	11.80	125.02	120.30
23	BA	139(A)	G	N7-C8-N9	11.79	119.00	113.10
1	CA	1003	G	N1-C6-O6	-11.74	112.86	119.90
23	DA	1779	U	N3-C4-O4	-11.68	111.22	119.40
23	BA	1204	A	C6-C5-N7	-11.63	124.16	132.30
23	DA	141	A	N7-C8-N9	11.61	119.61	113.80
23	BA	1142(A)	A	N3-C4-N9	-11.58	118.14	127.40
23	BA	1204	A	C2-N3-C4	-11.58	104.81	110.60
24	DB	120	A	C6-N1-C2	11.56	125.54	118.60
23	DA	1108	U	N3-C2-O2	-11.54	114.12	122.20
1	AA	346	G	C4-N9-C1'	11.53	141.49	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1359	A	N1-C6-N6	-11.51	111.69	118.60
23	BA	794	G	N1-C6-O6	-11.47	113.02	119.90
23	DA	1210	A	C5-N7-C8	-11.47	98.17	103.90
23	DA	2322	A	C5-C6-N1	11.41	123.41	117.70
23	DA	530	G	N1-C2-N2	11.37	126.44	116.20
23	BA	409	C	C6-N1-C2	11.34	124.84	120.30
23	DA	777	A	N9-C4-C5	11.34	110.34	105.80
23	BA	473	G	N1-C6-O6	-11.33	113.10	119.90
23	DA	530	G	N3-C4-N9	-11.28	119.23	126.00
23	BA	141	A	C6-C5-N7	-11.27	124.41	132.30
23	BA	959	A	C8-N9-C4	-11.26	101.30	105.80
23	DA	141	A	N1-C6-N6	11.26	125.35	118.60
23	DA	1204	A	N1-C6-N6	11.21	125.33	118.60
23	BA	1108	U	N3-C2-O2	-11.21	114.36	122.20
23	DA	933	A	C5-N7-C8	-11.19	98.30	103.90
23	BA	1107	G	C5-C6-O6	-11.16	121.91	128.60
23	DA	1779	U	N1-C2-N3	11.15	121.59	114.90
23	BA	528	A	C6-N1-C2	11.12	125.27	118.60
23	DA	1698	A	N1-C6-N6	11.11	125.27	118.60
1	CA	1442(A)	G	C6-C5-N7	-11.09	123.75	130.40
23	BA	2322	A	N9-C4-C5	11.08	110.23	105.80
23	BA	2823	A	N1-C6-N6	11.05	125.23	118.60
23	DA	1698	A	C5-N7-C8	-11.00	98.40	103.90
23	BA	1328	G	C5-C6-N1	11.00	117.00	111.50
24	BB	120	A	N1-C2-N3	-10.98	123.81	129.30
23	BA	1204	A	C4-C5-N7	10.97	116.18	110.70
23	DA	1107	G	C6-C5-N7	-10.87	123.88	130.40
23	BA	265	A	N1-C6-N6	10.86	125.12	118.60
23	BA	1204	A	C5-N7-C8	-10.86	98.47	103.90
23	BA	141	A	C8-N9-C4	-10.84	101.46	105.80
23	BA	1210	A	N7-C8-N9	10.84	119.22	113.80
23	BA	1762	A	C8-N9-C4	-10.84	101.47	105.80
23	BA	106	C	C6-N1-C2	-10.83	115.97	120.30
1	CA	1484	C	C6-N1-C2	10.82	124.63	120.30
23	DA	2253	G	N1-C6-O6	10.78	126.37	119.90
23	BA	1107	G	C4-C5-N7	10.74	115.09	110.80
1	CA	346	G	C8-N9-C1'	-10.73	113.06	127.00
23	DA	1698	A	C2-N3-C4	-10.73	105.24	110.60
24	BB	6	C	C6-N1-C2	10.71	124.58	120.30
23	BA	1779	U	C2-N3-C4	-10.70	120.58	127.00
23	DA	2322	A	N9-C4-C5	10.64	110.05	105.80
23	DA	839	U	C5-C4-O4	10.61	132.27	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	1087	G	N3-C4-C5	-10.58	123.31	128.60
23	BA	2689	U	C5-C4-O4	10.57	132.24	125.90
23	DA	530	G	N9-C4-C5	10.55	109.62	105.40
23	DA	1779	U	C4-C5-C6	10.54	126.03	119.70
1	CA	1459	C	C5-C6-N1	10.54	126.27	121.00
23	BA	2035	G	C8-N9-C4	-10.54	102.19	106.40
24	DB	120	A	N1-C2-N3	-10.47	124.06	129.30
23	BA	208	C	C6-N1-C2	10.46	124.48	120.30
23	DA	2287	A	C2-N3-C4	-10.45	105.38	110.60
23	DA	27	G	N3-C2-N2	-10.43	112.60	119.90
1	AA	346	G	C8-N9-C1'	-10.41	113.46	127.00
1	CA	1442(A)	G	N1-C2-N2	-10.40	106.84	116.20
23	BA	1142(A)	A	N3-C4-C5	10.40	134.08	126.80
23	BA	234	C	C6-N1-C2	-10.39	116.14	120.30
23	DA	456	C	C6-N1-C2	10.39	124.46	120.30
23	BA	2497	A	C6-N1-C2	-10.39	112.37	118.60
23	BA	1210	A	N1-C6-N6	10.34	124.80	118.60
23	BA	1210	A	C6-C5-N7	-10.33	125.07	132.30
23	BA	2002	G	C8-N9-C4	-10.30	102.28	106.40
1	AA	1442(A)	G	N3-C2-N2	10.28	127.09	119.90
23	BA	141	A	C2-N3-C4	-10.26	105.47	110.60
23	BA	446	G	N1-C6-O6	10.25	126.05	119.90
23	DA	1204	A	C5-N7-C8	-10.24	98.78	103.90
23	DA	141	A	C5-N7-C8	-10.20	98.80	103.90
23	BA	933	A	C8-N9-C4	-10.19	101.72	105.80
23	DA	528	A	C5-C6-N1	-10.20	112.60	117.70
23	DA	530	G	C8-N9-C4	-10.19	102.32	106.40
23	BA	1779	U	C2-N1-C1'	-10.15	105.52	117.70
23	DA	1762	A	C8-N9-C4	-10.14	101.74	105.80
23	BA	265	A	C2-N3-C4	-10.10	105.55	110.60
23	BA	2286	A	C5-N7-C8	-10.10	98.85	103.90
23	BA	1192	G	N7-C8-N9	-10.08	108.06	113.10
23	DA	1779	U	C5-C4-O4	10.06	131.94	125.90
1	CA	1442(A)	G	N7-C8-N9	10.05	118.12	113.10
23	BA	2499	C	N1-C2-O2	-10.04	112.88	118.90
23	DA	1328	G	C5-C6-O6	-10.03	122.58	128.60
23	DA	933	A	N7-C8-N9	10.01	118.81	113.80
23	BA	1129	A	C8-N9-C4	-10.01	101.80	105.80
23	DA	208	C	C6-N1-C2	10.00	124.30	120.30
1	CA	90	U	C2-N3-C4	-10.00	121.00	127.00
23	BA	1779	U	C5-C4-O4	10.00	131.90	125.90
23	DA	1107	G	N3-C4-N9	9.98	131.99	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	960	U	C2-N1-C1'	9.98	129.67	117.70
23	BA	690	G	C5-C6-N1	9.95	116.47	111.50
23	BA	645	C	N1-C2-O2	9.94	124.86	118.90
23	BA	839	U	C5-C4-O4	9.92	131.85	125.90
23	DA	652(T)	C	C2-N3-C4	9.91	124.86	119.90
1	CA	1031	G	C4-C5-N7	9.91	114.77	110.80
23	BA	675	A	C8-N9-C4	9.91	109.76	105.80
23	DA	1204	A	C6-C5-N7	-9.91	125.36	132.30
23	BA	2346	A	C8-N9-C4	-9.90	101.84	105.80
23	BA	1192	G	C8-N9-C4	9.88	110.35	106.40
23	BA	463	G	C5-C6-O6	9.86	134.52	128.60
23	BA	2062	A	N1-C6-N6	9.86	124.52	118.60
23	DA	1107	G	N1-C6-O6	9.85	125.81	119.90
23	DA	1779	U	C2-N1-C1'	-9.85	105.88	117.70
23	DA	1698	A	C4-C5-N7	9.85	115.63	110.70
23	BA	530	G	N9-C4-C5	9.85	109.34	105.40
1	AA	1442(A)	G	C6-C5-N7	-9.84	124.49	130.40
23	DA	210	C	C6-N1-C2	9.83	124.23	120.30
23	BA	729	G	C8-N9-C4	-9.83	102.47	106.40
1	CA	1459	C	C2-N3-C4	-9.82	114.99	119.90
23	BA	1142(A)	A	C5-N7-C8	-9.82	98.99	103.90
23	BA	2185	C	C2-N3-C4	9.81	124.81	119.90
1	AA	1442(A)	G	N1-C2-N2	-9.78	107.40	116.20
23	BA	1107	G	N3-C4-N9	9.77	131.86	126.00
23	BA	27	G	N3-C2-N2	-9.77	113.06	119.90
23	BA	531	C	N1-C2-O2	-9.75	113.05	118.90
1	AA	1037	C	C6-N1-C2	-9.75	116.40	120.30
23	BA	566	U	C4-C5-C6	-9.75	113.85	119.70
23	BA	2286	A	N7-C8-N9	9.75	118.67	113.80
23	DA	1108	U	N1-C2-O2	9.74	129.62	122.80
23	DA	2286	A	C6-C5-N7	-9.73	125.49	132.30
1	CA	1395	C	C6-N1-C2	-9.70	116.42	120.30
1	AA	1459	C	C5-C6-N1	9.69	125.84	121.00
23	DA	777	A	N1-C6-N6	-9.68	112.79	118.60
1	AA	1459	C	C2-N3-C4	-9.67	115.07	119.90
23	DA	1210	A	N7-C8-N9	9.66	118.63	113.80
23	DA	2067	G	C8-N9-C4	-9.65	102.54	106.40
24	DB	115	G	C8-N9-C4	9.64	110.26	106.40
1	CA	1030	C	C2-N3-C4	9.64	124.72	119.90
23	DA	2286	A	N7-C8-N9	9.63	118.61	113.80
23	BA	624	C	N3-C4-C5	9.60	125.74	121.90
23	BA	205	G	N3-C2-N2	9.60	126.62	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	528	A	C5-C6-N1	-9.60	112.90	117.70
23	BA	2103	C	C2-N3-C4	9.59	124.69	119.90
23	BA	1620	G	N1-C6-O6	-9.58	114.15	119.90
23	BA	130	C	N3-C4-C5	9.57	125.73	121.90
24	BB	101	G	N9-C4-C5	-9.56	101.57	105.40
23	BA	2689	U	N3-C4-O4	-9.55	112.72	119.40
1	AA	1282	C	C2-N3-C4	9.54	124.67	119.90
23	BA	1332	G	C6-N1-C2	-9.54	119.38	125.10
23	BA	1204	A	N1-C6-N6	9.52	124.31	118.60
23	BA	1022	G	N9-C4-C5	9.51	109.20	105.40
23	BA	2082	A	C6-N1-C2	-9.49	112.91	118.60
1	CA	1028	C	N1-C2-O2	9.49	124.59	118.90
23	DA	1997	G	N1-C6-O6	-9.49	114.21	119.90
23	BA	1558	A	C2-N3-C4	-9.48	105.86	110.60
1	AA	1282	C	C6-N1-C2	-9.47	116.51	120.30
23	DA	1109	C	C4-C5-C6	9.46	122.13	117.40
23	BA	528	A	C4-C5-C6	-9.46	112.27	117.00
1	CA	1395	C	N3-C4-C5	-9.44	118.12	121.90
1	AA	53	A	C6-N1-C2	9.44	124.26	118.60
23	BA	774	A	C8-N9-C4	-9.43	102.03	105.80
23	BA	391	G	C5-C6-O6	-9.41	122.95	128.60
23	BA	2363	C	C6-N1-C2	9.41	124.06	120.30
23	BA	652(T)	C	C2-N3-C4	9.40	124.60	119.90
23	DA	802	A	C8-N9-C4	-9.38	102.05	105.80
23	BA	2361	A	C8-N9-C4	9.37	109.55	105.80
23	DA	139(A)	G	N7-C8-N9	9.36	117.78	113.10
23	DA	141	A	C8-N9-C4	-9.35	102.06	105.80
23	BA	458	G	C8-N9-C4	-9.35	102.66	106.40
23	DA	2185	C	C2-N3-C4	9.35	124.57	119.90
4	AD	12	CYS	CA-CB-SG	9.34	130.81	114.00
1	CA	1442(A)	G	C4-C5-C6	9.34	124.40	118.80
23	BA	2322	A	C4-C5-N7	-9.33	106.03	110.70
23	BA	2689	U	N1-C2-N3	9.32	120.49	114.90
23	BA	1107	G	N9-C4-C5	-9.31	101.67	105.40
23	DA	2446	G	N3-C2-N2	9.31	126.42	119.90
23	BA	265	A	C6-C5-N7	-9.28	125.80	132.30
1	AA	1484	C	C6-N1-C2	9.28	124.01	120.30
23	BA	528	A	C5-N7-C8	-9.28	99.26	103.90
23	DA	528	A	C6-N1-C2	9.27	124.16	118.60
23	BA	209	C	N3-C4-C5	9.27	125.61	121.90
1	CA	1442(A)	G	N3-C2-N2	9.26	126.38	119.90
23	DA	1210	A	N1-C6-N6	9.26	124.16	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2236	C	N3-C4-C5	-9.25	118.20	121.90
23	BA	2499	C	C2-N3-C4	-9.23	115.28	119.90
23	BA	2244	U	C5-C4-O4	9.23	131.44	125.90
23	BA	27	G	N9-C4-C5	9.23	109.09	105.40
23	BA	932	G	C5-C6-O6	-9.22	123.07	128.60
23	BA	265	A	C5-N7-C8	-9.21	99.30	103.90
23	BA	781	A	C8-N9-C4	9.20	109.48	105.80
23	BA	1607	C	N3-C4-N4	9.20	124.44	118.00
23	BA	2037	G	C5-N7-C8	9.17	108.89	104.30
23	DA	139(A)	G	C4-C5-N7	9.17	114.47	110.80
1	AA	1293	G	C6-C5-N7	9.16	135.90	130.40
23	BA	1192	G	C5-N7-C8	9.16	108.88	104.30
23	DA	1107	G	C5-C6-O6	-9.16	123.11	128.60
23	BA	473	G	C5-C6-O6	9.15	134.09	128.60
23	BA	2335	A	C5-C6-N6	-9.14	116.39	123.70
23	DA	645	C	N1-C2-O2	9.14	124.38	118.90
1	AA	358	U	C2-N3-C4	9.12	132.47	127.00
23	BA	2271	G	N3-C4-C5	-9.12	124.04	128.60
24	DB	30	C	C6-N1-C2	-9.11	116.66	120.30
23	DA	2322	A	C2-N3-C4	9.11	115.16	110.60
1	CA	1391	U	N3-C2-O2	-9.10	115.83	122.20
1	CA	1274	G	C4-N9-C1'	9.09	138.31	126.50
23	BA	1792	G	N1-C6-O6	-9.07	114.46	119.90
1	AA	346	G	N3-C4-N9	9.05	131.43	126.00
23	DA	1333	C	N3-C4-C5	9.05	125.52	121.90
23	BA	265	A	C4-C5-N7	9.04	115.22	110.70
23	BA	1204	A	N1-C2-N3	9.04	133.82	129.30
23	DA	1698	A	C6-C5-N7	-9.04	125.97	132.30
23	DA	2286	A	N1-C6-N6	9.04	124.03	118.60
23	DA	139(A)	G	C5-N7-C8	-9.04	99.78	104.30
23	DA	2283	C	N1-C2-O2	-9.04	113.47	118.90
23	DA	2473	U	C2-N1-C1'	9.03	128.54	117.70
23	BA	2690	C	N3-C4-C5	-9.03	118.29	121.90
23	DA	1153	C	N1-C2-O2	-9.03	113.48	118.90
23	BA	2244	U	N3-C4-O4	-9.03	113.08	119.40
23	DA	2741	A	C8-N9-C4	9.02	109.41	105.80
24	BB	101	G	C8-N9-C4	9.01	110.00	106.40
23	BA	1779	U	N1-C2-O2	-9.00	116.50	122.80
1	CA	1378	C	C6-N1-C2	-9.00	116.70	120.30
23	BA	1022	G	N3-C4-N9	-8.99	120.61	126.00
23	BA	377	C	C6-N1-C2	8.98	123.89	120.30
23	BA	940	G	C8-N9-C4	-8.98	102.81	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2286	A	C5-N7-C8	-8.98	99.41	103.90
1	AA	934	C	C6-N1-C2	-8.97	116.71	120.30
23	BA	1616	A	C5-N7-C8	-8.97	99.42	103.90
1	AA	1203	C	C6-N1-C2	-8.95	116.72	120.30
23	BA	566	U	N3-C4-C5	8.95	119.97	114.60
1	AA	1204	A	N1-C6-N6	-8.94	113.23	118.60
23	BA	2107	C	C5-C4-N4	8.93	126.45	120.20
23	BA	2182	G	C5-C6-O6	8.93	133.96	128.60
23	DA	1784	A	C8-N9-C4	8.93	109.37	105.80
23	DA	1661	G	C8-N9-C4	8.92	109.97	106.40
23	BA	2252	G	N7-C8-N9	-8.92	108.64	113.10
24	BB	104	U	C5-C6-N1	-8.92	118.24	122.70
23	DA	1204	A	C4-C5-N7	8.91	115.16	110.70
23	BA	1142(A)	A	N1-C2-N3	8.91	133.75	129.30
23	BA	584	C	N1-C2-O2	-8.91	113.56	118.90
1	CA	1242	C	C5-C6-N1	8.90	125.45	121.00
23	DA	1248	G	C8-N9-C4	8.90	109.96	106.40
23	BA	130	C	N1-C2-O2	8.90	124.24	118.90
23	BA	2286	A	C4-C5-N7	8.89	115.15	110.70
23	DA	1107	G	C4-C5-N7	8.88	114.35	110.80
23	BA	394	A	C8-N9-C4	8.88	109.35	105.80
23	DA	195	A	N1-C6-N6	8.88	123.93	118.60
1	CA	1442(A)	G	O4'-C1'-N9	8.87	115.30	108.20
23	DA	2440	C	C5-C6-N1	-8.86	116.57	121.00
23	DA	1204	A	C2-N3-C4	-8.86	106.17	110.60
1	AA	1293	G	C5-C6-O6	8.85	133.91	128.60
23	BA	1698	A	N1-C2-N3	8.85	133.72	129.30
1	CA	1456	G	C4-N9-C1'	8.85	138.00	126.50
1	AA	910	C	C6-N1-C2	8.84	123.84	120.30
23	BA	139(A)	G	C8-N9-C4	-8.84	102.86	106.40
23	BA	1827	C	N3-C2-O2	-8.84	115.71	121.90
1	AA	1442(B)	A	N1-C2-N3	8.84	133.72	129.30
23	BA	2286	A	C2-N3-C4	-8.83	106.18	110.60
23	BA	2286	A	C8-N9-C4	-8.83	102.27	105.80
1	AA	1282	C	N3-C4-C5	-8.82	118.37	121.90
23	BA	794	G	C5-C6-O6	8.82	133.89	128.60
23	DA	2335	A	C5-C6-N6	-8.82	116.64	123.70
23	BA	391	G	N1-C6-O6	8.82	125.19	119.90
23	BA	2191	G	C5-C6-O6	-8.81	123.31	128.60
1	AA	1210	C	C2-N3-C4	8.81	124.31	119.90
23	BA	1755	A	N1-C6-N6	-8.80	113.32	118.60
23	BA	1899	G	N3-C2-N2	-8.80	113.74	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	839	U	N1-C2-O2	8.80	128.96	122.80
1	CA	1460	A	N1-C6-N6	-8.79	113.33	118.60
23	BA	121	G	C5-C6-O6	-8.79	123.33	128.60
23	BA	1972	A	C2-N3-C4	8.78	114.99	110.60
23	BA	530	G	N3-C4-C5	8.78	132.99	128.60
23	DA	141	A	C6-C5-N7	-8.78	126.16	132.30
1	AA	960	U	C5-C6-N1	8.77	127.08	122.70
1	AA	1456	G	C4-N9-C1'	8.77	137.90	126.50
23	BA	1253	A	C5-N7-C8	8.77	108.28	103.90
23	BA	478	A	N1-C2-N3	8.77	133.68	129.30
1	CA	346	G	N3-C4-C5	-8.77	124.22	128.60
23	BA	2007	C	C6-N1-C2	-8.76	116.80	120.30
23	BA	375	C	C6-N1-C2	8.76	123.80	120.30
23	BA	959	A	N7-C8-N9	8.75	118.17	113.80
23	BA	2449	U	C5-C4-O4	-8.74	120.66	125.90
1	AA	346	G	N3-C4-C5	-8.74	124.23	128.60
23	BA	527	C	C5-C4-N4	8.74	126.32	120.20
23	BA	836	G	N1-C6-O6	-8.74	114.66	119.90
23	BA	1708	C	C6-N1-C2	8.73	123.79	120.30
23	DA	2182	G	C5-C6-O6	8.73	133.84	128.60
23	BA	2361	A	N9-C4-C5	-8.73	102.31	105.80
23	DA	2440	C	N3-C4-N4	-8.73	111.89	118.00
1	AA	1442(A)	G	O4'-C1'-N9	8.72	115.18	108.20
23	BA	2694	G	C5-C6-O6	-8.72	123.37	128.60
23	DA	2346	A	N1-C6-N6	-8.72	113.37	118.60
23	BA	777	A	N1-C6-N6	-8.71	113.37	118.60
23	DA	1210	A	C4-C5-N7	8.71	115.06	110.70
23	BA	1108	U	N1-C2-O2	8.70	128.89	122.80
23	DA	847	U	C5-C4-O4	8.70	131.12	125.90
23	DA	2689	U	N3-C4-O4	-8.68	113.32	119.40
23	DA	2286	A	C2-N3-C4	-8.68	106.26	110.60
23	BA	458	G	N9-C4-C5	8.67	108.87	105.40
23	BA	1049	C	C6-N1-C2	-8.66	116.83	120.30
1	CA	1037	C	C2-N3-C4	8.66	124.23	119.90
23	DA	130	C	C5-C6-N1	-8.66	116.67	121.00
23	BA	73	A	N9-C4-C5	8.66	109.26	105.80
23	BA	1049	C	C5-C6-N1	8.65	125.33	121.00
1	AA	1151	A	N1-C6-N6	-8.65	113.41	118.60
23	BA	2568	C	C6-N1-C2	8.64	123.76	120.30
23	BA	1799	G	N3-C4-C5	-8.64	124.28	128.60
1	CA	1087	G	N3-C4-N9	8.63	131.18	126.00
23	BA	1563	G	N9-C4-C5	-8.63	101.95	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	943	U	C5-C6-N1	8.63	127.01	122.70
23	BA	1334	G	C8-N9-C4	-8.62	102.95	106.40
33	DP	26	GLY	N-CA-C	-8.62	91.55	113.10
1	CA	1031	G	C6-N1-C2	8.62	130.27	125.10
1	AA	754	C	N3-C2-O2	-8.62	115.87	121.90
23	BA	1210	A	C4-C5-N7	8.62	115.01	110.70
23	BA	2473	U	C2-N1-C1'	8.61	128.03	117.70
1	CA	1037	C	N3-C4-C5	-8.61	118.46	121.90
23	DA	1210	A	C6-C5-N7	-8.61	126.28	132.30
23	BA	966	G	N1-C6-O6	-8.60	114.74	119.90
23	DA	2322	A	C4-C5-N7	-8.60	106.40	110.70
1	AA	1311	G	N9-C4-C5	8.59	108.84	105.40
23	BA	763	G	N9-C4-C5	8.59	108.84	105.40
23	BA	272(C)	G	C8-N9-C4	8.58	109.83	106.40
23	BA	530	G	C8-N9-C1'	8.58	138.15	127.00
23	BA	1393	A	N9-C4-C5	8.58	109.23	105.80
23	DA	12	U	N3-C2-O2	-8.57	116.20	122.20
23	DA	1123	C	C6-N1-C2	8.56	123.72	120.30
1	AA	503	C	C6-N1-C2	-8.56	116.88	120.30
23	BA	675	A	N9-C4-C5	-8.56	102.38	105.80
23	BA	1108	U	C2-N1-C1'	8.55	127.96	117.70
1	AA	346	G	N1-C2-N2	-8.54	108.51	116.20
23	BA	2312	U	N3-C2-O2	-8.55	116.22	122.20
23	DA	2568	C	C6-N1-C2	8.54	123.72	120.30
1	AA	953	G	C6-C5-N7	-8.54	125.28	130.40
23	DA	1180	C	C6-N1-C2	8.53	123.71	120.30
23	DA	2828	C	N1-C2-O2	-8.53	113.78	118.90
1	CA	1274	G	N7-C8-N9	8.52	117.36	113.10
23	DA	1829	A	N1-C6-N6	-8.52	113.49	118.60
1	AA	1293	G	C4-N9-C1'	-8.51	115.44	126.50
1	AA	754	C	N1-C2-O2	8.51	124.01	118.90
23	DA	2463	C	C6-N1-C2	8.51	123.70	120.30
23	BA	1190	G	C5-N7-C8	8.49	108.55	104.30
45	D1	21	ARG	NE-CZ-NH1	8.48	124.54	120.30
1	CA	1459	C	N1-C2-N3	8.47	125.13	119.20
23	BA	1383	C	N1-C2-O2	-8.47	113.82	118.90
23	BA	1600	C	C5-C6-N1	-8.47	116.77	121.00
1	CA	1283	G	N3-C2-N2	-8.47	113.97	119.90
23	DA	2441	C	C5-C6-N1	-8.47	116.77	121.00
23	DA	2312	U	N3-C2-O2	-8.47	116.27	122.20
1	AA	1366	C	C6-N1-C2	-8.46	116.91	120.30
1	CA	1391	U	C5-C4-O4	8.46	130.98	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1293	G	N3-C4-N9	-8.45	120.93	126.00
23	BA	1620	G	C5-C6-O6	8.45	133.67	128.60
1	AA	1005	A	C8-N9-C4	-8.45	102.42	105.80
23	BA	52	A	N7-C8-N9	8.45	118.03	113.80
1	AA	1442(A)	G	C4-C5-C6	8.45	123.87	118.80
1	AA	1293	G	C4-C5-N7	-8.45	107.42	110.80
24	BB	58	A	C8-N9-C4	8.44	109.18	105.80
23	DA	2017	U	C5-C6-N1	-8.44	118.48	122.70
23	BA	847	U	C5-C6-N1	-8.44	118.48	122.70
23	DA	1558	A	C2-N3-C4	-8.43	106.38	110.60
23	BA	1445(A)	C	C6-N1-C2	-8.43	116.93	120.30
23	BA	330	A	N1-C2-N3	8.43	133.51	129.30
23	BA	1253	A	N7-C8-N9	-8.42	109.59	113.80
23	BA	463	G	N1-C6-O6	-8.42	114.85	119.90
23	BA	1210	A	C2-N3-C4	-8.42	106.39	110.60
1	CA	150	C	C5-C6-N1	8.42	125.21	121.00
23	BA	2625	G	N3-C2-N2	-8.42	114.00	119.90
23	DA	752	A	C8-N9-C4	-8.42	102.43	105.80
23	BA	1127	A	C8-N9-C4	-8.42	102.43	105.80
1	CA	1274	G	C6-C5-N7	-8.41	125.35	130.40
23	DA	2446	G	N1-C2-N2	-8.41	108.63	116.20
23	DA	1125	G	N1-C6-O6	8.41	124.95	119.90
23	DA	1826	G	C5-N7-C8	8.41	108.50	104.30
23	DA	1304	C	N3-C4-C5	8.40	125.26	121.90
23	DA	2440	C	C5-C4-N4	8.40	126.08	120.20
1	CA	90	U	C5-C4-O4	-8.40	120.86	125.90
23	DA	1698	A	N7-C8-N9	8.39	118.00	113.80
23	BA	374	A	C2-N3-C4	-8.39	106.41	110.60
1	CA	1277	C	C6-N1-C2	-8.38	116.95	120.30
23	BA	1616	A	N7-C8-N9	8.37	117.98	113.80
23	BA	465	G	C8-N9-C4	-8.36	103.06	106.40
23	BA	1792	G	C5-C6-O6	8.35	133.61	128.60
24	DB	114	C	C6-N1-C2	8.35	123.64	120.30
23	DA	1605	C	C4-C5-C6	8.34	121.57	117.40
1	AA	1460	A	N1-C6-N6	-8.34	113.60	118.60
1	AA	1442(A)	G	N7-C8-N9	8.33	117.26	113.10
23	DA	860	U	N3-C2-O2	-8.33	116.37	122.20
1	AA	1158	C	C2-N1-C1'	8.32	127.95	118.80
23	BA	2346	A	C4-C5-N7	-8.32	106.54	110.70
23	DA	2007	C	C6-N1-C2	-8.32	116.97	120.30
23	BA	2067	G	C8-N9-C4	-8.31	103.07	106.40
23	BA	2540	C	C6-N1-C2	8.31	123.62	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	148	C	C6-N1-C2	8.31	123.62	120.30
23	DA	2473	U	N3-C2-O2	-8.31	116.39	122.20
23	BA	2287	A	C2-N3-C4	-8.30	106.45	110.60
1	AA	1366	C	C2-N3-C4	8.29	124.05	119.90
23	BA	1393	A	N1-C6-N6	-8.29	113.63	118.60
23	BA	530	G	C4-C5-C6	-8.29	113.83	118.80
23	DA	1382	G	N1-C6-O6	8.29	124.87	119.90
23	BA	2035	G	N9-C4-C5	8.28	108.71	105.40
23	BA	1204	A	N7-C8-N9	8.27	117.94	113.80
23	BA	777	A	N1-C2-N3	8.26	133.43	129.30
1	AA	1255	G	C5-C6-O6	8.26	133.56	128.60
23	BA	729	G	N3-C2-N2	-8.26	114.12	119.90
23	BA	2182	G	C6-N1-C2	8.25	130.05	125.10
23	BA	12	U	N3-C2-O2	-8.25	116.42	122.20
50	D6	40	CYS	CA-CB-SG	8.25	128.84	114.00
13	AM	85	GLY	N-CA-C	8.24	133.71	113.10
23	BA	933	A	C4-C5-N7	8.23	114.82	110.70
23	DA	777	A	C4-C5-N7	-8.23	106.58	110.70
1	CA	1031	G	N3-C4-N9	8.23	130.94	126.00
23	DA	2346	A	N9-C4-C5	8.23	109.09	105.80
23	BA	1256	G	C8-N9-C4	8.22	109.69	106.40
23	BA	1784	A	C8-N9-C4	8.22	109.09	105.80
23	DA	2617	C	N3-C4-C5	8.22	125.19	121.90
23	BA	2438	U	N3-C2-O2	-8.22	116.44	122.20
23	DA	1022	G	N3-C4-N9	-8.22	121.07	126.00
23	BA	2503	A	N1-C6-N6	8.22	123.53	118.60
23	DA	729	G	N3-C2-N2	-8.22	114.15	119.90
24	DB	49	C	N1-C2-O2	-8.21	113.98	118.90
23	BA	221	A	N7-C8-N9	8.20	117.90	113.80
23	BA	584	C	C2-N3-C4	-8.20	115.80	119.90
23	BA	978	G	C8-N9-C4	8.20	109.68	106.40
23	DA	1142(A)	A	N3-C4-N9	-8.20	120.84	127.40
23	BA	614	U	C5-C4-O4	8.20	130.82	125.90
1	AA	1153	C	C5-C4-N4	8.19	125.94	120.20
23	DA	2473	U	N1-C2-O2	8.19	128.53	122.80
23	BA	2823	A	C4-C5-N7	8.19	114.80	110.70
23	BA	766	C	N1-C2-O2	-8.19	113.99	118.90
23	BA	2007	C	C5-C6-N1	8.19	125.09	121.00
23	BA	1128	A	N1-C6-N6	8.18	123.51	118.60
23	BA	1043	C	C6-N1-C2	-8.17	117.03	120.30
1	CA	399	G	N1-C6-O6	8.17	124.80	119.90
23	DA	1210	A	C2-N3-C4	-8.16	106.52	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2515	C	C2-N3-C4	-8.16	115.82	119.90
23	DA	933	A	C8-N9-C4	-8.16	102.54	105.80
23	BA	27	G	N3-C4-N9	-8.15	121.11	126.00
1	CA	955	U	C2-N3-C4	8.15	131.89	127.00
23	DA	221	A	C8-N9-C4	-8.15	102.54	105.80
23	BA	2185	C	N3-C2-O2	-8.14	116.20	121.90
23	BA	784	A	C5-C6-N6	8.13	130.21	123.70
23	BA	2497	A	N1-C2-N3	8.13	133.37	129.30
23	BA	425	G	N3-C4-C5	-8.13	124.53	128.60
23	DA	2191	G	C5-C6-O6	-8.13	123.72	128.60
23	BA	488	G	C4-C5-N7	-8.12	107.55	110.80
23	BA	1698	A	C5-N7-C8	-8.13	99.84	103.90
23	BA	133	C	C6-N1-C2	8.12	123.55	120.30
23	DA	488	G	C5-N7-C8	8.11	108.35	104.30
23	BA	51	G	N1-C6-O6	-8.09	115.05	119.90
23	BA	73	A	N1-C6-N6	-8.09	113.75	118.60
1	CA	346	G	N3-C4-N9	8.09	130.85	126.00
23	DA	130	C	N3-C4-C5	8.09	125.14	121.90
1	CA	1036	G	C4-N9-C1'	8.08	137.00	126.50
23	BA	2236	C	C6-N1-C2	-8.08	117.07	120.30
23	DA	2441	C	C6-N1-C2	8.08	123.53	120.30
23	DA	694	U	N1-C2-O2	8.07	128.45	122.80
23	DA	2742	C	C5-C6-N1	-8.06	116.97	121.00
1	CA	1391	U	N1-C2-O2	8.05	128.44	122.80
23	DA	1826	G	N7-C8-N9	-8.05	109.07	113.10
23	BA	1415	U	C5-C4-O4	8.05	130.73	125.90
23	DA	2674	G	C8-N9-C4	-8.05	103.18	106.40
23	BA	781	A	N7-C8-N9	-8.04	109.78	113.80
23	BA	2346	A	C6-N1-C2	-8.04	113.77	118.60
23	DA	2791	C	N1-C2-O2	8.04	123.72	118.90
23	BA	31	C	C6-N1-C2	8.04	123.52	120.30
1	AA	1098	C	C6-N1-C2	-8.03	117.09	120.30
23	BA	26	G	C8-N9-C4	-8.02	103.19	106.40
23	BA	2441	C	N3-C4-N4	-8.02	112.38	118.00
24	BB	28	C	C6-N1-C2	-8.02	117.09	120.30
23	BA	1368	G	C5-C6-N1	8.02	115.51	111.50
23	DA	444	C	N3-C4-C5	8.01	125.11	121.90
23	DA	1017	G	N1-C6-O6	8.01	124.71	119.90
23	BA	1256	G	N1-C2-N3	8.01	128.71	123.90
23	BA	1800	C	C4-C5-C6	8.01	121.40	117.40
1	AA	1303	C	C6-N1-C2	-8.01	117.10	120.30
23	DA	2501	C	N3-C4-C5	8.01	125.10	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	286	C	N1-C2-O2	8.00	123.70	118.90
23	BA	570	G	C5-C6-N1	8.00	115.50	111.50
23	BA	940	G	C2-N3-C4	8.00	115.90	111.90
1	AA	1038	C	N1-C2-O2	8.00	123.70	118.90
40	BW	11	ARG	NE-CZ-NH1	8.00	124.30	120.30
23	BA	52	A	C8-N9-C4	-7.99	102.60	105.80
23	DA	2182	G	C6-N1-C2	7.99	129.89	125.10
1	CA	910	C	C6-N1-C2	7.99	123.49	120.30
23	BA	1028	A	C8-N9-C4	7.98	108.99	105.80
1	CA	1456	G	C8-N9-C4	-7.97	103.21	106.40
23	BA	2575	C	C6-N1-C2	7.97	123.49	120.30
23	DA	236	C	C6-N1-C2	7.96	123.49	120.30
23	BA	583	G	C5-C6-O6	-7.96	123.82	128.60
23	BA	2059	A	N7-C8-N9	-7.96	109.82	113.80
23	BA	139(A)	G	C5-C6-N1	7.95	115.48	111.50
23	BA	1142(A)	A	N7-C8-N9	7.94	117.77	113.80
24	DB	104	U	C5-C6-N1	-7.94	118.73	122.70
23	BA	2826	A	N7-C8-N9	-7.94	109.83	113.80
1	AA	2	U	C5-C6-N1	7.93	126.67	122.70
1	AA	1193	G	N3-C4-N9	7.93	130.76	126.00
23	BA	468	G	C5-C6-O6	7.93	133.36	128.60
23	BA	2682	U	N3-C2-O2	-7.92	116.66	122.20
23	BA	491	G	N1-C6-O6	-7.92	115.15	119.90
23	BA	982	C	C5-C6-N1	7.92	124.96	121.00
23	DA	1128	A	C8-N9-C4	7.92	108.97	105.80
1	AA	1223	C	C6-N1-C2	-7.92	117.13	120.30
23	BA	2574	G	C5-C6-N1	7.91	115.46	111.50
23	DA	1493	C	C2-N1-C1'	7.91	127.50	118.80
23	BA	139(A)	G	C5-C6-O6	-7.90	123.86	128.60
23	DA	949	C	N3-C4-C5	7.90	125.06	121.90
23	BA	2828	C	N1-C2-O2	-7.90	114.16	118.90
1	CA	572	A	C8-N9-C4	7.90	108.96	105.80
23	DA	1107	G	N9-C4-C5	-7.89	102.24	105.40
1	AA	1223	C	C5-C6-N1	7.89	124.94	121.00
23	BA	330	A	N3-C4-C5	7.88	132.32	126.80
23	BA	2463	C	C6-N1-C2	7.88	123.45	120.30
1	CA	1502	A	C5-N7-C8	-7.88	99.96	103.90
23	BA	2346	A	N1-C6-N6	-7.88	113.87	118.60
1	CA	898	G	C8-N9-C4	7.88	109.55	106.40
1	CA	1456	G	N7-C8-N9	7.88	117.04	113.10
23	DA	1108	U	C2-N1-C1'	7.88	127.15	117.70
23	BA	2107	C	C2-N3-C4	7.88	123.84	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2723	C	N3-C2-O2	-7.87	116.39	121.90
1	AA	1003	G	N1-C6-O6	-7.87	115.18	119.90
1	AA	953	G	N3-C4-N9	7.87	130.72	126.00
23	BA	2286	A	C4-C5-C6	7.87	120.93	117.00
24	BB	99	G	C8-N9-C4	7.87	109.55	106.40
23	DA	1820	U	C6-N1-C2	7.86	125.72	121.00
23	BA	2499	C	N1-C2-N3	7.86	124.70	119.20
23	DA	139(A)	G	C5-C6-O6	-7.86	123.88	128.60
23	BA	1047	G	N3-C4-C5	-7.86	124.67	128.60
23	DA	775	G	N1-C6-O6	-7.86	115.19	119.90
23	DA	194	G	C8-N9-C4	-7.86	103.26	106.40
45	B1	21	ARG	NE-CZ-NH2	-7.85	116.37	120.30
23	DA	2424	C	N1-C2-O2	-7.85	114.19	118.90
23	DA	772	C	N3-C2-O2	7.85	127.39	121.90
24	BB	75	G	C5-C6-O6	-7.85	123.89	128.60
23	DA	2446	G	N1-C6-O6	-7.85	115.19	119.90
1	AA	1244	C	C5-C4-N4	7.84	125.69	120.20
23	BA	2540	C	N3-C4-C5	7.84	125.04	121.90
23	DA	2440	C	C6-N1-C2	7.84	123.44	120.30
1	AA	1007	C	C5-C6-N1	7.84	124.92	121.00
23	BA	234	C	N3-C2-O2	-7.84	116.41	121.90
23	BA	1802	A	C5-C6-N6	-7.83	117.44	123.70
23	DA	614	U	C5-C4-O4	7.83	130.60	125.90
23	DA	2040	C	N3-C4-N4	7.83	123.48	118.00
1	AA	1061	G	C6-N1-C2	7.82	129.79	125.10
23	BA	530	G	C5-N7-C8	-7.82	100.39	104.30
23	BA	847	U	C5-C4-O4	7.82	130.59	125.90
23	BA	1328	G	C5-C6-O6	-7.82	123.91	128.60
1	AA	345	C	N1-C2-O2	7.82	123.59	118.90
1	AA	1047	G	C5-C6-O6	7.82	133.29	128.60
1	AA	1061	G	C5-C6-O6	7.82	133.29	128.60
23	BA	784	A	N1-C6-N6	-7.82	113.91	118.60
23	BA	2519	U	C2-N3-C4	-7.82	122.31	127.00
23	DA	940	G	C8-N9-C4	-7.82	103.27	106.40
23	DA	2500	U	N3-C4-C5	7.81	119.29	114.60
23	BA	2075	U	C5-C6-N1	-7.81	118.80	122.70
23	DA	768	G	N3-C4-C5	-7.81	124.70	128.60
23	DA	2332	U	N3-C2-O2	-7.80	116.74	122.20
1	CA	1205	U	C6-N1-C2	-7.80	116.32	121.00
23	DA	2036	C	N1-C2-O2	-7.80	114.22	118.90
1	AA	1158	C	N3-C2-O2	-7.80	116.44	121.90
23	DA	2103	C	C2-N3-C4	7.80	123.80	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2500	U	N3-C4-O4	-7.79	113.94	119.40
23	BA	864	G	N1-C6-O6	-7.79	115.22	119.90
1	AA	839	U	C2-N1-C1'	7.78	127.04	117.70
41	BX	57	LEU	CA-CB-CG	7.78	133.20	115.30
23	BA	1376	C	C5-C4-N4	-7.77	114.76	120.20
1	CA	1387	G	C8-N9-C4	7.77	109.51	106.40
1	AA	953	G	N7-C8-N9	7.76	116.98	113.10
23	BA	1365	A	N1-C6-N6	7.76	123.26	118.60
23	DA	856	C	C6-N1-C2	-7.76	117.20	120.30
23	DA	1997	G	C5-C6-O6	7.75	133.25	128.60
23	DA	2791	C	C2-N1-C1'	7.75	127.32	118.80
23	DA	1142(A)	A	N1-C2-N3	7.75	133.17	129.30
1	AA	1311	G	C4-C5-N7	-7.74	107.70	110.80
23	BA	1368	G	C8-N9-C4	-7.74	103.31	106.40
23	DA	128	C	N3-C4-C5	7.74	125.00	121.90
23	DA	781	A	C8-N9-C4	7.74	108.89	105.80
23	BA	2726	U	N1-C2-O2	-7.73	117.39	122.80
23	BA	127	A	N7-C8-N9	-7.73	109.93	113.80
23	BA	129	C	C5-C4-N4	-7.73	114.79	120.20
1	CA	1015	A	C8-N9-C4	-7.73	102.71	105.80
23	BA	2823	A	C5-C6-N6	-7.73	117.52	123.70
1	CA	346	G	N1-C2-N2	-7.72	109.25	116.20
23	BA	1109	C	C4-C5-C6	7.72	121.26	117.40
23	DA	1142(A)	A	C5-N7-C8	-7.72	100.04	103.90
23	DA	2689	U	C5-C4-O4	7.72	130.53	125.90
23	BA	811	U	C5-C6-N1	-7.71	118.84	122.70
23	BA	2077	A	C8-N9-C4	-7.71	102.72	105.80
23	BA	729	G	N1-C2-N2	7.71	123.14	116.20
23	DA	27	G	N3-C4-N9	-7.71	121.37	126.00
23	DA	1651	G	C5-C6-O6	-7.71	123.97	128.60
23	BA	1047	G	N3-C4-N9	7.69	130.62	126.00
23	BA	1254	A	C8-N9-C4	-7.69	102.72	105.80
23	DA	1204	A	N7-C8-N9	7.69	117.65	113.80
23	BA	664	C	N3-C4-C5	7.69	124.98	121.90
23	DA	2821	A	N1-C6-N6	7.69	123.21	118.60
23	BA	2427	C	N1-C2-O2	-7.68	114.29	118.90
23	BA	1324	G	N3-C2-N2	-7.68	114.52	119.90
23	BA	949	C	C2-N3-C4	-7.68	116.06	119.90
23	BA	1328	G	N9-C4-C5	-7.67	102.33	105.40
23	BA	2791	C	C2-N1-C1'	7.67	127.24	118.80
23	DA	2375	G	C8-N9-C4	7.67	109.47	106.40
23	BA	201	C	C2-N3-C4	-7.67	116.06	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1025	G	C8-N9-C4	-7.67	103.33	106.40
23	BA	2363	C	C5-C6-N1	-7.67	117.17	121.00
23	BA	2037	G	C4-C5-N7	-7.65	107.74	110.80
23	DA	2463	C	N1-C2-O2	-7.65	114.31	118.90
1	AA	1320	C	C6-N1-C2	-7.65	117.24	120.30
1	CA	1274	G	C8-N9-C4	-7.65	103.34	106.40
23	DA	194	G	C6-N1-C2	-7.64	120.52	125.10
23	BA	2722	G	N1-C6-O6	-7.64	115.32	119.90
23	DA	784	A	C4-C5-N7	-7.62	106.89	110.70
23	DA	2185	C	N3-C2-O2	-7.62	116.57	121.90
1	AA	1311	G	C8-N9-C1'	7.61	136.90	127.00
23	DA	978	G	C8-N9-C4	7.61	109.44	106.40
1	AA	529	G	N1-C6-O6	7.61	124.47	119.90
1	CA	1126	U	C5-C6-N1	7.61	126.50	122.70
23	DA	1047	G	N3-C4-N9	7.61	130.57	126.00
23	BA	847	U	N1-C2-N3	7.61	119.46	114.90
23	BA	1600	C	C2-N3-C4	-7.61	116.10	119.90
23	BA	446	G	C5-C6-O6	-7.60	124.04	128.60
1	AA	1245	A	C5-C6-N6	-7.60	117.62	123.70
23	DA	394	A	C8-N9-C4	7.60	108.84	105.80
23	DA	847	U	C5-C6-N1	-7.60	118.90	122.70
23	DA	1497	U	C5-C4-O4	7.60	130.46	125.90
23	DA	2823	A	N1-C6-N6	7.60	123.16	118.60
23	DA	777	A	C8-N9-C4	-7.59	102.76	105.80
23	DA	2070	G	C5-N7-C8	7.59	108.10	104.30
23	DA	1786	A	N1-C6-N6	-7.59	114.05	118.60
23	BA	763	G	C8-N9-C4	-7.59	103.36	106.40
23	DA	2591	C	C2-N3-C4	-7.59	116.11	119.90
1	CA	1254	C	C6-N1-C2	-7.59	117.27	120.30
23	BA	658	C	N3-C2-O2	-7.58	116.59	121.90
23	DA	1497	U	N3-C4-O4	-7.58	114.09	119.40
23	DA	154(A)	C	N1-C2-O2	7.58	123.45	118.90
23	DA	2423	U	C5-C6-N1	-7.58	118.91	122.70
23	BA	448	U	C5-C4-O4	7.57	130.44	125.90
1	AA	1296	C	C2-N1-C1'	7.57	127.13	118.80
23	BA	674	G	N1-C6-O6	7.57	124.44	119.90
23	DA	1997	G	C4-C5-N7	-7.57	107.77	110.80
1	CA	1216	G	N3-C4-C5	7.57	132.38	128.60
23	DA	672	C	C5-C6-N1	-7.57	117.22	121.00
23	BA	2020	A	C5-C6-N1	7.56	121.48	117.70
1	CA	697	U	C5-C6-N1	-7.56	118.92	122.70
23	DA	2498	C	C5-C6-N1	-7.56	117.22	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2022	U	N1-C2-O2	-7.56	117.51	122.80
1	AA	77	G	N3-C2-N2	7.55	125.19	119.90
23	DA	267	C	C6-N1-C2	7.55	123.32	120.30
23	DA	1047	G	N3-C4-C5	-7.55	124.83	128.60
1	CA	529	G	N1-C6-O6	7.55	124.43	119.90
23	DA	2755	C	C5-C6-N1	7.54	124.77	121.00
1	CA	1003	G	N3-C4-N9	-7.54	121.48	126.00
23	BA	591	C	N1-C2-O2	-7.54	114.38	118.90
1	AA	1285	A	C8-N9-C4	7.54	108.81	105.80
1	AA	1293	G	C8-N9-C1'	7.54	136.80	127.00
23	BA	1045	A	N9-C4-C5	-7.54	102.79	105.80
23	DA	933	A	C4-C5-N7	7.54	114.47	110.70
23	BA	1751	C	N1-C2-O2	-7.53	114.38	118.90
23	BA	1957	C	N1-C2-O2	7.53	123.42	118.90
23	DA	729	G	N1-C2-N2	7.53	122.98	116.20
23	DA	1382	G	C5-C6-O6	-7.53	124.08	128.60
23	BA	1563	G	C8-N9-C4	7.53	109.41	106.40
23	BA	1029	A	N1-C6-N6	7.53	123.12	118.60
23	DA	530	G	C8-N9-C1'	7.52	136.78	127.00
23	DA	686	G	C6-C5-N7	-7.52	125.89	130.40
23	BA	766	C	N3-C4-C5	-7.51	118.89	121.90
23	BA	488	G	C6-N1-C2	-7.51	120.59	125.10
26	BE	13	ARG	NE-CZ-NH1	-7.51	116.55	120.30
23	DA	1605	C	C6-N1-C2	-7.51	117.30	120.30
23	BA	148	C	N3-C4-C5	7.50	124.90	121.90
23	DA	2512	C	C2-N3-C4	-7.50	116.15	119.90
23	BA	47	C	N3-C4-N4	-7.50	112.75	118.00
1	CA	839	U	C2-N1-C1'	7.50	126.70	117.70
23	BA	2407	G	C6-C5-N7	-7.50	125.90	130.40
1	AA	1037	C	N3-C4-C5	-7.49	118.90	121.90
23	BA	527	C	N3-C2-O2	-7.49	116.65	121.90
45	B1	21	ARG	NE-CZ-NH1	7.49	124.05	120.30
1	AA	1459	C	C4-C5-C6	7.49	121.15	117.40
23	BA	530	G	N7-C8-N9	7.49	116.84	113.10
1	CA	1030(B)	C	N3-C2-O2	-7.48	116.66	121.90
23	DA	139(A)	G	C8-N9-C4	-7.48	103.41	106.40
1	CA	44	G	N1-C6-O6	7.48	124.39	119.90
23	DA	530	G	C4-C5-C6	-7.48	114.31	118.80
23	BA	777	A	N9-C4-C5	7.48	108.79	105.80
23	BA	2322	A	C2-N3-C4	7.48	114.34	110.60
23	BA	478	A	N9-C4-C5	7.47	108.79	105.80
23	DA	1049	C	C6-N1-C2	-7.47	117.31	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2742	C	C6-N1-C2	7.47	123.29	120.30
1	AA	1366	C	C5-C6-N1	7.47	124.73	121.00
23	BA	60	G	C8-N9-C4	7.47	109.39	106.40
1	CA	1015	A	N7-C8-N9	7.47	117.53	113.80
23	DA	2283	C	N3-C2-O2	7.46	127.12	121.90
23	BA	267	C	N3-C4-C5	7.46	124.88	121.90
23	BA	572	A	N1-C6-N6	-7.46	114.12	118.60
23	BA	791	C	N1-C2-O2	7.46	123.38	118.90
1	AA	40	C	N3-C2-O2	7.46	127.12	121.90
1	AA	839	U	N1-C2-O2	7.46	128.02	122.80
23	DA	1827	C	N3-C2-O2	-7.46	116.68	121.90
23	DA	1977	A	C8-N9-C4	7.46	108.78	105.80
23	DA	2407	G	C4-N9-C1'	7.46	136.19	126.50
1	AA	1023	G	N7-C8-N9	7.45	116.83	113.10
23	BA	778	G	C5-C6-O6	7.45	133.07	128.60
1	AA	117	G	N1-C6-O6	7.45	124.37	119.90
23	DA	2031	A	N1-C6-N6	7.44	123.06	118.60
1	AA	932	C	C2-N1-C1'	7.44	126.98	118.80
23	BA	2503	A	C5-C6-N6	-7.43	117.76	123.70
23	DA	34	C	C6-N1-C2	-7.43	117.33	120.30
23	DA	2069	G	N7-C8-N9	-7.43	109.39	113.10
23	DA	129	C	C6-N1-C2	7.43	123.27	120.30
1	CA	754	C	N1-C2-O2	7.42	123.36	118.90
23	DA	2741	A	N7-C8-N9	-7.42	110.09	113.80
1	CA	1030(B)	C	N1-C2-O2	7.42	123.35	118.90
23	DA	468	G	C8-N9-C4	7.42	109.37	106.40
23	DA	2325	G	N1-C6-O6	7.42	124.35	119.90
23	BA	2719	G	C5-C6-N1	7.42	115.21	111.50
23	BA	1814	G	C5-C6-N1	7.42	115.21	111.50
23	DA	330	A	N3-C4-C5	7.41	131.99	126.80
23	BA	1128	A	C5-C6-N6	-7.41	117.77	123.70
23	BA	2082	A	C5-C6-N1	7.41	121.40	117.70
24	DB	22	U	C2-N1-C1'	7.40	126.58	117.70
23	BA	2463	C	N3-C4-C5	7.39	124.86	121.90
23	BA	1210	A	C8-N9-C4	-7.39	102.84	105.80
23	BA	860	U	C6-N1-C2	-7.39	116.57	121.00
1	AA	372	C	N1-C2-O2	7.38	123.33	118.90
23	DA	2329	G	C8-N9-C4	7.38	109.35	106.40
23	DA	2591	C	N1-C2-O2	-7.38	114.47	118.90
23	DA	2458	G	N1-C6-O6	7.38	124.33	119.90
1	AA	953	G	C4-C5-N7	7.38	113.75	110.80
23	DA	1760	A	N1-C6-N6	-7.38	114.17	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	995	C	C6-N1-C2	-7.38	117.35	120.30
23	DA	2491	U	C5-C4-O4	-7.37	121.48	125.90
23	BA	982	C	C6-N1-C2	-7.37	117.35	120.30
23	BA	2252	G	C8-N9-C4	7.37	109.35	106.40
23	DA	1125	G	C2-N3-C4	-7.37	108.22	111.90
23	BA	2500	U	N1-C2-O2	7.37	127.96	122.80
23	BA	2430	A	N1-C2-N3	7.36	132.98	129.30
23	BA	2513	G	C8-N9-C4	-7.36	103.46	106.40
1	CA	1277	C	N1-C2-O2	7.36	123.31	118.90
23	BA	527	C	N3-C4-N4	-7.35	112.85	118.00
23	BA	2791	C	N1-C2-O2	7.35	123.31	118.90
23	DA	1468	C	C6-N1-C2	-7.35	117.36	120.30
23	BA	1253	A	C4-C5-N7	-7.35	107.03	110.70
23	BA	1493	C	C2-N1-C1'	7.35	126.88	118.80
23	BA	844	C	C6-N1-C2	7.34	123.24	120.30
23	DA	1272	A	N1-C6-N6	-7.34	114.20	118.60
1	CA	1030(B)	C	C6-N1-C2	-7.34	117.36	120.30
23	DA	113	G	N3-C4-C5	7.34	132.27	128.60
23	DA	2598	A	N1-C6-N6	7.34	123.00	118.60
1	AA	1311	G	C6-C5-N7	7.33	134.80	130.40
23	BA	1164	G	C5-C6-N1	-7.33	107.83	111.50
1	AA	1282	C	C5-C6-N1	7.33	124.67	121.00
23	DA	1325	G	C5-C6-O6	-7.33	124.20	128.60
23	DA	2457	U	N3-C2-O2	-7.33	117.07	122.20
1	AA	1459	C	N1-C2-N3	7.33	124.33	119.20
23	DA	1959	G	N9-C4-C5	7.33	108.33	105.40
1	CA	997	U	C5-C4-O4	7.32	130.29	125.90
23	DA	2286	A	C4-C5-C6	7.32	120.66	117.00
1	CA	345	C	C2-N1-C1'	7.32	126.85	118.80
29	DH	71	LEU	CA-CB-CG	7.32	132.14	115.30
23	DA	1488	G	C8-N9-C4	-7.32	103.47	106.40
23	BA	635	C	C6-N1-C2	-7.32	117.37	120.30
23	DA	1611	C	C6-N1-C2	-7.32	117.37	120.30
23	DA	2028	U	C2-N3-C4	-7.31	122.61	127.00
23	DA	456	C	N3-C4-C5	7.31	124.82	121.90
23	DA	1652	A	C8-N9-C4	-7.31	102.88	105.80
23	BA	330	A	C5-C6-N1	-7.31	114.05	117.70
23	BA	2335	A	C6-N1-C2	-7.31	114.22	118.60
23	DA	2114	A	C8-N9-C4	-7.31	102.88	105.80
23	DA	1661	G	N7-C8-N9	-7.30	109.45	113.10
23	DA	1775	U	N1-C2-O2	-7.30	117.69	122.80
23	DA	2271	G	N3-C4-C5	-7.30	124.95	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	993	G	C2-N3-C4	7.30	115.55	111.90
1	CA	503	C	C6-N1-C2	-7.30	117.38	120.30
23	DA	2296	U	O4'-C1'-N1	7.30	114.04	108.20
23	BA	1972	A	C5-C6-N6	-7.30	117.86	123.70
23	DA	616	G	C8-N9-C4	7.30	109.32	106.40
23	BA	829	A	C2-N3-C4	-7.29	106.95	110.60
23	BA	1820	U	C6-N1-C2	7.29	125.37	121.00
23	DA	1637	A	N1-C6-N6	-7.29	114.22	118.60
23	DA	1977	A	N7-C8-N9	-7.29	110.16	113.80
1	CA	365	U	C2-N1-C1'	-7.29	108.95	117.70
23	DA	530	G	C6-C5-N7	7.29	134.77	130.40
23	BA	32	C	N3-C4-N4	-7.29	112.90	118.00
23	DA	982	C	C5-C6-N1	7.28	124.64	121.00
1	AA	955	U	C5-C6-N1	7.28	126.34	122.70
1	CA	766	A	C8-N9-C4	7.28	108.71	105.80
1	CA	1031	G	N1-C2-N3	-7.28	119.53	123.90
23	DA	1028	A	C8-N9-C4	7.28	108.71	105.80
1	CA	1006	C	C6-N1-C2	-7.28	117.39	120.30
23	DA	374	A	C2-N3-C4	-7.28	106.96	110.60
23	BA	1653	G	C8-N9-C4	-7.27	103.49	106.40
23	BA	2039	C	N3-C4-C5	7.27	124.81	121.90
1	CA	1011	G	N7-C8-N9	7.27	116.73	113.10
1	AA	1373	G	N7-C8-N9	7.27	116.73	113.10
23	BA	1382	G	C5-C6-O6	-7.27	124.24	128.60
23	BA	816	C	N3-C4-C5	7.27	124.81	121.90
23	BA	495	G	C8-N9-C4	7.26	109.31	106.40
23	DA	563	G	C5-C6-O6	-7.26	124.24	128.60
23	DA	780	G	C6-N1-C2	-7.26	120.74	125.10
23	DA	467	G	C8-N9-C4	7.26	109.30	106.40
23	BA	2694	G	N1-C6-O6	7.26	124.25	119.90
23	BA	799	G	C5-C6-O6	7.26	132.95	128.60
23	BA	1605	C	C4-C5-C6	7.26	121.03	117.40
23	BA	2591	C	C2-N3-C4	-7.25	116.28	119.90
23	DA	125	G	N3-C4-C5	-7.25	124.97	128.60
23	BA	2716	U	C5-C6-N1	-7.25	119.08	122.70
1	AA	1469	G	C5-C6-O6	-7.25	124.25	128.60
23	DA	2010	G	N1-C6-O6	7.25	124.25	119.90
23	BA	147	U	C5-C6-N1	-7.24	119.08	122.70
23	BA	2344	U	C5-C4-O4	7.24	130.25	125.90
23	DA	45	C	C2-N3-C4	-7.24	116.28	119.90
23	BA	655	A	N7-C8-N9	7.24	117.42	113.80
23	BA	857	C	C6-N1-C2	-7.24	117.41	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	1519	A	N9-C4-C5	7.24	108.69	105.80
23	BA	2104	G	C6-N1-C2	7.23	129.44	125.10
23	BA	2638	G	C8-N9-C4	-7.23	103.51	106.40
23	BA	659	C	C6-N1-C2	7.23	123.19	120.30
23	BA	2008	C	C6-N1-C2	-7.23	117.41	120.30
23	BA	2124	G	C5-C6-O6	7.23	132.94	128.60
23	DA	58	G	C5-C6-O6	7.23	132.94	128.60
23	BA	983	A	N1-C6-N6	-7.22	114.27	118.60
23	BA	2494	G	C8-N9-C4	-7.22	103.51	106.40
23	DA	236	C	C5-C6-N1	-7.22	117.39	121.00
1	CA	39	G	C6-N1-C2	-7.22	120.77	125.10
23	DA	39	C	N3-C4-C5	7.22	124.79	121.90
23	BA	964	C	C6-N1-C2	-7.22	117.41	120.30
23	BA	2247	A	N1-C2-N3	7.22	132.91	129.30
23	DA	2575	C	C6-N1-C2	7.22	123.19	120.30
23	BA	676	A	C8-N9-C4	7.21	108.69	105.80
23	BA	2322	A	C5-N7-C8	7.21	107.51	103.90
1	AA	1153	C	C6-N1-C1'	7.21	129.45	120.80
23	BA	2755	C	C2-N1-C1'	7.21	126.73	118.80
23	DA	2386	C	C5-C6-N1	-7.21	117.39	121.00
23	DA	2312	U	N1-C2-O2	7.21	127.84	122.80
23	BA	394	A	N7-C8-N9	-7.20	110.20	113.80
23	BA	726	G	C5-C6-O6	7.20	132.92	128.60
23	DA	1305	C	N3-C4-C5	7.20	124.78	121.90
23	BA	1760	A	N1-C6-N6	-7.20	114.28	118.60
23	DA	801	G	C5-C6-O6	7.20	132.92	128.60
23	BA	1814	G	N1-C6-O6	-7.19	115.58	119.90
23	DA	802	A	N7-C8-N9	7.19	117.40	113.80
23	DA	847	U	N3-C4-O4	-7.19	114.37	119.40
23	DA	2498	C	C6-N1-C2	7.19	123.18	120.30
23	BA	775	G	N1-C2-N2	-7.19	109.73	116.20
23	DA	784	A	N1-C6-N6	-7.19	114.29	118.60
23	BA	755	C	C6-N1-C2	-7.19	117.42	120.30
23	DA	205	G	N3-C2-N2	7.19	124.93	119.90
1	AA	543	C	C6-N1-C2	-7.18	117.43	120.30
23	BA	2243	U	C6-N1-C2	-7.18	116.69	121.00
23	BA	1900	A	N1-C2-N3	7.18	132.89	129.30
23	BA	2312	U	N1-C2-O2	7.18	127.83	122.80
23	BA	1671	U	C5-C6-N1	-7.18	119.11	122.70
23	DA	2433	A	N1-C6-N6	7.18	122.91	118.60
23	BA	205	G	N3-C4-N9	7.18	130.31	126.00
23	BA	271(Y)	U	C2-N3-C4	-7.18	122.69	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	690	G	N1-C6-O6	-7.17	115.60	119.90
24	BB	7	G	C5-C6-O6	-7.17	124.30	128.60
23	BA	865	C	N3-C2-O2	7.17	126.92	121.90
1	CA	1283	G	N3-C4-N9	-7.17	121.70	126.00
23	BA	2433	A	N1-C6-N6	7.17	122.90	118.60
1	AA	953	G	C4-N9-C1'	7.17	135.81	126.50
1	AA	1357	A	C8-N9-C4	-7.17	102.93	105.80
23	BA	2473	U	N1-C2-O2	7.16	127.81	122.80
24	DB	104	U	C6-N1-C2	7.16	125.30	121.00
1	AA	573	A	C8-N9-C4	7.16	108.67	105.80
23	DA	2377	A	C2-N3-C4	-7.16	107.02	110.60
23	BA	2037	G	N7-C8-N9	-7.16	109.52	113.10
23	DA	936	C	C6-N1-C2	7.16	123.16	120.30
1	AA	1001	A	C6-N1-C2	-7.15	114.31	118.60
23	BA	2441	C	C2-N3-C4	-7.15	116.32	119.90
23	BA	1698	A	C6-C5-N7	-7.15	127.29	132.30
23	DA	310	A	C8-N9-C4	7.15	108.66	105.80
23	DA	2569	G	C5-C6-N1	7.15	115.07	111.50
23	BA	1779	U	N3-C4-O4	-7.14	114.40	119.40
23	BA	2500	U	N3-C4-C5	7.14	118.89	114.60
23	DA	1959	G	C8-N9-C4	-7.14	103.54	106.40
23	DA	1295	C	N1-C2-O2	-7.14	114.62	118.90
23	BA	1368	G	C2-N3-C4	7.14	115.47	111.90
23	DA	826	U	C5-C6-N1	-7.14	119.13	122.70
1	AA	1057	G	C4-C5-N7	-7.13	107.95	110.80
1	AA	1203	C	C5-C6-N1	7.13	124.56	121.00
23	BA	671	C	N3-C2-O2	-7.12	116.91	121.90
23	BA	491	G	C5-C6-O6	7.12	132.87	128.60
1	CA	1216	G	C4-N9-C1'	-7.12	117.24	126.50
23	DA	2593	U	C4-C5-C6	7.12	123.97	119.70
23	BA	1488	G	C8-N9-C4	-7.12	103.55	106.40
23	BA	1780	A	C8-N9-C4	-7.12	102.95	105.80
23	BA	1956	U	N1-C2-N3	7.12	119.17	114.90
23	DA	784	A	C5-C6-N6	7.12	129.40	123.70
23	BA	1574	C	N3-C4-C5	7.12	124.75	121.90
23	BA	1805	U	C6-N1-C2	-7.12	116.73	121.00
23	BA	534	U	N3-C4-O4	7.12	124.38	119.40
23	BA	614	U	N3-C2-O2	-7.12	117.22	122.20
23	BA	965	C	N3-C4-N4	-7.12	113.02	118.00
23	DA	265	A	N1-C6-N6	7.12	122.87	118.60
23	BA	2062	A	C5-N7-C8	-7.11	100.34	103.90
23	BA	2834	G	C8-N9-C4	-7.11	103.56	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	729	G	C8-N9-C4	-7.11	103.56	106.40
23	BA	528	A	C8-N9-C1'	7.11	140.50	127.70
23	DA	419	C	N3-C4-C5	7.11	124.75	121.90
23	DA	103	A	C8-N9-C4	7.11	108.64	105.80
23	DA	1826	G	C8-N9-C4	7.10	109.24	106.40
23	DA	2176	A	C6-N1-C2	7.10	122.86	118.60
23	BA	478	A	C6-N1-C2	-7.10	114.34	118.60
23	DA	1610	A	C5-N7-C8	-7.10	100.35	103.90
23	BA	1638	C	C4-C5-C6	7.10	120.95	117.40
23	DA	1820	U	N3-C4-C5	7.10	118.86	114.60
23	BA	12	U	C2-N1-C1'	7.10	126.22	117.70
1	CA	1003	G	N9-C4-C5	7.10	108.24	105.40
23	DA	1336	A	N1-C6-N6	-7.09	114.34	118.60
23	BA	641	C	N3-C4-C5	-7.09	119.06	121.90
23	BA	119	A	N1-C2-N3	7.09	132.84	129.30
23	DA	2508	G	N1-C6-O6	-7.09	115.65	119.90
23	BA	2335	A	C4-C5-N7	7.08	114.24	110.70
1	AA	1063	C	N1-C2-O2	7.08	123.15	118.90
1	CA	754	C	N3-C2-O2	-7.08	116.94	121.90
1	CA	1036	G	C8-N9-C1'	-7.08	117.80	127.00
23	BA	655	A	C8-N9-C4	-7.08	102.97	105.80
23	DA	1365	A	N1-C6-N6	7.08	122.85	118.60
29	BH	71	LEU	CA-CB-CG	7.07	131.56	115.30
1	CA	995	C	N1-C2-O2	7.07	123.14	118.90
1	AA	1302	U	N3-C2-O2	-7.07	117.25	122.20
23	DA	1784	A	N9-C4-C5	-7.06	102.97	105.80
1	AA	1347	G	N3-C4-N9	-7.06	121.76	126.00
23	BA	2883	A	C8-N9-C4	-7.06	102.98	105.80
23	DA	2287	A	N3-C4-C5	7.06	131.74	126.80
1	CA	1277	C	C2-N3-C4	7.06	123.43	119.90
1	CA	839	U	N3-C2-O2	-7.06	117.26	122.20
23	BA	613	G	C8-N9-C4	-7.05	103.58	106.40
23	BA	2826	A	C8-N9-C4	7.05	108.62	105.80
23	DA	488	G	N7-C8-N9	-7.05	109.58	113.10
23	BA	1214	A	N7-C8-N9	-7.05	110.28	113.80
23	DA	330	A	C5-N7-C8	-7.05	100.38	103.90
23	DA	1109	C	N3-C4-C5	-7.05	119.08	121.90
23	BA	640	C	C5-C6-N1	7.05	124.52	121.00
23	BA	801	G	N9-C4-C5	7.05	108.22	105.40
23	BA	1320	C	C6-N1-C2	7.04	123.12	120.30
23	BA	978	G	N7-C8-N9	-7.04	109.58	113.10
24	DB	101	G	C8-N9-C4	7.04	109.22	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	1216	G	N3-C4-N9	-7.04	121.78	126.00
23	DA	148	C	C5-C6-N1	-7.04	117.48	121.00
23	BA	774	A	N7-C8-N9	7.04	117.32	113.80
23	BA	2361	A	N1-C6-N6	7.04	122.82	118.60
23	DA	1142(A)	A	N3-C4-C5	7.04	131.72	126.80
23	BA	2607	G	C6-C5-N7	-7.03	126.18	130.40
1	CA	1069	C	C6-N1-C2	-7.03	117.49	120.30
23	BA	864	G	C2-N3-C4	7.03	115.42	111.90
23	DA	764	A	N1-C2-N3	-7.03	125.78	129.30
23	BA	1795	C	C5-C4-N4	-7.03	115.28	120.20
23	DA	772	C	N1-C2-O2	-7.03	114.68	118.90
23	DA	2030	A	N1-C6-N6	7.03	122.82	118.60
23	BA	1623	G	C5-C6-N1	7.03	115.02	111.50
24	BB	6	C	C5-C6-N1	-7.03	117.49	121.00
1	CA	1456	G	C6-C5-N7	-7.03	126.18	130.40
23	DA	652(T)	C	C5-C4-N4	7.03	125.12	120.20
23	DA	807	U	N3-C4-O4	7.03	124.32	119.40
23	DA	1817	G	N9-C4-C5	-7.03	102.59	105.40
23	DA	1955	U	C5-C6-N1	-7.03	119.19	122.70
23	BA	2006	C	C6-N1-C2	-7.02	117.49	120.30
23	BA	2226	C	C6-N1-C2	7.02	123.11	120.30
23	DA	847	U	C2-N1-C1'	-7.02	109.28	117.70
23	BA	527	C	N1-C2-N3	7.02	124.11	119.20
23	DA	841	A	C2-N3-C4	-7.02	107.09	110.60
23	BA	1427	A	N1-C6-N6	-7.01	114.39	118.60
23	DA	2286	A	C5-C6-N1	-7.01	114.19	117.70
23	BA	1365	A	C5-C6-N6	-7.01	118.09	123.70
23	BA	1616	A	N1-C6-N6	7.01	122.81	118.60
23	DA	2620	C	N3-C4-C5	7.01	124.70	121.90
23	BA	15	G	N3-C2-N2	-7.01	114.99	119.90
23	BA	2070	G	C2-N3-C4	-7.01	108.39	111.90
23	DA	62	C	C2-N3-C4	-7.01	116.39	119.90
23	BA	2335	A	C4-C5-C6	-7.01	113.50	117.00
23	BA	823	G	C8-N9-C4	-7.01	103.60	106.40
23	DA	546	C	C6-N1-C2	-7.01	117.50	120.30
23	DA	2626	C	C6-N1-C2	7.01	123.10	120.30
23	BA	2423	U	C5-C6-N1	-7.00	119.20	122.70
23	BA	2683	C	N3-C2-O2	-7.00	117.00	121.90
23	BA	527	C	C6-N1-C2	-7.00	117.50	120.30
23	BA	2059	A	C8-N9-C4	6.99	108.60	105.80
23	DA	1042	G	N1-C6-O6	6.99	124.10	119.90
23	BA	1223	G	N1-C6-O6	-6.99	115.70	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2681	C	N3-C2-O2	-6.99	117.01	121.90
1	CA	1502	A	C4-C5-N7	6.99	114.19	110.70
23	BA	2290	G	C2-N3-C4	-6.99	108.41	111.90
23	BA	777	A	C5-C6-N6	6.99	129.29	123.70
23	BA	2290	G	C8-N9-C4	6.99	109.19	106.40
1	AA	1519	A	C8-N9-C4	-6.98	103.01	105.80
1	CA	1459	C	C4-C5-C6	6.98	120.89	117.40
23	DA	528	A	C5-N7-C8	-6.98	100.41	103.90
23	BA	201	C	N3-C4-C5	6.98	124.69	121.90
23	DA	1786	A	N1-C2-N3	6.98	132.79	129.30
23	BA	2346	A	C4-C5-C6	6.98	120.49	117.00
1	CA	1277	C	C5-C6-N1	6.98	124.49	121.00
1	AA	1193	G	N3-C4-C5	-6.98	125.11	128.60
23	BA	1824	G	C5-C6-O6	-6.98	124.41	128.60
23	DA	801	G	N9-C4-C5	6.98	108.19	105.40
23	BA	1607	C	C5-C4-N4	-6.97	115.32	120.20
24	DB	101	G	N9-C4-C5	-6.97	102.61	105.40
23	BA	683	C	C4-C5-C6	-6.97	113.91	117.40
23	DA	2040	C	C5-C4-N4	-6.97	115.32	120.20
23	BA	121	G	N1-C6-O6	6.97	124.08	119.90
1	AA	1030	C	C6-N1-C2	-6.97	117.51	120.30
23	BA	1190	G	N7-C8-N9	-6.97	109.62	113.10
23	BA	1256	G	C6-N1-C2	-6.97	120.92	125.10
23	DA	62	C	C5-C6-N1	-6.97	117.52	121.00
23	DA	1271	G	N1-C6-O6	6.97	124.08	119.90
23	DA	2244	U	C2-N3-C4	-6.97	122.82	127.00
23	DA	2361	A	N1-C6-N6	6.97	122.78	118.60
23	BA	1639	U	N3-C2-O2	-6.96	117.33	122.20
23	BA	2710	C	C4-C5-C6	6.96	120.88	117.40
23	DA	2296	U	C3'-C2'-C1'	-6.96	95.93	101.50
23	BA	1025	G	N9-C4-C5	6.96	108.18	105.40
1	AA	971	G	C8-N9-C4	-6.95	103.62	106.40
23	BA	330	A	N3-C4-N9	-6.95	121.84	127.40
23	BA	2461	C	C6-N1-C2	-6.95	117.52	120.30
23	DA	2312	U	C2-N1-C1'	6.95	126.04	117.70
1	CA	1008	C	N1-C2-O2	6.95	123.07	118.90
23	DA	2221	G	C8-N9-C4	-6.94	103.62	106.40
23	DA	1568	G	N1-C6-O6	-6.94	115.73	119.90
23	DA	2017	U	C4-C5-C6	6.94	123.87	119.70
1	AA	1456	G	C8-N9-C4	-6.94	103.62	106.40
23	BA	2441	C	C5-C6-N1	-6.94	117.53	121.00
23	DA	1825	A	C5-C6-N1	6.94	121.17	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	799	G	N9-C4-C5	6.93	108.17	105.40
23	BA	1307	A	C8-N9-C4	6.93	108.57	105.80
23	BA	2428	G	N3-C2-N2	6.93	124.75	119.90
23	BA	52	A	C5-N7-C8	-6.93	100.44	103.90
23	DA	12	U	C2-N1-C1'	6.93	126.01	117.70
23	DA	2713	A	C8-N9-C4	6.93	108.57	105.80
23	BA	529	A	C5-N7-C8	-6.92	100.44	103.90
1	CA	346	G	C4-C5-C6	6.92	122.95	118.80
1	AA	1469	G	N1-C6-O6	6.92	124.05	119.90
23	BA	647	G	C8-N9-C4	-6.92	103.63	106.40
23	DA	195	A	C4-C5-C6	6.92	120.46	117.00
23	BA	652(T)	C	N1-C2-O2	6.92	123.05	118.90
23	BA	1952	A	C8-N9-C4	-6.92	103.03	105.80
23	DA	2268	A	N1-C6-N6	6.92	122.75	118.60
1	AA	150	C	C5-C6-N1	6.92	124.46	121.00
23	BA	737	C	N1-C2-O2	-6.92	114.75	118.90
23	BA	799	G	N1-C6-O6	-6.92	115.75	119.90
23	BA	1616	A	C4-C5-N7	6.91	114.16	110.70
23	BA	2415	G	N3-C2-N2	-6.91	115.06	119.90
23	DA	140	G	C8-N9-C4	6.91	109.16	106.40
1	AA	1230	C	C5-C6-N1	6.91	124.45	121.00
23	BA	2345	G	N1-C2-N3	6.91	128.04	123.90
23	DA	115	C	N1-C2-O2	-6.91	114.76	118.90
23	BA	488	G	N3-C4-C5	-6.90	125.15	128.60
1	CA	1044	A	C5-C6-N6	6.90	129.22	123.70
23	BA	194	G	N1-C2-N3	6.90	128.04	123.90
23	DA	2114	A	N7-C8-N9	6.90	117.25	113.80
23	DA	2181	G	C5-C6-O6	6.90	132.74	128.60
23	DA	2415	G	C5-C6-O6	-6.90	124.46	128.60
23	BA	62	C	C5-C6-N1	-6.90	117.55	121.00
24	DB	71	C	N1-C2-O2	6.90	123.04	118.90
23	DA	679	C	N3-C2-O2	6.90	126.73	121.90
23	BA	1558	A	N1-C2-N3	6.90	132.75	129.30
23	DA	27	G	N9-C4-C5	6.90	108.16	105.40
1	CA	365	U	C5-C6-N1	-6.89	119.25	122.70
23	DA	2069	G	C5-N7-C8	6.89	107.75	104.30
23	DA	2124	G	C5-C6-O6	6.89	132.74	128.60
1	CA	1443	G	C5-C6-N1	6.89	114.94	111.50
23	BA	2446	G	N3-C4-C5	-6.89	125.16	128.60
23	BA	2286	A	C5-C6-N1	-6.89	114.26	117.70
23	DA	819	A	C8-N9-C4	-6.89	103.05	105.80
23	DA	2855	C	C6-N1-C2	-6.89	117.55	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2030	A	N1-C6-N6	6.88	122.73	118.60
23	DA	141	A	C4-C5-N7	6.88	114.14	110.70
23	DA	1207	C	C6-N1-C2	6.88	123.05	120.30
23	BA	240	G	C8-N9-C4	6.88	109.15	106.40
23	BA	2181	G	C6-N1-C2	6.88	129.23	125.10
1	AA	117	G	C6-C5-N7	-6.88	126.27	130.40
23	BA	1130	U	N3-C2-O2	-6.88	117.38	122.20
23	BA	1328	G	C8-N9-C4	6.88	109.15	106.40
23	DA	488	G	C4-C5-N7	-6.88	108.05	110.80
23	DA	97	C	C5-C4-N4	6.88	125.01	120.20
1	AA	1320	C	N3-C4-C5	-6.88	119.15	121.90
23	BA	381	G	N3-C4-C5	-6.87	125.16	128.60
23	BA	729	G	N7-C8-N9	6.87	116.54	113.10
23	BA	932	G	C5-C6-N1	6.87	114.94	111.50
23	BA	1125	G	N1-C6-O6	6.87	124.02	119.90
1	AA	1347	G	C8-N9-C1'	6.87	135.93	127.00
23	BA	1376	C	N3-C4-N4	6.87	122.81	118.00
23	BA	1955	U	C2-N1-C1'	-6.87	109.45	117.70
23	DA	1354	A	C5-C6-N1	6.87	121.14	117.70
1	AA	814	A	N1-C6-N6	6.87	122.72	118.60
1	AA	1456	G	N3-C4-C5	-6.87	125.17	128.60
23	BA	254	G	C8-N9-C4	-6.87	103.65	106.40
23	BA	2407	G	C4-N9-C1'	6.87	135.43	126.50
23	DA	802	A	N1-C6-N6	-6.87	114.48	118.60
23	DA	1616	A	N1-C6-N6	6.87	122.72	118.60
23	BA	1984	G	N1-C6-O6	-6.87	115.78	119.90
23	DA	2260	C	C5-C6-N1	-6.87	117.57	121.00
23	DA	2360	A	C8-N9-C4	6.86	108.55	105.80
23	BA	512	G	O4'-C1'-N9	6.86	113.69	108.20
23	BA	2475	C	C6-N1-C2	-6.86	117.56	120.30
1	AA	1061	G	N3-C2-N2	6.86	124.70	119.90
23	BA	2075	U	N3-C2-O2	-6.86	117.40	122.20
23	DA	379	G	N1-C6-O6	6.86	124.01	119.90
23	DA	1900	A	N3-C4-C5	-6.86	122.00	126.80
23	BA	2191	G	N1-C6-O6	6.85	124.01	119.90
23	BA	2346	A	N1-C2-N3	6.85	132.73	129.30
23	DA	24	G	N1-C6-O6	6.85	124.01	119.90
23	DA	478	A	C8-N9-C4	-6.85	103.06	105.80
1	CA	1087	G	C4-N9-C1'	6.85	135.41	126.50
23	DA	73	A	N9-C4-C5	6.85	108.54	105.80
23	BA	808	G	N3-C4-C5	-6.85	125.17	128.60
23	DA	201	C	C2-N3-C4	-6.85	116.47	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1524	G	N1-C6-O6	-6.85	115.79	119.90
23	BA	2791	C	C6-N1-C2	-6.85	117.56	120.30
23	BA	2024	G	C8-N9-C4	6.84	109.14	106.40
23	DA	695	G	N3-C2-N2	6.84	124.69	119.90
24	DB	120	A	C5-C6-N6	6.84	129.18	123.70
23	BA	2548	G	N9-C4-C5	6.84	108.14	105.40
23	DA	1201	C	N1-C2-O2	-6.84	114.80	118.90
23	DA	1638	C	C4-C5-C6	6.84	120.82	117.40
1	AA	1459	C	C6-N1-C1'	-6.84	112.59	120.80
23	BA	127	A	C8-N9-C4	6.84	108.53	105.80
23	BA	599	G	C8-N9-C4	6.84	109.13	106.40
23	DA	528	A	C8-N9-C1'	6.84	140.00	127.70
23	DA	2181	G	C6-N1-C2	6.83	129.20	125.10
23	BA	987	G	N9-C4-C5	6.83	108.13	105.40
23	DA	297	C	C6-N1-C2	-6.83	117.57	120.30
23	BA	737	C	C6-N1-C2	6.83	123.03	120.30
23	BA	2446	G	N3-C2-N2	6.83	124.68	119.90
23	DA	645	C	C2-N1-C1'	6.83	126.31	118.80
23	DA	1408	C	N1-C2-O2	-6.83	114.80	118.90
1	CA	1258	G	C2-N3-C4	6.83	115.31	111.90
23	DA	12	U	N1-C2-O2	6.83	127.58	122.80
23	BA	311	A	N1-C6-N6	6.83	122.69	118.60
23	BA	345	A	C5-C6-N6	-6.82	118.24	123.70
23	DA	1244	G	N1-C6-O6	6.82	123.99	119.90
23	BA	965	C	C5-C4-N4	6.82	124.97	120.20
23	BA	1026	U	N1-C2-O2	6.82	127.58	122.80
23	BA	1899	G	N1-C6-O6	6.82	123.99	119.90
23	BA	2280	G	C5-C6-O6	6.82	132.69	128.60
23	DA	1775	U	C2-N3-C4	-6.82	122.91	127.00
23	DA	1959	G	C5-C6-O6	6.82	132.69	128.60
23	DA	2067	G	N9-C4-C5	6.82	108.13	105.40
1	CA	1368	G	N1-C6-O6	6.81	123.99	119.90
23	DA	1007	C	N3-C4-C5	6.81	124.63	121.90
23	BA	1128	A	C8-N9-C4	6.81	108.53	105.80
23	DA	2766	G	N1-C6-O6	-6.81	115.81	119.90
23	DA	912	C	C6-N1-C2	-6.81	117.58	120.30
23	BA	2048	G	C8-N9-C4	-6.80	103.68	106.40
23	BA	2508	G	C5-C6-N1	6.80	114.90	111.50
1	AA	1366	C	N3-C4-C5	-6.80	119.18	121.90
23	BA	221	A	N9-C4-C5	6.80	108.52	105.80
23	BA	1214	A	C8-N9-C4	6.80	108.52	105.80
23	DA	2122	U	C5-C4-O4	6.80	129.98	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	1290	G	C5-C6-O6	6.80	132.68	128.60
23	DA	769	G	C8-N9-C4	6.80	109.12	106.40
23	BA	42	G	N7-C8-N9	-6.80	109.70	113.10
23	BA	2103	C	N3-C4-C5	-6.80	119.18	121.90
52	B8	30	ARG	NE-CZ-NH1	-6.80	116.90	120.30
23	DA	2417	C	N3-C2-O2	-6.80	117.14	121.90
1	AA	1326	C	C6-N1-C2	-6.79	117.58	120.30
23	BA	1039	G	C8-N9-C4	6.79	109.12	106.40
23	DA	1954	G	N3-C2-N2	-6.79	115.15	119.90
23	BA	199	A	C2-N3-C4	6.79	113.99	110.60
23	BA	386	G	C8-N9-C4	-6.79	103.68	106.40
23	BA	1415	U	N3-C4-O4	-6.79	114.65	119.40
1	AA	896	C	C6-N1-C2	6.79	123.02	120.30
23	BA	847	U	C2-N1-C1'	-6.78	109.56	117.70
23	BA	1755	A	C8-N9-C4	-6.78	103.09	105.80
23	BA	2306	C	N1-C2-O2	6.78	122.97	118.90
1	AA	1158	C	C5-C6-N1	6.78	124.39	121.00
1	AA	1247	U	C5-C6-N1	6.78	126.09	122.70
23	BA	1992	G	C8-N9-C4	-6.78	103.69	106.40
1	CA	1002	G	C8-N9-C4	-6.78	103.69	106.40
23	DA	915	C	C6-N1-C2	-6.78	117.59	120.30
23	DA	2193	G	C5-C6-N1	-6.78	108.11	111.50
23	BA	2306	C	C2-N1-C1'	6.78	126.26	118.80
23	DA	183	C	N3-C4-C5	6.78	124.61	121.90
1	AA	994	A	N1-C6-N6	6.78	122.67	118.60
23	BA	2508	G	C2-N3-C4	6.78	115.29	111.90
23	BA	2781	A	N1-C6-N6	-6.78	114.53	118.60
23	DA	2335	A	C6-N1-C2	-6.78	114.53	118.60
23	BA	1332	G	C5-C6-O6	-6.78	124.53	128.60
23	BA	1937	A	N1-C2-N3	6.78	132.69	129.30
1	CA	1459	C	C6-N1-C1'	-6.78	112.67	120.80
23	DA	2335	A	C4-C5-N7	6.78	114.09	110.70
23	BA	478	A	C8-N9-C4	-6.77	103.09	105.80
23	DA	1834	U	N3-C2-O2	-6.77	117.46	122.20
23	BA	2122	U	C5-C4-O4	6.77	129.96	125.90
23	DA	830	G	N1-C6-O6	-6.77	115.84	119.90
23	DA	1325	G	C5-C6-N1	6.77	114.88	111.50
1	AA	1292	U	C5-C4-O4	-6.76	121.84	125.90
23	BA	1762	A	N7-C8-N9	6.76	117.18	113.80
23	DA	2821	A	C4-C5-N7	6.76	114.08	110.70
23	BA	215	G	C8-N9-C4	6.76	109.11	106.40
1	AA	365	U	C2-N1-C1'	-6.76	109.59	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	37	C	N3-C2-O2	-6.76	117.17	121.90
23	BA	816	C	C2-N3-C4	-6.76	116.52	119.90
23	DA	2063	C	N3-C4-N4	6.76	122.73	118.00
1	AA	1363	C	N3-C4-C5	-6.76	119.20	121.90
23	BA	2848	G	C4-C5-N7	-6.76	108.10	110.80
23	DA	2123	G	C6-C5-N7	6.76	134.46	130.40
1	AA	1297	C	N3-C4-C5	-6.75	119.20	121.90
23	BA	1602	U	N1-C2-N3	6.75	118.95	114.90
1	AA	398	C	C6-N1-C2	6.75	123.00	120.30
23	BA	573	G	N3-C2-N2	-6.75	115.17	119.90
23	BA	1899	G	C5-C6-O6	-6.75	124.55	128.60
23	BA	2581	G	C5-C6-O6	6.75	132.65	128.60
23	DA	1660	C	C5-C6-N1	-6.75	117.62	121.00
23	BA	2791	C	C5-C6-N1	6.75	124.38	121.00
23	DA	801	G	N3-C4-N9	-6.75	121.95	126.00
49	B5	15	ARG	NE-CZ-NH1	-6.75	116.93	120.30
1	CA	117	G	C6-C5-N7	-6.75	126.35	130.40
23	DA	2407	G	C8-N9-C1'	-6.75	118.23	127.00
23	BA	59	U	N1-C2-O2	6.75	127.52	122.80
23	DA	2260	C	C2-N3-C4	-6.74	116.53	119.90
23	DA	2318	G	N3-C4-C5	-6.74	125.23	128.60
1	AA	1151	A	C5-C6-N6	6.74	129.09	123.70
23	BA	2501	C	C2-N3-C4	-6.74	116.53	119.90
1	AA	1003	G	C5-C6-O6	6.74	132.64	128.60
23	DA	2575	C	C5-C6-N1	-6.74	117.63	121.00
23	BA	2070	G	N1-C2-N2	-6.74	110.14	116.20
23	BA	678	C	C6-N1-C2	6.73	122.99	120.30
23	BA	1539	G	C6-C5-N7	-6.73	126.36	130.40
23	BA	1669	A	N1-C6-N6	-6.73	114.56	118.60
1	CA	1344	C	C6-N1-C2	-6.73	117.61	120.30
23	DA	645	C	N3-C2-O2	-6.73	117.19	121.90
23	DA	768	G	C6-N1-C2	-6.73	121.06	125.10
23	BA	2093	G	C2-N3-C4	-6.73	108.54	111.90
23	BA	1831	G	C8-N9-C4	-6.73	103.71	106.40
23	BA	2725	A	C2-N3-C4	-6.73	107.24	110.60
1	CA	1037	C	C5-C4-N4	6.73	124.91	120.20
23	BA	1827	C	C6-N1-C2	-6.73	117.61	120.30
23	DA	1937	A	N1-C6-N6	6.73	122.64	118.60
23	BA	453	C	C2-N3-C4	-6.72	116.54	119.90
23	BA	1572	A	C2-N3-C4	-6.72	107.24	110.60
23	BA	1858	G	N3-C4-C5	-6.72	125.24	128.60
23	DA	463	G	C8-N9-C4	-6.72	103.71	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	678	C	N3-C4-C5	6.72	124.59	121.90
23	DA	2332	U	N1-C2-O2	6.72	127.50	122.80
23	BA	1359	A	C5-C6-N6	6.72	129.08	123.70
23	BA	2244	U	C5-C6-N1	-6.72	119.34	122.70
1	AA	839	U	N3-C2-O2	-6.72	117.50	122.20
23	DA	652(T)	C	N1-C2-O2	6.72	122.93	118.90
23	DA	2306	C	C2-N1-C1'	6.72	126.19	118.80
1	AA	43	C	C2-N3-C4	-6.71	116.54	119.90
23	BA	1605	C	C6-N1-C2	-6.71	117.61	120.30
23	DA	484	C	N3-C4-C5	6.71	124.58	121.90
1	AA	699	C	C6-N1-C2	-6.71	117.62	120.30
45	D1	21	ARG	NE-CZ-NH2	-6.71	116.94	120.30
1	CA	1242	C	C6-N1-C2	-6.71	117.62	120.30
23	DA	2123	G	C8-N9-C1'	6.71	135.72	127.00
23	DA	154(A)	C	C6-N1-C1'	-6.71	112.75	120.80
23	BA	744	G	C5-C6-O6	6.70	132.62	128.60
1	CA	403	C	C2-N3-C4	-6.70	116.55	119.90
1	CA	1026	G	C4-N9-C1'	6.70	135.22	126.50
1	CA	1274	G	C8-N9-C1'	-6.70	118.28	127.00
23	DA	1397	U	N3-C2-O2	-6.70	117.51	122.20
23	DA	1211	U	C5-C4-O4	-6.70	121.88	125.90
1	CA	757	U	C5-C6-N1	-6.70	119.35	122.70
23	DA	2733	A	N1-C6-N6	6.70	122.62	118.60
1	AA	1054	C	N1-C2-O2	6.70	122.92	118.90
23	BA	839	U	C2-N3-C4	6.70	131.02	127.00
23	BA	2446	G	N1-C2-N2	-6.69	110.17	116.20
23	BA	837	C	C6-N1-C2	-6.69	117.62	120.30
33	BP	147	LEU	CA-CB-CG	6.69	130.69	115.30
23	DA	121	G	C5-C6-O6	-6.69	124.58	128.60
23	DA	154(A)	C	C2-N1-C1'	6.69	126.16	118.80
23	DA	1128	A	N1-C6-N6	6.69	122.61	118.60
23	DA	453	C	C6-N1-C2	6.69	122.98	120.30
23	DA	1359	A	C5-C6-N6	6.69	129.05	123.70
23	BA	130	C	C5-C6-N1	-6.69	117.66	121.00
23	BA	1858	G	C8-N9-C4	-6.69	103.72	106.40
23	DA	2821	A	C5-C6-N6	-6.69	118.35	123.70
1	AA	1220	G	N9-C4-C5	-6.69	102.73	105.40
23	BA	1128	A	N9-C4-C5	-6.69	103.13	105.80
23	BA	931	G	N3-C4-C5	-6.68	125.26	128.60
1	AA	912	C	N1-C2-O2	-6.68	114.89	118.90
1	AA	972	C	C6-N1-C2	-6.68	117.63	120.30
23	BA	679	C	C6-N1-C2	6.68	122.97	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2498	C	C6-N1-C2	6.68	122.97	120.30
23	DA	2322	A	N3-C4-C5	-6.68	122.12	126.80
23	BA	2508	G	C6-C5-N7	6.68	134.41	130.40
23	BA	1164	G	C5-C6-O6	6.68	132.61	128.60
23	DA	1026	U	N1-C2-O2	6.68	127.47	122.80
1	AA	1456	G	N7-C8-N9	6.68	116.44	113.10
23	BA	476	G	N3-C4-N9	-6.68	121.99	126.00
23	BA	2692	C	N3-C2-O2	-6.68	117.23	121.90
1	CA	1195	C	C6-N1-C2	-6.68	117.63	120.30
23	BA	385	C	C4-C5-C6	-6.67	114.06	117.40
23	BA	2379	G	N3-C4-N9	6.67	130.00	126.00
23	BA	678	C	N3-C4-N4	-6.67	113.33	118.00
1	CA	754	C	C2-N1-C1'	6.67	126.14	118.80
1	AA	1210	C	N1-C2-O2	6.67	122.90	118.90
23	BA	195	A	N1-C2-N3	6.67	132.63	129.30
23	BA	1793	C	N1-C2-O2	-6.67	114.90	118.90
23	BA	2069	G	C5-C6-O6	-6.66	124.60	128.60
23	BA	1333	C	C6-N1-C2	6.66	122.97	120.30
23	BA	640	C	N3-C4-N4	6.66	122.66	118.00
23	BA	741	G	N1-C6-O6	-6.66	115.90	119.90
1	CA	1151	A	N1-C6-N6	-6.66	114.60	118.60
23	DA	12	U	C6-N1-C2	-6.66	117.00	121.00
23	DA	2347	C	N3-C2-O2	-6.66	117.24	121.90
1	AA	1303	C	C2-N1-C1'	6.66	126.12	118.80
23	BA	1204	A	C3'-C2'-C1'	-6.66	96.17	101.50
23	DA	652(E)	G	N3-C2-N2	6.66	124.56	119.90
1	AA	1278	U	C2-N1-C1'	6.66	125.69	117.70
23	BA	931	G	C2-N3-C4	6.66	115.23	111.90
23	BA	2440	C	N1-C2-O2	6.66	122.89	118.90
23	BA	271(Y)	U	N3-C2-O2	-6.66	117.54	122.20
23	DA	2346	A	C8-N9-C4	-6.65	103.14	105.80
23	BA	968	G	N1-C6-O6	-6.65	115.91	119.90
1	CA	768	A	C8-N9-C4	6.65	108.46	105.80
23	BA	2440	C	N3-C4-N4	-6.65	113.34	118.00
23	DA	1210	A	C8-N9-C4	-6.65	103.14	105.80
1	AA	754	C	C2-N1-C1'	6.65	126.11	118.80
23	BA	1336	A	C5-N7-C8	6.65	107.22	103.90
23	DA	429	A	N1-C6-N6	6.65	122.59	118.60
1	AA	345	C	C6-N1-C1'	-6.64	112.83	120.80
1	AA	960	U	C6-N1-C1'	-6.64	111.90	121.20
23	BA	1698	A	C5-C6-N1	-6.64	114.38	117.70
23	BA	2015	A	C2-N3-C4	-6.64	107.28	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2346	A	N3-C4-C5	-6.64	122.15	126.80
1	CA	898	G	N9-C4-C5	-6.64	102.74	105.40
23	DA	728	G	C8-N9-C4	6.64	109.06	106.40
23	DA	2024	G	N9-C4-C5	-6.64	102.74	105.40
23	BA	1188	U	N3-C4-C5	6.64	118.58	114.60
23	DA	1247	A	C8-N9-C4	6.64	108.46	105.80
23	DA	1597	A	N9-C4-C5	6.64	108.45	105.80
23	BA	425	G	N3-C4-N9	6.64	129.98	126.00
23	BA	1783	A	N9-C4-C5	6.64	108.45	105.80
1	CA	1038	C	C2-N3-C4	6.64	123.22	119.90
23	DA	528	A	C4-N9-C1'	-6.64	114.36	126.30
1	CA	357	G	C2-N3-C4	6.63	115.22	111.90
23	DA	362	U	C5-C4-O4	-6.63	121.92	125.90
23	DA	2444	G	C4-C5-N7	-6.63	108.15	110.80
1	AA	1098	C	C5-C6-N1	6.63	124.31	121.00
23	BA	1123	C	C6-N1-C2	6.63	122.95	120.30
23	DA	2762	G	C8-N9-C4	-6.62	103.75	106.40
23	BA	217	G	N1-C6-O6	6.62	123.87	119.90
23	BA	263	C	N3-C2-O2	-6.62	117.26	121.90
23	BA	856	C	C5-C6-N1	6.62	124.31	121.00
23	BA	1185	C	C5-C4-N4	6.62	124.84	120.20
23	DA	2084	C	C4-C5-C6	6.62	120.71	117.40
23	DA	2244	U	C5-C6-N1	-6.62	119.39	122.70
23	BA	1333	C	N3-C4-C5	6.62	124.55	121.90
1	CA	1242	C	N3-C4-N4	6.62	122.63	118.00
23	DA	2407	G	C6-C5-N7	-6.62	126.43	130.40
23	BA	36	G	C5-C6-O6	6.62	132.57	128.60
23	BA	193	U	C6-N1-C2	-6.62	117.03	121.00
23	BA	516	C	C4-C5-C6	6.62	120.71	117.40
23	BA	1191	G	C4-C5-N7	-6.62	108.15	110.80
23	BA	1899	G	C8-N9-C4	-6.62	103.75	106.40
23	BA	2407	G	C8-N9-C1'	-6.62	118.40	127.00
1	AA	346	G	N3-C2-N2	6.61	124.53	119.90
23	BA	37	C	N1-C2-O2	6.61	122.87	118.90
23	BA	2581	G	N1-C2-N2	-6.61	110.25	116.20
23	BA	785	G	N3-C4-C5	6.61	131.91	128.60
23	BA	2869	G	C8-N9-C4	-6.61	103.75	106.40
23	BA	1351	C	N3-C4-C5	6.61	124.54	121.90
23	BA	1382	G	N1-C6-O6	6.61	123.86	119.90
23	BA	57	C	C6-N1-C2	6.61	122.94	120.30
23	BA	971	C	C2-N3-C4	-6.61	116.60	119.90
23	DA	1826	G	C4-C5-N7	-6.61	108.16	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	73	A	C6-N1-C2	-6.60	114.64	118.60
23	DA	1578	U	N3-C2-O2	-6.60	117.58	122.20
24	BB	80	U	C5-C4-O4	6.60	129.86	125.90
23	BA	2407	G	N1-C6-O6	6.60	123.86	119.90
23	DA	2307	G	N7-C8-N9	6.60	116.40	113.10
23	BA	641	C	C6-N1-C2	-6.59	117.66	120.30
1	AA	1245	A	N1-C6-N6	6.59	122.55	118.60
23	BA	2319	G	C5-N7-C8	-6.59	101.00	104.30
23	DA	1471	A	N7-C8-N9	6.59	117.09	113.80
23	BA	975	C	N3-C4-N4	-6.59	113.39	118.00
23	BA	154(A)	C	C6-N1-C1'	-6.58	112.90	120.80
23	DA	784	A	C5-N7-C8	6.58	107.19	103.90
23	BA	2353	G	C2-N3-C4	-6.58	108.61	111.90
23	DA	798	G	C2-N3-C4	-6.58	108.61	111.90
23	BA	2296	U	C3'-C2'-C1'	-6.58	96.24	101.50
23	DA	409	C	N3-C4-C5	6.58	124.53	121.90
23	BA	1308	A	N1-C6-N6	-6.58	114.66	118.60
1	AA	719	C	C6-N1-C2	-6.57	117.67	120.30
1	AA	943	U	N3-C4-O4	6.57	124.00	119.40
23	BA	2628	C	N3-C4-C5	6.57	124.53	121.90
23	DA	1471	A	C8-N9-C4	-6.57	103.17	105.80
1	AA	346	G	C6-C5-N7	-6.57	126.46	130.40
23	BA	2442	C	C2-N3-C4	-6.57	116.61	119.90
23	DA	2090	G	C4-C5-N7	-6.57	108.17	110.80
23	BA	272(D)	G	C8-N9-C4	6.57	109.03	106.40
1	CA	1524	C	C6-N1-C2	6.57	122.93	120.30
23	BA	243	U	C5-C6-N1	6.57	125.98	122.70
23	BA	2359	C	N3-C2-O2	-6.57	117.30	121.90
23	BA	154(A)	C	C2-N1-C1'	6.56	126.02	118.80
23	BA	2730	C	N3-C4-C5	6.56	124.53	121.90
23	DA	39	C	N3-C4-N4	-6.56	113.41	118.00
23	DA	1377	G	N3-C4-C5	-6.56	125.32	128.60
23	BA	783	A	C2-N3-C4	6.56	113.88	110.60
23	BA	1659	U	N1-C2-O2	-6.56	118.21	122.80
23	BA	2110	G	N3-C4-N9	6.56	129.94	126.00
23	BA	2322	A	N1-C2-N3	6.56	132.58	129.30
23	DA	678	C	C6-N1-C2	6.56	122.92	120.30
1	AA	1456	G	C8-N9-C1'	-6.56	118.47	127.00
23	DA	1384	A	N1-C6-N6	-6.56	114.66	118.60
23	DA	2174	C	C5-C6-N1	6.56	124.28	121.00
41	DX	57	LEU	CA-CB-CG	6.56	130.38	115.30
1	CA	346	G	C6-C5-N7	-6.56	126.47	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1193	G	N3-C2-N2	6.55	124.49	119.90
23	BA	2296	U	O4'-C1'-N1	6.55	113.44	108.20
23	BA	1633	G	N1-C6-O6	6.55	123.83	119.90
23	BA	2866	U	C5-C4-O4	6.55	129.83	125.90
1	CA	1460	A	C5-N7-C8	6.55	107.17	103.90
1	AA	489	C	C5-C6-N1	6.55	124.27	121.00
23	BA	584	C	C5-C4-N4	-6.55	115.62	120.20
23	BA	2107	C	N3-C4-N4	-6.55	113.42	118.00
23	BA	2578	G	N3-C2-N2	6.55	124.48	119.90
23	DA	1355	G	N3-C2-N2	-6.55	115.32	119.90
23	DA	2030	A	C5-C6-N6	-6.55	118.46	123.70
1	AA	92	C	C2-N3-C4	6.54	123.17	119.90
23	DA	143	G	C8-N9-C4	6.54	109.02	106.40
23	BA	940	G	N7-C8-N9	6.54	116.37	113.10
23	DA	2027	G	N1-C2-N3	6.54	127.83	123.90
1	AA	1203	C	N3-C4-C5	-6.54	119.28	121.90
23	DA	728	G	N7-C8-N9	-6.54	109.83	113.10
23	DA	2075	U	C5-C6-N1	-6.54	119.43	122.70
23	DA	2456	C	C6-N1-C2	6.54	122.92	120.30
23	DA	2067	G	N7-C8-N9	6.54	116.37	113.10
23	BA	141	A	C5-C6-N6	-6.54	118.47	123.70
23	BA	2674	G	C8-N9-C4	-6.54	103.78	106.40
23	DA	271(S)	G	N1-C6-O6	6.54	123.82	119.90
23	BA	2285	C	C6-N1-C2	6.53	122.91	120.30
1	AA	1153	C	C2-N1-C1'	-6.53	111.62	118.80
1	CA	1028	C	C2-N3-C4	6.53	123.17	119.90
23	DA	465	G	C8-N9-C4	-6.53	103.79	106.40
23	BA	768	G	N3-C4-C5	-6.53	125.34	128.60
24	BB	104	U	C2-N3-C4	-6.53	123.08	127.00
1	CA	524	G	C8-N9-C4	-6.53	103.79	106.40
23	DA	756	C	N3-C2-O2	-6.52	117.33	121.90
23	BA	572	A	N9-C4-C5	6.52	108.41	105.80
23	BA	2499	C	C6-N1-C2	-6.52	117.69	120.30
1	AA	47	C	C2-N3-C4	-6.52	116.64	119.90
23	BA	448	U	N1-C2-N3	6.52	118.81	114.90
23	BA	830	G	C5-C6-O6	6.52	132.51	128.60
23	BA	1368	G	N9-C4-C5	6.52	108.01	105.40
23	BA	1403	C	C5-C6-N1	-6.52	117.74	121.00
23	BA	2322	A	C6-C5-N7	6.52	136.86	132.30
1	CA	699	C	C6-N1-C2	-6.52	117.69	120.30
23	DA	1758	G	C5-C6-O6	-6.52	124.69	128.60
23	BA	1204	A	C8-N9-C4	-6.51	103.19	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1755	A	N9-C4-C5	6.51	108.41	105.80
24	BB	83	G	N3-C2-N2	-6.51	115.34	119.90
23	BA	12	U	C6-N1-C2	-6.51	117.09	121.00
23	BA	520	G	N1-C6-O6	-6.51	115.99	119.90
23	BA	2676	C	N3-C4-C5	6.51	124.50	121.90
24	BB	75	G	N1-C6-O6	6.51	123.81	119.90
23	BA	1334	G	N9-C4-C5	6.51	108.00	105.40
23	BA	2449	U	N3-C4-O4	6.51	123.96	119.40
1	CA	1000	U	C2-N3-C4	6.51	130.91	127.00
23	DA	1204	A	C3'-C2'-C1'	-6.51	96.29	101.50
23	DA	1826	G	N1-C6-O6	-6.51	115.99	119.90
23	DA	2021	C	C2-N3-C4	-6.51	116.64	119.90
23	DA	1758	G	C6-C5-N7	-6.51	126.50	130.40
1	AA	1177	G	C8-N9-C4	-6.51	103.80	106.40
23	BA	2233	U	N1-C2-N3	6.51	118.80	114.90
23	DA	2312	U	C6-N1-C2	-6.51	117.10	121.00
23	BA	2243	U	C5-C6-N1	6.50	125.95	122.70
23	DA	1602	U	C5-C4-O4	6.50	129.80	125.90
23	DA	210	C	C5-C6-N1	-6.50	117.75	121.00
1	AA	1255	G	N1-C6-O6	-6.50	116.00	119.90
23	DA	54	G	N1-C6-O6	6.50	123.80	119.90
1	AA	933	G	N3-C4-N9	-6.50	122.10	126.00
23	BA	267	C	N3-C4-N4	-6.50	113.45	118.00
23	BA	1972	A	C5-C6-N1	6.50	120.95	117.70
23	BA	2283	C	N3-C4-N4	6.50	122.55	118.00
23	BA	1108	U	C6-N1-C2	-6.50	117.10	121.00
33	DP	147	LEU	CA-CB-CG	6.50	130.24	115.30
29	BH	127	GLU	C-N-CD	6.49	142.03	128.40
23	BA	505	A	C8-N9-C4	-6.49	103.20	105.80
23	DA	975	C	N1-C2-O2	6.49	122.80	118.90
1	AA	1506	U	N3-C4-O4	6.49	123.94	119.40
23	BA	51	G	C5-C6-O6	6.49	132.50	128.60
23	BA	2244	U	N1-C2-N3	6.49	118.80	114.90
23	BA	2447	G	N9-C4-C5	6.49	108.00	105.40
23	BA	488	G	N9-C4-C5	6.49	108.00	105.40
23	BA	528	A	C4-C5-N7	6.49	113.94	110.70
23	BA	655	A	C5-N7-C8	-6.49	100.66	103.90
23	DA	2047	U	N3-C4-C5	6.49	118.49	114.60
23	DA	2306	C	C5-C6-N1	6.49	124.24	121.00
1	AA	357	G	N3-C2-N2	-6.49	115.36	119.90
23	DA	945	A	N1-C6-N6	6.49	122.49	118.60
23	DA	1244	G	C4-C5-N7	6.48	113.39	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1327	C	N1-C2-O2	-6.48	115.01	118.90
23	DA	1997	G	N9-C4-C5	6.48	107.99	105.40
1	AA	1429	C	C6-N1-C2	6.48	122.89	120.30
23	BA	2195	C	C5-C6-N1	-6.48	117.76	121.00
1	AA	43	C	N3-C2-O2	-6.48	117.36	121.90
23	BA	2540	C	C5-C6-N1	-6.48	117.76	121.00
1	AA	1378	C	C6-N1-C2	-6.48	117.71	120.30
23	BA	817	C	N3-C4-C5	6.48	124.49	121.90
23	BA	2332	U	C5-C6-N1	-6.48	119.46	122.70
1	CA	1502	A	N1-C6-N6	6.48	122.49	118.60
23	BA	2393	A	N1-C6-N6	-6.48	114.72	118.60
23	BA	2591	C	N1-C2-O2	-6.48	115.01	118.90
23	DA	737	C	C6-N1-C2	6.47	122.89	120.30
1	AA	1151	A	N9-C4-C5	6.47	108.39	105.80
1	AA	1308	U	C5-C4-O4	6.47	129.78	125.90
23	BA	12	U	N1-C2-O2	6.47	127.33	122.80
23	DA	2569	G	N3-C4-C5	-6.47	125.36	128.60
23	BA	957	A	C2-N3-C4	-6.47	107.36	110.60
23	BA	2008	C	N3-C4-C5	-6.47	119.31	121.90
23	DA	2070	G	C6-N1-C2	-6.47	121.22	125.10
1	AA	402	G	N3-C2-N2	-6.46	115.38	119.90
23	DA	2070	G	N7-C8-N9	-6.46	109.87	113.10
24	DB	22	U	C5-C6-N1	6.46	125.93	122.70
3	AC	196	LEU	CA-CB-CG	6.46	130.16	115.30
23	BA	1792	G	C5-N7-C8	6.46	107.53	104.30
23	BA	2709	G	N3-C4-C5	-6.46	125.37	128.60
23	DA	1007	C	C2-N3-C4	-6.46	116.67	119.90
23	DA	1022	G	N9-C4-C5	6.46	107.98	105.40
24	DB	115	G	N7-C8-N9	-6.46	109.87	113.10
1	AA	1392	G	N3-C2-N2	6.46	124.42	119.90
1	AA	1456	G	N3-C4-N9	6.46	129.87	126.00
23	BA	2114	A	N7-C8-N9	6.46	117.03	113.80
1	CA	950	U	N1-C2-O2	6.46	127.32	122.80
23	DA	945	A	C8-N9-C4	6.46	108.38	105.80
23	DA	2262	U	N1-C2-O2	-6.46	118.28	122.80
1	AA	53	A	C5-C6-N1	-6.45	114.47	117.70
23	BA	1630	G	N1-C6-O6	-6.45	116.03	119.90
23	DA	773	U	C5-C4-O4	6.45	129.77	125.90
23	DA	1992	G	N3-C4-C5	-6.45	125.37	128.60
1	AA	892	A	N1-C2-N3	6.45	132.53	129.30
23	BA	69	C	N3-C2-O2	-6.45	117.39	121.90
1	CA	697	U	C2-N1-C1'	-6.45	109.96	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1245	A	N9-C4-C5	-6.45	103.22	105.80
23	BA	1204	A	C4-N9-C1'	6.45	137.91	126.30
23	DA	2182	G	N3-C4-N9	-6.45	122.13	126.00
23	DA	2045	C	C5-C6-N1	-6.45	117.78	121.00
1	AA	1247	U	N1-C2-O2	6.45	127.31	122.80
23	BA	1918	A	C8-N9-C4	6.45	108.38	105.80
1	CA	1218	C	N3-C2-O2	-6.45	117.39	121.90
23	BA	2032	G	N1-C2-N3	6.44	127.77	123.90
23	DA	1374	G	C5-C6-N1	-6.44	108.28	111.50
1	AA	89	C	N1-C2-O2	6.44	122.77	118.90
1	AA	398	C	C2-N3-C4	-6.44	116.68	119.90
23	DA	2344	U	C5-C4-O4	6.44	129.77	125.90
1	AA	1117	G	C8-N9-C4	-6.44	103.82	106.40
23	BA	2593	U	N1-C2-N3	6.44	118.76	114.90
23	DA	512	G	O4'-C1'-N9	6.44	113.35	108.20
23	BA	1539	G	C4-N9-C1'	6.44	134.87	126.50
23	BA	2344	U	N3-C4-C5	-6.44	110.74	114.60
23	BA	2682	U	C2-N1-C1'	6.44	125.42	117.70
1	AA	1285	A	N7-C8-N9	-6.43	110.58	113.80
23	DA	1022	G	C8-N9-C1'	6.43	135.37	127.00
23	DA	2607	G	N3-C4-C5	-6.43	125.38	128.60
1	AA	934	C	C5-C4-N4	6.43	124.70	120.20
1	CA	169	C	C6-N1-C2	-6.43	117.73	120.30
23	DA	2519	U	N3-C2-O2	6.43	126.70	122.20
1	AA	1017	G	C8-N9-C4	-6.43	103.83	106.40
23	BA	1784	A	N9-C4-C5	-6.43	103.23	105.80
23	DA	1610	A	C4-C5-N7	6.43	113.91	110.70
1	AA	620	C	C6-N1-C2	6.43	122.87	120.30
1	AA	1149	C	C2-N3-C4	6.43	123.11	119.90
1	AA	1332	A	C8-N9-C4	-6.43	103.23	105.80
23	BA	698	C	C6-N1-C2	6.43	122.87	120.30
23	BA	2114	A	C8-N9-C4	-6.43	103.23	105.80
23	BA	777	A	C4-C5-N7	-6.42	107.49	110.70
23	BA	1638	C	N3-C4-C5	-6.42	119.33	121.90
1	CA	1432	G	N3-C4-N9	-6.42	122.15	126.00
23	BA	1681	G	C4-C5-N7	6.42	113.37	110.80
23	BA	2062	A	N7-C8-N9	6.42	117.01	113.80
1	CA	117	G	N1-C6-O6	6.42	123.75	119.90
23	DA	2322	A	C6-C5-N7	6.42	136.79	132.30
23	BA	1393	A	C4-C5-N7	-6.42	107.49	110.70
23	BA	2077	A	N7-C8-N9	6.42	117.01	113.80
23	DA	2104	G	C6-N1-C2	6.42	128.95	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2191	G	N3-C4-N9	6.41	129.85	126.00
1	CA	52	G	N1-C6-O6	-6.41	116.05	119.90
23	DA	1817	G	C4-C5-N7	6.41	113.37	110.80
23	BA	2515	C	C5-C4-N4	-6.41	115.71	120.20
23	DA	1794	U	C2-N3-C4	-6.41	123.15	127.00
1	AA	1244	C	N3-C4-N4	-6.41	113.51	118.00
23	DA	860	U	C6-N1-C2	-6.41	117.15	121.00
23	DA	1762	A	C2-N3-C4	6.41	113.81	110.60
23	DA	2062	A	N7-C8-N9	6.41	117.00	113.80
23	DA	2519	U	C6-N1-C2	6.41	124.85	121.00
23	DA	2440	C	C2-N1-C1'	-6.41	111.75	118.80
1	AA	79	G	N1-C6-O6	6.41	123.74	119.90
23	BA	2823	A	N9-C4-C5	-6.41	103.24	105.80
23	BA	1681	G	N1-C6-O6	6.40	123.74	119.90
23	BA	2463	C	C5-C6-N1	-6.40	117.80	121.00
23	BA	2488	A	C5-N7-C8	6.40	107.10	103.90
1	AA	1456	G	C6-C5-N7	-6.40	126.56	130.40
23	BA	566	U	N3-C4-O4	-6.40	114.92	119.40
23	BA	580	C	N1-C2-O2	-6.40	115.06	118.90
23	BA	941	A	C8-N9-C4	-6.40	103.24	105.80
23	BA	1334	G	N1-C6-O6	-6.40	116.06	119.90
23	BA	124	G	C4-C5-N7	6.40	113.36	110.80
23	BA	2348	U	N3-C4-O4	-6.40	114.92	119.40
23	BA	2446	G	N3-C4-N9	6.40	129.84	126.00
23	DA	2286	A	C8-N9-C4	-6.40	103.24	105.80
1	AA	52	G	C5-C6-N1	-6.40	108.30	111.50
1	CA	1056	U	N1-C2-O2	6.40	127.28	122.80
23	BA	663	G	C2-N3-C4	6.40	115.10	111.90
23	BA	1200	C	N1-C2-O2	-6.40	115.06	118.90
23	BA	936	C	C6-N1-C2	6.39	122.86	120.30
23	BA	2422	A	C8-N9-C4	-6.39	103.24	105.80
23	BA	2439	A	C8-N9-C4	-6.39	103.24	105.80
1	CA	1307	U	C5-C6-N1	6.39	125.90	122.70
23	DA	1789	A	C8-N9-C4	6.39	108.36	105.80
23	DA	2386	C	C6-N1-C2	6.39	122.86	120.30
23	DA	791	C	C5-C6-N1	-6.39	117.80	121.00
23	BA	2487	G	C2-N3-C4	-6.39	108.71	111.90
23	BA	188	G	N1-C6-O6	-6.39	116.07	119.90
23	DA	2286	A	N1-C2-N3	6.39	132.49	129.30
23	DA	2325	G	C5-C6-O6	-6.39	124.77	128.60
23	BA	2648	C	C6-N1-C2	6.38	122.85	120.30
23	BA	429	A	N1-C6-N6	6.38	122.43	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2271	G	C8-N9-C4	-6.38	103.85	106.40
23	DA	780	G	N3-C2-N2	-6.38	115.43	119.90
23	BA	1802	A	C5-C6-N1	6.38	120.89	117.70
23	BA	2057	A	N1-C2-N3	6.38	132.49	129.30
23	BA	2419	U	C5-C6-N1	6.38	125.89	122.70
23	BA	1368	G	N1-C6-O6	-6.38	116.07	119.90
23	DA	1605	C	N3-C4-C5	-6.38	119.35	121.90
1	AA	117	G	C5-C6-O6	-6.38	124.78	128.60
23	BA	769	G	C5-C6-N1	-6.38	108.31	111.50
23	DA	2672	G	C6-C5-N7	-6.37	126.58	130.40
1	AA	1311	G	C4-N9-C1'	-6.37	118.22	126.50
23	BA	1249	U	C5-C6-N1	-6.37	119.51	122.70
23	BA	2862	G	C8-N9-C4	6.37	108.95	106.40
23	BA	1814	G	C6-N1-C2	-6.37	121.28	125.10
23	DA	2423	U	C6-N1-C2	6.37	124.82	121.00
1	AA	1347	G	C4-N9-C1'	-6.37	118.22	126.50
1	AA	1397	C	C2-N1-C1'	6.37	125.81	118.80
23	BA	785	G	C6-N1-C2	6.37	128.92	125.10
1	CA	1067	A	C8-N9-C4	-6.37	103.25	105.80
23	BA	433	C	C6-N1-C2	-6.37	117.75	120.30
23	DA	860	U	C5-C4-O4	6.37	129.72	125.90
23	DA	985	C	N3-C4-C5	6.37	124.45	121.90
23	DA	394	A	N7-C8-N9	-6.36	110.62	113.80
23	DA	1616	A	C6-C5-N7	-6.36	127.85	132.30
23	DA	1966	A	C8-N9-C4	6.36	108.34	105.80
1	AA	1038	C	C2-N1-C1'	6.36	125.80	118.80
23	DA	1397	U	N3-C4-O4	-6.36	114.95	119.40
23	DA	1955	U	C2-N1-C1'	-6.36	110.07	117.70
23	BA	1131	G	N1-C6-O6	-6.36	116.08	119.90
1	CA	117	G	C5-C6-O6	-6.36	124.78	128.60
23	DA	2426	A	N7-C8-N9	6.36	116.98	113.80
23	BA	1558	A	C5-C6-N1	-6.36	114.52	117.70
23	BA	684	G	N3-C4-C5	-6.36	125.42	128.60
23	BA	1764	G	N1-C6-O6	-6.36	116.09	119.90
23	DA	2567	G	C8-N9-C4	6.36	108.94	106.40
23	BA	748	G	C5-C6-O6	6.35	132.41	128.60
23	DA	1128	A	N9-C4-C5	-6.35	103.26	105.80
23	DA	1368	G	C2-N3-C4	6.35	115.08	111.90
23	DA	2570	G	C4-C5-N7	-6.35	108.26	110.80
23	BA	726	G	N1-C6-O6	-6.35	116.09	119.90
23	BA	1783	A	N1-C6-N6	-6.35	114.79	118.60
23	BA	1653	G	P-O3'-C3'	6.35	127.32	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2017	U	N3-C2-O2	-6.35	117.76	122.20
23	DA	1042	G	C5-C6-O6	-6.35	124.79	128.60
23	DA	1565	C	N3-C4-C5	6.35	124.44	121.90
23	DA	2343	C	N1-C2-O2	-6.35	115.09	118.90
23	DA	933	A	N1-C6-N6	6.35	122.41	118.60
23	BA	2312	U	C2-N1-C1'	6.34	125.31	117.70
1	AA	1432	G	N3-C4-N9	-6.34	122.19	126.00
23	BA	25	U	N3-C2-O2	6.34	126.64	122.20
23	BA	474	G	C8-N9-C4	-6.34	103.86	106.40
23	DA	148	C	N3-C4-C5	6.34	124.44	121.90
23	DA	2069	G	C8-N9-C4	6.34	108.94	106.40
23	BA	2487	G	N9-C4-C5	-6.34	102.86	105.40
1	CA	355	C	C6-N1-C2	-6.34	117.76	120.30
23	DA	1254	A	C6-N1-C2	-6.34	114.80	118.60
23	BA	1330	C	C5-C4-N4	-6.34	115.76	120.20
23	BA	2029	G	C5-C6-O6	-6.34	124.80	128.60
23	DA	1305	C	C5-C4-N4	-6.34	115.76	120.20
23	DA	2028	U	C5-C6-N1	-6.34	119.53	122.70
23	BA	1934	C	C6-N1-C2	6.33	122.83	120.30
1	CA	1003	G	C6-C5-N7	6.33	134.20	130.40
1	CA	1460	A	C6-C5-N7	6.33	136.73	132.30
23	DA	1956	U	N1-C2-N3	6.33	118.70	114.90
1	AA	1230	C	C5-C4-N4	-6.33	115.77	120.20
1	AA	1005	A	N7-C8-N9	6.33	116.97	113.80
24	BB	51	G	N9-C4-C5	-6.33	102.87	105.40
23	DA	768	G	C4-C5-C6	6.33	122.60	118.80
23	DA	2383	G	C8-N9-C1'	-6.33	118.77	127.00
23	BA	419	C	C6-N1-C2	6.33	122.83	120.30
23	BA	1792	G	C4-C5-N7	-6.33	108.27	110.80
1	AA	757	U	C2-N1-C1'	-6.32	110.11	117.70
23	BA	967	C	N3-C2-O2	-6.32	117.47	121.90
23	BA	1904	G	N1-C6-O6	-6.32	116.11	119.90
1	CA	1456	G	C8-N9-C1'	-6.32	118.78	127.00
23	DA	2501	C	C2-N1-C1'	-6.32	111.85	118.80
23	DA	1827	C	C6-N1-C2	-6.32	117.77	120.30
23	DA	2312	U	C5-C6-N1	6.32	125.86	122.70
1	AA	1315	U	C5-C6-N1	6.32	125.86	122.70
23	BA	1142(A)	A	C8-N9-C4	-6.32	103.27	105.80
23	DA	1248	G	N7-C8-N9	-6.32	109.94	113.10
23	BA	2092	U	C5-C6-N1	6.32	125.86	122.70
23	DA	2823	A	C6-C5-N7	-6.31	127.88	132.30
23	BA	42	G	C5-N7-C8	6.31	107.46	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	456	C	N3-C2-O2	6.31	126.32	121.90
51	B7	3	ARG	NE-CZ-NH2	-6.31	117.14	120.30
23	DA	804	A	C6-N1-C2	-6.31	114.81	118.60
1	AA	107	G	C8-N9-C4	6.31	108.92	106.40
1	AA	1097	C	C6-N1-C2	-6.31	117.78	120.30
1	CA	777	A	C8-N9-C4	-6.31	103.28	105.80
23	BA	139	G	C8-N9-C4	-6.30	103.88	106.40
23	BA	2542	A	C2-N3-C4	6.30	113.75	110.60
23	DA	205	G	N3-C4-N9	6.30	129.78	126.00
23	DA	744	G	C4-C5-N7	-6.30	108.28	110.80
23	DA	2286	A	C4-C5-N7	6.30	113.85	110.70
1	AA	1373	G	C6-C5-N7	-6.30	126.62	130.40
23	BA	652(E)	G	N3-C2-N2	6.30	124.31	119.90
23	DA	194	G	N7-C8-N9	6.30	116.25	113.10
23	DA	1244	G	C5-C6-O6	-6.30	124.82	128.60
23	DA	2463	C	C5-C6-N1	-6.30	117.85	121.00
1	AA	1329	A	C5-C6-N6	6.30	128.74	123.70
23	BA	194	G	N3-C2-N2	-6.30	115.49	119.90
23	BA	2389	G	C5-C6-N1	-6.30	108.35	111.50
24	DB	54	G	C8-N9-C4	-6.30	103.88	106.40
23	BA	760	G	N1-C6-O6	6.30	123.68	119.90
23	BA	1602	U	C4-C5-C6	6.30	123.48	119.70
23	BA	2540	C	C2-N3-C4	-6.30	116.75	119.90
24	BB	77	U	C5-C4-O4	-6.30	122.12	125.90
1	AA	1063	C	N3-C2-O2	-6.30	117.49	121.90
23	BA	1028	A	N9-C4-C5	-6.30	103.28	105.80
23	DA	1660	C	C4-C5-C6	6.30	120.55	117.40
23	DA	2719	G	C8-N9-C4	6.30	108.92	106.40
23	BA	1992	G	N3-C4-C5	-6.29	125.45	128.60
23	BA	2726	U	N3-C2-O2	6.29	126.61	122.20
23	DA	1834	U	N1-C2-O2	6.29	127.21	122.80
1	AA	1249	C	C5-C6-N1	6.29	124.15	121.00
23	DA	330	A	C4-C5-N7	6.29	113.85	110.70
23	BA	1618	A	C2-N3-C4	6.29	113.75	110.60
23	BA	2372	G	N1-C6-O6	6.29	123.67	119.90
23	BA	142(A)	C	C6-N1-C2	6.29	122.82	120.30
23	DA	371	A	N1-C6-N6	6.29	122.37	118.60
23	BA	580	C	N3-C4-N4	6.29	122.40	118.00
23	BA	2071	A	C5-C6-N1	6.29	120.84	117.70
23	DA	2191	G	C6-C5-N7	-6.29	126.63	130.40
23	BA	272(H)	C	C2-N1-C1'	6.29	125.71	118.80
23	BA	1296	G	C5-C6-N1	6.29	114.64	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1519	G	C8-N9-C4	-6.29	103.89	106.40
23	DA	933	A	C6-C5-N7	-6.29	127.90	132.30
23	DA	1284	A	N9-C4-C5	-6.29	103.29	105.80
23	DA	1782	C	C6-N1-C2	6.29	122.81	120.30
23	BA	614	U	N1-C2-N3	6.28	118.67	114.90
23	BA	975	C	C5-C4-N4	6.28	124.60	120.20
23	BA	2031	A	C8-N9-C4	6.28	108.31	105.80
23	BA	2509	G	N3-C4-N9	6.28	129.77	126.00
23	DA	19	C	N1-C2-O2	-6.28	115.13	118.90
23	DA	1955	U	N3-C4-O4	-6.28	115.00	119.40
23	DA	513	A	C5-C6-N1	6.28	120.84	117.70
23	BA	1029	A	N9-C4-C5	-6.28	103.29	105.80
23	DA	2075	U	N3-C2-O2	-6.28	117.81	122.20
1	AA	1258	G	C5-C6-O6	6.28	132.37	128.60
23	DA	2123	G	N3-C4-N9	-6.28	122.23	126.00
23	DA	2446	G	C5-C6-O6	6.28	132.37	128.60
1	CA	1283	G	N9-C4-C5	6.28	107.91	105.40
1	CA	1279	A	N7-C8-N9	6.27	116.94	113.80
23	DA	2110	G	N3-C4-N9	6.27	129.76	126.00
3	AC	111	LEU	CA-CB-CG	6.27	129.73	115.30
23	BA	847	U	N3-C4-O4	-6.27	115.01	119.40
23	BA	1827	C	N1-C2-O2	6.27	122.66	118.90
1	CA	1387	G	N9-C4-C5	-6.27	102.89	105.40
23	DA	1125	G	N3-C4-C5	6.27	131.74	128.60
23	BA	2428	G	N1-C2-N2	-6.27	110.56	116.20
1	CA	1029	C	C6-N1-C2	-6.27	117.79	120.30
1	AA	1303	C	C5-C6-N1	6.27	124.14	121.00
1	CA	997	U	C2-N3-C4	6.27	130.76	127.00
1	CA	1519	A	C8-N9-C4	-6.27	103.29	105.80
23	DA	569	U	C5-C6-N1	-6.27	119.57	122.70
1	AA	351	G	N3-C4-C5	6.27	131.73	128.60
1	AA	398	C	N3-C4-C5	6.27	124.41	121.90
23	BA	2221	G	C8-N9-C4	-6.27	103.89	106.40
23	BA	2825	C	C4-C5-C6	6.27	120.53	117.40
1	CA	1031	G	N1-C2-N2	-6.27	110.56	116.20
23	DA	1023	U	N1-C2-N3	6.27	118.66	114.90
23	DA	1489	U	C5-C4-O4	6.27	129.66	125.90
23	BA	2253	G	N1-C6-O6	6.27	123.66	119.90
23	BA	92	A	N7-C8-N9	6.26	116.93	113.80
23	BA	2460	U	N3-C2-O2	-6.26	117.81	122.20
23	BA	146	G	C5-N7-C8	6.26	107.43	104.30
23	BA	2123	G	C8-N9-C1'	6.26	135.14	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	933	A	C6-C5-N7	-6.26	127.92	132.30
23	DA	272(C)	G	C8-N9-C4	6.26	108.90	106.40
23	BA	73	A	N1-C2-N3	6.26	132.43	129.30
23	DA	418	G	C6-C5-N7	-6.26	126.64	130.40
23	DA	1205	U	C5-C6-N1	-6.26	119.57	122.70
1	AA	1293	G	C6-N1-C2	6.26	128.85	125.10
1	AA	1224	G	C8-N9-C1'	6.26	135.13	127.00
23	BA	2070	G	N1-C2-N3	6.26	127.65	123.90
23	BA	2620	C	C6-N1-C2	6.26	122.80	120.30
1	CA	372	C	N1-C2-O2	6.26	122.65	118.90
23	DA	24	G	C5-C6-O6	-6.26	124.85	128.60
23	BA	2123	G	C4-N9-C1'	-6.25	118.37	126.50
23	DA	2502	G	N1-C2-N2	-6.25	110.57	116.20
23	DA	2648	C	C6-N1-C2	6.25	122.80	120.30
1	AA	1361	G	C8-N9-C4	-6.25	103.90	106.40
23	BA	784	A	N9-C4-C5	6.25	108.30	105.80
23	BA	2816	C	C6-N1-C2	-6.25	117.80	120.30
23	BA	473	G	N1-C2-N2	-6.25	110.58	116.20
23	DA	194	G	N1-C2-N3	6.25	127.65	123.90
1	AA	1357	A	N7-C8-N9	6.25	116.92	113.80
1	AA	1037	C	C5-C6-N1	6.24	124.12	121.00
23	BA	58	G	N1-C6-O6	-6.24	116.15	119.90
23	BA	763	G	N1-C6-O6	-6.24	116.15	119.90
23	BA	2473	U	C6-N1-C1'	-6.24	112.46	121.20
23	BA	122	G	N1-C6-O6	6.24	123.64	119.90
23	DA	686	G	N1-C2-N2	-6.24	110.58	116.20
23	BA	129	C	N3-C2-O2	6.24	126.27	121.90
23	BA	1582	C	C5-C6-N1	-6.24	117.88	121.00
1	CA	1151	A	C5-C6-N6	6.24	128.69	123.70
23	DA	546	C	C5-C6-N1	6.24	124.12	121.00
23	DA	777	A	C4-C5-C6	6.24	120.12	117.00
23	DA	802	A	N9-C4-C5	6.24	108.30	105.80
23	DA	1204	A	C1'-O4'-C4'	-6.24	104.91	109.90
1	AA	1028	C	C5-C6-N1	6.23	124.12	121.00
24	BB	101	G	C4-C5-N7	6.23	113.29	110.80
23	DA	1637	A	N9-C4-C5	6.23	108.29	105.80
23	BA	1981	A	N1-C6-N6	-6.23	114.86	118.60
1	CA	357	G	C5-C6-N1	6.23	114.61	111.50
1	CA	397	A	C8-N9-C4	-6.23	103.31	105.80
23	BA	1939	U	N3-C4-C5	6.23	118.34	114.60
1	AA	1247	U	C2-N3-C4	6.23	130.74	127.00
23	DA	1125	G	C5-C6-N1	-6.23	108.39	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1253	A	N1-C6-N6	-6.23	114.86	118.60
23	BA	961	C	C5-C6-N1	-6.22	117.89	121.00
23	DA	2675	A	C2-N3-C4	-6.22	107.49	110.60
23	BA	1710	C	C6-N1-C2	6.22	122.79	120.30
23	DA	271(S)	G	C5-C6-N1	-6.22	108.39	111.50
1	AA	345	C	C2-N1-C1'	6.22	125.64	118.80
23	BA	1137	G	N3-C2-N2	6.22	124.25	119.90
23	BA	1777	U	N3-C4-O4	6.22	123.75	119.40
23	BA	2062	A	C6-C5-N7	-6.22	127.95	132.30
23	DA	791	C	C4-C5-C6	6.22	120.51	117.40
1	AA	1278	U	N1-C2-O2	6.21	127.15	122.80
23	BA	2494	G	N7-C8-N9	6.21	116.21	113.10
23	DA	1779	U	C6-N1-C2	6.21	124.73	121.00
23	DA	528	A	C4-C5-C6	-6.21	113.89	117.00
23	BA	1620	G	C6-C5-N7	6.21	134.13	130.40
23	BA	2344	U	C2-N3-C4	6.21	130.73	127.00
1	AA	697	U	C2-N1-C1'	-6.21	110.25	117.70
1	AA	572	A	C8-N9-C4	6.21	108.28	105.80
23	DA	1022	G	C4-N9-C1'	-6.21	118.43	126.50
23	BA	470	A	N7-C8-N9	6.20	116.90	113.80
23	BA	1955	U	C2-N3-C4	-6.20	123.28	127.00
23	BA	2103	C	C5-C4-N4	6.20	124.54	120.20
1	CA	53	A	N1-C6-N6	-6.20	114.88	118.60
23	DA	1602	U	C4-C5-C6	6.20	123.42	119.70
23	BA	2245	U	C5-C6-N1	-6.20	119.60	122.70
23	DA	1638	C	C5-C6-N1	-6.20	117.90	121.00
23	BA	616	G	C8-N9-C4	6.20	108.88	106.40
23	BA	1403	C	C4-C5-C6	6.20	120.50	117.40
1	AA	517	G	C8-N9-C4	-6.20	103.92	106.40
23	BA	2287	A	N3-C4-C5	6.20	131.14	126.80
23	DA	234	C	C6-N1-C2	-6.20	117.82	120.30
23	DA	1782	C	C5-C6-N1	-6.20	117.90	121.00
23	DA	2822	G	C8-N9-C4	6.20	108.88	106.40
1	CA	150	C	C6-N1-C2	-6.20	117.82	120.30
23	DA	39	C	C5-C6-N1	-6.19	117.90	121.00
1	AA	1235	U	C5-C6-N1	6.19	125.80	122.70
23	BA	1698	A	C4-C5-N7	6.19	113.80	110.70
23	BA	1805	U	N3-C2-O2	-6.19	117.86	122.20
23	BA	1956	U	N1-C2-O2	-6.19	118.47	122.80
23	DA	1238	G	C5-C6-O6	-6.19	124.88	128.60
23	DA	1628	G	C8-N9-C1'	-6.19	118.95	127.00
23	DA	2894	G	C8-N9-C4	-6.19	103.92	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1196	C	C2-N3-C4	-6.19	116.81	119.90
23	DA	19	C	C2-N3-C4	-6.19	116.81	119.90
23	BA	53	A	C8-N9-C4	-6.19	103.32	105.80
24	DB	63	G	C8-N9-C4	6.19	108.88	106.40
1	AA	910	C	C5-C6-N1	-6.19	117.91	121.00
1	AA	932	C	N1-C2-O2	6.19	122.61	118.90
23	BA	1042	G	C5-C6-O6	-6.19	124.89	128.60
23	BA	1310	G	N1-C6-O6	6.19	123.61	119.90
23	BA	1368	G	N3-C4-C5	-6.19	125.51	128.60
23	BA	1488	G	N7-C8-N9	6.19	116.19	113.10
23	DA	2124	G	C6-N1-C2	6.19	128.81	125.10
23	DA	2322	A	C5-N7-C8	6.19	106.99	103.90
23	BA	2273	A	C5-C6-N1	6.19	120.79	117.70
23	BA	2322	A	N3-C4-C5	-6.19	122.47	126.80
23	DA	209	C	C6-N1-C2	6.18	122.77	120.30
23	BA	422	A	N1-C2-N3	6.18	132.39	129.30
23	DA	567	A	N1-C6-N6	6.18	122.31	118.60
23	DA	2433	A	N9-C4-C5	-6.18	103.33	105.80
23	BA	2432	A	C8-N9-C4	6.18	108.27	105.80
23	BA	802	A	C8-N9-C4	-6.18	103.33	105.80
23	BA	1107	G	N7-C8-N9	6.18	116.19	113.10
23	BA	1954	G	C5-C6-N1	-6.18	108.41	111.50
23	BA	2415	G	C5-C6-O6	-6.18	124.89	128.60
23	BA	2873	A	C8-N9-C4	-6.18	103.33	105.80
24	DB	30	C	C2-N1-C1'	6.18	125.60	118.80
1	AA	1153	C	N3-C4-N4	-6.18	113.68	118.00
23	DA	527	C	N3-C2-O2	-6.18	117.58	121.90
1	AA	1443	G	C5-C6-N1	6.17	114.59	111.50
23	BA	839	U	N3-C4-C5	-6.17	110.90	114.60
23	BA	2107	C	C6-N1-C1'	6.17	128.21	120.80
23	DA	1762	A	N7-C8-N9	6.17	116.89	113.80
23	BA	567	A	C5-N7-C8	-6.17	100.81	103.90
23	DA	595	C	C6-N1-C2	6.17	122.77	120.30
23	DA	2497	A	C6-N1-C2	-6.17	114.90	118.60
1	AA	1223	C	C2-N3-C4	6.17	122.98	119.90
1	AA	1224	G	N3-C4-N9	-6.17	122.30	126.00
23	BA	468	G	C2-N3-C4	-6.17	108.82	111.90
23	BA	2343	C	N1-C2-O2	-6.17	115.20	118.90
23	BA	645	C	N3-C2-O2	-6.16	117.59	121.90
23	BA	106	C	C5-C6-N1	6.16	124.08	121.00
1	CA	1068	G	C8-N9-C4	-6.16	103.94	106.40
23	BA	2359	C	C6-N1-C2	-6.16	117.84	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	463	G	N9-C4-C5	6.16	107.86	105.40
23	DA	491	G	N1-C6-O6	-6.16	116.20	119.90
23	BA	528	A	C4-N9-C1'	-6.16	115.22	126.30
23	BA	1351	C	C5-C4-N4	-6.16	115.89	120.20
23	BA	1771	C	N3-C4-N4	-6.16	113.69	118.00
1	CA	52	G	C5-C6-O6	6.16	132.29	128.60
23	DA	1204	A	C4-N9-C1'	6.16	137.38	126.30
23	BA	673	C	C5-C4-N4	-6.16	115.89	120.20
23	BA	2739	U	C4-C5-C6	6.16	123.39	119.70
23	BA	2825	C	N3-C4-C5	-6.16	119.44	121.90
23	DA	2033	A	C6-N1-C2	-6.16	114.91	118.60
1	AA	28	G	N1-C6-O6	6.15	123.59	119.90
23	DA	1954	G	N3-C4-N9	-6.15	122.31	126.00
23	DA	2287	A	N1-C6-N6	6.15	122.29	118.60
29	DH	127	GLU	C-N-CD	6.15	141.32	128.40
24	BB	104	U	C6-N1-C2	6.15	124.69	121.00
23	DA	527	C	C6-N1-C2	-6.15	117.84	120.30
23	DA	2123	G	C4-N9-C1'	-6.15	118.50	126.50
1	AA	1177	G	N7-C8-N9	6.15	116.18	113.10
1	CA	1056	U	C5-C4-O4	6.15	129.59	125.90
23	DA	272(H)	C	C2-N1-C1'	6.15	125.56	118.80
23	DA	815	C	C2-N3-C4	-6.15	116.83	119.90
23	DA	1254	A	N1-C2-N3	6.15	132.38	129.30
23	BA	2239	G	N1-C2-N2	-6.15	110.67	116.20
23	BA	1129	A	N9-C4-C5	6.15	108.26	105.80
26	BE	111	ARG	NE-CZ-NH2	-6.15	117.23	120.30
23	DA	131	G	C8-N9-C4	6.15	108.86	106.40
23	DA	183	C	C6-N1-C2	6.15	122.76	120.30
23	DA	2062	A	N1-C6-N6	6.15	122.29	118.60
23	DA	2473	U	C6-N1-C1'	-6.15	112.59	121.20
23	BA	2186	G	C6-N1-C2	6.15	128.79	125.10
23	BA	2383	G	N3-C4-N9	6.15	129.69	126.00
23	DA	764	A	C5-N7-C8	-6.15	100.83	103.90
23	BA	1222	C	N1-C2-O2	-6.14	115.21	118.90
1	AA	836	G	N1-C6-O6	6.14	123.58	119.90
23	BA	445	C	C5-C6-N1	6.14	124.07	121.00
1	CA	995	C	C2-N1-C1'	6.14	125.56	118.80
23	DA	1823	G	C8-N9-C4	-6.14	103.94	106.40
23	DA	2031	A	C4-C5-N7	6.14	113.77	110.70
23	BA	445	C	C2-N3-C4	6.14	122.97	119.90
23	DA	1493	C	C6-N1-C1'	-6.14	113.43	120.80
23	BA	1024	G	N1-C6-O6	-6.14	116.22	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	128	C	C6-N1-C2	6.14	122.75	120.30
1	AA	355	C	C6-N1-C2	-6.14	117.85	120.30
23	BA	386	G	N7-C8-N9	6.14	116.17	113.10
23	BA	760	G	N3-C2-N2	-6.14	115.61	119.90
23	BA	1779	U	C6-N1-C1'	6.14	129.79	121.20
1	CA	1276	G	N3-C4-N9	6.14	129.68	126.00
1	CA	1364	U	N3-C2-O2	-6.14	117.90	122.20
23	DA	2823	A	C5-N7-C8	-6.14	100.83	103.90
1	AA	1184	G	C8-N9-C4	-6.13	103.95	106.40
23	DA	1488	G	C4-N9-C1'	6.13	134.47	126.50
23	BA	2430	A	C6-N1-C2	-6.13	114.92	118.60
23	DA	1429	G	C8-N9-C1'	-6.13	119.03	127.00
23	DA	2186	G	C5-C6-O6	6.13	132.28	128.60
23	BA	121	G	C4-C5-N7	6.13	113.25	110.80
23	BA	1338	G	N1-C6-O6	-6.13	116.22	119.90
1	CA	1277	C	N3-C4-C5	-6.13	119.45	121.90
23	DA	1142(A)	A	C5-C6-N1	-6.13	114.63	117.70
23	DA	683	C	N3-C4-C5	6.13	124.35	121.90
1	AA	1174	G	C4-N9-C1'	-6.13	118.53	126.50
23	BA	114	U	C2-N1-C1'	6.13	125.05	117.70
23	BA	2075	U	C2-N3-C4	-6.13	123.32	127.00
23	BA	2107	C	C2-N1-C1'	-6.13	112.06	118.80
27	DF	89	VAL	O-C-N	-6.13	112.90	122.70
23	BA	668	G	C2-N3-C4	-6.13	108.84	111.90
23	BA	1358	G	N1-C2-N2	-6.13	110.69	116.20
23	BA	1829	A	N1-C6-N6	-6.13	114.92	118.60
23	BA	2519	U	C5-C4-O4	-6.13	122.22	125.90
23	DA	1445(A)	C	C6-N1-C2	-6.13	117.85	120.30
23	DA	1637	A	C5-C6-N6	6.13	128.60	123.70
23	BA	399	G	C8-N9-C4	6.12	108.85	106.40
23	BA	1689	A	C8-N9-C4	-6.12	103.35	105.80
23	DA	2015	A	C8-N9-C4	6.12	108.25	105.80
23	BA	1779	U	C6-N1-C2	6.12	124.67	121.00
23	BA	2548	G	C4-C5-N7	-6.12	108.35	110.80
23	BA	2581	G	N1-C6-O6	-6.12	116.23	119.90
23	DA	987	G	N9-C4-C5	6.12	107.85	105.40
1	AA	203	U	C5-C6-N1	6.12	125.76	122.70
23	BA	240	G	N7-C8-N9	-6.12	110.04	113.10
23	BA	1797	C	N1-C2-O2	-6.12	115.23	118.90
23	BA	2025	C	N3-C4-N4	-6.12	113.72	118.00
23	DA	2540	C	C6-N1-C2	6.12	122.75	120.30
23	BA	115	C	N3-C4-N4	6.12	122.28	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	445	C	C6-N1-C2	-6.12	117.85	120.30
23	BA	563	G	C4-C5-N7	6.12	113.25	110.80
23	BA	817	C	C5-C6-N1	6.12	124.06	121.00
23	BA	2239	G	C5-C6-O6	6.12	132.27	128.60
23	BA	1007	C	C2-N3-C4	-6.12	116.84	119.90
23	BA	146	G	N7-C8-N9	-6.11	110.04	113.10
23	BA	864	G	C8-N9-C4	-6.11	103.95	106.40
23	BA	1698	A	N7-C8-N9	6.11	116.86	113.80
23	BA	2063	C	N3-C4-N4	6.11	122.28	118.00
23	BA	2319	G	N7-C8-N9	6.11	116.16	113.10
23	BA	2728	U	N1-C2-O2	-6.11	118.52	122.80
23	DA	669	G	C5-N7-C8	6.11	107.36	104.30
23	BA	1186	G	C2-N3-C4	-6.11	108.84	111.90
1	CA	766	A	N1-C6-N6	6.11	122.27	118.60
1	AA	1329	A	C6-N1-C2	6.11	122.27	118.60
23	BA	791	C	N3-C2-O2	-6.11	117.62	121.90
23	BA	2006	C	C5-C6-N1	6.11	124.06	121.00
23	DA	684	G	C8-N9-C4	-6.11	103.96	106.40
23	DA	1966	A	N9-C4-C5	-6.11	103.36	105.80
23	BA	2848	G	C5-C6-O6	6.11	132.26	128.60
23	DA	1128	A	C5-C6-N6	-6.11	118.81	123.70
23	BA	1279	G	C8-N9-C4	-6.11	103.96	106.40
23	BA	1305	C	C2-N3-C4	-6.11	116.85	119.90
23	BA	1698	A	N1-C6-N6	6.11	122.27	118.60
23	BA	2316	C	C5-C6-N1	6.11	124.05	121.00
23	BA	2371	G	N9-C4-C5	-6.11	102.96	105.40
23	BA	776	G	N1-C2-N3	6.11	127.56	123.90
23	BA	1773	A	C6-N1-C2	-6.11	114.94	118.60
23	BA	1937	A	C8-N9-C4	6.11	108.24	105.80
1	CA	1044	A	N1-C6-N6	-6.11	114.94	118.60
23	DA	1575	C	C6-N1-C2	6.11	122.74	120.30
23	BA	577	G	C5-C6-O6	-6.10	124.94	128.60
24	BB	86	G	C8-N9-C4	6.10	108.84	106.40
23	DA	1325	G	C6-N1-C2	-6.10	121.44	125.10
23	DA	1339	G	C8-N9-C4	-6.10	103.96	106.40
23	DA	2505	G	N3-C2-N2	6.10	124.17	119.90
35	BR	1	MET	CG-SD-CE	-6.10	90.44	100.20
43	DZ	151	HIS	N-CA-C	6.10	127.47	111.00
1	AA	354	G	N3-C4-C5	-6.10	125.55	128.60
23	BA	494	G	C8-N9-C4	-6.10	103.96	106.40
23	BA	2067	G	N7-C8-N9	6.10	116.15	113.10
23	DA	187	G	C4-C5-N7	6.10	113.24	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	351	G	C8-N9-C4	6.10	108.84	106.40
23	DA	2151	G	C5-C6-O6	-6.10	124.94	128.60
23	BA	573	G	C6-N1-C2	-6.10	121.44	125.10
23	BA	756	C	N3-C4-C5	-6.10	119.46	121.90
23	DA	836	G	N1-C6-O6	-6.10	116.24	119.90
1	AA	1204	A	C5-C6-N6	6.09	128.58	123.70
1	AA	1287	A	N1-C2-N3	6.09	132.35	129.30
23	DA	1025	G	C8-N9-C4	-6.09	103.96	106.40
23	DA	2064	C	C6-N1-C2	6.09	122.74	120.30
23	DA	2174	C	C2-N3-C4	6.09	122.95	119.90
23	BA	36	G	N1-C6-O6	-6.09	116.24	119.90
23	BA	658	C	N1-C2-O2	6.09	122.56	118.90
23	BA	2091	U	N3-C2-O2	-6.09	117.94	122.20
23	BA	2719	G	C4-C5-N7	6.09	113.24	110.80
1	AA	820	U	N1-C2-O2	-6.09	118.54	122.80
23	BA	2318	G	N3-C4-C5	-6.09	125.56	128.60
23	BA	2620	C	C5-C6-N1	-6.09	117.96	121.00
23	BA	2723	C	C5-C6-N1	-6.09	117.96	121.00
23	DA	2472	G	C8-N9-C4	-6.09	103.97	106.40
23	BA	2296	U	C1'-O4'-C4'	-6.09	105.03	109.90
1	CA	895	G	N1-C6-O6	6.09	123.55	119.90
1	CA	1456	G	N3-C4-C5	-6.09	125.56	128.60
23	DA	2244	U	N1-C2-N3	6.08	118.55	114.90
23	BA	1180	C	C6-N1-C2	6.08	122.73	120.30
1	AA	89	C	C2-N1-C1'	6.08	125.49	118.80
23	BA	806	C	N3-C4-C5	6.08	124.33	121.90
1	AA	365	U	C5-C6-N1	-6.08	119.66	122.70
23	BA	531	C	N3-C2-O2	6.07	126.15	121.90
23	BA	1004	C	N1-C2-O2	-6.07	115.26	118.90
1	CA	500	G	N1-C6-O6	-6.07	116.26	119.90
23	DA	2452	C	N3-C4-N4	6.07	122.25	118.00
23	BA	121	G	C6-C5-N7	-6.07	126.76	130.40
23	BA	186	G	C8-N9-C4	6.07	108.83	106.40
23	BA	391	G	C6-C5-N7	-6.07	126.76	130.40
23	BA	2306	C	C6-N1-C1'	-6.07	113.51	120.80
23	DA	512	G	N1-C6-O6	-6.07	116.26	119.90
23	DA	2091	U	C5-C4-O4	6.07	129.54	125.90
23	BA	2123	G	C6-C5-N7	6.07	134.04	130.40
23	BA	154(A)	C	N1-C2-O2	6.07	122.54	118.90
23	BA	2239	G	N3-C2-N2	6.07	124.15	119.90
23	BA	2447	G	C6-N1-C2	-6.07	121.46	125.10
23	BA	186	G	C5-C6-O6	-6.07	124.96	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1633	G	C6-C5-N7	-6.07	126.76	130.40
23	BA	2730	C	N1-C2-O2	6.07	122.54	118.90
23	BA	27	G	N1-C2-N2	6.06	121.66	116.20
23	BA	1245	G	N1-C6-O6	-6.06	116.26	119.90
23	BA	2372	G	N3-C2-N2	-6.06	115.66	119.90
1	CA	1242	C	C2-N3-C4	6.06	122.93	119.90
23	BA	1827	C	C5-C4-N4	6.06	124.44	120.20
23	BA	2504	U	N3-C4-O4	-6.06	115.16	119.40
1	CA	346	G	N3-C2-N2	6.06	124.14	119.90
1	CA	1030	C	C2-N1-C1'	6.06	125.47	118.80
23	BA	2699	C	C5-C4-N4	-6.06	115.96	120.20
23	DA	743	G	N1-C6-O6	-6.06	116.26	119.90
23	DA	2619	C	C6-N1-C2	6.06	122.72	120.30
23	DA	2683	C	C6-N1-C2	-6.06	117.88	120.30
1	AA	1349	A	N7-C8-N9	6.06	116.83	113.80
23	BA	645	C	C2-N1-C1'	6.06	125.46	118.80
23	DA	823	G	C8-N9-C4	-6.06	103.98	106.40
23	DA	2463	C	N3-C2-O2	6.06	126.14	121.90
1	AA	1290	G	C5-C6-O6	-6.06	124.97	128.60
23	BA	1558	A	N1-C6-N6	6.05	122.23	118.60
23	BA	2062	A	C4-C5-N7	6.05	113.73	110.70
23	BA	2375	G	C5-C6-N1	6.05	114.53	111.50
1	AA	1308	U	N3-C4-C5	-6.05	110.97	114.60
23	BA	1377	G	N3-C4-C5	-6.05	125.57	128.60
1	AA	1198	G	N9-C4-C5	6.05	107.82	105.40
23	BA	145	G	N7-C8-N9	-6.05	110.07	113.10
23	BA	2826	A	C5-N7-C8	6.05	106.93	103.90
23	DA	2458	G	N3-C2-N2	-6.05	115.67	119.90
23	BA	272(B)	G	C8-N9-C4	6.05	108.82	106.40
23	BA	2592	G	N3-C4-C5	-6.05	125.58	128.60
23	BA	613	G	N3-C2-N2	-6.05	115.67	119.90
23	DA	1790	C	C5-C4-N4	-6.05	115.97	120.20
23	DA	2444	G	N3-C2-N2	-6.05	115.67	119.90
23	BA	145	G	C8-N9-C4	6.04	108.82	106.40
23	BA	1373	A	C5-N7-C8	6.04	106.92	103.90
24	BB	6	C	N3-C4-C5	6.04	124.32	121.90
23	DA	2335	A	C4-C5-C6	-6.04	113.98	117.00
23	BA	446	G	N3-C2-N2	-6.04	115.67	119.90
23	BA	1602	U	N3-C2-O2	-6.04	117.97	122.20
1	CA	1484	C	N3-C4-C5	6.04	124.32	121.90
23	DA	1222	C	N1-C2-O2	-6.04	115.27	118.90
1	AA	1302	U	N1-C2-O2	6.04	127.03	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	799	G	C8-N9-C4	-6.04	103.98	106.40
23	BA	807	U	C4-C5-C6	6.04	123.32	119.70
23	BA	1327	C	N1-C2-O2	-6.04	115.28	118.90
23	BA	1977	A	C8-N9-C4	6.04	108.22	105.80
23	DA	241	A	C2-N3-C4	-6.04	107.58	110.60
23	DA	1830	C	N3-C4-C5	6.04	124.32	121.90
23	DA	2195	C	N1-C2-O2	-6.04	115.28	118.90
1	AA	1308	U	C2-N3-C4	6.04	130.62	127.00
23	BA	1955	U	N3-C4-O4	-6.04	115.17	119.40
23	BA	2094	G	C8-N9-C4	-6.04	103.98	106.40
23	BA	2335	A	N9-C4-C5	-6.04	103.38	105.80
23	BA	591	C	C5-C6-N1	-6.04	117.98	121.00
24	BB	18	G	C5-C6-O6	-6.04	124.98	128.60
1	AA	982	U	C6-N1-C2	-6.04	117.38	121.00
1	AA	1518	A	N1-C6-N6	-6.04	114.98	118.60
23	BA	518	G	C5-C6-N1	-6.04	108.48	111.50
23	BA	558	G	C5-C6-O6	6.04	132.22	128.60
23	DA	143	G	N3-C4-C5	6.04	131.62	128.60
23	DA	2253	G	C5-C6-N1	-6.04	108.48	111.50
23	BA	217	G	C5-C6-O6	-6.03	124.98	128.60
23	DA	1605	C	N1-C2-N3	6.03	123.42	119.20
27	DF	89	VAL	CA-C-N	6.03	130.47	117.20
23	BA	1417	C	C6-N1-C2	6.03	122.71	120.30
23	BA	2342	C	C5-C4-N4	-6.03	115.98	120.20
23	DA	92	A	N7-C8-N9	6.03	116.82	113.80
23	DA	463	G	C5-C6-O6	6.03	132.22	128.60
23	DA	1926	U	N1-C2-N3	6.03	118.52	114.90
23	BA	1652	A	C8-N9-C4	-6.03	103.39	105.80
23	DA	2607	G	N3-C4-N9	6.03	129.62	126.00
1	CA	766	A	N9-C4-C5	-6.03	103.39	105.80
1	CA	1456	G	N3-C4-N9	6.03	129.62	126.00
23	DA	1934	C	C5-C6-N1	-6.03	117.98	121.00
1	AA	172	A	C8-N9-C4	-6.03	103.39	105.80
23	BA	652(E)	G	C6-N1-C2	6.03	128.72	125.10
23	BA	775	G	N3-C2-N2	6.03	124.12	119.90
23	BA	1762	A	C2-N3-C4	6.03	113.61	110.60
23	BA	2371	G	C8-N9-C4	6.03	108.81	106.40
1	CA	1032	G	C5-C6-N1	-6.03	108.49	111.50
23	BA	1804	C	C5-C6-N1	6.03	124.01	121.00
23	DA	1488	G	N3-C4-C5	-6.03	125.59	128.60
23	BA	694	U	N3-C2-O2	-6.02	117.98	122.20
23	BA	1253	A	C6-C5-N7	6.02	136.52	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2271	G	N1-C6-O6	-6.02	116.29	119.90
1	CA	1121	U	C5-C6-N1	6.02	125.71	122.70
23	DA	248	G	C8-N9-C4	-6.02	103.99	106.40
23	DA	1049	C	C5-C6-N1	6.02	124.01	121.00
23	BA	1403	C	C2-N3-C4	-6.02	116.89	119.90
23	BA	1934	C	N1-C2-O2	6.02	122.51	118.90
23	BA	476	G	C5-C6-N1	-6.02	108.49	111.50
1	CA	1395	C	C5-C6-N1	6.02	124.01	121.00
1	AA	526	C	C6-N1-C2	-6.01	117.89	120.30
23	BA	17	G	N9-C4-C5	-6.01	103.00	105.40
23	BA	26	G	N7-C8-N9	6.01	116.11	113.10
23	BA	975	C	N3-C2-O2	-6.01	117.69	121.90
23	DA	141	A	C2-N3-C4	-6.01	107.59	110.60
23	DA	2607	G	C4-C5-C6	6.01	122.41	118.80
23	DA	2710	C	C4-C5-C6	6.01	120.41	117.40
23	DA	265	A	C5-N7-C8	-6.01	100.89	103.90
23	BA	1567	A	C8-N9-C4	-6.01	103.39	105.80
23	BA	2067	G	N9-C4-C5	6.01	107.80	105.40
23	BA	2440	C	C2-N1-C1'	-6.01	112.19	118.80
1	CA	995	C	C5-C6-N1	6.01	124.01	121.00
23	DA	1352	U	N3-C2-O2	-6.01	117.99	122.20
23	DA	2253	G	C6-C5-N7	-6.01	126.79	130.40
23	BA	32	C	N3-C2-O2	-6.01	117.69	121.90
24	BB	118	G	C8-N9-C4	6.01	108.80	106.40
23	DA	1786	A	C5-C6-N6	6.01	128.51	123.70
23	BA	472	A	C8-N9-C4	-6.01	103.40	105.80
1	AA	1432	G	C5-C6-N1	-6.01	108.50	111.50
1	CA	37	U	N3-C2-O2	-6.01	118.00	122.20
23	DA	62	C	C6-N1-C2	6.01	122.70	120.30
23	DA	398	G	N1-C6-O6	6.01	123.50	119.90
23	DA	2052	G	N3-C2-N2	-6.01	115.69	119.90
23	BA	1192	G	C4-C5-N7	-6.00	108.40	110.80
23	DA	141	A	C5-C6-N1	-6.00	114.70	117.70
23	DA	673	C	C6-N1-C2	6.00	122.70	120.30
23	BA	1008	C	N3-C4-C5	-6.00	119.50	121.90
24	BB	30	C	C6-N1-C2	-6.00	117.90	120.30
23	DA	1200	C	N1-C2-O2	-6.00	115.30	118.90
43	BZ	151	HIS	N-CA-C	6.00	127.20	111.00
23	DA	583	G	C2-N3-C4	-6.00	108.90	111.90
23	DA	2031	A	C5-C6-N6	-6.00	118.90	123.70
23	BA	563	G	C5-N7-C8	-6.00	101.30	104.30
23	BA	2182	G	N3-C4-N9	-6.00	122.40	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2258	C	N3-C4-N4	6.00	122.20	118.00
23	DA	1992	G	C2-N3-C4	6.00	114.90	111.90
23	DA	2504	U	N3-C4-C5	6.00	118.20	114.60
23	BA	1381	G	C8-N9-C4	-5.99	104.00	106.40
23	BA	2060	A	N1-C6-N6	-5.99	115.00	118.60
23	BA	1383	C	N3-C4-N4	5.99	122.19	118.00
23	BA	2018	G	N7-C8-N9	5.99	116.09	113.10
23	DA	31	C	C5-C4-N4	-5.99	116.01	120.20
24	DB	55	U	C6-N1-C2	-5.99	117.41	121.00
23	DA	839	U	C2-N3-C4	5.99	130.59	127.00
23	DA	2110	G	C4-N9-C1'	5.99	134.29	126.50
1	AA	1120	G	N1-C2-N2	5.99	121.59	116.20
23	BA	766	C	C4-C5-C6	5.99	120.39	117.40
23	BA	1328	G	C6-N1-C2	-5.99	121.51	125.10
23	DA	1539	G	C4-N9-C1'	5.99	134.28	126.50
1	AA	893	C	N1-C2-O2	5.99	122.49	118.90
23	BA	377	C	C5-C6-N1	-5.99	118.01	121.00
23	BA	1344	G	N3-C2-N2	-5.99	115.71	119.90
23	BA	1692	U	N1-C2-N3	5.99	118.49	114.90
23	BA	1937	A	N7-C8-N9	-5.99	110.81	113.80
23	DA	179	G	C8-N9-C4	5.99	108.79	106.40
23	DA	2252	G	N7-C8-N9	-5.99	110.11	113.10
23	BA	1107	G	C5-N7-C8	-5.98	101.31	104.30
23	DA	679	C	N1-C2-O2	-5.98	115.31	118.90
23	DA	2332	U	C5-C6-N1	-5.98	119.71	122.70
23	BA	1151	G	N3-C2-N2	-5.98	115.71	119.90
23	DA	2424	C	N1-C2-N3	5.98	123.39	119.20
1	CA	1442(B)	A	N1-C2-N3	5.98	132.29	129.30
23	DA	73	A	C8-N9-C4	-5.98	103.41	105.80
23	DA	1616	A	C2-N3-C4	-5.98	107.61	110.60
23	DA	2569	G	C6-N1-C2	-5.98	121.51	125.10
23	BA	512	G	N3-C2-N2	5.98	124.08	119.90
23	BA	2016	U	C4-C5-C6	5.98	123.29	119.70
1	CA	397	A	N9-C4-C5	5.98	108.19	105.80
1	CA	896	C	C6-N1-C2	5.98	122.69	120.30
10	CJ	90	LEU	C-N-CD	-5.98	107.45	120.60
23	DA	2324	C	C2-N3-C4	-5.98	116.91	119.90
1	CA	357	G	N1-C6-O6	-5.98	116.31	119.90
23	DA	1665	A	N1-C6-N6	-5.98	115.02	118.60
1	AA	1157	A	N1-C6-N6	-5.97	115.02	118.60
23	BA	729	G	N1-C6-O6	5.97	123.48	119.90
23	BA	1256	G	N1-C2-N2	-5.97	110.82	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	CD	12	CYS	CA-CB-SG	5.97	124.75	114.00
23	DA	1022	G	C6-C5-N7	5.97	133.99	130.40
23	DA	2886	G	N3-C4-C5	-5.97	125.61	128.60
23	BA	817	C	C6-N1-C2	-5.97	117.91	120.30
23	BA	1291	C	C5-C4-N4	5.97	124.38	120.20
23	DA	41	C	C6-N1-C2	5.97	122.69	120.30
23	DA	1782	C	C2-N3-C4	-5.97	116.91	119.90
1	AA	40	C	C6-N1-C2	5.97	122.69	120.30
23	BA	940	G	N3-C4-C5	-5.97	125.61	128.60
1	CA	1038	C	C6-N1-C2	-5.97	117.91	120.30
23	DA	53	A	C4-C5-C6	5.97	119.98	117.00
23	DA	1617	C	C5-C6-N1	-5.97	118.02	121.00
1	AA	1174	G	C8-N9-C1'	5.97	134.76	127.00
1	AA	1373	G	C8-N9-C4	-5.97	104.01	106.40
23	BA	386	G	N3-C4-C5	-5.97	125.62	128.60
23	BA	620	G	C6-N1-C2	-5.97	121.52	125.10
23	BA	1255	U	C5-C4-O4	-5.97	122.32	125.90
23	BA	2105	C	C6-N1-C2	-5.97	117.91	120.30
23	DA	133	C	C6-N1-C2	5.97	122.69	120.30
1	AA	1158	C	C6-N1-C1'	-5.96	113.64	120.80
23	BA	2012	G	C4-C5-N7	5.96	113.19	110.80
1	CA	569	C	C6-N1-C2	-5.96	117.91	120.30
23	DA	27	G	N1-C2-N2	5.96	121.57	116.20
23	DA	269	U	C2-N1-C1'	5.96	124.86	117.70
23	DA	2024	G	C8-N9-C4	5.96	108.78	106.40
23	BA	2533	A	C8-N9-C4	5.96	108.19	105.80
23	BA	966	G	C5-C6-O6	5.96	132.18	128.60
23	BA	1659	U	N1-C2-N3	5.96	118.48	114.90
23	DA	2248	C	N3-C4-N4	-5.96	113.83	118.00
23	DA	474	G	C8-N9-C4	-5.96	104.02	106.40
23	BA	1811	G	C4-C5-N7	-5.95	108.42	110.80
23	BA	692	C	N1-C2-O2	-5.95	115.33	118.90
23	BA	613	G	N7-C8-N9	5.95	116.07	113.10
23	BA	614	U	C6-N1-C2	-5.95	117.43	121.00
23	BA	1203	G	C5-C6-O6	5.95	132.17	128.60
23	BA	2002	G	N7-C8-N9	5.95	116.07	113.10
23	BA	2683	C	C6-N1-C2	-5.95	117.92	120.30
23	BA	1780	A	N7-C8-N9	5.95	116.77	113.80
23	BA	1954	G	N1-C6-O6	5.95	123.47	119.90
23	DA	847	U	N1-C2-N3	5.95	118.47	114.90
23	DA	1609	A	N1-C6-N6	5.95	122.17	118.60
23	BA	31	C	N3-C4-C5	5.94	124.28	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2782	G	N1-C6-O6	-5.94	116.33	119.90
1	AA	1462	G	N3-C2-N2	-5.94	115.74	119.90
23	BA	671	C	C6-N1-C2	-5.94	117.92	120.30
23	BA	985	C	N3-C4-C5	5.94	124.28	121.90
23	BA	2498	C	C5-C6-N1	-5.94	118.03	121.00
23	DA	808	G	N3-C4-C5	-5.94	125.63	128.60
23	DA	1758	G	N1-C6-O6	5.94	123.47	119.90
23	DA	2259	G	N1-C6-O6	5.94	123.47	119.90
1	CA	1036	G	N3-C4-N9	5.94	129.56	126.00
23	DA	777	A	N3-C4-C5	-5.94	122.64	126.80
23	DA	2103	C	C5-C4-N4	5.94	124.36	120.20
23	DA	2069	G	C5-C6-O6	-5.94	125.04	128.60
23	DA	2828	C	N3-C2-O2	5.94	126.06	121.90
23	BA	154	G	C5-C6-O6	-5.94	125.04	128.60
23	BA	836	G	C5-C6-O6	5.94	132.16	128.60
23	BA	2886	G	C8-N9-C4	-5.94	104.03	106.40
23	BA	286	C	N3-C2-O2	-5.94	117.75	121.90
23	BA	567	A	C6-C5-N7	-5.94	128.14	132.30
1	AA	932	C	N3-C2-O2	-5.93	117.75	121.90
23	BA	265	A	N7-C8-N9	5.93	116.77	113.80
23	BA	294	A	C8-N9-C4	5.93	108.17	105.80
23	BA	572	A	C8-N9-C4	-5.93	103.43	105.80
23	BA	978	G	N9-C4-C5	-5.93	103.03	105.40
23	DA	2723	C	N3-C2-O2	-5.93	117.75	121.90
23	BA	60	G	N9-C4-C5	-5.93	103.03	105.40
23	BA	2306	C	C2-N3-C4	5.93	122.87	119.90
23	DA	205	G	N9-C4-C5	-5.93	103.03	105.40
23	DA	1789	A	N7-C8-N9	-5.93	110.83	113.80
23	DA	2290	G	C2-N3-C4	-5.93	108.93	111.90
23	BA	817	C	C4-C5-C6	-5.93	114.43	117.40
23	BA	1780	A	N9-C4-C5	5.93	108.17	105.80
23	BA	2024	G	N1-C6-O6	5.93	123.46	119.90
1	AA	1037	C	C2-N3-C4	5.93	122.86	119.90
23	BA	1022	G	C8-N9-C1'	5.93	134.71	127.00
1	CA	572	A	N7-C8-N9	-5.93	110.83	113.80
23	DA	191	A	C6-N1-C2	-5.93	115.04	118.60
23	DA	616	G	N9-C4-C5	-5.93	103.03	105.40
23	DA	2079	U	C4-C5-C6	5.93	123.26	119.70
23	DA	2329	G	N7-C8-N9	-5.93	110.14	113.10
23	BA	2110	G	C4-N9-C1'	5.93	134.21	126.50
1	AA	1432	G	N3-C4-C5	5.93	131.56	128.60
23	DA	2514	U	C5-C6-N1	-5.93	119.74	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1332	A	N3-C4-C5	-5.92	122.65	126.80
23	BA	1320	C	C5-C6-N1	-5.92	118.04	121.00
23	DA	1571	A	N1-C6-N6	-5.92	115.05	118.60
23	DA	546	C	C2-N1-C1'	5.92	125.31	118.80
23	DA	2028	U	N3-C4-C5	5.92	118.15	114.60
23	DA	2823	A	C4-C5-N7	5.92	113.66	110.70
23	BA	1324	G	C5-C6-O6	-5.92	125.05	128.60
23	DA	799	G	N1-C6-O6	-5.92	116.35	119.90
23	DA	2260	C	N1-C2-O2	-5.92	115.35	118.90
23	DA	2585	U	N3-C2-O2	-5.92	118.06	122.20
23	BA	748	G	N1-C6-O6	-5.92	116.35	119.90
23	BA	2699	C	C6-N1-C2	5.92	122.67	120.30
1	CA	993	G	N3-C4-N9	5.92	129.55	126.00
1	CA	1123	A	C8-N9-C4	-5.92	103.43	105.80
23	DA	766	C	N3-C4-C5	-5.92	119.53	121.90
23	DA	1027	A	C5-C6-N6	-5.92	118.97	123.70
23	DA	2110	G	C8-N9-C1'	-5.92	119.31	127.00
1	AA	1231	G	C5-C6-O6	5.92	132.15	128.60
23	BA	1606	G	N3-C2-N2	-5.92	115.76	119.90
1	AA	1124	G	N3-C4-N9	-5.91	122.45	126.00
23	BA	2586	C	N1-C2-O2	-5.91	115.35	118.90
23	BA	2638	G	N7-C8-N9	5.91	116.06	113.10
1	AA	1518	A	C5-C6-N6	5.91	128.43	123.70
23	BA	470	A	C5-N7-C8	-5.91	100.94	103.90
23	BA	1204	A	O4'-C1'-N9	5.91	112.93	108.20
23	BA	1349	A	N1-C6-N6	5.91	122.15	118.60
23	DA	2191	G	C4-C5-N7	5.91	113.16	110.80
23	BA	583	G	N1-C6-O6	5.91	123.44	119.90
1	CA	1326	C	C6-N1-C2	5.91	122.66	120.30
23	DA	329	G	C8-N9-C4	5.91	108.76	106.40
23	DA	1778	U	C4-C5-C6	5.91	123.25	119.70
23	BA	941	A	N7-C8-N9	5.91	116.75	113.80
23	BA	1495	A	C8-N9-C4	-5.91	103.44	105.80
1	CA	896	C	N3-C4-C5	5.91	124.26	121.90
23	DA	463	G	C8-N9-C1'	5.90	134.68	127.00
23	BA	1784	A	N7-C8-N9	-5.90	110.85	113.80
1	AA	1099	G	N1-C6-O6	5.90	123.44	119.90
23	BA	2043	C	C6-N1-C2	-5.90	117.94	120.30
1	CA	1041	A	C5-C6-N6	5.90	128.42	123.70
23	DA	330	A	N1-C2-N3	5.90	132.25	129.30
1	AA	1206	G	C5-C6-O6	5.90	132.14	128.60
1	AA	1220	G	C8-N9-C4	5.90	108.76	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	319	C	C5-C6-N1	-5.90	118.05	121.00
23	BA	674	G	N7-C8-N9	5.90	116.05	113.10
23	BA	2447	G	C4-C5-C6	5.90	122.34	118.80
23	BA	801	G	C4-C5-N7	-5.90	108.44	110.80
23	BA	2816	C	C5-C6-N1	5.90	123.95	121.00
1	AA	944	G	N7-C8-N9	5.89	116.05	113.10
23	BA	805	G	C8-N9-C4	-5.89	104.04	106.40
23	BA	1008	C	C4-C5-C6	5.89	120.35	117.40
23	BA	2248	C	N1-C2-O2	-5.89	115.36	118.90
23	BA	2428	G	N1-C6-O6	-5.89	116.36	119.90
23	DA	2346	A	C5-C6-N6	5.89	128.41	123.70
23	BA	1307	A	N7-C8-N9	-5.89	110.85	113.80
23	BA	2592	G	C8-N9-C4	-5.89	104.04	106.40
1	CA	345	C	C6-N1-C1'	-5.89	113.73	120.80
1	CA	1519	A	N1-C6-N6	-5.89	115.06	118.60
23	DA	1566	A	C8-N9-C4	-5.89	103.44	105.80
23	DA	1835	G	N3-C4-C5	-5.89	125.65	128.60
23	DA	2319	G	C5-N7-C8	-5.89	101.35	104.30
1	AA	246	A	C8-N9-C4	5.89	108.16	105.80
23	BA	693	C	N3-C2-O2	-5.89	117.78	121.90
23	BA	1359	A	N9-C4-C5	5.89	108.16	105.80
23	DA	462	C	N3-C4-N4	-5.89	113.88	118.00
23	DA	1488	G	N7-C8-N9	5.89	116.05	113.10
23	DA	2042	A	C8-N9-C4	5.89	108.16	105.80
23	DA	2606	C	C6-N1-C2	5.89	122.66	120.30
23	BA	1367	A	C8-N9-C4	5.89	108.16	105.80
23	DA	56	A	N1-C6-N6	-5.89	115.07	118.60
23	DA	2098	U	C2-N3-C4	5.89	130.53	127.00
23	BA	2501	C	C6-N1-C2	5.89	122.66	120.30
23	BA	1131	G	C5-C6-O6	5.89	132.13	128.60
23	BA	1937	A	C5-N7-C8	5.89	106.84	103.90
23	DA	1275	A	C2-N3-C4	-5.89	107.66	110.60
23	BA	476	G	N3-C4-C5	5.88	131.54	128.60
23	BA	2823	A	C6-C5-N7	-5.88	128.18	132.30
1	AA	895	G	N1-C6-O6	5.88	123.43	119.90
23	DA	2569	G	N3-C4-N9	5.88	129.53	126.00
1	AA	1184	G	N9-C4-C5	5.88	107.75	105.40
23	BA	574	C	C5-C4-N4	5.88	124.32	120.20
23	BA	2661	G	N3-C4-N9	5.88	129.53	126.00
23	DA	2035	G	N9-C4-C5	5.88	107.75	105.40
23	DA	2203	U	C5-C6-N1	-5.88	119.76	122.70
23	DA	2733	A	C4-C5-N7	5.88	113.64	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	968	A	C8-N9-C4	-5.88	103.45	105.80
7	AG	104	LEU	CA-CB-CG	5.88	128.82	115.30
23	BA	652(T)	C	C5-C4-N4	5.88	124.32	120.20
23	DA	509	C	C4-C5-C6	5.88	120.34	117.40
23	BA	532	A	C8-N9-C4	-5.88	103.45	105.80
23	BA	1207	C	N1-C2-O2	-5.88	115.37	118.90
23	BA	2715	C	C5-C6-N1	-5.88	118.06	121.00
23	DA	1190	G	N1-C2-N3	5.88	127.43	123.90
23	BA	688	U	N3-C4-O4	5.88	123.51	119.40
23	BA	1751	C	N3-C2-O2	5.88	126.01	121.90
23	DA	272(C)	G	N1-C6-O6	5.88	123.43	119.90
23	DA	768	G	C4-C5-N7	-5.88	108.45	110.80
23	DA	2719	G	N9-C4-C5	-5.88	103.05	105.40
23	BA	1296	G	C8-N9-C4	-5.88	104.05	106.40
23	BA	1336	A	N7-C8-N9	-5.88	110.86	113.80
23	BA	271(Y)	U	N1-C2-N3	5.87	118.42	114.90
23	BA	763	G	N3-C4-C5	-5.87	125.66	128.60
23	BA	2193	G	C5-C6-N1	-5.87	108.56	111.50
23	BA	2570	G	N3-C4-C5	5.87	131.54	128.60
23	DA	981	A	N7-C8-N9	-5.87	110.86	113.80
23	DA	1962	C	C5-C6-N1	5.87	123.94	121.00
23	DA	1980	G	C8-N9-C4	-5.87	104.05	106.40
23	DA	2346	A	C4-C5-N7	-5.87	107.76	110.70
23	BA	2038	G	C6-C5-N7	-5.87	126.88	130.40
1	CA	525	C	C5-C6-N1	5.87	123.94	121.00
23	BA	45	C	C6-N1-C2	-5.87	117.95	120.30
23	DA	2023	G	C5-C6-N1	5.87	114.44	111.50
1	AA	52	G	C8-N9-C4	-5.87	104.05	106.40
23	BA	205	G	N1-C2-N2	-5.87	110.92	116.20
23	BA	1488	G	C4-N9-C1'	5.87	134.13	126.50
23	DA	2755	C	N3-C4-N4	5.87	122.11	118.00
1	AA	1198	G	C6-C5-N7	5.87	133.92	130.40
23	BA	446	G	C6-C5-N7	-5.87	126.88	130.40
23	BA	1333	C	C4-C5-C6	-5.87	114.47	117.40
23	BA	1811	G	N3-C2-N2	-5.87	115.79	119.90
1	CA	1216	G	C8-N9-C1'	5.87	134.62	127.00
23	DA	125	G	N3-C2-N2	5.87	124.00	119.90
23	DA	1983	C	N1-C2-O2	-5.87	115.38	118.90
1	AA	1028	C	C5-C4-N4	-5.86	116.09	120.20
1	AA	1045	C	N1-C2-O2	5.86	122.42	118.90
23	BA	2383	G	C4-N9-C1'	5.86	134.12	126.50
23	BA	2079	U	C5-C6-N1	-5.86	119.77	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2280	G	C8-N9-C4	-5.86	104.06	106.40
23	BA	2283	C	N1-C2-O2	-5.86	115.38	118.90
23	BA	2380	C	C2-N3-C4	-5.86	116.97	119.90
23	DA	2682	U	C2-N1-C1'	5.86	124.73	117.70
1	AA	1384	C	C2-N3-C4	5.86	122.83	119.90
23	BA	2104	G	N9-C4-C5	-5.86	103.06	105.40
23	BA	650	C	C6-N1-C2	-5.86	117.96	120.30
23	BA	2459	A	C8-N9-C4	-5.86	103.46	105.80
23	DA	56	A	C4-C5-C6	-5.86	114.07	117.00
23	DA	1602	U	N1-C2-N3	5.86	118.41	114.90
23	DA	333	G	C5-C6-O6	-5.85	125.09	128.60
23	DA	1124	C	C6-N1-C2	5.85	122.64	120.30
23	BA	236	C	C5-C6-N1	-5.85	118.07	121.00
1	CA	1294	G	C8-N9-C1'	5.85	134.61	127.00
23	DA	513	A	C6-N1-C2	-5.85	115.09	118.60
23	BA	571	A	N1-C6-N6	5.85	122.11	118.60
23	BA	778	G	N3-C2-N2	5.85	124.00	119.90
23	BA	1121	C	C2-N3-C4	-5.85	116.97	119.90
1	AA	1293	G	N3-C4-C5	5.85	131.53	128.60
23	BA	1939	U	C5-C4-O4	-5.85	122.39	125.90
1	CA	39	G	N3-C4-C5	-5.85	125.67	128.60
23	DA	847	U	C6-N1-C1'	5.85	129.39	121.20
23	BA	270	A	C8-N9-C4	5.85	108.14	105.80
23	BA	1804	C	C4-C5-C6	-5.85	114.48	117.40
23	DA	914	C	N1-C2-O2	5.85	122.41	118.90
23	DA	2496	C	N3-C4-C5	5.85	124.24	121.90
23	BA	1784	A	C2-N3-C4	-5.85	107.68	110.60
1	CA	357	G	C6-N1-C2	-5.85	121.59	125.10
23	DA	2599	G	C4-C5-N7	-5.85	108.46	110.80
23	BA	2032	G	C5-N7-C8	5.84	107.22	104.30
23	DA	117	G	C8-N9-C4	5.84	108.74	106.40
23	DA	1286	A	C8-N9-C4	-5.84	103.46	105.80
23	DA	1493	C	N1-C2-O2	5.84	122.41	118.90
23	BA	509	C	N3-C2-O2	-5.84	117.81	121.90
23	BA	1372	U	C5-C4-O4	5.84	129.41	125.90
23	BA	1616	A	C5-C6-N6	-5.84	119.03	123.70
23	BA	2467	C	N3-C2-O2	-5.84	117.81	121.90
23	BA	527	C	C4-C5-C6	5.84	120.32	117.40
23	BA	647	G	N7-C8-N9	5.84	116.02	113.10
23	BA	1210	A	C4-C5-C6	5.84	119.92	117.00
23	DA	271(M)	G	N3-C4-C5	-5.84	125.68	128.60
23	DA	1665	A	N9-C4-C5	5.84	108.14	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	516	C	N1-C2-N3	5.84	123.29	119.20
23	BA	1028	A	N1-C2-N3	-5.84	126.38	129.30
23	BA	2176	A	C6-N1-C2	5.84	122.10	118.60
1	AA	1469	G	C4-C5-N7	5.84	113.14	110.80
23	BA	1298	C	N3-C4-C5	5.84	124.23	121.90
23	BA	2253	G	C2-N3-C4	-5.84	108.98	111.90
23	BA	2383	G	N3-C2-N2	5.84	123.98	119.90
23	DA	2046	G	C5-C6-O6	-5.84	125.10	128.60
23	BA	1981	A	N9-C4-C5	5.83	108.13	105.80
23	DA	2318	G	C2-N3-C4	5.83	114.82	111.90
23	BA	2018	G	C5-N7-C8	-5.83	101.38	104.30
23	BA	2247	A	C2-N3-C4	-5.83	107.68	110.60
23	DA	1640	C	C5-C6-N1	5.83	123.92	121.00
23	DA	2306	C	C6-N1-C1'	-5.83	113.80	120.80
1	AA	399	G	C6-N1-C2	-5.83	121.60	125.10
1	AA	1386	G	C4-C5-N7	-5.83	108.47	110.80
23	BA	481	G	C8-N9-C4	-5.83	104.07	106.40
23	BA	1324	G	C6-N1-C2	-5.83	121.60	125.10
23	DA	768	G	N1-C2-N3	5.83	127.40	123.90
23	DA	2088	G	C2-N3-C4	-5.83	108.98	111.90
23	BA	310	A	C8-N9-C4	5.83	108.13	105.80
23	BA	2084	C	C4-C5-C6	5.83	120.31	117.40
23	BA	2545	G	N1-C6-O6	5.83	123.40	119.90
23	BA	2683	C	N1-C2-O2	5.83	122.40	118.90
1	CA	1093	A	C8-N9-C4	-5.83	103.47	105.80
23	DA	801	G	N1-C6-O6	-5.83	116.40	119.90
23	DA	2628	C	C6-N1-C2	5.83	122.63	120.30
1	AA	852	G	N3-C4-N9	-5.83	122.50	126.00
1	AA	1249	C	N3-C4-N4	5.83	122.08	118.00
23	BA	777	A	C8-N9-C4	-5.83	103.47	105.80
23	BA	570	G	N3-C4-N9	5.82	129.49	126.00
23	BA	2261	C	C6-N1-C2	-5.82	117.97	120.30
1	CA	1012	U	C6-N1-C2	-5.82	117.51	121.00
1	CA	1051	C	C5-C6-N1	5.82	123.91	121.00
23	DA	772	C	N3-C4-N4	5.82	122.08	118.00
23	DA	1954	G	N1-C2-N2	5.82	121.44	116.20
23	DA	2818	G	N1-C2-N3	5.82	127.39	123.90
23	BA	53	A	C4-C5-C6	5.82	119.91	117.00
23	DA	2387	U	C5-C6-N1	-5.82	119.79	122.70
23	BA	208	C	C5-C6-N1	-5.82	118.09	121.00
23	DA	1779	U	C6-N1-C1'	5.82	129.35	121.20
23	DA	2174	C	C6-N1-C2	-5.82	117.97	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	751	A	C6-N1-C2	-5.82	115.11	118.60
23	DA	2439	A	N1-C6-N6	-5.82	115.11	118.60
1	AA	1027	C	C6-N1-C2	-5.82	117.97	120.30
23	BA	194	G	C2-N3-C4	-5.82	108.99	111.90
23	BA	381	G	C6-N1-C2	-5.82	121.61	125.10
3	CC	196	LEU	CA-CB-CG	5.82	128.68	115.30
14	CN	44	LEU	CA-CB-CG	5.82	128.68	115.30
1	AA	1016	A	N7-C8-N9	5.82	116.71	113.80
23	BA	70	G	N3-C2-N2	5.82	123.97	119.90
23	BA	2026	C	C4-C5-C6	5.82	120.31	117.40
23	BA	2497	A	C5-C6-N1	5.82	120.61	117.70
1	AA	79	G	C5-C6-O6	-5.81	125.11	128.60
23	BA	194	G	C5-N7-C8	5.81	107.21	104.30
23	BA	333	G	C4-N9-C1'	5.81	134.06	126.50
23	BA	1397	U	N3-C4-C5	5.81	118.09	114.60
1	CA	496	A	N1-C6-N6	-5.81	115.11	118.60
1	CA	766	A	C5-C6-N6	-5.81	119.05	123.70
1	CA	1429	C	C6-N1-C2	5.81	122.63	120.30
23	BA	2035	G	N3-C4-N9	-5.81	122.51	126.00
23	BA	2185	C	C5-C4-N4	5.81	124.27	120.20
23	BA	2297	C	N1-C2-O2	-5.81	115.41	118.90
23	BA	2628	C	C6-N1-C2	5.81	122.62	120.30
23	DA	1275	A	C8-N9-C4	5.81	108.12	105.80
1	AA	986	A	C5-C6-N6	-5.81	119.05	123.70
1	AA	1519	A	N9-C4-C5	5.81	108.12	105.80
1	AA	1224	G	N9-C4-C5	5.81	107.72	105.40
23	BA	122	G	C2-N3-C4	-5.81	109.00	111.90
23	BA	2200	C	C4-C5-C6	5.81	120.31	117.40
1	CA	977	A	C2-N3-C4	5.81	113.50	110.60
23	DA	1328	G	C5-C6-N1	5.81	114.41	111.50
23	DA	1997	G	C5-N7-C8	5.81	107.20	104.30
23	BA	1155	A	C8-N9-C4	-5.81	103.48	105.80
23	BA	1806	C	N3-C4-C5	-5.81	119.58	121.90
23	BA	1998	G	C5-C6-N1	-5.81	108.60	111.50
1	CA	54	C	C2-N3-C4	-5.81	117.00	119.90
23	DA	2719	G	N3-C2-N2	5.81	123.97	119.90
23	BA	53	A	N3-C4-C5	-5.81	122.74	126.80
23	BA	1129	A	N7-C8-N9	5.81	116.70	113.80
23	BA	34	C	C6-N1-C2	-5.80	117.98	120.30
23	BA	2057	A	C2-N3-C4	-5.80	107.70	110.60
23	BA	2501	C	C2-N1-C1'	-5.80	112.42	118.80
23	BA	2715	C	C2-N3-C4	-5.80	117.00	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	770	C	N3-C4-C5	-5.80	119.58	121.90
23	DA	271(K)	U	N1-C2-O2	5.80	126.86	122.80
23	DA	2599	G	N1-C6-O6	-5.80	116.42	119.90
1	AA	1296	C	C6-N1-C1'	-5.80	113.84	120.80
23	BA	28	A	N1-C2-N3	-5.80	126.40	129.30
23	BA	2045	C	N3-C2-O2	-5.80	117.84	121.90
23	BA	2383	G	C8-N9-C1'	-5.80	119.46	127.00
23	BA	2441	C	N3-C2-O2	-5.80	117.84	121.90
23	DA	2017	U	N1-C2-N3	5.80	118.38	114.90
1	AA	1023	G	C6-C5-N7	-5.80	126.92	130.40
1	AA	1287	A	C8-N9-C4	-5.80	103.48	105.80
23	BA	62	C	C6-N1-C2	5.80	122.62	120.30
23	BA	2719	G	C4-C5-C6	-5.80	115.32	118.80
23	DA	2031	A	C6-C5-N7	-5.80	128.24	132.30
23	DA	2383	G	N3-C4-N9	5.80	129.48	126.00
24	BB	6	C	C2-N1-C1'	-5.80	112.42	118.80
23	DA	1124	C	N3-C2-O2	5.80	125.96	121.90
1	AA	1287	A	N7-C8-N9	5.80	116.70	113.80
24	DB	55	U	N3-C4-C5	-5.80	111.12	114.60
1	AA	573	A	N7-C8-N9	-5.80	110.90	113.80
1	AA	1302	U	C6-N1-C2	-5.80	117.52	121.00
1	CA	235	C	N1-C2-O2	5.80	122.38	118.90
1	CA	1518	A	C8-N9-C4	-5.80	103.48	105.80
1	AA	1307	U	C5-C6-N1	5.79	125.60	122.70
1	AA	1274	G	C5-C6-O6	-5.79	125.12	128.60
23	BA	94	C	C6-N1-C2	-5.79	117.98	120.30
23	BA	2258	C	C5-C4-N4	-5.79	116.14	120.20
1	CA	117	G	N3-C4-N9	5.79	129.48	126.00
23	DA	2062	A	C8-N9-C4	-5.79	103.48	105.80
24	DB	115	G	N9-C4-C5	-5.79	103.08	105.40
23	BA	1524	G	C5-C6-O6	5.79	132.07	128.60
1	CA	1502	A	N7-C8-N9	5.79	116.70	113.80
23	DA	1329	U	N1-C2-N3	5.79	118.38	114.90
1	AA	1120	G	N3-C2-N2	-5.79	115.85	119.90
1	AA	1062	U	N1-C2-O2	5.79	126.85	122.80
23	BA	118	A	C2-N3-C4	5.79	113.49	110.60
23	BA	1977	A	C2-N3-C4	-5.79	107.70	110.60
23	BA	2273	A	C5-C6-N6	-5.79	119.07	123.70
23	DA	2519	U	C5-C6-N1	-5.79	119.81	122.70
23	BA	480	A	C8-N9-C4	-5.79	103.48	105.80
1	CA	867	G	N3-C4-C5	-5.79	125.71	128.60
23	DA	1112	G	N3-C4-C5	5.79	131.49	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2021	C	N1-C2-O2	-5.79	115.43	118.90
1	CA	1460	A	N7-C8-N9	-5.79	110.91	113.80
23	DA	2434	A	C2-N3-C4	-5.79	107.71	110.60
23	DA	2840	C	N3-C4-C5	5.79	124.21	121.90
23	BA	1489	U	C5-C4-O4	5.78	129.37	125.90
23	DA	1259	G	C5-C6-O6	5.78	132.07	128.60
1	AA	1023	G	C5-N7-C8	-5.78	101.41	104.30
23	DA	698	C	C5-C4-N4	-5.78	116.15	120.20
23	DA	2070	G	N1-C6-O6	-5.78	116.43	119.90
1	AA	1460	A	C6-C5-N7	5.78	136.34	132.30
23	BA	62	C	C2-N3-C4	-5.78	117.01	119.90
1	CA	973	G	C5-C6-O6	-5.78	125.13	128.60
1	CA	1197	G	N3-C4-C5	-5.78	125.71	128.60
23	DA	23	G	N1-C6-O6	-5.78	116.43	119.90
23	DA	1328	G	N9-C4-C5	-5.78	103.09	105.40
23	BA	129	C	C6-N1-C2	5.78	122.61	120.30
23	DA	664	C	C5-C6-N1	-5.78	118.11	121.00
23	DA	1597	A	C8-N9-C4	-5.78	103.49	105.80
23	DA	1678	G	C8-N9-C4	-5.78	104.09	106.40
23	DA	2296	U	C1'-O4'-C4'	-5.78	105.28	109.90
23	BA	1186	G	C8-N9-C4	5.78	108.71	106.40
23	BA	2394	C	N1-C2-O2	-5.78	115.44	118.90
23	DA	74	A	C8-N9-C4	-5.78	103.49	105.80
23	DA	253	C	N1-C2-O2	-5.78	115.44	118.90
23	DA	2682	U	N3-C2-O2	-5.78	118.16	122.20
23	BA	1656	C	C6-N1-C2	-5.77	117.99	120.30
23	BA	2111	C	C6-N1-C2	-5.77	117.99	120.30
1	CA	1283	G	N1-C2-N2	5.77	121.40	116.20
23	DA	669	G	N7-C8-N9	-5.77	110.21	113.10
23	DA	864	G	C8-N9-C4	-5.77	104.09	106.40
1	AA	1053	G	N1-C6-O6	5.77	123.36	119.90
1	AA	1151	A	C4-C5-N7	-5.77	107.81	110.70
24	BB	120	A	C5-C6-N6	5.77	128.32	123.70
23	DA	1813	G	N3-C4-C5	-5.77	125.71	128.60
23	DA	2191	G	N1-C6-O6	5.77	123.36	119.90
23	DA	2441	C	C2-N3-C4	-5.77	117.01	119.90
23	DA	2607	G	C6-C5-N7	-5.77	126.94	130.40
23	BA	195	A	C6-N1-C2	-5.77	115.14	118.60
23	BA	694	U	N1-C2-O2	5.77	126.84	122.80
23	DA	194	G	C6-C5-N7	-5.77	126.94	130.40
23	DA	197	A	C5-C6-N6	-5.77	119.08	123.70
23	BA	2069	G	C6-N1-C2	-5.77	121.64	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	DB	49	C	N3-C2-O2	5.77	125.94	121.90
1	AA	944	G	C8-N9-C4	-5.76	104.09	106.40
23	BA	1977	A	C5-C6-N1	-5.76	114.82	117.70
23	DA	272(B)	G	C8-N9-C4	5.76	108.71	106.40
23	DA	672	C	C4-C5-C6	5.76	120.28	117.40
1	AA	345	C	N1-C2-N3	-5.76	115.17	119.20
23	BA	1809	A	N1-C6-N6	-5.76	115.14	118.60
23	DA	27	G	C4-C5-N7	-5.76	108.50	110.80
23	BA	333	G	C8-N9-C4	-5.76	104.10	106.40
23	BA	2873	A	N1-C6-N6	-5.76	115.14	118.60
1	CA	1356	G	C8-N9-C4	-5.76	104.10	106.40
23	DA	1775	U	C5-C6-N1	-5.76	119.82	122.70
1	AA	576	G	C4-N9-C1'	5.76	133.98	126.50
1	AA	836	G	C5-C6-O6	-5.76	125.15	128.60
23	BA	495	G	N7-C8-N9	-5.76	110.22	113.10
23	BA	533	G	C8-N9-C4	-5.76	104.10	106.40
1	CA	359	U	C2-N3-C4	-5.76	123.55	127.00
1	CA	1237	C	C6-N1-C2	-5.76	118.00	120.30
23	DA	260	G	C2-N3-C4	-5.76	109.02	111.90
23	DA	391	G	C8-N9-C1'	-5.76	119.52	127.00
23	DA	1429	G	C4-N9-C1'	5.76	133.98	126.50
23	DA	2028	U	N3-C4-O4	-5.76	115.37	119.40
23	BA	19	C	N3-C4-C5	-5.75	119.60	121.90
23	BA	1925	C	N1-C2-O2	-5.75	115.45	118.90
23	BA	2123	G	N3-C4-N9	-5.75	122.55	126.00
1	CA	1044	A	C6-N1-C2	5.75	122.05	118.60
23	DA	185	U	C2-N3-C4	-5.75	123.55	127.00
23	BA	1024	G	N3-C2-N2	5.75	123.93	119.90
23	BA	1817	G	N9-C4-C5	-5.75	103.10	105.40
23	BA	2075	U	N1-C2-N3	5.75	118.35	114.90
23	BA	2236	C	N1-C2-O2	-5.75	115.45	118.90
23	BA	2616	C	C6-N1-C2	-5.75	118.00	120.30
1	CA	1527	C	C6-N1-C2	5.75	122.60	120.30
23	DA	85	G	N1-C2-N3	5.75	127.35	123.90
23	DA	1128	A	N7-C8-N9	-5.75	110.92	113.80
23	DA	1327	C	C6-N1-C2	-5.75	118.00	120.30
23	DA	2079	U	C5-C6-N1	-5.75	119.82	122.70
23	DA	2253	G	C5-C6-O6	-5.75	125.15	128.60
23	DA	2563	U	C5-C6-N1	-5.75	119.82	122.70
23	BA	488	G	N1-C2-N3	5.75	127.35	123.90
23	BA	2318	G	C8-N9-C4	-5.75	104.10	106.40
24	BB	31	C	C2-N1-C1'	-5.75	112.47	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2700	C	C5-C4-N4	-5.75	116.17	120.20
23	BA	1194	A	C2-N3-C4	-5.75	107.72	110.60
23	BA	2069	G	N3-C4-C5	-5.75	125.73	128.60
1	CA	357	G	N3-C4-C5	-5.75	125.72	128.60
23	DA	658	C	N3-C2-O2	-5.75	117.88	121.90
23	BA	1154	G	N3-C4-C5	-5.75	125.73	128.60
23	BA	1938	A	C4-C5-C6	5.75	119.87	117.00
23	DA	1204	A	N9-C4-C5	-5.75	103.50	105.80
23	DA	2075	U	N1-C2-N3	5.75	118.35	114.90
23	DA	2123	G	N9-C4-C5	5.75	107.70	105.40
23	BA	671	C	N1-C2-O2	5.74	122.35	118.90
23	BA	2832	U	N3-C2-O2	5.74	126.22	122.20
23	BA	205	G	N3-C4-C5	-5.74	125.73	128.60
23	BA	25	U	N1-C2-O2	-5.74	118.78	122.80
23	BA	60	G	N1-C6-O6	5.74	123.34	119.90
23	BA	1395	A	C8-N9-C4	5.74	108.10	105.80
23	BA	1984	G	C8-N9-C4	-5.74	104.10	106.40
1	CA	1397	C	C2-N1-C1'	5.74	125.11	118.80
23	DA	2271	G	N3-C4-N9	5.74	129.44	126.00
23	DA	2690	C	N1-C2-O2	-5.74	115.45	118.90
23	BA	785	G	N3-C4-N9	-5.74	122.56	126.00
23	BA	2271	G	N3-C4-N9	5.74	129.44	126.00
1	CA	910	C	N3-C4-C5	5.74	124.20	121.90
23	DA	472	A	N9-C4-C5	5.74	108.10	105.80
23	DA	1760	A	C5-C6-N6	5.74	128.29	123.70
23	BA	209	C	C2-N3-C4	-5.74	117.03	119.90
23	BA	530	G	C6-C5-N7	5.74	133.84	130.40
1	AA	1296	C	N1-C2-O2	5.74	122.34	118.90
1	CA	1030(B)	C	C2-N1-C1'	5.74	125.11	118.80
23	DA	1938	A	N1-C6-N6	5.74	122.04	118.60
49	D5	19	ARG	NE-CZ-NH1	-5.74	117.43	120.30
1	AA	1038	C	C6-N1-C1'	-5.73	113.92	120.80
23	DA	2062	A	C5-N7-C8	-5.73	101.03	103.90
23	DA	2307	G	C8-N9-C4	-5.73	104.11	106.40
23	BA	928	G	C6-C5-N7	-5.73	126.96	130.40
23	BA	2718	G	C8-N9-C4	-5.73	104.11	106.40
23	BA	655	A	C2-N3-C4	-5.73	107.74	110.60
1	AA	1047	G	C6-N1-C2	5.73	128.54	125.10
23	DA	1558	A	C5-C6-N1	-5.73	114.84	117.70
23	DA	2262	U	N3-C2-O2	5.73	126.21	122.20
23	DA	2570	G	N3-C4-N9	-5.73	122.56	126.00
23	DA	751	A	C4-C5-C6	5.72	119.86	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2113	U	C5-C6-N1	5.72	125.56	122.70
23	DA	2808	U	C6-N1-C2	5.72	124.44	121.00
23	BA	1600	C	N1-C2-N3	5.72	123.21	119.20
23	BA	2306	C	C5-C6-N1	5.72	123.86	121.00
23	DA	176	G	C8-N9-C4	-5.72	104.11	106.40
1	CA	161	A	C8-N9-C4	-5.72	103.51	105.80
1	CA	1030	C	N1-C2-N3	-5.72	115.20	119.20
24	DB	101	G	C4-C5-N7	5.72	113.09	110.80
23	BA	469	G	C8-N9-C4	-5.72	104.11	106.40
23	BA	687	C	C6-N1-C2	5.72	122.59	120.30
23	DA	1365	A	C4-C5-N7	5.72	113.56	110.70
23	BA	1809	A	C8-N9-C4	-5.72	103.51	105.80
23	BA	2301	C	C6-N1-C2	-5.72	118.01	120.30
23	BA	2730	C	N3-C2-O2	-5.72	117.90	121.90
1	CA	1502	A	C6-C5-N7	-5.72	128.30	132.30
23	DA	741	G	N3-C2-N2	5.72	123.90	119.90
23	DA	777	A	C6-N1-C2	-5.72	115.17	118.60
23	DA	2556	C	N1-C2-O2	-5.72	115.47	118.90
23	DA	2611	U	N1-C2-N3	5.72	118.33	114.90
1	CA	689	C	C6-N1-C2	-5.71	118.01	120.30
1	CA	1294	G	C4-N9-C1'	-5.71	119.07	126.50
1	AA	346	G	C4-C5-C6	5.71	122.23	118.80
13	AM	96	LEU	CA-CB-CG	5.71	128.44	115.30
23	BA	186	G	N1-C6-O6	5.71	123.33	119.90
23	BA	1814	G	N3-C4-C5	-5.71	125.74	128.60
23	BA	59	U	C2-N1-C1'	5.71	124.55	117.70
23	BA	2728	U	C5-C4-O4	-5.71	122.47	125.90
23	DA	777	A	C5-C6-N6	5.71	128.27	123.70
23	DA	1030	G	C4-C5-N7	5.71	113.08	110.80
23	DA	2088	G	N1-C2-N3	5.71	127.33	123.90
24	DB	54	G	C8-N9-C1'	5.71	134.43	127.00
1	AA	1397	C	C5-C6-N1	5.71	123.86	121.00
23	BA	563	G	C5-C6-N1	5.71	114.36	111.50
23	BA	1806	C	N1-C2-O2	-5.71	115.47	118.90
23	BA	97	C	N3-C2-O2	-5.71	117.90	121.90
23	BA	205	G	C8-N9-C4	5.71	108.68	106.40
23	BA	476	G	C2-N3-C4	-5.71	109.05	111.90
23	BA	521	G	C8-N9-C4	-5.71	104.12	106.40
23	BA	740	U	C5-C6-N1	-5.71	119.85	122.70
23	DA	1939	U	N3-C4-C5	5.71	118.03	114.60
23	DA	2239	G	C5-N7-C8	5.71	107.16	104.30
23	BA	1805	U	N1-C2-N3	5.71	118.32	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1825	A	C6-N1-C2	-5.71	115.18	118.60
23	BA	966	G	C4-C5-N7	-5.71	108.52	110.80
23	DA	2590	A	N1-C6-N6	-5.71	115.18	118.60
23	BA	951	C	N3-C4-C5	5.70	124.18	121.90
23	BA	1563	G	C4-C5-N7	5.70	113.08	110.80
23	BA	2447	G	N3-C4-C5	-5.70	125.75	128.60
23	DA	2791	C	C6-N1-C2	-5.70	118.02	120.30
23	DA	1204	A	O4'-C1'-N9	5.70	112.76	108.20
23	BA	1253	A	C5-C6-N6	5.70	128.26	123.70
23	BA	2841	C	C6-N1-C2	-5.70	118.02	120.30
23	DA	2104	G	N3-C4-N9	5.70	129.42	126.00
23	DA	2560	C	N3-C4-C5	5.70	124.18	121.90
1	AA	943	U	C5-C4-O4	-5.70	122.48	125.90
23	BA	73	A	C8-N9-C4	-5.70	103.52	105.80
23	BA	1027	A	C5-C6-N6	-5.70	119.14	123.70
23	BA	1332	G	N3-C4-C5	-5.70	125.75	128.60
23	BA	1677	A	C2-N3-C4	-5.70	107.75	110.60
23	BA	2705	A	N1-C6-N6	5.70	122.02	118.60
24	BB	61	G	C8-N9-C4	-5.70	104.12	106.40
23	DA	97	C	N3-C4-N4	-5.70	114.01	118.00
23	BA	1606	G	N1-C6-O6	5.70	123.32	119.90
1	AA	1343	G	C4-C5-N7	-5.70	108.52	110.80
1	CA	1031	G	C8-N9-C4	5.70	108.68	106.40
23	DA	2894	G	N7-C8-N9	5.70	115.95	113.10
23	BA	462	C	C6-N1-C2	-5.69	118.02	120.30
23	BA	1505	C	C6-N1-C2	-5.69	118.02	120.30
23	BA	1582	C	C6-N1-C2	5.69	122.58	120.30
23	DA	1047	G	C6-C5-N7	-5.69	126.98	130.40
23	DA	1315	C	C2-N3-C4	-5.69	117.05	119.90
23	DA	1563	G	N9-C4-C5	-5.69	103.12	105.40
1	AA	243	A	C2-N3-C4	5.69	113.45	110.60
23	BA	2880	C	C6-N1-C2	-5.69	118.02	120.30
23	BA	2885	C	N1-C2-O2	5.69	122.31	118.90
23	DA	794	G	C4-C5-N7	-5.69	108.52	110.80
23	DA	2490	G	C8-N9-C4	5.69	108.68	106.40
1	AA	1198	G	C8-N9-C1'	5.69	134.40	127.00
23	BA	592	G	N3-C4-C5	-5.69	125.75	128.60
23	BA	2307	G	N7-C8-N9	5.69	115.95	113.10
23	BA	2358	G	C5-C6-O6	5.69	132.01	128.60
1	CA	442	C	C6-N1-C2	-5.69	118.02	120.30
1	CA	1037	C	C6-N1-C2	-5.69	118.02	120.30
23	DA	444	C	C6-N1-C2	5.69	122.58	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2359	C	N1-C2-N3	5.69	123.18	119.20
26	BE	111	ARG	NE-CZ-NH1	5.69	123.14	120.30
23	BA	1623	G	C6-N1-C2	-5.69	121.69	125.10
23	BA	2079	U	C4-C5-C6	5.69	123.11	119.70
23	BA	2082	A	N1-C2-N3	5.69	132.14	129.30
23	DA	788	A	C4-C5-C6	5.69	119.84	117.00
23	DA	985	C	C6-N1-C2	5.69	122.58	120.30
23	DA	2012	G	C4-C5-N7	5.69	113.08	110.80
23	DA	2306	C	C2-N3-C4	5.69	122.74	119.90
23	DA	2427	C	N1-C2-O2	-5.69	115.49	118.90
23	DA	45	C	C5-C6-N1	-5.69	118.16	121.00
1	AA	807	A	C8-N9-C4	-5.68	103.53	105.80
23	BA	2319	G	C2-N3-C4	-5.68	109.06	111.90
32	BO	8	LEU	CA-CB-CG	5.68	128.38	115.30
1	CA	1123	A	C6-N1-C2	-5.68	115.19	118.60
23	DA	1107	G	N3-C4-C5	-5.68	125.76	128.60
23	BA	575	A	C4-C5-C6	5.68	119.84	117.00
23	BA	1488	G	N3-C4-C5	-5.68	125.76	128.60
23	BA	2341	G	N3-C2-N2	5.68	123.88	119.90
23	BA	2723	C	N3-C4-N4	-5.68	114.02	118.00
23	DA	2883	A	N1-C6-N6	5.68	122.01	118.60
1	AA	1302	U	C2-N1-C1'	5.68	124.51	117.70
1	AA	1440	C	C6-N1-C2	5.68	122.57	120.30
23	BA	129	C	N3-C4-C5	5.68	124.17	121.90
23	BA	186	G	N7-C8-N9	-5.68	110.26	113.10
23	BA	763	G	C5-C6-O6	5.68	132.01	128.60
23	BA	1045	A	C8-N9-C4	5.68	108.07	105.80
23	BA	1415	U	C5-C6-N1	-5.68	119.86	122.70
23	BA	2104	G	N3-C4-N9	5.68	129.41	126.00
23	DA	154	G	C5-C6-O6	-5.68	125.19	128.60
23	DA	2383	G	C4-N9-C1'	5.68	133.88	126.50
23	BA	2503	A	N1-C2-N3	-5.68	126.46	129.30
23	BA	2737	G	N3-C2-N2	-5.68	115.92	119.90
23	BA	1204	A	C1'-O4'-C4'	-5.68	105.36	109.90
23	DA	267	C	C5-C6-N1	-5.68	118.16	121.00
23	DA	1966	A	N1-C2-N3	-5.68	126.46	129.30
23	DA	2365	G	C5-C6-N1	5.68	114.34	111.50
1	AA	1322	C	C5-C6-N1	5.67	123.84	121.00
23	BA	2001	A	C8-N9-C4	-5.67	103.53	105.80
23	DA	788	A	N1-C6-N6	5.67	122.00	118.60
23	DA	2508	G	C6-C5-N7	5.67	133.81	130.40
23	BA	2713	A	C5-C6-N6	-5.67	119.16	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	978	G	N1-C2-N2	-5.67	111.10	116.20
51	B7	41	ARG	NE-CZ-NH2	-5.67	117.46	120.30
1	CA	1519	A	C4-C5-N7	-5.67	107.86	110.70
23	BA	412	A	C2-N3-C4	-5.67	107.77	110.60
23	BA	780	G	N1-C6-O6	5.67	123.30	119.90
23	DA	1307	A	C8-N9-C4	5.67	108.07	105.80
23	BA	2181	G	C5-C6-O6	5.67	132.00	128.60
1	CA	1259	C	C5-C6-N1	5.67	123.83	121.00
23	DA	1022	G	N3-C2-N2	-5.67	115.93	119.90
23	DA	1313	U	C2-N1-C1'	5.67	124.50	117.70
23	BA	983	A	C5-C6-N6	5.67	128.23	123.70
23	DA	2191	G	N3-C4-N9	5.67	129.40	126.00
23	BA	512	G	C5-C6-O6	5.66	132.00	128.60
23	BA	674	G	C6-C5-N7	-5.66	127.00	130.40
23	BA	1660	C	N3-C2-O2	-5.66	117.94	121.90
23	BA	2287	A	C5-N7-C8	-5.66	101.07	103.90
23	BA	2862	G	N7-C8-N9	-5.66	110.27	113.10
23	BA	2883	A	N7-C8-N9	5.66	116.63	113.80
1	CA	53	A	C5-C6-N6	5.66	128.23	123.70
23	DA	1023	U	N3-C4-O4	-5.66	115.44	119.40
1	CA	1036	G	C6-C5-N7	-5.66	127.00	130.40
23	BA	668	G	N3-C2-N2	5.66	123.86	119.90
23	DA	2789	C	C6-N1-C2	5.66	122.56	120.30
1	AA	50	A	N9-C4-C5	-5.66	103.54	105.80
23	BA	425	G	N1-C2-N2	-5.66	111.11	116.20
23	BA	1139	G	C5-C6-O6	-5.66	125.20	128.60
23	BA	1971	A	C2-N3-C4	5.66	113.43	110.60
23	DA	2287	A	C4-C5-N7	5.66	113.53	110.70
23	BA	569	U	C5-C6-N1	-5.66	119.87	122.70
23	BA	1796	U	C5-C6-N1	-5.66	119.87	122.70
23	BA	1817	G	C2-N3-C4	-5.66	109.07	111.90
23	DA	2151	G	N1-C6-O6	5.66	123.29	119.90
23	BA	59	U	N3-C2-O2	-5.66	118.24	122.20
23	BA	2181	G	N3-C2-N2	5.66	123.86	119.90
23	BA	2377	A	C2-N3-C4	-5.66	107.77	110.60
23	BA	2741	A	C8-N9-C4	5.66	108.06	105.80
1	CA	852	G	N3-C4-N9	-5.66	122.61	126.00
1	CA	1254	C	C5-C6-N1	5.66	123.83	121.00
23	DA	1329	U	N1-C2-O2	-5.66	118.84	122.80
23	DA	2503	A	C6-C5-N7	-5.66	128.34	132.30
1	CA	989	C	C2-N3-C4	5.65	122.73	119.90
1	CA	1029	C	N3-C2-O2	-5.65	117.94	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1181	G	C4-N9-C1'	-5.65	119.15	126.50
23	BA	375	C	C5-C6-N1	-5.65	118.17	121.00
23	BA	1035	U	C2-N1-C1'	-5.65	110.92	117.70
23	BA	1308	A	C8-N9-C4	-5.65	103.54	105.80
23	BA	1619	G	C2-N3-C4	5.65	114.73	111.90
23	BA	2371	G	C5-C6-O6	-5.65	125.21	128.60
23	BA	2436	G	C8-N9-C4	5.65	108.66	106.40
23	BA	2626	C	C6-N1-C2	5.65	122.56	120.30
1	CA	841	U	C6-N1-C2	-5.65	117.61	121.00
1	CA	1074	G	C5-C6-N1	-5.65	108.67	111.50
23	DA	2435	A	N1-C6-N6	-5.65	115.21	118.60
23	BA	265	A	C5-C6-N6	-5.65	119.18	123.70
23	BA	331	A	C2-N3-C4	5.65	113.42	110.60
23	BA	446	G	N1-C2-N3	5.65	127.29	123.90
23	BA	449	A	C4-C5-N7	5.65	113.53	110.70
23	BA	1254	A	N7-C8-N9	5.65	116.62	113.80
23	DA	774	A	N7-C8-N9	5.65	116.62	113.80
23	DA	1328	G	C8-N9-C4	5.65	108.66	106.40
23	DA	2487	G	C6-C5-N7	-5.65	127.01	130.40
23	BA	2002	G	N3-C4-C5	-5.65	125.78	128.60
23	DA	36	G	C4-C5-N7	-5.65	108.54	110.80
23	DA	1112	G	C8-N9-C4	5.65	108.66	106.40
23	BA	515	A	C5-C6-N6	-5.65	119.18	123.70
23	BA	1127	A	N7-C8-N9	5.65	116.62	113.80
23	BA	1800	C	C5-C6-N1	-5.65	118.18	121.00
23	BA	2342	C	C5-C6-N1	5.65	123.82	121.00
23	DA	1112	G	C4-N9-C1'	-5.65	119.16	126.50
24	BB	78	A	C8-N9-C4	5.65	108.06	105.80
23	DA	2147	G	C8-N9-C4	-5.65	104.14	106.40
23	BA	122	G	C5-C6-O6	-5.64	125.21	128.60
23	BA	647	G	C4-N9-C1'	5.64	133.84	126.50
23	BA	1119	C	C6-N1-C2	5.64	122.56	120.30
23	BA	1119	C	C5-C6-N1	-5.64	118.18	121.00
1	CA	90	U	N1-C2-N3	5.64	118.29	114.90
23	DA	981	A	C8-N9-C4	5.64	108.06	105.80
23	DA	959	A	C8-N9-C4	-5.64	103.54	105.80
23	DA	1372	U	C5-C6-N1	-5.64	119.88	122.70
23	DA	1825	A	C5-C6-N6	-5.64	119.19	123.70
23	DA	2456	C	N1-C2-N3	-5.64	115.25	119.20
1	AA	1292	U	N3-C4-O4	5.64	123.35	119.40
23	BA	53	A	N1-C2-N3	5.64	132.12	129.30
23	BA	391	G	C4-C5-N7	5.64	113.06	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1308	A	N9-C4-C5	5.64	108.06	105.80
23	DA	1647	G	C8-N9-C4	5.64	108.66	106.40
23	DA	1790	C	C2-N3-C4	-5.64	117.08	119.90
23	DA	2828	C	C6-N1-C2	5.64	122.56	120.30
1	AA	1311	G	N3-C4-N9	-5.64	122.62	126.00
23	BA	1954	G	N3-C4-N9	-5.64	122.62	126.00
23	BA	1930	G	C4-N9-C1'	-5.64	119.17	126.50
23	BA	756	C	C6-N1-C2	-5.63	118.05	120.30
23	BA	2325	G	C5-C6-O6	-5.63	125.22	128.60
23	BA	580	C	N3-C4-C5	-5.63	119.65	121.90
23	BA	2050	C	N3-C2-O2	-5.63	117.96	121.90
23	BA	2072	G	N3-C2-N2	-5.63	115.96	119.90
1	AA	1224	G	C6-C5-N7	5.63	133.78	130.40
23	DA	781	A	N7-C8-N9	-5.63	110.98	113.80
1	CA	1022	G	C5-C6-O6	-5.63	125.22	128.60
23	BA	1267	U	C5-C4-O4	5.63	129.28	125.90
1	CA	1003	G	C4-C5-N7	-5.63	108.55	110.80
23	DA	2894	G	C4-N9-C1'	5.63	133.82	126.50
23	BA	213	A	C8-N9-C4	5.63	108.05	105.80
23	BA	1372	U	C5-C6-N1	-5.63	119.89	122.70
23	DA	453	C	C5-C6-N1	-5.63	118.19	121.00
23	DA	1257	C	C6-N1-C2	-5.63	118.05	120.30
23	DA	2627	G	C8-N9-C4	5.63	108.65	106.40
1	CA	1216	G	C6-N1-C2	5.62	128.47	125.10
1	AA	357	G	N1-C2-N2	5.62	121.26	116.20
23	BA	936	C	C5-C6-N1	-5.62	118.19	121.00
23	BA	1324	G	N3-C4-C5	-5.62	125.79	128.60
23	BA	2191	G	C4-C5-N7	5.62	113.05	110.80
23	DA	26	G	C8-N9-C4	-5.62	104.15	106.40
23	DA	1258	C	N3-C4-C5	5.62	124.15	121.90
23	DA	1318	C	N3-C4-C5	5.62	124.15	121.90
23	DA	1653	G	N1-C2-N3	5.62	127.27	123.90
23	DA	2548	G	N3-C2-N2	-5.62	115.96	119.90
1	AA	1033	G	N3-C2-N2	5.62	123.83	119.90
1	CA	1041	A	C6-N1-C2	5.62	121.97	118.60
23	DA	125	G	C2-N3-C4	5.62	114.71	111.90
23	BA	2195	C	C2-N3-C4	-5.62	117.09	119.90
23	DA	187	G	C5-N7-C8	-5.62	101.49	104.30
23	DA	2027	G	N1-C6-O6	-5.62	116.53	119.90
23	DA	2583	G	C5-C6-O6	-5.62	125.23	128.60
23	DA	686	G	N9-C4-C5	-5.62	103.15	105.40
23	DA	2488	A	N1-C2-N3	5.62	132.11	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	981	U	C5-C6-N1	5.62	125.51	122.70
23	DA	41	C	C2-N3-C4	-5.62	117.09	119.90
23	DA	1382	G	C6-C5-N7	-5.62	127.03	130.40
23	DA	2124	G	N3-C4-N9	-5.62	122.63	126.00
1	AA	529	G	C5-C6-O6	-5.61	125.23	128.60
23	BA	806	C	C4-C5-C6	-5.61	114.59	117.40
23	BA	2287	A	N1-C6-N6	5.61	121.97	118.60
23	DA	1668	A	N1-C6-N6	-5.61	115.23	118.60
23	DA	1779	U	N3-C2-O2	-5.61	118.27	122.20
23	DA	2297	C	N1-C2-O2	-5.61	115.53	118.90
23	BA	309	G	N1-C6-O6	-5.61	116.53	119.90
23	BA	371	A	C5-C6-N6	-5.61	119.21	123.70
23	BA	1914	C	N1-C2-O2	5.61	122.27	118.90
24	BB	58	A	N7-C8-N9	-5.61	110.99	113.80
23	DA	1835	G	N3-C4-N9	5.61	129.37	126.00
1	AA	1244	C	C2-N3-C4	5.61	122.70	119.90
23	BA	835	A	C2-N3-C4	5.61	113.41	110.60
23	BA	2062	A	C5-C6-N6	-5.61	119.21	123.70
1	CA	1032	G	C6-N1-C2	5.61	128.47	125.10
23	DA	1958	C	N1-C2-O2	-5.61	115.53	118.90
24	DB	26	A	C8-N9-C4	5.61	108.04	105.80
1	AA	1054	C	C2-N1-C1'	5.61	124.97	118.80
1	AA	1326	C	C5-C6-N1	5.61	123.81	121.00
23	BA	1029	A	C4-C5-N7	5.61	113.50	110.70
23	BA	2010	G	C8-N9-C4	-5.61	104.16	106.40
1	CA	1197	G	C4-N9-C1'	5.61	133.79	126.50
23	BA	19	C	C4-C5-C6	5.61	120.20	117.40
23	BA	1539	G	C8-N9-C1'	-5.61	119.71	127.00
23	BA	1834	U	C5-C6-N1	5.61	125.50	122.70
23	DA	2002	G	N3-C4-C5	-5.61	125.80	128.60
1	AA	1117	G	N7-C8-N9	5.61	115.90	113.10
23	BA	2287	A	C4-C5-N7	5.61	113.50	110.70
1	CA	1002	G	N7-C8-N9	5.61	115.90	113.10
23	DA	26	G	N3-C4-C5	-5.61	125.80	128.60
23	DA	1271	G	C6-C5-N7	-5.61	127.04	130.40
23	DA	1614	A	N9-C4-C5	5.61	108.04	105.80
23	DA	1121	C	C5-C6-N1	-5.60	118.20	121.00
23	BA	32	C	C5-C4-N4	5.60	124.12	120.20
23	BA	520	G	N3-C2-N2	5.60	123.82	119.90
23	BA	1599	C	N1-C2-O2	-5.60	115.54	118.90
23	DA	766	C	C6-N1-C2	-5.60	118.06	120.30
23	DA	989	G	C8-N9-C4	5.60	108.64	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2822	G	N7-C8-N9	-5.60	110.30	113.10
1	CA	572	A	C4-N9-C1'	-5.60	116.22	126.30
1	AA	953	G	C8-N9-C1'	-5.60	119.72	127.00
23	BA	1633	G	C5-C6-O6	-5.60	125.24	128.60
23	BA	2545	G	C5-C6-O6	-5.60	125.24	128.60
1	CA	489	C	C5-C6-N1	5.60	123.80	121.00
23	DA	494	G	C5-C6-O6	5.60	131.96	128.60
23	DA	2037	G	N1-C6-O6	-5.60	116.54	119.90
1	AA	1086	U	C5-C4-O4	-5.60	122.54	125.90
1	AA	1382	C	N1-C2-O2	5.60	122.26	118.90
23	BA	127	A	C5-N7-C8	5.60	106.70	103.90
23	BA	1158	C	N3-C4-N4	-5.60	114.08	118.00
23	BA	1814	G	N1-C2-N2	-5.60	111.16	116.20
23	BA	2002	G	N1-C6-O6	-5.60	116.54	119.90
23	DA	1628	G	C4-N9-C1'	5.60	133.78	126.50
23	DA	1638	C	C2-N3-C4	-5.60	117.10	119.90
23	DA	2870	C	C6-N1-C2	-5.60	118.06	120.30
23	BA	2100	G	N3-C4-N9	5.60	129.36	126.00
23	DA	1274	A	N1-C6-N6	5.60	121.96	118.60
1	AA	1054	C	N3-C2-O2	-5.59	117.98	121.90
23	BA	328	U	C5-C4-O4	-5.59	122.54	125.90
23	BA	2124	G	C6-N1-C2	5.59	128.46	125.10
23	BA	2552	U	N1-C2-N3	5.59	118.26	114.90
23	DA	2710	C	C5-C6-N1	-5.59	118.20	121.00
23	DA	1940	U	N1-C2-O2	-5.59	118.89	122.80
23	BA	737	C	N3-C2-O2	5.59	125.81	121.90
1	CA	1197	G	N3-C4-N9	5.59	129.35	126.00
23	DA	2048	G	C8-N9-C4	-5.59	104.16	106.40
23	DA	2823	A	C5-C6-N6	-5.59	119.23	123.70
23	DA	1351	C	N1-C2-O2	-5.59	115.55	118.90
23	DA	1611	C	N1-C2-O2	-5.59	115.55	118.90
23	DA	1773	A	C8-N9-C4	5.59	108.03	105.80
23	BA	1028	A	N7-C8-N9	-5.59	111.01	113.80
23	BA	1395	A	N7-C8-N9	-5.59	111.01	113.80
23	BA	2071	A	C2-N3-C4	5.59	113.39	110.60
23	DA	563	G	N1-C6-O6	5.58	123.25	119.90
23	DA	1954	G	C5-C6-N1	-5.58	108.71	111.50
23	BA	1225	G	C5-N7-C8	-5.58	101.51	104.30
23	BA	2032	G	C2-N3-C4	-5.58	109.11	111.90
1	CA	1006	C	N3-C4-C5	-5.58	119.67	121.90
23	DA	54	G	C5-C6-O6	-5.58	125.25	128.60
23	DA	690	G	C2-N3-C4	5.58	114.69	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	933	A	C2-N3-C4	-5.58	107.81	110.60
23	DA	2324	C	N3-C4-C5	5.58	124.13	121.90
23	DA	2446	G	C8-N9-C4	5.58	108.63	106.40
23	BA	1632	A	C5-N7-C8	-5.58	101.11	103.90
23	BA	2191	G	C6-C5-N7	-5.58	127.05	130.40
23	DA	195	A	C2-N3-C4	-5.58	107.81	110.60
23	DA	2258	C	N3-C4-N4	5.58	121.91	118.00
23	DA	2508	G	C5-C6-N1	5.58	114.29	111.50
23	DA	1786	A	C2-N3-C4	-5.58	107.81	110.60
1	AA	1397	C	C6-N1-C2	-5.58	118.07	120.30
23	BA	933	A	N1-C6-N6	5.58	121.95	118.60
23	BA	1206	G	N1-C6-O6	-5.58	116.55	119.90
23	BA	1497	U	N3-C4-O4	-5.58	115.50	119.40
23	BA	1661	G	C5-N7-C8	5.58	107.09	104.30
23	BA	2253	G	C5-C6-N1	-5.58	108.71	111.50
23	BA	2307	G	C6-C5-N7	-5.58	127.05	130.40
23	DA	209	C	N3-C4-C5	5.58	124.13	121.90
1	AA	1469	G	C6-C5-N7	-5.58	127.05	130.40
23	BA	2508	G	N1-C6-O6	-5.58	116.55	119.90
23	DA	1374	G	C6-C5-N7	-5.58	127.05	130.40
23	DA	1204	A	C8-N9-C1'	-5.58	117.66	127.70
1	AA	1047	G	N1-C6-O6	-5.57	116.56	119.90
23	BA	1791	A	N1-C6-N6	5.57	121.94	118.60
23	DA	2638	G	N3-C2-N2	5.57	123.80	119.90
23	BA	1438	U	C5-C6-N1	5.57	125.49	122.70
23	BA	2047	U	C5-C6-N1	-5.57	119.91	122.70
1	AA	932	C	C6-N1-C1'	-5.57	114.12	120.80
23	BA	1206	G	N9-C4-C5	5.57	107.63	105.40
1	CA	1391	U	N3-C4-O4	-5.57	115.50	119.40
23	DA	478	A	N9-C4-C5	5.57	108.03	105.80
23	DA	542	C	C3'-C2'-C1'	-5.57	97.04	101.50
23	DA	1204	A	C5-C6-N1	-5.57	114.92	117.70
23	DA	1374	G	N1-C6-O6	5.57	123.24	119.90
23	DA	1675	C	N3-C4-C5	-5.57	119.67	121.90
23	BA	1760	A	C5-C6-N6	5.57	128.16	123.70
1	AA	720	C	N1-C2-O2	5.57	122.24	118.90
1	AA	1220	G	C4-C5-N7	5.57	113.03	110.80
23	BA	512	G	N1-C6-O6	-5.57	116.56	119.90
23	BA	1546	C	C2-N1-C1'	5.57	124.92	118.80
23	BA	2578	G	N1-C2-N2	-5.57	111.19	116.20
23	DA	97	C	N3-C2-O2	-5.57	118.00	121.90
23	DA	774	A	C8-N9-C4	-5.57	103.57	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1647	G	N1-C6-O6	5.57	123.24	119.90
23	DA	2022	U	N3-C4-O4	5.57	123.30	119.40
23	DA	2755	C	C2-N1-C1'	5.57	124.92	118.80
23	BA	971	C	N1-C2-N3	5.57	123.09	119.20
23	BA	2070	G	N9-C4-C5	-5.57	103.17	105.40
23	DA	487	C	N3-C4-C5	-5.57	119.67	121.90
23	BA	686	G	C6-C5-N7	-5.56	127.06	130.40
23	BA	1980	G	N9-C4-C5	5.56	107.63	105.40
23	DA	741	G	N1-C2-N2	-5.56	111.19	116.20
23	DA	1984	G	N1-C6-O6	-5.56	116.56	119.90
23	DA	2347	C	N1-C2-O2	5.56	122.24	118.90
1	AA	291	C	N3-C4-C5	-5.56	119.67	121.90
1	CA	1439	C	N1-C2-O2	-5.56	115.56	118.90
32	DO	8	LEU	CA-CB-CG	5.56	128.09	115.30
23	BA	773	U	N3-C2-O2	-5.56	118.31	122.20
1	CA	1097	C	N1-C2-O2	5.56	122.24	118.90
23	DA	1762	A	N3-C4-C5	-5.56	122.91	126.80
23	DA	1939	U	C2-N3-C4	-5.56	123.66	127.00
23	BA	450	G	N3-C2-N2	-5.56	116.01	119.90
23	BA	659	C	C5-C6-N1	-5.56	118.22	121.00
23	BA	1367	A	N7-C8-N9	-5.56	111.02	113.80
23	BA	2710	C	C5-C6-N1	-5.56	118.22	121.00
1	CA	530	G	C4-N9-C1'	5.56	133.73	126.50
1	CA	1032	G	N3-C4-N9	-5.56	122.66	126.00
1	CA	1279	A	C8-N9-C4	-5.56	103.58	105.80
23	DA	133	C	C5-C6-N1	-5.56	118.22	121.00
23	DA	1359	A	N9-C4-C5	5.56	108.02	105.80
23	DA	2055	C	C6-N1-C2	5.56	122.52	120.30
1	AA	1349	A	C4-N9-C1'	5.56	136.30	126.30
23	BA	1315	C	N3-C4-N4	-5.56	114.11	118.00
23	DA	202	U	C5-C6-N1	-5.56	119.92	122.70
23	DA	791	C	N1-C2-N3	5.56	123.09	119.20
1	AA	1526	G	C8-N9-C4	-5.56	104.18	106.40
23	BA	313	C	C6-N1-C2	-5.56	118.08	120.30
23	BA	2304	G	C2-N3-C4	5.56	114.68	111.90
24	BB	1	U	C2-N1-C1'	5.56	124.37	117.70
1	AA	524	G	C8-N9-C4	-5.55	104.18	106.40
23	BA	533	G	C5-C6-O6	5.55	131.93	128.60
23	BA	1954	G	N3-C2-N2	-5.55	116.01	119.90
23	DA	245	G	N1-C6-O6	5.55	123.23	119.90
23	BA	2110	G	C8-N9-C1'	-5.55	119.78	127.00
23	DA	763	G	N1-C6-O6	-5.55	116.57	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2103	C	N3-C4-C5	-5.55	119.68	121.90
1	AA	989	C	C6-N1-C2	-5.55	118.08	120.30
23	BA	1042	G	N1-C6-O6	5.55	123.23	119.90
23	BA	1365	A	N9-C4-C5	-5.55	103.58	105.80
23	BA	1563	G	N3-C2-N2	5.55	123.79	119.90
24	BB	91	C	C6-N1-C2	5.55	122.52	120.30
1	CA	1258	G	N1-C2-N3	-5.55	120.57	123.90
23	DA	2585	U	C2-N1-C1'	5.55	124.36	117.70
1	AA	892	A	C2-N3-C4	-5.55	107.83	110.60
23	BA	1378	A	C8-N9-C4	-5.55	103.58	105.80
23	BA	1791	A	C2-N3-C4	-5.55	107.83	110.60
23	BA	2489	G	C6-C5-N7	-5.55	127.07	130.40
23	DA	1794	U	N1-C2-N3	5.55	118.23	114.90
1	AA	381	C	C6-N1-C2	-5.55	118.08	120.30
23	BA	1574	C	C2-N3-C4	-5.55	117.13	119.90
23	BA	2271	G	C4-N9-C1'	5.55	133.71	126.50
1	AA	1274	G	N7-C8-N9	5.54	115.87	113.10
23	BA	54	G	N1-C6-O6	5.54	123.23	119.90
23	BA	1614	A	C2-N3-C4	-5.54	107.83	110.60
23	BA	2519	U	N1-C2-O2	-5.54	118.92	122.80
1	CA	1277	C	C2-N1-C1'	5.54	124.90	118.80
23	DA	215	G	C8-N9-C4	5.54	108.62	106.40
23	DA	992	C	N1-C2-O2	-5.54	115.57	118.90
23	DA	1708	C	C6-N1-C2	5.54	122.52	120.30
1	AA	1466	C	C6-N1-C2	-5.54	118.08	120.30
23	BA	429	A	C5-N7-C8	-5.54	101.13	103.90
23	BA	1302	A	N7-C8-N9	-5.54	111.03	113.80
23	BA	2325	G	C4-N9-C1'	5.54	133.70	126.50
23	BA	2733	A	N1-C6-N6	5.54	121.92	118.60
24	DB	47	C	C6-N1-C2	5.54	122.52	120.30
23	BA	1568	G	N1-C6-O6	-5.54	116.58	119.90
23	DA	2437	U	C5-C6-N1	-5.54	119.93	122.70
23	BA	2056	G	N9-C4-C5	-5.54	103.19	105.40
23	BA	2705	A	C5-C6-N6	-5.54	119.27	123.70
23	DA	218	A	C5-C6-N6	5.54	128.13	123.70
23	BA	536	A	N1-C6-N6	-5.54	115.28	118.60
23	BA	2623	G	N3-C4-C5	-5.54	125.83	128.60
1	AA	442	C	C5-C6-N1	5.54	123.77	121.00
23	BA	1605	C	N3-C2-O2	-5.54	118.03	121.90
40	BW	11	ARG	NE-CZ-NH2	-5.54	117.53	120.30
1	CA	674	G	C4-C5-N7	5.54	113.01	110.80
23	DA	311	A	N1-C6-N6	5.54	121.92	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	804	A	N1-C2-N3	5.54	132.07	129.30
23	BA	136	G	C8-N9-C4	5.53	108.61	106.40
23	BA	269	U	C2-N1-C1'	5.53	124.34	117.70
23	DA	1990	C	N3-C2-O2	-5.53	118.03	121.90
23	DA	2006	C	C6-N1-C2	-5.53	118.09	120.30
23	DA	2489	G	C2-N3-C4	-5.53	109.13	111.90
23	BA	2020	A	C5-C6-N6	-5.53	119.28	123.70
23	BA	940	G	N9-C4-C5	5.53	107.61	105.40
23	BA	2503	A	C4-C5-N7	5.53	113.47	110.70
24	BB	51	G	N3-C4-N9	5.53	129.32	126.00
1	CA	1255	G	N1-C6-O6	5.53	123.22	119.90
23	DA	2730	C	N3-C4-C5	5.53	124.11	121.90
23	DA	2322	A	N1-C2-N3	5.53	132.06	129.30
1	AA	1384	C	N3-C2-O2	5.53	125.77	121.90
23	BA	1622	G	N3-C2-N2	-5.53	116.03	119.90
1	CA	927	G	C5-C6-O6	5.53	131.92	128.60
23	DA	74	A	C5-N7-C8	-5.53	101.14	103.90
23	BA	775	G	C8-N9-C4	5.53	108.61	106.40
23	BA	801	G	N3-C4-N9	-5.53	122.69	126.00
23	BA	847	U	C6-N1-C1'	5.53	128.94	121.20
23	BA	2373	G	C8-N9-C4	5.53	108.61	106.40
23	BA	2381	C	C2-N3-C4	-5.53	117.14	119.90
23	BA	2562	U	C5-C6-N1	-5.53	119.94	122.70
23	DA	45	C	N1-C2-N3	5.53	123.07	119.20
23	DA	195	A	N1-C2-N3	5.53	132.06	129.30
23	DA	2325	G	C8-N9-C1'	-5.53	119.82	127.00
23	BA	468	G	C8-N9-C4	5.52	108.61	106.40
23	BA	567	A	C2-N3-C4	-5.52	107.84	110.60
23	BA	2088	G	N1-C6-O6	5.52	123.22	119.90
23	BA	2437	U	C4-C5-C6	5.52	123.01	119.70
1	AA	1122	U	C5-C4-O4	5.52	129.21	125.90
23	BA	546	C	C5-C6-N1	5.52	123.76	121.00
23	BA	1274	A	C5-N7-C8	-5.52	101.14	103.90
23	BA	32	C	C5-C6-N1	-5.52	118.24	121.00
23	BA	2732	G	N1-C6-O6	-5.52	116.59	119.90
23	DA	1252	G	C4-N9-C1'	-5.52	119.32	126.50
1	AA	345	C	C2-N3-C4	5.52	122.66	119.90
1	AA	1059	C	N1-C2-O2	-5.52	115.59	118.90
1	CA	1326	C	C2-N1-C1'	-5.52	112.73	118.80
23	DA	1370	C	N1-C2-O2	-5.52	115.59	118.90
23	DA	2689	U	N3-C2-O2	-5.52	118.34	122.20
1	AA	362	G	N3-C4-C5	5.52	131.36	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	516	C	C5-C6-N1	-5.52	118.24	121.00
23	DA	54	G	C8-N9-C4	-5.52	104.19	106.40
23	BA	576	U	N3-C4-O4	-5.52	115.54	119.40
23	BA	1510	G	N3-C4-N9	5.52	129.31	126.00
23	DA	249	C	C5-C4-N4	5.52	124.06	120.20
23	BA	210	C	N3-C4-C5	5.51	124.11	121.90
23	BA	512	G	N9-C4-C5	5.51	107.61	105.40
23	BA	1221(A)	C	C6-N1-C2	5.51	122.51	120.30
23	DA	113	G	C2-N3-C4	-5.51	109.14	111.90
23	DA	286	C	N3-C2-O2	-5.51	118.04	121.90
23	DA	1393	A	N1-C6-N6	-5.51	115.29	118.60
23	DA	2306	C	N1-C2-O2	5.51	122.21	118.90
23	BA	2495	G	C2-N3-C4	-5.51	109.14	111.90
23	BA	512	G	C4-C5-N7	-5.51	108.59	110.80
23	BA	2088	G	C5-C6-O6	-5.51	125.29	128.60
23	DA	425	G	N3-C4-N9	5.51	129.31	126.00
23	DA	1955	U	C2-N3-C4	-5.51	123.69	127.00
23	DA	2481	G	N1-C6-O6	5.51	123.21	119.90
1	AA	1356	G	C5-C6-O6	5.51	131.91	128.60
23	BA	910	A	C5-N7-C8	5.51	106.66	103.90
1	CA	78	G	N1-C6-O6	5.51	123.21	119.90
23	DA	652(E)	G	C6-N1-C2	5.51	128.41	125.10
24	DB	75	G	C5-C6-O6	-5.51	125.29	128.60
23	BA	2255	G	N1-C6-O6	-5.51	116.59	119.90
1	AA	1336	C	C5-C6-N1	5.51	123.75	121.00
23	BA	2473	U	N3-C2-O2	-5.51	118.35	122.20
23	DA	1289	C	C6-N1-C2	5.51	122.50	120.30
23	DA	1383	C	N1-C2-O2	-5.51	115.60	118.90
23	BA	194	G	C4-C5-C6	5.50	122.10	118.80
1	AA	545	C	C5-C6-N1	-5.50	118.25	121.00
23	BA	961	C	C4-C5-C6	5.50	120.15	117.40
23	BA	2379	G	N3-C2-N2	5.50	123.75	119.90
23	BA	2493	U	N3-C2-O2	-5.50	118.35	122.20
1	CA	1038	C	C5-C6-N1	5.50	123.75	121.00
23	DA	580	C	N3-C4-C5	5.50	124.10	121.90
23	DA	1539	G	C8-N9-C1'	-5.50	119.84	127.00
23	DA	1558	A	N1-C6-N6	5.50	121.90	118.60
23	BA	385	C	C5-C6-N1	5.50	123.75	121.00
23	BA	1397	U	C2-N3-C4	-5.50	123.70	127.00
23	BA	2387	U	C5-C6-N1	-5.50	119.95	122.70
23	DA	672	C	C2-N3-C4	-5.50	117.15	119.90
1	AA	1020	U	N1-C2-N3	5.50	118.20	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	1087	G	C2-N3-C4	5.50	114.65	111.90
1	AA	1259	C	C6-N1-C2	-5.50	118.10	120.30
1	AA	1384	C	C5-C6-N1	5.50	123.75	121.00
23	BA	518	G	C5-C6-O6	5.50	131.90	128.60
24	BB	117	G	C8-N9-C4	5.50	108.60	106.40
23	DA	1616	A	C4-C5-N7	5.50	113.45	110.70
23	DA	2791	C	N3-C2-O2	-5.50	118.05	121.90
1	AA	10	A	C2-N3-C4	-5.50	107.85	110.60
1	AA	1462	G	N3-C4-N9	-5.50	122.70	126.00
23	BA	291	C	N1-C2-O2	-5.50	115.60	118.90
23	BA	1039	G	C6-C5-N7	5.50	133.70	130.40
23	BA	1234	U	N3-C2-O2	-5.50	118.35	122.20
23	BA	2450	A	C8-N9-C4	5.50	108.00	105.80
23	BA	2846	G	C8-N9-C4	-5.50	104.20	106.40
23	DA	2004	G	C8-N9-C4	5.50	108.60	106.40
23	DA	2104	G	N9-C4-C5	-5.50	103.20	105.40
23	DA	2503	A	C8-N9-C4	-5.50	103.60	105.80
23	BA	1209	G	C5-C6-N1	-5.49	108.75	111.50
23	BA	1992	G	P-O3'-C3'	5.49	126.29	119.70
23	BA	2325	G	N1-C6-O6	5.49	123.20	119.90
1	CA	397	A	N1-C2-N3	5.49	132.05	129.30
23	DA	143	G	N1-C6-O6	5.49	123.20	119.90
23	BA	2440	C	C6-N1-C2	5.49	122.50	120.30
23	BA	2689	U	N3-C2-O2	-5.49	118.36	122.20
23	DA	1022	G	C4-C5-N7	-5.49	108.60	110.80
1	AA	1303	C	N1-C2-O2	5.49	122.19	118.90
23	BA	1505	C	N3-C2-O2	-5.49	118.06	121.90
1	CA	754	C	C6-N1-C2	-5.49	118.10	120.30
1	CA	1218	C	N1-C2-O2	5.49	122.19	118.90
1	AA	330	C	N1-C2-O2	5.49	122.19	118.90
23	BA	2544	G	C8-N9-C4	5.49	108.59	106.40
23	DA	23	G	C5-C6-N1	5.49	114.24	111.50
23	DA	434	U	C6-N1-C2	5.49	124.29	121.00
23	BA	2581	G	N3-C2-N2	5.49	123.74	119.90
1	CA	1459	C	O4'-C1'-N1	5.49	112.59	108.20
23	BA	1319	G	C4-N9-C1'	5.49	133.63	126.50
23	BA	2881	C	C6-N1-C2	-5.49	118.11	120.30
1	CA	39	G	N1-C6-O6	-5.49	116.61	119.90
1	CA	1499	A	N1-C6-N6	5.49	121.89	118.60
23	DA	1397	U	N1-C2-O2	5.49	126.64	122.80
23	DA	1613	G	C8-N9-C4	-5.49	104.21	106.40
23	DA	1962	C	C4-C5-C6	-5.49	114.66	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2505	G	N1-C2-N2	-5.48	111.27	116.20
23	DA	1493	C	N3-C2-O2	-5.48	118.06	121.90
23	BA	2345	G	C8-N9-C4	-5.48	104.21	106.40
23	DA	1990	C	N1-C2-N3	5.48	123.04	119.20
23	DA	2307	G	C4-N9-C1'	5.48	133.63	126.50
1	AA	1077	G	N3-C4-C5	-5.48	125.86	128.60
23	BA	1641	A	C2-N3-C4	-5.48	107.86	110.60
23	BA	2592	G	C2-N3-C4	5.48	114.64	111.90
1	CA	929	G	C4-C5-N7	-5.48	108.61	110.80
23	DA	452	G	C5-C6-N1	5.48	114.24	111.50
23	DA	509	C	N3-C2-O2	-5.48	118.06	121.90
23	DA	2147	G	N7-C8-N9	5.48	115.84	113.10
23	DA	2467	C	C6-N1-C2	-5.48	118.11	120.30
23	BA	2503	A	C2-N3-C4	5.48	113.34	110.60
23	DA	783	A	C2-N3-C4	5.48	113.34	110.60
23	DA	2742	C	C4-C5-C6	5.48	120.14	117.40
23	BA	674	G	C5-C6-N1	-5.48	108.76	111.50
23	BA	987	G	N3-C4-N9	-5.48	122.71	126.00
1	CA	494	U	C5-C6-N1	5.48	125.44	122.70
1	CA	993	G	N3-C4-C5	-5.48	125.86	128.60
23	DA	605	C	C2-N3-C4	-5.48	117.16	119.90
23	DA	2570	G	C5-C6-N1	-5.48	108.76	111.50
23	BA	516	C	C2-N3-C4	-5.48	117.16	119.90
1	AA	1057	G	N1-C6-O6	-5.47	116.62	119.90
23	BA	1186	G	N9-C4-C5	-5.47	103.21	105.40
23	BA	1765	C	N3-C4-C5	5.47	124.09	121.90
23	BA	2098	U	C2-N3-C4	5.47	130.28	127.00
24	BB	104	U	N3-C4-C5	5.47	117.88	114.60
23	DA	1108	U	C6-N1-C2	-5.47	117.72	121.00
23	BA	435	C	C5-C4-N4	-5.47	116.37	120.20
1	CA	1060	C	C6-N1-C2	-5.47	118.11	120.30
23	DA	2100	G	N3-C4-N9	5.47	129.28	126.00
23	BA	2591	C	N3-C4-C5	5.47	124.09	121.90
23	DA	567	A	C2-N3-C4	-5.47	107.86	110.60
1	AA	727	G	N1-C6-O6	-5.47	116.62	119.90
1	AA	1148	U	C5-C6-N1	5.47	125.44	122.70
23	BA	1411	C	N3-C4-C5	5.47	124.09	121.90
23	BA	2315	G	C8-N9-C4	5.47	108.59	106.40
23	DA	2002	G	C5-C6-N1	5.47	114.23	111.50
1	AA	442	C	C6-N1-C2	-5.47	118.11	120.30
23	BA	1582	C	C2-N3-C4	-5.47	117.17	119.90
23	BA	1606	G	C5-C6-O6	-5.47	125.32	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2461	C	C5-C4-N4	5.47	124.03	120.20
23	BA	53	A	N9-C4-C5	5.47	107.99	105.80
23	BA	1135	C	C5-C6-N1	5.47	123.73	121.00
23	BA	2574	G	N1-C6-O6	-5.47	116.62	119.90
1	CA	955	U	C5-C6-N1	5.47	125.43	122.70
1	CA	1056	U	C2-N3-C4	5.47	130.28	127.00
16	CP	28	ARG	NE-CZ-NH1	5.47	123.03	120.30
23	DA	265	A	C6-C5-N7	-5.47	128.47	132.30
23	BA	47	C	C5-C4-N4	5.46	124.03	120.20
23	BA	199	A	C5-C6-N1	5.46	120.43	117.70
23	BA	333	G	N7-C8-N9	5.46	115.83	113.10
23	DA	749	C	C6-N1-C1'	-5.46	114.24	120.80
23	DA	1339	G	N7-C8-N9	5.46	115.83	113.10
23	BA	1290	C	C6-N1-C2	-5.46	118.11	120.30
23	BA	1358	G	N3-C2-N2	5.46	123.72	119.90
23	DA	482	A	C6-N1-C2	-5.46	115.32	118.60
23	DA	2426	A	C5-N7-C8	-5.46	101.17	103.90
1	AA	1147	C	C6-N1-C2	-5.46	118.11	120.30
23	BA	148	C	C5-C4-N4	-5.46	116.38	120.20
23	BA	1563	G	N1-C2-N2	-5.46	111.28	116.20
23	DA	1788	C	C6-N1-C2	-5.46	118.11	120.30
23	DA	2007	C	N3-C2-O2	-5.46	118.08	121.90
1	CA	403	C	N3-C2-O2	-5.46	118.08	121.90
1	CA	810	C	N3-C4-C5	5.46	124.08	121.90
1	AA	530	G	C4-N9-C1'	5.46	133.60	126.50
1	AA	1003	G	N9-C4-C5	5.46	107.58	105.40
23	BA	1164	G	C5-N7-C8	5.46	107.03	104.30
23	BA	2069	G	N3-C4-N9	5.46	129.28	126.00
23	BA	2312	U	C6-N1-C2	-5.46	117.72	121.00
1	CA	402	G	N1-C6-O6	-5.46	116.62	119.90
1	CA	865	A	N7-C8-N9	5.46	116.53	113.80
1	CA	1015	A	N1-C2-N3	5.46	132.03	129.30
1	CA	1163	C	C6-N1-C2	-5.46	118.12	120.30
23	DA	279	C	C6-N1-C2	-5.46	118.12	120.30
23	DA	785	G	N1-C6-O6	-5.46	116.62	119.90
23	DA	800	A	C6-N1-C2	-5.46	115.32	118.60
23	DA	2239	G	C4-C5-N7	-5.46	108.62	110.80
1	CA	1005	A	N7-C8-N9	5.46	116.53	113.80
23	DA	1823	G	N3-C2-N2	-5.46	116.08	119.90
23	DA	2552	U	N1-C2-O2	-5.46	118.98	122.80
35	DR	114	VAL	CB-CA-C	-5.46	101.03	111.40
23	BA	1028	A	N1-C6-N6	5.46	121.87	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2566	A	N9-C4-C5	5.46	107.98	105.80
1	AA	355	C	N1-C2-N3	5.45	123.02	119.20
1	AA	1061	G	C5-C6-N1	-5.45	108.77	111.50
23	BA	2226	C	N3-C4-C5	5.45	124.08	121.90
1	CA	506	G	C8-N9-C4	-5.45	104.22	106.40
1	CA	893	C	N1-C2-O2	5.45	122.17	118.90
1	CA	1026	G	C8-N9-C4	-5.45	104.22	106.40
1	CA	1067	A	N7-C8-N9	5.45	116.53	113.80
23	DA	1642	G	C6-N1-C2	-5.45	121.83	125.10
1	AA	1128	C	N3-C4-C5	-5.45	119.72	121.90
23	BA	1352	U	C6-N1-C2	-5.45	117.73	121.00
23	BA	1429	G	C8-N9-C1'	-5.45	119.91	127.00
23	DA	2585	U	N1-C2-O2	5.45	126.62	122.80
23	BA	272(C)	G	C2-N3-C4	-5.45	109.17	111.90
23	BA	662	G	N1-C6-O6	-5.45	116.63	119.90
23	BA	1130	U	N1-C2-O2	5.45	126.62	122.80
23	BA	1816	G	C4-N9-C1'	5.45	133.59	126.50
23	BA	2044	C	C4-C5-C6	5.45	120.12	117.40
23	BA	2195	C	C2-N1-C1'	-5.45	112.81	118.80
23	DA	1581	G	C5-C6-O6	-5.45	125.33	128.60
23	DA	1616	A	C5-N7-C8	-5.45	101.17	103.90
23	DA	1747	G	C8-N9-C4	5.45	108.58	106.40
1	AA	1206	G	N1-C6-O6	-5.45	116.63	119.90
23	BA	1210	A	C5-C6-N1	-5.45	114.98	117.70
23	BA	1328	G	N3-C4-N9	5.45	129.27	126.00
23	BA	1368	G	C6-N1-C2	-5.45	121.83	125.10
23	BA	2090	G	C4-C5-N7	-5.45	108.62	110.80
23	BA	2501	C	C5-C6-N1	-5.45	118.28	121.00
1	CA	345	C	C5-C6-N1	5.45	123.72	121.00
23	DA	2002	G	N1-C6-O6	-5.45	116.63	119.90
1	CA	1194	U	N3-C2-O2	-5.45	118.39	122.20
1	AA	1023	G	C4-C5-N7	5.45	112.98	110.80
23	BA	309	G	N3-C2-N2	5.45	123.71	119.90
23	BA	1049	C	C4-C5-C6	-5.45	114.68	117.40
23	BA	2463	C	C2-N3-C4	-5.45	117.18	119.90
23	DA	197	A	C5-C6-N1	5.45	120.42	117.70
23	BA	996	A	N1-C6-N6	-5.44	115.33	118.60
1	CA	530	G	C8-N9-C1'	-5.44	119.92	127.00
23	DA	774	A	N1-C2-N3	5.44	132.02	129.30
23	DA	2616	C	C5-C4-N4	5.44	124.01	120.20
23	BA	830	G	N1-C2-N2	-5.44	111.30	116.20
23	BA	1437	C	N1-C2-O2	5.44	122.17	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1839	G	N9-C4-C5	-5.44	103.22	105.40
23	BA	2075	U	C4-C5-C6	5.44	122.97	119.70
1	CA	1519	A	N1-C2-N3	5.44	132.02	129.30
9	CI	24	GLY	N-CA-C	5.44	126.70	113.10
23	DA	1127	A	C6-C5-N7	-5.44	128.49	132.30
23	DA	2145	C	C5-C6-N1	5.44	123.72	121.00
1	AA	2	U	C6-N1-C2	-5.44	117.74	121.00
23	BA	1959	G	N1-C6-O6	-5.44	116.64	119.90
23	BA	584	C	N3-C4-C5	5.44	124.08	121.90
1	CA	1112	C	C6-N1-C2	-5.44	118.12	120.30
25	DD	33	LEU	CA-CB-CG	-5.44	102.79	115.30
23	DA	2458	G	C5-C6-O6	-5.44	125.34	128.60
31	DN	23	LEU	O-C-N	-5.44	113.95	123.20
1	AA	52	G	C6-N1-C2	5.44	128.36	125.10
1	AA	1347	G	N9-C4-C5	5.44	107.57	105.40
23	BA	570	G	N3-C2-N2	5.44	123.70	119.90
23	BA	727	A	C2-N3-C4	-5.44	107.88	110.60
23	BA	1775	U	C5-C4-O4	-5.44	122.64	125.90
23	DA	614	U	N3-C4-O4	-5.44	115.59	119.40
1	AA	317	G	N1-C6-O6	5.43	123.16	119.90
1	AA	953	G	N9-C4-C5	-5.43	103.23	105.40
1	AA	1249	C	C5-C4-N4	-5.43	116.40	120.20
23	BA	1783	A	C8-N9-C4	-5.43	103.63	105.80
23	BA	2699	C	N3-C4-N4	5.43	121.80	118.00
1	CA	381	C	C6-N1-C2	-5.43	118.13	120.30
23	DA	1286	A	N9-C4-C5	5.43	107.97	105.80
23	DA	2502	G	N3-C2-N2	5.43	123.70	119.90
1	AA	1249	C	C6-N1-C2	-5.43	118.13	120.30
23	BA	450	G	C4-C5-N7	-5.43	108.63	110.80
23	BA	1572	A	N1-C2-N3	5.43	132.02	129.30
23	BA	2319	G	C4-C5-N7	5.43	112.97	110.80
23	BA	2571	C	C2-N1-C1'	5.43	124.78	118.80
23	DA	271(M)	G	N3-C4-N9	5.43	129.26	126.00
23	DA	461	C	C6-N1-C2	5.43	122.47	120.30
23	DA	807	U	C5-C4-O4	-5.43	122.64	125.90
23	DA	2444	G	N1-C2-N3	5.43	127.16	123.90
23	DA	2881	C	N1-C2-O2	-5.43	115.64	118.90
23	BA	2315	G	N9-C4-C5	-5.43	103.23	105.40
1	CA	1108	G	C4-N9-C1'	5.43	133.56	126.50
23	DA	1332	G	C4-C5-N7	5.43	112.97	110.80
23	BA	210	C	C6-N1-C2	5.43	122.47	120.30
23	BA	1112	G	C4-N9-C1'	-5.43	119.44	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	512	G	C5-C6-O6	5.43	131.86	128.60
23	DA	1784	A	N7-C8-N9	-5.43	111.08	113.80
23	DA	2617	C	C2-N3-C4	-5.43	117.19	119.90
23	DA	2733	A	C5-N7-C8	-5.43	101.19	103.90
23	BA	1269	A	C5-C6-N1	5.43	120.41	117.70
23	BA	1899	G	N1-C2-N2	5.43	121.09	116.20
1	AA	340	U	C6-N1-C2	5.43	124.25	121.00
23	BA	2596	U	N1-C2-O2	-5.43	119.00	122.80
23	BA	139(A)	G	C6-C5-N7	-5.42	127.14	130.40
23	BA	1615	C	C2-N3-C4	5.42	122.61	119.90
23	DA	52	A	C8-N9-C4	-5.42	103.63	105.80
23	BA	435	C	N3-C4-N4	5.42	121.80	118.00
24	BB	114	C	C6-N1-C2	-5.42	118.13	120.30
1	CA	1158	C	N1-C2-O2	5.42	122.15	118.90
1	CA	1527	C	N3-C4-C5	5.42	124.07	121.90
1	CA	1216	G	C6-C5-N7	5.42	133.65	130.40
23	BA	949	C	C5-C6-N1	-5.42	118.29	121.00
23	DA	1618	A	N1-C6-N6	-5.42	115.35	118.60
23	BA	2442	C	N3-C4-C5	5.42	124.07	121.90
23	DA	411	G	N3-C2-N2	5.42	123.69	119.90
1	AA	57	G	C6-N1-C2	-5.42	121.85	125.10
23	DA	775	G	C5-C6-O6	5.42	131.85	128.60
23	DA	949	C	C2-N3-C4	-5.42	117.19	119.90
23	DA	2045	C	C2-N3-C4	-5.42	117.19	119.90
23	BA	1614	A	N3-C4-N9	-5.42	123.07	127.40
23	BA	2015	A	C5-C6-N1	-5.42	114.99	117.70
1	CA	435	C	C5-C6-N1	5.42	123.71	121.00
23	DA	945	A	N9-C4-C5	-5.42	103.63	105.80
23	DA	1190	G	C2-N3-C4	-5.42	109.19	111.90
1	AA	1273	G	C8-N9-C4	-5.41	104.23	106.40
23	BA	2145	C	C6-N1-C2	-5.41	118.13	120.30
1	CA	356	A	C2-N3-C4	5.41	113.31	110.60
1	CA	1014	A	C8-N9-C4	-5.41	103.64	105.80
23	BA	599	G	N9-C4-C5	-5.41	103.23	105.40
23	BA	773	U	C6-N1-C2	-5.41	117.75	121.00
1	AA	300	A	C8-N9-C4	-5.41	103.64	105.80
23	BA	528	A	C5-C6-N6	5.41	128.03	123.70
23	BA	774	A	N9-C4-C5	5.41	107.96	105.80
23	BA	1509	C	N1-C2-O2	5.41	122.15	118.90
23	BA	1939	U	N3-C2-O2	5.41	125.99	122.20
1	CA	1012	U	C5-C6-N1	5.41	125.41	122.70
23	DA	311	A	N9-C4-C5	-5.41	103.64	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	797	C	C4-C5-C6	5.41	120.11	117.40
23	DA	1990	C	C6-N1-C2	-5.41	118.14	120.30
23	DA	2408	U	N3-C4-O4	5.41	123.19	119.40
23	DA	2423	U	C2-N1-C1'	-5.41	111.21	117.70
23	BA	871	U	N3-C2-O2	5.41	125.99	122.20
23	BA	2028	U	C5-C6-N1	-5.41	120.00	122.70
23	BA	2030	A	C8-N9-C4	5.41	107.96	105.80
23	BA	2466	C	N3-C4-N4	5.41	121.79	118.00
23	DA	107	C	C5-C4-N4	-5.41	116.41	120.20
23	DA	1597	A	N1-C6-N6	-5.41	115.35	118.60
1	AA	1460	A	C5-C6-N6	5.41	128.03	123.70
23	BA	1930	G	C8-N9-C1'	5.41	134.03	127.00
23	DA	2098	U	N1-C2-O2	5.41	126.58	122.80
1	AA	1047	G	N3-C4-N9	-5.41	122.76	126.00
23	BA	38	A	C6-N1-C2	-5.41	115.36	118.60
23	BA	116	C	N1-C2-O2	-5.41	115.66	118.90
23	BA	1383	C	N3-C4-C5	-5.41	119.74	121.90
1	CA	1030(D)	A	C8-N9-C4	-5.41	103.64	105.80
23	DA	141	A	C4-C5-C6	5.41	119.70	117.00
23	DA	1252	G	C8-N9-C1'	5.41	134.03	127.00
23	DA	1534	U	C5-C4-O4	-5.41	122.66	125.90
23	DA	1602	U	N3-C4-C5	-5.41	111.36	114.60
23	BA	1791	A	C5-N7-C8	-5.40	101.20	103.90
23	DA	1117	G	C5-C6-O6	-5.40	125.36	128.60
23	DA	2361	A	N9-C4-C5	-5.40	103.64	105.80
23	BA	69	C	C4-C5-C6	5.40	120.10	117.40
23	DA	438	G	C8-N9-C4	-5.40	104.24	106.40
23	DA	444	C	N3-C4-N4	-5.40	114.22	118.00
23	DA	1568	G	C5-C6-N1	5.40	114.20	111.50
23	DA	1600	C	C5-C6-N1	-5.40	118.30	121.00
23	DA	2779	U	N3-C4-C5	5.40	117.84	114.60
23	BA	542	C	C3'-C2'-C1'	-5.40	97.18	101.50
23	BA	640	C	N3-C2-O2	5.40	125.68	121.90
23	BA	830	G	N1-C6-O6	-5.40	116.66	119.90
23	BA	1119	C	C2-N1-C1'	-5.40	112.86	118.80
23	DA	389	G	C8-N9-C4	5.40	108.56	106.40
23	DA	1004	C	N1-C2-O2	-5.40	115.66	118.90
23	DA	2099	U	C5-C6-N1	5.40	125.40	122.70
23	DA	2848	G	N3-C4-C5	-5.40	125.90	128.60
23	BA	130	C	N1-C2-N3	-5.40	115.42	119.20
23	BA	131	G	N1-C2-N2	-5.40	111.34	116.20
23	DA	1653	G	P-O3'-C3'	5.40	126.18	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1254	C	C5-C6-N1	5.40	123.70	121.00
23	DA	2185	C	C5-C4-N4	5.40	123.98	120.20
23	BA	1188	U	N3-C2-O2	5.39	125.98	122.20
23	BA	2063	C	N3-C4-C5	-5.39	119.74	121.90
23	BA	2508	G	C4-C5-N7	-5.39	108.64	110.80
23	DA	265	A	C2-N3-C4	-5.39	107.90	110.60
23	DA	750	A	C8-N9-C4	-5.39	103.64	105.80
23	BA	47	C	C5-C6-N1	-5.39	118.30	121.00
23	BA	154	G	N1-C6-O6	5.39	123.14	119.90
23	DA	1831	G	C8-N9-C4	-5.39	104.24	106.40
1	AA	1174	G	C6-C5-N7	5.39	133.63	130.40
23	BA	69	C	N1-C2-N3	5.39	122.97	119.20
23	BA	281	G	C8-N9-C4	5.39	108.56	106.40
23	BA	750	A	C5-C6-N6	5.39	128.01	123.70
23	BA	2420	C	N3-C2-O2	5.39	125.67	121.90
23	DA	1792	G	C5-N7-C8	5.39	107.00	104.30
23	DA	2567	G	C6-N1-C2	-5.39	121.87	125.10
23	BA	744	G	N1-C6-O6	-5.39	116.67	119.90
23	BA	1698	A	N3-C4-C5	5.39	130.57	126.80
23	DA	335	C	N1-C2-O2	-5.39	115.67	118.90
1	AA	297	G	C8-N9-C4	5.39	108.55	106.40
1	AA	1247	U	C6-N1-C2	-5.39	117.77	121.00
1	AA	1366	C	N1-C2-O2	5.39	122.13	118.90
23	BA	375	C	C2-N3-C4	-5.39	117.21	119.90
23	BA	679	C	N3-C2-O2	5.39	125.67	121.90
23	BA	917	A	N9-C4-C5	-5.39	103.65	105.80
23	BA	2705	A	C6-N1-C2	-5.39	115.37	118.60
1	CA	1096	C	C6-N1-C2	-5.39	118.14	120.30
23	DA	2021	C	C5-C6-N1	-5.39	118.31	121.00
23	DA	2450	A	N7-C8-N9	-5.39	111.11	113.80
23	BA	45	C	N1-C2-N3	5.38	122.97	119.20
23	BA	1348	G	C5-C6-O6	-5.38	125.37	128.60
23	DA	286	C	N1-C2-O2	5.38	122.13	118.90
23	DA	1284	A	N1-C6-N6	5.38	121.83	118.60
23	DA	1615	C	C5-C6-N1	5.38	123.69	121.00
23	DA	1758	G	C4-C5-N7	5.38	112.95	110.80
23	DA	2075	U	C2-N3-C4	-5.38	123.77	127.00
23	DA	2122	U	C2-N3-C4	5.38	130.23	127.00
1	AA	1396	A	C8-N9-C4	-5.38	103.65	105.80
23	BA	1772	G	C8-N9-C4	5.38	108.55	106.40
23	BA	2191	G	N9-C4-C5	-5.38	103.25	105.40
23	DA	191	A	C5-C6-N1	5.38	120.39	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	808	C	N1-C2-O2	-5.38	115.67	118.90
1	AA	1057	G	N9-C4-C5	5.38	107.55	105.40
23	BA	2372	G	C5-C6-O6	-5.38	125.37	128.60
23	BA	1928	A	C5-C6-N1	5.38	120.39	117.70
23	BA	2618	G	C2-N3-C4	5.38	114.59	111.90
23	DA	2304	G	C8-N9-C4	-5.38	104.25	106.40
1	AA	1442(B)	A	C2-N3-C4	-5.38	107.91	110.60
23	BA	1214	A	C5-N7-C8	5.38	106.59	103.90
23	DA	154	G	N1-C6-O6	5.38	123.13	119.90
1	AA	1459	C	O4'-C1'-N1	5.38	112.50	108.20
23	BA	864	G	N3-C4-C5	-5.38	125.91	128.60
23	BA	2024	G	N9-C4-C5	-5.38	103.25	105.40
23	BA	2296	U	N1-C1'-C2'	5.38	120.99	114.00
23	DA	419	C	C6-N1-C2	5.38	122.45	120.30
1	AA	953	G	C5-N7-C8	-5.38	101.61	104.30
1	AA	1274	G	N1-C6-O6	5.38	123.12	119.90
23	BA	780	G	C5-C6-O6	-5.38	125.38	128.60
23	BA	2060	A	C5-C6-N6	5.38	128.00	123.70
23	BA	2411	A	N9-C4-C5	-5.38	103.65	105.80
23	DA	1365	A	C5-C6-N6	-5.38	119.40	123.70
23	DA	1845	G	N1-C6-O6	-5.38	116.67	119.90
23	BA	1708	C	N3-C2-O2	5.37	125.66	121.90
23	BA	2239	G	N1-C6-O6	-5.37	116.68	119.90
23	BA	2383	G	N1-C2-N2	-5.37	111.36	116.20
23	DA	2010	G	C8-N9-C4	-5.37	104.25	106.40
23	DA	2450	A	C8-N9-C4	5.37	107.95	105.80
1	AA	219	C	C6-N1-C2	-5.37	118.15	120.30
23	BA	271(M)	G	N3-C4-N9	5.37	129.22	126.00
23	BA	330	A	C5-N7-C8	-5.37	101.21	103.90
23	BA	729	G	C5-C6-O6	-5.37	125.38	128.60
24	BB	54	G	N9-C4-C5	-5.37	103.25	105.40
1	CA	1378	C	N3-C2-O2	-5.37	118.14	121.90
24	DB	54	G	N3-C4-N9	-5.37	122.78	126.00
1	AA	1314	C	C5-C6-N1	5.37	123.69	121.00
1	AA	1363(A)	A	N7-C8-N9	5.37	116.48	113.80
23	BA	2570	G	N3-C4-N9	-5.37	122.78	126.00
1	CA	940	C	N1-C2-O2	5.37	122.12	118.90
23	DA	276	A	C8-N9-C4	-5.37	103.65	105.80
23	DA	463	G	N3-C4-N9	-5.37	122.78	126.00
23	BA	1740	G	C8-N9-C4	-5.37	104.25	106.40
1	CA	899	C	C6-N1-C2	5.37	122.45	120.30
1	CA	919	A	C2-N3-C4	5.37	113.28	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	1274	G	C4-C5-C6	5.37	122.02	118.80
23	DA	291	C	N3-C2-O2	5.37	125.66	121.90
23	DA	827	U	N3-C2-O2	5.37	125.96	122.20
23	DA	1780	A	N1-C2-N3	5.37	131.98	129.30
1	AA	986	A	N1-C6-N6	5.37	121.82	118.60
23	BA	2221	G	N7-C8-N9	5.37	115.78	113.10
31	BN	74	ARG	NE-CZ-NH1	5.37	122.98	120.30
1	AA	1172	C	C5-C6-N1	5.37	123.68	121.00
23	BA	807	U	N3-C4-C5	-5.37	111.38	114.60
23	BA	990	A	N1-C6-N6	5.37	121.82	118.60
23	BA	2271	G	C5-C6-N1	5.37	114.18	111.50
23	DA	602	G	C5-C6-O6	-5.37	125.38	128.60
23	DA	1017	G	C5-C6-O6	-5.37	125.38	128.60
23	DA	2042	A	C2-N3-C4	-5.37	107.92	110.60
23	BA	469	G	N3-C4-C5	-5.36	125.92	128.60
23	BA	2232	U	C5-C6-N1	-5.36	120.02	122.70
23	BA	2606	C	C5-C6-N1	-5.36	118.32	121.00
23	DA	978	G	N7-C8-N9	-5.36	110.42	113.10
23	DA	2244	U	N3-C2-O2	-5.36	118.44	122.20
23	DA	2542	A	C8-N9-C4	5.36	107.94	105.80
23	BA	2048	G	C4-N9-C1'	5.36	133.47	126.50
24	BB	22	U	C6-N1-C2	-5.36	117.78	121.00
23	DA	1617	C	C2-N3-C4	-5.36	117.22	119.90
23	DA	2322	A	C8-N9-C4	-5.36	103.66	105.80
23	BA	418	G	C6-C5-N7	-5.36	127.18	130.40
23	BA	1914	C	N3-C2-O2	-5.36	118.15	121.90
23	BA	2022	U	N1-C2-O2	-5.36	119.05	122.80
23	BA	2071	A	C6-N1-C2	-5.36	115.38	118.60
1	CA	1440	C	C6-N1-C2	5.36	122.44	120.30
23	DA	788	A	C6-C5-N7	-5.36	128.55	132.30
23	DA	1614	A	N1-C6-N6	-5.36	115.38	118.60
23	DA	1773	A	C5-C6-N1	5.36	120.38	117.70
23	DA	1792	G	C4-C5-N7	-5.36	108.66	110.80
1	AA	995	C	C6-N1-C2	-5.36	118.16	120.30
23	BA	783	A	C8-N9-C4	-5.36	103.66	105.80
23	BA	1431	U	C5-C6-N1	5.36	125.38	122.70
24	BB	4	C	C6-N1-C2	5.36	122.44	120.30
23	BA	546	C	C6-N1-C2	-5.36	118.16	120.30
23	BA	556	G	C5-C6-N1	-5.36	108.82	111.50
23	BA	2063	C	N3-C2-O2	5.36	125.65	121.90
23	BA	2590	A	N1-C6-N6	-5.36	115.39	118.60
23	BA	68	G	N1-C2-N3	5.36	127.11	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	534	U	C5-C6-N1	-5.36	120.02	122.70
23	BA	1652	A	C2-N3-C4	5.35	113.28	110.60
1	CA	576	G	C4-N9-C1'	5.35	133.46	126.50
23	DA	398	G	C2-N3-C4	-5.35	109.22	111.90
23	DA	2063	C	N3-C2-O2	5.35	125.65	121.90
23	BA	1962	C	C5-C6-N1	5.35	123.67	121.00
23	BA	2497	A	C4-C5-C6	5.35	119.68	117.00
23	DA	2379	G	C4-C5-N7	5.35	112.94	110.80
23	BA	1290	C	C5-C4-N4	5.35	123.94	120.20
23	BA	1799	G	N1-C6-O6	-5.35	116.69	119.90
1	CA	1087	G	C8-N9-C1'	-5.35	120.05	127.00
1	CA	1149	C	C6-N1-C2	-5.35	118.16	120.30
23	DA	2449	U	C2-N3-C4	-5.35	123.79	127.00
42	DY	76	CYS	CA-CB-SG	5.35	123.63	114.00
23	BA	512	G	N1-C2-N2	-5.35	111.39	116.20
23	BA	1222	C	C2-N1-C1'	-5.35	112.92	118.80
23	BA	2432	A	N7-C8-N9	-5.35	111.13	113.80
1	CA	234	C	N1-C2-O2	5.35	122.11	118.90
1	CA	1006	C	C2-N3-C4	5.35	122.57	119.90
23	DA	784	A	C4-N9-C1'	-5.35	116.67	126.30
23	DA	1582	C	C6-N1-C2	5.35	122.44	120.30
23	BA	2051	A	N9-C4-C5	5.35	107.94	105.80
23	BA	1424	G	N1-C2-N3	5.34	127.11	123.90
23	DA	1320	C	N3-C4-N4	5.34	121.74	118.00
23	DA	1381	G	C5-C6-O6	5.34	131.81	128.60
1	AA	1460	A	C5-N7-C8	5.34	106.57	103.90
23	BA	2510	C	N3-C4-N4	-5.34	114.26	118.00
1	CA	177	C	C6-N1-C2	-5.34	118.16	120.30
23	DA	1338	G	C2-N3-C4	5.34	114.57	111.90
23	DA	1671	U	N3-C4-C5	5.34	117.81	114.60
23	BA	2491	U	C5-C4-O4	-5.34	122.69	125.90
23	BA	2723	C	N1-C2-O2	5.34	122.11	118.90
24	BB	42	C	C6-N1-C2	5.34	122.44	120.30
1	CA	1274	G	N1-C6-O6	5.34	123.10	119.90
1	CA	1519	A	C5-C6-N6	5.34	127.97	123.70
23	DA	76	C	C2-N3-C4	-5.34	117.23	119.90
23	DA	1581	G	C4-C5-N7	5.34	112.94	110.80
23	BA	1544	A	N9-C4-C5	5.34	107.94	105.80
23	BA	2248	C	N1-C2-N3	5.34	122.94	119.20
23	BA	2503	A	C6-C5-N7	-5.34	128.56	132.30
23	BA	2588	G	C8-N9-C4	-5.34	104.26	106.40
1	CA	1323	G	N3-C4-N9	5.34	129.20	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
48	D4	42	PHE	C-N-CA	5.34	135.05	121.70
23	DA	2709	G	N3-C4-C5	-5.34	125.93	128.60
23	BA	446	G	N9-C4-C5	-5.34	103.27	105.40
23	BA	577	G	N3-C4-N9	5.34	129.20	126.00
23	BA	2690	C	C6-N1-C2	-5.34	118.17	120.30
23	DA	2142	C	C5-C6-N1	5.34	123.67	121.00
23	DA	2661	G	N9-C4-C5	-5.34	103.27	105.40
1	AA	398	C	N3-C4-N4	-5.33	114.27	118.00
1	AA	1012	U	C5-C6-N1	5.33	125.37	122.70
23	BA	546	C	N3-C4-N4	5.33	121.73	118.00
23	BA	1338	G	N3-C2-N2	5.33	123.64	119.90
24	BB	116	G	C2-N3-C4	-5.33	109.23	111.90
23	DA	799	G	C4-C5-N7	-5.33	108.67	110.80
23	BA	690	G	C6-N1-C2	-5.33	121.90	125.10
23	BA	806	C	C5-C4-N4	-5.33	116.47	120.20
23	BA	978	G	N3-C2-N2	5.33	123.63	119.90
23	BA	1039	G	C4-N9-C1'	-5.33	119.57	126.50
1	CA	1462	G	N3-C2-N2	-5.33	116.17	119.90
2	CB	169	LYS	N-CA-C	-5.33	96.60	111.00
23	DA	2449	U	C5-C4-O4	-5.33	122.70	125.90
1	AA	1293	G	N9-C4-C5	5.33	107.53	105.40
2	AB	169	LYS	N-CA-C	-5.33	96.61	111.00
23	BA	932	G	C6-N1-C2	-5.33	121.90	125.10
1	CA	1041	A	N1-C6-N6	-5.33	115.40	118.60
23	DA	1331	A	N7-C8-N9	-5.33	111.13	113.80
23	DA	1651	G	N1-C6-O6	5.33	123.10	119.90
23	BA	377	C	C5-C4-N4	-5.33	116.47	120.20
23	BA	448	U	N1-C2-O2	-5.33	119.07	122.80
23	BA	772	C	N3-C4-C5	-5.33	119.77	121.90
23	BA	910	A	C4-C5-N7	-5.33	108.04	110.70
23	BA	1335	U	C4-C5-C6	5.33	122.90	119.70
1	CA	1083	U	N1-C2-O2	-5.33	119.07	122.80
1	CA	1390	U	N1-C2-O2	-5.33	119.07	122.80
23	DA	143	G	C4-N9-C1'	-5.33	119.57	126.50
23	DA	375	C	C5-C6-N1	-5.33	118.34	121.00
23	DA	1325	G	C8-N9-C4	5.33	108.53	106.40
23	DA	1925	C	N1-C2-O2	-5.33	115.70	118.90
35	DR	72	ASP	CB-CG-OD2	5.33	123.09	118.30
1	CA	246	A	C8-N9-C4	5.33	107.93	105.80
1	CA	365	U	C6-N1-C1'	5.33	128.66	121.20
1	CA	1038	C	N3-C4-C5	-5.33	119.77	121.90
23	BA	529	A	C8-N9-C4	-5.32	103.67	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1226	A	N1-C2-N3	-5.32	126.64	129.30
23	BA	1459	G	N3-C4-C5	-5.32	125.94	128.60
23	BA	1833	U	N1-C2-N3	5.32	118.09	114.90
23	BA	2451	A	N1-C6-N6	-5.32	115.41	118.60
24	DB	101	G	N3-C2-N2	5.32	123.63	119.90
23	BA	252	G	N1-C2-N3	5.32	127.09	123.90
23	BA	2572	A	C5-N7-C8	-5.32	101.24	103.90
23	DA	2699	C	C6-N1-C2	5.32	122.43	120.30
23	BA	60	G	N3-C4-C5	5.32	131.26	128.60
23	BA	2066	C	C2-N3-C4	-5.32	117.24	119.90
23	DA	140	G	N9-C4-C5	-5.32	103.27	105.40
23	DA	2332	U	N3-C4-O4	-5.32	115.68	119.40
23	DA	2593	U	N1-C2-N3	5.32	118.09	114.90
23	BA	1238	G	C5-C6-O6	-5.32	125.41	128.60
23	DA	1010	A	C8-N9-C4	5.32	107.93	105.80
23	DA	2070	G	N1-C2-N2	-5.32	111.41	116.20
1	AA	1204	A	N9-C4-C5	5.32	107.93	105.80
23	BA	1121	C	C5-C6-N1	-5.32	118.34	121.00
23	BA	1434	A	N1-C6-N6	-5.32	115.41	118.60
23	BA	1997	G	C2-N3-C4	5.32	114.56	111.90
23	BA	2689	U	C6-N1-C2	-5.32	117.81	121.00
24	BB	7	G	N1-C6-O6	5.32	123.09	119.90
23	DA	987	G	N3-C4-N9	-5.32	122.81	126.00
23	DA	1272	A	C5-C6-N6	5.32	127.95	123.70
23	DA	1381	G	N1-C6-O6	-5.32	116.71	119.90
23	BA	70	G	C8-N9-C4	-5.32	104.27	106.40
23	BA	271(K)	U	C2-N1-C1'	5.32	124.08	117.70
23	BA	1204	A	C4-C5-C6	5.32	119.66	117.00
23	BA	1696	G	N1-C6-O6	-5.32	116.71	119.90
31	BN	33	LEU	CA-CB-CG	5.32	127.53	115.30
23	DA	203	C	C5-C4-N4	-5.32	116.48	120.20
23	DA	2680	C	N3-C4-C5	5.32	124.03	121.90
1	AA	991	U	C6-N1-C2	-5.31	117.81	121.00
23	BA	959	A	N9-C4-C5	5.31	107.93	105.80
23	BA	1708	C	N3-C4-C5	5.31	124.03	121.90
1	CA	1442	G	N3-C4-N9	5.31	129.19	126.00
23	DA	2344	U	N1-C2-O2	5.31	126.52	122.80
23	BA	2070	G	C5-N7-C8	5.31	106.96	104.30
23	BA	2500	U	N3-C4-O4	-5.31	115.68	119.40
23	DA	1207	C	C5-C4-N4	-5.31	116.48	120.20
23	DA	2010	G	C5-C6-N1	-5.31	108.84	111.50
23	DA	2195	C	C2-N1-C1'	-5.31	112.96	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2409	G	C6-C5-N7	-5.31	127.21	130.40
23	BA	2673	G	C5-N7-C8	-5.31	101.64	104.30
1	AA	1285	A	C4-N9-C1'	-5.31	116.75	126.30
1	AA	1323	G	C3'-C2'-C1'	-5.31	97.25	101.50
1	AA	1442	G	N3-C4-N9	5.31	129.19	126.00
23	BA	664	C	C6-N1-C2	5.31	122.42	120.30
23	BA	2163	C	C6-N1-C2	-5.31	118.18	120.30
23	BA	2476	A	C4-C5-C6	5.31	119.66	117.00
45	B1	46	LEU	CA-CB-CG	5.31	127.51	115.30
1	CA	393	A	C8-N9-C4	-5.31	103.68	105.80
1	CA	893	C	C6-N1-C2	5.31	122.42	120.30
1	CA	980	C	N1-C2-O2	5.31	122.09	118.90
23	DA	1374	G	C2-N3-C4	-5.31	109.25	111.90
1	AA	1002	G	N3-C4-C5	-5.31	125.95	128.60
23	BA	59	U	C6-N1-C1'	-5.31	113.77	121.20
23	BA	521	G	N9-C4-C5	5.31	107.52	105.40
23	BA	726	G	C4-C5-N7	-5.31	108.68	110.80
23	DA	275	G	C4-N9-C1'	5.31	133.40	126.50
23	DA	333	G	C6-C5-N7	-5.31	127.22	130.40
23	DA	1681	G	N1-C6-O6	5.31	123.08	119.90
5	CE	65	ASN	N-CA-C	-5.31	96.67	111.00
10	CJ	16	LEU	CA-CB-CG	5.31	127.50	115.30
23	DA	1763	G	N7-C8-N9	-5.31	110.45	113.10
23	BA	1149	G	N1-C6-O6	5.30	123.08	119.90
23	BA	1773	A	C5-C6-N1	5.30	120.35	117.70
23	DA	121	G	C4-C5-N7	5.30	112.92	110.80
23	DA	1800	C	C4-C5-C6	5.30	120.05	117.40
23	BA	2016	U	N3-C2-O2	-5.30	118.49	122.20
1	CA	500	G	C5-C6-O6	5.30	131.78	128.60
1	AA	947	G	C4-C5-N7	5.30	112.92	110.80
23	BA	1974	C	N1-C2-O2	5.30	122.08	118.90
1	CA	1149	C	C5-C6-N1	5.30	123.65	121.00
23	DA	978	G	N9-C4-C5	-5.30	103.28	105.40
23	DA	2643	G	N1-C6-O6	5.30	123.08	119.90
23	BA	2163	C	C5-C6-N1	5.30	123.65	121.00
23	BA	2755	C	C5-C6-N1	5.30	123.65	121.00
23	DA	39	C	N3-C2-O2	-5.30	118.19	121.90
23	DA	74	A	N7-C8-N9	5.30	116.45	113.80
23	DA	574	C	C5-C4-N4	5.30	123.91	120.20
23	DA	1970	A	N9-C4-C5	-5.30	103.68	105.80
30	DI	72	LEU	CA-CB-CG	5.30	127.49	115.30
23	BA	792	G	N3-C4-C5	-5.30	125.95	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	1030	C	C6-N1-C1'	-5.30	114.44	120.80
23	DA	511	U	C2-N1-C1'	5.30	124.06	117.70
23	BA	645	C	C5-C6-N1	5.30	123.65	121.00
23	BA	1302	A	C8-N9-C4	5.30	107.92	105.80
23	BA	1539	G	N1-C6-O6	5.30	123.08	119.90
24	BB	60	C	C5-C6-N1	5.30	123.65	121.00
23	DA	844	C	C6-N1-C2	5.30	122.42	120.30
23	DA	2181	G	N3-C2-N2	5.30	123.61	119.90
23	DA	2591	C	N3-C4-C5	5.30	124.02	121.90
1	CA	1123	A	N3-C4-C5	-5.29	123.09	126.80
1	CA	1195	C	C5-C6-N1	5.29	123.65	121.00
23	DA	860	U	N1-C2-N3	5.29	118.08	114.90
23	DA	2380	C	N3-C4-C5	5.29	124.02	121.90
1	AA	6	G	C4-N9-C1'	5.29	133.38	126.50
1	AA	997	U	C5-C4-O4	5.29	129.08	125.90
23	BA	454	A	N9-C4-C5	5.29	107.92	105.80
1	CA	945	G	C8-N9-C4	5.29	108.52	106.40
23	DA	1247	A	N7-C8-N9	-5.29	111.15	113.80
1	AA	615	C	C6-N1-C2	-5.29	118.18	120.30
1	AA	1220	G	N1-C6-O6	5.29	123.08	119.90
23	BA	608	A	C2-N3-C4	-5.29	107.95	110.60
1	CA	697	U	C6-N1-C2	5.29	124.17	121.00
23	DA	252	G	N1-C2-N3	5.29	127.08	123.90
1	AA	1247	U	C2-N1-C1'	5.29	124.05	117.70
23	BA	1312	U	C5-C6-N1	-5.29	120.06	122.70
23	DA	1831	G	N1-C2-N2	-5.29	111.44	116.20
1	AA	366	C	C5-C6-N1	-5.29	118.36	121.00
23	BA	481	G	N9-C4-C5	5.29	107.52	105.40
23	BA	981	A	N7-C8-N9	-5.29	111.16	113.80
23	BA	2186	G	C5-C6-O6	5.29	131.77	128.60
1	CA	1386	G	C6-C5-N7	5.29	133.57	130.40
23	DA	305	U	C6-N1-C2	5.29	124.17	121.00
23	DA	1415	U	C5-C4-O4	5.29	129.07	125.90
1	CA	105	G	C8-N9-C4	-5.29	104.28	106.40
23	DA	103	A	N7-C8-N9	-5.29	111.16	113.80
23	DA	377	C	C5-C4-N4	-5.29	116.50	120.20
23	DA	953	A	N1-C6-N6	-5.29	115.43	118.60
23	DA	2883	A	C5-C6-N6	-5.29	119.47	123.70
23	BA	1546	C	C5-C6-N1	5.29	123.64	121.00
23	BA	2487	G	C4-C5-N7	5.29	112.91	110.80
23	DA	178	G	N1-C6-O6	-5.29	116.73	119.90
23	DA	1382	G	N9-C4-C5	-5.29	103.29	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1794	U	N3-C4-C5	5.29	117.77	114.60
23	DA	2383	G	N3-C4-C5	-5.29	125.96	128.60
23	BA	332	A	N9-C4-C5	5.28	107.91	105.80
23	BA	2379	G	C8-N9-C1'	-5.28	120.13	127.00
35	BR	60	LEU	CA-CB-CG	5.28	127.45	115.30
22	CV	9	LEU	CA-CB-CG	5.28	127.45	115.30
1	AA	1207	G	N9-C4-C5	-5.28	103.29	105.40
23	DA	440	G	N1-C6-O6	-5.28	116.73	119.90
23	DA	682	G	C2-N3-C4	-5.28	109.26	111.90
23	DA	2587	A	N7-C8-N9	5.28	116.44	113.80
1	AA	960	U	C2-N3-C4	5.28	130.17	127.00
23	BA	690	G	C2-N3-C4	5.28	114.54	111.90
23	DA	1788	C	C2-N1-C1'	5.28	124.61	118.80
23	DA	2027	G	C6-N1-C2	-5.28	121.93	125.10
23	DA	2513	G	C8-N9-C4	-5.28	104.29	106.40
23	BA	2387	U	C2-N3-C4	-5.28	123.83	127.00
24	BB	29	A	C8-N9-C4	-5.28	103.69	105.80
1	CA	358	U	C5-C4-O4	5.28	129.07	125.90
23	DA	995	C	N3-C4-C5	-5.28	119.79	121.90
23	DA	1227	G	N1-C6-O6	5.28	123.07	119.90
23	DA	2826	A	N1-C6-N6	-5.28	115.43	118.60
23	BA	202	U	C6-N1-C2	5.28	124.17	121.00
23	BA	205	G	N7-C8-N9	-5.28	110.46	113.10
23	BA	600	G	N1-C2-N2	-5.28	111.45	116.20
23	BA	611	C	N3-C2-O2	-5.28	118.21	121.90
23	BA	1219	G	N9-C4-C5	-5.28	103.29	105.40
23	BA	1998	G	N1-C6-O6	5.28	123.06	119.90
23	DA	1389	G	N3-C4-C5	-5.28	125.96	128.60
23	DA	1698	A	N1-C2-N3	5.27	131.94	129.30
1	AA	960	U	N1-C2-O2	5.27	126.49	122.80
1	AA	1224	G	C4-N9-C1'	-5.27	119.64	126.50
23	BA	40	C	N1-C2-O2	-5.27	115.74	118.90
23	BA	113	G	N1-C6-O6	5.27	123.06	119.90
23	BA	2363	C	C2-N3-C4	-5.27	117.26	119.90
23	DA	337	C	C6-N1-C2	5.27	122.41	120.30
23	DA	570	G	C4-C5-N7	5.27	112.91	110.80
23	DA	602	G	N9-C4-C5	-5.27	103.29	105.40
23	DA	764	A	C4-C5-C6	-5.27	114.36	117.00
23	DA	1118	C	C6-N1-C2	-5.27	118.19	120.30
1	AA	1364	U	C6-N1-C2	-5.27	117.84	121.00
23	BA	1191	G	N9-C4-C5	5.27	107.51	105.40
1	CA	839	U	C6-N1-C1'	-5.27	113.82	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	994	A	C5-C6-N6	-5.27	119.48	123.70
23	BA	146	G	C4-C5-N7	-5.27	108.69	110.80
23	BA	2319	G	C8-N9-C4	-5.27	104.29	106.40
23	BA	2562	U	C2-N3-C4	-5.27	123.84	127.00
23	DA	2678	C	C5-C6-N1	-5.27	118.36	121.00
1	AA	1207	G	C4-C5-N7	5.27	112.91	110.80
23	BA	1641	A	N1-C2-N3	5.27	131.93	129.30
23	BA	2615	U	N3-C4-C5	5.27	117.76	114.60
23	DA	386	G	N1-C2-N2	-5.27	111.46	116.20
23	DA	602	G	C8-N9-C4	5.27	108.51	106.40
1	CA	1304	G	C2-N3-C4	5.27	114.53	111.90
23	DA	949	C	C5-C4-N4	-5.27	116.51	120.20
23	BA	594	U	C5-C4-O4	5.26	129.06	125.90
23	BA	914	C	N1-C2-O2	5.26	122.06	118.90
23	BA	1204	A	C5-C6-N6	-5.26	119.49	123.70
23	BA	1661	G	C4-C5-N7	-5.26	108.69	110.80
23	BA	2072	G	N1-C6-O6	5.26	123.06	119.90
23	BA	2182	G	C5-C6-N1	-5.26	108.87	111.50
23	BA	2700	C	C5-C4-N4	-5.26	116.52	120.20
23	DA	221	A	N7-C8-N9	5.26	116.43	113.80
23	DA	686	G	C4-C5-N7	5.26	112.91	110.80
23	DA	756	C	C6-N1-C2	-5.26	118.19	120.30
23	DA	1153	C	N3-C2-O2	5.26	125.58	121.90
23	BA	2616	C	N1-C2-N3	5.26	122.88	119.20
23	BA	2622	C	N3-C2-O2	-5.26	118.22	121.90
1	CA	1460	A	C5-C6-N6	5.26	127.91	123.70
23	BA	839	U	C6-N1-C2	-5.26	117.84	121.00
23	BA	2237	G	N3-C2-N2	5.26	123.58	119.90
23	DA	2193	G	N3-C4-C5	5.26	131.23	128.60
23	DA	2568	C	C5-C6-N1	-5.26	118.37	121.00
23	BA	745	G	N7-C8-N9	5.26	115.73	113.10
23	BA	2071	A	N3-C4-C5	-5.26	123.12	126.80
23	DA	686	G	N3-C2-N2	5.26	123.58	119.90
23	BA	2005	A	N1-C2-N3	-5.26	126.67	129.30
23	DA	1977	A	C5-N7-C8	5.26	106.53	103.90
23	BA	567	A	N1-C6-N6	5.26	121.75	118.60
23	BA	734	A	N1-C6-N6	5.26	121.75	118.60
23	BA	2142	C	C5-C6-N1	5.26	123.63	121.00
23	DA	14	A	N7-C8-N9	5.26	116.43	113.80
23	DA	2252	G	C8-N9-C4	5.26	108.50	106.40
24	DB	84	C	C2-N1-C1'	-5.26	113.02	118.80
23	BA	1831	G	C5-C6-O6	5.25	131.75	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	303	U	N3-C4-O4	-5.25	115.72	119.40
23	DA	1617	C	C6-N1-C2	5.25	122.40	120.30
23	DA	1703	G	C4-N9-C1'	5.25	133.33	126.50
23	DA	2383	G	N1-C2-N2	-5.25	111.47	116.20
1	AA	576	G	C8-N9-C1'	-5.25	120.17	127.00
23	BA	533	G	N7-C8-N9	5.25	115.73	113.10
23	BA	568	U	N3-C4-O4	5.25	123.08	119.40
23	BA	2509	G	C5-C6-N1	5.25	114.13	111.50
23	BA	2692	C	N1-C2-N3	5.25	122.88	119.20
23	DA	866	A	C5-N7-C8	-5.25	101.27	103.90
23	DA	1049	C	N1-C2-O2	5.25	122.05	118.90
23	DA	1962	C	N3-C2-O2	5.25	125.58	121.90
23	DA	1992	G	P-O3'-C3'	5.25	126.00	119.70
23	DA	2033	A	C2-N3-C4	5.25	113.23	110.60
1	AA	561	U	N3-C2-O2	5.25	125.88	122.20
1	AA	935	A	C8-N9-C4	-5.25	103.70	105.80
23	BA	2098	U	C5-C6-N1	5.25	125.33	122.70
23	BA	2268	A	N1-C6-N6	5.25	121.75	118.60
47	B3	30	ARG	NE-CZ-NH1	5.25	122.93	120.30
1	CA	1432	G	N3-C4-C5	5.25	131.22	128.60
23	BA	669	G	C4-C5-N7	5.25	112.90	110.80
23	BA	1331	A	C2-N3-C4	-5.25	107.97	110.60
23	BA	2387	U	N1-C2-N3	5.25	118.05	114.90
1	CA	674	G	C5-C6-O6	-5.25	125.45	128.60
23	BA	47	C	N3-C2-O2	-5.25	118.23	121.90
23	BA	205	G	C5-N7-C8	5.25	106.92	104.30
23	BA	556	G	C6-N1-C2	5.25	128.25	125.10
23	BA	613	G	N1-C6-O6	5.25	123.05	119.90
48	B4	42	PHE	C-N-CA	5.25	134.82	121.70
23	DA	1569	A	N1-C6-N6	-5.25	115.45	118.60
1	AA	1099	G	C8-N9-C1'	-5.25	120.18	127.00
23	BA	1788	C	C2-N1-C1'	5.25	124.57	118.80
23	BA	2361	A	C4-C5-N7	5.25	113.32	110.70
23	BA	2439	A	N7-C8-N9	5.25	116.42	113.80
23	BA	2505	G	N3-C2-N2	5.25	123.57	119.90
23	DA	791	C	C2-N3-C4	-5.25	117.28	119.90
23	DA	1348	G	C4-C5-N7	5.25	112.90	110.80
23	DA	1698	A	C5-C6-N1	-5.25	115.08	117.70
23	BA	2571	C	C6-N1-C1'	-5.25	114.51	120.80
24	BB	1	U	C5-C6-N1	5.25	125.32	122.70
23	DA	334	C	C6-N1-C2	5.25	122.40	120.30
1	AA	963	G	C4-C5-N7	-5.24	108.70	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1058	G	N7-C8-N9	5.24	115.72	113.10
23	BA	1630	G	C8-N9-C4	-5.24	104.30	106.40
23	DA	221	A	N9-C4-C5	5.24	107.90	105.80
23	DA	834	C	C6-N1-C2	-5.24	118.20	120.30
23	DA	928	G	C8-N9-C1'	-5.24	120.18	127.00
23	DA	1120	G	N1-C6-O6	5.24	123.05	119.90
23	DA	1244	G	N3-C4-C5	5.24	131.22	128.60
23	DA	2325	G	C4-N9-C1'	5.24	133.32	126.50
23	BA	2335	A	C8-N9-C4	5.24	107.90	105.80
23	BA	2492	U	C6-N1-C2	-5.24	117.86	121.00
23	DA	1389	G	N1-C2-N2	-5.24	111.48	116.20
23	BA	2345	G	N9-C4-C5	5.24	107.50	105.40
23	BA	2709	G	N3-C4-N9	5.24	129.14	126.00
1	CA	727	G	N1-C6-O6	-5.24	116.76	119.90
23	BA	737	C	C5-C6-N1	-5.24	118.38	121.00
23	BA	755	C	N3-C4-C5	-5.24	119.81	121.90
23	BA	2621	A	C2-N3-C4	-5.24	107.98	110.60
23	DA	192	C	C2-N1-C1'	-5.24	113.04	118.80
1	AA	1056	U	C6-N1-C2	-5.24	117.86	121.00
1	CA	266	G	N3-C4-N9	-5.24	122.86	126.00
1	AA	530	G	C8-N9-C1'	-5.24	120.19	127.00
1	AA	1082	G	N3-C4-N9	5.24	129.14	126.00
23	BA	291	C	N3-C2-O2	5.24	125.56	121.90
23	BA	331	A	C6-N1-C2	-5.24	115.46	118.60
23	BA	2013	A	C5-C6-N1	5.24	120.32	117.70
24	BB	56	G	N1-C6-O6	-5.24	116.76	119.90
1	CA	629	G	C8-N9-C4	-5.24	104.31	106.40
23	DA	946	G	C8-N9-C4	5.24	108.49	106.40
23	BA	1861	G	C8-N9-C1'	5.23	133.80	127.00
23	BA	2045	C	C5-C6-N1	-5.23	118.38	121.00
23	BA	2294	C	N1-C2-O2	5.23	122.04	118.90
1	CA	865	A	C8-N9-C4	-5.23	103.71	105.80
23	DA	1319	G	C4-N9-C1'	5.23	133.30	126.50
23	DA	2452	C	N3-C4-C5	-5.23	119.81	121.90
23	BA	254	G	N3-C4-C5	-5.23	125.98	128.60
23	BA	1275	A	C2-N3-C4	-5.23	107.98	110.60
1	CA	1274	G	N3-C4-N9	5.23	129.14	126.00
23	DA	261	G	C5-C6-N1	5.23	114.12	111.50
23	DA	1544	A	N1-C6-N6	-5.23	115.46	118.60
23	DA	2052	G	N7-C8-N9	-5.23	110.48	113.10
23	BA	1573	G	C8-N9-C4	5.23	108.49	106.40
23	BA	2430	A	C2-N3-C4	-5.23	107.99	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
52	B8	57	ARG	NE-CZ-NH2	5.23	122.92	120.30
1	CA	292	G	C8-N9-C4	-5.23	104.31	106.40
23	BA	177	G	N3-C2-N2	5.23	123.56	119.90
23	BA	1795	C	N3-C4-C5	5.23	123.99	121.90
23	BA	2261	C	C4-C5-C6	5.23	120.01	117.40
23	BA	2480	C	C6-N1-C2	-5.23	118.21	120.30
23	DA	671	C	C2-N3-C4	-5.23	117.29	119.90
23	DA	673	C	C5-C6-N1	-5.23	118.39	121.00
23	DA	1168	G	C5-C6-O6	-5.23	125.46	128.60
23	DA	2619	C	N3-C4-C5	5.23	123.99	121.90
1	AA	972	C	C6-N1-C1'	5.22	127.07	120.80
1	AA	1269	A	N7-C8-N9	5.22	116.41	113.80
23	BA	171	G	N3-C2-N2	5.22	123.56	119.90
23	BA	531	C	C5-C4-N4	-5.22	116.54	120.20
23	BA	1365	A	C8-N9-C4	5.22	107.89	105.80
23	BA	2293	C	C6-N1-C2	5.22	122.39	120.30
23	BA	2848	G	C5-N7-C8	5.22	106.91	104.30
23	DA	72	U	C5-C6-N1	-5.22	120.09	122.70
23	DA	777	A	C5-N7-C8	5.22	106.51	103.90
23	DA	2543	G	C5-C6-N1	-5.22	108.89	111.50
1	AA	1373	G	C4-N9-C1'	5.22	133.29	126.50
23	BA	613	G	C5-C6-O6	-5.22	125.47	128.60
23	BA	1338	G	C5-C6-O6	5.22	131.73	128.60
23	BA	1980	G	N3-C4-C5	-5.22	125.99	128.60
23	BA	2245	U	C6-N1-C2	5.22	124.13	121.00
23	BA	2489	G	C8-N9-C1'	-5.22	120.21	127.00
24	DB	109	C	C6-N1-C2	5.22	122.39	120.30
23	DA	1259	G	C5-N7-C8	5.22	106.91	104.30
23	DA	2047	U	C5-C4-O4	-5.22	122.77	125.90
23	DA	738	G	N1-C6-O6	-5.22	116.77	119.90
23	DA	2340	G	C8-N9-C4	5.22	108.49	106.40
23	DA	2538	C	C2-N1-C1'	-5.22	113.06	118.80
23	BA	1398	C	C5-C6-N1	5.22	123.61	121.00
23	BA	26	G	C6-C5-N7	-5.22	127.27	130.40
23	BA	1493	C	C6-N1-C1'	-5.22	114.54	120.80
1	CA	1334	G	N3-C4-N9	5.22	129.13	126.00
23	DA	303	U	C5-C4-O4	5.22	129.03	125.90
1	AA	1126	U	N1-C2-O2	5.21	126.45	122.80
23	BA	529	A	N7-C8-N9	5.21	116.41	113.80
23	BA	1429	G	C4-N9-C1'	5.21	133.28	126.50
23	BA	1931	U	C5-C6-N1	5.21	125.31	122.70
23	BA	2008	C	C4-C5-C6	5.21	120.01	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	1194	U	C6-N1-C2	-5.21	117.87	121.00
23	DA	84	A	C5-C6-N1	5.21	120.31	117.70
23	DA	495	G	C8-N9-C4	5.21	108.49	106.40
23	DA	571	A	N1-C6-N6	5.21	121.73	118.60
23	DA	1605	C	N3-C2-O2	-5.21	118.25	121.90
23	DA	1631	C	N1-C2-O2	-5.21	115.77	118.90
23	DA	2084	C	C5-C6-N1	-5.21	118.39	121.00
23	BA	271(K)	U	N1-C2-O2	5.21	126.45	122.80
23	BA	1319	G	N7-C8-N9	5.21	115.71	113.10
23	BA	61	G	N1-C2-N3	5.21	127.03	123.90
23	BA	119	A	N1-C6-N6	-5.21	115.47	118.60
23	BA	2325	G	C8-N9-C1'	-5.21	120.22	127.00
23	DA	2523	G	C8-N9-C4	-5.21	104.32	106.40
23	DA	2554	U	N1-C2-O2	-5.21	119.15	122.80
23	BA	1299	G	C5-C6-N1	-5.21	108.89	111.50
23	BA	2248	C	C2-N3-C4	-5.21	117.30	119.90
1	CA	980	C	C6-N1-C2	-5.21	118.22	120.30
23	DA	1576	U	N3-C2-O2	-5.21	118.55	122.20
23	BA	189	G	C6-N1-C2	-5.21	121.97	125.10
23	BA	2630	G	C5-C6-O6	-5.21	125.47	128.60
23	DA	398	G	C5-C6-O6	-5.21	125.47	128.60
23	DA	665	C	N3-C2-O2	-5.21	118.25	121.90
23	DA	734	A	C2-N3-C4	-5.21	108.00	110.60
23	DA	768	G	C5-N7-C8	5.21	106.90	104.30
23	DA	2791	C	C6-N1-C1'	-5.21	114.55	120.80
23	BA	118	A	N7-C8-N9	-5.21	111.20	113.80
23	BA	454	A	C8-N9-C4	-5.21	103.72	105.80
23	DA	602	G	N1-C6-O6	5.21	123.02	119.90
23	DA	794	G	C5-N7-C8	5.21	106.90	104.30
1	AA	822	C	C6-N1-C2	5.21	122.38	120.30
23	DA	680	G	C2-N3-C4	-5.21	109.30	111.90
23	DA	2512	C	C6-N1-C2	5.21	122.38	120.30
1	AA	1221	G	C2-N3-C4	5.20	114.50	111.90
23	BA	1252	G	C4-N9-C1'	-5.20	119.73	126.50
23	BA	1802	A	C6-N1-C2	-5.20	115.48	118.60
23	BA	2019	A	C6-N1-C2	-5.20	115.48	118.60
24	BB	75	G	C6-N1-C2	-5.20	121.98	125.10
1	CA	1042	G	N3-C4-N9	-5.20	122.88	126.00
23	DA	749	C	C2-N1-C1'	5.20	124.52	118.80
23	DA	811	U	N1-C2-N3	5.20	118.02	114.90
23	BA	949	C	C4-C5-C6	5.20	120.00	117.40
23	BA	2248	C	C4-C5-C6	5.20	120.00	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2501	C	C6-N1-C2	5.20	122.38	120.30
23	BA	74	A	C8-N9-C4	-5.20	103.72	105.80
23	BA	1296	G	N7-C8-N9	5.20	115.70	113.10
23	BA	2145	C	C5-C6-N1	5.20	123.60	121.00
23	BA	2589	A	N1-C6-N6	5.20	121.72	118.60
23	DA	645	C	C6-N1-C2	-5.20	118.22	120.30
23	DA	1558	A	N1-C2-N3	5.20	131.90	129.30
23	DA	2504	U	N3-C4-O4	-5.20	115.76	119.40
23	BA	1124	C	N1-C2-O2	-5.20	115.78	118.90
24	BB	74	U	C4-C5-C6	5.20	122.82	119.70
1	CA	114	U	N3-C2-O2	-5.20	118.56	122.20
23	DA	195	A	C6-C5-N7	-5.20	128.66	132.30
23	DA	2449	U	C2-N1-C1'	5.20	123.94	117.70
1	AA	77	G	C6-N1-C2	5.20	128.22	125.10
1	AA	1343	G	N9-C4-C5	5.20	107.48	105.40
23	BA	1359	A	C6-C5-N7	5.20	135.94	132.30
23	BA	2620	C	C6-N1-C1'	-5.20	114.56	120.80
23	DA	696	G	C2-N3-C4	5.20	114.50	111.90
1	AA	1356	G	C6-N1-C2	5.20	128.22	125.10
23	BA	27	G	C8-N9-C4	-5.20	104.32	106.40
23	BA	956	G	C4-C5-C6	5.20	121.92	118.80
23	BA	2104	G	C8-N9-C1'	-5.20	120.25	127.00
23	BA	2411	A	N1-C6-N6	5.20	121.72	118.60
23	BA	2486	G	C8-N9-C1'	-5.20	120.25	127.00
23	DA	658	C	C6-N1-C2	-5.20	118.22	120.30
23	DA	1544	A	N9-C4-C5	5.20	107.88	105.80
23	DA	2241	A	N1-C2-N3	5.20	131.90	129.30
23	DA	2378	A	C8-N9-C4	5.20	107.88	105.80
23	BA	749	C	C2-N1-C1'	5.19	124.51	118.80
23	BA	2295	C	C5-C4-N4	-5.19	116.56	120.20
23	DA	271(J)	C	C6-N1-C2	5.19	122.38	120.30
23	DA	1315	C	N3-C2-O2	-5.19	118.27	121.90
1	AA	43	C	N3-C4-N4	-5.19	114.37	118.00
1	AA	947	G	N9-C4-C5	-5.19	103.32	105.40
23	BA	534	U	N1-C2-O2	-5.19	119.17	122.80
23	BA	788	A	C4-C5-C6	5.19	119.59	117.00
23	BA	1611	C	N3-C2-O2	-5.19	118.27	121.90
23	DA	599	G	N1-C6-O6	5.19	123.01	119.90
23	DA	825	C	N3-C4-C5	-5.19	119.82	121.90
1	AA	1237	C	C5-C6-N1	5.19	123.59	121.00
23	BA	1036	G	N9-C4-C5	-5.19	103.32	105.40
1	CA	1395	C	C2-N3-C4	5.19	122.49	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	42	G	C8-N9-C4	5.19	108.47	106.40
23	BA	141	A	N1-C2-N3	5.19	131.89	129.30
23	BA	271	A	N1-C2-N3	5.19	131.89	129.30
23	BA	778	G	N1-C6-O6	-5.19	116.79	119.90
23	BA	1200	C	C5-C6-N1	-5.19	118.41	121.00
23	BA	1755	A	C5-C6-N6	5.19	127.85	123.70
23	BA	2248	C	C5-C6-N1	-5.19	118.41	121.00
23	DA	265	A	C5-C6-N1	-5.19	115.11	117.70
23	DA	1200	C	N3-C2-O2	5.19	125.53	121.90
23	DA	391	G	C4-N9-C1'	5.19	133.24	126.50
23	BA	679	C	N1-C2-O2	-5.18	115.79	118.90
29	BH	171	LEU	CA-CB-CG	5.18	127.23	115.30
23	DA	252	G	C6-N1-C2	-5.18	121.99	125.10
23	DA	2176	A	N1-C2-N3	-5.18	126.71	129.30
23	BA	672	C	N1-C2-O2	-5.18	115.79	118.90
23	BA	811	U	C4-C5-C6	5.18	122.81	119.70
23	BA	1600	C	N3-C2-O2	-5.18	118.27	121.90
23	BA	1602	U	C5-C6-N1	-5.18	120.11	122.70
23	BA	2505	G	C8-N9-C4	5.18	108.47	106.40
23	BA	2619	C	N3-C4-C5	5.18	123.97	121.90
23	DA	812	C	N3-C4-C5	-5.18	119.83	121.90
23	DA	866	A	N9-C4-C5	-5.18	103.73	105.80
1	AA	169	C	N3-C4-C5	-5.18	119.83	121.90
23	BA	970	C	N1-C2-O2	-5.18	115.79	118.90
23	BA	2803	C	C6-N1-C2	-5.18	118.23	120.30
23	DA	77	C	N3-C4-C5	5.18	123.97	121.90
23	DA	212	G	C2-N3-C4	-5.18	109.31	111.90
23	DA	527	C	C5-C4-N4	5.18	123.83	120.20
23	DA	2638	G	N1-C2-N2	-5.18	111.54	116.20
1	AA	781	A	N1-C6-N6	5.18	121.71	118.60
1	AA	1497	G	N1-C6-O6	-5.18	116.79	119.90
23	BA	592	G	C2-N3-C4	5.18	114.49	111.90
23	BA	949	C	C5-C4-N4	-5.18	116.58	120.20
23	DA	1800	C	N1-C2-N3	5.18	122.83	119.20
23	DA	2045	C	C6-N1-C2	5.18	122.37	120.30
1	AA	446	G	C8-N9-C4	-5.18	104.33	106.40
23	DA	272(H)	C	C6-N1-C1'	-5.18	114.59	120.80
23	DA	333	G	C4-C5-N7	5.18	112.87	110.80
1	AA	1045	C	C6-N1-C2	-5.18	118.23	120.30
23	BA	124	G	C5-N7-C8	-5.18	101.71	104.30
23	BA	190	A	N1-C6-N6	-5.18	115.49	118.60
24	BB	37	C	C6-N1-C2	-5.18	118.23	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BB	99	G	N7-C8-N9	-5.18	110.51	113.10
23	DA	1935	G	C5-C6-N1	5.18	114.09	111.50
23	BA	194	G	C4-C5-N7	-5.17	108.73	110.80
23	BA	659	C	N3-C4-C5	5.17	123.97	121.90
23	BA	2251	G	C4-C5-N7	-5.17	108.73	110.80
23	DA	815	C	C5-C4-N4	-5.17	116.58	120.20
23	DA	2319	G	N7-C8-N9	5.17	115.69	113.10
23	DA	1328	G	N1-C6-O6	5.17	123.00	119.90
23	DA	2073	C	N3-C4-C5	5.17	123.97	121.90
23	DA	2730	C	N3-C4-N4	-5.17	114.38	118.00
1	AA	90	U	C2-N3-C4	5.17	130.10	127.00
23	BA	1939	U	N1-C2-O2	-5.17	119.18	122.80
1	CA	578	C	C6-N1-C2	-5.17	118.23	120.30
1	CA	1083	U	C4-C5-C6	5.17	122.80	119.70
23	DA	94	C	C6-N1-C2	-5.17	118.23	120.30
23	DA	784	A	C8-N9-C1'	5.17	137.01	127.70
23	DA	1607	C	C5-C4-N4	-5.17	116.58	120.20
23	DA	2031	A	C2-N3-C4	-5.17	108.01	110.60
23	DA	2325	G	C6-C5-N7	-5.17	127.30	130.40
1	AA	1001	A	N3-C4-C5	-5.17	123.18	126.80
23	DA	1985	G	C8-N9-C4	5.17	108.47	106.40
1	AA	1066	C	C5-C6-N1	5.17	123.58	121.00
1	AA	1204	A	C6-C5-N7	5.17	135.92	132.30
23	BA	1703	G	C8-N9-C4	-5.17	104.33	106.40
23	DA	1142(A)	A	N7-C8-N9	5.17	116.38	113.80
23	DA	1602	U	N3-C2-O2	-5.17	118.58	122.20
1	AA	836	G	C6-C5-N7	-5.17	127.30	130.40
1	AA	1001(A)	G	N3-C4-N9	5.17	129.10	126.00
23	BA	1372	U	N3-C4-O4	-5.17	115.78	119.40
23	BA	1753	G	N3-C4-C5	-5.17	126.02	128.60
23	BA	2491	U	N3-C4-C5	5.17	117.70	114.60
23	BA	2500	U	N3-C2-O2	-5.17	118.58	122.20
23	BA	2606	C	C6-N1-C2	5.17	122.37	120.30
23	DA	139(A)	G	C6-C5-N7	-5.17	127.30	130.40
23	DA	2607	G	C4-N9-C1'	5.17	133.22	126.50
1	AA	1020	U	N1-C2-O2	-5.17	119.19	122.80
23	BA	1765	C	C4-C5-C6	-5.17	114.82	117.40
23	DA	474	G	N3-C4-C5	-5.17	126.02	128.60
23	DA	2567	G	C5-C6-O6	-5.17	125.50	128.60
1	AA	868	C	C6-N1-C2	5.16	122.36	120.30
1	AA	1345	U	C2-N1-C1'	5.16	123.90	117.70
23	BA	2767	C	N3-C4-N4	5.16	121.61	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	CC	34	LEU	CA-CB-CG	5.16	127.17	115.30
23	DA	399	G	N1-C2-N2	-5.16	111.55	116.20
23	DA	2439	A	C8-N9-C4	-5.16	103.73	105.80
1	AA	78	G	N1-C6-O6	5.16	123.00	119.90
23	BA	2077	A	C5-N7-C8	-5.16	101.32	103.90
1	CA	967	C	C5-C6-N1	5.16	123.58	121.00
23	DA	194	G	C5-C6-O6	-5.16	125.50	128.60
23	DA	1999	C	C6-N1-C2	5.16	122.36	120.30
1	AA	1193	G	N1-C2-N2	-5.16	111.56	116.20
23	BA	1253	A	C2-N3-C4	5.16	113.18	110.60
23	BA	1601	G	N1-C6-O6	-5.16	116.80	119.90
1	CA	517	G	N1-C6-O6	-5.16	116.80	119.90
23	DA	446	G	N1-C6-O6	5.16	123.00	119.90
23	DA	672	C	C6-N1-C2	5.16	122.36	120.30
23	DA	1023	U	C2-N3-C4	-5.16	123.90	127.00
23	DA	2709	G	N3-C4-N9	5.16	129.10	126.00
1	AA	500	G	N1-C6-O6	-5.16	116.81	119.90
1	AA	1025	U	C5-C4-O4	-5.16	122.80	125.90
23	BA	271(S)	G	C5-C6-N1	-5.16	108.92	111.50
23	BA	945	A	C8-N9-C4	5.16	107.86	105.80
23	BA	1603	A	C8-N9-C4	-5.16	103.74	105.80
23	BA	2820	A	N9-C4-C5	-5.16	103.74	105.80
23	DA	1125	G	N3-C4-N9	-5.16	122.91	126.00
23	DA	1222	C	C2-N1-C1'	-5.16	113.13	118.80
23	DA	2226	C	N3-C4-C5	5.16	123.96	121.90
1	CA	1225	A	C6-N1-C2	5.16	121.69	118.60
23	DA	1039	G	C4-N9-C1'	-5.16	119.80	126.50
23	DA	1219	G	C8-N9-C4	5.16	108.46	106.40
23	DA	1642	G	N1-C2-N3	5.16	126.99	123.90
1	AA	1023	G	C4-N9-C1'	5.16	133.20	126.50
23	BA	509	C	C4-C5-C6	5.16	119.98	117.40
23	BA	1219	G	C4-C5-N7	5.16	112.86	110.80
23	BA	1939	U	C4-C5-C6	-5.16	116.61	119.70
23	BA	2253	G	N3-C4-C5	5.16	131.18	128.60
23	DA	72	U	C6-N1-C2	5.16	124.09	121.00
23	DA	1142(A)	A	N1-C6-N6	5.16	121.69	118.60
23	DA	2063	C	C2-N3-C4	5.16	122.48	119.90
1	CA	34	C	C6-N1-C2	5.15	122.36	120.30
23	BA	193	U	N3-C4-C5	-5.15	111.51	114.60
23	BA	1450(A)	C	N1-C2-O2	-5.15	115.81	118.90
1	CA	576	G	C8-N9-C1'	-5.15	120.30	127.00
1	CA	719	C	C6-N1-C2	-5.15	118.24	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	39	C	N1-C2-O2	5.15	121.99	118.90
23	DA	506	G	N3-C4-C5	5.15	131.18	128.60
23	DA	2565	A	C8-N9-C4	5.15	107.86	105.80
23	DA	2689	U	P-O3'-C3'	5.15	125.88	119.70
23	BA	119	A	C6-N1-C2	-5.15	115.51	118.60
23	BA	239	U	C5-C6-N1	-5.15	120.12	122.70
23	BA	1820	U	N3-C2-O2	5.15	125.81	122.20
23	BA	2552	U	C4-C5-C6	5.15	122.79	119.70
23	DA	375	C	N1-C2-O2	-5.15	115.81	118.90
23	DA	2147	G	C5-C6-O6	-5.15	125.51	128.60
24	BB	59	A	N1-C2-N3	-5.15	126.73	129.30
1	CA	923	A	N1-C2-N3	5.15	131.88	129.30
1	AA	170	U	C5-C4-O4	5.15	128.99	125.90
23	BA	1621	U	N3-C4-C5	-5.15	111.51	114.60
23	BA	1844	C	N3-C2-O2	5.15	125.50	121.90
23	BA	2051	A	C8-N9-C4	-5.15	103.74	105.80
23	DA	269	U	C6-N1-C1'	-5.15	114.00	121.20
23	DA	1219	G	N9-C4-C5	-5.15	103.34	105.40
23	DA	1524	G	C5-C6-O6	5.15	131.69	128.60
23	DA	1788	C	N3-C2-O2	-5.15	118.30	121.90
23	DA	2015	A	C6-N1-C2	5.15	121.69	118.60
1	AA	943	U	N1-C2-N3	-5.15	111.81	114.90
1	AA	1099	G	C4-N9-C1'	5.15	133.19	126.50
1	AA	1363(A)	A	C8-N9-C4	-5.15	103.74	105.80
23	BA	2002	G	N9-C4-C5	5.15	107.46	105.40
23	BA	2622	C	C5-C4-N4	5.15	123.80	120.20
23	BA	1145	C	C6-N1-C2	-5.14	118.24	120.30
23	BA	2672	G	C8-N9-C1'	-5.14	120.31	127.00
1	CA	1219	U	C5-C4-O4	-5.14	122.81	125.90
1	CA	1343	G	N3-C4-N9	5.14	129.09	126.00
1	CA	1378	C	C2-N1-C1'	5.14	124.46	118.80
4	CD	9	CYS	CA-CB-SG	5.14	123.26	114.00
23	DA	2007	C	N1-C2-N3	5.14	122.80	119.20
23	BA	611	C	N1-C2-O2	5.14	121.98	118.90
23	BA	1544	A	C8-N9-C4	-5.14	103.74	105.80
23	DA	128	C	C2-N1-C1'	-5.14	113.14	118.80
23	DA	653	A	N1-C6-N6	5.14	121.69	118.60
23	BA	943	U	N3-C2-O2	-5.14	118.60	122.20
23	BA	2419	U	C6-N1-C2	-5.14	117.92	121.00
1	CA	290	C	N1-C2-O2	-5.14	115.82	118.90
1	CA	973	G	N1-C6-O6	5.14	122.98	119.90
1	CA	1443	G	C4-C5-N7	5.14	112.86	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	330	A	N9-C4-C5	-5.14	103.74	105.80
23	DA	381	G	N3-C4-C5	-5.14	126.03	128.60
23	DA	1333	C	C4-C5-C6	-5.14	114.83	117.40
23	DA	1674	G	N1-C6-O6	-5.14	116.81	119.90
23	BA	564	C	N1-C2-O2	-5.14	115.82	118.90
23	BA	581	C	N1-C2-N3	5.14	122.80	119.20
23	BA	2565	A	C8-N9-C4	5.14	107.86	105.80
1	CA	345	C	N1-C2-O2	5.14	121.98	118.90
23	BA	591	C	C2-N3-C4	-5.14	117.33	119.90
23	BA	41	C	N3-C4-C5	5.14	123.95	121.90
23	BA	949	C	N1-C2-O2	-5.14	115.82	118.90
23	BA	1036	G	N1-C2-N2	-5.14	111.58	116.20
23	BA	1119	C	C2-N3-C4	-5.14	117.33	119.90
23	BA	1627	G	N3-C4-C5	-5.14	126.03	128.60
23	BA	2053	G	N3-C2-N2	-5.14	116.30	119.90
1	CA	1314	C	C5-C4-N4	-5.14	116.60	120.20
23	DA	1259	G	N1-C2-N2	-5.14	111.58	116.20
23	DA	1681	G	C4-C5-N7	5.14	112.86	110.80
23	BA	2037	G	C5-C6-O6	5.13	131.68	128.60
23	BA	2038	G	C5-C6-N1	-5.13	108.93	111.50
23	BA	2234	G	N3-C4-N9	5.13	129.08	126.00
23	BA	2894	G	C4-N9-C1'	5.13	133.18	126.50
23	DA	2779	U	N3-C4-O4	-5.13	115.81	119.40
23	BA	202	U	C6-N1-C1'	-5.13	114.01	121.20
23	BA	613	G	C5-N7-C8	-5.13	101.73	104.30
23	DA	2399	G	N1-C6-O6	-5.13	116.82	119.90
1	CA	1123	A	C2-N3-C4	5.13	113.17	110.60
23	BA	852	G	N1-C6-O6	-5.13	116.82	119.90
23	BA	978	G	C5-N7-C8	5.13	106.86	104.30
23	BA	2035	G	C8-N9-C1'	5.13	133.67	127.00
23	BA	2433	A	N9-C4-C5	-5.13	103.75	105.80
24	BB	5	C	C5-C6-N1	-5.13	118.44	121.00
1	CA	1120	G	N9-C4-C5	-5.13	103.35	105.40
23	DA	1415	U	C2-N1-C1'	-5.13	111.54	117.70
23	BA	1858	G	C4-N9-C1'	5.13	133.17	126.50
23	BA	2307	G	C4-N9-C1'	5.13	133.17	126.50
1	CA	481	G	N3-C4-C5	-5.13	126.04	128.60
1	CA	529	G	C6-C5-N7	-5.13	127.32	130.40
1	CA	1323	G	N9-C4-C5	-5.13	103.35	105.40
23	DA	1210	A	C5-C6-N6	-5.13	119.60	123.70
23	DA	1693	U	C5-C6-N1	-5.13	120.14	122.70
23	BA	473	G	C4-C5-N7	-5.13	108.75	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	505	A	N9-C4-C5	5.13	107.85	105.80
23	BA	645	C	C2-N3-C4	5.13	122.46	119.90
23	BA	1459	G	N1-C6-O6	-5.13	116.82	119.90
23	BA	2091	U	N1-C2-O2	5.13	126.39	122.80
23	DA	41	C	N3-C4-C5	5.13	123.95	121.90
23	DA	398	G	C6-C5-N7	-5.13	127.32	130.40
23	DA	1999	C	C5-C4-N4	-5.13	116.61	120.20
23	DA	2192	G	N3-C4-C5	-5.13	126.04	128.60
23	BA	1107	G	C4-C5-C6	5.12	121.88	118.80
23	DA	54	G	C5-N7-C8	-5.12	101.74	104.30
1	AA	532	A	C8-N9-C4	5.12	107.85	105.80
1	AA	1361	G	N3-C4-C5	-5.12	126.04	128.60
23	BA	119	A	C4-C5-N7	-5.12	108.14	110.70
23	BA	587	C	N1-C2-O2	5.12	121.97	118.90
23	BA	683	C	C5-C6-N1	5.12	123.56	121.00
23	BA	1039	G	N7-C8-N9	-5.12	110.54	113.10
23	BA	2846	G	N9-C4-C5	5.12	107.45	105.40
23	BA	1442	G	N1-C6-O6	5.12	122.97	119.90
23	BA	1802	A	N1-C6-N6	5.12	121.67	118.60
23	BA	2453	A	N1-C2-N3	-5.12	126.74	129.30
23	DA	28	A	N1-C6-N6	5.12	121.67	118.60
23	DA	41	C	C5-C6-N1	-5.12	118.44	121.00
23	DA	804	A	N9-C4-C5	5.12	107.85	105.80
1	AA	1151	A	C6-C5-N7	5.12	135.88	132.30
1	AA	1297	C	C6-N1-C2	-5.12	118.25	120.30
23	BA	28	A	C2-N3-C4	5.12	113.16	110.60
23	BA	1799	G	C2-N3-C4	5.12	114.46	111.90
1	CA	877	C	C6-N1-C2	5.12	122.35	120.30
23	DA	2319	G	C4-C5-N7	5.12	112.85	110.80
23	BA	126	A	N1-C2-N3	-5.12	126.74	129.30
23	BA	570	G	N3-C4-C5	-5.12	126.04	128.60
23	BA	2880	C	N3-C4-C5	-5.12	119.85	121.90
24	BB	26	A	C2-N3-C4	-5.12	108.04	110.60
1	CA	1527	C	N1-C2-O2	5.12	121.97	118.90
23	DA	131	G	N9-C4-C5	-5.12	103.35	105.40
23	DA	192	C	N1-C2-O2	-5.12	115.83	118.90
1	AA	359	U	N1-C2-O2	-5.12	119.22	122.80
23	BA	542	C	C6-N1-C2	-5.12	118.25	120.30
23	BA	756	C	N3-C2-O2	-5.12	118.32	121.90
23	BA	1786	A	N7-C8-N9	-5.12	111.24	113.80
23	DA	1136	G	C5-C6-O6	-5.12	125.53	128.60
23	DA	2599	G	C5-N7-C8	5.12	106.86	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	470	A	C8-N9-C4	-5.12	103.75	105.80
23	BA	805	G	N7-C8-N9	5.12	115.66	113.10
23	BA	2030	A	C5-C6-N6	-5.12	119.61	123.70
24	BB	22	U	C5-C6-N1	5.12	125.26	122.70
1	CA	995	C	N3-C2-O2	-5.12	118.32	121.90
1	CA	1028	C	N3-C2-O2	-5.12	118.32	121.90
23	DA	154	G	N9-C4-C5	-5.12	103.35	105.40
23	DA	2037	G	N1-C2-N2	-5.12	111.59	116.20
23	BA	87	C	N3-C4-N4	-5.11	114.42	118.00
23	BA	1578	U	N3-C2-O2	-5.11	118.62	122.20
23	BA	2506	U	C2-N3-C4	-5.11	123.93	127.00
23	BA	2737	G	N1-C2-N2	5.11	120.80	116.20
23	BA	202	U	C5-C6-N1	-5.11	120.14	122.70
23	BA	1285	G	C8-N9-C4	-5.11	104.36	106.40
1	CA	169	C	C4-C5-C6	5.11	119.96	117.40
23	DA	371	A	C5-C6-N6	-5.11	119.61	123.70
23	DA	614	U	N3-C2-O2	-5.11	118.62	122.20
1	AA	886	G	C2-N3-C4	-5.11	109.34	111.90
23	BA	61	G	C2-N3-C4	-5.11	109.34	111.90
23	BA	651	G	N3-C4-C5	-5.11	126.05	128.60
23	BA	1639	U	C5-C6-N1	-5.11	120.14	122.70
23	BA	2000	G	C8-N9-C4	-5.11	104.36	106.40
23	BA	2260	C	C5-C6-N1	-5.11	118.44	121.00
1	CA	1205	U	N3-C2-O2	-5.11	118.62	122.20
23	DA	1010	A	C4-C5-C6	-5.11	114.44	117.00
23	BA	1983	C	C2-N3-C4	-5.11	117.35	119.90
23	BA	2033	A	C2-N3-C4	5.11	113.16	110.60
23	BA	2848	G	N3-C4-C5	-5.11	126.05	128.60
1	CA	1006	C	C5-C6-N1	5.11	123.56	121.00
23	DA	45	C	C4-C5-C6	5.11	119.95	117.40
23	BA	567	A	C8-N9-C4	-5.11	103.76	105.80
23	BA	847	U	C2-N3-C4	-5.11	123.94	127.00
23	BA	2533	A	N1-C6-N6	-5.11	115.53	118.60
23	BA	2894	G	N1-C6-O6	-5.11	116.84	119.90
24	BB	104	U	N3-C4-O4	-5.11	115.82	119.40
23	DA	809	G	N1-C2-N3	5.11	126.97	123.90
23	DA	1397	U	N3-C4-C5	5.11	117.67	114.60
23	DA	1703	G	N7-C8-N9	5.11	115.65	113.10
23	DA	2071	A	C5-N7-C8	5.11	106.45	103.90
1	AA	953	G	N3-C4-C5	-5.11	126.05	128.60
23	BA	468	G	C5-C6-N1	-5.11	108.95	111.50
23	BA	1980	G	C8-N9-C4	-5.11	104.36	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2672	G	N1-C6-O6	5.11	122.96	119.90
1	CA	980	C	C5-C6-N1	5.11	123.55	121.00
23	DA	845	G	C8-N9-C1'	-5.11	120.36	127.00
23	DA	1817	G	C2-N3-C4	-5.11	109.35	111.90
23	DA	2769	C	C6-N1-C2	-5.11	118.26	120.30
1	AA	1030	C	N1-C2-O2	5.10	121.96	118.90
23	DA	409	C	N1-C2-N3	-5.10	115.63	119.20
1	AA	968	A	N7-C8-N9	5.10	116.35	113.80
1	AA	1030(A)	G	N3-C4-N9	5.10	129.06	126.00
23	BA	507	A	C8-N9-C4	5.10	107.84	105.80
1	CA	968	A	N1-C6-N6	5.10	121.66	118.60
23	DA	1204	A	N1-C2-N3	5.10	131.85	129.30
23	DA	1319	G	C8-N9-C1'	-5.10	120.37	127.00
23	DA	2307	G	C6-C5-N7	-5.10	127.34	130.40
1	AA	1029	C	C2-N1-C1'	-5.10	113.19	118.80
1	AA	1383	C	C6-N1-C2	-5.10	118.26	120.30
23	BA	566	U	C5-C6-N1	5.10	125.25	122.70
23	DA	208	C	N3-C4-C5	5.10	123.94	121.90
23	DA	2084	C	C6-N1-C2	5.10	122.34	120.30
23	DA	2408	U	N1-C2-O2	-5.10	119.23	122.80
23	DA	2709	G	C5-C6-N1	5.10	114.05	111.50
23	DA	2829	C	N1-C2-O2	-5.10	115.84	118.90
23	BA	1762	A	N3-C4-C5	-5.10	123.23	126.80
23	BA	2037	G	C8-N9-C4	5.10	108.44	106.40
23	BA	2607	G	C8-N9-C4	-5.10	104.36	106.40
23	DA	311	A	C8-N9-C4	5.10	107.84	105.80
23	DA	1013	C	N3-C4-C5	5.10	123.94	121.90
23	DA	1783	A	N9-C4-C5	5.10	107.84	105.80
24	DB	53	A	C4-N9-C1'	5.10	135.48	126.30
23	BA	954	G	C6-N1-C2	-5.10	122.04	125.10
23	DA	1985	G	N7-C8-N9	-5.10	110.55	113.10
23	BA	272(C)	G	N7-C8-N9	-5.09	110.55	113.10
23	BA	1626	G	N9-C4-C5	5.09	107.44	105.40
23	BA	2261	C	N1-C2-N3	5.09	122.77	119.20
23	DA	1298	C	C2-N3-C4	-5.09	117.35	119.90
1	AA	52	G	N7-C8-N9	5.09	115.65	113.10
1	AA	951	G	N3-C4-C5	-5.09	126.05	128.60
23	BA	69	C	C6-N1-C2	-5.09	118.26	120.30
23	BA	378	C	C5-C6-N1	5.09	123.55	121.00
23	BA	730	C	C4-C5-C6	5.09	119.95	117.40
23	BA	1359	A	C4-C5-C6	-5.09	114.45	117.00
23	DA	429	A	C5-C6-N6	-5.09	119.63	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1437	C	N1-C2-O2	5.09	121.96	118.90
23	DA	2379	G	C6-C5-N7	-5.09	127.34	130.40
23	DA	809	G	C4-C5-N7	-5.09	108.76	110.80
23	DA	991	C	N3-C4-C5	5.09	123.94	121.90
23	DA	1841	U	C5-C6-N1	-5.09	120.15	122.70
1	AA	764	C	N1-C2-O2	5.09	121.95	118.90
23	BA	1236	G	N3-C4-C5	5.09	131.14	128.60
23	BA	2069	G	N7-C8-N9	-5.09	110.56	113.10
23	BA	2789	C	C6-N1-C2	5.09	122.34	120.30
1	CA	366	C	C5-C6-N1	-5.09	118.45	121.00
1	CA	560	U	C5-C6-N1	5.09	125.25	122.70
23	DA	429	A	C6-C5-N7	-5.09	128.74	132.30
23	DA	444	C	C2-N1-C1'	-5.09	113.20	118.80
23	DA	908	C	C6-N1-C2	-5.09	118.26	120.30
23	DA	2719	G	C5-C6-O6	-5.09	125.55	128.60
23	BA	1206	G	C5-C6-O6	5.09	131.65	128.60
23	BA	1671	U	N3-C4-O4	-5.09	115.84	119.40
23	DA	25	U	N1-C2-O2	-5.09	119.24	122.80
23	DA	2042	A	N1-C6-N6	5.09	121.65	118.60
1	AA	572	A	C4-N9-C1'	-5.09	117.14	126.30
23	BA	1799	G	C4-C5-N7	-5.09	108.77	110.80
23	BA	1858	G	N7-C8-N9	5.09	115.64	113.10
1	CA	1242	C	C2-N1-C1'	5.09	124.39	118.80
23	DA	453	C	C2-N3-C4	-5.09	117.36	119.90
23	DA	530	G	N3-C4-C5	5.09	131.14	128.60
23	DA	928	G	C6-C5-N7	-5.09	127.35	130.40
23	DA	2032	G	C5-N7-C8	5.09	106.84	104.30
23	DA	2193	G	C6-N1-C2	5.09	128.15	125.10
23	DA	2239	G	N7-C8-N9	-5.09	110.56	113.10
1	AA	910	C	N3-C4-C5	5.08	123.93	121.90
1	AA	991	U	C5-C6-N1	5.08	125.24	122.70
23	BA	2125	G	C8-N9-C4	-5.08	104.37	106.40
23	DA	272(C)	G	C5-C6-O6	-5.08	125.55	128.60
23	DA	1342	A	N1-C6-N6	5.08	121.65	118.60
23	DA	1937	A	C8-N9-C4	5.08	107.83	105.80
1	AA	1237	C	C6-N1-C2	-5.08	118.27	120.30
23	BA	363	G	N3-C2-N2	-5.08	116.34	119.90
23	BA	784	A	N3-C4-N9	-5.08	123.33	127.40
23	BA	1022	G	C8-N9-C4	-5.08	104.37	106.40
1	CA	1215	G	C6-C5-N7	-5.08	127.35	130.40
23	DA	1861	G	C8-N9-C1'	5.08	133.61	127.00
23	DA	2086	U	C5-C4-O4	-5.08	122.85	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	365	U	C6-N1-C1'	5.08	128.31	121.20
23	BA	780	G	N3-C2-N2	-5.08	116.34	119.90
23	BA	1109	C	N3-C4-C5	-5.08	119.87	121.90
23	BA	2682	U	N1-C2-O2	5.08	126.36	122.80
23	DA	2828	C	C2-N3-C4	-5.08	117.36	119.90
1	AA	1226	C	C2-N1-C1'	-5.08	113.21	118.80
23	BA	2078	C	N3-C4-N4	5.08	121.56	118.00
23	DA	959	A	N3-C4-C5	-5.08	123.24	126.80
23	DA	1899	G	C8-N9-C4	-5.08	104.37	106.40
23	DA	2363	C	C6-N1-C2	5.08	122.33	120.30
23	BA	668	G	C5-C6-N1	-5.08	108.96	111.50
23	BA	817	C	N3-C4-N4	-5.08	114.44	118.00
23	BA	1562	A	N1-C6-N6	5.08	121.65	118.60
23	BA	2130	U	C5-C6-N1	5.08	125.24	122.70
23	BA	2501	C	N3-C4-C5	5.08	123.93	121.90
1	CA	1368	G	C5-C6-O6	-5.08	125.55	128.60
23	DA	729	G	C2-N3-C4	5.08	114.44	111.90
23	DA	1576	U	N1-C2-O2	5.08	126.36	122.80
23	DA	1990	C	C2-N3-C4	-5.08	117.36	119.90
23	DA	2059	A	N1-C6-N6	5.08	121.65	118.60
23	DA	2361	A	C8-N9-C4	5.08	107.83	105.80
23	DA	2747	G	N1-C6-O6	5.08	122.95	119.90
1	AA	1394	A	C8-N9-C4	-5.08	103.77	105.80
23	BA	1196	C	C4-C5-C6	5.08	119.94	117.40
23	DA	2612	C	C5-C6-N1	-5.08	118.46	121.00
23	BA	381	G	C8-N9-C4	-5.08	104.37	106.40
23	BA	699	A	C2-N3-C4	-5.08	108.06	110.60
1	CA	1030(A)	G	C8-N9-C4	-5.08	104.37	106.40
23	DA	1877	A	N1-C6-N6	5.08	121.65	118.60
23	BA	268	C	N3-C4-C5	5.07	123.93	121.90
23	BA	2286	A	N1-C2-N3	5.07	131.84	129.30
23	BA	2505	G	C6-C5-N7	-5.07	127.36	130.40
23	BA	2819	G	C5-C6-O6	5.07	131.64	128.60
24	BB	99	G	N9-C4-C5	-5.07	103.37	105.40
1	CA	40	C	C2-N3-C4	-5.07	117.36	119.90
1	CA	1003	G	C8-N9-C1'	5.07	133.60	127.00
23	DA	1259	G	C4-C5-N7	-5.07	108.77	110.80
23	BA	1799	G	P-O3'-C3'	5.07	125.79	119.70
24	BB	8	U	C5-C6-N1	5.07	125.24	122.70
23	DA	2042	A	N7-C8-N9	-5.07	111.26	113.80
23	DA	2239	G	N1-C2-N3	5.07	126.94	123.90
23	BA	977	G	N1-C6-O6	-5.07	116.86	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1211	U	N3-C2-O2	5.07	125.75	122.20
23	BA	1599	C	C4-C5-C6	5.07	119.94	117.40
23	DA	1820	U	N3-C2-O2	5.07	125.75	122.20
23	DA	2372	G	C5-C6-O6	-5.07	125.56	128.60
1	AA	1343	G	C6-C5-N7	5.07	133.44	130.40
23	BA	1445	A	C2-N3-C4	5.07	113.14	110.60
24	DB	105	A	C8-N9-C4	5.07	107.83	105.80
23	BA	975	C	C6-N1-C2	-5.07	118.27	120.30
23	BA	1436	G	C8-N9-C4	-5.07	104.37	106.40
23	BA	2048	G	C5-C6-O6	5.07	131.64	128.60
23	BA	2519	U	C5-C6-N1	-5.07	120.17	122.70
23	DA	864	G	C2-N3-C4	5.07	114.43	111.90
23	DA	1858	G	N3-C4-C5	-5.07	126.07	128.60
23	DA	1980	G	N9-C4-C5	5.07	107.43	105.40
23	DA	2031	A	C5-N7-C8	-5.07	101.37	103.90
23	DA	2592	G	C2-N3-C4	5.07	114.43	111.90
23	BA	2441	C	C5-C4-N4	5.07	123.75	120.20
1	CA	889	A	C5-C6-N6	-5.07	119.65	123.70
23	DA	1405	U	N3-C4-C5	5.07	117.64	114.60
1	AA	346	G	N1-C2-N3	5.06	126.94	123.90
1	AA	1165	C	C5-C6-N1	5.06	123.53	121.00
1	AA	1497	G	C5-N7-C8	5.06	106.83	104.30
23	BA	668	G	C6-N1-C2	5.06	128.14	125.10
23	BA	1256	G	C8-N9-C1'	-5.06	120.42	127.00
23	BA	2599	G	N1-C6-O6	-5.06	116.86	119.90
23	DA	142(A)	C	C6-N1-C2	5.06	122.33	120.30
23	DA	2289	G	N3-C2-N2	-5.06	116.36	119.90
23	DA	2480	C	C6-N1-C2	-5.06	118.28	120.30
23	BA	2816	C	C2-N3-C4	5.06	122.43	119.90
1	CA	500	G	N3-C4-C5	-5.06	126.07	128.60
23	DA	1985	G	C5-N7-C8	5.06	106.83	104.30
23	BA	1721	G	C4-C5-N7	5.06	112.82	110.80
23	BA	2689	U	P-O3'-C3'	5.06	125.77	119.70
23	BA	2812	G	C4-C5-N7	-5.06	108.78	110.80
23	DA	105	C	N3-C4-C5	5.06	123.92	121.90
23	DA	130	C	C6-N1-C1'	-5.06	114.73	120.80
23	DA	566	U	N1-C2-N3	-5.06	111.86	114.90
23	DA	984	A	C8-N9-C4	5.06	107.82	105.80
23	DA	2070	G	C5-C6-N1	5.06	114.03	111.50
23	DA	2079	U	N1-C2-O2	-5.06	119.26	122.80
23	BA	1238	G	N1-C6-O6	5.06	122.94	119.90
23	BA	2292	C	C5-C6-N1	-5.06	118.47	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2488	A	N7-C8-N9	-5.06	111.27	113.80
23	BA	2492	U	C5-C6-N1	5.06	125.23	122.70
24	BB	17	C	N1-C2-O2	5.06	121.94	118.90
23	DA	744	G	N3-C4-C5	-5.06	126.07	128.60
23	DA	1203	G	C4-C5-N7	-5.06	108.78	110.80
23	DA	1367	A	C6-N1-C2	-5.06	115.56	118.60
24	DB	64	C	C5-C6-N1	-5.06	118.47	121.00
1	AA	28	G	C5-C6-O6	-5.06	125.57	128.60
1	CA	1518	A	N9-C4-C5	5.06	107.82	105.80
1	AA	1347	G	C6-C5-N7	5.05	133.43	130.40
23	BA	1013	C	C6-N1-C2	5.05	122.32	120.30
23	BA	1904	G	C5-C6-N1	5.05	114.03	111.50
1	CA	517	G	C8-N9-C4	-5.05	104.38	106.40
23	DA	1607	C	N3-C4-N4	5.05	121.54	118.00
23	DA	1698	A	C5-C6-N6	-5.05	119.66	123.70
23	DA	2158	A	C5-N7-C8	-5.05	101.37	103.90
23	BA	135	G	C5-C6-N1	5.05	114.03	111.50
23	BA	945	A	N1-C6-N6	5.05	121.63	118.60
1	CA	1097	C	C6-N1-C2	-5.05	118.28	120.30
23	DA	493	G	C5-N7-C8	-5.05	101.77	104.30
23	DA	915	C	N3-C2-O2	-5.05	118.36	121.90
23	BA	595	C	N3-C4-C5	5.05	123.92	121.90
23	BA	1914	C	C6-N1-C2	-5.05	118.28	120.30
23	BA	1951	U	N3-C4-O4	5.05	122.94	119.40
23	BA	2455	G	N1-C2-N3	5.05	126.93	123.90
23	BA	2648	C	C2-N3-C4	-5.05	117.38	119.90
23	BA	2719	G	C2-N3-C4	5.05	114.43	111.90
1	CA	1005	A	C8-N9-C4	-5.05	103.78	105.80
1	CA	1007	C	C5-C6-N1	5.05	123.53	121.00
23	DA	2071	A	C6-N1-C2	-5.05	115.57	118.60
23	BA	509	C	N1-C2-N3	5.05	122.73	119.20
23	BA	2018	G	C8-N9-C4	-5.05	104.38	106.40
1	CA	355	C	N1-C2-O2	-5.05	115.87	118.90
1	CA	1072	G	C8-N9-C4	-5.05	104.38	106.40
23	DA	143	G	N1-C2-N2	5.05	120.74	116.20
23	DA	801	G	C8-N9-C4	-5.05	104.38	106.40
23	DA	1415	U	C5-C6-N1	-5.05	120.17	122.70
23	DA	2104	G	C8-N9-C1'	-5.05	120.44	127.00
23	BA	333	G	N3-C4-C5	-5.05	126.08	128.60
23	BA	1791	A	C6-C5-N7	-5.05	128.77	132.30
23	BA	2125	G	N7-C8-N9	5.05	115.62	113.10
1	AA	1047	G	C6-C5-N7	5.05	133.43	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1484	C	N3-C2-O2	5.05	125.43	121.90
23	BA	74	A	N7-C8-N9	5.05	116.32	113.80
23	BA	260	G	C2-N3-C4	-5.05	109.38	111.90
1	CA	1151	A	N9-C4-C5	5.05	107.82	105.80
23	DA	78	A	N1-C6-N6	5.05	121.63	118.60
23	DA	139(A)	G	C5-C6-N1	5.05	114.02	111.50
23	DA	507	A	N9-C4-C5	-5.05	103.78	105.80
23	DA	693	C	C5-C6-N1	-5.05	118.48	121.00
23	DA	1827	C	N1-C2-O2	5.05	121.93	118.90
23	DA	2296	U	N1-C1'-C2'	5.05	120.56	114.00
1	AA	1133	G	N3-C2-N2	-5.04	116.37	119.90
1	AA	1293	G	N1-C6-O6	-5.04	116.87	119.90
1	CA	1153	C	C2-N3-C4	5.04	122.42	119.90
23	DA	530	G	C5-N7-C8	-5.04	101.78	104.30
23	DA	995	C	C2-N3-C4	5.04	122.42	119.90
23	BA	269	U	C5-C6-N1	5.04	125.22	122.70
23	BA	291	C	C5-C4-N4	-5.04	116.67	120.20
23	BA	2001	A	C2-N3-C4	5.04	113.12	110.60
1	CA	1037	C	C6-N1-C1'	5.04	126.85	120.80
23	DA	195	A	C5-C6-N1	-5.04	115.18	117.70
23	DA	1325	G	N3-C4-N9	5.04	129.03	126.00
23	BA	981	A	C5-C6-N1	5.04	120.22	117.70
23	BA	2174	C	C2-N3-C4	5.04	122.42	119.90
23	BA	2442	C	N3-C4-N4	-5.04	114.47	118.00
23	BA	2456	C	C6-N1-C2	5.04	122.32	120.30
23	BA	526	A	N9-C4-C5	5.04	107.82	105.80
23	BA	781	A	C5-N7-C8	5.04	106.42	103.90
23	DA	2053	G	C5-N7-C8	5.04	106.82	104.30
23	BA	979	G	N3-C2-N2	-5.04	116.37	119.90
23	BA	1296	G	N3-C4-C5	-5.04	126.08	128.60
23	BA	2427	C	N3-C2-O2	5.04	125.43	121.90
1	CA	1045	C	C5-C6-N1	5.04	123.52	121.00
23	DA	52	A	N7-C8-N9	5.04	116.32	113.80
23	DA	784	A	N9-C4-C5	5.04	107.81	105.80
23	BA	179	G	N7-C8-N9	-5.04	110.58	113.10
23	DA	741	G	N1-C6-O6	-5.04	116.88	119.90
23	BA	60	G	N7-C8-N9	-5.04	110.58	113.10
23	BA	637	A	C8-N9-C4	5.04	107.81	105.80
23	BA	2322	A	C8-N9-C4	-5.04	103.79	105.80
1	CA	307	C	N3-C4-C5	-5.04	119.89	121.90
23	DA	349	G	N7-C8-N9	-5.04	110.58	113.10
50	D6	13	CYS	CA-CB-SG	-5.04	104.94	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	953	G	C5-C6-O6	-5.03	125.58	128.60
23	BA	310	A	C2-N3-C4	-5.03	108.08	110.60
23	BA	546	C	C2-N1-C1'	5.03	124.34	118.80
23	BA	798	G	C2-N3-C4	-5.03	109.38	111.90
23	BA	954	G	N3-C4-C5	-5.03	126.08	128.60
23	BA	2280	G	N9-C4-C5	5.03	107.41	105.40
23	DA	1302	A	N1-C6-N6	-5.03	115.58	118.60
23	DA	2147	G	N1-C6-O6	5.03	122.92	119.90
23	DA	2293	C	C2-N1-C1'	-5.03	113.26	118.80
23	DA	2412	A	C2-N3-C4	5.03	113.12	110.60
23	DA	2571	C	N3-C2-O2	-5.03	118.38	121.90
23	DA	2828	C	C5-C6-N1	-5.03	118.48	121.00
1	AA	1443	G	N9-C4-C5	-5.03	103.39	105.40
23	BA	70	G	N1-C6-O6	-5.03	116.88	119.90
23	BA	491	G	N9-C4-C5	5.03	107.41	105.40
23	BA	1955	U	N3-C4-C5	5.03	117.62	114.60
23	DA	1807	G	C8-N9-C4	5.03	108.41	106.40
23	BA	775	G	N3-C4-N9	5.03	129.02	126.00
23	BA	1824	G	C5-C6-N1	5.03	114.02	111.50
23	BA	2053	G	N3-C4-C5	-5.03	126.08	128.60
23	BA	2487	G	C6-C5-N7	-5.03	127.38	130.40
23	BA	2868	A	C8-N9-C4	-5.03	103.79	105.80
23	DA	1045	A	N9-C4-C5	-5.03	103.79	105.80
23	DA	1328	G	N3-C4-N9	5.03	129.02	126.00
23	BA	542	C	C6-N1-C1'	5.03	126.83	120.80
23	BA	1266	G	C2-N3-C4	5.03	114.41	111.90
23	BA	2641	G	C5-C6-O6	5.03	131.62	128.60
23	DA	2808	U	N1-C2-N3	-5.03	111.88	114.90
1	AA	1402	C	C6-N1-C2	-5.03	118.29	120.30
23	BA	429	A	C4-C5-N7	5.03	113.21	110.70
23	BA	655	A	C6-C5-N7	-5.03	128.78	132.30
23	BA	1653	G	C5-C6-O6	5.03	131.62	128.60
23	BA	2085	C	C6-N1-C2	5.03	122.31	120.30
23	BA	2686	G	N9-C4-C5	-5.03	103.39	105.40
23	DA	931	G	C8-N9-C4	-5.03	104.39	106.40
23	DA	2011	U	N3-C2-O2	5.03	125.72	122.20
23	BA	271(J)	C	C6-N1-C2	5.03	122.31	120.30
23	BA	453	C	N3-C4-C5	5.03	123.91	121.90
1	CA	483	C	C6-N1-C2	5.03	122.31	120.30
1	CA	1093	A	N7-C8-N9	5.03	116.31	113.80
23	DA	139(A)	G	C4-N9-C1'	5.03	133.03	126.50
23	DA	499	U	N1-C2-O2	-5.03	119.28	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	986	C	C5-C4-N4	-5.03	116.68	120.20
23	DA	2818	G	C6-N1-C2	-5.03	122.08	125.10
52	D8	34	TRP	O-C-N	-5.03	114.66	122.70
23	BA	345	A	N1-C6-N6	5.02	121.61	118.60
23	BA	2559	C	C5-C4-N4	-5.02	116.68	120.20
23	DA	645	C	C5-C6-N1	5.02	123.51	121.00
23	DA	2433	A	C5-C6-N6	-5.02	119.68	123.70
1	AA	723	U	C2-N1-C1'	5.02	123.73	117.70
1	AA	1036	G	N3-C4-C5	-5.02	126.09	128.60
4	AD	194	LEU	CA-CB-CG	5.02	126.85	115.30
23	BA	1600	C	C4-C5-C6	5.02	119.91	117.40
23	BA	1983	C	C5-C6-N1	-5.02	118.49	121.00
23	BA	2236	C	C4-C5-C6	5.02	119.91	117.40
23	DA	1179	C	C6-N1-C2	5.02	122.31	120.30
23	DA	1429	G	N3-C4-N9	5.02	129.01	126.00
1	AA	1040	U	C5-C4-O4	-5.02	122.89	125.90
23	BA	1997	G	N3-C4-C5	-5.02	126.09	128.60
23	BA	2485	G	N1-C6-O6	5.02	122.91	119.90
1	CA	203	U	C5-C6-N1	5.02	125.21	122.70
23	DA	2149	G	N9-C4-C5	-5.02	103.39	105.40
1	AA	40	C	C2-N1-C1'	-5.02	113.28	118.80
1	AA	903	G	C8-N9-C4	5.02	108.41	106.40
1	AA	1158	C	C2-N3-C4	5.02	122.41	119.90
23	BA	954	G	C5-C6-N1	5.02	114.01	111.50
23	BA	2206	G	N3-C2-N2	5.02	123.41	119.90
23	BA	2250	G	C8-N9-C4	-5.02	104.39	106.40
1	CA	531	U	N1-C2-O2	5.02	126.31	122.80
1	CA	559	A	C8-N9-C4	-5.02	103.79	105.80
23	DA	673	C	C5-C4-N4	-5.02	116.69	120.20
1	AA	50	A	N1-C6-N6	5.02	121.61	118.60
1	CA	1004	A	C4-N9-C1'	5.02	135.33	126.30
23	DA	338	G	C5-C6-O6	-5.02	125.59	128.60
23	DA	1353	A	N9-C4-C5	5.02	107.81	105.80
23	DA	2227	A	C5-C6-N1	-5.02	115.19	117.70
23	DA	2719	G	C5-C6-N1	5.02	114.01	111.50
1	AA	43	C	C4-C5-C6	5.02	119.91	117.40
23	BA	811	U	C2-N3-C4	-5.02	123.99	127.00
24	BB	101	G	C5-C6-O6	-5.02	125.59	128.60
23	DA	1253	A	C6-C5-N7	5.02	135.81	132.30
1	AA	418	C	C6-N1-C2	-5.01	118.29	120.30
23	BA	486	C	C4-C5-C6	5.01	119.91	117.40
23	BA	1653	G	N9-C4-C5	5.01	107.41	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1558	A	P-O3'-C3'	5.01	125.72	119.70
23	BA	822	U	N1-C2-N3	5.01	117.91	114.90
23	DA	62	C	N1-C2-O2	-5.01	115.89	118.90
23	DA	784	A	P-O3'-C3'	5.01	125.72	119.70
23	DA	1766	U	N1-C2-N3	5.01	117.91	114.90
1	AA	1066	C	C2-N1-C1'	5.01	124.31	118.80
1	AA	1206	G	C8-N9-C1'	5.01	133.51	127.00
1	AA	1224	G	C5-C6-O6	5.01	131.61	128.60
23	BA	2219	G	C8-N9-C4	5.01	108.40	106.40
1	CA	1198	G	C6-C5-N7	5.01	133.41	130.40
23	DA	1653	G	N3-C4-C5	-5.01	126.09	128.60
23	BA	641	C	N3-C4-N4	5.01	121.51	118.00
23	BA	1769	G	N1-C6-O6	5.01	122.91	119.90
23	BA	2316	C	C2-N1-C1'	5.01	124.31	118.80
23	BA	2454	G	N1-C6-O6	-5.01	116.89	119.90
1	CA	770	C	N1-C2-O2	-5.01	115.89	118.90
1	CA	1399	C	N3-C4-C5	-5.01	119.90	121.90
23	DA	1208	C	N3-C2-O2	-5.01	118.39	121.90
23	DA	2067	G	N3-C2-N2	-5.01	116.39	119.90
23	DA	2500	U	C4-C5-C6	-5.01	116.69	119.70
23	DA	2672	G	C4-N9-C1'	5.01	133.01	126.50
23	DA	2713	A	N9-C4-C5	-5.01	103.80	105.80
24	DB	80	U	C5-C4-O4	5.01	128.91	125.90
23	BA	1125	G	N3-C2-N2	-5.01	116.39	119.90
23	BA	1185	C	N3-C4-N4	-5.01	114.50	118.00
23	DA	1162	G	C4-C5-N7	-5.01	108.80	110.80
23	DA	2540	C	N3-C4-C5	5.01	123.90	121.90
1	AA	355	C	C2-N3-C4	-5.01	117.40	119.90
1	AA	529	G	C6-C5-N7	-5.01	127.40	130.40
1	CA	870	U	C6-N1-C2	5.01	124.00	121.00
23	DA	2755	C	C5-C4-N4	-5.01	116.69	120.20
24	DB	1	U	C2-N1-C1'	5.01	123.71	117.70
23	BA	1627	G	N3-C4-N9	5.00	129.00	126.00
23	BA	2200	C	N3-C4-C5	-5.00	119.90	121.90
1	CA	369	C	N3-C2-O2	-5.00	118.40	121.90
23	DA	483	A	C2-N3-C4	-5.00	108.10	110.60
1	AA	145	G	N7-C8-N9	5.00	115.60	113.10
1	AA	935	A	N7-C8-N9	5.00	116.30	113.80
23	DA	408	G	C5-C6-N1	5.00	114.00	111.50
23	DA	2459	A	N1-C6-N6	-5.00	115.60	118.60
39	DV	42	GLY	N-CA-C	-5.00	100.59	113.10
23	BA	769	G	C6-N1-C2	5.00	128.10	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	271(J)	C	C5-C4-N4	-5.00	116.70	120.20
23	DA	2271	G	C4-N9-C1'	5.00	133.00	126.50
23	DA	2510	C	C5-C6-N1	-5.00	118.50	121.00
23	DA	2521	C	C5-C6-N1	-5.00	118.50	121.00
23	DA	2827	C	C2-N3-C4	-5.00	117.40	119.90

There are no chirality outliers.

All (83) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	AB	128	GLU	Peptide
2	AB	14	GLY	Peptide
2	AB	71	VAL	Peptide
3	AC	186	PHE	Peptide
7	AG	19	GLY	Peptide
7	AG	44	TYR	Peptide
7	AG	47	CYS	Peptide
7	AG	54	THR	Peptide
9	AI	102	LEU	Peptide
9	AI	56	LEU	Peptide
10	AJ	28	ARG	Peptide
10	AJ	61	GLU	Peptide
10	AJ	79	ARG	Peptide
12	AL	91	LYS	Mainchain
13	AM	105	THR	Peptide
13	AM	39	ILE	Peptide
13	AM	86	CYS	Peptide
14	AN	15	LYS	Peptide
14	AN	16	PHE	Peptide
14	AN	60	SER	Peptide
17	AQ	33	GLY	Peptide
19	AS	51	VAL	Peptide
20	AT	10	LEU	Peptide
20	AT	11	SER	Peptide
45	B1	83	GLU	Peptide
48	B4	42	PHE	Peptide
48	B4	43	TYR	Peptide
48	B4	44	THR	Peptide
25	BD	274	ARG	Peptide
26	BE	70	ALA	Peptide
26	BE	72	VAL	Peptide
27	BF	129	PHE	Peptide

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Mol	Chain	Res	Type	Group
27	BF	85	GLY	Peptide
28	BG	13	GLU	Peptide
30	BI	83	ALA	Peptide
31	BN	124	ALA	Peptide
32	BO	48	PRO	Peptide
33	BP	103	ALA	Peptide
33	BP	25	SER	Peptide
33	BP	26	GLY	Peptide
33	BP	44	GLY	Peptide
36	BS	82	ILE	Peptide
36	BS	96	GLY	Peptide
37	BT	126	ALA	Peptide
41	BX	93	GLU	Peptide
42	BY	102	CYS	Peptide
43	BZ	159	PRO	Peptide
2	CB	128	GLU	Peptide
2	CB	14	GLY	Peptide
2	CB	71	VAL	Peptide
3	CC	19	GLU	Peptide
3	CC	46	GLU	Peptide
5	CE	64	ARG	Peptide
7	CG	57	GLU	Peptide
9	CI	24	GLY	Peptide
12	CL	91	LYS	Mainchain
13	CM	66	LEU	Peptide
17	CQ	33	GLY	Peptide
20	CT	10	LEU	Peptide
22	CV	26	LYS	Peptide
22	CV	28	MET	Peptide
22	CV	30	PRO	Peptide
45	D1	83	GLU	Peptide
48	D4	42	PHE	Peptide
48	D4	44	THR	Peptide
52	D8	34	TRP	Mainchain,Peptide
25	DD	274	ARG	Peptide
26	DE	72	VAL	Peptide
27	DF	129	PHE	Peptide
27	DF	85	GLY	Peptide
27	DF	89	VAL	Mainchain
28	DG	13	GLU	Peptide
30	DI	113	ARG	Peptide
31	DN	23	LEU	Mainchain,Peptide

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Mol	Chain	Res	Type	Group
32	DO	48	PRO	Peptide
33	DP	26	GLY	Peptide
33	DP	44	GLY	Peptide
36	DS	82	ILE	Peptide
37	DT	126	ALA	Peptide
41	DX	93	GLU	Peptide
42	DY	102	CYS	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	32353	0	16329	1267	0
1	CA	32270	0	16287	987	1
2	AB	1775	0	1743	99	0
2	CB	1775	0	1743	93	0
3	AC	1450	0	1314	80	0
3	CC	1450	0	1314	99	0
4	AD	1526	0	1417	79	0
4	CD	1526	0	1415	91	0
5	AE	1105	0	1130	55	0
5	CE	1105	0	1130	60	0
6	AF	777	0	737	26	0
6	CF	777	0	737	24	0
7	AG	1164	0	1106	100	0
7	CG	1164	0	1106	54	0
8	AH	1045	0	1033	52	0
8	CH	1045	0	1033	52	0
9	AI	852	0	742	69	0
9	CI	852	0	742	62	0
10	AJ	663	0	558	56	0
10	CJ	663	0	558	30	0
11	AK	828	0	822	28	0
11	CK	828	0	822	31	0
12	AL	905	0	916	44	0
12	CL	905	0	916	44	0
13	AM	804	0	752	62	0
13	CM	804	0	752	48	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
14	AN	478	0	497	50	0
14	CN	478	0	497	35	0
15	AO	724	0	749	25	0
15	CO	724	0	749	29	0
16	AP	651	0	638	33	0
16	CP	651	0	638	35	0
17	AQ	823	0	891	16	0
17	CQ	823	0	891	18	0
18	AR	514	0	530	24	0
18	CR	514	0	530	24	0
19	AS	560	0	466	41	0
19	CS	560	0	466	23	0
20	AT	713	0	766	36	0
20	CT	713	0	766	30	0
21	AU	199	0	208	26	0
21	CU	199	0	208	9	0
22	AV	333	0	235	14	0
22	CV	353	0	266	13	0
23	BA	60512	0	30492	877	0
23	DA	60620	0	30560	944	0
24	BB	2573	0	1304	45	0
24	DB	2573	0	1304	52	0
25	BD	2136	0	2218	67	0
25	DD	2136	0	2218	68	0
26	BE	1555	0	1607	39	0
26	DE	1555	0	1607	52	0
27	BF	1580	0	1621	51	0
27	DF	1580	0	1621	65	0
28	BG	1368	0	1324	51	0
28	DG	1368	0	1324	56	0
29	BH	1317	0	1376	30	0
29	DH	1317	0	1376	31	0
30	BI	1040	0	1045	55	1
30	DI	1038	0	1040	38	0
31	BN	1112	0	1180	37	0
31	DN	1112	0	1180	37	0
32	BO	923	0	981	24	0
32	DO	923	0	981	29	0
33	BP	1131	0	1201	38	0
33	DP	1131	0	1201	39	0
34	BQ	1122	0	1179	33	0
34	DQ	1122	0	1179	45	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
35	BR	968	0	1033	22	0
35	DR	968	0	1033	29	0
36	BS	865	0	905	46	0
36	DS	865	0	905	52	0
37	BT	1063	0	1103	41	0
37	DT	1063	0	1103	40	0
38	BU	959	0	1019	24	0
38	DU	959	0	1019	29	0
39	BV	760	0	816	20	0
39	DV	771	0	830	24	0
40	BW	881	0	935	17	0
40	DW	881	0	935	21	0
41	BX	742	0	799	17	0
41	DX	742	0	799	18	0
42	BY	785	0	828	31	0
42	DY	785	0	828	27	0
43	BZ	1522	0	1511	49	0
43	DZ	1522	0	1511	52	0
44	B0	594	0	604	23	0
44	D0	594	0	604	31	0
45	B1	745	0	804	31	0
45	D1	745	0	804	31	0
46	B2	588	0	643	19	0
46	D2	588	0	643	24	0
47	B3	458	0	503	9	0
47	D3	458	0	503	13	0
48	B4	349	0	336	20	0
48	D4	349	0	336	20	0
49	B5	455	0	472	14	0
49	D5	455	0	472	17	0
50	B6	449	0	462	19	0
50	D6	449	0	462	18	0
51	B7	418	0	467	11	0
51	D7	418	0	467	15	0
52	B8	509	0	565	23	0
52	D8	509	0	565	28	0
53	B9	297	0	316	8	0
53	D9	297	0	316	10	0
54	AA	106	0	0	0	0
54	AD	1	0	0	0	0
54	B0	2	0	0	0	0
54	B1	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	B2	2	0	0	0	0
54	B3	2	0	0	0	0
54	B5	2	0	0	0	0
54	B8	3	0	0	0	0
54	B9	1	0	0	0	0
54	BA	618	0	0	0	0
54	BB	17	0	0	0	0
54	BD	3	0	0	0	0
54	BE	6	0	0	0	0
54	BF	2	0	0	0	0
54	BP	1	0	0	0	0
54	BQ	3	0	0	0	0
54	BR	2	0	0	0	0
54	BU	2	0	0	0	0
54	BV	1	0	0	0	0
54	BW	1	0	0	0	0
54	CA	69	0	0	0	0
54	D6	1	0	0	0	0
54	D7	1	0	0	0	0
54	D8	1	0	0	0	0
54	DA	430	0	0	0	0
54	DB	5	0	0	0	0
54	DD	1	0	0	0	0
54	DE	1	0	0	0	0
54	DF	2	0	0	0	0
54	DP	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	145	0	0	23	0
56	AF	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	AK	1	0	0	0	0
56	AQ	1	0	0	0	0
56	B0	4	0	0	0	0
56	B3	1	0	0	0	0
56	B4	1	0	0	0	0
56	B5	3	0	0	1	0
56	B7	3	0	0	0	0
56	B8	7	0	0	0	0
56	B9	2	0	0	1	0
56	BA	1422	0	0	86	0
56	BB	31	0	0	1	0
56	BD	10	0	0	4	0
56	BE	8	0	0	0	0
56	BF	11	0	0	0	0
56	BH	2	0	0	0	0
56	BN	2	0	0	0	0
56	BO	3	0	0	0	0
56	BP	6	0	0	0	0
56	BQ	2	0	0	0	0
56	BR	6	0	0	0	0
56	BT	1	0	0	0	0
56	BU	2	0	0	0	0
56	BV	2	0	0	0	0
56	BW	4	0	0	0	0
56	BX	2	0	0	0	0
56	BY	1	0	0	0	0
56	CA	119	0	0	13	0
56	CD	1	0	0	0	0
56	CK	2	0	0	0	0
56	CP	1	0	0	0	0
56	CT	2	0	0	0	0
56	D0	1	0	0	0	0
56	D1	2	0	0	0	0
56	DA	696	0	0	56	0
56	DB	9	0	0	0	0
56	DD	3	0	0	0	0
56	DE	2	0	0	0	0
56	DF	5	0	0	0	0
56	DP	5	0	0	0	0
56	DQ	2	0	0	0	0
56	DR	1	0	0	0	0
56	DV	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	DX	1	0	0	0	0
56	DY	1	0	0	0	0
All	All	283930	0	186520	7011	1

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 15.

All (7011) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1303:C:N4	1:AA:1334:G:H1	1.41	1.17
23:BA:2296:U:O4	23:BA:2335:A:N6	1.76	1.15
23:DA:2296:U:O4	23:DA:2335:A:N6	1.79	1.15
1:AA:1003:G:H1	1:AA:1037:C:N4	1.46	1.14
1:AA:559:A:H4'	1:AA:560:U:H3'	1.35	1.07
1:CA:559:A:H4'	1:CA:560:U:H3'	1.36	1.07
23:BA:2057:A:OP2	56:BA:4256:HOH:O	1.72	1.05
1:AA:952:U:H3	1:AA:1229:A:N6	1.55	1.04
1:AA:345:C:OP2	37:BT:39:ARG:NH2	1.90	1.03
1:CA:1003:G:H1	1:CA:1037:C:N4	1.56	1.02
1:AA:1313:U:H3	1:AA:1324:A:N6	1.59	1.00
23:BA:1310:G:OP2	51:B7:9:ARG:NH1	1.94	1.00
45:D1:21:ARG:HH11	45:D1:21:ARG:HG2	1.27	0.99
1:AA:1350:A:N6	1:AA:1372:U:H3	1.58	0.99
1:AA:1047:G:H1	1:AA:1210:C:H42	1.02	0.98
1:CA:1010:G:H2'	1:CA:1011:G:H8	1.28	0.98
13:CM:3:ARG:HA	48:D4:34:GLU:HG2	1.43	0.98
1:AA:933:G:H1	1:AA:1384:C:H42	1.08	0.98
23:BA:2304:G:H1	23:BA:2312:U:H3	1.11	0.97
1:AA:943:U:H3	1:AA:1340:A:H61	1.05	0.97
23:DA:2304:G:H1	23:DA:2312:U:H3	1.12	0.97
23:BA:139(A):G:N2	41:BX:44:GLU:OE1	1.97	0.97
1:CA:1010:G:H2'	1:CA:1011:G:C8	2.00	0.96
1:CA:1422:G:H5'	32:DO:48:PRO:HB3	1.44	0.96
23:DA:1310:G:OP2	51:D7:9:ARG:NH1	1.97	0.96
23:DA:1359:A:N6	23:DA:1372:U:O4	1.99	0.96
23:DA:139(A):G:N2	41:DX:44:GLU:OE1	1.99	0.96
1:AA:79:G:H1	1:AA:90:U:H3	1.05	0.96
1:CA:346:G:N2	1:CA:347:G:N3	2.15	0.95
23:BA:1784:A:OP2	56:BA:3901:HOH:O	1.84	0.95
42:DY:76:CYS:HB3	42:DY:79:CYS:HB2	1.47	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2059:A:OP2	56:BA:4447:HOH:O	1.85	0.95
33:DP:39:LYS:HB2	33:DP:45:LEU:HG	1.49	0.95
23:BA:2322:A:H61	23:BA:2335:A:N6	1.65	0.95
1:AA:1013:G:N2	1:AA:1016:A:N7	2.14	0.94
1:CA:1164:G:H1	1:CA:1172:C:H42	1.01	0.94
1:AA:1156:G:H1'	1:AA:1179:A:H61	1.32	0.94
23:DA:2322:A:H61	23:DA:2335:A:N6	1.65	0.94
1:CA:1003:G:N2	1:CA:1037:C:N3	2.17	0.93
28:DG:61:ALA:HB1	48:D4:7:PRO:HG3	1.51	0.93
23:BA:2122:U:H3	23:BA:2176:A:H61	1.12	0.93
1:AA:1347:G:H22	1:AA:1373:G:H2'	1.33	0.93
23:BA:1664:A:OP1	56:BA:4528:HOH:O	1.87	0.92
23:BA:2714:G:OP2	56:BA:4492:HOH:O	1.86	0.92
28:BG:61:ALA:HB1	48:B4:7:PRO:HG3	1.51	0.92
23:DA:1779:U:H5	23:DA:1784:A:N7	1.67	0.92
1:AA:1014:A:H5'	19:AS:14:HIS:HB2	1.52	0.92
1:AA:136:C:H42	1:AA:227:G:H1	1.18	0.92
1:CA:1164:G:H1	1:CA:1172:C:N4	1.67	0.92
23:DA:197:A:OP1	56:DA:3892:HOH:O	1.88	0.92
1:CA:1237:C:H42	1:CA:1337:G:H1	1.16	0.92
1:AA:1238:A:H62	1:AA:1299:A:H61	1.15	0.92
1:AA:1313:U:H3	1:AA:1324:A:H61	0.98	0.92
23:BA:1774:C:OP1	56:BA:4516:HOH:O	1.88	0.92
42:BY:76:CYS:HB3	42:BY:79:CYS:HB2	1.52	0.91
1:AA:1075:C:OP1	2:AB:179:LYS:NZ	2.02	0.91
1:AA:1249:C:H42	1:AA:1287:A:H8	1.15	0.91
45:B1:21:ARG:HH11	45:B1:21:ARG:HG2	1.35	0.91
23:BA:27:G:N2	23:BA:512:G:O2'	2.02	0.91
23:BA:9:U:N3	23:BA:2629:A:N1	2.17	0.91
3:AC:36:ASP:HA	3:AC:39:ILE:HB	1.52	0.91
23:DA:2122:U:H3	23:DA:2176:A:H61	1.12	0.90
1:AA:1003:G:N2	1:AA:1037:C:N3	2.17	0.90
1:AA:1233:G:H21	1:AA:1364:U:H3	1.16	0.90
1:CA:1047:G:H1	1:CA:1210:C:H42	1.13	0.90
1:AA:559:A:OP1	5:AE:126:ARG:NH2	2.04	0.90
23:DA:2287:A:H62	23:DA:2344:U:H3	1.19	0.90
52:B8:7:HIS:HD2	52:B8:10:ALA:H	1.20	0.89
1:AA:1348:U:O2	1:AA:1374:A:N6	2.04	0.89
23:BA:1154:G:N7	56:BA:4287:HOH:O	2.04	0.89
23:BA:2322:A:OP2	56:BA:4631:HOH:O	1.88	0.89
23:DA:2287:A:N6	23:DA:2344:U:H3	1.69	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1311:G:H1	1:AA:1326:C:H42	1.19	0.89
1:AA:346:G:N2	1:AA:347:G:N3	2.20	0.89
27:BF:46:ARG:HH11	27:BF:46:ARG:HG2	1.37	0.89
23:DA:2820:A:OP2	35:DR:2:ARG:NH2	2.05	0.89
23:BA:631:A:OP1	33:BP:65:ARG:NH1	2.05	0.89
52:D8:7:HIS:HD2	52:D8:10:ALA:H	1.20	0.88
23:BA:571:A:H5'	23:BA:2030:A:H62	1.38	0.88
1:AA:770:C:OP1	56:AA:1858:HOH:O	1.92	0.88
1:AA:1165:C:H42	1:AA:1171:G:H1	1.19	0.88
18:CR:69:THR:HA	18:CR:72:ARG:HD2	1.54	0.88
18:AR:69:THR:HA	18:AR:72:ARG:HD2	1.55	0.88
1:CA:1047:G:H1	1:CA:1210:C:N4	1.69	0.88
1:AA:1047:G:H1	1:AA:1210:C:N4	1.72	0.88
23:BA:1779:U:H5	23:BA:1784:A:N7	1.71	0.88
23:DA:287:C:O2	23:DA:354:G:N2	2.05	0.88
23:BA:2319:G:H22	36:BS:3:ARG:HE	1.21	0.87
23:BA:446:G:OP2	56:BA:3961:HOH:O	1.90	0.87
23:DA:27:G:N2	23:DA:512:G:O2'	2.07	0.87
33:BP:39:LYS:HB2	33:BP:45:LEU:HG	1.54	0.87
53:D9:11:CYS:SG	53:D9:32:HIS:HE1	1.97	0.87
1:AA:1273:G:H3'	1:AA:1274:G:H8	1.39	0.87
3:AC:181:ASN:HB3	3:AC:204:LEU:HB2	1.56	0.87
21:AU:12:LYS:HB3	21:AU:22:ARG:HD2	1.54	0.87
1:CA:839:U:H5"	1:CA:840:C:H5	1.39	0.87
26:BE:54:GLN:HG3	26:BE:76:ARG:HB3	1.56	0.87
1:CA:1273:G:H3'	1:CA:1274:G:H8	1.38	0.87
1:CA:1350:A:H61	1:CA:1372:U:H3	1.21	0.87
22:CV:4:GLN:NE2	22:CV:4:GLN:O	2.06	0.87
23:DA:2319:G:H22	36:DS:3:ARG:HE	1.23	0.86
1:CA:677:U:H3	1:CA:713:G:H22	1.22	0.86
1:AA:1092:A:H5"	7:AG:4:ARG:HH12	1.40	0.86
14:AN:47:LEU:HA	14:AN:50:LYS:HB2	1.57	0.86
1:AA:1303:C:N3	1:AA:1334:G:N2	2.24	0.86
23:BA:422:A:OP2	56:BA:3942:HOH:O	1.93	0.86
1:AA:964:A:N3	1:AA:969:A:O2'	2.06	0.86
23:BA:1359:A:N6	23:BA:1372:U:O4	2.08	0.86
23:BA:1855:G:N7	56:BA:4952:HOH:O	2.08	0.86
30:BI:104:GLN:HB3	30:BI:105:HIS:HD2	1.38	0.86
23:DA:1204:A:H2	23:DA:1241:A:H62	1.24	0.86
23:DA:1388:G:N7	56:DA:4127:HOH:O	2.08	0.86
23:DA:2134:A:O2'	23:DA:2159:G:N2	2.08	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:882:G:H1	23:DA:894:C:H42	1.23	0.86
23:BA:2499:C:OP1	56:BA:4031:HOH:O	1.94	0.86
7:AG:72:ARG:NH1	7:AG:142:GLU:OE1	2.09	0.85
1:AA:1263:C:H42	1:AA:1272:G:H1	1.24	0.85
30:BI:92:VAL:HG13	30:BI:120:ILE:HB	1.55	0.85
7:AG:108:ALA:HB2	7:AG:123:GLU:HG2	1.57	0.85
23:DA:1603:A:OP1	56:DA:3880:HOH:O	1.93	0.85
23:DA:631:A:OP1	33:DP:65:ARG:NH1	2.08	0.85
1:AA:1158:C:H4'	2:AB:133:LYS:HB2	1.58	0.85
23:BA:27:G:N2	23:BA:512:G:HO2'	1.73	0.85
5:CE:122:GLU:O	5:CE:126:ARG:NH1	2.08	0.85
7:AG:64:GLN:HG3	7:AG:128:ALA:HB1	1.59	0.85
23:BA:1204:A:H2	23:BA:1241:A:H62	1.25	0.85
27:DF:46:ARG:HH11	27:DF:46:ARG:HG2	1.42	0.85
23:BA:2115:G:N2	23:BA:2119:A:OP2	2.10	0.85
19:CS:50:ALA:HA	19:CS:59:PRO:HA	1.58	0.85
1:CA:1014:A:H2'	1:CA:1015:A:C8	2.12	0.85
7:CG:74:GLU:OE1	7:CG:95:ARG:NH2	2.08	0.85
14:CN:29:ARG:HD2	14:CN:31:ARG:HB2	1.57	0.84
1:CA:1380:U:O2	1:CA:1382:C:N4	2.09	0.84
1:CA:390:C:O3'	16:CP:28:ARG:NH2	2.10	0.84
23:DA:2777:G:H5"	23:DA:2778:A:H5'	1.58	0.84
1:AA:619:U:N3	4:AD:134:ASP:OD2	2.09	0.84
23:DA:27:G:N2	23:DA:512:G:HO2'	1.74	0.84
23:BA:1235:G:OP1	56:BA:4118:HOH:O	1.96	0.84
10:AJ:48:THR:HG22	10:AJ:60:ARG:HD2	1.59	0.84
35:DR:33:ARG:NH2	49:D5:57:VAL:O	2.11	0.84
23:DA:571:A:H5'	23:DA:2030:A:H62	1.42	0.84
2:CB:77:ALA:HB2	2:CB:211:ILE:HD13	1.60	0.84
16:AP:53:VAL:HG13	16:AP:79:VAL:HG22	1.60	0.83
23:BA:90:U:HO2'	23:BA:92:A:H8	0.88	0.83
23:DA:1689:A:H62	23:DA:1698:A:H2	1.21	0.83
23:BA:1654:A:OP1	35:BR:1:MET:N	2.09	0.83
23:BA:1970:A:OP1	56:BA:4433:HOH:O	1.96	0.83
1:AA:1205:U:H4'	3:AC:195:VAL:HB	1.60	0.83
15:CO:82:ILE:HB	15:CO:87:ILE:HG22	1.61	0.83
23:DA:2306:C:H5'	23:DA:2307:G:H2'	1.60	0.83
1:AA:1129:C:N4	1:AA:1134:G:O6	2.11	0.83
1:CA:557:G:OP1	56:CA:1761:HOH:O	1.96	0.83
23:DA:1109:C:H5	23:DA:1110:G:C2	1.97	0.83
37:DT:64:ARG:HB2	37:DT:73:GLU:HG2	1.61	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2108:C:H2'	23:BA:2109:U:O5'	1.79	0.82
1:AA:511:C:H42	1:AA:540:G:H1	1.28	0.82
1:AA:1422:G:H5'	32:BO:48:PRO:HB3	1.61	0.82
23:BA:1332:G:O6	56:BA:4822:HOH:O	1.97	0.82
1:CA:768:A:OP2	56:CA:1756:HOH:O	1.96	0.82
23:BA:1352:U:OP2	56:BA:3911:HOH:O	1.98	0.82
3:CC:137:ALA:HA	3:CC:140:ARG:HD3	1.61	0.82
23:DA:90:U:HO2'	23:DA:92:A:H8	0.87	0.82
23:BA:243:U:OP2	52:B8:8:LYS:NZ	2.11	0.82
23:DA:2115:G:N2	23:DA:2119:A:OP2	2.11	0.82
5:AE:122:GLU:O	5:AE:126:ARG:NH1	2.13	0.82
1:CA:1346:A:H61	1:CA:1374:A:H3'	1.43	0.82
1:CA:136:C:H42	1:CA:227:G:H1	1.25	0.82
1:AA:1386:G:H2'	1:AA:1387:G:H8	1.44	0.82
23:BA:2306:C:H5'	23:BA:2307:G:H2'	1.61	0.82
23:BA:2576:G:OP1	56:BA:4399:HOH:O	1.97	0.82
23:DA:1403:C:H5"	23:DA:1471:A:H1'	1.62	0.82
1:AA:1304:G:OP2	21:AU:2:GLY:N	2.11	0.82
50:B6:23:THR:OG1	50:B6:24:GLU:N	2.10	0.82
1:AA:994:A:H61	1:AA:1047:G:H4'	1.45	0.81
1:AA:1147:C:O2	9:AI:16:ARG:NH2	2.12	0.81
23:BA:1689:A:H62	23:BA:1698:A:H2	1.26	0.81
28:BG:131:TYR:HB3	28:BG:159:VAL:HG13	1.60	0.81
1:CA:1129:C:N4	1:CA:1134:G:O6	2.13	0.81
23:BA:1109:C:H5	23:BA:1110:G:C2	1.99	0.81
1:AA:1124:G:N2	1:AA:1150:U:O2	2.13	0.81
5:AE:76:ILE:HG13	5:AE:77:PRO:HD2	1.61	0.81
1:AA:1151:A:HO2'	1:AA:1152:A:H8	1.28	0.81
1:AA:1125:U:H5'	1:AA:1126:U:H5	1.45	0.81
15:AO:82:ILE:HB	15:AO:87:ILE:HG22	1.63	0.81
23:BA:2602:A:H4'	23:BA:2603:G:OP1	1.80	0.81
26:DE:54:GLN:HG3	26:DE:76:ARG:HB3	1.61	0.81
1:AA:1157:A:H4'	1:AA:1158:C:H5'	1.62	0.81
8:AH:91:ARG:HD3	17:AQ:33:GLY:HA3	1.63	0.81
3:CC:141:VAL:HG11	3:CC:202:ILE:HD12	1.62	0.81
5:CE:76:ILE:HG13	5:CE:77:PRO:HD2	1.63	0.81
23:BA:2448:A:N1	56:BA:3932:HOH:O	2.14	0.81
1:CA:1003:G:H1	1:CA:1037:C:H42	0.82	0.81
1:CA:1131:G:O6	1:CA:1143:G:N2	2.13	0.81
1:CA:511:C:H42	1:CA:540:G:H1	1.27	0.80
30:DI:40:THR:OG1	30:DI:43:ASN:OD1	1.99	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1017:G:N7	56:DA:4001:HOH:O	2.15	0.80
1:AA:677:U:H3	1:AA:713:G:H22	1.29	0.80
1:CA:854:G:N7	56:CA:1775:HOH:O	2.13	0.80
1:CA:559:A:OP1	5:CE:126:ARG:NH2	2.13	0.80
1:AA:933:G:H1	1:AA:1384:C:N4	1.78	0.80
23:BA:1439:A:OP1	56:BA:4055:HOH:O	1.97	0.80
1:CA:405:U:O4	4:CD:2:GLY:N	2.14	0.80
42:DY:30:VAL:HG22	42:DY:37:VAL:HG12	1.64	0.80
1:AA:1040:U:H2'	1:AA:1041:A:H5'	1.64	0.80
1:AA:1184:G:H2'	1:AA:1185:G:H8	1.46	0.80
1:AA:1502:A:H2	1:AA:1505:G:H1	1.29	0.80
23:BA:2108:C:C2'	23:BA:2109:U:O5'	2.30	0.80
1:CA:1502:A:H2	1:CA:1505:G:H1	1.28	0.80
23:DA:1366:A:OP1	45:D1:3:LYS:NZ	2.15	0.80
1:AA:572:A:OP2	56:AA:1839:HOH:O	2.00	0.80
23:BA:271(I):G:H1	23:BA:271(O):C:H42	1.27	0.80
23:DA:27:G:H22	23:DA:512:G:HO2'	1.29	0.80
23:DA:90:U:O2'	23:DA:92:A:H8	1.64	0.80
23:BA:27:G:H22	23:BA:512:G:HO2'	1.25	0.80
37:BT:64:ARG:HB2	37:BT:73:GLU:HG2	1.62	0.80
50:D6:23:THR:OG1	50:D6:24:GLU:N	2.14	0.80
1:AA:943:U:H3	1:AA:1340:A:N6	1.78	0.80
1:AA:839:U:H5"	1:AA:840:C:H5	1.44	0.80
1:CA:426:G:OP1	4:CD:38:TYR:OH	1.99	0.80
5:CE:43:LEU:O	5:CE:65:ASN:ND2	2.14	0.79
1:AA:800:G:N7	56:AA:1911:HOH:O	2.13	0.79
10:AJ:32:ALA:HB1	10:AJ:33:GLN:HG3	1.62	0.79
1:AA:1131:G:O6	1:AA:1143:G:N2	2.16	0.79
1:AA:1289:A:H1'	1:AA:1371:G:H21	1.45	0.79
23:BA:2615:U:OP1	56:BA:4798:HOH:O	2.01	0.79
1:CA:1029:C:H1'	1:CA:1032:G:H22	1.46	0.79
23:BA:882:G:H1	23:BA:894:C:H42	1.27	0.79
23:BA:548:A:H62	39:BV:19:LYS:HB2	1.47	0.79
23:DA:1449:A:OP1	56:DA:4005:HOH:O	2.01	0.79
23:DA:240:G:O6	56:DA:4023:HOH:O	2.00	0.79
1:AA:503:C:OP2	12:AL:116:SER:HB3	1.83	0.79
1:CA:1075:C:OP1	2:CB:179:LYS:NZ	2.16	0.79
23:DA:271(I):G:H1	23:DA:271(O):C:H42	1.29	0.79
3:AC:114:PRO:O	3:AC:118:GLN:N	2.14	0.79
1:CA:1015:A:H1'	1:CA:1219:U:H5'	1.65	0.79
23:DA:1210:A:H8	23:DA:1210:A:H5'	1.46	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:548:A:H62	39:DV:19:LYS:HB2	1.46	0.79
1:AA:1309:G:N7	13:AM:99:ARG:NH2	2.31	0.79
23:DA:2322:A:N6	23:DA:2335:A:N6	2.30	0.79
5:AE:43:LEU:O	5:AE:65:ASN:ND2	2.15	0.79
6:CF:11:ASN:HB3	6:CF:14:LEU:HG	1.65	0.79
1:CA:191:G:H21	20:CT:103:GLY:HA2	1.45	0.79
2:AB:178:ARG:HH22	8:AH:68:ARG:HH22	1.30	0.78
1:CA:537:G:N7	56:CA:1768:HOH:O	2.15	0.78
4:CD:13:ARG:NH1	4:CD:38:TYR:O	2.16	0.78
30:DI:106:GLY:HA2	30:DI:107:VAL:HB	1.65	0.78
23:BA:2777:G:H5"	23:BA:2778:A:H5'	1.64	0.78
28:DG:131:TYR:HB3	28:DG:159:VAL:HG13	1.65	0.78
23:DA:2562:U:H1'	32:DO:23:ARG:HH11	1.49	0.78
23:BA:399:G:OP2	56:BA:3940:HOH:O	2.02	0.78
23:BA:2222:G:N7	56:BA:4603:HOH:O	2.15	0.78
1:CA:17:U:H2'	1:CA:18:C:C6	2.18	0.78
1:AA:992:U:H2'	1:AA:1043:C:H5	1.48	0.78
1:AA:1442(A):G:H2'	1:AA:1442(B):A:H5'	1.65	0.78
8:CH:91:ARG:HD3	17:CQ:33:GLY:HA3	1.66	0.78
30:DI:78:THR:O	30:DI:104:GLN:NE2	2.13	0.78
1:AA:1237:C:O3'	1:AA:1300:G:N2	2.16	0.78
37:DT:56:GLY:O	37:DT:59:THR:HG23	1.83	0.78
23:DA:1013:C:OP2	56:DA:3999:HOH:O	2.01	0.78
37:BT:95:ARG:HG2	37:BT:95:ARG:HH11	1.48	0.78
1:CA:1442(A):G:H2'	1:CA:1442(B):A:H5'	1.65	0.77
12:CL:76:ASN:ND2	12:CL:106:ASP:O	2.17	0.77
23:DA:2134:A:H61	23:DA:2157:G:H1'	1.49	0.77
4:AD:9:CYS:HA	4:AD:12:CYS:HB2	1.65	0.77
23:BA:2322:A:N6	23:BA:2335:A:N6	2.33	0.77
4:AD:79:PHE:HD2	4:AD:80:GLU:H	1.28	0.77
16:AP:28:ARG:HG2	16:AP:28:ARG:HH11	1.46	0.77
43:DZ:45:ASP:OD2	43:DZ:49:ARG:NH1	2.17	0.77
1:AA:939:G:O2'	1:AA:1375:A:N3	2.15	0.77
1:AA:327:A:HO2'	1:AA:329:A:H8	1.32	0.77
2:AB:136:VAL:HA	2:AB:139:LYS:HG3	1.67	0.77
23:BA:1403:C:H5"	23:BA:1471:A:H1'	1.66	0.77
23:BA:301:G:OP2	42:BY:84:ARG:NH2	2.17	0.77
3:CC:35:GLU:HA	3:CC:38:ARG:HD2	1.64	0.77
16:CP:53:VAL:HG13	16:CP:79:VAL:HG22	1.64	0.77
7:AG:40:ALA:HB3	9:AI:41:VAL:HG21	1.66	0.77
1:CA:1015:A:N3	1:CA:1218:C:O2'	2.18	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:128:VAL:HG13	4:AD:129:ASN:HD22	1.48	0.77
4:CD:128:VAL:HG13	4:CD:129:ASN:HD22	1.49	0.77
1:AA:1165:C:N4	1:AA:1171:G:H1	1.83	0.77
1:AA:1376:U:H5	7:AG:9:VAL:HA	1.48	0.77
1:AA:1441:G:H4'	1:AA:1442:G:C8	2.20	0.77
23:BA:2134:A:H61	23:BA:2157:G:H1'	1.50	0.77
23:BA:2588:G:OP1	56:BA:4246:HOH:O	2.02	0.77
1:CA:1441:G:H4'	1:CA:1442:G:C8	2.19	0.77
23:DA:1243:G:O2'	33:DP:7:ARG:NH2	2.17	0.77
37:DT:60:THR:HG22	37:DT:77:PRO:HA	1.67	0.77
13:AM:90:LEU:O	13:AM:92:HIS:N	2.17	0.77
1:CA:1160:G:H1	1:CA:1176:A:H61	1.33	0.77
7:CG:89:MET:HG2	7:CG:155:ARG:HG3	1.65	0.77
1:AA:17:U:H2'	1:AA:18:C:C6	2.20	0.77
23:BA:69:C:N4	56:BA:3949:HOH:O	2.17	0.77
6:CF:62:TRP:CH2	6:CF:64:GLN:HB2	2.20	0.77
23:DA:2405:G:H4'	23:DA:2406:U:OP2	1.83	0.77
47:B3:8:LEU:HD13	47:B3:31:LEU:HD23	1.67	0.76
1:CA:1047:G:N2	1:CA:1210:C:N3	2.32	0.76
23:DA:1026:U:O2'	23:DA:1027:A:O5'	2.02	0.76
23:DA:1767:C:O2	23:DA:1985:G:N2	2.17	0.76
1:AA:952:U:H3	1:AA:1229:A:H61	0.80	0.76
53:B9:11:CYS:SG	53:B9:32:HIS:HE1	2.08	0.76
23:BA:120:U:OP1	56:BA:3890:HOH:O	2.01	0.76
28:BG:76:SER:HA	28:BG:83:ARG:HA	1.67	0.76
23:BA:2104:G:N7	23:BA:2186:G:N2	2.33	0.76
23:BA:2820:A:OP2	35:BR:2:ARG:NH2	2.19	0.76
4:CD:9:CYS:HA	4:CD:12:CYS:HB2	1.66	0.76
1:AA:1028:C:H42	1:AA:1034:G:H1'	1.50	0.76
1:AA:578:C:OP1	56:AA:1906:HOH:O	2.02	0.76
23:BA:2407:G:OP1	56:BA:4302:HOH:O	2.03	0.76
23:BA:827:U:OP1	56:BA:4313:HOH:O	2.02	0.76
1:CA:1237:C:N4	1:CA:1337:G:H1	1.84	0.76
2:CB:139:LYS:HA	2:CB:142:LEU:HB3	1.68	0.76
33:DP:59:LEU:HD11	52:D8:10:ALA:HB2	1.65	0.76
1:AA:1337:G:O2'	1:AA:1338:G:N7	2.18	0.76
23:BA:2134:A:N6	23:BA:2157:G:H1'	2.01	0.76
23:BA:587:C:OP2	33:BP:21:ARG:NH2	2.18	0.76
1:AA:10:A:H2'	1:AA:11:G:H8	1.50	0.76
1:CA:346:G:H21	1:CA:347:G:H1'	1.50	0.76
30:DI:92:VAL:HG23	30:DI:97:ILE:HD11	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:139:LYS:HA	2:AB:142:LEU:HB3	1.68	0.76
23:BA:106:C:O4'	42:BY:1:MET:HB2	1.86	0.76
1:CA:1120:G:O6	1:CA:1152:A:N6	2.19	0.76
16:CP:28:ARG:HH11	16:CP:28:ARG:HG2	1.49	0.76
23:DA:221:A:H4'	23:DA:222:A:O5'	1.85	0.75
29:DH:70:THR:O	29:DH:71:LEU:HB2	1.86	0.75
1:AA:1220:G:H1'	19:AS:52:TYR:CD2	2.22	0.75
2:AB:130:ARG:HA	2:AB:130:ARG:HE	1.52	0.75
7:AG:146:GLU:HA	7:AG:149:ARG:HB2	1.67	0.75
46:D2:35:LEU:HD12	46:D2:53:LEU:HD12	1.68	0.75
23:BA:1494:A:H2'	23:BA:1495:A:C8	2.21	0.75
23:BA:1980:G:O2'	23:BA:1982:C:OP2	2.05	0.75
2:CB:136:VAL:HA	2:CB:139:LYS:HG3	1.66	0.75
5:CE:9:LYS:H	5:CE:112:LEU:HD11	1.51	0.75
45:D1:54:ALA:HB1	45:D1:83:GLU:HB2	1.67	0.75
1:AA:1350:A:N1	1:AA:1372:U:O2	2.18	0.75
29:BH:70:THR:O	29:BH:71:LEU:HB2	1.85	0.75
1:CA:1118:C:H1'	1:CA:1179:A:C4	2.21	0.75
23:DA:300:A:P	42:DY:86:ARG:HH22	2.09	0.75
2:AB:24:TRP:HZ3	2:AB:29:ALA:HB2	1.52	0.75
1:AA:598:U:H4'	8:AH:94:TYR:CD2	2.22	0.75
25:BD:28:GLU:OE1	56:BD:402:HOH:O	2.04	0.75
1:CA:1255:G:O6	10:CJ:43:ARG:NH2	2.20	0.75
21:CU:15:ARG:HB2	21:CU:15:ARG:HH11	1.50	0.75
46:D2:51:ARG:HA	46:D2:54:LYS:HB2	1.68	0.75
23:DA:2602:A:H4'	23:DA:2603:G:OP1	1.87	0.75
1:AA:299:G:O6	56:AA:1929:HOH:O	2.04	0.75
45:B1:3:LYS:HB2	45:B1:61:ARG:NH1	2.01	0.75
1:CA:426:G:OP1	4:CD:36:ARG:NH1	2.20	0.75
1:AA:1238:A:N6	1:AA:1299:A:H61	1.83	0.75
23:BA:2140:C:N3	23:BA:2151:G:O6	2.19	0.75
23:BA:90:U:O2	56:BA:4786:HOH:O	2.01	0.75
1:CA:1347:G:O2'	1:CA:1373:G:O6	2.03	0.75
2:CB:178:ARG:HH22	8:CH:68:ARG:HH22	1.35	0.75
52:D8:34:TRP:O	52:D8:36:LYS:N	2.19	0.75
1:CA:1122:U:H2'	1:CA:1123:A:H8	1.52	0.75
1:CA:673:G:H2'	1:CA:674:G:C8	2.21	0.75
9:CI:9:ARG:HG2	9:CI:14:VAL:HG22	1.69	0.75
23:DA:2291:U:O4	56:DA:4091:HOH:O	2.04	0.75
27:BF:185:ASP:OD1	27:BF:188:ARG:NH1	2.20	0.74
23:DA:1019:U:H3	23:DA:1142(A):A:H62	1.34	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1441:G:O2'	1:AA:1459:C:N3	2.17	0.74
8:CH:87:SER:HA	8:CH:93:VAL:HG23	1.69	0.74
9:CI:18:PHE:HB3	9:CI:20:ARG:HE	1.50	0.74
23:DA:2134:A:N6	23:DA:2157:G:H1'	2.02	0.74
1:AA:673:G:H2'	1:AA:674:G:C8	2.23	0.74
23:BA:90:U:O2'	23:BA:92:A:H8	1.65	0.74
23:DA:2588:G:OP1	56:DA:3979:HOH:O	2.05	0.74
13:AM:23:TYR:HE1	13:AM:70:LEU:HB3	1.50	0.74
1:AA:1269:A:H4'	21:AU:18:TYR:HB2	1.70	0.74
35:BR:33:ARG:NH2	49:B5:57:VAL:O	2.14	0.74
23:DA:2683:C:OP1	37:DT:53:ARG:NH2	2.21	0.74
3:AC:114:PRO:HA	3:AC:117:ALA:HB3	1.70	0.74
13:CM:108:ARG:HH21	13:CM:114:ARG:HH11	1.35	0.74
14:AN:23:ARG:HD3	14:AN:30:ALA:HB2	1.69	0.74
23:BA:2181:G:H2'	23:BA:2182:G:C8	2.23	0.74
23:BA:287:C:O2	23:BA:354:G:N2	2.16	0.74
23:BA:2562:U:H1'	32:BO:23:ARG:HH11	1.51	0.74
1:CA:10:A:H2'	1:CA:11:G:H8	1.52	0.74
23:DA:2108:C:H2'	23:DA:2109:U:O5'	1.88	0.74
24:DB:105:A:OP1	43:DZ:72:ARG:NH1	2.21	0.74
7:AG:127:ALA:HB1	7:AG:135:VAL:HG23	1.70	0.74
2:CB:130:ARG:HE	2:CB:130:ARG:HA	1.52	0.74
1:AA:542:G:H5'	4:AD:41:GLY:HA3	1.68	0.74
12:AL:76:ASN:ND2	12:AL:106:ASP:O	2.19	0.74
23:BA:530:G:N3	23:BA:530:G:O4'	2.20	0.74
1:CA:1028:C:N4	1:CA:1034:G:N3	2.36	0.74
1:CA:1387:G:H2'	1:CA:1388:C:H6	1.52	0.74
23:DA:2760:C:H2'	23:DA:2761:G:H5"	1.68	0.74
28:DG:76:SER:HA	28:DG:83:ARG:HA	1.70	0.74
1:AA:1360:A:C8	14:AN:18:VAL:HG12	2.23	0.74
1:CA:1274:G:N2	1:CA:1275:A:H62	1.86	0.74
23:DA:1858:G:O2'	23:DA:1884:A:N6	2.20	0.74
23:DA:226:G:H21	23:DA:228:A:H62	1.34	0.74
27:DF:53:THR:HG23	27:DF:55:GLY:H	1.52	0.74
1:AA:3:G:H5"	1:AA:4:U:H5"	1.67	0.73
7:AG:70:LYS:O	7:AG:138:LYS:NZ	2.19	0.73
10:CJ:49:VAL:HG21	14:CN:45:ARG:HD2	1.70	0.73
1:AA:1311:G:H1	1:AA:1326:C:N4	1.86	0.73
13:AM:38:GLY:O	13:AM:55:ARG:NH1	2.21	0.73
1:CA:999:C:H42	1:CA:1042:G:H1	1.36	0.73
24:DB:117:G:H4'	36:DS:54:LEU:HD23	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:947:G:O6	1:AA:1234:C:N3	2.20	0.73
10:CJ:58:ASP:OD2	10:CJ:58:ASP:N	2.21	0.73
13:AM:3:ARG:NH2	13:AM:10:PRO:O	2.21	0.73
3:CC:50:ALA:HB1	3:CC:70:VAL:HG13	1.69	0.73
1:CA:522:C:H5"	12:CL:120:TYR:OH	1.88	0.73
23:DA:921:G:O6	56:DA:3903:HOH:O	2.05	0.73
1:AA:1095:U:OP1	1:AA:1108:G:N2	2.20	0.73
23:BA:1026:U:O2'	23:BA:1027:A:O5'	2.03	0.73
1:CA:1293:G:HO2'	1:CA:1294:G:H8	1.33	0.73
1:CA:1107:C:H5"	3:CC:173:VAL:H	1.53	0.73
23:DA:1654:A:OP1	35:DR:1:MET:N	2.14	0.73
37:BT:60:THR:HG22	37:BT:77:PRO:HA	1.68	0.73
23:DA:747:U:O2	23:DA:2014:A:H1'	1.88	0.73
23:BA:1366:A:OP1	45:B1:3:LYS:NZ	2.21	0.73
23:BA:1669:A:OP2	56:BA:4866:HOH:O	2.05	0.73
23:BA:1798:U:H5'	25:BD:259:THR:HG22	1.70	0.73
1:CA:598:U:H4'	8:CH:94:TYR:CD2	2.24	0.73
39:DV:40:LEU:HB2	39:DV:46:VAL:HG13	1.69	0.73
3:AC:189:ALA:HB3	3:AC:196:LEU:HB2	1.69	0.73
34:DQ:38:GLU:HB2	34:DQ:127:ILE:HG22	1.69	0.73
1:AA:959:A:H1'	1:AA:985:C:H1'	1.70	0.73
2:AB:208:ILE:HA	2:AB:211:ILE:HD12	1.71	0.73
8:AH:87:SER:HA	8:AH:93:VAL:HG23	1.71	0.73
48:B4:9:LEU:HD23	48:B4:27:THR:HG23	1.70	0.73
1:CA:427:U:OP1	4:CD:13:ARG:NH2	2.20	0.73
22:CV:53:VAL:HG13	22:CV:54:MET:HG3	1.70	0.73
48:D4:18:CYS:HB2	48:D4:39:CYS:SG	2.29	0.73
23:DA:1038:C:H42	23:DA:1117:G:H1	1.36	0.73
1:AA:1236:A:H4'	1:AA:1304:G:H4'	1.70	0.73
3:AC:35:GLU:O	3:AC:39:ILE:N	2.20	0.73
23:BA:1322:A:N7	56:BA:4624:HOH:O	2.21	0.73
23:BA:2036:C:H5'	23:BA:2036:C:H6	1.54	0.73
23:BA:531:C:OP2	56:BA:4363:HOH:O	2.05	0.72
23:BA:990:A:OP2	56:BA:4330:HOH:O	2.06	0.72
37:BT:56:GLY:O	37:BT:59:THR:HG23	1.88	0.72
45:D1:3:LYS:HB2	45:D1:61:ARG:NH1	2.04	0.72
23:DA:2721:A:OP1	56:DA:4047:HOH:O	2.05	0.72
24:DB:28:C:H2'	24:DB:29:A:H8	1.53	0.72
23:DA:1141:U:OP2	31:DN:63:THR:OG1	2.06	0.72
1:AA:1061:G:H2'	1:AA:1062:U:C6	2.23	0.72
1:AA:346:G:H21	1:AA:347:G:H1'	1.52	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:59:A:H5'	1:AA:60:A:H5"	1.69	0.72
23:BA:226:G:H21	23:BA:228:A:H62	1.37	0.72
36:BS:102:ALA:HA	36:BS:105:ALA:HB3	1.70	0.72
42:BY:30:VAL:HG22	42:BY:37:VAL:HG12	1.71	0.72
44:D0:65:GLY:HA3	44:D0:81:VAL:HG12	1.71	0.72
23:DA:1494:A:H2'	23:DA:1495:A:C8	2.24	0.72
23:DA:1828:G:OP1	56:DA:3604:HOH:O	2.07	0.72
1:CA:542:G:OP1	4:CD:10:ARG:NH1	2.23	0.72
1:AA:1177:G:H2'	1:AA:1178:G:H5'	1.71	0.72
23:BA:2405:G:H4'	23:BA:2406:U:OP2	1.89	0.72
1:CA:991:U:C4	1:CA:1212:U:H1'	2.25	0.72
2:CB:155:LEU:HD11	2:CB:159:PRO:HD3	1.71	0.72
23:DA:639:U:H2'	23:DA:640:C:C6	2.25	0.72
33:BP:126:VAL:HG12	33:BP:148:LEU:HD22	1.70	0.72
1:CA:1321:C:H5"	1:CA:1322:C:H2'	1.71	0.72
1:CA:1442:G:O2'	1:CA:1442(A):G:OP1	2.07	0.72
13:CM:104:ARG:HG3	13:CM:105:THR:HG23	1.71	0.72
3:AC:139:GLN:O	3:AC:143:GLU:N	2.23	0.72
10:AJ:61:GLU:HB2	14:AN:58:LYS:HE3	1.70	0.72
1:CA:542:G:P	4:CD:10:ARG:HH22	2.12	0.72
12:CL:60:LEU:HD21	12:CL:66:VAL:HG22	1.70	0.72
23:DA:615:G:OP1	27:DF:40:GLN:NE2	2.23	0.72
1:AA:1442:G:O2'	1:AA:1442(A):G:OP1	2.06	0.72
11:AK:79:SER:HA	11:AK:104:GLN:HB2	1.71	0.72
46:B2:51:ARG:HA	46:B2:54:LYS:HB2	1.72	0.72
2:CB:24:TRP:HZ3	2:CB:29:ALA:HB2	1.53	0.72
19:CS:39:THR:OG1	19:CS:70:LYS:NZ	2.22	0.72
6:AF:62:TRP:CH2	6:AF:64:GLN:HB2	2.25	0.72
23:BA:1038:C:H42	23:BA:1117:G:H1	1.38	0.72
23:BA:2786:U:O2'	26:BE:62:PRO:O	2.07	0.72
1:CA:1129:C:H4'	1:CA:1130:A:H5'	1.71	0.72
36:DS:102:ALA:HA	36:DS:105:ALA:HB3	1.70	0.72
2:AB:77:ALA:HB2	2:AB:211:ILE:HD13	1.72	0.72
1:AA:1240:U:O4	7:AG:32:ARG:NH2	2.22	0.72
1:CA:1442:G:N7	1:CA:1442(A):G:C6	2.58	0.72
23:DA:2308:G:O2'	23:DA:2310:A:OP2	2.04	0.72
29:DH:28:GLY:HA3	29:DH:79:VAL:HB	1.70	0.72
1:AA:1129:C:H4'	1:AA:1130:A:H5'	1.71	0.72
1:AA:1442:G:N7	1:AA:1442(A):G:C6	2.58	0.72
1:AA:946:A:H2'	1:AA:947:G:C8	2.24	0.72
23:BA:639:U:H2'	23:BA:640:C:C6	2.25	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:973:G:H3'	1:CA:974:A:H5"	1.72	0.72
24:DB:28:C:H2'	24:DB:29:A:C8	2.25	0.72
1:AA:812:C:N3	56:AA:1888:HOH:O	2.22	0.71
5:AE:98:THR:HB	5:AE:117:ASP:HB3	1.72	0.71
6:AF:100:ASN:ND2	18:AR:23:LYS:O	2.21	0.71
33:BP:95:VAL:HA	33:BP:99:LEU:HD12	1.72	0.71
1:AA:1066:C:H3'	1:AA:1067:A:H8	1.55	0.71
1:AA:1288:A:H1'	1:AA:1353:G:H4'	1.72	0.71
48:B4:18:CYS:HB2	48:B4:39:CYS:SG	2.30	0.71
23:BA:1210:A:H8	23:BA:1210:A:H5'	1.53	0.71
23:DA:2122:U:H3	23:DA:2176:A:N6	1.84	0.71
23:DA:1250:G:N7	33:DP:18:ARG:NH2	2.38	0.71
1:AA:940:C:H42	1:AA:1343:G:H1	1.38	0.71
23:DA:1980:G:O2'	23:DA:1982:C:OP2	2.07	0.71
23:DA:2140:C:N3	23:DA:2151:G:O6	2.24	0.71
4:AD:107:ARG:HE	4:AD:173:TRP:HZ2	1.36	0.71
23:BA:747:U:O2	23:BA:2014:A:H1'	1.90	0.71
1:CA:1073:U:H2'	1:CA:1074:G:C8	2.25	0.71
9:CI:112:LYS:HA	9:CI:119:ALA:HB2	1.71	0.71
23:DA:1022:G:H22	23:DA:1142(A):A:H2	1.38	0.71
37:DT:95:ARG:HG2	37:DT:95:ARG:HH11	1.56	0.71
1:AA:1288:A:H61	1:AA:1371:G:H1'	1.54	0.71
10:AJ:11:PHE:HE2	10:AJ:67:THR:HB	1.53	0.71
1:CA:59:A:H5'	1:CA:60:A:H5"	1.72	0.71
3:CC:155:GLY:HA3	3:CC:196:LEU:HD13	1.71	0.71
23:DA:1815:A:OP2	25:DD:54:ARG:NH2	2.23	0.71
33:DP:126:VAL:HG12	33:DP:148:LEU:HD22	1.72	0.71
1:AA:1160:G:H22	1:AA:1177:G:N2	1.88	0.71
1:AA:191:G:H21	20:AT:103:GLY:HA2	1.56	0.71
45:B1:20:ARG:HH11	45:B1:20:ARG:HG2	1.55	0.71
23:BA:2357:U:OP1	44:B0:20:ARG:NH1	2.23	0.71
1:CA:1286:A:C6	1:CA:1354:C:H5"	2.25	0.71
1:AA:1156:G:H1'	1:AA:1179:A:N6	2.05	0.71
1:AA:1261:A:O2'	1:AA:1283:G:OP1	2.08	0.71
4:CD:79:PHE:HD2	4:CD:80:GLU:H	1.35	0.71
13:CM:47:ASP:N	13:CM:47:ASP:OD1	2.22	0.71
23:DA:2104:G:N7	23:DA:2186:G:N2	2.38	0.71
5:AE:9:LYS:H	5:AE:112:LEU:HD11	1.54	0.71
7:AG:88:PRO:HD3	7:AG:148:ASN:HB3	1.73	0.71
23:BA:1817:G:OP1	25:BD:88:ARG:NH2	2.22	0.71
30:BI:102:SER:HA	30:BI:106:GLY:HA3	1.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BT:16:ARG:NH2	37:BT:83:ILE:O	2.23	0.71
1:AA:1066:C:H3'	1:AA:1067:A:C8	2.24	0.71
1:AA:325:A:N7	56:AA:1829:HOH:O	2.24	0.71
1:AA:938:A:H2'	1:AA:939:G:O4'	1.90	0.71
1:CA:1347:G:H8	9:CI:107:ARG:HB3	1.55	0.71
5:CE:98:THR:HB	5:CE:117:ASP:HB3	1.72	0.71
8:CH:45:ILE:HG22	8:CH:63:LEU:HA	1.72	0.71
23:DA:2296:U:C4	23:DA:2335:A:N6	2.59	0.71
1:AA:1347:G:H5"	9:AI:107:ARG:HA	1.72	0.71
1:CA:539:A:H2'	1:CA:540:G:C8	2.26	0.71
23:DA:2036:C:H6	23:DA:2036:C:H5'	1.55	0.71
1:AA:1160:G:H22	1:AA:1177:G:H21	1.38	0.70
23:BA:2158:A:H4'	23:BA:2159:G:OP1	1.90	0.70
23:DA:2181:G:H2'	23:DA:2182:G:C8	2.25	0.70
1:AA:1005:A:O3'	1:AA:1037:C:O2'	2.09	0.70
1:AA:937:A:N1	1:AA:1377:A:H1'	2.06	0.70
8:AH:45:ILE:HG22	8:AH:63:LEU:HA	1.72	0.70
23:BA:1669:A:OP1	56:BA:4896:HOH:O	2.10	0.70
23:BA:2122:U:H3	23:BA:2176:A:N6	1.86	0.70
34:BQ:38:GLU:HB2	34:BQ:127:ILE:HG22	1.72	0.70
3:CC:114:PRO:O	3:CC:118:GLN:NE2	2.25	0.70
23:DA:833:U:O2	33:DP:55:ARG:NH2	2.25	0.70
37:DT:51:ARG:HG3	37:DT:98:LYS:HE3	1.74	0.70
1:AA:1369:C:H2'	1:AA:1370:G:H8	1.54	0.70
1:AA:674:G:H2'	1:AA:675:A:H8	1.55	0.70
10:AJ:48:THR:HG23	10:AJ:62:HIS:HB3	1.72	0.70
23:BA:2839:G:H5'	35:BR:46:GLY:HA2	1.74	0.70
1:CA:1304:G:H1'	1:CA:1333:A:H61	1.57	0.70
7:CG:51:GLN:HG2	7:CG:58:PRO:HD3	1.73	0.70
23:DA:1817:G:OP1	25:DD:88:ARG:NH2	2.23	0.70
23:DA:243:U:OP2	52:D8:8:LYS:NZ	2.22	0.70
1:AA:1059:C:H2'	1:AA:1060:C:C6	2.26	0.70
1:AA:1459:C:C6	1:AA:1460:A:N7	2.59	0.70
1:AA:501:C:H2'	1:AA:502:G:H8	1.55	0.70
1:AA:982:U:H3	1:AA:1222:G:H1	1.40	0.70
7:AG:24:THR:HA	7:AG:27:ILE:HG13	1.72	0.70
10:AJ:10:GLY:H	10:AJ:16:LEU:HD12	1.55	0.70
4:CD:14:ARG:HA	4:CD:39:PRO:HB3	1.74	0.70
1:AA:966:G:H5"	1:AA:969:A:N7	2.06	0.70
21:AU:3:LYS:HA	21:AU:10:ARG:HB3	1.73	0.70
23:BA:39:C:O2	27:BF:46:ARG:NH2	2.25	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1237:C:H3'	1:CA:1336:C:H41	1.55	0.70
1:AA:1178:G:H2'	1:AA:1179:A:H3'	1.74	0.70
1:AA:575:G:OP1	56:AA:1856:HOH:O	2.09	0.70
5:AE:11:ILE:HG21	5:AE:105:VAL:HG22	1.74	0.70
23:BA:1858:G:O2'	23:BA:1884:A:N6	2.23	0.70
45:D1:21:ARG:HG2	45:D1:21:ARG:NH1	1.98	0.70
23:DA:301:G:OP2	42:DY:84:ARG:NH2	2.24	0.70
1:AA:524:G:H2'	1:AA:525:C:H6	1.55	0.70
23:BA:2445:G:OP1	27:BF:74:ARG:NH2	2.24	0.70
43:BZ:45:ASP:OD2	43:BZ:49:ARG:NH1	2.25	0.70
1:CA:353:A:H8	1:CA:353:A:H5'	1.56	0.70
23:DA:2357:U:OP1	44:D0:20:ARG:NH1	2.24	0.70
37:DT:16:ARG:NH2	37:DT:83:ILE:O	2.25	0.70
1:AA:1249:C:N4	1:AA:1287:A:H8	1.87	0.69
48:B4:16:CYS:HA	48:B4:33:VAL:HB	1.74	0.69
23:BA:1243:G:O2'	33:BP:7:ARG:NH2	2.25	0.69
23:BA:221:A:H4'	23:BA:222:A:O5'	1.92	0.69
23:BA:2308:G:O2'	23:BA:2310:A:OP2	2.07	0.69
1:CA:1279:A:O2'	1:CA:1281:U:OP2	2.08	0.69
23:DA:530:G:O4'	23:DA:530:G:N3	2.23	0.69
1:AA:994:A:N6	1:AA:1047:G:H4'	2.05	0.69
1:AA:1049:U:HO2'	14:AN:2:ALA:N	1.88	0.69
1:AA:885:G:N7	56:AA:1823:HOH:O	2.25	0.69
50:B6:10:LEU:HD12	50:B6:54:ILE:HA	1.73	0.69
1:CA:1178:G:N2	1:CA:1181:G:OP2	2.26	0.69
23:DA:248:G:OP1	56:DA:3741:HOH:O	2.09	0.69
1:AA:1289:A:H1'	1:AA:1371:G:N2	2.05	0.69
1:AA:932:C:H5'	7:AG:4:ARG:HE	1.56	0.69
4:CD:107:ARG:HE	4:CD:173:TRP:HZ2	1.37	0.69
14:AN:41:ARG:HA	14:AN:44:LEU:HD23	1.74	0.69
45:B1:54:ALA:HB1	45:B1:83:GLU:HB2	1.73	0.69
23:BA:2327:A:H2'	23:BA:2328:A:C8	2.27	0.69
27:BF:7:TYR:H	27:BF:22:ALA:HB3	1.56	0.69
23:DA:39:C:O2	27:DF:46:ARG:NH2	2.25	0.69
1:AA:1009:G:O6	1:AA:1020:U:O2	2.09	0.69
1:AA:975:A:N6	1:AA:1366:C:O2	2.25	0.69
1:AA:1253:G:H5'	10:AJ:44:VAL:O	1.92	0.69
21:AU:9:ARG:HD2	21:AU:13:ILE:HD11	1.74	0.69
1:CA:1142:G:H3'	1:CA:1143:G:H8	1.58	0.69
23:DA:141:A:C8	23:DA:1408:C:O2'	2.46	0.69
23:DA:81:G:N7	56:DA:4117:HOH:O	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1056:U:H5'	3:AC:163:ALA:HB2	1.75	0.69
7:AG:87:VAL:HG21	7:AG:154:TYR:HB2	1.75	0.69
20:AT:12:ALA:O	20:AT:15:ARG:HB2	1.93	0.69
28:DG:16:ARG:HE	28:DG:31:VAL:HG11	1.57	0.69
1:AA:1350:A:H61	1:AA:1372:U:H3	0.81	0.69
4:AD:14:ARG:HA	4:AD:39:PRO:HB3	1.73	0.69
1:CA:1350:A:N6	1:CA:1372:U:H3	1.91	0.69
4:CD:53:ASP:HB3	4:CD:57:ARG:HH12	1.58	0.69
1:CA:1373:G:H5'	7:CG:36:LYS:HB2	1.75	0.69
23:DA:1405:U:H2'	23:DA:1406:U:C6	2.28	0.69
23:DA:2124:G:N2	23:DA:2174:C:C2	2.61	0.69
23:DA:2206:G:H5'	23:DA:2207:G:C5	2.28	0.69
40:DW:60:ASN:HD22	40:DW:60:ASN:N	1.91	0.69
1:AA:1184:G:H2'	1:AA:1185:G:C8	2.28	0.69
23:BA:2124:G:N2	23:BA:2174:C:C2	2.61	0.69
23:BA:833:U:O2	33:BP:55:ARG:NH2	2.26	0.69
30:BI:93:THR:HG23	30:BI:96:ASP:H	1.57	0.69
9:CI:3:GLN:HB3	9:CI:20:ARG:HG3	1.73	0.69
44:D0:27:GLU:HG3	44:D0:68:GLU:HA	1.74	0.69
29:DH:149:ARG:NH1	29:DH:167:GLU:OE1	2.26	0.69
23:DA:1278:A:OP1	35:DR:36:THR:HG23	1.91	0.69
1:AA:1142:G:H3'	1:AA:1143:G:H8	1.57	0.69
1:AA:353:A:H5'	1:AA:353:A:H8	1.58	0.69
1:AA:770:C:OP1	56:AA:1860:HOH:O	2.11	0.69
23:BA:1359:A:N6	23:BA:1372:U:C4	2.61	0.69
7:CG:46:ALA:HB1	7:CG:121:ALA:HB2	1.75	0.69
11:CK:79:SER:HA	11:CK:104:GLN:HB2	1.73	0.69
15:CO:29:VAL:HG11	15:CO:81:LEU:HD21	1.74	0.69
47:D3:8:LEU:HD13	47:D3:31:LEU:HD23	1.75	0.69
42:DY:79:CYS:HB3	42:DY:81:LYS:H	1.58	0.69
1:AA:1308:U:H2'	1:AA:1309:G:C8	2.27	0.69
18:AR:70:ILE:O	18:AR:74:ARG:HG3	1.93	0.69
1:CA:501:C:H2'	1:CA:502:G:H8	1.58	0.69
3:CC:150:LYS:HB2	3:CC:173:VAL:HG11	1.74	0.69
9:CI:96:LEU:HA	9:CI:100:GLY:H	1.57	0.69
1:AA:539:A:H2'	1:AA:540:G:C8	2.28	0.69
23:BA:141:A:H8	23:BA:1408:C:HO2'	1.41	0.69
23:BA:141:A:H8	23:BA:1408:C:O2'	1.76	0.69
23:BA:2296:U:C4	23:BA:2335:A:N6	2.61	0.69
23:BA:2646:C:OP2	23:BA:2732:G:O2'	2.09	0.69
23:DA:1253:A:N7	56:DA:4109:HOH:O	2.26	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1065:U:H4'	1:AA:1066:C:O5'	1.92	0.68
19:AS:33:THR:HG22	19:AS:35:SER:H	1.58	0.68
29:BH:28:GLY:HA3	29:BH:79:VAL:HB	1.74	0.68
33:BP:47:ASP:OD2	33:BP:50:ARG:NH2	2.26	0.68
1:CA:1004:A:N6	1:CA:1035:A:N7	2.40	0.68
1:CA:1216:G:H5"	14:CN:5:ALA:HB2	1.73	0.68
1:CA:1264:C:H2'	1:CA:1265:G:C8	2.28	0.68
10:CJ:54:PHE:CD2	10:CJ:55:LYS:HG3	2.28	0.68
23:DA:1395:A:OP1	56:DA:3880:HOH:O	2.10	0.68
23:DA:2445:G:OP1	27:DF:74:ARG:NH2	2.25	0.68
29:DH:3:ARG:HG2	29:DH:6:ARG:HE	1.57	0.68
1:AA:1321:C:H5"	1:AA:1322:C:H2'	1.75	0.68
2:AB:135:GLN:HA	2:AB:138:LEU:HD12	1.74	0.68
23:BA:2760:C:H2'	23:BA:2761:G:H5"	1.74	0.68
35:BR:67:LEU:HD13	35:BR:76:VAL:HG21	1.76	0.68
1:AA:1252:A:C2	1:AA:1355:G:H1'	2.29	0.68
15:AO:15:PHE:HE2	15:AO:84:LYS:HD2	1.59	0.68
23:BA:120:U:OP2	56:BA:3889:HOH:O	2.11	0.68
1:CA:1274:G:H21	1:CA:1275:A:H62	1.39	0.68
1:CA:584:G:H5'	17:CQ:91:ARG:HH22	1.58	0.68
46:B2:35:LEU:HD12	46:B2:53:LEU:HD12	1.75	0.68
1:CA:457:C:H2'	1:CA:458:C:C6	2.29	0.68
2:CB:185:ILE:HG22	2:CB:199:TYR:HB2	1.75	0.68
23:DA:2786:U:O2'	26:DE:62:PRO:O	2.08	0.68
1:AA:1062:U:H3	1:AA:1194:U:H3	1.39	0.68
1:AA:962:C:H2'	1:AA:963:G:H8	1.57	0.68
30:BI:104:GLN:HB3	30:BI:105:HIS:CD2	2.25	0.68
1:CA:448:A:OP2	1:CA:485:G:N1	2.16	0.68
1:CA:574:A:OP2	56:CA:1792:HOH:O	2.11	0.68
23:DA:1798:U:H5'	25:DD:259:THR:HG22	1.74	0.68
1:AA:1502:A:H2	1:AA:1505:G:N1	1.92	0.68
48:D4:16:CYS:HA	48:D4:33:VAL:HB	1.74	0.68
23:DA:2839:G:H5'	35:DR:46:GLY:HA2	1.74	0.68
6:AF:11:ASN:HB3	6:AF:14:LEU:HG	1.74	0.68
10:AJ:57:LYS:O	10:AJ:60:ARG:NH1	2.26	0.68
1:CA:377:G:OP1	16:CP:3:LYS:NZ	2.24	0.68
3:CC:177:THR:HB	3:CC:180:ALA:HB2	1.75	0.68
5:CE:43:LEU:HD21	5:CE:132:ALA:HB1	1.76	0.68
35:DR:20:LEU:HD21	35:DR:40:LYS:HD3	1.74	0.68
1:AA:365:U:H5"	1:AA:366:C:OP1	1.94	0.68
4:AD:127:THR:HG23	4:AD:147:ALA:HB3	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1095:U:OP1	1:CA:1108:G:N2	2.24	0.68
23:DA:271(E):U:H2'	23:DA:271(F):C:C6	2.29	0.68
27:DF:7:TYR:H	27:DF:22:ALA:HB3	1.59	0.68
39:DV:76:LYS:HB2	39:DV:81:TYR:HB3	1.76	0.68
1:AA:1353:G:OP2	21:AU:3:LYS:NZ	2.24	0.68
30:BI:72:LEU:HD21	30:BI:107:VAL:HG11	1.74	0.68
3:CC:12:LEU:HD11	14:CN:51:GLY:HA3	1.75	0.68
1:AA:1003:G:H2'	1:AA:1004:A:H1'	1.76	0.68
1:AA:1285:A:H4'	1:AA:1286:A:O5'	1.94	0.68
2:AB:155:LEU:HD11	2:AB:159:PRO:HD3	1.75	0.68
23:BA:677:A:OP1	56:BA:4104:HOH:O	2.11	0.68
1:CA:940:C:H42	1:CA:1343:G:H1	1.42	0.68
1:CA:49:U:H3	1:CA:362:G:H1'	1.58	0.68
2:CB:135:GLN:HA	2:CB:138:LEU:HD12	1.76	0.68
4:CD:127:THR:HG23	4:CD:147:ALA:HB3	1.76	0.68
23:DA:220:G:O2'	23:DA:233:A:N3	2.25	0.68
5:AE:78:HIS:HE1	5:AE:142:LEU:HA	1.59	0.67
23:BA:528:A:N1	23:BA:2042:A:H2'	2.09	0.67
28:BG:16:ARG:HE	28:BG:31:VAL:HG11	1.60	0.67
36:BS:34:HIS:CE1	36:BS:54:LEU:HD12	2.30	0.67
4:CD:193:ASP:OD1	4:CD:193:ASP:N	2.27	0.67
9:CI:43:ALA:HA	9:CI:74:ILE:HD13	1.75	0.67
46:D2:50:ILE:O	46:D2:51:ARG:HB3	1.94	0.67
27:DF:185:ASP:OD1	27:DF:188:ARG:NH1	2.27	0.67
1:AA:524:G:H2'	1:AA:525:C:C6	2.28	0.67
4:AD:14:ARG:HB2	4:AD:40:PRO:HD2	1.76	0.67
5:AE:43:LEU:HD21	5:AE:132:ALA:HB1	1.76	0.67
1:CA:1084:G:H5"	1:CA:1086:U:C4	2.27	0.67
1:CA:1285:A:H4'	1:CA:1286:A:O5'	1.93	0.67
43:DZ:69:THR:HG22	43:DZ:90:VAL:HA	1.76	0.67
1:AA:993:G:N7	1:AA:1213:A:N6	2.42	0.67
1:AA:1216:G:H5"	14:AN:5:ALA:HB2	1.75	0.67
1:AA:981:U:OP1	14:AN:9:LYS:NZ	2.27	0.67
1:AA:584:G:H5'	17:AQ:91:ARG:HH22	1.59	0.67
23:BA:2319:G:N2	36:BS:3:ARG:HE	1.93	0.67
23:DA:106:C:O4'	42:DY:1:MET:HB2	1.95	0.67
23:DA:1653:G:H3'	35:DR:2:ARG:HD3	1.76	0.67
1:AA:1382:C:H2'	1:AA:1383:C:H6	1.60	0.67
2:AB:185:ILE:HG22	2:AB:199:TYR:HB2	1.77	0.67
12:AL:33:ARG:HD3	12:AL:62:SER:HB3	1.76	0.67
23:BA:1010:A:OP2	56:BA:4351:HOH:O	2.12	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:148:G:H2'	1:CA:149:A:H8	1.60	0.67
1:CA:650:G:O6	56:CA:1790:HOH:O	2.10	0.67
23:DA:2099:U:H3	23:DA:2190:G:H1	1.42	0.67
1:AA:1158:C:H2'	1:AA:1159:U:H4'	1.76	0.67
1:CA:1287:A:H2'	1:CA:1288:A:C8	2.30	0.67
9:CI:71:SER:HA	9:CI:74:ILE:HD12	1.74	0.67
23:DA:2887:U:H2'	23:DA:2888:C:C6	2.30	0.67
23:DA:818:G:OP2	56:DA:4018:HOH:O	2.13	0.67
34:DQ:62:GLY:O	43:DZ:178:GLU:HG2	1.95	0.67
36:DS:34:HIS:CE1	36:DS:54:LEU:HD12	2.29	0.67
1:AA:1192:C:O2	5:AE:25:ARG:NH2	2.28	0.67
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.30	0.67
1:AA:31:G:H5'	1:AA:306:G:N2	2.10	0.67
11:AK:85:ARG:HD3	11:AK:113:PRO:HD3	1.77	0.67
23:DA:2682:U:OP2	56:DA:4047:HOH:O	2.12	0.67
23:DA:1153:C:OP1	38:DU:92:ARG:NH1	2.26	0.67
1:AA:1319:A:N6	1:AA:1361:G:H1'	2.10	0.67
1:AA:1372:U:H2'	1:AA:1373:G:C8	2.30	0.67
23:BA:1036:G:H1	23:BA:1119:C:H42	1.43	0.67
1:CA:1441:G:O2'	1:CA:1459:C:N3	2.19	0.67
14:CN:29:ARG:HG3	14:CN:31:ARG:H	1.60	0.67
23:DA:2361:A:N7	56:DA:3909:HOH:O	2.27	0.67
23:DA:529:A:H62	23:DA:2041:U:H3	1.42	0.67
1:AA:1178:G:N2	1:AA:1181:G:O5'	2.19	0.67
1:AA:1201:A:H5'	1:AA:1203:C:OP2	1.94	0.67
4:AD:193:ASP:N	4:AD:193:ASP:OD1	2.28	0.67
1:CA:1073:U:H2'	1:CA:1074:G:H8	1.60	0.67
4:CD:80:GLU:O	4:CD:83:SER:N	2.27	0.67
15:CO:15:PHE:HE2	15:CO:84:LYS:HD2	1.60	0.67
25:DD:275:LYS:HG3	25:DD:276:LYS:HG2	1.77	0.67
1:AA:1025:U:O2	1:AA:1036:G:O6	2.13	0.67
1:AA:148:G:H2'	1:AA:149:A:H8	1.58	0.67
13:AM:108:ARG:HG3	13:AM:114:ARG:HH22	1.59	0.67
1:CA:1502:A:H2	1:CA:1505:G:N1	1.92	0.67
13:CM:108:ARG:HE	13:CM:114:ARG:HD3	1.60	0.67
28:DG:15:VAL:HG13	28:DG:175:LEU:HB3	1.77	0.67
29:DH:137:ASP:HB3	29:DH:140:LYS:HB3	1.77	0.67
2:AB:174:VAL:O	2:AB:178:ARG:HB2	1.95	0.67
13:AM:12:ASN:O	13:AM:44:ARG:HB3	1.94	0.67
13:AM:65:LYS:HA	13:AM:66:LEU:HB2	1.77	0.67
45:B1:85:LEU:HB3	45:B1:89:GLU:HG3	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:141:A:C8	23:BA:1408:C:O2'	2.47	0.67
23:BA:1653:G:H3'	35:BR:2:ARG:HD3	1.77	0.67
24:BB:38:C:O4'	36:BS:95:HIS:NE2	2.27	0.67
1:CA:1014:A:OP1	1:CA:1014:A:H8	1.76	0.67
1:CA:1309:G:OP2	13:CM:99:ARG:NH2	2.24	0.67
38:DU:92:ARG:HA	38:DU:95:LEU:HB2	1.75	0.67
1:AA:955:U:H3	1:AA:1225:A:H61	1.41	0.66
23:BA:1022:G:H22	23:BA:1142(A):A:H2	1.43	0.66
1:CA:1071:C:H2'	1:CA:1072:G:H8	1.60	0.66
6:CF:91:VAL:HG11	18:CR:72:ARG:HH12	1.60	0.66
1:AA:659:U:H2'	1:AA:660:G:H8	1.58	0.66
8:AH:33:GLU:HA	8:AH:36:LEU:HD12	1.77	0.66
44:B0:65:GLY:HA3	44:B0:81:VAL:HG12	1.77	0.66
23:BA:1486:A:H2'	23:BA:1487:G:H8	1.58	0.66
23:BA:2285:C:OP2	50:B6:6:ARG:NH1	2.28	0.66
42:BY:23:ARG:HG2	42:BY:42:VAL:HG22	1.76	0.66
1:CA:346:G:N2	1:CA:347:G:H1'	2.09	0.66
9:CI:9:ARG:HH11	9:CI:9:ARG:HB2	1.59	0.66
23:DA:2108:C:C2'	23:DA:2109:U:O5'	2.42	0.66
1:AA:944:G:O6	1:AA:1337:G:H2'	1.96	0.66
9:AI:9:ARG:HB2	9:AI:9:ARG:HH11	1.61	0.66
23:BA:1019:U:H3	23:BA:1142(A):A:H62	1.42	0.66
1:CA:1530:G:OP1	56:CA:1773:HOH:O	2.12	0.66
23:DA:993:G:OP1	38:DU:50:ARG:NH2	2.29	0.66
33:DP:95:VAL:HA	33:DP:99:LEU:HD12	1.77	0.66
1:AA:1079:G:OP1	56:AA:1849:HOH:O	2.12	0.66
4:AD:65:ARG:HG2	4:AD:75:PHE:CD1	2.31	0.66
23:BA:271(E):U:H2'	23:BA:271(F):C:C6	2.31	0.66
23:BA:879:G:H22	23:BA:899:A:H1'	1.61	0.66
24:BB:27:C:H5"	36:BS:54:LEU:HD11	1.76	0.66
3:CC:152:ILE:HG13	3:CC:199:LYS:HD2	1.76	0.66
49:D5:49:CYS:SG	49:D5:51:TYR:HB2	2.36	0.66
1:AA:1098:C:H2'	1:AA:1099:G:H1'	1.78	0.66
1:AA:448:A:OP2	1:AA:485:G:N1	2.15	0.66
1:AA:994:A:C5	1:AA:1216:G:H4'	2.31	0.66
30:BI:88:ILE:HD11	30:BI:123:LEU:HB3	1.76	0.66
23:DA:574:C:OP1	56:DA:3662:HOH:O	2.14	0.66
35:DR:67:LEU:HD13	35:DR:76:VAL:HG21	1.75	0.66
1:AA:659:U:H2'	1:AA:660:G:C8	2.30	0.66
1:AA:977:A:O2'	1:AA:980:C:N4	2.29	0.66
23:BA:90:U:O2'	23:BA:92:A:O5'	2.14	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1250:G:N7	33:BP:18:ARG:NH2	2.44	0.66
1:CA:1028:C:N3	1:CA:1034:G:H1'	2.10	0.66
1:CA:1053:G:N7	1:CA:1200:C:H5'	2.10	0.66
1:AA:457:C:H2'	1:AA:458:C:C6	2.29	0.66
26:BE:11:MET:HG2	26:BE:24:THR:HB	1.77	0.66
23:BA:1278:A:OP1	35:BR:36:THR:HG23	1.94	0.66
1:CA:976:G:OP1	14:CN:32:SER:N	2.18	0.66
1:AA:952:U:O2	1:AA:1229:A:N1	2.28	0.66
4:AD:173:TRP:CD1	4:AD:174:LEU:HG	2.30	0.66
23:BA:1494:A:H2'	23:BA:1495:A:H8	1.60	0.66
1:CA:436:C:H5"	4:CD:156:GLU:OE2	1.96	0.66
6:CF:100:ASN:ND2	18:CR:23:LYS:O	2.28	0.66
38:DU:36:ARG:HD2	38:DU:40:PHE:CZ	2.31	0.66
40:DW:79:GLY:HA3	40:DW:100:THR:HG22	1.77	0.66
4:AD:13:ARG:HB2	4:AD:40:PRO:HD3	1.76	0.66
1:CA:1147:C:O2	9:CI:16:ARG:NH1	2.29	0.66
1:CA:285:G:N7	56:CA:1730:HOH:O	2.29	0.66
1:CA:674:G:H2'	1:CA:675:A:H8	1.60	0.66
13:CM:65:LYS:HA	13:CM:66:LEU:HB2	1.76	0.66
1:AA:1172:C:H2'	1:AA:1173:G:H8	1.61	0.66
1:AA:1277:C:O2'	1:AA:1279:A:H1'	1.96	0.66
1:AA:576:G:OP2	56:AA:1909:HOH:O	2.14	0.66
31:BN:20:GLY:HA2	31:BN:61:ARG:HG2	1.78	0.66
1:CA:538:G:H5"	12:CL:114:LYS:HB2	1.77	0.66
4:CD:173:TRP:CD1	4:CD:174:LEU:HG	2.31	0.66
22:CV:18:GLN:HE21	22:CV:19:ALA:N	1.93	0.66
23:BA:1361:G:N7	56:BA:4717:HOH:O	2.28	0.65
1:CA:1106:G:H5'	3:CC:172:ARG:HD2	1.77	0.65
10:CJ:53:PRO:O	14:CN:41:ARG:NH2	2.30	0.65
25:DD:33:LEU:O	25:DD:64:ILE:HG13	1.97	0.65
42:DY:23:ARG:HG2	42:DY:42:VAL:HG22	1.78	0.65
1:AA:1004:A:N6	1:AA:1035:A:OP2	2.28	0.65
1:AA:1077:G:N7	56:AA:1850:HOH:O	2.30	0.65
20:CT:16:HIS:O	20:CT:19:SER:OG	2.13	0.65
26:DE:11:MET:HG2	26:DE:24:THR:HB	1.77	0.65
1:AA:1240:U:H1'	7:AG:38:LEU:HD21	1.78	0.65
15:AO:16:ALA:HB1	15:AO:21:ASP:HB3	1.78	0.65
24:BB:31:C:O2'	24:BB:53:A:N6	2.30	0.65
31:BN:120:LEU:HD22	31:BN:122:VAL:HG23	1.78	0.65
42:BY:79:CYS:HB3	42:BY:81:LYS:H	1.61	0.65
7:CG:20:ASP:HB3	7:CG:23:VAL:HB	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:31:ILE:HG12	19:CS:49:ILE:HG22	1.78	0.65
23:DA:1796:U:H2'	23:DA:1797:C:C6	2.31	0.65
23:DA:587:C:OP2	33:DP:21:ARG:NH2	2.29	0.65
1:AA:1037:C:H2'	1:AA:1038:C:O4'	1.97	0.65
1:AA:1252:A:H2	1:AA:1355:G:H1'	1.61	0.65
1:AA:153:C:H2'	1:AA:154:C:H6	1.61	0.65
20:AT:72:LEU:HD21	20:AT:77:ALA:HB2	1.79	0.65
23:BA:2140:C:O2	23:BA:2151:G:N1	2.22	0.65
1:CA:1264:C:N3	1:CA:1271:G:O6	2.29	0.65
2:CB:47:THR:HA	2:CB:202:PRO:HG2	1.77	0.65
2:CB:24:TRP:CZ3	2:CB:26:PRO:HA	2.31	0.65
1:AA:1442(A):G:C2'	1:AA:1442(B):A:H5'	2.26	0.65
1:AA:590:C:H2'	1:AA:591:U:H6	1.60	0.65
1:AA:989:C:N3	1:AA:1216:G:O6	2.29	0.65
1:CA:662:G:H2'	1:CA:663:A:C8	2.31	0.65
15:CO:62:GLN:HA	15:CO:65:ARG:HD2	1.77	0.65
45:D1:20:ARG:HH11	45:D1:20:ARG:HG2	1.61	0.65
1:AA:346:G:N2	1:AA:347:G:H1'	2.11	0.65
3:AC:125:GLU:HG3	3:AC:191:THR:HG22	1.79	0.65
4:AD:13:ARG:NH1	4:AD:38:TYR:O	2.28	0.65
24:BB:60:C:N4	56:BB:326:HOH:O	2.18	0.65
1:CA:1244:C:H2'	1:CA:1245:A:C8	2.31	0.65
1:CA:434:U:H2'	1:CA:435:C:C6	2.32	0.65
25:DD:108:PRO:HB3	25:DD:143:HIS:HE1	1.60	0.65
31:DN:120:LEU:HD22	31:DN:122:VAL:HG23	1.78	0.65
1:AA:1373:G:H4'	7:AG:36:LYS:HG3	1.78	0.65
1:AA:662:G:H2'	1:AA:663:A:C8	2.31	0.65
23:BA:2099:U:H3	23:BA:2190:G:H1	1.43	0.65
31:DN:47:ALA:HB2	31:DN:112:LEU:HD11	1.78	0.65
1:AA:1313:U:O2	1:AA:1324:A:N1	2.29	0.65
1:AA:434:U:H2'	1:AA:435:C:C6	2.31	0.65
9:AI:5:TYR:HE1	9:AI:16:ARG:HG2	1.62	0.65
23:BA:1153:C:OP1	38:BU:92:ARG:NH1	2.30	0.65
1:CA:130:A:H5'	17:CQ:63:ARG:HH21	1.60	0.65
23:DA:946:G:OP2	56:DA:3960:HOH:O	2.14	0.65
1:AA:971:G:HO2'	1:AA:1365:G:HO2'	1.31	0.65
1:AA:962:C:N3	1:AA:973:G:O6	2.30	0.65
25:BD:275:LYS:HG3	25:BD:276:LYS:HG2	1.77	0.65
1:CA:620:C:H5"	56:CA:1782:HOH:O	1.97	0.65
1:CA:537:G:H5"	12:CL:113:ARG:NH1	2.12	0.65
1:CA:881:G:P	12:CL:12:ARG:HH22	2.19	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:708:C:H42	23:DA:723:G:H1	1.45	0.65
1:AA:1036:G:H3'	1:AA:1037:C:H6	1.62	0.65
1:AA:1249:C:H41	1:AA:1287:A:H5'	1.62	0.65
1:AA:21:G:OP1	56:AA:1894:HOH:O	2.15	0.65
3:AC:19:GLU:O	3:AC:56:ASP:HA	1.97	0.65
4:AD:53:ASP:HB3	4:AD:57:ARG:HH12	1.61	0.65
1:AA:1367:C:OP1	9:AI:115:GLY:N	2.30	0.65
13:AM:70:LEU:O	13:AM:74:VAL:N	2.30	0.65
23:BA:1673:U:OP1	56:BA:4565:HOH:O	2.15	0.65
23:DA:1031:G:H21	53:D9:36:GLN:HE22	1.45	0.65
42:DY:92:ASN:N	42:DY:93:GLY:HA2	2.12	0.65
44:B0:27:GLU:HG3	44:B0:68:GLU:HA	1.78	0.64
23:BA:88:G:OP1	56:BA:4659:HOH:O	2.15	0.64
3:CC:109:PRO:HA	3:CC:112:SER:HB3	1.78	0.64
23:DA:1991:U:H2'	23:DA:1992:G:H5"	1.77	0.64
23:DA:796:C:H2'	23:DA:797:C:C6	2.32	0.64
1:AA:1151:A:O2'	1:AA:1152:A:H8	1.80	0.64
1:AA:1263:C:N4	1:AA:1272:G:H1	1.93	0.64
1:AA:1305:G:H1	1:AA:1331:G:H1'	1.63	0.64
14:AN:7:ILE:HB	14:AN:23:ARG:HG2	1.79	0.64
23:BA:2134:A:O2'	23:BA:2159:G:N2	2.28	0.64
23:BA:220:G:O2'	23:BA:233:A:N3	2.29	0.64
43:BZ:69:THR:HG22	43:BZ:90:VAL:HA	1.78	0.64
1:CA:1442(A):G:C2'	1:CA:1442(B):A:H5'	2.27	0.64
48:D4:9:LEU:HD23	48:D4:27:THR:HG23	1.77	0.64
1:AA:600:C:H2'	1:AA:601:C:C6	2.32	0.64
10:AJ:50:ILE:HG13	10:AJ:60:ARG:HH11	1.62	0.64
10:AJ:50:ILE:HB	14:AN:41:ARG:NE	2.11	0.64
23:BA:2107:C:C5	23:BA:2108:C:N4	2.65	0.64
27:BF:53:THR:HG23	27:BF:55:GLY:H	1.61	0.64
1:CA:1027:C:C2	1:CA:1034:G:N2	2.66	0.64
23:DA:2107:C:N4	23:DA:2108:C:H42	1.95	0.64
34:DQ:38:GLU:OE2	34:DQ:128:LYS:N	2.23	0.64
22:AV:4:GLN:O	22:AV:4:GLN:NE2	2.25	0.64
23:BA:686:G:H5"	51:B7:11:LYS:HE2	1.78	0.64
23:BA:784:A:H5'	23:BA:785:G:OP1	1.97	0.64
30:BI:88:ILE:HG22	30:BI:90:GLY:H	1.62	0.64
1:CA:1222:G:OP2	1:CA:1322:C:N4	2.24	0.64
23:DA:1430:C:H2'	23:DA:1431:U:C6	2.32	0.64
23:DA:602:G:O2'	23:DA:655:A:N6	2.31	0.64
1:AA:1216:G:H5"	14:AN:5:ALA:CB	2.27	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:B4:42:PHE:HB3	48:B4:43:TYR:HB2	1.80	0.64
4:CD:14:ARG:HB2	4:CD:40:PRO:HD2	1.79	0.64
1:AA:509:A:OP2	56:AA:1864:HOH:O	2.15	0.64
2:AB:18:GLY:HA2	2:AB:42:ILE:HG13	1.79	0.64
1:AA:625:G:H4'	16:AP:16:HIS:CD2	2.33	0.64
24:BB:50:G:H5"	36:BS:61:ASN:HD21	1.63	0.64
29:BH:149:ARG:NH1	29:BH:167:GLU:OE1	2.31	0.64
1:CA:1459:C:C6	1:CA:1460:A:N7	2.66	0.64
3:CC:31:HIS:HA	3:CC:34:LEU:HB3	1.80	0.64
1:CA:1280:A:H5'	10:CJ:41:PRO:HG2	1.78	0.64
1:AA:859:A:H2'	1:AA:860:A:O4'	1.98	0.64
19:AS:48:THR:HA	19:AS:61:TYR:HA	1.80	0.64
52:B8:34:TRP:CG	52:B8:35:GLN:N	2.65	0.64
23:BA:1186:G:OP1	56:BA:4254:HOH:O	2.15	0.64
23:BA:847:U:OP2	56:BA:4703:HOH:O	2.14	0.64
32:BO:34:THR:OG1	32:BO:35:VAL:N	2.29	0.64
1:CA:524:G:H2'	1:CA:525:C:C6	2.33	0.64
5:CE:11:ILE:HG21	5:CE:105:VAL:HG22	1.80	0.64
23:DA:2123:G:H1	23:DA:2175:C:H42	1.44	0.64
23:BA:271(I):G:H1	23:BA:271(O):C:N4	1.96	0.64
33:BP:59:LEU:HD11	52:B8:10:ALA:HB2	1.78	0.64
4:CD:65:ARG:HG2	4:CD:75:PHE:CD1	2.33	0.64
5:CE:78:HIS:HE1	5:CE:142:LEU:HA	1.62	0.64
12:CL:33:ARG:HD3	12:CL:62:SER:HB3	1.78	0.64
30:DI:83:ALA:HB2	30:DI:88:ILE:HA	1.78	0.64
43:DZ:111:VAL:C	43:DZ:113:ALA:H	2.01	0.64
1:AA:1085:U:H3'	1:AA:1086:U:H5	1.63	0.64
22:AV:6:ARG:HA	22:AV:9:LEU:HD12	1.79	0.64
24:BB:24:G:N7	24:BB:56:G:H2'	2.13	0.64
1:CA:1277:C:HO2'	1:CA:1279:A:H8	1.46	0.64
23:DA:2637:U:H5"	26:DE:82:ARG:HH21	1.62	0.64
23:DA:2887:U:H2'	23:DA:2888:C:H6	1.63	0.64
23:DA:299:A:H5"	42:DY:86:ARG:HH21	1.63	0.64
30:DI:5:LEU:HD11	30:DI:19:VAL:HG22	1.79	0.64
4:AD:12:CYS:HA	4:AD:19:LEU:HB2	1.80	0.64
9:AI:26:VAL:HG22	9:AI:61:ALA:HB3	1.80	0.64
18:AR:31:LEU:HD12	18:AR:66:LEU:HD13	1.80	0.64
1:CA:1392:G:H21	1:CA:1502:A:H8	1.43	0.64
1:CA:841:U:H5	1:CA:848:C:H1'	1.63	0.64
9:CI:17:VAL:HG13	9:CI:63:ILE:HG12	1.78	0.64
18:CR:31:LEU:HD12	18:CR:66:LEU:HD13	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CR:70:ILE:O	18:CR:74:ARG:HG3	1.97	0.64
23:DA:1778:U:H2'	23:DA:1784:A:N6	2.13	0.64
23:DA:2269:A:OP1	56:DA:4013:HOH:O	2.15	0.64
30:DI:83:ALA:HB1	30:DI:86:THR:O	1.98	0.64
1:AA:1059:C:H2'	1:AA:1060:C:H6	1.63	0.63
1:AA:1126:U:H1'	1:AA:1280:A:C6	2.33	0.63
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.33	0.63
1:AA:1339:A:C6	1:AA:1340:A:H1'	2.33	0.63
2:AB:24:TRP:CZ3	2:AB:26:PRO:HA	2.34	0.63
5:AE:33:VAL:HG21	5:AE:109:ILE:HA	1.80	0.63
23:BA:1045:A:N3	23:BA:1045:A:H2'	2.12	0.63
23:BA:1866:C:H2'	23:BA:1876:A:O4'	1.97	0.63
23:BA:2887:U:H2'	23:BA:2888:C:C6	2.33	0.63
24:BB:49:C:OP1	36:BS:97:ARG:HB2	1.97	0.63
27:BF:13:SER:HB3	27:BF:15:SER:HB2	1.78	0.63
1:CA:1308:U:H2'	1:CA:1309:G:C8	2.33	0.63
23:DA:546:C:H2'	23:DA:547:A:H5'	1.80	0.63
26:DE:47:VAL:HG21	26:DE:86:PRO:HD2	1.80	0.63
24:DB:27:C:H5"	36:DS:54:LEU:HD11	1.79	0.63
38:DU:29:SER:OG	38:DU:30:LYS:NZ	2.30	0.63
1:AA:841:U:H5	1:AA:848:C:H1'	1.62	0.63
10:AJ:91:PRO:HD2	10:AJ:94:VAL:HB	1.79	0.63
19:AS:33:THR:HB	19:AS:51:VAL:HG22	1.79	0.63
1:CA:600:C:H2'	1:CA:601:C:C6	2.33	0.63
23:DA:1153:C:H2'	23:DA:1154:G:O4'	1.98	0.63
23:DA:1486:A:H2'	23:DA:1487:G:H8	1.62	0.63
23:DA:2140:C:O2	23:DA:2151:G:N1	2.23	0.63
23:DA:2567:G:H2'	23:DA:2568:C:C6	2.33	0.63
23:DA:879:G:H22	23:DA:899:A:H1'	1.63	0.63
1:AA:1203:C:H2'	1:AA:1204:A:O4'	1.99	0.63
1:AA:475:G:H2'	1:AA:476:G:H8	1.62	0.63
23:BA:249:C:O2	52:B8:12:LYS:NZ	2.31	0.63
1:CA:1375:A:H4'	7:CG:29:LYS:HE2	1.80	0.63
29:DH:56:SER:HB3	29:DH:61:HIS:ND1	2.13	0.63
1:AA:130:A:H5'	17:AQ:63:ARG:HH21	1.62	0.63
1:AA:519:C:H2'	1:AA:520:A:C8	2.33	0.63
1:AA:924:C:H2'	1:AA:925:G:C8	2.34	0.63
1:CA:1372:U:H2'	1:CA:1373:G:O4'	1.97	0.63
12:CL:24:VAL:HG13	12:CL:98:TYR:HE2	1.63	0.63
13:CM:96:LEU:HD23	13:CM:97:PRO:HD2	1.80	0.63
1:AA:1287:A:H1'	1:AA:1354:C:H5'	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:201:C:H42	1:AA:216:G:H1	1.46	0.63
1:AA:501:C:OP1	12:AL:117:ARG:NH2	2.28	0.63
2:AB:47:THR:HA	2:AB:202:PRO:HG2	1.79	0.63
3:AC:115:LEU:HA	3:AC:118:GLN:HG2	1.81	0.63
4:AD:108:LEU:HB3	4:AD:110:PHE:CE1	2.33	0.63
10:AJ:11:PHE:CE2	10:AJ:67:THR:HB	2.34	0.63
23:BA:2497:A:H5"	56:BA:3882:HOH:O	1.99	0.63
48:D4:42:PHE:HB3	48:D4:43:TYR:HB2	1.81	0.63
1:AA:1170:A:H2'	1:AA:1171:G:O4'	1.98	0.63
26:BE:47:VAL:HG21	26:BE:86:PRO:HD2	1.80	0.63
23:BA:252:G:OP2	33:BP:50:ARG:NH1	2.30	0.63
34:BQ:32:TYR:OH	34:BQ:111:GLU:OE1	2.15	0.63
1:CA:1302:U:OP2	13:CM:21:TYR:OH	2.05	0.63
2:CB:208:ILE:HA	2:CB:211:ILE:HD12	1.80	0.63
8:CH:7:ALA:HB2	8:CH:85:ARG:HG3	1.81	0.63
23:DA:2331:G:O3'	44:D0:43:THR:HG22	1.99	0.63
23:DA:1494:A:H2'	23:DA:1495:A:H8	1.63	0.63
1:AA:999:C:H2'	1:AA:1000:U:H6	1.64	0.63
1:AA:1113:C:H2'	1:AA:1114:C:C6	2.34	0.63
1:AA:1230:C:H2'	1:AA:1231:G:H8	1.63	0.63
1:AA:396:G:O2'	1:AA:398:C:OP1	2.11	0.63
1:AA:878:G:H5'	8:AH:89:PRO:HG2	1.80	0.63
1:AA:979:C:N3	1:AA:1318:A:N6	2.45	0.63
5:CE:18:ARG:HH12	5:CE:25:ARG:HD3	1.64	0.63
9:CI:108:VAL:HG12	9:CI:109:VAL:H	1.64	0.63
52:D8:4:MET:HE3	52:D8:63:PRO:HG3	1.81	0.63
23:DA:2364:C:H2'	23:DA:2365:G:O4'	1.99	0.63
1:AA:1047:G:N2	1:AA:1210:C:N3	2.47	0.63
1:AA:1157:A:H62	1:AA:1177:G:N2	1.96	0.63
1:AA:1305:G:N1	1:AA:1331:G:H1'	2.13	0.63
1:AA:1308:U:H2'	1:AA:1309:G:H8	1.63	0.63
1:AA:935:A:O2'	1:AA:1383:C:O2	2.13	0.63
1:CA:201:C:H42	1:CA:216:G:H1	1.45	0.63
1:CA:258:G:O6	56:CA:1733:HOH:O	2.11	0.63
3:CC:150:LYS:HG3	3:CC:173:VAL:HG21	1.81	0.63
23:DA:1045:A:N3	23:DA:1045:A:H2'	2.14	0.63
23:DA:1866:C:H2'	23:DA:1876:A:O4'	1.99	0.63
23:DA:2646:C:OP2	23:DA:2732:G:O2'	2.13	0.63
1:AA:1442(A):G:C8	1:AA:1442(B):A:C2	2.86	0.63
1:AA:370:C:H2'	1:AA:371:G:C8	2.32	0.63
2:AB:98:LEU:H	2:AB:101:MET:HE3	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1803:A:O2'	25:BD:259:THR:HG21	1.98	0.63
25:BD:145:VAL:HG12	25:BD:146:GLU:O	1.99	0.63
26:BE:72:VAL:HA	26:BE:73:GLU:HB3	1.80	0.63
42:BY:92:ASN:N	42:BY:93:GLY:HA2	2.13	0.63
1:CA:859:A:H2'	1:CA:860:A:O4'	1.99	0.63
4:CD:12:CYS:HA	4:CD:19:LEU:HB2	1.80	0.63
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.34	0.62
20:AT:13:LEU:O	20:AT:17:ARG:HG3	1.98	0.62
23:BA:2206:G:H5'	23:BA:2207:G:C5	2.34	0.62
30:BI:72:LEU:HA	30:BI:75:LEU:HD22	1.80	0.62
40:BW:86:LEU:HD22	40:BW:96:ILE:HD11	1.81	0.62
3:CC:13:GLY:HA3	14:CN:57:ARG:NH2	2.14	0.62
8:CH:33:GLU:HA	8:CH:36:LEU:HD12	1.80	0.62
23:DA:271(M):G:H4'	23:DA:271(N):U:OP1	1.99	0.62
1:AA:933:G:N2	1:AA:1384:C:N3	2.43	0.62
1:AA:35:G:O2'	12:AL:118:SER:O	2.17	0.62
45:B1:3:LYS:HB2	45:B1:61:ARG:HH12	1.63	0.62
1:CA:1308:U:H2'	1:CA:1309:G:H8	1.63	0.62
4:CD:13:ARG:HB2	4:CD:40:PRO:HD3	1.80	0.62
1:CA:1080:A:OP1	5:CE:14:ARG:NH2	2.31	0.62
45:D1:50:ARG:HG2	45:D1:59:THR:HB	1.80	0.62
23:DA:277:C:H1'	23:DA:278:A:OP2	1.98	0.62
36:DS:96:GLY:HA3	36:DS:98:VAL:N	2.14	0.62
1:AA:1170:A:H3'	1:AA:1171:G:H8	1.62	0.62
1:AA:221:C:H2'	1:AA:222:U:C6	2.33	0.62
14:AN:3:ARG:HH12	14:AN:28:GLY:H	1.47	0.62
10:AJ:49:VAL:HG23	14:AN:41:ARG:HB2	1.80	0.62
33:BP:38:GLN:O	33:BP:39:LYS:HB3	1.99	0.62
43:BZ:111:VAL:C	43:BZ:113:ALA:H	2.03	0.62
5:CE:102:ALA:HB1	5:CE:106:PRO:HG2	1.82	0.62
23:DA:1143:A:OP1	31:DN:25:ARG:NH2	2.32	0.62
3:AC:19:GLU:HB3	3:AC:54:ARG:CZ	2.30	0.62
15:AO:29:VAL:HG11	15:AO:81:LEU:HD21	1.80	0.62
27:BF:53:THR:CG2	27:BF:55:GLY:H	2.12	0.62
38:BU:36:ARG:HD2	38:BU:40:PHE:CZ	2.34	0.62
1:CA:1027:C:H2'	1:CA:1028:C:H5	1.65	0.62
1:CA:346:G:N3	1:CA:347:G:H1'	2.13	0.62
1:CA:59:A:H3'	1:CA:331:G:H22	1.64	0.62
23:DA:1495:A:H2'	23:DA:1496:A:C8	2.35	0.62
23:DA:2250:G:O2'	23:DA:2496:C:OP1	2.15	0.62
23:DA:271(R):G:H2'	23:DA:271(S):G:H8	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:102:ALA:HB1	5:AE:106:PRO:HG2	1.82	0.62
9:AI:9:ARG:HB3	9:AI:104:ARG:HH21	1.65	0.62
9:AI:4:TYR:CD2	9:AI:88:TYR:HB2	2.35	0.62
1:CA:1096:C:H2'	1:CA:1097:C:H6	1.62	0.62
1:CA:38:G:C2	1:CA:397:A:C2	2.87	0.62
1:CA:828:A:N6	1:CA:858:G:O2'	2.32	0.62
25:DD:108:PRO:HB3	25:DD:143:HIS:CE1	2.35	0.62
1:AA:1346:A:O2'	1:AA:1347:G:OP2	2.14	0.62
1:AA:17:U:O2'	1:AA:1079:G:N3	2.31	0.62
25:BD:33:LEU:O	25:BD:64:ILE:HG13	1.99	0.62
30:BI:65:ALA:HB1	30:BI:136:VAL:HG11	1.80	0.62
33:BP:121:LYS:HG2	33:BP:123:LEU:HG	1.81	0.62
1:CA:45:U:H3	1:CA:396:G:H1	1.47	0.62
1:CA:503:C:OP2	12:CL:116:SER:HB3	1.99	0.62
1:CA:524:G:H2'	1:CA:525:C:H6	1.63	0.62
2:CB:127:ILE:HA	2:CB:130:ARG:HG2	1.82	0.62
45:D1:80:LEU:HD23	45:D1:82:LEU:HD21	1.82	0.62
23:DA:11:G:H2'	23:DA:12:U:H5'	1.81	0.62
1:AA:1349:A:C2	1:AA:1350:A:H1'	2.35	0.62
4:AD:9:CYS:HB2	4:AD:22:LYS:NZ	2.14	0.62
1:AA:881:G:P	12:AL:12:ARG:HH22	2.22	0.62
23:BA:2602:A:H8	56:BA:3864:HOH:O	1.83	0.62
23:BA:277:C:H1'	23:BA:278:A:OP2	1.99	0.62
23:BA:2637:U:H5"	26:BE:82:ARG:HH21	1.65	0.62
1:CA:1115:C:N3	1:CA:1185:G:O6	2.33	0.62
1:CA:1235:U:H5"	21:CU:3:LYS:HB2	1.81	0.62
23:DA:1359:A:N6	23:DA:1372:U:C4	2.59	0.62
23:DA:574:C:N3	26:DE:145:LYS:NZ	2.37	0.62
1:AA:1001:A:H2'	1:AA:1001(A):G:O4'	2.00	0.62
1:AA:1264:C:H2'	1:AA:1265:G:C8	2.34	0.62
23:BA:1358:G:H2'	23:BA:1359:A:C2	2.35	0.62
23:BA:1488:G:H5'	23:BA:1489:U:OP2	1.99	0.62
23:BA:1754:C:OP1	37:BT:96:ARG:NH1	2.30	0.62
23:BA:2306:C:C5'	23:BA:2307:G:H2'	2.30	0.62
37:BT:65:LYS:HE2	37:BT:67:SER:HB2	1.82	0.62
2:CB:80:ILE:HD13	2:CB:212:GLN:HG2	1.81	0.62
16:CP:15:PRO:HB2	16:CP:41:PRO:HG3	1.82	0.62
23:DA:1106:G:O2'	23:DA:1107:G:OP1	2.16	0.62
30:DI:93:THR:O	30:DI:97:ILE:HD13	2.00	0.62
1:AA:164:U:H2'	1:AA:165:C:C6	2.35	0.62
1:AA:629:G:H2'	1:AA:630:G:O4'	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:24:VAL:HG13	12:AL:98:TYR:HE2	1.65	0.62
46:B2:50:ILE:O	46:B2:51:ARG:HB3	1.97	0.62
25:BD:69:ARG:NH2	25:BD:128:GLY:O	2.30	0.62
39:BV:76:LYS:HB2	39:BV:81:TYR:HB3	1.82	0.62
1:CA:1070:U:O5'	5:CE:25:ARG:NH1	2.32	0.62
1:CA:1359:C:H2'	1:CA:1361:G:OP2	2.00	0.62
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.35	0.62
1:CA:590:C:H2'	1:CA:591:U:H6	1.65	0.62
2:CB:174:VAL:O	2:CB:178:ARG:HB2	1.99	0.62
23:DA:1488:G:H5'	23:DA:1489:U:OP2	1.98	0.62
35:DR:104:ARG:HG3	35:DR:111:LEU:HD21	1.81	0.62
1:AA:1230:C:H42	13:AM:105:THR:HG21	1.65	0.62
3:AC:55:VAL:HA	3:AC:67:THR:O	2.00	0.62
1:AA:15:G:H4'	5:AE:24:ARG:HH12	1.65	0.62
7:AG:116:ALA:HA	7:AG:119:ARG:HB2	1.82	0.62
27:BF:28:ILE:HG12	27:BF:116:ASP:HB2	1.81	0.62
35:BR:20:LEU:HD21	35:BR:40:LYS:HD3	1.81	0.62
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.35	0.62
3:CC:54:ARG:HD3	3:CC:56:ASP:HB2	1.82	0.62
23:DA:1036:G:H1	23:DA:1119:C:H42	1.47	0.62
23:DA:873:G:N2	23:DA:905:U:O2	2.32	0.62
1:AA:1277:C:HO2'	1:AA:1279:A:H8	1.48	0.61
1:AA:1459:C:N3	1:AA:1460:A:N6	2.48	0.61
23:BA:1358:G:H2'	23:BA:1359:A:H2	1.64	0.61
1:CA:1001:A:H2'	1:CA:1001(A):G:C8	2.34	0.61
1:CA:1459:C:N3	1:CA:1460:A:N6	2.48	0.61
1:CA:365:U:H5"	1:CA:366:C:OP1	2.00	0.61
2:CB:130:ARG:HB2	2:CB:135:GLN:OE1	2.00	0.61
23:DA:271(I):G:H1	23:DA:271(O):C:N4	1.98	0.61
25:DD:267:SER:O	25:DD:268:ARG:HB3	2.00	0.61
27:DF:28:ILE:HG12	27:DF:116:ASP:HB2	1.82	0.61
34:DQ:21:THR:HG21	34:DQ:101:ARG:HB2	1.82	0.61
1:AA:1019:C:H2'	1:AA:1020:U:O4'	2.00	0.61
1:AA:962:C:H1'	1:AA:1201:A:C2	2.35	0.61
1:AA:539:A:OP2	12:AL:115:LYS:NZ	2.33	0.61
29:BH:3:ARG:HG3	29:BH:4:ILE:N	2.15	0.61
1:CA:222:U:H2'	1:CA:223:U:C6	2.36	0.61
1:CA:833:U:H2'	1:CA:834:C:H6	1.64	0.61
10:CJ:50:ILE:HA	10:CJ:60:ARG:HB3	1.82	0.61
31:DN:20:GLY:HA2	31:DN:61:ARG:HG2	1.81	0.61
34:DQ:29:PHE:N	34:DQ:105:GLU:OE2	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1097:C:H2'	1:AA:1098:C:C6	2.36	0.61
2:AB:18:GLY:HA3	2:AB:41:ILE:HG23	1.82	0.61
7:AG:71:PRO:HG3	7:AG:99:LEU:HD12	1.81	0.61
23:BA:1991:U:H2'	23:BA:1992:G:H5"	1.81	0.61
1:CA:629:G:H2'	1:CA:630:G:O4'	2.00	0.61
2:CB:195:ASP:O	8:CH:74:PRO:HG3	2.01	0.61
26:DE:111:ARG:HG3	26:DE:160:TYR:CD1	2.35	0.61
1:AA:1259:C:H2'	1:AA:1283:G:O2'	2.00	0.61
10:AJ:39:PRO:HA	10:AJ:70:ARG:HG2	1.82	0.61
21:AU:3:LYS:HE3	21:AU:14:TRP:CG	2.35	0.61
23:BA:2867:G:OP2	37:BT:119:LYS:NZ	2.31	0.61
23:BA:300:A:P	42:BY:86:ARG:HH22	2.23	0.61
23:BA:546:C:H6	23:BA:547:A:H5'	1.64	0.61
23:BA:615:G:OP1	27:BF:40:GLN:NE2	2.33	0.61
34:BQ:16:ARG:HG2	34:BQ:16:ARG:HH11	1.66	0.61
1:CA:565:U:OP2	1:CA:566:G:O2'	2.18	0.61
2:CB:213:LEU:HD22	2:CB:214:ILE:HD13	1.80	0.61
5:CE:33:VAL:HG21	5:CE:109:ILE:HA	1.81	0.61
15:CO:15:PHE:CE2	15:CO:84:LYS:HD2	2.35	0.61
50:D6:9:LEU:HD21	50:D6:25:LYS:HB3	1.81	0.61
23:DA:1533:G:H21	23:DA:1536:C:H5	1.49	0.61
26:DE:72:VAL:HA	26:DE:73:GLU:HB3	1.82	0.61
23:DA:548:A:N6	39:DV:19:LYS:HB2	2.16	0.61
1:AA:1036:G:H3'	1:AA:1037:C:C6	2.36	0.61
1:AA:382:A:H2'	1:AA:383:A:H8	1.66	0.61
1:AA:458:C:H2'	1:AA:460:G:H8	1.65	0.61
2:AB:121:LEU:HD21	2:AB:138:LEU:HD13	1.82	0.61
10:AJ:49:VAL:C	10:AJ:60:ARG:HG2	2.21	0.61
23:BA:2602:A:H1'	23:BA:2603:G:H5"	1.82	0.61
37:BT:51:ARG:HG3	37:BT:98:LYS:HE3	1.81	0.61
1:CA:1348:U:O3'	9:CI:120:ARG:HB2	2.00	0.61
3:CC:121:ALA:HB2	3:CC:198:VAL:HG11	1.81	0.61
10:CJ:8:LEU:HB3	10:CJ:96:ILE:HG22	1.83	0.61
23:DA:1798:U:C5'	25:DD:259:THR:HG22	2.30	0.61
1:AA:1028:C:N4	1:AA:1034:G:H1'	2.15	0.61
3:AC:37:GLN:HG2	14:AN:26:ARG:HD2	1.81	0.61
23:BA:1430:C:H2'	23:BA:1431:U:C6	2.36	0.61
23:BA:1798:U:C5'	25:BD:259:THR:HG22	2.30	0.61
30:BI:112:LYS:C	30:BI:114:LEU:H	2.03	0.61
9:CI:27:THR:HA	9:CI:32:ASP:HA	1.83	0.61
23:DA:90:U:O2'	23:DA:92:A:O5'	2.17	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:55:ALA:O	4:AD:59:ARG:HG2	2.00	0.61
13:AM:97:PRO:HB3	13:AM:101:GLN:HE22	1.65	0.61
20:AT:43:LEU:O	20:AT:47:GLY:N	2.29	0.61
1:CA:1347:G:C8	9:CI:107:ARG:HB3	2.36	0.61
1:CA:153:C:H2'	1:CA:154:C:H6	1.64	0.61
1:CA:878:G:H5'	8:CH:89:PRO:HG2	1.83	0.61
9:CI:32:ASP:O	9:CI:36:TYR:HB3	2.01	0.61
23:DA:207:A:H2'	23:DA:208:C:O4'	2.00	0.61
24:DB:11:C:H3'	24:DB:12:C:C6	2.36	0.61
1:AA:346:G:N3	1:AA:347:G:H1'	2.16	0.61
1:AA:964:A:H2'	1:AA:965:A:C8	2.36	0.61
2:AB:127:ILE:HA	2:AB:130:ARG:HG2	1.83	0.61
47:B3:18:ASP:N	47:B3:18:ASP:OD1	2.33	0.61
23:BA:207:A:H2'	23:BA:208:C:O4'	2.01	0.61
24:BB:32:C:C2	24:BB:51:G:N2	2.69	0.61
30:BI:94:ALA:HA	30:BI:97:ILE:HD12	1.82	0.61
32:BO:24:VAL:HB	32:BO:33:ALA:HB2	1.83	0.61
23:BA:2849:U:OP2	37:BT:95:ARG:NH1	2.33	0.61
34:BQ:62:GLY:O	43:BZ:178:GLU:HG2	2.01	0.61
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.35	0.61
3:CC:118:GLN:HA	3:CC:121:ALA:HB3	1.81	0.61
5:CE:88:LYS:HB3	5:CE:123:LEU:HB2	1.83	0.61
1:CA:625:G:H4'	16:CP:16:HIS:CD2	2.35	0.61
53:D9:14:CYS:HA	53:D9:27:CYS:HB2	1.82	0.61
1:AA:1040:U:C2'	1:AA:1041:A:H5'	2.29	0.61
1:AA:952:U:H2'	1:AA:953:G:C8	2.36	0.61
23:BA:1434:A:H61	23:BA:1558:A:N6	1.99	0.61
23:BA:203:C:H3'	23:BA:204:A:H5"	1.82	0.61
28:BG:15:VAL:HG13	28:BG:175:LEU:HB3	1.81	0.61
31:BN:67:LEU:O	31:BN:88:GLU:HG3	2.00	0.61
34:BQ:21:THR:HG21	34:BQ:101:ARG:HB2	1.82	0.61
1:CA:1079:G:H2'	1:CA:1080:A:C8	2.35	0.61
23:DA:2291:U:H2'	23:DA:2292:C:C6	2.36	0.61
33:DP:47:ASP:OD2	33:DP:50:ARG:NH2	2.33	0.61
1:AA:1411:C:H2'	1:AA:1412:C:H6	1.65	0.61
1:AA:688:G:H2'	1:AA:689:C:H6	1.65	0.61
1:AA:941:G:H1	1:AA:1342:C:H42	1.49	0.61
2:AB:213:LEU:HD22	2:AB:214:ILE:HD13	1.83	0.61
23:BA:1405:U:H2'	23:BA:1406:U:C6	2.35	0.61
1:CA:1118:C:H2'	1:CA:1119:C:C6	2.35	0.61
1:CA:445:G:H2'	1:CA:446:G:C8	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:607:U:OP1	27:DF:102:PRO:HA	2.01	0.61
23:BA:1778:U:H2'	23:BA:1784:A:N6	2.15	0.60
23:BA:873:G:N2	23:BA:905:U:O2	2.33	0.60
1:CA:1090:U:H2'	1:CA:1091:U:H6	1.66	0.60
1:CA:623:C:H2'	1:CA:624:C:H6	1.66	0.60
7:CG:80:VAL:HG21	7:CG:85:TYR:CD1	2.36	0.60
23:DA:1107:G:N7	23:DA:1108:U:N3	2.49	0.60
23:DA:2272:U:H5"	23:DA:2273:A:OP1	2.01	0.60
28:DG:126:ASP:HB3	28:DG:130:ASN:H	1.66	0.60
33:DP:38:GLN:O	33:DP:39:LYS:HB3	2.00	0.60
1:AA:1381:U:O2'	1:AA:1382:C:H5'	2.01	0.60
1:AA:304:U:H2'	1:AA:305:G:C8	2.35	0.60
1:AA:619:U:C2	4:AD:135:LEU:HD22	2.36	0.60
7:AG:103:TRP:CH2	7:AG:141:VAL:HG11	2.35	0.60
15:AO:62:GLN:HA	15:AO:65:ARG:HD2	1.81	0.60
25:BD:108:PRO:HB3	25:BD:143:HIS:HE1	1.66	0.60
25:BD:148:GLU:HB2	25:BD:151:LYS:HD2	1.83	0.60
1:CA:1278:U:H5"	1:CA:1279:A:O4'	2.01	0.60
35:DR:36:THR:HG22	35:DR:37:THR:H	1.66	0.60
1:AA:946:A:H4'	1:AA:1333:A:O2'	2.01	0.60
46:B2:9:GLN:HE22	46:B2:56:GLN:HB3	1.66	0.60
23:BA:2123:G:H1	23:BA:2175:C:H42	1.48	0.60
23:BA:2022:U:O2'	23:BA:2617:C:H5'	2.00	0.60
23:BA:271(M):G:H4'	23:BA:271(N):U:OP1	2.00	0.60
23:BA:805:G:OP1	56:BA:4319:HOH:O	2.16	0.60
23:BA:879:G:N2	23:BA:899:A:H1'	2.16	0.60
1:CA:662:G:H2'	1:CA:663:A:H8	1.66	0.60
1:CA:450:G:OP1	16:CP:43:LYS:NZ	2.33	0.60
23:DA:2315:G:H2'	23:DA:2316:C:C6	2.36	0.60
27:DF:13:SER:HB3	27:DF:15:SER:HB2	1.83	0.60
1:AA:1013:G:H2'	1:AA:1014:A:H5"	1.84	0.60
1:AA:1287:A:H2'	1:AA:1288:A:C8	2.35	0.60
1:AA:445:G:H2'	1:AA:446:G:C8	2.36	0.60
1:AA:539:A:H2'	1:AA:540:G:H8	1.67	0.60
1:AA:612:C:O2	1:AA:629:G:N2	2.33	0.60
1:AA:959:A:H5"	1:AA:960:U:OP2	2.02	0.60
7:AG:73:MET:H	7:AG:142:GLU:HG3	1.65	0.60
8:AH:4:ASP:OD1	8:AH:85:ARG:NH1	2.35	0.60
9:AI:20:ARG:O	9:AI:60:ASP:N	2.35	0.60
12:AL:32:PHE:HE1	12:AL:86:ARG:HG3	1.66	0.60
15:AO:15:PHE:CE2	15:AO:84:LYS:HD2	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:16:HIS:O	20:AT:19:SER:OG	2.12	0.60
23:BA:1495:A:H2'	23:BA:1496:A:C8	2.37	0.60
1:CA:1162:C:H2'	1:CA:1163:C:O4'	2.01	0.60
7:CG:26:PHE:HD1	7:CG:101:LEU:HB3	1.67	0.60
13:CM:88:ARG:CZ	13:CM:88:ARG:HB2	2.31	0.60
15:CO:16:ALA:HB1	15:CO:21:ASP:HB3	1.82	0.60
15:CO:33:THR:HG21	15:CO:85:LEU:HD22	1.82	0.60
23:DA:1311:G:O6	56:DA:3781:HOH:O	2.13	0.60
23:DA:535:C:O3'	38:DU:53:ARG:NH1	2.34	0.60
23:DA:2319:G:N2	36:DS:3:ARG:HE	1.96	0.60
43:DZ:17:ALA:HA	43:DZ:20:ARG:HD2	1.82	0.60
1:AA:828:A:N6	1:AA:858:G:O2'	2.34	0.60
7:AG:109:ASN:HA	7:AG:119:ARG:HD2	1.82	0.60
27:BF:102:PRO:HB2	27:BF:105:VAL:HG23	1.83	0.60
38:BU:92:ARG:HA	38:BU:95:LEU:HB2	1.82	0.60
41:BX:41:ASN:O	41:BX:45:THR:HG23	2.01	0.60
1:CA:1035:A:H2'	1:CA:1036:G:H8	1.66	0.60
1:CA:475:G:H2'	1:CA:476:G:H8	1.66	0.60
1:CA:539:A:H2'	1:CA:540:G:H8	1.65	0.60
2:CB:189:ASP:N	2:CB:189:ASP:OD1	2.35	0.60
1:AA:1230:C:H2'	1:AA:1231:G:C8	2.36	0.60
1:AA:193:C:H2'	1:AA:194:C:C6	2.37	0.60
2:AB:130:ARG:HB2	2:AB:135:GLN:OE1	2.01	0.60
4:AD:108:LEU:HD21	4:AD:183:GLY:HA3	1.82	0.60
14:AN:29:ARG:HD2	14:AN:42:ILE:HD12	1.84	0.60
1:AA:390:C:O3'	16:AP:28:ARG:NH2	2.34	0.60
23:BA:1106:G:O2'	23:BA:1107:G:OP1	2.18	0.60
23:BA:2723:C:OP1	35:BR:3:HIS:ND1	2.27	0.60
1:CA:975:A:O2'	14:CN:32:SER:HA	2.01	0.60
14:CN:22:THR:HG22	14:CN:35:ARG:HH21	1.67	0.60
20:CT:72:LEU:HD21	20:CT:77:ALA:HB2	1.83	0.60
23:DA:1298:C:H5"	23:DA:1299:G:OP2	2.02	0.60
23:DA:185:U:H4'	23:DA:218:A:H4'	1.83	0.60
23:DA:546:C:H6	23:DA:547:A:H5'	1.65	0.60
23:DA:8:A:H2'	23:DA:9:U:C6	2.35	0.60
1:AA:10:A:H2'	1:AA:11:G:C8	2.35	0.60
1:AA:1152:A:OP1	10:AJ:13:HIS:HB2	2.01	0.60
1:AA:1052:U:H3	1:AA:1206:G:H1	1.50	0.60
16:AP:59:TRP:HA	16:AP:62:VAL:HG12	1.83	0.60
23:BA:1506:C:H2'	23:BA:1507:A:H5'	1.84	0.60
23:BA:535:C:O3'	38:BU:53:ARG:NH1	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BU:74:LEU:HD12	38:BU:74:LEU:H	1.67	0.60
43:BZ:17:ALA:HA	43:BZ:20:ARG:HD2	1.83	0.60
1:CA:1122:U:H2'	1:CA:1123:A:C8	2.36	0.60
1:CA:1208:C:H2'	1:CA:1209:C:H6	1.67	0.60
1:CA:221:C:H2'	1:CA:222:U:C6	2.36	0.60
4:CD:108:LEU:HD21	4:CD:183:GLY:HA3	1.83	0.60
43:DZ:160:GLY:HA2	43:DZ:161:VAL:HB	1.83	0.60
1:AA:148:G:H2'	1:AA:149:A:C8	2.36	0.60
1:AA:511:C:N4	1:AA:540:G:H1	1.99	0.60
4:AD:80:GLU:O	4:AD:83:SER:N	2.35	0.60
23:BA:1530:C:O2'	23:BA:1531:C:O4'	2.20	0.60
1:CA:1133:G:H2'	1:CA:1134:G:H8	1.66	0.60
1:CA:1149:C:H2'	1:CA:1150:U:O4'	2.01	0.60
23:DA:141:A:H8	23:DA:1408:C:O2'	1.83	0.60
25:DD:148:GLU:HB2	25:DD:151:LYS:HD2	1.84	0.60
1:AA:1016:A:H3'	1:AA:1017:G:H8	1.65	0.60
1:AA:1029:C:O2	1:AA:1032:G:N1	2.34	0.60
1:AA:153:C:H2'	1:AA:154:C:C6	2.37	0.60
1:AA:501:C:H2'	1:AA:502:G:C8	2.36	0.60
1:AA:662:G:H2'	1:AA:663:A:H8	1.66	0.60
1:AA:952:U:H4'	1:AA:964:A:H61	1.67	0.60
19:AS:53:ASN:O	19:AS:77:THR:OG1	2.13	0.60
23:BA:1026:U:H2'	23:BA:1026:U:O2	1.99	0.60
43:BZ:160:GLY:HA2	43:BZ:161:VAL:HB	1.82	0.60
3:CC:114:PRO:HA	3:CC:185:GLY:HA3	1.84	0.60
11:CK:85:ARG:HD3	11:CK:113:PRO:HD3	1.83	0.60
1:AA:1277:C:HO2'	1:AA:1279:A:H1'	1.67	0.60
2:AB:21:ARG:HB3	2:AB:39:ILE:HG12	1.82	0.60
45:B1:80:LEU:HD23	45:B1:82:LEU:HD21	1.83	0.60
23:BA:1603:A:OP1	56:BA:4692:HOH:O	2.16	0.60
36:BS:10:ARG:HH21	36:BS:91:PRO:HB2	1.67	0.60
2:CB:187:LEU:HD23	2:CB:201:ILE:HB	1.83	0.60
3:CC:35:GLU:O	3:CC:38:ARG:HB2	2.02	0.60
20:CT:97:ALA:HB3	20:CT:99:LEU:H	1.66	0.60
36:DS:10:ARG:HH21	36:DS:91:PRO:HB2	1.67	0.60
1:AA:1303:C:H42	1:AA:1334:G:H1	0.67	0.59
1:AA:221:C:H2'	1:AA:222:U:H6	1.65	0.59
1:AA:950:U:H2'	1:AA:951:G:H8	1.67	0.59
4:AD:60:GLU:HG2	4:AD:202:LEU:HB2	1.83	0.59
9:AI:7:THR:H	9:AI:83:ARG:HD2	1.66	0.59
29:BH:56:SER:HB3	29:BH:61:HIS:ND1	2.16	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1025:U:O2	1:CA:1036:G:O6	2.20	0.59
1:CA:625:G:H2'	1:CA:626:U:C6	2.37	0.59
1:CA:927:G:H1	1:CA:1390:U:H3	1.50	0.59
8:CH:36:LEU:HA	8:CH:39:LEU:HD23	1.84	0.59
23:DA:2104:G:N2	23:DA:2105:C:C2	2.70	0.59
1:AA:1170:A:H3'	1:AA:1171:G:C8	2.37	0.59
1:AA:982:U:O2'	1:AA:984:C:N4	2.35	0.59
23:BA:2104:G:N2	23:BA:2105:C:C2	2.70	0.59
23:BA:2364:C:H2'	23:BA:2365:G:O4'	2.01	0.59
27:BF:46:ARG:HH11	27:BF:46:ARG:CG	2.14	0.59
1:CA:598:U:H2'	1:CA:599:C:H6	1.68	0.59
3:CC:52:LEU:HA	3:CC:70:VAL:HA	1.83	0.59
9:CI:40:LEU:HB2	9:CI:43:ALA:HB2	1.82	0.59
23:DA:1803:A:O2'	25:DD:259:THR:HG21	2.02	0.59
23:DA:2118:U:OP1	23:DA:2147:G:O2'	2.21	0.59
23:DA:2306:C:C5'	23:DA:2307:G:H2'	2.30	0.59
23:DA:2327:A:H2'	23:DA:2328:A:C8	2.37	0.59
23:DA:2384:G:OP2	44:D0:55:ARG:NH1	2.35	0.59
23:DA:528:A:O2'	23:DA:529:A:H5'	2.02	0.59
1:AA:1291:G:H2'	1:AA:1292:U:C6	2.37	0.59
1:AA:262:A:H2'	1:AA:263:A:C8	2.37	0.59
1:AA:741:G:H2'	1:AA:742:G:O4'	2.02	0.59
1:AA:973:G:H3'	1:AA:974:A:C5'	2.31	0.59
4:AD:108:LEU:HD12	4:AD:174:LEU:HD13	1.84	0.59
23:BA:1153:C:H2'	23:BA:1154:G:O4'	2.02	0.59
1:CA:1036:G:H3'	1:CA:1037:C:H6	1.66	0.59
1:CA:1164:G:N2	1:CA:1172:C:N3	2.45	0.59
1:CA:1333:A:H2'	1:CA:1334:G:O4'	2.02	0.59
2:CB:21:ARG:HB3	2:CB:39:ILE:HG12	1.85	0.59
1:AA:1028:C:N3	1:AA:1034:G:H1'	2.18	0.59
1:AA:959:A:H3'	1:AA:960:U:H5"	1.85	0.59
1:AA:968:A:OP1	1:AA:968:A:H8	1.85	0.59
25:BD:71:ASP:OD1	25:BD:103:ARG:NH2	2.34	0.59
31:BN:42:TRP:HD1	31:BN:48:MET:HE1	1.68	0.59
23:BA:995:C:OP2	38:BU:54:LYS:HE3	2.03	0.59
40:BW:60:ASN:HD22	40:BW:60:ASN:N	1.99	0.59
1:CA:346:G:C2	1:CA:347:G:H1'	2.36	0.59
1:CA:688:G:H2'	1:CA:689:C:H6	1.67	0.59
2:CB:121:LEU:HD21	2:CB:138:LEU:HD13	1.83	0.59
4:CD:60:GLU:HG2	4:CD:202:LEU:HB2	1.84	0.59
11:CK:48:ILE:HD13	11:CK:48:ILE:H	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:D1:85:LEU:HB3	45:D1:89:GLU:HG3	1.84	0.59
23:DA:1570:A:H5'	25:DD:36:PRO:HG3	1.84	0.59
1:AA:623:C:H2'	1:AA:624:C:H6	1.66	0.59
2:AB:80:ILE:HD13	2:AB:212:GLN:HG2	1.82	0.59
23:BA:2331:G:O3'	44:B0:43:THR:HG22	2.03	0.59
48:B4:14:ILE:HG13	48:B4:22:ILE:HB	1.82	0.59
1:CA:1057:G:H4'	3:CC:197:GLY:H	1.68	0.59
1:CA:10:A:H2'	1:CA:11:G:C8	2.36	0.59
1:CA:934:C:O2'	1:CA:1344:C:OP2	2.12	0.59
4:CD:108:LEU:HD12	4:CD:174:LEU:HD13	1.84	0.59
10:CJ:13:HIS:HB3	10:CJ:68:HIS:CE1	2.37	0.59
23:DA:12:U:O2	23:DA:12:U:H2'	2.02	0.59
23:DA:528:A:N1	23:DA:2042:A:H2'	2.17	0.59
1:AA:21:G:OP1	56:AA:1895:HOH:O	2.15	0.59
1:AA:882:C:O2'	56:AA:1815:HOH:O	2.17	0.59
1:AA:1290:G:O2'	7:AG:37:ASN:OD1	2.20	0.59
12:AL:24:VAL:HG13	12:AL:98:TYR:CE2	2.37	0.59
28:BG:137:GLU:HG2	28:BG:138:GLN:H	1.68	0.59
1:CA:1193:G:N7	3:CC:3:ASN:ND2	2.51	0.59
1:CA:1247:U:H1'	1:CA:1291:G:N2	2.17	0.59
12:CL:24:VAL:HG13	12:CL:98:TYR:CE2	2.37	0.59
23:DA:2706:G:O6	56:DA:4039:HOH:O	2.17	0.59
26:DE:170:LEU:HB3	26:DE:184:VAL:HG22	1.84	0.59
1:AA:448:A:H2'	1:AA:449:C:C6	2.38	0.59
1:AA:625:G:H2'	1:AA:626:U:C6	2.37	0.59
1:AA:936:C:H2'	1:AA:937:A:O4'	2.03	0.59
1:AA:977:A:O3'	1:AA:980:C:N4	2.35	0.59
2:AB:195:ASP:O	8:AH:74:PRO:HG3	2.01	0.59
23:BA:11:G:H2'	23:BA:12:U:H5'	1.83	0.59
23:BA:528:A:H4'	56:BA:4297:HOH:O	2.02	0.59
1:CA:1090:U:H2'	1:CA:1091:U:C6	2.37	0.59
1:CA:1374:A:O2'	7:CG:28:ASN:HB3	2.02	0.59
1:CA:148:G:H2'	1:CA:149:A:C8	2.38	0.59
1:CA:243:A:H4'	1:CA:244:U:O5'	2.01	0.59
6:CF:22:GLU:O	6:CF:26:ILE:HG13	2.03	0.59
16:CP:22:THR:HA	16:CP:33:ILE:HG13	1.84	0.59
23:DA:1962:C:O2'	23:DA:1964:G:OP2	2.20	0.59
23:DA:2834:G:H8	23:DA:2834:G:H5"	1.68	0.59
33:DP:121:LYS:HG2	33:DP:123:LEU:HG	1.83	0.59
1:AA:1003:G:N3	1:AA:1004:A:H1'	2.18	0.59
1:AA:1226:C:H2'	13:AM:104:ARG:HA	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:401:C:OP1	4:AD:73:ARG:NE	2.35	0.59
1:AA:37:U:O2'	1:AA:547:A:N1	2.30	0.59
1:AA:833:U:H2'	1:AA:834:C:H6	1.68	0.59
1:AA:957:U:H1'	1:AA:960:U:C4	2.37	0.59
7:AG:127:ALA:HA	7:AG:132:GLY:HA3	1.83	0.59
1:AA:1367:C:H4'	10:AJ:48:THR:HG21	1.83	0.59
14:AN:37:PHE:CE1	14:AN:53:LEU:HD13	2.38	0.59
23:BA:1107:G:N7	23:BA:1108:U:N3	2.50	0.59
23:BA:1593:G:H2'	23:BA:1594:G:C8	2.38	0.59
29:BH:3:ARG:HG2	29:BH:6:ARG:HE	1.67	0.59
6:CF:81:ILE:HD11	25:DD:125:ILE:HB	1.82	0.59
7:CG:108:ALA:HA	7:CG:111:ARG:HD2	1.84	0.59
23:DA:2022:U:O2'	23:DA:2617:C:H5'	2.02	0.59
23:DA:581:C:H2'	23:DA:582:G:C8	2.38	0.59
23:DA:751:A:H5'	40:DW:90:ARG:HA	1.83	0.59
28:DG:137:GLU:HG2	28:DG:138:GLN:H	1.68	0.59
1:AA:986:A:N1	1:AA:1219:U:O4	2.36	0.59
1:AA:136:C:N4	1:AA:227:G:H1	1.94	0.59
1:AA:359:U:H2'	1:AA:360:A:H8	1.68	0.59
5:AE:126:ARG:HA	5:AE:131:ILE:HD11	1.84	0.59
13:AM:65:LYS:HA	13:AM:66:LEU:CB	2.32	0.59
23:BA:1427:A:H4'	23:BA:1428:C:O5'	2.01	0.59
23:BA:2228:G:OP1	25:BD:261:LYS:NZ	2.31	0.59
30:BI:91:SER:HB2	30:BI:119:PRO:HB2	1.84	0.59
23:BA:548:A:N6	39:BV:19:LYS:H	2.01	0.59
1:CA:1137:C:H4'	1:CA:1138:G:N2	2.18	0.59
1:CA:542:G:H5'	4:CD:41:GLY:HA3	1.85	0.59
23:DA:2602:A:H1'	23:DA:2603:G:H5"	1.85	0.59
1:AA:1133:G:H2'	1:AA:1134:G:H8	1.68	0.59
1:AA:1325:C:OP1	21:AU:15:ARG:NH2	2.32	0.59
1:AA:487:A:H2'	1:AA:488:C:O4'	2.03	0.59
1:AA:841:U:C5	1:AA:848:C:H1'	2.37	0.59
6:AF:22:GLU:O	6:AF:26:ILE:HG13	2.02	0.59
23:BA:546:C:H2'	23:BA:547:A:H5'	1.85	0.59
26:BE:105:THR:OG1	26:BE:199:ARG:NH2	2.36	0.59
28:BG:126:ASP:HB3	28:BG:130:ASN:H	1.67	0.59
1:CA:1004:A:O2'	1:CA:1037:C:O2	2.16	0.59
1:CA:1179:A:H2'	1:CA:1180:A:O4'	2.02	0.59
1:CA:1206:G:O2'	3:CC:192:THR:O	2.19	0.59
1:AA:149:A:O2'	1:AA:150:C:H6	1.86	0.58
1:AA:346:G:C2	1:AA:347:G:H1'	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:626:U:H2'	1:AA:627:G:H8	1.67	0.58
3:AC:132:ARG:O	3:AC:136:GLN:HB2	2.03	0.58
23:BA:271(R):G:H2'	23:BA:271(S):G:H8	1.68	0.58
23:BA:796:C:H2'	23:BA:797:C:C6	2.38	0.58
25:BD:206:LEU:HD22	25:BD:211:ARG:HG2	1.84	0.58
39:BV:40:LEU:HB2	39:BV:46:VAL:HG13	1.84	0.58
1:CA:826:C:H4'	8:CH:12:ARG:HG3	1.85	0.58
8:CH:89:PRO:HA	8:CH:92:ARG:HE	1.68	0.58
17:CQ:24:GLU:OE2	17:CQ:37:LYS:HD3	2.03	0.58
45:D1:3:LYS:HB2	45:D1:61:ARG:HH12	1.68	0.58
23:DA:330:A:H2	23:DA:1210:A:H2'	1.68	0.58
27:DF:102:PRO:HB2	27:DF:105:VAL:HG23	1.84	0.58
1:AA:1006:C:H2'	1:AA:1007:C:C5	2.38	0.58
1:AA:1073:U:H2'	1:AA:1074:G:H8	1.66	0.58
3:AC:23:TYR:HE2	10:AJ:95:GLU:HG2	1.68	0.58
23:BA:2126:A:N1	23:BA:2162:G:O2'	2.30	0.58
23:BA:2315:G:H2'	23:BA:2316:C:C6	2.37	0.58
25:BD:267:SER:O	25:BD:268:ARG:HB3	2.03	0.58
27:BF:181:LEU:HB3	27:BF:205:ARG:HH22	1.69	0.58
29:BH:137:ASP:HB3	29:BH:140:LYS:HB3	1.85	0.58
37:BT:54:ARG:HA	37:BT:59:THR:HB	1.85	0.58
40:BW:79:GLY:HA3	40:BW:100:THR:HG22	1.84	0.58
5:CE:37:ARG:HG2	5:CE:37:ARG:HH11	1.68	0.58
20:CT:12:ALA:O	20:CT:15:ARG:HB2	2.04	0.58
23:DA:1530:C:O2'	23:DA:1531:C:O4'	2.20	0.58
31:DN:128:HIS:CE1	31:DN:135:PRO:HG2	2.38	0.58
12:AL:60:LEU:HD21	12:AL:66:VAL:HG22	1.85	0.58
23:BA:862:G:OP2	56:BA:4195:HOH:O	2.16	0.58
30:BI:97:ILE:O	30:BI:101:LEU:N	2.36	0.58
1:CA:1001(A):G:H2'	1:CA:1002:G:H8	1.68	0.58
1:CA:1012:U:H2'	1:CA:1013:G:O4'	2.04	0.58
1:CA:1317:C:N3	19:CS:37:ARG:NH2	2.44	0.58
1:CA:1346:A:H4'	1:CA:1347:G:H4'	1.85	0.58
1:CA:511:C:N4	1:CA:540:G:H1	1.99	0.58
23:DA:1038:C:N4	23:DA:1117:G:H1	2.01	0.58
23:DA:203:C:H3'	23:DA:204:A:H5"	1.85	0.58
23:DA:2113:U:H2'	23:DA:2114:A:C8	2.39	0.58
43:DZ:92:SER:O	43:DZ:130:PRO:HG2	2.03	0.58
1:AA:1107:C:C4	1:AA:1108:G:C8	2.91	0.58
7:AG:155:ARG:HG2	7:AG:156:TRP:H	1.69	0.58
1:AA:1187:G:N3	14:AN:60:SER:OG	2.35	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:39:GLN:O	22:AV:43:GLY:N	2.36	0.58
23:BA:307:G:H21	23:BA:330:A:H62	1.52	0.58
34:BQ:16:ARG:HG2	34:BQ:16:ARG:NH1	2.18	0.58
43:BZ:52:SER:OG	43:BZ:53:ILE:N	2.36	0.58
11:CK:59:TYR:O	11:CK:62:GLN:HB3	2.03	0.58
13:CM:85:GLY:HA3	19:CS:74:PHE:HA	1.83	0.58
46:D2:13:ALA:HA	46:D2:16:LEU:HD12	1.84	0.58
23:DA:652(D):C:H2'	23:DA:652(E):G:O4'	2.03	0.58
1:AA:1016:A:H3'	1:AA:1017:G:C8	2.39	0.58
1:AA:1003:G:N2	1:AA:1038:C:C2	2.71	0.58
1:AA:1042:G:H8	1:AA:1042:G:OP2	1.86	0.58
3:AC:155:GLY:O	3:AC:163:ALA:HA	2.03	0.58
23:BA:184:C:H2'	23:BA:185:U:C6	2.38	0.58
1:CA:512:U:H2'	1:CA:513:C:C6	2.38	0.58
1:CA:804:U:H5"	1:CA:805:C:OP2	2.02	0.58
7:CG:85:TYR:HD1	7:CG:154:TYR:HE1	1.51	0.58
20:CT:41:ILE:HA	20:CT:44:ALA:HB3	1.86	0.58
23:DA:271(L):U:H4'	23:DA:271(M):G:OP1	2.03	0.58
23:DA:581:C:H2'	23:DA:582:G:H8	1.67	0.58
23:DA:879:G:N2	23:DA:899:A:H1'	2.17	0.58
42:DY:99:CYS:SG	42:DY:102:CYS:N	2.77	0.58
43:DZ:102:LEU:HD13	43:DZ:123:ASP:HA	1.85	0.58
1:AA:1015:A:H3'	1:AA:1016:A:C8	2.39	0.58
11:AK:33:THR:HA	11:AK:39:PRO:HA	1.85	0.58
1:AA:708:C:OP1	11:AK:85:ARG:NH2	2.37	0.58
17:AQ:24:GLU:OE2	17:AQ:37:LYS:HD3	2.03	0.58
18:AR:53:ARG:HE	18:AR:59:SER:C	2.06	0.58
23:BA:1108:U:O2'	23:BA:1109:C:O5'	2.21	0.58
1:CA:1029:C:C2	1:CA:1032:G:N1	2.72	0.58
1:CA:841:U:C5	1:CA:848:C:H1'	2.38	0.58
27:DF:181:LEU:HB3	27:DF:205:ARG:HH22	1.67	0.58
40:DW:43:GLY:O	40:DW:47:VAL:HG23	2.04	0.58
1:AA:1347:G:H1	1:AA:1373:G:H3'	1.69	0.58
2:AB:189:ASP:OD1	2:AB:189:ASP:N	2.37	0.58
1:AA:826:C:H4'	8:AH:12:ARG:HG3	1.85	0.58
33:BP:38:GLN:HA	33:BP:41:ARG:HG2	1.86	0.58
1:CA:1411:C:H2'	1:CA:1412:C:H6	1.69	0.58
8:CH:4:ASP:OD1	8:CH:85:ARG:NH1	2.37	0.58
23:DA:2134:A:N3	23:DA:2159:G:H1'	2.18	0.58
36:DS:25:ARG:NH1	36:DS:42:ASP:OD2	2.37	0.58
37:DT:97:ALA:O	37:DT:98:LYS:HD2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1130:A:H61	1:AA:1144:G:H1'	1.69	0.58
1:AA:50:A:H1'	1:AA:52:G:C8	2.38	0.58
1:AA:639:G:H2'	1:AA:640:A:H8	1.69	0.58
7:AG:42:ILE:HA	7:AG:45:ASP:HB2	1.83	0.58
16:AP:22:THR:HA	16:AP:33:ILE:HG13	1.86	0.58
23:BA:1359:A:N6	23:BA:1372:U:C5	2.71	0.58
30:BI:5:LEU:HD11	30:BI:19:VAL:HG22	1.86	0.58
23:BA:548:A:N6	39:BV:19:LYS:HB2	2.17	0.58
1:CA:149:A:O2'	1:CA:150:C:H6	1.87	0.58
10:CJ:55:LYS:O	10:CJ:57:LYS:N	2.35	0.58
19:CS:50:ALA:HB1	19:CS:57:HIS:HB3	1.84	0.58
23:DA:1427:A:H4'	23:DA:1428:C:O5'	2.04	0.58
23:DA:579:G:H2'	23:DA:580:C:C6	2.38	0.58
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.39	0.58
1:AA:501:C:H1'	1:AA:549:C:H1'	1.86	0.58
1:AA:984:C:H2'	1:AA:985:C:C6	2.38	0.58
20:AT:41:ILE:HA	20:AT:44:ALA:HB3	1.85	0.58
23:BA:185:U:H4'	23:BA:218:A:H4'	1.86	0.58
37:BT:106:SER:O	37:BT:110:ILE:HG13	2.04	0.58
1:CA:1290:G:H3'	1:CA:1291:G:H8	1.69	0.58
1:CA:428:G:H5"	4:CD:7:PRO:HB3	1.86	0.58
1:CA:436:C:H4'	4:CD:156:GLU:HB2	1.85	0.58
1:CA:501:C:H2'	1:CA:502:G:C8	2.38	0.58
1:CA:659:U:H2'	1:CA:660:G:C8	2.39	0.58
1:CA:438:G:OP1	4:CD:125:HIS:HE1	1.86	0.58
23:DA:1722:A:C2	23:DA:1740:G:C8	2.92	0.58
25:DD:145:VAL:HG12	25:DD:146:GLU:O	2.04	0.58
31:DN:67:LEU:O	31:DN:88:GLU:HG3	2.04	0.58
1:AA:1028:C:C4	1:AA:1033:G:O6	2.56	0.58
1:AA:1233:G:H2'	1:AA:1364:U:O2	2.04	0.58
1:AA:1459:C:H41	1:AA:1461:G:N2	2.02	0.58
1:AA:269:C:H2'	1:AA:270:A:C8	2.39	0.58
1:AA:511:C:N3	1:AA:540:G:N2	2.45	0.58
10:AJ:54:PHE:HD2	10:AJ:55:LYS:HD3	1.69	0.58
23:BA:2308:G:H4'	23:BA:2309:A:OP2	2.02	0.58
23:BA:993:G:OP1	38:BU:50:ARG:NH2	2.37	0.58
23:BA:2690:C:OP2	35:BR:14:SER:HB3	2.04	0.58
39:BV:35:LEU:HB2	39:BV:57:VAL:HG13	1.84	0.58
1:CA:203:U:H5"	1:CA:204:U:OP2	2.04	0.58
2:CB:219:VAL:HA	2:CB:222:ILE:HD12	1.86	0.58
1:CA:1348:U:H4'	9:CI:120:ARG:HD2	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:32:PHE:HE1	12:CL:86:ARG:HG3	1.67	0.58
48:D4:15:ILE:HB	48:D4:32:TYR:CD2	2.38	0.58
23:DA:154(A):C:N4	23:DA:172:C:N3	2.51	0.58
25:DD:206:LEU:HD22	25:DD:211:ARG:HG2	1.85	0.58
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.39	0.57
1:AA:1327:C:H2'	1:AA:1328:C:C6	2.39	0.57
1:AA:804:U:H5"	1:AA:805:C:OP2	2.03	0.57
7:AG:99:LEU:HB3	7:AG:103:TRP:CE2	2.39	0.57
46:B2:13:ALA:HA	46:B2:16:LEU:HD12	1.85	0.57
23:BA:517:C:OP1	49:B5:16:ARG:NH2	2.36	0.57
1:CA:1198:G:H2'	1:CA:1199:U:C6	2.39	0.57
1:CA:487:A:H2'	1:CA:488:C:O4'	2.04	0.57
6:CF:69:GLU:O	6:CF:72:VAL:HG12	2.03	0.57
23:DA:1364:G:C8	45:D1:3:LYS:HD3	2.39	0.57
48:D4:14:ILE:HG13	48:D4:22:ILE:HB	1.85	0.57
50:D6:10:LEU:HD12	50:D6:54:ILE:HA	1.86	0.57
23:DA:1456:G:OP2	56:DA:4008:HOH:O	2.17	0.57
32:DO:24:VAL:HB	32:DO:33:ALA:HB2	1.86	0.57
1:AA:1041:A:H2'	1:AA:1042:G:O4'	2.03	0.57
1:AA:564:C:O2'	8:AH:91:ARG:NH2	2.26	0.57
1:AA:945:G:C5	1:AA:1337:G:H1'	2.39	0.57
1:AA:992:U:H2'	1:AA:1043:C:C5	2.35	0.57
17:AQ:86:GLU:O	17:AQ:90:ILE:HG12	2.04	0.57
23:BA:12:U:O2	23:BA:12:U:H2'	2.04	0.57
23:BA:2309:A:N6	23:BA:2310:A:N1	2.51	0.57
30:BI:72:LEU:O	30:BI:73:GLU:HB2	2.03	0.57
2:CB:21:ARG:H	2:CB:21:ARG:HD3	1.70	0.57
23:DA:1109:C:C5	23:DA:1110:G:C2	2.88	0.57
23:DA:2849:U:OP2	37:DT:95:ARG:NH1	2.36	0.57
30:DI:5:LEU:HD21	30:DI:12:LEU:HD13	1.86	0.57
1:AA:68:G:H22	1:AA:101:A:H2	1.51	0.57
1:AA:1353:G:O6	1:AA:1369:C:N3	2.37	0.57
5:AE:93:PRO:HG2	8:AH:105:ARG:NE	2.18	0.57
1:AA:375:U:H4'	16:AP:17:TYR:HE2	1.70	0.57
16:AP:20:VAL:HG23	16:AP:35:LYS:HA	1.85	0.57
45:B1:50:ARG:HG2	45:B1:59:THR:HB	1.86	0.57
50:B6:8:LYS:HD3	52:B8:34:TRP:CD2	2.39	0.57
52:B8:39:LYS:HA	52:B8:42:ARG:NH1	2.18	0.57
23:BA:1722:A:C2	23:BA:1740:G:C8	2.92	0.57
25:BD:254:THR:O	25:BD:254:THR:OG1	2.22	0.57
30:BI:61:ARG:HB3	30:BI:133:HIS:HD2	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BS:58:LEU:HD12	36:BS:65:VAL:HG13	1.86	0.57
1:CA:939:G:H1	1:CA:1344:C:H42	1.52	0.57
3:CC:51:GLY:HA3	3:CC:71:ALA:HB3	1.87	0.57
20:CT:13:LEU:O	20:CT:17:ARG:HG3	2.04	0.57
23:DA:2773:C:H5"	26:DE:164:ARG:HG2	1.85	0.57
34:DQ:16:ARG:HH11	34:DQ:16:ARG:HG2	1.69	0.57
42:DY:99:CYS:HB3	42:DY:104:GLY:H	1.68	0.57
8:AH:89:PRO:HA	8:AH:92:ARG:HE	1.70	0.57
23:BA:708:C:H42	23:BA:723:G:H1	1.51	0.57
27:BF:6:VAL:HA	27:BF:23:ASP:H	1.67	0.57
1:CA:325:A:OP2	20:CT:70:SER:OG	2.19	0.57
1:CA:984:C:H2'	1:CA:985:C:H6	1.68	0.57
1:CA:991:U:O2'	1:CA:992:U:O5'	2.15	0.57
4:CD:119:GLN:HG2	4:CD:123:HIS:CD2	2.39	0.57
9:CI:4:TYR:HD1	9:CI:87:GLN:HG3	1.70	0.57
1:CA:552:U:H4'	12:CL:86:ARG:HG2	1.84	0.57
23:DA:2497:A:O3'	56:DA:3888:HOH:O	2.17	0.57
1:AA:1029:C:N3	1:AA:1032:G:O6	2.37	0.57
1:AA:1035:A:H2'	1:AA:1036:G:C8	2.39	0.57
45:B1:21:ARG:HG2	45:B1:21:ARG:NH1	2.07	0.57
48:B4:18:CYS:CB	48:B4:39:CYS:SG	2.90	0.57
23:BA:2611:U:C4	49:B5:3:LYS:HG2	2.40	0.57
23:BA:8:A:H2'	23:BA:9:U:C6	2.39	0.57
1:CA:327:A:HO2'	1:CA:329:A:H8	1.53	0.57
1:CA:519:C:H2'	1:CA:520:A:C8	2.39	0.57
1:CA:736:C:H2'	1:CA:737:A:C8	2.39	0.57
3:CC:54:ARG:HB3	3:CC:69:HIS:HB2	1.86	0.57
1:CA:708:C:OP1	11:CK:85:ARG:NH2	2.37	0.57
23:DA:1971:A:OP2	25:DD:242:ARG:NH2	2.37	0.57
37:DT:84:GLN:HE21	37:DT:85:LYS:HG2	1.69	0.57
1:AA:1003:G:H1	1:AA:1037:C:H42	0.69	0.57
1:AA:1126:U:H5'	1:AA:1280:A:O2'	2.04	0.57
13:AM:102:ARG:HH12	13:AM:104:ARG:HD3	1.69	0.57
23:BA:1040:C:H2'	23:BA:1041:C:O4'	2.05	0.57
26:BE:16:ARG:NH1	26:BE:171:GLU:OE2	2.37	0.57
34:BQ:84:GLY:O	34:BQ:85:LYS:HB2	2.04	0.57
1:CA:1163:C:C2	1:CA:1164:G:C8	2.92	0.57
1:CA:269:C:H2'	1:CA:270:A:C8	2.40	0.57
1:CA:501:C:H1'	1:CA:549:C:H1'	1.86	0.57
1:CA:15:G:H4'	5:CE:24:ARG:HH12	1.70	0.57
1:CA:980:C:H1'	14:CN:19:ARG:HA	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:D8:34:TRP:CG	52:D8:35:GLN:N	2.71	0.57
38:DU:76:TYR:CZ	38:DU:80:ILE:HG13	2.40	0.57
1:AA:1065:U:H5	1:AA:1190:G:H21	1.50	0.57
1:AA:522:C:N4	1:AA:528:C:H42	2.03	0.57
1:AA:563:A:N6	56:AA:1896:HOH:O	2.38	0.57
1:AA:973:G:H3'	1:AA:974:A:H5"	1.85	0.57
10:AJ:5:ARG:HA	10:AJ:74:ILE:H	1.70	0.57
13:AM:23:TYR:H	13:AM:67:GLU:HB3	1.69	0.57
23:BA:1568:G:N7	56:BD:402:HOH:O	2.32	0.57
23:BA:861:A:C2	23:BA:917:A:C4	2.92	0.57
30:BI:31:LEU:HD21	30:BI:38:LEU:HG	1.87	0.57
1:CA:164:U:H2'	1:CA:165:C:C6	2.40	0.57
3:CC:125:GLU:HG3	3:CC:189:ALA:HB1	1.86	0.57
13:CM:108:ARG:NE	13:CM:114:ARG:HD3	2.19	0.57
23:DA:226:G:H21	23:DA:228:A:N6	2.01	0.57
36:DS:46:VAL:HG12	36:DS:48:LEU:HD12	1.87	0.57
23:DA:1614:A:C2	40:DW:93:ALA:HB2	2.40	0.57
1:AA:1054:C:C2'	1:AA:1055:A:H5"	2.34	0.57
1:AA:1179:A:H4'	1:AA:1180:A:OP1	2.05	0.57
1:AA:222:U:H2'	1:AA:223:U:C6	2.39	0.57
1:AA:932:C:O3'	7:AG:4:ARG:NH2	2.37	0.57
1:AA:777:A:H2	11:AK:119:CYS:HB3	1.69	0.57
48:B4:15:ILE:HB	48:B4:32:TYR:CD2	2.40	0.57
23:BA:1292:U:H2'	23:BA:1293:C:C6	2.40	0.57
23:BA:2712:U:OP1	23:BA:2714:G:H4'	2.05	0.57
23:BA:299:A:H5"	42:BY:86:ARG:HH21	1.70	0.57
23:BA:652(D):C:H2'	23:BA:652(E):G:O4'	2.05	0.57
25:BD:108:PRO:HB3	25:BD:143:HIS:CE1	2.40	0.57
23:BA:443:A:N7	27:BF:45:ARG:HG2	2.20	0.57
30:BI:88:ILE:HG12	30:BI:121:LYS:O	2.04	0.57
39:BV:15:GLU:O	39:BV:18:LEU:HB2	2.05	0.57
1:CA:1076:C:H42	1:CA:1081:G:H1	1.51	0.57
1:CA:136:C:N4	1:CA:227:G:H1	2.00	0.57
1:CA:382:A:H2'	1:CA:383:A:H8	1.69	0.57
1:CA:741:G:H2'	1:CA:742:G:O4'	2.04	0.57
1:CA:814:A:N7	1:CA:816:A:C4	2.73	0.57
4:CD:55:ALA:O	4:CD:59:ARG:HG2	2.04	0.57
5:CE:78:HIS:CE1	5:CE:142:LEU:HD23	2.40	0.57
46:D2:22:GLU:OE2	46:D2:68:ARG:NH2	2.37	0.57
23:DA:1359:A:N6	23:DA:1372:U:C5	2.73	0.57
23:DA:928:G:O6	56:DA:3789:HOH:O	2.16	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DB:55:U:HO2'	28:DG:29:TRP:HD1	1.51	0.57
1:AA:375:U:H2'	1:AA:376:G:H8	1.70	0.57
3:AC:127:ARG:HE	3:AC:193:TYR:HE2	1.53	0.57
9:AI:83:ARG:HA	9:AI:86:VAL:HG13	1.86	0.57
30:BI:102:SER:OG	30:BI:103:ARG:N	2.36	0.57
1:CA:1272:G:H2'	1:CA:1273:G:H8	1.70	0.57
1:CA:1281:U:H5"	1:CA:1282:C:OP2	2.05	0.57
1:CA:1293:G:O2'	1:CA:1294:G:H8	1.88	0.57
3:CC:54:ARG:NH1	3:CC:56:ASP:OD1	2.37	0.57
23:DA:686:G:H5"	51:D7:11:LYS:HE2	1.86	0.57
23:DA:1007:C:OP1	31:DN:37:LYS:NZ	2.33	0.57
23:DA:547:A:H1'	23:DA:548:A:H4'	1.87	0.57
27:DF:23:ASP:O	27:DF:24:LEU:HD13	2.05	0.57
40:DW:86:LEU:HD12	40:DW:87:PRO:HD2	1.85	0.57
1:AA:1071:C:H2'	1:AA:1072:G:H8	1.69	0.57
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.40	0.57
1:AA:186:C:H2'	1:AA:187:C:C6	2.40	0.57
1:AA:565:U:OP2	1:AA:566:G:O2'	2.22	0.57
1:AA:819:A:H4'	1:AA:820:U:OP2	2.04	0.57
7:AG:107:ALA:O	7:AG:111:ARG:HG3	2.05	0.57
19:AS:19:VAL:O	19:AS:23:ASN:N	2.38	0.57
23:BA:1507:A:O2'	23:BA:1508:A:O5'	2.22	0.57
23:BA:1639:U:C2'	23:BA:1640:C:H5"	2.35	0.57
23:BA:2892:A:H2'	23:BA:2893:G:H5"	1.85	0.57
30:BI:70:GLU:O	30:BI:74:ASN:HB2	2.05	0.57
23:BA:2292:C:OP1	36:BS:17:ARG:NH2	2.37	0.57
23:BA:2683:C:OP1	37:BT:53:ARG:NH2	2.38	0.57
41:BX:31:HIS:CD2	41:BX:33:LYS:H	2.23	0.57
34:BQ:5:ARG:O	43:BZ:194:PRO:HD2	2.04	0.57
1:CA:1072:G:H2'	1:CA:1073:U:H6	1.69	0.57
1:CA:1083:U:C5	1:CA:1084:G:C6	2.92	0.57
1:CA:564:C:O2'	8:CH:91:ARG:NH2	2.25	0.57
1:CA:868:C:H2'	1:CA:869:G:O4'	2.05	0.57
4:CD:108:LEU:HB3	4:CD:110:PHE:CE1	2.40	0.57
1:CA:7:G:O2'	5:CE:120:THR:O	2.22	0.57
13:CM:4:ILE:O	13:CM:6:GLY:N	2.38	0.57
13:CM:92:HIS:NE2	13:CM:98:VAL:HG21	2.20	0.57
14:CN:2:ALA:HB1	14:CN:6:LEU:HD13	1.86	0.57
20:CT:33:ILE:O	20:CT:37:SER:OG	2.20	0.57
23:DA:1786:A:H1'	23:DA:1938:A:N6	2.20	0.57
23:DA:1945:G:H2'	23:DA:1946:U:C6	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2790:A:H2'	23:DA:2790:A:N3	2.20	0.57
23:DA:588:U:H2'	23:DA:589:C:C6	2.40	0.57
32:DO:88:ASN:HD21	32:DO:90:GLN:HB2	1.70	0.57
1:AA:1137:C:H4'	1:AA:1138:G:N2	2.19	0.56
3:AC:36:ASP:N	3:AC:36:ASP:OD2	2.36	0.56
11:AK:59:TYR:O	11:AK:62:GLN:HB3	2.05	0.56
51:B7:8:ASN:C	51:B7:8:ASN:OD1	2.43	0.56
23:BA:2291:U:H2'	23:BA:2292:C:C6	2.40	0.56
23:BA:628:G:H2'	23:BA:629:G:H8	1.70	0.56
1:CA:920:U:H2'	1:CA:921:U:C6	2.41	0.56
2:CB:103:THR:HG23	2:CB:176:GLU:HB3	1.86	0.56
5:CE:93:PRO:HG2	8:CH:105:ARG:NE	2.20	0.56
16:CP:20:VAL:HG23	16:CP:35:LYS:HA	1.87	0.56
23:DA:2591:C:OP2	25:DD:239:ARG:HB3	2.03	0.56
23:DA:674:G:H1'	27:DF:74:ARG:HD3	1.87	0.56
1:AA:203:U:H5"	1:AA:204:U:OP2	2.05	0.56
4:AD:12:CYS:SG	4:AD:31:CYS:SG	3.03	0.56
23:BA:602:G:O2'	23:BA:655:A:N6	2.38	0.56
1:CA:1255:G:O3'	1:CA:1258:G:H1'	2.05	0.56
1:CA:1330:U:H5'	1:CA:1331:G:O5'	2.06	0.56
18:CR:53:ARG:HE	18:CR:59:SER:C	2.08	0.56
23:DA:2126:A:H4'	23:DA:2127:G:O5'	2.05	0.56
23:DA:2308:G:H4'	23:DA:2309:A:OP2	2.04	0.56
39:DV:15:GLU:O	39:DV:18:LEU:HB2	2.04	0.56
1:AA:993:G:H2'	1:AA:995:C:N4	2.20	0.56
2:AB:219:VAL:HA	2:AB:222:ILE:HD12	1.88	0.56
45:B1:64:ALA:HA	45:B1:67:ILE:HG13	1.87	0.56
23:BA:2131:G:N3	23:BA:2133:G:N2	2.51	0.56
23:BA:761:A:N7	56:BA:3905:HOH:O	2.33	0.56
27:BF:32:LEU:HD11	27:BF:105:VAL:HG13	1.86	0.56
1:CA:612:C:O2	1:CA:629:G:N2	2.38	0.56
2:CB:98:LEU:HB2	2:CB:101:MET:HE3	1.87	0.56
48:D4:18:CYS:SG	48:D4:39:CYS:HB2	2.44	0.56
23:DA:1210:A:H5'	23:DA:1210:A:C8	2.35	0.56
2:AB:21:ARG:H	2:AB:21:ARG:HD3	1.70	0.56
23:BA:1796:U:H2'	23:BA:1797:C:C6	2.39	0.56
24:BB:87:G:H5"	24:BB:88:C:OP2	2.06	0.56
36:BS:83:LYS:O	36:BS:111:GLU:HG3	2.06	0.56
1:CA:1442(A):G:C8	1:CA:1442(B):A:C2	2.93	0.56
1:CA:370:C:H2'	1:CA:371:G:C8	2.40	0.56
1:CA:522:C:N4	1:CA:528:C:H42	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:112:LEU:HA	8:CH:134:ILE:HG12	1.88	0.56
16:CP:20:VAL:HG21	16:CP:32:TYR:CG	2.40	0.56
52:D8:7:HIS:CD2	52:D8:10:ALA:H	2.12	0.56
23:DA:2361:A:OP1	52:D8:27:THR:HG23	2.05	0.56
23:DA:453:C:H5"	56:DA:3993:HOH:O	2.05	0.56
25:DD:16:MET:HG3	25:DD:206:LEU:O	2.05	0.56
1:AA:944:G:H1'	1:AA:1340:A:C2	2.40	0.56
3:AC:20:SER:HG	3:AC:40:ARG:HH22	1.50	0.56
14:AN:47:LEU:HB2	14:AN:53:LEU:HG	1.86	0.56
23:BA:1557:C:OP2	23:BA:1558:A:O2'	2.18	0.56
23:BA:795:C:H2'	23:BA:796:C:H6	1.70	0.56
39:BV:42:GLY:O	39:BV:43:GLU:HG2	2.06	0.56
1:CA:1181:G:H4'	1:CA:1184:G:O4'	2.05	0.56
1:CA:1218:C:H2'	1:CA:1219:U:C6	2.39	0.56
1:CA:857:C:H2'	1:CA:858:G:O4'	2.05	0.56
2:CB:185:ILE:HA	2:CB:199:TYR:O	2.05	0.56
48:D4:18:CYS:CB	48:D4:39:CYS:SG	2.91	0.56
23:DA:1378:A:OP1	51:D7:10:ARG:NH2	2.38	0.56
23:DA:1506:C:H2'	23:DA:1507:A:H5'	1.86	0.56
27:DF:6:VAL:HA	27:DF:23:ASP:H	1.70	0.56
32:DO:102:VAL:HB	32:DO:106:LEU:HD12	1.87	0.56
34:DQ:32:TYR:OH	34:DQ:111:GLU:OE1	2.19	0.56
1:AA:322:C:H4'	20:AT:23:ARG:HD2	1.88	0.56
4:AD:119:GLN:HG2	4:AD:123:HIS:CD2	2.41	0.56
10:AJ:47:PHE:HZ	10:AJ:65:LEU:HD22	1.70	0.56
23:BA:2384:G:OP2	44:B0:55:ARG:NH1	2.39	0.56
23:BA:2118:U:OP1	23:BA:2147:G:O2'	2.22	0.56
23:BA:271(L):U:H4'	23:BA:271(M):G:OP1	2.04	0.56
1:CA:1003:G:H2'	1:CA:1004:A:H4'	1.88	0.56
3:CC:19:GLU:O	3:CC:40:ARG:NH2	2.38	0.56
4:CD:129:ASN:HD21	4:CD:145:GLU:N	2.04	0.56
1:CA:954:G:O6	13:CM:104:ARG:NH1	2.39	0.56
28:DG:48:GLU:O	28:DG:51:ARG:N	2.39	0.56
29:DH:86:GLU:HG2	29:DH:132:ARG:HG3	1.87	0.56
43:DZ:77:ASP:OD1	43:DZ:80:ARG:HG2	2.06	0.56
1:AA:986:A:H1'	19:AS:54:GLY:O	2.06	0.56
11:AK:69:ALA:HB1	11:AK:103:LEU:HD21	1.88	0.56
21:AU:11:GLY:HA2	21:AU:14:TRP:CE3	2.41	0.56
24:BB:8:U:H5"	24:BB:8:U:H6	1.70	0.56
36:BS:25:ARG:NH1	36:BS:42:ASP:OD2	2.39	0.56
1:CA:346:G:H21	1:CA:347:G:C1'	2.18	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:43:PHE:HD2	7:CG:44:TYR:CE2	2.24	0.56
11:CK:58:PRO:HA	11:CK:90:GLY:HA2	1.88	0.56
23:DA:2228:G:OP1	25:DD:261:LYS:NZ	2.27	0.56
23:DA:975:C:H6	56:DA:3870:HOH:O	1.87	0.56
29:DH:3:ARG:HG3	29:DH:4:ILE:N	2.20	0.56
37:DT:118:ARG:HH11	37:DT:118:ARG:HA	1.71	0.56
37:DT:127:ALA:HA	37:DT:128:GLU:C	2.26	0.56
40:DW:19:LEU:O	49:D5:25:LEU:HD12	2.06	0.56
1:AA:1234:C:H2'	1:AA:1235:U:O4'	2.05	0.56
1:AA:868:C:H2'	1:AA:869:G:O4'	2.05	0.56
3:AC:113:ALA:HB1	3:AC:200:ALA:HB1	1.87	0.56
8:AH:120:THR:OG1	8:AH:123:GLU:HG3	2.05	0.56
9:AI:6:GLY:N	9:AI:17:VAL:HG12	2.20	0.56
23:BA:1364:G:OP2	45:B1:3:LYS:HG2	2.05	0.56
1:AA:1442(B):A:C2	37:BT:118:ARG:CZ	2.89	0.56
42:BY:51:VAL:HG22	42:BY:58:GLY:H	1.70	0.56
1:CA:1130:A:H61	1:CA:1144:G:H1'	1.71	0.56
1:CA:1343:G:H4'	9:CI:122:ALA:HB3	1.88	0.56
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.41	0.56
1:CA:153:C:H2'	1:CA:154:C:C6	2.40	0.56
1:CA:598:U:H2'	1:CA:599:C:C6	2.41	0.56
1:CA:939:G:H5"	7:CG:102:ARG:CZ	2.35	0.56
23:DA:566:U:H5"	33:DP:29:LYS:HE3	1.87	0.56
32:DO:115:VAL:HG13	32:DO:121:VAL:HG21	1.88	0.56
1:AA:1179:A:H2'	1:AA:1180:A:C8	2.40	0.56
1:AA:1288:A:N6	1:AA:1371:G:H1'	2.21	0.56
1:AA:1338:G:H2'	1:AA:1339:A:C8	2.40	0.56
2:AB:187:LEU:HD23	2:AB:201:ILE:HB	1.86	0.56
3:AC:32:LEU:HB3	3:AC:59:ARG:NH1	2.20	0.56
4:AD:36:ARG:HG2	4:AD:38:TYR:OH	2.05	0.56
9:AI:28:VAL:HG13	9:AI:63:ILE:HB	1.88	0.56
23:BA:1593:G:H2'	23:BA:1594:G:H8	1.71	0.56
23:BA:2131:G:H5"	23:BA:2132:U:H5"	1.88	0.56
23:BA:63:U:OP2	56:BA:4700:HOH:O	2.18	0.56
1:CA:1095:U:H2'	1:CA:1096:C:C6	2.41	0.56
1:CA:458:C:H2'	1:CA:460:G:H8	1.69	0.56
23:DA:1779:U:C5	23:DA:1784:A:N7	2.60	0.56
23:DA:2109:U:H3'	23:DA:2109:U:H6	1.71	0.56
1:AA:1097:C:H2'	1:AA:1098:C:H6	1.71	0.56
1:AA:243:A:H4'	1:AA:244:U:O5'	2.05	0.56
1:AA:951:G:H1'	1:AA:970:C:O2'	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:36:LEU:HA	8:AH:39:LEU:HD23	1.87	0.56
49:B5:49:CYS:SG	49:B5:51:TYR:HB2	2.46	0.56
23:BA:2107:C:C5	23:BA:2108:C:C4	2.93	0.56
23:BA:528:A:O2'	23:BA:529:A:H5'	2.06	0.56
23:BA:579:G:H2'	23:BA:580:C:C6	2.41	0.56
36:BS:59:LYS:HB3	36:BS:60:GLY:CA	2.35	0.56
42:BY:2:ARG:HA	42:BY:2:ARG:HH11	1.70	0.56
1:CA:639:G:H2'	1:CA:640:A:H8	1.71	0.56
1:CA:659:U:H2'	1:CA:660:G:H8	1.69	0.56
1:CA:913:A:H4'	1:CA:914:A:O5'	2.05	0.56
23:DA:1509(B):A:H2'	23:DA:1510:G:C8	2.41	0.56
23:DA:2805:G:H2'	23:DA:2807:G:H8	1.69	0.56
34:DQ:16:ARG:NH1	34:DQ:16:ARG:HG2	2.21	0.56
40:DW:60:ASN:HD22	40:DW:60:ASN:H	1.52	0.56
1:AA:1002:G:H2'	1:AA:1003:G:O4'	2.05	0.56
1:AA:1142:G:H3'	1:AA:1143:G:C8	2.40	0.56
1:AA:1053:G:N7	1:AA:1199:U:H2'	2.21	0.56
1:AA:1270:C:H2'	1:AA:1271:G:H8	1.71	0.56
1:AA:598:U:H2'	1:AA:599:C:H6	1.71	0.56
2:AB:185:ILE:HA	2:AB:199:TYR:O	2.06	0.56
15:AO:33:THR:HG21	15:AO:85:LEU:HD22	1.88	0.56
16:AP:15:PRO:HB2	16:AP:41:PRO:HG3	1.88	0.56
1:AA:1220:G:H1'	19:AS:52:TYR:CE2	2.40	0.56
23:BA:107:C:H2'	23:BA:108:U:H6	1.70	0.56
23:BA:2036:C:H5'	23:BA:2036:C:C6	2.40	0.56
23:BA:2113:U:H2'	23:BA:2114:A:C8	2.40	0.56
1:CA:1287:A:H2'	1:CA:1288:A:H8	1.71	0.56
1:CA:221:C:H2'	1:CA:222:U:H6	1.69	0.56
5:CE:30:ALA:N	5:CE:46:GLY:O	2.29	0.56
9:CI:117:HIS:CE1	9:CI:123:PRO:HG3	2.41	0.56
23:DA:1466:G:O2'	23:DA:1546:C:O2'	2.23	0.56
30:DI:105:HIS:CD2	30:DI:105:HIS:N	2.74	0.56
1:AA:1047:G:HO2'	1:AA:1215:G:HO2'	1.54	0.55
1:AA:989:C:O2	1:AA:1216:G:N1	2.28	0.55
3:AC:56:ASP:HB3	3:AC:67:THR:HB	1.88	0.55
14:AN:3:ARG:NH1	14:AN:28:GLY:H	2.05	0.55
20:AT:30:LYS:HA	20:AT:33:ILE:HD12	1.87	0.55
21:AU:11:GLY:HA2	21:AU:14:TRP:HE3	1.70	0.55
52:B8:7:HIS:CD2	52:B8:10:ALA:H	2.12	0.55
23:BA:1141:U:OP2	31:BN:63:THR:OG1	2.19	0.55
23:BA:1509(B):A:H2'	23:BA:1510:G:C8	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2305:A:H1'	28:BG:135:LEU:O	2.06	0.55
23:BA:2328:A:H2'	23:BA:2329:G:C8	2.41	0.55
23:BA:2424:C:O2	23:BA:2429:G:O2'	2.20	0.55
29:BH:139:GLN:HG3	29:BH:140:LYS:N	2.20	0.55
32:BO:115:VAL:HG13	32:BO:121:VAL:HG21	1.88	0.55
1:CA:950:U:H1'	1:CA:971:G:C5	2.41	0.55
27:DF:53:THR:CG2	27:DF:55:GLY:H	2.18	0.55
37:DT:42:ILE:HG12	37:DT:84:GLN:OE1	2.06	0.55
1:AA:1311:G:N2	1:AA:1326:C:N3	2.49	0.55
1:AA:1348:U:H4'	9:AI:120:ARG:NH2	2.21	0.55
5:AE:18:ARG:HH12	5:AE:25:ARG:HD3	1.70	0.55
16:AP:20:VAL:HG21	16:AP:32:TYR:CG	2.41	0.55
18:AR:56:THR:HB	18:AR:58:LEU:HD13	1.89	0.55
27:BF:107:LYS:HE3	27:BF:205:ARG:O	2.07	0.55
1:CA:1009:G:H1	1:CA:1020:U:H1'	1.72	0.55
1:CA:160:A:H61	1:CA:346:G:N2	2.05	0.55
2:CB:18:GLY:HA3	2:CB:41:ILE:HG23	1.87	0.55
47:D3:18:ASP:N	47:D3:18:ASP:OD1	2.26	0.55
47:D3:6:VAL:HG13	47:D3:56:VAL:HG13	1.87	0.55
23:DA:1026:U:O2	23:DA:1026:U:H2'	2.05	0.55
23:DA:2306:C:H3'	23:DA:2307:G:C8	2.41	0.55
26:DE:16:ARG:NH1	26:DE:171:GLU:OE2	2.39	0.55
28:DG:41:GLN:NE2	28:DG:154:GLY:O	2.34	0.55
31:DN:56:ASN:H	31:DN:125:GLY:HA3	1.71	0.55
23:DA:907:U:O2'	34:DQ:101:ARG:NH2	2.39	0.55
42:DY:76:CYS:CB	42:DY:79:CYS:HB2	2.29	0.55
1:AA:688:G:H2'	1:AA:689:C:C6	2.42	0.55
1:AA:939:G:N3	1:AA:1375:A:H2	2.04	0.55
5:AE:37:ARG:HH11	5:AE:37:ARG:HG2	1.72	0.55
11:AK:48:ILE:H	11:AK:48:ILE:HD13	1.70	0.55
22:AV:50:ASP:HA	22:AV:53:VAL:HG12	1.87	0.55
23:BA:1309:G:N7	56:BA:4019:HOH:O	2.33	0.55
23:BA:271(F):C:H2'	23:BA:271(G):C:H6	1.72	0.55
23:BA:848:G:OP1	56:BA:3720:HOH:O	2.18	0.55
2:CB:88:ALA:HB2	2:CB:219:VAL:HG13	1.87	0.55
3:CC:43:LEU:O	3:CC:47:LEU:N	2.39	0.55
13:CM:69:GLU:O	13:CM:70:LEU:HB3	2.07	0.55
16:CP:59:TRP:HA	16:CP:62:VAL:HG12	1.87	0.55
23:DA:1288:U:C2	23:DA:1327:C:O2	2.60	0.55
23:DA:1514:U:H2'	23:DA:1515:G:H8	1.71	0.55
23:DA:184:C:H2'	23:DA:185:U:C6	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2023:G:H5'	23:DA:2617:C:H4'	1.88	0.55
1:AA:1009:G:H2'	1:AA:1010:G:C8	2.42	0.55
1:AA:152:A:N6	1:AA:170:U:H3	2.03	0.55
1:AA:552:U:H4'	12:AL:86:ARG:HG2	1.87	0.55
12:AL:76:ASN:HD21	12:AL:107:ALA:HA	1.72	0.55
23:BA:1109:C:C5	23:BA:1110:G:C2	2.88	0.55
23:BA:1762:A:O5'	23:BA:1762:A:H8	1.89	0.55
23:BA:2109:U:H3'	23:BA:2109:U:H6	1.72	0.55
3:CC:113:ALA:HB2	3:CC:202:ILE:HG12	1.88	0.55
3:CC:88:ARG:O	3:CC:92:ALA:HB3	2.06	0.55
13:CM:14:ARG:HD2	13:CM:42:ALA:O	2.05	0.55
46:D2:9:GLN:HE22	46:D2:56:GLN:HB3	1.70	0.55
23:DA:247:G:H4'	23:DA:386:G:C5	2.42	0.55
24:DB:8:U:O2'	36:DS:40:ILE:HD13	2.07	0.55
31:DN:42:TRP:HD1	31:DN:48:MET:HE1	1.72	0.55
46:B2:53:LEU:O	46:B2:57:ILE:HG13	2.07	0.55
42:BY:8:LYS:HG2	42:BY:9:LYS:O	2.07	0.55
1:CA:346:G:N2	1:CA:347:G:C4	2.75	0.55
1:CA:35:G:C2	1:CA:550:G:C2	2.94	0.55
23:DA:2723:C:OP1	35:DR:3:HIS:ND1	2.26	0.55
23:DA:272:G:N7	23:DA:421:U:H2'	2.22	0.55
24:DB:32:C:C2	24:DB:51:G:N2	2.74	0.55
25:DD:76:PRO:HB2	25:DD:116:GLN:HE21	1.71	0.55
26:DE:97:LYS:N	26:DE:100:GLU:OE1	2.39	0.55
31:DN:28:THR:HG22	31:DN:29:LYS:N	2.22	0.55
1:AA:100:C:H2'	1:AA:101:A:C8	2.41	0.55
1:AA:1504:G:P	1:AA:1504:G:H3'	2.46	0.55
1:AA:327:A:O2'	1:AA:329:A:H8	1.88	0.55
1:AA:474:G:H2'	1:AA:475:G:C8	2.41	0.55
1:AA:512:U:H2'	1:AA:513:C:C6	2.41	0.55
3:AC:123:GLN:HA	3:AC:126:ARG:HB2	1.89	0.55
30:BI:112:LYS:O	30:BI:114:LEU:N	2.36	0.55
1:CA:1227:A:H5'	1:CA:1227:A:H8	1.71	0.55
44:D0:29:GLN:O	44:D0:67:VAL:HG23	2.07	0.55
23:DA:1040:C:H2'	23:DA:1041:C:O4'	2.07	0.55
23:DA:2166:G:N2	23:DA:2172:U:O4	2.40	0.55
23:DA:83:G:OP1	42:DY:95:LYS:NZ	2.40	0.55
27:DF:129:PHE:CD2	27:DF:163:VAL:HG21	2.41	0.55
33:DP:8:PRO:HB2	33:DP:12:ALA:HB3	1.87	0.55
36:DS:59:LYS:HB3	36:DS:60:GLY:CA	2.37	0.55
1:AA:1003:G:H2'	1:AA:1004:A:C1'	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:91:VAL:HG11	18:AR:72:ARG:HH12	1.70	0.55
8:AH:4:ASP:HB2	8:AH:89:PRO:HG3	1.89	0.55
11:AK:58:PRO:HA	11:AK:90:GLY:HA2	1.87	0.55
23:BA:1007:C:OP1	31:BN:37:LYS:NZ	2.38	0.55
23:BA:154(A):C:N4	23:BA:172:C:N3	2.54	0.55
37:BT:127:ALA:HA	37:BT:128:GLU:C	2.27	0.55
42:BY:68:HIS:ND1	42:BY:70:SER:HB3	2.22	0.55
1:CA:1300:G:O2'	1:CA:1303:C:N4	2.40	0.55
1:CA:1459:C:H41	1:CA:1461:G:N2	2.05	0.55
1:CA:79:G:H1	1:CA:90:U:H3	1.55	0.55
1:CA:993:G:H2'	1:CA:993:G:N3	2.21	0.55
8:CH:6:ILE:HB	8:CH:85:ARG:HH12	1.70	0.55
8:CH:4:ASP:HB2	8:CH:89:PRO:HG3	1.88	0.55
10:CJ:11:PHE:CE2	10:CJ:67:THR:HB	2.42	0.55
23:DA:2036:C:C6	23:DA:2036:C:H5'	2.40	0.55
1:AA:1014:A:H2'	1:AA:1015:A:C8	2.42	0.55
1:AA:1098:C:H2'	1:AA:1099:G:C1'	2.37	0.55
1:AA:1157:A:H61	1:AA:1178:G:H1'	1.72	0.55
1:AA:1368:G:H2'	1:AA:1369:C:C6	2.42	0.55
1:AA:473:G:H2'	1:AA:474:G:C8	2.42	0.55
1:AA:499:A:H4'	1:AA:500:G:H5'	1.89	0.55
23:BA:2306:C:H3'	23:BA:2307:G:C8	2.41	0.55
36:BS:46:VAL:HG12	36:BS:48:LEU:HD12	1.89	0.55
1:CA:1493:A:H4'	1:CA:1494:G:OP1	2.06	0.55
1:CA:819:A:H4'	1:CA:820:U:OP2	2.07	0.55
3:CC:5:ILE:HD12	3:CC:6:HIS:H	1.72	0.55
7:CG:47:CYS:O	7:CG:58:PRO:HG3	2.05	0.55
23:DA:2328:A:H2'	23:DA:2329:G:C8	2.40	0.55
34:DQ:34:LEU:HB2	34:DQ:118:LEU:HD22	1.89	0.55
23:DA:956:G:OP2	34:DQ:14:ARG:NH2	2.40	0.55
4:AD:177:ASP:OD1	4:AD:180:GLY:HA3	2.06	0.55
7:AG:102:ARG:HG2	7:AG:103:TRP:HD1	1.72	0.55
9:AI:7:THR:HA	9:AI:15:ALA:O	2.07	0.55
13:AM:12:ASN:HA	13:AM:45:VAL:HB	1.89	0.55
13:AM:14:ARG:NE	13:AM:16:ASP:OD2	2.35	0.55
45:B1:82:LEU:HA	45:B1:85:LEU:HD23	1.87	0.55
47:B3:6:VAL:HG12	47:B3:54:VAL:HG11	1.89	0.55
23:BA:2126:A:H4'	23:BA:2127:G:O5'	2.07	0.55
23:BA:2287:A:N6	23:BA:2344:U:N3	2.54	0.55
23:BA:1140:C:O3'	31:BN:25:ARG:NH1	2.39	0.55
33:BP:148:LEU:H	33:BP:148:LEU:HD23	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:956:G:OP2	34:BQ:14:ARG:NH2	2.40	0.55
38:BU:76:TYR:CZ	38:BU:80:ILE:HG13	2.42	0.55
11:CK:33:THR:HA	11:CK:39:PRO:HA	1.89	0.55
23:DA:1358:G:H2'	23:DA:1359:A:C2	2.42	0.55
23:DA:1642:G:N7	56:DA:4096:HOH:O	2.33	0.55
23:DA:2557:G:H2'	23:DA:2558:C:C6	2.41	0.55
23:DA:2781:A:H5"	23:DA:2782:G:H5'	1.88	0.55
25:DD:78:LYS:HE2	25:DD:114:GLY:HA2	1.89	0.55
27:DF:184:TYR:CE2	27:DF:188:ARG:HD2	2.42	0.55
32:DO:34:THR:OG1	32:DO:35:VAL:N	2.39	0.55
27:DF:31:HIS:HB2	33:DP:9:ASN:OD1	2.07	0.55
36:DS:102:ALA:HA	36:DS:105:ALA:CB	2.37	0.55
38:DU:74:LEU:HD12	38:DU:74:LEU:H	1.72	0.55
39:DV:65:GLY:HA3	39:DV:91:TYR:CZ	2.42	0.55
1:AA:1016:A:C6	1:AA:1017:G:H1'	2.41	0.55
1:AA:1128:C:H4'	9:AI:16:ARG:HH22	1.71	0.55
5:AE:88:LYS:HB3	5:AE:123:LEU:HB2	1.88	0.55
13:AM:104:ARG:HG2	13:AM:105:THR:HG23	1.89	0.55
23:BA:2134:A:C2	23:BA:2159:G:H1'	2.42	0.55
23:BA:2321:G:OP2	56:BA:4632:HOH:O	2.18	0.55
23:BA:2610:C:H4'	23:BA:2611:U:OP2	2.05	0.55
23:BA:2790:A:N3	23:BA:2790:A:H2'	2.22	0.55
23:BA:330:A:HO2'	23:BA:331:A:H8	1.51	0.55
23:BA:547:A:H1'	23:BA:548:A:H4'	1.88	0.55
27:BF:129:PHE:CD2	27:BF:163:VAL:HG21	2.42	0.55
36:BS:84:GLN:HB3	36:BS:111:GLU:HB2	1.89	0.55
1:CA:592:G:H1	1:CA:647:C:H42	1.55	0.55
3:CC:22:TRP:HA	10:CJ:93:GLY:HA2	1.88	0.55
8:CH:81:HIS:ND1	8:CH:138:TRP:OXT	2.34	0.55
23:DA:2575:C:H5'	26:DE:143:ASN:O	2.06	0.55
23:DA:2712:U:O2'	23:DA:2713:A:H5'	2.07	0.55
23:DA:548:A:N6	39:DV:19:LYS:H	2.05	0.55
23:DA:646:A:H2'	23:DA:647:G:O4'	2.07	0.55
24:DB:11:C:OP2	24:DB:12:C:N4	2.30	0.55
24:DB:2:C:H2'	24:DB:3:C:C6	2.42	0.55
27:DF:89:VAL:HG12	27:DF:90:PHE:N	2.22	0.55
23:DA:1022:G:N7	31:DN:66:LYS:HE2	2.21	0.55
36:DS:84:GLN:HB3	36:DS:111:GLU:HB2	1.89	0.55
1:AA:426:G:H4'	4:AD:42:GLN:HA	1.88	0.54
1:AA:924:C:H2'	1:AA:925:G:H8	1.72	0.54
45:B1:15:ALA:O	45:B1:40:ARG:HG3	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1364:G:OP1	45:B1:2:SER:HA	2.07	0.54
23:BA:443:A:H1'	23:BA:1201:C:O4'	2.06	0.54
43:BZ:101:PRO:O	43:BZ:102:LEU:HD12	2.08	0.54
1:CA:186:C:H2'	1:CA:187:C:C6	2.42	0.54
13:CM:59:TYR:CE1	13:CM:63:THR:HG21	2.42	0.54
1:CA:979:C:H42	14:CN:18:VAL:HG12	1.72	0.54
23:DA:1048:A:O2'	23:DA:1049:C:OP2	2.24	0.54
23:DA:107:C:H2'	23:DA:108:U:H6	1.72	0.54
23:DA:2037:G:O6	56:DA:3650:HOH:O	2.17	0.54
23:DA:2820:A:OP1	35:DR:4:LEU:HD23	2.07	0.54
23:DA:733:G:N7	56:DA:3617:HOH:O	2.33	0.54
29:DH:94:TYR:CE2	29:DH:107:VAL:HB	2.42	0.54
1:AA:1028:C:H42	1:AA:1034:G:C1'	2.18	0.54
1:AA:1158:C:N4	1:AA:1160:G:N3	2.56	0.54
1:AA:1532:U:O4	22:AV:31:TYR:HB3	2.06	0.54
1:AA:857:C:H2'	1:AA:858:G:O4'	2.06	0.54
3:AC:118:GLN:HA	3:AC:187:ALA:CB	2.36	0.54
23:BA:1141:U:OP1	31:BN:25:ARG:NH1	2.40	0.54
23:BA:1486:A:H2'	23:BA:1487:G:C8	2.42	0.54
23:BA:2144:U:H1'	23:BA:2147:G:H1	1.72	0.54
23:BA:2115:G:O2'	23:BA:2166:G:N2	2.39	0.54
23:BA:271(E):U:H2'	23:BA:271(F):C:H6	1.73	0.54
23:BA:638:G:H2'	23:BA:639:U:C6	2.42	0.54
23:BA:907:U:O2'	34:BQ:101:ARG:NH2	2.41	0.54
41:BX:2:LYS:HE2	41:BX:38:GLU:OE2	2.07	0.54
1:CA:1063:C:H3'	1:CA:1064:G:H2'	1.89	0.54
1:CA:1095:U:P	1:CA:1108:G:H1	2.30	0.54
1:CA:955:U:H2'	1:CA:956:U:O4'	2.07	0.54
1:CA:969:A:OP1	10:CJ:55:LYS:NZ	2.31	0.54
3:CC:20:SER:HB3	3:CC:40:ARG:HH22	1.73	0.54
4:CD:177:ASP:OD1	4:CD:180:GLY:HA3	2.06	0.54
3:CC:5:ILE:HD11	14:CN:49:HIS:CE1	2.43	0.54
18:CR:56:THR:HB	18:CR:58:LEU:HD13	1.87	0.54
21:CU:3:LYS:HB3	21:CU:14:TRP:CE3	2.42	0.54
22:CV:23:GLY:N	22:CV:24:ARG:HA	2.22	0.54
23:DA:2784:C:H1'	26:DE:37:ARG:HH12	1.72	0.54
43:DZ:146:ILE:HA	43:DZ:174:VAL:HG12	1.89	0.54
1:AA:736:C:H2'	1:AA:737:A:C8	2.42	0.54
6:AF:69:GLU:O	6:AF:72:VAL:HG12	2.06	0.54
51:B7:34:ARG:NH1	51:B7:39:ARG:HG3	2.21	0.54
23:BA:1570:A:H5'	25:BD:36:PRO:HG3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1786:A:H1'	23:BA:1938:A:N6	2.22	0.54
23:BA:2822:G:C8	56:BA:4416:HOH:O	2.61	0.54
23:BA:192:C:O2'	23:BA:802:A:N3	2.38	0.54
26:BE:97:LYS:N	26:BE:100:GLU:OE1	2.39	0.54
56:BA:4349:HOH:O	33:BP:16:ARG:HG2	2.07	0.54
37:BT:118:ARG:HH11	37:BT:118:ARG:HG3	1.71	0.54
4:CD:12:CYS:HA	4:CD:19:LEU:HD23	1.89	0.54
4:CD:59:ARG:HA	4:CD:62:GLN:HB2	1.88	0.54
8:CH:120:THR:OG1	8:CH:123:GLU:HG3	2.08	0.54
17:CQ:86:GLU:O	17:CQ:90:ILE:HG12	2.07	0.54
23:DA:2133:G:H2'	23:DA:2157:G:H22	1.73	0.54
23:DA:720:C:H2'	23:DA:721:C:H6	1.72	0.54
30:DI:31:LEU:HD21	30:DI:38:LEU:HG	1.88	0.54
32:DO:88:ASN:ND2	32:DO:90:GLN:H	2.06	0.54
34:DQ:39:PRO:HD3	34:DQ:99:PRO:HG3	1.89	0.54
1:AA:1459:C:C4	1:AA:1460:A:N6	2.69	0.54
1:AA:814:A:N7	1:AA:816:A:C4	2.75	0.54
1:AA:950:U:H4'	1:AA:971:G:N2	2.23	0.54
4:AD:3:ARG:O	4:AD:5:ILE:HG12	2.08	0.54
1:AA:1376:U:C5	7:AG:9:VAL:HA	2.37	0.54
9:AI:45:ALA:HB3	9:AI:48:GLU:OE1	2.07	0.54
1:AA:1060:C:H1'	10:AJ:53:PRO:HD2	1.88	0.54
10:AJ:43:ARG:HG2	10:AJ:67:THR:HG23	1.89	0.54
23:BA:2016:U:H1'	49:B5:6:VAL:HG13	1.89	0.54
23:BA:1047:G:H2'	23:BA:1110:G:N2	2.22	0.54
23:BA:1364:G:C8	45:B1:3:LYS:HD3	2.41	0.54
23:BA:1412:A:N6	56:BA:4504:HOH:O	2.40	0.54
23:BA:1657:C:H2'	23:BA:1658:C:C6	2.43	0.54
25:BD:17:THR:O	25:BD:211:ARG:NH2	2.37	0.54
28:BG:134:GLY:HA2	28:BG:156:ASP:HA	1.89	0.54
33:BP:82:GLY:HA2	33:BP:113:LYS:O	2.07	0.54
1:CA:1239:A:H2'	1:CA:1298:C:H42	1.72	0.54
1:CA:262:A:H2'	1:CA:263:A:C8	2.42	0.54
1:CA:448:A:H2'	1:CA:449:C:C6	2.42	0.54
1:CA:652:U:O4	1:CA:752:G:O2'	2.20	0.54
4:CD:79:PHE:HD2	4:CD:80:GLU:N	2.04	0.54
28:DG:121:ASN:HD21	28:DG:123:ASN:HB2	1.72	0.54
30:DI:72:LEU:O	30:DI:73:GLU:HB2	2.07	0.54
37:DT:65:LYS:HE2	37:DT:67:SER:HB2	1.90	0.54
1:AA:1249:C:N4	1:AA:1287:A:H5'	2.22	0.54
5:AE:57:LYS:O	5:AE:61:TYR:HD2	1.91	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:97:ALA:HB3	20:AT:99:LEU:H	1.72	0.54
23:BA:646:A:H2'	23:BA:647:G:O4'	2.06	0.54
33:BP:100:LEU:HD12	33:BP:112:LEU:HD11	1.89	0.54
1:CA:473:G:H2'	1:CA:474:G:C8	2.43	0.54
5:CE:57:LYS:O	5:CE:61:TYR:HD2	1.90	0.54
22:CV:27:GLU:H	22:CV:44:TRP:HE1	1.54	0.54
23:DA:1212:G:N2	23:DA:1236:G:O2'	2.39	0.54
23:DA:1639:U:C2'	23:DA:1640:C:H5"	2.36	0.54
23:DA:2171:A:H4'	23:DA:2172:U:OP1	2.07	0.54
23:DA:443:A:N7	27:DF:45:ARG:HG2	2.22	0.54
43:DZ:68:PRO:O	43:DZ:91:LEU:HB2	2.07	0.54
1:AA:1022:G:H2'	1:AA:1023:G:C8	2.43	0.54
1:AA:345:C:H4'	1:AA:346:G:N7	2.22	0.54
8:AH:7:ALA:HB2	8:AH:85:ARG:HG3	1.88	0.54
1:AA:1365:G:H5"	9:AI:117:HIS:CE1	2.42	0.54
3:AC:26:LYS:HA	14:AN:36:PHE:HE2	1.72	0.54
23:BA:1434:A:H61	23:BA:1558:A:H62	1.56	0.54
23:BA:2477:C:O2	53:B9:4:ARG:NH2	2.37	0.54
23:BA:744:G:OP1	56:BA:4402:HOH:O	2.18	0.54
1:CA:1147:C:H2'	1:CA:1148:U:C6	2.43	0.54
1:CA:1292:U:H2'	1:CA:1293:G:C8	2.42	0.54
3:CC:52:LEU:HD13	3:CC:68:VAL:HG13	1.89	0.54
5:CE:126:ARG:HA	5:CE:131:ILE:HD11	1.89	0.54
23:DA:1503:U:H2'	23:DA:1504:C:C6	2.43	0.54
23:DA:188:G:H1	23:DA:208:C:H42	1.55	0.54
23:DA:641:C:O2'	23:DA:2350:C:OP1	2.19	0.54
23:DA:2577:A:H5'	49:D5:3:LYS:HD2	1.90	0.54
28:DG:58:GLN:HA	28:DG:61:ALA:HB3	1.90	0.54
39:DV:35:LEU:HB2	39:DV:57:VAL:HG13	1.88	0.54
24:DB:107:G:OP1	43:DZ:31:ARG:NH2	2.41	0.54
1:AA:1258:G:O2'	1:AA:1259:C:O4'	2.25	0.54
23:BA:2361:A:OP1	52:B8:27:THR:HG23	2.08	0.54
23:BA:2834:G:H8	23:BA:2834:G:H5"	1.72	0.54
23:BA:645:C:H2'	23:BA:645:C:O2	2.07	0.54
23:BA:674:G:H1'	27:BF:74:ARG:HD3	1.90	0.54
36:BS:59:LYS:HB3	36:BS:60:GLY:HA2	1.89	0.54
1:CA:1046:A:H3'	1:CA:1047:G:C8	2.43	0.54
1:CA:833:U:H2'	1:CA:834:C:C6	2.43	0.54
19:CS:69:HIS:HD2	19:CS:74:PHE:CE1	2.26	0.54
20:CT:66:ALA:HB3	20:CT:72:LEU:HD22	1.90	0.54
23:DA:1026:U:HO2'	23:DA:1027:A:P	2.31	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1762:A:H8	23:DA:1762:A:O5'	1.91	0.54
23:DA:2131:G:H5"	23:DA:2132:U:H5"	1.88	0.54
29:DH:24:VAL:HG13	29:DH:37:VAL:HG21	1.89	0.54
31:DN:42:TRP:HA	31:DN:48:MET:SD	2.48	0.54
23:DA:2727:G:O2'	32:DO:70:LYS:HE2	2.08	0.54
37:DT:54:ARG:HA	37:DT:59:THR:HB	1.89	0.54
41:DX:2:LYS:HE2	41:DX:38:GLU:OE2	2.07	0.54
1:AA:1054:C:H4'	1:AA:1054:C:OP2	2.07	0.54
1:AA:1150:U:H2'	10:AJ:39:PRO:HG2	1.88	0.54
3:AC:30:ARG:HA	3:AC:33:LEU:HD23	1.90	0.54
7:AG:69:VAL:HB	7:AG:100:ALA:HA	1.90	0.54
1:AA:1309:G:H5'	13:AM:78:ILE:HG12	1.90	0.54
13:AM:78:ILE:O	13:AM:82:MET:N	2.40	0.54
16:AP:15:PRO:HB3	16:AP:17:TYR:HE1	1.73	0.54
18:AR:37:VAL:HG12	18:AR:78:LEU:HB3	1.90	0.54
23:BA:330:A:H2	23:BA:1210:A:H2'	1.72	0.54
23:BA:2575:C:H5'	26:BE:143:ASN:O	2.07	0.54
1:CA:102:G:H2'	1:CA:103:C:C6	2.43	0.54
6:CF:91:VAL:HG13	18:CR:72:ARG:HH22	1.72	0.54
23:DA:1364:G:OP1	45:D1:2:SER:HA	2.08	0.54
23:DA:2144:U:O2'	23:DA:2145:C:H2'	2.08	0.54
23:DA:784:A:H5'	23:DA:785:G:OP1	2.07	0.54
1:AA:1223:C:P	19:AS:78:ARG:HH21	2.31	0.54
1:AA:125:U:O4	56:AA:1831:HOH:O	2.17	0.54
1:AA:170:U:O2'	1:AA:171:A:H5'	2.08	0.54
1:AA:397:A:N3	1:AA:397:A:H5"	2.23	0.54
1:AA:428:G:H4'	1:AA:429:U:O5'	2.08	0.54
7:AG:105:VAL:HA	7:AG:108:ALA:HB3	1.89	0.54
11:AK:66:LEU:HD21	11:AK:97:ALA:HB1	1.90	0.54
23:BA:857:C:OP2	44:B0:77:ARG:NH2	2.40	0.54
23:BA:628:G:H2'	23:BA:629:G:C8	2.43	0.54
56:BA:3816:HOH:O	34:BQ:119:ARG:HD2	2.07	0.54
1:CA:396:G:O2'	1:CA:398:C:OP1	2.17	0.54
20:CT:43:LEU:O	20:CT:47:GLY:N	2.33	0.54
23:DA:2236:C:H2'	23:DA:2237:G:H5'	1.90	0.54
23:DA:2477:C:O2	53:D9:4:ARG:NH2	2.36	0.54
23:DA:628:G:H2'	23:DA:629:G:H8	1.72	0.54
23:DA:861:A:C2	23:DA:917:A:C4	2.95	0.54
31:DN:102:ALA:O	31:DN:106:MET:HG3	2.07	0.54
41:DX:31:HIS:CD2	41:DX:33:LYS:H	2.26	0.54
1:AA:1245:A:H2'	1:AA:1246:C:O4'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:346:G:H21	1:AA:347:G:C1'	2.21	0.54
1:AA:382:A:H2'	1:AA:383:A:C8	2.43	0.54
1:AA:960:U:H1'	1:AA:1222:G:O2'	2.07	0.54
1:AA:406:G:H5"	4:AD:5:ILE:HG23	1.89	0.54
53:B9:14:CYS:HA	53:B9:27:CYS:HB2	1.89	0.54
23:BA:2025:C:P	56:BA:4207:HOH:O	2.65	0.54
1:CA:673:G:O3'	6:CF:87:ARG:NH2	2.41	0.54
23:DA:1430:C:H2'	23:DA:1431:U:H6	1.73	0.54
23:DA:2000:G:N7	56:DA:4190:HOH:O	2.33	0.54
23:DA:2262:U:O2'	23:DA:2263:C:H5'	2.08	0.54
1:AA:1387:G:H2'	1:AA:1388:C:C6	2.43	0.53
2:AB:149:LEU:HB3	2:AB:152:PHE:HB3	1.90	0.53
1:AA:1377:A:N3	7:AG:7:ALA:HB1	2.22	0.53
10:AJ:19:SER:HB3	10:AJ:91:PRO:HD3	1.89	0.53
23:BA:1043:C:H2'	23:BA:1044:G:O4'	2.08	0.53
1:CA:404:U:H5'	4:CD:122:ARG:HD3	1.89	0.53
1:CA:544:G:C6	1:CA:545:C:C4	2.96	0.53
1:CA:839:U:H5"	1:CA:840:C:C5	2.31	0.53
2:CB:24:TRP:CE3	2:CB:26:PRO:HA	2.43	0.53
8:CH:85:ARG:NE	8:CH:87:SER:O	2.41	0.53
1:CA:1151:A:N3	10:CJ:39:PRO:HG2	2.22	0.53
1:CA:35:G:O2'	12:CL:118:SER:O	2.25	0.53
13:CM:13:LYS:O	13:CM:45:VAL:HG23	2.08	0.53
21:CU:15:ARG:HG2	21:CU:17:THR:HG23	1.89	0.53
23:DA:277:C:H4'	23:DA:278:A:O5'	2.08	0.53
28:DG:27:ASN:HB3	28:DG:30:GLU:HG3	1.90	0.53
37:DT:1:MET:HE2	37:DT:3:ARG:HG2	1.89	0.53
1:AA:1227:A:H8	19:AS:83:HIS:CG	2.27	0.53
1:AA:1301:U:HO2'	1:AA:1303:C:H6	1.56	0.53
1:AA:1386:G:H2'	1:AA:1387:G:C8	2.33	0.53
1:AA:359:U:H2'	1:AA:360:A:C8	2.43	0.53
1:AA:405:U:H3'	1:AA:406:G:H5'	1.89	0.53
1:AA:950:U:H2'	1:AA:951:G:C8	2.44	0.53
5:AE:57:LYS:HB3	5:AE:61:TYR:HE2	1.74	0.53
23:BA:1026:U:HO2'	23:BA:1027:A:P	2.27	0.53
28:BG:156:ASP:O	28:BG:157:ILE:HG13	2.07	0.53
30:BI:14:ASP:O	30:BI:17:GLN:HB3	2.08	0.53
1:CA:1003:G:N2	1:CA:1038:C:C4	2.77	0.53
1:CA:1277:C:O2'	1:CA:1279:A:H8	1.91	0.53
1:CA:1493:A:O2'	1:CA:1494:G:O5'	2.24	0.53
1:CA:304:U:H2'	1:CA:305:G:C8	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:211:ILE:HG22	2:CB:215:LEU:HG	1.89	0.53
7:CG:51:GLN:O	7:CG:55:GLY:HA2	2.08	0.53
1:CA:777:A:H2	11:CK:119:CYS:HB3	1.72	0.53
12:CL:102:ARG:HB3	12:CL:108:ALA:O	2.08	0.53
23:DA:2108:C:H6	23:DA:2108:C:H3'	1.72	0.53
23:DA:2815:C:H2'	23:DA:2816:C:H6	1.73	0.53
23:DA:819:A:H2'	23:DA:820:A:H5'	1.89	0.53
1:AA:1220:G:O2'	19:AS:52:TYR:HD2	1.91	0.53
1:AA:1238:A:H62	1:AA:1299:A:N6	1.95	0.53
1:AA:1318:A:O2'	19:AS:4:SER:HB3	2.08	0.53
1:AA:542:G:H2'	1:AA:543:C:H6	1.74	0.53
1:AA:590:C:H2'	1:AA:591:U:C6	2.40	0.53
1:AA:669:U:H2'	1:AA:670:G:H8	1.72	0.53
3:AC:52:LEU:H	3:AC:70:VAL:HG22	1.74	0.53
5:AE:68:GLU:HG2	5:AE:70:PRO:HD3	1.90	0.53
23:BA:1790:C:H5"	23:BA:1791:A:OP1	2.08	0.53
23:BA:2506:U:H2'	56:BA:3804:HOH:O	2.07	0.53
23:BA:607:U:OP1	27:BF:102:PRO:HA	2.08	0.53
34:BQ:110:THR:HG23	34:BQ:113:GLN:OE1	2.07	0.53
36:BS:102:ALA:HA	36:BS:105:ALA:CB	2.38	0.53
1:CA:100:C:H2'	1:CA:101:A:C8	2.44	0.53
1:CA:999:C:N4	1:CA:1042:G:H1	2.04	0.53
1:CA:430:A:P	4:CD:22:LYS:HZ3	2.30	0.53
3:CC:64:VAL:O	3:CC:99:VAL:HA	2.09	0.53
6:CF:27:GLN:HA	6:CF:30:LEU:HD12	1.89	0.53
8:CH:85:ARG:HG3	8:CH:85:ARG:HH11	1.74	0.53
23:DA:154:G:H5'	23:DA:154(A):C:OP2	2.08	0.53
23:DA:1876:A:H2'	23:DA:1877:A:C8	2.44	0.53
23:DA:2064:C:H2'	23:DA:2065:C:C6	2.44	0.53
23:DA:2129:C:N3	23:DA:2160:G:C6	2.76	0.53
23:DA:2690:C:OP2	35:DR:14:SER:HB3	2.09	0.53
35:DR:37:THR:OG1	35:DR:40:LYS:HG3	2.08	0.53
36:DS:14:VAL:O	36:DS:18:ILE:HG12	2.09	0.53
43:DZ:54:HIS:ND1	43:DZ:101:PRO:HG3	2.23	0.53
1:AA:1386:G:O2'	1:AA:1387:G:H5'	2.09	0.53
1:AA:1493:A:H4'	1:AA:1494:G:OP1	2.09	0.53
1:AA:474:G:H2'	1:AA:475:G:H8	1.73	0.53
1:AA:943:U:H2'	1:AA:944:G:C8	2.43	0.53
1:AA:977:A:H1'	1:AA:981:U:H3	1.73	0.53
27:BF:53:THR:HG22	27:BF:56:GLU:HG3	1.91	0.53
28:BG:106:LEU:HG	28:BG:111:LEU:HG	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BY:28:LYS:CG	42:BY:40:GLU:HG2	2.38	0.53
1:CA:331:G:O4'	56:CA:1724:HOH:O	2.19	0.53
1:CA:828:A:H2'	1:CA:829:G:O4'	2.08	0.53
42:DY:2:ARG:HH11	42:DY:2:ARG:HA	1.73	0.53
1:AA:994:A:N6	1:AA:1215:G:O2'	2.41	0.53
1:AA:196:A:N3	1:AA:222:U:H1'	2.23	0.53
1:AA:801:U:H2'	1:AA:802:A:H8	1.74	0.53
1:AA:943:U:H2'	1:AA:944:G:H8	1.72	0.53
1:AA:986:A:H2'	1:AA:987:G:C8	2.44	0.53
3:AC:185:GLY:H	3:AC:200:ALA:HB3	1.71	0.53
3:AC:68:VAL:HG12	3:AC:70:VAL:HG23	1.89	0.53
23:BA:1721:G:H5'	23:BA:1722:A:OP2	2.08	0.53
23:BA:2166:G:N2	23:BA:2172:U:O4	2.40	0.53
23:BA:234:C:H2'	23:BA:235:U:O4'	2.09	0.53
23:BA:2319:G:C2	36:BS:3:ARG:HA	2.44	0.53
1:CA:1192:C:OP2	3:CC:4:LYS:NZ	2.38	0.53
1:CA:176:C:H2'	1:CA:177:C:C6	2.44	0.53
1:CA:181:G:O2'	1:CA:183:G:N7	2.41	0.53
7:CG:43:PHE:O	7:CG:47:CYS:N	2.42	0.53
21:CU:15:ARG:HB2	21:CU:15:ARG:NH1	2.21	0.53
52:D8:28:GLY:O	52:D8:36:LYS:NZ	2.41	0.53
23:DA:2305:A:H1'	28:DG:135:LEU:O	2.09	0.53
28:DG:156:ASP:O	28:DG:157:ILE:HG13	2.07	0.53
28:DG:16:ARG:HH21	28:DG:31:VAL:HB	1.74	0.53
1:AA:160:A:H2'	1:AA:161:A:O4'	2.08	0.53
6:AF:96:PRO:HB3	18:AR:30:ASP:CG	2.29	0.53
33:BP:8:PRO:HB2	33:BP:12:ALA:HB3	1.91	0.53
1:CA:1130:A:N6	1:CA:1144:G:N3	2.56	0.53
1:CA:1504:G:H3'	1:CA:1504:G:P	2.49	0.53
1:CA:103:C:H1'	1:CA:171:A:N1	2.23	0.53
1:CA:560:U:H4'	1:CA:561:U:O5'	2.08	0.53
1:CA:625:G:H2'	1:CA:626:U:H6	1.73	0.53
1:CA:1298:C:P	7:CG:114:ARG:HH22	2.31	0.53
12:CL:34:ARG:O	12:CL:61:THR:HG23	2.09	0.53
23:DA:244:A:C2	23:DA:255:A:C4	2.96	0.53
23:DA:2892:A:H2'	23:DA:2893:G:H5"	1.89	0.53
28:DG:111:LEU:HD22	28:DG:114:ILE:HD11	1.91	0.53
38:DU:8:VAL:O	38:DU:12:ARG:HG3	2.07	0.53
1:AA:833:U:H2'	1:AA:834:C:C6	2.43	0.53
4:AD:129:ASN:HD21	4:AD:145:GLU:N	2.07	0.53
7:AG:65:ALA:HB1	7:AG:127:ALA:HB3	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:154:G:H5'	23:BA:154(A):C:OP2	2.09	0.53
23:BA:184:C:H2'	23:BA:185:U:H6	1.74	0.53
23:BA:277:C:H4'	23:BA:278:A:O5'	2.09	0.53
23:BA:2784:C:H1'	26:BE:37:ARG:HH12	1.72	0.53
25:BD:2:ALA:N	25:BD:200:ASP:OD2	2.42	0.53
30:BI:61:ARG:HA	30:BI:61:ARG:HH11	1.72	0.53
31:BN:56:ASN:H	31:BN:125:GLY:HA3	1.73	0.53
1:CA:1132:C:H2'	1:CA:1133:G:O4'	2.09	0.53
1:CA:583:A:H2'	1:CA:584:G:O4'	2.09	0.53
1:CA:954:G:H21	1:CA:1227:A:H62	1.57	0.53
23:DA:1406:U:H2'	23:DA:1407:C:C6	2.42	0.53
23:DA:271(F):C:H2'	23:DA:271(G):C:H6	1.73	0.53
23:DA:386:G:H4'	23:DA:387:U:OP2	2.09	0.53
27:DF:150:GLY:HA2	27:DF:172:TRP:CD2	2.44	0.53
31:DN:62:VAL:HG12	31:DN:67:LEU:HD22	1.91	0.53
1:AA:1005:A:N6	1:AA:1024:G:H4'	2.23	0.53
1:AA:1132:C:H2'	1:AA:1133:G:O4'	2.08	0.53
1:AA:1316:G:H4'	14:AN:18:VAL:HG13	1.91	0.53
1:AA:79:G:O6	1:AA:90:U:O4	2.26	0.53
1:AA:913:A:H4'	1:AA:914:A:O5'	2.09	0.53
3:AC:130:VAL:O	3:AC:134:ILE:HG13	2.09	0.53
4:AD:64:LEU:HD23	4:AD:203:VAL:HG21	1.90	0.53
10:AJ:5:ARG:N	10:AJ:99:LYS:O	2.41	0.53
20:AT:41:ILE:HG22	20:AT:91:LEU:HD12	1.90	0.53
23:BA:1038:C:N4	23:BA:1117:G:H1	2.03	0.53
23:BA:1531:C:H42	23:BA:1538:G:H1	1.57	0.53
23:BA:2272:U:H5"	23:BA:2273:A:OP1	2.09	0.53
28:BG:48:GLU:O	28:BG:51:ARG:N	2.42	0.53
23:BA:1022:G:N7	31:BN:66:LYS:HE2	2.23	0.53
36:BS:3:ARG:HG3	36:BS:4:LEU:N	2.22	0.53
43:BZ:54:HIS:ND1	43:BZ:101:PRO:HG3	2.24	0.53
43:BZ:68:PRO:O	43:BZ:91:LEU:HB2	2.08	0.53
1:CA:1142:G:H3'	1:CA:1143:G:C8	2.41	0.53
1:CA:1192:C:N3	1:CA:1193:G:H1'	2.24	0.53
1:CA:1357:A:H3'	1:CA:1358:U:C6	2.43	0.53
1:CA:964:A:N3	1:CA:969:A:O2'	2.31	0.53
23:DA:1108:U:O2'	23:DA:1109:C:O5'	2.27	0.53
23:DA:1899:G:N3	23:DA:1899:G:H2'	2.24	0.53
30:DI:98:ALA:O	30:DI:101:LEU:N	2.42	0.53
1:AA:102:G:H2'	1:AA:103:C:C6	2.44	0.53
1:AA:625:G:H2'	1:AA:626:U:H6	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:982:U:O2	1:AA:1222:G:N1	2.41	0.53
10:AJ:10:GLY:N	10:AJ:16:LEU:HD12	2.23	0.53
23:BA:2114:A:H2'	23:BA:2115:G:O4'	2.08	0.53
23:BA:2805:G:H2'	23:BA:2807:G:H8	1.74	0.53
23:BA:588:U:H2'	23:BA:589:C:C6	2.43	0.53
27:BF:150:GLY:HA2	27:BF:172:TRP:CD2	2.43	0.53
1:CA:1009:G:N2	1:CA:1020:U:O2'	2.41	0.53
1:CA:437:U:O3'	4:CD:125:HIS:NE2	2.36	0.53
3:CC:33:LEU:HG	3:CC:34:LEU:N	2.23	0.53
3:CC:12:LEU:HD11	14:CN:51:GLY:CA	2.39	0.53
1:CA:1014:A:H5'	19:CS:14:HIS:ND1	2.24	0.53
44:D0:53:MET:HG3	44:D0:59:LEU:CD2	2.38	0.53
23:DA:1434:A:H61	23:DA:1558:A:N6	2.06	0.53
23:DA:2115:G:O2'	23:DA:2166:G:N2	2.42	0.53
23:DA:2144:U:H1'	23:DA:2147:G:H1	1.72	0.53
23:DA:813:U:H2'	23:DA:814:C:C6	2.44	0.53
25:DD:20:ASP:OD2	25:DD:22:SER:OG	2.20	0.53
27:DF:107:LYS:HE3	27:DF:205:ARG:O	2.08	0.53
30:DI:134:PRO:C	30:DI:136:VAL:H	2.12	0.53
30:DI:14:ASP:O	30:DI:17:GLN:HB3	2.09	0.53
42:DY:23:ARG:NH1	42:DY:23:ARG:HB2	2.23	0.53
42:DY:51:VAL:HG22	42:DY:58:GLY:H	1.73	0.53
1:AA:1039:C:H2'	1:AA:1040:U:C6	2.44	0.53
1:AA:1067:A:H4'	1:AA:1387:G:O2'	2.09	0.53
1:AA:1160:G:C5	1:AA:1161:C:H5	2.28	0.53
1:AA:1201:A:H4'	1:AA:1202:G:O5'	2.09	0.53
1:AA:999:C:H2'	1:AA:1000:U:C6	2.44	0.53
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	1.89	0.53
12:AL:5:PRO:HB2	12:AL:10:LEU:HD11	1.89	0.53
23:BA:1031:G:H21	53:B9:36:GLN:HE22	1.56	0.53
23:BA:1899:G:H2'	23:BA:1899:G:N3	2.22	0.53
25:BD:44:ASN:OD1	25:BD:46:GLN:HB2	2.09	0.53
34:BQ:12:GLN:HG2	34:BQ:73:PRO:HD2	1.91	0.53
1:CA:1131:G:H2'	1:CA:1132:C:C6	2.44	0.53
3:CC:122:GLU:HA	3:CC:125:GLU:OE2	2.08	0.53
9:CI:4:TYR:CD1	9:CI:87:GLN:HG3	2.44	0.53
47:D3:4:LEU:O	47:D3:36:VAL:HA	2.08	0.53
23:DA:1593:G:H2'	23:DA:1594:G:C8	2.44	0.53
23:DA:271(E):U:H2'	23:DA:271(F):C:H6	1.72	0.53
23:DA:638:G:H2'	23:DA:639:U:C6	2.43	0.53
28:DG:134:GLY:HA2	28:DG:156:ASP:HA	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:943:U:H1'	9:AI:124:GLN:OE1	2.08	0.52
6:AF:41:GLU:O	6:AF:43:LEU:HD12	2.10	0.52
8:AH:112:LEU:HA	8:AH:134:ILE:HG12	1.90	0.52
8:AH:6:ILE:HB	8:AH:85:ARG:HH12	1.72	0.52
13:AM:97:PRO:HB3	13:AM:101:GLN:NE2	2.23	0.52
14:AN:34:TYR:C	14:AN:36:PHE:H	2.12	0.52
23:BA:2144:U:O2'	23:BA:2145:C:H2'	2.08	0.52
23:BA:226:G:H21	23:BA:228:A:N6	2.05	0.52
23:BA:2557:G:H2'	23:BA:2558:C:C6	2.44	0.52
23:BA:974:G:O6	56:BA:4102:HOH:O	2.19	0.52
30:BI:68:LEU:C	30:BI:70:GLU:H	2.12	0.52
1:CA:1107:C:C4	1:CA:1108:G:C8	2.97	0.52
1:CA:1142:G:H2'	1:CA:1143:G:O4'	2.08	0.52
1:CA:1353:G:H2'	1:CA:1354:C:C6	2.44	0.52
1:CA:428:G:H4'	1:CA:429:U:O5'	2.09	0.52
9:CI:95:LYS:O	9:CI:99:LEU:N	2.34	0.52
13:CM:31:LYS:HA	13:CM:34:LEU:HB2	1.90	0.52
21:CU:9:ARG:O	21:CU:13:ILE:HG13	2.09	0.52
23:DA:1507:A:O2'	23:DA:1508:A:O5'	2.17	0.52
28:DG:106:LEU:HG	28:DG:111:LEU:HG	1.91	0.52
1:AA:1016:A:H8	1:AA:1016:A:O5'	1.92	0.52
1:AA:984:C:H2'	1:AA:985:C:H6	1.74	0.52
4:AD:101:LEU:HD23	4:AD:121:VAL:HG11	1.91	0.52
7:AG:12:LEU:HB2	7:AG:21:VAL:HG13	1.92	0.52
7:AG:42:ILE:O	7:AG:46:ALA:N	2.39	0.52
1:AA:323:U:O3'	20:AT:22:ARG:HD3	2.10	0.52
23:BA:2712:U:O2'	23:BA:2713:A:H5'	2.09	0.52
25:BD:232:PRO:HA	56:BD:406:HOH:O	2.07	0.52
26:BE:111:ARG:HG3	26:BE:160:TYR:CD1	2.44	0.52
1:CA:1192:C:N4	1:CA:1193:G:N3	2.56	0.52
7:CG:116:ALA:HA	7:CG:119:ARG:HG3	1.90	0.52
27:DF:185:ASP:HA	27:DF:188:ARG:HD3	1.90	0.52
35:DR:81:ASP:O	35:DR:85:PRO:HG2	2.09	0.52
42:DY:28:LYS:CG	42:DY:40:GLU:HG2	2.39	0.52
1:AA:1332:A:O2'	1:AA:1333:A:H5'	2.10	0.52
1:AA:21:G:H2'	1:AA:22:G:C8	2.45	0.52
7:AG:41:ARG:O	7:AG:45:ASP:N	2.43	0.52
48:B4:18:CYS:SG	48:B4:39:CYS:HB2	2.49	0.52
23:BA:1816:G:H1	25:BD:35:LYS:HD3	1.73	0.52
23:BA:2031:A:C6	23:BA:2498:C:H1'	2.45	0.52
23:BA:2751:G:C5	29:BH:2:SER:N	2.78	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BS:14:VAL:O	36:BS:18:ILE:HG12	2.09	0.52
40:BW:43:GLY:O	40:BW:47:VAL:HG23	2.10	0.52
1:CA:818:G:O2'	1:CA:819:A:H5'	2.10	0.52
2:CB:201:ILE:HG21	2:CB:214:ILE:HG21	1.90	0.52
18:CR:37:VAL:HG12	18:CR:78:LEU:HB3	1.91	0.52
44:D0:53:MET:HG3	44:D0:59:LEU:HD23	1.92	0.52
23:DA:1688:U:O2	23:DA:1700:A:H5'	2.09	0.52
23:DA:1877:A:H5'	23:DA:1878:G:OP2	2.09	0.52
23:DA:2751:G:C5	29:DH:2:SER:N	2.77	0.52
36:DS:59:LYS:HB3	36:DS:60:GLY:HA2	1.90	0.52
43:DZ:52:SER:OG	43:DZ:53:ILE:N	2.42	0.52
1:AA:988:G:O2'	1:AA:1016:A:N1	2.34	0.52
1:AA:1085:U:H3'	1:AA:1086:U:C5	2.43	0.52
1:AA:1106:G:C5	1:AA:1107:C:C5	2.97	0.52
1:AA:473:G:H2'	1:AA:474:G:H8	1.75	0.52
1:AA:3:G:O2'	1:AA:4:U:OP2	2.19	0.52
12:AL:34:ARG:O	12:AL:61:THR:HG23	2.09	0.52
52:B8:28:GLY:O	52:B8:36:LYS:NZ	2.43	0.52
23:BA:1779:U:H6	23:BA:1784:A:H62	1.57	0.52
23:BA:2133:G:H2'	23:BA:2157:G:H22	1.75	0.52
1:CA:1133:G:H2'	1:CA:1134:G:C8	2.44	0.52
5:CE:68:GLU:HG2	5:CE:70:PRO:HD3	1.92	0.52
9:CI:11:LYS:O	9:CI:12:GLU:HB2	2.09	0.52
9:CI:46:ALA:O	9:CI:49:PRO:HD2	2.09	0.52
23:DA:1429:G:H2'	23:DA:1430:C:C6	2.44	0.52
23:DA:1946:U:H2'	23:DA:1947:C:C6	2.44	0.52
23:DA:2206:G:H5'	23:DA:2207:G:N7	2.24	0.52
23:DA:2227:A:OP2	56:DA:3995:HOH:O	2.18	0.52
23:DA:2309:A:N6	23:DA:2310:A:N1	2.57	0.52
25:DD:10:THR:OG1	25:DD:13:ARG:HB2	2.10	0.52
27:DF:108:LYS:O	27:DF:112:MET:HG3	2.09	0.52
23:DA:2198:A:O5'	30:DI:33:ARG:NH2	2.42	0.52
1:AA:1335:C:H4'	1:AA:1336:C:C5	2.44	0.52
3:AC:34:LEU:HA	3:AC:37:GLN:HB2	1.91	0.52
8:AH:9:MET:HG3	8:AH:26:VAL:HG11	1.92	0.52
23:BA:1815:A:OP2	25:BD:54:ARG:NH2	2.40	0.52
23:BA:2014:A:OP1	56:BA:4833:HOH:O	2.18	0.52
23:BA:2815:C:H5'	49:B5:29:THR:HG21	1.90	0.52
23:BA:2887:U:H2'	23:BA:2888:C:H6	1.74	0.52
29:BH:24:VAL:HG13	29:BH:37:VAL:HG21	1.92	0.52
1:CA:322:C:H4'	20:CT:23:ARG:HD2	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:77:SER:HA	7:CG:86:GLN:HA	1.91	0.52
8:CH:124:ALA:HB1	8:CH:129:VAL:O	2.10	0.52
44:D0:51:VAL:N	44:D0:62:LEU:HD12	2.25	0.52
52:D8:39:LYS:HA	52:D8:42:ARG:NH1	2.24	0.52
23:DA:542:C:H2'	23:DA:543:C:C6	2.44	0.52
23:DA:686:G:O6	51:D7:12:ARG:HD2	2.09	0.52
24:DB:52:A:O2'	24:DB:53:A:N3	2.38	0.52
36:DS:56:LEU:O	36:DS:58:LEU:HD23	2.09	0.52
1:AA:1131:G:N2	1:AA:1143:G:O2'	2.42	0.52
1:AA:940:C:N4	1:AA:1343:G:H1	2.06	0.52
1:AA:583:A:H2'	1:AA:584:G:O4'	2.09	0.52
10:AJ:47:PHE:CE1	10:AJ:65:LEU:HB2	2.45	0.52
12:AL:102:ARG:HB3	12:AL:108:ALA:O	2.09	0.52
1:AA:375:U:H4'	16:AP:17:TYR:CE2	2.44	0.52
18:AR:59:SER:OG	18:AR:60:ALA:N	2.42	0.52
23:BA:2567:G:H2'	23:BA:2568:C:C6	2.44	0.52
26:BE:170:LEU:HB3	26:BE:184:VAL:HG22	1.90	0.52
35:BR:37:THR:OG1	35:BR:40:LYS:HG3	2.09	0.52
42:BY:23:ARG:HB2	42:BY:23:ARG:NH1	2.24	0.52
43:BZ:92:SER:O	43:BZ:130:PRO:HG2	2.10	0.52
1:CA:110:C:H2'	1:CA:111:G:O4'	2.10	0.52
1:CA:1362:C:H2'	1:CA:1363:C:H5"	1.91	0.52
1:CA:737:A:H2'	1:CA:738:C:C6	2.45	0.52
2:CB:18:GLY:HA2	2:CB:42:ILE:HG13	1.90	0.52
13:CM:91:ARG:HB2	13:CM:98:VAL:HG13	1.90	0.52
23:DA:1531:C:H42	23:DA:1538:G:H1	1.56	0.52
23:DA:1607:C:H4'	23:DA:1608:A:O5'	2.10	0.52
23:DA:1858:G:H2'	23:DA:1883:G:H22	1.75	0.52
23:DA:2206:G:H2'	23:DA:2207:G:C2	2.45	0.52
23:DA:2238:G:N7	56:DA:3622:HOH:O	2.34	0.52
23:DA:263:C:H2'	23:DA:264:C:O4'	2.09	0.52
24:DB:113:G:H2'	24:DB:114:C:C6	2.44	0.52
29:DH:71:LEU:HA	29:DH:74:ASN:HB2	1.92	0.52
37:DT:55:ASN:N	37:DT:59:THR:HG22	2.25	0.52
1:AA:1220:G:H1'	19:AS:52:TYR:HD2	1.72	0.52
1:AA:38:G:C2	1:AA:397:A:C2	2.98	0.52
1:AA:652:U:O4	1:AA:752:G:O2'	2.21	0.52
1:AA:801:U:H2'	1:AA:802:A:C8	2.44	0.52
1:AA:947:G:N2	1:AA:1235:U:H1'	2.25	0.52
4:AD:79:PHE:HD2	4:AD:80:GLU:N	2.01	0.52
23:BA:975(A):G:H1'	23:BA:990:A:C2	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:940:C:N4	1:CA:1343:G:H1	2.07	0.52
1:CA:20:U:H2'	1:CA:21:G:O4'	2.10	0.52
1:CA:1279:A:H61	3:CC:26:LYS:HZ2	1.58	0.52
23:DA:1721:G:H5'	23:DA:1722:A:OP2	2.10	0.52
23:DA:2298:A:H2'	23:DA:2299:G:O4'	2.09	0.52
31:DN:99:LEU:O	31:DN:103:VAL:HG23	2.10	0.52
33:DP:148:LEU:HD23	33:DP:148:LEU:H	1.74	0.52
34:DQ:57:HIS:HD2	34:DQ:117:ALA:HB2	1.75	0.52
37:DT:99:LEU:O	37:DT:101:PHE:N	2.42	0.52
42:DY:43:ASN:OD1	42:DY:65:ALA:HB3	2.09	0.52
9:AI:95:LYS:O	9:AI:99:LEU:HG	2.10	0.52
23:BA:1503:U:H2'	23:BA:1504:C:C6	2.44	0.52
23:BA:2102:U:O2	23:BA:2187:G:O6	2.27	0.52
23:BA:2483:C:N3	34:BQ:124:LYS:NZ	2.58	0.52
23:BA:2854:G:H2'	23:BA:2855:C:C6	2.45	0.52
23:BA:725:G:C6	23:BA:726:G:N1	2.78	0.52
24:BB:105:A:OP1	43:BZ:72:ARG:NH1	2.43	0.52
1:CA:1004:A:H2'	1:CA:1036:G:C6	2.44	0.52
1:CA:1128:C:H5	1:CA:1139:G:HO2'	1.54	0.52
1:CA:160:A:H2'	1:CA:161:A:O4'	2.10	0.52
4:CD:134:ASP:OD2	4:CD:135:LEU:HD13	2.10	0.52
9:CI:17:VAL:HG22	9:CI:63:ILE:HG23	1.91	0.52
23:DA:2273:A:H2'	23:DA:2274:A:C8	2.45	0.52
23:DA:934:G:H2'	23:DA:935:C:C6	2.45	0.52
1:AA:1034:G:H2'	1:AA:1034:G:N3	2.24	0.52
1:AA:1097:C:H1'	1:AA:1170:A:H1'	1.91	0.52
1:AA:1117:G:H3'	1:AA:1118:C:H5	1.75	0.52
1:AA:517:G:N2	1:AA:531:U:H5'	2.25	0.52
1:AA:622:A:OP2	1:AA:623:C:N4	2.39	0.52
5:AE:32:VAL:HB	5:AE:58:ALA:HB1	1.92	0.52
1:AA:528:C:N4	12:AL:49:ASN:OD1	2.43	0.52
20:AT:56:MET:HE1	20:AT:85:MET:HG2	1.92	0.52
23:BA:795:C:H2'	23:BA:796:C:C6	2.45	0.52
23:BA:863:A:H2'	23:BA:864:G:H8	1.75	0.52
28:BG:111:LEU:HD22	28:BG:114:ILE:HD11	1.91	0.52
29:BH:40:GLU:OE2	29:BH:60:ARG:NH1	2.42	0.52
38:BU:74:LEU:HD11	38:BU:110:VAL:HG13	1.92	0.52
39:BV:16:PRO:HA	39:BV:96:ILE:HG22	1.91	0.52
1:CA:1277:C:H2'	1:CA:1278:U:H5'	1.91	0.52
1:CA:1238:A:OP2	1:CA:1300:G:N2	2.42	0.52
1:CA:193:C:H2'	1:CA:194:C:C6	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:538:G:OP2	12:CL:115:LYS:HB2	2.10	0.52
1:CA:673:G:H2'	1:CA:674:G:H8	1.70	0.52
1:CA:735:C:H2'	1:CA:736:C:H6	1.75	0.52
3:CC:18:TRP:CD1	14:CN:54:PRO:HA	2.45	0.52
45:D1:23:LYS:HG2	45:D1:29:GLY:HA3	1.92	0.52
23:DA:1474:C:N4	56:DA:3952:HOH:O	2.42	0.52
23:DA:234:C:H2'	23:DA:235:U:O4'	2.10	0.52
23:DA:2820:A:C5	35:DR:4:LEU:HD11	2.45	0.52
25:DD:172:TYR:CD1	25:DD:186:HIS:HA	2.45	0.52
36:DS:58:LEU:HD12	36:DS:65:VAL:HG13	1.91	0.52
1:AA:1254:C:O4'	1:AA:1356:G:H5"	2.10	0.52
1:AA:152:A:N6	1:AA:170:U:N3	2.57	0.52
1:AA:993:G:C8	1:AA:1213:A:N6	2.78	0.52
8:AH:85:ARG:HG3	8:AH:85:ARG:HH11	1.75	0.52
23:BA:1048:A:O2'	23:BA:1049:C:OP2	2.25	0.52
23:BA:217:G:OP2	56:BA:3945:HOH:O	2.19	0.52
23:BA:2250:G:O2'	23:BA:2496:C:OP1	2.20	0.52
1:CA:1084:G:H5"	1:CA:1086:U:C5	2.44	0.52
1:CA:473:G:H2'	1:CA:474:G:H8	1.74	0.52
1:CA:626:U:C2	1:CA:627:G:C8	2.97	0.52
5:CE:57:LYS:HB3	5:CE:61:TYR:HE2	1.74	0.52
23:DA:1309:G:P	51:D7:9:ARG:HD3	2.50	0.52
23:DA:1833:U:H2'	23:DA:1834:U:H6	1.75	0.52
29:DH:139:GLN:HG3	29:DH:140:LYS:N	2.25	0.52
1:AA:1014:A:C6	1:AA:1015:A:N6	2.78	0.51
1:AA:1130:A:N6	1:AA:1144:G:N3	2.57	0.51
1:AA:947:G:N1	1:AA:1234:C:O2	2.37	0.51
1:AA:1368:G:H5"	9:AI:112:LYS:HB3	1.93	0.51
1:AA:1251:A:H4'	1:AA:1370:G:H5'	1.93	0.51
3:AC:118:GLN:HA	3:AC:187:ALA:HB3	1.92	0.51
23:BA:1005:C:O2'	31:BN:28:THR:HG21	2.10	0.51
27:BF:103:LYS:HA	27:BF:106:ARG:HG3	1.93	0.51
28:BG:16:ARG:HH21	28:BG:31:VAL:HB	1.74	0.51
31:BN:102:ALA:O	31:BN:106:MET:HG3	2.09	0.51
1:CA:1291:G:H4'	9:CI:38:GLN:O	2.09	0.51
1:CA:1234:C:H1'	1:CA:1364:U:O2	2.10	0.51
9:CI:4:TYR:CE2	9:CI:88:TYR:HD1	2.27	0.51
18:CR:66:LEU:O	18:CR:70:ILE:HG13	2.09	0.51
1:CA:191:G:N2	20:CT:103:GLY:HA2	2.20	0.51
50:D6:34:LEU:HD22	50:D6:36:LEU:HD11	1.91	0.51
23:DA:1165:U:H2'	23:DA:1166:C:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:493:G:H2'	23:DA:494:G:O4'	2.10	0.51
23:DA:323:G:C8	27:DF:171:PRO:HG3	2.45	0.51
27:DF:53:THR:HG22	27:DF:56:GLU:HG3	1.92	0.51
29:DH:43:VAL:HG22	29:DH:52:VAL:HG22	1.92	0.51
32:DO:25:LEU:HD12	32:DO:38:VAL:HG12	1.92	0.51
1:AA:1360:A:N3	1:AA:1360:A:H2'	2.25	0.51
1:AA:1490:C:H2'	1:AA:1491:G:O4'	2.10	0.51
1:AA:185:A:H2'	1:AA:186:C:C6	2.45	0.51
7:AG:20:ASP:HB3	7:AG:23:VAL:HG23	1.91	0.51
6:AF:97:PHE:N	18:AR:30:ASP:OD1	2.36	0.51
46:B2:44:LEU:HG	46:B2:45:SER:O	2.10	0.51
23:BA:2163:C:OP2	23:BA:2164:C:N4	2.42	0.51
23:BA:587:C:O2	33:BP:33:ARG:NH2	2.32	0.51
23:BA:720:C:H2'	23:BA:721:C:H6	1.75	0.51
31:BN:47:ALA:HB2	31:BN:112:LEU:HD11	1.91	0.51
23:BA:566:U:H5"	33:BP:29:LYS:HE3	1.92	0.51
35:BR:36:THR:HG22	35:BR:37:THR:H	1.74	0.51
43:BZ:102:LEU:HD13	43:BZ:123:ASP:HA	1.92	0.51
1:CA:1182:G:H4'	1:CA:1183:A:C5'	2.41	0.51
1:CA:359:U:H2'	1:CA:360:A:H8	1.74	0.51
1:CA:626:U:H2'	1:CA:627:G:H8	1.74	0.51
1:CA:925:G:H5"	1:CA:926:G:OP1	2.09	0.51
4:CD:110:PHE:N	4:CD:110:PHE:CD1	2.77	0.51
49:D5:41:PRO:O	49:D5:44:THR:OG1	2.28	0.51
23:DA:9:U:O2'	23:DA:10:G:OP1	2.28	0.51
23:DA:1466:G:HO2'	23:DA:1546:C:HO2'	1.49	0.51
23:DA:2582:G:C2	23:DA:2583:G:C8	2.98	0.51
1:AA:1133:G:H1	1:AA:1141:C:H42	1.57	0.51
1:AA:1442(B):A:O2'	1:AA:1443:G:OP2	2.26	0.51
1:AA:176:C:H2'	1:AA:177:C:C6	2.45	0.51
1:AA:266:G:H5"	1:AA:267:C:C5	2.45	0.51
1:AA:828:A:H2'	1:AA:829:G:O4'	2.10	0.51
4:AD:104:VAL:HA	4:AD:107:ARG:HB2	1.93	0.51
23:BA:2275:C:H5'	23:BA:2275:C:H6	1.75	0.51
23:BA:2305:A:H2'	23:BA:2306:C:O4'	2.10	0.51
25:BD:142:VAL:HG23	25:BD:193:VAL:HA	1.92	0.51
28:BG:27:ASN:HB3	28:BG:30:GLU:HG3	1.93	0.51
32:BO:102:VAL:HB	32:BO:106:LEU:HD12	1.91	0.51
23:BA:2727:G:O2'	32:BO:70:LYS:HE2	2.10	0.51
34:BQ:29:PHE:N	34:BQ:105:GLU:OE2	2.40	0.51
42:BY:76:CYS:CB	42:BY:79:CYS:HB2	2.35	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:110:PHE:N	4:CD:110:PHE:HD1	2.09	0.51
3:CC:13:GLY:HA3	14:CN:57:ARG:HH22	1.75	0.51
20:CT:54:LYS:HA	20:CT:57:ARG:CZ	2.40	0.51
23:DA:2079:U:OP1	45:D1:21:ARG:NH2	2.42	0.51
23:DA:1547:C:H2'	23:DA:1548:C:H6	1.75	0.51
23:DA:2107:C:H41	23:DA:2108:C:H42	1.58	0.51
23:DA:2734:A:H2'	23:DA:2735:G:O4'	2.11	0.51
25:DD:175:LEU:HD12	25:DD:185:VAL:HG21	1.91	0.51
33:DP:26:GLY:O	33:DP:28:GLY:N	2.44	0.51
36:DS:58:LEU:HB2	36:DS:59:LYS:HB2	1.92	0.51
1:AA:1200:C:H4'	1:AA:1201:A:H5"	1.92	0.51
1:AA:1207:G:H3'	1:AA:1208:C:H6	1.75	0.51
1:AA:737:A:H2'	1:AA:738:C:C6	2.46	0.51
47:B3:43:ILE:O	47:B3:47:VAL:HG23	2.11	0.51
23:BA:2131:G:H8	23:BA:2131:G:OP2	1.94	0.51
23:BA:2144:U:HO2'	23:BA:2145:C:H6	1.56	0.51
23:BA:2162:G:H4'	23:BA:2172:U:O2'	2.10	0.51
23:BA:2317:C:H2'	23:BA:2318:G:H5'	1.93	0.51
28:BG:41:GLN:NE2	28:BG:154:GLY:O	2.39	0.51
1:CA:1057:G:O3'	3:CC:197:GLY:HA3	2.11	0.51
1:CA:1071:C:H2'	1:CA:1072:G:C8	2.44	0.51
1:CA:1133:G:H1	1:CA:1141:C:H42	1.57	0.51
1:CA:1092:A:C6	1:CA:1183:A:H2	2.28	0.51
1:CA:971:G:P	1:CA:1231:G:H21	2.34	0.51
1:CA:37:U:O2'	1:CA:500:G:H4'	2.11	0.51
1:CA:391:G:O3'	16:CP:8:ARG:NH2	2.44	0.51
1:CA:406:G:N3	4:CD:119:GLN:NE2	2.57	0.51
9:CI:18:PHE:HB3	9:CI:20:ARG:NE	2.21	0.51
14:CN:7:ILE:HA	14:CN:23:ARG:HE	1.74	0.51
23:DA:2126:A:H1'	23:DA:2127:G:OP2	2.10	0.51
23:DA:2815:C:H5'	49:D5:29:THR:HG21	1.92	0.51
23:DA:57:C:H2'	23:DA:58:G:O4'	2.11	0.51
23:DA:903:C:H2'	23:DA:904:C:C6	2.44	0.51
34:DQ:42:ILE:HD13	34:DQ:97:VAL:HG21	1.91	0.51
43:DZ:101:PRO:O	43:DZ:102:LEU:HD12	2.10	0.51
1:AA:1053:G:C8	1:AA:1200:C:C5	2.98	0.51
1:AA:1172:C:O5'	1:AA:1172:C:H6	1.94	0.51
1:AA:1179:A:O2'	1:AA:1180:A:O5'	2.28	0.51
2:AB:201:ILE:HG21	2:AB:214:ILE:HG21	1.92	0.51
4:AD:12:CYS:HA	4:AD:19:LEU:HD23	1.91	0.51
8:AH:57:PRO:O	8:AH:58:TYR:HD1	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:50:ILE:HB	14:AN:41:ARG:HE	1.76	0.51
1:AA:636:U:H5'	17:AQ:2:PRO:HG3	1.91	0.51
23:BA:1720:U:H2'	23:BA:1721:G:O4'	2.11	0.51
23:BA:1891:G:N7	56:BA:4696:HOH:O	2.32	0.51
23:BA:829:A:N7	23:BA:2248:C:H5'	2.25	0.51
23:BA:958:U:H5"	34:BQ:14:ARG:HD3	1.92	0.51
40:BW:14:PRO:HG2	40:BW:78:GLU:HG2	1.93	0.51
42:BY:23:ARG:HB2	42:BY:23:ARG:HH11	1.76	0.51
1:CA:1063:C:H5"	1:CA:1064:G:H3'	1.93	0.51
1:CA:1190:G:OP1	3:CC:5:ILE:HG22	2.11	0.51
1:CA:499:A:H4'	1:CA:500:G:H5'	1.92	0.51
1:CA:1107:C:C5'	3:CC:173:VAL:H	2.23	0.51
6:CF:40:VAL:HG22	6:CF:42:GLU:H	1.75	0.51
9:CI:112:LYS:HA	9:CI:119:ALA:CB	2.37	0.51
13:CM:59:TYR:O	13:CM:63:THR:HB	2.11	0.51
16:CP:15:PRO:HB3	16:CP:17:TYR:HE1	1.76	0.51
23:DA:2286:A:OP1	50:D6:29:ASN:ND2	2.44	0.51
23:DA:2163:C:OP2	23:DA:2164:C:N4	2.41	0.51
30:DI:70:GLU:O	30:DI:74:ASN:ND2	2.43	0.51
23:DA:1140:C:O3'	31:DN:25:ARG:NH1	2.43	0.51
23:DA:2292:C:OP1	36:DS:17:ARG:NH2	2.43	0.51
39:DV:16:PRO:HA	39:DV:96:ILE:HG22	1.93	0.51
1:AA:618:C:N4	1:AA:621:A:N7	2.59	0.51
1:AA:714:G:H2'	1:AA:715:A:C8	2.46	0.51
13:AM:102:ARG:NH1	13:AM:104:ARG:HD3	2.25	0.51
1:AA:958:A:N6	19:AS:77:THR:O	2.43	0.51
23:BA:1364:G:P	45:B1:3:LYS:HG2	2.51	0.51
23:BA:1946:U:H2'	23:BA:1947:C:C6	2.46	0.51
23:BA:2023:G:H5'	23:BA:2617:C:H4'	1.92	0.51
23:BA:263:C:H2'	23:BA:264:C:O4'	2.11	0.51
23:BA:271(Q):G:O2'	23:BA:271(R):G:OP2	2.28	0.51
25:BD:9:TYR:CZ	25:BD:13:ARG:HG2	2.46	0.51
1:CA:382:A:H2'	1:CA:383:A:C8	2.45	0.51
1:CA:542:G:H2'	1:CA:543:C:H6	1.75	0.51
1:CA:588:G:P	56:CA:1786:HOH:O	2.69	0.51
9:CI:11:LYS:H	9:CI:104:ARG:NH2	2.09	0.51
13:CM:65:LYS:HA	13:CM:66:LEU:CB	2.41	0.51
23:DA:1779:U:H6	23:DA:1784:A:H62	1.57	0.51
23:DA:2102:U:O2	23:DA:2187:G:O6	2.29	0.51
23:DA:2114:A:H2'	23:DA:2115:G:O4'	2.11	0.51
23:DA:287:C:N3	23:DA:354:G:N1	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2572:A:N7	26:DE:145:LYS:HB2	2.25	0.51
36:DS:83:LYS:O	36:DS:111:GLU:HG3	2.11	0.51
1:AA:101:A:H2'	1:AA:102:G:O4'	2.10	0.51
1:AA:1357:A:H2'	1:AA:1358:U:C2	2.45	0.51
1:AA:303:A:HO2'	1:AA:555:C:HO2'	1.56	0.51
1:AA:592:G:H1	1:AA:647:C:H42	1.58	0.51
1:AA:7:G:O2'	5:AE:120:THR:O	2.28	0.51
1:AA:936:C:C2	1:AA:937:A:C8	2.99	0.51
1:AA:966:G:H5"	1:AA:969:A:C5	2.45	0.51
4:AD:120:LEU:HB3	4:AD:126:ILE:HD11	1.93	0.51
23:BA:1378:A:OP1	51:B7:10:ARG:NH2	2.44	0.51
23:BA:2894:G:N3	23:BA:2894:G:H2'	2.26	0.51
23:BA:529:A:H62	23:BA:2041:U:H3	1.57	0.51
31:BN:128:HIS:CE1	31:BN:135:PRO:HG2	2.45	0.51
36:BS:7:TYR:CE1	36:BS:91:PRO:HG3	2.46	0.51
37:BT:42:ILE:HG12	37:BT:84:GLN:OE1	2.10	0.51
1:CA:1272:G:H2'	1:CA:1273:G:C8	2.45	0.51
1:CA:688:G:H2'	1:CA:689:C:C6	2.46	0.51
45:D1:51:VAL:HG11	45:D1:74:VAL:HG21	1.92	0.51
46:D2:29:LYS:HD3	46:D2:57:ILE:HD13	1.92	0.51
23:DA:443:A:H1'	23:DA:1201:C:O4'	2.10	0.51
1:AA:1133:G:H2'	1:AA:1134:G:C8	2.45	0.51
1:AA:1373:G:O5'	1:AA:1373:G:H8	1.93	0.51
1:AA:560:U:H4'	1:AA:561:U:O5'	2.10	0.51
1:AA:874:G:C6	1:AA:875:C:C4	2.98	0.51
1:AA:932:C:N4	1:AA:933:G:O6	2.44	0.51
2:AB:163:PHE:HD1	2:AB:164:VAL:N	2.09	0.51
2:AB:88:ALA:HB2	2:AB:219:VAL:HG13	1.92	0.51
1:AA:599:C:H5"	8:AH:95:VAL:O	2.11	0.51
12:AL:55:VAL:HG22	12:AL:68:ALA:O	2.11	0.51
13:AM:108:ARG:NE	13:AM:114:ARG:HH12	2.09	0.51
1:AA:987:G:H1'	19:AS:52:TYR:OH	2.10	0.51
23:BA:188:G:H1	23:BA:208:C:H42	1.59	0.51
1:CA:303:A:HO2'	1:CA:555:C:HO2'	1.57	0.51
3:CC:68:VAL:HG12	3:CC:70:VAL:HG23	1.92	0.51
4:CD:3:ARG:O	4:CD:5:ILE:HG12	2.10	0.51
41:DX:11:PRO:HD3	46:D2:37:PHE:CE2	2.46	0.51
46:D2:48:HIS:O	46:D2:52:ASP:HB2	2.11	0.51
23:DA:1358:G:H2'	23:DA:1359:A:H2	1.76	0.51
25:DD:71:ASP:OD1	25:DD:103:ARG:NH2	2.35	0.51
28:DG:60:LEU:O	28:DG:64:THR:N	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:995:C:OP2	38:DU:54:LYS:HE3	2.11	0.51
34:DQ:5:ARG:O	43:DZ:194:PRO:HD2	2.11	0.51
1:AA:1125:U:H5'	1:AA:1126:U:C5	2.36	0.51
1:AA:1273:G:H3'	1:AA:1274:G:C8	2.31	0.51
1:AA:1358:U:OP2	1:AA:1359:C:N4	2.44	0.51
1:AA:192:U:H2'	1:AA:193:C:C6	2.46	0.51
1:AA:935:A:H2'	1:AA:936:C:O4'	2.11	0.51
11:AK:32:ILE:HD11	11:AK:68:ALA:HB1	1.92	0.51
50:B6:9:LEU:HD21	50:B6:25:LYS:HB3	1.92	0.51
23:BA:458:G:O2'	51:B7:39:ARG:HD3	2.11	0.51
23:BA:1379:A:H4'	23:BA:1380:G:OP2	2.10	0.51
23:BA:1547:C:H2'	23:BA:1548:C:C6	2.46	0.51
23:BA:1547:C:H2'	23:BA:1548:C:H6	1.74	0.51
23:BA:1935:G:H1'	23:BA:1964:G:N2	2.26	0.51
32:BO:25:LEU:HD12	32:BO:38:VAL:HG12	1.93	0.51
42:BY:43:ASN:OD1	42:BY:65:ALA:HB3	2.11	0.51
1:CA:1486:G:H2'	1:CA:1487:G:O4'	2.11	0.51
1:CA:266:G:H5"	1:CA:267:C:C5	2.46	0.51
1:CA:279:A:H4'	1:CA:280:C:H5"	1.92	0.51
1:CA:669:U:H2'	1:CA:670:G:H8	1.76	0.51
1:CA:950:U:H1'	1:CA:971:G:C4	2.46	0.51
3:CC:18:TRP:HE1	14:CN:55:GLY:N	2.09	0.51
1:AA:1000:U:O2	1:AA:1041:A:N1	2.43	0.51
1:AA:1064:G:H22	1:AA:1190:G:H2'	1.75	0.51
1:AA:110:C:H2'	1:AA:111:G:O4'	2.10	0.51
1:AA:1131:G:H2'	1:AA:1132:C:C6	2.46	0.51
1:AA:1300:G:O2'	1:AA:1301:U:OP2	2.26	0.51
1:AA:1307:U:H6	1:AA:1307:U:O5'	1.93	0.51
1:AA:937:A:H1'	1:AA:1379:G:N2	2.26	0.51
1:AA:544:G:C2	1:AA:545:C:C2	2.99	0.51
2:AB:24:TRP:CE3	2:AB:26:PRO:HA	2.45	0.51
7:AG:156:TRP:N	7:AG:156:TRP:HE3	2.08	0.51
23:BA:2408:U:OP2	56:BA:4306:HOH:O	2.18	0.51
23:BA:2815:C:H2'	23:BA:2816:C:H6	1.76	0.51
23:BA:863:A:H2'	23:BA:864:G:C8	2.46	0.51
24:BB:77:U:OP1	43:BZ:19:ARG:NH2	2.44	0.51
23:BA:1143:A:OP1	31:BN:25:ARG:NH2	2.44	0.51
23:BA:1614:A:C2	40:BW:93:ALA:HB2	2.46	0.51
1:CA:1003:G:H2'	1:CA:1004:A:C4'	2.41	0.51
1:CA:1441:G:H4'	1:CA:1442:G:N7	2.25	0.51
1:CA:233:C:H2'	1:CA:234:C:H6	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:327:A:O2'	1:CA:329:A:H8	1.94	0.51
2:CB:16:HIS:HA	2:CB:210:SER:OG	2.11	0.51
3:CC:134:ILE:HG22	3:CC:168:ALA:HB3	1.92	0.51
45:D1:82:LEU:HA	45:D1:85:LEU:HD23	1.92	0.51
23:DA:2420:C:OP2	52:D8:33:ASN:HB2	2.11	0.51
24:DB:43:C:H4'	28:DG:66:GLN:OE1	2.11	0.51
25:DD:12:SER:HB3	25:DD:208:LYS:HB3	1.91	0.51
1:AA:109:A:C6	1:AA:326:G:C6	2.99	0.50
1:AA:1323:G:O6	1:AA:1324:A:N6	2.44	0.50
1:AA:649:G:H2'	1:AA:650:G:H8	1.76	0.50
1:AA:947:G:H22	1:AA:1235:U:H1'	1.76	0.50
2:AB:87:ARG:CZ	2:AB:233:SER:HB2	2.41	0.50
4:AD:64:LEU:HB2	4:AD:198:VAL:HG11	1.92	0.50
7:AG:69:VAL:HA	7:AG:138:LYS:HB2	1.93	0.50
12:AL:45:PRO:HG3	12:AL:53:ARG:HH11	1.75	0.50
13:AM:22:ILE:HG23	13:AM:67:GLU:HG2	1.93	0.50
14:AN:59:ALA:O	14:AN:60:SER:HB3	2.10	0.50
23:BA:2108:C:H6	23:BA:2108:C:H3'	1.76	0.50
23:BA:2126:A:H1'	23:BA:2127:G:OP2	2.11	0.50
23:BA:7:G:H2'	23:BA:8:A:O4'	2.10	0.50
1:CA:1028:C:N4	1:CA:1034:G:C2	2.78	0.50
1:CA:1160:G:H1	1:CA:1176:A:N6	2.03	0.50
1:CA:1237:C:N3	1:CA:1337:G:N2	2.54	0.50
1:CA:1266:G:N2	1:CA:1268:A:H8	2.08	0.50
1:CA:21:G:H2'	1:CA:22:G:C8	2.46	0.50
1:CA:50:A:H1'	1:CA:52:G:C8	2.45	0.50
1:CA:69:G:C2	1:CA:70:G:C5	2.99	0.50
7:CG:9:VAL:HG13	7:CG:94:ARG:HH21	1.76	0.50
9:CI:87:GLN:HE21	9:CI:87:GLN:HA	1.76	0.50
47:D3:6:VAL:HG12	47:D3:54:VAL:HG11	1.93	0.50
40:DW:19:LEU:HB3	49:D5:25:LEU:HD11	1.93	0.50
23:DA:2131:G:H8	23:DA:2131:G:OP2	1.93	0.50
36:DS:7:TYR:CE1	36:DS:91:PRO:HG3	2.46	0.50
41:DX:41:ASN:O	41:DX:45:THR:HG23	2.12	0.50
43:DZ:110:GLY:HA3	43:DZ:174:VAL:HG11	1.93	0.50
1:AA:1151:A:OP2	1:AA:1151:A:H8	1.94	0.50
1:AA:1441:G:H4'	1:AA:1442:G:N7	2.25	0.50
1:AA:971:G:OP1	1:AA:972:C:C6	2.64	0.50
3:AC:179:ARG:NH2	3:AC:206:GLU:OE2	2.43	0.50
23:BA:1296:G:OP1	23:BA:2709:G:O2'	2.24	0.50
23:BA:1499:C:O2'	23:BA:1500:G:H5'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2124:G:H1	23:BA:2174:C:N4	2.09	0.50
23:BA:784:A:H3'	56:BA:4111:HOH:O	2.11	0.50
24:BB:53:A:H5'	24:BB:54:G:OP2	2.12	0.50
28:BG:58:GLN:HA	28:BG:61:ALA:HB3	1.93	0.50
37:BT:84:GLN:HE21	37:BT:85:LYS:HG2	1.76	0.50
1:CA:1041:A:H2'	1:CA:1042:G:O4'	2.10	0.50
1:CA:1400:C:H4'	1:CA:1401:G:OP2	2.11	0.50
1:CA:196:A:N3	1:CA:222:U:H1'	2.26	0.50
1:CA:660:G:H2'	1:CA:661:G:H8	1.76	0.50
9:CI:73:GLN:O	9:CI:77:ILE:HG13	2.10	0.50
11:CK:30:VAL:HG21	11:CK:65:ALA:HA	1.91	0.50
1:CA:664:G:P	18:CR:64:ARG:HH21	2.33	0.50
22:CV:30:PRO:HB3	22:CV:40:TRP:CD2	2.45	0.50
46:D2:69:ARG:O	46:D2:70:GLN:HB2	2.11	0.50
23:DA:1043:C:H2'	23:DA:1044:G:O4'	2.11	0.50
23:DA:1047:G:H2'	23:DA:1110:G:N2	2.26	0.50
23:DA:1593:G:H2'	23:DA:1594:G:H8	1.76	0.50
23:DA:2199:A:OP2	23:DA:2200:C:H5	1.94	0.50
23:DA:2305:A:H2'	23:DA:2306:C:O4'	2.11	0.50
23:DA:2439:A:C8	23:DA:2439:A:H5'	2.46	0.50
43:DZ:128:VAL:HG22	43:DZ:161:VAL:H	1.75	0.50
1:AA:1013:G:H21	1:AA:1016:A:H62	1.59	0.50
1:AA:1182:G:H4'	1:AA:1184:G:H5"	1.94	0.50
1:AA:509:A:H3'	1:AA:509:A:C8	2.46	0.50
1:AA:598:U:H2'	1:AA:599:C:C6	2.46	0.50
1:AA:658:G:C6	1:AA:659:U:C4	2.99	0.50
1:AA:669:U:H2'	1:AA:670:G:C8	2.46	0.50
13:AM:52:GLU:O	13:AM:56:LEU:HD12	2.11	0.50
14:AN:29:ARG:O	14:AN:40:CYS:HB3	2.12	0.50
17:AQ:55:ASP:HA	17:AQ:79:SER:HA	1.93	0.50
23:BA:493:G:H2'	23:BA:494:G:O4'	2.12	0.50
30:BI:83:ALA:HB2	30:BI:88:ILE:HA	1.92	0.50
1:CA:323:U:O3'	20:CT:22:ARG:HD3	2.11	0.50
9:CI:48:GLU:HB3	9:CI:101:PHE:CZ	2.46	0.50
13:CM:97:PRO:HD3	13:CM:110:ARG:HB3	1.93	0.50
23:DA:1141:U:H4'	23:DA:1142(A):A:O4'	2.11	0.50
23:DA:1377:G:O6	56:DA:3681:HOH:O	2.19	0.50
23:DA:1816:G:H1	25:DD:35:LYS:HD3	1.76	0.50
23:DA:639:U:H2'	23:DA:640:C:H6	1.77	0.50
30:DI:87:LYS:HA	30:DI:121:LYS:O	2.11	0.50
31:DN:33:LEU:HD12	31:DN:38:HIS:CE1	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DZ:24:LEU:HB2	43:DZ:41:LEU:HD23	1.94	0.50
1:AA:186:C:H2'	1:AA:187:C:H6	1.77	0.50
1:AA:447:G:H2'	1:AA:485:G:N2	2.27	0.50
4:AD:110:PHE:CD1	4:AD:110:PHE:N	2.80	0.50
6:AF:40:VAL:HG22	6:AF:42:GLU:H	1.77	0.50
8:AH:85:ARG:NE	8:AH:87:SER:O	2.43	0.50
9:AI:83:ARG:O	9:AI:86:VAL:HG22	2.11	0.50
1:AA:1230:C:N4	13:AM:105:THR:HG21	2.26	0.50
22:AV:31:TYR:CD2	22:AV:31:TYR:N	2.79	0.50
45:B1:23:LYS:HG2	45:B1:29:GLY:HA3	1.93	0.50
23:BA:83:G:N2	23:BA:103:A:OP2	2.36	0.50
23:BA:641:C:O2'	23:BA:2350:C:OP1	2.21	0.50
39:BV:58:VAL:HG12	39:BV:97:LYS:HB2	1.92	0.50
1:CA:1442(B):A:O2'	1:CA:1443:G:OP2	2.24	0.50
1:CA:169:C:C5	1:CA:170:U:C4	2.99	0.50
1:CA:509:A:C8	1:CA:509:A:H3'	2.46	0.50
1:CA:636:U:H5'	17:CQ:2:PRO:HG3	1.92	0.50
2:CB:149:LEU:HB3	2:CB:152:PHE:HB3	1.92	0.50
15:CO:63:ARG:NH1	15:CO:87:ILE:HD11	2.27	0.50
22:CV:13:HIS:HB2	22:CV:39:GLN:HG3	1.94	0.50
23:DA:1638:C:H4'	23:DA:2710:C:O2	2.11	0.50
23:DA:795:C:H2'	23:DA:796:C:H6	1.77	0.50
1:AA:1090:U:H2'	1:AA:1091:U:H6	1.77	0.50
1:AA:1117:G:H3'	1:AA:1118:C:C5	2.45	0.50
1:AA:1400:C:H4'	1:AA:1401:G:OP2	2.11	0.50
1:AA:475:G:H2'	1:AA:476:G:C8	2.46	0.50
1:AA:980:C:C2'	1:AA:981:U:H5'	2.42	0.50
5:AE:135:THR:O	5:AE:138:ALA:HB3	2.12	0.50
7:AG:146:GLU:OE2	7:AG:149:ARG:NE	2.44	0.50
13:AM:103:THR:HA	13:AM:107:ALA:HB2	1.94	0.50
1:AA:1227:A:O4'	19:AS:83:HIS:HB3	2.12	0.50
23:BA:1210:A:C8	23:BA:1210:A:H5'	2.42	0.50
23:BA:1298:C:H5"	23:BA:1299:G:OP2	2.12	0.50
23:BA:2158:A:O3'	23:BA:2159:G:H8	1.94	0.50
23:BA:2206:G:H2'	23:BA:2207:G:C2	2.47	0.50
23:BA:2286:A:H4'	23:BA:2287:A:O4'	2.12	0.50
23:BA:247:G:H4'	23:BA:386:G:C5	2.46	0.50
29:BH:86:GLU:HG2	29:BH:132:ARG:HG3	1.93	0.50
1:CA:1007:C:H2'	1:CA:1008:C:H6	1.76	0.50
1:CA:1458:G:H2'	1:CA:1458:G:N3	2.27	0.50
1:CA:649:G:H2'	1:CA:650:G:H8	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:841:U:C2	1:CA:841:U:OP2	2.64	0.50
4:CD:7:PRO:O	4:CD:10:ARG:HB3	2.11	0.50
23:DA:1379:A:H4'	23:DA:1380:G:OP2	2.11	0.50
23:DA:1602:U:O4	56:DA:3688:HOH:O	2.20	0.50
23:DA:863:A:H2'	23:DA:864:G:C8	2.47	0.50
35:DR:21:TYR:OH	35:DR:43:GLU:HG2	2.12	0.50
36:DS:11:LYS:HG3	36:DS:91:PRO:HD3	1.92	0.50
42:DY:23:ARG:HH11	42:DY:23:ARG:HB2	1.77	0.50
1:AA:1050:G:O6	1:AA:1208:C:N3	2.45	0.50
1:AA:1268:A:H4'	21:AU:23:PRO:HB3	1.93	0.50
1:AA:346:G:N2	1:AA:347:G:C4	2.79	0.50
1:AA:414:A:C5	1:AA:431:A:C2	3.00	0.50
1:AA:966:G:H4'	1:AA:969:A:H62	1.76	0.50
9:AI:49:PRO:HG3	9:AI:101:PHE:CD2	2.47	0.50
23:BA:1514:U:H2'	23:BA:1515:G:H8	1.77	0.50
23:BA:2713:A:OP1	35:BR:14:SER:OG	2.26	0.50
23:BA:748:G:C8	40:BW:89:ALA:HB1	2.46	0.50
37:BT:55:ASN:N	37:BT:59:THR:HG22	2.26	0.50
1:CA:1015:A:H2	1:CA:1218:C:O2	1.94	0.50
1:CA:203:U:H4'	1:CA:204:U:OP1	2.11	0.50
1:CA:474:G:H2'	1:CA:475:G:C8	2.47	0.50
16:CP:28:ARG:NH1	16:CP:29:ASP:OD2	2.44	0.50
41:DX:11:PRO:HD3	46:D2:37:PHE:CZ	2.45	0.50
23:DA:1497:U:H5"	23:DA:1498:C:H5	1.77	0.50
23:DA:1720:U:H2'	23:DA:1721:G:O4'	2.11	0.50
23:DA:271(N):U:O2'	23:DA:271(O):C:H5'	2.12	0.50
29:DH:69:ARG:HG3	29:DH:70:THR:N	2.26	0.50
41:DX:27:THR:HG23	41:DX:80:ILE:HG13	1.94	0.50
1:AA:1006:C:N3	1:AA:1023:G:O6	2.45	0.50
1:AA:1192:C:C4	1:AA:1193:G:H1'	2.46	0.50
1:AA:1533:C:H41	22:AV:11:ARG:CG	2.25	0.50
1:AA:762:C:H2'	1:AA:763:G:H8	1.76	0.50
2:AB:157:ARG:HG2	2:AB:158:LEU:N	2.26	0.50
2:AB:163:PHE:HA	2:AB:185:ILE:O	2.12	0.50
3:AC:53:ALA:HB3	3:AC:69:HIS:HB3	1.94	0.50
23:BA:122:G:N7	56:BA:3885:HOH:O	2.35	0.50
23:BA:271(P):C:H2'	23:BA:271(Q):G:H5'	1.94	0.50
23:BA:760:G:H2'	23:BA:761:A:O4'	2.12	0.50
28:BG:166:ASP:O	28:BG:170:ARG:N	2.34	0.50
43:BZ:110:GLY:HA3	43:BZ:174:VAL:HG11	1.92	0.50
1:CA:982:U:N3	1:CA:1223:C:N3	2.58	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1310:G:H1	1:CA:1327:C:H42	1.60	0.50
1:CA:450:G:H4'	16:CP:41:PRO:HB2	1.93	0.50
4:CD:64:LEU:HB2	4:CD:198:VAL:HG11	1.92	0.50
9:CI:18:PHE:HB2	9:CI:62:TYR:HB3	1.94	0.50
18:CR:36:ASN:HB2	18:CR:39:VAL:HG23	1.94	0.50
23:DA:1810:A:H2'	23:DA:1811:G:O4'	2.11	0.50
30:DI:77:LEU:HB3	30:DI:142:VAL:HG12	1.94	0.50
31:DN:34:LEU:O	31:DN:49:GLY:HA3	2.11	0.50
1:AA:1084:G:C5	1:AA:1085:U:C4	2.99	0.50
1:AA:1320:C:H2'	1:AA:1321:C:C6	2.47	0.50
1:AA:353:A:C8	1:AA:353:A:H5'	2.43	0.50
1:AA:818:G:O2'	1:AA:819:A:H5'	2.12	0.50
2:AB:87:ARG:HG3	2:AB:233:SER:OG	2.12	0.50
1:AA:1190:G:OP1	3:AC:5:ILE:HG22	2.11	0.50
4:AD:173:TRP:NE1	4:AD:174:LEU:HG	2.27	0.50
4:AD:7:PRO:O	4:AD:10:ARG:HB3	2.11	0.50
19:AS:35:SER:HA	19:AS:37:ARG:HG3	1.93	0.50
1:AA:1268:A:O3'	21:AU:23:PRO:HB3	2.11	0.50
23:BA:2079:U:OP1	45:B1:21:ARG:NH2	2.45	0.50
23:BA:2236:C:H2'	23:BA:2237:G:H5'	1.93	0.50
23:BA:2298:A:H2'	23:BA:2299:G:O4'	2.11	0.50
25:BD:16:MET:HG3	25:BD:206:LEU:O	2.12	0.50
26:BE:24:THR:HG22	26:BE:186:GLY:O	2.12	0.50
30:BI:5:LEU:HD21	30:BI:12:LEU:HD13	1.93	0.50
30:BI:86:THR:HG23	30:BI:87:LYS:HB2	1.94	0.50
37:BT:1:MET:HE2	37:BT:3:ARG:HG2	1.92	0.50
43:BZ:128:VAL:HG12	43:BZ:129:SER:N	2.27	0.50
1:CA:1387:G:H2'	1:CA:1388:C:C6	2.39	0.50
1:CA:192:U:H2'	1:CA:193:C:C6	2.47	0.50
3:CC:36:ASP:HA	3:CC:39:ILE:HD12	1.93	0.50
5:CE:135:THR:O	5:CE:138:ALA:HB3	2.11	0.50
5:CE:51:VAL:O	5:CE:55:VAL:HG23	2.11	0.50
50:D6:8:LYS:HD3	52:D8:34:TRP:CD2	2.46	0.50
52:D8:32:LEU:O	52:D8:36:LYS:HE3	2.12	0.50
23:DA:251:A:OP1	52:D8:7:HIS:HE1	1.95	0.50
23:DA:252:G:OP2	33:DP:50:ARG:NH1	2.40	0.50
23:DA:479:A:N3	23:DA:481:G:H5"	2.25	0.50
23:DA:873:G:N2	23:DA:905:U:C2	2.80	0.50
28:DG:125:PHE:HB3	28:DG:166:ASP:CG	2.32	0.50
32:DO:64:ARG:NH1	32:DO:81:ASP:OD1	2.45	0.50
23:DA:910:A:C5	34:DQ:13:GLN:HG3	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DS:29:PHE:CD2	36:DS:30:ARG:N	2.79	0.50
1:AA:1061:G:H2'	1:AA:1062:U:H6	1.76	0.50
1:AA:1206:G:H2'	1:AA:1207:G:C8	2.46	0.50
1:AA:1237:C:H5'	1:AA:1303:C:O2	2.12	0.50
1:AA:1376:U:OP1	7:AG:94:ARG:NH1	2.44	0.50
1:AA:20:U:H2'	1:AA:21:G:O4'	2.12	0.50
1:AA:992:U:O2'	1:AA:1043:C:N4	2.39	0.50
4:AD:36:ARG:HG2	4:AD:38:TYR:CZ	2.46	0.50
11:AK:15:ALA:HA	11:AK:77:MET:HA	1.94	0.50
12:AL:92:ASP:N	12:AL:92:ASP:OD1	2.44	0.50
15:AO:56:LEU:O	15:AO:60:VAL:HG23	2.12	0.50
20:AT:77:ALA:O	20:AT:81:LYS:HG3	2.12	0.50
23:BA:2267:A:H2'	56:BA:4802:HOH:O	2.11	0.50
1:CA:1068:G:N7	1:CA:1094:G:C8	2.80	0.50
1:CA:1228:C:H2'	1:CA:1229:A:H8	1.77	0.50
1:CA:1289:A:N1	1:CA:1372:U:H5'	2.27	0.50
1:CA:658:G:C6	1:CA:659:U:C4	3.00	0.50
1:CA:729:A:H2'	1:CA:730:G:H8	1.75	0.50
8:CH:6:ILE:HB	8:CH:85:ARG:NH1	2.27	0.50
23:DA:1547:C:H2'	23:DA:1548:C:C6	2.47	0.50
33:DP:38:GLN:HA	33:DP:41:ARG:HG2	1.93	0.50
24:DB:38:C:O4'	36:DS:95:HIS:NE2	2.44	0.50
1:AA:60:A:H8	1:AA:60:A:P	2.35	0.49
3:AC:156:ARG:H	3:AC:196:LEU:HD12	1.77	0.49
4:AD:128:VAL:CG1	4:AD:129:ASN:HD22	2.22	0.49
4:AD:59:ARG:HA	4:AD:62:GLN:HB2	1.94	0.49
23:BA:1839:G:C8	23:BA:1927:A:H1'	2.47	0.49
27:BF:184:TYR:CE2	27:BF:188:ARG:HD2	2.46	0.49
1:CA:1014:A:H5'	19:CS:14:HIS:CG	2.46	0.49
1:CA:1338:G:H2'	1:CA:1339:A:C8	2.47	0.49
4:CD:32:ALA:O	4:CD:36:ARG:N	2.45	0.49
7:CG:88:PRO:HB3	7:CG:145:ALA:HA	1.94	0.49
8:CH:121:ASP:OD1	8:CH:121:ASP:N	2.44	0.49
23:DA:1575:C:H2'	23:DA:1576:U:C6	2.47	0.49
23:DA:1669:A:H5"	23:DA:2550:G:OP1	2.12	0.49
23:DA:1794:U:H2'	23:DA:1795:C:C6	2.47	0.49
23:DA:1945:G:H2'	23:DA:1946:U:H6	1.77	0.49
23:DA:524:U:H2'	23:DA:525:U:C6	2.47	0.49
23:DA:910:A:H62	34:DQ:12:GLN:HA	1.77	0.49
31:DN:96:GLU:H	31:DN:96:GLU:CD	2.15	0.49
14:AN:37:PHE:HB3	14:AN:39:LEU:HD12	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:B0:51:VAL:N	44:B0:62:LEU:HD12	2.28	0.49
23:BA:1945:G:H2'	23:BA:1946:U:C6	2.47	0.49
25:BD:12:SER:HB3	25:BD:208:LYS:HB3	1.93	0.49
31:BN:62:VAL:HG12	31:BN:67:LEU:HD22	1.94	0.49
1:CA:1003:G:C4	1:CA:1004:A:H1'	2.46	0.49
1:CA:109:A:C6	1:CA:326:G:C6	3.00	0.49
1:CA:1208:C:H2'	1:CA:1209:C:C6	2.47	0.49
7:CG:130:GLY:HA2	7:CG:135:VAL:HG21	1.94	0.49
1:CA:1128:C:C5'	9:CI:16:ARG:HH12	2.24	0.49
9:CI:21:PRO:HA	9:CI:59:PHE:HD1	1.76	0.49
10:CJ:55:LYS:C	10:CJ:57:LYS:H	2.15	0.49
17:CQ:55:ASP:HA	17:CQ:79:SER:HA	1.94	0.49
6:CF:96:PRO:HB3	18:CR:30:ASP:CG	2.32	0.49
20:CT:56:MET:HE1	20:CT:85:MET:HG2	1.93	0.49
27:DF:22:ALA:HB1	27:DF:24:LEU:HD22	1.93	0.49
34:DQ:6:ARG:HG2	43:DZ:194:PRO:HG2	1.93	0.49
40:DW:46:PHE:O	40:DW:50:VAL:HG23	2.13	0.49
1:AA:1001:A:N6	1:AA:1001(A):G:C6	2.81	0.49
1:AA:1009:G:O6	1:AA:1020:U:C2	2.65	0.49
1:AA:1067:A:H1'	1:AA:1068:G:O4'	2.12	0.49
1:AA:1325:C:H4'	21:AU:17:THR:HG21	1.93	0.49
1:AA:577:G:C8	1:AA:816:A:C6	3.00	0.49
1:AA:952:U:H4'	1:AA:964:A:N6	2.27	0.49
4:AD:110:PHE:N	4:AD:110:PHE:HD1	2.10	0.49
7:AG:108:ALA:HB1	7:AG:120:ILE:HD13	1.94	0.49
11:AK:16:SER:HA	11:AK:79:SER:HB3	1.94	0.49
20:AT:76:ALA:HA	20:AT:79:ARG:NH1	2.27	0.49
23:BA:386:G:H4'	23:BA:387:U:OP2	2.12	0.49
26:BE:97:LYS:O	26:BE:100:GLU:HG3	2.12	0.49
33:BP:101:VAL:HA	33:BP:106:LEU:O	2.13	0.49
36:BS:58:LEU:HB2	36:BS:59:LYS:HB2	1.94	0.49
1:CA:951:G:H4'	1:CA:972:C:H5	1.78	0.49
1:CA:977:A:H2'	1:CA:977:A:N3	2.27	0.49
2:CB:167:PRO:HD3	2:CB:187:LEU:O	2.12	0.49
3:CC:73:PRO:HB3	3:CC:103:VAL:HG11	1.94	0.49
11:CK:69:ALA:HB1	11:CK:103:LEU:HD21	1.94	0.49
23:DA:236:C:H2'	23:DA:237:C:C6	2.47	0.49
23:DA:253:C:OP2	52:D8:5:LYS:NZ	2.37	0.49
23:DA:863:A:H2'	23:DA:864:G:H8	1.76	0.49
23:DA:946:G:P	56:DA:3960:HOH:O	2.71	0.49
27:DF:149:ASP:OD2	27:DF:149:ASP:N	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.47	0.49
1:AA:1233:G:N2	1:AA:1364:U:H3	1.96	0.49
1:AA:375:U:H2'	1:AA:376:G:C8	2.47	0.49
1:AA:735:C:H2'	1:AA:736:C:H6	1.77	0.49
5:AE:110:LEU:HD12	5:AE:118:ILE:HG21	1.94	0.49
7:AG:123:GLU:OE2	7:AG:134:ALA:N	2.45	0.49
7:AG:151:TYR:O	7:AG:154:TYR:HD2	1.95	0.49
18:AR:36:ASN:HB2	18:AR:39:VAL:HG23	1.95	0.49
46:B2:29:LYS:HD3	46:B2:57:ILE:HD13	1.94	0.49
48:B4:16:CYS:HB3	48:B4:20:ASN:O	2.13	0.49
23:BA:1745(A):C:H5'	23:BA:1746:G:OP2	2.12	0.49
23:BA:2019:A:N7	49:B5:9:LYS:NZ	2.53	0.49
23:BA:2574:G:O2'	26:BE:143:ASN:HB3	2.12	0.49
23:BA:271(M):G:O2'	23:BA:271(N):U:H3'	2.11	0.49
23:BA:2818:G:O2'	23:BA:2819:G:H5'	2.12	0.49
23:BA:821:A:H2'	23:BA:946:G:H5"	1.95	0.49
37:BT:118:ARG:HH11	37:BT:118:ARG:HA	1.77	0.49
40:BW:40:ASN:O	40:BW:41:LYS:HG3	2.11	0.49
1:CA:1143:G:H2'	1:CA:1144:G:C8	2.47	0.49
1:CA:532:A:H61	3:CC:193:TYR:HB3	1.78	0.49
1:CA:544:G:OP1	4:CD:62:GLN:NE2	2.23	0.49
3:CC:138:VAL:HG22	3:CC:149:ALA:HB1	1.95	0.49
3:CC:192:THR:OG1	3:CC:193:TYR:N	2.43	0.49
5:CE:107:ARG:O	5:CE:110:LEU:N	2.45	0.49
8:CH:57:PRO:O	8:CH:58:TYR:HD1	1.95	0.49
19:CS:50:ALA:CB	19:CS:57:HIS:HB3	2.43	0.49
20:CT:77:ALA:O	20:CT:81:LYS:HG3	2.13	0.49
23:DA:1780:A:N6	56:DA:3751:HOH:O	2.44	0.49
23:DA:2131:G:N3	23:DA:2133:G:N2	2.54	0.49
23:DA:856:C:O4'	44:D0:27:GLU:HB3	2.12	0.49
23:DA:902:C:H2'	23:DA:903:C:H6	1.77	0.49
24:DB:94:C:H2'	24:DB:95:C:H6	1.76	0.49
32:DO:71:ARG:HB3	32:DO:73:ASP:OD2	2.13	0.49
32:DO:77:ILE:HG12	37:DT:74:ARG:HD3	1.95	0.49
1:AA:1072:G:C5	1:AA:1073:U:C4	3.01	0.49
1:AA:59:A:H3'	1:AA:331:G:H22	1.77	0.49
2:AB:61:LEU:HD21	2:AB:160:ASP:HB2	1.93	0.49
7:AG:26:PHE:O	7:AG:30:ILE:HG13	2.12	0.49
23:BA:1108:U:O2	23:BA:1108:U:H2'	2.12	0.49
23:BA:1914:C:OP2	23:BA:1914:C:H6	1.94	0.49
23:BA:1971:A:OP2	25:BD:242:ARG:NH2	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BD:172:TYR:CD1	25:BD:186:HIS:HA	2.47	0.49
26:BE:52:LEU:O	26:BE:75:VAL:HG22	2.12	0.49
27:BF:185:ASP:HA	27:BF:188:ARG:HD3	1.94	0.49
40:BW:86:LEU:HD12	40:BW:87:PRO:HD2	1.93	0.49
1:CA:1115:C:O2	1:CA:1185:G:N1	2.35	0.49
1:CA:920:U:C2	1:CA:921:U:C5	3.01	0.49
3:CC:131:ARG:HH22	5:CE:50:GLU:CD	2.16	0.49
3:CC:142:MET:HA	3:CC:146:ALA:HB3	1.95	0.49
1:CA:429:U:C3'	4:CD:22:LYS:HZ3	2.25	0.49
6:CF:91:VAL:CG1	18:CR:72:ARG:HH12	2.26	0.49
23:DA:851:U:OP1	47:D3:49:LYS:HE2	2.13	0.49
23:DA:1935:G:H1'	23:DA:1964:G:N2	2.27	0.49
23:DA:307:G:H21	23:DA:330:A:H62	1.60	0.49
24:DB:111:G:H2'	24:DB:112:U:H6	1.78	0.49
27:DF:158:THR:O	27:DF:164:ARG:NH1	2.45	0.49
28:DG:41:GLN:O	28:DG:89:GLY:HA2	2.12	0.49
29:DH:70:THR:HA	29:DH:73:ALA:HB3	1.95	0.49
34:DQ:110:THR:HG23	34:DQ:113:GLN:OE1	2.12	0.49
36:DS:10:ARG:NH2	36:DS:91:PRO:HB2	2.25	0.49
1:AA:1104:G:C6	1:AA:1105:A:C5	3.00	0.49
1:AA:934:C:H41	1:AA:939:G:N2	2.11	0.49
2:AB:134:GLU:O	2:AB:138:LEU:HG	2.12	0.49
3:AC:141:VAL:O	3:AC:145:GLY:N	2.45	0.49
9:AI:16:ARG:N	9:AI:64:THR:O	2.43	0.49
10:AJ:48:THR:HA	10:AJ:62:HIS:HB3	1.94	0.49
1:AA:1228:C:H41	13:AM:104:ARG:CG	2.25	0.49
13:AM:22:ILE:HG22	13:AM:23:TYR:N	2.28	0.49
15:AO:74:ASP:OD2	15:AO:77:ARG:HB2	2.12	0.49
49:B5:13:LYS:HB3	56:B5:203:HOH:O	2.13	0.49
23:BA:1858:G:H2'	23:BA:1883:G:H22	1.77	0.49
23:BA:265:A:H1'	23:BA:266:G:O4'	2.12	0.49
23:BA:542:C:H2'	23:BA:543:C:C6	2.48	0.49
23:BA:1155:A:OP1	38:BU:55:ARG:HD3	2.12	0.49
1:CA:1135:U:O2'	1:CA:1137:C:H5'	2.12	0.49
1:CA:728:A:H2'	1:CA:729:A:C8	2.47	0.49
2:CB:204:ASN:CG	2:CB:206:ASP:H	2.15	0.49
2:CB:32:ILE:HD11	2:CB:190:THR:HG22	1.94	0.49
20:CT:41:ILE:HG22	20:CT:91:LEU:HD12	1.93	0.49
46:D2:23:LYS:O	46:D2:27:GLU:HG2	2.12	0.49
23:DA:2611:U:C4	49:D5:3:LYS:HG2	2.47	0.49
23:DA:1514:U:H2'	23:DA:1515:G:C8	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1769:G:O2'	23:DA:1958:C:OP1	2.18	0.49
23:DA:2311:A:O2'	23:DA:2312:U:O4'	2.22	0.49
23:DA:628:G:H2'	23:DA:629:G:C8	2.46	0.49
23:DA:774:A:N3	23:DA:774:A:H2'	2.27	0.49
23:DA:1501:C:O4'	25:DD:100:GLY:HA2	2.12	0.49
43:DZ:152:ALA:HA	43:DZ:155:LEU:HD13	1.94	0.49
1:AA:1046:A:C6	1:AA:1047:G:H1'	2.48	0.49
3:AC:184:TYR:HA	3:AC:200:ALA:O	2.13	0.49
3:AC:150:LYS:HB3	3:AC:201:TYR:HB2	1.95	0.49
7:AG:69:VAL:O	7:AG:71:PRO:HD3	2.13	0.49
11:AK:30:VAL:HG21	11:AK:65:ALA:HA	1.94	0.49
14:AN:31:ARG:O	14:AN:40:CYS:HB2	2.13	0.49
1:AA:982:U:P	14:AN:6:LEU:HD11	2.53	0.49
16:AP:28:ARG:HG2	16:AP:29:ASP:OD2	2.12	0.49
17:AQ:22:LEU:HD11	17:AQ:39:SER:HB3	1.95	0.49
23:BA:1962:C:O2'	23:BA:1964:G:OP2	2.29	0.49
23:BA:271(N):U:O2'	23:BA:271(O):C:H5'	2.13	0.49
23:BA:873:G:N2	23:BA:905:U:C2	2.81	0.49
25:BD:175:LEU:HD12	25:BD:185:VAL:HG21	1.94	0.49
23:BA:2572:A:N7	26:BE:145:LYS:HB2	2.27	0.49
27:BF:178:PRO:HG2	27:BF:179:GLU:OE1	2.12	0.49
32:BO:88:ASN:HD21	32:BO:90:GLN:HB2	1.78	0.49
1:CA:1025:U:O2	1:CA:1036:G:C6	2.66	0.49
1:CA:169:C:H5	1:CA:170:U:C4	2.31	0.49
1:CA:557:G:C6	1:CA:558:G:C6	3.01	0.49
1:CA:626:U:H5"	16:CP:38:TYR:CD2	2.48	0.49
1:CA:994:A:H2	14:CN:4:LYS:HD2	1.78	0.49
5:CE:53:LEU:O	5:CE:56:GLN:HB3	2.13	0.49
9:CI:40:LEU:HD11	9:CI:70:LYS:HB3	1.95	0.49
13:CM:59:TYR:CZ	13:CM:63:THR:HG21	2.47	0.49
23:DA:857:C:H4'	44:D0:23:VAL:HG21	1.94	0.49
23:DA:1908:C:H1'	56:DA:4164:HOH:O	2.13	0.49
23:DA:2712:U:H1'	23:DA:2712(A):A:C8	2.48	0.49
23:DA:644:A:H4'	23:DA:645:C:C5	2.47	0.49
23:DA:792:G:H5"	23:DA:793:A:H5'	1.93	0.49
23:DA:903:C:H2'	23:DA:904:C:H6	1.77	0.49
23:DA:934:G:H2'	23:DA:935:C:H6	1.78	0.49
27:DF:187:VAL:HG13	33:DP:1:MET:O	2.13	0.49
43:DZ:144:LEU:CD2	43:DZ:150:LEU:HG	2.43	0.49
1:AA:1296:C:H5"	13:AM:14:ARG:NE	2.27	0.49
1:AA:203:U:H4'	1:AA:204:U:OP1	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:959:A:C1'	1:AA:985:C:H1'	2.41	0.49
19:AS:53:ASN:N	19:AS:56:GLN:O	2.27	0.49
44:B0:11:ARG:O	44:B0:14:ARG:NH2	2.44	0.49
23:BA:1130:U:O2	26:BE:149:ARG:NH2	2.45	0.49
23:BA:1639:U:O2'	23:BA:1640:C:H5"	2.12	0.49
23:BA:196:A:O4'	33:BP:46:LYS:HE2	2.13	0.49
23:BA:2142:C:N3	23:BA:2149:G:O6	2.45	0.49
23:BA:2171:A:H4'	23:BA:2172:U:OP1	2.12	0.49
25:BD:267:SER:C	25:BD:269:PHE:H	2.16	0.49
1:CA:1003:G:N2	1:CA:1037:C:C2	2.80	0.49
1:CA:1003:G:C2	1:CA:1037:C:N3	2.81	0.49
1:CA:1360:A:N7	14:CN:18:VAL:HG13	2.27	0.49
1:CA:35:G:C6	1:CA:36:C:N4	2.81	0.49
1:CA:590:C:H2'	1:CA:591:U:C6	2.45	0.49
2:CB:61:LEU:HD21	2:CB:160:ASP:HB2	1.94	0.49
23:DA:1479:G:O2'	23:DA:1558:A:H5'	2.13	0.49
23:DA:1558:A:H8	56:DA:3531:HOH:O	1.96	0.49
23:DA:2281:C:O2'	23:DA:2282:G:H5'	2.13	0.49
23:DA:2820:A:O2'	23:DA:2821:A:OP1	2.30	0.49
24:DB:66:A:H61	24:DB:109:C:H5"	1.76	0.49
25:DD:2:ALA:N	25:DD:200:ASP:OD2	2.46	0.49
30:DI:130:TYR:HB3	30:DI:138:ILE:HB	1.93	0.49
30:DI:40:THR:O	30:DI:44:LEU:HB2	2.13	0.49
1:AA:1056:U:O4	1:AA:1204:A:N1	2.46	0.49
1:AA:1319:A:C6	1:AA:1323:G:H1'	2.48	0.49
1:AA:279:A:H4'	1:AA:280:C:H5"	1.94	0.49
1:AA:673:G:H2'	1:AA:674:G:H8	1.73	0.49
2:AB:170:GLU:O	2:AB:173:ALA:N	2.46	0.49
8:AH:86:ILE:HG21	8:AH:133:LEU:HD22	1.95	0.49
13:AM:19:LEU:HD13	13:AM:22:ILE:HD12	1.94	0.49
13:AM:92:HIS:CE1	13:AM:98:VAL:HG21	2.48	0.49
1:AA:136:C:O2'	16:AP:65:GLN:OE1	2.31	0.49
20:AT:79:ARG:HD2	20:AT:83:ARG:HH21	1.77	0.49
23:BA:9:U:O2'	23:BA:10:G:OP1	2.29	0.49
23:BA:469:G:H2'	23:BA:470:A:H5"	1.95	0.49
23:BA:902:C:H2'	23:BA:903:C:H6	1.77	0.49
1:CA:1269:A:C8	1:CA:1270:C:H1'	2.48	0.49
1:CA:1369:C:H2'	1:CA:1370:G:C8	2.47	0.49
1:CA:414:A:C5	1:CA:431:A:C2	3.01	0.49
1:CA:499:A:H4'	1:CA:500:G:OP1	2.12	0.49
1:CA:918:A:H2'	1:CA:919:A:C8	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:937:A:H1'	1:CA:1379:G:N2	2.28	0.49
2:CB:102:LEU:O	2:CB:105:PHE:HB2	2.13	0.49
3:CC:54:ARG:HG2	3:CC:56:ASP:H	1.77	0.49
4:CD:148:VAL:HG12	4:CD:149:ALA:H	1.77	0.49
10:CJ:11:PHE:HE2	10:CJ:67:THR:HB	1.77	0.49
10:CJ:81:THR:O	10:CJ:85:LEU:N	2.44	0.49
23:DA:1657:C:H2'	23:DA:1658:C:C6	2.47	0.49
23:DA:2123:G:H1	23:DA:2175:C:N4	2.11	0.49
23:DA:2124:G:H1	23:DA:2174:C:N4	2.10	0.49
23:DA:2313:C:H2'	23:DA:2314:C:C6	2.48	0.49
23:DA:274:G:H2'	23:DA:275:G:C8	2.47	0.49
1:AA:1098:C:C4	1:AA:1099:G:C8	3.01	0.49
1:AA:1130:A:H1'	1:AA:1146:A:C2	2.48	0.49
1:AA:544:G:C6	1:AA:545:C:C4	3.00	0.49
1:AA:575:G:H5"	56:AA:1815:HOH:O	2.12	0.49
1:AA:626:U:C2	1:AA:627:G:C8	3.00	0.49
1:AA:729:A:H2'	1:AA:730:G:H8	1.77	0.49
5:AE:53:LEU:O	5:AE:56:GLN:HB3	2.12	0.49
7:AG:32:ARG:O	7:AG:33:ASP:HB2	2.13	0.49
44:B0:53:MET:HG3	44:B0:59:LEU:CD2	2.43	0.49
52:B8:34:TRP:CE2	52:B8:35:GLN:HG3	2.47	0.49
23:BA:1721:G:N1	23:BA:1739:U:OP2	2.45	0.49
23:BA:2406:U:C4	33:BP:72:PRO:HD2	2.48	0.49
30:BI:88:ILE:HG22	30:BI:90:GLY:N	2.27	0.49
43:BZ:146:ILE:HA	43:BZ:174:VAL:HG12	1.94	0.49
43:BZ:77:ASP:OD1	43:BZ:80:ARG:HG2	2.12	0.49
1:CA:1118:C:H2'	1:CA:1119:C:C5	2.47	0.49
1:CA:1490:C:H2'	1:CA:1491:G:O4'	2.13	0.49
1:CA:375:U:H2'	1:CA:376:G:H8	1.78	0.49
1:CA:39:G:N7	1:CA:547:A:H8	2.10	0.49
2:CB:21:ARG:HH12	2:CB:23:ARG:HE	1.59	0.49
2:CB:224:GLN:OE1	2:CB:225:ALA:N	2.46	0.49
50:D6:11:LEU:HB3	50:D6:49:HIS:HB3	1.95	0.49
23:DA:125:G:H5"	51:D7:19:ARG:HD3	1.94	0.49
23:DA:1794:U:H2'	23:DA:1795:C:H6	1.78	0.49
23:DA:1800:C:OP1	25:DD:266:SER:OG	2.16	0.49
23:DA:2080:G:P	45:D1:35:THR:HG1	2.35	0.49
23:DA:2312:U:H5'	28:DG:88:ILE:HD12	1.95	0.49
23:DA:2687:U:H2'	23:DA:2688:U:O4'	2.13	0.49
23:DA:2699:C:H2'	23:DA:2700:C:O4'	2.11	0.49
23:DA:821:A:H2'	23:DA:946:G:H5"	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:848:G:H2'	23:DA:849:A:C8	2.47	0.49
23:DA:857:C:OP2	44:D0:77:ARG:NH2	2.46	0.49
27:DF:32:LEU:HD12	27:DF:32:LEU:HA	1.60	0.49
1:AA:114:U:H2'	1:AA:115:G:C8	2.48	0.48
1:AA:1315:U:C4	1:AA:1316:G:C2	3.01	0.48
1:AA:103:C:H1'	1:AA:171:A:N1	2.28	0.48
1:AA:31:G:O2'	1:AA:48:C:N4	2.45	0.48
1:AA:491:G:C4	1:AA:492:G:C8	3.01	0.48
1:AA:552:U:O3'	12:AL:87:GLY:HA3	2.13	0.48
1:AA:77:G:C6	1:AA:93:G:C6	3.01	0.48
11:AK:21:ILE:HG12	11:AK:30:VAL:HG12	1.94	0.48
23:BA:857:C:H4'	44:B0:23:VAL:HG21	1.94	0.48
23:BA:856:C:O4'	44:B0:27:GLU:HB3	2.12	0.48
51:B7:47:ARG:HH11	51:B7:47:ARG:HG3	1.78	0.48
23:BA:1359:A:O4'	23:BA:1359:A:N3	2.46	0.48
23:BA:1441:G:H2'	23:BA:1442:G:H8	1.78	0.48
23:BA:2577:A:H5'	49:B5:3:LYS:HD2	1.95	0.48
23:BA:7:G:H1	23:BA:2896:C:H42	1.61	0.48
29:BH:32:GLU:O	29:BH:33:LEU:HD23	2.13	0.48
23:BA:64:A:O3'	41:BX:71:GLY:HA3	2.13	0.48
1:CA:1012:U:H3'	1:CA:1013:G:C8	2.47	0.48
1:CA:1138:G:C6	1:CA:1140:C:H1'	2.48	0.48
1:CA:1168:A:C2	1:CA:1169:A:C4	3.01	0.48
1:CA:1288:A:H2'	1:CA:1289:A:O4'	2.13	0.48
1:CA:1378:C:H3'	1:CA:1379:G:H5"	1.95	0.48
1:CA:36:C:H5"	12:CL:123:LYS:HD3	1.94	0.48
3:CC:152:ILE:HG22	3:CC:166:GLU:O	2.13	0.48
6:CF:41:GLU:O	6:CF:43:LEU:HD12	2.13	0.48
46:D2:64:LEU:HD21	46:D2:68:ARG:HE	1.78	0.48
23:DA:517:C:OP1	49:D5:16:ARG:NH2	2.42	0.48
52:D8:7:HIS:HD2	52:D8:10:ALA:N	2.01	0.48
23:DA:1108:U:H2'	23:DA:1108:U:O2	2.13	0.48
23:DA:1292:U:H2'	23:DA:1293:C:C6	2.48	0.48
1:CA:1493:A:H1'	23:DA:1913:A:N6	2.27	0.48
23:DA:2208:A:H1'	23:DA:2219:G:C4	2.48	0.48
23:DA:855:G:H2'	23:DA:856:C:C6	2.48	0.48
24:DB:33:G:C2	24:DB:50:G:C2	3.01	0.48
33:DP:101:VAL:HA	33:DP:106:LEU:O	2.13	0.48
43:DZ:104:PHE:HB3	43:DZ:141:VAL:HG21	1.94	0.48
1:AA:1094:G:O2'	1:AA:1108:G:N1	2.46	0.48
1:AA:1411:C:H2'	1:AA:1412:C:C6	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:971:G:N7	1:AA:1364:U:O2'	2.46	0.48
8:AH:25:ASP:HB3	8:AH:58:TYR:HD2	1.78	0.48
10:AJ:79:ARG:HA	10:AJ:82:ILE:H	1.76	0.48
19:AS:50:ALA:HA	19:AS:59:PRO:HA	1.95	0.48
45:B1:51:VAL:HG11	45:B1:74:VAL:HG21	1.94	0.48
23:BA:1970:A:H4'	23:BA:1971:A:OP1	2.13	0.48
23:BA:27:G:H1	23:BA:512:G:HO2'	1.60	0.48
23:BA:593:G:O6	56:BA:3935:HOH:O	2.18	0.48
23:BA:903:C:H2'	23:BA:904:C:C6	2.48	0.48
25:BD:78:LYS:HE2	25:BD:114:GLY:HA2	1.94	0.48
29:BH:5:GLY:HA2	29:BH:69:ARG:HB3	1.96	0.48
31:BN:42:TRP:CE3	38:BU:63:VAL:HG11	2.48	0.48
40:BW:60:ASN:HD22	40:BW:60:ASN:H	1.58	0.48
1:CA:1170:A:N6	1:CA:1171:G:C2	2.81	0.48
1:CA:1186:G:C2	1:CA:1187:G:H1'	2.47	0.48
1:CA:1360:A:H8	1:CA:1360:A:OP1	1.96	0.48
1:CA:502:G:C2	1:CA:503:C:C2	3.01	0.48
2:CB:87:ARG:HG3	2:CB:233:SER:OG	2.13	0.48
1:CA:1057:G:H5'	3:CC:155:GLY:HA2	1.95	0.48
7:CG:14:PRO:HG3	7:CG:21:VAL:HG12	1.94	0.48
9:CI:26:VAL:HA	9:CI:61:ALA:HB3	1.95	0.48
46:D2:44:LEU:HG	46:D2:45:SER:O	2.12	0.48
23:DA:1745(A):C:H5'	23:DA:1746:G:OP2	2.13	0.48
23:DA:2646:C:H2'	23:DA:2647:U:O4'	2.12	0.48
23:DA:2854:G:H2'	23:DA:2855:C:C6	2.47	0.48
23:DA:7:G:H2'	23:DA:8:A:O4'	2.12	0.48
24:DB:5:C:O2'	24:DB:27:C:O2	2.30	0.48
33:DP:82:GLY:HA2	33:DP:113:LYS:O	2.12	0.48
33:DP:27:HIS:O	33:DP:31:ALA:HA	2.13	0.48
34:DQ:109:VAL:HG22	34:DQ:113:GLN:OE1	2.13	0.48
38:DU:74:LEU:HD11	38:DU:110:VAL:HG13	1.95	0.48
40:DW:60:ASN:ND2	40:DW:60:ASN:N	2.60	0.48
1:AA:1065:U:H5"	1:AA:1066:C:C6	2.47	0.48
1:AA:1142:G:H2'	1:AA:1143:G:O4'	2.12	0.48
1:AA:1269:A:H3'	1:AA:1270:C:O4'	2.13	0.48
1:AA:1315:U:O2	1:AA:1323:G:N2	2.46	0.48
1:AA:967:C:H3'	1:AA:968:A:C8	2.48	0.48
2:AB:139:LYS:O	2:AB:143:GLU:HB2	2.13	0.48
2:AB:204:ASN:CG	2:AB:206:ASP:H	2.16	0.48
2:AB:211:ILE:HG22	2:AB:215:LEU:HG	1.95	0.48
3:AC:6:HIS:CE1	3:AC:8:ILE:HG22	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:6:HIS:HE1	3:AC:8:ILE:HG22	1.78	0.48
4:AD:148:VAL:HG12	4:AD:149:ALA:H	1.78	0.48
6:AF:11:ASN:HA	6:AF:12:PRO:HD2	1.58	0.48
9:AI:31:GLN:NE2	9:AI:36:TYR:HD1	2.11	0.48
9:AI:7:THR:HB	9:AI:83:ARG:NH1	2.28	0.48
18:AR:74:ARG:HH21	18:AR:81:PHE:HA	1.79	0.48
23:BA:1506:C:C2'	23:BA:1507:A:H5'	2.42	0.48
23:BA:1876:A:H2'	23:BA:1877:A:C8	2.48	0.48
23:BA:2687:U:H2'	23:BA:2688:U:O4'	2.12	0.48
23:BA:453:C:H5"	56:BA:4383:HOH:O	2.13	0.48
23:BA:708:C:H5'	23:BA:709:U:OP2	2.13	0.48
25:BD:118:VAL:HG22	25:BD:119:ALA:H	1.78	0.48
28:BG:102:PHE:CE2	28:BG:141:PHE:HE1	2.31	0.48
32:BO:59:LYS:HZ1	32:BO:89:ASN:HD21	1.61	0.48
1:CA:1299:A:H2'	1:CA:1301:U:C6	2.48	0.48
2:CB:82:ARG:HG3	2:CB:92:TYR:CZ	2.48	0.48
4:CD:134:ASP:O	4:CD:136:PRO:HD3	2.14	0.48
12:CL:76:ASN:HD21	12:CL:107:ALA:HA	1.79	0.48
14:CN:47:LEU:HA	14:CN:50:LYS:HB2	1.95	0.48
20:CT:42:GLN:HA	20:CT:42:GLN:NE2	2.28	0.48
23:DA:1239:G:H2'	23:DA:1240:U:O4'	2.14	0.48
23:DA:2287:A:N6	23:DA:2344:U:N3	2.50	0.48
40:DW:14:PRO:HG2	40:DW:78:GLU:HG2	1.94	0.48
43:DZ:72:ARG:NH2	43:DZ:97:GLU:O	2.46	0.48
1:AA:373:A:H2'	1:AA:374:A:H8	1.78	0.48
1:AA:750:G:H1'	15:AO:22:THR:OG1	2.13	0.48
13:AM:15:VAL:HG12	13:AM:19:LEU:HD23	1.94	0.48
23:BA:2080:G:P	45:B1:35:THR:HG1	2.37	0.48
23:BA:2115:G:C2	23:BA:2117:A:N7	2.82	0.48
23:BA:2273:A:H2'	23:BA:2274:A:C8	2.47	0.48
23:BA:545:G:H4'	23:BA:545:G:OP1	2.12	0.48
23:BA:639:U:O2'	23:BA:640:C:H5'	2.13	0.48
23:BA:652(A):A:H4'	23:BA:652(B):A:OP1	2.14	0.48
30:BI:61:ARG:HB3	30:BI:133:HIS:CD2	2.47	0.48
1:CA:618:C:N4	1:CA:621:A:N7	2.60	0.48
2:CB:170:GLU:O	2:CB:173:ALA:N	2.46	0.48
4:CD:127:THR:OG1	4:CD:128:VAL:N	2.46	0.48
4:CD:173:TRP:NE1	4:CD:174:LEU:HG	2.29	0.48
4:CD:14:ARG:HG3	4:CD:59:ARG:HH21	1.79	0.48
4:CD:68:TYR:CE2	4:CD:97:LEU:HD22	2.49	0.48
5:CE:67:VAL:HG21	5:CE:140:ARG:HA	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:22:LEU:HD13	17:CQ:41:LYS:HG2	1.95	0.48
19:CS:22:LEU:O	19:CS:27:GLU:HA	2.13	0.48
23:DA:1434:A:H61	23:DA:1558:A:H62	1.61	0.48
23:DA:1441:G:H2'	23:DA:1442:G:H8	1.77	0.48
23:DA:1985:G:O2'	23:DA:1986:A:H5'	2.12	0.48
23:DA:511:U:C5	23:DA:512:G:C5	3.01	0.48
23:DA:848:G:N9	23:DA:933:A:H8	2.12	0.48
23:DA:911:A:H2'	34:DQ:9:TYR:OH	2.13	0.48
24:DB:32:C:N3	24:DB:51:G:C2	2.82	0.48
23:DA:2723:C:OP2	26:DE:109:LYS:NZ	2.46	0.48
24:DB:55:U:H1'	28:DG:29:TRP:HE1	1.78	0.48
31:DN:23:LEU:HG	31:DN:24:GLY:H	1.78	0.48
33:DP:84:ASN:HB3	33:DP:117:GLU:O	2.13	0.48
42:DY:38:ILE:HD11	42:DY:66:PRO:HG3	1.94	0.48
43:DZ:144:LEU:HD21	43:DZ:150:LEU:HG	1.96	0.48
1:AA:1118:C:C2	1:AA:1179:A:C2	3.01	0.48
1:AA:1288:A:H2'	1:AA:1289:A:H5'	1.95	0.48
1:AA:44:G:H2'	1:AA:45:U:O4'	2.13	0.48
1:AA:958:A:H61	19:AS:53:ASN:ND2	2.12	0.48
2:AB:224:GLN:OE1	2:AB:225:ALA:N	2.47	0.48
3:AC:150:LYS:HB2	3:AC:173:VAL:HG21	1.94	0.48
7:AG:43:PHE:O	7:AG:47:CYS:N	2.46	0.48
1:AA:36:C:H5"	12:AL:123:LYS:HD3	1.95	0.48
46:B2:22:GLU:OE2	46:B2:68:ARG:NH2	2.46	0.48
23:BA:1015:G:C2'	23:BA:1016:G:H5'	2.43	0.48
23:BA:1025:G:C4	23:BA:1135:C:H1'	2.49	0.48
23:BA:2028:U:H2'	23:BA:2029:G:O4'	2.13	0.48
23:BA:2393:A:O2'	52:B8:13:ARG:NH1	2.43	0.48
23:BA:2646:C:H2'	23:BA:2647:U:O4'	2.14	0.48
23:BA:271(Y):U:O3'	23:BA:271(Z):C:H6	1.96	0.48
26:BE:179:GLU:HB3	26:BE:181:LEU:HD22	1.95	0.48
26:BE:37:ARG:HA	26:BE:42:ASP:OD2	2.13	0.48
40:BW:83:LYS:O	40:BW:84:ARG:HD3	2.12	0.48
1:CA:102:G:H2'	1:CA:103:C:H6	1.79	0.48
1:CA:1095:U:H2'	1:CA:1096:C:N1	2.28	0.48
1:CA:170:U:O2'	1:CA:171:A:H5'	2.14	0.48
1:CA:669:U:H2'	1:CA:670:G:C8	2.48	0.48
1:CA:983:A:H2	1:CA:984:C:C6	2.32	0.48
11:CK:21:ILE:HG12	11:CK:30:VAL:HG12	1.95	0.48
12:CL:42:THR:OG1	12:CL:52:LEU:HD12	2.14	0.48
15:CO:55:GLY:HA2	15:CO:58:MET:HG3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:D0:11:ARG:O	44:D0:14:ARG:NH2	2.46	0.48
23:DA:2098:U:H2'	23:DA:2099:U:O4'	2.14	0.48
23:DA:2698:U:O4	56:DA:4098:HOH:O	2.19	0.48
29:DH:24:VAL:HG22	29:DH:35:VAL:HB	1.94	0.48
1:AA:1028:C:C4	1:AA:1034:G:H1'	2.49	0.48
1:AA:1090:U:H2'	1:AA:1091:U:C6	2.49	0.48
1:AA:1385:G:H2'	1:AA:1386:G:O4'	2.13	0.48
1:AA:169:C:C5	1:AA:170:U:C4	3.01	0.48
1:AA:233:C:H2'	1:AA:234:C:H6	1.78	0.48
4:AD:88:VAL:O	4:AD:92:VAL:HG23	2.13	0.48
4:AD:9:CYS:SG	4:AD:26:CYS:SG	3.11	0.48
7:AG:47:CYS:SG	7:AG:62:PHE:HB2	2.53	0.48
10:AJ:46:ARG:HA	10:AJ:64:GLU:HA	1.95	0.48
16:AP:17:TYR:HD1	16:AP:17:TYR:N	2.12	0.48
44:B0:53:MET:HG3	44:B0:59:LEU:HD23	1.96	0.48
23:BA:2064:C:H2'	23:BA:2065:C:C6	2.48	0.48
23:BA:2371:G:HO2'	50:B6:46:HIS:CE1	2.24	0.48
23:BA:997:G:OP1	38:BU:92:ARG:HG2	2.14	0.48
29:BH:69:ARG:HG3	29:BH:70:THR:N	2.27	0.48
31:BN:33:LEU:HD12	31:BN:38:HIS:CE1	2.49	0.48
31:BN:96:GLU:H	31:BN:96:GLU:CD	2.17	0.48
37:BT:29:ARG:HB2	37:BT:46:GLU:HB2	1.94	0.48
42:BY:28:LYS:HG2	42:BY:40:GLU:HG2	1.96	0.48
1:CA:1192:C:N4	1:CA:1193:G:C4	2.81	0.48
1:CA:1442:G:C8	1:CA:1442(A):G:C5	3.02	0.48
1:CA:154:C:C2	1:CA:168:G:C2	3.02	0.48
1:CA:745:C:H2'	1:CA:746:A:C8	2.49	0.48
13:CM:102:ARG:HE	13:CM:104:ARG:HB3	1.79	0.48
44:D0:26:TYR:O	44:D0:29:GLN:HB2	2.14	0.48
23:DA:251:A:C5	23:DA:252:G:H1'	2.49	0.48
23:DA:258:G:N7	56:DA:4027:HOH:O	2.35	0.48
25:DD:17:THR:O	25:DD:211:ARG:NH2	2.40	0.48
42:DY:28:LYS:HG2	42:DY:40:GLU:HG2	1.96	0.48
1:AA:1086:U:H2'	1:AA:1087:G:O4'	2.14	0.48
1:AA:1458:G:N3	1:AA:1458:G:H2'	2.28	0.48
1:AA:27:G:H2'	1:AA:28:G:C8	2.48	0.48
1:AA:580:U:H3	1:AA:761:G:H1	1.62	0.48
3:AC:129:ALA:HB3	3:AC:132:ARG:HB2	1.96	0.48
4:AD:14:ARG:HG3	4:AD:59:ARG:HH21	1.79	0.48
5:AE:30:ALA:N	5:AE:46:GLY:O	2.29	0.48
8:AH:38:ILE:HD12	8:AH:118:VAL:HG12	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AU:12:LYS:HG3	21:AU:17:THR:O	2.14	0.48
52:B8:32:LEU:O	52:B8:36:LYS:HE3	2.13	0.48
23:BA:154:G:H5"	23:BA:154:G:H8	1.79	0.48
23:BA:2299:G:N7	56:BA:4728:HOH:O	2.35	0.48
28:BG:125:PHE:HB3	28:BG:166:ASP:CG	2.34	0.48
34:BQ:38:GLU:OE2	34:BQ:128:LYS:N	2.33	0.48
42:BY:99:CYS:HB3	42:BY:104:GLY:H	1.79	0.48
43:BZ:5:LEU:HD22	43:BZ:6:LYS:N	2.29	0.48
1:CA:1022:G:H2'	1:CA:1023:G:C8	2.49	0.48
1:CA:1308:U:OP1	13:CM:98:VAL:HG23	2.13	0.48
1:CA:1346:A:N1	1:CA:1374:A:H5"	2.28	0.48
1:CA:359:U:H2'	1:CA:360:A:C8	2.48	0.48
1:CA:1370:G:C8	9:CI:109:VAL:HG21	2.49	0.48
45:D1:94:LEU:O	45:D1:97:LEU:HB2	2.13	0.48
23:DA:1253:A:N6	56:DA:3585:HOH:O	2.45	0.48
23:DA:1790:C:H5"	23:DA:1791:A:OP1	2.13	0.48
23:DA:1914:C:H6	23:DA:1914:C:OP2	1.96	0.48
23:DA:2690:C:N4	23:DA:2713:A:H1'	2.28	0.48
23:DA:495:G:N7	56:DA:4056:HOH:O	2.35	0.48
24:DB:90:A:C5	24:DB:91:C:H1'	2.49	0.48
26:DE:112:GLY:O	26:DE:159:HIS:HA	2.13	0.48
26:DE:35:GLN:OE1	26:DE:66:HIS:HE1	1.95	0.48
28:DG:73:ALA:HB2	28:DG:88:ILE:HD11	1.95	0.48
35:DR:103:ARG:HH12	35:DR:110:PRO:HD3	1.78	0.48
38:DU:76:TYR:OH	38:DU:92:ARG:NH1	2.47	0.48
43:DZ:111:VAL:O	43:DZ:113:ALA:N	2.46	0.48
1:AA:1394:A:C5	1:AA:1501:C:H4'	2.49	0.48
1:AA:266:G:H5"	1:AA:267:C:H5	1.79	0.48
1:AA:869:G:H4'	1:AA:872:A:O4'	2.14	0.48
2:AB:40:HIS:HB3	2:AB:190:THR:HG21	1.96	0.48
3:AC:11:ARG:NH1	3:AC:11:ARG:HB2	2.28	0.48
4:AD:134:ASP:O	4:AD:136:PRO:HD3	2.14	0.48
7:AG:70:LYS:O	7:AG:72:ARG:HD3	2.14	0.48
23:BA:2098:U:H2'	23:BA:2099:U:O4'	2.12	0.48
23:BA:2273:A:O2'	23:BA:2274:A:H5'	2.13	0.48
23:BA:2311:A:O2'	23:BA:2312:U:O4'	2.25	0.48
28:BG:174:GLU:O	28:BG:177:GLY:N	2.45	0.48
33:BP:38:GLN:O	33:BP:39:LYS:CB	2.62	0.48
40:BW:46:PHE:O	40:BW:50:VAL:HG23	2.13	0.48
43:BZ:111:VAL:O	43:BZ:113:ALA:N	2.47	0.48
43:BZ:144:LEU:HD21	43:BZ:150:LEU:HG	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BQ:7:MET:HE1	43:BZ:193:GLU:CB	2.44	0.48
1:CA:1321:C:H5'	1:CA:1322:C:H5"	1.96	0.48
1:CA:1329:A:H4'	13:CM:24:GLY:HA2	1.96	0.48
1:CA:1349:A:C2	1:CA:1350:A:H1'	2.49	0.48
1:CA:1286:A:H61	1:CA:1355:G:P	2.37	0.48
1:CA:447:G:H2'	1:CA:485:G:N2	2.29	0.48
1:CA:801:U:H2'	1:CA:802:A:C8	2.49	0.48
3:CC:181:ASN:OD1	3:CC:204:LEU:HB2	2.13	0.48
7:CG:85:TYR:CD1	7:CG:154:TYR:HE1	2.32	0.48
16:CP:72:ARG:HG2	16:CP:73:LEU:HD23	1.96	0.48
23:DA:2331:G:H4'	44:D0:43:THR:H	1.79	0.48
53:D9:32:HIS:O	53:D9:34:GLN:HG3	2.13	0.48
23:DA:154:G:H8	23:DA:154:G:H5"	1.79	0.48
23:DA:2162:G:H4'	23:DA:2172:U:O2'	2.14	0.48
23:DA:958:U:H5"	34:DQ:14:ARG:HD3	1.95	0.48
1:AA:1159:U:H3	1:AA:1182:G:H1	1.61	0.48
1:AA:175:C:H2'	1:AA:176:C:H6	1.79	0.48
1:AA:622:A:C8	1:AA:623:C:C6	3.02	0.48
1:AA:715:A:H2'	1:AA:716:A:C8	2.49	0.48
1:AA:762:C:H2'	1:AA:763:G:C8	2.49	0.48
3:AC:125:GLU:HA	3:AC:191:THR:HG22	1.95	0.48
5:AE:59:GLY:O	5:AE:63:ARG:N	2.43	0.48
1:AA:1349:A:H5'	9:AI:120:ARG:HG2	1.96	0.48
9:AI:31:GLN:HG3	9:AI:36:TYR:HB2	1.94	0.48
17:AQ:51:TYR:HE2	17:AQ:76:LEU:HB2	1.79	0.48
50:B6:11:LEU:HB3	50:B6:49:HIS:HB3	1.95	0.48
23:BA:251:A:OP1	52:B8:7:HIS:HE1	1.95	0.48
23:BA:274:G:H2'	23:BA:275:G:C8	2.48	0.48
23:BA:2748:A:OP1	29:BH:70:THR:HG21	2.13	0.48
23:BA:1138:G:H2'	31:BN:106:MET:HE2	1.95	0.48
36:BS:83:LYS:C	36:BS:111:GLU:HG3	2.33	0.48
1:CA:1203:C:H2'	1:CA:1204:A:C8	2.49	0.48
1:CA:176:C:H2'	1:CA:177:C:H6	1.79	0.48
1:CA:433:C:H2'	1:CA:434:U:H6	1.78	0.48
1:CA:441:A:H3'	1:CA:442:C:C6	2.49	0.48
4:CD:101:LEU:HD23	4:CD:121:VAL:HG11	1.94	0.48
5:CE:32:VAL:HB	5:CE:58:ALA:HB1	1.95	0.48
47:D3:8:LEU:HD13	47:D3:31:LEU:HA	1.96	0.48
23:DA:1506:C:C2'	23:DA:1507:A:H5'	2.44	0.48
23:DA:1575:C:H2'	23:DA:1576:U:H6	1.78	0.48
23:DA:2134:A:C2	23:DA:2159:G:H1'	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2378:A:H4'	36:DS:23:ARG:NH1	2.29	0.48
23:DA:2834:G:C8	23:DA:2834:G:H5"	2.49	0.48
36:DS:96:GLY:N	36:DS:99:LYS:H	2.12	0.48
1:AA:1001(A):G:H2'	1:AA:1002:G:H8	1.79	0.48
1:AA:1362:C:H2'	1:AA:1363:C:H5"	1.96	0.48
3:AC:34:LEU:O	3:AC:38:ARG:N	2.34	0.48
9:AI:43:ALA:O	9:AI:46:ALA:N	2.46	0.48
1:AA:1202:G:H1'	14:AN:42:ILE:HG21	1.95	0.48
45:B1:3:LYS:HE3	45:B1:3:LYS:HB3	1.51	0.48
23:BA:1769:G:O2'	23:BA:1958:C:OP1	2.18	0.48
23:BA:2699:C:H2'	23:BA:2700:C:O4'	2.13	0.48
23:BA:271(L):U:C4'	23:BA:271(M):G:OP1	2.61	0.48
23:BA:934:G:H2'	23:BA:935:C:C6	2.48	0.48
24:BB:2:C:H2'	24:BB:3:C:C6	2.48	0.48
33:BP:39:LYS:CB	33:BP:45:LEU:HG	2.37	0.48
24:BB:91:C:OP1	34:BQ:16:ARG:HG2	2.14	0.48
1:CA:1325:C:H5"	21:CU:17:THR:HG21	1.96	0.48
1:CA:148:G:O2'	1:CA:149:A:H5'	2.13	0.48
1:CA:1403:C:H1'	1:CA:1500:A:N1	2.29	0.48
1:CA:77:G:C6	1:CA:93:G:C6	3.02	0.48
1:CA:980:C:H3'	1:CA:981:U:C6	2.49	0.48
3:CC:175:LEU:HG	3:CC:175:LEU:H	1.54	0.48
20:CT:76:ALA:HA	20:CT:79:ARG:NH1	2.29	0.48
48:D4:16:CYS:SG	48:D4:20:ASN:N	2.87	0.48
23:DA:30:G:H2'	23:DA:31:C:C6	2.48	0.48
33:DP:100:LEU:HD12	33:DP:112:LEU:HD11	1.95	0.48
1:AA:1048:G:H5'	1:AA:1215:G:H4'	1.96	0.47
1:AA:1115:C:H1'	14:AN:61:TRP:O	2.13	0.47
1:AA:1313:U:N3	1:AA:1324:A:N6	2.33	0.47
1:AA:1350:A:C2	7:AG:34:GLY:HA3	2.49	0.47
1:AA:1382:C:O2'	1:AA:1383:C:H5'	2.13	0.47
1:AA:1533:C:H41	22:AV:11:ARG:HG3	1.79	0.47
1:AA:192:U:H2'	1:AA:193:C:H6	1.79	0.47
1:AA:31:G:H5'	1:AA:306:G:H21	1.77	0.47
2:AB:71:VAL:N	2:AB:163:PHE:O	2.46	0.47
5:AE:67:VAL:HG21	5:AE:140:ARG:HA	1.96	0.47
7:AG:140:ASP:HA	7:AG:143:ARG:NH2	2.29	0.47
40:BW:19:LEU:O	49:B5:25:LEU:HD12	2.14	0.47
23:BA:1049:C:H2'	23:BA:1050:A:C8	2.48	0.47
23:BA:57:C:H2'	23:BA:58:G:O4'	2.14	0.47
23:BA:855:G:H2'	23:BA:856:C:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BB:28:C:OP1	36:BS:36:TYR:OH	2.30	0.47
26:BE:116:VAL:HG13	26:BE:122:PHE:CG	2.47	0.47
23:BA:2784:C:H1'	26:BE:37:ARG:NH1	2.28	0.47
31:BN:18:ALA:O	31:BN:21:LYS:HB2	2.14	0.47
24:BB:8:U:O3'	36:BS:25:ARG:NH2	2.47	0.47
1:CA:1131:G:N2	1:CA:1143:G:O2'	2.46	0.47
1:CA:1126:U:OP2	1:CA:1281:U:H1'	2.14	0.47
1:CA:202:U:H3'	1:CA:203:U:C5	2.49	0.47
1:CA:589:C:H2'	1:CA:590:C:C6	2.49	0.47
1:CA:949:A:H2	1:CA:971:G:N7	2.12	0.47
7:CG:92:SER:HB3	7:CG:95:ARG:HB3	1.95	0.47
10:CJ:8:LEU:HD22	10:CJ:96:ILE:HG22	1.95	0.47
19:CS:37:ARG:O	19:CS:70:LYS:HE3	2.14	0.47
51:D7:8:ASN:C	51:D7:8:ASN:OD1	2.52	0.47
52:D8:34:TRP:CE2	52:D8:35:GLN:HG3	2.49	0.47
23:DA:1025:G:C4	23:DA:1135:C:H1'	2.49	0.47
23:DA:2610:C:H4'	23:DA:2611:U:OP2	2.14	0.47
23:DA:7:G:H1	23:DA:2896:C:H42	1.62	0.47
23:DA:795:C:H2'	23:DA:796:C:C6	2.49	0.47
24:DB:29:A:H5"	24:DB:30:C:OP2	2.14	0.47
30:DI:14:ASP:N	30:DI:17:GLN:OE1	2.34	0.47
39:DV:62:LEU:HD21	39:DV:95:LEU:HB2	1.95	0.47
1:AA:1068:G:OP2	1:AA:1068:G:H8	1.97	0.47
1:AA:1119:C:N3	1:AA:1154:G:O6	2.47	0.47
1:AA:2:U:H2'	1:AA:3:G:O4'	2.14	0.47
10:AJ:15:THR:HA	10:AJ:18:ALA:H	1.79	0.47
23:BA:1568:G:H5"	25:BD:61:LEU:HD22	1.96	0.47
23:BA:2129:C:N3	23:BA:2160:G:C6	2.83	0.47
23:BA:2304:G:O6	23:BA:2312:U:O4	2.32	0.47
23:BA:2781:A:H5"	23:BA:2782:G:H5'	1.96	0.47
23:BA:524:U:H2'	23:BA:525:U:C6	2.49	0.47
28:BG:47:LYS:HD3	28:BG:81:LYS:CB	2.44	0.47
30:BI:79:ILE:O	30:BI:144:VAL:HA	2.14	0.47
23:BA:751:A:H5'	40:BW:90:ARG:HA	1.97	0.47
1:CA:1081:G:H2'	1:CA:1082:G:O4'	2.14	0.47
5:CE:127:ASN:O	5:CE:131:ILE:HG12	2.14	0.47
7:CG:143:ARG:CZ	7:CG:143:ARG:HB2	2.44	0.47
52:D8:62:LEU:HB3	52:D8:65:GLU:HG2	1.96	0.47
23:DA:271(P):C:H2'	23:DA:271(Q):G:H5'	1.95	0.47
23:DA:649:G:H2'	23:DA:650:C:O4'	2.14	0.47
23:DA:957:A:H5'	34:DQ:76:LYS:HG3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DT:23:ARG:HG3	37:DT:120:ARG:NH1	2.29	0.47
40:DW:83:LYS:O	40:DW:84:ARG:HD3	2.15	0.47
1:AA:1149:C:O2'	1:AA:1280:A:N6	2.47	0.47
1:AA:1332:A:O5'	1:AA:1332:A:H8	1.98	0.47
1:AA:169:C:H5	1:AA:170:U:C4	2.32	0.47
1:AA:938:A:N3	1:AA:1377:A:C8	2.82	0.47
1:AA:952:U:H2'	1:AA:953:G:H8	1.77	0.47
1:AA:991:U:O2	1:AA:993:G:C8	2.67	0.47
4:AD:5:ILE:O	4:AD:5:ILE:HG22	2.14	0.47
8:AH:121:ASP:OD1	8:AH:121:ASP:N	2.48	0.47
9:AI:11:LYS:HA	9:AI:108:VAL:HG12	1.96	0.47
23:BA:1211:U:H4'	23:BA:1212:G:OP2	2.14	0.47
23:BA:2690:C:N4	23:BA:2713:A:H1'	2.28	0.47
39:BV:62:LEU:HD21	39:BV:95:LEU:HB2	1.96	0.47
43:BZ:111:VAL:HG12	43:BZ:112:ARG:H	1.78	0.47
1:CA:1055:A:N1	1:CA:1056:U:H1'	2.29	0.47
1:CA:1244:C:H2'	1:CA:1245:A:H8	1.75	0.47
1:CA:1459:C:C2	1:CA:1460:A:N6	2.83	0.47
1:CA:722:A:O2'	1:CA:723:U:H5"	2.14	0.47
7:CG:104:LEU:HD22	7:CG:134:ALA:HB1	1.97	0.47
7:CG:116:ALA:HA	7:CG:119:ARG:CG	2.44	0.47
23:DA:1405:U:H2'	23:DA:1406:U:H6	1.78	0.47
23:DA:271(L):U:C4'	23:DA:271(M):G:OP1	2.61	0.47
23:DA:359:A:H2'	23:DA:360:G:O4'	2.14	0.47
39:DV:58:VAL:HG12	39:DV:97:LYS:HB2	1.96	0.47
1:AA:1126:U:H1'	1:AA:1280:A:C5	2.50	0.47
1:AA:1276:G:N3	1:AA:1282:C:O2'	2.47	0.47
1:AA:189:G:C6	1:AA:189(A):C:C4	3.02	0.47
1:AA:959:A:H3'	1:AA:960:U:C5'	2.44	0.47
2:AB:87:ARG:NH2	2:AB:233:SER:HB2	2.28	0.47
5:AE:107:ARG:O	5:AE:110:LEU:N	2.47	0.47
11:AK:29:ILE:HG23	11:AK:44:SER:HB3	1.95	0.47
12:AL:84:LEU:HD22	12:AL:85:ILE:H	1.79	0.47
23:BA:1688:U:O2	23:BA:1700:A:H5'	2.14	0.47
23:BA:2286:A:OP1	50:B6:29:ASN:ND2	2.48	0.47
23:BA:2850:A:OP2	23:BA:2866:U:H5	1.97	0.47
23:BA:754:C:H2'	23:BA:755:C:H6	1.78	0.47
26:BE:21:VAL:HA	26:BE:22:PRO:HD2	1.69	0.47
1:CA:1138:G:H3'	1:CA:1138:G:N3	2.30	0.47
1:CA:1273:G:H2'	1:CA:1273:G:N3	2.28	0.47
1:CA:1286:A:H2'	1:CA:1287:A:H4'	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1411:C:H2'	1:CA:1412:C:C6	2.49	0.47
1:CA:203:U:OP2	1:CA:203:U:H3'	2.14	0.47
1:CA:577:G:C8	1:CA:816:A:C6	3.03	0.47
1:CA:715:A:H2'	1:CA:716:A:C8	2.48	0.47
3:CC:131:ARG:NH2	5:CE:50:GLU:OE1	2.45	0.47
1:CA:1128:C:OP1	9:CI:66:ARG:NH2	2.48	0.47
13:CM:92:HIS:CD2	13:CM:98:VAL:HG21	2.50	0.47
20:CT:30:LYS:HA	20:CT:33:ILE:HD12	1.95	0.47
23:DA:1041:C:H5'	23:DA:1042:G:OP2	2.15	0.47
23:DA:1106:G:H4'	23:DA:1107:G:OP2	2.14	0.47
23:DA:1364:G:P	45:D1:3:LYS:HG2	2.54	0.47
23:DA:1486:A:H2'	23:DA:1487:G:C8	2.46	0.47
23:DA:1839:G:C8	23:DA:1927:A:H1'	2.49	0.47
23:DA:2836:U:H2'	23:DA:2837:G:C8	2.49	0.47
26:DE:105:THR:OG1	26:DE:199:ARG:NH2	2.46	0.47
27:DF:32:LEU:HD11	27:DF:105:VAL:HG13	1.96	0.47
34:DQ:84:GLY:O	34:DQ:85:LYS:HB2	2.14	0.47
43:DZ:5:LEU:HD22	43:DZ:6:LYS:H	1.80	0.47
1:AA:1080:A:H5'	5:AE:14:ARG:NH2	2.29	0.47
1:AA:1493:A:H1'	23:BA:1913:A:N1	2.30	0.47
1:AA:393:A:C2	1:AA:394:G:C8	3.03	0.47
1:AA:600:C:H2'	1:AA:601:C:H6	1.79	0.47
1:AA:722:A:O2'	1:AA:723:U:H5"	2.15	0.47
2:AB:102:LEU:O	2:AB:105:PHE:HB2	2.14	0.47
13:AM:87:TYR:O	13:AM:91:ARG:HG2	2.14	0.47
1:AA:742:G:OP1	15:AO:59:MET:HE2	2.14	0.47
16:AP:17:TYR:N	16:AP:17:TYR:CD1	2.81	0.47
48:B4:16:CYS:HB2	48:B4:36:CYS:SG	2.55	0.47
23:BA:1413:G:O6	56:BA:4504:HOH:O	2.19	0.47
23:BA:1418:G:H8	23:BA:1418:G:O5'	1.97	0.47
23:BA:529:A:OP2	31:BN:114:ARG:NH2	2.47	0.47
1:CA:1127:G:H4'	9:CI:66:ARG:HH12	1.79	0.47
1:CA:920:U:H2'	1:CA:921:U:H6	1.79	0.47
3:CC:191:THR:OG1	3:CC:192:THR:N	2.46	0.47
1:CA:547:A:OP2	4:CD:2:GLY:HA2	2.13	0.47
5:CE:76:ILE:HG22	5:CE:93:PRO:HB3	1.97	0.47
7:CG:26:PHE:CD1	7:CG:101:LEU:HB3	2.47	0.47
7:CG:26:PHE:HE1	7:CG:101:LEU:O	1.97	0.47
5:CE:93:PRO:HG2	8:CH:105:ARG:CZ	2.45	0.47
9:CI:113:LYS:HB2	9:CI:119:ALA:HA	1.96	0.47
17:CQ:51:TYR:HE2	17:CQ:76:LEU:HB2	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1223:G:N2	23:DA:1226:A:OP2	2.40	0.47
23:DA:2478:A:H5'	53:D9:31:LYS:HE2	1.96	0.47
23:DA:92:A:C2'	23:DA:93:G:H5'	2.45	0.47
24:DB:111:G:H2'	24:DB:112:U:C6	2.49	0.47
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.49	0.47
1:AA:1442:G:C8	1:AA:1442(A):G:C5	3.02	0.47
2:AB:16:HIS:HA	2:AB:210:SER:OG	2.13	0.47
3:AC:36:ASP:HB3	3:AC:57:ILE:HD12	1.96	0.47
4:AD:107:ARG:O	4:AD:170:VAL:HG11	2.15	0.47
7:AG:105:VAL:HG23	7:AG:120:ILE:HD11	1.96	0.47
11:AK:27:ASN:OD1	11:AK:28:THR:N	2.46	0.47
16:AP:3:LYS:O	16:AP:21:VAL:HA	2.15	0.47
23:BA:1992:G:C2	23:BA:1997:G:C5	3.03	0.47
24:BB:20:C:H2'	24:BB:21:G:O4'	2.14	0.47
1:CA:1065:U:O2'	1:CA:1066:C:OP2	2.21	0.47
1:CA:1290:G:C6	1:CA:1291:G:C6	3.03	0.47
1:CA:1306:A:H2'	1:CA:1307:U:C6	2.49	0.47
1:CA:1396:A:H2	5:CE:19:MET:HG3	1.79	0.47
1:CA:493:G:HO2'	1:CA:494:U:H6	1.60	0.47
1:CA:580:U:H3	1:CA:761:G:H1	1.62	0.47
4:CD:88:VAL:O	4:CD:92:VAL:HG23	2.14	0.47
23:DA:2693:A:H2'	23:DA:2694:G:H8	1.78	0.47
23:DA:362:U:O2'	23:DA:363:G:H5"	2.15	0.47
23:DA:542:C:H2'	23:DA:543:C:H6	1.79	0.47
23:DA:857:C:H1'	44:D0:26:TYR:CE2	2.49	0.47
23:DA:864:G:C6	23:DA:865:C:N4	2.83	0.47
29:DH:33:LEU:HD21	29:DH:136:ILE:HG13	1.96	0.47
32:DO:2:ILE:HD12	32:DO:6:THR:HG21	1.96	0.47
23:DA:1652:A:OP1	35:DR:8:ARG:HD3	2.14	0.47
41:DX:53:LYS:HB3	41:DX:82:GLN:HB3	1.96	0.47
1:AA:1245:A:N6	1:AA:1293:G:N1	2.62	0.47
1:AA:1349:A:H1'	1:AA:1374:A:N6	2.29	0.47
7:AG:46:ALA:HB1	7:AG:121:ALA:HB2	1.96	0.47
1:AA:1291:G:H4'	9:AI:39:GLY:HA3	1.95	0.47
10:AJ:48:THR:HA	10:AJ:62:HIS:CB	2.44	0.47
20:AT:29:LYS:O	20:AT:33:ILE:HG13	2.15	0.47
23:BA:1036:G:H1	23:BA:1119:C:N4	2.10	0.47
23:BA:1041:C:H5'	23:BA:1042:G:OP2	2.14	0.47
23:BA:1796:U:H4'	25:BD:256:GLY:N	2.30	0.47
23:BA:2334:G:O6	44:B0:74:ARG:NH1	2.40	0.47
23:BA:362:U:O2'	23:BA:363:G:H5"	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:90:U:O2'	23:BA:92:A:P	2.71	0.47
24:BB:108:U:H2'	24:BB:109:C:H5"	1.97	0.47
27:BF:108:LYS:O	27:BF:112:MET:HG3	2.14	0.47
32:BO:88:ASN:ND2	32:BO:90:GLN:H	2.12	0.47
36:BS:10:ARG:NH2	36:BS:91:PRO:HB2	2.28	0.47
36:BS:10:ARG:O	36:BS:14:VAL:HG13	2.14	0.47
41:BX:27:THR:HG23	41:BX:80:ILE:HG13	1.97	0.47
1:CA:266:G:H5"	1:CA:267:C:H5	1.79	0.47
1:CA:397:A:N3	1:CA:397:A:H5"	2.29	0.47
1:CA:59:A:H5'	1:CA:60:A:C5'	2.44	0.47
1:CA:745:C:OP1	1:CA:851:G:O2'	2.27	0.47
1:CA:426:G:P	4:CD:36:ARG:NH1	2.87	0.47
1:CA:1373:G:C5'	7:CG:36:LYS:HB2	2.42	0.47
12:CL:57:LYS:HE2	12:CL:67:THR:HG23	1.97	0.47
12:CL:5:PRO:HB2	12:CL:10:LEU:HD11	1.96	0.47
45:D1:82:LEU:HD22	45:D1:90:ILE:HG23	1.97	0.47
23:DA:2884:U:O2	49:D5:53:ALA:HB2	2.15	0.47
23:DA:2016:U:H1'	49:D5:6:VAL:HG13	1.96	0.47
51:D7:16:HIS:HB2	51:D7:44:PRO:HG2	1.97	0.47
52:D8:62:LEU:HB3	52:D8:65:GLU:CG	2.45	0.47
23:DA:2497:A:H5"	56:DA:3635:HOH:O	2.13	0.47
23:DA:458:G:O2'	51:D7:39:ARG:HD3	2.14	0.47
23:DA:819:A:C2'	23:DA:820:A:H5'	2.45	0.47
31:DN:34:LEU:HA	31:DN:34:LEU:HD12	1.73	0.47
1:AA:1039:C:N3	1:AA:1040:U:C4	2.83	0.47
1:AA:999:C:N4	1:AA:1042:G:H1	2.13	0.47
1:AA:1109:C:H2'	1:AA:1110:A:O4'	2.14	0.47
1:AA:1227:A:H3'	1:AA:1228:C:H5"	1.97	0.47
1:AA:978:A:N7	1:AA:1360:A:N6	2.63	0.47
1:AA:1438:G:H2'	1:AA:1439:C:C6	2.49	0.47
1:AA:345:C:C4'	1:AA:346:G:N7	2.78	0.47
1:AA:522:C:OP2	12:AL:69:TYR:OH	2.25	0.47
1:AA:864:A:H2'	1:AA:865:A:C8	2.49	0.47
1:AA:865:A:C2	1:AA:918:A:H4'	2.50	0.47
1:AA:976:G:H2'	1:AA:1359:C:H5'	1.96	0.47
1:AA:405:U:O4	4:AD:2:GLY:N	2.48	0.47
7:AG:73:MET:O	7:AG:142:GLU:HA	2.15	0.47
8:AH:81:HIS:ND1	8:AH:138:TRP:OXT	2.35	0.47
13:AM:108:ARG:HD2	13:AM:112:GLY:O	2.15	0.47
13:AM:5:ALA:HB1	13:AM:66:LEU:HD13	1.96	0.47
14:AN:4:LYS:HD3	14:AN:4:LYS:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AO:63:ARG:HG2	15:AO:67:LEU:HD12	1.95	0.47
50:B6:16:CYS:SG	50:B6:18:ARG:HG3	2.55	0.47
33:BP:63:PRO:HG2	52:B8:25:MET:HB2	1.96	0.47
23:BA:1479:G:O2'	23:BA:1558:A:H5'	2.14	0.47
23:BA:2206:G:H5'	23:BA:2207:G:N7	2.29	0.47
23:BA:2439:A:C8	23:BA:2439:A:H5'	2.50	0.47
23:BA:244:A:C2	23:BA:255:A:C4	3.03	0.47
23:BA:2845:G:O2'	23:BA:2846:G:H5'	2.15	0.47
23:BA:902:C:H2'	23:BA:903:C:C6	2.50	0.47
37:BT:97:ALA:O	37:BT:98:LYS:HD2	2.14	0.47
1:CA:1035:A:H2'	1:CA:1036:G:C8	2.48	0.47
1:CA:1096:C:H2'	1:CA:1097:C:C6	2.47	0.47
1:CA:622:A:OP2	1:CA:623:C:N4	2.47	0.47
1:CA:939:G:H1	1:CA:1344:C:N4	2.12	0.47
3:CC:117:ALA:HB2	3:CC:200:ALA:HB2	1.97	0.47
1:CA:438:G:OP1	4:CD:125:HIS:CE1	2.66	0.47
15:CO:24:SER:O	15:CO:27:VAL:N	2.47	0.47
23:DA:2317:C:H2'	23:DA:2318:G:H5'	1.96	0.47
23:DA:29:U:H2'	23:DA:30:G:C8	2.50	0.47
23:DA:824:A:H1'	23:DA:2358:G:N7	2.29	0.47
23:DA:975(A):G:H1'	23:DA:990:A:C2	2.49	0.47
23:DA:2659:G:P	29:DH:158:HIS:HE2	2.36	0.47
1:AA:1065:U:H5"	1:AA:1066:C:H6	1.79	0.47
1:AA:1138:G:H3'	1:AA:1138:G:N3	2.29	0.47
1:AA:458:C:H2'	1:AA:460:G:C8	2.47	0.47
1:AA:841:U:C2	1:AA:841:U:OP2	2.68	0.47
2:AB:103:THR:HG23	2:AB:176:GLU:HB3	1.97	0.47
2:AB:204:ASN:OD1	2:AB:206:ASP:N	2.47	0.47
3:AC:172:ARG:HH21	3:AC:174:PRO:HG3	1.79	0.47
4:AD:166:LYS:HA	4:AD:178:VAL:HG11	1.97	0.47
5:AE:57:LYS:HB3	5:AE:61:TYR:CE2	2.50	0.47
5:AE:93:PRO:O	8:AH:105:ARG:NH2	2.47	0.47
1:AA:941:G:OP1	7:AG:32:ARG:HD2	2.15	0.47
15:AO:55:GLY:HA2	15:AO:58:MET:HG3	1.97	0.47
16:AP:16:HIS:C	16:AP:17:TYR:HD1	2.18	0.47
20:AT:42:GLN:HA	20:AT:42:GLN:NE2	2.29	0.47
23:BA:1300:U:H4'	23:BA:1301:A:H5"	1.97	0.47
23:BA:1706:U:OP1	56:BA:4153:HOH:O	2.20	0.47
23:BA:2626:C:H2'	23:BA:2627:G:O4'	2.15	0.47
23:BA:2772:C:H2'	23:BA:2773:C:C6	2.50	0.47
23:BA:278:A:H4'	23:BA:279:C:OP1	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BG:16:ARG:NH2	28:BG:28:VAL:O	2.48	0.47
1:CA:1171:G:H2'	1:CA:1172:C:C6	2.50	0.47
1:CA:1236:A:O3'	1:CA:1304:G:H5'	2.13	0.47
1:CA:408:A:H61	1:CA:434:U:H3	1.62	0.47
1:CA:44:G:H2'	1:CA:45:U:O4'	2.15	0.47
1:CA:78:G:N2	1:CA:92:C:O2	2.48	0.47
2:CB:71:VAL:HG13	2:CB:93:VAL:HG23	1.95	0.47
3:CC:9:GLY:HA3	14:CN:49:HIS:ND1	2.30	0.47
4:CD:64:LEU:HD23	4:CD:203:VAL:HG21	1.96	0.47
6:CF:15:ASP:HB2	6:CF:18:GLN:H	1.79	0.47
13:CM:97:PRO:HB3	13:CM:101:GLN:CD	2.36	0.47
15:CO:56:LEU:O	15:CO:60:VAL:HG23	2.15	0.47
19:CS:52:TYR:HD1	19:CS:57:HIS:CD2	2.32	0.47
20:CT:55:ILE:HA	20:CT:55:ILE:HD13	1.77	0.47
20:CT:73:HIS:C	20:CT:74:LYS:HG2	2.36	0.47
23:DA:1329:U:H5"	23:DA:1330:C:H5	1.80	0.47
23:DA:1533:G:H8	23:DA:1533:G:O5'	1.98	0.47
23:DA:1557:C:OP2	23:DA:1558:A:O2'	2.25	0.47
23:DA:2894:G:H2'	23:DA:2894:G:N3	2.30	0.47
25:DD:267:SER:C	25:DD:269:PHE:H	2.18	0.47
29:DH:144:VAL:O	29:DH:148:ILE:HG12	2.14	0.47
1:AA:1224:G:OP1	13:AM:104:ARG:NH1	2.47	0.47
1:AA:1285:A:H1'	1:AA:1286:A:OP2	2.14	0.47
1:AA:1459:C:H2'	1:AA:1460:A:C8	2.50	0.47
1:AA:27:G:H2'	1:AA:28:G:H8	1.79	0.47
1:AA:36:C:O2'	12:AL:117:ARG:NH2	2.48	0.47
1:AA:408:A:H61	1:AA:434:U:H3	1.63	0.47
2:AB:194:PRO:O	2:AB:196:LEU:N	2.48	0.47
9:AI:65:VAL:HG22	9:AI:73:GLN:HG2	1.96	0.47
44:B0:29:GLN:O	44:B0:67:VAL:HG23	2.15	0.47
45:B1:86:SER:OG	45:B1:89:GLU:HG2	2.15	0.47
47:B3:8:LEU:HD13	47:B3:31:LEU:HA	1.96	0.47
23:BA:1021:A:N6	23:BA:1142(A):A:H61	2.12	0.47
23:BA:1239:G:H2'	23:BA:1240:U:O4'	2.14	0.47
23:BA:1510:G:H2'	23:BA:1511:C:C6	2.50	0.47
23:BA:1514:U:H2'	23:BA:1515:G:C8	2.50	0.47
23:BA:1582:C:O2'	23:BA:1586:A:N3	2.47	0.47
23:BA:1815:A:C5	23:BA:1817:G:C6	3.03	0.47
39:BV:21:ARG:HG3	39:BV:93:GLU:HG3	1.96	0.47
41:BX:52:VAL:HG12	41:BX:82:GLN:HG2	1.97	0.47
1:CA:1356:G:H2'	1:CA:1357:A:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1319:A:H2'	19:CS:4:SER:HB2	1.97	0.47
53:D9:8:LYS:O	53:D9:34:GLN:NE2	2.45	0.47
23:DA:143:G:H2'	23:DA:143(A):C:C6	2.50	0.47
1:CA:1493:A:H1'	23:DA:1913:A:C6	2.49	0.47
23:DA:2315:G:C6	23:DA:2316:C:N4	2.83	0.47
23:DA:2337:G:C2	23:DA:2338:G:C8	3.03	0.47
23:DA:720:C:H2'	23:DA:721:C:C6	2.48	0.47
25:DD:26:LYS:HE2	25:DD:28:GLU:O	2.14	0.47
29:DH:40:GLU:OE2	29:DH:60:ARG:NH1	2.48	0.47
36:DS:3:ARG:HG3	36:DS:4:LEU:N	2.24	0.47
38:DU:65:ILE:HD11	38:DU:95:LEU:HB3	1.97	0.47
40:DW:40:ASN:O	40:DW:41:LYS:HG3	2.14	0.47
43:DZ:141:VAL:O	43:DZ:144:LEU:HB2	2.14	0.47
1:AA:106:C:H2'	1:AA:107:G:H8	1.80	0.47
6:AF:91:VAL:HG13	18:AR:72:ARG:HH22	1.80	0.47
9:AI:46:ALA:HB1	9:AI:74:ILE:HG23	1.96	0.47
1:AA:1152:A:H5'	10:AJ:13:HIS:CD2	2.50	0.47
16:AP:28:ARG:NH1	16:AP:29:ASP:OD2	2.47	0.47
21:AU:12:LYS:CB	21:AU:22:ARG:HD2	2.36	0.47
23:BA:1652:A:C2'	23:BA:1653:G:H5'	2.45	0.47
23:BA:1493:C:C4	23:BA:2206:G:H1'	2.50	0.47
23:BA:2734:A:H2'	23:BA:2735:G:O4'	2.15	0.47
27:BF:158:THR:O	27:BF:164:ARG:NH1	2.48	0.47
31:BN:34:LEU:HD12	31:BN:34:LEU:HA	1.72	0.47
1:CA:1015:A:H2'	1:CA:1016:A:O4'	2.15	0.47
1:CA:1347:G:N2	1:CA:1373:G:H2'	2.30	0.47
1:CA:509:A:H5"	4:CD:55:ALA:HB2	1.95	0.47
2:CB:21:ARG:N	2:CB:21:ARG:HD3	2.29	0.47
5:CE:59:GLY:O	5:CE:63:ARG:N	2.42	0.47
13:CM:91:ARG:HG3	13:CM:98:VAL:HA	1.97	0.47
15:CO:25:THR:HG21	15:CO:70:LEU:HB2	1.97	0.47
49:D5:35:GLU:HG3	49:D5:51:TYR:CB	2.45	0.47
23:DA:860:U:C2	23:DA:2268:A:C8	3.03	0.47
23:DA:2287:A:O2'	23:DA:2288:A:H3'	2.15	0.47
23:DA:760:G:H2'	23:DA:761:A:O4'	2.14	0.47
23:DA:811:U:H2'	33:DP:21:ARG:HA	1.96	0.47
24:DB:49:C:OP1	36:DS:97:ARG:HB2	2.15	0.47
27:DF:64:ILE:HD12	27:DF:65:TRP:CZ3	2.50	0.47
27:DF:89:VAL:O	27:DF:91:GLY:N	2.48	0.47
1:AA:105:G:H2'	1:AA:106:C:C6	2.50	0.46
1:AA:1227:A:H8	19:AS:83:HIS:ND1	2.12	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1360:A:H3'	1:AA:1361:G:C8	2.50	0.46
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.14	0.46
1:AA:872:A:C5	1:AA:874:G:C8	3.03	0.46
7:AG:16:LEU:HD13	9:AI:44:VAL:O	2.15	0.46
12:AL:70:ILE:HG23	12:AL:100:ILE:HD12	1.97	0.46
13:AM:52:GLU:HG2	13:AM:55:ARG:NH2	2.30	0.46
1:AA:1308:U:OP1	13:AM:97:PRO:HA	2.16	0.46
21:AU:15:ARG:HD3	21:AU:17:THR:HG22	1.97	0.46
23:BA:1210:A:H4'	23:BA:1211:U:O5'	2.14	0.46
23:BA:529:A:H4'	56:BA:4296:HOH:O	2.14	0.46
23:BA:792:G:H5"	23:BA:793:A:H5'	1.96	0.46
30:BI:140:LEU:HA	30:BI:140:LEU:HD23	1.53	0.46
32:BO:47:ILE:HB	32:BO:48:PRO:HD2	1.97	0.46
1:AA:1442(B):A:C2	37:BT:118:ARG:NE	2.83	0.46
1:CA:1236:A:OP1	21:CU:2:GLY:HA3	2.15	0.46
1:CA:978:A:H5"	1:CA:979:C:OP2	2.14	0.46
4:CD:119:GLN:O	4:CD:123:HIS:CD2	2.69	0.46
4:CD:120:LEU:HB3	4:CD:126:ILE:HD11	1.95	0.46
4:CD:36:ARG:HG2	4:CD:38:TYR:CZ	2.51	0.46
4:CD:36:ARG:HG2	4:CD:38:TYR:OH	2.15	0.46
23:DA:1889:A:H2'	23:DA:1890:A:C8	2.50	0.46
23:DA:1970:A:H4'	23:DA:1971:A:OP1	2.15	0.46
23:DA:307:G:N7	56:DA:3950:HOH:O	2.35	0.46
23:DA:64:A:O3'	41:DX:71:GLY:HA3	2.15	0.46
23:DA:657:U:H2'	23:DA:658:C:C6	2.50	0.46
25:DD:142:VAL:HG23	25:DD:193:VAL:HA	1.97	0.46
25:DD:147:LEU:HD13	25:DD:155:LEU:HD21	1.97	0.46
26:DE:97:LYS:O	26:DE:100:GLU:HG3	2.15	0.46
27:DF:103:LYS:HA	27:DF:106:ARG:HG3	1.97	0.46
37:DT:23:ARG:HG3	37:DT:120:ARG:CZ	2.45	0.46
37:DT:84:GLN:NE2	37:DT:85:LYS:HG2	2.30	0.46
41:DX:26:TYR:CE1	41:DX:89:ILE:HG13	2.50	0.46
43:DZ:30:ASN:HD22	43:DZ:90:VAL:HB	1.79	0.46
1:AA:1099:G:H5'	1:AA:1100:C:OP2	2.15	0.46
1:AA:1493:A:O2'	1:AA:1494:G:O5'	2.28	0.46
1:AA:933:G:C8	7:AG:3:ARG:HD2	2.50	0.46
2:AB:112:VAL:HG12	2:AB:113:HIS:ND1	2.29	0.46
2:AB:149:LEU:HD22	2:AB:152:PHE:CD1	2.50	0.46
2:AB:21:ARG:N	2:AB:21:ARG:HD3	2.30	0.46
2:AB:84:GLU:HA	2:AB:87:ARG:HB3	1.97	0.46
19:AS:57:HIS:ND1	19:AS:57:HIS:N	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:86:CYS:O	19:AS:73:GLU:HB3	2.15	0.46
22:AV:51:ARG:HB3	22:AV:51:ARG:HH11	1.80	0.46
23:BA:2208:A:H1'	23:BA:2219:G:C4	2.50	0.46
23:BA:251:A:C5	23:BA:252:G:H1'	2.49	0.46
23:BA:911:A:H2'	34:BQ:9:TYR:OH	2.15	0.46
25:BD:76:PRO:HB2	25:BD:116:GLN:HE21	1.80	0.46
28:BG:73:ALA:HB2	28:BG:88:ILE:HD11	1.96	0.46
42:BY:32:PRO:O	42:BY:35:TYR:N	2.44	0.46
43:BZ:53:ILE:HG22	43:BZ:71:VAL:O	2.15	0.46
1:CA:1233:G:H2'	1:CA:1234:C:C6	2.50	0.46
1:CA:1252:A:H2'	1:CA:1253:G:O4'	2.16	0.46
1:CA:152:A:N6	1:CA:170:U:H3	2.12	0.46
1:CA:31:G:O2'	1:CA:48:C:N4	2.48	0.46
1:CA:622:A:C8	1:CA:623:C:C6	3.03	0.46
2:CB:134:GLU:O	2:CB:138:LEU:HG	2.14	0.46
3:CC:184:TYR:CE2	3:CC:186:PHE:HB2	2.50	0.46
48:D4:14:ILE:HA	48:D4:31:ILE:O	2.16	0.46
50:D6:11:LEU:HB2	50:D6:21:TYR:HB2	1.97	0.46
23:DA:1180:C:H2'	23:DA:1181:C:H6	1.79	0.46
23:DA:1582:C:O2'	23:DA:1586:A:N3	2.47	0.46
23:DA:278:A:H4'	23:DA:279:C:OP1	2.15	0.46
26:DE:36:ARG:HG2	26:DE:47:VAL:HG22	1.96	0.46
36:DS:49:VAL:HG12	36:DS:73:LEU:HD12	1.96	0.46
1:AA:1237:C:O2'	1:AA:1335:C:H5'	2.15	0.46
1:AA:193:C:H2'	1:AA:194:C:H6	1.78	0.46
1:AA:503:C:H2'	1:AA:504:C:H6	1.79	0.46
1:AA:59:A:H5'	1:AA:60:A:C5'	2.41	0.46
1:AA:745:C:H2'	1:AA:746:A:C8	2.49	0.46
3:AC:130:VAL:HG21	3:AC:158:GLY:N	2.30	0.46
7:AG:37:ASN:ND2	9:AI:39:GLY:O	2.46	0.46
9:AI:23:ASN:N	9:AI:60:ASP:OD1	2.48	0.46
10:AJ:49:VAL:HG23	14:AN:41:ARG:HD2	1.97	0.46
12:AL:124:LYS:HA	12:AL:125:PRO:HD3	1.78	0.46
14:AN:6:LEU:HG	14:AN:23:ARG:HH22	1.78	0.46
15:AO:24:SER:O	15:AO:27:VAL:N	2.46	0.46
23:BA:2146:C:H4'	23:BA:2147:G:C8	2.50	0.46
23:BA:2438:U:O2'	23:BA:2440:C:OP1	2.24	0.46
23:BA:530:G:N1	56:BA:4292:HOH:O	2.25	0.46
23:BA:83:G:OP1	42:BY:95:LYS:NZ	2.48	0.46
25:BD:242:ARG:HD3	25:BD:242:ARG:N	2.30	0.46
23:BA:1816:G:N1	25:BD:35:LYS:HD3	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BP:84:ASN:HB3	33:BP:117:GLU:O	2.16	0.46
43:BZ:144:LEU:CD2	43:BZ:150:LEU:HG	2.45	0.46
1:CA:937:A:H1'	1:CA:1379:G:H22	1.81	0.46
1:CA:1459:C:C4	1:CA:1460:A:N6	2.73	0.46
1:CA:509:A:H8	1:CA:509:A:H3'	1.80	0.46
1:CA:662:G:O2'	1:CA:836:G:OP1	2.32	0.46
2:CB:113:HIS:O	2:CB:117:GLU:HG3	2.16	0.46
6:CF:8:ILE:HD12	6:CF:26:ILE:HD13	1.97	0.46
44:D0:72:ARG:HB2	44:D0:75:LEU:HB2	1.98	0.46
50:D6:21:TYR:CE2	50:D6:38:LYS:HG2	2.51	0.46
23:DA:1494:A:C6	23:DA:1495:A:C6	3.04	0.46
23:DA:1568:G:H5"	25:DD:61:LEU:HD22	1.96	0.46
23:DA:2106:G:N1	23:DA:2107:C:O2	2.48	0.46
23:DA:955:C:OP1	34:DQ:87:LYS:HE2	2.14	0.46
25:DD:101:GLU:OE1	25:DD:103:ARG:HD3	2.15	0.46
28:DG:145:THR:HG23	28:DG:148:MET:SD	2.55	0.46
31:DN:111:PRO:HA	31:DN:114:ARG:NH1	2.30	0.46
39:DV:99:ILE:HG22	39:DV:101:GLY:H	1.80	0.46
40:DW:86:LEU:HD22	40:DW:96:ILE:HD11	1.96	0.46
1:AA:1099:G:N3	1:AA:1099:G:H2'	2.31	0.46
1:AA:1503:A:C8	1:AA:1531:A:H1'	2.51	0.46
1:AA:76:C:H3'	1:AA:77:G:H5"	1.98	0.46
1:AA:946:A:O2'	1:AA:1333:A:H1'	2.15	0.46
1:AA:951:G:O6	1:AA:1230:C:N3	2.49	0.46
3:AC:134:ILE:HG12	3:AC:153:VAL:HG21	1.98	0.46
3:AC:156:ARG:HD3	3:AC:193:TYR:HD1	1.81	0.46
3:AC:58:GLU:O	3:AC:59:ARG:HG3	2.15	0.46
10:AJ:32:ALA:HA	10:AJ:33:GLN:HA	1.67	0.46
18:AR:66:LEU:O	18:AR:70:ILE:HG13	2.15	0.46
23:BA:1810:A:H2'	23:BA:1811:G:O4'	2.14	0.46
23:BA:2772:C:H2'	23:BA:2773:C:H6	1.80	0.46
26:BE:71:GLY:HA2	26:BE:72:VAL:O	2.16	0.46
36:BS:80:LEU:HA	36:BS:80:LEU:HD12	1.72	0.46
36:BS:96:GLY:HA3	36:BS:98:VAL:N	2.31	0.46
42:BY:35:TYR:CE2	42:BY:69:ALA:HB3	2.50	0.46
1:CA:865:A:H5'	1:CA:1078:U:O4	2.15	0.46
1:CA:1085:U:H3'	1:CA:1086:U:H5	1.80	0.46
1:CA:1459:C:H2'	1:CA:1460:A:C8	2.50	0.46
5:CE:137:GLU:O	5:CE:141:GLN:HG3	2.15	0.46
1:CA:376:G:P	16:CP:67:THR:HG21	2.55	0.46
23:DA:1021:A:N6	23:DA:1142(A):A:H61	2.13	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2238:G:H2'	23:DA:2238:G:N3	2.30	0.46
23:DA:2275:C:H5'	23:DA:2275:C:H6	1.80	0.46
23:DA:415:A:H2'	23:DA:416:C:C6	2.50	0.46
23:DA:492:A:H2'	23:DA:493:G:O4'	2.15	0.46
24:DB:8:U:OP1	36:DS:11:LYS:NZ	2.41	0.46
25:DD:68:LYS:O	25:DD:70:TRP:CD1	2.69	0.46
32:DO:47:ILE:HB	32:DO:48:PRO:HD2	1.97	0.46
1:AA:1237:C:OP1	1:AA:1303:C:O2'	2.33	0.46
1:AA:1238:A:H3'	1:AA:1239:A:H8	1.80	0.46
1:AA:1313:U:C2	1:AA:1324:A:N1	2.83	0.46
1:AA:1306:A:H1'	1:AA:1332:A:C2	2.50	0.46
1:AA:1349:A:C8	1:AA:1373:G:N2	2.77	0.46
1:AA:530:G:H3'	1:AA:530:G:OP1	2.15	0.46
1:AA:60:A:H8	1:AA:60:A:OP1	1.98	0.46
1:AA:662:G:O2'	1:AA:836:G:OP1	2.33	0.46
1:AA:791:G:C6	1:AA:792:A:N7	2.84	0.46
1:AA:986:A:C6	1:AA:1220:G:N1	2.84	0.46
3:AC:134:ILE:HG13	3:AC:134:ILE:H	1.42	0.46
3:AC:35:GLU:OE2	3:AC:59:ARG:NH2	2.48	0.46
4:AD:200:GLU:OE2	4:AD:200:GLU:N	2.49	0.46
6:AF:67:MET:HB2	6:AF:68:PRO:HD2	1.98	0.46
6:AF:8:ILE:HD12	6:AF:26:ILE:HD13	1.96	0.46
1:AA:36:C:H4'	12:AL:122:THR:O	2.16	0.46
12:AL:42:THR:OG1	12:AL:52:LEU:HD12	2.14	0.46
23:BA:2427:C:H5"	23:BA:2428:G:OP1	2.15	0.46
23:BA:2820:A:OP1	35:BR:4:LEU:HD23	2.15	0.46
23:BA:2833:G:H3'	23:BA:2834:G:H5"	1.97	0.46
27:BF:89:VAL:O	27:BF:90:PHE:C	2.54	0.46
28:BG:60:LEU:O	28:BG:64:THR:N	2.38	0.46
29:BH:43:VAL:HG22	29:BH:52:VAL:HG22	1.98	0.46
1:CA:115:G:H4'	1:CA:116:A:O5'	2.15	0.46
1:CA:1369:C:OP2	9:CI:112:LYS:N	2.37	0.46
1:CA:186:C:H2'	1:CA:187:C:H6	1.79	0.46
1:CA:517:G:N2	1:CA:531:U:H5'	2.31	0.46
1:CA:719:C:H5	1:CA:720:C:C4	2.33	0.46
1:CA:79:G:H2'	1:CA:80:G:C8	2.50	0.46
2:CB:75:LYS:HE3	2:CB:78:GLN:OE1	2.16	0.46
8:CH:120:THR:H	8:CH:123:GLU:HB2	1.80	0.46
12:CL:102:ARG:HE	12:CL:102:ARG:HB3	1.44	0.46
13:CM:23:TYR:HE1	13:CM:70:LEU:HD21	1.79	0.46
16:CP:28:ARG:HG2	16:CP:29:ASP:OD2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:79:ARG:HD2	20:CT:83:ARG:HH21	1.80	0.46
45:D1:3:LYS:HE3	45:D1:3:LYS:HB3	1.52	0.46
23:DA:1171:G:H1	23:DA:1178:C:H42	1.63	0.46
23:DA:919:G:N2	23:DA:2269:A:OP2	2.45	0.46
23:DA:2286:A:H4'	23:DA:2287:A:O4'	2.15	0.46
23:DA:272(J):C:H2'	23:DA:274:G:O4'	2.15	0.46
23:DA:322:A:H5'	23:DA:340:A:H1'	1.96	0.46
24:DB:65:C:N4	24:DB:109:C:C2	2.83	0.46
26:DE:111:ARG:HB3	35:DR:1:MET:HE2	1.97	0.46
26:DE:115:GLY:O	26:DE:119:ARG:HB2	2.15	0.46
30:DI:61:ARG:HA	30:DI:61:ARG:HH11	1.81	0.46
36:DS:83:LYS:C	36:DS:111:GLU:HG3	2.36	0.46
36:DS:96:GLY:H	36:DS:99:LYS:H	1.63	0.46
43:DZ:111:VAL:C	43:DZ:113:ALA:N	2.68	0.46
1:AA:1027:C:H5	1:AA:1029:C:N3	2.13	0.46
1:AA:1143:G:H2'	1:AA:1144:G:C8	2.50	0.46
1:AA:1238:A:C2	1:AA:1303:C:H4'	2.51	0.46
1:AA:502:G:P	12:AL:116:SER:HA	2.56	0.46
1:AA:945:G:H2'	1:AA:945:G:N3	2.31	0.46
13:AM:88:ARG:O	13:AM:91:ARG:HB2	2.16	0.46
16:AP:59:TRP:O	16:AP:63:GLY:N	2.49	0.46
17:AQ:81:ARG:HD2	17:AQ:81:ARG:HA	1.63	0.46
1:AA:986:A:H1'	19:AS:55:LYS:HA	1.96	0.46
44:B0:26:TYR:O	44:B0:29:GLN:HB2	2.15	0.46
50:B6:34:LEU:HD22	50:B6:36:LEU:HD11	1.98	0.46
23:BA:1425:G:H2'	23:BA:1426:G:O4'	2.16	0.46
23:BA:2262:U:O2'	23:BA:2263:C:H5'	2.15	0.46
23:BA:2302:G:C6	23:BA:2315:G:C6	3.04	0.46
24:BB:14:U:OP2	24:BB:70:C:O2'	2.30	0.46
29:BH:33:LEU:HD21	29:BH:136:ILE:HG13	1.98	0.46
36:BS:11:LYS:HG3	36:BS:91:PRO:HD3	1.96	0.46
41:BX:5:TYR:HD1	46:B2:33:MET:HE2	1.81	0.46
42:BY:99:CYS:SG	42:BY:102:CYS:N	2.88	0.46
1:CA:1184:G:H2'	1:CA:1184:G:N3	2.30	0.46
1:CA:1246:C:H2'	1:CA:1247:U:O4'	2.15	0.46
1:CA:1273:G:H5'	1:CA:1274:G:OP2	2.16	0.46
1:CA:1512:U:H2'	1:CA:1513:A:C8	2.50	0.46
1:CA:544:G:C2	1:CA:545:C:C2	3.04	0.46
1:CA:745:C:H2'	1:CA:746:A:H8	1.80	0.46
1:CA:93:G:H1'	1:CA:96:U:H5'	1.97	0.46
2:CB:149:LEU:HD22	2:CB:152:PHE:CD1	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:87:VAL:HG11	7:CG:155:ARG:HB2	1.96	0.46
9:CI:49:PRO:HG3	9:CI:101:PHE:CG	2.51	0.46
10:CJ:34:VAL:HG12	10:CJ:74:ILE:HA	1.97	0.46
11:CK:122:LYS:HE2	11:CK:122:LYS:HB3	1.68	0.46
15:CO:63:ARG:HG2	15:CO:67:LEU:HD12	1.97	0.46
44:D0:24:LYS:O	44:D0:25:ARG:HD3	2.16	0.46
23:DA:1202:C:N4	23:DA:1203:G:C6	2.83	0.46
23:DA:2615:U:C2	49:D5:7:PRO:HA	2.51	0.46
23:DA:469:G:H2'	23:DA:470:A:H5"	1.96	0.46
26:DE:52:LEU:O	26:DE:75:VAL:HG22	2.16	0.46
27:DF:127:GLU:HA	27:DF:196:LEU:HD12	1.97	0.46
28:DG:16:ARG:NH2	28:DG:28:VAL:O	2.48	0.46
41:DX:57:LEU:HD21	41:DX:78:LYS:HE2	1.97	0.46
1:AA:1154:G:C2	1:AA:1155:G:C4	3.04	0.46
1:AA:1250:A:C6	1:AA:1251:A:C6	3.04	0.46
1:AA:17:U:H2'	1:AA:18:C:H6	1.77	0.46
1:AA:203:U:OP2	1:AA:203:U:H3'	2.15	0.46
2:AB:75:LYS:HA	2:AB:78:GLN:HB2	1.97	0.46
5:AE:93:PRO:HG2	8:AH:105:ARG:CZ	2.44	0.46
9:AI:9:ARG:HB3	9:AI:104:ARG:NH2	2.29	0.46
20:AT:63:ILE:HD13	20:AT:80:ARG:HB3	1.98	0.46
20:AT:66:ALA:HB3	20:AT:72:LEU:HD22	1.98	0.46
46:B2:69:ARG:O	46:B2:70:GLN:HB2	2.15	0.46
23:BA:125:G:C6	51:B7:10:ARG:HG3	2.51	0.46
23:BA:2191:G:H3'	23:BA:2192:G:H8	1.81	0.46
23:BA:2832:U:OP2	56:BA:4214:HOH:O	2.20	0.46
23:BA:322:A:H5'	23:BA:340:A:H1'	1.97	0.46
23:BA:479:A:N3	23:BA:481:G:H5"	2.30	0.46
23:BA:723:G:H2'	23:BA:724:U:O4'	2.16	0.46
23:BA:950:G:C6	23:BA:951:C:C4	3.04	0.46
26:BE:201:THR:OG1	26:BE:202:LYS:N	2.49	0.46
31:BN:128:HIS:HA	31:BN:129:PRO:HD2	1.62	0.46
23:BA:910:A:C5	34:BQ:13:GLN:HG3	2.51	0.46
43:BZ:5:LEU:O	43:BZ:59:LEU:HA	2.16	0.46
1:CA:1122:U:O4	1:CA:1123:A:N6	2.47	0.46
1:CA:373:A:N3	1:CA:481:G:N2	2.51	0.46
1:CA:658:G:H2'	1:CA:659:U:H6	1.81	0.46
4:CD:104:VAL:HA	4:CD:107:ARG:HB2	1.97	0.46
9:CI:33:PHE:O	9:CI:37:PHE:HB2	2.16	0.46
1:CA:1060:C:OP1	10:CJ:51:ARG:NH1	2.48	0.46
23:DA:1418:G:O5'	23:DA:1418:G:H8	1.99	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DD:69:ARG:NH2	25:DD:128:GLY:O	2.38	0.46
23:DA:2636:U:H4'	26:DE:80:GLU:OE2	2.16	0.46
27:DF:178:PRO:HG2	27:DF:179:GLU:OE1	2.15	0.46
32:DO:68:GLU:HB3	32:DO:78:ARG:HD3	1.98	0.46
37:DT:118:ARG:HG3	37:DT:118:ARG:HH11	1.80	0.46
1:AA:1042:G:C8	1:AA:1042:G:OP2	2.67	0.46
1:AA:1305:G:O2'	1:AA:1306:A:OP2	2.28	0.46
1:AA:945:G:N7	1:AA:1337:G:H1'	2.30	0.46
1:AA:1458:G:H5'	20:AT:31:SER:CB	2.46	0.46
1:AA:719:C:H5	1:AA:720:C:C4	2.34	0.46
1:AA:730:G:C5	1:AA:731:G:H1'	2.50	0.46
3:AC:152:ILE:HG13	3:AC:201:TYR:HE1	1.81	0.46
12:AL:41:ARG:HH12	12:AL:57:LYS:HE3	1.81	0.46
15:AO:74:ASP:HA	15:AO:75:PRO:HD2	1.79	0.46
18:AR:52:PRO:O	18:AR:56:THR:HG23	2.16	0.46
23:BA:330:A:H2	23:BA:1210:A:HO2'	1.63	0.46
23:BA:1338:G:O2'	23:BA:1393:A:N1	2.44	0.46
23:BA:1529:G:C6	23:BA:1530:C:C4	3.03	0.46
23:BA:1827:C:H5'	23:BA:1971:A:H4'	1.98	0.46
23:BA:2123:G:H1	23:BA:2175:C:N4	2.14	0.46
23:BA:2141:G:C6	23:BA:2151:G:C6	3.03	0.46
23:BA:323:G:C8	27:BF:171:PRO:HG3	2.51	0.46
23:BA:92:A:C2'	23:BA:93:G:H5'	2.45	0.46
25:BD:118:VAL:HG22	25:BD:119:ALA:N	2.31	0.46
30:BI:123:LEU:HD23	30:BI:123:LEU:H	1.80	0.46
34:BQ:57:HIS:HD2	34:BQ:117:ALA:HB2	1.80	0.46
1:CA:1236:A:H2'	1:CA:1237:C:C6	2.51	0.46
1:CA:344:A:H3'	1:CA:346:G:O6	2.16	0.46
1:CA:353:A:C8	1:CA:353:A:H5'	2.42	0.46
1:CA:479:C:H2'	1:CA:480:U:H6	1.80	0.46
1:CA:658:G:C4	1:CA:659:U:C5	3.04	0.46
1:CA:1360:A:C8	14:CN:18:VAL:HG22	2.50	0.46
23:DA:2285:C:OP2	50:D6:6:ARG:NH1	2.47	0.46
23:DA:234:C:H2'	23:DA:235:U:H6	1.81	0.46
23:DA:2818:G:O2'	23:DA:2819:G:H5'	2.16	0.46
23:DA:2850:A:OP2	23:DA:2866:U:H5	1.98	0.46
25:DD:38:LYS:HD2	25:DD:39:LYS:N	2.30	0.46
27:DF:133:ASN:HA	27:DF:162:LEU:HD23	1.98	0.46
23:DA:2748:A:OP1	29:DH:70:THR:HG21	2.16	0.46
34:DQ:16:ARG:O	34:DQ:17:LEU:HD23	2.15	0.46
1:AA:1127:G:H1'	1:AA:1148:U:N3	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1165:C:N4	1:AA:1166:G:C6	2.84	0.46
1:AA:1459:C:C2	1:AA:1460:A:N6	2.84	0.46
1:AA:116:A:H61	1:AA:313:A:H1'	1.81	0.46
1:AA:509:A:H3'	1:AA:509:A:H8	1.80	0.46
1:AA:558:G:H5"	1:AA:559:A:P	2.55	0.46
1:AA:623:C:H2'	1:AA:624:C:C6	2.48	0.46
1:AA:745:C:H2'	1:AA:746:A:H8	1.80	0.46
1:AA:955:U:H3	1:AA:1225:A:N6	2.09	0.46
4:AD:59:ARG:HH22	4:AD:66:ARG:NH1	2.13	0.46
6:AF:25:ILE:CD1	6:AF:82:ARG:HE	2.28	0.46
8:AH:40:ALA:HA	8:AH:45:ILE:HG13	1.96	0.46
9:AI:71:SER:O	9:AI:74:ILE:HB	2.16	0.46
23:BA:1779:U:C5	23:BA:1784:A:N7	2.64	0.46
23:BA:196:A:H2'	23:BA:196:A:N3	2.31	0.46
23:BA:241:A:O4'	23:BA:243:U:C6	2.69	0.46
23:BA:686:G:O6	51:B7:12:ARG:HD2	2.16	0.46
29:BH:94:TYR:CE2	29:BH:107:VAL:HB	2.50	0.46
29:BH:56:SER:OG	29:BH:57:ASP:N	2.49	0.46
36:BS:24:LEU:HA	36:BS:24:LEU:HD23	1.77	0.46
43:BZ:5:LEU:HD22	43:BZ:6:LYS:H	1.81	0.46
1:CA:1007:C:H2'	1:CA:1008:C:C6	2.51	0.46
1:CA:980:C:H3'	1:CA:981:U:H6	1.81	0.46
4:CD:111:ALA:HB1	4:CD:116:GLN:HG2	1.98	0.46
7:CG:36:LYS:HA	7:CG:36:LYS:HD3	1.80	0.46
1:CA:626:U:H5"	16:CP:38:TYR:CG	2.51	0.46
18:CR:31:LEU:CD2	18:CR:31:LEU:H	2.29	0.46
19:CS:36:ARG:HB3	19:CS:72:GLY:HA3	1.98	0.46
47:D3:4:LEU:N	47:D3:37:LEU:O	2.45	0.46
23:DA:128:C:H2'	23:DA:129:C:H6	1.80	0.46
23:DA:1721:G:N1	23:DA:1739:U:OP2	2.49	0.46
23:DA:2142:C:N3	23:DA:2149:G:O6	2.49	0.46
23:DA:271(R):G:H2'	23:DA:271(S):G:C8	2.49	0.46
23:DA:2747:G:O6	23:DA:2755:C:H5"	2.16	0.46
23:DA:2867:G:OP2	37:DT:119:LYS:NZ	2.41	0.46
23:DA:708:C:H5'	23:DA:709:U:OP2	2.16	0.46
23:DA:901:A:H2'	23:DA:902:C:C6	2.51	0.46
23:DA:923:C:C4'	44:D0:29:GLN:HE21	2.28	0.46
30:DI:124:GLY:N	30:DI:144:VAL:HG13	2.31	0.46
30:DI:97:ILE:O	30:DI:100:ALA:HB3	2.16	0.46
37:DT:11:GLU:O	37:DT:15:VAL:HG23	2.16	0.46
1:AA:1027:C:C2	1:AA:1034:G:N2	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1179:A:HO2'	1:AA:1180:A:C5'	2.28	0.46
1:AA:11:G:C5	1:AA:12:U:C5	3.03	0.46
1:AA:165:C:H2'	1:AA:166:G:H8	1.81	0.46
1:AA:673:G:O3'	6:AF:87:ARG:NH2	2.49	0.46
1:AA:937:A:H2'	1:AA:938:A:H5'	1.98	0.46
2:AB:42:ILE:HD13	2:AB:203:GLY:HA2	1.98	0.46
2:AB:73:THR:HG21	2:AB:95:GLN:O	2.16	0.46
6:AF:27:GLN:HA	6:AF:30:LEU:HD12	1.98	0.46
1:AA:1291:G:H5"	7:AG:41:ARG:NH2	2.31	0.46
40:BW:41:LYS:HE3	49:B5:25:LEU:HD21	1.96	0.46
24:BB:117:G:H2'	24:BB:118:G:O4'	2.16	0.46
43:BZ:45:ASP:O	43:BZ:49:ARG:HG3	2.16	0.46
1:CA:1250:A:H4'	9:CI:67:GLY:HA2	1.96	0.46
1:CA:1531:A:H2'	1:CA:1532:U:O4'	2.16	0.46
1:CA:589:C:H2'	1:CA:590:C:H6	1.81	0.46
1:CA:599:C:H5"	8:CH:95:VAL:O	2.15	0.46
2:CB:73:THR:HG21	2:CB:95:GLN:O	2.16	0.46
4:CD:26:CYS:HA	4:CD:31:CYS:HB2	1.98	0.46
23:DA:1108:U:O2'	23:DA:1109:C:O4'	2.34	0.46
23:DA:1815:A:C5	23:DA:1817:G:C6	3.04	0.46
23:DA:2345:G:N3	23:DA:2381:C:H2'	2.31	0.46
23:DA:646:A:N3	23:DA:646:A:H5'	2.31	0.46
23:DA:655:A:H8	23:DA:656:G:O4'	1.98	0.46
23:DA:2784:C:H1'	26:DE:37:ARG:NH1	2.30	0.46
26:DE:60:ASN:OD1	26:DE:62:PRO:HD2	2.15	0.46
29:DH:5:GLY:HA2	29:DH:69:ARG:HB3	1.97	0.46
34:DQ:35:VAL:HG13	34:DQ:130:LYS:HB3	1.98	0.46
1:AA:1346:A:N6	1:AA:1374:A:C8	2.84	0.45
1:AA:394:G:H2'	1:AA:395:C:H6	1.81	0.45
1:AA:433:C:H2'	1:AA:434:U:H6	1.81	0.45
1:AA:493:G:HO2'	1:AA:494:U:H6	1.63	0.45
1:AA:655:A:C2	1:AA:656:C:C2	3.05	0.45
1:AA:932:C:H5'	7:AG:4:ARG:NE	2.28	0.45
1:AA:948:C:OP2	13:AM:106:ASN:HB3	2.16	0.45
3:AC:150:LYS:HA	3:AC:169:ALA:HB2	1.98	0.45
7:AG:137:LYS:O	7:AG:141:VAL:HB	2.16	0.45
1:AA:1240:U:C4	7:AG:32:ARG:NH2	2.84	0.45
1:AA:1377:A:H2'	7:AG:7:ALA:CB	2.46	0.45
9:AI:5:TYR:CE1	9:AI:16:ARG:HG2	2.45	0.45
9:AI:7:THR:HG23	9:AI:14:VAL:HG13	1.97	0.45
15:AO:39:LEU:HD13	15:AO:56:LEU:HB2	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:B7:16:HIS:HB2	51:B7:44:PRO:HG2	1.98	0.45
52:B8:62:LEU:HB3	52:B8:65:GLU:HG2	1.97	0.45
23:BA:1429:G:H2'	23:BA:1430:C:C6	2.50	0.45
23:BA:2294:C:OP1	36:BS:89:ARG:NH1	2.41	0.45
23:BA:2313:C:H5"	28:BG:91:ARG:HG3	1.98	0.45
23:BA:271(S):G:C6	23:BA:271(T):C:C4	3.05	0.45
23:BA:588:U:H1'	27:BF:90:PHE:HB3	1.97	0.45
27:BF:7:TYR:N	27:BF:22:ALA:HB3	2.29	0.45
29:BH:20:ALA:HB1	29:BH:21:PRO:HD2	1.97	0.45
1:CA:1227:A:OP2	13:CM:111:LYS:HG2	2.16	0.45
1:CA:511:C:N3	1:CA:540:G:N2	2.54	0.45
1:CA:791:G:C6	1:CA:792:A:N7	2.83	0.45
2:CB:47:THR:O	2:CB:51:LEU:HB2	2.16	0.45
4:CD:25:ARG:HG2	4:CD:25:ARG:O	2.16	0.45
5:CE:133:TYR:O	5:CE:137:GLU:HB2	2.15	0.45
5:CE:151:LEU:HB3	8:CH:79:VAL:HG22	1.98	0.45
8:CH:86:ILE:HG21	8:CH:133:LEU:HD22	1.98	0.45
12:CL:60:LEU:HD22	12:CL:60:LEU:H	1.80	0.45
23:DA:1364:G:OP2	45:D1:3:LYS:HG2	2.16	0.45
45:D1:60:PHE:N	45:D1:60:PHE:CD2	2.84	0.45
52:D8:9:GLY:O	52:D8:13:ARG:HG3	2.16	0.45
52:D8:61:LEU:C	52:D8:63:PRO:HD3	2.36	0.45
23:DA:1026:U:O2'	23:DA:1027:A:H8	2.00	0.45
23:DA:1027:A:N6	23:DA:1126:A:C4	2.84	0.45
23:DA:1204:A:H61	23:DA:1240:U:H2'	1.81	0.45
23:DA:1922:G:H2'	23:DA:1923:U:O4'	2.16	0.45
23:DA:2250:G:N2	34:DQ:84:GLY:HA3	2.31	0.45
23:DA:2512:C:H4'	26:DE:122:PHE:CE2	2.51	0.45
23:DA:2626:C:H2'	23:DA:2627:G:O4'	2.15	0.45
23:DA:2716:U:O2'	23:DA:2717:G:H5'	2.16	0.45
23:DA:2760:C:C2'	23:DA:2761:G:H5"	2.44	0.45
24:DB:50:G:H5"	36:DS:61:ASN:HD21	1.81	0.45
28:DG:102:PHE:CE2	28:DG:141:PHE:HE1	2.33	0.45
28:DG:63:ILE:HD13	28:DG:155:MET:HE1	1.98	0.45
23:DA:2406:U:C4	33:DP:72:PRO:HD2	2.51	0.45
39:DV:52:VAL:HG22	39:DV:55:ALA:HB3	1.97	0.45
1:AA:956:U:C2	1:AA:1225:A:C2	3.04	0.45
1:AA:1300:G:H4'	1:AA:1301:U:O5'	2.16	0.45
1:AA:1306:A:H2'	1:AA:1307:U:C6	2.51	0.45
1:AA:441:A:H3'	1:AA:442:C:C6	2.51	0.45
1:AA:499:A:H4'	1:AA:500:G:OP1	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:205:GLU:OE1	5:AE:100:VAL:HB	2.16	0.45
5:AE:78:HIS:CE1	5:AE:142:LEU:HD23	2.51	0.45
7:AG:69:VAL:HG21	7:AG:134:ALA:HB1	1.98	0.45
9:AI:71:SER:HA	9:AI:74:ILE:HB	1.99	0.45
19:AS:29:ARG:HA	19:AS:47:HIS:HB3	1.98	0.45
52:B8:29:LYS:HG2	52:B8:44:LYS:HB3	1.98	0.45
23:BA:1141:U:H4'	23:BA:1142(A):A:O4'	2.16	0.45
26:BE:116:VAL:HG13	26:BE:122:PHE:HB2	1.98	0.45
28:BG:137:GLU:HG3	28:BG:152:LEU:HD21	1.98	0.45
23:BA:2312:U:H5'	28:BG:88:ILE:HD12	1.97	0.45
30:BI:133:HIS:ND1	30:BI:134:PRO:O	2.43	0.45
31:BN:99:LEU:O	31:BN:103:VAL:HG23	2.16	0.45
31:BN:112:LEU:O	31:BN:115:ARG:N	2.46	0.45
43:BZ:128:VAL:HG22	43:BZ:161:VAL:H	1.81	0.45
43:BZ:24:LEU:HB2	43:BZ:41:LEU:HD23	1.98	0.45
1:CA:1067:A:O2'	1:CA:1068:G:OP2	2.26	0.45
1:CA:1347:G:H8	9:CI:107:ARG:CB	2.26	0.45
1:CA:475:G:H2'	1:CA:476:G:C8	2.49	0.45
1:CA:623:C:H2'	1:CA:624:C:C6	2.48	0.45
1:CA:674:G:H2'	1:CA:675:A:C8	2.47	0.45
1:CA:874:G:C6	1:CA:875:C:C4	3.04	0.45
2:CB:187:LEU:HA	2:CB:201:ILE:HB	1.98	0.45
3:CC:150:LYS:HB3	3:CC:150:LYS:NZ	2.31	0.45
3:CC:23:TYR:OH	3:CC:25:GLY:HA3	2.17	0.45
4:CD:59:ARG:HA	4:CD:59:ARG:HH11	1.81	0.45
6:CF:33:TYR:HB2	6:CF:75:LEU:HD12	1.97	0.45
7:CG:112:PRO:O	7:CG:119:ARG:HD3	2.16	0.45
23:DA:1536:C:O2'	23:DA:1537:G:O5'	2.28	0.45
23:DA:195:A:H4'	23:DA:251:A:O2'	2.17	0.45
23:DA:241:A:O4'	23:DA:243:U:C6	2.70	0.45
23:DA:861:A:N3	24:DB:79:C:O2'	2.47	0.45
34:DQ:12:GLN:HG2	34:DQ:73:PRO:HD2	1.97	0.45
36:DS:65:VAL:O	36:DS:69:VAL:HG12	2.16	0.45
1:AA:1297:C:OP2	13:AM:14:ARG:HD3	2.16	0.45
1:AA:1317:C:OP1	14:AN:17:LYS:HG3	2.16	0.45
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.51	0.45
1:AA:519:C:H2'	1:AA:520:A:H8	1.80	0.45
2:AB:58:ILE:H	2:AB:58:ILE:HG13	1.43	0.45
3:AC:56:ASP:O	3:AC:67:THR:N	2.39	0.45
5:AE:127:ASN:HA	5:AE:128:PRO:HD3	1.77	0.45
8:AH:6:ILE:HB	8:AH:85:ARG:NH1	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:21:ILE:HA	11:AK:30:VAL:HG12	1.97	0.45
11:AK:48:ILE:HG12	11:AK:48:ILE:O	2.16	0.45
1:AA:1369:C:OP1	14:AN:61:TRP:NE1	2.49	0.45
47:B3:4:LEU:O	47:B3:36:VAL:HA	2.15	0.45
23:BA:1877:A:H5'	23:BA:1878:G:OP2	2.17	0.45
23:BA:2170:A:OP2	23:BA:2170:A:H8	1.99	0.45
23:BA:836:G:H5"	23:BA:837:C:OP2	2.17	0.45
23:BA:916:G:O2'	23:BA:917:A:O4'	2.33	0.45
34:BQ:26:TYR:CD1	34:BQ:28:ALA:HB2	2.51	0.45
42:BY:102:CYS:O	42:BY:104:GLY:N	2.48	0.45
43:BZ:111:VAL:C	43:BZ:113:ALA:N	2.69	0.45
43:BZ:80:ARG:HG2	43:BZ:80:ARG:H	1.62	0.45
1:CA:441:A:H3'	1:CA:442:C:H6	1.81	0.45
1:CA:491:G:C4	1:CA:492:G:C8	3.04	0.45
1:CA:988:G:H2'	1:CA:989:C:O4'	2.16	0.45
2:CB:194:PRO:O	2:CB:196:LEU:N	2.48	0.45
2:CB:219:VAL:O	2:CB:222:ILE:HB	2.16	0.45
2:CB:59:GLU:O	2:CB:63:MET:HG2	2.16	0.45
11:CK:16:SER:HA	11:CK:79:SER:HB3	1.98	0.45
44:D0:53:MET:HA	44:D0:58:THR:O	2.16	0.45
23:DA:1364:G:N7	45:D1:3:LYS:HD3	2.30	0.45
45:D1:64:ALA:HA	45:D1:67:ILE:HG13	1.97	0.45
23:DA:2191:G:H3'	23:DA:2192:G:H8	1.81	0.45
23:DA:2390:U:O2'	23:DA:2391:G:H5'	2.16	0.45
23:DA:330:A:H2	23:DA:1210:A:HO2'	1.62	0.45
23:DA:916:G:O2'	23:DA:917:A:O4'	2.31	0.45
28:DG:174:GLU:O	28:DG:177:GLY:N	2.45	0.45
34:DQ:119:ARG:HB3	34:DQ:119:ARG:HE	1.62	0.45
39:DV:21:ARG:HG3	39:DV:93:GLU:HG3	1.98	0.45
1:AA:1006:C:O2	1:AA:1023:G:N1	2.49	0.45
1:AA:1027:C:N3	1:AA:1034:G:C2	2.85	0.45
1:AA:1261:A:O4'	1:AA:1283:G:H5"	2.16	0.45
1:AA:57:G:N2	1:AA:388:G:C6	2.81	0.45
3:AC:32:LEU:HD22	3:AC:59:ARG:HH12	1.80	0.45
5:AE:137:GLU:O	5:AE:141:GLN:HG3	2.17	0.45
5:AE:151:LEU:HB3	8:AH:79:VAL:HG22	1.97	0.45
6:AF:84:ASN:O	6:AF:86:ARG:HG3	2.17	0.45
9:AI:49:PRO:HG3	9:AI:101:PHE:CG	2.49	0.45
9:AI:5:TYR:O	9:AI:84:ALA:HA	2.17	0.45
13:AM:23:TYR:HB3	13:AM:67:GLU:HA	1.97	0.45
16:AP:43:LYS:HG2	16:AP:48:TRP:CE3	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:76:GLN:HG3	16:AP:76:GLN:O	2.17	0.45
22:AV:51:ARG:HB3	22:AV:51:ARG:NH1	2.31	0.45
23:BA:1721:G:C2	23:BA:1739:U:OP2	2.70	0.45
23:BA:271(H):G:O2'	23:BA:271(I):G:OP2	2.28	0.45
23:BA:415:A:H2'	23:BA:416:C:C6	2.52	0.45
23:BA:446:G:P	56:BA:3961:HOH:O	2.67	0.45
23:BA:848:G:H2'	23:BA:849:A:C8	2.52	0.45
24:BB:25:A:H2'	24:BB:26:A:O4'	2.16	0.45
31:BN:55:VAL:HG22	31:BN:126:PRO:HA	1.99	0.45
24:BB:49:C:OP1	36:BS:96:GLY:HA2	2.17	0.45
1:CA:1002:G:C2	1:CA:1003:G:H1'	2.51	0.45
1:CA:1155:G:H2'	1:CA:1156:G:C8	2.51	0.45
1:CA:1233:G:H2'	1:CA:1234:C:H6	1.81	0.45
1:CA:1302:U:C5	13:CM:17:VAL:HG21	2.51	0.45
2:CB:136:VAL:HA	2:CB:139:LYS:CG	2.43	0.45
5:CE:57:LYS:HB3	5:CE:61:TYR:CE2	2.50	0.45
7:CG:87:VAL:HG13	7:CG:151:TYR:HB2	1.99	0.45
11:CK:29:ILE:HG23	11:CK:44:SER:HB3	1.99	0.45
46:D2:51:ARG:O	46:D2:51:ARG:HG2	2.16	0.45
23:DA:1478:G:H2'	23:DA:1479:G:H8	1.82	0.45
23:DA:1510:G:H2'	23:DA:1511:C:C6	2.51	0.45
23:DA:1592:C:H2'	23:DA:1593:G:H8	1.82	0.45
23:DA:196:A:H2'	23:DA:196:A:N3	2.31	0.45
23:DA:2107:C:N4	23:DA:2108:C:N4	2.64	0.45
23:DA:2109:U:O2	23:DA:2181:G:N1	2.49	0.45
23:DA:2115:G:C2	23:DA:2117:A:N7	2.84	0.45
23:DA:2146:C:H4'	23:DA:2147:G:C8	2.51	0.45
23:DA:2302:G:C6	23:DA:2315:G:C6	3.04	0.45
23:DA:26:G:C6	23:DA:27:G:N1	2.85	0.45
23:DA:2793:G:N2	23:DA:2804:C:H1'	2.32	0.45
27:DF:197:ASP:OD2	27:DF:197:ASP:N	2.49	0.45
41:DX:18:TYR:O	41:DX:20:GLY:N	2.50	0.45
43:DZ:144:LEU:HD12	43:DZ:144:LEU:HA	1.78	0.45
1:AA:1011:G:C6	1:AA:1012:U:N3	2.84	0.45
1:AA:1238:A:H2'	1:AA:1239:A:C8	2.51	0.45
1:AA:971:G:C8	1:AA:1365:G:H1'	2.51	0.45
1:AA:1441:G:H21	1:AA:1459:C:H6	1.64	0.45
1:AA:1531:A:H2'	1:AA:1532:U:O4'	2.16	0.45
3:AC:122:GLU:HA	3:AC:125:GLU:OE2	2.17	0.45
7:AG:127:ALA:HA	7:AG:132:GLY:CA	2.44	0.45
3:AC:23:TYR:CE2	10:AJ:95:GLU:HG2	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:5:ALA:HA	13:AM:61:GLU:HG2	1.99	0.45
23:BA:1419:A:C8	23:BA:1421:G:C6	3.05	0.45
23:BA:2131:G:H3'	23:BA:2131:G:OP2	2.17	0.45
23:BA:2134:A:N3	23:BA:2159:G:H1'	2.31	0.45
23:BA:375:C:H2'	23:BA:376:C:C6	2.51	0.45
33:BP:26:GLY:O	33:BP:28:GLY:N	2.38	0.45
43:BZ:30:ASN:HD22	43:BZ:90:VAL:HB	1.82	0.45
1:CA:1179:A:OP1	1:CA:1179:A:H8	1.99	0.45
1:CA:426:G:H2'	1:CA:427:U:C6	2.52	0.45
1:CA:35:G:N2	1:CA:550:G:N3	2.65	0.45
1:CA:801:U:H2'	1:CA:802:A:H8	1.82	0.45
4:CD:59:ARG:HA	4:CD:59:ARG:NH1	2.31	0.45
8:CH:9:MET:O	8:CH:12:ARG:N	2.49	0.45
20:CT:64:ASP:OD1	20:CT:81:LYS:NZ	2.47	0.45
23:DA:1319:G:C6	23:DA:1320:C:N4	2.85	0.45
23:DA:1651:G:H2'	23:DA:1652:A:O4'	2.17	0.45
23:DA:2126:A:N1	23:DA:2162:G:O2'	2.40	0.45
23:DA:2304:G:O6	23:DA:2312:U:O4	2.34	0.45
23:DA:2591:C:OP1	25:DD:239:ARG:HG2	2.17	0.45
23:DA:643:A:C2	23:DA:644:A:C4	3.04	0.45
23:DA:645:C:H2'	23:DA:645:C:O2	2.15	0.45
25:DD:213:ARG:HD2	25:DD:213:ARG:HA	1.61	0.45
43:DZ:53:ILE:HG22	43:DZ:71:VAL:O	2.17	0.45
1:AA:1054:C:H2'	1:AA:1055:A:H5"	1.99	0.45
1:AA:1160:G:C6	1:AA:1161:C:N4	2.85	0.45
1:AA:1163:C:H2'	1:AA:1164:G:O4'	2.16	0.45
1:AA:962:C:O2	1:AA:973:G:N1	2.33	0.45
2:AB:219:VAL:O	2:AB:222:ILE:HB	2.16	0.45
4:AD:188:LEU:HG	4:AD:188:LEU:H	1.33	0.45
4:AD:68:TYR:CE2	4:AD:97:LEU:HD22	2.52	0.45
5:AE:50:GLU:HB2	5:AE:53:LEU:HD13	1.99	0.45
1:AA:1375:A:H4'	7:AG:29:LYS:NZ	2.32	0.45
8:AH:120:THR:H	8:AH:123:GLU:HB2	1.81	0.45
10:AJ:15:THR:HA	10:AJ:18:ALA:HB3	1.99	0.45
10:AJ:23:ILE:O	10:AJ:34:VAL:HG11	2.17	0.45
20:AT:54:LYS:HA	20:AT:57:ARG:CZ	2.46	0.45
20:AT:73:HIS:C	20:AT:74:LYS:HG2	2.37	0.45
45:B1:94:LEU:O	45:B1:97:LEU:HB2	2.16	0.45
46:B2:1:MET:HG3	46:B2:52:ASP:OD2	2.16	0.45
48:B4:40:HIS:HB3	48:B4:43:TYR:HB3	1.97	0.45
23:BA:1180:C:H2'	23:BA:1181:C:H6	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1529:G:H8	23:BA:1529:G:O5'	1.99	0.45
23:BA:1575:C:H2'	23:BA:1576:U:C6	2.51	0.45
23:BA:1697:G:OP2	23:BA:1698:A:O2'	2.22	0.45
23:BA:828:U:H4'	23:BA:831:G:N1	2.32	0.45
25:BD:71:ASP:HB3	25:BD:103:ARG:NH2	2.32	0.45
25:BD:137:PRO:HB2	25:BD:140:THR:HG23	1.99	0.45
23:BA:2203:U:H4'	25:BD:151:LYS:HG2	1.98	0.45
26:BE:112:GLY:O	26:BE:159:HIS:HA	2.17	0.45
29:BH:70:THR:HA	29:BH:73:ALA:HB3	1.99	0.45
30:BI:40:THR:O	30:BI:44:LEU:HB2	2.17	0.45
1:CA:1002:G:N2	1:CA:1003:G:H1'	2.31	0.45
1:CA:1137:C:H4'	1:CA:1138:G:C2	2.52	0.45
1:CA:1250:A:O3'	9:CI:67:GLY:HA2	2.16	0.45
1:CA:1441:G:H21	1:CA:1459:C:H6	1.64	0.45
1:CA:1491:G:H5"	1:CA:1492:A:OP2	2.16	0.45
1:CA:1399:C:C2	1:CA:1502:A:N6	2.85	0.45
1:CA:298:A:H8	1:CA:298:A:OP1	2.00	0.45
1:CA:116:A:H61	1:CA:313:A:H1'	1.82	0.45
1:CA:573:A:N3	1:CA:883:C:O2'	2.41	0.45
1:CA:714:G:H2'	1:CA:715:A:C8	2.51	0.45
1:CA:952:U:H4'	1:CA:964:A:N1	2.32	0.45
4:CD:61:LYS:O	4:CD:65:ARG:HB2	2.17	0.45
15:CO:7:GLU:O	15:CO:10:LYS:HB3	2.16	0.45
16:CP:43:LYS:HG2	16:CP:48:TRP:CE3	2.52	0.45
20:CT:29:LYS:O	20:CT:33:ILE:HG13	2.17	0.45
47:D3:43:ILE:O	47:D3:47:VAL:HG23	2.16	0.45
23:DA:1106:G:N3	23:DA:1106:G:H2'	2.31	0.45
23:DA:1235:G:C6	23:DA:1236:G:N1	2.84	0.45
23:DA:2483:C:N3	34:DQ:124:LYS:NZ	2.63	0.45
23:DA:902:C:H2'	23:DA:903:C:C6	2.51	0.45
23:DA:997:G:OP1	38:DU:92:ARG:HG2	2.16	0.45
24:DB:46:A:C5	24:DB:47:C:C4	3.04	0.45
39:DV:20:LEU:HD12	39:DV:20:LEU:HA	1.79	0.45
1:AA:1001(A):G:H2'	1:AA:1002:G:C8	2.52	0.45
1:AA:1275:A:H2'	1:AA:1276:G:O4'	2.17	0.45
1:AA:1358:U:H5	1:AA:1359:C:C4	2.35	0.45
1:AA:158:G:H2'	1:AA:159:G:H8	1.82	0.45
1:AA:589:C:H2'	1:AA:590:C:C6	2.52	0.45
1:AA:959:A:N1	1:AA:1221:G:O2'	2.50	0.45
2:AB:113:HIS:O	2:AB:117:GLU:HG3	2.16	0.45
2:AB:16:HIS:CD2	2:AB:210:SER:HA	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:42:ILE:HG21	2:AB:202:PRO:O	2.17	0.45
4:AD:134:ASP:OD2	4:AD:135:LEU:HD13	2.16	0.45
7:AG:33:ASP:HB2	7:AG:35:LYS:HB3	1.99	0.45
23:BA:1453:U:OP1	35:BR:77:ARG:NH1	2.45	0.45
23:BA:1796:U:H4'	25:BD:256:GLY:H	1.82	0.45
23:BA:359:A:H2'	23:BA:360:G:O4'	2.17	0.45
23:BA:620:G:N3	23:BA:620:G:H5'	2.32	0.45
23:BA:644:A:H4'	23:BA:645:C:C5	2.51	0.45
23:BA:774:A:N3	23:BA:774:A:H2'	2.31	0.45
23:BA:937:U:H2'	23:BA:938:G:O4'	2.16	0.45
31:BN:54:VAL:HG11	31:BN:99:LEU:HD12	1.97	0.45
23:BA:252:G:P	33:BP:50:ARG:HH11	2.38	0.45
37:BT:23:ARG:HG3	37:BT:120:ARG:CZ	2.46	0.45
1:CA:328:C:H4'	1:CA:329:A:H5'	1.98	0.45
7:CG:146:GLU:HA	7:CG:149:ARG:HB2	1.98	0.45
9:CI:16:ARG:HB2	9:CI:64:THR:HG23	1.98	0.45
48:D4:40:HIS:HB3	48:D4:43:TYR:HB3	1.98	0.45
23:DA:1634:A:OP2	56:DA:3694:HOH:O	2.21	0.45
23:DA:2427:C:H5"	23:DA:2428:G:OP1	2.16	0.45
23:DA:2785:C:OP1	26:DE:41:LYS:NZ	2.40	0.45
23:DA:583:G:OP2	38:DU:10:ARG:HD2	2.17	0.45
23:DA:815:C:H2'	23:DA:816:C:H6	1.81	0.45
27:DF:68:LYS:HB2	27:DF:69:HIS:CD2	2.52	0.45
31:DN:22:THR:O	31:DN:23:LEU:O	2.34	0.45
34:DQ:7:MET:HE1	43:DZ:193:GLU:CB	2.47	0.45
43:DZ:5:LEU:O	43:DZ:59:LEU:HA	2.16	0.45
1:AA:1155:G:H3'	1:AA:1156:G:C8	2.52	0.45
1:AA:1300:G:O2'	1:AA:1301:U:P	2.74	0.45
1:AA:1443:G:H5'	1:AA:1444:C:OP2	2.17	0.45
1:AA:1459:C:H2'	1:AA:1460:A:N7	2.32	0.45
6:AF:45:LEU:HD12	6:AF:59:TYR:CD1	2.52	0.45
9:AI:112:LYS:HG3	9:AI:116:LYS:O	2.17	0.45
10:AJ:79:ARG:C	10:AJ:81:THR:N	2.70	0.45
1:AA:750:G:N3	15:AO:23:GLY:HA3	2.32	0.45
21:AU:20:LYS:HE3	21:AU:20:LYS:HB3	1.72	0.45
23:BA:1047:G:H21	23:BA:1111:A:N6	2.14	0.45
23:BA:195:A:H4'	23:BA:251:A:O2'	2.16	0.45
23:BA:2199:A:OP2	23:BA:2200:C:H5	1.99	0.45
23:BA:923:C:C4'	44:B0:29:GLN:HE21	2.29	0.45
25:BD:237:GLU:OE1	56:BD:404:HOH:O	2.21	0.45
30:BI:44:LEU:HD12	30:BI:44:LEU:HA	1.76	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BT:127:ALA:HA	37:BT:129:ARG:N	2.32	0.45
1:CA:426:G:P	4:CD:36:ARG:HH12	2.40	0.45
1:CA:530:G:OP1	1:CA:530:G:H3'	2.17	0.45
1:CA:57:G:H2'	1:CA:58:C:C6	2.52	0.45
12:CL:67:THR:OG1	12:CL:95:GLY:O	2.31	0.45
18:CR:59:SER:OG	18:CR:60:ALA:N	2.50	0.45
48:D4:15:ILE:HG13	48:D4:21:VAL:HG22	1.97	0.45
53:D9:25:VAL:HB	53:D9:34:GLN:HB2	1.98	0.45
23:DA:1316:U:H2'	23:DA:1317:A:C8	2.51	0.45
23:DA:1545:A:H2'	23:DA:1546:C:O4'	2.17	0.45
23:DA:2131:G:OP2	23:DA:2131:G:H3'	2.16	0.45
23:DA:2173:A:C6	23:DA:2174:C:C2	3.05	0.45
23:DA:2360:A:H2'	23:DA:2361:A:O4'	2.17	0.45
25:DD:17:THR:HG23	25:DD:205:VAL:HB	1.98	0.45
25:DD:221:VAL:HG22	25:DD:226:MET:CE	2.47	0.45
29:DH:75:ALA:O	29:DH:79:VAL:HG22	2.17	0.45
24:DB:29:A:OP2	36:DS:32:LEU:HD12	2.17	0.45
1:AA:1002:G:C2	1:AA:1003:G:H1'	2.52	0.45
1:AA:1269:A:OP2	1:AA:1269:A:C8	2.70	0.45
1:AA:1293:G:C2	1:AA:1294:G:C8	3.04	0.45
1:AA:392:G:H2'	1:AA:393:A:H8	1.81	0.45
1:AA:613:C:N4	1:AA:627:G:H1	2.14	0.45
1:AA:922:G:C6	1:AA:923:A:C6	3.04	0.45
1:AA:947:G:H2'	1:AA:948:C:O4'	2.16	0.45
3:AC:141:VAL:HG11	3:AC:202:ILE:HD12	1.99	0.45
5:AE:29:GLY:HA2	5:AE:47:LYS:HA	1.99	0.45
7:AG:103:TRP:CZ3	7:AG:141:VAL:HG11	2.52	0.45
18:AR:31:LEU:CD2	18:AR:31:LEU:H	2.30	0.45
19:AS:63:THR:H	19:AS:66:MET:HG3	1.81	0.45
19:AS:74:PHE:C	19:AS:76:PRO:HD3	2.36	0.45
46:B2:64:LEU:HD21	46:B2:68:ARG:HE	1.81	0.45
46:B2:64:LEU:O	46:B2:68:ARG:HG2	2.17	0.45
23:BA:1493:C:N4	23:BA:2206:G:H1'	2.32	0.45
23:BA:2205:C:O2	23:BA:2220:G:C2	2.70	0.45
23:BA:2313:C:H2'	23:BA:2314:C:C6	2.51	0.45
23:BA:2331:G:H4'	44:B0:43:THR:H	1.82	0.45
24:BB:59:A:H2'	24:BB:60:C:C6	2.52	0.45
33:BP:97:PRO:HG3	33:BP:112:LEU:HD12	1.99	0.45
43:BZ:104:PHE:HB3	43:BZ:141:VAL:HG21	1.99	0.45
1:CA:154:C:C4	1:CA:168:G:N1	2.84	0.45
1:CA:405:U:H3'	1:CA:406:G:H5'	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:505:G:C6	1:CA:535:A:C2	3.05	0.45
1:CA:77:G:C6	1:CA:78:G:C6	3.04	0.45
1:CA:956:U:H1'	1:CA:1225:A:H2	1.81	0.45
2:CB:87:ARG:CZ	2:CB:233:SER:HB2	2.46	0.45
11:CK:66:LEU:HD21	11:CK:97:ALA:HB1	1.98	0.45
12:CL:47:LYS:HA	12:CL:49:ASN:H	1.82	0.45
23:DA:1332:G:H5'	23:DA:1332:G:N3	2.32	0.45
23:DA:2387:U:O2'	44:D0:41:ARG:NH2	2.42	0.45
23:DA:271(K):U:O2'	23:DA:271(L):U:OP1	2.29	0.45
23:DA:271(M):G:O2'	23:DA:271(N):U:H3'	2.17	0.45
23:DA:725:G:C6	23:DA:726:G:N1	2.85	0.45
25:DD:71:ASP:HB3	25:DD:103:ARG:NH2	2.31	0.45
34:DQ:26:TYR:CD1	34:DQ:28:ALA:HB2	2.51	0.45
1:AA:1028:C:C5	1:AA:1033:G:O6	2.70	0.45
1:AA:1047:G:O2'	1:AA:1215:G:O2'	2.30	0.45
1:AA:106:C:H2'	1:AA:107:G:C8	2.52	0.45
1:AA:1157:A:H8	1:AA:1158:C:N3	2.14	0.45
1:AA:1205:U:H2'	1:AA:1206:G:C8	2.52	0.45
1:AA:1424:C:H2'	1:AA:1425:U:O4'	2.17	0.45
1:AA:392:G:H2'	1:AA:393:A:C8	2.52	0.45
1:AA:479:C:H2'	1:AA:480:U:H6	1.82	0.45
1:AA:657:G:C2	1:AA:750:G:C5	3.05	0.45
1:AA:77:G:C6	1:AA:78:G:C6	3.05	0.45
1:AA:99:U:H2'	1:AA:100:C:H6	1.82	0.45
2:AB:118:LEU:HD13	2:AB:142:LEU:HB2	1.99	0.45
1:AA:1376:U:O5'	7:AG:94:ARG:NH2	2.50	0.45
9:AI:105:ASP:OD1	9:AI:105:ASP:N	2.50	0.45
9:AI:15:ALA:HB3	9:AI:76:ALA:O	2.17	0.45
9:AI:28:VAL:HA	9:AI:63:ILE:O	2.16	0.45
12:AL:85:ILE:HA	12:AL:85:ILE:HD13	1.66	0.45
14:AN:47:LEU:HD22	14:AN:50:LYS:HD3	1.98	0.45
15:AO:75:PRO:O	15:AO:77:ARG:N	2.50	0.45
17:AQ:48:GLU:HG3	17:AQ:50:LYS:HE3	1.99	0.45
23:BA:671:C:H2'	23:BA:672:C:C6	2.52	0.45
23:BA:2591:C:OP1	25:BD:239:ARG:HG2	2.17	0.45
27:BF:65:TRP:HH2	27:BF:72:ARG:HH21	1.64	0.45
29:BH:71:LEU:HA	29:BH:74:ASN:HB2	1.98	0.45
30:BI:1:MET:N	30:BI:21:VAL:O	2.35	0.45
34:BQ:16:ARG:O	34:BQ:17:LEU:HD23	2.15	0.45
1:CA:1342:C:H1'	9:CI:124:GLN:NE2	2.32	0.45
1:CA:600:C:H2'	1:CA:601:C:H6	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:688:G:O2'	1:CA:704:A:N1	2.43	0.45
1:CA:717:C:H5"	1:CA:717:C:H6	1.81	0.45
1:CA:994:A:N3	1:CA:994:A:H2'	2.31	0.45
3:CC:156:ARG:HD3	3:CC:193:TYR:HB2	1.99	0.45
3:CC:34:LEU:O	3:CC:38:ARG:HG3	2.17	0.45
6:CF:11:ASN:HA	6:CF:12:PRO:HD2	1.63	0.45
8:CH:9:MET:SD	8:CH:32:LYS:HG2	2.57	0.45
18:CR:61:LYS:O	18:CR:65:ILE:HG12	2.17	0.45
44:D0:51:VAL:HG23	44:D0:81:VAL:HG23	1.97	0.45
41:DX:5:TYR:HD1	46:D2:33:MET:CE	2.30	0.45
23:DA:1009:A:O4'	38:DU:59:ARG:HG2	2.16	0.45
23:DA:1341:U:O2	41:DX:80:ILE:HD13	2.17	0.45
23:DA:1538:G:O2'	23:DA:1539:G:OP1	2.27	0.45
23:DA:2322:A:H2'	23:DA:2323:G:O4'	2.17	0.45
28:DG:47:LYS:HD3	28:DG:81:LYS:CB	2.47	0.45
23:DA:637:A:H8	33:DP:117:GLU:HG3	1.82	0.45
34:DQ:75:THR:HA	34:DQ:89:ASN:O	2.17	0.45
1:AA:1041:A:N6	1:AA:1042:G:C2	2.85	0.44
1:AA:1040:U:C4	1:AA:1041:A:N7	2.85	0.44
1:AA:1054:C:H6	1:AA:1054:C:H2'	1.57	0.44
1:AA:1127:G:C4	1:AA:1147:C:N4	2.85	0.44
1:AA:1227:A:H3'	1:AA:1228:C:C5'	2.47	0.44
1:AA:1366:C:O3'	10:AJ:60:ARG:NH2	2.48	0.44
1:AA:202:U:H3'	1:AA:203:U:C5	2.52	0.44
1:AA:925:G:H5"	1:AA:926:G:OP1	2.17	0.44
7:AG:14:PRO:HA	7:AG:20:ASP:C	2.37	0.44
1:AA:1060:C:C1'	10:AJ:53:PRO:HD2	2.47	0.44
45:B1:20:ARG:CG	45:B1:20:ARG:HH11	2.27	0.44
52:B8:34:TRP:O	52:B8:36:LYS:N	2.50	0.44
23:BA:1108:U:O2'	23:BA:1109:C:O4'	2.35	0.44
23:BA:1792:G:H2'	23:BA:1793:C:H6	1.82	0.44
23:BA:764:A:N3	25:BD:213:ARG:NH1	2.65	0.44
28:BG:121:ASN:HD21	28:BG:123:ASN:HB2	1.82	0.44
39:BV:52:VAL:HG22	39:BV:55:ALA:HB3	1.99	0.44
43:BZ:30:ASN:OD1	43:BZ:32:HIS:N	2.47	0.44
1:CA:1002:G:C2	1:CA:1039:C:C2	3.05	0.44
1:CA:1156:G:H2'	1:CA:1157:A:H5"	1.99	0.44
1:CA:1327:C:H2'	1:CA:1328:C:C6	2.52	0.44
1:CA:728:A:H2'	1:CA:729:A:H8	1.81	0.44
2:CB:204:ASN:OD1	2:CB:206:ASP:N	2.46	0.44
5:CE:50:GLU:HB2	5:CE:53:LEU:HD13	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:9:MET:HG3	8:CH:26:VAL:HG11	1.99	0.44
23:DA:1027:A:C6	23:DA:1126:A:C4	3.04	0.44
23:DA:2018:G:H2'	23:DA:2019:A:O4'	2.17	0.44
23:DA:2420:C:O5'	23:DA:2420:C:H6	2.01	0.44
23:DA:510:C:H2'	23:DA:511:U:O4'	2.17	0.44
23:DA:90:U:O2'	23:DA:92:A:P	2.74	0.44
25:DD:274:ARG:HG3	25:DD:274:ARG:H	1.47	0.44
27:DF:29:ASN:H	27:DF:112:MET:CE	2.30	0.44
28:DG:5:VAL:HG23	28:DG:104:GLU:OE1	2.17	0.44
30:DI:77:LEU:HD22	30:DI:104:GLN:OE1	2.17	0.44
32:DO:2:ILE:HB	32:DO:33:ALA:HB3	1.99	0.44
1:AA:69:G:C2	1:AA:101:A:N1	2.85	0.44
1:AA:1030(B):C:C2'	1:AA:1030(C):G:H5'	2.47	0.44
1:AA:1006:C:P	1:AA:1037:C:O2'	2.75	0.44
1:AA:115:G:H4'	1:AA:116:A:O5'	2.17	0.44
1:AA:1225:A:N3	1:AA:1225:A:H2'	2.31	0.44
1:AA:1364:U:H3'	1:AA:1365:G:C8	2.52	0.44
1:AA:1368:G:O2'	1:AA:1369:C:H5'	2.17	0.44
1:AA:49:U:H3	1:AA:362:G:H1'	1.83	0.44
4:AD:112:VAL:HG13	4:AD:161:ASN:ND2	2.33	0.44
5:AE:51:VAL:O	5:AE:55:VAL:HG23	2.17	0.44
8:AH:56:LYS:HA	8:AH:57:PRO:HD2	1.86	0.44
12:AL:57:LYS:HE2	12:AL:67:THR:HG23	2.00	0.44
13:AM:31:LYS:HA	13:AM:34:LEU:HD12	1.98	0.44
48:B4:30:GLU:O	48:B4:31:ILE:HG13	2.17	0.44
50:B6:44:ARG:HH11	50:B6:44:ARG:HB3	1.83	0.44
23:BA:1794:U:H2'	23:BA:1795:C:C6	2.52	0.44
23:BA:1794:U:H2'	23:BA:1795:C:H6	1.83	0.44
23:BA:272(J):C:H2'	23:BA:274:G:O4'	2.17	0.44
23:BA:2833:G:O2'	23:BA:2834:G:P	2.76	0.44
23:BA:754:C:H2'	23:BA:755:C:C6	2.52	0.44
27:BF:88:VAL:HG23	27:BF:89:VAL:O	2.16	0.44
32:BO:2:ILE:HG13	32:BO:8:LEU:HD11	1.99	0.44
35:BR:21:TYR:OH	35:BR:43:GLU:HG2	2.16	0.44
1:CA:1030:C:N4	1:CA:1032:G:C4	2.85	0.44
1:CA:1034:G:N2	1:CA:1035:A:N6	2.65	0.44
5:CE:7:GLU:HG2	5:CE:112:LEU:HD22	1.98	0.44
7:CG:29:LYS:HZ1	7:CG:102:ARG:HE	1.65	0.44
22:CV:30:PRO:HB3	22:CV:40:TRP:CE2	2.51	0.44
45:D1:86:SER:OG	45:D1:89:GLU:HG2	2.16	0.44
23:DA:1359:A:C6	23:DA:1372:U:O4	2.68	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2133:G:O2'	23:DA:2158:A:N1	2.43	0.44
23:DA:2236:C:C2'	23:DA:2237:G:H5'	2.47	0.44
23:DA:2320:A:N3	23:DA:2320:A:H2'	2.31	0.44
23:DA:2371:G:HO2'	50:D6:46:HIS:CE1	2.26	0.44
23:DA:2461:C:H2'	23:DA:2462:U:C6	2.52	0.44
23:DA:247:G:H4'	23:DA:386:G:C6	2.52	0.44
23:DA:500:G:N2	23:DA:502:A:H3'	2.33	0.44
23:DA:723:G:H2'	23:DA:724:U:O4'	2.17	0.44
23:DA:947:G:N2	23:DA:971:C:C2	2.85	0.44
23:DA:2574:G:N3	26:DE:143:ASN:ND2	2.66	0.44
1:AA:1027:C:N4	1:AA:1034:G:C6	2.85	0.44
1:AA:1512:U:H2'	1:AA:1513:A:C8	2.53	0.44
1:AA:271:C:H2'	1:AA:272:C:H6	1.81	0.44
1:AA:344:A:H3'	1:AA:346:G:O6	2.16	0.44
1:AA:441:A:H5'	1:AA:442:C:OP2	2.17	0.44
1:AA:484:G:O2'	1:AA:485:G:OP2	2.30	0.44
1:AA:942:G:N2	1:AA:1342:C:H1'	2.32	0.44
2:AB:187:LEU:HA	2:AB:201:ILE:HB	1.99	0.44
4:AD:9:CYS:HB2	4:AD:22:LYS:HZ1	1.82	0.44
5:AE:78:HIS:CE1	5:AE:142:LEU:HA	2.48	0.44
9:AI:44:VAL:HA	9:AI:45:ALA:HA	1.35	0.44
10:AJ:50:ILE:HG13	10:AJ:60:ARG:HG3	2.00	0.44
19:AS:16:LEU:O	19:AS:20:LEU:HD23	2.17	0.44
19:AS:63:THR:OG1	19:AS:66:MET:HG2	2.17	0.44
21:AU:12:LYS:HE3	21:AU:19:GLY:N	2.32	0.44
44:B0:51:VAL:HG23	44:B0:81:VAL:HG23	1.97	0.44
23:BA:1575:C:H2'	23:BA:1576:U:H6	1.81	0.44
23:BA:2454:G:H1'	56:BA:4395:HOH:O	2.17	0.44
23:BA:2787:C:H2'	23:BA:2788:C:H6	1.82	0.44
23:BA:542:C:H2'	23:BA:543:C:H6	1.83	0.44
25:BD:38:LYS:HD2	25:BD:39:LYS:N	2.32	0.44
27:BF:107:LYS:HE2	27:BF:208:GLY:N	2.32	0.44
28:BG:27:ASN:OD1	28:BG:28:VAL:N	2.50	0.44
30:BI:4:ILE:HG21	30:BI:47:LEU:HD23	1.99	0.44
31:BN:58:ASP:OD1	31:BN:58:ASP:N	2.46	0.44
1:CA:1097:C:H2'	1:CA:1098:C:O4'	2.17	0.44
1:CA:1424:C:H2'	1:CA:1425:U:O4'	2.17	0.44
1:CA:1531:A:H5'	56:CA:1772:HOH:O	2.16	0.44
1:CA:192:U:H2'	1:CA:193:C:H6	1.82	0.44
1:CA:474:G:H2'	1:CA:475:G:H8	1.81	0.44
1:CA:503:C:H2'	1:CA:504:C:H6	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:784:C:H4'	23:DA:1837:C:OP1	2.17	0.44
1:CA:790:A:C6	1:CA:791:G:C6	3.05	0.44
1:CA:943:U:H2'	1:CA:944:G:H8	1.83	0.44
7:CG:80:VAL:HG12	7:CG:80:VAL:O	2.18	0.44
8:CH:73:ASP:HA	8:CH:74:PRO:HD2	1.75	0.44
1:CA:1371:G:H5"	9:CI:68:GLY:HA2	2.00	0.44
1:CA:1151:A:C2	10:CJ:39:PRO:HG2	2.52	0.44
10:CJ:49:VAL:HG21	14:CN:45:ARG:CD	2.44	0.44
10:CJ:54:PHE:CE2	10:CJ:55:LYS:HG3	2.52	0.44
17:CQ:48:GLU:HG3	17:CQ:50:LYS:HE3	2.00	0.44
52:D8:4:MET:HE3	52:D8:63:PRO:CG	2.47	0.44
23:DA:1036:G:H1	23:DA:1119:C:N4	2.13	0.44
23:DA:1526:G:C6	23:DA:1527:G:C2	3.06	0.44
23:DA:1537:G:H2'	23:DA:1538:G:H8	1.82	0.44
23:DA:1575:C:O2'	23:DA:1576:U:H5'	2.16	0.44
23:DA:2028:U:H2'	23:DA:2029:G:O4'	2.17	0.44
23:DA:2586:C:H1'	56:DA:3976:HOH:O	2.16	0.44
23:DA:652(A):A:H4'	23:DA:652(B):A:OP1	2.17	0.44
25:DD:76:PRO:HB2	25:DD:116:GLN:NE2	2.32	0.44
23:DA:2009:G:OP1	40:DW:41:LYS:HE2	2.17	0.44
43:DZ:151:HIS:C	43:DZ:153:SER:H	2.20	0.44
1:AA:51:A:C6	1:AA:353:A:C2	3.06	0.44
1:AA:380:G:C2	1:AA:384:G:C6	3.04	0.44
1:AA:514:C:H2'	1:AA:515:G:H8	1.83	0.44
2:AB:20:GLU:O	2:AB:40:HIS:HB2	2.18	0.44
3:AC:8:ILE:O	3:AC:12:LEU:HG	2.17	0.44
1:AA:932:C:H5"	7:AG:3:ARG:HH11	1.83	0.44
13:AM:71:ARG:O	13:AM:75:ALA:HB3	2.18	0.44
19:AS:52:TYR:H	19:AS:57:HIS:HA	1.81	0.44
23:BA:1537:G:H2'	23:BA:1538:G:C8	2.52	0.44
23:BA:1537:G:H2'	23:BA:1538:G:H8	1.82	0.44
23:BA:1592:C:H2'	23:BA:1593:G:C8	2.53	0.44
23:BA:2140:C:H2'	23:BA:2141:G:C8	2.53	0.44
23:BA:2416:C:H6	23:BA:2416:C:O5'	2.00	0.44
23:BA:271(Q):G:O2'	23:BA:271(R):G:P	2.75	0.44
23:BA:830:G:H4'	23:BA:831:G:OP2	2.18	0.44
23:BA:934:G:H2'	23:BA:935:C:H6	1.81	0.44
25:BD:17:THR:HG23	25:BD:205:VAL:HB	1.98	0.44
28:BG:41:GLN:O	28:BG:89:GLY:HA2	2.18	0.44
31:BN:42:TRP:CD1	31:BN:48:MET:HE1	2.49	0.44
37:BT:2:ASN:O	37:BT:6:LEU:HD22	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BX:26:TYR:CE1	41:BX:89:ILE:HG13	2.52	0.44
1:CA:1492:A:H4'	1:CA:1492:A:OP1	2.18	0.44
1:CA:165:C:H2'	1:CA:166:G:H8	1.83	0.44
1:CA:189:G:C6	1:CA:189(A):C:C4	3.05	0.44
1:CA:633:G:C5	1:CA:634:C:C4	3.06	0.44
1:CA:657:G:C2	1:CA:750:G:C5	3.04	0.44
3:CC:118:GLN:HE21	3:CC:118:GLN:HB3	1.63	0.44
3:CC:182:ILE:HG23	3:CC:203:PHE:HB2	1.99	0.44
4:CD:166:LYS:HA	4:CD:178:VAL:HG11	1.99	0.44
8:CH:112:LEU:HB3	8:CH:133:LEU:HA	1.99	0.44
9:CI:44:VAL:HA	9:CI:45:ALA:HA	1.68	0.44
13:CM:23:TYR:O	13:CM:66:LEU:HA	2.17	0.44
1:CA:750:G:N3	15:CO:23:GLY:HA3	2.32	0.44
23:DA:1533:G:H2'	23:DA:1534:U:O4'	2.17	0.44
23:DA:1930:G:O2'	23:DA:1931:U:P	2.76	0.44
23:DA:2186:G:N1	23:DA:2187:G:C5	2.85	0.44
23:DA:2319:G:C2	36:DS:3:ARG:HA	2.53	0.44
23:DA:192:C:O2'	23:DA:802:A:N3	2.40	0.44
25:DD:97:TYR:HB2	25:DD:101:GLU:O	2.17	0.44
25:DD:184:LYS:HG3	25:DD:271:ILE:HD11	1.99	0.44
28:DG:74:LYS:O	28:DG:84:LYS:HG2	2.17	0.44
34:DQ:21:THR:HA	34:DQ:98:LYS:HB2	1.98	0.44
42:DY:68:HIS:ND1	42:DY:70:SER:HB3	2.32	0.44
43:DZ:5:LEU:HD22	43:DZ:6:LYS:N	2.32	0.44
1:AA:1030(C):G:H8	1:AA:1030(C):G:H3'	1.83	0.44
1:AA:1140:C:H2'	1:AA:1141:C:H6	1.81	0.44
1:AA:1165:C:N3	1:AA:1171:G:N2	2.60	0.44
1:AA:888:G:H4'	1:AA:1488:G:O2'	2.18	0.44
1:AA:148:G:O2'	1:AA:149:A:H5'	2.17	0.44
1:AA:325:A:OP2	20:AT:70:SER:OG	2.25	0.44
1:AA:622:A:C8	1:AA:623:C:C5	3.06	0.44
1:AA:717:C:H6	1:AA:717:C:H5"	1.83	0.44
2:AB:218:ALA:O	2:AB:222:ILE:HG13	2.17	0.44
4:AD:111:ALA:HB2	4:AD:120:LEU:HD12	1.99	0.44
8:AH:124:ALA:HB1	8:AH:129:VAL:O	2.16	0.44
13:AM:23:TYR:CE1	13:AM:70:LEU:HB3	2.40	0.44
1:AA:1320:C:C2	19:AS:36:ARG:HG3	2.52	0.44
20:AT:36:LEU:HA	20:AT:36:LEU:HD13	1.86	0.44
50:B6:21:TYR:CE2	50:B6:38:LYS:HG2	2.52	0.44
23:BA:1478:G:H2'	23:BA:1479:G:H8	1.83	0.44
23:BA:1310:G:H1'	23:BA:1611:C:H5'	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2834:G:N2	23:BA:2882:A:N6	2.66	0.44
23:BA:574:C:OP1	56:BA:4003:HOH:O	2.20	0.44
24:BB:32:C:N3	24:BB:51:G:C2	2.85	0.44
27:BF:127:GLU:HA	27:BF:196:LEU:HD12	1.98	0.44
43:BZ:98:MET:SD	43:BZ:133:ILE:HD13	2.57	0.44
1:CA:1459:C:H2'	1:CA:1460:A:N7	2.33	0.44
1:CA:540:G:H2'	1:CA:541:G:O4'	2.18	0.44
1:CA:586:C:O2'	1:CA:878:G:H4'	2.17	0.44
1:CA:827:U:H5"	1:CA:828:A:OP2	2.17	0.44
1:CA:921:U:H2'	1:CA:922:G:O4'	2.17	0.44
12:CL:124:LYS:HA	12:CL:125:PRO:HD3	1.76	0.44
12:CL:41:ARG:HH12	12:CL:57:LYS:HE3	1.82	0.44
46:D2:53:LEU:O	46:D2:57:ILE:HG13	2.17	0.44
47:D3:4:LEU:HA	47:D3:4:LEU:HD23	1.81	0.44
48:D4:15:ILE:HB	48:D4:32:TYR:CE2	2.53	0.44
50:D6:13:CYS:HB2	50:D6:20:ASN:HD21	1.82	0.44
23:DA:1141:U:OP1	31:DN:25:ARG:NH1	2.51	0.44
23:DA:125:G:C6	51:D7:10:ARG:HG3	2.52	0.44
23:DA:249:C:O2	52:D8:12:LYS:NZ	2.40	0.44
25:DD:245:PRO:HA	25:DD:246:PRO:HD3	1.84	0.44
26:DE:116:VAL:HG13	26:DE:122:PHE:CG	2.52	0.44
27:DF:88:VAL:HG23	27:DF:89:VAL:O	2.18	0.44
30:DI:75:LEU:HD12	30:DI:105:HIS:ND1	2.33	0.44
31:DN:23:LEU:O	31:DN:25:ARG:N	2.50	0.44
35:DR:103:ARG:NH1	35:DR:108:GLY:O	2.51	0.44
42:DY:77:PRO:HD3	42:DY:106:LEU:HD23	1.98	0.44
1:AA:1203:C:O2'	1:AA:1204:A:H5'	2.18	0.44
1:AA:176:C:H2'	1:AA:177:C:H6	1.80	0.44
1:AA:327:A:C4	1:AA:329:A:C8	3.06	0.44
1:AA:426:G:H2'	1:AA:427:U:C6	2.53	0.44
1:AA:452:A:H62	1:AA:480:U:H3	1.66	0.44
1:AA:660:G:H2'	1:AA:661:G:H8	1.80	0.44
7:AG:88:PRO:HB3	7:AG:145:ALA:HB1	1.99	0.44
8:AH:118:VAL:C	8:AH:119:LEU:HD23	2.38	0.44
20:AT:43:LEU:HB2	20:AT:52:ALA:HB2	1.99	0.44
23:BA:2287:A:C4	23:BA:2289:G:C8	3.04	0.44
23:BA:2287:A:N3	23:BA:2289:G:C8	2.86	0.44
23:BA:2822:G:N7	56:BA:4416:HOH:O	2.36	0.44
23:BA:469:G:C2'	23:BA:470:A:H5"	2.47	0.44
23:BA:92:A:O2'	23:BA:93:G:H5'	2.17	0.44
25:BD:43:ARG:HG2	25:BD:47:GLY:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BH:169:VAL:HG12	29:BH:170:ARG:N	2.33	0.44
38:BU:76:TYR:OH	38:BU:92:ARG:NH1	2.50	0.44
42:BY:67:LEU:HD23	42:BY:67:LEU:HA	1.61	0.44
43:BZ:151:HIS:C	43:BZ:153:SER:H	2.21	0.44
43:BZ:70:LEU:HD23	43:BZ:70:LEU:HA	1.83	0.44
1:CA:1003:G:N2	1:CA:1038:C:N3	2.65	0.44
1:CA:1102:A:C5	1:CA:1103:C:C5	3.05	0.44
1:CA:1288:A:C6	1:CA:1289:A:C5	3.05	0.44
1:CA:324:G:N2	1:CA:327:A:C8	2.86	0.44
1:CA:69:G:N1	1:CA:70:G:C5	2.86	0.44
1:CA:869:G:H4'	1:CA:872:A:O4'	2.17	0.44
1:CA:1190:G:P	3:CC:5:ILE:HG22	2.57	0.44
4:CD:200:GLU:O	4:CD:204:ILE:HG12	2.17	0.44
6:CF:25:ILE:CD1	6:CF:82:ARG:HE	2.31	0.44
7:CG:48:LYS:HA	7:CG:51:GLN:HB2	1.99	0.44
7:CG:64:GLN:HE22	7:CG:67:GLU:HB3	1.81	0.44
8:CH:40:ALA:HA	8:CH:45:ILE:HG13	1.99	0.44
16:CP:71:ARG:HA	16:CP:74:LEU:HB2	2.00	0.44
19:CS:63:THR:HB	19:CS:65:ASN:H	1.82	0.44
50:D6:14:THR:HG21	50:D6:48:VAL:HG13	2.00	0.44
23:DA:2110:G:O2'	23:DA:2120:G:H5'	2.17	0.44
23:DA:2313:C:H5"	28:DG:91:ARG:HG3	1.98	0.44
30:DI:78:THR:N	30:DI:104:GLN:OE1	2.43	0.44
30:DI:123:LEU:H	30:DI:123:LEU:HG	1.58	0.44
34:DQ:72:LYS:HA	34:DQ:73:PRO:HD3	1.88	0.44
23:DA:2723:C:O3'	35:DR:1:MET:HE3	2.18	0.44
23:DA:2820:A:C6	35:DR:4:LEU:HD11	2.53	0.44
36:DS:110:LEU:HD12	36:DS:110:LEU:HA	1.81	0.44
37:DT:50:ILE:HG22	37:DT:102:ILE:HD11	2.00	0.44
43:DZ:63:ASP:OD1	43:DZ:65:GLN:HB3	2.17	0.44
43:DZ:19:ARG:NH1	43:DZ:84:GLU:O	2.51	0.44
1:AA:1149:C:H2'	1:AA:1150:U:C2	2.53	0.44
1:AA:1260:C:N3	1:AA:1274:G:N2	2.65	0.44
1:AA:134:A:H61	16:AP:25:ARG:NH1	2.14	0.44
1:AA:15:G:H4'	5:AE:24:ARG:NH1	2.31	0.44
1:AA:160:A:H1'	1:AA:344:A:C5	2.53	0.44
1:AA:345:C:H4'	1:AA:346:G:C8	2.52	0.44
1:AA:474:G:C2	1:AA:475:G:C5	3.05	0.44
3:AC:177:THR:O	3:AC:180:ALA:HB2	2.18	0.44
4:AD:105:VAL:HG12	4:AD:117:ALA:HB1	1.98	0.44
5:AE:76:ILE:HG22	5:AE:93:PRO:HB3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:103:THR:HA	13:AM:107:ALA:CB	2.48	0.44
23:BA:1922:G:H2'	23:BA:1923:U:O4'	2.18	0.44
23:BA:2114:A:O2'	23:BA:2167:U:H4'	2.17	0.44
23:BA:2169:A:O2'	23:BA:2170:A:H5'	2.18	0.44
23:BA:2315:G:C6	23:BA:2316:C:N4	2.86	0.44
23:BA:639:U:H2'	23:BA:640:C:H6	1.76	0.44
37:BT:118:ARG:HH11	37:BT:118:ARG:CG	2.31	0.44
38:BU:104:GLN:H	38:BU:104:GLN:CD	2.21	0.44
1:CA:1206:G:C6	1:CA:1207:G:C5	3.06	0.44
1:CA:185:A:H2'	1:CA:186:C:C6	2.53	0.44
1:CA:969:A:H2'	1:CA:970:C:O4'	2.17	0.44
4:CD:128:VAL:CG1	4:CD:129:ASN:HD22	2.22	0.44
1:CA:1373:G:H5"	7:CG:36:LYS:HE2	1.99	0.44
9:CI:28:VAL:HG22	9:CI:63:ILE:HD12	2.00	0.44
1:CA:521:G:OP1	12:CL:73:GLU:HA	2.17	0.44
17:CQ:81:ARG:HA	17:CQ:81:ARG:HD2	1.63	0.44
23:DA:2038:G:O6	56:DA:3654:HOH:O	2.20	0.44
23:DA:829:A:N7	23:DA:2248:C:H5'	2.33	0.44
23:DA:271(Y):U:O3'	23:DA:271(Z):C:H6	2.00	0.44
23:DA:71:A:H5"	23:DA:73:A:C8	2.52	0.44
27:DF:116:ASP:CG	33:DP:1:MET:HB2	2.38	0.44
35:DR:44:LEU:HD23	35:DR:44:LEU:HA	1.86	0.44
1:AA:1015:A:C6	1:AA:1016:A:C6	3.06	0.44
1:AA:1135:U:O2'	1:AA:1137:C:H5'	2.18	0.44
1:AA:119:A:C5	1:AA:240:C:C4	3.06	0.44
1:AA:1268:A:O2'	21:AU:19:GLY:O	2.35	0.44
1:AA:1273:G:C2	1:AA:1274:G:H1'	2.53	0.44
1:AA:1332:A:H1'	13:AM:109:THR:HG23	1.99	0.44
1:AA:477:A:H2'	1:AA:479:C:H6	1.82	0.44
1:AA:3:G:H4'	1:AA:4:U:OP2	2.18	0.44
1:AA:521:G:H2'	1:AA:522:C:H6	1.83	0.44
3:AC:30:ARG:O	3:AC:33:LEU:HB3	2.18	0.44
7:AG:33:ASP:HB2	7:AG:35:LYS:HE3	1.98	0.44
7:AG:59:LEU:O	7:AG:62:PHE:HB3	2.18	0.44
1:AA:1202:G:C8	14:AN:42:ILE:HD13	2.52	0.44
16:AP:72:ARG:HG2	16:AP:73:LEU:HD23	2.00	0.44
41:BX:11:PRO:HD3	46:B2:37:PHE:CE2	2.52	0.44
41:BX:11:PRO:HD3	46:B2:37:PHE:CZ	2.52	0.44
53:B9:7:VAL:HA	53:B9:34:GLN:OE1	2.18	0.44
23:BA:1406:U:H2'	23:BA:1407:C:C6	2.52	0.44
23:BA:1529:G:O2'	23:BA:1530:C:H5'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1889:A:H2'	23:BA:1890:A:C8	2.53	0.44
23:BA:2602:A:H1'	23:BA:2603:G:C5'	2.48	0.44
23:BA:952:G:C6	23:BA:953:A:N7	2.86	0.44
25:BD:68:LYS:O	25:BD:70:TRP:CD1	2.71	0.44
27:BF:181:LEU:HA	27:BF:181:LEU:HD12	1.84	0.44
27:BF:22:ALA:HB1	27:BF:24:LEU:HD22	1.99	0.44
37:BT:35:LYS:HB3	37:BT:35:LYS:HE2	1.74	0.44
43:BZ:183:LEU:HD23	43:BZ:183:LEU:HA	1.84	0.44
1:CA:1300:G:HO2'	1:CA:1301:U:P	2.41	0.44
1:CA:1492:A:N3	1:CA:1492:A:H2'	2.32	0.44
1:CA:270:A:H2'	1:CA:271:C:C6	2.53	0.44
1:CA:858:G:O6	1:CA:869:G:H3'	2.18	0.44
1:CA:881:G:P	12:CL:12:ARG:NH2	2.89	0.44
2:CB:27:LYS:HB3	2:CB:194:PRO:HD2	2.00	0.44
2:CB:75:LYS:HA	2:CB:78:GLN:HB2	2.00	0.44
5:CE:110:LEU:HD12	5:CE:118:ILE:HG21	1.99	0.44
5:CE:29:GLY:HA2	5:CE:47:LYS:HA	1.99	0.44
16:CP:76:GLN:O	16:CP:76:GLN:HG3	2.18	0.44
18:CR:43:PHE:C	18:CR:51:LEU:HD12	2.38	0.44
23:DA:1015:G:C2'	23:DA:1016:G:H5'	2.48	0.44
23:DA:1615:C:C5	23:DA:1617:C:C4	3.06	0.44
23:DA:2418:A:H2'	23:DA:2419:U:C6	2.53	0.44
23:DA:2615:U:H2'	23:DA:2616:C:H6	1.82	0.44
36:DS:63:THR:O	36:DS:66:ALA:HB3	2.18	0.44
38:DU:27:LEU:HA	38:DU:30:LYS:HB2	2.00	0.44
1:AA:1137:C:H5'	1:AA:1138:G:N1	2.33	0.44
1:AA:1492:A:N3	1:AA:1492:A:H2'	2.32	0.44
1:AA:1403:C:H1'	1:AA:1500:A:N1	2.33	0.44
1:AA:1399:C:C2	1:AA:1502:A:N6	2.86	0.44
1:AA:445:G:C6	1:AA:490:G:C6	3.06	0.44
2:AB:82:ARG:HG3	2:AB:92:TYR:CZ	2.52	0.44
16:AP:14:ASN:OD1	16:AP:16:HIS:ND1	2.50	0.44
22:AV:3:ARG:C	22:AV:5:LYS:H	2.22	0.44
23:BA:1494:A:C6	23:BA:1495:A:C6	3.06	0.44
23:BA:1592:C:H2'	23:BA:1593:G:H8	1.82	0.44
23:BA:1652:A:H2'	23:BA:1653:G:H5'	2.00	0.44
25:BD:101:GLU:OE1	25:BD:103:ARG:HD3	2.17	0.44
28:BG:107:LEU:HD23	28:BG:111:LEU:HD12	1.98	0.44
29:BH:144:VAL:O	29:BH:148:ILE:HG12	2.18	0.44
42:BY:86:ARG:NH1	42:BY:100:ALA:HB1	2.33	0.44
1:CA:1127:G:C4	1:CA:1147:C:N4	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1150:U:H1'	1:CA:1280:A:C6	2.52	0.44
1:CA:1340:A:C2'	1:CA:1341:U:H5'	2.48	0.44
1:CA:355:C:C4	1:CA:356:A:N7	2.86	0.44
1:CA:433:C:H2'	1:CA:434:U:C6	2.53	0.44
1:CA:99:U:H2'	1:CA:100:C:H6	1.82	0.44
3:CC:123:GLN:HA	3:CC:126:ARG:HH11	1.81	0.44
4:CD:50:ARG:HA	4:CD:51:PRO:HD3	1.86	0.44
23:DA:1436:G:H1'	23:DA:1477:A:O2'	2.18	0.44
23:DA:1592:C:H2'	23:DA:1593:G:C8	2.53	0.44
23:DA:1792:G:H2'	23:DA:1793:C:H6	1.81	0.44
23:DA:1833:U:H2'	23:DA:1834:U:C6	2.51	0.44
23:DA:2186:G:N2	23:DA:2187:G:C4	2.86	0.44
24:DB:31:C:O2'	24:DB:53:A:N6	2.51	0.44
24:DB:32:C:N3	24:DB:51:G:N2	2.65	0.44
27:DF:150:GLY:HA2	27:DF:172:TRP:CE3	2.53	0.44
27:DF:46:ARG:HH11	27:DF:46:ARG:CG	2.21	0.44
23:DA:2316:C:H1'	28:DG:128:ARG:NH2	2.32	0.44
31:DN:42:TRP:CE3	38:DU:63:VAL:HG11	2.52	0.44
23:DA:2562:U:C1'	32:DO:23:ARG:HH11	2.25	0.44
38:DU:106:PHE:O	38:DU:110:VAL:HG23	2.18	0.44
42:DY:102:CYS:O	42:DY:104:GLY:N	2.51	0.44
1:AA:1303:C:H2'	1:AA:1304:G:H5'	2.01	0.43
1:AA:1305:G:C2	1:AA:1331:G:H1'	2.53	0.43
1:AA:1458:G:H5'	20:AT:31:SER:HB2	2.00	0.43
1:AA:22:G:H2'	1:AA:23:C:C6	2.53	0.43
1:AA:933:G:N7	7:AG:3:ARG:HD2	2.32	0.43
1:AA:99:U:H2'	1:AA:100:C:C6	2.53	0.43
3:AC:193:TYR:CD2	3:AC:193:TYR:N	2.86	0.43
7:AG:156:TRP:CE3	7:AG:156:TRP:N	2.85	0.43
1:AA:1048:G:OP1	14:AN:4:LYS:HB2	2.17	0.43
46:B2:23:LYS:O	46:B2:27:GLU:HG2	2.18	0.43
23:BA:125:G:H5"	51:B7:19:ARG:HD3	1.99	0.43
23:BA:1106:G:H2'	23:BA:1106:G:N3	2.33	0.43
23:BA:1202:C:N4	23:BA:1203:G:C6	2.86	0.43
23:BA:1329:U:H5"	23:BA:1330:C:H5	1.83	0.43
23:BA:1858:G:H2'	23:BA:1883:G:N2	2.33	0.43
23:BA:2698:U:H2'	23:BA:2699:C:C6	2.52	0.43
23:BA:511:U:C5	23:BA:512:G:C5	3.06	0.43
23:BA:639:U:H2'	23:BA:640:C:C5	2.53	0.43
26:BE:77:ILE:HD12	26:BE:195:LEU:HD13	2.00	0.43
30:BI:130:TYR:HB3	30:BI:138:ILE:HB	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BZ:166:SER:HA	43:BZ:167:PRO:HD3	1.83	0.43
1:CA:1001(A):G:H2'	1:CA:1002:G:C8	2.50	0.43
1:CA:1014:A:C2	1:CA:1219:U:H1'	2.53	0.43
1:CA:1468:A:H2'	1:CA:1469:G:O4'	2.18	0.43
1:CA:152:A:N6	1:CA:170:U:N3	2.66	0.43
1:CA:458:C:H2'	1:CA:460:G:C8	2.50	0.43
1:CA:872:A:C5	1:CA:874:G:C8	3.06	0.43
1:CA:966:G:H2'	1:CA:967:C:O4'	2.18	0.43
7:CG:92:SER:H	7:CG:95:ARG:HD3	1.83	0.43
8:CH:92:ARG:HA	8:CH:92:ARG:HD3	1.74	0.43
13:CM:43:THR:OG1	13:CM:47:ASP:O	2.36	0.43
19:CS:58:VAL:HA	19:CS:59:PRO:HD3	1.81	0.43
44:D0:17:GLN:OE1	44:D0:17:GLN:HA	2.18	0.43
23:DA:2356:C:O3'	44:D0:20:ARG:HD3	2.18	0.43
23:DA:1049:C:O2'	23:DA:1050:A:P	2.76	0.43
23:DA:1187:G:H5"	39:DV:81:TYR:CE2	2.53	0.43
23:DA:1310:G:H1'	23:DA:1611:C:H5'	2.00	0.43
23:DA:271(Q):G:O2'	23:DA:271(R):G:OP2	2.36	0.43
23:DA:2772:C:H2'	23:DA:2773:C:C6	2.53	0.43
23:DA:2833:G:H3'	23:DA:2834:G:H5"	2.00	0.43
34:DQ:66:ILE:HG12	34:DQ:104:PHE:CE2	2.53	0.43
36:DS:110:LEU:HB3	36:DS:112:PHE:HE2	1.83	0.43
43:DZ:48:PHE:CE2	43:DZ:52:SER:HA	2.53	0.43
1:AA:1202:G:H2'	1:AA:1203:C:O4'	2.17	0.43
1:AA:514:C:H2'	1:AA:515:G:C8	2.53	0.43
1:AA:667:G:OP1	1:AA:732:C:O2'	2.27	0.43
1:AA:832:C:N4	1:AA:855:G:C6	2.86	0.43
1:AA:918:A:C6	1:AA:919:A:C6	3.06	0.43
2:AB:21:ARG:HH12	2:AB:23:ARG:HE	1.64	0.43
6:AF:15:ASP:HB2	6:AF:18:GLN:H	1.82	0.43
14:AN:24:CYS:HB2	14:AN:33:VAL:HG12	1.98	0.43
14:AN:53:LEU:HA	14:AN:54:PRO:HD3	1.53	0.43
20:AT:80:ARG:O	20:AT:84:LEU:HB2	2.17	0.43
23:BA:1288:U:C2	23:BA:1327:C:O2	2.71	0.43
23:BA:654:A:H2	23:BA:655:A:C2	2.36	0.43
23:BA:9:U:OP1	31:BN:115:ARG:NH2	2.51	0.43
36:BS:49:VAL:HG12	36:BS:73:LEU:HD12	2.00	0.43
43:BZ:14:LYS:HA	43:BZ:15:PRO:HD3	1.91	0.43
1:CA:1013:G:H1'	1:CA:1017:G:H1	1.82	0.43
1:CA:114:U:H2'	1:CA:115:G:C8	2.53	0.43
1:CA:1310:G:H1	1:CA:1327:C:N4	2.16	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:507:C:OP2	1:CA:508:C:O2'	2.28	0.43
1:CA:568:G:C6	1:CA:569:C:N4	2.86	0.43
1:CA:832:C:N4	1:CA:855:G:C6	2.85	0.43
1:CA:990:C:H2'	1:CA:991:U:C6	2.53	0.43
2:CB:40:HIS:HB3	2:CB:190:THR:HG21	1.98	0.43
7:CG:146:GLU:HG2	7:CG:149:ARG:HG3	2.00	0.43
8:CH:20:TYR:HA	8:CH:65:TYR:CE2	2.53	0.43
12:CL:48:PRO:C	12:CL:49:ASN:HD22	2.21	0.43
12:CL:54:LYS:HB3	12:CL:70:ILE:HD12	1.99	0.43
16:CP:39:TYR:CD1	16:CP:73:LEU:HD13	2.53	0.43
48:D4:30:GLU:O	48:D4:31:ILE:HG13	2.18	0.43
23:DA:1914:C:H2'	23:DA:1915:U:C6	2.53	0.43
23:DA:2093:G:H1	23:DA:2196:C:H42	1.66	0.43
23:DA:2141:G:C6	23:DA:2151:G:C6	3.06	0.43
23:DA:2146:C:H4'	23:DA:2147:G:O4'	2.19	0.43
23:DA:2404:C:O3'	33:DP:77:ARG:NH2	2.51	0.43
27:DF:123:LEU:HD12	27:DF:124:LEU:N	2.33	0.43
30:DI:97:ILE:O	30:DI:101:LEU:N	2.51	0.43
31:DN:128:HIS:HA	31:DN:129:PRO:HD2	1.64	0.43
1:AA:1098:C:C2	1:AA:1099:G:H1'	2.54	0.43
1:AA:1138:G:C6	1:AA:1140:C:H1'	2.53	0.43
1:AA:118:U:C5	1:AA:288:A:C6	3.06	0.43
1:AA:1293:G:N3	1:AA:1294:G:C8	2.86	0.43
1:AA:189:G:H2'	1:AA:189(A):C:C6	2.53	0.43
1:AA:658:G:H2'	1:AA:659:U:H6	1.82	0.43
1:AA:757:U:H2'	1:AA:758:G:O4'	2.19	0.43
1:AA:93:G:H1'	1:AA:96:U:H5'	1.99	0.43
2:AB:138:LEU:O	2:AB:142:LEU:N	2.39	0.43
3:AC:131:ARG:HA	3:AC:134:ILE:HD12	1.99	0.43
48:B4:15:ILE:HB	48:B4:32:TYR:CE2	2.53	0.43
50:B6:14:THR:HG21	50:B6:48:VAL:HG13	2.00	0.43
23:BA:1545:A:H2'	23:BA:1546:C:O4'	2.17	0.43
23:BA:1711:C:H2'	23:BA:1712:C:H6	1.83	0.43
23:BA:1885:A:H2'	23:BA:1886:C:O4'	2.19	0.43
23:BA:2146:C:H4'	23:BA:2147:G:O4'	2.18	0.43
23:BA:2387:U:H4'	44:B0:41:ARG:NH2	2.34	0.43
23:BA:2432:A:C6	45:B1:33:LYS:HB3	2.54	0.43
23:BA:1782:C:C4	23:BA:2587:A:C2	3.06	0.43
32:BO:4:PRO:O	32:BO:5:GLN:HB2	2.17	0.43
32:BO:71:ARG:HB3	32:BO:73:ASP:OD2	2.18	0.43
1:CA:1234:C:H2'	1:CA:1235:U:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1308:U:O2'	1:CA:1309:G:H5'	2.19	0.43
1:CA:345:C:H4'	1:CA:346:G:N7	2.32	0.43
1:CA:832:C:O2'	1:CA:833:U:P	2.76	0.43
1:CA:865:A:C2	1:CA:918:A:H4'	2.53	0.43
2:CB:139:LYS:O	2:CB:143:GLU:HB2	2.18	0.43
2:CB:71:VAL:N	2:CB:163:PHE:O	2.46	0.43
3:CC:177:THR:HG22	3:CC:179:ARG:H	1.82	0.43
4:CD:107:ARG:O	4:CD:170:VAL:HG11	2.18	0.43
11:CK:38:ASN:HA	11:CK:39:PRO:HD3	1.89	0.43
7:CG:150:ALA:HB2	11:CK:50:TYR:OH	2.18	0.43
14:CN:13:THR:HA	14:CN:14:PRO:HD2	1.88	0.43
1:CA:750:G:H1'	15:CO:22:THR:OG1	2.19	0.43
16:CP:54:GLU:HG2	16:CP:54:GLU:H	1.45	0.43
16:CP:55:ARG:O	16:CP:58:TYR:N	2.51	0.43
44:D0:31:VAL:HB	44:D0:35:ASN:ND2	2.33	0.43
23:DA:1049:C:H2'	23:DA:1050:A:C8	2.53	0.43
23:DA:1047:G:H21	23:DA:1111:A:N6	2.17	0.43
23:DA:1142(A):A:C4	23:DA:1144:G:C8	3.06	0.43
23:DA:191:A:H2'	23:DA:192:C:C6	2.53	0.43
23:DA:271(F):C:C2	23:DA:271(G):C:C6	3.06	0.43
23:DA:868:U:C4	23:DA:869:G:N7	2.86	0.43
25:DD:108:PRO:HG2	25:DD:111:LEU:HG	1.99	0.43
28:DG:125:PHE:HB3	28:DG:166:ASP:OD2	2.18	0.43
23:DA:2562:U:O2'	32:DO:23:ARG:HD3	2.18	0.43
33:DP:138:LEU:HD23	33:DP:145:PRO:HG3	1.99	0.43
36:DS:11:LYS:O	36:DS:15:ARG:HB2	2.18	0.43
37:DT:127:ALA:HA	37:DT:129:ARG:N	2.33	0.43
31:DN:38:HIS:O	38:DU:67:ALA:HB1	2.18	0.43
41:DX:57:LEU:HD13	41:DX:78:LYS:HG2	1.99	0.43
1:AA:1053:G:H4'	1:AA:1055:A:OP1	2.18	0.43
1:AA:107:G:H2'	1:AA:108:G:O4'	2.18	0.43
1:AA:1255:G:O6	1:AA:1279:A:H2'	2.18	0.43
1:AA:1319:A:H4'	19:AS:4:SER:HA	2.00	0.43
1:AA:1332:A:C2'	1:AA:1333:A:H5'	2.49	0.43
1:AA:1438:G:H2'	1:AA:1439:C:H6	1.83	0.43
1:AA:1492:A:H4'	1:AA:1492:A:OP1	2.18	0.43
1:AA:437:U:H2'	1:AA:438:G:C8	2.54	0.43
1:AA:832:C:O2'	1:AA:833:U:P	2.77	0.43
1:AA:874:G:C5	1:AA:875:C:C5	3.07	0.43
2:AB:61:LEU:HD23	2:AB:68:ILE:HD11	2.00	0.43
4:AD:111:ALA:HB1	4:AD:116:GLN:HG2	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:33:TYR:HB2	6:AF:75:LEU:HD12	2.01	0.43
9:AI:71:SER:HA	9:AI:74:ILE:HD12	1.99	0.43
10:AJ:50:ILE:HA	10:AJ:59:SER:O	2.18	0.43
12:AL:93:LEU:HD23	12:AL:93:LEU:HA	1.79	0.43
19:AS:35:SER:C	19:AS:51:VAL:HG11	2.38	0.43
20:AT:51:GLU:O	20:AT:55:ILE:HG12	2.18	0.43
47:B3:6:VAL:HG13	47:B3:56:VAL:HG13	1.99	0.43
23:BA:354:G:H2'	23:BA:355:G:C8	2.53	0.43
23:BA:448:U:O4	23:BA:583:G:H1'	2.18	0.43
23:BA:603:A:C8	23:BA:655:A:C6	3.06	0.43
23:BA:1501:C:O4'	25:BD:100:GLY:HA2	2.17	0.43
28:BG:44:GLY:O	28:BG:47:LYS:HG3	2.18	0.43
37:BT:24:PRO:HA	37:BT:49:VAL:O	2.17	0.43
39:BV:22:VAL:HG23	39:BV:23:GLU:O	2.18	0.43
39:BV:35:LEU:HB2	39:BV:57:VAL:CG1	2.48	0.43
1:CA:1147:C:H2'	1:CA:1148:U:H6	1.82	0.43
1:CA:1315:U:H2'	1:CA:1316:G:O4'	2.18	0.43
1:CA:513:C:H2'	1:CA:514:C:C6	2.53	0.43
11:CK:48:ILE:O	11:CK:48:ILE:HG12	2.19	0.43
14:CN:44:LEU:HD12	14:CN:48:ALA:HB2	2.00	0.43
23:DA:1639:U:O2'	23:DA:1640:C:H5"	2.18	0.43
23:DA:1676:A:N7	56:DA:4078:HOH:O	2.36	0.43
23:DA:2273:A:O2'	23:DA:2274:A:H5'	2.19	0.43
23:DA:836:G:H5"	23:DA:837:C:OP2	2.17	0.43
27:DF:32:LEU:HB3	27:DF:112:MET:HE1	2.00	0.43
28:DG:166:ASP:O	28:DG:170:ARG:N	2.37	0.43
28:DG:64:THR:OG1	28:DG:65:GLY:N	2.51	0.43
36:DS:24:LEU:HD23	36:DS:24:LEU:HA	1.84	0.43
38:DU:17:ILE:HD13	38:DU:17:ILE:HA	1.86	0.43
1:AA:1052:U:H3'	1:AA:1053:G:H5"	2.00	0.43
1:AA:1319:A:H62	1:AA:1361:G:H1'	1.82	0.43
1:AA:1368:G:H2'	1:AA:1369:C:H6	1.82	0.43
1:AA:1443:G:H1	1:AA:1459:C:C2'	2.30	0.43
1:AA:1491:G:H5"	1:AA:1492:A:OP2	2.18	0.43
1:AA:263:A:OP1	20:AT:79:ARG:NH1	2.52	0.43
1:AA:324:G:N2	1:AA:327:A:C8	2.86	0.43
1:AA:433:C:H2'	1:AA:434:U:C6	2.54	0.43
1:AA:658:G:C4	1:AA:659:U:C5	3.07	0.43
2:AB:163:PHE:HD1	2:AB:164:VAL:H	1.66	0.43
5:AE:39:GLY:O	5:AE:69:VAL:HG12	2.19	0.43
1:AA:777:A:C2	11:AK:119:CYS:HB3	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:20:TYR:CE2	11:AK:83:ILE:HD12	2.54	0.43
11:AK:17:GLY:HA2	11:AK:35:PRO:HD3	2.00	0.43
12:AL:79:GLU:HG2	12:AL:80:HIS:ND1	2.34	0.43
15:AO:63:ARG:NH1	15:AO:87:ILE:HD11	2.33	0.43
21:AU:22:ARG:N	21:AU:23:PRO:HD3	2.34	0.43
23:BA:1142(A):A:C4	23:BA:1144:G:C8	3.07	0.43
23:BA:1486:A:C4	23:BA:1487:G:C8	3.06	0.43
23:BA:583:G:OP2	38:BU:10:ARG:HD2	2.18	0.43
23:BA:922:U:H2'	23:BA:923:C:C6	2.54	0.43
36:BS:29:PHE:CD2	36:BS:30:ARG:N	2.87	0.43
24:BB:29:A:OP2	36:BS:32:LEU:HD12	2.18	0.43
38:BU:25:TRP:O	38:BU:28:ARG:HB2	2.18	0.43
1:CA:1076:C:N4	1:CA:1081:G:H1	2.15	0.43
1:CA:1089:G:C5	1:CA:1090:U:C4	3.06	0.43
1:CA:1127:G:H1'	1:CA:1148:U:N3	2.34	0.43
1:CA:1355:G:H2'	1:CA:1356:G:C8	2.53	0.43
1:CA:769:G:H4'	1:CA:1513:A:H4'	2.01	0.43
1:CA:203:U:P	1:CA:203:U:H3'	2.59	0.43
1:CA:830:G:H2'	1:CA:831:U:O4'	2.19	0.43
1:CA:922:G:H1'	5:CE:19:MET:HB2	2.00	0.43
1:CA:996:A:H2	1:CA:1045:C:H2'	1.84	0.43
2:CB:233:SER:OG	2:CB:234:PRO:HD2	2.18	0.43
1:CA:1279:A:H61	3:CC:26:LYS:NZ	2.16	0.43
3:CC:52:LEU:O	3:CC:52:LEU:HG	2.18	0.43
4:CD:112:VAL:HG13	4:CD:161:ASN:ND2	2.33	0.43
5:CE:143:ARG:NH1	8:CH:77:GLU:OE2	2.52	0.43
15:CO:39:LEU:HD13	15:CO:56:LEU:HB2	2.01	0.43
1:CA:254:G:OP1	17:CQ:67:LYS:O	2.36	0.43
6:CF:91:VAL:HG21	18:CR:72:ARG:HH12	1.84	0.43
44:D0:72:ARG:CB	44:D0:75:LEU:HB2	2.48	0.43
23:DA:1210:A:H4'	23:DA:1211:U:O5'	2.18	0.43
23:DA:1396:U:H5"	56:DA:4129:HOH:O	2.17	0.43
23:DA:1537:G:H2'	23:DA:1538:G:C8	2.53	0.43
23:DA:2262:U:H4'	23:DA:2328:A:C2	2.54	0.43
23:DA:375:C:H2'	23:DA:376:C:C6	2.54	0.43
24:DB:113:G:H2'	24:DB:114:C:H6	1.82	0.43
23:DA:2572:A:C8	26:DE:144:ARG:HD2	2.54	0.43
31:DN:112:LEU:O	31:DN:115:ARG:N	2.48	0.43
38:DU:104:GLN:H	38:DU:104:GLN:CD	2.22	0.43
1:AA:1027:C:C4	1:AA:1034:G:N1	2.86	0.43
1:AA:1150:U:H3'	1:AA:1151:A:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.19	0.43
1:AA:1349:A:H61	7:AG:34:GLY:HA2	1.84	0.43
1:AA:373:A:N3	1:AA:481:G:N2	2.50	0.43
1:AA:887:G:H1	1:AA:910:C:H42	1.67	0.43
1:AA:964:A:H2'	1:AA:965:A:H8	1.81	0.43
2:AB:215:LEU:HD22	2:AB:215:LEU:HA	1.74	0.43
3:AC:183:ASP:HB3	3:AC:202:ILE:HB	1.99	0.43
5:AE:55:VAL:O	5:AE:58:ALA:HB3	2.17	0.43
8:AH:44:PHE:HB3	8:AH:80:ILE:HD11	2.00	0.43
8:AH:9:MET:SD	8:AH:32:LYS:HG2	2.58	0.43
1:AA:973:G:H4'	10:AJ:54:PHE:O	2.18	0.43
12:AL:32:PHE:CE1	12:AL:86:ARG:HG3	2.50	0.43
14:AN:29:ARG:HH11	14:AN:42:ILE:CD1	2.31	0.43
23:BA:139(A):G:N2	56:BA:3825:HOH:O	2.50	0.43
23:BA:143:G:H2'	23:BA:143(A):C:C6	2.54	0.43
23:BA:2562:U:O2'	32:BO:23:ARG:HD3	2.18	0.43
23:BA:2834:G:H5"	23:BA:2834:G:C8	2.52	0.43
23:BA:720:C:H2'	23:BA:721:C:C6	2.54	0.43
23:BA:819:A:H2'	23:BA:820:A:H5'	2.01	0.43
23:BA:901:A:H2'	23:BA:902:C:C6	2.54	0.43
23:BA:2304:G:H21	28:BG:156:ASP:CG	2.22	0.43
30:BI:77:LEU:HD21	30:BI:101:LEU:HA	2.00	0.43
35:BR:103:ARG:HH12	35:BR:110:PRO:HD3	1.84	0.43
37:BT:118:ARG:HG3	37:BT:118:ARG:NH1	2.30	0.43
1:CA:1316:G:N2	1:CA:1319:A:O5'	2.52	0.43
1:CA:1442:G:N7	1:CA:1442(A):G:C5	2.87	0.43
1:CA:380:G:C2	1:CA:384:G:C6	3.06	0.43
1:CA:60:A:P	1:CA:60:A:H8	2.41	0.43
1:CA:663:A:O3'	18:CR:64:ARG:NH2	2.41	0.43
1:CA:919:A:H8	1:CA:919:A:O5'	2.02	0.43
1:CA:929:G:C6	1:CA:930:C:C4	3.06	0.43
12:CL:70:ILE:HG23	12:CL:100:ILE:HD12	2.00	0.43
13:CM:56:LEU:O	13:CM:59:TYR:HB3	2.18	0.43
44:D0:65:GLY:CA	44:D0:81:VAL:HG12	2.46	0.43
23:DA:1885:A:H2'	23:DA:1886:C:O4'	2.18	0.43
23:DA:2109:U:C3'	23:DA:2109:U:C6	3.01	0.43
23:DA:2564:A:C2	23:DA:2647:U:H4'	2.54	0.43
23:DA:265:A:H1'	23:DA:266:G:O4'	2.19	0.43
23:DA:459:U:H5"	51:D7:40:TRP:CD2	2.53	0.43
23:DA:839:U:H2'	23:DA:840:C:C6	2.53	0.43
23:DA:904:C:H2'	23:DA:905:U:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DD:33:LEU:HD23	25:DD:33:LEU:HA	1.39	0.43
27:DF:101:LEU:HA	27:DF:101:LEU:HD12	1.79	0.43
38:DU:43:GLY:HA3	39:DV:73:SER:OG	2.19	0.43
1:AA:1152:A:H2'	1:AA:1153:C:O4'	2.17	0.43
1:AA:1261:A:H5'	1:AA:1284:C:OP1	2.18	0.43
1:AA:1403:C:O5'	1:AA:1403:C:H6	2.01	0.43
1:AA:203:U:H3'	1:AA:203:U:P	2.59	0.43
1:AA:328:C:H4'	1:AA:329:A:H5'	1.99	0.43
1:AA:827:U:H5"	1:AA:828:A:OP2	2.18	0.43
9:AI:8:GLY:HA3	9:AI:76:ALA:O	2.18	0.43
13:AM:91:ARG:NE	13:AM:97:PRO:O	2.40	0.43
16:AP:54:GLU:H	16:AP:54:GLU:HG2	1.50	0.43
48:B4:15:ILE:O	48:B4:33:VAL:N	2.49	0.43
50:B6:11:LEU:HB2	50:B6:21:TYR:HB2	1.99	0.43
23:BA:1639:U:H2'	23:BA:1640:C:H5"	2.01	0.43
23:BA:1783:A:C2	23:BA:2587:A:C5	3.06	0.43
23:BA:2109:U:C6	23:BA:2109:U:C3'	3.01	0.43
23:BA:2104:G:O6	23:BA:2186:G:C4	2.72	0.43
23:BA:271(M):G:HO2'	23:BA:271(N):U:H3'	1.84	0.43
24:BB:33:G:C2	24:BB:50:G:C2	3.06	0.43
28:BG:176:LEU:HA	28:BG:176:LEU:HD23	1.90	0.43
30:BI:61:ARG:HD2	30:BI:61:ARG:N	2.34	0.43
33:BP:29:LYS:HB3	33:BP:30:THR:H	1.60	0.43
36:BS:56:LEU:HD23	36:BS:56:LEU:HA	1.81	0.43
43:BZ:141:VAL:O	43:BZ:144:LEU:HB2	2.19	0.43
1:CA:1247:U:H1'	1:CA:1291:G:H22	1.84	0.43
1:CA:826:C:H2'	1:CA:827:U:H6	1.84	0.43
1:CA:91:C:H2'	1:CA:92:C:C6	2.54	0.43
1:CA:953:G:H2'	1:CA:954:G:O4'	2.18	0.43
2:CB:118:LEU:HA	2:CB:121:LEU:HB3	2.00	0.43
2:CB:216:SER:O	2:CB:220:ASP:N	2.40	0.43
3:CC:111:LEU:HA	3:CC:202:ILE:HG21	1.99	0.43
3:CC:20:SER:HB2	3:CC:22:TRP:NE1	2.33	0.43
5:CE:55:VAL:O	5:CE:58:ALA:HB3	2.19	0.43
23:DA:1668:A:C8	23:DA:1674:G:C6	3.07	0.43
23:DA:1754:C:OP1	37:DT:96:ARG:NH1	2.45	0.43
23:DA:2350:C:H2'	23:DA:2351:G:O4'	2.18	0.43
23:DA:24:G:H2'	23:DA:25:U:O4'	2.19	0.43
23:DA:2815:C:H2'	23:DA:2816:C:C6	2.53	0.43
26:DE:116:VAL:HG13	26:DE:122:PHE:HB2	2.01	0.43
27:DF:181:LEU:HB3	27:DF:205:ARG:NH2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DQ:1:MET:HG2	34:DQ:2:LEU:H	1.83	0.43
37:DT:35:LYS:HE2	37:DT:35:LYS:HB3	1.76	0.43
43:DZ:128:VAL:HG12	43:DZ:129:SER:N	2.33	0.43
1:AA:1033:G:H2'	1:AA:1033:G:N3	2.33	0.43
1:AA:1119:C:OP1	9:AI:83:ARG:NH2	2.52	0.43
1:AA:1157:A:H4'	1:AA:1158:C:C5'	2.42	0.43
1:AA:1277:C:H1'	1:AA:1282:C:O2	2.18	0.43
1:AA:1360:A:H3'	1:AA:1361:G:H8	1.84	0.43
1:AA:557:G:C6	1:AA:558:G:C6	3.06	0.43
5:AE:60:TYR:O	5:AE:63:ARG:HB2	2.19	0.43
7:AG:104:LEU:HD12	7:AG:123:GLU:HG3	2.00	0.43
7:AG:97:GLN:HA	7:AG:100:ALA:HB3	2.00	0.43
13:AM:94:ARG:NH2	19:AS:80:TYR:HB3	2.32	0.43
1:AA:1244:C:OP1	21:AU:9:ARG:HB2	2.19	0.43
45:B1:40:ARG:HE	45:B1:40:ARG:HB2	1.57	0.43
50:B6:45:LYS:HG3	50:B6:46:HIS:O	2.19	0.43
23:BA:2478:A:H5'	53:B9:31:LYS:HE2	2.00	0.43
23:BA:1165:U:H2'	23:BA:1166:C:C6	2.54	0.43
23:BA:1779:U:C2	23:BA:1783:A:N7	2.87	0.43
23:BA:2009:G:OP1	40:BW:41:LYS:HE2	2.19	0.43
23:BA:2281:C:O2'	23:BA:2282:G:H5'	2.18	0.43
23:BA:2420:C:OP2	52:B8:33:ASN:HB2	2.18	0.43
28:BG:7:LEU:HD11	28:BG:107:LEU:HD12	1.99	0.43
32:BO:120:GLU:HG2	32:BO:122:LEU:HG	2.00	0.43
36:BS:65:VAL:O	36:BS:69:VAL:HG12	2.19	0.43
1:CA:1090:U:H6	1:CA:1090:U:O5'	2.01	0.43
1:CA:1130:A:H1'	1:CA:1146:A:C2	2.53	0.43
1:CA:1135:U:H4'	1:CA:1136:U:C4	2.53	0.43
1:CA:1207:G:H2'	1:CA:1208:C:O4'	2.18	0.43
1:CA:1239:A:H61	1:CA:1296:C:H2'	1.84	0.43
1:CA:1493:A:O2'	1:CA:1494:G:H8	2.02	0.43
1:CA:325:A:H2'	1:CA:326:G:O4'	2.18	0.43
1:CA:445:G:C6	1:CA:490:G:C6	3.07	0.43
1:CA:538:G:OP1	12:CL:114:LYS:N	2.44	0.43
1:CA:542:G:H2'	1:CA:543:C:C6	2.53	0.43
1:CA:954:G:C2	1:CA:955:U:C2	3.07	0.43
2:CB:157:ARG:HG2	2:CB:158:LEU:N	2.33	0.43
6:CF:67:MET:HB2	6:CF:68:PRO:HD2	1.99	0.43
7:CG:101:LEU:O	7:CG:105:VAL:HG23	2.18	0.43
47:D3:11:SER:OG	47:D3:13:ILE:HG13	2.19	0.43
51:D7:27:GLY:O	51:D7:30:VAL:HB	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1029:A:H8	23:DA:1029:A:O5'	2.01	0.43
23:DA:1383:C:H6	23:DA:1383:C:O5'	2.01	0.43
23:DA:1535:A:H3'	23:DA:1535:A:OP1	2.19	0.43
23:DA:1681:G:H1'	23:DA:1762:A:H2'	2.00	0.43
23:DA:2056:G:C2	23:DA:2057:A:C8	3.06	0.43
23:DA:2186:G:C2	23:DA:2187:G:C5	3.07	0.43
23:DA:2880:C:O3'	35:DR:90:ARG:NH1	2.51	0.43
23:DA:953:A:OP2	34:DQ:16:ARG:NE	2.47	0.43
25:DD:71:ASP:HB3	25:DD:103:ARG:HH22	1.83	0.43
23:DA:1500:G:N2	25:DD:99:ASP:O	2.48	0.43
28:DG:107:LEU:HD23	28:DG:111:LEU:HD12	2.01	0.43
30:DI:134:PRO:O	30:DI:136:VAL:N	2.51	0.43
23:DA:662:G:H5'	33:DP:14:LYS:O	2.19	0.43
37:DT:27:THR:HB	37:DT:90:GLN:HB3	2.00	0.43
37:DT:2:ASN:O	37:DT:6:LEU:HD22	2.19	0.43
43:DZ:98:MET:SD	43:DZ:133:ILE:HD13	2.59	0.43
1:AA:1006:C:C2	1:AA:1023:G:N1	2.76	0.43
1:AA:1137:C:H4'	1:AA:1138:G:C2	2.53	0.43
1:AA:113:G:H2'	1:AA:114:U:C6	2.54	0.43
1:AA:1237:C:H5"	1:AA:1238:A:O4'	2.19	0.43
1:AA:1363:C:H5'	1:AA:1363(A):A:O5'	2.19	0.43
1:AA:175:C:H2'	1:AA:176:C:C6	2.54	0.43
1:AA:44:G:C6	1:AA:45:U:C2	3.07	0.43
1:AA:472:A:H4'	16:AP:80:PHE:O	2.19	0.43
1:AA:49:U:O4	1:AA:365:U:H5	2.02	0.43
1:AA:540:G:H2'	1:AA:541:G:O4'	2.18	0.43
1:AA:78:G:N2	1:AA:92:C:O2	2.52	0.43
2:AB:22:LYS:H	2:AB:40:HIS:HD2	1.67	0.43
2:AB:79:ASP:O	2:AB:82:ARG:N	2.51	0.43
5:AE:66:MET:O	5:AE:67:VAL:HB	2.19	0.43
11:AK:31:THR:HG22	11:AK:42:TRP:CB	2.49	0.43
15:AO:17:ARG:HG3	15:AO:17:ARG:HH11	1.84	0.43
15:AO:48:LYS:HD2	15:AO:48:LYS:HA	1.88	0.43
16:AP:71:ARG:HA	16:AP:74:LEU:HB2	2.00	0.43
20:AT:73:HIS:O	20:AT:76:ALA:HB3	2.19	0.43
23:BA:107:C:H2'	23:BA:108:U:C6	2.53	0.43
23:BA:1681:G:H1'	23:BA:1762:A:H2'	2.01	0.43
23:BA:1783:A:OP1	56:BA:3901:HOH:O	2.21	0.43
23:BA:2747:G:O6	23:BA:2755:C:H5"	2.17	0.43
23:BA:861:A:H2'	23:BA:862:G:O4'	2.18	0.43
23:BA:94:C:H5"	23:BA:94(A):G:OP2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BE:181:LEU:HD12	26:BE:181:LEU:HA	1.72	0.43
30:BI:62:LYS:O	30:BI:66:GLU:HG2	2.19	0.43
1:CA:1036:G:H5"	1:CA:1037:C:H5	1.84	0.43
1:CA:1106:G:H2'	1:CA:1107:C:H6	1.84	0.43
1:CA:1291:G:C6	1:CA:1292:U:C4	3.07	0.43
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.53	0.43
1:CA:613:C:N4	1:CA:627:G:H1	2.16	0.43
2:CB:149:LEU:HB3	2:CB:152:PHE:CB	2.49	0.43
3:CC:46:GLU:H	3:CC:46:GLU:CD	2.21	0.43
5:CE:6:PHE:HD2	5:CE:6:PHE:HA	1.74	0.43
7:CG:32:ARG:O	7:CG:35:LYS:HG3	2.19	0.43
51:D7:34:ARG:NH1	51:D7:39:ARG:HG3	2.34	0.43
23:DA:1211:U:H4'	23:DA:1212:G:OP2	2.18	0.43
23:DA:1324:G:C5	23:DA:1328:G:O6	2.72	0.43
23:DA:1486:A:C4	23:DA:1487:G:C8	3.06	0.43
23:DA:2483:C:H2'	23:DA:2484:G:O4'	2.19	0.43
23:DA:601:C:O2	23:DA:605:C:H4'	2.19	0.43
24:DB:38:C:H2'	24:DB:39:A:O4'	2.19	0.43
26:DE:51:PHE:CE2	26:DE:52:LEU:HD13	2.54	0.43
27:DF:110:LEU:HD21	27:DF:181:LEU:HG	2.00	0.43
34:DQ:38:GLU:O	34:DQ:127:ILE:HG21	2.19	0.43
36:DS:80:LEU:HD12	36:DS:80:LEU:HA	1.76	0.43
43:DZ:79:ARG:HD2	43:DZ:80:ARG:HH21	1.83	0.43
1:AA:1060:C:C5'	10:AJ:51:ARG:HB3	2.49	0.43
1:AA:1120:G:N3	1:AA:1120:G:H2'	2.33	0.43
2:AB:132:LYS:HA	2:AB:135:GLN:NE2	2.34	0.43
7:AG:121:ALA:HB3	7:AG:122:HIS:CD2	2.54	0.43
7:AG:51:GLN:CG	7:AG:58:PRO:HD3	2.49	0.43
7:AG:71:PRO:HD2	7:AG:96:GLN:HA	2.00	0.43
10:AJ:44:VAL:HG13	10:AJ:64:GLU:HG3	2.01	0.43
13:AM:23:TYR:O	13:AM:25:ILE:HD12	2.18	0.43
49:B5:35:GLU:HG3	49:B5:51:TYR:CB	2.49	0.43
50:B6:44:ARG:NH1	50:B6:44:ARG:HB3	2.34	0.43
52:B8:61:LEU:C	52:B8:63:PRO:HD3	2.40	0.43
23:BA:2157:G:H2'	23:BA:2158:A:C8	2.54	0.43
23:BA:2191:G:H5'	23:BA:2192:G:OP2	2.19	0.43
24:BB:66:A:H61	24:BB:108:U:H2'	1.83	0.43
27:BF:106:ARG:HG2	27:BF:106:ARG:H	1.50	0.43
28:BG:153:ARG:HE	28:BG:153:ARG:HB2	1.51	0.43
1:CA:1259:C:H2'	1:CA:1283:G:O2'	2.19	0.43
1:CA:1266:G:N2	1:CA:1268:A:C8	2.85	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:31:G:H5'	1:CA:306:G:N2	2.34	0.43
1:CA:586:C:C2'	1:CA:587:G:H5'	2.49	0.43
4:CD:205:GLU:OE1	5:CE:100:VAL:HB	2.19	0.43
7:CG:70:LYS:HA	7:CG:71:PRO:HD3	1.76	0.43
10:CJ:50:ILE:HG23	10:CJ:57:LYS:HA	2.00	0.43
16:CP:60:LEU:HA	16:CP:60:LEU:HD23	1.91	0.43
20:CT:41:ILE:H	20:CT:41:ILE:HG13	1.26	0.43
46:D2:50:ILE:O	46:D2:51:ARG:CB	2.63	0.43
23:DA:107:C:C2	23:DA:108:U:C5	3.07	0.43
23:DA:1300:U:H4'	23:DA:1301:A:H5"	2.01	0.43
23:DA:1858:G:H2'	23:DA:1883:G:N2	2.34	0.43
23:DA:2169:A:O2'	23:DA:2170:A:H5'	2.18	0.43
23:DA:1638:C:H5"	23:DA:2710:C:O2'	2.19	0.43
23:DA:89:G:OP2	23:DA:90:U:H3'	2.19	0.43
26:DE:174:ASP:OD2	26:DE:175:VAL:N	2.52	0.43
27:DF:32:LEU:O	27:DF:35:GLU:N	2.52	0.43
27:DF:74:ARG:H	27:DF:74:ARG:HG3	1.27	0.43
28:DG:137:GLU:HG3	28:DG:152:LEU:HD21	1.99	0.43
1:AA:1001:A:C6	1:AA:1041:A:C5	3.07	0.42
1:AA:669:U:C2	1:AA:670:G:C8	3.07	0.42
1:AA:731:G:OP1	1:AA:766:A:H1'	2.18	0.42
1:AA:865:A:H8	1:AA:865:A:O5'	2.02	0.42
1:AA:918:A:H2'	1:AA:919:A:C8	2.54	0.42
2:AB:59:GLU:O	2:AB:63:MET:HG2	2.19	0.42
10:AJ:45:ARG:O	10:AJ:65:LEU:N	2.42	0.42
14:AN:7:ILE:HD13	14:AN:8:GLU:HG3	2.01	0.42
17:AQ:26:GLN:O	17:AQ:27:PHE:HB3	2.19	0.42
1:AA:254:G:OP1	17:AQ:67:LYS:O	2.36	0.42
21:AU:9:ARG:CZ	21:AU:10:ARG:HH22	2.32	0.42
23:BA:1685:C:H2'	23:BA:1686:C:C6	2.54	0.42
23:BA:2275:C:H5'	23:BA:2275:C:C6	2.53	0.42
23:BA:2287:A:O2'	23:BA:2288:A:H3'	2.19	0.42
23:BA:2317:C:H2'	23:BA:2318:G:C5'	2.49	0.42
23:BA:1669:A:H5"	23:BA:2550:G:OP1	2.20	0.42
23:BA:634:C:H2'	23:BA:635:C:C6	2.54	0.42
23:BA:729:G:C6	25:BD:208:LYS:HB2	2.53	0.42
23:BA:89:G:OP2	23:BA:90:U:H3'	2.19	0.42
24:BB:50:G:H5"	36:BS:61:ASN:ND2	2.33	0.42
25:BD:26:LYS:HE2	25:BD:28:GLU:O	2.19	0.42
27:BF:149:ASP:OD2	27:BF:149:ASP:N	2.40	0.42
30:BI:35:LEU:HD23	30:BI:35:LEU:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BN:42:TRP:HA	31:BN:48:MET:SD	2.59	0.42
23:BA:2378:A:H4'	36:BS:23:ARG:NH1	2.33	0.42
38:BU:61:TRP:CH2	38:BU:93:LYS:HB2	2.53	0.42
1:CA:1356:G:C6	1:CA:1357:A:C6	3.07	0.42
1:CA:227:G:H2'	1:CA:228:A:C8	2.54	0.42
1:CA:602:A:C6	1:CA:637:G:C6	3.07	0.42
2:CB:84:GLU:HA	2:CB:87:ARG:HB3	2.00	0.42
8:CH:118:VAL:C	8:CH:119:LEU:HD23	2.39	0.42
12:CL:85:ILE:HA	12:CL:85:ILE:HD13	1.70	0.42
18:CR:52:PRO:O	18:CR:56:THR:HG23	2.19	0.42
23:DA:10:G:H1'	23:DA:2801(A):A:C2	2.54	0.42
23:DA:1711:C:H2'	23:DA:1712:C:C6	2.54	0.42
23:DA:1721:G:C2	23:DA:1739:U:OP2	2.72	0.42
23:DA:1268:A:C2	23:DA:2013:A:C4	3.07	0.42
23:DA:639:U:O2'	23:DA:640:C:H5'	2.19	0.42
23:DA:952:G:C6	23:DA:953:A:N7	2.87	0.42
25:DD:242:ARG:N	25:DD:242:ARG:HD3	2.33	0.42
32:DO:106:LEU:HD23	32:DO:106:LEU:HA	1.78	0.42
1:AA:1106:G:C6	1:AA:1107:C:C4	3.07	0.42
1:AA:124:G:C5	1:AA:125:U:C4	3.07	0.42
1:AA:1306:A:H1'	1:AA:1332:A:N3	2.34	0.42
1:AA:1382:C:C2'	1:AA:1383:C:H5'	2.49	0.42
1:AA:1429:C:H2'	1:AA:1430:C:C6	2.54	0.42
4:AD:121:VAL:O	4:AD:134:ASP:HA	2.19	0.42
4:AD:61:LYS:O	4:AD:65:ARG:HB2	2.19	0.42
5:AE:133:TYR:O	5:AE:137:GLU:HB2	2.19	0.42
7:AG:31:MET:O	7:AG:32:ARG:HD3	2.18	0.42
9:AI:19:LEU:HA	9:AI:19:LEU:HD23	1.70	0.42
10:AJ:38:ILE:HA	10:AJ:39:PRO:HD3	1.75	0.42
11:AK:99:GLN:HA	11:AK:105:VAL:HG11	2.01	0.42
13:AM:14:ARG:N	13:AM:44:ARG:HD3	2.34	0.42
1:AA:1014:A:H4'	19:AS:14:HIS:ND1	2.35	0.42
21:AU:12:LYS:HZ2	21:AU:17:THR:C	2.21	0.42
23:BA:2111:C:C4	23:BA:2145:C:C2	3.07	0.42
23:BA:945:A:C2	23:BA:2448:A:C4	3.08	0.42
23:BA:1297:C:OP1	23:BA:2710:C:H4'	2.19	0.42
23:BA:2712:U:H1'	23:BA:2712(A):A:C8	2.55	0.42
23:BA:657:U:H2'	23:BA:658:C:C6	2.54	0.42
23:BA:780:G:C2	23:BA:782:A:C2	3.07	0.42
24:BB:88:C:H2'	24:BB:89:G:O4'	2.20	0.42
27:BF:32:LEU:HA	27:BF:32:LEU:HD12	1.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BI:145:VAL:HG12	30:BI:146:ALA:N	2.34	0.42
1:CA:1089:G:C6	1:CA:1090:U:N3	2.87	0.42
1:CA:1442:G:H2'	1:CA:1442(A):G:C8	2.54	0.42
1:CA:375:U:H2'	1:CA:376:G:C8	2.54	0.42
1:CA:512:U:H2'	1:CA:513:C:H6	1.83	0.42
1:CA:658:G:C5	1:CA:659:U:C5	3.07	0.42
1:CA:960:U:H4'	1:CA:961:U:C5'	2.49	0.42
45:D1:15:ALA:O	45:D1:40:ARG:HG3	2.19	0.42
23:DA:1419:A:C8	23:DA:1421:G:C6	3.08	0.42
23:DA:1529:G:O5'	23:DA:1529:G:H8	2.02	0.42
23:DA:1805:U:O2	25:DD:50:THR:HB	2.19	0.42
23:DA:1833:U:O2'	23:DA:1969:A:N1	2.41	0.42
23:DA:1900:A:N1	23:DA:1970:A:C6	2.88	0.42
23:DA:2108:C:C6	23:DA:2108:C:C3'	3.02	0.42
23:DA:2294:C:OP1	36:DS:89:ARG:NH1	2.43	0.42
23:DA:236:C:H2'	23:DA:237:C:H6	1.84	0.42
23:DA:2557:G:H2'	23:DA:2558:C:H6	1.84	0.42
23:DA:415:A:H2'	23:DA:416:C:H6	1.83	0.42
23:DA:642:G:H21	23:DA:646:A:H2	1.66	0.42
23:DA:805:G:H4'	33:DP:38:GLN:HB3	2.00	0.42
23:DA:1796:U:H4'	25:DD:256:GLY:N	2.33	0.42
26:DE:21:VAL:HA	26:DE:22:PRO:HD2	1.74	0.42
26:DE:93:VAL:HG22	26:DE:93:VAL:H	1.55	0.42
28:DG:24:GLY:O	28:DG:26:GLN:NE2	2.53	0.42
24:DB:57:A:H1'	28:DG:29:TRP:HB2	2.01	0.42
28:DG:43:LEU:HB3	28:DG:44:GLY:H	1.58	0.42
28:DG:89:GLY:O	28:DG:90:LEU:HD23	2.19	0.42
32:DO:3:GLN:HB2	32:DO:4:PRO:HD2	2.00	0.42
43:DZ:30:ASN:OD1	43:DZ:32:HIS:N	2.46	0.42
1:AA:1001:A:C6	1:AA:1041:A:C6	3.07	0.42
1:AA:1001:A:C6	1:AA:1001(A):G:C5	3.07	0.42
1:AA:1381:U:C2	1:AA:1382:C:H5	2.38	0.42
1:AA:1511:G:H2'	1:AA:1512:U:O4'	2.19	0.42
1:AA:21:G:P	56:AA:1895:HOH:O	2.75	0.42
1:AA:294:U:H2'	1:AA:295:C:C6	2.54	0.42
1:AA:791:G:O5'	1:AA:791:G:H8	2.03	0.42
1:AA:938:A:C2	1:AA:939:G:H1'	2.54	0.42
4:AD:21:LEU:HD21	4:AD:67:ILE:HA	2.01	0.42
9:AI:9:ARG:HD2	9:AI:104:ARG:HE	1.85	0.42
14:AN:3:ARG:HA	14:AN:6:LEU:HB2	2.00	0.42
14:AN:40:CYS:SG	14:AN:42:ILE:HB	2.59	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:B0:17:GLN:HA	44:B0:17:GLN:OE1	2.18	0.42
41:BX:5:TYR:HD1	46:B2:33:MET:CE	2.32	0.42
23:BA:1187:G:H5"	39:BV:81:TYR:CE2	2.55	0.42
23:BA:2287:A:C4	23:BA:2289:G:N7	2.87	0.42
23:BA:2359:C:H2'	23:BA:2360:A:O4'	2.19	0.42
23:BA:2812:G:N2	23:BA:2889:C:C2	2.86	0.42
23:BA:601:C:O2	23:BA:605:C:H4'	2.20	0.42
24:BB:11:C:H3'	24:BB:12:C:C6	2.54	0.42
24:BB:32:C:N3	24:BB:51:G:N2	2.67	0.42
30:BI:27:ARG:HD2	45:B1:71:TYR:CE1	2.55	0.42
30:BI:98:ALA:O	30:BI:101:LEU:N	2.52	0.42
23:BA:2292:C:P	36:BS:17:ARG:HH22	2.41	0.42
37:BT:50:ILE:HG22	37:BT:102:ILE:HD11	2.01	0.42
23:BA:548:A:H61	39:BV:19:LYS:H	1.66	0.42
39:BV:20:LEU:HA	39:BV:20:LEU:HD12	1.79	0.42
40:BW:60:ASN:ND2	40:BW:60:ASN:N	2.67	0.42
41:BX:53:LYS:HB3	41:BX:82:GLN:HB3	2.01	0.42
34:BQ:21:THR:O	43:BZ:78:LYS:HD3	2.20	0.42
1:CA:1022:G:H2'	1:CA:1023:G:H8	1.84	0.42
1:CA:1140:C:H2'	1:CA:1141:C:H6	1.84	0.42
1:CA:1226:C:H4'	19:CS:80:TYR:OH	2.19	0.42
1:CA:1268:A:N6	1:CA:1269:A:N6	2.67	0.42
2:CB:20:GLU:O	2:CB:40:HIS:HB2	2.20	0.42
2:CB:42:ILE:HG21	2:CB:202:PRO:O	2.19	0.42
3:CC:137:ALA:O	3:CC:140:ARG:HB2	2.19	0.42
3:CC:114:PRO:CA	3:CC:185:GLY:HA3	2.49	0.42
8:CH:39:LEU:HD22	8:CH:39:LEU:H	1.85	0.42
1:CA:1128:C:H5'	9:CI:16:ARG:HH12	1.84	0.42
50:D6:10:LEU:HD23	50:D6:22:ALA:HB2	2.01	0.42
23:DA:1827:C:H5'	23:DA:1971:A:H4'	2.01	0.42
23:DA:2065:C:H2'	23:DA:2066:C:H6	1.84	0.42
23:DA:2140:C:H2'	23:DA:2141:G:C8	2.54	0.42
27:DF:130:ALA:HB2	27:DF:142:TRP:HD1	1.84	0.42
32:DO:10:VAL:HG21	32:DO:16:ALA:HB3	1.99	0.42
23:DA:1161:C:H1'	39:DV:8:GLY:O	2.19	0.42
1:AA:1060:C:H5"	10:AJ:51:ARG:HB3	2.02	0.42
1:AA:1251:A:O4'	1:AA:1370:G:H4'	2.20	0.42
1:AA:1284:C:P	1:AA:1285:A:H2'	2.60	0.42
1:AA:1351:U:H4'	7:AG:33:ASP:OD1	2.19	0.42
1:AA:542:G:H2'	1:AA:543:C:C6	2.53	0.42
1:AA:788:U:H2'	1:AA:789:U:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:858:G:O6	1:AA:869:G:H3'	2.19	0.42
1:AA:977:A:HO2'	1:AA:981:U:H3	1.67	0.42
1:AA:993:G:H2'	1:AA:995:C:H42	1.82	0.42
3:AC:127:ARG:NE	3:AC:193:TYR:OH	2.52	0.42
23:BA:1367:A:N7	23:BA:1368:G:H1'	2.35	0.42
23:BA:2095:C:H2'	23:BA:2096:U:O4'	2.19	0.42
23:BA:649:G:H2'	23:BA:650:C:O4'	2.18	0.42
23:BA:1798:U:OP2	25:BD:274:ARG:NH2	2.52	0.42
27:BF:117:ARG:HD3	27:BF:117:ARG:HA	1.87	0.42
27:BF:181:LEU:HB3	27:BF:205:ARG:NH2	2.33	0.42
23:BA:2198:A:O5'	30:BI:33:ARG:NH2	2.51	0.42
30:BI:5:LEU:HD12	30:BI:5:LEU:N	2.34	0.42
30:BI:68:LEU:C	30:BI:70:GLU:N	2.73	0.42
36:BS:34:HIS:NE2	36:BS:54:LEU:HD12	2.33	0.42
1:CA:1174:G:H2'	1:CA:1175:G:H8	1.84	0.42
1:CA:522:C:H5"	12:CL:120:TYR:HH	1.79	0.42
46:D2:27:GLU:HG2	46:D2:27:GLU:H	1.68	0.42
23:DA:1138:G:H5"	23:DA:1139:G:OP2	2.18	0.42
23:DA:30:G:O2'	23:DA:1214:A:N3	2.46	0.42
23:DA:1425:G:H2'	23:DA:1426:G:O4'	2.19	0.42
23:DA:1639:U:H2'	23:DA:1640:C:H5"	2.00	0.42
23:DA:2111:C:C4	23:DA:2145:C:C2	3.08	0.42
23:DA:2287:A:N3	23:DA:2289:G:C8	2.88	0.42
23:DA:2575:C:H2'	23:DA:2578:G:O6	2.19	0.42
23:DA:387:U:H5"	56:DA:3740:HOH:O	2.19	0.42
28:DG:33:ARG:O	28:DG:161:THR:HG22	2.19	0.42
34:DQ:21:THR:O	43:DZ:78:LYS:HD3	2.19	0.42
24:DB:7:G:H4'	36:DS:29:PHE:CD1	2.54	0.42
36:DS:34:HIS:CG	36:DS:53:SER:HG	2.31	0.42
43:DZ:67:LEU:HA	43:DZ:68:PRO:HD3	1.74	0.42
1:AA:1058:G:H1	1:AA:1199:U:H3	1.67	0.42
1:AA:1160:G:C5	1:AA:1161:C:C5	3.05	0.42
1:AA:1236:A:H2'	1:AA:1237:C:O4'	2.18	0.42
1:AA:1301:U:O2'	1:AA:1303:C:H6	2.02	0.42
1:AA:373:A:C8	1:AA:482:A:C8	3.07	0.42
1:AA:536:C:H5"	1:AA:537:G:OP2	2.18	0.42
1:AA:839:U:H5"	1:AA:840:C:C5	2.36	0.42
1:AA:987:G:N2	1:AA:1015:A:H2	2.18	0.42
13:AM:22:ILE:HG22	13:AM:23:TYR:H	1.84	0.42
18:AR:61:LYS:O	18:AR:65:ILE:HG12	2.20	0.42
23:BA:1529:G:C5	23:BA:1530:C:C4	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2147:G:H2'	23:BA:2148:G:O4'	2.20	0.42
23:BA:742:G:H2'	23:BA:743:G:C8	2.55	0.42
24:BB:82:G:C2'	24:BB:83:G:H5'	2.49	0.42
37:BT:19:LEU:HA	37:BT:20:PRO:HD3	1.91	0.42
38:BU:106:PHE:O	38:BU:110:VAL:HG23	2.20	0.42
34:BQ:6:ARG:HG2	43:BZ:194:PRO:HG2	2.01	0.42
1:CA:1067:A:N3	1:CA:1068:G:H1'	2.34	0.42
1:CA:1084:G:C5	1:CA:1085:U:C5	3.07	0.42
1:CA:1457:G:N2	1:CA:1458:G:H1'	2.34	0.42
1:CA:1458:G:H5'	20:CT:31:SER:CB	2.50	0.42
1:CA:453:A:C5	1:CA:454:C:C4	3.07	0.42
1:CA:99:U:H2'	1:CA:100:C:C6	2.54	0.42
2:CB:27:LYS:CB	2:CB:194:PRO:HD2	2.49	0.42
11:CK:32:ILE:HD11	11:CK:68:ALA:HB1	2.00	0.42
12:CL:45:PRO:HG3	12:CL:53:ARG:HH11	1.82	0.42
48:D4:15:ILE:O	48:D4:33:VAL:N	2.49	0.42
48:D4:25:TYR:N	48:D4:25:TYR:CD1	2.88	0.42
49:D5:19:ARG:HH11	49:D5:19:ARG:HD2	1.65	0.42
23:DA:1311:G:O6	51:D7:9:ARG:NH2	2.53	0.42
23:DA:1816:G:N1	25:DD:35:LYS:HD3	2.33	0.42
23:DA:2772:C:H2'	23:DA:2773:C:H6	1.84	0.42
23:DA:354:G:H2'	23:DA:355:G:C8	2.55	0.42
23:DA:542:C:C6	23:DA:542:C:H3'	2.53	0.42
23:DA:937:U:H2'	23:DA:938:G:O4'	2.19	0.42
25:DD:13:ARG:HA	25:DD:13:ARG:HD2	1.83	0.42
28:DG:126:ASP:CG	28:DG:130:ASN:HD22	2.23	0.42
28:DG:7:LEU:HD11	28:DG:107:LEU:HD12	2.01	0.42
28:DG:86:MET:HA	28:DG:87:PRO:HD3	1.84	0.42
34:DQ:50:ALA:HB2	34:DQ:125:LEU:HD21	2.02	0.42
35:DR:67:LEU:HD13	35:DR:67:LEU:HA	1.75	0.42
37:DT:106:SER:O	37:DT:110:ILE:HG13	2.20	0.42
1:AA:1026:G:N3	1:AA:1026:G:H2'	2.35	0.42
1:AA:1223:C:OP1	1:AA:1225:A:H8	2.02	0.42
1:AA:1326:C:H5"	21:AU:18:TYR:O	2.19	0.42
1:AA:191:G:C6	1:AA:192:U:N3	2.88	0.42
1:AA:748:C:H6	1:AA:748:C:H2'	1.61	0.42
1:AA:854:G:H3'	1:AA:871:U:O4	2.20	0.42
1:AA:909:A:H2'	1:AA:910:C:O4'	2.20	0.42
1:AA:935:A:H2'	1:AA:936:C:C6	2.55	0.42
1:AA:970:C:H5'	1:AA:972:C:C2	2.54	0.42
7:AG:69:VAL:HA	7:AG:138:LYS:CB	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:11:THR:HA	8:AH:14:ARG:NH1	2.35	0.42
9:AI:28:VAL:HG12	9:AI:65:VAL:HG12	2.01	0.42
1:AA:708:C:P	11:AK:85:ARG:HH22	2.42	0.42
13:AM:94:ARG:CZ	19:AS:80:TYR:HB3	2.50	0.42
45:B1:82:LEU:HD22	45:B1:90:ILE:HG23	2.02	0.42
47:B3:4:LEU:HD23	47:B3:4:LEU:HA	1.71	0.42
23:BA:1312:U:H4'	23:BA:1313:U:O5'	2.19	0.42
23:BA:1601:G:O2'	23:BA:1602:U:H5'	2.20	0.42
23:BA:1930:G:O2'	23:BA:1931:U:P	2.78	0.42
23:BA:2140:C:N3	23:BA:2151:G:C6	2.88	0.42
23:BA:29:U:H2'	23:BA:30:G:C8	2.54	0.42
23:BA:542:C:C6	23:BA:542:C:H3'	2.55	0.42
23:BA:866:A:C6	23:BA:914:C:C5	3.08	0.42
24:BB:11:C:OP2	24:BB:12:C:N4	2.36	0.42
28:BG:96:ARG:O	28:BG:99:MET:HB3	2.18	0.42
35:BR:67:LEU:HD13	35:BR:67:LEU:HA	1.78	0.42
43:BZ:48:PHE:CE2	43:BZ:52:SER:HA	2.54	0.42
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.55	0.42
1:CA:431:A:H2'	1:CA:432:A:O4'	2.19	0.42
1:CA:664:G:H22	1:CA:741:G:H1	1.68	0.42
1:CA:76:C:H3'	1:CA:77:G:H5"	2.00	0.42
1:CA:909:A:H2'	1:CA:910:C:O4'	2.20	0.42
2:CB:163:PHE:HD1	2:CB:164:VAL:N	2.17	0.42
3:CC:23:TYR:CZ	3:CC:25:GLY:HA3	2.55	0.42
3:CC:43:LEU:HA	3:CC:43:LEU:HD23	1.61	0.42
4:CD:200:GLU:OE2	4:CD:200:GLU:N	2.52	0.42
11:CK:21:ILE:HA	11:CK:30:VAL:HG12	2.01	0.42
15:CO:75:PRO:O	15:CO:77:ARG:N	2.52	0.42
23:DA:1001:A:H2'	23:DA:1002:G:O4'	2.19	0.42
23:DA:2095:C:H2'	23:DA:2096:U:O4'	2.20	0.42
23:DA:2600:A:C6	23:DA:2601:C:N4	2.88	0.42
23:DA:2773:C:OP1	26:DE:166:THR:OG1	2.34	0.42
23:DA:67:U:C2'	23:DA:68:G:H5'	2.50	0.42
23:DA:990:A:OP2	23:DA:991:C:OP2	2.38	0.42
24:DB:77:U:OP1	43:DZ:19:ARG:NH2	2.52	0.42
26:DE:176:ILE:HG22	26:DE:179:GLU:HB2	2.01	0.42
29:DH:91:GLY:HA3	29:DH:160:LYS:HG3	2.02	0.42
30:DI:5:LEU:HD12	30:DI:5:LEU:N	2.35	0.42
31:DN:73:THR:HA	31:DN:83:LYS:O	2.19	0.42
1:AA:1001(A):G:C6	1:AA:1002:G:C6	3.08	0.42
1:AA:1135:U:H4'	1:AA:1136:U:C4	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1128:C:H5	1:AA:1139:G:HO2'	1.61	0.42
1:AA:1190:G:H5"	3:AC:4:LYS:HB3	2.00	0.42
1:AA:1224:G:H1	1:AA:1363:C:H42	1.65	0.42
1:AA:1358:U:H5	1:AA:1359:C:N3	2.18	0.42
1:AA:1365:G:O3'	9:AI:117:HIS:HE1	2.03	0.42
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.54	0.42
1:AA:441:A:H3'	1:AA:442:C:H6	1.85	0.42
1:AA:664:G:H22	1:AA:741:G:H1	1.68	0.42
1:AA:79:G:H2'	1:AA:80:G:C8	2.54	0.42
2:AB:141:GLU:O	2:AB:145:LEU:HB2	2.19	0.42
7:AG:127:ALA:HB2	7:AG:134:ALA:HB3	2.01	0.42
8:AH:112:LEU:HB3	8:AH:133:LEU:HA	2.01	0.42
9:AI:99:LEU:HD12	9:AI:101:PHE:CE1	2.54	0.42
10:AJ:46:ARG:HB3	10:AJ:63:PHE:O	2.20	0.42
18:AR:43:PHE:C	18:AR:51:LEU:HD12	2.40	0.42
20:AT:55:ILE:HA	20:AT:55:ILE:HD13	1.75	0.42
23:BA:2238:G:H2'	23:BA:2238:G:N3	2.35	0.42
23:BA:2350:C:H2'	23:BA:2351:G:O4'	2.20	0.42
23:BA:255:A:H1'	23:BA:384:U:C6	2.55	0.42
23:BA:664:C:H2'	23:BA:665:C:H6	1.83	0.42
24:BB:52:A:O2'	24:BB:53:A:N3	2.52	0.42
25:BD:182:LEU:HA	25:BD:182:LEU:HD23	1.73	0.42
28:BG:33:ARG:O	28:BG:161:THR:HG22	2.19	0.42
28:BG:57:ALA:HB2	28:BG:90:LEU:HD13	2.02	0.42
23:BA:2845:G:H5"	37:BT:54:ARG:O	2.19	0.42
1:CA:1311:G:C2	1:CA:1327:C:C2	3.08	0.42
1:CA:1329:A:C2	1:CA:1330:U:H1'	2.54	0.42
1:CA:1350:A:H2'	1:CA:1351:U:O4'	2.19	0.42
1:CA:1443:G:H1	1:CA:1459:C:C2'	2.31	0.42
1:CA:520:A:O2'	12:CL:73:GLU:HG2	2.19	0.42
1:CA:730:G:C5	1:CA:731:G:H1'	2.54	0.42
1:CA:960:U:H4'	1:CA:961:U:H5"	2.01	0.42
8:CH:25:ASP:HB3	8:CH:58:TYR:HD2	1.85	0.42
14:CN:48:ALA:HB2	14:CN:53:LEU:HD12	2.00	0.42
16:CP:17:TYR:HD1	16:CP:17:TYR:N	2.18	0.42
17:CQ:58:GLU:OE1	17:CQ:75:ARG:NH1	2.53	0.42
23:DA:1130:U:O2	26:DE:149:ARG:NH2	2.50	0.42
23:DA:1637:A:H4'	23:DA:2711:A:O2'	2.20	0.42
23:DA:1685:C:H2'	23:DA:1686:C:C6	2.55	0.42
23:DA:2070:G:C2	23:DA:2442:C:C2	3.07	0.42
23:DA:479:A:H4'	23:DA:480:A:OP1	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:475:U:C4	23:DA:481:G:O6	2.73	0.42
23:DA:545:G:OP1	23:DA:545:G:H4'	2.19	0.42
26:DE:181:LEU:HD12	26:DE:181:LEU:HA	1.71	0.42
26:DE:201:THR:OG1	26:DE:202:LYS:N	2.53	0.42
27:DF:160:ASN:ND2	27:DF:163:VAL:HG23	2.35	0.42
29:DH:121:ILE:HD11	29:DH:140:LYS:HG2	2.01	0.42
29:DH:3:ARG:HG2	29:DH:6:ARG:NE	2.31	0.42
32:DO:66:LYS:HA	32:DO:79:PHE:O	2.20	0.42
23:DA:252:G:P	33:DP:50:ARG:HH11	2.43	0.42
34:DQ:35:VAL:CG1	34:DQ:130:LYS:HB3	2.49	0.42
43:DZ:125:LEU:HB3	43:DZ:165:VAL:CG1	2.49	0.42
1:AA:1016:A:N6	1:AA:1017:G:N3	2.68	0.42
1:AA:1064:G:C5	1:AA:1066:C:C4	3.08	0.42
1:AA:154:C:C2	1:AA:168:G:C2	3.07	0.42
1:AA:168:G:C2	1:AA:169:C:N3	2.88	0.42
1:AA:250:A:H4'	1:AA:251:G:O5'	2.20	0.42
1:AA:294:U:H2'	1:AA:295:C:H6	1.85	0.42
1:AA:414:A:H2'	1:AA:415:A:C8	2.55	0.42
1:AA:416:G:H2'	1:AA:417:C:O4'	2.20	0.42
1:AA:589:C:H2'	1:AA:590:C:H6	1.85	0.42
1:AA:707:C:H4'	11:AK:20:TYR:CD1	2.54	0.42
2:AB:53:ARG:HH12	2:AB:199:TYR:HD2	1.67	0.42
12:AL:54:LYS:HB3	12:AL:70:ILE:HD12	2.02	0.42
13:AM:114:ARG:NH1	13:AM:114:ARG:HB3	2.35	0.42
16:AP:39:TYR:CD1	16:AP:73:LEU:HD13	2.55	0.42
44:B0:10:THR:HG22	44:B0:12:ASN:H	1.84	0.42
50:B6:10:LEU:CD1	50:B6:54:ILE:HA	2.46	0.42
23:BA:1048:A:O2'	23:BA:1049:C:P	2.77	0.42
23:BA:1647:G:H3'	23:BA:1647:G:OP2	2.20	0.42
23:BA:1911:U:C2	23:BA:1918:A:C2	3.07	0.42
23:BA:2322:A:H2'	23:BA:2323:G:O4'	2.19	0.42
23:BA:2749:A:H5"	29:BH:3:ARG:HH21	1.85	0.42
23:BA:2773:C:H5"	26:BE:164:ARG:HG2	2.01	0.42
23:BA:824:A:H1'	23:BA:2358:G:N7	2.34	0.42
28:BG:86:MET:HA	28:BG:87:PRO:HD3	1.84	0.42
23:BA:2820:A:C5	35:BR:4:LEU:HD11	2.55	0.42
1:CA:1030(B):C:H3'	1:CA:1030(C):G:C8	2.54	0.42
1:CA:113:G:H2'	1:CA:114:U:C6	2.54	0.42
1:CA:1300:G:O2'	1:CA:1301:U:P	2.77	0.42
1:CA:1307:U:H5"	13:CM:101:GLN:NE2	2.34	0.42
1:CA:1385:G:C6	1:CA:1386:G:N7	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1493:A:H1'	23:DA:1913:A:N1	2.35	0.42
1:CA:432:A:H3'	1:CA:433:C:C6	2.55	0.42
1:CA:701:C:OP1	1:CA:702:A:O2'	2.31	0.42
1:CA:961:U:H2'	1:CA:962:C:O4'	2.19	0.42
1:CA:965:A:H5'	1:CA:969:A:H5"	2.01	0.42
2:CB:167:PRO:O	2:CB:174:VAL:HG21	2.19	0.42
2:CB:98:LEU:O	2:CB:101:MET:HB2	2.20	0.42
4:CD:121:VAL:O	4:CD:134:ASP:HA	2.20	0.42
1:CA:1297:C:O3'	7:CG:114:ARG:NH2	2.53	0.42
8:CH:11:THR:HA	8:CH:14:ARG:NH1	2.35	0.42
13:CM:68:GLY:HA2	13:CM:71:ARG:HB2	2.01	0.42
15:CO:74:ASP:OD2	15:CO:77:ARG:HB2	2.19	0.42
46:D2:64:LEU:O	46:D2:68:ARG:HG2	2.19	0.42
23:DA:1015:G:O2'	23:DA:1016:G:H5'	2.20	0.42
23:DA:2232:U:P	45:D1:40:ARG:HH12	2.43	0.42
23:DA:2805:G:H2'	23:DA:2807:G:C8	2.52	0.42
23:DA:580:C:H2'	23:DA:581:C:C6	2.55	0.42
23:DA:819:A:C4	23:DA:1189:A:C2	3.08	0.42
26:DE:38:THR:O	26:DE:42:ASP:N	2.47	0.42
27:DF:106:ARG:H	27:DF:106:ARG:HG2	1.51	0.42
38:DU:28:ARG:NH1	38:DU:38:THR:OG1	2.48	0.42
1:AA:1002:G:N3	1:AA:1003:G:H1'	2.35	0.42
1:AA:1235:U:H5"	21:AU:3:LYS:HD3	2.02	0.42
1:AA:1335:C:H4'	1:AA:1336:C:C6	2.55	0.42
1:AA:1442(A):G:C5	1:AA:1442(B):A:C6	3.07	0.42
1:AA:33:A:H2'	1:AA:34:C:C6	2.55	0.42
1:AA:57:G:H2'	1:AA:58:C:C6	2.54	0.42
3:AC:110:ASN:N	3:AC:110:ASN:OD1	2.52	0.42
15:AO:18:PHE:HD1	15:AO:20:GLY:H	1.67	0.42
50:B6:47:THR:HG22	50:B6:48:VAL:N	2.35	0.42
23:BA:157:U:H4'	23:BA:171:G:H21	1.85	0.42
23:BA:2093:G:H1	23:BA:2196:C:H42	1.68	0.42
23:BA:2173:A:C6	23:BA:2174:C:C2	3.07	0.42
23:BA:271(F):C:C2	23:BA:271(G):C:C6	3.08	0.42
23:BA:861:A:N3	24:BB:79:C:O2'	2.49	0.42
23:BA:903:C:H2'	23:BA:904:C:H6	1.84	0.42
24:BB:46:A:C5	24:BB:47:C:C4	3.08	0.42
24:BB:52:A:O2'	24:BB:53:A:H5"	2.20	0.42
24:BB:89:G:OP2	24:BB:89:G:H8	2.02	0.42
26:BE:93:VAL:HG12	26:BE:182:LEU:HD12	2.01	0.42
23:BA:2680:C:H5'	26:BE:189:PRO:HA	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BH:33:LEU:HD11	29:BH:136:ILE:O	2.19	0.42
30:BI:112:LYS:C	30:BI:114:LEU:N	2.70	0.42
30:BI:39:ALA:O	30:BI:44:LEU:HD22	2.19	0.42
32:BO:81:ASP:N	32:BO:81:ASP:OD2	2.52	0.42
34:BQ:7:MET:HB2	34:BQ:7:MET:HE3	1.65	0.42
38:BU:29:SER:OG	38:BU:30:LYS:NZ	2.48	0.42
38:BU:58:ARG:HA	38:BU:61:TRP:CE3	2.55	0.42
1:CA:1111:A:N6	3:CC:177:THR:HA	2.35	0.42
1:CA:60:A:OP1	1:CA:60:A:H8	2.02	0.42
1:CA:72:C:C2	1:CA:98:G:N2	2.88	0.42
1:CA:864:A:H2'	1:CA:865:A:C8	2.55	0.42
2:CB:69:LEU:HB2	2:CB:162:ILE:HG22	2.02	0.42
3:CC:150:LYS:O	3:CC:201:TYR:HB2	2.20	0.42
5:CE:60:TYR:C	5:CE:60:TYR:CD1	2.93	0.42
10:CJ:32:ALA:HB1	10:CJ:33:GLN:HB3	2.02	0.42
10:CJ:46:ARG:HD3	14:CN:61:TRP:CZ3	2.55	0.42
14:CN:47:LEU:HD23	14:CN:50:LYS:HD2	2.01	0.42
1:CA:624:C:H4'	16:CP:10:GLY:HA2	2.01	0.42
1:CA:867:G:H5'	22:CV:3:ARG:CB	2.49	0.42
23:DA:1711:C:H2'	23:DA:1712:C:H6	1.85	0.42
23:DA:1828:G:H5"	56:DA:3602:HOH:O	2.20	0.42
23:DA:1911:U:C2	23:DA:1918:A:C2	3.08	0.42
23:DA:2133:G:H2'	23:DA:2157:G:N2	2.35	0.42
23:DA:2287:A:C4	23:DA:2289:G:C8	3.07	0.42
23:DA:2391:G:O6	23:DA:2425:A:H8	2.03	0.42
23:DA:848:G:N3	23:DA:933:A:H1'	2.35	0.42
37:DT:3:ARG:HH21	37:DT:3:ARG:CB	2.32	0.42
38:DU:17:ILE:HG23	38:DU:39:LEU:HD12	2.01	0.42
39:DV:87:HIS:NE2	39:DV:89:GLN:HG2	2.35	0.42
1:AA:1016:A:C8	1:AA:1016:A:O5'	2.73	0.42
1:AA:1139:G:N2	1:AA:1142:G:O6	2.37	0.42
1:AA:1162:C:H2'	1:AA:1163:C:C6	2.55	0.42
1:AA:1508:G:H2'	1:AA:1509:C:C6	2.55	0.42
1:AA:340:U:H3	1:AA:349:A:H61	1.66	0.42
1:AA:567:G:H2'	1:AA:568:G:O4'	2.20	0.42
2:AB:77:ALA:O	2:AB:81:VAL:HG23	2.20	0.42
4:AD:25:ARG:HG2	4:AD:25:ARG:O	2.19	0.42
12:AL:97:ARG:HB2	12:AL:98:TYR:CE1	2.55	0.42
17:AQ:89:LEU:HD23	17:AQ:89:LEU:HA	1.75	0.42
19:AS:7:LYS:HG2	19:AS:7:LYS:H	1.58	0.42
22:AV:39:GLN:H	22:AV:39:GLN:HG2	1.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1049:C:O2'	23:BA:1050:A:OP1	2.37	0.42
23:BA:1467:C:C2	23:BA:1526:G:N2	2.88	0.42
23:BA:2123:G:H2'	23:BA:2124:G:C8	2.55	0.42
23:BA:2236:C:C2'	23:BA:2237:G:H5'	2.50	0.42
23:BA:646:A:N3	23:BA:646:A:H5'	2.34	0.42
23:BA:857:C:H1'	44:B0:26:TYR:CE2	2.55	0.42
24:BB:2:C:H2'	24:BB:3:C:H6	1.85	0.42
28:BG:64:THR:OG1	28:BG:65:GLY:N	2.51	0.42
1:CA:1064:G:H8	1:CA:1064:G:O5'	2.02	0.42
1:CA:1106:G:H2'	1:CA:1107:C:C6	2.55	0.42
1:CA:1165:C:H2'	1:CA:1166:G:H8	1.84	0.42
1:CA:1363(A):A:H4'	1:CA:1364:U:O5'	2.20	0.42
1:CA:1441:G:O2'	1:CA:1459:C:C4	2.64	0.42
1:CA:185:A:C6	1:CA:186:C:C4	3.08	0.42
1:CA:118:U:C5	1:CA:288:A:C6	3.08	0.42
1:CA:437:U:H2'	1:CA:438:G:C8	2.55	0.42
1:CA:606:G:H5"	1:CA:607:A:H5'	2.02	0.42
1:CA:626:U:H4'	16:CP:38:TYR:CZ	2.54	0.42
1:CA:967:C:O5'	1:CA:967:C:H6	2.02	0.42
4:CD:79:PHE:CD2	4:CD:80:GLU:N	2.82	0.42
5:CE:78:HIS:CE1	5:CE:142:LEU:HA	2.50	0.42
1:CA:1525:G:OP1	11:CK:120:ARG:NH2	2.52	0.42
1:CA:539:A:OP2	12:CL:115:LYS:NZ	2.53	0.42
12:CL:84:LEU:HD22	12:CL:85:ILE:H	1.85	0.42
13:CM:9:ILE:N	13:CM:10:PRO:HD3	2.35	0.42
1:CA:742:G:OP1	15:CO:59:MET:HE2	2.19	0.42
16:CP:28:ARG:CG	16:CP:28:ARG:HH11	2.26	0.42
1:CA:375:U:P	16:CP:69:THR:HG21	2.60	0.42
47:D3:30:ARG:H	47:D3:30:ARG:HG3	1.66	0.42
23:DA:128:C:H2'	23:DA:129:C:C6	2.55	0.42
23:DA:1777:U:O2'	23:DA:1778:U:H5'	2.19	0.42
23:DA:1936:A:H5'	56:DA:3541:HOH:O	2.19	0.42
23:DA:2521:C:O2'	23:DA:2564:A:N3	2.46	0.42
23:DA:656:G:H2'	23:DA:657:U:O4'	2.19	0.42
24:DB:59:A:H2'	24:DB:60:C:C6	2.55	0.42
25:DD:228:PRO:HD3	25:DD:235:GLY:HA3	2.02	0.42
26:DE:12:THR:HG22	37:DT:58:ASN:OD1	2.20	0.42
26:DE:73:GLU:HA	26:DE:74:PRO:HD3	1.78	0.42
27:DF:46:ARG:NH1	27:DF:46:ARG:HG2	2.22	0.42
32:DO:104:ARG:NH1	37:DT:34:VAL:HG21	2.35	0.42
39:DV:42:GLY:O	39:DV:43:GLU:HG2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DZ:183:LEU:HD23	43:DZ:183:LEU:HA	1.81	0.42
1:AA:1027:C:C5	1:AA:1029:C:C4	3.08	0.41
1:AA:1071:C:H2'	1:AA:1072:G:C8	2.53	0.41
1:AA:1245:A:C6	1:AA:1293:G:C2	3.08	0.41
1:AA:1443:G:O6	1:AA:1459:C:C2	2.73	0.41
1:AA:586:C:O2'	1:AA:878:G:H4'	2.20	0.41
1:AA:657:G:C2	1:AA:658:G:C8	3.07	0.41
1:AA:775:G:O2'	1:AA:776:G:H5'	2.20	0.41
2:AB:18:GLY:HA2	2:AB:42:ILE:CG1	2.47	0.41
2:AB:233:SER:OG	2:AB:234:PRO:HD2	2.19	0.41
3:AC:108:ASN:O	3:AC:111:LEU:HB3	2.20	0.41
4:AD:121:VAL:HA	4:AD:126:ILE:HG12	2.02	0.41
4:AD:32:ALA:O	4:AD:36:ARG:N	2.51	0.41
4:AD:76:ARG:O	4:AD:80:GLU:HG2	2.20	0.41
13:AM:3:ARG:HB2	13:AM:9:ILE:HG22	2.01	0.41
18:AR:85:LEU:HD22	18:AR:86:VAL:N	2.35	0.41
21:AU:10:ARG:HH11	21:AU:10:ARG:HG3	1.85	0.41
50:B6:6:ARG:NH1	50:B6:26:ASN:HB2	2.35	0.41
23:BA:2109:U:C6	23:BA:2109:U:H3'	2.54	0.41
23:BA:2582:G:C2	23:BA:2583:G:C8	3.08	0.41
23:BA:2836:U:H2'	23:BA:2837:G:C8	2.55	0.41
23:BA:536:A:H2'	23:BA:537:C:C6	2.55	0.41
23:BA:656:G:H2'	23:BA:657:U:O4'	2.20	0.41
23:BA:725:G:C5	23:BA:726:G:C6	3.08	0.41
23:BA:864:G:C6	23:BA:865:C:N4	2.87	0.41
23:BA:880:G:N2	23:BA:898:C:H1'	2.34	0.41
24:BB:7:G:C2	24:BB:115:G:C2	3.08	0.41
25:BD:213:ARG:HA	25:BD:213:ARG:HD2	1.65	0.41
27:BF:123:LEU:HD12	27:BF:124:LEU:N	2.35	0.41
27:BF:133:ASN:HA	27:BF:162:LEU:HD23	2.01	0.41
29:BH:13:LYS:HA	29:BH:14:GLY:HA2	1.56	0.41
31:BN:28:THR:HG22	31:BN:29:LYS:N	2.34	0.41
32:BO:23:ARG:HG3	32:BO:24:VAL:N	2.35	0.41
33:BP:71:VAL:HG22	33:BP:72:PRO:HA	2.02	0.41
36:BS:41:ASP:OD1	36:BS:43:GLU:HB2	2.20	0.41
37:BT:11:GLU:O	37:BT:15:VAL:HG23	2.19	0.41
38:BU:17:ILE:HG23	38:BU:39:LEU:HD12	2.00	0.41
41:BX:57:LEU:HD13	41:BX:78:LYS:HG2	2.01	0.41
1:CA:1033:G:H2'	1:CA:1034:G:O4'	2.20	0.41
1:CA:1333:A:C6	1:CA:1334:G:C4	3.08	0.41
1:CA:1353:G:H5"	21:CU:13:ILE:CG2	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:160:A:N6	1:CA:346:G:N2	2.68	0.41
1:CA:510:A:H5"	1:CA:511:C:OP2	2.19	0.41
1:CA:586:C:H2'	1:CA:587:G:H5'	2.02	0.41
1:CA:597:G:N2	8:CH:94:TYR:OH	2.53	0.41
1:CA:649:G:H2'	1:CA:650:G:C8	2.55	0.41
1:CA:924:C:H2'	1:CA:925:G:H8	1.84	0.41
7:CG:16:LEU:HD12	9:CI:42:ARG:HA	2.02	0.41
8:CH:121:ASP:O	8:CH:125:ARG:HG2	2.20	0.41
12:CL:46:LYS:HG3	12:CL:92:ASP:HA	2.01	0.41
19:CS:28:LYS:O	19:CS:47:HIS:HD2	2.03	0.41
45:D1:4:VAL:HG11	45:D1:11:ARG:NH1	2.35	0.41
46:D2:45:SER:O	46:D2:46:GLN:HB2	2.20	0.41
23:DA:225:A:H2'	23:DA:226:G:H5'	2.03	0.41
23:DA:2317:C:H2'	23:DA:2318:G:C5'	2.50	0.41
23:DA:2517:C:C6	23:DA:2542:A:N7	2.88	0.41
25:DD:29:PRO:HA	25:DD:83:GLU:OE1	2.20	0.41
23:DA:1568:G:H5'	25:DD:60:ARG:HA	2.02	0.41
27:DF:22:ALA:HB1	27:DF:24:LEU:CD2	2.50	0.41
28:DG:96:ARG:O	28:DG:99:MET:HB3	2.19	0.41
32:DO:4:PRO:O	32:DO:5:GLN:HB2	2.19	0.41
42:DY:67:LEU:HA	42:DY:67:LEU:HD23	1.69	0.41
1:AA:1172:C:H2'	1:AA:1173:G:C8	2.49	0.41
1:AA:1201:A:H1'	1:AA:1202:G:OP2	2.20	0.41
1:AA:1207:G:H3'	1:AA:1208:C:C6	2.55	0.41
1:AA:1251:A:H61	1:AA:1285:A:H61	1.69	0.41
1:AA:1306:A:N6	1:AA:1331:G:O4'	2.53	0.41
1:AA:1493:A:O2'	1:AA:1494:G:H8	2.03	0.41
1:AA:149:A:O2'	1:AA:150:C:C6	2.64	0.41
1:AA:303:A:C5	1:AA:304:U:C5	3.08	0.41
1:AA:613:C:H42	1:AA:627:G:H1	1.68	0.41
1:AA:728:A:H2'	1:AA:729:A:C8	2.54	0.41
1:AA:967:C:N3	1:AA:968:A:N6	2.68	0.41
1:AA:96:U:O2'	1:AA:97:G:H8	2.02	0.41
4:AD:53:ASP:HB3	4:AD:57:ARG:NH1	2.33	0.41
7:AG:104:LEU:HA	7:AG:134:ALA:HB2	2.02	0.41
7:AG:2:ALA:N	7:AG:7:ALA:HB2	2.35	0.41
7:AG:99:LEU:HB3	7:AG:103:TRP:CZ2	2.55	0.41
19:AS:31:ILE:HD13	19:AS:32:LYS:N	2.35	0.41
1:AA:1227:A:H5'	19:AS:83:HIS:HB2	2.02	0.41
20:AT:73:HIS:HB3	20:AT:74:LYS:HE3	2.02	0.41
22:AV:20:GLY:HA3	22:AV:47:ALA:HB3	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1045:A:N3	23:BA:1045:A:C2'	2.82	0.41
23:BA:1985:G:OP2	56:BA:3743:HOH:O	2.20	0.41
23:BA:823:G:C6	23:BA:835:A:N1	2.88	0.41
24:BB:93:G:H2'	24:BB:94:C:H6	1.85	0.41
25:BD:172:TYR:HD1	25:BD:185:VAL:C	2.23	0.41
23:BA:2591:C:OP2	25:BD:239:ARG:HB3	2.20	0.41
32:BO:64:ARG:NH1	32:BO:81:ASP:OD1	2.53	0.41
34:BQ:75:THR:HA	34:BQ:89:ASN:O	2.20	0.41
23:BA:1341:U:O2	41:BX:80:ILE:HD13	2.20	0.41
43:BZ:138:GLU:HB3	43:BZ:156:LYS:NZ	2.35	0.41
1:CA:1050:G:H2'	1:CA:1051:C:C6	2.55	0.41
1:CA:106:C:H2'	1:CA:107:G:H8	1.84	0.41
1:CA:1092:A:C6	1:CA:1183:A:C2	3.08	0.41
1:CA:1360:A:OP2	14:CN:35:ARG:NH2	2.40	0.41
1:CA:146:G:H5"	1:CA:147:G:OP2	2.20	0.41
1:CA:477:A:H2'	1:CA:479:C:H6	1.84	0.41
1:CA:532:A:N6	3:CC:193:TYR:HB3	2.35	0.41
2:CB:42:ILE:HD13	2:CB:203:GLY:HA2	2.03	0.41
7:CG:113:GLU:O	7:CG:113:GLU:HG2	2.20	0.41
7:CG:74:GLU:O	7:CG:88:PRO:HA	2.20	0.41
1:CA:951:G:O6	13:CM:105:THR:HG21	2.20	0.41
13:CM:65:LYS:O	13:CM:65:LYS:HE3	2.20	0.41
15:CO:74:ASP:HA	15:CO:75:PRO:HD2	1.76	0.41
16:CP:17:TYR:CD1	16:CP:17:TYR:N	2.87	0.41
44:D0:21:LEU:HD23	44:D0:21:LEU:HA	1.82	0.41
44:D0:70:GLN:HG2	44:D0:72:ARG:HG2	2.02	0.41
52:D8:33:ASN:O	52:D8:34:TRP:O	2.38	0.41
53:D9:12:ASP:OD1	53:D9:13:LYS:HG3	2.19	0.41
53:D9:4:ARG:O	53:D9:36:GLN:HA	2.19	0.41
23:DA:1693:U:H4'	23:DA:1694:C:OP2	2.19	0.41
23:DA:1930:G:O2'	23:DA:1931:U:OP2	2.38	0.41
23:DA:2065:C:H2'	23:DA:2066:C:C6	2.54	0.41
23:DA:546:C:H2'	23:DA:546:C:H6	1.63	0.41
23:DA:861:A:H2'	23:DA:862:G:O4'	2.20	0.41
28:DG:44:GLY:O	28:DG:47:LYS:NZ	2.35	0.41
36:DS:34:HIS:ND1	36:DS:53:SER:OG	2.31	0.41
23:DA:1224:C:O2'	39:DV:85:LYS:HA	2.20	0.41
42:DY:2:ARG:HA	42:DY:2:ARG:HD3	1.78	0.41
1:AA:1024:G:O5'	1:AA:1024:G:H8	2.03	0.41
1:AA:1058:G:OP1	3:AC:199:LYS:NZ	2.39	0.41
1:AA:1157:A:N6	1:AA:1177:G:N1	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1288:A:H8	1:AA:1288:A:O5'	2.03	0.41
1:AA:1328:C:C4	1:AA:1329:A:N7	2.88	0.41
1:AA:1388:C:H2'	1:AA:1389:C:C6	2.55	0.41
1:AA:346:G:OP1	37:BT:41:ARG:NH2	2.51	0.41
1:AA:35:G:C6	1:AA:36:C:N4	2.88	0.41
1:AA:391:G:C6	1:AA:392:G:C5	3.07	0.41
1:AA:513:C:H2'	1:AA:514:C:C6	2.55	0.41
1:AA:942:G:C2	1:AA:943:U:C2	3.08	0.41
5:AE:43:LEU:HD12	5:AE:44:GLY:N	2.36	0.41
5:AE:60:TYR:C	5:AE:60:TYR:CD1	2.94	0.41
6:AF:95:GLU:HA	6:AF:96:PRO:HD3	1.88	0.41
7:AG:46:ALA:HB2	7:AG:117:ALA:O	2.20	0.41
7:AG:68:ASN:C	7:AG:135:VAL:HG22	2.40	0.41
8:AH:119:LEU:HB3	8:AH:123:GLU:HB2	2.00	0.41
9:AI:111:ARG:O	9:AI:113:LYS:HE3	2.20	0.41
10:AJ:54:PHE:CD2	10:AJ:55:LYS:HD3	2.53	0.41
13:AM:12:ASN:HA	13:AM:46:LYS:H	1.85	0.41
52:B8:29:LYS:HD3	52:B8:44:LYS:C	2.40	0.41
23:BA:1141:U:P	31:BN:25:ARG:NH1	2.93	0.41
23:BA:2108:C:C6	23:BA:2108:C:C3'	3.04	0.41
23:BA:2320:A:H2'	23:BA:2320:A:N3	2.35	0.41
23:BA:1693:U:O2'	25:BD:14:ARG:NH2	2.53	0.41
26:BE:36:ARG:HG2	26:BE:47:VAL:HG22	2.01	0.41
32:BO:59:LYS:NZ	32:BO:89:ASN:HD21	2.17	0.41
23:BA:637:A:H8	33:BP:117:GLU:HG3	1.86	0.41
34:BQ:35:VAL:CG1	34:BQ:130:LYS:HB3	2.50	0.41
41:BX:72:LYS:HB3	41:BX:72:LYS:HE3	1.85	0.41
1:CA:1080:A:H5"	1:CA:1081:G:OP2	2.21	0.41
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.54	0.41
1:CA:1429:C:H2'	1:CA:1430:C:C6	2.54	0.41
1:CA:390:C:H2'	1:CA:391:G:C8	2.55	0.41
1:CA:826:C:H2'	1:CA:827:U:C6	2.55	0.41
2:CB:163:PHE:HA	2:CB:185:ILE:O	2.20	0.41
2:CB:16:HIS:CD2	2:CB:210:SER:HA	2.55	0.41
2:CB:74:LYS:HD3	2:CB:205:ASP:O	2.21	0.41
8:CH:119:LEU:HB3	8:CH:123:GLU:HB2	2.02	0.41
1:CA:777:A:C2	11:CK:119:CYS:HB3	2.55	0.41
1:CA:708:C:P	11:CK:85:ARG:HH22	2.44	0.41
17:CQ:27:PHE:HD1	17:CQ:28:PRO:O	2.03	0.41
19:CS:67:VAL:HB	19:CS:68:GLY:H	1.68	0.41
46:D2:4:SER:HA	46:D2:7:ARG:NH1	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:D6:6:ARG:NH1	50:D6:26:ASN:HB2	2.36	0.41
23:DA:1529:G:C6	23:DA:1530:C:C4	3.07	0.41
23:DA:1668:A:H4'	23:DA:1669:A:O5'	2.20	0.41
23:DA:1783:A:C2	23:DA:2587:A:C5	3.09	0.41
23:DA:1792:G:H2'	23:DA:1793:C:C6	2.55	0.41
23:DA:2157:G:H2'	23:DA:2158:A:C8	2.55	0.41
23:DA:2205:C:O2	23:DA:2220:G:C2	2.73	0.41
23:DA:2519:U:C6	23:DA:2542:A:N6	2.88	0.41
23:DA:1759:A:H1'	23:DA:2711:A:C2	2.55	0.41
23:DA:271(Q):G:O2'	23:DA:271(R):G:P	2.78	0.41
23:DA:528:A:C2	23:DA:2043:C:H4'	2.56	0.41
23:DA:634:C:H2'	23:DA:635:C:C6	2.55	0.41
23:DA:708:C:N4	23:DA:723:G:H1	2.16	0.41
26:DE:50:GLY:HA2	26:DE:77:ILE:O	2.21	0.41
27:DF:52:LYS:HA	27:DF:56:GLU:OE2	2.21	0.41
31:DN:18:ALA:O	31:DN:21:LYS:HB2	2.20	0.41
24:DB:49:C:OP1	36:DS:96:GLY:HA2	2.21	0.41
43:DZ:111:VAL:HG12	43:DZ:112:ARG:H	1.86	0.41
34:DQ:63:LYS:HD2	43:DZ:175:VAL:HG21	2.01	0.41
1:AA:102:G:H2'	1:AA:103:C:H6	1.83	0.41
1:AA:1036:G:H5"	1:AA:1037:C:C5	2.56	0.41
1:AA:103:C:C2	1:AA:104:G:C8	3.09	0.41
1:AA:1089:G:C6	1:AA:1090:U:C4	3.08	0.41
1:AA:1294:G:H2'	1:AA:1295:G:O4'	2.19	0.41
1:AA:976:G:H5'	1:AA:1358:U:O2'	2.21	0.41
1:AA:228:A:H2'	1:AA:229:U:O4'	2.20	0.41
1:AA:91:C:H2'	1:AA:92:C:C6	2.56	0.41
1:AA:1158:C:H5"	2:AB:131:PRO:O	2.20	0.41
2:AB:149:LEU:HB3	2:AB:152:PHE:CB	2.49	0.41
6:AF:7:ASN:HD21	18:AR:34:TYR:HE1	1.68	0.41
7:AG:97:GLN:O	7:AG:101:LEU:HG	2.20	0.41
1:AA:963:G:H1'	10:AJ:54:PHE:HZ	1.84	0.41
53:B9:4:ARG:NH1	56:B9:202:HOH:O	2.53	0.41
23:BA:1107:G:H8	23:BA:1107:G:H2'	1.42	0.41
23:BA:2259:G:H1'	23:BA:2427:C:H2'	2.02	0.41
23:BA:2730:C:H4'	26:BE:168:MET:O	2.21	0.41
23:BA:303:U:O4	56:BA:4356:HOH:O	2.21	0.41
23:BA:435:C:C5	23:BA:436:C:C5	3.08	0.41
23:BA:907:U:H4'	34:BQ:101:ARG:HH22	1.84	0.41
27:BF:101:LEU:HA	27:BF:101:LEU:HD12	1.68	0.41
35:BR:104:ARG:HG3	35:BR:111:LEU:HD21	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BU:28:ARG:NH1	38:BU:38:THR:OG1	2.45	0.41
24:BB:103:G:O2'	43:BZ:73:GLN:NE2	2.54	0.41
1:CA:1113:C:H2'	1:CA:1114:C:C6	2.54	0.41
1:CA:1291:G:O2'	1:CA:1292:U:H5'	2.20	0.41
1:CA:1443:G:O6	1:CA:1459:C:C2	2.73	0.41
1:CA:373:A:H61	1:CA:391:G:H1'	1.85	0.41
1:CA:393:A:C2	1:CA:394:G:C8	3.08	0.41
1:CA:721:G:H4'	1:CA:722:A:O4'	2.20	0.41
1:CA:788:U:H2'	1:CA:789:U:O4'	2.21	0.41
5:CE:39:GLY:O	5:CE:69:VAL:HG12	2.20	0.41
9:CI:112:LYS:CG	9:CI:119:ALA:HB2	2.51	0.41
10:CJ:50:ILE:HD11	10:CJ:60:ARG:NH1	2.35	0.41
12:CL:30:ALA:HA	12:CL:31:PRO:HD3	1.79	0.41
12:CL:32:PHE:CE1	12:CL:86:ARG:HG3	2.52	0.41
14:CN:53:LEU:HA	14:CN:54:PRO:HD3	1.73	0.41
15:CO:76:GLU:O	15:CO:79:ARG:N	2.53	0.41
15:CO:81:LEU:O	15:CO:85:LEU:N	2.51	0.41
15:CO:87:ILE:HG23	15:CO:88:ARG:N	2.35	0.41
41:DX:5:TYR:HD1	46:D2:33:MET:HE2	1.85	0.41
23:DA:196:A:O4'	33:DP:46:LYS:HE2	2.20	0.41
23:DA:2845:G:O2'	23:DA:2846:G:H5'	2.20	0.41
23:DA:289:A:H2'	23:DA:290:G:O4'	2.20	0.41
23:DA:529:A:OP2	31:DN:114:ARG:NH2	2.54	0.41
24:DB:11:C:H3'	24:DB:12:C:H6	1.82	0.41
27:DF:95:ARG:HG3	27:DF:97:TYR:CE2	2.55	0.41
23:DA:807:U:OP2	33:DP:36:LYS:HD3	2.20	0.41
33:DP:96:THR:OG1	33:DP:99:LEU:HG	2.20	0.41
38:DU:47:TYR:HA	38:DU:50:ARG:NH2	2.35	0.41
1:AA:1000:U:C2	1:AA:1041:A:N1	2.89	0.41
1:AA:1113:C:H2'	1:AA:1114:C:H6	1.80	0.41
1:AA:1145:C:H1'	1:AA:1146:A:H8	1.86	0.41
1:AA:1270:C:H2'	1:AA:1271:G:C8	2.54	0.41
1:AA:1239:A:H61	1:AA:1299:A:N6	2.19	0.41
1:AA:1394:A:N6	1:AA:1501:C:H5'	2.36	0.41
1:AA:1404:C:O2	1:AA:1519:A:O2'	2.37	0.41
1:AA:432:A:H3'	1:AA:433:C:C6	2.56	0.41
1:AA:652:U:C4	1:AA:752:G:N3	2.88	0.41
1:AA:806:C:O2'	1:AA:807:A:H5'	2.21	0.41
1:AA:865:A:H2	1:AA:918:A:H4'	1.84	0.41
1:AA:919:A:O5'	1:AA:919:A:H8	2.04	0.41
2:AB:136:VAL:HA	2:AB:139:LYS:CG	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:74:LYS:HB2	2:AB:74:LYS:HE3	1.91	0.41
4:AD:78:LEU:O	4:AD:82:ALA:HB2	2.21	0.41
20:AT:74:LYS:HE2	20:AT:74:LYS:HB3	1.89	0.41
46:B2:3:LEU:HA	46:B2:3:LEU:HD23	1.82	0.41
48:B4:15:ILE:HG13	48:B4:21:VAL:HG22	2.01	0.41
23:BA:1497:U:H5"	23:BA:1498:C:H5	1.85	0.41
23:BA:2110:G:O2'	23:BA:2120:G:H5'	2.21	0.41
23:BA:2316:C:H1'	28:BG:128:ARG:NH2	2.35	0.41
23:BA:2572:A:OP1	23:BA:2574:G:O2'	2.35	0.41
23:BA:2778:A:H4'	23:BA:2779:U:OP2	2.21	0.41
23:BA:638:G:H2'	23:BA:639:U:H6	1.85	0.41
23:BA:685:A:C2	23:BA:689:A:C6	3.09	0.41
23:BA:900:A:C4	23:BA:901:A:C8	3.09	0.41
23:BA:866:A:C6	23:BA:914:C:C6	3.08	0.41
24:BB:111:G:H2'	24:BB:112:U:H6	1.86	0.41
25:BD:108:PRO:HG2	25:BD:111:LEU:HG	2.02	0.41
26:BE:60:ASN:OD1	26:BE:62:PRO:HD2	2.20	0.41
33:BP:121:LYS:HG3	33:BP:122:PRO:HD2	2.01	0.41
33:BP:27:HIS:O	33:BP:31:ALA:HA	2.21	0.41
36:BS:56:LEU:O	36:BS:58:LEU:HD23	2.21	0.41
1:CA:1179:A:C8	1:CA:1179:A:OP1	2.74	0.41
1:CA:1286:A:N6	1:CA:1354:C:O3'	2.53	0.41
1:CA:1446:U:O2	1:CA:1456:G:N2	2.53	0.41
1:CA:271:C:H2'	1:CA:272:C:H6	1.85	0.41
1:CA:300:A:H1'	1:CA:565:U:O2	2.21	0.41
1:CA:619:U:C2	4:CD:135:LEU:HD22	2.56	0.41
3:CC:69:HIS:CD2	3:CC:104:GLN:HB2	2.55	0.41
9:CI:45:ALA:CB	9:CI:47:LEU:H	2.33	0.41
12:CL:47:LYS:HB2	12:CL:47:LYS:HE2	1.83	0.41
14:CN:25:VAL:HB	14:CN:39:LEU:HD21	2.01	0.41
15:CO:3:ILE:HD13	15:CO:3:ILE:H	1.84	0.41
17:CQ:22:LEU:HD12	17:CQ:40:LYS:O	2.20	0.41
1:CA:957:U:H4'	19:CS:79:THR:OG1	2.20	0.41
52:D8:54:GLU:OE1	52:D8:57:ARG:NH1	2.50	0.41
23:DA:250:G:H2'	23:DA:251:A:C8	2.56	0.41
23:DA:271(H):G:O2'	23:DA:271(I):G:P	2.79	0.41
23:DA:271(P):C:C2'	23:DA:271(Q):G:H5'	2.51	0.41
23:DA:2811:G:N2	23:DA:2891:G:H1'	2.35	0.41
23:DA:216:A:C4	23:DA:432:A:C2	3.08	0.41
24:DB:20:C:H2'	24:DB:21:G:O4'	2.19	0.41
24:DB:79:C:H2'	24:DB:80:U:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DD:137:PRO:HB2	25:DD:140:THR:HG23	2.03	0.41
26:DE:128:SER:OG	26:DE:129:HIS:N	2.53	0.41
27:DF:117:ARG:HA	27:DF:117:ARG:HD3	1.87	0.41
43:DZ:138:GLU:HB3	43:DZ:156:LYS:NZ	2.35	0.41
1:AA:1043:C:H2'	1:AA:1044:A:H8	1.85	0.41
1:AA:994:A:C6	1:AA:1047:G:H4'	2.55	0.41
1:AA:1070:U:H1'	1:AA:1106:G:N2	2.35	0.41
1:AA:1296:C:C4	1:AA:1297:C:C2	3.08	0.41
1:AA:1350:A:N1	1:AA:1372:U:C2	2.88	0.41
1:AA:325:A:H2'	1:AA:326:G:O4'	2.21	0.41
1:AA:46:G:N7	56:AA:1902:HOH:O	2.37	0.41
1:AA:509:A:O2'	1:AA:510:A:OP1	2.32	0.41
1:AA:543:C:C2	1:AA:544:G:C8	3.09	0.41
1:AA:685:G:O2'	1:AA:686:U:H5'	2.21	0.41
1:AA:954:G:H2'	1:AA:955:U:O4'	2.21	0.41
1:AA:9:G:OP1	5:AE:122:GLU:HB2	2.20	0.41
2:AB:19:HIS:ND1	2:AB:189:ASP:OD2	2.39	0.41
3:AC:205:GLY:O	3:AC:207:VAL:HG23	2.20	0.41
4:AD:9:CYS:HB2	4:AD:22:LYS:HZ2	1.85	0.41
8:AH:121:ASP:O	8:AH:125:ARG:HG2	2.20	0.41
12:AL:5:PRO:HB2	12:AL:10:LEU:CD1	2.50	0.41
10:AJ:51:ARG:HA	14:AN:45:ARG:NE	2.35	0.41
19:AS:58:VAL:HA	19:AS:59:PRO:HD3	1.77	0.41
52:B8:26:LYS:HG2	52:B8:26:LYS:HZ2	1.70	0.41
53:B9:32:HIS:O	53:B9:34:GLN:HG3	2.20	0.41
23:BA:191:A:H2'	23:BA:192:C:C6	2.55	0.41
23:BA:332:A:H2'	56:BA:4744:HOH:O	2.20	0.41
23:BA:642:G:H21	23:BA:646:A:H2	1.68	0.41
23:BA:805:G:H4'	33:BP:38:GLN:HB3	2.01	0.41
26:BE:128:SER:OG	26:BE:129:HIS:N	2.52	0.41
30:BI:130:TYR:HA	30:BI:130:TYR:HD1	1.70	0.41
42:BY:77:PRO:HD3	42:BY:106:LEU:HD23	2.02	0.41
1:CA:1163:C:H2'	1:CA:1164:G:H8	1.85	0.41
1:CA:1245:A:N1	1:CA:1293:G:C6	2.89	0.41
1:CA:1349:A:H2'	1:CA:1350:A:O4'	2.21	0.41
1:CA:971:G:H1	1:CA:1363(A):A:H5'	1.85	0.41
1:CA:263:A:OP1	20:CT:79:ARG:NH1	2.54	0.41
1:CA:33:A:H2'	1:CA:34:C:C6	2.55	0.41
1:CA:373:A:H2'	1:CA:374:A:H8	1.84	0.41
1:CA:376:G:H5"	16:CP:5:ARG:CB	2.51	0.41
1:CA:980:C:H5'	1:CA:981:U:OP2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:188:LEU:HG	4:CD:188:LEU:H	1.24	0.41
5:CE:37:ARG:NH1	5:CE:37:ARG:HG2	2.35	0.41
17:CQ:66:SER:OG	17:CQ:69:LYS:HB2	2.20	0.41
19:CS:33:THR:O	19:CS:52:TYR:HB2	2.20	0.41
22:CV:45:ARG:O	22:CV:49:ALA:HB2	2.21	0.41
23:DA:1469:A:C2	23:DA:1524:G:C2	3.09	0.41
23:DA:2170:A:H8	23:DA:2170:A:OP2	2.04	0.41
23:DA:2104:G:O6	23:DA:2186:G:C4	2.74	0.41
23:DA:900:A:O2'	23:DA:901:A:OP1	2.36	0.41
23:DA:92:A:O2'	23:DA:93:G:H5'	2.20	0.41
24:DB:117:G:H2'	24:DB:118:G:O4'	2.21	0.41
24:DB:37:C:C5	24:DB:38:C:C5	3.09	0.41
27:DF:13:SER:HA	27:DF:14:PRO:HD2	1.82	0.41
30:DI:133:HIS:CE1	30:DI:134:PRO:O	2.73	0.41
32:DO:120:GLU:HG2	32:DO:122:LEU:HG	2.03	0.41
1:AA:1016:A:P	1:AA:1016:A:H8	2.44	0.41
1:AA:1145:C:H1'	1:AA:1146:A:C8	2.56	0.41
1:AA:502:G:C2	1:AA:503:C:C2	3.08	0.41
1:AA:671:G:C2	1:AA:672:U:C2	3.09	0.41
3:AC:181:ASN:CB	3:AC:204:LEU:HB2	2.39	0.41
12:AL:102:ARG:HE	12:AL:102:ARG:HB3	1.46	0.41
13:AM:25:ILE:HG23	13:AM:29:ARG:CB	2.51	0.41
15:AO:25:THR:HG21	15:AO:70:LEU:HB2	2.01	0.41
23:BA:1526:G:C6	23:BA:1527:G:C2	3.09	0.41
23:BA:580:C:H2'	23:BA:581:C:C6	2.55	0.41
25:BD:221:VAL:HG22	25:BD:226:MET:CE	2.50	0.41
30:BI:130:TYR:HD2	30:BI:138:ILE:HD12	1.86	0.41
1:CA:129(A):G:C6	1:CA:189(H):G:H1'	2.55	0.41
1:CA:34:C:H42	1:CA:550:G:H1	1.69	0.41
1:CA:509:A:HO2'	1:CA:510:A:P	2.40	0.41
1:CA:825:G:H2'	1:CA:826:C:C6	2.55	0.41
2:CB:133:LYS:O	2:CB:137:ARG:N	2.31	0.41
2:CB:167:PRO:HG2	2:CB:192:SER:CB	2.50	0.41
3:CC:111:LEU:HD11	3:CC:144:SER:HB3	2.03	0.41
8:CH:85:ARG:HD3	8:CH:86:ILE:N	2.35	0.41
11:CK:69:ALA:O	11:CK:72:ALA:N	2.48	0.41
17:CQ:91:ARG:O	17:CQ:94:ASN:HB2	2.20	0.41
22:CV:30:PRO:HG3	22:CV:40:TRP:CZ3	2.56	0.41
47:D3:22:ALA:O	47:D3:25:ALA:HB3	2.21	0.41
23:DA:1028:A:N6	23:DA:1125:G:H2'	2.35	0.41
23:DA:1161:C:O2'	39:DV:8:GLY:HA2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1425:G:H2'	23:DA:1426:G:C8	2.55	0.41
23:DA:1999:C:H2'	23:DA:2000:G:O4'	2.19	0.41
23:DA:2147:G:H2'	23:DA:2148:G:O4'	2.21	0.41
23:DA:2352:A:N6	23:DA:2365:G:O2'	2.54	0.41
23:DA:2441:C:OP2	23:DA:2586:C:O2'	2.36	0.41
23:DA:2572:A:N7	26:DE:144:ARG:HD2	2.35	0.41
23:DA:468:G:N7	51:D7:39:ARG:NH2	2.61	0.41
23:DA:582:G:H2'	23:DA:583:G:C8	2.56	0.41
24:DB:2:C:H2'	24:DB:3:C:H6	1.84	0.41
25:DD:3:VAL:HG12	25:DD:17:THR:HB	2.03	0.41
26:DE:105:THR:HG23	26:DE:166:THR:OG1	2.20	0.41
27:DF:7:TYR:N	27:DF:22:ALA:HB3	2.31	0.41
28:DG:126:ASP:HB2	28:DG:130:ASN:O	2.20	0.41
28:DG:57:ALA:HB1	28:DG:68:PRO:HD2	2.03	0.41
31:DN:54:VAL:HG11	31:DN:99:LEU:HD12	2.01	0.41
37:DT:24:PRO:HA	37:DT:49:VAL:HG22	2.02	0.41
38:DU:61:TRP:CD2	38:DU:93:LYS:HA	2.55	0.41
39:DV:77:ALA:C	39:DV:79:VAL:H	2.24	0.41
1:AA:1158:C:H4'	2:AB:133:LYS:CB	2.41	0.41
1:AA:1348:U:H2'	1:AA:1349:A:O4'	2.21	0.41
1:AA:1358:U:H5	1:AA:1359:C:C2	2.38	0.41
1:AA:1384:C:N4	1:AA:1385:G:O6	2.54	0.41
1:AA:457:C:H2'	1:AA:458:C:H6	1.82	0.41
1:AA:518:C:C4	1:AA:530:G:C5	3.08	0.41
1:AA:872:A:C4	1:AA:874:G:C8	3.08	0.41
6:AF:45:LEU:HD12	6:AF:59:TYR:HD1	1.85	0.41
6:AF:91:VAL:HG21	18:AR:72:ARG:HH12	1.86	0.41
7:AG:68:ASN:O	7:AG:135:VAL:HG13	2.21	0.41
9:AI:49:PRO:HB2	9:AI:81:ILE:O	2.21	0.41
1:AA:522:C:H41	12:AL:53:ARG:HH22	1.69	0.41
1:AA:624:C:O2'	16:AP:10:GLY:HA2	2.19	0.41
23:BA:1759:A:H1'	23:BA:2711:A:C2	2.56	0.41
23:BA:2287:A:C5	23:BA:2289:G:C5	3.09	0.41
23:BA:2337:G:C2	23:BA:2338:G:C8	3.09	0.41
23:BA:2526:G:H5'	23:BA:2742:C:O2'	2.21	0.41
23:BA:384:U:H2'	23:BA:385:C:H6	1.86	0.41
24:BB:85:G:H2'	24:BB:86:G:H5'	2.03	0.41
25:BD:53:PHE:HB3	25:BD:218:ARG:O	2.21	0.41
35:BR:54:LEU:HD12	35:BR:54:LEU:HA	1.90	0.41
38:BU:105:VAL:HG11	39:BV:39:LEU:HD21	2.01	0.41
42:BY:76:CYS:HA	42:BY:77:PRO:HD3	1.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1155:G:C6	1:CA:1156:G:C6	3.09	0.41
1:CA:1163:C:C4	1:CA:1164:G:N7	2.89	0.41
1:CA:1273:G:H3'	1:CA:1274:G:C8	2.31	0.41
1:CA:1443:G:O6	1:CA:1459:C:O2	2.38	0.41
1:CA:15:G:H4'	5:CE:24:ARG:NH1	2.34	0.41
1:CA:175:C:H2'	1:CA:176:C:C6	2.56	0.41
1:CA:374:A:H2'	1:CA:374:A:N3	2.36	0.41
1:CA:416:G:H2'	1:CA:417:C:O4'	2.20	0.41
1:CA:938:A:N6	1:CA:939:G:C6	2.89	0.41
2:CB:79:ASP:O	2:CB:82:ARG:N	2.54	0.41
4:CD:93:PHE:O	4:CD:97:LEU:HB2	2.20	0.41
8:CH:20:TYR:HA	8:CH:65:TYR:CZ	2.56	0.41
9:CI:9:ARG:NH1	9:CI:9:ARG:HB2	2.31	0.41
10:CJ:54:PHE:CG	10:CJ:55:LYS:N	2.88	0.41
1:CA:954:G:C6	13:CM:104:ARG:NH1	2.88	0.41
15:CO:17:ARG:HG3	15:CO:17:ARG:HH11	1.86	0.41
16:CP:16:HIS:C	16:CP:17:TYR:HD1	2.24	0.41
46:D2:35:LEU:HA	46:D2:35:LEU:HD23	1.92	0.41
23:DA:1048:A:O2'	23:DA:1049:C:P	2.78	0.41
23:DA:1504:C:O2'	23:DA:1505:C:H5'	2.20	0.41
23:DA:1695:G:H2'	23:DA:1696:G:O4'	2.21	0.41
23:DA:1840:G:C6	23:DA:1841:U:C4	3.09	0.41
23:DA:2340:G:O2'	23:DA:2341:G:H5'	2.20	0.41
23:DA:2484:G:C2	23:DA:2485:G:C8	3.08	0.41
23:DA:2577:A:O4'	49:D5:3:LYS:HB2	2.21	0.41
23:DA:2679:A:H2'	23:DA:2680:C:O4'	2.20	0.41
23:DA:483:A:O4'	42:DY:48:ALA:HB1	2.20	0.41
23:DA:580:C:H2'	23:DA:581:C:H6	1.85	0.41
23:DA:7:G:H4'	31:DN:13:TRP:CZ2	2.56	0.41
30:DI:5:LEU:HD11	30:DI:19:VAL:CG2	2.48	0.41
38:DU:105:VAL:HG11	39:DV:39:LEU:HD21	2.02	0.41
40:DW:1:MET:HE2	40:DW:2:GLU:O	2.20	0.41
1:AA:1203:C:C2	1:AA:1204:A:C8	3.09	0.41
1:AA:1305:G:N2	1:AA:1331:G:H1'	2.36	0.41
1:AA:1351:U:H4'	7:AG:33:ASP:CG	2.41	0.41
1:AA:227:G:H2'	1:AA:228:A:C8	2.56	0.41
1:AA:299:G:H2'	1:AA:300:A:C8	2.56	0.41
1:AA:41:G:H2'	1:AA:42:G:C8	2.56	0.41
1:AA:510:A:H5"	1:AA:511:C:OP2	2.21	0.41
1:AA:641:U:O3'	1:AA:642:A:H8	2.02	0.41
2:AB:157:ARG:HH11	2:AB:157:ARG:HB3	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:127:THR:OG1	4:AD:128:VAL:N	2.53	0.41
7:AG:127:ALA:CB	7:AG:134:ALA:HB3	2.51	0.41
7:AG:68:ASN:O	7:AG:138:LYS:HE2	2.21	0.41
2:AB:178:ARG:HH21	8:AH:74:PRO:HB3	1.86	0.41
9:AI:59:PHE:HD1	9:AI:59:PHE:HA	1.66	0.41
11:AK:122:LYS:HE2	11:AK:122:LYS:HB3	1.72	0.41
16:AP:29:ASP:OD2	16:AP:29:ASP:N	2.54	0.41
17:AQ:91:ARG:O	17:AQ:94:ASN:HB2	2.21	0.41
48:B4:6:HIS:HA	48:B4:7:PRO:HD2	1.76	0.41
23:BA:10:G:H1'	23:BA:2801(A):A:C2	2.56	0.41
23:BA:1668:A:H4'	23:BA:1669:A:O5'	2.21	0.41
23:BA:2080:G:P	45:B1:35:THR:OG1	2.78	0.41
23:BA:2723:C:O3'	35:BR:1:MET:HE3	2.21	0.41
23:BA:557:U:H2'	23:BA:558:G:H8	1.86	0.41
26:BE:116:VAL:HG13	26:BE:122:PHE:CD2	2.56	0.41
26:BE:35:GLN:OE1	26:BE:66:HIS:HE1	2.04	0.41
29:BH:60:ARG:HB3	29:BH:60:ARG:HE	1.74	0.41
30:BI:72:LEU:HA	30:BI:75:LEU:CD2	2.51	0.41
31:BN:34:LEU:O	31:BN:49:GLY:HA3	2.20	0.41
1:CA:1084:G:C6	1:CA:1085:U:C4	3.08	0.41
1:CA:1109:C:H2'	1:CA:1110:A:O4'	2.21	0.41
1:CA:1182:G:H4'	1:CA:1183:A:H5'	2.02	0.41
1:CA:1047:G:H1'	1:CA:1215:G:O2'	2.20	0.41
1:CA:1291:G:C2'	1:CA:1292:U:H5'	2.50	0.41
1:CA:1392:G:N2	1:CA:1502:A:H8	2.13	0.41
1:CA:189(C):C:H2'	1:CA:189(D):C:O4'	2.20	0.41
1:CA:521:G:H2'	1:CA:522:C:H6	1.86	0.41
1:CA:641:U:O3'	1:CA:642:A:H8	2.03	0.41
1:CA:970:C:H41	9:CI:126:SER:CB	2.34	0.41
4:CD:174:LEU:HA	4:CD:174:LEU:HD23	1.82	0.41
5:CE:66:MET:O	5:CE:67:VAL:HB	2.20	0.41
6:CF:76:ALA:O	6:CF:80:ARG:HG3	2.21	0.41
7:CG:116:ALA:HA	7:CG:119:ARG:HB2	2.03	0.41
8:CH:73:ASP:OD2	8:CH:75:ARG:HD3	2.21	0.41
8:CH:44:PHE:HA	8:CH:79:VAL:CG1	2.51	0.41
9:CI:12:GLU:O	9:CI:67:GLY:HA3	2.20	0.41
13:CM:20:THR:HG23	13:CM:26:GLY:HA2	2.03	0.41
18:CR:85:LEU:HD22	18:CR:86:VAL:N	2.35	0.41
19:CS:69:HIS:HD2	19:CS:74:PHE:HE1	1.69	0.41
49:D5:49:CYS:SG	49:D5:51:TYR:HD1	2.44	0.41
23:DA:1049:C:H1'	23:DA:1113:U:H4'	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:118:A:C8	23:DA:119:A:C8	3.09	0.41
23:DA:1382:G:H2'	23:DA:1383:C:C6	2.56	0.41
23:DA:1587:A:H2'	23:DA:1588:C:C6	2.55	0.41
23:DA:1651:G:N2	23:DA:2007:C:C2	2.89	0.41
23:DA:2833:G:O2'	23:DA:2834:G:P	2.78	0.41
23:DA:773:U:H5'	25:DD:47:GLY:HA3	2.02	0.41
23:DA:922:U:H2'	23:DA:923:C:C6	2.55	0.41
24:DB:78:A:C2	24:DB:100:A:C4	3.09	0.41
24:DB:28:C:C2	24:DB:29:A:C8	3.09	0.41
29:DH:33:LEU:HD11	29:DH:136:ILE:O	2.21	0.41
30:DI:59:ALA:O	30:DI:63:ALA:N	2.54	0.41
35:DR:26:LYS:HE2	35:DR:70:LEU:O	2.21	0.41
1:AA:1001(A):G:C6	1:AA:1002:G:C5	3.08	0.41
1:AA:1003:G:C2	1:AA:1004:A:C8	3.09	0.41
1:AA:1242:C:H5"	1:AA:1304:G:OP1	2.20	0.41
1:AA:1346:A:C8	1:AA:1348:U:C2	3.09	0.41
1:AA:1442:G:N7	1:AA:1442(A):G:C5	2.88	0.41
1:AA:189(C):C:H2'	1:AA:189(D):C:O4'	2.21	0.41
1:AA:573:A:N3	1:AA:883:C:O2'	2.44	0.41
1:AA:586:C:C2'	1:AA:587:G:H5'	2.51	0.41
1:AA:830:G:H2'	1:AA:831:U:O4'	2.21	0.41
1:AA:939:G:H2'	1:AA:940:C:C6	2.56	0.41
1:AA:975:A:H4'	1:AA:976:G:H5"	2.03	0.41
2:AB:166:ASP:HB3	2:AB:169:LYS:HB2	2.02	0.41
2:AB:98:LEU:O	2:AB:101:MET:HB2	2.20	0.41
4:AD:119:GLN:O	4:AD:123:HIS:CD2	2.74	0.41
7:AG:47:CYS:O	7:AG:58:PRO:HB3	2.20	0.41
12:AL:47:LYS:HA	12:AL:49:ASN:H	1.86	0.41
1:AA:1360:A:N7	14:AN:18:VAL:HG12	2.35	0.41
20:AT:61:SER:O	20:AT:65:LYS:HG3	2.21	0.41
20:AT:74:LYS:HG3	20:AT:75:ASN:OD1	2.21	0.41
47:B3:44:ARG:O	47:B3:48:GLU:HG3	2.21	0.41
52:B8:62:LEU:HB3	52:B8:65:GLU:CG	2.51	0.41
23:BA:107:C:C2	23:BA:108:U:C5	3.09	0.41
23:BA:819:A:C4	23:BA:1189:A:C2	3.08	0.41
23:BA:1541:G:H5"	23:BA:1542:A:OP2	2.21	0.41
23:BA:2108:C:H2'	23:BA:2109:U:C5'	2.50	0.41
23:BA:2161:C:O2'	23:BA:2162:G:H5'	2.20	0.41
23:BA:2884:U:O2	49:B5:53:ALA:HB2	2.20	0.41
27:BF:168:ARG:HG2	27:BF:175:THR:HG21	2.02	0.41
28:BG:74:LYS:O	28:BG:84:LYS:HG2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BI:79:ILE:HA	30:BI:80:PRO:HD2	1.87	0.41
34:BQ:32:TYR:CE2	34:BQ:133:ARG:HG3	2.56	0.41
1:CA:1107:C:N4	1:CA:1108:G:N7	2.69	0.41
1:CA:111:G:O6	1:CA:330:C:N4	2.52	0.41
1:CA:1253:G:H2'	1:CA:1254:C:C6	2.56	0.41
1:CA:1319:A:N1	1:CA:1323:G:H1'	2.35	0.41
1:CA:1465:C:H2'	1:CA:1466:C:O4'	2.21	0.41
1:CA:342:C:C2	1:CA:348:G:N2	2.89	0.41
1:CA:976:G:OP1	14:CN:31:ARG:HD3	2.21	0.41
1:CA:986:A:H2'	1:CA:987:G:O4'	2.20	0.41
2:CB:116:GLU:HA	2:CB:119:GLU:HB2	2.03	0.41
2:CB:194:PRO:C	2:CB:196:LEU:H	2.24	0.41
2:CB:22:LYS:H	2:CB:40:HIS:HD2	1.68	0.41
3:CC:132:ARG:O	3:CC:136:GLN:HB2	2.20	0.41
3:CC:16:ARG:HD2	3:CC:54:ARG:NH2	2.36	0.41
3:CC:6:HIS:HE1	3:CC:184:TYR:CD2	2.39	0.41
8:CH:38:ILE:HD12	8:CH:118:VAL:HG12	2.01	0.41
9:CI:100:GLY:O	9:CI:103:THR:HG22	2.20	0.41
11:CK:99:GLN:HA	11:CK:105:VAL:HG11	2.03	0.41
11:CK:20:TYR:CE2	11:CK:83:ILE:HD12	2.55	0.41
13:CM:3:ARG:HE	13:CM:4:ILE:HG22	1.86	0.41
15:CO:18:PHE:HD1	15:CO:20:GLY:H	1.69	0.41
44:D0:41:ARG:HD2	44:D0:41:ARG:HA	1.80	0.41
45:D1:40:ARG:HB2	45:D1:40:ARG:HE	1.67	0.41
23:DA:117:G:C6	23:DA:119:A:C6	3.09	0.41
23:DA:1433:U:O2	23:DA:1561:G:C2	2.74	0.41
23:DA:2304:G:H21	28:DG:156:ASP:CG	2.25	0.41
23:DA:2335:A:C8	23:DA:2337:G:N7	2.89	0.41
27:DF:167:ALA:HB1	27:DF:173:VAL:HG11	2.01	0.41
29:DH:32:GLU:O	29:DH:33:LEU:HD23	2.21	0.41
37:DT:99:LEU:O	37:DT:100:TYR:C	2.59	0.41
40:DW:68:ARG:O	40:DW:109:GLU:HA	2.21	0.41
1:AA:1055:A:N6	1:AA:1056:U:C4	2.89	0.41
1:AA:1253:G:OP1	10:AJ:44:VAL:HG23	2.21	0.41
1:AA:1271:G:N3	1:AA:1272:G:H1'	2.36	0.41
1:AA:1352:C:H2'	1:AA:1353:G:O4'	2.20	0.41
1:AA:976:G:H8	1:AA:1358:U:H2'	1.85	0.41
1:AA:1355:G:C6	1:AA:1368:G:C6	3.09	0.41
1:AA:769:G:H4'	1:AA:1513:A:H4'	2.03	0.41
1:AA:41:G:H2'	1:AA:42:G:H8	1.85	0.41
1:AA:977:A:H2'	1:AA:978:A:H5"	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:75:LYS:HE3	2:AB:78:GLN:OE1	2.21	0.41
3:AC:32:LEU:HB3	3:AC:59:ARG:CZ	2.51	0.41
8:AH:101:PRO:HG3	8:AH:133:LEU:HD11	2.03	0.41
1:AA:597:G:N2	8:AH:94:TYR:OH	2.53	0.41
9:AI:9:ARG:HB2	9:AI:9:ARG:NH1	2.32	0.41
13:AM:91:ARG:HA	13:AM:91:ARG:HD2	1.93	0.41
15:AO:7:GLU:O	15:AO:10:LYS:HB3	2.20	0.41
48:B4:14:ILE:HA	48:B4:31:ILE:O	2.19	0.41
23:BA:127:A:H5"	23:BA:128:C:O4'	2.20	0.41
23:BA:1711:C:H2'	23:BA:1712:C:C6	2.55	0.41
23:BA:2127:G:HO2'	23:BA:2173:A:H2	1.64	0.41
23:BA:9:U:O4	23:BA:2629:A:C2	2.73	0.41
23:BA:322:A:C5	23:BA:340:A:C2	3.09	0.41
25:BD:218:ARG:HB3	25:BD:219:PRO:HD2	2.03	0.41
27:BF:140:LEU:HD13	27:BF:140:LEU:HA	1.90	0.41
28:BG:24:GLY:O	28:BG:26:GLN:NE2	2.54	0.41
32:BO:104:ARG:NH1	37:BT:34:VAL:HG21	2.36	0.41
1:CA:1072:G:O2'	1:CA:1073:U:H5'	2.20	0.41
1:CA:107:G:H2'	1:CA:108:G:O4'	2.21	0.41
1:CA:1203:C:H2'	1:CA:1204:A:O4'	2.20	0.41
1:CA:1236:A:O2'	1:CA:1304:G:H4'	2.21	0.41
1:CA:373:A:C8	1:CA:482:A:C8	3.09	0.41
1:CA:391:G:C6	1:CA:392:G:C5	3.09	0.41
1:CA:509:A:O2'	1:CA:510:A:OP1	2.29	0.41
1:CA:57:G:H2'	1:CA:58:C:O4'	2.21	0.41
1:CA:828:A:H5"	1:CA:859:A:C2	2.56	0.41
1:CA:925:G:C2	1:CA:927:G:C8	3.09	0.41
2:CB:224:GLN:HB2	2:CB:229:VAL:HG22	2.02	0.41
3:CC:130:VAL:O	3:CC:134:ILE:HG13	2.21	0.41
4:CD:6:GLY:O	4:CD:8:VAL:N	2.53	0.41
1:CA:707:C:OP1	11:CK:85:ARG:NH1	2.54	0.41
13:CM:63:THR:HG23	13:CM:64:TRP:CD1	2.56	0.41
15:CO:76:GLU:O	15:CO:80:ALA:N	2.53	0.41
50:D6:14:THR:O	50:D6:17:LYS:NZ	2.30	0.41
52:D8:26:LYS:HZ2	52:D8:26:LYS:HG2	1.72	0.41
23:DA:107:C:H2'	23:DA:108:U:C6	2.54	0.41
23:DA:2115:G:H5"	23:DA:2116:G:OP2	2.21	0.41
23:DA:2400:G:C5	23:DA:2401:U:C5	3.09	0.41
23:DA:2702:U:H4'	23:DA:2703:C:OP1	2.20	0.41
23:DA:2752:C:H6	23:DA:2752:C:O5'	2.04	0.41
23:DA:729:G:H2'	23:DA:1775:U:H1'	2.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DB:59:A:H2'	24:DB:60:C:H6	1.85	0.41
26:DE:137:HIS:HB3	26:DE:138:PRO:HD2	2.02	0.41
30:DI:78:THR:HA	30:DI:143:SER:O	2.21	0.41
41:DX:94:GLY:HA3	41:DX:95:LEU:HA	1.66	0.41
1:AA:1027:C:H2'	1:AA:1028:C:C4	2.55	0.40
1:AA:1065:U:O2	1:AA:1109:C:H5'	2.21	0.40
1:AA:1157:A:C4'	1:AA:1158:C:H5'	2.40	0.40
1:AA:1160:G:C4	1:AA:1161:C:C5	3.09	0.40
1:AA:1248:A:C2	1:AA:1289:A:N6	2.88	0.40
1:AA:225:C:C4	1:AA:226:G:N7	2.89	0.40
1:AA:2:U:H6	1:AA:2:U:O5'	2.05	0.40
1:AA:317:G:C6	1:AA:318:G:N7	2.89	0.40
1:AA:44:G:OP1	16:AP:11:SER:HB2	2.21	0.40
1:AA:505:G:C6	1:AA:535:A:C2	3.09	0.40
1:AA:626:U:H2'	1:AA:627:G:C8	2.51	0.40
1:AA:627:G:O2'	1:AA:628:G:H5'	2.20	0.40
1:AA:683:G:N2	1:AA:708:C:C2	2.89	0.40
1:AA:89:C:H2'	1:AA:90:U:C5	2.56	0.40
5:AE:137:GLU:HG2	5:AE:140:ARG:HH11	1.87	0.40
9:AI:24:GLY:O	9:AI:26:VAL:HG23	2.21	0.40
14:AN:45:ARG:HG2	14:AN:49:HIS:CD2	2.56	0.40
23:BA:1364:G:N7	45:B1:3:LYS:HD3	2.36	0.40
23:BA:1106:G:H4'	23:BA:1107:G:OP2	2.20	0.40
23:BA:1538:G:O2'	23:BA:1539:G:OP1	2.28	0.40
23:BA:2420:C:O5'	23:BA:2420:C:H6	2.04	0.40
23:BA:271(K):U:O2'	23:BA:271(L):U:OP1	2.27	0.40
27:BF:150:GLY:HA2	27:BF:172:TRP:CE3	2.57	0.40
28:BG:103:LEU:HD23	28:BG:103:LEU:HA	1.82	0.40
37:BT:33:LYS:O	37:BT:82:LEU:HD23	2.21	0.40
38:BU:47:TYR:HA	38:BU:50:ARG:NH2	2.36	0.40
39:BV:65:GLY:HA3	39:BV:91:TYR:CZ	2.56	0.40
41:BX:94:GLY:HA3	41:BX:95:LEU:HA	1.63	0.40
1:CA:994:A:H61	1:CA:1047:G:C4'	2.34	0.40
1:CA:1168:A:C6	1:CA:1169:A:C6	3.09	0.40
1:CA:1288:A:H61	1:CA:1371:G:HO2'	1.68	0.40
1:CA:790:A:N1	1:CA:1497:G:H5"	2.36	0.40
1:CA:175:C:H2'	1:CA:176:C:H6	1.85	0.40
1:CA:246:A:N3	1:CA:247:G:H1'	2.36	0.40
1:CA:390:C:H2'	1:CA:391:G:H8	1.86	0.40
1:CA:731:G:OP1	1:CA:766:A:H1'	2.20	0.40
1:CA:865:A:H8	1:CA:865:A:O5'	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:47:LEU:HD23	3:CC:47:LEU:HA	1.89	0.40
11:CK:31:THR:HG22	11:CK:42:TRP:CB	2.51	0.40
1:CA:689:C:P	11:CK:46:GLY:HA3	2.61	0.40
52:D8:29:LYS:HD3	52:D8:44:LYS:C	2.41	0.40
52:D8:34:TRP:CD2	52:D8:35:GLN:HB2	2.56	0.40
23:DA:1138:G:C4	23:DA:1139:G:H1'	2.56	0.40
23:DA:1420:U:H6	23:DA:1420:U:H2'	1.61	0.40
23:DA:188:G:H1	23:DA:208:C:N4	2.18	0.40
23:DA:2127:G:HO2'	23:DA:2173:A:H2	1.63	0.40
23:DA:858:U:O2	23:DA:2268:A:H2'	2.20	0.40
23:DA:271(H):G:O2'	23:DA:271(I):G:OP2	2.28	0.40
23:DA:271(S):G:C6	23:DA:271(T):C:C4	3.08	0.40
23:DA:2834:G:N2	23:DA:2882:A:N6	2.69	0.40
23:DA:626:U:O4	33:DP:107:LYS:HE2	2.21	0.40
25:DD:9:TYR:CZ	25:DD:13:ARG:HG2	2.56	0.40
27:DF:126:VAL:HG21	27:DF:129:PHE:CE1	2.55	0.40
32:DO:35:VAL:HG21	32:DO:103:ALA:HB3	2.03	0.40
35:DR:38:VAL:HB	35:DR:39:PRO:HD3	2.02	0.40
37:DT:3:ARG:HB2	37:DT:3:ARG:NH2	2.36	0.40
1:AA:990:C:H5'	1:AA:1018:C:OP2	2.21	0.40
1:AA:112:G:N3	1:AA:112:G:H2'	2.37	0.40
1:AA:1271:G:C6	1:AA:1272:G:C4	3.09	0.40
1:AA:1316:G:H2'	1:AA:1318:A:OP2	2.20	0.40
1:AA:1346:A:O3'	1:AA:1347:G:H4'	2.21	0.40
1:AA:1348:U:C4	1:AA:1374:A:N7	2.90	0.40
1:AA:1431:C:H2'	1:AA:1432:G:O4'	2.21	0.40
1:AA:394:G:H2'	1:AA:395:C:C6	2.57	0.40
1:AA:588:G:OP2	56:AA:1873:HOH:O	2.22	0.40
1:AA:674:G:H2'	1:AA:675:A:C8	2.44	0.40
1:AA:707:C:OP1	11:AK:85:ARG:NH1	2.54	0.40
1:AA:863:U:H2'	1:AA:865:A:OP2	2.22	0.40
1:AA:941:G:H1	1:AA:1342:C:N4	2.14	0.40
3:AC:138:VAL:HG13	3:AC:149:ALA:HB3	2.03	0.40
8:AH:23:SER:HA	8:AH:61:VAL:O	2.22	0.40
15:AO:43:LEU:HD23	15:AO:43:LEU:HA	1.77	0.40
16:AP:23:ASP:HB3	16:AP:26:ARG:HG2	2.03	0.40
48:B4:42:PHE:CB	48:B4:43:TYR:HB2	2.50	0.40
23:BA:1047:G:H2'	23:BA:1110:G:H22	1.84	0.40
23:BA:1540:U:H2'	23:BA:1541:G:O4'	2.21	0.40
23:BA:1636:C:H2'	23:BA:1637:A:C8	2.56	0.40
23:BA:2473:U:O2	23:BA:2473:U:H2'	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:271(H):G:C6	23:BA:271(Q):G:C6	3.09	0.40
23:BA:1750:G:O2'	23:BA:2860:A:N1	2.46	0.40
23:BA:1568:G:H5'	25:BD:60:ARG:HA	2.03	0.40
27:BF:32:LEU:O	27:BF:35:GLU:N	2.55	0.40
31:BN:20:GLY:HA2	31:BN:61:ARG:CG	2.49	0.40
31:BN:5:VAL:HG12	31:BN:5:VAL:O	2.21	0.40
1:CA:1015:A:C2	1:CA:1218:C:O2	2.72	0.40
1:CA:1274:G:H21	1:CA:1275:A:N6	2.14	0.40
1:CA:1370:G:O2'	1:CA:1371:G:H5'	2.21	0.40
1:CA:940:C:HO2'	1:CA:1374:A:H2	1.69	0.40
1:CA:1511:G:H2'	1:CA:1512:U:O4'	2.21	0.40
1:CA:189:G:H2'	1:CA:189(A):C:C6	2.56	0.40
1:CA:622:A:C8	1:CA:623:C:C5	3.09	0.40
2:CB:55:PHE:HA	2:CB:55:PHE:HD2	1.77	0.40
3:CC:57:ILE:HG12	3:CC:66:VAL:HA	2.03	0.40
5:CE:107:ARG:O	5:CE:111:GLU:N	2.53	0.40
1:CA:673:G:H5"	6:CF:87:ARG:CZ	2.51	0.40
6:CF:91:VAL:HG11	18:CR:72:ARG:NH1	2.32	0.40
1:CA:1151:A:O4'	10:CJ:39:PRO:HB2	2.20	0.40
13:CM:96:LEU:HA	13:CM:97:PRO:HD3	1.88	0.40
45:D1:58:ILE:HG21	45:D1:58:ILE:HD13	1.76	0.40
23:DA:1421:G:C2	23:DA:1422:G:N7	2.89	0.40
23:DA:1586:A:H2'	23:DA:1587:A:H5'	2.03	0.40
23:DA:226:G:N2	23:DA:228:A:N6	2.68	0.40
23:DA:243:U:O2'	23:DA:244:A:H5'	2.22	0.40
23:DA:2583:G:H2'	23:DA:2584:U:H6	1.86	0.40
23:DA:2648:C:H2'	23:DA:2649:U:C6	2.56	0.40
23:DA:2788:C:OP1	26:DE:61:ARG:NH2	2.53	0.40
23:DA:706:A:H2'	23:DA:707:G:O4'	2.21	0.40
23:DA:950:G:C6	23:DA:951:C:C4	3.10	0.40
34:DQ:18:LYS:O	34:DQ:98:LYS:HD3	2.21	0.40
24:DB:117:G:C4'	36:DS:54:LEU:HD23	2.47	0.40
40:DW:79:GLY:CA	40:DW:100:THR:HG22	2.49	0.40
41:DX:18:TYR:C	41:DX:20:GLY:N	2.75	0.40
1:AA:1192:C:OP1	3:AC:4:LYS:NZ	2.55	0.40
1:AA:1205:U:H2'	1:AA:1206:G:H8	1.86	0.40
1:AA:1347:G:H8	9:AI:107:ARG:CB	2.34	0.40
1:AA:1363(A):A:C8	1:AA:1363(A):A:P	3.14	0.40
1:AA:152:A:C8	1:AA:153:C:C5	3.09	0.40
1:AA:304:U:C2	1:AA:305:G:N7	2.90	0.40
1:AA:592:G:C6	1:AA:648:A:C6	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:826:C:H2'	1:AA:827:U:H6	1.86	0.40
9:AI:110:GLU:HG2	9:AI:111:ARG:H	1.86	0.40
9:AI:24:GLY:H	9:AI:60:ASP:CG	2.25	0.40
9:AI:52:ALA:HB2	9:AI:101:PHE:CE1	2.56	0.40
14:AN:47:LEU:HB2	14:AN:53:LEU:CG	2.49	0.40
1:AA:664:G:P	18:AR:64:ARG:HH21	2.43	0.40
22:AV:34:LEU:O	22:AV:37:ARG:N	2.53	0.40
44:B0:55:ARG:HB2	44:B0:55:ARG:NH1	2.36	0.40
23:BA:1038:C:H6	23:BA:1038:C:H5"	1.86	0.40
23:BA:1246:A:OP1	56:BA:4348:HOH:O	2.22	0.40
23:BA:1260:G:C6	23:BA:1261:C:C4	3.09	0.40
23:BA:154(A):C:O2	23:BA:154(A):C:H5"	2.22	0.40
23:BA:1638:C:H4'	23:BA:2710:C:O2	2.21	0.40
23:BA:479:A:H4'	23:BA:480:A:OP1	2.21	0.40
27:BF:197:ASP:OD2	27:BF:197:ASP:N	2.54	0.40
37:BT:84:GLN:NE2	37:BT:85:LYS:HG2	2.35	0.40
1:CA:1039:C:H2'	1:CA:1040:U:O4'	2.21	0.40
1:CA:1264:C:H2'	1:CA:1265:G:H8	1.82	0.40
1:CA:1269:A:C4	1:CA:1313:U:H1'	2.56	0.40
1:CA:1342:C:H2'	1:CA:1343:G:C8	2.57	0.40
1:CA:658:G:H2'	1:CA:659:U:C6	2.56	0.40
1:CA:791:G:H8	1:CA:791:G:O5'	2.04	0.40
1:CA:981:U:H4'	14:CN:21:TYR:CZ	2.56	0.40
1:CA:1073:U:O2'	2:CB:104:ASN:OD1	2.23	0.40
4:CD:6:GLY:O	4:CD:8:VAL:HG23	2.21	0.40
5:CE:149:GLU:H	5:CE:149:GLU:HG2	1.53	0.40
1:CA:1152:A:H5'	10:CJ:13:HIS:CD2	2.57	0.40
1:CA:881:G:OP2	12:CL:12:ARG:NH2	2.54	0.40
13:CM:33:ALA:HB2	13:CM:64:TRP:CZ3	2.56	0.40
15:CO:36:ILE:O	15:CO:39:LEU:N	2.55	0.40
20:CT:74:LYS:HE2	20:CT:74:LYS:HB3	1.88	0.40
44:D0:10:THR:HG22	44:D0:12:ASN:H	1.86	0.40
50:D6:23:THR:HG1	50:D6:24:GLU:N	2.17	0.40
23:DA:330:A:C2	23:DA:1210:A:H2'	2.52	0.40
23:DA:1799:G:C8	25:DD:181:GLU:OE2	2.74	0.40
23:DA:2119:A:C6	23:DA:2171:A:C5	3.10	0.40
23:DA:827:U:O2	23:DA:2246:G:H4'	2.22	0.40
29:DH:56:SER:OG	29:DH:57:ASP:N	2.55	0.40
30:DI:75:LEU:CD2	30:DI:140:LEU:HD21	2.52	0.40
31:DN:18:ALA:HB3	31:DN:56:ASN:O	2.21	0.40
32:DO:68:GLU:O	32:DO:68:GLU:HG2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DO:59:LYS:NZ	32:DO:89:ASN:HD21	2.19	0.40
36:DS:58:LEU:HB2	36:DS:59:LYS:CB	2.50	0.40
37:DT:118:ARG:NH1	37:DT:118:ARG:HG3	2.37	0.40
23:DA:1753:G:OP1	37:DT:95:ARG:HD3	2.21	0.40
38:DU:109:LEU:HD23	38:DU:109:LEU:HA	1.83	0.40
1:AA:1030(C):G:C8	1:AA:1030(C):G:H3'	2.57	0.40
1:AA:1147:C:H2'	1:AA:1148:U:C6	2.56	0.40
1:AA:1442:G:H2'	1:AA:1442(A):G:C8	2.56	0.40
1:AA:1503:A:N6	1:AA:1532:U:O2'	2.55	0.40
1:AA:373:A:H61	1:AA:391:G:H1'	1.87	0.40
1:AA:392:G:C4	1:AA:393:A:C8	3.09	0.40
1:AA:489:C:H6	1:AA:489:C:O5'	2.04	0.40
1:AA:563:A:N7	1:AA:567:G:H1'	2.36	0.40
1:AA:56:U:C2	1:AA:57:G:C8	3.09	0.40
1:AA:820:U:H4'	1:AA:821:G:OP2	2.21	0.40
1:AA:934:C:O4'	1:AA:934:C:O2	2.39	0.40
2:AB:116:GLU:HA	2:AB:119:GLU:HB2	2.03	0.40
2:AB:155:LEU:HD22	2:AB:155:LEU:HA	1.91	0.40
6:AF:10:LEU:HD13	6:AF:61:LEU:HD13	2.04	0.40
7:AG:102:ARG:HE	7:AG:102:ARG:HB2	1.46	0.40
8:AH:127:LEU:HA	8:AH:127:LEU:HD13	1.94	0.40
12:AL:48:PRO:C	12:AL:49:ASN:HD22	2.24	0.40
13:AM:68:GLY:H	13:AM:71:ARG:HH21	1.69	0.40
14:AN:32:SER:HB3	14:AN:41:ARG:HB3	2.03	0.40
9:AI:111:ARG:CB	14:AN:61:TRP:HE1	2.34	0.40
17:AQ:39:SER:O	17:AQ:40:LYS:HB2	2.22	0.40
23:BA:111:A:C2	23:BA:112:U:C2	3.09	0.40
23:BA:1212:G:N2	23:BA:1236:G:O2'	2.52	0.40
23:BA:1436:G:H1'	23:BA:1477:A:O2'	2.22	0.40
23:BA:1615:C:C5	23:BA:1617:C:C4	3.10	0.40
23:BA:2174:C:H6	23:BA:2174:C:O5'	2.04	0.40
23:BA:2187:G:C6	23:BA:2188:C:C2	3.09	0.40
23:BA:2319:G:C8	23:BA:2320:A:C2	3.10	0.40
23:BA:2854:G:H2'	23:BA:2855:C:H6	1.85	0.40
23:BA:811:U:H2'	33:BP:21:ARG:HA	2.03	0.40
23:BA:862:G:P	56:BA:4195:HOH:O	2.79	0.40
28:BG:17:PRO:O	28:BG:21:ARG:HB2	2.20	0.40
28:BG:6:ALA:HB3	28:BG:104:GLU:OE1	2.22	0.40
32:BO:2:ILE:HD12	32:BO:6:THR:HG21	2.02	0.40
1:CA:1057:G:C5	1:CA:1204:A:C2	3.10	0.40
1:CA:1079:G:C6	1:CA:1080:A:N6	2.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:519:C:H2'	1:CA:520:A:H8	1.85	0.40
1:CA:786:G:C2	1:CA:797:C:C2	3.09	0.40
2:CB:118:LEU:O	2:CB:122:PHE:N	2.55	0.40
17:CQ:3:LYS:HD3	17:CQ:61:GLU:O	2.21	0.40
22:CV:30:PRO:HB2	22:CV:31:TYR:HB2	2.04	0.40
48:D4:6:HIS:HA	48:D4:7:PRO:HD2	1.83	0.40
40:DW:41:LYS:HE3	49:D5:25:LEU:HD21	2.04	0.40
23:DA:1266:G:O5'	40:DW:15:ARG:NH2	2.54	0.40
23:DA:1504:C:H2'	23:DA:1505:C:H6	1.86	0.40
23:DA:1529:G:O2'	23:DA:1530:C:H5'	2.21	0.40
23:DA:2192:G:C2	23:DA:2193:G:C8	3.09	0.40
23:DA:2416:C:O5'	23:DA:2416:C:H6	2.04	0.40
23:DA:631:A:H2'	23:DA:632:A:O4'	2.21	0.40
23:DA:754:C:H2'	23:DA:755:C:H6	1.86	0.40
23:DA:826:U:OP1	23:DA:2428:G:H3'	2.21	0.40
23:DA:979:G:C6	23:DA:982:C:C5	3.09	0.40
26:DE:24:THR:HG23	26:DE:184:VAL:HG12	2.04	0.40
28:DG:105:LYS:HB2	28:DG:105:LYS:HE2	1.91	0.40
30:DI:44:LEU:HA	30:DI:44:LEU:HD12	1.39	0.40
35:DR:70:LEU:HA	35:DR:70:LEU:HD23	1.84	0.40
1:AA:1010:G:C5	1:AA:1011:G:C8	3.09	0.40
1:AA:1157:A:O4'	1:AA:1158:C:C2	2.75	0.40
1:AA:11:G:C6	1:AA:12:U:C4	3.09	0.40
1:AA:1468:A:H2'	1:AA:1469:G:O4'	2.22	0.40
1:AA:1392:G:N2	1:AA:1502:A:C8	2.90	0.40
1:AA:112:G:H4'	1:AA:389:A:H4'	2.04	0.40
1:AA:38:G:H22	1:AA:397:A:P	2.44	0.40
1:AA:627:G:H2'	1:AA:628:G:H8	1.87	0.40
1:AA:642:A:N3	8:AH:113:SER:OG	2.51	0.40
1:AA:649:G:H2'	1:AA:650:G:C8	2.56	0.40
1:AA:763:G:H2'	1:AA:764:C:H6	1.87	0.40
1:AA:78:G:H1	1:AA:91:C:H42	1.69	0.40
1:AA:970:C:C5'	1:AA:972:C:C2	3.04	0.40
2:AB:194:PRO:C	2:AB:196:LEU:H	2.24	0.40
5:AE:143:ARG:NH1	8:AH:77:GLU:OE2	2.53	0.40
8:AH:20:TYR:HA	8:AH:65:TYR:CZ	2.57	0.40
9:AI:66:ARG:HA	9:AI:73:GLN:NE2	2.37	0.40
9:AI:4:TYR:CD1	9:AI:87:GLN:HG2	2.56	0.40
12:AL:47:LYS:HE2	12:AL:47:LYS:HB2	1.83	0.40
18:AR:59:SER:HB3	18:AR:62:GLU:HG3	2.04	0.40
28:BG:105:LYS:NZ	48:B4:25:TYR:O	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:B5:29:THR:O	49:B5:30:LEU:HD23	2.22	0.40
23:BA:1528(A):A:N7	23:BA:1529:G:C5	2.89	0.40
23:BA:1586:A:H2'	23:BA:1587:A:H5'	2.03	0.40
23:BA:2292:C:P	36:BS:17:ARG:NH2	2.95	0.40
23:BA:2315:G:H2'	23:BA:2316:C:H6	1.86	0.40
23:BA:2663:G:C5	23:BA:2664:G:C5	3.09	0.40
23:BA:460:A:C2	23:BA:470:A:C4	3.10	0.40
23:BA:484:C:H2'	23:BA:485:C:C6	2.57	0.40
23:BA:745:G:C2'	23:BA:746:A:H5'	2.51	0.40
25:BD:10:THR:OG1	25:BD:13:ARG:HB2	2.22	0.40
28:BG:105:LYS:HE2	28:BG:105:LYS:HB2	1.90	0.40
28:BG:63:ILE:HD13	28:BG:155:MET:HE1	2.03	0.40
29:BH:24:VAL:HG22	29:BH:35:VAL:HB	2.03	0.40
32:BO:42:SER:HB3	32:BO:44:LYS:HE2	2.02	0.40
34:BQ:119:ARG:HB3	34:BQ:119:ARG:HE	1.65	0.40
34:BQ:35:VAL:HG13	34:BQ:130:LYS:HB3	2.04	0.40
37:BT:99:LEU:O	37:BT:102:ILE:HG12	2.21	0.40
42:BY:106:LEU:O	42:BY:107:ASP:HB2	2.21	0.40
42:BY:65:ALA:HA	42:BY:66:PRO:HD3	1.91	0.40
43:BZ:63:ASP:OD1	43:BZ:65:GLN:HB3	2.21	0.40
1:CA:1107:C:H5"	3:CC:173:VAL:N	2.29	0.40
1:CA:1109:C:O2'	1:CA:1110:A:H5'	2.22	0.40
1:CA:1307:U:H6	1:CA:1307:U:O5'	2.04	0.40
1:CA:1380:U:C4	7:CG:3:ARG:HG2	2.56	0.40
1:CA:1403:C:O5'	1:CA:1403:C:H6	2.04	0.40
1:CA:1512:U:H2'	1:CA:1513:A:H8	1.86	0.40
1:CA:217:C:O2'	1:CA:470:C:N4	2.55	0.40
1:CA:474:G:C2	1:CA:475:G:C5	3.09	0.40
1:CA:509:A:C6	1:CA:510:A:N1	2.89	0.40
1:CA:597:G:H5"	1:CA:598:U:OP2	2.21	0.40
1:CA:698:G:C6	1:CA:699:C:C4	3.10	0.40
1:CA:924:C:H2'	1:CA:925:G:C8	2.56	0.40
1:CA:9:G:OP1	5:CE:122:GLU:HB2	2.22	0.40
11:CK:29:ILE:HG12	11:CK:44:SER:HB2	2.03	0.40
11:CK:17:GLY:HA2	11:CK:35:PRO:HD3	2.03	0.40
18:CR:34:TYR:CD2	18:CR:34:TYR:N	2.89	0.40
22:CV:13:HIS:O	22:CV:13:HIS:ND1	2.46	0.40
48:D4:16:CYS:HB2	48:D4:36:CYS:SG	2.62	0.40
50:D6:10:LEU:CD1	50:D6:54:ILE:HA	2.51	0.40
23:DA:1721:G:N3	23:DA:1721:G:H5"	2.37	0.40
23:DA:2109:U:H3'	23:DA:2109:U:C6	2.53	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:271(T):C:H2'	23:DA:271(U):G:H8	1.86	0.40
23:DA:2732:G:H3'	23:DA:2733:A:O4'	2.20	0.40
23:DA:469:G:C2'	23:DA:470:A:H5"	2.51	0.40
23:DA:754:C:H2'	23:DA:755:C:C6	2.57	0.40
23:DA:916:G:C2'	23:DA:917:A:H5"	2.52	0.40
28:DG:153:ARG:HB2	28:DG:153:ARG:HE	1.55	0.40
29:DH:13:LYS:HA	29:DH:14:GLY:HA2	1.54	0.40
31:DN:134:ARG:HA	31:DN:135:PRO:HD3	1.61	0.40
23:DA:811:U:O2'	33:DP:21:ARG:HG3	2.22	0.40
36:DS:102:ALA:HA	36:DS:105:ALA:H	1.85	0.40

All (1) 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)
30:BI:91:SER:OG	1:CA:368:U:OP1[3_654]	2.19	0.01

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%)	188 (83%)	37 (16%)	2 (1%)	17 55
2	CB	227/256 (89%)	192 (85%)	33 (14%)	2 (1%)	17 55
3	AC	204/239 (85%)	179 (88%)	25 (12%)	0	100 100
3	CC	204/239 (85%)	177 (87%)	27 (13%)	0	100 100
4	AD	206/209 (99%)	179 (87%)	25 (12%)	2 (1%)	15 53
4	CD	206/209 (99%)	180 (87%)	24 (12%)	2 (1%)	15 53
5	AE	146/162 (90%)	125 (86%)	20 (14%)	1 (1%)	22 60
5	CE	146/162 (90%)	126 (86%)	20 (14%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
6	AF	98/101 (97%)	88 (90%)	10 (10%)	0	100	100
6	CF	98/101 (97%)	88 (90%)	10 (10%)	0	100	100
7	AG	153/156 (98%)	132 (86%)	19 (12%)	2 (1%)	12	45
7	CG	153/156 (98%)	128 (84%)	23 (15%)	2 (1%)	12	45
8	AH	136/138 (99%)	122 (90%)	14 (10%)	0	100	100
8	CH	136/138 (99%)	125 (92%)	11 (8%)	0	100	100
9	AI	123/128 (96%)	106 (86%)	15 (12%)	2 (2%)	9	40
9	CI	123/128 (96%)	109 (89%)	12 (10%)	2 (2%)	9	40
10	AJ	94/105 (90%)	78 (83%)	14 (15%)	2 (2%)	7	33
10	CJ	94/105 (90%)	74 (79%)	18 (19%)	2 (2%)	7	33
11	AK	112/129 (87%)	100 (89%)	12 (11%)	0	100	100
11	CK	112/129 (87%)	100 (89%)	12 (11%)	0	100	100
12	AL	120/132 (91%)	109 (91%)	10 (8%)	1 (1%)	19	57
12	CL	120/132 (91%)	107 (89%)	11 (9%)	2 (2%)	9	39
13	AM	112/126 (89%)	82 (73%)	27 (24%)	3 (3%)	5	26
13	CM	112/126 (89%)	84 (75%)	27 (24%)	1 (1%)	17	55
14	AN	58/61 (95%)	48 (83%)	7 (12%)	3 (5%)	2	12
14	CN	58/61 (95%)	51 (88%)	6 (10%)	1 (2%)	9	39
15	AO	86/89 (97%)	71 (83%)	15 (17%)	0	100	100
15	CO	86/89 (97%)	72 (84%)	14 (16%)	0	100	100
16	AP	80/88 (91%)	69 (86%)	9 (11%)	2 (2%)	5	28
16	CP	80/88 (91%)	71 (89%)	7 (9%)	2 (2%)	5	28
17	AQ	97/105 (92%)	87 (90%)	10 (10%)	0	100	100
17	CQ	97/105 (92%)	86 (89%)	11 (11%)	0	100	100
18	AR	66/88 (75%)	60 (91%)	6 (9%)	0	100	100
18	CR	66/88 (75%)	60 (91%)	6 (9%)	0	100	100
19	AS	79/93 (85%)	62 (78%)	16 (20%)	1 (1%)	12	45
19	CS	79/93 (85%)	60 (76%)	16 (20%)	3 (4%)	3	18
20	AT	95/106 (90%)	82 (86%)	10 (10%)	3 (3%)	4	22
20	CT	95/106 (90%)	81 (85%)	11 (12%)	3 (3%)	4	22
21	AU	21/27 (78%)	19 (90%)	2 (10%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
21	CU	21/27 (78%)	19 (90%)	2 (10%)	0	100	100
22	AV	51/61 (84%)	42 (82%)	9 (18%)	0	100	100
22	CV	51/61 (84%)	34 (67%)	14 (28%)	3 (6%)	1	9
25	BD	273/276 (99%)	258 (94%)	14 (5%)	1 (0%)	34	72
25	DD	273/276 (99%)	258 (94%)	14 (5%)	1 (0%)	34	72
26	BE	202/206 (98%)	188 (93%)	12 (6%)	2 (1%)	15	53
26	DE	202/206 (98%)	189 (94%)	11 (5%)	2 (1%)	15	53
27	BF	201/210 (96%)	187 (93%)	13 (6%)	1 (0%)	29	68
27	DF	201/210 (96%)	188 (94%)	12 (6%)	1 (0%)	29	68
28	BG	179/182 (98%)	151 (84%)	28 (16%)	0	100	100
28	DG	179/182 (98%)	151 (84%)	27 (15%)	1 (1%)	25	64
29	BH	172/180 (96%)	156 (91%)	14 (8%)	2 (1%)	13	48
29	DH	172/180 (96%)	158 (92%)	12 (7%)	2 (1%)	13	48
30	BI	144/148 (97%)	114 (79%)	27 (19%)	3 (2%)	7	33
30	DI	144/148 (97%)	113 (78%)	29 (20%)	2 (1%)	11	43
31	BN	138/140 (99%)	128 (93%)	6 (4%)	4 (3%)	4	24
31	DN	138/140 (99%)	126 (91%)	7 (5%)	5 (4%)	3	19
32	BO	120/122 (98%)	113 (94%)	7 (6%)	0	100	100
32	DO	120/122 (98%)	112 (93%)	8 (7%)	0	100	100
33	BP	147/150 (98%)	134 (91%)	12 (8%)	1 (1%)	22	60
33	DP	147/150 (98%)	134 (91%)	13 (9%)	0	100	100
34	BQ	139/141 (99%)	127 (91%)	12 (9%)	0	100	100
34	DQ	139/141 (99%)	125 (90%)	14 (10%)	0	100	100
35	BR	116/118 (98%)	110 (95%)	6 (5%)	0	100	100
35	DR	116/118 (98%)	112 (97%)	4 (3%)	0	100	100
36	BS	108/112 (96%)	96 (89%)	11 (10%)	1 (1%)	17	55
36	DS	108/112 (96%)	97 (90%)	10 (9%)	1 (1%)	17	55
37	BT	129/146 (88%)	125 (97%)	4 (3%)	0	100	100
37	DT	129/146 (88%)	126 (98%)	3 (2%)	0	100	100
38	BU	114/118 (97%)	113 (99%)	1 (1%)	0	100	100
38	DU	114/118 (97%)	113 (99%)	1 (1%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
39	BV	98/101 (97%)	93 (95%)	5 (5%)	0	100	100
39	DV	99/101 (98%)	94 (95%)	5 (5%)	0	100	100
40	BW	110/113 (97%)	106 (96%)	4 (4%)	0	100	100
40	DW	110/113 (97%)	106 (96%)	4 (4%)	0	100	100
41	BX	93/96 (97%)	88 (95%)	5 (5%)	0	100	100
41	DX	93/96 (97%)	88 (95%)	5 (5%)	0	100	100
42	BY	105/110 (96%)	94 (90%)	9 (9%)	2 (2%)	8	36
42	DY	105/110 (96%)	95 (90%)	8 (8%)	2 (2%)	8	36
43	BZ	196/206 (95%)	178 (91%)	15 (8%)	3 (2%)	10	42
43	DZ	196/206 (95%)	177 (90%)	16 (8%)	3 (2%)	10	42
44	B0	74/85 (87%)	71 (96%)	3 (4%)	0	100	100
44	D0	74/85 (87%)	71 (96%)	3 (4%)	0	100	100
45	B1	95/98 (97%)	93 (98%)	2 (2%)	0	100	100
45	D1	95/98 (97%)	93 (98%)	1 (1%)	1 (1%)	14	50
46	B2	68/72 (94%)	65 (96%)	3 (4%)	0	100	100
46	D2	68/72 (94%)	65 (96%)	3 (4%)	0	100	100
47	B3	57/60 (95%)	53 (93%)	4 (7%)	0	100	100
47	D3	57/60 (95%)	53 (93%)	4 (7%)	0	100	100
48	B4	44/71 (62%)	37 (84%)	7 (16%)	0	100	100
48	D4	44/71 (62%)	38 (86%)	6 (14%)	0	100	100
49	B5	57/60 (95%)	52 (91%)	5 (9%)	0	100	100
49	D5	57/60 (95%)	52 (91%)	5 (9%)	0	100	100
50	B6	51/54 (94%)	49 (96%)	2 (4%)	0	100	100
50	D6	51/54 (94%)	49 (96%)	2 (4%)	0	100	100
51	B7	46/49 (94%)	44 (96%)	1 (2%)	1 (2%)	6	31
51	D7	46/49 (94%)	45 (98%)	0	1 (2%)	6	31
52	B8	62/65 (95%)	59 (95%)	2 (3%)	1 (2%)	9	40
52	D8	62/65 (95%)	59 (95%)	1 (2%)	2 (3%)	4	22
53	B9	34/37 (92%)	34 (100%)	0	0	100	100
53	D9	34/37 (92%)	34 (100%)	0	0	100	100
All	All	11473/12250 (94%)	10289 (90%)	1089 (10%)	95 (1%)	19	57

All (95) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
13	AM	91	ARG
33	BP	27	HIS
12	CL	92	ASP
31	DN	23	LEU
31	DN	24	GLY
52	D8	34	TRP
52	D8	35	GLN
2	AB	129	GLU
9	AI	102	LEU
20	AT	100	ILE
27	BF	90	PHE
30	BI	113	ARG
31	BN	23	LEU
42	BY	103	GLY
52	B8	35	GLN
2	CB	129	GLU
16	CP	53	VAL
19	CS	47	HIS
20	CT	100	ILE
22	CV	27	GLU
27	DF	89	VAL
30	DI	117	GLU
16	AP	53	VAL
16	AP	79	VAL
31	BN	5	VAL
10	CJ	56	HIS
13	CM	5	ALA
42	DY	103	GLY
2	AB	9	GLU
13	AM	90	LEU
14	AN	35	ARG
19	AS	52	TYR
29	BH	65	HIS
30	BI	85	GLU
31	BN	4	TYR
31	BN	19	GLU
2	CB	9	GLU
16	CP	79	VAL
20	CT	10	LEU
22	CV	30	PRO
29	DH	65	HIS
29	DH	92	ILE

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Mol	Chain	Res	Type
31	DN	4	TYR
31	DN	5	VAL
31	DN	19	GLU
7	AG	54	THR
12	AL	28	LYS
14	AN	26	ARG
14	AN	59	ALA
20	AT	10	LEU
29	BH	92	ILE
51	B7	46	VAL
9	CI	23	ASN
9	CI	56	LEU
10	CJ	57	LYS
12	CL	28	LYS
14	CN	59	ALA
19	CS	12	ASP
19	CS	67	VAL
45	D1	3	LYS
51	D7	46	VAL
5	AE	132	ALA
7	AG	112	PRO
9	AI	103	THR
10	AJ	35	SER
26	BE	52	LEU
43	BZ	193	GLU
4	CD	7	PRO
7	CG	112	PRO
26	DE	52	LEU
28	DG	171	ALA
10	AJ	34	VAL
26	BE	72	VAL
25	DD	3	VAL
26	DE	72	VAL
30	DI	107	VAL
4	AD	7	PRO
4	AD	178	VAL
25	BD	3	VAL
36	BS	85	VAL
4	CD	178	VAL
22	CV	53	VAL
43	BZ	161	VAL
43	DZ	161	VAL

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Mol	Chain	Res	Type
43	DZ	193	GLU
13	AM	40	ASN
42	BY	3	VAL
43	BZ	39	VAL
7	CG	55	GLY
36	DS	85	VAL
42	DY	3	VAL
30	BI	107	VAL
43	DZ	39	VAL
20	AT	98	PRO
20	CT	98	PRO

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%)	135 (76%)	42 (24%)	1 3
2	CB	177/220 (80%)	135 (76%)	42 (24%)	1 3
3	AC	114/188 (61%)	74 (65%)	40 (35%)	0 1
3	CC	114/188 (61%)	78 (68%)	36 (32%)	0 1
4	AD	141/181 (78%)	113 (80%)	28 (20%)	1 7
4	CD	141/181 (78%)	114 (81%)	27 (19%)	1 8
5	AE	108/123 (88%)	84 (78%)	24 (22%)	1 4
5	CE	108/123 (88%)	84 (78%)	24 (22%)	1 4
6	AF	76/90 (84%)	68 (90%)	8 (10%)	7 27
6	CF	76/90 (84%)	69 (91%)	7 (9%)	9 34
7	AG	103/127 (81%)	68 (66%)	35 (34%)	0 1
7	CG	103/127 (81%)	77 (75%)	26 (25%)	0 3
8	AH	103/119 (87%)	83 (81%)	20 (19%)	1 7
8	CH	103/119 (87%)	84 (82%)	19 (18%)	1 9
9	AI	62/99 (63%)	49 (79%)	13 (21%)	1 5

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
9	CI	62/99 (63%)	48 (77%)	14 (23%)	1 4
10	AJ	53/92 (58%)	41 (77%)	12 (23%)	1 4
10	CJ	53/92 (58%)	39 (74%)	14 (26%)	0 2
11	AK	81/99 (82%)	70 (86%)	11 (14%)	3 17
11	CK	81/99 (82%)	70 (86%)	11 (14%)	3 17
12	AL	91/109 (84%)	80 (88%)	11 (12%)	5 21
12	CL	91/109 (84%)	79 (87%)	12 (13%)	4 18
13	AM	64/101 (63%)	45 (70%)	19 (30%)	0 1
13	CM	64/101 (63%)	49 (77%)	15 (23%)	1 4
14	AN	46/50 (92%)	37 (80%)	9 (20%)	1 7
14	CN	46/50 (92%)	33 (72%)	13 (28%)	0 2
15	AO	77/80 (96%)	70 (91%)	7 (9%)	9 34
15	CO	77/80 (96%)	71 (92%)	6 (8%)	12 42
16	AP	63/74 (85%)	47 (75%)	16 (25%)	0 3
16	CP	63/74 (85%)	47 (75%)	16 (25%)	0 3
17	AQ	94/97 (97%)	80 (85%)	14 (15%)	3 14
17	CQ	94/97 (97%)	80 (85%)	14 (15%)	3 14
18	AR	49/77 (64%)	43 (88%)	6 (12%)	5 21
18	CR	49/77 (64%)	42 (86%)	7 (14%)	3 15
19	AS	43/80 (54%)	24 (56%)	19 (44%)	0 0
19	CS	43/80 (54%)	32 (74%)	11 (26%)	0 3
20	AT	65/82 (79%)	56 (86%)	9 (14%)	3 17
20	CT	65/82 (79%)	55 (85%)	10 (15%)	2 13
21	AU	18/22 (82%)	11 (61%)	7 (39%)	0 0
21	CU	18/22 (82%)	13 (72%)	5 (28%)	0 2
22	AV	16/50 (32%)	13 (81%)	3 (19%)	1 8
22	CV	21/50 (42%)	14 (67%)	7 (33%)	0 1
25	BD	215/218 (99%)	181 (84%)	34 (16%)	2 12
25	DD	215/218 (99%)	180 (84%)	35 (16%)	2 11
26	BE	163/166 (98%)	138 (85%)	25 (15%)	2 13
26	DE	163/166 (98%)	135 (83%)	28 (17%)	2 10

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
27	BF	159/166 (96%)	133 (84%)	26 (16%)	2 11
27	DF	159/166 (96%)	133 (84%)	26 (16%)	2 11
28	BG	128/156 (82%)	106 (83%)	22 (17%)	2 10
28	DG	128/156 (82%)	106 (83%)	22 (17%)	2 10
29	BH	141/148 (95%)	127 (90%)	14 (10%)	8 30
29	DH	141/148 (95%)	127 (90%)	14 (10%)	8 30
30	BI	99/124 (80%)	75 (76%)	24 (24%)	0 3
30	DI	98/124 (79%)	67 (68%)	31 (32%)	0 1
31	BN	117/119 (98%)	92 (79%)	25 (21%)	1 5
31	DN	117/119 (98%)	93 (80%)	24 (20%)	1 6
32	BO	98/100 (98%)	90 (92%)	8 (8%)	11 39
32	DO	98/100 (98%)	90 (92%)	8 (8%)	11 39
33	BP	114/116 (98%)	98 (86%)	16 (14%)	3 16
33	DP	114/116 (98%)	100 (88%)	14 (12%)	4 21
34	BQ	111/111 (100%)	95 (86%)	16 (14%)	3 15
34	DQ	111/111 (100%)	96 (86%)	15 (14%)	4 17
35	BR	101/101 (100%)	82 (81%)	19 (19%)	1 8
35	DR	101/101 (100%)	83 (82%)	18 (18%)	2 9
36	BS	84/88 (96%)	69 (82%)	15 (18%)	2 9
36	DS	84/88 (96%)	72 (86%)	12 (14%)	3 15
37	BT	110/127 (87%)	95 (86%)	15 (14%)	3 17
37	DT	110/127 (87%)	92 (84%)	18 (16%)	2 11
38	BU	93/94 (99%)	84 (90%)	9 (10%)	8 31
38	DU	93/94 (99%)	84 (90%)	9 (10%)	8 31
39	BV	79/82 (96%)	62 (78%)	17 (22%)	1 5
39	DV	80/82 (98%)	64 (80%)	16 (20%)	1 7
40	BW	89/92 (97%)	78 (88%)	11 (12%)	4 20
40	DW	89/92 (97%)	76 (85%)	13 (15%)	3 15
41	BX	75/78 (96%)	70 (93%)	5 (7%)	16 49
41	DX	75/78 (96%)	70 (93%)	5 (7%)	16 49
42	BY	80/91 (88%)	66 (82%)	14 (18%)	2 10

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
42	DY	80/91 (88%)	63 (79%)	17 (21%)	1 5
43	BZ	159/179 (89%)	141 (89%)	18 (11%)	6 24
43	DZ	159/179 (89%)	141 (89%)	18 (11%)	6 24
44	B0	59/67 (88%)	54 (92%)	5 (8%)	10 38
44	D0	59/67 (88%)	54 (92%)	5 (8%)	10 38
45	B1	78/83 (94%)	67 (86%)	11 (14%)	3 16
45	D1	78/83 (94%)	67 (86%)	11 (14%)	3 16
46	B2	65/67 (97%)	59 (91%)	6 (9%)	9 34
46	D2	65/67 (97%)	58 (89%)	7 (11%)	6 26
47	B3	49/52 (94%)	43 (88%)	6 (12%)	5 21
47	D3	49/52 (94%)	42 (86%)	7 (14%)	3 15
48	B4	39/63 (62%)	29 (74%)	10 (26%)	0 3
48	D4	39/63 (62%)	29 (74%)	10 (26%)	0 3
49	B5	50/52 (96%)	45 (90%)	5 (10%)	7 29
49	D5	50/52 (96%)	45 (90%)	5 (10%)	7 29
50	B6	50/52 (96%)	39 (78%)	11 (22%)	1 4
50	D6	50/52 (96%)	37 (74%)	13 (26%)	0 2
51	B7	41/42 (98%)	32 (78%)	9 (22%)	1 4
51	D7	41/42 (98%)	34 (83%)	7 (17%)	2 10
52	B8	52/55 (94%)	43 (83%)	9 (17%)	2 10
52	D8	52/55 (94%)	43 (83%)	9 (17%)	2 10
53	B9	32/34 (94%)	29 (91%)	3 (9%)	8 32
53	D9	32/34 (94%)	29 (91%)	3 (9%)	8 32
All	All	8753/10166 (86%)	7236 (83%)	1517 (17%)	2 10

All (1517) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	15	VAL
2	AB	17	PHE
2	AB	21	ARG
2	AB	32	ILE
2	AB	37	ASN
2	AB	45	GLN

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Mol	Chain	Res	Type
2	AB	47	THR
2	AB	49	GLU
2	AB	51	LEU
2	AB	58	ILE
2	AB	67	THR
2	AB	69	LEU
2	AB	75	LYS
2	AB	80	ILE
2	AB	87	ARG
2	AB	93	VAL
2	AB	94	ASN
2	AB	114	ARG
2	AB	119	GLU
2	AB	122	PHE
2	AB	130	ARG
2	AB	139	LYS
2	AB	140	HIS
2	AB	145	LEU
2	AB	149	LEU
2	AB	157	ARG
2	AB	158	LEU
2	AB	163	PHE
2	AB	169	LYS
2	AB	170	GLU
2	AB	172	ILE
2	AB	187	LEU
2	AB	189	ASP
2	AB	191	ASP
2	AB	200	ILE
2	AB	206	ASP
2	AB	214	ILE
2	AB	215	LEU
2	AB	224	GLN
2	AB	226	ARG
2	AB	231	GLU
2	AB	233	SER
3	AC	3	ASN
3	AC	8	ILE
3	AC	11	ARG
3	AC	15	THR
3	AC	17	ASP
3	AC	19	GLU

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Mol	Chain	Res	Type
3	AC	22	TRP
3	AC	26	LYS
3	AC	30	ARG
3	AC	32	LEU
3	AC	34	LEU
3	AC	36	ASP
3	AC	37	GLN
3	AC	43	LEU
3	AC	48	TYR
3	AC	49	SER
3	AC	52	LEU
3	AC	57	ILE
3	AC	67	THR
3	AC	69	HIS
3	AC	103	VAL
3	AC	104	GLN
3	AC	110	ASN
3	AC	111	LEU
3	AC	125	GLU
3	AC	127	ARG
3	AC	134	ILE
3	AC	136	GLN
3	AC	140	ARG
3	AC	162	GLN
3	AC	173	VAL
3	AC	175	LEU
3	AC	178	LEU
3	AC	179	ARG
3	AC	181	ASN
3	AC	186	PHE
3	AC	192	THR
3	AC	193	TYR
3	AC	195	VAL
3	AC	196	LEU
4	AD	11	LEU
4	AD	22	LYS
4	AD	34	GLU
4	AD	36	ARG
4	AD	57	ARG
4	AD	58	LEU
4	AD	73	ARG
4	AD	77	ASN

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Mol	Chain	Res	Type
4	AD	79	PHE
4	AD	83	SER
4	AD	97	LEU
4	AD	104	VAL
4	AD	105	VAL
4	AD	106	TYR
4	AD	107	ARG
4	AD	110	PHE
4	AD	126	ILE
4	AD	127	THR
4	AD	135	LEU
4	AD	137	SER
4	AD	138	TYR
4	AD	158	ILE
4	AD	160	GLN
4	AD	181	MET
4	AD	188	LEU
4	AD	193	ASP
4	AD	196	LEU
4	AD	200	GLU
5	AE	5	ASP
5	AE	6	PHE
5	AE	12	LEU
5	AE	16	THR
5	AE	20	GLN
5	AE	34	VAL
5	AE	37	ARG
5	AE	41	VAL
5	AE	47	LYS
5	AE	53	LEU
5	AE	60	TYR
5	AE	75	THR
5	AE	76	ILE
5	AE	78	HIS
5	AE	79	GLU
5	AE	82	VAL
5	AE	89	ILE
5	AE	91	LEU
5	AE	117	ASP
5	AE	121	LYS
5	AE	137	GLU
5	AE	144	THR

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Mol	Chain	Res	Type
5	AE	147	ASP
5	AE	149	GLU
6	AF	22	GLU
6	AF	36	ARG
6	AF	43	LEU
6	AF	45	LEU
6	AF	55	ASP
6	AF	69	GLU
6	AF	82	ARG
6	AF	83	ASP
7	AG	4	ARG
7	AG	10	ARG
7	AG	16	LEU
7	AG	18	TYR
7	AG	22	LEU
7	AG	24	THR
7	AG	31	MET
7	AG	37	ASN
7	AG	38	LEU
7	AG	41	ARG
7	AG	43	PHE
7	AG	44	TYR
7	AG	47	CYS
7	AG	51	GLN
7	AG	56	GLN
7	AG	57	GLU
7	AG	69	VAL
7	AG	72	ARG
7	AG	74	GLU
7	AG	75	VAL
7	AG	80	VAL
7	AG	92	SER
7	AG	101	LEU
7	AG	113	GLU
7	AG	118	VAL
7	AG	137	LYS
7	AG	138	LYS
7	AG	140	ASP
7	AG	141	VAL
7	AG	142	GLU
7	AG	143	ARG
7	AG	144	MET

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Mol	Chain	Res	Type
7	AG	146	GLU
7	AG	153	HIS
7	AG	156	TRP
8	AH	3	THR
8	AH	8	ASP
8	AH	19	VAL
8	AH	21	LYS
8	AH	24	THR
8	AH	25	ASP
8	AH	42	GLU
8	AH	45	ILE
8	AH	49	GLU
8	AH	54	ASP
8	AH	78	GLN
8	AH	84	ARG
8	AH	85	ARG
8	AH	91	ARG
8	AH	95	VAL
8	AH	109	ILE
8	AH	112	LEU
8	AH	114	THR
8	AH	125	ARG
8	AH	137	VAL
9	AI	3	GLN
9	AI	7	THR
9	AI	9	ARG
9	AI	29	ASN
9	AI	38	GLN
9	AI	59	PHE
9	AI	71	SER
9	AI	83	ARG
9	AI	88	TYR
9	AI	99	LEU
9	AI	104	ARG
9	AI	105	ASP
9	AI	110	GLU
10	AJ	8	LEU
10	AJ	9	ARG
10	AJ	13	HIS
10	AJ	16	LEU
10	AJ	21	GLN
10	AJ	34	VAL

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Mol	Chain	Res	Type
10	AJ	38	ILE
10	AJ	43	ARG
10	AJ	48	THR
10	AJ	55	LYS
10	AJ	67	THR
10	AJ	97	GLU
11	AK	14	VAL
11	AK	38	ASN
11	AK	48	ILE
11	AK	93	GLN
11	AK	95	ILE
11	AK	96	ARG
11	AK	107	SER
11	AK	109	VAL
11	AK	116	HIS
11	AK	119	CYS
11	AK	126	ARG
12	AL	6	THR
12	AL	33	ARG
12	AL	43	VAL
12	AL	44	THR
12	AL	53	ARG
12	AL	67	THR
12	AL	70	ILE
12	AL	102	ARG
12	AL	104	VAL
12	AL	118	SER
12	AL	123	LYS
13	AM	15	VAL
13	AM	16	ASP
13	AM	17	VAL
13	AM	19	LEU
13	AM	20	THR
13	AM	43	THR
13	AM	53	VAL
13	AM	55	ARG
13	AM	56	LEU
13	AM	64	TRP
13	AM	66	LEU
13	AM	70	LEU
13	AM	74	VAL
13	AM	86	CYS

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Mol	Chain	Res	Type
13	AM	101	GLN
13	AM	103	THR
13	AM	105	THR
13	AM	110	ARG
13	AM	114	ARG
14	AN	4	LYS
14	AN	7	ILE
14	AN	13	THR
14	AN	18	VAL
14	AN	25	VAL
14	AN	40	CYS
14	AN	41	ARG
14	AN	44	LEU
14	AN	57	ARG
15	AO	3	ILE
15	AO	35	ARG
15	AO	39	LEU
15	AO	41	GLU
15	AO	62	GLN
15	AO	72	ARG
15	AO	87	ILE
16	AP	1	MET
16	AP	2	VAL
16	AP	3	LYS
16	AP	6	LEU
16	AP	8	ARG
16	AP	28	ARG
16	AP	43	LYS
16	AP	45	THR
16	AP	47	ASP
16	AP	52	ASP
16	AP	54	GLU
16	AP	62	VAL
16	AP	67	THR
16	AP	69	THR
16	AP	71	ARG
16	AP	76	GLN
17	AQ	9	VAL
17	AQ	11	VAL
17	AQ	34	LYS
17	AQ	45	HIS
17	AQ	48	GLU

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Mol	Chain	Res	Type
17	AQ	52	LYS
17	AQ	53	LEU
17	AQ	59	ILE
17	AQ	63	ARG
17	AQ	68	ARG
17	AQ	72	ARG
17	AQ	82	MET
17	AQ	93	GLN
17	AQ	97	SER
18	AR	31	LEU
18	AR	32	ARG
18	AR	36	ASN
18	AR	53	ARG
18	AR	76	LEU
18	AR	83	GLU
19	AS	14	HIS
19	AS	20	LEU
19	AS	31	ILE
19	AS	36	ARG
19	AS	37	ARG
19	AS	38	SER
19	AS	43	GLU
19	AS	44	MET
19	AS	47	HIS
19	AS	49	ILE
19	AS	52	TYR
19	AS	53	ASN
19	AS	57	HIS
19	AS	61	TYR
19	AS	62	ILE
19	AS	67	VAL
19	AS	74	PHE
19	AS	81	ARG
19	AS	83	HIS
20	AT	10	LEU
20	AT	13	LEU
20	AT	22	ARG
20	AT	24	LEU
20	AT	30	LYS
20	AT	41	ILE
20	AT	50	GLU
20	AT	72	LEU

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Mol	Chain	Res	Type
20	AT	93	GLU
21	AU	6	ARG
21	AU	9	ARG
21	AU	10	ARG
21	AU	12	LYS
21	AU	14	TRP
21	AU	15	ARG
21	AU	20	LYS
22	AV	4	GLN
22	AV	7	ASP
22	AV	54	MET
25	BD	12	SER
25	BD	13	ARG
25	BD	25	THR
25	BD	32	SER
25	BD	35	LYS
25	BD	37	LEU
25	BD	39	LYS
25	BD	61	LEU
25	BD	89	SER
25	BD	94	LEU
25	BD	99	ASP
25	BD	101	GLU
25	BD	103	ARG
25	BD	106	ILE
25	BD	126	GLN
25	BD	138	VAL
25	BD	141	VAL
25	BD	147	LEU
25	BD	150	LYS
25	BD	155	LEU
25	BD	165	ILE
25	BD	173	VAL
25	BD	192	THR
25	BD	193	VAL
25	BD	211	ARG
25	BD	212	SER
25	BD	217	ARG
25	BD	221	VAL
25	BD	229	VAL
25	BD	242	ARG
25	BD	257	LEU

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Mol	Chain	Res	Type
25	BD	259	THR
25	BD	260	ARG
25	BD	274	ARG
26	BE	9	VAL
26	BE	12	THR
26	BE	21	VAL
26	BE	24	THR
26	BE	34	VAL
26	BE	49	LEU
26	BE	52	LEU
26	BE	54	GLN
26	BE	78	LEU
26	BE	82	ARG
26	BE	89	ASP
26	BE	93	VAL
26	BE	111	ARG
26	BE	113	PHE
26	BE	116	VAL
26	BE	119	ARG
26	BE	144	ARG
26	BE	152	LYS
26	BE	154	LYS
26	BE	170	LEU
26	BE	175	VAL
26	BE	179	GLU
26	BE	181	LEU
26	BE	182	LEU
26	BE	184	VAL
27	BF	15	SER
27	BF	18	ARG
27	BF	20	LEU
27	BF	24	LEU
27	BF	33	LEU
27	BF	46	ARG
27	BF	50	SER
27	BF	53	THR
27	BF	57	VAL
27	BF	60	SER
27	BF	74	ARG
27	BF	77	ASP
27	BF	82	ILE
27	BF	88	VAL

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Mol	Chain	Res	Type
27	BF	96	ASP
27	BF	106	ARG
27	BF	110	LEU
27	BF	133	ASN
27	BF	135	LYS
27	BF	140	LEU
27	BF	158	THR
27	BF	175	THR
27	BF	183	VAL
27	BF	192	LEU
27	BF	197	ASP
27	BF	201	VAL
28	BG	3	LEU
28	BG	13	GLU
28	BG	20	ILE
28	BG	21	ARG
28	BG	31	VAL
28	BG	33	ARG
28	BG	43	LEU
28	BG	88	ILE
28	BG	96	ARG
28	BG	117	PHE
28	BG	135	LEU
28	BG	138	GLN
28	BG	143	GLU
28	BG	145	THR
28	BG	146	TYR
28	BG	148	MET
28	BG	149	VAL
28	BG	150	ASP
28	BG	153	ARG
28	BG	159	VAL
28	BG	161	THR
28	BG	170	ARG
29	BH	7	LEU
29	BH	15	VAL
29	BH	16	SER
29	BH	69	ARG
29	BH	70	THR
29	BH	88	LEU
29	BH	98	LEU
29	BH	106	THR

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Mol	Chain	Res	Type
29	BH	122	THR
29	BH	129	THR
29	BH	132	ARG
29	BH	139	GLN
29	BH	153	LYS
29	BH	171	LEU
30	BI	1	MET
30	BI	7	GLU
30	BI	9	LEU
30	BI	12	LEU
30	BI	15	VAL
30	BI	44	LEU
30	BI	47	LEU
30	BI	54	GLN
30	BI	61	ARG
30	BI	68	LEU
30	BI	75	LEU
30	BI	77	LEU
30	BI	85	GLU
30	BI	92	VAL
30	BI	93	THR
30	BI	102	SER
30	BI	108	THR
30	BI	116	LEU
30	BI	117	GLU
30	BI	127	VAL
30	BI	129	THR
30	BI	130	TYR
30	BI	140	LEU
30	BI	142	VAL
31	BN	2	LYS
31	BN	9	VAL
31	BN	12	ARG
31	BN	15	LEU
31	BN	28	THR
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	58	ASP

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Mol	Chain	Res	Type
31	BN	62	VAL
31	BN	63	THR
31	BN	67	LEU
31	BN	73	THR
31	BN	87	LEU
31	BN	93	THR
31	BN	97	ARG
31	BN	99	LEU
31	BN	120	LEU
31	BN	131	GLN
31	BN	133	GLN
31	BN	137	LYS
31	BN	138	LEU
32	BO	8	LEU
32	BO	21	CYS
32	BO	26	LYS
32	BO	28	SER
32	BO	42	SER
32	BO	77	ILE
32	BO	94	ARG
32	BO	113	LYS
33	BP	21	ARG
33	BP	33	ARG
33	BP	42	SER
33	BP	45	LEU
33	BP	55	ARG
33	BP	59	LEU
33	BP	64	LYS
33	BP	70	GLN
33	BP	86	LYS
33	BP	98	GLU
33	BP	106	LEU
33	BP	112	LEU
33	BP	117	GLU
33	BP	125	VAL
33	BP	133	SER
33	BP	147	LEU
34	BQ	1	MET
34	BQ	5	ARG
34	BQ	7	MET
34	BQ	8	LYS
34	BQ	16	ARG

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Mol	Chain	Res	Type
34	BQ	21	THR
34	BQ	25	ASP
34	BQ	45	GLN
34	BQ	55	VAL
34	BQ	56	ARG
34	BQ	75	THR
34	BQ	79	LEU
34	BQ	109	VAL
34	BQ	119	ARG
34	BQ	127	ILE
34	BQ	138	ASP
35	BR	6	SER
35	BR	14	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	48	VAL
35	BR	54	LEU
35	BR	60	LEU
35	BR	65	LEU
35	BR	67	LEU
35	BR	75	LEU
35	BR	79	LEU
35	BR	91	GLN
35	BR	95	THR
35	BR	100	LEU
35	BR	111	LEU
36	BS	3	ARG
36	BS	11	LYS
36	BS	14	VAL
36	BS	19	LYS
36	BS	20	ARG
36	BS	25	ARG
36	BS	36	TYR
36	BS	42	ASP
36	BS	50	SER
36	BS	54	LEU
36	BS	67	ARG
36	BS	69	VAL

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Mol	Chain	Res	Type
36	BS	98	VAL
36	BS	110	LEU
36	BS	111	GLU
37	BT	1	MET
37	BT	6	LEU
37	BT	13	ARG
37	BT	16	ARG
37	BT	23	ARG
37	BT	39	ARG
37	BT	49	VAL
37	BT	53	ARG
37	BT	59	THR
37	BT	74	ARG
37	BT	82	LEU
37	BT	93	ARG
37	BT	96	ARG
37	BT	107	ASP
37	BT	118	ARG
38	BU	8	VAL
38	BU	31	SER
38	BU	36	ARG
38	BU	58	ARG
38	BU	60	LEU
38	BU	74	LEU
38	BU	83	LEU
38	BU	104	GLN
38	BU	108	GLU
39	BV	5	VAL
39	BV	7	THR
39	BV	18	LEU
39	BV	28	GLU
39	BV	33	VAL
39	BV	35	LEU
39	BV	38	LEU
39	BV	46	VAL
39	BV	51	VAL
39	BV	57	VAL
39	BV	61	VAL
39	BV	62	LEU
39	BV	72	VAL
39	BV	73	SER
39	BV	79	VAL

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Mol	Chain	Res	Type
39	BV	89	GLN
39	BV	95	LEU
40	BW	11	ARG
40	BW	15	ARG
40	BW	17	VAL
40	BW	23	LEU
40	BW	27	LYS
40	BW	51	LEU
40	BW	60	ASN
40	BW	67	ASP
40	BW	98	LYS
40	BW	100	THR
40	BW	107	LEU
41	BX	23	GLU
41	BX	35	THR
41	BX	45	THR
41	BX	52	VAL
41	BX	57	LEU
42	BY	2	ARG
42	BY	5	MET
42	BY	6	HIS
42	BY	7	VAL
42	BY	23	ARG
42	BY	31	LEU
42	BY	44	ILE
42	BY	55	TYR
42	BY	72	VAL
42	BY	85	VAL
42	BY	90	LEU
42	BY	92	ASN
42	BY	97	ARG
42	BY	99	CYS
43	BZ	3	TYR
43	BZ	11	GLU
43	BZ	19	ARG
43	BZ	20	ARG
43	BZ	31	ARG
43	BZ	41	LEU
43	BZ	42	VAL
43	BZ	72	ARG
43	BZ	76	LEU
43	BZ	80	ARG

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Mol	Chain	Res	Type
43	BZ	86	VAL
43	BZ	112	ARG
43	BZ	126	VAL
43	BZ	132	ASN
43	BZ	133	ILE
43	BZ	155	LEU
43	BZ	156	LYS
43	BZ	170	THR
44	B0	20	ARG
44	B0	43	THR
44	B0	46	LYS
44	B0	55	ARG
44	B0	63	VAL
45	B1	4	VAL
45	B1	20	ARG
45	B1	21	ARG
45	B1	30	VAL
45	B1	35	THR
45	B1	40	ARG
45	B1	58	ILE
45	B1	59	THR
45	B1	62	VAL
45	B1	82	LEU
45	B1	95	LEU
46	B2	27	GLU
46	B2	30	ARG
46	B2	32	LEU
46	B2	40	SER
46	B2	53	LEU
46	B2	55	ARG
47	B3	6	VAL
47	B3	8	LEU
47	B3	23	LEU
47	B3	24	LYS
47	B3	30	ARG
47	B3	40	THR
48	B4	14	ILE
48	B4	16	CYS
48	B4	18	CYS
48	B4	20	ASN
48	B4	34	GLU
48	B4	35	VAL

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Mol	Chain	Res	Type
48	B4	37	SER
48	B4	39	CYS
48	B4	43	TYR
48	B4	44	THR
49	B5	16	ARG
49	B5	29	THR
49	B5	37	LYS
49	B5	40	LYS
49	B5	55	ARG
50	B6	6	ARG
50	B6	14	THR
50	B6	18	ARG
50	B6	23	THR
50	B6	28	ARG
50	B6	33	LYS
50	B6	35	GLU
50	B6	40	CYS
50	B6	44	ARG
50	B6	48	VAL
50	B6	49	HIS
51	B7	1	MET
51	B7	4	THR
51	B7	8	ASN
51	B7	10	ARG
51	B7	12	ARG
51	B7	24	THR
51	B7	32	LYS
51	B7	43	THR
51	B7	47	ARG
52	B8	26	LYS
52	B8	27	THR
52	B8	29	LYS
52	B8	30	ARG
52	B8	31	HIS
52	B8	32	LEU
52	B8	37	SER
52	B8	58	ILE
52	B8	59	LYS
53	B9	17	ILE
53	B9	25	VAL
53	B9	26	ILE
2	CB	15	VAL

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Mol	Chain	Res	Type
2	CB	17	PHE
2	CB	21	ARG
2	CB	32	ILE
2	CB	37	ASN
2	CB	45	GLN
2	CB	47	THR
2	CB	49	GLU
2	CB	51	LEU
2	CB	58	ILE
2	CB	67	THR
2	CB	69	LEU
2	CB	75	LYS
2	CB	80	ILE
2	CB	87	ARG
2	CB	93	VAL
2	CB	94	ASN
2	CB	114	ARG
2	CB	119	GLU
2	CB	122	PHE
2	CB	130	ARG
2	CB	139	LYS
2	CB	140	HIS
2	CB	145	LEU
2	CB	149	LEU
2	CB	157	ARG
2	CB	158	LEU
2	CB	163	PHE
2	CB	169	LYS
2	CB	170	GLU
2	CB	172	ILE
2	CB	187	LEU
2	CB	189	ASP
2	CB	191	ASP
2	CB	200	ILE
2	CB	206	ASP
2	CB	214	ILE
2	CB	215	LEU
2	CB	224	GLN
2	CB	226	ARG
2	CB	231	GLU
2	CB	233	SER
3	CC	5	ILE

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Mol	Chain	Res	Type
3	CC	6	HIS
3	CC	8	ILE
3	CC	12	LEU
3	CC	18	TRP
3	CC	30	ARG
3	CC	31	HIS
3	CC	32	LEU
3	CC	33	LEU
3	CC	34	LEU
3	CC	36	ASP
3	CC	37	GLN
3	CC	46	GLU
3	CC	48	TYR
3	CC	49	SER
3	CC	52	LEU
3	CC	55	VAL
3	CC	58	GLU
3	CC	59	ARG
3	CC	102	ASN
3	CC	111	LEU
3	CC	118	GLN
3	CC	131	ARG
3	CC	136	GLN
3	CC	150	LYS
3	CC	152	ILE
3	CC	170	GLN
3	CC	172	ARG
3	CC	173	VAL
3	CC	175	LEU
3	CC	178	LEU
3	CC	179	ARG
3	CC	182	ILE
3	CC	188	LEU
3	CC	192	THR
3	CC	193	TYR
4	CD	11	LEU
4	CD	22	LYS
4	CD	34	GLU
4	CD	36	ARG
4	CD	57	ARG
4	CD	58	LEU
4	CD	73	ARG

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Mol	Chain	Res	Type
4	CD	77	ASN
4	CD	79	PHE
4	CD	83	SER
4	CD	97	LEU
4	CD	104	VAL
4	CD	106	TYR
4	CD	107	ARG
4	CD	110	PHE
4	CD	126	ILE
4	CD	127	THR
4	CD	135	LEU
4	CD	137	SER
4	CD	138	TYR
4	CD	158	ILE
4	CD	160	GLN
4	CD	181	MET
4	CD	188	LEU
4	CD	193	ASP
4	CD	196	LEU
4	CD	200	GLU
5	CE	5	ASP
5	CE	6	PHE
5	CE	12	LEU
5	CE	16	THR
5	CE	20	GLN
5	CE	34	VAL
5	CE	37	ARG
5	CE	41	VAL
5	CE	47	LYS
5	CE	53	LEU
5	CE	60	TYR
5	CE	75	THR
5	CE	76	ILE
5	CE	78	HIS
5	CE	79	GLU
5	CE	82	VAL
5	CE	89	ILE
5	CE	91	LEU
5	CE	117	ASP
5	CE	121	LYS
5	CE	137	GLU
5	CE	144	THR

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Mol	Chain	Res	Type
5	CE	147	ASP
5	CE	149	GLU
6	CF	22	GLU
6	CF	36	ARG
6	CF	43	LEU
6	CF	55	ASP
6	CF	69	GLU
6	CF	82	ARG
6	CF	83	ASP
7	CG	6	ARG
7	CG	10	ARG
7	CG	12	LEU
7	CG	24	THR
7	CG	30	ILE
7	CG	32	ARG
7	CG	33	ASP
7	CG	38	LEU
7	CG	51	GLN
7	CG	53	LYS
7	CG	59	LEU
7	CG	72	ARG
7	CG	74	GLU
7	CG	75	VAL
7	CG	94	ARG
7	CG	104	LEU
7	CG	113	GLU
7	CG	114	ARG
7	CG	122	HIS
7	CG	142	GLU
7	CG	143	ARG
7	CG	144	MET
7	CG	146	GLU
7	CG	151	TYR
7	CG	153	HIS
7	CG	155	ARG
8	CH	3	THR
8	CH	8	ASP
8	CH	19	VAL
8	CH	21	LYS
8	CH	24	THR
8	CH	25	ASP
8	CH	42	GLU

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Mol	Chain	Res	Type
8	CH	45	ILE
8	CH	49	GLU
8	CH	78	GLN
8	CH	84	ARG
8	CH	85	ARG
8	CH	91	ARG
8	CH	95	VAL
8	CH	109	ILE
8	CH	112	LEU
8	CH	114	THR
8	CH	125	ARG
8	CH	137	VAL
9	CI	3	GLN
9	CI	9	ARG
9	CI	29	ASN
9	CI	34	ASN
9	CI	38	GLN
9	CI	41	VAL
9	CI	48	GLU
9	CI	60	ASP
9	CI	64	THR
9	CI	87	GLN
9	CI	99	LEU
9	CI	104	ARG
9	CI	107	ARG
9	CI	117	HIS
10	CJ	8	LEU
10	CJ	9	ARG
10	CJ	11	PHE
10	CJ	13	HIS
10	CJ	16	LEU
10	CJ	34	VAL
10	CJ	38	ILE
10	CJ	43	ARG
10	CJ	45	ARG
10	CJ	55	LYS
10	CJ	58	ASP
10	CJ	66	ARG
10	CJ	69	ASN
10	CJ	96	ILE
11	CK	14	VAL
11	CK	38	ASN

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Mol	Chain	Res	Type
11	CK	48	ILE
11	CK	93	GLN
11	CK	95	ILE
11	CK	96	ARG
11	CK	107	SER
11	CK	109	VAL
11	CK	116	HIS
11	CK	119	CYS
11	CK	126	ARG
12	CL	6	THR
12	CL	33	ARG
12	CL	43	VAL
12	CL	44	THR
12	CL	53	ARG
12	CL	67	THR
12	CL	70	ILE
12	CL	92	ASP
12	CL	102	ARG
12	CL	104	VAL
12	CL	118	SER
12	CL	123	LYS
13	CM	3	ARG
13	CM	15	VAL
13	CM	16	ASP
13	CM	27	LYS
13	CM	41	PRO
13	CM	47	ASP
13	CM	54	VAL
13	CM	63	THR
13	CM	65	LYS
13	CM	70	LEU
13	CM	86	CYS
13	CM	88	ARG
13	CM	98	VAL
13	CM	109	THR
13	CM	110	ARG
14	CN	7	ILE
14	CN	8	GLU
14	CN	17	LYS
14	CN	22	THR
14	CN	23	ARG
14	CN	24	CYS

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Mol	Chain	Res	Type
14	CN	26	ARG
14	CN	27	CYS
14	CN	29	ARG
14	CN	33	VAL
14	CN	37	PHE
14	CN	41	ARG
14	CN	44	LEU
15	CO	3	ILE
15	CO	35	ARG
15	CO	39	LEU
15	CO	41	GLU
15	CO	62	GLN
15	CO	87	ILE
16	CP	1	MET
16	CP	2	VAL
16	CP	3	LYS
16	CP	6	LEU
16	CP	8	ARG
16	CP	28	ARG
16	CP	43	LYS
16	CP	45	THR
16	CP	47	ASP
16	CP	52	ASP
16	CP	54	GLU
16	CP	62	VAL
16	CP	67	THR
16	CP	69	THR
16	CP	71	ARG
16	CP	76	GLN
17	CQ	9	VAL
17	CQ	11	VAL
17	CQ	34	LYS
17	CQ	45	HIS
17	CQ	48	GLU
17	CQ	52	LYS
17	CQ	53	LEU
17	CQ	59	ILE
17	CQ	63	ARG
17	CQ	68	ARG
17	CQ	72	ARG
17	CQ	82	MET
17	CQ	93	GLN

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Mol	Chain	Res	Type
17	CQ	97	SER
18	CR	31	LEU
18	CR	32	ARG
18	CR	36	ASN
18	CR	37	VAL
18	CR	53	ARG
18	CR	76	LEU
18	CR	83	GLU
19	CS	7	LYS
19	CS	31	ILE
19	CS	36	ARG
19	CS	37	ARG
19	CS	38	SER
19	CS	44	MET
19	CS	62	ILE
19	CS	63	THR
19	CS	67	VAL
19	CS	77	THR
19	CS	81	ARG
20	CT	10	LEU
20	CT	13	LEU
20	CT	22	ARG
20	CT	24	LEU
20	CT	30	LYS
20	CT	41	ILE
20	CT	50	GLU
20	CT	70	SER
20	CT	72	LEU
20	CT	93	GLU
21	CU	9	ARG
21	CU	10	ARG
21	CU	12	LYS
21	CU	15	ARG
21	CU	24	ARG
22	CV	4	GLN
22	CV	13	HIS
22	CV	18	GLN
22	CV	31	TYR
22	CV	36	GLN
22	CV	39	GLN
22	CV	48	MET
25	DD	12	SER

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Mol	Chain	Res	Type
25	DD	13	ARG
25	DD	25	THR
25	DD	32	SER
25	DD	35	LYS
25	DD	37	LEU
25	DD	39	LYS
25	DD	54	ARG
25	DD	61	LEU
25	DD	88	ARG
25	DD	89	SER
25	DD	94	LEU
25	DD	99	ASP
25	DD	101	GLU
25	DD	103	ARG
25	DD	126	GLN
25	DD	138	VAL
25	DD	141	VAL
25	DD	147	LEU
25	DD	150	LYS
25	DD	155	LEU
25	DD	173	VAL
25	DD	192	THR
25	DD	193	VAL
25	DD	211	ARG
25	DD	212	SER
25	DD	217	ARG
25	DD	221	VAL
25	DD	229	VAL
25	DD	242	ARG
25	DD	257	LEU
25	DD	259	THR
25	DD	260	ARG
25	DD	270	ILE
25	DD	274	ARG
26	DE	9	VAL
26	DE	12	THR
26	DE	21	VAL
26	DE	24	THR
26	DE	34	VAL
26	DE	38	THR
26	DE	49	LEU
26	DE	52	LEU

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Mol	Chain	Res	Type
26	DE	54	GLN
26	DE	75	VAL
26	DE	78	LEU
26	DE	82	ARG
26	DE	89	ASP
26	DE	93	VAL
26	DE	105	THR
26	DE	113	PHE
26	DE	116	VAL
26	DE	119	ARG
26	DE	144	ARG
26	DE	152	LYS
26	DE	154	LYS
26	DE	163	GLU
26	DE	170	LEU
26	DE	175	VAL
26	DE	179	GLU
26	DE	181	LEU
26	DE	182	LEU
26	DE	184	VAL
27	DF	15	SER
27	DF	18	ARG
27	DF	20	LEU
27	DF	24	LEU
27	DF	33	LEU
27	DF	46	ARG
27	DF	50	SER
27	DF	53	THR
27	DF	57	VAL
27	DF	60	SER
27	DF	74	ARG
27	DF	77	ASP
27	DF	82	ILE
27	DF	88	VAL
27	DF	96	ASP
27	DF	106	ARG
27	DF	110	LEU
27	DF	117	ARG
27	DF	133	ASN
27	DF	135	LYS
27	DF	140	LEU
27	DF	152	GLU

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Mol	Chain	Res	Type
27	DF	158	THR
27	DF	183	VAL
27	DF	192	LEU
27	DF	197	ASP
28	DG	3	LEU
28	DG	13	GLU
28	DG	20	ILE
28	DG	21	ARG
28	DG	31	VAL
28	DG	33	ARG
28	DG	43	LEU
28	DG	88	ILE
28	DG	96	ARG
28	DG	117	PHE
28	DG	135	LEU
28	DG	138	GLN
28	DG	143	GLU
28	DG	145	THR
28	DG	146	TYR
28	DG	148	MET
28	DG	149	VAL
28	DG	150	ASP
28	DG	153	ARG
28	DG	159	VAL
28	DG	161	THR
28	DG	170	ARG
29	DH	7	LEU
29	DH	15	VAL
29	DH	16	SER
29	DH	41	MET
29	DH	51	ARG
29	DH	69	ARG
29	DH	70	THR
29	DH	88	LEU
29	DH	98	LEU
29	DH	106	THR
29	DH	129	THR
29	DH	132	ARG
29	DH	139	GLN
29	DH	171	LEU
30	DI	1	MET
30	DI	7	GLU

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Mol	Chain	Res	Type
30	DI	9	LEU
30	DI	12	LEU
30	DI	15	VAL
30	DI	41	GLU
30	DI	43	ASN
30	DI	44	LEU
30	DI	47	LEU
30	DI	61	ARG
30	DI	66	GLU
30	DI	72	LEU
30	DI	75	LEU
30	DI	76	THR
30	DI	77	LEU
30	DI	78	THR
30	DI	79	ILE
30	DI	88	ILE
30	DI	92	VAL
30	DI	93	THR
30	DI	97	ILE
30	DI	105	HIS
30	DI	116	LEU
30	DI	117	GLU
30	DI	120	ILE
30	DI	123	LEU
30	DI	133	HIS
30	DI	140	LEU
30	DI	142	VAL
30	DI	144	VAL
30	DI	145	VAL
31	DN	2	LYS
31	DN	9	VAL
31	DN	12	ARG
31	DN	15	LEU
31	DN	22	THR
31	DN	28	THR
31	DN	33	LEU
31	DN	34	LEU
31	DN	43	THR
31	DN	46	VAL
31	DN	48	MET
31	DN	55	VAL
31	DN	62	VAL

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Mol	Chain	Res	Type
31	DN	63	THR
31	DN	73	THR
31	DN	87	LEU
31	DN	93	THR
31	DN	97	ARG
31	DN	99	LEU
31	DN	120	LEU
31	DN	131	GLN
31	DN	133	GLN
31	DN	137	LYS
31	DN	138	LEU
32	DO	8	LEU
32	DO	21	CYS
32	DO	26	LYS
32	DO	28	SER
32	DO	42	SER
32	DO	77	ILE
32	DO	94	ARG
32	DO	113	LYS
33	DP	21	ARG
33	DP	33	ARG
33	DP	42	SER
33	DP	55	ARG
33	DP	59	LEU
33	DP	64	LYS
33	DP	86	LYS
33	DP	98	GLU
33	DP	106	LEU
33	DP	112	LEU
33	DP	117	GLU
33	DP	125	VAL
33	DP	133	SER
33	DP	147	LEU
34	DQ	1	MET
34	DQ	5	ARG
34	DQ	7	MET
34	DQ	16	ARG
34	DQ	21	THR
34	DQ	25	ASP
34	DQ	45	GLN
34	DQ	55	VAL
34	DQ	56	ARG

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Mol	Chain	Res	Type
34	DQ	75	THR
34	DQ	79	LEU
34	DQ	109	VAL
34	DQ	119	ARG
34	DQ	127	ILE
34	DQ	138	ASP
35	DR	6	SER
35	DR	8	ARG
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	48	VAL
35	DR	54	LEU
35	DR	60	LEU
35	DR	65	LEU
35	DR	67	LEU
35	DR	75	LEU
35	DR	79	LEU
35	DR	91	GLN
35	DR	95	THR
35	DR	100	LEU
36	DS	3	ARG
36	DS	11	LYS
36	DS	19	LYS
36	DS	20	ARG
36	DS	25	ARG
36	DS	42	ASP
36	DS	50	SER
36	DS	54	LEU
36	DS	67	ARG
36	DS	98	VAL
36	DS	110	LEU
36	DS	111	GLU
37	DT	1	MET
37	DT	6	LEU
37	DT	13	ARG
37	DT	16	ARG
37	DT	23	ARG
37	DT	28	VAL

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Mol	Chain	Res	Type
37	DT	34	VAL
37	DT	39	ARG
37	DT	49	VAL
37	DT	53	ARG
37	DT	59	THR
37	DT	64	ARG
37	DT	74	ARG
37	DT	82	LEU
37	DT	93	ARG
37	DT	96	ARG
37	DT	107	ASP
37	DT	118	ARG
38	DU	8	VAL
38	DU	31	SER
38	DU	36	ARG
38	DU	58	ARG
38	DU	60	LEU
38	DU	74	LEU
38	DU	83	LEU
38	DU	104	GLN
38	DU	108	GLU
39	DV	5	VAL
39	DV	7	THR
39	DV	18	LEU
39	DV	28	GLU
39	DV	33	VAL
39	DV	35	LEU
39	DV	38	LEU
39	DV	46	VAL
39	DV	51	VAL
39	DV	57	VAL
39	DV	61	VAL
39	DV	62	LEU
39	DV	72	VAL
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	23	LEU
40	DW	27	LYS

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Mol	Chain	Res	Type
40	DW	28	SER
40	DW	51	LEU
40	DW	60	ASN
40	DW	67	ASP
40	DW	98	LYS
40	DW	100	THR
40	DW	103	ILE
40	DW	107	LEU
41	DX	23	GLU
41	DX	35	THR
41	DX	45	THR
41	DX	52	VAL
41	DX	57	LEU
42	DY	2	ARG
42	DY	5	MET
42	DY	6	HIS
42	DY	7	VAL
42	DY	23	ARG
42	DY	29	GLU
42	DY	31	LEU
42	DY	44	ILE
42	DY	55	TYR
42	DY	72	VAL
42	DY	79	CYS
42	DY	85	VAL
42	DY	90	LEU
42	DY	92	ASN
42	DY	97	ARG
42	DY	99	CYS
42	DY	102	CYS
43	DZ	3	TYR
43	DZ	11	GLU
43	DZ	19	ARG
43	DZ	20	ARG
43	DZ	41	LEU
43	DZ	42	VAL
43	DZ	72	ARG
43	DZ	76	LEU
43	DZ	80	ARG
43	DZ	86	VAL
43	DZ	89	PHE
43	DZ	112	ARG

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Mol	Chain	Res	Type
43	DZ	126	VAL
43	DZ	132	ASN
43	DZ	133	ILE
43	DZ	155	LEU
43	DZ	156	LYS
43	DZ	170	THR
44	D0	20	ARG
44	D0	43	THR
44	D0	46	LYS
44	D0	55	ARG
44	D0	63	VAL
45	D1	4	VAL
45	D1	20	ARG
45	D1	21	ARG
45	D1	30	VAL
45	D1	35	THR
45	D1	40	ARG
45	D1	58	ILE
45	D1	59	THR
45	D1	60	PHE
45	D1	62	VAL
45	D1	95	LEU
46	D2	16	LEU
46	D2	27	GLU
46	D2	30	ARG
46	D2	32	LEU
46	D2	40	SER
46	D2	53	LEU
46	D2	55	ARG
47	D3	6	VAL
47	D3	8	LEU
47	D3	23	LEU
47	D3	24	LYS
47	D3	30	ARG
47	D3	31	LEU
47	D3	40	THR
48	D4	14	ILE
48	D4	16	CYS
48	D4	18	CYS
48	D4	20	ASN
48	D4	34	GLU
48	D4	35	VAL

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Mol	Chain	Res	Type
48	D4	37	SER
48	D4	39	CYS
48	D4	43	TYR
48	D4	44	THR
49	D5	16	ARG
49	D5	29	THR
49	D5	37	LYS
49	D5	40	LYS
49	D5	55	ARG
50	D6	6	ARG
50	D6	14	THR
50	D6	18	ARG
50	D6	20	ASN
50	D6	23	THR
50	D6	28	ARG
50	D6	33	LYS
50	D6	35	GLU
50	D6	38	LYS
50	D6	40	CYS
50	D6	44	ARG
50	D6	48	VAL
50	D6	49	HIS
51	D7	1	MET
51	D7	4	THR
51	D7	8	ASN
51	D7	10	ARG
51	D7	24	THR
51	D7	32	LYS
51	D7	47	ARG
52	D8	26	LYS
52	D8	29	LYS
52	D8	30	ARG
52	D8	31	HIS
52	D8	32	LEU
52	D8	34	TRP
52	D8	37	SER
52	D8	58	ILE
52	D8	59	LYS
53	D9	17	ILE
53	D9	25	VAL
53	D9	26	ILE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (78) such

sidechains are listed below:

Mol	Chain	Res	Type
4	AD	123	HIS
4	AD	129	ASN
4	AD	160	GLN
4	AD	161	ASN
5	AE	78	HIS
8	AH	78	GLN
9	AI	117	HIS
15	AO	37	ASN
16	AP	76	GLN
20	AT	42	GLN
27	BF	69	HIS
28	BG	123	ASN
28	BG	138	GLN
30	BI	105	HIS
31	BN	133	GLN
32	BO	89	ASN
37	BT	84	GLN
38	BU	72	HIS
40	BW	60	ASN
40	BW	61	ASN
41	BX	31	HIS
43	BZ	151	HIS
52	B8	7	HIS
53	B9	36	GLN
3	CC	6	HIS
3	CC	104	GLN
3	CC	118	GLN
4	CD	123	HIS
4	CD	129	ASN
4	CD	160	GLN
4	CD	161	ASN
5	CE	78	HIS
7	CG	37	ASN
7	CG	64	GLN
8	CH	78	GLN
9	CI	38	GLN
9	CI	73	GLN
9	CI	87	GLN
9	CI	117	HIS
10	CJ	33	GLN
11	CK	93	GLN
12	CL	49	ASN

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Mol	Chain	Res	Type
14	CN	52	GLN
15	CO	37	ASN
16	CP	76	GLN
19	CS	47	HIS
19	CS	69	HIS
19	CS	83	HIS
20	CT	42	GLN
22	CV	4	GLN
22	CV	18	GLN
22	CV	36	GLN
25	DD	87	ASN
25	DD	96	HIS
25	DD	143	HIS
27	DF	8	GLN
27	DF	69	HIS
28	DG	123	ASN
28	DG	130	ASN
28	DG	138	GLN
30	DI	105	HIS
31	DN	38	HIS
31	DN	133	GLN
32	DO	88	ASN
32	DO	89	ASN
34	DQ	89	ASN
37	DT	58	ASN
37	DT	84	GLN
38	DU	72	HIS
40	DW	60	ASN
41	DX	31	HIS
41	DX	55	ASN
42	DY	6	HIS
43	DZ	151	HIS
50	D6	20	ASN
51	D7	6	GLN
52	D8	7	HIS
53	D9	36	GLN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1503/1522 (98%)	425 (28%)	31 (2%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	CA	1499/1522 (98%)	383 (25%)	29 (1%)
23	BA	2802/2915 (96%)	556 (19%)	62 (2%)
23	DA	2808/2915 (96%)	552 (19%)	63 (2%)
24	BB	119/122 (97%)	21 (17%)	0
24	DB	119/122 (97%)	21 (17%)	0
All	All	8850/9118 (97%)	1958 (22%)	185 (2%)

All (1958) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	4	U
1	AA	5	U
1	AA	9	G
1	AA	10	A
1	AA	22	G
1	AA	26	A
1	AA	32	A
1	AA	39	G
1	AA	47	C
1	AA	48	C
1	AA	50	A
1	AA	51	A
1	AA	54	C
1	AA	60	A
1	AA	61	G
1	AA	67	C
1	AA	77	G
1	AA	78	G
1	AA	79	G
1	AA	81	U
1	AA	90	U
1	AA	96	U
1	AA	97	G
1	AA	98	G
1	AA	100	C
1	AA	115	G
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	129(A)	G
1	AA	131	C
1	AA	144	G

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Mol	Chain	Res	Type
1	AA	146	G
1	AA	150	C
1	AA	160	A
1	AA	163	C
1	AA	173	U
1	AA	182	U
1	AA	195	A
1	AA	203	U
1	AA	204	U
1	AA	216	G
1	AA	222	U
1	AA	231	G
1	AA	244	U
1	AA	245	C
1	AA	247	G
1	AA	251	G
1	AA	266	G
1	AA	267	C
1	AA	280	C
1	AA	281	G
1	AA	289	G
1	AA	301	G
1	AA	306	G
1	AA	313	A
1	AA	316	G
1	AA	321	A
1	AA	327	A
1	AA	328	C
1	AA	332	G
1	AA	345	C
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	367	U
1	AA	369	C
1	AA	372	C
1	AA	373	A
1	AA	382	A
1	AA	384	G
1	AA	388	G
1	AA	397	A
1	AA	398	C

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Mol	Chain	Res	Type
1	AA	409	G
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	418	C
1	AA	421	U
1	AA	422	C
1	AA	423	G
1	AA	428	G
1	AA	429	U
1	AA	433	C
1	AA	435	C
1	AA	436	C
1	AA	437	U
1	AA	439	A
1	AA	442	C
1	AA	452	A
1	AA	458	C
1	AA	461	A
1	AA	471	G
1	AA	484	G
1	AA	485	G
1	AA	496	A
1	AA	498	U
1	AA	500	G
1	AA	505	G
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	518	C
1	AA	521	G
1	AA	524	G
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	550	G
1	AA	558	G
1	AA	559	A

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Mol	Chain	Res	Type
1	AA	560	U
1	AA	561	U
1	AA	562	C
1	AA	563	A
1	AA	564	C
1	AA	568	G
1	AA	572	A
1	AA	573	A
1	AA	576	G
1	AA	577	G
1	AA	588	G
1	AA	592	G
1	AA	595	G
1	AA	596	C
1	AA	597	G
1	AA	613	C
1	AA	629	G
1	AA	630	G
1	AA	631	G
1	AA	632	A
1	AA	650	G
1	AA	653	A
1	AA	662	G
1	AA	665	A
1	AA	666	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	752	G
1	AA	753	A
1	AA	755	G
1	AA	777	A
1	AA	786	G
1	AA	793	U
1	AA	794	A
1	AA	796	C
1	AA	802	A
1	AA	806	C
1	AA	817	C

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Mol	Chain	Res	Type
1	AA	818	G
1	AA	821	G
1	AA	827	U
1	AA	828	A
1	AA	829	G
1	AA	833	U
1	AA	836	G
1	AA	839	U
1	AA	840	C
1	AA	841	U
1	AA	848	C
1	AA	855	G
1	AA	859	A
1	AA	863	U
1	AA	864	A
1	AA	872	A
1	AA	889	A
1	AA	902	G
1	AA	913	A
1	AA	914	A
1	AA	916	G
1	AA	926	G
1	AA	927	G
1	AA	933	G
1	AA	934	C
1	AA	935	A
1	AA	936	C
1	AA	938	A
1	AA	939	G
1	AA	940	C
1	AA	942	G
1	AA	945	G
1	AA	952	U
1	AA	960	U
1	AA	961	U
1	AA	962	C
1	AA	968	A
1	AA	969	A
1	AA	971	G
1	AA	974	A
1	AA	975	A
1	AA	976	G

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Mol	Chain	Res	Type
1	AA	977	A
1	AA	980	C
1	AA	981	U
1	AA	986	A
1	AA	987	G
1	AA	990	C
1	AA	991	U
1	AA	992	U
1	AA	993	G
1	AA	995	C
1	AA	1001(A)	G
1	AA	1003	G
1	AA	1004	A
1	AA	1005	A
1	AA	1006	C
1	AA	1007	C
1	AA	1012	U
1	AA	1013	G
1	AA	1014	A
1	AA	1018	C
1	AA	1023	G
1	AA	1024	G
1	AA	1025	U
1	AA	1026	G
1	AA	1027	C
1	AA	1028	C
1	AA	1029	C
1	AA	1030(A)	G
1	AA	1030(B)	C
1	AA	1030(C)	G
1	AA	1031	G
1	AA	1036	G
1	AA	1037	C
1	AA	1039	C
1	AA	1041	A
1	AA	1042	G
1	AA	1045	C
1	AA	1047	G
1	AA	1050	G
1	AA	1052	U
1	AA	1054	C
1	AA	1055	A

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Mol	Chain	Res	Type
1	AA	1058	G
1	AA	1061	G
1	AA	1063	C
1	AA	1065	U
1	AA	1066	C
1	AA	1067	A
1	AA	1068	G
1	AA	1072	G
1	AA	1078	U
1	AA	1081	G
1	AA	1086	U
1	AA	1092	A
1	AA	1094	G
1	AA	1095	U
1	AA	1099	G
1	AA	1100	C
1	AA	1101	A
1	AA	1103	C
1	AA	1108	G
1	AA	1109	C
1	AA	1117	G
1	AA	1118	C
1	AA	1121	U
1	AA	1123	A
1	AA	1124	G
1	AA	1125	U
1	AA	1131	G
1	AA	1136	U
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1140	C
1	AA	1147	C
1	AA	1151	A
1	AA	1152	A
1	AA	1153	C
1	AA	1158	C
1	AA	1159	U
1	AA	1160	G
1	AA	1166	G
1	AA	1170	A
1	AA	1174	G

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Mol	Chain	Res	Type
1	AA	1176	A
1	AA	1178	G
1	AA	1179	A
1	AA	1180	A
1	AA	1182	G
1	AA	1184	G
1	AA	1190	G
1	AA	1193	G
1	AA	1194	U
1	AA	1195	C
1	AA	1196	U
1	AA	1197	G
1	AA	1199	U
1	AA	1200	C
1	AA	1201	A
1	AA	1202	G
1	AA	1204	A
1	AA	1206	G
1	AA	1208	C
1	AA	1210	C
1	AA	1211	U
1	AA	1212	U
1	AA	1213	A
1	AA	1224	G
1	AA	1225	A
1	AA	1226	C
1	AA	1228	C
1	AA	1234	C
1	AA	1236	A
1	AA	1237	C
1	AA	1238	A
1	AA	1239	A
1	AA	1240	U
1	AA	1241	G
1	AA	1242	C
1	AA	1244	C
1	AA	1248	A
1	AA	1249	C
1	AA	1251	A
1	AA	1252	A
1	AA	1254	C
1	AA	1256	A

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Mol	Chain	Res	Type
1	AA	1257	U
1	AA	1258	G
1	AA	1259	C
1	AA	1260	C
1	AA	1261	A
1	AA	1263	C
1	AA	1265	G
1	AA	1269	A
1	AA	1270	C
1	AA	1272	G
1	AA	1273	G
1	AA	1278	U
1	AA	1279	A
1	AA	1280	A
1	AA	1282	C
1	AA	1284	C
1	AA	1285	A
1	AA	1286	A
1	AA	1287	A
1	AA	1292	U
1	AA	1294	G
1	AA	1298	C
1	AA	1299	A
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1303	C
1	AA	1304	G
1	AA	1307	U
1	AA	1308	U
1	AA	1312	G
1	AA	1316	G
1	AA	1317	C
1	AA	1319	A
1	AA	1320	C
1	AA	1321	C
1	AA	1322	C
1	AA	1323	G
1	AA	1325	C
1	AA	1329	A
1	AA	1330	U
1	AA	1331	G

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Mol	Chain	Res	Type
1	AA	1332	A
1	AA	1333	A
1	AA	1337	G
1	AA	1340	A
1	AA	1342	C
1	AA	1346	A
1	AA	1347	G
1	AA	1349	A
1	AA	1350	A
1	AA	1354	C
1	AA	1364	U
1	AA	1365	G
1	AA	1368	G
1	AA	1369	C
1	AA	1370	G
1	AA	1376	U
1	AA	1379	G
1	AA	1381	U
1	AA	1382	C
1	AA	1383	C
1	AA	1386	G
1	AA	1387	G
1	AA	1388	C
1	AA	1392	G
1	AA	1397	C
1	AA	1401	G
1	AA	1404	C
1	AA	1406	U
1	AA	1407	C
1	AA	1419	G
1	AA	1442	G
1	AA	1442(A)	G
1	AA	1443	G
1	AA	1444	C
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	1469	G

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Mol	Chain	Res	Type
1	AA	1473	A
1	AA	1487	G
1	AA	1492	A
1	AA	1493	A
1	AA	1494	G
1	AA	1503	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1507	A
1	AA	1517	G
1	AA	1520	G
1	AA	1529	G
1	AA	1530	G
1	AA	1533	C
23	BA	10	G
23	BA	15	G
23	BA	34	C
23	BA	36	G
23	BA	45	C
23	BA	61	G
23	BA	68	G
23	BA	69	C
23	BA	71	A
23	BA	74	A
23	BA	75	G
23	BA	83	G
23	BA	84	A
23	BA	90	U
23	BA	92	A
23	BA	94	C
23	BA	95	G
23	BA	102	G
23	BA	118	A
23	BA	119	A
23	BA	120	U
23	BA	121	G
23	BA	125	G
23	BA	131	G
23	BA	139(A)	G
23	BA	141	A
23	BA	154	G

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Mol	Chain	Res	Type
23	BA	154(A)	C
23	BA	157	U
23	BA	172	C
23	BA	181	A
23	BA	182	A
23	BA	196	A
23	BA	199	A
23	BA	201	C
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	232	G
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(P)	C
23	BA	271(R)	G
23	BA	272(B)	G
23	BA	272(H)	C
23	BA	272(I)	U
23	BA	272(J)	C
23	BA	277	C
23	BA	278	A
23	BA	279	C
23	BA	294	A
23	BA	311	A
23	BA	329	G
23	BA	330	A
23	BA	332	A
23	BA	352	G
23	BA	363	G

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Mol	Chain	Res	Type
23	BA	363(F)	A
23	BA	382	G
23	BA	386	G
23	BA	399	G
23	BA	411	G
23	BA	412	A
23	BA	414	C
23	BA	416	C
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	457	A
23	BA	470	A
23	BA	471	A
23	BA	481	G
23	BA	504	U
23	BA	505	A
23	BA	509	C
23	BA	510	C
23	BA	512	G
23	BA	513	A
23	BA	530	G
23	BA	531	C
23	BA	532	A
23	BA	533	G
23	BA	543	C
23	BA	545	G
23	BA	546	C
23	BA	547	A
23	BA	548	A
23	BA	563	G
23	BA	571	A
23	BA	573	G
23	BA	574	C
23	BA	575	A
23	BA	584	C
23	BA	588	U
23	BA	603	A
23	BA	604	G

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Mol	Chain	Res	Type
23	BA	606	U
23	BA	607	U
23	BA	614	U
23	BA	614(A)	U
23	BA	614(B)	G
23	BA	615	G
23	BA	619	G
23	BA	627	A
23	BA	637	A
23	BA	644	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(D)	C
23	BA	652(U)	G
23	BA	656	G
23	BA	669	G
23	BA	686	G
23	BA	708	C
23	BA	709	U
23	BA	717	G
23	BA	730	C
23	BA	752	A
23	BA	753	C
23	BA	762	U
23	BA	764	A
23	BA	765	G
23	BA	775	G
23	BA	776	G
23	BA	782	A
23	BA	784	A
23	BA	785	G
23	BA	792	G
23	BA	793	A
23	BA	802	A
23	BA	805	G
23	BA	810	U
23	BA	812	C
23	BA	818	G
23	BA	819	A

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Mol	Chain	Res	Type
23	BA	827	U
23	BA	828	U
23	BA	830	G
23	BA	836	G
23	BA	857	C
23	BA	859	G
23	BA	869	G
23	BA	879	G
23	BA	880	G
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	917	A
23	BA	922	U
23	BA	923	C
23	BA	932	G
23	BA	934	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	968	G
23	BA	974	G
23	BA	975	C
23	BA	975(A)	G
23	BA	983	A
23	BA	990	A
23	BA	996	A
23	BA	1012	U
23	BA	1013	C
23	BA	1016	G
23	BA	1020	A
23	BA	1022	G
23	BA	1024	G
23	BA	1025	G
23	BA	1026	U

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Mol	Chain	Res	Type
23	BA	1027	A
23	BA	1033	U
23	BA	1034	G
23	BA	1038	C
23	BA	1041	C
23	BA	1042	G
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	1115	G
23	BA	1129	A
23	BA	1130	U
23	BA	1135	C
23	BA	1136	G
23	BA	1139	G
23	BA	1141	U
23	BA	1142	U
23	BA	1142(A)	A
23	BA	1149	G
23	BA	1155	A
23	BA	1156	A
23	BA	1164	G
23	BA	1210	A
23	BA	1211	U
23	BA	1218	C
23	BA	1224	C
23	BA	1250	G
23	BA	1253	A
23	BA	1256	G
23	BA	1267	U
23	BA	1268	A

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Mol	Chain	Res	Type
23	BA	1271	G
23	BA	1272	A
23	BA	1273	U
23	BA	1298	C
23	BA	1300	U
23	BA	1301	A
23	BA	1305	C
23	BA	1310	G
23	BA	1313	U
23	BA	1314	C
23	BA	1329	U
23	BA	1338	G
23	BA	1352	U
23	BA	1358	G
23	BA	1365	A
23	BA	1368	G
23	BA	1370	C
23	BA	1374	G
23	BA	1380	G
23	BA	1384	A
23	BA	1385	G
23	BA	1391	U
23	BA	1416	G
23	BA	1417	C
23	BA	1419	A
23	BA	1420	U
23	BA	1421	G
23	BA	1427	A
23	BA	1428	C
23	BA	1429	G
23	BA	1445	A
23	BA	1449	A
23	BA	1450	G
23	BA	1459	G
23	BA	1461	G
23	BA	1467	C
23	BA	1471	A
23	BA	1472	A
23	BA	1481	U
23	BA	1482	G
23	BA	1488	G
23	BA	1490	A

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Mol	Chain	Res	Type
23	BA	1493	C
23	BA	1497	U
23	BA	1507	A
23	BA	1508	A
23	BA	1509	C
23	BA	1509(A)	A
23	BA	1518	U
23	BA	1520	G
23	BA	1531	C
23	BA	1539	G
23	BA	1542	A
23	BA	1543	C
23	BA	1554	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	1582	C
23	BA	1584	C
23	BA	1586	A
23	BA	1598	C
23	BA	1608	A
23	BA	1609	A
23	BA	1610	A
23	BA	1617	C
23	BA	1625	C
23	BA	1639	U
23	BA	1640	C
23	BA	1641	A
23	BA	1648	C
23	BA	1654	A
23	BA	1674	G
23	BA	1675	C
23	BA	1696	G
23	BA	1700	A
23	BA	1701	A
23	BA	1703	G
23	BA	1722	A
23	BA	1746	G
23	BA	1750	G

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Mol	Chain	Res	Type
23	BA	1762	A
23	BA	1763	G
23	BA	1764	G
23	BA	1773	A
23	BA	1780	A
23	BA	1781	C
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	1819	A
23	BA	1820	U
23	BA	1829	A
23	BA	1834	U
23	BA	1835	G
23	BA	1836	C
23	BA	1847	A
23	BA	1848	A
23	BA	1858	G
23	BA	1877	A
23	BA	1878	G
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	1938	A
23	BA	1955	U
23	BA	1962	C
23	BA	1963	U
23	BA	1967	C
23	BA	1969	A
23	BA	1970	A
23	BA	1971	A
23	BA	1972	A
23	BA	1982	C

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Mol	Chain	Res	Type
23	BA	1991	U
23	BA	1992	G
23	BA	1993	U
23	BA	1997	G
23	BA	2023	G
23	BA	2031	A
23	BA	2032	G
23	BA	2033	A
23	BA	2036	C
23	BA	2039	C
23	BA	2043	C
23	BA	2049	G
23	BA	2055	C
23	BA	2056	G
23	BA	2060	A
23	BA	2061	G
23	BA	2062	A
23	BA	2063	C
23	BA	2069	G
23	BA	2093	G
23	BA	2099	U
23	BA	2103	C
23	BA	2104	G
23	BA	2105	C
23	BA	2106	G
23	BA	2108	C
23	BA	2109	U
23	BA	2110	G
23	BA	2111	C
23	BA	2116	G
23	BA	2117	A
23	BA	2118	U
23	BA	2119	A
23	BA	2126	A
23	BA	2127	G
23	BA	2131	G
23	BA	2133	G
23	BA	2134	A
23	BA	2135	A
23	BA	2143	C
23	BA	2146	C
23	BA	2147	G

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Mol	Chain	Res	Type
23	BA	2148	G
23	BA	2159	G
23	BA	2161	C
23	BA	2170	A
23	BA	2172	U
23	BA	2173	A
23	BA	2175	C
23	BA	2176	A
23	BA	2181	G
23	BA	2185	C
23	BA	2187	G
23	BA	2188	C
23	BA	2190	G
23	BA	2191	G
23	BA	2192	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	2225	A
23	BA	2235	G
23	BA	2238	G
23	BA	2239	G
23	BA	2240	C
23	BA	2259	G
23	BA	2268	A
23	BA	2269	A
23	BA	2273	A
23	BA	2275	C
23	BA	2280	G
23	BA	2283	C
23	BA	2287	A
23	BA	2289	G
23	BA	2304	G
23	BA	2305	A
23	BA	2306	C
23	BA	2308	G
23	BA	2309	A
23	BA	2311	A

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Mol	Chain	Res	Type
23	BA	2316	C
23	BA	2317	C
23	BA	2318	G
23	BA	2319	G
23	BA	2320	A
23	BA	2322	A
23	BA	2325	G
23	BA	2327	A
23	BA	2334	G
23	BA	2336	A
23	BA	2347	C
23	BA	2348	U
23	BA	2350	C
23	BA	2354	G
23	BA	2371	G
23	BA	2372	G
23	BA	2383	G
23	BA	2385	C
23	BA	2396	G
23	BA	2405	G
23	BA	2406	U
23	BA	2410	G
23	BA	2413	G
23	BA	2414	G
23	BA	2422	A
23	BA	2423	U
23	BA	2425	A
23	BA	2429	G
23	BA	2430	A
23	BA	2435	A
23	BA	2439	A
23	BA	2440	C
23	BA	2441	C
23	BA	2448	A
23	BA	2460	U
23	BA	2461	C
23	BA	2468	G
23	BA	2469	A
23	BA	2476	A
23	BA	2478	A
23	BA	2487	G
23	BA	2494	G

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Mol	Chain	Res	Type
23	BA	2502	G
23	BA	2505	G
23	BA	2506	U
23	BA	2518	A
23	BA	2520	C
23	BA	2525	G
23	BA	2529	G
23	BA	2535	G
23	BA	2554	U
23	BA	2566	A
23	BA	2567	G
23	BA	2569	G
23	BA	2573	C
23	BA	2584	U
23	BA	2585	U
23	BA	2586	C
23	BA	2602	A
23	BA	2603	G
23	BA	2608	G
23	BA	2609	U
23	BA	2610	C
23	BA	2611	U
23	BA	2612	C
23	BA	2615	U
23	BA	2629	A
23	BA	2630	G
23	BA	2632	A
23	BA	2643	G
23	BA	2663	G
23	BA	2673	G
23	BA	2690	C
23	BA	2700	C
23	BA	2702	U
23	BA	2703	C
23	BA	2707	G
23	BA	2712	U
23	BA	2712(A)	A
23	BA	2713	A
23	BA	2714	G
23	BA	2726	U
23	BA	2733	A
23	BA	2758	A

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Mol	Chain	Res	Type
23	BA	2761	G
23	BA	2762	G
23	BA	2764	A
23	BA	2765	A
23	BA	2766	G
23	BA	2769	C
23	BA	2778	A
23	BA	2791	C
23	BA	2802	G
23	BA	2803	C
23	BA	2805	G
23	BA	2808	U
23	BA	2820	A
23	BA	2821	A
23	BA	2834	G
23	BA	2835	A
23	BA	2846	G
23	BA	2851	A
23	BA	2872	G
23	BA	2875	C
23	BA	2880	C
23	BA	2892	A
23	BA	2893	G
23	BA	2894	G
23	BA	2895	U
24	BB	8	U
24	BB	9	G
24	BB	12	C
24	BB	13	A
24	BB	17	C
24	BB	24	G
24	BB	25	A
24	BB	29	A
24	BB	32	C
24	BB	40	U
24	BB	44	G
24	BB	53	A
24	BB	54	G
24	BB	56	G
24	BB	72	G
24	BB	73	A
24	BB	84	C

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Mol	Chain	Res	Type
24	BB	87	G
24	BB	88	C
24	BB	106	G
24	BB	110	G
1	CA	5	U
1	CA	9	G
1	CA	10	A
1	CA	22	G
1	CA	26	A
1	CA	32	A
1	CA	39	G
1	CA	47	C
1	CA	48	C
1	CA	50	A
1	CA	51	A
1	CA	54	C
1	CA	60	A
1	CA	61	G
1	CA	67	C
1	CA	77	G
1	CA	78	G
1	CA	79	G
1	CA	96	U
1	CA	97	G
1	CA	98	G
1	CA	100	C
1	CA	101	A
1	CA	115	G
1	CA	116	A
1	CA	119	A
1	CA	120	A
1	CA	121	C
1	CA	129(A)	G
1	CA	131	C
1	CA	144	G
1	CA	146	G
1	CA	150	C
1	CA	160	A
1	CA	163	C
1	CA	173	U
1	CA	182	U
1	CA	195	A

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Mol	Chain	Res	Type
1	CA	203	U
1	CA	204	U
1	CA	216	G
1	CA	222	U
1	CA	231	G
1	CA	244	U
1	CA	245	C
1	CA	247	G
1	CA	251	G
1	CA	266	G
1	CA	267	C
1	CA	280	C
1	CA	281	G
1	CA	289	G
1	CA	301	G
1	CA	306	G
1	CA	313	A
1	CA	316	G
1	CA	321	A
1	CA	327	A
1	CA	328	C
1	CA	332	G
1	CA	345	C
1	CA	346	G
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	382	A
1	CA	384	G
1	CA	388	G
1	CA	397	A
1	CA	398	C
1	CA	409	G
1	CA	412	A
1	CA	413	G
1	CA	414	A
1	CA	418	C
1	CA	421	U
1	CA	422	C

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Mol	Chain	Res	Type
1	CA	428	G
1	CA	429	U
1	CA	433	C
1	CA	435	C
1	CA	436	C
1	CA	437	U
1	CA	439	A
1	CA	442	C
1	CA	452	A
1	CA	458	C
1	CA	461	A
1	CA	471	G
1	CA	484	G
1	CA	485	G
1	CA	496	A
1	CA	498	U
1	CA	500	G
1	CA	505	G
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	518	C
1	CA	521	G
1	CA	524	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	550	G
1	CA	558	G
1	CA	559	A
1	CA	560	U
1	CA	561	U
1	CA	562	C
1	CA	563	A
1	CA	564	C
1	CA	568	G
1	CA	572	A
1	CA	573	A

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Mol	Chain	Res	Type
1	CA	576	G
1	CA	577	G
1	CA	588	G
1	CA	592	G
1	CA	595	G
1	CA	596	C
1	CA	597	G
1	CA	613	C
1	CA	629	G
1	CA	630	G
1	CA	631	G
1	CA	632	A
1	CA	650	G
1	CA	653	A
1	CA	662	G
1	CA	665	A
1	CA	666	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	752	G
1	CA	753	A
1	CA	755	G
1	CA	777	A
1	CA	786	G
1	CA	793	U
1	CA	794	A
1	CA	796	C
1	CA	806	C
1	CA	816	A
1	CA	817	C
1	CA	818	G
1	CA	821	G
1	CA	827	U
1	CA	828	A
1	CA	829	G
1	CA	833	U
1	CA	836	G
1	CA	839	U

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Mol	Chain	Res	Type
1	CA	840	C
1	CA	841	U
1	CA	848	C
1	CA	855	G
1	CA	859	A
1	CA	864	A
1	CA	889	A
1	CA	902	G
1	CA	913	A
1	CA	914	A
1	CA	916	G
1	CA	925	G
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	935	A
1	CA	940	C
1	CA	960	U
1	CA	961	U
1	CA	965	A
1	CA	966	G
1	CA	968	A
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	978	A
1	CA	980	C
1	CA	982	U
1	CA	983	A
1	CA	984	C
1	CA	989	C
1	CA	992	U
1	CA	993	G
1	CA	1001	A
1	CA	1001(A)	G
1	CA	1003	G
1	CA	1004	A
1	CA	1005	A

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Mol	Chain	Res	Type
1	CA	1008	C
1	CA	1009	G
1	CA	1011	G
1	CA	1015	A
1	CA	1020	U
1	CA	1021	G
1	CA	1022	G
1	CA	1023	G
1	CA	1024	G
1	CA	1026	G
1	CA	1027	C
1	CA	1028	C
1	CA	1029	C
1	CA	1030(A)	G
1	CA	1031	G
1	CA	1034	G
1	CA	1035	A
1	CA	1036	G
1	CA	1040	U
1	CA	1042	G
1	CA	1050	G
1	CA	1064	G
1	CA	1065	U
1	CA	1066	C
1	CA	1068	G
1	CA	1070	U
1	CA	1081	G
1	CA	1082	G
1	CA	1085	U
1	CA	1087	G
1	CA	1088	G
1	CA	1094	G
1	CA	1095	U
1	CA	1100	C
1	CA	1101	A
1	CA	1106	G
1	CA	1107	C
1	CA	1108	G
1	CA	1113	C
1	CA	1114	C
1	CA	1118	C
1	CA	1124	G

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Mol	Chain	Res	Type
1	CA	1125	U
1	CA	1131	G
1	CA	1136	U
1	CA	1137	C
1	CA	1138	G
1	CA	1139	G
1	CA	1140	C
1	CA	1147	C
1	CA	1152	A
1	CA	1154	G
1	CA	1157	A
1	CA	1159	U
1	CA	1171	G
1	CA	1172	C
1	CA	1174	G
1	CA	1178	G
1	CA	1181	G
1	CA	1182	G
1	CA	1183	A
1	CA	1184	G
1	CA	1185	G
1	CA	1193	G
1	CA	1196	U
1	CA	1197	G
1	CA	1200	C
1	CA	1202	G
1	CA	1206	G
1	CA	1208	C
1	CA	1211	U
1	CA	1212	U
1	CA	1213	A
1	CA	1214	C
1	CA	1220	G
1	CA	1225	A
1	CA	1227	A
1	CA	1228	C
1	CA	1229	A
1	CA	1238	A
1	CA	1239	A
1	CA	1241	G
1	CA	1244	C
1	CA	1250	A

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Mol	Chain	Res	Type
1	CA	1252	A
1	CA	1254	C
1	CA	1255	G
1	CA	1256	A
1	CA	1257	U
1	CA	1258	G
1	CA	1259	C
1	CA	1260	C
1	CA	1270	C
1	CA	1274	G
1	CA	1275	A
1	CA	1279	A
1	CA	1280	A
1	CA	1281	U
1	CA	1282	C
1	CA	1284	C
1	CA	1285	A
1	CA	1286	A
1	CA	1287	A
1	CA	1291	G
1	CA	1292	U
1	CA	1293	G
1	CA	1294	G
1	CA	1295	G
1	CA	1297	C
1	CA	1299	A
1	CA	1300	G
1	CA	1301	U
1	CA	1302	U
1	CA	1303	C
1	CA	1304	G
1	CA	1305	G
1	CA	1306	A
1	CA	1309	G
1	CA	1310	G
1	CA	1312	G
1	CA	1316	G
1	CA	1319	A
1	CA	1320	C
1	CA	1321	C
1	CA	1322	C
1	CA	1323	G

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Mol	Chain	Res	Type
1	CA	1331	G
1	CA	1333	A
1	CA	1337	G
1	CA	1338	G
1	CA	1339	A
1	CA	1341	U
1	CA	1346	A
1	CA	1347	G
1	CA	1355	G
1	CA	1358	U
1	CA	1359	C
1	CA	1360	A
1	CA	1363	C
1	CA	1364	U
1	CA	1366	C
1	CA	1370	G
1	CA	1377	A
1	CA	1379	G
1	CA	1383	C
1	CA	1386	G
1	CA	1397	C
1	CA	1401	G
1	CA	1404	C
1	CA	1406	U
1	CA	1419	G
1	CA	1442	G
1	CA	1442(A)	G
1	CA	1443	G
1	CA	1444	C
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	1473	A
1	CA	1487	G
1	CA	1492	A
1	CA	1493	A
1	CA	1494	G
1	CA	1503	A

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Mol	Chain	Res	Type
1	CA	1504	G
1	CA	1505	G
1	CA	1506	U
1	CA	1507	A
1	CA	1517	G
1	CA	1520	G
1	CA	1529	G
1	CA	1530	G
1	CA	1533	C
23	DA	10	G
23	DA	15	G
23	DA	34	C
23	DA	36	G
23	DA	45	C
23	DA	61	G
23	DA	68	G
23	DA	69	C
23	DA	71	A
23	DA	74	A
23	DA	75	G
23	DA	84	A
23	DA	90	U
23	DA	92	A
23	DA	94	C
23	DA	95	G
23	DA	102	G
23	DA	118	A
23	DA	119	A
23	DA	120	U
23	DA	121	G
23	DA	125	G
23	DA	131	G
23	DA	139(A)	G
23	DA	141	A
23	DA	154	G
23	DA	154(A)	C
23	DA	157	U
23	DA	172	C
23	DA	181	A
23	DA	182	A
23	DA	196	A
23	DA	199	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	232	G
23	DA	233	A
23	DA	248	G
23	DA	250	G
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(P)	C
23	DA	271(R)	G
23	DA	272(B)	G
23	DA	272(H)	C
23	DA	272(I)	U
23	DA	272(J)	C
23	DA	277	C
23	DA	278	A
23	DA	279	C
23	DA	283	A
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	352	G
23	DA	363	G
23	DA	363(F)	A
23	DA	382	G
23	DA	386	G
23	DA	399	G
23	DA	411	G

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Mol	Chain	Res	Type
23	DA	412	A
23	DA	414	C
23	DA	426	C
23	DA	427	U
23	DA	428	A
23	DA	444	C
23	DA	448	U
23	DA	454	A
23	DA	456	C
23	DA	457	A
23	DA	470	A
23	DA	471	A
23	DA	481	G
23	DA	492	A
23	DA	504	U
23	DA	505	A
23	DA	509	C
23	DA	510	C
23	DA	512	G
23	DA	530	G
23	DA	531	C
23	DA	532	A
23	DA	533	G
23	DA	543	C
23	DA	545	G
23	DA	546	C
23	DA	547	A
23	DA	548	A
23	DA	563	G
23	DA	571	A
23	DA	573	G
23	DA	575	A
23	DA	586	A
23	DA	588	U
23	DA	603	A
23	DA	604	G
23	DA	606	U
23	DA	607	U
23	DA	614	U
23	DA	614(A)	U
23	DA	614(B)	G
23	DA	615	G

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Mol	Chain	Res	Type
23	DA	619	G
23	DA	627	A
23	DA	637	A
23	DA	644	A
23	DA	645	C
23	DA	646	A
23	DA	652(B)	A
23	DA	652(C)	G
23	DA	652(D)	C
23	DA	652(U)	G
23	DA	669	G
23	DA	686	G
23	DA	708	C
23	DA	709	U
23	DA	717	G
23	DA	730	C
23	DA	752	A
23	DA	753	C
23	DA	762	U
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	792	G
23	DA	802	A
23	DA	805	G
23	DA	810	U
23	DA	812	C
23	DA	819	A
23	DA	827	U
23	DA	828	U
23	DA	830	G
23	DA	836	G
23	DA	857	C
23	DA	859	G
23	DA	869	G
23	DA	879	G
23	DA	880	G
23	DA	896	A
23	DA	897	C

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Mol	Chain	Res	Type
23	DA	899	A
23	DA	900	A
23	DA	901	A
23	DA	910	A
23	DA	917	A
23	DA	922	U
23	DA	923	C
23	DA	932	G
23	DA	934	G
23	DA	938	G
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	968	G
23	DA	974	G
23	DA	975	C
23	DA	975(A)	G
23	DA	983	A
23	DA	990	A
23	DA	996	A
23	DA	1012	U
23	DA	1013	C
23	DA	1016	G
23	DA	1020	A
23	DA	1022	G
23	DA	1024	G
23	DA	1025	G
23	DA	1026	U
23	DA	1027	A
23	DA	1033	U
23	DA	1034	G
23	DA	1038	C
23	DA	1041	C
23	DA	1042	G
23	DA	1044	G
23	DA	1045	A
23	DA	1046	A
23	DA	1047	G
23	DA	1048	A

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Mol	Chain	Res	Type
23	DA	1049	C
23	DA	1050	A
23	DA	1052	C
23	DA	1107	G
23	DA	1108	U
23	DA	1109	C
23	DA	1110	G
23	DA	1111	A
23	DA	1112	G
23	DA	1115	G
23	DA	1129	A
23	DA	1135	C
23	DA	1136	G
23	DA	1139	G
23	DA	1141	U
23	DA	1142	U
23	DA	1142(A)	A
23	DA	1149	G
23	DA	1155	A
23	DA	1164	G
23	DA	1211	U
23	DA	1218	C
23	DA	1253	A
23	DA	1256	G
23	DA	1268	A
23	DA	1271	G
23	DA	1272	A
23	DA	1273	U
23	DA	1298	C
23	DA	1300	U
23	DA	1301	A
23	DA	1314	C
23	DA	1321	A
23	DA	1329	U
23	DA	1338	G
23	DA	1358	G
23	DA	1365	A
23	DA	1367	A
23	DA	1368	G
23	DA	1370	C
23	DA	1374	G
23	DA	1380	G

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Mol	Chain	Res	Type
23	DA	1384	A
23	DA	1385	G
23	DA	1391	U
23	DA	1416	G
23	DA	1417	C
23	DA	1419	A
23	DA	1420	U
23	DA	1421	G
23	DA	1427	A
23	DA	1428	C
23	DA	1429	G
23	DA	1445	A
23	DA	1449	A
23	DA	1450	G
23	DA	1459	G
23	DA	1461	G
23	DA	1467	C
23	DA	1471	A
23	DA	1481	U
23	DA	1482	G
23	DA	1488	G
23	DA	1490	A
23	DA	1493	C
23	DA	1497	U
23	DA	1507	A
23	DA	1508	A
23	DA	1509	C
23	DA	1509(A)	A
23	DA	1518	U
23	DA	1520	G
23	DA	1531	C
23	DA	1533	G
23	DA	1534	U
23	DA	1535	A
23	DA	1536	C
23	DA	1537	G
23	DA	1539	G
23	DA	1542	A
23	DA	1543	C
23	DA	1554	A
23	DA	1558	A
23	DA	1559	G

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Mol	Chain	Res	Type
23	DA	1566	A
23	DA	1569	A
23	DA	1578	U
23	DA	1580	A
23	DA	1582	C
23	DA	1584	C
23	DA	1586	A
23	DA	1598	C
23	DA	1608	A
23	DA	1609	A
23	DA	1610	A
23	DA	1617	C
23	DA	1625	C
23	DA	1639	U
23	DA	1640	C
23	DA	1641	A
23	DA	1648	C
23	DA	1654	A
23	DA	1674	G
23	DA	1675	C
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	1746	G
23	DA	1750	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	1781	C
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	1819	A

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Mol	Chain	Res	Type
23	DA	1820	U
23	DA	1829	A
23	DA	1835	G
23	DA	1836	C
23	DA	1847	A
23	DA	1848	A
23	DA	1858	G
23	DA	1877	A
23	DA	1878	G
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	1938	A
23	DA	1955	U
23	DA	1962	C
23	DA	1963	U
23	DA	1967	C
23	DA	1969	A
23	DA	1970	A
23	DA	1971	A
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	2032	G
23	DA	2033	A
23	DA	2036	C
23	DA	2039	C
23	DA	2043	C
23	DA	2049	G
23	DA	2055	C

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Mol	Chain	Res	Type
23	DA	2056	G
23	DA	2060	A
23	DA	2061	G
23	DA	2062	A
23	DA	2063	C
23	DA	2069	G
23	DA	2093	G
23	DA	2099	U
23	DA	2103	C
23	DA	2104	G
23	DA	2105	C
23	DA	2106	G
23	DA	2108	C
23	DA	2109	U
23	DA	2110	G
23	DA	2111	C
23	DA	2116	G
23	DA	2117	A
23	DA	2118	U
23	DA	2119	A
23	DA	2126	A
23	DA	2127	G
23	DA	2131	G
23	DA	2133	G
23	DA	2134	A
23	DA	2135	A
23	DA	2143	C
23	DA	2146	C
23	DA	2147	G
23	DA	2148	G
23	DA	2161	C
23	DA	2162	G
23	DA	2170	A
23	DA	2172	U
23	DA	2173	A
23	DA	2175	C
23	DA	2176	A
23	DA	2181	G
23	DA	2185	C
23	DA	2187	G
23	DA	2188	C
23	DA	2190	G

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Mol	Chain	Res	Type
23	DA	2191	G
23	DA	2192	G
23	DA	2196	C
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	2225	A
23	DA	2235	G
23	DA	2238	G
23	DA	2239	G
23	DA	2240	C
23	DA	2259	G
23	DA	2267	A
23	DA	2268	A
23	DA	2269	A
23	DA	2273	A
23	DA	2275	C
23	DA	2280	G
23	DA	2283	C
23	DA	2287	A
23	DA	2289	G
23	DA	2304	G
23	DA	2305	A
23	DA	2306	C
23	DA	2308	G
23	DA	2309	A
23	DA	2311	A
23	DA	2316	C
23	DA	2318	G
23	DA	2319	G
23	DA	2320	A
23	DA	2325	G
23	DA	2327	A
23	DA	2334	G
23	DA	2336	A
23	DA	2347	C
23	DA	2348	U
23	DA	2350	C

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Mol	Chain	Res	Type
23	DA	2354	G
23	DA	2355	C
23	DA	2371	G
23	DA	2372	G
23	DA	2383	G
23	DA	2385	C
23	DA	2388	A
23	DA	2396	G
23	DA	2405	G
23	DA	2406	U
23	DA	2410	G
23	DA	2413	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	2435	A
23	DA	2439	A
23	DA	2440	C
23	DA	2441	C
23	DA	2448	A
23	DA	2460	U
23	DA	2461	C
23	DA	2468	G
23	DA	2469	A
23	DA	2476	A
23	DA	2478	A
23	DA	2487	G
23	DA	2494	G
23	DA	2502	G
23	DA	2505	G
23	DA	2506	U
23	DA	2518	A
23	DA	2520	C
23	DA	2525	G
23	DA	2529	G
23	DA	2535	G
23	DA	2554	U
23	DA	2566	A
23	DA	2567	G

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Mol	Chain	Res	Type
23	DA	2569	G
23	DA	2573	C
23	DA	2584	U
23	DA	2585	U
23	DA	2586	C
23	DA	2602	A
23	DA	2603	G
23	DA	2608	G
23	DA	2611	U
23	DA	2612	C
23	DA	2615	U
23	DA	2629	A
23	DA	2630	G
23	DA	2632	A
23	DA	2643	G
23	DA	2663	G
23	DA	2673	G
23	DA	2689	U
23	DA	2690	C
23	DA	2700	C
23	DA	2702	U
23	DA	2703	C
23	DA	2707	G
23	DA	2712	U
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	2761	G
23	DA	2762	G
23	DA	2764	A
23	DA	2765	A
23	DA	2766	G
23	DA	2769	C
23	DA	2778	A
23	DA	2791	C
23	DA	2802	G
23	DA	2803	C
23	DA	2805	G

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Mol	Chain	Res	Type
23	DA	2808	U
23	DA	2820	A
23	DA	2821	A
23	DA	2834	G
23	DA	2835	A
23	DA	2846	G
23	DA	2850	A
23	DA	2851	A
23	DA	2872	G
23	DA	2875	C
23	DA	2880	C
23	DA	2892	A
23	DA	2893	G
23	DA	2894	G
23	DA	2895	U
24	DB	2	C
24	DB	8	U
24	DB	9	G
24	DB	12	C
24	DB	13	A
24	DB	22	U
24	DB	24	G
24	DB	29	A
24	DB	32	C
24	DB	34	U
24	DB	39	A
24	DB	45	A
24	DB	52	A
24	DB	53	A
24	DB	56	G
24	DB	59	A
24	DB	64	C
24	DB	73	A
24	DB	106	G
24	DB	110	G
24	DB	116	G

All (185) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	3	G
1	AA	7	G

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Mol	Chain	Res	Type
1	AA	60	A
1	AA	69	G
1	AA	115	G
1	AA	119	A
1	AA	203	U
1	AA	243	A
1	AA	266	G
1	AA	327	A
1	AA	428	G
1	AA	484	G
1	AA	509	A
1	AA	560	U
1	AA	687	A
1	AA	748	C
1	AA	840	C
1	AA	913	A
1	AA	992	U
1	AA	1064	G
1	AA	1065	U
1	AA	1067	A
1	AA	1179	A
1	AA	1201	A
1	AA	1279	A
1	AA	1285	A
1	AA	1300	G
1	AA	1364	U
1	AA	1442	G
1	AA	1493	A
1	AA	1504	G
23	BA	9	U
23	BA	90	U
23	BA	196	A
23	BA	221	A
23	BA	249	C
23	BA	271(K)	U
23	BA	271(L)	U
23	BA	271(M)	G
23	BA	277	C
23	BA	278	A
23	BA	363(E)	U
23	BA	479	A
23	BA	512	G

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Mol	Chain	Res	Type
23	BA	542	C
23	BA	547	A
23	BA	652(A)	A
23	BA	669	G
23	BA	746	A
23	BA	752	A
23	BA	764	A
23	BA	774	A
23	BA	776	G
23	BA	827	U
23	BA	856	C
23	BA	896	A
23	BA	900	A
23	BA	974	G
23	BA	1026	U
23	BA	1033	U
23	BA	1047	G
23	BA	1048	A
23	BA	1049	C
23	BA	1106	G
23	BA	1108	U
23	BA	1210	A
23	BA	1378	A
23	BA	1379	A
23	BA	1427	A
23	BA	1507	A
23	BA	1530	C
23	BA	1538	G
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	1819	A
23	BA	1992	G
23	BA	2126	A
23	BA	2171	A
23	BA	2172	U
23	BA	2308	G
23	BA	2318	G
23	BA	2405	G

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Mol	Chain	Res	Type
23	BA	2439	A
23	BA	2602	A
23	BA	2610	C
23	BA	2689	U
23	BA	2712	U
23	BA	2778	A
23	BA	2802	G
1	CA	7	G
1	CA	60	A
1	CA	115	G
1	CA	119	A
1	CA	203	U
1	CA	243	A
1	CA	266	G
1	CA	327	A
1	CA	345	C
1	CA	428	G
1	CA	484	G
1	CA	509	A
1	CA	560	U
1	CA	687	A
1	CA	748	C
1	CA	840	C
1	CA	913	A
1	CA	991	U
1	CA	992	U
1	CA	1064	G
1	CA	1065	U
1	CA	1067	A
1	CA	1201	A
1	CA	1211	U
1	CA	1285	A
1	CA	1300	G
1	CA	1442	G
1	CA	1493	A
1	CA	1504	G
23	DA	9	U
23	DA	90	U
23	DA	196	A
23	DA	221	A
23	DA	249	C
23	DA	271(K)	U

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Mol	Chain	Res	Type
23	DA	271(L)	U
23	DA	271(M)	G
23	DA	277	C
23	DA	278	A
23	DA	310	A
23	DA	363(E)	U
23	DA	512	G
23	DA	542	C
23	DA	547	A
23	DA	652(A)	A
23	DA	752	A
23	DA	764	A
23	DA	774	A
23	DA	776	G
23	DA	827	U
23	DA	856	C
23	DA	859	G
23	DA	896	A
23	DA	900	A
23	DA	974	G
23	DA	1026	U
23	DA	1033	U
23	DA	1047	G
23	DA	1048	A
23	DA	1049	C
23	DA	1106	G
23	DA	1108	U
23	DA	1210	A
23	DA	1378	A
23	DA	1379	A
23	DA	1427	A
23	DA	1507	A
23	DA	1530	C
23	DA	1536	C
23	DA	1538	G
23	DA	1558	A
23	DA	1608	A
23	DA	1617	C
23	DA	1653	G
23	DA	1799	G
23	DA	1819	A
23	DA	1992	G

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Mol	Chain	Res	Type
23	DA	2126	A
23	DA	2171	A
23	DA	2172	U
23	DA	2308	G
23	DA	2318	G
23	DA	2405	G
23	DA	2439	A
23	DA	2602	A
23	DA	2610	C
23	DA	2689	U
23	DA	2712	U
23	DA	2756	U
23	DA	2778	A
23	DA	2802	G
23	DA	2873	A

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 1302 ligands modelled in this entry, 1302 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	1505/1522 (98%)	1.08	302 (20%) 1 0	52, 116, 177, 188	0
1	CA	1501/1522 (98%)	0.62	211 (14%) 2 1	53, 112, 168, 181	0
2	AB	229/256 (89%)	0.32	17 (7%) 14 4	114, 135, 150, 160	0
2	CB	229/256 (89%)	0.60	26 (11%) 5 1	113, 135, 150, 160	0
3	AC	206/239 (86%)	1.85	83 (40%) 0 0	122, 148, 164, 172	0
3	CC	206/239 (86%)	1.47	64 (31%) 0 0	119, 140, 153, 162	0
4	AD	208/209 (99%)	0.40	23 (11%) 5 1	100, 116, 133, 143	0
4	CD	208/209 (99%)	0.19	14 (6%) 17 5	95, 111, 129, 142	0
5	AE	148/162 (91%)	0.43	18 (12%) 4 1	85, 109, 124, 129	0
5	CE	148/162 (91%)	0.42	12 (8%) 12 3	87, 108, 124, 132	0
6	AF	100/101 (99%)	-0.07	7 (7%) 16 5	88, 102, 122, 136	0
6	CF	100/101 (99%)	0.10	5 (5%) 28 10	93, 107, 123, 135	0
7	AG	155/156 (99%)	3.56	108 (69%) 0 0	134, 156, 166, 168	0
7	CG	155/156 (99%)	2.13	69 (44%) 0 0	118, 144, 151, 158	0
8	AH	138/138 (100%)	0.08	6 (4%) 35 13	93, 111, 121, 131	0
8	CH	138/138 (100%)	0.15	7 (5%) 28 10	89, 110, 120, 133	0
9	AI	125/128 (97%)	3.99	90 (72%) 0 0	131, 157, 170, 176	0
9	CI	125/128 (97%)	2.58	61 (48%) 0 0	129, 151, 161, 173	0
10	AJ	96/105 (91%)	3.61	58 (60%) 0 0	137, 155, 171, 176	0
10	CJ	96/105 (91%)	2.70	55 (57%) 0 0	130, 149, 161, 169	0
11	AK	114/129 (88%)	0.10	0 100 100	74, 109, 123, 127	0
11	CK	114/129 (88%)	0.38	9 (7%) 12 4	79, 109, 122, 124	0
12	AL	122/132 (92%)	0.17	6 (4%) 29 11	72, 95, 111, 120	0
12	CL	122/132 (92%)	0.28	7 (5%) 23 8	72, 92, 106, 116	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	AM	114/126 (90%)	4.54	90 (78%) 0 0	147, 160, 171, 177	0
13	CM	114/126 (90%)	2.02	41 (35%) 0 0	124, 145, 155, 158	0
14	AN	60/61 (98%)	3.84	37 (61%) 0 0	134, 160, 169, 174	0
14	CN	60/61 (98%)	1.87	21 (35%) 0 0	136, 146, 152, 155	0
15	AO	88/89 (98%)	0.02	3 (3%) 45 19	78, 103, 120, 131	0
15	CO	88/89 (98%)	0.08	6 (6%) 17 5	79, 102, 122, 129	0
16	AP	82/88 (93%)	1.28	24 (29%) 0 0	98, 112, 132, 138	0
16	CP	82/88 (93%)	0.53	5 (6%) 21 7	89, 105, 123, 132	0
17	AQ	99/105 (94%)	0.37	6 (6%) 21 7	86, 99, 113, 118	0
17	CQ	99/105 (94%)	0.01	3 (3%) 50 22	84, 98, 113, 117	0
18	AR	68/88 (77%)	0.68	11 (16%) 1 0	93, 104, 138, 141	0
18	CR	68/88 (77%)	1.10	19 (27%) 0 0	95, 107, 138, 143	0
19	AS	81/93 (87%)	2.98	40 (49%) 0 0	131, 164, 174, 179	0
19	CS	81/93 (87%)	2.67	48 (59%) 0 0	125, 146, 153, 155	0
20	AT	97/106 (91%)	0.49	9 (9%) 8 3	90, 106, 127, 131	0
20	CT	97/106 (91%)	0.67	14 (14%) 2 1	84, 103, 125, 132	0
21	AU	23/27 (85%)	6.80	19 (82%) 0 0	147, 161, 169, 174	0
21	CU	23/27 (85%)	2.53	12 (52%) 0 0	130, 145, 153, 154	0
22	AV	53/61 (86%)	0.16	3 (5%) 23 8	93, 105, 121, 143	0
22	CV	53/61 (86%)	-0.40	1 (1%) 66 37	90, 115, 141, 151	0
23	BA	2809/2915 (96%)	0.04	85 (3%) 50 22	31, 50, 134, 186	0
23	DA	2814/2915 (96%)	-0.13	110 (3%) 39 15	34, 56, 138, 189	0
24	BB	120/122 (98%)	-0.36	0 100 100	46, 72, 94, 119	0
24	DB	120/122 (98%)	-0.24	0 100 100	63, 90, 111, 129	0
25	BD	275/276 (99%)	-0.32	1 (0%) 92 79	34, 52, 69, 117	0
25	DD	275/276 (99%)	-0.42	1 (0%) 92 79	36, 55, 72, 119	0
26	BE	204/206 (99%)	-0.19	0 100 100	32, 55, 78, 95	0
26	DE	204/206 (99%)	-0.32	0 100 100	35, 61, 84, 101	0
27	BF	203/210 (96%)	-0.28	2 (0%) 82 59	30, 60, 92, 136	0
27	DF	203/210 (96%)	-0.25	1 (0%) 91 75	34, 67, 96, 136	0
28	BG	181/182 (99%)	0.42	19 (10%) 6 2	80, 120, 143, 152	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	DG	181/182 (99%)	1.15	42 (23%) 0 0	92, 126, 146, 156	0
29	BH	174/180 (96%)	-0.19	1 (0%) 89 72	58, 79, 97, 110	0
29	DH	174/180 (96%)	0.42	22 (12%) 3 1	70, 92, 107, 122	0
30	BI	146/148 (98%)	-0.14	1 (0%) 87 69	57, 90, 108, 120	0
30	DI	146/148 (98%)	0.48	14 (9%) 8 2	60, 108, 127, 131	0
31	BN	140/140 (100%)	-0.34	0 100 100	39, 55, 83, 98	0
31	DN	140/140 (100%)	-0.56	1 (0%) 87 69	45, 63, 89, 101	0
32	BO	122/122 (100%)	-0.26	0 100 100	43, 58, 79, 85	0
32	DO	122/122 (100%)	-0.44	0 100 100	46, 62, 82, 86	0
33	BP	149/150 (99%)	0.03	0 100 100	34, 63, 98, 109	0
33	DP	149/150 (99%)	-0.21	3 (2%) 65 36	38, 70, 102, 111	0
34	BQ	141/141 (100%)	-0.17	1 (0%) 87 69	43, 61, 77, 91	0
34	DQ	141/141 (100%)	-0.21	0 100 100	47, 67, 85, 94	0
35	BR	118/118 (100%)	-0.27	0 100 100	38, 50, 70, 78	0
35	DR	118/118 (100%)	-0.34	0 100 100	42, 55, 73, 82	0
36	BS	110/112 (98%)	0.06	0 100 100	58, 75, 93, 101	0
36	DS	110/112 (98%)	0.12	4 (3%) 42 17	64, 82, 99, 110	0
37	BT	131/146 (89%)	-0.27	0 100 100	51, 63, 98, 117	0
37	DT	131/146 (89%)	-0.39	1 (0%) 86 65	55, 67, 101, 118	0
38	BU	116/118 (98%)	-0.18	1 (0%) 84 63	35, 48, 69, 81	0
38	DU	116/118 (98%)	-0.14	2 (1%) 70 41	40, 56, 76, 86	0
39	BV	100/101 (99%)	-0.27	0 100 100	34, 62, 81, 91	0
39	DV	101/101 (100%)	-0.06	0 100 100	40, 72, 90, 98	0
40	BW	112/113 (99%)	-0.42	0 100 100	36, 43, 64, 102	0
40	DW	112/113 (99%)	-0.60	0 100 100	40, 48, 69, 95	0
41	BX	95/96 (98%)	-0.19	1 (1%) 80 56	41, 51, 74, 98	0
41	DX	95/96 (98%)	-0.46	0 100 100	47, 56, 80, 102	0
42	BY	107/110 (97%)	-0.23	2 (1%) 66 37	52, 64, 89, 107	0
42	DY	107/110 (97%)	0.13	7 (6%) 18 5	59, 72, 96, 116	0
43	BZ	198/206 (96%)	-0.17	0 100 100	65, 85, 111, 126	0
43	DZ	198/206 (96%)	0.20	14 (7%) 16 5	73, 92, 115, 132	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	B0	76/85 (89%)	-0.32	0 100 100	48, 55, 71, 87	0
44	D0	76/85 (89%)	0.25	4 (5%) 26 10	53, 61, 76, 90	0
45	B1	97/98 (98%)	-0.18	2 (2%) 63 34	37, 57, 89, 103	0
45	D1	97/98 (98%)	-0.24	1 (1%) 82 59	41, 61, 91, 108	0
46	B2	70/72 (97%)	-0.16	0 100 100	50, 66, 84, 103	0
46	D2	70/72 (97%)	0.05	3 (4%) 35 13	55, 71, 88, 112	0
47	B3	59/60 (98%)	-0.31	0 100 100	43, 57, 85, 101	0
47	D3	59/60 (98%)	0.22	2 (3%) 45 19	49, 64, 92, 112	0
48	B4	46/71 (64%)	-0.59	0 100 100	106, 141, 151, 154	0
48	D4	46/71 (64%)	0.02	0 100 100	113, 141, 152, 163	0
49	B5	59/60 (98%)	-0.37	0 100 100	33, 51, 68, 89	0
49	D5	59/60 (98%)	-0.40	0 100 100	37, 55, 73, 95	0
50	B6	53/54 (98%)	0.26	2 (3%) 40 16	53, 61, 75, 78	0
50	D6	53/54 (98%)	0.53	5 (9%) 8 3	56, 65, 79, 82	0
51	B7	48/49 (97%)	0.05	2 (4%) 36 14	32, 37, 61, 78	0
51	D7	48/49 (97%)	-0.13	0 100 100	36, 40, 64, 83	0
52	B8	64/65 (98%)	-0.10	0 100 100	42, 49, 58, 70	0
52	D8	64/65 (98%)	-0.43	0 100 100	46, 53, 62, 72	0
53	B9	36/37 (97%)	0.10	0 100 100	49, 59, 72, 83	0
53	D9	36/37 (97%)	0.59	3 (8%) 11 3	58, 68, 81, 91	0
All	All	20542/21368 (96%)	0.35	2030 (9%) 7 2	30, 80, 160, 189	0

All (2030) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
13	AM	43	THR	23.7
14	AN	13	THR	22.9
9	CI	7	THR	17.6
10	AJ	72	VAL	17.0
21	AU	11	GLY	15.5
14	AN	12	ARG	15.0
10	AJ	71	LEU	14.7
1	AA	1290	G	14.3
1	AA	974	A	14.1
13	CM	7	VAL	13.6

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Mol	Chain	Res	Type	RSRZ
19	AS	50	ALA	13.5
21	AU	8	THR	13.4
1	AA	1247	U	13.3
19	AS	49	ILE	12.9
1	AA	1286	A	12.8
1	AA	1351	U	12.7
21	AU	5	ASP	12.7
14	AN	10	ALA	12.7
21	AU	4	GLY	12.5
10	AJ	73	ASP	12.5
9	AI	7	THR	12.5
14	AN	14	PRO	12.4
13	AM	109	THR	12.2
7	CG	2	ALA	12.1
23	BA	2117	A	11.9
1	AA	1352	C	11.9
1	CA	1148	U	11.7
9	AI	125	TYR	11.7
1	AA	1331	G	11.7
13	AM	65	LYS	11.7
10	AJ	34	VAL	11.3
10	AJ	8	LEU	11.0
1	AA	949	A	11.0
13	AM	25	ILE	11.0
9	AI	30	GLY	11.0
3	AC	144	SER	11.0
3	AC	196	LEU	11.0
9	AI	23	ASN	10.9
13	AM	44	ARG	10.9
1	AA	950	U	10.7
1	CA	1149	C	10.7
21	AU	12	LYS	10.5
13	AM	69	GLU	10.5
1	AA	1030(B)	C	10.4
7	AG	144	MET	10.3
7	AG	31	MET	10.3
3	CC	153	VAL	10.3
9	AI	69	GLY	10.2
10	CJ	72	VAL	10.2
1	AA	1218	C	10.1
13	AM	91	ARG	10.1
14	AN	23	ARG	10.0

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Mol	Chain	Res	Type	RSRZ
1	AA	1291	G	10.0
14	AN	22	THR	9.9
7	AG	105	VAL	9.8
3	CC	155	GLY	9.8
1	CA	1026	G	9.7
9	AI	88	TYR	9.7
1	AA	1235	U	9.7
21	AU	17	THR	9.6
1	AA	984	C	9.6
23	DA	2173	A	9.5
21	AU	16	GLY	9.5
1	AA	982	U	9.5
23	BA	2116	G	9.5
10	AJ	6	ILE	9.5
23	DA	2128	C	9.4
23	BA	2129	C	9.3
13	AM	29	ARG	9.3
9	CI	6	GLY	9.3
14	AN	11	LYS	9.3
28	DG	2	PRO	9.3
23	DA	2148	G	9.3
10	AJ	69	ASN	9.3
19	AS	69	HIS	9.3
21	CU	8	THR	9.3
9	AI	3	GLN	9.3
21	CU	5	ASP	9.2
1	AA	987	G	9.2
23	BA	2130	U	9.2
13	CM	5	ALA	9.1
13	AM	41	PRO	9.1
9	CI	84	ALA	9.1
13	CM	6	GLY	9.0
1	AA	1209	C	9.0
9	AI	89	ASN	8.9
13	AM	86	CYS	8.9
9	AI	29	ASN	8.9
21	AU	18	TYR	8.8
7	AG	91	VAL	8.8
19	AS	59	PRO	8.8
1	AA	1243	C	8.7
7	CG	39	ALA	8.7
1	AA	961	U	8.7

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Mol	Chain	Res	Type	RSRZ
1	AA	1236	A	8.7
7	AG	39	ALA	8.7
1	AA	1018	C	8.6
23	DA	2174	C	8.6
1	AA	1223	C	8.6
10	CJ	23	ILE	8.6
13	AM	90	LEU	8.6
13	AM	2	ALA	8.5
7	AG	5	ARG	8.5
42	BY	1	MET	8.5
7	AG	110	GLN	8.5
23	DA	2127	G	8.5
9	AI	37	PHE	8.4
1	AA	1240	U	8.4
1	CA	933	G	8.4
19	AS	32	LYS	8.4
7	AG	83	ALA	8.4
10	AJ	35	SER	8.4
21	AU	3	LYS	8.4
3	CC	154	SER	8.3
7	CG	156	TRP	8.3
13	AM	92	HIS	8.3
7	AG	15	ASP	8.3
13	CM	65	LYS	8.2
10	AJ	38	ILE	8.2
1	AA	973	G	8.2
10	AJ	100	THR	8.2
1	AA	986	A	8.2
1	CA	1092	A	8.2
7	AG	71	PRO	8.2
1	CA	1027	C	8.2
1	AA	1332	A	8.2
7	AG	107	ALA	8.2
7	CG	5	ARG	8.2
3	AC	192	THR	8.2
1	AA	1242	C	8.2
13	CM	8	GLU	8.1
9	AI	22	GLY	8.1
23	BA	2161	C	8.1
1	AA	1030(C)	G	8.1
1	AA	983	A	8.1
1	AA	1330	U	8.1

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Mol	Chain	Res	Type	RSRZ
7	AG	82	GLY	8.0
7	AG	84	ASN	8.0
13	AM	42	ALA	8.0
23	DA	2171	A	8.0
1	AA	948	C	7.9
1	AA	1341	U	7.9
3	CC	76	VAL	7.9
1	AA	1306	A	7.8
23	DA	2124	G	7.8
14	AN	7	ILE	7.8
1	AA	1222	G	7.8
23	DA	2125	G	7.8
18	AR	20	ALA	7.7
1	AA	1248	A	7.7
9	AI	8	GLY	7.7
1	AA	980	C	7.7
9	CI	101	PHE	7.7
23	BA	2173	A	7.7
9	AI	101	PHE	7.7
1	AA	953	G	7.7
7	AG	2	ALA	7.7
3	AC	195	VAL	7.6
1	AA	1217	C	7.6
23	DA	2110	G	7.6
1	CA	1128	C	7.6
13	AM	97	PRO	7.5
23	DA	2153	G	7.5
10	AJ	5	ARG	7.5
1	AA	1026	G	7.5
9	CI	85	LEU	7.5
13	AM	96	LEU	7.5
1	AA	951	G	7.5
1	AA	1216	G	7.5
10	AJ	70	ARG	7.5
13	AM	6	GLY	7.4
13	AM	95	GLY	7.4
1	AA	979	C	7.4
13	AM	12	ASN	7.4
13	AM	66	LEU	7.4
23	DA	2162	G	7.4
7	AG	145	ALA	7.4
23	DA	2168	G	7.4

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Mol	Chain	Res	Type	RSRZ
13	AM	11	ARG	7.4
1	AA	1305	G	7.3
9	CI	66	ARG	7.3
9	AI	15	ALA	7.3
7	CG	38	LEU	7.3
1	AA	1363	C	7.3
9	AI	64	THR	7.3
23	DA	2152	G	7.2
19	CS	54	GLY	7.2
23	DA	2170	A	7.2
1	AA	985	C	7.2
1	CA	1379	G	7.2
1	AA	1304	G	7.2
9	AI	102	LEU	7.2
1	CA	1036	G	7.1
10	AJ	98	ILE	7.1
1	AA	952	U	7.1
9	CI	64	THR	7.1
9	AI	47	LEU	7.0
19	AS	73	GLU	7.0
19	AS	70	LYS	7.0
7	CG	25	ALA	7.0
1	AA	988	G	7.0
1	AA	1019	C	7.0
1	AA	1295	G	7.0
1	AA	1287	A	6.9
13	AM	64	TRP	6.9
21	AU	14	TRP	6.9
1	AA	1036	G	6.9
9	CI	83	ARG	6.9
21	AU	9	ARG	6.9
1	AA	1030(A)	G	6.9
3	AC	76	VAL	6.9
1	AA	1138	G	6.9
1	AA	1353	G	6.9
13	AM	51	ALA	6.8
23	DA	2790	A	6.8
9	AI	100	GLY	6.8
23	DA	2161	C	6.8
9	CI	89	ASN	6.8
7	AG	11	GLN	6.8
1	CA	1249	C	6.8

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Mol	Chain	Res	Type	RSRZ
1	AA	954	G	6.8
10	AJ	24	VAL	6.8
19	CS	34	TRP	6.7
1	AA	958	A	6.7
28	DG	182	LYS	6.7
7	CG	78	ARG	6.7
3	AC	87	LEU	6.7
7	AG	4	ARG	6.7
1	AA	947	G	6.7
7	AG	36	LYS	6.7
7	CG	26	PHE	6.6
1	AA	1002	G	6.6
13	AM	77	ASN	6.6
23	DA	2176	A	6.6
23	DA	2147	G	6.6
1	CA	1222	G	6.6
9	AI	60	ASP	6.6
7	CG	27	ILE	6.6
1	AA	981	U	6.6
1	AA	1274	G	6.6
23	DA	2169	A	6.6
23	DA	2132	U	6.5
9	AI	5	TYR	6.5
9	AI	80	GLY	6.5
1	CA	1030(B)	C	6.5
1	AA	1296	C	6.5
13	AM	40	ASN	6.5
13	AM	49	THR	6.5
7	CG	77	SER	6.5
13	CM	66	LEU	6.5
19	CS	52	TYR	6.5
3	AC	39	ILE	6.5
14	AN	9	LYS	6.5
14	AN	15	LYS	6.5
9	AI	32	ASP	6.5
23	BA	2108	C	6.5
9	AI	10	ARG	6.5
7	CG	16	LEU	6.5
3	AC	146	ALA	6.5
10	CJ	37	PRO	6.5
7	AG	103	TRP	6.5
13	AM	10	PRO	6.4

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Mol	Chain	Res	Type	RSRZ
21	AU	10	ARG	6.4
28	DG	35	GLU	6.4
7	AG	81	GLY	6.4
23	DA	2172	U	6.4
9	CI	62	TYR	6.4
9	AI	84	ALA	6.4
10	CJ	73	ASP	6.4
21	AU	6	ARG	6.4
3	AC	53	ALA	6.4
7	AG	109	ASN	6.4
23	DA	2893	G	6.4
1	AA	1339	A	6.4
9	CI	103	THR	6.4
23	BA	2160	G	6.4
7	AG	38	LEU	6.3
7	AG	14	PRO	6.3
1	AA	1213	A	6.3
3	AC	111	LEU	6.3
13	AM	68	GLY	6.3
14	AN	17	LYS	6.3
1	AA	970	C	6.3
19	AS	60	VAL	6.3
13	AM	24	GLY	6.3
1	CA	1285	A	6.3
10	CJ	65	LEU	6.3
28	DG	155	MET	6.3
9	CI	16	ARG	6.3
10	AJ	21	GLN	6.3
23	DA	2121	G	6.3
9	AI	126	SER	6.3
9	AI	83	ARG	6.3
14	AN	3	ARG	6.3
23	BA	2159	G	6.2
9	AI	34	ASN	6.2
1	CA	1147	C	6.2
23	DA	2129	C	6.2
23	DA	2792	G	6.2
13	AM	54	VAL	6.2
18	CR	20	ALA	6.2
1	AA	91	C	6.2
7	AG	143	ARG	6.2
1	AA	1294	G	6.2

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Mol	Chain	Res	Type	RSRZ
13	AM	50	GLU	6.2
14	AN	39	LEU	6.2
9	AI	122	ALA	6.1
7	AG	154	TYR	6.1
10	CJ	75	ILE	6.1
19	AS	31	ILE	6.1
1	CA	1030(A)	G	6.1
23	DA	2149	G	6.1
10	CJ	22	LYS	6.1
10	CJ	71	LEU	6.1
19	AS	48	THR	6.1
14	CN	30	ALA	6.1
14	CN	29	ARG	6.1
1	AA	1364	U	6.1
9	AI	20	ARG	6.1
1	CA	936	C	6.1
7	AG	140	ASP	6.1
1	AA	971	G	6.1
1	AA	1214	C	6.1
9	CI	8	GLY	6.1
1	AA	1011	G	6.1
10	CJ	77	PRO	6.1
19	CS	9	VAL	6.1
23	BA	2172	U	6.1
10	AJ	48	THR	6.1
1	CA	1286	A	6.0
19	AS	51	VAL	6.0
10	AJ	33	GLN	6.0
7	AG	130	GLY	6.0
16	AP	11	SER	6.0
9	AI	65	VAL	6.0
21	AU	2	GLY	6.0
13	CM	102	ARG	6.0
1	CA	1013	G	6.0
9	AI	103	THR	6.0
23	DA	2116	G	6.0
1	AA	1329	A	5.9
10	CJ	64	GLU	5.9
1	CA	1139	G	5.9
7	CG	37	ASN	5.9
23	DA	2126	A	5.9
1	AA	1033	G	5.9

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Mol	Chain	Res	Type	RSRZ
23	DA	2131	G	5.9
1	AA	1309	G	5.9
1	CA	1023	G	5.9
3	AC	145	GLY	5.9
21	CU	7	ARG	5.9
1	AA	1340	A	5.9
1	AA	1297	C	5.9
23	DA	2177	C	5.9
13	AM	5	ALA	5.9
1	AA	1030(D)	A	5.8
3	CC	44	GLU	5.8
19	AS	57	HIS	5.8
1	AA	990	C	5.8
23	BA	2131	G	5.8
14	CN	35	ARG	5.8
19	CS	57	HIS	5.8
9	AI	9	ARG	5.8
14	AN	19	ARG	5.8
3	AC	193	TYR	5.8
3	CC	43	LEU	5.8
1	AA	1030	C	5.8
23	DA	2163	C	5.8
1	AA	1092	A	5.8
1	AA	1380	U	5.8
23	DA	2178	C	5.8
7	CG	79	ARG	5.8
13	AM	61	GLU	5.7
1	AA	1350	A	5.7
1	CA	1248	A	5.7
1	CA	1150	U	5.7
3	CC	189	ALA	5.7
1	AA	1035	A	5.7
23	BA	2167	U	5.7
1	CA	1093	A	5.7
23	BA	2166	G	5.7
1	AA	1360	A	5.7
7	AG	106	GLN	5.7
9	AI	66	ARG	5.7
9	AI	12	GLU	5.7
14	AN	28	GLY	5.7
23	BA	2133	G	5.7
13	AM	26	GLY	5.7

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Mol	Chain	Res	Type	RSRZ
1	AA	1336	C	5.7
13	AM	110	ARG	5.7
1	AA	1050	G	5.6
1	CA	1001(A)	G	5.6
23	BA	2148	G	5.6
28	DG	152	LEU	5.6
13	CM	107	ALA	5.6
3	AC	64	VAL	5.6
9	AI	46	ALA	5.6
19	AS	33	THR	5.6
23	DA	2166	G	5.6
9	AI	87	GLN	5.6
9	CI	17	VAL	5.6
23	DA	2109	U	5.6
1	AA	1342	C	5.6
23	BA	1509	C	5.6
23	DA	2175	C	5.6
1	CA	1223	C	5.5
3	CC	194	GLY	5.5
23	DA	2802	G	5.5
23	DA	2894	G	5.5
23	DA	2119	A	5.5
9	CI	53	VAL	5.5
1	AA	1210	C	5.5
19	AS	24	ALA	5.5
23	BA	2132	U	5.5
23	DA	2122	U	5.5
1	AA	1241	G	5.5
10	AJ	36	GLY	5.5
10	CJ	100	THR	5.5
2	AB	133	LYS	5.5
23	DA	2120	G	5.5
23	DA	2146	C	5.5
9	CI	18	PHE	5.5
1	AA	989	C	5.5
7	AG	16	LEU	5.5
2	CB	33	TYR	5.5
1	CA	1116	C	5.5
13	AM	104	ARG	5.5
23	BA	2118	U	5.5
10	AJ	27	ALA	5.4
14	CN	37	PHE	5.4

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Mol	Chain	Res	Type	RSRZ
1	CA	1173	G	5.4
3	AC	101	LEU	5.4
10	CJ	38	ILE	5.4
28	DG	41	GLN	5.4
14	AN	5	ALA	5.4
1	CA	1383	C	5.4
1	AA	1031	G	5.4
1	AA	1246	C	5.4
13	AM	87	TYR	5.4
3	AC	65	ALA	5.4
7	CG	4	ARG	5.4
1	AA	962	C	5.4
23	DA	2118	U	5.4
23	BA	2158	A	5.4
9	AI	4	TYR	5.4
23	DA	2151	G	5.4
23	BA	2171	A	5.4
14	AN	32	SER	5.4
4	AD	23	GLY	5.3
7	AG	77	SER	5.3
1	AA	1048	G	5.3
7	AG	152	ALA	5.3
4	AD	113	SER	5.3
10	AJ	25	GLU	5.3
1	AA	1208	C	5.3
23	BA	2162	G	5.3
23	DA	2164	C	5.3
23	DA	2123	G	5.3
19	CS	53	ASN	5.3
23	BA	2176	A	5.3
3	CC	47	LEU	5.3
21	AU	24	ARG	5.3
21	AU	13	ILE	5.3
19	AS	44	MET	5.3
7	AG	54	THR	5.3
13	CM	4	ILE	5.3
9	AI	33	PHE	5.2
1	AA	1289	A	5.2
7	CG	3	ARG	5.2
1	CA	1293	G	5.2
19	AS	40	ILE	5.2
1	AA	1037	C	5.2

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Mol	Chain	Res	Type	RSRZ
7	AG	153	HIS	5.2
1	CA	1261	A	5.2
9	AI	59	PHE	5.2
3	CC	77	ILE	5.2
7	AG	127	ALA	5.2
9	AI	14	VAL	5.2
10	CJ	17	ASP	5.2
23	BA	2124	G	5.2
23	BA	2168	G	5.2
7	CG	154	TYR	5.2
19	CS	80	TYR	5.2
23	BA	2137	C	5.2
1	CA	1212	U	5.2
10	CJ	27	ALA	5.2
23	BA	2115	G	5.2
10	CJ	20	ALA	5.2
7	AG	43	PHE	5.2
23	DA	2793	G	5.1
13	AM	73	GLU	5.1
42	DY	1	MET	5.1
7	AG	49	ILE	5.1
23	BA	2147	G	5.1
7	AG	3	ARG	5.1
13	AM	88	ARG	5.1
21	AU	7	ARG	5.1
13	AM	105	THR	5.1
9	AI	6	GLY	5.1
21	CU	2	GLY	5.1
1	CA	1172	C	5.1
2	CB	19	HIS	5.1
7	AG	141	VAL	5.1
1	AA	1215	G	5.1
2	CB	37	ASN	5.1
18	AR	31	LEU	5.1
3	AC	143	GLU	5.1
9	AI	31	GLN	5.1
23	DA	2139	C	5.1
1	AA	1224	G	5.1
7	AG	148	ASN	5.1
1	CA	1037	C	5.1
1	CA	1030(C)	G	5.1
3	AC	78	GLY	5.1

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Mol	Chain	Res	Type	RSRZ
9	AI	28	VAL	5.1
9	CI	88	TYR	5.1
23	BA	2174	C	5.1
28	DG	93	THR	5.0
23	DA	1535	A	5.0
3	AC	69	HIS	5.0
23	BA	2109	U	5.0
1	CA	1028	C	5.0
1	CA	1125	U	5.0
23	BA	2125	G	5.0
5	CE	20	GLN	5.0
1	AA	1013	G	5.0
1	CA	1024	G	5.0
13	CM	64	TRP	5.0
23	BA	2163	C	5.0
10	AJ	56	HIS	5.0
9	AI	21	PRO	5.0
9	CI	80	GLY	5.0
28	DG	134	GLY	5.0
10	CJ	74	ILE	5.0
19	CS	63	THR	5.0
10	CJ	76	ASN	5.0
1	AA	1237	C	5.0
1	CA	1380	U	5.0
1	CA	935	A	4.9
19	CS	49	ILE	4.9
9	AI	19	LEU	4.9
10	AJ	65	LEU	4.9
1	CA	974	A	4.9
23	DA	2158	A	4.9
53	D9	37	GLY	4.9
23	BA	2165	G	4.9
2	AB	131	PRO	4.9
1	AA	1045	C	4.9
3	AC	103	VAL	4.9
16	AP	12	LYS	4.9
7	AG	65	ALA	4.9
4	AD	6	GLY	4.9
10	AJ	47	PHE	4.9
13	CM	60	VAL	4.8
10	AJ	54	PHE	4.8
4	CD	23	GLY	4.8

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Mol	Chain	Res	Type	RSRZ
14	CN	28	GLY	4.8
1	AA	935	A	4.8
9	AI	17	VAL	4.8
13	AM	93	ARG	4.8
1	AA	1001(A)	G	4.8
10	CJ	40	LEU	4.8
3	CC	202	ILE	4.8
13	CM	105	THR	4.8
1	AA	1017	G	4.8
23	DA	2141	G	4.8
5	AE	130	ASN	4.8
1	AA	3	G	4.8
1	AA	1334	G	4.8
7	AG	96	GLN	4.8
1	CA	1297	C	4.8
23	DA	2167	U	4.8
1	AA	1180	A	4.8
7	AG	23	VAL	4.8
10	CJ	33	GLN	4.8
7	AG	147	ALA	4.8
18	CR	22	VAL	4.8
1	AA	1032	G	4.8
1	AA	1275	A	4.8
1	CA	1012	U	4.8
10	CJ	85	LEU	4.8
13	AM	47	ASP	4.7
1	AA	946	A	4.7
7	AG	120	ILE	4.7
28	DG	156	ASP	4.7
3	CC	160	ALA	4.7
2	AB	232	PRO	4.7
7	CG	80	VAL	4.7
9	CI	5	TYR	4.7
9	AI	16	ARG	4.7
9	CI	69	GLY	4.7
1	AA	1016	A	4.7
3	AC	183	ASP	4.7
23	BA	2157	G	4.7
1	AA	960	U	4.7
7	AG	37	ASN	4.7
13	AM	72	ALA	4.7
14	AN	20	ALA	4.7

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Mol	Chain	Res	Type	RSRZ
23	DA	652(B)	A	4.7
10	CJ	45	ARG	4.7
7	AG	19	GLY	4.7
9	CI	65	VAL	4.7
10	AJ	19	SER	4.7
23	DA	2150	U	4.7
50	D6	54	ILE	4.7
1	AA	969	A	4.7
14	CN	26	ARG	4.7
28	DG	34	LEU	4.7
7	AG	136	LYS	4.7
9	AI	27	THR	4.7
23	BA	2123	G	4.7
1	AA	1303	C	4.6
1	CA	1029	C	4.6
7	AG	40	ALA	4.6
14	CN	27	CYS	4.6
1	AA	1245	A	4.6
1	CA	1068	G	4.6
7	AG	41	ARG	4.6
9	CI	105	ASP	4.6
16	AP	29	ASP	4.6
23	DA	2892	A	4.6
7	AG	108	ALA	4.6
9	CI	49	PRO	4.6
9	CI	9	ARG	4.6
10	CJ	59	SER	4.6
9	CI	81	ILE	4.6
14	AN	8	GLU	4.6
16	AP	28	ARG	4.6
3	AC	189	ALA	4.6
1	AA	1261	A	4.6
18	CR	23	LYS	4.6
13	AM	48	LEU	4.6
18	CR	31	LEU	4.6
23	BA	2121	G	4.6
1	AA	92	C	4.5
10	CJ	47	PHE	4.5
1	AA	959	A	4.5
1	AA	1183	A	4.5
9	CI	82	ALA	4.5
1	AA	1020	U	4.5

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Mol	Chain	Res	Type	RSRZ
1	AA	1365	G	4.5
23	DA	2165	G	4.5
23	BA	2119	A	4.5
28	DG	135	LEU	4.5
14	CN	23	ARG	4.5
19	CS	21	GLU	4.5
1	AA	1012	U	4.5
1	AA	1212	U	4.5
1	CA	1025	U	4.5
3	CC	39	ILE	4.5
10	CJ	78	ASN	4.5
10	AJ	64	GLU	4.5
19	AS	72	GLY	4.5
1	AA	77	G	4.5
2	CB	161	ALA	4.5
9	AI	123	PRO	4.5
9	AI	18	PHE	4.5
7	AG	13	GLN	4.5
10	CJ	26	ALA	4.5
19	CS	35	SER	4.5
3	CC	196	LEU	4.5
19	CS	10	PHE	4.5
1	CA	1287	A	4.5
43	DZ	112	ARG	4.5
1	AA	76	C	4.5
10	AJ	20	ALA	4.4
2	AB	132	LYS	4.4
3	CC	188	LEU	4.4
1	CA	932	C	4.4
9	AI	13	ALA	4.4
1	CA	958	A	4.4
9	AI	99	LEU	4.4
9	CI	61	ALA	4.4
1	CA	1033	G	4.4
7	AG	156	TRP	4.4
13	AM	85	GLY	4.4
3	AC	66	VAL	4.4
19	CS	83	HIS	4.4
13	AM	13	LYS	4.4
14	AN	25	VAL	4.4
19	AS	58	VAL	4.4
1	AA	1158	C	4.4

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Mol	Chain	Res	Type	RSRZ
1	AA	1034	G	4.4
1	CA	1291	G	4.4
1	AA	1307	U	4.4
1	AA	1308	U	4.4
16	AP	19	ILE	4.4
19	AS	30	LEU	4.4
1	AA	998	G	4.4
12	CL	73	GLU	4.4
13	AM	33	ALA	4.4
9	CI	22	GLY	4.4
10	AJ	7	LYS	4.4
28	DG	157	ILE	4.4
14	CN	38	GLY	4.4
13	AM	34	LEU	4.3
10	AJ	28	ARG	4.3
13	CM	67	GLU	4.3
3	AC	47	LEU	4.3
10	AJ	76	ASN	4.3
1	AA	963	G	4.3
7	CG	20	ASP	4.3
23	DA	2160	G	4.3
13	AM	9	ILE	4.3
1	CA	1265	G	4.3
13	AM	30	ALA	4.3
1	AA	1221	G	4.3
1	AA	1311	G	4.3
1	CA	1300	G	4.3
23	BA	277	C	4.3
3	AC	107	GLN	4.3
7	AG	35	LYS	4.3
10	CJ	39	PRO	4.3
3	AC	100	ALA	4.3
23	BA	2135	A	4.3
1	AA	1228	C	4.3
1	CA	1165	C	4.3
9	AI	91	ASP	4.3
23	DA	2155	G	4.3
3	CC	42	LEU	4.3
19	AS	28	LYS	4.3
7	AG	66	VAL	4.3
19	CS	30	LEU	4.3
13	AM	35	GLU	4.3

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Mol	Chain	Res	Type	RSRZ
2	CB	232	PRO	4.3
28	BG	87	PRO	4.3
7	AG	45	ASP	4.3
7	AG	102	ARG	4.3
19	AS	20	LEU	4.3
19	CS	68	GLY	4.3
1	AA	201	C	4.2
1	AA	1310	G	4.2
1	CA	1138	G	4.2
1	CA	1202	G	4.2
1	AA	1211	U	4.2
12	AL	73	GLU	4.2
1	CA	1035	A	4.2
9	AI	124	GLN	4.2
29	BH	2	SER	4.2
7	AG	56	GLN	4.2
13	CM	43	THR	4.2
7	AG	104	LEU	4.2
38	DU	117	GLN	4.2
19	CS	22	LEU	4.2
13	AM	102	ARG	4.2
18	AR	22	VAL	4.2
14	AN	26	ARG	4.2
14	CN	25	VAL	4.2
19	CS	56	GLN	4.2
9	AI	55	ALA	4.2
13	AM	20	THR	4.2
16	AP	1	MET	4.2
23	BA	2149	G	4.2
10	AJ	57	LYS	4.2
18	AR	21	LYS	4.2
3	AC	77	ILE	4.2
13	CM	9	ILE	4.2
7	AG	125	MET	4.1
10	CJ	10	GLY	4.1
13	AM	98	VAL	4.1
1	AA	999	C	4.1
7	CG	99	LEU	4.1
1	AA	1001	A	4.1
1	CA	1140	C	4.1
23	DA	2154	G	4.1
23	DA	2157	G	4.1

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Mol	Chain	Res	Type	RSRZ
19	CS	15	LEU	4.1
1	AA	1148	U	4.1
1	AA	1374	A	4.1
1	AA	1447	A	4.1
31	DN	140	VAL	4.1
28	DG	142	PRO	4.1
23	BA	2136	C	4.1
18	CR	85	LEU	4.1
1	AA	1021	G	4.1
1	AA	1276	G	4.1
1	CA	1174	G	4.1
3	AC	73	PRO	4.1
10	AJ	9	ARG	4.1
14	CN	13	THR	4.1
6	AF	97	PHE	4.1
1	AA	965	A	4.1
1	CA	1030(D)	A	4.1
7	AG	119	ARG	4.1
13	AM	81	LEU	4.1
14	AN	18	VAL	4.1
1	CA	1127	G	4.1
10	CJ	67	THR	4.1
21	CU	6	ARG	4.1
29	DH	2	SER	4.1
7	AG	51	GLN	4.1
5	AE	89	ILE	4.1
13	AM	53	VAL	4.1
10	AJ	37	PRO	4.1
3	CC	23	TYR	4.1
13	AM	89	GLY	4.0
3	AC	2	GLY	4.0
7	AG	92	SER	4.0
10	AJ	74	ILE	4.0
7	CG	6	ARG	4.0
1	AA	1125	U	4.0
10	AJ	26	ALA	4.0
3	CC	152	ILE	4.0
7	AG	112	PRO	4.0
9	AI	112	LYS	4.0
13	AM	46	LYS	4.0
10	AJ	23	ILE	4.0
1	CA	1032	G	4.0

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Mol	Chain	Res	Type	RSRZ
4	CD	69	GLY	4.0
23	BA	2153	G	4.0
3	CC	172	ARG	4.0
1	CA	1014	A	4.0
3	AC	67	THR	4.0
29	DH	57	ASP	4.0
1	AA	1159	U	4.0
7	AG	26	PHE	4.0
25	BD	276	LYS	4.0
7	AG	52	GLU	4.0
13	AM	45	VAL	4.0
28	DG	42	GLY	4.0
9	AI	105	ASP	4.0
50	D6	50	ARG	4.0
19	AS	5	LEU	3.9
1	AA	1284	C	3.9
7	CG	40	ALA	3.9
9	CI	52	ALA	3.9
1	AA	1025	U	3.9
14	AN	37	PHE	3.9
1	CA	1129	C	3.9
7	CG	15	ASP	3.9
23	DA	2108	C	3.9
1	CA	1136	U	3.9
3	CC	65	ALA	3.9
6	CF	63	TYR	3.9
3	CC	101	LEU	3.9
23	BA	2792	G	3.9
13	AM	82	MET	3.9
19	AS	39	THR	3.9
1	CA	1382	C	3.9
23	DA	2111	C	3.9
17	AQ	78	GLU	3.9
1	AA	1327	C	3.9
1	AA	1359	C	3.9
7	CG	32	ARG	3.9
1	AA	1141	C	3.9
1	CA	1141	C	3.9
23	DA	2803	C	3.9
7	CG	153	HIS	3.9
3	AC	172	ARG	3.9
19	AS	81	ARG	3.9

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Mol	Chain	Res	Type	RSRZ
53	D9	12	ASP	3.9
3	CC	40	ARG	3.9
7	AG	111	ARG	3.9
12	AL	114	LYS	3.9
1	AA	1207	G	3.9
1	AA	1302	U	3.8
1	AA	1325	C	3.8
1	CA	1386	G	3.8
23	BA	2793	G	3.8
23	DA	2159	G	3.8
7	AG	142	GLU	3.8
12	AL	113	ARG	3.8
1	CA	1034	G	3.8
9	CI	119	ALA	3.8
3	CC	80	GLY	3.8
3	AC	63	ASN	3.8
8	CH	54	ASP	3.8
19	CS	79	THR	3.8
7	AG	55	GLY	3.8
16	AP	13	HIS	3.8
19	AS	19	VAL	3.8
3	AC	43	LEU	3.8
14	AN	61	TRP	3.8
28	DG	92	VAL	3.8
7	AG	76	ARG	3.8
42	DY	80	GLY	3.8
1	AA	1384	C	3.8
22	AV	23	GLY	3.8
1	AA	1139	G	3.8
19	AS	27	GLU	3.8
1	AA	1288	A	3.8
3	AC	68	VAL	3.8
23	DA	2133	G	3.8
3	AC	104	GLN	3.8
23	BA	2150	U	3.8
2	CB	38	GLY	3.8
7	CG	36	LYS	3.8
1	CA	1275	A	3.8
1	AA	1383	C	3.8
5	AE	118	ILE	3.7
1	AA	975	A	3.7
1	CA	1094	G	3.7

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Mol	Chain	Res	Type	RSRZ
3	CC	191	THR	3.7
1	AA	1029	C	3.7
3	CC	81	GLY	3.7
7	AG	88	PRO	3.7
14	AN	6	LEU	3.7
9	AI	113	LYS	3.7
19	AS	23	ASN	3.7
20	AT	53	LEU	3.7
7	AG	53	LYS	3.7
1	AA	1285	A	3.7
10	CJ	36	GLY	3.7
29	DH	58	GLU	3.7
9	CI	102	LEU	3.7
1	CA	1304	G	3.7
19	AS	68	GLY	3.7
46	D2	1	MET	3.7
14	AN	34	TYR	3.7
9	AI	90	PRO	3.7
1	AA	1326	C	3.7
23	DA	2140	C	3.7
30	DI	121	LYS	3.7
7	CG	86	GLN	3.7
9	AI	121	ARG	3.7
17	CQ	98	LEU	3.7
23	DA	2179	C	3.7
7	CG	82	GLY	3.7
28	DG	43	LEU	3.7
19	CS	17	GLU	3.7
10	AJ	60	ARG	3.7
1	CA	1021	G	3.7
23	DA	281	G	3.7
3	CC	3	ASN	3.7
10	AJ	40	LEU	3.7
2	CB	21	ARG	3.7
7	AG	75	VAL	3.6
19	CS	31	ILE	3.6
5	AE	122	GLU	3.6
1	CA	1384	C	3.6
7	CG	12	LEU	3.6
13	AM	32	GLU	3.6
14	AN	4	LYS	3.6
1	AA	1233	G	3.6

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Mol	Chain	Res	Type	RSRZ
1	AA	1312	G	3.6
1	AA	1328	C	3.6
1	CA	931	C	3.6
3	AC	98	ASN	3.6
23	DA	1509	C	3.6
1	AA	204	U	3.6
7	CG	101	LEU	3.6
1	CA	1288	A	3.6
28	BG	2	PRO	3.6
3	CC	197	GLY	3.6
9	CI	54	ASP	3.6
13	AM	15	VAL	3.6
18	AR	32	ARG	3.6
1	AA	369	C	3.6
1	CA	1030	C	3.6
1	CA	1175	G	3.6
9	AI	56	LEU	3.6
23	BA	2164	C	3.6
7	AG	139	GLU	3.6
16	AP	10	GLY	3.6
1	AA	1338	G	3.6
1	CA	80	G	3.6
1	CA	1274	G	3.6
2	AB	140	HIS	3.6
3	CC	166	GLU	3.6
7	AG	87	VAL	3.6
7	AG	60	LYS	3.6
17	AQ	97	SER	3.6
1	AA	1130	A	3.6
1	CA	1243	C	3.6
3	CC	192	THR	3.6
7	AG	151	TYR	3.6
7	AG	32	ARG	3.6
1	AA	1003	G	3.6
7	AG	9	VAL	3.6
30	DI	85	GLU	3.6
10	CJ	19	SER	3.6
1	AA	202	U	3.5
1	AA	1028	C	3.5
14	AN	38	GLY	3.5
1	CA	1224	G	3.5
23	DA	2156	G	3.5

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Mol	Chain	Res	Type	RSRZ
7	CG	91	VAL	3.5
9	CI	63	ILE	3.5
13	CM	17	VAL	3.5
1	AA	1262	C	3.5
14	CN	31	ARG	3.5
19	CS	50	ALA	3.5
1	CA	1005	A	3.5
3	AC	191	THR	3.5
3	CC	112	SER	3.5
1	CA	1338	G	3.5
9	CI	100	GLY	3.5
13	AM	106	ASN	3.5
10	CJ	6	ILE	3.5
16	AP	20	VAL	3.5
13	CM	85	GLY	3.5
14	AN	59	ALA	3.5
1	CA	1031	G	3.5
1	CA	1295	G	3.5
1	AA	1335	C	3.5
1	AA	1362	C	3.5
1	CA	985	C	3.5
3	CC	49	SER	3.5
3	CC	190	ARG	3.5
23	BA	2128	C	3.5
4	AD	37	PRO	3.5
6	AF	98	LEU	3.5
23	DA	655	A	3.5
28	DG	3	LEU	3.5
3	AC	58	GLU	3.5
9	CI	58	HIS	3.5
13	AM	60	VAL	3.5
23	DA	2801(A)	A	3.5
20	AT	60	GLU	3.5
19	CS	82	GLY	3.5
1	CA	1221	G	3.5
1	AA	1140	C	3.5
25	DD	276	LYS	3.5
1	AA	1014	A	3.5
33	DP	87	ASP	3.5
9	CI	15	ALA	3.5
13	AM	39	ILE	3.5
13	CM	34	LEU	3.5

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Mol	Chain	Res	Type	RSRZ
19	AS	55	LYS	3.5
19	CS	32	LYS	3.5
14	CN	14	PRO	3.5
3	CC	156	ARG	3.5
23	DA	2896	C	3.5
19	CS	20	LEU	3.5
3	AC	110	ASN	3.4
13	CM	61	GLU	3.4
13	AM	63	THR	3.4
13	AM	76	ALA	3.4
10	AJ	53	PRO	3.4
13	CM	39	ILE	3.4
50	D6	11	LEU	3.4
36	DS	37	ALA	3.4
3	AC	156	ARG	3.4
1	AA	1007	C	3.4
1	AA	1044	A	3.4
1	CA	1146	A	3.4
1	CA	1213	A	3.4
7	CG	69	VAL	3.4
3	CC	206	GLU	3.4
7	CG	31	MET	3.4
7	CG	41	ARG	3.4
23	BA	276	A	3.4
9	AI	35	GLU	3.4
1	AA	1049	U	3.4
30	DI	138	ILE	3.4
10	AJ	10	GLY	3.4
16	AP	18	ARG	3.4
21	CU	4	GLY	3.4
10	AJ	97	GLU	3.4
20	CT	86	ARG	3.4
1	AA	1129	C	3.4
15	CO	89	GLY	3.4
9	CI	48	GLU	3.4
3	CC	151	VAL	3.4
13	CM	72	ALA	3.4
9	CI	104	ARG	3.4
16	AP	37	GLY	3.4
1	CA	1342	C	3.4
3	AC	72	LYS	3.4
1	CA	1343	G	3.4

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Mol	Chain	Res	Type	RSRZ
9	AI	63	ILE	3.4
28	DG	132	ASN	3.4
1	CA	1340	A	3.4
7	AG	29	LYS	3.4
13	AM	70	LEU	3.4
13	CM	108	ARG	3.4
1	AA	78	G	3.4
1	AA	220	G	3.4
23	BA	2175	C	3.4
1	CA	1191	A	3.3
6	CF	97	PHE	3.3
9	AI	119	ALA	3.3
9	AI	54	ASP	3.3
10	AJ	58	ASP	3.3
7	AG	28	ASN	3.3
23	DA	2145	C	3.3
1	CA	1381	U	3.3
10	AJ	75	ILE	3.3
3	AC	108	ASN	3.3
19	CS	44	MET	3.3
20	CT	56	MET	3.3
23	BA	2107	C	3.3
1	CA	1131	G	3.3
16	AP	40	ASP	3.3
23	DA	2130	U	3.3
5	AE	90	VAL	3.3
7	AG	25	ALA	3.3
7	AG	8	GLU	3.3
23	BA	2122	U	3.3
1	CA	1181	G	3.3
9	CI	55	ALA	3.3
9	CI	76	ALA	3.3
5	AE	85	GLY	3.3
1	AA	1128	C	3.3
13	AM	28	ALA	3.3
19	CS	69	HIS	3.3
7	CG	96	GLN	3.3
10	AJ	17	ASP	3.3
3	AC	106	VAL	3.3
1	AA	1131	G	3.3
1	CA	1170	A	3.3
2	CB	15	VAL	3.3

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Mol	Chain	Res	Type	RSRZ
7	CG	56	GLN	3.3
3	CC	2	GLY	3.3
7	AG	137	LYS	3.3
9	AI	24	GLY	3.3
18	CR	21	LYS	3.3
19	CS	8	GLY	3.3
1	AA	93	G	3.3
28	DG	133	LEU	3.3
1	AA	1452	C	3.3
3	AC	128	PHE	3.3
14	CN	34	TYR	3.3
1	CA	986	A	3.3
1	AA	997	U	3.3
1	CA	988	G	3.3
19	CS	55	LYS	3.3
13	CM	69	GLU	3.3
23	BA	2794	C	3.3
4	CD	21	LEU	3.3
14	AN	21	TYR	3.3
3	AC	154	SER	3.2
10	AJ	59	SER	3.2
47	D3	26	LEU	3.2
7	AG	146	GLU	3.2
1	AA	1324	A	3.2
9	AI	79	LEU	3.2
23	DA	2136	C	3.2
7	CG	28	ASN	3.2
11	CK	32	ILE	3.2
1	CA	981	U	3.2
42	DY	2	ARG	3.2
7	CG	17	VAL	3.2
1	AA	1010	G	3.2
1	CA	1266	G	3.2
9	AI	57	GLY	3.2
10	AJ	77	PRO	3.2
3	CC	187	ALA	3.2
28	BG	133	LEU	3.2
28	DG	151	ALA	3.2
13	AM	101	GLN	3.2
7	AG	128	ALA	3.2
1	AA	97	G	3.2
1	CA	1385	G	3.2

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Mol	Chain	Res	Type	RSRZ
28	DG	88	ILE	3.2
13	AM	4	ILE	3.2
50	B6	54	ILE	3.2
13	CM	92	HIS	3.2
3	CC	73	PRO	3.2
4	AD	4	TYR	3.2
1	CA	1294	G	3.2
18	CR	72	ARG	3.2
21	CU	14	TRP	3.2
3	AC	204	LEU	3.2
28	DG	39	ILE	3.2
3	CC	193	TYR	3.2
13	AM	7	VAL	3.2
7	AG	129	GLU	3.2
9	AI	96	LEU	3.2
1	CA	1022	G	3.2
43	DZ	198	LYS	3.2
1	AA	389	A	3.2
19	CS	33	THR	3.2
1	CA	1214	C	3.2
1	CA	1260	C	3.2
4	AD	125	HIS	3.2
7	CG	51	GLN	3.2
1	CA	1227	A	3.2
1	CA	1145	C	3.1
4	CD	7	PRO	3.1
8	CH	116	LYS	3.1
23	DA	2107	C	3.1
1	CA	1205	U	3.1
9	CI	30	GLY	3.1
9	AI	86	VAL	3.1
19	CS	19	VAL	3.1
20	AT	52	ALA	3.1
14	CN	15	LYS	3.1
1	AA	1363(A)	A	3.1
21	AU	15	ARG	3.1
1	AA	1315	U	3.1
1	AA	1378	C	3.1
1	CA	956	U	3.1
14	CN	16	PHE	3.1
3	AC	99	VAL	3.1
2	CB	31	TYR	3.1

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Mol	Chain	Res	Type	RSRZ
10	CJ	97	GLU	3.1
1	AA	390	C	3.1
23	DA	2897	U	3.1
1	AA	1201	A	3.1
28	DG	66	GLN	3.1
1	AA	1320	C	3.1
1	CA	1057	G	3.1
5	AE	22	GLY	3.1
23	DA	280	C	3.1
17	CQ	100	LYS	3.1
19	CS	48	THR	3.1
1	AA	1038	C	3.1
3	AC	142	MET	3.1
7	CG	33	ASP	3.1
19	AS	9	VAL	3.1
1	AA	966	G	3.1
23	BA	2152	G	3.1
19	CS	7	LYS	3.1
28	DG	117	PHE	3.1
3	CC	46	GLU	3.1
13	AM	80	ARG	3.1
1	CA	1208	C	3.1
1	CA	1349	A	3.1
10	CJ	53	PRO	3.1
7	AG	24	THR	3.1
9	AI	36	TYR	3.1
13	AM	59	TYR	3.1
28	BG	34	LEU	3.1
1	AA	71	C	3.1
1	AA	1279	A	3.1
29	DH	109	PHE	3.1
7	CG	18	TYR	3.1
7	AG	113	GLU	3.1
9	AI	85	LEU	3.1
3	CC	88	ARG	3.1
19	AS	52	TYR	3.1
1	CA	987	G	3.1
4	CD	112	VAL	3.1
10	CJ	55	LYS	3.1
2	AB	16	HIS	3.1
20	CT	53	LEU	3.1
23	BA	2178	C	3.1

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Mol	Chain	Res	Type	RSRZ
3	CC	100	ALA	3.1
6	CF	35	ALA	3.1
13	CM	16	ASP	3.0
16	AP	9	PHE	3.0
28	BG	131	TYR	3.0
1	AA	932	C	3.0
1	AA	1137	C	3.0
1	CA	1262	C	3.0
10	CJ	99	LYS	3.0
18	CR	29	PHE	3.0
3	AC	109	PRO	3.0
19	CS	26	GLY	3.0
23	BA	2106	G	3.0
6	CF	6	VAL	3.0
19	CS	78	ARG	3.0
1	AA	2	U	3.0
1	CA	202	U	3.0
23	DA	271(N)	U	3.0
1	AA	189(G)	G	3.0
4	AD	21	LEU	3.0
23	DA	11	G	3.0
1	AA	1093	A	3.0
13	CM	101	GLN	3.0
1	CA	1209	C	3.0
1	CA	960	U	3.0
13	AM	52	GLU	3.0
28	DG	85	GLY	3.0
1	AA	991	U	3.0
3	AC	153	VAL	3.0
7	AG	17	VAL	3.0
1	CA	1017	G	3.0
1	CA	1166	G	3.0
16	CP	48	TRP	3.0
28	DG	136	ARG	3.0
2	CB	43	ASP	3.0
4	AD	134	ASP	3.0
29	DH	116	GLU	3.0
12	AL	122	THR	3.0
10	AJ	62	HIS	3.0
1	CA	984	C	3.0
1	CA	1229	A	3.0
4	CD	2	GLY	3.0

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Mol	Chain	Res	Type	RSRZ
12	CL	72	GLY	3.0
13	CM	40	ASN	3.0
1	AA	203	U	3.0
1	CA	950	U	3.0
20	CT	85	MET	3.0
3	AC	167	TRP	3.0
7	AG	150	ALA	3.0
16	AP	17	TYR	3.0
28	BG	136	ARG	3.0
1	CA	1011	G	3.0
10	AJ	41	PRO	3.0
1	AA	1260	C	3.0
23	DA	2794	C	3.0
3	AC	147	LYS	3.0
9	AI	70	LYS	3.0
10	CJ	54	PHE	3.0
23	BA	2114	A	3.0
10	CJ	62	HIS	3.0
19	AS	26	GLY	2.9
3	AC	83	ARG	2.9
13	AM	71	ARG	2.9
5	CE	31	LEU	2.9
10	CJ	69	ASN	2.9
23	DA	652(T)	C	2.9
2	CB	48	MET	2.9
9	AI	67	GLY	2.9
9	CI	21	PRO	2.9
20	AT	86	ARG	2.9
4	AD	70	ILE	2.9
1	AA	65	U	2.9
1	AA	943	U	2.9
7	CG	57	GLU	2.9
21	CU	10	ARG	2.9
1	CA	1123	A	2.9
19	AS	41	VAL	2.9
1	CA	961	U	2.9
28	BG	72	ARG	2.9
1	AA	933	G	2.9
1	AA	1273	G	2.9
7	AG	133	GLY	2.9
8	AH	116	LYS	2.9
47	D3	29	ARG	2.9

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Mol	Chain	Res	Type	RSRZ
13	AM	67	GLU	2.9
1	CA	1002	G	2.9
44	D0	10	THR	2.9
23	DA	1052	C	2.9
10	CJ	89	ASP	2.9
23	DA	654	A	2.9
23	DA	2134	A	2.9
3	CC	66	VAL	2.9
18	AR	23	LYS	2.9
1	AA	1009	G	2.9
1	CA	1389	C	2.9
13	AM	78	ILE	2.9
20	AT	56	MET	2.9
3	AC	102	ASN	2.9
7	CG	71	PRO	2.9
23	DA	271(K)	U	2.9
50	D6	20	ASN	2.9
13	CM	100	GLY	2.9
3	AC	54	ARG	2.9
4	AD	120	LEU	2.9
7	CG	24	THR	2.9
8	CH	55	GLY	2.9
19	AS	82	GLY	2.9
7	CG	87	VAL	2.9
9	CI	118	LYS	2.9
16	AP	36	ILE	2.9
19	CS	16	LEU	2.9
1	AA	1226	C	2.9
23	BA	2177	C	2.9
7	CG	148	ASN	2.9
17	AQ	100	LYS	2.9
18	AR	29	PHE	2.9
4	CD	4	TYR	2.9
3	AC	74	GLY	2.9
9	AI	95	LYS	2.9
30	DI	34	GLY	2.9
3	AC	84	ILE	2.9
7	CG	151	TYR	2.9
23	DA	2182	G	2.9
45	D1	2	SER	2.8
1	AA	1027	C	2.8
18	AR	56	THR	2.8

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Mol	Chain	Res	Type	RSRZ
18	CR	61	LYS	2.8
20	CT	51	GLU	2.8
38	BU	117	GLN	2.8
9	CI	60	ASP	2.8
1	AA	1142	G	2.8
1	AA	1143	G	2.8
1	CA	1050	G	2.8
4	AD	78	LEU	2.8
19	AS	46	GLY	2.8
3	AC	75	VAL	2.8
20	CT	83	ARG	2.8
23	BA	2893	G	2.8
36	DS	55	ALA	2.8
36	DS	110	LEU	2.8
11	CK	82	VAL	2.8
23	BA	2139	C	2.8
28	DG	87	PRO	2.8
43	DZ	197	ILE	2.8
5	CE	94	ALA	2.8
1	CA	1009	G	2.8
23	BA	2120	G	2.8
30	DI	35	LEU	2.8
13	CM	25	ILE	2.8
30	DI	81	VAL	2.8
53	D9	31	LYS	2.8
1	CA	1018	C	2.8
13	AM	23	TYR	2.8
15	CO	88	ARG	2.8
42	BY	2	ARG	2.8
10	CJ	63	PHE	2.8
7	CG	88	PRO	2.8
16	AP	16	HIS	2.8
18	CR	32	ARG	2.8
7	CG	132	GLY	2.8
28	BG	132	ASN	2.8
1	AA	1357	A	2.8
21	CU	3	LYS	2.8
1	AA	1124	G	2.8
1	AA	1231	G	2.8
1	AA	1385	G	2.8
7	CG	146	GLU	2.8
2	CB	132	LYS	2.8

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Mol	Chain	Res	Type	RSRZ
28	DG	161	THR	2.8
18	CR	34	TYR	2.8
2	CB	7	VAL	2.8
10	CJ	82	ILE	2.8
1	AA	972	C	2.8
1	AA	1379	G	2.8
7	CG	68	ASN	2.8
12	CL	113	ARG	2.8
5	AE	86	ALA	2.8
9	AI	120	ARG	2.8
3	CC	102	ASN	2.8
1	CA	1066	C	2.8
1	CA	1378	C	2.8
23	DA	2805	G	2.8
13	AM	94	ARG	2.8
18	CR	87	ARG	2.8
29	DH	123	PHE	2.8
9	AI	77	ILE	2.7
1	CA	79	G	2.7
1	AA	1005	A	2.7
1	CA	1204	A	2.7
7	AG	131	LYS	2.7
13	AM	57	ARG	2.7
16	AP	7	ALA	2.7
28	DG	76	SER	2.7
1	CA	1137	C	2.7
1	AA	944	G	2.7
1	CA	1117	G	2.7
11	CK	117	ASN	2.7
14	CN	24	CYS	2.7
9	CI	36	TYR	2.7
33	DP	91	PHE	2.7
1	CA	929	G	2.7
1	CA	983	A	2.7
2	CB	227	GLY	2.7
3	CC	205	GLY	2.7
9	CI	67	GLY	2.7
19	AS	8	GLY	2.7
1	AA	1367	C	2.7
2	AB	214	ILE	2.7
13	AM	8	GLU	2.7
17	CQ	99	SER	2.7

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Mol	Chain	Res	Type	RSRZ
29	DH	6	ARG	2.7
8	AH	52	ASP	2.7
9	AI	75	ASP	2.7
15	AO	49	ASP	2.7
1	AA	113	G	2.7
1	AA	1368	G	2.7
4	AD	8	VAL	2.7
9	AI	62	TYR	2.7
13	AM	74	VAL	2.7
14	AN	30	ALA	2.7
7	CG	155	ARG	2.7
19	CS	62	ILE	2.7
2	AB	234	PRO	2.7
3	AC	170	GLN	2.7
19	CS	71	LEU	2.7
3	CC	84	ILE	2.7
10	CJ	5	ARG	2.7
1	AA	1280	A	2.7
3	CC	111	LEU	2.7
7	AG	59	LEU	2.7
9	CI	87	GLN	2.7
18	AR	66	LEU	2.7
23	DA	275	G	2.7
3	CC	74	GLY	2.7
23	BA	2138	C	2.7
9	CI	51	ARG	2.7
7	AG	12	LEU	2.7
16	CP	12	LYS	2.7
1	CA	1312	G	2.7
22	CV	23	GLY	2.7
23	BA	2156	G	2.7
29	DH	174	GLY	2.7
1	AA	1382	C	2.7
5	AE	117	ASP	2.7
10	CJ	42	THR	2.7
19	AS	75	ALA	2.7
28	DG	137	GLU	2.7
2	CB	135	GLN	2.7
11	CK	42	TRP	2.7
23	BA	653	A	2.7
28	DG	13	GLU	2.7
10	AJ	99	LYS	2.7

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Mol	Chain	Res	Type	RSRZ
4	CD	35	ARG	2.7
10	CJ	66	ARG	2.7
20	CT	101	GLY	2.7
43	DZ	12	GLY	2.7
4	AD	5	ILE	2.7
19	AS	4	SER	2.7
1	CA	1348	U	2.7
3	CC	87	LEU	2.7
20	AT	83	ARG	2.7
1	CA	1264	C	2.7
23	DA	2804	C	2.7
1	CA	1206	G	2.7
4	AD	163	GLU	2.7
13	AM	108	ARG	2.6
18	CR	43	PHE	2.6
13	CM	95	GLY	2.6
1	AA	967	C	2.6
1	AA	1112	C	2.6
7	CG	95	ARG	2.6
5	CE	130	ASN	2.6
3	AC	155	GLY	2.6
3	CC	75	VAL	2.6
5	AE	116	THR	2.6
7	AG	135	VAL	2.6
10	CJ	81	THR	2.6
10	CJ	70	ARG	2.6
7	CG	85	TYR	2.6
1	AA	1366	C	2.6
1	CA	1328	C	2.6
10	CJ	56	HIS	2.6
7	CG	98	SER	2.6
1	AA	1181	G	2.6
4	AD	161	ASN	2.6
13	AM	37	THR	2.6
1	AA	90	U	2.6
1	CA	841	U	2.6
23	BA	6	A	2.6
1	CA	91	C	2.6
43	DZ	34	ASN	2.6
16	AP	4	ILE	2.6
1	CA	1135	U	2.6
4	AD	114	ARG	2.6

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Mol	Chain	Res	Type	RSRZ
12	CL	74	GLY	2.6
7	AG	89	MET	2.6
1	AA	1313	U	2.6
23	DA	2144	U	2.6
1	AA	73	G	2.6
1	AA	993	G	2.6
1	CA	1089	G	2.6
1	CA	1331	G	2.6
43	DZ	11	GLU	2.6
1	AA	1204	A	2.6
27	DF	136	THR	2.6
3	AC	105	GLU	2.6
8	CH	131	GLY	2.6
44	D0	13	GLY	2.6
10	AJ	30	SER	2.6
1	AA	1064	G	2.6
1	CA	1276	G	2.6
1	CA	1130	A	2.6
1	CA	1329	A	2.6
9	CI	14	VAL	2.6
10	AJ	95	GLU	2.6
14	CN	39	LEU	2.6
23	DA	2113	U	2.6
9	AI	106	ALA	2.6
4	AD	17	VAL	2.6
23	DA	2106	G	2.6
43	DZ	191	VAL	2.6
1	CA	959	A	2.6
23	BA	2134	A	2.6
1	AA	1244	C	2.6
23	DA	2138	C	2.6
1	CA	1301	U	2.6
9	AI	92	TYR	2.6
2	CB	228	GLY	2.6
7	AG	132	GLY	2.6
14	AN	35	ARG	2.6
1	AA	968	A	2.6
14	AN	16	PHE	2.6
14	CN	36	PHE	2.6
7	CG	35	LYS	2.6
13	AM	21	TYR	2.6
10	CJ	35	SER	2.6

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Mol	Chain	Res	Type	RSRZ
1	AA	976	G	2.5
1	AA	1300	G	2.5
2	CB	14	GLY	2.5
29	DH	108	GLY	2.5
7	AG	126	ASP	2.5
5	AE	101	ILE	2.5
3	CC	201	TYR	2.5
16	AP	70	ALA	2.5
18	CR	86	VAL	2.5
1	AA	1168	A	2.5
11	CK	98	LEU	2.5
1	AA	1024	G	2.5
10	AJ	39	PRO	2.5
14	AN	27	CYS	2.5
28	DG	37	VAL	2.5
29	DH	52	VAL	2.5
1	CA	1341	U	2.5
7	CG	92	SER	2.5
14	CN	60	SER	2.5
1	AA	977	A	2.5
28	DG	72	ARG	2.5
18	AR	24	ALA	2.5
19	CS	61	TYR	2.5
7	CG	34	GLY	2.5
20	CT	84	LEU	2.5
50	D6	12	GLU	2.5
7	CG	134	ALA	2.5
1	AA	994	A	2.5
1	CA	1006	C	2.5
1	CA	1067	A	2.5
1	CA	1277	C	2.5
1	CA	1284	C	2.5
1	CA	1388	C	2.5
23	BA	2103	C	2.5
1	AA	1333	A	2.5
1	CA	1319	A	2.5
2	CB	214	ILE	2.5
7	CG	93	PRO	2.5
1	CA	1290	G	2.5
9	AI	94	ALA	2.5
20	CT	88	VAL	2.5
1	CA	957	U	2.5

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Mol	Chain	Res	Type	RSRZ
3	AC	59	ARG	2.5
3	AC	157	ILE	2.5
7	AG	30	ILE	2.5
42	DY	89	PHE	2.5
44	D0	69	PHE	2.5
28	DG	36	LYS	2.5
23	BA	2105	C	2.5
1	CA	951	G	2.5
1	CA	1337	G	2.5
6	AF	99	ALA	2.5
15	CO	16	ALA	2.5
23	BA	2170	A	2.5
3	CC	186	PHE	2.5
10	AJ	55	LYS	2.5
15	CO	15	PHE	2.5
28	BG	80	PHE	2.5
23	BA	2151	G	2.5
1	AA	1110	A	2.5
1	AA	1375	A	2.5
13	CM	104	ARG	2.5
30	DI	74	ASN	2.5
21	CU	11	GLY	2.5
3	AC	118	GLN	2.5
1	AA	64	G	2.5
1	AA	1337	G	2.5
1	CA	1134	G	2.5
2	CB	40	HIS	2.5
3	AC	206	GLU	2.5
1	CA	1303	C	2.4
1	CA	1180	A	2.4
3	AC	177	THR	2.4
7	CG	83	ALA	2.4
23	DA	2895	U	2.4
4	CD	102	ASP	2.4
1	AA	79	G	2.4
3	AC	207	VAL	2.4
1	AA	1043	C	2.4
1	CA	1142	G	2.4
42	DY	93	GLY	2.4
7	CG	152	ALA	2.4
23	DA	2105	C	2.4
28	BG	182	LYS	2.4

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Mol	Chain	Res	Type	RSRZ
28	DG	94	LEU	2.4
13	CM	3	ARG	2.4
19	AS	56	GLN	2.4
23	DA	898	C	2.4
1	AA	486	U	2.4
1	CA	1004	A	2.4
9	CI	41	VAL	2.4
10	CJ	34	VAL	2.4
12	CL	112	ASP	2.4
28	BG	135	LEU	2.4
3	AC	79	ARG	2.4
2	AB	54	THR	2.4
3	AC	120	VAL	2.4
3	AC	179	ARG	2.4
5	CE	12	LEU	2.4
9	CI	111	ARG	2.4
23	DA	2181	G	2.4
7	CG	97	GLN	2.4
2	CB	197	VAL	2.4
3	AC	188	LEU	2.4
11	CK	39	PRO	2.4
37	DT	1	MET	2.4
2	CB	163	PHE	2.4
7	AG	85	TYR	2.4
20	CT	82	SER	2.4
28	BG	52	ILE	2.4
2	AB	96	ARG	2.4
42	DY	95	LYS	2.4
1	CA	1090	U	2.4
1	CA	1019	C	2.4
23	BA	2790	A	2.4
6	AF	88	VAL	2.4
1	AA	1356	G	2.4
5	AE	81	GLU	2.4
7	AG	74	GLU	2.4
3	AC	141	VAL	2.4
6	AF	6	VAL	2.4
1	AA	1041	A	2.4
1	AA	945	G	2.4
1	AA	1219	U	2.4
7	CG	72	ARG	2.4
30	DI	57	ARG	2.4

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Mol	Chain	Res	Type	RSRZ
33	DP	90	ARG	2.4
9	AI	76	ALA	2.4
10	CJ	68	HIS	2.4
19	CS	47	HIS	2.4
3	AC	52	LEU	2.4
19	AS	16	LEU	2.4
28	DG	150	ASP	2.4
1	AA	1023	G	2.4
1	CA	1164	G	2.4
3	CC	51	GLY	2.4
29	DH	5	GLY	2.4
5	CE	88	LYS	2.4
13	CM	30	ALA	2.4
15	AO	48	LYS	2.4
1	AA	217	C	2.4
1	AA	1317	C	2.4
3	CC	41	GLY	2.3
3	CC	195	VAL	2.3
10	CJ	11	PHE	2.3
14	AN	31	ARG	2.3
18	CR	30	ASP	2.3
23	BA	2126	A	2.3
13	AM	111	LYS	2.3
29	DH	25	LYS	2.3
1	CA	963	G	2.3
2	CB	125	PRO	2.3
13	CM	33	ALA	2.3
9	CI	19	LEU	2.3
1	CA	1296	C	2.3
2	AB	165	VAL	2.3
17	AQ	94	ASN	2.3
28	BG	159	VAL	2.3
8	AH	31	PHE	2.3
28	DG	44	GLY	2.3
1	CA	1183	A	2.3
6	CF	4	TYR	2.3
9	AI	111	ARG	2.3
9	CI	20	ARG	2.3
12	CL	41	ARG	2.3
13	CM	62	ASN	2.3
29	DH	50	VAL	2.3
51	B7	46	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
1	CA	1353	G	2.3
46	D2	5	GLU	2.3
46	D2	46	GLN	2.3
4	AD	55	ALA	2.3
7	CG	42	ILE	2.3
20	AT	80	ARG	2.3
1	AA	1232	U	2.3
5	AE	121	LYS	2.3
23	DA	272(A)	U	2.3
7	AG	73	MET	2.3
23	BA	2179	C	2.3
30	DI	82	ARG	2.3
4	AD	11	LEU	2.3
12	AL	120	TYR	2.3
15	CO	87	ILE	2.3
3	AC	49	SER	2.3
19	CS	60	VAL	2.3
29	DH	112	PRO	2.3
28	DG	145	THR	2.3
2	CB	29	ALA	2.3
16	AP	39	TYR	2.3
1	AA	1051	C	2.3
23	DA	652(U)	G	2.3
28	BG	124	SER	2.3
2	AB	118	LEU	2.3
17	AQ	98	LEU	2.3
18	CR	69	THR	2.3
16	AP	15	PRO	2.3
1	CA	1115	C	2.3
23	BA	2143	C	2.3
1	AA	841	U	2.3
4	CD	5	ILE	2.3
19	CS	67	VAL	2.3
3	AC	46	GLU	2.3
38	DU	89	GLU	2.3
20	AT	82	SER	2.3
3	AC	42	LEU	2.3
9	CI	3	GLN	2.3
3	AC	163	ALA	2.3
7	CG	75	VAL	2.3
15	CO	17	ARG	2.3
21	AU	22	ARG	2.3

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Mol	Chain	Res	Type	RSRZ
1	CA	1001	A	2.3
1	CA	1447	A	2.3
7	CG	89	MET	2.3
10	AJ	94	VAL	2.3
23	DA	276	A	2.3
27	BF	15	SER	2.3
29	DH	51	ARG	2.3
8	CH	58	TYR	2.3
9	AI	41	VAL	2.3
9	AI	118	LYS	2.3
29	DH	175	LYS	2.3
30	DI	36	ALA	2.3
28	BG	35	GLU	2.3
16	AP	14	ASN	2.3
23	BA	272(A)	U	2.3
3	AC	164	ARG	2.3
5	CE	14	ARG	2.3
1	CA	1289	A	2.3
3	CC	53	ALA	2.3
10	CJ	8	LEU	2.2
41	BX	92	LEU	2.2
1	AA	417	C	2.2
43	DZ	62	PRO	2.2
3	CC	50	ALA	2.2
9	CI	114	TYR	2.2
10	AJ	32	ALA	2.2
4	CD	202	LEU	2.2
4	CD	134	ASP	2.2
5	CE	131	ILE	2.2
2	AB	15	VAL	2.2
9	CI	98	PRO	2.2
23	BA	1917	U	2.2
23	DA	2180	U	2.2
2	CB	66	GLY	2.2
14	CN	52	GLN	2.2
5	CE	18	ARG	2.2
7	AG	78	ARG	2.2
1	CA	946	A	2.2
1	CA	1333	A	2.2
4	AD	112	VAL	2.2
30	DI	145	VAL	2.2
1	AA	391	G	2.2

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Mol	Chain	Res	Type	RSRZ
1	CA	78	G	2.2
1	CA	1253	G	2.2
1	CA	1273	G	2.2
10	AJ	45	ARG	2.2
23	DA	1106	G	2.2
1	AA	1119	C	2.2
23	DA	2791	C	2.2
13	CM	22	ILE	2.2
8	AH	25	ASP	2.2
3	CC	48	TYR	2.2
10	CJ	79	ARG	2.2
5	AE	94	ALA	2.2
50	B6	2	ALA	2.2
1	AA	957	U	2.2
9	CI	50	LEU	2.2
1	AA	200	G	2.2
23	DA	2115	G	2.2
28	BG	155	MET	2.2
45	B1	2	SER	2.2
1	CA	1242	C	2.2
23	BA	1914	C	2.2
18	AR	30	ASP	2.2
21	CU	12	LYS	2.2
43	DZ	156	LYS	2.2
18	CR	24	ALA	2.2
20	CT	49	ALA	2.2
1	AA	1111	A	2.2
2	CB	63	MET	2.2
3	CC	83	ARG	2.2
43	DZ	13	GLU	2.2
9	CI	92	TYR	2.2
23	BA	1106	G	2.2
23	BA	2154	G	2.2
5	AE	25	ARG	2.2
1	AA	1123	A	2.2
23	DA	229	A	2.2
29	DH	110	SER	2.2
27	BF	16	GLY	2.2
7	AG	44	TYR	2.2
1	AA	1039	C	2.2
8	CH	52	ASP	2.2
1	CA	1182	G	2.2

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Mol	Chain	Res	Type	RSRZ
23	BA	2127	G	2.2
29	DH	54	ARG	2.2
1	AA	1000	U	2.2
1	AA	1157	A	2.2
2	CB	22	LYS	2.2
9	CI	107	ARG	2.2
13	AM	3	ARG	2.2
9	AI	93	ARG	2.2
16	AP	42	ARG	2.2
1	CA	937	A	2.2
1	CA	1236	A	2.2
1	CA	1339	A	2.2
1	CA	962	C	2.2
9	AI	117	HIS	2.2
28	DG	90	LEU	2.2
1	CA	1065	U	2.2
1	AA	1164	G	2.2
1	AA	1206	G	2.2
1	CA	113	G	2.2
1	CA	998	G	2.2
7	CG	30	ILE	2.2
11	CK	21	ILE	2.2
1	AA	1179	A	2.2
28	DG	40	ASN	2.2
44	D0	11	ARG	2.2
3	AC	60	ALA	2.1
13	CM	75	ALA	2.1
1	CA	1219	U	2.1
1	CA	1330	U	2.1
3	CC	103	VAL	2.1
4	AD	158	ILE	2.1
7	CG	129	GLU	2.1
9	AI	110	GLU	2.1
1	AA	354	G	2.1
1	CA	1387	G	2.1
1	AA	931	C	2.1
1	AA	1314	C	2.1
1	CA	92	C	2.1
7	AG	50	ILE	2.1
13	CM	24	GLY	2.1
11	CK	31	THR	2.1
14	AN	36	PHE	2.1

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Mol	Chain	Res	Type	RSRZ
5	AE	38	GLN	2.1
12	CL	94	PRO	2.1
1	AA	1006	C	2.1
1	CA	1327	C	2.1
7	AG	22	LEU	2.1
29	DH	3	ARG	2.1
1	AA	1182	G	2.1
7	CG	130	GLY	2.1
16	AP	41	PRO	2.1
23	DA	653	A	2.1
23	DA	2807	G	2.1
1	AA	955	U	2.1
2	AB	137	ARG	2.1
51	B7	47	ARG	2.1
43	DZ	186	GLU	2.1
22	AV	18	GLN	2.1
5	CE	151	LEU	2.1
30	BI	6	LEU	2.1
28	DG	91	ARG	2.1
1	AA	964	A	2.1
28	DG	131	TYR	2.1
1	CA	1091	U	2.1
16	CP	13	HIS	2.1
19	CS	14	HIS	2.1
23	BA	2110	G	2.1
23	BA	2805	G	2.1
1	AA	187	C	2.1
1	CA	1119	C	2.1
4	CD	11	LEU	2.1
29	DH	7	LEU	2.1
1	AA	1047	G	2.1
1	CA	324	G	2.1
1	CA	1305	G	2.1
2	AB	66	GLY	2.1
16	CP	49	LEU	2.1
19	CS	74	PHE	2.1
28	BG	158	ALA	2.1
30	DI	25	TYR	2.1
43	DZ	187	ALA	2.1
13	CM	53	VAL	2.1
19	CS	45	VAL	2.1
1	AA	51	A	2.1

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Mol	Chain	Res	Type	RSRZ
1	CA	1332	A	2.1
7	AG	86	GLN	2.1
10	AJ	42	THR	2.1
10	AJ	63	PHE	2.1
16	CP	41	PRO	2.1
19	CS	43	GLU	2.1
14	AN	33	VAL	2.1
18	CR	66	LEU	2.1
2	AB	48	MET	2.1
1	CA	90	U	2.1
6	AF	100	ASN	2.1
10	CJ	41	PRO	2.1
20	CT	52	ALA	2.1
21	CU	18	TYR	2.1
23	BA	652(B)	A	2.1
23	DA	2309	A	2.1
30	DI	29	TYR	2.1
4	CD	122	ARG	2.1
30	DI	137	PRO	2.1
1	AA	63	C	2.1
1	AA	630	G	2.1
1	CA	1220	G	2.1
4	AD	2	GLY	2.1
23	BA	363	G	2.1
19	CS	64	GLU	2.1
20	CT	93	GLU	2.1
42	DY	94	LYS	2.1
3	AC	55	VAL	2.1
5	CE	86	ALA	2.1
1	AA	1252	A	2.1
1	AA	936	C	2.1
1	AA	1230	C	2.1
5	AE	20	GLN	2.0
11	CK	110	ASP	2.1
5	AE	88	LYS	2.0
20	CT	81	LYS	2.0
13	CM	73	GLU	2.0
45	B1	83	GLU	2.0
43	DZ	196	VAL	2.0
9	CI	79	LEU	2.0
36	DS	40	ILE	2.0
29	DH	48	GLY	2.0

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Mol	Chain	Res	Type	RSRZ
1	AA	1251	A	2.0
1	CA	1250	A	2.0
10	CJ	9	ARG	2.0
3	CC	24	ALA	2.0
5	CE	148	VAL	2.0
6	AF	90	VAL	2.0
13	CM	87	TYR	2.0
22	AV	53	VAL	2.0
8	AH	35	ILE	2.0
13	AM	112	GLY	2.0
17	AQ	7	THR	2.0
8	AH	129	VAL	2.0
23	BA	2801(A)	A	2.0
4	AD	135	LEU	2.0
13	AM	107	ALA	2.0
18	CR	58	LEU	2.0
20	AT	72	LEU	2.0
28	BG	75	LYS	2.0
28	BG	120	LEU	2.0
9	CI	23	ASN	2.0
19	CS	23	ASN	2.0
1	AA	1094	G	2.0
1	CA	954	G	2.0
3	AC	35	GLU	2.0
12	AL	112	ASP	2.0
3	AC	71	ALA	2.0
3	AC	126	ARG	2.0
43	DZ	53	ILE	2.0
23	BA	2169	A	2.0
1	AA	219	C	2.0
23	DA	2142	C	2.0
3	CC	58	GLU	2.0
1	CA	1302	U	2.0
2	AB	233	SER	2.0
7	AG	122	HIS	2.0
9	AI	114	TYR	2.0
29	DH	43	VAL	2.0
15	AO	88	ARG	2.0
1	AA	1022	G	2.0
8	CH	31	PHE	2.0
23	BA	2112	G	2.0
3	CC	125	GLU	2.0

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Mol	Chain	Res	Type	RSRZ
34	BQ	1	MET	2.0
1	CA	930	C	2.0
3	AC	190	ARG	2.0
3	CC	68	VAL	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. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3145	1/1	0.26	0.48	78,78,78,78	0
55	ZN	AN	101	1/1	0.37	0.14	213,213,213,213	0
54	MG	BA	3280	1/1	0.39	0.43	89,89,89,89	0
54	MG	BA	3459	1/1	0.40	0.14	130,130,130,130	0
54	MG	BA	3183	1/1	0.46	0.29	76,76,76,76	0
54	MG	DA	3360	1/1	0.49	0.13	63,63,63,63	0
54	MG	AA	1665	1/1	0.54	0.52	86,86,86,86	0
54	MG	BA	3351	1/1	0.54	0.24	57,57,57,57	0
54	MG	AA	1604	1/1	0.55	0.31	81,81,81,81	0
54	MG	BA	3374	1/1	0.57	0.14	75,75,75,75	0
54	MG	BA	3159	1/1	0.57	0.22	66,66,66,66	0
54	MG	BA	3243	1/1	0.57	0.12	117,117,117,117	0
54	MG	BA	3314	1/1	0.58	0.16	71,71,71,71	0
54	MG	AA	1656	1/1	0.58	0.83	74,74,74,74	0
54	MG	AA	1609	1/1	0.59	0.32	91,91,91,91	0
54	MG	CA	1612	1/1	0.60	0.42	84,84,84,84	0
54	MG	BA	3608	1/1	0.60	0.12	87,87,87,87	0
54	MG	DA	3313	1/1	0.60	0.19	64,64,64,64	0
54	MG	DA	3047	1/1	0.61	0.44	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1638	1/1	0.61	0.37	71,71,71,71	0
54	MG	CA	1619	1/1	0.61	0.45	69,69,69,69	0
54	MG	DA	3278	1/1	0.62	0.16	46,46,46,46	0
54	MG	DA	3346	1/1	0.65	0.10	89,89,89,89	0
54	MG	AA	1630	1/1	0.65	0.51	76,76,76,76	0
54	MG	BA	3205	1/1	0.65	0.41	61,61,61,61	0
54	MG	DA	3379	1/1	0.65	0.09	94,94,94,94	0
54	MG	BA	3499	1/1	0.65	0.23	107,107,107,107	0
54	MG	DA	3206	1/1	0.65	0.18	75,75,75,75	0
54	MG	CA	1668	1/1	0.65	0.22	105,105,105,105	0
55	ZN	CN	101	1/1	0.65	0.17	188,188,188,188	0
54	MG	DA	3143	1/1	0.66	0.55	62,62,62,62	0
55	ZN	B4	101	1/1	0.66	0.06	200,200,200,200	0
54	MG	AA	1702	1/1	0.66	0.21	97,97,97,97	0
54	MG	DA	3098	1/1	0.66	0.29	62,62,62,62	0
54	MG	BB	207	1/1	0.67	0.60	69,69,69,69	0
54	MG	CA	1653	1/1	0.67	0.24	83,83,83,83	0
54	MG	BA	3195	1/1	0.67	0.30	84,84,84,84	0
54	MG	BA	3534	1/1	0.67	0.27	76,76,76,76	0
54	MG	AA	1675	1/1	0.67	0.40	73,73,73,73	0
54	MG	BA	3487	1/1	0.67	0.22	94,94,94,94	0
54	MG	DA	3001	1/1	0.68	0.21	62,62,62,62	0
54	MG	DA	3091	1/1	0.68	0.16	70,70,70,70	0
54	MG	BA	3593	1/1	0.68	0.10	70,70,70,70	0
54	MG	DA	3075	1/1	0.68	0.45	71,71,71,71	0
54	MG	BA	3257	1/1	0.69	0.40	64,64,64,64	0
54	MG	DA	3050	1/1	0.69	0.16	90,90,90,90	0
54	MG	DA	3400	1/1	0.69	0.33	95,95,95,95	0
54	MG	CA	1636	1/1	0.69	0.42	77,77,77,77	0
54	MG	AA	1628	1/1	0.69	0.28	84,84,84,84	0
54	MG	CA	1656	1/1	0.69	0.12	97,97,97,97	0
54	MG	AA	1697	1/1	0.69	0.16	75,75,75,75	0
54	MG	CA	1608	1/1	0.70	0.45	67,67,67,67	0
54	MG	BA	3572	1/1	0.70	0.13	49,49,49,49	0
54	MG	BA	3152	1/1	0.70	0.24	73,73,73,73	0
54	MG	BA	3217	1/1	0.71	0.40	51,51,51,51	0
54	MG	DA	3210	1/1	0.71	0.28	60,60,60,60	0
54	MG	DA	3388	1/1	0.71	0.12	72,72,72,72	0
54	MG	CA	1609	1/1	0.71	0.88	70,70,70,70	0
54	MG	DA	3102	1/1	0.71	0.47	79,79,79,79	0
54	MG	BA	3514	1/1	0.71	0.19	97,97,97,97	0
54	MG	CA	1631	1/1	0.71	0.99	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3553	1/1	0.72	0.18	70,70,70,70	0
54	MG	AA	1616	1/1	0.72	0.44	79,79,79,79	0
54	MG	BA	3315	1/1	0.72	0.17	84,84,84,84	0
54	MG	BA	3458	1/1	0.72	0.19	45,45,45,45	0
54	MG	BA	3503	1/1	0.72	0.22	68,68,68,68	0
54	MG	DA	3393	1/1	0.73	0.11	81,81,81,81	0
54	MG	AA	1682	1/1	0.73	0.18	111,111,111,111	0
54	MG	AA	1652	1/1	0.73	0.66	82,82,82,82	0
54	MG	DA	3363	1/1	0.73	0.10	72,72,72,72	0
54	MG	BA	3363	1/1	0.73	0.26	74,74,74,74	0
54	MG	BA	3194	1/1	0.73	0.22	79,79,79,79	0
54	MG	AA	1687	1/1	0.73	0.14	70,70,70,70	0
54	MG	BB	215	1/1	0.73	0.18	77,77,77,77	0
54	MG	AA	1661	1/1	0.73	0.81	77,77,77,77	0
54	MG	BA	3169	1/1	0.73	0.48	60,60,60,60	0
54	MG	DA	3103	1/1	0.74	0.30	71,71,71,71	0
54	MG	BA	3614	1/1	0.74	0.31	94,94,94,94	0
54	MG	AA	1678	1/1	0.74	0.45	75,75,75,75	0
54	MG	CA	1643	1/1	0.74	0.06	109,109,109,109	0
54	MG	DB	202	1/1	0.74	1.21	86,86,86,86	0
54	MG	DA	3190	1/1	0.74	0.34	57,57,57,57	0
54	MG	BA	3558	1/1	0.75	0.17	61,61,61,61	0
54	MG	CA	1624	1/1	0.75	0.42	82,82,82,82	0
54	MG	DA	3048	1/1	0.75	0.45	53,53,53,53	0
54	MG	DA	3089	1/1	0.75	0.39	82,82,82,82	0
54	MG	BA	3565	1/1	0.75	0.28	90,90,90,90	0
54	MG	DA	3310	1/1	0.76	0.29	56,56,56,56	0
54	MG	DA	3012	1/1	0.76	0.21	60,60,60,60	0
54	MG	AA	1620	1/1	0.76	0.93	77,77,77,77	0
54	MG	AA	1643	1/1	0.76	0.85	96,96,96,96	0
54	MG	AA	1627	1/1	0.76	0.50	70,70,70,70	0
54	MG	AA	1637	1/1	0.76	0.33	82,82,82,82	0
54	MG	BA	3220	1/1	0.76	0.24	79,79,79,79	0
54	MG	BA	3184	1/1	0.76	0.20	66,66,66,66	0
54	MG	AA	1699	1/1	0.76	0.17	69,69,69,69	0
54	MG	BA	3617	1/1	0.76	0.15	93,93,93,93	0
54	MG	BA	3034	1/1	0.77	0.29	46,46,46,46	0
54	MG	BA	3174	1/1	0.77	0.40	71,71,71,71	0
54	MG	AA	1663	1/1	0.77	0.43	70,70,70,70	0
54	MG	BA	3320	1/1	0.77	0.15	57,57,57,57	0
54	MG	BA	3469	1/1	0.77	0.24	77,77,77,77	0
54	MG	DA	3327	1/1	0.77	0.46	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3618	1/1	0.77	0.19	85,85,85,85	0
54	MG	DA	3082	1/1	0.77	0.40	51,51,51,51	0
54	MG	BA	3076	1/1	0.77	0.13	70,70,70,70	0
54	MG	DA	3107	1/1	0.77	0.19	47,47,47,47	0
54	MG	BA	3270	1/1	0.77	0.32	74,74,74,74	0
54	MG	DA	3192	1/1	0.77	0.19	66,66,66,66	0
54	MG	AA	1622	1/1	0.77	0.73	67,67,67,67	0
54	MG	B0	101	1/1	0.77	0.16	75,75,75,75	0
54	MG	DA	3380	1/1	0.78	0.10	91,91,91,91	0
54	MG	BA	3340	1/1	0.78	0.21	65,65,65,65	0
54	MG	CA	1661	1/1	0.78	0.27	100,100,100,100	0
54	MG	DA	3033	1/1	0.78	0.29	68,68,68,68	0
54	MG	AA	1605	1/1	0.78	0.30	74,74,74,74	0
54	MG	BA	3587	1/1	0.78	0.08	66,66,66,66	0
54	MG	BA	3386	1/1	0.78	0.13	77,77,77,77	0
54	MG	BA	3612	1/1	0.78	0.12	100,100,100,100	0
54	MG	BA	3509	1/1	0.78	0.22	85,85,85,85	0
54	MG	DA	3112	1/1	0.78	0.35	60,60,60,60	0
54	MG	BA	3251	1/1	0.78	0.34	63,63,63,63	0
54	MG	DA	3317	1/1	0.78	0.18	94,94,94,94	0
54	MG	DA	3037	1/1	0.78	0.45	49,49,49,49	0
54	MG	DA	3162	1/1	0.78	0.39	55,55,55,55	0
54	MG	BA	3529	1/1	0.78	0.29	86,86,86,86	0
54	MG	DA	3217	1/1	0.78	0.26	69,69,69,69	0
54	MG	BA	3216	1/1	0.79	0.23	52,52,52,52	0
54	MG	BA	3139	1/1	0.79	0.28	53,53,53,53	0
54	MG	DA	3155	1/1	0.79	0.28	57,57,57,57	0
54	MG	BA	3267	1/1	0.79	0.56	53,53,53,53	0
54	MG	AA	1655	1/1	0.79	0.19	90,90,90,90	0
54	MG	BA	3224	1/1	0.79	0.31	61,61,61,61	0
54	MG	DA	3109	1/1	0.79	0.26	70,70,70,70	0
54	MG	CA	1648	1/1	0.79	0.12	100,100,100,100	0
54	MG	AA	1691	1/1	0.79	0.10	58,58,58,58	0
54	MG	BA	3240	1/1	0.79	0.39	64,64,64,64	0
54	MG	DA	3077	1/1	0.79	0.21	66,66,66,66	0
54	MG	BA	3456	1/1	0.79	0.13	89,89,89,89	0
54	MG	BA	3594	1/1	0.79	0.15	70,70,70,70	0
54	MG	DP	201	1/1	0.79	0.78	58,58,58,58	0
54	MG	DA	3336	1/1	0.79	0.16	87,87,87,87	0
54	MG	AA	1638	1/1	0.79	0.23	78,78,78,78	0
54	MG	DA	3342	1/1	0.80	0.24	41,41,41,41	0
54	MG	BA	3118	1/1	0.80	0.87	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1606	1/1	0.80	0.62	81,81,81,81	0
54	MG	BA	3545	1/1	0.80	0.18	79,79,79,79	0
54	MG	BA	3384	1/1	0.80	0.11	62,62,62,62	0
54	MG	BA	3274	1/1	0.80	0.14	81,81,81,81	0
54	MG	DA	3128	1/1	0.80	0.29	72,72,72,72	0
54	MG	AA	1608	1/1	0.80	0.16	90,90,90,90	0
54	MG	DA	3254	1/1	0.80	0.39	43,43,43,43	0
54	MG	AA	1667	1/1	0.80	0.28	63,63,63,63	0
54	MG	BA	3135	1/1	0.80	0.45	54,54,54,54	0
54	MG	BV	201	1/1	0.80	0.36	74,74,74,74	0
54	MG	BA	3613	1/1	0.80	0.12	109,109,109,109	0
54	MG	BA	3201	1/1	0.80	0.58	79,79,79,79	0
54	MG	DA	3299	1/1	0.80	0.14	54,54,54,54	0
54	MG	AA	1673	1/1	0.80	0.29	67,67,67,67	0
54	MG	BA	3207	1/1	0.80	0.16	59,59,59,59	0
54	MG	BA	3513	1/1	0.80	0.21	66,66,66,66	0
54	MG	BA	3196	1/1	0.80	0.79	80,80,80,80	0
54	MG	BA	3136	1/1	0.80	0.24	73,73,73,73	0
54	MG	BA	3079	1/1	0.80	0.26	68,68,68,68	0
54	MG	BA	3242	1/1	0.81	0.40	66,66,66,66	0
54	MG	DA	3200	1/1	0.81	0.19	67,67,67,67	0
54	MG	BA	3225	1/1	0.81	0.34	61,61,61,61	0
54	MG	AA	1641	1/1	0.81	0.66	93,93,93,93	0
54	MG	DA	3175	1/1	0.81	0.27	69,69,69,69	0
54	MG	BA	3093	1/1	0.81	0.18	81,81,81,81	0
54	MG	AA	1676	1/1	0.81	0.62	84,84,84,84	0
54	MG	BA	3375	1/1	0.81	0.33	46,46,46,46	0
54	MG	BU	201	1/1	0.81	0.40	51,51,51,51	0
54	MG	BA	3396	1/1	0.81	0.43	23,23,23,23	0
54	MG	CA	1660	1/1	0.81	0.15	106,106,106,106	0
54	MG	BA	3011	1/1	0.81	0.57	50,50,50,50	0
54	MG	DA	3189	1/1	0.81	0.80	66,66,66,66	0
54	MG	DA	3387	1/1	0.81	0.09	71,71,71,71	0
54	MG	DA	3141	1/1	0.81	0.52	74,74,74,74	0
54	MG	DA	3223	1/1	0.81	0.09	104,104,104,104	0
54	MG	BA	3496	1/1	0.81	0.10	79,79,79,79	0
54	MG	CA	1635	1/1	0.81	0.18	68,68,68,68	0
54	MG	DA	3130	1/1	0.81	0.24	59,59,59,59	0
54	MG	CA	1623	1/1	0.81	0.88	73,73,73,73	0
54	MG	BA	3241	1/1	0.81	0.74	62,62,62,62	0
54	MG	BA	3569	1/1	0.81	0.27	68,68,68,68	0
54	MG	DA	3126	1/1	0.81	0.12	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3106	1/1	0.81	0.33	56,56,56,56	0
54	MG	DA	3062	1/1	0.81	0.22	65,65,65,65	0
54	MG	DA	3357	1/1	0.81	0.14	53,53,53,53	0
54	MG	DA	3252	1/1	0.81	0.36	41,41,41,41	0
54	MG	BA	3178	1/1	0.81	0.17	58,58,58,58	0
54	MG	AA	1696	1/1	0.81	0.18	74,74,74,74	0
54	MG	DA	3058	1/1	0.81	0.11	51,51,51,51	0
54	MG	AA	1625	1/1	0.82	0.24	102,102,102,102	0
54	MG	BA	3147	1/1	0.82	0.31	57,57,57,57	0
54	MG	DA	3291	1/1	0.82	0.32	43,43,43,43	0
54	MG	DA	3245	1/1	0.82	0.33	47,47,47,47	0
54	MG	BA	3567	1/1	0.82	0.09	62,62,62,62	0
54	MG	AA	1653	1/1	0.82	0.61	80,80,80,80	0
54	MG	DA	3035	1/1	0.82	0.63	68,68,68,68	0
54	MG	DA	3069	1/1	0.82	0.48	61,61,61,61	0
54	MG	DA	3211	1/1	0.82	0.25	53,53,53,53	0
54	MG	BA	3562	1/1	0.82	0.32	43,43,43,43	0
54	MG	DA	3095	1/1	0.82	0.21	71,71,71,71	0
54	MG	BB	204	1/1	0.82	0.20	67,67,67,67	0
54	MG	DA	3410	1/1	0.82	0.19	72,72,72,72	0
54	MG	BA	3142	1/1	0.82	0.53	53,53,53,53	0
54	MG	BA	3237	1/1	0.82	0.40	56,56,56,56	0
54	MG	BA	3464	1/1	0.82	0.32	41,41,41,41	0
54	MG	DA	3123	1/1	0.82	0.20	56,56,56,56	0
54	MG	BA	3519	1/1	0.82	0.33	90,90,90,90	0
54	MG	DA	3172	1/1	0.82	0.27	50,50,50,50	0
54	MG	DA	3015	1/1	0.82	0.40	71,71,71,71	0
54	MG	DA	3023	1/1	0.82	0.49	61,61,61,61	0
54	MG	BA	3170	1/1	0.82	0.56	52,52,52,52	0
54	MG	AA	1700	1/1	0.82	0.35	114,114,114,114	0
54	MG	BA	3344	1/1	0.82	0.10	52,52,52,52	0
54	MG	DA	3256	1/1	0.82	0.58	59,59,59,59	0
54	MG	BA	3167	1/1	0.82	0.35	68,68,68,68	0
54	MG	DA	3084	1/1	0.82	0.30	62,62,62,62	0
54	MG	BA	3166	1/1	0.82	0.49	58,58,58,58	0
54	MG	AA	1683	1/1	0.82	0.28	139,139,139,139	0
54	MG	BA	3200	1/1	0.83	0.23	51,51,51,51	0
54	MG	DA	3326	1/1	0.83	0.10	95,95,95,95	0
54	MG	AA	1692	1/1	0.83	0.53	113,113,113,113	0
54	MG	BA	3339	1/1	0.83	0.09	91,91,91,91	0
54	MG	CA	1615	1/1	0.83	0.62	76,76,76,76	0
54	MG	BA	3055	1/1	0.83	0.32	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1621	1/1	0.83	0.26	64,64,64,64	0
54	MG	DA	3297	1/1	0.83	0.22	66,66,66,66	0
55	ZN	D4	101	1/1	0.83	0.05	176,176,176,176	0
54	MG	BA	3063	1/1	0.83	0.20	84,84,84,84	0
54	MG	DA	3071	1/1	0.83	0.34	60,60,60,60	0
54	MG	BA	3009	1/1	0.83	0.23	59,59,59,59	0
54	MG	B2	101	1/1	0.83	0.26	75,75,75,75	0
54	MG	DA	3391	1/1	0.83	0.14	67,67,67,67	0
54	MG	BA	3039	1/1	0.83	0.30	44,44,44,44	0
54	MG	DA	3355	1/1	0.83	0.11	37,37,37,37	0
54	MG	CA	1605	1/1	0.83	0.32	74,74,74,74	0
54	MG	DA	3080	1/1	0.83	1.04	73,73,73,73	0
54	MG	BR	201	1/1	0.83	0.59	58,58,58,58	0
54	MG	DA	3390	1/1	0.83	0.17	69,69,69,69	0
54	MG	AA	1659	1/1	0.83	0.44	62,62,62,62	0
54	MG	BA	3581	1/1	0.83	0.14	47,47,47,47	0
54	MG	BA	3122	1/1	0.83	0.32	56,56,56,56	0
54	MG	BA	3297	1/1	0.83	0.17	35,35,35,35	0
54	MG	DA	3423	1/1	0.83	0.14	79,79,79,79	0
54	MG	BB	214	1/1	0.83	0.17	67,67,67,67	0
54	MG	BB	202	1/1	0.83	0.14	46,46,46,46	0
54	MG	DA	3121	1/1	0.84	0.65	53,53,53,53	0
54	MG	BB	209	1/1	0.84	0.17	79,79,79,79	0
54	MG	BA	3538	1/1	0.84	0.13	70,70,70,70	0
54	MG	BA	3517	1/1	0.84	0.26	51,51,51,51	0
54	MG	BB	213	1/1	0.84	0.21	69,69,69,69	0
54	MG	BA	3100	1/1	0.84	0.33	72,72,72,72	0
54	MG	BA	3392	1/1	0.84	0.11	55,55,55,55	0
54	MG	DA	3108	1/1	0.84	0.18	80,80,80,80	0
54	MG	AA	1606	1/1	0.84	0.89	74,74,74,74	0
54	MG	B1	101	1/1	0.84	0.28	50,50,50,50	0
54	MG	CA	1610	1/1	0.84	0.43	80,80,80,80	0
54	MG	BA	3535	1/1	0.84	0.25	70,70,70,70	0
54	MG	AA	1688	1/1	0.84	0.22	111,111,111,111	0
54	MG	DA	3129	1/1	0.84	0.35	78,78,78,78	0
54	MG	BA	3062	1/1	0.84	0.08	69,69,69,69	0
54	MG	DA	3040	1/1	0.84	0.31	50,50,50,50	0
54	MG	BA	3082	1/1	0.84	0.28	71,71,71,71	0
54	MG	DA	3127	1/1	0.84	0.29	63,63,63,63	0
54	MG	DA	3114	1/1	0.84	0.15	51,51,51,51	0
54	MG	BA	3023	1/1	0.84	0.12	52,52,52,52	0
54	MG	BA	3206	1/1	0.84	0.13	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1669	1/1	0.84	0.10	117,117,117,117	0
54	MG	BA	3171	1/1	0.84	0.24	67,67,67,67	0
54	MG	BA	3365	1/1	0.84	0.10	84,84,84,84	0
54	MG	AA	1611	1/1	0.84	0.31	69,69,69,69	0
54	MG	BA	3559	1/1	0.84	0.27	39,39,39,39	0
55	ZN	DY	201	1/1	0.84	0.09	128,128,128,128	0
54	MG	AA	1679	1/1	0.84	0.35	64,64,64,64	0
54	MG	DA	3406	1/1	0.85	0.25	35,35,35,35	0
54	MG	BA	3536	1/1	0.85	0.09	82,82,82,82	0
54	MG	DA	3177	1/1	0.85	0.84	59,59,59,59	0
54	MG	DA	3008	1/1	0.85	0.22	48,48,48,48	0
54	MG	CA	1665	1/1	0.85	0.14	76,76,76,76	0
54	MG	BA	3031	1/1	0.85	0.38	41,41,41,41	0
54	MG	DA	3362	1/1	0.85	0.11	63,63,63,63	0
54	MG	AA	1632	1/1	0.85	0.52	93,93,93,93	0
54	MG	B8	102	1/1	0.85	0.33	61,61,61,61	0
54	MG	DA	3026	1/1	0.85	0.15	49,49,49,49	0
54	MG	AA	1646	1/1	0.85	0.39	73,73,73,73	0
54	MG	CA	1634	1/1	0.85	0.35	101,101,101,101	0
54	MG	DA	3063	1/1	0.85	0.20	54,54,54,54	0
54	MG	DA	3030	1/1	0.85	0.17	52,52,52,52	0
54	MG	DA	3306	1/1	0.85	0.11	88,88,88,88	0
54	MG	AA	1694	1/1	0.85	0.19	110,110,110,110	0
54	MG	BA	3495	1/1	0.85	0.19	70,70,70,70	0
54	MG	DA	3133	1/1	0.85	0.40	78,78,78,78	0
54	MG	DA	3345	1/1	0.85	0.28	100,100,100,100	0
54	MG	DA	3221	1/1	0.85	0.47	69,69,69,69	0
54	MG	DA	3011	1/1	0.85	0.22	46,46,46,46	0
54	MG	DA	3311	1/1	0.85	0.07	65,65,65,65	0
54	MG	BA	3554	1/1	0.86	0.21	58,58,58,58	0
54	MG	DA	3376	1/1	0.86	0.13	43,43,43,43	0
54	MG	BA	3097	1/1	0.86	0.38	58,58,58,58	0
54	MG	DA	3214	1/1	0.86	0.76	74,74,74,74	0
54	MG	CA	1625	1/1	0.86	0.38	88,88,88,88	0
54	MG	BA	3334	1/1	0.86	0.16	43,43,43,43	0
54	MG	BA	3308	1/1	0.86	0.54	51,51,51,51	0
54	MG	DB	201	1/1	0.86	0.29	75,75,75,75	0
54	MG	DA	3421	1/1	0.86	0.09	69,69,69,69	0
54	MG	BA	3556	1/1	0.86	0.20	58,58,58,58	0
54	MG	BA	3068	1/1	0.86	0.18	70,70,70,70	0
54	MG	AA	1671	1/1	0.86	0.25	89,89,89,89	0
54	MG	BA	3002	1/1	0.86	0.19	98,98,98,98	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3097	1/1	0.86	0.72	64,64,64,64	0
54	MG	DA	3424	1/1	0.86	0.15	130,130,130,130	0
54	MG	BA	3327	1/1	0.86	0.18	34,34,34,34	0
54	MG	BA	3329	1/1	0.86	0.16	45,45,45,45	0
54	MG	BA	3032	1/1	0.86	0.21	67,67,67,67	0
54	MG	BA	3500	1/1	0.86	0.21	33,33,33,33	0
54	MG	BA	3360	1/1	0.86	0.17	53,53,53,53	0
54	MG	DA	3181	1/1	0.86	0.67	51,51,51,51	0
54	MG	BA	3283	1/1	0.86	0.55	56,56,56,56	0
54	MG	BA	3584	1/1	0.86	0.15	68,68,68,68	0
54	MG	BA	3457	1/1	0.86	0.15	91,91,91,91	0
54	MG	DA	3081	1/1	0.86	0.23	52,52,52,52	0
54	MG	DA	3006	1/1	0.86	0.28	44,44,44,44	0
54	MG	BB	208	1/1	0.86	0.32	70,70,70,70	0
54	MG	DA	3408	1/1	0.86	0.15	65,65,65,65	0
54	MG	DA	3043	1/1	0.86	0.18	63,63,63,63	0
54	MG	AA	1612	1/1	0.86	0.37	76,76,76,76	0
54	MG	DA	3417	1/1	0.86	0.26	81,81,81,81	0
54	MG	DA	3036	1/1	0.86	0.18	65,65,65,65	0
54	MG	BA	3590	1/1	0.86	0.16	82,82,82,82	0
54	MG	AA	1602	1/1	0.86	0.28	111,111,111,111	0
54	MG	DA	3329	1/1	0.86	0.12	47,47,47,47	0
54	MG	AA	1639	1/1	0.87	0.20	74,74,74,74	0
54	MG	BB	210	1/1	0.87	0.14	67,67,67,67	0
54	MG	BA	3176	1/1	0.87	0.50	69,69,69,69	0
54	MG	BA	3474	1/1	0.87	0.20	66,66,66,66	0
54	MG	BA	3264	1/1	0.87	0.61	38,38,38,38	0
54	MG	DA	3383	1/1	0.87	0.25	63,63,63,63	0
54	MG	AA	1623	1/1	0.87	0.48	74,74,74,74	0
54	MG	DA	3111	1/1	0.87	0.46	60,60,60,60	0
54	MG	DA	3298	1/1	0.87	0.14	71,71,71,71	0
54	MG	DA	3246	1/1	0.87	0.46	41,41,41,41	0
54	MG	CA	1667	1/1	0.87	0.14	64,64,64,64	0
54	MG	BA	3277	1/1	0.87	0.20	66,66,66,66	0
54	MG	BA	3191	1/1	0.87	0.14	45,45,45,45	0
54	MG	BA	3425	1/1	0.87	0.14	37,37,37,37	0
54	MG	DA	3161	1/1	0.87	0.47	55,55,55,55	0
54	MG	BA	3341	1/1	0.87	0.08	69,69,69,69	0
54	MG	CA	1613	1/1	0.87	1.04	71,71,71,71	0
54	MG	BA	3029	1/1	0.87	0.15	83,83,83,83	0
54	MG	DF	302	1/1	0.87	0.24	64,64,64,64	0
54	MG	BA	3024	1/1	0.87	0.29	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3232	1/1	0.87	0.36	46,46,46,46	0
54	MG	BA	3013	1/1	0.87	0.60	103,103,103,103	0
54	MG	BA	3343	1/1	0.87	0.06	91,91,91,91	0
54	MG	CA	1629	1/1	0.87	0.23	72,72,72,72	0
54	MG	BA	3524	1/1	0.87	0.18	77,77,77,77	0
54	MG	BA	3439	1/1	0.87	0.17	53,53,53,53	0
54	MG	BA	3106	1/1	0.87	0.41	48,48,48,48	0
54	MG	BA	3422	1/1	0.87	0.23	27,27,27,27	0
54	MG	DA	3041	1/1	0.87	0.19	49,49,49,49	0
54	MG	BA	3107	1/1	0.87	0.13	49,49,49,49	0
54	MG	BA	3450	1/1	0.87	0.13	71,71,71,71	0
54	MG	DA	3104	1/1	0.88	0.11	57,57,57,57	0
54	MG	BA	3120	1/1	0.88	0.31	42,42,42,42	0
54	MG	AA	1650	1/1	0.88	0.28	70,70,70,70	0
54	MG	BA	3116	1/1	0.88	0.37	56,56,56,56	0
54	MG	BA	3140	1/1	0.88	0.46	59,59,59,59	0
54	MG	DA	3049	1/1	0.88	0.30	58,58,58,58	0
54	MG	CA	1666	1/1	0.88	0.09	131,131,131,131	0
54	MG	BA	3486	1/1	0.88	0.10	48,48,48,48	0
54	MG	BA	3105	1/1	0.88	0.12	40,40,40,40	0
54	MG	DA	3024	1/1	0.88	0.41	49,49,49,49	0
54	MG	BA	3064	1/1	0.88	0.27	45,45,45,45	0
54	MG	DA	3396	1/1	0.88	0.24	37,37,37,37	0
54	MG	DA	3120	1/1	0.88	0.72	52,52,52,52	0
54	MG	BA	3157	1/1	0.88	0.15	46,46,46,46	0
54	MG	DA	3195	1/1	0.88	0.84	75,75,75,75	0
54	MG	DA	3316	1/1	0.88	0.13	75,75,75,75	0
54	MG	BA	3006	1/1	0.88	0.17	44,44,44,44	0
54	MG	BA	3371	1/1	0.88	0.10	67,67,67,67	0
54	MG	BA	3077	1/1	0.88	0.58	43,43,43,43	0
54	MG	DA	3056	1/1	0.88	0.44	61,61,61,61	0
54	MG	DA	3073	1/1	0.88	0.21	54,54,54,54	0
54	MG	DA	3066	1/1	0.88	0.18	56,56,56,56	0
54	MG	DA	3093	1/1	0.88	0.72	66,66,66,66	0
54	MG	CA	1627	1/1	0.88	0.14	79,79,79,79	0
54	MG	BA	3332	1/1	0.88	0.28	60,60,60,60	0
54	MG	BA	3244	1/1	0.88	0.45	45,45,45,45	0
54	MG	BE	301	1/1	0.88	0.53	43,43,43,43	0
54	MG	BA	3388	1/1	0.88	0.17	54,54,54,54	0
54	MG	DA	3014	1/1	0.88	0.10	52,52,52,52	0
54	MG	BA	3492	1/1	0.88	0.15	78,78,78,78	0
54	MG	BA	3269	1/1	0.88	0.26	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1662	1/1	0.88	0.18	95,95,95,95	0
54	MG	BA	3066	1/1	0.88	0.11	43,43,43,43	0
54	MG	AA	1670	1/1	0.88	0.16	115,115,115,115	0
54	MG	BA	3030	1/1	0.88	0.25	37,37,37,37	0
54	MG	DA	3139	1/1	0.88	0.49	65,65,65,65	0
54	MG	DA	3182	1/1	0.88	0.28	59,59,59,59	0
54	MG	BA	3463	1/1	0.88	0.20	36,36,36,36	0
54	MG	BA	3420	1/1	0.88	0.28	41,41,41,41	0
54	MG	DA	3403	1/1	0.88	0.18	49,49,49,49	0
54	MG	DA	3197	1/1	0.88	0.65	66,66,66,66	0
54	MG	DA	3420	1/1	0.88	0.09	97,97,97,97	0
54	MG	BA	3330	1/1	0.88	0.28	36,36,36,36	0
54	MG	BA	3276	1/1	0.88	0.63	56,56,56,56	0
54	MG	BA	3226	1/1	0.88	0.31	62,62,62,62	0
54	MG	BA	3325	1/1	0.89	0.11	47,47,47,47	0
54	MG	DA	3083	1/1	0.89	0.34	55,55,55,55	0
54	MG	BA	3180	1/1	0.89	0.25	51,51,51,51	0
54	MG	AA	1706	1/1	0.89	0.08	100,100,100,100	0
54	MG	BA	3415	1/1	0.89	0.12	49,49,49,49	0
54	MG	AA	1633	1/1	0.89	0.53	72,72,72,72	0
54	MG	BA	3022	1/1	0.89	0.09	57,57,57,57	0
54	MG	DA	3224	1/1	0.89	0.35	80,80,80,80	0
54	MG	BA	3160	1/1	0.89	0.38	46,46,46,46	0
54	MG	BA	3036	1/1	0.89	0.42	49,49,49,49	0
54	MG	BA	3153	1/1	0.89	0.32	53,53,53,53	0
54	MG	DA	3341	1/1	0.89	0.24	39,39,39,39	0
54	MG	CA	1640	1/1	0.89	0.28	62,62,62,62	0
54	MG	BA	3067	1/1	0.89	0.36	35,35,35,35	0
54	MG	DA	3239	1/1	0.89	0.29	39,39,39,39	0
54	MG	BA	3595	1/1	0.89	0.09	82,82,82,82	0
54	MG	BA	3158	1/1	0.89	0.35	51,51,51,51	0
54	MG	BA	3337	1/1	0.89	0.24	33,33,33,33	0
54	MG	BA	3273	1/1	0.89	0.22	66,66,66,66	0
54	MG	DA	3415	1/1	0.89	0.09	89,89,89,89	0
54	MG	D8	101	1/1	0.89	0.60	49,49,49,49	0
54	MG	BA	3014	1/1	0.89	0.19	57,57,57,57	0
54	MG	DA	3244	1/1	0.89	0.46	35,35,35,35	0
54	MG	DA	3053	1/1	0.89	0.36	54,54,54,54	0
54	MG	BA	3072	1/1	0.89	0.28	59,59,59,59	0
54	MG	B3	101	1/1	0.89	0.44	60,60,60,60	0
54	MG	DA	3044	1/1	0.89	0.22	51,51,51,51	0
54	MG	BA	3530	1/1	0.89	0.11	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3114	1/1	0.89	0.25	43,43,43,43	0
54	MG	CA	1655	1/1	0.89	0.29	74,74,74,74	0
54	MG	BA	3436	1/1	0.89	0.32	38,38,38,38	0
54	MG	BA	3412	1/1	0.89	0.21	41,41,41,41	0
54	MG	DA	3205	1/1	0.89	0.07	82,82,82,82	0
54	MG	DA	3349	1/1	0.89	0.29	54,54,54,54	0
54	MG	B0	102	1/1	0.89	0.17	56,56,56,56	0
54	MG	BA	3249	1/1	0.89	0.30	70,70,70,70	0
54	MG	DA	3315	1/1	0.89	0.13	59,59,59,59	0
54	MG	BE	302	1/1	0.89	0.21	52,52,52,52	0
54	MG	BA	3475	1/1	0.89	0.23	53,53,53,53	0
54	MG	BA	3489	1/1	0.89	0.20	38,38,38,38	0
54	MG	BA	3414	1/1	0.89	0.28	26,26,26,26	0
54	MG	DA	3381	1/1	0.89	0.09	79,79,79,79	0
54	MG	BA	3050	1/1	0.89	0.23	46,46,46,46	0
54	MG	BA	3549	1/1	0.89	0.12	68,68,68,68	0
54	MG	BA	3016	1/1	0.89	0.42	57,57,57,57	0
54	MG	BA	3173	1/1	0.89	0.28	65,65,65,65	0
54	MG	BA	3247	1/1	0.89	0.25	53,53,53,53	0
54	MG	BA	3037	1/1	0.89	0.22	52,52,52,52	0
54	MG	BA	3259	1/1	0.89	0.31	51,51,51,51	0
54	MG	BA	3532	1/1	0.89	0.09	35,35,35,35	0
54	MG	BA	3144	1/1	0.89	0.35	54,54,54,54	0
54	MG	BA	3335	1/1	0.89	0.15	55,55,55,55	0
54	MG	BA	3087	1/1	0.89	0.26	56,56,56,56	0
54	MG	BA	3121	1/1	0.89	0.15	38,38,38,38	0
54	MG	BA	3449	1/1	0.89	0.18	49,49,49,49	0
54	MG	BA	3130	1/1	0.89	0.38	32,32,32,32	0
54	MG	BA	3213	1/1	0.89	0.37	64,64,64,64	0
54	MG	CA	1649	1/1	0.89	0.15	92,92,92,92	0
54	MG	BA	3362	1/1	0.89	0.11	73,73,73,73	0
54	MG	DA	3125	1/1	0.89	0.43	66,66,66,66	0
54	MG	BA	3285	1/1	0.89	0.55	59,59,59,59	0
54	MG	BA	3161	1/1	0.89	0.34	54,54,54,54	0
54	MG	CA	1646	1/1	0.89	0.49	92,92,92,92	0
54	MG	BA	3465	1/1	0.89	0.20	38,38,38,38	0
54	MG	BA	3053	1/1	0.89	0.35	53,53,53,53	0
54	MG	BA	3001	1/1	0.89	0.42	56,56,56,56	0
54	MG	CA	1658	1/1	0.89	0.17	83,83,83,83	0
54	MG	AA	1651	1/1	0.89	0.86	69,69,69,69	0
54	MG	BA	3250	1/1	0.90	0.23	47,47,47,47	0
54	MG	DA	3187	1/1	0.90	0.66	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3141	1/1	0.90	0.27	65,65,65,65	0
55	ZN	CD	301	1/1	0.90	0.32	96,96,96,96	0
54	MG	BA	3478	1/1	0.90	0.17	92,92,92,92	0
54	MG	BA	3533	1/1	0.90	0.20	48,48,48,48	0
54	MG	DA	3242	1/1	0.90	0.55	38,38,38,38	0
54	MG	BA	3197	1/1	0.90	0.32	62,62,62,62	0
54	MG	BA	3061	1/1	0.90	0.51	64,64,64,64	0
54	MG	DA	3227	1/1	0.90	0.39	65,65,65,65	0
54	MG	BA	3081	1/1	0.90	0.18	66,66,66,66	0
54	MG	BA	3527	1/1	0.90	0.15	51,51,51,51	0
54	MG	BA	3272	1/1	0.90	0.07	65,65,65,65	0
54	MG	BA	3074	1/1	0.90	0.38	55,55,55,55	0
54	MG	BA	3316	1/1	0.90	0.32	34,34,34,34	0
54	MG	BA	3150	1/1	0.90	0.22	61,61,61,61	0
54	MG	AA	1677	1/1	0.90	0.90	81,81,81,81	0
54	MG	DA	3208	1/1	0.90	0.44	52,52,52,52	0
54	MG	BA	3522	1/1	0.90	0.57	68,68,68,68	0
54	MG	CA	1659	1/1	0.90	0.21	60,60,60,60	0
54	MG	BA	3356	1/1	0.90	0.28	59,59,59,59	0
54	MG	BA	3078	1/1	0.90	0.34	38,38,38,38	0
54	MG	DA	3064	1/1	0.90	0.18	53,53,53,53	0
54	MG	BA	3003	1/1	0.90	0.34	29,29,29,29	0
54	MG	DA	3034	1/1	0.90	0.28	74,74,74,74	0
54	MG	BA	3444	1/1	0.90	0.06	61,61,61,61	0
54	MG	BA	3102	1/1	0.90	0.26	59,59,59,59	0
54	MG	BA	3358	1/1	0.90	0.08	64,64,64,64	0
54	MG	BA	3254	1/1	0.90	0.20	67,67,67,67	0
54	MG	BA	3154	1/1	0.90	0.15	49,49,49,49	0
54	MG	DA	3186	1/1	0.90	0.24	42,42,42,42	0
54	MG	BA	3204	1/1	0.90	0.18	47,47,47,47	0
54	MG	BA	3004	1/1	0.90	0.22	41,41,41,41	0
54	MG	BA	3124	1/1	0.90	0.23	68,68,68,68	0
54	MG	BA	3448	1/1	0.90	0.26	33,33,33,33	0
54	MG	DA	3219	1/1	0.90	0.30	38,38,38,38	0
54	MG	DA	3411	1/1	0.90	0.15	90,90,90,90	0
54	MG	DA	3378	1/1	0.90	0.14	98,98,98,98	0
54	MG	BA	3073	1/1	0.90	0.11	67,67,67,67	0
54	MG	AA	1615	1/1	0.90	0.37	56,56,56,56	0
54	MG	DA	3213	1/1	0.90	0.13	64,64,64,64	0
54	MG	DA	3374	1/1	0.90	0.26	44,44,44,44	0
54	MG	BA	3511	1/1	0.90	0.16	33,33,33,33	0
54	MG	BD	301	1/1	0.90	0.20	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1669	1/1	0.90	0.39	96,96,96,96	0
54	MG	DA	3199	1/1	0.90	0.06	74,74,74,74	0
54	MG	CA	1622	1/1	0.90	0.32	74,74,74,74	0
54	MG	BA	3138	1/1	0.90	0.20	54,54,54,54	0
54	MG	DA	3386	1/1	0.90	0.11	63,63,63,63	0
54	MG	BA	3616	1/1	0.90	0.08	82,82,82,82	0
54	MG	BA	3357	1/1	0.90	0.15	47,47,47,47	0
54	MG	AA	1654	1/1	0.90	0.07	87,87,87,87	0
54	MG	BA	3111	1/1	0.90	0.30	57,57,57,57	0
54	MG	CA	1641	1/1	0.90	0.19	74,74,74,74	0
54	MG	CA	1637	1/1	0.90	0.65	67,67,67,67	0
54	MG	DA	3057	1/1	0.90	0.14	67,67,67,67	0
54	MG	CA	1663	1/1	0.90	0.18	91,91,91,91	0
54	MG	BA	3046	1/1	0.90	0.27	49,49,49,49	0
54	MG	BA	3155	1/1	0.90	0.36	64,64,64,64	0
54	MG	BA	3175	1/1	0.90	0.35	70,70,70,70	0
54	MG	DA	3134	1/1	0.90	0.22	64,64,64,64	0
54	MG	BA	3026	1/1	0.90	0.18	68,68,68,68	0
54	MG	BA	3546	1/1	0.90	0.09	57,57,57,57	0
54	MG	BA	3187	1/1	0.91	0.27	30,30,30,30	0
54	MG	AA	1601	1/1	0.91	0.29	68,68,68,68	0
54	MG	BA	3338	1/1	0.91	0.15	30,30,30,30	0
54	MG	BA	3101	1/1	0.91	0.28	51,51,51,51	0
54	MG	BA	3041	1/1	0.91	0.12	56,56,56,56	0
54	MG	DA	3138	1/1	0.91	0.74	60,60,60,60	0
54	MG	DA	3262	1/1	0.91	0.16	46,46,46,46	0
54	MG	BA	3051	1/1	0.91	0.15	52,52,52,52	0
54	MG	DA	3296	1/1	0.91	0.12	50,50,50,50	0
54	MG	BA	3181	1/1	0.91	0.21	48,48,48,48	0
54	MG	BA	3347	1/1	0.91	0.22	55,55,55,55	0
54	MG	B5	101	1/1	0.91	0.28	51,51,51,51	0
54	MG	BA	3369	1/1	0.91	0.32	74,74,74,74	0
54	MG	BA	3232	1/1	0.91	0.14	54,54,54,54	0
54	MG	BE	304	1/1	0.91	0.17	32,32,32,32	0
54	MG	BA	3137	1/1	0.91	0.17	38,38,38,38	0
54	MG	BA	3098	1/1	0.91	0.40	54,54,54,54	0
54	MG	D7	101	1/1	0.91	0.30	52,52,52,52	0
54	MG	BA	3148	1/1	0.91	0.28	54,54,54,54	0
54	MG	DA	3259	1/1	0.91	0.58	64,64,64,64	0
54	MG	AA	1703	1/1	0.91	0.20	89,89,89,89	0
54	MG	BP	201	1/1	0.91	0.28	43,43,43,43	0
54	MG	BA	3289	1/1	0.91	0.67	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3186	1/1	0.91	0.39	64,64,64,64	0
54	MG	DA	3261	1/1	0.91	0.41	56,56,56,56	0
54	MG	BA	3040	1/1	0.91	0.23	33,33,33,33	0
54	MG	DA	3174	1/1	0.91	0.46	60,60,60,60	0
54	MG	DA	3079	1/1	0.91	0.20	60,60,60,60	0
54	MG	BF	301	1/1	0.91	0.38	56,56,56,56	0
54	MG	BA	3480	1/1	0.91	0.13	70,70,70,70	0
54	MG	DA	3198	1/1	0.91	0.17	55,55,55,55	0
54	MG	BA	3219	1/1	0.91	0.33	62,62,62,62	0
54	MG	BA	3295	1/1	0.91	0.11	44,44,44,44	0
54	MG	DA	3339	1/1	0.91	0.11	48,48,48,48	0
54	MG	BA	3501	1/1	0.91	0.11	61,61,61,61	0
54	MG	CA	1611	1/1	0.91	0.18	64,64,64,64	0
54	MG	DA	3142	1/1	0.91	0.24	46,46,46,46	0
54	MG	CA	1657	1/1	0.91	0.23	86,86,86,86	0
54	MG	AA	1634	1/1	0.91	0.75	95,95,95,95	0
54	MG	BA	3070	1/1	0.91	0.17	61,61,61,61	0
54	MG	CA	1664	1/1	0.91	0.15	94,94,94,94	0
54	MG	AA	1631	1/1	0.91	0.42	64,64,64,64	0
54	MG	DA	3328	1/1	0.91	0.09	34,34,34,34	0
54	MG	AA	1618	1/1	0.91	0.12	69,69,69,69	0
54	MG	DA	3260	1/1	0.91	0.50	44,44,44,44	0
54	MG	DA	3293	1/1	0.91	0.29	50,50,50,50	0
54	MG	BA	3361	1/1	0.91	0.20	53,53,53,53	0
54	MG	DA	3060	1/1	0.91	0.21	60,60,60,60	0
54	MG	BA	3555	1/1	0.91	0.31	49,49,49,49	0
54	MG	AA	1695	1/1	0.91	0.12	93,93,93,93	0
54	MG	DA	3158	1/1	0.91	0.41	72,72,72,72	0
54	MG	BA	3498	1/1	0.91	0.14	69,69,69,69	0
54	MG	DA	3409	1/1	0.91	0.06	79,79,79,79	0
54	MG	BA	3239	1/1	0.91	0.27	38,38,38,38	0
54	MG	BA	3592	1/1	0.91	0.08	51,51,51,51	0
54	MG	AA	1624	1/1	0.91	0.88	66,66,66,66	0
54	MG	AA	1666	1/1	0.91	0.53	62,62,62,62	0
54	MG	DA	3216	1/1	0.91	0.19	53,53,53,53	0
54	MG	BA	3091	1/1	0.91	0.34	47,47,47,47	0
54	MG	DA	3203	1/1	0.91	0.75	48,48,48,48	0
54	MG	DA	3231	1/1	0.91	0.48	54,54,54,54	0
54	MG	BA	3103	1/1	0.91	0.46	67,67,67,67	0
54	MG	AA	1698	1/1	0.91	0.44	68,68,68,68	0
54	MG	DA	3314	1/1	0.91	0.23	54,54,54,54	0
54	MG	AA	1603	1/1	0.91	0.11	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3401	1/1	0.91	0.07	85,85,85,85	0
54	MG	DA	3367	1/1	0.91	0.14	68,68,68,68	0
54	MG	AA	1613	1/1	0.91	0.25	74,74,74,74	0
54	MG	AA	1686	1/1	0.91	0.19	115,115,115,115	0
54	MG	BA	3095	1/1	0.91	0.37	45,45,45,45	0
54	MG	BA	3185	1/1	0.91	0.23	44,44,44,44	0
54	MG	DA	3269	1/1	0.91	0.14	54,54,54,54	0
54	MG	BA	3435	1/1	0.92	0.28	36,36,36,36	0
54	MG	BA	3279	1/1	0.92	0.17	54,54,54,54	0
54	MG	BA	3542	1/1	0.92	0.23	60,60,60,60	0
54	MG	BA	3467	1/1	0.92	0.13	73,73,73,73	0
54	MG	BA	3231	1/1	0.92	0.41	45,45,45,45	0
54	MG	DA	3017	1/1	0.92	0.29	61,61,61,61	0
54	MG	CA	1607	1/1	0.92	0.24	72,72,72,72	0
54	MG	AA	1619	1/1	0.92	0.34	68,68,68,68	0
54	MG	DA	3215	1/1	0.92	0.23	58,58,58,58	0
54	MG	DA	3382	1/1	0.92	0.10	53,53,53,53	0
54	MG	DA	3295	1/1	0.92	0.17	42,42,42,42	0
54	MG	BU	202	1/1	0.92	0.53	62,62,62,62	0
54	MG	BA	3089	1/1	0.92	0.40	46,46,46,46	0
54	MG	DA	3180	1/1	0.92	0.24	78,78,78,78	0
54	MG	BA	3505	1/1	0.92	0.07	76,76,76,76	0
54	MG	BA	3069	1/1	0.92	0.52	53,53,53,53	0
54	MG	BA	3044	1/1	0.92	0.16	49,49,49,49	0
54	MG	DA	3146	1/1	0.92	0.44	35,35,35,35	0
54	MG	DA	3105	1/1	0.92	0.55	33,33,33,33	0
54	MG	DA	3240	1/1	0.92	0.21	67,67,67,67	0
54	MG	DA	3301	1/1	0.92	0.17	55,55,55,55	0
54	MG	DA	3369	1/1	0.92	0.17	57,57,57,57	0
54	MG	DA	3257	1/1	0.92	0.61	59,59,59,59	0
54	MG	DA	3324	1/1	0.92	0.20	64,64,64,64	0
54	MG	DA	3070	1/1	0.92	0.32	53,53,53,53	0
54	MG	CA	1626	1/1	0.92	0.27	86,86,86,86	0
54	MG	BA	3015	1/1	0.92	0.37	42,42,42,42	0
54	MG	DA	3018	1/1	0.92	0.17	42,42,42,42	0
54	MG	BA	3018	1/1	0.92	0.11	72,72,72,72	0
54	MG	BA	3402	1/1	0.92	0.08	47,47,47,47	0
54	MG	BA	3052	1/1	0.92	0.26	61,61,61,61	0
54	MG	BA	3271	1/1	0.92	0.15	60,60,60,60	0
54	MG	DA	3286	1/1	0.92	0.16	50,50,50,50	0
54	MG	AD	302	1/1	0.92	0.17	120,120,120,120	0
54	MG	DA	3019	1/1	0.92	0.20	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3085	1/1	0.92	0.31	63,63,63,63	0
54	MG	BA	3092	1/1	0.92	0.42	55,55,55,55	0
54	MG	DA	3312	1/1	0.92	0.09	67,67,67,67	0
54	MG	DA	3046	1/1	0.92	0.70	43,43,43,43	0
54	MG	CA	1630	1/1	0.92	0.47	72,72,72,72	0
54	MG	DA	3002	1/1	0.92	0.69	67,67,67,67	0
54	MG	BA	3407	1/1	0.92	0.22	35,35,35,35	0
54	MG	DA	3397	1/1	0.92	0.05	65,65,65,65	0
54	MG	DA	3135	1/1	0.92	0.26	44,44,44,44	0
54	MG	BA	3071	1/1	0.92	0.20	49,49,49,49	0
54	MG	BQ	202	1/1	0.92	0.36	53,53,53,53	0
54	MG	B8	101	1/1	0.92	0.40	64,64,64,64	0
54	MG	DA	3003	1/1	0.92	0.36	35,35,35,35	0
54	MG	CA	1645	1/1	0.92	0.29	63,63,63,63	0
54	MG	AA	1680	1/1	0.92	0.17	83,83,83,83	0
54	MG	BA	3298	1/1	0.92	0.11	53,53,53,53	0
54	MG	BA	3399	1/1	0.92	0.23	41,41,41,41	0
54	MG	CA	1616	1/1	0.92	0.41	72,72,72,72	0
54	MG	BA	3318	1/1	0.92	0.23	73,73,73,73	0
54	MG	DA	3258	1/1	0.92	0.10	56,56,56,56	0
54	MG	BA	3127	1/1	0.92	0.23	51,51,51,51	0
54	MG	DA	3207	1/1	0.92	0.42	53,53,53,53	0
54	MG	BA	3027	1/1	0.92	0.15	56,56,56,56	0
54	MG	BA	3571	1/1	0.92	0.14	76,76,76,76	0
54	MG	DA	3119	1/1	0.92	0.61	57,57,57,57	0
54	MG	BA	3151	1/1	0.92	0.21	62,62,62,62	0
54	MG	DA	3330	1/1	0.92	0.25	44,44,44,44	0
54	MG	DA	3347	1/1	0.92	0.07	76,76,76,76	0
54	MG	DA	3065	1/1	0.92	0.19	58,58,58,58	0
54	MG	DA	3157	1/1	0.92	0.32	69,69,69,69	0
54	MG	AA	1681	1/1	0.92	0.12	65,65,65,65	0
54	MG	DA	3375	1/1	0.92	0.14	50,50,50,50	0
54	MG	DA	3358	1/1	0.92	0.15	68,68,68,68	0
54	MG	DA	3148	1/1	0.92	0.41	70,70,70,70	0
54	MG	DA	3072	1/1	0.92	0.36	50,50,50,50	0
54	MG	DA	3042	1/1	0.92	0.58	46,46,46,46	0
54	MG	BA	3389	1/1	0.92	0.20	33,33,33,33	0
54	MG	AA	1657	1/1	0.92	0.53	81,81,81,81	0
54	MG	B2	102	1/1	0.92	0.26	60,60,60,60	0
54	MG	BA	3525	1/1	0.92	0.07	112,112,112,112	0
54	MG	DA	3173	1/1	0.92	0.40	49,49,49,49	0
54	MG	DA	3209	1/1	0.92	0.24	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1660	1/1	0.92	0.96	91,91,91,91	0
54	MG	BA	3589	1/1	0.92	0.06	70,70,70,70	0
54	MG	D6	102	1/1	0.92	0.50	64,64,64,64	0
54	MG	BA	3086	1/1	0.92	0.26	57,57,57,57	0
54	MG	BA	3286	1/1	0.92	0.24	52,52,52,52	0
54	MG	DA	3229	1/1	0.92	0.37	55,55,55,55	0
54	MG	BA	3521	1/1	0.92	0.19	41,41,41,41	0
54	MG	DA	3159	1/1	0.92	0.61	59,59,59,59	0
54	MG	DA	3028	1/1	0.92	0.20	53,53,53,53	0
54	MG	CA	1650	1/1	0.92	0.21	100,100,100,100	0
54	MG	BA	3615	1/1	0.93	0.06	91,91,91,91	0
54	MG	BA	3090	1/1	0.93	0.15	45,45,45,45	0
54	MG	BA	3045	1/1	0.93	0.21	62,62,62,62	0
54	MG	DA	3226	1/1	0.93	0.22	53,53,53,53	0
54	MG	BB	212	1/1	0.93	0.06	68,68,68,68	0
54	MG	AA	1607	1/1	0.93	0.40	69,69,69,69	0
54	MG	DA	3101	1/1	0.93	0.19	62,62,62,62	0
54	MG	DA	3292	1/1	0.93	0.18	39,39,39,39	0
54	MG	BA	3165	1/1	0.93	0.13	56,56,56,56	0
54	MG	BQ	201	1/1	0.93	0.20	49,49,49,49	0
54	MG	DA	3359	1/1	0.93	0.37	49,49,49,49	0
54	MG	AA	1649	1/1	0.93	0.20	66,66,66,66	0
54	MG	DA	3371	1/1	0.93	0.19	50,50,50,50	0
54	MG	BA	3188	1/1	0.93	0.27	43,43,43,43	0
54	MG	DA	3318	1/1	0.93	0.07	66,66,66,66	0
54	MG	BA	3208	1/1	0.93	0.29	54,54,54,54	0
54	MG	BA	3294	1/1	0.93	0.20	37,37,37,37	0
54	MG	BA	3218	1/1	0.93	0.38	54,54,54,54	0
55	ZN	AD	301	1/1	0.93	0.24	107,107,107,107	0
54	MG	DA	3354	1/1	0.93	0.27	41,41,41,41	0
54	MG	BA	3520	1/1	0.93	0.23	67,67,67,67	0
54	MG	AA	1690	1/1	0.93	0.12	59,59,59,59	0
54	MG	BA	3096	1/1	0.93	0.52	63,63,63,63	0
54	MG	DA	3007	1/1	0.93	0.18	36,36,36,36	0
54	MG	BA	3445	1/1	0.93	0.09	56,56,56,56	0
54	MG	BA	3227	1/1	0.93	0.19	42,42,42,42	0
54	MG	DA	3099	1/1	0.93	0.26	40,40,40,40	0
54	MG	AA	1693	1/1	0.93	0.10	78,78,78,78	0
54	MG	AA	1701	1/1	0.93	0.13	96,96,96,96	0
54	MG	DA	3061	1/1	0.93	0.38	52,52,52,52	0
54	MG	DA	3096	1/1	0.93	0.42	46,46,46,46	0
54	MG	BA	3418	1/1	0.93	0.09	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3021	1/1	0.93	0.25	53,53,53,53	0
54	MG	DA	3364	1/1	0.93	0.12	67,67,67,67	0
54	MG	DA	3059	1/1	0.93	0.26	55,55,55,55	0
54	MG	DB	203	1/1	0.93	0.48	61,61,61,61	0
54	MG	BA	3537	1/1	0.93	0.17	38,38,38,38	0
54	MG	DA	3027	1/1	0.93	0.42	51,51,51,51	0
54	MG	AA	1704	1/1	0.93	0.11	90,90,90,90	0
54	MG	DA	3113	1/1	0.93	0.37	42,42,42,42	0
54	MG	AA	1674	1/1	0.93	0.20	73,73,73,73	0
54	MG	BA	3588	1/1	0.93	0.26	86,86,86,86	0
54	MG	DA	3152	1/1	0.93	0.46	58,58,58,58	0
54	MG	BW	201	1/1	0.93	0.17	51,51,51,51	0
54	MG	AA	1621	1/1	0.93	0.98	80,80,80,80	0
54	MG	DA	3201	1/1	0.93	0.36	69,69,69,69	0
54	MG	DA	3348	1/1	0.93	0.11	85,85,85,85	0
54	MG	BA	3428	1/1	0.93	0.24	35,35,35,35	0
54	MG	BF	302	1/1	0.93	0.21	62,62,62,62	0
54	MG	BA	3193	1/1	0.93	0.19	50,50,50,50	0
54	MG	AA	1629	1/1	0.93	0.15	63,63,63,63	0
54	MG	DA	3140	1/1	0.93	0.53	70,70,70,70	0
54	MG	BA	3526	1/1	0.93	0.30	28,28,28,28	0
54	MG	BE	306	1/1	0.93	0.09	56,56,56,56	0
54	MG	BA	3132	1/1	0.93	0.31	31,31,31,31	0
54	MG	BA	3611	1/1	0.93	0.07	70,70,70,70	0
54	MG	DA	3085	1/1	0.93	0.45	51,51,51,51	0
54	MG	DA	3412	1/1	0.93	0.16	45,45,45,45	0
54	MG	BA	3377	1/1	0.93	0.12	69,69,69,69	0
54	MG	BA	3397	1/1	0.93	0.18	31,31,31,31	0
54	MG	CA	1617	1/1	0.93	0.89	70,70,70,70	0
54	MG	AA	1664	1/1	0.93	0.15	85,85,85,85	0
54	MG	BA	3172	1/1	0.93	0.23	71,71,71,71	0
54	MG	BA	3350	1/1	0.93	0.18	60,60,60,60	0
54	MG	BA	3146	1/1	0.93	0.51	52,52,52,52	0
54	MG	DA	3384	1/1	0.93	0.21	57,57,57,57	0
54	MG	BA	3577	1/1	0.93	0.23	58,58,58,58	0
54	MG	BA	3300	1/1	0.93	0.15	37,37,37,37	0
54	MG	BA	3017	1/1	0.93	0.14	47,47,47,47	0
54	MG	BA	3481	1/1	0.93	0.10	76,76,76,76	0
54	MG	DA	3193	1/1	0.93	0.32	63,63,63,63	0
54	MG	CA	1618	1/1	0.93	0.37	75,75,75,75	0
54	MG	BB	206	1/1	0.93	0.15	62,62,62,62	0
54	MG	DA	3334	1/1	0.93	0.16	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3250	1/1	0.93	0.43	41,41,41,41	0
54	MG	BA	3266	1/1	0.93	0.77	48,48,48,48	0
54	MG	DA	3294	1/1	0.93	0.16	52,52,52,52	0
54	MG	BA	3468	1/1	0.93	0.15	38,38,38,38	0
54	MG	BA	3088	1/1	0.93	0.35	46,46,46,46	0
54	MG	DA	3194	1/1	0.93	0.54	77,77,77,77	0
54	MG	BA	3479	1/1	0.93	0.17	35,35,35,35	0
54	MG	AA	1617	1/1	0.93	0.11	82,82,82,82	0
54	MG	BA	3531	1/1	0.93	0.15	49,49,49,49	0
54	MG	BA	3209	1/1	0.93	0.37	67,67,67,67	0
54	MG	DA	3078	1/1	0.93	0.45	53,53,53,53	0
54	MG	BA	3210	1/1	0.93	0.25	57,57,57,57	0
54	MG	BA	3117	1/1	0.93	0.26	31,31,31,31	0
54	MG	BA	3446	1/1	0.94	0.10	40,40,40,40	0
54	MG	AA	1648	1/1	0.94	0.20	62,62,62,62	0
54	MG	BA	3198	1/1	0.94	0.25	29,29,29,29	0
54	MG	CA	1639	1/1	0.94	0.64	61,61,61,61	0
54	MG	BA	3491	1/1	0.94	0.14	65,65,65,65	0
54	MG	BA	3189	1/1	0.94	0.28	46,46,46,46	0
54	MG	DA	3045	1/1	0.94	0.34	72,72,72,72	0
54	MG	DA	3343	1/1	0.94	0.17	35,35,35,35	0
54	MG	DA	3225	1/1	0.94	0.26	64,64,64,64	0
54	MG	BA	3447	1/1	0.94	0.28	37,37,37,37	0
54	MG	DA	3335	1/1	0.94	0.24	72,72,72,72	0
54	MG	DA	3372	1/1	0.94	0.33	40,40,40,40	0
54	MG	BA	3359	1/1	0.94	0.13	49,49,49,49	0
54	MG	BA	3065	1/1	0.94	0.13	47,47,47,47	0
54	MG	BA	3547	1/1	0.94	0.24	31,31,31,31	0
54	MG	BR	202	1/1	0.94	0.38	49,49,49,49	0
54	MG	BA	3282	1/1	0.94	0.28	43,43,43,43	0
54	MG	BA	3007	1/1	0.94	0.21	36,36,36,36	0
54	MG	BA	3214	1/1	0.94	0.56	34,34,34,34	0
54	MG	BA	3306	1/1	0.94	0.16	51,51,51,51	0
54	MG	DA	3248	1/1	0.94	0.56	44,44,44,44	0
54	MG	BA	3028	1/1	0.94	0.24	46,46,46,46	0
54	MG	DA	3090	1/1	0.94	0.24	53,53,53,53	0
54	MG	AA	1642	1/1	0.94	0.15	64,64,64,64	0
54	MG	CA	1603	1/1	0.94	0.28	73,73,73,73	0
54	MG	DA	3222	1/1	0.94	0.26	47,47,47,47	0
54	MG	DA	3303	1/1	0.94	0.19	37,37,37,37	0
54	MG	BA	3203	1/1	0.94	0.32	69,69,69,69	0
54	MG	BA	3510	1/1	0.94	0.17	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BB	203	1/1	0.94	0.20	80,80,80,80	0
54	MG	CA	1628	1/1	0.94	0.27	55,55,55,55	0
54	MG	BA	3563	1/1	0.94	0.11	67,67,67,67	0
54	MG	BA	3328	1/1	0.94	0.20	27,27,27,27	0
54	MG	DA	3052	1/1	0.94	0.29	71,71,71,71	0
54	MG	DA	3368	1/1	0.94	0.17	78,78,78,78	0
54	MG	BA	3049	1/1	0.94	0.19	54,54,54,54	0
54	MG	DA	3086	1/1	0.94	0.63	54,54,54,54	0
54	MG	BA	3255	1/1	0.94	0.58	65,65,65,65	0
54	MG	AA	1636	1/1	0.94	0.17	86,86,86,86	0
54	MG	DA	3428	1/1	0.94	0.12	81,81,81,81	0
54	MG	DA	3425	1/1	0.94	0.07	60,60,60,60	0
54	MG	AA	1644	1/1	0.94	0.34	74,74,74,74	0
54	MG	BA	3543	1/1	0.94	0.19	59,59,59,59	0
54	MG	DA	3151	1/1	0.94	0.37	58,58,58,58	0
54	MG	BA	3460	1/1	0.94	0.09	58,58,58,58	0
54	MG	BA	3515	1/1	0.94	0.12	46,46,46,46	0
54	MG	DA	3167	1/1	0.94	0.10	59,59,59,59	0
54	MG	DE	301	1/1	0.94	0.51	37,37,37,37	0
54	MG	AA	1640	1/1	0.94	0.51	80,80,80,80	0
54	MG	BA	3108	1/1	0.94	0.26	56,56,56,56	0
54	MG	BA	3059	1/1	0.94	0.31	49,49,49,49	0
54	MG	BA	3301	1/1	0.94	0.05	62,62,62,62	0
54	MG	BA	3233	1/1	0.94	0.13	59,59,59,59	0
54	MG	BA	3453	1/1	0.94	0.17	74,74,74,74	0
54	MG	DA	3179	1/1	0.94	0.27	62,62,62,62	0
54	MG	DA	3337	1/1	0.94	0.10	42,42,42,42	0
54	MG	BA	3404	1/1	0.94	0.11	46,46,46,46	0
54	MG	BA	3382	1/1	0.94	0.08	58,58,58,58	0
54	MG	BA	3405	1/1	0.94	0.19	38,38,38,38	0
54	MG	DA	3183	1/1	0.94	0.12	50,50,50,50	0
54	MG	BA	3275	1/1	0.94	0.19	41,41,41,41	0
54	MG	BA	3113	1/1	0.94	0.40	35,35,35,35	0
54	MG	DA	3399	1/1	0.94	0.41	60,60,60,60	0
54	MG	BA	3265	1/1	0.94	0.39	30,30,30,30	0
54	MG	BA	3400	1/1	0.94	0.19	34,34,34,34	0
54	MG	BA	3342	1/1	0.94	0.08	57,57,57,57	0
54	MG	BA	3235	1/1	0.94	0.12	45,45,45,45	0
54	MG	DA	3405	1/1	0.94	0.17	70,70,70,70	0
54	MG	DA	3165	1/1	0.94	0.17	58,58,58,58	0
54	MG	BA	3125	1/1	0.94	0.23	50,50,50,50	0
54	MG	BA	3156	1/1	0.94	0.15	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3260	1/1	0.94	0.61	50,50,50,50	0
54	MG	DA	3353	1/1	0.94	0.20	40,40,40,40	0
54	MG	B3	102	1/1	0.94	0.27	54,54,54,54	0
54	MG	DA	3087	1/1	0.94	0.32	58,58,58,58	0
54	MG	BA	3054	1/1	0.94	0.15	52,52,52,52	0
54	MG	DA	3407	1/1	0.94	0.25	59,59,59,59	0
54	MG	DA	3168	1/1	0.94	0.29	42,42,42,42	0
54	MG	BA	3302	1/1	0.94	0.28	45,45,45,45	0
54	MG	BA	3128	1/1	0.94	0.20	53,53,53,53	0
54	MG	BA	3494	1/1	0.94	0.47	44,44,44,44	0
54	MG	BA	3580	1/1	0.94	0.07	61,61,61,61	0
54	MG	DA	3051	1/1	0.94	0.15	43,43,43,43	0
54	MG	BA	3143	1/1	0.94	0.39	45,45,45,45	0
54	MG	BA	3012	1/1	0.94	0.21	34,34,34,34	0
54	MG	DA	3184	1/1	0.94	0.44	39,39,39,39	0
54	MG	BA	3119	1/1	0.94	0.22	39,39,39,39	0
54	MG	BA	3109	1/1	0.94	0.25	57,57,57,57	0
54	MG	DA	3302	1/1	0.94	0.26	36,36,36,36	0
54	MG	DA	3282	1/1	0.94	0.08	42,42,42,42	0
54	MG	AA	1658	1/1	0.94	0.16	60,60,60,60	0
54	MG	DA	3029	1/1	0.94	0.15	72,72,72,72	0
54	MG	DA	3237	1/1	0.94	0.51	39,39,39,39	0
54	MG	BA	3355	1/1	0.94	0.16	54,54,54,54	0
54	MG	DA	3370	1/1	0.94	0.19	51,51,51,51	0
54	MG	BA	3019	1/1	0.94	0.10	39,39,39,39	0
54	MG	DA	3013	1/1	0.94	0.15	41,41,41,41	0
54	MG	BA	3585	1/1	0.94	0.24	54,54,54,54	0
54	MG	CA	1602	1/1	0.94	0.57	82,82,82,82	0
54	MG	DA	3212	1/1	0.94	0.25	38,38,38,38	0
54	MG	DA	3005	1/1	0.94	0.19	64,64,64,64	0
54	MG	DA	3271	1/1	0.94	0.10	57,57,57,57	0
54	MG	BA	3561	1/1	0.94	0.27	49,49,49,49	0
54	MG	BA	3410	1/1	0.94	0.20	34,34,34,34	0
54	MG	BA	3099	1/1	0.94	0.28	52,52,52,52	0
54	MG	BA	3586	1/1	0.94	0.09	58,58,58,58	0
54	MG	BA	3043	1/1	0.94	0.34	54,54,54,54	0
54	MG	AA	1662	1/1	0.94	0.21	83,83,83,83	0
54	MG	BA	3497	1/1	0.94	0.17	55,55,55,55	0
54	MG	DA	3176	1/1	0.94	0.32	61,61,61,61	0
54	MG	BA	3094	1/1	0.94	0.17	41,41,41,41	0
54	MG	DA	3009	1/1	0.94	0.26	54,54,54,54	0
54	MG	DA	3394	1/1	0.94	0.33	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3394	1/1	0.94	0.10	29,29,29,29	0
54	MG	BA	3333	1/1	0.94	0.30	36,36,36,36	0
54	MG	BA	3433	1/1	0.94	0.14	35,35,35,35	0
54	MG	DA	3188	1/1	0.95	0.23	54,54,54,54	0
54	MG	DA	3340	1/1	0.95	0.38	44,44,44,44	0
54	MG	BA	3376	1/1	0.95	0.11	55,55,55,55	0
54	MG	BA	3345	1/1	0.95	0.16	45,45,45,45	0
54	MG	BA	3042	1/1	0.95	0.50	47,47,47,47	0
54	MG	AA	1685	1/1	0.95	0.11	77,77,77,77	0
54	MG	DA	3389	1/1	0.95	0.14	58,58,58,58	0
54	MG	BA	3311	1/1	0.95	0.27	60,60,60,60	0
54	MG	DA	3429	1/1	0.95	0.16	44,44,44,44	0
54	MG	BA	3434	1/1	0.95	0.38	36,36,36,36	0
54	MG	BA	3222	1/1	0.95	0.19	51,51,51,51	0
54	MG	DA	3228	1/1	0.95	0.54	51,51,51,51	0
54	MG	BA	3452	1/1	0.95	0.12	62,62,62,62	0
54	MG	BA	3134	1/1	0.95	0.45	44,44,44,44	0
54	MG	DA	3266	1/1	0.95	0.09	58,58,58,58	0
54	MG	BB	201	1/1	0.95	0.21	61,61,61,61	0
54	MG	DA	3284	1/1	0.95	0.17	61,61,61,61	0
54	MG	CA	1604	1/1	0.95	0.19	110,110,110,110	0
54	MG	DA	3416	1/1	0.95	0.13	32,32,32,32	0
54	MG	DA	3230	1/1	0.95	0.17	67,67,67,67	0
54	MG	BA	3566	1/1	0.95	0.21	40,40,40,40	0
54	MG	DA	3038	1/1	0.95	0.33	39,39,39,39	0
54	MG	BA	3606	1/1	0.95	0.11	29,29,29,29	0
54	MG	DA	3147	1/1	0.95	0.68	78,78,78,78	0
54	MG	BA	3508	1/1	0.95	0.11	40,40,40,40	0
54	MG	BA	3319	1/1	0.95	0.05	68,68,68,68	0
54	MG	BA	3387	1/1	0.95	0.26	33,33,33,33	0
54	MG	BA	3211	1/1	0.95	0.19	53,53,53,53	0
54	MG	DA	3016	1/1	0.95	0.10	41,41,41,41	0
54	MG	BA	3413	1/1	0.95	0.28	31,31,31,31	0
54	MG	DA	3249	1/1	0.95	0.36	67,67,67,67	0
54	MG	BA	3322	1/1	0.95	0.13	45,45,45,45	0
54	MG	BA	3416	1/1	0.95	0.17	46,46,46,46	0
54	MG	BA	3401	1/1	0.95	0.17	45,45,45,45	0
54	MG	BA	3129	1/1	0.95	0.40	49,49,49,49	0
54	MG	CA	1651	1/1	0.95	0.18	61,61,61,61	0
54	MG	BA	3437	1/1	0.95	0.21	28,28,28,28	0
54	MG	BA	3551	1/1	0.95	0.26	40,40,40,40	0
54	MG	DA	3321	1/1	0.95	0.21	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1632	1/1	0.95	0.29	65,65,65,65	0
54	MG	DA	3238	1/1	0.95	0.61	52,52,52,52	0
54	MG	BA	3304	1/1	0.95	0.17	27,27,27,27	0
54	MG	AA	1672	1/1	0.95	0.66	82,82,82,82	0
54	MG	BA	3493	1/1	0.95	0.19	52,52,52,52	0
54	MG	DA	3395	1/1	0.95	0.26	37,37,37,37	0
54	MG	BA	3133	1/1	0.95	0.30	31,31,31,31	0
54	MG	BA	3263	1/1	0.95	0.62	41,41,41,41	0
54	MG	DA	3290	1/1	0.95	0.24	42,42,42,42	0
54	MG	DA	3422	1/1	0.95	0.10	75,75,75,75	0
54	MG	AA	1645	1/1	0.95	0.86	77,77,77,77	0
54	MG	BA	3598	1/1	0.95	0.13	39,39,39,39	0
54	MG	BA	3149	1/1	0.95	0.14	49,49,49,49	0
54	MG	B9	102	1/1	0.95	0.31	45,45,45,45	0
54	MG	BA	3182	1/1	0.95	0.09	69,69,69,69	0
54	MG	DA	3350	1/1	0.95	0.14	50,50,50,50	0
54	MG	BA	3199	1/1	0.95	0.23	31,31,31,31	0
54	MG	BA	3429	1/1	0.95	0.17	29,29,29,29	0
54	MG	DA	3054	1/1	0.95	0.71	75,75,75,75	0
54	MG	BA	3607	1/1	0.95	0.13	38,38,38,38	0
54	MG	DA	3031	1/1	0.95	0.45	43,43,43,43	0
54	MG	DA	3265	1/1	0.95	0.21	39,39,39,39	0
54	MG	DA	3131	1/1	0.95	0.28	39,39,39,39	0
54	MG	BA	3336	1/1	0.95	0.12	46,46,46,46	0
54	MG	BA	3472	1/1	0.95	0.21	29,29,29,29	0
54	MG	BA	3010	1/1	0.95	0.20	48,48,48,48	0
54	MG	DA	3122	1/1	0.95	0.52	47,47,47,47	0
54	MG	DA	3055	1/1	0.95	0.46	43,43,43,43	0
55	ZN	BY	201	1/1	0.95	0.14	74,74,74,74	0
54	MG	BA	3291	1/1	0.95	0.12	59,59,59,59	0
54	MG	BD	303	1/1	0.95	0.35	58,58,58,58	0
54	MG	BA	3168	1/1	0.95	0.39	52,52,52,52	0
54	MG	BA	3523	1/1	0.95	0.06	79,79,79,79	0
54	MG	BA	3353	1/1	0.95	0.13	28,28,28,28	0
54	MG	BA	3084	1/1	0.95	0.16	56,56,56,56	0
54	MG	BA	3473	1/1	0.95	0.44	59,59,59,59	0
54	MG	BA	3373	1/1	0.95	0.09	55,55,55,55	0
54	MG	DA	3191	1/1	0.95	0.26	50,50,50,50	0
54	MG	DA	3233	1/1	0.95	0.32	43,43,43,43	0
54	MG	BA	3236	1/1	0.95	0.21	50,50,50,50	0
54	MG	BA	3123	1/1	0.95	0.20	43,43,43,43	0
54	MG	BA	3281	1/1	0.95	0.29	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3056	1/1	0.95	0.39	48,48,48,48	0
54	MG	BA	3284	1/1	0.95	0.13	40,40,40,40	0
54	MG	BA	3112	1/1	0.95	0.40	47,47,47,47	0
54	MG	BA	3252	1/1	0.95	0.25	44,44,44,44	0
54	MG	DA	3247	1/1	0.95	0.37	52,52,52,52	0
54	MG	DA	3170	1/1	0.95	0.25	52,52,52,52	0
54	MG	AA	1635	1/1	0.95	0.21	71,71,71,71	0
54	MG	BA	3383	1/1	0.95	0.17	71,71,71,71	0
54	MG	DA	3115	1/1	0.95	0.41	39,39,39,39	0
54	MG	BA	3179	1/1	0.95	0.44	48,48,48,48	0
54	MG	BA	3126	1/1	0.95	0.41	57,57,57,57	0
54	MG	BA	3417	1/1	0.95	0.21	37,37,37,37	0
54	MG	BA	3230	1/1	0.95	0.37	50,50,50,50	0
54	MG	DA	3153	1/1	0.95	0.47	38,38,38,38	0
54	MG	BA	3485	1/1	0.95	0.15	60,60,60,60	0
54	MG	DA	3338	1/1	0.95	0.19	50,50,50,50	0
54	MG	DA	3402	1/1	0.95	0.21	59,59,59,59	0
54	MG	CA	1601	1/1	0.95	0.37	50,50,50,50	0
54	MG	DA	3365	1/1	0.95	0.08	50,50,50,50	0
54	MG	DA	3163	1/1	0.95	0.38	56,56,56,56	0
54	MG	DA	3251	1/1	0.95	0.48	39,39,39,39	0
54	MG	BA	3005	1/1	0.95	0.14	42,42,42,42	0
54	MG	DA	3185	1/1	0.95	0.45	47,47,47,47	0
54	MG	BA	3057	1/1	0.95	0.21	46,46,46,46	0
54	MG	DA	3234	1/1	0.95	0.48	56,56,56,56	0
54	MG	DA	3100	1/1	0.95	0.31	61,61,61,61	0
54	MG	DA	3092	1/1	0.95	0.22	63,63,63,63	0
54	MG	DA	3289	1/1	0.95	0.20	52,52,52,52	0
54	MG	BA	3212	1/1	0.95	0.16	47,47,47,47	0
54	MG	BA	3258	1/1	0.95	0.44	56,56,56,56	0
54	MG	DA	3068	1/1	0.95	0.23	48,48,48,48	0
54	MG	BA	3083	1/1	0.95	0.46	56,56,56,56	0
54	MG	BA	3290	1/1	0.95	0.37	47,47,47,47	0
54	MG	BA	3287	1/1	0.95	0.45	65,65,65,65	0
54	MG	BA	3223	1/1	0.95	0.18	57,57,57,57	0
54	MG	DA	3331	1/1	0.95	0.17	69,69,69,69	0
54	MG	BA	3610	1/1	0.95	0.06	56,56,56,56	0
54	MG	DA	3413	1/1	0.95	0.18	37,37,37,37	0
54	MG	BA	3583	1/1	0.95	0.05	50,50,50,50	0
54	MG	DA	3144	1/1	0.95	0.30	42,42,42,42	0
54	MG	DA	3067	1/1	0.95	0.33	32,32,32,32	0
54	MG	DA	3272	1/1	0.96	0.18	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3321	1/1	0.96	0.11	65,65,65,65	0
54	MG	BA	3075	1/1	0.96	0.31	53,53,53,53	0
54	MG	DA	3218	1/1	0.96	0.71	53,53,53,53	0
54	MG	BA	3326	1/1	0.96	0.14	30,30,30,30	0
54	MG	DA	3150	1/1	0.96	0.38	41,41,41,41	0
54	MG	BA	3229	1/1	0.96	0.37	51,51,51,51	0
54	MG	DA	3196	1/1	0.96	0.48	63,63,63,63	0
54	MG	BA	3541	1/1	0.96	0.30	54,54,54,54	0
54	MG	CA	1642	1/1	0.96	0.07	87,87,87,87	0
54	MG	DA	3305	1/1	0.96	0.09	55,55,55,55	0
54	MG	DA	3235	1/1	0.96	0.34	36,36,36,36	0
54	MG	BA	3426	1/1	0.96	0.22	28,28,28,28	0
54	MG	DA	3322	1/1	0.96	0.15	35,35,35,35	0
54	MG	BQ	203	1/1	0.96	0.23	44,44,44,44	0
54	MG	DA	3323	1/1	0.96	0.20	36,36,36,36	0
54	MG	BA	3432	1/1	0.96	0.18	31,31,31,31	0
54	MG	BA	3568	1/1	0.96	0.14	60,60,60,60	0
54	MG	BA	3564	1/1	0.96	0.28	36,36,36,36	0
54	MG	AA	1626	1/1	0.96	0.52	67,67,67,67	0
54	MG	BA	3391	1/1	0.96	0.28	38,38,38,38	0
54	MG	DA	3377	1/1	0.96	0.10	61,61,61,61	0
54	MG	BA	3379	1/1	0.96	0.06	56,56,56,56	0
54	MG	DA	3304	1/1	0.96	0.18	38,38,38,38	0
54	MG	DA	3032	1/1	0.96	0.30	43,43,43,43	0
54	MG	BA	3048	1/1	0.96	0.20	42,42,42,42	0
54	MG	BA	3346	1/1	0.96	0.07	45,45,45,45	0
54	MG	DA	3427	1/1	0.96	0.16	40,40,40,40	0
54	MG	DA	3117	1/1	0.96	0.35	34,34,34,34	0
54	MG	BA	3548	1/1	0.96	0.20	41,41,41,41	0
54	MG	AA	1610	1/1	0.96	0.28	75,75,75,75	0
54	MG	DA	3241	1/1	0.96	0.24	63,63,63,63	0
54	MG	BA	3035	1/1	0.96	0.24	45,45,45,45	0
54	MG	DA	3136	1/1	0.96	0.52	42,42,42,42	0
54	MG	BA	3573	1/1	0.96	0.09	55,55,55,55	0
54	MG	BA	3288	1/1	0.96	0.51	33,33,33,33	0
54	MG	BB	211	1/1	0.96	0.09	51,51,51,51	0
54	MG	DA	3361	1/1	0.96	0.06	67,67,67,67	0
54	MG	BA	3131	1/1	0.96	0.19	44,44,44,44	0
54	MG	AA	1705	1/1	0.96	0.14	68,68,68,68	0
54	MG	BA	3215	1/1	0.96	0.14	61,61,61,61	0
54	MG	DA	3255	1/1	0.96	0.37	63,63,63,63	0
54	MG	BA	3058	1/1	0.96	0.10	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3021	1/1	0.96	0.27	33,33,33,33	0
54	MG	BA	3490	1/1	0.96	0.26	53,53,53,53	0
54	MG	DA	3277	1/1	0.96	0.12	42,42,42,42	0
54	MG	BA	3253	1/1	0.96	0.23	38,38,38,38	0
54	MG	DA	3137	1/1	0.96	0.58	64,64,64,64	0
54	MG	DA	3160	1/1	0.96	0.50	48,48,48,48	0
54	MG	DA	3333	1/1	0.96	0.07	53,53,53,53	0
54	MG	DA	3166	1/1	0.96	0.21	55,55,55,55	0
54	MG	DA	3124	1/1	0.96	0.47	35,35,35,35	0
54	MG	DA	3274	1/1	0.96	0.10	35,35,35,35	0
54	MG	BA	3349	1/1	0.96	0.13	39,39,39,39	0
54	MG	BA	3544	1/1	0.96	0.20	91,91,91,91	0
54	MG	DA	3074	1/1	0.96	0.50	38,38,38,38	0
54	MG	BA	3190	1/1	0.96	0.30	46,46,46,46	0
54	MG	BA	3324	1/1	0.96	0.10	82,82,82,82	0
54	MG	BA	3512	1/1	0.96	0.33	45,45,45,45	0
54	MG	DA	3164	1/1	0.96	0.23	46,46,46,46	0
54	MG	CA	1614	1/1	0.96	0.26	69,69,69,69	0
54	MG	BA	3025	1/1	0.96	0.11	52,52,52,52	0
54	MG	BA	3033	1/1	0.96	0.37	40,40,40,40	0
55	ZN	D6	101	1/1	0.96	0.10	86,86,86,86	0
54	MG	DA	3116	1/1	0.96	0.40	46,46,46,46	0
54	MG	BA	3427	1/1	0.96	0.22	32,32,32,32	0
54	MG	DA	3088	1/1	0.96	0.26	65,65,65,65	0
54	MG	DA	3156	1/1	0.96	0.25	52,52,52,52	0
54	MG	AA	1647	1/1	0.96	0.32	61,61,61,61	0
54	MG	BA	3192	1/1	0.96	0.33	43,43,43,43	0
54	MG	DA	3275	1/1	0.96	0.12	48,48,48,48	0
54	MG	AA	1684	1/1	0.96	0.05	76,76,76,76	0
54	MG	BA	3162	1/1	0.96	0.48	62,62,62,62	0
54	MG	BA	3312	1/1	0.96	0.09	50,50,50,50	0
54	MG	BA	3008	1/1	0.96	0.28	32,32,32,32	0
54	MG	BA	3278	1/1	0.96	0.25	43,43,43,43	0
54	MG	BA	3115	1/1	0.96	0.36	43,43,43,43	0
54	MG	DA	3253	1/1	0.96	0.30	42,42,42,42	0
54	MG	BE	303	1/1	0.96	0.14	54,54,54,54	0
54	MG	BA	3038	1/1	0.96	0.10	36,36,36,36	0
54	MG	DA	3243	1/1	0.96	0.35	53,53,53,53	0
54	MG	DA	3178	1/1	0.96	0.47	58,58,58,58	0
54	MG	BA	3261	1/1	0.96	0.29	59,59,59,59	0
54	MG	CA	1620	1/1	0.96	0.32	57,57,57,57	0
54	MG	BA	3164	1/1	0.96	0.17	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3010	1/1	0.96	0.15	43,43,43,43	0
54	MG	BA	3438	1/1	0.96	0.17	38,38,38,38	0
54	MG	BA	3256	1/1	0.96	0.67	69,69,69,69	0
54	MG	CA	1633	1/1	0.96	0.25	71,71,71,71	0
54	MG	BA	3364	1/1	0.96	0.12	46,46,46,46	0
54	MG	BA	3528	1/1	0.96	0.12	43,43,43,43	0
54	MG	BA	3582	1/1	0.96	0.12	54,54,54,54	0
54	MG	DB	205	1/1	0.96	0.14	70,70,70,70	0
54	MG	DA	3025	1/1	0.97	0.17	57,57,57,57	0
54	MG	BA	3292	1/1	0.97	0.20	44,44,44,44	0
54	MG	DA	3325	1/1	0.97	0.26	36,36,36,36	0
54	MG	BA	3488	1/1	0.97	0.15	34,34,34,34	0
54	MG	DA	3288	1/1	0.97	0.11	37,37,37,37	0
54	MG	BA	3047	1/1	0.97	0.29	50,50,50,50	0
54	MG	BA	3462	1/1	0.97	0.12	25,25,25,25	0
54	MG	BA	3317	1/1	0.97	0.09	51,51,51,51	0
54	MG	BA	3385	1/1	0.97	0.10	73,73,73,73	0
54	MG	DA	3283	1/1	0.97	0.14	48,48,48,48	0
54	MG	DA	3366	1/1	0.97	0.14	35,35,35,35	0
54	MG	BA	3502	1/1	0.97	0.17	41,41,41,41	0
54	MG	BA	3221	1/1	0.97	0.17	51,51,51,51	0
54	MG	DA	3309	1/1	0.97	0.47	48,48,48,48	0
54	MG	DA	3022	1/1	0.97	0.36	52,52,52,52	0
54	MG	BA	3238	1/1	0.97	0.16	32,32,32,32	0
54	MG	BA	3309	1/1	0.97	0.16	38,38,38,38	0
54	MG	BA	3455	1/1	0.97	0.34	42,42,42,42	0
54	MG	BA	3293	1/1	0.97	0.21	29,29,29,29	0
54	MG	BA	3507	1/1	0.97	0.14	53,53,53,53	0
54	MG	DA	3154	1/1	0.97	0.83	62,62,62,62	0
54	MG	DA	3287	1/1	0.97	0.06	46,46,46,46	0
54	MG	DA	3020	1/1	0.97	0.20	39,39,39,39	0
54	MG	BA	3352	1/1	0.97	0.09	53,53,53,53	0
54	MG	BA	3552	1/1	0.97	0.18	38,38,38,38	0
54	MG	DA	3356	1/1	0.97	0.19	42,42,42,42	0
54	MG	BA	3163	1/1	0.97	0.43	42,42,42,42	0
54	MG	DA	3132	1/1	0.97	0.41	49,49,49,49	0
54	MG	DD	301	1/1	0.97	0.16	40,40,40,40	0
54	MG	BA	3367	1/1	0.97	0.21	33,33,33,33	0
54	MG	DA	3319	1/1	0.97	0.10	59,59,59,59	0
54	MG	DA	3414	1/1	0.97	0.12	68,68,68,68	0
54	MG	DA	3263	1/1	0.97	0.08	70,70,70,70	0
54	MG	DA	3276	1/1	0.97	0.12	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3518	1/1	0.97	0.36	59,59,59,59	0
54	MG	BA	3441	1/1	0.97	0.25	35,35,35,35	0
54	MG	BA	3483	1/1	0.97	0.16	57,57,57,57	0
54	MG	BA	3419	1/1	0.97	0.25	35,35,35,35	0
54	MG	DA	3430	1/1	0.97	0.05	72,72,72,72	0
54	MG	BA	3020	1/1	0.97	0.10	34,34,34,34	0
54	MG	BA	3591	1/1	0.97	0.13	56,56,56,56	0
54	MG	BA	3228	1/1	0.97	0.38	26,26,26,26	0
54	MG	BA	3409	1/1	0.97	0.18	26,26,26,26	0
54	MG	DA	3320	1/1	0.97	0.13	57,57,57,57	0
54	MG	BA	3354	1/1	0.97	0.06	49,49,49,49	0
54	MG	DA	3039	1/1	0.97	0.28	41,41,41,41	0
54	MG	BA	3604	1/1	0.97	0.07	36,36,36,36	0
54	MG	DA	3398	1/1	0.97	0.12	52,52,52,52	0
54	MG	BA	3398	1/1	0.97	0.17	36,36,36,36	0
54	MG	DA	3385	1/1	0.97	0.36	49,49,49,49	0
54	MG	BA	3599	1/1	0.97	0.09	50,50,50,50	0
54	MG	BA	3268	1/1	0.97	0.29	44,44,44,44	0
54	MG	BA	3423	1/1	0.97	0.22	30,30,30,30	0
54	MG	BA	3516	1/1	0.97	0.14	39,39,39,39	0
54	MG	BA	3576	1/1	0.97	0.12	41,41,41,41	0
54	MG	BA	3380	1/1	0.97	0.07	50,50,50,50	0
54	MG	DA	3169	1/1	0.97	0.25	39,39,39,39	0
54	MG	DF	301	1/1	0.97	0.37	58,58,58,58	0
54	MG	DA	3094	1/1	0.97	0.12	39,39,39,39	0
55	ZN	D9	101	1/1	0.97	0.05	87,87,87,87	0
54	MG	DA	3351	1/1	0.97	0.14	78,78,78,78	0
54	MG	BA	3470	1/1	0.97	0.23	35,35,35,35	0
54	MG	DA	3171	1/1	0.97	0.31	53,53,53,53	0
54	MG	BA	3440	1/1	0.97	0.09	63,63,63,63	0
54	MG	DA	3076	1/1	0.97	0.17	70,70,70,70	0
54	MG	DA	3204	1/1	0.97	0.31	37,37,37,37	0
54	MG	DA	3308	1/1	0.97	0.42	49,49,49,49	0
54	MG	BA	3262	1/1	0.97	0.38	32,32,32,32	0
54	MG	BA	3406	1/1	0.97	0.18	40,40,40,40	0
54	MG	BA	3408	1/1	0.97	0.32	34,34,34,34	0
54	MG	BA	3305	1/1	0.97	0.09	37,37,37,37	0
54	MG	DA	3267	1/1	0.97	0.19	59,59,59,59	0
54	MG	BA	3110	1/1	0.97	0.37	23,23,23,23	0
54	MG	BE	305	1/1	0.97	0.22	32,32,32,32	0
54	MG	DA	3145	1/1	0.97	0.45	47,47,47,47	0
54	MG	BA	3506	1/1	0.97	0.16	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3539	1/1	0.97	0.06	61,61,61,61	0
54	MG	BA	3454	1/1	0.97	0.17	34,34,34,34	0
54	MG	BA	3442	1/1	0.97	0.15	31,31,31,31	0
54	MG	BB	216	1/1	0.98	0.33	46,46,46,46	0
54	MG	DA	3307	1/1	0.98	0.22	39,39,39,39	0
54	MG	CA	1652	1/1	0.98	0.09	65,65,65,65	0
54	MG	AA	1689	1/1	0.98	0.09	55,55,55,55	0
54	MG	DA	3332	1/1	0.98	0.05	62,62,62,62	0
54	MG	BA	3578	1/1	0.98	0.21	60,60,60,60	0
54	MG	BA	3477	1/1	0.98	0.08	45,45,45,45	0
54	MG	BA	3550	1/1	0.98	0.28	37,37,37,37	0
54	MG	DA	3344	1/1	0.98	0.09	51,51,51,51	0
54	MG	BA	3299	1/1	0.98	0.22	38,38,38,38	0
55	ZN	D5	101	1/1	0.98	0.07	65,65,65,65	0
54	MG	DA	3220	1/1	0.98	0.25	48,48,48,48	0
54	MG	BA	3303	1/1	0.98	0.20	36,36,36,36	0
54	MG	BA	3390	1/1	0.98	0.22	29,29,29,29	0
54	MG	BA	3060	1/1	0.98	0.30	45,45,45,45	0
54	MG	B8	103	1/1	0.98	0.14	51,51,51,51	0
54	MG	DA	3280	1/1	0.98	0.26	40,40,40,40	0
54	MG	BA	3246	1/1	0.98	0.21	49,49,49,49	0
54	MG	BA	3570	1/1	0.98	0.17	36,36,36,36	0
54	MG	DA	3118	1/1	0.98	0.45	44,44,44,44	0
54	MG	CA	1654	1/1	0.98	0.11	95,95,95,95	0
54	MG	DA	3202	1/1	0.98	0.22	37,37,37,37	0
54	MG	BA	3609	1/1	0.98	0.18	51,51,51,51	0
54	MG	DA	3279	1/1	0.98	0.33	40,40,40,40	0
54	MG	DA	3270	1/1	0.98	0.11	34,34,34,34	0
54	MG	BA	3451	1/1	0.98	0.24	34,34,34,34	0
54	MG	DA	3392	1/1	0.98	0.09	56,56,56,56	0
54	MG	BD	302	1/1	0.98	0.29	38,38,38,38	0
54	MG	BA	3378	1/1	0.98	0.12	38,38,38,38	0
54	MG	BA	3430	1/1	0.98	0.22	30,30,30,30	0
54	MG	BA	3461	1/1	0.98	0.23	38,38,38,38	0
54	MG	BA	3381	1/1	0.98	0.08	49,49,49,49	0
54	MG	BA	3466	1/1	0.98	0.07	67,67,67,67	0
54	MG	BA	3575	1/1	0.98	0.07	54,54,54,54	0
54	MG	DA	3419	1/1	0.98	0.08	50,50,50,50	0
55	ZN	B9	101	1/1	0.98	0.13	69,69,69,69	0
54	MG	BA	3348	1/1	0.98	0.22	37,37,37,37	0
54	MG	DA	3149	1/1	0.98	0.38	36,36,36,36	0
54	MG	BA	3177	1/1	0.98	0.10	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3431	1/1	0.98	0.26	34,34,34,34	0
54	MG	BA	3482	1/1	0.98	0.18	58,58,58,58	0
54	MG	BA	3372	1/1	0.98	0.13	50,50,50,50	0
54	MG	BA	3403	1/1	0.98	0.13	44,44,44,44	0
54	MG	BA	3104	1/1	0.98	0.21	48,48,48,48	0
54	MG	DA	3110	1/1	0.98	0.08	46,46,46,46	0
54	MG	BA	3202	1/1	0.98	0.52	65,65,65,65	0
54	MG	BA	3331	1/1	0.98	0.16	51,51,51,51	0
54	MG	BB	205	1/1	0.98	0.29	57,57,57,57	0
54	MG	BA	3313	1/1	0.98	0.12	42,42,42,42	0
54	MG	BA	3596	1/1	0.98	0.13	46,46,46,46	0
54	MG	BA	3579	1/1	0.98	0.12	53,53,53,53	0
54	MG	BA	3540	1/1	0.98	0.06	61,61,61,61	0
54	MG	BA	3421	1/1	0.98	0.13	36,36,36,36	0
54	MG	DA	3236	1/1	0.98	0.55	44,44,44,44	0
54	MG	DA	3273	1/1	0.98	0.11	37,37,37,37	0
54	MG	BA	3307	1/1	0.98	0.20	29,29,29,29	0
54	MG	BA	3557	1/1	0.98	0.49	42,42,42,42	0
54	MG	BA	3234	1/1	0.98	0.33	34,34,34,34	0
54	MG	BA	3574	1/1	0.98	0.06	41,41,41,41	0
54	MG	BA	3605	1/1	0.98	0.12	30,30,30,30	0
54	MG	BA	3395	1/1	0.98	0.14	32,32,32,32	0
54	MG	CA	1644	1/1	0.98	0.15	74,74,74,74	0
54	MG	BA	3080	1/1	0.98	0.51	42,42,42,42	0
54	MG	DB	204	1/1	0.98	0.14	74,74,74,74	0
54	MG	DA	3426	1/1	0.98	0.10	94,94,94,94	0
54	MG	BA	3602	1/1	0.98	0.09	24,24,24,24	0
54	MG	DA	3300	1/1	0.98	0.20	62,62,62,62	0
54	MG	BA	3484	1/1	0.98	0.12	40,40,40,40	0
54	MG	DA	3264	1/1	0.98	0.21	46,46,46,46	0
54	MG	BA	3601	1/1	0.98	0.06	33,33,33,33	0
54	MG	BA	3248	1/1	0.98	0.18	50,50,50,50	0
54	MG	BA	3411	1/1	0.98	0.27	43,43,43,43	0
54	MG	DA	3285	1/1	0.98	0.14	52,52,52,52	0
54	MG	DA	3268	1/1	0.98	0.16	43,43,43,43	0
54	MG	BA	3476	1/1	0.98	0.23	44,44,44,44	0
54	MG	BA	3370	1/1	0.98	0.10	66,66,66,66	0
54	MG	CA	1647	1/1	0.98	0.13	78,78,78,78	0
54	MG	BA	3603	1/1	0.98	0.19	30,30,30,30	0
54	MG	AA	1668	1/1	0.98	0.11	83,83,83,83	0
54	MG	AA	1614	1/1	0.98	0.23	62,62,62,62	0
54	MG	BA	3296	1/1	0.98	0.07	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3597	1/1	0.99	0.09	26,26,26,26	0
54	MG	BA	3471	1/1	0.99	0.21	38,38,38,38	0
54	MG	DA	3404	1/1	0.99	0.07	53,53,53,53	0
54	MG	BB	217	1/1	0.99	0.25	42,42,42,42	0
54	MG	BA	3310	1/1	0.99	0.21	44,44,44,44	0
54	MG	BA	3424	1/1	0.99	0.22	32,32,32,32	0
54	MG	DA	3352	1/1	0.99	0.10	61,61,61,61	0
54	MG	BA	3366	1/1	0.99	0.08	50,50,50,50	0
54	MG	BA	3323	1/1	0.99	0.09	40,40,40,40	0
54	MG	DA	3004	1/1	0.99	0.14	59,59,59,59	0
54	MG	B5	102	1/1	0.99	0.08	42,42,42,42	0
54	MG	BA	3600	1/1	0.99	0.20	31,31,31,31	0
55	ZN	B5	103	1/1	0.99	0.14	58,58,58,58	0
54	MG	BA	3393	1/1	0.99	0.19	38,38,38,38	0
54	MG	BA	3504	1/1	0.99	0.39	28,28,28,28	0
54	MG	BA	3443	1/1	0.99	0.25	41,41,41,41	0
54	MG	DA	3281	1/1	0.99	0.09	36,36,36,36	0
54	MG	BA	3560	1/1	0.99	0.12	29,29,29,29	0
54	MG	DA	3418	1/1	0.99	0.07	39,39,39,39	0
55	ZN	B6	101	1/1	0.99	0.12	54,54,54,54	0
54	MG	BA	3368	1/1	0.99	0.31	34,34,34,34	0
54	MG	DA	3373	1/1	0.99	0.27	38,38,38,38	0
54	MG	BA	3245	1/1	0.99	0.12	36,36,36,36	0

6.5 Other polymers

There are no such residues in this entry.