



# Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 10:04 PM GMT

PDB ID : 4V8J  
Title : Crystal structure of the bacterial ribosome ram mutation G347U.  
Authors : Fagan, C.E.; Dunkle, J.A.; Maehigashi, T.; Dunham, C.M.  
Deposited on : 2011-12-20  
Resolution : 3.90 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](mailto:validation@mail.wwpdb.org)  
A user guide is available at  
<http://wwpdb.org/validation/2016/XrayValidationReportHelp>  
with specific help available everywhere you see the ⓘ symbol.

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

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

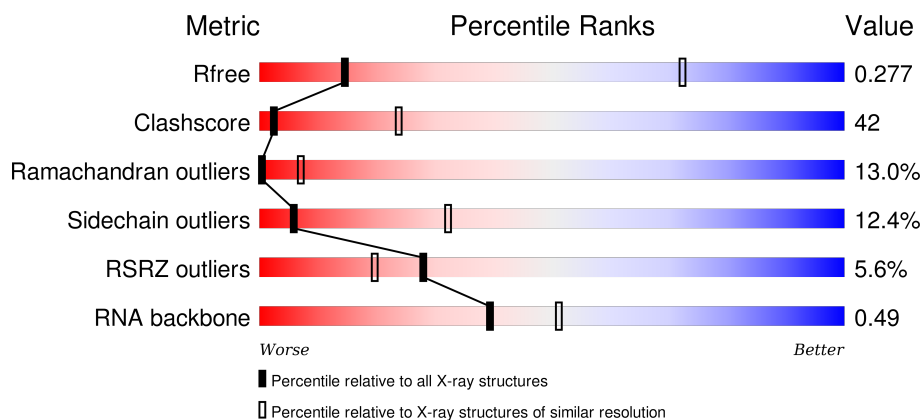
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

## *X-RAY DIFFRACTION*

The reported resolution of this entry is 3.90 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
$R_{free}$	91344	1014 (4.28-3.52)
Clashscore	102246	1031 (4.24-3.56)
Ramachandran outliers	100387	1012 (4.26-3.54)
Sidechain outliers	100360	1004 (4.26-3.54)
RSRZ outliers	91569	1018 (4.28-3.52)
RNA backbone	2183	1078 (5.00-2.80)

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  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ . The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	AA	1522	<div> <div>4%</div> <div>35%</div> <div>52%</div> <div>12%</div> <div>..</div> </div>
1	CA	1522	<div> <div>3%</div> <div>34%</div> <div>51%</div> <div>13%</div> <div>..</div> </div>
2	AB	256	<div> <div>4%</div> <div>20%</div> <div>57%</div> <div>14%</div> <div>8%</div> </div>
2	CB	256	<div> <div>4%</div> <div>18%</div> <div>60%</div> <div>13%</div> <div>8%</div> </div>


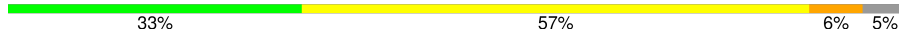


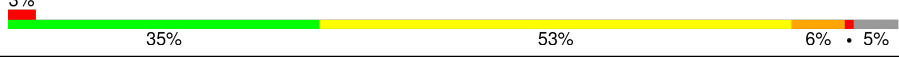
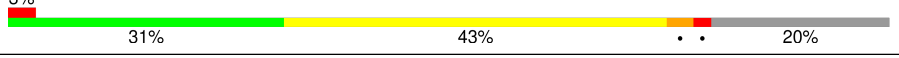
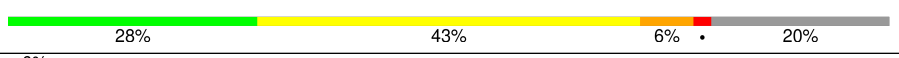
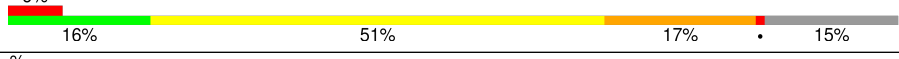
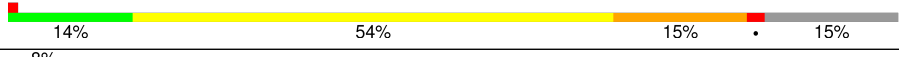
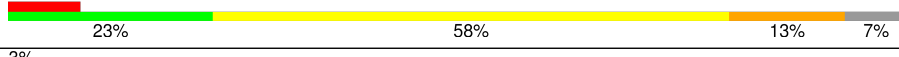
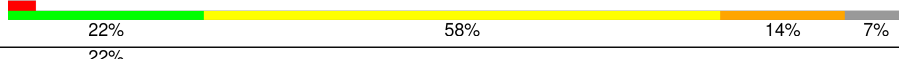
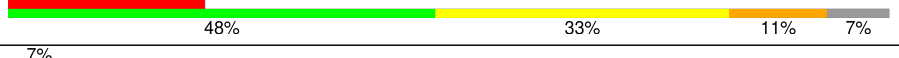
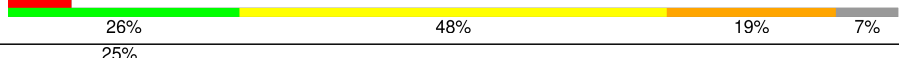
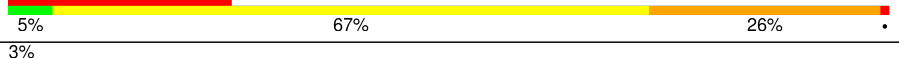

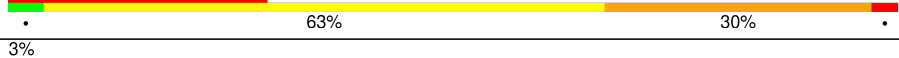





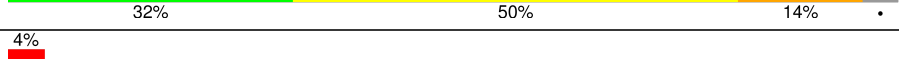

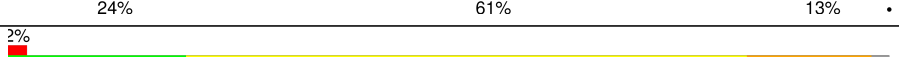
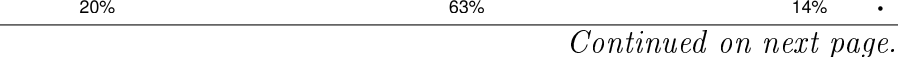
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Mol	Chain	Length	Quality of chain
3	AC	239	
3	CC	239	
4	AD	209	
4	CD	209	
5	AE	162	
5	CE	162	
6	AF	101	
6	CF	101	
7	AG	156	
7	CG	156	
8	AH	138	
8	CH	138	
9	AI	128	
9	CI	128	
10	AJ	105	
10	CJ	105	
11	AK	129	
11	CK	129	
12	AL	132	
12	CL	132	
13	AM	126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

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Mol	Chain	Length	Quality of chain
15	CO	89	
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	AW	76	
22	AY	76	
22	CW	76	
22	CY	76	
23	AV	77	
23	CV	77	
24	AX	24	
24	CX	24	
25	BA	2916	
25	DA	2916	
26	BB	122	
26	DB	122	

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Mol	Chain	Length	Quality of chain
27	BC	229	
27	DC	229	
28	BD	276	
28	DD	276	
29	BE	206	
29	DE	206	
30	BF	210	
30	DF	210	
31	BG	182	
31	DG	182	
32	BH	180	
32	DH	180	
33	BI	148	
33	DI	148	
34	BN	140	
34	DN	140	
35	BO	122	
35	DO	122	
36	BP	150	
36	DP	150	
37	BQ	141	
37	DQ	141	
38	BR	118	
38	DR	118	
39	BS	112	

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Mol	Chain	Length	Quality of chain
39	DS	112	
40	BT	146	
40	DT	146	
41	BU	118	
41	DU	118	
42	BV	101	
42	DV	101	
43	BW	113	
43	DW	113	
44	BX	96	
44	DX	96	
45	BY	110	
45	DY	110	
46	BZ	206	
46	DZ	206	
47	B0	85	
47	D0	85	
48	B1	98	
48	D1	98	
49	B2	72	
49	D2	72	
50	B3	60	
50	D3	60	
51	B4	71	
51	D4	71	

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Mol	Chain	Length	Quality of chain
52	B5	60	
52	D5	60	
53	B6	54	
53	D6	54	
54	B7	49	
54	D7	49	
55	B8	65	
55	D8	65	
56	B9	37	
56	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
57	MG	AA	1604	-	-	-	X
57	MG	AA	1606	-	-	-	X
57	MG	AA	1609	-	-	-	X
57	MG	AA	1611	-	-	-	X
57	MG	AA	1615	-	-	-	X
57	MG	AA	1616	-	-	-	X
57	MG	AA	1617	-	-	-	X
57	MG	AA	1624	-	-	-	X
57	MG	AA	1635	-	-	-	X
57	MG	AA	1639	-	-	-	X
57	MG	AA	1644	-	-	-	X
57	MG	AA	1650	-	-	-	X
57	MG	AA	1653	-	-	-	X
57	MG	AA	1657	-	-	-	X
57	MG	AA	1664	-	-	-	X
57	MG	AA	1667	-	-	-	X
57	MG	AA	1671	-	-	-	X
57	MG	AA	1691	-	-	-	X
57	MG	AA	1692	-	-	-	X
57	MG	BA	3002	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	BA	3003	-	-	-	X
57	MG	BA	3007	-	-	-	X
57	MG	BA	3019	-	-	-	X
57	MG	BA	3020	-	-	-	X
57	MG	BA	3035	-	-	-	X
57	MG	BA	3036	-	-	-	X
57	MG	BA	3046	-	-	-	X
57	MG	BA	3047	-	-	-	X
57	MG	BA	3048	-	-	-	X
57	MG	BA	3051	-	-	-	X
57	MG	BA	3053	-	-	-	X
57	MG	BA	3055	-	-	-	X
57	MG	BA	3061	-	-	X	-
57	MG	BA	3062	-	-	X	-
57	MG	BA	3067	-	-	-	X
57	MG	BA	3070	-	-	-	X
57	MG	BA	3074	-	-	-	X
57	MG	BA	3075	-	-	-	X
57	MG	BA	3079	-	-	-	X
57	MG	BA	3081	-	-	-	X
57	MG	BA	3089	-	-	-	X
57	MG	BA	3091	-	-	-	X
57	MG	BA	3093	-	-	-	X
57	MG	BA	3094	-	-	-	X
57	MG	BA	3095	-	-	-	X
57	MG	BA	3103	-	-	-	X
57	MG	BA	3104	-	-	-	X
57	MG	BA	3113	-	-	-	X
57	MG	BA	3114	-	-	-	X
57	MG	BA	3117	-	-	-	X
57	MG	BA	3125	-	-	-	X
57	MG	BA	3138	-	-	-	X
57	MG	BA	3139	-	-	-	X
57	MG	BA	3140	-	-	-	X
57	MG	BA	3141	-	-	-	X
57	MG	BA	3142	-	-	-	X
57	MG	BA	3146	-	-	-	X
57	MG	BA	3150	-	-	-	X
57	MG	BA	3151	-	-	-	X
57	MG	BA	3152	-	-	-	X
57	MG	BA	3157	-	-	-	X
57	MG	BA	3161	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	BA	3166	-	-	-	X
57	MG	BA	3173	-	-	-	X
57	MG	BA	3174	-	-	-	X
57	MG	BA	3183	-	-	-	X
57	MG	BA	3194	-	-	-	X
57	MG	BA	3197	-	-	-	X
57	MG	BA	3201	-	-	-	X
57	MG	BA	3214	-	-	-	X
57	MG	BA	3215	-	-	-	X
57	MG	BA	3221	-	-	X	-
57	MG	BA	3227	-	-	-	X
57	MG	BA	3233	-	-	-	X
57	MG	BA	3239	-	-	-	X
57	MG	BA	3240	-	-	-	X
57	MG	BA	3247	-	-	-	X
57	MG	BA	3251	-	-	-	X
57	MG	BA	3257	-	-	-	X
57	MG	BU	201	-	-	-	X
57	MG	CA	1602	-	-	-	X
57	MG	CA	1603	-	-	-	X
57	MG	CA	1613	-	-	-	X
57	MG	CA	1615	-	-	-	X
57	MG	CA	1619	-	-	-	X
57	MG	CA	1620	-	-	-	X
57	MG	CA	1622	-	-	-	X
57	MG	CA	1626	-	-	-	X
57	MG	CA	1629	-	-	-	X
57	MG	CA	1640	-	-	-	X
57	MG	CA	1648	-	-	-	X
57	MG	CA	1650	-	-	-	X
57	MG	CA	1651	-	-	-	X
57	MG	CA	1652	-	-	-	X
57	MG	CA	1653	-	-	-	X
57	MG	CA	1659	-	-	-	X
57	MG	CA	1663	-	-	-	X
57	MG	CA	1666	-	-	-	X
57	MG	CA	1670	-	-	-	X
57	MG	CA	1673	-	-	-	X
57	MG	CA	1689	-	-	-	X
57	MG	CA	1690	-	-	-	X
57	MG	CA	1694	-	-	-	X
57	MG	D0	101	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	D5	102	-	-	-	X
57	MG	DA	3004	-	-	-	X
57	MG	DA	3005	-	-	-	X
57	MG	DA	3007	-	-	-	X
57	MG	DA	3009	-	-	-	X
57	MG	DA	3018	-	-	-	X
57	MG	DA	3019	-	-	-	X
57	MG	DA	3020	-	-	-	X
57	MG	DA	3023	-	-	-	X
57	MG	DA	3033	-	-	-	X
57	MG	DA	3035	-	-	-	X
57	MG	DA	3043	-	-	-	X
57	MG	DA	3044	-	-	-	X
57	MG	DA	3045	-	-	-	X
57	MG	DA	3046	-	-	-	X
57	MG	DA	3047	-	-	-	X
57	MG	DA	3048	-	-	-	X
57	MG	DA	3050	-	-	-	X
57	MG	DA	3051	-	-	-	X
57	MG	DA	3055	-	-	-	X
57	MG	DA	3056	-	-	-	X
57	MG	DA	3059	-	-	-	X
57	MG	DA	3061	-	-	-	X
57	MG	DA	3062	-	-	-	X
57	MG	DA	3063	-	-	-	X
57	MG	DA	3064	-	-	-	X
57	MG	DA	3068	-	-	-	X
57	MG	DA	3070	-	-	-	X
57	MG	DA	3072	-	-	-	X
57	MG	DA	3073	-	-	-	X
57	MG	DA	3080	-	-	-	X
57	MG	DA	3082	-	-	-	X
57	MG	DA	3084	-	-	-	X
57	MG	DA	3086	-	-	-	X
57	MG	DA	3087	-	-	-	X
57	MG	DA	3088	-	-	-	X
57	MG	DA	3092	-	-	-	X
57	MG	DA	3098	-	-	-	X
57	MG	DA	3099	-	-	-	X
57	MG	DA	3100	-	-	-	X
57	MG	DA	3103	-	-	-	X
57	MG	DA	3107	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	DA	3108	-	-	-	X
57	MG	DA	3109	-	-	-	X
57	MG	DA	3112	-	-	-	X
57	MG	DA	3114	-	-	-	X
57	MG	DA	3117	-	-	-	X
57	MG	DA	3119	-	-	-	X
57	MG	DA	3120	-	-	-	X
57	MG	DA	3122	-	-	-	X
57	MG	DA	3123	-	-	-	X
57	MG	DA	3127	-	-	-	X
57	MG	DA	3128	-	-	-	X
57	MG	DA	3129	-	-	-	X
57	MG	DA	3135	-	-	-	X
57	MG	DA	3138	-	-	-	X
57	MG	DA	3141	-	-	-	X
57	MG	DA	3144	-	-	-	X
57	MG	DA	3145	-	-	-	X
57	MG	DA	3146	-	-	-	X
57	MG	DA	3149	-	-	-	X
57	MG	DA	3155	-	-	-	X
57	MG	DA	3158	-	-	-	X
57	MG	DA	3161	-	-	-	X
57	MG	DA	3169	-	-	-	X
57	MG	DA	3170	-	-	-	X
57	MG	DA	3173	-	-	-	X
57	MG	DA	3174	-	-	-	X
57	MG	DA	3177	-	-	-	X
57	MG	DA	3182	-	-	-	X
57	MG	DA	3183	-	-	-	X
57	MG	DA	3189	-	-	-	X
57	MG	DA	3191	-	-	-	X
57	MG	DA	3194	-	-	-	X
57	MG	DA	3196	-	-	-	X
57	MG	DA	3197	-	-	-	X
57	MG	DA	3201	-	-	-	X
57	MG	DA	3205	-	-	-	X
57	MG	DA	3209	-	-	-	X
57	MG	DA	3211	-	-	-	X
57	MG	DA	3225	-	-	-	X
57	MG	DA	3227	-	-	-	X
57	MG	DA	3228	-	-	-	X
57	MG	DA	3232	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	DA	3235	-	-	-	X
57	MG	DA	3238	-	-	-	X
57	MG	DA	3245	-	-	-	X
57	MG	DA	3248	-	-	-	X
57	MG	DA	3250	-	-	-	X
57	MG	DA	3251	-	-	-	X
57	MG	DA	3258	-	-	-	X
57	MG	DA	3259	-	-	-	X
57	MG	DA	3262	-	-	-	X
58	PAR	AA	1694	-	-	-	X
58	PAR	CA	1695	-	-	-	X
59	ZN	AN	101	-	-	X	-



## 2 Entry composition

There are 59 unique types of molecules in this entry. The entry contains 292667 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1504	Total	C	N	O	P	0	0	0
			32326	14389	5989	10445	1503			
1	CA	1503	Total	C	N	O	P	0	0	0
			32304	14379	5984	10439	1502			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AA	342	U	G	ENGINEERED MUTATION	GB AP008226.1
CA	342	U	G	ENGINEERED MUTATION	GB AP008226.1

- Molecule 2 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	235	Total	C	N	O	S	0	0	1
			1901	1213	342	341	5			
2	CB	235	Total	C	N	O	S	0	0	1
			1901	1213	342	341	5			

- Molecule 3 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AC	207	Total	C	N	O	S	0	0	1
			1613	1016	315	281	1			
3	CC	207	Total	C	N	O	S	0	0	1
			1613	1016	315	281	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
			1703	1066	339	291	7			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	CD	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			

- Molecule 5 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AE	151	Total	C	N	O	S	0	0	1
			1147	724	218	201	4			
5	CE	151	Total	C	N	O	S	0	0	1
			1147	724	218	201	4			

- Molecule 6 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
6	CF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	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
			1257	781	252	218	6			
7	CG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	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
			1116	705	215	193	3			
8	CH	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			

- Molecule 9 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	AI	127	Total	C	N	O	0	0	0
			1010	639	197	174			
9	CI	127	Total	C	N	O	0	0	0
			1010	639	197	174			

- Molecule 10 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AJ	99	Total	C	N	O	S	0	0	1
			795	499	157	138	1			
10	CJ	99	Total	C	N	O	S	0	0	1
			795	499	157	138	1			

- Molecule 11 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AK	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			
11	CK	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			

- Molecule 12 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AL	125	Total	C	N	O	S	0	0	1
			971	611	196	163	1			
12	CL	125	Total	C	N	O	S	0	0	1
			971	611	196	163	1			

- Molecule 13 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	125	Total	C	N	O	S	0	0	1
			988	611	206	169	2			
13	CM	125	Total	C	N	O	S	0	0	1
			988	611	206	169	2			

- 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
			492	312	104	72	4			
14	CN	60	Total	C	N	O	S	0	0	0
			492	312	104	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
			734	459	147	126	2			
15	CO	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			

- Molecule 16 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AP	84	Total	C	N	O	S	0	0	1
			701	443	140	117	1			
16	CP	84	Total	C	N	O	S	0	0	1
			701	443	140	117	1			

- Molecule 17 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	100	Total	C	N	O	S	0	0	1
			824	528	152	142	2			
17	CQ	100	Total	C	N	O	S	0	0	1
			824	528	152	142	2			

- Molecule 18 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	AR	70	Total	C	N	O	0	0	0
			574	367	112	95			
18	CR	70	Total	C	N	O	0	0	0
			574	367	112	95			

- Molecule 19 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	79	Total	C	N	O	S	0	0	1
			630	403	115	110	2			
19	CS	79	Total	C	N	O	S	0	0	1
			630	403	115	110	2			

- Molecule 20 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	CT	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			

- Molecule 21 is a protein called 30S ribosomal protein THX.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	AU	25	Total	C	N	O	0	0	1
			209	128	51	30			
21	CU	25	Total	C	N	O	0	0	1
			209	128	51	30			

- Molecule 22 is a RNA chain called tRNA-Phe.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AW	76	Total	C	N	O	P	0	0	0
			1619	723	290	531	75			
22	AY	17	Total	C	N	O	P	0	0	0
			365	163	68	117	17			
22	CW	76	Total	C	N	O	P	0	0	0
			1619	723	290	531	75			
22	CY	17	Total	C	N	O	P	0	0	0
			365	163	68	117	17			

- Molecule 23 is a RNA chain called tRNA-fMet.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AV	77	Total	C	N	O	P	0	0	0
			1644	732	297	538	77			
23	CV	77	Total	C	N	O	P	0	0	0
			1644	732	297	538	77			

- Molecule 24 is a RNA chain called messenger RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	AX	8	Total	C	N	O	P	0	0	0
			169	76	29	56	8			
24	CX	10	Total	C	N	O	P	0	0	0
			210	96	39	66	9			

- Molecule 25 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BA	2803	Total	C	N	O	P	0	0	0
			60378	26870	11297	19409	2802			
25	DA	2803	Total	C	N	O	P	0	0	0
			60378	26870	11297	19409	2802			

- Molecule 26 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	BB	119	Total	C	N	O	P	0	0	0
			2551	1136	471	826	118			
26	DB	119	Total	C	N	O	P	0	0	0
			2551	1136	471	826	118			

- Molecule 27 is a protein called 50S ribosomal protein L1.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
27	BC	191	Total	C	N	O	0	0	1
			1142	691	221	230			
27	DC	191	Total	C	N	O	0	0	1
			1142	691	221	230			

- Molecule 28 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BD	272	Total	C	N	O	S	0	0	1
			2105	1329	417	356	3			
28	DD	272	Total	C	N	O	S	0	0	1
			2105	1329	417	356	3			

- Molecule 29 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	BE	205	Total	C	N	O	S	0	0	1
			1564	988	300	270	6			
29	DE	205	Total	C	N	O	S	0	0	1
			1564	988	300	270	6			

- Molecule 30 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	BF	208	Total	C	N	O	S	0	0	1
			1624	1035	304	282	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	DF	208	Total	C	N	O	S	0	0	1
			1624	1035	304	282	3			

- Molecule 31 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	BG	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			
31	DG	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			

- Molecule 32 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BH	160	Total	C	N	O	S	0	0	1
			1223	773	229	220	1			
32	DH	160	Total	C	N	O	S	0	0	1
			1223	773	229	220	1			

- Molecule 33 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BI	146	Total	C	N	O	S	0	0	1
			1132	723	201	207	1			
33	DI	146	Total	C	N	O	S	0	0	1
			1132	723	201	207	1			

- Molecule 34 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BN	139	Total	C	N	O	S	0	0	1
			1105	712	207	182	4			
34	DN	139	Total	C	N	O	S	0	0	1
			1105	712	207	182	4			

- Molecule 35 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BO	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			
35	DO	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 36 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	BP	146	Total	C	N	O	S	0	0	0
			1114	692	227	193	2			
36	DP	146	Total	C	N	O	S	0	0	0
			1114	692	227	193	2			

- Molecule 37 is a protein called 50S ribosomal protein L16.

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

- Molecule 38 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
38	BR	117	Total	C	N	O	0	0	0
			960	599	202	159			
38	DR	117	Total	C	N	O	0	0	0
			960	599	202	159			

- Molecule 39 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
39	BS	99	Total	C	N	O	0	0	1
			771	486	155	130			
39	DS	99	Total	C	N	O	0	0	1
			771	486	155	130			

- Molecule 40 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BT	138	Total	C	N	O	S	0	0	1
			1142	710	235	196	1			
40	DT	138	Total	C	N	O	S	0	0	1
			1142	710	235	196	1			

- Molecule 41 is a protein called 50S ribosomal protein L20.



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BU	117	Total	C	N	O	S	0	0	0
			958	604	202	151	1			
41	DU	117	Total	C	N	O	S	0	0	0
			958	604	202	151	1			

- Molecule 42 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BV	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			
42	DV	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			

- Molecule 43 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BW	113	Total	C	N	O	S	0	0	0
			896	563	176	155	2			
43	DW	113	Total	C	N	O	S	0	0	0
			896	563	176	155	2			

- Molecule 44 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BX	93	Total	C	N	O		0	0	1
			726	471	132	123				
44	DX	93	Total	C	N	O		0	0	1
			726	471	132	123				

- Molecule 45 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BY	101	Total	C	N	O	S	0	0	1
			776	500	149	123	4			
45	DY	101	Total	C	N	O	S	0	0	1
			776	500	149	123	4			

- Molecule 46 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BZ	177	Total	C	N	O	S	0	0	1
			1404	897	253	252	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	DZ	177	Total	C	N	O	S	0	0	1
			1404	897	253	252	2			

- Molecule 47 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	B0	84	Total	C	N	O	S	0	0	0
			662	410	140	111	1			
47	D0	84	Total	C	N	O	S	0	0	0
			662	410	140	111	1			

- Molecule 48 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	B1	94	Total	C	N	O	S	0	0	1
			732	460	146	125	1			
48	D1	94	Total	C	N	O	S	0	0	1
			732	460	146	125	1			

- Molecule 49 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	B2	71	Total	C	N	O	S	0	0	0
			598	370	121	106	1			
49	D2	71	Total	C	N	O	S	0	0	0
			598	370	121	106	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B3	60	Total	C	N	O	S	0	0	1
			468	298	91	78	1			
50	D3	60	Total	C	N	O	S	0	0	1
			468	298	91	78	1			

- Molecule 51 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	B4	31	Total	C	N	O	S	0	0	1
			226	142	37	43	4			
51	D4	31	Total	C	N	O	S	0	0	1
			226	142	37	43	4			

- Molecule 52 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			
52	D5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			

- Molecule 53 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	B6	45	Total	C	N	O	S	0	0	1
			381	235	78	64	4			
53	D6	45	Total	C	N	O	S	0	0	1
			381	235	78	64	4			

- Molecule 54 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	B7	49	Total	C	N	O	S	0	0	1
			419	257	105	55	2			
54	D7	49	Total	C	N	O	S	0	0	1
			419	257	105	55	2			

- Molecule 55 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	B8	64	Total	C	N	O	S	0	0	1
			508	326	102	78	2			
55	D8	64	Total	C	N	O	S	0	0	1
			508	326	102	78	2			

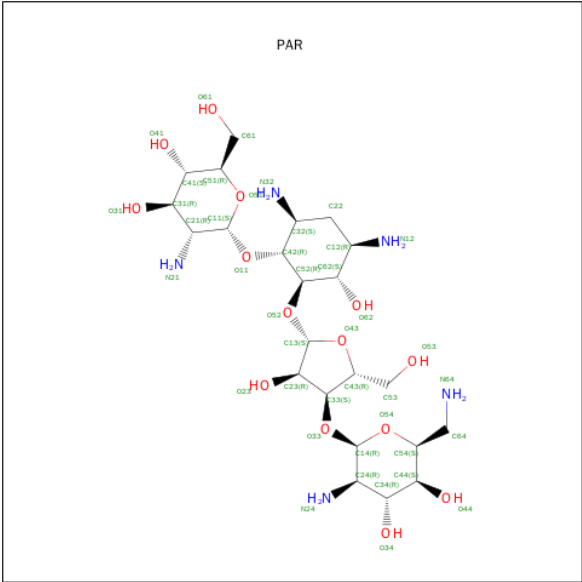
- Molecule 56 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	B9	36	Total	C	N	O	S	0	0	0
			299	183	67	46	3			
56	D9	36	Total	C	N	O	S	0	0	0
			299	183	67	46	3			

- Molecule 57 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	BU	1	Total 1 Mg 1	0	0
57	BB	4	Total 4 Mg 4	0	0
57	BO	1	Total 1 Mg 1	0	0
57	BA	261	Total 261 Mg 261	0	0
57	CA	94	Total 94 Mg 94	0	0
57	D0	1	Total 1 Mg 1	0	0
57	CV	2	Total 2 Mg 2	0	0
57	BF	2	Total 2 Mg 2	0	0
57	B3	1	Total 1 Mg 1	0	0
57	B5	2	Total 2 Mg 2	0	0
57	BE	1	Total 1 Mg 1	0	0
57	D5	2	Total 2 Mg 2	0	0
57	AA	93	Total 93 Mg 93	0	0
57	B1	1	Total 1 Mg 1	0	0
57	DE	1	Total 1 Mg 1	0	0
57	DA	268	Total 268 Mg 268	0	0
57	AX	2	Total 2 Mg 2	0	0
57	DD	1	Total 1 Mg 1	0	0
57	DB	2	Total 2 Mg 2	0	0

- Molecule 58 is PAROMOMYCIN (three-letter code: PAR) (formula: C<sub>23</sub>H<sub>45</sub>N<sub>5</sub>O<sub>14</sub>).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
58	AA	1	Total	C	N	O	0	0
			42	23	5	14		
58	CA	1	Total	C	N	O	0	0
			42	23	5	14		

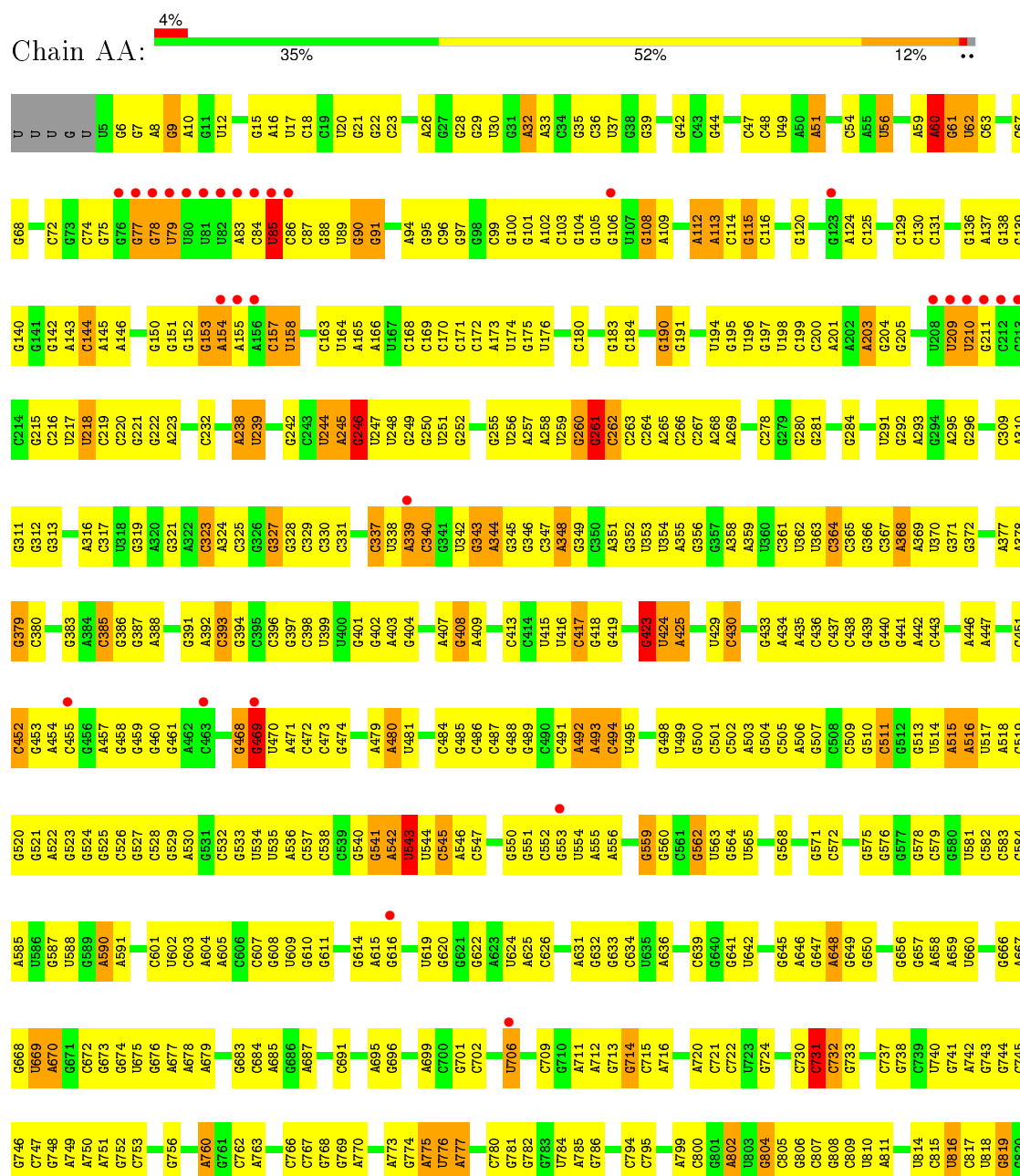
- Molecule 59 is ZINC ION (three-letter code: ZN) (formula: Zn).

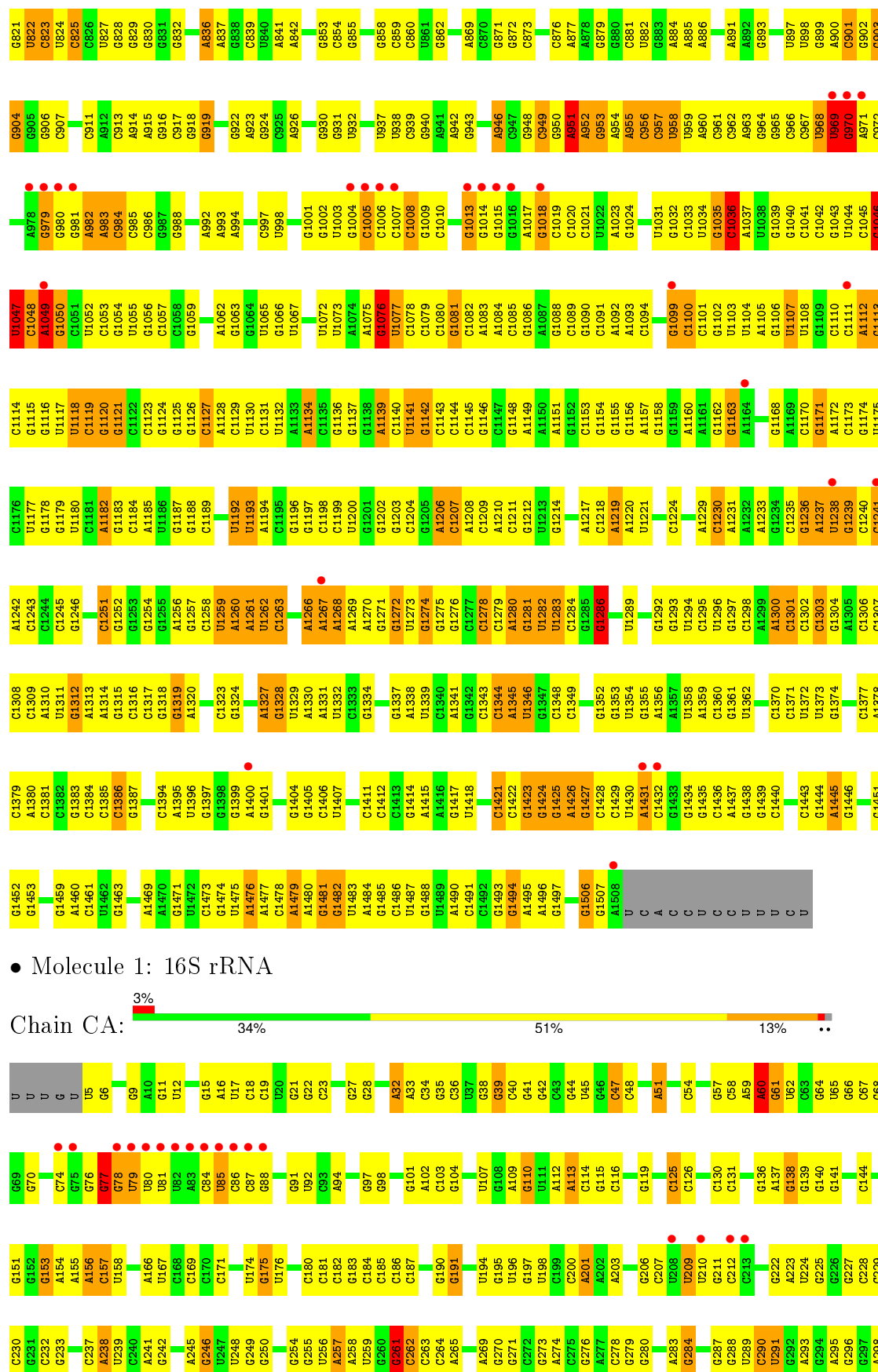
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	CN	1	Total	Zn	0	0
			1	1		
59	AD	1	Total	Zn	0	0
			1	1		
59	CD	1	Total	Zn	0	0
			1	1		
59	AN	1	Total	Zn	0	0
			1	1		

### 3 Residue-property plots

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

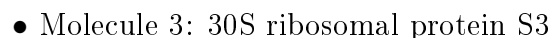
#### • Molecule 1: 16S rRNA



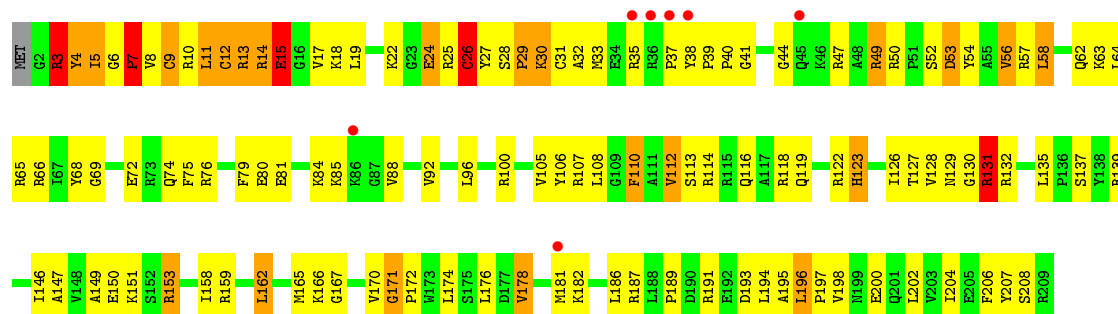


C1279	A1208	U1141	A1074	G1011	A946	A884	G806	C737	G665	C583	U514	C443	G371	U299
A1280	C1209	G1142	A1075	A1012	C947	A885	G810	G738	G666	C584	A515	A446	G375	G300
G1281	G1143	C1144	U1076	G1013	G948	A886	U810	C739	G666	A516	U517	A447	G376	G304
U1283	G1212	U1144	U1077	G1014	C949	C987	G811	U740	U669	A518	C519	C451	A377	C306
G1286	C1145	C1145	C1078	G1015	G950	U888	G812	G741	A670	A519	G520	C452	A378	C307
A1287	C1215	G1147	C1079	G1016	A951	C989	U816	A742	G671	A590	G521	C453	A379	A308
U1288	U1216	G1148	A1083	A1017	A952	A890	C817	G743	G672	A597	G522	A454	C380	C309
A1289	A1149	G1149	A1084	C1019	A954	A892	U818	G744	G673	A598	A522	C455	C385	A310
U1290	G1218	A1150	G1085	G1020	A955	G993	G819	G745	G674	C601	G523	C456	C386	G311
G1291	A1151	A1151	G1086	C1021	C956	G994	G820	G746	U675	U602	G524	G457	G387	G312
A1292	G1152	G1087	A1087	U1022	G957	A895	G821	G747	G676	C607	G525	G458	G391	G313
G1293	C1153	U1088	C1088	A1023	U958	A896	U822	G748	A677	G608	G526	G459	A392	G314
U1294	G1154	G1089	C1089	G1024	U959	U997	C823	A750	A685	U609	G527	G460	C393	C315
C1295	A1160	A1025	A1090	C1025	A960	U998	U824	G751	A686	U609	C528	A466	C394	A316
U1296	A1161	A1026	C1095	A1026	C961	G999	C825	G752	G687	U610	G529	A467	C395	A317
G1297	G1162	C1027	C1096	C1027	C962	A900	G828	G756	U688	G611	G530	A468	C396	U318
C1298	G1163	G1028	C1096	G1028	A963	C901	G829	G757	A689	G612	G533	G468	C397	G319
A1299	A1164	G1029	G1099	G1029	G964	G902	G830	G758	C690	G613	U534	G469	C398	A320
C1300	G1165	U1030	C1100	G1030	G965	G903	G831	G759	C691	A615	U535	G470	C399	G321
G1301	G1166	C1031	C1101	G1031	C966	G904	G832	A760	G692	G616	A536	A471	U400	A322
C1302	A1237	G1167	C1101	G1032	C967	G905	G833	G761	G696	C617	C537	G476	U401	C323
G1303	G1168	U968	U1104	G1035	C968	C909	A836	G762	G697	G618	C538	G477	G402	G326
G1304	A1169	G970	A1105	C1036	G971	G910	A837	A763	G697	U619	C539	G478	A483	G327
C1240	C1170	A971	G1106	A1037	G972	C911	G838	A764	A698	G620	G540	A479	G404	G328
G1307	G1241	U1038	U1107	U1038	C973	A912	G844	G765	A699	G621	A542	A480	G405	C329
A1242	A1171	G1039	U1108	G1039	A974	C913	C845	G766	C700	G622	G543	A481	A406	G330
C1243	C1173	U1040	G1109	G1040	U974	A914	C846	G767	G701	A625	U544	A482	A407	G334
A1310	G1174	C1041	C1110	G1041	G975	A915	C847	G768	G701	A626	U545	A483	A408	U335
U1311	C1111	C1042	C1111	G1042	C976	G916	U847	G769	A705	A627	C546	A484	A409	C336
G1246	C1175	U1043	A1112	G1043	U977	C917	U848	G770	U706	C628	A547	G485	G409	G337
G1247	C1176	U1044	G1113	U1044	A978	G918	A849	A773	G707	U629	U548	C486	C413	U338
C1248	U1177	C1045	C1114	G1045	G979	G919	A850	A774	G708	C630	G551	C487	C414	A339
C1251	G1178	U1046	G1115	U1046	G980	G920	G851	A775	A711	U635	C552	U415	U416	G340
G1254	U1180	G981	G1116	U1047	A982	G921	C852	A776	A712	A636	G553	G421	U417	G341
G1255	C1181	C1048	U1117	C1048	A983	A923	C854	A777	G713	G637	U554	C491	C417	U342
G1256	A1182	U1050	U1118	G1050	C984	G924	G855	G783	G714	A638	A555	A492	G343	G343
A1257	G1183	C1051	C1119	G1051	C985	G925	C856	U784	C715	C639	A556	C493	A344	G344
C1258	A1185	U1052	G1120	U1052	C986	A926	C857	A785	A716	U642	A557	C494	G345	G345
U1259	G1188	C1053	G1121	C1053	G989	U927	C858	U787	G717	U643	A558	U495	U423	G346
A1260	G1189	U1054	C1122	G1054	U990	G928	C859	G787	C718	U644	G559	C496	U424	C347
U1261	U1192	G1055	G1123	G1055	G991	U929	C860	A790	C719	U645	G560	C497	A348	A348
A1262	U1193	C1056	G1124	G1056	A992	G930	U861	G791	A720	G646	C561	C498	G349	G349
C1263	A1194	C1057	G1125	C1057	G993	G931	G864	G792	G721	U647	C562	U499	C350	C350
A1266	G1195	U1060	C1127	G1060	U998	U933	G865	G793	U723	G647	U563	G501	A351	G357
U1267	G1196	G1061	A1128	G1061	G999	U934	C866	G794	U724	A648	G564	C502	C430	G357
A1268	G1197	A1062	G1130	A1062	G1000	U938	G872	G795	G725	G649	U565	C503	G433	U360
A1269	C1198	G1063	C1131	G1063	G1001	A936	A869	U796	U726	G650	A566	G504	A434	U362
C1270	U1270	U1066	U1132	G1066	G1002	U937	C870	U797	G727	G651	G575	G505	A435	U362
G1271	A1133	G1067	U1133	U1067	U1003	U938	G871	A798	C728	G653	G576	A506	A436	G365
U1272	G1134	U1068	G1134	U1068	G1004	C939	G872	A799	G728	G654	G577	G507	C436	G366
G1273	C1135	G1069	C1135	G1069	C1005	G940	G875	C900	C731	U655	G578	C508	C437	C367
U1274	G1203	G1069	G1136	G1069	C1006	A941	G876	G801	G732	G656	G579	C509	C438	G368
C1275	C1204	G1070	G1137	G1070	C1007	A942	A878	A802	G733	G657	C580	G510	C439	A368
G1276	G1205	U1071	G1138	U1071	C1008	G943	G879	A803	G734	A658	G581	C511	G440	A369
U1277	A1206	G1072	A1139	G1072	U1009	C944	G880	G804	G735	A659	U581	G512	G441	A370
C1278	C1140	U1073	C1140	U1073	C1010	A945	G881	C905	A736	U660	C582	G513	A442	U370

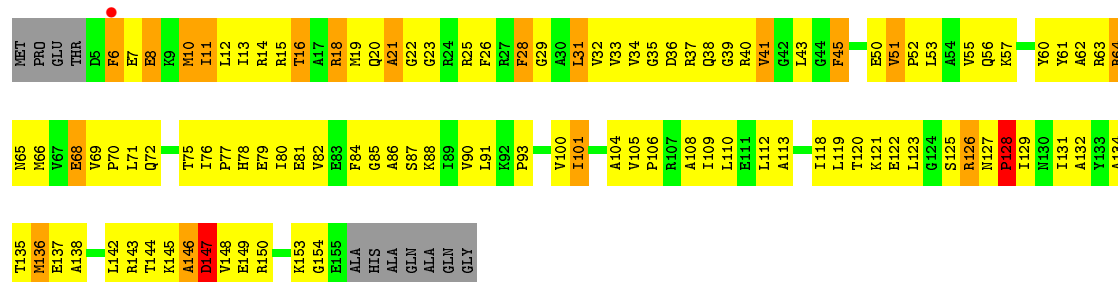




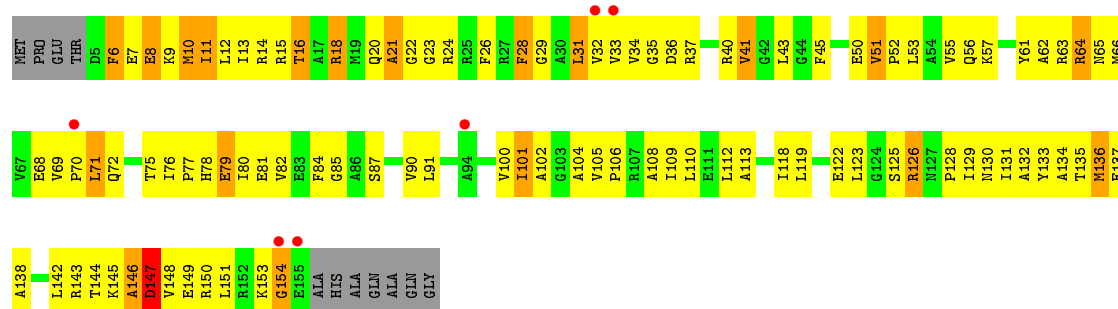




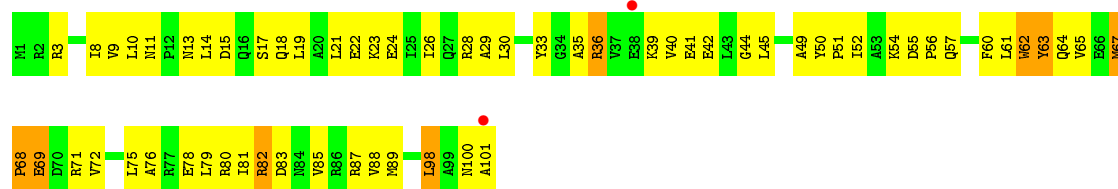
• Molecule 5: 30S ribosomal protein S5



• Molecule 5: 30S ribosomal protein S5

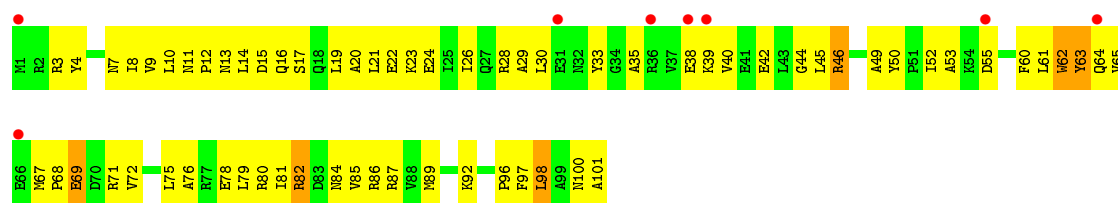


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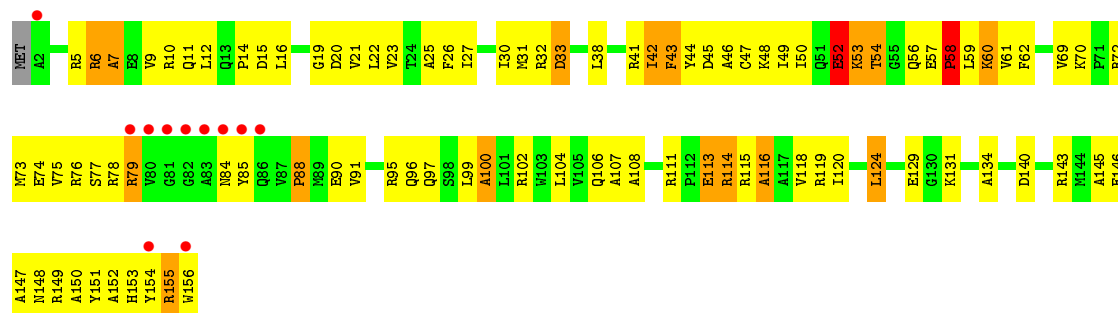
• Molecule 6: 30S ribosomal protein S6





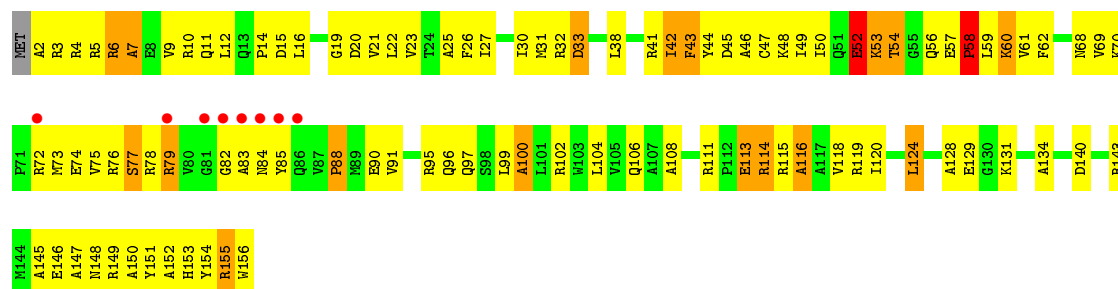
• Molecule 7: 30S ribosomal protein S7

Chain AG: 7% 39% 49% 10% ..



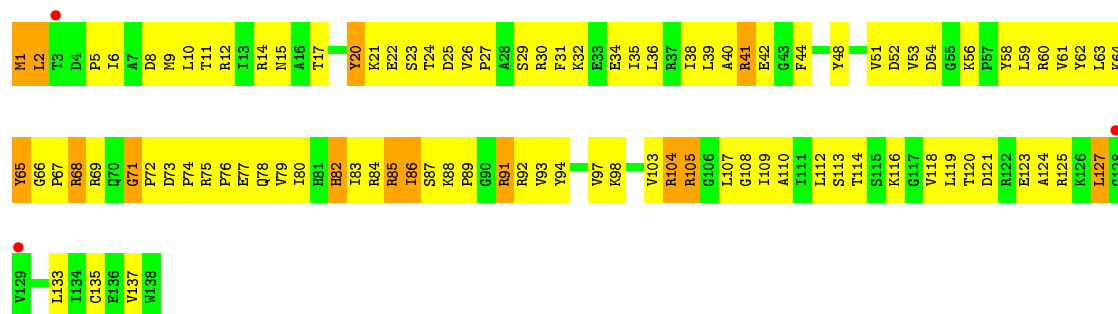
• Molecule 7: 30S ribosomal protein S7

Chain CG: 5% 35% 52% 11% ..



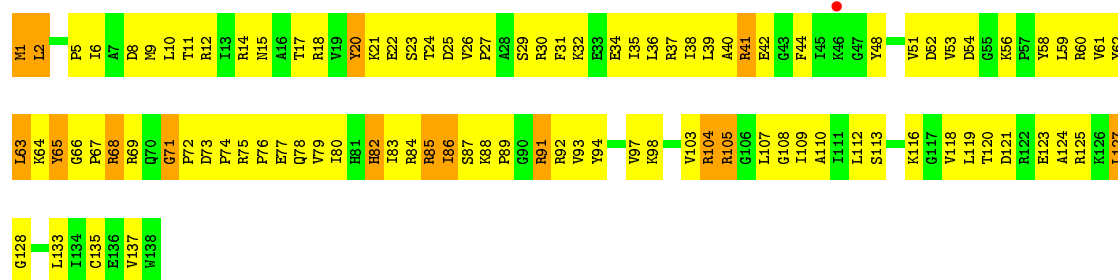
• Molecule 8: 30S ribosomal protein S8

Chain AH: 2% 30% 60% 10%

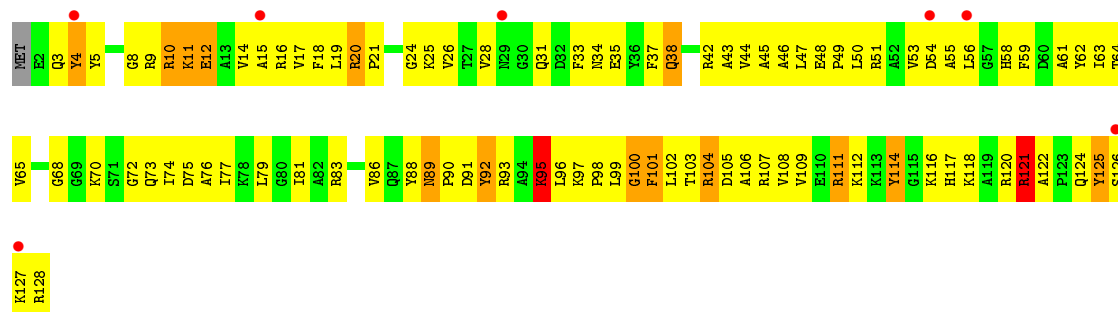


• Molecule 8: 30S ribosomal protein S8

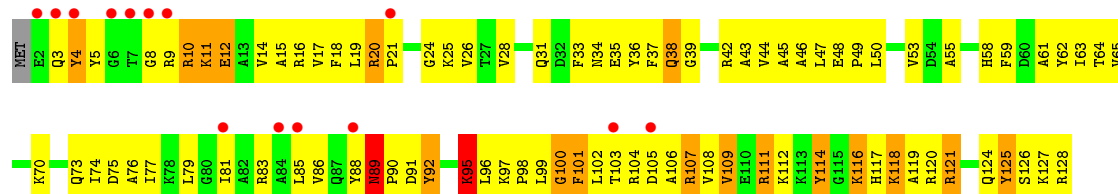
Chain CH: % 28% 61% 11%



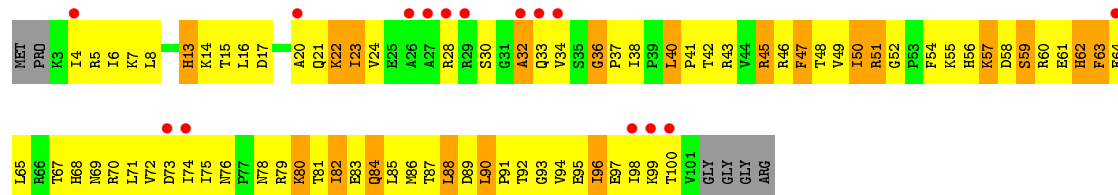
• Molecule 9: 30S ribosomal protein S9



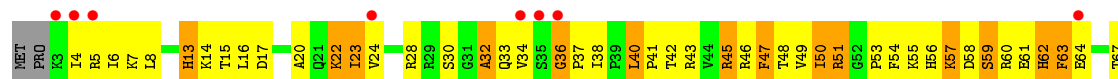
• Molecule 9: 30S ribosomal protein S9

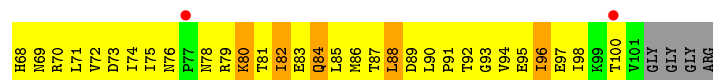


• Molecule 10: 30S ribosomal protein S10

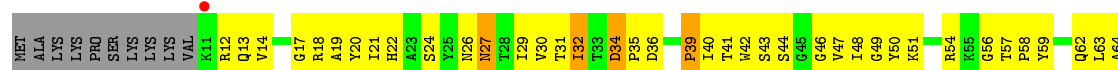


• Molecule 10: 30S ribosomal protein S10





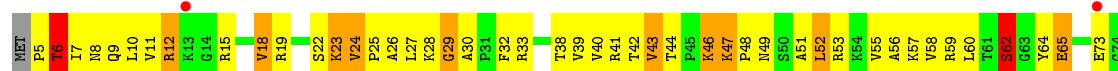
- Molecule 11: 30S ribosomal protein S11



- Molecule 11: 30S ribosomal protein S11



- Molecule 12: 30S ribosomal protein S12

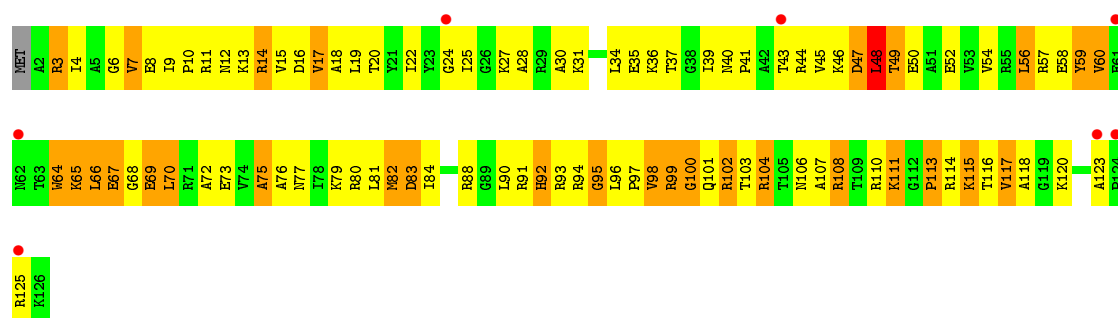


- Molecule 12: 30S ribosomal protein S12

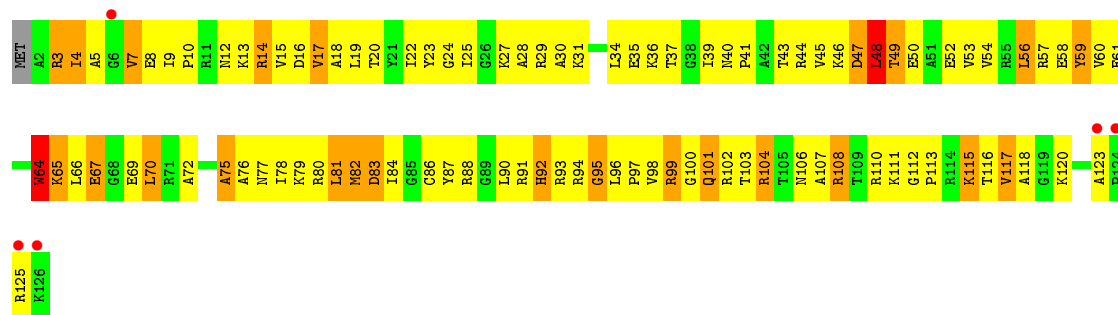


- Molecule 13: 30S ribosomal protein S13

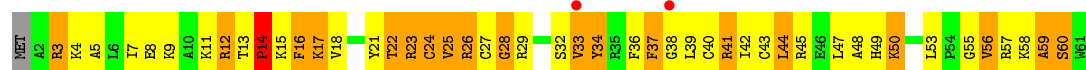
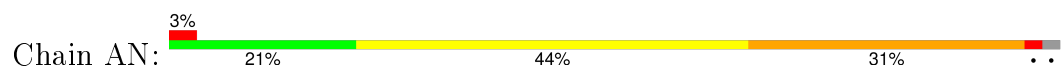




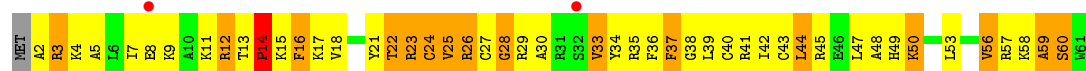
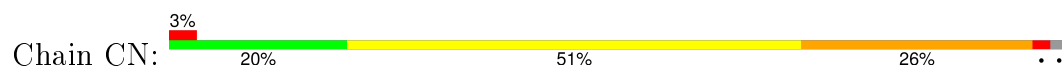
- Molecule 13: 30S ribosomal protein S13



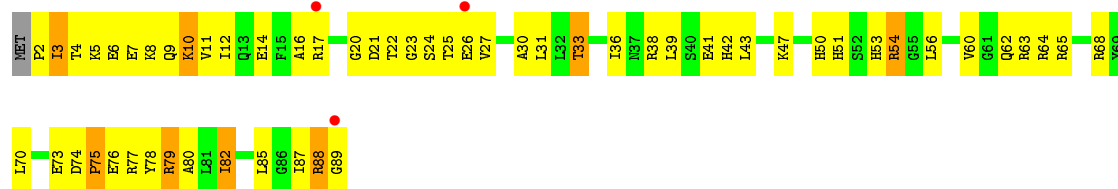
- Molecule 14: 30S ribosomal protein S14



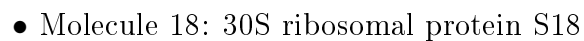
- Molecule 14: 30S ribosomal protein S14



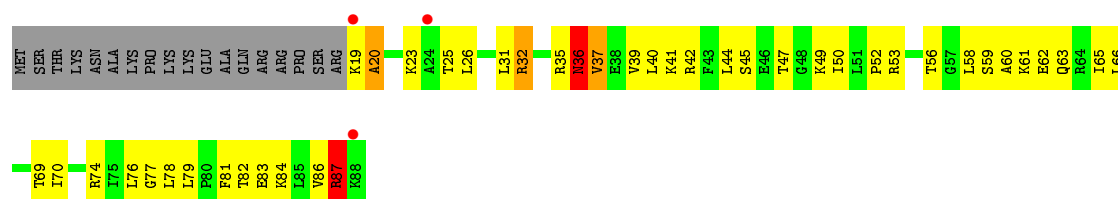
- Molecule 15: 30S ribosomal protein S15



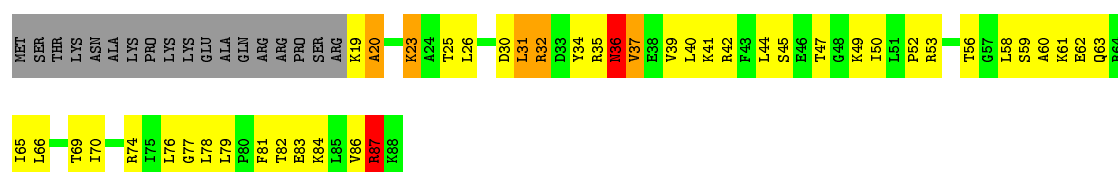
- Molecule 15: 30S ribosomal protein S15



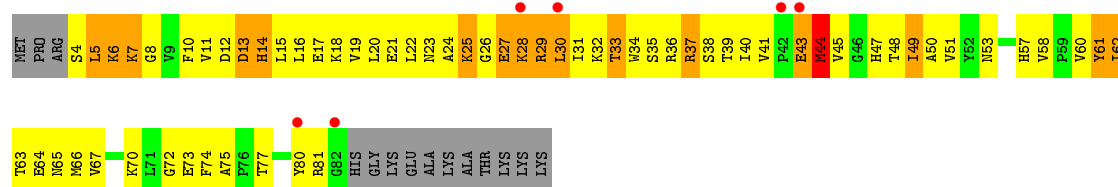
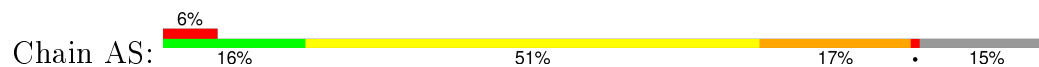




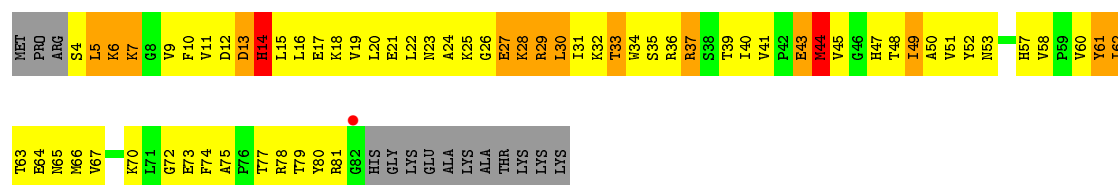
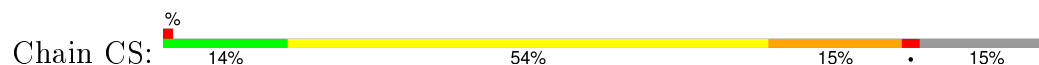
- Molecule 18: 30S ribosomal protein S18



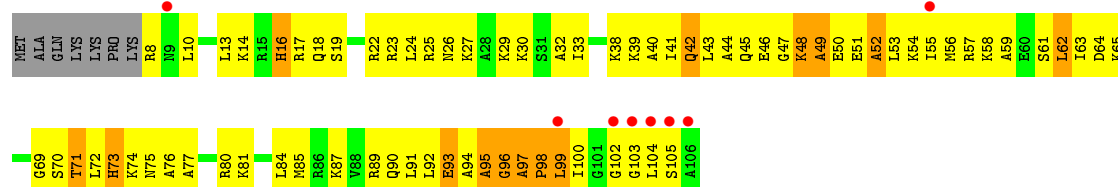
- Molecule 19: 30S ribosomal protein S19



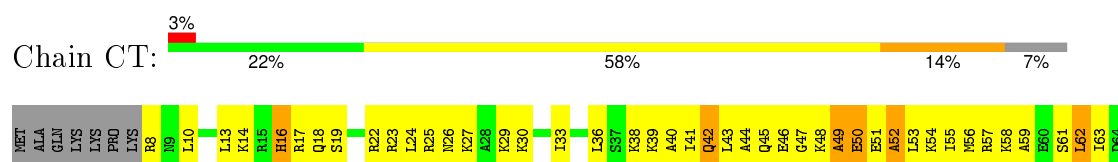
- Molecule 19: 30S ribosomal protein S19



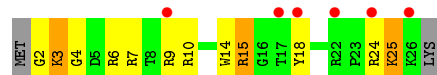
- Molecule 20: 30S ribosomal protein S20



- Molecule 20: 30S ribosomal protein S20



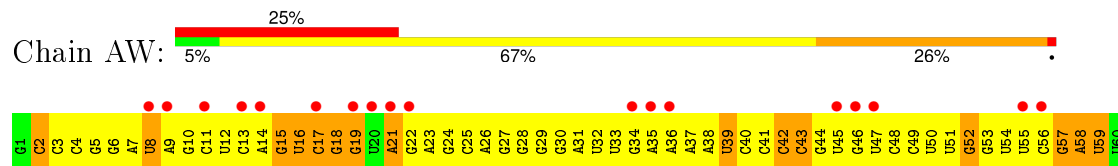
- Molecule 21: 30S ribosomal protein THX



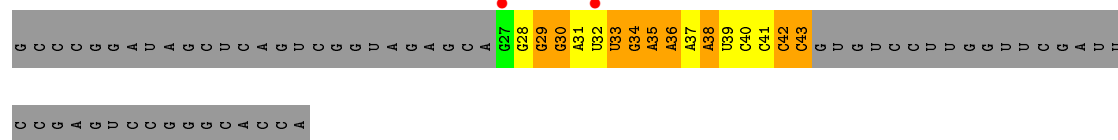
- Molecule 21: 30S ribosomal protein THX



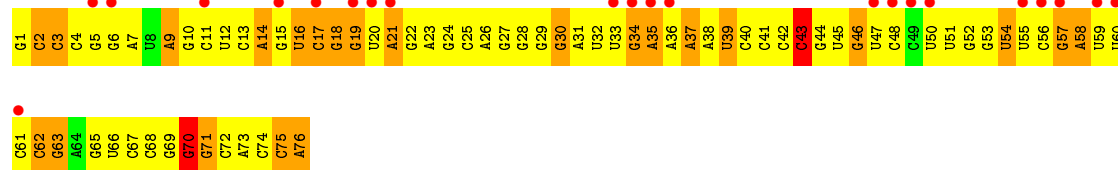
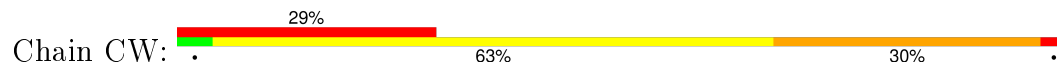
- Molecule 22: tRNA-Phe



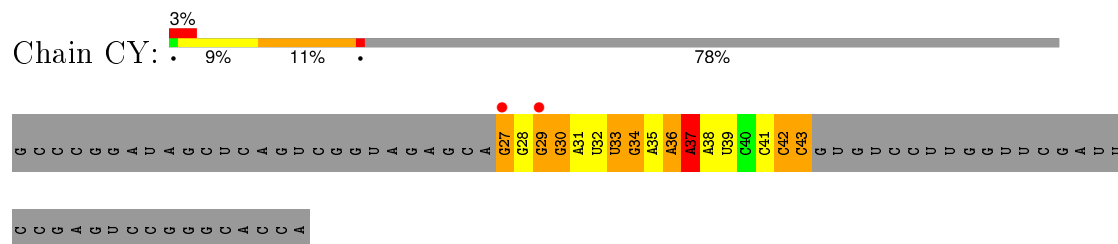
- Molecule 22: tRNA-Phe



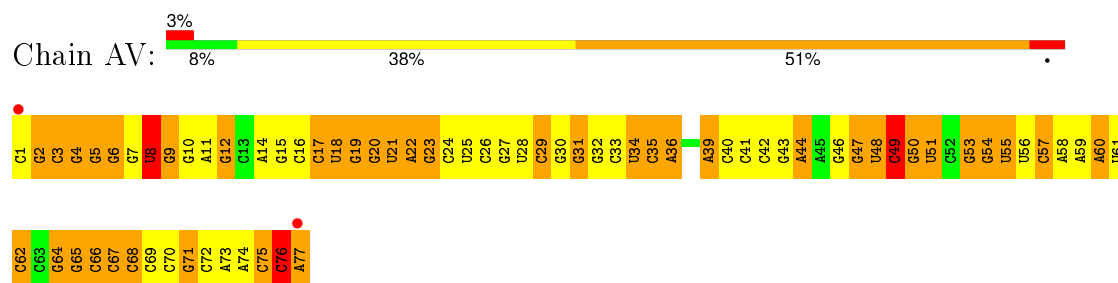
- Molecule 22: tRNA-Phe



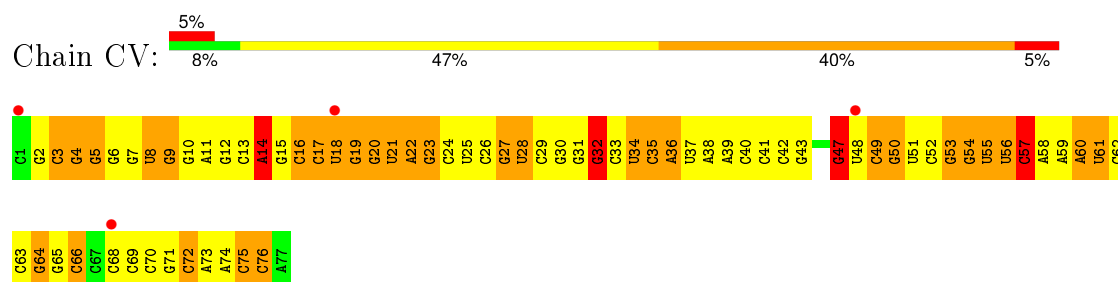
- Molecule 22: tRNA-Phe



- Molecule 23: tRNA-fMet



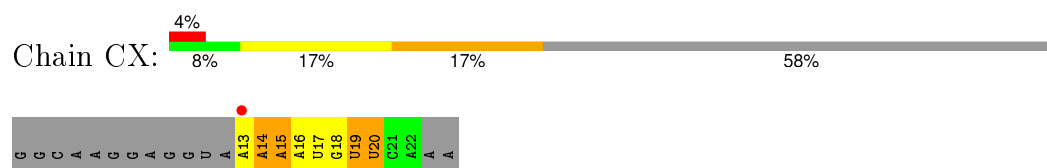
- Molecule 23: tRNA-fMet



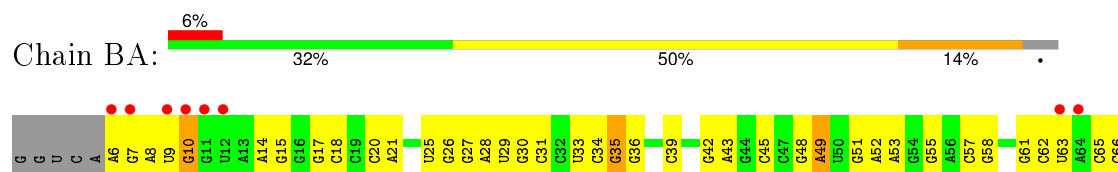
- Molecule 24: messenger RNA



- Molecule 24: messenger RNA

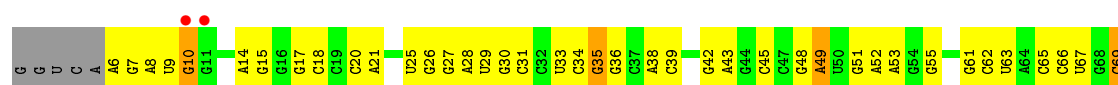
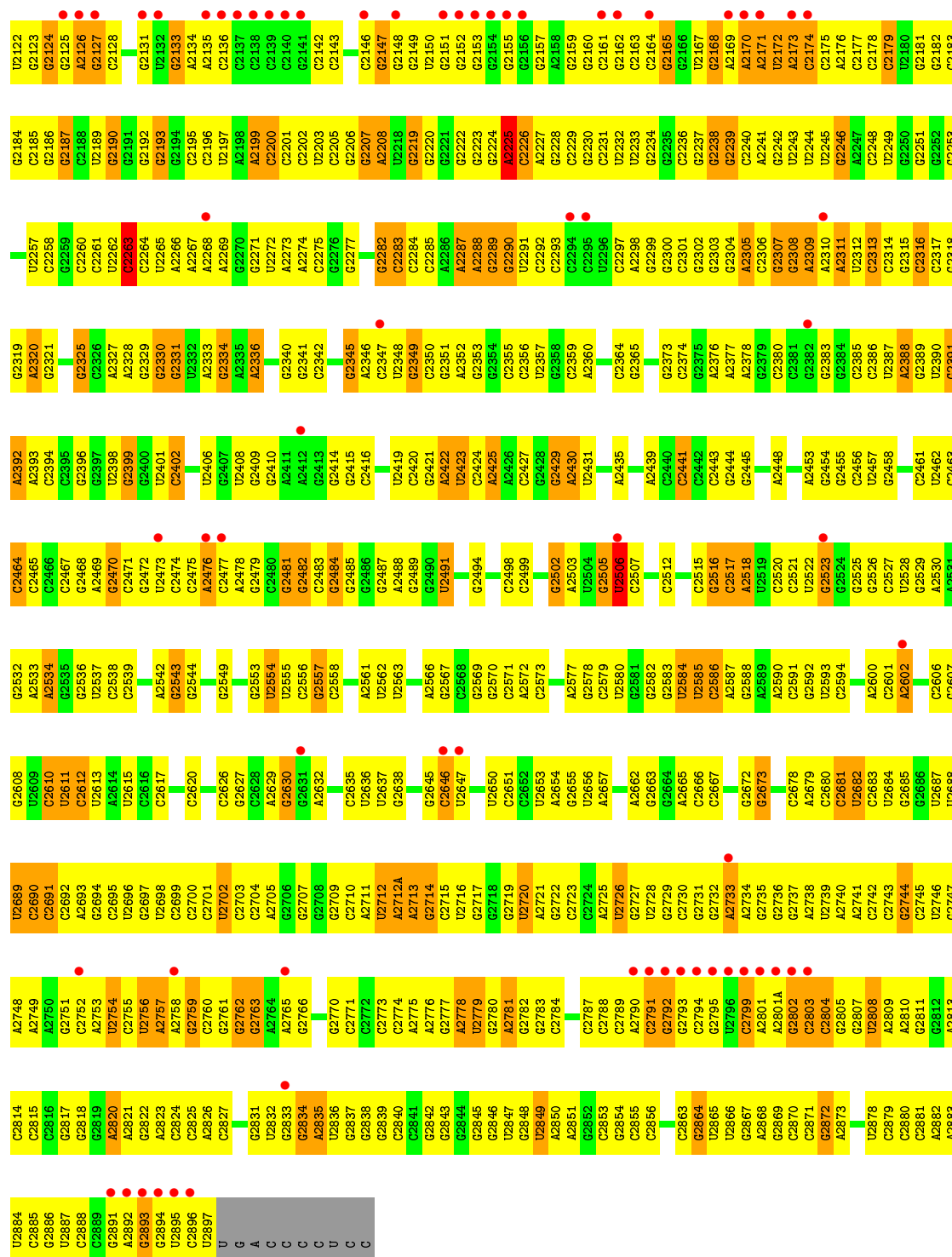


- Molecule 25: 23S rRNA



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U1023	U958	A887	C811	C731	C	C611	G	A472	G386	A320	G271R	A218	G143	C69
G1024	U959	C888	C814	C732	G	C612	C	G473	U387	G321	G271S		C143A	G70
A960	A960	C889	C815	G733	C	G613	A	G474	G388	A322	C271T	A221	A144	A71
U1026	C961	A890	C816	G734	A	U614	A	U475	G389	G323	G271U	A222	G145	U72
	G962	C892	C817	G744	A	U614A	G549	G476	C392	A324	G271V			A73
A1029	U963	C893	G618		A	G614B	G551	A477		G325	G271W	A225	A149	A74
U1032	C964	G656	A614C	U747		A614C	G552	A478	U395	G326	G271X	G226	C150	G75
A1033	C965	U657	G615	G748		G615	G553	A479	U396	G327	U271Y	A227	C151	C76
U1034	U966	C658	G616			G616	U554	A480	G396	U328	C271Z	A228	G152	C77
G1035	C897	C659	G618	A752		G618	U555	G481	A402	G329	G272	G153	G153	G78
U1036	C898	C660	G619	C753		G619	U556	A482	U403	A330	U272A	A229	C154	A79
G1037	A899	C661	G620			G620	U557	A483	U404	A331	G272B	U230	C154A	G80
U1038	C903	G662	A621	C758		A621	G558		U405	A332		A233	U	G81
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G1040	G974	C665	C624	G762		C624		G493	G408	C335	C272J	C237	U	G83
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A1045	A910	A670	A632	G770		A632		U499	A412	A340	A	G243	G175	U90
G1046	A911	C671	A633			A633		G500		G341	C	G244	G176	A92
A1047	C912	C672	A634	U773		U668		G501	C419	G342		C246	G177	G93
A1048	U913	G673	C634	A774		G673		A502	C420			G247	G178	C94
C1049	C914	U674	G635	G775		A571		A505	U421	G348		C248	A181	G94A
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G1051	A916	A676	G637	G777		G637		A507		U350		G250	C183	G96
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C991	G920	G686	C641	G780		C641		G512	G437	G354		G254	G186	G100
C992	G921		A644	A781		A644		G517	G438	G355		G255	G187	G102
G993	C925	C691	C645	A782		C645		G518	U441	G356		G256	G188	A103
C994	A926	C692	A646	G784		A646		U519		A357		A262	G189	C105
A996	G927		G647	G785		G647		G520	A442	A359		C263	C106	C107
	G928		G648			G648		G521	C444	G360		G264	C108	U108
U999	U930	C697	G649	G786		C697		G522	C445	G361		G265	G109	G110
A1000	G931	C698	C650	A788		C650		G523	C446	G362		G266	G113	
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G1002	A933	G704	C	C790		C		U525	U448	A363B		G268	A196	
U1003	G934		A	C791		A		A526		G363C		G269	A197	
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C1005	G942	G710	G	A793		G710		A528	C452	U363E		A271	U200	A119
G1006	U943	G711	C			C		A529	C453	G364		A271A	C201	U120
C1007	G944	G712	G	C796		G712		G530	C456	A363F		G271C	G121	G122
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G1016	C951	G805	C	G805		G805		G537	G465	C313		G271J	G139	
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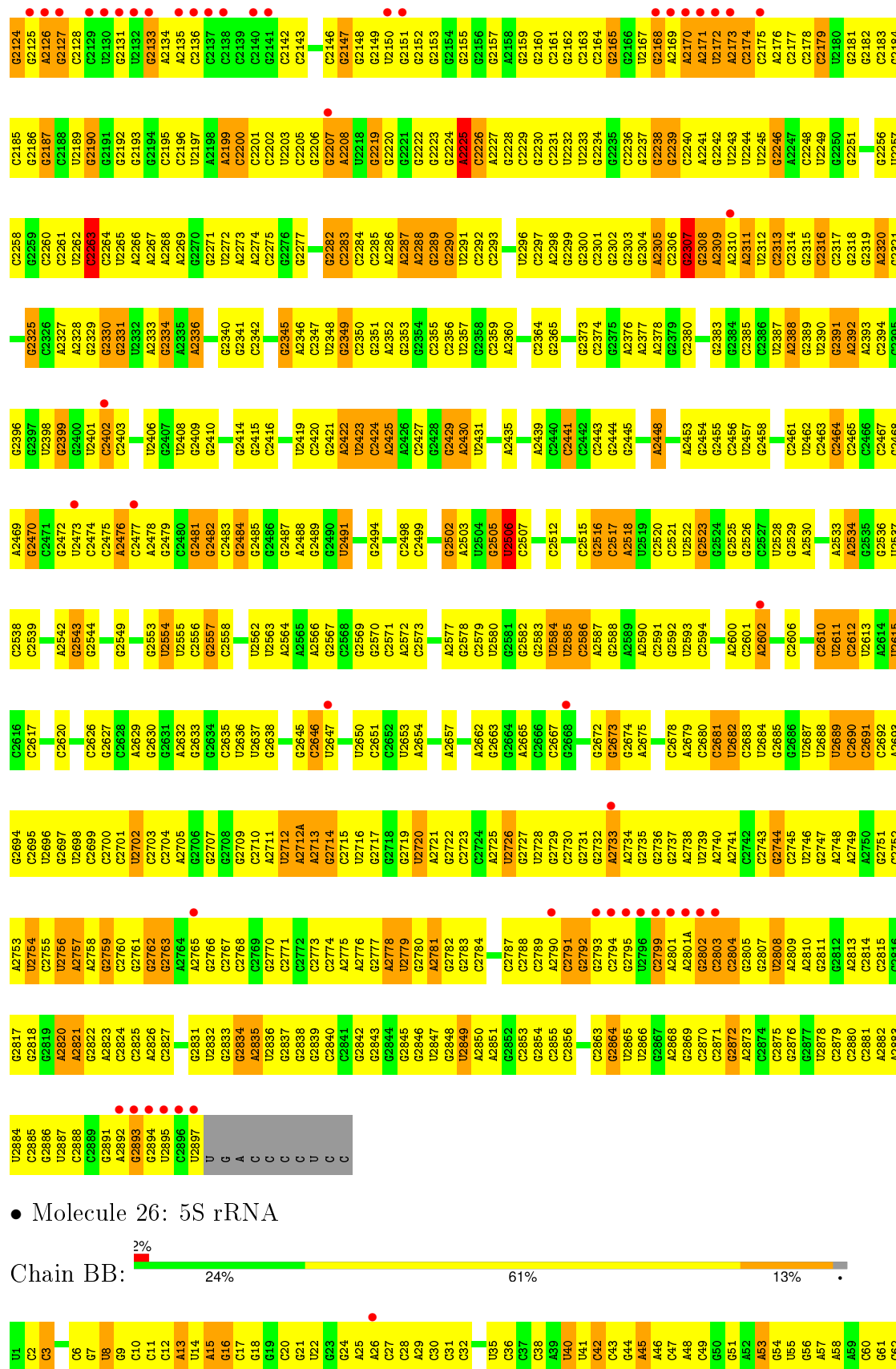
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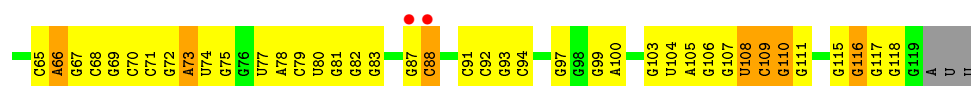


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G1041	G975A	G975A	G832	A761	G663	G623	G559	G493	G411	G341	A	U243	G173	G85
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G	G921	G921	G852	G780	C683	G640	A575	C509	U440	U358	C296	G254	G189	G102
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A	A926	A926	G854	A782	C691	A644	G577	A513	U442	G360	C297	G256	A191	U104
G	G927	G927	C855	A783	C692	G645	A578	A513	U443	G361	C298	G257	C192	U105
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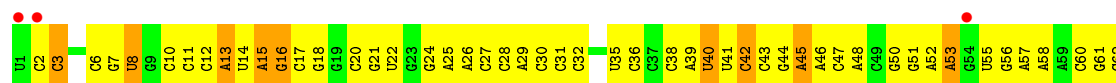
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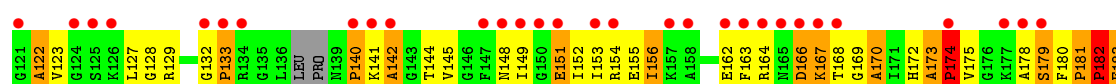
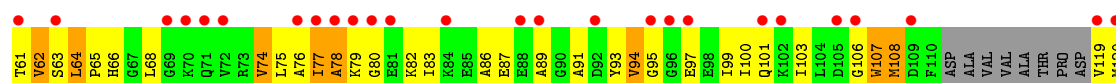
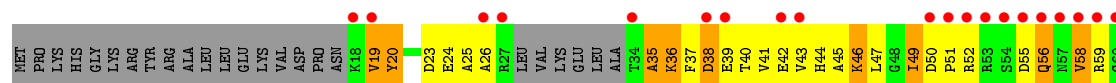




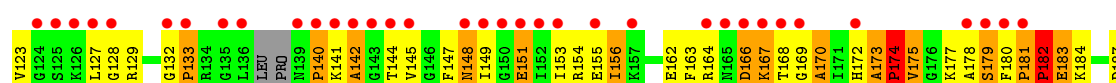
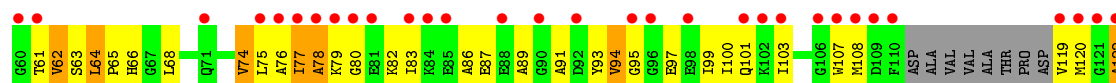
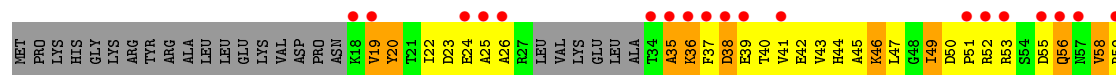
• Molecule 26: 5S rRNA



• Molecule 27: 50S ribosomal protein L1

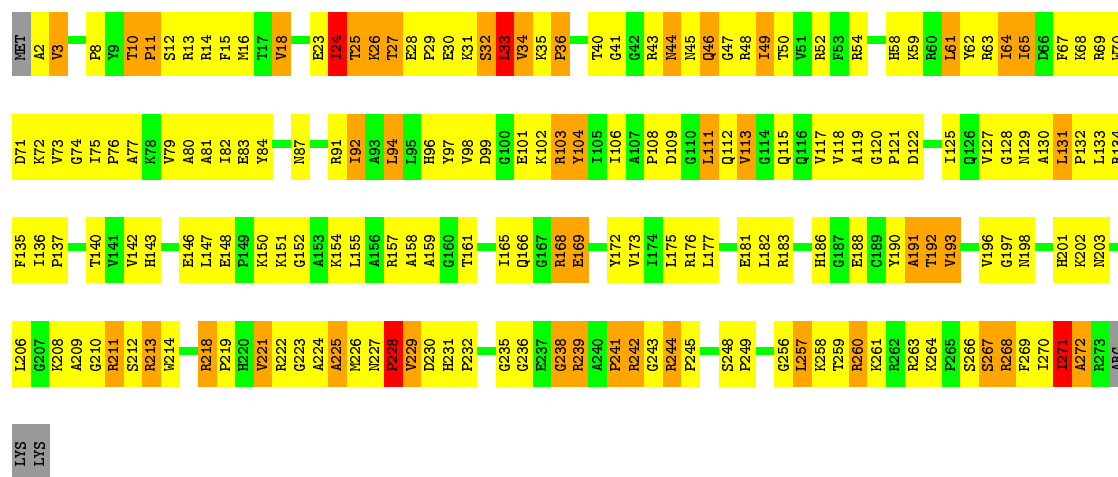


• Molecule 27: 50S ribosomal protein L1

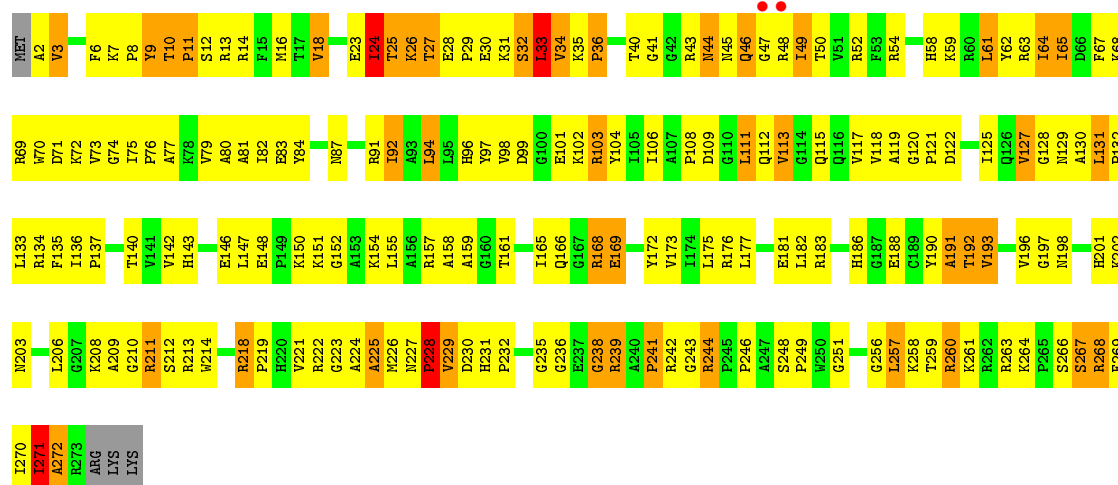
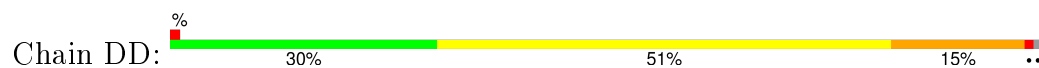


• Molecule 28: 50S ribosomal protein L2

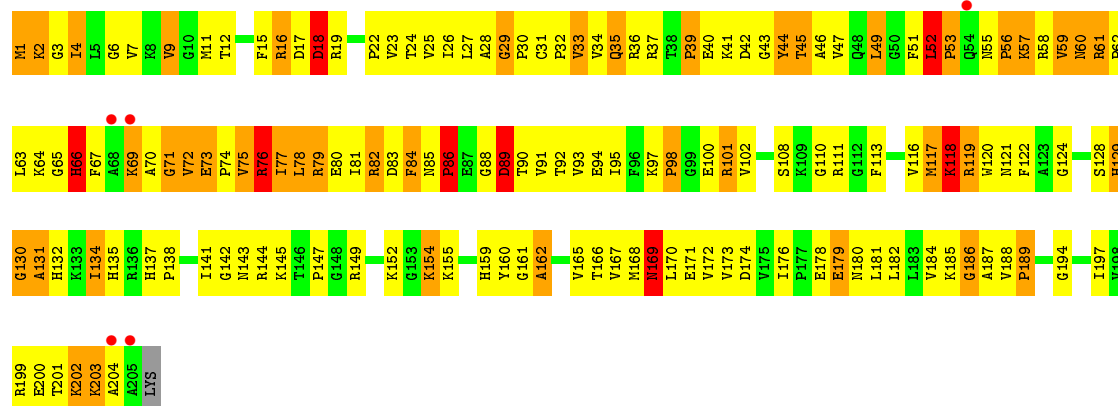




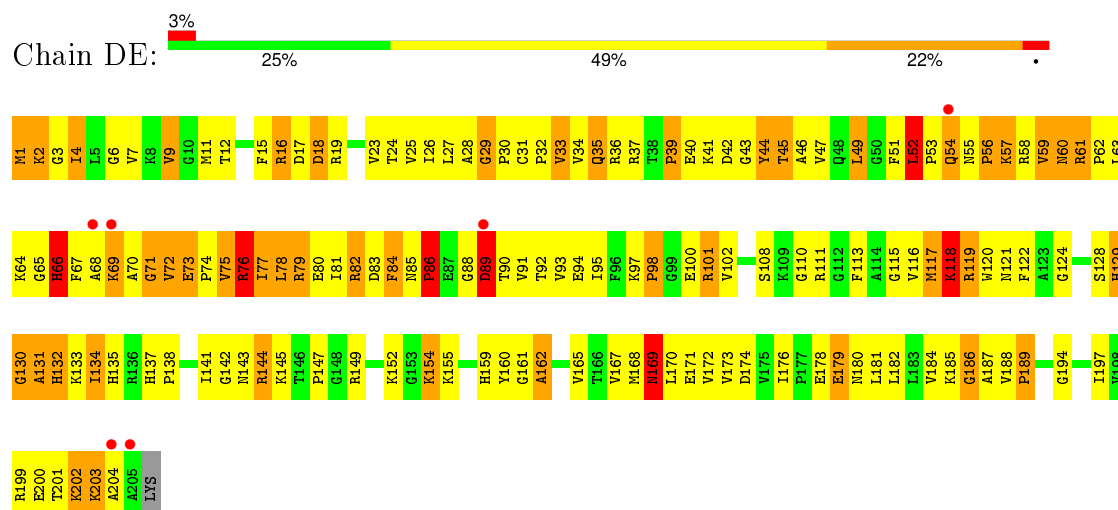
• Molecule 28: 50S ribosomal protein L2



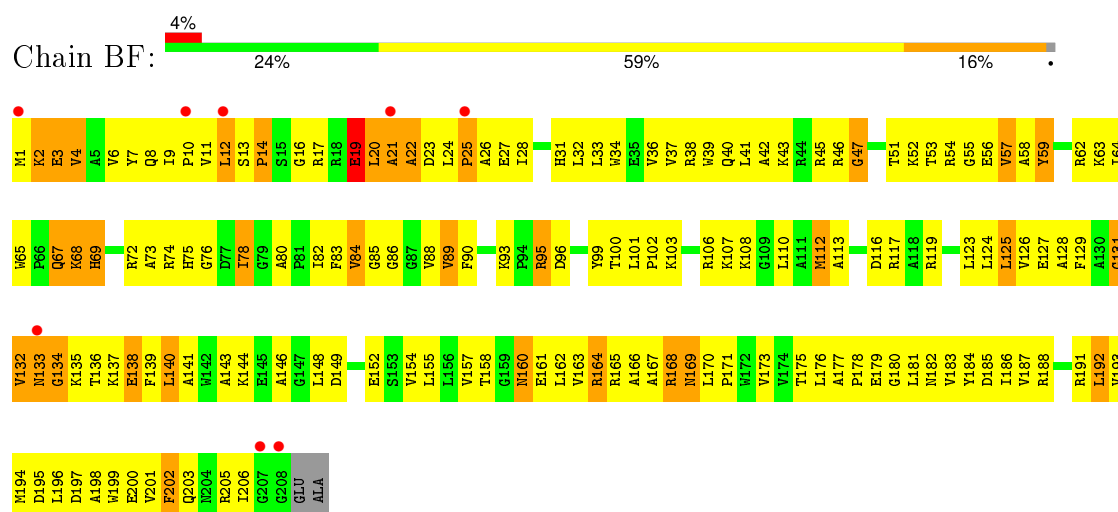
• Molecule 29: 50S ribosomal protein L3



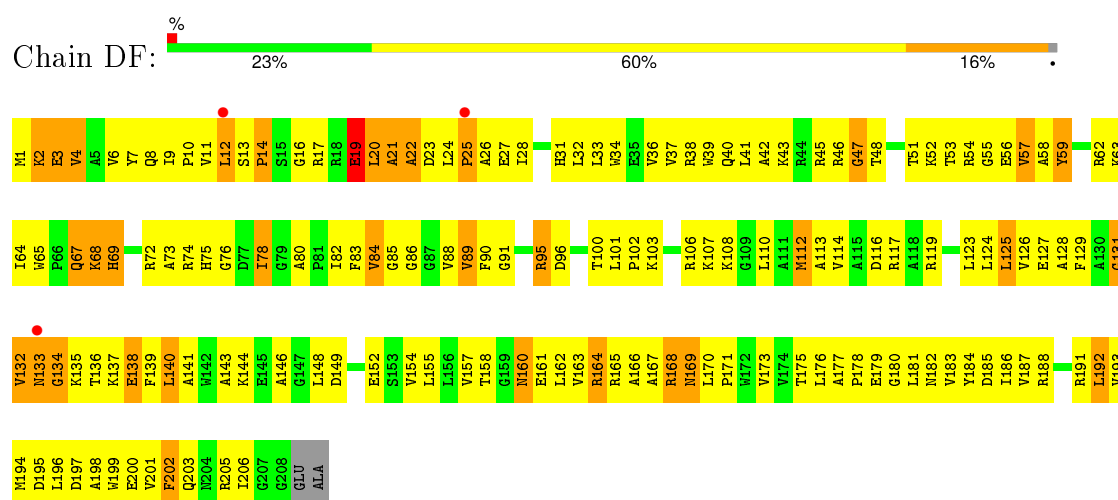
- Molecule 29: 50S ribosomal protein L3



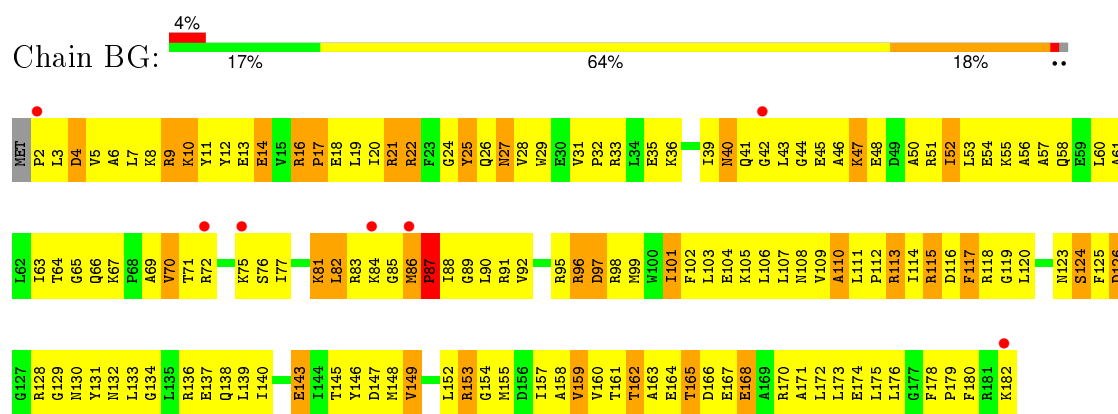
- Molecule 30: 50S ribosomal protein L4



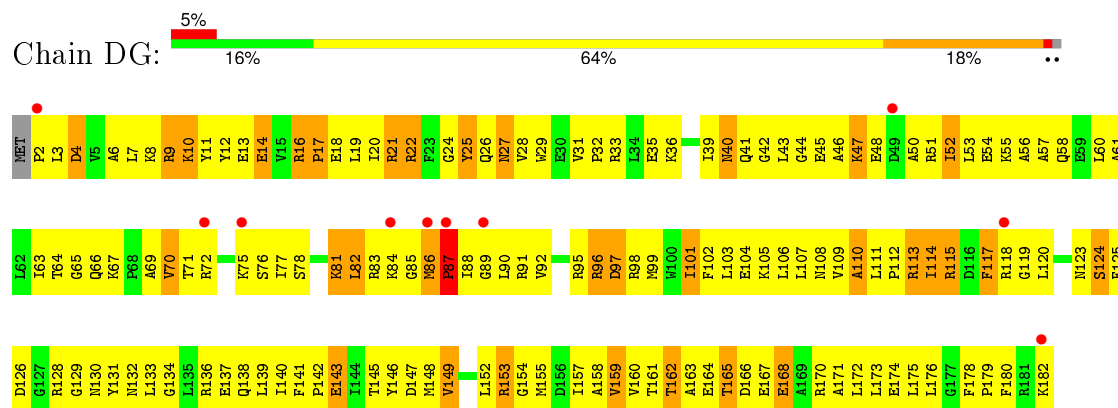
- Molecule 30: 50S ribosomal protein L4



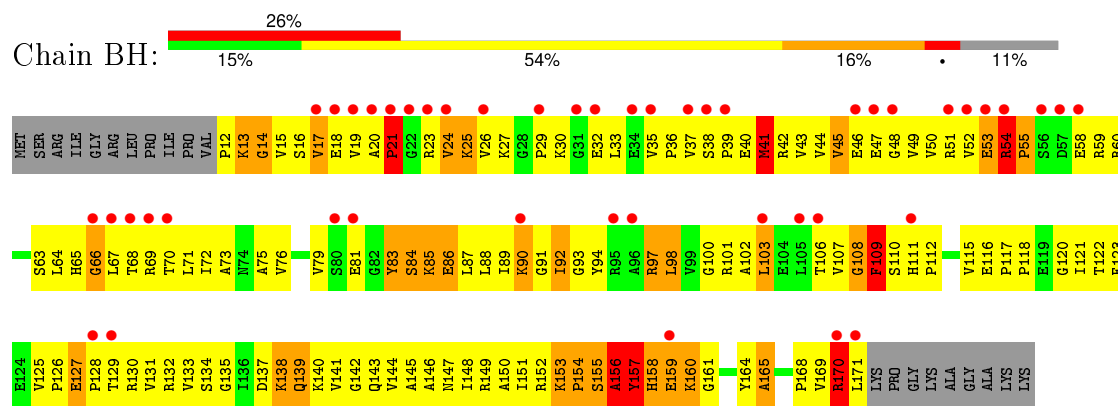
- Molecule 31: 50S ribosomal protein L5



• Molecule 31: 50S ribosomal protein L5

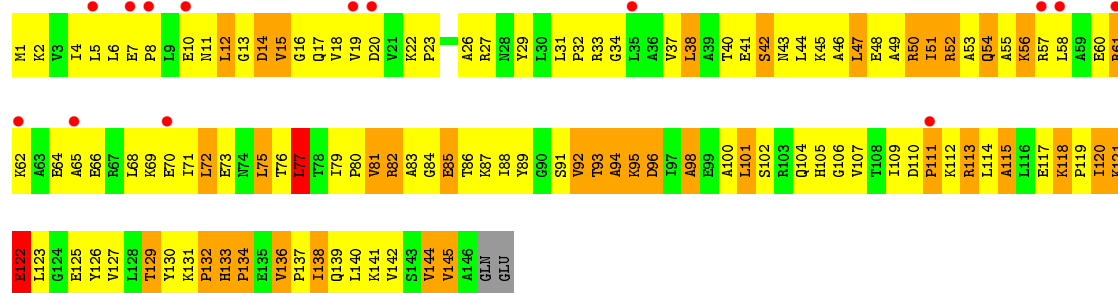
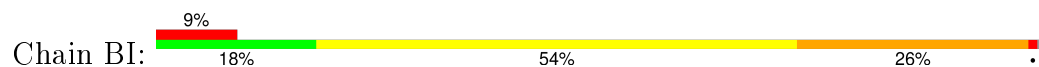


• Molecule 32: 50S ribosomal protein L6

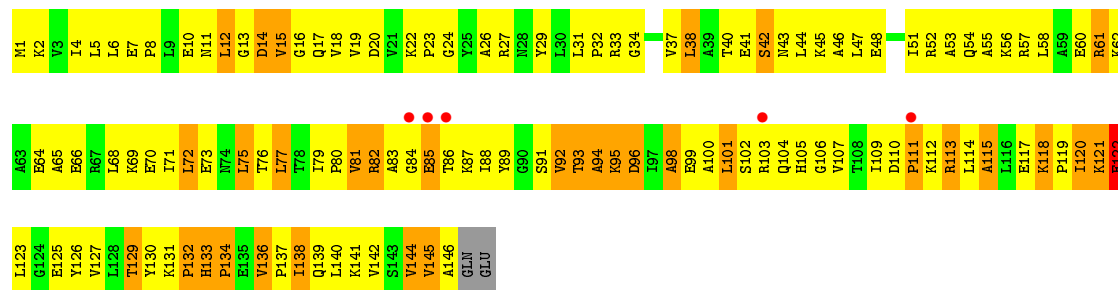




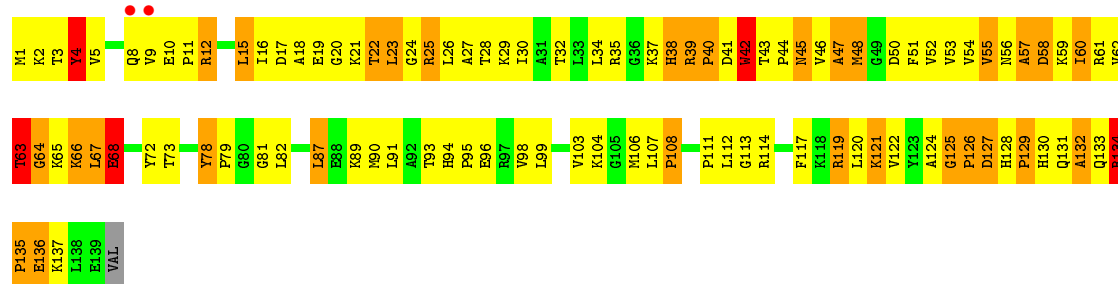
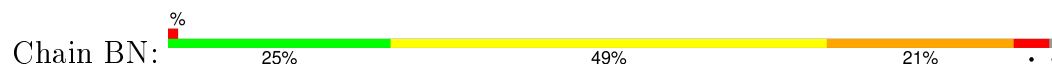
• Molecule 33: 50S ribosomal protein L9



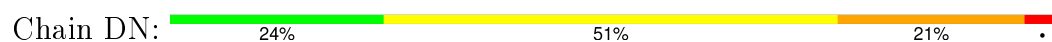
• Molecule 33: 50S ribosomal protein L9

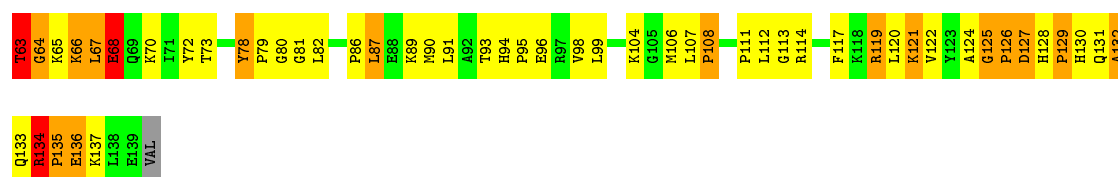


• Molecule 34: 50S ribosomal protein L13



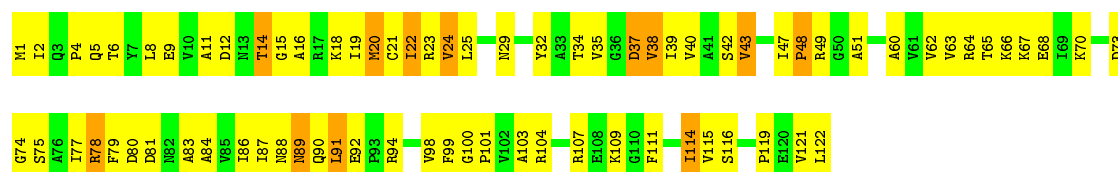
• Molecule 34: 50S ribosomal protein L13





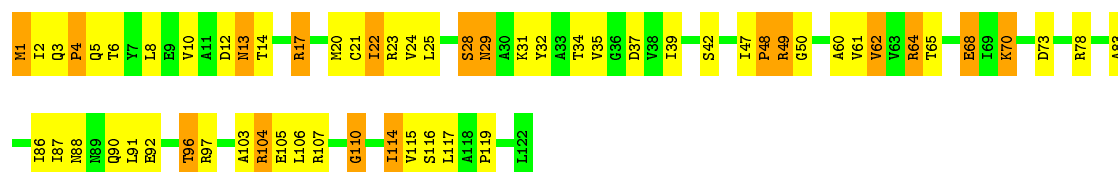
- Molecule 35: 50S ribosomal protein L14

Chain BO: 38% 52% 10%



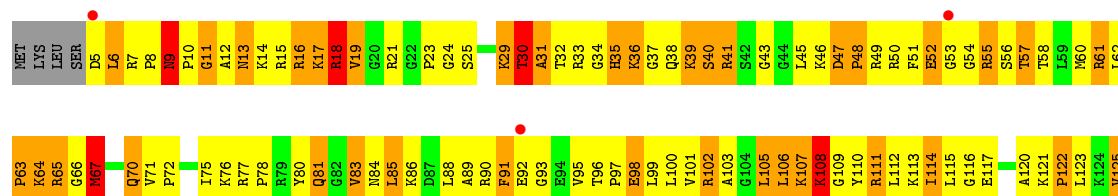
- Molecule 35: 50S ribosomal protein L14

Chain DO: 51% 35% 14%



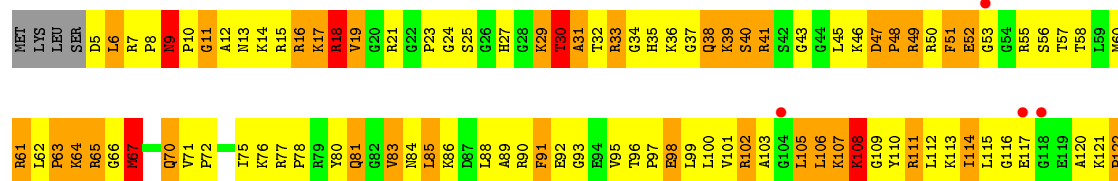
- Molecule 36: 50S ribosomal protein L15

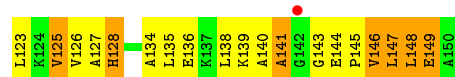
Chain BP: 3% 17% 49% 28%



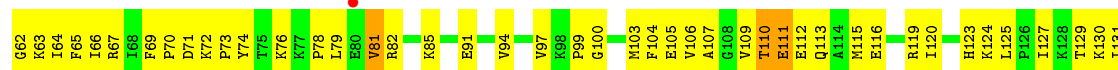
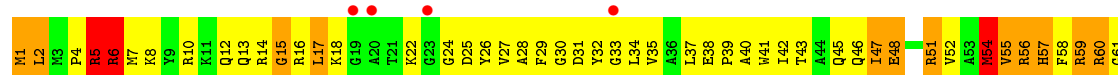
- Molecule 36: 50S ribosomal protein L15

Chain DP: 3% 19% 48% 27%

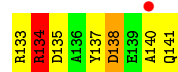
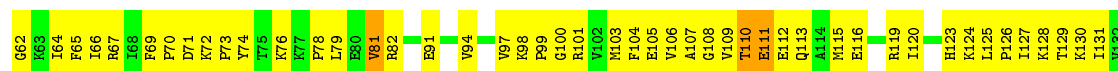
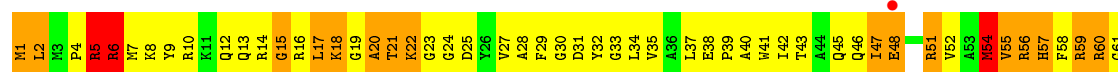




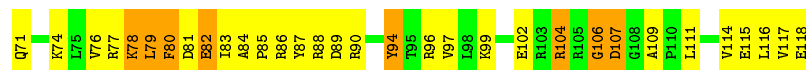
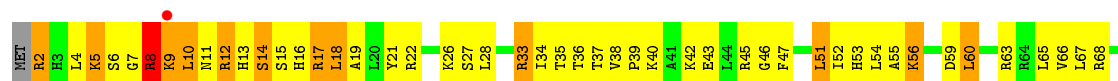
- Molecule 37: 50S ribosomal protein L16



- Molecule 37: 50S ribosomal protein L16



- Molecule 38: 50S ribosomal protein L17

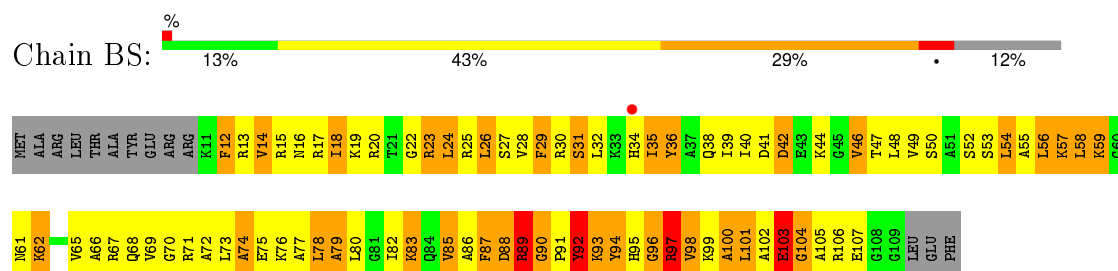


- Molecule 38: 50S ribosomal protein L17

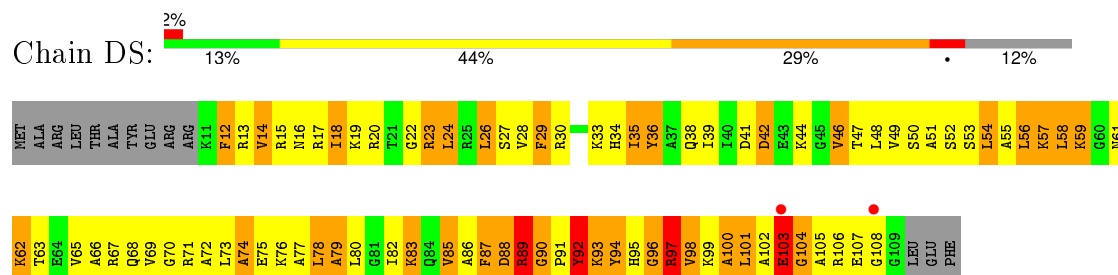




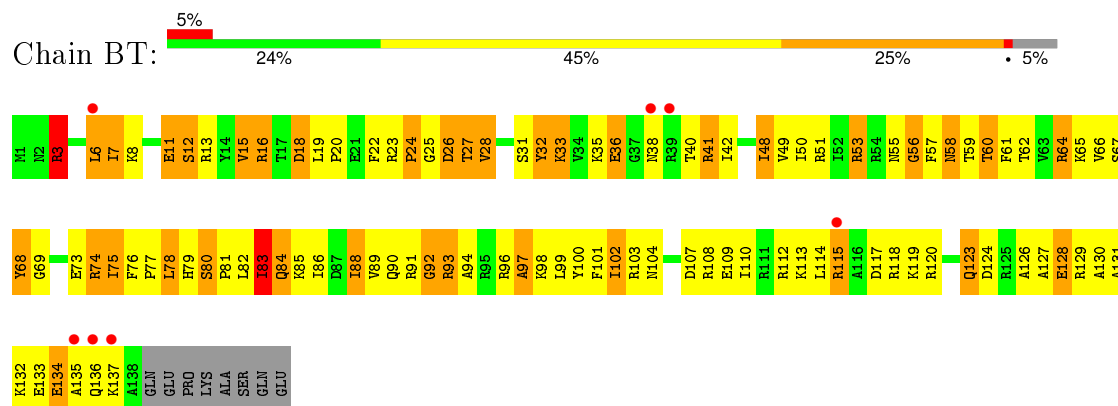
## • Molecule 39: 50S ribosomal protein L18



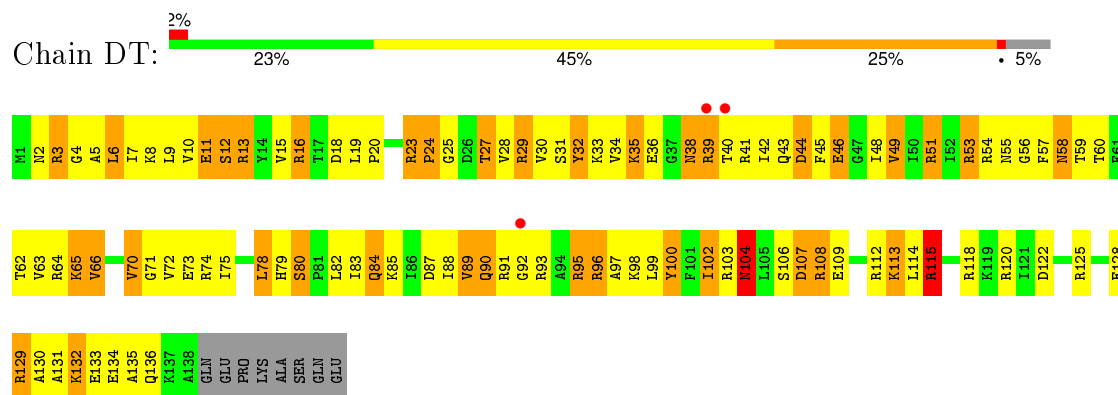
## • Molecule 39: 50S ribosomal protein L18



## • Molecule 40: 50S ribosomal protein L19

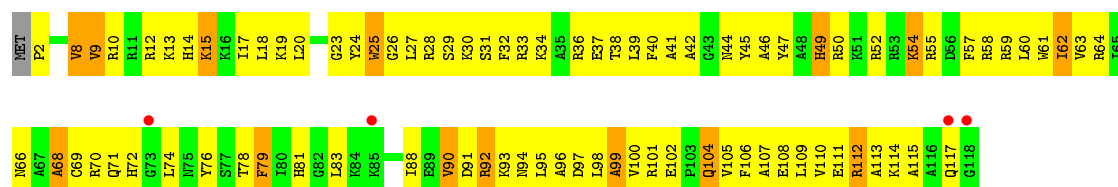


## • Molecule 40: 50S ribosomal protein L19



## • Molecule 41: 50S ribosomal protein L20





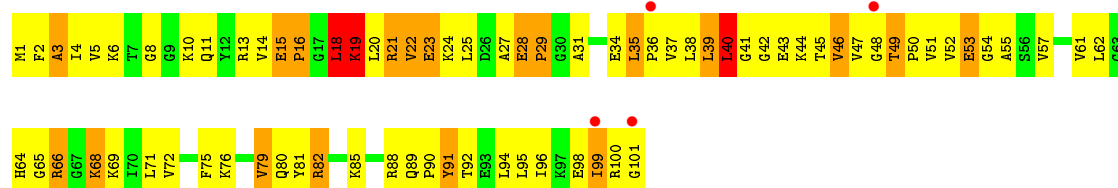
- Molecule 41: 50S ribosomal protein L20

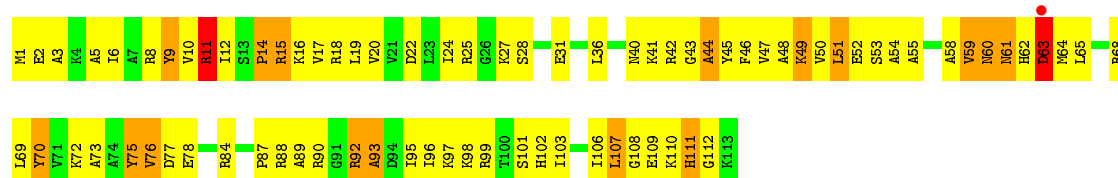
Chain DU: 25% 62% 12%



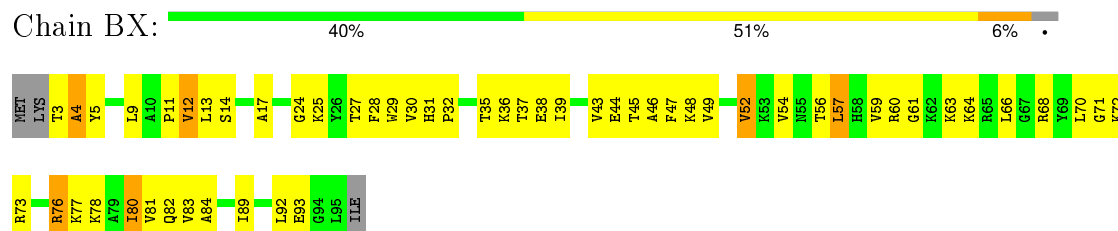
- Molecule 42: 50S ribosomal protein L21

Chain BV: 4% 25% 53% 19%

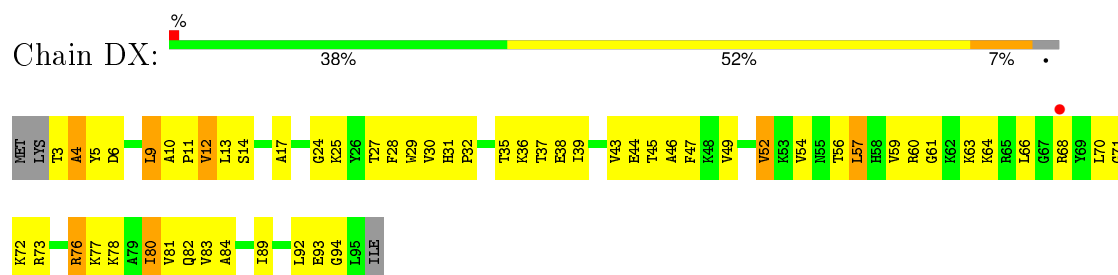




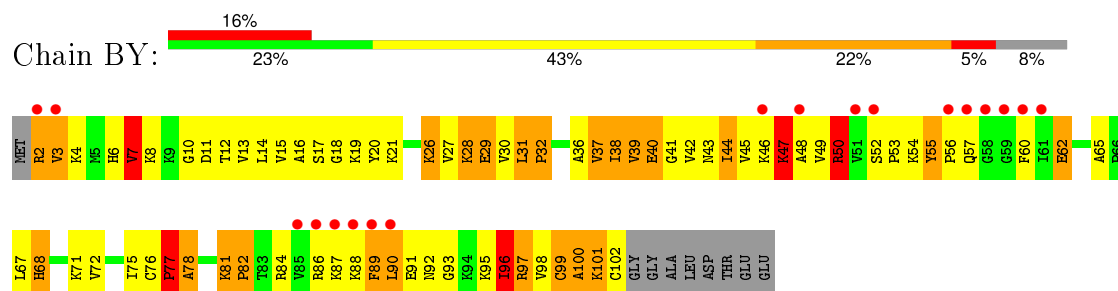
• Molecule 44: 50S ribosomal protein L23



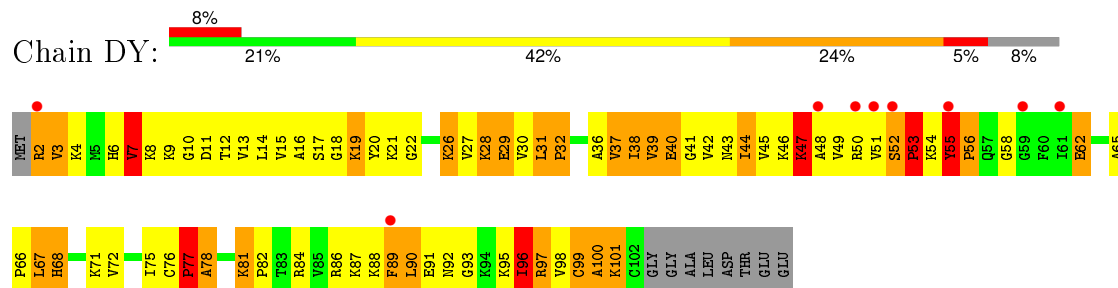
• Molecule 44: 50S ribosomal protein L23



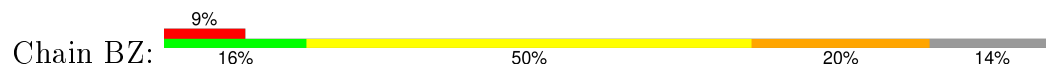
• Molecule 45: 50S ribosomal protein L24

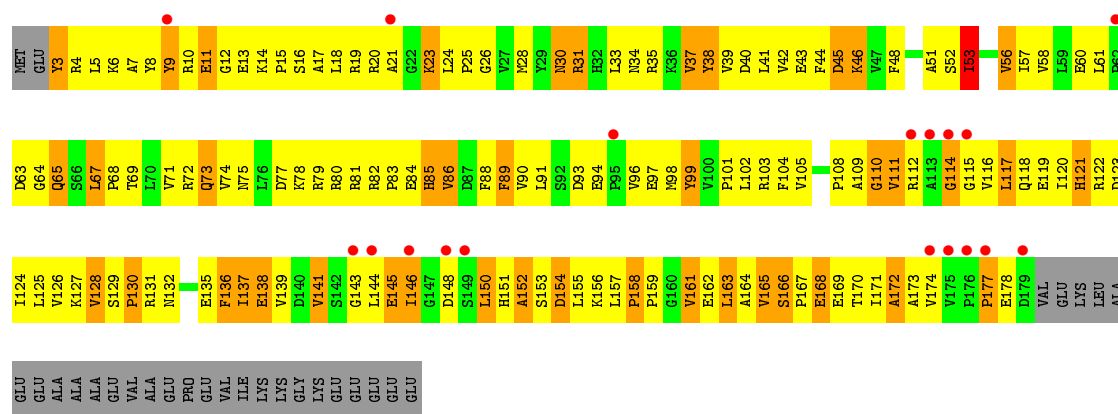


• Molecule 45: 50S ribosomal protein L24

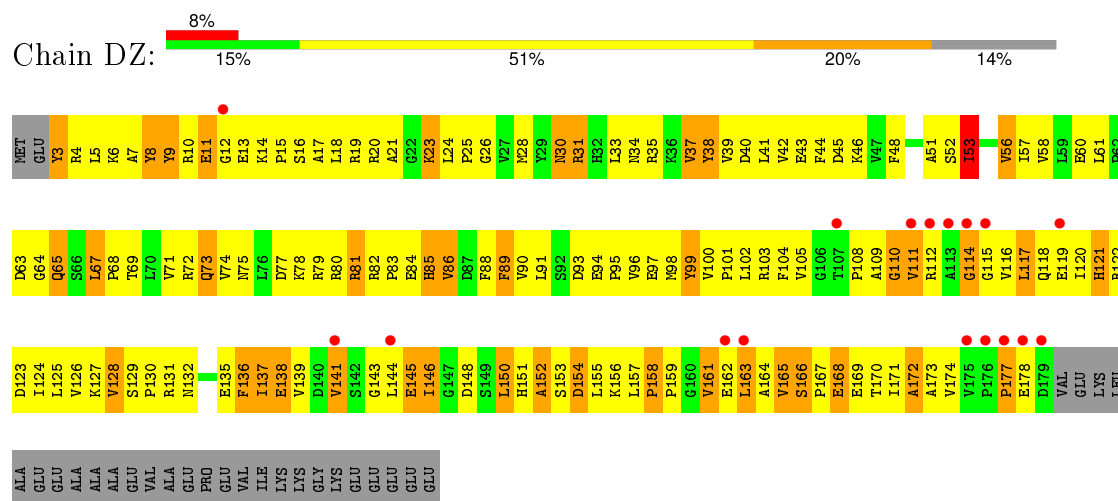


• Molecule 46: 50S ribosomal protein L25

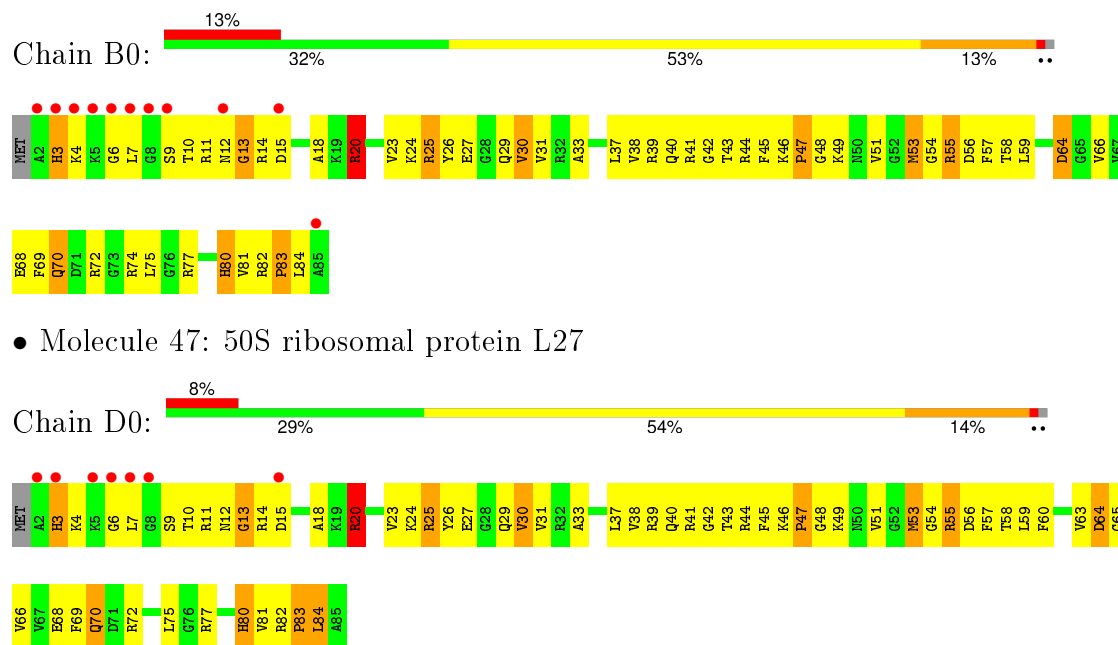




• Molecule 46: 50S ribosomal protein L25

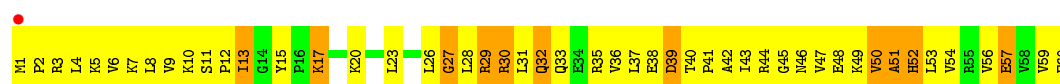


• Molecule 47: 50S ribosomal protein L27

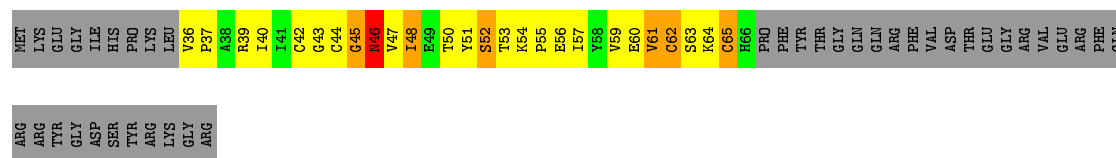
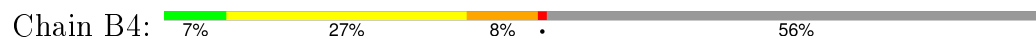


• Molecule 48: 50S ribosomal protein L28

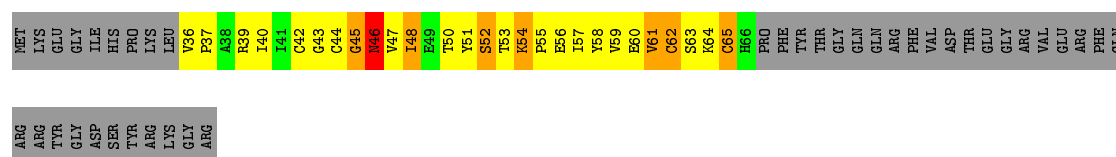
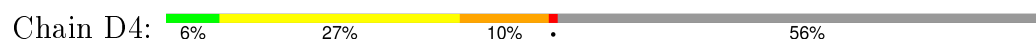




- Molecule 51: 50S ribosomal protein L31



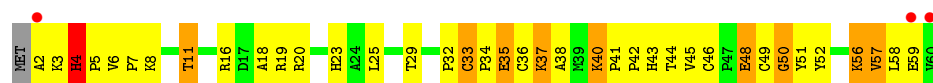
- Molecule 51: 50S ribosomal protein L31



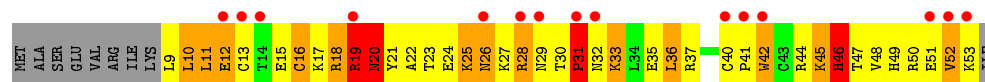
- Molecule 52: 50S ribosomal protein L32



- Molecule 52: 50S ribosomal protein L32



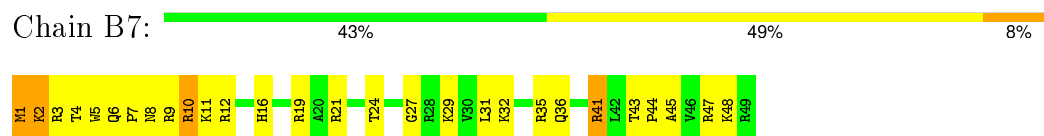
- Molecule 53: 50S ribosomal protein L33



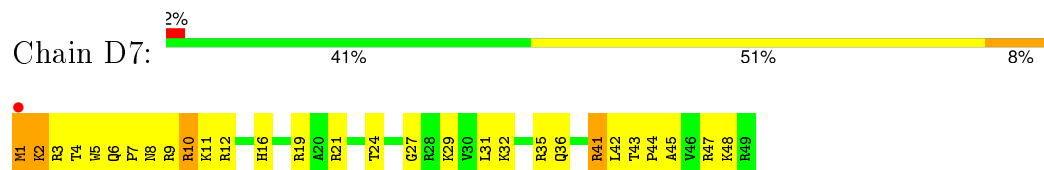
- Molecule 53: 50S ribosomal protein L33



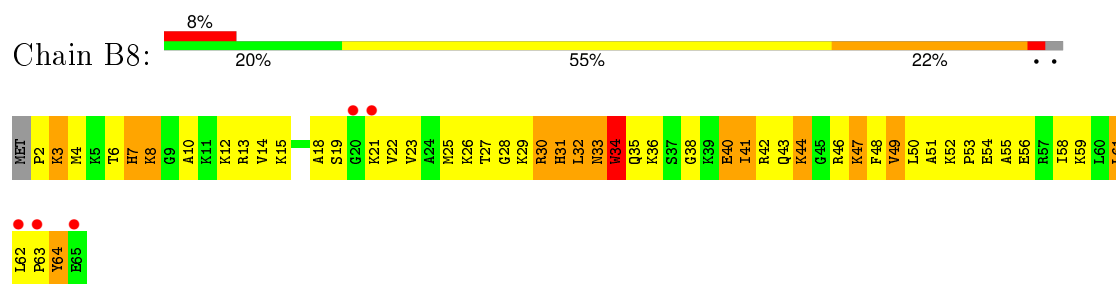
- Molecule 54: 50S ribosomal protein L34



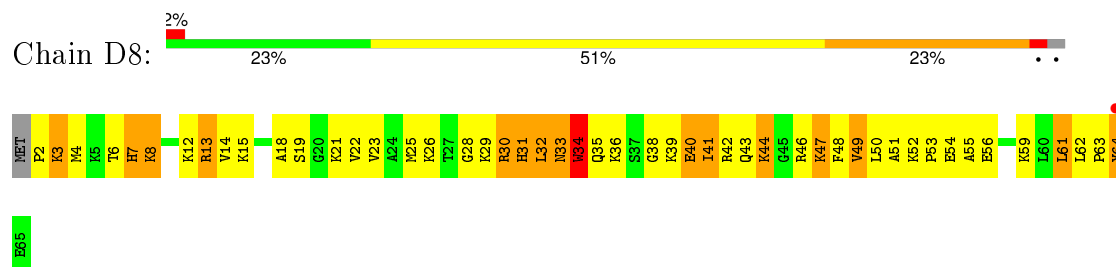
- Molecule 54: 50S ribosomal protein L34



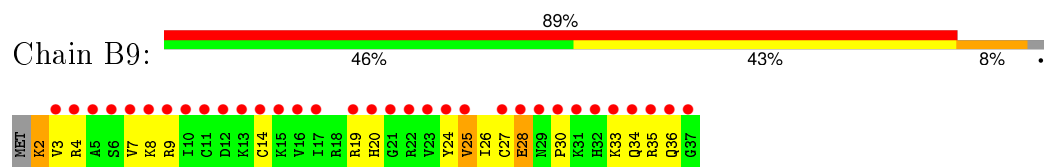
- Molecule 55: 50S ribosomal protein L35



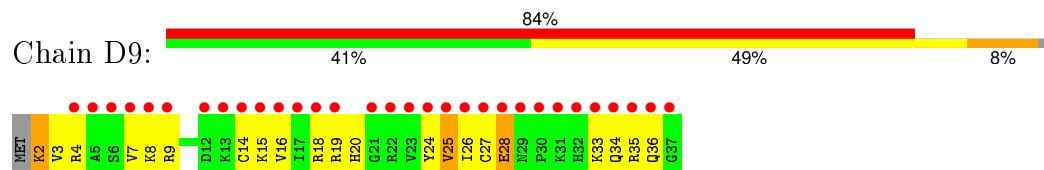
- Molecule 55: 50S ribosomal protein L35



- Molecule 56: 50S ribosomal protein L36



- Molecule 56: 50S ribosomal protein L36



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	210.20Å 446.16Å 620.95Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	50.00 – 3.90 34.93 – 4.00	Depositor EDS
% Data completeness (in resolution range)	94.3 (50.00-3.90) 95.2 (34.93-4.00)	Depositor EDS
$R_{merge}$	0.35	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	2.17 (at 3.99Å)	Xtriage
Refinement program	PHENIX (phenix.refine: 1.8.1_1168)	Depositor
R, $R_{free}$	0.242 , 0.269 0.252 , 0.277	Depositor DCC
$R_{free}$ test set	20475 reflections (4.61%)	DCC
Wilson B-factor (Å <sup>2</sup> )	115.4	Xtriage
Anisotropy	0.219	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.25 , 38.4	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.42$ , $\langle L^2 \rangle = 0.25$	Xtriage
Outliers	0 of 464342 reflections	Xtriage
$F_o, F_c$ correlation	0.88	EDS
Total number of atoms	292667	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	51.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.56% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

<sup>2</sup>Theoretical values of  $\langle |L| \rangle$ ,  $\langle L^2 \rangle$  for acentric reflections are 0.5, 0.375 respectively for untwinned datasets, and 0.333, 0.2 for perfectly twinned datasets.



## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

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

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	0.53	1/36186 (0.0%)	1.07	56/56479 (0.1%)
1	CA	0.57	0/36161	1.11	53/56440 (0.1%)
2	AB	0.36	0/1936	0.63	0/2611
2	CB	0.35	0/1936	0.62	0/2611
3	AC	0.35	0/1637	0.60	0/2207
3	CC	0.35	0/1637	0.59	0/2207
4	AD	0.39	0/1733	0.66	0/2318
4	CD	0.38	0/1733	0.65	0/2318
5	AE	0.41	0/1163	0.66	0/1566
5	CE	0.41	0/1163	0.66	0/1566
6	AF	0.35	0/856	0.63	0/1154
6	CF	0.36	0/856	0.65	0/1154
7	AG	0.34	0/1276	0.57	0/1709
7	CG	0.34	0/1276	0.57	0/1709
8	AH	0.34	0/1136	0.65	0/1527
8	CH	0.34	0/1136	0.64	0/1527
9	AI	0.35	0/1029	0.62	0/1379
9	CI	0.35	0/1029	0.63	0/1379
10	AJ	0.38	0/808	0.65	0/1087
10	CJ	0.38	0/808	0.64	0/1087
11	AK	0.36	0/900	0.66	0/1213
11	CK	0.36	0/900	0.66	0/1213
12	AL	0.45	0/987	0.78	1/1322 (0.1%)
12	CL	0.43	0/987	0.78	0/1322
13	AM	0.40	0/999	0.72	0/1338
13	CM	0.34	0/999	0.68	1/1338 (0.1%)
14	AN	0.37	0/501	0.63	0/664
14	CN	0.37	0/501	0.63	0/664
15	AO	0.36	0/745	0.58	0/992
15	CO	0.35	0/745	0.58	0/992
16	AP	0.39	0/717	0.65	0/965
16	CP	0.38	0/717	0.63	0/965

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
17	AQ	0.40	0/837	0.65	0/1119
17	CQ	0.36	0/837	0.61	0/1119
18	AR	0.39	0/579	0.71	0/768
18	CR	0.40	0/579	0.70	0/768
19	AS	0.38	0/643	0.68	0/867
19	CS	0.37	0/643	0.62	0/867
20	AT	0.36	0/765	0.66	0/1007
20	CT	0.34	0/765	0.66	0/1007
21	AU	0.71	0/213	0.84	0/279
21	CU	0.75	0/213	0.78	0/279
22	AW	0.51	0/1809	1.00	3/2819 (0.1%)
22	AY	0.74	0/408	1.23	0/634
22	CW	0.53	0/1809	0.99	6/2819 (0.2%)
22	CY	0.85	0/408	1.39	3/634 (0.5%)
23	AV	0.80	0/1836	1.30	11/2859 (0.4%)
23	CV	0.81	0/1836	1.29	9/2859 (0.3%)
24	AX	0.78	0/188	1.33	2/290 (0.7%)
24	CX	0.97	0/235	1.28	2/364 (0.5%)
25	BA	0.52	1/67620 (0.0%)	0.74	24/105555 (0.0%)
25	DA	0.52	2/67620 (0.0%)	0.74	23/105555 (0.0%)
26	BB	0.41	0/2853	0.71	1/4451 (0.0%)
26	DB	0.42	0/2853	0.72	1/4451 (0.0%)
27	BC	0.37	0/1145	0.67	7/1556 (0.4%)
27	DC	0.38	0/1145	0.67	7/1556 (0.4%)
28	BD	0.52	0/2155	0.82	0/2907
28	DD	0.53	0/2155	0.83	0/2907
29	BE	0.44	0/1597	0.78	2/2155 (0.1%)
29	DE	0.44	0/1597	0.77	1/2155 (0.0%)
30	BF	0.45	0/1659	0.74	0/2246
30	DF	0.45	0/1659	0.73	0/2246
31	BG	0.41	0/1499	0.73	1/2016 (0.0%)
31	DG	0.41	0/1499	0.74	1/2016 (0.0%)
32	BH	0.37	0/1246	0.70	2/1684 (0.1%)
32	DH	0.37	0/1246	0.70	2/1684 (0.1%)
33	BI	0.35	0/1147	0.71	0/1553
33	DI	0.37	0/1147	0.71	0/1553
34	BN	0.40	0/1132	0.74	1/1527 (0.1%)
34	DN	0.39	0/1132	0.75	1/1527 (0.1%)
35	BO	0.66	0/943	0.68	0/1269
35	DO	0.82	0/943	0.71	0/1269
36	BP	0.47	0/1131	0.84	0/1504
36	DP	0.45	0/1131	0.82	1/1504 (0.1%)
37	BQ	0.41	0/1143	0.69	0/1527

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
37	DQ	0.40	0/1143	0.68	0/1527
38	BR	0.40	0/974	0.76	0/1302
38	DR	0.40	0/974	0.77	0/1302
39	BS	0.41	0/779	0.72	0/1038
39	DS	0.38	0/779	0.71	0/1038
40	BT	0.58	0/1156	0.68	0/1544
40	DT	0.65	0/1156	0.70	1/1544 (0.1%)
41	BU	0.39	0/975	0.70	0/1297
41	DU	0.39	0/975	0.70	0/1297
42	BV	0.38	0/790	0.70	0/1057
42	DV	0.39	0/790	0.71	0/1057
43	BW	0.41	0/907	0.69	0/1216
43	DW	0.41	0/907	0.69	0/1216
44	BX	0.49	0/740	0.72	0/995
44	DX	0.49	0/740	0.72	0/995
45	BY	0.49	0/789	0.77	0/1053
45	DY	0.45	0/789	0.79	1/1053 (0.1%)
46	BZ	0.38	0/1436	0.66	0/1951
46	DZ	0.37	0/1436	0.67	0/1951
47	B0	0.39	0/671	0.67	0/892
47	D0	0.39	0/671	0.67	0/892
48	B1	0.46	0/739	0.84	1/983 (0.1%)
48	D1	0.45	0/739	0.84	1/983 (0.1%)
49	B2	0.43	0/600	0.69	0/793
49	D2	0.44	0/600	0.71	0/793
50	B3	0.38	0/473	0.67	0/636
50	D3	0.38	0/473	0.67	0/636
51	B4	0.44	0/229	0.66	0/311
51	D4	0.45	0/229	0.66	0/311
52	B5	0.38	0/473	0.68	0/639
52	D5	0.38	0/473	0.68	0/639
53	B6	0.47	0/388	0.65	0/520
53	D6	0.48	0/388	0.65	0/520
54	B7	0.56	0/427	0.75	0/563
54	D7	0.56	0/427	0.75	0/563
55	B8	0.51	0/516	0.85	0/681
55	D8	0.52	0/516	0.85	0/681
56	B9	0.31	0/302	0.58	0/397
56	D9	0.31	0/302	0.58	0/397
All	All	0.50	4/317064 (0.0%)	0.84	226/474017 (0.0%)

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1480	A	N9-C4	5.60	1.41	1.37
25	DA	2307	G	O3'-P	5.54	1.67	1.61
25	BA	271(U)	G	O3'-P	5.17	1.67	1.61
25	DA	271(U)	G	O3'-P	5.13	1.67	1.61

All (226) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	BE	52	LEU	C-N-CD	-8.27	102.41	120.60
45	DY	55	TYR	C-N-CD	-6.12	107.12	120.60
13	CM	112	GLY	C-N-CD	-6.03	107.34	120.60
23	CV	72	C	N3-C4-C5	-6.00	119.50	121.90
1	CA	1164	A	C8-N9-C4	5.99	108.19	105.80
24	CX	20	U	N1-C2-O2	-5.96	118.62	122.80
1	AA	443	C	C6-N1-C2	-5.96	117.92	120.30
22	AW	61	C	C6-N1-C2	-5.93	117.93	120.30
23	CV	32	G	N3-C4-C5	5.93	131.56	128.60
22	CY	33	U	N1-C2-N3	5.92	118.45	114.90
1	CA	535	U	C2-N1-C1'	-5.91	110.61	117.70
1	CA	501	C	N3-C2-O2	-5.90	117.77	121.90
25	DA	272(B)	G	P-O3'-C3'	-5.90	112.62	119.70
23	CV	13	C	C6-N1-C2	-5.90	117.94	120.30
40	DT	90	GLN	N-CA-C	-5.88	95.13	111.00
1	CA	937	U	C2-N1-C1'	5.87	124.74	117.70
1	CA	513	G	N3-C4-C5	5.86	131.53	128.60
1	CA	443	C	C6-N1-C2	-5.85	117.96	120.30
1	AA	49	U	C5-C6-N1	-5.84	119.78	122.70
1	AA	77	G	C8-N9-C4	-5.83	104.07	106.40
1	CA	689	A	C8-N9-C4	5.83	108.13	105.80
23	AV	47	G	N1-C6-O6	5.82	123.39	119.90
25	DA	1301	A	N9-C1'-C2'	5.82	121.56	114.00
25	BA	1301	A	N9-C1'-C2'	5.81	121.56	114.00
25	DA	1786	A	N9-C1'-C2'	5.81	121.55	114.00
23	AV	8	U	N1-C2-O2	-5.81	118.73	122.80
1	AA	49	U	C6-N1-C2	5.79	124.47	121.00
25	DA	2225	A	C2'-C3'-O3'	5.79	122.96	113.70
22	CY	37	A	N1-C6-N6	5.78	122.07	118.60
1	AA	337	C	N1-C2-O2	5.78	122.37	118.90
25	DA	1493	C	N1-C1'-C2'	5.78	121.52	114.00
25	BA	2225	A	C2'-C3'-O3'	5.77	122.94	113.70
1	CA	1140	C	C2-N1-C1'	5.77	125.15	118.80
25	BA	1786	A	N9-C1'-C2'	5.76	121.49	114.00
1	CA	559	G	C6-C5-N7	-5.76	126.94	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1386	C	C6-N1-C2	-5.75	118.00	120.30
25	BA	1493	C	N1-C1'-C2'	5.74	121.46	114.00
1	CA	1238	U	P-O3'-C3'	-5.74	112.81	119.70
1	AA	278	C	C6-N1-C2	-5.72	118.01	120.30
1	CA	1303	C	C6-N1-C2	-5.72	118.01	120.30
27	BC	181	PRO	N-CA-CB	5.71	110.16	103.30
1	AA	63	C	C6-N1-C2	-5.71	118.02	120.30
27	DC	181	PRO	N-CA-CB	5.70	110.14	103.30
23	AV	39	A	N1-C6-N6	5.68	122.01	118.60
25	DA	1698	A	N9-C1'-C2'	5.68	121.39	114.00
48	D1	46	LEU	CA-CB-CG	5.68	128.36	115.30
25	BA	1698	A	N9-C1'-C2'	5.68	121.38	114.00
1	AA	969	U	P-O3'-C3'	5.68	126.51	119.70
1	CA	903	G	N3-C4-C5	5.68	131.44	128.60
1	AA	106	G	N3-C4-N9	5.67	129.40	126.00
1	CA	261	G	P-O3'-C3'	5.66	126.50	119.70
1	CA	110	G	C6-C5-N7	-5.66	127.00	130.40
1	CA	1482	G	C4-C5-N7	-5.66	108.54	110.80
48	B1	46	LEU	CA-CB-CG	5.65	128.30	115.30
1	AA	246	G	N3-C4-C5	-5.65	125.77	128.60
23	AV	76	C	C2-N1-C1'	5.62	124.98	118.80
1	AA	715	C	C6-N1-C2	5.61	122.55	120.30
22	AW	75	C	N1-C2-N3	-5.59	115.28	119.20
1	AA	101	G	C4-N9-C1'	5.59	133.77	126.50
1	CA	1140	C	C6-N1-C2	-5.59	118.06	120.30
27	BC	174	PRO	N-CA-CB	5.58	110.00	103.30
1	CA	630	C	C6-N1-C2	-5.58	118.07	120.30
32	BH	156	ALA	N-CA-C	-5.58	95.93	111.00
32	DH	156	ALA	N-CA-C	-5.57	95.95	111.00
1	AA	1076	G	C8-N9-C4	-5.57	104.17	106.40
1	AA	1046	G	P-O3'-C3'	5.56	126.37	119.70
1	CA	937	U	C5-C6-N1	5.56	125.48	122.70
1	AA	261	G	O3'-P-O5'	5.56	114.56	104.00
1	AA	970	G	C4-N9-C1'	5.56	133.72	126.50
1	CA	1266	A	P-O3'-C3'	5.56	126.37	119.70
1	AA	956	C	C6-N1-C2	-5.54	118.08	120.30
27	DC	174	PRO	N-CA-CB	5.54	109.95	103.30
23	AV	12	G	N1-C6-O6	5.54	123.22	119.90
27	DC	220	PRO	N-CA-CB	5.53	109.93	103.30
1	AA	337	C	N3-C2-O2	-5.52	118.04	121.90
27	DC	140	PRO	N-CA-CB	5.51	109.92	103.30
25	DA	387	U	C2'-C3'-O3'	5.51	122.51	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	706	U	N3-C2-O2	-5.50	118.35	122.20
22	CW	30	G	N1-C6-O6	5.50	123.20	119.90
27	BC	182	PRO	N-CA-CB	5.49	109.89	103.30
1	AA	101	G	O4'-C1'-N9	5.49	112.59	108.20
25	BA	387	U	C2'-C3'-O3'	5.49	122.48	113.70
27	BC	140	PRO	N-CA-CB	5.49	109.89	103.30
1	AA	423	G	P-O3'-C3'	5.47	126.27	119.70
26	DB	40	U	N1-C1'-C2'	5.47	121.12	114.00
27	DC	182	PRO	N-CA-CB	5.47	109.87	103.30
26	BB	40	U	N1-C1'-C2'	5.47	121.11	114.00
1	CA	1483	U	C5-C6-N1	5.46	125.43	122.70
1	CA	1347	G	N3-C4-N9	-5.46	122.72	126.00
1	AA	1036	C	N1-C1'-C2'	5.46	121.09	114.00
22	CW	70	G	N3-C4-C5	5.45	131.32	128.60
25	BA	945	A	N9-C1'-C2'	5.45	121.08	114.00
1	AA	1445	A	C8-N9-C4	5.44	107.97	105.80
25	DA	945	A	N9-C1'-C2'	5.44	121.07	114.00
1	CA	1205	G	C8-N9-C4	-5.43	104.23	106.40
1	AA	60	A	P-O3'-C3'	5.43	126.21	119.70
27	BC	220	PRO	N-CA-CB	5.43	109.81	103.30
23	CV	72	C	N3-C2-O2	5.43	125.70	121.90
27	BC	201	PRO	N-CA-CB	5.42	109.81	103.30
25	BA	1053	C	N1-C1'-C2'	5.42	121.05	114.00
1	CA	1049	A	P-O3'-C3'	5.42	126.21	119.70
1	AA	543	U	P-O3'-C3'	5.42	126.21	119.70
1	CA	1279	C	C6-N1-C2	5.42	122.47	120.30
1	CA	513	G	N1-C6-O6	5.42	123.15	119.90
1	AA	469	G	C8-N9-C4	-5.42	104.23	106.40
1	CA	716	A	C8-N9-C4	5.39	107.96	105.80
1	CA	1202	G	C8-N9-C4	-5.39	104.25	106.40
1	AA	949	C	C6-N1-C2	-5.38	118.15	120.30
1	CA	60	A	P-O3'-C3'	5.38	126.15	119.70
25	DA	1053	C	N1-C1'-C2'	5.38	120.99	114.00
23	CV	57	C	C2-N1-C1'	5.37	124.71	118.80
23	AV	12	G	C5-C6-O6	-5.37	125.38	128.60
1	CA	969	U	P-O3'-C3'	5.37	126.14	119.70
27	DC	201	PRO	N-CA-CB	5.37	109.74	103.30
1	CA	669	U	C2-N1-C1'	-5.37	111.26	117.70
1	CA	917	C	C2-N1-C1'	-5.36	112.90	118.80
23	CV	14	A	C8-N9-C4	5.36	107.94	105.80
23	CV	47	G	C5-C6-O6	-5.34	125.39	128.60
1	AA	684	C	C6-N1-C2	-5.34	118.17	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	454	A	OP1-P-O3'	5.33	116.94	105.20
1	CA	11	G	N3-C4-N9	-5.33	122.80	126.00
1	CA	104	G	N3-C4-C5	5.33	131.26	128.60
29	DE	186	GLY	N-CA-C	5.33	126.41	113.10
1	AA	56	U	C5-C6-N1	5.32	125.36	122.70
22	CY	27	G	C4-N9-C1'	5.32	133.42	126.50
25	DA	2827	C	C5'-C4'-C3'	-5.32	107.48	116.00
25	DA	2557	G	C5'-C4'-C3'	-5.32	107.49	116.00
29	BE	186	GLY	N-CA-C	5.31	126.38	113.10
1	AA	85	U	C5-C6-N1	5.30	125.35	122.70
25	BA	2557	G	C5'-C4'-C3'	-5.30	107.52	116.00
1	AA	1260	A	N7-C8-N9	5.29	116.45	113.80
1	CA	1241	C	C6-N1-C2	-5.29	118.18	120.30
1	AA	970	G	C8-N9-C4	-5.29	104.28	106.40
24	AX	22	A	C8-N9-C4	-5.29	103.68	105.80
25	BA	2827	C	C5'-C4'-C3'	-5.29	107.53	116.00
1	CA	1318	G	N3-C4-C5	5.29	131.25	128.60
1	AA	1286	G	C8-N9-C4	-5.29	104.28	106.40
25	BA	856	C	C2'-C3'-O3'	5.29	122.16	113.70
1	AA	518	A	C8-N9-C4	5.29	107.92	105.80
1	AA	261	G	P-O3'-C3'	5.28	126.04	119.70
25	DA	2111	C	N1-C1'-C2'	5.28	120.87	114.00
22	CW	3	C	C6-N1-C2	-5.28	118.19	120.30
1	AA	543	U	C2-N1-C1'	5.28	124.04	117.70
1	CA	1347	G	N3-C4-C5	5.28	131.24	128.60
25	DA	856	C	C2'-C3'-O3'	5.27	122.13	113.70
25	DA	1781	C	C3'-C2'-C1'	-5.26	97.29	101.50
25	BA	2111	C	N1-C1'-C2'	5.26	120.83	114.00
34	DN	67	LEU	N-CA-C	-5.26	96.81	111.00
31	DG	87	PRO	N-CA-C	5.25	125.76	112.10
1	AA	364	C	N1-C2-O2	5.25	122.05	118.90
1	AA	839	C	C2-N1-C1'	5.25	124.58	118.80
31	BG	87	PRO	N-CA-C	5.24	125.73	112.10
22	CW	70	G	C2-N3-C4	-5.24	109.28	111.90
25	DA	2506	U	C5'-C4'-O4'	-5.24	102.81	109.10
34	BN	67	LEU	N-CA-C	-5.23	96.87	111.00
22	AW	62	C	C6-N1-C2	-5.23	118.21	120.30
25	BA	2506	U	C5'-C4'-O4'	-5.23	102.83	109.10
1	AA	511	C	O4'-C1'-N1	5.23	112.38	108.20
32	BH	157	TYR	N-CA-C	-5.22	96.89	111.00
1	CA	1182	A	P-O3'-C3'	5.22	125.97	119.70
1	CA	546	A	O4'-C1'-N9	5.22	112.38	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1819	A	P-O3'-C3'	5.21	125.96	119.70
1	CA	1140	C	C5-C6-N1	5.21	123.61	121.00
25	DA	2117	A	N9-C1'-C2'	5.21	120.77	114.00
25	BA	1022	G	P-O3'-C3'	5.21	125.95	119.70
32	DH	157	TYR	N-CA-C	-5.20	96.95	111.00
23	AV	77	A	N1-C6-N6	-5.19	115.48	118.60
1	CA	1046	G	P-O3'-C3'	5.18	125.92	119.70
27	BC	133	PRO	N-CA-CB	5.18	109.52	103.30
25	DA	1022	G	P-O3'-C3'	5.18	125.92	119.70
25	BA	1781	C	C3'-C2'-C1'	-5.18	97.36	101.50
25	BA	2035	G	N9-C1'-C2'	5.18	120.73	114.00
25	DA	2035	G	N9-C1'-C2'	5.17	120.73	114.00
25	BA	2117	A	N9-C1'-C2'	5.17	120.72	114.00
1	CA	1263	C	C6-N1-C2	-5.17	118.23	120.30
22	CW	43	C	C6-N1-C2	-5.17	118.23	120.30
23	CV	23	G	N1-C6-O6	5.17	123.00	119.90
24	CX	19	U	N3-C4-C5	5.16	117.70	114.60
1	AA	77	G	P-O3'-C3'	5.16	125.89	119.70
1	CA	559	G	N3-C4-N9	5.16	129.10	126.00
25	DA	1786	A	P-O3'-C3'	5.16	125.89	119.70
25	BA	1786	A	P-O3'-C3'	5.15	125.88	119.70
1	AA	246	G	C8-N9-C4	-5.14	104.34	106.40
1	CA	766	C	C6-N1-C2	5.14	122.36	120.30
1	AA	1286	G	N7-C8-N9	5.13	115.67	113.10
1	CA	973	A	C8-N9-C4	-5.12	103.75	105.80
1	AA	970	G	N7-C8-N9	5.12	115.66	113.10
1	CA	468	G	C8-N9-C4	-5.12	104.35	106.40
1	CA	11	G	N3-C4-C5	5.11	131.16	128.60
1	AA	1182	A	P-O3'-C3'	5.11	125.83	119.70
1	AA	753	C	C2-N1-C1'	-5.10	113.19	118.80
24	AX	22	A	C4-N9-C1'	5.10	135.48	126.30
22	CW	70	G	N3-C4-N9	-5.10	122.94	126.00
1	AA	1238	U	O4'-C1'-N1	5.09	112.28	108.20
1	AA	901	C	C6-N1-C2	-5.09	118.26	120.30
1	CA	400	U	C2-N1-C1'	5.09	123.81	117.70
1	AA	63	C	C5-C6-N1	5.08	123.54	121.00
1	AA	1142	G	C5-C6-O6	-5.08	125.55	128.60
1	AA	951	A	C8-N9-C4	-5.08	103.77	105.80
1	CA	937	U	C6-N1-C2	-5.08	117.95	121.00
23	AV	77	A	C6-C5-N7	5.08	135.85	132.30
27	DC	133	PRO	N-CA-CB	5.08	109.39	103.30
23	AV	49	C	C4-C5-C6	5.07	119.94	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	766	C	C6-N1-C2	5.07	122.33	120.30
1	AA	1049	A	P-O3'-C3'	5.07	125.78	119.70
1	CA	380	C	C6-N1-C2	-5.06	118.28	120.30
23	AV	17	C	C6-N1-C2	-5.05	118.28	120.30
1	AA	731	C	P-O3'-C3'	5.05	125.76	119.70
1	AA	364	C	N3-C2-O2	-5.05	118.37	121.90
25	DA	2263	C	C5'-C4'-O4'	-5.04	103.05	109.10
25	DA	1835	G	C5'-C4'-C3'	-5.03	107.95	116.00
36	DP	51	PHE	N-CA-C	5.03	124.59	111.00
1	CA	79	U	C5-C6-N1	5.03	125.22	122.70
23	CV	75	C	C6-N1-C2	-5.03	118.29	120.30
23	AV	29	C	C6-N1-C2	5.03	122.31	120.30
25	BA	1378	A	C2'-C3'-O3'	5.02	121.74	113.70
25	BA	2263	C	C5'-C4'-O4'	-5.02	103.07	109.10
1	AA	1047	U	P-O3'-C3'	5.02	125.72	119.70
25	BA	1835	G	C5'-C4'-C3'	-5.02	107.97	116.00
1	CA	357	G	N3-C4-C5	5.02	131.11	128.60
25	BA	1634	A	N9-C1'-C2'	5.01	120.52	114.00
25	DA	1378	A	C2'-C3'-O3'	5.01	121.72	113.70
25	DA	1634	A	N9-C1'-C2'	5.01	120.52	114.00
1	CA	77	G	P-O3'-C3'	5.01	125.72	119.70
25	BA	271(U)	G	O3'-P-O5'	-5.01	94.48	104.00
12	AL	29	GLY	N-CA-C	-5.00	100.60	113.10

There are no chirality outliers.

There are no planarity outliers.

## 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	32326	0	16316	985	0
1	CA	32304	0	16306	977	0
2	AB	1901	0	1951	288	0
2	CB	1901	0	1951	297	0
3	AC	1613	0	1677	215	0
3	CC	1613	0	1677	202	1

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	AD	1703	0	1765	202	0
4	CD	1703	0	1764	152	4
5	AE	1147	0	1207	147	0
5	CE	1147	0	1207	156	0
6	AF	843	0	857	81	0
6	CF	843	0	856	108	0
7	AG	1257	0	1296	137	0
7	CG	1257	0	1296	142	0
8	AH	1116	0	1177	148	0
8	CH	1116	0	1177	169	0
9	AI	1010	0	1037	169	0
9	CI	1010	0	1037	135	0
10	AJ	795	0	840	143	0
10	CJ	795	0	840	137	0
11	AK	885	0	904	104	1
11	CK	885	0	904	120	0
12	AL	971	0	1057	129	0
12	CL	971	0	1057	134	0
13	AM	988	0	1059	197	0
13	CM	988	0	1059	203	0
14	AN	492	0	531	88	0
14	CN	492	0	532	92	0
15	AO	734	0	771	70	0
15	CO	734	0	771	71	0
16	AP	701	0	720	56	0
16	CP	701	0	720	58	0
17	AQ	824	0	891	77	0
17	CQ	824	0	891	74	0
18	AR	574	0	644	61	0
18	CR	574	0	644	63	0
19	AS	630	0	652	102	0
19	CS	630	0	652	119	0
20	AT	763	0	861	114	0
20	CT	763	0	861	153	0
21	AU	209	0	221	10	0
21	CU	209	0	221	20	0
22	AW	1619	0	822	155	0
22	AY	365	0	185	55	0
22	CW	1619	0	822	203	0
22	CY	365	0	185	45	0
23	AV	1644	0	836	169	0
23	CV	1644	0	836	173	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
24	AX	169	0	86	17	0
24	CX	210	0	109	24	0
25	BA	60378	0	30440	2704	3
25	DA	60378	0	30441	2817	12
26	BB	2551	0	1295	140	1
26	DB	2551	0	1295	193	1
27	BC	1142	0	865	103	0
27	DC	1142	0	865	135	0
28	BD	2105	0	2182	296	4
28	DD	2105	0	2182	328	0
29	BE	1564	0	1629	269	0
29	DE	1564	0	1629	280	0
30	BF	1624	0	1677	241	0
30	DF	1624	0	1677	234	0
31	BG	1474	0	1535	318	0
31	DG	1474	0	1535	292	0
32	BH	1223	0	1282	198	0
32	DH	1223	0	1282	236	2
33	BI	1132	0	1218	217	0
33	DI	1132	0	1218	214	0
34	BN	1105	0	1180	169	0
34	DN	1105	0	1180	170	0
35	BO	933	0	995	88	0
35	DO	933	0	996	78	0
36	BP	1114	0	1187	318	0
36	DP	1114	0	1187	299	8
37	BQ	1122	0	1179	154	0
37	DQ	1122	0	1179	184	0
38	BR	960	0	1021	143	0
38	DR	960	0	1021	144	0
39	BS	771	0	832	194	0
39	DS	771	0	832	196	0
40	BT	1142	0	1202	149	0
40	DT	1142	0	1202	225	0
41	BU	958	0	1015	170	0
41	DU	958	0	1015	173	0
42	BV	779	0	852	169	0
42	DV	779	0	852	174	3
43	BW	896	0	953	107	1
43	DW	896	0	953	112	0
44	BX	726	0	778	72	0
44	DX	726	0	778	74	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
45	BY	776	0	870	158	11
45	DY	776	0	870	184	2
46	BZ	1404	0	1432	219	0
46	DZ	1404	0	1432	230	0
47	B0	662	0	688	79	0
47	D0	662	0	688	77	0
48	B1	732	0	808	98	0
48	D1	732	0	808	91	0
49	B2	598	0	653	71	0
49	D2	598	0	653	86	1
50	B3	468	0	523	67	8
50	D3	468	0	523	73	0
51	B4	226	0	229	46	0
51	D4	226	0	229	37	0
52	B5	459	0	480	64	0
52	D5	459	0	480	60	3
53	B6	381	0	391	74	0
53	D6	381	0	391	75	0
54	B7	419	0	467	42	0
54	D7	419	0	467	45	0
55	B8	508	0	576	109	0
55	D8	508	0	576	104	0
56	B9	299	0	326	24	0
56	D9	299	0	326	21	0
57	AA	93	0	0	0	0
57	AX	2	0	0	0	0
57	B1	1	0	0	0	0
57	B3	1	0	0	0	0
57	B5	2	0	0	0	0
57	BA	261	0	0	7	0
57	BB	4	0	0	0	0
57	BE	1	0	0	0	0
57	BF	2	0	0	0	0
57	BO	1	0	0	0	0
57	BU	1	0	0	0	0
57	CA	94	0	0	0	0
57	CV	2	0	0	0	0
57	D0	1	0	0	0	0
57	D5	2	0	0	0	0
57	DA	268	0	0	0	0
57	DB	2	0	0	0	0
57	DD	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	DE	1	0	0	0	0
58	AA	42	0	45	3	0
58	CA	42	0	45	1	0
59	AD	1	0	0	1	0
59	AN	1	0	0	2	0
59	CD	1	0	0	0	0
59	CN	1	0	0	0	0
All	All	292667	0	198350	20561	33

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 42.

All (20561) 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)
13:CM:93:ARG:CD	25:DA:888:C:H5'	1.15	1.61
4:AD:167:GLY:CA	28:DD:135:PHE:CE2	1.85	1.56
25:BA:2584:U:C2'	25:BA:2585:U:H5''	1.38	1.54
25:DA:2584:U:C2'	25:DA:2585:U:H5''	1.38	1.54
4:AD:167:GLY:HA3	28:DD:135:PHE:CE2	1.43	1.50
4:AD:197:PRO:CD	6:CF:16:GLN:HG3	1.41	1.49
23:CV:57:C:C5	31:DG:84:LYS:NZ	1.79	1.48
23:CV:35:C:H2'	23:CV:36:A:C8	1.48	1.47
23:CV:57:C:H5	31:DG:84:LYS:NZ	1.00	1.46
40:DT:28:VAL:CG2	40:DT:46:GLU:HA	1.46	1.45
29:BE:52:LEU:CD2	29:BE:76:ARG:HB2	1.46	1.45
32:DH:17:VAL:CG1	32:DH:45:VAL:HG22	1.49	1.43
13:AM:93:ARG:CD	25:BA:888:C:H5'	1.47	1.43
13:AM:94:ARG:NH2	25:BA:887:A:C2'	1.82	1.42
4:AD:195:ALA:CB	6:CF:20:ALA:HB2	1.51	1.41
25:BA:271(U):G:C2'	25:BA:271(V):G:H5'	1.51	1.41
13:CM:94:ARG:NH2	25:DA:887:A:H2'	1.21	1.41
13:AM:108:ARG:NH1	13:AM:111:LYS:HG3	1.31	1.41
23:CV:57:C:N4	31:DG:83:ARG:NH2	1.69	1.40
40:DT:28:VAL:HG22	40:DT:46:GLU:CA	1.50	1.40
13:CM:94:ARG:NH2	25:DA:887:A:C2'	1.85	1.39
29:DE:51:PHE:CE1	29:DE:52:LEU:HD23	1.57	1.39
25:DA:271(U):G:C2'	25:DA:271(V):G:H5'	1.51	1.38
40:DT:29:ARG:HD3	40:DT:85:LYS:CA	1.52	1.37
45:DY:54:LYS:HG2	45:DY:55:TYR:CD2	1.60	1.36
13:AM:94:ARG:NH2	25:BA:887:A:C3'	1.83	1.36

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:197:PRO:HD3	6:CF:16:GLN:CG	1.26	1.35
32:DH:17:VAL:HB	32:DH:45:VAL:CG2	1.55	1.35
40:DT:29:ARG:CD	40:DT:85:LYS:HA	1.57	1.34
13:AM:94:ARG:HH22	25:BA:887:A:C2'	1.36	1.34
13:CM:93:ARG:CD	25:DA:888:C:C5'	2.07	1.33
25:DA:2516:G:C2'	25:DA:2517:C:H5'	1.58	1.32
25:DA:2584:U:H2'	25:DA:2585:U:C5'	1.58	1.31
13:CM:93:ARG:HD3	25:DA:888:C:C5'	1.59	1.31
25:BA:2516:G:C2'	25:BA:2517:C:H5'	1.58	1.30
20:CT:26:ASN:HB2	20:CT:71:THR:CG2	1.59	1.30
25:BA:2584:U:H2'	25:BA:2585:U:C5'	1.58	1.29
20:CT:26:ASN:CB	20:CT:71:THR:HG23	1.61	1.29
25:BA:1819:A:H1'	25:BA:1821:A:C6	1.65	1.29
13:AM:93:ARG:HG2	25:BA:888:C:OP1	1.28	1.29
13:AM:94:ARG:NH2	25:BA:887:A:H3'	1.40	1.28
13:AM:108:ARG:HH12	13:AM:111:LYS:CG	1.44	1.28
25:BA:911:A:H5''	25:BA:912:C:C5'	1.61	1.28
25:DA:911:A:H5''	25:DA:912:C:C5'	1.61	1.28
25:DA:1819:A:H1'	25:DA:1821:A:C6	1.68	1.28
20:CT:53:LEU:CD1	20:CT:102:GLY:HA3	1.63	1.28
9:AI:104:ARG:HG2	9:AI:106:ALA:CB	1.63	1.26
25:DA:108:U:O2'	25:DA:109:G:H5'	1.33	1.26
20:CT:50:GLU:CA	20:CT:100:ILE:HG12	1.65	1.26
25:BA:108:U:O2'	25:BA:109:G:H5'	1.33	1.26
45:DY:54:LYS:CD	45:DY:55:TYR:HE2	1.49	1.26
32:DH:17:VAL:CB	32:DH:45:VAL:HG22	1.65	1.25
25:BA:2585:U:OP2	57:BA:3061:MG:MG	0.65	1.25
13:AM:108:ARG:NH1	13:AM:111:LYS:CG	2.00	1.24
13:CM:93:ARG:HG2	25:DA:888:C:OP1	1.30	1.24
13:AM:108:ARG:HH12	13:AM:111:LYS:CB	1.49	1.24
40:DT:55:ASN:N	40:DT:59:THR:HG22	1.54	1.23
23:AV:3:C:C2'	23:AV:4:G:H5'	1.69	1.23
28:BD:244:ARG:HG3	28:BD:245:PRO:CD	1.69	1.23
32:DH:41:MET:HA	32:DH:53:GLU:O	1.34	1.22
25:DA:1158:C:O2'	50:D3:32:GLN:HG3	1.40	1.22
42:BV:49:THR:HG22	42:BV:50:PRO:CD	1.69	1.22
13:CM:94:ARG:CZ	25:DA:888:C:OP2	1.87	1.22
20:CT:49:ALA:HB1	20:CT:100:ILE:CD1	1.68	1.22
6:AF:67:MET:HB2	6:AF:68:PRO:CD	1.70	1.22
22:CW:68:C:H2'	22:CW:69:G:H8	1.06	1.20
31:BG:2:PRO:HG2	51:B4:51:TYR:CE2	1.75	1.20

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:314:A:O2'	25:BA:315:G:H5'	1.41	1.20
1:AA:1302:C:H5''	1:AA:1303:C:C5'	1.72	1.20
23:AV:3:C:H2'	23:AV:4:G:C5'	1.73	1.19
22:CW:60:U:H2'	22:CW:61:C:H5	1.04	1.18
25:BA:1879:C:H2'	25:BA:1880:C:H5''	1.23	1.18
1:AA:1425:G:H3'	1:AA:1426:A:H5''	1.20	1.18
25:DA:271(S):G:H2'	25:DA:271(T):C:H5''	1.25	1.18
44:BX:27:THR:HG22	44:BX:80:ILE:HB	1.25	1.18
13:AM:96:LEU:C	13:AM:110:ARG:HD3	1.62	1.18
23:CV:18:U:H4'	23:CV:19:G:OP2	1.42	1.18
25:DA:1590:U:H2'	25:DA:1591:G:H5''	1.25	1.17
45:DY:67:LEU:HD12	45:DY:67:LEU:O	1.43	1.17
4:AD:195:ALA:CB	6:CF:20:ALA:CB	2.23	1.16
26:DB:83:G:O2'	26:DB:84:C:H5'	1.44	1.16
25:DA:314:A:O2'	25:DA:315:G:H5'	1.41	1.16
20:CT:49:ALA:HB1	20:CT:100:ILE:HD11	1.18	1.16
25:DA:359:A:H2'	25:DA:360:G:H5'	1.28	1.16
25:DA:1981:A:H5''	25:DA:1982:C:OP2	1.44	1.16
1:AA:1302:C:H5''	1:AA:1303:C:H5''	1.22	1.16
26:DB:92:C:O2'	26:DB:93:G:H5'	1.45	1.16
20:AT:50:GLU:CA	20:AT:100:ILE:HG12	1.76	1.15
25:BA:1981:A:H5''	25:BA:1982:C:OP2	1.44	1.15
4:AD:195:ALA:HB3	6:CF:20:ALA:HB2	1.25	1.15
45:DY:54:LYS:HG2	45:DY:55:TYR:CE2	1.81	1.15
25:BA:242:G:H5''	55:B8:62:LEU:HD13	1.21	1.15
45:DY:54:LYS:CG	45:DY:55:TYR:CE2	2.30	1.15
36:BP:50:ARG:O	36:BP:57:THR:HG21	1.46	1.15
4:AD:20:TYR:CE1	6:CF:15:ASP:HB3	1.80	1.15
25:DA:2801(A):A:H4'	25:DA:2802:G:H5'	1.27	1.15
5:CE:100:VAL:HG13	5:CE:118:ILE:CG2	1.77	1.15
9:AI:104:ARG:CG	9:AI:106:ALA:HA	1.76	1.15
19:AS:48:THR:HG22	19:AS:61:TYR:HA	1.20	1.15
23:CV:17:C:H3'	23:CV:18:U:C5'	1.77	1.14
19:AS:6:LYS:HD3	19:AS:7:LYS:HE3	1.27	1.14
25:BA:272:G:C2	25:BA:421:U:C4	2.35	1.14
5:CE:101:ILE:HD11	5:CE:119:LEU:HD23	1.22	1.14
32:DH:17:VAL:CB	32:DH:45:VAL:CG2	2.22	1.14
25:DA:2476:A:H2'	25:DA:2477:C:H5''	1.28	1.14
25:BA:2701:C:H3'	25:BA:2702:U:H5''	1.15	1.14
25:BA:2172:U:H1'	25:BA:2173:A:OP1	1.49	1.13
40:DT:56:GLY:O	40:DT:59:THR:HG23	1.44	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:79:ARG:NH1	11:CK:99:GLN:HB3	1.62	1.13
31:BG:22:ARG:HB3	31:BG:22:ARG:NH1	1.64	1.13
25:DA:2172:U:H1'	25:DA:2173:A:OP1	1.49	1.13
11:CK:127:LYS:HA	11:CK:127:LYS:HE2	1.31	1.13
25:BA:1158:C:O2'	50:B3:32:GLN:HG3	1.48	1.13
25:BA:2476:A:H2'	25:BA:2477:C:H5''	1.27	1.13
45:BY:17:SER:HB3	45:BY:71:LYS:HB3	1.29	1.13
31:BG:114:ILE:HG12	31:BG:140:ILE:HD13	1.20	1.13
25:BA:2491:U:H5'	25:BA:2570:G:H5''	1.27	1.12
31:DG:22:ARG:HH11	31:DG:22:ARG:HB3	0.98	1.12
13:CM:88:ARG:HG3	13:CM:98:VAL:HG12	1.17	1.12
45:DY:54:LYS:CD	45:DY:55:TYR:CE2	2.30	1.12
25:BA:103:A:H2'	25:BA:104:U:H5'	1.16	1.12
23:CV:35:C:C2'	23:CV:36:A:H8	1.61	1.12
25:DA:271(U):G:H2'	25:DA:271(V):G:H5'	1.12	1.12
42:BV:72:VAL:HG23	42:BV:85:LYS:HB3	1.20	1.12
25:DA:911:A:H5''	25:DA:912:C:H5''	1.21	1.12
5:CE:101:ILE:CD1	5:CE:119:LEU:HD23	1.80	1.12
25:DA:2348:U:H2'	25:DA:2349:G:H5''	1.30	1.12
27:BC:58:VAL:HG21	27:BC:166:ASP:H	1.15	1.11
13:CM:94:ARG:NE	25:DA:888:C:OP2	1.81	1.11
25:DA:242:G:H5''	55:D8:62:LEU:HD13	1.27	1.11
13:AM:94:ARG:NH2	25:BA:887:A:H2'	1.47	1.11
42:DV:72:VAL:HG23	42:DV:85:LYS:HB3	1.20	1.11
44:DX:12:VAL:HB	44:DX:17:ALA:HB1	1.31	1.11
4:AD:167:GLY:N	28:DD:135:PHE:CZ	2.19	1.11
25:DA:2126:A:H5''	27:DC:36:LYS:HG2	1.33	1.11
31:DG:22:ARG:NH1	31:DG:22:ARG:HB3	1.64	1.11
25:DA:612:C:H2'	25:DA:613:G:H5''	1.29	1.11
1:CA:1280:A:H4'	1:CA:1281:G:OP1	1.43	1.11
25:DA:2701:C:H3'	25:DA:2702:U:H5''	1.15	1.11
32:DH:17:VAL:HG12	32:DH:45:VAL:HG22	1.16	1.10
25:BA:2312:U:H2'	25:BA:2313:C:H5''	1.34	1.10
25:BA:1884:A:H2'	25:BA:1885:A:H5''	1.23	1.10
45:DY:54:LYS:HD3	45:DY:55:TYR:CE2	1.87	1.10
36:BP:64:LYS:HB3	55:B8:25:MET:HG3	1.27	1.10
26:DB:20:C:H2'	26:DB:21:G:H5''	1.24	1.10
26:BB:20:C:H2'	26:BB:21:G:H5''	1.24	1.10
11:AK:127:LYS:HE2	11:AK:127:LYS:HA	1.30	1.10
42:DV:49:THR:HG22	42:DV:50:PRO:HD3	1.21	1.10
9:AI:104:ARG:HG2	9:AI:106:ALA:HB2	1.12	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1798:U:H5'	28:BD:259:THR:HG22	1.33	1.10
19:CS:48:THR:HG22	19:CS:61:TYR:HA	1.20	1.10
25:DA:2491:U:H5'	25:DA:2570:G:H5''	1.27	1.10
41:BU:106:PHE:O	41:BU:110:VAL:HG23	1.51	1.09
1:AA:1302:C:C5'	1:AA:1303:C:H5''	1.82	1.09
36:BP:55:ARG:HG2	36:BP:56:SER:H	1.16	1.09
25:DA:612:C:C2'	25:DA:613:G:H5''	1.82	1.09
39:BS:97:ARG:HH21	39:BS:98:VAL:HA	1.00	1.09
13:CM:117:VAL:HG12	13:CM:118:ALA:H	1.16	1.09
25:BA:359:A:H2'	25:BA:360:G:H5'	1.28	1.09
25:DA:1798:U:H5'	28:DD:259:THR:HG22	1.30	1.09
29:BE:52:LEU:HD23	29:BE:76:ARG:CB	1.82	1.09
13:AM:93:ARG:CG	25:BA:888:C:OP1	1.99	1.09
20:AT:50:GLU:HA	20:AT:100:ILE:HG12	1.34	1.09
25:DA:2171:A:H4'	25:DA:2172:U:OP1	1.46	1.09
42:DV:49:THR:HG22	42:DV:50:PRO:CD	1.79	1.09
41:DU:106:PHE:O	41:DU:110:VAL:HG23	1.51	1.09
45:BY:55:TYR:HB3	45:BY:56:PRO:HD2	1.27	1.09
25:DA:1884:A:H2'	25:DA:1885:A:H5''	1.23	1.09
25:BA:1590:U:H2'	25:BA:1591:G:H5''	1.25	1.09
29:BE:15:PHE:CE2	40:BT:80:SER:HB2	1.85	1.09
37:DQ:54:MET:HB3	37:DQ:64:ILE:HD13	1.32	1.09
25:BA:612:C:H2'	25:BA:613:G:H5''	1.29	1.09
13:CM:5:ALA:CB	13:CM:66:LEU:HD13	1.81	1.09
29:BE:15:PHE:CD2	40:BT:80:SER:HB2	1.87	1.09
26:BB:107:G:C2'	26:BB:108:U:H5'	1.83	1.09
25:DA:103:A:H2'	25:DA:104:U:H5'	1.16	1.09
25:BA:109:G:O2'	25:BA:110:G:H5'	1.51	1.09
17:AQ:68:ARG:H	17:AQ:70:ARG:NH1	1.48	1.09
7:CG:113:GLU:HB2	7:CG:119:ARG:HG2	1.34	1.09
25:BA:2348:U:H2'	25:BA:2349:G:H5''	1.30	1.09
13:AM:93:ARG:NE	25:BA:888:C:H5'	1.66	1.09
9:AI:104:ARG:CG	9:AI:106:ALA:CA	2.30	1.09
25:BA:2801(A):A:H4'	25:BA:2802:G:H5'	1.27	1.09
31:BG:113:ARG:CG	31:BG:113:ARG:HH11	1.66	1.09
9:AI:28:VAL:HG22	9:AI:63:ILE:HB	1.35	1.09
40:DT:29:ARG:HG2	40:DT:85:LYS:HG3	1.12	1.08
32:DH:19:VAL:HG21	32:DH:44:VAL:HA	1.24	1.08
25:DA:2515:C:O2'	25:DA:2516:G:H5'	1.52	1.08
25:DA:109:G:O2'	25:DA:110:G:H5'	1.51	1.08
44:BX:12:VAL:HB	44:BX:17:ALA:HB1	1.31	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:14:ILE:HG12	3:CC:15:THR:H	1.17	1.08
42:BV:19:LYS:HG2	42:BV:94:LEU:HB2	1.35	1.08
19:AS:41:VAL:HB	19:AS:44:MET:HG2	1.35	1.08
31:DG:52:ILE:HG22	31:DG:54:GLU:HG2	1.36	1.08
13:CM:57:ARG:NH2	51:D4:60:GLU:HG3	1.67	1.08
5:CE:69:VAL:HG12	5:CE:71:LEU:HD23	1.29	1.08
28:BD:244:ARG:CG	28:BD:245:PRO:HD2	1.82	1.08
36:BP:55:ARG:HG2	36:BP:56:SER:N	1.64	1.08
31:BG:22:ARG:HB3	31:BG:22:ARG:HH11	0.97	1.08
26:BB:7:G:H3'	26:BB:8:U:H5''	1.34	1.08
31:BG:113:ARG:HG2	31:BG:113:ARG:HH11	1.18	1.08
31:DG:113:ARG:HH11	31:DG:113:ARG:CG	1.66	1.08
25:DA:2758:A:H2'	25:DA:2759:G:H5''	1.35	1.08
25:DA:1879:C:H2'	25:DA:1880:C:H5''	1.23	1.08
25:BA:92:A:H2'	25:BA:93:G:H8	1.19	1.08
3:AC:79:ARG:NH1	11:CK:99:GLN:CB	2.16	1.08
39:DS:97:ARG:HH21	39:DS:98:VAL:HA	1.00	1.08
13:CM:108:ARG:HA	13:CM:108:ARG:HH11	1.15	1.08
12:CL:41:ARG:HG2	12:CL:42:THR:H	1.16	1.08
10:CJ:49:VAL:HG23	14:CN:41:ARG:HB2	1.34	1.08
23:AV:3:C:C2'	23:AV:4:G:C5'	2.30	1.08
1:AA:1302:C:C5'	1:AA:1303:C:C5'	2.30	1.08
25:BA:612:C:C2'	25:BA:613:G:H5''	1.82	1.07
40:DT:29:ARG:HH21	40:DT:30:VAL:HG22	1.18	1.07
44:BX:12:VAL:HG23	44:BX:13:LEU:H	1.17	1.07
13:CM:70:LEU:HD23	13:CM:70:LEU:O	1.55	1.07
25:BA:1658:C:H2'	25:BA:1659:U:C6	1.89	1.07
19:CS:6:LYS:HD3	19:CS:7:LYS:HE3	1.30	1.07
20:CT:50:GLU:N	20:CT:100:ILE:HG12	1.67	1.07
6:AF:67:MET:CB	6:AF:68:PRO:HD2	1.83	1.07
25:BA:2171:A:H4'	25:BA:2172:U:OP1	1.46	1.07
28:DD:24:ILE:HG12	28:DD:25:THR:H	1.17	1.07
25:BA:271(S):G:H2'	25:BA:271(T):C:H5''	1.25	1.07
25:DA:2312:U:H2'	25:DA:2313:C:H5''	1.33	1.07
25:BA:271(U):G:H2'	25:BA:271(V):G:H5'	1.12	1.07
25:BA:2515:C:O2'	25:BA:2516:G:H5'	1.52	1.07
25:DA:2348:U:C2'	25:DA:2349:G:H5''	1.85	1.07
4:AD:167:GLY:HA2	28:DD:135:PHE:CE2	1.75	1.06
13:AM:108:ARG:NH1	13:AM:108:ARG:HA	1.69	1.06
4:AD:20:TYR:CE1	6:CF:15:ASP:CB	2.37	1.06
13:AM:57:ARG:NH2	51:B4:60:GLU:HG3	1.69	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2348:U:C2'	25:BA:2349:G:H5''	1.85	1.06
45:DY:76:CYS:SG	45:DY:77:PRO:HD2	1.95	1.06
25:BA:914:C:H2'	25:BA:915:C:H5'	1.37	1.06
5:AE:101:ILE:HD11	5:AE:119:LEU:HD23	1.34	1.06
9:CI:28:VAL:HG22	9:CI:63:ILE:HB	1.36	1.06
7:AG:113:GLU:HB2	7:AG:119:ARG:HG2	1.37	1.06
4:AD:167:GLY:CA	28:DD:135:PHE:CZ	2.37	1.06
13:AM:97:PRO:N	13:AM:110:ARG:HD3	1.69	1.06
25:BA:2300:G:N2	25:BA:2317:C:H1'	1.70	1.06
25:DA:2068:U:N3	25:DA:2430:A:H2	1.53	1.06
8:AH:10:LEU:HD23	8:AH:83:ILE:HD11	1.36	1.06
10:CJ:40:LEU:HB2	10:CJ:41:PRO:HD2	1.36	1.06
44:DX:27:THR:HG22	44:DX:80:ILE:HB	1.25	1.06
25:BA:2758:A:H2'	25:BA:2759:G:H5''	1.35	1.06
25:DA:2516:G:H2'	25:DA:2517:C:H5'	1.07	1.06
9:AI:104:ARG:HG3	9:AI:106:ALA:HA	1.38	1.06
26:BB:107:G:H2'	26:BB:108:U:H5'	1.06	1.06
36:DP:63:PRO:HB3	55:D8:13:ARG:HB3	1.37	1.06
25:BA:2282:G:OP2	57:BA:3062:MG:MG	0.96	1.06
25:DA:2584:U:C3'	25:DA:2585:U:H5''	1.86	1.06
25:DA:1658:C:H2'	25:DA:1659:U:C6	1.89	1.06
12:CL:28:LYS:CG	12:CL:33:ARG:HH12	1.68	1.06
25:DA:92:A:H2'	25:DA:93:G:H8	1.19	1.06
28:BD:31:LYS:HG3	28:BD:33:LEU:HD13	1.37	1.06
10:AJ:49:VAL:HG23	14:AN:41:ARG:HB2	1.37	1.05
14:AN:26:ARG:HG3	14:AN:27:CYS:H	1.18	1.05
23:CV:17:C:H3'	23:CV:18:U:H5'	1.34	1.05
5:CE:76:ILE:HD11	5:CE:142:LEU:CD2	1.85	1.05
45:BY:76:CYS:SG	45:BY:77:PRO:HD2	1.95	1.05
37:BQ:54:MET:HB3	37:BQ:64:ILE:HD13	1.32	1.05
8:CH:10:LEU:HD23	8:CH:83:ILE:HD11	1.37	1.05
50:B3:56:VAL:HG12	50:B3:57:GLU:H	1.17	1.05
13:CM:5:ALA:HB1	13:CM:66:LEU:CD1	1.85	1.05
31:BG:113:ARG:CZ	31:BG:113:ARG:HA	1.86	1.05
33:BI:58:LEU:HA	33:BI:61:ARG:HE	1.21	1.05
28:DD:31:LYS:HG3	28:DD:33:LEU:HD13	1.37	1.05
28:BD:24:ILE:HG12	28:BD:25:THR:H	1.17	1.05
25:BA:911:A:H5''	25:BA:912:C:H5''	1.14	1.05
23:AV:19:G:H22	23:AV:58:A:H2'	1.19	1.05
22:CW:39:U:H4'	22:CW:39:U:OP1	1.47	1.05
13:AM:93:ARG:HD3	25:BA:888:C:H5'	1.07	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DG:113:ARG:HG2	31:DG:113:ARG:HH11	1.10	1.05
13:AM:117:VAL:HG12	13:AM:118:ALA:H	1.20	1.05
25:DA:914:C:H2'	25:DA:915:C:H5'	1.37	1.05
1:AA:1050:G:OP2	1:AA:1076:G:H5'	1.54	1.05
25:BA:2584:U:C3'	25:BA:2585:U:H5''	1.86	1.05
29:BE:36:ARG:NH2	29:BE:88:GLY:HA3	1.70	1.05
13:AM:88:ARG:HG3	13:AM:98:VAL:HG12	1.38	1.05
25:DA:1590:U:C2'	25:DA:1591:G:H5''	1.87	1.05
25:BA:1884:A:C2'	25:BA:1885:A:H5''	1.86	1.05
12:AL:41:ARG:HG2	12:AL:42:THR:H	1.16	1.05
25:BA:2068:U:N3	25:BA:2430:A:H2	1.53	1.05
3:AC:14:ILE:HG12	3:AC:15:THR:H	1.17	1.05
29:DE:36:ARG:NH2	29:DE:88:GLY:HA3	1.70	1.05
45:BY:17:SER:CB	45:BY:71:LYS:HD2	1.86	1.04
25:BA:1590:U:C2'	25:BA:1591:G:H5''	1.87	1.04
39:BS:78:LEU:HD11	39:BS:103:GLU:HB3	1.38	1.04
27:DC:58:VAL:HG21	27:DC:166:ASP:H	1.15	1.04
22:AW:38:A:H2'	22:AW:39:U:H5''	1.39	1.04
5:CE:50:GLU:HB3	5:CE:53:LEU:HD13	1.36	1.04
2:CB:18:GLY:H	2:CB:42:ILE:HG22	1.22	1.04
32:BH:13:LYS:HA	32:BH:13:LYS:HE2	1.39	1.04
29:DE:52:LEU:HD13	29:DE:53:PRO:HD2	1.37	1.04
53:B6:41:PRO:HD2	53:B6:46:HIS:H	1.23	1.04
17:CQ:68:ARG:H	17:CQ:70:ARG:NH1	1.54	1.04
5:AE:50:GLU:HB3	5:AE:53:LEU:HD13	1.38	1.04
42:DV:19:LYS:HG2	42:DV:94:LEU:HB2	1.35	1.04
26:DB:7:G:H3'	26:DB:8:U:H5''	1.34	1.04
25:DA:1884:A:C2'	25:DA:1885:A:H5''	1.86	1.04
25:BA:1952:A:C2	35:BO:22:ILE:HD12	1.93	1.04
40:DT:89:VAL:HB	40:DT:91:ARG:CG	1.86	1.04
22:CW:76:A:N6	25:DA:2421:G:H2'	1.72	1.03
44:BX:63:LYS:HE3	44:BX:72:LYS:HE3	1.40	1.03
34:BN:56:ASN:HA	34:BN:125:GLY:H	1.18	1.03
25:BA:2305:A:H5''	31:BG:134:GLY:HA3	1.08	1.03
53:B6:47:THR:HB	53:B6:49:HIS:CE1	1.93	1.03
25:BA:925:C:H2'	25:BA:926:A:H5''	1.35	1.03
13:CM:93:ARG:CG	25:DA:888:C:H5'	1.86	1.03
25:BA:2516:G:H2'	25:BA:2517:C:H5'	1.07	1.03
41:BU:92:ARG:HD2	42:BV:11:GLN:NE2	1.74	1.03
44:DX:12:VAL:HG23	44:DX:13:LEU:H	1.17	1.03
5:CE:76:ILE:HD11	5:CE:142:LEU:HD21	1.07	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:16:ARG:HH11	3:AC:16:ARG:HB2	1.21	1.03
40:DT:89:VAL:HB	40:DT:91:ARG:HG3	1.07	1.03
28:BD:79:VAL:HG21	28:BD:111:LEU:HD11	1.40	1.03
4:AD:150:GLU:HA	4:AD:153:ARG:HD2	1.37	1.03
25:DA:871:U:OP1	37:DQ:5:ARG:HG3	1.59	1.03
13:AM:70:LEU:HD23	13:AM:70:LEU:O	1.56	1.03
31:BG:52:ILE:HG22	31:BG:54:GLU:HG2	1.36	1.03
2:CB:61:LEU:HD21	2:CB:68:ILE:HD11	1.40	1.03
25:DA:925:C:H2'	25:DA:926:A:H5''	1.34	1.03
4:CD:150:GLU:HA	4:CD:153:ARG:HD2	1.35	1.03
29:BE:77:ILE:HG22	29:BE:78:LEU:H	1.20	1.03
29:DE:77:ILE:HG22	29:DE:78:LEU:H	1.20	1.03
22:CW:60:U:C2'	22:CW:61:C:H5	1.72	1.03
14:CN:26:ARG:HG3	14:CN:27:CYS:H	1.21	1.03
1:AA:153:G:H5'	1:AA:154:A:OP2	1.59	1.03
28:DD:79:VAL:HG21	28:DD:111:LEU:HD11	1.40	1.03
29:DE:36:ARG:HH22	29:DE:88:GLY:HA3	1.22	1.03
10:AJ:40:LEU:HB2	10:AJ:41:PRO:HD2	1.38	1.03
25:BA:71:A:H5''	25:BA:73:A:C8	1.93	1.03
45:DY:66:PRO:O	45:DY:67:LEU:HG	1.54	1.02
19:AS:6:LYS:CD	19:AS:7:LYS:HE3	1.89	1.02
34:DN:56:ASN:HA	34:DN:125:GLY:H	1.18	1.02
33:DI:38:LEU:H	33:DI:38:LEU:HD12	1.22	1.02
1:AA:323:C:O2	1:AA:323:C:H2'	1.56	1.02
5:AE:76:ILE:HD11	5:AE:142:LEU:HD21	1.40	1.02
39:DS:78:LEU:HD11	39:DS:103:GLU:HB3	1.38	1.02
9:AI:104:ARG:HG3	9:AI:106:ALA:CA	1.89	1.02
26:DB:92:C:H2'	26:DB:93:G:H8	1.19	1.02
13:CM:5:ALA:HB1	13:CM:66:LEU:HD13	1.03	1.02
32:DH:13:LYS:HA	32:DH:13:LYS:HE2	1.39	1.02
2:AB:61:LEU:HD21	2:AB:68:ILE:HD11	1.42	1.02
53:D6:47:THR:HB	53:D6:49:HIS:CE1	1.94	1.02
42:BV:49:THR:HG22	42:BV:50:PRO:HD3	1.02	1.02
38:BR:55:ALA:HA	38:BR:80:PHE:HE1	1.22	1.02
19:CS:41:VAL:HB	19:CS:44:MET:HG2	1.37	1.02
25:DA:1879:C:C2'	25:DA:1880:C:H5''	1.89	1.02
25:BA:2712:U:O2'	25:BA:2712(A):A:H5''	1.58	1.02
53:D6:41:PRO:HD2	53:D6:46:HIS:H	1.22	1.02
12:CL:47:LYS:HB3	12:CL:48:PRO:HD2	1.40	1.02
20:CT:26:ASN:HD22	20:CT:71:THR:HA	1.22	1.02
20:CT:53:LEU:HD13	20:CT:102:GLY:HA3	1.03	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DU:92:ARG:HD2	42:DV:11:GLN:NE2	1.74	1.02
33:DI:58:LEU:HA	33:DI:61:ARG:HE	1.19	1.02
32:DH:17:VAL:HG21	32:DH:45:VAL:HG13	1.39	1.02
25:BA:1186:G:OP2	57:BA:3221:MG:MG	1.01	1.02
33:BI:92:VAL:HG11	33:BI:120:ILE:HD12	1.41	1.01
25:BA:2586:C:H6	25:BA:2586:C:O5'	1.43	1.01
50:D3:56:VAL:HG12	50:D3:57:GLU:H	1.17	1.01
33:BI:77:LEU:HB3	33:BI:140:LEU:HD13	1.38	1.01
20:AT:89:ARG:HD2	20:AT:104:LEU:HD11	1.42	1.01
13:AM:108:ARG:HH11	13:AM:108:ARG:HA	0.88	1.01
42:BV:39:LEU:HB3	42:BV:47:VAL:HG11	1.43	1.01
25:DA:271(S):G:C2'	25:DA:271(T):C:H5''	1.90	1.01
25:DA:2712:U:O2'	25:DA:2712(A):A:H5''	1.58	1.01
13:CM:27:LYS:HE3	13:CM:31:LYS:HE3	1.42	1.01
25:DA:1685:C:H2'	25:DA:1686:C:H5''	1.43	1.01
20:CT:53:LEU:HD13	20:CT:102:GLY:CA	1.89	1.01
42:BV:49:THR:CG2	42:BV:50:PRO:HD3	1.89	1.01
31:BG:111:LEU:HD23	31:BG:114:ILE:HD11	1.40	1.01
29:DE:132:HIS:O	29:DE:133:LYS:HB2	1.59	1.01
20:CT:89:ARG:HD2	20:CT:104:LEU:HD11	1.41	1.01
25:DA:560:C:H4'	41:DU:52:ARG:HH22	1.22	1.01
39:DS:46:VAL:HG12	39:DS:47:THR:H	1.22	1.01
45:DY:54:LYS:HD3	45:DY:55:TYR:HE2	1.16	1.01
6:AF:67:MET:HB2	6:AF:68:PRO:HD2	1.02	1.01
38:DR:55:ALA:HA	38:DR:80:PHE:HE1	1.22	1.01
33:DI:77:LEU:HB3	33:DI:140:LEU:HD13	1.38	1.01
32:DH:17:VAL:HB	32:DH:45:VAL:HG21	1.36	1.00
25:DA:103:A:H2'	25:DA:104:U:C5'	1.90	1.00
1:AA:1425:G:H3'	1:AA:1426:A:C5'	1.89	1.00
39:BS:46:VAL:HG12	39:BS:47:THR:H	1.22	1.00
25:BA:271(S):G:C2'	25:BA:271(T):C:H5''	1.90	1.00
12:CL:89:ARG:HB2	12:CL:89:ARG:HH11	1.26	1.00
20:AT:50:GLU:CB	20:AT:100:ILE:HG12	1.92	1.00
25:DA:2126:A:C5'	27:DC:36:LYS:HG2	1.90	1.00
5:CE:41:VAL:HG13	5:CE:113:ALA:HA	1.43	1.00
33:BI:38:LEU:HD12	33:BI:38:LEU:H	1.22	1.00
32:DH:43:VAL:HG11	32:DH:52:VAL:HA	1.42	1.00
40:DT:55:ASN:HB3	40:DT:58:ASN:OD1	1.61	1.00
25:BA:925:C:C2'	25:BA:926:A:H5''	1.91	1.00
25:BA:847:U:H2'	25:BA:848:G:H5''	1.43	1.00
25:BA:103:A:H2'	25:BA:104:U:C5'	1.90	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:6:LEU:HG	36:DP:9:ASN:HD22	1.26	1.00
12:AL:89:ARG:HH11	12:AL:89:ARG:HB2	1.22	1.00
45:BY:8:LYS:H	45:BY:8:LYS:HD2	1.23	1.00
45:DY:8:LYS:HD2	45:DY:8:LYS:H	1.23	1.00
40:DT:16:ARG:HH11	40:DT:16:ARG:HB3	1.27	1.00
23:CV:69:C:H2'	23:CV:70:C:C6	1.96	1.00
36:DP:23:PRO:HB2	36:DP:33:ARG:CD	1.90	1.00
32:DH:17:VAL:CG1	32:DH:45:VAL:CG2	2.39	1.00
22:CW:68:C:H2'	22:CW:69:G:C8	1.97	1.00
22:CW:60:U:H2'	22:CW:61:C:C5	1.96	1.00
13:AM:27:LYS:HE3	13:AM:31:LYS:HE3	1.42	1.00
25:DA:2586:C:O5'	25:DA:2586:C:H6	1.43	0.99
20:CT:50:GLU:HA	20:CT:100:ILE:HG12	1.41	0.99
25:BA:359:A:C2'	25:BA:360:G:H5'	1.92	0.99
25:DA:925:C:C2'	25:DA:926:A:H5''	1.91	0.99
15:AO:60:VAL:HG11	25:BA:715:G:O4'	1.62	0.99
22:AW:30:G:H2'	22:AW:31:A:H8	1.21	0.99
31:BG:2:PRO:HD3	51:B4:51:TYR:CG	1.96	0.99
25:BA:1879:C:C2'	25:BA:1880:C:H5''	1.89	0.99
26:BB:117:G:H4'	39:BS:55:ALA:HB1	1.44	0.99
13:CM:116:THR:HG22	13:CM:117:VAL:H	1.24	0.99
25:DA:1658:C:H2'	25:DA:1659:U:H6	1.28	0.99
25:DA:1030:G:OP2	37:DQ:128:LYS:HD3	1.62	0.99
29:DE:59:VAL:HG22	29:DE:60:ASN:H	1.27	0.99
5:CE:100:VAL:HG13	5:CE:118:ILE:HG23	1.40	0.99
22:AW:38:A:H2'	22:AW:39:U:C5'	1.92	0.99
25:BA:1396:U:H2'	25:BA:1396:U:O2	1.62	0.99
13:CM:93:ARG:CZ	25:DA:888:C:H4'	1.92	0.99
36:BP:64:LYS:HB3	55:B8:25:MET:CG	1.93	0.99
3:CC:16:ARG:HB2	3:CC:16:ARG:HH11	1.25	0.99
31:BG:113:ARG:NH1	31:BG:113:ARG:HA	1.77	0.99
2:AB:18:GLY:H	2:AB:42:ILE:HG22	1.22	0.99
44:DX:12:VAL:HG12	44:DX:27:THR:OG1	1.63	0.99
13:CM:40:ASN:HD22	13:CM:43:THR:HG23	1.27	0.99
25:BA:1658:C:H2'	25:BA:1659:U:H6	1.28	0.99
25:DA:1140:C:H5''	34:DN:66:LYS:NZ	1.77	0.99
25:DA:2103:C:C3'	25:DA:2104:G:H5''	1.93	0.99
42:BV:25:LEU:H	42:BV:92:THR:HG21	1.27	0.98
25:DA:1697:G:H3'	25:DA:1698:A:H5''	1.44	0.98
33:BI:58:LEU:HA	33:BI:61:ARG:NE	1.76	0.98
30:BF:2:LYS:H	30:BF:2:LYS:HD3	1.27	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:125:ARG:HG3	22:AY:38:A:O2'	1.61	0.98
29:BE:59:VAL:HG22	29:BE:60:ASN:H	1.27	0.98
10:CJ:34:VAL:HG22	10:CJ:74:ILE:HG22	1.45	0.98
12:AL:47:LYS:HB3	12:AL:48:PRO:HD2	1.41	0.98
25:BA:2075:U:C4	25:BA:2238:G:C6	2.50	0.98
25:DA:847:U:H2'	25:DA:848:G:H5''	1.44	0.98
44:DX:63:LYS:HE3	44:DX:72:LYS:HE3	1.40	0.98
23:AV:66:C:H5''	23:AV:66:C:H6	1.23	0.98
44:BX:12:VAL:HG12	44:BX:27:THR:OG1	1.63	0.98
25:DA:359:A:C2'	25:DA:360:G:H5'	1.92	0.98
25:BA:1270:C:H5''	25:BA:1271:G:H5'	1.43	0.98
25:DA:2469:A:O2'	37:DQ:56:ARG:HD3	1.63	0.98
5:AE:69:VAL:HG21	5:AE:113:ALA:HB1	1.46	0.98
9:AI:9:ARG:HG3	9:AI:14:VAL:HG22	1.44	0.98
25:BA:2762:G:H2'	25:BA:2763:G:H5''	1.46	0.98
25:DA:1819:A:C1'	25:DA:1821:A:C6	2.47	0.98
25:BA:108:U:C2'	25:BA:109:G:H5'	1.94	0.98
13:CM:94:ARG:NH2	25:DA:887:A:C3'	2.26	0.98
29:BE:51:PHE:O	29:BE:52:LEU:HB2	1.63	0.98
28:DD:9:TYR:H	28:DD:9:TYR:HD1	1.01	0.98
32:BH:43:VAL:HG11	32:BH:52:VAL:HA	1.42	0.98
25:BA:2463:C:H2'	25:BA:2464:C:H5'	1.46	0.98
25:BA:1697:G:H3'	25:BA:1698:A:H5''	1.44	0.98
13:AM:93:ARG:CD	25:BA:888:C:C5'	2.41	0.97
25:DA:1270:C:H5''	25:DA:1271:G:H5'	1.43	0.97
25:BA:560:C:H4'	41:BU:52:ARG:HH22	1.29	0.97
36:BP:6:LEU:HG	36:BP:9:ASN:HD22	1.26	0.97
25:DA:1902:C:O2'	28:DD:244:ARG:HB2	1.63	0.97
27:BC:49:ILE:H	27:BC:49:ILE:HD12	1.28	0.97
13:AM:94:ARG:CZ	25:BA:887:A:H3'	1.95	0.97
14:AN:26:ARG:HH22	14:AN:47:LEU:HD21	1.27	0.97
36:DP:64:LYS:HB3	55:D8:25:MET:HG3	1.42	0.97
26:DB:107:G:O2'	26:DB:108:U:H5'	1.62	0.97
40:BT:80:SER:OG	40:BT:81:PRO:HD3	1.62	0.97
4:AD:195:ALA:HB3	6:CF:20:ALA:CB	1.89	0.97
25:BA:271(U):G:C2'	25:BA:271(V):G:C5'	2.42	0.97
1:AA:1422:C:C2'	1:AA:1423:G:H5'	1.94	0.97
33:DI:92:VAL:HG11	33:DI:120:ILE:HD12	1.40	0.97
25:BA:1819:A:C1'	25:BA:1821:A:C6	2.46	0.97
1:CA:261:G:H5''	1:CA:262:C:H5	1.27	0.97
30:DF:67:GLN:O	30:DF:67:GLN:HG3	1.62	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:13:THR:N	14:AN:14:PRO:HD2	1.76	0.97
11:CK:111:ASP:HA	18:CR:84:LYS:HG3	1.45	0.97
29:DE:184:VAL:HG12	29:DE:185:LYS:H	1.30	0.97
30:DF:2:LYS:H	30:DF:2:LYS:HD3	1.27	0.97
25:DA:271(U):G:C2'	25:DA:271(V):G:C5'	2.41	0.97
25:BA:2469:A:O2'	37:BQ:56:ARG:HD3	1.63	0.97
25:BA:2103:C:C3'	25:BA:2104:G:H5''	1.93	0.97
42:BV:39:LEU:HD12	42:BV:50:PRO:O	1.64	0.97
20:CT:30:LYS:HZ1	20:CT:80:ARG:NE	1.63	0.97
25:BA:103:A:C2'	25:BA:104:U:H5'	1.94	0.97
25:BA:271(Q):G:C4	25:BA:271(R):G:N7	2.33	0.97
25:DA:2853:C:H2'	25:DA:2854:G:H8	1.30	0.97
25:DA:281:G:N2	25:DA:358:U:C5	2.33	0.96
19:CS:6:LYS:CD	19:CS:7:LYS:HE3	1.94	0.96
6:AF:87:ARG:O	6:AF:88:VAL:HG23	1.63	0.96
29:BE:184:VAL:HG12	29:BE:185:LYS:H	1.30	0.96
25:BA:281:G:N2	25:BA:358:U:C5	2.33	0.96
46:BZ:4:ARG:HG3	46:BZ:58:VAL:O	1.64	0.96
11:AK:111:ASP:HA	18:AR:84:LYS:HG3	1.43	0.96
5:CE:33:VAL:HG11	5:CE:109:ILE:HA	1.48	0.96
25:BA:2853:C:H2'	25:BA:2854:G:H8	1.30	0.96
25:DA:2463:C:H2'	25:DA:2464:C:H5'	1.46	0.96
25:DA:404:C:H4'	25:DA:405:U:H5'	1.45	0.96
27:BC:59:ARG:HB2	27:BC:62:VAL:HG22	1.46	0.96
25:DA:2300:G:N2	25:DA:2317:C:H1'	1.80	0.96
13:AM:40:ASN:HD22	13:AM:43:THR:HG23	1.26	0.96
5:CE:70:PRO:HG2	5:CE:142:LEU:HB2	1.47	0.96
22:AW:38:A:C2'	22:AW:39:U:H5''	1.95	0.96
7:CG:102:ARG:HG2	7:CG:106:GLN:HE21	1.29	0.96
46:DZ:4:ARG:HG3	46:DZ:58:VAL:O	1.64	0.96
25:BA:1685:C:H2'	25:BA:1686:C:H5''	1.43	0.96
25:DA:103:A:C2'	25:DA:104:U:H5'	1.94	0.96
26:DB:92:C:OP1	37:DQ:19:GLY:HA3	1.62	0.96
25:BA:404:C:H4'	25:BA:405:U:H5'	1.45	0.96
32:BH:159:GLU:HG3	32:BH:160:LYS:H	1.30	0.96
14:AN:43:CYS:HG	59:AN:101:ZN:ZN	0.77	0.96
46:BZ:5:LEU:HD21	46:BZ:43:GLU:HB3	1.47	0.96
46:DZ:5:LEU:HD21	46:DZ:43:GLU:HB3	1.46	0.96
7:AG:102:ARG:HG2	7:AG:106:GLN:HE21	1.28	0.96
9:CI:9:ARG:HG3	9:CI:14:VAL:HG22	1.46	0.96
41:BU:90:VAL:HG12	41:BU:91:ASP:H	1.30	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:23:PRO:HB2	36:DP:33:ARG:HD2	1.48	0.96
32:BH:44:VAL:HG12	32:BH:45:VAL:H	1.31	0.96
10:AJ:34:VAL:HG22	10:AJ:74:ILE:HG22	1.46	0.96
13:AM:96:LEU:C	13:AM:110:ARG:CD	2.34	0.96
25:DA:108:U:C2'	25:DA:109:G:H5'	1.94	0.96
3:AC:16:ARG:NH1	3:AC:16:ARG:HB2	1.80	0.96
25:BA:2562:U:H1'	35:BO:23:ARG:NH1	1.80	0.96
13:CM:13:LYS:HA	13:CM:44:ARG:NH1	1.80	0.96
20:CT:26:ASN:CB	20:CT:71:THR:CG2	2.29	0.96
27:DC:59:ARG:HB2	27:DC:62:VAL:HG22	1.46	0.96
28:DD:28:GLU:H	28:DD:29:PRO:HD2	1.29	0.96
13:AM:93:ARG:NE	25:BA:888:C:C5'	2.28	0.96
12:CL:47:LYS:HB3	12:CL:48:PRO:CD	1.96	0.96
36:DP:38:GLN:HG3	36:DP:39:LYS:H	1.29	0.96
28:BD:28:GLU:H	28:BD:29:PRO:HD2	1.29	0.96
36:BP:23:PRO:HB2	36:BP:33:ARG:CD	1.95	0.96
4:CD:53:ASP:HB3	4:CD:57:ARG:HH12	1.30	0.96
32:DH:44:VAL:HG12	32:DH:45:VAL:H	1.31	0.95
13:AM:108:ARG:HH12	13:AM:111:LYS:HB2	1.27	0.95
45:BY:76:CYS:HB3	45:BY:96:ILE:HD11	1.48	0.95
25:BA:389:G:H1	36:BP:71:VAL:HG12	1.30	0.95
45:DY:42:VAL:HB	45:DY:65:ALA:HB3	1.48	0.95
30:DF:132:VAL:HG22	30:DF:133:ASN:H	1.29	0.95
29:DE:51:PHE:CE1	29:DE:52:LEU:CD2	2.49	0.95
25:BA:1798:U:H5'	28:BD:259:THR:CG2	1.96	0.95
25:BA:1652:A:H62	38:BR:11:ASN:HD22	1.07	0.95
27:DC:49:ILE:HD12	27:DC:49:ILE:H	1.28	0.95
13:CM:94:ARG:HH21	25:DA:887:A:C2'	1.75	0.95
40:DT:55:ASN:H	40:DT:59:THR:HG22	1.05	0.95
42:DV:25:LEU:H	42:DV:92:THR:HG21	1.27	0.95
1:AA:1328:G:H5''	9:AI:107:ARG:HG2	1.48	0.95
25:BA:541:C:O2'	25:BA:542:C:H5'	1.66	0.95
5:CE:78:HIS:CD2	8:CH:104:ARG:NE	2.34	0.95
2:AB:48:MET:HA	2:AB:51:LEU:HD12	1.48	0.95
41:BU:62:ILE:HD11	41:BU:93:LYS:HG2	1.49	0.95
25:DA:297:C:C2'	25:DA:298:G:H5'	1.96	0.95
25:DA:1385:G:OP1	25:DA:1385:G:H4'	1.63	0.95
32:DH:159:GLU:HG3	32:DH:160:LYS:H	1.31	0.95
39:DS:74:ALA:HB1	39:DS:103:GLU:HB2	1.48	0.95
2:AB:236:TYR:HA	2:AB:239:VAL:HG23	1.49	0.95
25:BA:2526:G:H21	56:B9:2:LYS:HG3	1.31	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:49:ARG:HD3	4:AD:50:ARG:H	1.30	0.95
25:DA:1652:A:H62	38:DR:11:ASN:HD22	1.14	0.95
25:DA:2515:C:C2'	25:DA:2516:G:H5'	1.96	0.95
33:BI:57:ARG:O	33:BI:60:GLU:HB3	1.67	0.95
22:AW:67:C:H2'	22:AW:68:C:H6	1.27	0.95
25:DA:2584:U:C2'	25:DA:2585:U:C5'	2.30	0.95
45:BY:17:SER:HB2	45:BY:71:LYS:CE	1.97	0.95
41:DU:62:ILE:HD11	41:DU:93:LYS:HG2	1.48	0.95
25:BA:729:G:H3'	25:BA:729:G:N3	1.82	0.95
1:AA:451:C:C2'	1:AA:452:C:H5'	1.97	0.95
25:DA:729:G:N3	25:DA:729:G:H3'	1.81	0.95
14:CN:13:THR:N	14:CN:14:PRO:HD2	1.79	0.95
4:CD:49:ARG:HD3	4:CD:50:ARG:H	1.29	0.95
41:DU:90:VAL:HG12	41:DU:91:ASP:H	1.30	0.95
25:DA:1798:U:H5'	28:DD:259:THR:CG2	1.96	0.95
31:BG:113:ARG:CA	31:BG:113:ARG:NH1	2.30	0.95
14:CN:26:ARG:HH22	14:CN:47:LEU:HD21	1.31	0.95
39:BS:74:ALA:HB1	39:BS:103:GLU:HB2	1.48	0.95
25:BA:2681:C:H5	25:BA:2725:A:H62	0.95	0.95
36:BP:38:GLN:HG3	36:BP:39:LYS:H	1.29	0.95
29:BE:52:LEU:CD2	29:BE:76:ARG:CB	2.43	0.95
29:BE:36:ARG:HH22	29:BE:88:GLY:HA3	1.22	0.95
29:DE:51:PHE:HE1	29:DE:52:LEU:HD23	1.28	0.95
25:BA:314:A:HO2'	25:BA:315:G:H5'	1.25	0.95
33:DI:58:LEU:HA	33:DI:61:ARG:NE	1.82	0.95
33:DI:87:LYS:HA	33:DI:122:GLU:HG2	1.48	0.95
12:AL:46:LYS:HG2	12:AL:47:LYS:H	1.28	0.95
30:BF:67:GLN:HG3	30:BF:67:GLN:O	1.62	0.95
3:AC:79:ARG:HH12	11:CK:99:GLN:CB	1.76	0.95
25:DA:2762:G:H2'	25:DA:2763:G:H5''	1.46	0.95
45:BY:27:VAL:HA	45:BY:28:LYS:NZ	1.82	0.95
1:CA:319:G:H5''	20:CT:70:SER:HB3	1.49	0.95
7:CG:73:MET:HG2	7:CG:90:GLU:HA	1.49	0.94
25:DA:1952:A:C6	35:DO:22:ILE:HD11	2.02	0.94
25:BA:1140:C:H5''	34:BN:66:LYS:HZ3	1.32	0.94
13:CM:93:ARG:NE	25:DA:888:C:C5'	2.30	0.94
25:BA:2515:C:C2'	25:BA:2516:G:H5'	1.97	0.94
1:AA:960:A:H5'	1:AA:961:C:OP2	1.66	0.94
45:BY:17:SER:HB2	45:BY:71:LYS:HD2	1.48	0.94
1:AA:822:U:O2	1:AA:822:U:H3'	1.66	0.94
45:DY:27:VAL:HA	45:DY:28:LYS:NZ	1.82	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:132:VAL:HG22	30:BF:133:ASN:H	1.29	0.94
7:AG:60:LYS:NZ	7:AG:60:LYS:HA	1.82	0.94
25:BA:353:G:C2	25:BA:354:G:C8	2.55	0.94
25:BA:292:C:H42	25:BA:348:G:H1	1.02	0.94
40:DT:55:ASN:H	40:DT:59:THR:CG2	1.80	0.94
12:CL:46:LYS:HG2	12:CL:47:LYS:H	1.31	0.94
25:BA:1464:C:O2'	25:BA:1528:A:H8	1.49	0.94
32:BH:159:GLU:HG3	32:BH:160:LYS:HG3	1.48	0.94
38:BR:10:LEU:HD22	38:BR:17:ARG:HD2	1.50	0.94
4:AD:167:GLY:HA2	28:DD:135:PHE:CD2	2.03	0.94
20:CT:26:ASN:HB3	20:CT:71:THR:OG1	1.66	0.94
40:DT:53:ARG:NH1	40:DT:55:ASN:HB2	1.82	0.94
42:BV:49:THR:CG2	42:BV:50:PRO:CD	2.44	0.94
17:AQ:68:ARG:H	17:AQ:70:ARG:HH11	0.99	0.94
5:AE:33:VAL:HG11	5:AE:109:ILE:HA	1.49	0.94
25:BA:571:A:H5'	25:BA:2030:A:H62	1.33	0.94
25:DA:541:C:O2'	25:DA:542:C:H5'	1.66	0.94
25:DA:1287:A:C5	25:DA:1288:U:C4	2.56	0.94
25:DA:353:G:C2	25:DA:354:G:C8	2.55	0.94
25:DA:2075:U:C4	25:DA:2238:G:C6	2.56	0.94
25:DA:480:A:OP2	45:DY:46:LYS:HE2	1.67	0.94
25:DA:1446:C:H2'	25:DA:1447:G:H5''	1.46	0.94
13:CM:23:TYR:HB3	13:CM:67:GLU:HB2	1.48	0.94
25:DA:1747(A):G:H2'	25:DA:1748:G:H5''	1.50	0.94
25:BA:1287:A:C5	25:BA:1288:U:C4	2.56	0.94
25:BA:297:C:C2'	25:BA:298:G:H5'	1.96	0.94
25:DA:17:G:H4'	41:DU:25:TRP:CZ3	2.02	0.94
1:CA:1110:C:H1'	1:CA:1128:A:H61	1.31	0.94
4:AD:195:ALA:O	6:CF:16:GLN:HB2	1.66	0.94
5:AE:43:LEU:HD21	5:AE:132:ALA:HB1	1.50	0.94
25:DA:292:C:H42	25:DA:348:G:H1	1.02	0.94
20:CT:49:ALA:CB	20:CT:100:ILE:HD11	1.98	0.93
1:CA:261:G:H5''	1:CA:262:C:C5	2.02	0.93
23:CV:3:C:H2'	23:CV:4:G:H5'	1.50	0.93
31:BG:104:GLU:OE2	51:B4:50:THR:HG22	1.67	0.93
10:AJ:80:LYS:NZ	1:CA:1144:C:O2'	2.01	0.93
4:AD:53:ASP:HB3	4:AD:57:ARG:HH12	1.31	0.93
25:DA:2015:A:H1'	52:D5:2:ALA:HA	1.49	0.93
4:AD:167:GLY:CA	28:DD:135:PHE:CD2	2.51	0.93
36:DP:50:ARG:HB3	55:D8:59:LYS:HD3	1.50	0.93
32:DH:159:GLU:HG3	32:DH:160:LYS:HG3	1.48	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1140:C:H5''	34:BN:66:LYS:NZ	1.83	0.93
2:CB:48:MET:HA	2:CB:51:LEU:HD12	1.48	0.93
45:DY:28:LYS:HB2	45:DY:37:VAL:HB	1.50	0.93
2:CB:236:TYR:HA	2:CB:239:VAL:HG23	1.50	0.93
25:DA:825:C:H1'	36:DP:55:ARG:HD3	1.48	0.93
40:DT:29:ARG:HG2	40:DT:85:LYS:CG	1.99	0.93
1:CA:261:G:C5'	1:CA:262:C:H5	1.80	0.93
23:CV:22:A:N7	23:CV:47:G:C6	2.37	0.93
23:CV:3:C:C2'	23:CV:4:G:H5'	1.98	0.93
17:AQ:7:THR:HG22	17:AQ:58:GLU:HG2	1.49	0.93
53:B6:19:ARG:HG2	53:B6:20:ASN:H	1.33	0.93
25:BA:911:A:C5'	25:BA:912:C:H5''	1.98	0.93
13:CM:116:THR:HG22	13:CM:117:VAL:N	1.84	0.93
31:BG:161:THR:HG22	31:BG:163:ALA:H	1.33	0.93
53:D6:19:ARG:HG2	53:D6:20:ASN:H	1.33	0.93
13:CM:88:ARG:HG3	13:CM:98:VAL:CG1	1.98	0.93
33:BI:87:LYS:HA	33:BI:122:GLU:HG2	1.48	0.93
25:DA:481:G:OP2	45:DY:47:LYS:HE3	1.69	0.93
25:DA:2392:A:OP1	55:D8:32:LEU:HD13	1.69	0.93
20:CT:53:LEU:CD1	20:CT:102:GLY:CA	2.44	0.93
9:AI:10:ARG:HD2	9:AI:105:ASP:OD2	1.69	0.93
5:CE:41:VAL:CG1	5:CE:113:ALA:HA	1.98	0.93
45:DY:76:CYS:HB3	45:DY:96:ILE:HD11	1.48	0.93
26:BB:13:A:OP2	47:B0:74:ARG:HG2	1.68	0.93
9:CI:106:ALA:O	9:CI:108:VAL:HG13	1.67	0.93
1:AA:1439:G:O3'	40:BT:115:ARG:NH1	2.01	0.92
36:BP:64:LYS:CB	55:B8:25:MET:HG3	1.98	0.92
7:CG:60:LYS:HA	7:CG:60:LYS:NZ	1.83	0.92
17:CQ:7:THR:HG22	17:CQ:58:GLU:HG2	1.51	0.92
3:CC:16:ARG:NH1	3:CC:16:ARG:HB2	1.84	0.92
45:BY:28:LYS:HB2	45:BY:37:VAL:HB	1.50	0.92
25:BA:747:U:C5	52:B5:3:LYS:HB2	2.04	0.92
22:CW:2:C:H42	22:CW:72:C:H42	1.17	0.92
26:BB:6:C:O2'	39:BS:29:PHE:HE1	1.51	0.92
39:DS:97:ARG:NH2	39:DS:98:VAL:HA	1.83	0.92
25:DA:1685:C:C2'	25:DA:1686:C:H5''	2.00	0.92
7:AG:73:MET:HG2	7:AG:90:GLU:HA	1.51	0.92
13:CM:5:ALA:CB	13:CM:66:LEU:CD1	2.45	0.92
25:BA:471:A:O2'	25:BA:472:A:H5'	1.69	0.92
38:DR:97:VAL:HG22	38:DR:114:VAL:HG22	1.49	0.92
25:BA:1880:C:H6	25:BA:1880:C:H5'	1.35	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DC:68:LEU:HD11	27:DC:179:SER:HA	1.52	0.92
13:AM:108:ARG:HH11	13:AM:111:LYS:HG3	1.34	0.92
1:AA:1302:C:C5'	1:AA:1303:C:H5'	1.99	0.92
9:CI:114:TYR:H	9:CI:114:TYR:HD2	1.17	0.92
25:DA:2645:G:H3'	25:DA:2646:C:H5'	1.51	0.92
38:BR:97:VAL:HG22	38:BR:114:VAL:HG22	1.49	0.92
25:DA:1365:A:H5''	48:D1:41:ARG:HH12	1.34	0.92
25:DA:2892:A:H3'	25:DA:2893:G:H5''	1.50	0.92
25:BA:2645:G:H3'	25:BA:2646:C:H5'	1.51	0.92
25:DA:271(U):G:O2'	25:DA:271(V):G:H5'	1.70	0.92
1:AA:259:U:C2'	1:AA:260:G:H5'	1.99	0.92
25:DA:2873:A:C2	38:DR:6:SER:HB2	2.05	0.92
25:BA:2864:G:H5'	25:BA:2864:G:H8	1.35	0.92
25:BA:2302:G:H21	31:BG:128:ARG:HG3	1.32	0.92
22:AY:33:U:H5''	22:AY:34:G:OP2	1.70	0.92
25:DA:1819:A:O4'	25:DA:1821:A:C5	2.23	0.92
1:CA:1280:A:C4'	1:CA:1281:G:OP1	2.17	0.92
25:BA:1652:A:H62	38:BR:11:ASN:ND2	1.68	0.92
1:CA:290:C:H2'	1:CA:291:U:C6	2.05	0.92
29:BE:52:LEU:HD23	29:BE:76:ARG:HB2	0.94	0.91
39:DS:89:ARG:HB3	39:DS:92:TYR:HB3	1.52	0.91
25:DA:1140:C:H5''	34:DN:66:LYS:HZ3	1.30	0.91
39:BS:89:ARG:HB3	39:BS:92:TYR:HB3	1.52	0.91
25:BA:2712:U:H1'	25:BA:2712(A):A:C8	2.06	0.91
21:CU:6:ARG:HE	21:CU:15:ARG:HH22	1.11	0.91
31:DG:22:ARG:HH11	31:DG:22:ARG:CB	1.82	0.91
39:DS:19:LYS:HB3	39:DS:20:ARG:HH12	1.35	0.91
2:CB:91:PRO:HG2	2:CB:155:LEU:HD23	1.53	0.91
5:CE:126:ARG:HH11	5:CE:126:ARG:HG3	1.35	0.91
16:CP:71:ARG:HA	16:CP:74:LEU:HD12	1.51	0.91
25:BA:2584:U:C2'	25:BA:2585:U:C5'	2.30	0.91
13:AM:57:ARG:HH22	51:B4:60:GLU:HG3	1.29	0.91
33:BI:48:GLU:HA	33:BI:51:ILE:HG13	1.52	0.91
13:CM:13:LYS:O	13:CM:45:VAL:HG23	1.69	0.91
31:DG:161:THR:HG22	31:DG:163:ALA:H	1.33	0.91
31:BG:22:ARG:CB	31:BG:22:ARG:HH11	1.82	0.91
31:BG:111:LEU:HA	31:BG:114:ILE:CD1	2.00	0.91
13:AM:117:VAL:HG12	13:AM:118:ALA:N	1.86	0.91
25:BA:1952:A:N1	35:BO:22:ILE:HD12	1.84	0.91
25:DA:471:A:O2'	25:DA:472:A:H5'	1.69	0.91
25:DA:571:A:H5'	25:DA:2030:A:H62	1.33	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2036:C:H6	25:DA:2036:C:H5'	1.36	0.91
25:BA:313:C:O2'	25:BA:314:A:H5'	1.69	0.91
45:DY:67:LEU:O	45:DY:68:HIS:O	1.87	0.91
5:AE:101:ILE:H	5:AE:101:ILE:HD13	1.33	0.91
25:BA:2892:A:H3'	25:BA:2893:G:H5''	1.50	0.91
38:DR:10:LEU:HD22	38:DR:17:ARG:HD2	1.50	0.91
31:DG:133:LEU:HD11	31:DG:157:ILE:HD11	1.53	0.91
32:DH:17:VAL:CG2	32:DH:45:VAL:HG13	2.01	0.91
32:DH:17:VAL:O	32:DH:45:VAL:CG2	2.19	0.91
25:DA:313:C:O2'	25:DA:314:A:H5'	1.69	0.91
26:DB:20:C:C2'	26:DB:21:G:H5''	2.01	0.91
13:CM:117:VAL:HG12	13:CM:118:ALA:N	1.83	0.91
25:BA:2305:A:C2	31:BG:154:GLY:N	2.37	0.91
2:AB:91:PRO:HG2	2:AB:155:LEU:HD23	1.49	0.91
43:DW:59:VAL:HG12	43:DW:60:ASN:HD22	1.34	0.91
25:DA:1992:G:H4'	25:DA:1993:U:OP1	1.70	0.91
1:CA:180:C:H4'	20:CT:82:SER:HB3	1.53	0.91
25:DA:2712:U:H1'	25:DA:2712(A):A:C8	2.06	0.91
25:BA:2103:C:H3'	25:BA:2104:G:H5''	1.53	0.91
25:BA:1378:A:H4'	25:BA:1379:A:OP1	1.71	0.91
46:DZ:150:LEU:HD23	46:DZ:171:ILE:HG13	1.53	0.91
35:BO:4:PRO:HA	35:BO:21:CYS:SG	2.10	0.91
12:AL:47:LYS:HB3	12:AL:48:PRO:CD	1.96	0.91
37:DQ:134:ARG:HE	46:DZ:122:ARG:NH1	1.69	0.91
25:DA:2849:U:OP2	40:DT:95:ARG:HD2	1.69	0.91
25:BA:2331:G:O2'	47:B0:43:THR:HG22	1.71	0.91
25:DA:1157:G:O2'	50:D3:31:LEU:HD12	1.71	0.91
1:AA:939:C:H2'	1:AA:940:G:H8	1.35	0.91
26:DB:82:G:O2'	26:DB:83:G:H5'	1.71	0.91
31:BG:111:LEU:HD23	31:BG:114:ILE:CD1	2.00	0.91
25:BA:92:A:H2'	25:BA:93:G:C8	2.06	0.91
25:DA:2103:C:H3'	25:DA:2104:G:H5''	1.53	0.91
25:BA:1747(A):G:H2'	25:BA:1748:G:H5''	1.50	0.91
23:CV:57:C:H1'	31:DG:76:SER:O	1.71	0.90
39:BS:97:ARG:NH2	39:BS:98:VAL:HA	1.83	0.90
25:DA:2394:C:OP1	36:DP:63:PRO:HD2	1.71	0.90
36:BP:21:ARG:HD3	36:BP:29:LYS:HE3	1.53	0.90
49:D2:48:HIS:O	49:D2:52:ASP:HB2	1.71	0.90
43:DW:5:ALA:HB2	43:DW:54:ALA:HB2	1.53	0.90
25:DA:310:A:OP1	45:DY:18:GLY:HA2	1.70	0.90
8:CH:6:ILE:H	8:CH:6:ILE:HD12	1.34	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DT:23:ARG:HG3	40:DT:120:ARG:NH1	1.86	0.90
9:AI:104:ARG:HG2	9:AI:106:ALA:CA	1.94	0.90
23:CV:19:G:H8	23:CV:19:G:H5''	1.35	0.90
25:BA:2701:C:H3'	25:BA:2702:U:C5'	2.02	0.90
8:AH:6:ILE:H	8:AH:6:ILE:HD12	1.36	0.90
2:CB:178:ARG:HB2	2:CB:178:ARG:HH11	1.36	0.90
46:BZ:150:LEU:HD23	46:BZ:171:ILE:HG13	1.53	0.90
1:CA:822:U:O2	1:CA:822:U:H2'	1.70	0.90
25:DA:2864:G:H8	25:DA:2864:G:H5'	1.35	0.90
40:DT:66:VAL:HA	40:DT:71:GLY:HA2	1.53	0.90
25:DA:1378:A:H4'	25:DA:1379:A:OP1	1.71	0.90
25:BA:2394:C:OP1	36:BP:63:PRO:HD2	1.70	0.90
42:DV:21:ARG:HB3	42:DV:91:TYR:HB2	1.53	0.90
25:BA:1685:C:C2'	25:BA:1686:C:H5''	2.00	0.90
2:CB:87:ARG:HE	2:CB:233:SER:HB2	1.36	0.90
4:AD:197:PRO:CD	6:CF:16:GLN:CG	2.16	0.90
40:DT:89:VAL:CB	40:DT:91:ARG:HG3	2.00	0.90
7:AG:60:LYS:HZ2	7:AG:60:LYS:HA	1.35	0.90
25:BA:1747(A):G:C2'	25:BA:1748:G:H5''	2.02	0.90
15:AO:87:ILE:HG22	15:AO:88:ARG:H	1.36	0.90
22:CW:16:U:H3'	22:CW:17:C:H5'	1.52	0.90
45:BY:55:TYR:HB3	45:BY:56:PRO:CD	2.02	0.90
37:BQ:134:ARG:HE	46:BZ:122:ARG:NH1	1.69	0.90
49:B2:48:HIS:O	49:B2:52:ASP:HB2	1.72	0.90
25:DA:676:A:H8	25:DA:2069:G:H21	1.19	0.90
5:AE:10:MET:HB2	5:AE:32:VAL:HG22	1.54	0.90
43:BW:59:VAL:HG12	43:BW:60:ASN:HD22	1.34	0.90
13:AM:93:ARG:HD3	25:BA:888:C:C5'	1.97	0.90
5:CE:100:VAL:HG22	5:CE:118:ILE:HG22	1.51	0.90
5:AE:126:ARG:HG3	5:AE:126:ARG:HH11	1.34	0.90
45:DY:17:SER:OG	45:DY:71:LYS:HB3	1.72	0.90
20:AT:44:ALA:HA	20:AT:92:LEU:HD21	1.52	0.90
32:BH:85:LYS:HD2	32:BH:141:VAL:HG13	1.53	0.90
47:D0:41:ARG:HD2	47:D0:41:ARG:H	1.37	0.90
32:DH:41:MET:CA	32:DH:53:GLU:O	2.20	0.90
25:BA:1819:A:H1'	25:BA:1821:A:N6	1.87	0.90
9:AI:114:TYR:HD2	9:AI:114:TYR:H	1.16	0.90
26:BB:107:G:H2'	26:BB:108:U:C5'	1.99	0.90
53:D6:47:THR:HB	53:D6:49:HIS:ND1	1.87	0.90
45:BY:26:LYS:HG2	45:BY:27:VAL:H	1.37	0.90
44:BX:60:ARG:HH12	54:B7:47:ARG:NH2	1.68	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:911:A:C5'	25:DA:912:C:H5''	2.01	0.90
38:BR:55:ALA:HA	38:BR:80:PHE:CE1	2.07	0.90
42:BV:72:VAL:CG2	42:BV:85:LYS:HB3	2.01	0.90
25:BA:2693:A:H2'	25:BA:2694:G:H8	1.36	0.90
29:BE:11:MET:N	40:BT:8:LYS:NZ	2.20	0.90
25:DA:1880:C:H6	25:DA:1880:C:H5'	1.35	0.89
25:BA:2305:A:C2	31:BG:154:GLY:HA3	2.07	0.89
16:AP:71:ARG:HA	16:AP:74:LEU:HD12	1.54	0.89
13:CM:88:ARG:CG	13:CM:98:VAL:HG12	2.01	0.89
25:DA:271(T):C:H6	25:DA:271(T):C:H5'	1.36	0.89
2:AB:178:ARG:HB2	2:AB:178:ARG:HH11	1.34	0.89
49:B2:43:GLN:O	49:B2:44:LEU:HB2	1.70	0.89
43:BW:5:ALA:HB2	43:BW:54:ALA:HB2	1.53	0.89
29:BE:101:ARG:NH2	29:BE:171:GLU:HB2	1.88	0.89
13:CM:93:ARG:NE	25:DA:888:C:H5'	1.86	0.89
29:DE:51:PHE:O	29:DE:52:LEU:HB2	1.71	0.89
20:CT:50:GLU:HA	20:CT:100:ILE:HG21	1.52	0.89
26:DB:92:C:H2'	26:DB:93:G:C8	2.07	0.89
45:BY:17:SER:HB2	45:BY:71:LYS:CD	2.01	0.89
39:BS:19:LYS:HB3	39:BS:20:ARG:HH12	1.35	0.89
25:DA:858:U:O2'	25:DA:859:G:C4	2.24	0.89
36:DP:21:ARG:HD3	36:DP:29:LYS:HE3	1.53	0.89
9:CI:15:ALA:HB2	9:CI:65:VAL:HG23	1.52	0.89
46:BZ:153:SER:HB2	46:BZ:167:PRO:HB3	1.52	0.89
25:DA:2701:C:H3'	25:DA:2702:U:C5'	2.02	0.89
26:BB:20:C:C2'	26:BB:21:G:H5''	2.01	0.89
36:DP:7:ARG:O	36:DP:10:PRO:HD2	1.72	0.89
7:AG:102:ARG:HG2	7:AG:106:GLN:NE2	1.86	0.89
25:BA:17:G:H4'	41:BU:25:TRP:CZ3	2.07	0.89
25:BA:676:A:H8	25:BA:2069:G:H21	1.19	0.89
38:DR:51:LEU:HD23	38:DR:66:VAL:HG13	1.55	0.89
40:DT:29:ARG:HD3	40:DT:85:LYS:HA	0.91	0.89
20:CT:30:LYS:HZ1	20:CT:80:ARG:HE	1.15	0.89
1:AA:950:G:H1'	10:AJ:55:LYS:HE2	1.53	0.89
31:BG:111:LEU:HA	31:BG:114:ILE:HD11	1.55	0.89
17:CQ:68:ARG:H	17:CQ:70:ARG:HH11	1.17	0.89
12:AL:46:LYS:HG2	12:AL:47:LYS:N	1.87	0.89
25:BA:541:C:C2'	25:BA:542:C:H5'	2.01	0.89
22:AW:68:C:H2'	22:AW:69:G:H8	1.37	0.89
25:DA:1747(A):G:C2'	25:DA:1748:G:H5''	2.01	0.89
25:BA:1301:A:O2'	25:BA:1302:A:H2'	1.71	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1039:G:H5''	3:AC:154:SER:HB2	1.55	0.89
25:DA:1301:A:O2'	25:DA:1302:A:H2'	1.71	0.89
25:DA:1819:A:H1'	25:DA:1821:A:N6	1.87	0.89
25:DA:560:C:H4'	41:DU:52:ARG:NH2	1.87	0.89
9:AI:15:ALA:HB2	9:AI:65:VAL:HG23	1.53	0.89
25:BA:271(M):G:H2'	25:BA:271(N):U:H5''	1.55	0.89
27:BC:68:LEU:HD11	27:BC:179:SER:HA	1.52	0.89
28:BD:181:GLU:HA	28:BD:272:ALA:HB3	1.54	0.89
40:DT:51:ARG:HB2	40:DT:98:LYS:HG3	1.52	0.89
42:DV:72:VAL:CG2	42:DV:85:LYS:HB3	2.01	0.89
25:BA:271(T):C:H5'	25:BA:271(T):C:H6	1.36	0.89
45:BY:28:LYS:HZ2	45:BY:28:LYS:H	1.21	0.89
28:DD:181:GLU:HA	28:DD:272:ALA:HB3	1.54	0.89
14:CN:4:LYS:HD2	14:CN:7:ILE:HD11	1.55	0.89
25:BA:297:C:H2'	25:BA:298:G:H5'	1.54	0.89
25:DA:942:G:OP1	36:DP:35:HIS:HB3	1.71	0.89
25:DA:2331:G:O2'	47:D0:43:THR:HG22	1.72	0.89
4:AD:195:ALA:HB2	6:CF:20:ALA:CB	2.00	0.89
1:AA:1422:C:H2'	1:AA:1423:G:H5'	1.53	0.89
33:BI:47:LEU:O	33:BI:51:ILE:HG12	1.72	0.89
29:BE:11:MET:CA	40:BT:8:LYS:HZ1	1.85	0.89
48:D1:86:SER:HB2	48:D1:89:GLU:HB2	1.55	0.89
25:DA:2206:G:N2	25:DA:2207:G:H5'	1.88	0.89
32:DH:17:VAL:HB	32:DH:45:VAL:CG1	2.03	0.89
25:BA:271(U):G:O2'	25:BA:271(V):G:C5'	2.21	0.89
9:AI:104:ARG:CG	9:AI:106:ALA:CB	2.51	0.89
25:BA:2392:A:OP1	55:B8:32:LEU:HD13	1.70	0.89
25:BA:858:U:O2'	25:BA:859:G:C4	2.24	0.89
25:DA:1447:G:C5'	25:DA:1447:G:H8	1.86	0.89
40:DT:29:ARG:HD3	40:DT:85:LYS:CB	2.02	0.88
25:BA:271(U):G:O2'	25:BA:271(V):G:H5'	1.70	0.88
28:BD:244:ARG:HG3	28:BD:245:PRO:HD2	0.89	0.88
8:AH:110:ALA:HB3	8:AH:121:ASP:HB3	1.54	0.88
28:DD:35:LYS:NZ	28:DD:103:ARG:HA	1.88	0.88
25:DA:297:C:H2'	25:DA:298:G:H5'	1.54	0.88
23:AV:14:A:H1'	23:AV:23:G:N2	1.87	0.88
15:AO:2:PRO:HB2	15:AO:3:ILE:HD13	1.54	0.88
25:BA:2516:G:C2'	25:BA:2517:C:C5'	2.50	0.88
25:BA:104:U:H2'	25:BA:105:C:O4'	1.73	0.88
25:DA:2693:A:H2'	25:DA:2694:G:H8	1.36	0.88
7:AG:79:ARG:HG2	7:AG:84:ASN:OD1	1.72	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:7:ARG:O	36:BP:10:PRO:HD2	1.72	0.88
25:DA:1447:G:C8	25:DA:1447:G:H5'	2.09	0.88
31:BG:133:LEU:HD11	31:BG:157:ILE:HD11	1.53	0.88
32:DH:85:LYS:HD2	32:DH:141:VAL:HG13	1.53	0.88
1:AA:919:G:H21	9:AI:124:GLN:HE22	1.16	0.88
25:DA:2134:A:N6	25:DA:2157:G:H1'	1.88	0.88
33:DI:83:ALA:HB2	33:DI:88:ILE:HG23	1.56	0.88
14:AN:12:ARG:C	14:AN:14:PRO:HD2	1.92	0.88
5:CE:78:HIS:HD2	8:CH:104:ARG:NE	1.70	0.88
46:DZ:153:SER:HB2	46:DZ:167:PRO:HB3	1.52	0.88
14:AN:4:LYS:HD2	14:AN:7:ILE:HD11	1.56	0.88
2:AB:87:ARG:HE	2:AB:233:SER:HB2	1.35	0.88
29:DE:101:ARG:NH2	29:DE:171:GLU:HB2	1.87	0.88
23:AV:3:C:H2'	23:AV:4:G:H5'	0.88	0.88
25:BA:2392:A:OP1	55:B8:32:LEU:CD1	2.21	0.88
2:AB:42:ILE:HD11	2:AB:202:PRO:HB2	1.55	0.88
7:CG:102:ARG:HG2	7:CG:106:GLN:NE2	1.88	0.88
25:DA:541:C:C2'	25:DA:542:C:H5'	2.02	0.88
20:AT:72:LEU:HD23	20:AT:73:HIS:N	1.89	0.88
25:DA:389:G:H1	36:DP:71:VAL:HG12	1.37	0.88
25:BA:953:A:O2'	25:BA:954:G:H5'	1.73	0.88
25:DA:953:A:O2'	25:DA:954:G:H5'	1.73	0.88
40:DT:54:ARG:HA	40:DT:59:THR:HB	1.54	0.88
50:D3:56:VAL:HG12	50:D3:57:GLU:N	1.89	0.88
42:BV:64:HIS:ND1	42:BV:92:THR:HG22	1.88	0.88
42:BV:21:ARG:HB3	42:BV:91:TYR:HB2	1.53	0.88
14:CN:12:ARG:C	14:CN:14:PRO:HD2	1.94	0.88
34:DN:67:LEU:O	34:DN:68:GLU:HB2	1.73	0.88
19:CS:63:THR:HG22	19:CS:66:MET:HE2	1.52	0.88
7:AG:23:VAL:HG13	7:AG:43:PHE:CE2	2.09	0.88
25:DA:271(U):G:O2'	25:DA:271(V):G:C5'	2.21	0.88
7:CG:79:ARG:HG2	7:CG:84:ASN:OD1	1.73	0.88
32:BH:41:MET:HE3	32:BH:55:PRO:HD2	1.56	0.88
25:BA:1313:U:O2	25:BA:1313:U:H2'	1.74	0.88
25:BA:2036:C:H6	25:BA:2036:C:H5'	1.36	0.88
13:AM:88:ARG:HG3	13:AM:98:VAL:CG1	2.03	0.88
42:BV:39:LEU:HD12	42:BV:51:VAL:HA	1.56	0.88
15:CO:2:PRO:HB2	15:CO:3:ILE:HD13	1.55	0.88
25:BA:1819:A:O4'	25:BA:1821:A:C5	2.27	0.88
25:BA:272:G:N1	25:BA:421:U:C4	2.42	0.88
3:AC:79:ARG:HH12	11:CK:99:GLN:HB2	1.37	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:B3:56:VAL:HG12	50:B3:57:GLU:N	1.89	0.88
25:DA:2758:A:C2'	25:DA:2759:G:H5''	2.04	0.88
25:BA:744:G:OP1	29:BE:132:HIS:HB3	1.74	0.88
2:CB:204:ASN:HD21	2:CB:207:ALA:H	1.20	0.88
1:AA:1327:A:H5''	9:AI:120:ARG:HH12	1.39	0.88
48:D1:52:ARG:HG3	48:D1:53:VAL:H	1.38	0.88
25:DA:2584:U:C3'	25:DA:2585:U:C5'	2.52	0.88
45:DY:81:LYS:HD3	45:DY:97:ARG:HB3	1.56	0.88
31:BG:128:ARG:C	31:BG:130:ASN:H	1.77	0.88
1:AA:1302:C:C3'	1:AA:1303:C:H5''	2.04	0.88
45:DY:37:VAL:O	45:DY:66:PRO:HB3	1.74	0.88
25:BA:272:G:N1	25:BA:421:U:N3	2.22	0.88
5:AE:101:ILE:CD1	5:AE:119:LEU:HD23	2.04	0.88
25:BA:2758:A:C2'	25:BA:2759:G:H5''	2.04	0.88
28:BD:35:LYS:NZ	28:BD:103:ARG:HA	1.88	0.88
25:BA:2463:C:H2'	25:BA:2464:C:C5'	2.03	0.88
25:BA:1378:A:O2'	25:BA:1379:A:H5'	1.74	0.88
40:DT:92:GLY:O	40:DT:114:LEU:HD22	1.73	0.88
40:BT:55:ASN:H	40:BT:59:THR:HG22	1.38	0.88
25:DA:379:G:H2'	25:DA:380:U:C5'	2.04	0.88
1:AA:1140:C:N3	1:AA:1162:G:N2	2.22	0.88
25:BA:1170:G:H1	25:BA:1179:C:H42	1.19	0.88
13:CM:93:ARG:CG	25:DA:888:C:OP1	2.18	0.87
36:BP:49:ARG:NH2	36:BP:50:ARG:HH22	1.72	0.87
8:CH:110:ALA:HB3	8:CH:121:ASP:HB3	1.53	0.87
25:DA:1447:G:H8	25:DA:1447:G:H5'	1.36	0.87
25:DA:17:G:H4'	41:DU:25:TRP:CH2	2.09	0.87
12:AL:28:LYS:HE2	12:AL:33:ARG:HH22	1.39	0.87
25:BA:2206:G:N2	25:BA:2207:G:H5'	1.88	0.87
41:BU:34:LYS:HA	41:BU:34:LYS:HE2	1.55	0.87
40:DT:29:ARG:CG	40:DT:85:LYS:HG3	2.01	0.87
42:DV:64:HIS:ND1	42:DV:92:THR:HG22	1.88	0.87
25:DA:1378:A:O2'	25:DA:1379:A:H5'	1.74	0.87
31:BG:2:PRO:HG2	51:B4:51:TYR:CZ	2.09	0.87
1:AA:1302:C:H3'	1:AA:1303:C:H5''	1.54	0.87
45:DY:26:LYS:HG2	45:DY:27:VAL:H	1.37	0.87
13:AM:15:VAL:O	13:AM:19:LEU:HD23	1.74	0.87
13:AM:60:VAL:HG12	13:AM:66:LEU:HD21	1.55	0.87
31:BG:75:LYS:HE3	31:BG:77:ILE:HD11	1.55	0.87
15:CO:87:ILE:HG22	15:CO:88:ARG:H	1.38	0.87
33:BI:133:HIS:HB2	33:BI:134:PRO:CD	2.04	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:92:A:H2'	25:DA:93:G:C8	2.06	0.87
2:AB:21:ARG:HB3	2:AB:39:ILE:HA	1.54	0.87
38:BR:51:LEU:HD23	38:BR:66:VAL:HG13	1.55	0.87
30:BF:11:VAL:HG12	30:BF:12:LEU:H	1.39	0.87
31:DG:75:LYS:HE3	31:DG:77:ILE:HD11	1.55	0.87
13:AM:93:ARG:CZ	25:BA:888:C:H4'	2.04	0.87
23:AV:4:G:C4	23:AV:5:G:C8	2.62	0.87
38:DR:55:ALA:HA	38:DR:80:PHE:CE1	2.07	0.87
31:BG:113:ARG:CB	31:BG:113:ARG:HH11	1.87	0.87
31:DG:128:ARG:C	31:DG:130:ASN:H	1.77	0.87
25:BA:2681:C:H5	25:BA:2725:A:N6	1.73	0.87
46:DZ:144:LEU:HG	46:DZ:150:LEU:HD12	1.57	0.87
47:D0:25:ARG:HD2	47:D0:29:GLN:NE2	1.90	0.87
25:BA:2134:A:N6	25:BA:2157:G:H1'	1.88	0.87
30:BF:178:PRO:HG2	30:BF:179:GLU:OE2	1.74	0.87
33:DI:133:HIS:HB2	33:DI:134:PRO:CD	2.04	0.87
25:BA:528:A:C2	25:BA:2043:C:H4'	2.10	0.87
13:AM:94:ARG:HH21	25:BA:887:A:C3'	1.67	0.87
25:DA:2516:G:C2'	25:DA:2517:C:C5'	2.50	0.87
41:BU:79:PHE:O	41:BU:83:LEU:HD13	1.75	0.87
25:DA:2463:C:H2'	25:DA:2464:C:C5'	2.03	0.87
25:BA:379:G:H2'	25:BA:380:U:C5'	2.05	0.87
25:DA:2681:C:H5	25:DA:2725:A:H62	0.95	0.87
25:DA:315:G:H2'	25:DA:316:C:C6	2.10	0.87
28:DD:33:LEU:HD12	28:DD:33:LEU:H	1.38	0.87
53:B6:47:THR:HB	53:B6:49:HIS:ND1	1.88	0.87
41:DU:62:ILE:CD1	41:DU:93:LYS:HG2	2.05	0.87
20:CT:41:ILE:CG2	20:CT:84:LEU:HD21	2.05	0.87
41:DU:34:LYS:HE2	41:DU:34:LYS:HA	1.55	0.87
26:DB:3:C:H42	26:DB:118:G:H1	1.22	0.87
45:DY:27:VAL:HG12	45:DY:29:GLU:H	1.40	0.87
25:DA:283:A:H4'	25:DA:284:U:OP2	1.73	0.87
25:BA:283:A:H4'	25:BA:284:U:OP2	1.73	0.87
1:CA:262:C:C6	1:CA:262:C:H5'	2.08	0.87
25:BA:1689:A:H62	25:BA:1698:A:H2	1.21	0.87
2:CB:172:ILE:H	2:CB:172:ILE:HD12	1.40	0.87
47:B0:41:ARG:H	47:B0:41:ARG:HD2	1.37	0.87
25:BA:2199:A:H5''	25:BA:2200:C:H5	1.39	0.87
13:AM:94:ARG:HH21	25:BA:887:A:H3'	1.17	0.87
25:BA:271(Q):G:N3	25:BA:271(R):G:C8	2.43	0.87
28:BD:33:LEU:HD12	28:BD:33:LEU:H	1.38	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:21:ARG:HB3	2:CB:39:ILE:HA	1.56	0.87
25:DA:271(M):G:H2'	25:DA:271(N):U:H5''	1.55	0.87
41:BU:62:ILE:CD1	41:BU:93:LYS:HG2	2.05	0.87
1:AA:1220:A:H62	1:AA:1280:A:H62	1.23	0.87
36:DP:46:LYS:HB3	36:DP:52:GLU:HG2	1.57	0.87
4:CD:189:PRO:HB2	4:CD:194:LEU:HD21	1.57	0.87
23:CV:57:C:N4	31:DG:83:ARG:HH22	1.70	0.86
25:DA:104:U:H2'	25:DA:105:C:O4'	1.73	0.86
39:DS:89:ARG:HD2	39:DS:92:TYR:HA	1.57	0.86
29:DE:132:HIS:CD2	29:DE:135:HIS:CE1	2.63	0.86
12:CL:46:LYS:HG2	12:CL:47:LYS:N	1.89	0.86
38:BR:38:VAL:HB	38:BR:39:PRO:HD3	1.57	0.86
25:DA:1171:G:H3'	25:DA:1173:G:H4'	1.57	0.86
2:AB:219:VAL:HA	2:AB:222:ILE:HD12	1.55	0.86
25:BA:2873:A:C2	38:BR:6:SER:HB2	2.08	0.86
45:BY:28:LYS:HB2	45:BY:38:ILE:H	1.39	0.86
46:DZ:151:HIS:HB3	46:DZ:170:THR:HG22	1.57	0.86
36:DP:71:VAL:HG13	36:DP:72:PRO:HD3	1.56	0.86
1:AA:250:G:H1'	17:AQ:16:GLN:HE21	1.40	0.86
2:AB:162:ILE:HD11	2:AB:184:VAL:HG22	1.57	0.86
45:BY:67:LEU:O	45:BY:68:HIS:O	1.92	0.86
31:BG:111:LEU:O	31:BG:117:PHE:CD2	2.28	0.86
33:DI:53:ALA:O	33:DI:57:ARG:HG2	1.74	0.86
46:BZ:144:LEU:HG	46:BZ:150:LEU:HD12	1.57	0.86
46:BZ:151:HIS:HB3	46:BZ:170:THR:HG22	1.57	0.86
33:DI:5:LEU:HD11	33:DI:19:VAL:HG12	1.58	0.86
25:BA:2585:U:P	57:BA:3061:MG:MG	1.57	0.86
20:CT:49:ALA:HB1	20:CT:100:ILE:HD13	1.56	0.86
39:BS:89:ARG:HD2	39:BS:92:TYR:HA	1.58	0.86
13:CM:117:VAL:CG1	13:CM:118:ALA:H	1.87	0.86
10:CJ:50:ILE:HG12	14:CN:41:ARG:HD3	1.55	0.86
2:CB:42:ILE:HD11	2:CB:202:PRO:HB2	1.56	0.86
36:BP:71:VAL:CG1	36:BP:72:PRO:HD3	2.05	0.86
34:BN:67:LEU:O	34:BN:68:GLU:HB2	1.73	0.86
26:BB:11:C:OP1	47:B0:72:ARG:HD2	1.76	0.86
38:BR:4:LEU:HD21	38:BR:8:ARG:NH2	1.91	0.86
47:B0:25:ARG:HD2	47:B0:29:GLN:NE2	1.90	0.86
48:B1:52:ARG:HG3	48:B1:53:VAL:H	1.38	0.86
48:B1:86:SER:HB2	48:B1:89:GLU:HB2	1.56	0.86
23:AV:3:C:O2'	23:AV:4:G:H5''	1.75	0.86
41:DU:79:PHE:O	41:DU:83:LEU:HD13	1.75	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:24:ILE:CG1	28:BD:25:THR:N	2.39	0.86
28:BD:24:ILE:HG12	28:BD:25:THR:N	1.90	0.86
31:DG:60:LEU:O	31:DG:63:ILE:HG12	1.76	0.86
25:DA:1170:G:H1	25:DA:1179:C:H42	1.19	0.86
25:BA:358:U:H2'	25:BA:359:A:H5'	1.57	0.86
13:CM:57:ARG:HH12	51:D4:60:GLU:HA	1.39	0.86
36:BP:71:VAL:HG13	36:BP:72:PRO:HD3	1.56	0.86
15:CO:3:ILE:H	15:CO:3:ILE:HD13	1.40	0.86
30:DF:178:PRO:HG2	30:DF:179:GLU:OE2	1.74	0.86
7:CG:23:VAL:HG13	7:CG:43:PHE:CE2	2.10	0.86
25:BA:1365:A:H5''	48:B1:41:ARG:HH12	1.41	0.86
23:CV:40:C:O2'	23:CV:41:C:H5'	1.75	0.86
33:BI:5:LEU:HD11	33:BI:19:VAL:HG12	1.58	0.86
25:DA:358:U:H2'	25:DA:359:A:H5'	1.57	0.86
25:BA:613:G:H5'	25:BA:613:G:H8	1.41	0.86
25:BA:90:U:O2'	25:BA:92:A:H5''	1.76	0.86
39:DS:30:ARG:HH22	39:DS:62:LYS:HD2	1.40	0.86
36:DP:71:VAL:CG1	36:DP:72:PRO:HD3	2.05	0.86
25:BA:27:G:HO2'	25:BA:28:A:H8	1.19	0.86
25:DA:528:A:C2	25:DA:2043:C:H4'	2.10	0.86
40:DT:28:VAL:HG21	40:DT:46:GLU:CD	1.95	0.86
25:BA:315:G:H2'	25:BA:316:C:C6	2.10	0.86
45:DY:27:VAL:HA	45:DY:28:LYS:HZ1	1.37	0.86
31:DG:113:ARG:NH1	31:DG:113:ARG:HG2	1.77	0.86
25:BA:2302:G:H21	31:BG:128:ARG:CG	1.88	0.86
32:BH:25:LYS:H	32:BH:25:LYS:HD3	1.41	0.86
25:BA:2584:U:C3'	25:BA:2585:U:C5'	2.52	0.86
45:DY:54:LYS:HG2	45:DY:55:TYR:HD2	1.41	0.86
25:DA:2681:C:H5	25:DA:2725:A:N6	1.73	0.86
22:CW:60:U:C2'	22:CW:61:C:C5	2.57	0.86
39:BS:67:ARG:NH1	39:BS:100:ALA:HB3	1.90	0.86
39:DS:67:ARG:NH1	39:DS:100:ALA:HB3	1.90	0.86
5:CE:57:LYS:HG2	5:CE:61:TYR:HE2	1.41	0.86
25:BA:335:C:H2'	25:BA:336:C:H6	1.40	0.86
22:AW:29:G:H2'	22:AW:30:G:H8	1.38	0.86
15:CO:56:LEU:HD21	25:DA:715:G:C2	2.10	0.86
42:DV:39:LEU:HB3	42:DV:47:VAL:HG11	1.55	0.86
33:BI:98:ALA:HA	33:BI:109:ILE:HG12	1.58	0.86
33:DI:98:ALA:HA	33:DI:109:ILE:HG12	1.58	0.86
26:DB:107:G:C6	26:DB:108:U:C5	2.64	0.86
25:BA:2134:A:C2	25:BA:2159:G:H1'	2.11	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DN:57:ALA:H	34:DN:124:ALA:HA	1.40	0.86
25:BA:365:C:H6	25:BA:365:C:H5'	1.40	0.86
22:AW:2:C:H42	22:AW:71:G:H1	1.23	0.86
5:CE:69:VAL:HG12	5:CE:71:LEU:CD2	2.06	0.85
28:DD:24:ILE:HG12	28:DD:25:THR:N	1.90	0.85
25:DA:90:U:O2'	25:DA:92:A:H5''	1.76	0.85
9:CI:65:VAL:HG21	9:CI:73:GLN:HB3	1.58	0.85
34:BN:57:ALA:H	34:BN:124:ALA:HA	1.40	0.85
25:BA:2554:U:H2'	25:BA:2555:U:C6	2.11	0.85
45:DY:54:LYS:CG	45:DY:55:TYR:CD2	2.51	0.85
19:AS:5:LEU:HD12	19:AS:10:PHE:HD1	1.38	0.85
29:DE:49:LEU:H	29:DE:49:LEU:HD12	1.42	0.85
32:DH:54:ARG:HG2	32:DH:54:ARG:HH11	1.41	0.85
13:CM:15:VAL:O	13:CM:19:LEU:HD23	1.76	0.85
25:DA:2176:A:O5'	27:DC:217:THR:HA	1.74	0.85
11:AK:32:ILE:HD12	11:AK:72:ALA:HB2	1.57	0.85
25:DA:2199:A:H5''	25:DA:2200:C:H5	1.39	0.85
25:BA:2848:G:OP2	40:BT:97:ALA:HB2	1.76	0.85
37:DQ:43:THR:OG1	37:DQ:46:GLN:HG3	1.76	0.85
12:CL:28:LYS:HG3	12:CL:33:ARG:HH12	1.40	0.85
36:BP:23:PRO:HB2	36:BP:33:ARG:HD2	1.57	0.85
45:BY:27:VAL:HG12	45:BY:29:GLU:H	1.40	0.85
7:CG:50:ILE:HB	7:CG:58:PRO:HG3	1.59	0.85
8:AH:60:ARG:HG3	8:AH:60:ARG:HH11	1.41	0.85
2:CB:162:ILE:HD11	2:CB:184:VAL:HG22	1.58	0.85
30:DF:8:GLN:HB3	30:DF:126:VAL:HA	1.58	0.85
5:CE:10:MET:HB2	5:CE:32:VAL:HG22	1.56	0.85
30:DF:11:VAL:HG12	30:DF:12:LEU:H	1.39	0.85
29:BE:49:LEU:HD12	29:BE:49:LEU:H	1.42	0.85
25:DA:271(P):C:C2'	25:DA:271(Q):G:H5'	2.07	0.85
28:DD:25:THR:HG22	28:DD:26:LYS:H	1.42	0.85
25:DA:2312:U:C2'	25:DA:2313:C:H5''	2.07	0.85
25:BA:2300:G:H22	25:BA:2317:C:H1'	1.39	0.85
45:BY:81:LYS:HD3	45:BY:97:ARG:HB3	1.56	0.85
38:DR:4:LEU:HD21	38:DR:8:ARG:NH2	1.90	0.85
31:BG:88:ILE:HD12	31:BG:89:GLY:H	1.40	0.85
50:D3:8:LEU:HA	50:D3:54:VAL:HG22	1.58	0.85
36:BP:65:ARG:NH1	55:B8:15:LYS:HB2	1.92	0.85
3:AC:79:ARG:HH22	11:CK:100:ALA:HB2	1.42	0.85
33:BI:58:LEU:CA	33:BI:61:ARG:HE	1.89	0.85
33:DI:81:VAL:HG21	33:DI:142:VAL:HG13	1.59	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:560:C:H4'	41:BU:52:ARG:NH2	1.90	0.85
31:DG:39:ILE:HD11	31:DG:155:MET:HB2	1.58	0.85
36:DP:45:LEU:HD23	36:DP:46:LYS:H	1.40	0.85
23:CV:57:C:C6	31:DG:84:LYS:NZ	2.45	0.85
1:AA:1426:A:H4'	1:AA:1426:A:OP1	1.76	0.85
45:DY:28:LYS:HB2	45:DY:38:ILE:H	1.39	0.85
25:DA:1771:C:C2'	25:DA:1772:G:H5'	2.07	0.85
28:BD:25:THR:HG22	28:BD:26:LYS:H	1.42	0.85
25:BA:2305:A:N3	31:BG:154:GLY:HA3	1.92	0.85
25:BA:549:G:H2'	25:BA:551:G:O4'	1.77	0.85
31:DG:88:ILE:HD12	31:DG:89:GLY:H	1.41	0.85
31:BG:88:ILE:HD12	31:BG:89:GLY:N	1.90	0.85
26:BB:57:A:H5'	31:BG:27:ASN:HD22	1.40	0.85
29:BE:3:GLY:HA3	29:BE:81:ILE:HG21	1.59	0.85
25:DA:107:C:C2'	25:DA:108:U:H5'	2.07	0.85
13:AM:25:ILE:HD11	13:AM:66:LEU:HD23	1.57	0.85
25:BA:2305:A:C2	31:BG:154:GLY:CA	2.60	0.85
45:BY:31:LEU:HB2	45:BY:32:PRO:HA	1.59	0.85
19:CS:9:VAL:O	19:CS:10:PHE:CD1	2.30	0.85
26:BB:3:C:H42	26:BB:118:G:H1	1.22	0.85
25:DA:365:C:H5'	25:DA:365:C:H6	1.40	0.85
46:DZ:163:LEU:H	46:DZ:163:LEU:HD12	1.42	0.85
28:DD:43:ARG:HB3	28:DD:54:ARG:HB2	1.59	0.85
4:AD:197:PRO:HD3	6:CF:16:GLN:HG3	0.85	0.85
31:DG:113:ARG:HA	31:DG:113:ARG:CZ	2.06	0.85
12:CL:41:ARG:HH11	12:CL:41:ARG:HB3	1.42	0.85
33:BI:83:ALA:HB2	33:BI:88:ILE:HG23	1.56	0.85
31:DG:88:ILE:HD12	31:DG:89:GLY:N	1.91	0.85
25:DA:2863:C:C2'	25:DA:2864:G:H5''	2.06	0.85
38:DR:38:VAL:HB	38:DR:39:PRO:HD3	1.57	0.85
28:DD:223:GLY:O	28:DD:226:MET:HG3	1.77	0.85
32:DH:40:GLU:O	32:DH:41:MET:HB2	1.74	0.85
25:BA:107:C:C2'	25:BA:108:U:H5'	2.07	0.85
5:CE:101:ILE:HD11	5:CE:119:LEU:HA	1.58	0.85
28:DD:24:ILE:CG1	28:DD:25:THR:N	2.39	0.85
25:DA:1652:A:H62	38:DR:11:ASN:ND2	1.75	0.85
40:BT:24:PRO:HA	40:BT:49:VAL:HG13	1.59	0.85
25:BA:1171:G:H3'	25:BA:1173:G:H4'	1.57	0.85
30:BF:8:GLN:HB3	30:BF:126:VAL:HA	1.57	0.85
25:DA:845:G:H21	25:DA:933:A:H61	1.25	0.85
25:DA:2554:U:H2'	25:DA:2555:U:C6	2.12	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:219:VAL:HA	2:CB:222:ILE:HD12	1.59	0.85
25:BA:242:G:H5''	55:B8:62:LEU:CD1	2.05	0.84
31:DG:113:ARG:HA	31:DG:113:ARG:NH1	1.92	0.84
53:B6:45:LYS:O	53:B6:46:HIS:CG	2.30	0.84
25:BA:2863:C:C2'	25:BA:2864:G:H5''	2.06	0.84
25:DA:2206:G:H21	25:DA:2207:G:H5'	1.41	0.84
19:CS:9:VAL:O	19:CS:10:PHE:CG	2.30	0.84
49:D2:16:LEU:O	49:D2:20:GLU:HB3	1.77	0.84
18:AR:86:VAL:O	18:AR:87:ARG:HD3	1.77	0.84
52:B5:32:PRO:O	52:B5:33:CYS:HB3	1.76	0.84
48:D1:5:CYS:SG	48:D1:62:VAL:HG23	2.17	0.84
25:BA:2312:U:C2'	25:BA:2313:C:H5''	2.07	0.84
25:BA:1593:G:C2'	25:BA:1594:G:H5''	2.07	0.84
17:AQ:67:LYS:HA	17:AQ:70:ARG:HH12	1.42	0.84
25:BA:2347:C:H2'	25:BA:2348:U:H6	1.42	0.84
31:DG:111:LEU:HB3	31:DG:117:PHE:CE2	2.12	0.84
5:CE:69:VAL:CG1	5:CE:71:LEU:HD23	2.07	0.84
13:AM:117:VAL:CG1	13:AM:118:ALA:H	1.90	0.84
25:DA:549:G:H2'	25:DA:551:G:O4'	1.77	0.84
12:AL:28:LYS:CE	12:AL:33:ARG:HH22	1.90	0.84
23:CV:35:C:C2'	23:CV:36:A:C8	2.43	0.84
25:BA:1819:A:C1'	25:BA:1821:A:C5	2.60	0.84
25:DA:1819:A:C1'	25:DA:1821:A:C5	2.60	0.84
31:BG:2:PRO:CD	51:B4:51:TYR:CG	2.59	0.84
45:DY:28:LYS:H	45:DY:28:LYS:HZ2	1.20	0.84
31:BG:111:LEU:N	31:BG:112:PRO:HD2	1.91	0.84
41:DU:88:ILE:O	41:DU:88:ILE:HG13	1.78	0.84
42:DV:38:LEU:C	42:DV:39:LEU:HD13	1.98	0.84
28:BD:26:LYS:NZ	28:BD:82:ILE:H	1.75	0.84
17:CQ:67:LYS:O	17:CQ:68:ARG:HB3	1.76	0.84
19:CS:10:PHE:O	19:CS:10:PHE:CD2	2.30	0.84
25:DA:2124:G:O2'	27:DC:40:THR:HA	1.77	0.84
25:DA:2175:C:H1'	27:DC:215:THR:H	1.41	0.84
25:BA:1771:C:C2'	25:BA:1772:G:H5'	2.07	0.84
25:DA:2476:A:C2'	25:DA:2477:C:H5''	2.08	0.84
12:CL:28:LYS:CG	12:CL:33:ARG:NH1	2.40	0.84
45:BY:28:LYS:HA	45:BY:39:VAL:H	1.42	0.84
31:BG:39:ILE:HD11	31:BG:155:MET:HB2	1.58	0.84
18:AR:66:LEU:HD11	18:AR:70:ILE:HD11	1.59	0.84
25:BA:1290:C:H2'	25:BA:1291:C:H6	1.42	0.84
36:BP:45:LEU:HD23	36:BP:46:LYS:H	1.40	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:93:ARG:NH1	25:DA:888:C:H4'	1.93	0.84
14:CN:26:ARG:HD2	14:CN:43:CYS:SG	2.17	0.84
25:DA:1446:C:C2'	25:DA:1447:G:H5''	2.08	0.84
25:DA:2866:U:C6	25:DA:2868:A:H1'	2.13	0.84
29:DE:199:ARG:HH11	29:DE:199:ARG:HB2	1.43	0.84
48:B1:5:CYS:SG	48:B1:62:VAL:HG23	2.17	0.84
25:DA:651:G:H5''	55:D8:18:ALA:HB3	1.59	0.84
1:CA:1323:C:H1'	9:CI:124:GLN:HE21	1.42	0.84
4:AD:166:LYS:C	28:DD:135:PHE:CZ	2.49	0.84
4:AD:195:ALA:HB1	6:CF:20:ALA:HB2	1.58	0.84
23:CV:57:C:H41	31:DG:83:ARG:NH2	1.72	0.84
13:AM:97:PRO:N	13:AM:110:ARG:CD	2.40	0.84
25:DA:2850:A:H2'	25:DA:2851:A:H8	1.42	0.84
28:BD:223:GLY:O	28:BD:226:MET:HG3	1.77	0.84
52:D5:32:PRO:O	52:D5:33:CYS:HB3	1.76	0.84
46:BZ:163:LEU:HD12	46:BZ:163:LEU:H	1.42	0.84
25:BA:2263:C:H6	25:BA:2263:C:H5'	1.43	0.84
25:BA:2420:C:OP1	55:B8:34:TRP:HA	1.78	0.84
25:DA:335:C:H2'	25:DA:336:C:H6	1.40	0.84
1:AA:854:C:H5''	8:AH:88:LYS:HD3	1.59	0.84
7:AG:50:ILE:HB	7:AG:58:PRO:HG3	1.58	0.84
2:AB:172:ILE:HD12	2:AB:172:ILE:H	1.39	0.84
45:DY:54:LYS:O	45:DY:55:TYR:CD1	2.30	0.84
45:DY:54:LYS:O	45:DY:55:TYR:CG	2.30	0.84
25:DA:2468:G:HO2'	25:DA:2476:A:H8	1.24	0.84
50:B3:8:LEU:HA	50:B3:54:VAL:HG22	1.58	0.84
9:AI:65:VAL:HG21	9:AI:73:GLN:HB3	1.60	0.84
25:BA:2853:C:H2'	25:BA:2854:G:C8	2.12	0.84
31:BG:43:LEU:HB2	31:BG:88:ILE:HG12	1.59	0.84
38:BR:8:ARG:HA	38:BR:8:ARG:HE	1.42	0.84
10:AJ:37:PRO:HA	10:AJ:72:VAL:HG22	1.57	0.84
25:BA:2866:U:C6	25:BA:2868:A:H1'	2.13	0.84
25:BA:2227:A:H5'	28:BD:263:ARG:HH11	1.42	0.84
49:B2:16:LEU:O	49:B2:20:GLU:HB3	1.77	0.84
25:DA:1290:C:H2'	25:DA:1291:C:H6	1.41	0.84
13:AM:108:ARG:NH1	13:AM:111:LYS:CB	2.33	0.84
1:AA:1302:C:H5''	1:AA:1303:C:H5'	1.58	0.84
26:DB:83:G:HO2'	26:DB:84:C:H5'	1.40	0.84
25:DA:1689:A:H62	25:DA:1698:A:H2	1.21	0.84
3:CC:189:ALA:HB3	3:CC:196:LEU:HB2	1.60	0.84
19:AS:63:THR:HG22	19:AS:66:MET:HE2	1.59	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1231:G:H2'	25:BA:1232:G:H8	1.42	0.84
31:BG:2:PRO:CG	51:B4:51:TYR:CE2	2.58	0.84
25:DA:1593:G:H2'	25:DA:1594:G:H5''	1.59	0.84
37:BQ:43:THR:OG1	37:BQ:46:GLN:HG3	1.76	0.84
42:DV:49:THR:CG2	42:DV:50:PRO:CD	2.56	0.84
5:AE:57:LYS:HG2	5:AE:61:TYR:HE2	1.40	0.84
25:DA:2849:U:OP2	40:DT:95:ARG:CD	2.26	0.84
25:DA:1231:G:H2'	25:DA:1232:G:H8	1.42	0.84
6:AF:21:LEU:O	6:AF:24:GLU:HG2	1.77	0.84
20:CT:26:ASN:HB2	20:CT:71:THR:HG23	0.84	0.83
25:BA:2302:G:N2	31:BG:128:ARG:HD2	1.92	0.83
25:BA:2320:A:C2	25:BA:2333:A:N7	2.46	0.83
25:DA:2853:C:H2'	25:DA:2854:G:C8	2.12	0.83
2:AB:204:ASN:HD21	2:AB:207:ALA:H	1.21	0.83
31:BG:60:LEU:O	31:BG:63:ILE:HG12	1.76	0.83
25:BA:2850:A:H2'	25:BA:2851:A:H8	1.42	0.83
25:DA:1464:C:O2'	25:DA:1528:A:H8	1.58	0.83
25:BA:845:G:H21	25:BA:933:A:H61	1.25	0.83
4:AD:189:PRO:HB2	4:AD:194:LEU:HD21	1.58	0.83
25:DA:2502:G:H5''	25:DA:2503:A:H5''	1.60	0.83
23:CV:57:C:N4	31:DG:83:ARG:CZ	2.40	0.83
19:AS:36:ARG:HH12	19:AS:75:ALA:HB3	1.43	0.83
23:CV:53:G:H8	23:CV:53:G:H5''	1.43	0.83
20:AT:100:ILE:N	20:AT:100:ILE:HD12	1.93	0.83
28:BD:24:ILE:CG1	28:BD:25:THR:H	1.91	0.83
38:DR:8:ARG:HE	38:DR:8:ARG:HA	1.42	0.83
1:AA:545:C:H1'	12:AL:15:ARG:HB3	1.59	0.83
14:AN:37:PHE:HZ	14:AN:56:VAL:HG21	1.43	0.83
25:DA:613:G:H8	25:DA:613:G:H5'	1.41	0.83
36:DP:47:ASP:HB3	36:DP:48:PRO:C	1.98	0.83
25:DA:2134:A:C2	25:DA:2159:G:H1'	2.11	0.83
25:DA:395:U:O2'	48:D1:13:ILE:HD13	1.79	0.83
10:AJ:7:LYS:HB2	10:AJ:97:GLU:HB2	1.60	0.83
22:AW:14:A:C6	22:AW:15:G:H1'	2.12	0.83
4:CD:15:GLU:HG2	4:CD:63:LYS:HG3	1.60	0.83
40:DT:104:ASN:N	40:DT:104:ASN:OD1	2.11	0.83
42:BV:46:VAL:HG22	42:BV:47:VAL:H	1.41	0.83
33:BI:81:VAL:HG21	33:BI:142:VAL:HG13	1.59	0.83
10:CJ:4:ILE:HB	10:CJ:74:ILE:HD11	1.60	0.83
1:AA:748:G:H1	1:AA:795:C:HO2'	0.84	0.83
25:DA:1846:G:H5'	25:DA:1847:A:OP2	1.78	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:26:LYS:NZ	28:DD:82:ILE:H	1.75	0.83
20:AT:26:ASN:HA	20:AT:29:LYS:HG2	1.61	0.83
25:BA:2206:G:H21	25:BA:2207:G:H5'	1.41	0.83
25:DA:2537:U:H2'	25:DA:2538:C:H6	1.43	0.83
14:CN:37:PHE:HZ	14:CN:56:VAL:HG21	1.43	0.83
29:BE:52:LEU:HD22	29:BE:76:ARG:HB2	1.57	0.83
25:DA:2347:C:H2'	25:DA:2348:U:H6	1.42	0.83
15:AO:60:VAL:CG1	25:BA:715:G:O4'	2.26	0.83
36:DP:64:LYS:C	36:DP:66:GLY:H	1.82	0.83
1:CA:290:C:H2'	1:CA:291:U:H6	1.39	0.83
25:DA:2100:G:H1	25:DA:2189:U:H3	1.26	0.83
20:CT:72:LEU:HD23	20:CT:73:HIS:N	1.92	0.83
18:CR:86:VAL:O	18:CR:87:ARG:HD3	1.78	0.83
32:DH:17:VAL:CB	32:DH:45:VAL:CG1	2.57	0.83
29:DE:53:PRO:O	29:DE:54:GLN:O	1.95	0.83
25:BA:2302:G:H21	31:BG:128:ARG:CD	1.92	0.83
11:AK:24:SER:HB3	11:AK:27:ASN:O	1.78	0.83
32:DH:25:LYS:HD3	32:DH:25:LYS:H	1.41	0.83
25:BA:2537:U:H2'	25:BA:2538:C:H6	1.43	0.83
25:BA:1024:G:H3'	25:BA:1025:G:H5''	1.60	0.83
29:DE:3:GLY:HA3	29:DE:81:ILE:HG21	1.58	0.83
28:BD:43:ARG:HB3	28:BD:54:ARG:HB2	1.59	0.83
25:DA:2263:C:H6	25:DA:2263:C:H5'	1.43	0.83
26:BB:48:A:H4'	39:BS:95:HIS:HD2	1.42	0.83
5:CE:69:VAL:HB	5:CE:71:LEU:HD21	1.60	0.83
25:BA:2302:G:H21	31:BG:128:ARG:HD2	1.41	0.83
25:BA:71:A:OP2	25:BA:71:A:H8	1.60	0.83
38:DR:4:LEU:HD21	38:DR:8:ARG:HH21	1.43	0.83
31:DG:43:LEU:HB2	31:DG:88:ILE:HG12	1.59	0.83
36:BP:85:LEU:HD23	36:BP:85:LEU:H	1.42	0.83
53:D6:45:LYS:O	53:D6:46:HIS:CG	2.31	0.83
13:AM:10:PRO:HB2	13:AM:18:ALA:HB1	1.60	0.83
23:AV:66:C:H2'	23:AV:67:C:H5'	1.59	0.83
25:BA:17:G:H4'	41:BU:25:TRP:CH2	2.14	0.83
36:DP:85:LEU:HD23	36:DP:85:LEU:H	1.42	0.83
25:BA:1614:A:H62	43:BW:93:ALA:HB2	1.43	0.83
4:AD:162:LEU:HD13	4:AD:181:MET:HG2	1.61	0.83
31:DG:76:SER:CB	31:DG:83:ARG:HB2	2.09	0.83
13:AM:97:PRO:CD	13:AM:110:ARG:HD3	2.09	0.83
22:CW:5:G:C2	22:CW:69:G:C2	2.67	0.83
8:AH:109:ILE:HG12	8:AH:110:ALA:H	1.42	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:15:VAL:HG21	2:AB:209:ARG:HH21	1.44	0.83
25:BA:729:G:O2'	25:BA:763:G:H4'	1.78	0.83
30:DF:53:THR:HG23	30:DF:55:GLY:H	1.44	0.83
18:CR:66:LEU:HD11	18:CR:70:ILE:HD11	1.59	0.83
41:BU:88:ILE:HG13	41:BU:88:ILE:O	1.77	0.82
42:DV:49:THR:CG2	42:DV:50:PRO:HD3	2.06	0.82
32:BH:30:LYS:NZ	32:BH:81:GLU:HG2	1.94	0.82
25:DA:729:G:O2'	25:DA:763:G:H4'	1.78	0.82
25:BA:1846:G:H5'	25:BA:1847:A:OP2	1.78	0.82
11:CK:32:ILE:HD12	11:CK:72:ALA:HB2	1.60	0.82
4:AD:167:GLY:HA3	28:DD:135:PHE:HE2	1.08	0.82
10:AJ:50:ILE:HG12	14:AN:41:ARG:HD3	1.61	0.82
23:CV:53:G:H5''	23:CV:53:G:C8	2.14	0.82
45:DY:28:LYS:HA	45:DY:39:VAL:H	1.42	0.82
36:BP:47:ASP:HB3	36:BP:48:PRO:C	1.98	0.82
25:DA:27:G:HO2'	25:DA:28:A:H8	1.27	0.82
25:BA:2502:G:H5''	25:BA:2503:A:H5''	1.60	0.82
8:CH:12:ARG:HH12	8:CH:27:PRO:HD3	1.44	0.82
1:AA:1479:A:H2	1:AA:1482:G:H1	1.23	0.82
25:BA:2762:G:C2'	25:BA:2763:G:H5''	2.10	0.82
19:CS:10:PHE:O	19:CS:10:PHE:HD2	1.60	0.82
7:AG:50:ILE:HG21	7:AG:58:PRO:HA	1.61	0.82
1:CA:239:U:C6	1:CA:871:G:N2	2.47	0.82
42:BV:76:LYS:HB2	42:BV:81:TYR:HB3	1.61	0.82
25:BA:2584:U:H2'	25:BA:2585:U:H5''	0.84	0.82
28:DD:11:PRO:C	28:DD:13:ARG:H	1.82	0.82
13:CM:10:PRO:HB2	13:CM:18:ALA:HB1	1.60	0.82
25:DA:2762:G:C2'	25:DA:2763:G:H5''	2.10	0.82
15:AO:3:ILE:H	15:AO:3:ILE:HD13	1.41	0.82
39:DS:85:VAL:HG23	39:DS:106:ARG:HG3	1.62	0.82
32:DH:47:GLU:HG2	32:DH:48:GLY:H	1.44	0.82
1:CA:1171:G:H3'	3:CC:3:ASN:ND2	1.94	0.82
26:DB:14:U:OP2	26:DB:71:C:H5'	1.79	0.82
34:DN:73:THR:HG23	34:DN:82:LEU:HD11	1.61	0.82
48:D1:3:LYS:HG3	48:D1:4:VAL:H	1.43	0.82
25:DA:1593:G:C2'	25:DA:1594:G:H5''	2.07	0.82
25:DA:2334:G:C2	39:DS:15:ARG:NH1	2.48	0.82
23:AV:20:G:C2	23:AV:58:A:N3	2.48	0.82
38:BR:11:ASN:O	38:BR:12:ARG:HG3	1.79	0.82
25:BA:2512:C:H4'	29:BE:122:PHE:CE2	2.13	0.82
31:BG:76:SER:CB	31:BG:83:ARG:HB2	2.09	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:53:THR:HG23	30:BF:55:GLY:H	1.44	0.82
13:CM:93:ARG:CG	25:DA:888:C:P	2.68	0.82
13:AM:94:ARG:HH22	25:BA:887:A:H2'	0.67	0.82
25:BA:1157:G:O2'	50:B3:31:LEU:HD12	1.79	0.82
42:DV:46:VAL:HG22	42:DV:47:VAL:H	1.41	0.82
8:CH:109:ILE:HG12	8:CH:110:ALA:H	1.43	0.82
13:AM:13:LYS:HA	13:AM:44:ARG:NH1	1.93	0.82
47:B0:40:GLN:NE2	47:B0:43:THR:HA	1.95	0.82
3:AC:189:ALA:HB3	3:AC:196:LEU:HB2	1.59	0.82
12:AL:53:ARG:HH12	12:AL:92:ASP:HB2	1.45	0.82
22:CW:16:U:C5	22:CW:18:G:H3'	2.14	0.82
1:CA:289:U:H2'	1:CA:290:C:H5'	1.61	0.82
25:BA:1721:G:C6	25:BA:1739:U:H5'	2.15	0.82
1:AA:584:C:H2'	1:AA:585:A:H8	1.45	0.82
25:BA:1593:G:H2'	25:BA:1594:G:H5''	1.59	0.82
12:AL:41:ARG:HH11	12:AL:41:ARG:HB3	1.42	0.82
30:DF:20:LEU:HG	30:DF:21:ALA:H	1.45	0.82
25:DA:292:C:N4	25:DA:348:G:H1	1.78	0.82
32:BH:47:GLU:HG2	32:BH:48:GLY:H	1.44	0.82
25:DA:1721:G:C6	25:DA:1739:U:H5'	2.15	0.82
32:DH:17:VAL:CB	32:DH:45:VAL:HG13	2.10	0.82
25:DA:911:A:C5'	25:DA:912:C:C5'	2.53	0.82
25:BA:272:G:C6	25:BA:421:U:C2	2.68	0.82
13:CM:65:LYS:HG3	13:CM:70:LEU:CB	2.10	0.82
13:CM:70:LEU:C	13:CM:70:LEU:HD23	2.00	0.82
9:CI:63:ILE:HD11	9:CI:81:ILE:HD11	1.60	0.82
25:BA:71:A:H3'	25:BA:71:A:OP2	1.79	0.82
25:BA:27:G:H22	25:BA:512:G:H2'	1.45	0.82
11:CK:24:SER:HB3	11:CK:27:ASN:O	1.79	0.82
26:DB:69:G:C2	26:DB:70:C:C2	2.68	0.82
25:BA:1899:G:N2	25:BA:1902:C:H41	1.77	0.82
12:AL:89:ARG:NH1	12:AL:89:ARG:HB2	1.95	0.82
38:DR:11:ASN:O	38:DR:12:ARG:HG3	1.79	0.82
25:DA:2390:U:H2'	25:DA:2391:G:H5'	1.62	0.82
25:DA:2392:A:OP1	55:D8:32:LEU:CD1	2.28	0.82
23:CV:19:G:H5''	23:CV:19:G:C8	2.14	0.81
29:DE:33:VAL:HG13	29:DE:69:LYS:HE3	1.61	0.81
2:CB:91:PRO:HG3	2:CB:154:LEU:HB2	1.61	0.81
10:CJ:7:LYS:HB2	10:CJ:97:GLU:HB2	1.61	0.81
37:DQ:29:PHE:HB2	37:DQ:105:GLU:OE2	1.80	0.81
40:BT:100:TYR:O	40:BT:102:ILE:HD12	1.79	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:686:G:H5''	54:D7:11:LYS:HE2	1.62	0.81
31:BG:2:PRO:CG	51:B4:51:TYR:CD2	2.63	0.81
45:DY:31:LEU:HB2	45:DY:32:PRO:HA	1.59	0.81
36:BP:64:LYS:C	36:BP:66:GLY:H	1.82	0.81
13:CM:65:LYS:HG3	13:CM:70:LEU:HB2	1.61	0.81
25:DA:1021:A:H3'	25:DA:1021:A:H8	1.46	0.81
25:DA:27:G:N2	25:DA:512:G:H2'	1.95	0.81
3:AC:20:SER:HB2	3:AC:40:ARG:HH22	1.45	0.81
3:CC:52:LEU:HD23	3:CC:52:LEU:H	1.45	0.81
4:AD:167:GLY:N	28:DD:135:PHE:CE2	2.40	0.81
13:AM:108:ARG:NH1	13:AM:111:LYS:HB2	1.93	0.81
25:BA:2390:U:H2'	25:BA:2391:G:H5'	1.62	0.81
36:BP:47:ASP:HB3	36:BP:48:PRO:CA	2.10	0.81
31:BG:114:ILE:CG1	31:BG:140:ILE:HD13	2.09	0.81
25:DA:612:C:H2'	25:DA:613:G:C5'	2.10	0.81
23:AV:18:U:H4'	23:AV:19:G:OP2	1.77	0.81
25:DA:1899:G:N2	25:DA:1902:C:H41	1.77	0.81
26:DB:107:G:C2'	26:DB:108:U:H5'	2.09	0.81
30:DF:132:VAL:HG22	30:DF:133:ASN:N	1.95	0.81
25:BA:1021:A:H8	25:BA:1021:A:H3'	1.46	0.81
32:DH:85:LYS:HD3	32:DH:133:VAL:HB	1.62	0.81
1:AA:250:G:H1'	17:AQ:16:GLN:NE2	1.94	0.81
7:CG:54:THR:OG1	7:CG:56:GLN:HG2	1.80	0.81
48:B1:3:LYS:HG3	48:B1:4:VAL:H	1.43	0.81
10:AJ:7:LYS:HD3	10:AJ:71:LEU:HD13	1.60	0.81
10:CJ:7:LYS:HD3	10:CJ:71:LEU:HD13	1.61	0.81
45:BY:49:VAL:O	45:BY:50:ARG:HB2	1.79	0.81
25:BA:1914:C:H2'	25:BA:1915:U:O4'	1.80	0.81
42:DV:76:LYS:HB2	42:DV:81:TYR:HB3	1.61	0.81
25:DA:1914:C:H2'	25:DA:1915:U:O4'	1.80	0.81
37:BQ:12:GLN:HG2	37:BQ:73:PRO:HD2	1.62	0.81
48:D1:67:ILE:N	48:D1:68:PRO:HD2	1.96	0.81
25:BA:2586:C:C6	25:BA:2586:C:O5'	2.33	0.81
32:DH:30:LYS:NZ	32:DH:81:GLU:HG2	1.94	0.81
28:DD:9:TYR:N	28:DD:9:TYR:CD1	2.49	0.81
47:D0:40:GLN:NE2	47:D0:43:THR:HA	1.95	0.81
38:BR:4:LEU:HD21	38:BR:8:ARG:HH21	1.44	0.81
25:DA:2199:A:H5'	25:DA:2200:C:OP2	1.81	0.81
7:AG:54:THR:OG1	7:AG:56:GLN:HG2	1.81	0.81
1:CA:238:A:H4'	1:CA:239:U:H5''	1.60	0.81
1:CA:1192:U:H4'	1:CA:1193:U:OP1	1.78	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BN:15:LEU:HD13	34:BN:16:ILE:H	1.46	0.81
34:DN:15:LEU:HD13	34:DN:16:ILE:H	1.46	0.81
25:DA:2584:U:H2'	25:DA:2585:U:H5''	0.83	0.81
25:DA:1819:A:OP1	28:DD:158:ALA:CB	2.29	0.81
1:AA:1209:C:H2'	1:AA:1210:A:H8	1.44	0.81
3:AC:16:ARG:HH11	3:AC:16:ARG:CB	1.94	0.81
30:BF:132:VAL:HG22	30:BF:133:ASN:N	1.95	0.81
2:CB:14:GLY:O	2:CB:15:VAL:HG13	1.80	0.81
2:CB:15:VAL:HG21	2:CB:209:ARG:HH21	1.45	0.81
32:BH:85:LYS:HD3	32:BH:133:VAL:HB	1.62	0.81
22:CW:28:G:N2	22:CW:43:C:C2	2.49	0.81
34:BN:131:GLN:HE22	34:BN:134:ARG:HD2	1.44	0.81
34:DN:131:GLN:HE22	34:DN:134:ARG:HD2	1.45	0.81
34:BN:9:VAL:HG12	34:BN:10:GLU:H	1.46	0.81
13:CM:96:LEU:C	13:CM:110:ARG:HD3	2.00	0.81
22:CW:21:A:N6	22:CW:46:G:C4	2.48	0.81
26:DB:91:C:H2'	26:DB:92:C:C6	2.16	0.81
20:CT:41:ILE:HG23	20:CT:84:LEU:HD21	1.62	0.81
25:BA:364:C:H2'	25:BA:365:C:H5''	1.62	0.81
19:CS:5:LEU:HD12	19:CS:10:PHE:HD1	1.45	0.81
25:DA:27:G:H22	25:DA:512:G:H2'	1.45	0.81
16:CP:22:THR:HA	16:CP:33:ILE:HG12	1.63	0.81
25:BA:1639:U:H2'	25:BA:1640:C:H5''	1.62	0.81
51:D4:48:ILE:H	51:D4:48:ILE:HD12	1.46	0.81
41:BU:20:LEU:O	41:BU:20:LEU:HD13	1.81	0.81
25:DA:1024:G:H3'	25:DA:1025:G:H5''	1.60	0.81
22:AW:72:C:O2'	22:AW:73:A:H5'	1.79	0.81
29:BE:33:VAL:HG13	29:BE:69:LYS:HE3	1.61	0.81
31:DG:113:ARG:CA	31:DG:113:ARG:NH1	2.44	0.81
36:DP:47:ASP:HB3	36:DP:48:PRO:CA	2.10	0.81
25:BA:2015:A:H1'	52:B5:2:ALA:HA	1.62	0.81
25:BA:27:G:N2	25:BA:512:G:H2'	1.95	0.81
11:CK:62:GLN:HG3	11:CK:97:ALA:HB2	1.63	0.81
25:BA:2245:U:H5'	25:BA:2246:G:H5'	1.62	0.81
39:BS:85:VAL:HG23	39:BS:106:ARG:HG3	1.62	0.81
13:CM:94:ARG:CD	25:DA:888:C:OP2	2.28	0.81
45:DY:30:VAL:HG22	45:DY:37:VAL:HG12	1.62	0.81
33:BI:88:ILE:HD11	33:BI:123:LEU:HG	1.63	0.81
25:DA:1902:C:H4'	28:DD:244:ARG:HA	1.63	0.81
10:AJ:4:ILE:HB	10:AJ:74:ILE:HD11	1.60	0.81
25:DA:1996:C:H5	35:DO:32:TYR:HH	1.26	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1639:U:C2'	25:DA:1640:C:H5''	2.11	0.81
38:DR:56:LYS:HE2	38:DR:94:TYR:HE2	1.46	0.81
13:CM:94:ARG:HH22	25:DA:887:A:H2'	0.74	0.81
20:CT:100:ILE:HD12	20:CT:100:ILE:N	1.95	0.81
28:DD:31:LYS:HE3	28:DD:94:LEU:HD11	1.63	0.81
45:BY:30:VAL:HG22	45:BY:37:VAL:HG12	1.63	0.81
25:BA:1020:A:N1	25:BA:1141:U:H2'	1.96	0.81
7:CG:60:LYS:HA	7:CG:60:LYS:HZ2	1.45	0.81
46:BZ:102:LEU:HD13	46:BZ:123:ASP:HA	1.63	0.81
48:D1:44:PRO:O	48:D1:46:LEU:HD13	1.81	0.81
48:B1:44:PRO:O	48:B1:46:LEU:HD13	1.80	0.81
29:DE:176:ILE:HG22	29:DE:179:GLU:H	1.45	0.81
1:AA:733:G:N3	15:AO:23:GLY:HA3	1.95	0.81
25:BA:480:A:OP2	45:BY:46:LYS:HE2	1.80	0.81
1:AA:1131:C:H2'	1:AA:1132:U:H6	1.46	0.81
25:DA:2781:A:H5''	25:DA:2782:G:H5'	1.62	0.81
41:DU:20:LEU:O	41:DU:20:LEU:HD13	1.81	0.81
25:BA:1523:U:H2'	25:BA:1524:G:H8	1.46	0.81
25:DA:271(P):C:H2'	25:DA:271(Q):G:H5'	1.63	0.81
25:BA:2476:A:C2'	25:BA:2477:C:H5''	2.08	0.81
22:AW:29:G:H2'	22:AW:30:G:C8	2.16	0.81
7:CG:73:MET:HA	7:CG:91:VAL:HG23	1.63	0.81
25:DA:2645:G:H3'	25:DA:2646:C:C5'	2.10	0.81
7:CG:50:ILE:HG21	7:CG:58:PRO:HA	1.60	0.81
28:DD:44:ASN:HB3	28:DD:49:ILE:HA	1.62	0.81
49:D2:65:ASN:HB3	49:D2:69:ARG:NH2	1.96	0.81
8:CH:60:ARG:HH11	8:CH:60:ARG:HG3	1.46	0.81
25:DA:1523:U:H2'	25:DA:1524:G:H8	1.46	0.81
8:AH:12:ARG:HH12	8:AH:27:PRO:HD3	1.46	0.81
20:AT:33:ILE:HD13	20:AT:62:LEU:HB3	1.62	0.80
30:DF:198:ALA:O	30:DF:201:VAL:HG12	1.81	0.80
25:BA:2850:A:H2'	25:BA:2851:A:C8	2.16	0.80
28:BD:44:ASN:HB3	28:BD:49:ILE:HA	1.62	0.80
25:BA:2392:A:H8	36:BP:60:MET:HB3	1.47	0.80
42:BV:21:ARG:HG2	42:BV:91:TYR:CD2	2.17	0.80
5:CE:69:VAL:CG1	5:CE:71:LEU:CD2	2.59	0.80
35:BO:21:CYS:SG	35:BO:22:ILE:N	2.54	0.80
30:BF:3:GLU:HB2	30:BF:24:LEU:HG	1.63	0.80
30:DF:3:GLU:HB2	30:DF:24:LEU:HG	1.64	0.80
28:BD:11:PRO:C	28:BD:13:ARG:H	1.81	0.80
40:DT:12:SER:HB3	40:DT:57:PHE:CD1	2.16	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:50:GLU:HB3	20:AT:100:ILE:HG12	1.63	0.80
1:CA:262:C:H6	1:CA:262:C:H5'	1.46	0.80
22:AY:39:U:C2	22:AY:40:C:H5	1.99	0.80
38:BR:10:LEU:CD2	38:BR:17:ARG:HD2	2.11	0.80
25:DA:2391:G:H1'	25:DA:2429:G:N2	1.96	0.80
25:DA:2850:A:H2'	25:DA:2851:A:C8	2.16	0.80
20:AT:26:ASN:HB2	20:AT:71:THR:CG2	2.11	0.80
31:BG:76:SER:HB2	31:BG:83:ARG:HB2	1.63	0.80
25:DA:1639:U:H2'	25:DA:1640:C:H5''	1.62	0.80
37:DQ:12:GLN:HG2	37:DQ:73:PRO:HD2	1.62	0.80
1:AA:1487:U:H2'	1:AA:1488:G:C8	2.16	0.80
25:BA:302:C:O2'	25:BA:303:U:H5'	1.81	0.80
30:BF:78:ILE:H	30:BF:78:ILE:HD13	1.46	0.80
25:DA:2516:G:H2'	25:DA:2517:C:C5'	2.03	0.80
26:DB:91:C:O2'	26:DB:92:C:H5'	1.82	0.80
25:DA:2227:A:H5'	28:DD:263:ARG:HH11	1.46	0.80
31:DG:115:ARG:NH1	31:DG:136:ARG:HD3	1.96	0.80
25:DA:322:A:H3'	30:DF:169:ASN:ND2	1.96	0.80
5:CE:76:ILE:CD1	5:CE:142:LEU:HD21	2.03	0.80
23:AV:24:C:H2'	23:AV:25:U:H6	1.45	0.80
48:B1:67:ILE:N	48:B1:68:PRO:HD2	1.96	0.80
10:AJ:45:ARG:HH11	10:AJ:45:ARG:HG3	1.47	0.80
4:AD:197:PRO:N	6:CF:16:GLN:HG3	1.96	0.80
36:BP:58:THR:O	36:BP:61:ARG:HG3	1.81	0.80
5:CE:101:ILE:HD11	5:CE:119:LEU:CD2	2.10	0.80
19:AS:6:LYS:HD2	19:AS:7:LYS:N	1.96	0.80
13:CM:57:ARG:HH22	51:D4:60:GLU:HG3	1.45	0.80
12:CL:28:LYS:O	12:CL:29:GLY:C	2.19	0.80
7:CG:83:ALA:HA	22:CW:37:A:H61	1.45	0.80
22:AW:51:U:H2'	22:AW:52:G:H8	1.47	0.80
21:CU:6:ARG:HE	21:CU:15:ARG:NH2	1.78	0.80
37:BQ:29:PHE:HB2	37:BQ:105:GLU:OE2	1.80	0.80
22:AW:18:G:N1	22:AW:55:U:H1'	1.97	0.80
55:D8:50:LEU:HD12	55:D8:51:ALA:H	1.46	0.80
29:BE:59:VAL:HG22	29:BE:60:ASN:N	1.97	0.80
20:CT:26:ASN:HA	20:CT:29:LYS:HG2	1.61	0.80
17:AQ:67:LYS:HA	17:AQ:70:ARG:NH1	1.97	0.80
25:BA:1639:U:C2'	25:BA:1640:C:H5''	2.11	0.80
19:CS:15:LEU:HD11	19:CS:33:THR:HB	1.64	0.80
22:AY:28:G:H1	22:AY:42:C:H42	1.27	0.80
6:CF:21:LEU:O	6:CF:24:GLU:HG2	1.80	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:113:ALA:HB3	3:CC:114:PRO:HD3	1.63	0.80
29:DE:51:PHE:CD1	29:DE:52:LEU:HD23	2.15	0.80
25:BA:910:A:C5	37:BQ:13:GLN:HG3	2.16	0.80
25:DA:2128:C:P	27:DC:35:ALA:HB1	2.22	0.80
17:AQ:68:ARG:N	17:AQ:70:ARG:NH1	2.28	0.80
1:AA:822:U:O2	1:AA:822:U:C3'	2.30	0.80
31:BG:104:GLU:HG2	51:B4:50:THR:HG21	1.64	0.80
25:DA:1614:A:H62	43:DW:93:ALA:HB2	1.45	0.80
25:BA:481:G:H1'	25:BA:506:G:H21	1.47	0.80
3:CC:34:LEU:HD21	3:CC:38:ARG:CZ	2.11	0.80
5:AE:100:VAL:HG13	5:AE:118:ILE:CG2	2.11	0.80
1:AA:1302:C:H5'	1:AA:1303:C:H5'	1.64	0.80
25:BA:612:C:H2'	25:BA:613:G:C5'	2.10	0.80
29:DE:36:ARG:HH22	29:DE:88:GLY:CA	1.95	0.80
42:DV:21:ARG:HG2	42:DV:91:TYR:CD2	2.17	0.80
10:CJ:4:ILE:HA	10:CJ:100:THR:HG22	1.64	0.80
25:BA:285:C:H2'	25:BA:286:C:O4'	1.81	0.80
25:DA:1221:C:OP1	42:DV:68:LYS:HE3	1.82	0.80
7:AG:146:GLU:HA	7:AG:149:ARG:HB2	1.63	0.80
25:DA:2512:C:H4'	29:DE:122:PHE:CE2	2.17	0.80
28:BD:45:ASN:CG	28:BD:46:GLN:H	1.85	0.80
10:CJ:45:ARG:HG3	10:CJ:45:ARG:HH11	1.47	0.80
45:DY:50:ARG:CZ	45:DY:55:TYR:HE1	1.94	0.80
44:BX:12:VAL:HG23	44:BX:13:LEU:N	1.97	0.80
25:DA:359:A:H2'	25:DA:360:G:C5'	2.10	0.80
25:DA:1771:C:O2'	25:DA:1772:G:H5'	1.82	0.80
25:BA:2483:C:N3	37:BQ:124:LYS:NZ	2.30	0.80
25:BA:359:A:H2'	25:BA:360:G:C5'	2.10	0.80
25:DA:1385:G:OP1	25:DA:1385:G:C4'	2.30	0.80
25:BA:349:G:C2	25:BA:350:U:C2	2.70	0.80
37:DQ:140:ALA:C	46:DZ:53:ILE:HD13	2.01	0.80
15:CO:70:LEU:HD11	15:CO:77:ARG:HG3	1.64	0.80
25:DA:2189:U:C3'	25:DA:2190:G:H5''	2.11	0.80
10:CJ:37:PRO:HA	10:CJ:72:VAL:HG22	1.62	0.80
22:AY:28:G:H22	22:AY:42:C:N4	1.79	0.80
11:AK:29:ILE:HD12	11:AK:43:SER:O	1.81	0.80
17:CQ:59:ILE:HG22	17:CQ:71:PHE:HB3	1.64	0.80
1:AA:209:U:O2'	1:AA:211:G:C6	2.34	0.80
39:DS:83:LYS:HG3	39:DS:105:ALA:HB3	1.64	0.80
29:BE:77:ILE:HG22	29:BE:78:LEU:N	1.97	0.80
25:DA:109:G:O2'	25:DA:110:G:C5'	2.30	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BG:2:PRO:CD	51:B4:51:TYR:CD1	2.64	0.80
25:BA:2391:G:H1'	25:BA:2429:G:N2	1.96	0.80
25:DA:2171:A:C4'	25:DA:2172:U:OP1	2.30	0.80
2:CB:165:VAL:HG23	2:CB:166:ASP:H	1.47	0.80
25:DA:481:G:H1'	25:DA:506:G:H21	1.47	0.80
25:BA:2189:U:H3'	25:BA:2190:G:H5''	1.62	0.80
19:CS:36:ARG:HH12	19:CS:75:ALA:HB3	1.44	0.80
25:BA:1403:C:H5''	25:BA:1471:A:H1'	1.64	0.80
29:DE:39:PRO:HA	29:DE:43:GLY:HA2	1.64	0.80
9:CI:70:LYS:O	9:CI:74:ILE:HG13	1.81	0.80
13:CM:94:ARG:NH2	25:DA:887:A:H3'	1.97	0.79
44:BX:12:VAL:HB	44:BX:17:ALA:CB	2.12	0.79
25:BA:2171:A:O2'	25:BA:2172:U:C5'	2.30	0.79
1:AA:338:U:O3'	1:AA:339:A:H8	1.63	0.79
25:DA:349:G:C2	25:DA:350:U:C2	2.70	0.79
38:DR:47:PHE:O	38:DR:51:LEU:HD12	1.82	0.79
25:DA:1464:C:H4'	25:DA:1528(A):A:H1'	1.64	0.79
25:BA:2189:U:C3'	25:BA:2190:G:H5''	2.11	0.79
29:BE:199:ARG:HB2	29:BE:199:ARG:HH11	1.43	0.79
38:BR:56:LYS:HE2	38:BR:94:TYR:HE2	1.46	0.79
36:DP:18:ARG:HH11	36:DP:18:ARG:HB3	1.46	0.79
25:BA:2781:A:H5''	25:BA:2782:G:H5'	1.63	0.79
3:AC:34:LEU:HD21	3:AC:38:ARG:CZ	2.12	0.79
25:DA:2307:G:N3	25:DA:2307:G:H3'	1.97	0.79
3:CC:43:LEU:O	3:CC:47:LEU:HB3	1.82	0.79
40:DT:29:ARG:NH2	40:DT:30:VAL:HG22	1.96	0.79
40:DT:53:ARG:HH11	40:DT:55:ASN:HB2	1.45	0.79
13:AM:3:ARG:HA	13:AM:9:ILE:HG13	1.64	0.79
9:AI:63:ILE:HD11	9:AI:81:ILE:HD11	1.63	0.79
12:CL:41:ARG:HG2	12:CL:42:THR:N	1.97	0.79
5:CE:70:PRO:HG2	5:CE:142:LEU:CB	2.11	0.79
25:BA:353:G:N3	25:BA:354:G:C8	2.51	0.79
26:BB:13:A:OP2	47:B0:74:ARG:CG	2.30	0.79
25:BA:2307:G:H3'	25:BA:2307:G:N3	1.97	0.79
22:AY:28:G:N2	22:AY:43:C:N3	2.29	0.79
19:AS:15:LEU:HD11	19:AS:33:THR:HB	1.62	0.79
29:DE:59:VAL:HG22	29:DE:60:ASN:N	1.97	0.79
41:BU:91:ASP:C	41:BU:92:ARG:HD3	2.03	0.79
25:DA:1020:A:N1	25:DA:1141:U:H2'	1.96	0.79
25:DA:2302:G:H21	31:DG:128:ARG:HG3	1.45	0.79
25:BA:1652:A:N6	38:BR:11:ASN:ND2	2.28	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:14:GLY:O	2:AB:15:VAL:HG13	1.82	0.79
25:BA:1464:C:O2'	25:BA:1528:A:C8	2.30	0.79
38:BR:10:LEU:HB3	38:BR:17:ARG:NE	1.98	0.79
25:DA:353:G:N3	25:DA:354:G:C8	2.51	0.79
25:BA:747:U:C2	52:B5:2:ALA:N	2.51	0.79
46:DZ:102:LEU:HD13	46:DZ:123:ASP:HA	1.63	0.79
28:BD:172:TYR:CD1	28:BD:186:HIS:HA	2.17	0.79
29:BE:39:PRO:HA	29:BE:43:GLY:HA2	1.64	0.79
22:AW:57:G:H2'	22:AW:58:A:H5'	1.63	0.79
33:DI:48:GLU:O	33:DI:52:ARG:HG2	1.82	0.79
7:CG:146:GLU:HA	7:CG:149:ARG:HB2	1.63	0.79
3:AC:52:LEU:HD23	3:AC:52:LEU:H	1.47	0.79
36:BP:18:ARG:HH11	36:BP:18:ARG:HB3	1.46	0.79
25:DA:302:C:O2'	25:DA:303:U:H5'	1.81	0.79
40:DT:29:ARG:HH21	40:DT:30:VAL:CG2	1.94	0.79
29:DE:77:ILE:HG22	29:DE:78:LEU:N	1.97	0.79
10:CJ:40:LEU:HD23	10:CJ:40:LEU:H	1.47	0.79
29:DE:34:VAL:O	29:DE:35:GLN:HB2	1.82	0.79
33:DI:88:ILE:HD11	33:DI:123:LEU:HG	1.63	0.79
25:DA:285:C:H2'	25:DA:286:C:O4'	1.81	0.79
25:BA:2645:G:H3'	25:BA:2646:C:C5'	2.10	0.79
31:BG:43:LEU:HD23	31:BG:88:ILE:HD11	1.63	0.79
29:BE:176:ILE:HG22	29:BE:179:GLU:H	1.45	0.79
2:AB:131:PRO:HG2	2:AB:134:GLU:HB2	1.65	0.79
20:AT:14:LYS:HA	20:AT:17:ARG:HE	1.47	0.79
20:CT:30:LYS:NZ	20:CT:80:ARG:NE	2.29	0.79
25:BA:911:A:C5'	25:BA:912:C:C5'	2.53	0.79
25:DA:1981:A:C5'	25:DA:1982:C:OP2	2.30	0.79
31:BG:115:ARG:NH1	31:BG:136:ARG:HD3	1.96	0.79
1:AA:259:U:H2'	1:AA:260:G:H5'	1.63	0.79
22:AW:33:U:H2'	22:AW:35:A:OP2	1.82	0.79
41:BU:52:ARG:HD3	41:BU:55:ARG:HE	1.47	0.79
22:AW:67:C:H2'	22:AW:68:C:C6	2.14	0.79
7:AG:73:MET:HA	7:AG:91:VAL:HG23	1.63	0.79
38:DR:10:LEU:CD2	38:DR:17:ARG:HD2	2.12	0.79
28:DD:172:TYR:CD1	28:DD:186:HIS:HA	2.17	0.79
30:BF:198:ALA:O	30:BF:201:VAL:HG12	1.81	0.79
29:DE:60:ASN:OD1	29:DE:62:PRO:HD2	1.82	0.79
25:DA:109:G:C4	25:DA:110:G:C8	2.71	0.79
25:DA:2682:U:O4	25:DA:2728:U:H1'	1.83	0.79
41:DU:91:ASP:C	41:DU:92:ARG:HD3	2.03	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1952:A:C6	35:BO:22:ILE:CD1	2.66	0.79
1:AA:323:C:C2'	1:AA:323:C:O2	2.30	0.79
2:AB:219:VAL:HA	2:AB:222:ILE:CD1	2.12	0.79
39:BS:83:LYS:HG3	39:BS:105:ALA:HB3	1.64	0.79
13:CM:93:ARG:HG2	25:DA:888:C:P	2.23	0.79
31:DG:76:SER:HB2	31:DG:83:ARG:HB2	1.63	0.79
26:DB:85:G:C6	26:DB:93:G:C6	2.71	0.79
13:CM:70:LEU:C	13:CM:70:LEU:CD2	2.51	0.79
28:BD:31:LYS:HE3	28:BD:94:LEU:HD11	1.63	0.79
22:AW:30:G:H2'	22:AW:31:A:C8	2.13	0.79
2:AB:18:GLY:H	2:AB:42:ILE:CG2	1.96	0.79
10:AJ:4:ILE:HA	10:AJ:100:THR:HG22	1.63	0.79
25:DA:2189:U:H3'	25:DA:2190:G:H5''	1.63	0.79
34:DN:47:ALA:HB2	34:DN:112:LEU:HD11	1.64	0.79
43:DW:50:VAL:HG13	43:DW:51:LEU:H	1.48	0.79
5:CE:150:ARG:HA	5:CE:153:LYS:HE2	1.64	0.79
29:BE:34:VAL:O	29:BE:35:GLN:HB2	1.82	0.79
9:AI:104:ARG:HG3	9:AI:106:ALA:N	1.97	0.79
25:BA:1771:C:O2'	25:BA:1772:G:H5'	1.82	0.79
25:DA:242:G:H5''	55:D8:62:LEU:CD1	2.12	0.79
39:BS:30:ARG:HH22	39:BS:62:LYS:HD2	1.46	0.79
22:AW:38:A:C2'	22:AW:39:U:C5'	2.57	0.79
25:DA:1952:A:C2	35:DO:22:ILE:HG13	2.18	0.79
31:DG:43:LEU:HD23	31:DG:88:ILE:HD11	1.63	0.79
25:BA:2199:A:H5'	25:BA:2200:C:OP2	1.81	0.79
4:AD:30:LYS:C	4:AD:32:ALA:H	1.82	0.79
40:BT:109:GLU:HA	40:BT:112:ARG:HD3	1.63	0.79
25:BA:109:G:C4	25:BA:110:G:C8	2.71	0.79
13:CM:61:GLU:HG3	13:CM:66:LEU:HD11	1.65	0.79
2:AB:91:PRO:HG3	2:AB:154:LEU:HB2	1.63	0.79
41:DU:52:ARG:HD3	41:DU:55:ARG:HE	1.46	0.79
5:AE:41:VAL:HG13	5:AE:113:ALA:HA	1.64	0.79
46:BZ:6:LYS:HE2	46:BZ:8:TYR:OH	1.83	0.79
51:B4:44:CYS:SG	51:B4:64:LYS:HB2	2.23	0.79
34:DN:4:TYR:HB2	41:DU:64:ARG:HH22	1.48	0.79
16:AP:22:THR:HA	16:AP:33:ILE:HG12	1.63	0.79
34:DN:9:VAL:HG12	34:DN:10:GLU:H	1.46	0.79
29:BE:36:ARG:HH22	29:BE:88:GLY:CA	1.95	0.79
42:DV:39:LEU:HD13	42:DV:39:LEU:N	1.98	0.79
25:BA:271(Q):G:N3	25:BA:271(R):G:N7	2.30	0.79
25:DA:857:C:H5'	47:D0:77:ARG:HH22	1.47	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:20:LEU:HG	30:BF:21:ALA:H	1.45	0.79
25:BA:292:C:N4	25:BA:348:G:H1	1.78	0.79
25:DA:747:U:C5	52:D5:3:LYS:HB2	2.16	0.79
4:CD:30:LYS:C	4:CD:32:ALA:H	1.82	0.79
19:AS:16:LEU:O	19:AS:20:LEU:HG	1.83	0.79
3:AC:43:LEU:O	3:AC:47:LEU:HB3	1.83	0.79
36:BP:13:ASN:HD22	36:BP:13:ASN:C	1.86	0.79
36:DP:16:ARG:HB2	36:DP:16:ARG:NH1	1.98	0.79
13:CM:94:ARG:HH22	25:DA:887:A:C2'	1.67	0.78
4:AD:195:ALA:HB2	6:CF:20:ALA:HB1	1.65	0.78
29:BE:60:ASN:OD1	29:BE:62:PRO:HD2	1.82	0.78
13:AM:113:PRO:O	13:AM:115:LYS:HE2	1.83	0.78
14:AN:26:ARG:NH2	14:AN:47:LEU:HD21	1.97	0.78
25:BA:2171:A:C4'	25:BA:2172:U:OP1	2.30	0.78
25:DA:2171:A:O2'	25:DA:2172:U:C5'	2.30	0.78
31:BG:110:ALA:C	31:BG:112:PRO:HD2	2.03	0.78
41:DU:92:ARG:HD2	42:DV:11:GLN:CD	2.03	0.78
33:DI:79:ILE:CG2	33:DI:81:VAL:HG23	2.13	0.78
25:BA:2682:U:O4	25:BA:2728:U:H1'	1.83	0.78
31:BG:104:GLU:OE2	51:B4:50:THR:CG2	2.31	0.78
25:DA:2015:A:C1'	52:D5:2:ALA:HA	2.12	0.78
34:BN:73:THR:HG23	34:BN:82:LEU:HD11	1.61	0.78
8:AH:84:ARG:HG3	8:AH:85:ARG:N	1.97	0.78
3:CC:20:SER:HB2	3:CC:40:ARG:HH22	1.47	0.78
34:BN:4:TYR:HB2	41:BU:64:ARG:HH22	1.48	0.78
22:CY:41:C:H2'	22:CY:42:C:H6	1.48	0.78
25:DA:2586:C:O5'	25:DA:2586:C:C6	2.33	0.78
25:BA:2172:U:C1'	25:BA:2173:A:OP1	2.30	0.78
3:AC:73:PRO:O	3:AC:76:VAL:HG22	1.83	0.78
42:BV:25:LEU:N	42:BV:92:THR:HG21	1.98	0.78
13:CM:3:ARG:HB2	51:D4:60:GLU:HG2	1.63	0.78
36:DP:64:LYS:HB3	55:D8:25:MET:CG	2.12	0.78
45:BY:27:VAL:HA	45:BY:28:LYS:HZ1	1.45	0.78
25:DA:364:C:H2'	25:DA:365:C:H5''	1.62	0.78
38:DR:56:LYS:HE2	38:DR:94:TYR:CE2	2.17	0.78
38:BR:56:LYS:HE2	38:BR:94:TYR:CE2	2.17	0.78
35:DO:34:THR:OG1	35:DO:35:VAL:N	2.16	0.78
43:DW:65:LEU:HD22	43:DW:68:ARG:H	1.49	0.78
23:AV:1:C:H5'	23:AV:2:G:OP2	1.84	0.78
36:BP:16:ARG:HB2	36:BP:16:ARG:NH1	1.98	0.78
23:CV:57:C:H42	31:DG:83:ARG:NH2	1.75	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:41:MET:HG3	32:DH:53:GLU:O	1.84	0.78
25:DA:1819:A:H4'	25:DA:1820:U:O5'	1.81	0.78
40:DT:55:ASN:C	40:DT:59:THR:HG22	2.04	0.78
3:AC:79:ARG:NH1	11:CK:99:GLN:HB2	1.94	0.78
45:BY:67:LEU:O	45:BY:67:LEU:HD12	1.81	0.78
13:AM:70:LEU:HD23	13:AM:70:LEU:C	2.03	0.78
17:AQ:68:ARG:N	17:AQ:70:ARG:HH11	1.78	0.78
9:CI:28:VAL:HA	9:CI:63:ILE:O	1.83	0.78
42:DV:25:LEU:N	42:DV:92:THR:HG21	1.98	0.78
12:CL:89:ARG:HB2	12:CL:89:ARG:NH1	1.98	0.78
22:AY:38:A:H2'	22:AY:38:A:N3	1.97	0.78
5:CE:78:HIS:HD2	8:CH:104:ARG:CZ	1.96	0.78
22:AW:18:G:H1	22:AW:55:U:H1'	1.47	0.78
25:DA:2290:G:H8	25:DA:2290:G:H5'	1.48	0.78
13:CM:88:ARG:CG	13:CM:98:VAL:CG1	2.60	0.78
25:BA:2801(A):A:C4'	25:BA:2802:G:H5'	2.12	0.78
25:DA:2300:G:H22	25:DA:2317:C:H1'	1.48	0.78
19:CS:29:ARG:O	19:CS:31:ILE:HG22	1.83	0.78
25:DA:272(J):C:H2'	25:DA:272(J):C:O2	1.83	0.78
19:AS:11:VAL:HG23	19:AS:38:SER:HB2	1.65	0.78
22:CW:67:C:H2'	22:CW:68:C:C6	2.19	0.78
25:BA:272:G:N2	25:BA:421:U:O4	2.15	0.78
33:DI:88:ILE:HD11	33:DI:123:LEU:H	1.49	0.78
38:DR:10:LEU:HB3	38:DR:17:ARG:NE	1.97	0.78
9:AI:53:VAL:HG12	9:AI:92:TYR:CD2	2.18	0.78
1:CA:6:G:H4'	1:CA:293:A:H4'	1.63	0.78
28:BD:76:PRO:HG2	28:BD:98:VAL:HG21	1.66	0.78
25:BA:2845:G:O2'	25:BA:2846:G:H5'	1.84	0.78
36:BP:101:VAL:HB	36:BP:107:LYS:HA	1.65	0.78
20:CT:14:LYS:HA	20:CT:17:ARG:HE	1.47	0.78
13:AM:93:ARG:HG3	25:BA:888:C:P	2.24	0.78
41:BU:92:ARG:HD2	42:BV:11:GLN:CD	2.03	0.78
25:BA:857:C:H2'	25:BA:858:U:H5'	1.66	0.78
33:BI:79:ILE:CG2	33:BI:81:VAL:HG23	2.13	0.78
25:DA:2863:C:H2'	25:DA:2864:G:H5''	1.66	0.78
38:BR:47:PHE:O	38:BR:51:LEU:HD12	1.82	0.78
29:BE:81:ILE:O	29:BE:81:ILE:HG22	1.83	0.78
25:DA:1464:C:HO2'	25:DA:1528:A:H8	0.80	0.78
29:DE:4:ILE:HG12	29:DE:28:ALA:HB1	1.66	0.78
25:BA:2290:G:H5'	25:BA:2290:G:H8	1.48	0.78
25:BA:14:A:N6	25:BA:15:G:C2	2.52	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BW:65:LEU:HD22	43:BW:68:ARG:H	1.48	0.78
23:AV:4:G:C2	23:AV:5:G:C4	2.72	0.78
26:DB:83:G:O2'	26:DB:84:C:C5'	2.30	0.78
25:DA:2347:C:H2'	25:DA:2348:U:C6	2.19	0.78
3:CC:15:THR:HG21	3:CC:181:ASN:HA	1.65	0.78
42:BV:19:LYS:NZ	42:BV:20:LEU:H	1.82	0.78
23:AV:19:G:N2	23:AV:58:A:H2'	1.98	0.78
25:BA:389:G:N1	36:BP:71:VAL:HG12	1.98	0.78
15:CO:26:GLU:OE2	15:CO:77:ARG:HD2	1.84	0.78
25:DA:1464:C:O2'	25:DA:1528:A:C8	2.34	0.78
19:CS:16:LEU:O	19:CS:20:LEU:HG	1.84	0.78
39:DS:83:LYS:CG	39:DS:105:ALA:HB3	2.14	0.78
25:DA:1403:C:H5''	25:DA:1471:A:H1'	1.64	0.78
25:DA:2245:U:H5'	25:DA:2246:G:H5'	1.62	0.78
17:AQ:59:ILE:HG22	17:AQ:71:PHE:HB3	1.64	0.78
32:DH:17:VAL:HG21	32:DH:45:VAL:CG1	2.13	0.78
25:DA:2516:G:O2'	25:DA:2517:C:H5'	1.84	0.78
20:CT:49:ALA:O	20:CT:52:ALA:HB3	1.83	0.78
14:AN:26:ARG:HG3	14:AN:27:CYS:N	1.97	0.78
25:DA:614(C):A:H4'	25:DA:615:G:OP1	1.82	0.78
25:BA:614(C):A:H4'	25:BA:615:G:OP1	1.82	0.78
28:DD:24:ILE:CG1	28:DD:25:THR:H	1.91	0.78
29:DE:132:HIS:CD2	29:DE:135:HIS:NE2	2.51	0.78
28:DD:172:TYR:HD1	28:DD:186:HIS:HA	1.48	0.78
25:BA:2199:A:H3'	25:BA:2200:C:H6	1.49	0.78
25:DA:1290:C:H2'	25:DA:1291:C:C6	2.19	0.78
36:DP:18:ARG:HB3	36:DP:18:ARG:NH1	1.99	0.78
34:BN:47:ALA:HB2	34:BN:112:LEU:HD11	1.64	0.78
25:BA:322:A:H3'	30:BF:169:ASN:ND2	1.99	0.78
1:AA:217:U:H2'	1:AA:218:U:C6	2.18	0.78
9:AI:70:LYS:O	9:AI:74:ILE:HG13	1.82	0.78
23:CV:57:C:O2	31:DG:78:SER:HB2	1.84	0.78
13:AM:93:ARG:CG	25:BA:888:C:P	2.72	0.78
4:AD:20:TYR:CZ	6:CF:15:ASP:HB3	2.18	0.78
10:CJ:50:ILE:HD13	10:CJ:50:ILE:N	1.98	0.78
42:DV:29:PRO:O	42:DV:61:VAL:HG22	1.83	0.78
34:DN:125:GLY:HA3	34:DN:126:PRO:O	1.84	0.78
33:DI:101:LEU:HB3	33:DI:109:ILE:HD11	1.65	0.78
30:BF:2:LYS:N	30:BF:2:LYS:HD3	1.98	0.78
31:DG:31:VAL:HG22	31:DG:32:PRO:HD2	1.66	0.78
29:BE:11:MET:N	40:BT:8:LYS:HZ2	1.82	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:1:MET:HE3	29:BE:83:ASP:HB2	1.65	0.78
25:DA:2537:U:H2'	25:DA:2538:C:C6	2.19	0.78
25:BA:2537:U:H2'	25:BA:2538:C:C6	2.19	0.78
16:CP:8:ARG:NH2	16:CP:15:PRO:HG3	1.98	0.78
16:CP:50:LYS:HD3	16:CP:51:VAL:N	1.98	0.78
25:DA:1278:A:H5''	38:DR:36:THR:HG22	1.65	0.78
35:DO:28:SER:OG	35:DO:29:ASN:N	2.12	0.78
11:CK:48:ILE:HD11	11:CK:64:ALA:HA	1.66	0.78
23:CV:57:C:C4	31:DG:83:ARG:NH2	2.52	0.77
25:BA:1819:A:H1'	25:BA:1821:A:C5	2.19	0.77
36:BP:47:ASP:HB3	36:BP:48:PRO:O	1.84	0.77
25:DA:2172:U:C1'	25:DA:2173:A:OP1	2.30	0.77
31:BG:113:ARG:NH1	31:BG:113:ARG:CG	2.38	0.77
9:AI:28:VAL:HA	9:AI:63:ILE:O	1.85	0.77
3:AC:15:THR:HG21	3:AC:181:ASN:HA	1.66	0.77
36:DP:7:ARG:HA	36:DP:7:ARG:NE	1.99	0.77
25:BA:1396:U:C2'	25:BA:1396:U:O2	2.32	0.77
2:AB:165:VAL:HG23	2:AB:166:ASP:H	1.48	0.77
25:BA:2863:C:H2'	25:BA:2864:G:H5''	1.66	0.77
26:DB:13:A:H2'	26:DB:70:C:O2'	1.83	0.77
34:BN:120:LEU:CD1	34:BN:122:VAL:HG23	2.14	0.77
39:BS:24:LEU:HB3	39:BS:85:VAL:HG12	1.66	0.77
29:DE:116:VAL:O	29:DE:117:MET:HB3	1.83	0.77
43:BW:50:VAL:HG13	43:BW:51:LEU:H	1.48	0.77
11:AK:124:LYS:HD2	11:AK:125:PHE:HE1	1.49	0.77
25:BA:863:A:O2'	25:BA:864:G:H5'	1.84	0.77
25:BA:645:C:H2'	25:BA:645:C:O2	1.84	0.77
40:DT:109:GLU:HA	40:DT:112:ARG:HD3	1.66	0.77
25:DA:863:A:O2'	25:DA:864:G:H5'	1.83	0.77
25:BA:2075:U:C4	25:BA:2238:G:C5	2.72	0.77
1:AA:956:C:H3'	1:AA:957:C:H5''	1.66	0.77
12:CL:24:VAL:HG13	12:CL:98:TYR:CE2	2.19	0.77
46:DZ:6:LYS:HE2	46:DZ:8:TYR:OH	1.83	0.77
25:BA:2681:C:H4'	25:BA:2682:U:OP1	1.82	0.77
25:DA:2778:A:H4'	25:DA:2779:U:OP2	1.82	0.77
25:BA:1523:U:H2'	25:BA:1524:G:C8	2.19	0.77
11:AK:62:GLN:HG3	11:AK:97:ALA:HB2	1.65	0.77
1:CA:1361:G:O6	7:CG:2:ALA:N	2.17	0.77
25:DA:6:A:O2'	34:DN:130:HIS:HB3	1.84	0.77
25:BA:2583:G:C2'	25:BA:2584:U:H5'	2.14	0.77
31:DG:76:SER:HB3	31:DG:84:LYS:N	1.99	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DY:54:LYS:CE	45:DY:55:TYR:HE2	1.96	0.77
41:BU:91:ASP:OD2	41:BU:96:ALA:HB2	1.85	0.77
31:BG:2:PRO:HD2	51:B4:51:TYR:CD1	2.20	0.77
13:AM:65:LYS:HD2	13:AM:69:GLU:HG3	1.66	0.77
12:AL:41:ARG:HG2	12:AL:42:THR:N	1.98	0.77
40:DT:89:VAL:HG21	40:DT:91:ARG:NE	1.99	0.77
23:AV:66:C:H2'	23:AV:67:C:C5'	2.14	0.77
30:DF:2:LYS:HD3	30:DF:2:LYS:N	1.98	0.77
28:BD:28:GLU:N	28:BD:29:PRO:HD2	1.99	0.77
33:DI:8:PRO:HD3	33:DI:15:VAL:HG12	1.67	0.77
25:BA:2848:G:OP2	40:BT:97:ALA:CB	2.32	0.77
28:DD:49:ILE:HD11	28:DD:52:ARG:HA	1.66	0.77
22:AW:15:G:N2	22:AW:59:U:H1'	1.98	0.77
36:BP:84:ASN:HA	36:BP:115:LEU:O	1.84	0.77
5:AE:150:ARG:HA	5:AE:153:LYS:HE2	1.65	0.77
28:DD:155:LEU:HD23	28:DD:177:LEU:CD2	2.15	0.77
25:DA:2305:A:H5''	31:DG:134:GLY:HA3	1.67	0.77
31:BG:113:ARG:NH1	31:BG:113:ARG:HG2	1.85	0.77
13:CM:3:ARG:HA	13:CM:9:ILE:HG13	1.65	0.77
25:DA:857:C:H2'	25:DA:858:U:H5'	1.66	0.77
34:BN:125:GLY:HA3	34:BN:126:PRO:O	1.84	0.77
32:DH:12:PRO:HG2	32:DH:49:VAL:HA	1.65	0.77
33:BI:88:ILE:HD11	33:BI:123:LEU:H	1.48	0.77
45:BY:10:GLY:HA2	45:BY:27:VAL:HG13	1.67	0.77
20:CT:84:LEU:HD13	20:CT:84:LEU:O	1.84	0.77
36:DP:84:ASN:HA	36:DP:115:LEU:O	1.84	0.77
31:BG:76:SER:HB3	31:BG:84:LYS:N	1.99	0.77
36:BP:18:ARG:HB3	36:BP:18:ARG:NH1	1.99	0.77
28:DD:76:PRO:HG2	28:DD:98:VAL:HG21	1.65	0.77
28:DD:210:GLY:O	28:DD:211:ARG:HB3	1.85	0.77
3:AC:68:VAL:HG12	3:AC:70:VAL:HG23	1.67	0.77
32:DH:17:VAL:HG12	32:DH:45:VAL:CG2	2.07	0.77
25:BA:103:A:C2'	25:BA:104:U:C5'	2.58	0.77
25:DA:2681:C:H4'	25:DA:2682:U:OP1	1.83	0.77
40:DT:56:GLY:O	40:DT:59:THR:CG2	2.30	0.77
55:B8:50:LEU:HD12	55:B8:51:ALA:H	1.46	0.77
25:DA:2701:C:C3'	25:DA:2702:U:H5''	2.08	0.77
25:BA:271(Q):G:C2	25:BA:271(R):G:C5	2.72	0.77
1:CA:916:G:H5''	7:CG:102:ARG:NH2	1.99	0.77
15:CO:17:ARG:HG3	15:CO:17:ARG:HH11	1.49	0.77
25:BA:395:U:O2'	48:B1:13:ILE:HD13	1.83	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2778:A:H4'	25:BA:2779:U:OP2	1.82	0.77
9:AI:26:VAL:HG13	9:AI:61:ALA:HB3	1.67	0.77
51:D4:44:CYS:SG	51:D4:64:LYS:HB2	2.23	0.77
51:B4:48:ILE:H	51:B4:48:ILE:HD12	1.46	0.77
29:DE:52:LEU:HG	29:DE:76:ARG:HB2	1.65	0.77
44:DX:12:VAL:HG23	44:DX:13:LEU:N	1.97	0.77
12:CL:28:LYS:HG3	12:CL:33:ARG:HH22	1.50	0.77
12:CL:27:LEU:HD11	12:CL:64:TYR:CZ	2.20	0.77
25:DA:631:A:OP1	36:DP:64:LYS:HE2	1.83	0.77
28:BD:172:TYR:HD1	28:BD:186:HIS:HA	1.48	0.77
25:BA:379:G:N7	25:BA:380:U:C5	2.53	0.77
29:DE:81:ILE:O	29:DE:81:ILE:HG22	1.83	0.77
28:BD:49:ILE:HD11	28:BD:52:ARG:HA	1.67	0.77
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	1.65	0.77
46:DZ:158:PRO:HB2	46:DZ:159:PRO:CD	2.15	0.77
37:DQ:18:LYS:NZ	37:DQ:18:LYS:HB3	1.98	0.77
55:B8:52:LYS:N	55:B8:53:PRO:HD2	2.00	0.77
25:BA:2476:A:H2'	25:BA:2477:C:C5'	2.12	0.77
41:DU:91:ASP:OD2	41:DU:96:ALA:HB2	1.85	0.77
25:DA:2109:U:H6	25:DA:2109:U:O5'	1.66	0.77
1:CA:1110:C:O2'	1:CA:1128:A:N1	2.17	0.77
1:CA:1425:G:H3'	1:CA:1426:A:H5''	1.66	0.77
27:DC:41:VAL:HA	27:DC:213:TYR:HA	1.67	0.77
25:BA:1187:G:H5''	42:BV:81:TYR:CE2	2.20	0.77
34:DN:120:LEU:CD1	34:DN:122:VAL:HG23	2.14	0.77
31:DG:171:ALA:O	31:DG:175:LEU:HD13	1.85	0.77
9:CI:4:TYR:HB2	9:CI:19:LEU:HB2	1.67	0.77
23:CV:57:C:O2	23:CV:57:C:H2'	1.85	0.77
25:BA:2516:G:H2'	25:BA:2517:C:C5'	2.03	0.77
14:AN:26:ARG:HD2	14:AN:43:CYS:SG	2.25	0.77
19:AS:41:VAL:HB	19:AS:44:MET:CG	2.15	0.77
25:DA:2468:G:H5'	37:DQ:120:ILE:HD12	1.65	0.77
25:BA:2347:C:H2'	25:BA:2348:U:C6	2.19	0.77
3:AC:14:ILE:HG12	3:AC:15:THR:N	1.97	0.77
39:BS:49:VAL:HG12	39:BS:50:SER:H	1.49	0.77
33:BI:101:LEU:HB3	33:BI:109:ILE:HD11	1.65	0.77
33:BI:92:VAL:HG11	33:BI:120:ILE:CD1	2.15	0.77
29:BE:4:ILE:HG12	29:BE:28:ALA:HB1	1.66	0.77
25:BA:2227:A:H5'	28:BD:263:ARG:NH1	1.99	0.77
39:DS:24:LEU:HB3	39:DS:85:VAL:HG12	1.66	0.77
1:CA:402:G:H1	1:CA:430:C:H42	1.32	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:14:A:N6	25:DA:15:G:C2	2.52	0.77
37:DQ:81:VAL:HG23	47:D0:7:LEU:HD21	1.66	0.77
6:AF:69:GLU:O	6:AF:72:VAL:HG12	1.84	0.77
4:AD:12:CYS:SG	59:AD:801:ZN:ZN	1.72	0.77
23:AV:4:G:N3	23:AV:5:G:C8	2.53	0.77
25:DA:2476:A:H2'	25:DA:2477:C:C5'	2.12	0.77
25:BA:2701:C:C3'	25:BA:2702:U:H5''	2.08	0.77
25:DA:2171:A:O2'	25:DA:2172:U:H5'	1.85	0.77
13:AM:70:LEU:CD2	13:AM:70:LEU:C	2.53	0.77
31:BG:106:LEU:HA	31:BG:110:ALA:HB3	1.65	0.77
31:BG:161:THR:HG22	31:BG:163:ALA:N	2.00	0.77
28:DD:28:GLU:N	28:DD:29:PRO:HD2	1.99	0.77
46:BZ:158:PRO:HB2	46:BZ:159:PRO:CD	2.15	0.77
2:AB:70:PHE:O	2:AB:93:VAL:HG22	1.85	0.77
36:BP:30:THR:HG22	36:BP:31:ALA:H	1.49	0.77
11:CK:124:LYS:HD2	11:CK:125:PHE:HE1	1.49	0.77
4:AD:167:GLY:HA3	28:DD:135:PHE:CD2	2.14	0.77
25:DA:2586:C:C2'	25:DA:2587:A:H5'	2.14	0.77
32:DH:17:VAL:O	32:DH:45:VAL:HG22	1.83	0.77
10:AJ:50:ILE:N	10:AJ:50:ILE:HD13	1.99	0.77
25:BA:2171:A:O2'	25:BA:2172:U:H5'	1.85	0.77
5:CE:12:LEU:HD22	5:CE:13:ILE:H	1.47	0.77
36:DP:61:ARG:HH11	55:D8:13:ARG:CD	1.97	0.77
43:DW:60:ASN:HD22	43:DW:60:ASN:N	1.83	0.77
11:CK:29:ILE:HD12	11:CK:43:SER:O	1.84	0.77
12:CL:53:ARG:HH12	12:CL:92:ASP:HB2	1.49	0.77
4:AD:15:GLU:HG2	4:AD:63:LYS:HG3	1.65	0.76
32:DH:17:VAL:HB	32:DH:45:VAL:CB	2.15	0.76
50:D3:8:LEU:CD1	50:D3:31:LEU:HD23	2.15	0.76
19:AS:6:LYS:HD3	19:AS:7:LYS:CE	2.11	0.76
55:D8:6:THR:HG22	55:D8:63:PRO:HD3	1.67	0.76
7:CG:113:GLU:CB	7:CG:119:ARG:HG2	2.13	0.76
31:DG:106:LEU:HA	31:DG:110:ALA:HB3	1.65	0.76
25:DA:322:A:H3'	30:DF:169:ASN:HD21	1.47	0.76
25:DA:379:G:N7	25:DA:380:U:C5	2.53	0.76
25:BA:363(E):U:H2'	25:BA:363(F):A:H1'	1.67	0.76
25:BA:1722:A:O2'	25:BA:1739:U:H5''	1.84	0.76
39:BS:83:LYS:CG	39:BS:105:ALA:HB3	2.14	0.76
53:B6:36:LEU:HD13	53:B6:50:ARG:NH1	2.00	0.76
28:DD:45:ASN:CG	28:DD:46:GLN:H	1.85	0.76
25:DA:2583:G:C2'	25:DA:2584:U:H5'	2.14	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DT:27:THR:OG1	40:DT:28:VAL:N	2.15	0.76
25:DA:2801(A):A:C4'	25:DA:2802:G:H5'	2.12	0.76
50:B3:8:LEU:CD1	50:B3:31:LEU:HD23	2.15	0.76
23:AV:20:G:N2	23:AV:58:A:H1'	1.99	0.76
15:AO:56:LEU:HD21	25:BA:715:G:C2	2.21	0.76
25:BA:1290:C:H2'	25:BA:1291:C:C6	2.19	0.76
1:CA:238:A:H4'	1:CA:239:U:C5'	2.16	0.76
29:BE:116:VAL:O	29:BE:117:MET:HB3	1.83	0.76
25:DA:1114:G:H3'	25:DA:1115:G:H5''	1.68	0.76
55:B8:46:ARG:O	55:B8:47:LYS:HB3	1.86	0.76
40:BT:35:LYS:HE2	40:BT:41:ARG:HH21	1.50	0.76
4:CD:196:LEU:HD12	4:CD:196:LEU:H	1.50	0.76
30:DF:78:ILE:H	30:DF:78:ILE:HD13	1.46	0.76
37:DQ:16:ARG:HG2	37:DQ:17:LEU:H	1.50	0.76
25:DA:614:U:O2	25:DA:614:U:H5''	1.86	0.76
14:CN:26:ARG:HG3	14:CN:27:CYS:N	1.99	0.76
14:CN:26:ARG:NH2	14:CN:47:LEU:HD21	2.00	0.76
42:DV:19:LYS:NZ	42:DV:20:LEU:H	1.82	0.76
31:BG:44:GLY:HA2	31:BG:88:ILE:HG21	1.67	0.76
31:DG:105:LYS:HE2	51:D4:52:SER:HB3	1.67	0.76
29:DE:77:ILE:CG2	29:DE:78:LEU:H	1.96	0.76
7:CG:113:GLU:O	7:CG:119:ARG:HD3	1.85	0.76
25:BA:271(S):G:H2'	25:BA:271(T):C:C5'	2.12	0.76
5:CE:53:LEU:HD12	5:CE:53:LEU:H	1.49	0.76
53:B6:41:PRO:HD2	53:B6:46:HIS:N	2.00	0.76
36:BP:7:ARG:HA	36:BP:7:ARG:NE	1.99	0.76
9:AI:95:LYS:HD3	9:AI:96:LEU:N	2.01	0.76
32:BH:41:MET:CE	32:BH:55:PRO:HD2	2.16	0.76
5:AE:12:LEU:HD22	5:AE:13:ILE:H	1.50	0.76
25:DA:1190:G:H5''	36:DP:35:HIS:HA	1.67	0.76
33:BI:8:PRO:HD3	33:BI:15:VAL:HG12	1.67	0.76
25:BA:27:G:O2'	25:BA:28:A:H8	1.69	0.76
25:DA:1523:U:H2'	25:DA:1524:G:C8	2.19	0.76
9:CI:26:VAL:HG13	9:CI:61:ALA:HB3	1.67	0.76
37:BQ:39:PRO:HB3	37:BQ:99:PRO:HD3	1.67	0.76
3:CC:73:PRO:O	3:CC:76:VAL:HG22	1.83	0.76
2:CB:131:PRO:HG2	2:CB:134:GLU:HB2	1.66	0.76
13:CM:94:ARG:HH21	25:DA:887:A:C3'	1.96	0.76
25:BA:109:G:O2'	25:BA:110:G:C5'	2.30	0.76
1:AA:955:A:O2'	1:AA:1303:C:N3	2.19	0.76
1:AA:960:A:H2	1:AA:961:C:C6	2.04	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BY:17:SER:CB	45:BY:71:LYS:CD	2.61	0.76
41:DU:92:ARG:HG2	41:DU:92:ARG:HH11	1.50	0.76
31:DG:111:LEU:HB3	31:DG:117:PHE:HE2	1.51	0.76
36:DP:63:PRO:HB3	55:D8:13:ARG:CB	2.15	0.76
53:D6:15:GLU:O	53:D6:15:GLU:HG2	1.86	0.76
40:BT:89:VAL:HG22	40:BT:91:ARG:HG3	1.67	0.76
47:D0:41:ARG:CD	47:D0:41:ARG:H	1.99	0.76
7:AG:47:CYS:HA	7:AG:50:ILE:HG12	1.67	0.76
25:DA:1722:A:O2'	25:DA:1739:U:H5''	1.84	0.76
51:D4:46:ASN:HD22	51:D4:47:VAL:N	1.84	0.76
36:DP:30:THR:HG22	36:DP:31:ALA:H	1.50	0.76
2:CB:116:GLU:HA	2:CB:119:GLU:HB2	1.67	0.76
26:DB:52:A:C8	39:DS:33:LYS:HE3	2.21	0.76
42:BV:29:PRO:O	42:BV:61:VAL:HG22	1.84	0.76
25:DA:2873:A:N3	38:DR:6:SER:HB2	2.01	0.76
36:DP:71:VAL:HG13	36:DP:72:PRO:CD	2.16	0.76
2:CB:219:VAL:HA	2:CB:222:ILE:CD1	2.15	0.76
33:DI:52:ARG:O	33:DI:55:ALA:HB3	1.85	0.76
25:DA:2834:G:H5'	25:DA:2835:A:OP2	1.85	0.76
56:D9:9:ARG:NH1	56:D9:9:ARG:HB3	2.00	0.76
4:AD:33:MET:HE2	4:AD:37:PRO:HA	1.67	0.76
41:BU:92:ARG:HG2	41:BU:92:ARG:HH11	1.50	0.76
42:BV:39:LEU:CD1	42:BV:50:PRO:O	2.34	0.76
22:CW:18:G:H1	22:CW:55:U:H1'	1.49	0.76
25:DA:307:G:H8	25:DA:307:G:O5'	1.69	0.76
42:DV:52:VAL:HG13	42:DV:55:ALA:HB3	1.68	0.76
22:AW:38:A:C3'	22:AW:39:U:C5'	2.63	0.76
33:DI:92:VAL:HG11	33:DI:120:ILE:CD1	2.15	0.76
25:DA:1952:A:C6	35:DO:22:ILE:CD1	2.68	0.76
31:DG:161:THR:HG22	31:DG:163:ALA:N	2.01	0.76
30:BF:177:ALA:HB1	30:BF:178:PRO:HD2	1.67	0.76
36:DP:101:VAL:HB	36:DP:107:LYS:HA	1.65	0.76
25:DA:1986:A:C3'	25:DA:1987:G:H5''	2.16	0.76
25:DA:521:G:H2'	25:DA:522:G:C8	2.21	0.76
51:B4:46:ASN:HD22	51:B4:47:VAL:N	1.84	0.76
2:CB:75:LYS:HG2	2:CB:78:GLN:NE2	2.01	0.76
25:BA:2515:C:O2'	25:BA:2516:G:C5'	2.32	0.76
25:DA:2845:G:O2'	25:DA:2846:G:H5'	1.84	0.76
55:B8:6:THR:HG22	55:B8:63:PRO:HD3	1.67	0.76
49:B2:45:SER:O	49:B2:46:GLN:NE2	2.19	0.76
4:AD:49:ARG:HD3	4:AD:50:ARG:N	2.01	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:471:A:C2'	25:BA:472:A:H5'	2.16	0.76
37:BQ:110:THR:HG23	37:BQ:113:GLN:OE1	1.86	0.76
43:BW:60:ASN:N	43:BW:60:ASN:HD22	1.83	0.76
29:BE:181:LEU:HD21	40:BT:7:ILE:CG2	2.16	0.76
35:BO:64:ARG:HB2	35:BO:83:ALA:HB3	1.68	0.76
28:BD:155:LEU:HD23	28:BD:177:LEU:CD2	2.15	0.76
53:D6:36:LEU:HD13	53:D6:50:ARG:NH1	2.00	0.76
25:BA:521:G:H2'	25:BA:522:G:C8	2.21	0.76
25:BA:2586:C:C2'	25:BA:2587:A:H5'	2.14	0.76
25:DA:103:A:C2'	25:DA:104:U:C5'	2.58	0.76
44:DX:12:VAL:HB	44:DX:17:ALA:CB	2.12	0.76
36:DP:47:ASP:HB3	36:DP:48:PRO:O	1.84	0.76
2:CB:68:ILE:HD12	2:CB:161:ALA:HB3	1.68	0.76
36:BP:23:PRO:O	36:BP:33:ARG:HD2	1.85	0.76
1:AA:919:G:H21	9:AI:124:GLN:NE2	1.84	0.76
1:AA:1329:U:H4'	9:AI:120:ARG:HD2	1.66	0.76
29:DE:1:MET:HE3	29:DE:83:ASP:HB2	1.66	0.76
19:CS:31:ILE:HG23	19:CS:49:ILE:HA	1.67	0.76
3:CC:83:ARG:O	3:CC:86:VAL:HG22	1.86	0.76
2:AB:116:GLU:HA	2:AB:119:GLU:HB2	1.68	0.76
25:BA:491:G:H2'	25:BA:492:A:H8	1.51	0.76
25:BA:135:G:O2'	25:BA:136:G:H5'	1.86	0.76
25:BA:2516:G:O2'	25:BA:2517:C:H5'	1.84	0.76
1:AA:1115:G:N3	1:AA:1124:G:N2	2.34	0.76
28:DD:35:LYS:HZ1	28:DD:103:ARG:HA	1.49	0.76
17:CQ:68:ARG:N	17:CQ:70:ARG:NH1	2.34	0.76
5:AE:53:LEU:H	5:AE:53:LEU:HD12	1.51	0.76
25:BA:925:C:H2'	25:BA:926:A:C5'	2.13	0.76
39:DS:46:VAL:HG12	39:DS:47:THR:N	2.01	0.76
40:DT:16:ARG:HB3	40:DT:16:ARG:NH1	2.01	0.76
37:DQ:65:PHE:HB2	37:DQ:105:GLU:HG3	1.68	0.76
11:CK:122:LYS:O	11:CK:126:ARG:HG3	1.85	0.76
22:CW:18:G:N1	22:CW:55:U:H1'	2.01	0.75
26:DB:83:G:C6	26:DB:84:C:C4	2.75	0.75
50:B3:56:VAL:CG1	50:B3:57:GLU:H	1.98	0.75
25:BA:1884:A:H2'	25:BA:1885:A:C5'	2.12	0.75
31:BG:31:VAL:HG22	31:BG:32:PRO:HD2	1.66	0.75
25:BA:2562:U:H1'	35:BO:23:ARG:HH11	1.46	0.75
27:DC:49:ILE:CD1	27:DC:49:ILE:H	1.99	0.75
2:AB:9:GLU:HA	2:AB:12:GLU:OE1	1.86	0.75
1:AA:451:C:O2'	1:AA:452:C:H5'	1.85	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2864:G:H5'	25:BA:2864:G:C8	2.21	0.75
40:DT:25:GLY:N	40:DT:49:VAL:HG13	2.01	0.75
30:DF:177:ALA:HB1	30:DF:178:PRO:HD2	1.67	0.75
36:DP:125:VAL:O	36:DP:145:PRO:HD2	1.86	0.75
7:CG:150:ALA:HB2	11:CK:50:TYR:OH	1.87	0.75
1:CA:423:G:H4'	1:CA:424:U:OP1	1.85	0.75
11:AK:48:ILE:HD11	11:AK:64:ALA:HA	1.67	0.75
30:DF:101:LEU:HD12	30:DF:102:PRO:HD2	1.68	0.75
27:BC:41:VAL:HA	27:BC:213:TYR:HA	1.67	0.75
8:CH:73:ASP:OD2	8:CH:75:ARG:HD3	1.86	0.75
40:BT:65:LYS:NZ	40:BT:66:VAL:O	2.19	0.75
25:BA:952:G:C6	25:BA:953:A:N7	2.54	0.75
9:AI:104:ARG:CG	9:AI:106:ALA:HB2	2.05	0.75
25:DA:2483:C:N3	37:DQ:124:LYS:NZ	2.33	0.75
3:AC:79:ARG:HH11	11:CK:99:GLN:HB3	1.49	0.75
25:BA:614:U:H5''	25:BA:614:U:O2	1.86	0.75
19:CS:6:LYS:HD2	19:CS:7:LYS:N	2.01	0.75
7:CG:78:ARG:HD2	7:CG:79:ARG:H	1.50	0.75
10:AJ:40:LEU:HD23	10:AJ:40:LEU:H	1.48	0.75
25:DA:2390:U:H2'	25:DA:2391:G:C5'	2.16	0.75
26:BB:68:C:H2'	26:BB:69:G:H8	1.51	0.75
22:AY:34:G:N3	22:AY:34:G:H2'	2.00	0.75
20:CT:84:LEU:HD13	20:CT:84:LEU:C	2.07	0.75
25:DA:2199:A:H3'	25:DA:2200:C:H6	1.49	0.75
25:BA:197:A:H5'	25:BA:197:A:H8	1.51	0.75
25:BA:322:A:H3'	30:BF:169:ASN:HD21	1.51	0.75
25:BA:2834:G:H5'	25:BA:2835:A:OP2	1.85	0.75
6:CF:62:TRP:CH2	6:CF:64:GLN:HB2	2.22	0.75
8:CH:89:PRO:HA	8:CH:92:ARG:NH1	2.01	0.75
47:B0:49:LYS:H	47:B0:80:HIS:HB3	1.51	0.75
31:BG:171:ALA:O	31:BG:175:LEU:HD13	1.85	0.75
20:AT:84:LEU:HD13	20:AT:84:LEU:O	1.87	0.75
29:DE:11:MET:N	40:DT:8:LYS:NZ	2.34	0.75
54:D7:41:ARG:HD3	54:D7:45:ALA:HB2	1.68	0.75
46:BZ:37:VAL:O	46:BZ:38:TYR:HB3	1.85	0.75
25:DA:491:G:H2'	25:DA:492:A:H8	1.51	0.75
16:AP:50:LYS:HD3	16:AP:51:VAL:N	2.01	0.75
9:AI:10:ARG:HD3	9:AI:75:ASP:HB3	1.68	0.75
22:CW:4:C:H2'	22:CW:5:G:H8	1.51	0.75
19:AS:6:LYS:HD2	19:AS:7:LYS:H	1.50	0.75
25:DA:871:U:H4'	37:DQ:69:PHE:CE2	2.21	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BS:46:VAL:HG12	39:BS:47:THR:N	2.01	0.75
2:CB:18:GLY:H	2:CB:42:ILE:CG2	1.96	0.75
33:DI:38:LEU:H	33:DI:38:LEU:CD1	1.99	0.75
39:DS:49:VAL:HG12	39:DS:50:SER:H	1.49	0.75
25:BA:2186:G:C3'	25:BA:2187:G:H5''	2.16	0.75
1:AA:451:C:H2'	1:AA:452:C:H5'	1.66	0.75
4:CD:49:ARG:HD3	4:CD:50:ARG:N	2.00	0.75
26:BB:14:U:OP2	26:BB:71:C:H5'	1.86	0.75
25:DA:1755:A:P	40:DT:113:LYS:NZ	2.58	0.75
36:BP:125:VAL:O	36:BP:145:PRO:HD2	1.86	0.75
25:BA:760:G:H5''	25:BA:760:G:H8	1.52	0.75
8:CH:86:ILE:HG22	8:CH:87:SER:H	1.51	0.75
37:BQ:16:ARG:HG2	37:BQ:17:LEU:H	1.50	0.75
25:DA:645:C:O2	25:DA:645:C:H2'	1.84	0.75
1:AA:953:G:N2	1:AA:1343:C:H2'	2.02	0.75
8:CH:11:THR:HG22	8:CH:15:ASN:HD21	1.52	0.75
19:AS:29:ARG:O	19:AS:31:ILE:HG22	1.84	0.75
42:BV:52:VAL:HG13	42:BV:55:ALA:HB3	1.68	0.75
45:DY:10:GLY:HA2	45:DY:27:VAL:HG13	1.67	0.75
1:AA:1110:C:H42	1:AA:1125:G:H1	1.31	0.75
1:AA:1139:A:H4'	1:AA:1140:C:O5'	1.86	0.75
25:BA:2873:A:N3	38:BR:6:SER:HB2	2.01	0.75
37:DQ:39:PRO:HB3	37:DQ:99:PRO:HD3	1.67	0.75
31:BG:146:TYR:O	31:BG:149:VAL:HG22	1.87	0.75
33:BI:84:GLY:O	33:BI:85:GLU:HB2	1.86	0.75
22:CW:5:G:C2	22:CW:6:G:C8	2.74	0.75
19:CS:41:VAL:HB	19:CS:44:MET:CG	2.16	0.75
1:AA:1115:G:H22	1:AA:1125:G:H1'	1.50	0.75
7:AG:113:GLU:CB	7:AG:119:ARG:HG2	2.16	0.75
12:CL:28:LYS:HB2	12:CL:33:ARG:NH1	2.01	0.75
1:AA:153:G:C5'	1:AA:154:A:OP2	2.34	0.75
36:DP:64:LYS:CB	55:D8:25:MET:HG3	2.16	0.75
20:AT:26:ASN:HB2	20:AT:71:THR:HG23	1.66	0.75
33:BI:8:PRO:HD3	33:BI:15:VAL:CG1	2.16	0.75
38:BR:45:ARG:HG3	38:BR:46:GLY:N	2.02	0.75
25:DA:760:G:H8	25:DA:760:G:H5''	1.52	0.75
4:AD:196:LEU:HD12	4:AD:196:LEU:H	1.52	0.75
25:DA:314:A:C2'	25:DA:315:G:H5'	2.16	0.75
25:DA:2171:A:O2'	25:DA:2172:U:C6	2.40	0.75
40:BT:80:SER:CB	40:BT:81:PRO:CD	2.65	0.75
3:CC:14:ILE:HG12	3:CC:15:THR:N	1.97	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:71:VAL:HG13	36:BP:72:PRO:CD	2.16	0.75
25:DA:1652:A:N6	38:DR:11:ASN:ND2	2.34	0.75
25:BA:1925:C:O2'	25:BA:1926:U:H5'	1.87	0.75
25:DA:2121:G:H21	27:DC:172:HIS:CB	1.99	0.75
49:B2:64:LEU:O	49:B2:68:ARG:HG2	1.85	0.75
3:CC:68:VAL:HG12	3:CC:70:VAL:HG23	1.66	0.75
13:AM:96:LEU:CA	13:AM:110:ARG:HD3	2.16	0.75
1:AA:1302:C:H5'	1:AA:1303:C:C5'	2.17	0.75
19:AS:10:PHE:HZ	19:AS:70:LYS:HE2	1.52	0.75
45:DY:18:GLY:CA	45:DY:21:LYS:HB2	2.17	0.75
26:DB:83:G:C2'	26:DB:84:C:H5'	2.16	0.75
25:BA:2390:U:H2'	25:BA:2391:G:C5'	2.16	0.75
3:CC:16:ARG:HH11	3:CC:16:ARG:CB	1.97	0.75
12:CL:28:LYS:HG2	12:CL:33:ARG:HH12	1.52	0.75
5:CE:50:GLU:OE2	5:CE:51:VAL:HG23	1.85	0.75
53:D6:41:PRO:HD2	53:D6:46:HIS:N	2.00	0.75
33:DI:68:LEU:HD23	33:DI:136:VAL:HG11	1.69	0.75
25:BA:297:C:O2'	25:BA:298:G:H5'	1.87	0.75
46:DZ:37:VAL:O	46:DZ:38:TYR:HB3	1.85	0.75
2:CB:215:LEU:O	2:CB:219:VAL:HG23	1.87	0.75
25:DA:27:G:O2'	25:DA:28:A:H8	1.69	0.75
55:D8:52:LYS:N	55:D8:53:PRO:HD2	2.00	0.75
25:BA:1986:A:C3'	25:BA:1987:G:H5''	2.16	0.75
20:CT:30:LYS:NZ	20:CT:80:ARG:CZ	2.50	0.75
26:DB:92:C:C2	26:DB:93:G:N7	2.55	0.75
25:BA:2171:A:O2'	25:BA:2172:U:C6	2.40	0.75
42:BV:18:LEU:HD22	42:BV:19:LYS:H	1.50	0.75
36:DP:6:LEU:HG	36:DP:9:ASN:ND2	2.01	0.75
2:AB:24:TRP:CZ3	2:AB:26:PRO:HA	2.20	0.75
2:CB:9:GLU:HA	2:CB:12:GLU:OE1	1.87	0.75
36:BP:105:LEU:N	36:BP:105:LEU:HD23	2.02	0.75
1:CA:712:A:H2'	1:CA:713:G:H8	1.52	0.75
25:BA:1042:G:H1'	25:BA:1114:G:N2	2.02	0.75
28:BD:210:GLY:O	28:BD:211:ARG:HB3	1.85	0.75
1:AA:817:C:O2	1:AA:829:G:N2	2.18	0.75
4:AD:167:GLY:HA2	28:DD:135:PHE:CZ	2.12	0.75
23:CV:57:C:C4	31:DG:83:ARG:CZ	2.70	0.75
25:DA:2515:C:O2'	25:DA:2516:G:C5'	2.32	0.75
25:DA:77:C:O3'	49:D2:14:ARG:NH2	2.20	0.75
26:DB:92:C:O2'	26:DB:93:G:C5'	2.30	0.75
13:AM:3:ARG:HB2	51:B4:60:GLU:HG2	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:631:A:OP1	36:BP:64:LYS:HE2	1.87	0.75
25:BA:2348:U:H2'	25:BA:2349:G:C5'	2.15	0.75
28:BD:108:PRO:HB3	28:BD:143:HIS:CE1	2.22	0.75
28:DD:108:PRO:HB3	28:DD:143:HIS:CE1	2.22	0.75
13:AM:11:ARG:O	13:AM:13:LYS:N	2.20	0.75
30:BF:34:TRP:CZ2	36:BP:12:ALA:HB2	2.22	0.75
25:DA:2732:G:O2'	25:DA:2733:A:H5'	1.87	0.75
7:CG:47:CYS:HA	7:CG:50:ILE:HG12	1.69	0.75
8:CH:84:ARG:HG3	8:CH:85:ARG:N	2.01	0.75
3:CC:70:VAL:HG12	3:CC:72:LYS:H	1.52	0.75
25:DA:1411:C:H2'	25:DA:1412:A:C8	2.22	0.75
25:BA:1348:G:H2'	25:BA:1349:A:H5''	1.68	0.75
25:DA:107:C:H2'	25:DA:108:U:H5'	1.69	0.74
5:CE:12:LEU:HD13	5:CE:13:ILE:N	2.02	0.74
7:AG:113:GLU:O	7:AG:119:ARG:HD3	1.86	0.74
31:DG:44:GLY:HA2	31:DG:88:ILE:HG21	1.67	0.74
15:AO:70:LEU:HD11	15:AO:77:ARG:HG3	1.68	0.74
2:AB:215:LEU:O	2:AB:219:VAL:HG23	1.87	0.74
27:DC:41:VAL:HG23	27:DC:178:ALA:HB3	1.68	0.74
8:AH:89:PRO:HA	8:AH:92:ARG:NH1	2.02	0.74
48:D1:3:LYS:HG3	48:D1:4:VAL:N	2.01	0.74
49:D2:64:LEU:O	49:D2:68:ARG:HG2	1.85	0.74
56:B9:9:ARG:HB3	56:B9:9:ARG:NH1	2.00	0.74
25:BA:1665:A:H4'	35:BO:67:LYS:HB2	1.69	0.74
40:DT:29:ARG:HD2	40:DT:85:LYS:HA	1.66	0.74
29:BE:77:ILE:CG2	29:BE:78:LEU:H	1.96	0.74
42:BV:49:THR:CB	42:BV:50:PRO:CD	2.64	0.74
53:B6:10:LEU:HD12	55:B8:34:TRP:CD1	2.22	0.74
39:BS:26:LEU:HG	39:BS:39:ILE:HD11	1.69	0.74
14:CN:40:CYS:O	14:CN:44:LEU:HB3	1.86	0.74
53:D6:10:LEU:HD12	55:D8:34:TRP:CD1	2.22	0.74
40:DT:89:VAL:HG21	40:DT:91:ARG:CZ	2.17	0.74
30:DF:34:TRP:CZ2	36:DP:12:ALA:HB2	2.22	0.74
27:BC:49:ILE:CD1	27:BC:49:ILE:H	1.99	0.74
11:AK:85:ARG:HG2	11:AK:111:ASP:O	1.88	0.74
13:CM:13:LYS:HA	13:CM:44:ARG:HH11	1.50	0.74
25:BA:1464:C:H4'	25:BA:1528(A):A:H1'	1.69	0.74
15:AO:82:ILE:O	15:AO:82:ILE:HD13	1.87	0.74
25:BA:2693:A:H2'	25:BA:2694:G:C8	2.22	0.74
48:B1:3:LYS:HG3	48:B1:4:VAL:N	2.01	0.74
37:BQ:30:GLY:HA2	37:BQ:107:ALA:HB2	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1114:G:C3'	25:DA:1115:G:H5''	2.17	0.74
16:AP:28:ARG:HG2	16:AP:29:ASP:OD2	1.86	0.74
4:CD:146:ILE:HD12	4:CD:146:ILE:N	2.02	0.74
49:B2:65:ASN:HB3	49:B2:69:ARG:NH2	2.01	0.74
33:DI:84:GLY:O	33:DI:85:GLU:HB2	1.85	0.74
13:CM:100:GLY:O	13:CM:101:GLN:NE2	2.21	0.74
25:DA:271(P):C:O2'	25:DA:271(Q):G:H5'	1.86	0.74
23:CV:55:U:H2'	23:CV:56:U:O4'	1.87	0.74
39:BS:15:ARG:HB3	39:BS:18:ILE:HG21	1.69	0.74
49:D2:45:SER:O	49:D2:46:GLN:NE2	2.21	0.74
12:AL:41:ARG:CG	12:AL:42:THR:H	1.99	0.74
2:CB:178:ARG:HD2	8:CH:71:GLY:C	2.07	0.74
7:CG:49:ILE:HG23	7:CG:53:LYS:HD2	1.69	0.74
25:DA:528:A:H2	25:DA:2043:C:H4'	1.51	0.74
48:D1:8:SER:HB3	48:D1:66:HIS:CD2	2.22	0.74
38:DR:28:LEU:HD11	38:DR:116:LEU:HD21	1.69	0.74
1:AA:660:U:H3	1:AA:696:G:H22	1.33	0.74
29:BE:134:ILE:O	29:BE:134:ILE:HG12	1.87	0.74
13:CM:93:ARG:CG	25:DA:888:C:C5'	2.55	0.74
39:BS:92:TYR:O	39:BS:93:LYS:HB3	1.88	0.74
5:CE:41:VAL:CG1	5:CE:113:ALA:CA	2.65	0.74
39:DS:15:ARG:HB3	39:DS:18:ILE:HG21	1.69	0.74
5:AE:57:LYS:HG2	5:AE:61:TYR:CE2	2.21	0.74
42:DV:18:LEU:HD22	42:DV:19:LYS:H	1.50	0.74
53:B6:15:GLU:O	53:B6:15:GLU:HG2	1.86	0.74
12:AL:46:LYS:CG	12:AL:47:LYS:H	1.92	0.74
6:AF:87:ARG:O	6:AF:88:VAL:CG2	2.36	0.74
25:BA:541:C:H2'	25:BA:542:C:H5'	1.67	0.74
1:AA:451:C:H2'	1:AA:452:C:H6	1.51	0.74
25:BA:379:G:N2	48:B1:42:GLN:OE1	2.21	0.74
33:DI:8:PRO:HD3	33:DI:15:VAL:CG1	2.16	0.74
9:AI:4:TYR:HB2	9:AI:19:LEU:HB2	1.67	0.74
1:CA:1268:A:H2'	1:CA:1269:A:C8	2.22	0.74
42:BV:15:GLU:HB3	42:BV:16:PRO:CD	2.17	0.74
55:D8:46:ARG:O	55:D8:47:LYS:HB3	1.86	0.74
9:CI:118:LYS:NZ	9:CI:118:LYS:HB2	2.01	0.74
30:BF:101:LEU:HD12	30:BF:102:PRO:HD2	1.68	0.74
1:CA:932:U:H1'	1:CA:1208:A:H61	1.51	0.74
4:AD:63:LYS:HD2	4:AD:198:VAL:HG23	1.68	0.74
41:BU:92:ARG:NH2	41:BU:94:ASN:HD22	1.85	0.74
25:BA:1981:A:C5'	25:BA:1982:C:OP2	2.30	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DS:26:LEU:HG	39:DS:39:ILE:HD11	1.69	0.74
25:BA:1652:A:H2'	25:BA:1653:G:C5'	2.17	0.74
25:BA:2732:G:O2'	25:BA:2733:A:H5'	1.87	0.74
40:BT:23:ARG:O	40:BT:90:GLN:NE2	2.20	0.74
31:DG:40:ASN:HB2	31:DG:91:ARG:HB2	1.70	0.74
40:DT:23:ARG:HG3	40:DT:120:ARG:HH12	1.53	0.74
23:AV:22:A:H61	23:AV:47:G:H2'	1.49	0.74
37:DQ:30:GLY:HA2	37:DQ:107:ALA:HB2	1.69	0.74
19:AS:31:ILE:HG23	19:AS:49:ILE:HA	1.68	0.74
38:DR:45:ARG:HG3	38:DR:46:GLY:N	2.02	0.74
25:DA:1925:C:O2'	25:DA:1926:U:H5'	1.87	0.74
13:AM:88:ARG:O	13:AM:98:VAL:CG1	2.35	0.74
29:DE:53:PRO:O	29:DE:75:VAL:HG23	1.86	0.74
25:BA:243:U:OP1	55:B8:6:THR:HG21	1.87	0.74
25:DA:614:U:H4'	25:DA:614(C):A:N6	2.03	0.74
45:BY:28:LYS:N	45:BY:28:LYS:HZ2	1.85	0.74
47:B0:41:ARG:H	47:B0:41:ARG:CD	1.98	0.74
47:B0:25:ARG:HA	47:B0:29:GLN:HE22	1.52	0.74
1:CA:1323:C:H1'	9:CI:124:GLN:NE2	2.01	0.74
47:B0:49:LYS:N	47:B0:80:HIS:HB3	2.03	0.74
25:BA:1114:G:H3'	25:BA:1115:G:H5''	1.68	0.74
25:BA:1411:C:H2'	25:BA:1412:A:C8	2.22	0.74
4:AD:166:LYS:C	28:DD:135:PHE:HZ	1.88	0.74
25:BA:1819:A:H4'	25:BA:1820:U:O5'	1.88	0.74
25:DA:2693:A:H2'	25:DA:2694:G:C8	2.22	0.74
25:BA:314:A:C2'	25:BA:315:G:H5'	2.15	0.74
22:CW:21:A:C5	22:CW:46:G:C5	2.75	0.74
45:DY:67:LEU:CD1	45:DY:67:LEU:O	2.30	0.74
3:AC:83:ARG:O	3:AC:86:VAL:HG22	1.87	0.74
31:DG:113:ARG:HH11	31:DG:113:ARG:CB	1.99	0.74
5:CE:57:LYS:HG2	5:CE:61:TYR:CE2	2.22	0.74
25:DA:1021:A:C8	25:DA:1021:A:H3'	2.21	0.74
25:DA:2186:G:C3'	25:DA:2187:G:H5''	2.16	0.74
25:BA:1021:A:C8	25:BA:1021:A:H3'	2.21	0.74
25:BA:1019:U:H3	25:BA:1142(A):A:H62	1.35	0.74
1:CA:1036:C:O2	1:CA:1036:C:H2'	1.86	0.74
54:B7:41:ARG:HD3	54:B7:45:ALA:HB2	1.68	0.74
2:AB:44:LEU:HD12	2:AB:44:LEU:H	1.51	0.74
25:BA:790:C:H4'	25:BA:791:C:OP1	1.88	0.74
49:B2:67:LYS:O	49:B2:70:GLN:HG2	1.87	0.74
1:AA:737:C:H2'	1:AA:737:C:O2	1.86	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:17:VAL:CG2	32:DH:45:VAL:CG1	2.66	0.74
25:BA:2391:G:O2'	25:BA:2424:C:N4	2.19	0.74
41:DU:92:ARG:NH2	41:DU:94:ASN:HD22	1.86	0.74
19:CS:6:LYS:HD3	19:CS:7:LYS:CE	2.15	0.74
26:DB:65:C:H41	26:DB:109:C:H2'	1.53	0.74
25:DA:541:C:H2'	25:DA:542:C:H5'	1.67	0.74
22:AY:33:U:C3'	22:AY:34:G:H5''	2.17	0.74
15:AO:17:ARG:HH11	15:AO:17:ARG:HG3	1.51	0.74
36:DP:105:LEU:N	36:DP:105:LEU:HD23	2.02	0.74
29:DE:134:ILE:HG12	29:DE:134:ILE:O	1.87	0.74
25:DA:952:G:C6	25:DA:953:A:N7	2.56	0.74
22:CW:6:G:N2	22:CW:68:C:C2	2.56	0.74
25:BA:915:C:H2'	25:BA:916:G:C8	2.23	0.74
7:AG:78:ARG:HD2	7:AG:79:ARG:H	1.52	0.74
33:DI:75:LEU:HD21	33:DI:105:HIS:CE1	2.23	0.74
25:DA:1826:G:H4'	28:DD:242:ARG:NH2	2.03	0.74
25:BA:1018:C:O2'	25:BA:1019:U:H5'	1.88	0.74
31:DG:39:ILE:HD13	31:DG:157:ILE:HG23	1.70	0.74
25:BA:481:G:H1'	25:BA:506:G:N2	2.01	0.74
25:BA:1484:G:H3'	25:BA:1485:G:H5''	1.69	0.74
10:AJ:8:LEU:HB3	10:AJ:16:LEU:HD21	1.69	0.74
25:BA:1045:A:H2'	25:BA:1045:A:N3	2.03	0.74
13:CM:54:VAL:O	13:CM:58:GLU:HG2	1.87	0.74
30:DF:168:ARG:HA	30:DF:175:THR:HG21	1.69	0.74
40:DT:29:ARG:CZ	40:DT:29:ARG:HA	2.17	0.74
25:DA:910:A:C5	37:DQ:13:GLN:HG3	2.23	0.74
23:AV:3:C:C2'	23:AV:4:G:H5''	2.12	0.74
20:AT:50:GLU:HB3	20:AT:100:ILE:CG1	2.18	0.74
7:AG:79:ARG:HH11	7:AG:79:ARG:HG3	1.53	0.74
2:CB:24:TRP:CZ3	2:CB:26:PRO:HA	2.22	0.74
28:BD:112:GLN:HB2	28:BD:115:GLN:HE21	1.51	0.74
32:BH:53:GLU:O	32:BH:54:ARG:HB3	1.87	0.74
10:AJ:33:GLN:O	10:AJ:75:ILE:HG12	1.88	0.74
4:CD:9:CYS:SG	4:CD:31:CYS:O	2.45	0.74
26:BB:56:G:H5''	31:BG:27:ASN:CG	2.08	0.74
25:DA:363(E):U:H2'	25:DA:363(F):A:H1'	1.67	0.74
1:CA:1327:A:H5''	9:CI:120:ARG:HH12	1.52	0.74
25:DA:135:G:O2'	25:DA:136:G:H5'	1.86	0.74
22:CY:30:G:H5'	22:CY:31:A:OP2	1.88	0.74
33:DI:66:GLU:O	33:DI:70:GLU:HG2	1.88	0.74
1:CA:748:G:H1	1:CA:795:C:HO2'	1.36	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:168:ARG:HA	30:BF:175:THR:HG21	1.69	0.74
10:CJ:8:LEU:HB3	10:CJ:16:LEU:HD21	1.69	0.74
47:D0:49:LYS:N	47:D0:80:HIS:HB3	2.03	0.74
20:CT:50:GLU:CB	20:CT:100:ILE:HG12	2.18	0.73
19:AS:10:PHE:CZ	19:AS:39:THR:OG1	2.40	0.73
22:CW:30:G:C2	22:CW:41:C:N3	2.56	0.73
25:BA:2305:A:H5''	31:BG:134:GLY:CA	2.04	0.73
1:AA:338:U:O3'	1:AA:339:A:C8	2.40	0.73
41:DU:66:ASN:HB2	41:DU:76:TYR:HB2	1.70	0.73
25:DA:481:G:H1'	25:DA:506:G:N2	2.01	0.73
25:DA:96:G:H4'	49:D2:48:HIS:CD2	2.22	0.73
34:DN:133:GLN:HG2	34:DN:135:PRO:HD3	1.70	0.73
22:CY:41:C:H2'	22:CY:42:C:C6	2.22	0.73
25:DA:1042:G:H1'	25:DA:1114:G:N2	2.02	0.73
27:BC:41:VAL:HG23	27:BC:178:ALA:HB3	1.69	0.73
25:BA:1114:G:C3'	25:BA:1115:G:H5''	2.17	0.73
25:DA:2526:G:H21	56:D9:2:LYS:HG3	1.50	0.73
32:DH:76:VAL:O	32:DH:79:VAL:HG22	1.88	0.73
25:DA:1884:A:H2'	25:DA:1885:A:C5'	2.11	0.73
25:BA:914:C:C2'	25:BA:915:C:H5'	2.15	0.73
25:DA:925:C:H2'	25:DA:926:A:C5'	2.13	0.73
28:DD:112:GLN:HB2	28:DD:115:GLN:HE21	1.51	0.73
5:AE:76:ILE:HD11	5:AE:142:LEU:CD2	2.18	0.73
32:BH:76:VAL:O	32:BH:79:VAL:HG22	1.88	0.73
34:BN:58:ASP:C	34:BN:60:ILE:H	1.91	0.73
25:DA:471:A:C2'	25:DA:472:A:H5'	2.16	0.73
37:DQ:110:THR:HG23	37:DQ:113:GLN:OE1	1.86	0.73
46:DZ:53:ILE:CG2	46:DZ:71:VAL:HB	2.18	0.73
47:D0:25:ARG:HA	47:D0:29:GLN:HE22	1.52	0.73
25:DA:197:A:H8	25:DA:197:A:H5'	1.51	0.73
25:DA:111:A:O3'	49:D2:69:ARG:NH2	2.21	0.73
48:B1:7:ILE:HG22	48:B1:8:SER:N	2.03	0.73
29:DE:11:MET:N	40:DT:8:LYS:HZ2	1.85	0.73
31:DG:11:TYR:O	31:DG:16:ARG:HB2	1.88	0.73
22:AW:25:C:O2'	22:AW:26:A:H5'	1.89	0.73
25:DA:1668:A:OP1	35:DO:5:GLN:HG2	1.88	0.73
22:AW:27:G:H2'	22:AW:28:G:H8	1.53	0.73
44:DX:60:ARG:HH12	54:D7:47:ARG:NH2	1.86	0.73
16:CP:28:ARG:HG2	16:CP:29:ASP:OD2	1.88	0.73
6:CF:11:ASN:O	6:CF:14:LEU:HG	1.88	0.73
40:DT:53:ARG:NH1	40:DT:55:ASN:CB	2.51	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:91:C:H2'	26:DB:92:C:H6	1.52	0.73
22:CW:32:U:H2'	22:CW:33:U:H5'	1.68	0.73
30:DF:28:ILE:HG21	30:DF:116:ASP:HB2	1.70	0.73
25:DA:2469:A:O2'	37:DQ:56:ARG:CD	2.37	0.73
25:BA:1686:C:H5'	25:BA:1686:C:H6	1.52	0.73
25:DA:1652:A:H2'	25:DA:1653:G:C5'	2.17	0.73
25:BA:528:A:N1	25:BA:2042:A:H2'	2.03	0.73
36:DP:112:LEU:HD22	36:DP:113:LYS:N	2.03	0.73
48:B1:8:SER:HB3	48:B1:66:HIS:CD2	2.22	0.73
37:BQ:65:PHE:HB2	37:BQ:105:GLU:HG3	1.68	0.73
26:DB:52:A:N7	39:DS:33:LYS:HE3	2.02	0.73
4:CD:162:LEU:HD13	4:CD:181:MET:HG2	1.67	0.73
13:CM:96:LEU:CA	13:CM:110:ARG:HD3	2.18	0.73
25:DA:2679:A:H4'	29:DE:165:VAL:HG11	1.70	0.73
23:CV:15:G:H22	23:CV:49:C:H41	1.37	0.73
22:CW:39:U:C4'	22:CW:39:U:OP1	2.30	0.73
25:BA:549:G:H8	25:BA:549:G:O5'	1.72	0.73
4:CD:33:MET:CE	4:CD:37:PRO:HA	2.18	0.73
31:BG:39:ILE:HD13	31:BG:157:ILE:HG23	1.70	0.73
30:DF:9:ILE:HA	30:DF:13:SER:O	1.88	0.73
36:DP:96:THR:HG22	36:DP:126:VAL:HB	1.70	0.73
26:DB:69:G:N2	26:DB:70:C:C2	2.57	0.73
49:D2:67:LYS:O	49:D2:70:GLN:HG2	1.87	0.73
20:AT:56:MET:HG3	20:AT:84:LEU:HD12	1.69	0.73
20:CT:50:GLU:CA	20:CT:100:ILE:CG1	2.57	0.73
25:DA:2128:C:O5'	27:DC:35:ALA:HB1	1.86	0.73
25:DA:1879:C:H2'	25:DA:1880:C:C5'	2.13	0.73
28:DD:31:LYS:NZ	28:DD:102:LYS:HZ2	1.87	0.73
33:BI:68:LEU:HD23	33:BI:136:VAL:HG11	1.69	0.73
25:DA:1018:C:O2'	25:DA:1019:U:H5'	1.88	0.73
11:CK:85:ARG:HG2	11:CK:111:ASP:O	1.87	0.73
32:BH:89:ILE:HD12	32:BH:90:LYS:O	1.88	0.73
25:BA:528:A:H2	25:BA:2043:C:C5'	2.02	0.73
41:DU:31:SER:HB3	41:DU:34:LYS:HB2	1.70	0.73
36:DP:46:LYS:HG2	36:DP:52:GLU:OE2	1.87	0.73
29:BE:1:MET:HB2	29:BE:83:ASP:O	1.87	0.73
29:DE:199:ARG:NH1	29:DE:199:ARG:HB2	2.04	0.73
25:DA:1484:G:H3'	25:DA:1485:G:H5''	1.70	0.73
1:CA:659:A:H1'	11:CK:115:PRO:HB3	1.70	0.73
26:BB:60:C:H2'	26:BB:61:G:H8	1.53	0.73
25:DA:1348:G:H2'	25:DA:1349:A:H5''	1.68	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DV:15:GLU:HB3	42:DV:16:PRO:CD	2.17	0.73
25:BA:2299:G:C6	25:BA:2318:G:C8	2.75	0.73
5:AE:50:GLU:OE2	5:AE:51:VAL:HG23	1.88	0.73
42:DV:19:LYS:HB3	42:DV:94:LEU:O	1.89	0.73
32:DH:102:ALA:HB2	32:DH:117:PRO:HD3	1.71	0.73
25:DA:1286:A:H2'	25:DA:1288:U:OP2	1.88	0.73
41:BU:31:SER:HB3	41:BU:34:LYS:HB2	1.70	0.73
30:BF:9:ILE:HA	30:BF:13:SER:O	1.88	0.73
25:DA:528:A:N1	25:DA:2042:A:H2'	2.03	0.73
36:BP:96:THR:HG22	36:BP:126:VAL:HB	1.71	0.73
19:CS:18:LYS:O	19:CS:22:LEU:HD23	1.87	0.73
10:CJ:33:GLN:O	10:CJ:75:ILE:HG12	1.87	0.73
1:AA:601:C:N3	1:AA:605:A:N6	2.36	0.73
1:AA:59:A:H5'	1:AA:60:A:H5''	1.70	0.73
1:AA:1105:A:H4'	10:AJ:36:GLY:HA3	1.70	0.73
6:CF:67:MET:HB2	6:CF:68:PRO:HD2	1.70	0.73
21:CU:25:LYS:HG2	21:CU:26:LYS:N	2.04	0.73
30:DF:7:TYR:HB3	30:DF:16:GLY:H	1.54	0.73
26:DB:60:C:H2'	26:DB:61:G:H8	1.53	0.73
16:AP:8:ARG:NH2	16:AP:15:PRO:HG3	2.03	0.73
30:BF:7:TYR:HB3	30:BF:16:GLY:H	1.54	0.73
1:CA:1140:C:N3	1:CA:1162:G:N2	2.36	0.73
25:DA:2583:G:H2'	25:DA:2584:U:H5'	1.71	0.73
27:BC:36:LYS:HD3	27:BC:37:PHE:H	1.54	0.73
23:AV:30:G:O2'	23:AV:31:G:H5'	1.89	0.73
2:CB:178:ARG:O	8:CH:71:GLY:HA2	1.89	0.73
40:DT:89:VAL:HG11	40:DT:91:ARG:NE	2.03	0.73
1:AA:656:G:H2'	1:AA:657:G:C8	2.24	0.73
32:DH:109:PHE:H	32:DH:109:PHE:HD1	1.37	0.73
25:BA:1446:C:O2'	25:BA:1447:G:H5'	1.88	0.73
25:DA:549:G:O5'	25:DA:549:G:H8	1.72	0.73
43:DW:59:VAL:HG12	43:DW:60:ASN:N	2.03	0.73
46:BZ:53:ILE:CG2	46:BZ:71:VAL:HB	2.19	0.73
25:DA:2864:G:C8	25:DA:2864:G:H5'	2.21	0.73
20:AT:33:ILE:HD13	20:AT:62:LEU:CB	2.17	0.73
19:CS:10:PHE:HZ	19:CS:70:LYS:HE2	1.53	0.73
22:AW:15:G:H21	22:AW:59:U:H1'	1.51	0.73
3:AC:70:VAL:HG12	3:AC:71:ALA:N	2.04	0.73
1:AA:377:A:H2'	1:AA:378:A:C8	2.24	0.73
2:CB:44:LEU:H	2:CB:44:LEU:HD12	1.52	0.73
25:BA:141:A:H8	25:BA:1408:C:HO2'	1.31	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:12:ARG:HH21	11:AK:14:VAL:HG12	1.54	0.73
40:DT:55:ASN:CB	40:DT:58:ASN:OD1	2.36	0.73
1:AA:1202:G:OP1	1:AA:1301:C:N4	2.20	0.73
37:BQ:64:ILE:HG23	37:BQ:106:VAL:HG12	1.70	0.73
25:DA:914:C:C2'	25:DA:915:C:H5'	2.15	0.73
1:CA:261:G:C5'	1:CA:262:C:C5	2.65	0.73
45:BY:7:VAL:HB	45:BY:8:LYS:HZ2	1.54	0.73
23:CV:70:C:H2'	23:CV:71:G:C8	2.23	0.73
36:DP:23:PRO:O	36:DP:33:ARG:NH1	2.21	0.73
25:DA:1019:U:H3	25:DA:1142(A):A:H62	1.34	0.73
25:BA:2463:C:C2'	25:BA:2464:C:C5'	2.66	0.73
32:BH:102:ALA:HB2	32:BH:117:PRO:HD3	1.71	0.73
25:DA:297:C:O2'	25:DA:298:G:H5'	1.87	0.73
25:DA:472:A:O2'	25:DA:508:G:N1	2.22	0.73
34:DN:58:ASP:C	34:DN:60:ILE:H	1.91	0.73
11:AK:48:ILE:HG22	11:AK:49:GLY:H	1.54	0.73
47:D0:49:LYS:H	47:D0:80:HIS:HB3	1.51	0.73
25:DA:2814:C:O2'	52:D5:29:THR:HG21	1.89	0.73
1:AA:1318:G:H5''	1:AA:1319:G:OP1	1.88	0.73
31:BG:11:TYR:O	31:BG:16:ARG:HB2	1.88	0.73
1:AA:1262:U:H5'	1:AA:1263:C:OP2	1.89	0.73
14:AN:40:CYS:O	14:AN:44:LEU:HB3	1.89	0.73
22:CW:60:U:O2'	22:CW:61:C:C5	2.41	0.73
45:DY:28:LYS:HZ2	45:DY:28:LYS:N	1.86	0.73
25:DA:358:U:C2'	25:DA:359:A:H5'	2.19	0.73
32:BH:109:PHE:H	32:BH:109:PHE:HD1	1.37	0.73
5:CE:80:ILE:HG22	8:CH:104:ARG:NH2	2.04	0.73
25:DA:1447:G:C8	25:DA:1447:G:C5'	2.68	0.73
29:BE:30:PRO:HD3	29:BE:180:ASN:ND2	2.04	0.73
29:DE:30:PRO:HD3	29:DE:180:ASN:ND2	2.04	0.73
25:DA:1717:G:C3'	25:DA:1718:G:H5''	2.19	0.73
25:BA:2419:U:OP1	55:B8:41:ILE:HD13	1.89	0.73
17:CQ:82:MET:O	17:CQ:86:GLU:HG2	1.89	0.73
25:DA:2585:U:O2'	25:DA:2586:C:H5'	1.89	0.73
4:AD:31:CYS:C	4:AD:33:MET:H	1.92	0.73
13:AM:88:ARG:CG	13:AM:98:VAL:HG12	2.19	0.73
25:DA:1158:C:O2'	50:D3:32:GLN:CG	2.30	0.73
22:CW:67:C:H2'	22:CW:68:C:H6	1.53	0.73
25:BA:614:U:H4'	25:BA:614(C):A:N6	2.03	0.73
26:BB:65:C:H41	26:BB:109:C:H2'	1.52	0.73
8:CH:6:ILE:O	8:CH:10:LEU:HD12	1.89	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:51:VAL:O	5:CE:55:VAL:HG23	1.89	0.73
34:BN:55:VAL:HG22	34:BN:126:PRO:HA	1.71	0.73
25:DA:1686:C:H5'	25:DA:1686:C:H6	1.52	0.73
33:DI:68:LEU:CD2	33:DI:136:VAL:HG11	2.19	0.73
41:BU:66:ASN:HB2	41:BU:76:TYR:HB2	1.70	0.73
5:CE:144:THR:O	5:CE:148:VAL:HG23	1.89	0.73
25:DA:1952:A:N6	35:DO:22:ILE:HD11	2.04	0.73
4:CD:31:CYS:C	4:CD:33:MET:H	1.91	0.73
9:AI:116:LYS:O	9:AI:118:LYS:N	2.21	0.73
2:CB:77:ALA:HB2	2:CB:211:ILE:HD12	1.71	0.73
29:DE:1:MET:HB2	29:DE:83:ASP:O	1.87	0.73
39:BS:48:LEU:HD22	39:BS:82:ILE:HD11	1.71	0.73
3:CC:173:VAL:O	3:CC:175:LEU:HD12	1.89	0.73
5:CE:14:ARG:NH1	5:CE:129:ILE:HD11	2.03	0.73
25:BA:651:G:H5''	55:B8:18:ALA:HB3	1.70	0.73
22:CW:20:U:H2'	22:CW:21:A:H4'	1.71	0.72
25:BA:871:U:OP1	37:BQ:5:ARG:HG3	1.89	0.72
25:DA:613:G:C8	25:DA:613:G:H5'	2.24	0.72
42:DV:49:THR:HG22	42:DV:50:PRO:HD2	1.69	0.72
37:DQ:64:ILE:HG23	37:DQ:106:VAL:HG12	1.71	0.72
25:BA:613:G:H5'	25:BA:613:G:C8	2.24	0.72
40:DT:89:VAL:HG21	40:DT:91:ARG:CD	2.19	0.72
22:AW:63:G:H2'	22:AW:64:A:O4'	1.89	0.72
1:AA:1036:C:N3	22:AY:34:G:H1'	2.02	0.72
43:BW:59:VAL:HG12	43:BW:60:ASN:N	2.03	0.72
25:BA:528:A:H2	25:BA:2043:C:H4'	1.51	0.72
25:DA:528:A:H2	25:DA:2043:C:C5'	2.02	0.72
34:DN:120:LEU:HD11	34:DN:122:VAL:HG23	1.71	0.72
8:CH:86:ILE:HG21	8:CH:133:LEU:HD22	1.72	0.72
25:BA:1993:U:H4'	29:BE:128:SER:OG	1.88	0.72
8:AH:11:THR:HG22	8:AH:15:ASN:HD21	1.53	0.72
4:AD:146:ILE:HD12	4:AD:146:ILE:N	2.03	0.72
32:DH:19:VAL:HB	32:DH:44:VAL:HG13	1.71	0.72
25:DA:271(S):G:H2'	25:DA:271(T):C:C5'	2.12	0.72
45:BY:54:LYS:O	45:BY:55:TYR:HB2	1.89	0.72
2:CB:61:LEU:CD2	2:CB:68:ILE:HD11	2.17	0.72
2:AB:61:LEU:CD2	2:AB:68:ILE:HD11	2.19	0.72
23:CV:4:G:HO2'	23:CV:5:G:H8	1.37	0.72
25:DA:2463:C:C2'	25:DA:2464:C:C5'	2.66	0.72
25:BA:587:C:H5''	36:BP:33:ARG:NH2	2.04	0.72
22:AW:51:U:H2'	22:AW:52:G:C8	2.23	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1286:A:H2'	25:BA:1288:U:OP2	1.89	0.72
29:BE:92:THR:O	29:BE:95:ILE:HD13	1.89	0.72
25:DA:1231:G:H2'	25:DA:1232:G:C8	2.25	0.72
1:AA:901:C:N4	1:AA:902:G:O6	2.22	0.72
22:CY:36:A:C2	24:CX:20:U:N3	2.57	0.72
37:BQ:81:VAL:HG23	47:B0:7:LEU:HD21	1.70	0.72
9:CI:111:ARG:HG2	9:CI:112:LYS:N	2.04	0.72
29:BE:154:LYS:HE3	29:BE:154:LYS:HA	1.71	0.72
13:CM:93:ARG:HD3	25:DA:888:C:H5'	0.73	0.72
49:D2:63:VAL:O	49:D2:66:GLU:HG2	1.89	0.72
22:CW:4:C:H2'	22:CW:5:G:C8	2.24	0.72
31:BG:2:PRO:HG2	51:B4:51:TYR:CD2	2.22	0.72
25:DA:314:A:HO2'	25:DA:315:G:H5'	1.53	0.72
31:DG:110:ALA:C	31:DG:112:PRO:HD2	2.10	0.72
28:DD:26:LYS:CE	28:DD:82:ILE:H	2.02	0.72
22:CW:34:G:O6	24:CX:13:A:N1	2.22	0.72
25:BA:2305:A:N1	31:BG:154:GLY:N	2.37	0.72
33:DI:145:VAL:HG12	33:DI:146:ALA:N	2.04	0.72
25:DA:2134:A:H62	25:DA:2157:G:H1'	1.54	0.72
15:CO:82:ILE:O	15:CO:82:ILE:HD13	1.89	0.72
7:AG:49:ILE:HG23	7:AG:53:LYS:HD2	1.70	0.72
8:AH:86:ILE:HG22	8:AH:87:SER:H	1.55	0.72
3:CC:70:VAL:HG12	3:CC:71:ALA:N	2.04	0.72
25:DA:1719:G:O2'	25:DA:1720:U:H5'	1.89	0.72
25:BA:1119:C:H2'	25:BA:1120:G:H8	1.54	0.72
9:CI:10:ARG:HD3	9:CI:75:ASP:HB3	1.69	0.72
31:DG:146:TYR:O	31:DG:149:VAL:HG22	1.87	0.72
1:CA:87:C:H2'	1:CA:88:G:H8	1.52	0.72
25:BA:1658:C:C2	25:BA:1659:U:C5	2.77	0.72
33:BI:47:LEU:O	33:BI:50:ARG:HG3	1.90	0.72
25:DA:1658:C:C2	25:DA:1659:U:C5	2.77	0.72
23:AV:55:U:H2'	23:AV:56:U:O4'	1.89	0.72
25:DA:943:U:OP2	36:DP:38:GLN:CD	2.27	0.72
10:AJ:78:ASN:O	10:AJ:82:ILE:HG12	1.89	0.72
25:BA:1748:G:H8	25:BA:1748:G:H5'	1.54	0.72
28:DD:181:GLU:HA	28:DD:272:ALA:CB	2.20	0.72
25:BA:2308:G:H2'	25:BA:2309:A:C8	2.25	0.72
31:BG:40:ASN:HB2	31:BG:91:ARG:HB2	1.69	0.72
25:DA:395:U:H2'	25:DA:396:G:C8	2.24	0.72
19:CS:40:ILE:HB	19:CS:67:VAL:O	1.88	0.72
36:BP:112:LEU:HD22	36:BP:113:LYS:N	2.04	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:CX:17:U:O5'	24:CX:17:U:H6	1.72	0.72
25:BA:2691:C:H5'	25:BA:2691:C:H6	1.55	0.72
12:CL:102:ARG:NE	12:CL:108:ALA:O	2.21	0.72
38:BR:28:LEU:HD11	38:BR:116:LEU:HD21	1.69	0.72
26:DB:92:C:OP1	37:DQ:19:GLY:CA	2.37	0.72
42:BV:19:LYS:HB3	42:BV:94:LEU:O	1.88	0.72
22:CW:33:U:O2'	22:CW:34:G:H5''	1.89	0.72
33:BI:68:LEU:CD2	33:BI:136:VAL:HG11	2.19	0.72
22:AY:31:A:N1	22:AY:40:C:N4	2.36	0.72
28:DD:7:LYS:O	28:DD:9:TYR:CD1	2.42	0.72
25:BA:2463:C:C2'	25:BA:2464:C:H5''	2.20	0.72
25:DA:1748:G:H5'	25:DA:1748:G:H8	1.54	0.72
32:DH:18:GLU:HB2	32:DH:25:LYS:HG2	1.70	0.72
48:D1:7:ILE:HG22	48:D1:8:SER:N	2.03	0.72
22:AW:72:C:C2'	22:AW:73:A:H5'	2.18	0.72
28:BD:11:PRO:O	28:BD:13:ARG:N	2.21	0.72
25:DA:2306:C:H5'	25:DA:2307:G:O5'	1.90	0.72
7:AG:150:ALA:HB2	11:AK:50:TYR:OH	1.89	0.72
1:CA:1327:A:N1	1:CA:1356:A:H5''	2.05	0.72
5:AE:144:THR:O	5:AE:148:VAL:HG23	1.89	0.72
5:AE:78:HIS:CD2	8:AH:104:ARG:NE	2.57	0.72
25:BA:1719:G:O2'	25:BA:1720:U:H5'	1.88	0.72
33:BI:66:GLU:O	33:BI:70:GLU:HG2	1.88	0.72
25:DA:1045:A:H2'	25:DA:1045:A:N3	2.03	0.72
25:DA:2308:G:H2'	25:DA:2309:A:C8	2.25	0.72
23:CV:15:G:N2	23:CV:22:A:N3	2.38	0.72
7:CG:115:ARG:O	7:CG:118:VAL:HG22	1.88	0.72
5:CE:41:VAL:HG11	5:CE:113:ALA:N	2.05	0.72
33:BI:75:LEU:HD21	33:BI:105:HIS:CE1	2.23	0.72
25:DA:1651:G:H2'	25:DA:1652:A:C8	2.25	0.72
9:CI:95:LYS:HD3	9:CI:96:LEU:N	2.04	0.72
49:B2:40:SER:C	49:B2:42:GLY:H	1.92	0.72
25:DA:2330:G:H2'	25:DA:2331:G:C5'	2.19	0.72
25:BA:2134:A:H62	25:BA:2157:G:H1'	1.54	0.72
34:BN:133:GLN:HG2	34:BN:135:PRO:HD3	1.70	0.72
29:BE:199:ARG:NH1	29:BE:199:ARG:HB2	2.04	0.72
35:BO:64:ARG:NH1	35:BO:81:ASP:OD2	2.21	0.72
13:CM:125:ARG:HG3	22:CY:38:A:O2'	1.89	0.72
31:BG:64:THR:HG23	31:BG:65:GLY:H	1.55	0.72
1:AA:1207:C:N4	13:AM:104:ARG:HD2	2.05	0.72
49:B2:63:VAL:O	49:B2:66:GLU:HG2	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:79:ARG:HG2	20:CT:83:ARG:HD2	1.71	0.72
25:DA:108:U:HO2'	25:DA:109:G:H5'	1.53	0.72
22:CW:3:C:H1'	22:CW:71:G:N2	2.05	0.72
5:CE:100:VAL:CG1	5:CE:118:ILE:CG2	2.64	0.72
25:DA:2348:U:H2'	25:DA:2349:G:C5'	2.15	0.72
38:DR:74:LYS:HD2	38:DR:77:ARG:HH21	1.55	0.72
7:CG:113:GLU:HB2	7:CG:119:ARG:CG	2.17	0.72
12:CL:28:LYS:HB2	12:CL:33:ARG:CZ	2.20	0.72
2:CB:19:HIS:ND1	2:CB:20:GLU:HG2	2.05	0.72
33:BI:87:LYS:CA	33:BI:122:GLU:HG2	2.19	0.72
13:AM:123:ALA:HB2	22:AY:39:U:O4'	1.89	0.72
5:AE:39:GLY:O	5:AE:69:VAL:N	2.20	0.72
28:DD:11:PRO:O	28:DD:13:ARG:N	2.21	0.72
25:DA:1287:A:C5	25:DA:1288:U:O4	2.42	0.72
25:BA:472:A:O2'	25:BA:508:G:N1	2.22	0.72
32:BH:18:GLU:HB2	32:BH:25:LYS:HG2	1.70	0.72
36:BP:112:LEU:HD22	36:BP:113:LYS:H	1.54	0.72
36:BP:126:VAL:HG12	36:BP:148:LEU:HD11	1.71	0.72
25:DA:2675:A:O4'	35:DO:29:ASN:ND2	2.22	0.72
25:DA:1754:C:OP1	40:DT:96:ARG:NH1	2.23	0.72
17:AQ:82:MET:O	17:AQ:86:GLU:HG2	1.89	0.72
29:BE:110:GLY:HA2	29:BE:161:GLY:HA3	1.72	0.72
25:DA:2320:A:C2	25:DA:2333:A:N7	2.57	0.72
40:BT:128:GLU:O	40:BT:130:ALA:N	2.23	0.72
20:CT:26:ASN:HD22	20:CT:71:THR:CA	2.01	0.72
25:BA:358:U:C2'	25:BA:359:A:H5'	2.19	0.72
25:BA:857:C:H5'	47:B0:77:ARG:HH22	1.55	0.72
25:BA:2300:G:H22	25:BA:2317:C:C1'	2.02	0.72
8:AH:6:ILE:O	8:AH:10:LEU:HD12	1.89	0.72
28:BD:26:LYS:CE	28:BD:82:ILE:H	2.02	0.72
32:BH:13:LYS:CA	32:BH:13:LYS:HE2	2.19	0.72
2:AB:91:PRO:CG	2:AB:155:LEU:HD23	2.19	0.72
23:AV:66:C:H6	23:AV:66:C:C5'	2.00	0.72
15:AO:26:GLU:OE2	15:AO:77:ARG:HD2	1.89	0.72
2:AB:87:ARG:HD2	2:AB:87:ARG:O	1.89	0.72
29:DE:92:THR:O	29:DE:95:ILE:HD13	1.89	0.72
25:DA:1566:A:OP1	28:DD:211:ARG:NH1	2.23	0.72
11:CK:29:ILE:HD13	11:CK:44:SER:HB3	1.72	0.72
25:BA:1717:G:C3'	25:BA:1718:G:H5''	2.19	0.72
25:DA:1713:U:O2'	25:DA:1714:G:H5'	1.90	0.72
13:AM:54:VAL:O	13:AM:58:GLU:HG2	1.90	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:18:LYS:O	19:AS:22:LEU:HD23	1.89	0.72
25:BA:2391:G:H1'	25:BA:2429:G:H21	1.53	0.72
45:BY:42:VAL:HB	45:BY:65:ALA:HB3	1.72	0.72
44:DX:12:VAL:CB	44:DX:17:ALA:HB1	2.17	0.72
33:BI:50:ARG:O	33:BI:54:GLN:HB2	1.90	0.72
8:CH:109:ILE:HG12	8:CH:110:ALA:N	2.05	0.72
2:AB:19:HIS:ND1	2:AB:20:GLU:HG2	2.05	0.72
25:DA:2463:C:C2'	25:DA:2464:C:H5''	2.20	0.72
25:BA:1651:G:H2'	25:BA:1652:A:C8	2.25	0.72
32:DH:89:ILE:HD12	32:DH:90:LYS:O	1.88	0.72
1:AA:451:C:H2'	1:AA:452:C:C6	2.24	0.72
1:CA:319:G:C5'	20:CT:70:SER:HB3	2.18	0.72
25:BA:1287:A:C5	25:BA:1288:U:O4	2.42	0.72
53:D6:19:ARG:HG2	53:D6:20:ASN:N	2.03	0.72
1:CA:1425:G:O2'	40:DT:122:ASP:OD2	2.08	0.72
4:CD:33:MET:HE2	4:CD:37:PRO:HA	1.69	0.72
2:AB:233:SER:OG	2:AB:234:PRO:HD2	1.90	0.72
25:DA:379:G:N2	48:D1:42:GLN:OE1	2.22	0.72
1:AA:953:G:N2	1:AA:1344:C:OP2	2.23	0.72
25:BA:610:G:N2	25:BA:619:G:H1'	2.05	0.72
22:AW:24:G:H2'	22:AW:25:C:H6	1.53	0.72
31:BG:51:ARG:NE	31:BG:51:ARG:HA	2.05	0.72
35:BO:34:THR:N	35:BO:37:ASP:OD2	2.23	0.72
37:DQ:66:ILE:HG22	37:DQ:104:PHE:CE2	2.25	0.72
43:BW:95:ILE:O	43:BW:95:ILE:HG13	1.90	0.72
32:DH:65:HIS:O	32:DH:69:ARG:HD3	1.90	0.72
10:AJ:48:THR:HA	10:AJ:62:HIS:HB3	1.71	0.72
9:CI:16:ARG:O	9:CI:63:ILE:HG23	1.90	0.72
25:DA:915:C:H2'	25:DA:916:G:C8	2.23	0.72
32:DH:159:GLU:HG3	32:DH:160:LYS:N	2.04	0.72
2:CB:87:ARG:HD2	2:CB:87:ARG:O	1.89	0.72
32:DH:54:ARG:HG2	32:DH:54:ARG:NH1	2.05	0.72
19:CS:20:LEU:O	19:CS:23:ASN:HB3	1.90	0.72
29:DE:44:TYR:O	29:DE:45:THR:HB	1.90	0.72
10:CJ:78:ASN:O	10:CJ:82:ILE:HG12	1.90	0.72
2:AB:144:ARG:HA	2:AB:147:LYS:HB3	1.72	0.72
35:BO:75:SER:OG	40:BT:74:ARG:NH1	2.23	0.72
2:AB:75:LYS:HG2	2:AB:78:GLN:NE2	2.03	0.72
35:DO:105:GLU:N	35:DO:105:GLU:OE1	2.23	0.72
25:DA:2263:C:O2'	25:DA:2264:C:H5'	1.90	0.71
25:BA:107:C:H2'	25:BA:108:U:H5'	1.69	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:6:LYS:HD2	19:CS:7:LYS:H	1.53	0.71
8:AH:109:ILE:HG12	8:AH:110:ALA:N	2.05	0.71
22:AW:36:A:C6	22:AW:37:A:N7	2.57	0.71
39:DS:74:ALA:HB1	39:DS:103:GLU:CB	2.20	0.71
2:AB:68:ILE:HD12	2:AB:161:ALA:HB3	1.71	0.71
33:DI:87:LYS:CA	33:DI:122:GLU:HG2	2.19	0.71
25:DA:2102:U:O2	25:DA:2187:G:N1	2.15	0.71
32:DH:159:GLU:HG3	32:DH:160:LYS:CG	2.20	0.71
31:BG:47:LYS:HE3	31:BG:81:LYS:HB2	1.72	0.71
25:BA:1713:U:O2'	25:BA:1714:G:H5'	1.90	0.71
12:AL:18:VAL:HG23	12:AL:19:ARG:H	1.55	0.71
25:BA:191:A:O2'	25:BA:192:C:H5'	1.90	0.71
1:CA:977:U:H2'	1:CA:978:A:C8	2.25	0.71
4:CD:170:VAL:CG1	4:CD:174:LEU:HB2	2.20	0.71
20:CT:30:LYS:HZ2	20:CT:80:ARG:CZ	2.03	0.71
25:DA:2680:C:H5'	29:DE:189:PRO:HA	1.72	0.71
27:BC:36:LYS:HZ3	27:BC:36:LYS:HB2	1.55	0.71
55:D8:6:THR:CG2	55:D8:63:PRO:HD3	2.21	0.71
1:CA:950:G:H3'	1:CA:951:A:H5''	1.72	0.71
34:DN:55:VAL:HG22	34:DN:126:PRO:HA	1.71	0.71
5:AE:70:PRO:HG2	5:AE:142:LEU:HB2	1.72	0.71
30:BF:28:ILE:HG21	30:BF:116:ASP:HB2	1.70	0.71
25:BA:2863:C:H2'	25:BA:2864:G:C5'	2.20	0.71
25:DA:1666:G:O3'	35:DO:6:THR:HG23	1.89	0.71
25:DA:941:A:H4'	36:DP:35:HIS:CE1	2.25	0.71
36:DP:46:LYS:CB	36:DP:52:GLU:HG2	2.19	0.71
36:DP:112:LEU:HD22	36:DP:113:LYS:H	1.54	0.71
1:AA:584:C:H2'	1:AA:585:A:C8	2.24	0.71
2:CB:70:PHE:O	2:CB:93:VAL:HG22	1.88	0.71
37:BQ:66:ILE:HG22	37:BQ:104:PHE:CE2	2.25	0.71
25:DA:1799:G:N2	25:DA:1818:U:O2'	2.22	0.71
23:CV:35:C:O2'	23:CV:36:A:H5'	1.90	0.71
19:AS:40:ILE:HB	19:AS:67:VAL:O	1.90	0.71
25:BA:1879:C:H2'	25:BA:1880:C:C5'	2.13	0.71
36:BP:50:ARG:O	36:BP:57:THR:CG2	2.32	0.71
7:AG:116:ALA:O	7:AG:120:ILE:HG12	1.90	0.71
28:BD:35:LYS:HZ1	28:BD:103:ARG:HA	1.53	0.71
28:DD:9:TYR:CZ	28:DD:13:ARG:HD3	2.26	0.71
25:BA:2107:C:N4	25:BA:2108:C:N4	2.38	0.71
52:B5:4:HIS:HB3	52:B5:5:PRO:HD3	1.72	0.71
25:DA:389:G:N1	36:DP:71:VAL:HG12	2.04	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:395:U:H2'	25:BA:396:G:C8	2.24	0.71
36:DP:99:LEU:HA	36:DP:102:ARG:HH22	1.54	0.71
11:AK:22:HIS:HB3	11:AK:29:ILE:HG23	1.73	0.71
34:DN:48:MET:H	34:DN:48:MET:HE3	1.53	0.71
40:BT:51:ARG:HG3	40:BT:98:LYS:HD3	1.72	0.71
25:DA:84:A:H5''	45:DY:9:LYS:HE3	1.72	0.71
47:D0:10:THR:HG22	47:D0:12:ASN:H	1.56	0.71
30:DF:46:ARG:HG3	30:DF:46:ARG:HH11	1.55	0.71
4:AD:170:VAL:CG1	4:AD:174:LEU:HB2	2.20	0.71
25:DA:2691:C:H6	25:DA:2691:C:H5'	1.55	0.71
45:DY:31:LEU:HD22	45:DY:31:LEU:N	2.05	0.71
27:DC:36:LYS:HD3	27:DC:37:PHE:H	1.54	0.71
33:BI:58:LEU:HA	33:BI:61:ARG:CD	2.19	0.71
4:CD:153:ARG:HB3	4:CD:153:ARG:HH11	1.54	0.71
25:DA:2107:C:N4	25:DA:2108:C:N4	2.38	0.71
25:DA:1826:G:H4'	28:DD:242:ARG:HH21	1.53	0.71
29:DE:184:VAL:HG12	29:DE:185:LYS:N	2.03	0.71
25:BA:664:C:H4'	25:BA:941:A:OP1	1.89	0.71
28:BD:181:GLU:HA	28:BD:272:ALA:CB	2.19	0.71
25:BA:2306:C:H5'	25:BA:2307:G:O5'	1.90	0.71
25:DA:1484:G:C3'	25:DA:1485:G:H5''	2.21	0.71
4:CD:108:LEU:HB3	4:CD:110:PHE:CE1	2.26	0.71
1:AA:1156:G:H2'	1:AA:1157:A:C8	2.26	0.71
40:DT:87:ASP:OD2	40:DT:90:GLN:NE2	2.23	0.71
25:DA:191:A:O2'	25:DA:192:C:H5'	1.90	0.71
16:AP:26:ARG:HH11	16:AP:26:ARG:HB3	1.55	0.71
1:AA:1134:A:H5''	10:AJ:13:HIS:CD2	2.25	0.71
25:BA:2239:G:P	28:BD:244:ARG:HH12	2.14	0.71
41:DU:91:ASP:CG	41:DU:96:ALA:HB2	2.10	0.71
5:CE:69:VAL:HG21	5:CE:113:ALA:HB1	1.73	0.71
39:DS:92:TYR:O	39:DS:93:LYS:HB3	1.88	0.71
3:AC:15:THR:HG22	3:AC:16:ARG:N	2.06	0.71
17:CQ:67:LYS:HA	17:CQ:70:ARG:HH12	1.54	0.71
25:BA:75:G:H4'	49:B2:55:ARG:HH11	1.55	0.71
28:DD:7:LYS:O	28:DD:9:TYR:CE1	2.43	0.71
25:BA:2109:U:H6	25:BA:2109:U:O5'	1.72	0.71
29:BE:184:VAL:HG12	29:BE:185:LYS:N	2.03	0.71
25:BA:2679:A:H4'	29:BE:165:VAL:HG11	1.71	0.71
25:BA:1464:C:HO2'	25:BA:1528:A:H8	0.75	0.71
25:DA:1876:A:H2'	25:DA:1877:A:C8	2.26	0.71
25:DA:790:C:H4'	25:DA:791:C:OP1	1.88	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:73:ASP:OD2	8:AH:75:ARG:HD3	1.90	0.71
9:AI:111:ARG:HG2	9:AI:112:LYS:N	2.06	0.71
3:AC:9:GLY:HA2	3:AC:12:LEU:HD23	1.72	0.71
21:AU:2:GLY:O	21:AU:4:GLY:N	2.23	0.71
1:AA:807:C:H2'	1:AA:808:G:H8	1.55	0.71
23:CV:34:U:H2'	23:CV:35:C:H3'	1.72	0.71
20:CT:50:GLU:HA	20:CT:100:ILE:CG2	2.21	0.71
10:AJ:49:VAL:O	10:AJ:60:ARG:HB3	1.91	0.71
25:BA:2415:G:O3'	36:BP:66:GLY:HA3	1.90	0.71
5:CE:8:GLU:HA	5:CE:34:VAL:HG22	1.73	0.71
5:AE:50:GLU:HG3	5:AE:52:PRO:HD2	1.72	0.71
13:AM:16:ASP:HB2	13:AM:27:LYS:NZ	2.06	0.71
25:DA:2056:G:N2	52:D5:4:HIS:O	2.24	0.71
25:BA:1484:G:C3'	25:BA:1485:G:H5''	2.21	0.71
25:DA:1419:A:O2'	25:DA:1420:U:H5''	1.91	0.71
30:BF:46:ARG:HH11	30:BF:46:ARG:HG3	1.55	0.71
11:CK:12:ARG:HH21	11:CK:14:VAL:HG12	1.55	0.71
25:DA:2884:U:H1'	52:D5:52:TYR:OH	1.90	0.71
25:BA:2583:G:H2'	25:BA:2584:U:H5'	1.71	0.71
25:BA:2390:U:C2'	25:BA:2391:G:C5'	2.69	0.71
5:CE:101:ILE:H	5:CE:101:ILE:HD13	1.54	0.71
38:BR:74:LYS:HD2	38:BR:77:ARG:HH21	1.55	0.71
25:DA:2127:G:P	27:DC:36:LYS:HE2	2.31	0.71
25:DA:1899:G:O2'	25:DA:1900:A:H5''	1.91	0.71
9:CI:53:VAL:HG21	9:CI:85:LEU:HD22	1.73	0.71
1:CA:672:C:OP1	11:CK:27:ASN:ND2	2.23	0.71
28:BD:16:MET:HE1	28:BD:208:LYS:HD2	1.73	0.71
25:BA:1665:A:O2'	35:BO:1:MET:N	2.24	0.71
4:AD:108:LEU:HB3	4:AD:110:PHE:CE1	2.25	0.71
25:BA:483:A:HO2'	45:BY:60:PHE:HZ	1.39	0.71
31:DG:51:ARG:NE	31:DG:51:ARG:HA	2.05	0.71
25:BA:903:C:H2'	25:BA:904:C:C6	2.25	0.71
12:AL:84:LEU:HB2	12:AL:104:VAL:HG11	1.73	0.71
25:BA:1876:A:H2'	25:BA:1877:A:C8	2.26	0.71
49:D2:43:GLN:O	49:D2:44:LEU:HD23	1.90	0.71
25:BA:2585:U:O2'	25:BA:2586:C:H5'	1.89	0.71
25:BA:2516:G:O2'	25:BA:2517:C:C5'	2.39	0.71
42:BV:49:THR:HG22	42:BV:50:PRO:HD2	1.71	0.71
20:AT:43:LEU:HD13	20:AT:51:GLU:HG3	1.72	0.71
36:BP:6:LEU:HG	36:BP:9:ASN:ND2	2.01	0.71
25:DA:286:C:H2'	25:DA:287:C:H5''	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:349:G:N2	25:DA:350:U:O2	2.23	0.71
25:DA:2863:C:H2'	25:DA:2864:G:C5'	2.20	0.71
2:CB:233:SER:OG	2:CB:234:PRO:HD2	1.91	0.71
33:DI:2:LYS:HD2	33:DI:20:ASP:HB3	1.72	0.71
55:B8:30:ARG:HA	55:B8:30:ARG:HE	1.56	0.71
7:AG:11:GLN:NE2	7:AG:12:LEU:H	1.88	0.71
25:BA:2062:A:O2'	25:BA:2063:C:H5'	1.91	0.71
43:BW:61:ASN:N	43:BW:61:ASN:HD22	1.89	0.71
41:BU:91:ASP:CG	41:BU:96:ALA:HB2	2.11	0.71
55:B8:6:THR:CG2	55:B8:63:PRO:HD3	2.21	0.71
25:BA:1658:C:OP1	29:BE:132:HIS:ND1	2.24	0.71
33:BI:56:LYS:HG3	33:BI:57:ARG:N	2.06	0.71
45:DY:95:LYS:HG2	45:DY:100:ALA:HA	1.72	0.71
28:DD:71:ASP:HB2	28:DD:103:ARG:HH22	1.56	0.71
23:AV:30:G:H22	23:AV:43:G:H1'	1.56	0.71
5:CE:50:GLU:HG3	5:CE:52:PRO:HD2	1.73	0.71
37:DQ:47:ILE:HG22	37:DQ:48:GLU:N	2.06	0.71
37:BQ:47:ILE:HG22	37:BQ:48:GLU:N	2.05	0.71
25:BA:2015:A:C1'	52:B5:2:ALA:HA	2.21	0.71
37:BQ:39:PRO:HA	37:BQ:97:VAL:O	1.91	0.71
10:CJ:32:ALA:H	10:CJ:76:ASN:HB3	1.56	0.71
49:D2:7:ARG:HH11	49:D2:7:ARG:HG2	1.55	0.71
25:BA:1278:A:H5''	38:BR:36:THR:HG22	1.73	0.71
37:DQ:21:THR:C	37:DQ:23:GLY:H	1.92	0.71
25:BA:1436:G:H3'	25:BA:1437:C:H5''	1.73	0.71
47:B0:46:LYS:HB3	47:B0:47:PRO:HD2	1.73	0.71
25:DA:2518:A:H5'	25:DA:2518:A:C8	2.26	0.71
16:CP:26:ARG:HH11	16:CP:26:ARG:HB3	1.55	0.71
36:BP:52:GLU:CD	36:BP:54:GLY:H	1.94	0.71
13:AM:69:GLU:HA	13:AM:69:GLU:OE1	1.90	0.71
13:AM:57:ARG:HH12	51:B4:60:GLU:HA	1.56	0.71
41:DU:91:ASP:OD1	41:DU:96:ALA:HB2	1.91	0.71
39:BS:13:ARG:O	39:BS:15:ARG:HG2	1.91	0.71
25:DA:1803:A:O2'	28:DD:259:THR:HG21	1.90	0.71
9:AI:16:ARG:O	9:AI:63:ILE:HG23	1.91	0.71
39:DS:93:LYS:HG3	39:DS:93:LYS:O	1.91	0.71
25:BA:1952:A:C6	35:BO:22:ILE:HD12	2.25	0.71
25:BA:349:G:N2	25:BA:350:U:O2	2.23	0.71
25:BA:1230:C:H2'	25:BA:1231:G:H8	1.56	0.71
34:BN:120:LEU:HD11	34:BN:122:VAL:HG23	1.71	0.71
45:DY:87:LYS:HG3	45:DY:88:LYS:N	2.06	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:D7:43:THR:HG23	54:D7:44:PRO:HD2	1.72	0.71
13:AM:88:ARG:CG	13:AM:98:VAL:CG1	2.69	0.70
25:DA:97:C:H5''	49:D2:2:LYS:CB	2.20	0.70
50:B3:4:LEU:HD12	50:B3:39:ASP:OD1	1.91	0.70
10:CJ:48:THR:HA	10:CJ:62:HIS:HB3	1.72	0.70
10:CJ:40:LEU:HG	10:CJ:69:ASN:HB3	1.71	0.70
53:B6:47:THR:CB	53:B6:49:HIS:CE1	2.74	0.70
33:DI:72:LEU:HD12	33:DI:138:ILE:HD13	1.73	0.70
5:AE:69:VAL:CG2	5:AE:113:ALA:HB1	2.21	0.70
52:D5:4:HIS:HB3	52:D5:5:PRO:HD3	1.72	0.70
52:B5:4:HIS:HB3	52:B5:5:PRO:CD	2.21	0.70
31:DG:161:THR:CG2	31:DG:163:ALA:H	2.04	0.70
2:AB:178:ARG:HD2	8:AH:71:GLY:C	2.12	0.70
48:B1:40:ARG:C	48:B1:40:ARG:HD3	2.12	0.70
33:BI:2:LYS:HD2	33:BI:20:ASP:HB3	1.72	0.70
19:CS:10:PHE:CZ	19:CS:39:THR:OG1	2.44	0.70
25:BA:1231:G:H2'	25:BA:1232:G:C8	2.25	0.70
25:DA:903:C:H2'	25:DA:904:C:C6	2.25	0.70
1:CA:342:U:H2'	1:CA:343:G:O4'	1.91	0.70
54:B7:43:THR:HG23	54:B7:44:PRO:HD2	1.72	0.70
35:BO:88:ASN:HD21	35:BO:90:GLN:HB2	1.56	0.70
25:DA:1119:C:H2'	25:DA:1120:G:H8	1.54	0.70
23:CV:57:C:N4	31:DG:83:ARG:HH21	1.87	0.70
13:AM:93:ARG:NH1	25:BA:888:C:H4'	2.07	0.70
13:AM:70:LEU:CD2	13:AM:70:LEU:O	2.37	0.70
40:DT:89:VAL:CG2	40:DT:91:ARG:CD	2.68	0.70
33:DI:54:GLN:O	33:DI:57:ARG:N	2.24	0.70
33:BI:129:THR:HA	33:BI:137:PRO:HA	1.73	0.70
23:AV:66:C:H5''	23:AV:66:C:C6	2.15	0.70
32:BH:65:HIS:O	32:BH:69:ARG:HD3	1.90	0.70
5:AE:12:LEU:HD13	5:AE:13:ILE:N	2.06	0.70
10:AJ:32:ALA:H	10:AJ:76:ASN:HB3	1.56	0.70
34:DN:58:ASP:O	34:DN:60:ILE:N	2.23	0.70
1:AA:855:G:H5'	8:AH:89:PRO:HG2	1.71	0.70
4:CD:63:LYS:HD2	4:CD:198:VAL:HG23	1.71	0.70
37:DQ:27:VAL:H	37:DQ:137:TYR:HE1	1.39	0.70
49:B2:14:ARG:HH11	49:B2:14:ARG:HG3	1.55	0.70
25:BA:1717:G:H3'	25:BA:1718:G:H5''	1.73	0.70
2:CB:144:ARG:HA	2:CB:147:LYS:HB3	1.71	0.70
3:AC:206:GLU:O	3:AC:208:ILE:N	2.24	0.70
29:DE:110:GLY:HA2	29:DE:161:GLY:HA3	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1419:A:O2'	25:BA:1420:U:H5''	1.91	0.70
13:CM:93:ARG:HG3	25:DA:888:C:P	2.30	0.70
25:DA:2516:G:O2'	25:DA:2517:C:C5'	2.39	0.70
20:CT:50:GLU:HA	20:CT:100:ILE:CG1	2.17	0.70
50:D3:4:LEU:HD21	50:D3:56:VAL:CG1	2.22	0.70
44:BX:27:THR:CG2	44:BX:80:ILE:HB	2.15	0.70
5:CE:100:VAL:HG13	5:CE:118:ILE:HG22	1.71	0.70
39:BS:28:VAL:HB	39:BS:89:ARG:HG2	1.74	0.70
33:BI:57:ARG:O	33:BI:60:GLU:CB	2.38	0.70
4:AD:153:ARG:HB3	4:AD:153:ARG:HH11	1.55	0.70
25:DA:2390:U:C2'	25:DA:2391:G:C5'	2.69	0.70
26:BB:41:U:C2	31:BG:70:VAL:HG23	2.26	0.70
33:BI:13:GLY:O	33:BI:17:GLN:NE2	2.21	0.70
36:BP:144:GLU:N	36:BP:145:PRO:HD3	2.06	0.70
4:AD:28:SER:O	4:AD:30:LYS:N	2.25	0.70
56:D9:2:LYS:HD2	56:D9:3:VAL:HG23	1.72	0.70
31:DG:47:LYS:HE3	31:DG:81:LYS:HB2	1.72	0.70
2:CB:95:GLN:HE21	2:CB:147:LYS:HG2	1.56	0.70
25:DA:2062:A:O2'	25:DA:2063:C:H5'	1.90	0.70
25:BA:2263:C:O2'	25:BA:2264:C:H5'	1.90	0.70
36:BP:48:PRO:HG2	36:BP:49:ARG:H	1.56	0.70
5:CE:100:VAL:CG2	5:CE:118:ILE:HG22	2.22	0.70
31:DG:113:ARG:HH22	51:D4:61:VAL:HG12	1.57	0.70
33:DI:54:GLN:O	33:DI:58:LEU:N	2.23	0.70
33:DI:79:ILE:HG21	33:DI:81:VAL:HG23	1.73	0.70
45:BY:31:LEU:HD22	45:BY:31:LEU:N	2.05	0.70
25:BA:286:C:H2'	25:BA:287:C:H5''	1.72	0.70
25:BA:2892:A:H2'	25:BA:2893:G:H4'	1.74	0.70
4:CD:9:CYS:SG	4:CD:22:LYS:HD2	2.32	0.70
7:AG:23:VAL:HG13	7:AG:43:PHE:HE2	1.55	0.70
11:CK:21:ILE:HG13	11:CK:30:VAL:HG12	1.74	0.70
36:DP:144:GLU:N	36:DP:145:PRO:HD3	2.06	0.70
22:AW:55:U:H5	22:AW:58:A:OP2	1.74	0.70
13:CM:123:ALA:HB2	22:CY:39:U:O4'	1.90	0.70
25:DA:2753:A:O2'	25:DA:2754:U:H5'	1.92	0.70
31:DG:64:THR:HG23	31:DG:65:GLY:H	1.55	0.70
35:BO:11:ALA:O	35:BO:99:PHE:N	2.24	0.70
22:AW:9:A:C8	22:AW:46:G:N2	2.59	0.70
4:AD:9:CYS:SG	4:AD:22:LYS:HD2	2.31	0.70
41:BU:92:ARG:HH22	41:BU:94:ASN:HD22	1.39	0.70
1:AA:1425:G:H2'	40:BT:118:ARG:HD2	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DG:113:ARG:NH2	51:D4:61:VAL:HG12	2.05	0.70
33:BI:47:LEU:HA	33:BI:50:ARG:HE	1.56	0.70
31:BG:161:THR:CG2	31:BG:163:ALA:H	2.04	0.70
45:BY:95:LYS:HE2	45:BY:100:ALA:HB2	1.73	0.70
28:DD:31:LYS:O	28:DD:35:LYS:HB2	1.92	0.70
7:CG:79:ARG:HH11	7:CG:79:ARG:HG3	1.55	0.70
40:DT:89:VAL:HG21	40:DT:91:ARG:HD2	1.72	0.70
33:DI:58:LEU:HD12	33:DI:61:ARG:NE	2.06	0.70
5:AE:8:GLU:HA	5:AE:34:VAL:HG22	1.73	0.70
32:BH:30:LYS:HZ2	32:BH:81:GLU:HG2	1.57	0.70
34:DN:58:ASP:O	34:DN:60:ILE:HG13	1.92	0.70
36:DP:146:VAL:O	36:DP:148:LEU:HG	1.92	0.70
36:DP:126:VAL:HG12	36:DP:148:LEU:HD11	1.71	0.70
23:AV:34:U:H2'	23:AV:35:C:H3'	1.72	0.70
25:BA:1755:A:P	40:BT:113:LYS:NZ	2.64	0.70
43:BW:50:VAL:HG13	43:BW:51:LEU:N	2.06	0.70
25:BA:1221:C:OP1	42:BV:68:LYS:HE3	1.91	0.70
43:DW:95:ILE:O	43:DW:95:ILE:HG13	1.90	0.70
15:CO:16:ALA:HB1	15:CO:21:ASP:HB3	1.73	0.70
42:BV:69:LYS:HA	42:BV:88:ARG:HG2	1.73	0.70
3:CC:206:GLU:O	3:CC:208:ILE:N	2.24	0.70
40:DT:58:ASN:C	40:DT:58:ASN:OD1	2.30	0.70
22:CW:5:G:N2	22:CW:69:G:C2	2.59	0.70
25:DA:310:A:OP1	45:DY:18:GLY:CA	2.38	0.70
19:AS:43:GLU:C	19:AS:45:VAL:H	1.93	0.70
25:BA:614(C):A:O2'	25:BA:615:G:C5'	2.40	0.70
3:CC:7:PRO:O	3:CC:11:ARG:HG2	1.92	0.70
28:BD:31:LYS:O	28:BD:35:LYS:HB2	1.92	0.70
25:DA:858:U:O2'	25:DA:859:G:C5	2.44	0.70
40:DT:89:VAL:CG2	40:DT:91:ARG:HD2	2.20	0.70
33:BI:72:LEU:HD12	33:BI:138:ILE:HD13	1.73	0.70
1:CA:290:C:C2'	1:CA:291:U:O5'	2.40	0.70
31:DG:43:LEU:HB2	31:DG:88:ILE:CG1	2.21	0.70
1:CA:822:U:O2	1:CA:822:U:C2'	2.39	0.70
49:B2:43:GLN:O	49:B2:44:LEU:CB	2.37	0.70
36:DP:45:LEU:HD23	36:DP:46:LYS:N	2.06	0.70
6:AF:17:SER:O	6:AF:21:LEU:HD23	1.92	0.70
39:BS:106:ARG:HD2	39:BS:107:GLU:O	1.92	0.70
16:AP:20:VAL:HG21	16:AP:32:TYR:CB	2.21	0.70
11:CK:22:HIS:HB3	11:CK:29:ILE:HG23	1.72	0.70
25:DA:610:G:N2	25:DA:619:G:H1'	2.05	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2753:A:O2'	25:BA:2754:U:H5'	1.92	0.70
25:DA:2685:G:H5'	35:DO:68:GLU:HG3	1.74	0.70
25:DA:1436:G:H3'	25:DA:1437:C:H5''	1.73	0.70
49:D2:14:ARG:HG3	49:D2:14:ARG:HH11	1.55	0.70
6:AF:35:ALA:HA	6:AF:67:MET:HB3	1.73	0.70
25:BA:1771:C:H2'	25:BA:1772:G:H5'	1.74	0.70
25:DA:2468:G:OP1	37:DQ:119:ARG:NH2	2.25	0.70
25:BA:2126:A:H5''	27:BC:36:LYS:HG2	1.73	0.70
7:AG:115:ARG:O	7:AG:118:VAL:HG22	1.91	0.70
33:BI:79:ILE:HG21	33:BI:81:VAL:HG23	1.73	0.70
33:DI:88:ILE:HD13	33:DI:88:ILE:N	2.06	0.70
13:AM:10:PRO:CB	13:AM:18:ALA:HB1	2.22	0.70
14:AN:13:THR:N	14:AN:14:PRO:CD	2.53	0.70
25:DA:2892:A:H2'	25:DA:2893:G:H4'	1.74	0.70
31:BG:43:LEU:HB2	31:BG:88:ILE:CG1	2.20	0.70
1:AA:1323:C:H1'	9:AI:124:GLN:HE21	1.55	0.70
29:DE:101:ARG:HH21	29:DE:171:GLU:CA	2.05	0.70
25:DA:195:A:OP1	36:DP:46:LYS:HE2	1.92	0.70
1:CA:453:G:O6	1:CA:455:C:H5''	1.91	0.70
25:BA:1025:G:OP1	25:BA:1025:G:H8	1.75	0.70
36:BP:146:VAL:O	36:BP:148:LEU:HG	1.92	0.70
25:BA:863:A:H2'	25:BA:864:G:H8	1.56	0.70
8:CH:86:ILE:HG22	8:CH:87:SER:N	2.05	0.70
25:DA:760:G:C8	25:DA:760:G:H5''	2.27	0.70
1:CA:1088:G:H5''	3:CC:172:ARG:HG2	1.73	0.70
7:CG:76:ARG:HH11	7:CG:76:ARG:HG2	1.57	0.70
25:BA:2518:A:C8	25:BA:2518:A:H5'	2.26	0.70
47:D0:46:LYS:HB3	47:D0:47:PRO:HD2	1.73	0.70
5:AE:45:PHE:HE2	5:AE:129:ILE:HD13	1.55	0.70
22:CW:58:A:C2	22:CW:61:C:N3	2.60	0.70
20:AT:50:GLU:HA	20:AT:100:ILE:CG1	2.19	0.70
3:AC:79:ARG:HH11	11:CK:99:GLN:CB	2.02	0.70
25:DA:614(C):A:O2'	25:DA:615:G:C5'	2.40	0.70
41:DU:104:GLN:HB3	42:DV:44:LYS:HZ1	1.57	0.70
19:CS:43:GLU:C	19:CS:45:VAL:H	1.94	0.70
36:DP:61:ARG:HH11	55:D8:13:ARG:HD2	1.56	0.70
28:BD:27:THR:HG21	28:BD:83:GLU:HG2	1.74	0.70
25:BA:1952:A:N6	25:BA:1953:A:N6	2.40	0.70
34:DN:17:ASP:OD1	34:DN:56:ASN:HB3	1.91	0.70
32:BH:159:GLU:HG3	32:BH:160:LYS:CG	2.20	0.70
52:D5:4:HIS:HB3	52:D5:5:PRO:CD	2.21	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:74:LEU:O	16:AP:79:VAL:HG23	1.92	0.70
25:BA:1755:A:P	40:BT:113:LYS:HZ1	2.15	0.70
25:DA:1025:G:H8	25:DA:1025:G:OP1	1.75	0.70
39:DS:48:LEU:HD22	39:DS:82:ILE:HD11	1.71	0.70
3:AC:70:VAL:HG12	3:AC:72:LYS:H	1.56	0.70
8:CH:86:ILE:HG12	8:CH:135:CYS:HA	1.74	0.70
25:BA:2579:C:O3'	29:BE:131:ALA:HB2	1.92	0.70
8:AH:23:SER:HA	8:AH:63:LEU:HD22	1.73	0.70
1:CA:721:C:H5''	6:CF:69:GLU:HB2	1.72	0.70
29:DE:154:LYS:HA	29:DE:154:LYS:HE3	1.71	0.70
25:BA:2196:C:O2'	25:BA:2197:U:H5'	1.92	0.70
25:BA:608:A:OP1	30:BF:100:THR:HG21	1.91	0.70
4:AD:196:LEU:HA	6:CF:16:GLN:HG3	1.74	0.70
25:DA:1129:A:H4'	25:DA:2516:G:H5''	1.73	0.70
20:CT:26:ASN:ND2	20:CT:71:THR:HA	2.02	0.70
42:BV:49:THR:CG2	42:BV:50:PRO:HD2	2.20	0.70
22:CW:21:A:C6	22:CW:46:G:C4	2.80	0.70
37:DQ:19:GLY:O	37:DQ:20:ALA:HB3	1.90	0.70
10:CJ:49:VAL:CG2	14:CN:41:ARG:HB2	2.16	0.70
28:BD:71:ASP:HB2	28:BD:103:ARG:HH22	1.56	0.70
1:AA:1050:G:H8	1:AA:1050:G:O5'	1.74	0.70
1:AA:338:U:H5''	1:AA:339:A:N7	2.06	0.70
14:CN:13:THR:N	14:CN:14:PRO:CD	2.55	0.70
25:BA:2680:C:H5'	29:BE:189:PRO:HA	1.74	0.70
1:CA:319:G:OP1	20:CT:70:SER:HB2	1.92	0.70
53:B6:19:ARG:HG2	53:B6:20:ASN:N	2.03	0.70
2:AB:77:ALA:HB2	2:AB:211:ILE:HD12	1.74	0.70
29:BE:45:THR:HG22	29:BE:83:ASP:HA	1.73	0.70
25:BA:2100:G:H1	25:BA:2189:U:H3	1.38	0.70
9:CI:118:LYS:CB	9:CI:118:LYS:NZ	2.54	0.70
38:BR:28:LEU:C	38:BR:28:LEU:HD13	2.12	0.70
1:AA:1156:G:H2'	1:AA:1157:A:H8	1.55	0.70
3:AC:150:LYS:HA	3:AC:169:ALA:HB2	1.74	0.70
1:AA:6:G:H4'	1:AA:293:A:H4'	1.74	0.70
25:BA:2122:U:H2'	25:BA:2123:G:C8	2.27	0.70
15:AO:7:GLU:O	15:AO:10:LYS:HG3	1.92	0.70
25:DA:2897:U:H2'	25:DA:2897:U:O2	1.92	0.70
7:CG:11:GLN:NE2	7:CG:12:LEU:H	1.90	0.70
1:AA:960:A:C2	1:AA:961:C:C6	2.79	0.70
39:DS:67:ARG:HH12	39:DS:100:ALA:HB3	1.57	0.70
39:DS:97:ARG:HH21	39:DS:98:VAL:CA	1.93	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2320:A:C2	25:BA:2333:A:C8	2.80	0.70
34:BN:17:ASP:OD1	34:BN:56:ASN:HB3	1.91	0.70
33:BI:94:ALA:HB1	33:BI:111:PRO:CB	2.22	0.70
45:BY:8:LYS:HD2	45:BY:8:LYS:N	2.04	0.70
36:BP:6:LEU:H	36:BP:6:LEU:HD23	1.57	0.70
25:BA:2103:C:C2'	25:BA:2104:G:H5''	2.22	0.70
28:BD:28:GLU:H	28:BD:29:PRO:CD	2.05	0.70
56:B9:2:LYS:HD2	56:B9:3:VAL:HG23	1.72	0.70
25:DA:2391:G:H1'	25:DA:2429:G:H21	1.53	0.70
9:CI:97:LYS:HB3	9:CI:98:PRO:HD3	1.74	0.70
7:CG:23:VAL:HG13	7:CG:43:PHE:HE2	1.56	0.70
1:CA:1302:C:H5''	1:CA:1303:C:H5''	1.74	0.70
25:BA:1171:G:H5''	25:BA:1173:G:H4'	1.74	0.70
6:CF:17:SER:O	6:CF:21:LEU:HD23	1.92	0.70
38:DR:28:LEU:C	38:DR:28:LEU:HD13	2.12	0.70
1:AA:1148:G:N2	1:AA:1151:A:OP2	2.23	0.70
25:BA:174:C:H3'	25:BA:175:G:H5''	1.74	0.70
1:AA:78:G:H22	1:AA:85:U:H4'	1.57	0.70
45:BY:16:ALA:HB1	45:BY:21:LYS:HZ3	1.54	0.70
55:D8:30:ARG:HA	55:D8:30:ARG:HE	1.56	0.70
1:AA:626:C:H5'	8:AH:31:PHE:CD1	2.27	0.70
6:CF:82:ARG:HB3	6:CF:82:ARG:HH11	1.57	0.70
52:B5:45:VAL:HG13	52:B5:50:GLY:HA2	1.73	0.70
25:DA:1819:A:H4'	25:DA:1820:U:C5'	2.22	0.69
41:BU:92:ARG:HH21	41:BU:95:LEU:HG	1.56	0.69
25:BA:2303:G:N3	31:BG:132:ASN:ND2	2.40	0.69
25:DA:2103:C:C2'	25:DA:2104:G:H5''	2.22	0.69
25:DA:2415:G:O3'	36:DP:66:GLY:HA3	1.91	0.69
30:DF:24:LEU:O	30:DF:26:ALA:N	2.25	0.69
25:DA:1952:A:N6	25:DA:1953:A:N6	2.40	0.69
46:DZ:177:PRO:O	46:DZ:178:GLU:HG2	1.92	0.69
37:BQ:109:VAL:HG13	37:BQ:113:GLN:OE1	1.92	0.69
46:BZ:166:SER:HB2	46:BZ:168:GLU:N	2.07	0.69
5:AE:126:ARG:NH1	5:AE:126:ARG:HG3	2.06	0.69
20:AT:33:ILE:CD1	20:AT:62:LEU:HB3	2.21	0.69
1:CA:733:G:N3	15:CO:23:GLY:HA3	2.07	0.69
38:BR:4:LEU:O	38:BR:4:LEU:HD13	1.91	0.69
33:DI:13:GLY:O	33:DI:17:GLN:NE2	2.21	0.69
29:BE:44:TYR:O	29:BE:45:THR:HB	1.90	0.69
25:BA:521:G:H2'	25:BA:522:G:H8	1.57	0.69
8:CH:89:PRO:HA	8:CH:92:ARG:HH11	1.57	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:100:GLY:O	13:CM:101:GLN:CG	2.40	0.69
47:D0:53:MET:HB3	47:D0:59:LEU:HD23	1.73	0.69
37:DQ:14:ARG:HG2	37:DQ:41:TRP:HH2	1.57	0.69
45:DY:54:LYS:C	45:DY:55:TYR:CG	2.64	0.69
36:BP:58:THR:HG21	55:B8:56:GLU:OE1	1.92	0.69
25:BA:2392:A:OP1	55:B8:32:LEU:CD2	2.40	0.69
39:BS:27:SER:HA	39:BS:88:ASP:HB3	1.74	0.69
39:DS:28:VAL:HB	39:DS:89:ARG:HG2	1.73	0.69
1:CA:954:A:O2'	1:CA:958:U:N3	2.23	0.69
29:DE:32:PRO:HB3	29:DE:69:LYS:HB3	1.74	0.69
5:AE:68:GLU:O	5:AE:70:PRO:HD3	1.92	0.69
32:DH:13:LYS:CE	32:DH:13:LYS:HA	2.20	0.69
33:BI:130:TYR:HB3	33:BI:136:VAL:HG13	1.73	0.69
29:BE:11:MET:C	40:BT:8:LYS:HZ1	1.94	0.69
25:BA:1899:G:O2'	25:BA:1900:A:H5''	1.91	0.69
25:DA:1187:G:H5''	42:DV:81:TYR:CE2	2.27	0.69
46:BZ:137:ILE:HD13	46:BZ:156:LYS:O	1.92	0.69
8:CH:11:THR:HG22	8:CH:15:ASN:ND2	2.07	0.69
31:BG:9:ARG:HH11	31:BG:9:ARG:HG2	1.57	0.69
1:CA:1404:G:O3'	35:DO:49:ARG:NH1	2.25	0.69
25:DA:1615:C:O2'	25:DA:1616:A:H5''	1.91	0.69
12:CL:18:VAL:HG23	12:CL:19:ARG:H	1.57	0.69
4:AD:33:MET:CE	4:AD:37:PRO:HA	2.21	0.69
40:DT:29:ARG:NE	40:DT:29:ARG:HA	2.06	0.69
13:AM:108:ARG:N	13:AM:108:ARG:HD2	2.06	0.69
47:B0:10:THR:HG22	47:B0:12:ASN:H	1.56	0.69
50:D3:56:VAL:CG1	50:D3:57:GLU:H	1.98	0.69
1:AA:939:C:H2'	1:AA:940:G:C8	2.24	0.69
26:DB:83:G:C6	26:DB:84:C:N4	2.60	0.69
39:BS:93:LYS:O	39:BS:93:LYS:HG3	1.91	0.69
37:DQ:54:MET:HG2	37:DQ:64:ILE:HG21	1.75	0.69
5:CE:31:LEU:CD1	5:CE:43:LEU:HD11	2.22	0.69
39:DS:13:ARG:O	39:DS:15:ARG:HG2	1.91	0.69
45:BY:95:LYS:HG2	45:BY:100:ALA:HA	1.72	0.69
23:AV:30:G:N2	23:AV:43:G:H1'	2.07	0.69
39:BS:74:ALA:HB1	39:BS:103:GLU:CB	2.20	0.69
10:AJ:40:LEU:HG	10:AJ:69:ASN:HB3	1.72	0.69
25:BA:71:A:OP2	25:BA:71:A:C8	2.44	0.69
25:DA:1344:G:C4	25:DA:1385:G:C8	2.79	0.69
1:AA:672:C:OP1	11:AK:27:ASN:ND2	2.25	0.69
43:DW:88:ARG:HB2	43:DW:92:ARG:HB3	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:147:LEU:HD13	28:DD:155:LEU:HD11	1.73	0.69
29:DE:11:MET:C	40:DT:8:LYS:HZ1	1.95	0.69
37:DQ:21:THR:O	37:DQ:23:GLY:N	2.25	0.69
8:AH:20:TYR:HA	8:AH:65:TYR:CE2	2.27	0.69
25:BA:1805:U:O2	28:BD:50:THR:HB	1.92	0.69
1:AA:1414:G:OP2	40:BT:108:ARG:NH2	2.24	0.69
27:BC:86:ALA:HB1	27:BC:94:VAL:HG11	1.74	0.69
44:BX:25:LYS:NZ	44:BX:80:ILE:HD11	2.08	0.69
53:B6:41:PRO:CD	53:B6:46:HIS:H	2.03	0.69
33:BI:38:LEU:H	33:BI:38:LEU:CD1	1.99	0.69
37:BQ:140:ALA:C	46:BZ:53:ILE:HD13	2.12	0.69
29:BE:101:ARG:HD3	29:BE:169:ASN:ND2	2.08	0.69
43:DW:50:VAL:HG13	43:DW:51:LEU:N	2.07	0.69
8:AH:86:ILE:HG21	8:AH:133:LEU:HD22	1.73	0.69
31:BG:46:ALA:C	31:BG:82:LEU:HD11	2.13	0.69
2:AB:95:GLN:HE21	2:AB:147:LYS:HG2	1.55	0.69
1:CA:439:G:H2'	1:CA:440:G:H8	1.56	0.69
27:DC:86:ALA:HB1	27:DC:94:VAL:HG11	1.74	0.69
45:BY:87:LYS:HG3	45:BY:88:LYS:N	2.06	0.69
10:AJ:67:THR:HG23	10:AJ:67:THR:O	1.91	0.69
49:B2:7:ARG:HH11	49:B2:7:ARG:HG2	1.55	0.69
25:DA:2586:C:O2'	25:DA:2587:A:H5'	1.92	0.69
37:DQ:133:ARG:HH11	37:DQ:133:ARG:HG3	1.58	0.69
31:DG:113:ARG:NH1	31:DG:113:ARG:CG	2.38	0.69
39:DS:14:VAL:HG12	39:DS:15:ARG:N	2.08	0.69
37:BQ:54:MET:HG2	37:BQ:64:ILE:HG21	1.75	0.69
3:AC:7:PRO:O	3:AC:11:ARG:HG2	1.92	0.69
33:BI:83:ALA:CB	33:BI:88:ILE:HD12	2.23	0.69
2:CB:57:PHE:CD2	2:CB:185:ILE:HD11	2.28	0.69
32:BH:121:ILE:CG2	32:BH:133:VAL:HG12	2.22	0.69
32:DH:121:ILE:CG2	32:DH:133:VAL:HG12	2.22	0.69
1:AA:919:G:N2	9:AI:124:GLN:HE22	1.90	0.69
36:BP:45:LEU:HD23	36:BP:46:LYS:N	2.06	0.69
17:CQ:59:ILE:CG2	17:CQ:71:PHE:HB3	2.22	0.69
31:DG:9:ARG:HH11	31:DG:9:ARG:HG2	1.57	0.69
25:BA:1826:G:H4'	28:BD:242:ARG:HH21	1.58	0.69
31:DG:107:LEU:HD11	31:DG:178:PHE:CE1	2.28	0.69
24:AX:19:U:H2'	24:AX:20:U:H6	1.58	0.69
1:CA:1105:A:H4'	10:CJ:36:GLY:HA3	1.72	0.69
37:BQ:14:ARG:HG2	37:BQ:41:TRP:HH2	1.57	0.69
25:BA:2586:C:O2'	25:BA:2587:A:H5'	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:93:ARG:CZ	25:BA:888:C:C5'	2.70	0.69
25:DA:1819:A:OP1	28:DD:158:ALA:HB2	1.92	0.69
23:CV:53:G:C2'	23:CV:54:G:O5'	2.40	0.69
25:DA:307:G:N1	25:DA:310:A:OP2	2.25	0.69
3:AC:76:VAL:HG23	3:AC:77:ILE:N	2.08	0.69
25:BA:871:U:H4'	37:BQ:69:PHE:CE2	2.27	0.69
9:CI:77:ILE:O	9:CI:81:ILE:HG12	1.92	0.69
5:AE:51:VAL:O	5:AE:55:VAL:HG23	1.92	0.69
33:DI:58:LEU:CA	33:DI:61:ARG:HE	2.02	0.69
33:DI:130:TYR:HB3	33:DI:136:VAL:HG13	1.73	0.69
33:DI:98:ALA:HA	33:DI:109:ILE:CG1	2.23	0.69
30:BF:24:LEU:O	30:BF:26:ALA:N	2.25	0.69
37:DQ:62:GLY:O	46:DZ:178:GLU:HG3	1.93	0.69
14:CN:3:ARG:HG2	14:CN:3:ARG:O	1.92	0.69
25:DA:2122:U:H2'	25:DA:2123:G:C8	2.27	0.69
25:DA:1230:C:H2'	25:DA:1231:G:H8	1.56	0.69
36:BP:99:LEU:HA	36:BP:102:ARG:HH22	1.55	0.69
26:DB:69:G:H2'	26:DB:70:C:C6	2.28	0.69
25:DA:272(I):U:H2'	25:DA:272(J):C:H6	1.58	0.69
25:DA:863:A:H2'	25:DA:864:G:H8	1.56	0.69
1:CA:948:G:N2	1:CA:1345:A:OP2	2.22	0.69
12:AL:24:VAL:O	12:AL:24:VAL:HG12	1.93	0.69
47:B0:53:MET:HB3	47:B0:59:LEU:HD23	1.73	0.69
48:D1:40:ARG:C	48:D1:40:ARG:HD3	2.12	0.69
1:CA:992:A:H4'	19:CS:14:HIS:CD2	2.28	0.69
6:AF:33:TYR:CE1	6:AF:75:LEU:HA	2.27	0.69
42:DV:19:LYS:HG2	42:DV:94:LEU:CB	2.17	0.69
36:DP:6:LEU:H	36:DP:6:LEU:HD23	1.57	0.69
5:AE:31:LEU:CD1	5:AE:43:LEU:HD11	2.23	0.69
4:AD:189:PRO:HB2	4:AD:194:LEU:CD2	2.22	0.69
31:DG:6:ALA:HB3	31:DG:104:GLU:OE1	1.91	0.69
8:CH:23:SER:HA	8:CH:63:LEU:HD22	1.75	0.69
25:DA:1805:U:O2	28:DD:50:THR:HB	1.91	0.69
1:AA:402:G:H1	1:AA:430:C:H42	1.41	0.69
41:BU:47:TYR:HA	41:BU:50:ARG:NH2	2.07	0.69
46:BZ:14:LYS:HD3	46:BZ:17:ALA:HB3	1.74	0.69
32:DH:52:VAL:HG11	32:DH:68:THR:HB	1.75	0.69
41:BU:91:ASP:OD1	41:BU:96:ALA:HB2	1.91	0.69
25:BA:2390:U:O2'	25:BA:2391:G:H5''	1.93	0.69
31:BG:111:LEU:N	31:BG:112:PRO:CD	2.55	0.69
41:DU:92:ARG:HH21	41:DU:95:LEU:HG	1.56	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:116:ALA:O	7:CG:120:ILE:HG12	1.93	0.69
28:DD:27:THR:HG21	28:DD:83:GLU:HG2	1.74	0.69
25:BA:2314:C:H2'	25:BA:2315:G:H8	1.58	0.69
12:CL:28:LYS:HG3	12:CL:33:ARG:NH1	2.06	0.69
28:BD:33:LEU:HD22	28:BD:102:LYS:HD2	1.74	0.69
1:CA:261:G:H4'	1:CA:262:C:O5'	1.92	0.69
2:CB:91:PRO:CG	2:CB:155:LEU:HD23	2.23	0.69
25:BA:2712:U:H1'	25:BA:2712(A):A:H8	1.58	0.69
33:BI:88:ILE:N	33:BI:88:ILE:HD13	2.06	0.69
12:AL:47:LYS:CB	12:AL:48:PRO:CD	2.71	0.69
28:DD:16:MET:HE1	28:DD:208:LYS:HD2	1.74	0.69
25:DA:272:G:C2	25:DA:421:U:C4	2.81	0.69
34:BN:58:ASP:O	34:BN:60:ILE:HG13	1.92	0.69
2:CB:165:VAL:HG23	2:CB:166:ASP:N	2.07	0.69
31:DG:69:ALA:CB	31:DG:91:ARG:HH21	2.06	0.69
37:DQ:109:VAL:HG13	37:DQ:113:GLN:OE1	1.92	0.69
46:DZ:94:GLU:O	46:DZ:96:VAL:HG23	1.92	0.69
34:DN:15:LEU:HD13	34:DN:16:ILE:N	2.07	0.69
29:DE:45:THR:HG22	29:DE:83:ASP:HA	1.73	0.69
28:BD:147:LEU:HD13	28:BD:155:LEU:HD11	1.73	0.69
1:AA:816:U:H3	1:AA:830:G:H1	1.38	0.69
22:CY:36:A:C2	24:CX:20:U:C4	2.81	0.69
22:CY:35:A:H2'	22:CY:36:A:H5''	1.74	0.69
30:BF:167:ALA:HB1	30:BF:173:VAL:HG11	1.75	0.69
25:BA:1119:C:H2'	25:BA:1120:G:C8	2.27	0.69
31:DG:82:LEU:HD22	31:DG:87:PRO:HG3	1.74	0.69
15:AO:7:GLU:O	15:AO:11:VAL:HG23	1.93	0.69
8:CH:17:THR:HG22	8:CH:63:LEU:HG	1.74	0.69
25:DA:227:A:H5''	36:DP:76:LYS:HE2	1.72	0.69
15:CO:7:GLU:O	15:CO:11:VAL:HG23	1.92	0.69
15:CO:51:HIS:O	15:CO:54:ARG:HB3	1.92	0.69
52:D5:45:VAL:HG13	52:D5:50:GLY:HA2	1.73	0.69
36:BP:122:PRO:HG3	36:BP:141:ALA:HB3	1.74	0.69
28:DD:48:ARG:HH11	28:DD:48:ARG:HG3	1.58	0.69
1:AA:1404:G:O3'	35:BO:49:ARG:NH1	2.26	0.69
15:CO:30:ALA:HA	15:CO:85:LEU:HD11	1.75	0.69
18:AR:35:ARG:O	18:AR:37:VAL:N	2.26	0.69
1:CA:581:U:H4'	8:CH:94:TYR:CG	2.28	0.69
25:DA:144:C:H2'	25:DA:145:G:H8	1.58	0.69
25:DA:2196:C:O2'	25:DA:2197:U:H5'	1.92	0.69
30:DF:83:PHE:O	30:DF:84:VAL:HB	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2897:U:O2	25:BA:2897:U:H2'	1.91	0.69
29:BE:59:VAL:O	29:BE:60:ASN:HB3	1.93	0.69
50:D3:4:LEU:HD12	50:D3:39:ASP:OD1	1.91	0.69
25:DA:309:G:H21	25:DA:330:A:P	2.15	0.69
39:DS:27:SER:HA	39:DS:88:ASP:HB3	1.74	0.69
33:BI:98:ALA:HA	33:BI:109:ILE:CG1	2.23	0.69
33:BI:133:HIS:HB2	33:BI:134:PRO:HD3	1.75	0.69
16:CP:20:VAL:HG21	16:CP:32:TYR:CB	2.23	0.69
19:AS:20:LEU:O	19:AS:23:ASN:HB3	1.92	0.69
43:DW:68:ARG:HD2	43:DW:110:LYS:CB	2.23	0.69
25:DA:1044:G:H1'	25:DA:1111:A:N1	2.08	0.69
8:AH:11:THR:HG22	8:AH:15:ASN:ND2	2.07	0.69
31:DG:47:LYS:NZ	31:DG:82:LEU:HD12	2.08	0.69
25:DA:1119:C:H2'	25:DA:1120:G:C8	2.27	0.69
1:CA:1427:G:N2	1:CA:1437:A:H1'	2.08	0.69
1:CA:153:G:N2	1:CA:156:A:OP2	2.26	0.69
46:BZ:44:PHE:CE2	46:BZ:86:VAL:HG21	2.28	0.69
1:CA:1165:G:H2'	1:CA:1166:G:H8	1.58	0.69
42:DV:69:LYS:HA	42:DV:88:ARG:HG2	1.73	0.69
18:CR:35:ARG:O	18:CR:37:VAL:N	2.26	0.69
30:DF:108:LYS:O	30:DF:112:MET:HB2	1.93	0.69
22:AW:44:G:H5''	22:AW:45:U:OP2	1.93	0.69
25:BA:2523:G:H5'	25:BA:2523:G:H8	1.58	0.69
25:BA:1615:C:O2'	25:BA:1616:A:H5''	1.91	0.69
13:AM:88:ARG:O	13:AM:98:VAL:HG11	1.93	0.69
25:BA:108:U:C2'	25:BA:109:G:C5'	2.71	0.69
41:BU:92:ARG:CZ	42:BV:11:GLN:HB2	2.24	0.69
45:DY:26:LYS:HG2	45:DY:27:VAL:N	2.07	0.69
25:DA:2168:G:N1	25:DA:2171:A:OP2	2.26	0.69
9:AI:77:ILE:O	9:AI:81:ILE:HG12	1.93	0.69
53:D6:10:LEU:HD12	55:D8:34:TRP:NE1	2.08	0.69
13:CM:16:ASP:HB2	13:CM:27:LYS:NZ	2.07	0.69
28:DD:28:GLU:H	28:DD:29:PRO:CD	2.05	0.69
25:BA:2682:U:H6	25:BA:2682:U:H5'	1.58	0.69
45:BY:26:LYS:HG2	45:BY:27:VAL:N	2.08	0.69
3:CC:84:ILE:O	3:CC:88:ARG:HG3	1.93	0.69
25:BA:760:G:H5''	25:BA:760:G:C8	2.27	0.69
31:BG:82:LEU:HD22	31:BG:87:PRO:HG3	1.74	0.69
8:CH:20:TYR:HA	8:CH:65:TYR:CE2	2.27	0.69
1:CA:737:C:H5'	1:CA:738:G:H8	1.58	0.69
46:DZ:44:PHE:CE2	46:DZ:86:VAL:HG21	2.28	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CV:25:U:H2'	23:CV:26:C:O4'	1.93	0.69
43:DW:22:ASP:HA	43:DW:25:ARG:HH12	1.58	0.69
50:D3:4:LEU:HB2	50:D3:39:ASP:HB2	1.74	0.68
22:CW:16:U:H5	22:CW:18:G:O5'	1.77	0.68
25:BA:2168:G:N1	25:BA:2171:A:OP2	2.26	0.68
44:DX:25:LYS:NZ	44:DX:80:ILE:HD11	2.08	0.68
25:BA:1803:A:O2'	28:BD:259:THR:HG21	1.93	0.68
25:DA:2227:A:H5'	28:DD:263:ARG:NH1	2.08	0.68
25:BA:71:A:C5'	25:BA:73:A:C8	2.74	0.68
36:BP:38:GLN:HG3	36:BP:39:LYS:N	2.06	0.68
1:AA:822:U:C2'	1:AA:822:U:O2	2.40	0.68
10:AJ:30:SER:OG	10:AJ:81:THR:HG22	1.93	0.68
4:CD:28:SER:O	4:CD:30:LYS:N	2.25	0.68
31:BG:69:ALA:CB	31:BG:91:ARG:HH21	2.05	0.68
25:BA:1313:U:H5''	25:BA:1333:C:OP2	1.93	0.68
6:CF:60:PHE:O	6:CF:61:LEU:HD12	1.93	0.68
37:DQ:39:PRO:HA	37:DQ:97:VAL:O	1.92	0.68
38:DR:18:LEU:HD11	38:DR:22:ARG:CZ	2.23	0.68
31:BG:107:LEU:HD11	31:BG:178:PHE:CE1	2.28	0.68
30:BF:157:VAL:HB	30:BF:194:MET:HB3	1.75	0.68
36:DP:122:PRO:HG3	36:DP:141:ALA:HB3	1.74	0.68
28:BD:158:ALA:HB3	28:BD:161:THR:HG21	1.74	0.68
38:BR:18:LEU:HD11	38:BR:22:ARG:CZ	2.23	0.68
13:CM:94:ARG:HD3	25:DA:888:C:OP2	1.93	0.68
36:BP:56:SER:HB3	36:BP:60:MET:HG2	1.74	0.68
13:AM:3:ARG:HG2	13:AM:9:ILE:CG1	2.22	0.68
39:BS:67:ARG:HH12	39:BS:100:ALA:HB3	1.57	0.68
28:DD:6:PHE:CD2	28:DD:9:TYR:OH	2.45	0.68
32:BH:107:VAL:O	32:BH:109:PHE:N	2.26	0.68
5:AE:43:LEU:CD2	5:AE:132:ALA:HB1	2.23	0.68
31:DG:39:ILE:HD13	31:DG:157:ILE:CG2	2.23	0.68
46:DZ:166:SER:HB2	46:DZ:168:GLU:N	2.07	0.68
14:AN:3:ARG:O	14:AN:3:ARG:HG2	1.92	0.68
45:BY:47:LYS:N	45:BY:47:LYS:HD2	2.08	0.68
35:BO:34:THR:OG1	35:BO:35:VAL:N	2.26	0.68
30:BF:83:PHE:O	30:BF:84:VAL:HB	1.92	0.68
10:CJ:67:THR:HG23	10:CJ:67:THR:O	1.93	0.68
3:CC:9:GLY:HA2	3:CC:12:LEU:HD23	1.75	0.68
11:AK:122:LYS:O	11:AK:126:ARG:HG3	1.93	0.68
46:DZ:14:LYS:HD3	46:DZ:17:ALA:HB3	1.74	0.68
25:BA:686:G:H5''	54:B7:11:LYS:HE2	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B6:32:ASN:CG	53:B6:33:LYS:H	1.97	0.68
25:BA:1997:G:O2'	25:BA:1998:G:H5'	1.93	0.68
13:CM:94:ARG:NH1	25:DA:888:C:OP2	2.26	0.68
29:DE:73:GLU:HG3	29:DE:74:PRO:HD2	1.75	0.68
25:BA:2327:A:H2'	25:BA:2328:A:C8	2.28	0.68
42:BV:41:GLY:HA3	42:BV:45:THR:OG1	1.93	0.68
6:AF:82:ARG:HB3	6:AF:82:ARG:HH11	1.58	0.68
25:DA:1771:C:H2'	25:DA:1772:G:H5'	1.74	0.68
3:AC:84:ILE:O	3:AC:88:ARG:HG3	1.93	0.68
25:BA:309:G:H21	25:BA:330:A:P	2.15	0.68
42:DV:39:LEU:CB	42:DV:47:VAL:HG11	2.23	0.68
42:DV:19:LYS:HG3	42:DV:20:LEU:N	2.07	0.68
33:DI:83:ALA:CB	33:DI:88:ILE:HD12	2.22	0.68
27:BC:59:ARG:HB2	27:BC:62:VAL:CG2	2.23	0.68
32:BH:159:GLU:HG3	32:BH:160:LYS:N	2.04	0.68
25:BA:1652:A:H2'	25:BA:1653:G:H5''	1.76	0.68
2:AB:165:VAL:HG23	2:AB:166:ASP:N	2.08	0.68
32:DH:121:ILE:HG22	32:DH:133:VAL:HG12	1.75	0.68
25:DA:1171:G:H5''	25:DA:1173:G:H4'	1.74	0.68
19:CS:64:GLU:O	19:CS:67:VAL:HG23	1.93	0.68
18:CR:50:ILE:CD1	18:CR:70:ILE:HG21	2.23	0.68
34:BN:15:LEU:HD13	34:BN:16:ILE:N	2.07	0.68
25:DA:521:G:H2'	25:DA:522:G:H8	1.57	0.68
25:BA:1044:G:H1'	25:BA:1111:A:N1	2.08	0.68
25:DA:2327:A:H2'	25:DA:2328:A:C8	2.28	0.68
6:AF:60:PHE:O	6:AF:61:LEU:HD12	1.93	0.68
25:DA:280:C:O2	25:DA:361:G:C2	2.46	0.68
50:B3:4:LEU:HD21	50:B3:56:VAL:CG1	2.22	0.68
25:BA:858:U:O2'	25:BA:859:G:C5	2.44	0.68
25:DA:1658:C:C4	25:DA:1659:U:O4	2.47	0.68
1:AA:1269:A:N1	1:AA:1353:G:H1'	2.08	0.68
5:CE:78:HIS:CD2	8:CH:104:ARG:CZ	2.75	0.68
32:DH:107:VAL:O	32:DH:109:PHE:N	2.26	0.68
25:BA:576:U:H2'	25:BA:577:G:C8	2.28	0.68
38:DR:4:LEU:O	38:DR:4:LEU:HD13	1.92	0.68
25:DA:576:U:H2'	25:DA:577:G:C8	2.28	0.68
25:DA:2579:C:O3'	29:DE:131:ALA:HB2	1.93	0.68
46:BZ:146:ILE:HG22	46:BZ:174:VAL:HG12	1.76	0.68
29:BE:101:ARG:HH21	29:BE:171:GLU:CA	2.05	0.68
23:AV:8:U:O2	23:AV:49:C:H6	1.76	0.68
32:DH:121:ILE:HG23	32:DH:134:SER:O	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DE:101:ARG:HD3	29:DE:169:ASN:ND2	2.08	0.68
43:BW:88:ARG:HB2	43:BW:92:ARG:HB3	1.74	0.68
43:BW:111:HIS:CG	43:BW:112:GLY:H	2.11	0.68
17:AQ:59:ILE:CG2	17:AQ:71:PHE:HB3	2.23	0.68
11:CK:48:ILE:HG22	11:CK:49:GLY:H	1.56	0.68
3:CC:76:VAL:HG23	3:CC:77:ILE:N	2.09	0.68
6:CF:39:LYS:HG2	6:CF:40:VAL:H	1.58	0.68
10:CJ:16:LEU:O	10:CJ:16:LEU:HD13	1.92	0.68
31:DG:46:ALA:C	31:DG:82:LEU:HD11	2.13	0.68
1:CA:338:U:O3'	1:CA:339:A:H2'	1.92	0.68
45:BY:88:LYS:HZ1	45:BY:93:GLY:HA3	1.59	0.68
1:AA:1245:C:O2	1:AA:1252:G:N2	2.22	0.68
30:BF:134:GLY:H	30:BF:162:LEU:HG	1.59	0.68
25:DA:1997:G:O2'	25:DA:1998:G:H5'	1.93	0.68
1:CA:956:C:H42	14:CN:18:VAL:HG12	1.58	0.68
8:AH:82:HIS:C	8:AH:82:HIS:CD2	2.66	0.68
4:CD:8:VAL:C	4:CD:10:ARG:H	1.96	0.68
41:DU:47:TYR:HA	41:DU:50:ARG:NH2	2.07	0.68
25:BA:1129:A:H4'	25:BA:2516:G:H5''	1.73	0.68
25:BA:280:C:O2	25:BA:361:G:C2	2.46	0.68
9:CI:17:VAL:HG11	9:CI:81:ILE:HD13	1.76	0.68
28:BD:25:THR:O	28:BD:26:LYS:HG2	1.94	0.68
22:AW:38:A:H2'	22:AW:39:U:H5'	1.75	0.68
32:DH:144:VAL:O	32:DH:148:ILE:HG12	1.94	0.68
25:BA:297:C:H2'	25:BA:298:G:C5'	2.24	0.68
26:BB:11:C:OP1	47:B0:72:ARG:CD	2.42	0.68
31:DG:28:VAL:O	31:DG:31:VAL:HG12	1.92	0.68
31:BG:39:ILE:HD13	31:BG:157:ILE:CG2	2.23	0.68
1:AA:385:C:O3'	16:AP:28:ARG:NH2	2.26	0.68
10:AJ:8:LEU:CD2	10:AJ:96:ILE:HG22	2.23	0.68
25:DA:813:U:H2'	25:DA:814:C:C6	2.29	0.68
34:BN:12:ARG:HB3	34:BN:50:ASP:OD1	1.94	0.68
30:DF:143:ALA:HB1	30:DF:148:LEU:HB2	1.75	0.68
44:BX:64:LYS:HD3	44:BX:73:ARG:NE	2.09	0.68
5:AE:87:SER:HB3	5:AE:131:ILE:CD1	2.23	0.68
25:DA:598:G:H5'	36:DP:15:ARG:HD2	1.74	0.68
23:CV:35:C:O2'	23:CV:36:A:C5'	2.42	0.68
29:BE:73:GLU:HG3	29:BE:74:PRO:HD2	1.75	0.68
25:BA:109:G:HO2'	25:BA:110:G:H5'	1.57	0.68
25:DA:2682:U:H2'	25:DA:2683:C:O4'	1.94	0.68
25:BA:1590:U:H2'	25:BA:1591:G:C5'	2.16	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DS:99:LYS:O	39:DS:101:LEU:N	2.26	0.68
39:DS:54:LEU:HD22	39:DS:54:LEU:H	1.58	0.68
25:BA:1658:C:C4	25:BA:1659:U:O4	2.47	0.68
1:AA:1050:G:N2	1:AA:1172:A:N3	2.41	0.68
32:BH:13:LYS:HA	32:BH:13:LYS:CE	2.20	0.68
33:DI:38:LEU:HD12	33:DI:38:LEU:N	2.04	0.68
39:DS:46:VAL:CG1	39:DS:47:THR:H	2.05	0.68
8:CH:104:ARG:HB3	8:CH:107:LEU:HB2	1.75	0.68
25:DA:2390:U:O2'	25:DA:2391:G:H5''	1.92	0.68
25:BA:747:U:N3	52:B5:2:ALA:N	2.41	0.68
2:AB:218:ALA:O	2:AB:222:ILE:HG13	1.94	0.68
25:DA:1230:C:H2'	25:DA:1231:G:C8	2.29	0.68
46:DZ:128:VAL:HG21	46:DZ:132:ASN:O	1.94	0.68
46:DZ:137:ILE:HD13	46:DZ:156:LYS:O	1.92	0.68
22:AW:12:U:H3	22:AW:23:A:H61	1.42	0.68
30:BF:17:ARG:HG3	30:BF:17:ARG:HH11	1.59	0.68
31:BG:10:LYS:HE3	31:BG:14:GLU:OE1	1.94	0.68
1:AA:1239:G:H2'	1:AA:1240:C:H6	1.59	0.68
4:AD:170:VAL:HG12	4:AD:174:LEU:HB2	1.76	0.68
15:CO:7:GLU:O	15:CO:10:LYS:HG3	1.93	0.68
48:B1:23:LYS:HE2	48:B1:28:GLY:HA3	1.76	0.68
30:BF:143:ALA:HB1	30:BF:148:LEU:HB2	1.75	0.68
25:BA:78:A:H2'	25:BA:79:G:H8	1.57	0.68
48:D1:50:ARG:HG2	48:D1:50:ARG:NH1	2.09	0.68
13:CM:94:ARG:NH2	25:DA:887:A:C4	2.61	0.68
44:BX:12:VAL:CB	44:BX:17:ALA:HB1	2.17	0.68
23:CV:53:G:H2'	23:CV:54:G:O5'	1.94	0.68
37:BQ:133:ARG:HG3	37:BQ:133:ARG:HH11	1.58	0.68
41:DU:92:ARG:CZ	42:DV:11:GLN:HB2	2.23	0.68
26:BB:9:G:OP1	39:BS:17:ARG:HD3	1.93	0.68
10:CJ:49:VAL:O	10:CJ:60:ARG:HB3	1.94	0.68
45:DY:95:LYS:HE2	45:DY:100:ALA:HB2	1.74	0.68
25:BA:2282:G:P	57:BA:3062:MG:MG	1.76	0.68
33:BI:38:LEU:N	33:BI:38:LEU:HD12	2.04	0.68
32:DH:156:ALA:H	32:DH:158:HIS:H	1.42	0.68
45:DY:47:LYS:HD2	45:DY:47:LYS:N	2.08	0.68
26:BB:71:C:H2'	26:BB:72:G:H8	1.58	0.68
31:DG:41:GLN:HE22	31:DG:153:ARG:HG2	1.58	0.68
25:DA:2175:C:H1'	27:DC:215:THR:N	2.09	0.68
30:DF:167:ALA:HB1	30:DF:173:VAL:HG11	1.75	0.68
47:D0:48:GLY:HA3	47:D0:80:HIS:ND1	2.09	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1717:G:H3'	25:DA:1718:G:H5''	1.73	0.68
6:CF:69:GLU:O	6:CF:72:VAL:HG12	1.93	0.68
1:CA:981:G:N2	1:CA:1020:C:N3	2.42	0.68
25:BA:813:U:H2'	25:BA:814:C:C6	2.29	0.68
1:CA:1237:A:OP2	3:CC:26:LYS:NZ	2.20	0.68
17:CQ:50:LYS:HE3	17:CQ:51:TYR:CE1	2.29	0.68
1:AA:767:C:H4'	25:BA:1837:C:OP1	1.94	0.68
1:CA:743:G:N2	17:CQ:97:SER:OG	2.27	0.68
30:DF:89:VAL:HG12	30:DF:90:PHE:N	2.09	0.68
1:AA:608:G:H2'	1:AA:609:U:H6	1.59	0.68
29:DE:59:VAL:O	29:DE:60:ASN:HB3	1.93	0.68
50:D3:29:ARG:HG3	50:D3:29:ARG:HH11	1.58	0.68
22:CW:1:G:N2	22:CW:2:C:C2	2.62	0.68
26:DB:92:C:O2	26:DB:93:G:C8	2.47	0.68
19:AS:41:VAL:O	19:AS:44:MET:HB2	1.94	0.68
25:DA:614:U:C4'	25:DA:614(C):A:N6	2.56	0.68
25:BA:614:U:C4'	25:BA:614(C):A:N6	2.56	0.68
28:DD:33:LEU:HD22	28:DD:102:LYS:HD2	1.74	0.68
25:DA:857:C:C2'	25:DA:858:U:H5'	2.24	0.68
1:AA:154:A:N3	1:AA:154:A:H2'	2.09	0.68
33:BI:144:VAL:O	33:BI:145:VAL:HB	1.94	0.68
33:DI:129:THR:HA	33:DI:137:PRO:HA	1.74	0.68
45:DY:7:VAL:HB	45:DY:8:LYS:HZ2	1.57	0.68
17:AQ:7:THR:CG2	17:AQ:58:GLU:HG2	2.24	0.68
32:BH:121:ILE:HG23	32:BH:134:SER:O	1.93	0.68
1:AA:902:G:H1	1:AA:1373:U:H3	1.42	0.68
3:CC:35:GLU:HA	3:CC:38:ARG:HD2	1.76	0.68
21:AU:2:GLY:C	21:AU:4:GLY:H	1.96	0.68
12:AL:23:LYS:O	12:AL:24:VAL:HG23	1.93	0.68
30:BF:108:LYS:O	30:BF:112:MET:HB2	1.93	0.68
3:AC:138:VAL:HG23	3:AC:151:VAL:HG23	1.76	0.68
35:DO:88:ASN:HD21	35:DO:90:GLN:HB2	1.59	0.68
7:AG:76:ARG:HG2	7:AG:76:ARG:HH11	1.59	0.68
42:BV:99:ILE:H	42:BV:99:ILE:HD13	1.59	0.68
1:AA:354:U:H2'	1:AA:355:A:C8	2.28	0.68
13:CM:95:GLY:O	13:CM:96:LEU:HG	1.94	0.68
55:B8:50:LEU:HD12	55:B8:54:GLU:OE2	1.93	0.68
19:AS:45:VAL:C	19:AS:47:HIS:H	1.96	0.68
36:BP:66:GLY:O	36:BP:67:MET:HB3	1.94	0.68
3:CC:15:THR:HG22	3:CC:16:ARG:N	2.09	0.68
28:DD:25:THR:O	28:DD:26:LYS:HG2	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:857:C:C2'	25:BA:858:U:H5'	2.24	0.68
44:BX:60:ARG:HH22	54:B7:47:ARG:NE	1.92	0.68
33:DI:133:HIS:HB2	33:DI:134:PRO:HD3	1.75	0.68
8:AH:48:TYR:HA	8:AH:60:ARG:O	1.94	0.68
32:DH:18:GLU:HB3	32:DH:25:LYS:NZ	2.09	0.68
16:AP:20:VAL:HG21	16:AP:32:TYR:CG	2.29	0.68
25:BA:492:A:H2'	25:BA:493:G:O4'	1.94	0.68
25:BA:1987:G:H8	25:BA:1987:G:H5'	1.59	0.68
4:CD:170:VAL:HG12	4:CD:174:LEU:HB2	1.75	0.68
6:AF:39:LYS:HG2	6:AF:40:VAL:H	1.58	0.68
41:DU:46:ALA:O	41:DU:50:ARG:HG3	1.94	0.68
44:BX:64:LYS:NZ	44:BX:73:ARG:HH21	1.92	0.68
40:DT:128:GLU:O	40:DT:130:ALA:N	2.24	0.68
43:DW:61:ASN:N	43:DW:61:ASN:HD22	1.89	0.68
25:BA:203:C:H3'	25:BA:204:A:H5''	1.76	0.68
1:CA:1487:U:H2'	1:CA:1488:G:C8	2.28	0.68
48:B1:50:ARG:NH1	48:B1:50:ARG:HG2	2.09	0.68
25:BA:144:C:H2'	25:BA:145:G:H8	1.58	0.68
1:AA:453:G:O6	1:AA:455:C:H5''	1.93	0.68
22:CW:21:A:N7	22:CW:46:G:N7	2.42	0.68
5:CE:101:ILE:CD1	5:CE:119:LEU:HA	2.22	0.68
50:B3:4:LEU:HB2	50:B3:39:ASP:HB2	1.74	0.68
19:CS:45:VAL:C	19:CS:47:HIS:H	1.96	0.68
39:BS:14:VAL:HG12	39:BS:15:ARG:N	2.08	0.68
31:BG:28:VAL:O	31:BG:31:VAL:HG12	1.93	0.68
2:AB:67:THR:HB	2:AB:155:LEU:HD21	1.75	0.68
33:DI:94:ALA:HB1	33:DI:111:PRO:CB	2.22	0.68
9:AI:97:LYS:HB3	9:AI:98:PRO:HD3	1.75	0.68
26:DB:107:G:C5	26:DB:108:U:C5	2.82	0.68
25:BA:2186:G:N1	25:BA:2187:G:C6	2.62	0.68
45:BY:27:VAL:HA	45:BY:28:LYS:HZ2	1.59	0.68
48:B1:84:GLY:O	48:B1:86:SER:N	2.27	0.68
36:DP:91:PHE:CE2	36:DP:95:VAL:HG12	2.29	0.68
1:CA:720:A:H2'	1:CA:721:C:C6	2.29	0.68
23:CV:24:C:H2'	23:CV:25:U:C6	2.29	0.68
52:B5:49:CYS:O	52:B5:56:LYS:HB3	1.94	0.68
30:DF:157:VAL:HB	30:DF:194:MET:HB3	1.75	0.68
25:DA:608:A:OP1	30:DF:100:THR:HG21	1.94	0.68
25:BA:1510:G:O2'	25:BA:1511:C:H5'	1.94	0.68
25:DA:78:A:H2'	25:DA:79:G:H8	1.57	0.68
29:BE:32:PRO:HB3	29:BE:69:LYS:HB3	1.73	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DQ:18:LYS:HZ3	37:DQ:18:LYS:HB3	1.59	0.67
53:B6:10:LEU:HD12	55:B8:34:TRP:NE1	2.08	0.67
19:CS:41:VAL:O	19:CS:44:MET:HB2	1.94	0.67
25:BA:283:A:H5'	25:BA:284:U:H5	1.58	0.67
25:DA:2186:G:N1	25:DA:2187:G:C6	2.62	0.67
25:DA:2314:C:H2'	25:DA:2315:G:H8	1.58	0.67
32:BH:144:VAL:O	32:BH:148:ILE:HG12	1.94	0.67
25:DA:1447:G:O4'	25:DA:1545:A:O2'	2.12	0.67
37:BQ:59:ARG:O	37:BQ:60:ARG:HB2	1.93	0.67
4:CD:189:PRO:HB2	4:CD:194:LEU:CD2	2.23	0.67
34:DN:23:LEU:HB3	34:DN:60:ILE:HG21	1.76	0.67
30:BF:8:GLN:HG2	30:BF:126:VAL:HG12	1.74	0.67
36:BP:91:PHE:CE2	36:BP:95:VAL:HG12	2.30	0.67
1:AA:1374:G:H21	1:AA:1479:A:H8	1.43	0.67
55:D8:50:LEU:HD12	55:D8:54:GLU:OE2	1.93	0.67
25:DA:2784:C:H4'	29:DE:41:LYS:O	1.95	0.67
36:BP:18:ARG:HH11	36:BP:18:ARG:CB	2.07	0.67
28:BD:76:PRO:O	28:BD:98:VAL:HG23	1.94	0.67
43:BW:68:ARG:HD2	43:BW:110:LYS:CB	2.23	0.67
8:CH:88:LYS:HB3	8:CH:89:PRO:HD2	1.76	0.67
25:DA:733:G:O6	25:DA:761:A:C8	2.47	0.67
22:AW:24:G:H2'	22:AW:25:C:C6	2.29	0.67
30:DF:17:ARG:HH11	30:DF:17:ARG:HG3	1.59	0.67
34:DN:40:PRO:HB3	41:DU:68:ALA:HB2	1.76	0.67
30:BF:89:VAL:HG12	30:BF:90:PHE:N	2.09	0.67
25:DA:174:C:H3'	25:DA:175:G:H5''	1.74	0.67
3:AC:173:VAL:O	3:AC:175:LEU:HD12	1.94	0.67
3:AC:165:THR:O	3:AC:165:THR:HG22	1.92	0.67
28:BD:48:ARG:HH11	28:BD:48:ARG:HG3	1.58	0.67
3:CC:116:VAL:O	3:CC:119:ARG:HB3	1.93	0.67
25:DA:2523:G:H8	25:DA:2523:G:H5'	1.59	0.67
29:BE:52:LEU:HD23	29:BE:76:ARG:H	1.59	0.67
25:DA:1593:G:C3'	25:DA:1594:G:H5''	2.25	0.67
25:BA:2172:U:H1'	25:BA:2173:A:P	2.34	0.67
25:DA:2126:A:H5''	27:DC:36:LYS:CG	2.19	0.67
42:BV:19:LYS:HG3	42:BV:20:LEU:N	2.07	0.67
31:DG:109:VAL:CG1	31:DG:142:PRO:HG3	2.23	0.67
13:CM:108:ARG:HH12	13:CM:111:LYS:HB2	1.58	0.67
33:BI:54:GLN:O	33:BI:58:LEU:HB2	1.94	0.67
28:DD:31:LYS:HZ2	28:DD:102:LYS:HZ2	1.43	0.67
1:AA:338:U:O3'	1:AA:339:A:H2'	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:109:ILE:HG22	33:BI:111:PRO:HD3	1.76	0.67
20:AT:89:ARG:CD	20:AT:104:LEU:HD11	2.22	0.67
30:DF:34:TRP:CH2	36:DP:12:ALA:HB2	2.29	0.67
2:AB:57:PHE:CD2	2:AB:185:ILE:HD11	2.29	0.67
32:DH:107:VAL:HG21	32:DH:152:ARG:HG3	1.76	0.67
26:DB:41:U:C4	31:DG:69:ALA:HB1	2.29	0.67
46:BZ:102:LEU:HD11	46:BZ:124:ILE:HG22	1.77	0.67
32:BH:121:ILE:HG22	32:BH:133:VAL:HG12	1.75	0.67
20:AT:72:LEU:HD23	20:AT:73:HIS:H	1.58	0.67
25:BA:1230:C:H2'	25:BA:1231:G:C8	2.29	0.67
26:DB:71:C:H2'	26:DB:72:G:H8	1.58	0.67
43:DW:111:HIS:CG	43:DW:112:GLY:H	2.11	0.67
46:BZ:128:VAL:HG21	46:BZ:132:ASN:O	1.94	0.67
1:CA:855:G:H5'	8:CH:89:PRO:HG2	1.76	0.67
25:DA:492:A:H2'	25:DA:493:G:O4'	1.94	0.67
42:BV:15:GLU:HB3	42:BV:16:PRO:HD2	1.76	0.67
44:BX:54:VAL:HG22	44:BX:81:VAL:HG12	1.75	0.67
25:BA:2684:U:OP1	40:BT:60:THR:HG21	1.94	0.67
25:BA:2195:C:O2'	25:BA:2196:C:H5'	1.94	0.67
25:DA:1510:G:O2'	25:DA:1511:C:H5'	1.94	0.67
4:AD:8:VAL:C	4:AD:10:ARG:H	1.96	0.67
25:BA:1192:G:O2'	25:BA:1193:G:H5'	1.94	0.67
53:D6:32:ASN:CG	53:D6:33:LYS:H	1.97	0.67
1:CA:656:G:H2'	1:CA:657:G:C8	2.29	0.67
42:BV:62:LEU:HD21	42:BV:95:LEU:HB2	1.76	0.67
25:BA:1165:U:H2'	25:BA:1166:C:C6	2.29	0.67
39:BS:26:LEU:HG	39:BS:39:ILE:CD1	2.24	0.67
26:BB:107:G:C2'	26:BB:108:U:C5'	2.65	0.67
25:BA:2682:U:O2'	25:BA:2683:C:H5'	1.94	0.67
25:DA:353:G:C2	25:DA:354:G:N7	2.63	0.67
25:DA:769:G:O2'	25:DA:770:G:H5'	1.94	0.67
25:DA:528:A:C2	25:DA:2042:A:H2'	2.30	0.67
48:D1:64:ALA:HA	48:D1:67:ILE:HD11	1.76	0.67
8:CH:48:TYR:HA	8:CH:60:ARG:O	1.93	0.67
8:AH:86:ILE:HG22	8:AH:87:SER:N	2.09	0.67
9:AI:53:VAL:HG12	9:AI:92:TYR:HD2	1.56	0.67
46:BZ:158:PRO:HB2	46:BZ:159:PRO:HD2	1.75	0.67
1:AA:982:A:C5'	1:AA:1003:U:H3	2.08	0.67
1:CA:854:C:H5'	8:CH:88:LYS:HD3	1.76	0.67
31:BG:47:LYS:NZ	31:BG:82:LEU:HD12	2.08	0.67
41:BU:46:ALA:O	41:BU:50:ARG:HG3	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BZ:17:ALA:O	46:BZ:20:ARG:HB2	1.95	0.67
1:CA:1414:G:OP1	40:DT:107:ASP:HB2	1.93	0.67
25:DA:1819:A:H1'	25:DA:1821:A:C5	2.22	0.67
25:DA:2682:U:H5'	25:DA:2682:U:H6	1.59	0.67
25:DA:2682:U:O2'	25:DA:2683:C:H5'	1.94	0.67
26:DB:93:G:N2	26:DB:94:C:N3	2.43	0.67
36:BP:64:LYS:O	36:BP:66:GLY:N	2.27	0.67
25:BA:1593:G:C3'	25:BA:1594:G:H5''	2.25	0.67
13:CM:108:ARG:NH1	13:CM:108:ARG:HA	1.99	0.67
25:BA:2320:A:C6	25:BA:2333:A:C5	2.82	0.67
23:CV:69:C:H2'	23:CV:70:C:H6	1.54	0.67
30:BF:34:TRP:CH2	36:BP:12:ALA:HB2	2.29	0.67
46:DZ:102:LEU:HD11	46:DZ:124:ILE:HG22	1.77	0.67
2:AB:178:ARG:CB	2:AB:178:ARG:HH11	2.07	0.67
48:D1:84:GLY:O	48:D1:86:SER:N	2.27	0.67
55:D8:53:PRO:HA	55:D8:56:GLU:HB2	1.75	0.67
8:AH:86:ILE:HG12	8:AH:135:CYS:HA	1.74	0.67
1:AA:1229:A:N3	9:AI:70:LYS:HE3	2.10	0.67
2:CB:134:GLU:HA	2:CB:137:ARG:HB3	1.77	0.67
44:DX:54:VAL:HG22	44:DX:81:VAL:HG12	1.75	0.67
25:BA:1578:U:H2'	25:BA:1579:A:C5'	2.24	0.67
32:DH:17:VAL:HG11	32:DH:45:VAL:HA	1.74	0.67
41:BU:104:GLN:HB3	42:BV:44:LYS:HZ1	1.60	0.67
45:DY:37:VAL:O	45:DY:66:PRO:CB	2.42	0.67
25:DA:2468:G:H2'	25:DA:2476:A:N7	2.09	0.67
13:AM:65:LYS:C	13:AM:66:LEU:HG	2.14	0.67
17:CQ:67:LYS:O	17:CQ:68:ARG:CB	2.42	0.67
25:BA:1247:A:OP1	30:BF:95:ARG:NH2	2.27	0.67
34:BN:58:ASP:O	34:BN:60:ILE:N	2.23	0.67
25:BA:287:C:H6	25:BA:287:C:H5'	1.59	0.67
25:BA:1287:A:N7	25:BA:1288:U:O4	2.27	0.67
25:DA:350:U:H3'	25:DA:351:G:C8	2.30	0.67
25:DA:747:U:O2	25:DA:2014:A:H1'	1.95	0.67
9:CI:106:ALA:O	9:CI:108:VAL:CG1	2.41	0.67
46:DZ:146:ILE:HG22	46:DZ:174:VAL:HG12	1.76	0.67
31:BG:41:GLN:HE22	31:BG:153:ARG:HG2	1.58	0.67
30:DF:8:GLN:HG2	30:DF:126:VAL:HG12	1.74	0.67
29:BE:3:GLY:O	29:BE:4:ILE:HB	1.94	0.67
34:DN:10:GLU:OE2	34:DN:11:PRO:HD2	1.95	0.67
25:BA:733:G:O6	25:BA:761:A:C8	2.47	0.67
9:CI:118:LYS:HZ2	9:CI:118:LYS:HB2	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:122:PRO:HA	36:DP:141:ALA:O	1.95	0.67
34:BN:40:PRO:HB3	41:BU:68:ALA:HB2	1.76	0.67
26:BB:83:G:H4'	50:B3:52:HIS:CD2	2.29	0.67
10:CJ:56:HIS:O	10:CJ:58:ASP:N	2.26	0.67
3:AC:116:VAL:O	3:AC:119:ARG:HB3	1.93	0.67
28:BD:176:ARG:HG2	28:BD:176:ARG:HH11	1.60	0.67
7:AG:100:ALA:O	7:AG:104:LEU:HD23	1.94	0.67
28:BD:129:ASN:O	28:BD:193:VAL:HG12	1.95	0.67
48:D1:6:GLU:HG3	48:D1:61:ARG:O	1.95	0.67
13:AM:94:ARG:NH2	25:BA:887:A:C1'	2.57	0.67
51:B4:36:VAL:HB	51:B4:37:PRO:HD2	1.76	0.67
25:DA:283:A:H5'	25:DA:284:U:H5	1.58	0.67
36:BP:52:GLU:HG2	36:BP:55:ARG:O	1.93	0.67
25:BA:2468:G:H5'	37:BQ:120:ILE:HD12	1.76	0.67
25:BA:806:C:OP2	36:BP:39:LYS:HD3	1.94	0.67
25:BA:747:U:O2	25:BA:2014:A:H1'	1.95	0.67
15:AO:3:ILE:HD13	15:AO:3:ILE:N	2.09	0.67
25:BA:2199:A:H5''	25:BA:2200:C:C5	2.28	0.67
48:B1:41:ARG:HD3	48:B1:43:TYR:CE2	2.30	0.67
25:DA:28:A:N6	25:DA:512:G:H1'	2.09	0.67
11:AK:29:ILE:HD13	11:AK:44:SER:HB3	1.76	0.67
2:AB:134:GLU:HA	2:AB:137:ARG:HB3	1.77	0.67
1:AA:952:A:H4'	1:AA:953:G:H5''	1.76	0.67
1:CA:1036:C:O2	1:CA:1036:C:C2'	2.41	0.67
31:DG:85:GLY:C	31:DG:87:PRO:HD2	2.15	0.67
25:BA:1434:A:H61	25:BA:1558:A:H62	1.41	0.67
52:D5:49:CYS:O	52:D5:56:LYS:HB3	1.94	0.67
44:DX:64:LYS:NZ	44:DX:73:ARG:HH21	1.92	0.67
25:BA:151:C:O2'	25:BA:152:G:H5'	1.95	0.67
19:AS:24:ALA:O	19:AS:25:LYS:HB2	1.95	0.67
20:CT:26:ASN:HB3	20:CT:71:THR:CG2	2.22	0.67
25:DA:108:U:C2'	25:DA:109:G:C5'	2.71	0.67
20:CT:50:GLU:HB3	20:CT:100:ILE:CG1	2.25	0.67
23:AV:68:C:H2'	23:AV:69:C:H5'	1.77	0.67
19:AS:39:THR:HG22	19:AS:40:ILE:N	2.10	0.67
26:DB:93:G:O2'	26:DB:94:C:H5'	1.94	0.67
44:DX:27:THR:CG2	44:DX:80:ILE:HB	2.15	0.67
41:DU:92:ARG:HH22	41:DU:94:ASN:HD22	1.39	0.67
13:CM:22:ILE:CG2	13:CM:25:ILE:HD13	2.25	0.67
25:BA:2302:G:N2	31:BG:128:ARG:HG3	2.06	0.67
12:CL:23:LYS:O	12:CL:24:VAL:HG23	1.93	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:24:TRP:H	2:CB:24:TRP:HD1	1.43	0.67
4:AD:150:GLU:HA	4:AD:153:ARG:CD	2.21	0.67
12:CL:47:LYS:CB	12:CL:48:PRO:CD	2.72	0.67
30:DF:47:GLY:HA3	30:DF:95:ARG:O	1.95	0.67
25:BA:2682:U:H2'	25:BA:2683:C:O4'	1.94	0.67
16:CP:74:LEU:O	16:CP:79:VAL:HG23	1.95	0.67
25:BA:769:G:O2'	25:BA:770:G:H5'	1.94	0.67
37:DQ:59:ARG:O	37:DQ:60:ARG:HB2	1.93	0.67
37:BQ:55:VAL:O	37:BQ:59:ARG:HA	1.95	0.67
49:B2:42:GLY:O	49:B2:43:GLN:C	2.33	0.67
1:AA:1039:G:H5''	3:AC:154:SER:CB	2.23	0.67
46:DZ:158:PRO:HB2	46:DZ:159:PRO:HD2	1.75	0.67
31:BG:85:GLY:C	31:BG:87:PRO:HD2	2.15	0.67
36:BP:122:PRO:HA	36:BP:141:ALA:O	1.95	0.67
34:DN:12:ARG:HB3	34:DN:50:ASP:OD1	1.94	0.67
25:DA:1165:U:H2'	25:DA:1166:C:C6	2.29	0.67
42:DV:99:ILE:H	42:DV:99:ILE:HD13	1.59	0.67
25:DA:2111:C:H1'	25:DA:2118:U:O4'	1.95	0.67
31:DG:76:SER:CA	31:DG:83:ARG:HB2	2.25	0.67
29:BE:49:LEU:HD12	29:BE:49:LEU:N	2.09	0.67
25:BA:2468:G:H2'	25:BA:2476:A:N7	2.10	0.67
25:DA:614:U:H4'	25:DA:614(C):A:H62	1.60	0.67
42:DV:15:GLU:HB3	42:DV:16:PRO:HD2	1.76	0.67
39:BS:54:LEU:H	39:BS:54:LEU:HD22	1.58	0.67
10:CJ:50:ILE:HG12	14:CN:41:ARG:CD	2.25	0.67
17:CQ:68:ARG:N	17:CQ:70:ARG:HH11	1.92	0.67
33:BI:79:ILE:HG12	33:BI:140:LEU:HD11	1.77	0.67
33:BI:72:LEU:CD1	33:BI:138:ILE:HD13	2.25	0.67
36:DP:66:GLY:O	36:DP:67:MET:HB3	1.94	0.67
25:DA:1652:A:H2'	25:DA:1653:G:H5''	1.76	0.67
25:BA:350:U:H3'	25:BA:351:G:C8	2.30	0.67
38:BR:9:LYS:O	38:BR:10:LEU:HG	1.95	0.67
25:DA:1287:A:N7	25:DA:1288:U:O4	2.27	0.67
2:AB:84:GLU:HB3	2:AB:219:VAL:HG21	1.77	0.67
32:BH:18:GLU:HB3	32:BH:25:LYS:NZ	2.09	0.67
25:DA:2199:A:H3'	25:DA:2200:C:C6	2.30	0.67
36:DP:80:TYR:CE1	36:DP:111:ARG:HD3	2.29	0.67
39:DS:106:ARG:NH1	39:DS:107:GLU:O	2.28	0.67
54:D7:41:ARG:HD3	54:D7:45:ALA:CB	2.25	0.67
1:CA:1327:A:H61	1:CA:1356:A:H3'	1.60	0.67
10:CJ:16:LEU:HD23	10:CJ:94:VAL:HG13	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BG:64:THR:HG23	31:BG:65:GLY:N	2.10	0.67
1:CA:1427:G:H22	1:CA:1437:A:H1'	1.60	0.67
30:BF:32:LEU:O	30:BF:32:LEU:HD23	1.94	0.67
25:DA:1578:U:H2'	25:DA:1579:A:C5'	2.24	0.67
25:BA:1887:C:H2'	25:BA:1888:G:H5''	1.76	0.67
16:AP:4:ILE:HB	16:AP:66:PRO:HB3	1.76	0.67
29:DE:61:ARG:HB3	29:DE:62:PRO:CD	2.24	0.67
23:CV:22:A:N6	23:CV:47:G:C4	2.62	0.67
50:B3:29:ARG:HG3	50:B3:29:ARG:HH11	1.59	0.67
42:DV:19:LYS:HG3	42:DV:20:LEU:O	1.94	0.67
32:DH:156:ALA:HB3	32:DH:159:GLU:HB3	1.77	0.67
25:BA:576:U:H2'	25:BA:577:G:H8	1.59	0.67
25:DA:747:U:C2	52:D5:2:ALA:N	2.62	0.67
2:CB:217:ARG:O	2:CB:221:LEU:HD23	1.95	0.67
19:CS:63:THR:HG22	19:CS:66:MET:CE	2.24	0.67
48:B1:80:LEU:HD13	48:B1:82:LEU:HD11	1.77	0.67
1:CA:1171:G:H3'	3:CC:3:ASN:HD21	1.60	0.67
37:DQ:27:VAL:HG23	37:DQ:137:TYR:HE1	1.60	0.67
34:BN:10:GLU:OE2	34:BN:11:PRO:HD2	1.95	0.67
37:BQ:27:VAL:H	37:BQ:137:TYR:HE1	1.39	0.67
5:AE:100:VAL:HG22	5:AE:118:ILE:HG22	1.77	0.67
25:DA:1246:A:OP2	36:DP:18:ARG:HG3	1.95	0.67
25:DA:1987:G:H5'	25:DA:1987:G:H8	1.59	0.67
47:B0:48:GLY:HA3	47:B0:80:HIS:ND1	2.09	0.67
2:AB:63:MET:HG3	2:AB:64:ARG:N	2.10	0.67
25:DA:1192:G:O2'	25:DA:1193:G:H5'	1.94	0.67
29:BE:61:ARG:HB3	29:BE:62:PRO:CD	2.24	0.67
25:BA:952:G:C5	25:BA:953:A:N7	2.63	0.67
22:CW:14:A:N1	22:CW:15:G:H1'	2.10	0.67
39:BS:99:LYS:O	39:BS:101:LEU:N	2.26	0.67
42:BV:19:LYS:HG2	42:BV:94:LEU:CB	2.17	0.67
23:AV:30:G:C2'	23:AV:31:G:H5'	2.25	0.67
1:AA:1088:G:H2'	1:AA:1089:C:H6	1.60	0.67
29:DE:49:LEU:N	29:DE:49:LEU:HD12	2.09	0.67
1:CA:262:C:C5'	1:CA:262:C:H6	2.08	0.67
28:DD:10:THR:OG1	28:DD:11:PRO:HD2	1.94	0.67
13:CM:10:PRO:CB	13:CM:18:ALA:HB1	2.23	0.67
48:D1:41:ARG:HD3	48:D1:43:TYR:CE2	2.30	0.67
1:CA:1424:G:N7	1:CA:1426:A:H8	1.93	0.67
48:D1:80:LEU:HD13	48:D1:82:LEU:HD11	1.77	0.67
47:D0:25:ARG:HD2	47:D0:29:GLN:HE22	1.57	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:581:C:OP1	41:DU:33:ARG:HG2	1.95	0.67
39:BS:85:VAL:CG2	39:BS:106:ARG:HG3	2.25	0.67
25:BA:790:C:O2'	25:BA:791:C:P	2.53	0.67
10:CJ:8:LEU:CD2	10:CJ:96:ILE:HG22	2.25	0.67
35:BO:37:ASP:N	35:BO:37:ASP:OD1	2.25	0.67
53:D6:33:LYS:HA	53:D6:33:LYS:HE2	1.77	0.67
19:CS:24:ALA:O	19:CS:25:LYS:HB2	1.94	0.67
25:DA:1430:C:H2'	25:DA:1431:U:C6	2.30	0.67
1:CA:59:A:H1'	1:CA:349:G:N2	2.10	0.67
3:CC:165:THR:HG22	3:CC:165:THR:O	1.94	0.67
25:BA:984:A:H5''	25:BA:985:C:H5	1.60	0.67
45:DY:14:LEU:HD12	45:DY:15:VAL:H	1.60	0.66
26:DB:93:G:N2	26:DB:94:C:C4	2.63	0.66
42:DV:41:GLY:HA3	42:DV:45:THR:OG1	1.93	0.66
1:CA:951:A:P	14:CN:41:ARG:HH12	2.18	0.66
25:BA:271(R):G:H2'	25:BA:271(S):G:H8	1.58	0.66
31:BG:128:ARG:C	31:BG:130:ASN:N	2.47	0.66
22:CW:76:A:O2'	25:DA:2394:C:O2	2.13	0.66
12:CL:24:VAL:HG12	12:CL:24:VAL:O	1.95	0.66
2:CB:67:THR:HB	2:CB:155:LEU:HD21	1.76	0.66
2:AB:67:THR:O	2:AB:68:ILE:HD13	1.95	0.66
33:DI:109:ILE:HG22	33:DI:111:PRO:HD3	1.76	0.66
33:DI:73:GLU:HA	33:DI:138:ILE:HG23	1.78	0.66
26:DB:66:A:H61	26:DB:108:U:H2'	1.61	0.66
2:AB:217:ARG:O	2:AB:221:LEU:HD23	1.94	0.66
25:DA:664:C:H4'	25:DA:941:A:OP1	1.95	0.66
25:BA:528:A:C2	25:BA:2042:A:H2'	2.30	0.66
25:BA:2199:A:H3'	25:BA:2200:C:C6	2.30	0.66
2:CB:79:ASP:O	2:CB:82:ARG:HB3	1.95	0.66
22:AW:16:U:H3'	22:AW:17:C:H5'	1.77	0.66
36:DP:18:ARG:HH11	36:DP:18:ARG:CB	2.07	0.66
3:CC:50:ALA:HB1	3:CC:70:VAL:HG11	1.77	0.66
31:DG:10:LYS:HE3	31:DG:14:GLU:OE1	1.94	0.66
1:AA:377:A:H2'	1:AA:378:A:H8	1.57	0.66
11:CK:12:ARG:HG2	11:CK:13:GLN:N	2.10	0.66
53:B6:33:LYS:HA	53:B6:33:LYS:HE2	1.77	0.66
25:DA:151:C:O2'	25:DA:152:G:H5'	1.95	0.66
25:BA:2111:C:H1'	25:BA:2118:U:O4'	1.95	0.66
15:AO:51:HIS:O	15:AO:54:ARG:HB3	1.95	0.66
22:AW:7:A:O2'	22:AW:49:C:H5'	1.95	0.66
25:DA:2127:G:O5'	27:DC:36:LYS:HE2	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DU:112:ARG:HH21	42:DV:46:VAL:HG11	1.60	0.66
42:DV:39:LEU:HD22	42:DV:39:LEU:H	1.59	0.66
42:BV:19:LYS:HG3	42:BV:20:LEU:O	1.94	0.66
23:AV:30:G:N1	23:AV:43:G:C2	2.63	0.66
25:DA:2712:U:H1'	25:DA:2712(A):A:H8	1.58	0.66
25:BA:335:C:H2'	25:BA:336:C:C6	2.28	0.66
34:DN:25:ARG:HG3	34:DN:25:ARG:HH11	1.61	0.66
32:BH:107:VAL:HG21	32:BH:152:ARG:HG3	1.76	0.66
25:DA:297:C:H2'	25:DA:298:G:C5'	2.24	0.66
40:BT:91:ARG:HA	40:BT:117:ASP:H	1.60	0.66
43:BW:59:VAL:O	43:BW:63:ASP:N	2.26	0.66
25:BA:28:A:N6	25:BA:512:G:H1'	2.09	0.66
2:CB:84:GLU:HB3	2:CB:219:VAL:HG21	1.76	0.66
18:AR:50:ILE:CD1	18:AR:70:ILE:HG21	2.25	0.66
25:DA:651:G:C5'	55:D8:18:ALA:HB3	2.24	0.66
8:AH:89:PRO:HA	8:AH:92:ARG:HH11	1.58	0.66
36:BP:80:TYR:CE1	36:BP:111:ARG:HD3	2.29	0.66
36:DP:84:ASN:C	36:DP:86:LYS:H	1.97	0.66
25:DA:2777:G:H4'	25:DA:2778:A:H5'	1.77	0.66
25:DA:1112:G:N2	25:DA:1113:U:C2	2.64	0.66
51:B4:46:ASN:HD22	51:B4:47:VAL:H	1.42	0.66
2:CB:92:TYR:CE1	2:CB:151:GLY:HA3	2.30	0.66
30:DF:32:LEU:HD23	30:DF:32:LEU:O	1.94	0.66
46:DZ:17:ALA:O	46:DZ:20:ARG:HB2	1.94	0.66
18:CR:19:LYS:O	18:CR:20:ALA:CB	2.44	0.66
41:BU:17:ILE:HG23	41:BU:39:LEU:HD12	1.77	0.66
16:CP:4:ILE:HB	16:CP:66:PRO:HB3	1.77	0.66
29:DE:167:VAL:HG22	29:DE:170:LEU:HD11	1.77	0.66
35:BO:119:PRO:HB2	40:BT:68:TYR:CE1	2.30	0.66
1:CA:130:C:H42	1:CA:222:G:H1	1.43	0.66
33:BI:11:ASN:O	33:BI:12:LEU:HB3	1.95	0.66
37:BQ:37:LEU:HD21	37:BQ:130:LYS:HB2	1.77	0.66
36:BP:63:PRO:HB3	55:B8:13:ARG:HB3	1.77	0.66
25:BA:2126:A:H4'	25:BA:2127:G:O5'	1.95	0.66
25:DA:2172:U:H1'	25:DA:2173:A:P	2.35	0.66
25:BA:1190:G:H5''	36:BP:35:HIS:HA	1.77	0.66
22:AW:52:G:H1	22:AW:62:C:N4	1.94	0.66
25:DA:576:U:H2'	25:DA:577:G:H8	1.59	0.66
25:DA:1991:U:O2'	25:DA:1992:G:C5'	2.43	0.66
29:DE:3:GLY:O	29:DE:4:ILE:HB	1.94	0.66
22:AY:28:G:H1	22:AY:42:C:N4	1.93	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2777:G:H4'	25:BA:2778:A:H5'	1.77	0.66
36:BP:13:ASN:ND2	36:BP:13:ASN:C	2.47	0.66
25:DA:2062:A:O2'	25:DA:2063:C:C5'	2.44	0.66
36:BP:122:PRO:HB3	36:BP:141:ALA:HB1	1.77	0.66
9:AI:48:GLU:N	9:AI:49:PRO:HD2	2.10	0.66
1:AA:1386:C:H2'	1:AA:1387:G:C8	2.30	0.66
43:DW:27:LYS:HE3	43:DW:31:GLU:HG2	1.78	0.66
15:AO:16:ALA:HB1	15:AO:21:ASP:HB3	1.77	0.66
1:CA:229:C:H2'	1:CA:230:C:C6	2.29	0.66
6:CF:45:LEU:HD12	6:CF:46:ARG:H	1.59	0.66
23:CV:17:C:C3'	23:CV:18:U:C5'	2.67	0.66
25:DA:2126:A:H4'	25:DA:2127:G:O5'	1.95	0.66
42:DV:2:PHE:HB2	42:DV:42:GLY:HA2	1.78	0.66
39:BS:53:SER:OG	39:BS:54:LEU:HD22	1.96	0.66
33:BI:73:GLU:HA	33:BI:138:ILE:HG23	1.77	0.66
25:DA:1019:U:HO2'	25:DA:1021:A:H2	1.42	0.66
26:DB:107:G:C2	26:DB:108:U:C6	2.84	0.66
25:DA:729:G:C3'	25:DA:729:G:N3	2.59	0.66
25:BA:2808:U:O2'	25:BA:2809:A:H5'	1.96	0.66
32:BH:85:LYS:HD2	32:BH:141:VAL:CG1	2.26	0.66
37:DQ:12:GLN:HE21	37:DQ:72:LYS:HA	1.60	0.66
19:AS:15:LEU:O	19:AS:19:VAL:HG23	1.95	0.66
25:BA:1826:G:H4'	28:BD:242:ARG:NH2	2.09	0.66
44:DX:64:LYS:HD3	44:DX:73:ARG:NE	2.09	0.66
30:BF:65:TRP:HZ3	30:BF:73:ALA:O	1.79	0.66
31:BG:4:ASP:HA	31:BG:8:LYS:HD2	1.77	0.66
46:DZ:69:THR:HG22	46:DZ:90:VAL:HG22	1.77	0.66
15:AO:5:LYS:O	15:AO:9:GLN:HG2	1.96	0.66
25:BA:1604:C:C5'	57:BA:3100:MG:MG	1.49	0.66
1:CA:80:U:H2'	1:CA:81:U:H5	1.59	0.66
4:AD:9:CYS:SG	4:AD:31:CYS:O	2.53	0.66
32:DH:52:VAL:O	32:DH:65:HIS:CD2	2.48	0.66
29:DE:76:ARG:O	29:DE:77:ILE:O	2.13	0.66
42:BV:46:VAL:HG22	42:BV:47:VAL:N	2.11	0.66
23:CV:54:G:O2'	23:CV:55:U:P	2.54	0.66
45:DY:18:GLY:HA2	45:DY:21:LYS:HB2	1.76	0.66
25:DA:2467:C:H4'	37:DQ:123:HIS:CD2	2.30	0.66
9:AI:17:VAL:HG11	9:AI:81:ILE:HD13	1.77	0.66
13:CM:3:ARG:HG2	13:CM:9:ILE:CG1	2.25	0.66
25:BA:2302:G:C6	25:BA:2315:G:C6	2.84	0.66
53:D6:47:THR:CB	53:D6:49:HIS:CE1	2.74	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:46:LYS:CG	12:CL:47:LYS:H	1.92	0.66
39:DS:26:LEU:HG	39:DS:39:ILE:CD1	2.24	0.66
25:DA:335:C:H2'	25:DA:336:C:C6	2.28	0.66
26:DB:15:A:H3'	26:DB:16:G:H5'	1.78	0.66
32:BH:156:ALA:H	32:BH:158:HIS:H	1.42	0.66
25:DA:1434:A:H61	25:DA:1558:A:H62	1.41	0.66
45:BY:14:LEU:HD12	45:BY:15:VAL:H	1.60	0.66
28:BD:241:PRO:O	28:BD:243:GLY:N	2.28	0.66
19:CS:32:LYS:HA	19:CS:50:ALA:HB3	1.76	0.66
25:DA:2195:C:O2'	25:DA:2196:C:H5'	1.94	0.66
46:DZ:24:LEU:HB2	46:DZ:41:LEU:HD23	1.78	0.66
51:D4:36:VAL:HB	51:D4:37:PRO:HD2	1.77	0.66
1:AA:647:G:H22	1:AA:724:G:H1	1.41	0.66
1:AA:988:G:N2	1:AA:998:U:H1'	2.11	0.66
1:AA:1294:U:H6	1:AA:1294:U:O5'	1.76	0.66
21:CU:18:TYR:CD2	21:CU:22:ARG:HD3	2.31	0.66
28:DD:129:ASN:O	28:DD:193:VAL:HG12	1.95	0.66
25:BA:1430:C:H2'	25:BA:1431:U:C6	2.30	0.66
29:BE:76:ARG:O	29:BE:77:ILE:O	2.13	0.66
20:CT:53:LEU:HD12	20:CT:102:GLY:H	1.60	0.66
25:DA:109:G:H2'	25:DA:110:G:H8	1.60	0.66
25:BA:2075:U:OP1	28:BD:244:ARG:NH2	2.29	0.66
40:DT:89:VAL:HG11	40:DT:91:ARG:HE	1.60	0.66
25:BA:2305:A:C4	31:BG:154:GLY:HA3	2.31	0.66
37:BQ:62:GLY:O	46:BZ:178:GLU:HG3	1.94	0.66
25:BA:528:A:H2	25:BA:2043:C:C4'	2.08	0.66
1:AA:1220:A:H2'	1:AA:1279:C:H42	1.61	0.66
23:CV:30:G:C2'	23:CV:31:G:H5'	2.25	0.66
1:AA:899:G:H4'	5:AE:20:GLN:HA	1.76	0.66
3:AC:35:GLU:HA	3:AC:38:ARG:HD2	1.77	0.66
3:AC:50:ALA:HB1	3:AC:70:VAL:HG11	1.76	0.66
3:CC:82:GLU:O	3:CC:86:VAL:HG13	1.96	0.66
25:BA:1042:G:H1'	25:BA:1114:G:H22	1.61	0.66
54:B7:41:ARG:HD3	54:B7:45:ALA:CB	2.25	0.66
31:DG:64:THR:HG23	31:DG:65:GLY:N	2.10	0.66
55:D8:30:ARG:NE	55:D8:30:ARG:HA	2.09	0.66
25:BA:1578:U:H2'	25:BA:1579:A:H5''	1.78	0.66
25:BA:969:U:H2'	25:BA:970:C:C6	2.31	0.66
29:DE:120:TRP:CD2	29:DE:155:LYS:HD3	2.31	0.66
15:AO:30:ALA:HA	15:AO:85:LEU:HD11	1.76	0.66
43:BW:27:LYS:HE3	43:BW:31:GLU:HG2	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:42:C:H4'	31:DG:67:LYS:O	1.95	0.66
19:AS:64:GLU:O	19:AS:67:VAL:HG23	1.96	0.66
1:AA:1425:G:N2	40:BT:119:LYS:HB2	2.11	0.66
55:B8:28:GLY:O	55:B8:32:LEU:HG	1.96	0.66
44:DX:12:VAL:HG13	44:DX:27:THR:O	1.96	0.66
1:CA:1280:A:N3	1:CA:1280:A:H3'	2.11	0.66
25:BA:2415:G:H4'	36:BP:67:MET:N	2.11	0.66
26:BB:7:G:C3'	26:BB:8:U:H5''	2.21	0.66
31:DG:108:ASN:O	31:DG:112:PRO:HG3	1.95	0.66
25:DA:2313:C:OP1	31:DG:71:THR:HG21	1.96	0.66
33:BI:77:LEU:HB3	33:BI:140:LEU:CD1	2.21	0.66
30:BF:2:LYS:H	30:BF:2:LYS:CD	2.06	0.66
28:DD:11:PRO:C	28:DD:13:ARG:N	2.49	0.66
25:BA:2469:A:O2'	37:BQ:56:ARG:CD	2.40	0.66
31:DG:128:ARG:C	31:DG:130:ASN:N	2.47	0.66
34:BN:23:LEU:HB3	34:BN:60:ILE:HG21	1.76	0.66
32:BH:85:LYS:CD	32:BH:133:VAL:HB	2.26	0.66
4:CD:25:ARG:C	4:CD:27:TYR:H	1.99	0.66
25:DA:395:U:O2	25:DA:395:U:H2'	1.96	0.66
20:CT:72:LEU:HD23	20:CT:73:HIS:H	1.59	0.66
36:BP:84:ASN:C	36:BP:86:LYS:H	1.97	0.66
37:BQ:27:VAL:HG23	37:BQ:137:TYR:HE1	1.60	0.66
34:DN:10:GLU:CD	34:DN:11:PRO:HD2	2.16	0.66
10:AJ:16:LEU:HD23	10:AJ:94:VAL:HG13	1.76	0.66
25:DA:1668:A:OP1	35:DO:5:GLN:CG	2.42	0.66
55:B8:30:ARG:HA	55:B8:30:ARG:NE	2.09	0.66
3:CC:182:ILE:HG23	3:CC:202:ILE:O	1.96	0.66
25:BA:2062:A:O2'	25:BA:2063:C:C5'	2.44	0.66
36:DP:122:PRO:HB3	36:DP:141:ALA:HB1	1.77	0.66
43:BW:22:ASP:HA	43:BW:25:ARG:HH12	1.59	0.66
48:D1:23:LYS:HE2	48:D1:28:GLY:HA3	1.76	0.66
12:AL:12:ARG:HG2	12:AL:12:ARG:HH11	1.61	0.66
25:DA:2152:G:H2'	25:DA:2153:G:H8	1.61	0.66
45:DY:49:VAL:O	45:DY:53:PRO:HG3	1.95	0.66
20:CT:63:ILE:HD13	20:CT:80:ARG:HB2	1.76	0.66
22:CW:16:U:C4	22:CW:18:G:H3'	2.30	0.66
22:CW:58:A:C2	22:CW:61:C:C4	2.83	0.66
25:BA:2392:A:C8	36:BP:60:MET:HB3	2.30	0.66
25:DA:250:G:OP2	55:D8:13:ARG:NH2	2.29	0.66
28:DD:36:PRO:HB2	28:DD:61:LEU:HD12	1.78	0.66
33:DI:123:LEU:HD11	33:DI:144:VAL:CG1	2.26	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BH:156:ALA:C	32:BH:158:HIS:N	2.48	0.66
32:DH:102:ALA:HB1	32:DH:115:VAL:O	1.96	0.66
25:BA:353:G:C2	25:BA:354:G:N7	2.63	0.66
46:DZ:33:LEU:HD12	46:DZ:34:ASN:H	1.61	0.66
25:DA:2863:C:OP1	40:DT:93:ARG:NH2	2.29	0.66
32:DH:85:LYS:CD	32:DH:133:VAL:HB	2.26	0.66
29:DE:203:LYS:HE2	29:DE:204:ALA:HB2	1.78	0.66
30:BF:9:ILE:HG23	30:BF:11:VAL:O	1.95	0.66
30:DF:123:LEU:HD12	30:DF:124:LEU:H	1.59	0.66
30:DF:9:ILE:HG23	30:DF:11:VAL:O	1.95	0.66
31:BG:76:SER:CA	31:BG:83:ARG:HB2	2.25	0.66
28:BD:11:PRO:C	28:BD:13:ARG:N	2.49	0.66
48:B1:64:ALA:HA	48:B1:67:ILE:HD11	1.76	0.66
28:DD:76:PRO:O	28:DD:98:VAL:HG23	1.94	0.66
25:BA:1112:G:N2	25:BA:1113:U:C2	2.64	0.66
2:CB:71:VAL:HA	2:CB:93:VAL:CG2	2.26	0.66
25:DA:790:C:O2'	25:DA:791:C:P	2.53	0.66
27:BC:86:ALA:HB3	27:BC:94:VAL:HG21	1.78	0.66
31:DG:104:GLU:HG2	51:D4:50:THR:HG21	1.77	0.66
15:AO:54:ARG:HG2	15:AO:54:ARG:HH11	1.60	0.66
12:AL:7:ILE:HA	12:AL:10:LEU:HD12	1.77	0.66
25:DA:1887:C:H2'	25:DA:1888:G:H5''	1.76	0.66
4:CD:76:ARG:O	4:CD:80:GLU:HG2	1.96	0.66
9:CI:48:GLU:N	9:CI:49:PRO:HD2	2.10	0.66
9:CI:3:GLN:HG2	9:CI:20:ARG:NH1	2.11	0.66
29:BE:167:VAL:HG22	29:BE:170:LEU:HD11	1.77	0.66
13:CM:92:HIS:CD2	13:CM:98:VAL:CG2	2.78	0.66
4:AD:22:LYS:HB2	4:AD:26:CYS:HB2	1.77	0.66
20:CT:26:ASN:O	20:CT:30:LYS:HB2	1.95	0.66
25:BA:910:A:C4	37:BQ:13:GLN:OE1	2.49	0.66
25:BA:2075:U:O4	25:BA:2238:G:C6	2.48	0.66
34:BN:1:MET:HG2	34:BN:2:LYS:N	2.10	0.66
42:BV:38:LEU:C	42:BV:39:LEU:HD13	2.16	0.66
25:BA:2392:A:OP1	55:B8:32:LEU:HD22	1.96	0.66
39:BS:32:LEU:O	39:BS:62:LYS:HE2	1.96	0.66
28:BD:36:PRO:HB2	28:BD:61:LEU:HD12	1.78	0.66
23:AV:20:G:H3'	23:AV:21:U:O2	1.95	0.66
20:AT:44:ALA:HA	20:AT:92:LEU:CD2	2.26	0.66
25:BA:2554:U:H2'	25:BA:2555:U:H6	1.61	0.66
34:BN:10:GLU:CD	34:BN:11:PRO:HD2	2.16	0.66
22:CY:28:G:H2'	22:CY:29:G:C8	2.31	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:148:ASN:C	7:CG:150:ALA:H	1.98	0.66
38:DR:5:LYS:HD2	38:DR:5:LYS:H	1.61	0.66
50:B3:15:TYR:O	50:B3:20:LYS:HE2	1.96	0.66
9:AI:3:GLN:HG2	9:AI:20:ARG:NH1	2.11	0.66
1:AA:1102:G:H2'	1:AA:1103:U:C6	2.30	0.66
6:AF:83:ASP:OD1	28:BD:168:ARG:NH2	2.28	0.66
25:BA:792:G:H5''	25:BA:793:A:H5'	1.78	0.66
25:DA:952:G:C5	25:DA:953:A:N7	2.64	0.66
23:CV:58:A:O2'	23:CV:59:A:H5'	1.96	0.66
36:DP:48:PRO:HG2	36:DP:49:ARG:H	1.60	0.66
23:AV:54:G:O2'	23:AV:55:U:P	2.54	0.66
53:D6:41:PRO:CD	53:D6:46:HIS:H	2.03	0.66
33:BI:123:LEU:HD11	33:BI:144:VAL:HG13	1.78	0.66
1:AA:196:U:H2'	1:AA:197:G:C8	2.31	0.66
22:AY:38:A:N1	22:AY:39:U:C2	2.64	0.66
30:DF:67:GLN:O	30:DF:67:GLN:CG	2.41	0.66
22:AW:68:C:H2'	22:AW:69:G:C8	2.25	0.66
25:DA:2199:A:H5''	25:DA:2200:C:C5	2.28	0.66
29:BE:4:ILE:CG1	29:BE:28:ALA:HB1	2.26	0.66
29:DE:4:ILE:CG1	29:DE:28:ALA:HB1	2.26	0.66
25:BA:1722:A:C2	25:BA:1740:G:H8	2.14	0.66
25:DA:1722:A:C2	25:DA:1740:G:H8	2.14	0.66
48:B1:64:ALA:O	48:B1:67:ILE:HG13	1.96	0.66
4:AD:25:ARG:C	4:AD:27:TYR:H	1.99	0.66
46:BZ:33:LEU:HD11	46:BZ:35:ARG:HB2	1.78	0.66
25:BA:1986:A:C2'	25:BA:1987:G:H5''	2.26	0.66
8:AH:104:ARG:HB3	8:AH:107:LEU:HB2	1.77	0.66
1:AA:1310:A:P	13:AM:28:ALA:HB3	2.36	0.66
46:BZ:82:ARG:HG2	46:BZ:83:PRO:HD2	1.78	0.66
1:CA:80:U:H2'	1:CA:81:U:C5	2.30	0.66
53:B6:35:GLU:HB3	53:B6:51:GLU:CG	2.26	0.66
1:CA:307:C:H2'	1:CA:308:A:C8	2.31	0.66
28:DD:176:ARG:HH11	28:DD:176:ARG:HG2	1.60	0.66
25:DA:911:A:H5''	25:DA:912:C:O5'	1.96	0.65
1:AA:1302:C:C4'	1:AA:1303:C:H5''	2.25	0.65
31:BG:106:LEU:HA	31:BG:110:ALA:CB	2.26	0.65
5:CE:41:VAL:HG11	5:CE:113:ALA:CA	2.25	0.65
39:DS:62:LYS:H	39:DS:65:VAL:HG23	1.61	0.65
7:AG:113:GLU:HB2	7:AG:119:ARG:CG	2.20	0.65
12:CL:28:LYS:O	12:CL:30:ALA:N	2.28	0.65
1:AA:1046:G:N2	1:AA:1171:G:H2'	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:178:ARG:HG3	8:CH:72:PRO:N	2.11	0.65
33:BI:123:LEU:HD11	33:BI:144:VAL:CG1	2.26	0.65
25:DA:2481:G:HO2'	25:DA:2482:G:P	2.19	0.65
36:DP:64:LYS:O	36:DP:66:GLY:N	2.28	0.65
25:BA:747:U:OP2	52:B5:3:LYS:HD3	1.96	0.65
37:DQ:55:VAL:O	37:DQ:59:ARG:HA	1.95	0.65
29:BE:11:MET:N	40:BT:8:LYS:HZ1	1.86	0.65
25:DA:1625:C:H2'	25:DA:1626:G:O4'	1.96	0.65
47:D0:40:GLN:HE21	47:D0:43:THR:HA	1.60	0.65
32:DH:135:GLY:HA3	32:DH:141:VAL:HG21	1.78	0.65
23:CV:41:C:O2'	23:CV:42:C:H5'	1.97	0.65
25:DA:528:A:H2	25:DA:2043:C:C4'	2.08	0.65
2:CB:218:ALA:O	2:CB:222:ILE:HG13	1.96	0.65
10:AJ:6:ILE:HA	10:AJ:97:GLU:O	1.97	0.65
43:BW:92:ARG:HH11	43:BW:92:ARG:HG2	1.61	0.65
46:DZ:135:GLU:O	46:DZ:136:PHE:HB3	1.95	0.65
8:AH:17:THR:HG22	8:AH:63:LEU:HG	1.78	0.65
27:DC:86:ALA:HB3	27:DC:94:VAL:HG21	1.78	0.65
1:CA:736:A:H4'	1:CA:737:C:O4'	1.96	0.65
35:DO:88:ASN:ND2	35:DO:90:GLN:OE1	2.29	0.65
11:AK:21:ILE:HG13	11:AK:30:VAL:HG12	1.77	0.65
31:DG:4:ASP:HA	31:DG:8:LYS:HD2	1.77	0.65
25:DA:1035:U:H5'	32:DH:59:ARG:HD3	1.77	0.65
25:DA:203:C:H3'	25:DA:204:A:H5''	1.76	0.65
13:CM:93:ARG:NE	25:DA:888:C:H5''	2.11	0.65
20:CT:49:ALA:CB	20:CT:100:ILE:CD1	2.60	0.65
41:BU:112:ARG:HH21	42:BV:46:VAL:HG11	1.60	0.65
45:DY:38:ILE:HG22	45:DY:39:VAL:N	2.11	0.65
37:BQ:69:PHE:CD1	37:BQ:70:PRO:HD2	2.31	0.65
25:BA:1162:G:H4'	42:BV:24:LYS:HB2	1.78	0.65
5:CE:43:LEU:HD21	5:CE:132:ALA:HB1	1.78	0.65
25:BA:90:U:HO2'	25:BA:92:A:H5''	1.59	0.65
25:BA:2863:C:OP1	40:BT:93:ARG:NH2	2.29	0.65
43:BW:59:VAL:HG12	43:BW:60:ASN:ND2	2.10	0.65
8:AH:88:LYS:HB3	8:AH:89:PRO:HD2	1.76	0.65
10:AJ:6:ILE:O	10:AJ:71:LEU:HD12	1.96	0.65
25:DA:2307:G:N3	25:DA:2307:G:H5''	2.12	0.65
16:CP:14:ASN:N	16:CP:15:PRO:HD3	2.11	0.65
46:BZ:135:GLU:O	46:BZ:136:PHE:HB3	1.96	0.65
1:CA:1036:C:N3	22:CY:34:G:H1'	2.11	0.65
37:BQ:34:LEU:HD11	37:BQ:129:THR:HB	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1119:C:H4'	1:AA:1120:G:C2	2.32	0.65
1:AA:773:A:N6	1:AA:774:G:C6	2.64	0.65
2:AB:114:ARG:HG3	2:AB:114:ARG:HH11	1.61	0.65
53:D6:35:GLU:HB3	53:D6:51:GLU:HG3	1.77	0.65
1:AA:1379:C:H42	24:AX:22:A:H3'	1.61	0.65
3:CC:69:HIS:HA	3:CC:104:GLN:O	1.97	0.65
1:CA:1310:A:P	13:CM:28:ALA:HB3	2.36	0.65
1:AA:7:G:H21	5:AE:121:LYS:HG2	1.61	0.65
1:AA:639:C:H4'	15:AO:62:GLN:NE2	2.10	0.65
29:DE:52:LEU:HD13	29:DE:53:PRO:CD	2.21	0.65
20:CT:53:LEU:HD12	20:CT:102:GLY:N	2.11	0.65
25:BA:109:G:H2'	25:BA:110:G:H8	1.61	0.65
10:AJ:51:ARG:HG3	10:AJ:60:ARG:HA	1.79	0.65
4:AD:20:TYR:CE1	6:CF:15:ASP:HB2	2.27	0.65
31:BG:111:LEU:HB3	31:BG:117:PHE:CE2	2.30	0.65
42:DV:55:ALA:HA	42:DV:101:GLY:HA2	1.78	0.65
26:BB:117:G:C4'	39:BS:55:ALA:HB1	2.24	0.65
25:BA:2317:C:O2'	25:BA:2318:G:H5'	1.96	0.65
12:CL:28:LYS:CB	12:CL:33:ARG:NH1	2.59	0.65
28:BD:108:PRO:HG2	28:BD:111:LEU:HB2	1.78	0.65
33:DI:123:LEU:HD11	33:DI:144:VAL:HG13	1.78	0.65
33:DI:72:LEU:CD1	33:DI:138:ILE:HD13	2.25	0.65
46:DZ:56:VAL:HG12	46:DZ:57:ILE:N	2.12	0.65
36:BP:23:PRO:HB2	36:BP:33:ARG:CG	2.26	0.65
2:CB:8:LYS:O	2:CB:12:GLU:HG3	1.96	0.65
28:BD:264:LYS:HG2	28:BD:266:SER:HB3	1.79	0.65
25:BA:2310:A:O2'	25:BA:2311:A:H5'	1.97	0.65
1:CA:1107:U:O4	10:CJ:5:ARG:HD3	1.97	0.65
20:AT:14:LYS:HB2	20:AT:17:ARG:HH21	1.62	0.65
1:CA:912:A:H2'	1:CA:913:C:H6	1.61	0.65
1:AA:981:G:N2	1:AA:1020:C:N3	2.44	0.65
11:AK:12:ARG:HG2	11:AK:13:GLN:N	2.11	0.65
6:CF:82:ARG:HB2	6:CF:85:VAL:HG23	1.79	0.65
1:CA:1165:G:H2'	1:CA:1166:G:C8	2.30	0.65
42:DV:62:LEU:HD21	42:DV:95:LEU:HB2	1.76	0.65
25:BA:1264:G:H5'	52:B5:11:THR:OG1	1.96	0.65
25:DA:2881:C:H2'	25:DA:2882:A:C8	2.31	0.65
30:DF:134:GLY:H	30:DF:162:LEU:HG	1.59	0.65
1:CA:660:U:H3	1:CA:696:G:H22	1.45	0.65
13:CM:92:HIS:CD2	13:CM:98:VAL:HG21	2.31	0.65
55:D8:4:MET:SD	55:D8:61:LEU:HD22	2.36	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BS:62:LYS:H	39:BS:65:VAL:HG23	1.61	0.65
1:AA:262:C:OP2	17:AQ:67:LYS:HD2	1.96	0.65
31:BG:109:VAL:O	31:BG:113:ARG:HB2	1.97	0.65
7:AG:62:PHE:HA	7:AG:124:LEU:CD2	2.27	0.65
22:CW:35:A:N1	24:CX:13:A:N1	2.44	0.65
5:AE:51:VAL:HB	5:AE:52:PRO:HD3	1.76	0.65
25:DA:2317:C:O2'	25:DA:2318:G:H5'	1.96	0.65
36:DP:38:GLN:HG3	36:DP:39:LYS:N	2.06	0.65
26:BB:70:C:O5'	26:BB:70:C:H6	1.80	0.65
47:B0:40:GLN:HE21	47:B0:43:THR:HA	1.60	0.65
25:DA:942:G:H5'	36:DP:35:HIS:HB3	1.79	0.65
40:BT:11:GLU:O	40:BT:13:ARG:N	2.23	0.65
30:BF:123:LEU:HD12	30:BF:124:LEU:H	1.59	0.65
18:AR:70:ILE:O	18:AR:74:ARG:HG3	1.95	0.65
22:CW:28:G:H8	22:CW:28:G:O5'	1.78	0.65
46:BZ:33:LEU:HD12	46:BZ:34:ASN:H	1.61	0.65
16:AP:14:ASN:N	16:AP:15:PRO:HD3	2.11	0.65
3:AC:150:LYS:HA	3:AC:169:ALA:CB	2.26	0.65
27:BC:78:ALA:CB	27:BC:82:LYS:HB2	2.26	0.65
38:DR:18:LEU:HD11	38:DR:22:ARG:NH2	2.11	0.65
25:DA:78:A:H2'	25:DA:79:G:C8	2.31	0.65
53:B6:35:GLU:HB3	53:B6:51:GLU:HG3	1.77	0.65
1:AA:1490:A:H2'	1:AA:1491:C:C6	2.32	0.65
21:AU:25:LYS:HB2	21:AU:25:LYS:NZ	2.12	0.65
1:AA:343:G:O2'	1:AA:344:A:H5'	1.97	0.65
1:CA:784:U:H2'	1:CA:785:A:C8	2.31	0.65
22:CW:14:A:N3	22:CW:14:A:H2'	2.10	0.65
37:BQ:43:THR:HA	37:BQ:94:VAL:HG12	1.79	0.65
13:AM:22:ILE:CG2	13:AM:25:ILE:HD13	2.27	0.65
39:BS:92:TYR:CD1	39:BS:93:LYS:N	2.64	0.65
25:BA:1590:U:C3'	25:BA:1591:G:H5''	2.27	0.65
33:DI:71:ILE:HG13	33:DI:72:LEU:N	2.12	0.65
1:AA:657:G:H2'	1:AA:658:A:C8	2.31	0.65
32:BH:98:LEU:HB2	32:BH:125:VAL:HG21	1.78	0.65
22:AW:67:C:C2	22:AW:68:C:C5	2.85	0.65
14:CN:15:LYS:HD2	14:CN:16:PHE:CE2	2.31	0.65
25:BA:943:U:OP2	36:BP:38:GLN:CD	2.35	0.65
38:DR:9:LYS:O	38:DR:10:LEU:HG	1.95	0.65
31:DG:139:LEU:HD23	31:DG:139:LEU:H	1.61	0.65
46:DZ:166:SER:HB2	46:DZ:167:PRO:C	2.17	0.65
28:DD:264:LYS:HG2	28:DD:266:SER:HB3	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AV:8:U:H1'	23:AV:49:C:H1'	1.78	0.65
31:BG:139:LEU:H	31:BG:139:LEU:HD23	1.61	0.65
25:BA:1313:U:C2'	25:BA:1313:U:O2	2.45	0.65
15:CO:3:ILE:N	15:CO:3:ILE:HD13	2.10	0.65
1:AA:1281:G:O2'	1:AA:1282:U:P	2.54	0.65
16:CP:20:VAL:HG21	16:CP:32:TYR:CG	2.31	0.65
23:AV:72:C:H2'	23:AV:73:A:C8	2.31	0.65
2:AB:96:ARG:H	2:AB:96:ARG:HD2	1.62	0.65
35:BO:12:ASP:HA	35:BO:98:VAL:HA	1.79	0.65
1:CA:719:C:H2'	1:CA:720:A:C8	2.31	0.65
27:DC:78:ALA:CB	27:DC:82:LYS:HB2	2.26	0.65
1:AA:781:G:OP1	11:AK:122:LYS:NZ	2.28	0.65
29:DE:120:TRP:CE3	29:DE:155:LYS:HD3	2.32	0.65
2:CB:63:MET:HG3	2:CB:64:ARG:N	2.10	0.65
18:CR:56:THR:HB	18:CR:58:LEU:CD1	2.27	0.65
32:DH:30:LYS:HZ2	32:DH:81:GLU:HG2	1.58	0.65
9:AI:104:ARG:CD	9:AI:106:ALA:HA	2.27	0.65
22:CW:57:G:H2'	22:CW:58:A:H5'	1.79	0.65
23:CV:55:U:H6	23:CV:55:U:H3'	1.60	0.65
1:CA:1281:G:O2'	1:CA:1282:U:P	2.55	0.65
25:BA:614:U:H4'	25:BA:614(C):A:H62	1.60	0.65
31:DG:106:LEU:HA	31:DG:110:ALA:CB	2.26	0.65
25:DA:322:A:OP2	30:DF:169:ASN:HB2	1.97	0.65
9:CI:16:ARG:HB2	9:CI:64:THR:CG2	2.27	0.65
25:BA:286:C:C2'	25:BA:287:C:H5''	2.27	0.65
25:DA:1286:A:C2'	25:DA:1288:U:OP2	2.45	0.65
25:DA:2808:U:O2'	25:DA:2809:A:H5'	1.95	0.65
46:DZ:99:TYR:HA	46:DZ:124:ILE:O	1.97	0.65
46:BZ:166:SER:HB2	46:BZ:167:PRO:C	2.17	0.65
46:BZ:99:TYR:HA	46:BZ:124:ILE:O	1.97	0.65
25:BA:1625:C:H2'	25:BA:1626:G:O4'	1.96	0.65
11:AK:32:ILE:CD1	11:AK:72:ALA:HB2	2.27	0.65
35:DO:1:MET:HG3	35:DO:32:TYR:HB3	1.79	0.65
19:CS:15:LEU:O	19:CS:19:VAL:HG23	1.96	0.65
37:BQ:16:ARG:HG2	37:BQ:17:LEU:N	2.12	0.65
10:CJ:30:SER:OG	10:CJ:81:THR:HG22	1.97	0.65
27:DC:93:TYR:O	27:DC:94:VAL:HG13	1.96	0.65
46:DZ:24:LEU:HB2	46:DZ:41:LEU:CD2	2.27	0.65
40:BT:16:ARG:NH1	40:BT:18:ASP:OD2	2.29	0.65
25:DA:792:G:H5''	25:DA:793:A:H5'	1.77	0.65
33:DI:11:ASN:O	33:DI:12:LEU:HB3	1.95	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:984:A:H5''	25:DA:985:C:H5	1.60	0.65
46:BZ:69:THR:HG22	46:BZ:90:VAL:HG22	1.77	0.65
41:DU:17:ILE:HG23	41:DU:39:LEU:HD12	1.77	0.65
25:DA:668:G:C2	25:DA:670:A:C6	2.85	0.65
29:BE:120:TRP:CD2	29:BE:155:LYS:HD3	2.31	0.65
25:BA:2881:C:H2'	25:BA:2882:A:C8	2.31	0.65
22:AW:4:C:O2	22:AW:4:C:H2'	1.96	0.65
25:BA:979:G:H3'	25:BA:980:A:H5''	1.78	0.65
25:BA:2632:A:N3	29:BE:61:ARG:HD3	2.12	0.65
9:AI:106:ALA:O	9:AI:108:VAL:HG13	1.97	0.65
22:CW:14:A:C5	22:CW:22:G:N2	2.64	0.65
23:CV:53:G:HO2'	23:CV:54:G:P	2.20	0.65
55:B8:4:MET:SD	55:B8:61:LEU:HD22	2.36	0.65
25:BA:2401:U:H2'	25:BA:2402:C:H5''	1.79	0.65
40:BT:32:TYR:CE1	40:BT:81:PRO:HG2	2.32	0.65
31:DG:113:ARG:NH2	51:D4:61:VAL:CG1	2.59	0.65
10:CJ:48:THR:HG23	10:CJ:62:HIS:HB3	1.77	0.65
1:CA:197:G:C4	20:CT:105:SER:HB3	2.31	0.65
22:AY:40:C:H2'	22:AY:40:C:O2	1.97	0.65
25:DA:296:C:O2'	25:DA:297:C:H5'	1.97	0.65
32:DH:98:LEU:HB2	32:DH:125:VAL:HG21	1.77	0.65
45:BY:38:ILE:HG22	45:BY:39:VAL:N	2.11	0.65
1:CA:290:C:H2'	1:CA:291:U:O5'	1.97	0.65
25:DA:2036:C:C6	25:DA:2036:C:H5'	2.27	0.65
43:DW:59:VAL:O	43:DW:63:ASP:N	2.26	0.65
31:BG:91:ARG:HD2	31:BG:92:VAL:N	2.12	0.65
20:AT:26:ASN:O	20:AT:30:LYS:HB2	1.96	0.65
1:AA:1327:A:H61	1:AA:1356:A:H3'	1.62	0.65
33:DI:5:LEU:HD12	33:DI:5:LEU:H	1.61	0.65
1:CA:1172:A:P	3:CC:3:ASN:HD21	2.20	0.65
10:CJ:6:ILE:O	10:CJ:71:LEU:HD12	1.97	0.65
34:DN:16:ILE:HG23	34:DN:54:VAL:HG22	1.79	0.65
34:DN:39:ARG:HH11	34:DN:39:ARG:HG2	1.61	0.65
2:AB:71:VAL:HA	2:AB:93:VAL:CG2	2.26	0.65
51:D4:46:ASN:HD22	51:D4:47:VAL:H	1.42	0.65
38:BR:18:LEU:HD11	38:BR:22:ARG:NH2	2.11	0.65
2:AB:63:MET:HG3	2:AB:64:ARG:H	1.62	0.65
1:CA:902:G:H1	1:CA:1373:U:H3	1.43	0.65
53:D6:11:LEU:HG	53:D6:26:ASN:ND2	2.11	0.65
11:AK:84:VAL:HG23	11:AK:110:ASP:HA	1.79	0.65
48:B1:6:GLU:HG3	48:B1:61:ARG:O	1.95	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:76:ARG:O	4:AD:80:GLU:HG2	1.96	0.65
1:AA:809:C:H2'	1:AA:810:U:C6	2.31	0.65
26:BB:44:G:H1'	26:BB:47:C:H42	1.62	0.65
13:AM:60:VAL:HG12	13:AM:66:LEU:CD2	2.27	0.65
25:DA:2376:A:C4	39:DS:94:TYR:CE1	2.85	0.65
33:BI:47:LEU:O	33:BI:51:ILE:CG1	2.43	0.65
45:DY:81:LYS:CD	45:DY:97:ARG:HB3	2.27	0.65
29:DE:132:HIS:CG	29:DE:135:HIS:NE2	2.65	0.65
2:CB:18:GLY:N	2:CB:42:ILE:HG22	2.06	0.65
25:DA:806:C:OP2	36:DP:39:LYS:HD3	1.97	0.65
25:BA:1140:C:H5'	25:BA:1141:U:OP2	1.97	0.65
25:DA:2075:U:C4	25:DA:2238:G:C5	2.85	0.65
17:CQ:7:THR:CG2	17:CQ:58:GLU:HG2	2.26	0.65
1:CA:289:U:O4	1:CA:290:C:N4	2.30	0.65
25:DA:2580:U:H4'	29:DE:130:GLY:HA2	1.78	0.65
46:DZ:97:GLU:HB3	46:DZ:125:LEU:HD11	1.79	0.65
25:DA:197:A:H5'	25:DA:197:A:C8	2.31	0.65
36:BP:146:VAL:HG13	36:BP:147:LEU:H	1.62	0.65
36:BP:96:THR:O	36:BP:100:LEU:HD23	1.97	0.65
36:DP:96:THR:O	36:DP:100:LEU:HD23	1.96	0.65
3:AC:195:VAL:HG12	3:AC:196:LEU:N	2.12	0.65
48:D1:64:ALA:O	48:D1:67:ILE:HG13	1.96	0.65
25:BA:1566:A:OP1	28:BD:211:ARG:NH1	2.29	0.65
31:BG:46:ALA:O	31:BG:82:LEU:HD21	1.96	0.65
35:BO:73:ASP:OD1	35:BO:75:SER:N	2.29	0.65
35:BO:90:GLN:N	35:BO:90:GLN:OE1	2.30	0.65
27:BC:93:TYR:O	27:BC:94:VAL:HG13	1.96	0.65
15:CO:54:ARG:HG2	15:CO:54:ARG:HH11	1.61	0.65
53:D6:35:GLU:HB3	53:D6:51:GLU:CG	2.26	0.65
43:BW:19:LEU:O	52:B5:25:LEU:HD12	1.97	0.65
25:DA:2562:U:H1'	35:DO:23:ARG:NH1	2.12	0.65
1:AA:519:C:N4	1:AA:520:G:O6	2.30	0.65
44:BX:12:VAL:HG13	44:BX:27:THR:O	1.96	0.65
37:BQ:4:PRO:HG3	37:BQ:71:ASP:HA	1.79	0.65
13:AM:3:ARG:CA	13:AM:9:ILE:HG13	2.27	0.65
34:DN:1:MET:HG2	34:DN:2:LYS:N	2.10	0.65
39:BS:30:ARG:HB3	39:BS:89:ARG:NH2	2.12	0.65
1:AA:124:A:C8	17:AQ:63:ARG:HG3	2.32	0.65
25:DA:94(A):G:N3	49:D2:47:ASN:ND2	2.45	0.65
25:DA:1140:C:H5'	25:DA:1141:U:OP2	1.97	0.65
46:DZ:5:LEU:CD2	46:DZ:43:GLU:HB3	2.26	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:126:PRO:O	32:DH:127:GLU:HB2	1.97	0.65
25:DA:1652:A:O5'	25:DA:1652:A:H8	1.80	0.65
14:CN:9:LYS:HA	14:CN:12:ARG:CZ	2.27	0.65
25:BA:1286:A:C2'	25:BA:1288:U:OP2	2.45	0.65
1:CA:290:C:O2'	1:CA:291:U:C5'	2.45	0.65
25:BA:379:G:C5	25:BA:380:U:C6	2.85	0.65
25:BA:395:U:O2	25:BA:396:G:N7	2.30	0.65
47:B0:25:ARG:HD2	47:B0:29:GLN:HE22	1.57	0.65
33:BI:5:LEU:HD12	33:BI:5:LEU:H	1.61	0.65
1:CA:1173:C:OP2	3:CC:4:LYS:NZ	2.25	0.65
28:DD:76:PRO:HG2	28:DD:98:VAL:CG2	2.27	0.65
25:DA:1986:A:C2'	25:DA:1987:G:H5''	2.26	0.65
31:DG:46:ALA:O	31:DG:82:LEU:HD21	1.96	0.65
2:CB:96:ARG:H	2:CB:96:ARG:HD2	1.61	0.65
38:DR:2:ARG:NH2	38:DR:5:LYS:NZ	2.45	0.65
1:CA:720:A:H2'	1:CA:721:C:H6	1.61	0.65
28:BD:48:ARG:NH1	28:BD:48:ARG:HG3	2.11	0.65
1:AA:639:C:H4'	15:AO:62:GLN:HE22	1.61	0.65
50:D3:15:TYR:O	50:D3:20:LYS:HE2	1.96	0.65
25:DA:969:U:H2'	25:DA:970:C:C6	2.31	0.65
10:AJ:56:HIS:O	10:AJ:58:ASP:N	2.29	0.65
38:BR:2:ARG:NH2	38:BR:5:LYS:NZ	2.45	0.65
1:CA:1119:C:H4'	1:CA:1120:G:C2	2.31	0.65
30:DF:65:TRP:HZ3	30:DF:73:ALA:O	1.79	0.65
25:DA:649:G:H2'	25:DA:650:C:C6	2.32	0.65
26:DB:55:U:H2'	26:DB:56:G:C8	2.32	0.65
25:DA:779:U:H2'	25:DA:780:G:C8	2.31	0.65
25:BA:2787:C:H1'	29:BE:61:ARG:CG	2.27	0.65
26:DB:91:C:OP1	37:DQ:16:ARG:CG	2.45	0.65
25:BA:612:C:O2'	25:BA:613:G:H5''	1.96	0.65
39:DS:53:SER:OG	39:DS:54:LEU:HD22	1.96	0.65
36:DP:65:ARG:NH1	55:D8:15:LYS:HB2	2.12	0.65
8:CH:34:GLU:HB3	8:CH:118:VAL:HG21	1.79	0.65
1:AA:931:G:N2	1:AA:1209:C:N3	2.45	0.65
39:BS:49:VAL:HG12	39:BS:50:SER:N	2.13	0.65
25:BA:71:A:H4'	25:BA:72:U:OP2	1.97	0.65
25:DA:1029:A:OP1	37:DQ:128:LYS:NZ	2.24	0.65
34:BN:57:ALA:O	34:BN:58:ASP:O	2.15	0.65
25:DA:287:C:H6	25:DA:287:C:H5'	1.60	0.65
31:DG:129:GLY:O	31:DG:161:THR:HB	1.97	0.65
43:DW:59:VAL:HG12	43:DW:60:ASN:ND2	2.10	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BZ:97:GLU:HB3	46:BZ:125:LEU:HD11	1.79	0.65
25:DA:395:U:O2	25:DA:396:G:N7	2.30	0.65
25:BA:197:A:C8	25:BA:197:A:H5'	2.31	0.65
36:DP:146:VAL:HG13	36:DP:147:LEU:H	1.62	0.65
36:DP:85:LEU:CD2	36:DP:85:LEU:H	2.10	0.65
25:BA:1755:A:OP1	40:BT:113:LYS:NZ	2.25	0.65
34:DN:134:ARG:N	34:DN:135:PRO:HD3	2.12	0.65
15:CO:5:LYS:O	15:CO:9:GLN:HG2	1.96	0.65
25:BA:2672:G:H2'	25:BA:2673:G:H5''	1.79	0.65
25:BA:227:A:H5''	36:BP:76:LYS:HE2	1.79	0.65
25:DA:271(A):A:H5'	25:DA:271(B):C:OP2	1.97	0.65
25:BA:1794:U:H2'	25:BA:1795:C:H6	1.62	0.65
25:DA:954:G:H4'	37:DQ:13:GLN:NE2	2.12	0.64
42:BV:2:PHE:CE1	42:BV:13:ARG:HD2	2.32	0.64
10:AJ:48:THR:HG23	10:AJ:62:HIS:HB3	1.79	0.64
22:AW:75:C:O2'	22:AW:76:A:N7	2.30	0.64
25:DA:614(C):A:O2'	25:DA:615:G:P	2.55	0.64
26:BB:107:G:C6	26:BB:108:U:C5	2.85	0.64
9:AI:16:ARG:HB2	9:AI:64:THR:CG2	2.27	0.64
32:DH:12:PRO:HD3	32:DH:49:VAL:HG12	1.78	0.64
39:DS:38:GLN:OE1	39:DS:47:THR:HG21	1.97	0.64
23:CV:4:G:C2	23:CV:5:G:C4	2.85	0.64
22:AY:39:U:C2	22:AY:40:C:C5	2.84	0.64
25:DA:2401:U:H2'	25:DA:2402:C:H5''	1.79	0.64
29:DE:23:VAL:HA	29:DE:184:VAL:O	1.97	0.64
26:DB:75:G:H21	46:DZ:85:HIS:CE1	2.15	0.64
46:DZ:33:LEU:HD11	46:DZ:35:ARG:HB2	1.78	0.64
40:DT:23:ARG:O	40:DT:25:GLY:N	2.29	0.64
34:DN:57:ALA:O	34:DN:58:ASP:O	2.15	0.64
25:DA:363(E):U:H3'	25:DA:363(F):A:O4'	1.97	0.64
25:DA:2123:G:H2'	25:DA:2124:G:C8	2.32	0.64
25:BA:195:A:OP1	36:BP:46:LYS:HE2	1.98	0.64
8:CH:12:ARG:NH1	8:CH:27:PRO:HD3	2.12	0.64
37:BQ:12:GLN:HE21	37:BQ:72:LYS:HA	1.60	0.64
53:D6:37:ARG:HH11	53:D6:37:ARG:HG3	1.62	0.64
26:BB:75:G:H21	46:BZ:85:HIS:CE1	2.15	0.64
49:D2:42:GLY:O	49:D2:43:GLN:C	2.35	0.64
28:DD:48:ARG:NH1	28:DD:48:ARG:HG3	2.11	0.64
25:BA:78:A:H2'	25:BA:79:G:C8	2.31	0.64
43:DW:77:ASP:O	43:DW:102:HIS:HB2	1.96	0.64
25:BA:646:A:H2'	25:BA:647:G:O4'	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:375:G:N2	1:CA:378:A:OP2	2.26	0.64
25:DA:464:U:H4'	54:D7:5:TRP:CZ3	2.31	0.64
52:B5:41:PRO:HG2	52:B5:44:THR:HG21	1.79	0.64
20:CT:30:LYS:NZ	20:CT:80:ARG:NH2	2.46	0.64
42:BV:2:PHE:HB2	42:BV:42:GLY:HA2	1.78	0.64
1:AA:950:G:C1'	10:AJ:55:LYS:HE2	2.26	0.64
23:CV:51:U:N3	23:CV:52:C:C5	2.65	0.64
26:DB:92:C:C2	26:DB:93:G:C8	2.84	0.64
36:BP:56:SER:HB3	36:BP:60:MET:CG	2.27	0.64
19:AS:6:LYS:H	19:AS:6:LYS:HE3	1.61	0.64
25:BA:272:G:C2	25:BA:421:U:O4	2.47	0.64
1:CA:1294:U:C4	19:CS:4:SER:N	2.65	0.64
32:DH:13:LYS:CA	32:DH:13:LYS:HE2	2.19	0.64
33:DI:110:ASP:O	33:DI:112:LYS:N	2.28	0.64
33:DI:79:ILE:HG12	33:DI:140:LEU:HD11	1.77	0.64
36:DP:23:PRO:HB2	36:DP:33:ARG:NE	2.12	0.64
22:AY:37:A:C8	22:AY:38:A:C8	2.85	0.64
32:BH:156:ALA:HB3	32:BH:159:GLU:HB3	1.77	0.64
25:DA:1365:A:OP1	48:D1:41:ARG:NH1	2.29	0.64
25:DA:379:G:C5	25:DA:380:U:C6	2.85	0.64
26:BB:55:U:H2'	26:BB:56:G:C8	2.32	0.64
25:DA:2124:G:O2'	27:DC:40:THR:CA	2.44	0.64
32:DH:20:ALA:HB1	32:DH:21:PRO:HD2	1.79	0.64
18:CR:70:ILE:O	18:CR:74:ARG:HG3	1.97	0.64
34:BN:39:ARG:HH11	34:BN:39:ARG:HG2	1.61	0.64
1:AA:817:C:H2'	1:AA:818:U:H6	1.62	0.64
25:BA:143(A):C:H2'	25:BA:143(A):C:O2	1.97	0.64
25:DA:2310:A:O2'	25:DA:2311:A:H5'	1.96	0.64
46:BZ:24:LEU:HB2	46:BZ:41:LEU:HD23	1.78	0.64
1:AA:67:C:H2'	1:AA:68:G:C8	2.32	0.64
25:BA:649:G:H2'	25:BA:650:C:C6	2.32	0.64
17:CQ:63:ARG:HG2	17:CQ:64:PRO:HD2	1.79	0.64
40:BT:67:SER:O	40:BT:69:GLY:N	2.30	0.64
25:BA:774:A:H2	25:BA:787:U:HO2'	1.45	0.64
2:CB:114:ARG:HH11	2:CB:114:ARG:HG3	1.63	0.64
11:CK:56:GLY:O	11:CK:89:ALA:HB3	1.98	0.64
8:CH:82:HIS:C	8:CH:82:HIS:CD2	2.70	0.64
32:DH:19:VAL:HG21	32:DH:44:VAL:CA	2.14	0.64
25:BA:2387:U:H5'	25:BA:2388:A:OP2	1.97	0.64
25:DA:106:C:H2'	25:DA:107:C:C6	2.33	0.64
42:BV:55:ALA:HA	42:BV:101:GLY:HA2	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:329:G:OP2	45:DY:71:LYS:HD3	1.96	0.64
36:BP:64:LYS:C	36:BP:66:GLY:N	2.51	0.64
42:DV:49:THR:CB	42:DV:50:PRO:CD	2.75	0.64
26:BB:6:C:HO2'	39:BS:29:PHE:HE1	0.71	0.64
39:DS:92:TYR:CD1	39:DS:93:LYS:N	2.64	0.64
1:AA:1171:G:H8	3:AC:3:ASN:HD22	1.46	0.64
27:DC:58:VAL:HG21	27:DC:166:ASP:N	2.01	0.64
29:BE:23:VAL:HA	29:BE:184:VAL:O	1.98	0.64
27:DC:59:ARG:HB2	27:DC:62:VAL:CG2	2.23	0.64
37:DQ:134:ARG:HH21	46:DZ:122:ARG:CZ	2.11	0.64
1:CA:1424:G:N7	1:CA:1426:A:C8	2.65	0.64
49:B2:40:SER:C	49:B2:42:GLY:N	2.50	0.64
28:BD:267:SER:O	28:BD:269:PHE:N	2.31	0.64
1:AA:1373:U:H2'	1:AA:1374:G:C8	2.33	0.64
25:DA:1221:C:O2'	25:DA:1221(A):C:H5'	1.97	0.64
25:DA:274:G:O4'	25:DA:363:G:N2	2.30	0.64
18:AR:56:THR:HB	18:AR:58:LEU:CD1	2.27	0.64
1:CA:1036:C:O2'	1:CA:1037:A:H5''	1.97	0.64
2:AB:96:ARG:HH11	2:AB:148:TYR:HE1	1.45	0.64
37:DQ:21:THR:C	37:DQ:23:GLY:N	2.50	0.64
46:BZ:24:LEU:HB2	46:BZ:41:LEU:CD2	2.27	0.64
52:D5:37:LYS:HG3	52:D5:38:ALA:N	2.13	0.64
2:AB:114:ARG:HA	2:AB:117:GLU:OE1	1.97	0.64
2:CB:63:MET:HG3	2:CB:64:ARG:H	1.61	0.64
25:BA:779:U:H2'	25:BA:780:G:C8	2.31	0.64
30:DF:181:LEU:HD11	30:DF:186:ILE:HD11	1.79	0.64
25:DA:2653:U:O2'	32:DH:110:SER:HB2	1.98	0.64
7:CG:140:ASP:HA	7:CG:143:ARG:NH1	2.11	0.64
1:AA:438:C:H2'	1:AA:439:G:H8	1.62	0.64
43:BW:77:ASP:O	43:BW:102:HIS:HB2	1.96	0.64
29:DE:79:ARG:HG2	29:DE:79:ARG:HH11	1.63	0.64
25:DA:2387:U:H5'	25:DA:2388:A:OP2	1.97	0.64
25:DA:1819:A:OP1	28:DD:158:ALA:HB3	1.97	0.64
25:BA:108:U:HO2'	25:BA:109:G:H5'	1.60	0.64
23:AV:4:G:N3	23:AV:5:G:N9	2.46	0.64
45:DY:31:LEU:HB2	45:DY:32:PRO:CA	2.27	0.64
37:DQ:43:THR:HA	37:DQ:94:VAL:HG12	1.79	0.64
29:BE:15:PHE:CE2	40:BT:80:SER:CB	2.72	0.64
25:DA:2377:A:C4'	39:DS:108:GLY:HA2	2.27	0.64
31:BG:31:VAL:HG22	31:BG:32:PRO:CD	2.28	0.64
3:AC:14:ILE:CG1	3:AC:15:THR:H	2.03	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DS:49:VAL:HG12	39:DS:50:SER:N	2.12	0.64
33:BI:110:ASP:O	33:BI:112:LYS:N	2.28	0.64
33:DI:140:LEU:HD12	33:DI:141:LYS:N	2.13	0.64
45:DY:8:LYS:HD2	45:DY:8:LYS:N	2.04	0.64
32:BH:98:LEU:HD22	32:BH:125:VAL:HG23	1.80	0.64
2:AB:236:TYR:HA	2:AB:239:VAL:CG2	2.26	0.64
25:BA:349:G:C2	25:BA:350:U:O2	2.50	0.64
25:DA:1287:A:C6	25:DA:1288:U:N3	2.66	0.64
25:DA:349:G:C2	25:DA:350:U:O2	2.50	0.64
25:BA:471:A:H2'	25:BA:472:A:O4'	1.98	0.64
25:DA:379:G:H2'	25:DA:380:U:O4'	1.98	0.64
25:DA:1292:U:H2'	25:DA:1293:C:C6	2.33	0.64
19:AS:63:THR:HG22	19:AS:66:MET:CE	2.27	0.64
34:BN:16:ILE:HG23	34:BN:54:VAL:HG22	1.79	0.64
1:AA:97:G:O6	20:AT:14:LYS:NZ	2.30	0.64
25:BA:2580:U:H4'	29:BE:130:GLY:HA2	1.79	0.64
38:DR:5:LYS:HD2	38:DR:5:LYS:N	2.13	0.64
1:CA:743:G:O2'	17:CQ:98:LEU:HD23	1.97	0.64
38:BR:5:LYS:H	38:BR:5:LYS:HD2	1.62	0.64
15:CO:43:LEU:HD11	15:CO:53:HIS:HA	1.77	0.64
39:BS:36:TYR:HA	39:BS:52:SER:HA	1.79	0.64
20:AT:63:ILE:HD13	20:AT:80:ARG:HB2	1.79	0.64
20:CT:46:GLU:O	20:CT:46:GLU:HG2	1.96	0.64
3:AC:92:ALA:HB2	3:AC:99:VAL:CG2	2.27	0.64
25:BA:271(U):G:C3'	25:BA:271(V):G:H5'	2.26	0.64
25:DA:2787:C:O2'	29:DE:61:ARG:HG3	1.97	0.64
41:BU:112:ARG:NE	42:BV:46:VAL:HG21	2.13	0.64
37:DQ:16:ARG:HG2	37:DQ:17:LEU:N	2.12	0.64
25:BA:869:G:H2'	25:BA:870:A:H8	1.61	0.64
42:DV:46:VAL:HG22	42:DV:47:VAL:N	2.11	0.64
39:BS:38:GLN:OE1	39:BS:47:THR:HG21	1.97	0.64
26:BB:15:A:H3'	26:BB:16:G:H5'	1.78	0.64
31:DG:52:ILE:CG2	31:DG:54:GLU:HG2	2.21	0.64
12:CL:28:LYS:HG3	12:CL:33:ARG:NH2	2.12	0.64
22:CW:39:U:H2'	22:CW:40:C:H5'	1.80	0.64
26:DB:79:C:C2'	26:DB:80:U:H5'	2.27	0.64
13:AM:13:LYS:O	13:AM:45:VAL:HG23	1.98	0.64
2:AB:25:ASN:ND2	2:AB:193:ASP:HB3	2.11	0.64
32:BH:54:ARG:HG3	32:BH:54:ARG:O	1.97	0.64
46:BZ:56:VAL:HG12	46:BZ:57:ILE:N	2.12	0.64
32:BH:102:ALA:HB1	32:BH:115:VAL:O	1.96	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:132:VAL:CG2	30:BF:133:ASN:H	2.03	0.64
25:DA:2389:G:H5''	25:DA:2390:U:O4'	1.97	0.64
5:CE:126:ARG:NH1	5:CE:126:ARG:HG3	2.08	0.64
16:CP:53:VAL:O	16:CP:57:ARG:HG2	1.98	0.64
32:BH:135:GLY:HA3	32:BH:141:VAL:HG21	1.78	0.64
44:BX:60:ARG:HH22	54:B7:47:ARG:CZ	2.10	0.64
22:AW:14:A:N1	22:AW:15:G:H1'	2.13	0.64
36:BP:80:TYR:CZ	36:BP:111:ARG:HD3	2.31	0.64
36:DP:80:TYR:CZ	36:DP:111:ARG:HD3	2.31	0.64
46:DZ:128:VAL:HG22	46:DZ:132:ASN:HB2	1.79	0.64
8:CH:11:THR:HG23	8:CH:14:ARG:NH1	2.12	0.64
22:AW:12:U:C2	22:AW:24:G:N2	2.65	0.64
10:CJ:80:LYS:HE3	10:CJ:80:LYS:O	1.98	0.64
2:AB:102:LEU:O	2:AB:105:PHE:HB2	1.97	0.64
11:CK:34:ASP:HB3	11:CK:40:ILE:HD11	1.80	0.64
13:AM:39:ILE:HD12	13:AM:56:LEU:HD23	1.80	0.64
31:DG:45:GLU:OE1	31:DG:45:GLU:HA	1.97	0.64
22:CW:19:G:H4'	22:CW:20:U:OP2	1.97	0.64
36:BP:50:ARG:HG2	36:BP:50:ARG:HH21	1.62	0.64
25:BA:2161:C:H2'	25:BA:2162:G:C8	2.32	0.64
3:AC:82:GLU:O	3:AC:86:VAL:HG13	1.96	0.64
1:AA:1110:C:H5'	9:AI:16:ARG:HH22	1.63	0.64
1:CA:1042:C:OP1	14:CN:45:ARG:NH2	2.30	0.64
31:BG:129:GLY:O	31:BG:161:THR:HB	1.97	0.64
2:CB:25:ASN:ND2	2:CB:193:ASP:HB3	2.11	0.64
40:DT:89:VAL:CB	40:DT:91:ARG:NE	2.61	0.64
25:DA:587:C:N3	36:DP:33:ARG:HG2	2.13	0.64
9:AI:79:LEU:HD21	9:AI:102:LEU:HD22	1.78	0.64
25:BA:1686:C:H5'	25:BA:1686:C:C6	2.33	0.64
32:DH:159:GLU:CG	32:DH:160:LYS:H	2.00	0.64
22:AY:33:U:H3'	22:AY:34:G:H5''	1.79	0.64
46:DZ:98:MET:O	46:DZ:126:VAL:HG22	1.97	0.64
32:DH:18:GLU:HB3	32:DH:25:LYS:HZ2	1.61	0.64
36:BP:114:ILE:HG22	36:BP:127:ALA:HB2	1.79	0.64
12:AL:43:VAL:HG23	12:AL:44:THR:N	2.12	0.64
34:BN:134:ARG:N	34:BN:135:PRO:HD3	2.12	0.64
1:AA:1130:U:H2'	1:AA:1131:C:O4'	1.98	0.64
34:DN:9:VAL:HG12	34:DN:10:GLU:N	2.13	0.64
11:AK:124:LYS:HD2	11:AK:125:PHE:CE1	2.32	0.64
53:B6:37:ARG:HG3	53:B6:37:ARG:HH11	1.62	0.64
26:DB:44:G:H1'	26:DB:47:C:H42	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2685:G:OP1	35:DO:78:ARG:NH2	2.30	0.64
25:BA:2123:G:H2'	25:BA:2124:G:C8	2.32	0.64
25:BA:1607:C:H4'	25:BA:1608:A:O5'	1.98	0.64
25:DA:2522:U:O2'	25:DA:2647:U:H5''	1.98	0.64
25:DA:143(A):C:H2'	25:DA:143(A):C:O2	1.97	0.64
25:BA:969:U:OP1	50:B3:17:LYS:HD3	1.97	0.64
1:AA:319:G:OP1	20:AT:22:ARG:HD3	1.98	0.64
3:CC:64:VAL:CG2	3:CC:99:VAL:HA	2.27	0.64
7:AG:129:GLU:OE2	7:AG:131:LYS:HE3	1.98	0.64
1:AA:486:C:OP1	12:AL:119:LYS:NZ	2.29	0.64
7:AG:140:ASP:HA	7:AG:143:ARG:NH1	2.13	0.64
1:CA:1307:C:OP1	21:CU:12:LYS:HD2	1.98	0.64
25:DA:646:A:H2'	25:DA:647:G:O4'	1.97	0.64
15:AO:43:LEU:HD11	15:AO:53:HIS:HA	1.79	0.64
3:AC:132:ARG:O	3:AC:136:GLN:HB2	1.97	0.64
25:DA:72:U:O4'	49:D2:61:LEU:HD12	1.97	0.64
27:DC:77:ILE:HD11	27:DC:100:ILE:HD11	1.80	0.64
12:CL:117:ARG:HB3	12:CL:122:THR:HB	1.79	0.64
25:DA:271(U):G:C3'	25:DA:271(V):G:H5'	2.26	0.64
45:DY:52:SER:O	45:DY:54:LYS:N	2.30	0.64
25:BA:910:A:N7	37:BQ:13:GLN:HG3	2.13	0.64
25:DA:2161:C:H2'	25:DA:2162:G:C8	2.32	0.64
25:BA:1158:C:O2'	50:B3:32:GLN:CG	2.37	0.64
42:DV:2:PHE:CE1	42:DV:13:ARG:HD2	2.32	0.64
17:AQ:67:LYS:O	17:AQ:68:ARG:HB3	1.95	0.64
9:AI:17:VAL:HA	9:AI:63:ILE:HG12	1.80	0.64
42:BV:18:LEU:HD13	42:BV:19:LYS:H	1.62	0.64
31:DG:113:ARG:NH1	51:D4:61:VAL:O	2.31	0.64
12:CL:28:LYS:HB3	12:CL:30:ALA:HB2	1.80	0.64
3:AC:11:ARG:HG2	3:AC:11:ARG:HH11	1.61	0.64
33:BI:71:ILE:HG13	33:BI:72:LEU:N	2.12	0.64
33:BI:79:ILE:HG22	33:BI:81:VAL:H	1.63	0.64
37:DQ:37:LEU:HD21	37:DQ:130:LYS:HB2	1.77	0.64
32:BH:17:VAL:HB	32:BH:45:VAL:HG22	1.79	0.64
25:BA:2186:G:C5	25:BA:2187:G:N7	2.65	0.64
25:DA:404:C:C4'	25:DA:405:U:H5'	2.25	0.64
25:DA:286:C:C2'	25:DA:287:C:H5''	2.27	0.64
1:CA:1143:C:H2'	1:CA:1144:C:C6	2.32	0.64
4:CD:22:LYS:HD3	4:CD:26:CYS:SG	2.37	0.64
25:BA:2307:G:H5''	25:BA:2307:G:N3	2.12	0.64
31:BG:44:GLY:CA	31:BG:88:ILE:HG21	2.27	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:32:ILE:CD1	11:CK:72:ALA:HB2	2.27	0.64
46:BZ:128:VAL:HG22	46:BZ:132:ASN:HB2	1.79	0.64
53:B6:11:LEU:HG	53:B6:26:ASN:ND2	2.11	0.64
37:DQ:21:THR:HG21	37:DQ:101:ARG:HB2	1.80	0.64
25:DA:1434:A:H61	25:DA:1558:A:N6	1.96	0.64
3:AC:64:VAL:CG2	3:AC:99:VAL:HA	2.28	0.64
3:CC:138:VAL:HG23	3:CC:151:VAL:HG23	1.79	0.64
25:DA:979:G:H3'	25:DA:980:A:C5'	2.28	0.64
1:CA:17:U:H2'	1:CA:18:C:C6	2.33	0.64
23:AV:28:U:H3	23:AV:44:A:H61	1.45	0.64
44:BX:28:PHE:CE2	44:BX:92:LEU:HD11	2.33	0.64
1:CA:125:C:H2'	1:CA:126:C:C6	2.33	0.64
39:DS:36:TYR:HA	39:DS:52:SER:HA	1.79	0.64
25:DA:2672:G:H2'	25:DA:2673:G:H5''	1.79	0.64
44:DX:28:PHE:CE2	44:DX:92:LEU:HD11	2.33	0.64
34:DN:18:ALA:HB1	34:DN:21:LYS:HB2	1.80	0.64
13:CM:88:ARG:O	13:CM:98:VAL:HG13	1.98	0.64
25:DA:2515:C:H2'	25:DA:2516:G:H8	1.63	0.64
49:D2:2:LYS:HA	49:D2:5:GLU:OE1	1.98	0.64
50:D3:5:LYS:HG3	50:D3:36:VAL:HG12	1.79	0.64
37:DQ:4:PRO:HG3	37:DQ:71:ASP:HA	1.79	0.64
45:BY:17:SER:HB3	45:BY:71:LYS:HD2	1.77	0.64
13:CM:116:THR:O	13:CM:117:VAL:CB	2.45	0.64
25:BA:2302:G:C2	31:BG:128:ARG:HD2	2.32	0.64
45:BY:81:LYS:CD	45:BY:97:ARG:HB3	2.27	0.64
33:DI:4:ILE:HG12	33:DI:18:VAL:HG22	1.79	0.64
25:DA:2186:G:C5	25:DA:2187:G:N7	2.65	0.64
32:BH:17:VAL:HG11	32:BH:50:VAL:CG2	2.28	0.64
25:BA:1652:A:H8	25:BA:1652:A:O5'	1.80	0.64
32:DH:98:LEU:HD22	32:DH:125:VAL:HG23	1.79	0.64
46:BZ:144:LEU:HG	46:BZ:150:LEU:CD1	2.28	0.64
32:BH:20:ALA:HB1	32:BH:21:PRO:HD2	1.79	0.64
25:BA:363(E):U:H3'	25:BA:363(F):A:O4'	1.97	0.64
19:CS:39:THR:HG22	19:CS:40:ILE:N	2.13	0.64
18:AR:40:LEU:HD22	18:AR:70:ILE:HD13	1.80	0.64
25:BA:979:G:H3'	25:BA:980:A:C5'	2.28	0.64
1:CA:125:C:H2'	1:CA:126:C:H6	1.61	0.64
25:BA:668:G:C2	25:BA:670:A:C6	2.85	0.64
7:CG:62:PHE:HA	7:CG:124:LEU:CD2	2.27	0.64
18:CR:61:LYS:HG2	18:CR:65:ILE:HD11	1.80	0.64
1:CA:858:G:OP2	12:CL:12:ARG:NH2	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1417:G:H2'	1:AA:1418:U:C6	2.31	0.64
25:BA:2080:G:O5'	48:B1:35:THR:HG21	1.98	0.64
5:AE:28:PHE:N	5:AE:28:PHE:CD1	2.66	0.64
13:CM:94:ARG:HH21	25:DA:887:A:H3'	1.61	0.64
25:BA:2787:C:O2'	29:BE:61:ARG:HG3	1.98	0.64
40:DT:55:ASN:ND2	40:DT:58:ASN:OD1	2.30	0.64
25:BA:2075:U:O4	25:BA:2238:G:C5	2.49	0.64
22:CW:60:U:OP2	22:CW:61:C:N4	2.30	0.64
25:BA:2389:G:H5''	25:BA:2390:U:O4'	1.97	0.64
50:B3:5:LYS:HG3	50:B3:36:VAL:HG12	1.79	0.64
13:CM:57:ARG:NH1	51:D4:60:GLU:HA	2.11	0.64
39:DS:15:ARG:HB3	39:DS:18:ILE:CG2	2.28	0.64
1:AA:1171:G:OP2	3:AC:5:ILE:HG23	1.97	0.64
12:AL:41:ARG:NH1	12:AL:41:ARG:HB3	2.12	0.64
2:CB:67:THR:O	2:CB:68:ILE:HD13	1.98	0.64
4:CD:150:GLU:HA	4:CD:153:ARG:CD	2.19	0.64
28:DD:108:PRO:HG2	28:DD:111:LEU:HB2	1.78	0.64
33:DI:102:SER:OG	33:DI:109:ILE:HD13	1.98	0.64
33:DI:83:ALA:HA	33:DI:89:TYR:CE1	2.33	0.64
22:AY:38:A:H5''	22:AY:39:U:OP2	1.97	0.64
26:DB:107:G:H2'	26:DB:108:U:H5'	1.79	0.64
25:DA:2464:C:H2'	25:DA:2465:C:H6	1.63	0.64
25:BA:729:G:C3'	25:BA:729:G:N3	2.59	0.64
25:BA:296:C:O2'	25:BA:297:C:H5'	1.97	0.64
25:BA:747:U:P	52:B5:3:LYS:HD3	2.38	0.64
25:BA:1300:U:H1'	25:BA:1626:G:C2	2.33	0.64
32:DH:85:LYS:HD2	32:DH:141:VAL:CG1	2.26	0.64
25:DA:2406:U:O4	36:DP:70:GLN:HB3	1.98	0.64
23:CV:30:G:O5'	23:CV:30:G:H8	1.81	0.64
23:CV:30:G:O2'	23:CV:31:G:H5'	1.98	0.64
28:DD:43:ARG:HD2	28:DD:44:ASN:OD1	1.98	0.64
25:DA:2554:U:H2'	25:DA:2555:U:H6	1.62	0.64
39:DS:85:VAL:CG2	39:DS:106:ARG:HG3	2.26	0.64
6:CF:61:LEU:O	6:CF:62:TRP:HB2	1.97	0.64
24:CX:17:U:H2'	24:CX:18:G:C8	2.33	0.64
25:DA:1607:C:H4'	25:DA:1608:A:O5'	1.98	0.64
38:BR:5:LYS:N	38:BR:5:LYS:HD2	2.13	0.64
45:BY:45:VAL:HA	45:BY:62:GLU:HG2	1.80	0.64
1:AA:387:G:H2'	1:AA:388:A:C8	2.32	0.64
50:B3:11:SER:OG	50:B3:13:ILE:HD13	1.98	0.64
12:CL:126:LYS:HE2	12:CL:127:GLU:HB2	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:166:LYS:C	28:DD:135:PHE:CE2	2.71	0.64
13:AM:93:ARG:CZ	25:BA:888:C:C4'	2.76	0.64
25:BA:104:U:H3'	25:BA:105:C:H6	1.62	0.64
25:DA:1590:U:C3'	25:DA:1591:G:H5''	2.27	0.64
20:AT:46:GLU:O	20:AT:46:GLU:HG2	1.97	0.64
37:DQ:69:PHE:CD1	37:DQ:70:PRO:HD2	2.31	0.64
3:AC:76:VAL:HG21	3:AC:103:VAL:HG11	1.80	0.64
39:DS:56:LEU:O	39:DS:57:LYS:HB2	1.98	0.64
33:BI:44:LEU:O	33:BI:47:LEU:HB3	1.96	0.64
37:BQ:54:MET:HB3	37:BQ:64:ILE:CD1	2.21	0.64
33:BI:83:ALA:HA	33:BI:89:TYR:CE1	2.33	0.64
30:BF:3:GLU:HB2	30:BF:19:GLU:HB2	1.80	0.64
25:BA:587:C:N3	36:BP:33:ARG:HG2	2.13	0.64
25:DA:1652:A:H2'	25:DA:1653:G:H5'	1.79	0.64
45:BY:11:ASP:OD1	45:BY:12:THR:N	2.32	0.64
25:BA:1287:A:C6	25:BA:1288:U:N3	2.66	0.64
1:CA:1110:C:H42	1:CA:1125:G:H1	1.45	0.64
2:CB:236:TYR:HA	2:CB:239:VAL:CG2	2.27	0.64
31:DG:31:VAL:HG22	31:DG:32:PRO:CD	2.27	0.64
29:BE:203:LYS:HE2	29:BE:204:ALA:HB2	1.78	0.64
23:AV:26:C:H2'	23:AV:27:G:O4'	1.98	0.64
25:DA:2502:G:H5''	25:DA:2503:A:C5'	2.29	0.64
36:DP:81:GLN:HG2	36:DP:106:LEU:HD12	1.80	0.64
36:DP:114:ILE:HG22	36:DP:127:ALA:HB2	1.78	0.64
26:DB:14:U:OP2	26:DB:71:C:C5'	2.46	0.64
34:BN:48:MET:H	34:BN:48:MET:HE3	1.63	0.64
2:AB:92:TYR:CE1	2:AB:151:GLY:HA3	2.33	0.64
37:BQ:81:VAL:CG2	47:B0:7:LEU:HD21	2.28	0.64
47:B0:53:MET:CB	47:B0:59:LEU:HD23	2.28	0.64
31:BG:107:LEU:HD11	31:BG:178:PHE:HE1	1.63	0.64
46:DZ:82:ARG:HG2	46:DZ:83:PRO:HD2	1.78	0.64
6:AF:60:PHE:C	6:AF:61:LEU:HD12	2.19	0.64
48:D1:50:ARG:HG2	48:D1:50:ARG:HH11	1.61	0.64
29:BE:120:TRP:CE3	29:BE:155:LYS:HD3	2.32	0.64
25:DA:979:G:H3'	25:DA:980:A:H5''	1.78	0.64
30:DF:185:ASP:HA	30:DF:188:ARG:HB3	1.79	0.64
25:DA:2356:C:O3'	47:D0:20:ARG:HD3	1.97	0.64
8:AH:34:GLU:HB3	8:AH:118:VAL:HG21	1.79	0.64
25:DA:444:C:OP2	41:DU:2:PRO:HD3	1.97	0.64
25:DA:2398:U:H5'	25:DA:2399:G:OP2	1.98	0.64
11:CK:84:VAL:HG23	11:CK:110:ASP:HA	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:28:PHE:N	5:CE:28:PHE:CD1	2.64	0.64
46:BZ:11:GLU:H	46:BZ:11:GLU:CD	2.00	0.64
1:CA:1221:U:H3	7:CG:30:ILE:HG22	1.63	0.64
13:CM:92:HIS:NE2	13:CM:98:VAL:HG21	2.13	0.63
29:BE:79:ARG:HH11	29:BE:79:ARG:HG2	1.63	0.63
32:DH:44:VAL:HG12	32:DH:45:VAL:N	2.10	0.63
13:AM:97:PRO:HD3	13:AM:110:ARG:HD3	1.80	0.63
6:AF:82:ARG:HB2	6:AF:85:VAL:HG23	1.79	0.63
25:DA:2348:U:C3'	25:DA:2349:G:H5''	2.27	0.63
17:AQ:19:VAL:HG23	17:AQ:44:ALA:HB3	1.80	0.63
9:CI:114:TYR:HD2	9:CI:114:TYR:N	1.94	0.63
1:AA:1173:C:OP2	3:AC:4:LYS:NZ	2.22	0.63
2:CB:178:ARG:HH11	2:CB:178:ARG:CB	2.07	0.63
33:BI:140:LEU:HD12	33:BI:141:LYS:N	2.13	0.63
33:DI:111:PRO:O	33:DI:112:LYS:HG3	1.98	0.63
43:BW:60:ASN:H	43:BW:60:ASN:HD22	1.44	0.63
25:BA:395:U:H2'	25:BA:395:U:O2	1.96	0.63
36:DP:16:ARG:HD3	36:DP:17:LYS:N	2.12	0.63
3:CC:76:VAL:HG21	3:CC:103:VAL:HG11	1.80	0.63
10:AJ:16:LEU:HD13	10:AJ:16:LEU:O	1.97	0.63
55:D8:43:GLN:C	55:D8:44:LYS:HD2	2.18	0.63
25:DA:1578:U:H2'	25:DA:1579:A:H5''	1.78	0.63
28:BD:125:ILE:O	28:BD:125:ILE:HG22	1.97	0.63
46:DZ:11:GLU:H	46:DZ:11:GLU:CD	2.00	0.63
1:CA:1394:C:H2'	1:CA:1395:A:C8	2.33	0.63
4:CD:187:ARG:HH11	4:CD:187:ARG:HG2	1.64	0.63
25:DA:1762:A:H8	25:DA:1762:A:O5'	1.81	0.63
17:AQ:50:LYS:HE3	17:AQ:51:TYR:CE1	2.33	0.63
13:AM:94:ARG:CZ	25:BA:887:A:C3'	2.65	0.63
19:AS:6:LYS:CE	19:AS:6:LYS:H	2.11	0.63
25:DA:869:G:H2'	25:DA:870:A:H8	1.61	0.63
42:DV:6:LYS:O	42:DV:37:VAL:HG21	1.98	0.63
39:DS:19:LYS:C	39:DS:20:ARG:HH11	2.01	0.63
33:BI:4:ILE:HG12	33:BI:18:VAL:HG22	1.79	0.63
7:AG:62:PHE:CD1	7:AG:124:LEU:HD21	2.33	0.63
5:CE:51:VAL:HB	5:CE:52:PRO:HD3	1.80	0.63
25:BA:926:A:H5'	25:BA:926:A:H8	1.62	0.63
33:BI:102:SER:OG	33:BI:109:ILE:HD13	1.98	0.63
31:DG:44:GLY:CA	31:DG:88:ILE:HG21	2.27	0.63
46:BZ:98:MET:O	46:BZ:126:VAL:HG22	1.98	0.63
46:BZ:144:LEU:O	46:BZ:174:VAL:HG21	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:53:VAL:O	16:AP:57:ARG:HG2	1.98	0.63
49:B2:40:SER:O	49:B2:42:GLY:N	2.31	0.63
4:CD:30:LYS:CB	4:CD:35:ARG:HD2	2.29	0.63
1:CA:919:G:H21	9:CI:124:GLN:HE22	1.44	0.63
36:BP:81:GLN:HG2	36:BP:106:LEU:HD12	1.80	0.63
4:AD:30:LYS:CB	4:AD:35:ARG:HD2	2.27	0.63
2:AB:71:VAL:HA	2:AB:93:VAL:HG23	1.80	0.63
25:DA:1987:G:C8	25:DA:1987:G:H5'	2.33	0.63
3:CC:109:PRO:HB3	3:CC:115:LEU:HD13	1.81	0.63
9:CI:118:LYS:O	9:CI:120:ARG:N	2.30	0.63
1:AA:1236:G:H3'	3:AC:26:LYS:NZ	2.13	0.63
25:DA:2320:A:C2	25:DA:2333:A:C8	2.86	0.63
49:D2:42:GLY:O	49:D2:44:LEU:N	2.31	0.63
45:DY:87:LYS:O	45:DY:88:LYS:HB2	1.99	0.63
45:BY:16:ALA:HA	45:BY:21:LYS:HD2	1.79	0.63
50:D3:59:VAL:HG12	50:D3:60:GLU:N	2.14	0.63
18:AR:19:LYS:O	18:AR:20:ALA:CB	2.45	0.63
25:BA:2025:C:H2'	25:BA:2026:C:C6	2.33	0.63
25:BA:557:U:H2'	25:BA:558:G:H8	1.64	0.63
25:BA:2152:G:H2'	25:BA:2153:G:H8	1.61	0.63
50:B3:59:VAL:HG12	50:B3:60:GLU:N	2.14	0.63
25:DA:2584:U:H3'	25:DA:2585:U:C5'	2.29	0.63
25:DA:104:U:H3'	25:DA:105:C:H6	1.62	0.63
22:CW:72:C:H2'	22:CW:73:A:O4'	1.98	0.63
39:BS:15:ARG:HB3	39:BS:18:ILE:CG2	2.28	0.63
39:DS:101:LEU:CD2	39:DS:104:GLY:H	2.11	0.63
8:AH:6:ILE:H	8:AH:6:ILE:CD1	2.11	0.63
22:AW:38:A:C3'	22:AW:39:U:H5''	2.28	0.63
5:AE:75:THR:HG23	5:AE:76:ILE:N	2.13	0.63
33:DI:79:ILE:HG22	33:DI:81:VAL:H	1.63	0.63
34:BN:63:THR:HG22	34:BN:64:GLY:H	1.63	0.63
40:BT:27:THR:OG1	40:BT:28:VAL:N	2.25	0.63
28:DD:267:SER:O	28:DD:269:PHE:N	2.31	0.63
2:AB:79:ASP:O	2:AB:82:ARG:HB3	1.96	0.63
43:DW:92:ARG:HG2	43:DW:92:ARG:HH11	1.61	0.63
25:DA:1675:C:C2	29:DE:129:HIS:CD2	2.86	0.63
25:BA:271(A):A:H5'	25:BA:271(B):C:OP2	1.97	0.63
25:DA:999:U:H2'	25:DA:1000:A:H5''	1.80	0.63
47:D0:72:ARG:HB3	47:D0:75:LEU:HB3	1.79	0.63
26:DB:11:C:H3'	26:DB:12:C:H6	1.64	0.63
4:AD:187:ARG:HH11	4:AD:187:ARG:HG2	1.64	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:844:G:H2'	1:CA:845:C:H6	1.62	0.63
1:CA:1022:U:H2'	1:CA:1023:A:C8	2.32	0.63
3:CC:55:VAL:O	3:CC:55:VAL:HG12	1.98	0.63
20:CT:50:GLU:HB3	20:CT:100:ILE:HG13	1.79	0.63
42:BV:39:LEU:CD1	42:BV:51:VAL:HA	2.27	0.63
25:DA:1772:G:N1	25:DA:1980:G:C6	2.66	0.63
25:DA:614:U:O2'	25:DA:614(C):A:N7	2.31	0.63
40:BT:80:SER:CB	40:BT:81:PRO:HD3	2.28	0.63
25:BA:614(C):A:O2'	25:BA:615:G:P	2.55	0.63
9:CI:17:VAL:HA	9:CI:63:ILE:HG12	1.79	0.63
1:CA:262:C:OP2	17:CQ:67:LYS:HD2	1.98	0.63
42:DV:19:LYS:CE	42:DV:20:LEU:H	2.12	0.63
42:DV:18:LEU:HD13	42:DV:19:LYS:H	1.62	0.63
37:DQ:34:LEU:HD11	37:DQ:129:THR:HB	1.78	0.63
36:BP:23:PRO:HD2	36:BP:33:ARG:NE	2.14	0.63
27:DC:49:ILE:HD12	27:DC:49:ILE:N	2.07	0.63
2:AB:8:LYS:O	2:AB:12:GLU:HG3	1.97	0.63
34:BN:25:ARG:HH11	34:BN:25:ARG:HG3	1.61	0.63
25:DA:2611:U:O2'	52:D5:3:LYS:HE2	1.98	0.63
26:BB:11:C:H3'	26:BB:12:C:H6	1.64	0.63
31:DG:91:ARG:HD2	31:DG:92:VAL:N	2.12	0.63
25:DA:1300:U:H1'	25:DA:1626:G:C2	2.33	0.63
25:BA:2206:G:C2	25:BA:2207:G:H5'	2.33	0.63
41:BU:31:SER:C	41:BU:33:ARG:H	2.02	0.63
25:BA:1292:U:H2'	25:BA:1293:C:C6	2.33	0.63
11:CK:48:ILE:CG2	11:CK:63:LEU:HD22	2.29	0.63
25:BA:1987:G:H5'	25:BA:1987:G:C8	2.33	0.63
25:BA:1111:A:O2'	25:BA:1112:G:H4'	1.98	0.63
30:DF:33:LEU:O	30:DF:37:VAL:HG23	1.99	0.63
2:CB:141:GLU:O	2:CB:145:LEU:HB2	1.97	0.63
3:CC:132:ARG:O	3:CC:136:GLN:HB2	1.99	0.63
25:DA:325:G:H2'	25:DA:326:G:H8	1.63	0.63
44:BX:29:TRP:CZ3	44:BX:78:LYS:HB3	2.33	0.63
25:BA:6:A:O2'	34:BN:130:HIS:HB3	1.98	0.63
25:BA:2653:U:O2'	32:BH:110:SER:HB2	1.98	0.63
7:CG:97:GLN:O	7:CG:100:ALA:HB3	1.98	0.63
1:CA:347:C:O2	1:CA:351:A:N6	2.30	0.63
36:BP:92:GLU:HG3	36:BP:93:GLY:H	1.64	0.63
30:BF:181:LEU:HD11	30:BF:186:ILE:HD11	1.79	0.63
1:CA:1471:G:N2	25:DA:1912:A:N3	2.47	0.63
25:BA:2150:U:H2'	25:BA:2151:G:C8	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CW:11:C:H6	22:CW:11:C:O5'	1.81	0.63
40:DT:29:ARG:NH2	40:DT:30:VAL:HG13	2.14	0.63
25:BA:953:A:HO2'	25:BA:954:G:H5'	1.62	0.63
25:DA:1590:U:H2'	25:DA:1591:G:C5'	2.16	0.63
26:DB:20:C:H2'	26:DB:21:G:C5'	2.16	0.63
13:CM:116:THR:O	13:CM:117:VAL:HB	1.98	0.63
22:CW:76:A:O2'	25:DA:2394:C:C2	2.51	0.63
27:BC:49:ILE:N	27:BC:49:ILE:HD12	2.07	0.63
25:DA:2415:G:H4'	36:DP:67:MET:N	2.13	0.63
32:BH:126:PRO:O	32:BH:127:GLU:HB2	1.97	0.63
25:BA:1652:A:H2'	25:BA:1653:G:H5'	1.79	0.63
45:BY:31:LEU:HB2	45:BY:32:PRO:CA	2.28	0.63
32:BH:85:LYS:HB3	32:BH:133:VAL:O	1.99	0.63
4:CD:22:LYS:HB2	4:CD:26:CYS:HB2	1.81	0.63
8:AH:12:ARG:NH1	8:AH:27:PRO:HD3	2.12	0.63
1:CA:1035:G:C3'	1:CA:1036:C:H5'	2.29	0.63
26:DB:61:G:H2'	26:DB:62:C:C6	2.34	0.63
55:B8:43:GLN:C	55:B8:44:LYS:HD2	2.18	0.63
1:CA:439:G:H2'	1:CA:440:G:C8	2.34	0.63
25:BA:2398:U:H5'	25:BA:2399:G:OP2	1.98	0.63
11:CK:17:GLY:HA3	11:CK:77:MET:SD	2.39	0.63
23:CV:32:G:H2'	23:CV:33:C:H6	1.62	0.63
36:DP:92:GLU:HG3	36:DP:93:GLY:H	1.64	0.63
25:BA:2178:C:H2'	25:BA:2179:C:C6	2.33	0.63
49:B2:2:LYS:O	49:B2:6:VAL:HG23	1.99	0.63
30:BF:33:LEU:O	30:BF:37:VAL:HG23	1.99	0.63
25:DA:2150:U:H2'	25:DA:2151:G:C8	2.34	0.63
48:D1:51:VAL:HG21	48:D1:74:VAL:HG21	1.81	0.63
28:DD:121:PRO:HB3	28:DD:135:PHE:CE1	2.34	0.63
25:BA:2515:C:H2'	25:BA:2516:G:H8	1.63	0.63
20:CT:53:LEU:HD12	20:CT:102:GLY:CA	2.24	0.63
1:AA:1425:G:C3'	1:AA:1426:A:H5''	2.13	0.63
25:DA:1772:G:H2'	25:DA:1773:A:C5'	2.29	0.63
25:BA:1772:G:N1	25:BA:1980:G:C6	2.66	0.63
17:AQ:63:ARG:HG2	17:AQ:64:PRO:HD2	1.80	0.63
42:BV:19:LYS:CE	42:BV:20:LEU:H	2.12	0.63
12:CL:87:GLY:HA2	12:CL:98:TYR:HA	1.81	0.63
28:BD:26:LYS:O	28:BD:27:THR:HB	1.98	0.63
33:BI:88:ILE:HD11	33:BI:123:LEU:N	2.13	0.63
20:CT:89:ARG:CD	20:CT:104:LEU:HD11	2.21	0.63
33:DI:123:LEU:CD2	33:DI:142:VAL:HG12	2.29	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:587:C:H5''	36:DP:33:ARG:NH2	2.13	0.63
14:AN:9:LYS:HA	14:AN:12:ARG:CZ	2.28	0.63
25:BA:1686:C:H6	25:BA:1686:C:C5'	2.12	0.63
32:DH:159:GLU:CG	32:DH:160:LYS:N	2.61	0.63
25:DA:125:G:H21	54:D7:48:LYS:HD2	1.63	0.63
28:DD:182:LEU:O	28:DD:271:ILE:HG13	1.99	0.63
33:BI:133:HIS:ND1	33:BI:134:PRO:HD2	2.13	0.63
19:CS:10:PHE:HZ	19:CS:70:LYS:CE	2.11	0.63
22:AW:16:U:C4	22:AW:18:G:H3'	2.34	0.63
23:AV:2:G:C6	23:AV:73:A:C2	2.87	0.63
11:CK:57:THR:HG22	11:CK:59:TYR:H	1.64	0.63
46:BZ:28:MET:HG3	46:BZ:33:LEU:HD21	1.81	0.63
19:AS:49:ILE:HD12	19:AS:49:ILE:H	1.64	0.63
25:BA:1221:C:O2'	25:BA:1221(A):C:H5'	1.97	0.63
22:AW:6:G:O2'	22:AW:7:A:H5'	1.98	0.63
1:CA:1148:G:H2'	1:CA:1150:A:OP2	1.98	0.63
25:DA:2178:C:H2'	25:DA:2179:C:C6	2.33	0.63
43:DW:76:VAL:HG23	43:DW:103:ILE:HA	1.81	0.63
32:DH:64:LEU:C	32:DH:66:GLY:H	2.01	0.63
1:AA:1292:G:N2	1:AA:1308:C:C2	2.65	0.63
25:DA:674:G:O2'	30:DF:74:ARG:HD3	1.98	0.63
13:CM:93:ARG:HG3	25:DA:888:C:C5'	2.28	0.63
28:DD:125:ILE:HG22	28:DD:125:ILE:O	1.97	0.63
41:BU:108:GLU:OE2	42:BV:44:LYS:HD3	1.99	0.63
19:AS:6:LYS:H	19:AS:6:LYS:CD	2.12	0.63
25:DA:612:C:O2'	25:DA:613:G:H5''	1.97	0.63
39:BS:97:ARG:HH21	39:BS:98:VAL:CA	1.94	0.63
5:CE:76:ILE:CD1	5:CE:142:LEU:CD2	2.70	0.63
37:BQ:54:MET:CB	37:BQ:64:ILE:HD13	2.21	0.63
25:DA:926:A:H8	25:DA:926:A:H5'	1.62	0.63
33:BI:123:LEU:CD2	33:BI:142:VAL:HG12	2.29	0.63
30:DF:3:GLU:HB2	30:DF:19:GLU:HB2	1.80	0.63
30:DF:2:LYS:CD	30:DF:2:LYS:H	2.06	0.63
6:AF:9:VAL:HB	6:AF:87:ARG:HB2	1.79	0.63
46:BZ:5:LEU:CD2	46:BZ:43:GLU:HB3	2.26	0.63
27:DC:51:PRO:HB2	27:DC:203:GLY:O	1.98	0.63
1:AA:1035:G:N7	1:AA:1180:U:H3'	2.13	0.63
25:BA:379:G:H2'	25:BA:380:U:O4'	1.98	0.63
1:AA:1281:G:C2'	1:AA:1282:U:OP2	2.47	0.63
38:BR:4:LEU:HD22	38:BR:4:LEU:O	1.99	0.63
36:BP:115:LEU:HA	36:BP:134:ALA:HB2	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:21:VAL:HG12	16:AP:34:GLU:O	1.99	0.63
12:AL:101:VAL:HG12	12:AL:104:VAL:HG23	1.81	0.63
48:B1:50:ARG:HH11	48:B1:50:ARG:HG2	1.62	0.63
42:DV:99:ILE:HD13	42:DV:99:ILE:N	2.14	0.63
28:BD:121:PRO:HB3	28:BD:135:PHE:CE1	2.34	0.63
5:AE:90:VAL:CG2	5:AE:121:LYS:HB3	2.28	0.63
20:CT:46:GLU:CD	20:CT:48:LYS:HE2	2.18	0.63
15:AO:89:GLY:OXT	25:BA:714:U:C5	2.52	0.63
48:D1:18:ILE:HG13	48:D1:37:ILE:HG12	1.81	0.63
25:DA:1794:U:H2'	25:DA:1795:C:H6	1.62	0.63
50:D3:11:SER:OG	50:D3:13:ILE:HD13	1.98	0.63
1:CA:1328:G:H5''	9:CI:107:ARG:HB3	1.80	0.63
17:CQ:19:VAL:HG23	17:CQ:44:ALA:HB3	1.81	0.63
7:CG:129:GLU:OE2	7:CG:131:LYS:HE3	1.98	0.63
25:BA:2814:C:O2'	52:B5:29:THR:HG21	1.98	0.63
25:BA:106:C:H2'	25:BA:107:C:C6	2.33	0.63
45:DY:11:ASP:OD1	45:DY:12:THR:N	2.32	0.63
25:BA:1772:G:H2'	25:BA:1773:A:C5'	2.29	0.63
22:AW:76:A:N6	25:BA:2421:G:H2'	2.14	0.63
41:DU:108:GLU:OE2	42:DV:44:LYS:HD3	1.99	0.63
41:DU:112:ARG:NE	42:DV:46:VAL:HG21	2.13	0.63
39:BS:97:ARG:NH2	39:BS:99:LYS:H	1.96	0.63
33:BI:50:ARG:O	33:BI:54:GLN:N	2.31	0.63
27:BC:51:PRO:HB2	27:BC:203:GLY:O	1.98	0.63
32:DH:151:ILE:O	32:DH:152:ARG:HG2	1.99	0.63
5:AE:31:LEU:HD13	5:AE:43:LEU:HD11	1.81	0.63
46:DZ:144:LEU:HG	46:DZ:150:LEU:CD1	2.28	0.63
46:DZ:144:LEU:O	46:DZ:174:VAL:HG21	1.98	0.63
28:BD:267:SER:C	28:BD:269:PHE:H	2.02	0.63
41:DU:31:SER:C	41:DU:33:ARG:H	2.02	0.63
25:BA:364:C:C2'	25:BA:365:C:H5''	2.28	0.63
30:DF:11:VAL:C	30:DF:13:SER:H	2.01	0.63
28:BD:43:ARG:HD2	28:BD:44:ASN:OD1	1.98	0.63
43:DW:64:MET:O	43:DW:65:LEU:HB3	1.97	0.63
36:BP:16:ARG:HD3	36:BP:17:LYS:N	2.13	0.63
25:DA:1042:G:H1'	25:DA:1114:G:H22	1.61	0.63
2:CB:75:LYS:HA	2:CB:78:GLN:HG3	1.80	0.63
25:BA:1348:G:C2'	25:BA:1349:A:H5''	2.29	0.63
25:DA:2310:A:O2'	25:DA:2311:A:C5'	2.47	0.63
30:DF:83:PHE:O	30:DF:85:GLY:N	2.32	0.63
1:CA:1175:U:H4'	5:CE:22:GLY:HA2	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:774:A:H2	25:DA:787:U:HO2'	1.47	0.63
25:DA:72:U:C1'	49:D2:58:ALA:HA	2.27	0.63
35:BO:66:LYS:NZ	35:BO:80:ASP:OD1	2.32	0.63
25:BA:2271:G:OP1	47:B0:18:ALA:HB1	1.98	0.63
1:CA:545:C:H1'	12:CL:15:ARG:HB3	1.80	0.63
45:DY:45:VAL:HA	45:DY:62:GLU:HG2	1.80	0.63
25:DA:2025:C:H2'	25:DA:2026:C:C6	2.33	0.63
2:AB:213:LEU:C	2:AB:213:LEU:HD23	2.19	0.63
11:AK:17:GLY:HA3	11:AK:77:MET:SD	2.39	0.63
32:DH:38:SER:C	32:DH:40:GLU:H	2.02	0.63
42:BV:53:GLU:O	42:BV:55:ALA:N	2.30	0.63
9:AI:114:TYR:N	9:AI:114:TYR:HD2	1.93	0.63
31:BG:111:LEU:O	31:BG:114:ILE:HD12	1.98	0.63
39:BS:19:LYS:C	39:BS:20:ARG:HH11	2.01	0.63
39:BS:56:LEU:O	39:BS:57:LYS:HB2	1.98	0.63
25:BA:614:U:O2'	25:BA:614(C):A:N7	2.31	0.63
25:BA:2348:U:C3'	25:BA:2349:G:H5''	2.27	0.63
25:DA:1658:C:OP1	29:DE:132:HIS:ND1	2.31	0.63
5:CE:68:GLU:O	5:CE:70:PRO:HD3	1.98	0.63
2:CB:23:ARG:HH11	2:CB:23:ARG:HG2	1.64	0.63
25:BA:76:C:H5'	49:B2:55:ARG:HG2	1.81	0.63
33:BI:111:PRO:O	33:BI:112:LYS:HG3	1.98	0.63
36:DP:23:PRO:HD2	36:DP:33:ARG:NH2	2.12	0.63
2:AB:24:TRP:HD1	2:AB:24:TRP:H	1.44	0.63
34:DN:63:THR:HG22	34:DN:64:GLY:H	1.63	0.63
32:BH:44:VAL:HG12	32:BH:45:VAL:N	2.10	0.63
38:DR:4:LEU:HD22	38:DR:4:LEU:O	1.98	0.63
43:DW:60:ASN:HD22	43:DW:60:ASN:H	1.44	0.63
25:BA:2310:A:O2'	25:BA:2311:A:C5'	2.47	0.63
30:BF:178:PRO:HB2	30:BF:201:VAL:HG11	1.81	0.63
1:CA:1297:G:O6	19:CS:5:LEU:HD23	1.99	0.63
36:DP:115:LEU:HA	36:DP:134:ALA:CB	2.29	0.63
10:CJ:45:ARG:HG3	10:CJ:45:ARG:NH1	2.14	0.63
43:BW:64:MET:O	43:BW:65:LEU:HB3	1.98	0.63
26:DB:44:G:H1'	26:DB:47:C:N4	2.14	0.63
11:CK:126:ARG:C	11:CK:128:ALA:H	2.01	0.63
29:DE:11:MET:H	40:DT:8:LYS:HZ2	1.45	0.63
35:BO:78:ARG:HG2	40:BT:73:GLU:HB2	1.81	0.63
25:BA:1434:A:H61	25:BA:1558:A:N6	1.96	0.63
2:CB:102:LEU:O	2:CB:105:PHE:HB2	1.99	0.63
6:AF:61:LEU:HB3	6:AF:63:TYR:HE2	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:185:ASP:HA	30:BF:188:ARG:HB3	1.80	0.63
25:BA:267:C:H2'	25:BA:268:C:H6	1.63	0.63
25:BA:1323:U:OP1	43:BW:84:ARG:NE	2.32	0.63
25:DA:557:U:H2'	25:DA:558:G:H8	1.64	0.63
54:B7:19:ARG:HH11	54:B7:19:ARG:HG2	1.64	0.63
25:BA:2709:G:O2'	25:BA:2710:C:H5'	1.99	0.63
1:AA:960:A:C5'	1:AA:961:C:OP2	2.44	0.62
10:AJ:49:VAL:CG2	14:AN:41:ARG:HB2	2.20	0.62
25:DA:271(F):C:H2'	25:DA:271(G):C:H6	1.63	0.62
25:DA:309:G:O3'	45:DY:18:GLY:HA3	1.99	0.62
13:CM:3:ARG:CA	13:CM:9:ILE:HG13	2.29	0.62
28:DD:26:LYS:O	28:DD:27:THR:HB	1.98	0.62
25:DA:321:G:OP2	30:DF:136:THR:HG22	1.99	0.62
31:BG:25:TYR:CD2	31:BG:31:VAL:HG23	2.34	0.62
23:AV:30:G:C2	23:AV:43:G:N3	2.67	0.62
22:AW:38:A:N6	22:AW:39:U:C5	2.67	0.62
22:AY:31:A:C6	22:AY:40:C:N4	2.67	0.62
25:BA:2464:C:H2'	25:BA:2465:C:H6	1.62	0.62
25:DA:2391:G:O2'	25:DA:2424:C:N4	2.32	0.62
9:CI:79:LEU:HD21	9:CI:102:LEU:HD22	1.81	0.62
31:DG:25:TYR:CD2	31:DG:31:VAL:HG23	2.34	0.62
25:DA:471:A:H2'	25:DA:472:A:O4'	1.98	0.62
37:DQ:134:ARG:HE	46:DZ:122:ARG:HH11	1.47	0.62
46:BZ:114:GLY:HA3	46:BZ:177:PRO:HD3	1.81	0.62
25:DA:2206:G:C2	25:DA:2207:G:H5'	2.33	0.62
7:CG:50:ILE:O	7:CG:54:THR:HG23	1.99	0.62
28:BD:76:PRO:HG2	28:BD:98:VAL:CG2	2.27	0.62
6:CF:61:LEU:HB3	6:CF:63:TYR:HE2	1.64	0.62
26:BB:61:G:H2'	26:BB:62:C:C6	2.34	0.62
1:CA:1405:G:H5'	35:DO:49:ARG:HH22	1.64	0.62
25:BA:2881:C:H2'	25:BA:2882:A:H8	1.64	0.62
49:B2:2:LYS:HA	49:B2:5:GLU:OE1	1.98	0.62
18:CR:47:THR:HB	18:CR:49:LYS:HG2	1.80	0.62
29:BE:52:LEU:HD12	29:BE:53:PRO:HD2	1.81	0.62
25:BA:271(U):G:H2'	25:BA:271(V):G:C5'	2.08	0.62
25:DA:2515:C:H2'	25:DA:2516:G:H5'	1.81	0.62
36:BP:61:ARG:NH1	55:B8:13:ARG:HG3	2.14	0.62
25:BA:2171:A:C2'	25:BA:2172:U:C6	2.83	0.62
23:AV:30:G:C6	23:AV:43:G:C2	2.86	0.62
5:CE:53:LEU:CD1	5:CE:53:LEU:H	2.12	0.62
33:DI:72:LEU:CD2	33:DI:107:VAL:HG21	2.29	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:847:U:C2'	25:BA:848:G:H5''	2.25	0.62
32:BH:151:ILE:O	32:BH:152:ARG:HG2	1.99	0.62
25:DA:747:U:N3	52:D5:2:ALA:N	2.47	0.62
25:DA:2863:C:O2'	25:DA:2864:G:H5''	1.98	0.62
40:DT:92:GLY:O	40:DT:93:ARG:HB3	1.99	0.62
4:CD:30:LYS:C	4:CD:32:ALA:N	2.53	0.62
1:CA:1184:C:H6	1:CA:1184:C:O5'	1.82	0.62
25:BA:919:G:N2	25:BA:2269:A:OP2	2.32	0.62
25:DA:364:C:C2'	25:DA:365:C:H5''	2.28	0.62
25:DA:2124:G:H5''	27:DC:177:LYS:CB	2.29	0.62
36:DP:107:LYS:C	36:DP:109:GLY:H	2.03	0.62
10:CJ:6:ILE:HA	10:CJ:97:GLU:O	1.99	0.62
7:CG:148:ASN:C	7:CG:150:ALA:N	2.52	0.62
7:AG:148:ASN:C	7:AG:150:ALA:H	2.01	0.62
31:BG:47:LYS:HZ2	31:BG:82:LEU:HD12	1.62	0.62
45:BY:88:LYS:HZ1	45:BY:93:GLY:CA	2.11	0.62
25:BA:2522:U:O2'	25:BA:2647:U:H5''	1.98	0.62
30:BF:83:PHE:O	30:BF:85:GLY:N	2.32	0.62
46:DZ:18:LEU:HD23	46:DZ:25:PRO:HG3	1.81	0.62
1:CA:1260:A:H61	3:CC:26:LYS:NZ	1.97	0.62
37:BQ:35:VAL:CG1	37:BQ:130:LYS:HB3	2.29	0.62
25:DA:2881:C:H2'	25:DA:2882:A:H8	1.64	0.62
7:CG:62:PHE:CD1	7:CG:124:LEU:HD21	2.34	0.62
7:CG:100:ALA:O	7:CG:104:LEU:HD23	1.99	0.62
25:DA:2748:A:O2'	32:DH:66:GLY:HA3	1.98	0.62
18:AR:47:THR:HB	18:AR:49:LYS:HG2	1.81	0.62
1:CA:298:A:HO2'	1:CA:538:C:HO2'	1.47	0.62
31:DG:2:PRO:O	31:DG:3:LEU:HB3	1.98	0.62
28:DD:148:GLU:HB2	28:DD:151:LYS:HD2	1.81	0.62
58:CA:1695:PAR:HN61	58:CA:1695:PAR:H34	1.64	0.62
31:BG:45:GLU:OE1	31:BG:45:GLU:HA	1.97	0.62
27:BC:77:ILE:HD11	27:BC:100:ILE:HD11	1.80	0.62
13:CM:93:ARG:HD3	25:DA:888:C:C4'	2.27	0.62
23:CV:35:C:O2'	23:CV:36:A:P	2.57	0.62
25:DA:271(U):G:O2'	25:DA:271(V):G:H5''	1.98	0.62
22:CW:3:C:O2	22:CW:3:C:H2'	1.99	0.62
31:BG:2:PRO:O	31:BG:3:LEU:HB3	1.98	0.62
26:DB:83:G:C4	26:DB:84:C:C5	2.87	0.62
37:DQ:18:LYS:O	37:DQ:98:LYS:HD3	1.99	0.62
25:DA:2172:U:C1'	25:DA:2173:A:P	2.87	0.62
22:CW:34:G:N7	24:CX:13:A:N6	2.48	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:27:LYS:CE	13:CM:31:LYS:HE3	2.25	0.62
2:AB:204:ASN:ND2	2:AB:207:ALA:H	1.96	0.62
25:BA:747:U:H1'	52:B5:2:ALA:HB3	1.82	0.62
25:BA:472:A:HO2'	25:BA:508:G:H1	1.46	0.62
46:BZ:177:PRO:O	46:BZ:178:GLU:HG2	1.98	0.62
15:AO:17:ARG:NH1	15:AO:77:ARG:NH1	2.47	0.62
32:DH:85:LYS:HB3	32:DH:133:VAL:O	1.99	0.62
33:DI:133:HIS:ND1	33:DI:134:PRO:HD2	2.13	0.62
14:CN:37:PHE:CZ	14:CN:56:VAL:HG21	2.30	0.62
36:BP:85:LEU:CD2	36:BP:85:LEU:H	2.10	0.62
36:DP:146:VAL:HG22	36:DP:147:LEU:H	1.64	0.62
5:CE:14:ARG:HH12	5:CE:129:ILE:HD11	1.63	0.62
47:D0:53:MET:CB	47:D0:59:LEU:HD23	2.29	0.62
52:B5:37:LYS:HG3	52:B5:38:ALA:N	2.13	0.62
1:AA:343:G:O2'	1:AA:344:A:P	2.56	0.62
1:CA:377:A:H2'	1:CA:378:A:C8	2.34	0.62
41:DU:36:ARG:HE	41:DU:40:PHE:HZ	1.47	0.62
1:CA:1450:A:H4'	25:DA:1702:G:H4'	1.80	0.62
25:BA:999:U:H2'	25:BA:1000:A:H5''	1.80	0.62
25:BA:1762:A:H8	25:BA:1762:A:O5'	1.81	0.62
25:BA:2584:U:H3'	25:BA:2585:U:C5'	2.29	0.62
29:BE:55:ASN:O	29:BE:57:LYS:N	2.33	0.62
1:AA:1424:G:H2'	1:AA:1425:G:C5'	2.29	0.62
25:BA:2795:G:N2	25:BA:2799:C:H5'	2.14	0.62
42:BV:28:GLU:HB3	42:BV:29:PRO:HD2	1.81	0.62
25:BA:1186:G:P	57:BA:3221:MG:MG	1.81	0.62
25:DA:2299:G:C6	25:DA:2318:G:C8	2.86	0.62
25:DA:2300:G:H22	25:DA:2317:C:C1'	2.11	0.62
46:DZ:57:ILE:HG22	46:DZ:58:VAL:N	2.14	0.62
25:BA:1022:G:H4'	25:BA:1023:U:O5'	1.99	0.62
25:BA:747:U:C1'	52:B5:2:ALA:HB3	2.29	0.62
37:DQ:141:GLN:HE22	46:DZ:72:ARG:HA	1.65	0.62
37:BQ:134:ARG:HH21	46:BZ:122:ARG:CZ	2.11	0.62
25:DA:2745:C:H2'	25:DA:2746:U:C6	2.35	0.62
25:DA:2876:G:H4'	40:DT:3:ARG:HD3	1.81	0.62
25:DA:1111:A:O2'	25:DA:1112:G:H4'	1.98	0.62
22:CY:33:U:H3'	22:CY:34:G:H5''	1.80	0.62
1:CA:745:C:H2'	1:CA:746:G:H8	1.64	0.62
25:DA:2285:C:H5	53:D6:27:LYS:HE3	1.64	0.62
25:DA:72:U:H1'	49:D2:58:ALA:HA	1.79	0.62
1:CA:433:G:N1	1:CA:479:A:OP 2	2.23	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:D5:41:PRO:HG2	52:D5:44:THR:HG21	1.79	0.62
5:CE:82:VAL:HG21	5:CE:138:ALA:HA	1.80	0.62
45:DY:2:ARG:HH11	45:DY:2:ARG:HA	1.63	0.62
23:AV:32:G:H1	23:AV:40:C:H42	1.46	0.62
1:CA:923:A:H2'	1:CA:924:G:C8	2.34	0.62
22:CY:32:U:H2'	22:CY:32:U:O2	1.99	0.62
1:CA:597:A:OP1	4:CD:85:LYS:NZ	2.28	0.62
44:DX:29:TRP:CZ3	44:DX:78:LYS:HB3	2.33	0.62
49:D2:2:LYS:O	49:D2:6:VAL:HG23	1.98	0.62
25:BA:2393:A:H4'	36:BP:60:MET:O	2.00	0.62
25:BA:2172:U:C1'	25:BA:2173:A:P	2.87	0.62
13:AM:65:LYS:HD2	13:AM:69:GLU:CG	2.29	0.62
25:BA:271(F):C:H2'	25:BA:271(G):C:H6	1.63	0.62
42:DV:19:LYS:HE2	42:DV:19:LYS:HA	1.82	0.62
53:D6:40:CYS:SG	53:D6:45:LYS:HE3	2.40	0.62
25:DA:1686:C:C6	25:DA:1686:C:H5'	2.33	0.62
2:AB:194:PRO:HB3	2:AB:200:ILE:HD13	1.80	0.62
25:BA:1242:A:N1	36:BP:8:PRO:HG3	2.15	0.62
25:BA:2863:C:O2'	25:BA:2864:G:H5''	1.98	0.62
25:BA:769:G:H4'	25:BA:1379:A:N1	2.15	0.62
30:BF:11:VAL:C	30:BF:13:SER:H	2.01	0.62
25:BA:379:G:C2'	25:BA:380:U:O5'	2.48	0.62
36:DP:115:LEU:HA	36:DP:134:ALA:HB2	1.81	0.62
29:BE:116:VAL:O	29:BE:117:MET:CB	2.47	0.62
1:AA:1188:G:H2'	1:AA:1189:C:C6	2.34	0.62
10:CJ:5:ARG:HA	10:CJ:73:ASP:OD1	1.99	0.62
29:DE:43:GLY:O	29:DE:44:TYR:HB3	1.99	0.62
36:BP:18:ARG:HH11	36:BP:18:ARG:C	2.02	0.62
6:CF:60:PHE:C	6:CF:61:LEU:HD12	2.20	0.62
25:BA:2522:U:H2'	25:BA:2523:G:H5''	1.82	0.62
2:CB:114:ARG:HA	2:CB:117:GLU:OE1	1.99	0.62
32:BH:64:LEU:C	32:BH:66:GLY:H	2.01	0.62
28:DD:8:PRO:HB3	28:DD:14:ARG:HB2	1.81	0.62
34:BN:18:ALA:HB1	34:BN:21:LYS:HB2	1.80	0.62
2:CB:213:LEU:C	2:CB:213:LEU:HD23	2.20	0.62
4:AD:158:ILE:HG22	4:AD:181:MET:HE2	1.79	0.62
13:AM:90:LEU:O	13:AM:91:ARG:HB2	1.98	0.62
29:DE:55:ASN:O	29:DE:57:LYS:N	2.33	0.62
1:AA:1427:G:C6	1:AA:1437:A:C2	2.88	0.62
55:B8:49:VAL:O	55:B8:53:PRO:HG3	1.99	0.62
38:BR:63:ARG:HA	38:BR:80:PHE:CE2	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DV:53:GLU:O	42:DV:55:ALA:N	2.30	0.62
13:CM:65:LYS:HG3	13:CM:70:LEU:CA	2.29	0.62
25:DA:2376:A:N6	39:DS:92:TYR:HE2	1.96	0.62
10:CJ:51:ARG:HG3	10:CJ:60:ARG:HA	1.80	0.62
28:DD:25:THR:HG22	28:DD:26:LYS:N	2.14	0.62
42:DV:28:GLU:HB3	42:DV:29:PRO:HD2	1.81	0.62
33:DI:54:GLN:HA	33:DI:57:ARG:HB2	1.81	0.62
29:BE:2:LYS:HE2	29:BE:95:ILE:CG2	2.30	0.62
4:CD:13:ARG:O	4:CD:15:GLU:N	2.33	0.62
3:CC:5:ILE:C	3:CC:5:ILE:HD12	2.20	0.62
19:CS:12:ASP:O	19:CS:16:LEU:HD13	1.99	0.62
34:BN:46:VAL:O	34:BN:47:ALA:HB3	1.99	0.62
3:CC:70:VAL:HG12	3:CC:71:ALA:H	1.63	0.62
1:CA:712:A:H2'	1:CA:713:G:C8	2.34	0.62
6:CF:71:ARG:HH11	6:CF:71:ARG:HG3	1.65	0.62
2:CB:96:ARG:HH12	2:CB:147:LYS:HE2	1.64	0.62
6:AF:61:LEU:O	6:AF:62:TRP:HB2	1.98	0.62
25:DA:141:A:H8	25:DA:1408:C:O2'	1.83	0.62
25:DA:267:C:H2'	25:DA:268:C:H6	1.63	0.62
25:DA:2208:A:H1'	25:DA:2219:G:C2	2.35	0.62
25:BA:325:G:H2'	25:BA:326:G:H8	1.64	0.62
25:BA:2264:C:H2'	25:BA:2265:U:C6	2.35	0.62
25:DA:910:A:N7	37:DQ:13:GLN:HG3	2.14	0.62
25:BA:272:G:O6	25:BA:421:U:C2	2.52	0.62
45:BY:42:VAL:HG23	45:BY:67:LEU:HD23	1.81	0.62
1:AA:261:G:O2'	1:AA:262:C:P	2.57	0.62
25:DA:2376:A:C5	39:DS:94:TYR:CD1	2.87	0.62
1:CA:958:U:H2'	1:CA:959:U:C5	2.34	0.62
25:BA:866:A:N1	25:BA:914:C:C5	2.67	0.62
25:BA:2712:U:HO2'	25:BA:2712(A):A:H5''	1.64	0.62
37:DQ:35:VAL:CG1	37:DQ:130:LYS:HB3	2.29	0.62
25:DA:2108:C:C2	25:DA:2182:G:N2	2.68	0.62
46:DZ:5:LEU:HD21	46:DZ:43:GLU:CB	2.26	0.62
28:BD:172:TYR:CE2	28:BD:269:PHE:HE1	2.18	0.62
25:BA:1312:U:O4'	25:BA:1313:U:N3	2.33	0.62
22:AW:16:U:N3	22:AW:19:G:OP2	2.32	0.62
20:CT:14:LYS:HB2	20:CT:17:ARG:HH21	1.65	0.62
28:DD:211:ARG:HA	28:DD:214:TRP:CD2	2.35	0.62
3:AC:70:VAL:HG12	3:AC:71:ALA:H	1.62	0.62
2:AB:75:LYS:HA	2:AB:78:GLN:HG3	1.82	0.62
28:BD:109:ASP:HB2	28:BD:197:GLY:HA2	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:126:ARG:C	11:AK:128:ALA:H	2.01	0.62
1:CA:956:C:OP1	1:CA:1204:C:N4	2.33	0.62
28:BD:148:GLU:HB2	28:BD:151:LYS:HD2	1.81	0.62
44:BX:32:PRO:HA	44:BX:77:LYS:CB	2.29	0.62
2:AB:141:GLU:O	2:AB:145:LEU:HB2	2.00	0.62
47:B0:82:ARG:O	47:B0:82:ARG:HG3	2.00	0.62
1:CA:1025:C:H2'	1:CA:1026:A:C8	2.35	0.62
4:AD:112:VAL:HG13	4:AD:116:GLN:OE1	2.00	0.62
1:CA:1141:U:OP1	2:CB:133:LYS:NZ	2.33	0.62
53:B6:30:THR:HB	53:B6:31:PRO:HD2	1.82	0.62
13:CM:94:ARG:CZ	25:DA:888:C:P	2.88	0.62
42:BV:6:LYS:HG3	42:BV:11:GLN:HG2	1.80	0.62
26:DB:82:G:C2'	26:DB:83:G:H5'	2.29	0.62
55:B8:50:LEU:C	55:B8:53:PRO:HD2	2.20	0.62
25:DA:614:U:O2	25:DA:614:U:C5'	2.47	0.62
25:BA:2402:C:H5	25:BA:2415:G:H22	1.48	0.62
39:BS:101:LEU:CD2	39:BS:104:GLY:H	2.11	0.62
42:BV:18:LEU:CD2	42:BV:19:LYS:H	2.13	0.62
28:DD:92:ILE:HD13	28:DD:92:ILE:H	1.64	0.62
12:CL:24:VAL:HG13	12:CL:98:TYR:HE2	1.60	0.62
7:CG:151:TYR:OH	11:CK:54:ARG:HD3	1.99	0.62
2:CB:194:PRO:HB3	2:CB:200:ILE:HD13	1.81	0.62
33:BI:72:LEU:CD2	33:BI:107:VAL:HG21	2.29	0.62
33:DI:88:ILE:HD11	33:DI:123:LEU:CG	2.30	0.62
33:DI:77:LEU:HB3	33:DI:140:LEU:CD1	2.21	0.62
30:BF:2:LYS:O	30:BF:25:PRO:HD2	2.00	0.62
10:AJ:80:LYS:HE3	10:AJ:80:LYS:O	1.99	0.62
2:CB:76:GLN:HB3	2:CB:206:ASP:O	1.99	0.62
47:B0:72:ARG:HB3	47:B0:75:LEU:HB3	1.79	0.62
28:DD:267:SER:C	28:DD:269:PHE:H	2.02	0.62
25:DA:2175:C:O4'	27:DC:215:THR:HA	1.99	0.62
10:AJ:24:VAL:HG22	10:AJ:72:VAL:HG11	1.82	0.62
36:BP:107:LYS:C	36:BP:109:GLY:H	2.03	0.62
36:DP:18:ARG:HH11	36:DP:18:ARG:C	2.02	0.62
34:BN:4:TYR:HB2	41:BU:64:ARG:NH2	2.15	0.62
22:CY:30:G:C2	22:CY:31:A:C8	2.88	0.62
10:CJ:94:VAL:HG12	10:CJ:95:GLU:N	2.15	0.62
25:DA:1348:G:C2'	25:DA:1349:A:H5''	2.29	0.62
1:AA:513:G:N3	22:AY:35:A:O2'	2.27	0.62
11:AK:126:ARG:NH1	11:AK:126:ARG:HB3	2.15	0.62
1:CA:629:U:H2'	1:CA:630:C:C6	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:5:PRO:O	8:CH:8:ASP:HB3	1.99	0.62
25:DA:1175:U:H4'	25:DA:1176:G:H2'	1.82	0.62
27:DC:56:GLN:NE2	27:DC:173:ALA:HB1	2.15	0.62
25:DA:212:G:O2'	25:DA:213:A:H5'	2.00	0.62
29:BE:75:VAL:O	29:BE:77:ILE:N	2.33	0.62
25:DA:271(U):G:H2'	25:DA:271(V):G:H8	1.65	0.62
40:DT:55:ASN:CA	40:DT:59:THR:HG22	2.30	0.62
25:DA:2795:G:N2	25:DA:2799:C:H5'	2.14	0.62
13:CM:116:THR:O	13:CM:117:VAL:HG23	1.99	0.62
26:BB:15:A:H3'	26:BB:16:G:C5'	2.30	0.62
39:DS:14:VAL:HG12	39:DS:15:ARG:H	1.64	0.62
28:BD:35:LYS:HZ2	28:BD:103:ARG:HA	1.65	0.62
40:DT:89:VAL:HB	40:DT:91:ARG:CD	2.29	0.62
33:BI:95:LYS:HA	33:BI:98:ALA:HB3	1.82	0.62
25:DA:1666:G:C2'	25:DA:1667:G:H5'	2.30	0.62
25:DA:845:G:HO2'	25:DA:846:C:H5	1.47	0.62
36:DP:101:VAL:C	36:DP:103:ALA:H	2.03	0.62
34:DN:46:VAL:O	34:DN:47:ALA:HB3	1.99	0.62
36:BP:16:ARG:HH11	36:BP:16:ARG:C	2.03	0.62
20:AT:57:ARG:HB2	20:AT:57:ARG:HH11	1.65	0.62
2:AB:96:ARG:HH12	2:AB:147:LYS:HE2	1.64	0.62
25:DA:1810:A:H2'	25:DA:1811:G:O4'	2.00	0.62
48:D1:23:LYS:CE	48:D1:28:GLY:HA3	2.29	0.62
9:CI:3:GLN:HG2	9:CI:20:ARG:HH12	1.65	0.62
25:BA:2080:G:O5'	48:B1:35:THR:CG2	2.48	0.62
18:CR:82:THR:HG22	18:CR:83:GLU:N	2.15	0.62
30:BF:152:GLU:OE1	30:BF:191:ARG:HD2	2.00	0.62
25:BA:212:G:O2'	25:BA:213:A:H5'	2.00	0.62
25:DA:1032:A:OP1	56:D9:8:LYS:HE3	2.00	0.62
25:BA:271(U):G:O2'	25:BA:271(V):G:H5''	1.98	0.62
9:AI:10:ARG:HD2	9:AI:105:ASP:CG	2.20	0.62
41:BU:90:VAL:HG12	41:BU:91:ASP:N	2.10	0.62
22:CW:65:G:H2'	22:CW:66:U:C6	2.35	0.62
25:BA:2790:A:H2'	25:BA:2791:C:H5'	1.82	0.62
5:CE:69:VAL:CB	5:CE:71:LEU:HD21	2.29	0.62
5:AE:53:LEU:H	5:AE:53:LEU:CD1	2.13	0.62
33:DI:140:LEU:HD12	33:DI:141:LYS:H	1.65	0.62
25:DA:1242:A:N1	36:DP:8:PRO:HG3	2.15	0.62
25:DA:1022:G:H4'	25:DA:1023:U:O5'	2.00	0.62
25:BA:2469:A:H3'	25:BA:2470:G:O4'	2.00	0.62
32:DH:89:ILE:HD12	32:DH:90:LYS:N	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2075:U:O4	25:DA:2238:G:C6	2.53	0.62
53:B6:20:ASN:ND2	53:B6:21:TYR:H	1.98	0.62
46:DZ:114:GLY:HA3	46:DZ:177:PRO:HD3	1.81	0.62
46:DZ:28:MET:SD	46:DZ:37:VAL:HG11	2.39	0.62
44:BX:60:ARG:HH22	54:B7:47:ARG:NH2	1.97	0.62
28:DD:44:ASN:OD1	28:DD:44:ASN:N	2.33	0.62
36:DP:146:VAL:HG22	36:DP:147:LEU:N	2.15	0.62
36:DP:96:THR:O	36:DP:99:LEU:HB3	2.00	0.62
34:BN:11:PRO:HB3	34:BN:51:PHE:CE1	2.35	0.62
37:BQ:27:VAL:HG11	37:BQ:30:GLY:O	2.00	0.62
22:AW:18:G:H1	22:AW:55:U:C1'	2.11	0.62
11:CK:124:LYS:HD2	11:CK:125:PHE:CE1	2.33	0.62
55:B8:43:GLN:O	55:B8:44:LYS:HD2	2.00	0.62
3:CC:182:ILE:HG12	3:CC:203:PHE:HA	1.82	0.62
1:CA:78:G:H22	1:CA:85:U:H4'	1.64	0.62
48:B1:23:LYS:CE	48:B1:28:GLY:HA3	2.29	0.62
42:BV:99:ILE:N	42:BV:99:ILE:HD13	2.14	0.62
25:BA:1494:A:N3	25:BA:1494:A:H5'	2.15	0.62
25:DA:2148:G:O2'	25:DA:2149:G:H5'	2.00	0.62
3:CC:92:ALA:HB2	3:CC:99:VAL:CG2	2.29	0.62
12:CL:7:ILE:HA	12:CL:10:LEU:HD12	1.82	0.62
25:BA:1316:U:O2'	25:BA:1317:A:H5'	2.00	0.62
28:BD:165:ILE:HD13	28:BD:175:LEU:HD21	1.82	0.62
29:DE:97:LYS:HE2	29:DE:98:PRO:HD2	1.82	0.62
20:CT:44:ALA:HA	20:CT:92:LEU:HD21	1.82	0.62
48:B1:51:VAL:HG21	48:B1:74:VAL:HG21	1.81	0.62
29:DE:75:VAL:O	29:DE:77:ILE:N	2.33	0.61
25:DA:103:A:H4'	49:D2:3:LEU:HD11	1.82	0.61
6:AF:78:GLU:O	6:AF:81:ILE:HG13	1.99	0.61
25:DA:2345:G:H5''	25:DA:2347:C:O4'	2.00	0.61
42:DV:49:THR:CG2	42:DV:50:PRO:HD2	2.26	0.61
42:DV:4:ILE:HG22	42:DV:39:LEU:CD2	2.30	0.61
39:DS:30:ARG:HH22	39:DS:62:LYS:CD	2.13	0.61
39:DS:97:ARG:NH2	39:DS:99:LYS:H	1.96	0.61
25:BA:2315:G:H2'	25:BA:2316:C:C6	2.35	0.61
25:BA:2320:A:C5	25:BA:2333:A:C6	2.88	0.61
25:DA:2420:C:OP1	55:D8:34:TRP:HA	2.00	0.61
25:BA:71:A:O2'	25:BA:72:U:P	2.58	0.61
25:DA:1686:C:C5'	25:DA:1686:C:H6	2.12	0.61
33:DI:76:THR:O	33:DI:77:LEU:O	2.18	0.61
23:CV:4:G:O2'	23:CV:5:G:H8	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2103:C:H2'	25:DA:2104:G:H5''	1.81	0.61
25:BA:1141:U:OP1	34:BN:25:ARG:NH1	2.32	0.61
38:BR:10:LEU:HD22	38:BR:17:ARG:CD	2.29	0.61
25:BA:575:A:O2'	25:BA:576:U:H5'	2.00	0.61
25:BA:2789:C:H1'	25:BA:2892:A:H2	1.65	0.61
25:BA:2745:C:H2'	25:BA:2746:U:C6	2.35	0.61
28:BD:182:LEU:O	28:BD:271:ILE:HG13	1.99	0.61
30:DF:178:PRO:HB2	30:DF:201:VAL:HG11	1.81	0.61
36:BP:78:PRO:HB2	36:BP:111:ARG:HD2	1.82	0.61
55:D8:49:VAL:O	55:D8:53:PRO:HG3	1.99	0.61
17:CQ:6:LEU:HD12	17:CQ:6:LEU:N	2.15	0.61
9:AI:53:VAL:O	9:AI:54:ASP:HB2	2.00	0.61
28:DD:155:LEU:HD23	28:DD:177:LEU:HD21	1.80	0.61
46:BZ:28:MET:SD	46:BZ:37:VAL:HG11	2.39	0.61
31:DG:47:LYS:HZ2	31:DG:82:LEU:HD12	1.65	0.61
16:CP:26:ARG:NH1	16:CP:26:ARG:HB3	2.15	0.61
31:DG:107:LEU:HD11	31:DG:178:PHE:HE1	1.62	0.61
46:BZ:18:LEU:HD23	46:BZ:25:PRO:HG3	1.81	0.61
1:AA:1404:G:O2'	35:BO:49:ARG:NH2	2.32	0.61
23:CV:9:G:O2'	23:CV:10:G:N7	2.31	0.61
25:DA:2152:G:H2'	25:DA:2153:G:C8	2.35	0.61
29:BE:97:LYS:HE2	29:BE:98:PRO:HD2	1.82	0.61
48:B1:18:ILE:HG13	48:B1:37:ILE:HG12	1.81	0.61
44:DX:32:PRO:HA	44:DX:77:LYS:CB	2.29	0.61
3:AC:69:HIS:HA	3:AC:104:GLN:O	2.00	0.61
30:DF:152:GLU:OE1	30:DF:191:ARG:HD2	2.00	0.61
54:D7:19:ARG:HG2	54:D7:19:ARG:HH11	1.64	0.61
17:CQ:14:LYS:HB2	17:CQ:14:LYS:NZ	2.15	0.61
28:DD:109:ASP:HB2	28:DD:197:GLY:HA2	1.82	0.61
20:CT:57:ARG:HH11	20:CT:57:ARG:HB2	1.64	0.61
25:DA:2728:U:O2'	25:DA:2729:G:H5'	2.00	0.61
6:AF:30:LEU:HB3	6:AF:35:ALA:HB3	1.83	0.61
26:BB:44:G:H1'	26:BB:47:C:N4	2.14	0.61
10:AJ:48:THR:HA	10:AJ:62:HIS:CB	2.30	0.61
25:DA:2171:A:C2'	25:DA:2172:U:C6	2.83	0.61
41:DU:106:PHE:HA	41:DU:109:LEU:HD12	1.82	0.61
26:BB:7:G:H3'	26:BB:8:U:C5'	2.22	0.61
1:AA:261:G:H5''	1:AA:263:C:H41	1.64	0.61
12:CL:25:PRO:C	12:CL:27:LEU:H	2.03	0.61
28:BD:92:ILE:HD13	28:BD:92:ILE:H	1.64	0.61
37:DQ:37:LEU:HG	37:DQ:128:LYS:O	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:847:U:C2'	25:DA:848:G:H5''	2.25	0.61
25:DA:472:A:HO2'	25:DA:508:G:H1	1.46	0.61
25:DA:942:G:OP1	36:DP:35:HIS:CB	2.47	0.61
48:B1:89:GLU:HA	48:B1:92:LYS:HB3	1.82	0.61
10:AJ:5:ARG:HA	10:AJ:73:ASP:OD1	1.98	0.61
1:AA:1187:G:H4'	3:AC:192:THR:O	2.00	0.61
34:DN:11:PRO:HB3	34:DN:51:PHE:CE1	2.35	0.61
56:B9:9:ARG:HH11	56:B9:9:ARG:HB3	1.64	0.61
25:BA:651:G:C5'	55:B8:18:ALA:HB3	2.30	0.61
25:DA:1495:A:N3	25:DA:1496:A:C2	2.69	0.61
25:DA:1316:U:O2'	25:DA:1317:A:H5'	2.00	0.61
25:BA:2208:A:H1'	25:BA:2219:G:C2	2.35	0.61
25:DA:2709:G:O2'	25:DA:2710:C:H5'	2.00	0.61
51:D4:62:CYS:SG	51:D4:63:SER:N	2.73	0.61
25:DA:2033:A:H4'	25:DA:2034:U:OP1	2.00	0.61
40:BT:78:LEU:O	40:BT:79:HIS:ND1	2.33	0.61
47:D0:3:HIS:ND1	47:D0:3:HIS:N	2.48	0.61
6:AF:98:LEU:H	6:AF:98:LEU:HD12	1.65	0.61
45:BY:19:LYS:HG2	45:BY:19:LYS:O	2.00	0.61
1:AA:28:G:N2	1:AA:538:C:O2	2.29	0.61
45:DY:13:VAL:HA	45:DY:75:ILE:HG22	1.81	0.61
41:BU:105:VAL:HG11	42:BV:40:LEU:HD12	1.82	0.61
26:DB:93:G:N2	26:DB:94:C:C2	2.68	0.61
20:AT:43:LEU:HD13	20:AT:51:GLU:CG	2.31	0.61
17:AQ:18:THR:HG23	17:AQ:69:LYS:HD2	1.80	0.61
28:DD:27:THR:CG2	28:DD:83:GLU:HG2	2.31	0.61
45:BY:95:LYS:HG2	45:BY:100:ALA:CA	2.29	0.61
7:CG:84:ASN:ND2	22:CW:33:U:H4'	2.15	0.61
25:DA:914:C:H2'	25:DA:915:C:C5'	2.24	0.61
33:BI:88:ILE:HD11	33:BI:123:LEU:CG	2.30	0.61
33:BI:76:THR:O	33:BI:77:LEU:O	2.18	0.61
25:DA:2186:G:H3'	25:DA:2187:G:H5''	1.81	0.61
25:DA:2315:G:H2'	25:DA:2316:C:C6	2.35	0.61
25:BA:2892:A:H3'	25:BA:2893:G:C5'	2.26	0.61
29:BE:11:MET:C	40:BT:8:LYS:NZ	2.54	0.61
1:CA:1184:C:OP1	14:CN:3:ARG:HD3	2.00	0.61
25:BA:528:A:H8	25:BA:528:A:H3'	1.65	0.61
36:BP:115:LEU:HA	36:BP:134:ALA:CB	2.29	0.61
36:BP:146:VAL:HG22	36:BP:147:LEU:H	1.65	0.61
37:DQ:27:VAL:HG11	37:DQ:30:GLY:O	2.00	0.61
16:CP:21:VAL:HG12	16:CP:34:GLU:O	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AO:23:GLY:O	15:AO:24:SER:HB3	1.98	0.61
36:DP:16:ARG:C	36:DP:16:ARG:HH11	2.03	0.61
19:CS:49:ILE:HD12	19:CS:49:ILE:H	1.65	0.61
1:CA:1501:C:OP1	11:CK:120:ARG:NH1	2.33	0.61
35:BO:1:MET:HG3	35:BO:32:TYR:CD1	2.35	0.61
1:AA:737:C:C2'	1:AA:737:C:O2	2.47	0.61
31:BG:13:GLU:O	31:BG:14:GLU:HB2	2.00	0.61
3:CC:182:ILE:HG23	3:CC:202:ILE:C	2.20	0.61
5:AE:148:VAL:HG21	8:AH:107:LEU:HD22	1.81	0.61
25:BA:2685:G:OP2	40:BT:51:ARG:NH1	2.32	0.61
2:CB:104:ASN:OD1	2:CB:107:THR:HB	2.01	0.61
1:CA:980:G:H3'	1:CA:981:G:C8	2.36	0.61
9:AI:3:GLN:HG2	9:AI:20:ARG:HH12	1.64	0.61
3:CC:94:LEU:HD12	3:CC:95:THR:N	2.15	0.61
51:B4:62:CYS:SG	51:B4:63:SER:N	2.73	0.61
47:D0:82:ARG:O	47:D0:82:ARG:HG3	2.00	0.61
11:AK:34:ASP:HB3	11:AK:40:ILE:HD11	1.81	0.61
27:BC:56:GLN:NE2	27:BC:173:ALA:HB1	2.15	0.61
1:CA:1458:U:H2'	1:CA:1458:U:O2	2.00	0.61
25:DA:2740:A:H2'	25:DA:2741:A:C8	2.35	0.61
1:AA:1086:G:O5'	2:AB:111:ARG:HD2	2.00	0.61
28:DD:165:ILE:HD13	28:DD:175:LEU:HD21	1.82	0.61
25:BA:598:G:H5'	36:BP:15:ARG:HD2	1.82	0.61
25:BA:271(U):G:H2'	25:BA:271(V):G:H8	1.65	0.61
25:DA:2632:A:N3	29:DE:61:ARG:HD3	2.16	0.61
45:DY:50:ARG:NE	45:DY:55:TYR:HE1	1.97	0.61
25:DA:107:C:O2'	25:DA:108:U:H5'	1.99	0.61
20:CT:50:GLU:N	20:CT:100:ILE:CG1	2.56	0.61
40:DT:57:PHE:O	40:DT:58:ASN:HB3	2.01	0.61
42:BV:47:VAL:O	42:BV:47:VAL:HG23	2.00	0.61
27:BC:58:VAL:HG21	27:BC:166:ASP:N	2.01	0.61
25:BA:614:U:O2	25:BA:614:U:C5'	2.47	0.61
29:DE:132:HIS:O	29:DE:133:LYS:CB	2.38	0.61
28:BD:36:PRO:HA	28:BD:62:TYR:O	2.01	0.61
25:DA:915:C:H2'	25:DA:916:G:H8	1.65	0.61
25:DA:1030:G:OP2	37:DQ:128:LYS:CD	2.45	0.61
32:DH:156:ALA:C	32:DH:158:HIS:N	2.48	0.61
25:BA:2728:U:O2'	25:BA:2729:G:H5'	2.00	0.61
25:DA:379:G:H2'	25:DA:380:U:O5'	2.01	0.61
7:CG:23:VAL:O	7:CG:27:ILE:HG13	2.00	0.61
25:BA:933:A:H2'	25:BA:934:G:O4'	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:96:THR:O	36:BP:99:LEU:HB3	2.00	0.61
36:DP:78:PRO:HB2	36:DP:111:ARG:HD2	1.82	0.61
34:BN:133:GLN:C	34:BN:134:ARG:HG3	2.21	0.61
34:BN:9:VAL:HG12	34:BN:10:GLU:N	2.12	0.61
19:AS:12:ASP:O	19:AS:16:LEU:HD13	2.00	0.61
31:DG:13:GLU:O	31:DG:14:GLU:HB2	2.00	0.61
31:DG:120:LEU:N	31:DG:179:PRO:O	2.33	0.61
3:AC:92:ALA:HB2	3:AC:99:VAL:HG21	1.81	0.61
25:BA:1175:U:H4'	25:BA:1176:G:H2'	1.82	0.61
25:BA:633:A:H2'	25:BA:634:C:H5'	1.82	0.61
35:DO:106:LEU:O	35:DO:110:GLY:N	2.33	0.61
25:DA:1541:G:O6	25:DA:1542:A:N6	2.33	0.61
25:BA:1754:C:H5'	40:BT:101:PHE:CZ	2.35	0.61
25:DA:827:U:H5'	25:DA:828:U:O5'	2.00	0.61
1:CA:847:U:H4'	1:CA:848:U:H5''	1.82	0.61
2:CB:112:VAL:HG11	2:CB:153:ARG:HA	1.83	0.61
11:AK:116:HIS:O	11:AK:117:ASN:HB2	2.00	0.61
22:CW:50:U:H6	22:CW:50:U:O5'	1.84	0.61
37:DQ:10:ARG:HG3	37:DQ:10:ARG:HH11	1.65	0.61
28:BD:8:PRO:HB3	28:BD:14:ARG:HB2	1.81	0.61
4:AD:9:CYS:HA	4:AD:12:CYS:HB2	1.82	0.61
41:BU:69:CYS:CB	41:BU:79:PHE:HD1	2.14	0.61
25:DA:2790:A:H2'	25:DA:2791:C:H5'	1.82	0.61
25:DA:870:A:OP1	37:DQ:6:ARG:NH2	2.31	0.61
25:BA:2484:G:N3	25:BA:2485:G:C8	2.68	0.61
33:DI:88:ILE:HD11	33:DI:123:LEU:N	2.13	0.61
41:BU:66:ASN:CB	41:BU:76:TYR:HB2	2.30	0.61
25:DA:2402:C:H5	25:DA:2415:G:H22	1.48	0.61
14:AN:15:LYS:HD2	14:AN:16:PHE:CE2	2.35	0.61
46:BZ:57:ILE:HG22	46:BZ:58:VAL:N	2.14	0.61
32:BH:158:HIS:O	32:BH:159:GLU:HB2	2.01	0.61
10:AJ:32:ALA:HB3	10:AJ:75:ILE:HG13	1.82	0.61
25:DA:379:G:C2'	25:DA:380:U:O5'	2.48	0.61
1:CA:1302:C:C5'	1:CA:1303:C:H5''	2.30	0.61
1:CA:1302:C:H4'	13:CM:87:TYR:CE2	2.35	0.61
36:BP:146:VAL:HG22	36:BP:147:LEU:N	2.15	0.61
23:AV:35:C:O2'	23:AV:36:A:P	2.59	0.61
10:CJ:24:VAL:HG22	10:CJ:72:VAL:HG11	1.83	0.61
55:D8:50:LEU:C	55:D8:53:PRO:HD2	2.20	0.61
16:AP:20:VAL:HG21	16:AP:32:TYR:HB2	1.83	0.61
25:BA:320:A:H4'	25:BA:322:A:C8	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:D9:9:ARG:HH11	56:D9:9:ARG:HB3	1.64	0.61
2:CB:75:LYS:HG2	2:CB:78:GLN:HE21	1.65	0.61
25:BA:491:G:H2'	25:BA:492:A:C8	2.35	0.61
25:BA:141:A:C8	25:BA:1408:C:O2'	2.52	0.61
8:AH:11:THR:HG23	8:AH:14:ARG:NH1	2.15	0.61
25:DA:84:A:H5''	45:DY:9:LYS:CE	2.31	0.61
25:BA:827:U:H5'	25:BA:828:U:O5'	2.01	0.61
1:AA:102:A:C6	1:AA:321:G:C6	2.89	0.61
2:CB:7:VAL:O	2:CB:11:LEU:HD12	2.00	0.61
11:CK:116:HIS:O	11:CK:117:ASN:HB2	1.99	0.61
2:CB:121:LEU:O	2:CB:121:LEU:HD23	2.01	0.61
25:DA:2287:A:N1	25:DA:2346:A:H2	1.98	0.61
13:CM:94:ARG:HH21	25:DA:887:A:C1'	2.13	0.61
25:DA:2586:C:H2'	25:DA:2587:A:H5'	1.81	0.61
4:AD:13:ARG:O	4:AD:15:GLU:N	2.34	0.61
25:DA:2847:U:OP1	40:DT:98:LYS:NZ	2.31	0.61
23:AV:4:G:O2'	23:AV:5:G:P	2.58	0.61
23:AV:70:C:H2'	23:AV:71:G:O4'	2.00	0.61
42:BV:6:LYS:O	42:BV:37:VAL:HG21	2.01	0.61
25:DA:271(P):C:H5'	33:DI:46:ALA:HB2	1.81	0.61
26:DB:83:G:C2'	26:DB:84:C:C5'	2.78	0.61
38:BR:67:LEU:HD13	38:BR:76:VAL:HG21	1.83	0.61
3:CC:11:ARG:HH11	3:CC:11:ARG:HG2	1.65	0.61
12:CL:41:ARG:NH1	12:CL:41:ARG:HB3	2.13	0.61
25:DA:1658:C:N3	25:DA:1659:U:C4	2.69	0.61
42:DV:19:LYS:HZ3	42:DV:20:LEU:H	1.48	0.61
34:DN:66:LYS:O	34:DN:87:LEU:HD12	2.00	0.61
53:D6:20:ASN:HD22	53:D6:21:TYR:H	1.48	0.61
25:DA:2892:A:H3'	25:DA:2893:G:C5'	2.26	0.61
40:BT:25:GLY:HA3	40:BT:90:GLN:HB2	1.81	0.61
15:CO:17:ARG:NH1	15:CO:77:ARG:NH1	2.48	0.61
15:CO:23:GLY:O	15:CO:24:SER:HB3	2.01	0.61
25:DA:933:A:H2'	25:DA:934:G:O4'	2.00	0.61
25:DA:686:G:O6	54:D7:12:ARG:HG3	2.00	0.61
8:CH:51:VAL:HG11	8:CH:60:ARG:HG3	1.82	0.61
10:AJ:45:ARG:NH1	10:AJ:45:ARG:HG3	2.13	0.61
25:BA:1403:C:H5''	25:BA:1471:A:C1'	2.31	0.61
20:AT:14:LYS:HB2	20:AT:17:ARG:NH2	2.16	0.61
3:AC:71:ALA:HB2	3:AC:106:VAL:HB	1.83	0.61
30:DF:39:TRP:O	30:DF:43:LYS:HG2	2.01	0.61
25:BA:142:A:H5'	25:BA:142(A):C:OP2	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1241:C:H6	1:AA:1241:C:H3'	1.66	0.61
45:BY:87:LYS:O	45:BY:88:LYS:HB2	1.99	0.61
1:AA:773:A:C6	1:AA:774:G:C6	2.88	0.61
25:DA:221:A:H4'	25:DA:222:A:O5'	2.01	0.61
43:BW:76:VAL:HG23	43:BW:103:ILE:HA	1.81	0.61
25:DA:1858:G:H2'	25:DA:1883:G:H22	1.66	0.61
1:AA:251:U:H2'	1:AA:252:G:H8	1.63	0.61
35:BO:104:ARG:N	35:BO:122:LEU:O	2.34	0.61
25:BA:107:C:O2'	25:BA:108:U:H5'	1.99	0.61
41:BU:105:VAL:HG11	42:BV:40:LEU:CD1	2.31	0.61
26:DB:92:C:HO2'	26:DB:93:G:H5'	1.64	0.61
25:BA:272:G:N2	25:BA:421:U:C4	2.65	0.61
42:DV:47:VAL:O	42:DV:47:VAL:HG23	2.00	0.61
25:BA:2345:G:H5''	25:BA:2347:C:O4'	2.00	0.61
25:BA:1658:C:N3	25:BA:1659:U:C4	2.69	0.61
45:DY:95:LYS:HG2	45:DY:100:ALA:CA	2.29	0.61
28:BD:25:THR:HG22	28:BD:26:LYS:N	2.14	0.61
1:AA:1049:A:O2'	1:AA:1075:A:O3'	2.15	0.61
25:DA:1021:A:C3'	25:DA:1021:A:C8	2.84	0.61
25:DA:2469:A:H3'	25:DA:2470:G:O4'	2.00	0.61
25:BA:2103:C:H2'	25:BA:2104:G:H5''	1.81	0.61
25:BA:2186:G:H3'	25:BA:2187:G:H5''	1.81	0.61
32:BH:89:ILE:HD12	32:BH:90:LYS:N	2.15	0.61
2:AB:76:GLN:HB3	2:AB:206:ASP:O	2.01	0.61
32:DH:158:HIS:O	32:DH:159:GLU:HB2	2.01	0.61
30:BF:67:GLN:O	30:BF:68:LYS:HB2	2.00	0.61
55:D8:28:GLY:O	55:D8:32:LEU:HG	2.00	0.61
9:CI:95:LYS:O	9:CI:99:LEU:HB3	2.01	0.61
25:DA:769:G:H4'	25:DA:1379:A:N1	2.15	0.61
28:DD:172:TYR:CE2	28:DD:269:PHE:HE1	2.18	0.61
31:BG:56:ALA:HB2	31:BG:153:ARG:NE	2.16	0.61
14:AN:37:PHE:CZ	14:AN:56:VAL:HG21	2.30	0.61
28:BD:44:ASN:N	28:BD:44:ASN:OD1	2.33	0.61
25:BA:2502:G:H5''	25:BA:2503:A:C5'	2.29	0.61
34:DN:133:GLN:C	34:DN:134:ARG:HG3	2.21	0.61
8:AH:9:MET:HB2	8:AH:26:VAL:HG21	1.83	0.61
29:DE:116:VAL:O	29:DE:117:MET:CB	2.47	0.61
34:DN:4:TYR:HB2	41:DU:64:ARG:NH2	2.15	0.61
10:AJ:94:VAL:HG12	10:AJ:95:GLU:N	2.16	0.61
22:AW:27:G:H2'	22:AW:28:G:C8	2.35	0.61
25:BA:1810:A:H2'	25:BA:1811:G:O4'	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:141:A:C8	25:DA:1408:C:O2'	2.52	0.61
25:BA:1495:A:N3	25:BA:1496:A:C2	2.69	0.61
18:AR:82:THR:HG22	18:AR:83:GLU:N	2.14	0.61
17:AQ:76:LEU:HD12	17:AQ:77:VAL:H	1.65	0.61
18:AR:61:LYS:HG2	18:AR:65:ILE:HD11	1.83	0.61
25:BA:2033:A:H4'	25:BA:2034:U:OP1	2.00	0.61
25:BA:1666:G:C2'	25:BA:1667:G:H5'	2.30	0.61
25:BA:2884:U:H1'	52:B5:52:TYR:OH	2.01	0.61
13:CM:39:ILE:HD12	13:CM:56:LEU:HD23	1.82	0.61
25:DA:1313:U:H2'	25:DA:1313:U:O2	2.00	0.61
4:AD:19:LEU:HD12	4:AD:19:LEU:N	2.15	0.61
25:DA:2264:C:H2'	25:DA:2265:U:C6	2.35	0.61
23:CV:17:C:C3'	23:CV:18:U:H5'	2.18	0.61
26:BB:20:C:H2'	26:BB:21:G:C5'	2.16	0.61
41:DU:105:VAL:HG11	42:DV:40:LEU:HD12	1.82	0.61
42:DV:45:THR:O	42:DV:46:VAL:HG12	2.01	0.61
2:CB:178:ARG:HH22	2:CB:196:LEU:C	2.04	0.61
42:DV:18:LEU:CD2	42:DV:19:LYS:H	2.13	0.61
28:DD:9:TYR:CE2	28:DD:13:ARG:HD3	2.36	0.61
26:DB:107:G:H2'	26:DB:108:U:C5'	2.31	0.61
25:DA:2789:C:H1'	25:DA:2892:A:H2	1.66	0.61
31:DG:56:ALA:HB2	31:DG:153:ARG:NE	2.16	0.61
46:DZ:28:MET:HG3	46:DZ:33:LEU:HD21	1.81	0.61
46:DZ:30:ASN:OD1	46:DZ:33:LEU:HB3	2.01	0.61
3:CC:195:VAL:HG12	3:CC:196:LEU:N	2.15	0.61
25:BA:528:A:C2	25:BA:2043:C:C5'	2.84	0.61
33:DI:6:LEU:O	33:DI:7:GLU:C	2.39	0.61
30:DF:9:ILE:HG12	30:DF:14:PRO:HA	1.83	0.61
1:CA:212:C:O2'	1:CA:455:C:N4	2.33	0.61
7:AG:50:ILE:O	7:AG:54:THR:HG23	2.00	0.61
1:AA:1188:G:H2'	1:AA:1189:C:H6	1.66	0.61
25:DA:1403:C:H5''	25:DA:1471:A:C1'	2.31	0.61
1:AA:217:U:H2'	1:AA:218:U:H6	1.62	0.61
11:AK:57:THR:HG22	11:AK:59:TYR:H	1.66	0.61
31:BG:46:ALA:HB3	31:BG:82:LEU:CD1	2.30	0.61
35:BO:68:GLU:OE2	35:BO:78:ARG:NH1	2.34	0.61
16:AP:26:ARG:NH1	16:AP:26:ARG:HB3	2.16	0.61
15:AO:11:VAL:O	15:AO:14:GLU:HB3	2.01	0.61
6:CF:75:LEU:HD23	6:CF:79:LEU:HG	1.83	0.61
27:BC:76:ALA:C	27:BC:78:ALA:H	2.02	0.61
27:DC:76:ALA:C	27:DC:78:ALA:H	2.02	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1414:G:OP2	40:DT:108:ARG:NH2	2.34	0.61
3:AC:94:LEU:HD12	3:AC:95:THR:N	2.16	0.61
25:DA:71:A:H4'	25:DA:72:U:OP2	2.01	0.61
6:CF:52:ILE:O	6:CF:53:ALA:HB3	2.01	0.61
48:D1:19:GLN:HB2	48:D1:35:THR:HG22	1.82	0.61
25:DA:2359:C:H2'	25:DA:2360:A:O4'	2.01	0.61
27:DC:38:ASP:HB2	27:DC:181:PRO:CB	2.31	0.61
11:AK:56:GLY:O	11:AK:89:ALA:HB3	2.00	0.61
37:BQ:10:ARG:HH11	37:BQ:10:ARG:HG3	1.65	0.61
11:AK:114:VAL:HG13	11:AK:114:VAL:O	2.00	0.61
25:BA:2287:A:N1	25:BA:2346:A:H2	1.98	0.61
38:BR:78:LYS:O	38:BR:83:ILE:HG12	2.01	0.61
1:CA:1280:A:C5'	1:CA:1281:G:OP1	2.49	0.61
42:BV:19:LYS:HE2	42:BV:19:LYS:HA	1.82	0.61
25:DA:320:A:H4'	25:DA:322:A:C8	2.36	0.61
25:DA:1019:U:O2'	25:DA:1021:A:H2	1.84	0.61
5:AE:41:VAL:CG1	5:AE:113:ALA:HA	2.30	0.61
25:BA:1697:G:C3'	25:BA:1698:A:H5''	2.27	0.61
30:DF:2:LYS:O	30:DF:25:PRO:HD2	2.00	0.61
34:BN:66:LYS:O	34:BN:87:LEU:HD12	2.00	0.61
48:D1:89:GLU:HA	48:D1:92:LYS:HB3	1.82	0.61
30:BF:9:ILE:HG12	30:BF:14:PRO:HA	1.83	0.61
25:BA:2555:U:H2'	25:BA:2556:C:H5'	1.83	0.61
36:BP:101:VAL:C	36:BP:103:ALA:H	2.02	0.61
36:BP:85:LEU:HB3	36:BP:114:ILE:HD11	1.83	0.61
9:AI:4:TYR:CD1	9:AI:4:TYR:N	2.69	0.61
37:BQ:39:PRO:HD3	37:BQ:99:PRO:HG3	1.83	0.61
28:BD:154:LYS:C	28:BD:155:LEU:HD12	2.21	0.61
28:BD:155:LEU:HD23	28:BD:177:LEU:HD21	1.81	0.61
46:BZ:30:ASN:OD1	46:BZ:33:LEU:HB3	2.01	0.61
28:BD:211:ARG:HA	28:BD:214:TRP:CD2	2.35	0.61
37:DQ:66:ILE:HG22	37:DQ:104:PHE:HE2	1.65	0.61
55:D8:43:GLN:O	55:D8:44:LYS:HD2	2.00	0.61
6:CF:78:GLU:O	6:CF:81:ILE:HG13	2.00	0.61
3:CC:62:ASP:HA	3:CC:97:LYS:HE2	1.83	0.61
25:BA:444:C:O2'	25:BA:445:C:H5'	2.01	0.61
43:DW:10:VAL:O	43:DW:11:ARG:HB2	2.01	0.61
26:BB:42:C:H4'	31:BG:67:LYS:O	2.01	0.61
25:BA:2880:C:O2'	38:BR:90:ARG:HD3	2.01	0.61
25:BA:2023:G:H5'	25:BA:2617:C:H4'	1.82	0.61
25:BA:2740:A:H2'	25:BA:2741:A:C8	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1961:C:O2'	25:BA:1962:C:H5'	2.01	0.61
2:AB:7:VAL:O	2:AB:11:LEU:HD12	2.01	0.61
32:DH:17:VAL:O	32:DH:17:VAL:HG12	2.01	0.61
45:DY:50:ARG:NE	45:DY:55:TYR:CE1	2.69	0.61
23:AV:5:G:C2	23:AV:70:C:O2	2.54	0.61
22:CW:18:G:H1	22:CW:55:U:C1'	2.14	0.61
25:DA:2484:G:N3	25:DA:2485:G:C8	2.68	0.61
37:BQ:133:ARG:HG3	37:BQ:133:ARG:NH1	2.16	0.61
31:DG:114:ILE:HG12	31:DG:140:ILE:HD13	1.81	0.61
5:CE:75:THR:HG23	5:CE:76:ILE:N	2.15	0.61
39:BS:76:LYS:O	39:BS:80:LEU:HD13	2.01	0.61
33:BI:140:LEU:HD12	33:BI:141:LYS:H	1.65	0.61
33:BI:144:VAL:O	33:BI:145:VAL:CB	2.48	0.61
32:BH:17:VAL:HG12	32:BH:17:VAL:O	2.01	0.61
1:CA:916:G:H5''	7:CG:102:ARG:CZ	2.31	0.61
46:DZ:40:ASP:OD1	46:DZ:42:VAL:HG12	2.01	0.61
40:DT:25:GLY:N	40:DT:49:VAL:CG1	2.64	0.61
1:CA:639:C:H4'	15:CO:62:GLN:HE22	1.64	0.61
1:CA:422:U:OP2	1:CA:423:G:O2'	2.18	0.61
25:BA:1926:U:H2'	25:BA:1928:A:OP2	2.01	0.61
25:BA:141:A:H8	25:BA:1408:C:O2'	1.83	0.61
24:CX:17:U:H2'	24:CX:18:G:H8	1.66	0.61
5:AE:78:HIS:HD2	8:AH:104:ARG:NE	1.96	0.61
31:DG:46:ALA:HB3	31:DG:82:LEU:CD1	2.30	0.61
2:CB:96:ARG:HH11	2:CB:148:TYR:HE1	1.48	0.61
25:DA:2522:U:H2'	25:DA:2523:G:H5''	1.82	0.61
25:DA:142:A:H5'	25:DA:142(A):C:OP2	2.01	0.61
27:DC:77:ILE:HB	27:DC:122:ALA:HA	1.82	0.61
25:BA:2152:G:H2'	25:BA:2153:G:C8	2.35	0.61
25:BA:1198:U:H2'	25:BA:1199:U:C6	2.36	0.61
1:CA:811:A:H5''	1:CA:836:A:C2	2.36	0.61
35:BO:25:LEU:HD12	35:BO:38:VAL:HB	1.81	0.61
7:AG:151:TYR:OH	11:AK:54:ARG:HD3	2.01	0.61
27:BC:38:ASP:HB2	27:BC:181:PRO:CB	2.31	0.61
25:DA:1827:C:C2'	25:DA:1828:G:H5'	2.31	0.61
25:DA:1198:U:H2'	25:DA:1199:U:C6	2.36	0.61
6:AF:45:LEU:HD11	6:AF:57:GLN:OE1	2.01	0.61
47:B0:3:HIS:ND1	47:B0:3:HIS:N	2.48	0.61
25:BA:2720:U:H5'	25:BA:2721:A:OP2	2.01	0.61
25:BA:2359:C:H2'	25:BA:2360:A:O4'	2.01	0.61
29:BE:59:VAL:O	29:BE:60:ASN:CB	2.49	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1880:C:C5'	25:BA:1880:C:H6	2.11	0.60
1:AA:1440:C:P	40:BT:115:ARG:HH12	2.24	0.60
39:BS:14:VAL:HG12	39:BS:15:ARG:H	1.64	0.60
39:DS:76:LYS:O	39:DS:80:LEU:HD13	2.01	0.60
41:DU:66:ASN:CB	41:DU:76:TYR:HB2	2.31	0.60
36:DP:23:PRO:HD2	36:DP:33:ARG:CZ	2.31	0.60
2:AB:18:GLY:N	2:AB:42:ILE:HG22	2.06	0.60
46:DZ:53:ILE:HG23	46:DZ:71:VAL:HB	1.82	0.60
28:DD:267:SER:HA	28:DD:270:ILE:HG13	1.82	0.60
20:AT:29:LYS:O	20:AT:33:ILE:HG12	2.02	0.60
25:BA:1365:A:OP1	48:B1:41:ARG:NH1	2.34	0.60
33:BI:6:LEU:O	33:BI:7:GLU:C	2.39	0.60
25:DA:528:A:H2	25:DA:2043:C:H5'	1.64	0.60
29:BE:28:ALA:HB3	29:BE:93:VAL:HG22	1.83	0.60
36:DP:85:LEU:HB3	36:DP:114:ILE:HD11	1.83	0.60
1:CA:589:G:N2	1:CA:614:G:H2'	2.16	0.60
22:AW:57:G:H2'	22:AW:58:A:C5'	2.29	0.60
4:AD:30:LYS:C	4:AD:32:ALA:N	2.53	0.60
1:CA:912:A:H2'	1:CA:913:C:C6	2.35	0.60
9:AI:4:TYR:H	9:AI:4:TYR:HD1	1.49	0.60
46:BZ:10:ARG:HH21	46:BZ:26:GLY:H	1.49	0.60
30:BF:39:TRP:O	30:BF:43:LYS:HG2	2.01	0.60
30:DF:167:ALA:O	30:DF:170:LEU:HB2	2.01	0.60
1:AA:1246:G:H22	1:AA:1252:G:H1'	1.64	0.60
25:DA:2147:G:H2'	25:DA:2148:G:O4'	2.01	0.60
25:BA:2148:G:O2'	25:BA:2149:G:H5'	1.99	0.60
22:AW:5:G:H2'	22:AW:6:G:O4'	2.01	0.60
25:BA:2024:G:H2'	25:BA:2025:C:H6	1.66	0.60
25:BA:2571:C:C5'	25:BA:2572:A:H5''	2.31	0.60
4:AD:79:PHE:CE1	4:AD:204:ILE:HD13	2.36	0.60
1:CA:459:G:H2'	1:CA:460:G:H8	1.66	0.60
25:BA:2689:U:H4'	25:BA:2690:C:H6	1.66	0.60
31:BG:120:LEU:N	31:BG:179:PRO:O	2.33	0.60
3:CC:36:ASP:OD2	3:CC:57:ILE:HG21	2.00	0.60
10:CJ:46:ARG:HG2	10:CJ:64:GLU:HB3	1.84	0.60
49:B2:29:LYS:HD3	49:B2:57:ILE:HG21	1.83	0.60
34:DN:28:THR:HG23	34:DN:29:LYS:HG3	1.83	0.60
13:CM:34:LEU:HD13	13:CM:41:PRO:HA	1.83	0.60
4:AD:63:LYS:HD2	4:AD:198:VAL:CG2	2.29	0.60
40:DT:29:ARG:CD	40:DT:84:GLN:O	2.49	0.60
25:BA:887:A:H1'	25:BA:889:C:N4	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2264:C:H2'	25:DA:2265:U:H6	1.66	0.60
23:CV:53:G:O2'	23:CV:54:G:P	2.58	0.60
25:DA:2468:G:H5'	37:DQ:120:ILE:CD1	2.32	0.60
45:BY:67:LEU:O	45:BY:68:HIS:C	2.39	0.60
5:CE:31:LEU:HD13	5:CE:43:LEU:HD11	1.81	0.60
28:BD:77:ALA:CB	28:BD:97:TYR:HA	2.31	0.60
26:DB:7:G:H3'	26:DB:8:U:C5'	2.22	0.60
25:DA:2712:U:HO2'	25:DA:2712(A):A:H5''	1.65	0.60
25:DA:1140:C:H5''	34:DN:66:LYS:HZ1	1.66	0.60
23:AV:48:U:C5	23:AV:51:U:OP1	2.54	0.60
46:DZ:5:LEU:HD12	46:DZ:6:LYS:H	1.67	0.60
1:AA:916:G:H5''	7:AG:102:ARG:NH2	2.16	0.60
53:D6:20:ASN:ND2	53:D6:21:TYR:H	1.98	0.60
25:DA:575:A:O2'	25:DA:576:U:H5'	2.00	0.60
25:DA:1755:A:OP1	40:DT:113:LYS:NZ	2.33	0.60
28:BD:267:SER:HA	28:BD:270:ILE:HG13	1.82	0.60
32:DH:84:SER:O	32:DH:85:LYS:HB3	2.01	0.60
25:DA:528:A:C2	25:DA:2043:C:C5'	2.84	0.60
29:BE:43:GLY:O	29:BE:44:TYR:HB3	1.99	0.60
25:DA:363(E):U:H2'	25:DA:363(F):A:C1'	2.31	0.60
29:DE:28:ALA:HB3	29:DE:93:VAL:HG22	1.84	0.60
36:DP:107:LYS:O	36:DP:109:GLY:N	2.35	0.60
22:AW:16:U:H3'	22:AW:17:C:C5'	2.31	0.60
3:CC:34:LEU:HD21	3:CC:38:ARG:NH2	2.16	0.60
25:DA:2675:A:C4'	35:DO:29:ASN:HD22	2.14	0.60
25:DA:1490:A:H5'	25:DA:1491:G:OP2	2.01	0.60
9:CI:18:PHE:HD1	9:CI:62:TYR:HD2	1.48	0.60
25:DA:607:U:OP1	30:DF:102:PRO:HA	2.01	0.60
37:DQ:39:PRO:HD3	37:DQ:99:PRO:HG3	1.83	0.60
38:DR:45:ARG:HG3	38:DR:46:GLY:H	1.66	0.60
6:CF:30:LEU:HB3	6:CF:35:ALA:HB3	1.83	0.60
15:CO:11:VAL:O	15:CO:14:GLU:HB3	2.01	0.60
25:DA:1494:A:N3	25:DA:1494:A:H5'	2.15	0.60
1:CA:858:G:P	12:CL:12:ARG:HH22	2.24	0.60
48:B1:19:GLN:HB2	48:B1:35:THR:HG22	1.82	0.60
36:DP:93:GLY:O	36:DP:123:LEU:HB2	2.00	0.60
44:DX:57:LEU:HD22	44:DX:57:LEU:O	2.02	0.60
9:CI:24:GLY:HA2	9:CI:59:PHE:O	2.00	0.60
1:CA:1440:C:H5'	40:DT:115:ARG:HH22	1.65	0.60
1:CA:12:U:H3	1:CA:22:G:H1	1.49	0.60
25:DA:2730:C:O2'	25:DA:2731:G:H5'	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:907:U:OP1	37:BQ:24:GLY:N	2.33	0.60
25:DA:633:A:H2'	25:DA:634:C:H5'	1.82	0.60
12:AL:126:LYS:HE2	12:AL:127:GLU:HB2	1.82	0.60
47:D0:27:GLU:HB2	47:D0:69:PHE:HD1	1.66	0.60
25:BA:2737:G:H2'	25:BA:2738:A:H8	1.65	0.60
13:AM:93:ARG:CZ	25:BA:888:C:H5'	2.30	0.60
9:AI:10:ARG:HD2	9:AI:105:ASP:CB	2.31	0.60
42:BV:39:LEU:HD11	42:BV:51:VAL:HG22	1.83	0.60
22:CW:69:G:C2	22:CW:70:G:C8	2.89	0.60
1:AA:956:C:OP1	1:AA:1204:C:N4	2.35	0.60
23:CV:51:U:O2	23:CV:51:U:H2'	2.01	0.60
20:AT:46:GLU:CD	20:AT:48:LYS:HE2	2.20	0.60
25:DA:2168:G:C2	25:DA:2171:A:OP2	2.54	0.60
25:BA:2304:G:C2	25:BA:2313:C:N3	2.69	0.60
39:DS:69:VAL:O	39:DS:72:ALA:HB3	2.02	0.60
14:CN:26:ARG:HH22	14:CN:47:LEU:CD2	2.11	0.60
26:DB:7:G:C3'	26:DB:8:U:H5''	2.21	0.60
25:BA:1952:A:C5	35:BO:22:ILE:HD11	2.35	0.60
53:D6:46:HIS:HD2	53:D6:46:HIS:O	1.84	0.60
40:DT:24:PRO:HA	40:DT:49:VAL:HG13	1.83	0.60
12:AL:27:LEU:HD11	12:AL:64:TYR:CZ	2.36	0.60
2:AB:77:ALA:O	2:AB:81:VAL:HG23	2.02	0.60
29:BE:199:ARG:CB	29:BE:199:ARG:HH11	2.14	0.60
25:BA:1490:A:H5'	25:BA:1491:G:OP2	2.01	0.60
9:CI:4:TYR:CD1	9:CI:4:TYR:N	2.69	0.60
28:DD:45:ASN:CG	28:DD:46:GLN:N	2.54	0.60
1:AA:982:A:H5'	1:AA:1003:U:H3	1.66	0.60
11:CK:12:ARG:CG	11:CK:13:GLN:N	2.64	0.60
31:DG:61:ALA:HA	31:DG:64:THR:CG2	2.30	0.60
25:BA:2147:G:H2'	25:BA:2148:G:O4'	2.01	0.60
25:BA:673:C:O2'	30:BF:82:ILE:HD13	2.00	0.60
25:DA:2024:G:H2'	25:DA:2025:C:H6	1.66	0.60
27:BC:77:ILE:HB	27:BC:122:ALA:HA	1.82	0.60
1:AA:251:U:H2'	1:AA:252:G:C8	2.36	0.60
49:D2:29:LYS:HD3	49:D2:57:ILE:HG21	1.83	0.60
1:CA:516:A:O2'	1:CA:517:U:H5''	2.01	0.60
2:AB:164:VAL:HB	2:AB:186:ALA:CB	2.32	0.60
25:BA:1827:C:C2'	25:BA:1828:G:H5'	2.31	0.60
49:B2:18:PRO:HG2	49:B2:19:VAL:H	1.66	0.60
1:AA:204:G:H2'	1:AA:205:G:H8	1.66	0.60
25:DA:2662:A:H2'	25:DA:2663:G:O4'	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2571:C:C5'	25:DA:2572:A:H5''	2.31	0.60
6:AF:71:ARG:HH11	6:AF:71:ARG:HG3	1.66	0.60
25:DA:271(U):G:C4	25:DA:271(V):G:C8	2.89	0.60
9:AI:114:TYR:N	9:AI:114:TYR:CD2	2.58	0.60
25:BA:2168:G:C2	25:BA:2171:A:OP2	2.54	0.60
13:AM:7:VAL:CG2	31:BG:115:ARG:HA	2.31	0.60
41:DU:69:CYS:CB	41:DU:79:PHE:HD1	2.14	0.60
26:DB:50:G:OP2	39:DS:62:LYS:HB3	2.02	0.60
5:AE:101:ILE:N	5:AE:101:ILE:HD13	2.12	0.60
1:CA:249:G:OP1	17:CQ:67:LYS:O	2.19	0.60
10:AJ:40:LEU:HB2	10:AJ:41:PRO:CD	2.23	0.60
33:BI:88:ILE:CD1	33:BI:123:LEU:HG	2.32	0.60
9:AI:95:LYS:O	9:AI:99:LEU:HB3	2.01	0.60
34:BN:57:ALA:N	34:BN:124:ALA:HA	2.15	0.60
40:DT:23:ARG:HB2	40:DT:24:PRO:HD2	1.83	0.60
32:BH:84:SER:O	32:BH:85:LYS:HB3	2.01	0.60
34:DN:57:ALA:N	34:DN:124:ALA:HA	2.15	0.60
2:CB:80:ILE:HD13	2:CB:211:ILE:HG22	1.82	0.60
18:AR:44:LEU:HD11	18:AR:79:LEU:HD22	1.84	0.60
52:D5:32:PRO:O	52:D5:33:CYS:CB	2.47	0.60
29:DE:2:LYS:HE2	29:DE:95:ILE:CG2	2.30	0.60
2:CB:71:VAL:HA	2:CB:93:VAL:HG23	1.81	0.60
10:AJ:13:HIS:HD1	10:AJ:14:LYS:HG3	1.67	0.60
25:DA:2285:C:OP2	53:D6:27:LYS:HD2	2.01	0.60
25:DA:999:U:C2'	25:DA:1000:A:H5''	2.32	0.60
36:BP:93:GLY:O	36:BP:123:LEU:HB2	2.00	0.60
3:CC:150:LYS:HA	3:CC:169:ALA:HB2	1.83	0.60
25:BA:99:U:H4'	25:BA:102:G:H1'	1.83	0.60
49:D2:18:PRO:HG2	49:D2:19:VAL:H	1.66	0.60
5:CE:147:ASP:OD2	5:CE:147:ASP:N	2.35	0.60
3:AC:55:VAL:HG12	3:AC:55:VAL:O	2.00	0.60
6:CF:98:LEU:H	6:CF:98:LEU:HD12	1.65	0.60
37:DQ:82:ARG:NH1	47:D0:4:LYS:HE2	2.16	0.60
25:BA:228:A:H5'	25:BA:229:A:OP2	2.01	0.60
40:DT:29:ARG:HD3	40:DT:84:GLN:O	2.02	0.60
41:BU:92:ARG:O	41:BU:94:ASN:N	2.30	0.60
10:AJ:49:VAL:HG21	14:AN:41:ARG:O	2.02	0.60
25:DA:307:G:C2	25:DA:310:A:OP2	2.54	0.60
25:DA:307:G:N2	25:DA:310:A:OP2	2.34	0.60
37:DQ:19:GLY:O	37:DQ:20:ALA:CB	2.49	0.60
25:BA:243:U:OP1	55:B8:6:THR:CG2	2.49	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:243:U:OP1	55:D8:6:THR:HG21	2.01	0.60
25:DA:2491:U:H4'	25:DA:2570:G:OP1	2.02	0.60
39:DS:19:LYS:HB3	39:DS:20:ARG:NH1	2.13	0.60
25:DA:94(A):G:H2'	25:DA:95:G:O4'	2.02	0.60
22:CW:34:G:C6	24:CX:14:A:N1	2.70	0.60
30:DF:67:GLN:O	30:DF:68:LYS:HB2	2.00	0.60
46:BZ:40:ASP:OD1	46:BZ:42:VAL:HG12	2.02	0.60
32:BH:159:GLU:CG	32:BH:160:LYS:H	2.00	0.60
38:BR:12:ARG:HD3	38:BR:16:HIS:ND1	2.17	0.60
2:AB:16:HIS:HD2	2:AB:210:SER:HA	1.66	0.60
25:DA:2807:G:H3'	25:DA:2808:U:H5''	1.82	0.60
25:BA:2330:G:C2'	25:BA:2331:G:O5'	2.50	0.60
37:BQ:60:ARG:HA	46:BZ:178:GLU:C	2.22	0.60
40:DT:65:LYS:O	40:DT:72:VAL:N	2.34	0.60
25:BA:528:A:H2	25:BA:2043:C:H5'	1.65	0.60
2:AB:77:ALA:HB2	2:AB:211:ILE:CD1	2.32	0.60
25:DA:528:A:H8	25:DA:528:A:H3'	1.65	0.60
52:B5:32:PRO:O	52:B5:33:CYS:CB	2.47	0.60
18:AR:70:ILE:HG22	18:AR:74:ARG:HD2	1.84	0.60
4:CD:63:LYS:HD2	4:CD:198:VAL:CG2	2.32	0.60
28:BD:43:ARG:NH1	28:BD:44:ASN:ND2	2.50	0.60
25:DA:1996:C:H5	35:DO:32:TYR:OH	1.83	0.60
3:AC:34:LEU:HD21	3:AC:38:ARG:NH2	2.16	0.60
11:AK:125:PHE:N	11:AK:125:PHE:HD1	1.99	0.60
31:BG:61:ALA:HA	31:BG:64:THR:CG2	2.30	0.60
25:DA:2533:A:H3'	25:DA:2534:A:H5''	1.83	0.60
25:DA:2720:U:H5'	25:DA:2721:A:OP2	2.01	0.60
19:AS:32:LYS:HA	19:AS:50:ALA:HB3	1.82	0.60
53:D6:30:THR:HB	53:D6:31:PRO:HD2	1.82	0.60
33:BI:65:ALA:HA	33:BI:131:LYS:HE2	1.84	0.60
25:BA:994:C:H2'	41:BU:54:LYS:HE3	1.82	0.60
43:BW:24:ILE:CG2	43:BW:36:LEU:HD21	2.32	0.60
25:DA:1396:U:O2	25:DA:1396:U:H2'	2.00	0.60
38:DR:78:LYS:O	38:DR:83:ILE:HG12	2.01	0.60
25:BA:1339:G:N2	25:BA:1603:A:H1'	2.16	0.60
25:DA:104:U:H3'	25:DA:105:C:C6	2.37	0.60
22:CW:60:U:O2'	22:CW:61:C:C6	2.50	0.60
27:DC:36:LYS:HB2	27:DC:36:LYS:HZ3	1.65	0.60
38:DR:67:LEU:HD13	38:DR:76:VAL:HG21	1.83	0.60
3:CC:6:HIS:ND1	14:CN:49:HIS:HB3	2.17	0.60
5:CE:41:VAL:HG13	5:CE:113:ALA:CA	2.24	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DS:30:ARG:NH2	39:DS:62:LYS:HD2	2.13	0.60
19:CS:6:LYS:CD	19:CS:6:LYS:H	2.14	0.60
19:CS:6:LYS:HD2	19:CS:6:LYS:H	1.67	0.60
28:DD:27:THR:HG23	28:DD:27:THR:O	2.02	0.60
25:BA:2299:G:C6	25:BA:2318:G:H8	2.20	0.60
1:AA:1171:G:H3'	3:AC:3:ASN:HD21	1.67	0.60
33:DI:104:GLN:O	33:DI:105:HIS:HD2	1.84	0.60
23:AV:66:C:H2'	23:AV:67:C:O5'	2.02	0.60
36:DP:64:LYS:C	36:DP:66:GLY:N	2.51	0.60
36:BP:23:PRO:HD2	36:BP:33:ARG:CZ	2.31	0.60
1:CA:180:C:H1'	20:CT:85:MET:HE1	1.84	0.60
46:DZ:10:ARG:HH21	46:DZ:26:GLY:H	1.49	0.60
7:AG:15:ASP:HB3	7:AG:20:ASP:H	1.65	0.60
48:D1:68:PRO:HG2	48:D1:69:LYS:H	1.66	0.60
3:AC:41:GLY:O	3:AC:45:LYS:HG3	2.02	0.60
12:CL:49:ASN:ND2	12:CL:92:ASP:OD2	2.35	0.60
30:BF:167:ALA:O	30:BF:170:LEU:HB2	2.01	0.60
25:BA:2419:U:O4	55:B8:30:ARG:CZ	2.50	0.60
22:AW:9:A:OP2	22:AW:13:C:N4	2.35	0.60
25:BA:1887:C:C3'	25:BA:1888:G:H5''	2.32	0.60
44:BX:57:LEU:HD22	44:BX:57:LEU:O	2.02	0.60
25:DA:2080:G:O5'	48:D1:35:THR:HG21	2.00	0.60
2:AB:30:ARG:HG3	2:AB:31:TYR:CD2	2.37	0.60
25:DA:99:U:H4'	25:DA:102:G:H1'	1.83	0.60
45:BY:13:VAL:HA	45:BY:75:ILE:HG22	1.81	0.60
18:CR:36:ASN:HD22	18:CR:39:VAL:CG2	2.14	0.60
1:CA:806:G:H21	8:CH:1:MET:HE3	1.67	0.60
25:DA:2023:G:H5'	25:DA:2617:C:H4'	1.82	0.60
3:AC:155:GLY:O	3:AC:156:ARG:HB2	2.01	0.60
1:AA:1425:G:H2'	40:BT:118:ARG:CD	2.30	0.60
25:DA:614(C):A:C4	30:DF:180:GLY:HA2	2.36	0.60
28:BD:27:THR:CG2	28:BD:83:GLU:HG2	2.31	0.60
22:CW:34:G:C6	24:CX:14:A:C2	2.90	0.60
33:BI:104:GLN:O	33:BI:105:HIS:HD2	1.84	0.60
22:AY:39:U:N3	22:AY:40:C:H5	2.00	0.60
10:CJ:34:VAL:CG2	10:CJ:74:ILE:HG22	2.26	0.60
25:DA:2469:A:N6	25:DA:2481:G:H1'	2.17	0.60
25:BA:2481:G:HO2'	25:BA:2482:G:P	2.24	0.60
30:BF:93:LYS:O	30:BF:95:ARG:HG2	2.01	0.60
25:BA:2807:G:H3'	25:BA:2808:U:H5''	1.82	0.60
1:AA:10:A:OP2	5:AE:126:ARG:HD3	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:31:CYS:SG	4:CD:31:CYS:O	2.60	0.60
25:DA:379:G:H2'	25:DA:380:U:C4'	2.32	0.60
25:DA:1170:G:H1	25:DA:1179:C:N4	1.96	0.60
8:AH:51:VAL:HG11	8:AH:60:ARG:HG3	1.84	0.60
26:BB:56:G:H5''	31:BG:27:ASN:ND2	2.16	0.60
25:BA:674:G:O2'	30:BF:74:ARG:HD3	2.02	0.60
25:DA:1639:U:O2'	25:DA:1640:C:H5''	2.00	0.60
25:BA:1246:A:OP2	36:BP:18:ARG:HG3	2.01	0.60
11:CK:48:ILE:HG23	11:CK:63:LEU:HD22	1.84	0.60
12:CL:43:VAL:HG23	12:CL:44:THR:N	2.15	0.60
25:DA:491:G:H2'	25:DA:492:A:C8	2.35	0.60
25:DA:1926:U:H2'	25:DA:1928:A:OP2	2.01	0.60
11:AK:12:ARG:CG	11:AK:13:GLN:N	2.65	0.60
27:BC:40:THR:HG21	27:BC:215:THR:CB	2.32	0.60
1:AA:343:G:H2'	1:AA:344:A:H8	1.67	0.60
15:CO:50:HIS:O	15:CO:53:HIS:HB3	2.02	0.60
36:DP:89:ALA:HA	36:DP:121:LYS:HD3	1.83	0.60
25:BA:221:A:H4'	25:BA:222:A:O5'	2.01	0.60
1:AA:470:U:H2'	1:AA:471:A:C8	2.37	0.60
25:DA:2737:G:H2'	25:DA:2738:A:H8	1.65	0.60
25:BA:2593:U:H2'	25:BA:2594:C:C6	2.37	0.60
1:CA:1009:G:H1'	1:CA:1013:G:H22	1.67	0.60
25:BA:1482:G:N2	25:BA:1507:A:H1'	2.17	0.60
34:BN:28:THR:HG23	34:BN:29:LYS:HG3	1.83	0.60
17:AQ:14:LYS:HB2	17:AQ:14:LYS:NZ	2.16	0.60
13:CM:90:LEU:O	13:CM:91:ARG:HB2	2.01	0.60
25:DA:887:A:H1'	25:DA:889:C:N4	2.16	0.60
41:BU:95:LEU:C	41:BU:97:ASP:H	2.03	0.60
14:AN:44:LEU:C	14:AN:44:LEU:HD12	2.21	0.60
25:DA:313:C:C2'	25:DA:314:A:H5'	2.32	0.60
38:DR:63:ARG:HA	38:DR:80:PHE:CE2	2.35	0.60
41:DU:95:LEU:C	41:DU:97:ASP:H	2.03	0.60
25:BA:282:A:C4	25:BA:359:A:C2	2.90	0.60
37:DQ:54:MET:HG2	37:DQ:64:ILE:CG2	2.32	0.60
13:CM:8:GLU:C	13:CM:9:ILE:HD12	2.22	0.60
39:DS:30:ARG:HB3	39:DS:89:ARG:NH2	2.17	0.60
25:BA:271(R):G:H2'	25:BA:271(S):G:C8	2.37	0.60
37:BQ:54:MET:HG2	37:BQ:64:ILE:CG2	2.32	0.60
3:AC:5:ILE:C	3:AC:5:ILE:HD12	2.22	0.60
31:BG:52:ILE:CG2	31:BG:54:GLU:HG2	2.21	0.60
28:DD:142:VAL:HG23	28:DD:192:THR:O	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:336:C:H5''	45:DY:7:VAL:CG1	2.31	0.60
2:AB:23:ARG:HH11	2:AB:23:ARG:HG2	1.67	0.60
25:BA:1202:C:H2'	25:BA:1203:G:H5'	1.82	0.60
9:AI:99:LEU:O	9:AI:99:LEU:HD13	2.02	0.60
25:BA:559:G:H22	41:BU:49:HIS:CD2	2.20	0.60
1:AA:657:G:H2'	1:AA:658:A:H8	1.66	0.60
25:DA:2390:U:O2'	25:DA:2391:G:C5'	2.50	0.60
26:DB:41:U:O2	31:DG:70:VAL:HG23	2.02	0.60
37:DQ:60:ARG:HA	46:DZ:178:GLU:C	2.22	0.60
25:BA:379:G:H2'	25:BA:380:U:O5'	2.01	0.60
48:D1:46:LEU:HB3	48:D1:63:ALA:HA	1.84	0.60
27:DC:40:THR:HG21	27:DC:215:THR:CB	2.32	0.60
36:BP:107:LYS:O	36:BP:109:GLY:N	2.35	0.60
1:AA:1482:G:O5'	1:AA:1482:G:C8	2.54	0.60
34:DN:54:VAL:HB	34:DN:122:VAL:HG22	1.83	0.60
34:BN:48:MET:H	34:BN:48:MET:CE	2.15	0.60
25:DA:994:C:H2'	41:DU:54:LYS:HE3	1.82	0.60
42:BV:68:LYS:NZ	42:BV:68:LYS:HB2	2.17	0.60
25:BA:174:C:C3'	25:BA:175:G:H5''	2.31	0.60
23:CV:11:A:O5'	23:CV:11:A:H8	1.84	0.60
25:DA:814:C:O2'	25:DA:815:C:H5'	2.02	0.60
25:DA:174:C:C3'	25:DA:175:G:H5''	2.31	0.60
25:DA:444:C:O2'	25:DA:445:C:H5'	2.01	0.60
46:DZ:11:GLU:HB2	46:DZ:13:GLU:OE2	2.01	0.60
25:BA:517:C:OP1	52:B5:16:ARG:NH2	2.34	0.60
1:AA:784:U:H2'	1:AA:785:A:C8	2.37	0.60
25:DA:1745(A):C:H5'	25:DA:1746:G:OP2	2.02	0.60
39:BS:12:PHE:HD1	39:BS:12:PHE:O	1.85	0.60
29:DE:173:VAL:HG12	29:DE:174:ASP:H	1.67	0.60
13:CM:90:LEU:HA	13:CM:93:ARG:CB	2.32	0.60
32:DH:17:VAL:HG11	32:DH:45:VAL:HG13	1.83	0.60
1:AA:1042:C:OP1	14:AN:45:ARG:NH2	2.34	0.60
25:BA:2420:C:OP1	55:B8:34:TRP:CA	2.49	0.60
45:BY:43:ASN:O	45:BY:44:ILE:O	2.20	0.60
39:BS:69:VAL:O	39:BS:72:ALA:HB3	2.01	0.60
26:DB:48:A:H4'	39:DS:95:HIS:HD2	1.66	0.60
25:BA:2320:A:N1	25:BA:2333:A:C8	2.70	0.60
28:BD:26:LYS:NZ	28:BD:82:ILE:O	2.35	0.60
26:DB:79:C:H2'	26:DB:80:U:H5'	1.82	0.60
32:BH:12:PRO:O	32:BH:13:LYS:HB2	2.02	0.60
37:DQ:34:LEU:HD11	37:DQ:129:THR:CB	2.32	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2302:G:C6	25:DA:2315:G:C6	2.90	0.60
13:CM:23:TYR:CB	13:CM:67:GLU:HB2	2.27	0.60
37:BQ:134:ARG:HE	46:BZ:122:ARG:HH11	1.47	0.60
15:CO:74:ASP:C	15:CO:76:GLU:H	2.05	0.60
26:BB:57:A:H5'	31:BG:27:ASN:ND2	2.14	0.60
29:DE:199:ARG:HH11	29:DE:199:ARG:CB	2.14	0.60
48:B1:46:LEU:HB3	48:B1:63:ALA:HA	1.83	0.60
14:CN:48:ALA:HB2	14:CN:53:LEU:HD12	1.84	0.60
25:BA:1639:U:O2'	25:BA:1640:C:H5''	2.00	0.60
28:BD:45:ASN:CG	28:BD:46:GLN:N	2.54	0.60
25:DA:1986:A:H2'	25:DA:1987:G:H5''	1.83	0.60
3:CC:173:VAL:O	3:CC:173:VAL:HG12	2.02	0.60
2:CB:144:ARG:HA	2:CB:147:LYS:CB	2.31	0.60
28:BD:161:THR:O	28:BD:196:VAL:HG23	2.01	0.60
46:DZ:41:LEU:HD11	46:DZ:82:ARG:NH1	2.17	0.60
44:DX:35:THR:HG22	44:DX:37:THR:H	1.67	0.60
25:DA:1887:C:C3'	25:DA:1888:G:H5''	2.32	0.60
5:AE:91:LEU:HD12	5:AE:120:THR:HG22	1.83	0.60
20:AT:64:ASP:OD1	20:AT:81:LYS:HD2	2.02	0.60
25:DA:850:C:O3'	50:D3:49:LYS:NZ	2.34	0.60
1:AA:563:U:H2'	1:AA:564:G:O4'	2.01	0.60
13:AM:35:GLU:HG3	13:AM:36:LYS:N	2.17	0.60
41:BU:36:ARG:HE	41:BU:40:PHE:HZ	1.47	0.60
1:CA:311:G:H2'	1:CA:312:G:H8	1.66	0.60
25:BA:2730:C:O2'	25:BA:2731:G:H5'	2.01	0.60
13:CM:90:LEU:HA	13:CM:93:ARG:HB2	1.83	0.60
29:DE:51:PHE:O	29:DE:52:LEU:CB	2.45	0.60
25:BA:104:U:H3'	25:BA:105:C:C6	2.36	0.60
41:BU:106:PHE:HA	41:BU:109:LEU:HD12	1.82	0.60
42:BV:4:ILE:O	42:BV:4:ILE:HG22	2.02	0.60
19:AS:5:LEU:HD12	19:AS:10:PHE:CD1	2.29	0.60
53:B6:25:LYS:HD3	55:B8:34:TRP:HZ2	1.67	0.60
25:DA:2347:C:H4'	53:D6:39:TYR:HE1	1.67	0.60
41:DU:105:VAL:HG11	42:DV:40:LEU:CD1	2.31	0.60
28:BD:83:GLU:HB2	28:BD:92:ILE:HD11	1.84	0.60
33:DI:95:LYS:HA	33:DI:98:ALA:HB3	1.82	0.60
26:DB:107:G:C2'	26:DB:108:U:C5'	2.80	0.60
6:AF:10:LEU:HD12	6:AF:10:LEU:N	2.16	0.60
46:BZ:5:LEU:HD12	46:BZ:6:LYS:H	1.67	0.60
32:BH:116:GLU:HG2	32:BH:117:PRO:HD2	1.83	0.60
40:DT:25:GLY:O	40:DT:48:ILE:HG23	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BZ:53:ILE:HG23	46:BZ:71:VAL:HB	1.82	0.60
2:CB:77:ALA:O	2:CB:81:VAL:HG23	2.01	0.60
1:AA:855:G:C5'	8:AH:89:PRO:HG2	2.31	0.60
55:D8:50:LEU:HD12	55:D8:51:ALA:N	2.17	0.60
9:CI:18:PHE:HB2	9:CI:62:TYR:O	2.01	0.60
7:AG:148:ASN:C	7:AG:150:ALA:N	2.55	0.60
25:BA:1986:A:H2'	25:BA:1987:G:H5''	1.83	0.60
4:CD:158:ILE:HG22	4:CD:181:MET:HE2	1.83	0.60
44:BX:35:THR:HG22	44:BX:37:THR:H	1.67	0.60
25:BA:1165:U:H2'	25:BA:1166:C:H6	1.66	0.60
25:DA:143:G:H2'	25:DA:143(A):C:H6	1.67	0.60
25:DA:673:C:O2'	30:DF:82:ILE:HD13	2.01	0.60
25:BA:999:U:C2'	25:BA:1000:A:H5''	2.32	0.60
25:DA:1961:C:O2'	25:DA:1962:C:H5'	2.01	0.60
1:CA:345:G:H2'	1:CA:346:G:C8	2.37	0.60
1:CA:1197:G:H5''	14:CN:5:ALA:HB2	1.84	0.60
13:AM:34:LEU:HD13	13:AM:41:PRO:HA	1.83	0.60
25:DA:2593:U:H2'	25:DA:2594:C:C6	2.37	0.60
43:BW:73:ALA:HB3	43:BW:106:ILE:HD11	1.84	0.60
33:DI:65:ALA:HA	33:DI:131:LYS:HE2	1.84	0.60
25:BA:2586:C:H2'	25:BA:2587:A:H5'	1.81	0.59
25:BA:271(U):G:C4	25:BA:271(V):G:C8	2.89	0.59
25:BA:1129:A:H4'	25:BA:2516:G:C5'	2.31	0.59
28:DD:161:THR:O	28:DD:196:VAL:HG23	2.01	0.59
25:DA:870:A:P	37:DQ:6:ARG:HH21	2.24	0.59
41:DU:90:VAL:HG12	41:DU:91:ASP:N	2.10	0.59
17:AQ:43:LEU:O	17:AQ:69:LYS:HG3	2.02	0.59
7:CG:113:GLU:HG3	7:CG:119:ARG:HA	1.83	0.59
42:BV:19:LYS:CG	42:BV:94:LEU:HB2	2.22	0.59
10:CJ:48:THR:HA	10:CJ:62:HIS:CB	2.31	0.59
28:DD:83:GLU:HB2	28:DD:92:ILE:HD11	1.84	0.59
32:DH:12:PRO:CG	32:DH:49:VAL:HA	2.32	0.59
25:BA:404:C:C4'	25:BA:405:U:H5'	2.25	0.59
45:DY:43:ASN:O	45:DY:44:ILE:O	2.20	0.59
22:AW:62:C:H2'	22:AW:63:G:C8	2.37	0.59
26:BB:69:G:H2'	26:BB:70:C:C6	2.37	0.59
25:DA:1666:G:O2'	25:DA:1667:G:H5'	2.02	0.59
3:CC:189:ALA:O	3:CC:191:THR:HG23	2.02	0.59
25:BA:2307:G:C3'	25:BA:2307:G:N3	2.65	0.59
7:CG:15:ASP:HB3	7:CG:20:ASP:H	1.67	0.59
30:DF:8:GLN:CB	30:DF:126:VAL:HA	2.30	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BN:54:VAL:HB	34:BN:122:VAL:HG22	1.83	0.59
34:DN:48:MET:CE	34:DN:48:MET:H	2.15	0.59
9:CI:4:TYR:H	9:CI:4:TYR:HD1	1.49	0.59
31:BG:46:ALA:HB3	31:BG:82:LEU:HD13	1.84	0.59
2:AB:104:ASN:OD1	2:AB:107:THR:HB	2.02	0.59
2:AB:75:LYS:HG2	2:AB:78:GLN:HE21	1.66	0.59
35:BO:88:ASN:HA	35:BO:94:ARG:HE	1.67	0.59
25:BA:1221(A):C:H2'	25:BA:1222:C:H6	1.67	0.59
22:AY:35:A:H2'	22:AY:36:A:O4'	2.02	0.59
28:BD:161:THR:OG1	28:BD:196:VAL:HG21	2.02	0.59
37:BQ:34:LEU:HD11	37:BQ:129:THR:CB	2.31	0.59
25:BA:2672:G:C3'	25:BA:2673:G:H5''	2.32	0.59
30:DF:113:ALA:HB1	30:DF:186:ILE:HG21	1.84	0.59
36:BP:89:ALA:HA	36:BP:121:LYS:HD3	1.83	0.59
1:CA:1471:G:O2'	25:DA:1912:A:O3'	2.19	0.59
25:DA:2094:G:OP1	33:DI:22:LYS:HD2	2.02	0.59
2:AB:126:GLU:C	2:AB:128:GLU:H	2.03	0.59
1:CA:60:A:H4'	1:CA:61:G:O5'	2.01	0.59
26:BB:78:A:C2	26:BB:100:A:C4	2.90	0.59
25:BA:1647:G:H3'	25:BA:1647:G:OP2	2.02	0.59
25:DA:1647:G:H3'	25:DA:1647:G:OP2	2.02	0.59
12:CL:101:VAL:HG12	12:CL:104:VAL:HG23	1.84	0.59
9:AI:24:GLY:HA2	9:AI:59:PHE:O	2.01	0.59
1:CA:1130:U:H2'	1:CA:1131:C:O4'	2.01	0.59
1:CA:1131:C:H2'	1:CA:1132:U:C6	2.37	0.59
25:DA:1129:A:H4'	25:DA:2516:G:C5'	2.32	0.59
25:BA:911:A:H5''	25:BA:912:C:H5'	1.78	0.59
49:D2:63:VAL:HA	49:D2:66:GLU:HG2	1.84	0.59
22:CW:5:G:N3	22:CW:69:G:N2	2.50	0.59
23:CV:62:C:H2'	23:CV:63:C:H6	1.67	0.59
25:DA:282:A:C4	25:DA:359:A:C2	2.90	0.59
25:BA:870:A:C2	25:BA:871:U:H1'	2.38	0.59
13:AM:3:ARG:HG2	13:AM:9:ILE:HG12	1.85	0.59
39:BS:58:LEU:HD23	39:BS:65:VAL:HG13	1.84	0.59
39:DS:58:LEU:HD23	39:DS:65:VAL:HG13	1.84	0.59
25:BA:271(T):C:H5'	25:BA:271(T):C:C6	2.28	0.59
28:BD:33:LEU:HD21	28:BD:102:LYS:HZ2	1.66	0.59
8:CH:83:ILE:HG13	8:CH:137:VAL:HG22	1.84	0.59
22:CW:39:U:C5'	22:CW:39:U:H6	2.15	0.59
25:BA:2711:A:H5''	25:BA:2712:U:H5'	1.84	0.59
45:BY:29:GLU:N	45:BY:29:GLU:OE1	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B6:20:ASN:HD22	53:B6:21:TYR:H	1.48	0.59
9:AI:118:LYS:HZ2	9:AI:118:LYS:HB2	1.67	0.59
8:CH:9:MET:HB2	8:CH:26:VAL:HG21	1.82	0.59
3:CC:35:GLU:O	3:CC:39:ILE:HG13	2.03	0.59
37:DQ:81:VAL:CG2	47:D0:7:LEU:HD21	2.31	0.59
10:CJ:32:ALA:HB3	10:CJ:75:ILE:HG13	1.83	0.59
45:BY:16:ALA:HB1	45:BY:21:LYS:NZ	2.17	0.59
46:BZ:41:LEU:HD11	46:BZ:82:ARG:NH1	2.17	0.59
25:BA:814:C:O2'	25:BA:815:C:H5'	2.02	0.59
1:AA:387:G:H2'	1:AA:388:A:H8	1.66	0.59
25:BA:556:G:H2'	25:BA:557:U:C6	2.38	0.59
1:CA:1461:C:H4'	25:DA:1960:A:O2'	2.01	0.59
9:CI:21:PRO:HA	9:CI:58:HIS:O	2.01	0.59
2:CB:164:VAL:HB	2:CB:186:ALA:CB	2.31	0.59
25:BA:2257:U:O2'	25:BA:2258:C:H5'	2.03	0.59
1:AA:15:G:H1	1:AA:897:U:H3	1.49	0.59
4:AD:17:VAL:HG11	4:AD:197:PRO:CB	2.33	0.59
25:DA:2684:U:OP2	40:DT:53:ARG:NH2	2.33	0.59
25:DA:2682:U:O4	25:DA:2728:U:C1'	2.51	0.59
40:DT:57:PHE:O	40:DT:58:ASN:CB	2.49	0.59
27:DC:36:LYS:HZ2	27:DC:36:LYS:HA	1.65	0.59
13:AM:8:GLU:C	13:AM:9:ILE:HD12	2.22	0.59
41:DU:96:ALA:C	41:DU:98:LEU:H	2.05	0.59
26:BB:48:A:H4'	39:BS:95:HIS:CD2	2.31	0.59
14:CN:44:LEU:C	14:CN:44:LEU:HD12	2.22	0.59
45:DY:95:LYS:HG2	45:DY:100:ALA:CB	2.33	0.59
25:BA:914:C:H2'	25:BA:915:C:C5'	2.24	0.59
28:BD:31:LYS:HZ2	28:BD:102:LYS:HZ2	1.48	0.59
45:BY:99:CYS:O	45:BY:100:ALA:HB2	2.03	0.59
22:AW:38:A:H3'	22:AW:39:U:C5'	2.31	0.59
2:CB:178:ARG:HD2	8:CH:71:GLY:O	2.02	0.59
40:DT:89:VAL:CG2	40:DT:91:ARG:NE	2.65	0.59
25:BA:2406:U:O4	36:BP:70:GLN:HB3	2.02	0.59
25:BA:541:C:HO2'	25:BA:542:C:H5'	1.68	0.59
32:DH:116:GLU:HG2	32:DH:117:PRO:HD2	1.83	0.59
1:CA:1099:G:O3'	9:CI:104:ARG:HG3	2.01	0.59
46:BZ:166:SER:H	46:BZ:167:PRO:HA	1.67	0.59
29:DE:176:ILE:HG23	29:DE:178:GLU:HB3	1.83	0.59
37:DQ:137:TYR:OH	46:DZ:81:ARG:NH2	2.30	0.59
22:AW:18:G:N1	22:AW:55:U:O2'	2.31	0.59
36:DP:16:ARG:CZ	36:DP:16:ARG:HB2	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:817:C:H2'	1:AA:818:U:C6	2.37	0.59
1:AA:1258:C:HO2'	1:AA:1260:A:H8	1.51	0.59
1:CA:341:G:N2	1:CA:342:U:C6	2.71	0.59
8:AH:23:SER:HB3	8:AH:62:TYR:HA	1.85	0.59
6:CF:33:TYR:CE1	6:CF:75:LEU:HA	2.37	0.59
25:DA:1165:U:H2'	25:DA:1166:C:H6	1.66	0.59
1:AA:702:C:O2'	18:AR:49:LYS:HB3	2.02	0.59
51:B4:42:CYS:SG	51:B4:62:CYS:HB3	2.42	0.59
2:CB:126:GLU:C	2:CB:128:GLU:H	2.03	0.59
25:DA:228:A:H5'	25:DA:229:A:OP2	2.01	0.59
34:BN:78:TYR:N	34:BN:78:TYR:CD1	2.70	0.59
25:BA:709:U:H2'	25:BA:710:G:C8	2.37	0.59
25:DA:709:U:H2'	25:DA:710:G:C8	2.37	0.59
25:DA:2498:C:O2'	25:DA:2499:C:H5'	2.02	0.59
1:AA:885:A:H2'	1:AA:886:A:C8	2.37	0.59
25:BA:1858:G:H2'	25:BA:1883:G:H22	1.66	0.59
13:AM:90:LEU:HA	13:AM:93:ARG:CB	2.33	0.59
25:DA:1158:C:HO2'	50:D3:32:GLN:HG3	1.63	0.59
42:BV:45:THR:O	42:BV:46:VAL:HG12	2.01	0.59
25:BA:1880:C:H5'	25:BA:1880:C:C6	2.27	0.59
45:DY:29:GLU:OE1	45:DY:29:GLU:N	2.35	0.59
25:BA:2491:U:H4'	25:BA:2570:G:OP1	2.02	0.59
25:BA:95:G:H1'	49:B2:47:ASN:HD22	1.68	0.59
39:DS:101:LEU:CD1	39:DS:101:LEU:H	2.15	0.59
25:BA:915:C:H2'	25:BA:916:G:H8	1.65	0.59
28:DD:36:PRO:HA	28:DD:62:TYR:O	2.00	0.59
28:BD:27:THR:HG23	28:BD:27:THR:O	2.02	0.59
13:AM:116:THR:HG22	13:AM:117:VAL:N	2.17	0.59
39:BS:49:VAL:HG21	39:BS:77:ALA:HA	1.84	0.59
42:DV:18:LEU:HD13	42:DV:19:LYS:N	2.17	0.59
2:CB:67:THR:CB	2:CB:155:LEU:HD21	2.32	0.59
25:DA:2711:A:H5''	25:DA:2712:U:H5'	1.84	0.59
2:AB:19:HIS:ND1	2:AB:189:ASP:OD2	2.36	0.59
25:DA:2186:G:N1	25:DA:2187:G:C5	2.70	0.59
22:AY:37:A:H5'	22:AY:38:A:OP2	2.01	0.59
25:BA:2186:G:N1	25:BA:2187:G:C5	2.70	0.59
25:DA:272:G:O4'	25:DA:272(B):G:O2'	2.18	0.59
25:BA:1446:C:C2'	25:BA:1447:G:H5'	2.31	0.59
25:DA:1991:U:O2'	25:DA:1992:G:H5'	2.02	0.59
26:DB:106:G:H5'	46:DZ:31:ARG:HB2	1.83	0.59
22:AW:55:U:C5	22:AW:58:A:OP2	2.56	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:6:LEU:HD12	17:AQ:6:LEU:N	2.16	0.59
31:DG:174:GLU:HB3	31:DG:175:LEU:HD12	1.85	0.59
49:B2:63:VAL:HA	49:B2:66:GLU:HG2	1.85	0.59
37:BQ:66:ILE:HG22	37:BQ:104:PHE:HE2	1.65	0.59
45:DY:88:LYS:HZ1	45:DY:93:GLY:HA3	1.68	0.59
43:BW:9:TYR:CD2	43:BW:9:TYR:N	2.69	0.59
3:CC:92:ALA:HB2	3:CC:99:VAL:HG21	1.84	0.59
25:DA:75:G:H4'	49:D2:55:ARG:HH11	1.67	0.59
9:AI:21:PRO:HA	9:AI:58:HIS:O	2.02	0.59
1:AA:559:G:N2	1:AA:742:A:OP1	2.31	0.59
1:CA:57:G:H2'	1:CA:58:C:C6	2.38	0.59
1:CA:934:U:H4'	19:CS:79:THR:HB	1.85	0.59
9:AI:56:LEU:HD23	9:AI:56:LEU:O	2.02	0.59
3:AC:126:ARG:HG2	3:AC:126:ARG:HH11	1.67	0.59
34:BN:3:THR:O	34:BN:5:VAL:HG12	2.03	0.59
43:DW:24:ILE:CG2	43:DW:36:LEU:HD21	2.32	0.59
13:AM:76:ALA:O	13:AM:79:LYS:HB2	2.02	0.59
25:BA:888:C:C2'	25:BA:889:C:H5'	2.32	0.59
13:AM:7:VAL:HG23	31:BG:115:ARG:HA	1.85	0.59
25:BA:1594:G:H5'	25:BA:1594:G:H8	1.67	0.59
14:CN:59:ALA:O	14:CN:60:SER:HB2	2.03	0.59
28:DD:77:ALA:CB	28:DD:97:TYR:HA	2.31	0.59
32:DH:12:PRO:O	32:DH:13:LYS:HB2	2.02	0.59
33:BI:88:ILE:HG22	33:BI:89:TYR:N	2.18	0.59
25:DA:1202:C:H2'	25:DA:1203:G:H5'	1.83	0.59
23:CV:70:C:H2'	23:CV:71:G:H8	1.65	0.59
26:DB:15:A:H3'	26:DB:16:G:C5'	2.30	0.59
30:BF:47:GLY:HA3	30:BF:95:ARG:O	2.02	0.59
26:DB:41:U:C2	31:DG:70:VAL:HG23	2.37	0.59
25:BA:1378:A:OP1	54:B7:10:ARG:NH2	2.35	0.59
28:BD:270:ILE:O	28:BD:271:ILE:HG12	2.03	0.59
1:CA:1184:C:H2'	1:CA:1185:A:H8	1.66	0.59
33:DI:133:HIS:HB2	33:DI:134:PRO:HD2	1.85	0.59
25:BA:379:G:H2'	25:BA:380:U:C4'	2.32	0.59
25:BA:363(E):U:H2'	25:BA:363(F):A:C1'	2.31	0.59
8:AH:60:ARG:NH1	8:AH:60:ARG:HG3	2.14	0.59
25:DA:2555:U:H2'	25:DA:2556:C:H5'	1.83	0.59
28:BD:13:ARG:NH1	28:BD:16:MET:SD	2.75	0.59
1:CA:229:C:H2'	1:CA:230:C:H6	1.68	0.59
6:CF:49:ALA:HB2	18:CR:78:LEU:O	2.01	0.59
32:BH:38:SER:C	32:BH:40:GLU:H	2.06	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DN:78:TYR:CD1	34:DN:78:TYR:N	2.70	0.59
1:AA:522:A:OP2	12:AL:115:LYS:NZ	2.35	0.59
7:CG:16:LEU:CD1	9:CI:42:ARG:HA	2.32	0.59
8:AH:5:PRO:O	8:AH:8:ASP:HB3	2.01	0.59
25:BA:954:G:OP1	37:BQ:15:GLY:N	2.35	0.59
10:AJ:62:HIS:O	14:AN:59:ALA:HB3	2.02	0.59
53:B6:25:LYS:HD3	55:B8:34:TRP:CZ2	2.38	0.59
55:B8:50:LEU:HD12	55:B8:51:ALA:N	2.17	0.59
25:BA:2334:G:H21	39:BS:18:ILE:CG1	2.15	0.59
17:AQ:68:ARG:O	17:AQ:68:ARG:HG3	2.02	0.59
45:BY:95:LYS:HG2	45:BY:100:ALA:CB	2.32	0.59
23:AV:20:G:H21	23:AV:58:A:H1'	1.65	0.59
33:DI:88:ILE:HG22	33:DI:89:TYR:N	2.17	0.59
23:CV:42:C:C2'	23:CV:43:G:O5'	2.50	0.59
29:BE:176:ILE:HG23	29:BE:178:GLU:HB3	1.83	0.59
36:BP:91:PHE:N	36:BP:91:PHE:CD1	2.70	0.59
12:AL:92:ASP:O	12:AL:93:LEU:HD23	2.02	0.59
22:AW:57:G:N3	22:AW:57:G:H2'	2.17	0.59
25:DA:1221(A):C:H2'	25:DA:1222:C:H6	1.67	0.59
16:AP:20:VAL:CG2	16:AP:32:TYR:HB2	2.33	0.59
11:CK:125:PHE:N	11:CK:125:PHE:HD1	2.00	0.59
38:BR:45:ARG:HG3	38:BR:46:GLY:H	1.66	0.59
25:BA:1411:C:H2'	25:BA:1412:A:H8	1.66	0.59
25:BA:2419:U:O4	55:B8:30:ARG:NH2	2.36	0.59
2:AB:97:TRP:HH2	2:AB:176:GLU:CD	2.06	0.59
6:CF:10:LEU:HD12	6:CF:10:LEU:N	2.18	0.59
25:BA:1609:A:C2	25:BA:1616:A:C5	2.90	0.59
44:BX:32:PRO:HA	44:BX:77:LYS:HB3	1.85	0.59
2:AB:121:LEU:O	2:AB:121:LEU:HD23	2.02	0.59
25:DA:1482:G:N2	25:DA:1507:A:H1'	2.17	0.59
30:DF:57:VAL:HG13	30:DF:59:TYR:CD1	2.38	0.59
8:CH:80:ILE:O	8:CH:80:ILE:HG22	2.02	0.59
1:AA:1256:A:H2'	1:AA:1257:G:O4'	2.02	0.59
43:BW:10:VAL:O	43:BW:11:ARG:HB2	2.01	0.59
16:CP:25:ARG:HG3	16:CP:25:ARG:HH11	1.68	0.59
13:AM:90:LEU:HA	13:AM:93:ARG:HB2	1.84	0.59
29:DE:59:VAL:O	29:DE:60:ASN:CB	2.49	0.59
25:BA:1819:A:O2'	25:BA:1820:U:OP2	2.17	0.59
25:BA:2262:U:C2'	25:BA:2263:C:H5''	2.33	0.59
25:DA:97:C:H5''	49:D2:2:LYS:HB2	1.83	0.59
22:CW:2:C:C6	22:CW:3:C:H5	2.20	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:10:PHE:HZ	19:AS:70:LYS:CE	2.15	0.59
45:DY:16:ALA:HA	45:DY:21:LYS:HD2	1.84	0.59
25:DA:870:A:C2	25:DA:871:U:H1'	2.38	0.59
25:DA:2467:C:O2	37:DQ:124:LYS:NZ	2.35	0.59
1:CA:1294:U:O4	19:CS:4:SER:N	2.35	0.59
28:DD:26:LYS:HE2	28:DD:82:ILE:H	1.68	0.59
53:D6:25:LYS:HD3	55:D8:34:TRP:HZ2	1.67	0.59
8:CH:41:ARG:O	8:CH:41:ARG:HG2	2.02	0.59
45:DY:8:LYS:CD	45:DY:8:LYS:H	2.05	0.59
25:BA:2682:U:O4	25:BA:2728:U:C1'	2.51	0.59
25:DA:1287:A:C6	25:DA:1288:U:C4	2.90	0.59
25:DA:481:G:OP2	45:DY:47:LYS:CE	2.48	0.59
1:CA:821:G:H2'	1:CA:822:U:H5'	1.85	0.59
33:DI:133:HIS:CB	33:DI:134:PRO:CD	2.80	0.59
25:DA:845:G:N2	25:DA:933:A:H61	1.96	0.59
25:BA:845:G:N2	25:BA:933:A:H61	1.99	0.59
28:DD:154:LYS:C	28:DD:155:LEU:HD12	2.22	0.59
53:B6:36:LEU:HD13	53:B6:50:ARG:HH12	1.67	0.59
44:DX:36:LYS:HD3	44:DX:56:THR:HG23	1.85	0.59
51:D4:42:CYS:SG	51:D4:62:CYS:HB3	2.43	0.59
25:DA:2571:C:H5''	25:DA:2572:A:H5''	1.85	0.59
28:DD:30:GLU:CD	28:DD:63:ARG:HE	2.06	0.59
25:BA:2533:A:H3'	25:BA:2534:A:H5''	1.83	0.59
25:DA:2271:G:OP1	47:D0:18:ALA:HB1	2.01	0.59
13:AM:47:ASP:O	13:AM:48:LEU:HB3	2.03	0.59
32:BH:14:GLY:O	32:BH:29:PRO:HD3	2.03	0.59
21:CU:5:ASP:HB3	21:CU:8:THR:CG2	2.33	0.59
4:AD:119:GLN:HG3	4:AD:123:HIS:CD2	2.36	0.59
28:DD:134:ARG:HG3	28:DD:135:PHE:CD2	2.38	0.59
28:DD:161:THR:OG1	28:DD:196:VAL:HG21	2.02	0.59
14:AN:26:ARG:NH2	14:AN:47:LEU:HD11	2.17	0.59
22:CW:56:C:C4	22:CW:57:G:N7	2.70	0.59
36:BP:55:ARG:CG	36:BP:56:SER:H	2.05	0.59
25:DA:2484:G:O2'	25:DA:2485:G:H5'	2.02	0.59
37:DQ:133:ARG:HG3	37:DQ:133:ARG:NH1	2.16	0.59
13:CM:116:THR:C	13:CM:117:VAL:HG23	2.22	0.59
31:BG:113:ARG:NE	31:BG:113:ARG:HA	2.18	0.59
25:DA:2377:A:H4'	39:DS:108:GLY:HA2	1.85	0.59
13:CM:108:ARG:NH1	13:CM:111:LYS:HB2	2.17	0.59
42:DV:18:LEU:HD22	42:DV:19:LYS:N	2.18	0.59
25:BA:2712:U:O2'	25:BA:2713:A:H5'	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:16:MET:CE	28:DD:208:LYS:HD2	2.32	0.59
32:BH:92:ILE:HG22	32:BH:93:GLY:N	2.18	0.59
1:AA:1266:A:H4'	1:AA:1267:A:H5''	1.84	0.59
25:BA:1019:U:O2'	25:BA:1021:A:H2	1.84	0.59
25:BA:1287:A:C6	25:BA:1288:U:C4	2.90	0.59
26:BB:68:C:H2'	26:BB:69:G:C8	2.37	0.59
38:DR:10:LEU:HD22	38:DR:17:ARG:CD	2.29	0.59
20:AT:72:LEU:HD21	20:AT:77:ALA:N	2.18	0.59
33:BI:133:HIS:HB2	33:BI:134:PRO:HD2	1.85	0.59
28:DD:43:ARG:NH1	28:DD:44:ASN:ND2	2.49	0.59
2:CB:77:ALA:HB2	2:CB:211:ILE:CD1	2.32	0.59
36:BP:127:ALA:O	36:BP:148:LEU:HD12	2.02	0.59
1:AA:1476:A:OP2	1:AA:1482:G:OP1	2.21	0.59
12:AL:49:ASN:ND2	12:AL:92:ASP:OD2	2.36	0.59
37:DQ:12:GLN:NE2	37:DQ:72:LYS:HA	2.18	0.59
29:DE:116:VAL:HG21	29:DE:122:PHE:CD2	2.38	0.59
36:BP:16:ARG:CZ	36:BP:16:ARG:HB2	2.32	0.59
26:BB:106:G:H5'	46:BZ:31:ARG:HB2	1.83	0.59
25:DA:1609:A:C2	25:DA:1616:A:C5	2.90	0.59
25:BA:1854:A:H62	25:BA:1888:G:H8	1.50	0.59
25:DA:2080:G:O5'	48:D1:35:THR:CG2	2.51	0.59
25:DA:1339:G:N2	25:DA:1603:A:H1'	2.16	0.59
25:BA:2223:G:C2'	25:BA:2224:G:H5'	2.33	0.59
26:DB:25:A:H2'	26:DB:26:A:O4'	2.03	0.59
29:BE:173:VAL:HG12	29:BE:174:ASP:H	1.67	0.59
42:DV:82:ARG:HH11	42:DV:82:ARG:HG2	1.68	0.59
1:AA:169:C:H4'	20:AT:25:ARG:NH1	2.17	0.59
25:DA:888:C:C2'	25:DA:889:C:H5'	2.32	0.59
23:CV:49:C:C5	23:CV:60:A:H1'	2.37	0.59
42:BV:18:LEU:HD13	42:BV:19:LYS:N	2.17	0.59
25:DA:2759:G:O2'	25:DA:2760:C:H5'	2.02	0.59
25:BA:94(A):G:H2'	25:BA:95:G:O4'	2.02	0.59
10:CJ:62:HIS:O	14:CN:59:ALA:HB3	2.01	0.59
25:BA:2759:G:O2'	25:BA:2760:C:H5'	2.03	0.59
36:DP:61:ARG:HD2	55:D8:13:ARG:HD2	1.84	0.59
2:AB:67:THR:CB	2:AB:155:LEU:HD21	2.32	0.59
33:BI:114:LEU:O	33:BI:115:ALA:HB3	2.03	0.59
1:AA:196:U:H2'	1:AA:197:G:H8	1.65	0.59
40:DT:16:ARG:NH2	40:DT:82:LEU:O	2.36	0.59
28:DD:13:ARG:NH1	28:DD:16:MET:SD	2.75	0.59
25:BA:2611:U:O2'	52:B5:3:LYS:HE2	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2849:U:P	40:DT:95:ARG:CZ	2.91	0.59
29:BE:203:LYS:HE3	29:BE:203:LYS:O	2.03	0.59
18:CR:70:ILE:HG22	18:CR:74:ARG:HD2	1.83	0.59
16:CP:20:VAL:HG21	16:CP:32:TYR:HB2	1.84	0.59
42:DV:68:LYS:NZ	42:DV:68:LYS:HB2	2.17	0.59
1:CA:1035:G:H3'	1:CA:1036:C:H5'	1.84	0.59
1:AA:1240:C:N4	1:AA:1241:C:O2	2.36	0.59
25:BA:144:C:H2'	25:BA:145:G:C8	2.38	0.59
1:AA:1102:G:H2'	1:AA:1103:U:H6	1.66	0.59
25:BA:2571:C:H5''	25:BA:2572:A:H5''	1.85	0.59
1:CA:1131:C:H2'	1:CA:1132:U:H6	1.66	0.59
12:CL:11:VAL:HG13	17:CQ:29:HIS:HD2	1.67	0.59
2:AB:112:VAL:HG11	2:AB:153:ARG:HA	1.83	0.59
25:DA:2650:U:O2'	25:DA:2651:C:H5'	2.03	0.59
4:CD:17:VAL:HG11	4:CD:197:PRO:CB	2.32	0.59
5:AE:147:ASP:OD2	5:AE:147:ASP:N	2.34	0.59
30:BF:57:VAL:HG13	30:BF:59:TYR:CD1	2.38	0.59
25:DA:1405:U:H2'	25:DA:1406:U:C6	2.38	0.59
29:BE:49:LEU:CD1	29:BE:49:LEU:H	2.13	0.59
25:BA:2515:C:H2'	25:BA:2516:G:H5'	1.81	0.59
25:DA:2262:U:C2'	25:DA:2263:C:H5''	2.33	0.59
25:DA:104:U:C6	25:DA:105:C:C6	2.90	0.59
22:CW:4:C:O5'	22:CW:4:C:H6	1.86	0.59
51:B4:37:PRO:O	51:B4:55:PRO:HG3	2.03	0.59
1:AA:956:C:H42	14:AN:18:VAL:HG12	1.68	0.59
55:B8:4:MET:O	55:B8:62:LEU:CD1	2.51	0.59
40:BT:80:SER:HB3	40:BT:81:PRO:CD	2.32	0.59
39:DS:34:HIS:CD2	39:DS:54:LEU:HB2	2.38	0.59
33:BI:4:ILE:HG12	33:BI:18:VAL:CG2	2.33	0.59
33:BI:58:LEU:HA	33:BI:61:ARG:HD2	1.85	0.59
53:D6:25:LYS:HD3	55:D8:34:TRP:CZ2	2.38	0.59
28:BD:31:LYS:NZ	28:BD:102:LYS:HZ2	2.00	0.59
28:BD:26:LYS:HZ3	28:BD:82:ILE:H	1.50	0.59
2:CB:67:THR:CG2	2:CB:155:LEU:HD21	2.33	0.59
30:BF:4:VAL:HA	30:BF:19:GLU:HB3	1.84	0.59
32:BH:159:GLU:CG	32:BH:160:LYS:N	2.61	0.59
25:BA:589:C:O3'	30:BF:95:ARG:NH1	2.35	0.59
32:DH:125:VAL:HG12	32:DH:127:GLU:O	2.03	0.59
25:DA:353:G:C6	25:DA:354:G:N7	2.71	0.59
36:BP:126:VAL:CG1	36:BP:148:LEU:HD11	2.33	0.59
25:DA:1996:C:C5	35:DO:32:TYR:OH	2.54	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1131:C:H2'	1:AA:1132:U:C6	2.32	0.59
31:DG:101:ILE:HD13	31:DG:102:PHE:N	2.18	0.59
1:AA:1286:G:N2	1:AA:1312:G:O2'	2.32	0.59
25:BA:483:A:O2'	45:BY:60:PHE:HZ	1.85	0.59
22:AY:36:A:H61	24:AX:19:U:H3	1.51	0.59
46:DZ:74:VAL:HG22	46:DZ:86:VAL:HG12	1.85	0.59
5:AE:87:SER:HB3	5:AE:131:ILE:HD13	1.84	0.59
3:AC:182:ILE:HG12	3:AC:203:PHE:HA	1.85	0.59
25:DA:2672:G:C3'	25:DA:2673:G:H5''	2.32	0.59
30:BF:155:LEU:HD23	30:BF:186:ILE:HD13	1.84	0.59
25:BA:1666:G:O2'	25:BA:1667:G:H5'	2.02	0.59
4:CD:79:PHE:CE1	4:CD:204:ILE:HD13	2.38	0.59
1:CA:340:C:N4	35:DO:107:ARG:HH12	2.01	0.59
1:AA:971:A:N7	1:AA:1197:G:H4'	2.18	0.59
34:DN:3:THR:O	34:DN:5:VAL:HG12	2.03	0.59
32:DH:14:GLY:O	32:DH:29:PRO:HD3	2.03	0.59
25:DA:1709:U:H2'	25:DA:1710:C:C6	2.38	0.59
25:DA:564:C:O2'	25:DA:565:C:H5'	2.03	0.59
1:CA:928:G:OP2	13:CM:102:ARG:NH2	2.36	0.58
29:DE:51:PHE:HE1	29:DE:52:LEU:CD2	2.02	0.58
25:BA:104:U:C6	25:BA:105:C:C6	2.90	0.58
40:DT:55:ASN:N	40:DT:59:THR:CG2	2.43	0.58
36:BP:62:LEU:HD23	36:BP:62:LEU:H	1.68	0.58
51:B4:60:GLU:O	51:B4:61:VAL:HB	2.02	0.58
14:CN:26:ARG:NH2	14:CN:47:LEU:HD11	2.18	0.58
25:BA:271(P):C:H5'	33:BI:46:ALA:HB2	1.85	0.58
7:AG:62:PHE:HD1	7:AG:124:LEU:HD21	1.68	0.58
1:CA:250:G:H1'	17:CQ:16:GLN:OE1	2.02	0.58
39:DS:49:VAL:HG21	39:DS:77:ALA:HA	1.84	0.58
30:DF:24:LEU:HB3	30:DF:25:PRO:HD2	1.84	0.58
30:DF:4:VAL:HA	30:DF:19:GLU:HB3	1.84	0.58
25:BA:1652:A:C2'	25:BA:1653:G:H5''	2.33	0.58
38:DR:12:ARG:HD3	38:DR:16:HIS:ND1	2.17	0.58
46:DZ:166:SER:H	46:DZ:167:PRO:HA	1.67	0.58
1:CA:1319:G:H2'	1:CA:1320:A:C8	2.38	0.58
25:DA:845:G:H8	25:DA:845:G:OP2	1.86	0.58
36:BP:97:PRO:C	36:BP:99:LEU:H	2.06	0.58
48:D1:67:ILE:N	48:D1:68:PRO:CD	2.66	0.58
25:DA:2675:A:C4'	35:DO:29:ASN:ND2	2.65	0.58
3:CC:71:ALA:HB2	3:CC:106:VAL:HB	1.84	0.58
25:BA:143:G:H2'	25:BA:143(A):C:H6	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1754:C:P	40:DT:96:ARG:HH12	2.26	0.58
35:BO:12:ASP:OD2	35:BO:14:THR:N	2.36	0.58
8:CH:23:SER:HB3	8:CH:62:TYR:HA	1.84	0.58
53:D6:32:ASN:ND2	53:D6:33:LYS:H	2.01	0.58
30:DF:155:LEU:HD23	30:DF:186:ILE:HD13	1.84	0.58
47:B0:27:GLU:HB2	47:B0:69:PHE:HD1	1.66	0.58
44:BX:24:GLY:O	44:BX:82:GLN:HA	2.03	0.58
25:BA:1620:G:O2'	54:B7:2:LYS:HG2	2.03	0.58
1:CA:905:G:N2	1:CA:1372:U:H1'	2.18	0.58
25:BA:1405:U:H2'	25:BA:1406:U:C6	2.38	0.58
31:DG:76:SER:HB2	31:DG:83:ARG:HD3	1.85	0.58
40:DT:30:VAL:HA	40:DT:43:GLN:O	2.02	0.58
29:BE:78:LEU:O	29:BE:79:ARG:HD2	2.04	0.58
25:BA:315:G:H2'	25:BA:316:C:H6	1.66	0.58
23:CV:15:G:N2	23:CV:49:C:H41	1.99	0.58
55:D8:4:MET:O	55:D8:62:LEU:CD1	2.51	0.58
39:BS:101:LEU:H	39:BS:101:LEU:CD1	2.15	0.58
13:CM:70:LEU:CD2	13:CM:70:LEU:O	2.38	0.58
25:DA:2376:A:N3	39:DS:94:TYR:CE1	2.71	0.58
36:DP:58:THR:O	36:DP:61:ARG:NE	2.35	0.58
13:AM:116:THR:O	13:AM:117:VAL:HB	2.03	0.58
29:DE:49:LEU:H	29:DE:49:LEU:CD1	2.13	0.58
22:AW:35:A:H2'	22:AW:36:A:O4'	2.03	0.58
25:DA:2712:U:O2'	25:DA:2713:A:H5'	2.03	0.58
34:DN:87:LEU:O	34:DN:90:MET:HB2	2.03	0.58
30:DF:1:MET:HE1	30:DF:26:ALA:HB1	1.84	0.58
32:BH:125:VAL:HG12	32:BH:127:GLU:O	2.03	0.58
1:AA:1233:A:H61	1:AA:1266:A:H61	1.49	0.58
25:DA:2763:G:H5'	25:DA:2763:G:C8	2.39	0.58
34:BN:87:LEU:O	34:BN:90:MET:HB2	2.03	0.58
26:BB:13:A:H2'	26:BB:70:C:O2'	2.03	0.58
1:CA:290:C:O2'	1:CA:291:U:H5'	2.03	0.58
25:DA:2849:U:O4	40:DT:23:ARG:NH2	2.32	0.58
44:BX:60:ARG:NH1	54:B7:47:ARG:NH2	2.45	0.58
31:BG:44:GLY:H	31:BG:88:ILE:HG12	1.68	0.58
26:DB:3:C:N3	26:DB:118:G:N2	2.51	0.58
25:DA:1464:C:H4'	25:DA:1528(A):A:C1'	2.33	0.58
36:DP:126:VAL:CG1	36:DP:148:LEU:HD11	2.33	0.58
36:DP:97:PRO:C	36:DP:99:LEU:H	2.06	0.58
37:BQ:12:GLN:NE2	37:BQ:72:LYS:HA	2.18	0.58
48:B1:68:PRO:HG2	48:B1:69:LYS:H	1.66	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:41:GLY:O	3:CC:45:LYS:HG3	2.04	0.58
5:AE:150:ARG:HB2	5:AE:150:ARG:CZ	2.33	0.58
4:CD:196:LEU:HD12	4:CD:196:LEU:N	2.18	0.58
1:AA:535:U:H4'	12:AL:86:ARG:HG2	1.86	0.58
49:D2:43:GLN:O	49:D2:44:LEU:HB2	2.03	0.58
35:BO:88:ASN:N	35:BO:92:GLU:O	2.26	0.58
15:CO:4:THR:HB	15:CO:6:GLU:OE2	2.03	0.58
1:CA:982:A:N6	1:CA:1017:A:N7	2.50	0.58
3:AC:182:ILE:HG23	3:AC:202:ILE:O	2.03	0.58
3:CC:58:GLU:O	3:CC:64:VAL:HA	2.03	0.58
3:CC:134:ILE:HD11	3:CC:153:VAL:CG2	2.33	0.58
46:BZ:11:GLU:HB2	46:BZ:13:GLU:OE2	2.01	0.58
1:AA:553:G:O3'	1:AA:802:A:O2'	2.21	0.58
25:DA:556:G:H2'	25:DA:557:U:C6	2.37	0.58
25:DA:2257:U:O2'	25:DA:2258:C:H5'	2.02	0.58
25:BA:1709:U:H2'	25:BA:1710:C:C6	2.38	0.58
25:BA:2662:A:H2'	25:BA:2663:G:O4'	2.01	0.58
25:DA:2689:U:H4'	25:DA:2690:C:H6	1.66	0.58
26:BB:25:A:H2'	26:BB:26:A:O4'	2.03	0.58
25:BA:2498:C:O2'	25:BA:2499:C:H5'	2.02	0.58
30:DF:127:GLU:HB2	30:DF:196:LEU:CG	2.33	0.58
17:CQ:76:LEU:HD12	17:CQ:77:VAL:H	1.67	0.58
1:CA:1470:A:H2'	25:DA:1913:A:N1	2.18	0.58
1:CA:1007:C:H4'	1:CA:1015:G:H22	1.67	0.58
43:DW:19:LEU:O	52:D5:25:LEU:HD12	2.03	0.58
13:AM:97:PRO:CD	13:AM:110:ARG:CD	2.81	0.58
20:CT:26:ASN:HB3	20:CT:71:THR:CB	2.33	0.58
40:DT:98:LYS:HB3	40:DT:100:TYR:CE1	2.38	0.58
31:BG:101:ILE:HD13	31:BG:102:PHE:N	2.18	0.58
25:BA:2390:U:O2'	25:BA:2391:G:C5'	2.50	0.58
19:AS:6:LYS:CG	19:AS:7:LYS:HE3	2.33	0.58
25:BA:2468:G:OP1	37:BQ:119:ARG:NH2	2.36	0.58
25:BA:2484:G:O2'	25:BA:2485:G:H5'	2.02	0.58
30:DF:36:VAL:CG1	30:DF:183:VAL:HG21	2.34	0.58
8:AH:6:ILE:HG22	8:AH:10:LEU:CD1	2.32	0.58
22:CW:37:A:H2'	22:CW:38:A:C8	2.38	0.58
22:CW:36:A:N6	22:CW:37:A:N7	2.52	0.58
17:CQ:67:LYS:HA	17:CQ:70:ARG:NH1	2.18	0.58
33:DI:4:ILE:HG12	33:DI:18:VAL:CG2	2.33	0.58
33:BI:92:VAL:O	33:BI:92:VAL:HG22	2.03	0.58
25:DA:2482:G:H22	37:DQ:52:VAL:HG11	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BH:30:LYS:HB2	32:BH:79:VAL:HA	1.85	0.58
25:BA:2469:A:N6	25:BA:2481:G:H1'	2.17	0.58
32:DH:92:ILE:HG22	32:DH:93:GLY:N	2.18	0.58
45:BY:31:LEU:HD22	45:BY:31:LEU:H	1.68	0.58
7:CG:74:GLU:HG2	7:CG:91:VAL:HG22	1.86	0.58
2:CB:16:HIS:HD2	2:CB:210:SER:HA	1.68	0.58
2:CB:204:ASN:ND2	2:CB:207:ALA:H	1.95	0.58
46:DZ:151:HIS:CB	46:DZ:170:THR:HA	2.33	0.58
29:DE:203:LYS:HE3	29:DE:203:LYS:O	2.03	0.58
25:BA:581:C:OP1	41:BU:33:ARG:HG2	2.01	0.58
39:BS:106:ARG:NH1	39:BS:107:GLU:O	2.35	0.58
5:AE:100:VAL:HG13	5:AE:118:ILE:HG23	1.84	0.58
22:CY:27:G:H3'	22:CY:27:G:H8	1.68	0.58
10:AJ:15:THR:O	10:AJ:94:VAL:HG21	2.03	0.58
30:BF:6:VAL:HG12	30:BF:7:TYR:O	2.03	0.58
1:CA:1236:G:C5'	3:CC:26:LYS:HZ2	2.15	0.58
1:AA:438:C:H2'	1:AA:439:G:C8	2.38	0.58
3:AC:62:ASP:O	3:AC:98:ASN:HB3	2.03	0.58
18:AR:82:THR:CG2	18:AR:83:GLU:N	2.66	0.58
44:BX:31:HIS:ND1	44:BX:32:PRO:HD2	2.18	0.58
28:BD:131:LEU:N	28:BD:131:LEU:HD12	2.18	0.58
1:CA:414:C:H2'	1:CA:414:C:O2	2.03	0.58
35:DO:48:PRO:O	35:DO:50:GLY:N	2.36	0.58
1:CA:563:U:H2'	1:CA:564:G:O4'	2.03	0.58
7:AG:16:LEU:CD1	9:AI:42:ARG:HA	2.33	0.58
25:BA:1675:C:C2	29:BE:129:HIS:CD2	2.91	0.58
32:DH:86:GLU:N	32:DH:86:GLU:OE1	2.36	0.58
29:BE:52:LEU:HD23	29:BE:76:ARG:N	2.19	0.58
25:DA:271(U):G:H2'	25:DA:271(V):G:C5'	2.08	0.58
25:BA:2264:C:H2'	25:BA:2265:U:H6	1.67	0.58
28:BD:244:ARG:CG	28:BD:245:PRO:CD	2.62	0.58
22:CW:14:A:C6	22:CW:22:G:C2	2.90	0.58
25:DA:271(T):C:H5'	25:DA:271(T):C:C6	2.28	0.58
39:BS:34:HIS:CD2	39:BS:54:LEU:HB2	2.38	0.58
13:CM:5:ALA:HB2	13:CM:66:LEU:HD11	1.84	0.58
8:AH:103:VAL:HG21	8:AH:109:ILE:O	2.03	0.58
12:CL:25:PRO:O	12:CL:27:LEU:HD22	2.03	0.58
25:DA:90:U:H1'	25:DA:92:A:H8	1.68	0.58
42:DV:19:LYS:CG	42:DV:94:LEU:HB2	2.22	0.58
40:DT:89:VAL:HG11	40:DT:91:ARG:CZ	2.33	0.58
39:DS:71:ARG:O	39:DS:74:ALA:HB3	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:200:ILE:HG22	2:AB:202:PRO:HD3	1.85	0.58
36:BP:23:PRO:HB2	36:BP:33:ARG:HG3	1.85	0.58
5:CE:80:ILE:HG22	8:CH:104:ARG:HH22	1.65	0.58
9:CI:99:LEU:HD13	9:CI:99:LEU:O	2.03	0.58
25:DA:2822:G:H2'	25:DA:2823:A:H5''	1.85	0.58
31:DG:39:ILE:HD12	31:DG:40:ASN:H	1.68	0.58
25:BA:2330:G:H2'	25:BA:2331:G:C5'	2.33	0.58
31:BG:39:ILE:HD12	31:BG:40:ASN:H	1.68	0.58
20:AT:26:ASN:CB	20:AT:71:THR:HG23	2.32	0.58
15:CO:74:ASP:OD2	15:CO:77:ARG:HG2	2.04	0.58
2:CB:88:ALA:HB2	2:CB:219:VAL:HG13	1.85	0.58
28:BD:16:MET:CE	28:BD:208:LYS:HD2	2.32	0.58
34:DN:4:TYR:CD1	34:DN:4:TYR:N	2.72	0.58
31:DG:175:LEU:CD1	31:DG:175:LEU:H	2.17	0.58
1:CA:627:G:H5'	8:CH:92:ARG:NH2	2.18	0.58
44:BX:36:LYS:HD3	44:BX:56:THR:HG23	1.85	0.58
31:DG:51:ARG:HE	31:DG:51:ARG:HA	1.67	0.58
28:BD:134:ARG:HG3	28:BD:135:PHE:CD2	2.38	0.58
3:CC:61:ALA:O	3:CC:62:ASP:HB2	2.03	0.58
30:BF:113:ALA:HB1	30:BF:186:ILE:HG21	1.84	0.58
40:DT:33:LYS:HG3	40:DT:41:ARG:HH11	1.68	0.58
30:BF:127:GLU:HB2	30:BF:196:LEU:CG	2.33	0.58
3:CC:155:GLY:O	3:CC:156:ARG:HB2	2.03	0.58
25:BA:1745(A):C:H5'	25:BA:1746:G:OP2	2.02	0.58
27:BC:47:LEU:HD23	27:BC:47:LEU:H	1.68	0.58
1:CA:758:G:N2	1:CA:787:U:O4	2.36	0.58
19:CS:53:ASN:O	19:CS:77:THR:HG22	2.04	0.58
39:DS:12:PHE:O	39:DS:12:PHE:HD1	1.85	0.58
25:DA:2831:G:P	29:DE:58:ARG:HH22	2.26	0.58
26:DB:78:A:C2	26:DB:100:A:C4	2.90	0.58
20:CT:97:ALA:O	20:CT:99:LEU:N	2.37	0.58
25:BA:313:C:C2'	25:BA:314:A:H5'	2.32	0.58
25:DA:271(H):G:C6	25:DA:271(Q):G:C6	2.91	0.58
45:BY:17:SER:HB3	45:BY:71:LYS:CB	2.19	0.58
25:DA:614(C):A:N3	30:DF:180:GLY:HA2	2.18	0.58
17:AQ:18:THR:HG22	17:AQ:19:VAL:N	2.17	0.58
25:BA:2795:G:N7	25:BA:2801(A):A:C2	2.72	0.58
51:D4:60:GLU:O	51:D4:61:VAL:HB	2.02	0.58
25:BA:95:G:H1'	49:B2:47:ASN:ND2	2.17	0.58
28:BD:30:GLU:CD	28:BD:63:ARG:HE	2.06	0.58
28:BD:142:VAL:HG23	28:BD:192:THR:O	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:917:C:H2'	1:AA:918:G:C8	2.38	0.58
26:BB:14:U:OP2	26:BB:70:C:O2'	2.21	0.58
29:BE:101:ARG:NH2	29:BE:171:GLU:CB	2.64	0.58
25:BA:2206:G:H21	25:BA:2207:G:C5'	2.15	0.58
36:BP:146:VAL:HG13	36:BP:147:LEU:N	2.18	0.58
36:DP:127:ALA:O	36:DP:148:LEU:HD12	2.02	0.58
29:BE:116:VAL:HG21	29:BE:122:PHE:CD2	2.38	0.58
25:DA:2307:G:N3	25:DA:2307:G:C3'	2.65	0.58
34:BN:73:THR:CG2	34:BN:82:LEU:HD11	2.32	0.58
20:AT:57:ARG:NH1	20:AT:102:GLY:HA2	2.19	0.58
19:CS:50:ALA:HB1	19:CS:57:HIS:HB3	1.85	0.58
1:CA:784:U:H2'	1:CA:785:A:H8	1.68	0.58
25:BA:2748:A:O2'	32:BH:66:GLY:HA3	2.04	0.58
25:DA:1407:C:H2'	25:DA:1407:C:O2	2.02	0.58
25:DA:2727:G:O3'	35:DO:70:LYS:NZ	2.36	0.58
43:BW:14:PRO:O	43:BW:15:ARG:C	2.41	0.58
16:AP:12:LYS:O	16:AP:13:HIS:HB2	2.04	0.58
25:DA:1309:G:O2'	25:DA:1310:G:H5'	2.03	0.58
40:DT:29:ARG:O	40:DT:45:PHE:N	2.36	0.58
25:BA:2787:C:H1'	29:BE:61:ARG:HG2	1.85	0.58
25:BA:2261:C:H1'	25:BA:2388:A:N3	2.19	0.58
25:DA:108:U:H2'	25:DA:109:G:C5'	2.34	0.58
25:BA:106:C:H2'	25:BA:107:C:H6	1.68	0.58
50:D3:4:LEU:HD23	50:D3:5:LYS:N	2.19	0.58
51:B4:37:PRO:HA	51:B4:51:TYR:CD2	2.39	0.58
22:CW:9:A:O4'	22:CW:46:G:N2	2.35	0.58
20:AT:99:LEU:C	20:AT:100:ILE:HD12	2.23	0.58
19:AS:6:LYS:N	19:AS:6:LYS:HE3	2.18	0.58
50:B3:4:LEU:HD23	50:B3:5:LYS:N	2.19	0.58
25:BA:2484:G:C2	25:BA:2485:G:C8	2.92	0.58
31:DG:108:ASN:C	31:DG:112:PRO:HG3	2.24	0.58
46:DZ:42:VAL:HG13	46:DZ:43:GLU:N	2.18	0.58
25:BA:349:G:H5'	25:BA:350:U:OP2	2.03	0.58
15:AO:74:ASP:OD2	15:AO:77:ARG:HG2	2.02	0.58
28:DD:270:ILE:O	28:DD:271:ILE:HG12	2.03	0.58
26:BB:3:C:N3	26:BB:118:G:N2	2.51	0.58
30:BF:8:GLN:CB	30:BF:126:VAL:HA	2.30	0.58
2:AB:172:ILE:H	2:AB:172:ILE:CD1	2.16	0.58
36:DP:146:VAL:HG13	36:DP:147:LEU:N	2.18	0.58
18:CR:40:LEU:HD22	18:CR:70:ILE:HD13	1.83	0.58
1:CA:1107:U:H5'	1:CA:1108:U:H5	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:76:VAL:CG2	3:CC:77:ILE:N	2.66	0.58
19:AS:29:ARG:HD2	19:AS:29:ARG:H	1.69	0.58
9:CI:121:ARG:C	9:CI:121:ARG:HD3	2.24	0.58
35:BO:77:ILE:HD13	40:BT:74:ARG:HG2	1.84	0.58
2:CB:96:ARG:N	2:CB:96:ARG:HD2	2.19	0.58
8:AH:65:TYR:CD1	8:AH:65:TYR:N	2.72	0.58
27:DC:77:ILE:HG21	27:DC:123:VAL:N	2.19	0.58
34:DN:18:ALA:HB1	34:DN:21:LYS:CB	2.34	0.58
27:BC:77:ILE:HG21	27:BC:123:VAL:N	2.19	0.58
5:CE:135:THR:O	5:CE:138:ALA:HB3	2.03	0.58
34:BN:24:GLY:O	34:BN:28:THR:HB	2.03	0.58
2:AB:121:LEU:HA	2:AB:126:GLU:OE1	2.03	0.58
25:BA:171:G:H2'	25:BA:172:C:C6	2.38	0.58
25:BA:464:U:H4'	54:B7:5:TRP:CZ3	2.38	0.58
44:DX:24:GLY:O	44:DX:82:GLN:HA	2.03	0.58
27:DC:47:LEU:H	27:DC:47:LEU:HD23	1.69	0.58
25:BA:874:G:H2'	25:BA:875:G:H8	1.68	0.58
1:CA:869:A:O2'	1:CA:1397:G:H4'	2.03	0.58
13:CM:76:ALA:O	13:CM:79:LYS:HB2	2.04	0.58
40:DT:29:ARG:CD	40:DT:85:LYS:CG	2.81	0.58
32:DH:30:LYS:HB2	32:DH:79:VAL:HA	1.85	0.58
32:DH:17:VAL:CG1	32:DH:45:VAL:HG13	2.33	0.58
25:DA:2516:G:C3'	25:DA:2517:C:H5'	2.32	0.58
25:DA:1819:A:O4'	25:DA:1821:A:C4	2.56	0.58
25:BA:108:U:H2'	25:BA:109:G:H5'	1.83	0.58
42:BV:39:LEU:CD1	42:BV:51:VAL:HG22	2.33	0.58
22:CW:2:C:OP2	22:CW:2:C:H6	1.86	0.58
25:BA:2867:G:OP2	40:BT:119:LYS:NZ	2.34	0.58
25:DA:1594:G:H5'	25:DA:1594:G:H8	1.67	0.58
25:DA:2162:G:H2'	25:DA:2163:C:C6	2.39	0.58
30:BF:36:VAL:CG1	30:BF:183:VAL:HG21	2.34	0.58
25:DA:2293:C:OP1	39:DS:92:TYR:OH	2.22	0.58
26:DB:50:G:P	39:DS:63:THR:HG23	2.44	0.58
23:AV:30:G:N1	23:AV:43:G:N3	2.52	0.58
28:BD:112:GLN:HB2	28:BD:115:GLN:NE2	2.18	0.58
36:BP:71:VAL:HG12	36:BP:72:PRO:HD3	1.85	0.58
25:DA:1446:C:C3'	25:DA:1447:G:H5''	2.33	0.58
25:DA:349:G:H5'	25:DA:350:U:OP2	2.03	0.58
7:AG:74:GLU:HG2	7:AG:91:VAL:HG22	1.86	0.58
46:DZ:153:SER:CB	46:DZ:167:PRO:HB3	2.29	0.58
15:AO:74:ASP:C	15:AO:76:GLU:H	2.07	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AV:24:C:H2'	23:AV:25:U:C6	2.33	0.58
20:AT:26:ASN:CB	20:AT:71:THR:CG2	2.81	0.58
23:CV:42:C:C2	23:CV:43:G:C8	2.92	0.58
2:CB:80:ILE:CD1	2:CB:211:ILE:HG22	2.32	0.58
36:BP:99:LEU:HA	36:BP:102:ARG:NH2	2.18	0.58
11:CK:32:ILE:HD12	11:CK:72:ALA:CB	2.32	0.58
25:BA:819:A:OP2	25:BA:1187:G:N2	2.27	0.58
19:CS:36:ARG:NH1	19:CS:75:ALA:HB3	2.18	0.58
1:CA:1362:U:C5	7:CG:3:ARG:HA	2.39	0.58
46:DZ:44:PHE:HE2	46:DZ:86:VAL:HG21	1.69	0.58
23:CV:24:C:H2'	23:CV:25:U:H6	1.68	0.58
30:DF:89:VAL:HG12	30:DF:90:PHE:H	1.68	0.58
3:AC:58:GLU:O	3:AC:64:VAL:HA	2.03	0.58
26:DB:11:C:H3'	26:DB:12:C:C6	2.39	0.58
48:D1:18:ILE:N	48:D1:18:ILE:HD12	2.19	0.58
48:B1:18:ILE:N	48:B1:18:ILE:HD12	2.19	0.58
41:DU:38:THR:O	41:DU:41:ALA:HB3	2.04	0.58
25:DA:171:G:H2'	25:DA:172:C:C6	2.38	0.58
28:DD:257:LEU:HD22	28:DD:258:LYS:O	2.04	0.58
23:CV:57:C:H5	31:DG:84:LYS:HZ3	0.59	0.58
32:DH:40:GLU:O	32:DH:41:MET:CB	2.51	0.58
32:DH:41:MET:O	32:DH:42:ARG:O	2.21	0.58
25:BA:108:U:H2'	25:BA:109:G:C5'	2.34	0.58
25:DA:1158:C:H5'	50:D3:31:LEU:HB2	1.86	0.58
14:AN:26:ARG:HH22	14:AN:47:LEU:CD2	2.08	0.58
25:DA:2484:G:C2	25:DA:2485:G:C8	2.92	0.58
25:BA:614(C):A:C4	30:BF:180:GLY:HA2	2.39	0.58
34:DN:62:VAL:HG22	34:DN:66:LYS:CD	2.33	0.58
30:BF:24:LEU:HB3	30:BF:25:PRO:HD2	1.84	0.58
11:AK:111:ASP:CA	18:AR:84:LYS:HG3	2.27	0.58
25:BA:941:A:H4'	36:BP:35:HIS:CE1	2.39	0.58
30:DF:132:VAL:CG2	30:DF:133:ASN:H	2.03	0.58
25:BA:806:C:OP2	36:BP:39:LYS:CD	2.52	0.58
25:BA:353:G:C6	25:BA:354:G:N7	2.71	0.58
25:BA:351:G:OP2	25:BA:351:G:C8	2.57	0.58
4:CD:19:LEU:HD12	4:CD:19:LEU:N	2.19	0.58
19:CS:5:LEU:HD12	19:CS:10:PHE:CD1	2.33	0.58
30:BF:124:LEU:HG	30:BF:126:VAL:HG13	1.86	0.58
3:AC:189:ALA:O	3:AC:191:THR:HG23	2.04	0.58
48:B1:67:ILE:N	48:B1:68:PRO:CD	2.66	0.58
23:AV:74:A:O3'	23:AV:75:C:O4'	2.22	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:272(J):C:O2	25:DA:272(J):C:C2'	2.52	0.58
52:B5:36:CYS:SG	52:B5:37:LYS:N	2.77	0.58
44:DX:31:HIS:ND1	44:DX:32:PRO:HD2	2.18	0.58
1:AA:88:G:H2'	1:AA:89:U:H5'	1.86	0.58
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	1.85	0.58
25:BA:1385:G:C4'	25:BA:1385:G:OP1	2.51	0.58
25:BA:1407:C:O2	25:BA:1407:C:H2'	2.02	0.58
35:BO:114:ILE:O	35:BO:116:SER:N	2.36	0.58
1:AA:756:G:O3'	28:BD:202:LYS:NZ	2.29	0.58
25:DA:1573:G:H2'	25:DA:1574:C:H5'	1.86	0.58
1:CA:295:A:H1'	1:CA:548:U:O2	2.04	0.58
27:DC:196:LEU:C	27:DC:198:ALA:H	2.07	0.58
18:AR:36:ASN:HD22	18:AR:39:VAL:CG2	2.16	0.58
10:AJ:22:LYS:C	10:AJ:22:LYS:HD2	2.23	0.58
5:AE:136:MET:O	5:AE:138:ALA:N	2.37	0.58
25:DA:2340:G:O2'	25:DA:2341:G:H5'	2.04	0.58
20:CT:30:LYS:HZ2	20:CT:80:ARG:NH2	2.02	0.58
36:BP:55:ARG:CG	36:BP:56:SER:N	2.51	0.58
25:BA:2162:G:H2'	25:BA:2163:C:C6	2.39	0.58
3:AC:86:VAL:O	3:AC:90:GLU:HG2	2.04	0.58
25:BA:2468:G:O2'	25:BA:2476:A:H8	1.86	0.58
25:BA:871:U:H4'	37:BQ:69:PHE:CD2	2.39	0.58
30:DF:176:LEU:HD21	30:DF:180:GLY:O	2.04	0.58
40:BT:80:SER:OG	40:BT:81:PRO:CD	2.43	0.58
25:BA:2790:A:H2'	25:BA:2790:A:N3	2.18	0.58
13:CM:40:ASN:ND2	13:CM:43:THR:HG23	2.10	0.58
28:DD:26:LYS:NZ	28:DD:82:ILE:O	2.35	0.58
25:BA:271(Q):G:O2'	25:BA:271(R):G:P	2.61	0.58
28:BD:26:LYS:HE2	28:BD:82:ILE:H	1.68	0.58
41:DU:62:ILE:HD12	41:DU:76:TYR:CZ	2.38	0.58
25:DA:2186:G:C2	25:DA:2187:G:C5	2.92	0.58
25:DA:2298:A:H2'	25:DA:2299:G:O4'	2.04	0.58
25:BA:1021:A:C3'	25:BA:1021:A:C8	2.84	0.58
25:DA:351:G:OP2	25:DA:351:G:C8	2.57	0.58
46:DZ:9:TYR:OH	46:DZ:35:ARG:HG3	2.03	0.58
46:BZ:151:HIS:CB	46:BZ:170:THR:HA	2.34	0.58
33:BI:133:HIS:CB	33:BI:134:PRO:CD	2.80	0.58
25:BA:528:A:C8	25:BA:528:A:H3'	2.39	0.58
34:DN:58:ASP:C	34:DN:60:ILE:N	2.57	0.58
11:CK:20:TYR:O	11:CK:30:VAL:HA	2.04	0.58
40:DT:10:VAL:C	40:DT:13:ARG:HH21	2.05	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DN:73:THR:CG2	34:DN:82:LEU:HD11	2.32	0.58
11:CK:97:ALA:O	11:CK:101:SER:HB3	2.04	0.58
22:AW:18:G:N2	22:AW:55:U:H6	2.02	0.58
51:B4:64:LYS:O	51:B4:65:CYS:SG	2.62	0.58
25:DA:8:A:OP1	34:DN:51:PHE:HE2	1.87	0.58
8:AH:87:SER:HA	8:AH:93:VAL:HG23	1.86	0.58
38:DR:28:LEU:HA	38:DR:34:ILE:CG1	2.34	0.58
31:BG:174:GLU:HB3	31:BG:175:LEU:HD12	1.85	0.58
38:BR:28:LEU:HA	38:BR:34:ILE:CG1	2.34	0.58
12:AL:83:VAL:CG1	12:AL:100:ILE:HG23	2.33	0.58
45:BY:88:LYS:NZ	45:BY:93:GLY:CA	2.67	0.58
19:CS:51:VAL:O	19:CS:57:HIS:HA	2.03	0.58
1:AA:343:G:O2'	1:AA:344:A:C5'	2.52	0.58
1:CA:1328:G:N2	1:CA:1355:G:H2'	2.18	0.58
1:CA:701:G:C4	11:CK:116:HIS:CD2	2.92	0.58
25:DA:874:G:H2'	25:DA:875:G:H8	1.68	0.58
4:CD:65:ARG:HD3	4:CD:75:PHE:CD2	2.38	0.58
9:CI:92:TYR:N	9:CI:92:TYR:CD1	2.72	0.58
1:CA:1136:G:H2'	1:CA:1137:G:H8	1.68	0.58
43:DW:73:ALA:HB3	43:DW:106:ILE:HD11	1.84	0.58
28:BD:257:LEU:HD22	28:BD:258:LYS:O	2.04	0.58
2:CB:30:ARG:HG3	2:CB:31:TYR:CD2	2.39	0.58
15:AO:4:THR:HB	15:AO:6:GLU:OE2	2.03	0.58
13:AM:88:ARG:O	13:AM:98:VAL:HG13	2.04	0.58
20:CT:29:LYS:O	20:CT:33:ILE:HG12	2.03	0.58
31:BG:5:VAL:HG12	51:B4:51:TYR:CE1	2.39	0.58
25:DA:280:C:C5	25:DA:281:G:N7	2.72	0.58
25:DA:2795:G:N7	25:DA:2801(A):A:C2	2.72	0.58
3:AC:76:VAL:CG2	3:AC:77:ILE:N	2.66	0.58
25:BA:1796:U:H2'	25:BA:1797:C:C6	2.39	0.58
40:BT:32:TYR:CG	40:BT:81:PRO:O	2.56	0.58
30:BF:176:LEU:HD21	30:BF:180:GLY:O	2.04	0.58
45:DY:99:CYS:O	45:DY:100:ALA:HB2	2.02	0.58
22:CW:34:G:H2'	22:CW:35:A:O5'	2.03	0.58
2:CB:19:HIS:ND1	2:CB:189:ASP:OD2	2.36	0.58
28:DD:112:GLN:HB2	28:DD:115:GLN:NE2	2.18	0.58
25:DA:1902:C:H1'	28:DD:244:ARG:HG3	1.86	0.58
26:DB:17:C:H2'	26:DB:18:G:O4'	2.04	0.58
40:BT:90:GLN:HA	40:BT:91:ARG:HB2	1.86	0.58
31:DG:44:GLY:H	31:DG:88:ILE:HG12	1.68	0.58
1:AA:1140:C:O2	1:AA:1140:C:C2'	2.51	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:80:ILE:HD13	2:AB:211:ILE:HG22	1.86	0.58
36:DP:83:VAL:CG1	36:DP:112:LEU:HD21	2.34	0.58
16:CP:20:VAL:HG23	16:CP:34:GLU:O	2.04	0.58
34:BN:4:TYR:CD1	34:BN:4:TYR:N	2.71	0.58
9:AI:18:PHE:HD1	9:AI:62:TYR:HD2	1.51	0.58
30:DF:6:VAL:HG12	30:DF:7:TYR:O	2.03	0.58
31:DG:46:ALA:HB3	31:DG:82:LEU:HD13	1.85	0.58
49:D2:38:GLN:NE2	49:D2:44:LEU:HD12	2.19	0.58
8:AH:23:SER:HA	8:AH:63:LEU:CD2	2.34	0.58
53:B6:32:ASN:ND2	53:B6:33:LYS:H	2.01	0.58
30:BF:89:VAL:HG12	30:BF:90:PHE:H	1.68	0.58
44:DX:35:THR:O	44:DX:39:ILE:HG12	2.04	0.58
7:AG:97:GLN:O	7:AG:100:ALA:HB3	2.03	0.58
51:D4:37:PRO:O	51:D4:55:PRO:HG3	2.03	0.58
25:BA:1430:C:H2'	25:BA:1431:U:H6	1.69	0.58
34:DN:24:GLY:O	34:DN:28:THR:HB	2.03	0.58
3:CC:150:LYS:HA	3:CC:169:ALA:CB	2.33	0.58
25:BA:83:G:N2	25:BA:102:G:H2'	2.19	0.58
52:B5:16:ARG:HD2	52:B5:20:ARG:NH2	2.19	0.58
43:DW:14:PRO:O	43:DW:15:ARG:C	2.41	0.58
23:CV:73:A:N6	23:CV:74:A:C6	2.72	0.58
1:AA:527:G:H2'	1:AA:528:C:C6	2.39	0.58
25:BA:2356:C:O3'	47:B0:20:ARG:HD3	2.03	0.58
1:CA:575:G:H2'	1:CA:576:G:H8	1.67	0.58
38:DR:104:ARG:CB	38:DR:104:ARG:HH11	2.17	0.58
1:AA:267:C:H2'	1:AA:268:A:C8	2.39	0.58
4:AD:196:LEU:N	4:AD:196:LEU:HD12	2.18	0.57
32:DH:17:VAL:C	32:DH:45:VAL:CG2	2.72	0.57
25:DA:2787:C:H1'	29:DE:61:ARG:CG	2.33	0.57
25:BA:2516:G:C3'	25:BA:2517:C:H5'	2.32	0.57
37:BQ:42:ILE:HA	37:BQ:46:GLN:OE1	2.04	0.57
44:DX:12:VAL:CG2	44:DX:13:LEU:H	1.91	0.57
13:CM:5:ALA:CB	13:CM:66:LEU:HD11	2.32	0.57
26:BB:15:A:H1'	26:BB:110:G:C5	2.38	0.57
25:BA:90:U:H1'	25:BA:92:A:H8	1.68	0.57
25:BA:2317:C:C2'	25:BA:2318:G:H5'	2.34	0.57
36:DP:50:ARG:NH2	36:DP:50:ARG:HG2	2.19	0.57
45:BY:95:LYS:HA	45:BY:100:ALA:HA	1.86	0.57
23:AV:56:U:O2	23:AV:58:A:C8	2.57	0.57
1:AA:1171:G:H3'	3:AC:3:ASN:ND2	2.19	0.57
2:AB:67:THR:CG2	2:AB:155:LEU:HD21	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:690:C:OP1	11:CK:85:ARG:NH1	2.28	0.57
37:BQ:48:GLU:O	37:BQ:52:VAL:HG23	2.05	0.57
34:BN:62:VAL:HG22	34:BN:66:LYS:CD	2.33	0.57
25:BA:125:G:C6	54:B7:10:ARG:HG3	2.39	0.57
1:AA:1327:A:N1	1:AA:1356:A:H5''	2.19	0.57
2:AB:80:ILE:C	2:AB:82:ARG:H	2.06	0.57
32:DH:47:GLU:HG2	32:DH:48:GLY:N	2.18	0.57
11:CK:125:PHE:N	11:CK:125:PHE:CD1	2.71	0.57
38:DR:45:ARG:CG	38:DR:46:GLY:N	2.67	0.57
44:BX:30:VAL:HG11	44:BX:39:ILE:HD12	1.86	0.57
44:BX:35:THR:O	44:BX:39:ILE:HG12	2.04	0.57
31:DG:53:LEU:N	31:DG:53:LEU:HD22	2.19	0.57
1:AA:1405:G:H5'	35:BO:49:ARG:HH22	1.68	0.57
25:DA:1854:A:H62	25:DA:1888:G:H8	1.50	0.57
25:BA:649:G:H2'	25:BA:650:C:H6	1.68	0.57
34:BN:18:ALA:HB1	34:BN:21:LYS:CB	2.34	0.57
44:DX:32:PRO:HA	44:DX:77:LYS:HB3	1.85	0.57
25:BA:444:C:OP2	41:BU:2:PRO:HD3	2.03	0.57
12:CL:84:LEU:HB2	12:CL:104:VAL:HG11	1.85	0.57
17:CQ:77:VAL:O	17:CQ:78:GLU:HB3	2.04	0.57
18:AR:36:ASN:HD22	18:AR:39:VAL:HB	1.67	0.57
5:AE:135:THR:O	5:AE:138:ALA:HB3	2.03	0.57
25:DA:2223:G:C2'	25:DA:2224:G:H5'	2.33	0.57
25:BA:2110:G:O2'	25:BA:2120:G:H5'	2.03	0.57
16:AP:25:ARG:HH11	16:AP:25:ARG:HG3	1.69	0.57
25:BA:564:C:O2'	25:BA:565:C:H5'	2.03	0.57
4:AD:4:TYR:HE2	4:AD:6:GLY:O	1.87	0.57
13:AM:100:GLY:C	13:AM:101:GLN:HG3	2.24	0.57
1:CA:1417:G:H2'	1:CA:1418:U:C6	2.39	0.57
23:AV:4:G:H21	23:AV:5:G:H1'	1.69	0.57
19:AS:36:ARG:NH1	19:AS:75:ALA:HB3	2.17	0.57
25:BA:2393:A:H5'	36:BP:62:LEU:HB3	1.86	0.57
31:BG:110:ALA:HA	31:BG:140:ILE:O	2.03	0.57
30:DF:40:GLN:NE2	30:DF:182:ASN:HB2	2.19	0.57
41:DU:92:ARG:NH2	41:DU:94:ASN:ND2	2.51	0.57
5:CE:41:VAL:CG1	5:CE:113:ALA:N	2.67	0.57
45:DY:81:LYS:HB3	45:DY:96:ILE:HG22	1.87	0.57
8:CH:119:LEU:HB2	8:CH:124:ALA:HB2	1.86	0.57
32:DH:12:PRO:CD	32:DH:49:VAL:HG12	2.34	0.57
20:CT:104:LEU:HD23	20:CT:105:SER:N	2.18	0.57
33:DI:88:ILE:CD1	33:DI:123:LEU:HG	2.32	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:27:LYS:CE	13:AM:31:LYS:HE3	2.25	0.57
37:DQ:48:GLU:O	37:DQ:52:VAL:HG23	2.05	0.57
2:AB:48:MET:CA	2:AB:51:LEU:HD12	2.28	0.57
25:BA:2729:G:H1'	29:BE:187:ALA:CB	2.34	0.57
25:BA:2645:G:C3'	25:BA:2646:C:H5'	2.30	0.57
40:DT:92:GLY:O	40:DT:114:LEU:CD2	2.51	0.57
2:AB:169:LYS:HD2	2:AB:170:GLU:OE2	2.04	0.57
14:AN:48:ALA:HB2	14:AN:53:LEU:HD12	1.86	0.57
31:BG:76:SER:HB2	31:BG:83:ARG:HD3	1.85	0.57
25:DA:686:G:N2	25:DA:788:A:H61	2.03	0.57
22:AW:57:G:N3	22:AW:58:A:H5'	2.19	0.57
53:D6:36:LEU:HD13	53:D6:50:ARG:HH12	1.67	0.57
25:DA:1411:C:H2'	25:DA:1412:A:H8	1.66	0.57
38:BR:27:SER:HB3	38:BR:34:ILE:CD1	2.34	0.57
25:DA:2320:A:C6	25:DA:2333:A:C5	2.93	0.57
2:AB:144:ARG:HA	2:AB:147:LYS:CB	2.34	0.57
35:DO:90:GLN:N	35:DO:90:GLN:OE1	2.37	0.57
1:AA:354:U:H2'	1:AA:355:A:H8	1.66	0.57
51:D4:37:PRO:HA	51:D4:51:TYR:CD2	2.39	0.57
25:DA:948:G:H1'	25:DA:984:A:C2	2.38	0.57
4:CD:119:GLN:HG3	4:CD:123:HIS:CD2	2.39	0.57
25:DA:83:G:N2	25:DA:102:G:H2'	2.19	0.57
47:B0:27:GLU:HB2	47:B0:69:PHE:CD1	2.39	0.57
25:BA:1711:C:O2'	25:BA:1712:C:H5'	2.05	0.57
43:DW:40:ASN:O	43:DW:41:LYS:HG2	2.04	0.57
13:CM:35:GLU:HG3	13:CM:36:LYS:N	2.18	0.57
43:BW:40:ASN:O	43:BW:41:LYS:HG2	2.05	0.57
3:AC:6:HIS:ND1	14:AN:49:HIS:HB3	2.19	0.57
25:BA:1035:U:H5'	32:BH:59:ARG:HD3	1.86	0.57
25:BA:1309:G:O2'	25:BA:1310:G:H5'	2.03	0.57
8:AH:127:LEU:O	8:AH:127:LEU:HD13	2.04	0.57
1:AA:371:G:O3'	16:AP:5:ARG:HD2	2.04	0.57
25:BA:524:U:H4'	25:BA:555:U:H4'	1.86	0.57
29:DE:52:LEU:HD12	29:DE:75:VAL:HB	1.86	0.57
25:DA:2261:C:H1'	25:DA:2388:A:N3	2.19	0.57
41:BU:92:ARG:NH2	41:BU:94:ASN:ND2	2.51	0.57
25:DA:359:A:C2'	25:DA:360:G:C5'	2.78	0.57
36:BP:57:THR:HG22	36:BP:58:THR:H	1.69	0.57
25:BA:280:C:C5	25:BA:281:G:N7	2.72	0.57
45:BY:54:LYS:O	45:BY:55:TYR:CB	2.52	0.57
29:BE:15:PHE:CD2	40:BT:80:SER:CB	2.77	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B6:40:CYS:SG	53:B6:45:LYS:HE3	2.44	0.57
25:BA:2763:G:C8	25:BA:2763:G:H5'	2.38	0.57
25:BA:2186:G:C2	25:BA:2187:G:C5	2.92	0.57
46:BZ:42:VAL:HG13	46:BZ:43:GLU:N	2.18	0.57
25:BA:125:G:H21	54:B7:48:LYS:HD2	1.68	0.57
46:BZ:143:GLY:C	46:BZ:144:LEU:HD22	2.25	0.57
46:BZ:94:GLU:O	46:BZ:96:VAL:HG23	2.05	0.57
28:DD:267:SER:HA	28:DD:270:ILE:CG1	2.34	0.57
23:AV:10:G:N2	23:AV:27:G:H1'	2.19	0.57
29:DE:101:ARG:HH22	29:DE:171:GLU:HB2	1.64	0.57
7:AG:23:VAL:O	7:AG:27:ILE:HG13	2.04	0.57
25:BA:2822:G:H2'	25:BA:2823:A:H5''	1.85	0.57
48:B1:11:ARG:HB2	48:B1:12:PRO:HD2	1.86	0.57
25:BA:364:C:H2'	25:BA:365:C:C5'	2.33	0.57
25:BA:2784:C:H4'	29:BE:41:LYS:O	2.04	0.57
1:CA:453:G:H1'	1:CA:457:A:H61	1.69	0.57
36:DP:91:PHE:N	36:DP:91:PHE:CD1	2.71	0.57
18:CR:74:ARG:HH21	18:CR:81:PHE:HA	1.70	0.57
48:D1:11:ARG:HB2	48:D1:12:PRO:HD2	1.85	0.57
3:AC:109:PRO:HB3	3:AC:115:LEU:HD13	1.85	0.57
56:B9:9:ARG:CB	56:B9:9:ARG:HH11	2.17	0.57
1:AA:385:C:H2'	1:AA:386:G:C8	2.38	0.57
31:BG:9:ARG:NH1	31:BG:9:ARG:HG2	2.17	0.57
31:BG:51:ARG:HA	31:BG:51:ARG:HE	1.67	0.57
27:BC:83:ILE:HD11	27:BC:95:GLY:O	2.04	0.57
5:AE:81:GLU:HG2	5:AE:90:VAL:HG12	1.86	0.57
43:DW:9:TYR:CD2	43:DW:9:TYR:N	2.69	0.57
52:D5:16:ARG:HD2	52:D5:20:ARG:NH2	2.19	0.57
1:AA:1059:G:N2	1:AA:1062:A:OP2	2.29	0.57
25:BA:1907:G:O2'	25:BA:1908:C:H5'	2.04	0.57
10:AJ:46:ARG:HG2	10:AJ:64:GLU:HB3	1.84	0.57
38:BR:104:ARG:CB	38:BR:104:ARG:HH11	2.17	0.57
25:DA:2110:G:O2'	25:DA:2120:G:H5'	2.04	0.57
12:AL:77:LEU:HD21	12:AL:107:ALA:HB2	1.87	0.57
25:DA:1473:G:O2'	25:DA:1474:C:H5'	2.04	0.57
25:BA:1784:A:H4'	25:BA:1785:A:O5'	2.05	0.57
25:BA:2517:C:C6	25:BA:2542:A:C2	2.93	0.57
28:DD:158:ALA:HB3	28:DD:161:THR:HG21	1.85	0.57
31:BG:2:PRO:HD2	51:B4:51:TYR:CE1	2.40	0.57
38:DR:77:ARG:O	38:DR:79:LEU:N	2.37	0.57
41:DU:92:ARG:O	41:DU:94:ASN:N	2.30	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DV:6:LYS:HG3	42:DV:11:GLN:HG2	1.86	0.57
25:BA:614(C):A:N3	30:BF:180:GLY:HA2	2.20	0.57
25:BA:2298:A:H2'	25:BA:2299:G:O4'	2.04	0.57
25:BA:2758:A:C3'	25:BA:2759:G:H5''	2.34	0.57
8:CH:6:ILE:HG22	8:CH:10:LEU:CD1	2.34	0.57
22:CW:35:A:C6	22:CW:36:A:C6	2.92	0.57
9:AI:14:VAL:HG12	9:AI:15:ALA:N	2.20	0.57
41:BU:62:ILE:HD12	41:BU:76:TYR:CZ	2.38	0.57
36:BP:33:ARG:O	36:BP:34:GLY:C	2.41	0.57
10:AJ:83:GLU:C	10:AJ:85:LEU:H	2.07	0.57
26:BB:11:C:H3'	26:BB:12:C:C6	2.39	0.57
2:AB:178:ARG:HH22	2:AB:196:LEU:C	2.06	0.57
25:DA:1301:A:HO2'	25:DA:1302:A:P	2.28	0.57
36:DP:71:VAL:HG12	36:DP:72:PRO:HD3	1.85	0.57
41:DU:34:LYS:HA	41:DU:34:LYS:CE	2.30	0.57
2:AB:88:ALA:HB2	2:AB:219:VAL:HG13	1.86	0.57
36:BP:84:ASN:ND2	36:BP:116:GLY:HA3	2.19	0.57
1:AA:1481:G:C1'	1:AA:1482:G:OP2	2.52	0.57
29:DE:116:VAL:HG22	29:DE:122:PHE:HB2	1.86	0.57
3:AC:34:LEU:HD23	3:AC:35:GLU:N	2.19	0.57
39:BS:48:LEU:CD2	39:BS:82:ILE:HD11	2.34	0.57
25:BA:1504:C:O2'	25:BA:1505:C:C5'	2.53	0.57
25:DA:2884:U:H2'	25:DA:2885:C:H5'	1.86	0.57
29:DE:110:GLY:HA2	29:DE:162:ALA:H	1.69	0.57
46:BZ:15:PRO:O	46:BZ:19:ARG:HG3	2.05	0.57
46:BZ:74:VAL:HG22	46:BZ:86:VAL:HG12	1.85	0.57
4:CD:8:VAL:C	4:CD:10:ARG:N	2.57	0.57
8:AH:119:LEU:HB2	8:AH:124:ALA:HB2	1.86	0.57
18:CR:82:THR:CG2	18:CR:83:GLU:N	2.67	0.57
47:D0:27:GLU:HB2	47:D0:69:PHE:CD1	2.39	0.57
12:CL:83:VAL:CG1	12:CL:100:ILE:HG23	2.34	0.57
25:DA:1223:G:H5'	25:DA:1224:C:OP2	2.05	0.57
25:DA:1796:U:H2'	25:DA:1797:C:C6	2.39	0.57
28:DD:131:LEU:N	28:DD:131:LEU:HD12	2.18	0.57
1:CA:171:C:OP1	20:CT:65:LYS:NZ	2.37	0.57
34:DN:89:LYS:O	34:DN:93:THR:HG22	2.04	0.57
25:DA:1001:A:H2'	25:DA:1002:G:O4'	2.04	0.57
37:BQ:18:LYS:HE2	37:BQ:18:LYS:HA	1.85	0.57
32:BH:86:GLU:N	32:BH:86:GLU:OE1	2.36	0.57
40:DT:55:ASN:H	40:DT:59:THR:CB	2.17	0.57
14:AN:41:ARG:HG3	14:AN:42:ILE:N	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:833:U:O2	36:BP:55:ARG:NH1	2.38	0.57
25:DA:2127:G:C5'	27:DC:36:LYS:HZ3	2.18	0.57
25:BA:308:G:O2'	25:BA:329:G:N2	2.38	0.57
5:CE:31:LEU:HD11	5:CE:43:LEU:HD11	1.87	0.57
45:BY:76:CYS:HB3	45:BY:96:ILE:CD1	2.27	0.57
33:BI:73:GLU:HB2	33:BI:136:VAL:HG23	1.85	0.57
25:DA:1902:C:C1'	28:DD:244:ARG:HG3	2.34	0.57
26:DB:15:A:H1'	26:DB:110:G:C5	2.38	0.57
46:BZ:5:LEU:HD21	46:BZ:43:GLU:CB	2.26	0.57
11:AK:111:ASP:HA	18:AR:84:LYS:CG	2.28	0.57
31:DG:39:ILE:HD12	31:DG:40:ASN:N	2.20	0.57
46:DZ:143:GLY:C	46:DZ:144:LEU:HD22	2.25	0.57
29:DE:101:ARG:NH2	29:DE:171:GLU:CB	2.64	0.57
2:CB:172:ILE:CD1	2:CB:172:ILE:H	2.16	0.57
30:DF:124:LEU:HG	30:DF:126:VAL:HG13	1.86	0.57
1:CA:1301:C:H5'	19:CS:70:LYS:HG3	1.87	0.57
9:AI:18:PHE:HB2	9:AI:62:TYR:O	2.04	0.57
31:BG:175:LEU:HD12	31:BG:175:LEU:N	2.20	0.57
30:BF:161:GLU:HA	30:BF:164:ARG:HB2	1.86	0.57
44:DX:60:ARG:HH22	54:D7:47:ARG:CZ	2.17	0.57
1:AA:807:C:H2'	1:AA:808:G:C8	2.39	0.57
12:AL:83:VAL:HG12	12:AL:84:LEU:N	2.19	0.57
27:BC:82:LYS:HE3	27:BC:151:GLU:O	2.05	0.57
27:DC:82:LYS:HE3	27:DC:151:GLU:O	2.05	0.57
27:DC:83:ILE:HD11	27:DC:95:GLY:O	2.04	0.57
3:AC:61:ALA:O	3:AC:62:ASP:HB2	2.03	0.57
25:DA:1784:A:H4'	25:DA:1785:A:O5'	2.05	0.57
25:DA:2715:C:O2'	25:DA:2716:U:H5'	2.05	0.57
16:CP:42:ARG:O	16:CP:43:LYS:C	2.43	0.57
31:BG:170:ARG:NH2	31:BG:182:LYS:HG3	2.20	0.57
17:CQ:52:LYS:HG2	17:CQ:55:ASP:OD1	2.05	0.57
25:DA:1907:G:O2'	25:DA:1908:C:H5'	2.04	0.57
25:DA:2201:C:O2'	25:DA:2202:C:H5'	2.05	0.57
25:BA:583:G:OP2	41:BU:10:ARG:NH1	2.36	0.57
25:BA:585:G:H2'	25:BA:1251:C:H42	1.70	0.57
8:CH:127:LEU:HD13	8:CH:127:LEU:O	2.04	0.57
1:AA:17:U:H2'	1:AA:18:C:C6	2.40	0.57
25:DA:108:U:H2'	25:DA:109:G:H5'	1.83	0.57
25:DA:2847:U:P	40:DT:98:LYS:HZ3	2.27	0.57
14:AN:24:CYS:HB3	14:AN:27:CYS:O	2.04	0.57
25:DA:308:G:O2'	25:DA:329:G:N2	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DY:27:VAL:HA	45:DY:28:LYS:HZ2	1.68	0.57
25:DA:1982:C:O5'	25:DA:1982:C:H6	1.87	0.57
20:AT:97:ALA:O	20:AT:99:LEU:N	2.36	0.57
37:DQ:42:ILE:HA	37:DQ:46:GLN:OE1	2.04	0.57
25:DA:2128:C:OP1	27:DC:35:ALA:HB1	2.04	0.57
37:BQ:32:TYR:OH	37:BQ:111:GLU:HB2	2.05	0.57
7:CG:108:ALA:O	7:CG:111:ARG:HB2	2.04	0.57
31:DG:110:ALA:HA	31:DG:140:ILE:O	2.03	0.57
25:DA:855:G:H2'	25:DA:856:C:C6	2.39	0.57
1:CA:261:G:H5'	1:CA:262:C:H5	1.64	0.57
31:BG:54:GLU:O	31:BG:57:ALA:HB3	2.05	0.57
20:AT:104:LEU:HD23	20:AT:105:SER:N	2.19	0.57
45:DY:7:VAL:HB	45:DY:8:LYS:NZ	2.20	0.57
25:DA:1652:A:C2'	25:DA:1653:G:H5''	2.33	0.57
36:BP:38:GLN:CG	36:BP:39:LYS:H	2.04	0.57
7:CG:60:LYS:HA	7:CG:60:LYS:HZ3	1.68	0.57
23:AV:12:G:H1'	25:BA:1923:U:O2'	2.04	0.57
1:AA:1140:C:O2	1:AA:1140:C:H2'	2.03	0.57
41:DU:31:SER:O	41:DU:33:ARG:N	2.38	0.57
32:DH:25:LYS:H	32:DH:25:LYS:CD	2.12	0.57
36:DP:81:GLN:HG2	36:DP:106:LEU:CD1	2.35	0.57
23:AV:35:C:HO2'	23:AV:36:A:P	2.28	0.57
39:DS:106:ARG:HD2	39:DS:107:GLU:O	2.05	0.57
25:BA:1899:G:N2	25:BA:1902:C:N4	2.51	0.57
8:CH:60:ARG:HG3	8:CH:60:ARG:NH1	2.19	0.57
39:DS:48:LEU:CD2	39:DS:82:ILE:HD11	2.34	0.57
1:CA:429:U:H2'	1:CA:430:C:C6	2.39	0.57
31:BG:175:LEU:CD1	31:BG:175:LEU:H	2.17	0.57
30:DF:164:ARG:HG2	30:DF:164:ARG:HH11	1.69	0.57
1:AA:1237:A:OP2	3:AC:26:LYS:NZ	2.35	0.57
3:CC:148:GLY:HA3	3:CC:172:ARG:O	2.05	0.57
31:DG:47:LYS:CE	31:DG:81:LYS:HD2	2.35	0.57
31:DG:85:GLY:O	31:DG:87:PRO:HD2	2.05	0.57
35:BO:15:GLY:HA2	35:BO:47:ILE:HB	1.85	0.57
3:AC:134:ILE:HD11	3:AC:153:VAL:CG2	2.35	0.57
41:DU:68:ALA:O	41:DU:71:GLN:HB2	2.04	0.57
3:AC:182:ILE:HG23	3:AC:202:ILE:C	2.25	0.57
25:BA:2720:U:H3'	25:BA:2721:A:H8	1.70	0.57
19:AS:51:VAL:O	19:AS:57:HIS:HA	2.04	0.57
25:DA:1692:U:O2'	25:DA:1693:U:H2'	2.05	0.57
27:DC:75:LEU:HD13	27:DC:119:VAL:O	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:145:LYS:O	5:AE:149:GLU:HG2	2.05	0.57
25:BA:2715:C:O2'	25:BA:2716:U:H5'	2.05	0.57
25:BA:1001:A:H2'	25:BA:1002:G:O4'	2.04	0.57
5:CE:81:GLU:HG2	5:CE:90:VAL:HG12	1.84	0.57
25:DA:583:G:OP2	41:DU:10:ARG:NH1	2.35	0.57
41:BU:38:THR:O	41:BU:41:ALA:HB3	2.04	0.57
27:BC:196:LEU:C	27:BC:198:ALA:H	2.07	0.57
42:BV:82:ARG:HG2	42:BV:82:ARG:HH11	1.68	0.57
8:AH:80:ILE:HG22	8:AH:80:ILE:O	2.04	0.57
13:CM:47:ASP:O	13:CM:48:LEU:HB3	2.04	0.57
25:DA:214:G:O2'	25:DA:215:G:O4'	2.22	0.57
41:BU:101:ARG:O	41:BU:102:GLU:HG2	2.05	0.57
42:BV:2:PHE:O	42:BV:3:ALA:HB3	2.05	0.57
22:CW:12:U:H3	22:CW:23:A:H61	1.52	0.57
25:BA:1879:C:C3'	25:BA:1880:C:H5''	2.34	0.57
42:DV:2:PHE:O	42:DV:3:ALA:HB3	2.05	0.57
39:BS:96:GLY:O	39:BS:98:VAL:N	2.37	0.57
13:CM:22:ILE:HG22	13:CM:25:ILE:HD13	1.87	0.57
25:DA:2758:A:C3'	25:DA:2759:G:H5''	2.35	0.57
25:DA:1879:C:C3'	25:DA:1880:C:H5''	2.34	0.57
25:DA:2292:C:O2'	25:DA:2293:C:H5'	2.05	0.57
14:CN:40:CYS:SG	14:CN:43:CYS:N	2.77	0.57
7:AG:113:GLU:HG3	7:AG:119:ARG:HA	1.86	0.57
8:AH:83:ILE:HG13	8:AH:137:VAL:HG22	1.85	0.57
2:CB:19:HIS:CE1	2:CB:191:ASP:HB2	2.40	0.57
33:DI:111:PRO:HA	33:DI:114:LEU:HD11	1.87	0.57
32:BH:94:TYR:CE2	32:BH:160:LYS:HB3	2.40	0.57
40:BT:28:VAL:HG12	40:BT:86:ILE:O	2.05	0.57
37:BQ:61:GLY:O	46:BZ:178:GLU:HB2	2.04	0.57
46:BZ:153:SER:CB	46:BZ:167:PRO:HB3	2.28	0.57
20:CT:41:ILE:CG2	20:CT:84:LEU:CD2	2.81	0.57
25:DA:528:A:C8	25:DA:528:A:H3'	2.39	0.57
26:DB:69:G:H2'	26:DB:70:C:H6	1.69	0.57
16:CP:20:VAL:CG2	16:CP:32:TYR:HB2	2.35	0.57
23:AV:72:C:H6	23:AV:72:C:O5'	1.87	0.57
11:AK:97:ALA:O	11:AK:101:SER:HB3	2.05	0.57
31:DG:95:ARG:O	31:DG:96:ARG:O	2.23	0.57
46:BZ:9:TYR:OH	46:BZ:35:ARG:HG3	2.03	0.57
1:AA:659:A:H1'	11:AK:115:PRO:HB3	1.87	0.57
1:CA:1329:U:H4'	9:CI:120:ARG:HD2	1.87	0.57
25:DA:1504:C:O2'	25:DA:1505:C:H5'	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1504:C:O2'	25:DA:1505:C:C5'	2.53	0.57
40:BT:64:ARG:HB2	40:BT:73:GLU:HG2	1.87	0.57
12:AL:24:VAL:HG13	12:AL:98:TYR:CE2	2.40	0.57
8:CH:65:TYR:N	8:CH:65:TYR:CD1	2.71	0.57
1:CA:156:A:C5	1:CA:157:C:H1'	2.40	0.57
52:D5:36:CYS:SG	52:D5:37:LYS:N	2.77	0.57
26:DB:55:U:O2'	26:DB:56:G:H5'	2.05	0.57
3:AC:62:ASP:HA	3:AC:97:LYS:HE2	1.86	0.57
25:BA:154(A):C:H41	25:BA:172:C:H42	1.53	0.57
25:BA:1441:G:O2'	25:BA:1442:G:H5'	2.04	0.57
25:BA:2292:C:O2'	25:BA:2293:C:H5'	2.05	0.57
25:BA:1473:G:O2'	25:BA:1474:C:H5'	2.04	0.57
25:DA:1441:G:O2'	25:DA:1442:G:H5'	2.04	0.57
27:BC:75:LEU:HD13	27:BC:119:VAL:O	2.04	0.57
1:CA:756:G:O3'	28:DD:202:LYS:NZ	2.34	0.57
1:AA:1360:C:H5''	7:AG:6:ARG:HE	1.70	0.57
25:DA:2517:C:C6	25:DA:2542:A:C2	2.92	0.57
41:BU:104:GLN:CD	41:BU:104:GLN:H	2.08	0.57
41:BU:96:ALA:C	41:BU:98:LEU:H	2.05	0.57
42:BV:49:THR:CB	42:BV:50:PRO:HD2	2.34	0.57
1:AA:957:C:H5'	1:AA:958:U:C5	2.40	0.57
1:AA:1425:G:H22	40:BT:119:LYS:HB2	1.68	0.57
25:DA:271(O):C:HO2'	25:DA:271(P):C:H6	1.50	0.57
23:CV:18:U:C4'	23:CV:19:G:OP2	2.32	0.57
25:BA:2392:A:H2	25:BA:2424:C:H42	1.53	0.57
36:BP:63:PRO:C	36:BP:65:ARG:N	2.57	0.57
25:DA:614(C):A:C4	30:DF:180:GLY:CA	2.88	0.57
39:BS:28:VAL:HB	39:BS:89:ARG:CG	2.34	0.57
31:DG:109:VAL:HG11	31:DG:142:PRO:HG3	1.86	0.57
39:DS:96:GLY:O	39:DS:98:VAL:N	2.37	0.57
12:CL:41:ARG:CG	12:CL:42:THR:H	1.99	0.57
45:BY:96:ILE:HD12	45:BY:99:CYS:CB	2.35	0.57
33:DI:92:VAL:HG22	33:DI:92:VAL:O	2.04	0.57
28:DD:242:ARG:N	28:DD:242:ARG:HD2	2.20	0.57
4:CD:57:ARG:HG3	4:CD:57:ARG:HH11	1.70	0.57
25:DA:1991:U:O2'	25:DA:1992:G:O5'	2.22	0.57
1:AA:1184:C:OP1	14:AN:3:ARG:HD3	2.05	0.57
25:BA:2232:U:OP2	48:B1:40:ARG:NH2	2.28	0.57
23:CV:42:C:H2'	23:CV:43:G:O5'	2.04	0.57
18:CR:44:LEU:HD11	18:CR:79:LEU:HD22	1.86	0.57
5:CE:150:ARG:HB2	5:CE:150:ARG:CZ	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:366:G:O2'	1:AA:368:A:N7	2.37	0.57
1:AA:695:A:H2'	1:AA:696:G:O4'	2.04	0.57
55:D8:23:VAL:CG1	55:D8:46:ARG:HB3	2.35	0.57
28:BD:242:ARG:HD2	28:BD:242:ARG:N	2.20	0.57
25:BA:956:G:OP2	37:BQ:14:ARG:NH2	2.38	0.57
1:CA:952:A:H4'	1:CA:953:G:H5''	1.87	0.57
1:CA:1486:C:H42	1:CA:1503:G:H1	1.53	0.57
44:DX:30:VAL:HG11	44:DX:39:ILE:HD12	1.87	0.57
4:CD:80:GLU:O	4:CD:84:LYS:HE2	2.04	0.57
24:AX:21:C:H2'	24:AX:22:A:H8	1.69	0.57
4:AD:80:GLU:O	4:AD:84:LYS:HE2	2.03	0.57
7:CG:62:PHE:HD1	7:CG:124:LEU:HD21	1.70	0.57
25:DA:986:C:O2'	25:DA:987:G:H5'	2.05	0.57
25:BA:1692:U:O2'	25:BA:1693:U:H2'	2.05	0.57
17:AQ:27:PHE:CE1	17:AQ:36:ILE:HD11	2.40	0.57
25:BA:214:G:O2'	25:BA:215:G:O4'	2.22	0.57
6:AF:49:ALA:HB2	18:AR:78:LEU:O	2.05	0.57
25:BA:1223:G:H5'	25:BA:1224:C:OP2	2.04	0.57
23:CV:37:U:H2'	23:CV:38:A:H8	1.70	0.57
13:AM:94:ARG:NH2	25:BA:887:A:N9	2.53	0.57
29:DE:78:LEU:O	29:DE:79:ARG:HD2	2.03	0.57
22:CW:1:G:C6	22:CW:2:C:N4	2.72	0.57
25:DA:307:G:H3'	25:DA:307:G:C8	2.39	0.57
19:AS:6:LYS:HD2	19:AS:6:LYS:H	1.69	0.57
45:BY:17:SER:HB2	45:BY:71:LYS:HE3	1.86	0.57
11:AK:127:LYS:HE2	11:AK:127:LYS:CA	2.20	0.57
41:DU:101:ARG:O	41:DU:102:GLU:HG2	2.05	0.57
26:BB:17:C:H2'	26:BB:18:G:O4'	2.05	0.57
13:CM:57:ARG:CZ	51:D4:60:GLU:HG3	2.34	0.57
22:CW:36:A:C6	22:CW:37:A:N7	2.73	0.57
5:AE:53:LEU:O	5:AE:57:LYS:HB2	2.05	0.57
33:DI:114:LEU:O	33:DI:115:ALA:HB3	2.03	0.57
9:CI:14:VAL:HG12	9:CI:15:ALA:N	2.20	0.57
25:DA:2762:G:C3'	25:DA:2763:G:H5''	2.35	0.57
34:BN:58:ASP:C	34:BN:60:ILE:N	2.57	0.57
1:CA:1115:G:N3	1:CA:1124:G:N2	2.52	0.57
26:BB:11:C:OP2	47:B0:72:ARG:NE	2.38	0.57
29:BE:101:ARG:HH22	29:BE:171:GLU:HB2	1.64	0.57
28:BD:271:ILE:O	28:BD:272:ALA:HB2	2.05	0.57
29:BE:116:VAL:HG22	29:BE:122:PHE:HB2	1.86	0.57
36:DP:17:LYS:O	36:DP:19:VAL:N	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BR:45:ARG:CG	38:BR:46:GLY:N	2.68	0.57
31:BG:53:LEU:HD22	31:BG:53:LEU:N	2.19	0.57
25:BA:2124:G:O2'	27:BC:40:THR:HA	2.05	0.57
38:BR:18:LEU:HD13	38:BR:18:LEU:C	2.25	0.57
1:CA:956:C:H42	14:CN:18:VAL:CG1	2.17	0.57
4:AD:8:VAL:C	4:AD:10:ARG:N	2.57	0.57
1:AA:743:G:O2'	17:AQ:98:LEU:HD23	2.04	0.57
25:DA:154(A):C:H41	25:DA:172:C:H42	1.53	0.57
25:BA:2650:U:O2'	25:BA:2651:C:H5'	2.03	0.57
25:BA:176:G:O2'	25:BA:177:G:H5'	2.05	0.57
25:DA:2087:G:O2'	25:DA:2088:G:H5'	2.05	0.57
25:DA:1514:U:H2'	25:DA:1515:G:H8	1.70	0.57
34:BN:89:LYS:O	34:BN:93:THR:HG22	2.04	0.57
25:BA:1388:G:O2'	25:BA:1389:G:H5'	2.04	0.57
1:AA:581:U:H2'	1:AA:582:C:C6	2.40	0.57
3:CC:126:ARG:HG2	3:CC:126:ARG:HH11	1.70	0.57
22:CW:55:U:C4	22:CW:57:G:H5'	2.40	0.57
23:CV:62:C:H2'	23:CV:63:C:C6	2.40	0.57
25:DA:315:G:H2'	25:DA:316:C:H6	1.66	0.57
36:BP:47:ASP:HB3	36:BP:48:PRO:HA	1.86	0.57
25:DA:2127:G:O5'	27:DC:36:LYS:NZ	2.38	0.57
55:D8:6:THR:HB	55:D8:63:PRO:HG3	1.87	0.57
25:BA:613:G:H8	25:BA:613:G:C5'	2.15	0.57
30:BF:40:GLN:NE2	30:BF:182:ASN:HB2	2.19	0.57
31:DG:54:GLU:O	31:DG:57:ALA:HB3	2.04	0.57
39:DS:28:VAL:HB	39:DS:89:ARG:CG	2.33	0.57
19:CS:6:LYS:H	19:CS:6:LYS:CE	2.18	0.57
8:AH:6:ILE:HG22	8:AH:10:LEU:HD11	1.87	0.57
28:DD:31:LYS:NZ	28:DD:102:LYS:NZ	2.52	0.57
28:DD:97:TYR:CE1	28:DD:103:ARG:HG3	2.40	0.57
39:BS:71:ARG:O	39:BS:74:ALA:HB3	2.03	0.57
42:DV:21:ARG:H	42:DV:21:ARG:HD3	1.69	0.57
1:AA:197:G:H1'	20:AT:105:SER:HB3	1.86	0.57
25:DA:1140:C:P	34:DN:66:LYS:HZ3	2.28	0.57
25:DA:2317:C:C2'	25:DA:2318:G:H5'	2.34	0.57
25:DA:2657:A:O2'	32:DH:160:LYS:HE3	2.05	0.57
22:AW:65:G:C2	22:AW:66:U:N3	2.73	0.57
25:DA:1953:A:H2	25:DA:2549:G:N3	2.03	0.57
25:BA:2056:G:N2	52:B5:4:HIS:O	2.37	0.57
29:BE:12:THR:HG23	40:BT:8:LYS:HZ3	1.69	0.57
25:BA:1312:U:O4'	25:BA:1313:U:C2	2.58	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BU:31:SER:O	41:BU:33:ARG:N	2.38	0.57
11:AK:32:ILE:HD12	11:AK:72:ALA:CB	2.30	0.57
10:AJ:6:ILE:HG22	10:AJ:98:ILE:CD1	2.35	0.57
11:AK:125:PHE:N	11:AK:125:PHE:CD1	2.70	0.57
56:D9:9:ARG:HH11	56:D9:9:ARG:CB	2.17	0.57
25:DA:1311:G:C5	54:D7:47:ARG:NH2	2.73	0.57
24:AX:19:U:H2'	24:AX:20:U:C6	2.39	0.57
25:BA:906:G:H5'	37:BQ:26:TYR:OH	2.05	0.57
25:DA:1711:C:O2'	25:DA:1712:C:H5'	2.04	0.57
25:BA:1906:G:O2'	25:BA:1907:G:H5'	2.05	0.57
25:BA:986:C:O2'	25:BA:987:G:H5'	2.05	0.57
1:AA:138:G:N2	1:AA:172:C:O2	2.37	0.57
25:BA:878:A:H61	25:BA:899:A:H2'	1.70	0.57
4:AD:195:ALA:O	6:CF:16:GLN:C	2.43	0.56
50:D3:8:LEU:HD11	50:D3:31:LEU:HD23	1.87	0.56
41:BU:101:ARG:C	41:BU:102:GLU:HG2	2.24	0.56
22:CW:71:G:N2	22:CW:72:C:C2	2.72	0.56
25:DA:1786:A:C2	25:DA:2606:C:H1'	2.40	0.56
50:B3:8:LEU:HD11	50:B3:31:LEU:HD23	1.87	0.56
1:CA:1220:A:H2'	1:CA:1279:C:H42	1.70	0.56
39:BS:88:ASP:OD2	39:BS:89:ARG:N	2.38	0.56
45:DY:95:LYS:HA	45:DY:100:ALA:HA	1.86	0.56
25:BA:2300:G:N2	25:BA:2317:C:C1'	2.55	0.56
25:DA:251:A:H5''	36:DP:51:PHE:CZ	2.40	0.56
28:BD:31:LYS:NZ	28:BD:102:LYS:NZ	2.52	0.56
25:BA:70:G:H5''	25:BA:113:G:H1'	1.86	0.56
33:DI:73:GLU:HB2	33:DI:136:VAL:HG23	1.85	0.56
2:AB:19:HIS:CE1	2:AB:191:ASP:HB2	2.40	0.56
30:BF:1:MET:HE1	30:BF:26:ALA:HB1	1.87	0.56
22:AY:38:A:C2	22:AY:39:U:C2	2.94	0.56
32:BH:37:VAL:HG21	32:BH:72:ILE:HD11	1.87	0.56
45:BY:27:VAL:HG12	45:BY:29:GLU:OE1	2.05	0.56
25:DA:2610:C:O2'	25:DA:2611:U:P	2.63	0.56
25:BA:2610:C:O2'	25:BA:2611:U:P	2.63	0.56
38:DR:8:ARG:HA	38:DR:8:ARG:NE	2.18	0.56
37:BQ:110:THR:OG1	37:BQ:112:GLU:HG2	2.05	0.56
25:DA:941:A:O3'	36:DP:35:HIS:ND1	2.37	0.56
25:BA:2036:C:H5'	25:BA:2036:C:C6	2.27	0.56
48:D1:52:ARG:HG3	48:D1:53:VAL:N	2.16	0.56
2:CB:169:LYS:HD2	2:CB:170:GLU:OE2	2.05	0.56
36:DP:84:ASN:ND2	36:DP:116:GLY:HA3	2.19	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:D1:3:LYS:O	48:D1:12:PRO:HD3	2.05	0.56
25:DA:301:G:H1'	25:DA:302:C:C6	2.40	0.56
38:DR:28:LEU:HD11	38:DR:116:LEU:CD2	2.35	0.56
46:DZ:158:PRO:HG2	46:DZ:161:VAL:HG21	1.87	0.56
3:CC:109:PRO:HA	3:CC:115:LEU:HD12	1.85	0.56
45:DY:88:LYS:NZ	45:DY:93:GLY:CA	2.67	0.56
12:AL:24:VAL:CG1	12:AL:24:VAL:O	2.53	0.56
46:DZ:15:PRO:O	46:DZ:19:ARG:HG3	2.05	0.56
25:BA:2672:G:C2'	25:BA:2673:G:H5''	2.35	0.56
17:CQ:18:THR:HG22	17:CQ:19:VAL:N	2.20	0.56
1:AA:28:G:O2'	1:AA:291:U:OP1	2.21	0.56
25:BA:2884:U:H2'	25:BA:2885:C:H5'	1.86	0.56
43:BW:72:LYS:HB3	43:BW:106:ILE:O	2.05	0.56
25:BA:1882:C:H5'	25:BA:1883:G:OP2	2.05	0.56
1:CA:1134:A:H2'	1:CA:1135:C:H6	1.70	0.56
21:AU:18:TYR:HD1	21:AU:24:ARG:CZ	2.18	0.56
25:BA:2340:G:O2'	25:BA:2341:G:H5'	2.04	0.56
25:BA:2087:G:O2'	25:BA:2088:G:H5'	2.05	0.56
25:BA:2543:G:H8	25:BA:2543:G:H5'	1.70	0.56
4:CD:4:TYR:HE2	4:CD:6:GLY:O	1.88	0.56
13:AM:93:ARG:NE	25:BA:888:C:H5''	2.18	0.56
13:AM:88:ARG:CG	13:AM:98:VAL:HG11	2.35	0.56
25:DA:106:C:H2'	25:DA:107:C:H6	1.67	0.56
14:AN:27:CYS:SG	14:AN:43:CYS:SG	3.03	0.56
25:DA:311:A:O4'	25:DA:332:A:C4	2.59	0.56
45:DY:31:LEU:HD22	45:DY:31:LEU:H	1.69	0.56
25:DA:280:C:O2	25:DA:361:G:N3	2.38	0.56
25:BA:1982:C:O5'	25:BA:1982:C:H6	1.87	0.56
25:BA:1786:A:C2	25:BA:2606:C:H1'	2.40	0.56
25:DA:2468:G:O2'	25:DA:2476:A:H8	1.86	0.56
25:BA:2126:A:H1'	25:BA:2127:G:O4'	2.05	0.56
26:BB:28:C:OP1	39:BS:31:SER:OG	2.21	0.56
1:CA:951:A:OP2	14:CN:41:ARG:NH1	2.36	0.56
25:BA:271(E):U:H2'	25:BA:271(F):C:C6	2.41	0.56
45:DY:76:CYS:HB3	45:DY:96:ILE:CD1	2.27	0.56
1:AA:1091:C:P	3:AC:176:HIS:HD1	2.27	0.56
33:BI:111:PRO:HA	33:BI:114:LEU:HD11	1.87	0.56
25:DA:2074:U:H2'	25:DA:2075:U:C6	2.40	0.56
2:CB:185:ILE:HG12	2:CB:199:TYR:HB2	1.87	0.56
31:DG:43:LEU:HB2	31:DG:88:ILE:CD1	2.35	0.56
25:DA:2330:G:H2'	25:DA:2331:G:H5''	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BG:39:ILE:HD12	31:BG:40:ASN:N	2.20	0.56
20:AT:26:ASN:HB2	20:AT:71:THR:HG21	1.84	0.56
25:DA:395:U:H2'	25:DA:396:G:N7	2.20	0.56
25:BA:1170:G:H1	25:BA:1179:C:N4	1.96	0.56
41:BU:34:LYS:CE	41:BU:34:LYS:HA	2.30	0.56
34:BN:51:PHE:CE2	34:BN:119:ARG:HD2	2.40	0.56
28:BD:13:ARG:HG2	28:BD:13:ARG:O	2.05	0.56
20:CT:14:LYS:HB2	20:CT:17:ARG:NH2	2.19	0.56
11:CK:126:ARG:HB3	11:CK:126:ARG:NH1	2.19	0.56
8:CH:84:ARG:HH11	8:CH:84:ARG:HG2	1.69	0.56
40:BT:73:GLU:OE2	40:BT:103:ARG:NH2	2.38	0.56
1:AA:806:G:H21	8:AH:1:MET:HE3	1.70	0.56
46:BZ:17:ALA:HA	46:BZ:20:ARG:HB2	1.88	0.56
23:CV:14:A:C4	23:CV:23:G:C2	2.93	0.56
41:BU:68:ALA:O	41:BU:71:GLN:HB2	2.04	0.56
25:BA:1887:C:C2'	25:BA:1888:G:H5''	2.35	0.56
25:BA:2025:C:H2'	25:BA:2026:C:H6	1.70	0.56
1:AA:15:G:H2'	1:AA:16:A:C8	2.40	0.56
17:CQ:27:PHE:CE1	17:CQ:36:ILE:HD11	2.40	0.56
1:AA:1100:C:H2'	1:AA:1101:C:H6	1.71	0.56
1:AA:668:G:O2'	1:AA:669:U:H5'	2.05	0.56
25:DA:536:A:H2'	25:DA:537:C:C6	2.40	0.56
25:BA:1514:U:H2'	25:BA:1515:G:H8	1.70	0.56
1:AA:20:U:H2'	1:AA:21:G:O4'	2.05	0.56
4:AD:162:LEU:O	4:AD:165:MET:HB2	2.05	0.56
20:CT:29:LYS:HD3	20:CT:66:ALA:CB	2.34	0.56
25:DA:911:A:H5''	25:DA:912:C:H5'	1.78	0.56
25:DA:77:C:H5''	49:D2:10:LEU:HD11	1.87	0.56
40:DT:12:SER:CB	40:DT:57:PHE:CD1	2.88	0.56
31:BG:95:ARG:O	31:BG:96:ARG:O	2.23	0.56
23:CV:55:U:C6	23:CV:55:U:H3'	2.40	0.56
55:B8:4:MET:O	55:B8:62:LEU:HD11	2.05	0.56
36:BP:52:GLU:C	36:BP:52:GLU:OE1	2.43	0.56
53:B6:10:LEU:HD22	53:B6:10:LEU:H	1.71	0.56
38:BR:84:ALA:HB3	38:BR:85:PRO:HD3	1.87	0.56
38:BR:77:ARG:O	38:BR:79:LEU:N	2.37	0.56
37:BQ:70:PRO:HA	37:BQ:94:VAL:O	2.05	0.56
25:BA:2468:G:O2'	25:BA:2476:A:C8	2.59	0.56
25:BA:2483:C:H5'	25:BA:2484:G:OP2	2.05	0.56
42:DV:5:VAL:HG21	42:DV:35:LEU:HG	1.87	0.56
13:CM:116:THR:CG2	13:CM:117:VAL:N	2.56	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:280:C:O2	25:BA:361:G:N3	2.39	0.56
1:AA:260:G:H5''	17:AQ:64:PRO:O	2.05	0.56
42:BV:18:LEU:CG	42:BV:19:LYS:H	2.18	0.56
42:BV:18:LEU:HD22	42:BV:19:LYS:N	2.18	0.56
25:BA:866:A:N1	25:BA:914:C:C6	2.74	0.56
22:CW:36:A:C5	22:CW:37:A:C8	2.92	0.56
1:AA:1090:G:H2'	1:AA:1091:C:H5'	1.87	0.56
12:AL:41:ARG:NH1	12:AL:41:ARG:CB	2.69	0.56
50:B3:44:ARG:O	50:B3:48:GLU:HG2	2.06	0.56
33:BI:82:ARG:HG3	33:BI:82:ARG:HH11	1.70	0.56
33:DI:94:ALA:HB1	33:DI:111:PRO:CA	2.36	0.56
25:DA:2186:G:C4	25:DA:2187:G:N7	2.73	0.56
44:DX:63:LYS:HA	44:DX:72:LYS:HA	1.88	0.56
5:AE:6:PHE:CD2	5:AE:36:ASP:HB3	2.41	0.56
32:BH:70:THR:O	32:BH:72:ILE:N	2.37	0.56
25:BA:2186:G:C4	25:BA:2187:G:N7	2.73	0.56
25:DA:2301:C:H2'	25:DA:2302:G:O4'	2.06	0.56
10:AJ:34:VAL:CG2	10:AJ:74:ILE:HG22	2.27	0.56
25:BA:589:C:O2'	25:BA:590:A:H5'	2.04	0.56
38:DR:17:ARG:HH11	38:DR:17:ARG:HG2	1.71	0.56
37:DQ:61:GLY:O	46:DZ:178:GLU:HB2	2.05	0.56
25:BA:1301:A:HO2'	25:BA:1302:A:P	2.28	0.56
4:CD:9:CYS:HA	4:CD:12:CYS:HB2	1.86	0.56
25:DA:941:A:HO2'	36:DP:35:HIS:CE1	2.19	0.56
32:BH:20:ALA:HB2	32:BH:25:LYS:HE3	1.88	0.56
2:CB:80:ILE:C	2:CB:82:ARG:H	2.08	0.56
25:BA:845:G:H8	25:BA:845:G:OP2	1.86	0.56
32:DH:20:ALA:HB2	32:DH:25:LYS:HE3	1.88	0.56
29:DE:3:GLY:CA	29:DE:81:ILE:HG21	2.34	0.56
40:DT:6:LEU:HD23	40:DT:7:ILE:HD13	1.87	0.56
3:AC:195:VAL:C	3:AC:196:LEU:HD22	2.25	0.56
32:BH:47:GLU:HG2	32:BH:48:GLY:N	2.18	0.56
10:CJ:22:LYS:C	10:CJ:22:LYS:HD2	2.25	0.56
25:DA:819:A:OP2	25:DA:1187:G:N2	2.27	0.56
3:CC:34:LEU:HD23	3:CC:35:GLU:N	2.20	0.56
34:DN:48:MET:HE3	34:DN:48:MET:N	2.20	0.56
19:CS:29:ARG:HD2	19:CS:29:ARG:H	1.70	0.56
38:DR:27:SER:HB3	38:DR:34:ILE:CD1	2.34	0.56
25:DA:1108:U:H2'	25:DA:1109:C:H5'	1.88	0.56
3:CC:86:VAL:O	3:CC:90:GLU:HG2	2.05	0.56
51:D4:46:ASN:ND2	51:D4:47:VAL:N	2.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:48:ILE:HG22	11:AK:49:GLY:N	2.20	0.56
8:CH:85:ARG:HH11	8:CH:85:ARG:HG3	1.69	0.56
19:AS:28:LYS:HD2	19:AS:29:ARG:CZ	2.36	0.56
9:CI:121:ARG:O	9:CI:121:ARG:HD3	2.05	0.56
1:CA:1036:C:O2'	1:CA:1037:A:C5'	2.52	0.56
1:CA:1036:C:HO2'	1:CA:1037:A:P	2.29	0.56
30:DF:161:GLU:HA	30:DF:164:ARG:HB2	1.86	0.56
1:CA:385:C:H2'	1:CA:386:G:C8	2.39	0.56
40:BT:134:GLU:O	40:BT:136:GLN:N	2.39	0.56
25:BA:2518:A:H8	25:BA:2518:A:H5'	1.70	0.56
25:BA:686:G:N2	25:BA:788:A:H61	2.02	0.56
30:DF:157:VAL:HB	30:DF:194:MET:CB	2.35	0.56
9:AI:47:LEU:C	9:AI:49:PRO:HD2	2.25	0.56
25:DA:1887:C:C2'	25:DA:1888:G:H5''	2.35	0.56
25:DA:1794:U:H2'	25:DA:1795:C:C6	2.39	0.56
28:DD:165:ILE:HD13	28:DD:175:LEU:CD2	2.35	0.56
25:DA:2720:U:H3'	25:DA:2721:A:H8	1.70	0.56
18:CR:36:ASN:HD22	18:CR:39:VAL:HB	1.69	0.56
47:B0:23:VAL:HG22	47:B0:38:VAL:HG22	1.87	0.56
1:CA:1134:A:H5''	10:CJ:13:HIS:CD2	2.40	0.56
21:AU:18:TYR:CD1	21:AU:24:ARG:CZ	2.89	0.56
25:DA:878:A:H61	25:DA:899:A:H2'	1.70	0.56
35:DO:13:ASN:OD1	35:DO:97:ARG:N	2.34	0.56
25:DA:2352:A:C2'	25:DA:2353:G:H5'	2.36	0.56
6:CF:100:ASN:ND2	18:CR:23:LYS:HE3	2.20	0.56
25:BA:839:U:H1'	25:BA:1191:G:H1'	1.87	0.56
1:AA:198:U:H4'	20:AT:103:GLY:HA2	1.86	0.56
44:BX:5:TYR:CE1	49:B2:30:ARG:HB2	2.41	0.56
26:DB:35:U:O2'	26:DB:36:C:H5'	2.06	0.56
34:BN:32:THR:CG2	34:BN:37:LYS:HB3	2.35	0.56
1:AA:1461:C:H4'	25:BA:1960:A:O2'	2.05	0.56
25:DA:2321:G:N3	25:DA:2321:G:H2'	2.20	0.56
25:DA:2233:U:H2'	25:DA:2234:G:C8	2.41	0.56
42:DV:34:GLU:O	42:DV:36:PRO:HD3	2.05	0.56
34:DN:32:THR:CG2	34:DN:37:LYS:HB3	2.35	0.56
1:CA:584:C:H42	1:CA:620:G:H1	1.53	0.56
1:AA:676:G:H2'	1:AA:677:A:C8	2.40	0.56
25:DA:451:C:H41	25:DA:453:C:H3'	1.70	0.56
41:DU:29:SER:OG	41:DU:30:LYS:HE2	2.06	0.56
25:BA:1973:G:H2'	25:BA:1974:C:C6	2.41	0.56
25:BA:2321:G:H2'	25:BA:2321:G:N3	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BG:5:VAL:HG12	51:B4:51:TYR:CD1	2.40	0.56
10:AJ:61:GLU:OE1	14:AN:58:LYS:HE2	2.05	0.56
25:DA:271(E):U:H2'	25:DA:271(F):C:C6	2.40	0.56
25:BA:2390:U:C2'	25:BA:2391:G:H5'	2.31	0.56
25:DA:2483:C:H5'	25:DA:2484:G:OP2	2.05	0.56
41:DU:101:ARG:C	41:DU:102:GLU:HG2	2.24	0.56
42:DV:4:ILE:CG2	42:DV:39:LEU:CD2	2.84	0.56
1:CA:950:G:H1'	10:CJ:55:LYS:HE2	1.87	0.56
45:DY:96:ILE:HD12	45:DY:99:CYS:CB	2.35	0.56
12:CL:28:LYS:CB	12:CL:33:ARG:CZ	2.83	0.56
1:AA:1048:C:O2'	1:AA:1049:A:OP1	2.18	0.56
25:BA:850:C:O3'	50:B3:49:LYS:NZ	2.37	0.56
25:BA:69:C:H5'	25:BA:70:G:OP2	2.06	0.56
45:BY:7:VAL:HB	45:BY:8:LYS:NZ	2.20	0.56
28:DD:6:PHE:HD2	28:DD:9:TYR:OH	1.88	0.56
46:DZ:6:LYS:HA	46:DZ:60:GLU:HB2	1.88	0.56
32:BH:97:ARG:O	32:BH:98:LEU:HB2	2.06	0.56
1:AA:1328:G:N2	1:AA:1355:G:H2'	2.20	0.56
10:AJ:30:SER:HA	10:AJ:80:LYS:HD3	1.86	0.56
9:CI:104:ARG:O	9:CI:105:ASP:HB3	2.06	0.56
46:DZ:10:ARG:HH21	46:DZ:26:GLY:N	2.03	0.56
15:AO:78:TYR:C	15:AO:80:ALA:H	2.08	0.56
28:DD:271:ILE:O	28:DD:272:ALA:HB2	2.05	0.56
36:BP:83:VAL:CG1	36:BP:112:LEU:HD21	2.34	0.56
39:DS:85:VAL:HG22	39:DS:106:ARG:HB2	1.88	0.56
43:DW:92:ARG:O	43:DW:93:ALA:HB3	2.05	0.56
25:BA:481:G:H2'	25:BA:507:A:N1	2.21	0.56
1:CA:1229:A:N3	9:CI:70:LYS:HE3	2.20	0.56
34:DN:51:PHE:CE2	34:DN:119:ARG:HD2	2.40	0.56
51:B4:46:ASN:ND2	51:B4:47:VAL:N	2.52	0.56
8:CH:87:SER:HA	8:CH:93:VAL:HG23	1.87	0.56
8:CH:20:TYR:HD1	8:CH:65:TYR:CD2	2.24	0.56
1:AA:773:A:H8	1:AA:773:A:O5'	1.87	0.56
1:AA:774:G:N2	1:AA:1474:G:O3'	2.36	0.56
22:AW:3:C:H2'	22:AW:4:C:H6	1.71	0.56
2:CB:121:LEU:HA	2:CB:126:GLU:OE1	2.04	0.56
1:CA:1197:G:OP1	14:CN:2:ALA:HA	2.06	0.56
45:BY:2:ARG:N	45:BY:4:LYS:HG2	2.21	0.56
17:AQ:74:LEU:HD12	17:AQ:75:ARG:HG2	1.86	0.56
38:BR:26:LYS:HE2	38:BR:71:GLN:H	1.70	0.56
1:AA:603:C:H2'	1:AA:604:A:O4'	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1007:C:OP1	34:BN:35:ARG:NH1	2.37	0.56
11:CK:114:VAL:O	11:CK:114:VAL:HG13	2.04	0.56
6:AF:100:ASN:ND2	18:AR:23:LYS:HE3	2.19	0.56
22:CW:44:G:H3'	22:CW:45:U:C5	2.41	0.56
17:AQ:52:LYS:HG2	17:AQ:55:ASP:OD1	2.05	0.56
23:AV:5:G:C2	23:AV:70:C:C2	2.93	0.56
38:DR:81:ASP:O	38:DR:82:GLU:HB2	2.05	0.56
41:DU:79:PHE:CE1	41:DU:106:PHE:CZ	2.94	0.56
40:BT:80:SER:HB3	40:BT:81:PRO:HD2	1.86	0.56
25:DA:1880:C:H6	25:DA:1880:C:C5'	2.11	0.56
25:DA:744:G:OP1	29:DE:132:HIS:HB3	2.05	0.56
33:DI:120:ILE:HG22	33:DI:121:LYS:N	2.20	0.56
22:AW:30:G:N3	22:AW:31:A:C8	2.73	0.56
25:BA:2854:G:H2'	25:BA:2855:C:C6	2.41	0.56
1:AA:1328:G:C8	9:AI:107:ARG:HB3	2.40	0.56
45:BY:28:LYS:HA	45:BY:39:VAL:N	2.18	0.56
37:DQ:110:THR:OG1	37:DQ:112:GLU:HG2	2.05	0.56
46:DZ:150:LEU:HD23	46:DZ:171:ILE:CG1	2.32	0.56
31:BG:69:ALA:O	31:BG:90:LEU:HD22	2.06	0.56
31:BG:88:ILE:CD1	31:BG:89:GLY:N	2.68	0.56
48:B1:3:LYS:O	48:B1:12:PRO:HD3	2.05	0.56
26:BB:55:U:O2'	26:BB:56:G:H5'	2.05	0.56
29:DE:3:GLY:HA3	29:DE:81:ILE:CG2	2.32	0.56
36:BP:101:VAL:HG13	36:BP:106:LEU:HD23	1.87	0.56
34:BN:42:TRP:CD1	41:BU:63:VAL:HG11	2.41	0.56
22:AW:16:U:C6	22:AW:17:C:H5'	2.40	0.56
22:CY:28:G:N3	22:CY:43:C:N3	2.54	0.56
20:CT:14:LYS:HA	20:CT:17:ARG:NE	2.19	0.56
25:BA:321:G:OP2	30:BF:136:THR:HG22	2.06	0.56
3:AC:109:PRO:HA	3:AC:115:LEU:HD12	1.87	0.56
55:B8:23:VAL:CG1	55:B8:46:ARG:HB3	2.35	0.56
25:BA:1504:C:O2'	25:BA:1505:C:H5'	2.05	0.56
1:AA:1310:A:OP1	13:AM:28:ALA:HB3	2.06	0.56
49:D2:43:GLN:O	49:D2:44:LEU:CD2	2.53	0.56
22:AW:8:U:O2	22:AW:21:A:C2	2.57	0.56
38:DR:18:LEU:HD13	38:DR:18:LEU:C	2.25	0.56
11:AK:126:ARG:HH11	11:AK:126:ARG:HB3	1.70	0.56
3:AC:148:GLY:HA3	3:AC:172:ARG:O	2.05	0.56
29:DE:111:ARG:HD2	29:DE:160:TYR:HE1	1.70	0.56
1:CA:307:C:H2'	1:CA:308:A:H8	1.69	0.56
29:BE:111:ARG:HD2	29:BE:160:TYR:HE1	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2710:C:OP1	38:DR:15:SER:HB2	2.05	0.56
25:DA:1882:C:H5'	25:DA:1883:G:OP2	2.05	0.56
25:DA:1906:G:O2'	25:DA:1907:G:H5'	2.05	0.56
28:BD:248:SER:HB2	28:BD:249:PRO:HD2	1.88	0.56
38:DR:26:LYS:HE2	38:DR:71:GLN:H	1.70	0.56
25:DA:524:U:H4'	25:DA:555:U:H4'	1.86	0.56
1:CA:209:U:H4'	1:CA:211:G:C4	2.41	0.56
25:BA:311:A:C6	25:BA:328:U:C4	2.94	0.56
31:DG:170:ARG:NH2	31:DG:182:LYS:HG3	2.20	0.56
13:CM:94:ARG:CZ	25:DA:887:A:H3'	2.35	0.56
4:AD:166:LYS:HG3	4:AD:178:VAL:HG11	1.88	0.56
32:DH:37:VAL:HG21	32:DH:72:ILE:HD11	1.87	0.56
25:BA:2074:U:H2'	25:BA:2075:U:C6	2.40	0.56
34:BN:2:LYS:HE2	41:BU:95:LEU:HD21	1.88	0.56
1:AA:1301:C:H5'	19:AS:70:LYS:HG3	1.88	0.56
22:CW:19:G:H22	22:CW:56:C:H42	1.53	0.56
22:CW:61:C:H2'	22:CW:62:C:C6	2.40	0.56
23:CV:19:G:H1'	23:CV:59:A:C2	2.41	0.56
25:DA:1210:A:H4'	25:DA:1211:U:O5'	2.05	0.56
45:DY:66:PRO:O	45:DY:67:LEU:CG	2.43	0.56
36:BP:52:GLU:HG3	36:BP:57:THR:OG1	2.05	0.56
25:DA:2126:A:H1'	25:DA:2127:G:O4'	2.05	0.56
25:DA:2127:G:O5'	27:DC:36:LYS:CE	2.54	0.56
41:DU:79:PHE:HD2	41:DU:79:PHE:O	1.89	0.56
39:BS:89:ARG:HD2	39:BS:92:TYR:CA	2.33	0.56
1:AA:256:U:N3	1:AA:259:U:OP2	2.28	0.56
1:CA:1294:U:OP1	19:CS:6:LYS:HG3	2.04	0.56
53:D6:10:LEU:H	53:D6:10:LEU:HD22	1.71	0.56
36:DP:63:PRO:C	36:DP:65:ARG:H	2.09	0.56
42:DV:18:LEU:CG	42:DV:19:LYS:H	2.18	0.56
53:B6:15:GLU:OE1	53:B6:18:ARG:HG3	2.06	0.56
25:DA:589:C:O2'	25:DA:590:A:H5'	2.04	0.56
30:BF:3:GLU:CB	30:BF:24:LEU:HG	2.35	0.56
41:BU:58:ARG:O	41:BU:62:ILE:HG12	2.06	0.56
30:DF:132:VAL:CG2	30:DF:133:ASN:N	2.66	0.56
25:BA:2526:G:N2	56:B9:2:LYS:HG3	2.13	0.56
25:DA:285:C:C2	25:DA:286:C:C6	2.94	0.56
10:AJ:90:LEU:N	10:AJ:90:LEU:HD12	2.21	0.56
27:BC:68:LEU:HD22	27:BC:180:PHE:CB	2.36	0.56
28:BD:267:SER:HA	28:BD:270:ILE:CG1	2.34	0.56
25:BA:2308:G:O6	25:BA:2310:A:H2'	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2876:G:P	40:DT:4:GLY:H	2.28	0.56
36:BP:85:LEU:HD23	36:BP:85:LEU:N	2.18	0.56
43:BW:92:ARG:O	43:BW:93:ALA:HB3	2.05	0.56
22:AW:16:U:C3'	22:AW:17:C:H5'	2.36	0.56
34:DN:43:THR:HB	34:DN:46:VAL:HG12	1.88	0.56
29:DE:11:MET:CA	40:DT:8:LYS:HZ1	2.18	0.56
19:AS:29:ARG:HD2	19:AS:29:ARG:N	2.20	0.56
22:CY:33:U:C3'	22:CY:34:G:H5''	2.35	0.56
30:BF:7:TYR:HB3	30:BF:16:GLY:N	2.21	0.56
29:BE:110:GLY:HA2	29:BE:162:ALA:H	1.70	0.56
30:DF:32:LEU:HD22	30:DF:112:MET:HE2	1.87	0.56
36:DP:140:ALA:O	36:DP:141:ALA:HB3	2.06	0.56
1:AA:773:A:OP1	23:AV:39:A:O2'	2.21	0.56
1:AA:499:U:O2'	1:AA:502:C:N3	2.32	0.56
38:BR:2:ARG:NH2	38:BR:5:LYS:HZ1	2.04	0.56
25:BA:1794:U:H2'	25:BA:1795:C:C6	2.39	0.56
25:DA:558:G:P	34:DN:111:PRO:HD2	2.46	0.56
25:DA:102:G:H4'	25:DA:102:G:OP1	2.06	0.56
25:BA:311:A:O4'	25:BA:332:A:C4	2.59	0.56
6:AF:89:MET:SD	18:AR:76:LEU:HD21	2.46	0.56
35:DO:64:ARG:HG3	35:DO:83:ALA:HB3	1.87	0.56
25:DA:176:G:O2'	25:DA:177:G:H5'	2.05	0.56
25:BA:1573:G:H2'	25:BA:1574:C:H5'	1.86	0.56
3:CC:22:TRP:CZ3	3:CC:32:LEU:HB3	2.41	0.56
30:DF:51:THR:HB	30:DF:88:VAL:HG11	1.87	0.56
2:CB:43:ASP:OD2	2:CB:46:LYS:HB2	2.06	0.56
29:DE:143:ASN:HB2	29:DE:147:PRO:HD2	1.88	0.56
51:D4:39:ARG:HH11	51:D4:39:ARG:HG2	1.71	0.56
18:AR:25:THR:HG22	18:AR:42:ARG:NH1	2.21	0.56
25:DA:953:A:C2'	25:DA:954:G:H5'	2.36	0.56
25:DA:2692:C:H2'	25:DA:2693:A:H8	1.70	0.56
25:DA:328:U:H4'	45:DY:68:HIS:CD2	2.41	0.56
25:DA:2790:A:N3	25:DA:2790:A:H2'	2.19	0.56
55:D8:4:MET:O	55:D8:62:LEU:HD11	2.05	0.56
55:D8:62:LEU:N	55:D8:63:PRO:CD	2.69	0.56
42:BV:21:ARG:HD3	42:BV:21:ARG:H	1.70	0.56
10:CJ:61:GLU:OE1	14:CN:58:LYS:HE2	2.06	0.56
25:BA:2301:C:H2'	25:BA:2302:G:O4'	2.06	0.56
31:BG:124:SER:HB2	31:BG:131:TYR:CE1	2.40	0.56
25:DA:61:G:H1	25:DA:94:C:H42	1.54	0.56
45:BY:81:LYS:HB3	45:BY:96:ILE:HG22	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CW:30:G:N2	22:CW:41:C:N3	2.53	0.56
53:B6:46:HIS:HD2	53:B6:46:HIS:O	1.88	0.56
34:BN:19:GLU:HG3	34:BN:20:GLY:N	2.20	0.56
34:DN:19:GLU:HG3	34:DN:20:GLY:N	2.20	0.56
1:AA:1276:G:O3'	13:AM:14:ARG:NH1	2.39	0.56
23:AV:50:G:O6	23:AV:66:C:N4	2.26	0.56
25:DA:943:U:OP1	36:DP:38:GLN:HB3	2.06	0.56
25:DA:1652:A:C2'	25:DA:1653:G:C5'	2.84	0.56
38:BR:10:LEU:HB3	38:BR:17:ARG:CD	2.36	0.56
2:CB:57:PHE:HD2	2:CB:185:ILE:HD11	1.71	0.56
25:DA:2390:U:C2'	25:DA:2391:G:H5'	2.31	0.56
48:D1:82:LEU:HB3	48:D1:90:ILE:HD12	1.87	0.56
29:DE:101:ARG:HD3	29:DE:169:ASN:HD21	1.70	0.56
20:AT:72:LEU:HD21	20:AT:77:ALA:CA	2.36	0.56
25:DA:379:G:H2'	25:DA:380:U:H5''	1.87	0.56
41:BU:33:ARG:O	41:BU:37:GLU:HG3	2.06	0.56
23:CV:30:G:H2'	23:CV:31:G:O4'	2.05	0.56
20:CT:72:LEU:HD21	20:CT:77:ALA:N	2.20	0.56
8:CH:12:ARG:HG2	8:CH:24:THR:HG21	1.88	0.56
25:DA:1278:A:C5'	38:DR:36:THR:HG22	2.36	0.56
31:DG:175:LEU:N	31:DG:175:LEU:HD12	2.20	0.56
4:CD:112:VAL:HG13	4:CD:116:GLN:OE1	2.05	0.56
25:BA:1108:U:H2'	25:BA:1109:C:H5'	1.88	0.56
13:CM:100:GLY:O	13:CM:101:GLN:HG3	2.04	0.56
22:AW:22:G:N2	22:AW:23:A:C4	2.74	0.56
31:BG:47:LYS:CE	31:BG:81:LYS:HD2	2.35	0.56
22:AW:21:A:N7	22:AW:46:G:C5	2.74	0.56
25:DA:1813:G:H1'	28:DD:50:THR:OG1	2.06	0.56
30:BF:32:LEU:HD22	30:BF:112:MET:HE2	1.87	0.56
3:CC:62:ASP:O	3:CC:98:ASN:HB3	2.05	0.56
25:BA:2737:G:H2'	25:BA:2738:A:C8	2.41	0.56
50:D3:44:ARG:O	50:D3:48:GLU:HG2	2.06	0.56
25:DA:1602:U:H3'	25:DA:1603:A:C5'	2.36	0.56
25:DA:1750:G:O2'	25:DA:1751:C:H5'	2.06	0.56
25:DA:1259:G:O2'	25:DA:1260:G:H5'	2.06	0.56
23:AV:76:C:OP1	25:BA:2602:A:C5'	2.54	0.56
25:BA:500:G:N2	25:BA:502:A:H3'	2.20	0.56
25:BA:1750:G:O2'	25:BA:1751:C:H5'	2.06	0.56
25:DA:839:U:H1'	25:DA:1191:G:H1'	1.87	0.56
25:DA:271(J):C:C3'	25:DA:271(K):U:H5''	2.35	0.56
25:BA:855:G:H2'	25:BA:856:C:C6	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:92:VAL:O	4:AD:96:LEU:HD13	2.06	0.56
32:DH:24:VAL:HG21	32:DH:72:ILE:HD13	1.88	0.56
32:DH:41:MET:O	32:DH:42:ARG:C	2.43	0.56
25:DA:2787:C:H1'	29:DE:61:ARG:HG2	1.88	0.56
20:CT:30:LYS:HE3	20:CT:80:ARG:HH21	1.70	0.56
22:CW:5:G:C2	22:CW:69:G:N2	2.74	0.56
55:B8:62:LEU:N	55:B8:63:PRO:CD	2.69	0.56
25:BA:2377:A:H2'	25:BA:2378:A:C8	2.41	0.56
42:BV:21:ARG:HD3	42:BV:21:ARG:N	2.21	0.56
39:DS:88:ASP:OD2	39:DS:89:ARG:N	2.38	0.56
28:DD:26:LYS:HZ3	28:DD:82:ILE:H	1.51	0.56
9:CI:64:THR:O	9:CI:64:THR:HG23	2.06	0.56
7:AG:108:ALA:O	7:AG:111:ARG:HB2	2.05	0.56
23:AV:17:C:H3'	23:AV:18:U:C5'	2.35	0.56
22:CW:40:C:H6	22:CW:40:C:O5'	1.88	0.56
25:DA:1686:C:H2'	25:DA:1687:G:H5'	1.87	0.56
33:DI:73:GLU:OE2	33:DI:137:PRO:HD2	2.06	0.56
25:BA:2763:G:H8	25:BA:2763:G:H5'	1.70	0.56
29:DE:184:VAL:CG1	29:DE:185:LYS:H	2.12	0.56
25:DA:2854:G:H2'	25:DA:2855:C:H6	1.70	0.56
25:BA:1652:A:C2'	25:BA:1653:G:C5'	2.84	0.56
10:AJ:78:ASN:ND2	10:AJ:80:LYS:HB2	2.20	0.56
25:DA:676:A:H2	25:DA:802:A:H61	1.53	0.56
31:BG:40:ASN:HB2	31:BG:91:ARG:CB	2.36	0.56
4:AD:30:LYS:HA	4:AD:35:ARG:CG	2.36	0.56
34:DN:42:TRP:CD1	41:DU:63:VAL:HG11	2.41	0.56
9:AI:92:TYR:N	9:AI:92:TYR:CD1	2.73	0.56
46:BZ:10:ARG:HH21	46:BZ:26:GLY:N	2.03	0.56
25:BA:1987:G:H8	25:BA:1987:G:C5'	2.19	0.56
30:BF:164:ARG:HH11	30:BF:164:ARG:HG2	1.69	0.56
31:DG:9:ARG:NH1	31:DG:9:ARG:HG2	2.17	0.56
3:CC:182:ILE:HG12	3:CC:203:PHE:HD1	1.70	0.56
22:AW:8:U:C4	22:AW:13:C:C4	2.93	0.56
46:BZ:44:PHE:HE2	46:BZ:86:VAL:HG21	1.69	0.56
1:AA:609:U:C2	1:AA:610:G:C8	2.94	0.56
52:B5:37:LYS:HG3	52:B5:38:ALA:H	1.71	0.56
25:DA:2523:G:H5'	25:DA:2523:G:C8	2.41	0.56
25:DA:1495:A:N3	25:DA:1495:A:H2'	2.21	0.56
30:BF:37:VAL:HG13	30:BF:184:TYR:HD1	1.71	0.56
25:BA:1602:U:H3'	25:BA:1603:A:C5'	2.36	0.56
25:DA:2737:G:H2'	25:DA:2738:A:C8	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:885:A:H2'	1:AA:886:A:H8	1.69	0.56
17:CQ:77:VAL:O	17:CQ:78:GLU:CB	2.54	0.56
4:AD:65:ARG:HD3	4:AD:75:PHE:CD2	2.40	0.56
25:BA:2836:U:H2'	25:BA:2837:G:C8	2.41	0.56
25:BA:1570:A:H2'	25:BA:1571:A:C8	2.41	0.56
25:BA:536:A:H2'	25:BA:537:C:C6	2.40	0.56
25:DA:2815:C:O2	52:D5:43:HIS:HE1	1.89	0.56
25:DA:2543:G:H5'	25:DA:2543:G:H8	1.70	0.56
15:CO:75:PRO:O	15:CO:79:ARG:HG3	2.05	0.56
25:BA:2352:A:C2'	25:BA:2353:G:H5'	2.36	0.56
4:AD:162:LEU:HD12	4:AD:181:MET:HE2	1.88	0.56
20:CT:53:LEU:HB3	20:CT:102:GLY:HA3	1.88	0.56
23:AV:3:C:C3'	23:AV:4:G:C5'	2.83	0.56
25:DA:329:G:O6	45:DY:19:LYS:HB2	2.06	0.56
37:DQ:32:TYR:OH	37:DQ:111:GLU:HB2	2.05	0.56
11:AK:127:LYS:CE	11:AK:127:LYS:HA	2.17	0.56
41:DU:96:ALA:C	41:DU:98:LEU:N	2.59	0.56
14:CN:57:ARG:HG2	14:CN:58:LYS:N	2.21	0.56
31:BG:7:LEU:HD22	31:BG:176:LEU:HD22	1.88	0.56
12:CL:28:LYS:C	12:CL:30:ALA:N	2.55	0.56
12:AL:46:LYS:O	12:AL:47:LYS:O	2.24	0.56
32:BH:17:VAL:HG11	32:BH:50:VAL:HG21	1.88	0.56
14:AN:12:ARG:HB3	14:AN:14:PRO:HG2	1.88	0.56
31:DG:124:SER:HB2	31:DG:131:TYR:CE1	2.41	0.56
25:BA:1686:C:H2'	25:BA:1687:G:H5'	1.88	0.56
38:BR:12:ARG:HD3	38:BR:16:HIS:CE1	2.41	0.56
32:DH:94:TYR:CE2	32:DH:160:LYS:HB3	2.40	0.56
2:CB:48:MET:CA	2:CB:51:LEU:HD12	2.29	0.56
25:DA:481:G:H2'	25:DA:507:A:N1	2.21	0.56
21:CU:6:ARG:NE	21:CU:15:ARG:HH12	2.04	0.56
46:DZ:151:HIS:HA	46:DZ:170:THR:HA	1.88	0.56
1:CA:1425:G:H3'	1:CA:1426:A:C5'	2.36	0.56
29:BE:101:ARG:HD3	29:BE:169:ASN:HD21	1.70	0.56
25:BA:379:G:H2'	25:BA:380:U:H5''	1.88	0.56
2:AB:81:VAL:O	2:AB:81:VAL:HG12	2.06	0.56
3:AC:195:VAL:O	3:AC:196:LEU:HD22	2.06	0.56
25:DA:302:C:C2'	25:DA:303:U:H5'	2.35	0.56
8:AH:86:ILE:HG13	8:AH:133:LEU:CD2	2.36	0.56
25:DA:1987:G:C5'	25:DA:1987:G:H8	2.19	0.56
11:AK:48:ILE:HG23	11:AK:63:LEU:HD22	1.87	0.56
10:CJ:30:SER:HA	10:CJ:80:LYS:HD3	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1081:G:H5'	1:AA:1082:C:OP2	2.06	0.56
49:B2:7:ARG:CG	49:B2:7:ARG:HH11	2.18	0.56
36:BP:140:ALA:O	36:BP:141:ALA:HB3	2.06	0.56
1:CA:737:C:H5'	1:CA:738:G:C8	2.38	0.56
30:BF:157:VAL:HB	30:BF:194:MET:CB	2.35	0.56
25:BA:1495:A:H2'	25:BA:1495:A:N3	2.21	0.56
25:DA:649:G:H2'	25:DA:650:C:H6	1.68	0.56
3:CC:99:VAL:O	3:CC:99:VAL:HG23	2.06	0.56
28:BD:165:ILE:HD13	28:BD:175:LEU:CD2	2.35	0.56
48:B1:57:GLU:O	48:B1:58:ILE:O	2.24	0.56
25:BA:598:G:H5'	36:BP:15:ARG:HB2	1.88	0.56
17:AQ:76:LEU:HD12	17:AQ:77:VAL:N	2.21	0.56
17:AQ:77:VAL:O	17:AQ:78:GLU:HB3	2.05	0.56
1:AA:525:G:H5'	4:AD:41:GLY:HA3	1.88	0.56
25:DA:1973:G:H2'	25:DA:1974:C:C6	2.41	0.56
25:DA:1388:G:O2'	25:DA:1389:G:H5'	2.04	0.56
25:BA:1830:C:H42	25:BA:1975:G:H1	1.54	0.56
5:CE:145:LYS:O	5:CE:149:GLU:HG2	2.05	0.56
8:CH:68:ARG:O	8:CH:69:ARG:HG3	2.05	0.56
25:BA:2233:U:H2'	25:BA:2234:G:C8	2.41	0.56
25:BA:796:C:H2'	25:BA:797:C:C6	2.41	0.56
25:DA:2364:C:H2'	25:DA:2365:G:O4'	2.05	0.56
20:CT:30:LYS:CE	20:CT:80:ARG:HH21	2.19	0.56
41:BU:96:ALA:C	41:BU:98:LEU:N	2.59	0.56
36:BP:65:ARG:HH12	55:B8:15:LYS:HB2	1.68	0.56
55:B8:53:PRO:HA	55:B8:56:GLU:HB2	1.88	0.56
5:CE:101:ILE:N	5:CE:101:ILE:HD13	2.21	0.56
25:BA:272:G:C2	25:BA:421:U:C5	2.93	0.56
25:DA:2126:A:N1	25:DA:2162:G:O2'	2.31	0.56
25:DA:1455:G:C8	38:DR:60:LEU:HD11	2.41	0.56
26:BB:30:C:H2'	26:BB:31:C:O4'	2.06	0.56
25:BA:2320:A:H2'	25:BA:2320:A:N3	2.21	0.56
8:AH:41:ARG:O	8:AH:41:ARG:HG2	2.05	0.56
10:CJ:40:LEU:HB2	10:CJ:41:PRO:CD	2.21	0.56
42:DV:21:ARG:N	42:DV:21:ARG:HD3	2.21	0.56
53:B6:47:THR:HG22	53:B6:48:VAL:N	2.21	0.56
33:BI:94:ALA:HB1	33:BI:111:PRO:CA	2.36	0.56
41:DU:58:ARG:O	41:DU:62:ILE:HG12	2.06	0.56
40:DT:16:ARG:NH1	40:DT:18:ASP:OD1	2.39	0.56
15:AO:60:VAL:CG2	25:BA:715:G:H1'	2.36	0.56
12:AL:46:LYS:CG	12:AL:47:LYS:N	2.58	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2481:G:O2'	25:BA:2482:G:P	2.64	0.56
1:AA:1230:C:O2	1:AA:1269:A:N6	2.38	0.56
2:AB:54:THR:O	2:AB:58:ILE:HG12	2.06	0.56
25:DA:2763:G:H5'	25:DA:2763:G:H8	1.70	0.56
25:BA:1464:C:H4'	25:BA:1528(A):A:C1'	2.35	0.56
31:DG:40:ASN:HB2	31:DG:91:ARG:CB	2.36	0.56
25:BA:1747(A):G:H2'	25:BA:1748:G:C5'	2.30	0.56
25:DA:2330:G:C2'	25:DA:2331:G:O5'	2.54	0.56
12:AL:28:LYS:HG3	12:AL:33:ARG:HH12	1.70	0.56
25:BA:379:G:C8	25:BA:380:U:C6	2.94	0.56
26:BB:56:G:OP1	31:BG:27:ASN:OD1	2.24	0.56
29:BE:3:GLY:HA3	29:BE:81:ILE:CG2	2.32	0.56
36:BP:81:GLN:HG2	36:BP:106:LEU:CD1	2.35	0.56
36:DP:83:VAL:HG11	36:DP:112:LEU:HD21	1.88	0.56
18:CR:44:LEU:CD1	18:CR:79:LEU:HD22	2.36	0.56
8:CH:58:TYR:O	8:CH:59:LEU:HD23	2.06	0.56
1:AA:1374:G:N2	1:AA:1479:A:H8	2.04	0.56
24:AX:16:A:H2'	24:AX:17:U:O4'	2.05	0.56
25:BA:301:G:H1'	25:BA:302:C:C6	2.40	0.56
22:AY:29:G:C6	22:AY:42:C:N3	2.74	0.56
3:AC:35:GLU:O	3:AC:39:ILE:HG13	2.06	0.56
34:BN:43:THR:HB	34:BN:46:VAL:HG12	1.88	0.56
1:CA:909:C:C5	7:CG:3:ARG:HD3	2.41	0.56
7:AG:153:HIS:CE1	11:AK:57:THR:HG23	2.41	0.56
13:CM:100:GLY:O	13:CM:101:GLN:CB	2.52	0.56
3:CC:173:VAL:HG12	3:CC:175:LEU:CD1	2.35	0.56
25:DA:2308:G:O6	25:DA:2310:A:H2'	2.06	0.56
25:BA:2684:U:P	40:BT:60:THR:HG21	2.46	0.56
35:DO:68:GLU:OE1	35:DO:78:ARG:NH1	2.39	0.56
12:AL:87:GLY:HA2	12:AL:98:TYR:HA	1.87	0.56
3:AC:173:VAL:HG12	3:AC:173:VAL:O	2.06	0.56
25:DA:142:A:C8	25:DA:1408:C:H1'	2.41	0.56
18:CR:53:ARG:NH2	18:CR:60:ALA:N	2.54	0.56
30:DF:37:VAL:HG13	30:DF:184:TYR:HD1	1.71	0.56
1:CA:298:A:O2'	1:CA:538:C:O2'	2.21	0.56
47:D0:23:VAL:HG22	47:D0:38:VAL:HG22	1.87	0.56
25:DA:1647:G:H3'	25:DA:1647:G:P	2.46	0.56
30:DF:127:GLU:O	30:DF:129:PHE:N	2.34	0.56
25:BA:2201:C:O2'	25:BA:2202:C:H5'	2.05	0.56
17:AQ:32:TYR:O	17:AQ:34:LYS:N	2.39	0.56
25:BA:752:A:O2'	25:BA:753:C:OP2	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2094:G:OP1	33:BI:22:LYS:HD2	2.05	0.56
41:BU:98:LEU:O	41:BU:101:ARG:O	2.25	0.55
31:BG:2:PRO:HD3	51:B4:51:TYR:CD1	2.34	0.55
26:DB:92:C:C2'	26:DB:93:G:H8	2.07	0.55
38:BR:81:ASP:O	38:BR:82:GLU:HB2	2.05	0.55
25:BA:2126:A:C5'	27:BC:36:LYS:HG2	2.36	0.55
31:BG:18:GLU:O	31:BG:22:ARG:HG3	2.06	0.55
41:DU:69:CYS:SG	41:DU:79:PHE:HD1	2.29	0.55
9:AI:64:THR:HG23	9:AI:64:THR:O	2.06	0.55
10:CJ:50:ILE:HG23	10:CJ:60:ARG:HD3	1.88	0.55
28:BD:97:TYR:CE1	28:BD:103:ARG:HG3	2.40	0.55
22:AW:39:U:H3'	22:AW:39:U:O2	2.06	0.55
25:DA:1162:G:H4'	42:DV:24:LYS:HB2	1.88	0.55
1:CA:1283:U:P	13:CM:13:LYS:HZ3	2.30	0.55
9:CI:53:VAL:HG11	9:CI:85:LEU:HD22	1.86	0.55
25:BA:2894:G:H2'	25:BA:2894:G:N3	2.21	0.55
3:CC:195:VAL:C	3:CC:196:LEU:HD22	2.26	0.55
12:AL:28:LYS:HE2	12:AL:33:ARG:NH2	2.15	0.55
29:BE:3:GLY:CA	29:BE:81:ILE:HG21	2.34	0.55
13:AM:84:ILE:HG12	19:AS:66:MET:HE1	1.88	0.55
36:BP:83:VAL:HG11	36:BP:112:LEU:HD21	1.88	0.55
36:DP:99:LEU:HA	36:DP:102:ARG:NH2	2.18	0.55
55:B8:23:VAL:HG12	55:B8:46:ARG:HH11	1.71	0.55
31:BG:17:PRO:HA	31:BG:20:ILE:HG13	1.89	0.55
24:CX:16:A:H2'	24:CX:17:U:C6	2.41	0.55
25:BA:1436:G:C3'	25:BA:1437:C:H5''	2.36	0.55
3:AC:129:ALA:HB3	3:AC:132:ARG:HD2	1.88	0.55
3:CC:150:LYS:HG3	3:CC:169:ALA:HB2	1.88	0.55
25:DA:2022:U:O2'	25:DA:2617:C:H5'	2.06	0.55
1:AA:440:G:H1	1:AA:472:C:H42	1.55	0.55
25:DA:517:C:OP1	52:D5:16:ARG:NH2	2.40	0.55
25:BA:311:A:O4'	25:BA:332:A:C5	2.59	0.55
25:BA:2352:A:H2'	25:BA:2353:G:H5'	1.88	0.55
3:CC:131:ARG:HH12	3:CC:135:LYS:HE3	1.71	0.55
8:AH:64:LYS:CG	8:AH:79:VAL:HG21	2.36	0.55
1:CA:1358:U:H2'	1:CA:1359:A:C8	2.41	0.55
25:DA:585:G:H2'	25:DA:1251:C:H42	1.69	0.55
1:CA:174:U:H2'	1:CA:175:G:H5'	1.89	0.55
48:B1:88:LYS:C	48:B1:88:LYS:HD3	2.26	0.55
1:CA:1053:C:H2'	1:CA:1054:G:C8	2.41	0.55
4:AD:22:LYS:HD3	4:AD:26:CYS:SG	2.46	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DY:54:LYS:C	45:DY:55:TYR:CD2	2.79	0.55
41:BU:92:ARG:C	41:BU:94:ASN:H	2.08	0.55
23:CV:20:G:C2	23:CV:58:A:N3	2.75	0.55
25:DA:307:G:C8	25:DA:307:G:O5'	2.56	0.55
25:DA:311:A:C6	25:DA:328:U:C4	2.94	0.55
25:BA:1210:A:H4'	25:BA:1211:U:O5'	2.06	0.55
8:AH:10:LEU:HD23	8:AH:83:ILE:CD1	2.23	0.55
25:DA:61:G:OP1	49:D2:51:ARG:HB3	2.07	0.55
1:AA:1077:U:OP1	1:AA:1090:G:N2	2.23	0.55
33:BI:73:GLU:OE2	33:BI:137:PRO:HD2	2.06	0.55
33:DI:82:ARG:HG3	33:DI:82:ARG:NH1	2.22	0.55
25:DA:587:C:C5	25:DA:671:C:H1'	2.42	0.55
22:AW:31:A:C2	22:AW:32:U:O2	2.59	0.55
25:DA:1141:U:OP1	34:DN:25:ARG:NH1	2.39	0.55
32:BH:19:VAL:HG11	32:BH:43:VAL:O	2.07	0.55
30:DF:20:LEU:HB3	30:DF:23:ASP:OD2	2.07	0.55
25:DA:2854:G:H2'	25:DA:2855:C:C6	2.41	0.55
25:BA:587:C:C5	25:BA:671:C:H1'	2.41	0.55
4:CD:53:ASP:HB3	4:CD:57:ARG:NH1	2.13	0.55
25:BA:285:C:C2	25:BA:286:C:C6	2.93	0.55
53:D6:13:CYS:O	53:D6:21:TYR:HA	2.07	0.55
31:DG:7:LEU:HD22	31:DG:176:LEU:HD22	1.88	0.55
25:DA:471:A:H2'	25:DA:472:A:C8	2.41	0.55
37:BQ:112:GLU:HG3	37:BQ:113:GLN:N	2.20	0.55
16:AP:68:ASP:O	16:AP:71:ARG:HG2	2.06	0.55
25:DA:2745:C:H4'	32:DH:142:GLY:O	2.05	0.55
48:D1:52:ARG:HH21	48:D1:52:ARG:HG3	1.71	0.55
15:CO:82:ILE:HD11	15:CO:88:ARG:HB2	1.88	0.55
25:BA:395:U:H2'	25:BA:396:G:N7	2.20	0.55
29:BE:1:MET:HA	29:BE:200:GLU:OE1	2.07	0.55
29:DE:179:GLU:O	29:DE:180:ASN:HB2	2.06	0.55
36:BP:85:LEU:HA	36:BP:88:LEU:HD22	1.89	0.55
3:AC:195:VAL:HG12	3:AC:196:LEU:H	1.70	0.55
56:B9:24:TYR:CE2	56:B9:35:ARG:HG3	2.42	0.55
25:BA:142:A:C8	25:BA:1408:C:H1'	2.41	0.55
25:BA:651:G:OP1	55:B8:19:SER:HB2	2.06	0.55
25:DA:144:C:H2'	25:DA:145:G:C8	2.38	0.55
29:DE:111:ARG:HD2	29:DE:160:TYR:CE1	2.41	0.55
43:DW:8:ARG:HA	43:DW:102:HIS:HD2	1.71	0.55
1:AA:564:G:N2	1:AA:743:G:N7	2.53	0.55
25:BA:2223:G:H2'	25:BA:2224:G:H5'	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DW:73:ALA:O	43:DW:106:ILE:HG12	2.07	0.55
1:CA:1052:U:H2'	1:CA:1053:C:H6	1.71	0.55
25:BA:1259:G:O2'	25:BA:1260:G:H5'	2.06	0.55
1:AA:550:G:C2	1:AA:551:G:H1'	2.41	0.55
3:AC:178:LEU:C	3:AC:180:ALA:H	2.10	0.55
25:BA:271(J):C:C3'	25:BA:271(K):U:H5''	2.35	0.55
3:CC:178:LEU:C	3:CC:180:ALA:H	2.10	0.55
42:BV:34:GLU:O	42:BV:36:PRO:HD3	2.05	0.55
25:DA:2774:C:H2'	25:DA:2775:A:O4'	2.05	0.55
1:CA:767:C:H4'	25:DA:1837:C:OP1	2.06	0.55
50:D3:35:ARG:HH11	50:D3:35:ARG:HG3	1.71	0.55
1:CA:1238:U:OP2	1:CA:1238:U:H4'	2.06	0.55
20:AT:13:LEU:C	20:AT:13:LEU:HD12	2.26	0.55
48:D1:88:LYS:HD3	48:D1:88:LYS:C	2.26	0.55
25:BA:1819:A:HO2'	25:BA:1820:U:P	2.28	0.55
22:CW:6:G:O2'	22:CW:7:A:H5'	2.06	0.55
25:DA:311:A:H5'	25:DA:332:A:C2	2.42	0.55
25:DA:311:A:O4'	25:DA:332:A:C5	2.59	0.55
41:DU:92:ARG:HH11	41:DU:92:ARG:CG	2.19	0.55
12:CL:41:ARG:NH1	12:CL:41:ARG:CB	2.69	0.55
22:CW:76:A:C2	25:DA:2421:G:C6	2.94	0.55
36:DP:50:ARG:O	36:DP:57:THR:HG22	2.06	0.55
8:CH:10:LEU:HD23	8:CH:83:ILE:CD1	2.23	0.55
28:DD:33:LEU:N	28:DD:33:LEU:HD12	2.17	0.55
28:DD:77:ALA:HB1	28:DD:96:HIS:O	2.06	0.55
42:DV:19:LYS:HZ3	42:DV:20:LEU:HB2	1.71	0.55
25:BA:1953:A:H2	25:BA:2549:G:N3	2.03	0.55
28:BD:79:VAL:O	28:BD:79:VAL:HG12	2.06	0.55
33:BI:120:ILE:HG22	33:BI:121:LYS:N	2.20	0.55
41:DU:62:ILE:HD12	41:DU:76:TYR:CE1	2.42	0.55
33:DI:77:LEU:HD21	33:DI:104:GLN:OE1	2.06	0.55
33:DI:82:ARG:HH11	33:DI:82:ARG:HG3	1.70	0.55
25:BA:1269:A:H2'	25:BA:1270:C:C6	2.41	0.55
32:DH:97:ARG:O	32:DH:98:LEU:HB2	2.06	0.55
25:BA:2729:G:H1'	29:BE:187:ALA:HB2	1.88	0.55
25:BA:353:G:N1	25:BA:354:G:N7	2.55	0.55
25:BA:1541:G:O6	25:BA:1542:A:N6	2.40	0.55
25:BA:471:A:H2'	25:BA:472:A:C8	2.41	0.55
25:DA:2894:G:H2'	25:DA:2894:G:N3	2.21	0.55
37:BQ:141:GLN:C	46:BZ:53:ILE:O	2.45	0.55
25:BA:676:A:H2	25:BA:802:A:H61	1.53	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AV:22:A:C2	23:AV:49:C:C5	2.94	0.55
26:DB:14:U:H5'	26:DB:71:C:O4'	2.06	0.55
29:DE:1:MET:HA	29:DE:200:GLU:OE1	2.07	0.55
19:CS:29:ARG:HD2	19:CS:29:ARG:N	2.21	0.55
25:BA:322:A:OP2	30:BF:169:ASN:HB2	2.06	0.55
55:D8:23:VAL:HG12	55:D8:46:ARG:HH11	1.71	0.55
25:BA:1486:A:N6	25:BA:1504:C:H42	2.04	0.55
10:CJ:15:THR:O	10:CJ:94:VAL:HG21	2.06	0.55
22:AW:23:A:C6	22:AW:24:G:C6	2.94	0.55
44:DX:60:ARG:HH22	54:D7:47:ARG:NE	2.04	0.55
25:DA:1486:A:N6	25:DA:1504:C:H42	2.04	0.55
25:BA:2580:U:H5'	29:BE:131:ALA:HB2	1.87	0.55
31:BG:85:GLY:O	31:BG:87:PRO:HD2	2.05	0.55
25:DA:904:C:O2'	46:DZ:169:GLU:CD	2.45	0.55
2:CB:97:TRP:HH2	2:CB:176:GLU:CD	2.10	0.55
25:BA:1335:U:O2'	25:BA:1336:A:H5'	2.07	0.55
25:DA:969:U:OP1	50:D3:17:LYS:HD3	2.06	0.55
29:BE:111:ARG:HD2	29:BE:160:TYR:CE1	2.41	0.55
2:CB:113:HIS:O	2:CB:117:GLU:HG3	2.07	0.55
25:DA:445:C:OP1	41:DU:2:PRO:HA	2.07	0.55
44:BX:57:LEU:HD13	44:BX:78:LYS:O	2.06	0.55
12:CL:83:VAL:HG12	12:CL:84:LEU:N	2.22	0.55
25:DA:2352:A:H2'	25:DA:2353:G:H5'	1.88	0.55
1:CA:1246:G:H2'	1:CA:1247:G:O4'	2.07	0.55
25:BA:601:C:O2'	25:BA:605:C:H5''	2.06	0.55
1:AA:740:U:H2'	1:AA:741:G:O4'	2.05	0.55
25:DA:2836:U:H2'	25:DA:2837:G:C8	2.41	0.55
37:BQ:57:HIS:CE1	37:BQ:116:GLU:HB3	2.41	0.55
30:BF:51:THR:HB	30:BF:88:VAL:HG11	1.87	0.55
55:D8:8:LYS:O	55:D8:12:LYS:HG3	2.06	0.55
25:BA:2774:C:H2'	25:BA:2775:A:O4'	2.05	0.55
10:AJ:42:THR:HG23	10:AJ:68:HIS:HA	1.88	0.55
1:CA:187:C:H1'	1:CA:191:G:N2	2.21	0.55
4:AD:176:LEU:HD12	4:AD:182:LYS:O	2.06	0.55
19:AS:53:ASN:O	19:AS:77:THR:HG22	2.06	0.55
28:DD:248:SER:HB2	28:DD:249:PRO:HD2	1.88	0.55
1:CA:483:G:H2'	1:CA:484:C:C6	2.41	0.55
1:CA:930:G:C5'	1:CA:942:A:H61	2.19	0.55
1:AA:516:A:OP1	1:AA:516:A:H3'	2.06	0.55
1:CA:348:A:H8	1:CA:348:A:H5'	1.71	0.55
25:BA:2364:C:H2'	25:BA:2365:G:O4'	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:41:MET:HG2	32:DH:52:VAL:HG12	1.89	0.55
25:BA:1819:A:O4'	25:BA:1821:A:C4	2.60	0.55
23:AV:4:G:C2	23:AV:5:G:N9	2.74	0.55
41:BU:69:CYS:SG	41:BU:79:PHE:HD1	2.29	0.55
1:AA:940:G:N2	1:AA:949:C:O2	2.39	0.55
22:CW:21:A:C4	22:CW:48:C:C4	2.95	0.55
25:DA:271(H):G:O6	25:DA:271(Q):G:O6	2.24	0.55
44:BX:25:LYS:HZ2	44:BX:80:ILE:HD11	1.71	0.55
26:DB:89:G:C2'	26:DB:90:A:H5'	2.36	0.55
55:B8:6:THR:HB	55:B8:63:PRO:HG3	1.87	0.55
37:DQ:70:PRO:HA	37:DQ:94:VAL:O	2.05	0.55
25:DA:2171:A:C4	25:DA:2172:U:C4	2.94	0.55
31:DG:18:GLU:O	31:DG:22:ARG:HG3	2.06	0.55
41:DU:98:LEU:HD21	42:DV:2:PHE:CZ	2.42	0.55
41:DU:98:LEU:O	41:DU:101:ARG:O	2.25	0.55
39:BS:54:LEU:C	39:BS:56:LEU:H	2.10	0.55
25:DA:2377:A:H2'	25:DA:2378:A:C8	2.41	0.55
25:BA:1658:C:C4	25:BA:1659:U:C4	2.95	0.55
29:DE:132:HIS:NE2	29:DE:135:HIS:CE1	2.73	0.55
25:DA:61:G:C8	49:D2:47:ASN:HB3	2.41	0.55
25:DA:918:A:N3	26:DB:80:U:H4'	2.21	0.55
1:AA:1091:C:H2'	1:AA:1092:A:O4'	2.05	0.55
1:AA:1261:A:O4'	10:AJ:41:PRO:HG3	2.06	0.55
28:DD:13:ARG:O	28:DD:13:ARG:HG2	2.05	0.55
25:DA:2302:G:H21	31:DG:128:ARG:CG	2.17	0.55
38:DR:12:ARG:HD3	38:DR:16:HIS:CE1	2.41	0.55
30:BF:67:GLN:CG	30:BF:67:GLN:O	2.41	0.55
25:DA:2732:G:C2'	25:DA:2733:A:H5'	2.36	0.55
31:DG:69:ALA:O	31:DG:90:LEU:HD22	2.06	0.55
25:BA:271(M):G:C2'	25:BA:271(N):U:H5''	2.34	0.55
31:BG:43:LEU:HB2	31:BG:88:ILE:CD1	2.35	0.55
32:BH:18:GLU:HB3	32:BH:25:LYS:HZ3	1.71	0.55
18:AR:44:LEU:CD1	18:AR:79:LEU:HD22	2.37	0.55
36:DP:101:VAL:HG13	36:DP:106:LEU:HD23	1.88	0.55
25:BA:302:C:C2'	25:BA:303:U:H5'	2.35	0.55
3:CC:70:VAL:HG12	3:CC:72:LYS:N	2.22	0.55
56:B9:24:TYR:O	56:B9:25:VAL:HG23	2.06	0.55
53:B6:11:LEU:HG	53:B6:26:ASN:HD21	1.72	0.55
25:DA:1479:G:H5'	25:DA:1558:A:H2	1.72	0.55
23:CV:25:U:O2'	25:DA:1923:U:H5''	2.06	0.55
46:DZ:17:ALA:HA	46:DZ:20:ARG:HB2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:47:LEU:C	9:CI:49:PRO:HD2	2.26	0.55
2:AB:114:ARG:NH1	2:AB:118:LEU:HD21	2.21	0.55
17:CQ:62:SER:CB	17:CQ:72:ARG:HG3	2.37	0.55
8:CH:29:SER:HB3	8:CH:32:LYS:HB2	1.88	0.55
25:BA:2022:U:O2'	25:BA:2617:C:H5'	2.06	0.55
1:AA:460:G:H2'	1:AA:461:G:H8	1.70	0.55
8:AH:68:ARG:O	8:AH:69:ARG:HG3	2.07	0.55
25:BA:873:G:O3'	37:BQ:63:LYS:HE2	2.06	0.55
25:DA:752:A:O2'	25:DA:753:C:OP2	2.21	0.55
26:BB:35:U:O2'	26:BB:36:C:H5'	2.06	0.55
2:CB:171:ALA:HA	2:CB:174:VAL:HG23	1.87	0.55
10:CJ:42:THR:HG23	10:CJ:68:HIS:HA	1.88	0.55
6:AF:51:PRO:HA	6:AF:56:PRO:HA	1.88	0.55
34:BN:26:LEU:HD21	34:BN:30:ILE:HD11	1.89	0.55
37:DQ:57:HIS:CE1	37:DQ:116:GLU:HB3	2.41	0.55
13:CM:94:ARG:NH2	25:DA:887:A:N9	2.54	0.55
25:BA:271(U):G:N3	25:BA:271(V):G:C8	2.75	0.55
20:CT:36:LEU:HB3	20:CT:59:ALA:HB2	1.87	0.55
25:DA:105:C:C4	25:DA:106:C:N4	2.75	0.55
26:DB:85:G:N1	26:DB:93:G:C5	2.75	0.55
39:BS:19:LYS:HB3	39:BS:20:ARG:NH1	2.13	0.55
25:BA:93:G:H2'	25:BA:94:C:C6	2.42	0.55
36:DP:47:ASP:HB3	36:DP:48:PRO:HA	1.86	0.55
8:CH:6:ILE:HG22	8:CH:10:LEU:HD11	1.88	0.55
1:CA:262:C:C6	1:CA:262:C:C5'	2.85	0.55
40:DT:16:ARG:HG3	40:DT:79:HIS:HA	1.88	0.55
10:CJ:4:ILE:HB	10:CJ:74:ILE:CD1	2.35	0.55
25:BA:2762:G:C3'	25:BA:2763:G:H5''	2.35	0.55
27:BC:49:ILE:O	27:BC:51:PRO:HD3	2.06	0.55
32:BH:126:PRO:O	32:BH:127:GLU:CB	2.54	0.55
36:BP:34:GLY:O	36:BP:35:HIS:HB2	2.06	0.55
38:BR:17:ARG:HH11	38:BR:17:ARG:HG2	1.70	0.55
10:AJ:87:THR:OG1	10:AJ:88:LEU:N	2.40	0.55
25:BA:2015:A:C4	52:B5:6:VAL:HG23	2.41	0.55
25:BA:747:U:OP2	52:B5:3:LYS:NZ	2.36	0.55
38:DR:10:LEU:HB3	38:DR:17:ARG:CD	2.36	0.55
37:DQ:112:GLU:HG3	37:DQ:113:GLN:N	2.20	0.55
15:AO:78:TYR:C	15:AO:80:ALA:N	2.60	0.55
48:D1:81:LYS:HG2	48:D1:83:GLU:OE1	2.06	0.55
36:BP:128:HIS:CD2	36:BP:128:HIS:N	2.74	0.55
55:D8:52:LYS:N	55:D8:53:PRO:CD	2.68	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:17:LYS:O	36:BP:19:VAL:N	2.38	0.55
3:CC:79:ARG:HG3	3:CC:82:GLU:OE2	2.07	0.55
25:BA:651:G:OP1	55:B8:19:SER:CB	2.55	0.55
2:AB:96:ARG:N	2:AB:96:ARG:HD2	2.21	0.55
35:BO:73:ASP:OD1	35:BO:74:GLY:N	2.39	0.55
22:AW:21:A:N6	22:AW:46:G:C4	2.75	0.55
1:CA:953:G:H5'	1:CA:1339:U:O2'	2.07	0.55
4:CD:8:VAL:O	4:CD:10:ARG:N	2.31	0.55
1:CA:745:C:H2'	1:CA:746:G:C8	2.42	0.55
52:D5:37:LYS:HG3	52:D5:38:ALA:H	1.71	0.55
25:DA:1494:A:C2'	25:DA:1495:A:H5''	2.37	0.55
1:CA:1381:C:C2	1:CA:1479:A:N6	2.75	0.55
43:BW:8:ARG:HA	43:BW:102:HIS:HD2	1.71	0.55
20:CT:44:ALA:HB1	20:CT:88:VAL:HG13	1.89	0.55
1:AA:87:C:H2'	1:AA:88:G:H8	1.71	0.55
25:DA:572:A:H5''	25:DA:573:G:OP2	2.06	0.55
25:BA:451:C:H41	25:BA:453:C:H3'	1.70	0.55
43:BW:73:ALA:O	43:BW:106:ILE:HG12	2.07	0.55
25:DA:2223:G:H2'	25:DA:2224:G:H5'	1.88	0.55
25:DA:796:C:H2'	25:DA:797:C:C6	2.41	0.55
1:CA:257:A:H2'	1:CA:258:A:C8	2.42	0.55
1:CA:1074:A:H5''	7:CG:4:ARG:NH2	2.22	0.55
25:DA:601:C:O2'	25:DA:605:C:H5''	2.06	0.55
28:BD:238:GLY:O	28:BD:239:ARG:O	2.25	0.55
17:CQ:74:LEU:HD12	17:CQ:75:ARG:HG2	1.88	0.55
33:DI:125:GLU:OE1	33:DI:125:GLU:HA	2.07	0.55
5:AE:40:ARG:HH11	5:AE:40:ARG:HG2	1.72	0.55
25:DA:2082:A:H2'	25:DA:2083:G:O4'	2.07	0.55
1:CA:931:G:H21	1:CA:1208:A:H62	1.55	0.55
4:AD:196:LEU:HA	6:CF:16:GLN:CG	2.36	0.55
20:CT:99:LEU:C	20:CT:100:ILE:HD12	2.26	0.55
14:AN:59:ALA:O	14:AN:60:SER:HB2	2.05	0.55
25:DA:2127:G:OP1	27:DC:36:LYS:CE	2.55	0.55
13:AM:3:ARG:HH21	13:AM:7:VAL:HG13	1.71	0.55
37:DQ:54:MET:HB3	37:DQ:64:ILE:CD1	2.21	0.55
25:BA:614(A):U:H4'	25:BA:614(B):G:C5'	2.37	0.55
25:BA:614(C):A:C4	30:BF:180:GLY:CA	2.89	0.55
14:CN:24:CYS:HB3	14:CN:27:CYS:O	2.06	0.55
36:DP:48:PRO:O	36:DP:49:ARG:C	2.45	0.55
1:AA:1209:C:H2'	1:AA:1210:A:C8	2.35	0.55
53:D6:16:CYS:O	53:D6:17:LYS:HB2	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:D6:15:GLU:OE1	53:D6:18:ARG:HG3	2.06	0.55
1:AA:363:U:OP2	33:DI:121:LYS:NZ	2.39	0.55
32:BH:41:MET:HE2	32:BH:54:ARG:HA	1.89	0.55
2:AB:54:THR:HG23	2:AB:199:TYR:HB3	1.89	0.55
2:AB:74:LYS:C	2:AB:76:GLN:H	2.09	0.55
2:AB:9:GLU:O	2:AB:12:GLU:HB2	2.07	0.55
25:DA:1952:A:O5'	25:DA:1952:A:H8	1.90	0.55
25:DA:285:C:H3'	25:DA:286:C:H5''	1.89	0.55
2:CB:9:GLU:O	2:CB:12:GLU:HB2	2.07	0.55
40:DT:24:PRO:C	40:DT:49:VAL:HG13	2.27	0.55
4:CD:31:CYS:C	4:CD:33:MET:N	2.60	0.55
13:CM:84:ILE:HG12	19:CS:66:MET:HE1	1.88	0.55
48:B1:52:ARG:HH21	48:B1:52:ARG:HG3	1.71	0.55
38:BR:94:TYR:CD1	38:BR:94:TYR:N	2.75	0.55
25:BA:2779:U:C6	25:BA:2781:A:C2	2.95	0.55
43:DW:68:ARG:HH22	43:DW:112:GLY:HA2	1.72	0.55
3:AC:112:SER:HB3	3:AC:115:LEU:HD12	1.89	0.55
56:D9:24:TYR:CE2	56:D9:35:ARG:HG3	2.42	0.55
8:CH:86:ILE:HG13	8:CH:133:LEU:CD2	2.36	0.55
1:CA:711:A:H2'	1:CA:712:A:C8	2.41	0.55
18:AR:53:ARG:NH1	18:AR:53:ARG:HG2	2.21	0.55
10:CJ:83:GLU:C	10:CJ:85:LEU:H	2.09	0.55
6:CF:7:ASN:HD21	18:CR:34:TYR:HE1	1.54	0.55
7:AG:69:VAL:HG21	7:AG:104:LEU:HD21	1.88	0.55
7:CG:21:VAL:HG23	7:CG:22:LEU:N	2.22	0.55
25:BA:311:A:H5'	25:BA:332:A:C2	2.42	0.55
25:DA:500:G:N2	25:DA:502:A:H3'	2.20	0.55
25:DA:2695:C:H2'	25:DA:2696:U:C6	2.42	0.55
4:CD:166:LYS:HG3	4:CD:178:VAL:HG11	1.87	0.55
11:AK:91:ARG:C	11:AK:91:ARG:HD2	2.27	0.55
1:CA:1259:U:H6	1:CA:1259:U:H3'	1.70	0.55
22:CW:63:G:O2'	27:DC:53:ARG:HG2	2.06	0.55
1:AA:720:A:H2'	1:AA:721:C:C6	2.42	0.55
16:AP:65:GLN:N	16:AP:65:GLN:OE1	2.39	0.55
4:AD:31:CYS:O	4:AD:31:CYS:SG	2.65	0.55
40:DT:55:ASN:ND2	40:DT:58:ASN:CG	2.60	0.55
41:BU:98:LEU:HD21	42:BV:2:PHE:CZ	2.42	0.55
45:DY:27:VAL:HG12	45:DY:29:GLU:OE1	2.05	0.55
55:D8:62:LEU:N	55:D8:63:PRO:HD2	2.21	0.55
38:DR:84:ALA:HB3	38:DR:85:PRO:HD3	1.88	0.55
41:DU:83:LEU:HG	41:DU:88:ILE:HD11	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:25:ILE:N	13:CM:25:ILE:HD12	2.22	0.55
31:DG:115:ARG:HH12	31:DG:136:ARG:HD3	1.70	0.55
25:DA:299:A:H5''	45:DY:84:ARG:HH21	1.72	0.55
25:BA:866:A:C2	25:BA:914:C:C6	2.95	0.55
12:CL:27:LEU:N	12:CL:27:LEU:HD22	2.21	0.55
28:BD:77:ALA:HB1	28:BD:96:HIS:O	2.06	0.55
53:B6:16:CYS:O	53:B6:17:LYS:HB2	2.07	0.55
33:DI:114:LEU:HD23	33:DI:130:TYR:CE1	2.42	0.55
25:BA:848:G:H8	25:BA:848:G:H5'	1.72	0.55
25:DA:1269:A:H2'	25:DA:1270:C:C6	2.41	0.55
25:DA:806:C:OP2	36:DP:39:LYS:CD	2.53	0.55
27:DC:49:ILE:O	27:DC:51:PRO:HD3	2.06	0.55
25:BA:2692:C:H2'	25:BA:2693:A:H8	1.70	0.55
29:DE:16:ARG:NH1	29:DE:171:GLU:OE2	2.39	0.55
29:DE:91:VAL:HG13	29:DE:95:ILE:HG12	1.89	0.55
34:BN:131:GLN:NE2	34:BN:134:ARG:HD2	2.19	0.55
46:BZ:158:PRO:HG2	46:BZ:161:VAL:HG21	1.87	0.55
11:AK:48:ILE:CG2	11:AK:63:LEU:HD22	2.35	0.55
3:CC:70:VAL:CG1	3:CC:71:ALA:N	2.70	0.55
25:BA:607:U:OP1	30:BF:102:PRO:HA	2.07	0.55
22:CY:36:A:N1	24:CX:20:U:C4	2.75	0.55
25:BA:2684:U:O2'	35:BO:68:GLU:OE1	2.25	0.55
1:AA:1310:A:H2'	1:AA:1311:U:O4'	2.07	0.55
25:DA:1615:C:O2'	25:DA:1616:A:C5'	2.55	0.55
30:BF:65:TRP:CZ3	30:BF:73:ALA:O	2.59	0.55
1:AA:565:U:C2	1:AA:743:G:C6	2.94	0.55
8:CH:53:VAL:HG12	8:CH:54:ASP:OD2	2.07	0.55
4:AD:58:LEU:HD22	4:AD:62:GLN:HG2	1.89	0.55
50:B3:35:ARG:HG3	50:B3:35:ARG:HH11	1.72	0.55
25:BA:2288:A:C2	25:BA:2325:G:C8	2.95	0.55
2:CB:132:LYS:HA	2:CB:135:GLN:HG3	1.87	0.55
1:AA:26:A:N6	1:AA:541:G:HI'	2.22	0.55
13:AM:82:MET:HG2	13:AM:82:MET:O	2.07	0.55
25:DA:2635:C:H5''	29:DE:78:LEU:O	2.06	0.55
20:CT:33:ILE:HD12	20:CT:63:ILE:HG12	1.87	0.55
25:BA:910:A:N9	37:BQ:13:GLN:OE1	2.40	0.55
25:BA:953:A:C2'	25:BA:954:G:H5'	2.36	0.55
9:AI:103:THR:HG22	9:AI:104:ARG:N	2.21	0.55
41:BU:79:PHE:O	41:BU:79:PHE:HD2	1.89	0.55
20:AT:50:GLU:CB	20:AT:100:ILE:CG1	2.74	0.55
25:DA:2485:G:H5''	37:DQ:46:GLN:HE21	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:127:LYS:CA	11:CK:127:LYS:HE2	2.22	0.55
1:CA:1280:A:H5'	1:CA:1281:G:OP1	2.07	0.55
25:BA:613:G:C6	25:BA:614:U:C4	2.95	0.55
5:CE:33:VAL:HG22	5:CE:43:LEU:HD13	1.89	0.55
25:BA:2314:C:O2'	25:BA:2315:G:H5'	2.07	0.55
28:BD:34:VAL:O	28:BD:34:VAL:HG22	2.07	0.55
8:CH:6:ILE:H	8:CH:6:ILE:CD1	2.11	0.55
28:DD:32:SER:O	28:DD:36:PRO:HD2	2.07	0.55
34:BN:17:ASP:C	34:BN:19:GLU:H	2.10	0.55
34:BN:56:ASN:HA	34:BN:125:GLY:N	2.03	0.55
33:BI:94:ALA:C	33:BI:96:ASP:H	2.10	0.55
25:DA:1242:A:H5'	25:DA:1243:G:OP2	2.07	0.55
1:AA:1275:G:H2'	1:AA:1276:G:C8	2.41	0.55
30:BF:20:LEU:HB3	30:BF:23:ASP:OD2	2.07	0.55
30:BF:34:TRP:HB2	36:BP:10:PRO:O	2.06	0.55
22:AY:38:A:C6	22:AY:39:U:N3	2.74	0.55
36:BP:23:PRO:HD2	36:BP:33:ARG:NH2	2.22	0.55
25:DA:1747(A):G:H2'	25:DA:1748:G:C5'	2.30	0.55
4:AD:57:ARG:HH11	4:AD:57:ARG:HG3	1.71	0.55
46:BZ:171:ILE:O	46:BZ:172:ALA:HB2	2.06	0.55
41:DU:33:ARG:O	41:DU:37:GLU:HG3	2.06	0.55
2:AB:80:ILE:CD1	2:AB:211:ILE:HG22	2.36	0.55
33:DI:1:MET:C	33:DI:20:ASP:HB2	2.28	0.55
48:B1:81:LYS:HG2	48:B1:83:GLU:OE1	2.06	0.55
2:CB:81:VAL:O	2:CB:81:VAL:HG12	2.07	0.55
4:CD:15:GLU:HG2	4:CD:63:LYS:CG	2.34	0.55
40:DT:13:ARG:NH1	40:DT:13:ARG:HA	2.22	0.55
25:DA:2779:U:C6	25:DA:2781:A:C2	2.95	0.55
10:CJ:90:LEU:N	10:CJ:90:LEU:HD12	2.21	0.55
35:BO:88:ASN:OD1	35:BO:92:GLU:N	2.36	0.55
25:BA:2523:G:H5'	25:BA:2523:G:C8	2.41	0.55
1:CA:59:A:H3'	1:CA:326:G:H22	1.72	0.55
40:BT:82:LEU:O	40:BT:84:GLN:N	2.33	0.55
44:DX:57:LEU:HD13	44:DX:78:LYS:O	2.06	0.55
18:CR:36:ASN:HD22	18:CR:39:VAL:CB	2.20	0.55
25:BA:1647:G:H3'	25:BA:1647:G:P	2.46	0.55
18:AR:36:ASN:HD22	18:AR:39:VAL:CB	2.20	0.55
25:DA:2169:A:C2'	25:DA:2170:A:H5'	2.37	0.55
13:CM:72:ALA:O	13:CM:75:ALA:HB3	2.07	0.55
41:BU:29:SER:OG	41:BU:30:LYS:HE2	2.06	0.55
25:BA:208:C:H2'	25:BA:209:C:C6	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1231:A:H4'	9:AI:68:GLY:N	2.22	0.55
1:AA:345:G:H2'	1:AA:346:G:C8	2.42	0.55
17:AQ:21:VAL:O	17:AQ:41:LYS:HA	2.07	0.55
41:BU:92:ARG:CG	41:BU:92:ARG:HH11	2.19	0.55
26:BB:40:U:N3	26:BB:43:C:H5''	2.21	0.55
19:AS:10:PHE:CE2	19:AS:39:THR:OG1	2.56	0.55
23:CV:17:C:H3'	23:CV:18:U:H5''	1.82	0.55
55:B8:62:LEU:N	55:B8:63:PRO:HD2	2.21	0.55
36:BP:48:PRO:O	36:BP:49:ARG:C	2.43	0.55
36:BP:63:PRO:C	36:BP:65:ARG:H	2.09	0.55
41:DU:92:ARG:C	41:DU:94:ASN:H	2.08	0.55
5:CE:41:VAL:CG1	5:CE:112:LEU:C	2.75	0.55
25:BA:2320:A:C8	25:BA:2333:A:N6	2.74	0.55
25:DA:93:G:H2'	25:DA:94:C:C6	2.42	0.55
44:BX:63:LYS:HA	44:BX:72:LYS:HA	1.88	0.55
25:BA:71:A:H5''	25:BA:73:A:N7	2.21	0.55
34:DN:56:ASN:HA	34:DN:125:GLY:N	2.03	0.55
33:BI:82:ARG:HG3	33:BI:82:ARG:NH1	2.21	0.55
25:BA:1242:A:H5'	25:BA:1243:G:OP2	2.07	0.55
32:BH:68:THR:C	32:BH:70:THR:N	2.60	0.55
25:DA:2463:C:C2'	25:DA:2464:C:H5'	2.28	0.55
32:DH:126:PRO:O	32:DH:127:GLU:CB	2.54	0.55
45:BY:28:LYS:CB	45:BY:38:ILE:H	2.15	0.55
25:BA:290:G:O2'	25:BA:291:C:H5'	2.07	0.55
26:DB:41:U:C5	31:DG:69:ALA:HB1	2.41	0.55
25:DA:1992:G:H8	25:DA:1992:G:P	2.30	0.55
28:BD:181:GLU:CA	28:BD:272:ALA:HB3	2.33	0.55
4:CD:30:LYS:HA	4:CD:35:ARG:CG	2.36	0.55
25:BA:2036:C:H6	25:BA:2036:C:C5'	2.14	0.55
40:BT:57:PHE:O	40:BT:59:THR:N	2.40	0.55
12:AL:27:LEU:O	12:AL:29:GLY:N	2.40	0.55
40:BT:11:GLU:OE2	40:BT:11:GLU:N	2.39	0.55
30:BF:53:THR:HG23	30:BF:55:GLY:N	2.20	0.55
3:AC:20:SER:HB2	3:AC:40:ARG:NH2	2.17	0.55
38:DR:94:TYR:CD1	38:DR:94:TYR:N	2.75	0.55
22:CY:28:G:N2	22:CY:42:C:N3	2.55	0.55
31:BG:14:GLU:C	31:BG:17:PRO:HD2	2.27	0.55
31:DG:85:GLY:O	31:DG:87:PRO:CD	2.54	0.55
28:BD:158:ALA:HB3	28:BD:161:THR:CG2	2.36	0.55
3:AC:182:ILE:HG12	3:AC:203:PHE:HD1	1.72	0.55
25:BA:1494:A:C2'	25:BA:1495:A:H5''	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:D6:11:LEU:HG	53:D6:26:ASN:HD21	1.72	0.55
1:CA:1022:U:H2'	1:CA:1023:A:H8	1.72	0.55
3:CC:129:ALA:HB3	3:CC:132:ARG:HD2	1.88	0.55
25:DA:1175:U:H4'	25:DA:1176:G:C3'	2.37	0.55
17:AQ:77:VAL:O	17:AQ:78:GLU:CB	2.54	0.55
6:CF:12:PRO:HD2	6:CF:86:ARG:NH1	2.22	0.55
1:CA:311:G:H2'	1:CA:312:G:C8	2.42	0.55
43:DW:72:LYS:HB3	43:DW:106:ILE:O	2.05	0.55
25:DA:451:C:N4	25:DA:453:C:H3'	2.22	0.55
40:DT:134:GLU:O	40:DT:136:GLN:N	2.40	0.55
4:CD:92:VAL:O	4:CD:96:LEU:HD13	2.07	0.55
2:AB:43:ASP:OD2	2:AB:46:LYS:HB2	2.07	0.55
30:DF:141:ALA:O	30:DF:144:LYS:HB3	2.07	0.55
1:CA:1400:A:N3	25:DA:1959:G:H1'	2.22	0.55
25:DA:1819:A:H4'	25:DA:1820:U:H5''	1.88	0.55
40:DT:55:ASN:O	40:DT:56:GLY:C	2.45	0.55
22:CW:2:C:N4	22:CW:72:C:H42	1.95	0.55
20:AT:100:ILE:CD1	20:AT:100:ILE:N	2.63	0.55
25:BA:272:G:N1	25:BA:421:U:C2	2.74	0.55
25:DA:613:G:C6	25:DA:614:U:C4	2.95	0.55
25:DA:614(A):U:H4'	25:DA:614(B):G:C5'	2.37	0.55
41:DU:104:GLN:H	41:DU:104:GLN:CD	2.08	0.55
42:DV:4:ILE:HD12	42:DV:40:LEU:HG	1.88	0.55
13:CM:5:ALA:HB2	13:CM:66:LEU:CD1	2.34	0.55
7:AG:116:ALA:HA	7:AG:119:ARG:HG3	1.89	0.55
40:DT:89:VAL:CG1	40:DT:91:ARG:NE	2.68	0.55
41:DU:49:HIS:HA	41:DU:52:ARG:HB2	1.89	0.55
22:AY:38:A:N1	22:AY:39:U:O2	2.40	0.55
25:DA:848:G:H8	25:DA:848:G:H5'	1.72	0.55
25:DA:2481:G:O2'	25:DA:2482:G:P	2.64	0.55
46:BZ:4:ARG:HD2	46:BZ:58:VAL:HB	1.89	0.55
1:AA:1267:A:H2'	1:AA:1268:A:O3'	2.07	0.55
25:DA:290:G:O2'	25:DA:291:C:H5'	2.07	0.55
2:CB:54:THR:O	2:CB:58:ILE:HG12	2.06	0.55
26:BB:71:C:C2	26:BB:72:G:C8	2.95	0.55
37:DQ:140:ALA:HB3	46:DZ:53:ILE:CD1	2.36	0.55
15:AO:87:ILE:HG22	15:AO:88:ARG:N	2.14	0.55
41:BU:25:TRP:HB3	41:BU:28:ARG:HD2	1.89	0.55
28:BD:182:LEU:H	28:BD:272:ALA:HB3	1.72	0.55
25:DA:942:G:C5'	36:DP:35:HIS:HB3	2.37	0.55
31:BG:41:GLN:N	31:BG:90:LEU:O	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:B1:52:ARG:HG3	48:B1:53:VAL:N	2.16	0.55
7:CG:47:CYS:C	7:CG:49:ILE:H	2.08	0.55
36:DP:85:LEU:HA	36:DP:88:LEU:HD22	1.89	0.55
34:DN:26:LEU:HD21	34:DN:30:ILE:HD11	1.89	0.55
34:BN:39:ARG:NH1	34:BN:39:ARG:HG2	2.22	0.55
22:AW:16:U:C2	22:AW:19:G:OP2	2.60	0.55
9:AI:53:VAL:HG12	9:AI:92:TYR:CE2	2.42	0.55
25:BA:299:A:C5	25:BA:322:A:C2	2.95	0.55
30:BF:164:ARG:HG3	30:BF:175:THR:OG1	2.07	0.55
31:DG:17:PRO:HA	31:DG:20:ILE:HG13	1.88	0.55
25:BA:904:C:O2'	46:BZ:169:GLU:OE1	2.25	0.55
25:BA:1615:C:O2'	25:BA:1616:A:C5'	2.55	0.55
44:BX:64:LYS:HZ2	44:BX:73:ARG:HH21	1.54	0.55
1:AA:503:A:N1	1:AA:519:C:H1'	2.22	0.55
25:DA:2672:G:C2'	25:DA:2673:G:H5''	2.35	0.55
48:D1:35:THR:HG22	48:D1:36:GLY:N	2.21	0.55
52:B5:20:ARG:HA	52:B5:23:HIS:ND1	2.22	0.55
29:BE:143:ASN:HB2	29:BE:147:PRO:HD2	1.88	0.55
30:DF:202:PHE:CD1	30:DF:202:PHE:C	2.79	0.55
11:AK:80:VAL:HG23	11:AK:80:VAL:O	2.07	0.55
25:DA:832:G:H21	36:DP:53:GLY:CA	2.20	0.55
40:DT:64:ARG:HB2	40:DT:73:GLU:HG2	1.88	0.55
40:DT:29:ARG:NE	40:DT:30:VAL:H	2.05	0.54
40:DT:29:ARG:CD	40:DT:85:LYS:CA	2.40	0.54
25:BA:105:C:C4	25:BA:106:C:N4	2.75	0.54
26:DB:89:G:H2'	26:DB:90:A:H5'	1.89	0.54
25:DA:758:C:O2'	25:DA:759:G:H5'	2.07	0.54
36:BP:56:SER:CB	36:BP:60:MET:SD	2.96	0.54
25:BA:2171:A:C4	25:BA:2172:U:C4	2.94	0.54
13:AM:25:ILE:HD12	13:AM:25:ILE:N	2.21	0.54
13:CM:116:THR:CG2	13:CM:117:VAL:H	1.96	0.54
17:AQ:18:THR:HG22	17:AQ:19:VAL:H	1.71	0.54
13:CM:3:ARG:HH21	13:CM:7:VAL:HG13	1.72	0.54
25:BA:61:G:H1	25:BA:94:C:H42	1.54	0.54
19:CS:6:LYS:HE3	19:CS:6:LYS:H	1.71	0.54
28:BD:32:SER:O	28:BD:36:PRO:HD2	2.07	0.54
22:AW:36:A:N1	22:AW:37:A:C5	2.74	0.54
28:BD:142:VAL:HG23	28:BD:192:THR:C	2.28	0.54
25:DA:559:G:H22	41:DU:49:HIS:CD2	2.26	0.54
33:DI:94:ALA:C	33:DI:96:ASP:H	2.10	0.54
46:BZ:6:LYS:HA	46:BZ:60:GLU:HB2	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DZ:4:ARG:HD2	46:DZ:58:VAL:HB	1.88	0.54
25:DA:353:G:N1	25:DA:354:G:N7	2.55	0.54
26:BB:68:C:O5'	26:BB:68:C:H6	1.90	0.54
25:BA:2732:G:C2'	25:BA:2733:A:H5'	2.36	0.54
46:DZ:171:ILE:O	46:DZ:172:ALA:HB2	2.05	0.54
46:DZ:30:ASN:O	46:DZ:31:ARG:CB	2.55	0.54
46:BZ:151:HIS:HA	46:BZ:170:THR:HA	1.88	0.54
25:BA:96:G:H4'	49:B2:48:HIS:CD2	2.42	0.54
23:AV:22:A:C6	23:AV:47:G:C4	2.95	0.54
31:BG:41:GLN:HE22	31:BG:153:ARG:CG	2.20	0.54
43:BW:1:MET:HE3	43:BW:1:MET:HA	1.89	0.54
2:AB:69:LEU:HD12	2:AB:70:PHE:N	2.22	0.54
56:D9:24:TYR:O	56:D9:25:VAL:HG23	2.07	0.54
46:BZ:30:ASN:O	46:BZ:31:ARG:CB	2.55	0.54
1:AA:819:G:C6	1:AA:828:G:C6	2.96	0.54
9:CI:116:LYS:O	9:CI:117:HIS:HB2	2.08	0.54
31:BG:85:GLY:O	31:BG:87:PRO:CD	2.54	0.54
4:CD:108:LEU:HB3	4:CD:110:PHE:HE1	1.72	0.54
4:AD:108:LEU:HD12	4:AD:174:LEU:HD13	1.88	0.54
25:DA:2885:C:N3	25:DA:2886:G:H1'	2.22	0.54
45:DY:87:LYS:HG3	45:DY:88:LYS:H	1.73	0.54
30:BF:160:ASN:HD21	30:BF:162:LEU:HB2	1.71	0.54
25:BA:1495:A:H3'	25:BA:1496:A:C2	2.42	0.54
25:BA:948:G:H1'	25:BA:984:A:C2	2.42	0.54
15:AO:54:ARG:HG2	15:AO:54:ARG:NH1	2.22	0.54
11:AK:21:ILE:N	11:AK:21:ILE:HD12	2.23	0.54
52:B5:40:LYS:HB2	52:B5:41:PRO:HD2	1.89	0.54
25:BA:572:A:H5''	25:BA:573:G:OP2	2.06	0.54
7:CG:38:LEU:O	7:CG:42:ILE:HG13	2.07	0.54
39:DS:59:LYS:HE3	39:DS:68:GLN:HE22	1.72	0.54
40:BT:120:ARG:NH1	40:BT:123:GLN:OE1	2.40	0.54
50:D3:10:LYS:HB3	50:D3:53:LEU:HA	1.90	0.54
25:DA:1264:G:H5'	52:D5:11:THR:OG1	2.06	0.54
25:DA:1216:G:P	41:DU:12:ARG:HH21	2.30	0.54
27:BC:74:VAL:CG2	27:BC:91:ALA:HB2	2.37	0.54
25:DA:208:C:H2'	25:DA:209:C:C6	2.42	0.54
1:CA:497:C:H2'	1:CA:498:G:C8	2.42	0.54
55:B8:8:LYS:O	55:B8:12:LYS:HG3	2.06	0.54
32:DH:70:THR:O	32:DH:72:ILE:N	2.37	0.54
25:DA:271(U):G:N3	25:DA:271(V):G:C8	2.75	0.54
25:DA:109:G:C2	25:DA:110:G:C4	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:103:A:C3'	25:BA:104:U:C5'	2.85	0.54
41:BU:91:ASP:OD2	41:BU:96:ALA:N	2.41	0.54
23:CV:55:U:O2'	23:CV:56:U:H5'	2.06	0.54
23:CV:19:G:C1'	23:CV:59:A:C2	2.90	0.54
25:BA:2169:A:C2'	25:BA:2170:A:H5'	2.37	0.54
25:BA:2475:C:H5'	25:BA:2476:A:OP2	2.07	0.54
1:CA:1281:G:HO2'	1:CA:1282:U:P	2.30	0.54
1:CA:1281:G:C2'	1:CA:1282:U:OP2	2.54	0.54
39:BS:87:PHE:CG	39:BS:88:ASP:N	2.75	0.54
39:DS:54:LEU:C	39:DS:56:LEU:H	2.10	0.54
39:DS:87:PHE:CG	39:DS:88:ASP:N	2.75	0.54
39:DS:89:ARG:HD2	39:DS:92:TYR:CA	2.33	0.54
36:DP:61:ARG:HH11	55:D8:13:ARG:NE	2.05	0.54
28:BD:80:ALA:HB2	28:BD:96:HIS:CD2	2.43	0.54
28:DD:35:LYS:HZ2	28:DD:103:ARG:HA	1.70	0.54
40:DT:89:VAL:CB	40:DT:91:ARG:CD	2.86	0.54
33:BI:114:LEU:HD23	33:BI:130:TYR:CE1	2.42	0.54
30:DF:34:TRP:HB2	36:DP:10:PRO:O	2.07	0.54
30:BF:202:PHE:CD1	30:BF:202:PHE:C	2.79	0.54
32:BH:24:VAL:HG21	32:BH:72:ILE:HD13	1.89	0.54
30:DF:22:ALA:HA	30:DF:26:ALA:HB2	1.89	0.54
25:BA:2103:C:H3'	25:BA:2104:G:C5'	2.32	0.54
25:DA:2297:C:O2'	25:DA:2298:A:H5'	2.08	0.54
2:AB:185:ILE:HG12	2:AB:199:TYR:HB2	1.90	0.54
53:D6:19:ARG:CG	53:D6:20:ASN:N	2.68	0.54
7:AG:73:MET:CG	7:AG:90:GLU:HA	2.33	0.54
25:DA:1755:A:P	40:DT:113:LYS:HZ1	2.28	0.54
32:DH:138:LYS:HG3	32:DH:139:GLN:N	2.22	0.54
12:AL:25:PRO:O	12:AL:27:LEU:HD22	2.08	0.54
1:CA:733:G:H1'	15:CO:23:GLY:H	1.73	0.54
25:DA:364:C:H2'	25:DA:365:C:C5'	2.33	0.54
36:BP:126:VAL:HG22	36:BP:145:PRO:CB	2.37	0.54
36:DP:126:VAL:HG22	36:DP:145:PRO:CB	2.37	0.54
30:DF:53:THR:HG23	30:DF:55:GLY:N	2.20	0.54
1:AA:903:G:N2	24:AX:15:A:H5''	2.22	0.54
39:DS:24:LEU:CB	39:DS:85:VAL:HG12	2.37	0.54
1:AA:511:C:H41	12:AL:49:ASN:ND2	2.05	0.54
37:BQ:30:GLY:CA	37:BQ:107:ALA:HB2	2.37	0.54
3:AC:53:ALA:O	3:AC:54:ARG:HB2	2.07	0.54
1:AA:1004:G:N3	1:AA:1004:G:H2'	2.21	0.54
53:D6:36:LEU:O	53:D6:37:ARG:HG3	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BZ:72:ARG:O	46:BZ:73:GLN:HB3	2.08	0.54
25:BA:1109:C:H5	25:BA:1110:G:C5	2.25	0.54
1:AA:1236:G:H3'	3:AC:26:LYS:HZ2	1.70	0.54
38:BR:28:LEU:HD11	38:BR:116:LEU:CD2	2.35	0.54
25:BA:39:C:O2	30:BF:46:ARG:NH2	2.38	0.54
25:BA:1577:C:H2'	25:BA:1578:U:C6	2.43	0.54
25:DA:1430:C:H2'	25:DA:1431:U:H6	1.69	0.54
30:DF:160:ASN:HD21	30:DF:162:LEU:HB2	1.72	0.54
6:AF:45:LEU:HD11	6:AF:57:GLN:HB3	1.88	0.54
8:AH:29:SER:HB3	8:AH:32:LYS:HB2	1.89	0.54
1:CA:1202:G:H4'	19:CS:77:THR:HG22	1.89	0.54
25:BA:539:G:H2'	25:BA:540:C:H6	1.73	0.54
25:DA:225:A:H2'	25:DA:226:G:H5'	1.89	0.54
40:DT:129:ARG:CZ	40:DT:131:ALA:HB3	2.36	0.54
15:CO:8:LYS:O	15:CO:12:ILE:HG13	2.07	0.54
27:DC:74:VAL:CG2	27:DC:91:ALA:HB2	2.37	0.54
1:AA:1396:U:H2'	1:AA:1397:G:C8	2.42	0.54
39:BS:59:LYS:HE3	39:BS:68:GLN:HE22	1.73	0.54
25:BA:2135:A:H2'	25:BA:2136:C:H6	1.72	0.54
1:AA:1224:C:OP2	21:AU:10:ARG:NH2	2.40	0.54
1:CA:1482:G:H4'	1:CA:1483:U:H5'	1.88	0.54
25:BA:1409:C:H2'	25:BA:1410:G:C8	2.42	0.54
7:AG:26:PHE:O	7:AG:30:ILE:HG12	2.07	0.54
25:BA:2082:A:H2'	25:BA:2083:G:O4'	2.06	0.54
13:AM:97:PRO:HA	13:AM:110:ARG:HD2	1.88	0.54
25:BA:886:C:C2'	25:BA:887:A:H4'	2.38	0.54
20:CT:50:GLU:CB	20:CT:100:ILE:CG1	2.81	0.54
41:BU:83:LEU:HG	41:BU:88:ILE:HD11	1.89	0.54
10:AJ:50:ILE:N	10:AJ:50:ILE:CD1	2.66	0.54
19:AS:44:MET:O	19:AS:47:HIS:HB2	2.07	0.54
25:DA:2172:U:O3'	25:DA:2173:A:H8	1.89	0.54
39:BS:97:ARG:HE	39:BS:97:ARG:C	2.10	0.54
13:CM:116:THR:O	13:CM:117:VAL:CG2	2.56	0.54
12:CL:41:ARG:HH11	12:CL:41:ARG:CB	2.17	0.54
25:DA:1658:C:C4	25:DA:1659:U:C4	2.95	0.54
12:AL:41:ARG:HH11	12:AL:41:ARG:CB	2.17	0.54
34:DN:17:ASP:C	34:DN:19:GLU:H	2.11	0.54
33:DI:83:ALA:HA	33:DI:89:TYR:CD1	2.43	0.54
15:AO:56:LEU:HD21	25:BA:715:G:N2	2.22	0.54
22:AY:38:A:C6	22:AY:39:U:C2	2.96	0.54
41:BU:62:ILE:HD12	41:BU:76:TYR:CE1	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BH:103:LEU:HD22	32:BH:123:PHE:CD2	2.43	0.54
1:CA:1144:C:H2'	1:CA:1145:C:C6	2.42	0.54
25:DA:748:G:C8	43:DW:89:ALA:HB1	2.42	0.54
27:DC:68:LEU:CD1	27:DC:179:SER:HA	2.32	0.54
27:DC:68:LEU:HD22	27:DC:180:PHE:CB	2.36	0.54
38:DR:10:LEU:HD13	38:DR:17:ARG:NH1	2.23	0.54
25:DA:1993:U:H4'	29:DE:128:SER:OG	2.08	0.54
32:BH:138:LYS:HG3	32:BH:139:GLN:N	2.22	0.54
29:BE:16:ARG:NH1	29:BE:171:GLU:OE2	2.39	0.54
25:DA:1300:U:H5	25:DA:1634:A:N3	2.06	0.54
29:BE:179:GLU:O	29:BE:180:ASN:HB2	2.06	0.54
48:B1:5:CYS:O	48:B1:9:GLY:HA2	2.07	0.54
26:DB:69:G:C4	26:DB:70:C:C5	2.95	0.54
20:AT:14:LYS:HA	20:AT:17:ARG:NE	2.20	0.54
22:CY:28:G:H2'	22:CY:29:G:H8	1.70	0.54
1:AA:1112:A:H5''	9:AI:18:PHE:CE1	2.42	0.54
51:D4:64:LYS:O	51:D4:65:CYS:SG	2.62	0.54
31:DG:175:LEU:HD12	31:DG:175:LEU:H	1.72	0.54
25:DA:1109:C:H5	25:DA:1110:G:C5	2.25	0.54
26:DB:40:U:N3	26:DB:43:C:H5''	2.21	0.54
44:DX:60:ARG:HH22	54:D7:47:ARG:NH2	2.05	0.54
4:CD:162:LEU:HD12	4:CD:181:MET:HE2	1.89	0.54
25:DA:2518:A:H5'	25:DA:2518:A:H8	1.70	0.54
6:CF:8:ILE:HG22	6:CF:9:VAL:N	2.22	0.54
1:CA:581:U:H2'	1:CA:582:C:C6	2.42	0.54
6:AF:62:TRP:CH2	6:AF:64:GLN:HB2	2.42	0.54
25:DA:1495:A:H3'	25:DA:1496:A:C2	2.42	0.54
25:DA:1577:C:H2'	25:DA:1578:U:C6	2.43	0.54
29:DE:168:MET:O	29:DE:170:LEU:HD12	2.08	0.54
4:CD:84:LYS:HD3	4:CD:84:LYS:N	2.22	0.54
1:CA:899:G:H4'	5:CE:20:GLN:HA	1.89	0.54
25:DA:999:U:H5''	25:DA:1154:G:O6	2.08	0.54
18:CR:36:ASN:HB2	18:CR:39:VAL:HG23	1.88	0.54
1:AA:1136:G:H2'	1:AA:1137:G:H8	1.72	0.54
3:CC:110:ASN:O	3:CC:141:VAL:HG22	2.07	0.54
1:AA:1400:A:N6	1:AA:1459:G:O2'	2.40	0.54
30:BF:141:ALA:O	30:BF:144:LYS:HB3	2.07	0.54
35:BO:24:VAL:HA	35:BO:39:ILE:HG22	1.89	0.54
25:DA:1570:A:H2'	25:DA:1571:A:C8	2.41	0.54
25:DA:2052:G:O4'	29:DE:142:GLY:HA3	2.07	0.54
1:CA:838:G:O6	1:CA:846:G:N2	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:80:G:O2'	25:BA:81:G:H5'	2.08	0.54
51:B4:39:ARG:HG2	51:B4:39:ARG:HH11	1.71	0.54
51:B4:40:ILE:N	51:B4:40:ILE:HD12	2.23	0.54
44:DX:9:LEU:HA	49:D2:36:ARG:HH21	1.72	0.54
25:DA:886:C:C2'	25:DA:887:A:H4'	2.38	0.54
25:DA:954:G:OP1	37:DQ:15:GLY:N	2.36	0.54
25:DA:103:A:C3'	25:DA:104:U:C5'	2.85	0.54
22:CW:12:U:O5'	22:CW:12:U:H6	1.90	0.54
25:DA:311:A:C8	25:DA:332:A:N6	2.75	0.54
22:AW:76:A:O2'	25:BA:2394:C:O2	2.25	0.54
25:BA:2161:C:H2'	25:BA:2162:G:H8	1.72	0.54
25:DA:613:G:H8	25:DA:613:G:C5'	2.15	0.54
25:BA:2414:G:H21	36:BP:67:MET:CE	2.20	0.54
34:DN:2:LYS:HE2	41:DU:95:LEU:HD21	1.88	0.54
25:DA:299:A:C5	25:DA:322:A:C2	2.95	0.54
8:AH:120:THR:HG23	8:AH:123:GLU:OE1	2.08	0.54
36:DP:50:ARG:HH21	36:DP:50:ARG:HG2	1.73	0.54
25:BA:1952:A:H8	25:BA:1952:A:O5'	1.90	0.54
33:BI:81:VAL:HG13	33:BI:88:ILE:HG21	1.89	0.54
30:DF:24:LEU:HB3	30:DF:25:PRO:CD	2.37	0.54
30:DF:3:GLU:CB	30:DF:24:LEU:HG	2.35	0.54
46:DZ:4:ARG:HH21	46:DZ:60:GLU:HG2	1.73	0.54
4:CD:57:ARG:HG2	4:CD:202:LEU:HD22	1.90	0.54
25:BA:1019:U:O2'	25:BA:1021:A:C2	2.57	0.54
1:CA:289:U:C2'	1:CA:290:C:H5'	2.35	0.54
43:DW:60:ASN:ND2	43:DW:60:ASN:N	2.54	0.54
25:BA:1300:U:H5	25:BA:1634:A:N3	2.06	0.54
40:BT:57:PHE:CG	40:BT:58:ASN:N	2.75	0.54
12:AL:62:SER:O	12:AL:64:TYR:HD1	1.91	0.54
48:B1:82:LEU:HB3	48:B1:90:ILE:HD12	1.87	0.54
22:AW:71:G:OP2	22:AW:71:G:H8	1.89	0.54
1:AA:1107:U:O4	10:AJ:5:ARG:HD3	2.06	0.54
36:DP:128:HIS:N	36:DP:128:HIS:CD2	2.74	0.54
26:DB:71:C:C2	26:DB:72:G:C8	2.95	0.54
34:BN:120:LEU:HD13	34:BN:122:VAL:HG23	1.89	0.54
34:BN:42:TRP:CZ3	34:BN:48:MET:HE1	2.43	0.54
39:BS:85:VAL:HG22	39:BS:106:ARG:HB2	1.88	0.54
22:AW:17:C:OP2	22:AW:17:C:O4'	2.25	0.54
19:CS:29:ARG:O	19:CS:31:ILE:N	2.41	0.54
43:BW:68:ARG:HH22	43:BW:112:GLY:HA2	1.72	0.54
43:BW:48:ALA:O	43:BW:49:LYS:C	2.45	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1020:C:H2'	1:AA:1021:C:C6	2.42	0.54
30:DF:164:ARG:HG3	30:DF:175:THR:OG1	2.08	0.54
16:AP:14:ASN:O	16:AP:16:HIS:ND1	2.40	0.54
31:DG:149:VAL:O	31:DG:149:VAL:HG23	2.08	0.54
25:DA:39:C:O2	30:DF:46:ARG:NH2	2.36	0.54
1:CA:437:C:H2'	1:CA:438:C:C6	2.43	0.54
29:BE:168:MET:O	29:BE:170:LEU:HD12	2.07	0.54
1:AA:775:A:H1'	1:AA:777:A:N7	2.22	0.54
1:AA:319:G:OP1	20:AT:70:SER:HB2	2.08	0.54
25:BA:2024:G:H2'	25:BA:2025:C:C6	2.43	0.54
25:DA:1175:U:H4'	25:DA:1176:G:H3'	1.90	0.54
25:BA:451:C:N4	25:BA:453:C:H3'	2.22	0.54
25:DA:2365:G:O6	55:D8:39:LYS:HE3	2.07	0.54
1:CA:484:C:H2'	1:CA:485:G:C8	2.42	0.54
25:BA:2577:A:H5''	25:BA:2578:G:H5'	1.90	0.54
25:DA:1329:U:H5''	25:DA:1330:C:H5	1.72	0.54
18:CR:25:THR:HG22	18:CR:42:ARG:NH1	2.23	0.54
1:CA:645:G:H2'	1:CA:646:A:C8	2.42	0.54
1:AA:869:A:C6	1:AA:884:A:C8	2.95	0.54
28:DD:238:GLY:O	28:DD:239:ARG:O	2.25	0.54
8:CH:77:GLU:HG2	8:CH:78:GLN:H	1.73	0.54
13:CM:106:ASN:O	13:CM:107:ALA:HB3	2.07	0.54
31:DG:165:THR:HG1	31:DG:168:GLU:H	1.54	0.54
13:CM:82:MET:HB2	13:CM:93:ARG:NH1	2.22	0.54
6:AF:75:LEU:HD23	6:AF:79:LEU:HG	1.88	0.54
1:AA:950:G:H3'	1:AA:951:A:H5''	1.90	0.54
14:AN:40:CYS:SG	14:AN:43:CYS:N	2.80	0.54
25:DA:327:G:H2'	25:DA:328:U:C6	2.42	0.54
25:BA:2171:A:O2'	25:BA:2172:U:H6	1.89	0.54
25:DA:2347:C:H4'	53:D6:39:TYR:CE1	2.42	0.54
32:DH:67:LEU:O	32:DH:71:LEU:HB2	2.08	0.54
25:DA:321:G:O4'	30:DF:165:ARG:HD2	2.08	0.54
7:AG:21:VAL:HG23	7:AG:22:LEU:N	2.22	0.54
25:BA:2297:C:O2'	25:BA:2298:A:H5'	2.08	0.54
28:BD:71:ASP:CB	28:BD:103:ARG:HH22	2.21	0.54
28:BD:32:SER:O	28:BD:34:VAL:N	2.41	0.54
28:DD:79:VAL:HG12	28:DD:79:VAL:O	2.06	0.54
12:CL:46:LYS:O	12:CL:47:LYS:O	2.26	0.54
33:BI:77:LEU:HD21	33:BI:104:GLN:OE1	2.06	0.54
25:DA:588:U:H2'	25:DA:589:C:C6	2.43	0.54
26:DB:107:G:C6	26:DB:108:U:C4	2.95	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:65:C:N4	26:DB:109:C:H2'	2.22	0.54
31:DG:130:ASN:HB3	31:DG:159:VAL:O	2.08	0.54
38:BR:10:LEU:HD13	38:BR:17:ARG:NH1	2.23	0.54
9:CI:103:THR:HG22	9:CI:105:ASP:H	1.73	0.54
25:BA:748:G:C8	43:BW:89:ALA:HB1	2.42	0.54
38:DR:9:LYS:O	38:DR:10:LEU:CG	2.55	0.54
3:CC:195:VAL:O	3:CC:196:LEU:HD22	2.08	0.54
40:DT:9:LEU:O	40:DT:13:ARG:NH2	2.40	0.54
1:CA:871:G:H2'	1:CA:872:G:H8	1.71	0.54
26:DB:68:C:H2'	26:DB:69:G:H8	1.72	0.54
43:BW:3:ALA:HB2	43:BW:58:ALA:HA	1.90	0.54
53:B6:36:LEU:O	53:B6:37:ARG:HG3	2.07	0.54
40:BT:35:LYS:HE2	40:BT:41:ARG:NH2	2.20	0.54
1:AA:979:G:C8	1:AA:980:G:C8	2.96	0.54
1:AA:365:C:H2'	1:AA:366:G:H8	1.73	0.54
31:DG:14:GLU:C	31:DG:17:PRO:HD2	2.27	0.54
30:DF:65:TRP:CZ3	30:DF:73:ALA:O	2.59	0.54
25:DA:2357:U:OP1	47:D0:20:ARG:NH1	2.41	0.54
25:DA:2024:G:H2'	25:DA:2025:C:C6	2.43	0.54
25:BA:999:U:H5''	25:BA:1154:G:O6	2.08	0.54
1:CA:522:A:H2'	1:CA:523:G:H8	1.71	0.54
25:BA:327:G:H2'	25:BA:328:U:C6	2.42	0.54
17:CQ:32:TYR:O	17:CQ:34:LYS:N	2.40	0.54
25:BA:1563:G:O2'	25:BA:1564:C:H5'	2.07	0.54
1:CA:136:G:H2'	1:CA:137:A:H8	1.73	0.54
4:CD:58:LEU:HD22	4:CD:62:GLN:HG2	1.89	0.54
1:CA:888:U:H2'	1:CA:889:C:C6	2.42	0.54
15:AO:75:PRO:O	15:AO:79:ARG:HG3	2.06	0.54
29:BE:51:PHE:O	29:BE:52:LEU:CB	2.44	0.54
25:BA:911:A:H5''	25:BA:912:C:O5'	2.04	0.54
41:BU:79:PHE:CE1	41:BU:106:PHE:CZ	2.95	0.54
22:CW:70:G:N1	22:CW:71:G:C5	2.76	0.54
36:BP:48:PRO:O	36:BP:50:ARG:N	2.40	0.54
25:DA:2475:C:H5'	25:DA:2476:A:OP2	2.07	0.54
44:DX:25:LYS:HZ2	44:DX:80:ILE:HD11	1.71	0.54
26:BB:7:G:O5'	39:BS:29:PHE:CE1	2.61	0.54
25:DA:2377:A:H4'	39:DS:108:GLY:CA	2.38	0.54
1:CA:954:A:H1'	1:CA:959:U:O4	2.08	0.54
28:BD:77:ALA:HB2	28:BD:97:TYR:HA	1.90	0.54
28:DD:142:VAL:HG23	28:DD:192:THR:C	2.28	0.54
45:BY:8:LYS:H	45:BY:8:LYS:CD	2.05	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:24:LEU:HB3	30:BF:25:PRO:CD	2.37	0.54
28:DD:241:PRO:O	28:DD:243:GLY:N	2.40	0.54
1:AA:1353:G:OP1	9:AI:11:LYS:HG2	2.08	0.54
30:BF:132:VAL:HG13	30:BF:133:ASN:N	2.23	0.54
25:BA:285:C:H3'	25:BA:286:C:H5''	1.89	0.54
25:DA:748:G:OP1	25:DA:2612:C:N4	2.41	0.54
35:DO:2:ILE:HD12	35:DO:6:THR:HG21	1.89	0.54
25:BA:1748:G:C8	25:BA:1748:G:H5'	2.40	0.54
7:AG:43:PHE:C	7:AG:43:PHE:CD1	2.80	0.54
9:AI:118:LYS:NZ	9:AI:118:LYS:CB	2.70	0.54
30:BF:177:ALA:HB1	30:BF:178:PRO:CD	2.37	0.54
38:BR:8:ARG:NE	38:BR:8:ARG:HA	2.18	0.54
32:DH:20:ALA:HB1	32:DH:21:PRO:CD	2.37	0.54
36:BP:98:GLU:HA	36:BP:101:VAL:HG22	1.88	0.54
36:DP:98:GLU:HA	36:DP:101:VAL:HG22	1.88	0.54
25:DA:2778:A:C4'	25:DA:2779:U:OP2	2.55	0.54
43:DW:48:ALA:O	43:DW:49:LYS:C	2.45	0.54
25:BA:863:A:H2'	25:BA:864:G:C8	2.41	0.54
3:AC:70:VAL:O	3:AC:106:VAL:HG23	2.08	0.54
10:AJ:96:ILE:HD13	10:AJ:96:ILE:N	2.23	0.54
4:CD:162:LEU:O	4:CD:165:MET:HB2	2.07	0.54
8:AH:20:TYR:HD1	8:AH:65:TYR:CD2	2.24	0.54
25:BA:1431:U:O2'	25:BA:1432:C:H5'	2.08	0.54
25:DA:2562:U:H1'	35:DO:23:ARG:HH12	1.71	0.54
25:BA:648:G:O2'	25:BA:649:G:H5'	2.08	0.54
48:B1:35:THR:HG22	48:B1:36:GLY:N	2.21	0.54
25:BA:2885:C:N3	25:BA:2886:G:H1'	2.22	0.54
25:BA:102:G:OP1	25:BA:102:G:H4'	2.06	0.54
16:CP:65:GLN:N	16:CP:65:GLN:OE1	2.41	0.54
1:AA:674:G:OP2	11:AK:26:ASN:ND2	2.40	0.54
38:BR:33:ARG:HG3	38:BR:115:GLU:HB2	1.90	0.54
25:BA:758:C:O2'	25:BA:759:G:H5'	2.07	0.54
2:AB:223:ILE:HA	2:AB:226:ARG:HD2	1.89	0.54
2:AB:132:LYS:HA	2:AB:135:GLN:HG3	1.90	0.54
25:BA:1329:U:H5''	25:BA:1330:C:H5	1.72	0.54
1:CA:940:G:H2'	1:CA:941:A:H8	1.73	0.54
8:CH:91:ARG:HG2	8:CH:91:ARG:HH11	1.72	0.54
8:AH:91:ARG:HG2	8:AH:91:ARG:HH11	1.72	0.54
25:DA:852:G:O2'	25:DA:853:G:H5'	2.07	0.54
26:BB:93:G:O2'	26:BB:94:C:H5'	2.08	0.54
1:AA:625:A:N3	8:AH:113:SER:OG	2.36	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DE:59:VAL:CG2	29:DE:60:ASN:H	2.02	0.54
25:BA:109:G:C2	25:BA:110:G:C4	2.96	0.54
50:D3:6:VAL:HG12	50:D3:56:VAL:HG22	1.90	0.54
42:BV:2:PHE:CD1	42:BV:13:ARG:NH1	2.76	0.54
42:BV:38:LEU:O	42:BV:52:VAL:HG12	2.08	0.54
22:CW:21:A:N7	22:CW:46:G:C5	2.75	0.54
13:AM:8:GLU:OE1	13:AM:22:ILE:HG23	2.07	0.54
41:DU:88:ILE:O	41:DU:88:ILE:CG1	2.55	0.54
42:DV:5:VAL:CG2	42:DV:35:LEU:HG	2.37	0.54
39:BS:62:LYS:O	39:BS:65:VAL:HB	2.08	0.54
25:BA:2299:G:N1	25:BA:2318:G:C8	2.76	0.54
36:DP:63:PRO:C	36:DP:65:ARG:N	2.57	0.54
1:CA:246:G:C6	1:CA:261:G:C6	2.95	0.54
53:D6:46:HIS:O	53:D6:46:HIS:CD2	2.60	0.54
33:DI:129:THR:HA	33:DI:137:PRO:CA	2.37	0.54
25:DA:336:C:H4'	45:DY:7:VAL:HG11	1.90	0.54
23:CV:2:G:C2	23:CV:3:C:C6	2.95	0.54
30:BF:22:ALA:HA	30:BF:26:ALA:HB2	1.89	0.54
14:AN:13:THR:O	14:AN:15:LYS:N	2.40	0.54
25:BA:588:U:H2'	25:BA:589:C:C6	2.43	0.54
25:BA:353:G:C4	25:BA:354:G:C8	2.96	0.54
25:BA:1447:G:C5	25:BA:1448:G:N7	2.76	0.54
25:BA:1447:G:O4'	25:BA:1545:A:O2'	2.19	0.54
25:DA:2238:G:N3	25:DA:2238:G:H2'	2.23	0.54
48:D1:41:ARG:HD3	48:D1:43:TYR:CZ	2.43	0.54
46:DZ:99:TYR:CD2	46:DZ:99:TYR:N	2.76	0.54
40:DT:23:ARG:HG3	40:DT:120:ARG:HH11	1.70	0.54
15:CO:78:TYR:C	15:CO:80:ALA:H	2.09	0.54
7:AG:47:CYS:C	7:AG:49:ILE:H	2.09	0.54
1:CA:238:A:H4'	1:CA:239:U:O5'	2.06	0.54
40:BT:110:ILE:O	40:BT:113:LYS:N	2.41	0.54
1:AA:1486:C:C2'	1:AA:1487:U:H5'	2.38	0.54
11:AK:44:SER:H	11:AK:47:VAL:CG2	2.21	0.54
39:BS:48:LEU:N	39:BS:48:LEU:HD12	2.23	0.54
16:AP:20:VAL:HG23	16:AP:34:GLU:O	2.08	0.54
22:CY:28:G:C2	22:CY:43:C:C4	2.95	0.54
23:AV:1:C:H4'	23:AV:1:C:OP1	2.08	0.54
3:AC:70:VAL:CG1	3:AC:71:ALA:N	2.71	0.54
52:D5:35:GLU:O	52:D5:36:CYS:HB2	2.08	0.54
25:DA:1335:U:O2'	25:DA:1336:A:H5'	2.07	0.54
11:AK:30:VAL:HG21	11:AK:65:ALA:HA	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AO:50:HIS:O	15:AO:53:HIS:HB3	2.06	0.54
36:BP:92:GLU:HG3	36:BP:93:GLY:N	2.23	0.54
25:BA:1175:U:H4'	25:BA:1176:G:C3'	2.37	0.54
25:BA:1175:U:H4'	25:BA:1176:G:H3'	1.89	0.54
50:D3:40:THR:HA	50:D3:44:ARG:NH2	2.23	0.54
12:AL:6:THR:HG23	12:AL:9:GLN:HG3	1.90	0.54
1:CA:485:G:C2	1:CA:486:C:C2	2.95	0.54
29:DE:15:PHE:CD2	40:DT:80:SER:HB2	2.43	0.54
49:B2:32:LEU:O	49:B2:36:ARG:HG3	2.08	0.54
1:AA:1314:A:H2'	1:AA:1315:G:O4'	2.07	0.54
13:AM:106:ASN:O	13:AM:107:ALA:HB3	2.08	0.54
25:BA:225:A:H2'	25:BA:226:G:H5'	1.89	0.54
25:DA:2039:C:H2'	25:DA:2040:C:H6	1.72	0.54
31:DG:72:ARG:HH11	31:DG:86:MET:HA	1.73	0.54
36:DP:75:ILE:HD12	36:DP:75:ILE:N	2.23	0.54
1:AA:1358:U:H2'	1:AA:1359:A:C8	2.43	0.54
25:DA:2880:C:O2'	38:DR:90:ARG:HD3	2.07	0.54
20:CT:53:LEU:HB3	20:CT:102:GLY:CA	2.38	0.54
20:CT:53:LEU:CD1	20:CT:102:GLY:N	2.69	0.54
22:CW:1:G:N1	22:CW:2:C:C4	2.76	0.54
23:CV:19:G:C4	23:CV:59:A:N1	2.75	0.54
45:DY:17:SER:OG	45:DY:71:LYS:HD2	2.08	0.54
26:DB:86:G:O2'	26:DB:87:G:H5'	2.08	0.54
5:CE:100:VAL:CG1	5:CE:118:ILE:HG22	2.35	0.54
25:BA:2172:U:O3'	25:BA:2173:A:H8	1.89	0.54
41:DU:79:PHE:HE1	41:DU:106:PHE:CZ	2.26	0.54
19:CS:44:MET:O	19:CS:47:HIS:HB2	2.08	0.54
39:BS:14:VAL:CG1	39:BS:15:ARG:H	2.19	0.54
25:DA:2334:G:H5'	39:DS:13:ARG:HG2	1.89	0.54
39:DS:97:ARG:HE	39:DS:97:ARG:C	2.10	0.54
31:BG:130:ASN:HB3	31:BG:159:VAL:O	2.08	0.54
28:DD:32:SER:O	28:DD:34:VAL:N	2.41	0.54
42:DV:25:LEU:H	42:DV:92:THR:CG2	2.11	0.54
32:BH:44:VAL:CG1	32:BH:45:VAL:H	2.14	0.54
41:BU:49:HIS:HA	41:BU:52:ARG:HB2	1.90	0.54
25:DA:1902:C:HO2'	28:DD:244:ARG:HB2	1.69	0.54
25:BA:2854:G:H2'	25:BA:2855:C:H6	1.70	0.54
13:CM:18:ALA:HB2	13:CM:45:VAL:HG21	1.89	0.54
46:BZ:150:LEU:HD23	46:BZ:171:ILE:CG1	2.32	0.54
25:DA:379:G:C8	25:DA:380:U:C6	2.94	0.54
32:BH:20:ALA:HB1	32:BH:21:PRO:CD	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2783:G:H2'	25:BA:2784:C:C6	2.42	0.54
11:CK:30:VAL:HG21	11:CK:65:ALA:HA	1.88	0.54
25:BA:8:A:OP1	34:BN:51:PHE:HE2	1.89	0.54
1:CA:1268:A:C6	1:CA:1269:A:C6	2.95	0.54
25:DA:2320:A:N3	25:DA:2320:A:H2'	2.21	0.54
40:BT:130:ALA:O	40:BT:132:LYS:N	2.41	0.54
1:CA:338:U:H1'	1:CA:341:G:O6	2.08	0.54
27:BC:86:ALA:CB	27:BC:94:VAL:HG11	2.38	0.54
1:CA:982:A:O2'	1:CA:1020:C:H1'	2.08	0.54
25:BA:2111:C:H42	25:BA:2147:G:H22	1.56	0.54
1:CA:130:C:N4	1:CA:222:G:H1	2.06	0.54
25:BA:1264:G:OP1	52:B5:19:ARG:NH2	2.33	0.54
1:AA:343:G:HO2'	1:AA:344:A:P	2.29	0.54
7:CG:26:PHE:O	7:CG:30:ILE:HG12	2.07	0.54
1:AA:701:G:H5'	11:AK:117:ASN:OD1	2.08	0.54
34:DN:78:TYR:HB3	34:DN:79:PRO:CD	2.38	0.54
30:BF:127:GLU:O	30:BF:127:GLU:OE2	2.26	0.54
25:BA:311:A:C8	25:BA:332:A:N6	2.75	0.54
25:DA:1409:C:H2'	25:DA:1410:G:C8	2.42	0.54
1:AA:836:A:H2'	1:AA:837:A:O4'	2.07	0.54
25:DA:1150:C:O2'	25:DA:1151:G:H5'	2.08	0.54
1:CA:1272:G:H4'	9:CI:39:GLY:HA3	1.89	0.54
9:AI:126:SER:O	9:AI:128:ARG:HG2	2.08	0.54
21:CU:3:LYS:HG2	21:CU:14:TRP:CD1	2.43	0.54
1:CA:553:G:H1'	1:CA:803:U:C4	2.43	0.54
28:DD:70:TRP:CH2	28:DD:150:LYS:HA	2.43	0.54
25:DA:1641:A:H2'	25:DA:1642:G:O4'	2.08	0.54
26:DB:30:C:H2'	26:DB:31:C:O4'	2.07	0.54
25:DA:1563:G:O2'	25:DA:1564:C:H5'	2.07	0.54
16:AP:42:ARG:O	16:AP:43:LYS:C	2.45	0.54
25:DA:1497:U:H5'	25:DA:1498:C:C5	2.43	0.54
5:AE:88:LYS:HB3	5:AE:123:LEU:O	2.08	0.54
25:DA:80:G:O2'	25:DA:81:G:H5'	2.08	0.54
6:CF:42:GLU:C	6:CF:44:GLY:H	2.10	0.54
4:AD:31:CYS:C	4:AD:33:MET:N	2.61	0.54
13:AM:88:ARG:HA	13:AM:98:VAL:CG1	2.38	0.54
25:DA:2810:A:H2'	29:DE:61:ARG:NH2	2.23	0.54
28:DD:109:ASP:HB2	28:DD:197:GLY:CA	2.38	0.54
25:DA:2680:C:H2'	25:DA:2681:C:O2	2.08	0.54
41:BU:102:GLU:HB2	41:BU:104:GLN:HE22	1.73	0.54
41:BU:88:ILE:CG1	41:BU:88:ILE:O	2.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CV:8:U:C2	23:CV:15:G:O6	2.61	0.54
25:DA:309:G:N2	25:DA:330:A:P	2.81	0.54
26:DB:83:G:H2'	26:DB:84:C:C5'	2.38	0.54
42:DV:38:LEU:O	42:DV:52:VAL:HG12	2.08	0.54
25:DA:2491:U:C5'	25:DA:2570:G:H5''	2.19	0.54
17:AQ:69:LYS:O	17:AQ:70:ARG:HD2	2.07	0.54
9:CI:114:TYR:N	9:CI:114:TYR:CD2	2.59	0.54
33:BI:51:ILE:HA	33:BI:54:GLN:HB2	1.89	0.54
22:CW:76:A:H62	25:DA:2421:G:H2'	1.70	0.54
50:B3:40:THR:HA	50:B3:44:ARG:NH2	2.23	0.54
25:BA:926:A:C8	25:BA:926:A:H5'	2.42	0.54
33:DI:87:LYS:HA	33:DI:122:GLU:CG	2.30	0.54
25:DA:1697:G:C3'	25:DA:1698:A:H5''	2.27	0.54
31:DG:125:PHE:O	31:DG:128:ARG:HG2	2.08	0.54
45:DY:42:VAL:CB	45:DY:65:ALA:HB3	2.30	0.54
32:DH:103:LEU:HD22	32:DH:123:PHE:CD2	2.43	0.54
38:BR:9:LYS:O	38:BR:10:LEU:CG	2.55	0.54
2:CB:204:ASN:ND2	2:CB:206:ASP:H	2.05	0.54
46:DZ:30:ASN:HA	46:DZ:89:PHE:CE2	2.43	0.54
40:DT:25:GLY:H	40:DT:49:VAL:CG1	2.20	0.54
25:DA:494:G:O2'	43:DW:5:ALA:O	2.24	0.54
46:BZ:99:TYR:CD2	46:BZ:99:TYR:N	2.76	0.54
25:BA:1313:U:H2'	25:BA:1314:C:H5'	1.90	0.54
36:DP:83:VAL:CG2	36:DP:105:LEU:HD12	2.38	0.54
25:DA:2783:G:H2'	25:DA:2784:C:C6	2.42	0.54
8:AH:85:ARG:C	8:AH:85:ARG:HD3	2.28	0.54
22:CY:29:G:N3	22:CY:29:G:H2'	2.22	0.54
46:BZ:128:VAL:CG2	46:BZ:132:ASN:HB2	2.38	0.54
2:AB:92:TYR:O	2:AB:93:VAL:HG13	2.08	0.54
30:DF:7:TYR:HB3	30:DF:16:GLY:N	2.21	0.54
2:CB:73:THR:HG22	2:CB:95:GLN:O	2.08	0.54
1:AA:78:G:N7	1:AA:79:U:H5	2.06	0.54
1:CA:1374:G:C5	1:CA:1375:U:C5	2.96	0.54
38:BR:2:ARG:NH1	38:BR:5:LYS:HE2	2.23	0.54
25:DA:774:A:H2	25:DA:787:U:O2'	1.91	0.54
25:BA:558:G:P	34:BN:111:PRO:HD2	2.48	0.54
7:CG:69:VAL:HG21	7:CG:104:LEU:HD21	1.89	0.54
25:DA:2178:C:H4'	27:DC:46:LYS:HD3	1.89	0.54
25:BA:34:C:H2'	25:BA:35:G:H5'	1.89	0.54
34:BN:78:TYR:HB3	34:BN:79:PRO:CD	2.38	0.54
52:D5:42:PRO:O	52:D5:43:HIS:HB2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:460:G:H2'	1:AA:461:G:C8	2.43	0.54
17:CQ:21:VAL:O	17:CQ:41:LYS:HA	2.07	0.54
25:DA:2135:A:H2'	25:DA:2136:C:H6	1.72	0.54
12:AL:55:VAL:HG12	12:AL:56:ALA:N	2.23	0.54
25:BA:852:G:O2'	25:BA:853:G:H5'	2.07	0.54
33:BI:125:GLU:OE1	33:BI:125:GLU:HA	2.07	0.54
1:CA:1493:G:N1	1:CA:1496:A:OP2	2.41	0.54
25:BA:897:C:C2	25:BA:898:C:C5	2.96	0.54
22:CW:5:G:O5'	22:CW:5:G:C8	2.61	0.54
25:DA:308:G:C2'	25:DA:309:G:H5'	2.38	0.54
45:DY:30:VAL:HG12	45:DY:31:LEU:N	2.23	0.54
55:B8:36:LYS:HB3	55:B8:40:GLU:HG3	1.90	0.54
25:BA:2389:G:H5''	25:BA:2390:U:H5'	1.90	0.54
38:BR:82:GLU:O	38:BR:86:ARG:HG3	2.08	0.54
26:BB:7:G:H21	39:BS:38:GLN:HE22	1.56	0.54
1:AA:1115:G:N2	1:AA:1125:G:H1'	2.20	0.54
31:BG:125:PHE:O	31:BG:128:ARG:HG2	2.08	0.54
12:CL:62:SER:O	12:CL:64:TYR:HD1	1.91	0.54
28:DD:34:VAL:O	28:DD:34:VAL:HG22	2.07	0.54
2:CB:200:ILE:HG22	2:CB:202:PRO:HD3	1.89	0.54
42:DV:18:LEU:CD1	42:DV:19:LYS:H	2.22	0.54
39:DS:75:GLU:HA	39:DS:78:LEU:HD12	1.90	0.54
25:DA:1203:G:H4'	36:DP:7:ARG:HG2	1.90	0.54
25:DA:2469:A:H2'	25:DA:2469:A:N3	2.23	0.54
1:AA:917:C:H2'	1:AA:918:G:H8	1.72	0.54
1:CA:319:G:OP1	20:CT:22:ARG:HD3	2.08	0.54
10:AJ:88:LEU:CD1	10:AJ:90:LEU:HD11	2.38	0.54
25:BA:2864:G:H2'	25:BA:2865:U:O4'	2.08	0.54
31:DG:41:GLN:HE22	31:DG:153:ARG:CG	2.20	0.54
37:DQ:141:GLN:NE2	46:DZ:72:ARG:HA	2.22	0.54
3:CC:195:VAL:HG12	3:CC:196:LEU:H	1.72	0.54
12:AL:26:ALA:C	12:AL:27:LEU:HD22	2.28	0.54
12:AL:59:ARG:HG3	12:AL:64:TYR:O	2.07	0.54
25:BA:379:G:C6	25:BA:380:U:C2	2.96	0.54
7:AG:52:GLU:O	7:AG:54:THR:N	2.41	0.54
39:DS:48:LEU:N	39:DS:48:LEU:HD12	2.23	0.54
1:AA:828:G:H2'	1:AA:829:G:H8	1.73	0.54
22:AW:11:C:H2'	22:AW:12:U:H6	1.73	0.54
10:CJ:78:ASN:ND2	10:CJ:80:LYS:HB2	2.23	0.54
55:B8:29:LYS:HD3	55:B8:44:LYS:HG2	1.90	0.54
25:BA:1434:A:O2'	25:BA:1435:G:H5'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1609:A:N1	25:BA:1616:A:N7	2.56	0.54
25:BA:1887:C:H3'	25:BA:1888:G:H5''	1.90	0.54
1:AA:1411:C:H2'	1:AA:1412:C:C6	2.43	0.54
52:D5:40:LYS:HB2	52:D5:41:PRO:HD2	1.89	0.54
40:BT:15:VAL:HA	40:BT:79:HIS:HD2	1.73	0.54
18:AR:36:ASN:HB2	18:AR:39:VAL:HG23	1.89	0.54
52:D5:20:ARG:HA	52:D5:23:HIS:ND1	2.22	0.54
18:AR:25:THR:HG22	18:AR:42:ARG:HH11	1.72	0.54
4:AD:62:GLN:O	4:AD:66:ARG:HD2	2.07	0.54
49:D2:32:LEU:O	49:D2:36:ARG:HG3	2.08	0.54
29:DE:15:PHE:CE2	40:DT:80:SER:HB2	2.43	0.54
35:DO:3:GLN:HB2	35:DO:4:PRO:HD2	1.90	0.54
11:CK:78:GLN:O	11:CK:103:LEU:HD13	2.07	0.54
1:CA:740:U:O2'	1:CA:856:C:H1'	2.08	0.54
1:AA:131:C:H42	1:AA:221:G:H1	1.56	0.54
1:AA:491:C:H6	1:AA:491:C:OP1	1.91	0.54
7:AG:38:LEU:O	7:AG:42:ILE:HG13	2.08	0.54
40:DT:28:VAL:O	40:DT:29:ARG:HD2	2.08	0.53
13:AM:82:MET:HB2	13:AM:93:ARG:NH1	2.23	0.53
25:DA:1819:A:O4'	25:DA:1821:A:N7	2.41	0.53
10:AJ:50:ILE:HG23	10:AJ:60:ARG:HD3	1.90	0.53
9:AI:28:VAL:HG13	9:AI:63:ILE:O	2.09	0.53
28:DD:26:LYS:HE2	28:DD:82:ILE:N	2.23	0.53
33:BI:51:ILE:O	33:BI:55:ALA:N	2.40	0.53
25:BA:860:U:OP2	25:BA:916:G:N1	2.40	0.53
5:AE:101:ILE:HD11	5:AE:119:LEU:CD2	2.23	0.53
7:AG:108:ALA:HA	7:AG:111:ARG:HD2	1.90	0.53
28:BD:32:SER:O	28:BD:33:LEU:C	2.46	0.53
8:CH:103:VAL:HG21	8:CH:109:ILE:O	2.08	0.53
28:DD:33:LEU:O	28:DD:35:LYS:HG2	2.09	0.53
53:D6:47:THR:HG22	53:D6:48:VAL:N	2.23	0.53
33:DI:79:ILE:HG22	33:DI:81:VAL:HG23	1.89	0.53
46:BZ:57:ILE:HG22	46:BZ:58:VAL:H	1.73	0.53
25:DA:2314:C:O2'	25:DA:2315:G:H5'	2.07	0.53
45:BY:30:VAL:HG12	45:BY:31:LEU:N	2.23	0.53
53:B6:13:CYS:O	53:B6:21:TYR:HA	2.07	0.53
31:DG:39:ILE:HG23	31:DG:92:VAL:HG13	1.89	0.53
37:DQ:59:ARG:HG3	37:DQ:59:ARG:NH1	2.23	0.53
25:DA:1190:G:H5''	36:DP:35:HIS:CA	2.36	0.53
23:AV:11:A:N1	23:AV:12:G:C2	2.76	0.53
7:CG:27:ILE:HG12	7:CG:43:PHE:HD2	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:9:ILE:HG22	30:DF:9:ILE:O	2.08	0.53
36:BP:115:LEU:N	36:BP:115:LEU:HD23	2.23	0.53
37:DQ:30:GLY:CA	37:DQ:107:ALA:HB2	2.37	0.53
25:BA:7:G:H2'	25:BA:8:A:C8	2.44	0.53
25:DA:2777:G:C4'	25:DA:2778:A:H5'	2.39	0.53
22:AW:55:U:C5	22:AW:57:G:H5'	2.43	0.53
23:AV:2:G:N3	23:AV:2:G:H2'	2.23	0.53
26:BB:73:A:H2'	26:BB:74:U:H5'	1.90	0.53
10:CJ:87:THR:OG1	10:CJ:88:LEU:N	2.41	0.53
7:AG:12:LEU:HD13	7:AG:25:ALA:HB2	1.90	0.53
25:DA:1436:G:C3'	25:DA:1437:C:H5''	2.36	0.53
27:DC:78:ALA:HB2	27:DC:82:LYS:HB2	1.90	0.53
25:BA:1336:A:OP1	44:BX:64:LYS:HE3	2.08	0.53
1:CA:657:G:N2	1:CA:700:C:O2	2.41	0.53
25:DA:2111:C:H42	25:DA:2147:G:H22	1.56	0.53
30:DF:181:LEU:HB3	30:DF:205:ARG:NH1	2.23	0.53
27:DC:100:ILE:HG22	27:DC:101:GLN:HG3	1.90	0.53
25:DA:999:U:H2'	25:DA:1000:A:C5'	2.38	0.53
48:D1:57:GLU:O	48:D1:58:ILE:O	2.24	0.53
5:CE:136:MET:O	5:CE:138:ALA:N	2.40	0.53
2:CB:112:VAL:O	2:CB:115:LEU:HB3	2.08	0.53
43:DW:24:ILE:HD13	43:DW:36:LEU:HD11	1.90	0.53
5:AE:82:VAL:HG21	5:AE:138:ALA:HA	1.89	0.53
25:DA:34:C:H2'	25:DA:35:G:H5'	1.89	0.53
25:DA:1789:A:H2'	25:DA:1790:C:O4'	2.07	0.53
25:DA:1830:C:H42	25:DA:1975:G:H1	1.54	0.53
25:DA:2698:U:H2'	25:DA:2699:C:C6	2.43	0.53
25:DA:49:A:H5''	25:DA:51:G:O4'	2.09	0.53
38:DR:33:ARG:HG3	38:DR:115:GLU:HB2	1.90	0.53
1:AA:926:A:C2	1:AA:1214:G:N3	2.76	0.53
17:AQ:62:SER:CB	17:AQ:72:ARG:HG3	2.38	0.53
1:CA:914:A:N6	1:CA:1326:U:O4	2.38	0.53
17:AQ:11:VAL:HG23	17:AQ:20:THR:HB	1.90	0.53
13:CM:82:MET:HG2	13:CM:82:MET:O	2.06	0.53
37:DQ:31:ASP:O	37:DQ:133:ARG:O	2.26	0.53
25:BA:2168:G:N2	25:BA:2171:A:C8	2.77	0.53
3:AC:73:PRO:HD2	3:AC:105:GLU:OE2	2.08	0.53
7:CG:108:ALA:HA	7:CG:111:ARG:HD2	1.91	0.53
13:CM:3:ARG:HG2	13:CM:9:ILE:HG12	1.88	0.53
9:CI:28:VAL:HG13	9:CI:63:ILE:O	2.07	0.53
28:DD:80:ALA:HB2	28:DD:96:HIS:CD2	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1952:A:C6	35:BO:22:ILE:HD11	2.42	0.53
34:BN:17:ASP:HB2	34:BN:55:VAL:HG12	1.90	0.53
33:DI:58:LEU:HA	33:DI:61:ARG:CD	2.37	0.53
25:BA:2463:C:O2'	25:BA:2464:C:H5''	2.08	0.53
31:DG:123:ASN:O	31:DG:125:PHE:N	2.41	0.53
32:BH:89:ILE:HG12	32:BH:129:THR:HA	1.90	0.53
30:DF:132:VAL:HG13	30:DF:133:ASN:N	2.23	0.53
25:BA:2680:C:H2'	25:BA:2681:C:O2	2.08	0.53
9:CI:11:LYS:H	9:CI:104:ARG:HH21	1.56	0.53
40:BT:91:ARG:O	40:BT:93:ARG:N	2.41	0.53
46:DZ:117:LEU:HD23	46:DZ:118:GLN:N	2.23	0.53
37:BQ:59:ARG:NH1	37:BQ:59:ARG:HG3	2.23	0.53
25:DA:769:G:H2'	25:DA:770:G:H8	1.74	0.53
28:DD:182:LEU:H	28:DD:272:ALA:HB3	1.72	0.53
23:AV:47:G:H3'	23:AV:47:G:C8	2.43	0.53
48:B1:44:PRO:HB2	48:B1:46:LEU:CD1	2.39	0.53
26:DB:69:G:C6	26:DB:70:C:C4	2.96	0.53
34:DN:120:LEU:HD11	34:DN:122:VAL:CG2	2.38	0.53
34:BN:131:GLN:HE22	34:BN:134:ARG:CD	2.17	0.53
34:BN:134:ARG:H	34:BN:135:PRO:HD3	1.73	0.53
3:CC:113:ALA:HB3	3:CC:114:PRO:CD	2.37	0.53
39:DS:83:LYS:HG2	39:DS:105:ALA:HB3	1.91	0.53
3:CC:73:PRO:HD2	3:CC:105:GLU:OE2	2.08	0.53
10:CJ:8:LEU:CD1	10:CJ:20:ALA:HA	2.38	0.53
4:CD:107:ARG:HB3	4:CD:174:LEU:CD1	2.38	0.53
4:CD:108:LEU:HD12	4:CD:174:LEU:HD13	1.90	0.53
7:CG:12:LEU:HD13	7:CG:25:ALA:HB2	1.89	0.53
25:BA:1336:A:H2'	25:BA:1337:G:H8	1.73	0.53
2:CB:114:ARG:NH1	2:CB:118:LEU:HD21	2.22	0.53
3:AC:99:VAL:HG23	3:AC:99:VAL:O	2.08	0.53
33:BI:65:ALA:HB1	33:BI:131:LYS:HG2	1.90	0.53
32:BH:40:GLU:O	32:BH:42:ARG:N	2.42	0.53
25:BA:1384:A:N3	25:BA:1405:U:H1'	2.23	0.53
17:CQ:76:LEU:HD12	17:CQ:77:VAL:N	2.23	0.53
3:CC:22:TRP:CH2	3:CC:32:LEU:HB3	2.43	0.53
18:CR:25:THR:HG22	18:CR:42:ARG:HH11	1.73	0.53
25:DA:957:A:H5'	37:DQ:76:LYS:HE3	1.90	0.53
1:AA:108:G:H1'	1:AA:109:A:N7	2.22	0.53
44:DX:3:THR:O	44:DX:4:ALA:HB3	2.08	0.53
33:DI:29:TYR:CE1	33:DI:33:ARG:NE	2.75	0.53
25:BA:2695:C:H2'	25:BA:2696:U:C6	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1031:U:C5	1:CA:1182:A:H5'	2.43	0.53
1:AA:210:U:H2'	1:AA:210:U:O2	2.08	0.53
50:B3:10:LYS:HB3	50:B3:53:LEU:HA	1.89	0.53
1:CA:965:G:C2	1:CA:966:C:C2	2.96	0.53
52:B5:42:PRO:O	52:B5:43:HIS:HB2	2.08	0.53
11:AK:99:GLN:NE2	11:AK:105:VAL:HG21	2.23	0.53
22:CW:16:U:H3'	22:CW:17:C:C5'	2.32	0.53
26:DB:87:G:H2'	26:DB:88:C:H5''	1.89	0.53
55:B8:52:LYS:N	55:B8:53:PRO:CD	2.68	0.53
37:DQ:4:PRO:O	37:DQ:6:ARG:N	2.40	0.53
25:DA:870:A:OP1	37:DQ:6:ARG:NE	2.41	0.53
3:AC:76:VAL:CG2	3:AC:77:ILE:H	2.21	0.53
50:B3:6:VAL:HG12	50:B3:56:VAL:HG22	1.90	0.53
25:DA:2349:G:H8	25:DA:2349:G:H5'	1.73	0.53
38:DR:63:ARG:HA	38:DR:80:PHE:HE2	1.73	0.53
42:DV:47:VAL:O	42:DV:48:GLY:C	2.47	0.53
39:BS:31:SER:HB3	39:BS:34:HIS:H	1.74	0.53
37:DQ:54:MET:CB	37:DQ:64:ILE:HD13	2.21	0.53
14:CN:41:ARG:HG3	14:CN:42:ILE:N	2.22	0.53
29:DE:132:HIS:CD2	29:DE:135:HIS:HE1	2.24	0.53
33:BI:129:THR:HA	33:BI:137:PRO:CA	2.37	0.53
33:DI:102:SER:HA	33:DI:107:VAL:O	2.08	0.53
23:CV:3:C:O2'	23:CV:4:G:H5'	2.08	0.53
28:DD:6:PHE:HB3	28:DD:9:TYR:HE1	1.73	0.53
25:BA:2469:A:N3	25:BA:2469:A:H2'	2.23	0.53
25:BA:2482:G:H22	37:BQ:52:VAL:HG11	1.72	0.53
25:BA:587:C:C4	36:BP:33:ARG:HG2	2.44	0.53
1:AA:457:A:H1'	16:AP:82:GLN:HE22	1.73	0.53
7:CG:72:ARG:O	7:CG:73:MET:HG3	2.09	0.53
25:DA:353:G:C4	25:DA:354:G:C8	2.96	0.53
37:DQ:59:ARG:O	37:DQ:60:ARG:CB	2.56	0.53
46:DZ:151:HIS:HB3	46:DZ:170:THR:HA	1.90	0.53
1:AA:1218:C:H5''	1:AA:1219:A:O4'	2.08	0.53
48:B1:41:ARG:HD3	48:B1:43:TYR:CZ	2.43	0.53
48:D1:5:CYS:O	48:D1:9:GLY:HA2	2.07	0.53
36:BP:101:VAL:HG12	36:BP:107:LYS:N	2.23	0.53
36:DP:115:LEU:HD23	36:DP:115:LEU:N	2.23	0.53
31:BG:76:SER:HA	31:BG:83:ARG:HB2	1.90	0.53
35:DO:1:MET:HG3	35:DO:32:TYR:CD1	2.44	0.53
25:DA:2777:G:H5''	25:DA:2778:A:H5''	1.90	0.53
25:BA:321:G:O4'	30:BF:165:ARG:HD2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:76:VAL:CG2	3:CC:77:ILE:H	2.21	0.53
30:DF:7:TYR:HB2	30:DF:17:ARG:N	2.23	0.53
25:BA:1479:G:H5'	25:BA:1558:A:H2	1.72	0.53
8:CH:23:SER:HA	8:CH:63:LEU:CD2	2.38	0.53
8:CH:35:ILE:O	8:CH:39:LEU:HD23	2.08	0.53
25:BA:1331:A:O2'	25:BA:1332:G:H5''	2.09	0.53
25:BA:1497:U:H5'	25:BA:1498:C:C5	2.43	0.53
44:DX:64:LYS:HZ3	44:DX:73:ARG:HH21	1.56	0.53
25:DA:1431:U:O2'	25:DA:1432:C:H5'	2.08	0.53
25:BA:1429:G:H2'	25:BA:1430:C:C6	2.44	0.53
25:DA:648:G:O2'	25:DA:649:G:H5'	2.08	0.53
1:CA:858:G:H2'	1:CA:859:C:O4'	2.09	0.53
27:BC:100:ILE:HG22	27:BC:101:GLN:HG3	1.90	0.53
30:DF:152:GLU:O	30:DF:154:VAL:HG23	2.08	0.53
25:DA:2721:A:H2'	25:DA:2722:G:H8	1.74	0.53
12:CL:104:VAL:HG12	12:CL:105:TYR:CD1	2.43	0.53
25:DA:2689:U:H5''	25:DA:2690:C:H5'	1.91	0.53
1:CA:930:G:H5'	1:CA:942:A:H61	1.73	0.53
32:BH:67:LEU:O	32:BH:71:LEU:HB2	2.08	0.53
4:CD:176:LEU:HD12	4:CD:182:LYS:O	2.09	0.53
27:BC:23:ASP:C	27:BC:25:ALA:H	2.12	0.53
38:BR:88:ARG:HD2	38:BR:89:ASP:OD1	2.08	0.53
25:BA:2422:A:H4'	25:BA:2423:U:OP1	2.08	0.53
1:CA:396:C:H2'	1:CA:397:G:H8	1.73	0.53
1:AA:316:A:H2	1:AA:327:G:H22	1.56	0.53
22:CW:51:U:H2'	22:CW:52:G:C8	2.43	0.53
29:BE:61:ARG:CB	29:BE:62:PRO:CD	2.86	0.53
45:DY:28:LYS:HA	45:DY:39:VAL:N	2.18	0.53
25:DA:313:C:HO2'	25:DA:314:A:H5'	1.72	0.53
25:DA:2171:A:O2'	25:DA:2172:U:H6	1.89	0.53
39:BS:15:ARG:O	39:BS:18:ILE:HG22	2.08	0.53
39:DS:28:VAL:HG12	39:DS:29:PHE:N	2.24	0.53
7:AG:111:ARG:HB3	7:AG:113:GLU:HG2	1.91	0.53
5:CE:76:ILE:CG1	5:CE:77:PRO:HD2	2.38	0.53
28:DD:31:LYS:HZ1	28:DD:102:LYS:NZ	2.06	0.53
22:CW:36:A:H2'	22:CW:37:A:O5'	2.09	0.53
53:D6:17:LYS:C	53:D6:18:ARG:HD3	2.29	0.53
33:DI:120:ILE:O	33:DI:121:LYS:CB	2.57	0.53
5:AE:31:LEU:HD11	5:AE:43:LEU:HD11	1.89	0.53
1:CA:1100:C:H1'	1:CA:1160:A:C4	2.42	0.53
31:DG:41:GLN:N	31:DG:90:LEU:O	2.37	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2864:G:H2'	25:DA:2865:U:O4'	2.09	0.53
7:AG:43:PHE:HD1	7:AG:43:PHE:C	2.11	0.53
25:DA:379:G:C6	25:DA:380:U:C2	2.96	0.53
38:BR:54:LEU:HD23	38:BR:66:VAL:HG23	1.90	0.53
31:BG:83:ARG:HH11	31:BG:84:LYS:HD2	1.73	0.53
22:AW:55:U:O5'	22:AW:55:U:O2	2.26	0.53
25:DA:2290:G:C8	25:DA:2290:G:H5'	2.37	0.53
16:CP:15:PRO:O	16:CP:41:PRO:HD2	2.09	0.53
11:CK:126:ARG:HB3	11:CK:126:ARG:HH11	1.73	0.53
31:BG:175:LEU:HD12	31:BG:175:LEU:H	1.72	0.53
8:CH:85:ARG:C	8:CH:85:ARG:HD3	2.28	0.53
31:BG:149:VAL:HG23	31:BG:149:VAL:O	2.08	0.53
30:BF:7:TYR:HB2	30:BF:17:ARG:N	2.23	0.53
25:BA:2285:C:OP2	53:B6:27:LYS:HD2	2.09	0.53
28:BD:109:ASP:HB2	28:BD:197:GLY:CA	2.38	0.53
25:BA:1336:A:H2'	25:BA:1337:G:C8	2.43	0.53
4:AD:10:ARG:HH11	4:AD:10:ARG:HG2	1.74	0.53
2:AB:113:HIS:O	2:AB:117:GLU:HG3	2.07	0.53
25:BA:1012:U:O4	34:BN:28:THR:HG21	2.09	0.53
40:DT:38:ASN:HD21	40:DT:41:ARG:HB2	1.74	0.53
25:DA:2716:U:O2'	25:DA:2717:G:H5'	2.09	0.53
22:CW:26:A:H2'	22:CW:27:G:C8	2.44	0.53
25:BA:271(K):U:H3'	25:BA:271(L):U:H5'	1.90	0.53
25:BA:438:G:O2'	25:BA:440:G:H5'	2.08	0.53
25:BA:637:A:H2'	36:BP:117:GLU:OE2	2.08	0.53
13:AM:72:ALA:O	13:AM:75:ALA:HB3	2.08	0.53
7:CG:68:ASN:HD22	7:CG:128:ALA:HA	1.73	0.53
25:BA:957:A:H5'	37:BQ:76:LYS:HE3	1.91	0.53
25:BA:2039:C:H2'	25:BA:2040:C:H6	1.72	0.53
29:DE:137:HIS:HB3	29:DE:138:PRO:HD2	1.91	0.53
1:AA:222:G:H2'	1:AA:223:A:C8	2.44	0.53
26:BB:87:G:H2'	26:BB:88:C:H5''	1.91	0.53
1:AA:969:U:O2	1:AA:970:G:N2	2.41	0.53
5:CE:40:ARG:HH11	5:CE:40:ARG:HG2	1.73	0.53
16:CP:12:LYS:O	16:CP:13:HIS:HB2	2.08	0.53
25:DA:2059:A:H5'	25:DA:2060:A:OP2	2.09	0.53
25:BA:1999:C:H4'	25:BA:2723:C:O2	2.09	0.53
13:CM:93:ARG:CZ	25:DA:888:C:C4'	2.77	0.53
13:CM:88:ARG:HG2	13:CM:98:VAL:CG1	2.38	0.53
4:AD:11:LEU:C	4:AD:13:ARG:N	2.60	0.53
25:BA:954:G:H4'	37:BQ:13:GLN:NE2	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:271(H):G:HO2'	25:DA:271(I):G:H8	1.55	0.53
37:DQ:120:ILE:O	37:DQ:123:HIS:HB2	2.09	0.53
25:DA:2168:G:N2	25:DA:2171:A:C8	2.77	0.53
25:BA:2467:C:H4'	37:BQ:123:HIS:CD2	2.43	0.53
37:BQ:31:ASP:O	37:BQ:133:ARG:O	2.26	0.53
25:BA:2491:U:C5'	25:BA:2570:G:H5''	2.19	0.53
26:BB:6:C:O2'	39:BS:29:PHE:CE1	2.38	0.53
5:CE:6:PHE:CD2	5:CE:36:ASP:HB3	2.43	0.53
23:AV:20:G:N1	23:AV:58:A:C2	2.76	0.53
1:AA:1170:C:H5''	3:AC:5:ILE:HG21	1.89	0.53
50:B3:26:LEU:O	50:B3:28:LEU:HG	2.08	0.53
4:AD:130:GLY:O	4:AD:131:ARG:C	2.46	0.53
25:DA:926:A:C8	25:DA:926:A:H5'	2.42	0.53
25:DA:534:U:O2'	41:DU:49:HIS:CD2	2.62	0.53
37:DQ:34:LEU:HD12	37:DQ:130:LYS:O	2.09	0.53
41:DU:25:TRP:HB3	41:DU:28:ARG:HD2	1.89	0.53
25:DA:2015:A:H1'	52:D5:2:ALA:CA	2.31	0.53
25:DA:747:U:OP2	52:D5:3:LYS:HD3	2.08	0.53
38:DR:4:LEU:C	38:DR:6:SER:H	2.10	0.53
25:BA:2809:A:C2	25:BA:2892:A:N3	2.77	0.53
25:DA:1992:G:P	25:DA:1992:G:C8	3.02	0.53
46:DZ:165:VAL:HG12	46:DZ:166:SER:N	2.24	0.53
46:BZ:165:VAL:HG12	46:BZ:166:SER:N	2.24	0.53
38:BR:4:LEU:C	38:BR:6:SER:H	2.10	0.53
23:CV:30:G:C6	23:CV:43:G:N1	2.77	0.53
8:AH:12:ARG:HG2	8:AH:24:THR:HG21	1.88	0.53
25:BA:299:A:H8	25:BA:299:A:O5'	1.92	0.53
56:D9:14:CYS:SG	56:D9:25:VAL:HG13	2.49	0.53
1:CA:853:G:C6	1:CA:854:C:C4	2.97	0.53
42:BV:14:VAL:HB	42:BV:96:ILE:HG13	1.91	0.53
18:CR:35:ARG:O	18:CR:37:VAL:HG13	2.09	0.53
25:DA:1336:A:H2'	25:DA:1337:G:C8	2.43	0.53
25:DA:1429:G:H2'	25:DA:1430:C:C6	2.43	0.53
1:CA:378:A:C5	1:CA:379:G:H1'	2.43	0.53
17:CQ:31:LEU:O	17:CQ:31:LEU:HG	2.07	0.53
30:DF:127:GLU:O	30:DF:127:GLU:OE2	2.26	0.53
35:DO:13:ASN:ND2	35:DO:96:THR:HG23	2.22	0.53
1:AA:198:U:C4'	20:AT:103:GLY:HA2	2.39	0.53
40:BT:120:ARG:O	40:BT:124:ASP:N	2.41	0.53
1:CA:1153:C:H2'	1:CA:1154:G:H8	1.73	0.53
25:BA:460:A:H2'	25:BA:461:C:O4'	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:D5:57:VAL:C	52:D5:58:LEU:HD23	2.29	0.53
33:BI:118:LYS:HD2	33:BI:119:PRO:HD2	1.91	0.53
25:DA:919:G:N2	25:DA:2269:A:OP2	2.42	0.53
44:BX:3:THR:O	44:BX:4:ALA:HB3	2.08	0.53
32:DH:68:THR:C	32:DH:70:THR:N	2.60	0.53
25:BA:888:C:H2'	25:BA:889:C:H5'	1.90	0.53
25:DA:2683:C:H5'	40:DT:58:ASN:ND2	2.23	0.53
50:D3:36:VAL:HG23	50:D3:36:VAL:O	2.08	0.53
41:BU:79:PHE:HE1	41:BU:106:PHE:CE2	2.27	0.53
31:BG:21:ARG:HD3	31:BG:21:ARG:C	2.29	0.53
50:B3:8:LEU:HD13	50:B3:31:LEU:HD23	1.91	0.53
13:AM:22:ILE:HG22	13:AM:25:ILE:HD13	1.90	0.53
42:BV:19:LYS:HZ3	42:BV:20:LEU:HB2	1.73	0.53
25:BA:271(H):G:HO2'	25:BA:271(I):G:H8	1.56	0.53
33:BI:47:LEU:HA	33:BI:50:ARG:NE	2.23	0.53
5:CE:76:ILE:CG1	5:CE:142:LEU:HD22	2.38	0.53
28:BD:26:LYS:HE2	28:BD:82:ILE:N	2.23	0.53
22:CW:30:G:C2	22:CW:31:A:C5	2.96	0.53
22:CW:38:A:H2'	22:CW:39:U:O4'	2.09	0.53
24:CX:13:A:H2'	24:CX:14:A:O4'	2.08	0.53
29:DE:69:LYS:HD3	29:DE:89:ASP:HA	1.91	0.53
42:DV:64:HIS:CE1	42:DV:92:THR:HG22	2.43	0.53
33:BI:102:SER:HA	33:BI:107:VAL:O	2.08	0.53
33:BI:83:ALA:HA	33:BI:89:TYR:CD1	2.43	0.53
33:DI:81:VAL:HG13	33:DI:88:ILE:HG21	1.89	0.53
25:DA:336:C:H5''	45:DY:7:VAL:HG11	1.90	0.53
25:BA:541:C:O2'	25:BA:542:C:C5'	2.49	0.53
14:CN:13:THR:O	14:CN:15:LYS:N	2.42	0.53
46:DZ:68:PRO:O	46:DZ:91:LEU:HD13	2.08	0.53
46:BZ:151:HIS:HB3	46:BZ:170:THR:HA	1.91	0.53
49:B2:43:GLN:O	49:B2:44:LEU:HD23	2.08	0.53
25:DA:2206:G:H21	25:DA:2207:G:C5'	2.15	0.53
1:AA:1323:C:H1'	9:AI:124:GLN:NE2	2.21	0.53
47:D0:25:ARG:HA	47:D0:29:GLN:NE2	2.21	0.53
29:BE:91:VAL:HG13	29:BE:95:ILE:HG12	1.89	0.53
7:AG:15:ASP:OD2	7:AG:44:TYR:OH	2.26	0.53
10:CJ:6:ILE:HG22	10:CJ:98:ILE:CD1	2.38	0.53
34:DN:43:THR:O	34:DN:45:ASN:N	2.42	0.53
8:AH:84:ARG:HG2	8:AH:84:ARG:HH11	1.74	0.53
46:BZ:30:ASN:HA	46:BZ:89:PHE:CE2	2.43	0.53
5:AE:80:ILE:HG22	8:AH:104:ARG:NH2	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DQ:66:ILE:HG22	37:DQ:104:PHE:CD2	2.44	0.53
2:CB:107:THR:HA	2:CB:110:GLN:OE1	2.08	0.53
25:DA:2757:A:OP1	56:D9:19:ARG:HA	2.09	0.53
25:DA:1434:A:O2'	25:DA:1435:G:H5'	2.08	0.53
46:BZ:19:ARG:HH11	46:BZ:82:ARG:NH2	2.06	0.53
37:BQ:34:LEU:HD12	37:BQ:130:LYS:O	2.09	0.53
25:BA:2012:G:O2'	43:BW:96:ILE:HD11	2.09	0.53
35:BO:25:LEU:N	35:BO:38:VAL:O	2.36	0.53
43:BW:24:ILE:HD13	43:BW:36:LEU:HD11	1.90	0.53
18:CR:36:ASN:HD22	18:CR:39:VAL:HG21	1.73	0.53
1:AA:267:C:H2'	1:AA:268:A:H8	1.74	0.53
25:DA:539:G:H2'	25:DA:540:C:H6	1.72	0.53
25:DA:523:C:H5''	25:DA:540:C:O2'	2.09	0.53
28:DD:70:TRP:HZ3	28:DD:146:GLU:CD	2.12	0.53
1:AA:232:C:H5''	17:AQ:25:ARG:NH1	2.23	0.53
25:BA:717:G:H2'	25:BA:718:A:O4'	2.09	0.53
46:BZ:104:PHE:HD1	46:BZ:139:VAL:HB	1.73	0.53
25:DA:1999:C:H4'	25:DA:2723:C:O2	2.09	0.53
35:DO:114:ILE:O	35:DO:117:LEU:N	2.42	0.53
56:D9:27:CYS:SG	56:D9:28:GLU:N	2.80	0.53
25:DA:2114:A:H2'	25:DA:2115:G:O4'	2.09	0.53
35:BO:89:ASN:N	35:BO:89:ASN:OD1	2.40	0.53
25:DA:1678:G:N2	25:DA:1989:G:H22	2.07	0.53
1:CA:928:G:H2'	1:CA:929:U:H6	1.73	0.53
23:CV:57:C:H41	31:DG:83:ARG:HH22	1.42	0.53
40:DT:29:ARG:CG	40:DT:85:LYS:CG	2.73	0.53
20:CT:53:LEU:CB	20:CT:102:GLY:HA3	2.39	0.53
41:BU:90:VAL:O	41:BU:92:ARG:N	2.37	0.53
25:DA:271(P):C:OP1	33:DI:45:LYS:HE3	2.08	0.53
55:B8:63:PRO:HB2	55:B8:64:TYR:CD1	2.44	0.53
38:BR:74:LYS:HD2	38:BR:77:ARG:NH2	2.22	0.53
41:DU:91:ASP:OD2	41:DU:96:ALA:N	2.41	0.53
26:BB:28:C:O2'	26:BB:29:A:H5'	2.09	0.53
7:CG:111:ARG:HB3	7:CG:113:GLU:HG2	1.90	0.53
39:DS:62:LYS:O	39:DS:65:VAL:HB	2.08	0.53
39:DS:97:ARG:C	39:DS:97:ARG:NE	2.62	0.53
25:BA:1658:C:OP1	29:BE:132:HIS:CE1	2.62	0.53
55:D8:7:HIS:CG	55:D8:59:LYS:HZ1	2.26	0.53
12:CL:24:VAL:CG1	12:CL:24:VAL:O	2.57	0.53
4:CD:150:GLU:N	4:CD:150:GLU:OE1	2.41	0.53
2:AB:91:PRO:HG2	2:AB:155:LEU:CD2	2.31	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:100:ALA:O	33:BI:101:LEU:HB2	2.09	0.53
23:AV:66:C:C2'	23:AV:67:C:O5'	2.57	0.53
32:BH:158:HIS:O	32:BH:159:GLU:CB	2.57	0.53
25:BA:349:G:N1	25:BA:350:U:C2	2.77	0.53
2:CB:74:LYS:C	2:CB:76:GLN:H	2.11	0.53
25:DA:2809:A:C2	25:DA:2892:A:N3	2.77	0.53
37:BQ:59:ARG:O	37:BQ:60:ARG:CB	2.56	0.53
38:DR:54:LEU:HD23	38:DR:66:VAL:HG23	1.90	0.53
25:DA:389:G:N1	36:DP:70:GLN:HG3	2.24	0.53
15:CO:78:TYR:C	15:CO:80:ALA:N	2.62	0.53
7:CG:15:ASP:OD2	7:CG:44:TYR:OH	2.26	0.53
25:BA:2230:G:H4'	48:B1:43:TYR:HB2	1.90	0.53
33:BI:1:MET:C	33:BI:20:ASP:HB2	2.28	0.53
25:DA:2199:A:N3	25:DA:2199:A:H2'	2.24	0.53
25:DA:2189:U:C2'	25:DA:2190:G:H5''	2.39	0.53
25:BA:8:A:H2'	25:BA:9:U:C6	2.44	0.53
25:BA:2189:U:C2'	25:BA:2190:G:H5''	2.39	0.53
41:DU:57:PHE:C	41:DU:59:ARG:N	2.60	0.53
43:DW:1:MET:HA	43:DW:1:MET:HE3	1.90	0.53
25:DA:645:C:O2	25:DA:645:C:C2'	2.57	0.53
4:CD:146:ILE:N	4:CD:146:ILE:CD1	2.72	0.53
55:D8:23:VAL:HA	55:D8:47:LYS:O	2.09	0.53
1:CA:1036:C:H2'	1:CA:1037:A:OP2	2.09	0.53
10:CJ:89:ASP:C	10:CJ:90:LEU:HD12	2.29	0.53
27:DC:86:ALA:CB	27:DC:94:VAL:HG11	2.38	0.53
52:D5:56:LYS:H	52:D5:56:LYS:HD2	1.74	0.53
2:AB:114:ARG:HH12	2:AB:118:LEU:HD21	1.74	0.53
25:BA:2080:G:P	48:B1:35:THR:HG21	2.49	0.53
4:AD:187:ARG:NH2	4:AD:193:ASP:OD2	2.42	0.53
1:CA:1025:C:H2'	1:CA:1026:A:H8	1.73	0.53
34:BN:3:THR:C	34:BN:5:VAL:H	2.12	0.53
25:DA:1384:A:N3	25:DA:1405:U:H1'	2.23	0.53
25:BA:523:C:H5''	25:BA:540:C:O2'	2.09	0.53
25:BA:2817:G:H21	25:BA:2836:U:C1'	2.22	0.53
25:DA:2543:G:H2'	25:DA:2544:G:C8	2.44	0.53
1:CA:484:C:H2'	1:CA:485:G:H8	1.73	0.53
1:AA:641:G:H2'	1:AA:642:U:H6	1.73	0.53
25:BA:518:G:H4'	43:BW:18:ARG:NH1	2.23	0.53
25:DA:897:C:C2	25:DA:898:C:C5	2.96	0.53
20:CT:13:LEU:C	20:CT:13:LEU:HD12	2.28	0.53
1:CA:458:G:H5''	16:CP:81:ARG:HH21	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:64:LYS:CG	8:CH:79:VAL:HG21	2.39	0.53
1:AA:1033:C:H2'	1:AA:1034:U:C6	2.44	0.53
1:AA:142:G:O2'	1:AA:143:A:H5'	2.09	0.53
9:CI:126:SER:O	9:CI:127:LYS:HB3	2.08	0.53
11:CK:91:ARG:C	11:CK:91:ARG:HD2	2.28	0.53
1:AA:804:G:H2'	1:AA:805:C:C6	2.44	0.53
28:BD:70:TRP:CH2	28:BD:150:LYS:HA	2.43	0.53
25:BA:2787:C:H1'	29:BE:61:ARG:HG3	1.91	0.53
32:DH:41:MET:CG	32:DH:53:GLU:O	2.54	0.53
32:DH:30:LYS:HG2	32:DH:79:VAL:O	2.09	0.53
13:AM:97:PRO:CA	13:AM:110:ARG:HD2	2.39	0.53
25:BA:2263:C:C6	25:BA:2263:C:H5'	2.34	0.53
25:BA:103:A:C2'	25:BA:104:U:H5''	2.39	0.53
23:AV:5:G:N2	23:AV:70:C:C2	2.77	0.53
14:AN:57:ARG:HG2	14:AN:58:LYS:N	2.23	0.53
45:DY:28:LYS:CB	45:DY:38:ILE:H	2.16	0.53
36:BP:61:ARG:CZ	55:B8:13:ARG:HD2	2.38	0.53
25:DA:2161:C:H2'	25:DA:2162:G:H8	1.72	0.53
37:BQ:115:MET:O	37:BQ:119:ARG:HB2	2.09	0.53
37:BQ:120:ILE:O	37:BQ:123:HIS:HB2	2.09	0.53
55:D8:63:PRO:HB2	55:D8:64:TYR:CD1	2.44	0.53
41:DU:102:GLU:HB2	41:DU:104:GLN:HE22	1.72	0.53
42:DV:2:PHE:HE1	42:DV:13:ARG:HD2	1.73	0.53
42:DV:39:LEU:HD22	42:DV:39:LEU:N	2.24	0.53
39:BS:57:LYS:O	39:BS:58:LEU:O	2.27	0.53
25:DA:1885:A:H5'	25:DA:1885:A:H8	1.74	0.53
40:BT:32:TYR:CD1	40:BT:81:PRO:HB2	2.44	0.53
31:DG:113:ARG:O	31:DG:114:ILE:O	2.27	0.53
39:DS:96:GLY:C	39:DS:98:VAL:H	2.12	0.53
25:BA:271(O):C:O2'	25:BA:271(P):C:C6	2.61	0.53
28:DD:77:ALA:HB2	28:DD:97:TYR:HA	1.90	0.53
28:BD:26:LYS:CE	28:BD:82:ILE:N	2.72	0.53
39:BS:75:GLU:HA	39:BS:78:LEU:HD12	1.90	0.53
53:B6:40:CYS:SG	53:B6:45:LYS:CE	2.97	0.53
35:BO:6:THR:O	35:BO:20:MET:HA	2.08	0.53
33:DI:54:GLN:O	33:DI:57:ARG:HB2	2.08	0.53
25:DA:1899:G:N2	25:DA:1902:C:N4	2.51	0.53
1:AA:1328:G:H5''	9:AI:107:ARG:CG	2.31	0.53
1:AA:458:G:H2'	1:AA:459:G:H8	1.73	0.53
2:CB:204:ASN:HB3	2:CB:210:SER:OG	2.08	0.53
36:DP:62:LEU:H	36:DP:62:LEU:HD23	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:8:GLY:HA3	9:CI:76:ALA:O	2.09	0.53
16:CP:68:ASP:O	16:CP:71:ARG:HG2	2.08	0.53
26:DB:73:A:H2'	26:DB:74:U:H5'	1.89	0.53
23:AV:49:C:O2	23:AV:49:C:H2'	2.08	0.53
25:DA:380:U:H5''	25:DA:380:U:H6	1.74	0.53
47:B0:41:ARG:N	47:B0:41:ARG:HD2	2.17	0.53
25:BA:2199:A:N3	25:BA:2199:A:H2'	2.23	0.53
47:B0:25:ARG:HA	47:B0:29:GLN:NE2	2.20	0.53
48:D1:44:PRO:HB2	48:D1:46:LEU:CD1	2.39	0.53
11:CK:21:ILE:HD12	11:CK:21:ILE:N	2.24	0.53
36:BP:83:VAL:CG2	36:BP:105:LEU:HD12	2.39	0.53
28:BD:10:THR:O	28:BD:11:PRO:O	2.27	0.53
43:BW:110:LYS:HG3	43:BW:111:HIS:ND1	2.24	0.53
38:BR:45:ARG:CG	38:BR:46:GLY:H	2.22	0.53
56:B9:14:CYS:SG	56:B9:25:VAL:HG13	2.49	0.53
25:DA:1506:C:H2'	25:DA:1506:C:O2	2.08	0.53
2:CB:92:TYR:C	2:CB:92:TYR:HD1	2.12	0.53
1:AA:1286:G:H8	1:AA:1286:G:OP2	1.92	0.53
12:AL:24:VAL:HG13	12:AL:98:TYR:HE2	1.72	0.53
25:DA:813:U:H2'	25:DA:814:C:H6	1.73	0.53
49:D2:55:ARG:O	49:D2:58:ALA:HB3	2.09	0.53
36:DP:92:GLU:HG3	36:DP:93:GLY:N	2.23	0.53
1:CA:811:A:H2'	1:CA:812:G:O4'	2.09	0.53
4:AD:4:TYR:O	4:AD:5:ILE:HB	2.07	0.53
25:BA:2543:G:H2'	25:BA:2544:G:C8	2.44	0.53
51:D4:40:ILE:N	51:D4:40:ILE:HD12	2.23	0.53
25:DA:438:G:O2'	25:DA:440:G:H5'	2.08	0.53
25:DA:460:A:H2'	25:DA:461:C:O4'	2.09	0.53
27:DC:23:ASP:C	27:DC:25:ALA:H	2.12	0.53
4:AD:114:ARG:HG3	4:AD:114:ARG:HH11	1.74	0.53
25:BA:2176:A:O5'	27:BC:217:THR:HA	2.08	0.53
38:DR:88:ARG:HD2	38:DR:89:ASP:OD1	2.08	0.53
1:AA:423:G:C5	1:AA:425:A:C6	2.96	0.53
13:AM:91:ARG:HA	13:AM:96:LEU:HB2	1.91	0.53
29:DE:61:ARG:CB	29:DE:62:PRO:CD	2.86	0.53
9:AI:10:ARG:HD3	9:AI:75:ASP:CB	2.38	0.53
42:BV:49:THR:HB	42:BV:50:PRO:HD2	1.90	0.53
26:DB:83:G:H1	26:DB:94:C:H42	1.56	0.53
25:DA:2127:G:H5'	27:DC:36:LYS:NZ	2.24	0.53
31:BG:115:ARG:HH12	31:BG:136:ARG:HD3	1.71	0.53
42:DV:14:VAL:HB	42:DV:96:ILE:HG13	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:117:G:C5'	39:BS:55:ALA:HB1	2.38	0.53
25:BA:62:C:H2'	25:BA:63:U:H5'	1.91	0.53
39:DS:15:ARG:O	39:DS:18:ILE:HG22	2.08	0.53
25:DA:2304:G:C2	25:DA:2313:C:N3	2.77	0.53
31:BG:123:ASN:O	31:BG:125:PHE:N	2.41	0.53
5:CE:53:LEU:O	5:CE:57:LYS:HB2	2.08	0.53
53:B6:17:LYS:C	53:B6:18:ARG:HD3	2.29	0.53
25:BA:848:G:H2'	25:BA:849:A:C8	2.44	0.53
34:DN:62:VAL:HG22	34:DN:66:LYS:CB	2.38	0.53
25:BA:2186:G:C6	25:BA:2187:G:O6	2.62	0.53
25:BA:541:C:C2'	25:BA:542:C:C5'	2.83	0.53
25:DA:2393:A:H5'	36:DP:62:LEU:HB3	1.90	0.53
26:DB:104:U:O2'	26:DB:105:A:H5'	2.09	0.53
2:AB:178:ARG:HD2	8:AH:71:GLY:CA	2.39	0.53
14:CN:7:ILE:O	14:CN:11:LYS:HE3	2.09	0.53
25:DA:2206:G:N2	25:DA:2207:G:C5'	2.69	0.53
7:CG:46:ALA:O	7:CG:49:ILE:HB	2.08	0.53
14:CN:37:PHE:CE1	14:CN:53:LEU:HD22	2.43	0.53
36:DP:114:ILE:HD12	36:DP:115:LEU:N	2.24	0.53
23:AV:35:C:H2'	23:AV:36:A:C8	2.43	0.53
3:AC:36:ASP:OD2	3:AC:57:ILE:HG21	2.08	0.53
25:BA:9:U:O2'	25:BA:10:G:O5'	2.27	0.53
16:CP:21:VAL:HG13	16:CP:33:ILE:HB	1.91	0.53
1:AA:992:A:C2	1:AA:1200:U:H1'	2.44	0.53
3:CC:20:SER:HB2	3:CC:40:ARG:NH2	2.20	0.53
9:AI:89:ASN:HB3	9:AI:92:TYR:CD1	2.44	0.53
43:BW:1:MET:HE2	43:BW:2:GLU:H	1.74	0.53
12:CL:43:VAL:HG21	12:CL:93:LEU:HD22	1.90	0.53
46:BZ:68:PRO:O	46:BZ:91:LEU:HD13	2.08	0.53
19:AS:29:ARG:O	19:AS:31:ILE:N	2.42	0.53
10:AJ:16:LEU:HD23	10:AJ:94:VAL:CG1	2.39	0.53
25:DA:2887:U:H2'	25:DA:2888:C:H6	1.74	0.53
1:CA:1345:A:H4'	1:CA:1346:U:H5''	1.91	0.53
25:BA:815:C:O2'	25:BA:816:C:H5'	2.09	0.53
25:DA:2025:C:H2'	25:DA:2026:C:H6	1.70	0.53
25:BA:2887:U:H2'	25:BA:2888:C:H6	1.74	0.53
41:BU:57:PHE:C	41:BU:59:ARG:N	2.60	0.53
43:BW:24:ILE:HG21	43:BW:36:LEU:HD21	1.90	0.53
25:BA:2716:U:O2'	25:BA:2717:G:H5'	2.09	0.53
26:DB:31:C:H2'	26:DB:53:A:H61	1.74	0.53
25:BA:49:A:H5''	25:BA:51:G:O4'	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1399:G:N2	1:CA:1459:G:H2'	2.24	0.53
1:CA:183:G:H2'	1:CA:184:C:C6	2.43	0.53
25:BA:2698:U:H2'	25:BA:2699:C:C6	2.43	0.53
43:BW:12:ILE:HD12	43:BW:42:ARG:NH1	2.24	0.53
32:BH:130:ARG:HD3	32:BH:132:ARG:NH2	2.24	0.53
1:AA:311:G:H2'	1:AA:312:G:H8	1.74	0.53
25:BA:2203:U:H2'	25:BA:2203:U:O2	2.08	0.53
29:BE:149:ARG:HG3	29:BE:149:ARG:HH11	1.73	0.53
25:BA:1789:A:H2'	25:BA:1790:C:O4'	2.08	0.53
32:DH:146:ALA:HB2	32:DH:164:TYR:OH	2.09	0.53
32:DH:130:ARG:HD3	32:DH:132:ARG:NH2	2.24	0.53
1:AA:1348:C:H2'	1:AA:1349:C:C6	2.44	0.53
2:CB:223:ILE:HA	2:CB:226:ARG:HB3	1.90	0.53
4:AD:166:LYS:O	28:DD:135:PHE:HE2	1.92	0.53
29:BE:36:ARG:NH1	29:BE:85:ASN:OD1	2.42	0.53
29:BE:31:CYS:HB3	29:BE:49:LEU:HB3	1.91	0.53
29:DE:71:GLY:O	29:DE:72:VAL:C	2.47	0.53
41:BU:105:VAL:O	41:BU:109:LEU:HD12	2.09	0.53
22:CW:13:C:O2	22:CW:23:A:C2	2.62	0.53
45:DY:37:VAL:O	45:DY:66:PRO:CA	2.57	0.53
25:BA:242:G:C5'	55:B8:62:LEU:HD13	2.15	0.53
25:DA:2795:G:N7	25:DA:2801(A):A:H2	2.07	0.53
39:BS:97:ARG:C	39:BS:97:ARG:NE	2.62	0.53
25:BA:2795:G:N7	25:BA:2801(A):A:H2	2.07	0.53
1:AA:1121:G:N3	1:AA:1123:C:N4	2.55	0.53
26:DB:38:C:O2	26:DB:48:A:H1'	2.09	0.53
25:DA:299:A:O5'	25:DA:299:A:H8	1.92	0.53
45:BY:86:ARG:NH1	45:BY:95:LYS:NZ	2.57	0.53
2:CB:178:ARG:HD2	8:CH:71:GLY:CA	2.39	0.53
4:CD:130:GLY:O	4:CD:131:ARG:C	2.47	0.53
25:DA:1140:C:C5'	34:DN:66:LYS:HZ3	2.12	0.53
5:AE:41:VAL:HG13	5:AE:113:ALA:CA	2.38	0.53
46:DZ:57:ILE:HG22	46:DZ:58:VAL:H	1.73	0.53
22:AW:51:U:O2	22:AW:64:A:C2	2.62	0.53
25:DA:2392:A:H2	25:DA:2424:C:H42	1.57	0.53
25:BA:748:G:OP1	25:BA:2612:C:N4	2.41	0.53
25:DA:1365:A:H5''	48:D1:41:ARG:NH1	2.15	0.53
25:BA:1301:A:O2'	25:BA:1302:A:C2'	2.52	0.53
31:BG:39:ILE:HG23	31:BG:92:VAL:HG13	1.89	0.53
20:AT:33:ILE:HD11	20:AT:62:LEU:O	2.09	0.53
1:AA:1327:A:H5''	9:AI:120:ARG:NH1	2.18	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:921:G:H4'	25:BA:2269:A:C6	2.43	0.53
25:DA:2123:G:N2	27:DC:42:GLU:OE2	2.39	0.53
36:DP:97:PRO:HD3	36:DP:126:VAL:O	2.08	0.53
34:DN:131:GLN:HE22	34:DN:134:ARG:CD	2.17	0.53
34:DN:134:ARG:H	34:DN:135:PRO:HD3	1.73	0.53
25:BA:2777:G:H5'	25:BA:2778:A:C5'	2.39	0.53
43:DW:3:ALA:HB2	43:DW:58:ALA:HA	1.90	0.53
36:BP:17:LYS:HG2	36:BP:17:LYS:O	2.09	0.53
19:CS:29:ARG:HD2	19:CS:30:LEU:N	2.23	0.53
11:CK:48:ILE:HG22	11:CK:49:GLY:N	2.23	0.53
20:AT:57:ARG:CZ	20:AT:102:GLY:HA2	2.38	0.53
1:CA:1089:C:C4	1:CA:1090:G:C8	2.96	0.53
21:AU:2:GLY:C	21:AU:4:GLY:N	2.62	0.53
38:DR:2:ARG:NH1	38:DR:5:LYS:HE2	2.23	0.53
4:CD:10:ARG:HG2	4:CD:10:ARG:HH11	1.74	0.53
18:CR:19:LYS:O	18:CR:20:ALA:HB2	2.09	0.53
25:BA:999:U:H2'	25:BA:1000:A:C5'	2.38	0.53
25:DA:554:U:C2'	25:DA:555:U:H5'	2.39	0.53
1:CA:1053:C:H2'	1:CA:1054:G:H8	1.72	0.53
9:CI:126:SER:O	9:CI:128:ARG:HG2	2.08	0.53
28:BD:68:LYS:HG3	28:BD:68:LYS:O	2.08	0.53
28:BD:70:TRP:HZ3	28:BD:146:GLU:CD	2.13	0.53
58:AA:1694:PAR:H34	58:AA:1694:PAR:HN61	1.73	0.53
25:DA:717:G:H2'	25:DA:718:A:O4'	2.09	0.53
56:D9:7:VAL:HG13	56:D9:34:GLN:HB3	1.91	0.53
1:AA:239:U:C6	1:AA:871:G:N2	2.77	0.53
25:DA:1416:G:H21	25:DA:1586:A:N6	2.07	0.53
25:BA:1678:G:N2	25:BA:1989:G:H22	2.07	0.53
8:AH:53:VAL:HG12	8:AH:54:ASP:OD2	2.09	0.53
29:BE:71:GLY:O	29:BE:72:VAL:C	2.47	0.52
32:DH:17:VAL:HB	32:DH:45:VAL:HG11	1.88	0.52
20:CT:98:PRO:C	20:CT:100:ILE:H	2.12	0.52
25:BA:2238:G:N3	25:BA:2238:G:H2'	2.23	0.52
22:CW:24:G:H2'	22:CW:25:C:C6	2.44	0.52
36:BP:63:PRO:HB3	55:B8:13:ARG:CB	2.40	0.52
31:DG:21:ARG:HD3	31:DG:21:ARG:C	2.30	0.52
41:DU:79:PHE:HE1	41:DU:106:PHE:CE2	2.26	0.52
42:DV:2:PHE:CD1	42:DV:13:ARG:NH1	2.76	0.52
39:BS:35:ILE:HG23	39:BS:35:ILE:O	2.09	0.52
26:BB:15:A:H5'	26:BB:16:G:C8	2.44	0.52
39:DS:35:ILE:O	39:DS:35:ILE:HG23	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:108:ARG:CA	13:CM:108:ARG:HH11	2.04	0.52
39:DS:49:VAL:HG22	39:DS:80:LEU:HD22	1.92	0.52
33:BI:79:ILE:HG22	33:BI:81:VAL:HG23	1.89	0.52
33:DI:92:VAL:HA	33:DI:96:ASP:OD1	2.09	0.52
22:AW:31:A:C2	22:AW:32:U:C2	2.96	0.52
25:DA:2469:A:H62	25:DA:2481:G:H1'	1.74	0.52
32:BH:30:LYS:HG2	32:BH:79:VAL:O	2.09	0.52
46:BZ:4:ARG:HH21	46:BZ:60:GLU:HG2	1.73	0.52
32:BH:148:ILE:O	32:BH:151:ILE:HG12	2.09	0.52
32:DH:89:ILE:HG12	32:DH:129:THR:HA	1.90	0.52
34:BN:22:THR:HB	34:BN:25:ARG:HB2	1.92	0.52
25:DA:541:C:C2'	25:DA:542:C:C5'	2.83	0.52
46:DZ:89:PHE:O	46:DZ:91:LEU:HD12	2.10	0.52
46:BZ:117:LEU:HD23	46:BZ:118:GLN:N	2.23	0.52
25:DA:379:G:N7	25:DA:380:U:C6	2.77	0.52
29:DE:3:GLY:O	29:DE:4:ILE:CB	2.58	0.52
36:BP:97:PRO:HD3	36:BP:126:VAL:O	2.08	0.52
34:DN:131:GLN:NE2	34:DN:134:ARG:HD2	2.19	0.52
43:DW:50:VAL:CG1	43:DW:51:LEU:H	2.20	0.52
46:BZ:103:ARG:O	46:BZ:138:GLU:HA	2.09	0.52
55:B8:23:VAL:HA	55:B8:47:LYS:O	2.09	0.52
10:CJ:88:LEU:CD1	10:CJ:90:LEU:HD11	2.39	0.52
1:CA:85:U:H5''	1:CA:86:C:H5'	1.90	0.52
55:D8:29:LYS:HD3	55:D8:44:LYS:HG2	1.90	0.52
27:DC:87:GLU:HG2	27:DC:93:TYR:HA	1.91	0.52
25:DA:598:G:H5'	36:DP:15:ARG:HB2	1.91	0.52
13:CM:28:ALA:C	13:CM:30:ALA:H	2.11	0.52
29:BE:120:TRP:CD1	29:BE:155:LYS:HB3	2.45	0.52
4:AD:84:LYS:N	4:AD:84:LYS:HD3	2.23	0.52
25:BA:774:A:H2	25:BA:787:U:O2'	1.91	0.52
45:DY:2:ARG:C	45:DY:4:LYS:H	2.13	0.52
25:DA:1175:U:O5'	25:DA:1176:G:H5'	2.09	0.52
28:DD:30:GLU:HG3	28:DD:63:ARG:CZ	2.39	0.52
25:DA:2817:G:H21	25:DA:2836:U:C1'	2.22	0.52
1:CA:505:C:H2'	1:CA:506:A:O4'	2.09	0.52
28:DD:68:LYS:O	28:DD:68:LYS:HG3	2.08	0.52
32:BH:130:ARG:HH11	32:BH:132:ARG:HH21	1.57	0.52
47:B0:14:ARG:O	47:B0:15:ASP:HB2	2.10	0.52
25:BA:270:A:O2'	25:BA:271:A:H5'	2.10	0.52
25:BA:2527:C:H5'	56:B9:30:PRO:HB2	1.92	0.52
31:BG:72:ARG:HH11	31:BG:86:MET:HA	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D0:14:ARG:O	47:D0:15:ASP:HB2	2.09	0.52
3:AC:131:ARG:HH12	3:AC:135:LYS:HE3	1.72	0.52
25:BA:119:A:H4'	25:BA:120:U:OP1	2.09	0.52
6:CF:89:MET:SD	18:CR:76:LEU:HD21	2.48	0.52
17:AQ:31:LEU:HG	17:AQ:31:LEU:O	2.08	0.52
2:AB:158:LEU:H	2:AB:158:LEU:HD12	1.73	0.52
25:DA:2422:A:H4'	25:DA:2423:U:OP1	2.08	0.52
52:B5:57:VAL:C	52:B5:58:LEU:HD23	2.29	0.52
4:AD:166:LYS:O	28:DD:135:PHE:CE2	2.61	0.52
25:DA:2684:U:OP1	40:DT:60:THR:HG21	2.09	0.52
50:D3:7:LYS:O	50:D3:54:VAL:HG13	2.10	0.52
42:BV:47:VAL:O	42:BV:48:GLY:C	2.47	0.52
14:AN:47:LEU:HA	14:AN:50:LYS:HD2	1.91	0.52
23:CV:51:U:H3	23:CV:65:G:H1	1.57	0.52
23:CV:55:U:C3'	23:CV:55:U:C6	2.92	0.52
26:DB:91:C:OP1	37:DQ:16:ARG:HG3	2.08	0.52
25:DA:360:G:H2'	25:DA:361:G:H8	1.75	0.52
25:DA:2472:G:H5'	25:DA:2473:U:H5''	1.91	0.52
50:B3:36:VAL:HG23	50:B3:36:VAL:O	2.09	0.52
25:BA:2472:G:H5'	25:BA:2473:U:H5''	1.91	0.52
55:D8:4:MET:SD	55:D8:61:LEU:CD2	2.98	0.52
55:D8:61:LEU:CD1	55:D8:61:LEU:H	2.14	0.52
41:DU:105:VAL:O	41:DU:109:LEU:HD12	2.09	0.52
39:BS:96:GLY:C	39:BS:98:VAL:H	2.12	0.52
8:AH:6:ILE:N	8:AH:6:ILE:HD12	2.16	0.52
22:CW:76:A:O2'	25:DA:2394:C:N3	2.40	0.52
36:DP:50:ARG:HB3	55:D8:59:LYS:CD	2.33	0.52
29:DE:36:ARG:NH1	29:DE:85:ASN:OD1	2.42	0.52
49:B2:55:ARG:O	49:B2:58:ALA:HB3	2.09	0.52
34:BN:62:VAL:HG22	34:BN:66:LYS:CB	2.39	0.52
7:AG:72:ARG:O	7:AG:73:MET:HG3	2.09	0.52
1:AA:1035:G:C4	1:AA:1180:U:C5	2.97	0.52
46:DZ:102:LEU:HD22	46:DZ:121:HIS:O	2.09	0.52
46:DZ:72:ARG:O	46:DZ:73:GLN:HB3	2.08	0.52
28:DD:270:ILE:C	28:DD:271:ILE:CG1	2.78	0.52
2:CB:84:GLU:O	2:CB:219:VAL:HG21	2.10	0.52
25:DA:1230:C:O2'	25:DA:1231:G:H5'	2.10	0.52
1:CA:1046:G:N2	1:CA:1171:G:H2'	2.25	0.52
37:DQ:65:PHE:HB2	37:DQ:105:GLU:CG	2.38	0.52
25:BA:2777:G:H5''	25:BA:2778:A:H5''	1.90	0.52
18:AR:53:ARG:HH11	18:AR:53:ARG:HG2	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BG:17:PRO:O	31:BG:20:ILE:N	2.42	0.52
6:CF:8:ILE:CG2	6:CF:9:VAL:N	2.71	0.52
25:DA:1609:A:N1	25:DA:1616:A:N7	2.56	0.52
10:AJ:43:ARG:O	10:AJ:67:THR:HG22	2.09	0.52
18:AR:35:ARG:O	18:AR:37:VAL:HG13	2.09	0.52
25:DA:815:C:O2'	25:DA:816:C:H5'	2.09	0.52
2:CB:114:ARG:HH12	2:CB:118:LEU:HD21	1.75	0.52
30:BF:181:LEU:HB3	30:BF:205:ARG:NH1	2.23	0.52
30:BF:152:GLU:O	30:BF:154:VAL:HG23	2.08	0.52
25:DA:708:C:H5'	25:DA:709:U:OP2	2.09	0.52
25:DA:154(A):C:O2	25:DA:154(A):C:O4'	2.26	0.52
17:CQ:75:ARG:HG3	17:CQ:75:ARG:HH11	1.74	0.52
1:CA:1031:U:H4'	1:CA:1032:G:C5'	2.40	0.52
27:BC:141:LYS:O	27:BC:142:ALA:HB2	2.10	0.52
29:BE:137:HIS:HB3	29:BE:138:PRO:HD2	1.90	0.52
1:CA:278:C:C4	1:CA:279:G:N7	2.78	0.52
44:DX:59:VAL:N	44:DX:76:ARG:O	2.40	0.52
32:DH:58:GLU:C	32:DH:60:ARG:H	2.12	0.52
25:DA:270:A:O2'	25:DA:271:A:H5'	2.10	0.52
36:BP:75:ILE:N	36:BP:75:ILE:HD12	2.23	0.52
16:CP:76:GLN:HG2	16:CP:76:GLN:O	2.10	0.52
47:D0:30:VAL:HA	47:D0:66:VAL:HG22	1.91	0.52
31:DG:76:SER:HA	31:DG:83:ARG:HB2	1.90	0.52
31:DG:83:ARG:HH11	31:DG:84:LYS:HD2	1.73	0.52
40:DT:51:ARG:CB	40:DT:98:LYS:HG3	2.30	0.52
41:BU:92:ARG:NH1	42:BV:11:GLN:HB2	2.25	0.52
25:BA:2126:A:N1	25:BA:2162:G:O2'	2.31	0.52
44:DX:12:VAL:HG12	44:DX:27:THR:HG1	1.72	0.52
39:BS:28:VAL:HG12	39:BS:29:PHE:N	2.24	0.52
25:DA:1880:C:C6	25:DA:1880:C:H5'	2.27	0.52
25:BA:271(Q):G:HO2'	25:BA:271(R):G:P	2.32	0.52
31:BG:31:VAL:CG2	31:BG:32:PRO:HD2	2.39	0.52
28:BD:33:LEU:O	28:BD:35:LYS:HG2	2.09	0.52
22:CW:39:U:C5	22:CW:40:C:C4	2.98	0.52
11:CK:54:ARG:HH12	22:CW:40:C:H5''	1.74	0.52
35:BO:2:ILE:HG23	35:BO:6:THR:HG21	1.91	0.52
5:AE:70:PRO:HG2	5:AE:142:LEU:CB	2.39	0.52
33:BI:92:VAL:HA	33:BI:96:ASP:OD1	2.09	0.52
15:AO:60:VAL:HG21	25:BA:715:G:H1'	1.91	0.52
25:DA:2186:G:C6	25:DA:2187:G:O6	2.62	0.52
37:DQ:52:VAL:O	37:DQ:56:ARG:HB2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BH:41:MET:CE	32:BH:54:ARG:HA	2.38	0.52
38:DR:8:ARG:HE	38:DR:8:ARG:CA	2.17	0.52
16:CP:71:ARG:HA	16:CP:74:LEU:CD1	2.33	0.52
46:BZ:102:LEU:HD22	46:BZ:121:HIS:O	2.09	0.52
15:AO:78:TYR:O	15:AO:80:ALA:N	2.42	0.52
15:AO:82:ILE:HD11	15:AO:88:ARG:HB2	1.90	0.52
23:AV:47:G:H8	23:AV:47:G:H3'	1.74	0.52
26:BB:41:U:O2	31:BG:70:VAL:HG23	2.10	0.52
32:DH:137:ASP:OD1	32:DH:138:LYS:N	2.42	0.52
36:DP:41:ARG:NH1	36:DP:45:LEU:HD12	2.25	0.52
7:CG:53:LYS:O	7:CG:54:THR:HB	2.08	0.52
1:CA:1300:A:OP2	19:CS:5:LEU:HG	2.09	0.52
2:CB:219:VAL:HA	2:CB:222:ILE:CG1	2.38	0.52
25:BA:1230:C:O2'	25:BA:1231:G:H5'	2.10	0.52
48:B1:66:HIS:C	48:B1:68:PRO:HD2	2.30	0.52
25:DA:7:G:H2'	25:DA:8:A:C8	2.43	0.52
34:BN:43:THR:O	34:BN:45:ASN:N	2.42	0.52
26:BB:104:U:O2'	26:BB:105:A:H5'	2.09	0.52
25:BA:1506:C:O2	25:BA:1506:C:H2'	2.08	0.52
10:CJ:96:ILE:HD13	10:CJ:96:ILE:N	2.24	0.52
22:AW:8:U:O2	22:AW:21:A:H2	1.92	0.52
25:DA:1331:A:O2'	25:DA:1332:G:H5''	2.09	0.52
1:AA:429:U:H2'	1:AA:430:C:C6	2.44	0.52
46:DZ:19:ARG:HH11	46:DZ:82:ARG:NH2	2.06	0.52
25:BA:1338:G:N3	25:BA:1393:A:H2	2.08	0.52
5:AE:86:ALA:C	5:AE:125:SER:HB3	2.30	0.52
25:BA:813:U:H2'	25:BA:814:C:H6	1.73	0.52
25:DA:139:G:H1	25:DA:142(A):C:H42	1.57	0.52
1:AA:775:A:H4'	1:AA:776:U:O5'	2.09	0.52
17:CQ:18:THR:HG22	17:CQ:19:VAL:H	1.74	0.52
6:CF:86:ARG:O	6:CF:87:ARG:HG2	2.09	0.52
34:DN:3:THR:C	34:DN:5:VAL:H	2.12	0.52
47:B0:27:GLU:HG3	47:B0:68:GLU:HA	1.91	0.52
41:DU:15:LYS:O	41:DU:19:LYS:HG3	2.09	0.52
41:BU:15:LYS:O	41:BU:19:LYS:HG3	2.10	0.52
25:BA:66:C:O2'	25:BA:67:U:H5'	2.09	0.52
12:CL:55:VAL:HG12	12:CL:56:ALA:N	2.24	0.52
1:AA:129:C:H2'	1:AA:130:C:H5'	1.92	0.52
25:BA:2059:A:H5'	25:BA:2060:A:OP2	2.09	0.52
56:B9:26:ILE:HD12	56:B9:26:ILE:N	2.25	0.52
46:DZ:104:PHE:HD1	46:DZ:139:VAL:HB	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1424:G:H2'	25:BA:1425:G:O4'	2.10	0.52
25:BA:1150:C:O2'	25:BA:1151:G:H5'	2.08	0.52
25:DA:2240:C:O2'	25:DA:2241:A:H5'	2.09	0.52
1:AA:1272:G:H4'	9:AI:38:GLN:O	2.09	0.52
25:DA:888:C:H2'	25:DA:889:C:H5'	1.90	0.52
28:DD:159:ALA:HB1	28:DD:198:ASN:O	2.09	0.52
41:BU:79:PHE:HE1	41:BU:106:PHE:CZ	2.27	0.52
1:AA:1042:C:H2'	1:AA:1043:G:H8	1.75	0.52
26:DB:92:C:O5'	26:DB:92:C:H6	1.91	0.52
26:DB:93:G:C2	26:DB:94:C:C4	2.98	0.52
36:BP:63:PRO:O	36:BP:65:ARG:N	2.43	0.52
25:DA:2171:A:H2'	25:DA:2172:U:C6	2.45	0.52
25:DA:2126:A:H5'	27:DC:36:LYS:HG2	1.89	0.52
41:DU:92:ARG:NH1	42:DV:11:GLN:HB2	2.25	0.52
25:BA:2334:G:H21	39:BS:18:ILE:HG13	1.74	0.52
1:AA:261:G:HO2'	1:AA:262:C:P	2.33	0.52
42:BV:64:HIS:CE1	42:BV:92:THR:HG22	2.43	0.52
13:CM:8:GLU:OE1	13:CM:22:ILE:HG23	2.10	0.52
5:CE:6:PHE:HB3	5:CE:35:GLY:O	2.09	0.52
33:BI:58:LEU:C	33:BI:60:GLU:H	2.12	0.52
28:BD:30:GLU:HG3	28:BD:63:ARG:CZ	2.39	0.52
41:BU:55:ARG:HA	41:BU:58:ARG:CG	2.40	0.52
25:BA:2469:A:H62	25:BA:2481:G:H1'	1.74	0.52
25:BA:1019:U:H3	25:BA:1142(A):A:N6	2.06	0.52
1:AA:821:G:C2'	1:AA:822:U:H5''	2.39	0.52
1:CA:1116:G:N2	1:CA:1123:C:O2	2.41	0.52
25:DA:481:G:P	45:DY:47:LYS:HE3	2.50	0.52
5:CE:126:ARG:CG	5:CE:126:ARG:HH11	2.13	0.52
25:BA:769:G:H2'	25:BA:770:G:H8	1.73	0.52
46:DZ:94:GLU:O	46:DZ:96:VAL:N	2.42	0.52
25:DA:1301:A:H4'	25:DA:1302:A:OP1	2.10	0.52
23:AV:22:A:O3'	23:AV:23:G:H8	1.91	0.52
20:AT:26:ASN:HB3	20:AT:71:THR:OG1	2.08	0.52
30:BF:9:ILE:O	30:BF:9:ILE:HG22	2.08	0.52
29:DE:2:LYS:HE2	29:DE:95:ILE:HG23	1.92	0.52
40:DT:3:ARG:O	40:DT:6:LEU:N	2.42	0.52
22:AY:28:G:H22	22:AY:42:C:H42	1.56	0.52
16:CP:14:ASN:O	16:CP:16:HIS:ND1	2.41	0.52
43:BW:50:VAL:CG1	43:BW:51:LEU:H	2.20	0.52
9:AI:18:PHE:O	9:AI:61:ALA:HA	2.09	0.52
46:DZ:128:VAL:CG2	46:DZ:132:ASN:HB2	2.38	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:92:TYR:CD1	2:AB:92:TYR:C	2.83	0.52
2:AB:92:TYR:HD1	2:AB:92:TYR:C	2.11	0.52
46:BZ:89:PHE:O	46:BZ:91:LEU:HD12	2.10	0.52
9:CI:116:LYS:O	9:CI:118:LYS:N	2.41	0.52
31:DG:17:PRO:O	31:DG:20:ILE:N	2.43	0.52
2:AB:97:TRP:HZ2	2:AB:102:LEU:HD13	1.74	0.52
2:AB:107:THR:HG23	2:AB:110:GLN:NE2	2.24	0.52
2:CB:92:TYR:C	2:CB:92:TYR:CD1	2.83	0.52
27:BC:78:ALA:HB2	27:BC:82:LYS:HB2	1.90	0.52
52:B5:56:LYS:H	52:B5:56:LYS:HD2	1.74	0.52
29:DE:120:TRP:CD1	29:DE:155:LYS:HB3	2.45	0.52
18:CR:53:ARG:HG2	18:CR:53:ARG:NH1	2.23	0.52
25:BA:2689:U:H5''	25:BA:2690:C:H5'	1.91	0.52
33:DI:65:ALA:HB1	33:DI:131:LYS:HG2	1.90	0.52
30:DF:57:VAL:CG1	30:DF:59:TYR:CD1	2.93	0.52
25:BA:1344:G:C4	25:BA:1385:G:C8	2.97	0.52
25:DA:271(K):U:H3'	25:DA:271(L):U:H5'	1.91	0.52
1:AA:238:A:H4'	1:AA:239:U:O5'	2.09	0.52
28:DD:2:ALA:O	28:DD:3:VAL:HB	2.10	0.52
25:BA:1350:C:O2'	25:BA:1351:C:H5'	2.10	0.52
1:CA:1340:C:OP2	14:CN:35:ARG:NH1	2.42	0.52
33:DI:118:LYS:HD2	33:DI:119:PRO:HD2	1.90	0.52
56:B9:27:CYS:SG	56:B9:28:GLU:N	2.80	0.52
30:BF:139:PHE:CB	30:BF:166:ALA:HB1	2.39	0.52
1:AA:1023:A:H2'	1:AA:1024:G:C8	2.44	0.52
32:BH:146:ALA:HB2	32:BH:164:TYR:OH	2.09	0.52
25:BA:1416:G:H21	25:BA:1586:A:H62	1.57	0.52
46:DZ:111:VAL:O	46:DZ:111:VAL:HG13	2.09	0.52
35:DO:86:ILE:HD12	35:DO:86:ILE:H	1.73	0.52
25:DA:2707:G:H5''	38:DR:68:ARG:NH2	2.25	0.52
1:CA:1411:C:H2'	1:CA:1412:C:C6	2.44	0.52
4:AD:15:GLU:HG2	4:AD:63:LYS:CG	2.39	0.52
13:AM:113:PRO:O	13:AM:115:LYS:CE	2.56	0.52
22:CW:1:G:N3	22:CW:1:G:H2'	2.23	0.52
50:B3:5:LYS:CG	50:B3:36:VAL:HG12	2.39	0.52
38:DR:82:GLU:O	38:DR:86:ARG:HG3	2.08	0.52
26:BB:31:C:H2'	26:BB:53:A:H61	1.74	0.52
39:BS:92:TYR:CG	39:BS:93:LYS:N	2.78	0.52
25:BA:360:G:H2'	25:BA:361:G:H8	1.75	0.52
31:DG:111:LEU:HD23	31:DG:114:ILE:HD11	1.92	0.52
28:BD:69:ARG:NH2	28:BD:192:THR:HB	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:336:C:C5'	45:DY:7:VAL:HG11	2.39	0.52
25:DA:1140:C:C5'	25:DA:1141:U:OP2	2.58	0.52
32:BH:156:ALA:C	32:BH:158:HIS:H	2.11	0.52
5:CE:78:HIS:HE1	5:CE:143:ARG:H	1.56	0.52
2:AB:204:ASN:ND2	2:AB:206:ASP:H	2.07	0.52
25:DA:1286:A:O2'	25:DA:1288:U:OP2	2.26	0.52
55:D8:36:LYS:HB3	55:D8:40:GLU:HG3	1.91	0.52
9:CI:53:VAL:CG1	9:CI:95:LYS:HE3	2.40	0.52
25:DA:2645:G:C3'	25:DA:2646:C:H5'	2.30	0.52
25:BA:2745:C:H4'	32:BH:142:GLY:O	2.09	0.52
32:BH:137:ASP:OD1	32:BH:138:LYS:N	2.42	0.52
2:AB:178:ARG:O	8:AH:71:GLY:HA2	2.09	0.52
38:DR:54:LEU:HD23	38:DR:66:VAL:CG2	2.40	0.52
25:BA:1301:A:H4'	25:BA:1302:A:OP1	2.09	0.52
25:BA:1178:C:H2'	25:BA:1179:C:H6	1.74	0.52
25:BA:379:G:N7	25:BA:380:U:C6	2.77	0.52
25:BA:380:U:H5''	25:BA:380:U:H6	1.74	0.52
2:AB:219:VAL:HA	2:AB:222:ILE:CG1	2.39	0.52
41:DU:57:PHE:C	41:DU:59:ARG:H	2.13	0.52
11:AK:124:LYS:HB3	11:AK:125:PHE:HD1	1.74	0.52
37:BQ:39:PRO:HD3	37:BQ:99:PRO:CG	2.39	0.52
25:BA:760:G:C2'	25:BA:761:A:H5'	2.40	0.52
38:DR:45:ARG:CG	38:DR:46:GLY:H	2.22	0.52
1:AA:59:A:N3	1:AA:59:A:H2'	2.24	0.52
31:BG:65:GLY:O	31:BG:66:GLN:HG3	2.09	0.52
13:AM:28:ALA:C	13:AM:30:ALA:H	2.12	0.52
30:BF:46:ARG:NH1	30:BF:46:ARG:HG3	2.23	0.52
25:DA:2885:C:C2	25:DA:2886:G:H1'	2.45	0.52
10:CJ:43:ARG:O	10:CJ:67:THR:HG22	2.09	0.52
41:BU:57:PHE:C	41:BU:59:ARG:H	2.13	0.52
25:BA:708:C:H5'	25:BA:709:U:OP2	2.09	0.52
30:BF:57:VAL:CG1	30:BF:59:TYR:CD1	2.93	0.52
1:CA:1007:C:H4'	1:CA:1015:G:N2	2.24	0.52
30:BF:127:GLU:HB2	30:BF:196:LEU:HD21	1.91	0.52
25:DA:797:C:OP2	30:DF:62:ARG:HG3	2.09	0.52
25:DA:2591:C:H2'	25:DA:2592:G:C8	2.44	0.52
2:CB:223:ILE:HA	2:CB:226:ARG:HD2	1.90	0.52
25:BA:1151:G:H4'	41:BU:81:HIS:CD2	2.45	0.52
25:BA:730:C:O2'	25:BA:731:C:H5'	2.09	0.52
12:CL:39:VAL:HB	12:CL:57:LYS:HB2	1.91	0.52
43:DW:12:ILE:HD12	43:DW:42:ARG:NH1	2.23	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:D3:26:LEU:O	50:D3:28:LEU:HG	2.08	0.52
50:D3:29:ARG:HG3	50:D3:29:ARG:NH1	2.24	0.52
1:AA:951:A:H8	1:AA:951:A:OP1	1.93	0.52
25:DA:309:G:N3	25:DA:329:G:O2'	2.32	0.52
55:B8:61:LEU:CD1	55:B8:61:LEU:H	2.14	0.52
19:AS:43:GLU:C	19:AS:45:VAL:N	2.63	0.52
37:DQ:115:MET:O	37:DQ:119:ARG:HB2	2.09	0.52
14:CN:21:TYR:HD2	14:CN:22:THR:O	1.93	0.52
25:BA:271(R):G:O2'	25:BA:271(S):G:H5'	2.10	0.52
53:D6:9:LEU:HD23	53:D6:10:LEU:O	2.10	0.52
28:DD:35:LYS:O	28:DD:64:ILE:HG22	2.09	0.52
28:DD:62:TYR:HA	28:DD:87:ASN:HD21	1.75	0.52
23:AV:19:G:C5	23:AV:59:A:C6	2.98	0.52
29:DE:31:CYS:HB3	29:DE:49:LEU:HB3	1.91	0.52
40:DT:89:VAL:CG1	40:DT:91:ARG:HE	2.22	0.52
4:AD:150:GLU:N	4:AD:150:GLU:OE1	2.39	0.52
4:CD:150:GLU:HG2	4:CD:151:LYS:H	1.75	0.52
25:BA:75:G:H4'	49:B2:55:ARG:NH1	2.21	0.52
53:D6:40:CYS:SG	53:D6:45:LYS:CE	2.97	0.52
33:BI:120:ILE:O	33:BI:121:LYS:CB	2.57	0.52
45:DY:7:VAL:HB	45:DY:8:LYS:HD2	1.92	0.52
25:DA:2463:C:O2'	25:DA:2464:C:H5''	2.09	0.52
32:BH:158:HIS:CD2	32:BH:170:ARG:HA	2.45	0.52
25:BA:289:A:C4	25:BA:353:G:N2	2.78	0.52
25:DA:541:C:O2'	25:DA:542:C:C5'	2.49	0.52
25:DA:2807:G:C3'	25:DA:2808:U:H5''	2.40	0.52
1:AA:1035:G:C3'	1:AA:1036:C:H5'	2.40	0.52
2:AB:77:ALA:O	2:AB:80:ILE:HG23	2.10	0.52
33:DI:5:LEU:N	33:DI:5:LEU:HD12	2.24	0.52
36:BP:41:ARG:NH1	36:BP:45:LEU:HD12	2.25	0.52
36:DP:101:VAL:HG12	36:DP:107:LYS:N	2.24	0.52
36:DP:17:LYS:O	36:DP:17:LYS:HG2	2.09	0.52
46:BZ:158:PRO:CB	46:BZ:159:PRO:CD	2.87	0.52
12:CL:92:ASP:O	12:CL:93:LEU:HD23	2.09	0.52
19:AS:29:ARG:HD2	19:AS:30:LEU:N	2.24	0.52
37:DQ:39:PRO:HD3	37:DQ:99:PRO:CG	2.39	0.52
1:CA:1405:G:P	35:DO:49:ARG:HH12	2.33	0.52
44:BX:61:GLY:HA3	44:BX:73:ARG:O	2.09	0.52
1:CA:1018:G:H5'	1:CA:1019:C:OP2	2.10	0.52
52:B5:35:GLU:O	52:B5:36:CYS:HB2	2.08	0.52
50:D3:17:LYS:HD2	50:D3:20:LYS:HD2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:6:THR:HG23	12:CL:9:GLN:HG3	1.92	0.52
54:B7:19:ARG:NH1	54:B7:19:ARG:HG2	2.25	0.52
25:DA:1317:A:H2'	25:DA:1318:C:H6	1.75	0.52
47:D0:27:GLU:HG3	47:D0:68:GLU:HA	1.91	0.52
1:AA:1197:G:H5''	14:AN:5:ALA:HB2	1.91	0.52
52:D5:20:ARG:O	52:D5:23:HIS:HB2	2.10	0.52
25:DA:1751:C:O2'	25:DA:1752:C:H5'	2.10	0.52
12:AL:6:THR:HG23	12:AL:9:GLN:CD	2.29	0.52
25:BA:2591:C:H2'	25:BA:2592:G:C8	2.44	0.52
1:AA:923:A:O2'	1:AA:1314:A:N3	2.37	0.52
1:AA:1093:A:N1	3:AC:177:THR:OG1	2.35	0.52
1:CA:1334:G:H2'	1:CA:1335:C:C6	2.45	0.52
32:BH:58:GLU:C	32:BH:60:ARG:H	2.12	0.52
8:AH:77:GLU:HG2	8:AH:78:GLN:H	1.73	0.52
25:BA:2114:A:H2'	25:BA:2115:G:O4'	2.09	0.52
25:DA:2577:A:H5''	25:DA:2578:G:H5'	1.90	0.52
25:DA:730:C:O2'	25:DA:731:C:H5'	2.09	0.52
25:BA:991:C:H6	25:BA:991:C:H5'	1.75	0.52
43:DW:47:VAL:O	43:DW:47:VAL:HG12	2.10	0.52
47:B0:11:ARG:HB2	47:B0:11:ARG:HH11	1.75	0.52
50:D3:5:LYS:CG	50:D3:36:VAL:HG12	2.39	0.52
41:BU:104:GLN:HB2	42:BV:44:LYS:HZ3	1.75	0.52
14:AN:24:CYS:H	14:AN:33:VAL:HG11	1.75	0.52
22:CW:21:A:N6	22:CW:46:G:N3	2.58	0.52
45:DY:37:VAL:O	45:DY:66:PRO:HA	2.10	0.52
3:AC:79:ARG:HG3	3:AC:82:GLU:OE2	2.08	0.52
13:AM:40:ASN:ND2	13:AM:43:THR:HG23	2.10	0.52
26:BB:117:G:H5''	39:BS:55:ALA:O	2.09	0.52
25:BA:2349:G:H5'	25:BA:2349:G:H8	1.73	0.52
42:BV:18:LEU:CD1	42:BV:19:LYS:H	2.22	0.52
5:CE:69:VAL:CG1	5:CE:71:LEU:HD21	2.40	0.52
14:CN:24:CYS:H	14:CN:33:VAL:HG11	1.74	0.52
3:CC:13:GLY:HA3	14:CN:57:ARG:NE	2.25	0.52
45:DY:77:PRO:O	45:DY:78:ALA:HB2	2.10	0.52
28:BD:62:TYR:HA	28:BD:87:ASN:HD21	1.74	0.52
2:CB:67:THR:HG21	2:CB:155:LEU:HD21	1.92	0.52
28:DD:69:ARG:NH2	28:DD:192:THR:HB	2.24	0.52
41:DU:55:ARG:HA	41:DU:58:ARG:CG	2.40	0.52
33:DI:92:VAL:HG11	33:DI:120:ILE:CG1	2.40	0.52
45:BY:7:VAL:HB	45:BY:8:LYS:HD2	1.91	0.52
34:DN:22:THR:HB	34:DN:25:ARG:HB2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2186:G:C6	25:BA:2187:G:N7	2.78	0.52
1:CA:1110:C:H2'	1:CA:1110:C:O2	2.10	0.52
25:DA:349:G:N1	25:DA:350:U:C2	2.77	0.52
40:BT:88:ILE:HG22	40:BT:89:VAL:HG12	1.91	0.52
25:DA:471:A:C2'	25:DA:472:A:C5'	2.88	0.52
25:BA:2807:G:C3'	25:BA:2808:U:H5''	2.40	0.52
38:DR:21:TYR:OH	38:DR:43:GLU:HG2	2.10	0.52
2:AB:178:ARG:HG3	8:AH:72:PRO:N	2.25	0.52
28:DD:186:HIS:CE1	28:DD:188:GLU:HG2	2.44	0.52
25:DA:942:G:P	36:DP:35:HIS:HB3	2.50	0.52
7:CG:43:PHE:C	7:CG:43:PHE:HD1	2.13	0.52
29:BE:176:ILE:N	29:BE:176:ILE:HD12	2.25	0.52
7:AG:53:LYS:O	7:AG:54:THR:HB	2.10	0.52
23:AV:36:A:C6	24:AX:18:G:N1	2.78	0.52
34:DN:30:ILE:O	34:DN:34:LEU:HB2	2.10	0.52
22:AW:18:G:H1	22:AW:55:U:C2'	2.22	0.52
25:BA:662:G:OP1	36:BP:18:ARG:HD2	2.09	0.52
16:AP:21:VAL:HG13	16:AP:33:ILE:HB	1.91	0.52
25:DA:863:A:H2'	25:DA:864:G:C8	2.41	0.52
25:DA:760:G:C2'	25:DA:761:A:H5'	2.40	0.52
3:CC:70:VAL:CG1	3:CC:71:ALA:H	2.22	0.52
1:AA:1260:A:O2'	1:AA:1263:C:N4	2.43	0.52
2:CB:107:THR:HG23	2:CB:110:GLN:NE2	2.25	0.52
38:DR:2:ARG:NH2	38:DR:5:LYS:HZ3	2.07	0.52
27:BC:87:GLU:HG2	27:BC:93:TYR:HA	1.91	0.52
28:BD:159:ALA:HB1	28:BD:198:ASN:O	2.09	0.52
34:BN:38:HIS:NE2	34:BN:50:ASP:OD2	2.43	0.52
6:CF:45:LEU:HD12	6:CF:46:ARG:N	2.24	0.52
1:AA:343:G:C2'	1:AA:344:A:O5'	2.58	0.52
2:AB:112:VAL:O	2:AB:115:LEU:HB3	2.09	0.52
1:CA:521:G:OP1	12:CL:114:LYS:N	2.38	0.52
17:AQ:75:ARG:HH11	17:AQ:75:ARG:HG3	1.75	0.52
25:DA:476:G:H4'	25:DA:502:A:N1	2.25	0.52
8:CH:44:PHE:HA	8:CH:79:VAL:CG1	2.40	0.52
50:D3:42:ALA:O	50:D3:43:ILE:HD13	2.10	0.52
26:DB:77:U:C5	26:DB:99:G:N2	2.78	0.52
44:DX:89:ILE:O	44:DX:93:GLU:HG2	2.10	0.52
25:DA:2620:C:OP1	29:DE:152:LYS:O	2.27	0.52
29:DE:149:ARG:HG3	29:DE:149:ARG:HH11	1.73	0.52
50:B3:42:ALA:O	50:B3:43:ILE:HD13	2.10	0.52
40:DT:29:ARG:CD	40:DT:85:LYS:CB	2.80	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:68:THR:C	32:DH:70:THR:H	2.12	0.52
13:AM:92:HIS:CD2	13:AM:98:VAL:HG21	2.44	0.52
13:AM:88:ARG:HA	13:AM:98:VAL:HG12	1.90	0.52
25:BA:889:C:H1'	25:BA:890:A:O4'	2.10	0.52
25:DA:2263:C:C6	25:DA:2263:C:H5'	2.34	0.52
40:DT:51:ARG:HB2	40:DT:98:LYS:CG	2.35	0.52
23:CV:15:G:N2	23:CV:22:A:H1'	2.24	0.52
19:AS:60:VAL:HG22	19:AS:61:TYR:O	2.10	0.52
50:B3:7:LYS:O	50:B3:54:VAL:HG13	2.09	0.52
25:DA:2376:A:H61	39:DS:92:TYR:HE2	1.55	0.52
25:BA:271(O):C:O2'	25:BA:271(P):C:H6	1.92	0.52
25:BA:271(O):C:H4'	33:BI:49:ALA:CB	2.40	0.52
25:BA:2303:G:H5''	31:BG:126:ASP:HB2	1.91	0.52
25:DA:251:A:C5'	36:DP:51:PHE:HZ	2.22	0.52
36:DP:63:PRO:O	36:DP:65:ARG:N	2.42	0.52
28:BD:101:GLU:OE1	28:BD:103:ARG:HD3	2.10	0.52
45:BY:77:PRO:O	45:BY:78:ALA:HB2	2.10	0.52
28:DD:32:SER:O	28:DD:33:LEU:C	2.46	0.52
1:AA:1088:G:H2'	1:AA:1089:C:C6	2.42	0.52
39:BS:49:VAL:HG22	39:BS:80:LEU:HD22	1.92	0.52
34:DN:17:ASP:HB2	34:DN:55:VAL:HG12	1.90	0.52
33:DI:57:ARG:O	33:DI:61:ARG:NE	2.43	0.52
25:DA:336:C:H4'	45:DY:7:VAL:CG1	2.40	0.52
36:DP:23:PRO:HD2	36:DP:33:ARG:NE	2.24	0.52
25:DA:1030:G:P	37:DQ:128:LYS:HD3	2.50	0.52
30:BF:202:PHE:HE1	30:BF:206:ILE:HD13	1.74	0.52
22:AY:40:C:O2'	22:AY:41:C:H5'	2.10	0.52
31:DG:32:PRO:HB2	31:DG:172:LEU:HD13	1.92	0.52
26:DB:75:G:N1	26:DB:103:G:N2	2.58	0.52
46:BZ:118:GLN:HG2	46:BZ:119:GLU:N	2.24	0.52
43:BW:60:ASN:H	43:BW:60:ASN:ND2	2.07	0.52
28:BD:186:HIS:CE1	28:BD:188:GLU:HG2	2.44	0.52
12:AL:27:LEU:HD22	12:AL:27:LEU:N	2.25	0.52
26:BB:55:U:H2'	26:BB:56:G:H8	1.73	0.52
29:BE:92:THR:H	29:BE:95:ILE:HD13	1.74	0.52
29:DE:92:THR:H	29:DE:95:ILE:HD13	1.74	0.52
36:BP:114:ILE:HD12	36:BP:115:LEU:N	2.24	0.52
28:BD:10:THR:O	28:BD:13:ARG:HB3	2.10	0.52
30:DF:164:ARG:HG2	30:DF:164:ARG:NH1	2.24	0.52
3:CC:175:LEU:HD21	3:CC:201:TYR:CE2	2.45	0.52
4:CD:108:LEU:O	4:CD:110:PHE:HD1	1.93	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:3:ARG:HG2	4:AD:118:ARG:HD3	1.92	0.52
48:D1:50:ARG:CG	48:D1:50:ARG:HH11	2.23	0.52
48:B1:50:ARG:HH11	48:B1:50:ARG:CG	2.23	0.52
25:DA:1887:C:H3'	25:DA:1888:G:H5''	1.90	0.52
36:BP:121:LYS:O	36:BP:123:LEU:HG	2.10	0.52
25:DA:1386:C:OP2	25:DA:1396:U:C5	2.63	0.52
1:CA:553:G:O3'	1:CA:802:A:O2'	2.23	0.52
25:BA:1416:G:H21	25:BA:1586:A:N6	2.07	0.52
25:DA:1168:G:C2	25:DA:1182:A:C2	2.98	0.52
25:DA:784:A:C5	28:DD:229:VAL:HG21	2.45	0.52
25:BA:2240:C:O2'	25:BA:2241:A:H5'	2.09	0.52
32:DH:106:THR:HG22	32:DH:112:PRO:HB3	1.92	0.52
25:DA:18:C:O3'	41:DU:23:GLY:HA2	2.09	0.52
4:CD:114:ARG:HG3	4:CD:114:ARG:HH11	1.74	0.52
1:CA:1234:G:H2'	1:CA:1235:C:C6	2.44	0.52
29:BE:69:LYS:HD3	29:BE:89:ASP:HA	1.91	0.52
32:DH:16:SER:HB2	32:DH:27:LYS:HB2	1.92	0.52
13:AM:93:ARG:NH1	25:BA:888:C:C4'	2.73	0.52
22:CW:69:G:H2'	22:CW:70:G:H5''	1.91	0.52
25:DA:311:A:OP1	25:DA:332:A:N1	2.43	0.52
55:B8:4:MET:SD	55:B8:61:LEU:CD2	2.98	0.52
53:B6:9:LEU:HD23	53:B6:10:LEU:O	2.10	0.52
55:B8:32:LEU:HB3	55:B8:36:LYS:NZ	2.25	0.52
25:BA:2700:C:O2'	25:BA:2701:C:H5'	2.10	0.52
38:BR:63:ARG:HA	38:BR:80:PHE:HE2	1.73	0.52
25:DA:2128:C:OP1	27:DC:35:ALA:CA	2.58	0.52
25:DA:2127:G:C5'	27:DC:36:LYS:NZ	2.72	0.52
39:BS:30:ARG:HH22	39:BS:62:LYS:CD	2.20	0.52
31:DG:111:LEU:HA	31:DG:114:ILE:CD1	2.40	0.52
5:CE:6:PHE:HD1	5:CE:63:ARG:HH12	1.58	0.52
39:DS:57:LYS:O	39:DS:58:LEU:O	2.27	0.52
19:CS:6:LYS:CG	19:CS:7:LYS:HE3	2.40	0.52
28:BD:35:LYS:O	28:BD:64:ILE:HG22	2.09	0.52
13:AM:116:THR:O	13:AM:117:VAL:CB	2.58	0.52
1:AA:1077:U:P	1:AA:1090:G:H1	2.33	0.52
53:B6:46:HIS:CD2	53:B6:46:HIS:O	2.62	0.52
33:DI:100:ALA:O	33:DI:101:LEU:HB2	2.09	0.52
33:DI:144:VAL:HG23	33:DI:145:VAL:HG23	1.92	0.52
13:AM:10:PRO:O	13:AM:11:ARG:HG3	2.10	0.52
13:AM:13:LYS:HA	13:AM:44:ARG:HH11	1.71	0.52
5:AE:41:VAL:HG11	5:AE:113:ALA:N	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:111:ASP:CA	18:CR:84:LYS:HG3	2.29	0.52
28:DD:28:GLU:N	28:DD:29:PRO:CD	2.64	0.52
32:DH:158:HIS:CD2	32:DH:170:ARG:HA	2.45	0.52
38:BR:21:TYR:OH	38:BR:43:GLU:HG2	2.10	0.52
25:DA:2075:U:O4	25:DA:2238:G:C5	2.63	0.52
2:CB:54:THR:HG23	2:CB:199:TYR:HB3	1.92	0.52
31:DG:39:ILE:HG23	31:DG:92:VAL:CG1	2.40	0.52
46:DZ:118:GLN:HG2	46:DZ:119:GLU:N	2.24	0.52
29:BE:11:MET:H	40:BT:8:LYS:HZ2	1.58	0.52
29:DE:16:ARG:O	29:DE:17:ASP:HB3	2.10	0.52
25:BA:2207:G:N3	25:BA:2207:G:H2'	2.24	0.52
38:BR:54:LEU:HD23	38:BR:66:VAL:CG2	2.40	0.52
25:DA:1178:C:H2'	25:DA:1179:C:H6	1.74	0.52
7:CG:43:PHE:C	7:CG:43:PHE:CD1	2.82	0.52
25:BA:1024:G:C3'	25:BA:1025:G:H5''	2.36	0.52
36:DP:107:LYS:C	36:DP:109:GLY:N	2.62	0.52
23:AV:36:A:C2	24:AX:18:G:C2	2.97	0.52
39:DS:85:VAL:HG23	39:DS:86:ALA:N	2.25	0.52
25:DA:1722:A:C2	25:DA:1740:G:C8	2.97	0.52
37:DQ:33:GLY:HA2	37:DQ:105:GLU:HA	1.92	0.52
48:D1:66:HIS:C	48:D1:68:PRO:HD2	2.30	0.52
28:BD:10:THR:OG1	28:BD:11:PRO:HD2	2.10	0.52
25:BA:2777:G:C4'	25:BA:2778:A:H5'	2.38	0.52
46:DZ:103:ARG:O	46:DZ:138:GLU:HA	2.09	0.52
25:BA:143:G:H2'	25:BA:143(A):C:C6	2.45	0.52
1:AA:1239:G:H2'	1:AA:1240:C:C6	2.41	0.52
4:CD:105:VAL:HG13	4:CD:110:PHE:HB2	1.92	0.52
43:BW:61:ASN:N	43:BW:61:ASN:ND2	2.58	0.52
49:D2:7:ARG:HH11	49:D2:7:ARG:CG	2.18	0.52
3:AC:175:LEU:HD21	3:AC:201:TYR:CE2	2.45	0.52
19:AS:58:VAL:HG23	19:AS:58:VAL:O	2.09	0.52
1:AA:470:U:H2'	1:AA:471:A:H8	1.73	0.52
39:BS:12:PHE:CD1	39:BS:12:PHE:O	2.62	0.52
39:DS:12:PHE:O	39:DS:12:PHE:CD1	2.62	0.52
25:BA:554:U:C2'	25:BA:555:U:H5'	2.39	0.52
1:AA:22:G:H2'	1:AA:23:C:C6	2.44	0.52
1:AA:675:U:H2'	1:AA:677:A:OP2	2.09	0.52
22:CW:26:A:H61	22:CW:44:G:H1	1.57	0.52
25:BA:1751:C:O2'	25:BA:1752:C:H5'	2.10	0.52
9:AI:126:SER:O	9:AI:127:LYS:HB3	2.08	0.52
25:BA:1216:G:P	41:BU:12:ARG:HH21	2.32	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:203:A:N6	1:AA:216:C:H5'	2.25	0.52
25:DA:1350:C:O2'	25:DA:1351:C:H5'	2.09	0.52
1:CA:41:G:H2'	1:CA:42:G:C8	2.45	0.52
25:DA:991:C:H5'	25:DA:991:C:H6	1.75	0.52
19:CS:58:VAL:HG23	19:CS:58:VAL:O	2.09	0.52
16:CP:18:ARG:HD3	16:CP:35:LYS:HD2	1.91	0.52
25:DA:119:A:H4'	25:DA:120:U:OP1	2.09	0.52
3:AC:110:ASN:O	3:AC:141:VAL:HG22	2.08	0.52
25:DA:1688:U:H1'	25:DA:1701:A:C6	2.45	0.52
48:B1:94:LEU:C	48:B1:96:LYS:N	2.62	0.52
25:BA:103:A:C3'	25:BA:104:U:H5'	2.40	0.52
41:BU:79:PHE:HE2	41:BU:83:LEU:HD21	1.75	0.52
42:BV:5:VAL:HG22	42:BV:6:LYS:N	2.25	0.52
53:B6:9:LEU:O	53:B6:25:LYS:HG3	2.10	0.52
25:DA:614:U:O4'	25:DA:614(C):A:N6	2.43	0.52
39:BS:90:GLY:O	39:BS:92:TYR:N	2.35	0.52
13:CM:65:LYS:HG3	13:CM:70:LEU:HA	1.92	0.52
1:CA:958:U:H5'	14:CN:21:TYR:CE1	2.45	0.52
25:DA:62:C:H2'	25:DA:63:U:H5'	1.91	0.52
28:DD:101:GLU:OE1	28:DD:103:ARG:HD3	2.10	0.52
25:BA:1952:A:C5	35:BO:22:ILE:CD1	2.93	0.52
33:DI:42:SER:C	33:DI:44:LEU:H	2.13	0.52
33:BI:72:LEU:O	33:BI:138:ILE:HG23	2.10	0.52
46:BZ:58:VAL:HA	46:BZ:67:LEU:O	2.10	0.52
2:AB:16:HIS:CD2	2:AB:210:SER:HA	2.44	0.52
7:CG:91:VAL:HG12	7:CG:96:GLN:HB2	1.92	0.52
25:DA:1544:A:H2'	25:DA:1545:A:C1'	2.40	0.52
53:B6:19:ARG:CG	53:B6:20:ASN:N	2.68	0.52
25:BA:471:A:C2'	25:BA:472:A:C5'	2.88	0.52
43:DW:60:ASN:ND2	43:DW:60:ASN:H	2.07	0.52
37:DQ:59:ARG:HG3	37:DQ:59:ARG:HH11	1.75	0.52
41:BU:25:TRP:CG	41:BU:26:GLY:N	2.75	0.52
25:BA:2308:G:N7	25:BA:2310:A:O5'	2.43	0.52
25:DA:2124:G:H5''	27:DC:177:LYS:HA	1.91	0.52
18:AR:66:LEU:CD1	18:AR:70:ILE:HD11	2.36	0.52
29:DE:81:ILE:CG2	29:DE:81:ILE:O	2.56	0.52
25:DA:2876:G:O5'	40:DT:3:ARG:HA	2.10	0.52
25:BA:1722:A:C2	25:BA:1740:G:C8	2.97	0.52
43:DW:68:ARG:HD2	43:DW:110:LYS:HB3	1.92	0.52
43:DW:110:LYS:HG3	43:DW:111:HIS:ND1	2.24	0.52
31:DG:105:LYS:CE	51:D4:52:SER:HB3	2.38	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1502:G:OP1	11:CK:120:ARG:NH2	2.43	0.52
40:DT:8:LYS:O	40:DT:11:GLU:HB2	2.10	0.52
18:AR:53:ARG:NH2	18:AR:60:ALA:N	2.57	0.52
56:B9:9:ARG:HA	56:B9:14:CYS:SG	2.50	0.52
21:CU:24:ARG:O	21:CU:25:LYS:O	2.28	0.52
25:DA:2320:A:N1	25:DA:2333:A:C8	2.78	0.52
1:AA:1054:G:H2'	1:AA:1055:U:C6	2.45	0.52
49:D2:7:ARG:CZ	49:D2:7:ARG:HB3	2.40	0.52
1:AA:402:G:H5'	4:AD:3:ARG:HH12	1.74	0.52
3:AC:138:VAL:CG2	3:AC:151:VAL:HG23	2.40	0.52
52:D5:46:CYS:HB3	52:D5:49:CYS:HB2	1.92	0.52
25:DA:1336:A:H2'	25:DA:1337:G:H8	1.74	0.52
36:DP:121:LYS:O	36:DP:123:LEU:HG	2.10	0.52
1:CA:584:C:H2'	1:CA:585:A:H8	1.75	0.52
25:BA:311:A:OP1	25:BA:332:A:N1	2.43	0.52
25:BA:535:C:O2'	25:BA:536:A:H5'	2.10	0.52
30:DF:202:PHE:HE1	30:DF:206:ILE:HD13	1.74	0.52
25:DA:832:G:H21	36:DP:53:GLY:C	2.13	0.52
1:AA:641:G:H2'	1:AA:642:U:C6	2.44	0.52
7:CG:32:ARG:O	7:CG:33:ASP:HB2	2.10	0.52
1:AA:473:C:H2'	1:AA:474:G:C8	2.44	0.52
12:AL:39:VAL:HB	12:AL:57:LYS:HB2	1.92	0.52
1:CA:642:U:H2'	1:CA:643:G:H8	1.75	0.52
49:B2:38:GLN:HA	49:B2:41:ILE:CD1	2.40	0.52
25:DA:2870:C:C2'	25:DA:2871:C:H5'	2.40	0.52
25:DA:66:C:O2'	25:DA:67:U:H5'	2.09	0.52
26:BB:77:U:C5	26:BB:99:G:N2	2.78	0.52
40:DT:28:VAL:CG2	40:DT:46:GLU:CG	2.87	0.51
20:CT:29:LYS:HD3	20:CT:66:ALA:HB2	1.93	0.51
26:DB:87:G:C2'	26:DB:88:C:H5''	2.41	0.51
25:DA:2484:G:H2'	25:DA:2485:G:H8	1.75	0.51
38:DR:86:ARG:HB3	38:DR:118:GLU:OE2	2.10	0.51
41:DU:79:PHE:HE2	41:DU:83:LEU:HD21	1.75	0.51
31:BG:113:ARG:NH1	31:BG:113:ARG:N	2.57	0.51
25:BA:94(A):G:H2'	25:BA:95:G:H5''	1.92	0.51
26:DB:38:C:O4'	39:DS:95:HIS:NE2	2.43	0.51
28:DD:25:THR:CG2	28:DD:26:LYS:H	2.20	0.51
8:CH:120:THR:HG23	8:CH:123:GLU:OE1	2.11	0.51
23:AV:54:G:C2	23:AV:55:U:C4	2.98	0.51
39:BS:74:ALA:HB1	39:BS:103:GLU:CG	2.39	0.51
2:AB:194:PRO:CB	2:AB:200:ILE:HD13	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BH:17:VAL:HG11	32:BH:50:VAL:HG22	1.92	0.51
25:BA:1686:C:C2'	25:BA:1687:G:H5'	2.40	0.51
32:DH:158:HIS:O	32:DH:159:GLU:CB	2.57	0.51
25:BA:1140:C:C5'	25:BA:1141:U:OP2	2.58	0.51
16:AP:53:VAL:CG1	16:AP:79:VAL:HG22	2.41	0.51
28:BD:270:ILE:C	28:BD:271:ILE:CG1	2.78	0.51
25:BA:379:G:C5	25:BA:380:U:C5	2.98	0.51
19:CS:10:PHE:CE2	19:CS:39:THR:OG1	2.61	0.51
28:DD:226:MET:HB3	28:DD:230:ASP:HB2	1.91	0.51
25:BA:2629:A:C8	25:BA:2895:U:N3	2.78	0.51
43:DW:1:MET:HE2	43:DW:2:GLU:H	1.74	0.51
3:CC:112:SER:HB3	3:CC:115:LEU:HD12	1.91	0.51
10:CJ:16:LEU:HD23	10:CJ:94:VAL:CG1	2.39	0.51
25:BA:139:G:H1	25:BA:142(A):C:H42	1.57	0.51
25:DA:2308:G:N7	25:DA:2310:A:O5'	2.43	0.51
2:AB:96:ARG:NH1	2:AB:148:TYR:HE1	2.07	0.51
25:BA:1479:G:H2'	25:BA:1480:G:O4'	2.10	0.51
22:AW:21:A:N7	22:AW:46:G:N7	2.58	0.51
43:DW:61:ASN:N	43:DW:61:ASN:ND2	2.58	0.51
44:DX:61:GLY:HA3	44:DX:73:ARG:O	2.09	0.51
44:DX:64:LYS:HD3	44:DX:73:ARG:CZ	2.40	0.51
25:DA:1578:U:C2'	25:DA:1579:A:H5''	2.40	0.51
25:BA:2882:A:OP1	38:BR:96:ARG:HD3	2.09	0.51
3:AC:22:TRP:CZ3	3:AC:32:LEU:HB3	2.44	0.51
50:B3:13:ILE:HG22	50:B3:13:ILE:O	2.09	0.51
25:DA:2721:A:H2'	25:DA:2722:G:C8	2.45	0.51
43:DW:24:ILE:HG21	43:DW:36:LEU:HD21	1.90	0.51
4:CD:6:GLY:O	4:CD:7:PRO:C	2.47	0.51
25:DA:535:C:O2'	25:DA:536:A:H5'	2.10	0.51
40:DT:131:ALA:O	40:DT:133:GLU:N	2.43	0.51
7:CG:68:ASN:ND2	7:CG:128:ALA:HA	2.26	0.51
32:DH:130:ARG:HH11	32:DH:132:ARG:HH21	1.57	0.51
25:DA:18:C:H5''	41:DU:24:TYR:O	2.10	0.51
2:CB:158:LEU:HD12	2:CB:158:LEU:H	1.74	0.51
25:DA:1424:G:H2'	25:DA:1425:G:O4'	2.10	0.51
34:DN:104:LYS:HB2	34:DN:117:PHE:CE1	2.45	0.51
56:B9:7:VAL:HG13	56:B9:34:GLN:HB3	1.91	0.51
1:AA:1324:G:H4'	9:AI:122:ALA:HB3	1.92	0.51
27:DC:141:LYS:O	27:DC:142:ALA:HB2	2.10	0.51
25:BA:2870:C:C2'	25:BA:2871:C:H5'	2.40	0.51
47:B0:30:VAL:HA	47:B0:66:VAL:HG22	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:65:U:HO2'	1:CA:376:C:H5	1.56	0.51
1:CA:109:A:H2'	1:CA:110:G:H8	1.74	0.51
44:DX:10:ALA:HA	49:D2:37:PHE:CE1	2.45	0.51
40:DT:30:VAL:HG12	40:DT:44:ASP:N	2.26	0.51
29:BE:61:ARG:HB3	29:BE:62:PRO:HD3	1.91	0.51
3:AC:13:GLY:HA3	14:AN:57:ARG:NE	2.25	0.51
44:BX:27:THR:HG22	44:BX:80:ILE:CB	2.18	0.51
20:AT:98:PRO:C	20:AT:100:ILE:H	2.13	0.51
25:BA:1772:G:H2'	25:BA:1773:A:O5'	2.10	0.51
25:BA:272:G:C6	25:BA:421:U:N1	2.78	0.51
38:BR:77:ARG:C	38:BR:79:LEU:N	2.64	0.51
27:BC:36:LYS:HA	27:BC:36:LYS:HZ2	1.75	0.51
45:BY:17:SER:CA	45:BY:71:LYS:HD2	2.40	0.51
31:BG:114:ILE:HG12	31:BG:140:ILE:CD1	2.15	0.51
13:AM:7:VAL:HG21	31:BG:115:ARG:CG	2.40	0.51
25:BA:1885:A:H5'	25:BA:1885:A:H8	1.74	0.51
25:DA:2569:G:O2'	25:DA:2570:G:H5'	2.11	0.51
26:BB:38:C:O2	26:BB:48:A:H1'	2.09	0.51
39:DS:61:ASN:O	39:DS:62:LYS:HG2	2.10	0.51
53:D6:9:LEU:HD23	53:D6:10:LEU:N	2.26	0.51
22:CW:30:G:H2'	22:CW:31:A:H8	1.75	0.51
22:CW:36:A:C6	22:CW:37:A:C8	2.98	0.51
40:DT:89:VAL:HG11	40:DT:91:ARG:NH2	2.25	0.51
40:DT:89:VAL:O	40:DT:91:ARG:HB2	2.10	0.51
44:BX:71:GLY:C	44:BX:72:LYS:HD2	2.31	0.51
34:BN:126:PRO:O	34:BN:127:ASP:HB2	2.10	0.51
33:DI:53:ALA:O	33:DI:56:LYS:HG2	2.09	0.51
36:DP:7:ARG:CA	36:DP:7:ARG:NE	2.65	0.51
23:CV:4:G:O6	23:CV:71:G:C6	2.63	0.51
25:DA:848:G:H2'	25:DA:849:A:C8	2.44	0.51
46:BZ:56:VAL:CG1	46:BZ:57:ILE:N	2.73	0.51
32:BH:98:LEU:HD12	32:BH:102:ALA:O	2.11	0.51
5:CE:78:HIS:CD2	8:CH:104:ARG:HE	2.21	0.51
25:BA:2683:C:OP1	40:BT:53:ARG:NH2	2.42	0.51
25:DA:289:A:C4	25:DA:353:G:N2	2.78	0.51
44:BX:60:ARG:HH22	54:B7:47:ARG:HE	1.57	0.51
16:AP:53:VAL:HG12	16:AP:79:VAL:HG22	1.93	0.51
48:B1:40:ARG:O	48:B1:40:ARG:HD3	2.10	0.51
25:DA:1171:G:H5''	25:DA:1173:G:C4'	2.40	0.51
25:BA:365:C:H6	25:BA:365:C:C5'	2.19	0.51
30:DF:11:VAL:HG12	30:DF:12:LEU:N	2.17	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:226:MET:HB3	28:BD:230:ASP:HB2	1.91	0.51
36:DP:144:GLU:N	36:DP:145:PRO:CD	2.72	0.51
36:DP:85:LEU:HD23	36:DP:85:LEU:N	2.18	0.51
39:DS:24:LEU:HB3	39:DS:85:VAL:CG1	2.38	0.51
25:DA:2777:G:H5''	25:DA:2778:A:C5'	2.39	0.51
5:AE:100:VAL:HG13	5:AE:118:ILE:HG22	1.89	0.51
1:AA:992:A:H2'	1:AA:993:A:C8	2.45	0.51
25:DA:8:A:H2'	25:DA:9:U:C6	2.44	0.51
25:DA:2674:G:O2'	35:DO:29:ASN:O	2.28	0.51
46:DZ:135:GLU:HG2	46:DZ:136:PHE:HD2	1.75	0.51
6:CF:3:ARG:HD3	6:CF:64:GLN:OE1	2.10	0.51
26:BB:75:G:N1	26:BB:103:G:N2	2.58	0.51
8:CH:86:ILE:CG2	8:CH:87:SER:H	2.18	0.51
25:BA:1042:G:H1	25:BA:1112:G:H22	1.58	0.51
3:CC:173:VAL:HG12	3:CC:175:LEU:HD12	1.92	0.51
2:AB:95:GLN:HE21	2:AB:147:LYS:CG	2.23	0.51
28:DD:106:ILE:O	28:DD:106:ILE:HG23	2.10	0.51
45:BY:87:LYS:HG3	45:BY:88:LYS:H	1.72	0.51
49:B2:7:ARG:CZ	49:B2:7:ARG:HB3	2.40	0.51
53:B6:32:ASN:HD22	53:B6:33:LYS:HE3	1.75	0.51
26:BB:82:G:O2'	26:BB:83:G:H5'	2.11	0.51
50:B3:17:LYS:HD2	50:B3:20:LYS:HD2	1.92	0.51
1:CA:660:U:H3	1:CA:696:G:N2	2.06	0.51
26:DB:55:U:H2'	26:DB:56:G:H8	1.73	0.51
4:CD:187:ARG:NH2	4:CD:193:ASP:OD2	2.43	0.51
1:CA:844:G:H2'	1:CA:845:C:C6	2.43	0.51
25:DA:2203:U:H2'	25:DA:2203:U:O2	2.08	0.51
25:BA:476:G:H4'	25:BA:502:A:N1	2.25	0.51
25:DA:1416:G:H21	25:DA:1586:A:H62	1.57	0.51
1:AA:473:C:H2'	1:AA:474:G:H8	1.75	0.51
25:BA:784:A:C5	28:BD:229:VAL:HG21	2.45	0.51
23:CV:76:C:OP1	25:DA:2602:A:H5''	2.10	0.51
25:DA:1188:U:H4'	42:DV:79:VAL:HG22	1.91	0.51
48:D1:94:LEU:C	48:D1:96:LYS:N	2.62	0.51
5:CE:87:SER:HB3	5:CE:131:ILE:HD13	1.93	0.51
1:CA:1206:A:H2'	1:CA:1206:A:N3	2.24	0.51
40:DT:28:VAL:HG13	40:DT:45:PHE:C	2.30	0.51
29:BE:36:ARG:HH12	29:BE:86:PRO:HD2	1.76	0.51
25:DA:271(H):G:O2'	25:DA:271(I):G:H8	1.94	0.51
45:DY:26:LYS:HG2	45:DY:27:VAL:HG23	1.92	0.51
25:DA:1772:G:H2'	25:DA:1773:A:O5'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:52:GLU:CB	36:BP:55:ARG:HD2	2.40	0.51
38:DR:74:LYS:HD2	38:DR:77:ARG:NH2	2.22	0.51
25:BA:614:U:O4'	25:BA:614(C):A:N6	2.43	0.51
31:BG:113:ARG:CB	31:BG:113:ARG:NH1	2.59	0.51
25:BA:90:U:HI'	25:BA:92:A:C8	2.45	0.51
34:DN:126:PRO:O	34:DN:127:ASP:HB2	2.10	0.51
39:DS:74:ALA:HB1	39:DS:103:GLU:CG	2.39	0.51
33:DI:72:LEU:O	33:DI:138:ILE:HG23	2.10	0.51
36:DP:23:PRO:HB2	36:DP:33:ARG:CG	2.41	0.51
36:DP:32:THR:O	36:DP:36:LYS:HG3	2.11	0.51
13:AM:18:ALA:HB2	13:AM:45:VAL:HG21	1.92	0.51
25:DA:2186:G:C6	25:DA:2187:G:N7	2.78	0.51
36:BP:7:ARG:NE	36:BP:7:ARG:CA	2.65	0.51
28:DD:7:LYS:O	28:DD:9:TYR:HD1	1.90	0.51
25:DA:1952:A:N1	35:DO:22:ILE:CD1	2.73	0.51
25:BA:1286:A:O2'	25:BA:1288:U:OP2	2.26	0.51
10:AJ:89:ASP:C	10:AJ:90:LEU:HD12	2.30	0.51
2:CB:54:THR:HG21	2:CB:201:ILE:HD11	1.93	0.51
29:BE:16:ARG:O	29:BE:17:ASP:HB3	2.10	0.51
28:BD:172:TYR:HD1	28:BD:186:HIS:CA	2.21	0.51
25:DA:2329:G:C2'	25:DA:2330:G:H5'	2.41	0.51
25:DA:2207:G:N3	25:DA:2207:G:H2'	2.24	0.51
32:DH:135:GLY:HA3	32:DH:141:VAL:CG2	2.40	0.51
12:AL:28:LYS:HE3	12:AL:33:ARG:HH22	1.70	0.51
7:AG:46:ALA:O	7:AG:49:ILE:HB	2.09	0.51
10:AJ:24:VAL:HG21	10:AJ:37:PRO:HG3	1.93	0.51
36:BP:147:LEU:HG	36:BP:148:LEU:N	2.25	0.51
36:BP:77:ARG:HB2	36:BP:78:PRO:HD2	1.91	0.51
36:DP:113:LYS:HE2	36:DP:115:LEU:HD13	1.93	0.51
8:CH:12:ARG:NH1	8:CH:26:VAL:HA	2.24	0.51
25:BA:9:U:O2'	25:BA:10:G:P	2.68	0.51
8:AH:58:TYR:O	8:AH:59:LEU:HD23	2.10	0.51
19:CS:16:LEU:HA	19:CS:19:VAL:HB	1.92	0.51
22:CY:27:G:H3'	22:CY:27:G:C8	2.45	0.51
19:CS:28:LYS:HD2	19:CS:29:ARG:CZ	2.40	0.51
25:DA:1490:A:N6	28:DD:98:VAL:HG11	2.26	0.51
28:DD:210:GLY:C	28:DD:212:SER:H	2.14	0.51
1:CA:408:G:O2'	1:CA:423:G:N2	2.43	0.51
1:AA:953:G:H21	1:AA:1343:C:H2'	1.73	0.51
25:BA:2838:G:H2'	25:BA:2839:G:H8	1.75	0.51
25:DA:2121:G:N2	27:DC:172:HIS:CB	2.71	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1258:C:O2'	1:AA:1260:A:H8	1.93	0.51
2:AB:95:GLN:HG3	2:AB:148:TYR:HA	1.93	0.51
37:BQ:66:ILE:HG22	37:BQ:104:PHE:CD2	2.44	0.51
25:DA:84:A:C5'	45:DY:9:LYS:HE3	2.38	0.51
42:BV:69:LYS:HA	42:BV:88:ARG:CG	2.39	0.51
25:DA:1479:G:H2'	25:DA:1480:G:O4'	2.10	0.51
6:CF:75:LEU:HD21	6:CF:79:LEU:HD11	1.92	0.51
15:CO:54:ARG:NH1	15:CO:54:ARG:HG2	2.22	0.51
6:AF:61:LEU:HD23	6:AF:63:TYR:OH	2.10	0.51
30:BF:160:ASN:HB3	30:BF:163:VAL:HG23	1.92	0.51
25:BA:2721:A:H2'	25:BA:2722:G:H8	1.74	0.51
25:BA:1827:C:O2'	25:BA:1828:G:H5'	2.10	0.51
1:CA:335:U:OP2	35:DO:96:THR:OG1	2.29	0.51
1:AA:603:C:H2'	1:AA:604:A:C8	2.44	0.51
2:AB:223:ILE:HA	2:AB:226:ARG:HB3	1.92	0.51
7:CG:32:ARG:O	7:CG:33:ASP:CB	2.57	0.51
1:AA:199:C:H2'	1:AA:200:C:C6	2.45	0.51
56:D9:26:ILE:N	56:D9:26:ILE:HD12	2.25	0.51
25:BA:2097:C:H2'	25:BA:2098:U:O4'	2.11	0.51
7:AG:32:ARG:O	7:AG:33:ASP:CB	2.58	0.51
25:DA:889:C:H1'	25:DA:890:A:O4'	2.10	0.51
29:BE:57:LYS:C	29:BE:59:VAL:H	2.13	0.51
25:BA:2632:A:C2	29:BE:61:ARG:HD3	2.46	0.51
25:BA:952:G:O6	25:BA:953:A:N6	2.42	0.51
25:DA:912:C:H2'	25:DA:912:C:O2	2.10	0.51
25:BA:2075:U:P	28:BD:244:ARG:NH2	2.83	0.51
1:AA:956:C:H3'	1:AA:957:C:C5'	2.39	0.51
25:DA:271(Q):G:O2'	25:DA:271(R):G:OP2	2.20	0.51
45:DY:67:LEU:O	45:DY:68:HIS:C	2.46	0.51
53:B6:24:GLU:O	53:B6:25:LYS:HB2	2.11	0.51
27:DC:36:LYS:NZ	27:DC:36:LYS:HB2	2.25	0.51
25:BA:309:G:N2	25:BA:330:A:P	2.81	0.51
19:CS:43:GLU:C	19:CS:45:VAL:N	2.63	0.51
31:DG:114:ILE:HD12	31:DG:117:PHE:CD2	2.46	0.51
31:DG:114:ILE:HB	31:DG:117:PHE:HB2	1.91	0.51
14:CN:27:CYS:SG	14:CN:43:CYS:SG	3.08	0.51
40:DT:18:ASP:OD1	40:DT:18:ASP:N	2.41	0.51
36:DP:32:THR:O	36:DP:33:ARG:CB	2.59	0.51
2:AB:40:HIS:CB	2:AB:190:THR:HG21	2.41	0.51
46:DZ:58:VAL:HA	46:DZ:67:LEU:O	2.10	0.51
25:DA:747:U:C1'	52:D5:2:ALA:HB3	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:D6:20:ASN:ND2	53:D6:21:TYR:N	2.59	0.51
38:BR:97:VAL:CG2	38:BR:114:VAL:HG22	2.32	0.51
16:AP:71:ARG:HA	16:AP:74:LEU:CD1	2.34	0.51
20:CT:84:LEU:CD1	20:CT:84:LEU:C	2.76	0.51
36:BP:107:LYS:C	36:BP:109:GLY:N	2.62	0.51
36:DP:147:LEU:HG	36:DP:148:LEU:N	2.25	0.51
36:DP:84:ASN:C	36:DP:86:LYS:N	2.64	0.51
23:AV:35:C:H2'	23:AV:36:A:H8	1.76	0.51
25:BA:2290:G:H2'	25:BA:2291:U:O4'	2.11	0.51
25:BA:2290:G:H5'	25:BA:2290:G:C8	2.37	0.51
43:BW:111:HIS:CG	43:BW:112:GLY:N	2.78	0.51
25:DA:2675:A:H4'	35:DO:29:ASN:ND2	2.26	0.51
46:BZ:101:PRO:HB2	46:BZ:136:PHE:HB3	1.93	0.51
11:CK:124:LYS:HB3	11:CK:125:PHE:HD1	1.75	0.51
8:CH:86:ILE:CG2	8:CH:133:LEU:HD22	2.40	0.51
10:AJ:8:LEU:CD1	10:AJ:20:ALA:HA	2.40	0.51
25:DA:1484:G:H3'	25:DA:1485:G:C5'	2.38	0.51
10:CJ:32:ALA:H	10:CJ:76:ASN:HD22	1.57	0.51
1:CA:1474:G:C5	1:CA:1475:U:C5	2.98	0.51
38:BR:28:LEU:O	38:BR:28:LEU:HD13	2.11	0.51
1:AA:1056:G:O3'	2:AB:103:THR:CG2	2.59	0.51
1:CA:976:C:N4	1:CA:977:U:O4	2.44	0.51
2:CB:92:TYR:O	2:CB:93:VAL:HG13	2.10	0.51
30:BF:192:LEU:HD21	30:BF:194:MET:HE2	1.93	0.51
6:AF:39:LYS:HG2	6:AF:40:VAL:N	2.24	0.51
1:CA:1204:C:P	19:CS:78:ARG:HH21	2.34	0.51
25:DA:1579:A:H2'	25:DA:1580:A:O4'	2.11	0.51
18:CR:53:ARG:HH11	18:CR:53:ARG:HG2	1.75	0.51
12:CL:5:PRO:O	12:CL:6:THR:C	2.48	0.51
1:CA:459:G:H2'	1:CA:460:G:C8	2.45	0.51
25:BA:469:G:OP1	30:BF:59:TYR:HB3	2.11	0.51
1:AA:103:C:H2'	1:AA:104:G:O4'	2.09	0.51
4:CD:62:GLN:O	4:CD:66:ARG:HD2	2.11	0.51
26:DB:28:C:O2'	26:DB:29:A:H5'	2.09	0.51
25:DA:921:G:H4'	25:DA:2269:A:C6	2.46	0.51
1:CA:669:U:O4	1:CA:686:G:H1'	2.11	0.51
7:AG:32:ARG:O	7:AG:33:ASP:HB2	2.11	0.51
1:CA:985:C:H2'	1:CA:986:C:C6	2.46	0.51
3:CC:17:ASP:OD2	3:CC:18:TRP:N	2.44	0.51
25:DA:1448:G:H5'	25:DA:1449:A:OP1	2.11	0.51
25:DA:271(Y):U:O2'	25:DA:271(Z):C:O5'	2.27	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DF:38:ARG:HG3	30:DF:38:ARG:HH11	1.75	0.51
32:BH:140:LYS:HG2	32:BH:140:LYS:O	2.10	0.51
25:DA:2142:C:O2'	25:DA:2143:C:H5'	2.11	0.51
36:BP:32:THR:HG21	36:BP:37:GLY:CA	2.40	0.51
11:AK:58:PRO:HA	11:AK:90:GLY:HA3	1.93	0.51
29:BE:59:VAL:CG2	29:BE:60:ASN:N	2.68	0.51
25:BA:271(U):G:C2	25:BA:271(V):G:C8	2.99	0.51
29:DE:52:LEU:CD1	29:DE:53:PRO:HD2	2.25	0.51
29:DE:78:LEU:C	29:DE:79:ARG:HD2	2.31	0.51
41:BU:91:ASP:OD2	41:BU:96:ALA:CB	2.57	0.51
42:BV:35:LEU:HB2	42:BV:57:VAL:CG1	2.40	0.51
22:CW:16:U:C3'	22:CW:17:C:H5'	2.33	0.51
45:DY:67:LEU:HD12	45:DY:67:LEU:C	2.25	0.51
25:DA:2468:G:O2'	25:DA:2476:A:C8	2.59	0.51
25:BA:1453:U:H4'	25:BA:1455:G:OP1	2.11	0.51
42:DV:35:LEU:HB2	42:DV:57:VAL:CG1	2.40	0.51
25:BA:359:A:O2'	25:BA:360:G:H5'	2.10	0.51
1:AA:1110:C:H5'	9:AI:16:ARG:NH2	2.25	0.51
1:AA:1125:G:H2'	1:AA:1126:G:C8	2.45	0.51
42:BV:22:VAL:O	42:BV:23:GLU:HB2	2.11	0.51
14:CN:47:LEU:HA	14:CN:50:LYS:HD2	1.93	0.51
25:DA:320:A:H3'	30:DF:136:THR:CG2	2.40	0.51
25:BA:917:A:H2'	25:BA:918:A:C8	2.45	0.51
28:DD:71:ASP:CB	28:DD:103:ARG:HH22	2.21	0.51
35:BO:6:THR:HG22	35:BO:8:LEU:HD22	1.93	0.51
4:AD:150:GLU:HG2	4:AD:151:LYS:H	1.75	0.51
25:DA:1686:C:C2'	25:DA:1687:G:H5'	2.40	0.51
25:DA:587:C:C6	25:DA:671:C:H1'	2.46	0.51
36:BP:7:ARG:O	36:BP:10:PRO:CD	2.54	0.51
32:BH:43:VAL:HG12	32:BH:53:GLU:H	1.75	0.51
25:BA:587:C:C6	25:BA:671:C:H1'	2.45	0.51
5:AE:33:VAL:HG22	5:AE:43:LEU:HD13	1.91	0.51
25:DA:2389:G:H5'	25:DA:2390:U:H5'	1.91	0.51
40:BT:27:THR:OG1	40:BT:28:VAL:O	2.27	0.51
25:DA:2036:C:H6	25:DA:2036:C:C5'	2.14	0.51
25:BA:2336:A:H61	47:B0:43:THR:HG21	1.75	0.51
37:BQ:51:ARG:O	37:BQ:55:VAL:HG12	2.10	0.51
1:CA:821:G:C2'	1:CA:822:U:H5'	2.39	0.51
33:BI:5:LEU:HD12	33:BI:5:LEU:N	2.24	0.51
10:AJ:97:GLU:OE2	10:AJ:97:GLU:HA	2.11	0.51
18:CR:50:ILE:HD12	18:CR:70:ILE:HG21	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:97:GLU:OE2	10:CJ:97:GLU:HA	2.10	0.51
37:DQ:27:VAL:HG23	37:DQ:137:TYR:CE1	2.45	0.51
34:BN:120:LEU:HD11	34:BN:122:VAL:CG2	2.39	0.51
29:DE:118:LYS:H	29:DE:121:ASN:H	1.58	0.51
25:DA:1246:A:P	36:DP:18:ARG:HG3	2.51	0.51
39:BS:83:LYS:HG2	39:BS:105:ALA:HB3	1.90	0.51
43:DW:111:HIS:CG	43:DW:112:GLY:N	2.78	0.51
1:AA:1003:U:O2'	1:AA:1004:G:N7	2.43	0.51
4:AD:107:ARG:HB3	4:AD:174:LEU:CD1	2.40	0.51
49:D2:43:GLN:O	49:D2:44:LEU:CB	2.57	0.51
29:DE:161:GLY:O	29:DE:162:ALA:C	2.49	0.51
48:D1:40:ARG:O	48:D1:40:ARG:HD3	2.11	0.51
25:DA:143:G:H2'	25:DA:143(A):C:C6	2.45	0.51
30:DF:160:ASN:HB3	30:DF:163:VAL:HG23	1.91	0.51
25:BA:556:G:H2'	25:BA:557:U:H6	1.75	0.51
25:DA:556:G:H2'	25:DA:557:U:H6	1.75	0.51
25:DA:1313:U:C2'	25:DA:1313:U:O2	2.58	0.51
12:AL:126:LYS:C	12:AL:128:ALA:H	2.14	0.51
25:DA:2735:G:H2'	25:DA:2736:G:H8	1.75	0.51
1:CA:103:C:O2'	16:CP:25:ARG:O	2.27	0.51
12:AL:75:HIS:HD2	12:AL:77:LEU:HB2	1.76	0.51
12:AL:5:PRO:O	12:AL:6:THR:C	2.48	0.51
11:CK:80:VAL:O	11:CK:80:VAL:HG23	2.09	0.51
25:DA:1582:C:O2'	25:DA:1586:A:C8	2.64	0.51
1:CA:609:U:C2	1:CA:610:G:C8	2.99	0.51
44:BX:89:ILE:O	44:BX:93:GLU:HG2	2.10	0.51
25:BA:2142:C:O2'	25:BA:2143:C:H5'	2.11	0.51
27:BC:45:ALA:O	27:BC:46:LYS:HB2	2.11	0.51
25:BA:773:U:H4'	28:BD:47:GLY:HA3	1.93	0.51
25:BA:1654:A:OP2	25:BA:1654:A:H4'	2.11	0.51
13:CM:91:ARG:HH22	13:CM:103:THR:HG21	1.76	0.51
4:AD:196:LEU:CA	6:CF:16:GLN:HG3	2.39	0.51
20:CT:57:ARG:NH1	20:CT:57:ARG:HB2	2.26	0.51
41:BU:99:ALA:HB2	41:BU:106:PHE:CD1	2.46	0.51
25:DA:271(O):C:O2'	25:DA:271(P):C:H6	1.92	0.51
23:CV:22:A:C2	23:CV:49:C:C5	2.99	0.51
53:B6:9:LEU:HD23	53:B6:10:LEU:N	2.26	0.51
38:DR:63:ARG:NH1	38:DR:80:PHE:HD2	2.08	0.51
26:BB:65:C:N4	26:BB:109:C:H2'	2.23	0.51
29:BE:132:HIS:CD2	29:BE:135:HIS:NE2	2.79	0.51
33:BI:42:SER:C	33:BI:44:LEU:H	2.13	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:102:LYS:C	28:DD:103:ARG:HG2	2.31	0.51
23:AV:53:G:HO2'	23:AV:54:G:P	2.33	0.51
25:DA:857:C:H5'	47:D0:77:ARG:NH2	2.22	0.51
25:BA:2068:U:N3	25:BA:2430:A:C2	2.44	0.51
1:AA:154:A:N6	1:AA:339:A:O2'	2.44	0.51
23:CV:4:G:O2'	23:CV:5:G:O5'	2.28	0.51
30:BF:28:ILE:HG12	30:BF:119:ARG:HH21	1.76	0.51
30:BF:202:PHE:CE1	30:BF:206:ILE:HD13	2.45	0.51
23:AV:66:C:C2'	23:AV:67:C:H5'	2.37	0.51
26:DB:15:A:H5'	26:DB:16:G:C8	2.45	0.51
46:DZ:4:ARG:HE	46:DZ:60:GLU:CG	2.23	0.51
32:DH:98:LEU:HD12	32:DH:102:ALA:O	2.10	0.51
32:DH:148:ILE:O	32:DH:151:ILE:HG12	2.09	0.51
1:AA:451:C:C2	1:AA:452:C:C5	2.99	0.51
2:CB:8:LYS:NZ	2:CB:217:ARG:HH12	2.09	0.51
46:DZ:151:HIS:HB3	46:DZ:170:THR:CG2	2.37	0.51
46:DZ:30:ASN:HA	46:DZ:89:PHE:HE2	1.76	0.51
37:BQ:59:ARG:HG3	37:BQ:59:ARG:HH11	1.75	0.51
32:BH:85:LYS:HE2	32:BH:145:ALA:HA	1.92	0.51
20:AT:33:ILE:CD1	20:AT:62:LEU:CB	2.85	0.51
33:DI:6:LEU:O	33:DI:8:PRO:N	2.43	0.51
36:DP:105:LEU:O	36:DP:106:LEU:HB3	2.11	0.51
36:DP:77:ARG:HB2	36:DP:78:PRO:HD2	1.91	0.51
1:AA:904:G:H1	1:AA:1372:U:H3	1.57	0.51
1:CA:1046:G:C8	1:CA:1048:C:C2	2.98	0.51
39:BS:24:LEU:HB3	39:BS:85:VAL:CG1	2.38	0.51
25:DA:1049:C:O2	25:DA:1049:C:H2'	2.11	0.51
25:BA:1503:U:O2'	25:BA:1504:C:H5'	2.10	0.51
8:CH:23:SER:HB2	8:CH:61:VAL:O	2.10	0.51
25:DA:141:A:H8	25:DA:1408:C:HO2'	1.45	0.51
34:DN:18:ALA:O	34:DN:21:LYS:N	2.38	0.51
25:DA:1000:A:H8	25:DA:1000:A:H5'	1.76	0.51
50:D3:13:ILE:O	50:D3:13:ILE:HG22	2.10	0.51
17:CQ:18:THR:HG23	17:CQ:69:LYS:HE3	1.91	0.51
2:CB:213:LEU:O	2:CB:213:LEU:HD23	2.11	0.51
2:CB:164:VAL:HB	2:CB:186:ALA:HB1	1.91	0.51
2:AB:112:VAL:HG22	2:AB:149:LEU:HD13	1.91	0.51
25:DA:1309:G:P	54:D7:9:ARG:HD2	2.51	0.51
1:AA:683:G:H4'	1:AA:687:A:H1'	1.93	0.51
34:BN:30:ILE:HG23	34:BN:52:VAL:HG11	1.93	0.51
40:DT:129:ARG:NH1	40:DT:131:ALA:O	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2590:A:OP2	28:DD:238:GLY:HA2	2.11	0.51
31:DG:27:ASN:O	31:DG:29:TRP:N	2.43	0.51
25:BA:1168:G:C2	25:BA:1182:A:C2	2.98	0.51
30:DF:139:PHE:CB	30:DF:166:ALA:HB1	2.39	0.51
25:DA:1654:A:H4'	25:DA:1654:A:OP2	2.11	0.51
2:AB:28:PHE:O	2:AB:28:PHE:CD1	2.63	0.51
43:DW:75:TYR:N	43:DW:75:TYR:CD1	2.78	0.51
10:CJ:38:ILE:HG13	10:CJ:38:ILE:O	2.09	0.51
29:DE:72:VAL:O	29:DE:73:GLU:O	2.28	0.51
25:BA:1819:A:O4'	25:BA:1821:A:N7	2.44	0.51
25:BA:109:G:C5	25:BA:110:G:N7	2.78	0.51
42:BV:2:PHE:HE1	42:BV:13:ARG:HD2	1.73	0.51
22:CW:57:G:H2'	22:CW:58:A:C5'	2.40	0.51
37:DQ:16:ARG:NH2	37:DQ:18:LYS:HE3	2.25	0.51
22:AW:76:A:C2	25:BA:2421:G:C6	2.98	0.51
25:DA:869:G:O2'	37:DQ:8:LYS:HG3	2.11	0.51
38:BR:86:ARG:HB3	38:BR:118:GLU:OE2	2.10	0.51
25:BA:2484:G:H2'	25:BA:2485:G:H8	1.75	0.51
39:BS:46:VAL:CG1	39:BS:47:THR:H	2.05	0.51
7:CG:116:ALA:HA	7:CG:119:ARG:HG3	1.93	0.51
25:BA:2302:G:N3	31:BG:128:ARG:HD2	2.25	0.51
53:D6:9:LEU:O	53:D6:25:LYS:HG3	2.10	0.51
8:CH:120:THR:OG1	8:CH:123:GLU:HG3	2.10	0.51
23:AV:31:G:N2	23:AV:42:C:H1'	2.26	0.51
42:DV:27:ALA:O	42:DV:28:GLU:O	2.29	0.51
33:DI:54:GLN:HA	33:DI:57:ARG:CG	2.40	0.51
33:BI:101:LEU:CB	33:BI:109:ILE:HD11	2.39	0.51
32:DH:156:ALA:C	32:DH:158:HIS:H	2.11	0.51
1:AA:458:G:H5''	16:AP:81:ARG:HH21	1.75	0.51
45:BY:26:LYS:HG2	45:BY:27:VAL:HG23	1.92	0.51
25:DA:1952:A:N6	25:DA:1953:A:H61	2.09	0.51
1:CA:1115:G:N2	1:CA:1125:G:H1'	2.26	0.51
31:DG:43:LEU:CD2	31:DG:88:ILE:HD11	2.38	0.51
32:BH:135:GLY:HA3	32:BH:141:VAL:CG2	2.40	0.51
25:DA:379:G:C5	25:DA:380:U:C5	2.98	0.51
47:B0:24:LYS:O	47:B0:25:ARG:HD3	2.10	0.51
25:BA:2230:G:O3'	48:B1:43:TYR:HB2	2.11	0.51
36:DP:108:LYS:C	36:DP:110:TYR:H	2.12	0.51
9:AI:50:LEU:O	9:AI:53:VAL:N	2.41	0.51
25:BA:645:C:C2'	25:BA:645:C:O2	2.57	0.51
11:CK:44:SER:H	11:CK:47:VAL:CG2	2.23	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:B8:23:VAL:CG1	55:B8:46:ARG:HH11	2.24	0.51
55:D8:23:VAL:CG1	55:D8:46:ARG:HH11	2.24	0.51
25:DA:2838:G:H2'	25:DA:2839:G:H8	1.75	0.51
30:BF:164:ARG:HG2	30:BF:164:ARG:NH1	2.24	0.51
16:AP:15:PRO:O	16:AP:41:PRO:HD2	2.11	0.51
22:CY:37:A:H5''	22:CY:38:A:OP2	2.11	0.51
40:BT:132:LYS:O	40:BT:134:GLU:N	2.43	0.51
45:DY:88:LYS:HZ1	45:DY:93:GLY:CA	2.22	0.51
1:CA:338:U:H5''	1:CA:339:A:N7	2.26	0.51
31:DG:65:GLY:O	31:DG:66:GLN:HG3	2.09	0.51
1:CA:1018:G:H3'	1:CA:1019:C:C6	2.45	0.51
25:DA:573:G:O2'	25:DA:574:C:H3'	2.11	0.51
25:DA:1827:C:O2'	25:DA:1828:G:H5'	2.11	0.51
12:AL:126:LYS:HG3	12:AL:127:GLU:N	2.25	0.51
1:CA:486:C:O5'	1:CA:486:C:H6	1.93	0.51
34:BN:26:LEU:CD2	34:BN:30:ILE:HD11	2.41	0.51
34:BN:30:ILE:O	34:BN:34:LEU:HB2	2.10	0.51
17:CQ:74:LEU:HD13	17:CQ:74:LEU:C	2.31	0.51
25:BA:2040:C:H2'	25:BA:2041:U:C6	2.46	0.51
17:CQ:11:VAL:HG23	17:CQ:20:THR:HB	1.93	0.51
1:AA:575:G:H2'	1:AA:576:G:H8	1.74	0.51
31:BG:165:THR:OG1	31:BG:168:GLU:HB2	2.11	0.51
47:D0:11:ARG:CB	47:D0:11:ARG:HH11	2.23	0.51
17:CQ:92:ARG:HA	17:CQ:95:TYR:CE2	2.46	0.51
25:BA:2787:C:O2	29:BE:61:ARG:NH1	2.44	0.51
29:DE:61:ARG:HB3	29:DE:62:PRO:HD3	1.91	0.51
25:DA:271(U):G:C2	25:DA:271(V):G:C8	2.98	0.51
31:BG:2:PRO:CD	51:B4:51:TYR:CD2	2.93	0.51
26:DB:83:G:C5	26:DB:84:C:C5	2.98	0.51
5:CE:101:ILE:HG12	5:CE:101:ILE:O	2.11	0.51
37:DQ:111:GLU:O	37:DQ:115:MET:HG2	2.11	0.51
50:B3:29:ARG:NH1	50:B3:29:ARG:HG3	2.24	0.51
37:BQ:70:PRO:HA	37:BQ:94:VAL:C	2.31	0.51
25:BA:2569:G:O2'	25:BA:2570:G:H5'	2.11	0.51
25:DA:243:U:OP1	55:D8:6:THR:CG2	2.59	0.51
38:DR:52:ILE:O	38:DR:55:ALA:HB3	2.11	0.51
39:DS:90:GLY:C	39:DS:92:TYR:H	2.14	0.51
25:BA:271(T):C:C5'	25:BA:271(T):C:H6	2.18	0.51
33:BI:53:ALA:O	33:BI:57:ARG:CG	2.59	0.51
45:DY:86:ARG:NH1	45:DY:95:LYS:NZ	2.57	0.51
45:DY:96:ILE:HD12	45:DY:99:CYS:HB2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:59:ARG:HG3	12:CL:64:TYR:O	2.10	0.51
23:AV:20:G:N2	23:AV:58:A:N3	2.57	0.51
24:CX:14:A:O2'	24:CX:15:A:OP1	2.24	0.51
25:DA:917:A:H2'	25:DA:918:A:C8	2.45	0.51
25:BA:71:A:C4'	25:BA:72:U:OP2	2.58	0.51
33:DI:82:ARG:O	33:DI:89:TYR:HD1	1.94	0.51
30:DF:116:ASP:OD2	36:DP:5:ASP:N	2.44	0.51
25:DA:2103:C:H3'	25:DA:2104:G:C5'	2.32	0.51
5:AE:63:ARG:C	5:AE:65:ASN:H	2.14	0.51
32:BH:68:THR:C	32:BH:70:THR:H	2.12	0.51
25:BA:2657:A:O2'	32:BH:160:LYS:HE3	2.11	0.51
25:BA:1653:G:O6	38:BR:11:ASN:HB2	2.10	0.51
2:AB:74:LYS:HD2	2:AB:74:LYS:H	1.76	0.51
25:BA:287:C:H2'	25:BA:288:C:O4'	2.11	0.51
47:B0:72:ARG:NE	47:B0:75:LEU:HD13	2.26	0.51
1:CA:1160:A:H5'	9:CI:102:LEU:HD12	1.91	0.51
15:AO:17:ARG:NH1	15:AO:17:ARG:HG3	2.23	0.51
25:BA:800:A:C5	25:BA:802:A:O4'	2.64	0.51
30:DF:177:ALA:HB1	30:DF:178:PRO:CD	2.37	0.51
36:DP:126:VAL:HG22	36:DP:145:PRO:HB2	1.93	0.51
49:D2:69:ARG:O	49:D2:70:GLN:HB3	2.10	0.51
19:AS:16:LEU:HA	19:AS:19:VAL:HB	1.93	0.51
8:AH:86:ILE:CG2	8:AH:133:LEU:HD22	2.40	0.51
43:DW:111:HIS:CD2	43:DW:112:GLY:H	2.28	0.51
25:DA:2290:G:H2'	25:DA:2291:U:O4'	2.11	0.51
4:CD:3:ARG:HG2	4:CD:118:ARG:HD3	1.93	0.51
30:DF:167:ALA:O	30:DF:168:ARG:C	2.49	0.51
31:BG:47:LYS:HD3	31:BG:82:LEU:HG	1.93	0.51
2:CB:69:LEU:HD12	2:CB:70:PHE:N	2.25	0.51
25:BA:1579:A:H2'	25:BA:1580:A:O4'	2.11	0.51
34:DN:38:HIS:NE2	34:DN:50:ASP:OD2	2.43	0.51
27:DC:45:ALA:O	27:DC:46:LYS:HB2	2.11	0.51
25:BA:1317:A:H2'	25:BA:1318:C:H6	1.75	0.51
25:BA:1175:U:O5'	25:BA:1176:G:H5'	2.10	0.51
2:CB:112:VAL:HG22	2:CB:149:LEU:HD13	1.93	0.51
25:BA:573:G:O2'	25:BA:574:C:H3'	2.11	0.51
25:BA:987:G:H2'	25:BA:988:A:O4'	2.11	0.51
11:AK:78:GLN:O	11:AK:103:LEU:HD13	2.11	0.51
1:AA:1471:G:N7	58:AA:1694:PAR:N32	2.59	0.51
47:B0:11:ARG:CB	47:B0:11:ARG:HH11	2.23	0.51
25:DA:2869:G:H2'	25:DA:2870:C:O4'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:40:ALA:C	8:CH:42:GLU:H	2.14	0.51
46:BZ:111:VAL:HG13	46:BZ:111:VAL:O	2.10	0.51
25:DA:2461:C:H2'	25:DA:2462:U:C6	2.46	0.51
32:BH:106:THR:HG22	32:BH:112:PRO:HB3	1.92	0.51
43:BW:47:VAL:HG12	43:BW:47:VAL:O	2.10	0.51
4:AD:9:CYS:SG	4:AD:22:LYS:CD	2.99	0.51
13:AM:76:ALA:HA	13:AM:79:LYS:HD2	1.92	0.51
13:AM:94:ARG:HH21	25:BA:887:A:C1'	2.20	0.51
25:DA:109:G:C5	25:DA:110:G:N7	2.78	0.51
6:AF:35:ALA:HB2	6:AF:67:MET:SD	2.51	0.51
1:AA:1297:G:N2	1:AA:1300:A:O5'	2.43	0.51
4:AD:20:TYR:HE1	6:CF:15:ASP:CB	2.14	0.51
38:BR:63:ARG:NH1	38:BR:80:PHE:HD2	2.08	0.51
25:BA:2171:A:H2'	25:BA:2172:U:C6	2.45	0.51
13:AM:19:LEU:HB3	13:AM:25:ILE:HG21	1.93	0.51
19:CS:43:GLU:O	19:CS:45:VAL:N	2.40	0.51
39:BS:26:LEU:HA	39:BS:39:ILE:HD13	1.93	0.51
25:BA:1594:G:H5'	25:BA:1594:G:C8	2.46	0.51
14:CN:23:ARG:HD2	14:CN:28:GLY:O	2.11	0.51
14:CN:33:VAL:HG12	14:CN:39:LEU:O	2.11	0.51
25:BA:271(H):G:O2'	25:BA:271(I):G:H8	1.94	0.51
31:BG:172:LEU:HG	31:BG:176:LEU:CD1	2.41	0.51
45:BY:96:ILE:HD12	45:BY:99:CYS:HB2	1.92	0.51
39:BS:74:ALA:O	39:BS:75:GLU:C	2.49	0.51
28:DD:190:TYR:O	28:DD:191:ALA:HB2	2.11	0.51
30:BF:116:ASP:OD2	36:BP:5:ASP:N	2.44	0.51
9:AI:8:GLY:HA3	9:AI:76:ALA:O	2.10	0.51
28:DD:7:LYS:O	28:DD:9:TYR:HE1	1.94	0.51
1:CA:916:G:H2'	1:CA:917:C:C6	2.46	0.51
25:BA:1448:G:H5'	25:BA:1449:A:OP1	2.11	0.51
1:CA:1111:C:N4	1:CA:1115:G:N7	2.59	0.51
25:DA:747:U:P	52:D5:3:LYS:HD3	2.51	0.51
32:DH:85:LYS:HE2	32:DH:145:ALA:HA	1.92	0.51
20:AT:33:ILE:HD11	20:AT:62:LEU:C	2.31	0.51
7:AG:27:ILE:HG12	7:AG:43:PHE:HD2	1.76	0.51
15:CO:17:ARG:HG3	15:CO:17:ARG:NH1	2.21	0.51
30:BF:11:VAL:HG12	30:BF:12:LEU:N	2.17	0.51
23:CV:42:C:N3	23:CV:43:G:C8	2.79	0.51
33:BI:6:LEU:O	33:BI:8:PRO:N	2.43	0.51
2:AB:171:ALA:HA	2:AB:174:VAL:HG23	1.93	0.51
29:DE:176:ILE:HD12	29:DE:176:ILE:N	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:114:ILE:HG22	36:BP:127:ALA:CB	2.41	0.51
36:BP:97:PRO:O	36:BP:98:GLU:CG	2.59	0.51
34:DN:120:LEU:HD13	34:DN:122:VAL:HG23	1.89	0.51
39:BS:85:VAL:HG23	39:BS:86:ALA:N	2.25	0.51
34:DN:39:ARG:HG2	34:DN:39:ARG:NH1	2.22	0.51
46:BZ:30:ASN:O	46:BZ:31:ARG:HB3	2.11	0.51
25:BA:1719:G:C2'	25:BA:1720:U:H5'	2.41	0.51
5:AE:14:ARG:NH1	5:AE:129:ILE:HD11	2.26	0.51
25:DA:1324:G:H1'	25:DA:1616:A:H62	1.76	0.51
25:DA:1338:G:N3	25:DA:1393:A:H2	2.08	0.51
30:BF:75:HIS:HE1	30:BF:82:ILE:HD11	1.76	0.51
9:AI:3:GLN:CG	9:AI:20:ARG:HH12	2.23	0.51
25:BA:2721:A:H2'	25:BA:2722:G:C8	2.46	0.51
52:B5:20:ARG:O	52:B5:23:HIS:HB2	2.10	0.51
1:AA:521:G:P	12:AL:115:LYS:HB2	2.50	0.51
25:BA:327:G:H2'	25:BA:328:U:H6	1.76	0.51
8:AH:44:PHE:HA	8:AH:79:VAL:CG1	2.41	0.51
40:DT:64:ARG:NH2	40:DT:103:ARG:HG2	2.26	0.51
12:CL:113:ARG:HH11	12:CL:113:ARG:HG2	1.76	0.51
31:DG:165:THR:OG1	31:DG:168:GLU:HB2	2.11	0.51
43:BW:43:GLY:O	43:BW:44:ALA:C	2.48	0.51
16:AP:6:LEU:HB3	16:AP:17:TYR:CD2	2.46	0.51
25:DA:363(C):G:H2'	25:DA:363(D):G:H8	1.76	0.51
25:BA:910:A:N1	25:BA:2277:G:H1'	2.26	0.51
50:D3:31:LEU:C	50:D3:33:GLN:H	2.14	0.51
42:BV:49:THR:HB	42:BV:50:PRO:CD	2.40	0.51
6:AF:67:MET:CG	6:AF:68:PRO:HD2	2.40	0.51
10:AJ:48:THR:CA	10:AJ:62:HIS:HB3	2.40	0.51
14:AN:21:TYR:HD2	14:AN:22:THR:O	1.94	0.51
19:AS:10:PHE:CZ	19:AS:70:LYS:HE2	2.41	0.51
25:DA:1594:G:H5'	25:DA:1594:G:C8	2.46	0.51
26:DB:83:G:H2'	26:DB:84:C:O5'	2.10	0.51
37:DQ:70:PRO:HA	37:DQ:94:VAL:C	2.32	0.51
25:DA:2127:G:OP1	27:DC:36:LYS:HE2	2.11	0.51
25:BA:858:U:HO2'	25:BA:859:G:C4	1.68	0.51
28:BD:33:LEU:HD12	28:BD:33:LEU:N	2.17	0.51
22:CW:34:G:C2'	22:CW:35:A:O5'	2.59	0.51
29:DE:47:VAL:HG12	29:DE:49:LEU:HD12	1.93	0.51
1:CA:261:G:H5'	1:CA:263:C:H41	1.75	0.51
25:DA:926:A:H2'	25:DA:927:G:H8	1.75	0.51
28:DD:9:TYR:HD1	28:DD:9:TYR:N	1.86	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:15:A:H5'	26:DB:16:G:H8	1.76	0.51
30:DF:3:GLU:HA	30:DF:24:LEU:HB3	1.93	0.51
46:DZ:56:VAL:CG1	46:DZ:57:ILE:N	2.73	0.51
36:DP:38:GLN:CG	36:DP:39:LYS:H	2.04	0.51
25:BA:671:C:O2'	25:BA:672:C:H5'	2.11	0.51
22:AW:50:U:C2	22:AW:65:G:N2	2.79	0.51
25:BA:807:U:O2'	25:BA:808:G:H5'	2.10	0.51
1:CA:319:G:H5''	20:CT:70:SER:CB	2.32	0.51
25:BA:285:C:H5''	25:BA:286:C:OP2	2.11	0.51
55:D8:32:LEU:HB3	55:D8:36:LYS:NZ	2.25	0.51
26:BB:12:C:O2'	47:B0:74:ARG:HB2	2.11	0.51
25:BA:2330:G:N2	25:BA:2386:C:C2	2.79	0.51
29:BE:11:MET:HB3	29:BE:24:THR:HA	1.93	0.51
25:DA:1300:U:O2'	25:DA:1301:A:P	2.69	0.51
25:DA:942:G:H5'	36:DP:35:HIS:HA	1.93	0.51
29:DE:101:ARG:HB2	29:DE:201:THR:CG2	2.41	0.51
25:BA:1493:C:H2'	25:BA:1493:C:O2	2.11	0.51
25:BA:1171:G:H5'	25:BA:1173:G:OP2	2.11	0.51
11:CK:20:TYR:HB2	11:CK:31:THR:O	2.11	0.51
36:BP:144:GLU:N	36:BP:145:PRO:CD	2.72	0.51
36:DP:97:PRO:O	36:DP:98:GLU:CG	2.59	0.51
1:AA:505:C:H41	12:AL:53:ARG:NH2	2.09	0.51
34:DN:53:VAL:HG11	34:DN:130:HIS:HE1	1.76	0.51
9:CI:18:PHE:O	9:CI:61:ALA:HA	2.10	0.51
56:D9:9:ARG:HA	56:D9:14:CYS:SG	2.50	0.51
6:CF:39:LYS:HG2	6:CF:40:VAL:N	2.23	0.51
20:AT:57:ARG:HB2	20:AT:57:ARG:NH1	2.26	0.51
8:CH:85:ARG:HD3	8:CH:86:ILE:N	2.26	0.51
28:BD:210:GLY:C	28:BD:212:SER:H	2.14	0.51
22:CY:33:U:H5''	22:CY:34:G:OP2	2.11	0.51
29:BE:161:GLY:O	29:BE:162:ALA:C	2.49	0.51
4:AD:108:LEU:HB3	4:AD:110:PHE:HE1	1.70	0.51
25:BA:1609:A:C2	25:BA:1616:A:C4	2.99	0.51
1:CA:1258:C:HO2'	1:CA:1260:A:H8	1.57	0.51
30:BF:75:HIS:CE1	30:BF:82:ILE:HD11	2.46	0.51
3:AC:59:ARG:HG2	3:AC:64:VAL:HG12	1.93	0.51
25:DA:71:A:C4'	25:DA:72:U:OP2	2.59	0.51
3:CC:124:ILE:HG12	3:CC:130:VAL:HG22	1.93	0.51
23:AV:32:G:H1	23:AV:40:C:N4	2.09	0.51
33:BI:131:LYS:HG3	33:BI:132:PRO:CD	2.41	0.51
1:AA:967:C:C2	1:AA:1197:G:C2	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:48:LEU:HA	13:CM:52:GLU:OE1	2.11	0.51
35:DO:13:ASN:HD21	35:DO:96:THR:HG23	1.75	0.51
8:CH:67:PRO:O	8:CH:68:ARG:O	2.29	0.51
8:AH:64:LYS:HG2	8:AH:79:VAL:HG21	1.93	0.51
25:DA:2236:C:C2'	25:DA:2237:G:H5'	2.41	0.51
30:DF:202:PHE:CE1	30:DF:206:ILE:HD13	2.46	0.51
38:BR:33:ARG:HG3	38:BR:115:GLU:CB	2.41	0.51
25:DA:1151:G:H4'	41:DU:81:HIS:CD2	2.46	0.51
11:CK:80:VAL:HG13	11:CK:103:LEU:CD1	2.42	0.51
25:BA:118:A:H5'	25:BA:119:A:H8	1.76	0.51
25:DA:65:C:O2'	25:DA:66:C:H5'	2.11	0.51
44:BX:59:VAL:N	44:BX:76:ARG:O	2.40	0.51
25:BA:1641:A:H2'	25:BA:1642:G:O4'	2.10	0.51
1:CA:1230:C:H4'	9:CI:36:TYR:OH	2.11	0.51
25:BA:1124:C:H1'	56:B9:36:GLN:OE1	2.10	0.51
33:DI:23:PRO:HB3	33:DI:27:ARG:NH1	2.26	0.51
20:CT:8:ARG:HH11	20:CT:8:ARG:HG3	1.76	0.51
28:BD:65:ILE:HD13	28:BD:65:ILE:O	2.11	0.51
29:BE:72:VAL:O	29:BE:73:GLU:O	2.28	0.50
29:DE:57:LYS:C	29:DE:59:VAL:H	2.13	0.50
25:DA:952:G:O6	25:DA:953:A:N6	2.42	0.50
41:BU:90:VAL:HG22	42:BV:39:LEU:HG	1.91	0.50
22:CW:58:A:C2	22:CW:61:C:C2	2.98	0.50
23:CV:17:C:OP1	23:CV:62:C:H5'	2.12	0.50
45:DY:28:LYS:O	45:DY:29:GLU:C	2.50	0.50
45:DY:38:ILE:O	45:DY:39:VAL:HB	2.11	0.50
26:DB:83:G:H5''	50:D3:52:HIS:NE2	2.26	0.50
25:DA:359:A:O2'	25:DA:360:G:H5'	2.10	0.50
11:CK:99:GLN:NE2	11:CK:105:VAL:HG21	2.26	0.50
25:DA:2376:A:N6	39:DS:92:TYR:CE2	2.78	0.50
33:BI:18:VAL:HG12	33:BI:18:VAL:O	2.11	0.50
28:BD:30:GLU:CD	28:BD:63:ARG:HH21	2.14	0.50
3:AC:14:ILE:O	3:AC:15:THR:C	2.49	0.50
28:DD:112:GLN:N	28:DD:115:GLN:NE2	2.60	0.50
39:DS:74:ALA:O	39:DS:75:GLU:C	2.49	0.50
33:BI:92:VAL:HG11	33:BI:120:ILE:CG1	2.40	0.50
33:BI:82:ARG:O	33:BI:89:TYR:HD1	1.94	0.50
44:DX:71:GLY:C	44:DX:72:LYS:HD2	2.31	0.50
6:AF:87:ARG:C	6:AF:88:VAL:HG23	2.30	0.50
25:BA:2443:C:O2'	25:BA:2444:G:H5'	2.11	0.50
25:DA:291:C:N4	25:DA:349:G:H1	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:32:ALA:H	10:AJ:76:ASN:HD22	1.57	0.50
4:AD:57:ARG:HG2	4:AD:202:LEU:HD22	1.93	0.50
15:CO:87:ILE:HG22	15:CO:88:ARG:N	2.16	0.50
34:DN:58:ASP:OD1	34:DN:124:ALA:HB1	2.11	0.50
25:DA:365:C:C6	25:DA:365:C:H5'	2.32	0.50
40:DT:6:LEU:HA	40:DT:9:LEU:HD12	1.93	0.50
36:BP:108:LYS:C	36:BP:110:TYR:H	2.12	0.50
36:BP:84:ASN:C	36:BP:86:LYS:N	2.64	0.50
39:BS:24:LEU:CB	39:BS:85:VAL:HG12	2.37	0.50
37:BQ:33:GLY:HA2	37:BQ:105:GLU:HA	1.92	0.50
37:BQ:65:PHE:HB2	37:BQ:105:GLU:CG	2.38	0.50
46:BZ:135:GLU:HG2	46:BZ:136:PHE:HD2	1.75	0.50
25:DA:1042:G:H1	25:DA:1112:G:H22	1.58	0.50
25:BA:1484:G:H3'	25:BA:1485:G:C5'	2.38	0.50
25:BA:1503:U:H2'	25:BA:1504:C:C6	2.46	0.50
47:B0:6:GLY:O	47:B0:7:LEU:HD23	2.12	0.50
1:CA:74:C:H42	1:CA:88:G:H1	1.59	0.50
25:DA:2320:A:C5	25:DA:2333:A:C6	2.99	0.50
25:BA:2755:C:O2'	25:BA:2756:U:H2'	2.12	0.50
1:AA:85:U:H5''	1:AA:86:C:H5'	1.93	0.50
25:BA:1335:U:H2'	25:BA:1336:A:H8	1.76	0.50
3:AC:22:TRP:CH2	3:AC:32:LEU:HB3	2.46	0.50
34:BN:53:VAL:HG11	34:BN:130:HIS:HE1	1.76	0.50
1:CA:347:C:C2	1:CA:351:A:N6	2.79	0.50
1:AA:1307:C:H2'	1:AA:1308:C:C6	2.44	0.50
2:AB:213:LEU:HD23	2:AB:213:LEU:O	2.11	0.50
25:BA:2710:C:OP1	38:BR:15:SER:HB2	2.11	0.50
18:AR:36:ASN:HD22	18:AR:39:VAL:HG21	1.75	0.50
43:DW:43:GLY:O	43:DW:44:ALA:C	2.49	0.50
20:AT:13:LEU:HD12	20:AT:13:LEU:O	2.11	0.50
25:BA:2236:C:C2'	25:BA:2237:G:H5'	2.41	0.50
38:DR:33:ARG:HG3	38:DR:115:GLU:CB	2.41	0.50
25:BA:2869:G:H2'	25:BA:2870:C:O4'	2.11	0.50
1:AA:391:G:O2'	1:AA:393:C:OP1	2.25	0.50
25:DA:807:U:O2'	25:DA:808:G:H5'	2.10	0.50
42:DV:89:GLN:OE1	42:DV:90:PRO:HD2	2.11	0.50
1:AA:309:C:O2'	1:AA:310:A:H5'	2.11	0.50
25:BA:1688:U:H1'	25:BA:1701:A:C6	2.45	0.50
34:BN:104:LYS:HB2	34:BN:117:PHE:CE1	2.45	0.50
25:DA:402:A:H2'	25:DA:403:U:H5'	1.94	0.50
31:DG:76:SER:HB3	31:DG:84:LYS:H	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2810:A:H2'	29:BE:61:ARG:NH2	2.26	0.50
29:BE:78:LEU:C	29:BE:79:ARG:HD2	2.31	0.50
20:CT:50:GLU:CA	20:CT:100:ILE:HG21	2.35	0.50
25:DA:2846:G:OP2	40:DT:54:ARG:HB2	2.11	0.50
25:BA:2075:U:C5	25:BA:2238:G:C4	2.99	0.50
23:CV:59:A:C5	23:CV:62:C:C5	3.00	0.50
45:DY:28:LYS:C	45:DY:38:ILE:HB	2.32	0.50
37:DQ:111:GLU:OE2	37:DQ:133:ARG:NH2	2.44	0.50
50:B3:29:ARG:HB2	50:B3:33:GLN:NE2	2.27	0.50
41:DU:104:GLN:CB	42:DV:44:LYS:NZ	2.75	0.50
39:BS:61:ASN:O	39:BS:62:LYS:HG2	2.10	0.50
39:BS:93:LYS:CG	39:BS:93:LYS:O	2.60	0.50
22:CW:76:A:C2	25:DA:2421:G:C5	2.99	0.50
53:D6:24:GLU:O	53:D6:25:LYS:HB2	2.11	0.50
2:CB:40:HIS:CB	2:CB:190:THR:HG21	2.41	0.50
25:DA:2712:U:OP1	25:DA:2714:G:H4'	2.11	0.50
33:DI:120:ILE:HG22	33:DI:122:GLU:H	1.76	0.50
33:DI:88:ILE:CD1	33:DI:123:LEU:H	2.22	0.50
15:AO:64:ARG:NH2	25:BA:715:G:OP2	2.44	0.50
37:BQ:52:VAL:O	37:BQ:56:ARG:HB2	2.10	0.50
2:AB:57:PHE:HD2	2:AB:185:ILE:HD11	1.72	0.50
45:BY:38:ILE:O	45:BY:39:VAL:HB	2.10	0.50
25:BA:352:G:O2'	25:BA:353:G:O5'	2.29	0.50
41:DU:25:TRP:CG	41:DU:26:GLY:N	2.75	0.50
40:BT:90:GLN:HA	40:BT:92:GLY:H	1.76	0.50
16:CP:53:VAL:HG12	16:CP:79:VAL:HG22	1.92	0.50
31:DG:137:GLU:HG2	31:DG:152:LEU:HD11	1.94	0.50
46:BZ:144:LEU:HA	46:BZ:148:ASP:HB3	1.94	0.50
28:DD:181:GLU:CA	28:DD:272:ALA:HB3	2.33	0.50
25:DA:2336:A:H61	47:D0:43:THR:HG21	1.76	0.50
23:AV:9:G:N3	23:AV:46:G:H2'	2.26	0.50
31:BG:137:GLU:HG2	31:BG:152:LEU:HD11	1.94	0.50
31:BG:39:ILE:HG23	31:BG:92:VAL:CG1	2.40	0.50
2:CB:82:ARG:O	2:CB:86:GLU:HG3	2.12	0.50
25:DA:2124:G:C5'	27:DC:177:LYS:HA	2.41	0.50
36:BP:105:LEU:O	36:BP:106:LEU:HB3	2.11	0.50
24:AX:17:U:O2'	24:AX:18:G:H5'	2.11	0.50
25:DA:1049:C:N4	25:DA:1111:A:C2	2.79	0.50
25:DA:1503:U:H2'	25:DA:1504:C:C6	2.47	0.50
11:CK:13:GLN:HB3	11:CK:75:TYR:O	2.11	0.50
2:CB:96:ARG:NH1	2:CB:148:TYR:HE1	2.09	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:150:LYS:HG3	3:AC:169:ALA:HB2	1.93	0.50
1:AA:83:A:OP1	1:AA:85:U:O2'	2.23	0.50
25:DA:955:C:H5'	25:DA:956:G:OP2	2.11	0.50
25:BA:1813:G:H1'	28:BD:50:THR:OG1	2.11	0.50
44:BX:64:LYS:HD3	44:BX:73:ARG:CZ	2.40	0.50
9:CI:3:GLN:CG	9:CI:20:ARG:HH12	2.24	0.50
29:BE:119:ARG:HD2	29:BE:120:TRP:CD1	2.46	0.50
1:CA:897:U:H2'	1:CA:898:U:O4'	2.11	0.50
48:D1:58:ILE:HD12	48:D1:91:LYS:HA	1.93	0.50
25:DA:987:G:H2'	25:DA:988:A:O4'	2.11	0.50
25:BA:2735:G:H2'	25:BA:2736:G:H8	1.75	0.50
1:AA:784:U:H2'	1:AA:785:A:H8	1.76	0.50
7:CG:16:LEU:HD11	9:CI:42:ARG:HG3	1.93	0.50
28:DD:30:GLU:CD	28:DD:63:ARG:HH21	2.14	0.50
30:DF:127:GLU:HB2	30:DF:196:LEU:HD21	1.91	0.50
27:BC:74:VAL:HG23	27:BC:91:ALA:HB2	1.93	0.50
12:CL:119:LYS:C	12:CL:120:TYR:HD1	2.14	0.50
1:AA:674:G:H1'	1:AA:679:A:N6	2.26	0.50
25:DA:2040:C:H2'	25:DA:2041:U:C6	2.46	0.50
25:DA:271(Y):U:O2'	25:DA:271(Z):C:C6	2.64	0.50
1:CA:70:G:H1	1:CA:92:U:H3	1.58	0.50
4:CD:128:VAL:O	4:CD:129:ASN:C	2.48	0.50
1:AA:292:G:N2	1:AA:295:A:OP2	2.45	0.50
28:BD:106:ILE:O	28:BD:106:ILE:HG23	2.11	0.50
1:CA:47:C:H6	1:CA:360:U:H2'	1.77	0.50
29:BE:100:GLU:O	29:BE:172:VAL:HG23	2.12	0.50
1:CA:299:U:H2'	1:CA:300:G:C8	2.46	0.50
30:BF:38:ARG:HH11	30:BF:38:ARG:HG3	1.75	0.50
25:BA:1502:C:O2	25:BA:1502:C:H2'	2.12	0.50
16:AP:76:GLN:HG2	16:AP:76:GLN:O	2.10	0.50
2:CB:28:PHE:CD1	2:CB:28:PHE:O	2.65	0.50
3:AC:127:ARG:HH11	3:AC:127:ARG:HG2	1.76	0.50
1:CA:317:C:O2'	20:CT:23:ARG:HB2	2.10	0.50
8:AH:40:ALA:C	8:AH:42:GLU:H	2.15	0.50
28:BD:2:ALA:O	28:BD:3:VAL:HB	2.10	0.50
25:DA:596:G:H2'	25:DA:597:U:O4'	2.12	0.50
1:AA:631:A:H2'	1:AA:632:G:C8	2.46	0.50
4:AD:17:VAL:HG12	4:AD:18:LYS:N	2.27	0.50
29:BE:47:VAL:HG12	29:BE:49:LEU:HD12	1.93	0.50
13:AM:91:ARG:NH1	13:AM:96:LEU:HD13	2.26	0.50
50:D3:29:ARG:HB2	50:D3:33:GLN:HE22	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BU:104:GLN:CB	42:BV:44:LYS:NZ	2.75	0.50
42:BV:2:PHE:CE2	42:BV:4:ILE:HG13	2.45	0.50
23:CV:65:G:C2	23:CV:66:C:C2	3.00	0.50
25:DA:758:C:O2'	25:DA:1981:A:N3	2.33	0.50
50:B3:31:LEU:C	50:B3:33:GLN:H	2.14	0.50
38:DR:77:ARG:C	38:DR:79:LEU:N	2.64	0.50
39:BS:18:ILE:O	39:BS:18:ILE:HG23	2.11	0.50
1:AA:261:G:O2'	1:AA:262:C:OP2	2.29	0.50
42:BV:27:ALA:O	42:BV:28:GLU:O	2.29	0.50
25:BA:1658:C:OP1	29:BE:132:HIS:O	2.29	0.50
31:BG:32:PRO:HB2	31:BG:172:LEU:HD13	1.92	0.50
49:D2:46:GLN:O	49:D2:49:LYS:HB2	2.12	0.50
1:AA:1047:U:H1'	1:AA:1048:C:OP2	2.11	0.50
42:DV:18:LEU:N	42:DV:18:LEU:HD12	2.27	0.50
28:BD:190:TYR:O	28:BD:191:ALA:HB2	2.10	0.50
39:DS:26:LEU:HA	39:DS:39:ILE:HD13	1.93	0.50
33:DI:129:THR:O	33:DI:130:TYR:HB2	2.11	0.50
36:DP:5:ASP:OD2	36:DP:6:LEU:HD23	2.12	0.50
36:DP:7:ARG:HE	36:DP:7:ARG:HA	1.76	0.50
5:AE:34:VAL:O	5:AE:41:VAL:HA	2.12	0.50
41:BU:66:ASN:O	41:BU:70:ARG:HB2	2.12	0.50
25:DA:2443:C:O2'	25:DA:2444:G:H5'	2.11	0.50
2:AB:207:ALA:HB1	2:AB:209:ARG:HG2	1.92	0.50
5:AE:11:ILE:HG21	5:AE:105:VAL:HG22	1.94	0.50
2:CB:165:VAL:O	2:CB:187:LEU:O	2.29	0.50
2:CB:57:PHE:CE2	2:CB:185:ILE:HD11	2.47	0.50
46:DZ:30:ASN:O	46:DZ:31:ARG:HB3	2.11	0.50
33:BI:5:LEU:O	33:BI:6:LEU:HD23	2.11	0.50
29:BE:30:PRO:HA	29:BE:92:THR:HG22	1.93	0.50
29:BE:2:LYS:HE2	29:BE:95:ILE:HG23	1.92	0.50
31:BG:83:ARG:O	31:BG:84:LYS:HB2	2.10	0.50
38:DR:28:LEU:HA	38:DR:34:ILE:HG13	1.93	0.50
38:DR:28:LEU:HD13	38:DR:28:LEU:O	2.11	0.50
25:DA:6:A:O2'	34:DN:130:HIS:CB	2.58	0.50
46:DZ:103:ARG:HB2	46:DZ:136:PHE:CD1	2.46	0.50
25:DA:760:G:H2'	25:DA:761:A:H5'	1.93	0.50
1:AA:660:U:O2	1:AA:760:A:O2'	2.29	0.50
25:DA:1311:G:C6	54:D7:47:ARG:NH2	2.80	0.50
3:CC:148:GLY:CA	3:CC:203:PHE:HB3	2.41	0.50
5:CE:14:ARG:CZ	5:CE:129:ILE:HD11	2.41	0.50
12:AL:18:VAL:O	12:AL:19:ARG:HB3	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2755:C:O2'	25:DA:2756:U:H2'	2.12	0.50
25:DA:956:G:OP2	37:DQ:14:ARG:NH2	2.44	0.50
12:CL:18:VAL:O	12:CL:19:ARG:HB3	2.11	0.50
1:CA:964:G:H1	1:CA:1199:C:H42	1.60	0.50
25:BA:816:C:H2'	25:BA:817:C:H6	1.76	0.50
30:BF:32:LEU:C	30:BF:32:LEU:HD23	2.32	0.50
52:B5:46:CYS:HB3	52:B5:49:CYS:HB2	1.92	0.50
53:D6:32:ASN:HD22	53:D6:33:LYS:HE3	1.75	0.50
25:BA:1578:U:C2'	25:BA:1579:A:H5''	2.40	0.50
12:AL:76:ASN:OD1	12:AL:108:ALA:HB3	2.11	0.50
25:BA:1327:C:H2'	25:BA:1328:G:O4'	2.12	0.50
48:D1:94:LEU:O	48:D1:96:LYS:N	2.45	0.50
3:AC:17:ASP:OD2	3:AC:18:TRP:N	2.44	0.50
42:BV:89:GLN:OE1	42:BV:90:PRO:HD2	2.11	0.50
25:BA:271(Y):U:O2'	25:BA:271(Z):C:O5'	2.29	0.50
25:BA:185:U:H4'	25:BA:218:A:H4'	1.94	0.50
25:DA:2097:C:H2'	25:DA:2098:U:O4'	2.11	0.50
1:CA:819:G:C6	1:CA:828:G:C6	2.99	0.50
32:DH:35:VAL:HG21	32:DH:75:ALA:HB2	1.94	0.50
25:DA:1493:C:O2	25:DA:1493:C:H2'	2.11	0.50
43:BW:75:TYR:N	43:BW:75:TYR:CD1	2.78	0.50
1:AA:1141:U:OP1	2:AB:133:LYS:NZ	2.44	0.50
29:DE:100:GLU:O	29:DE:172:VAL:HG23	2.12	0.50
25:BA:2635:C:H5''	29:BE:78:LEU:O	2.10	0.50
29:BE:59:VAL:HG13	29:BE:60:ASN:N	2.27	0.50
32:DH:17:VAL:O	32:DH:45:VAL:HG23	2.09	0.50
22:CW:2:C:C4	22:CW:3:C:C5	3.00	0.50
23:CV:53:G:O2'	23:CV:54:G:OP1	2.29	0.50
25:DA:327:G:H2'	25:DA:328:U:H6	1.77	0.50
25:BA:869:G:H2'	25:BA:870:A:C8	2.45	0.50
39:BS:34:HIS:NE2	39:BS:54:LEU:HB2	2.25	0.50
45:BY:55:TYR:CB	45:BY:56:PRO:HD2	2.17	0.50
13:CM:66:LEU:O	13:CM:70:LEU:N	2.23	0.50
5:CE:63:ARG:C	5:CE:65:ASN:H	2.14	0.50
10:CJ:57:LYS:HE3	10:CJ:60:ARG:NH2	2.26	0.50
29:BE:132:HIS:O	29:BE:135:HIS:CD2	2.64	0.50
31:BG:33:ARG:HB2	31:BG:162:THR:HG21	1.94	0.50
25:DA:90:U:H1'	25:DA:92:A:C8	2.45	0.50
25:BA:1952:A:C2	35:BO:22:ILE:HG23	2.46	0.50
30:BF:20:LEU:HD22	30:BF:203:GLN:OE1	2.12	0.50
13:AM:125:ARG:HG3	22:AY:38:A:HO2'	1.71	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BZ:8:TYR:N	46:BZ:8:TYR:CD1	2.80	0.50
14:CN:12:ARG:HB3	14:CN:14:PRO:HG2	1.92	0.50
25:BA:1528(A):A:N6	25:BA:1541:G:O2'	2.39	0.50
25:DA:352:G:O2'	25:DA:353:G:O5'	2.29	0.50
25:BA:471:A:H2'	25:BA:472:A:C5'	2.42	0.50
31:DG:88:ILE:CD1	31:DG:89:GLY:N	2.68	0.50
25:BA:2329:G:C2'	25:BA:2330:G:H5'	2.41	0.50
4:CD:9:CYS:SG	4:CD:22:LYS:CD	2.99	0.50
47:D0:24:LYS:O	47:D0:25:ARG:HD3	2.10	0.50
25:DA:1171:G:H5'	25:DA:1173:G:OP2	2.11	0.50
33:DI:5:LEU:O	33:DI:6:LEU:HD23	2.12	0.50
49:B2:17:SER:HB3	49:B2:20:GLU:HB3	1.93	0.50
25:DA:2875:C:H4'	40:DT:5:ALA:HB2	1.93	0.50
37:BQ:12:GLN:NE2	37:BQ:72:LYS:HG3	2.27	0.50
3:CC:34:LEU:HD12	14:CN:25:VAL:HG13	1.94	0.50
3:AC:34:LEU:HD12	14:AN:25:VAL:HG13	1.93	0.50
46:BZ:103:ARG:HB2	46:BZ:136:PHE:CD1	2.46	0.50
35:BO:107:ARG:HE	40:BT:35:LYS:HZ2	1.57	0.50
20:AT:84:LEU:HD13	20:AT:84:LEU:C	2.31	0.50
25:BA:2838:G:H2'	25:BA:2839:G:C8	2.47	0.50
30:BF:167:ALA:O	30:BF:168:ARG:C	2.49	0.50
1:CA:1056:G:O4'	2:CB:104:ASN:ND2	2.44	0.50
25:DA:1479:G:H5'	25:DA:1558:A:C2	2.47	0.50
6:CF:75:LEU:C	6:CF:75:LEU:HD23	2.32	0.50
25:DA:1609:A:C2	25:DA:1616:A:C4	2.99	0.50
1:CA:581:U:H2'	1:CA:582:C:H6	1.77	0.50
3:AC:148:GLY:CA	3:AC:203:PHE:HB3	2.41	0.50
4:AD:8:VAL:O	4:AD:10:ARG:N	2.31	0.50
1:AA:502:C:H2'	1:AA:503:A:O4'	2.12	0.50
25:DA:1882:C:H2'	25:DA:1882:C:O2	2.10	0.50
18:AR:61:LYS:O	18:AR:65:ILE:HG13	2.11	0.50
25:BA:2885:C:C2	25:BA:2886:G:H1'	2.45	0.50
25:BA:1385:G:OP1	25:BA:1385:G:H4'	2.10	0.50
1:CA:564:G:N1	1:CA:742:A:OP2	2.41	0.50
1:AA:1136:G:H2'	1:AA:1137:G:C8	2.47	0.50
25:BA:271(W):G:O6	25:BA:271(X):G:N1	2.45	0.50
1:CA:76:G:O2'	1:CA:77:G:N2	2.44	0.50
25:DA:2282:G:O2'	25:DA:2283:C:OP2	2.28	0.50
21:CU:2:GLY:O	21:CU:4:GLY:N	2.43	0.50
25:BA:596:G:H2'	25:BA:597:U:O4'	2.12	0.50
1:CA:227:G:H2'	1:CA:228:C:H6	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DS:73:LEU:O	39:DS:73:LEU:HD23	2.12	0.50
13:CM:76:ALA:HA	13:CM:79:LYS:HD2	1.93	0.50
40:DT:29:ARG:CZ	40:DT:30:VAL:H	2.25	0.50
13:AM:94:ARG:HH21	25:BA:887:A:C2'	1.92	0.50
25:DA:952:G:N1	25:DA:953:A:C5	2.80	0.50
20:CT:100:ILE:CD1	20:CT:100:ILE:N	2.66	0.50
25:BA:109:G:N3	25:BA:110:G:C8	2.79	0.50
40:DT:55:ASN:O	40:DT:57:PHE:O	2.30	0.50
25:DA:307:G:C3'	25:DA:307:G:C8	2.93	0.50
37:BQ:4:PRO:O	37:BQ:6:ARG:N	2.40	0.50
1:CA:1281:G:O2'	1:CA:1282:U:O5'	2.30	0.50
25:DA:1453:U:H4'	25:DA:1455:G:OP1	2.11	0.50
25:DA:2700:C:O2'	25:DA:2701:C:H5'	2.10	0.50
19:CS:60:VAL:HG22	19:CS:61:TYR:O	2.12	0.50
1:AA:259:U:C3'	1:AA:260:G:H5'	2.41	0.50
1:AA:1088:G:C4	1:AA:1089:C:C5	2.99	0.50
25:BA:926:A:H2'	25:BA:927:G:H8	1.75	0.50
4:CD:149:ALA:O	4:CD:153:ARG:HG3	2.11	0.50
1:AA:338:U:H5''	1:AA:339:A:C8	2.46	0.50
25:BA:2712:U:OP1	25:BA:2714:G:H4'	2.11	0.50
33:DI:136:VAL:HG22	33:DI:136:VAL:O	2.11	0.50
25:DA:1202:C:C2'	25:DA:1203:G:H5'	2.41	0.50
36:DP:23:PRO:C	36:DP:33:ARG:NH1	2.65	0.50
36:DP:21:ARG:CD	36:DP:29:LYS:HE3	2.35	0.50
25:DA:2186:G:O6	25:DA:2187:G:O6	2.30	0.50
46:BZ:4:ARG:HE	46:BZ:60:GLU:CG	2.23	0.50
25:BA:291:C:N4	25:BA:349:G:H1	2.10	0.50
53:B6:20:ASN:ND2	53:B6:21:TYR:N	2.59	0.50
16:CP:53:VAL:CG1	16:CP:79:VAL:HG22	2.41	0.50
31:DG:31:VAL:CG2	31:DG:32:PRO:HD2	2.39	0.50
25:BA:1300:U:O2'	25:BA:1301:A:P	2.69	0.50
28:DD:172:TYR:CD1	28:DD:186:HIS:CA	2.93	0.50
23:AV:14:A:H1'	23:AV:23:G:H22	1.74	0.50
1:AA:1140:C:O2'	1:AA:1142:G:OP1	2.22	0.50
29:BE:178:GLU:HG3	29:BE:179:GLU:OE1	2.12	0.50
29:BE:3:GLY:O	29:BE:4:ILE:CB	2.58	0.50
25:DA:2124:G:O2'	27:DC:40:THR:O	2.27	0.50
29:BE:118:LYS:H	29:BE:121:ASN:H	1.58	0.50
10:CJ:24:VAL:HG21	10:CJ:37:PRO:HG3	1.92	0.50
34:DN:15:LEU:HB3	34:DN:136:GLU:HA	1.93	0.50
34:DN:26:LEU:HG	34:DN:30:ILE:HD11	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1024:G:C3'	25:DA:1025:G:H5''	2.36	0.50
22:AW:16:U:H3'	22:AW:16:U:H6	1.77	0.50
22:AW:16:U:C5	22:AW:18:G:H3'	2.45	0.50
2:AB:134:GLU:HA	2:AB:137:ARG:CB	2.42	0.50
43:BW:111:HIS:CD2	43:BW:112:GLY:H	2.28	0.50
43:BW:68:ARG:HD2	43:BW:110:LYS:HB3	1.92	0.50
46:DZ:101:PRO:HB2	46:DZ:136:PHE:HB3	1.93	0.50
46:DZ:136:PHE:CD1	46:DZ:137:ILE:N	2.80	0.50
25:BA:1049:C:O2	25:BA:1049:C:H2'	2.11	0.50
29:BE:134:ILE:O	29:BE:134:ILE:CG1	2.59	0.50
25:BA:2419:U:O4	55:B8:30:ARG:NH1	2.45	0.50
25:DA:1719:G:C2'	25:DA:1720:U:H5'	2.41	0.50
25:BA:955:C:H5'	25:BA:956:G:OP2	2.11	0.50
1:CA:1005:C:H1'	1:CA:1017:A:H2	1.77	0.50
11:AK:20:TYR:O	11:AK:30:VAL:HA	2.11	0.50
40:BT:83:ILE:HG13	40:BT:84:GLN:N	2.25	0.50
30:DF:75:HIS:CE1	30:DF:82:ILE:HD11	2.46	0.50
25:BA:2887:U:H2'	25:BA:2888:C:C6	2.47	0.50
25:BA:2734:A:H5'	25:BA:2735:G:OP2	2.12	0.50
2:AB:31:TYR:N	2:AB:31:TYR:CD2	2.80	0.50
28:DD:130:ALA:C	28:DD:131:LEU:HD12	2.32	0.50
1:AA:408:G:O2'	1:AA:423:G:N2	2.44	0.50
3:AC:127:ARG:HD2	3:AC:127:ARG:N	2.27	0.50
35:DO:39:ILE:HG12	35:DO:60:ALA:O	2.12	0.50
17:AQ:92:ARG:HA	17:AQ:95:TYR:CE2	2.47	0.50
1:CA:551:G:N2	1:CA:860:C:C2	2.79	0.50
1:CA:1003:U:O2'	1:CA:1004:G:N7	2.43	0.50
1:CA:773:A:N6	1:CA:774:G:C6	2.80	0.50
6:AF:42:GLU:C	6:AF:44:GLY:H	2.14	0.50
25:DA:1502:C:O2	25:DA:1502:C:H2'	2.12	0.50
25:BA:908:C:OP1	37:BQ:22:LYS:HB2	2.12	0.50
25:BA:2461:C:H2'	25:BA:2462:U:C6	2.46	0.50
31:DG:83:ARG:O	31:DG:84:LYS:HB2	2.10	0.50
29:BE:70:ALA:O	29:BE:71:GLY:C	2.50	0.50
25:DA:2262:U:H2'	25:DA:2263:C:C5'	2.42	0.50
25:DA:910:A:H2	25:DA:2264:C:O2	1.95	0.50
25:DA:109:G:N3	25:DA:110:G:C8	2.79	0.50
42:BV:5:VAL:CG2	42:BV:6:LYS:N	2.74	0.50
6:AF:75:LEU:HD23	6:AF:75:LEU:C	2.32	0.50
25:DA:271(Q):G:O2'	25:DA:271(R):G:P	2.69	0.50
37:BQ:111:GLU:O	37:BQ:115:MET:HG2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BQ:111:GLU:OE2	37:BQ:133:ARG:NH2	2.44	0.50
44:DX:27:THR:HG22	44:DX:80:ILE:CB	2.18	0.50
1:CA:1280:A:O3'	1:CA:1281:G:H4'	2.12	0.50
39:BS:17:ARG:HH21	39:BS:90:GLY:N	2.10	0.50
39:BS:90:GLY:C	39:BS:92:TYR:H	2.14	0.50
25:BA:614(A):U:H4'	25:BA:614(B):G:H5''	1.93	0.50
26:BB:15:A:H5'	26:BB:16:G:H8	1.76	0.50
1:AA:1115:G:C2	1:AA:1124:G:C2	3.00	0.50
31:DG:111:LEU:O	31:DG:114:ILE:HG13	2.12	0.50
39:DS:18:ILE:O	39:DS:18:ILE:HG23	2.11	0.50
25:BA:2298:A:H61	25:BA:2318:G:C2'	2.24	0.50
7:CG:78:ARG:HD2	7:CG:79:ARG:N	2.23	0.50
5:AE:76:ILE:CG1	5:AE:77:PRO:HD2	2.41	0.50
33:BI:120:ILE:HG22	33:BI:122:GLU:H	1.76	0.50
41:DU:66:ASN:O	41:DU:70:ARG:HB2	2.12	0.50
36:DP:9:ASN:O	36:DP:11:GLY:N	2.45	0.50
15:AO:39:LEU:HD13	15:AO:56:LEU:HB2	1.93	0.50
32:BH:16:SER:HB2	32:BH:27:LYS:HB2	1.92	0.50
32:BH:89:ILE:HD12	32:BH:89:ILE:C	2.32	0.50
2:AB:204:ASN:HB3	2:AB:210:SER:OG	2.10	0.50
32:DH:116:GLU:HG2	32:DH:117:PRO:CD	2.42	0.50
45:BY:28:LYS:C	45:BY:38:ILE:HB	2.32	0.50
34:BN:58:ASP:OD1	34:BN:124:ALA:HB1	2.11	0.50
25:DA:971:C:H2'	25:DA:972:G:O4'	2.12	0.50
54:B7:47:ARG:O	54:B7:47:ARG:HD2	2.12	0.50
25:DA:1190:G:OP1	36:DP:35:HIS:O	2.29	0.50
26:BB:41:U:C4	31:BG:69:ALA:HB1	2.46	0.50
29:DE:181:LEU:HD21	40:DT:7:ILE:CG2	2.42	0.50
36:DP:105:LEU:CD2	36:DP:105:LEU:N	2.73	0.50
25:BA:15:G:H8	25:BA:15:G:H5''	1.77	0.50
3:AC:113:ALA:HB3	3:AC:114:PRO:CD	2.39	0.50
12:CL:43:VAL:CG2	12:CL:93:LEU:HD22	2.41	0.50
25:DA:1049:C:N4	25:DA:1110:G:H21	2.10	0.50
53:D6:37:ARG:HG3	53:D6:37:ARG:NH1	2.26	0.50
29:DE:11:MET:HB3	29:DE:24:THR:HA	1.92	0.50
25:DA:733:G:C6	25:DA:761:A:N7	2.80	0.50
3:CC:70:VAL:O	3:CC:106:VAL:HG23	2.11	0.50
9:CI:116:LYS:O	9:CI:121:ARG:O	2.30	0.50
54:B7:41:ARG:HB2	54:B7:41:ARG:HH11	1.76	0.50
1:CA:795:C:OP1	1:CA:880:G:H1'	2.12	0.50
25:DA:1503:U:O2'	25:DA:1504:C:H5'	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1056:G:O4'	2:AB:104:ASN:ND2	2.44	0.50
25:DA:2886:G:H2'	25:DA:2887:U:H6	1.77	0.50
31:DG:82:LEU:CD2	31:DG:87:PRO:HG3	2.41	0.50
6:CF:10:LEU:HA	6:CF:84:ASN:O	2.10	0.50
12:AL:119:LYS:C	12:AL:120:TYR:HD1	2.15	0.50
47:D0:72:ARG:NE	47:D0:75:LEU:HD13	2.26	0.50
17:CQ:45:HIS:HB2	17:CQ:69:LYS:HE2	1.94	0.50
2:CB:128:GLU:O	2:CB:129:GLU:HG2	2.12	0.50
25:BA:2886:G:H2'	25:BA:2887:U:H6	1.77	0.50
25:BA:1882:C:O2	25:BA:1882:C:H2'	2.10	0.50
25:DA:469:G:OP1	30:DF:59:TYR:HB3	2.11	0.50
25:BA:154(A):C:O4'	25:BA:154(A):C:O2	2.26	0.50
25:BA:758:C:C2'	25:BA:759:G:H5'	2.41	0.50
47:B0:11:ARG:HB2	47:B0:11:ARG:NH1	2.26	0.50
25:DA:118:A:H5'	25:DA:119:A:H8	1.76	0.50
1:CA:434:A:C5	1:CA:435:A:H1'	2.47	0.50
25:BA:1227:G:OP1	41:BU:13:LYS:HG2	2.12	0.50
1:AA:145:A:H2'	1:AA:146:A:O4'	2.12	0.50
25:BA:2704:C:H2'	25:BA:2705:A:O4'	2.12	0.50
29:BE:9:VAL:HG13	29:BE:25:VAL:O	2.12	0.50
32:DH:140:LYS:O	32:DH:140:LYS:HG2	2.11	0.50
45:DY:50:ARG:CZ	45:DY:55:TYR:CE1	2.84	0.50
25:BA:2516:G:O2'	25:BA:2517:C:H5''	2.11	0.50
25:DA:2729:G:H1'	29:DE:187:ALA:CB	2.42	0.50
31:BG:97:ASP:O	31:BG:101:ILE:CG2	2.60	0.50
23:CV:54:G:O2'	23:CV:55:U:OP2	2.30	0.50
25:BA:1980:G:O2'	25:BA:1982:C:OP2	2.30	0.50
38:BR:52:ILE:O	38:BR:55:ALA:HB3	2.11	0.50
25:DA:2172:U:O3'	25:DA:2173:A:C8	2.65	0.50
25:DA:612:C:C2'	25:DA:613:G:C5'	2.74	0.50
25:DA:614(A):U:H4'	25:DA:614(B):G:H5''	1.93	0.50
25:DA:614(C):A:O2'	25:DA:615:G:O4'	2.30	0.50
19:CS:45:VAL:C	19:CS:47:HIS:N	2.63	0.50
25:BA:614(C):A:O2'	25:BA:615:G:O5'	2.30	0.50
26:BB:66:A:H61	26:BB:108:U:H2'	1.77	0.50
42:BV:18:LEU:CD1	42:BV:18:LEU:N	2.75	0.50
42:BV:18:LEU:HD12	42:BV:18:LEU:N	2.27	0.50
5:CE:33:VAL:O	5:CE:112:LEU:HD12	2.11	0.50
33:BI:53:ALA:O	33:BI:57:ARG:HG2	2.12	0.50
9:CI:63:ILE:CD1	9:CI:81:ILE:HD11	2.38	0.50
28:BD:102:LYS:C	28:BD:103:ARG:HG2	2.31	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AW:38:A:C2'	22:AW:39:U:H5'	2.36	0.50
22:AW:38:A:H3'	22:AW:39:U:H5'	1.93	0.50
42:DV:22:VAL:O	42:DV:23:GLU:HB2	2.11	0.50
25:BA:1952:A:N6	25:BA:1953:A:H61	2.09	0.50
25:DA:1247:A:OP1	30:DF:95:ARG:NH2	2.45	0.50
36:BP:5:ASP:OD2	36:BP:6:LEU:HD23	2.12	0.50
23:AV:50:G:N1	23:AV:51:U:O2	2.45	0.50
28:DD:6:PHE:HB3	28:DD:9:TYR:CE1	2.47	0.50
2:AB:165:VAL:CG2	2:AB:166:ASP:H	2.22	0.50
25:DA:471:A:H2'	25:DA:472:A:C5'	2.42	0.50
46:BZ:102:LEU:HD13	46:BZ:123:ASP:CA	2.40	0.50
25:BA:1301:A:HO2'	25:BA:1302:A:H2'	1.76	0.50
15:CO:78:TYR:O	15:CO:80:ALA:N	2.44	0.50
15:CO:56:LEU:O	15:CO:60:VAL:HG23	2.11	0.50
2:CB:77:ALA:O	2:CB:80:ILE:HG23	2.11	0.50
25:DA:2175:C:C1'	27:DC:215:THR:HA	2.42	0.50
36:BP:113:LYS:HE2	36:BP:115:LEU:HD13	1.93	0.50
1:AA:1481:G:H1'	1:AA:1482:G:OP2	2.10	0.50
34:DN:26:LEU:CD2	34:DN:30:ILE:HD11	2.40	0.50
34:BN:42:TRP:CE3	34:BN:48:MET:HE1	2.47	0.50
8:AH:86:ILE:O	8:AH:87:SER:C	2.50	0.50
23:AV:2:G:N1	23:AV:73:A:C2	2.80	0.50
25:DA:863:A:P	37:DQ:22:LYS:HG2	2.52	0.50
30:DF:101:LEU:HD12	30:DF:102:PRO:CD	2.39	0.50
25:BA:760:G:H2'	25:BA:761:A:H5'	1.93	0.50
25:BA:1049:C:N4	25:BA:1111:A:C2	2.80	0.50
11:AK:13:GLN:HB3	11:AK:75:TYR:O	2.12	0.50
4:AD:105:VAL:HG13	4:AD:110:PHE:HB2	1.94	0.50
31:DG:47:LYS:HD3	31:DG:82:LEU:HG	1.93	0.50
25:BA:1324:G:H1'	25:BA:1616:A:H62	1.76	0.50
25:DA:816:C:H2'	25:DA:817:C:H6	1.77	0.50
3:AC:173:VAL:HG12	3:AC:175:LEU:CD1	2.42	0.50
42:BV:62:LEU:N	42:BV:62:LEU:HD22	2.27	0.50
25:DA:1336:A:OP1	44:DX:64:LYS:HE3	2.12	0.50
1:AA:343:G:O2'	1:AA:344:A:OP1	2.30	0.50
12:AL:117:ARG:O	12:AL:119:LYS:O	2.29	0.50
2:AB:128:GLU:O	2:AB:129:GLU:HG2	2.12	0.50
17:AQ:74:LEU:HD13	17:AQ:74:LEU:C	2.32	0.50
4:AD:96:LEU:HG	4:AD:139:ARG:NH1	2.26	0.50
25:DA:1327:C:H2'	25:DA:1328:G:O4'	2.12	0.50
11:AK:99:GLN:NE2	11:AK:105:VAL:HG11	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1324:G:H1'	9:AI:121:ARG:HH12	1.75	0.50
28:DD:65:ILE:O	28:DD:65:ILE:HD13	2.11	0.50
1:CA:19:C:OP1	5:CE:125:SER:OG	2.22	0.50
25:BA:2121:G:H21	27:BC:172:HIS:CB	2.24	0.50
25:DA:1124:C:H1'	56:D9:36:GLN:OE1	2.12	0.50
26:BB:79:C:C2'	26:BB:80:U:H5'	2.42	0.50
33:BI:62:LYS:O	33:BI:62:LYS:HD3	2.12	0.50
39:BS:73:LEU:O	39:BS:73:LEU:HD23	2.12	0.50
33:DI:62:LYS:O	33:DI:62:LYS:HD3	2.12	0.50
40:DT:29:ARG:NH1	40:DT:29:ARG:HA	2.26	0.50
13:AM:90:LEU:O	13:AM:91:ARG:CB	2.59	0.50
25:DA:2261:C:O4'	25:DA:2388:A:H1'	2.11	0.50
22:CW:24:G:H2'	22:CW:25:C:H6	1.77	0.50
22:CW:57:G:H2'	22:CW:57:G:N3	2.27	0.50
25:BA:2171:A:O2'	25:BA:2172:U:O5'	2.30	0.50
44:DX:80:ILE:HD13	44:DX:80:ILE:O	2.12	0.50
25:BA:614(C):A:O2'	25:BA:615:G:O4'	2.30	0.50
31:DG:109:VAL:HB	31:DG:142:PRO:HG3	1.93	0.50
39:DS:90:GLY:O	39:DS:92:TYR:N	2.35	0.50
39:DS:92:TYR:CG	39:DS:93:LYS:N	2.78	0.50
30:DF:136:THR:HG23	30:DF:137:LYS:N	2.27	0.50
8:AH:6:ILE:C	8:AH:10:LEU:HD12	2.32	0.50
12:CL:28:LYS:HG3	12:CL:33:ARG:CZ	2.41	0.50
23:AV:17:C:OP1	23:AV:62:C:H5'	2.12	0.50
33:DI:123:LEU:HD22	33:DI:142:VAL:HG12	1.94	0.50
25:DA:1022:G:O2'	25:DA:1023:U:OP2	2.30	0.50
25:BA:1202:C:C2'	25:BA:1203:G:H5'	2.41	0.50
30:BF:3:GLU:HA	30:BF:24:LEU:HB3	1.93	0.50
5:AE:6:PHE:HD1	5:AE:63:ARG:HH12	1.59	0.50
9:AI:99:LEU:HD12	9:AI:101:PHE:CE1	2.47	0.50
25:DA:1899:G:H22	25:DA:1902:C:H41	1.56	0.50
30:DF:20:LEU:HD22	30:DF:203:GLN:OE1	2.12	0.50
32:BH:100:GLY:C	32:BH:102:ALA:H	2.15	0.50
4:CD:56:VAL:HG12	4:CD:202:LEU:HD13	1.94	0.50
2:AB:15:VAL:HG21	2:AB:209:ARG:NH2	2.20	0.50
25:BA:289:A:C4	25:BA:353:G:C2	3.00	0.50
2:CB:165:VAL:CG2	2:CB:166:ASP:H	2.21	0.50
31:DG:172:LEU:HG	31:DG:176:LEU:CD1	2.41	0.50
31:DG:41:GLN:HB3	31:DG:43:LEU:HD21	1.94	0.50
37:DQ:141:GLN:C	46:DZ:53:ILE:O	2.50	0.50
31:BG:41:GLN:HB3	31:BG:43:LEU:HD21	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1302:C:H3'	1:CA:1303:C:H5''	1.94	0.50
20:CT:72:LEU:HD21	20:CT:77:ALA:CA	2.42	0.50
29:DE:178:GLU:HG3	29:DE:179:GLU:OE1	2.12	0.50
43:DW:51:LEU:C	43:DW:51:LEU:HD13	2.32	0.50
53:B6:37:ARG:HG3	53:B6:37:ARG:NH1	2.26	0.50
38:BR:42:LYS:O	38:BR:45:ARG:HG2	2.11	0.50
25:BA:1049:C:N4	25:BA:1110:G:H21	2.10	0.50
4:AD:108:LEU:CD1	4:AD:174:LEU:HD13	2.41	0.50
25:DA:790:C:O2'	25:DA:791:C:O5'	2.30	0.50
25:DA:2887:U:H2'	25:DA:2888:C:C6	2.47	0.50
1:CA:981:G:H2'	1:CA:982:A:H4'	1.93	0.50
25:DA:1335:U:H2'	25:DA:1336:A:H8	1.76	0.50
9:AI:48:GLU:N	9:AI:49:PRO:CD	2.75	0.50
25:BA:557:U:H2'	25:BA:558:G:C8	2.46	0.50
25:DA:2178:C:H2'	25:DA:2179:C:H6	1.76	0.50
1:AA:204:G:H2'	1:AA:205:G:C8	2.46	0.50
34:BN:3:THR:HG22	34:BN:5:VAL:HG12	1.94	0.50
30:DF:127:GLU:HB2	30:DF:196:LEU:HG	1.94	0.50
25:BA:539:G:H2'	25:BA:540:C:C6	2.47	0.50
4:CD:4:TYR:O	4:CD:5:ILE:HB	2.12	0.50
1:CA:486:C:O2'	1:CA:487:C:H5'	2.12	0.50
25:BA:2136:C:N4	25:BA:2155:G:H1	2.10	0.50
29:DE:15:PHE:CE2	40:DT:80:SER:CB	2.95	0.50
11:CK:80:VAL:HG13	11:CK:103:LEU:HD11	1.94	0.50
32:BH:87:LEU:HD23	32:BH:164:TYR:HA	1.94	0.50
48:B1:94:LEU:O	48:B1:96:LYS:N	2.44	0.50
40:DT:62:THR:HG22	40:DT:75:ILE:HG12	1.94	0.50
1:AA:1153:C:H2'	1:AA:1154:G:C8	2.47	0.50
25:BA:2840:C:H5''	38:BR:53:HIS:CD2	2.47	0.50
25:DA:324:A:N6	25:DA:338:G:O2'	2.44	0.50
25:DA:2824:C:H2'	25:DA:2825:C:O4'	2.12	0.50
1:CA:722:C:O2'	15:CO:42:HIS:ND1	2.44	0.50
25:DA:185:U:H4'	25:DA:218:A:H4'	1.94	0.50
42:BV:1:MET:HE1	42:BV:43:GLU:HG2	1.93	0.50
25:BA:324:A:N6	25:BA:338:G:O2'	2.44	0.50
32:BH:35:VAL:HG21	32:BH:75:ALA:HB2	1.94	0.50
4:AD:158:ILE:HG22	4:AD:181:MET:CE	2.41	0.50
23:CV:35:C:O2'	23:CV:36:A:OP1	2.30	0.50
32:DH:30:LYS:NZ	32:DH:83:TYR:HE1	2.10	0.50
25:BA:2261:C:O4'	25:BA:2388:A:H1'	2.11	0.50
50:D3:7:LYS:C	50:D3:54:VAL:HG13	2.33	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:47:LEU:HA	14:AN:50:LYS:CD	2.42	0.50
26:DB:83:G:C2'	26:DB:84:C:O5'	2.60	0.50
26:DB:85:G:N1	26:DB:93:G:C6	2.80	0.50
20:AT:50:GLU:HG3	20:AT:51:GLU:N	2.27	0.50
25:BA:614(C):A:H1'	30:BF:180:GLY:O	2.11	0.50
49:B2:46:GLN:O	49:B2:49:LYS:HB2	2.12	0.50
5:AE:53:LEU:HD12	5:AE:53:LEU:N	2.23	0.50
42:DV:18:LEU:N	42:DV:18:LEU:CD1	2.75	0.50
22:AY:38:A:C2'	22:AY:38:A:N3	2.71	0.50
5:AE:41:VAL:CG1	5:AE:113:ALA:CA	2.89	0.50
29:BE:184:VAL:CG1	29:BE:185:LYS:H	2.12	0.50
10:AJ:4:ILE:HB	10:AJ:74:ILE:CD1	2.36	0.50
32:DH:157:TYR:O	32:DH:158:HIS:HB2	2.12	0.50
52:B5:3:LYS:HG3	52:B5:4:HIS:H	1.76	0.50
25:DA:770:G:O3'	54:D7:10:ARG:NH1	2.45	0.50
25:DA:800:A:C5	25:DA:802:A:O4'	2.64	0.50
1:CA:1184:C:H2'	1:CA:1185:A:C8	2.45	0.50
1:AA:1281:G:H2'	1:AA:1282:U:OP2	2.12	0.50
1:AA:1281:G:O2'	1:AA:1282:U:O5'	2.30	0.50
1:AA:1281:G:O2'	1:AA:1282:U:OP2	2.30	0.50
49:D2:17:SER:HB3	49:D2:20:GLU:HB3	1.93	0.50
6:AF:21:LEU:HD13	6:AF:24:GLU:CD	2.33	0.50
11:CK:19:ALA:HB3	11:CK:82:VAL:HG23	1.94	0.50
37:DQ:12:GLN:NE2	37:DQ:72:LYS:HG3	2.26	0.50
3:AC:35:GLU:HA	3:AC:38:ARG:CD	2.42	0.50
34:DN:42:TRP:HA	34:DN:42:TRP:CE3	2.47	0.50
46:BZ:136:PHE:CD1	46:BZ:137:ILE:N	2.80	0.50
37:BQ:39:PRO:O	37:BQ:40:ALA:HB2	2.12	0.50
54:D7:41:ARG:HH11	54:D7:41:ARG:HB2	1.76	0.50
3:CC:53:ALA:O	3:CC:54:ARG:HB2	2.12	0.50
1:CA:1036:C:C4	22:CY:34:G:H1'	2.47	0.50
10:AJ:8:LEU:HD23	10:AJ:96:ILE:HG22	1.91	0.50
38:BR:28:LEU:HA	38:BR:34:ILE:HG13	1.94	0.50
40:BT:74:ARG:HB3	40:BT:76:PHE:HE2	1.77	0.50
45:BY:88:LYS:NZ	45:BY:93:GLY:HA3	2.26	0.50
30:DF:192:LEU:HD21	30:DF:194:MET:CE	2.42	0.50
25:BA:149:A:H2'	25:BA:150:C:O4'	2.12	0.50
25:DA:149:A:H2'	25:DA:150:C:O4'	2.12	0.50
6:CF:45:LEU:O	6:CF:46:ARG:HG2	2.11	0.50
17:CQ:63:ARG:HG2	17:CQ:64:PRO:CD	2.41	0.50
1:CA:1354:U:C4	1:CA:1355:G:C5	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DW:10:VAL:O	43:DW:11:ARG:CB	2.59	0.50
33:DI:131:LYS:HG3	33:DI:132:PRO:CD	2.41	0.50
43:BW:10:VAL:O	43:BW:11:ARG:CB	2.59	0.50
28:BD:130:ALA:C	28:BD:131:LEU:HD12	2.32	0.50
9:CI:89:ASN:HB3	9:CI:92:TYR:CD1	2.46	0.50
1:AA:103:C:O2'	16:AP:25:ARG:O	2.28	0.50
4:AD:6:GLY:O	4:AD:7:PRO:C	2.49	0.50
11:AK:80:VAL:HG13	11:AK:103:LEU:CD1	2.42	0.50
26:BB:87:G:C3'	26:BB:88:C:H5''	2.42	0.50
25:BA:65:C:O2'	25:BA:66:C:H5'	2.11	0.50
47:D0:11:ARG:HB2	47:D0:11:ARG:NH1	2.26	0.50
35:BO:62:VAL:HA	35:BO:84:ALA:HB2	1.94	0.50
43:BW:97:LYS:O	43:BW:99:ARG:N	2.45	0.50
1:AA:578:G:O6	1:AA:624:U:O2'	2.22	0.50
2:CB:101:MET:HA	2:CB:108:ILE:HG21	1.94	0.50
1:CA:558:G:H4'	1:CA:559:G:H5''	1.93	0.50
1:CA:1384:C:H2'	1:CA:1385:C:O4'	2.12	0.50
1:AA:435:A:OP2	1:AA:435:A:H8	1.94	0.50
1:CA:764:A:O2'	1:CA:1499:U:O2	2.30	0.50
25:BA:912:C:H2'	25:BA:912:C:O2	2.10	0.49
25:BA:910:A:C6	37:BQ:13:GLN:HG3	2.46	0.49
40:DT:53:ARG:HH11	40:DT:55:ASN:CB	2.16	0.49
25:BA:2075:U:N3	25:BA:2238:G:C6	2.80	0.49
1:AA:950:G:N3	10:AJ:55:LYS:NZ	2.55	0.49
14:AN:43:CYS:SG	59:AN:101:ZN:ZN	1.88	0.49
25:DA:308:G:HO2'	25:DA:329:G:N2	2.10	0.49
25:BA:329:G:OP2	45:BY:71:LYS:HD3	2.11	0.49
26:BB:7:G:H21	39:BS:38:GLN:NE2	2.10	0.49
39:DS:19:LYS:C	39:DS:20:ARG:NH1	2.66	0.49
39:DS:34:HIS:NE2	39:DS:54:LEU:HB2	2.25	0.49
12:CL:28:LYS:CG	12:CL:33:ARG:HH22	2.23	0.49
1:AA:1050:G:P	1:AA:1076:G:H5'	2.52	0.49
28:BD:112:GLN:N	28:BD:115:GLN:NE2	2.60	0.49
30:DF:28:ILE:CG2	30:DF:116:ASP:HB2	2.41	0.49
36:BP:7:ARG:HE	36:BP:7:ARG:HA	1.77	0.49
46:DZ:8:TYR:CD1	46:DZ:8:TYR:N	2.80	0.49
36:BP:35:HIS:O	36:BP:36:LYS:HB2	2.12	0.49
22:AW:52:G:C2	22:AW:63:G:N1	2.80	0.49
45:BY:28:LYS:O	45:BY:29:GLU:C	2.50	0.49
25:DA:285:C:H5''	25:DA:286:C:OP2	2.11	0.49
4:AD:57:ARG:NH1	4:AD:57:ARG:HG3	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BT:23:ARG:O	40:BT:25:GLY:N	2.45	0.49
31:DG:33:ARG:HB2	31:DG:162:THR:HG21	1.94	0.49
37:DQ:51:ARG:O	37:DQ:55:VAL:HG12	2.10	0.49
25:BA:2845:G:OP1	40:BT:56:GLY:N	2.43	0.49
29:BE:101:ARG:HB2	29:BE:201:THR:CG2	2.41	0.49
32:DH:85:LYS:HE2	32:DH:145:ALA:CA	2.42	0.49
12:AL:59:ARG:HA	12:AL:65:GLU:HA	1.94	0.49
36:DP:46:LYS:HG2	36:DP:52:GLU:CD	2.32	0.49
2:AB:80:ILE:C	2:AB:82:ARG:N	2.65	0.49
25:BA:2629:A:H8	25:BA:2895:U:H3	1.57	0.49
25:DA:9:U:O2'	25:DA:10:G:P	2.69	0.49
8:AH:85:ARG:HD3	8:AH:86:ILE:N	2.27	0.49
47:D0:6:GLY:O	47:D0:7:LEU:HD23	2.12	0.49
1:AA:980:G:N2	1:AA:1021:C:O2	2.45	0.49
1:AA:1286:G:C8	1:AA:1286:G:OP2	2.64	0.49
2:CB:97:TRP:HZ2	2:CB:102:LEU:HD13	1.77	0.49
25:BA:1578:U:O2	25:BA:1578:U:H2'	2.12	0.49
28:BD:125:ILE:HD12	28:BD:136:ILE:HG23	1.94	0.49
1:AA:537:C:C2	1:AA:538:C:C5	3.00	0.49
2:AB:164:VAL:HB	2:AB:186:ALA:HB1	1.94	0.49
1:CA:935:A:C6	1:CA:936:A:C6	3.00	0.49
22:CW:26:A:H2'	22:CW:27:G:H8	1.77	0.49
11:AK:80:VAL:HG13	11:AK:103:LEU:HD11	1.93	0.49
25:DA:225:A:C2'	25:DA:226:G:H5'	2.42	0.49
25:BA:225:A:C2'	25:BA:226:G:H5'	2.42	0.49
9:AI:126:SER:C	9:AI:128:ARG:H	2.15	0.49
47:D0:11:ARG:HB2	47:D0:11:ARG:HH11	1.75	0.49
28:DD:65:ILE:HD11	28:DD:67:PHE:CE1	2.47	0.49
20:AT:24:LEU:C	20:AT:24:LEU:HD13	2.32	0.49
49:B2:13:ALA:O	49:B2:15:LYS:N	2.45	0.49
1:CA:1278:C:O2'	7:CG:114:ARG:NH2	2.45	0.49
25:DA:443:A:H1'	25:DA:1201:C:O4'	2.12	0.49
43:DW:97:LYS:O	43:DW:99:ARG:N	2.45	0.49
29:DE:59:VAL:HG13	29:DE:60:ASN:N	2.27	0.49
25:BA:910:A:H2	25:BA:2264:C:O2	1.95	0.49
23:CV:16:C:H3'	23:CV:17:C:C5'	2.42	0.49
26:DB:88:C:N4	26:DB:89:G:C2	2.80	0.49
25:DA:1786:A:H2	25:DA:2606:C:H1'	1.77	0.49
25:DA:758:C:C2'	25:DA:759:G:H5'	2.41	0.49
25:BA:2420:C:OP2	55:B8:33:ASN:O	2.30	0.49
27:BC:36:LYS:HB2	27:BC:36:LYS:NZ	2.25	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:7:VAL:HG21	31:BG:115:ARG:HG2	1.94	0.49
39:BS:101:LEU:HD13	39:BS:101:LEU:H	1.77	0.49
39:BS:89:ARG:CB	39:BS:92:TYR:HB3	2.36	0.49
17:AQ:63:ARG:HG2	17:AQ:64:PRO:CD	2.42	0.49
13:CM:108:ARG:O	13:CM:111:LYS:O	2.30	0.49
8:AH:103:VAL:HG12	8:AH:108:GLY:HA3	1.94	0.49
36:DP:61:ARG:NH1	55:D8:13:ARG:NE	2.60	0.49
25:DA:94(A):G:H2'	25:DA:95:G:H5''	1.92	0.49
1:AA:1049:A:O2'	1:AA:1050:G:OP2	2.30	0.49
29:DE:36:ARG:HH12	29:DE:86:PRO:HD2	1.76	0.49
28:BD:108:PRO:HB3	28:BD:143:HIS:HE1	1.75	0.49
28:DD:142:VAL:HG22	28:DD:143:HIS:N	2.27	0.49
36:BP:9:ASN:O	36:BP:11:GLY:N	2.45	0.49
41:BU:62:ILE:HD12	41:BU:76:TYR:OH	2.13	0.49
25:DA:1902:C:H2'	25:DA:1903:G:O5'	2.12	0.49
25:BA:2104:G:H5'	25:BA:2104:G:N3	2.27	0.49
6:AF:8:ILE:HG12	6:AF:88:VAL:HG22	1.94	0.49
25:BA:587:C:H4'	25:BA:588:U:H5'	1.95	0.49
25:BA:664:C:H4'	25:BA:941:A:P	2.52	0.49
2:AB:187:LEU:HA	2:AB:201:ILE:HB	1.95	0.49
32:DH:89:ILE:C	32:DH:89:ILE:HD12	2.32	0.49
25:BA:1287:A:N7	25:BA:1288:U:C4	2.80	0.49
55:D8:33:ASN:HA	55:D8:36:LYS:HD2	1.94	0.49
1:CA:542:A:H4'	1:CA:543:U:H3'	1.93	0.49
32:BH:85:LYS:HE2	32:BH:145:ALA:CA	2.42	0.49
47:D0:41:ARG:HD2	47:D0:41:ARG:N	2.17	0.49
14:AN:7:ILE:O	14:AN:11:LYS:HE3	2.12	0.49
31:BG:137:GLU:HG2	31:BG:152:LEU:CD1	2.43	0.49
31:BG:41:GLN:HB3	31:BG:43:LEU:CD2	2.42	0.49
25:DA:1233:C:O2'	25:DA:1234:U:H5'	2.13	0.49
36:DP:114:ILE:HG22	36:DP:127:ALA:CB	2.41	0.49
34:DN:30:ILE:HG23	34:DN:52:VAL:HG11	1.93	0.49
34:BN:42:TRP:HA	34:BN:42:TRP:CE3	2.47	0.49
35:DO:28:SER:HG	35:DO:29:ASN:H	1.52	0.49
11:CK:44:SER:OG	11:CK:47:VAL:HG23	2.12	0.49
2:CB:137:ARG:HD3	2:CB:137:ARG:C	2.33	0.49
25:BA:733:G:C6	25:BA:761:A:N7	2.80	0.49
38:DR:42:LYS:O	38:DR:45:ARG:HG2	2.11	0.49
22:AW:11:C:H2'	22:AW:12:U:C6	2.46	0.49
16:AP:39:TYR:CZ	16:AP:41:PRO:HA	2.46	0.49
11:AK:12:ARG:HH21	11:AK:14:VAL:CG1	2.23	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:73:THR:HG22	2:AB:95:GLN:O	2.11	0.49
2:CB:103:THR:OG1	2:CB:176:GLU:HG2	2.12	0.49
6:CF:82:ARG:HB3	6:CF:82:ARG:NH1	2.26	0.49
1:CA:1018:G:H3'	1:CA:1019:C:H6	1.77	0.49
1:CA:1236:G:H5'	3:CC:26:LYS:HZ2	1.76	0.49
1:AA:752:G:H4'	1:AA:1490:A:H4'	1.94	0.49
30:DF:75:HIS:HE1	30:DF:82:ILE:HD11	1.76	0.49
12:AL:113:ARG:HG2	12:AL:113:ARG:HH11	1.76	0.49
1:CA:125:C:C2	1:CA:126:C:C5	2.99	0.49
18:AR:47:THR:HG21	18:AR:49:LYS:HE2	1.93	0.49
25:BA:1000:A:H8	25:BA:1000:A:H5'	1.76	0.49
23:AV:40:C:H2'	23:AV:41:C:H5'	1.94	0.49
25:BA:2749:A:H1'	32:BH:63:SER:OG	2.12	0.49
25:BA:1175:U:H4'	25:BA:1176:G:C2'	2.42	0.49
25:BA:445:C:OP1	41:BU:2:PRO:HA	2.11	0.49
50:D3:1:MET:CE	50:D3:41:PRO:HD3	2.43	0.49
25:BA:1308:A:H2'	25:BA:1309:G:O4'	2.12	0.49
1:CA:1052:U:H2'	1:CA:1053:C:C6	2.47	0.49
34:BN:26:LEU:HG	34:BN:30:ILE:HD11	1.93	0.49
27:DC:74:VAL:HG23	27:DC:91:ALA:HB2	1.93	0.49
25:BA:1329:U:C5'	25:BA:1330:C:H5	2.25	0.49
25:DA:2136:C:N4	25:DA:2155:G:H1	2.09	0.49
25:DA:1999:C:H5''	25:DA:2723:C:O2'	2.12	0.49
9:CI:126:SER:C	9:CI:128:ARG:H	2.15	0.49
25:DA:407:G:H2'	25:DA:408:G:H8	1.77	0.49
27:DC:182:PRO:O	27:DC:183:GLU:CB	2.61	0.49
25:DA:1268:A:C2	25:DA:2013:A:C4	3.00	0.49
27:BC:43:VAL:O	27:BC:43:VAL:HG12	2.12	0.49
29:BE:188:VAL:O	29:BE:188:VAL:HG13	2.13	0.49
6:AF:36:ARG:O	6:AF:65:VAL:HB	2.11	0.49
25:BA:2824:C:H2'	25:BA:2825:C:O4'	2.12	0.49
25:DA:2704:C:H2'	25:DA:2705:A:O4'	2.12	0.49
33:BI:31:LEU:HB2	33:BI:32:PRO:HD3	1.93	0.49
13:CM:97:PRO:N	13:CM:110:ARG:HD3	2.26	0.49
29:BE:52:LEU:HD23	29:BE:76:ARG:CA	2.42	0.49
25:BA:952:G:N1	25:BA:953:A:C5	2.81	0.49
41:BU:104:GLN:HB3	42:BV:44:LYS:NZ	2.27	0.49
41:BU:112:ARG:HH11	41:BU:112:ARG:HG2	1.77	0.49
44:BX:12:VAL:CG2	44:BX:13:LEU:H	1.91	0.49
55:B8:49:VAL:HG23	55:B8:53:PRO:HB3	1.95	0.49
25:DA:2167:U:O2'	25:DA:2168:G:H5'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BS:19:LYS:C	39:BS:20:ARG:NH1	2.66	0.49
39:BS:89:ARG:HB3	39:BS:92:TYR:CB	2.35	0.49
17:AQ:18:THR:O	17:AQ:19:VAL:HG13	2.13	0.49
25:DA:2376:A:C2	39:DS:94:TYR:CE1	2.99	0.49
33:BI:58:LEU:N	33:BI:61:ARG:HE	2.10	0.49
36:DP:61:ARG:CD	55:D8:13:ARG:HD2	2.42	0.49
1:CA:676:G:H1'	7:CG:82:GLY:HA3	1.94	0.49
25:DA:860:U:OP2	25:DA:916:G:N1	2.44	0.49
3:AC:15:THR:HG22	3:AC:16:ARG:H	1.75	0.49
2:CB:194:PRO:CB	2:CB:200:ILE:HD13	2.42	0.49
34:BN:55:VAL:HG22	34:BN:126:PRO:CA	2.41	0.49
1:CA:916:G:C6	1:CA:917:C:N4	2.80	0.49
22:AW:52:G:H1	22:AW:62:C:H42	1.58	0.49
7:CG:73:MET:CG	7:CG:90:GLU:HA	2.31	0.49
23:AV:9:G:C6	23:AV:47:G:C2	3.00	0.49
29:DE:101:ARG:HH21	29:DE:171:GLU:HA	1.77	0.49
12:AL:27:LEU:C	12:AL:29:GLY:N	2.64	0.49
38:BR:38:VAL:HB	38:BR:39:PRO:CD	2.37	0.49
33:BI:19:VAL:HG22	33:BI:20:ASP:N	2.27	0.49
25:DA:528:A:C3'	25:DA:528:A:C8	2.95	0.49
18:AR:74:ARG:HH21	18:AR:81:PHE:HA	1.76	0.49
14:AN:37:PHE:CE1	14:AN:53:LEU:HD22	2.48	0.49
25:DA:2876:G:H4'	40:DT:3:ARG:HA	1.94	0.49
1:AA:1481:G:O4'	1:AA:1482:G:OP2	2.30	0.49
23:AV:35:C:O2'	23:AV:36:A:O5'	2.30	0.49
25:BA:1902:C:H2'	25:BA:1903:G:O5'	2.12	0.49
8:CH:51:VAL:HG11	8:CH:60:ARG:CG	2.42	0.49
25:BA:302:C:H2'	25:BA:303:U:H6	1.78	0.49
41:DU:61:TRP:O	41:DU:63:VAL:N	2.45	0.49
7:AG:150:ALA:HB2	11:AK:50:TYR:CZ	2.47	0.49
25:BA:2691:C:C6	25:BA:2691:C:H5'	2.43	0.49
27:DC:76:ALA:C	27:DC:78:ALA:N	2.66	0.49
1:CA:953:G:N2	1:CA:1343:C:H2'	2.27	0.49
42:DV:69:LYS:HA	42:DV:88:ARG:CG	2.39	0.49
30:DF:107:LYS:O	30:DF:108:LYS:C	2.50	0.49
5:AE:87:SER:HB3	5:AE:131:ILE:HD11	1.94	0.49
30:BF:107:LYS:O	30:BF:108:LYS:C	2.50	0.49
1:AA:1293:G:C2	1:AA:1294:U:C4	3.00	0.49
28:BD:134:ARG:HD3	28:BD:135:PHE:CZ	2.48	0.49
20:AT:58:LYS:O	20:AT:61:SER:HB3	2.12	0.49
25:DA:2208:A:H1'	25:DA:2219:G:C4	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2734:A:H5'	25:DA:2735:G:OP2	2.12	0.49
42:DV:82:ARG:NH1	42:DV:82:ARG:HG2	2.27	0.49
1:CA:340:C:H2'	40:DT:41:ARG:HH21	1.76	0.49
1:CA:1201:G:H2'	1:CA:1202:G:H8	1.78	0.49
38:BR:111:LEU:HD22	38:BR:111:LEU:N	2.27	0.49
31:BG:167:GLU:O	31:BG:170:ARG:N	2.45	0.49
11:AK:99:GLN:HE21	11:AK:105:VAL:HG11	1.77	0.49
56:D9:7:VAL:HG13	56:D9:34:GLN:CB	2.43	0.49
41:BU:115:ALA:C	41:BU:117:GLN:H	2.16	0.49
1:AA:762:C:O2'	11:AK:120:ARG:HD3	2.12	0.49
33:DI:31:LEU:HB2	33:DI:32:PRO:HD3	1.93	0.49
25:DA:42:G:H2'	25:DA:43:A:O4'	2.12	0.49
25:BA:402:A:H2'	25:BA:403:U:H5'	1.94	0.49
1:CA:441:G:O5'	1:CA:441:G:H8	1.95	0.49
1:CA:328:G:O2'	1:CA:329:C:H5'	2.12	0.49
25:BA:1345:C:O2'	25:BA:1346:G:H5'	2.12	0.49
37:BQ:38:GLU:HG3	37:BQ:127:ILE:HB	1.94	0.49
25:BA:2632:A:O2'	29:BE:61:ARG:NH2	2.44	0.49
29:DE:70:ALA:O	29:DE:71:GLY:C	2.50	0.49
25:DA:103:A:C3'	25:DA:104:U:H5'	2.40	0.49
23:AV:6:G:N2	23:AV:69:C:C2	2.81	0.49
41:BU:99:ALA:HB2	41:BU:106:PHE:CG	2.48	0.49
41:BU:96:ALA:HB1	41:BU:106:PHE:HE1	1.77	0.49
22:CW:1:G:C6	22:CW:73:A:C2	3.00	0.49
22:CW:55:U:C5	22:CW:57:G:H5'	2.48	0.49
1:AA:1422:C:C3'	1:AA:1423:G:H5'	2.42	0.49
44:BX:80:ILE:O	44:BX:80:ILE:HD13	2.12	0.49
23:CV:47:G:C8	23:CV:47:G:H3'	2.47	0.49
55:B8:63:PRO:HB2	55:B8:64:TYR:HD1	1.78	0.49
3:AC:83:ARG:O	3:AC:87:LEU:HG	2.12	0.49
11:CK:99:GLN:NE2	11:CK:105:VAL:HG11	2.27	0.49
25:DA:2171:A:O2'	25:DA:2172:U:O5'	2.30	0.49
25:BA:2483:C:C5'	25:BA:2484:G:OP2	2.61	0.49
45:BY:68:HIS:HB3	45:BY:71:LYS:CG	2.43	0.49
41:DU:99:ALA:HB2	41:DU:106:PHE:CD1	2.47	0.49
25:DA:1885:A:H2'	25:DA:1886:C:O4'	2.12	0.49
25:BA:614(C):A:O2'	25:BA:615:G:C4'	2.60	0.49
28:DD:26:LYS:CE	28:DD:82:ILE:N	2.72	0.49
25:DA:251:A:C5'	36:DP:51:PHE:CZ	2.96	0.49
12:CL:26:ALA:C	12:CL:27:LEU:HD22	2.32	0.49
22:CW:35:A:N6	22:CW:36:A:N6	2.61	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:866:A:N1	25:DA:914:C:C5	2.80	0.49
1:AA:1171:G:H5'	3:AC:176:HIS:NE2	2.28	0.49
25:DA:1238:G:H2'	25:DA:1239:G:H8	1.77	0.49
36:DP:7:ARG:O	36:DP:10:PRO:CD	2.54	0.49
15:AO:60:VAL:HG21	25:BA:715:G:C1'	2.43	0.49
9:AI:96:LEU:HG	9:AI:102:LEU:HB2	1.94	0.49
25:BA:2108:C:O2'	25:BA:2109:U:H5'	2.12	0.49
45:DY:42:VAL:HG12	45:DY:44:ILE:HG13	1.94	0.49
25:DA:2667:C:H1'	32:DH:109:PHE:CD2	2.48	0.49
2:CB:207:ALA:HB1	2:CB:209:ARG:HG2	1.94	0.49
40:BT:27:THR:HA	40:BT:88:ILE:H	1.76	0.49
46:DZ:151:HIS:HB2	46:DZ:168:GLU:O	2.12	0.49
15:AO:74:ASP:HB3	15:AO:77:ARG:HG2	1.94	0.49
25:DA:1301:A:H2'	25:DA:1302:A:H3'	1.94	0.49
28:DD:172:TYR:HD1	28:DD:186:HIS:CA	2.21	0.49
25:BA:528:A:C8	25:BA:528:A:C3'	2.96	0.49
1:AA:1281:G:OP2	1:AA:1281:G:O4'	2.30	0.49
29:BE:176:ILE:HG22	29:BE:176:ILE:O	2.13	0.49
29:BE:1:MET:HE3	29:BE:83:ASP:CB	2.39	0.49
7:AG:48:LYS:O	7:AG:52:GLU:HB2	2.11	0.49
10:AJ:6:ILE:HG22	10:AJ:98:ILE:HG13	1.94	0.49
1:CA:685:A:C6	25:DA:1848:A:C6	3.00	0.49
30:BF:136:THR:HG23	30:BF:137:LYS:N	2.27	0.49
3:AC:70:VAL:CG1	3:AC:71:ALA:H	2.23	0.49
1:CA:562:G:H5'	1:CA:711:A:H1'	1.92	0.49
18:AR:53:ARG:NE	18:AR:58:LEU:O	2.41	0.49
25:DA:2838:G:H2'	25:DA:2839:G:C8	2.47	0.49
30:BF:158:THR:HG23	30:BF:164:ARG:HE	1.77	0.49
25:DA:2685:G:H5''	35:DO:68:GLU:OE1	2.11	0.49
1:AA:626:C:H5'	8:AH:31:PHE:CE1	2.48	0.49
1:CA:156:A:N7	1:CA:157:C:H1'	2.27	0.49
25:BA:1578:U:H2'	25:BA:1579:A:H5'	1.94	0.49
25:DA:1496:A:C8	25:DA:1577:C:O2'	2.65	0.49
1:CA:817:C:OP1	18:CR:60:ALA:HB2	2.12	0.49
12:CL:6:THR:HG23	12:CL:9:GLN:CD	2.32	0.49
25:BA:2178:C:H2'	25:BA:2179:C:H6	1.76	0.49
48:B1:58:ILE:HD12	48:B1:91:LYS:HA	1.93	0.49
25:DA:99:U:C4'	25:DA:102:G:H1'	2.42	0.49
7:CG:16:LEU:HD12	9:CI:42:ARG:HA	1.94	0.49
31:DG:167:GLU:O	31:DG:170:ARG:N	2.45	0.49
17:AQ:45:HIS:CG	17:AQ:65:ILE:HD13	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:330:C:O2	1:AA:1415:A:H2	1.96	0.49
8:CH:64:LYS:HG2	8:CH:79:VAL:HG21	1.95	0.49
56:B9:7:VAL:HG13	56:B9:34:GLN:CB	2.43	0.49
25:DA:433:C:H2'	25:DA:434:U:C6	2.47	0.49
55:D8:21:LYS:HD3	55:D8:48:PHE:CE2	2.48	0.49
49:D2:13:ALA:O	49:D2:15:LYS:N	2.45	0.49
27:DC:43:VAL:HG12	27:DC:43:VAL:O	2.12	0.49
2:AB:17:PHE:CD2	2:AB:17:PHE:N	2.80	0.49
20:AT:8:ARG:HH11	20:AT:8:ARG:HG3	1.77	0.49
25:BA:1188:U:H4'	42:BV:79:VAL:HG22	1.93	0.49
25:DA:1007:C:OP1	34:DN:35:ARG:NH1	2.46	0.49
32:DH:41:MET:CB	32:DH:53:GLU:O	2.59	0.49
25:DA:2516:G:O2'	25:DA:2517:C:H5''	2.11	0.49
25:DA:910:A:N1	25:DA:2277:G:H1'	2.27	0.49
9:AI:10:ARG:CD	9:AI:105:ASP:CB	2.90	0.49
23:AV:68:C:C4	23:AV:69:C:C5	3.01	0.49
23:CV:54:G:O2'	23:CV:55:U:O5'	2.30	0.49
26:DB:91:C:O2'	26:DB:92:C:C5'	2.59	0.49
37:DQ:16:ARG:C	37:DQ:17:LEU:HD23	2.33	0.49
55:B8:33:ASN:HA	55:B8:36:LYS:HD2	1.94	0.49
36:BP:51:PHE:CD2	36:BP:52:GLU:O	2.65	0.49
19:AS:43:GLU:O	19:AS:45:VAL:N	2.40	0.49
25:DA:869:G:H2'	25:DA:870:A:C8	2.45	0.49
25:BA:2172:U:O3'	25:BA:2173:A:C8	2.65	0.49
37:BQ:32:TYR:CZ	37:BQ:111:GLU:HB2	2.48	0.49
7:AG:62:PHE:HA	7:AG:124:LEU:HD23	1.95	0.49
12:CL:60:LEU:HD22	12:CL:60:LEU:N	2.27	0.49
2:CB:91:PRO:HG2	2:CB:155:LEU:CD2	2.34	0.49
33:BI:92:VAL:O	33:BI:93:THR:O	2.31	0.49
33:DI:120:ILE:HG22	33:DI:122:GLU:N	2.27	0.49
33:DI:72:LEU:HD23	33:DI:107:VAL:HG21	1.94	0.49
25:DA:587:C:H4'	25:DA:588:U:H5'	1.95	0.49
32:BH:30:LYS:NZ	32:BH:83:TYR:HE1	2.10	0.49
6:AF:8:ILE:HG22	6:AF:9:VAL:N	2.28	0.49
25:DA:1748:G:C8	25:DA:1748:G:H5'	2.40	0.49
52:D5:3:LYS:HG3	52:D5:4:HIS:H	1.76	0.49
2:CB:187:LEU:HA	2:CB:201:ILE:HB	1.95	0.49
9:CI:99:LEU:HD12	9:CI:101:PHE:CE1	2.48	0.49
25:DA:569:U:H1'	25:DA:947:G:O4'	2.13	0.49
31:DG:137:GLU:HG2	31:DG:152:LEU:CD1	2.42	0.49
31:DG:41:GLN:HB3	31:DG:43:LEU:CD2	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2580:U:H5'	29:DE:131:ALA:HB2	1.94	0.49
37:DQ:109:VAL:CG1	37:DQ:110:THR:N	2.75	0.49
33:DI:19:VAL:HG22	33:DI:20:ASP:N	2.27	0.49
1:CA:1319:G:H21	23:CV:42:C:H1'	1.77	0.49
25:BA:1171:G:H5''	25:BA:1173:G:C4'	2.40	0.49
22:AW:57:G:H21	22:AW:58:A:H4'	1.77	0.49
19:AS:33:THR:OG1	19:AS:34:TRP:N	2.44	0.49
4:AD:30:LYS:CA	4:AD:35:ARG:HD2	2.43	0.49
26:BB:106:G:H4'	46:BZ:31:ARG:HG3	1.94	0.49
13:CM:50:GLU:OE2	51:D4:58:TYR:CE1	2.66	0.49
30:DF:158:THR:HG23	30:DF:164:ARG:HE	1.77	0.49
10:CJ:83:GLU:HB3	10:CJ:84:GLN:NE2	2.28	0.49
1:AA:1104:U:O4	1:AA:1105:A:N6	2.45	0.49
1:CA:1266:A:H4'	1:CA:1267:A:O5'	2.13	0.49
25:DA:1754:C:P	40:DT:96:ARG:NH1	2.85	0.49
2:AB:107:THR:HG23	2:AB:110:GLN:HE22	1.77	0.49
25:BA:1479:G:H5'	25:BA:1558:A:C2	2.47	0.49
25:BA:686:G:O6	54:B7:12:ARG:HG3	2.12	0.49
1:AA:786:G:O5'	1:AA:786:G:H8	1.94	0.49
43:DW:8:ARG:HG3	43:DW:8:ARG:HH11	1.78	0.49
3:CC:59:ARG:HG2	3:CC:64:VAL:HG12	1.94	0.49
7:CG:22:LEU:HG	7:CG:62:PHE:HE2	1.77	0.49
1:CA:1331:A:N6	1:CA:1355:G:N2	2.61	0.49
27:BC:77:ILE:O	27:BC:77:ILE:HG23	2.13	0.49
17:AQ:14:LYS:HB2	17:AQ:14:LYS:HZ3	1.77	0.49
38:DR:111:LEU:HD22	38:DR:111:LEU:N	2.27	0.49
12:AL:75:HIS:CD2	12:AL:77:LEU:HB2	2.48	0.49
1:AA:668:G:C2	1:AA:669:U:C5	3.00	0.49
1:AA:345:G:C6	1:AA:346:G:O6	2.65	0.49
1:AA:1399:G:N2	1:AA:1459:G:H2'	2.28	0.49
23:CV:76:C:OP1	25:DA:2602:A:C5'	2.60	0.49
1:CA:893:G:H2'	1:CA:894:G:H8	1.78	0.49
1:CA:705:A:H2'	1:CA:707:G:C8	2.48	0.49
29:DE:9:VAL:HG13	29:DE:25:VAL:O	2.12	0.49
25:BA:42:G:H2'	25:BA:43:A:O4'	2.12	0.49
12:AL:60:LEU:HD22	12:AL:60:LEU:N	2.28	0.49
1:AA:1428:C:H2'	1:AA:1429:C:H6	1.77	0.49
23:AV:4:G:HO2'	23:AV:5:G:P	2.34	0.49
41:BU:92:ARG:HD3	41:BU:92:ARG:N	2.27	0.49
1:AA:951:A:P	14:AN:41:ARG:HH12	2.35	0.49
1:AA:1424:G:H2'	1:AA:1425:G:H5'	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CV:15:G:C2	23:CV:22:A:N3	2.81	0.49
5:CE:101:ILE:HD11	5:CE:119:LEU:CA	2.38	0.49
25:BA:272:G:C5	25:BA:421:U:C6	3.00	0.49
37:DQ:32:TYR:CZ	37:DQ:111:GLU:HB2	2.48	0.49
42:DV:4:ILE:O	42:DV:39:LEU:HD22	2.13	0.49
25:DA:2376:A:C4	39:DS:94:TYR:CD1	3.00	0.49
22:CW:32:U:C2'	22:CW:33:U:H5'	2.40	0.49
33:BI:98:ALA:HA	33:BI:109:ILE:CB	2.43	0.49
33:DI:92:VAL:O	33:DI:93:THR:O	2.31	0.49
22:AY:30:G:N2	22:AY:41:C:O2	2.46	0.49
32:BH:43:VAL:CG1	32:BH:53:GLU:H	2.25	0.49
30:BF:132:VAL:O	30:BF:133:ASN:C	2.50	0.49
25:DA:289:A:C4	25:DA:353:G:C2	3.00	0.49
25:BA:2892:A:H2'	25:BA:2893:G:C4'	2.40	0.49
25:BA:769:G:H5'	25:BA:1379:A:N6	2.28	0.49
37:DQ:141:GLN:HE22	46:DZ:72:ARG:CA	2.25	0.49
2:AB:84:GLU:O	2:AB:219:VAL:HG21	2.13	0.49
38:BR:8:ARG:CA	38:BR:8:ARG:HE	2.17	0.49
7:CG:48:LYS:O	7:CG:52:GLU:HB2	2.13	0.49
25:DA:528:A:C2	25:DA:2043:C:C4'	2.85	0.49
25:BA:363(F):A:HO2'	25:BA:364:C:H5	1.61	0.49
11:CK:32:ILE:HD11	11:CK:68:ALA:O	2.12	0.49
1:AA:1479:A:H5'	1:AA:1481:G:N7	2.27	0.49
1:CA:871:G:H2'	1:CA:872:G:C8	2.47	0.49
3:CC:5:ILE:CD1	3:CC:5:ILE:C	2.80	0.49
8:AH:24:THR:HG22	8:AH:25:ASP:N	2.27	0.49
25:BA:301:G:C6	25:BA:317:G:C6	3.01	0.49
7:CG:145:ALA:O	7:CG:147:ALA:N	2.43	0.49
25:DA:301:G:C6	25:DA:317:G:C6	3.01	0.49
23:AV:1:C:C5'	23:AV:2:G:OP2	2.59	0.49
16:CP:39:TYR:CZ	16:CP:41:PRO:HA	2.48	0.49
1:AA:340:C:H2'	40:BT:41:ARG:NH2	2.27	0.49
31:DG:101:ILE:C	31:DG:101:ILE:HD13	2.33	0.49
37:DQ:39:PRO:O	37:DQ:40:ALA:HB2	2.12	0.49
2:CB:92:TYR:CD1	2:CB:151:GLY:HA3	2.48	0.49
4:AD:174:LEU:O	4:AD:186:LEU:HD11	2.13	0.49
2:CB:107:THR:HA	2:CB:110:GLN:CD	2.33	0.49
25:DA:1609:A:C6	25:DA:1616:A:C8	3.01	0.49
30:DF:32:LEU:C	30:DF:32:LEU:HD23	2.32	0.49
25:BA:1331:A:HO2'	25:BA:1332:G:H8	1.59	0.49
29:DE:167:VAL:HG22	29:DE:168:MET:N	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:D4:37:PRO:HA	51:D4:51:TYR:HD2	1.76	0.49
29:BE:167:VAL:HG22	29:BE:168:MET:N	2.28	0.49
43:DW:8:ARG:HA	43:DW:102:HIS:CD2	2.48	0.49
1:AA:67:C:H2'	1:AA:68:G:H8	1.77	0.49
45:DY:2:ARG:N	45:DY:4:LYS:HG2	2.28	0.49
25:BA:2884:U:C2'	25:BA:2885:C:H5'	2.42	0.49
42:BV:82:ARG:NH1	42:BV:82:ARG:HG2	2.27	0.49
25:DA:1329:U:C5'	25:DA:1330:C:H5	2.25	0.49
5:CE:151:LEU:HD11	8:CH:77:GLU:OE2	2.12	0.49
32:DH:87:LEU:HD23	32:DH:164:TYR:HA	1.94	0.49
34:DN:107:LEU:HD12	34:DN:117:PHE:HB2	1.95	0.49
25:DA:1003:G:N3	25:DA:1010:A:H2	2.11	0.49
45:BY:89:PHE:O	45:BY:90:LEU:HB3	2.13	0.49
25:DA:637:A:H2'	36:DP:117:GLU:OE2	2.12	0.49
14:AN:36:PHE:CD1	14:AN:36:PHE:C	2.85	0.49
44:BX:47:PHE:CD1	44:BX:47:PHE:N	2.80	0.49
1:AA:922:G:H2'	1:AA:922:G:N3	2.27	0.49
27:BC:61:THR:HG22	27:BC:163:PHE:O	2.13	0.49
25:BA:1160:G:N2	42:BV:10:LYS:HE2	2.27	0.49
33:BI:23:PRO:HB3	33:BI:27:ARG:NH1	2.26	0.49
40:DT:28:VAL:HG21	40:DT:46:GLU:CG	2.41	0.49
1:AA:1099:G:H4'	9:AI:104:ARG:HH11	1.78	0.49
19:AS:39:THR:CG2	19:AS:40:ILE:N	2.75	0.49
26:DB:85:G:O6	26:DB:93:G:O6	2.30	0.49
25:DA:869:G:H1'	37:DQ:8:LYS:HD2	1.95	0.49
25:BA:2468:G:H5'	37:BQ:120:ILE:CD1	2.42	0.49
25:BA:309:G:H1'	25:BA:329:G:C4	2.47	0.49
41:DU:91:ASP:OD2	41:DU:96:ALA:CB	2.57	0.49
25:BA:2376:A:N6	39:BS:92:TYR:HE2	2.10	0.49
25:BA:614(C):A:O2'	25:BA:615:G:OP1	2.30	0.49
3:CC:14:ILE:O	3:CC:15:THR:C	2.50	0.49
25:DA:2376:A:C6	39:DS:94:TYR:CD1	3.01	0.49
39:DS:17:ARG:C	39:DS:19:LYS:N	2.64	0.49
28:DD:25:THR:O	28:DD:26:LYS:NZ	2.42	0.49
28:DD:26:LYS:NZ	28:DD:82:ILE:N	2.55	0.49
25:BA:860:U:C2	25:BA:2268:A:C8	3.01	0.49
31:BG:132:ASN:OD1	31:BG:158:ALA:HB1	2.13	0.49
28:DD:80:ALA:HB3	28:DD:94:LEU:HD13	1.95	0.49
13:AM:117:VAL:CG1	13:AM:118:ALA:N	2.56	0.49
33:BI:136:VAL:O	33:BI:136:VAL:HG22	2.11	0.49
32:BH:116:GLU:HG2	32:BH:117:PRO:CD	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BH:157:TYR:O	32:BH:158:HIS:HB2	2.12	0.49
1:AA:916:G:H2'	1:AA:917:C:H6	1.78	0.49
36:BP:23:PRO:HB2	36:BP:33:ARG:NE	2.28	0.49
30:DF:132:VAL:O	30:DF:133:ASN:C	2.50	0.49
1:AA:823:C:H4'	1:AA:825:C:C2	2.47	0.49
25:BA:289:A:C2	25:BA:353:G:N3	2.81	0.49
10:AJ:83:GLU:HB3	10:AJ:84:GLN:NE2	2.26	0.49
25:DA:747:U:H1'	52:D5:2:ALA:HB3	1.95	0.49
1:CA:180:C:H4'	20:CT:82:SER:CB	2.35	0.49
26:DB:106:G:H4'	46:DZ:31:ARG:HG3	1.94	0.49
37:BQ:141:GLN:O	46:BZ:53:ILE:C	2.51	0.49
27:BC:68:LEU:CD1	27:BC:179:SER:HA	2.32	0.49
28:BD:172:TYR:CD1	28:BD:186:HIS:CA	2.94	0.49
31:BG:133:LEU:HD11	31:BG:157:ILE:CD1	2.35	0.49
20:AT:72:LEU:HD21	20:AT:77:ALA:HA	1.95	0.49
25:BA:2206:G:N2	25:BA:2207:G:C5'	2.69	0.49
15:CO:39:LEU:HD13	15:CO:56:LEU:HB2	1.95	0.49
34:DN:23:LEU:CD1	34:DN:98:VAL:HG12	2.42	0.49
25:DA:363(F):A:HO2'	25:DA:364:C:H5	1.61	0.49
28:DD:49:ILE:CD1	28:DD:52:ARG:HA	2.41	0.49
10:CJ:6:ILE:HG12	10:CJ:72:VAL:O	2.12	0.49
34:BN:15:LEU:HB3	34:BN:136:GLU:HA	1.93	0.49
41:BU:61:TRP:O	41:BU:63:VAL:N	2.45	0.49
1:AA:209:U:O2'	1:AA:211:G:O6	2.30	0.49
4:AD:25:ARG:NH1	4:AD:30:LYS:O	2.46	0.49
43:BW:48:ALA:O	43:BW:50:VAL:N	2.46	0.49
43:BW:51:LEU:C	43:BW:51:LEU:HD13	2.32	0.49
3:CC:83:ARG:O	3:CC:87:LEU:HG	2.12	0.49
3:CC:90:GLU:HA	3:CC:90:GLU:OE1	2.13	0.49
37:BQ:16:ARG:C	37:BQ:17:LEU:HD23	2.33	0.49
1:AA:659:A:H2'	1:AA:660:U:H6	1.77	0.49
30:BF:101:LEU:HD12	30:BF:102:PRO:CD	2.39	0.49
10:CJ:8:LEU:HD23	10:CJ:96:ILE:HG22	1.93	0.49
30:BF:16:GLY:O	30:BF:17:ARG:HG3	2.12	0.49
53:B6:27:LYS:O	53:B6:29:ASN:N	2.46	0.49
25:DA:2884:U:C2'	25:DA:2885:C:H5'	2.42	0.49
25:BA:904:C:O2'	46:BZ:169:GLU:CD	2.50	0.49
2:CB:107:THR:HG23	2:CB:110:GLN:HE22	1.78	0.49
1:AA:608:G:H2'	1:AA:609:U:C6	2.45	0.49
1:AA:1379:C:N4	24:AX:22:A:H3'	2.26	0.49
18:CR:61:LYS:O	18:CR:65:ILE:HG13	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:21:G:H2'	1:CA:22:G:C8	2.48	0.49
17:CQ:10:VAL:HG23	17:CQ:55:ASP:O	2.12	0.49
12:AL:6:THR:HG23	12:AL:9:GLN:CG	2.42	0.49
1:CA:505:C:H5''	12:CL:120:TYR:OH	2.13	0.49
25:DA:18:C:H4'	41:DU:23:GLY:O	2.12	0.49
27:DC:214:VAL:C	27:DC:216:THR:N	2.63	0.49
1:CA:283:A:H2'	1:CA:284:G:H4'	1.94	0.49
1:AA:506:A:C2	12:AL:91:LYS:HB3	2.47	0.49
25:BA:407:G:H2'	25:BA:408:G:H8	1.77	0.49
15:AO:8:LYS:O	15:AO:12:ILE:HG13	2.12	0.49
10:AJ:38:ILE:O	10:AJ:38:ILE:HG13	2.11	0.49
25:BA:2831:G:P	29:BE:58:ARG:HH22	2.36	0.49
43:BW:34:ASN:OD1	52:B5:39:MET:CE	2.61	0.49
25:BA:2453:A:O2'	25:BA:2454:G:H5'	2.12	0.49
1:CA:500:G:N3	1:CA:514:U:H5'	2.28	0.49
25:BA:1990:C:H2'	25:BA:1991:U:C6	2.48	0.49
13:CM:94:ARG:NH2	25:DA:887:A:C1'	2.66	0.49
28:DD:134:ARG:HD3	28:DD:135:PHE:CZ	2.47	0.49
4:AD:195:ALA:O	6:CF:16:GLN:CB	2.50	0.49
23:CV:35:C:O2'	23:CV:36:A:O5'	2.30	0.49
32:DH:17:VAL:CG1	32:DH:45:VAL:CB	2.90	0.49
50:D3:8:LEU:HD13	50:D3:31:LEU:HD23	1.91	0.49
50:D3:29:ARG:HB2	50:D3:33:GLN:NE2	2.27	0.49
6:AF:75:LEU:HD21	6:AF:79:LEU:HD11	1.95	0.49
31:BG:101:ILE:C	31:BG:101:ILE:HD13	2.33	0.49
36:BP:56:SER:HB2	36:BP:60:MET:SD	2.52	0.49
25:BA:1455:G:C8	38:BR:60:LEU:HD11	2.48	0.49
45:BY:17:SER:HB2	45:BY:71:LYS:HE2	1.88	0.49
41:DU:110:VAL:O	41:DU:113:ALA:HB3	2.13	0.49
41:DU:95:LEU:O	41:DU:98:LEU:HG	2.13	0.49
5:CE:34:VAL:O	5:CE:41:VAL:HA	2.12	0.49
25:BA:859:G:O2'	25:BA:860:U:OP2	2.30	0.49
25:DA:2068:U:N3	25:DA:2430:A:C2	2.44	0.49
25:DA:859:G:O2'	25:DA:860:U:OP2	2.30	0.49
3:AC:11:ARG:HG2	3:AC:11:ARG:NH1	2.26	0.49
35:BO:4:PRO:O	35:BO:5:GLN:CB	2.59	0.49
2:CB:61:LEU:HD11	2:CB:66:GLY:HA3	1.95	0.49
34:DN:55:VAL:HG22	34:DN:126:PRO:CA	2.41	0.49
33:DI:18:VAL:HG12	33:DI:18:VAL:O	2.11	0.49
33:BI:120:ILE:HG22	33:BI:122:GLU:N	2.27	0.49
32:BH:26:VAL:O	32:BH:32:GLU:HA	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:109:C:H5'	26:DB:110:G:O5'	2.13	0.49
25:DA:675:A:OP1	30:DF:63:LYS:HE2	2.13	0.49
25:BA:941:A:O2'	36:BP:35:HIS:CE1	2.66	0.49
36:BP:33:ARG:O	36:BP:35:HIS:O	2.30	0.49
5:CE:144:THR:OG1	5:CE:146:ALA:HB3	2.12	0.49
22:AW:52:G:H2'	22:AW:53:G:C8	2.48	0.49
25:BA:675:A:OP1	30:BF:63:LYS:HE2	2.13	0.49
25:BA:1140:C:P	34:BN:66:LYS:HZ3	2.35	0.49
1:CA:1117:U:HO2'	1:CA:1118:U:H5	1.59	0.49
2:CB:74:LYS:HD2	2:CB:74:LYS:H	1.77	0.49
25:DA:2391:G:O2'	25:DA:2392:A:OP2	2.30	0.49
9:AI:118:LYS:O	9:AI:120:ARG:N	2.41	0.49
7:AG:15:ASP:HB3	7:AG:19:GLY:N	2.28	0.49
36:BP:107:LYS:HG3	36:BP:107:LYS:O	2.13	0.49
36:BP:126:VAL:HG22	36:BP:145:PRO:HB2	1.93	0.49
34:DN:99:LEU:HD12	34:DN:122:VAL:HG21	1.95	0.49
8:AH:85:ARG:HG3	8:AH:85:ARG:HH11	1.78	0.49
3:AC:114:PRO:O	3:AC:118:GLN:NE2	2.36	0.49
3:AC:70:VAL:HG12	3:AC:72:LYS:N	2.25	0.49
46:BZ:30:ASN:HA	46:BZ:89:PHE:HE2	1.76	0.49
1:CA:1036:C:C2'	1:CA:1037:A:OP2	2.59	0.49
25:BA:790:C:O2'	25:BA:791:C:O5'	2.30	0.49
1:CA:365:C:C2	1:CA:387:G:N2	2.81	0.49
25:DA:2320:A:C8	25:DA:2333:A:N6	2.80	0.49
8:AH:23:SER:HB2	8:AH:61:VAL:O	2.12	0.49
25:DA:1578:U:H2'	25:DA:1579:A:H5'	1.94	0.49
37:BQ:34:LEU:CD1	37:BQ:129:THR:HB	2.43	0.49
42:DV:62:LEU:N	42:DV:62:LEU:HD22	2.27	0.49
1:AA:343:G:O2'	1:AA:344:A:O5'	2.30	0.49
30:BF:155:LEU:CD2	30:BF:186:ILE:HD13	2.42	0.49
25:BA:1268:A:C2	25:BA:2013:A:C4	3.00	0.49
2:AB:164:VAL:HB	2:AB:186:ALA:HB2	1.95	0.49
50:D3:1:MET:HE2	50:D3:40:THR:HA	1.94	0.49
25:DA:1308:A:H2'	25:DA:1309:G:O4'	2.12	0.49
4:AD:65:ARG:HD2	4:AD:72:GLU:HA	1.95	0.49
25:DA:1514:U:H2'	25:DA:1515:G:C8	2.48	0.49
1:AA:1221:U:N3	7:AG:30:ILE:HG22	2.27	0.49
1:CA:940:G:H1	1:CA:949:C:H42	1.60	0.49
25:BA:443:A:H1'	25:BA:1201:C:O4'	2.12	0.49
4:CD:100:ARG:HH12	4:CD:137:SER:HB3	1.78	0.49
25:BA:1386:C:H2'	25:BA:1387:C:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:621:A:H2'	25:DA:622:G:H5'	1.95	0.49
27:DC:61:THR:HG22	27:DC:163:PHE:O	2.13	0.49
25:DA:271(P):C:H2'	25:DA:271(Q):G:C5'	2.40	0.49
26:DB:92:C:H5''	46:DZ:79:ARG:NH2	2.28	0.49
25:DA:281:G:N2	25:DA:358:U:H5	2.03	0.49
25:DA:283:A:O2'	25:DA:284:U:OP1	2.30	0.49
55:B8:32:LEU:HB3	55:B8:36:LYS:HZ2	1.77	0.49
5:CE:101:ILE:HD13	5:CE:118:ILE:O	2.13	0.49
11:CK:99:GLN:HE21	11:CK:105:VAL:HG11	1.77	0.49
25:DA:614(C):A:O2'	25:DA:615:G:O5'	2.30	0.49
25:BA:1885:A:H2'	25:BA:1886:C:O4'	2.12	0.49
41:DU:99:ALA:HB2	41:DU:106:PHE:CG	2.48	0.49
31:DG:113:ARG:O	31:DG:114:ILE:C	2.51	0.49
39:DS:101:LEU:HD13	39:DS:101:LEU:H	1.77	0.49
33:BI:45:LYS:O	33:BI:48:GLU:HB2	2.13	0.49
25:BA:2302:G:O2'	31:BG:128:ARG:NH2	2.46	0.49
1:CA:1261:A:H5''	10:CJ:40:LEU:HD12	1.95	0.49
25:DA:865:C:H4'	25:DA:866:A:OP1	2.13	0.49
33:BI:110:ASP:O	33:BI:114:LEU:HD21	2.13	0.49
33:BI:129:THR:O	33:BI:130:TYR:HB2	2.11	0.49
33:BI:123:LEU:HD22	33:BI:142:VAL:HG12	1.94	0.49
33:BI:95:LYS:HA	33:BI:98:ALA:CB	2.42	0.49
33:DI:77:LEU:O	33:DI:140:LEU:HD12	2.13	0.49
30:DF:28:ILE:HG12	30:DF:119:ARG:HH21	1.76	0.49
25:DA:671:C:O2'	25:DA:672:C:H5'	2.11	0.49
23:AV:48:U:H6	23:AV:48:U:H3'	1.77	0.49
25:BA:389:G:N1	36:BP:70:GLN:HG3	2.27	0.49
2:AB:217:ARG:HA	2:AB:220:ASP:OD2	2.13	0.49
2:AB:57:PHE:CE2	2:AB:185:ILE:HD11	2.47	0.49
2:AB:236:TYR:HD2	2:AB:239:VAL:HB	1.77	0.49
45:BY:28:LYS:HB2	45:BY:38:ILE:N	2.19	0.49
34:BN:23:LEU:CD1	34:BN:98:VAL:HG12	2.42	0.49
25:BA:971:C:H2'	25:BA:972:G:O4'	2.12	0.49
25:DA:287:C:H2'	25:DA:288:C:O4'	2.11	0.49
10:AJ:85:LEU:C	10:AJ:87:THR:N	2.66	0.49
10:AJ:90:LEU:N	10:AJ:91:PRO:CD	2.76	0.49
1:CA:1142:G:N2	1:CA:1143:C:O4'	2.45	0.49
46:BZ:117:LEU:HD21	46:BZ:172:ALA:HB1	1.95	0.49
25:DA:769:G:H5'	25:DA:1379:A:N6	2.28	0.49
25:BA:1301:A:H2'	25:BA:1302:A:H3'	1.94	0.49
11:CK:19:ALA:HB3	11:CK:82:VAL:CG2	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:70:C:O5'	26:DB:70:C:H6	1.95	0.49
1:CA:1391:C:H4'	25:DA:1915:U:O4	2.13	0.49
11:AK:44:SER:OG	11:AK:47:VAL:HG23	2.12	0.49
3:AC:39:ILE:C	3:AC:41:GLY:N	2.65	0.49
34:DN:42:TRP:CZ3	34:DN:48:MET:HE1	2.47	0.49
23:AV:73:A:H8	23:AV:73:A:O5'	1.96	0.49
46:BZ:155:LEU:O	46:BZ:157:LEU:HD12	2.13	0.49
29:DE:11:MET:N	40:DT:8:LYS:HZ1	2.09	0.49
42:BV:15:GLU:CB	42:BV:16:PRO:CD	2.90	0.49
54:B7:41:ARG:HB2	54:B7:41:ARG:NH1	2.28	0.49
10:CJ:94:VAL:CG1	10:CJ:95:GLU:N	2.76	0.49
30:DF:16:GLY:O	30:DF:17:ARG:HG3	2.12	0.49
9:CI:10:ARG:HD3	9:CI:75:ASP:CB	2.40	0.49
1:AA:1081:G:OP1	2:AB:96:ARG:NH2	2.46	0.49
45:DY:88:LYS:NZ	45:DY:93:GLY:HA3	2.27	0.49
8:CH:63:LEU:CB	8:CH:65:TYR:CE1	2.96	0.49
30:BF:192:LEU:HD23	30:BF:193:VAL:N	2.28	0.49
11:CK:18:ARG:NH2	11:CK:36:ASP:O	2.46	0.49
25:DA:558:G:OP2	34:DN:111:PRO:HD2	2.12	0.49
11:AK:18:ARG:NH2	11:AK:36:ASP:O	2.46	0.49
25:BA:1754:C:C5	40:BT:96:ARG:NH1	2.81	0.49
1:CA:451:C:H2'	1:CA:452:C:C6	2.47	0.49
1:CA:310:A:H5''	1:CA:312:G:OP2	2.13	0.49
1:AA:35:G:C2	1:AA:533:G:C2	3.01	0.49
1:AA:35:G:C6	1:AA:36:C:N4	2.81	0.49
34:DN:3:THR:HG22	34:DN:5:VAL:HG12	1.94	0.49
25:BA:879:G:N2	25:BA:899:A:H1'	2.28	0.49
1:CA:584:C:H2'	1:CA:585:A:C8	2.47	0.49
23:AV:76:C:OP1	25:BA:2602:A:H5''	2.12	0.49
1:CA:136:G:H2'	1:CA:137:A:C8	2.46	0.49
32:BH:149:ARG:HD3	32:BH:164:TYR:CD1	2.48	0.49
25:BA:993:G:N3	42:BV:89:GLN:NE2	2.61	0.49
1:CA:1070:G:H1	1:CA:1079:C:H42	1.61	0.49
25:BA:363(C):G:H2'	25:BA:363(D):G:H8	1.76	0.49
25:BA:1003:G:N3	25:BA:1010:A:H2	2.11	0.49
12:AL:111:LYS:O	12:AL:112:ASP:HB2	2.13	0.49
1:CA:1507:G:H4'	1:CA:1507:G:OP1	2.11	0.49
29:DE:188:VAL:O	29:DE:188:VAL:HG13	2.13	0.49
27:BC:214:VAL:C	27:BC:216:THR:N	2.63	0.49
4:AD:13:ARG:HD2	4:AD:38:TYR:O	2.13	0.49
25:BA:2262:U:H2'	25:BA:2263:C:C5'	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:910:A:C4	37:DQ:13:GLN:OE1	2.66	0.49
51:B4:37:PRO:HA	51:B4:51:TYR:HD2	1.76	0.49
1:AA:960:A:N1	1:AA:1203:G:N2	2.59	0.49
14:AN:27:CYS:SG	14:AN:29:ARG:HB2	2.53	0.49
22:CW:21:A:C4	22:CW:48:C:N4	2.81	0.49
23:CV:47:G:H8	23:CV:47:G:H3'	1.78	0.49
23:CV:59:A:C6	23:CV:62:C:C6	3.01	0.49
25:BA:2393:A:C4'	36:BP:60:MET:O	2.61	0.49
38:BR:77:ARG:C	38:BR:79:LEU:H	2.17	0.49
11:CK:96:ARG:HA	11:CK:99:GLN:HG3	1.94	0.49
45:BY:42:VAL:HG12	45:BY:44:ILE:HG13	1.94	0.49
13:AM:6:GLY:HA2	31:BG:115:ARG:O	2.12	0.49
25:DA:614(C):A:H1'	30:DF:180:GLY:O	2.13	0.49
19:CS:45:VAL:HA	19:CS:62:ILE:HG23	1.94	0.49
45:DY:100:ALA:O	45:DY:101:LYS:O	2.31	0.49
25:BA:865:C:H4'	25:BA:866:A:OP1	2.13	0.49
29:DE:88:GLY:O	29:DE:89:ASP:HB2	2.13	0.49
50:B3:1:MET:HE2	50:B3:40:THR:HA	1.95	0.49
28:BD:142:VAL:HG22	28:BD:143:HIS:N	2.27	0.49
4:CD:126:ILE:HG22	4:CD:127:THR:N	2.28	0.49
33:BI:72:LEU:HD23	33:BI:107:VAL:HG21	1.94	0.49
33:DI:98:ALA:HA	33:DI:109:ILE:CB	2.42	0.49
37:DQ:35:VAL:HG23	37:DQ:100:GLY:O	2.13	0.49
25:DA:1141:U:C5	34:DN:64:GLY:HA3	2.48	0.49
10:CJ:28:ARG:NH2	10:CJ:34:VAL:O	2.46	0.49
38:DR:12:ARG:HH11	38:DR:12:ARG:HG3	1.78	0.49
25:DA:1952:A:C4	35:DO:22:ILE:HG13	2.47	0.49
2:CB:16:HIS:CD2	2:CB:210:SER:HA	2.47	0.49
9:CI:53:VAL:HG13	9:CI:95:LYS:HE3	1.95	0.49
46:DZ:144:LEU:HA	46:DZ:148:ASP:HB3	1.94	0.49
49:B2:42:GLY:O	49:B2:44:LEU:N	2.46	0.49
29:BE:101:ARG:HH21	29:BE:171:GLU:HA	1.77	0.49
32:DH:121:ILE:HG22	32:DH:133:VAL:CG1	2.43	0.49
29:DE:101:ARG:HB2	29:DE:201:THR:HG22	1.95	0.49
1:AA:1220:A:H62	1:AA:1280:A:N6	2.01	0.49
2:AB:82:ARG:O	2:AB:86:GLU:HG3	2.12	0.49
8:AH:60:ARG:CG	8:AH:60:ARG:NH1	2.75	0.49
29:BE:2:LYS:NZ	29:BE:95:ILE:O	2.40	0.49
1:CA:1301:C:H5'	19:CS:70:LYS:CG	2.42	0.49
10:AJ:5:ARG:O	10:AJ:98:ILE:HA	2.12	0.49
29:DE:30:PRO:HA	29:DE:92:THR:HG22	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:84:ARG:HG3	8:AH:85:ARG:H	1.74	0.49
43:DW:68:ARG:O	43:DW:110:LYS:N	2.46	0.49
31:DG:95:ARG:HH11	31:DG:95:ARG:HG2	1.78	0.49
29:DE:11:MET:O	40:DT:8:LYS:NZ	2.46	0.49
54:D7:47:ARG:O	54:D7:47:ARG:HD2	2.12	0.49
12:AL:85:ILE:HA	12:AL:85:ILE:HD13	1.60	0.49
25:BA:1278:A:C5'	38:BR:36:THR:HG22	2.43	0.49
30:BF:192:LEU:HD21	30:BF:194:MET:CE	2.42	0.49
25:BA:814:C:H2'	25:BA:815:C:H6	1.78	0.49
30:DF:192:LEU:HD23	30:DF:193:VAL:N	2.28	0.49
44:DX:35:THR:HG22	44:DX:36:LYS:N	2.28	0.49
12:AL:12:ARG:NH1	12:AL:12:ARG:HG2	2.26	0.49
1:AA:802:A:N6	1:AA:1506:G:N7	2.61	0.49
48:D1:57:GLU:HG2	48:D1:57:GLU:O	2.13	0.49
25:BA:99:U:C4'	25:BA:102:G:H1'	2.42	0.49
1:AA:433:G:N1	1:AA:479:A:OP2	2.32	0.49
4:CD:17:VAL:HG12	4:CD:18:LYS:N	2.28	0.49
15:AO:6:GLU:OE2	15:AO:6:GLU:N	2.45	0.49
38:DR:109:ALA:O	38:DR:111:LEU:HD22	2.13	0.49
25:BA:1778:U:H2'	25:BA:1784:A:N6	2.28	0.49
34:BN:93:THR:O	34:BN:94:HIS:HB2	2.13	0.49
37:BQ:116:GLU:HA	37:BQ:116:GLU:OE1	2.13	0.49
1:CA:1401:G:C6	1:CA:1459:G:C2	3.01	0.49
25:BA:2870:C:H2'	25:BA:2871:C:O4'	2.13	0.49
25:BA:784:A:H5'	25:BA:785:G:OP1	2.12	0.49
25:DA:271(W):G:O6	25:DA:271(X):G:N1	2.45	0.49
1:AA:370:U:H4'	16:AP:17:TYR:CE2	2.48	0.49
28:BD:65:ILE:HD11	28:BD:67:PHE:CE1	2.47	0.49
55:B8:7:HIS:CD2	55:B8:59:LYS:HZ2	2.30	0.49
25:DA:1227:G:OP1	41:DU:13:LYS:HG2	2.13	0.49
3:CC:127:ARG:HG2	3:CC:127:ARG:HH11	1.78	0.49
8:AH:35:ILE:O	8:AH:39:LEU:HD23	2.12	0.49
4:AD:100:ARG:HH12	4:AD:137:SER:HB3	1.78	0.49
25:BA:433:C:H2'	25:BA:434:U:C6	2.47	0.49
9:AI:10:ARG:HG2	9:AI:105:ASP:HB2	1.95	0.48
20:CT:50:GLU:HA	20:CT:100:ILE:CB	2.43	0.48
23:AV:4:G:C4	23:AV:5:G:N7	2.81	0.48
45:DY:68:HIS:HB3	45:DY:71:LYS:CG	2.43	0.48
50:B3:29:ARG:HB2	50:B3:33:GLN:HE22	1.77	0.48
41:DU:92:ARG:N	41:DU:92:ARG:HD3	2.27	0.48
41:DU:96:ALA:HB1	41:DU:106:PHE:HE1	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BV:25:LEU:H	42:BV:92:THR:CG2	2.11	0.48
31:DG:113:ARG:CZ	51:D4:61:VAL:O	2.61	0.48
39:DS:17:ARG:HH21	39:DS:90:GLY:N	2.10	0.48
14:CN:47:LEU:HA	14:CN:50:LYS:CD	2.43	0.48
1:CA:1294:U:C5	19:CS:4:SER:N	2.81	0.48
8:AH:41:ARG:NH2	8:AH:123:GLU:OE2	2.46	0.48
22:CW:36:A:C2'	22:CW:37:A:O5'	2.61	0.48
3:AC:3:ASN:CG	3:AC:4:LYS:H	2.15	0.48
50:B3:1:MET:CE	50:B3:41:PRO:HD3	2.43	0.48
2:AB:67:THR:HG21	2:AB:155:LEU:HD21	1.94	0.48
33:BI:120:ILE:HD13	33:BI:126:TYR:CE1	2.48	0.48
41:DU:62:ILE:HD12	41:DU:76:TYR:OH	2.13	0.48
33:DI:95:LYS:HA	33:DI:98:ALA:CB	2.42	0.48
25:DA:2414:G:H21	36:DP:67:MET:CE	2.25	0.48
25:BA:2186:G:O6	25:BA:2187:G:O6	2.30	0.48
31:DG:132:ASN:OD1	31:DG:158:ALA:HB1	2.13	0.48
13:CM:10:PRO:HB2	13:CM:18:ALA:CB	2.39	0.48
2:AB:221:LEU:N	2:AB:221:LEU:HD22	2.28	0.48
22:AW:52:G:N1	22:AW:63:G:C6	2.81	0.48
45:BY:26:LYS:O	45:BY:28:LYS:HE3	2.13	0.48
25:DA:289:A:C2	25:DA:353:G:N3	2.81	0.48
10:AJ:33:GLN:HB2	10:AJ:75:ILE:CD1	2.43	0.48
27:DC:64:LEU:O	27:DC:66:HIS:N	2.46	0.48
46:DZ:117:LEU:HD21	46:DZ:172:ALA:HB1	1.94	0.48
46:DZ:120:ILE:HB	46:DZ:172:ALA:N	2.28	0.48
28:BD:270:ILE:C	28:BD:271:ILE:HG12	2.34	0.48
28:DD:270:ILE:C	28:DD:271:ILE:HG12	2.34	0.48
12:AL:27:LEU:C	12:AL:29:GLY:H	2.15	0.48
15:CO:74:ASP:HB3	15:CO:77:ARG:HG2	1.94	0.48
18:AR:50:ILE:HD12	18:AR:70:ILE:HG21	1.94	0.48
10:CJ:22:LYS:NZ	10:CJ:23:ILE:HG12	2.28	0.48
35:DO:1:MET:CG	35:DO:32:TYR:HB3	2.43	0.48
8:AH:12:ARG:NH1	8:AH:26:VAL:HA	2.27	0.48
43:DW:92:ARG:NH1	43:DW:92:ARG:HG2	2.27	0.48
4:AD:30:LYS:HA	4:AD:35:ARG:HD2	1.94	0.48
25:DA:9:U:O2'	25:DA:10:G:O5'	2.29	0.48
25:DA:1112:G:C2	25:DA:1113:U:C2	3.01	0.48
20:AT:56:MET:HG3	20:AT:84:LEU:CD1	2.40	0.48
8:CH:84:ARG:HG3	8:CH:85:ARG:H	1.77	0.48
25:DA:1668:A:H5''	35:DO:5:GLN:HG2	1.95	0.48
10:CJ:90:LEU:N	10:CJ:91:PRO:CD	2.76	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:139:G:H2'	25:BA:140:G:N7	2.28	0.48
25:BA:1993:U:H2'	25:BA:1994:C:O5'	2.12	0.48
38:BR:27:SER:HB3	38:BR:34:ILE:HD11	1.95	0.48
2:AB:107:THR:HA	2:AB:110:GLN:OE1	2.13	0.48
1:AA:1134:A:OP1	10:AJ:13:HIS:HB2	2.13	0.48
30:BF:46:ARG:HH11	30:BF:46:ARG:CG	2.25	0.48
29:DE:110:GLY:O	38:DR:2:ARG:NE	2.46	0.48
25:BA:1496:A:C8	25:BA:1577:C:O2'	2.65	0.48
19:AS:24:ALA:O	19:AS:25:LYS:CB	2.61	0.48
25:DA:1578:U:O2	25:DA:1578:U:H2'	2.12	0.48
29:DE:119:ARG:HD2	29:DE:120:TRP:CD1	2.47	0.48
1:AA:775:A:N3	1:AA:777:A:C5	2.81	0.48
25:DA:1175:U:H4'	25:DA:1176:G:C2'	2.42	0.48
6:CF:50:TYR:CE2	6:CF:52:ILE:HD11	2.47	0.48
25:DA:1387:C:H5'	25:DA:1469:A:H4'	1.95	0.48
32:BH:38:SER:O	32:BH:40:GLU:N	2.46	0.48
25:DA:1406:U:H3'	25:DA:1407:C:H6	1.78	0.48
1:CA:413:C:H2'	1:CA:414:C:H6	1.77	0.48
1:CA:522:A:H2'	1:CA:523:G:C8	2.48	0.48
25:DA:518:G:H4'	43:DW:18:ARG:NH1	2.28	0.48
25:DA:1778:U:H2'	25:DA:1784:A:N6	2.28	0.48
45:BY:3:VAL:HG12	45:BY:3:VAL:O	2.12	0.48
37:DQ:116:GLU:OE1	37:DQ:116:GLU:HA	2.13	0.48
1:CA:497:C:H2'	1:CA:498:G:H8	1.76	0.48
1:CA:1493:G:H2'	1:CA:1495:A:OP2	2.12	0.48
32:DH:149:ARG:HD3	32:DH:164:TYR:CD1	2.48	0.48
42:BV:79:VAL:O	42:BV:80:GLN:HB2	2.13	0.48
25:DA:2225:A:H1'	25:DA:2226:C:OP2	2.13	0.48
1:CA:1167:G:N2	1:CA:1168:G:H1'	2.28	0.48
25:DA:341:G:O2'	25:DA:342:G:H5'	2.13	0.48
37:DQ:38:GLU:HG3	37:DQ:127:ILE:HB	1.95	0.48
25:BA:2092:U:C6	25:BA:2225:A:O2'	2.65	0.48
8:CH:125:ARG:HH11	8:CH:125:ARG:HG3	1.78	0.48
1:CA:482:A:C6	1:CA:530:A:C8	3.01	0.48
1:AA:1143:C:H2'	1:AA:1144:C:C6	2.48	0.48
1:AA:1052:U:H2'	1:AA:1053:C:H6	1.78	0.48
8:CH:112:LEU:C	8:CH:112:LEU:HD12	2.33	0.48
1:AA:1149:A:O5'	1:AA:1149:A:H8	1.96	0.48
28:DD:125:ILE:HD12	28:DD:136:ILE:HG23	1.94	0.48
29:BE:52:LEU:HD12	29:BE:53:PRO:CD	2.41	0.48
13:AM:91:ARG:HH11	19:AS:81:ARG:HH22	1.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:93:ARG:HG3	25:BA:888:C:OP2	2.13	0.48
20:CT:61:SER:O	20:CT:63:ILE:N	2.47	0.48
25:DA:1819:A:O2'	25:DA:1820:U:OP2	2.27	0.48
50:D3:8:LEU:HD12	50:D3:31:LEU:HA	1.94	0.48
22:CW:66:U:H6	22:CW:66:U:O5'	1.94	0.48
22:AW:75:C:H6	22:AW:75:C:O5'	1.96	0.48
25:DA:2483:C:C5'	25:DA:2484:G:OP2	2.61	0.48
25:BA:309:G:O2'	25:BA:329:G:C8	2.61	0.48
31:BG:140:ILE:HG22	31:BG:140:ILE:O	2.13	0.48
26:BB:31:C:C2'	26:BB:53:A:H61	2.26	0.48
39:DS:17:ARG:O	39:DS:19:LYS:N	2.46	0.48
25:BA:1657:C:H2'	25:BA:1658:C:H6	1.78	0.48
9:CI:5:TYR:OH	9:CI:16:ARG:HG2	2.14	0.48
8:CH:6:ILE:C	8:CH:10:LEU:HD12	2.32	0.48
23:AV:54:G:O2'	23:AV:55:U:O5'	2.30	0.48
23:AV:54:G:H8	23:AV:54:G:O5'	1.97	0.48
33:DI:69:LYS:O	33:DI:73:GLU:HB3	2.12	0.48
33:DI:88:ILE:CD1	33:DI:88:ILE:N	2.76	0.48
30:DF:28:ILE:O	30:DF:28:ILE:HD12	2.13	0.48
25:BA:2186:G:C6	25:BA:2187:G:C6	3.02	0.48
25:BA:1022:G:O2'	25:BA:1023:U:OP2	2.30	0.48
2:CB:236:TYR:HD2	2:CB:239:VAL:HB	1.78	0.48
28:BD:186:HIS:HE1	28:BD:188:GLU:HG2	1.78	0.48
25:DA:664:C:H4'	25:DA:941:A:P	2.53	0.48
7:CG:52:GLU:O	7:CG:54:THR:N	2.43	0.48
32:BH:25:LYS:CD	32:BH:25:LYS:H	2.12	0.48
15:CO:56:LEU:CD2	25:DA:715:G:C2	2.91	0.48
22:AW:70:G:C2	22:AW:71:G:C4	3.01	0.48
7:AG:15:ASP:CB	7:AG:20:ASP:H	2.24	0.48
36:DP:107:LYS:HG3	36:DP:107:LYS:O	2.13	0.48
28:DD:155:LEU:N	28:DD:155:LEU:HD12	2.28	0.48
31:DG:97:ASP:O	31:DG:101:ILE:CG2	2.60	0.48
28:BD:155:LEU:N	28:BD:155:LEU:CD1	2.77	0.48
28:BD:155:LEU:N	28:BD:155:LEU:HD12	2.28	0.48
26:BB:105:A:H2'	26:BB:106:G:O4'	2.13	0.48
22:CY:35:A:C2'	22:CY:36:A:H5''	2.41	0.48
1:CA:1475:U:O2'	24:CX:17:U:OP1	2.22	0.48
27:BC:83:ILE:HD12	27:BC:94:VAL:O	2.13	0.48
15:CO:6:GLU:N	15:CO:6:GLU:OE2	2.44	0.48
25:DA:139:G:H2'	25:DA:140:G:N7	2.28	0.48
1:AA:774:G:C5	1:AA:775:A:N7	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:12:LEU:O	33:DI:12:LEU:HG	2.14	0.48
29:BE:119:ARG:HD2	29:BE:120:TRP:NE1	2.28	0.48
53:D6:27:LYS:O	53:D6:29:ASN:N	2.46	0.48
25:DA:325:G:H2'	25:DA:326:G:C8	2.48	0.48
54:D7:19:ARG:HG2	54:D7:19:ARG:NH1	2.25	0.48
3:CC:149:ALA:O	3:CC:150:LYS:HB2	2.13	0.48
1:CA:1197:G:OP2	14:CN:2:ALA:HB2	2.13	0.48
1:CA:934:U:O2'	1:CA:936:A:N7	2.36	0.48
40:DT:36:GLU:HB3	40:DT:38:ASN:HB3	1.93	0.48
32:DH:86:GLU:N	32:DH:86:GLU:CD	2.67	0.48
30:BF:127:GLU:O	30:BF:129:PHE:N	2.34	0.48
34:DN:32:THR:HG23	34:DN:37:LYS:HB3	1.95	0.48
17:AQ:10:VAL:HG23	17:AQ:55:ASP:O	2.12	0.48
11:AK:99:GLN:HA	11:AK:105:VAL:HG11	1.95	0.48
25:DA:784:A:H5'	25:DA:785:G:OP1	2.12	0.48
34:BN:107:LEU:HD12	34:BN:117:PHE:HB2	1.95	0.48
55:D8:2:PRO:O	55:D8:3:LYS:C	2.51	0.48
25:DA:2453:A:O2'	25:DA:2454:G:H5'	2.12	0.48
1:CA:1288:U:H2'	1:CA:1289:U:C6	2.47	0.48
25:DA:1345:C:O2'	25:DA:1346:G:H5'	2.12	0.48
30:DF:125:LEU:HD22	30:DF:125:LEU:N	2.29	0.48
25:BA:1032:A:OP1	56:B9:8:LYS:HE3	2.13	0.48
3:CC:139:GLN:HA	3:CC:139:GLN:OE1	2.13	0.48
45:DY:3:VAL:O	45:DY:3:VAL:HG12	2.12	0.48
25:BA:341:G:O2'	25:BA:342:G:H5'	2.13	0.48
25:BA:953:A:C2	25:BA:954:G:C8	3.01	0.48
25:DA:2845:G:C2'	25:DA:2846:G:H5'	2.43	0.48
41:BU:95:LEU:O	41:BU:98:LEU:HG	2.13	0.48
25:BA:314:A:C2'	25:BA:315:G:C5'	2.90	0.48
37:DQ:4:PRO:HD3	37:DQ:70:PRO:O	2.12	0.48
25:BA:2127:G:H2'	25:BA:2128:C:O4'	2.13	0.48
50:B3:7:LYS:C	50:B3:54:VAL:HG13	2.33	0.48
50:B3:8:LEU:HD12	50:B3:31:LEU:HA	1.94	0.48
26:BB:7:G:N2	39:BS:38:GLN:HE22	2.10	0.48
25:BA:283:A:O2'	25:BA:284:U:OP1	2.30	0.48
25:BA:1591:G:H5'	25:BA:1591:G:H8	1.78	0.48
42:BV:29:PRO:O	42:BV:61:VAL:CG2	2.57	0.48
10:CJ:54:PHE:CD2	10:CJ:55:LYS:HE3	2.47	0.48
29:DE:132:HIS:CE1	29:DE:135:HIS:NE2	2.81	0.48
28:BD:33:LEU:O	28:BD:35:LYS:N	2.46	0.48
28:BD:80:ALA:HB3	28:BD:94:LEU:HD13	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:24:ILE:HG13	28:BD:25:THR:N	2.25	0.48
2:CB:24:TRP:CD1	2:CB:24:TRP:N	2.79	0.48
33:BI:98:ALA:C	33:BI:100:ALA:H	2.17	0.48
33:BI:69:LYS:O	33:BI:73:GLU:HB3	2.12	0.48
33:BI:77:LEU:O	33:BI:140:LEU:HD12	2.13	0.48
25:DA:1019:U:H3	25:DA:1142(A):A:N6	2.06	0.48
22:AY:37:A:H3'	22:AY:38:A:O4'	2.13	0.48
4:CD:57:ARG:NH1	4:CD:57:ARG:HG3	2.26	0.48
1:AA:1267:A:O2'	1:AA:1269:A:OP1	2.27	0.48
34:BN:25:ARG:CG	34:BN:25:ARG:HH11	2.27	0.48
4:AD:56:VAL:HG12	4:AD:202:LEU:HD13	1.95	0.48
25:DA:2392:A:OP1	55:D8:32:LEU:CD2	2.62	0.48
25:DA:2863:C:H2'	25:DA:2864:G:H5'	1.95	0.48
4:CD:25:ARG:NH1	4:CD:30:LYS:O	2.47	0.48
29:DE:101:ARG:HH21	29:DE:171:GLU:CB	2.25	0.48
25:DA:2123:G:H1'	27:DC:44:HIS:CE1	2.47	0.48
1:AA:1475:U:O2'	24:AX:17:U:OP1	2.21	0.48
37:BQ:27:VAL:HG23	37:BQ:137:TYR:CE1	2.45	0.48
2:AB:137:ARG:HD3	2:AB:137:ARG:C	2.33	0.48
43:DW:48:ALA:O	43:DW:50:VAL:N	2.46	0.48
8:AH:87:SER:HB2	8:AH:93:VAL:HB	1.94	0.48
43:BW:68:ARG:O	43:BW:110:LYS:N	2.46	0.48
25:DA:1042:G:H2'	25:DA:1042:G:N3	2.28	0.48
20:AT:53:LEU:O	20:AT:54:LYS:C	2.51	0.48
3:CC:71:ALA:HB1	3:CC:109:PRO:HG3	1.93	0.48
1:AA:660:U:H1'	11:AK:119:CYS:SG	2.53	0.48
1:CA:1327:A:H5''	9:CI:120:ARG:NH1	2.23	0.48
22:AW:23:A:N6	22:AW:24:G:C6	2.81	0.48
2:CB:17:PHE:N	2:CB:17:PHE:HD2	2.11	0.48
6:AF:41:GLU:OE1	18:AR:35:ARG:NH2	2.45	0.48
25:BA:144:C:O2'	25:BA:145:G:H5'	2.13	0.48
43:BW:9:TYR:N	43:BW:9:TYR:HD2	2.12	0.48
27:DC:77:ILE:HG23	27:DC:77:ILE:O	2.13	0.48
25:DA:557:U:H2'	25:DA:558:G:C8	2.46	0.48
49:D2:25:VAL:O	49:D2:29:LYS:HG2	2.13	0.48
1:AA:441:G:N2	1:AA:472:C:N4	2.60	0.48
10:AJ:22:LYS:NZ	10:AJ:23:ILE:HG12	2.28	0.48
34:DN:93:THR:O	34:DN:94:HIS:HB2	2.13	0.48
25:DA:2087:G:C2'	25:DA:2088:G:H5'	2.44	0.48
25:BA:605:C:O2	25:BA:657:U:O2'	2.31	0.48
3:AC:18:TRP:HE3	3:AC:18:TRP:H	1.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1192:U:H4'	1:AA:1193:U:OP1	2.14	0.48
25:DA:843:G:O2'	25:DA:844:C:H5'	2.13	0.48
39:BS:41:ASP:OD2	39:BS:44:LYS:HB3	2.13	0.48
25:BA:18:C:O3'	41:BU:23:GLY:HA2	2.12	0.48
55:B8:2:PRO:O	55:B8:3:LYS:C	2.51	0.48
33:BI:29:TYR:CE1	33:BI:33:ARG:NE	2.75	0.48
25:DA:910:A:H2'	25:DA:2264:C:O2'	2.14	0.48
28:DD:197:GLY:O	28:DD:198:ASN:HB3	2.14	0.48
20:CT:53:LEU:CD1	20:CT:102:GLY:H	2.24	0.48
22:CW:5:G:O5'	22:CW:5:G:H8	1.97	0.48
22:CW:67:C:C4	22:CW:68:C:N4	2.81	0.48
10:AJ:61:GLU:OE2	14:AN:45:ARG:NH1	2.47	0.48
14:AN:23:ARG:HD2	14:AN:28:GLY:O	2.14	0.48
23:CV:49:C:C6	23:CV:60:A:H1'	2.49	0.48
23:CV:51:U:C2	23:CV:52:C:C5	3.01	0.48
55:B8:51:ALA:HA	55:B8:54:GLU:CD	2.34	0.48
25:BA:1158:C:H5'	50:B3:31:LEU:HB2	1.94	0.48
37:BQ:4:PRO:HD3	37:BQ:70:PRO:O	2.12	0.48
25:BA:309:G:O3'	45:BY:18:GLY:HA3	2.14	0.48
41:DU:112:ARG:HG2	41:DU:112:ARG:HH11	1.78	0.48
41:DU:97:ASP:OD2	41:DU:101:ARG:NH2	2.31	0.48
42:DV:4:ILE:CG2	42:DV:39:LEU:HD23	2.43	0.48
39:DS:93:LYS:O	39:DS:95:HIS:N	2.47	0.48
25:BA:2267:A:H5''	25:BA:2268:A:H5'	1.96	0.48
25:DA:271(M):G:C2'	25:DA:271(N):U:H5''	2.34	0.48
33:DI:98:ALA:C	33:DI:100:ALA:H	2.17	0.48
5:AE:6:PHE:HB3	5:AE:35:GLY:O	2.12	0.48
6:AF:8:ILE:CG2	6:AF:9:VAL:N	2.76	0.48
2:AB:165:VAL:O	2:AB:187:LEU:O	2.31	0.48
32:DH:100:GLY:C	32:DH:102:ALA:H	2.15	0.48
25:DA:1747(A):G:O2'	25:DA:1748:G:H5''	2.13	0.48
2:CB:15:VAL:HG21	2:CB:209:ARG:NH2	2.21	0.48
25:DA:825:C:O2	36:DP:55:ARG:HD3	2.13	0.48
46:DZ:28:MET:O	46:DZ:33:LEU:HG	2.13	0.48
4:CD:33:MET:HE1	4:CD:37:PRO:HA	1.94	0.48
25:BA:2873:A:N3	38:BR:6:SER:CB	2.75	0.48
25:BA:921:G:H4'	25:BA:2269:A:C5	2.47	0.48
11:AK:32:ILE:HD11	11:AK:68:ALA:O	2.12	0.48
38:DR:38:VAL:HB	38:DR:39:PRO:CD	2.38	0.48
28:BD:49:ILE:CD1	28:BD:52:ARG:HA	2.41	0.48
55:D8:50:LEU:CD1	55:D8:54:GLU:OE2	2.62	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AY:28:G:H2'	22:AY:29:G:C8	2.48	0.48
3:CC:39:ILE:C	3:CC:41:GLY:N	2.66	0.48
43:DW:51:LEU:HD13	43:DW:52:GLU:N	2.28	0.48
34:DN:42:TRP:HA	34:DN:42:TRP:HE3	1.78	0.48
22:CY:28:G:H2'	22:CY:29:G:O4'	2.13	0.48
34:BN:43:THR:O	34:BN:46:VAL:HG12	2.13	0.48
43:BW:50:VAL:CG1	43:BW:51:LEU:N	2.76	0.48
9:AI:4:TYR:N	9:AI:4:TYR:HD1	2.10	0.48
31:BG:19:LEU:HD21	31:BG:171:ALA:HB1	1.96	0.48
2:CB:17:PHE:N	2:CB:17:PHE:CD2	2.79	0.48
5:AE:144:THR:OG1	5:AE:146:ALA:HB3	2.14	0.48
40:BT:132:LYS:HE3	40:BT:132:LYS:HB2	1.59	0.48
2:CB:95:GLN:HG3	2:CB:148:TYR:HA	1.94	0.48
27:DC:78:ALA:C	27:DC:80:GLY:H	2.17	0.48
25:DA:1812:A:H2'	25:DA:1813:G:H8	1.79	0.48
6:AF:3:ARG:HH11	6:AF:3:ARG:HG3	1.78	0.48
29:DE:119:ARG:HD2	29:DE:120:TRP:NE1	2.28	0.48
2:CB:63:MET:C	2:CB:65:GLY:H	2.17	0.48
23:AV:28:U:O2'	23:AV:29:C:H5'	2.14	0.48
44:BX:29:TRP:CE3	44:BX:78:LYS:HB3	2.49	0.48
27:BC:77:ILE:CB	27:BC:122:ALA:HA	2.44	0.48
2:CB:126:GLU:C	2:CB:128:GLU:N	2.66	0.48
25:BA:2023:G:H4'	25:BA:2617:C:O3'	2.13	0.48
25:DA:1472:A:H2'	25:DA:1473:G:H8	1.79	0.48
32:BH:86:GLU:N	32:BH:86:GLU:CD	2.67	0.48
25:DA:604:G:H2'	25:DA:605:C:C6	2.49	0.48
26:DB:31:C:C2'	26:DB:53:A:H61	2.26	0.48
1:AA:324:A:C2	1:AA:327:G:C8	3.01	0.48
25:BA:1999:C:H5''	25:BA:2723:C:O2'	2.12	0.48
25:BA:1582:C:O2'	25:BA:1586:A:C8	2.64	0.48
55:B8:21:LYS:HD3	55:B8:48:PHE:CE2	2.48	0.48
38:BR:106:GLY:O	38:BR:107:ASP:HB3	2.13	0.48
1:CA:565:U:OP1	15:CO:68:ARG:NH2	2.46	0.48
32:DH:26:VAL:O	32:DH:32:GLU:HA	2.12	0.48
45:DY:54:LYS:CE	45:DY:55:TYR:CE2	2.83	0.48
25:DA:2262:U:O2'	25:DA:2263:C:H5''	2.13	0.48
25:DA:911:A:C2	25:DA:2277:G:N3	2.81	0.48
25:DA:103:A:C2'	25:DA:104:U:H5''	2.39	0.48
25:DA:271(P):C:C5'	33:DI:46:ALA:HB2	2.44	0.48
36:BP:50:ARG:NH2	36:BP:50:ARG:HG2	2.27	0.48
25:DA:2801:A:H1'	25:DA:2801(A):A:N7	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2485:G:H5''	37:BQ:46:GLN:HE21	1.79	0.48
25:BA:869:G:O2'	37:BQ:8:LYS:HG3	2.13	0.48
25:DA:613:G:N1	25:DA:614:U:C5	2.82	0.48
25:DA:614(C):A:O2'	25:DA:615:G:C4'	2.60	0.48
38:DR:63:ARG:O	38:DR:67:LEU:HB2	2.14	0.48
25:BA:915:C:O2'	25:BA:916:G:H5'	2.13	0.48
5:AE:101:ILE:HD11	5:AE:119:LEU:HA	1.95	0.48
45:BY:84:ARG:HH12	45:BY:97:ARG:HD2	1.78	0.48
8:CH:103:VAL:HG12	8:CH:108:GLY:HA3	1.95	0.48
23:AV:17:C:H3'	23:AV:18:U:H5''	1.95	0.48
33:DI:110:ASP:O	33:DI:114:LEU:HD21	2.13	0.48
37:DQ:34:LEU:CD1	37:DQ:129:THR:HB	2.43	0.48
26:DB:107:G:C4	26:DB:108:U:C6	3.02	0.48
2:AB:16:HIS:HA	2:AB:210:SER:OG	2.14	0.48
25:DA:1275:A:C8	38:DR:16:HIS:CD2	3.02	0.48
45:BY:28:LYS:NZ	45:BY:28:LYS:N	2.60	0.48
25:DA:541:C:H2'	25:DA:542:C:C5'	2.42	0.48
10:AJ:83:GLU:O	10:AJ:85:LEU:N	2.47	0.48
25:DA:2892:A:H2'	25:DA:2893:G:C4'	2.40	0.48
40:DT:95:ARG:HD2	40:DT:95:ARG:HA	1.52	0.48
1:AA:1323:C:O2'	9:AI:124:GLN:HA	2.14	0.48
41:BU:27:LEU:O	41:BU:34:LYS:HB2	2.14	0.48
25:BA:2159:G:N2	25:BA:2160:G:H1'	2.29	0.48
36:DP:41:ARG:CZ	36:DP:45:LEU:HD12	2.43	0.48
33:BI:15:VAL:O	33:BI:17:GLN:N	2.47	0.48
2:CB:80:ILE:C	2:CB:82:ARG:N	2.67	0.48
36:BP:41:ARG:CZ	36:BP:45:LEU:HD12	2.43	0.48
25:BA:1233:C:O2'	25:BA:1234:U:H5'	2.13	0.48
36:BP:83:VAL:HG13	36:BP:114:ILE:HA	1.96	0.48
23:AV:33:C:C2'	23:AV:34:U:H5'	2.43	0.48
26:DB:13:A:N7	26:DB:70:C:H4'	2.28	0.48
48:B1:69:LYS:HA	48:B1:72:GLU:HB2	1.95	0.48
25:DA:1245:G:OP1	36:DP:16:ARG:NE	2.46	0.48
28:DD:155:LEU:CD1	28:DD:155:LEU:N	2.77	0.48
6:CF:3:ARG:HH11	6:CF:3:ARG:HG3	1.78	0.48
46:BZ:28:MET:O	46:BZ:33:LEU:HG	2.13	0.48
8:CH:87:SER:HB2	8:CH:93:VAL:HB	1.95	0.48
25:BA:1112:G:C2	25:BA:1113:U:C2	3.01	0.48
25:DA:2310:A:O2'	25:DA:2311:A:H5''	2.13	0.48
31:BG:64:THR:CG2	31:BG:65:GLY:H	2.26	0.48
30:DF:46:ARG:HG3	30:DF:46:ARG:NH1	2.23	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1155:G:H2'	1:AA:1156:G:C8	2.49	0.48
54:D7:43:THR:HG23	54:D7:44:PRO:CD	2.43	0.48
25:DA:1331:A:O2'	25:DA:1332:G:H8	1.97	0.48
27:BC:82:LYS:NZ	27:BC:149:ILE:HA	2.29	0.48
1:CA:982:A:C5	1:CA:1019:C:N3	2.82	0.48
25:DA:2522:U:C2'	25:DA:2523:G:H5''	2.43	0.48
25:BA:1494:A:O2'	25:BA:1495:A:H5''	2.14	0.48
30:DF:155:LEU:CD2	30:DF:186:ILE:HD13	2.42	0.48
17:CQ:45:HIS:CG	17:CQ:65:ILE:HD13	2.49	0.48
25:DA:1032:A:O3'	56:D9:16:VAL:HG11	2.14	0.48
48:B1:57:GLU:O	48:B1:57:GLU:HG2	2.13	0.48
25:BA:2208:A:H1'	25:BA:2219:G:C4	2.48	0.48
1:AA:562:G:C6	1:AA:563:U:C4	3.01	0.48
2:AB:126:GLU:C	2:AB:128:GLU:N	2.66	0.48
1:CA:1370:C:H2'	1:CA:1371:C:C6	2.48	0.48
1:CA:905:G:C2	1:CA:1372:U:O2	2.67	0.48
52:D5:20:ARG:HA	52:D5:23:HIS:HD1	1.78	0.48
34:BN:32:THR:HG23	34:BN:37:LYS:HB3	1.95	0.48
25:DA:554:U:O2'	25:DA:555:U:H5'	2.14	0.48
1:AA:804:G:H2'	1:AA:805:C:H6	1.79	0.48
32:DH:130:ARG:HH11	32:DH:132:ARG:NH2	2.12	0.48
25:DA:1188:U:C5'	42:DV:79:VAL:HG22	2.43	0.48
25:BA:2831:G:O4'	25:BA:2883:A:C2	2.67	0.48
3:CC:127:ARG:HD2	3:CC:127:ARG:N	2.28	0.48
20:CT:94:ALA:O	20:CT:95:ALA:HB3	2.12	0.48
7:AG:75:VAL:HG23	7:AG:75:VAL:O	2.14	0.48
16:CP:55:ARG:O	16:CP:58:TYR:N	2.46	0.48
1:AA:587:G:C5	1:AA:588:U:C5	3.02	0.48
27:BC:182:PRO:O	27:BC:183:GLU:CB	2.61	0.48
28:DD:75:ILE:HD13	28:DD:99:ASP:OD1	2.13	0.48
10:CJ:79:ARG:HH11	10:CJ:79:ARG:N	2.12	0.48
44:BX:66:LEU:HD23	44:BX:66:LEU:C	2.34	0.48
44:DX:66:LEU:HD23	44:DX:66:LEU:C	2.34	0.48
29:BE:19:ARG:O	29:BE:19:ARG:HG3	2.14	0.48
25:BA:236:C:H2'	25:BA:237:C:H6	1.78	0.48
20:AT:16:HIS:O	20:AT:19:SER:HB3	2.13	0.48
25:DA:1129:A:C4'	25:DA:2516:G:H4'	2.44	0.48
41:BU:110:VAL:O	41:BU:113:ALA:HB3	2.13	0.48
42:BV:2:PHE:HD1	42:BV:13:ARG:NH1	2.11	0.48
42:BV:39:LEU:HD11	42:BV:51:VAL:CG2	2.43	0.48
26:BB:45:A:H2'	26:BB:46:A:H5'	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2472:G:H3'	25:DA:2475:C:N4	2.29	0.48
25:BA:2484:G:O2'	37:BQ:124:LYS:O	2.31	0.48
13:AM:9:ILE:HD12	13:AM:9:ILE:N	2.29	0.48
25:DA:1453:U:O4	38:DR:67:LEU:HD21	2.13	0.48
34:DN:1:MET:C	34:DN:2:LYS:HD2	2.34	0.48
41:DU:90:VAL:HG21	42:DV:47:VAL:HG21	1.96	0.48
28:DD:24:ILE:HG13	28:DD:25:THR:N	2.25	0.48
45:DY:96:ILE:CG1	45:DY:99:CYS:HB2	2.44	0.48
25:BA:2302:G:C5	25:BA:2315:G:N1	2.82	0.48
12:CL:24:VAL:HG21	12:CL:97:ARG:O	2.14	0.48
25:DA:89:G:H3'	25:DA:90:U:H5''	1.96	0.48
28:DD:33:LEU:O	28:DD:35:LYS:N	2.46	0.48
28:BD:24:ILE:O	28:BD:25:THR:O	2.31	0.48
25:BA:849:A:H8	25:BA:849:A:O5'	1.96	0.48
45:BY:8:LYS:CE	45:BY:72:VAL:HG23	2.44	0.48
45:DY:8:LYS:CE	45:DY:72:VAL:HG23	2.43	0.48
25:DA:2104:G:H5'	25:DA:2104:G:N3	2.28	0.48
25:DA:1697:G:H3'	25:DA:1698:A:C5'	2.31	0.48
30:DF:63:LYS:NZ	30:DF:67:GLN:HB3	2.28	0.48
25:DA:2299:G:C6	25:DA:2318:G:H8	2.30	0.48
32:BH:89:ILE:HD13	32:BH:94:TYR:HB3	1.96	0.48
36:BP:21:ARG:CD	36:BP:29:LYS:HE3	2.35	0.48
25:BA:1652:A:N6	25:BA:1653:G:N1	2.62	0.48
2:AB:55:PHE:HA	2:AB:58:ILE:HB	1.96	0.48
2:CB:217:ARG:HA	2:CB:220:ASP:OD2	2.13	0.48
25:BA:2505:G:O2'	25:BA:2506:U:H5'	2.14	0.48
25:DA:2823:A:OP1	29:DE:113:PHE:HB2	2.13	0.48
1:CA:542:A:OP1	5:CE:126:ARG:NH2	2.46	0.48
25:BA:125:G:N2	54:B7:48:LYS:HD2	2.29	0.48
46:DZ:166:SER:HB2	46:DZ:168:GLU:HB2	1.96	0.48
25:DA:2849:U:H1'	25:DA:2866:U:H6	1.79	0.48
46:BZ:151:HIS:HB2	46:BZ:168:GLU:O	2.12	0.48
33:DI:15:VAL:O	33:DI:17:GLN:N	2.47	0.48
26:BB:56:G:C5'	31:BG:27:ASN:CG	2.82	0.48
29:BE:181:LEU:HD21	40:BT:7:ILE:HG23	1.94	0.48
1:CA:919:G:H21	9:CI:124:GLN:NE2	2.10	0.48
2:AB:168:THR:HA	2:AB:171:ALA:HB2	1.96	0.48
22:AW:14:A:C6	22:AW:15:G:C1'	2.92	0.48
1:AA:672:C:H2'	1:AA:673:G:O4'	2.12	0.48
36:BP:108:LYS:N	36:BP:108:LYS:HD2	2.28	0.48
1:CA:589:G:H5''	1:CA:590:A:H5'	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:811:U:OP1	36:DP:30:THR:HG22	2.14	0.48
8:CH:86:ILE:O	8:CH:87:SER:C	2.50	0.48
10:CJ:85:LEU:C	10:CJ:87:THR:N	2.67	0.48
16:AP:14:ASN:N	16:AP:15:PRO:CD	2.75	0.48
30:DF:46:ARG:NH1	30:DF:46:ARG:CG	2.77	0.48
8:CH:63:LEU:HB3	8:CH:65:TYR:CE1	2.49	0.48
25:DA:144:C:O2'	25:DA:145:G:H5'	2.13	0.48
28:BD:197:GLY:O	28:BD:198:ASN:HB3	2.14	0.48
29:DE:119:ARG:HG2	29:DE:160:TYR:HB2	1.96	0.48
25:BA:102:G:OP1	25:BA:102:G:C4'	2.62	0.48
52:B5:20:ARG:HA	52:B5:23:HIS:HD1	1.78	0.48
1:CA:523:G:H2'	1:CA:524:G:O4'	2.13	0.48
1:AA:484:C:H2'	1:AA:485:G:H8	1.79	0.48
25:BA:2087:G:C2'	25:BA:2088:G:H5'	2.44	0.48
17:CQ:27:PHE:CZ	17:CQ:36:ILE:HD11	2.49	0.48
25:DA:1751:C:H2'	25:DA:1752:C:H6	1.79	0.48
25:BA:855:G:C6	25:BA:856:C:N4	2.82	0.48
25:DA:605:C:O2	25:DA:657:U:O2'	2.31	0.48
25:BA:852:G:H2'	25:BA:853:G:C8	2.49	0.48
25:BA:440:G:H2'	25:BA:441:U:C6	2.48	0.48
25:DA:440:G:H2'	25:DA:441:U:C6	2.48	0.48
32:BH:130:ARG:HH11	32:BH:132:ARG:NH2	2.12	0.48
1:AA:1153:C:H2'	1:AA:1154:G:H8	1.78	0.48
25:BA:407:G:H2'	25:BA:408:G:C8	2.48	0.48
25:BA:18:C:H5''	41:BU:24:TYR:O	2.12	0.48
1:AA:1007:C:H4'	1:AA:1015:G:H22	1.79	0.48
1:CA:515:A:H2	1:CA:1188:G:O4'	1.96	0.48
26:BB:10:C:H42	26:BB:111:G:H1	1.60	0.48
38:DR:106:GLY:O	38:DR:107:ASP:HB3	2.13	0.48
4:AD:128:VAL:O	4:AD:129:ASN:C	2.50	0.48
25:BA:2164:C:H3'	25:BA:2165:G:H8	1.78	0.48
29:BE:197:ILE:O	29:BE:197:ILE:HG13	2.14	0.48
25:BA:2474:C:H2'	25:BA:2474:C:O2	2.14	0.48
2:AB:35:GLU:HG2	2:AB:35:GLU:O	2.14	0.48
28:BD:183:ARG:HG2	28:BD:183:ARG:HH11	1.78	0.48
28:BD:118:VAL:HG22	28:BD:119:ALA:N	2.29	0.48
4:AD:12:CYS:SG	4:AD:19:LEU:O	2.72	0.48
13:AM:111:LYS:O	13:AM:113:PRO:HD2	2.13	0.48
25:DA:2810:A:H1'	29:DE:61:ARG:HH12	1.78	0.48
25:DA:954:G:H4'	37:DQ:13:GLN:HE21	1.77	0.48
49:D2:63:VAL:O	49:D2:66:GLU:CG	2.62	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:82:ARG:HB3	6:AF:82:ARG:NH1	2.27	0.48
22:CW:2:C:OP2	22:CW:2:C:C6	2.66	0.48
25:BA:2472:G:H3'	25:BA:2475:C:N4	2.29	0.48
25:BA:631:A:H2'	25:BA:632:A:O4'	2.13	0.48
42:DV:39:LEU:O	42:DV:40:LEU:HB2	2.14	0.48
39:BS:65:VAL:O	39:BS:69:VAL:HG12	2.14	0.48
10:CJ:63:PHE:HA	14:CN:59:ALA:HB2	1.95	0.48
25:BA:271(D):G:O2'	25:BA:271(E):U:H5'	2.14	0.48
9:CI:17:VAL:HG22	9:CI:63:ILE:CD1	2.43	0.48
25:DA:1657:C:H2'	25:DA:1658:C:H6	1.78	0.48
25:DA:866:A:N1	25:DA:914:C:C6	2.82	0.48
33:BI:68:LEU:HD21	33:BI:130:TYR:CD2	2.49	0.48
33:DI:68:LEU:O	33:DI:68:LEU:HD23	2.13	0.48
25:BA:1238:G:H2'	25:BA:1239:G:H8	1.77	0.48
10:AJ:28:ARG:NH2	10:AJ:34:VAL:O	2.46	0.48
5:CE:144:THR:C	5:CE:146:ALA:N	2.67	0.48
32:DH:89:ILE:HD13	32:DH:94:TYR:HB3	1.96	0.48
10:AJ:85:LEU:C	10:AJ:87:THR:H	2.15	0.48
26:BB:69:G:C2	26:BB:70:C:C2	3.01	0.48
25:BA:2789:C:N3	25:BA:2894:G:O6	2.47	0.48
26:DB:105:A:H2'	26:DB:106:G:O4'	2.14	0.48
25:DA:125:G:H21	54:D7:48:LYS:CD	2.26	0.48
3:CC:188:LEU:HB3	3:CC:189:ALA:H	1.55	0.48
41:DU:27:LEU:O	41:DU:34:LYS:HB2	2.14	0.48
47:B0:26:TYR:H	47:B0:29:GLN:NE2	2.11	0.48
25:DA:365:C:C5'	25:DA:365:C:H6	2.19	0.48
25:BA:1232:G:H2'	25:BA:1233:C:H6	1.79	0.48
5:AE:20:GLN:O	5:AE:23:GLY:O	2.32	0.48
25:BA:2778:A:C4'	25:BA:2779:U:OP2	2.55	0.48
25:DA:302:C:H2'	25:DA:303:U:C6	2.49	0.48
38:DR:27:SER:HB3	38:DR:34:ILE:HD11	1.95	0.48
3:AC:71:ALA:HB1	3:AC:109:PRO:HG3	1.95	0.48
46:DZ:155:LEU:O	46:DZ:157:LEU:HD12	2.13	0.48
31:DG:19:LEU:HD21	31:DG:171:ALA:HB1	1.96	0.48
2:CB:134:GLU:HA	2:CB:137:ARG:CB	2.42	0.48
25:DA:610:G:H2'	25:DA:611:C:C6	2.48	0.48
1:CA:626:C:H5'	8:CH:31:PHE:CD1	2.48	0.48
54:D7:41:ARG:NH1	54:D7:41:ARG:HB2	2.28	0.48
25:BA:610:G:H2'	25:BA:611:C:C6	2.48	0.48
25:DA:1311:G:C4	54:D7:47:ARG:NH2	2.82	0.48
35:BO:77:ILE:HD12	40:BT:73:GLU:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:101:VAL:HG12	12:AL:104:VAL:CG2	2.44	0.48
25:BA:1812:A:H2'	25:BA:1813:G:H8	1.79	0.48
25:BA:1332:G:N2	25:BA:1609:A:O2'	2.47	0.48
1:CA:750:A:H2'	1:CA:751:A:O4'	2.13	0.48
33:BI:12:LEU:HG	33:BI:12:LEU:O	2.13	0.48
30:BF:65:TRP:CH2	30:BF:75:HIS:HD2	2.32	0.48
5:AE:90:VAL:HG21	5:AE:121:LYS:HB3	1.96	0.48
25:DA:464:U:C4'	54:D7:5:TRP:CZ3	2.96	0.48
8:CH:5:PRO:HB3	8:CH:32:LYS:NZ	2.29	0.48
1:CA:309:C:O2'	1:CA:310:A:H5'	2.13	0.48
30:BF:127:GLU:HB2	30:BF:196:LEU:HG	1.94	0.48
38:BR:109:ALA:O	38:BR:111:LEU:HD22	2.13	0.48
25:BA:879:G:C2	25:BA:899:A:H1'	2.49	0.48
25:DA:879:G:N2	25:DA:899:A:H1'	2.28	0.48
25:DA:624:C:O2'	25:DA:625:G:H5'	2.14	0.48
1:AA:722:C:O2'	15:AO:42:HIS:ND1	2.41	0.48
25:DA:2590:A:O2'	25:DA:2591:C:H5'	2.14	0.48
3:CC:18:TRP:HE3	3:CC:18:TRP:H	1.60	0.48
36:BP:32:THR:CG2	36:BP:37:GLY:HA2	2.43	0.48
21:CU:2:GLY:C	21:CU:4:GLY:H	2.17	0.48
25:BA:1387:C:H5'	25:BA:1469:A:H4'	1.95	0.48
1:AA:913:C:H2'	1:AA:914:A:O4'	2.13	0.48
41:DU:115:ALA:C	41:DU:117:GLN:H	2.16	0.48
2:CB:238:LEU:O	2:CB:240:GLN:N	2.47	0.48
43:DW:55:ALA:HA	43:DW:107:LEU:CD2	2.44	0.48
7:CG:5:ARG:C	7:CG:7:ALA:H	2.16	0.48
54:D7:16:HIS:HA	54:D7:21:ARG:HH12	1.79	0.48
25:BA:843:G:O2'	25:BA:844:C:H5'	2.14	0.48
40:BT:62:THR:HG22	40:BT:75:ILE:HG22	1.96	0.48
1:AA:95:G:H2'	1:AA:96:C:H6	1.78	0.48
25:DA:2474:C:O2	25:DA:2474:C:H2'	2.14	0.48
1:AA:523:G:C6	1:AA:524:G:C5	3.02	0.48
25:DA:950:G:H2'	25:DA:951:C:C6	2.49	0.48
25:BA:2810:A:H2'	25:BA:2811:G:O4'	2.14	0.48
45:DY:54:LYS:CB	45:DY:55:TYR:CE2	2.94	0.48
25:BA:1129:A:C4'	25:BA:2516:G:H4'	2.43	0.48
20:CT:26:ASN:CB	20:CT:71:THR:CB	2.89	0.48
9:AI:104:ARG:CG	9:AI:106:ALA:N	2.68	0.48
22:CW:69:G:C3'	22:CW:70:G:H5''	2.44	0.48
45:DY:26:LYS:O	45:DY:28:LYS:HE3	2.13	0.48
26:DB:83:G:C2	26:DB:84:C:C2	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DU:69:CYS:CB	41:DU:79:PHE:CD1	2.96	0.48
42:DV:2:PHE:HD1	42:DV:13:ARG:NH1	2.11	0.48
8:AH:120:THR:OG1	8:AH:123:GLU:HG3	2.13	0.48
5:CE:76:ILE:HG13	5:CE:77:PRO:HD2	1.96	0.48
45:BY:96:ILE:CG1	45:BY:99:CYS:HB2	2.44	0.48
8:CH:119:LEU:HD12	8:CH:124:ALA:HA	1.96	0.48
22:CW:38:A:O5'	22:CW:38:A:H8	1.97	0.48
33:DI:68:LEU:HD21	33:DI:130:TYR:CD2	2.49	0.48
25:BA:1270:C:O2'	25:BA:1648:C:OP2	2.30	0.48
32:BH:41:MET:HG2	32:BH:52:VAL:HG12	1.95	0.48
25:BA:534:U:H5'	41:BU:42:ALA:HB1	1.96	0.48
2:AB:187:LEU:HD11	2:AB:204:ASN:O	2.14	0.48
25:DA:1344:G:C2	25:DA:1385:G:C8	3.02	0.48
22:AW:51:U:C2	22:AW:52:G:N7	2.81	0.48
46:DZ:102:LEU:HB2	46:DZ:122:ARG:O	2.14	0.48
40:DT:24:PRO:HA	40:DT:49:VAL:HG22	1.96	0.48
37:BQ:109:VAL:CG1	37:BQ:110:THR:N	2.75	0.48
25:DA:125:G:N2	54:D7:48:LYS:HD2	2.27	0.48
25:DA:1301:A:O2'	25:DA:1302:A:C2'	2.52	0.48
4:CD:30:LYS:HA	4:CD:35:ARG:HD2	1.96	0.48
31:BG:43:LEU:CB	31:BG:88:ILE:HG12	2.39	0.48
32:DH:84:SER:O	32:DH:85:LYS:CB	2.62	0.48
29:DE:101:ARG:HE	29:DE:101:ARG:HA	1.79	0.48
20:AT:33:ILE:HD13	20:AT:62:LEU:HB2	1.95	0.48
23:CV:41:C:C2'	23:CV:42:C:H5'	2.44	0.48
10:AJ:97:GLU:O	10:AJ:98:ILE:HD12	2.14	0.48
25:DA:2189:U:H2'	25:DA:2190:G:H5''	1.95	0.48
36:BP:148:LEU:O	36:BP:149:GLU:HB2	2.13	0.48
36:DP:108:LYS:HD2	36:DP:108:LYS:N	2.28	0.48
36:DP:98:GLU:HG3	36:DP:99:LEU:N	2.28	0.48
34:BN:99:LEU:HD12	34:BN:122:VAL:HG21	1.95	0.48
25:BA:302:C:H2'	25:BA:303:U:C6	2.49	0.48
25:BA:2189:U:H2'	25:BA:2190:G:H5''	1.95	0.48
22:CY:27:G:C8	22:CY:28:G:N7	2.81	0.48
11:AK:46:GLY:HA2	11:AK:50:TYR:O	2.13	0.48
25:BA:1986:A:H3'	25:BA:1987:G:H5''	1.94	0.48
4:CD:146:ILE:HD12	4:CD:146:ILE:H	1.78	0.48
1:CA:1267:A:H5''	21:CU:25:LYS:HZ3	1.78	0.48
5:AE:78:HIS:HD2	8:AH:104:ARG:CZ	2.26	0.48
1:CA:977:U:N3	1:CA:1024:G:N2	2.61	0.48
1:CA:977:U:H2'	1:CA:978:A:H8	1.76	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D0:10:THR:HG22	47:D0:12:ASN:HB2	1.96	0.48
10:AJ:13:HIS:O	10:AJ:17:ASP:HB2	2.13	0.48
11:CK:12:ARG:HH21	11:CK:14:VAL:CG1	2.25	0.48
25:DA:1332:G:N2	25:DA:1609:A:O2'	2.47	0.48
12:AL:22:SER:C	12:AL:24:VAL:H	2.17	0.48
1:AA:1118:U:H5''	1:AA:1119:C:C5	2.48	0.48
25:BA:1266:G:OP2	52:B5:19:ARG:NH1	2.47	0.48
25:DA:1176:G:O2'	25:DA:1177:A:H5'	2.13	0.48
25:BA:1176:G:O2'	25:BA:1177:A:H5'	2.13	0.48
1:AA:441:G:H2'	1:AA:469:G:N2	2.28	0.48
29:DE:173:VAL:O	29:DE:174:ASP:C	2.52	0.48
25:BA:1647:G:OP2	25:BA:1647:G:C3'	2.61	0.48
25:DA:709:U:H2'	25:DA:710:G:H8	1.78	0.48
4:CD:79:PHE:CD2	4:CD:79:PHE:C	2.87	0.48
25:DA:1310:G:OP2	54:D7:9:ARG:NH1	2.47	0.48
25:DA:2341:G:H2'	25:DA:2342:C:C6	2.49	0.48
17:AQ:27:PHE:CZ	17:AQ:36:ILE:HD11	2.49	0.48
25:DA:539:G:H2'	25:DA:540:C:C6	2.47	0.48
30:DF:52:LYS:O	30:DF:88:VAL:HG12	2.14	0.48
26:BB:87:G:C2'	26:BB:88:C:H5''	2.44	0.48
1:CA:458:G:OP2	16:CP:75:ARG:NH1	2.47	0.48
42:DV:79:VAL:O	42:DV:80:GLN:HB2	2.13	0.48
25:DA:407:G:H2'	25:DA:408:G:C8	2.48	0.48
25:BA:2225:A:H1'	25:BA:2226:C:OP2	2.13	0.48
1:AA:1145:C:H2'	1:AA:1146:G:C8	2.48	0.48
25:DA:696:G:O2'	25:DA:697:C:H5'	2.14	0.48
25:DA:236:C:H2'	25:DA:237:C:H6	1.78	0.48
25:DA:1518:U:H2'	25:DA:1519:G:O4'	2.14	0.48
1:CA:625:A:N3	8:CH:113:SER:OG	2.32	0.48
16:CP:6:LEU:HB3	16:CP:17:TYR:CD2	2.48	0.48
47:B0:54:GLY:O	47:B0:56:ASP:N	2.47	0.48
1:CA:119:G:H5'	1:CA:616:G:N2	2.28	0.48
1:AA:1341:A:H8	1:AA:1341:A:OP1	1.96	0.48
12:CL:79:GLU:O	12:CL:79:GLU:HG2	2.12	0.48
32:BH:88:LEU:HD22	32:BH:88:LEU:N	2.29	0.48
25:DA:2600:A:H2'	25:DA:2601:C:C6	2.48	0.48
12:CL:111:LYS:O	12:CL:112:ASP:HB2	2.13	0.48
26:DB:10:C:H42	26:DB:111:G:H1	1.60	0.48
25:BA:2584:U:H3'	25:BA:2584:U:H6	1.79	0.48
25:DA:2810:A:H2'	25:DA:2811:G:O4'	2.14	0.48
25:BA:2262:U:O2'	25:BA:2263:C:H5''	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:952:G:C4	25:BA:953:A:C8	3.01	0.48
42:BV:46:VAL:CG2	42:BV:47:VAL:H	2.22	0.48
14:AN:22:THR:O	14:AN:23:ARG:HB2	2.14	0.48
33:DI:41:GLU:O	33:DI:45:LYS:HG2	2.14	0.48
25:DA:2127:G:H2'	25:DA:2128:C:O4'	2.13	0.48
13:AM:8:GLU:OE2	13:AM:22:ILE:HA	2.13	0.48
42:DV:2:PHE:HB3	42:DV:42:GLY:N	2.29	0.48
42:DV:5:VAL:HG12	42:DV:14:VAL:HG13	1.95	0.48
39:BS:17:ARG:O	39:BS:19:LYS:N	2.47	0.48
39:BS:93:LYS:O	39:BS:95:HIS:N	2.47	0.48
25:BA:2790:A:C2'	25:BA:2790:A:N3	2.77	0.48
39:DS:95:HIS:CG	39:DS:96:GLY:N	2.82	0.48
10:CJ:49:VAL:HG21	14:CN:41:ARG:O	2.14	0.48
28:DD:24:ILE:O	28:DD:25:THR:O	2.31	0.48
25:DA:860:U:C2	25:DA:2268:A:C8	3.01	0.48
25:DA:915:C:O2'	25:DA:916:G:H5'	2.13	0.48
3:AC:3:ASN:CG	3:AC:4:LYS:N	2.67	0.48
53:B6:47:THR:HB	53:B6:49:HIS:HE1	1.66	0.48
33:DI:120:ILE:HD13	33:DI:126:TYR:CE1	2.48	0.48
2:AB:24:TRP:N	2:AB:24:TRP:CD1	2.80	0.48
30:DF:133:ASN:O	30:DF:135:LYS:N	2.46	0.48
1:AA:1268:A:H2'	1:AA:1269:A:C8	2.48	0.48
5:AE:11:ILE:HD12	5:AE:31:LEU:HD12	1.95	0.48
2:CB:221:LEU:HD22	2:CB:221:LEU:N	2.27	0.48
9:CI:96:LEU:HG	9:CI:102:LEU:HB2	1.95	0.48
46:DZ:91:LEU:HD12	46:DZ:91:LEU:N	2.29	0.48
25:BA:1747(A):G:O2'	25:BA:1748:G:H5''	2.13	0.48
25:BA:528:A:C2	25:BA:2043:C:H5'	2.47	0.48
31:BG:27:ASN:O	31:BG:29:TRP:N	2.43	0.48
19:CS:39:THR:CG2	19:CS:40:ILE:N	2.77	0.48
30:BF:124:LEU:HG	30:BF:126:VAL:CG1	2.44	0.48
25:BA:2849:U:H1'	25:BA:2866:U:H6	1.79	0.48
36:BP:98:GLU:HG3	36:BP:99:LEU:N	2.28	0.48
40:BT:102:ILE:HG22	40:BT:110:ILE:HG12	1.95	0.48
25:BA:301:G:OP1	25:BA:301:G:H4'	2.13	0.48
55:D8:49:VAL:HG23	55:D8:53:PRO:HB3	1.95	0.48
22:AY:28:G:N2	22:AY:42:C:N4	2.56	0.48
11:AK:124:LYS:HB3	11:AK:125:PHE:CD1	2.49	0.48
26:DB:45:A:H2'	26:DB:46:A:H5'	1.96	0.48
46:BZ:10:ARG:HB2	46:BZ:38:TYR:HD2	1.79	0.48
46:BZ:91:LEU:N	46:BZ:91:LEU:HD12	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1042:G:N3	25:BA:1042:G:H2'	2.28	0.48
1:AA:659:A:H2'	1:AA:660:U:C6	2.49	0.48
1:CA:1036:C:O2'	1:CA:1037:A:O5'	2.30	0.48
1:AA:1157:A:H2'	1:AA:1158:G:C8	2.49	0.48
31:DG:47:LYS:N	31:DG:51:ARG:HG3	2.29	0.48
7:CG:76:ARG:NH1	7:CG:76:ARG:HG2	2.26	0.48
25:DA:814:C:H2'	25:DA:815:C:H6	1.78	0.48
53:D6:26:ASN:O	53:D6:27:LYS:HG2	2.14	0.48
43:BW:8:ARG:HA	43:BW:102:HIS:CD2	2.48	0.48
25:DA:1386:C:H2'	25:DA:1387:C:C6	2.48	0.48
25:DA:2023:G:H4'	25:DA:2617:C:O3'	2.13	0.48
25:DA:2831:G:H1'	25:DA:2883:A:H2'	1.95	0.48
45:BY:2:ARG:O	45:BY:3:VAL:HB	2.14	0.48
2:CB:171:ALA:HA	2:CB:174:VAL:CG2	2.43	0.48
28:BD:68:LYS:HB2	28:BD:70:TRP:CZ2	2.49	0.48
25:BA:2831:G:H1'	25:BA:2883:A:H2'	1.95	0.48
25:DA:1131:G:OP1	34:DN:80:GLY:N	2.33	0.48
1:AA:568:G:OP1	17:AQ:37:LYS:HE2	2.13	0.48
2:AB:140:HIS:O	2:AB:143:GLU:HB2	2.13	0.48
2:CB:36:ARG:H	2:CB:41:ILE:HD13	1.79	0.48
1:CA:468:G:H5'	1:CA:470:U:O4'	2.14	0.48
2:CB:109:SER:C	2:CB:111:ARG:H	2.17	0.48
47:D0:54:GLY:O	47:D0:56:ASP:N	2.47	0.48
25:DA:2288:A:C2	25:DA:2325:G:C8	3.02	0.48
40:DT:30:VAL:HB	40:DT:42:ILE:HB	1.96	0.48
29:BE:63:LEU:HD23	29:BE:65:GLY:N	2.28	0.48
32:DH:43:VAL:HG12	32:DH:53:GLU:H	1.79	0.48
25:DA:2261:C:O2'	25:DA:2262:U:H5'	2.14	0.48
23:AV:4:G:O2'	23:AV:5:G:O5'	2.30	0.48
41:BU:69:CYS:CB	41:BU:79:PHE:CD1	2.96	0.48
10:AJ:54:PHE:CD2	10:AJ:55:LYS:HE3	2.49	0.48
45:DY:28:LYS:HB2	45:DY:38:ILE:N	2.19	0.48
25:DA:1980:G:O2'	25:DA:1982:C:OP2	2.30	0.48
25:BA:1786:A:H2	25:BA:2606:C:H1'	1.77	0.48
36:BP:52:GLU:OE2	36:BP:55:ARG:O	2.32	0.48
25:BA:2171:A:HO2'	25:BA:2172:U:C1'	2.27	0.48
25:DA:2171:A:HO2'	25:DA:2172:U:C1'	2.27	0.48
37:BQ:43:THR:HG1	37:BQ:46:GLN:HG3	1.76	0.48
41:DU:112:ARG:HE	42:DV:46:VAL:HG21	1.78	0.48
39:BS:17:ARG:C	39:BS:19:LYS:N	2.64	0.48
45:DY:84:ARG:HH12	45:DY:97:ARG:HD2	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:16:ARG:HB2	9:CI:64:THR:HG22	1.96	0.48
7:CG:79:ARG:HG3	7:CG:79:ARG:NH1	2.28	0.48
25:DA:855:G:C6	25:DA:856:C:N4	2.82	0.48
33:DI:60:GLU:O	33:DI:64:GLU:HG2	2.14	0.48
36:DP:32:THR:HB	36:DP:36:LYS:HB2	1.96	0.48
25:DA:2186:G:C6	25:DA:2187:G:C6	3.01	0.48
2:AB:54:THR:HG21	2:AB:201:ILE:HD11	1.95	0.48
32:DH:98:LEU:HD22	32:DH:125:VAL:CG2	2.44	0.48
25:DA:1652:A:N6	25:DA:1653:G:N1	2.62	0.48
22:AW:67:C:O2'	22:AW:68:C:H5'	2.14	0.48
30:BF:133:ASN:O	30:BF:135:LYS:N	2.46	0.48
2:CB:55:PHE:HA	2:CB:58:ILE:HB	1.96	0.48
31:DG:133:LEU:HG	31:DG:157:ILE:HG13	1.96	0.48
49:B2:50:ILE:O	49:B2:54:LYS:HG2	2.14	0.48
25:BA:2845:G:C2'	25:BA:2846:G:H5'	2.43	0.48
29:BE:101:ARG:HB2	29:BE:201:THR:HG22	1.96	0.48
25:BA:2310:A:O2'	25:BA:2311:A:H5''	2.13	0.48
46:DZ:163:LEU:H	46:DZ:163:LEU:CD1	2.20	0.48
36:BP:95:VAL:CG2	36:BP:125:VAL:HB	2.44	0.48
36:DP:95:VAL:CG2	36:DP:125:VAL:HB	2.43	0.48
36:DP:97:PRO:O	36:DP:98:GLU:HG3	2.14	0.48
25:DA:2638:G:OP2	29:DE:82:ARG:NH2	2.46	0.48
25:DA:302:C:H2'	25:DA:303:U:H6	1.78	0.48
43:DW:2:GLU:HA	43:DW:64:MET:HE1	1.95	0.48
1:CA:5:U:H1'	1:CA:6:G:N1	2.29	0.48
43:BW:58:ALA:O	43:BW:62:HIS:HB2	2.14	0.48
53:B6:26:ASN:O	53:B6:27:LYS:HG2	2.14	0.48
31:BG:82:LEU:CD2	31:BG:87:PRO:HG3	2.41	0.48
4:AD:107:ARG:HB3	4:AD:174:LEU:HD11	1.95	0.48
1:CA:1056:G:O3'	2:CB:103:THR:HG21	2.14	0.48
27:BC:76:ALA:C	27:BC:78:ALA:N	2.66	0.48
25:BA:1609:A:C6	25:BA:1616:A:C8	3.01	0.48
44:DX:35:THR:HB	44:DX:38:GLU:H	1.79	0.48
25:DA:673:C:H6	25:DA:673:C:H5''	1.79	0.48
12:CL:126:LYS:HG3	12:CL:127:GLU:N	2.28	0.48
1:AA:648:A:C8	1:AA:716:A:C2	3.02	0.48
18:AR:19:LYS:O	18:AR:20:ALA:HB2	2.12	0.48
1:CA:433:G:H4'	4:CD:123:HIS:ND1	2.28	0.48
44:DX:29:TRP:CE3	44:DX:78:LYS:HB3	2.49	0.48
44:DX:32:PRO:HA	44:DX:77:LYS:HB2	1.96	0.48
1:CA:22:G:H2'	1:CA:23:C:C6	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BY:13:VAL:HA	45:BY:75:ILE:CG2	2.44	0.48
1:CA:345:G:O2'	1:CA:346:G:H5'	2.13	0.48
25:BA:1406:U:H3'	25:BA:1407:C:H6	1.78	0.48
5:AE:136:MET:C	5:AE:138:ALA:N	2.67	0.48
1:AA:525:G:H5'	4:AD:41:GLY:CA	2.44	0.48
25:BA:2357:U:OP1	47:B0:20:ARG:NH1	2.46	0.48
25:BA:604:G:H2'	25:BA:605:C:C6	2.49	0.48
40:DT:64:ARG:NH2	40:DT:73:GLU:OE1	2.34	0.48
41:DU:15:LYS:HD3	41:DU:15:LYS:N	2.28	0.48
1:AA:1221:U:H3	7:AG:30:ILE:HG22	1.78	0.48
28:DD:68:LYS:HB2	28:DD:70:TRP:CZ2	2.49	0.48
20:CT:13:LEU:O	20:CT:13:LEU:HD12	2.14	0.48
20:CT:16:HIS:O	20:CT:19:SER:HB3	2.13	0.48
41:BU:12:ARG:HA	41:BU:15:LYS:NZ	2.29	0.48
25:BA:185:U:H2'	25:BA:186:G:C8	2.49	0.48
25:DA:781:A:O2'	25:DA:782:A:OP2	2.30	0.48
19:AS:35:SER:C	19:AS:37:ARG:H	2.16	0.48
25:BA:621:A:H2'	25:BA:622:G:H5'	1.95	0.48
25:DA:1414:G:H1	25:DA:1588:C:H42	1.62	0.48
39:BS:22:GLY:O	39:BS:23:ARG:O	2.32	0.48
1:AA:930:G:C5'	1:AA:942:A:H61	2.27	0.48
5:AE:64:ARG:HE	5:AE:64:ARG:HA	1.79	0.48
1:AA:494:C:C2	1:AA:495:U:C5	3.01	0.48
25:BA:2408:U:O2'	25:BA:2409:G:H5'	2.13	0.48
6:AF:19:LEU:O	6:AF:23:LYS:HG3	2.14	0.48
3:CC:186:PHE:HA	3:CC:198:VAL:O	2.14	0.48
25:BA:950:G:H2'	25:BA:951:C:C6	2.49	0.48
25:DA:198:C:H5'	25:DA:2244:U:OP1	2.14	0.48
18:AR:63:GLN:OE1	18:AR:63:GLN:HA	2.14	0.48
25:DA:2408:U:O2'	25:DA:2409:G:H5'	2.13	0.48
38:DR:87:TYR:HE1	38:DR:117:VAL:O	1.97	0.48
32:DH:32:GLU:O	32:DH:33:LEU:HD23	2.14	0.47
25:BA:911:A:C2	25:BA:2277:G:N3	2.81	0.47
25:BA:965:C:H6	25:BA:965:C:H5''	1.79	0.47
25:DA:952:G:C4	25:DA:953:A:C8	3.02	0.47
25:DA:953:A:C2	25:DA:954:G:C8	3.01	0.47
25:BA:109:G:C2'	25:BA:110:G:C5'	2.92	0.47
40:DT:12:SER:HB3	40:DT:57:PHE:CE1	2.49	0.47
41:BU:90:VAL:CG1	41:BU:91:ASP:H	2.10	0.47
31:BG:95:ARG:HH11	31:BG:95:ARG:HG2	1.78	0.47
1:AA:1301:C:C2	19:AS:72:GLY:HA3	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:271(P):C:C2'	25:DA:271(Q):G:C5'	2.87	0.47
25:DA:271(R):G:H2'	25:DA:271(S):G:H8	1.79	0.47
45:DY:28:LYS:NZ	45:DY:28:LYS:N	2.60	0.47
22:AW:76:A:O2'	25:BA:2394:C:C2	2.65	0.47
25:BA:272:G:C6	25:BA:421:U:C6	3.02	0.47
42:DV:15:GLU:O	42:DV:16:PRO:O	2.32	0.47
42:DV:39:LEU:CD1	42:DV:39:LEU:N	2.69	0.47
39:BS:56:LEU:HD23	39:BS:56:LEU:C	2.34	0.47
39:BS:95:HIS:CG	39:BS:96:GLY:N	2.82	0.47
25:DA:2228:G:P	28:DD:263:ARG:HH12	2.36	0.47
9:AI:16:ARG:HB2	9:AI:64:THR:HG23	1.96	0.47
13:CM:19:LEU:HB3	13:CM:25:ILE:HG21	1.96	0.47
13:CM:9:ILE:N	13:CM:9:ILE:HD12	2.29	0.47
39:DS:35:ILE:CG2	39:DS:53:SER:HB2	2.44	0.47
39:DS:56:LEU:C	39:DS:56:LEU:HD23	2.34	0.47
2:CB:178:ARG:HH11	2:CB:178:ARG:CG	2.27	0.47
33:BI:68:LEU:HD23	33:BI:68:LEU:O	2.13	0.47
25:DA:2711:A:OP1	25:DA:2712(A):A:P	2.72	0.47
30:DF:119:ARG:HH11	30:DF:119:ARG:HG2	1.79	0.47
25:BA:943:U:OP1	36:BP:38:GLN:HB3	2.14	0.47
25:BA:1447:G:C6	25:BA:1448:G:C5	3.02	0.47
25:BA:747:U:H5	52:B5:3:LYS:HB2	1.70	0.47
27:BC:64:LEU:O	27:BC:66:HIS:N	2.46	0.47
4:CD:25:ARG:C	4:CD:27:TYR:N	2.67	0.47
33:DI:14:ASP:O	33:DI:15:VAL:O	2.32	0.47
34:DN:91:LEU:CD2	34:DN:98:VAL:HG21	2.44	0.47
25:DA:2123:G:H4'	27:DC:175:VAL:O	2.13	0.47
36:DP:148:LEU:O	36:DP:149:GLU:HB2	2.13	0.47
25:BA:1899:G:H22	25:BA:1902:C:H41	1.56	0.47
1:CA:1193:U:H3'	1:CA:1193:U:H6	1.79	0.47
37:BQ:137:TYR:O	37:BQ:138:ASP:O	2.32	0.47
3:AC:112:SER:O	3:AC:114:PRO:HD2	2.14	0.47
11:CK:46:GLY:HA2	11:CK:50:TYR:O	2.13	0.47
19:AS:31:ILE:CG2	19:AS:49:ILE:HA	2.43	0.47
25:BA:619:G:P	25:BA:620:G:H22	2.37	0.47
1:CA:386:G:C6	1:CA:387:G:C5	3.02	0.47
2:CB:44:LEU:H	2:CB:44:LEU:CD1	2.25	0.47
4:AD:146:ILE:N	4:AD:146:ILE:CD1	2.73	0.47
2:AB:103:THR:OG1	2:AB:176:GLU:HG2	2.13	0.47
25:DA:790:C:HO2'	25:DA:791:C:P	2.29	0.47
31:DG:81:LYS:O	31:DG:82:LEU:C	2.52	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DC:83:ILE:HD12	27:DC:94:VAL:O	2.13	0.47
6:AF:63:TYR:N	6:AF:63:TYR:CD2	2.82	0.47
48:B1:23:LYS:HE2	48:B1:28:GLY:CA	2.42	0.47
17:CQ:50:LYS:HG3	17:CQ:51:TYR:CD1	2.49	0.47
25:BA:646:A:C8	25:BA:647:G:H1'	2.49	0.47
3:CC:138:VAL:CG2	3:CC:151:VAL:HG23	2.42	0.47
30:DF:184:TYR:CE2	30:DF:188:ARG:HD2	2.49	0.47
30:BF:184:TYR:CE2	30:BF:188:ARG:HD2	2.49	0.47
10:CJ:17:ASP:OD1	10:CJ:70:ARG:NH1	2.47	0.47
25:DA:752:A:H4'	25:DA:753:C:O5'	2.14	0.47
2:CB:168:THR:HA	2:CB:171:ALA:HB2	1.94	0.47
8:CH:91:ARG:CG	8:CH:91:ARG:HH11	2.27	0.47
37:BQ:76:LYS:HB3	37:BQ:91:GLU:HG3	1.96	0.47
25:BA:66:C:C2'	25:BA:67:U:H5'	2.44	0.47
1:AA:1014:G:H2'	1:AA:1015:G:C8	2.48	0.47
1:AA:523:G:H2'	1:AA:524:G:O4'	2.13	0.47
25:BA:198:C:H5'	25:BA:2244:U:OP1	2.14	0.47
25:BA:2626:C:H2'	25:BA:2627:G:O4'	2.15	0.47
1:CA:32:A:C2	1:CA:33:A:C4	3.02	0.47
37:DQ:1:MET:HE2	37:DQ:2:LEU:CB	2.44	0.47
1:CA:15:G:H21	5:CE:18:ARG:HA	1.79	0.47
39:DS:41:ASP:OD2	39:DS:44:LYS:HB3	2.13	0.47
25:BA:1518:U:H2'	25:BA:1519:G:O4'	2.14	0.47
34:BN:108:PRO:O	34:BN:113:GLY:HA3	2.14	0.47
25:DA:69:C:O2	25:DA:69:C:H2'	2.14	0.47
31:DG:76:SER:CB	31:DG:84:LYS:HG3	2.44	0.47
29:BE:88:GLY:O	29:BE:89:ASP:HB2	2.13	0.47
25:BA:1129:A:H1'	25:BA:2516:G:O4'	2.15	0.47
49:D2:14:ARG:HG3	49:D2:14:ARG:NH1	2.26	0.47
25:DA:614:U:O2	25:DA:614:U:O4'	2.30	0.47
42:BV:21:ARG:HB3	42:BV:91:TYR:CB	2.35	0.47
25:BA:271(Q):G:C2	25:BA:271(R):G:N7	2.80	0.47
9:CI:16:ARG:HB2	9:CI:64:THR:HG23	1.96	0.47
25:BA:2320:A:N1	25:BA:2333:A:N7	2.63	0.47
8:AH:103:VAL:CG1	8:AH:108:GLY:HA3	2.44	0.47
25:DA:2267:A:H5''	25:DA:2268:A:H5'	1.96	0.47
2:CB:178:ARG:O	8:CH:72:PRO:HD3	2.13	0.47
42:DV:29:PRO:O	42:DV:61:VAL:CG2	2.57	0.47
53:D6:45:LYS:O	53:D6:46:HIS:CB	2.62	0.47
33:BI:87:LYS:HA	33:BI:122:GLU:CG	2.30	0.47
33:BI:37:VAL:HG12	33:BI:38:LEU:N	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1239:G:H2'	25:DA:1240:U:O4'	2.14	0.47
30:BF:28:ILE:O	30:BF:28:ILE:HD12	2.13	0.47
9:AI:83:ARG:O	9:AI:86:VAL:HG12	2.14	0.47
32:DH:103:LEU:HD23	32:DH:115:VAL:HB	1.96	0.47
32:DH:94:TYR:HE1	32:DH:108:GLY:H	1.61	0.47
32:DH:158:HIS:ND1	32:DH:168:PRO:HB2	2.29	0.47
1:CA:1116:G:H2'	1:CA:1117:U:H5'	1.95	0.47
9:CI:104:ARG:HB2	9:CI:106:ALA:HB2	1.95	0.47
25:BA:2863:C:C2'	25:BA:2864:G:C5'	2.82	0.47
25:BA:2330:G:H2'	25:BA:2331:G:O5'	2.14	0.47
37:BQ:51:ARG:CG	37:BQ:51:ARG:HH11	2.26	0.47
46:BZ:166:SER:HB2	46:BZ:168:GLU:HB2	1.96	0.47
23:AV:23:G:C6	23:AV:24:C:N4	2.82	0.47
47:D0:26:TYR:H	47:D0:29:GLN:NE2	2.12	0.47
10:AJ:6:ILE:HG12	10:AJ:72:VAL:O	2.14	0.47
36:DP:83:VAL:HG13	36:DP:83:VAL:O	2.14	0.47
26:DB:14:U:OP2	26:DB:71:C:C4'	2.62	0.47
1:AA:505:C:H41	12:AL:53:ARG:HH22	1.60	0.47
19:CS:36:ARG:HB2	19:CS:72:GLY:HA2	1.96	0.47
3:AC:34:LEU:O	3:AC:38:ARG:HG2	2.15	0.47
20:AT:14:LYS:CB	20:AT:17:ARG:HH21	2.27	0.47
43:DW:50:VAL:CG1	43:DW:51:LEU:N	2.76	0.47
4:AD:25:ARG:C	4:AD:27:TYR:N	2.67	0.47
43:BW:51:LEU:HD13	43:BW:52:GLU:N	2.28	0.47
1:CA:511:C:H41	12:CL:49:ASN:ND2	2.11	0.47
1:AA:1005:C:H3'	1:AA:1005:C:H6	1.78	0.47
25:DA:619:G:P	25:DA:620:G:H22	2.37	0.47
30:DF:168:ARG:O	30:DF:170:LEU:N	2.47	0.47
1:AA:1056:G:O3'	2:AB:103:THR:HG21	2.14	0.47
4:CD:107:ARG:HB3	4:CD:174:LEU:HD11	1.96	0.47
47:D0:10:THR:HG22	47:D0:12:ASN:N	2.27	0.47
4:AD:108:LEU:O	4:AD:110:PHE:HD1	1.97	0.47
30:DF:83:PHE:O	30:DF:84:VAL:CB	2.61	0.47
25:DA:814:C:C5	36:DP:27:HIS:CE1	3.02	0.47
37:BQ:35:VAL:HG23	37:BQ:100:GLY:O	2.13	0.47
28:BD:168:ARG:O	28:BD:169:GLU:HB2	2.14	0.47
1:CA:378:A:C6	1:CA:379:G:H1'	2.49	0.47
18:CR:47:THR:HG21	18:CR:49:LYS:HE2	1.96	0.47
5:CE:136:MET:C	5:CE:138:ALA:H	2.18	0.47
1:AA:1086:G:H4'	2:AB:111:ARG:NH1	2.28	0.47
25:DA:1647:G:C3'	25:DA:1647:G:OP2	2.61	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:708:C:H42	25:DA:723:G:H1	1.62	0.47
3:AC:126:ARG:HG2	3:AC:126:ARG:NH1	2.29	0.47
25:DA:2831:G:O4'	25:DA:2883:A:C2	2.67	0.47
1:CA:884:A:C6	1:CA:885:A:C5	3.02	0.47
1:CA:206:G:H2'	1:CA:207:C:O4'	2.15	0.47
4:CD:96:LEU:HG	4:CD:139:ARG:NH1	2.29	0.47
1:CA:939:C:H2'	1:CA:940:G:H8	1.79	0.47
52:D5:48:GLU:HA	52:D5:57:VAL:HG22	1.96	0.47
25:DA:118:A:H1'	25:DA:178:G:O4'	2.14	0.47
25:DA:185:U:H2'	25:DA:186:G:C8	2.49	0.47
2:CB:140:HIS:O	2:CB:143:GLU:HB2	2.14	0.47
28:DD:118:VAL:HG22	28:DD:119:ALA:N	2.29	0.47
45:DY:89:PHE:O	45:DY:90:LEU:HB3	2.13	0.47
21:AU:3:LYS:HB3	21:AU:14:TRP:CD1	2.50	0.47
6:AF:50:TYR:HE2	6:AF:52:ILE:HD11	1.79	0.47
25:BA:2600:A:H2'	25:BA:2601:C:C6	2.48	0.47
7:AG:41:ARG:O	7:AG:45:ASP:N	2.39	0.47
25:DA:566:U:O2'	25:DA:567:A:H5'	2.14	0.47
7:CG:57:GLU:O	7:CG:57:GLU:HG3	2.15	0.47
38:DR:59:ASP:OD2	38:DR:59:ASP:N	2.47	0.47
25:DA:2505:G:O2'	25:DA:2506:U:H5'	2.14	0.47
7:AG:5:ARG:C	7:AG:7:ALA:H	2.16	0.47
28:DD:168:ARG:O	28:DD:169:GLU:HB2	2.15	0.47
25:DA:2584:U:H2'	25:DA:2585:U:C4'	2.39	0.47
25:BA:953:A:N6	25:BA:965:C:H42	2.12	0.47
23:AV:68:C:C5	23:AV:69:C:C5	3.02	0.47
41:BU:90:VAL:HG21	42:BV:47:VAL:HG21	1.96	0.47
1:AA:1422:C:O2'	1:AA:1423:G:H5'	2.14	0.47
25:DA:1592:C:H2'	25:DA:1593:G:C8	2.49	0.47
25:DA:306:U:C5	25:DA:307:G:C6	3.01	0.47
36:BP:52:GLU:HB2	36:BP:53:GLY:H	1.59	0.47
25:BA:2167:U:O2'	25:BA:2168:G:H5'	2.13	0.47
25:BA:1798:U:H5''	28:BD:260:ARG:HB3	1.96	0.47
25:BA:613:G:N1	25:BA:614:U:C5	2.81	0.47
25:BA:2803:C:H5'	25:BA:2804:C:OP1	2.15	0.47
5:CE:11:ILE:HG22	5:CE:12:LEU:N	2.28	0.47
13:CM:108:ARG:HD2	13:CM:108:ARG:N	2.30	0.47
19:CS:6:LYS:HE3	19:CS:6:LYS:N	2.27	0.47
31:BG:172:LEU:HG	31:BG:176:LEU:HD12	1.96	0.47
29:DE:132:HIS:NE2	29:DE:135:HIS:NE2	2.62	0.47
45:BY:95:LYS:HG2	45:BY:100:ALA:HB2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:31:LYS:O	28:DD:32:SER:C	2.52	0.47
1:AA:154:A:N6	1:AA:339:A:HO2'	2.12	0.47
33:DI:83:ALA:HB1	33:DI:88:ILE:HD12	1.95	0.47
5:AE:41:VAL:HG21	5:AE:113:ALA:HB2	1.96	0.47
1:AA:916:G:H2'	1:AA:917:C:C6	2.49	0.47
30:BF:63:LYS:NZ	30:BF:67:GLN:HB3	2.28	0.47
25:BA:285:C:C2'	25:BA:286:C:O4'	2.59	0.47
9:CI:79:LEU:HD21	9:CI:102:LEU:HA	1.97	0.47
7:AG:70:LYS:HB3	7:AG:96:GLN:OE1	2.14	0.47
37:DQ:51:ARG:HH11	37:DQ:51:ARG:CG	2.26	0.47
25:DA:942:G:H5'	36:DP:35:HIS:CB	2.42	0.47
23:AV:24:C:C6	23:AV:25:U:H5	2.31	0.47
12:AL:53:ARG:NH1	12:AL:92:ASP:HB2	2.22	0.47
48:D1:72:GLU:O	48:D1:76:ARG:HG2	2.14	0.47
34:DN:46:VAL:O	34:DN:47:ALA:CB	2.63	0.47
35:DO:34:THR:N	35:DO:37:ASP:OD2	2.47	0.47
1:CA:607:C:H2'	1:CA:608:G:H8	1.79	0.47
25:DA:15:G:H5"	25:DA:15:G:H8	1.77	0.47
54:B7:41:ARG:CD	54:B7:45:ALA:HB2	2.41	0.47
1:CA:337:C:C4	1:CA:338:U:C4	3.02	0.47
35:BO:11:ALA:HB1	35:BO:98:VAL:HG23	1.96	0.47
1:CA:718:C:H2'	1:CA:719:C:C6	2.49	0.47
25:DA:1332:G:H21	25:DA:1610:A:H8	1.60	0.47
2:AB:63:MET:C	2:AB:65:GLY:H	2.17	0.47
11:AK:20:TYR:HB2	11:AK:31:THR:O	2.14	0.47
52:B5:40:LYS:HD2	52:B5:40:LYS:C	2.34	0.47
20:AT:61:SER:O	20:AT:63:ILE:N	2.47	0.47
11:CK:34:ASP:OD2	11:CK:34:ASP:C	2.52	0.47
22:AW:41:C:O2	22:AW:41:C:H2'	2.13	0.47
39:DS:36:TYR:N	39:DS:36:TYR:CD1	2.83	0.47
52:D5:40:LYS:HD2	52:D5:40:LYS:C	2.34	0.47
34:BN:18:ALA:O	34:BN:21:LYS:N	2.38	0.47
7:AG:85:TYR:CE1	7:AG:154:TYR:HE1	2.33	0.47
7:AG:155:ARG:O	7:AG:156:TRP:O	2.32	0.47
40:DT:115:ARG:HA	40:DT:115:ARG:HE	1.78	0.47
7:AG:16:LEU:HD12	9:AI:42:ARG:HA	1.96	0.47
9:CI:88:TYR:O	9:CI:89:ASN:CB	2.62	0.47
25:BA:554:U:O2'	25:BA:555:U:H5'	2.14	0.47
25:DA:536:A:H2'	25:DA:537:C:H6	1.79	0.47
25:DA:852:G:H2'	25:DA:853:G:C8	2.49	0.47
2:CB:157:ARG:O	2:CB:158:LEU:C	2.53	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:183:G:H2'	1:AA:184:C:C6	2.49	0.47
1:AA:1065:U:H2'	1:AA:1066:G:O4'	2.15	0.47
2:AB:36:ARG:H	2:AB:41:ILE:HD13	1.79	0.47
25:BA:2029:G:H2'	25:BA:2031:A:OP1	2.13	0.47
3:AC:33:LEU:O	3:AC:37:GLN:HG2	2.14	0.47
25:BA:2396:G:O2'	48:B1:29:GLY:HA3	2.15	0.47
25:BA:2032:G:O2'	29:BE:145:LYS:NZ	2.45	0.47
2:CB:35:GLU:O	2:CB:35:GLU:HG2	2.13	0.47
14:CN:36:PHE:CD1	14:CN:36:PHE:C	2.87	0.47
25:BA:1958:C:O2'	25:BA:1959:G:H5'	2.14	0.47
5:CE:64:ARG:HE	5:CE:64:ARG:HA	1.79	0.47
1:CA:492:A:N3	1:CA:526:C:O2'	2.36	0.47
25:DA:2615:U:C2	52:D5:7:PRO:HA	2.49	0.47
25:BA:2585:U:H3'	25:BA:2585:U:H6	1.80	0.47
29:DE:59:VAL:CG2	29:DE:60:ASN:N	2.67	0.47
25:BA:911:A:O5'	25:BA:911:A:H8	1.97	0.47
22:CW:2:C:C5	22:CW:3:C:H5	2.32	0.47
1:AA:1423:G:H1'	1:AA:1438:G:N2	2.29	0.47
23:CV:21:U:C3'	23:CV:22:A:H5'	2.44	0.47
25:DA:265:A:C6	25:DA:283:A:C8	3.02	0.47
25:BA:2391:G:O2'	25:BA:2392:A:OP2	2.30	0.47
27:DC:36:LYS:CD	27:DC:37:PHE:H	2.26	0.47
31:BG:117:PHE:HD1	31:BG:118:ARG:H	1.62	0.47
55:D8:63:PRO:HB2	55:D8:64:TYR:HD1	1.78	0.47
25:BA:265:A:C6	25:BA:283:A:C8	3.02	0.47
25:BA:1592:C:H2'	25:BA:1593:G:C8	2.49	0.47
25:BA:614:U:O4'	25:BA:614:U:O2	2.31	0.47
3:CC:11:ARG:NH1	3:CC:11:ARG:HG2	2.28	0.47
25:BA:1657:C:H2'	25:BA:1658:C:C6	2.49	0.47
30:DF:136:THR:HG23	30:DF:137:LYS:H	1.79	0.47
28:BD:31:LYS:HB3	28:BD:35:LYS:HG3	1.97	0.47
28:DD:31:LYS:HB3	28:DD:35:LYS:HG3	1.97	0.47
25:DA:858:U:O2'	25:DA:859:G:N9	2.41	0.47
22:AW:35:A:N6	22:AW:36:A:N1	2.62	0.47
33:BI:129:THR:OG1	33:BI:130:TYR:N	2.47	0.47
36:DP:33:ARG:HG3	36:DP:34:GLY:H	1.79	0.47
13:AM:10:PRO:HB2	13:AM:18:ALA:CB	2.38	0.47
25:BA:1239:G:H2'	25:BA:1240:U:O4'	2.14	0.47
22:AY:37:A:N7	22:AY:38:A:C8	2.82	0.47
25:DA:849:A:H8	25:DA:849:A:O5'	1.96	0.47
32:BH:32:GLU:O	32:BH:33:LEU:HD23	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:111:ASP:HA	18:CR:84:LYS:CG	2.30	0.47
1:CA:1277:C:H5'	13:CM:44:ARG:NH2	2.29	0.47
5:CE:79:GLU:O	8:CH:104:ARG:NH1	2.47	0.47
2:AB:165:VAL:CG2	2:AB:166:ASP:N	2.77	0.47
25:DA:2392:A:OP1	55:D8:32:LEU:HD22	2.13	0.47
7:CG:59:LEU:HD23	7:CG:60:LYS:HZ3	1.79	0.47
46:BZ:120:ILE:HB	46:BZ:172:ALA:N	2.29	0.47
46:BZ:166:SER:CB	46:BZ:168:GLU:HB2	2.44	0.47
32:BH:84:SER:O	32:BH:85:LYS:CB	2.62	0.47
29:BE:101:ARG:HE	29:BE:101:ARG:HA	1.79	0.47
31:BG:143:GLU:H	31:BG:143:GLU:HG2	1.42	0.47
29:DE:201:THR:OG1	29:DE:202:LYS:N	2.47	0.47
20:AT:72:LEU:CD2	20:AT:73:HIS:N	2.70	0.47
48:B1:52:ARG:NH2	48:B1:52:ARG:HG3	2.28	0.47
48:B1:3:LYS:CG	48:B1:4:VAL:N	2.71	0.47
36:DP:80:TYR:CD1	36:DP:111:ARG:HB3	2.49	0.47
1:CA:635:U:O2'	1:CA:636:A:OP2	2.27	0.47
34:BN:42:TRP:HE3	34:BN:42:TRP:HA	1.78	0.47
1:CA:304:G:O2'	1:CA:590:A:N6	2.42	0.47
3:CC:35:GLU:HA	3:CC:38:ARG:CD	2.42	0.47
34:DN:43:THR:O	34:DN:46:VAL:HG12	2.13	0.47
36:BP:16:ARG:CB	36:BP:16:ARG:NH1	2.76	0.47
30:DF:78:ILE:CD1	30:DF:78:ILE:H	2.24	0.47
6:CF:63:TYR:N	6:CF:63:TYR:CD2	2.82	0.47
1:AA:816:U:H2'	1:AA:817:C:C6	2.49	0.47
22:CY:33:U:H2'	22:CY:34:G:H3'	1.96	0.47
44:BX:35:THR:HG22	44:BX:36:LYS:N	2.29	0.47
4:CD:108:LEU:CD1	4:CD:174:LEU:HD13	2.44	0.47
38:DR:2:ARG:CZ	38:DR:5:LYS:CE	2.92	0.47
25:BA:2175:C:H1'	27:BC:215:THR:H	1.79	0.47
25:DA:2419:U:OP1	55:D8:41:ILE:HD13	2.13	0.47
1:CA:743:G:H2'	1:CA:744:G:H5'	1.96	0.47
25:DA:1494:A:O2'	25:DA:1495:A:H5''	2.14	0.47
25:BA:673:C:H6	25:BA:673:C:H5''	1.79	0.47
33:DI:10:GLU:O	33:DI:12:LEU:HD23	2.15	0.47
5:CE:20:GLN:O	5:CE:23:GLY:O	2.31	0.47
5:CE:28:PHE:N	5:CE:28:PHE:HD1	2.12	0.47
25:DA:1175:U:C4'	25:DA:1176:G:H2'	2.44	0.47
25:DA:102:G:OP1	25:DA:102:G:C4'	2.62	0.47
50:D3:38:GLU:O	50:D3:40:THR:HG23	2.14	0.47
9:AI:24:GLY:O	9:AI:25:LYS:C	2.51	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:708:C:H42	25:BA:723:G:H1	1.62	0.47
21:CU:5:ASP:O	21:CU:8:THR:HG23	2.15	0.47
1:AA:1197:G:H2'	1:AA:1198:C:C6	2.49	0.47
25:DA:1309:G:H3'	54:D7:9:ARG:NH1	2.29	0.47
25:DA:879:G:C2	25:DA:899:A:H1'	2.49	0.47
25:DA:1389:G:OP1	25:DA:1526:G:H5''	2.15	0.47
30:BF:52:LYS:O	30:BF:88:VAL:HG12	2.14	0.47
8:AH:67:PRO:O	8:AH:68:ARG:O	2.32	0.47
41:DU:12:ARG:HA	41:DU:15:LYS:NZ	2.29	0.47
1:AA:1345:A:H4'	1:AA:1346:U:H5''	1.97	0.47
25:DA:2870:C:H2'	25:DA:2871:C:O4'	2.13	0.47
25:BA:18:C:H4'	41:BU:23:GLY:O	2.15	0.47
1:AA:968:U:C2	1:AA:1196:G:N2	2.82	0.47
25:BA:29:U:H2'	25:BA:30:G:C8	2.49	0.47
1:CA:725:G:OP2	15:CO:35:ARG:NH2	2.35	0.47
1:CA:35:G:H2'	1:CA:36:C:C6	2.49	0.47
25:BA:2792:G:O2'	25:BA:2793:G:H5'	2.14	0.47
25:DA:2029:G:H2'	25:DA:2031:A:OP1	2.13	0.47
28:DD:183:ARG:HG2	28:DD:183:ARG:HH11	1.78	0.47
1:AA:257:A:H5''	20:AT:76:ALA:HB2	1.95	0.47
1:CA:232:C:H5''	17:CQ:25:ARG:NH1	2.29	0.47
1:CA:970:G:C2'	1:CA:972:C:H41	2.27	0.47
25:DA:2584:U:H6	25:DA:2584:U:H3'	1.79	0.47
13:AM:91:ARG:O	13:AM:96:LEU:N	2.48	0.47
29:DE:79:ARG:NH1	29:DE:79:ARG:HG2	2.29	0.47
25:DA:109:G:C2'	25:DA:110:G:C5'	2.92	0.47
22:CW:3:C:H1'	22:CW:71:G:H22	1.76	0.47
22:CW:6:G:C2	22:CW:68:C:N3	2.82	0.47
1:AA:1302:C:C3'	1:AA:1303:C:C5'	2.86	0.47
10:AJ:57:LYS:HE3	10:AJ:60:ARG:NH2	2.30	0.47
25:DA:271(D):G:O2'	25:DA:271(E):U:H5'	2.14	0.47
45:DY:18:GLY:N	45:DY:21:LYS:HB2	2.29	0.47
22:AW:75:C:O2'	22:AW:76:A:C8	2.64	0.47
25:DA:2484:G:O2'	37:DQ:124:LYS:O	2.32	0.47
41:DU:90:VAL:O	41:DU:92:ARG:N	2.37	0.47
26:BB:115:G:H4'	39:BS:47:THR:HB	1.97	0.47
39:BS:98:VAL:O	39:BS:98:VAL:HG13	2.15	0.47
9:AI:28:VAL:CG2	9:AI:63:ILE:HB	2.26	0.47
39:DS:66:ALA:HA	39:DS:69:VAL:HG12	1.96	0.47
10:CJ:49:VAL:HG22	10:CJ:50:ILE:N	2.30	0.47
25:BA:271(H):G:C6	25:BA:271(Q):G:C6	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:52:ARG:O	33:BI:56:LYS:HG2	2.14	0.47
33:BI:60:GLU:O	33:BI:64:GLU:HG2	2.14	0.47
33:BI:58:LEU:HD12	33:BI:61:ARG:NE	2.30	0.47
31:BG:128:ARG:O	31:BG:130:ASN:N	2.48	0.47
12:CL:59:ARG:HA	12:CL:65:GLU:HA	1.95	0.47
2:CB:19:HIS:O	2:CB:39:ILE:HG23	2.14	0.47
36:DP:23:PRO:O	36:DP:33:ARG:HD2	2.14	0.47
25:DA:1141:U:C4	34:DN:64:GLY:HA3	2.49	0.47
32:BH:107:VAL:HG21	32:BH:152:ARG:CG	2.44	0.47
38:BR:12:ARG:HG3	38:BR:12:ARG:HH11	1.78	0.47
2:AB:8:LYS:NZ	2:AB:217:ARG:HH12	2.11	0.47
25:DA:2393:A:H4'	36:DP:60:MET:O	2.15	0.47
31:DG:172:LEU:HG	31:DG:176:LEU:HD12	1.96	0.47
46:BZ:125:LEU:O	46:BZ:164:ALA:HB3	2.14	0.47
28:BD:267:SER:C	28:BD:269:PHE:N	2.68	0.47
28:DD:267:SER:C	28:DD:269:PHE:N	2.68	0.47
23:AV:8:U:O2	23:AV:49:C:C6	2.63	0.47
12:AL:28:LYS:HB2	12:AL:33:ARG:NH1	2.29	0.47
25:BA:1493:C:C2'	25:BA:1493:C:O2	2.63	0.47
15:CO:76:GLU:C	15:CO:78:TYR:H	2.17	0.47
26:BB:56:G:H4'	26:BB:57:A:O5'	2.15	0.47
4:CD:11:LEU:C	4:CD:13:ARG:N	2.63	0.47
1:AA:899:G:H2'	1:AA:900:A:C8	2.50	0.47
3:AC:188:LEU:O	3:AC:189:ALA:HB2	2.14	0.47
26:DB:69:G:N1	26:DB:70:C:N3	2.63	0.47
34:DN:26:LEU:CG	34:DN:30:ILE:HD11	2.45	0.47
43:DW:58:ALA:O	43:DW:62:HIS:HB2	2.14	0.47
1:CA:1361:G:O2'	1:CA:1362:U:H5'	2.14	0.47
6:AF:69:GLU:O	6:AF:72:VAL:CG1	2.57	0.47
46:BZ:103:ARG:HB2	46:BZ:136:PHE:CE1	2.50	0.47
2:CB:137:ARG:HH11	2:CB:137:ARG:HG2	1.79	0.47
18:AR:59:SER:H	18:AR:62:GLU:HB2	1.79	0.47
44:BX:35:THR:HB	44:BX:38:GLU:H	1.79	0.47
38:BR:27:SER:HB3	38:BR:34:ILE:HD12	1.96	0.47
31:BG:81:LYS:O	31:BG:82:LEU:C	2.52	0.47
25:BA:1331:A:O2'	25:BA:1332:G:H8	1.97	0.47
1:CA:980:G:N3	1:CA:980:G:H2'	2.29	0.47
30:DF:192:LEU:HD21	30:DF:194:MET:HE2	1.97	0.47
1:CA:116:C:OP1	1:CA:307:C:H5'	2.13	0.47
25:DA:203:C:C3'	25:DA:204:A:H5''	2.44	0.47
43:DW:8:ARG:HG3	43:DW:8:ARG:NH1	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:131:LYS:HG3	33:DI:132:PRO:HD2	1.97	0.47
25:BA:2341:G:H2'	25:BA:2342:C:C6	2.49	0.47
25:BA:1751:C:H2'	25:BA:1752:C:H6	1.79	0.47
4:CD:96:LEU:HD12	4:CD:96:LEU:N	2.30	0.47
16:AP:43:LYS:HD2	16:AP:43:LYS:N	2.30	0.47
1:CA:965:G:N2	1:CA:966:C:O2	2.48	0.47
32:DH:87:LEU:N	32:DH:131:VAL:O	2.47	0.47
33:DI:26:ALA:O	33:DI:31:LEU:HD13	2.14	0.47
45:BY:90:LEU:HD12	45:BY:90:LEU:C	2.34	0.47
25:BA:236:C:H2'	25:BA:237:C:C6	2.50	0.47
25:DA:236:C:H2'	25:DA:237:C:C6	2.50	0.47
28:BD:75:ILE:HD13	28:BD:99:ASP:OD1	2.14	0.47
34:DN:108:PRO:O	34:DN:113:GLY:HA3	2.14	0.47
25:BA:566:U:O2'	25:BA:567:A:H5'	2.14	0.47
39:DS:22:GLY:O	39:DS:23:ARG:O	2.32	0.47
6:CF:4:TYR:CD1	6:CF:92:LYS:HA	2.50	0.47
25:DA:188:G:H5'	48:D1:14:VAL:HG21	1.97	0.47
25:BA:962:G:O2'	25:BA:963:U:H5'	2.14	0.47
11:CK:58:PRO:HA	11:CK:90:GLY:HA3	1.95	0.47
25:DA:945:A:C4	25:DA:2448:A:C2	3.03	0.47
25:DA:886:C:H2'	25:DA:887:A:H4'	1.97	0.47
42:BV:2:PHE:HB3	42:BV:42:GLY:N	2.29	0.47
22:CW:2:C:H42	22:CW:72:C:N4	1.99	0.47
22:CW:5:G:N2	22:CW:69:G:N3	2.62	0.47
25:DA:1591:G:H5'	25:DA:1591:G:H8	1.78	0.47
25:DA:329:G:OP2	45:DY:71:LYS:CE	2.63	0.47
26:DB:83:G:C5	26:DB:84:C:C4	3.02	0.47
4:AD:20:TYR:CE1	6:CF:15:ASP:CA	2.98	0.47
3:AC:90:GLU:HA	3:AC:90:GLU:OE1	2.14	0.47
38:DR:77:ARG:C	38:DR:79:LEU:H	2.17	0.47
30:BF:40:GLN:HE22	30:BF:182:ASN:HB2	1.80	0.47
31:DG:113:ARG:CA	31:DG:113:ARG:HH11	2.16	0.47
14:CN:27:CYS:SG	14:CN:29:ARG:HB2	2.55	0.47
33:BI:40:THR:O	33:BI:44:LEU:HB2	2.15	0.47
12:CL:28:LYS:CB	12:CL:33:ARG:NH2	2.78	0.47
28:BD:33:LEU:O	28:BD:34:VAL:C	2.52	0.47
8:CH:116:LYS:O	8:CH:119:LEU:HD21	2.14	0.47
28:DD:33:LEU:O	28:DD:34:VAL:C	2.52	0.47
24:CX:14:A:N6	24:CX:15:A:C2	2.83	0.47
1:AA:1050:G:N7	1:AA:1076:G:C8	2.81	0.47
50:B3:38:GLU:O	50:B3:40:THR:HG23	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:40:LEU:HG	10:AJ:69:ASN:CB	2.43	0.47
33:DI:37:VAL:HG12	33:DI:38:LEU:N	2.29	0.47
5:AE:70:PRO:O	5:AE:77:PRO:HD3	2.15	0.47
1:CA:194:U:H2'	1:CA:195:G:C8	2.50	0.47
32:BH:17:VAL:CG1	32:BH:50:VAL:HG21	2.44	0.47
32:BH:103:LEU:HD23	32:BH:115:VAL:HB	1.96	0.47
1:AA:915:A:C6	1:AA:916:G:C5	3.03	0.47
1:AA:1267:A:H2'	1:AA:1268:A:H4'	1.96	0.47
32:DH:158:HIS:NE2	32:DH:169:VAL:O	2.47	0.47
14:CN:8:GLU:HG3	14:CN:12:ARG:NH1	2.30	0.47
45:BY:26:LYS:CG	45:BY:27:VAL:H	2.09	0.47
1:AA:822:U:O2	1:AA:822:U:H2'	2.13	0.47
2:CB:187:LEU:HD11	2:CB:204:ASN:O	2.15	0.47
2:CB:16:HIS:HA	2:CB:210:SER:OG	2.14	0.47
25:DA:2872:G:C2	25:DA:2873:A:N6	2.83	0.47
40:BT:90:GLN:HG3	40:BT:92:GLY:N	2.29	0.47
38:DR:10:LEU:HD13	38:DR:17:ARG:CZ	2.45	0.47
46:DZ:120:ILE:HG21	46:DZ:170:THR:OG1	2.14	0.47
46:DZ:150:LEU:O	46:DZ:171:ILE:HG12	2.15	0.47
15:AO:76:GLU:C	15:AO:78:TYR:H	2.16	0.47
2:AB:178:ARG:CG	2:AB:178:ARG:HH11	2.28	0.47
29:BE:201:THR:OG1	29:BE:202:LYS:N	2.47	0.47
28:BD:266:SER:O	28:BD:267:SER:O	2.33	0.47
28:DD:186:HIS:HE1	28:DD:188:GLU:HG2	1.78	0.47
25:BA:1313:U:C2'	25:BA:1314:C:H5'	2.44	0.47
48:B1:86:SER:O	48:B1:90:ILE:HG12	2.15	0.47
6:AF:21:LEU:HA	6:AF:24:GLU:HG2	1.96	0.47
36:BP:80:TYR:CD1	36:BP:111:ARG:HB3	2.49	0.47
8:CH:24:THR:HG22	8:CH:25:ASP:N	2.30	0.47
1:AA:903:G:C6	1:AA:1482:G:C6	3.03	0.47
3:CC:3:ASN:CG	3:CC:4:LYS:H	2.16	0.47
34:BN:15:LEU:CD1	34:BN:16:ILE:N	2.76	0.47
34:DN:15:LEU:CD1	34:DN:16:ILE:N	2.76	0.47
48:B1:72:GLU:O	48:B1:76:ARG:HG2	2.14	0.47
7:AG:145:ALA:O	7:AG:147:ALA:N	2.41	0.47
9:AI:50:LEU:O	9:AI:53:VAL:HG22	2.14	0.47
25:BA:492:A:C2	25:BA:493:G:H1'	2.50	0.47
6:CF:61:LEU:HD23	6:CF:63:TYR:OH	2.14	0.47
25:DA:492:A:C2	25:DA:493:G:H1'	2.49	0.47
25:BA:607:U:H5	25:BA:619:G:C5	2.33	0.47
31:BG:47:LYS:N	31:BG:51:ARG:HG3	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BT:51:ARG:O	40:BT:61:PHE:HA	2.15	0.47
25:DA:2884:U:H2'	25:DA:2885:C:C5'	2.45	0.47
6:CF:22:GLU:OE1	6:CF:84:ASN:ND2	2.45	0.47
27:BC:78:ALA:C	27:BC:80:GLY:H	2.16	0.47
25:BA:2522:U:C2'	25:BA:2523:G:H5''	2.43	0.47
10:CJ:67:THR:O	10:CJ:67:THR:CG2	2.63	0.47
25:DA:150:C:H2'	25:DA:151:C:C6	2.50	0.47
1:CA:377:A:H2'	1:CA:378:A:H8	1.75	0.47
43:BW:9:TYR:H	43:BW:102:HIS:CD2	2.33	0.47
1:CA:1457:G:N2	1:CA:1458:U:H1'	2.30	0.47
25:BA:451:C:C5	25:BA:453:C:H5''	2.49	0.47
1:AA:442:A:P	1:AA:469:G:H22	2.36	0.47
8:AH:5:PRO:HB3	8:AH:32:LYS:NZ	2.30	0.47
25:BA:1472:A:H2'	25:BA:1473:G:H8	1.79	0.47
25:BA:624:C:O2'	25:BA:625:G:H5'	2.14	0.47
25:BA:1329:U:H5''	25:BA:1330:C:C5	2.50	0.47
43:BW:12:ILE:O	43:BW:12:ILE:HG23	2.15	0.47
32:BH:87:LEU:N	32:BH:131:VAL:O	2.47	0.47
25:DA:2870:C:H2'	25:DA:2871:C:H5'	1.96	0.47
30:DF:139:PHE:HB2	30:DF:166:ALA:HB1	1.97	0.47
1:AA:44:G:N2	1:AA:394:G:C4	2.83	0.47
1:CA:327:G:OP2	20:CT:10:LEU:HB3	2.14	0.47
4:AD:206:PHE:CD2	4:AD:207:TYR:CE2	3.03	0.47
29:DE:197:ILE:O	29:DE:197:ILE:HG13	2.14	0.47
37:BQ:58:PHE:O	37:BQ:58:PHE:HD1	1.97	0.47
35:BO:86:ILE:H	35:BO:86:ILE:HD12	1.79	0.47
14:AN:34:TYR:N	14:AN:34:TYR:CD1	2.83	0.47
16:AP:18:ARG:HD3	16:AP:35:LYS:HD2	1.96	0.47
23:CV:57:C:C5	31:DG:83:ARG:CZ	2.98	0.47
32:DH:72:ILE:O	32:DH:76:VAL:HG23	2.15	0.47
13:AM:88:ARG:HG2	13:AM:98:VAL:HG11	1.96	0.47
29:DE:63:LEU:HD23	29:DE:65:GLY:N	2.29	0.47
47:B0:10:THR:HG22	47:B0:12:ASN:HB2	1.96	0.47
25:DA:911:A:H8	25:DA:911:A:O5'	1.97	0.47
28:DD:161:THR:HG1	28:DD:196:VAL:HG21	1.78	0.47
9:AI:103:THR:CG2	9:AI:104:ARG:N	2.78	0.47
40:DT:54:ARG:HA	40:DT:59:THR:CB	2.36	0.47
34:BN:1:MET:C	34:BN:2:LYS:HD2	2.34	0.47
42:BV:40:LEU:N	42:BV:40:LEU:CD2	2.77	0.47
6:AF:30:LEU:HD23	6:AF:75:LEU:HD11	1.97	0.47
31:BG:101:ILE:HG13	51:B4:51:TYR:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:39:THR:HG22	19:AS:40:ILE:H	1.80	0.47
1:AA:955:A:H5'	1:AA:956:C:OP2	2.14	0.47
45:DY:31:LEU:HD23	45:DY:36:ALA:O	2.14	0.47
20:AT:49:ALA:HB1	20:AT:100:ILE:HD11	1.97	0.47
36:BP:61:ARG:HA	55:B8:27:THR:HG22	1.96	0.47
55:B8:50:LEU:CD1	55:B8:54:GLU:OE2	2.62	0.47
25:DA:2803:C:H5'	25:DA:2804:C:OP1	2.15	0.47
38:BR:63:ARG:O	38:BR:67:LEU:HB2	2.14	0.47
11:CK:96:ARG:HA	11:CK:99:GLN:CG	2.45	0.47
25:DA:2127:G:N2	25:DA:2173:A:H1'	2.30	0.47
25:BA:2476:A:N1	25:BA:2477:C:C5	2.83	0.47
13:AM:65:LYS:HG2	13:AM:70:LEU:CA	2.44	0.47
42:DV:40:LEU:N	42:DV:40:LEU:CD2	2.77	0.47
42:DV:46:VAL:CG2	42:DV:47:VAL:H	2.21	0.47
26:BB:29:A:H2'	26:BB:30:C:C6	2.50	0.47
1:AA:259:U:O2'	1:AA:260:G:H5'	2.13	0.47
25:BA:2349:G:H5'	25:BA:2349:G:C8	2.50	0.47
31:DG:114:ILE:O	31:DG:115:ARG:C	2.52	0.47
5:CE:9:LYS:HB3	5:CE:112:LEU:HD11	1.95	0.47
39:DS:58:LEU:HD23	39:DS:65:VAL:CG1	2.45	0.47
39:DS:65:VAL:O	39:DS:69:VAL:HG12	2.13	0.47
39:DS:89:ARG:HH11	39:DS:92:TYR:HA	1.80	0.47
1:CA:1170:C:OP1	10:CJ:51:ARG:NH2	2.47	0.47
25:BA:271(P):C:OP1	33:BI:45:LYS:HE3	2.15	0.47
45:DY:95:LYS:HG2	45:DY:100:ALA:HB2	1.97	0.47
25:DA:94:C:O2	25:DA:94:C:H2'	2.14	0.47
28:DD:71:ASP:HB2	28:DD:103:ARG:NH2	2.26	0.47
28:BD:26:LYS:NZ	28:BD:82:ILE:N	2.55	0.47
23:AV:56:U:O2	23:AV:58:A:N7	2.48	0.47
7:CG:84:ASN:HD22	22:CW:33:U:H4'	1.80	0.47
22:CW:30:G:N2	22:CW:41:C:C2	2.83	0.47
1:AA:1078:C:H2'	1:AA:1079:C:H6	1.80	0.47
2:CB:179:LYS:HA	8:CH:72:PRO:HD3	1.96	0.47
2:CB:27:LYS:C	2:CB:29:ALA:H	2.18	0.47
53:B6:45:LYS:O	53:B6:46:HIS:CB	2.62	0.47
25:BA:1952:A:C6	25:BA:1953:A:C6	3.03	0.47
4:AD:149:ALA:O	4:AD:153:ARG:HG3	2.15	0.47
33:DI:40:THR:O	33:DI:44:LEU:HB2	2.15	0.47
33:BI:88:ILE:CD1	33:BI:123:LEU:H	2.21	0.47
33:DI:101:LEU:CB	33:DI:109:ILE:HD11	2.39	0.47
33:DI:123:LEU:HD23	33:DI:142:VAL:HG12	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CV:3:C:C2	23:CV:4:G:C8	3.02	0.47
2:AB:26:PRO:O	2:AB:29:ALA:HB2	2.15	0.47
25:BA:2762:G:C3'	25:BA:2763:G:C5'	2.92	0.47
32:BH:72:ILE:O	32:BH:76:VAL:HG23	2.15	0.47
25:DA:631:A:H2'	25:DA:632:A:O4'	2.13	0.47
30:DF:3:GLU:HG3	30:DF:19:GLU:HG3	1.97	0.47
25:BA:2186:G:C4	25:BA:2187:G:C8	3.03	0.47
25:DA:2302:G:N2	31:DG:128:ARG:HG3	2.23	0.47
2:AB:163:PHE:HA	2:AB:185:ILE:O	2.14	0.47
25:DA:2762:G:C3'	25:DA:2763:G:C5'	2.92	0.47
45:BY:31:LEU:HD23	45:BY:36:ALA:O	2.14	0.47
4:AD:53:ASP:HB3	4:AD:57:ARG:NH1	2.14	0.47
25:DA:2788:C:H2'	25:DA:2789:C:O4'	2.15	0.47
40:BT:90:GLN:HG3	40:BT:92:GLY:H	1.79	0.47
1:AA:1036:C:OP1	1:AA:1179:G:OP2	2.32	0.47
46:DZ:166:SER:CB	46:DZ:168:GLU:HB2	2.44	0.47
46:DZ:151:HIS:CA	46:DZ:170:THR:HA	2.45	0.47
46:BZ:102:LEU:HB2	46:BZ:122:ARG:O	2.14	0.47
25:BA:2746:U:O4'	32:BH:139:GLN:HB2	2.14	0.47
32:BH:121:ILE:HG22	32:BH:133:VAL:CG1	2.43	0.47
25:BA:2692:C:H2'	25:BA:2693:A:C8	2.49	0.47
4:CD:30:LYS:CA	4:CD:35:ARG:HD2	2.44	0.47
25:DA:2330:G:H2'	25:DA:2331:G:O4'	2.15	0.47
48:D1:86:SER:O	48:D1:90:ILE:HG12	2.14	0.47
1:AA:919:G:N2	9:AI:124:GLN:NE2	2.58	0.47
19:CS:66:MET:O	19:CS:66:MET:HG3	2.15	0.47
30:BF:11:VAL:C	30:BF:13:SER:N	2.68	0.47
2:AB:208:ILE:HG22	2:AB:208:ILE:O	2.15	0.47
32:BH:18:GLU:HB3	32:BH:25:LYS:HZ2	1.76	0.47
8:AH:51:VAL:HG11	8:AH:60:ARG:CG	2.44	0.47
29:BE:2:LYS:HE2	29:BE:95:ILE:HG22	1.95	0.47
1:AA:854:C:H5"	8:AH:88:LYS:CD	2.40	0.47
19:AS:66:MET:O	19:AS:66:MET:HG3	2.14	0.47
4:CD:13:ARG:HD2	4:CD:38:TYR:O	2.15	0.47
40:DT:3:ARG:HB2	40:DT:6:LEU:HB3	1.97	0.47
29:DE:2:LYS:HE2	29:DE:95:ILE:HG22	1.95	0.47
29:DE:2:LYS:NZ	29:DE:95:ILE:O	2.40	0.47
36:BP:83:VAL:HG13	36:BP:83:VAL:O	2.14	0.47
36:BP:83:VAL:HG21	36:BP:105:LEU:HD12	1.97	0.47
36:DP:143:GLY:C	36:DP:145:PRO:HD3	2.35	0.47
36:DP:144:GLU:HG2	36:DP:144:GLU:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:83:VAL:HG13	36:DP:114:ILE:HA	1.95	0.47
31:BG:76:SER:CB	31:BG:84:LYS:HG3	2.44	0.47
3:AC:189:ALA:O	3:AC:191:THR:N	2.48	0.47
25:DA:1721:G:O6	25:DA:1739:U:H5'	2.15	0.47
54:D7:8:ASN:HB3	54:D7:11:LYS:HB3	1.97	0.47
37:BQ:12:GLN:HE21	37:BQ:73:PRO:CD	2.28	0.47
34:DN:131:GLN:O	34:DN:132:ALA:HB2	2.15	0.47
1:AA:732:C:H2'	1:AA:733:G:H8	1.79	0.47
1:AA:733:G:H1'	15:AO:23:GLY:H	1.80	0.47
55:D8:51:ALA:HA	55:D8:54:GLU:CD	2.34	0.47
29:DE:1:MET:HE3	29:DE:83:ASP:CB	2.40	0.47
2:AB:137:ARG:HG2	2:AB:137:ARG:HH11	1.80	0.47
4:AD:29:PRO:C	4:AD:30:LYS:HG2	2.34	0.47
25:DA:8:A:H2'	25:DA:9:U:H6	1.80	0.47
22:CY:27:G:C3'	22:CY:27:G:C8	2.98	0.47
34:BN:43:THR:HB	34:BN:46:VAL:CG1	2.45	0.47
34:BN:46:VAL:O	34:BN:47:ALA:CB	2.63	0.47
38:DR:28:LEU:HA	38:DR:34:ILE:HG12	1.96	0.47
1:CA:402:G:H5'	4:CD:3:ARG:HH12	1.80	0.47
7:CG:148:ASN:O	7:CG:150:ALA:N	2.48	0.47
25:BA:1114:G:C2'	25:BA:1115:G:H5''	2.44	0.47
42:BV:15:GLU:O	42:BV:16:PRO:O	2.32	0.47
9:CI:116:LYS:HD3	9:CI:116:LYS:HA	1.42	0.47
10:AJ:94:VAL:CG1	10:AJ:95:GLU:N	2.77	0.47
10:CJ:33:GLN:HB2	10:CJ:75:ILE:CD1	2.44	0.47
44:BX:43:VAL:HG21	44:BX:81:VAL:HG11	1.96	0.47
4:AD:110:PHE:N	4:AD:110:PHE:CD1	2.83	0.47
25:DA:2884:U:O2	52:D5:52:TYR:HE2	1.98	0.47
37:DQ:21:THR:HG21	37:DQ:101:ARG:CD	2.45	0.47
45:BY:16:ALA:CB	45:BY:21:LYS:NZ	2.77	0.47
27:DC:82:LYS:NZ	27:DC:149:ILE:HA	2.29	0.47
46:DZ:17:ALA:HA	46:DZ:20:ARG:HD2	1.97	0.47
8:AH:82:HIS:HD2	8:AH:82:HIS:C	2.15	0.47
3:AC:124:ILE:HG12	3:AC:130:VAL:HG22	1.95	0.47
52:D5:56:LYS:NZ	52:D5:56:LYS:HB3	2.30	0.47
43:BW:8:ARG:NH1	43:BW:8:ARG:HG3	2.30	0.47
25:DA:646:A:C8	25:DA:647:G:H1'	2.49	0.47
27:DC:77:ILE:CB	27:DC:122:ALA:HA	2.44	0.47
1:CA:351:A:H5''	1:CA:362:U:C5	2.49	0.47
2:AB:109:SER:C	2:AB:111:ARG:H	2.18	0.47
11:AK:34:ASP:OD2	11:AK:34:ASP:C	2.53	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:77:VAL:O	17:AQ:78:GLU:HG2	2.14	0.47
49:B2:25:VAL:O	49:B2:29:LYS:HG2	2.14	0.47
25:DA:2736:G:O2'	25:DA:2737:G:H5'	2.15	0.47
1:AA:562:G:H5'	1:AA:711:A:H1'	1.97	0.47
1:CA:1007:C:C4'	1:CA:1015:G:H22	2.28	0.47
1:CA:575:G:H2'	1:CA:576:G:C8	2.48	0.47
1:AA:985:C:H2'	1:AA:986:C:H6	1.80	0.47
25:BA:1514:U:H2'	25:BA:1515:G:C8	2.48	0.47
25:DA:176:G:C2'	25:DA:177:G:H5'	2.45	0.47
25:BA:752:A:H4'	25:BA:753:C:O5'	2.14	0.47
1:CA:525:G:H5'	4:CD:41:GLY:CA	2.45	0.47
1:CA:942:A:C2	1:CA:946:A:C2	3.03	0.47
25:BA:2590:A:O2'	25:BA:2591:C:H5'	2.14	0.47
25:BA:2591:C:OP2	28:BD:239:ARG:HB3	2.14	0.47
1:CA:1460:A:H1'	25:DA:1948:G:H1'	1.97	0.47
17:CQ:33:GLY:O	17:CQ:34:LYS:C	2.53	0.47
25:DA:2697:G:H2'	25:DA:2698:U:O4'	2.15	0.47
1:CA:610:G:H2'	1:CA:611:G:H8	1.79	0.47
3:AC:17:ASP:OD1	3:AC:21:ARG:NH1	2.48	0.47
1:CA:35:G:C6	1:CA:36:C:N4	2.83	0.47
25:DA:2164:C:H3'	25:DA:2165:G:H8	1.78	0.47
20:AT:94:ALA:O	20:AT:95:ALA:HB3	2.14	0.47
25:DA:29:U:H2'	25:DA:30:G:C8	2.49	0.47
12:CL:51:ALA:O	12:CL:52:LEU:HD22	2.14	0.47
6:AF:22:GLU:HA	6:AF:22:GLU:OE2	2.15	0.47
1:CA:62:U:OP1	1:CA:380:C:O2'	2.21	0.47
25:DA:2792:G:O2'	25:DA:2793:G:H5'	2.14	0.47
1:CA:399:U:H2'	1:CA:400:U:H6	1.80	0.47
1:AA:712:A:N1	1:AA:747:C:O2'	2.37	0.47
1:AA:244:U:H5'	1:AA:245:A:OP2	2.15	0.47
1:AA:280:G:H2'	1:AA:281:G:H8	1.79	0.47
1:CA:1060:U:H1'	5:CE:130:ASN:OD1	2.15	0.47
28:DD:228:PRO:HD3	28:DD:235:GLY:CA	2.45	0.47
7:CG:75:VAL:HG12	7:CG:88:PRO:HB3	1.97	0.47
1:CA:394:G:H2'	1:CA:395:C:C6	2.49	0.47
25:DA:1766:U:O2'	25:DA:1767:C:H5'	2.15	0.47
54:B7:16:HIS:HA	54:B7:21:ARG:NH1	2.30	0.47
25:DA:773:U:H4'	28:DD:47:GLY:HA3	1.97	0.47
3:AC:159:GLY:HA2	3:AC:193:TYR:CG	2.50	0.47
16:AP:58:TYR:O	16:AP:61:SER:N	2.48	0.47
48:D1:48:LYS:HA	48:D1:60:PHE:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DT:27:THR:O	40:DT:28:VAL:HG23	2.14	0.47
32:DH:43:VAL:CG1	32:DH:52:VAL:HA	2.30	0.47
25:BA:2261:C:O2'	25:BA:2262:U:H5'	2.14	0.47
23:CV:15:G:H1	23:CV:49:C:H5	1.61	0.47
26:DB:83:G:H4'	50:D3:52:HIS:CD2	2.50	0.47
26:DB:82:G:H2'	26:DB:83:G:H8	1.79	0.47
25:DA:2790:A:N3	25:DA:2790:A:C2'	2.77	0.47
41:DU:98:LEU:HD21	42:DV:2:PHE:HZ	1.80	0.47
9:CI:114:TYR:CE1	10:CJ:60:ARG:N	2.83	0.47
28:BD:31:LYS:CE	28:BD:94:LEU:HD11	2.40	0.47
1:AA:1172:A:H5''	3:AC:4:LYS:NZ	2.29	0.47
42:DV:25:LEU:HD11	42:DV:94:LEU:HD11	1.97	0.47
2:AB:61:LEU:HD11	2:AB:66:GLY:HA3	1.97	0.47
36:DP:10:PRO:O	36:DP:11:GLY:C	2.53	0.47
2:AB:194:PRO:O	2:AB:197:VAL:N	2.48	0.47
36:BP:10:PRO:O	36:BP:11:GLY:C	2.53	0.47
32:BH:41:MET:HG3	32:BH:53:GLU:C	2.35	0.47
25:DA:1902:C:H5''	28:DD:246:PRO:HD3	1.96	0.47
25:DA:2299:G:N1	25:DA:2318:G:C8	2.83	0.47
31:DG:128:ARG:O	31:DG:130:ASN:N	2.47	0.47
25:BA:942:G:OP1	36:BP:35:HIS:HB3	2.15	0.47
25:BA:941:A:O2'	36:BP:35:HIS:ND1	2.43	0.47
25:BA:2682:U:H2'	25:BA:2683:C:C6	2.50	0.47
25:DA:2392:A:H2'	25:DA:2393:A:O4'	2.15	0.47
47:B0:72:ARG:CB	47:B0:75:LEU:HB3	2.45	0.47
38:DR:97:VAL:CG2	38:DR:114:VAL:HG22	2.32	0.47
25:DA:2789:C:N3	25:DA:2894:G:O6	2.47	0.47
25:BA:2863:C:H2'	25:BA:2864:G:H5'	1.95	0.47
40:BT:26:ASP:O	40:BT:89:VAL:N	2.36	0.47
46:DZ:10:ARG:HB2	46:DZ:38:TYR:HD2	1.79	0.47
49:B2:50:ILE:C	49:B2:52:ASP:H	2.17	0.47
48:D1:52:ARG:NH2	48:D1:52:ARG:HG3	2.28	0.47
41:BU:31:SER:C	41:BU:33:ARG:N	2.68	0.47
25:BA:2823:A:OP1	29:BE:113:PHE:HB2	2.15	0.47
30:DF:9:ILE:HG12	30:DF:13:SER:O	2.15	0.47
10:AJ:24:VAL:HG12	10:AJ:24:VAL:O	2.15	0.47
19:AS:63:THR:HG22	19:AS:66:MET:HG2	1.97	0.47
36:BP:85:LEU:HD12	36:BP:120:ALA:HB2	1.97	0.47
5:AE:20:GLN:HG2	5:AE:21:ALA:N	2.29	0.47
25:DA:301:G:H4'	25:DA:301:G:OP1	2.13	0.47
34:DN:119:ARG:HG3	34:DN:119:ARG:NH1	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:15:G:O2'	52:D5:18:ALA:HA	2.15	0.47
25:DA:1049:C:H2'	25:DA:1050:A:C8	2.50	0.47
6:CF:62:TRP:C	6:CF:63:TYR:CD2	2.88	0.47
25:BA:2838:G:H1'	38:BR:45:ARG:HH11	1.79	0.47
25:BA:1484:G:C2'	25:BA:1485:G:H5''	2.45	0.47
10:AJ:8:LEU:HB3	10:AJ:16:LEU:CD2	2.44	0.47
30:BF:168:ARG:HA	30:BF:175:THR:CG2	2.42	0.47
10:CJ:85:LEU:C	10:CJ:87:THR:H	2.17	0.47
30:BF:17:ARG:CG	30:BF:17:ARG:HH11	2.27	0.47
1:CA:1140:C:H42	1:CA:1162:G:H22	1.63	0.47
47:D0:12:ASN:O	47:D0:13:GLY:C	2.53	0.47
5:AE:45:PHE:CE2	5:AE:129:ILE:HD13	2.44	0.47
27:DC:83:ILE:HA	27:DC:94:VAL:CG2	2.45	0.47
1:AA:1235:C:H41	10:AJ:43:ARG:HH12	1.62	0.47
46:BZ:14:LYS:N	46:BZ:15:PRO:HD3	2.30	0.47
23:CV:25:U:C2'	23:CV:26:C:H5'	2.44	0.47
53:B6:32:ASN:CG	53:B6:33:LYS:N	2.66	0.47
1:CA:1488:G:H2'	1:CA:1489:U:O4'	2.15	0.47
52:B5:56:LYS:NZ	52:B5:56:LYS:HB3	2.30	0.47
26:BB:81:G:C6	26:BB:82:G:C5	3.03	0.47
1:AA:1490:A:C6	1:AA:1491:C:N4	2.83	0.47
25:BA:2881:C:C2	25:BA:2882:A:N7	2.83	0.47
25:DA:2562:U:H2'	25:DA:2563:U:H5'	1.97	0.47
30:DF:65:TRP:CH2	30:DF:75:HIS:HD2	2.32	0.47
47:D0:70:GLN:HE21	47:D0:70:GLN:HB3	1.54	0.47
25:BA:1175:U:C4'	25:BA:1176:G:H2'	2.44	0.47
25:DA:1469:A:O2'	25:DA:1470:G:H5'	2.15	0.47
4:CD:65:ARG:HD2	4:CD:72:GLU:HA	1.95	0.47
13:CM:49:THR:N	13:CM:52:GLU:OE1	2.47	0.47
37:DQ:76:LYS:HB3	37:DQ:91:GLU:HG3	1.96	0.47
11:AK:96:ARG:HA	11:AK:99:GLN:HG3	1.97	0.47
2:CB:41:ILE:HG22	2:CB:41:ILE:O	2.15	0.47
1:AA:942:A:C2	1:AA:946:A:C2	3.03	0.47
45:DY:90:LEU:HD12	45:DY:90:LEU:C	2.35	0.47
25:DA:30:G:O2'	25:DA:31:C:H5'	2.15	0.47
25:DA:2626:C:H2'	25:DA:2627:G:O4'	2.14	0.47
19:CS:35:SER:C	19:CS:37:ARG:H	2.17	0.47
27:DC:155:GLU:O	27:DC:156:ILE:CB	2.63	0.47
32:DH:88:LEU:N	32:DH:88:LEU:HD22	2.29	0.47
29:DE:19:ARG:O	29:DE:19:ARG:HG3	2.14	0.47
40:DT:12:SER:HB3	40:DT:57:PHE:CG	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AV:69:C:O2'	23:AV:70:C:H5'	2.15	0.47
41:BU:112:ARG:HE	42:BV:46:VAL:HG21	1.78	0.47
26:DB:93:G:C2	26:DB:94:C:C5	3.02	0.47
25:DA:314:A:C2'	25:DA:315:G:C5'	2.90	0.47
25:BA:272:G:C4	25:BA:421:U:C5	3.03	0.47
3:AC:73:PRO:CA	3:AC:76:VAL:HG22	2.45	0.47
41:DU:104:GLN:HB3	42:DV:44:LYS:NZ	2.27	0.47
9:AI:17:VAL:HG22	9:AI:63:ILE:CD1	2.44	0.47
14:CN:22:THR:O	14:CN:23:ARG:HB2	2.14	0.47
33:BI:41:GLU:O	33:BI:45:LYS:HG2	2.14	0.47
28:BD:31:LYS:O	28:BD:32:SER:C	2.52	0.47
1:CA:261:G:H5'	1:CA:262:C:C5	2.44	0.47
35:BO:22:ILE:HB	35:BO:40:VAL:O	2.15	0.47
33:DI:104:GLN:O	33:DI:105:HIS:CD2	2.66	0.47
36:DP:9:ASN:ND2	36:DP:10:PRO:HD3	2.30	0.47
25:DA:2183:C:O2'	25:DA:2184:G:H5'	2.15	0.47
32:BH:156:ALA:N	32:BH:158:HIS:H	2.12	0.47
25:DA:1344:G:N3	25:DA:1385:G:C8	2.82	0.47
25:DA:1952:A:C6	25:DA:1953:A:C6	3.03	0.47
7:AG:91:VAL:HG12	7:AG:96:GLN:HB2	1.95	0.47
22:AY:33:U:H3'	22:AY:34:G:C5'	2.45	0.47
49:D2:50:ILE:C	49:D2:52:ASP:H	2.17	0.47
46:BZ:151:HIS:CA	46:BZ:170:THR:HA	2.45	0.47
46:BZ:96:VAL:CG1	46:BZ:97:GLU:N	2.78	0.47
1:CA:404:G:H5'	4:CD:25:ARG:HB2	1.97	0.47
43:BW:92:ARG:HG2	43:BW:92:ARG:NH1	2.27	0.47
25:BA:2445:G:OP1	30:BF:74:ARG:NH2	2.47	0.47
10:CJ:5:ARG:O	10:CJ:98:ILE:HA	2.14	0.47
10:CJ:6:ILE:HG22	10:CJ:98:ILE:HG13	1.96	0.47
49:D2:65:ASN:HB3	49:D2:69:ARG:HH21	1.76	0.47
6:CF:21:LEU:HA	6:CF:24:GLU:HG2	1.96	0.47
38:DR:27:SER:HB3	38:DR:34:ILE:HD12	1.96	0.47
28:DD:206:LEU:HD23	28:DD:206:LEU:HA	1.56	0.47
53:B6:36:LEU:HD23	53:B6:36:LEU:N	2.30	0.47
35:BO:121:VAL:HG11	40:BT:35:LYS:HZ3	1.80	0.47
3:CC:76:VAL:HG23	3:CC:77:ILE:H	1.78	0.47
25:BA:1987:G:C8	25:BA:1987:G:C5'	2.97	0.47
27:DC:83:ILE:HG23	27:DC:94:VAL:HG23	1.97	0.47
1:CA:1199:C:H2'	1:CA:1200:U:C6	2.50	0.47
39:BS:36:TYR:N	39:BS:36:TYR:CD1	2.82	0.47
1:CA:1221:U:N3	7:CG:30:ILE:HG22	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:168:C:H2'	1:AA:169:C:C6	2.50	0.47
1:CA:334:C:OP2	35:DO:97:ARG:NH1	2.48	0.47
25:BA:2040:C:H2'	25:BA:2041:U:H6	1.79	0.47
52:B5:48:GLU:HA	52:B5:57:VAL:HG22	1.96	0.47
1:CA:32:A:OP2	1:CA:393:C:O2'	2.20	0.47
48:B1:48:LYS:HA	48:B1:60:PHE:O	2.15	0.47
25:BA:1414:G:H1	25:BA:1588:C:H42	1.62	0.47
1:CA:67:C:H2'	1:CA:68:G:C8	2.50	0.47
1:CA:943:G:C2	1:CA:944:C:C2	3.03	0.47
25:DA:247:G:H4'	25:DA:386:G:C5	2.50	0.47
1:AA:56:U:H6	1:AA:56:U:O5'	1.98	0.47
38:BR:59:ASP:OD2	38:BR:59:ASP:N	2.47	0.47
12:AL:40:VAL:HG12	12:AL:40:VAL:O	2.15	0.47
32:BH:23:ARG:NE	32:BH:36:PRO:HB3	2.30	0.47
35:DO:17:ARG:HE	35:DO:47:ILE:HD11	1.80	0.47
28:DD:40:THR:HG22	28:DD:41:GLY:O	2.15	0.47
25:DA:108:U:H2'	25:DA:109:G:H8	1.79	0.47
40:DT:56:GLY:N	40:DT:59:THR:HG22	2.29	0.47
42:BV:53:GLU:C	42:BV:55:ALA:H	2.18	0.47
19:AS:45:VAL:HA	19:AS:62:ILE:HG23	1.96	0.47
25:BA:2467:C:O2	37:BQ:124:LYS:NZ	2.46	0.47
31:BG:111:LEU:CA	31:BG:114:ILE:CD1	2.84	0.47
30:DF:40:GLN:HE22	30:DF:182:ASN:HB2	1.80	0.47
42:DV:16:PRO:O	42:DV:96:ILE:O	2.33	0.47
25:BA:2376:A:H2'	25:BA:2377:A:O4'	2.15	0.47
39:BS:58:LEU:HD23	39:BS:65:VAL:CG1	2.45	0.47
26:BB:49:C:OP1	39:BS:96:GLY:HA3	2.14	0.47
3:CC:15:THR:HG22	3:CC:16:ARG:H	1.80	0.47
25:DA:2376:A:H2'	25:DA:2377:A:O4'	2.15	0.47
31:BG:130:ASN:HB3	31:BG:160:VAL:HA	1.97	0.47
12:CL:22:SER:C	12:CL:24:VAL:H	2.18	0.47
5:CE:76:ILE:HG13	5:CE:142:LEU:HD13	1.96	0.47
22:CW:34:G:O6	24:CX:13:A:C6	2.67	0.47
22:CW:35:A:C6	24:CX:13:A:N1	2.82	0.47
42:DV:19:LYS:CG	42:DV:20:LEU:N	2.78	0.47
28:DD:111:LEU:HD13	28:DD:112:GLN:N	2.30	0.47
1:CA:197:G:N3	20:CT:105:SER:HB3	2.30	0.47
30:BF:3:GLU:HG3	30:BF:19:GLU:HG3	1.97	0.47
25:DA:2482:G:H22	37:DQ:52:VAL:CG1	2.28	0.47
25:DA:2482:G:N2	37:DQ:52:VAL:HG11	2.30	0.47
2:AB:14:GLY:C	2:AB:15:VAL:HG22	2.36	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BN:91:LEU:CD2	34:BN:98:VAL:HG21	2.45	0.47
25:BA:1447:G:C4	25:BA:1448:G:C8	3.03	0.47
25:DA:2873:A:N3	38:DR:6:SER:CB	2.73	0.47
49:D2:50:ILE:O	49:D2:54:LYS:HG2	2.14	0.47
46:BZ:120:ILE:HG21	46:BZ:170:THR:OG1	2.14	0.47
20:AT:44:ALA:HB1	20:AT:92:LEU:HG	1.97	0.47
25:BA:2872:G:C2	25:BA:2873:A:N6	2.83	0.47
33:BI:14:ASP:O	33:BI:15:VAL:O	2.32	0.47
27:DC:41:VAL:HG12	27:DC:213:TYR:HA	1.97	0.47
25:DA:1232:G:H2'	25:DA:1233:C:H6	1.79	0.47
25:BA:1024:G:H8	25:BA:1024:G:O5'	1.98	0.47
36:BP:143:GLY:C	36:BP:145:PRO:HD3	2.35	0.47
29:BE:116:VAL:CG2	29:BE:122:PHE:CG	2.98	0.47
34:BN:48:MET:N	34:BN:48:MET:HE3	2.28	0.47
34:DN:43:THR:HB	34:DN:46:VAL:CG1	2.45	0.47
46:BZ:129:SER:C	46:BZ:131:ARG:H	2.19	0.47
11:CK:124:LYS:HB3	11:CK:125:PHE:CD1	2.50	0.47
35:BO:64:ARG:O	35:BO:83:ALA:N	2.39	0.47
27:BC:41:VAL:HG12	27:BC:213:TYR:HA	1.97	0.47
25:BA:2839:G:H1	25:BA:2878:U:H3	1.63	0.47
30:DF:168:ARG:HA	30:DF:175:THR:CG2	2.42	0.47
26:BB:60:C:H2'	26:BB:61:G:C8	2.42	0.47
1:AA:1236:G:O3'	1:AA:1239:G:H1'	2.15	0.47
46:BZ:17:ALA:HA	46:BZ:20:ARG:HD2	1.97	0.47
52:D5:36:CYS:HB2	52:D5:49:CYS:SG	2.55	0.47
19:CS:24:ALA:O	19:CS:25:LYS:CB	2.61	0.47
33:DI:10:GLU:OE1	33:DI:11:ASN:HB2	2.15	0.47
38:BR:2:ARG:CZ	38:BR:5:LYS:CE	2.92	0.47
12:CL:6:THR:HG23	12:CL:9:GLN:CG	2.45	0.47
3:CC:129:ALA:HB3	3:CC:132:ARG:HB3	1.97	0.47
25:DA:674:G:H1'	30:DF:74:ARG:CD	2.44	0.47
25:BA:2011:U:C2'	25:BA:2012:G:H5'	2.45	0.47
31:BG:108:ASN:HA	51:B4:63:SER:HB3	1.97	0.47
25:BA:2886:G:H2'	25:BA:2887:U:C6	2.50	0.47
25:DA:634:C:H2'	25:DA:635:C:C6	2.50	0.47
25:BA:1670:C:O2	29:BE:129:HIS:HE1	1.97	0.47
35:BO:114:ILE:O	35:BO:116:SER:OG	2.28	0.47
9:CI:88:TYR:O	9:CI:89:ASN:HB2	2.15	0.47
5:CE:90:VAL:O	5:CE:91:LEU:HD12	2.14	0.47
1:CA:792:G:C6	1:CA:793:C:C4	3.02	0.47
34:BN:32:THR:HG22	34:BN:37:LYS:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1958:C:O2'	25:DA:1959:G:H5'	2.15	0.47
26:DB:29:A:H2'	26:DB:30:C:C6	2.50	0.47
1:CA:1254:G:H3'	1:CA:1255:G:H8	1.79	0.47
25:BA:2697:G:H2'	25:BA:2698:U:O4'	2.15	0.47
1:CA:649:G:OP2	1:CA:708:G:N2	2.41	0.47
25:DA:1935:G:H1'	25:DA:1964:G:N2	2.30	0.47
30:DF:31:HIS:HB2	36:DP:13:ASN:HB3	1.97	0.47
30:DF:42:ALA:O	30:DF:45:ARG:HB2	2.15	0.47
2:AB:101:MET:HA	2:AB:108:ILE:HG21	1.96	0.47
25:BA:2707:G:H5''	38:BR:68:ARG:NH2	2.30	0.47
40:BT:33:LYS:HA	40:BT:33:LYS:HE3	1.97	0.47
25:DA:25:U:H5'	43:DW:78:GLU:O	2.15	0.47
25:DA:2636:U:H4'	29:DE:80:GLU:CD	2.36	0.47
38:BR:87:TYR:HE1	38:BR:117:VAL:O	1.97	0.47
3:AC:139:GLN:OE1	3:AC:139:GLN:HA	2.15	0.47
25:DA:1142:U:H3'	25:DA:1142:U:H6	1.80	0.47
20:CT:24:LEU:C	20:CT:24:LEU:HD13	2.34	0.47
13:CM:90:LEU:O	13:CM:92:HIS:N	2.45	0.46
4:AD:13:ARG:O	4:AD:14:ARG:C	2.54	0.46
25:DA:2632:A:O2'	29:DE:61:ARG:NH2	2.49	0.46
20:CT:58:LYS:O	20:CT:61:SER:HB3	2.15	0.46
25:DA:965:C:H6	25:DA:965:C:H5''	1.79	0.46
25:DA:2682:U:H2'	25:DA:2683:C:C6	2.50	0.46
26:DB:87:G:H1	26:DB:91:C:N4	2.13	0.46
20:AT:49:ALA:HB1	20:AT:100:ILE:CD1	2.45	0.46
1:CA:1281:G:O2'	1:CA:1282:U:OP2	2.30	0.46
25:DA:2701:C:H2'	25:DA:2702:U:H6	1.81	0.46
19:CS:61:TYR:CG	19:CS:62:ILE:N	2.83	0.46
39:BS:29:PHE:C	39:BS:29:PHE:CD2	2.88	0.46
25:BA:89:G:H3'	25:BA:90:U:H5''	1.96	0.46
7:AG:78:ARG:HD2	7:AG:79:ARG:N	2.24	0.46
7:AG:78:ARG:CD	7:AG:79:ARG:H	2.26	0.46
40:DT:88:ILE:HG22	40:DT:89:VAL:HG22	1.96	0.46
28:BD:111:LEU:HD13	28:BD:112:GLN:N	2.30	0.46
32:DH:13:LYS:O	32:DH:15:VAL:N	2.46	0.46
33:DI:58:LEU:HD12	33:DI:61:ARG:CZ	2.46	0.46
23:CV:4:G:C6	23:CV:71:G:C6	3.04	0.46
25:DA:2186:G:C4	25:DA:2187:G:C8	3.03	0.46
5:AE:69:VAL:HG11	5:AE:71:LEU:HD21	1.97	0.46
5:AE:6:PHE:HD1	5:AE:63:ARG:NH1	2.13	0.46
32:BH:98:LEU:HD22	32:BH:125:VAL:CG2	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:107:VAL:HG21	32:DH:152:ARG:CG	2.44	0.46
30:BF:67:GLN:O	30:BF:68:LYS:CB	2.63	0.46
31:DG:43:LEU:HB2	31:DG:88:ILE:HD11	1.97	0.46
25:DA:2580:U:H5'	29:DE:131:ALA:H	1.80	0.46
23:AV:15:G:H22	23:AV:49:C:N4	2.12	0.46
25:DA:2159:G:N2	25:DA:2160:G:H1'	2.29	0.46
46:BZ:163:LEU:CD1	46:BZ:163:LEU:H	2.20	0.46
36:BP:97:PRO:O	36:BP:98:GLU:HG3	2.14	0.46
18:CR:44:LEU:CD2	18:CR:50:ILE:HD13	2.44	0.46
34:BN:131:GLN:O	34:BN:132:ALA:HB2	2.15	0.46
3:CC:114:PRO:O	3:CC:118:GLN:NE2	2.38	0.46
29:DE:117:MET:CE	29:DE:124:GLY:HA3	2.45	0.46
25:DA:2784:C:H1'	29:DE:42:ASP:OD1	2.15	0.46
43:BW:2:GLU:HA	43:BW:64:MET:HE1	1.97	0.46
46:DZ:129:SER:C	46:DZ:131:ARG:H	2.19	0.46
31:DG:175:LEU:N	31:DG:175:LEU:CD1	2.78	0.46
53:D6:36:LEU:HD23	53:D6:36:LEU:N	2.30	0.46
47:D0:51:VAL:CG2	47:D0:81:VAL:HG23	2.44	0.46
5:AE:144:THR:C	5:AE:146:ALA:N	2.68	0.46
5:AE:78:HIS:HE1	5:AE:143:ARG:H	1.63	0.46
31:BG:46:ALA:CA	31:BG:51:ARG:HG3	2.45	0.46
56:D9:19:ARG:O	56:D9:20:HIS:HB2	2.16	0.46
25:BA:2196:C:C2'	25:BA:2197:U:H5'	2.45	0.46
25:BA:1811:G:O2'	25:BA:1812:A:H5'	2.15	0.46
1:CA:1260:A:H61	3:CC:26:LYS:HZ1	1.62	0.46
25:BA:150:C:H2'	25:BA:151:C:C6	2.50	0.46
29:DE:119:ARG:O	29:DE:120:TRP:CD2	2.68	0.46
20:AT:59:ALA:C	20:AT:61:SER:N	2.67	0.46
23:CV:32:G:H2'	23:CV:33:C:C6	2.47	0.46
1:AA:1306:C:N4	1:AA:1307:C:N4	2.63	0.46
2:AB:213:LEU:C	2:AB:213:LEU:CD2	2.84	0.46
2:CB:213:LEU:C	2:CB:213:LEU:CD2	2.84	0.46
25:BA:2884:U:H2'	25:BA:2885:C:C5'	2.45	0.46
25:DA:2080:G:P	48:D1:35:THR:HG21	2.54	0.46
4:AD:79:PHE:CD2	4:AD:79:PHE:C	2.88	0.46
1:CA:138:G:C2	1:CA:139:G:C4	3.03	0.46
34:BN:3:THR:O	34:BN:5:VAL:N	2.49	0.46
13:AM:48:LEU:HA	13:AM:52:GLU:OE1	2.15	0.46
47:B0:23:VAL:HG11	47:B0:69:PHE:HZ	1.81	0.46
25:BA:1344:G:H4'	25:BA:1384:A:N7	2.30	0.46
2:CB:31:TYR:N	2:CB:31:TYR:CD2	2.82	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:451:C:C5	25:DA:453:C:H5'	2.50	0.46
41:BU:15:LYS:HD3	41:BU:15:LYS:N	2.28	0.46
1:CA:1432:C:O4'	1:CA:1433:G:C2	2.68	0.46
1:CA:76:G:N2	1:CA:77:G:C6	2.83	0.46
25:BA:1188:U:C5'	42:BV:79:VAL:HG22	2.45	0.46
16:CP:58:TYR:O	16:CP:61:SER:N	2.48	0.46
1:AA:1007:C:C4'	1:AA:1015:G:H22	2.28	0.46
25:DA:962:G:O2'	25:DA:963:U:H5'	2.15	0.46
25:BA:2016:U:O2	52:B5:7:PRO:HG2	2.15	0.46
25:BA:1354:A:H2'	25:BA:1355:G:O4'	2.15	0.46
29:BE:46:ALA:HA	29:BE:82:ARG:O	2.15	0.46
30:BF:125:LEU:N	30:BF:125:LEU:HD22	2.29	0.46
32:DH:23:ARG:NE	32:DH:36:PRO:HB3	2.30	0.46
1:AA:1378:A:H2	5:AE:19:MET:HG3	1.80	0.46
25:BA:2052:G:O4'	29:BE:142:GLY:HA3	2.15	0.46
1:AA:1407:U:O2	1:AA:1453:G:C2	2.68	0.46
25:BA:312:G:H5'	25:BA:331:A:H2'	1.97	0.46
46:BZ:141:VAL:HG22	46:BZ:141:VAL:O	2.15	0.46
1:AA:12:U:H4'	1:AA:509:C:O2'	2.15	0.46
40:DT:102:ILE:O	40:DT:106:SER:HB3	2.15	0.46
35:DO:12:ASP:OD1	35:DO:14:THR:OG1	2.32	0.46
32:DH:17:VAL:C	32:DH:45:VAL:HG22	2.36	0.46
13:AM:88:ARG:CA	13:AM:98:VAL:CG1	2.93	0.46
47:B0:10:THR:CG2	47:B0:12:ASN:HB2	2.45	0.46
25:BA:2327:A:C5	25:BA:2388:A:N1	2.83	0.46
25:BA:108:U:H2'	25:BA:109:G:H8	1.79	0.46
41:BU:92:ARG:NH1	41:BU:92:ARG:CG	2.78	0.46
10:AJ:63:PHE:HA	14:AN:59:ALA:HB2	1.97	0.46
45:DY:17:SER:OG	45:DY:71:LYS:CD	2.63	0.46
26:DB:83:G:N1	26:DB:84:C:C4	2.83	0.46
26:DB:87:G:N2	26:DB:91:C:N3	2.63	0.46
25:DA:2349:G:H5'	25:DA:2349:G:C8	2.50	0.46
42:DV:53:GLU:C	42:DV:55:ALA:H	2.18	0.46
26:BB:7:G:N3	39:BS:38:GLN:NE2	2.56	0.46
39:BS:66:ALA:HA	39:BS:69:VAL:HG12	1.97	0.46
9:AI:5:TYR:OH	9:AI:16:ARG:HG2	2.15	0.46
31:DG:117:PHE:HD1	31:DG:118:ARG:H	1.62	0.46
25:BA:271(Q):G:C4	25:BA:271(R):G:C8	2.95	0.46
3:AC:5:ILE:CD1	3:AC:5:ILE:C	2.82	0.46
2:CB:194:PRO:O	2:CB:197:VAL:N	2.48	0.46
25:BA:69:C:H2'	25:BA:69:C:O2	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:71:A:P	25:BA:71:A:H3'	2.54	0.46
25:DA:1019:U:O2'	25:DA:1021:A:C2	2.57	0.46
23:AV:66:C:C5'	23:AV:66:C:C6	2.89	0.46
26:DB:66:A:C2	26:DB:109:C:C2	3.04	0.46
32:BH:94:TYR:HE1	32:BH:108:GLY:H	1.61	0.46
45:BY:40:GLU:HA	45:BY:40:GLU:OE2	2.15	0.46
25:BA:351:G:H8	25:BA:351:G:OP2	1.97	0.46
25:DA:353:G:C5	25:DA:354:G:N7	2.83	0.46
25:DA:747:U:H3'	25:DA:2612:C:H41	1.80	0.46
25:BA:769:G:H5'	25:BA:1379:A:H61	1.81	0.46
46:DZ:52:SER:OG	46:DZ:53:ILE:HG13	2.16	0.46
28:BD:181:GLU:OE2	28:BD:270:ILE:HG22	2.16	0.46
28:DD:172:TYR:CE2	28:DD:269:PHE:CE1	3.03	0.46
31:BG:44:GLY:N	31:BG:88:ILE:HG12	2.31	0.46
12:AL:38:THR:HG21	12:AL:65:GLU:OE2	2.15	0.46
1:CA:1296:U:H2'	1:CA:1297:G:O4'	2.14	0.46
49:B2:12:GLU:O	49:B2:16:LEU:HG	2.16	0.46
49:B2:16:LEU:O	49:B2:17:SER:O	2.33	0.46
48:D1:68:PRO:HG2	48:D1:69:LYS:N	2.30	0.46
48:D1:69:LYS:HA	48:D1:72:GLU:HB2	1.95	0.46
34:DN:134:ARG:N	34:DN:135:PRO:CD	2.77	0.46
37:DQ:12:GLN:HE21	37:DQ:73:PRO:CD	2.28	0.46
19:CS:33:THR:OG1	19:CS:34:TRP:N	2.46	0.46
25:DA:662:G:OP1	36:DP:18:ARG:HD2	2.15	0.46
8:AH:86:ILE:CG2	8:AH:87:SER:H	2.21	0.46
43:DW:68:ARG:HD2	43:DW:110:LYS:HB2	1.97	0.46
46:DZ:103:ARG:HB2	46:DZ:136:PHE:CE1	2.50	0.46
2:AB:92:TYR:CD1	2:AB:151:GLY:HA3	2.50	0.46
1:CA:627:G:O2'	1:CA:628:C:H5'	2.15	0.46
47:B0:51:VAL:CG2	47:B0:81:VAL:HG23	2.44	0.46
19:AS:28:LYS:HD2	19:AS:29:ARG:NE	2.30	0.46
25:BA:1925:C:C2'	25:BA:1926:U:H5'	2.46	0.46
25:BA:1484:G:H2'	25:BA:1485:G:H5''	1.97	0.46
40:BT:126:ALA:C	40:BT:128:GLU:H	2.19	0.46
7:CG:11:GLN:NE2	7:CG:12:LEU:N	2.62	0.46
25:DA:2419:U:O4	55:D8:30:ARG:NH1	2.48	0.46
25:DA:2196:C:C2'	25:DA:2197:U:H5'	2.45	0.46
7:AG:69:VAL:HG12	7:AG:100:ALA:HA	1.97	0.46
33:BI:10:GLU:O	33:BI:12:LEU:HD23	2.15	0.46
43:DW:9:TYR:H	43:DW:102:HIS:CD2	2.33	0.46
34:BN:111:PRO:HA	34:BN:114:ARG:CZ	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:11:C:OP1	47:D0:72:ARG:HD2	2.14	0.46
25:DA:1396:U:O2	25:DA:1396:U:C2'	2.63	0.46
50:D3:48:GLU:O	50:D3:51:ALA:HB2	2.16	0.46
1:CA:346:G:O5'	1:CA:346:G:H8	1.98	0.46
1:CA:522:A:OP1	12:CL:114:LYS:HE2	2.14	0.46
5:AE:136:MET:C	5:AE:138:ALA:H	2.18	0.46
1:CA:1136:G:H2'	1:CA:1137:G:C8	2.50	0.46
25:BA:176:G:C2'	25:BA:177:G:H5'	2.45	0.46
1:CA:619:U:H2'	1:CA:620:G:C8	2.49	0.46
1:AA:923:A:H2'	1:AA:924:G:C8	2.50	0.46
25:DA:2040:C:H2'	25:DA:2041:U:H6	1.79	0.46
25:BA:2870:C:H2'	25:BA:2871:C:H5'	1.96	0.46
33:BI:26:ALA:O	33:BI:31:LEU:HD13	2.14	0.46
2:AB:17:PHE:HD2	2:AB:17:PHE:N	2.13	0.46
37:DQ:1:MET:O	37:DQ:2:LEU:HB2	2.15	0.46
20:AT:93:GLU:OE1	20:AT:94:ALA:N	2.48	0.46
54:B7:16:HIS:HA	54:B7:21:ARG:HH12	1.79	0.46
37:BQ:1:MET:O	37:BQ:2:LEU:HB2	2.15	0.46
1:CA:27:G:H2'	1:CA:28:G:H8	1.80	0.46
1:AA:1113:G:C2	1:AA:1114:C:N4	2.83	0.46
25:DA:1373:A:H2'	25:DA:1374:G:O4'	2.16	0.46
3:CC:159:GLY:HA2	3:CC:193:TYR:CG	2.50	0.46
6:CF:28:ARG:HG3	6:CF:28:ARG:HH11	1.81	0.46
40:DT:78:LEU:O	40:DT:78:LEU:HD23	2.14	0.46
6:CF:19:LEU:O	6:CF:23:LYS:HG3	2.16	0.46
2:AB:238:LEU:O	2:AB:240:GLN:N	2.47	0.46
25:BA:2517:C:C6	25:BA:2542:A:N1	2.84	0.46
28:DD:158:ALA:HB3	28:DD:161:THR:CG2	2.45	0.46
25:DA:2729:G:H1'	29:DE:187:ALA:HB2	1.97	0.46
41:BU:110:VAL:O	41:BU:114:LYS:HG2	2.16	0.46
42:BV:39:LEU:HD13	42:BV:39:LEU:N	2.29	0.46
22:CW:21:A:N7	22:CW:46:G:C8	2.83	0.46
23:CV:53:G:C5'	23:CV:53:G:C8	2.95	0.46
25:DA:312:G:H5'	25:DA:331:A:H2'	1.98	0.46
25:DA:315:G:C5	25:DA:316:C:C4	3.03	0.46
25:DA:359:A:C8	25:DA:360:G:C8	3.04	0.46
20:AT:39:LYS:O	20:AT:43:LEU:HG	2.15	0.46
55:B8:61:LEU:HD12	55:B8:61:LEU:N	2.30	0.46
11:CK:99:GLN:HA	11:CK:105:VAL:HG11	1.97	0.46
41:DU:92:ARG:NH1	41:DU:92:ARG:HG2	2.26	0.46
42:DV:15:GLU:CB	42:DV:16:PRO:CD	2.90	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DU:102:GLU:OE2	42:DV:2:PHE:CD1	2.69	0.46
39:BS:35:ILE:CG2	39:BS:53:SER:HB2	2.44	0.46
1:AA:124:A:HI'	1:AA:258:A:O2'	2.15	0.46
1:AA:1123:C:H2'	1:AA:1124:G:C8	2.51	0.46
42:BV:25:LEU:HD11	42:BV:94:LEU:HD11	1.97	0.46
25:BA:271(P):C:C5'	33:BI:46:ALA:HB2	2.45	0.46
9:CI:28:VAL:CA	9:CI:63:ILE:O	2.60	0.46
33:DI:72:LEU:HD21	33:DI:107:VAL:HG21	1.97	0.46
2:AB:21:ARG:C	2:AB:23:ARG:H	2.19	0.46
25:BA:2464:C:N3	25:BA:2487:G:C2	2.84	0.46
1:AA:656:G:O3'	6:AF:87:ARG:NH2	2.47	0.46
25:DA:2464:C:N3	25:DA:2487:G:C2	2.84	0.46
25:DA:272:G:N1	25:DA:421:U:C4	2.84	0.46
25:DA:2314:C:H2'	25:DA:2315:G:C8	2.46	0.46
32:BH:158:HIS:NE2	32:BH:169:VAL:O	2.47	0.46
32:DH:89:ILE:HD13	32:DH:94:TYR:CB	2.46	0.46
7:CG:70:LYS:HB3	7:CG:96:GLN:OE1	2.14	0.46
25:DA:1287:A:N7	25:DA:1288:U:C4	2.80	0.46
31:BG:6:ALA:HB3	31:BG:104:GLU:CD	2.35	0.46
31:BG:6:ALA:HB3	31:BG:104:GLU:OE1	2.15	0.46
31:DG:44:GLY:N	31:DG:88:ILE:HG12	2.31	0.46
46:DZ:125:LEU:O	46:DZ:164:ALA:HB3	2.14	0.46
40:DT:23:ARG:CG	40:DT:120:ARG:NH1	2.69	0.46
40:DT:65:LYS:HZ2	40:DT:66:VAL:HG23	1.79	0.46
2:AB:178:ARG:HD2	8:AH:71:GLY:O	2.16	0.46
28:DD:181:GLU:OE2	28:DD:270:ILE:HG22	2.16	0.46
25:DA:1173:G:H3'	25:DA:1174:A:C5'	2.45	0.46
7:CG:15:ASP:CB	7:CG:20:ASP:H	2.28	0.46
49:D2:12:GLU:O	49:D2:16:LEU:HG	2.16	0.46
25:DA:1464:C:C4'	25:DA:1528(A):A:HI'	2.40	0.46
29:DE:176:ILE:HG22	29:DE:176:ILE:O	2.13	0.46
36:BP:101:VAL:HG12	36:BP:107:LYS:H	1.80	0.46
1:CA:636:A:O4'	8:CH:56:LYS:NZ	2.49	0.46
29:BE:117:MET:CE	29:BE:124:GLY:HA3	2.45	0.46
34:BN:134:ARG:N	34:BN:135:PRO:CD	2.77	0.46
29:DE:46:ALA:HA	29:DE:82:ARG:O	2.15	0.46
25:DA:2629:A:C8	25:DA:2895:U:N3	2.78	0.46
25:BA:1490:A:N6	28:BD:98:VAL:HG11	2.30	0.46
28:DD:147:LEU:HD12	28:DD:147:LEU:HA	1.70	0.46
31:DG:101:ILE:HG12	31:DG:105:LYS:NZ	2.30	0.46
1:AA:953:G:OP2	1:AA:1339:U:O2'	2.28	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:365:C:H2'	1:AA:366:G:C8	2.51	0.46
10:CJ:83:GLU:O	10:CJ:85:LEU:N	2.49	0.46
25:DA:2820:A:H4'	38:DR:2:ARG:HH12	1.80	0.46
1:AA:1405:G:C2	1:AA:1406:C:C2	3.04	0.46
46:BZ:74:VAL:HG13	46:BZ:86:VAL:HG13	1.97	0.46
54:B7:8:ASN:HB3	54:B7:11:LYS:HB3	1.97	0.46
25:DA:496:G:H1'	43:DW:61:ASN:OD1	2.15	0.46
9:CI:48:GLU:N	9:CI:49:PRO:CD	2.76	0.46
53:B6:52:VAL:HG12	53:B6:53:LYS:N	2.30	0.46
43:DW:9:TYR:HD2	43:DW:9:TYR:N	2.12	0.46
20:AT:59:ALA:C	20:AT:61:SER:H	2.18	0.46
9:CI:24:GLY:O	9:CI:25:LYS:C	2.52	0.46
25:BA:2736:G:O2'	25:BA:2737:G:H5'	2.15	0.46
25:BA:1344:G:H4'	25:BA:1384:A:C5	2.50	0.46
7:AG:16:LEU:HD11	9:AI:42:ARG:HG3	1.95	0.46
1:CA:1358:U:H2'	1:CA:1359:A:H8	1.79	0.46
34:BN:26:LEU:CG	34:BN:30:ILE:HD11	2.45	0.46
8:AH:91:ARG:HH11	8:AH:91:ARG:CG	2.27	0.46
25:DA:2039:C:O2'	25:DA:2040:C:H5'	2.15	0.46
25:BA:2039:C:O2'	25:BA:2040:C:H5'	2.15	0.46
25:DA:66:C:C2'	25:DA:67:U:H5'	2.44	0.46
25:BA:2840:C:H4'	38:BR:53:HIS:CD2	2.51	0.46
14:AN:34:TYR:HD1	14:AN:34:TYR:H	1.62	0.46
7:CG:75:VAL:O	7:CG:75:VAL:HG23	2.15	0.46
28:BD:228:PRO:HD3	28:BD:235:GLY:CA	2.45	0.46
1:AA:112:A:H4'	1:AA:113:A:O5'	2.15	0.46
28:BD:40:THR:HG22	28:BD:41:GLY:O	2.15	0.46
25:DA:1742:G:N7	25:DA:1743:C:C4	2.84	0.46
25:BA:2177:C:H1'	27:BC:44:HIS:CD2	2.50	0.46
7:AG:57:GLU:HG3	7:AG:57:GLU:O	2.15	0.46
1:AA:602:U:N3	4:AD:134:ASP:OD2	2.34	0.46
43:BW:55:ALA:HA	43:BW:107:LEU:CD2	2.44	0.46
4:CD:206:PHE:CD2	4:CD:207:TYR:CE2	3.04	0.46
45:DY:50:ARG:O	45:DY:52:SER:N	2.48	0.46
20:CT:30:LYS:HE3	20:CT:80:ARG:NH2	2.31	0.46
25:BA:2327:A:C2	25:BA:2388:A:C2	3.04	0.46
25:BA:315:G:C5	25:BA:316:C:C4	3.03	0.46
1:AA:949:C:O3'	10:AJ:57:LYS:HG2	2.16	0.46
19:AS:36:ARG:HB2	19:AS:72:GLY:HA2	1.97	0.46
19:AS:61:TYR:CG	19:AS:62:ILE:N	2.83	0.46
25:BA:2127:G:N2	25:BA:2173:A:H1'	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BC:36:LYS:CB	27:BC:36:LYS:NZ	2.79	0.46
41:DU:98:LEU:O	41:DU:100:VAL:N	2.48	0.46
41:DU:104:GLN:CB	42:DV:44:LYS:HZ1	2.28	0.46
25:BA:359:A:C8	25:BA:360:G:C8	3.04	0.46
25:BA:2801:A:H1'	25:BA:2801(A):A:N7	2.29	0.46
5:CE:6:PHE:HD1	5:CE:63:ARG:NH1	2.13	0.46
45:DY:76:CYS:SG	45:DY:77:PRO:CD	2.86	0.46
8:AH:83:ILE:HG23	8:AH:83:ILE:O	2.15	0.46
7:CG:155:ARG:O	7:CG:156:TRP:O	2.33	0.46
2:CB:21:ARG:C	2:CB:23:ARG:H	2.19	0.46
36:BP:9:ASN:ND2	36:BP:10:PRO:HD3	2.31	0.46
14:AN:8:GLU:HG3	14:AN:12:ARG:NH1	2.29	0.46
25:DA:298:G:H1'	25:DA:340:A:N6	2.30	0.46
31:DG:28:VAL:O	31:DG:31:VAL:CG1	2.63	0.46
25:BA:2788:C:H2'	25:BA:2789:C:O4'	2.15	0.46
37:DQ:141:GLN:HE22	46:DZ:72:ARG:C	2.19	0.46
46:BZ:150:LEU:O	46:BZ:171:ILE:HG12	2.15	0.46
28:DD:266:SER:O	28:DD:267:SER:O	2.33	0.46
31:BG:43:LEU:CD2	31:BG:88:ILE:HD11	2.39	0.46
12:AL:28:LYS:C	12:AL:30:ALA:N	2.66	0.46
25:BA:395:U:C2'	25:BA:395:U:O2	2.63	0.46
1:AA:1280:A:N7	1:AA:1282:U:O2	2.48	0.46
2:AB:219:VAL:HG13	2:AB:222:ILE:HD12	1.98	0.46
32:BH:18:GLU:CB	32:BH:25:LYS:HG2	2.41	0.46
25:DA:2176:A:O3'	27:DC:218:MET:CB	2.64	0.46
30:DF:124:LEU:HG	30:DF:126:VAL:CG1	2.44	0.46
25:BA:2783:G:H2'	25:BA:2784:C:H6	1.80	0.46
25:DA:651:G:H2'	25:DA:651:G:N3	2.31	0.46
25:BA:846:C:C2	25:BA:930:U:C4	3.03	0.46
11:CK:108:ILE:O	18:CR:86:VAL:HG13	2.15	0.46
25:BA:674:G:H1'	30:BF:74:ARG:CD	2.46	0.46
25:DA:2629:A:H8	25:DA:2895:U:H3	1.57	0.46
30:BF:136:THR:HG23	30:BF:137:LYS:H	1.79	0.46
25:DA:2675:A:C1'	35:DO:29:ASN:ND2	2.78	0.46
40:BT:61:PHE:CE2	40:BT:76:PHE:HB2	2.50	0.46
47:D0:10:THR:CG2	47:D0:12:ASN:HB2	2.45	0.46
10:AJ:17:ASP:OD1	10:AJ:70:ARG:NH1	2.48	0.46
31:DG:61:ALA:HA	31:DG:64:THR:HG22	1.97	0.46
25:DA:1435:G:H2'	25:DA:1436:G:O4'	2.15	0.46
6:CF:9:VAL:C	6:CF:10:LEU:HD12	2.36	0.46
27:BC:83:ILE:HA	27:BC:94:VAL:CG2	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:48:ARG:HH11	28:DD:48:ARG:CG	2.27	0.46
22:AW:44:G:C2	22:AW:45:U:O2	2.69	0.46
6:AF:62:TRP:C	6:AF:63:TYR:CD2	2.88	0.46
53:D6:32:ASN:CG	53:D6:33:LYS:N	2.66	0.46
53:D6:52:VAL:HG12	53:D6:53:LYS:N	2.30	0.46
5:AE:90:VAL:HG22	5:AE:121:LYS:O	2.15	0.46
25:BA:2672:G:H3'	25:BA:2673:G:H5''	1.97	0.46
3:AC:129:ALA:HB3	3:AC:132:ARG:HB3	1.96	0.46
12:CL:122:THR:HG22	12:CL:123:LYS:O	2.15	0.46
25:DA:445:C:H2'	25:DA:446:G:O4'	2.15	0.46
5:CE:136:MET:C	5:CE:138:ALA:N	2.69	0.46
44:BX:32:PRO:HA	44:BX:77:LYS:HB2	1.95	0.46
49:B2:21:LEU:O	49:B2:24:LEU:HB3	2.16	0.46
43:BW:24:ILE:HG23	43:BW:36:LEU:HD21	1.97	0.46
25:DA:1339:G:H21	25:DA:1603:A:H1'	1.79	0.46
1:AA:168:C:O2'	1:AA:169:C:H5'	2.16	0.46
25:BA:536:A:H2'	25:BA:537:C:H6	1.79	0.46
1:AA:721:C:H2'	1:AA:722:C:C6	2.51	0.46
22:CW:52:G:C2	22:CW:53:G:C4	3.03	0.46
49:B2:38:GLN:HA	49:B2:41:ILE:HD11	1.97	0.46
25:BA:402:A:C2'	25:BA:403:U:H5'	2.45	0.46
1:CA:369:A:C6	1:CA:370:U:C4	3.02	0.46
45:DY:90:LEU:O	45:DY:91:GLU:HG2	2.15	0.46
1:CA:35:G:C2	1:CA:533:G:C2	3.03	0.46
16:AP:55:ARG:O	16:AP:58:TYR:N	2.49	0.46
25:BA:696:G:O2'	25:BA:697:C:H5'	2.14	0.46
25:BA:1742:G:N7	25:BA:1743:C:C4	2.84	0.46
6:CF:76:ALA:O	6:CF:80:ARG:HG2	2.15	0.46
25:BA:196:A:H2'	25:BA:196:A:N3	2.31	0.46
25:BA:88:G:N3	25:BA:88:G:H2'	2.30	0.46
30:BF:42:ALA:O	30:BF:45:ARG:HB2	2.15	0.46
25:BA:247:G:H4'	25:BA:386:G:C5	2.50	0.46
32:DH:38:SER:O	32:DH:40:GLU:N	2.45	0.46
25:DA:2517:C:C6	25:DA:2542:A:N1	2.84	0.46
25:BA:910:A:H2'	25:BA:2264:C:O2'	2.14	0.46
25:DA:910:A:C2'	25:DA:2264:C:O2'	2.64	0.46
22:CW:21:A:C5	22:CW:46:G:C6	3.03	0.46
22:CW:18:G:N2	22:CW:55:U:C6	2.83	0.46
25:DA:329:G:OP2	45:DY:71:LYS:CD	2.64	0.46
25:BA:2701:C:H2'	25:BA:2702:U:H6	1.81	0.46
31:BG:111:LEU:O	31:BG:117:PHE:CE2	2.67	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:281:G:N2	25:BA:358:U:H5	2.03	0.46
26:BB:109:C:H5'	26:BB:110:G:O5'	2.14	0.46
42:BV:19:LYS:HZ3	42:BV:20:LEU:H	1.57	0.46
42:BV:19:LYS:CG	42:BV:20:LEU:N	2.78	0.46
31:DG:109:VAL:C	31:DG:112:PRO:HD2	2.35	0.46
31:DG:140:ILE:O	31:DG:140:ILE:HG22	2.13	0.46
39:DS:98:VAL:O	39:DS:98:VAL:HG13	2.15	0.46
25:BA:2320:A:C5	25:BA:2333:A:C5	3.03	0.46
8:CH:6:ILE:HD12	8:CH:6:ILE:N	2.16	0.46
8:CH:83:ILE:O	8:CH:83:ILE:HG23	2.15	0.46
22:CW:30:G:H2'	22:CW:31:A:C8	2.51	0.46
2:CB:196:LEU:HA	8:CH:74:PRO:HG3	1.97	0.46
4:CD:150:GLU:O	4:CD:153:ARG:HG3	2.16	0.46
53:D6:47:THR:HB	53:D6:49:HIS:HE1	1.67	0.46
15:AO:39:LEU:CD1	15:AO:56:LEU:HB2	2.45	0.46
30:DF:3:GLU:CB	30:DF:19:GLU:HB2	2.46	0.46
25:BA:2183:C:O2'	25:BA:2184:G:H5'	2.15	0.46
32:BH:158:HIS:ND1	32:BH:168:PRO:HB2	2.29	0.46
30:BF:68:LYS:HB3	30:BF:69:HIS:H	1.43	0.46
34:BN:91:LEU:O	34:BN:95:PRO:HB3	2.15	0.46
25:BA:353:G:C5	25:BA:354:G:N7	2.83	0.46
1:CA:1123:C:H2'	1:CA:1124:G:C8	2.49	0.46
2:CB:14:GLY:C	2:CB:15:VAL:HG22	2.35	0.46
25:BA:747:U:H3'	25:BA:2612:C:H41	1.80	0.46
40:BT:26:ASP:OD1	40:BT:48:ILE:HG12	2.15	0.46
25:DA:471:A:H2'	25:DA:472:A:H5'	1.97	0.46
1:CA:823:C:H4'	1:CA:825:C:C2	2.50	0.46
14:AN:3:ARG:O	14:AN:7:ILE:HG23	2.16	0.46
31:BG:133:LEU:HG	31:BG:157:ILE:HG13	1.96	0.46
1:AA:1329:U:H2'	1:AA:1330:A:H8	1.79	0.46
38:BR:7:GLY:O	38:BR:8:ARG:O	2.33	0.46
47:B0:29:GLN:O	47:B0:31:VAL:HG13	2.16	0.46
34:DN:91:LEU:O	34:DN:95:PRO:HB3	2.15	0.46
1:CA:685:A:N6	25:DA:1848:A:N1	2.64	0.46
36:DP:114:ILE:CG2	36:DP:127:ALA:HB2	2.44	0.46
31:BG:76:SER:HB3	31:BG:84:LYS:CA	2.46	0.46
3:AC:188:LEU:HB3	3:AC:189:ALA:H	1.53	0.46
10:CJ:24:VAL:HG12	10:CJ:24:VAL:O	2.16	0.46
34:BN:119:ARG:CG	34:BN:119:ARG:HH11	2.29	0.46
34:BN:39:ARG:HE	34:BN:41:ASP:CG	2.19	0.46
25:DA:661:C:H2'	25:DA:662:G:C8	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:34:LEU:HD23	3:AC:34:LEU:C	2.36	0.46
3:AC:52:LEU:CD2	3:AC:52:LEU:H	2.24	0.46
31:DG:96:ARG:O	31:DG:97:ASP:C	2.54	0.46
31:BG:175:LEU:CD1	31:BG:175:LEU:N	2.78	0.46
25:BA:1040:C:O2'	25:BA:1041:C:P	2.73	0.46
18:AR:52:PRO:O	18:AR:56:THR:HG23	2.15	0.46
25:DA:1484:G:C2'	25:DA:1485:G:H5''	2.45	0.46
1:AA:1241:C:C6	1:AA:1241:C:H3'	2.49	0.46
38:BR:28:LEU:HA	38:BR:34:ILE:HG12	1.96	0.46
2:AB:105:PHE:O	2:AB:106:LYS:C	2.54	0.46
8:AH:63:LEU:CB	8:AH:65:TYR:CE1	2.98	0.46
3:AC:149:ALA:O	3:AC:150:LYS:HB2	2.15	0.46
25:BA:1331:A:O2'	25:BA:1332:G:C8	2.69	0.46
23:CV:12:G:H1'	25:DA:1923:U:O2'	2.16	0.46
46:DZ:19:ARG:NH1	46:DZ:82:ARG:NH2	2.63	0.46
1:CA:980:G:N2	1:CA:981:G:H1'	2.30	0.46
25:DA:1193:G:H2'	25:DA:1194:A:O4'	2.16	0.46
37:BQ:34:LEU:HD11	37:BQ:129:THR:OG1	2.16	0.46
25:DA:1035:U:C5'	32:DH:59:ARG:HD3	2.45	0.46
29:BE:119:ARG:O	29:BE:120:TRP:CD2	2.68	0.46
25:DA:779:U:H2'	25:DA:780:G:H8	1.76	0.46
25:BA:779:U:H2'	25:BA:780:G:H8	1.76	0.46
17:CQ:18:THR:O	17:CQ:19:VAL:HG13	2.14	0.46
34:DN:111:PRO:HA	34:DN:114:ARG:CZ	2.45	0.46
25:BA:634:C:H2'	25:BA:635:C:C6	2.50	0.46
25:BA:445:C:H2'	25:BA:446:G:O4'	2.15	0.46
33:BI:131:LYS:HG3	33:BI:132:PRO:HD2	1.96	0.46
50:D3:1:MET:HE2	50:D3:41:PRO:HD3	1.97	0.46
28:DD:30:GLU:HG3	28:DD:63:ARG:NE	2.30	0.46
29:BE:173:VAL:O	29:BE:174:ASP:C	2.52	0.46
25:DA:1708:C:O2'	25:DA:1709:U:H5'	2.16	0.46
35:DO:13:ASN:OD1	35:DO:96:THR:N	2.37	0.46
42:DV:34:GLU:O	42:DV:36:PRO:CD	2.64	0.46
25:BA:311:A:C6	25:BA:328:U:N3	2.83	0.46
1:CA:1448:G:H2'	1:CA:1449:U:C6	2.50	0.46
4:AD:100:ARG:HH22	4:AD:137:SER:HB3	1.80	0.46
1:AA:1066:G:H5'	1:AA:1084:A:OP2	2.16	0.46
41:DU:72:HIS:HE1	41:DU:107:ALA:HB2	1.80	0.46
1:AA:571:G:H2'	1:AA:572:C:H6	1.81	0.46
25:DA:1354:A:H2'	25:DA:1355:G:O4'	2.15	0.46
25:DA:262:A:H2'	25:DA:263:C:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2011:U:C2'	25:DA:2012:G:H5'	2.45	0.46
25:BA:1766:U:O2'	25:BA:1767:C:H5'	2.15	0.46
17:AQ:17:LYS:HA	17:AQ:49:GLU:HG2	1.97	0.46
25:BA:1142:U:H3'	25:BA:1142:U:H6	1.80	0.46
41:BU:72:HIS:HE1	41:BU:107:ALA:HB2	1.80	0.46
40:DT:28:VAL:CG1	40:DT:29:ARG:N	2.78	0.46
40:DT:53:ARG:HH12	40:DT:55:ASN:CB	2.27	0.46
23:AV:4:G:N2	23:AV:5:G:H1'	2.30	0.46
31:BG:96:ARG:O	31:BG:97:ASP:C	2.54	0.46
14:AN:33:VAL:HG12	14:AN:39:LEU:O	2.15	0.46
1:AA:1421:C:H42	1:AA:1439:G:H1	1.63	0.46
45:DY:40:GLU:HA	45:DY:40:GLU:OE2	2.15	0.46
25:BA:250:G:OP2	55:B8:13:ARG:NH2	2.49	0.46
36:BP:49:ARG:CZ	36:BP:50:ARG:HH22	2.29	0.46
36:BP:64:LYS:HD2	55:B8:25:MET:SD	2.56	0.46
41:DU:110:VAL:O	41:DU:114:LYS:HG2	2.16	0.46
42:DV:3:ALA:O	42:DV:13:ARG:HA	2.16	0.46
42:DV:5:VAL:CG1	42:DV:14:VAL:HG13	2.46	0.46
31:DG:109:VAL:CB	31:DG:142:PRO:HG3	2.46	0.46
5:CE:12:LEU:O	5:CE:13:ILE:HG13	2.16	0.46
10:CJ:54:PHE:CG	10:CJ:55:LYS:HE3	2.50	0.46
14:CN:23:ARG:HA	14:CN:29:ARG:O	2.16	0.46
25:BA:271(Q):G:C6	25:BA:271(R):G:C6	3.03	0.46
10:CJ:40:LEU:HG	10:CJ:69:ASN:CB	2.41	0.46
25:DA:95:G:H1'	49:D2:47:ASN:HD22	1.81	0.46
5:AE:51:VAL:HB	5:AE:52:PRO:CD	2.44	0.46
25:BA:1953:A:C2	25:BA:2549:G:N3	2.84	0.46
53:B6:47:THR:HG22	53:B6:49:HIS:H	1.81	0.46
50:B3:48:GLU:O	50:B3:51:ALA:HB2	2.16	0.46
33:BI:115:ALA:HB1	33:BI:129:THR:HG23	1.98	0.46
23:CV:3:C:N3	23:CV:4:G:N7	2.63	0.46
32:BH:30:LYS:CE	32:BH:81:GLU:HG2	2.46	0.46
32:BH:89:ILE:HD13	32:BH:94:TYR:CB	2.45	0.46
25:BA:2562:U:H2'	25:BA:2563:U:H5'	1.97	0.46
45:BY:28:LYS:NZ	45:BY:28:LYS:H	2.03	0.46
25:DA:285:C:C2'	25:DA:286:C:O4'	2.59	0.46
10:AJ:78:ASN:HD21	10:AJ:80:LYS:HB2	1.80	0.46
31:DG:31:VAL:CG2	31:DG:32:PRO:CD	2.94	0.46
49:B2:53:LEU:O	49:B2:54:LYS:C	2.54	0.46
29:BE:101:ARG:HH21	29:BE:171:GLU:CB	2.25	0.46
1:CA:404:G:C5'	4:CD:25:ARG:HB2	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AW:71:G:OP2	22:AW:71:G:C8	2.68	0.46
32:DH:54:ARG:O	32:DH:54:ARG:HG3	2.15	0.46
4:CD:13:ARG:O	4:CD:14:ARG:C	2.54	0.46
37:DQ:137:TYR:O	37:DQ:138:ASP:O	2.32	0.46
25:BA:8:A:H2'	25:BA:9:U:H6	1.80	0.46
25:BA:491:G:O2'	25:BA:492:A:H5'	2.16	0.46
28:BD:206:LEU:HD23	28:BD:206:LEU:HA	1.56	0.46
25:DA:2839:G:H1	25:DA:2878:U:H3	1.63	0.46
31:DG:9:ARG:O	31:DG:12:TYR:N	2.49	0.46
3:CC:148:GLY:HA3	3:CC:203:PHE:HB3	1.98	0.46
2:AB:95:GLN:NE2	2:AB:147:LYS:HG2	2.26	0.46
2:CB:110:GLN:HE21	2:CB:110:GLN:HB2	1.53	0.46
31:DG:6:ALA:HB3	31:DG:104:GLU:CD	2.35	0.46
1:AA:769:G:H2'	1:AA:770:A:O4'	2.16	0.46
46:DZ:14:LYS:N	46:DZ:15:PRO:HD3	2.30	0.46
44:DX:43:VAL:HG21	44:DX:81:VAL:HG11	1.96	0.46
45:DY:2:ARG:HD3	45:DY:2:ARG:C	2.33	0.46
25:BA:325:G:H2'	25:BA:326:G:C8	2.48	0.46
25:BA:2208:A:H1'	25:BA:2219:G:N3	2.31	0.46
45:DY:13:VAL:HA	45:DY:75:ILE:CG2	2.44	0.46
25:BA:572:A:C2	25:BA:2033:A:C2	3.04	0.46
7:AG:154:TYR:O	7:AG:156:TRP:N	2.48	0.46
49:D2:18:PRO:HG2	49:D2:19:VAL:N	2.30	0.46
1:CA:961:C:H42	1:CA:1202:G:H1	1.63	0.46
25:BA:523:C:O2'	25:BA:524:U:H5'	2.16	0.46
1:AA:330:C:H2'	1:AA:331:C:C6	2.51	0.46
35:BO:63:VAL:HG22	35:BO:84:ALA:HA	1.98	0.46
45:BY:90:LEU:O	45:BY:91:GLU:HG2	2.15	0.46
25:DA:2016:U:O2	52:D5:7:PRO:HG2	2.15	0.46
6:AF:76:ALA:O	6:AF:80:ARG:HG2	2.15	0.46
25:BA:1935:G:H1'	25:BA:1964:G:N2	2.30	0.46
1:CA:44:G:H2'	1:CA:45:U:O4'	2.16	0.46
11:AK:19:ALA:HB3	11:AK:82:VAL:CG2	2.45	0.46
25:BA:1400:G:H2'	25:BA:1401:G:C8	2.51	0.46
10:AJ:79:ARG:HH11	10:AJ:79:ARG:N	2.12	0.46
46:BZ:21:ALA:HB3	46:BZ:23:LYS:HD3	1.98	0.46
25:DA:1865:G:H5'	25:DA:1866:C:P	2.56	0.46
1:AA:1278:C:O3'	7:AG:114:ARG:NH2	2.49	0.46
13:CM:94:ARG:NH1	25:DA:888:C:H5''	2.30	0.46
29:BE:79:ARG:NH1	29:BE:79:ARG:HG2	2.29	0.46
25:DA:1129:A:H1'	25:DA:2516:G:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:B0:10:THR:HG22	47:B0:12:ASN:N	2.27	0.46
25:DA:953:A:N6	25:DA:965:C:H42	2.12	0.46
41:BU:95:LEU:C	41:BU:97:ASP:N	2.69	0.46
9:AI:114:TYR:CE1	10:AJ:60:ARG:N	2.84	0.46
25:DA:308:G:O2'	25:DA:309:G:H5'	2.16	0.46
26:DB:81:G:C6	26:DB:82:G:C5	3.03	0.46
38:BR:80:PHE:O	38:BR:85:PRO:HD3	2.15	0.46
45:BY:42:VAL:CB	45:BY:65:ALA:HB3	2.43	0.46
45:BY:68:HIS:HB3	45:BY:71:LYS:HG3	1.97	0.46
27:BC:58:VAL:HG22	27:BC:167:LYS:N	2.31	0.46
39:DS:67:ARG:NH1	39:DS:98:VAL:HG13	2.30	0.46
10:CJ:48:THR:CA	10:CJ:62:HIS:HB3	2.41	0.46
25:BA:859:G:O2'	25:BA:860:U:P	2.74	0.46
25:BA:2302:G:C6	25:BA:2315:G:C5	3.04	0.46
12:CL:27:LEU:HD11	12:CL:64:TYR:CE1	2.50	0.46
28:BD:96:HIS:CE1	28:BD:102:LYS:HE2	2.51	0.46
7:CG:77:SER:HB2	22:CW:32:U:H4'	1.98	0.46
7:AG:79:ARG:NH1	7:AG:79:ARG:HG3	2.26	0.46
53:B6:45:LYS:O	53:B6:46:HIS:ND1	2.48	0.46
53:B6:15:GLU:O	53:B6:15:GLU:CG	2.60	0.46
4:AD:127:THR:HB	4:AD:130:GLY:O	2.15	0.46
4:CD:127:THR:HB	4:CD:130:GLY:O	2.16	0.46
25:BA:1203:G:H4'	36:BP:7:ARG:HG2	1.97	0.46
30:BF:3:GLU:CB	30:BF:19:GLU:HB2	2.46	0.46
23:AV:66:C:C2'	23:AV:67:C:C5'	2.89	0.46
25:BA:2108:C:C2	25:BA:2182:G:N2	2.84	0.46
31:DG:130:ASN:HB3	31:DG:160:VAL:HA	1.97	0.46
22:AW:62:C:H2'	22:AW:63:G:H8	1.80	0.46
25:BA:353:G:C4	25:BA:354:G:N7	2.84	0.46
25:DA:285:C:N3	25:DA:286:C:C5	2.84	0.46
40:BT:22:PHE:O	40:BT:23:ARG:HG3	2.15	0.46
25:DA:947:G:N2	25:DA:971:C:C2	2.84	0.46
46:DZ:33:LEU:HD11	46:DZ:35:ARG:CB	2.45	0.46
25:BA:1748:G:H2'	25:BA:1749:A:O4'	2.16	0.46
25:DA:2863:C:C2'	25:DA:2864:G:C5'	2.82	0.46
28:BD:172:TYR:CE2	28:BD:269:PHE:CE1	3.02	0.46
25:DA:942:G:H5'	36:DP:35:HIS:CA	2.46	0.46
9:AI:118:LYS:HZ2	9:AI:118:LYS:CB	2.27	0.46
4:CD:194:LEU:N	4:CD:194:LEU:HD22	2.31	0.46
34:DN:23:LEU:CD2	34:DN:23:LEU:H	2.29	0.46
7:AG:44:TYR:O	7:AG:47:CYS:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:44:TYR:C	7:AG:46:ALA:N	2.69	0.46
3:CC:3:ASN:CG	3:CC:4:LYS:N	2.69	0.46
30:BF:53:THR:HG22	30:BF:56:GLU:CG	2.45	0.46
6:CF:21:LEU:HD13	6:CF:24:GLU:CD	2.36	0.46
3:AC:30:ARG:HD3	14:AN:38:GLY:CA	2.46	0.46
34:BN:43:THR:C	34:BN:45:ASN:H	2.19	0.46
25:DA:1114:G:C2'	25:DA:1115:G:H5''	2.44	0.46
25:BA:1051:G:N2	25:BA:1052:C:C5	2.83	0.46
9:CI:118:LYS:O	9:CI:119:ALA:HB3	2.16	0.46
24:CX:16:A:O2'	24:CX:17:U:H5'	2.15	0.46
2:AB:107:THR:HA	2:AB:110:GLN:CD	2.37	0.46
40:BT:76:PHE:HA	40:BT:77:PRO:HD3	1.76	0.46
4:AD:110:PHE:N	4:AD:110:PHE:HD1	2.13	0.46
49:D2:7:ARG:CG	49:D2:7:ARG:NH1	2.77	0.46
25:DA:1478:G:O2'	25:DA:1479:G:H5'	2.16	0.46
8:AH:63:LEU:HB3	8:AH:65:TYR:CE1	2.51	0.46
49:B2:7:ARG:CG	49:B2:7:ARG:NH1	2.77	0.46
25:DA:1811:G:O2'	25:DA:1812:A:H5'	2.15	0.46
46:DZ:74:VAL:HG13	46:DZ:86:VAL:HG13	1.97	0.46
25:BA:948:G:C2	25:BA:970:C:O2	2.69	0.46
48:D1:23:LYS:HE2	48:D1:28:GLY:CA	2.42	0.46
25:DA:792:G:C5'	25:DA:793:A:H5'	2.45	0.46
12:CL:117:ARG:HD2	12:CL:122:THR:CG2	2.46	0.46
2:AB:109:SER:C	2:AB:111:ARG:N	2.69	0.46
25:BA:2287:A:N1	25:BA:2346:A:C2	2.81	0.46
1:CA:1439:G:H2'	1:CA:1440:C:H6	1.81	0.46
47:D0:23:VAL:HG11	47:D0:69:PHE:HZ	1.81	0.46
2:CB:164:VAL:HB	2:CB:186:ALA:HB2	1.96	0.46
25:BA:709:U:H2'	25:BA:710:G:H8	1.78	0.46
1:AA:528:C:H5''	4:AD:72:GLU:HG2	1.98	0.46
25:BA:271(K):U:H3'	25:BA:271(L):U:C5'	2.46	0.46
25:DA:1329:U:H5''	25:DA:1330:C:C5	2.50	0.46
25:BA:118:A:H1'	25:BA:178:G:O4'	2.14	0.46
30:DF:139:PHE:HB3	30:DF:166:ALA:HB1	1.98	0.46
25:BA:1469:A:O2'	25:BA:1470:G:H5'	2.15	0.46
54:D7:16:HIS:HA	54:D7:21:ARG:NH1	2.30	0.46
6:AF:22:GLU:O	6:AF:26:ILE:HG13	2.16	0.46
1:AA:113:A:C6	1:AA:115:G:C2	3.04	0.46
1:CA:1061:G:H2'	1:CA:1062:A:C8	2.50	0.46
1:AA:731:C:H6	1:AA:731:C:O5'	1.97	0.46
1:AA:447:A:H4'	16:AP:72:ARG:HG3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:832:G:OP1	36:BP:40:SER:HB3	2.14	0.46
3:AC:186:PHE:HA	3:AC:198:VAL:O	2.16	0.46
13:CM:17:VAL:O	13:CM:20:THR:HB	2.16	0.46
8:AH:112:LEU:C	8:AH:112:LEU:HD12	2.35	0.46
1:CA:726:U:H6	1:CA:726:U:O5'	1.99	0.46
5:AE:26:PHE:CD1	5:AE:26:PHE:N	2.83	0.46
1:CA:922:G:C2	1:CA:1318:G:C2	3.04	0.46
31:DG:76:SER:HB3	31:DG:84:LYS:CA	2.46	0.46
25:BA:910:A:C2'	25:BA:2264:C:O2'	2.64	0.46
49:D2:63:VAL:CA	49:D2:66:GLU:HG2	2.46	0.46
20:CT:50:GLU:HG3	20:CT:51:GLU:N	2.31	0.46
40:DT:53:ARG:HH12	40:DT:55:ASN:HB2	1.72	0.46
19:AS:36:ARG:HB2	19:AS:72:GLY:CA	2.46	0.46
19:AS:64:GLU:HG3	19:AS:65:ASN:N	2.31	0.46
45:DY:68:HIS:HB3	45:DY:71:LYS:HG3	1.98	0.46
55:B8:61:LEU:HD12	55:B8:61:LEU:H	1.81	0.46
25:BA:2392:A:H2'	25:BA:2393:A:O4'	2.15	0.46
19:AS:45:VAL:O	19:AS:47:HIS:N	2.49	0.46
27:DC:36:LYS:CB	27:DC:36:LYS:NZ	2.79	0.46
25:BA:309:G:N3	25:BA:329:G:O2'	2.32	0.46
31:BG:111:LEU:O	31:BG:117:PHE:HD2	1.92	0.46
41:DU:95:LEU:C	41:DU:97:ASP:N	2.69	0.46
39:BS:34:HIS:CE1	39:BS:55:ALA:HB2	2.51	0.46
31:DG:117:PHE:HE1	31:DG:119:GLY:O	1.99	0.46
25:BA:94:C:O2	25:BA:94:C:H2'	2.14	0.46
39:DS:17:ARG:O	39:DS:18:ILE:C	2.54	0.46
39:DS:17:ARG:NH2	39:DS:90:GLY:N	2.64	0.46
25:BA:2266:A:C2	25:BA:2272:U:C5	3.04	0.46
7:AG:22:LEU:HG	7:AG:62:PHE:HE2	1.80	0.46
28:BD:33:LEU:CD1	28:BD:33:LEU:H	2.18	0.46
28:DD:33:LEU:HD21	28:DD:102:LYS:HZ2	1.80	0.46
28:BD:25:THR:O	28:BD:26:LYS:NZ	2.42	0.46
1:CA:261:G:O2'	1:CA:262:C:OP2	2.34	0.46
25:BA:1952:A:N1	35:BO:22:ILE:CD1	2.64	0.46
35:BO:6:THR:HG22	35:BO:8:LEU:CD2	2.46	0.46
33:BI:120:ILE:HG21	33:BI:126:TYR:HE1	1.80	0.46
33:DI:120:ILE:HG21	33:DI:126:TYR:HE1	1.80	0.46
13:AM:10:PRO:HB3	13:AM:18:ALA:O	2.16	0.46
13:AM:13:LYS:O	13:AM:14:ARG:C	2.52	0.46
37:DQ:34:LEU:HD11	37:DQ:129:THR:OG1	2.16	0.46
2:AB:24:TRP:HB3	2:AB:40:HIS:CE1	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:41:VAL:CG1	5:AE:113:ALA:N	2.79	0.46
9:AI:79:LEU:HD21	9:AI:102:LEU:HA	1.97	0.46
6:AF:9:VAL:C	6:AF:10:LEU:HD12	2.37	0.46
22:AW:66:U:H2'	22:AW:67:C:C6	2.50	0.46
34:BN:23:LEU:H	34:BN:23:LEU:HD23	1.81	0.46
25:BA:291:C:N3	25:BA:349:G:N2	2.64	0.46
38:BR:10:LEU:HD13	38:BR:17:ARG:CZ	2.45	0.46
1:AA:9:G:H8	5:AE:126:ARG:HH21	1.62	0.46
4:CD:12:CYS:SG	4:CD:19:LEU:O	2.74	0.46
4:CD:9:CYS:SG	4:CD:31:CYS:C	2.94	0.46
1:CA:1039:G:H4'	3:CC:196:LEU:O	2.16	0.46
47:D0:29:GLN:O	47:D0:31:VAL:HG13	2.16	0.46
25:DA:2177:C:H1'	27:DC:44:HIS:CD2	2.51	0.46
1:AA:853:G:C6	1:AA:854:C:N4	2.83	0.46
20:CT:72:LEU:CD2	20:CT:73:HIS:N	2.72	0.46
30:DF:53:THR:HG22	30:DF:56:GLU:CG	2.45	0.46
12:AL:43:VAL:CG2	12:AL:93:LEU:HD22	2.45	0.46
34:BN:119:ARG:NH1	34:BN:119:ARG:HG3	2.30	0.46
25:BA:1639:U:H2'	25:BA:1640:C:C5'	2.42	0.46
25:DA:1024:G:O5'	25:DA:1024:G:H8	1.98	0.46
3:CC:34:LEU:HD23	3:CC:34:LEU:C	2.36	0.46
29:DE:116:VAL:CG2	29:DE:122:PHE:CG	2.98	0.46
34:DN:43:THR:C	34:DN:45:ASN:H	2.19	0.46
34:DN:39:ARG:HE	34:DN:41:ASP:CG	2.19	0.46
25:DA:1040:C:O2'	25:DA:1041:C:P	2.73	0.46
3:CC:73:PRO:CA	3:CC:76:VAL:HG22	2.46	0.46
25:BA:1049:C:H2'	25:BA:1050:A:C8	2.50	0.46
38:BR:28:LEU:C	38:BR:28:LEU:CD1	2.82	0.46
25:BA:2747:G:O6	25:BA:2755:C:H5''	2.16	0.46
25:DA:2419:U:O4	55:D8:30:ARG:CZ	2.63	0.46
52:B5:36:CYS:HB2	52:B5:49:CYS:SG	2.56	0.46
1:CA:1413:C:N4	1:CA:1414:G:C6	2.84	0.46
33:BI:10:GLU:OE1	33:BI:11:ASN:HB2	2.15	0.46
18:CR:58:LEU:HB3	18:CR:62:GLU:HB2	1.98	0.46
1:AA:519:C:H2'	1:AA:520:G:C8	2.51	0.46
43:BW:8:ARG:HH11	43:BW:8:ARG:HG3	1.78	0.46
12:CL:126:LYS:C	12:CL:128:ALA:H	2.19	0.46
47:D0:72:ARG:CB	47:D0:75:LEU:HB3	2.45	0.46
1:AA:554:U:O4	1:AA:841:A:N6	2.48	0.46
32:DH:64:LEU:C	32:DH:66:GLY:N	2.69	0.46
25:BA:2571:C:H5'	25:BA:2572:A:H5''	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:65:ALA:CA	33:BI:131:LYS:HE2	2.46	0.46
25:DA:470:A:OP1	30:DF:59:TYR:HE2	1.98	0.46
25:DA:523:C:O2'	25:DA:524:U:H5'	2.16	0.46
28:DD:231:HIS:ND1	28:DD:232:PRO:HD2	2.31	0.46
50:D3:9:VAL:HG23	50:D3:10:LYS:N	2.31	0.46
1:CA:849:A:C4	1:CA:851:G:N7	2.84	0.46
25:DA:1425:G:H2'	25:DA:1426:G:C8	2.51	0.46
1:CA:76:G:N2	1:CA:77:G:O6	2.49	0.46
25:DA:2283:C:H2'	25:DA:2284:C:H5'	1.98	0.46
26:BB:79:C:O2'	26:BB:80:U:H5'	2.16	0.46
1:CA:1289:U:OP2	13:CM:99:ARG:HD2	2.16	0.46
25:DA:1131:G:HO2'	25:DA:1132:A:H8	1.62	0.46
30:DF:197:ASP:O	30:DF:200:GLU:N	2.36	0.46
1:CA:539:C:O2'	1:CA:540:G:H5'	2.16	0.46
25:BA:2620:C:OP1	29:BE:152:LYS:O	2.34	0.46
1:AA:858:G:H2'	1:AA:859:C:O4'	2.16	0.46
25:BA:1865:G:H5'	25:BA:1866:C:P	2.56	0.46
3:CC:27:LYS:HB3	3:CC:27:LYS:NZ	2.30	0.46
37:DQ:58:PHE:HD1	37:DQ:58:PHE:O	1.97	0.46
13:CM:76:ALA:HA	13:CM:79:LYS:HB2	1.98	0.46
13:CM:79:LYS:O	13:CM:82:MET:N	2.49	0.46
40:DT:29:ARG:NE	40:DT:84:GLN:O	2.49	0.46
32:DH:17:VAL:HG11	32:DH:45:VAL:CA	2.45	0.46
29:DE:72:VAL:O	29:DE:73:GLU:C	2.54	0.46
25:DA:910:A:N9	37:DQ:13:GLN:OE1	2.49	0.46
25:DA:307:G:H21	25:DA:330:A:H62	1.63	0.46
25:DA:311:A:C6	25:DA:328:U:N3	2.83	0.46
26:DB:83:G:H2'	26:DB:84:C:H6	1.81	0.46
13:AM:66:LEU:O	13:AM:67:GLU:C	2.54	0.46
41:DU:104:GLN:HB2	42:DV:44:LYS:HZ3	1.79	0.46
39:DS:34:HIS:CE1	39:DS:55:ALA:HB2	2.51	0.46
39:DS:89:ARG:HB3	39:DS:92:TYR:CB	2.35	0.46
25:BA:1657:C:O2'	25:BA:1658:C:H5'	2.16	0.46
25:BA:858:U:O2'	25:BA:859:G:N9	2.41	0.46
25:BA:917:A:H2'	25:BA:918:A:H8	1.81	0.46
5:AE:101:ILE:O	5:AE:101:ILE:HG12	2.16	0.46
25:DA:666:G:OP1	36:DP:47:ASP:O	2.33	0.46
25:BA:2283:C:H2'	25:BA:2284:C:H5'	1.97	0.46
25:DA:1657:C:H2'	25:DA:1658:C:C6	2.50	0.46
28:BD:31:LYS:HZ2	28:BD:102:LYS:NZ	2.14	0.46
45:BY:86:ARG:NH1	45:BY:95:LYS:HZ1	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:96:HIS:CE1	28:DD:102:LYS:HE2	2.51	0.46
1:AA:1077:U:C4	1:AA:1078:C:C4	3.04	0.46
5:CE:53:LEU:HD12	5:CE:53:LEU:N	2.23	0.46
44:BX:70:LEU:HD23	44:BX:71:GLY:N	2.31	0.46
50:B3:1:MET:CE	50:B3:44:ARG:HH22	2.28	0.46
25:BA:925:C:C3'	25:BA:926:A:H5''	2.46	0.46
36:DP:10:PRO:O	36:DP:11:GLY:O	2.34	0.46
25:DA:2184:G:H2'	25:DA:2185:C:C6	2.51	0.46
30:BF:34:TRP:CE2	36:BP:12:ALA:HB2	2.51	0.46
25:DA:849:A:H61	25:DA:928:G:H1'	1.81	0.46
9:AI:96:LEU:O	9:AI:101:PHE:N	2.43	0.46
25:BA:2184:G:H2'	25:BA:2185:C:C6	2.51	0.46
36:BP:34:GLY:O	36:BP:35:HIS:CB	2.63	0.46
25:BA:1022:G:O6	34:BN:66:LYS:HE3	2.16	0.46
25:BA:285:C:N3	25:BA:286:C:C5	2.84	0.46
25:DA:291:C:N3	25:DA:349:G:N2	2.64	0.46
9:CI:96:LEU:O	9:CI:101:PHE:N	2.44	0.46
38:DR:9:LYS:HE2	38:DR:43:GLU:OE2	2.16	0.46
27:BC:64:LEU:HD13	27:BC:189:ILE:CB	2.46	0.46
31:BG:138:GLN:HB3	31:BG:153:ARG:O	2.16	0.46
30:BF:9:ILE:HG12	30:BF:13:SER:O	2.15	0.46
25:BA:365:C:H2'	25:BA:366:C:O4'	2.15	0.46
25:DA:1815:A:P	28:DD:54:ARG:HH22	2.39	0.46
11:CK:65:ALA:HB1	11:CK:98:LEU:CD2	2.46	0.46
32:DH:18:GLU:CB	32:DH:25:LYS:HG2	2.41	0.46
36:BP:108:LYS:C	36:BP:110:TYR:N	2.69	0.46
1:CA:1171:G:OP1	3:CC:5:ILE:HG13	2.15	0.46
8:CH:60:ARG:CG	8:CH:60:ARG:NH1	2.79	0.46
55:D8:52:LYS:O	55:D8:55:ALA:HB3	2.16	0.46
3:AC:30:ARG:HD3	14:AN:38:GLY:HA3	1.98	0.46
25:BA:661:C:H2'	25:BA:662:G:C8	2.51	0.46
30:BF:31:HIS:HB2	36:BP:13:ASN:HB3	1.97	0.46
8:AH:86:ILE:CB	8:AH:133:LEU:HD22	2.46	0.46
2:CB:119:GLU:O	2:CB:122:PHE:HB3	2.16	0.46
1:CA:1035:G:O2'	1:CA:1036:C:OP1	2.29	0.46
30:BF:170:LEU:HD23	30:BF:173:VAL:HG21	1.98	0.46
31:DG:16:ARG:HG3	31:DG:16:ARG:NH1	2.31	0.46
4:CD:158:ILE:HG22	4:CD:181:MET:CE	2.45	0.46
1:CA:1140:C:N4	1:CA:1162:G:H22	2.13	0.46
31:DG:46:ALA:CA	31:DG:51:ARG:HG3	2.45	0.46
12:AL:22:SER:O	12:AL:24:VAL:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:992:A:C2	1:CA:1200:U:H1'	2.51	0.46
7:AG:76:ARG:HG2	7:AG:76:ARG:NH1	2.28	0.46
43:DW:28:SER:OG	43:DW:31:GLU:HB2	2.16	0.46
4:CD:80:GLU:HA	4:CD:80:GLU:OE2	2.16	0.46
25:DA:2881:C:C2	25:DA:2882:A:N7	2.83	0.46
18:CR:52:PRO:O	18:CR:56:THR:HG23	2.16	0.46
18:CR:53:ARG:NE	18:CR:58:LEU:O	2.42	0.46
29:BE:119:ARG:HG2	29:BE:160:TYR:HB2	1.96	0.46
3:CC:64:VAL:HG22	3:CC:99:VAL:HA	1.97	0.46
32:BH:64:LEU:C	32:BH:66:GLY:N	2.69	0.46
25:DA:574:C:N3	29:DE:145:LYS:HE2	2.31	0.46
25:BA:99:U:C6	25:BA:102:G:C2	3.04	0.46
25:DA:99:U:C6	25:DA:102:G:C2	3.04	0.46
12:CL:85:ILE:HA	12:CL:85:ILE:HD13	1.62	0.46
12:AL:76:ASN:OD1	12:AL:108:ALA:CB	2.63	0.46
1:AA:669:U:O2'	1:AA:670:A:OP2	2.30	0.46
25:BA:797:C:OP2	30:BF:62:ARG:HG3	2.16	0.46
41:BU:15:LYS:HA	41:BU:18:LEU:HB2	1.98	0.46
30:BF:139:PHE:HB2	30:BF:166:ALA:HB1	1.96	0.46
1:CA:642:U:C2	1:CA:643:G:C8	3.04	0.46
33:DI:23:PRO:HB3	33:DI:27:ARG:HH12	1.81	0.46
42:DV:65:GLY:O	42:DV:90:PRO:HA	2.16	0.46
28:BD:106:ILE:HD11	28:BD:157:ARG:O	2.16	0.46
25:BA:271(Y):U:O2'	25:BA:271(Z):C:C6	2.69	0.46
2:AB:41:ILE:O	2:AB:41:ILE:HG22	2.16	0.46
3:CC:29:TYR:CD1	14:CN:36:PHE:CZ	3.04	0.46
25:BA:1865:G:H5'	25:BA:1866:C:OP2	2.16	0.46
28:BD:224:ALA:O	28:BD:225:ALA:HB2	2.16	0.46
44:DX:44:GLU:O	44:DX:46:ALA:N	2.45	0.46
25:BA:2205:C:O2	25:BA:2220:G:C2	2.69	0.46
12:AL:122:THR:HG22	12:AL:123:LYS:O	2.16	0.46
1:AA:1259:U:O4	10:AJ:99:LYS:NZ	2.23	0.46
25:DA:1400:G:H2'	25:DA:1401:G:C8	2.51	0.46
41:BU:98:LEU:O	41:BU:100:VAL:N	2.49	0.46
22:CW:68:C:C2	22:CW:69:G:C8	3.04	0.46
26:BB:46:A:H2'	26:BB:47:C:C6	2.51	0.46
10:AJ:54:PHE:CG	10:AJ:55:LYS:HE3	2.51	0.46
25:DA:271(T):C:H6	25:DA:271(T):C:C5'	2.18	0.46
55:B8:51:ALA:HA	55:B8:54:GLU:OE1	2.16	0.46
55:B8:52:LYS:O	55:B8:55:ALA:HB3	2.16	0.46
25:BA:1453:U:O4	38:BR:67:LEU:HD21	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:613:G:C2	25:DA:615:G:C5	3.04	0.46
25:DA:614(C):A:O4'	30:DF:182:ASN:ND2	2.48	0.46
25:BA:2312:U:C3'	25:BA:2313:C:H5''	2.46	0.46
39:BS:89:ARG:HH11	39:BS:92:TYR:HA	1.80	0.46
26:BB:66:A:C2	26:BB:109:C:C2	3.03	0.46
42:BV:23:GLU:O	42:BV:24:LYS:C	2.55	0.46
13:CM:8:GLU:OE2	13:CM:22:ILE:HA	2.16	0.46
31:DG:113:ARG:NH1	31:DG:113:ARG:N	2.63	0.46
39:DS:93:LYS:CG	39:DS:93:LYS:O	2.59	0.46
25:BA:2302:G:O6	25:BA:2315:G:C6	2.68	0.46
31:BG:123:ASN:C	31:BG:125:PHE:H	2.19	0.46
33:BI:107:VAL:O	33:BI:109:ILE:HD12	2.15	0.46
33:BI:144:VAL:C	33:BI:145:VAL:HG23	2.36	0.46
30:BF:119:ARG:HH11	30:BF:119:ARG:HG2	1.79	0.46
22:AY:40:C:O2	22:AY:40:C:C2'	2.62	0.46
25:BA:2562:U:C2'	25:BA:2563:U:H5'	2.46	0.46
1:AA:458:G:H2'	1:AA:459:G:C8	2.50	0.46
25:DA:353:G:C4	25:DA:354:G:N7	2.84	0.46
31:DG:137:GLU:HB3	31:DG:139:LEU:HD23	1.98	0.46
46:DZ:146:ILE:CG2	46:DZ:174:VAL:HG12	2.44	0.46
46:DZ:96:VAL:CG1	46:DZ:97:GLU:N	2.79	0.46
25:DA:2849:U:OP2	40:DT:95:ARG:NE	2.49	0.46
25:BA:2331:G:H8	25:BA:2331:G:H5''	1.81	0.46
23:AV:47:G:C3'	23:AV:47:G:C8	2.99	0.46
32:DH:122:THR:O	32:DH:133:VAL:HG13	2.16	0.46
38:BR:51:LEU:CD2	38:BR:66:VAL:HG13	2.38	0.46
25:BA:2134:A:N3	25:BA:2159:G:H1'	2.31	0.46
20:CT:41:ILE:HG21	20:CT:84:LEU:HD21	1.92	0.46
1:AA:1282:U:HO2'	1:AA:1283:U:P	2.39	0.46
30:DF:11:VAL:C	30:DF:13:SER:N	2.68	0.46
25:DA:365:C:H2'	25:DA:366:C:O4'	2.15	0.46
36:DP:108:LYS:C	36:DP:110:TYR:N	2.69	0.46
3:CC:30:ARG:HD3	14:CN:38:GLY:HA3	1.98	0.46
19:CS:36:ARG:HB2	19:CS:72:GLY:CA	2.46	0.46
34:DN:9:VAL:HG11	34:DN:39:ARG:NH2	2.31	0.46
25:DA:2291:U:H4'	25:DA:2380:C:O2	2.16	0.46
9:AI:88:TYR:O	9:AI:89:ASN:CB	2.64	0.46
25:BA:2291:U:H4'	25:BA:2380:C:O2	2.16	0.46
25:BA:320:A:H3'	30:BF:136:THR:CG2	2.45	0.46
8:CH:86:ILE:CB	8:CH:133:LEU:HD22	2.46	0.46
5:CE:14:ARG:HH12	5:CE:129:ILE:CD1	2.27	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CY:37:A:C2	22:CY:38:A:H1'	2.51	0.46
2:AB:97:TRP:CH2	2:AB:176:GLU:CD	2.89	0.46
25:DA:2747:G:O6	25:DA:2755:C:H5''	2.16	0.46
25:BA:2124:G:H2'	25:BA:2125:G:O4'	2.16	0.46
25:DA:1331:A:O2'	25:DA:1332:G:C8	2.69	0.46
43:DW:22:ASP:HA	43:DW:25:ARG:NH1	2.28	0.46
1:AA:768:G:C2	1:AA:781:G:C2	3.04	0.46
5:AE:131:ILE:O	5:AE:134:ALA:HB3	2.15	0.46
1:AA:353:U:H2'	1:AA:354:U:H6	1.81	0.46
5:CE:20:GLN:HG2	5:CE:21:ALA:N	2.30	0.46
26:DB:56:G:H4'	26:DB:57:A:O5'	2.15	0.46
22:AW:40:C:H2'	22:AW:41:C:H6	1.81	0.46
25:BA:558:G:OP1	34:BN:111:PRO:HD2	2.16	0.46
40:BT:78:LEU:HD23	40:BT:79:HIS:CE1	2.51	0.46
1:CA:810:U:H2'	1:CA:836:A:H61	1.81	0.46
25:DA:633:A:C2'	25:DA:634:C:H5'	2.46	0.46
50:D3:49:LYS:C	50:D3:51:ALA:H	2.19	0.46
34:DN:3:THR:O	34:DN:5:VAL:N	2.49	0.46
1:CA:446:A:OP1	16:CP:43:LYS:NZ	2.28	0.46
34:DN:32:THR:HG22	34:DN:37:LYS:HB3	1.97	0.46
34:BN:27:ALA:HA	34:BN:30:ILE:HB	1.98	0.46
50:B3:9:VAL:HG23	50:B3:10:LYS:N	2.31	0.46
1:CA:1333:C:H2'	1:CA:1334:G:C8	2.50	0.46
8:AH:77:GLU:HG2	8:AH:78:GLN:N	2.31	0.46
25:DA:1493:C:O2	25:DA:1493:C:C2'	2.63	0.46
55:D8:21:LYS:HD3	55:D8:48:PHE:CZ	2.51	0.46
1:AA:1428:C:H2'	1:AA:1429:C:C6	2.51	0.46
39:BS:42:ASP:C	39:BS:44:LYS:H	2.20	0.46
55:B8:21:LYS:HD3	55:B8:48:PHE:CZ	2.51	0.46
2:CB:109:SER:C	2:CB:111:ARG:N	2.68	0.46
25:DA:1865:G:H5'	25:DA:1866:C:OP2	2.16	0.46
25:BA:2001:A:H2'	25:BA:2002:G:C8	2.51	0.46
25:DA:414:C:HO2'	25:DA:1864:U:C2'	2.29	0.46
25:DA:1358:G:O2'	25:DA:1359:A:H5''	2.16	0.46
1:CA:1463:G:C6	1:CA:1464:G:C6	3.03	0.46
44:DX:47:PHE:N	44:DX:47:PHE:CD1	2.81	0.46
25:DA:196:A:H2'	25:DA:196:A:N3	2.31	0.46
25:BA:1013:C:H42	25:BA:1149:G:H1	1.64	0.46
13:CM:93:ARG:NH1	25:DA:888:C:C4'	2.73	0.45
29:BE:72:VAL:O	29:BE:73:GLU:C	2.54	0.45
13:AM:91:ARG:HH22	13:AM:103:THR:HG21	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:76:ALA:HA	13:AM:79:LYS:HB2	1.97	0.45
29:DE:65:GLY:HA2	29:DE:70:ALA:CB	2.47	0.45
45:DY:55:TYR:HA	45:DY:56:PRO:HD2	1.65	0.45
25:BA:1819:A:H4'	25:BA:1820:U:C5'	2.46	0.45
42:BV:3:ALA:O	42:BV:13:ARG:HA	2.16	0.45
31:BG:101:ILE:HG12	31:BG:105:LYS:NZ	2.30	0.45
45:DY:31:LEU:CD2	45:DY:36:ALA:O	2.64	0.45
26:DB:83:G:H5''	50:D3:52:HIS:CE1	2.51	0.45
3:AC:87:LEU:C	3:AC:89:GLU:N	2.69	0.45
39:BS:66:ALA:HA	39:BS:69:VAL:CG1	2.46	0.45
31:DG:111:LEU:HA	31:DG:114:ILE:HD11	1.98	0.45
39:DS:15:ARG:C	39:DS:17:ARG:N	2.68	0.45
39:DS:66:ALA:HA	39:DS:69:VAL:CG1	2.46	0.45
1:CA:675:U:H2'	1:CA:677:A:OP2	2.17	0.45
2:CB:178:ARG:CD	8:CH:71:GLY:O	2.64	0.45
33:BI:123:LEU:HD23	33:BI:142:VAL:HG12	1.96	0.45
33:DI:98:ALA:C	33:DI:100:ALA:N	2.70	0.45
33:DI:129:THR:OG1	33:DI:130:TYR:N	2.47	0.45
25:BA:336:C:H5''	45:BY:7:VAL:CG1	2.46	0.45
34:DN:25:ARG:CG	34:DN:25:ARG:HH11	2.27	0.45
30:BF:28:ILE:CG2	30:BF:116:ASP:HB2	2.41	0.45
30:BF:117:ARG:HH21	30:BF:187:VAL:HA	1.81	0.45
30:BF:187:VAL:HG12	36:BP:7:ARG:HH21	1.80	0.45
23:AV:64:G:C2	23:AV:65:G:N7	2.84	0.45
25:DA:272:G:C6	25:DA:421:U:C2	3.03	0.45
25:DA:2303:G:H1'	31:DG:132:ASN:HD22	1.81	0.45
45:BY:31:LEU:CD2	45:BY:36:ALA:O	2.64	0.45
34:BN:23:LEU:H	34:BN:23:LEU:CD2	2.29	0.45
5:AE:12:LEU:O	5:AE:13:ILE:HG13	2.17	0.45
25:DA:17:G:H4'	41:DU:25:TRP:HZ3	1.73	0.45
40:BT:26:ASP:O	40:BT:88:ILE:HB	2.17	0.45
1:CA:290:C:O2'	1:CA:291:U:O5'	2.34	0.45
25:DA:2850:A:C2'	25:DA:2851:A:H8	2.22	0.45
49:B2:43:GLN:O	49:B2:44:LEU:CD2	2.64	0.45
25:DA:2133:G:H2'	25:DA:2157:G:N2	2.32	0.45
34:DN:23:LEU:H	34:DN:23:LEU:HD23	1.81	0.45
34:DN:60:ILE:HG13	34:DN:60:ILE:H	1.61	0.45
29:BE:28:ALA:O	29:BE:29:GLY:C	2.55	0.45
19:CS:10:PHE:C	19:CS:10:PHE:CD2	2.90	0.45
25:BA:1173:G:H3'	25:BA:1174:A:C5'	2.46	0.45
36:DP:101:VAL:C	36:DP:103:ALA:N	2.69	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:25:ASP:HA	8:CH:59:LEU:O	2.17	0.45
22:CW:28:G:N2	22:CW:42:C:O2	2.49	0.45
10:AJ:45:ARG:NH1	10:AJ:45:ARG:CG	2.77	0.45
22:AY:28:G:C2	22:AY:43:C:N4	2.75	0.45
46:DZ:157:LEU:HA	46:DZ:158:PRO:HD2	1.80	0.45
25:DA:1114:G:H2'	25:DA:1115:G:H5''	1.98	0.45
30:BF:168:ARG:O	30:BF:170:LEU:N	2.47	0.45
10:CJ:76:ASN:ND2	10:CJ:78:ASN:OD1	2.49	0.45
31:BG:16:ARG:N	31:BG:17:PRO:HD2	2.31	0.45
1:AA:1236:G:H5''	3:AC:26:LYS:HZ2	1.81	0.45
25:BA:2419:U:H5''	53:B6:23:THR:HG21	1.98	0.45
4:AD:146:ILE:HD12	4:AD:146:ILE:H	1.79	0.45
28:DD:106:ILE:HD11	28:DD:157:ARG:O	2.16	0.45
25:DA:2886:G:H2'	25:DA:2887:U:C6	2.50	0.45
12:AL:86:ARG:HB2	12:AL:101:VAL:HG23	1.98	0.45
25:BA:1435:G:H2'	25:BA:1436:G:O4'	2.15	0.45
25:DA:1557:C:H5''	25:DA:1558:A:OP2	2.16	0.45
46:BZ:19:ARG:NH1	46:BZ:82:ARG:NH2	2.63	0.45
38:BR:18:LEU:HD13	38:BR:19:ALA:N	2.31	0.45
41:DU:45:TYR:O	41:DU:46:ALA:C	2.55	0.45
25:DA:143(A):C:H4'	44:DX:38:GLU:OE1	2.16	0.45
7:CG:62:PHE:HA	7:CG:124:LEU:HD23	1.95	0.45
25:DA:1317:A:H2'	25:DA:1318:C:C6	2.51	0.45
2:CB:121:LEU:O	2:CB:127:ILE:HD11	2.16	0.45
2:CB:124:SER:OG	2:CB:125:PRO:HD2	2.16	0.45
17:AQ:76:LEU:HD11	17:AQ:78:GLU:C	2.37	0.45
6:CF:52:ILE:CD1	6:CF:87:ARG:NH2	2.80	0.45
25:BA:1668:A:N3	25:BA:1670:C:C4	2.84	0.45
25:DA:1472:A:H2'	25:DA:1473:G:C8	2.51	0.45
25:DA:448:U:O4	25:DA:583:G:H1'	2.16	0.45
25:BA:2364:C:O2'	25:BA:2365:G:H5'	2.16	0.45
25:BA:2590:A:OP2	28:BD:238:GLY:HA2	2.16	0.45
5:AE:40:ARG:NH1	5:AE:40:ARG:HG2	2.30	0.45
18:CR:26:LEU:HD21	18:CR:42:ARG:CZ	2.46	0.45
43:DW:12:ILE:HG23	43:DW:12:ILE:O	2.15	0.45
3:CC:17:ASP:OD1	3:CC:21:ARG:NH1	2.49	0.45
3:CC:29:TYR:HD1	14:CN:36:PHE:CZ	2.34	0.45
25:BA:30:G:O2'	25:BA:31:C:H5'	2.15	0.45
1:AA:194:U:H2'	1:AA:195:G:C8	2.50	0.45
25:BA:1373:A:H2'	25:BA:1374:G:O4'	2.16	0.45
20:CT:38:LYS:C	20:CT:40:ALA:N	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:38:A:N3	30:DF:48:THR:HB	2.31	0.45
35:DO:104:ARG:HH12	40:DT:35:LYS:HG2	1.81	0.45
3:AC:27:LYS:HB3	3:AC:27:LYS:NZ	2.31	0.45
25:DA:2055:C:OP1	52:D5:8:LYS:NZ	2.39	0.45
25:DA:1037:G:H1	25:DA:1118:C:H42	1.64	0.45
1:CA:1497:G:H2'	1:CA:1498:G:H8	1.81	0.45
25:BA:419:C:O2'	25:BA:420:C:H5'	2.16	0.45
25:BA:2273:A:O2'	25:BA:2274:A:H5'	2.17	0.45
28:DD:133:LEU:HB3	28:DD:173:VAL:HG11	1.99	0.45
25:DA:2692:C:H2'	25:DA:2693:A:C8	2.49	0.45
41:BU:102:GLU:OE2	42:BV:2:PHE:CD1	2.69	0.45
22:CW:18:G:O2'	22:CW:57:G:O6	2.27	0.45
25:BA:310:A:P	45:BY:18:GLY:HA2	2.55	0.45
31:BG:117:PHE:HE1	31:BG:119:GLY:O	1.99	0.45
41:DU:111:GLU:O	41:DU:112:ARG:C	2.55	0.45
26:BB:9:G:OP1	39:BS:17:ARG:CD	2.64	0.45
25:DA:1798:U:H5''	28:DD:260:ARG:HB3	1.98	0.45
31:DG:103:LEU:HA	31:DG:106:LEU:HB3	1.97	0.45
25:BA:1659:U:OP2	29:BE:132:HIS:CE1	2.70	0.45
25:DA:320:A:H3'	30:DF:136:THR:HG22	1.97	0.45
45:DY:86:ARG:NH1	45:DY:95:LYS:HZ1	2.14	0.45
28:BD:77:ALA:HB2	28:BD:97:TYR:CD2	2.52	0.45
28:BD:25:THR:CG2	28:BD:26:LYS:H	2.20	0.45
7:CG:85:TYR:CE1	7:CG:154:TYR:HE1	2.33	0.45
7:AG:84:ASN:HD22	22:AW:33:U:H4'	1.81	0.45
32:BH:13:LYS:O	32:BH:15:VAL:N	2.46	0.45
5:AE:51:VAL:CB	5:AE:52:PRO:HD3	2.45	0.45
25:DA:1022:G:O6	34:DN:66:LYS:HE3	2.16	0.45
25:DA:2108:C:H5''	25:DA:2108:C:H6	1.82	0.45
44:DX:70:LEU:HD23	44:DX:71:GLY:N	2.32	0.45
23:AV:50:G:C2	23:AV:51:U:O2	2.69	0.45
32:BH:24:VAL:HG21	32:BH:72:ILE:CD1	2.47	0.45
25:BA:1697:G:H3'	25:BA:1698:A:C5'	2.31	0.45
22:AW:52:G:C2	22:AW:63:G:C6	3.04	0.45
45:BY:28:LYS:O	45:BY:38:ILE:HB	2.16	0.45
25:BA:298:G:H1'	25:BA:340:A:N6	2.30	0.45
31:DG:152:LEU:HG	31:DG:153:ARG:H	1.82	0.45
49:D2:53:LEU:O	49:D2:54:LYS:C	2.54	0.45
40:DT:65:LYS:HZ1	40:DT:66:VAL:C	2.20	0.45
31:BG:43:LEU:HB2	31:BG:88:ILE:HD11	1.97	0.45
20:AT:33:ILE:CD1	20:AT:62:LEU:C	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2355:C:H4'	47:D0:24:LYS:HG3	1.98	0.45
25:BA:2231:C:OP1	48:B1:42:GLN:HA	2.15	0.45
25:DA:528:A:C2	25:DA:2043:C:H5'	2.47	0.45
25:BA:2554:U:C2	25:BA:2555:U:C5	3.04	0.45
49:D2:16:LEU:O	49:D2:17:SER:O	2.33	0.45
25:DA:2124:G:H2'	25:DA:2125:G:O4'	2.16	0.45
7:AG:52:GLU:C	7:AG:54:THR:H	2.19	0.45
10:AJ:98:ILE:HG22	10:AJ:98:ILE:O	2.16	0.45
18:CR:86:VAL:O	18:CR:87:ARG:O	2.34	0.45
40:DT:13:ARG:C	40:DT:15:VAL:H	2.19	0.45
1:CA:1046:G:H21	1:CA:1171:G:H2'	1.81	0.45
12:AL:43:VAL:HG21	12:AL:93:LEU:HD22	1.97	0.45
55:D8:51:ALA:HA	55:D8:54:GLU:OE1	2.16	0.45
14:CN:25:VAL:HG23	14:CN:38:GLY:O	2.16	0.45
39:BS:48:LEU:H	39:BS:48:LEU:HD12	1.81	0.45
17:AQ:5:VAL:C	17:AQ:6:LEU:HD12	2.37	0.45
31:BG:19:LEU:CD2	31:BG:171:ALA:HB1	2.47	0.45
54:D7:41:ARG:CD	54:D7:45:ALA:HB2	2.41	0.45
26:BB:106:G:H5''	46:BZ:31:ARG:HE	1.80	0.45
35:DO:5:GLN:HA	35:DO:20:MET:HE2	1.99	0.45
16:CP:28:ARG:HH11	16:CP:28:ARG:HG2	1.81	0.45
1:AA:60:A:O2'	20:AT:10:LEU:HD11	2.16	0.45
25:BA:142(A):C:O2'	25:BA:143:G:H5'	2.16	0.45
31:BG:61:ALA:HA	31:BG:64:THR:HG22	1.97	0.45
1:AA:1286:G:C5'	21:AU:4:GLY:HA3	2.46	0.45
49:D2:38:GLN:HA	49:D2:41:ILE:CD1	2.45	0.45
1:CA:1056:G:H2'	1:CA:1057:C:C6	2.51	0.45
7:CG:12:LEU:CD1	7:CG:25:ALA:HB2	2.46	0.45
1:CA:963:A:N3	19:CS:52:TYR:OH	2.36	0.45
5:AE:84:PHE:HB2	5:AE:134:ALA:HB2	1.98	0.45
17:CQ:50:LYS:HG3	17:CQ:51:TYR:H	1.81	0.45
1:AA:610:G:H2'	1:AA:611:G:H8	1.82	0.45
1:CA:752:G:H4'	1:CA:1490:A:H4'	1.97	0.45
37:BQ:37:LEU:HD21	37:BQ:130:LYS:CB	2.45	0.45
1:CA:1381:C:C2	1:CA:1383:G:C5	3.04	0.45
44:DX:57:LEU:HD21	44:DX:78:LYS:HE2	1.99	0.45
25:BA:1317:A:H2'	25:BA:1318:C:C6	2.51	0.45
25:DA:2032:G:O2'	29:DE:145:LYS:NZ	2.48	0.45
1:AA:441:G:O5'	1:AA:441:G:H8	1.98	0.45
25:BA:1472:A:H2'	25:BA:1473:G:C8	2.51	0.45
25:BA:2351:G:HO2'	25:BA:2352:A:H8	1.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BV:34:GLU:O	42:BV:36:PRO:CD	2.63	0.45
25:DA:1013:C:H42	25:DA:1149:G:H1	1.64	0.45
25:DA:402:A:C2'	25:DA:403:U:H5'	2.45	0.45
28:DD:117:VAL:HG22	28:DD:118:VAL:N	2.32	0.45
48:B1:29:GLY:C	48:B1:31:GLY:H	2.18	0.45
25:DA:1357:U:H2'	25:DA:1358:G:O4'	2.17	0.45
27:BC:155:GLU:O	27:BC:156:ILE:CB	2.63	0.45
25:DA:2273:A:O2'	25:DA:2274:A:H5'	2.16	0.45
25:DA:2840:C:H5''	38:DR:53:HIS:CD2	2.50	0.45
25:BA:1209:G:O2'	25:BA:1237:A:N1	2.47	0.45
37:DQ:24:GLY:HA2	37:DQ:67:ARG:HH22	1.82	0.45
25:BA:1863:G:H2'	25:BA:1864:U:O4'	2.16	0.45
25:BA:893:C:H2'	25:BA:894:C:C6	2.52	0.45
12:CL:75:HIS:CD2	12:CL:77:LEU:HB2	2.51	0.45
48:D1:29:GLY:C	48:D1:31:GLY:H	2.18	0.45
29:BE:65:GLY:HA2	29:BE:70:ALA:CB	2.47	0.45
23:AV:3:C:O2'	23:AV:4:G:C5'	2.44	0.45
41:BU:98:LEU:HD21	42:BV:2:PHE:HZ	1.80	0.45
44:BX:25:LYS:HZ1	44:BX:80:ILE:HD11	1.81	0.45
45:DY:28:LYS:O	45:DY:38:ILE:HB	2.16	0.45
25:DA:265:A:N6	25:DA:283:A:C8	2.85	0.45
31:BG:103:LEU:HA	31:BG:106:LEU:HB3	1.97	0.45
25:DA:2377:A:O4'	39:DS:108:GLY:HA2	2.16	0.45
25:BA:2297:C:N3	25:BA:2320:A:C8	2.84	0.45
31:BG:28:VAL:O	31:BG:31:VAL:CG1	2.63	0.45
31:BG:33:ARG:HB2	31:BG:162:THR:CG2	2.46	0.45
25:DA:250:G:H2'	25:DA:251:A:C8	2.52	0.45
28:BD:30:GLU:HG3	28:BD:63:ARG:NE	2.31	0.45
8:CH:103:VAL:CG1	8:CH:108:GLY:HA3	2.46	0.45
8:CH:118:VAL:C	8:CH:119:LEU:HD23	2.37	0.45
39:BS:49:VAL:CG1	39:BS:50:SER:H	2.25	0.45
10:AJ:40:LEU:CG	10:AJ:69:ASN:HB3	2.45	0.45
33:DI:107:VAL:O	33:DI:109:ILE:HD12	2.16	0.45
2:AB:19:HIS:CG	2:AB:189:ASP:OD2	2.70	0.45
25:DA:1022:G:N2	25:DA:1142(A):A:C2	2.82	0.45
28:DD:13:ARG:HA	28:DD:16:MET:HB2	1.97	0.45
25:BA:2464:C:C2	25:BA:2487:G:C2	3.05	0.45
32:DH:91:GLY:O	32:DH:92:ILE:O	2.35	0.45
25:BA:2678:C:C2	25:BA:2679:A:C8	3.05	0.45
45:BY:38:ILE:O	45:BY:39:VAL:CB	2.64	0.45
25:DA:1952:A:N3	35:DO:22:ILE:HG13	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1748:G:H2'	25:DA:1749:A:O4'	2.16	0.45
1:CA:1121:G:N3	1:CA:1123:C:N4	2.64	0.45
25:DA:481:G:C2'	25:DA:482:A:OP2	2.64	0.45
25:DA:769:G:H5'	25:DA:1379:A:H61	1.81	0.45
27:BC:39:GLU:HG2	27:BC:180:PHE:CB	2.47	0.45
1:CA:733:G:N2	1:CA:734:U:C2	2.85	0.45
15:CO:78:TYR:OH	15:CO:88:ARG:HD2	2.16	0.45
23:CV:30:G:H2'	23:CV:31:G:H5'	1.97	0.45
25:BA:845:G:HO2'	25:BA:846:C:H5	1.63	0.45
36:DP:97:PRO:O	36:DP:99:LEU:N	2.45	0.45
25:BA:1755:A:P	40:BT:113:LYS:HZ3	2.36	0.45
22:AY:28:G:H2'	22:AY:29:G:H8	1.80	0.45
3:CC:30:ARG:HD3	14:CN:38:GLY:CA	2.46	0.45
3:CC:34:LEU:O	3:CC:38:ARG:HG2	2.16	0.45
14:AN:25:VAL:HG23	14:AN:38:GLY:O	2.16	0.45
35:BO:121:VAL:HG11	40:BT:35:LYS:NZ	2.31	0.45
25:BA:1665:A:C4'	35:BO:67:LYS:HB2	2.43	0.45
29:DE:134:ILE:CG1	29:DE:134:ILE:O	2.59	0.45
25:BA:1503:U:C4	25:BA:1504:C:N4	2.83	0.45
10:AJ:8:LEU:HD21	10:AJ:96:ILE:HG22	1.98	0.45
31:BG:16:ARG:NH1	31:BG:16:ARG:HG3	2.31	0.45
1:AA:1260:A:H61	3:AC:26:LYS:HZ3	1.64	0.45
25:DA:1045:A:C2'	25:DA:1045:A:N3	2.78	0.45
12:AL:32:PHE:HB3	12:AL:84:LEU:HD11	1.98	0.45
25:BA:1557:C:H5'	25:BA:1558:A:OP2	2.16	0.45
25:BA:2753:A:C2	25:BA:2754:U:C2	3.04	0.45
25:DA:2897:U:C2'	25:DA:2897:U:O2	2.64	0.45
43:BW:28:SER:OG	43:BW:31:GLU:HB2	2.16	0.45
25:DA:71:A:O2'	25:DA:72:U:OP2	2.30	0.45
4:CD:187:ARG:NH1	4:CD:187:ARG:HG2	2.30	0.45
1:CA:545:C:N3	12:CL:16:GLU:HB3	2.32	0.45
43:BW:84:ARG:HB2	43:BW:96:ILE:HG22	1.98	0.45
1:CA:810:U:O2'	1:CA:836:A:N1	2.44	0.45
13:CM:34:LEU:HD13	13:CM:41:PRO:CA	2.46	0.45
25:BA:1708:C:O2'	25:BA:1709:U:H5'	2.16	0.45
25:DA:271(K):U:H3'	25:DA:271(L):U:C5'	2.46	0.45
25:DA:2236:C:H2'	25:DA:2237:G:H5'	1.98	0.45
40:DT:132:LYS:O	40:DT:134:GLU:N	2.47	0.45
1:AA:872:G:H2'	1:AA:873:C:C6	2.50	0.45
30:DF:138:GLU:O	30:DF:139:PHE:C	2.55	0.45
25:BA:2454:G:O2'	25:BA:2455:G:H5'	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:B1:29:GLY:O	48:B1:31:GLY:N	2.49	0.45
1:CA:970:G:H2'	1:CA:970:G:N3	2.32	0.45
12:CL:75:HIS:HD2	12:CL:77:LEU:HB2	1.80	0.45
3:AC:157:ILE:HD12	3:AC:164:ARG:NH1	2.31	0.45
25:BA:262:A:H2'	25:BA:263:C:O4'	2.16	0.45
17:CQ:40:LYS:HG2	17:CQ:42:TYR:CE1	2.52	0.45
1:CA:1178:G:OP1	1:CA:1179:G:OP2	2.34	0.45
27:BC:19:VAL:O	27:BC:20:TYR:HB3	2.16	0.45
1:CA:1149:A:H8	1:CA:1149:A:OP1	1.99	0.45
38:DR:99:LYS:HB2	38:DR:99:LYS:NZ	2.32	0.45
28:BD:218:ARG:HB3	28:BD:219:PRO:HD2	1.98	0.45
26:DB:6:C:C2	26:DB:116:G:N2	2.85	0.45
25:DA:2205:C:O2	25:DA:2220:G:C2	2.69	0.45
32:DH:43:VAL:CG1	32:DH:53:GLU:H	2.29	0.45
25:BA:886:C:H2'	25:BA:887:A:H4'	1.97	0.45
25:DA:2811:G:C1'	29:DE:61:ARG:HH21	2.29	0.45
20:CT:53:LEU:O	20:CT:54:LYS:C	2.54	0.45
22:CW:4:C:C2	22:CW:70:G:N2	2.84	0.45
1:AA:1297:G:O6	19:AS:5:LEU:HD23	2.16	0.45
23:CV:58:A:C2'	23:CV:59:A:H5'	2.46	0.45
45:DY:38:ILE:O	45:DY:39:VAL:CB	2.65	0.45
25:BA:2128:C:OP1	27:BC:35:ALA:HB1	2.17	0.45
50:B3:2:PRO:O	50:B3:39:ASP:HB3	2.16	0.45
13:AM:68:GLY:HA3	31:BG:116:ASP:OD2	2.17	0.45
55:D8:61:LEU:HD12	55:D8:61:LEU:N	2.30	0.45
25:BA:1884:A:C3'	25:BA:1885:A:H5''	2.45	0.45
41:DU:79:PHE:C	41:DU:79:PHE:CD2	2.90	0.45
39:BS:67:ARG:NH1	39:BS:98:VAL:HG13	2.31	0.45
25:DA:1885:A:C8	25:DA:1885:A:H5'	2.52	0.45
25:BA:614(C):A:C4	30:BF:180:GLY:HA3	2.51	0.45
5:CE:11:ILE:HD12	5:CE:31:LEU:HD12	1.97	0.45
25:DA:2312:U:C3'	25:DA:2313:C:H5''	2.46	0.45
28:DD:77:ALA:HB2	28:DD:97:TYR:CD2	2.52	0.45
23:AV:53:G:O2'	23:AV:54:G:OP1	2.30	0.45
25:BA:2068:U:H3	25:BA:2430:A:H2	0.70	0.45
39:BS:77:ALA:O	39:BS:80:LEU:HD13	2.17	0.45
27:DC:58:VAL:HG22	27:DC:167:LYS:N	2.31	0.45
2:CB:18:GLY:HA2	2:CB:40:HIS:O	2.16	0.45
2:CB:25:ASN:OD1	2:CB:27:LYS:HB2	2.16	0.45
42:DV:21:ARG:HB3	42:DV:91:TYR:CB	2.35	0.45
33:DI:4:ILE:HD11	33:DI:44:LEU:HD12	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:54:GLN:HA	33:DI:57:ARG:CB	2.45	0.45
23:CV:5:G:H2'	23:CV:6:G:H8	1.81	0.45
25:DA:2481:G:O2'	25:DA:2482:G:O5'	2.34	0.45
30:DF:67:GLN:O	30:DF:68:LYS:CB	2.63	0.45
25:BA:2108:C:H5''	25:BA:2108:C:H6	1.82	0.45
2:CB:204:ASN:HD21	2:CB:206:ASP:H	1.63	0.45
38:DR:7:GLY:O	38:DR:8:ARG:O	2.33	0.45
46:BZ:124:ILE:HG12	46:BZ:125:LEU:O	2.17	0.45
25:BA:1311:G:C5	54:B7:47:ARG:NH2	2.84	0.45
1:CA:1039:G:N2	1:CA:1185:A:H1'	2.32	0.45
32:DH:142:GLY:O	32:DH:145:ALA:HB3	2.16	0.45
15:CO:82:ILE:C	15:CO:82:ILE:HD13	2.37	0.45
30:BF:11:VAL:O	30:BF:13:SER:N	2.49	0.45
25:BA:2133:G:H2'	25:BA:2157:G:N2	2.31	0.45
25:BA:2134:A:H2	25:BA:2159:G:H1'	1.72	0.45
19:CS:9:VAL:HB	19:CS:11:VAL:HG12	1.97	0.45
18:AR:86:VAL:O	18:AR:87:ARG:O	2.34	0.45
25:DA:26:G:C6	25:DA:27:G:N1	2.84	0.45
34:BN:9:VAL:HG11	34:BN:39:ARG:NH2	2.32	0.45
1:AA:993:A:H2'	1:AA:994:A:C8	2.51	0.45
25:DA:995:C:OP2	41:DU:54:LYS:NZ	2.37	0.45
9:AI:19:LEU:CD2	9:AI:61:ALA:HB2	2.47	0.45
46:DZ:136:PHE:O	46:DZ:137:ILE:HG13	2.17	0.45
46:DZ:158:PRO:CB	46:DZ:159:PRO:CD	2.87	0.45
46:BZ:137:ILE:HD11	46:BZ:158:PRO:HD2	1.99	0.45
11:CK:29:ILE:HD11	11:CK:42:TRP:HE3	1.81	0.45
25:DA:607:U:H5	25:DA:619:G:C5	2.33	0.45
20:AT:53:LEU:HA	20:AT:56:MET:HE2	1.97	0.45
1:AA:817:C:OP1	18:AR:60:ALA:HB2	2.16	0.45
16:AP:28:ARG:HG2	16:AP:28:ARG:HH11	1.82	0.45
25:DA:1668:A:N3	25:DA:1670:C:C4	2.84	0.45
16:AP:9:PHE:HB2	16:AP:16:HIS:O	2.17	0.45
1:CA:1087:A:H2'	1:CA:1088:G:H8	1.80	0.45
25:BA:651:G:N3	25:BA:651:G:H2'	2.31	0.45
37:DQ:21:THR:HG21	37:DQ:101:ARG:HD3	1.97	0.45
25:DA:1812:A:H2'	25:DA:1813:G:C8	2.51	0.45
1:CA:1487:U:H2'	1:CA:1488:G:H8	1.75	0.45
3:CC:119:ARG:HG3	3:CC:119:ARG:HH11	1.81	0.45
8:AH:119:LEU:HD12	8:AH:124:ALA:HA	1.97	0.45
23:AV:41:C:H3'	23:AV:41:C:C6	2.50	0.45
25:BA:1647:G:H2'	25:BA:1647:G:OP2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:77:VAL:O	17:CQ:78:GLU:HG2	2.16	0.45
25:DA:977:G:HO2'	25:DA:1001:A:H2	1.63	0.45
25:BA:333:G:N3	25:BA:333:G:H2'	2.31	0.45
25:DA:2773:C:O2'	25:DA:2774:C:H5'	2.16	0.45
1:AA:1212:G:H5''	9:AI:128:ARG:HG3	1.99	0.45
25:BA:185:U:H2'	25:BA:186:G:H8	1.80	0.45
1:CA:1004:G:H2'	1:CA:1004:G:N3	2.32	0.45
25:BA:2638:G:OP2	29:BE:82:ARG:NH2	2.50	0.45
28:BD:227:ASN:O	28:BD:228:PRO:C	2.55	0.45
25:DA:2012:G:O2'	43:DW:96:ILE:HD11	2.16	0.45
42:DV:1:MET:HE2	42:DV:43:GLU:OE2	2.16	0.45
20:AT:38:LYS:C	20:AT:40:ALA:N	2.70	0.45
25:DA:1163:G:O2'	25:DA:1164:G:H5'	2.16	0.45
1:AA:419:G:O5'	1:AA:419:G:H8	2.00	0.45
25:DA:834:C:O2'	25:DA:835:A:H5'	2.17	0.45
46:DZ:141:VAL:HG22	46:DZ:141:VAL:O	2.16	0.45
49:B2:8:LYS:O	49:B2:9:GLN:C	2.55	0.45
27:BC:221:SER:O	27:BC:222:VAL:O	2.35	0.45
25:DA:2248:C:C2'	25:DA:2249:U:H5'	2.47	0.45
25:DA:911:A:C5	37:DQ:9:TYR:CD1	3.04	0.45
20:CT:57:ARG:NH1	20:CT:102:GLY:HA2	2.32	0.45
23:AV:4:G:O2'	23:AV:5:G:OP2	2.34	0.45
41:BU:79:PHE:C	41:BU:79:PHE:CD2	2.90	0.45
36:BP:61:ARG:HA	55:B8:27:THR:CG2	2.47	0.45
1:AA:246:G:C6	1:AA:261:G:C6	3.05	0.45
1:AA:1115:G:C2	1:AA:1124:G:N1	2.85	0.45
9:AI:16:ARG:HB2	9:AI:64:THR:HG22	1.96	0.45
3:CC:11:ARG:HB3	3:CC:15:THR:HB	1.98	0.45
31:DG:111:LEU:N	31:DG:112:PRO:HD2	2.31	0.45
5:CE:41:VAL:HG21	5:CE:113:ALA:HB2	1.97	0.45
14:CN:26:ARG:CD	14:CN:43:CYS:SG	2.97	0.45
25:BA:271(Q):G:C2	25:BA:271(R):G:C4	3.04	0.45
31:BG:26:GLN:C	31:BG:28:VAL:H	2.19	0.45
25:DA:1657:C:O2'	25:DA:1658:C:H5'	2.16	0.45
1:AA:1049:A:O4'	1:AA:1050:G:O4'	2.33	0.45
3:AC:11:ARG:HB3	3:AC:15:THR:HB	1.98	0.45
33:BI:104:GLN:O	33:BI:105:HIS:CD2	2.66	0.45
30:DF:187:VAL:HG12	36:DP:7:ARG:HH21	1.80	0.45
36:DP:6:LEU:N	36:DP:6:LEU:HD23	2.29	0.45
2:AB:19:HIS:O	2:AB:39:ILE:HG23	2.17	0.45
9:AI:95:LYS:N	9:AI:98:PRO:HD2	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2481:G:O2'	25:BA:2482:G:O5'	2.34	0.45
35:BO:23:ARG:HD2	35:BO:23:ARG:HA	1.79	0.45
25:BA:947:G:N2	25:BA:971:C:C2	2.84	0.45
2:CB:163:PHE:HA	2:CB:185:ILE:O	2.16	0.45
40:BT:23:ARG:HB3	40:BT:24:PRO:HD2	1.98	0.45
31:DG:33:ARG:HB2	31:DG:162:THR:CG2	2.46	0.45
25:BA:2808:U:H5'	25:BA:2891:G:O6	2.16	0.45
25:DA:1666:G:H2'	25:DA:1667:G:H5'	1.98	0.45
26:DB:106:G:H5''	46:DZ:31:ARG:HE	1.80	0.45
46:DZ:124:ILE:HG12	46:DZ:125:LEU:O	2.17	0.45
46:DZ:118:GLN:N	46:DZ:173:ALA:O	2.49	0.45
37:DQ:140:ALA:HB1	46:DZ:99:TYR:HB2	1.99	0.45
1:AA:9:G:O2'	1:AA:10:A:H5'	2.17	0.45
25:DA:2331:G:H8	25:DA:2331:G:H5''	1.81	0.45
23:CV:30:G:C5	23:CV:43:G:C2	3.04	0.45
2:CB:208:ILE:O	2:CB:208:ILE:HG22	2.14	0.45
36:BP:144:GLU:O	36:BP:144:GLU:HG2	2.15	0.45
36:DP:112:LEU:H	36:DP:128:HIS:CD2	2.35	0.45
23:AV:36:A:N1	24:AX:18:G:C2	2.85	0.45
3:AC:20:SER:OG	3:AC:36:ASP:OD1	2.32	0.45
25:DA:2783:G:H2'	25:DA:2784:C:H6	1.80	0.45
46:DZ:137:ILE:HD11	46:DZ:158:PRO:HD2	1.99	0.45
46:BZ:136:PHE:O	46:BZ:137:ILE:HG13	2.17	0.45
8:CH:84:ARG:NH1	8:CH:84:ARG:HG2	2.30	0.45
1:AA:368:A:C2	1:AA:369:A:C8	3.04	0.45
30:BF:161:GLU:HG2	30:BF:164:ARG:NH2	2.32	0.45
31:BG:9:ARG:O	31:BG:12:TYR:N	2.49	0.45
1:AA:1241:C:C3'	1:AA:1241:C:C6	2.99	0.45
17:CQ:86:GLU:O	17:CQ:90:ILE:HG12	2.16	0.45
1:AA:32:A:H2'	1:AA:33:A:C8	2.51	0.45
25:BA:1812:A:H2'	25:BA:1813:G:C8	2.51	0.45
27:BC:83:ILE:HA	27:BC:94:VAL:HG21	1.99	0.45
8:CH:36:LEU:HA	8:CH:39:LEU:HB2	1.99	0.45
15:CO:30:ALA:CA	15:CO:85:LEU:HD11	2.46	0.45
48:B1:27:GLU:O	48:B1:28:GLY:C	2.55	0.45
1:AA:997:C:H2'	1:AA:998:U:O4'	2.17	0.45
25:DA:2562:U:C2'	25:DA:2563:U:H5'	2.46	0.45
25:BA:2820:A:H4'	38:BR:2:ARG:HH12	1.82	0.45
3:AC:64:VAL:HG22	3:AC:99:VAL:HA	1.99	0.45
8:AH:116:LYS:O	8:AH:119:LEU:HD21	2.17	0.45
1:CA:923:A:H2'	1:CA:924:G:H8	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:572:A:C2	25:DA:2033:A:C2	3.04	0.45
29:DE:144:ARG:HB3	29:DE:145:LYS:H	1.50	0.45
25:BA:633:A:C2'	25:BA:634:C:H5'	2.46	0.45
1:CA:836:A:H2'	1:CA:837:A:O4'	2.16	0.45
25:DA:1012:U:O4	34:DN:28:THR:HG21	2.16	0.45
49:B2:18:PRO:HG2	49:B2:19:VAL:N	2.30	0.45
25:DA:1647:G:H2'	25:DA:1647:G:OP2	2.16	0.45
1:AA:36:C:C4	1:AA:37:U:C4	3.05	0.45
1:CA:934:U:H2'	1:CA:936:A:OP2	2.17	0.45
1:CA:1371:C:H2'	1:CA:1372:U:O4'	2.17	0.45
28:BD:231:HIS:ND1	28:BD:232:PRO:HD2	2.31	0.45
25:BA:2773:C:O2'	25:BA:2774:C:H5'	2.16	0.45
8:AH:68:ARG:HG2	8:AH:69:ARG:H	1.82	0.45
50:B3:35:ARG:NH1	50:B3:35:ARG:HG3	2.31	0.45
25:BA:2236:C:H2'	25:BA:2237:G:H5'	1.98	0.45
1:AA:678:A:H2'	1:AA:679:A:C8	2.51	0.45
21:CU:3:LYS:HB2	21:CU:3:LYS:HE3	1.65	0.45
1:AA:926:A:H1'	1:AA:1346:U:H3	1.81	0.45
5:CE:40:ARG:NH1	5:CE:40:ARG:HG2	2.31	0.45
51:D4:40:ILE:HA	51:D4:57:ILE:HB	1.99	0.45
25:BA:1425:G:H2'	25:BA:1426:G:C8	2.51	0.45
25:DA:271(Y):U:O2'	25:DA:271(Z):C:O4'	2.34	0.45
8:AH:40:ALA:O	8:AH:42:GLU:N	2.50	0.45
1:CA:227:G:H2'	1:CA:228:C:C6	2.51	0.45
25:BA:908:C:O2'	25:BA:909:A:H5'	2.16	0.45
25:DA:2454:G:O2'	25:DA:2455:G:H5'	2.15	0.45
25:DA:69:C:H2'	25:DA:73:A:O2'	2.17	0.45
19:CS:37:ARG:HG3	19:CS:37:ARG:H	1.59	0.45
36:DP:13:ASN:OD1	36:DP:13:ASN:C	2.54	0.45
37:BQ:1:MET:HE2	37:BQ:2:LEU:CB	2.46	0.45
48:D1:29:GLY:O	48:D1:31:GLY:N	2.49	0.45
46:BZ:75:ASN:O	46:BZ:84:GLU:HB2	2.17	0.45
42:DV:98:GLU:OE1	42:DV:100:ARG:HD3	2.16	0.45
38:DR:37:THR:OG1	38:DR:40:LYS:HB2	2.17	0.45
1:AA:1044:U:H2'	1:AA:1045:C:C6	2.51	0.45
1:AA:72:C:C2	1:AA:91:G:C2	3.05	0.45
25:DA:2751:G:H2'	25:DA:2751:G:N3	2.32	0.45
12:AL:79:GLU:HG2	12:AL:79:GLU:O	2.17	0.45
25:BA:1525:G:H2'	25:BA:1526:G:C8	2.52	0.45
54:B7:24:THR:HG23	54:B7:27:GLY:H	1.82	0.45
25:DA:2585:U:H3'	25:DA:2585:U:H6	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2633:G:H1'	29:DE:62:PRO:HG3	1.98	0.45
25:BA:2277:G:OP2	47:B0:10:THR:HG21	2.17	0.45
25:DA:908:C:O2'	25:DA:909:A:H5'	2.16	0.45
9:AI:103:THR:HG22	9:AI:105:ASP:H	1.82	0.45
19:AS:36:ARG:CZ	19:AS:72:GLY:HA2	2.46	0.45
26:DB:81:G:O6	26:DB:97:G:C6	2.69	0.45
46:DZ:75:ASN:O	46:DZ:84:GLU:HB2	2.17	0.45
25:DA:2476:A:N1	25:DA:2477:C:C5	2.83	0.45
25:BA:2167:U:O2	25:BA:2171:A:N7	2.50	0.45
25:DA:2167:U:O2	25:DA:2171:A:N7	2.50	0.45
25:DA:614(C):A:C4	30:DF:180:GLY:HA3	2.51	0.45
38:DR:80:PHE:O	38:DR:85:PRO:HD3	2.15	0.45
39:BS:17:ARG:NH2	39:BS:90:GLY:N	2.64	0.45
39:BS:95:HIS:CG	39:BS:96:GLY:H	2.35	0.45
25:BA:613:G:C2	25:BA:615:G:C5	3.04	0.45
39:DS:53:SER:O	39:DS:55:ALA:N	2.50	0.45
10:CJ:61:GLU:OE2	14:CN:45:ARG:NH1	2.50	0.45
25:BA:2298:A:N6	25:BA:2318:G:C2'	2.79	0.45
25:BA:2282:G:O2'	25:BA:2283:C:OP2	2.28	0.45
7:CG:79:ARG:HH11	7:CG:79:ARG:CG	2.26	0.45
25:DA:858:U:O2'	25:DA:859:G:C8	2.68	0.45
25:BA:71:A:O2'	25:BA:72:U:OP2	2.30	0.45
39:DS:77:ALA:O	39:DS:80:LEU:HD13	2.16	0.45
30:DF:34:TRP:CE2	36:DP:12:ALA:HB2	2.51	0.45
2:AB:18:GLY:HA2	2:AB:40:HIS:O	2.17	0.45
30:BF:187:VAL:CG1	36:BP:7:ARG:HH21	2.30	0.45
5:AE:35:GLY:HA3	5:AE:112:LEU:HB3	1.97	0.45
25:DA:1899:G:C2'	25:DA:1900:A:OP2	2.65	0.45
25:BA:2855:C:O2'	25:BA:2856:C:H5'	2.17	0.45
31:DG:123:ASN:C	31:DG:125:PHE:H	2.19	0.45
25:BA:1140:C:H5''	34:BN:66:LYS:HZ1	1.74	0.45
25:BA:1022:G:N2	25:BA:1142(A):A:C2	2.82	0.45
25:BA:1141:U:C4	34:BN:64:GLY:HA3	2.52	0.45
25:DA:354:G:C2	25:DA:355:G:C8	3.05	0.45
31:BG:104:GLU:CG	51:B4:50:THR:HG21	2.42	0.45
9:CI:83:ARG:O	9:CI:86:VAL:HG12	2.15	0.45
9:CI:96:LEU:HD12	9:CI:101:PHE:CB	2.47	0.45
25:DA:2732:G:C3'	25:DA:2733:A:H5'	2.47	0.45
25:DA:2580:U:H4'	29:DE:130:GLY:CA	2.46	0.45
32:BH:122:THR:O	32:BH:133:VAL:HG13	2.16	0.45
32:BH:142:GLY:O	32:BH:145:ALA:HB3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BG:152:LEU:HG	31:BG:153:ARG:H	1.82	0.45
31:BG:42:GLY:O	31:BG:43:LEU:HB2	2.17	0.45
25:DA:580:C:H4'	41:DU:27:LEU:CD1	2.46	0.45
25:BA:26:G:C6	25:BA:27:G:N1	2.84	0.45
19:CS:10:PHE:CZ	19:CS:70:LYS:HE2	2.42	0.45
25:BA:2850:A:C2'	25:BA:2851:A:H8	2.22	0.45
25:BA:1025:G:C4	25:BA:1135:C:H1'	2.52	0.45
29:DE:93:VAL:O	29:DE:95:ILE:N	2.50	0.45
36:BP:114:ILE:CG2	36:BP:127:ALA:HB2	2.44	0.45
36:DP:83:VAL:HG21	36:DP:105:LEU:HD12	1.97	0.45
25:BA:1899:G:C2'	25:BA:1900:A:OP2	2.65	0.45
25:BA:9:U:C4	25:BA:2629:A:N6	2.84	0.45
22:AW:16:U:O4	22:AW:18:G:H2'	2.17	0.45
7:AG:145:ALA:O	7:AG:146:GLU:HB2	2.17	0.45
17:CQ:5:VAL:C	17:CQ:6:LEU:HD12	2.37	0.45
9:CI:46:ALA:HB2	9:CI:74:ILE:HG23	1.98	0.45
25:DA:995:C:C2	41:DU:57:PHE:CE1	3.05	0.45
1:CA:853:G:C6	1:CA:854:C:N4	2.84	0.45
6:CF:71:ARG:NH1	6:CF:71:ARG:HG3	2.31	0.45
3:CC:172:ARG:O	3:CC:173:VAL:CG2	2.65	0.45
12:AL:104:VAL:HG12	12:AL:105:TYR:CD1	2.51	0.45
25:DA:2753:A:C2	25:DA:2754:U:C2	3.04	0.45
6:CF:79:LEU:O	6:CF:85:VAL:HG21	2.17	0.45
1:CA:948:G:OP1	1:CA:948:G:H3'	2.16	0.45
41:BU:45:TYR:O	41:BU:46:ALA:C	2.55	0.45
1:CA:156:A:H8	1:CA:156:A:OP2	1.99	0.45
23:CV:11:A:H2'	23:CV:12:G:O4'	2.17	0.45
1:CA:1236:G:H3'	1:CA:1260:A:N6	2.32	0.45
2:AB:63:MET:C	2:AB:65:GLY:N	2.69	0.45
22:AW:7:A:C6	22:AW:49:C:C2	3.05	0.45
1:AA:649:G:H5'	1:AA:709:C:H1'	1.98	0.45
40:BT:82:LEU:N	40:BT:82:LEU:HD12	2.31	0.45
10:AJ:58:ASP:O	10:AJ:59:SER:C	2.55	0.45
52:B5:41:PRO:HG2	52:B5:44:THR:CG2	2.46	0.45
3:CC:58:GLU:HB2	3:CC:65:ALA:HB2	1.98	0.45
47:D0:70:GLN:OE1	47:D0:72:ARG:HD3	2.17	0.45
45:DY:2:ARG:C	45:DY:4:LYS:N	2.70	0.45
25:BA:1693:U:O2'	28:BD:14:ARG:NH2	2.50	0.45
25:BA:1339:G:H21	25:BA:1603:A:H1'	1.79	0.45
1:CA:1196:G:O2'	1:CA:1197:G:H5'	2.17	0.45
1:AA:433:G:H4'	4:AD:123:HIS:ND1	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:57:VAL:HG13	30:BF:59:TYR:CE1	2.51	0.45
1:CA:905:G:N1	1:CA:1372:U:O2	2.49	0.45
30:BF:127:GLU:HB2	30:BF:196:LEU:CD2	2.47	0.45
25:BA:875:G:H2'	25:BA:876:C:O4'	2.17	0.45
16:CP:43:LYS:HD2	16:CP:43:LYS:N	2.31	0.45
25:DA:2364:C:O2'	25:DA:2365:G:H5'	2.16	0.45
1:AA:721:C:H2'	1:AA:722:C:H6	1.82	0.45
25:DA:957:A:H4'	37:DQ:74:TYR:OH	2.16	0.45
2:AB:157:ARG:O	2:AB:158:LEU:C	2.55	0.45
46:DZ:109:ALA:O	46:DZ:111:VAL:HG12	2.16	0.45
25:DA:185:U:H2'	25:DA:186:G:H8	1.80	0.45
25:DA:2703:C:H2'	25:DA:2704:C:H6	1.82	0.45
25:BA:1357:U:H2'	25:BA:1358:G:O4'	2.17	0.45
25:BA:1358:G:O2'	25:BA:1359:A:H5''	2.16	0.45
2:CB:109:SER:O	2:CB:111:ARG:N	2.49	0.45
19:CS:35:SER:C	19:CS:37:ARG:N	2.70	0.45
1:CA:601:C:H5''	1:CA:602:U:H5''	1.97	0.45
25:BA:1368:G:O2'	25:BA:1369:G:H5'	2.17	0.45
27:DC:221:SER:O	27:DC:222:VAL:O	2.34	0.45
46:BZ:110:GLY:CA	46:BZ:115:GLY:HA3	2.47	0.45
20:CT:25:ARG:HG3	20:CT:25:ARG:HH11	1.82	0.45
8:CH:66:GLY:O	8:CH:76:PRO:HB2	2.16	0.45
27:BC:191:ALA:O	27:BC:195:ALA:HB3	2.17	0.45
25:BA:392:C:H5''	25:BA:409:C:H5''	1.99	0.45
3:CC:33:LEU:O	3:CC:37:GLN:HG2	2.17	0.45
46:DZ:110:GLY:CA	46:DZ:115:GLY:HA3	2.47	0.45
40:BT:85:LYS:O	40:BT:85:LYS:NZ	2.26	0.45
38:BR:99:LYS:HB2	38:BR:99:LYS:NZ	2.31	0.45
25:BA:2584:U:H2'	25:BA:2585:U:C4'	2.39	0.45
32:DH:24:VAL:HG21	32:DH:72:ILE:CD1	2.46	0.45
40:DT:55:ASN:CG	40:DT:58:ASN:OD1	2.54	0.45
10:AJ:49:VAL:HG22	10:AJ:50:ILE:N	2.32	0.45
23:CV:16:C:OP2	23:CV:16:C:H6	1.99	0.45
25:DA:2173:A:C2'	25:DA:2174:C:H5'	2.47	0.45
25:DA:613:G:N1	25:DA:615:G:C6	2.85	0.45
41:DU:111:GLU:O	41:DU:113:ALA:N	2.50	0.45
39:BS:17:ARG:O	39:BS:18:ILE:C	2.55	0.45
39:BS:34:HIS:HD2	39:BS:54:LEU:HD23	1.82	0.45
39:BS:89:ARG:O	39:BS:90:GLY:O	2.35	0.45
3:CC:14:ILE:CG1	3:CC:15:THR:H	2.03	0.45
39:DS:18:ILE:O	39:DS:18:ILE:HD13	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DS:29:PHE:CD2	39:DS:29:PHE:C	2.88	0.45
10:CJ:63:PHE:HB3	14:CN:58:LYS:HA	1.99	0.45
33:BI:4:ILE:HD11	33:BI:44:LEU:HD12	1.98	0.45
25:DA:319:C:OP2	30:DF:137:LYS:NZ	2.50	0.45
25:BA:2300:G:O6	25:BA:2316:C:N4	2.49	0.45
36:DP:56:SER:O	36:DP:57:THR:C	2.54	0.45
45:BY:76:CYS:SG	45:BY:77:PRO:CD	2.86	0.45
28:DD:31:LYS:CE	28:DD:94:LEU:HD11	2.40	0.45
25:DA:859:G:O2'	25:DA:860:U:P	2.74	0.45
2:CB:21:ARG:O	2:CB:23:ARG:N	2.50	0.45
44:DX:63:LYS:HE3	44:DX:72:LYS:CE	2.29	0.45
25:DA:764:A:C6	28:DD:209:ALA:HB1	2.52	0.45
32:BH:17:VAL:HB	32:BH:45:VAL:CG2	2.47	0.45
46:DZ:7:ALA:C	46:DZ:8:TYR:CD1	2.90	0.45
13:CM:10:PRO:HB3	13:CM:18:ALA:O	2.16	0.45
25:DA:285:C:C4	25:DA:286:C:C5	3.05	0.45
27:DC:64:LEU:HD13	27:DC:189:ILE:CB	2.46	0.45
1:CA:541:G:C4	1:CA:542:A:C2	3.04	0.45
46:BZ:96:VAL:HG12	46:BZ:97:GLU:N	2.30	0.45
44:BX:60:ARG:HH22	54:B7:47:ARG:HH21	1.64	0.45
41:DU:31:SER:C	41:DU:33:ARG:N	2.68	0.45
10:AJ:7:LYS:CD	10:AJ:71:LEU:HD13	2.42	0.45
11:CK:21:ILE:HA	11:CK:30:VAL:HG12	1.99	0.45
40:DT:3:ARG:O	40:DT:5:ALA:N	2.49	0.45
1:CA:673:G:C6	1:CA:674:G:C6	3.04	0.45
26:DB:69:G:N3	26:DB:70:C:C6	2.85	0.45
25:DA:995:C:O2	34:DN:4:TYR:OH	2.34	0.45
9:CI:4:TYR:HD1	9:CI:4:TYR:N	2.10	0.45
25:DA:491:G:O2'	25:DA:492:A:H5'	2.16	0.45
25:DA:1925:C:C2'	25:DA:1926:U:H5'	2.46	0.45
1:CA:1036:C:O2'	1:CA:1037:A:P	2.74	0.45
35:BO:35:VAL:HG11	35:BO:103:ALA:HB3	1.99	0.45
25:BA:2719:G:H5''	40:BT:98:LYS:NZ	2.32	0.45
4:CD:110:PHE:CD1	4:CD:110:PHE:N	2.85	0.45
1:AA:534:U:O2'	12:AL:86:ARG:HD2	2.17	0.45
31:DG:104:GLU:HG2	51:D4:50:THR:CG2	2.46	0.45
46:DZ:44:PHE:C	46:DZ:44:PHE:CD1	2.90	0.45
9:AI:48:GLU:HA	9:AI:51:ARG:HH11	1.82	0.45
28:BD:133:LEU:HB3	28:BD:173:VAL:HG11	1.98	0.45
18:CR:58:LEU:N	18:CR:58:LEU:HD12	2.32	0.45
2:AB:109:SER:O	2:AB:111:ARG:N	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1248:G:OP1	41:BU:2:PRO:HD2	2.17	0.45
1:CA:23:C:OP2	1:CA:544:U:N3	2.48	0.45
49:D2:21:LEU:O	49:D2:24:LEU:HB3	2.16	0.45
53:D6:30:THR:HB	53:D6:31:PRO:CD	2.46	0.45
2:AB:112:VAL:CG2	2:AB:149:LEU:HD13	2.47	0.45
30:DF:127:GLU:HB2	30:DF:196:LEU:CD2	2.47	0.45
1:AA:1100:C:H2'	1:AA:1101:C:C6	2.50	0.45
17:AQ:33:GLY:O	17:AQ:34:LYS:C	2.54	0.45
1:AA:546:A:N7	1:AA:550:G:HI'	2.31	0.45
51:B4:40:ILE:HA	51:B4:57:ILE:HB	1.99	0.45
25:BA:1328:G:H2'	25:BA:1330:C:C5	2.52	0.45
44:DX:3:THR:O	44:DX:4:ALA:CB	2.64	0.45
25:BA:773:U:H4'	28:BD:47:GLY:CA	2.47	0.45
31:BG:165:THR:OG1	31:BG:168:GLU:HG3	2.16	0.45
8:CH:40:ALA:O	8:CH:42:GLU:N	2.50	0.45
33:BI:23:PRO:HB3	33:BI:27:ARG:HH12	1.81	0.45
25:DA:2455:G:H2'	25:DA:2456:C:C6	2.52	0.45
25:BA:2164:C:C2'	25:BA:2165:G:H5'	2.47	0.45
28:BD:117:VAL:HG22	28:BD:118:VAL:N	2.32	0.45
28:DD:227:ASN:HB3	28:DD:228:PRO:HD2	1.99	0.45
25:BA:711:G:O2'	25:BA:712:G:H5'	2.17	0.45
25:DA:1016:G:N2	25:DA:1146:C:O2	2.50	0.45
1:AA:152:G:N1	1:AA:157:C:O2	2.45	0.45
51:D4:43:GLY:N	51:D4:59:VAL:O	2.50	0.45
1:AA:51:A:C6	1:AA:348:A:C2	3.05	0.45
1:CA:371:G:O3'	16:CP:5:ARG:HD2	2.17	0.45
25:DA:703:U:C2'	25:DA:704:G:H5'	2.47	0.45
1:AA:1175:U:H4'	5:AE:22:GLY:HA2	1.97	0.45
42:BV:98:GLU:OE1	42:BV:100:ARG:HD3	2.16	0.45
27:DC:19:VAL:O	27:DC:20:TYR:HB3	2.16	0.45
5:CE:26:PHE:N	5:CE:26:PHE:CD1	2.84	0.45
25:DA:88:G:H2'	25:DA:88:G:N3	2.30	0.45
36:DP:136:GLU:O	36:DP:139:LYS:HB3	2.17	0.45
30:BF:103:LYS:HA	30:BF:106:ARG:HG3	1.99	0.45
1:CA:198:U:O3'	20:CT:57:ARG:HD2	2.17	0.45
25:DA:2846:G:H2'	25:DA:2847:U:O4'	2.17	0.45
40:DT:55:ASN:C	40:DT:59:THR:CG2	2.79	0.45
22:CW:21:A:C6	22:CW:46:G:C5	3.02	0.45
44:BX:12:VAL:CG1	44:BX:27:THR:O	2.64	0.45
45:DY:17:SER:OG	45:DY:71:LYS:CB	2.54	0.45
36:BP:61:ARG:H	36:BP:61:ARG:HG3	1.54	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:871:U:H4'	37:DQ:69:PHE:CD2	2.51	0.45
25:BA:2173:A:C2'	25:BA:2174:C:H5'	2.47	0.45
25:DA:1884:A:C3'	25:DA:1885:A:H5''	2.45	0.45
25:BA:613:G:N1	25:BA:615:G:C6	2.85	0.45
39:DS:89:ARG:O	39:DS:90:GLY:O	2.35	0.45
12:CL:22:SER:O	12:CL:24:VAL:N	2.50	0.45
8:CH:118:VAL:O	8:CH:119:LEU:HD23	2.16	0.45
7:CG:151:TYR:O	7:CG:154:TYR:HB2	2.16	0.45
25:DA:917:A:H2'	25:DA:918:A:H8	1.81	0.45
17:CQ:68:ARG:H	17:CQ:70:ARG:HH12	1.50	0.45
34:BN:56:ASN:CA	34:BN:125:GLY:H	2.08	0.45
12:CL:46:LYS:CG	12:CL:47:LYS:N	2.59	0.45
33:DI:87:LYS:N	33:DI:122:GLU:HG2	2.31	0.45
25:DA:1029:A:H8	25:DA:1029:A:O5'	2.00	0.45
2:AB:193:ASP:OD2	2:AB:193:ASP:O	2.35	0.45
5:AE:112:LEU:HD23	5:AE:112:LEU:N	2.32	0.45
25:DA:1902:C:C4	25:DA:1903:G:H1'	2.52	0.45
32:DH:103:LEU:HD22	32:DH:123:PHE:HD2	1.82	0.45
25:DA:1276:A:O2'	38:DR:16:HIS:HE1	2.00	0.45
25:BA:285:C:C4	25:BA:286:C:C5	3.05	0.45
25:DA:549:G:O5'	25:DA:549:G:C8	2.62	0.45
25:DA:480:A:P	45:DY:46:LYS:HE2	2.54	0.45
10:AJ:32:ALA:CB	10:AJ:76:ASN:HB3	2.47	0.45
1:AA:1035:G:O2'	1:AA:1180:U:H5	2.00	0.45
31:DG:26:GLN:C	31:DG:28:VAL:H	2.19	0.45
25:DA:569:U:C4	25:DA:570:G:C6	3.05	0.45
26:DB:73:A:H2'	26:DB:74:U:C5'	2.47	0.45
46:DZ:33:LEU:HG	46:DZ:34:ASN:N	2.31	0.45
37:BQ:140:ALA:HB1	46:BZ:99:TYR:HB2	1.99	0.45
29:BE:12:THR:HG23	40:BT:8:LYS:NZ	2.32	0.45
7:CG:15:ASP:HB3	7:CG:19:GLY:N	2.32	0.45
23:CV:30:G:C6	23:CV:43:G:C2	3.05	0.45
25:BA:1291:C:H2'	25:BA:1292:U:C6	2.52	0.45
36:DP:85:LEU:HD12	36:DP:120:ALA:HB2	1.97	0.45
31:BG:83:ARG:NH1	31:BG:84:LYS:HD2	2.32	0.45
3:AC:188:LEU:HD12	3:AC:195:VAL:CG1	2.47	0.45
29:DE:45:THR:CG2	29:DE:83:ASP:HA	2.45	0.45
25:DA:9:U:C4	25:DA:2629:A:N6	2.84	0.45
20:CT:14:LYS:CB	20:CT:17:ARG:HH21	2.30	0.45
43:BW:65:LEU:HD22	43:BW:68:ARG:N	2.25	0.45
38:DR:34:ILE:HG22	38:DR:35:THR:N	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:29:ILE:CD1	11:CK:44:SER:HB3	2.45	0.45
26:DB:46:A:H2'	26:DB:47:C:C6	2.51	0.45
11:CK:126:ARG:C	11:CK:128:ALA:N	2.70	0.45
25:DA:1412:A:H2'	25:DA:1413:G:C8	2.52	0.45
30:DF:161:GLU:HG2	30:DF:164:ARG:NH2	2.32	0.45
10:CJ:81:THR:O	10:CJ:83:GLU:N	2.50	0.45
29:BE:128:SER:O	29:BE:130:GLY:N	2.50	0.45
1:AA:1056:G:C1'	2:AB:104:ASN:HD22	2.30	0.45
5:AE:14:ARG:CZ	5:AE:129:ILE:HD11	2.46	0.45
27:BC:83:ILE:HG23	27:BC:94:VAL:HG23	1.97	0.45
1:AA:769:G:C2	1:AA:780:C:O2	2.70	0.45
46:DZ:14:LYS:HD3	46:DZ:17:ALA:CB	2.46	0.45
1:CA:1236:G:H5''	3:CC:26:LYS:HZ2	1.81	0.45
3:AC:58:GLU:HB2	3:AC:65:ALA:HB2	1.99	0.45
25:DA:674:G:H1'	30:DF:74:ARG:HD2	1.99	0.45
50:D3:1:MET:CE	50:D3:44:ARG:HH22	2.28	0.45
43:DW:24:ILE:HG23	43:DW:36:LEU:HD21	1.97	0.45
43:BW:10:VAL:HG23	43:BW:101:SER:O	2.17	0.45
10:CJ:13:HIS:O	10:CJ:17:ASP:HB2	2.16	0.45
4:AD:96:LEU:N	4:AD:96:LEU:HD12	2.32	0.45
25:DA:1525:G:H2'	25:DA:1526:G:C8	2.51	0.45
8:CH:68:ARG:HG2	8:CH:69:ARG:H	1.81	0.45
1:CA:846:G:O2'	1:CA:849:A:N7	2.47	0.45
1:AA:1313:A:O2'	1:AA:1314:A:H5'	2.16	0.45
42:BV:65:GLY:O	42:BV:90:PRO:HA	2.16	0.45
25:DA:2283:C:C2'	25:DA:2284:C:H5'	2.47	0.45
1:CA:860:C:C4	1:CA:861:U:H5	2.35	0.45
25:DA:637:A:H4'	25:DA:638:G:O5'	2.17	0.45
25:BA:2455:G:H2'	25:BA:2456:C:C6	2.52	0.45
1:CA:565:U:H2'	1:CA:566:A:C8	2.51	0.45
44:DX:46:ALA:O	49:D2:30:ARG:NH2	2.49	0.45
49:D2:8:LYS:O	49:D2:9:GLN:C	2.55	0.45
1:AA:1383:G:C2	1:AA:1384:C:H1'	2.52	0.45
1:AA:1384:C:H2'	1:AA:1385:C:O4'	2.16	0.45
5:AE:15:ARG:O	5:AE:16:THR:O	2.35	0.45
1:AA:396:C:C2	1:AA:397:G:C8	3.05	0.45
1:CA:1225:C:C2	1:CA:1275:G:N2	2.85	0.45
25:DA:711:G:O2'	25:DA:712:G:H5'	2.17	0.45
1:AA:120:G:HO2'	17:AQ:2:PRO:N	2.14	0.45
25:DA:1368:G:O2'	25:DA:1369:G:H5'	2.17	0.45
25:DA:751:A:OP2	43:DW:90:ARG:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DZ:3:TYR:N	46:DZ:3:TYR:CD1	2.85	0.45
12:CL:40:VAL:O	12:CL:40:VAL:HG12	2.16	0.45
31:DG:83:ARG:NH1	31:DG:84:LYS:HD2	2.32	0.45
9:AI:10:ARG:CD	9:AI:105:ASP:OD2	2.54	0.45
19:AS:72:GLY:C	19:AS:74:PHE:H	2.21	0.45
44:BX:27:THR:HA	44:BX:80:ILE:HA	1.99	0.45
25:DA:308:G:H1'	25:DA:329:G:N2	2.32	0.45
25:DA:281:G:N2	25:DA:358:U:C4	2.84	0.45
55:B8:4:MET:O	55:B8:62:LEU:HD12	2.17	0.45
25:DA:2349:G:H4'	53:D6:42:TRP:CZ2	2.52	0.45
55:D8:61:LEU:HD12	55:D8:61:LEU:H	1.81	0.45
30:DF:36:VAL:HG12	30:DF:183:VAL:HG21	1.99	0.45
25:BA:1885:A:C8	25:BA:1885:A:H5'	2.52	0.45
39:BS:18:ILE:O	39:BS:18:ILE:HD13	2.17	0.45
39:BS:93:LYS:O	39:BS:94:TYR:C	2.54	0.45
1:AA:255:G:C6	1:AA:256:U:C4	3.05	0.45
39:DS:95:HIS:CG	39:DS:96:GLY:H	2.35	0.45
25:BA:2314:C:H2'	25:BA:2315:G:C8	2.46	0.45
45:BY:96:ILE:HG13	45:BY:100:ALA:H	1.82	0.45
8:CH:109:ILE:HD11	8:CH:120:THR:HG22	1.98	0.45
25:DA:2266:A:C2	25:DA:2272:U:C5	3.04	0.45
25:BA:69:C:H2'	25:BA:73:A:O2'	2.17	0.45
33:BI:87:LYS:N	33:BI:122:GLU:HG2	2.31	0.45
33:DI:115:ALA:HB1	33:DI:129:THR:HG23	1.98	0.45
30:DF:117:ARG:HH21	30:DF:187:VAL:HA	1.81	0.45
36:DP:8:PRO:O	36:DP:9:ASN:HB3	2.17	0.45
2:AB:42:ILE:CD1	2:AB:202:PRO:HB2	2.39	0.45
25:DA:2855:C:O2'	25:DA:2856:C:H5'	2.17	0.45
46:BZ:7:ALA:C	46:BZ:8:TYR:CD1	2.90	0.45
25:DA:2464:C:C2	25:DA:2487:G:C2	3.05	0.45
53:B6:13:CYS:HB2	53:B6:22:ALA:HB3	1.99	0.45
31:DG:133:LEU:HD11	31:DG:157:ILE:CD1	2.35	0.45
46:BZ:118:GLN:N	46:BZ:173:ALA:O	2.49	0.45
46:BZ:52:SER:OG	46:BZ:53:ILE:HG13	2.16	0.45
25:DA:1301:A:HO2'	25:DA:1302:A:H2'	1.76	0.45
48:D1:86:SER:O	48:D1:89:GLU:N	2.50	0.45
7:CG:52:GLU:C	7:CG:54:THR:H	2.20	0.45
18:AR:44:LEU:CD2	18:AR:50:ILE:HD13	2.46	0.45
24:AX:15:A:H5'	24:AX:16:A:OP1	2.16	0.45
25:BA:1187:G:O5'	25:BA:1187:G:H8	2.00	0.45
1:AA:1187:G:C6	1:AA:1188:G:C5	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:97:GLU:O	10:CJ:98:ILE:HD12	2.16	0.45
25:DA:1187:G:H8	25:DA:1187:G:O5'	2.00	0.45
22:AY:29:G:N3	22:AY:29:G:H2'	2.32	0.45
39:DS:48:LEU:HD12	39:DS:48:LEU:H	1.81	0.45
4:AD:30:LYS:HB3	4:AD:35:ARG:HD2	1.99	0.45
9:AI:88:TYR:O	9:AI:89:ASN:ND2	2.50	0.45
16:CP:14:ASN:N	16:CP:15:PRO:CD	2.75	0.45
9:CI:19:LEU:CD2	9:CI:61:ALA:HB2	2.46	0.45
19:AS:31:ILE:O	19:AS:31:ILE:HG23	2.17	0.45
25:BA:1412:A:H2'	25:BA:1413:G:C8	2.52	0.45
1:CA:385:C:O3'	16:CP:28:ARG:NH2	2.49	0.45
25:DA:1484:G:H2'	25:DA:1485:G:H5''	1.97	0.45
19:CS:22:LEU:HD13	19:CS:27:GLU:CB	2.47	0.45
19:AS:18:LYS:HD2	19:AS:22:LEU:HD21	1.99	0.45
31:DG:46:ALA:HB3	31:DG:82:LEU:HD11	1.99	0.45
25:BA:1478:G:O2'	25:BA:1479:G:H5'	2.16	0.45
6:CF:8:ILE:HD11	6:CF:79:LEU:HD13	1.98	0.45
31:DG:178:PHE:HA	31:DG:179:PRO:HD3	1.69	0.45
38:DR:18:LEU:HD13	38:DR:19:ALA:N	2.31	0.45
3:AC:148:GLY:N	3:AC:203:PHE:HB3	2.31	0.45
25:BA:2146:C:H4'	25:BA:2147:G:C8	2.52	0.45
43:DW:27:LYS:O	43:DW:70:TYR:HB2	2.17	0.45
1:CA:116:C:OP1	1:CA:306:C:O2'	2.19	0.45
23:AV:44:A:N3	23:AV:44:A:H2'	2.32	0.45
1:AA:841:A:H2'	1:AA:842:A:C8	2.52	0.45
25:DA:2178:C:H5''	27:DC:46:LYS:HG2	1.98	0.45
25:BA:1666:G:H2'	25:BA:1667:G:H5'	1.98	0.45
25:BA:2287:A:C2	25:BA:2289:G:C8	3.05	0.45
25:BA:995:C:OP2	41:BU:54:LYS:NZ	2.43	0.45
12:CL:32:PHE:HB3	12:CL:84:LEU:HD11	1.99	0.45
30:DF:57:VAL:HG13	30:DF:59:TYR:CE1	2.51	0.45
9:CI:92:TYR:HD1	9:CI:92:TYR:H	1.65	0.45
1:CA:443:C:O2	16:CP:42:ARG:HD2	2.17	0.45
25:BA:448:U:O4	25:BA:583:G:H1'	2.16	0.45
25:DA:2350:C:H2'	25:DA:2351:G:O4'	2.17	0.45
41:DU:15:LYS:HA	41:DU:18:LEU:HB2	1.98	0.45
25:DA:225:A:H2'	25:DA:226:G:C5'	2.47	0.45
1:AA:1397:G:C2	1:AA:1463:G:C2	3.04	0.45
25:BA:637:A:H4'	25:BA:638:G:O5'	2.17	0.45
25:BA:2869:G:H2'	25:BA:2870:C:C6	2.52	0.45
20:CT:23:ARG:O	20:CT:27:LYS:HB2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1144:C:H2'	1:AA:1145:C:C6	2.52	0.45
1:AA:1007:C:H4'	1:AA:1015:G:N2	2.31	0.45
1:AA:280:G:H2'	1:AA:281:G:C8	2.52	0.45
25:DA:1863:G:H2'	25:DA:1864:U:O4'	2.16	0.45
25:DA:1117:G:H2'	25:DA:1118:C:C6	2.52	0.45
25:DA:419:C:O2'	25:DA:420:C:H5'	2.17	0.45
2:AB:180:LEU:O	2:AB:181:PHE:HB2	2.17	0.45
25:DA:2373:G:H2'	25:DA:2374:C:C6	2.52	0.45
30:DF:64:ILE:HG22	30:DF:76:GLY:O	2.17	0.45
25:BA:1117:G:H2'	25:BA:1118:C:C6	2.52	0.45
1:CA:1215:C:H6	1:CA:1215:C:O5'	2.00	0.45
42:DV:75:PHE:CD1	42:DV:75:PHE:C	2.90	0.45
25:BA:1029:A:O5'	25:BA:1029:A:H8	2.00	0.45
25:BA:1163:G:O2'	25:BA:1164:G:H5'	2.16	0.45
1:AA:364:C:OP2	1:AA:383:G:N2	2.36	0.45
13:CM:96:LEU:HA	13:CM:110:ARG:HD3	1.97	0.45
13:CM:90:LEU:HA	13:CM:93:ARG:HB3	1.99	0.45
13:AM:91:ARG:HH11	13:AM:96:LEU:HD13	1.82	0.45
25:DA:952:G:C4	25:DA:953:A:N7	2.85	0.45
31:BG:97:ASP:O	31:BG:101:ILE:HG23	2.17	0.45
25:BA:250:G:H2'	25:BA:251:A:C8	2.52	0.45
3:AC:79:ARG:NH2	11:CK:100:ALA:HB2	2.22	0.45
44:DX:27:THR:HA	44:DX:80:ILE:HA	1.99	0.45
42:DV:41:GLY:N	42:DV:45:THR:HB	2.32	0.45
19:CS:43:GLU:O	19:CS:43:GLU:OE1	2.35	0.45
14:CN:23:ARG:O	14:CN:24:CYS:C	2.54	0.45
1:AA:1209:C:OP1	13:AM:114:ARG:HA	2.16	0.45
53:D6:46:HIS:C	53:D6:46:HIS:CD2	2.91	0.45
15:AO:39:LEU:HD23	15:AO:39:LEU:HA	1.82	0.45
25:BA:1203:G:OP2	25:BA:1204:A:H2'	2.17	0.45
25:DA:848:G:C8	25:DA:848:G:H5'	2.51	0.45
23:AV:50:G:C2	23:AV:67:C:C2	3.04	0.45
28:DD:243:GLY:O	28:DD:244:ARG:HB3	2.17	0.45
30:DF:22:ALA:CA	30:DF:26:ALA:HB2	2.47	0.45
25:BA:2469:A:C2	25:BA:2470:G:H1'	2.51	0.45
25:DA:2300:G:N2	25:DA:2317:C:C1'	2.64	0.45
25:BA:389:G:H1	36:BP:71:VAL:CG1	2.16	0.45
38:BR:37:THR:OG1	38:BR:40:LYS:HB2	2.16	0.45
25:DA:297:C:C2'	25:DA:298:G:C5'	2.81	0.45
25:BA:1021:A:OP2	34:BN:65:LYS:NZ	2.49	0.45
25:BA:354:G:C2	25:BA:355:G:C8	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:104:ARG:O	9:CI:105:ASP:C	2.51	0.45
31:DG:39:ILE:HB	31:DG:157:ILE:HG22	1.99	0.45
46:DZ:114:GLY:CA	46:DZ:177:PRO:HD3	2.47	0.45
25:BA:2330:G:N2	25:BA:2386:C:O2	2.50	0.45
25:BA:2330:G:O2'	25:BA:2331:G:O5'	2.32	0.45
46:BZ:114:GLY:CA	46:BZ:177:PRO:HD3	2.47	0.45
44:BX:60:ARG:HH12	54:B7:47:ARG:HH22	1.58	0.45
29:BE:11:MET:CB	29:BE:24:THR:HA	2.47	0.45
19:CS:63:THR:HG22	19:CS:66:MET:HG2	1.99	0.45
15:CO:25:THR:O	15:CO:26:GLU:C	2.55	0.45
25:DA:2355:C:H1'	47:D0:39:ARG:HH21	1.82	0.45
25:BA:2822:G:O6	38:BR:4:LEU:HD12	2.17	0.45
48:B1:86:SER:O	48:B1:89:GLU:N	2.50	0.45
15:CO:40:SER:HA	25:DA:715:G:N2	2.32	0.45
29:BE:93:VAL:O	29:BE:95:ILE:N	2.50	0.45
25:DA:651:G:OP1	55:D8:19:SER:CB	2.65	0.45
25:DA:1291:C:H2'	25:DA:1292:U:C6	2.52	0.45
25:BA:845:G:O2'	25:BA:846:C:H5	2.00	0.45
36:BP:112:LEU:H	36:BP:128:HIS:CD2	2.35	0.45
36:DP:101:VAL:HG12	36:DP:107:LYS:H	1.81	0.45
8:CH:56:LYS:HB2	8:CH:58:TYR:HE1	1.81	0.45
12:AL:53:ARG:HH12	12:AL:92:ASP:CB	2.24	0.45
8:AH:56:LYS:HB2	8:AH:58:TYR:HE1	1.82	0.45
22:AW:16:U:H6	22:AW:17:C:H5'	1.82	0.45
25:BA:481:G:C2'	25:BA:482:A:OP2	2.64	0.45
29:DE:37:ARG:O	29:DE:45:THR:N	2.49	0.45
34:DN:119:ARG:CG	34:DN:119:ARG:HH11	2.29	0.45
25:BA:320:A:H2'	30:BF:136:THR:HG21	1.98	0.45
31:DG:16:ARG:N	31:DG:17:PRO:HD2	2.31	0.45
49:B2:63:VAL:O	49:B2:66:GLU:CG	2.62	0.45
12:AL:85:ILE:HD13	12:AL:100:ILE:HA	1.99	0.45
2:CB:102:LEU:HD23	2:CB:182:ILE:HD12	1.99	0.45
25:DA:2753:A:H1'	56:D9:15:LYS:NZ	2.32	0.45
1:CA:953:G:C6	1:CA:1345:A:C2	3.05	0.45
25:BA:1193:G:H2'	25:BA:1194:A:O4'	2.16	0.45
1:CA:1311:U:C5	1:CA:1312:G:C5	3.05	0.45
1:CA:1307:C:H2'	1:CA:1308:C:C6	2.52	0.45
37:BQ:24:GLY:HA2	37:BQ:67:ARG:HH22	1.82	0.45
6:AF:71:ARG:NH1	6:AF:71:ARG:HG3	2.32	0.45
1:AA:885:A:C2	1:AA:886:A:C5	3.05	0.45
25:DA:1507:A:H2'	25:DA:1508:A:H8	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:13:HIS:ND1	10:CJ:14:LYS:HG3	2.33	0.45
13:AM:100:GLY:O	13:AM:101:GLN:HG3	2.17	0.45
1:CA:583:C:OP1	8:CH:97:VAL:HG12	2.17	0.45
22:CW:44:G:OP2	22:CW:44:G:C8	2.71	0.45
25:DA:832:G:N2	36:DP:53:GLY:O	2.49	0.45
25:DA:1328:G:H2'	25:DA:1330:C:C5	2.52	0.45
31:DG:165:THR:OG1	31:DG:168:GLU:HG3	2.16	0.45
44:BX:3:THR:O	44:BX:4:ALA:CB	2.64	0.45
1:AA:1348:C:H2'	1:AA:1349:C:H6	1.81	0.45
25:BA:1151:G:H5''	41:BU:81:HIS:CE1	2.52	0.45
1:AA:1192:U:H5'	1:AA:1193:U:OP2	2.16	0.45
1:AA:95:G:C6	1:AA:96:C:C4	3.05	0.45
25:DA:2164:C:C2'	25:DA:2165:G:H5'	2.47	0.45
25:BA:2743:C:H2'	25:BA:2744:G:O4'	2.17	0.45
25:DA:487:C:H1'	43:DW:53:SER:OG	2.17	0.45
25:DA:2001:A:H2'	25:DA:2002:G:C8	2.51	0.45
3:CC:157:ILE:HD12	3:CC:164:ARG:NH1	2.32	0.45
1:AA:962:C:H2'	1:AA:963:A:C8	2.52	0.45
20:CT:39:LYS:O	20:CT:43:LEU:HG	2.15	0.45
3:AC:120:VAL:O	3:AC:121:ALA:C	2.55	0.45
1:CA:731:C:O5'	1:CA:731:C:H6	1.99	0.45
1:AA:1430:U:H4'	1:AA:1431:A:N7	2.31	0.45
1:AA:173:A:H2'	1:AA:174:U:C6	2.52	0.45
25:BA:703:U:C2'	25:BA:704:G:H5'	2.47	0.45
13:CM:80:ARG:C	13:CM:82:MET:H	2.21	0.44
25:BA:886:C:H2'	25:BA:887:A:C4'	2.47	0.44
20:CT:30:LYS:CE	20:CT:80:ARG:NH2	2.79	0.44
25:DA:2845:G:H5''	40:DT:54:ARG:O	2.16	0.44
23:AV:3:C:C3'	23:AV:4:G:H5'	2.42	0.44
23:AV:6:G:C2	23:AV:69:C:O2	2.70	0.44
22:CW:21:A:N9	22:CW:48:C:N4	2.65	0.44
25:DA:333:G:N3	25:DA:333:G:H2'	2.31	0.44
25:BA:834:C:O2'	25:BA:835:A:H5'	2.17	0.44
36:BP:49:ARG:CD	55:B8:58:ILE:HG22	2.47	0.44
37:BQ:69:PHE:HD1	37:BQ:70:PRO:HD2	1.81	0.44
31:BG:117:PHE:CD1	31:BG:118:ARG:N	2.85	0.44
55:D8:4:MET:O	55:D8:62:LEU:HD12	2.17	0.44
39:BS:53:SER:O	39:BS:55:ALA:N	2.50	0.44
39:DS:34:HIS:HD2	39:DS:54:LEU:HD23	1.82	0.44
39:DS:93:LYS:O	39:DS:94:TYR:C	2.54	0.44
25:BA:1659:U:OP2	29:BE:132:HIS:HE1	2.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AW:38:A:C3'	22:AW:39:U:H5'	2.43	0.44
50:B3:49:LYS:C	50:B3:51:ALA:H	2.19	0.44
34:DN:126:PRO:O	34:DN:127:ASP:CB	2.65	0.44
25:BA:2186:G:C2'	25:BA:2187:G:H5''	2.47	0.44
31:DG:35:GLU:HB2	31:DG:160:VAL:HG12	1.99	0.44
32:BH:128:PRO:HG2	32:BH:129:THR:HG23	1.99	0.44
5:AE:13:ILE:HA	5:AE:29:GLY:O	2.17	0.44
26:BB:12:C:N4	47:B0:75:LEU:HD12	2.32	0.44
52:B5:3:LYS:HA	52:B5:3:LYS:HD2	1.70	0.44
27:DC:39:GLU:HG2	27:DC:180:PHE:CB	2.47	0.44
46:DZ:96:VAL:HG12	46:DZ:97:GLU:N	2.32	0.44
46:BZ:151:HIS:HB3	46:BZ:170:THR:CG2	2.37	0.44
1:CA:1426:A:H4'	1:CA:1426:A:OP1	2.17	0.44
40:DT:70:VAL:HG22	40:DT:71:GLY:H	1.82	0.44
4:CD:29:PRO:C	4:CD:30:LYS:HG2	2.38	0.44
31:BG:137:GLU:HB3	31:BG:139:LEU:HD23	1.98	0.44
25:DA:2746:U:O3'	32:DH:138:LYS:HE3	2.17	0.44
29:DE:201:THR:HG21	29:DE:203:LYS:HG2	1.99	0.44
25:BA:2553:G:H2'	25:BA:2554:U:H4'	1.99	0.44
40:BT:7:ILE:HG22	40:BT:11:GLU:OE1	2.17	0.44
19:CS:64:GLU:HG3	19:CS:65:ASN:N	2.31	0.44
48:D1:62:VAL:HG22	48:D1:63:ALA:N	2.32	0.44
4:AD:194:LEU:N	4:AD:194:LEU:HD22	2.32	0.44
36:BP:99:LEU:C	36:BP:99:LEU:HD23	2.38	0.44
25:BA:2061:G:H5''	25:BA:2503:A:C2	2.52	0.44
49:D2:69:ARG:O	49:D2:70:GLN:CB	2.65	0.44
42:DV:68:LYS:HZ3	42:DV:68:LYS:HB2	1.81	0.44
8:AH:86:ILE:HG13	8:AH:133:LEU:HD22	1.98	0.44
23:AV:72:C:H3'	23:AV:72:C:C6	2.52	0.44
31:DG:19:LEU:CD2	31:DG:171:ALA:HB1	2.47	0.44
46:BZ:85:HIS:ND1	46:BZ:85:HIS:C	2.70	0.44
18:AR:56:THR:HB	18:AR:58:LEU:HD13	1.99	0.44
55:B8:41:ILE:O	55:B8:44:LYS:HB2	2.18	0.44
49:B2:63:VAL:CA	49:B2:66:GLU:HG2	2.46	0.44
29:BE:110:GLY:CA	29:BE:162:ALA:H	2.30	0.44
12:AL:32:PHE:HB3	12:AL:84:LEU:CD1	2.47	0.44
45:BY:15:VAL:CG1	45:BY:16:ALA:N	2.81	0.44
25:BA:2897:U:C2'	25:BA:2897:U:O2	2.64	0.44
2:CB:63:MET:C	2:CB:65:GLY:N	2.69	0.44
7:CG:140:ASP:HA	7:CG:143:ARG:HH11	1.80	0.44
25:DA:978:G:H2'	25:DA:979:G:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2287:A:C2	25:DA:2289:G:C8	3.05	0.44
34:BN:78:TYR:N	34:BN:78:TYR:HD1	2.15	0.44
25:BA:2350:C:H2'	25:BA:2351:G:O4'	2.17	0.44
1:AA:1399:G:C6	1:AA:1459:G:C6	3.05	0.44
16:AP:6:LEU:HB3	16:AP:17:TYR:HD2	1.81	0.44
20:CT:93:GLU:OE1	20:CT:94:ALA:N	2.50	0.44
28:DD:227:ASN:O	28:DD:228:PRO:C	2.55	0.44
25:DA:893:C:H2'	25:DA:894:C:C6	2.52	0.44
1:CA:264:C:H2'	1:CA:265:A:C8	2.52	0.44
5:CE:84:PHE:CZ	5:CE:133:TYR:CD2	3.05	0.44
30:DF:103:LYS:HA	30:DF:106:ARG:HG3	1.99	0.44
28:DD:224:ALA:O	28:DD:225:ALA:HB2	2.17	0.44
25:DA:1444:G:H2'	25:DA:1445(A):C:C5	2.52	0.44
25:BA:764:A:C6	28:BD:209:ALA:HB1	2.51	0.44
11:CK:41:THR:HG21	11:CK:71:LYS:CB	2.47	0.44
4:AD:17:VAL:HG11	4:AD:197:PRO:HB2	1.99	0.44
13:AM:90:LEU:HA	13:AM:93:ARG:HB3	2.00	0.44
25:DA:2810:A:O2'	29:DE:61:ARG:HB2	2.16	0.44
47:B0:12:ASN:O	47:B0:13:GLY:C	2.53	0.44
25:DA:109:G:H2'	25:DA:110:G:C8	2.47	0.44
25:DA:2678:C:C2	25:DA:2679:A:C8	3.05	0.44
28:BD:244:ARG:HG2	28:BD:245:PRO:O	2.17	0.44
41:BU:111:GLU:O	41:BU:113:ALA:N	2.50	0.44
26:BB:45:A:H1'	31:BG:95:ARG:NH2	2.33	0.44
14:AN:23:ARG:HA	14:AN:29:ARG:O	2.16	0.44
25:BA:2172:U:C2'	25:BA:2173:A:OP1	2.65	0.44
41:DU:79:PHE:C	41:DU:79:PHE:HD2	2.20	0.44
41:DU:92:ARG:C	41:DU:94:ASN:N	2.70	0.44
25:BA:265:A:N6	25:BA:283:A:C8	2.85	0.44
45:BY:55:TYR:CB	45:BY:56:PRO:CD	2.78	0.44
39:DS:14:VAL:CG1	39:DS:15:ARG:H	2.19	0.44
1:CA:958:U:H2'	1:CA:959:U:C6	2.52	0.44
10:CJ:51:ARG:NE	10:CJ:61:GLU:HB2	2.32	0.44
25:BA:271(F):C:H2'	25:BA:271(G):C:C6	2.49	0.44
25:BA:271(P):C:O2'	25:BA:271(Q):G:H5'	2.17	0.44
45:DY:96:ILE:HG13	45:DY:100:ALA:H	1.82	0.44
31:BG:31:VAL:CG2	31:BG:32:PRO:CD	2.94	0.44
2:CB:26:PRO:O	2:CB:29:ALA:HB2	2.17	0.44
42:DV:23:GLU:O	42:DV:24:LYS:C	2.55	0.44
28:BD:132:PRO:HG3	28:BD:190:TYR:CE1	2.53	0.44
4:AD:126:ILE:HG22	4:AD:127:THR:N	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:58:LEU:C	33:DI:60:GLU:H	2.20	0.44
33:BI:98:ALA:C	33:BI:100:ALA:N	2.70	0.44
9:AI:96:LEU:HD12	9:AI:101:PHE:CB	2.46	0.44
25:DA:2464:C:C2'	25:DA:2465:C:O5'	2.66	0.44
32:BH:97:ARG:O	32:BH:125:VAL:HG11	2.18	0.44
5:CE:78:HIS:CG	8:CH:104:ARG:HG3	2.53	0.44
25:BA:2728:U:OP1	35:BO:70:LYS:NZ	2.50	0.44
25:BA:2444:G:OP2	30:BF:68:LYS:HE2	2.17	0.44
34:BN:62:VAL:HG13	34:BN:62:VAL:O	2.17	0.44
25:BA:1464:C:C4'	25:BA:1528(A):A:H1'	2.44	0.44
22:AY:34:G:N3	22:AY:34:G:C2'	2.78	0.44
31:DG:138:GLN:HB3	31:DG:153:ARG:O	2.16	0.44
20:AT:69:GLY:O	20:AT:73:HIS:CD2	2.70	0.44
47:B0:24:LYS:N	47:B0:37:LEU:O	2.49	0.44
22:AW:70:G:C6	22:AW:71:G:C6	3.05	0.44
1:CA:1297:G:N2	1:CA:1299:A:H3'	2.32	0.44
25:DA:2553:G:H2'	25:DA:2554:U:H4'	1.99	0.44
25:DA:2554:U:C2	25:DA:2555:U:C5	3.04	0.44
48:D1:44:PRO:O	48:D1:46:LEU:N	2.50	0.44
36:BP:105:LEU:N	36:BP:105:LEU:CD2	2.73	0.44
39:DS:85:VAL:C	39:DS:106:ARG:HG3	2.38	0.44
30:BF:78:ILE:CD1	30:BF:78:ILE:H	2.24	0.44
22:AW:18:G:C2	22:AW:55:U:H1'	2.53	0.44
19:CS:31:ILE:O	19:CS:31:ILE:HG23	2.17	0.44
36:BP:30:THR:HG22	36:BP:31:ALA:N	2.27	0.44
26:BB:73:A:H2'	26:BB:74:U:C5'	2.47	0.44
18:AR:58:LEU:HB3	18:AR:62:GLU:HB2	1.98	0.44
25:BA:1485:G:H1'	25:BA:1505:C:N4	2.33	0.44
30:DF:170:LEU:HD23	30:DF:173:VAL:HG21	1.98	0.44
6:CF:68:PRO:HG3	6:CF:71:ARG:HH22	1.82	0.44
53:B6:12:GLU:HA	53:B6:23:THR:HA	1.99	0.44
25:BA:2195:C:C2'	25:BA:2196:C:H5'	2.48	0.44
6:CF:22:GLU:O	6:CF:26:ILE:HG13	2.17	0.44
1:AA:610:G:H2'	1:AA:611:G:C8	2.53	0.44
25:DA:142(A):C:O2'	25:DA:143:G:H5'	2.16	0.44
11:AK:65:ALA:HB1	11:AK:98:LEU:CD2	2.47	0.44
4:AD:80:GLU:HA	4:AD:80:GLU:OE2	2.18	0.44
7:CG:69:VAL:HG12	7:CG:100:ALA:HA	1.99	0.44
1:AA:699:A:N3	11:AK:117:ASN:O	2.50	0.44
2:AB:124:SER:OG	2:AB:125:PRO:HD2	2.16	0.44
13:AM:46:LYS:HG3	13:AM:47:ASP:OD1	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1309:G:C2'	25:BA:1310:G:H5'	2.48	0.44
1:CA:849:A:C5	1:CA:851:G:C8	3.06	0.44
29:DE:149:ARG:NH1	29:DE:149:ARG:HG3	2.32	0.44
56:B9:4:ARG:O	56:B9:36:GLN:HA	2.18	0.44
1:AA:164:U:O2'	1:AA:165:A:H5'	2.18	0.44
25:BA:2703:C:H2'	25:BA:2704:C:H6	1.82	0.44
41:DU:72:HIS:HE1	41:DU:107:ALA:CB	2.30	0.44
44:DX:5:TYR:CE1	49:D2:30:ARG:HB2	2.52	0.44
1:CA:790:A:C5	1:CA:791:C:C4	3.05	0.44
25:DA:1161:C:H1'	42:DV:8:GLY:O	2.17	0.44
48:D1:75:GLU:C	48:D1:77:ALA:H	2.21	0.44
1:AA:492:A:C2	1:AA:493:A:C2	3.06	0.44
25:BA:1992:G:O5'	25:BA:1992:G:C8	2.71	0.44
25:DA:2761:G:N3	25:DA:2761:G:H2'	2.32	0.44
25:DA:1208:C:C4	25:DA:1209:G:N7	2.86	0.44
1:CA:1314:A:H2'	1:CA:1315:G:O4'	2.18	0.44
51:B4:43:GLY:N	51:B4:59:VAL:O	2.50	0.44
25:DA:886:C:H2'	25:DA:887:A:C4'	2.47	0.44
32:DH:73:ALA:O	32:DH:76:VAL:HB	2.18	0.44
9:AI:104:ARG:O	9:AI:105:ASP:HB2	2.17	0.44
25:DA:2687:U:H2'	25:DA:2688:U:O4'	2.17	0.44
14:AN:23:ARG:O	14:AN:24:CYS:C	2.56	0.44
22:CW:21:A:C5	22:CW:48:C:C5	3.05	0.44
1:AA:1422:C:H2'	1:AA:1423:G:C5'	2.38	0.44
26:DB:85:G:O6	26:DB:93:G:C6	2.70	0.44
46:DZ:77:ASP:OD2	46:DZ:79:ARG:O	2.36	0.44
25:DA:314:A:H2'	25:DA:315:G:C8	2.53	0.44
25:BA:2126:A:O2'	25:BA:2127:G:OP2	2.36	0.44
25:BA:2801:A:H8	25:BA:2801(A):A:H62	1.66	0.44
39:DS:54:LEU:CD2	39:DS:54:LEU:H	2.28	0.44
8:AH:109:ILE:HG22	8:AH:137:VAL:HB	1.99	0.44
36:DP:50:ARG:HD3	55:D8:7:HIS:CD2	2.53	0.44
25:DA:95:G:H1'	49:D2:47:ASN:ND2	2.31	0.44
8:CH:41:ARG:NH2	8:CH:123:GLU:OE2	2.50	0.44
34:DN:56:ASN:CA	34:DN:125:GLY:H	2.08	0.44
25:DA:1203:G:OP2	25:DA:1204:A:H2'	2.17	0.44
25:DA:336:C:O3'	45:DY:7:VAL:HG13	2.18	0.44
36:BP:7:ARG:HB3	36:BP:8:PRO:CD	2.47	0.44
1:AA:1160:A:H5'	9:AI:102:LEU:HD12	1.99	0.44
25:DA:1899:G:H22	25:DA:1902:C:N4	2.13	0.44
1:CA:665:G:C6	1:CA:666:G:N7	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2482:G:H22	37:BQ:52:VAL:CG1	2.30	0.44
25:BA:1685:C:C3'	25:BA:1686:C:H5''	2.47	0.44
32:BH:155:SER:OG	32:BH:156:ALA:N	2.50	0.44
30:BF:132:VAL:CG2	30:BF:133:ASN:N	2.66	0.44
25:BA:353:G:N1	25:BA:354:G:C5	2.85	0.44
5:AE:11:ILE:HG22	5:AE:12:LEU:N	2.32	0.44
25:DA:353:G:N1	25:DA:354:G:C5	2.85	0.44
1:CA:1142:G:C6	1:CA:1143:C:C5	3.06	0.44
2:CB:51:LEU:HD23	2:CB:201:ILE:HD12	1.99	0.44
25:BA:2732:G:C3'	25:BA:2733:A:H5'	2.47	0.44
25:BA:2893:G:H8	25:BA:2893:G:H5'	1.83	0.44
25:BA:125:G:H4'	25:BA:126:A:OP2	2.18	0.44
15:AO:82:ILE:HD13	15:AO:82:ILE:C	2.36	0.44
4:CD:25:ARG:O	4:CD:27:TYR:N	2.51	0.44
31:BG:56:ALA:O	31:BG:60:LEU:HB2	2.18	0.44
26:BB:41:U:C5	31:BG:69:ALA:HB1	2.52	0.44
25:DA:2743:C:H2'	25:DA:2744:G:O4'	2.17	0.44
28:DD:44:ASN:HB3	28:DD:49:ILE:CA	2.41	0.44
2:AB:167:PRO:O	2:AB:171:ALA:N	2.50	0.44
29:DE:28:ALA:O	29:DE:29:GLY:C	2.55	0.44
1:CA:1171:G:H3'	3:CC:3:ASN:HD22	1.78	0.44
39:BS:85:VAL:C	39:BS:106:ARG:HG3	2.38	0.44
1:AA:209:U:H6	1:AA:209:U:O5'	2.00	0.44
46:BZ:33:LEU:HG	46:BZ:34:ASN:N	2.31	0.44
25:BA:1114:G:H2'	25:BA:1115:G:H5''	1.98	0.44
1:AA:828:G:H2'	1:AA:829:G:C8	2.52	0.44
25:BA:2742:C:OP1	56:B9:35:ARG:HD3	2.16	0.44
25:DA:1485:G:H1'	25:DA:1505:C:N4	2.32	0.44
31:BG:14:GLU:O	31:BG:17:PRO:HG2	2.17	0.44
31:BG:16:ARG:HH11	31:BG:16:ARG:HG3	1.82	0.44
10:AJ:13:HIS:ND1	10:AJ:14:LYS:HG3	2.33	0.44
46:BZ:44:PHE:C	46:BZ:44:PHE:CD1	2.90	0.44
35:DO:87:ILE:HG22	35:DO:88:ASN:O	2.17	0.44
3:AC:172:ARG:O	3:AC:173:VAL:CG2	2.65	0.44
3:AC:119:ARG:HG3	3:AC:119:ARG:HH11	1.82	0.44
48:D1:27:GLU:O	48:D1:28:GLY:C	2.55	0.44
5:CE:20:GLN:O	5:CE:21:ALA:C	2.55	0.44
4:AD:187:ARG:NH1	4:AD:187:ARG:HG2	2.31	0.44
25:DA:2033:A:O2'	25:DA:2034:U:O5'	2.36	0.44
25:DA:2571:C:H5'	25:DA:2572:A:H5''	1.97	0.44
1:CA:1197:G:H5''	14:CN:5:ALA:CB	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:65:ALA:CB	33:DI:131:LYS:HE2	2.48	0.44
25:DA:1603:A:H8	25:DA:1603:A:H5'	1.83	0.44
25:BA:2223:G:H2'	25:BA:2224:G:C5'	2.48	0.44
25:DA:1309:G:C2'	25:DA:1310:G:H5'	2.48	0.44
1:CA:885:A:H2'	1:CA:886:A:C8	2.53	0.44
25:DA:2223:G:H2'	25:DA:2224:G:C5'	2.48	0.44
1:CA:207:C:H42	1:CA:209:U:H1'	1.82	0.44
39:DS:59:LYS:HE3	39:DS:68:GLN:NE2	2.32	0.44
25:DA:1352:U:O2	25:DA:1570:A:H2	2.00	0.44
25:BA:225:A:H2'	25:BA:226:G:C5'	2.47	0.44
1:AA:143:A:H1'	1:AA:144:C:H5'	1.99	0.44
8:AH:36:LEU:HA	8:AH:39:LEU:HB2	1.98	0.44
25:BA:2409:G:H2'	25:BA:2410:G:O4'	2.18	0.44
30:BF:64:ILE:HG22	30:BF:76:GLY:O	2.18	0.44
20:CT:87:LYS:O	20:CT:91:LEU:HG	2.17	0.44
9:CI:35:GLU:O	9:CI:38:GLN:HB2	2.17	0.44
25:BA:384:U:H2'	25:BA:385:C:C6	2.53	0.44
48:B1:75:GLU:C	48:B1:77:ALA:H	2.21	0.44
25:BA:2248:C:C2'	25:BA:2249:U:H5'	2.47	0.44
7:CG:95:ARG:HH11	7:CG:95:ARG:HG3	1.82	0.44
25:DA:384:U:H2'	25:DA:385:C:H6	1.83	0.44
25:DA:1274:A:N3	25:DA:1297:C:H1'	2.32	0.44
40:BT:137:LYS:HD3	40:BT:137:LYS:HA	1.82	0.44
27:DC:191:ALA:O	27:DC:195:ALA:HB3	2.17	0.44
51:B4:52:SER:OG	51:B4:53:THR:N	2.50	0.44
13:CM:91:ARG:HH11	19:CS:81:ARG:HH22	1.65	0.44
40:DT:45:PHE:HE2	40:DT:63:VAL:HB	1.82	0.44
20:CT:26:ASN:HB2	20:CT:71:THR:HG21	1.77	0.44
25:BA:2262:U:H2'	25:BA:2263:C:H5'	2.00	0.44
25:DA:2719:G:OP1	40:DT:100:TYR:OH	2.36	0.44
41:BU:79:PHE:C	41:BU:79:PHE:HD2	2.20	0.44
22:CW:1:G:N1	22:CW:2:C:N3	2.66	0.44
22:CW:2:C:C2	22:CW:3:C:C5	3.05	0.44
31:BG:101:ILE:O	31:BG:105:LYS:HG3	2.18	0.44
1:AA:1042:C:H4'	10:AJ:52:GLY:N	2.33	0.44
22:CW:13:C:O2	22:CW:14:A:C8	2.70	0.44
26:DB:88:C:N4	26:DB:89:G:N1	2.64	0.44
55:B8:64:TYR:CD1	55:B8:64:TYR:N	2.86	0.44
41:DU:92:ARG:CD	42:DV:11:GLN:CD	2.82	0.44
39:BS:26:LEU:HA	39:BS:38:GLN:O	2.18	0.44
9:AI:17:VAL:HG22	9:AI:63:ILE:HD13	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:6:PHE:HD2	5:CE:36:ASP:HB3	1.83	0.44
31:BG:161:THR:CG2	31:BG:162:THR:N	2.79	0.44
1:AA:931:G:H2'	1:AA:932:U:C6	2.53	0.44
23:AV:30:G:N1	23:AV:43:G:C4	2.85	0.44
42:DV:28:GLU:O	42:DV:29:PRO:O	2.36	0.44
4:CD:127:THR:HG23	4:CD:149:ALA:HB2	2.00	0.44
1:AA:1275:G:H2'	1:AA:1276:G:H8	1.81	0.44
37:DQ:37:LEU:HD21	37:DQ:130:LYS:CB	2.45	0.44
34:DN:62:VAL:HG13	34:DN:62:VAL:O	2.17	0.44
25:DA:2469:A:C2	25:DA:2470:G:H1'	2.51	0.44
5:AE:6:PHE:HD2	5:AE:36:ASP:HB3	1.79	0.44
30:DF:68:LYS:HB3	30:DF:69:HIS:H	1.43	0.44
32:BH:94:TYR:CG	32:BH:107:VAL:HG12	2.53	0.44
1:CA:1277:C:H5'	13:CM:44:ARG:HH22	1.82	0.44
25:BA:1652:A:N6	38:BR:11:ASN:HD22	1.87	0.44
5:CE:78:HIS:CB	8:CH:104:ARG:HG3	2.47	0.44
5:CE:148:VAL:HG21	8:CH:107:LEU:HD22	2.00	0.44
38:DR:11:ASN:O	38:DR:12:ARG:CG	2.60	0.44
25:DA:1953:A:C2	25:DA:2549:G:N3	2.84	0.44
25:BA:1446:C:H2'	25:BA:1447:G:H5'	1.98	0.44
5:AE:31:LEU:HA	5:AE:31:LEU:HD22	1.89	0.44
25:DA:2808:U:H5'	25:DA:2891:G:O6	2.16	0.44
31:DG:161:THR:CG2	31:DG:162:THR:N	2.79	0.44
29:DE:128:SER:O	29:DE:130:GLY:N	2.50	0.44
32:BH:121:ILE:HD13	32:BH:141:VAL:HG22	1.99	0.44
25:BA:2846:G:H2'	25:BA:2847:U:C6	2.53	0.44
25:BA:271(M):G:O2'	25:BA:271(N):U:H3'	2.18	0.44
25:DA:664:C:O3'	25:DA:941:A:OP1	2.36	0.44
25:DA:2744:G:H21	32:DH:143:GLN:HE22	1.65	0.44
33:DI:15:VAL:C	33:DI:17:GLN:H	2.21	0.44
25:DA:1847:A:H3'	25:DA:1848:A:C5'	2.48	0.44
36:BP:120:ALA:HB1	36:BP:138:LEU:HD12	2.00	0.44
36:DP:91:PHE:H	36:DP:91:PHE:HD1	1.61	0.44
34:DN:27:ALA:HA	34:DN:30:ILE:HB	1.98	0.44
25:DA:1025:G:C4	25:DA:1135:C:H1'	2.52	0.44
1:AA:1487:U:H2'	1:AA:1488:G:H8	1.75	0.44
22:AW:57:G:N2	22:AW:58:A:H4'	2.33	0.44
19:AS:15:LEU:N	19:AS:15:LEU:HD22	2.33	0.44
5:AE:150:ARG:HB2	5:AE:150:ARG:NH1	2.32	0.44
29:DE:11:MET:CB	29:DE:24:THR:HA	2.47	0.44
38:BR:34:ILE:HG22	38:BR:35:THR:N	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1080:C:H2'	1:AA:1081:G:O4'	2.18	0.44
4:CD:110:PHE:HD1	4:CD:110:PHE:N	2.15	0.44
1:CA:1056:G:O3'	2:CB:103:THR:CG2	2.66	0.44
31:DG:64:THR:CG2	31:DG:65:GLY:H	2.26	0.44
46:BZ:14:LYS:C	46:BZ:16:SER:N	2.71	0.44
36:BP:140:ALA:O	36:BP:141:ALA:CB	2.66	0.44
25:DA:2195:C:C2'	25:DA:2196:C:H5'	2.47	0.44
25:BA:1192:G:C2'	25:BA:1193:G:H5'	2.48	0.44
25:DA:1337:G:H2'	25:DA:1338:G:H8	1.82	0.44
1:AA:1387:G:H1'	1:AA:1496:A:C4'	2.47	0.44
43:BW:27:LYS:CE	43:BW:31:GLU:HG2	2.48	0.44
9:CI:47:LEU:N	9:CI:47:LEU:CD1	2.81	0.44
25:DA:2672:G:H3'	25:DA:2673:G:H5''	1.97	0.44
25:DA:2150:U:H2'	25:DA:2151:G:H8	1.79	0.44
41:BU:57:PHE:O	41:BU:59:ARG:N	2.50	0.44
25:BA:1603:A:H5'	25:BA:1603:A:H8	1.83	0.44
25:BA:221:A:O2'	25:BA:222:A:OP2	2.32	0.44
1:AA:35:G:C2	1:AA:533:G:N3	2.85	0.44
1:AA:168:C:H2'	1:AA:169:C:H6	1.82	0.44
38:BR:104:ARG:NH1	38:BR:109:ALA:HB3	2.33	0.44
12:AL:77:LEU:HD21	12:AL:107:ALA:CB	2.47	0.44
1:CA:1400:A:C2	1:CA:1460:A:C2	3.06	0.44
25:DA:921:G:H4'	25:DA:2269:A:C5	2.52	0.44
43:BW:17:VAL:O	43:BW:20:VAL:N	2.49	0.44
31:BG:165:THR:OG1	31:BG:168:GLU:CB	2.66	0.44
16:AP:6:LEU:HD12	16:AP:6:LEU:N	2.33	0.44
20:AT:24:LEU:O	20:AT:24:LEU:HD13	2.18	0.44
1:AA:898:U:O2	5:AE:19:MET:HB2	2.16	0.44
43:DW:84:ARG:HB2	43:DW:96:ILE:HG22	1.99	0.44
49:D2:8:LYS:O	49:D2:11:GLU:N	2.50	0.44
25:BA:1037:G:H1	25:BA:1118:C:H42	1.64	0.44
1:AA:1370:C:H2'	1:AA:1371:C:C6	2.53	0.44
46:DZ:21:ALA:HB3	46:DZ:23:LYS:HD3	1.98	0.44
1:CA:926:A:C2	1:CA:1214:G:N3	2.85	0.44
25:DA:1550:C:H2'	25:DA:1551:C:H6	1.82	0.44
25:BA:2761:G:H2'	25:BA:2761:G:N3	2.32	0.44
28:BD:23:GLU:HA	28:BD:23:GLU:OE2	2.18	0.44
35:BO:29:ASN:OD1	35:BO:29:ASN:N	2.49	0.44
1:CA:1209:C:OP1	13:CM:115:LYS:HE3	2.17	0.44
29:BE:34:VAL:O	29:BE:35:GLN:CB	2.58	0.44
45:DY:54:LYS:HD3	45:DY:55:TYR:CZ	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:53:LEU:CG	20:CT:102:GLY:HA3	2.39	0.44
25:DA:2846:G:H2'	25:DA:2847:U:C6	2.53	0.44
25:BA:2073:C:O2'	25:BA:2074:U:H5'	2.18	0.44
41:BU:111:GLU:OE2	41:BU:111:GLU:HA	2.18	0.44
41:BU:92:ARG:C	41:BU:94:ASN:N	2.70	0.44
14:AN:27:CYS:O	14:AN:29:ARG:N	2.51	0.44
26:DB:83:G:H2'	26:DB:84:C:C6	2.53	0.44
36:BP:48:PRO:HG2	36:BP:49:ARG:N	2.29	0.44
25:DA:2172:U:C2'	25:DA:2173:A:OP1	2.65	0.44
25:BA:308:G:H1'	25:BA:329:G:N2	2.32	0.44
31:BG:111:LEU:HA	31:BG:114:ILE:HD12	1.94	0.44
26:BB:6:C:C2	26:BB:116:G:N2	2.85	0.44
30:BF:36:VAL:HG12	30:BF:183:VAL:HG21	1.99	0.44
28:DD:83:GLU:OE1	28:DD:104:TYR:OH	2.31	0.44
25:BA:271(Q):G:C6	25:BA:271(R):G:O6	2.71	0.44
9:CI:17:VAL:HG22	9:CI:63:ILE:HD13	1.99	0.44
7:CG:82:GLY:O	22:CW:37:A:N1	2.51	0.44
25:DA:859:G:O4'	25:DA:2268:A:H1'	2.17	0.44
1:AA:1089:C:C4	1:AA:1090:G:C8	3.06	0.44
2:CB:19:HIS:CG	2:CB:20:GLU:H	2.35	0.44
2:CB:39:ILE:CG2	2:CB:40:HIS:N	2.80	0.44
42:DV:61:VAL:HA	42:DV:94:LEU:HD23	2.00	0.44
33:DI:114:LEU:O	33:DI:115:ALA:CB	2.65	0.44
2:AB:27:LYS:C	2:AB:29:ALA:H	2.20	0.44
30:DF:3:GLU:HG3	30:DF:19:GLU:CG	2.48	0.44
22:AW:53:G:N1	22:AW:54:U:C4	2.86	0.44
5:AE:105:VAL:N	5:AE:106:PRO:HD2	2.32	0.44
25:DA:348:G:C4	25:DA:349:G:C8	3.06	0.44
25:DA:971:C:C2'	25:DA:972:G:H5'	2.48	0.44
31:DG:152:LEU:HG	31:DG:153:ARG:N	2.33	0.44
46:DZ:85:HIS:C	46:DZ:85:HIS:ND1	2.70	0.44
37:DQ:141:GLN:HB2	46:DZ:98:MET:HA	2.00	0.44
15:AO:25:THR:O	15:AO:26:GLU:C	2.55	0.44
29:BE:11:MET:O	40:BT:8:LYS:NZ	2.50	0.44
23:AV:25:U:O2	23:AV:26:C:C1'	2.66	0.44
31:BG:39:ILE:HB	31:BG:157:ILE:HG22	1.99	0.44
25:DA:2134:A:H2	25:DA:2159:G:H1'	1.72	0.44
1:AA:1140:C:C2	1:AA:1162:G:N2	2.85	0.44
41:BU:31:SER:CB	41:BU:34:LYS:HB2	2.44	0.44
1:AA:1219:A:C8	1:AA:1284:C:H1'	2.52	0.44
15:CO:39:LEU:CD1	15:CO:56:LEU:HB2	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:208:ILE:HG22	2:CB:212:GLN:HB2	2.00	0.44
2:AB:167:PRO:O	2:AB:168:THR:C	2.56	0.44
18:CR:66:LEU:CD1	18:CR:70:ILE:HD11	2.37	0.44
35:DO:1:MET:HE3	35:DO:1:MET:H3	1.81	0.44
4:AD:25:ARG:O	4:AD:27:TYR:N	2.50	0.44
43:BW:68:ARG:HD2	43:BW:110:LYS:HB2	1.97	0.44
25:BA:320:A:H3'	30:BF:136:THR:HG22	1.99	0.44
46:BZ:157:LEU:HA	46:BZ:158:PRO:HD2	1.80	0.44
31:DG:101:ILE:O	31:DG:105:LYS:HG3	2.18	0.44
1:CA:853:G:O6	1:CA:854:C:N4	2.51	0.44
42:BV:16:PRO:O	42:BV:96:ILE:O	2.34	0.44
26:DB:60:C:H2'	26:DB:61:G:C8	2.42	0.44
55:B8:29:LYS:HE2	55:B8:44:LYS:HB3	1.99	0.44
31:BG:46:ALA:HB3	31:BG:82:LEU:HD11	1.99	0.44
25:BA:2685:G:OP1	40:BT:51:ARG:NH2	2.27	0.44
25:BA:2687:U:H2'	25:BA:2688:U:O4'	2.17	0.44
13:CM:123:ALA:HB2	22:CY:39:U:C4'	2.48	0.44
35:BO:99:PHE:CD1	35:BO:99:PHE:N	2.86	0.44
25:BA:1221(A):C:O2'	25:BA:1222:C:H5'	2.18	0.44
1:CA:1405:G:C2	1:CA:1455:C:C2	3.05	0.44
31:DG:173:LEU:HD22	31:DG:178:PHE:CE2	2.53	0.44
1:CA:964:G:H1	1:CA:1199:C:N4	2.16	0.44
1:CA:1005:C:H1'	1:CA:1017:A:C2	2.51	0.44
1:CA:1236:G:C6	1:CA:1260:A:C8	3.06	0.44
1:AA:607:C:O2'	1:AA:608:G:H5'	2.18	0.44
10:CJ:56:HIS:C	10:CJ:58:ASP:H	2.20	0.44
29:DE:119:ARG:HG2	29:DE:160:TYR:CD2	2.53	0.44
43:BW:22:ASP:HA	43:BW:25:ARG:NH1	2.28	0.44
11:AK:31:THR:O	11:AK:31:THR:HG23	2.17	0.44
29:BE:111:ARG:CD	29:BE:160:TYR:HE1	2.31	0.44
20:AT:63:ILE:HD12	20:AT:81:LYS:HG2	1.99	0.44
44:BX:57:LEU:HD21	44:BX:78:LYS:HE2	1.98	0.44
53:B6:30:THR:HB	53:B6:31:PRO:CD	2.46	0.44
43:DW:10:VAL:HG23	43:DW:101:SER:O	2.17	0.44
12:AL:126:LYS:HE2	12:AL:127:GLU:H	1.82	0.44
25:BA:228:A:H2'	25:BA:230:U:O4'	2.18	0.44
25:DA:2735:G:H2'	25:DA:2736:G:C8	2.53	0.44
8:CH:97:VAL:HG13	8:CH:98:LYS:N	2.32	0.44
50:D3:35:ARG:NH1	50:D3:35:ARG:HG3	2.31	0.44
16:AP:64:ALA:O	16:AP:65:GLN:C	2.56	0.44
6:CF:42:GLU:C	6:CF:44:GLY:N	2.70	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:223:ILE:O	2:CB:227:GLY:N	2.51	0.44
30:BF:139:PHE:HB3	30:BF:166:ALA:HB1	1.98	0.44
27:BC:214:VAL:O	27:BC:216:THR:N	2.51	0.44
55:B8:7:HIS:CD2	55:B8:59:LYS:NZ	2.86	0.44
19:AS:35:SER:C	19:AS:37:ARG:N	2.70	0.44
49:B2:8:LYS:O	49:B2:11:GLU:N	2.50	0.44
13:AM:17:VAL:O	13:AM:20:THR:HB	2.17	0.44
3:CC:142:MET:C	3:CC:144:SER:H	2.21	0.44
36:BP:136:GLU:O	36:BP:139:LYS:HB3	2.17	0.44
1:CA:816:U:H3	1:CA:830:G:H1	1.66	0.44
25:BA:2017:U:O2	52:B5:10:LYS:HB2	2.18	0.44
18:CR:63:GLN:OE1	18:CR:63:GLN:HA	2.17	0.44
1:AA:1434:G:H2'	1:AA:1435:G:H8	1.83	0.44
1:CA:794:C:O2'	1:CA:878:A:N1	2.50	0.44
1:CA:797:A:O2'	1:CA:798:A:H5'	2.18	0.44
3:CC:120:VAL:O	3:CC:121:ALA:C	2.54	0.44
13:CM:92:HIS:CE1	13:CM:98:VAL:HG21	2.52	0.44
40:DT:58:ASN:O	40:DT:58:ASN:OD1	2.35	0.44
50:D3:2:PRO:O	50:D3:39:ASP:HB3	2.16	0.44
1:AA:960:A:H3'	1:AA:960:A:N3	2.33	0.44
10:AJ:51:ARG:NE	10:AJ:61:GLU:HB2	2.33	0.44
22:CW:19:G:C8	22:CW:19:G:OP2	2.70	0.44
25:DA:306:U:C5	25:DA:307:G:C5	3.05	0.44
45:BY:17:SER:HB3	45:BY:71:LYS:CD	2.44	0.44
36:BP:66:GLY:O	36:BP:67:MET:CB	2.65	0.44
41:DU:111:GLU:OE2	41:DU:111:GLU:HA	2.18	0.44
25:BA:2801(A):A:C2	25:BA:2803:C:O2	2.71	0.44
31:DG:106:LEU:CA	31:DG:110:ALA:HB3	2.44	0.44
39:DS:20:ARG:HA	39:DS:20:ARG:HD3	1.76	0.44
9:CI:28:VAL:CG2	9:CI:63:ILE:HB	2.27	0.44
25:BA:2283:C:C2'	25:BA:2284:C:H5'	2.47	0.44
8:CH:109:ILE:HD11	8:CH:120:THR:CG2	2.48	0.44
4:AD:150:GLU:O	4:AD:153:ARG:HG3	2.18	0.44
33:DI:54:GLN:O	33:DI:57:ARG:CA	2.66	0.44
2:AB:19:HIS:CG	2:AB:20:GLU:H	2.35	0.44
36:BP:8:PRO:O	36:BP:9:ASN:HB3	2.17	0.44
32:BH:43:VAL:CG1	32:BH:52:VAL:HA	2.30	0.44
25:DA:272:G:N1	25:DA:421:U:N3	2.66	0.44
32:BH:91:GLY:O	32:BH:92:ILE:O	2.35	0.44
32:DH:127:GLU:HB3	32:DH:128:PRO:HD2	2.00	0.44
32:DH:128:PRO:HG2	32:DH:129:THR:HG23	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:108:SER:HB3	29:BE:165:VAL:HG21	1.99	0.44
25:BA:353:G:C2'	25:BA:354:G:H5'	2.47	0.44
25:DA:353:G:C2'	25:DA:354:G:H5'	2.47	0.44
1:CA:1145:C:H2'	1:CA:1146:G:C8	2.53	0.44
25:DA:2611:U:O2	52:D5:3:LYS:HE3	2.18	0.44
2:CB:236:TYR:N	2:CB:236:TYR:CD1	2.85	0.44
53:B6:19:ARG:H	53:B6:19:ARG:CD	2.30	0.44
47:B0:70:GLN:OE1	47:B0:72:ARG:HD3	2.17	0.44
9:CI:8:GLY:HA2	9:CI:79:LEU:HB3	1.99	0.44
21:CU:6:ARG:HG3	21:CU:15:ARG:NH1	2.33	0.44
31:DG:42:GLY:O	31:DG:43:LEU:HB2	2.17	0.44
37:DQ:141:GLN:HB2	46:DZ:99:TYR:HD2	1.83	0.44
25:DA:2849:U:P	40:DT:95:ARG:NE	2.91	0.44
25:DA:125:G:H4'	25:DA:126:A:OP2	2.18	0.44
25:BA:1301:A:O2'	25:BA:1302:A:P	2.76	0.44
32:DH:121:ILE:HD13	32:DH:141:VAL:HG22	1.99	0.44
7:CG:49:ILE:CG2	7:CG:53:LYS:HD2	2.45	0.44
48:B1:62:VAL:HG22	48:B1:63:ALA:N	2.32	0.44
2:AB:171:ALA:HA	2:AB:174:VAL:CG2	2.47	0.44
36:BP:111:ARG:NH1	36:BP:149:GLU:HG3	2.32	0.44
11:CK:27:ASN:HA	11:CK:55:LYS:O	2.17	0.44
51:D4:48:ILE:HD12	51:D4:48:ILE:N	2.24	0.44
28:BD:13:ARG:HA	28:BD:16:MET:HB2	1.98	0.44
25:BA:301:G:C6	25:BA:317:G:C5	3.06	0.44
19:CS:72:GLY:C	19:CS:74:PHE:H	2.21	0.44
25:DA:7:G:OP1	34:DN:121:LYS:NZ	2.51	0.44
38:DR:28:LEU:CD1	38:DR:28:LEU:C	2.82	0.44
25:DA:1109:C:C5	25:DA:1110:G:C5	3.06	0.44
1:CA:578:G:O4'	1:CA:579:C:H5	2.00	0.44
1:AA:1286:G:C2	1:AA:1312:G:N3	2.85	0.44
31:DG:51:ARG:CZ	31:DG:53:LEU:HD21	2.48	0.44
25:BA:2755:C:C4	56:B9:19:ARG:NH1	2.85	0.44
55:D8:29:LYS:HE2	55:D8:44:LYS:HB3	1.99	0.44
27:DC:83:ILE:HA	27:DC:94:VAL:HG21	1.98	0.44
22:AY:36:A:N6	24:AX:19:U:H3	2.14	0.44
30:BF:80:ALA:O	30:BF:83:PHE:HB2	2.18	0.44
1:AA:1490:A:H2'	1:AA:1491:C:H6	1.81	0.44
1:AA:437:C:H2'	1:AA:438:C:C6	2.53	0.44
3:CC:95:THR:O	3:CC:97:LYS:N	2.51	0.44
7:AG:140:ASP:HA	7:AG:143:ARG:HH11	1.82	0.44
2:CB:121:LEU:HD11	2:CB:130:ARG:HD2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:65:ALA:CA	33:DI:131:LYS:HE2	2.46	0.44
9:AI:55:ALA:HB1	9:AI:59:PHE:CE1	2.53	0.44
13:AM:49:THR:N	13:AM:52:GLU:OE1	2.48	0.44
25:DA:1407:C:H42	25:DA:1595:G:H1	1.66	0.44
25:DA:875:G:H2'	25:DA:876:C:O4'	2.17	0.44
3:CC:126:ARG:HG2	3:CC:126:ARG:NH1	2.32	0.44
1:AA:547:C:H5'	17:AQ:32:TYR:CE2	2.52	0.44
38:BR:33:ARG:HD2	38:BR:33:ARG:N	2.33	0.44
17:AQ:65:ILE:HD11	17:AQ:72:ARG:HG2	1.99	0.44
11:AK:96:ARG:HA	11:AK:99:GLN:CG	2.47	0.44
1:CA:109:A:C4	1:CA:110:G:C8	3.06	0.44
1:CA:109:A:H2'	1:CA:110:G:C8	2.53	0.44
1:CA:985:C:H2'	1:CA:986:C:H6	1.82	0.44
25:BA:2637:U:C2'	25:BA:2638:G:H5'	2.48	0.44
1:AA:115:G:H2'	1:AA:116:C:O4'	2.17	0.44
25:BA:1550:C:H2'	25:BA:1551:C:H6	1.82	0.44
28:DD:218:ARG:HB3	28:DD:219:PRO:HD2	1.98	0.44
54:D7:24:THR:HG23	54:D7:27:GLY:H	1.82	0.44
25:DA:1451:C:N3	25:DA:1459:G:O6	2.50	0.44
40:BT:3:ARG:HG3	40:BT:6:LEU:HB2	1.98	0.44
28:BD:213:ARG:HD2	28:BD:213:ARG:HA	1.53	0.44
7:CG:6:ARG:HG2	7:CG:6:ARG:O	2.17	0.44
1:AA:713:G:C5	1:AA:714:G:H1'	2.53	0.44
1:CA:1207:C:H42	13:CM:104:ARG:HD2	1.83	0.44
13:CM:88:ARG:HG2	13:CM:98:VAL:HG11	2.00	0.44
40:DT:29:ARG:HD3	40:DT:84:GLN:C	2.37	0.44
13:AM:97:PRO:N	13:AM:110:ARG:HD2	2.30	0.44
25:DA:97:C:H5''	49:D2:2:LYS:HB3	1.95	0.44
22:CW:1:G:C2	22:CW:2:C:C2	3.05	0.44
55:D8:61:LEU:N	55:D8:61:LEU:CD1	2.79	0.44
39:BS:30:ARG:NH2	39:BS:62:LYS:HD2	2.23	0.44
25:BA:283:A:HO2'	25:BA:284:U:P	2.41	0.44
10:CJ:48:THR:CB	10:CJ:62:HIS:HB3	2.48	0.44
14:CN:23:ARG:NH1	14:CN:30:ALA:HB2	2.33	0.44
25:DA:2313:C:OP1	31:DG:71:THR:CG2	2.65	0.44
25:BA:859:G:O4'	25:BA:2268:A:H1'	2.17	0.44
25:DA:666:G:O2'	25:DA:667:U:H5'	2.17	0.44
12:CL:26:ALA:O	12:CL:33:ARG:HD2	2.18	0.44
7:CG:154:TYR:O	7:CG:156:TRP:N	2.50	0.44
7:CG:78:ARG:CD	7:CG:79:ARG:H	2.24	0.44
28:DD:142:VAL:HG21	28:DD:191:ALA:HB1	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:76:ILE:HG13	5:AE:142:LEU:HD13	1.99	0.44
25:DA:271(M):G:O2'	25:DA:271(N):U:H3'	2.18	0.44
33:DI:53:ALA:O	33:DI:56:LYS:CG	2.66	0.44
33:BI:109:ILE:N	33:BI:109:ILE:HD12	2.33	0.44
33:DI:109:ILE:HD12	33:DI:109:ILE:N	2.33	0.44
30:DF:187:VAL:HG12	36:DP:7:ARG:NH2	2.33	0.44
36:DP:7:ARG:HB3	36:DP:8:PRO:CD	2.47	0.44
2:AB:25:ASN:OD1	2:AB:27:LYS:HB2	2.18	0.44
32:BH:41:MET:CA	32:BH:53:GLU:HB2	2.48	0.44
1:CA:916:G:H5''	7:CG:102:ARG:HH22	1.79	0.44
25:DA:1344:G:N3	25:DA:1385:G:O4'	2.50	0.44
32:DH:97:ARG:O	32:DH:125:VAL:HG11	2.18	0.44
2:AB:236:TYR:CD1	2:AB:236:TYR:N	2.85	0.44
22:AW:66:U:H5''	53:B6:28:ARG:HH22	1.81	0.44
38:BR:9:LYS:HE2	38:BR:43:GLU:OE2	2.16	0.44
25:BA:971:C:C2'	25:BA:972:G:H5'	2.47	0.44
25:BA:971:C:O2'	25:BA:972:G:H5'	2.18	0.44
37:DQ:51:ARG:CB	37:DQ:51:ARG:HH11	2.31	0.44
25:BA:2692:C:H1'	25:BA:2847:U:O2'	2.18	0.44
3:CC:189:ALA:O	3:CC:191:THR:N	2.50	0.44
31:BG:152:LEU:HG	31:BG:153:ARG:N	2.33	0.44
32:DH:85:LYS:HD3	32:DH:133:VAL:CB	2.41	0.44
25:BA:379:G:C6	25:BA:380:U:N3	2.86	0.44
25:DA:579:G:H2'	25:DA:580:C:C6	2.53	0.44
7:CG:44:TYR:C	7:CG:46:ALA:N	2.70	0.44
34:DN:57:ALA:O	34:DN:58:ASP:C	2.56	0.44
1:CA:1302:C:C3'	1:CA:1303:C:H5''	2.47	0.44
25:DA:2479:G:OP1	25:DA:2537:U:H1'	2.18	0.44
11:CK:21:ILE:HG13	11:CK:30:VAL:CG1	2.46	0.44
36:DP:146:VAL:CG1	36:DP:147:LEU:H	2.28	0.44
5:AE:20:GLN:O	5:AE:21:ALA:C	2.56	0.44
22:AY:28:G:N2	22:AY:42:C:H42	2.13	0.44
25:DA:1614:A:H62	43:DW:93:ALA:CB	2.23	0.44
41:DU:57:PHE:O	41:DU:59:ARG:N	2.50	0.44
9:AI:89:ASN:C	9:AI:91:ASP:H	2.21	0.44
7:CG:153:HIS:CE1	11:CK:57:THR:HG23	2.53	0.44
25:DA:1051:G:N2	25:DA:1052:C:C5	2.83	0.44
25:DA:1668:A:H4'	25:DA:1669:A:O5'	2.18	0.44
1:AA:42:G:HO2'	1:AA:605:A:H2	1.65	0.44
25:DA:1717:G:C2'	25:DA:1718:G:H5''	2.47	0.44
17:CQ:83:ASP:O	17:CQ:86:GLU:HB2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:148:GLY:N	3:CC:203:PHE:HB3	2.33	0.44
49:D2:40:SER:C	49:D2:42:GLY:H	2.21	0.44
6:CF:7:ASN:O	6:CF:8:ILE:HG13	2.18	0.44
28:BD:161:THR:HG1	28:BD:196:VAL:HG21	1.82	0.44
9:CI:33:PHE:CZ	9:CI:47:LEU:HD13	2.53	0.44
2:AB:114:ARG:HG3	2:AB:114:ARG:NH1	2.30	0.44
3:CC:134:ILE:HG23	3:CC:151:VAL:HB	2.00	0.44
25:DA:2287:A:N1	25:DA:2346:A:C2	2.81	0.44
25:BA:83:G:C2	25:BA:102:G:H2'	2.53	0.44
25:DA:1384:A:H1'	25:DA:1405:U:O4'	2.18	0.44
25:BA:878:A:N6	25:BA:899:A:O2'	2.51	0.44
18:AR:26:LEU:HD21	18:AR:42:ARG:CZ	2.47	0.44
25:BA:2773:C:OP1	29:BE:166:THR:OG1	2.34	0.44
25:DA:207:A:H2'	25:DA:208:C:O4'	2.17	0.44
1:CA:1482:G:H5''	1:CA:1483:U:OP1	2.17	0.44
8:CH:77:GLU:HG2	8:CH:78:GLN:N	2.32	0.44
25:DA:2869:G:H2'	25:DA:2870:C:C6	2.52	0.44
1:CA:274:A:OP2	17:CQ:95:TYR:OH	2.19	0.44
46:BZ:109:ALA:O	46:BZ:111:VAL:HG12	2.16	0.44
12:AL:58:VAL:O	12:AL:60:LEU:HD22	2.18	0.44
4:AD:100:ARG:CZ	4:AD:137:SER:HA	2.48	0.44
1:AA:1149:A:O5'	1:AA:1149:A:C8	2.71	0.44
25:BA:237:C:O2'	25:BA:238:C:H5'	2.18	0.44
25:DA:2408:U:O5'	25:DA:2408:U:H6	2.01	0.44
25:DA:2409:G:H2'	25:DA:2410:G:O4'	2.18	0.44
25:BA:2626:C:O2'	25:BA:2627:G:H5'	2.18	0.44
25:DA:2626:C:O2'	25:DA:2627:G:H5'	2.18	0.44
1:AA:1113:G:H2'	1:AA:1114:C:C6	2.52	0.44
11:AK:19:ALA:HB3	11:AK:82:VAL:HG23	1.99	0.44
25:BA:1208:C:C4	25:BA:1209:G:N7	2.86	0.44
1:AA:418:G:H2'	1:AA:419:G:O4'	2.18	0.44
46:BZ:77:ASP:OD2	46:BZ:79:ARG:O	2.36	0.44
25:BA:384:U:H2'	25:BA:385:C:H6	1.83	0.44
27:DC:127:LEU:O	27:DC:129:ARG:N	2.51	0.44
25:DA:1600:C:O2'	25:DA:1601:G:H5'	2.18	0.44
1:AA:666:G:H2'	1:AA:667:A:C8	2.53	0.44
35:DO:61:VAL:HG22	35:DO:62:VAL:O	2.18	0.44
25:BA:579:G:H2'	25:BA:580:C:C6	2.53	0.44
25:BA:2441:C:H4'	25:BA:2441:C:OP1	2.18	0.44
29:BE:66:HIS:ND1	29:BE:66:HIS:O	2.38	0.44
30:BF:72:ARG:HA	30:BF:72:ARG:HH11	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:90:LEU:O	13:CM:91:ARG:CB	2.62	0.44
29:BE:70:ALA:O	29:BE:71:GLY:O	2.35	0.44
32:DH:30:LYS:CE	32:DH:81:GLU:HG2	2.46	0.44
25:DA:2262:U:H2'	25:DA:2263:C:H5'	1.99	0.44
25:DA:909:A:H2'	25:DA:912:C:H5	1.82	0.44
6:AF:79:LEU:O	6:AF:85:VAL:HG21	2.18	0.44
22:CW:66:U:H2'	22:CW:67:C:O4'	2.18	0.44
31:BG:2:PRO:HD3	51:B4:51:TYR:CB	2.44	0.44
25:DA:330:A:H2	25:DA:1210:A:H2'	1.83	0.44
25:BA:2420:C:OP1	55:B8:34:TRP:HB2	2.18	0.44
38:BR:76:VAL:O	38:BR:79:LEU:HB3	2.18	0.44
25:BA:2169:A:O2'	25:BA:2170:A:H5'	2.18	0.44
31:BG:18:GLU:OE2	31:BG:21:ARG:NH1	2.51	0.44
31:BG:114:ILE:O	31:BG:115:ARG:C	2.55	0.44
13:CM:4:ILE:CD1	13:CM:22:ILE:HD11	2.47	0.44
5:CE:105:VAL:N	5:CE:106:PRO:HD2	2.33	0.44
5:CE:33:VAL:O	5:CE:112:LEU:CD1	2.66	0.44
25:DA:2758:A:C4	32:DH:67:LEU:HD21	2.52	0.44
10:CJ:50:ILE:CD1	10:CJ:50:ILE:N	2.66	0.44
33:BI:4:ILE:HD13	33:BI:47:LEU:HD13	1.99	0.44
2:CB:40:HIS:HB2	2:CB:190:THR:HG21	1.98	0.44
1:CA:249:G:O2'	1:CA:250:G:H5'	2.18	0.44
50:B3:23:LEU:HD12	50:B3:50:VAL:HG11	1.99	0.44
30:DF:187:VAL:CG1	36:DP:7:ARG:HH21	2.30	0.44
34:DN:62:VAL:HG22	34:DN:66:LYS:HB2	2.00	0.44
25:DA:2481:G:H4'	25:DA:2482:G:H5'	2.00	0.44
25:BA:2482:G:N2	37:BQ:52:VAL:HG11	2.32	0.44
46:BZ:56:VAL:HG12	46:BZ:57:ILE:O	2.18	0.44
32:DH:155:SER:OG	32:DH:156:ALA:N	2.50	0.44
45:BY:27:VAL:CA	45:BY:28:LYS:HZ2	2.29	0.44
34:BN:62:VAL:HG22	34:BN:66:LYS:HD2	1.99	0.44
25:BA:285:C:C3'	25:BA:286:C:H5''	2.47	0.44
25:BA:569:U:C4	25:BA:570:G:C6	3.05	0.44
5:CE:126:ARG:NH1	5:CE:126:ARG:CG	2.75	0.44
31:DG:56:ALA:O	31:DG:60:LEU:HB2	2.18	0.44
25:DA:1301:A:O2'	25:DA:1302:A:P	2.76	0.44
1:CA:1183:G:C8	1:CA:1184:C:C5	3.05	0.44
2:AB:80:ILE:CD1	2:AB:212:GLN:HA	2.47	0.44
29:BE:81:ILE:O	29:BE:81:ILE:CG2	2.56	0.44
48:B1:44:PRO:O	48:B1:46:LEU:N	2.50	0.44
36:BP:112:LEU:HD13	36:BP:112:LEU:C	2.38	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:120:ALA:CB	36:BP:138:LEU:HA	2.48	0.44
36:DP:120:ALA:HB1	36:DP:138:LEU:HD12	1.99	0.44
36:DP:120:ALA:CB	36:DP:138:LEU:HA	2.48	0.44
36:DP:111:ARG:NH1	36:DP:149:GLU:HG3	2.32	0.44
31:BG:76:SER:HB3	31:BG:84:LYS:H	1.76	0.44
45:BY:47:LYS:N	45:BY:47:LYS:CD	2.76	0.44
48:B1:68:PRO:HG2	48:B1:69:LYS:N	2.30	0.44
3:CC:113:ALA:CB	3:CC:114:PRO:HD3	2.41	0.44
29:DE:82:ARG:HB3	29:DE:83:ASP:H	1.64	0.44
25:DA:301:G:C6	25:DA:317:G:C5	3.06	0.44
25:DA:10:G:C6	25:DA:2629:A:C8	3.06	0.44
9:AI:88:TYR:O	9:AI:89:ASN:HB2	2.17	0.44
25:BA:2291:U:H5'	25:BA:2380:C:O2'	2.18	0.44
36:DP:30:THR:CG2	36:DP:31:ALA:H	2.19	0.44
7:AG:153:HIS:HE1	11:AK:57:THR:HG23	1.83	0.44
46:BZ:28:MET:HA	46:BZ:88:PHE:O	2.18	0.44
18:AR:58:LEU:HD12	18:AR:58:LEU:N	2.32	0.44
55:D8:46:ARG:O	55:D8:47:LYS:CB	2.62	0.44
1:CA:1036:C:N4	22:CY:34:G:H1'	2.33	0.44
5:AE:78:HIS:CD2	8:AH:104:ARG:CZ	3.01	0.44
38:DR:2:ARG:NH2	38:DR:5:LYS:HZ1	2.14	0.44
1:CA:1338:A:C5	1:CA:1339:U:C4	3.05	0.44
44:DX:64:LYS:CD	44:DX:73:ARG:CZ	2.96	0.44
43:DW:70:TYR:HE2	43:DW:108:GLY:HA3	1.83	0.44
25:DA:2882:A:OP1	38:DR:96:ARG:HD3	2.18	0.44
1:AA:498:G:C2	1:AA:520:G:C2	3.06	0.44
39:BS:36:TYR:HD1	39:BS:36:TYR:H	1.65	0.44
39:DS:36:TYR:HD1	39:DS:36:TYR:H	1.65	0.44
30:DF:41:LEU:HD11	30:DF:184:TYR:CE1	2.52	0.44
25:DA:2203:U:O2'	28:DD:151:LYS:HG2	2.18	0.44
25:DA:2208:A:H1'	25:DA:2219:G:N3	2.31	0.44
35:BO:122:LEU:HD23	35:BO:122:LEU:HA	1.74	0.44
25:DA:1827:C:H2'	25:DA:1828:G:H5'	2.00	0.44
33:BI:65:ALA:CB	33:BI:131:LYS:HE2	2.48	0.44
25:BA:1507:A:H2'	25:BA:1508:A:H8	1.82	0.44
2:AB:112:VAL:CG1	2:AB:153:ARG:HA	2.47	0.44
25:BA:1710:C:O2'	25:BA:1711:C:H5'	2.18	0.44
1:AA:985:C:H2'	1:AA:986:C:C6	2.52	0.44
25:DA:2086:U:H2'	25:DA:2087:G:C8	2.53	0.44
25:DA:2169:A:O2'	25:DA:2170:A:H5'	2.18	0.44
30:DF:144:LYS:C	30:DF:146:ALA:H	2.21	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:75:ILE:N	36:DP:75:ILE:CD1	2.81	0.44
25:BA:2815:C:O2	52:B5:43:HIS:HE1	2.00	0.44
1:AA:313:G:C2	1:AA:331:C:N3	2.86	0.44
25:BA:2870:C:H2'	25:BA:2871:C:C5'	2.48	0.44
1:AA:930:G:H5'	1:AA:942:A:H61	1.82	0.44
37:DQ:1:MET:HE2	37:DQ:2:LEU:HB3	1.98	0.44
1:AA:90:G:O2'	1:AA:91:G:P	2.76	0.44
7:CG:41:ARG:O	7:CG:45:ASP:N	2.38	0.44
50:D3:23:LEU:HD12	50:D3:50:VAL:HG11	1.99	0.44
25:BA:188:G:C2'	25:BA:189:G:H5'	2.48	0.44
1:AA:590:A:O2'	1:AA:591:A:H5'	2.18	0.44
25:BA:2425:A:H5''	25:BA:2427:C:O4'	2.18	0.44
1:CA:1096:C:O5'	1:CA:1096:C:H6	2.01	0.44
25:BA:248:G:C2	25:BA:2431:U:H4'	2.53	0.44
25:BA:2373:G:H2'	25:BA:2374:C:C6	2.52	0.44
25:BA:691:C:O2'	25:BA:692:C:H5'	2.18	0.44
1:CA:928:G:H2'	1:CA:929:U:C6	2.53	0.44
28:DD:168:ARG:HA	28:DD:173:VAL:HA	2.00	0.44
13:AM:79:LYS:O	13:AM:82:MET:N	2.50	0.44
13:AM:80:ARG:C	13:AM:82:MET:H	2.22	0.44
13:AM:92:HIS:CD2	13:AM:98:VAL:CG2	3.01	0.44
25:DA:952:G:N1	25:DA:953:A:N7	2.66	0.44
25:DA:953:A:C6	25:DA:965:C:N3	2.86	0.44
20:CT:98:PRO:C	20:CT:100:ILE:N	2.71	0.44
25:DA:2692:C:H1'	25:DA:2847:U:O2'	2.18	0.44
22:CW:13:C:O2	22:CW:14:A:H8	2.01	0.44
37:DQ:16:ARG:CG	37:DQ:17:LEU:H	2.27	0.44
41:DU:91:ASP:C	41:DU:92:ARG:CD	2.82	0.44
5:CE:102:ALA:HB1	5:CE:106:PRO:HG2	2.00	0.44
12:CL:38:THR:HG21	12:CL:65:GLU:OE2	2.17	0.44
28:BD:71:ASP:HB2	28:BD:103:ARG:NH2	2.27	0.44
40:DT:89:VAL:HB	40:DT:91:ARG:NE	2.30	0.44
1:AA:1261:A:C8	10:AJ:41:PRO:HD3	2.53	0.44
34:DN:17:ASP:C	34:DN:19:GLU:N	2.71	0.44
33:BI:72:LEU:HD21	33:BI:107:VAL:HG21	1.97	0.44
13:AM:14:ARG:HB2	13:AM:16:ASP:OD2	2.18	0.44
15:AO:56:LEU:O	15:AO:60:VAL:HG23	2.18	0.44
30:BF:22:ALA:CA	30:BF:26:ALA:HB2	2.47	0.44
32:BH:27:LYS:HE3	32:BH:32:GLU:HB2	2.00	0.44
32:BH:54:ARG:HH11	32:BH:54:ARG:HG2	1.82	0.44
32:BH:73:ALA:O	32:BH:76:VAL:HB	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2464:C:C2'	25:BA:2465:C:O5'	2.66	0.44
46:DZ:4:ARG:CD	46:DZ:58:VAL:HB	2.48	0.44
25:BA:1275:A:C8	38:BR:16:HIS:CD2	3.06	0.44
1:AA:1353:G:C6	1:AA:1354:U:C4	3.06	0.44
25:BA:729:G:H1'	25:BA:763:G:O3'	2.18	0.44
25:BA:570:G:H2'	25:BA:2030:A:C5	2.53	0.44
10:AJ:81:THR:O	10:AJ:83:GLU:N	2.51	0.44
26:DB:75:G:H1	26:DB:103:G:N2	2.16	0.44
37:DQ:141:GLN:OE1	46:DZ:72:ARG:HA	2.18	0.44
25:DA:1378:A:C4'	25:DA:1379:A:OP1	2.52	0.44
15:AO:78:TYR:OH	15:AO:88:ARG:HD2	2.18	0.44
28:BD:270:ILE:HD12	28:BD:270:ILE:O	2.18	0.44
25:DA:2330:G:H2'	25:DA:2331:G:O5'	2.18	0.44
15:CO:74:ASP:C	15:CO:76:GLU:N	2.70	0.44
33:BI:15:VAL:C	33:BI:17:GLN:H	2.21	0.44
25:DA:845:G:O2'	25:DA:846:C:H5	2.00	0.44
25:DA:2061:G:H5"	25:DA:2503:A:C2	2.52	0.44
22:AW:15:G:C2	22:AW:59:U:O2	2.71	0.44
25:BA:2479:G:OP1	25:BA:2537:U:H1'	2.18	0.44
29:DE:4:ILE:HG12	29:DE:28:ALA:CB	2.44	0.44
25:BA:674:G:H1'	30:BF:74:ARG:HD2	2.00	0.44
55:D8:49:VAL:C	55:D8:53:PRO:HG3	2.38	0.44
7:CG:145:ALA:O	7:CG:146:GLU:HB2	2.18	0.44
20:AT:14:LYS:CA	20:AT:17:ARG:HH21	2.31	0.44
4:AD:29:PRO:O	4:AD:30:LYS:CB	2.65	0.44
25:DA:9:U:HO2'	25:DA:10:G:C5'	2.30	0.44
43:DW:65:LEU:HD22	43:DW:68:ARG:N	2.25	0.44
25:BA:319:C:OP2	30:BF:137:LYS:NZ	2.51	0.44
16:CP:9:PHE:HB2	16:CP:16:HIS:O	2.17	0.44
2:AB:119:GLU:O	2:AB:122:PHE:HB3	2.16	0.44
6:CF:63:TYR:O	6:CF:65:VAL:HG13	2.18	0.44
49:B2:64:LEU:HD22	49:B2:64:LEU:O	2.18	0.44
2:AB:44:LEU:CD1	2:AB:44:LEU:H	2.24	0.44
1:CA:254:G:H2'	1:CA:255:G:O4'	2.18	0.44
25:DA:2820:A:O2'	25:DA:2821:A:OP1	2.34	0.44
56:B9:19:ARG:O	56:B9:20:HIS:HB2	2.16	0.44
6:CF:22:GLU:HA	6:CF:22:GLU:OE2	2.17	0.44
25:DA:2196:C:HO2'	25:DA:2197:U:H5'	1.82	0.44
30:DF:80:ALA:O	30:DF:83:PHE:HB2	2.18	0.44
25:BA:1337:G:H2'	25:BA:1338:G:H8	1.82	0.44
25:BA:203:C:C3'	25:BA:204:A:H5"	2.44	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:81:G:O6	26:BB:97:G:C6	2.71	0.44
1:CA:1290:G:C6	1:CA:1310:A:C2	3.06	0.44
40:BT:18:ASP:N	40:BT:18:ASP:OD1	2.51	0.44
25:DA:984:A:H5''	25:DA:985:C:C5	2.48	0.44
25:BA:978:G:H2'	25:BA:979:G:O4'	2.17	0.44
17:CQ:65:ILE:HD11	17:CQ:72:ARG:HG2	2.00	0.44
1:CA:975:G:N2	1:CA:1025:C:O2	2.49	0.44
25:DA:2287:A:C2	25:DA:2346:A:C2	3.06	0.44
25:DA:2832:U:O4	25:DA:2883:A:H5''	2.18	0.44
1:AA:668:G:N1	1:AA:687:A:OP2	2.47	0.44
44:BX:48:LYS:HZ3	49:B2:30:ARG:HH22	1.66	0.44
2:CB:168:THR:HG23	2:CB:192:SER:OG	2.18	0.44
1:AA:1231:A:H4'	9:AI:68:GLY:H	1.83	0.44
31:DG:165:THR:OG1	31:DG:168:GLU:CB	2.66	0.44
1:CA:396:C:H2'	1:CA:397:G:C8	2.53	0.44
25:BA:957:A:N1	25:BA:2458:G:H4'	2.33	0.44
25:BA:957:A:H4'	37:BQ:74:TYR:OH	2.18	0.44
1:AA:1033:C:H2'	1:AA:1034:U:H6	1.82	0.44
32:DH:132:ARG:HG2	32:DH:132:ARG:HH11	1.82	0.44
30:BF:138:GLU:O	30:BF:139:PHE:C	2.55	0.44
25:DA:2870:C:H2'	25:DA:2871:C:C5'	2.48	0.44
1:CA:273:G:N2	17:CQ:95:TYR:HB3	2.32	0.44
49:D2:13:ALA:C	49:D2:15:LYS:H	2.21	0.44
44:BX:47:PHE:HZ	49:B2:37:PHE:CE2	2.36	0.44
4:CD:100:ARG:HH22	4:CD:137:SER:HB3	1.83	0.44
28:DD:72:LYS:HB3	28:DD:75:ILE:HB	1.99	0.44
39:DS:42:ASP:C	39:DS:44:LYS:H	2.20	0.44
41:BU:72:HIS:HE1	41:BU:107:ALA:CB	2.30	0.44
1:CA:237:C:C2	1:CA:280:G:C2	3.06	0.44
40:BT:6:LEU:HD23	40:BT:6:LEU:HA	1.82	0.44
16:CP:45:THR:OG1	16:CP:46:PRO:HD2	2.18	0.44
1:AA:105:G:C2	1:AA:325:C:N4	2.86	0.44
25:DA:1160:G:N2	42:DV:10:LYS:HE2	2.33	0.44
21:CU:9:ARG:O	21:CU:13:ILE:HG13	2.18	0.44
25:DA:269:U:H2'	25:DA:269:U:O2	2.18	0.44
29:BE:59:VAL:CG2	29:BE:60:ASN:H	2.02	0.43
32:DH:65:HIS:CE1	32:DH:69:ARG:HD2	2.53	0.43
20:CT:96:GLY:O	20:CT:97:ALA:O	2.36	0.43
41:BU:111:GLU:O	41:BU:112:ARG:C	2.55	0.43
41:BU:91:ASP:C	41:BU:92:ARG:CD	2.82	0.43
25:DA:271(G):C:O2'	25:DA:271(H):G:H5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CV:53:G:O2'	23:CV:54:G:C5'	2.66	0.43
25:BA:2171:A:N3	25:BA:2172:U:C4	2.86	0.43
25:BA:308:G:HO2'	25:BA:329:G:N2	2.13	0.43
44:DX:12:VAL:CG1	44:DX:27:THR:O	2.64	0.43
42:DV:38:LEU:HD23	42:DV:39:LEU:N	2.34	0.43
25:BA:359:A:C2'	25:BA:360:G:C5'	2.78	0.43
42:BV:19:LYS:C	42:BV:20:LEU:HD12	2.38	0.43
42:BV:28:GLU:O	42:BV:29:PRO:O	2.36	0.43
5:CE:13:ILE:HA	5:CE:29:GLY:O	2.18	0.43
25:BA:94:C:H5'	25:BA:94(A):G:OP2	2.17	0.43
14:CN:27:CYS:C	14:CN:29:ARG:H	2.22	0.43
25:DA:322:A:P	30:DF:169:ASN:HB2	2.58	0.43
25:BA:2320:A:C5	25:BA:2333:A:N6	2.86	0.43
36:DP:65:ARG:HH12	55:D8:15:LYS:HB2	1.81	0.43
5:CE:68:GLU:HG3	5:CE:68:GLU:O	2.17	0.43
25:DA:859:G:HO2'	25:DA:860:U:P	2.40	0.43
1:AA:1050:G:C8	1:AA:1050:G:O5'	2.62	0.43
33:BI:88:ILE:H	33:BI:122:GLU:HA	1.83	0.43
2:AB:40:HIS:HB2	2:AB:190:THR:HG21	2.00	0.43
32:BH:91:GLY:CA	32:BH:160:LYS:HA	2.48	0.43
32:DH:94:TYR:CG	32:DH:107:VAL:HG12	2.53	0.43
32:DH:89:ILE:O	32:DH:161:GLY:O	2.36	0.43
16:AP:82:GLN:O	16:AP:83:GLU:HB2	2.18	0.43
25:BA:292:C:H2'	25:BA:292:C:O2	2.18	0.43
1:CA:1114:C:N4	1:CA:1115:G:C2	2.86	0.43
27:DC:66:HIS:CE1	27:DC:68:LEU:HD21	2.53	0.43
25:DA:570:G:H2'	25:DA:2030:A:C5	2.53	0.43
37:DQ:60:ARG:HA	46:DZ:178:GLU:O	2.18	0.43
46:DZ:28:MET:HA	46:DZ:88:PHE:O	2.18	0.43
46:DZ:94:GLU:HA	46:DZ:95:PRO:HD3	1.82	0.43
47:B0:43:THR:O	47:B0:43:THR:HG23	2.18	0.43
37:BQ:141:GLN:HB2	46:BZ:99:TYR:HD2	1.82	0.43
46:BZ:114:GLY:O	46:BZ:146:ILE:HD13	2.18	0.43
32:BH:141:VAL:C	32:BH:143:GLN:N	2.70	0.43
15:CO:24:SER:OG	15:CO:25:THR:N	2.51	0.43
25:DA:2557:G:H2'	25:DA:2558:C:C6	2.53	0.43
11:CK:107:SER:OG	11:CK:108:ILE:N	2.51	0.43
36:BP:101:VAL:C	36:BP:103:ALA:N	2.69	0.43
36:DP:101:VAL:HG23	36:DP:102:ARG:N	2.33	0.43
36:DP:112:LEU:C	36:DP:112:LEU:HD13	2.38	0.43
1:CA:1047:U:OP2	1:CA:1171:G:N2	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1902:C:C4	25:BA:1903:G:H1'	2.52	0.43
25:DA:2637:U:C2'	25:DA:2638:G:H5'	2.47	0.43
9:AI:53:VAL:O	9:AI:54:ASP:CB	2.63	0.43
9:AI:92:TYR:H	9:AI:92:TYR:HD1	1.65	0.43
43:BW:64:MET:HE3	43:BW:109:GLU:HG2	2.00	0.43
3:CC:87:LEU:C	3:CC:89:GLU:N	2.70	0.43
1:AA:982:A:H5''	1:AA:1003:U:H3	1.83	0.43
27:BC:41:VAL:CA	27:BC:213:TYR:HA	2.42	0.43
1:CA:854:C:H2'	1:CA:855:G:C8	2.53	0.43
26:BB:73:A:C2'	26:BB:74:U:H5'	2.47	0.43
28:BD:211:ARG:HA	28:BD:214:TRP:CG	2.53	0.43
31:BG:51:ARG:CZ	31:BG:53:LEU:HD21	2.48	0.43
25:DA:2691:C:C6	25:DA:2691:C:H5'	2.43	0.43
7:AG:12:LEU:CD1	7:AG:25:ALA:HB2	2.48	0.43
6:CF:69:GLU:H	6:CF:69:GLU:CD	2.21	0.43
46:DZ:14:LYS:C	46:DZ:16:SER:N	2.71	0.43
25:DA:1192:G:C2'	25:DA:1193:G:H5'	2.48	0.43
29:BE:119:ARG:HG2	29:BE:160:TYR:CD2	2.53	0.43
25:DA:72:U:H6	49:D2:61:LEU:CD1	2.31	0.43
25:BA:558:G:OP2	34:BN:111:PRO:HD2	2.18	0.43
27:DC:45:ALA:HB3	27:DC:174:PRO:CB	2.48	0.43
52:D5:41:PRO:HG2	52:D5:44:THR:CG2	2.46	0.43
38:DR:13:HIS:O	38:DR:14:SER:C	2.56	0.43
2:AB:7:VAL:O	2:AB:7:VAL:HG12	2.18	0.43
25:BA:995:C:C2	41:BU:57:PHE:CE1	3.05	0.43
2:AB:121:LEU:HD11	2:AB:130:ARG:HD2	1.99	0.43
25:DA:228:A:H2'	25:DA:230:U:O4'	2.18	0.43
13:CM:48:LEU:HG	13:CM:53:VAL:HG23	2.00	0.43
25:DA:36:G:H4'	25:DA:451:C:C2	2.53	0.43
25:BA:1352:U:O2	25:BA:1570:A:H2	2.00	0.43
2:CB:167:PRO:O	2:CB:171:ALA:N	2.50	0.43
25:DA:624:C:C2'	25:DA:625:G:H5'	2.48	0.43
1:CA:520:G:OP1	12:CL:113:ARG:NH2	2.51	0.43
25:BA:2832:U:O4	25:BA:2883:A:H5''	2.18	0.43
1:CA:790:A:H2'	1:CA:791:C:O4'	2.19	0.43
25:DA:384:U:H2'	25:DA:385:C:C6	2.52	0.43
1:CA:651:G:O4'	15:CO:49:ASP:HB2	2.18	0.43
25:BA:1451:C:N3	25:BA:1459:G:O6	2.50	0.43
25:BA:1274:A:N3	25:BA:1297:C:H1'	2.32	0.43
25:DA:392:C:H5''	25:DA:409:C:H5''	1.99	0.43
25:BA:1159:U:OP2	50:B3:30:ARG:NH2	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:68:TYR:O	4:AD:69:GLY:C	2.55	0.43
14:CN:34:TYR:CD1	14:CN:34:TYR:N	2.86	0.43
42:BV:75:PHE:C	42:BV:75:PHE:CD1	2.90	0.43
25:BA:269:U:H2'	25:BA:269:U:O2	2.18	0.43
1:CA:1431:A:H2'	1:CA:1431:A:N3	2.33	0.43
25:BA:2751:G:N3	25:BA:2751:G:H2'	2.32	0.43
1:CA:691:C:H2'	1:CA:692:G:H8	1.83	0.43
1:AA:358:A:C6	1:AA:359:A:C6	3.06	0.43
17:CQ:17:LYS:HA	17:CQ:49:GLU:HG2	1.99	0.43
28:DD:158:ALA:O	28:DD:161:THR:HG23	2.18	0.43
29:DE:108:SER:HB3	29:DE:165:VAL:HG21	1.99	0.43
41:BU:78:THR:HG22	41:BU:79:PHE:N	2.33	0.43
42:BV:2:PHE:HB3	42:BV:41:GLY:C	2.39	0.43
25:BA:314:A:H2'	25:BA:315:G:C8	2.53	0.43
14:AN:26:ARG:CG	14:AN:27:CYS:H	2.05	0.43
23:CV:16:C:H5'	23:CV:17:C:C6	2.53	0.43
45:DY:28:LYS:CB	45:DY:37:VAL:HB	2.34	0.43
25:DA:2473:U:O2	25:DA:2473:U:H2'	2.18	0.43
25:BA:1453:U:C5	25:BA:2702:U:O4	2.71	0.43
3:AC:73:PRO:HA	3:AC:76:VAL:HG22	2.00	0.43
31:DG:18:GLU:OE2	31:DG:21:ARG:NH1	2.51	0.43
25:BA:282:A:H3'	25:BA:284:U:O4	2.18	0.43
14:CN:27:CYS:O	14:CN:29:ARG:N	2.51	0.43
31:BG:35:GLU:HB2	31:BG:160:VAL:HG12	1.99	0.43
55:D8:7:HIS:CD2	55:D8:59:LYS:NZ	2.86	0.43
25:DA:94:C:H5'	25:DA:94(A):G:OP2	2.17	0.43
23:AV:55:U:H3'	23:AV:55:U:H6	1.83	0.43
50:B3:46:ASN:O	50:B3:50:VAL:HG22	2.17	0.43
28:DD:132:PRO:HG3	28:DD:190:TYR:CE1	2.53	0.43
41:DU:52:ARG:HD3	41:DU:55:ARG:NE	2.25	0.43
25:DA:663:G:O3'	36:DP:21:ARG:NH2	2.51	0.43
30:BF:19:GLU:O	30:BF:20:LEU:HB2	2.18	0.43
5:AE:39:GLY:HA2	5:AE:69:VAL:HB	1.99	0.43
32:BH:65:HIS:CE1	32:BH:69:ARG:HD2	2.53	0.43
25:BA:1155:A:OP1	41:BU:55:ARG:HD2	2.18	0.43
25:BA:2481:G:H4'	25:BA:2482:G:H5'	2.00	0.43
25:BA:2182:G:H2'	25:BA:2183:C:C6	2.53	0.43
46:DZ:56:VAL:HG12	46:DZ:57:ILE:O	2.18	0.43
9:AI:11:LYS:O	9:AI:12:GLU:C	2.57	0.43
22:AW:51:U:N3	22:AW:52:G:N7	2.66	0.43
45:BY:28:LYS:CB	45:BY:37:VAL:HB	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:131:GLY:O	30:BF:132:VAL:O	2.37	0.43
7:AG:60:LYS:HZ3	7:AG:60:LYS:HA	1.77	0.43
25:BA:348:G:C4	25:BA:349:G:C8	3.06	0.43
25:DA:285:C:C3'	25:DA:286:C:H5''	2.47	0.43
25:DA:2073:C:O2'	25:DA:2074:U:H5'	2.18	0.43
53:D6:19:ARG:H	53:D6:19:ARG:CD	2.30	0.43
1:AA:1036:C:C4	22:AY:34:G:H1'	2.53	0.43
46:DZ:114:GLY:O	46:DZ:146:ILE:HD13	2.18	0.43
46:DZ:99:TYR:HA	46:DZ:125:LEU:HA	2.01	0.43
25:BA:2846:G:H2'	25:BA:2847:U:O4'	2.17	0.43
28:DD:270:ILE:O	28:DD:270:ILE:HD12	2.18	0.43
1:CA:1039:G:H5''	3:CC:154:SER:HB2	2.00	0.43
31:BG:39:ILE:HD11	31:BG:155:MET:CB	2.40	0.43
9:AI:118:LYS:NZ	9:AI:118:LYS:HB3	2.32	0.43
25:DA:379:G:C6	25:DA:380:U:N3	2.86	0.43
12:AL:25:PRO:C	12:AL:27:LEU:H	2.22	0.43
19:CS:10:PHE:CZ	19:CS:70:LYS:HD2	2.53	0.43
2:CB:219:VAL:HG13	2:CB:222:ILE:HD12	1.99	0.43
6:AF:24:GLU:HB2	6:AF:28:ARG:HH12	1.83	0.43
11:CK:31:THR:HG23	11:CK:31:THR:O	2.18	0.43
28:BD:43:ARG:HG2	28:BD:54:ARG:O	2.19	0.43
36:DP:99:LEU:C	36:DP:99:LEU:HD23	2.38	0.43
34:BN:133:GLN:O	34:BN:134:ARG:HG3	2.18	0.43
39:BS:82:ILE:HG22	39:BS:83:LYS:N	2.33	0.43
25:DA:2291:U:H5''	25:DA:2380:C:O2'	2.18	0.43
19:CS:31:ILE:CG2	19:CS:49:ILE:HA	2.43	0.43
2:AB:69:LEU:HB2	2:AB:159:PRO:CG	2.48	0.43
31:DG:97:ASP:O	31:DG:101:ILE:HG23	2.18	0.43
3:CC:84:ILE:HA	3:CC:87:LEU:HD12	2.00	0.43
36:DP:30:THR:HG22	36:DP:31:ALA:N	2.27	0.43
1:CA:406:A:C5	1:CA:424:U:C5	3.06	0.43
18:AR:56:THR:CB	18:AR:58:LEU:CD1	2.96	0.43
55:D8:26:LYS:CE	55:D8:47:LYS:HD3	2.48	0.43
31:DG:16:ARG:HG3	31:DG:16:ARG:HH11	1.82	0.43
25:BA:142:A:H1'	25:BA:1408:C:O4'	2.18	0.43
1:CA:1474:G:C5	1:CA:1475:U:C4	3.06	0.43
17:AQ:83:ASP:O	17:AQ:86:GLU:HB2	2.18	0.43
25:DA:2821:A:OP2	38:DR:2:ARG:NH2	2.51	0.43
1:AA:78:G:C8	1:AA:79:U:H5	2.35	0.43
22:AY:35:A:H2'	22:AY:36:A:C4'	2.48	0.43
1:CA:1198:C:H2'	1:CA:1199:C:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:780:C:H2'	1:AA:781:G:C8	2.53	0.43
3:AC:95:THR:O	3:AC:97:LYS:N	2.51	0.43
8:AH:119:LEU:CD1	8:AH:124:ALA:HA	2.48	0.43
1:CA:1471:G:N2	25:DA:1912:A:C2	2.86	0.43
1:CA:1354:U:C4	1:CA:1355:G:C4	3.06	0.43
12:AL:126:LYS:CG	12:AL:127:GLU:N	2.81	0.43
20:AT:25:ARG:HG3	20:AT:25:ARG:HH11	1.82	0.43
25:DA:1709:U:H2'	25:DA:1710:C:H6	1.83	0.43
44:BX:48:LYS:NZ	49:B2:30:ARG:HH22	2.16	0.43
12:CL:119:LYS:C	12:CL:120:TYR:CD1	2.91	0.43
25:BA:2236:C:H2'	25:BA:2237:G:O4'	2.18	0.43
35:DO:116:SER:OG	35:DO:117:LEU:N	2.51	0.43
1:AA:311:G:H2'	1:AA:312:G:C8	2.53	0.43
29:BE:149:ARG:NH1	29:BE:149:ARG:HG3	2.32	0.43
1:AA:1394:C:H2'	1:AA:1395:A:C8	2.53	0.43
5:CE:87:SER:HB3	5:CE:131:ILE:CD1	2.48	0.43
1:AA:631:A:H2'	1:AA:632:G:H8	1.83	0.43
55:B8:7:HIS:CG	55:B8:59:LYS:HZ1	2.36	0.43
28:BD:72:LYS:HB3	28:BD:75:ILE:HB	1.99	0.43
1:CA:66:G:C2	1:CA:67:C:C6	3.06	0.43
1:AA:90:G:O2'	1:AA:91:G:O5'	2.34	0.43
37:DQ:103:MET:CE	37:DQ:125:LEU:HD13	2.48	0.43
25:BA:1444:G:H2'	25:BA:1445(A):C:C5	2.52	0.43
35:BO:109:LYS:HB2	35:BO:111:PHE:CD2	2.53	0.43
9:CI:43:ALA:C	9:CI:45:ALA:H	2.22	0.43
33:DI:113:ARG:HD2	33:DI:113:ARG:H	1.83	0.43
23:CV:64:G:H2'	23:CV:64:G:N3	2.33	0.43
53:B6:42:TRP:HA	53:B6:42:TRP:CE3	2.52	0.43
25:DA:2441:C:H4'	25:DA:2441:C:OP1	2.18	0.43
1:CA:224:U:H2'	1:CA:225:G:H8	1.82	0.43
25:DA:248:G:C2	25:DA:2431:U:H4'	2.53	0.43
25:DA:888:C:O2'	25:DA:889:C:H5'	2.18	0.43
45:DY:49:VAL:O	45:DY:50:ARG:HB2	2.18	0.43
25:DA:105:C:C6	25:DA:105:C:H5''	2.53	0.43
22:CW:6:G:N2	22:CW:68:C:O2	2.51	0.43
10:AJ:48:THR:CG2	10:AJ:62:HIS:HB3	2.47	0.43
10:AJ:63:PHE:N	10:AJ:63:PHE:CD2	2.87	0.43
22:CW:56:C:C4	22:CW:57:G:C8	3.06	0.43
25:DA:2485:G:O3'	37:DQ:126:PRO:HA	2.18	0.43
38:BR:118:GLU:HA	38:BR:118:GLU:OE1	2.18	0.43
25:BA:2483:C:O2	37:BQ:124:LYS:HE3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DU:92:ARG:HH11	42:DV:11:GLN:HG3	1.83	0.43
25:BA:1797:C:O2'	28:BD:259:THR:CG2	2.66	0.43
39:BS:54:LEU:H	39:BS:54:LEU:CD2	2.28	0.43
1:AA:1129:C:O2	9:AI:16:ARG:NH1	2.44	0.43
31:DG:117:PHE:CD1	31:DG:118:ARG:N	2.85	0.43
39:DS:53:SER:O	39:DS:56:LEU:HB3	2.19	0.43
39:DS:56:LEU:HD22	39:DS:58:LEU:HD13	2.01	0.43
28:DD:24:ILE:HD12	28:DD:84:TYR:HB2	2.00	0.43
28:BD:31:LYS:HZ1	28:BD:102:LYS:NZ	2.15	0.43
22:CW:35:A:N6	24:CX:13:A:C6	2.87	0.43
2:CB:19:HIS:ND1	2:CB:191:ASP:HB2	2.33	0.43
50:B3:1:MET:HE2	50:B3:44:ARG:HH22	1.83	0.43
25:DA:925:C:C3'	25:DA:926:A:H5''	2.46	0.43
23:CV:7:G:N2	23:CV:68:C:C2	2.85	0.43
2:AB:19:HIS:ND1	2:AB:191:ASP:HB2	2.34	0.43
2:AB:39:ILE:CG2	2:AB:40:HIS:N	2.80	0.43
25:DA:2182:G:H2'	25:DA:2183:C:C6	2.53	0.43
32:BH:54:ARG:NH1	32:BH:54:ARG:HG2	2.33	0.43
28:DD:241:PRO:C	28:DD:242:ARG:HD2	2.38	0.43
30:DF:19:GLU:O	30:DF:20:LEU:HB2	2.18	0.43
46:BZ:4:ARG:CD	46:BZ:58:VAL:HB	2.48	0.43
1:AA:917:C:OP1	7:AG:102:ARG:HD3	2.17	0.43
1:AA:1266:A:C4'	1:AA:1267:A:H5''	2.48	0.43
25:DA:729:G:H1'	25:DA:763:G:O3'	2.18	0.43
25:DA:292:C:H2'	25:DA:292:C:O2	2.18	0.43
2:CB:235:SER:OG	2:CB:236:TYR:CD1	2.66	0.43
1:CA:1100:C:OP1	9:CI:104:ARG:HD3	2.18	0.43
7:CG:59:LEU:C	7:CG:59:LEU:HD23	2.39	0.43
25:DA:486:C:H4'	43:DW:60:ASN:OD1	2.18	0.43
15:AO:76:GLU:C	15:AO:78:TYR:N	2.72	0.43
38:DR:51:LEU:CD2	38:DR:66:VAL:HG13	2.38	0.43
33:BI:133:HIS:H	33:BI:133:HIS:CD2	2.35	0.43
33:BI:133:HIS:O	33:BI:134:PRO:C	2.55	0.43
23:CV:30:G:H2'	23:CV:31:G:C5'	2.48	0.43
33:BI:6:LEU:HD12	33:BI:34:GLY:O	2.18	0.43
34:DN:59:LYS:O	34:DN:60:ILE:C	2.56	0.43
30:DF:9:ILE:CG1	30:DF:14:PRO:HA	2.47	0.43
28:DD:43:ARG:HH11	28:DD:44:ASN:ND2	2.16	0.43
25:DA:2556:C:H2'	25:DA:2557:G:O4'	2.19	0.43
27:DC:41:VAL:HG23	27:DC:178:ALA:CB	2.44	0.43
25:BA:1721:G:O6	25:BA:1739:U:H5'	2.15	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BQ:12:GLN:HE21	37:BQ:73:PRO:HD3	1.83	0.43
34:BN:41:ASP:O	34:BN:42:TRP:C	2.57	0.43
25:BA:478:A:C6	25:BA:480:A:C6	3.06	0.43
19:CS:15:LEU:HD22	19:CS:15:LEU:N	2.33	0.43
25:DA:2784:C:H1'	29:DE:37:ARG:NH1	2.33	0.43
25:DA:661:C:H2'	25:DA:662:G:H8	1.83	0.43
4:AD:30:LYS:O	4:AD:32:ALA:N	2.52	0.43
34:DN:41:ASP:O	34:DN:42:TRP:C	2.57	0.43
36:DP:16:ARG:CB	36:DP:16:ARG:NH1	2.75	0.43
25:DA:272(J):C:N3	25:DA:363:G:O6	2.51	0.43
9:AI:92:TYR:HD1	9:AI:92:TYR:N	2.15	0.43
28:DD:206:LEU:HD22	28:DD:211:ARG:CG	2.48	0.43
28:DD:211:ARG:HA	28:DD:214:TRP:CG	2.53	0.43
3:AC:113:ALA:CB	3:AC:114:PRO:HD3	2.43	0.43
46:BZ:132:ASN:HB3	46:BZ:159:PRO:O	2.19	0.43
51:B4:45:GLY:O	51:B4:46:ASN:O	2.37	0.43
25:DA:2838:G:H1'	38:DR:45:ARG:HH11	1.82	0.43
22:AW:24:G:C5	22:AW:25:C:C5	3.06	0.43
10:CJ:32:ALA:CB	10:CJ:76:ASN:HB3	2.48	0.43
30:BF:17:ARG:HG3	30:BF:17:ARG:NH1	2.31	0.43
44:BX:36:LYS:HD2	44:BX:54:VAL:O	2.18	0.43
25:BA:2580:U:H4'	29:BE:130:GLY:CA	2.47	0.43
38:BR:28:LEU:CA	38:BR:34:ILE:HG13	2.48	0.43
54:B7:43:THR:CG2	54:B7:44:PRO:N	2.81	0.43
2:CB:95:GLN:HE21	2:CB:147:LYS:CG	2.25	0.43
2:CB:96:ARG:O	2:CB:97:TRP:C	2.56	0.43
1:CA:437:C:H2'	1:CA:438:C:H6	1.83	0.43
31:DG:107:LEU:HD21	31:DG:178:PHE:CE1	2.53	0.43
8:CH:63:LEU:HB2	8:CH:65:TYR:CE1	2.54	0.43
1:AA:402:G:H1	1:AA:430:C:N4	2.12	0.43
23:CV:25:U:O5'	23:CV:25:U:H6	2.00	0.43
28:BD:158:ALA:O	28:BD:159:ALA:C	2.54	0.43
35:DO:88:ASN:OD1	35:DO:92:GLU:N	2.33	0.43
3:AC:173:VAL:HG12	3:AC:175:LEU:HD12	2.00	0.43
1:CA:900:A:C2	1:CA:901:C:C2	3.06	0.43
53:D6:12:GLU:HA	53:D6:23:THR:HA	1.99	0.43
46:DZ:12:GLY:O	46:DZ:13:GLU:HG3	2.18	0.43
27:BC:127:LEU:O	27:BC:129:ARG:N	2.51	0.43
17:CQ:12:SER:OG	17:CQ:14:LYS:NZ	2.51	0.43
1:AA:74:C:C4	1:AA:75:G:N7	2.86	0.43
6:CF:50:TYR:CE1	18:CR:77:GLY:HA2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2735:G:H2'	25:BA:2736:G:C8	2.53	0.43
1:CA:57:G:C5	1:CA:58:C:C4	3.05	0.43
1:AA:521:G:OP1	12:AL:115:LYS:HB2	2.18	0.43
25:DA:1508:A:N3	25:DA:1508:A:H2'	2.34	0.43
25:DA:1801:G:C6	25:DA:2202:C:O4'	2.71	0.43
25:DA:878:A:N6	25:DA:899:A:O2'	2.51	0.43
25:BA:207:A:H2'	25:BA:208:C:O4'	2.17	0.43
30:BF:144:LYS:C	30:BF:146:ALA:H	2.21	0.43
49:B2:13:ALA:C	49:B2:15:LYS:H	2.21	0.43
50:D3:46:ASN:O	50:D3:50:VAL:HG22	2.17	0.43
1:AA:61:G:H2'	1:AA:62:U:O4'	2.16	0.43
25:BA:666:G:O2'	25:BA:667:U:H5'	2.17	0.43
25:BA:323:G:HO2'	25:BA:1205:U:H3	1.67	0.43
15:CO:29:VAL:O	15:CO:32:LEU:N	2.51	0.43
13:CM:93:ARG:HG3	25:DA:888:C:OP2	2.17	0.43
25:DA:2632:A:C2	29:DE:61:ARG:HD3	2.53	0.43
9:AI:104:ARG:NE	9:AI:106:ALA:HA	2.33	0.43
49:D2:3:LEU:O	49:D2:3:LEU:HD23	2.18	0.43
31:BG:97:ASP:O	31:BG:98:ARG:C	2.56	0.43
10:AJ:48:THR:CB	10:AJ:62:HIS:HB3	2.48	0.43
22:CW:55:U:O2	22:CW:55:U:O5'	2.35	0.43
26:DB:91:C:C2'	26:DB:92:C:O5'	2.67	0.43
25:DA:2801:A:H8	25:DA:2801(A):A:H62	1.66	0.43
3:AC:84:ILE:HA	3:AC:87:LEU:HD12	2.01	0.43
19:CS:45:VAL:O	19:CS:47:HIS:N	2.51	0.43
1:AA:260:G:C4	1:AA:262:C:C5	3.07	0.43
39:DS:62:LYS:N	39:DS:65:VAL:HG23	2.29	0.43
12:CL:42:THR:HG23	12:CL:42:THR:O	2.18	0.43
12:CL:25:PRO:N	12:CL:98:TYR:OH	2.51	0.43
49:D2:47:ASN:O	49:D2:49:LYS:N	2.52	0.43
28:BD:31:LYS:HZ1	28:BD:102:LYS:HZ3	1.66	0.43
28:BD:35:LYS:HD3	28:BD:35:LYS:HA	1.70	0.43
28:BD:61:LEU:O	28:BD:63:ARG:NH1	2.51	0.43
33:BI:81:VAL:CG2	33:BI:142:VAL:HG13	2.41	0.43
33:BI:94:ALA:O	33:BI:96:ASP:N	2.50	0.43
33:DI:88:ILE:H	33:DI:122:GLU:HA	1.84	0.43
36:BP:10:PRO:O	36:BP:11:GLY:O	2.34	0.43
23:AV:65:G:C2	23:AV:66:C:C2	3.07	0.43
9:AI:79:LEU:HD11	9:AI:83:ARG:CZ	2.48	0.43
9:AI:96:LEU:CG	9:AI:102:LEU:HB2	2.49	0.43
28:DD:9:TYR:CZ	28:DD:13:ARG:CD	2.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BU:55:ARG:HA	41:BU:58:ARG:HG3	2.00	0.43
25:BA:2728:U:P	35:BO:70:LYS:HZ1	2.40	0.43
1:AA:822:U:C2	1:AA:822:U:C3'	3.02	0.43
25:DA:289:A:C2	25:DA:353:G:C2	3.07	0.43
31:DG:40:ASN:HA	31:DG:91:ARG:HA	2.00	0.43
46:DZ:102:LEU:HD13	46:DZ:123:ASP:CA	2.40	0.43
37:BQ:51:ARG:HH11	37:BQ:51:ARG:CB	2.31	0.43
27:BC:66:HIS:CE1	27:BC:68:LEU:HD21	2.53	0.43
25:BA:2307:G:N2	25:BA:2308:G:H5'	2.33	0.43
31:BG:40:ASN:HA	31:BG:91:ARG:HA	2.00	0.43
25:BA:2556:C:H2'	25:BA:2557:G:O4'	2.19	0.43
20:CT:72:LEU:HD21	20:CT:77:ALA:HA	2.00	0.43
28:BD:44:ASN:HB3	28:BD:49:ILE:CA	2.42	0.43
36:DP:97:PRO:C	36:DP:99:LEU:N	2.71	0.43
26:DB:13:A:C5	26:DB:70:C:H4'	2.54	0.43
25:BA:661:C:H2'	25:BA:662:G:H8	1.83	0.43
25:BA:15:G:O2'	52:B5:18:ALA:HA	2.18	0.43
55:B8:26:LYS:CE	55:B8:47:LYS:HD3	2.48	0.43
6:CF:40:VAL:HA	6:CF:62:TRP:O	2.18	0.43
30:DF:7:TYR:CE2	30:DF:10:PRO:HG3	2.54	0.43
25:BA:2580:U:H5'	29:BE:131:ALA:H	1.81	0.43
25:BA:2688:U:C5	25:BA:2719:G:C5	3.07	0.43
1:AA:1311:U:C5	1:AA:1312:G:C5	3.07	0.43
2:CB:102:LEU:HD12	2:CB:102:LEU:N	2.33	0.43
2:CB:105:PHE:O	2:CB:106:LYS:C	2.57	0.43
45:BY:14:LEU:HD12	45:BY:15:VAL:N	2.31	0.43
44:BX:64:LYS:CD	44:BX:73:ARG:CZ	2.96	0.43
3:AC:148:GLY:HA3	3:AC:203:PHE:HB3	2.00	0.43
25:DA:142:A:H8	25:DA:1408:C:H1'	1.83	0.43
30:DF:160:ASN:C	30:DF:162:LEU:H	2.21	0.43
26:DB:11:C:P	47:D0:72:ARG:HD2	2.58	0.43
2:AB:121:LEU:O	2:AB:127:ILE:HD11	2.17	0.43
12:CL:101:VAL:HG12	12:CL:104:VAL:CG2	2.47	0.43
1:CA:57:G:H2'	1:CA:58:C:O4'	2.18	0.43
1:AA:526:C:C4	1:AA:527:G:N7	2.86	0.43
38:DR:104:ARG:NH1	38:DR:109:ALA:HB3	2.33	0.43
35:DO:13:ASN:ND2	35:DO:13:ASN:O	2.50	0.43
1:AA:551:G:N2	1:AA:860:C:C2	2.87	0.43
2:CB:167:PRO:O	2:CB:168:THR:C	2.56	0.43
1:CA:1242:A:C8	1:CA:1243:C:C5	3.06	0.43
46:BZ:104:PHE:CD1	46:BZ:139:VAL:HB	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:CP:76:GLN:O	16:CP:76:GLN:CG	2.65	0.43
3:AC:29:TYR:CD1	14:AN:36:PHE:CZ	3.06	0.43
43:DW:55:ALA:HA	43:DW:107:LEU:HD23	2.00	0.43
25:DA:697:C:H2'	25:DA:698:C:C6	2.54	0.43
1:AA:1385:C:H1'	1:AA:1477:A:N1	2.32	0.43
9:AI:43:ALA:C	9:AI:45:ALA:H	2.22	0.43
54:B7:29:LYS:O	54:B7:32:LYS:HB3	2.19	0.43
25:DA:1500:G:C6	25:DA:1501:C:N3	2.87	0.43
8:AH:66:GLY:O	8:AH:76:PRO:HB2	2.18	0.43
1:CA:528:C:H2'	1:CA:529:G:O4'	2.17	0.43
40:BT:36:GLU:HB2	40:BT:38:ASN:HB2	2.01	0.43
25:DA:1620:G:O2'	54:D7:2:LYS:HG2	2.18	0.43
25:BA:1500:G:C6	25:BA:1501:C:N3	2.87	0.43
25:DA:2654:A:N1	25:DA:2665:A:H5''	2.34	0.43
1:CA:1472:U:H2'	1:CA:1473:C:C6	2.54	0.43
54:D7:1:MET:SD	54:D7:3:ARG:NH2	2.92	0.43
34:DN:72:TYR:CD1	34:DN:72:TYR:N	2.87	0.43
13:CM:79:LYS:O	13:CM:82:MET:SD	2.77	0.43
13:CM:91:ARG:HB3	13:CM:96:LEU:O	2.18	0.43
29:BE:35:GLN:HG2	29:BE:36:ARG:N	2.33	0.43
29:BE:47:VAL:HG23	29:BE:84:PHE:O	2.18	0.43
13:AM:97:PRO:HD3	13:AM:110:ARG:CD	2.48	0.43
29:DE:70:ALA:O	29:DE:71:GLY:O	2.35	0.43
25:BA:105:C:H5''	25:BA:105:C:C6	2.53	0.43
25:DA:2681:C:C4'	25:DA:2682:U:OP1	2.56	0.43
25:DA:2683:C:C5'	40:DT:58:ASN:ND2	2.81	0.43
22:CW:69:G:C2'	22:CW:70:G:H5''	2.48	0.43
22:CW:14:A:N1	22:CW:15:G:C1'	2.81	0.43
45:DY:36:ALA:HB1	45:DY:66:PRO:HB2	2.00	0.43
25:DA:2468:G:C5'	37:DQ:120:ILE:CD1	2.96	0.43
25:DA:2126:A:O2'	25:DA:2127:G:OP2	2.36	0.43
53:D6:42:TRP:HA	53:D6:42:TRP:CE3	2.52	0.43
39:BS:53:SER:O	39:BS:56:LEU:HB3	2.19	0.43
39:BS:62:LYS:N	39:BS:65:VAL:HG23	2.30	0.43
39:BS:87:PHE:O	39:BS:88:ASP:HB2	2.19	0.43
25:BA:1658:C:N4	25:BA:1659:U:O4	2.52	0.43
28:DD:81:ALA:HA	28:DD:113:VAL:CG1	2.49	0.43
33:BI:56:LYS:HE3	33:BI:56:LYS:HB2	1.38	0.43
25:BA:2303:G:O3'	31:BG:124:SER:HA	2.18	0.43
31:BG:125:PHE:HB2	31:BG:166:ASP:OD2	2.18	0.43
28:BD:81:ALA:HA	28:BD:113:VAL:CG1	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CW:34:G:O6	24:CX:14:A:C2	2.71	0.43
2:CB:178:ARG:HG3	8:CH:72:PRO:CA	2.49	0.43
1:CA:246:G:N2	1:CA:248:U:C5	2.86	0.43
50:B3:1:MET:HE2	50:B3:44:ARG:NH2	2.34	0.43
33:BI:83:ALA:HB1	33:BI:88:ILE:HD12	1.95	0.43
33:DI:110:ASP:C	33:DI:114:LEU:HD21	2.39	0.43
22:AW:31:A:H2'	22:AW:32:U:O4'	2.19	0.43
46:BZ:6:LYS:NZ	46:BZ:6:LYS:HB2	2.33	0.43
31:DG:131:TYR:O	31:DG:159:VAL:HG13	2.19	0.43
2:AB:51:LEU:HD23	2:AB:201:ILE:HD12	1.99	0.43
25:DA:1344:G:C6	25:DA:1385:G:N7	2.87	0.43
25:BA:2681:C:C4'	25:BA:2682:U:OP1	2.56	0.43
45:BY:31:LEU:CB	45:BY:32:PRO:CA	2.95	0.43
34:BN:59:LYS:O	34:BN:60:ILE:C	2.56	0.43
25:BA:1141:U:C5	34:BN:64:GLY:HA3	2.54	0.43
25:DA:351:G:OP2	25:DA:351:G:H8	1.97	0.43
21:CU:6:ARG:NE	21:CU:15:ARG:NH1	2.66	0.43
25:DA:971:C:O2'	25:DA:972:G:H5'	2.18	0.43
31:DG:39:ILE:HD11	31:DG:155:MET:CB	2.40	0.43
44:BX:60:ARG:NH2	54:B7:47:ARG:NH2	2.65	0.43
29:BE:201:THR:HG21	29:BE:203:LYS:HG2	1.99	0.43
4:CD:30:LYS:O	4:CD:32:ALA:N	2.51	0.43
23:AV:22:A:N6	23:AV:47:G:C4	2.87	0.43
25:DA:389:G:H22	36:DP:71:VAL:HG12	1.83	0.43
12:AL:26:ALA:O	12:AL:33:ARG:HD2	2.18	0.43
7:CG:50:ILE:O	7:CG:54:THR:O	2.36	0.43
48:B1:3:LYS:CG	48:B1:4:VAL:H	2.15	0.43
25:BA:365:C:C6	25:BA:365:C:H5'	2.32	0.43
7:AG:47:CYS:HA	7:AG:50:ILE:CG1	2.44	0.43
7:AG:50:ILE:HG21	7:AG:58:PRO:CA	2.41	0.43
10:AJ:24:VAL:CG2	10:AJ:72:VAL:HG11	2.48	0.43
29:DE:93:VAL:C	29:DE:95:ILE:H	2.22	0.43
36:BP:101:VAL:HG23	36:BP:102:ARG:N	2.33	0.43
10:CJ:98:ILE:O	10:CJ:98:ILE:HG22	2.18	0.43
48:B1:8:SER:HB3	48:B1:66:HIS:NE2	2.33	0.43
25:DA:1221(A):C:O2'	25:DA:1222:C:H5'	2.18	0.43
29:DE:1:MET:SD	29:DE:1:MET:N	2.79	0.43
29:DE:44:TYR:O	29:DE:45:THR:CB	2.64	0.43
25:DA:2638:G:P	29:DE:82:ARG:NH2	2.91	0.43
39:BS:48:LEU:CD1	39:BS:48:LEU:H	2.31	0.43
38:DR:28:LEU:CA	38:DR:34:ILE:HG13	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1048:A:H4'	25:DA:1049:C:C5	2.53	0.43
31:DG:97:ASP:O	31:DG:98:ARG:C	2.56	0.43
6:CF:39:LYS:CG	6:CF:40:VAL:H	2.29	0.43
22:CY:36:A:C2	24:CX:20:U:C2	3.06	0.43
25:BA:143(A):C:H4'	44:BX:38:GLU:OE1	2.19	0.43
37:BQ:85:LYS:CG	47:B0:7:LEU:HD13	2.49	0.43
12:CL:102:ARG:HB3	12:CL:108:ALA:O	2.18	0.43
1:AA:806:G:C6	1:AA:807:C:C4	3.06	0.43
25:BA:904:C:H1'	46:BZ:169:GLU:OE2	2.19	0.43
35:BO:88:ASN:CA	35:BO:94:ARG:HE	2.30	0.43
25:DA:1331:A:HO2'	25:DA:1332:G:H8	1.67	0.43
6:AF:63:TYR:N	6:AF:63:TYR:HD2	2.17	0.43
1:CA:1489:U:H2'	1:CA:1490:A:C8	2.54	0.43
25:DA:1509(B):A:H2'	25:DA:1510:G:C8	2.54	0.43
3:AC:119:ARG:HE	3:AC:140:ARG:NE	2.16	0.43
28:BD:176:ARG:CG	28:BD:176:ARG:HH11	2.28	0.43
25:DA:1494:A:H3'	25:DA:1494:A:N3	2.34	0.43
9:AI:47:LEU:N	9:AI:47:LEU:CD1	2.81	0.43
25:DA:948:G:C2	25:DA:970:C:O2	2.71	0.43
1:CA:901:C:O2'	1:CA:1479:A:N6	2.52	0.43
8:CH:82:HIS:C	8:CH:82:HIS:HD2	2.19	0.43
5:AE:28:PHE:HD1	5:AE:28:PHE:N	2.16	0.43
30:BF:41:LEU:HD11	30:BF:184:TYR:CE1	2.52	0.43
48:D1:51:VAL:HG12	48:D1:58:ILE:O	2.19	0.43
25:BA:2689:U:H4'	25:BA:2690:C:C6	2.49	0.43
1:CA:12:U:O2'	1:CA:509:C:H4'	2.18	0.43
49:B2:18:PRO:O	49:B2:21:LEU:HB2	2.18	0.43
49:D2:18:PRO:O	49:D2:21:LEU:HB2	2.18	0.43
1:CA:1369:G:C6	1:CA:1370:C:N4	2.87	0.43
25:BA:1668:A:H4'	25:BA:1669:A:O5'	2.18	0.43
9:CI:92:TYR:N	9:CI:92:TYR:HD1	2.15	0.43
1:AA:22:G:C6	1:AA:23:C:C4	3.06	0.43
8:AH:44:PHE:HA	8:AH:79:VAL:HG11	2.01	0.43
1:AA:551:G:C6	1:AA:552:C:C4	3.07	0.43
25:BA:1966:A:N3	25:BA:2592:G:O2'	2.45	0.43
25:DA:2236:C:H2'	25:DA:2237:G:C5'	2.49	0.43
1:CA:498:G:C2	1:CA:520:G:C2	3.06	0.43
26:DB:30:C:H4'	26:DB:58:A:H2	1.83	0.43
32:BH:132:ARG:HG2	32:BH:132:ARG:HH11	1.82	0.43
1:AA:1273:U:H5'	9:AI:38:GLN:OE1	2.19	0.43
1:CA:1432:C:O2	1:CA:1433:G:N2	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1188:U:H4'	42:DV:79:VAL:CG2	2.48	0.43
25:DA:271(W):G:C6	25:DA:271(X):G:N1	2.87	0.43
1:AA:146:A:H62	1:AA:163:C:H42	1.67	0.43
56:D9:4:ARG:O	56:D9:36:GLN:HA	2.18	0.43
25:BA:337:C:H2'	25:BA:338:G:O5'	2.18	0.43
25:BA:1386:C:H2'	25:BA:1387:C:H6	1.82	0.43
1:AA:1007:C:H5''	1:AA:1008:C:OP1	2.18	0.43
25:BA:2164:C:H3'	25:BA:2165:G:C8	2.53	0.43
25:DA:237:C:O2'	25:DA:238:C:H5'	2.18	0.43
1:CA:15:G:H2'	1:CA:16:A:C8	2.54	0.43
25:DA:2164:C:H3'	25:DA:2165:G:C8	2.53	0.43
28:BD:227:ASN:HB3	28:BD:228:PRO:HD2	1.99	0.43
25:BA:246:C:C2'	25:BA:247:G:H5'	2.49	0.43
1:AA:730:C:C5	1:AA:731:C:C4	3.06	0.43
25:DA:691:C:O2'	25:DA:692:C:H5'	2.18	0.43
54:B7:6:GLN:HA	54:B7:7:PRO:HD2	1.82	0.43
46:BZ:61:LEU:HB2	46:BZ:65:GLN:HB2	2.00	0.43
1:CA:1478:C:N4	1:CA:1481:G:C2	2.87	0.43
35:DO:31:LYS:HD3	35:DO:31:LYS:HA	1.63	0.43
25:BA:1600:C:O2'	25:BA:1601:G:H5'	2.18	0.43
1:CA:1040:G:N2	10:CJ:53:PRO:HG3	2.34	0.43
10:CJ:92:THR:HG23	10:CJ:93:GLY:N	2.34	0.43
1:CA:1207:C:N4	13:CM:104:ARG:HD2	2.33	0.43
25:DA:886:C:C2	25:DA:889:C:N4	2.86	0.43
29:BE:52:LEU:HA	29:BE:53:PRO:HD3	1.50	0.43
1:AA:949:C:O3'	10:AJ:57:LYS:CG	2.66	0.43
14:AN:50:LYS:HG3	14:AN:50:LYS:H	1.66	0.43
23:CV:15:G:H22	23:CV:49:C:N4	2.10	0.43
45:DY:16:ALA:HB1	45:DY:21:LYS:HZ3	1.84	0.43
25:BA:330:A:H2	25:BA:1210:A:H2'	1.83	0.43
25:DA:644:A:N6	25:DA:2349:G:H1'	2.33	0.43
27:BC:58:VAL:HG22	27:BC:167:LYS:CA	2.49	0.43
55:D8:64:TYR:N	55:D8:64:TYR:CD1	2.86	0.43
42:DV:49:THR:CB	42:DV:50:PRO:HD2	2.47	0.43
26:BB:107:G:C2	26:BB:108:U:C6	3.06	0.43
5:CE:65:ASN:C	5:CE:66:MET:HG2	2.39	0.43
36:DP:48:PRO:HG2	36:DP:49:ARG:N	2.29	0.43
8:CH:38:ILE:HG12	8:CH:41:ARG:HH11	1.83	0.43
2:CB:19:HIS:CG	2:CB:189:ASP:OD2	2.72	0.43
42:DV:28:GLU:HB3	42:DV:29:PRO:CD	2.48	0.43
44:BX:63:LYS:HB3	44:BX:72:LYS:HG3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:142:VAL:CG2	28:BD:192:THR:O	2.66	0.43
28:DD:142:VAL:CG2	28:DD:192:THR:O	2.66	0.43
33:DI:145:VAL:CG1	33:DI:146:ALA:N	2.68	0.43
2:AB:37:ASN:O	2:AB:39:ILE:N	2.46	0.43
30:BF:20:LEU:C	30:BF:24:LEU:HD23	2.38	0.43
36:BP:9:ASN:C	36:BP:11:GLY:N	2.71	0.43
23:AV:66:C:C4'	23:AV:66:C:C6	3.02	0.43
25:BA:2667:C:H1'	32:BH:109:PHE:CD2	2.53	0.43
45:BY:37:VAL:O	45:BY:38:ILE:HG12	2.19	0.43
25:BA:1142(A):A:C5	25:BA:1144:G:C5	3.07	0.43
25:BA:350:U:H2'	25:BA:351:G:O4'	2.19	0.43
38:BR:10:LEU:HB3	38:BR:17:ARG:HD2	2.00	0.43
9:CI:95:LYS:N	9:CI:98:PRO:HD2	2.33	0.43
25:DA:1655:A:H4'	29:DE:115:GLY:N	2.34	0.43
26:DB:73:A:C2'	26:DB:74:U:H5'	2.47	0.43
46:BZ:150:LEU:CD2	46:BZ:171:ILE:HG13	2.38	0.43
25:DA:1378:A:OP1	54:D7:10:ARG:NH2	2.51	0.43
29:BE:101:ARG:HH21	29:BE:171:GLU:N	2.16	0.43
23:AV:14:A:H2'	23:AV:14:A:N3	2.34	0.43
29:DE:101:ARG:HH21	29:DE:171:GLU:N	2.17	0.43
9:AI:116:LYS:HD3	9:AI:116:LYS:HA	1.73	0.43
25:BA:2134:A:N6	25:BA:2157:G:C1'	2.73	0.43
25:BA:2230:G:O2'	48:B1:43:TYR:O	2.30	0.43
1:CA:921:G:O2'	1:CA:1320:A:N6	2.52	0.43
19:CS:9:VAL:CG1	19:CS:11:VAL:HG12	2.48	0.43
28:DD:43:ARG:HG2	28:DD:54:ARG:O	2.19	0.43
2:CB:77:ALA:CB	2:CB:211:ILE:CD1	2.96	0.43
25:BA:1847:A:H3'	25:BA:1848:A:C5'	2.48	0.43
29:BE:117:MET:O	29:BE:118:LYS:HB2	2.19	0.43
26:DB:69:G:C2	26:DB:70:C:N3	2.86	0.43
48:D1:8:SER:HB3	48:D1:66:HIS:NE2	2.33	0.43
23:AV:1:C:N4	23:AV:74:A:C2	2.86	0.43
9:AI:46:ALA:HB2	9:AI:74:ILE:HG23	2.00	0.43
46:DZ:132:ASN:HB3	46:DZ:159:PRO:O	2.19	0.43
37:DQ:81:VAL:CG2	47:D0:7:LEU:CD2	2.96	0.43
25:DA:1986:A:H3'	25:DA:1987:G:H5''	1.94	0.43
7:AG:148:ASN:O	7:AG:150:ALA:N	2.51	0.43
6:CF:63:TYR:N	6:CF:63:TYR:HD2	2.17	0.43
25:BA:1048:A:H4'	25:BA:1049:C:C5	2.53	0.43
25:BA:1109:C:C5	25:BA:1110:G:C5	3.06	0.43
1:AA:385:C:H2'	1:AA:386:G:H8	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CY:36:A:H2	24:CX:20:U:C2	2.36	0.43
13:CM:50:GLU:O	13:CM:54:VAL:HG23	2.18	0.43
25:DA:2308:G:H2'	25:DA:2309:A:H8	1.80	0.43
1:AA:1054:G:H21	2:AB:107:THR:HG21	1.83	0.43
4:CD:108:LEU:O	4:CD:110:PHE:CD1	2.71	0.43
48:B1:23:LYS:CD	48:B1:28:GLY:HA3	2.49	0.43
1:CA:1257:G:H2'	1:CA:1258:C:O4'	2.18	0.43
25:DA:142:A:H1'	25:DA:1408:C:O4'	2.18	0.43
44:DX:36:LYS:HD2	44:DX:54:VAL:O	2.18	0.43
43:BW:27:LYS:O	43:BW:70:TYR:HB2	2.17	0.43
25:BA:792:G:C5'	25:BA:793:A:H5'	2.45	0.43
5:AE:90:VAL:O	5:AE:91:LEU:HD12	2.18	0.43
1:CA:898:U:H2'	1:CA:899:G:O4'	2.18	0.43
53:D6:11:LEU:HD13	53:D6:12:GLU:N	2.34	0.43
25:BA:2150:U:H2'	25:BA:2151:G:H8	1.79	0.43
1:AA:74:C:H42	1:AA:88:G:H1	1.67	0.43
25:BA:2033:A:O2'	25:BA:2034:U:O5'	2.36	0.43
25:BA:2287:A:C2	25:BA:2346:A:C2	3.06	0.43
7:AG:151:TYR:O	7:AG:154:TYR:HB2	2.18	0.43
25:BA:906:G:O3'	37:BQ:67:ARG:NH2	2.50	0.43
30:DF:57:VAL:CG1	30:DF:59:TYR:HD1	2.31	0.43
17:CQ:29:HIS:CE1	17:CQ:31:LEU:H	2.33	0.43
1:CA:1134:A:H2'	1:CA:1135:C:C6	2.50	0.43
10:CJ:13:HIS:C	10:CJ:13:HIS:ND1	2.71	0.43
25:BA:1309:G:P	54:B7:9:ARG:HD2	2.58	0.43
1:AA:21:G:H2'	1:AA:22:G:C8	2.53	0.43
25:DA:2521:C:O2'	25:DA:2564:A:N3	2.34	0.43
17:CQ:75:ARG:HG3	17:CQ:75:ARG:NH1	2.33	0.43
25:DA:2136:C:N4	25:DA:2155:G:N1	2.67	0.43
22:CW:53:G:N1	22:CW:54:U:C4	2.86	0.43
1:AA:1116:G:H2'	1:AA:1117:U:H5'	1.98	0.43
32:BH:130:ARG:NH1	32:BH:132:ARG:HH21	2.16	0.43
25:BA:2408:U:O5'	25:BA:2408:U:H6	2.01	0.43
35:DO:12:ASP:OD2	35:DO:12:ASP:N	2.52	0.43
43:BW:55:ALA:HA	43:BW:107:LEU:HD23	1.99	0.43
1:AA:396:C:N3	1:AA:397:G:N7	2.67	0.43
1:CA:1473:C:H4'	25:DA:1920:C:O2'	2.19	0.43
25:BA:2636:U:H4'	29:BE:80:GLU:CD	2.38	0.43
25:BA:2654:A:N1	25:BA:2665:A:H5''	2.34	0.43
54:B7:1:MET:SD	54:B7:3:ARG:NH2	2.92	0.43
25:BA:2770:G:H5'	25:BA:2771:C:OP2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:794:C:H4'	1:AA:877:A:N6	2.33	0.43
37:DQ:25:ASP:N	37:DQ:25:ASP:OD1	2.52	0.43
3:AC:142:MET:C	3:AC:144:SER:H	2.22	0.43
25:BA:1438:U:O2'	25:BA:1439:A:H5'	2.18	0.43
13:AM:94:ARG:NH2	25:BA:887:A:C4	2.87	0.43
25:DA:2810:A:C2'	29:DE:61:ARG:CZ	2.97	0.43
25:BA:910:A:C5	37:BQ:13:GLN:CG	2.95	0.43
25:BA:953:A:N6	25:BA:965:C:N4	2.67	0.43
25:BA:953:A:C6	25:BA:965:C:N3	2.86	0.43
22:CW:1:G:C6	22:CW:2:C:C4	3.06	0.43
1:AA:958:U:H5'	14:AN:21:TYR:OH	2.18	0.43
22:CW:14:A:C2	22:CW:15:G:O4'	2.71	0.43
45:DY:30:VAL:CG1	45:DY:31:LEU:N	2.81	0.43
45:DY:37:VAL:O	45:DY:38:ILE:HG12	2.19	0.43
25:DA:2801(A):A:C2	25:DA:2803:C:O2	2.71	0.43
25:BA:2162:G:O3'	25:BA:2172:U:O2'	2.24	0.43
25:DA:2127:G:H5'	27:DC:36:LYS:HZ3	1.82	0.43
25:DA:2168:G:C2	25:DA:2171:A:C8	3.07	0.43
55:D8:61:LEU:N	55:D8:63:PRO:HD2	2.33	0.43
25:DA:1453:U:C5	25:DA:2702:U:O4	2.71	0.43
26:BB:30:C:H4'	26:BB:58:A:H2	1.83	0.43
39:BS:16:ASN:O	39:BS:20:ARG:NH2	2.51	0.43
42:BV:61:VAL:HA	42:BV:94:LEU:HD23	1.99	0.43
10:CJ:48:THR:HG22	10:CJ:49:VAL:N	2.33	0.43
25:BA:271(G):C:O2'	25:BA:271(H):G:H5'	2.18	0.43
25:BA:857:C:H5'	47:B0:77:ARG:NH2	2.29	0.43
10:CJ:40:LEU:CG	10:CJ:69:ASN:HB3	2.43	0.43
8:CH:109:ILE:CG1	8:CH:110:ALA:H	2.23	0.43
1:AA:1173:C:C5	1:AA:1174:G:C8	3.07	0.43
29:DE:35:GLN:HG2	29:DE:36:ARG:N	2.33	0.43
2:CB:24:TRP:HB3	2:CB:40:HIS:CE1	2.53	0.43
50:B3:23:LEU:CD1	50:B3:50:VAL:HG11	2.49	0.43
4:AD:127:THR:HG23	4:AD:149:ALA:HB2	2.01	0.43
33:BI:114:LEU:O	33:BI:115:ALA:CB	2.65	0.43
13:CM:14:ARG:HB2	13:CM:16:ASP:OD2	2.18	0.43
39:DS:26:LEU:HA	39:DS:38:GLN:O	2.18	0.43
33:DI:80:PRO:O	33:DI:81:VAL:C	2.57	0.43
34:DN:62:VAL:HG22	34:DN:66:LYS:HD2	1.99	0.43
32:BH:26:VAL:HG11	32:BH:76:VAL:HA	2.01	0.43
28:DD:241:PRO:O	28:DD:242:ARG:HB2	2.19	0.43
31:DG:125:PHE:HB2	31:DG:166:ASP:OD2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:917:C:H2'	1:CA:918:G:C8	2.53	0.43
25:DA:1653:G:O6	38:DR:11:ASN:HB2	2.19	0.43
22:AW:50:U:C4	22:AW:51:U:C4	3.07	0.43
45:BY:30:VAL:CG1	45:BY:31:LEU:N	2.81	0.43
25:BA:351:G:H8	25:BA:351:G:P	2.42	0.43
26:BB:69:G:N2	26:BB:70:C:C2	2.87	0.43
7:CG:59:LEU:HD23	7:CG:60:LYS:N	2.33	0.43
27:DC:187:ASP:O	27:DC:189:ILE:N	2.50	0.43
31:DG:91:ARG:C	31:DG:91:ARG:CD	2.87	0.43
25:BA:125:G:H21	54:B7:48:LYS:CD	2.31	0.43
25:BA:2336:A:H61	47:B0:43:THR:CG2	2.31	0.43
3:CC:188:LEU:O	3:CC:189:ALA:HB2	2.18	0.43
25:BA:1493:C:C4	25:BA:2206:G:O2'	2.68	0.43
15:CO:17:ARG:HD3	15:CO:26:GLU:HG3	2.01	0.43
7:CG:50:ILE:HG21	7:CG:58:PRO:CA	2.39	0.43
30:DF:8:GLN:HB2	30:DF:124:LEU:HD11	2.00	0.43
30:BF:8:GLN:HB2	30:BF:124:LEU:HD11	2.00	0.43
2:CB:219:VAL:HA	2:CB:222:ILE:HG13	2.00	0.43
2:CB:80:ILE:CD1	2:CB:212:GLN:HA	2.48	0.43
25:DA:1289:C:H2'	25:DA:1290:C:C6	2.54	0.43
1:CA:685:A:C5	25:DA:1848:A:C4	3.06	0.43
36:BP:115:LEU:CD2	36:BP:115:LEU:N	2.82	0.43
36:DP:83:VAL:HG23	36:DP:105:LEU:HD12	2.01	0.43
1:AA:1478:C:OP2	1:AA:1481:G:H2'	2.18	0.43
34:DN:133:GLN:O	34:DN:134:ARG:HG3	2.18	0.43
34:DN:42:TRP:CE3	34:DN:48:MET:HE1	2.53	0.43
46:BZ:128:VAL:HG22	46:BZ:129:SER:H	1.84	0.43
25:BA:811:U:OP1	36:BP:30:THR:HG22	2.19	0.43
2:CB:134:GLU:CA	2:CB:137:ARG:HB3	2.47	0.43
6:CF:3:ARG:NH1	6:CF:38:GLU:OE1	2.51	0.43
22:CY:34:G:H5'	22:CY:35:A:OP2	2.19	0.43
22:CY:30:G:C6	22:CY:31:A:N7	2.86	0.43
30:BF:168:ARG:C	30:BF:170:LEU:H	2.22	0.43
31:DG:14:GLU:O	31:DG:17:PRO:HG2	2.18	0.43
25:DA:1503:U:C4	25:DA:1504:C:N4	2.83	0.43
1:CA:1266:A:H8	1:CA:1266:A:OP1	2.00	0.43
55:B8:29:LYS:CE	55:B8:44:LYS:HB3	2.49	0.43
37:BQ:81:VAL:CG2	47:B0:7:LEU:CD2	2.97	0.43
22:CY:37:A:C6	22:CY:38:A:C4	3.07	0.43
49:B2:14:ARG:HG3	49:B2:14:ARG:NH1	2.26	0.43
31:BG:53:LEU:N	31:BG:53:LEU:CD2	2.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:46:ARG:NH1	30:BF:46:ARG:CG	2.77	0.43
25:DA:904:C:HO2'	46:DZ:169:GLU:CD	2.22	0.43
1:CA:718:C:H2'	1:CA:719:C:H6	1.84	0.43
6:CF:75:LEU:O	6:CF:78:GLU:HB3	2.19	0.43
27:BC:78:ALA:HB1	27:BC:82:LYS:HB2	2.00	0.43
46:BZ:74:VAL:HG22	46:BZ:86:VAL:CG1	2.49	0.43
1:AA:752:G:OP2	1:AA:786:G:O2'	2.34	0.43
29:BE:120:TRP:NE1	29:BE:155:LYS:HB3	2.34	0.43
12:AL:119:LYS:C	12:AL:120:TYR:CD1	2.92	0.43
1:CA:1456:C:H2'	1:CA:1457:G:H8	1.83	0.43
2:CB:112:VAL:CG1	2:CB:153:ARG:HA	2.47	0.43
25:BA:36:G:H4'	25:BA:451:C:C2	2.53	0.43
1:CA:57:G:H2'	1:CA:58:C:H6	1.80	0.43
34:DN:78:TYR:N	34:DN:78:TYR:HD1	2.15	0.43
1:CA:1135:C:P	10:CJ:13:HIS:HE2	2.41	0.43
1:AA:268:A:N6	1:AA:269:A:N6	2.66	0.43
3:AC:6:HIS:CD2	3:AC:8:ILE:H	2.37	0.43
1:CA:1259:U:C3'	1:CA:1259:U:C6	3.01	0.43
1:CA:740:U:H2'	1:CA:741:G:O4'	2.18	0.43
25:DA:957:A:N1	25:DA:2458:G:H4'	2.33	0.43
1:CA:41:G:H2'	1:CA:42:G:H8	1.82	0.43
31:BG:164:GLU:O	31:BG:165:THR:C	2.57	0.43
25:BA:2825:C:H2'	25:BA:2826:A:O4'	2.19	0.43
1:CA:482:A:N6	1:CA:530:A:C8	2.87	0.43
25:DA:188:G:C2'	25:DA:189:G:H5'	2.48	0.43
4:AD:43:HIS:O	4:AD:44:GLY:C	2.57	0.43
54:D7:6:GLN:HA	54:D7:7:PRO:HD2	1.82	0.43
49:B2:3:LEU:HD23	49:B2:3:LEU:O	2.18	0.43
3:CC:66:VAL:O	3:CC:66:VAL:HG12	2.19	0.43
1:CA:896:A:O5'	1:CA:896:A:H8	2.02	0.43
32:BH:153:LYS:HD3	32:BH:153:LYS:O	2.19	0.43
1:AA:264:C:H2'	1:AA:265:A:C8	2.53	0.43
13:CM:94:ARG:CZ	25:DA:887:A:C3'	2.93	0.43
4:AD:33:MET:HA	4:AD:33:MET:CE	2.49	0.43
13:AM:96:LEU:HA	13:AM:110:ARG:HD3	1.98	0.43
25:DA:1819:A:O4'	25:DA:1821:A:C8	2.71	0.43
50:D3:31:LEU:O	50:D3:33:GLN:N	2.52	0.43
42:BV:41:GLY:N	42:BV:45:THR:HB	2.32	0.43
22:CW:13:C:C2	22:CW:23:A:N1	2.87	0.43
25:DA:271(F):C:H2'	25:DA:271(G):C:C6	2.49	0.43
25:DA:958:U:O2	26:DB:90:A:H4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:51:PHE:CE1	36:BP:52:GLU:OE1	2.72	0.43
25:DA:2128:C:O5'	27:DC:35:ALA:CB	2.61	0.43
45:BY:20:TYR:CE1	45:BY:42:VAL:HG22	2.54	0.43
13:AM:65:LYS:HG3	13:AM:66:LEU:H	1.83	0.43
31:BG:106:LEU:CA	31:BG:110:ALA:HB3	2.44	0.43
25:BA:1796:U:H2'	25:BA:1797:C:H6	1.83	0.43
39:BS:17:ARG:H	39:BS:17:ARG:HG2	1.65	0.43
39:BS:28:VAL:CG1	39:BS:29:PHE:N	2.81	0.43
39:DS:101:LEU:O	39:DS:101:LEU:HD22	2.19	0.43
10:CJ:63:PHE:N	10:CJ:63:PHE:CD2	2.85	0.43
23:AV:20:G:N1	23:AV:58:A:N3	2.66	0.43
7:CG:78:ARG:NE	7:CG:79:ARG:O	2.51	0.43
1:AA:1078:C:H2'	1:AA:1079:C:C6	2.54	0.43
34:BN:126:PRO:O	34:BN:127:ASP:CB	2.66	0.43
5:AE:76:ILE:HG13	5:AE:77:PRO:HD2	2.00	0.43
30:BF:187:VAL:HG12	36:BP:7:ARG:NH2	2.33	0.43
30:DF:20:LEU:C	30:DF:24:LEU:HD23	2.38	0.43
25:BA:2181:G:O2'	25:BA:2182:G:H5'	2.18	0.43
25:DA:272:G:C6	25:DA:272(B):G:N2	2.86	0.43
32:BH:89:ILE:O	32:BH:161:GLY:O	2.36	0.43
25:BA:389:G:N1	36:BP:71:VAL:CG1	2.78	0.43
22:AW:68:C:O2'	22:AW:69:G:H5'	2.19	0.43
34:BN:57:ALA:O	34:BN:58:ASP:C	2.56	0.43
25:BA:569:U:H1'	25:BA:947:G:O4'	2.18	0.43
25:DA:478:A:C6	25:DA:480:A:C6	3.06	0.43
25:BA:297:C:C2'	25:BA:298:G:C5'	2.81	0.43
31:DG:43:LEU:CB	31:DG:88:ILE:HG12	2.39	0.43
25:DA:1992:G:C4'	25:DA:1993:U:OP1	2.53	0.43
37:BQ:62:GLY:H	37:BQ:109:VAL:HG23	1.84	0.43
3:CC:196:LEU:HB3	3:CC:197:GLY:H	1.72	0.43
47:D0:43:THR:O	47:D0:43:THR:HG23	2.18	0.43
25:DA:2134:A:N3	25:DA:2159:G:H1'	2.30	0.43
7:AG:43:PHE:O	7:AG:43:PHE:HD1	2.01	0.43
33:DI:6:LEU:HD12	33:DI:34:GLY:O	2.18	0.43
33:DI:5:LEU:C	33:DI:6:LEU:HD23	2.39	0.43
25:BA:920:G:O2'	25:BA:921:G:H5'	2.19	0.43
29:BE:45:THR:CG2	29:BE:83:ASP:HA	2.45	0.43
6:AF:21:LEU:HD13	6:AF:24:GLU:OE1	2.19	0.43
23:AV:36:A:H61	24:AX:17:U:H3	1.66	0.43
39:DS:48:LEU:CD1	39:DS:48:LEU:H	2.31	0.43
3:AC:54:ARG:NH1	3:AC:56:ASP:HB2	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DZ:128:VAL:HG22	46:DZ:129:SER:H	1.84	0.43
3:CC:77:ILE:O	3:CC:83:ARG:HB3	2.19	0.43
1:AA:1004:G:OP2	1:AA:1005:C:N4	2.51	0.43
11:AK:48:ILE:CD1	11:AK:64:ALA:HA	2.45	0.43
27:BC:42:GLU:H	27:BC:213:TYR:H	1.67	0.43
47:B0:49:LYS:HB2	47:B0:80:HIS:HB3	2.01	0.43
29:DE:24:THR:HG23	29:DE:24:THR:O	2.19	0.43
1:CA:1329:U:H2'	1:CA:1330:A:H8	1.83	0.43
30:DF:168:ARG:C	30:DF:170:LEU:H	2.22	0.43
1:CA:1086:G:H2'	1:CA:1087:A:O4'	2.19	0.43
2:CB:69:LEU:HB2	2:CB:159:PRO:HG2	2.01	0.43
54:D7:43:THR:CG2	54:D7:44:PRO:N	2.81	0.43
55:D8:29:LYS:CE	55:D8:44:LYS:HB3	2.49	0.43
28:BD:158:ALA:O	28:BD:161:THR:HG23	2.18	0.43
25:DA:2146:C:H4'	25:DA:2147:G:C8	2.52	0.43
29:DE:120:TRP:NE1	29:DE:155:LYS:HB3	2.34	0.43
1:CA:902:G:C2	1:CA:1374:G:C2	3.06	0.43
1:CA:902:G:C4	1:CA:1374:G:N2	2.87	0.43
11:CK:34:ASP:OD2	11:CK:36:ASP:N	2.52	0.43
30:BF:181:LEU:HB3	30:BF:205:ARG:HH12	1.84	0.43
18:AR:82:THR:CG2	18:AR:83:GLU:H	2.30	0.43
37:DQ:10:ARG:HG3	37:DQ:10:ARG:NH1	2.32	0.43
25:BA:2287:A:N3	25:BA:2289:G:C8	2.87	0.43
25:DA:1710:C:O2'	25:DA:1711:C:H5'	2.18	0.43
25:DA:874:G:O2'	25:DA:875:G:H5'	2.19	0.43
13:CM:72:ALA:HA	13:CM:75:ALA:HB2	2.00	0.43
1:AA:142:G:C2	1:AA:143:A:N7	2.86	0.43
31:BG:165:THR:HG1	31:BG:168:GLU:H	1.63	0.43
27:DC:214:VAL:O	27:DC:216:THR:N	2.51	0.43
35:DO:104:ARG:HH12	40:DT:35:LYS:CG	2.32	0.43
7:CG:95:ARG:NH1	7:CG:95:ARG:HG3	2.33	0.43
1:CA:1407:U:H1'	1:CA:1453:G:N2	2.33	0.43
54:D7:29:LYS:O	54:D7:32:LYS:HB3	2.19	0.43
5:AE:7:GLU:HG2	5:AE:37:ARG:HH21	1.84	0.43
46:BZ:3:TYR:CD1	46:BZ:3:TYR:N	2.85	0.43
1:CA:1095:C:O5'	1:CA:1095:C:H6	2.01	0.43
1:AA:372:G:OP1	16:AP:3:LYS:HD2	2.18	0.43
1:CA:1208:A:O2'	13:CM:115:LYS:CB	2.67	0.43
25:DA:1819:A:C4'	25:DA:1820:U:O5'	2.60	0.43
25:BA:109:G:C2'	25:BA:110:G:O5'	2.67	0.43
10:AJ:51:ARG:HE	10:AJ:61:GLU:HB2	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:332:A:O2'	25:DA:333:G:P	2.77	0.43
55:B8:49:VAL:C	55:B8:53:PRO:HG3	2.38	0.43
19:AS:45:VAL:C	19:AS:47:HIS:N	2.63	0.43
38:BR:60:LEU:O	38:BR:63:ARG:HB3	2.18	0.43
38:BR:82:GLU:C	38:BR:85:PRO:HD2	2.39	0.43
13:AM:3:ARG:HG2	13:AM:9:ILE:HG13	2.01	0.43
42:DV:2:PHE:HB3	42:DV:41:GLY:C	2.39	0.43
25:BA:281:G:N2	25:BA:358:U:C4	2.84	0.43
25:BA:644:A:N6	25:BA:2349:G:H1'	2.33	0.43
5:CE:12:LEU:C	5:CE:13:ILE:HG13	2.39	0.43
14:CN:26:ARG:HD2	14:CN:43:CYS:CB	2.49	0.43
25:BA:271(H):G:O6	25:BA:271(Q):G:O6	2.35	0.43
36:DP:47:ASP:HB2	36:DP:51:PHE:HB2	2.01	0.43
25:DA:855:G:C6	25:DA:856:C:C4	3.07	0.43
2:CB:178:ARG:CD	8:CH:71:GLY:C	2.82	0.43
42:DV:19:LYS:C	42:DV:20:LEU:HD12	2.39	0.43
25:BA:848:G:H5'	25:BA:848:G:C8	2.52	0.43
5:AE:65:ASN:C	5:AE:66:MET:HG2	2.38	0.43
32:BH:17:VAL:O	32:BH:19:VAL:HG23	2.19	0.43
1:AA:1452:G:H4'	25:BA:1689:A:H4'	2.00	0.43
26:DB:107:G:C2	26:DB:108:U:N1	2.87	0.43
46:DZ:5:LEU:HD12	46:DZ:6:LYS:N	2.33	0.43
1:AA:1267:A:C8	1:AA:1268:A:H4'	2.54	0.43
25:BA:541:C:H2'	25:BA:542:C:C5'	2.42	0.43
2:AB:74:LYS:C	2:AB:76:GLN:N	2.71	0.43
45:BY:27:VAL:CA	45:BY:28:LYS:NZ	2.69	0.43
1:CA:1113:G:H2'	1:CA:1114:C:C6	2.54	0.43
25:DA:351:G:H8	25:DA:351:G:P	2.42	0.43
40:DT:23:ARG:CG	40:DT:120:ARG:HH11	2.31	0.43
46:BZ:99:TYR:HA	46:BZ:125:LEU:HA	2.01	0.43
46:BZ:51:ALA:O	46:BZ:52:SER:HB3	2.19	0.43
25:DA:2206:G:N3	25:DA:2206:G:H3'	2.34	0.43
25:BA:2206:G:N3	25:BA:2206:G:H3'	2.34	0.43
23:CV:29:C:C6	23:CV:29:C:H3'	2.54	0.43
23:CV:30:G:C6	23:CV:43:G:C6	3.07	0.43
23:CV:30:G:O5'	23:CV:30:G:C8	2.67	0.43
36:BP:111:ARG:CZ	36:BP:149:GLU:HG3	2.48	0.43
5:AE:110:LEU:HD13	5:AE:118:ILE:HG21	2.00	0.43
53:B6:36:LEU:HD13	53:B6:50:ARG:HH11	1.83	0.43
51:D4:45:GLY:O	51:D4:46:ASN:O	2.37	0.43
26:BB:75:G:H1	26:BB:103:G:N2	2.16	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:D2:64:LEU:HD22	49:D2:64:LEU:O	2.18	0.43
22:AW:28:G:N2	22:AW:43:C:O2	2.52	0.43
25:DA:2813:A:C2'	25:DA:2814:C:H5'	2.49	0.43
19:AS:22:LEU:HD13	19:AS:27:GLU:CB	2.49	0.43
2:CB:95:GLN:NE2	2:CB:147:LYS:HG2	2.29	0.43
29:DE:110:GLY:CA	29:DE:162:ALA:H	2.30	0.43
22:AW:9:A:O2'	22:AW:10:G:N7	2.52	0.43
25:DA:956:G:N2	25:DA:959:A:H3'	2.34	0.43
28:BD:241:PRO:O	28:BD:242:ARG:HB2	2.19	0.43
25:BA:956:G:N2	25:BA:959:A:H3'	2.34	0.43
44:DX:64:LYS:HE2	44:DX:64:LYS:HB3	1.84	0.43
1:AA:1294:U:C6	1:AA:1294:U:O5'	2.62	0.43
1:CA:1310:A:C2	1:CA:1311:U:C2	3.06	0.43
1:CA:1381:C:C2	1:CA:1383:G:C6	3.07	0.43
30:DF:181:LEU:HB3	30:DF:205:ARG:HH12	1.84	0.43
25:BA:2813:A:C2'	25:BA:2814:C:H5'	2.49	0.43
25:DA:1541:G:H5''	25:DA:1542:A:OP2	2.19	0.43
25:DA:2287:A:N3	25:DA:2289:G:C8	2.87	0.43
25:DA:1313:U:H2'	25:DA:1314:C:H5'	2.00	0.43
1:CA:451:C:C2	1:CA:460:G:C2	3.07	0.43
1:AA:565:U:OP1	15:AO:68:ARG:NH2	2.52	0.43
25:BA:1407:C:H42	25:BA:1595:G:H1	1.66	0.43
25:BA:582:G:H2'	25:BA:583:G:C8	2.54	0.43
25:BA:624:C:C2'	25:BA:625:G:H5'	2.48	0.43
4:CD:96:LEU:N	4:CD:96:LEU:CD1	2.82	0.43
12:CL:113:ARG:NH1	12:CL:120:TYR:CD2	2.87	0.43
25:BA:2236:C:H2'	25:BA:2237:G:C5'	2.48	0.43
2:AB:223:ILE:O	2:AB:227:GLY:N	2.52	0.43
38:DR:33:ARG:HD2	38:DR:33:ARG:N	2.33	0.43
25:DA:920:G:O2'	25:DA:921:G:H5'	2.19	0.43
43:BW:20:VAL:HG11	43:BW:44:ALA:HA	2.01	0.43
8:CH:44:PHE:HA	8:CH:79:VAL:HG12	2.01	0.43
38:BR:53:HIS:O	38:BR:53:HIS:ND1	2.52	0.43
25:DA:337:C:H2'	25:DA:338:G:O5'	2.19	0.43
1:CA:185:C:H2'	1:CA:186:C:C6	2.54	0.43
16:CP:6:LEU:HB3	16:CP:17:TYR:HD2	1.84	0.43
25:DA:892:G:O2'	25:DA:893:C:H5'	2.18	0.43
4:AD:39:PRO:O	4:AD:44:GLY:HA3	2.17	0.43
1:CA:1239:G:O2'	1:CA:1240:C:H5'	2.18	0.43
25:BA:2488:A:H2'	25:BA:2489:G:O4'	2.19	0.43
25:BA:1363:C:H2'	25:BA:1364:G:H8	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:B8:38:GLY:O	55:B8:42:ARG:HB3	2.19	0.43
25:DA:1937:A:C8	25:DA:1939:U:H2'	2.54	0.43
1:AA:398:C:H2'	1:AA:399:U:C6	2.53	0.43
46:BZ:127:LYS:HD3	46:BZ:162:GLU:OE1	2.19	0.43
25:BA:1488:G:C2	25:BA:1489:U:O2	2.72	0.43
16:CP:82:GLN:O	16:CP:83:GLU:HB2	2.19	0.43
25:DA:1488:G:C2	25:DA:1489:U:O2	2.72	0.43
1:AA:136:G:N1	1:AA:137:A:C5	2.87	0.43
35:BO:19:ILE:HG22	35:BO:43:VAL:HA	2.01	0.43
25:DA:375:C:H2'	25:DA:376:C:C6	2.54	0.43
55:D8:38:GLY:O	55:D8:42:ARG:HB3	2.19	0.43
34:BN:72:TYR:N	34:BN:72:TYR:CD1	2.87	0.43
25:BA:234:C:H2'	25:BA:235:U:H6	1.84	0.43
33:BI:113:ARG:H	33:BI:113:ARG:HD2	1.83	0.43
15:AO:38:ARG:HH11	15:AO:38:ARG:HG2	1.83	0.43
44:BX:44:GLU:O	44:BX:46:ALA:N	2.45	0.43
38:BR:13:HIS:O	38:BR:14:SER:C	2.56	0.43
4:AD:9:CYS:SG	4:AD:31:CYS:C	2.97	0.43
4:AD:195:ALA:O	6:CF:16:GLN:O	2.37	0.43
31:DG:76:SER:HB3	31:DG:84:LYS:HG3	2.00	0.43
29:BE:59:VAL:HG21	29:BE:63:LEU:HD12	2.01	0.43
25:BA:1129:A:C4'	25:BA:2516:G:C4'	2.97	0.43
20:CT:26:ASN:CB	20:CT:71:THR:HG21	2.39	0.43
49:D2:14:ARG:HD3	49:D2:66:GLU:OE2	2.19	0.43
25:BA:109:G:H2'	25:BA:110:G:C8	2.47	0.43
22:CW:3:C:O2	22:CW:3:C:C2'	2.67	0.43
31:BG:95:ARG:NH1	31:BG:95:ARG:HG2	2.34	0.43
10:AJ:48:THR:HG22	10:AJ:49:VAL:N	2.33	0.43
10:AJ:63:PHE:HB3	14:AN:58:LYS:HA	1.99	0.43
14:AN:22:THR:HB	14:AN:33:VAL:HG21	2.01	0.43
14:AN:23:ARG:O	14:AN:24:CYS:O	2.37	0.43
22:CW:18:G:C6	22:CW:55:U:H1'	2.52	0.43
23:CV:16:C:O2	23:CV:61:U:H4'	2.18	0.43
25:BA:1983:C:H4'	25:BA:2606:C:H4'	2.01	0.43
55:B8:61:LEU:N	55:B8:63:PRO:HD2	2.33	0.43
22:AW:75:C:C6	22:AW:75:C:C3'	3.02	0.43
36:BP:51:PHE:CE2	36:BP:52:GLU:O	2.72	0.43
19:AS:6:LYS:CD	19:AS:6:LYS:N	2.79	0.43
25:DA:2171:A:N3	25:DA:2172:U:C4	2.86	0.43
38:DR:118:GLU:HA	38:DR:118:GLU:OE1	2.18	0.43
38:DR:55:ALA:HB1	38:DR:84:ALA:HB2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DG:111:LEU:O	31:DG:112:PRO:C	2.57	0.43
39:DS:28:VAL:CG1	39:DS:29:PHE:N	2.81	0.43
39:DS:87:PHE:O	39:DS:88:ASP:HB2	2.19	0.43
14:CN:23:ARG:O	14:CN:24:CYS:O	2.37	0.43
25:BA:2266:A:H4'	25:BA:2267:A:N3	2.33	0.43
31:BG:131:TYR:O	31:BG:159:VAL:HG13	2.18	0.43
28:DD:77:ALA:HB2	28:DD:97:TYR:CG	2.54	0.43
1:AA:1210:A:H2'	1:AA:1211:C:C6	2.54	0.43
1:AA:1046:G:H5'	1:AA:1048:C:H1'	2.00	0.43
29:DE:47:VAL:HG21	29:DE:86:PRO:HD3	2.01	0.43
27:DC:58:VAL:HG22	27:DC:167:LYS:CA	2.49	0.43
1:CA:261:G:O3'	17:CQ:67:LYS:HB2	2.19	0.43
25:DA:1685:C:C3'	25:DA:1686:C:H5''	2.47	0.43
36:DP:21:ARG:O	36:DP:23:PRO:HD3	2.19	0.43
25:DA:2103:C:N3	25:DA:2186:G:N2	2.61	0.43
25:DA:2186:G:C6	25:DA:2187:G:C5	3.07	0.43
22:AY:37:A:C4	22:AY:38:A:H1'	2.53	0.43
32:BH:19:VAL:HG22	32:BH:24:VAL:HG12	2.01	0.43
25:BA:2465:C:O2	25:BA:2465:C:H2'	2.19	0.43
30:DF:20:LEU:HG	30:DF:21:ALA:N	2.24	0.43
32:BH:116:GLU:HG2	32:BH:117:PRO:N	2.34	0.43
32:BH:118:PRO:HD2	32:BH:123:PHE:HE1	1.83	0.43
2:AB:204:ASN:HD21	2:AB:206:ASP:H	1.66	0.43
32:DH:91:GLY:CA	32:DH:160:LYS:HA	2.48	0.43
45:BY:31:LEU:HD23	45:BY:36:ALA:H	1.84	0.43
25:DA:1287:A:C6	25:DA:1288:U:O4	2.72	0.43
2:CB:12:GLU:C	2:CB:14:GLY:N	2.73	0.43
2:CB:187:LEU:HD13	2:CB:187:LEU:O	2.18	0.43
15:AO:17:ARG:HD3	15:AO:26:GLU:HG3	2.01	0.43
14:CN:3:ARG:O	14:CN:7:ILE:HG23	2.18	0.43
25:BA:2306:C:N3	31:BG:43:LEU:O	2.52	0.43
29:BE:176:ILE:HB	29:BE:181:LEU:HB2	2.01	0.43
25:BA:2784:C:H1'	29:BE:37:ARG:NH1	2.33	0.43
4:AD:189:PRO:CB	4:AD:194:LEU:HD21	2.40	0.43
31:BG:76:SER:HB3	31:BG:84:LYS:HG3	2.00	0.43
1:CA:672:C:H2'	1:CA:673:G:O4'	2.18	0.43
25:BA:10:G:C6	25:BA:2629:A:C8	3.06	0.43
17:CQ:59:ILE:HG22	17:CQ:71:PHE:CD1	2.54	0.43
19:CS:36:ARG:HB3	19:CS:36:ARG:HH11	1.83	0.43
8:AH:84:ARG:HG2	8:AH:84:ARG:NH1	2.33	0.43
43:DW:1:MET:CE	43:DW:2:GLU:H	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1245:G:OP1	36:BP:16:ARG:NE	2.51	0.43
28:DD:74:GLY:O	28:DD:76:PRO:HD3	2.19	0.43
46:DZ:159:PRO:C	46:DZ:161:VAL:H	2.23	0.43
44:DX:60:ARG:NH1	54:D7:47:ARG:NH2	2.62	0.43
10:CJ:32:ALA:N	10:CJ:76:ASN:HD22	2.17	0.43
2:AB:102:LEU:HD23	2:AB:182:ILE:HD12	2.00	0.43
40:BT:64:ARG:NE	40:BT:73:GLU:OE1	2.51	0.43
47:D0:53:MET:HA	47:D0:58:THR:O	2.19	0.43
18:CR:37:VAL:O	18:CR:41:LYS:HB2	2.18	0.43
31:BG:173:LEU:HD22	31:BG:178:PHE:CE2	2.53	0.43
31:BG:107:LEU:HD21	31:BG:178:PHE:CE1	2.53	0.43
30:BF:160:ASN:C	30:BF:162:LEU:H	2.21	0.43
52:B5:56:LYS:HD2	52:B5:56:LYS:N	2.34	0.43
25:BA:1509(B):A:H2'	25:BA:1510:G:C8	2.54	0.43
43:BW:70:TYR:HE2	43:BW:108:GLY:HA3	1.83	0.43
46:BZ:12:GLY:O	46:BZ:13:GLU:HG3	2.18	0.43
50:D3:11:SER:HG	50:D3:13:ILE:HD13	1.83	0.43
17:AQ:78:GLU:O	17:AQ:78:GLU:HG3	2.19	0.43
6:CF:52:ILE:HD12	6:CF:87:ARG:NH2	2.34	0.43
25:BA:1508:A:H2'	25:BA:1508:A:N3	2.34	0.43
17:CQ:78:GLU:HG3	17:CQ:78:GLU:O	2.18	0.43
27:BC:47:LEU:HB2	27:BC:207:THR:CB	2.49	0.43
25:DA:582:G:H2'	25:DA:583:G:C8	2.54	0.43
25:BA:855:G:C6	25:BA:856:C:C4	3.07	0.43
4:AD:81:GLU:CD	4:AD:139:ARG:HH22	2.22	0.43
25:BA:624:C:O5'	25:BA:624:C:H6	2.01	0.43
25:DA:624:C:O2'	25:DA:657:U:H5'	2.19	0.43
32:DH:130:ARG:NH1	32:DH:132:ARG:HH21	2.16	0.43
25:BA:2528:U:OP1	56:B9:30:PRO:HG2	2.19	0.43
36:BP:75:ILE:N	36:BP:75:ILE:CD1	2.81	0.43
27:BC:45:ALA:HB3	27:BC:174:PRO:CB	2.49	0.43
1:CA:558:G:O2'	1:CA:804:G:H5'	2.18	0.43
25:DA:246:C:C2'	25:DA:247:G:H5'	2.49	0.43
25:BA:409:C:O2'	25:BA:410:G:H5'	2.18	0.43
34:BN:128:HIS:HA	34:BN:129:PRO:HD2	1.83	0.43
46:DZ:127:LYS:HD3	46:DZ:162:GLU:OE1	2.19	0.43
7:AG:95:ARG:HH11	7:AG:95:ARG:HG3	1.84	0.43
1:CA:1398:G:C2	1:CA:1462:U:O2	2.71	0.43
1:CA:368:A:C2	1:CA:466:A:C6	3.06	0.43
1:AA:965:G:H2'	1:AA:966:C:O4'	2.19	0.43
25:DA:640:C:O2'	25:DA:641:C:H5'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1681:G:OP2	25:DA:1681:G:H8	2.02	0.43
13:CM:37:THR:HG22	13:CM:59:TYR:HB2	2.00	0.43
28:DD:136:ILE:HG22	28:DD:140:THR:OG1	2.18	0.42
32:DH:38:SER:C	32:DH:40:GLU:N	2.71	0.42
25:DA:2787:C:H1'	29:DE:61:ARG:HG3	1.99	0.42
29:DE:77:ILE:HG22	29:DE:78:LEU:HG	2.01	0.42
25:DA:108:U:C2	25:DA:109:G:C8	3.07	0.42
42:BV:38:LEU:CD1	42:BV:57:VAL:HB	2.49	0.42
22:CW:71:G:C2	22:CW:72:C:C2	3.07	0.42
23:CV:19:G:C4	23:CV:59:A:C6	3.07	0.42
23:CV:55:U:H6	23:CV:55:U:C3'	2.26	0.42
38:BR:78:LYS:HG2	38:BR:78:LYS:O	2.19	0.42
31:BG:114:ILE:HG23	31:BG:140:ILE:HD11	2.01	0.42
41:DU:78:THR:HG22	41:DU:79:PHE:N	2.33	0.42
39:BS:101:LEU:O	39:BS:101:LEU:HD22	2.19	0.42
26:BB:28:C:P	39:BS:31:SER:HG	2.41	0.42
25:DA:1798:U:C5'	28:DD:259:THR:HG22	2.23	0.42
1:CA:950:G:C1'	10:CJ:55:LYS:HE2	2.49	0.42
1:CA:1180:U:H4'	10:CJ:54:PHE:CE2	2.54	0.42
25:BA:271(Q):G:O2'	25:BA:271(R):G:OP2	2.30	0.42
28:BD:26:LYS:HE2	28:BD:81:ALA:HA	2.01	0.42
25:DA:2266:A:H4'	25:DA:2267:A:N3	2.33	0.42
28:BD:142:VAL:HG21	28:BD:191:ALA:HB1	2.00	0.42
53:D6:47:THR:HG22	53:D6:49:HIS:H	1.84	0.42
33:BI:68:LEU:O	33:BI:72:LEU:HB3	2.19	0.42
33:BI:80:PRO:O	33:BI:81:VAL:C	2.57	0.42
40:DT:82:LEU:H	40:DT:82:LEU:HD12	1.83	0.42
23:CV:3:C:N3	23:CV:4:G:C8	2.87	0.42
34:DN:22:THR:HA	34:DN:61:ARG:O	2.19	0.42
25:BA:534:U:O2'	41:BU:49:HIS:CD2	2.71	0.42
46:DZ:6:LYS:HB2	46:DZ:6:LYS:NZ	2.33	0.42
1:AA:916:G:H5''	7:AG:102:ARG:CZ	2.49	0.42
36:BP:23:PRO:CB	36:BP:33:ARG:HG3	2.49	0.42
25:BA:355:G:C2	25:BA:356:G:C5	3.07	0.42
25:BA:1541:G:H5''	25:BA:1542:A:OP2	2.19	0.42
10:AJ:30:SER:CB	10:AJ:80:LYS:HD3	2.49	0.42
53:D6:13:CYS:HB2	53:D6:22:ALA:HB3	1.99	0.42
26:BB:69:G:H2'	26:BB:70:C:H6	1.78	0.42
31:DG:69:ALA:O	31:DG:90:LEU:CD2	2.67	0.42
33:DI:133:HIS:H	33:DI:133:HIS:CD2	2.35	0.42
2:AB:88:ALA:HB2	2:AB:219:VAL:CG1	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:5:LEU:C	33:BI:6:LEU:HD23	2.39	0.42
15:CO:36:ILE:HG23	15:CO:56:LEU:HD11	2.01	0.42
25:BA:2557:G:H2'	25:BA:2558:C:C6	2.53	0.42
2:CB:215:LEU:HA	2:CB:215:LEU:HD23	1.92	0.42
25:DA:2124:G:H5''	27:DC:177:LYS:CA	2.49	0.42
25:DA:2123:G:H2'	25:DA:2124:G:O4'	2.20	0.42
10:AJ:47:PHE:CZ	14:AN:37:PHE:HE2	2.37	0.42
36:DP:111:ARG:CZ	36:DP:149:GLU:HG3	2.48	0.42
25:DA:2776:A:H4'	25:DA:2777:G:H5''	2.01	0.42
39:DS:82:ILE:HG22	39:DS:83:LYS:N	2.33	0.42
1:CA:402:G:O2'	4:CD:116:GLN:HG3	2.19	0.42
28:BD:206:LEU:HD22	28:BD:211:ARG:CG	2.49	0.42
10:CJ:84:GLN:O	10:CJ:85:LEU:HD23	2.19	0.42
1:CA:1089:C:OP1	3:CC:174:PRO:HD3	2.19	0.42
40:BT:51:ARG:CG	40:BT:98:LYS:HD3	2.45	0.42
31:DG:46:ALA:C	31:DG:51:ARG:HG3	2.39	0.42
31:DG:47:LYS:HE2	31:DG:81:LYS:HD2	2.00	0.42
28:BD:241:PRO:C	28:BD:242:ARG:HD2	2.38	0.42
1:CA:1104:U:O4	1:CA:1105:A:N6	2.51	0.42
46:BZ:16:SER:O	46:BZ:19:ARG:HB2	2.19	0.42
46:DZ:74:VAL:HG22	46:DZ:86:VAL:CG1	2.49	0.42
1:CA:744:G:C6	1:CA:745:C:C4	3.07	0.42
1:CA:1487:U:O2	1:CA:1503:G:N2	2.53	0.42
30:BF:89:VAL:CG1	30:BF:90:PHE:H	2.28	0.42
25:BA:1266:G:P	52:B5:19:ARG:NH1	2.92	0.42
18:CR:59:SER:H	18:CR:62:GLU:HB2	1.84	0.42
30:DF:82:ILE:HG13	30:DF:82:ILE:O	2.19	0.42
25:BA:2525:G:O4'	25:BA:2741:A:H2	2.02	0.42
25:BA:1602:U:H3'	25:BA:1603:A:H5'	2.01	0.42
25:DA:83:G:C2	25:DA:102:G:H2'	2.53	0.42
1:AA:885:A:C2	1:AA:886:A:C4	3.06	0.42
1:AA:479:A:H4'	1:AA:480:A:OP1	2.19	0.42
25:DA:2689:U:H4'	25:DA:2690:C:C6	2.49	0.42
1:CA:1014:G:H2'	1:CA:1015:G:C8	2.54	0.42
9:CI:89:ASN:C	9:CI:91:ASP:H	2.23	0.42
7:AG:6:ARG:O	7:AG:6:ARG:HG2	2.19	0.42
6:CF:100:ASN:O	6:CF:101:ALA:O	2.37	0.42
17:AQ:75:ARG:NH1	17:AQ:75:ARG:HG3	2.34	0.42
25:DA:553:G:C6	25:DA:554:U:N3	2.87	0.42
25:BA:332:A:O2'	25:BA:333:G:P	2.77	0.42
12:AL:11:VAL:HG21	17:AQ:34:LYS:HD3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:136:G:C2	1:CA:137:A:C5	3.06	0.42
25:DA:2135:A:H2'	25:DA:2136:C:C6	2.54	0.42
25:DA:1789:A:P	28:DD:222:ARG:HE	2.41	0.42
50:D3:26:LEU:O	50:D3:27:GLY:C	2.57	0.42
1:CA:40:C:H2'	1:CA:41:G:C8	2.53	0.42
25:BA:271(W):G:C6	25:BA:271(X):G:N1	2.87	0.42
1:CA:558:G:H1	1:CA:857:C:N4	2.17	0.42
25:BA:697:C:H2'	25:BA:698:C:C6	2.54	0.42
1:AA:1094:C:H1'	3:AC:179:ARG:HD3	2.01	0.42
1:AA:29:G:C6	1:AA:30:U:C4	3.07	0.42
1:CA:488:G:C5	1:CA:518:A:C2	3.07	0.42
5:AE:93:PRO:HG3	8:AH:105:ARG:HG3	2.00	0.42
1:CA:1072:U:H2'	1:CA:1073:U:C6	2.54	0.42
25:BA:363:G:N7	25:BA:363(A):A:N7	2.67	0.42
1:AA:1009:G:H1'	1:AA:1013:G:H22	1.84	0.42
1:AA:1018:G:H5'	1:AA:1019:C:OP2	2.18	0.42
25:BA:375:C:H2'	25:BA:376:C:C6	2.54	0.42
25:BA:1937:A:C8	25:BA:1939:U:H2'	2.54	0.42
1:CA:436:C:H42	1:CA:476:G:H1	1.66	0.42
32:BH:147:ASN:O	32:BH:150:ALA:HB3	2.19	0.42
20:AT:87:LYS:O	20:AT:91:LEU:HG	2.18	0.42
20:AT:90:GLN:O	20:AT:91:LEU:HD23	2.19	0.42
4:CD:191:ARG:O	4:CD:191:ARG:HD2	2.19	0.42
37:BQ:25:ASP:OD1	37:BQ:25:ASP:N	2.52	0.42
29:DE:141:ILE:HG13	29:DE:141:ILE:O	2.18	0.42
25:DA:2425:A:H5''	25:DA:2427:C:O4'	2.18	0.42
32:DH:147:ASN:O	32:DH:150:ALA:HB3	2.19	0.42
1:AA:170:C:H2'	1:AA:171:C:C6	2.54	0.42
25:BA:888:C:O2'	25:BA:889:C:H5'	2.18	0.42
25:BA:271(U):G:C3'	25:BA:271(V):G:C5'	2.89	0.42
25:BA:1799:G:N2	25:BA:1818:U:O2'	2.52	0.42
25:DA:953:A:N6	25:DA:965:C:N4	2.66	0.42
28:DD:158:ALA:O	28:DD:159:ALA:C	2.58	0.42
41:BU:97:ASP:OD2	41:BU:101:ARG:NH2	2.31	0.42
31:BG:2:PRO:HG3	51:B4:51:TYR:CD2	2.52	0.42
1:AA:1302:C:H3'	1:AA:1303:C:C5'	2.38	0.42
25:DA:271(S):G:C3'	25:DA:271(T):C:H5''	2.48	0.42
20:AT:96:GLY:O	20:AT:97:ALA:O	2.36	0.42
3:AC:77:ILE:O	3:AC:83:ARG:HB3	2.19	0.42
31:BG:22:ARG:CB	31:BG:22:ARG:NH1	2.55	0.42
44:DX:25:LYS:HZ1	44:DX:80:ILE:HD11	1.81	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DR:60:LEU:O	38:DR:63:ARG:HB3	2.18	0.42
39:BS:35:ILE:HG23	39:BS:53:SER:HB2	2.01	0.42
1:AA:261:G:H5'	1:AA:261:G:C8	2.53	0.42
17:AQ:67:LYS:CA	17:AQ:70:ARG:NH1	2.77	0.42
1:AA:1125:G:H2'	1:AA:1126:G:H8	1.84	0.42
5:CE:70:PRO:CG	5:CE:142:LEU:HB2	2.34	0.42
28:DD:33:LEU:CD1	28:DD:33:LEU:H	2.18	0.42
22:CW:30:G:N3	22:CW:31:A:C8	2.86	0.42
22:CW:31:A:N1	22:CW:39:U:O4	2.52	0.42
40:DT:89:VAL:CB	40:DT:91:ARG:CG	2.75	0.42
39:DS:49:VAL:CG1	39:DS:50:SER:H	2.25	0.42
33:BI:110:ASP:C	33:BI:114:LEU:HD21	2.39	0.42
1:CA:196:U:H2'	1:CA:197:G:C8	2.55	0.42
25:DA:2181:G:O2'	25:DA:2182:G:H5'	2.18	0.42
30:BF:20:LEU:HG	30:BF:21:ALA:N	2.24	0.42
25:BA:2109:U:H1'	25:BA:2181:G:N2	2.34	0.42
45:DY:20:TYR:CE1	45:DY:42:VAL:HG22	2.54	0.42
32:DH:116:GLU:HG2	32:DH:117:PRO:N	2.34	0.42
25:BA:1140:C:OP1	34:BN:23:LEU:HD23	2.19	0.42
25:BA:289:A:C2	25:BA:353:G:C2	3.07	0.42
5:AE:12:LEU:HD22	5:AE:13:ILE:N	2.26	0.42
2:CB:50:GLU:O	2:CB:51:LEU:C	2.58	0.42
31:DG:90:LEU:HA	31:DG:90:LEU:HD23	1.79	0.42
46:DZ:150:LEU:O	46:DZ:171:ILE:CG1	2.68	0.42
37:BQ:141:GLN:HB2	46:BZ:98:MET:HA	2.00	0.42
40:DT:113:LYS:O	40:DT:114:LEU:HD23	2.19	0.42
25:BA:1311:G:C6	54:B7:47:ARG:NH2	2.87	0.42
23:AV:10:G:N2	23:AV:26:C:O2	2.52	0.42
26:BB:41:U:N3	31:BG:70:VAL:HG23	2.34	0.42
31:BG:91:ARG:C	31:BG:91:ARG:CD	2.87	0.42
2:AB:208:ILE:HG22	2:AB:212:GLN:HB2	2.01	0.42
1:CA:919:G:N2	9:CI:124:GLN:HE22	2.12	0.42
29:DE:176:ILE:CG2	29:DE:178:GLU:HB3	2.49	0.42
30:BF:53:THR:HG23	30:BF:54:ARG:N	2.33	0.42
45:BY:50:ARG:HD3	45:BY:50:ARG:HA	1.45	0.42
22:AW:18:G:H22	22:AW:55:U:H6	1.67	0.42
22:AW:56:C:H2'	22:AW:57:G:H8	1.83	0.42
19:CS:36:ARG:CZ	19:CS:72:GLY:HA2	2.49	0.42
3:AC:30:ARG:O	3:AC:34:LEU:HB3	2.19	0.42
20:AT:14:LYS:O	20:AT:18:GLN:HG3	2.18	0.42
4:AD:28:SER:O	4:AD:29:PRO:C	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:28:LYS:HD2	19:CS:29:ARG:NE	2.34	0.42
25:DA:272(I):U:H2'	25:DA:272(J):C:C6	2.47	0.42
27:BC:212:VAL:O	27:BC:213:TYR:CB	2.67	0.42
6:CF:62:TRP:C	6:CF:63:TYR:HD2	2.22	0.42
1:CA:1269:A:N6	1:CA:1270:A:N6	2.67	0.42
47:D0:49:LYS:HB2	47:D0:80:HIS:HB3	2.01	0.42
1:CA:1088:G:H2'	1:CA:1089:C:H6	1.83	0.42
17:AQ:86:GLU:O	17:AQ:90:ILE:HG12	2.19	0.42
13:AM:50:GLU:O	13:AM:54:VAL:HG23	2.19	0.42
1:AA:1082:C:OP2	2:AB:96:ARG:HG2	2.20	0.42
2:CB:69:LEU:HB2	2:CB:159:PRO:CG	2.49	0.42
31:DG:53:LEU:CD2	31:DG:53:LEU:N	2.81	0.42
46:DZ:16:SER:O	46:DZ:19:ARG:HB2	2.19	0.42
25:BA:1494:A:N3	25:BA:1494:A:H3'	2.34	0.42
28:BD:134:ARG:O	28:BD:168:ARG:NH1	2.52	0.42
18:CR:56:THR:CB	18:CR:58:LEU:CD1	2.96	0.42
3:AC:92:ALA:HB2	3:AC:99:VAL:HG22	1.98	0.42
12:CL:126:LYS:HE2	12:CL:127:GLU:H	1.84	0.42
47:D0:72:ARG:CZ	47:D0:75:LEU:HD13	2.50	0.42
1:CA:1150:A:C2	1:CA:1151:A:C4	3.07	0.42
27:BC:168:THR:HA	27:BC:173:ALA:HB1	2.01	0.42
1:CA:451:C:C2	1:CA:460:G:N2	2.87	0.42
49:B2:29:LYS:HD3	49:B2:57:ILE:CG2	2.48	0.42
25:BA:1827:C:H2'	25:BA:1828:G:H5'	2.00	0.42
38:DR:78:LYS:O	38:DR:78:LYS:HG2	2.19	0.42
12:CL:85:ILE:HD13	12:CL:100:ILE:HA	2.00	0.42
25:BA:553:G:C6	25:BA:554:U:N3	2.87	0.42
1:CA:1153:C:H2'	1:CA:1154:G:C8	2.53	0.42
25:BA:2528:U:H2'	25:BA:2530:A:O5'	2.19	0.42
4:CD:114:ARG:HG3	4:CD:114:ARG:NH1	2.33	0.42
32:DH:120:GLY:HA3	32:DH:140:LYS:HZ1	1.84	0.42
3:AC:29:TYR:HD1	14:AN:36:PHE:CZ	2.37	0.42
25:BA:2092:U:C5	25:BA:2226:C:OP2	2.72	0.42
25:DA:198:C:O5'	25:DA:198:C:H6	2.02	0.42
38:DR:87:TYR:CE1	38:DR:117:VAL:O	2.72	0.42
1:CA:969:U:O2'	1:CA:970:G:OP2	2.33	0.42
25:BA:892:G:O2'	25:BA:893:C:H5'	2.18	0.42
42:DV:1:MET:HE1	42:DV:43:GLU:HG2	2.01	0.42
1:CA:791:C:OP2	15:CO:48:LYS:HE3	2.18	0.42
7:CG:95:ARG:CZ	7:CG:99:LEU:HD21	2.49	0.42
25:DA:409:C:O2'	25:DA:410:G:H5'	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:41:THR:HG21	11:AK:71:LYS:CB	2.49	0.42
19:CS:17:GLU:O	19:CS:21:GLU:HG3	2.18	0.42
25:BA:2228:G:H2'	25:BA:2229:C:C6	2.54	0.42
55:D8:14:VAL:CG2	55:D8:22:VAL:CG1	2.98	0.42
25:DA:1034:G:H5'	56:D9:18:ARG:HE	1.83	0.42
1:CA:287:G:C5	1:CA:288:G:H1'	2.54	0.42
40:DT:19:LEU:HA	40:DT:20:PRO:HD3	1.90	0.42
27:BC:106:GLY:O	27:BC:108:MET:N	2.47	0.42
3:CC:107:GLN:CD	3:CC:107:GLN:H	2.23	0.42
32:DH:153:LYS:O	32:DH:153:LYS:HD3	2.19	0.42
8:AH:125:ARG:HG3	8:AH:125:ARG:HH11	1.84	0.42
29:BE:141:ILE:HG13	29:BE:141:ILE:O	2.18	0.42
25:BA:1016:G:N2	25:BA:1146:C:O2	2.50	0.42
1:CA:1415:A:H2'	1:CA:1416:A:O4'	2.19	0.42
19:AS:17:GLU:O	19:AS:21:GLU:HG3	2.19	0.42
25:DA:1129:A:C4'	25:DA:2516:G:C4'	2.97	0.42
25:BA:952:G:C4	25:BA:953:A:N7	2.87	0.42
25:DA:109:G:C2'	25:DA:110:G:O5'	2.67	0.42
41:BU:105:VAL:O	41:BU:109:LEU:CD1	2.67	0.42
41:BU:92:ARG:HH12	42:BV:11:GLN:H	1.67	0.42
42:BV:35:LEU:HB2	42:BV:57:VAL:HG13	2.01	0.42
42:BV:47:VAL:HB	42:BV:49:THR:O	2.19	0.42
14:AN:29:ARG:HG2	14:AN:40:CYS:HB2	2.00	0.42
19:AS:40:ILE:HG21	19:AS:67:VAL:HA	2.00	0.42
45:DY:31:LEU:HD23	45:DY:36:ALA:H	1.84	0.42
45:DY:66:PRO:C	45:DY:67:LEU:HG	2.31	0.42
25:BA:1771:C:O2'	25:BA:1786:A:O4'	2.36	0.42
25:BA:2420:C:O2'	25:BA:2421:G:H5'	2.19	0.42
19:AS:6:LYS:HG2	19:AS:7:LYS:HE3	2.00	0.42
38:BR:55:ALA:HB1	38:BR:84:ALA:HB2	2.01	0.42
25:BA:2168:G:C2	25:BA:2171:A:C8	3.07	0.42
38:DR:82:GLU:C	38:DR:85:PRO:HD2	2.39	0.42
39:BS:15:ARG:C	39:BS:17:ARG:N	2.68	0.42
25:BA:613:G:C2	25:BA:614:U:C6	3.08	0.42
30:BF:40:GLN:OE1	30:BF:183:VAL:HG23	2.20	0.42
17:AQ:69:LYS:C	17:AQ:70:ARG:HD2	2.39	0.42
31:DG:141:PHE:HA	31:DG:142:PRO:HD3	1.84	0.42
39:DS:53:SER:OG	39:DS:54:LEU:N	2.52	0.42
14:CN:39:LEU:HB3	14:CN:40:CYS:H	1.69	0.42
25:DA:320:A:H2'	30:DF:136:THR:HG21	2.02	0.42
12:AL:42:THR:O	12:AL:42:THR:HG23	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DE:47:VAL:HG23	29:DE:84:PHE:O	2.18	0.42
53:B6:46:HIS:CD2	53:B6:46:HIS:C	2.92	0.42
25:BA:927:G:N3	25:BA:927:G:H2'	2.35	0.42
53:D6:16:CYS:SG	53:D6:47:THR:CG2	3.08	0.42
33:DI:71:ILE:CG1	33:DI:72:LEU:N	2.82	0.42
33:DI:94:ALA:O	33:DI:96:ASP:N	2.50	0.42
23:CV:4:G:N2	23:CV:5:G:C4	2.87	0.42
25:DA:2186:G:C2'	25:DA:2187:G:H5''	2.47	0.42
25:BA:1242:A:C2	36:BP:8:PRO:HG3	2.55	0.42
5:AE:36:ASP:OD2	5:AE:38:GLN:N	2.48	0.42
14:CN:15:LYS:O	14:CN:16:PHE:C	2.58	0.42
7:AG:59:LEU:HD23	7:AG:60:LYS:HZ3	1.82	0.42
25:DA:350:U:H2'	25:DA:351:G:O4'	2.19	0.42
2:CB:8:LYS:HZ3	2:CB:217:ARG:HH12	1.65	0.42
25:BA:747:U:OP2	52:B5:3:LYS:CD	2.65	0.42
25:DA:2822:G:O6	38:DR:4:LEU:HD12	2.19	0.42
1:CA:180:C:C4'	20:CT:82:SER:HB3	2.37	0.42
37:DQ:141:GLN:O	46:DZ:53:ILE:C	2.57	0.42
46:BZ:146:ILE:CG2	46:BZ:174:VAL:HG12	2.44	0.42
1:CA:1184:C:O2'	1:CA:1185:A:H5'	2.20	0.42
31:BG:69:ALA:O	31:BG:90:LEU:CD2	2.68	0.42
32:DH:141:VAL:C	32:DH:143:GLN:N	2.70	0.42
30:BF:9:ILE:CG1	30:BF:14:PRO:HA	2.48	0.42
48:B1:83:GLU:O	48:B1:86:SER:OG	2.38	0.42
25:BA:1289:C:H2'	25:BA:1290:C:C6	2.54	0.42
6:AF:28:ARG:HH11	6:AF:28:ARG:HG3	1.82	0.42
11:CK:20:TYR:HB2	11:CK:31:THR:HG22	2.00	0.42
36:BP:97:PRO:C	36:BP:99:LEU:N	2.71	0.42
1:CA:239:U:N1	1:CA:871:G:N2	2.66	0.42
25:BA:2776:A:H4'	25:BA:2777:G:H5''	2.01	0.42
1:AA:404:G:P	4:AD:24:GLU:HB2	2.59	0.42
25:BA:320:A:C2'	30:BF:136:THR:HG21	2.49	0.42
46:BZ:159:PRO:C	46:BZ:161:VAL:H	2.22	0.42
55:B8:26:LYS:NZ	55:B8:47:LYS:HD3	2.34	0.42
3:CC:73:PRO:HA	3:CC:76:VAL:HG13	2.01	0.42
8:CH:86:ILE:HG13	8:CH:133:LEU:HD22	2.00	0.42
25:DA:1670:C:O2	29:DE:129:HIS:HE1	2.02	0.42
25:BA:1717:G:C2'	25:BA:1718:G:H5''	2.47	0.42
12:AL:86:ARG:HB2	12:AL:101:VAL:CG2	2.49	0.42
3:AC:149:ALA:O	3:AC:169:ALA:HB1	2.19	0.42
12:AL:22:SER:C	12:AL:24:VAL:N	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1404:G:OP1	35:BO:48:PRO:HA	2.19	0.42
46:BZ:44:PHE:CZ	46:BZ:86:VAL:HG11	2.54	0.42
25:BA:1608:A:H1'	25:BA:1610:A:OP2	2.19	0.42
43:DW:27:LYS:CE	43:DW:31:GLU:HG2	2.47	0.42
18:CR:56:THR:HB	18:CR:58:LEU:HD13	1.99	0.42
43:DW:76:VAL:O	43:DW:76:VAL:CG1	2.67	0.42
23:AV:40:C:C2'	23:AV:41:C:H5'	2.49	0.42
2:CB:112:VAL:CG2	2:CB:149:LEU:HD13	2.48	0.42
2:CB:129:GLU:O	2:CB:130:ARG:O	2.37	0.42
16:AP:25:ARG:HG3	16:AP:25:ARG:NH1	2.35	0.42
25:BA:624:C:O2'	25:BA:657:U:H5'	2.19	0.42
52:D5:48:GLU:O	52:D5:57:VAL:HG22	2.19	0.42
41:BU:12:ARG:CA	41:BU:15:LYS:NZ	2.82	0.42
16:AP:76:GLN:CG	16:AP:76:GLN:O	2.66	0.42
8:AH:40:ALA:C	8:AH:42:GLU:N	2.73	0.42
25:BA:2009:G:N3	38:BR:107:ASP:HA	2.34	0.42
1:CA:33:A:H2'	1:CA:34:C:C6	2.54	0.42
1:CA:15:G:H4'	5:CE:24:ARG:NH2	2.34	0.42
38:DR:53:HIS:O	38:DR:53:HIS:ND1	2.52	0.42
25:DA:519:U:O2'	25:DA:520:G:H5'	2.19	0.42
25:DA:1438:U:O2'	25:DA:1439:A:H5'	2.19	0.42
4:AD:46:LYS:O	4:AD:47:ARG:C	2.57	0.42
25:BA:2064:C:H2'	25:BA:2065:C:C6	2.55	0.42
5:CE:15:ARG:O	5:CE:16:THR:O	2.37	0.42
28:DD:23:GLU:HA	28:DD:23:GLU:OE2	2.18	0.42
48:B1:71:TYR:CD1	48:B1:71:TYR:N	2.88	0.42
30:DF:72:ARG:HA	30:DF:72:ARG:HH11	1.82	0.42
1:AA:1072:U:H2'	1:AA:1073:U:H6	1.84	0.42
1:AA:1361:G:C6	1:AA:1362:U:O4	2.72	0.42
32:DH:17:VAL:O	32:DH:19:VAL:HG23	2.19	0.42
45:DY:50:ARG:HG3	45:DY:58:GLY:HA2	2.00	0.42
25:DA:1129:A:C1'	25:DA:2516:G:O4'	2.67	0.42
20:CT:59:ALA:C	20:CT:61:SER:N	2.69	0.42
6:AF:75:LEU:O	6:AF:78:GLU:HB3	2.18	0.42
23:CV:20:G:C2	23:CV:58:A:C2	3.08	0.42
25:DA:310:A:HO2'	25:DA:311:A:P	2.43	0.42
45:DY:11:ASP:H	45:DY:28:LYS:NZ	2.18	0.42
22:AW:76:A:C2	25:BA:2421:G:C5	3.08	0.42
19:AS:43:GLU:O	19:AS:43:GLU:OE1	2.37	0.42
11:CK:127:LYS:CE	11:CK:127:LYS:HA	2.19	0.42
45:BY:20:TYR:CZ	45:BY:42:VAL:HA	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:24:GLY:HA3	13:CM:70:LEU:HD12	2.02	0.42
14:CN:26:ARG:CG	14:CN:27:CYS:H	2.07	0.42
28:DD:26:LYS:HE2	28:DD:81:ALA:HA	2.00	0.42
25:DA:1658:C:N4	25:DA:1659:U:O4	2.52	0.42
12:CL:22:SER:C	12:CL:24:VAL:N	2.73	0.42
28:BD:30:GLU:CD	28:BD:63:ARG:NE	2.72	0.42
45:BY:97:ARG:HD2	45:BY:97:ARG:HA	1.82	0.42
22:CW:30:G:N1	22:CW:31:A:C5	2.88	0.42
2:CB:37:ASN:O	2:CB:39:ILE:N	2.46	0.42
34:BN:17:ASP:C	34:BN:19:GLU:N	2.71	0.42
50:B3:26:LEU:O	50:B3:27:GLY:C	2.57	0.42
4:AD:127:THR:HG22	4:AD:132:ARG:HA	2.00	0.42
25:DA:927:G:H2'	25:DA:927:G:N3	2.35	0.42
28:DD:108:PRO:HB3	28:DD:143:HIS:HE1	1.75	0.42
5:AE:72:GLN:O	5:AE:75:THR:HG22	2.20	0.42
36:DP:7:ARG:HB2	36:DP:7:ARG:CZ	2.50	0.42
30:BF:3:GLU:HG3	30:BF:19:GLU:CG	2.48	0.42
25:DA:1902:C:N3	25:DA:1903:G:H1'	2.35	0.42
25:DA:2415:G:H2'	25:DA:2416:C:C6	2.55	0.42
1:CA:666:G:N2	1:CA:690:C:O2	2.49	0.42
32:BH:107:VAL:O	32:BH:107:VAL:HG23	2.20	0.42
36:BP:35:HIS:O	36:BP:36:LYS:CB	2.65	0.42
5:CE:146:ALA:O	5:CE:148:VAL:N	2.52	0.42
32:DH:118:PRO:HD2	32:DH:123:PHE:HE1	1.83	0.42
25:BA:807:U:OP2	36:BP:39:LYS:HG3	2.20	0.42
10:AJ:90:LEU:N	10:AJ:91:PRO:HD3	2.35	0.42
25:DA:2646:C:OP2	25:DA:2732:G:O2'	2.37	0.42
38:DR:10:LEU:HB3	38:DR:17:ARG:HD2	2.00	0.42
37:DQ:62:GLY:H	37:DQ:109:VAL:HG23	1.84	0.42
37:BQ:134:ARG:HH21	46:BZ:122:ARG:NE	2.17	0.42
23:AV:25:U:O2	23:AV:26:C:O4'	2.38	0.42
7:CG:43:PHE:O	7:CG:43:PHE:HD1	2.02	0.42
29:BE:93:VAL:C	29:BE:95:ILE:H	2.22	0.42
40:BT:11:GLU:H	40:BT:11:GLU:CD	2.21	0.42
1:CA:453:G:N2	1:CA:456:G:C8	2.87	0.42
6:AF:18:GLN:O	6:AF:21:LEU:HB2	2.19	0.42
10:CJ:47:PHE:CZ	14:CN:37:PHE:HE2	2.37	0.42
36:DP:110:TYR:O	36:DP:111:ARG:C	2.58	0.42
23:AV:36:A:N6	24:AX:18:G:C6	2.87	0.42
29:DE:117:MET:O	29:DE:118:LYS:HB2	2.19	0.42
2:AB:134:GLU:CA	2:AB:137:ARG:HB3	2.47	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:48:ILE:HG21	11:CK:63:LEU:HD22	2.01	0.42
11:CK:22:HIS:HB3	11:CK:29:ILE:CG2	2.44	0.42
55:B8:46:ARG:HB3	55:B8:47:LYS:H	1.72	0.42
26:DB:40:U:HO2'	26:DB:43:C:H5	1.60	0.42
1:AA:979:G:C8	1:AA:980:G:H8	2.37	0.42
10:CJ:95:GLU:OE2	10:CJ:95:GLU:HA	2.18	0.42
1:CA:86:C:H5	1:CA:87:C:O2	2.02	0.42
12:AL:86:ARG:NH2	12:AL:99:HIS:CG	2.87	0.42
49:D2:40:SER:C	49:D2:42:GLY:N	2.73	0.42
1:CA:719:C:H2'	1:CA:720:A:H8	1.81	0.42
55:D8:41:ILE:O	55:D8:44:LYS:HB2	2.18	0.42
49:B2:4:SER:O	49:B2:7:ARG:HG2	2.19	0.42
46:BZ:14:LYS:CD	46:BZ:17:ALA:HB3	2.46	0.42
23:CV:23:G:C6	23:CV:24:C:N4	2.87	0.42
6:AF:62:TRP:C	6:AF:63:TYR:HD2	2.21	0.42
1:CA:1019:C:H2'	1:CA:1020:C:C6	2.54	0.42
1:CA:1260:A:H61	3:CC:26:LYS:HZ3	1.67	0.42
1:AA:352:G:N1	1:AA:353:U:C4	2.88	0.42
11:AK:21:ILE:HA	11:AK:30:VAL:HG12	2.01	0.42
43:DW:9:TYR:H	43:DW:9:TYR:HD2	1.66	0.42
3:CC:64:VAL:HG13	3:CC:97:LYS:HZ2	1.85	0.42
28:BD:136:ILE:HA	28:BD:137:PRO:HD3	1.77	0.42
18:CR:82:THR:CG2	18:CR:83:GLU:H	2.32	0.42
43:BW:76:VAL:O	43:BW:76:VAL:CG1	2.67	0.42
25:DA:1313:U:C2'	25:DA:1314:C:H5'	2.49	0.42
7:AG:152:ALA:O	7:AG:155:ARG:HG3	2.19	0.42
30:BF:57:VAL:CG1	30:BF:59:TYR:HD1	2.31	0.42
1:CA:758:G:H2'	1:CA:759:G:O4'	2.19	0.42
25:BA:874:G:O2'	25:BA:875:G:H5'	2.19	0.42
1:CA:1135:C:N3	1:CA:1136:G:C8	2.86	0.42
1:AA:371:G:H5''	16:AP:5:ARG:HB2	2.00	0.42
25:BA:2086:U:H2'	25:BA:2087:G:C8	2.53	0.42
22:CW:45:U:H6	22:CW:45:U:O5'	2.02	0.42
1:AA:327:G:C2	1:AA:328:G:C8	3.07	0.42
25:BA:437:G:O2'	25:BA:438:G:H5'	2.19	0.42
25:DA:437:G:O2'	25:DA:438:G:H5'	2.19	0.42
52:B5:48:GLU:O	52:B5:57:VAL:HG22	2.19	0.42
25:DA:731:C:O2'	25:DA:732:C:H5'	2.20	0.42
43:BW:34:ASN:OD1	52:B5:39:MET:HE2	2.19	0.42
25:DA:950:G:H2'	25:DA:951:C:H6	1.85	0.42
1:CA:370:U:H4'	16:CP:17:TYR:CE2	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DS:42:ASP:C	39:DS:44:LYS:N	2.73	0.42
46:DZ:141:VAL:HG13	46:DZ:141:VAL:O	2.18	0.42
9:CI:43:ALA:O	9:CI:45:ALA:N	2.52	0.42
7:AG:95:ARG:CZ	7:AG:99:LEU:HD21	2.49	0.42
45:BY:101:LYS:HG2	45:BY:102:CYS:N	2.34	0.42
1:AA:744:G:C6	1:AA:745:C:C4	3.08	0.42
1:AA:1295:C:H2'	1:AA:1296:U:C6	2.54	0.42
1:CA:181:C:C4	1:CA:182:C:C4	3.07	0.42
2:CB:180:LEU:O	2:CB:181:PHE:HB2	2.20	0.42
1:CA:51:A:N7	1:CA:107:U:O2'	2.50	0.42
27:DC:169:GLY:O	27:DC:170:ALA:HB3	2.19	0.42
43:BW:45:TYR:CD2	43:BW:45:TYR:C	2.93	0.42
1:CA:1410:A:O5'	1:CA:1410:A:H8	2.02	0.42
29:DE:26:ILE:HG22	29:DE:27:LEU:N	2.35	0.42
1:CA:1206:A:OP1	13:CM:102:ARG:HA	2.19	0.42
29:BE:77:ILE:HG22	29:BE:78:LEU:HG	2.01	0.42
41:BU:97:ASP:O	41:BU:100:VAL:HB	2.19	0.42
42:BV:46:VAL:CG2	42:BV:47:VAL:N	2.81	0.42
19:AS:36:ARG:HH11	19:AS:36:ARG:HB3	1.85	0.42
26:DB:87:G:C3'	26:DB:88:C:C5'	2.97	0.42
25:DA:283:A:HO2'	25:DA:284:U:P	2.42	0.42
38:DR:63:ARG:HG3	38:DR:80:PHE:HE2	1.85	0.42
28:BD:260:ARG:HD3	28:BD:261:LYS:O	2.19	0.42
42:BV:61:VAL:HG22	42:BV:61:VAL:O	2.19	0.42
31:DG:54:GLU:HA	31:DG:57:ALA:HB3	2.01	0.42
25:DA:2759:G:C2'	25:DA:2760:C:H5'	2.49	0.42
26:DB:50:G:OP2	39:DS:62:LYS:CB	2.65	0.42
39:DS:56:LEU:O	39:DS:57:LYS:CB	2.65	0.42
10:CJ:50:ILE:HD13	10:CJ:50:ILE:H	1.81	0.42
36:DP:56:SER:C	36:DP:57:THR:HG1	2.20	0.42
25:DA:857:C:C3'	25:DA:858:U:H5'	2.50	0.42
22:AW:37:A:C6	22:AW:38:A:C2	3.08	0.42
2:CB:42:ILE:CD1	2:CB:202:PRO:HB2	2.39	0.42
31:BG:54:GLU:HA	31:BG:57:ALA:HB3	2.01	0.42
25:DA:2103:C:C3'	25:DA:2104:G:C5'	2.81	0.42
26:DB:65:C:C2'	26:DB:66:A:H5'	2.50	0.42
25:BA:2186:G:C6	25:BA:2187:G:C5	3.07	0.42
36:BP:21:ARG:O	36:BP:23:PRO:HD3	2.20	0.42
45:DY:20:TYR:CZ	45:DY:42:VAL:HA	2.55	0.42
32:DH:107:VAL:HG23	32:DH:107:VAL:O	2.20	0.42
32:DH:154:PRO:O	32:DH:155:SER:O	2.38	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AW:65:G:C6	22:AW:66:U:O4	2.72	0.42
45:BY:11:ASP:H	45:BY:28:LYS:NZ	2.18	0.42
25:DA:479:A:H4'	25:DA:480:A:H5'	2.02	0.42
25:BA:1287:A:C6	25:BA:1288:U:O4	2.72	0.42
26:DB:73:A:C4	26:DB:105:A:C2	3.07	0.42
37:DQ:134:ARG:NE	46:DZ:122:ARG:NH1	2.52	0.42
46:DZ:51:ALA:O	46:DZ:52:SER:HB3	2.18	0.42
46:BZ:150:LEU:O	46:BZ:171:ILE:CG1	2.68	0.42
29:BE:11:MET:CA	40:BT:8:LYS:NZ	2.60	0.42
4:CD:30:LYS:HB3	4:CD:35:ARG:HD2	2.01	0.42
34:DN:65:LYS:O	34:DN:67:LEU:N	2.53	0.42
47:D0:24:LYS:N	47:D0:37:LEU:O	2.50	0.42
41:DU:31:SER:CB	41:DU:34:LYS:HB2	2.44	0.42
2:AB:211:ILE:O	2:AB:215:LEU:HB2	2.20	0.42
7:CG:50:ILE:CG2	7:CG:61:VAL:HG21	2.50	0.42
29:BE:181:LEU:HD21	40:BT:7:ILE:HG22	1.98	0.42
29:BE:1:MET:N	29:BE:1:MET:SD	2.79	0.42
36:BP:108:LYS:O	36:BP:110:TYR:N	2.52	0.42
36:BP:110:TYR:O	36:BP:111:ARG:C	2.58	0.42
1:CA:238:A:C2	1:CA:241:A:C8	3.07	0.42
25:BA:1899:G:H22	25:BA:1902:C:N4	2.13	0.42
3:CC:34:LEU:HD12	14:CN:25:VAL:CG1	2.49	0.42
3:AC:39:ILE:O	3:AC:41:GLY:N	2.52	0.42
36:DP:16:ARG:CB	36:DP:16:ARG:HH11	2.32	0.42
20:CT:14:LYS:O	20:CT:18:GLN:HG3	2.20	0.42
17:AQ:5:VAL:HA	17:AQ:59:ILE:O	2.20	0.42
9:AI:19:LEU:HD21	9:AI:61:ALA:HB2	2.01	0.42
46:BZ:9:TYR:HD2	46:BZ:9:TYR:HA	1.70	0.42
1:AA:1338:A:N6	1:AA:1339:U:O4	2.52	0.42
25:BA:1045:A:C2'	25:BA:1045:A:N3	2.78	0.42
30:DF:17:ARG:HH11	30:DF:17:ARG:CG	2.27	0.42
30:BF:7:TYR:CE2	30:BF:10:PRO:HG3	2.54	0.42
12:AL:32:PHE:CB	12:AL:84:LEU:HD11	2.50	0.42
7:AG:11:GLN:NE2	7:AG:12:LEU:N	2.61	0.42
8:AH:63:LEU:HB2	8:AH:65:TYR:CE1	2.55	0.42
8:AH:63:LEU:HB2	8:AH:65:TYR:HE1	1.84	0.42
6:CF:30:LEU:O	6:CF:35:ALA:N	2.49	0.42
47:B0:53:MET:HA	47:B0:58:THR:O	2.19	0.42
1:AA:355:A:C6	1:AA:356:G:C6	3.08	0.42
3:CC:119:ARG:HE	3:CC:140:ARG:NE	2.17	0.42
10:CJ:58:ASP:O	10:CJ:59:SER:C	2.57	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:82:ILE:HG13	30:BF:82:ILE:O	2.19	0.42
28:BD:168:ARG:HA	28:BD:173:VAL:HA	2.00	0.42
1:CA:1287:A:N6	1:CA:1312:G:H1'	2.34	0.42
2:CB:114:ARG:HH12	2:CB:118:LEU:HD11	1.85	0.42
25:BA:2080:G:O5'	48:B1:35:THR:HG23	2.20	0.42
12:CL:126:LYS:CG	12:CL:127:GLU:N	2.82	0.42
1:CA:844:G:C4	1:CA:845:C:C5	3.08	0.42
1:AA:537:C:O2'	1:AA:538:C:H5'	2.20	0.42
6:AF:45:LEU:CD1	6:AF:57:GLN:HB3	2.49	0.42
25:DA:1961:C:C2'	25:DA:1962:C:H5'	2.49	0.42
25:BA:2223:G:O2'	25:BA:2224:G:H5'	2.20	0.42
1:CA:1202:G:H4'	19:CS:53:ASN:O	2.19	0.42
25:BA:1784:A:H4'	25:BA:1785:A:C5'	2.50	0.42
4:CD:4:TYR:CD2	4:CD:5:ILE:N	2.87	0.42
28:DD:232:PRO:HD2	28:DD:249:PRO:HA	2.01	0.42
41:DU:12:ARG:C	41:DU:14:HIS:N	2.73	0.42
25:DA:1642:G:O2'	25:DA:1643:G:H5'	2.19	0.42
1:AA:328:G:H2'	1:AA:329:C:C6	2.53	0.42
28:BD:146:GLU:HG2	28:BD:152:GLY:C	2.40	0.42
27:DC:23:ASP:C	27:DC:25:ALA:N	2.72	0.42
1:CA:1411:C:H2'	1:CA:1412:C:H6	1.82	0.42
31:BG:165:THR:HG1	31:BG:168:GLU:HG3	1.85	0.42
1:AA:1451:G:H1'	25:BA:1701:A:H2	1.85	0.42
1:CA:1286:G:H5'	21:CU:4:GLY:HA3	2.01	0.42
6:AF:42:GLU:C	6:AF:44:GLY:N	2.72	0.42
25:DA:950:G:O2'	25:DA:951:C:H5'	2.20	0.42
27:DC:154:ARG:C	27:DC:156:ILE:H	2.23	0.42
38:BR:87:TYR:CE1	38:BR:117:VAL:O	2.72	0.42
46:BZ:141:VAL:HG13	46:BZ:141:VAL:O	2.18	0.42
25:DA:1399:C:O2'	25:DA:1400:G:H5'	2.20	0.42
20:CT:38:LYS:C	20:CT:40:ALA:H	2.21	0.42
20:CT:38:LYS:HE2	20:CT:38:LYS:HB3	1.85	0.42
46:DZ:110:GLY:HA3	46:DZ:115:GLY:HA3	2.02	0.42
25:DA:703:U:H2'	25:DA:704:G:H5'	2.02	0.42
1:CA:830:G:C2	1:CA:831:G:C8	3.07	0.42
33:DI:113:ARG:HD2	33:DI:113:ARG:N	2.34	0.42
46:DZ:152:ALA:HB3	46:DZ:154:ASP:OD1	2.20	0.42
20:AT:23:ARG:O	20:AT:27:LYS:HB2	2.20	0.42
37:BQ:103:MET:CE	37:BQ:125:LEU:HD13	2.49	0.42
2:AB:195:ASP:O	8:AH:74:PRO:HG3	2.20	0.42
1:CA:536:A:C6	1:CA:537:C:N4	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:32:C:C2	26:BB:51:G:N2	2.88	0.42
4:AD:52:SER:C	4:AD:54:TYR:N	2.72	0.42
25:BA:1909:C:H5''	25:BA:1909:C:C6	2.55	0.42
3:AC:107:GLN:CD	3:AC:107:GLN:H	2.23	0.42
23:AV:60:A:H2'	23:AV:60:A:N3	2.34	0.42
25:BA:1427:A:H4'	25:BA:1428:C:O5'	2.20	0.42
29:BE:47:VAL:HG21	29:BE:86:PRO:HD3	2.01	0.42
13:AM:82:MET:O	13:AM:83:ASP:O	2.37	0.42
13:AM:94:ARG:NE	25:BA:887:A:H3'	2.31	0.42
25:BA:2327:A:C5	25:BA:2388:A:C6	3.07	0.42
25:BA:108:U:C2	25:BA:109:G:C8	3.07	0.42
25:DA:2683:C:P	40:DT:53:ARG:HH22	2.42	0.42
22:CW:18:G:N2	22:CW:55:U:H6	2.18	0.42
45:DY:28:LYS:CE	45:DY:28:LYS:N	2.83	0.42
55:B8:14:VAL:CG2	55:B8:22:VAL:CG1	2.98	0.42
38:BR:80:PHE:HD1	38:BR:80:PHE:HA	1.75	0.42
25:BA:2473:U:H2'	25:BA:2473:U:O2	2.18	0.42
41:DU:83:LEU:HD12	41:DU:113:ALA:HB2	2.02	0.42
42:DV:38:LEU:CD1	42:DV:57:VAL:HB	2.49	0.42
25:BA:2334:G:H21	39:BS:18:ILE:HG12	1.85	0.42
39:BS:56:LEU:HD22	39:BS:58:LEU:HD13	2.01	0.42
45:BY:52:SER:O	45:BY:54:LYS:N	2.53	0.42
40:BT:32:TYR:CD1	40:BT:81:PRO:O	2.73	0.42
3:CC:8:ILE:HG23	3:CC:16:ARG:HG2	2.02	0.42
10:CJ:48:THR:CG2	10:CJ:62:HIS:HB3	2.45	0.42
14:CN:42:ILE:O	14:CN:45:ARG:N	2.53	0.42
45:DY:77:PRO:O	45:DY:78:ALA:CB	2.68	0.42
25:BA:2302:G:C6	25:BA:2303:G:C5	3.07	0.42
31:BG:125:PHE:HZ	31:BG:180:PHE:CZ	2.38	0.42
28:BD:25:THR:C	28:BD:27:THR:H	2.23	0.42
39:BS:79:ALA:C	39:BS:80:LEU:HD12	2.40	0.42
25:DA:589:C:O3'	30:DF:95:ARG:NH1	2.52	0.42
15:AO:36:ILE:HG23	15:AO:56:LEU:HD11	2.00	0.42
36:BP:7:ARG:CZ	36:BP:7:ARG:HB2	2.50	0.42
9:AI:8:GLY:HA2	9:AI:79:LEU:HB3	2.00	0.42
25:DA:2302:G:C6	25:DA:2303:G:C5	3.07	0.42
1:AA:1354:U:OP1	9:AI:72:GLY:N	2.49	0.42
25:BA:549:G:H3'	25:BA:551:G:H5''	2.01	0.42
32:DH:156:ALA:N	32:DH:158:HIS:H	2.12	0.42
10:AJ:78:ASN:HD21	10:AJ:80:LYS:CB	2.33	0.42
1:CA:1099:G:H4'	9:CI:104:ARG:NH1	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:CU:6:ARG:NE	21:CU:15:ARG:HH22	1.95	0.42
46:BZ:120:ILE:O	46:BZ:171:ILE:HA	2.20	0.42
46:BZ:53:ILE:HG21	46:BZ:71:VAL:O	2.20	0.42
46:BZ:99:TYR:H	46:BZ:99:TYR:HD2	1.67	0.42
20:AT:52:ALA:CB	20:AT:92:LEU:HD11	2.49	0.42
29:BE:24:THR:HG23	29:BE:24:THR:O	2.19	0.42
1:AA:1330:A:OP1	9:AI:120:ARG:HB2	2.20	0.42
40:BT:55:ASN:O	40:BT:57:PHE:N	2.53	0.42
25:DA:395:U:O2	25:DA:395:U:C2'	2.63	0.42
12:AL:28:LYS:O	12:AL:29:GLY:C	2.58	0.42
48:B1:92:LYS:HG3	48:B1:93:GLU:N	2.35	0.42
7:CG:47:CYS:C	7:CG:49:ILE:N	2.73	0.42
7:AG:49:ILE:CG2	7:AG:53:LYS:HD2	2.45	0.42
2:AB:168:THR:HG23	2:AB:192:SER:OG	2.19	0.42
28:BD:43:ARG:HH11	28:BD:44:ASN:ND2	2.16	0.42
25:BA:1815:A:P	28:BD:54:ARG:HH22	2.43	0.42
36:BP:83:VAL:CG1	36:BP:114:ILE:HA	2.50	0.42
30:DF:53:THR:HG23	30:DF:54:ARG:N	2.33	0.42
8:CH:12:ARG:HH11	8:CH:26:VAL:HA	1.83	0.42
25:BA:1914:C:O5'	25:BA:1914:C:O2	2.37	0.42
22:CW:28:G:N2	22:CW:43:C:N3	2.66	0.42
25:BA:728:G:O3'	28:BD:10:THR:HG21	2.20	0.42
37:DQ:12:GLN:HE21	37:DQ:73:PRO:HD3	1.83	0.42
43:DW:87:PRO:HA	43:DW:93:ALA:HA	2.02	0.42
11:AK:22:HIS:HB3	11:AK:29:ILE:CG2	2.46	0.42
9:CI:37:PHE:CE1	9:CI:74:ILE:HG12	2.54	0.42
5:CE:150:ARG:HB2	5:CE:150:ARG:NH1	2.35	0.42
1:AA:403:A:H2'	1:AA:404:G:O4'	2.19	0.42
43:BW:1:MET:CE	43:BW:2:GLU:H	2.32	0.42
43:BW:58:ALA:HB1	43:BW:64:MET:SD	2.60	0.42
9:CI:19:LEU:HD21	9:CI:61:ALA:HB2	2.00	0.42
1:CA:402:G:H1	1:CA:430:C:N4	2.09	0.42
1:CA:626:C:H2'	1:CA:627:G:H8	1.83	0.42
1:CA:711:A:H2'	1:CA:712:A:H8	1.83	0.42
1:CA:1324:G:H1'	9:CI:121:ARG:HH12	1.85	0.42
11:AK:12:ARG:CG	11:AK:13:GLN:H	2.31	0.42
31:BG:13:GLU:O	31:BG:14:GLU:CB	2.67	0.42
13:CM:125:ARG:CG	22:CY:38:A:O2'	2.65	0.42
49:B2:14:ARG:HD3	49:B2:66:GLU:OE2	2.19	0.42
49:B2:14:ARG:CG	49:B2:14:ARG:HH11	2.30	0.42
4:CD:174:LEU:O	4:CD:186:LEU:HD11	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1609:A:C2	25:DA:1616:A:C8	3.08	0.42
35:BO:47:ILE:HG23	35:BO:48:PRO:HD2	2.00	0.42
23:CV:25:U:C6	23:CV:25:U:O5'	2.72	0.42
11:AK:121:PRO:C	11:AK:122:LYS:O	2.57	0.42
6:AF:39:LYS:CG	6:AF:40:VAL:H	2.29	0.42
35:DO:88:ASN:ND2	35:DO:90:GLN:HB2	2.31	0.42
1:AA:988:G:C2	1:AA:998:U:H1'	2.54	0.42
1:AA:1294:U:O4	19:AS:4:SER:N	2.52	0.42
1:CA:765:A:H62	1:CA:783:G:H21	1.68	0.42
2:CB:114:ARG:HG3	2:CB:114:ARG:NH1	2.31	0.42
3:CC:130:VAL:O	3:CC:134:ILE:HG12	2.20	0.42
8:AH:114:THR:C	8:AH:116:LYS:H	2.22	0.42
8:AH:118:VAL:C	8:AH:119:LEU:HD23	2.40	0.42
48:B1:51:VAL:HG12	48:B1:58:ILE:O	2.19	0.42
1:AA:75:G:N3	1:AA:75:G:H2'	2.35	0.42
1:AA:1085:C:H2'	1:AA:1086:G:O4'	2.20	0.42
1:AA:468:G:O2'	1:AA:469:G:OP2	2.33	0.42
3:CC:156:ARG:NH2	3:CC:160:ALA:O	2.50	0.42
27:DC:47:LEU:HB2	27:DC:207:THR:CB	2.49	0.42
43:DW:41:LYS:HE3	43:DW:41:LYS:HB3	1.81	0.42
25:BA:2521:C:H42	25:BA:2544:G:H1	1.68	0.42
41:DU:12:ARG:C	41:DU:15:LYS:HZ2	2.21	0.42
39:BS:59:LYS:HE3	39:BS:68:GLN:NE2	2.32	0.42
1:CA:835:G:O6	1:CA:846:G:C8	2.73	0.42
17:CQ:92:ARG:O	17:CQ:95:TYR:CD2	2.72	0.42
27:BC:214:VAL:C	27:BC:216:THR:H	2.23	0.42
6:AF:50:TYR:CE1	18:AR:77:GLY:HA2	2.55	0.42
25:DA:773:U:H4'	28:DD:47:GLY:CA	2.50	0.42
1:AA:666:G:C2	1:AA:691:C:N3	2.87	0.42
1:AA:1072:U:H2'	1:AA:1073:U:C6	2.54	0.42
18:AR:32:ARG:O	18:AR:69:THR:HG21	2.19	0.42
27:BC:169:GLY:O	27:BC:170:ALA:HB3	2.19	0.42
54:D7:31:LEU:O	54:D7:35:ARG:HB2	2.20	0.42
1:AA:219:C:H2'	1:AA:220:C:C6	2.55	0.42
32:DH:50:VAL:HG12	32:DH:51:ARG:N	2.35	0.42
26:DB:32:C:C2	26:DB:51:G:N2	2.88	0.42
25:DA:2770:G:H5'	25:DA:2771:C:OP2	2.19	0.42
29:DE:66:HIS:ND1	29:DE:66:HIS:O	2.38	0.42
25:BA:1681:G:OP2	25:BA:1681:G:H8	2.02	0.42
25:DA:200:U:H2'	25:DA:201:C:H5'	2.02	0.42
8:AH:21:LYS:O	8:AH:22:GLU:C	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DH:17:VAL:CB	32:DH:45:VAL:CB	2.87	0.42
32:DH:26:VAL:HG11	32:DH:76:VAL:HA	2.00	0.42
32:DH:27:LYS:HE3	32:DH:32:GLU:HB2	2.00	0.42
41:BU:92:ARG:HH11	42:BV:11:GLN:HG3	1.83	0.42
14:AN:27:CYS:C	14:AN:29:ARG:H	2.23	0.42
25:DA:282:A:H3'	25:DA:284:U:O4	2.18	0.42
25:DA:1772:G:C2'	25:DA:1773:A:O5'	2.68	0.42
55:B8:50:LEU:O	55:B8:51:ALA:HB3	2.20	0.42
25:DA:2791:C:H41	25:DA:2803:C:N4	2.18	0.42
25:BA:2172:U:O2'	25:BA:2173:A:OP1	2.38	0.42
25:DA:2128:C:OP1	27:DC:35:ALA:CB	2.67	0.42
25:DA:613:G:C2	25:DA:614:U:C6	3.07	0.42
38:DR:76:VAL:O	38:DR:79:LEU:HB3	2.18	0.42
41:DU:105:VAL:O	41:DU:109:LEU:CD1	2.67	0.42
49:B2:47:ASN:O	49:B2:49:LYS:N	2.52	0.42
7:AG:113:GLU:HB3	7:AG:118:VAL:HG23	2.02	0.42
25:BA:2759:G:C2'	25:BA:2760:C:H5'	2.49	0.42
12:CL:64:TYR:HB3	12:CL:65:GLU:H	1.68	0.42
28:BD:77:ALA:HB2	28:BD:97:TYR:CG	2.54	0.42
28:DD:96:HIS:ND1	28:DD:102:LYS:HG2	2.34	0.42
23:AV:20:G:C6	23:AV:58:A:C2	3.08	0.42
13:AM:116:THR:C	13:AM:117:VAL:HG23	2.40	0.42
1:CA:271:G:O2'	17:CQ:68:ARG:NH1	2.53	0.42
4:CD:127:THR:HG22	4:CD:132:ARG:HA	2.02	0.42
39:DS:79:ALA:C	39:DS:80:LEU:HD12	2.40	0.42
20:CT:89:ARG:CZ	20:CT:104:LEU:HD21	2.50	0.42
41:DU:55:ARG:HA	41:DU:58:ARG:HG3	1.99	0.42
34:DN:62:VAL:HG22	34:DN:66:LYS:HD3	2.00	0.42
25:BA:1240:U:O2'	25:BA:1241:A:H5'	2.19	0.42
25:DA:2300:G:O6	25:DA:2316:C:N4	2.52	0.42
32:BH:127:GLU:HB3	32:BH:128:PRO:HD2	2.00	0.42
32:BH:151:ILE:N	32:BH:151:ILE:HD13	2.35	0.42
30:DF:131:GLY:O	30:DF:132:VAL:O	2.36	0.42
2:AB:74:LYS:HE3	2:AB:166:ASP:HB3	2.02	0.42
32:DH:94:TYR:CZ	32:DH:107:VAL:HB	2.55	0.42
25:BA:1018:C:C2'	25:BA:1019:U:H5'	2.50	0.42
5:AE:12:LEU:C	5:AE:13:ILE:HG13	2.39	0.42
25:DA:2015:A:C4	52:D5:6:VAL:HG23	2.55	0.42
26:BB:71:C:H2'	26:BB:72:G:C8	2.47	0.42
9:CI:50:LEU:HA	9:CI:53:VAL:HG22	2.02	0.42
9:CI:96:LEU:CG	9:CI:102:LEU:HB2	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2015:A:H1'	52:B5:2:ALA:CA	2.43	0.42
46:BZ:177:PRO:O	46:BZ:178:GLU:CG	2.66	0.42
3:CC:188:LEU:HD12	3:CC:195:VAL:CG1	2.49	0.42
23:AV:14:A:H2'	23:AV:15:G:H5'	2.02	0.42
31:BG:90:LEU:HA	31:BG:90:LEU:HD23	1.79	0.42
20:AT:71:THR:HB	20:AT:72:LEU:H	1.56	0.42
22:AW:2:C:N4	22:AW:71:G:H1	2.04	0.42
36:BP:114:ILE:HD12	36:BP:115:LEU:H	1.84	0.42
36:BP:97:PRO:O	36:BP:99:LEU:N	2.46	0.42
1:AA:1187:G:O4'	3:AC:194:GLY:HA2	2.19	0.42
34:DN:132:ALA:O	34:DN:133:GLN:HB3	2.19	0.42
34:BN:9:VAL:CG1	34:BN:10:GLU:N	2.83	0.42
37:DQ:72:LYS:HA	37:DQ:73:PRO:HD3	1.87	0.42
4:AD:24:GLU:O	4:AD:27:TYR:HB2	2.19	0.42
5:AE:150:ARG:CB	5:AE:150:ARG:CZ	2.97	0.42
25:DA:1048:A:N3	25:DA:1048:A:P	2.92	0.42
1:CA:762:C:H4'	11:CK:121:PRO:O	2.20	0.42
46:BZ:33:LEU:HD11	46:BZ:35:ARG:CB	2.45	0.42
55:D8:46:ARG:HB3	55:D8:47:LYS:H	1.72	0.42
6:CF:68:PRO:HG3	6:CF:71:ARG:NH2	2.34	0.42
25:BA:142:A:H8	25:BA:1408:C:H1'	1.83	0.42
53:B6:11:LEU:HD13	53:B6:12:GLU:N	2.34	0.42
1:CA:256:U:OP2	20:CT:79:ARG:NH2	2.53	0.42
25:BA:1717:G:H2'	25:BA:1718:G:H5''	2.02	0.42
31:BG:46:ALA:C	31:BG:51:ARG:HG3	2.39	0.42
11:CK:12:ARG:HE	11:CK:14:VAL:CG1	2.33	0.42
1:CA:1083:A:H4'	1:CA:1084:A:O5'	2.20	0.42
2:CB:97:TRP:CH2	2:CB:176:GLU:CD	2.92	0.42
25:DA:1608:A:H1'	25:DA:1610:A:OP2	2.19	0.42
27:BC:82:LYS:HZ3	27:BC:149:ILE:HA	1.85	0.42
46:DZ:44:PHE:CZ	46:DZ:86:VAL:HG11	2.54	0.42
36:DP:140:ALA:O	36:DP:141:ALA:CB	2.66	0.42
1:CA:1490:A:H2'	1:CA:1491:C:C6	2.54	0.42
1:AA:1473:C:H2'	1:AA:1474:G:O4'	2.19	0.42
1:CA:765:A:C6	1:CA:784:U:C2	3.07	0.42
1:CA:898:U:C4	1:CA:899:G:N7	2.88	0.42
1:CA:899:G:C2	1:CA:900:A:C4	3.07	0.42
28:BD:136:ILE:HG22	28:BD:140:THR:OG1	2.18	0.42
50:B3:59:VAL:CG1	50:B3:60:GLU:N	2.83	0.42
47:D0:82:ARG:O	47:D0:83:PRO:O	2.38	0.42
25:BA:635:C:O2'	25:BA:636:G:H5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:635:C:O2'	25:DA:636:G:H5'	2.20	0.42
1:CA:516:A:N6	1:CA:519:C:C2	2.88	0.42
50:D3:3:ARG:HA	50:D3:38:GLU:OE2	2.20	0.42
12:CL:32:PHE:HB3	12:CL:84:LEU:CD1	2.50	0.42
25:DA:1602:U:H3'	25:DA:1603:A:H5'	2.01	0.42
1:CA:496:C:C2	1:CA:522:A:C2	3.07	0.42
23:CV:73:A:C6	23:CV:74:A:C5	3.08	0.42
25:DA:1784:A:H4'	25:DA:1785:A:C5'	2.50	0.42
13:CM:46:LYS:HG3	13:CM:47:ASP:OD1	2.18	0.42
4:AD:81:GLU:OE1	4:AD:139:ARG:NH2	2.52	0.42
25:DA:2817:G:H21	25:DA:2836:U:H1'	1.84	0.42
25:DA:2236:C:O2'	25:DA:2237:G:H5'	2.20	0.42
41:DU:12:ARG:CA	41:DU:15:LYS:NZ	2.82	0.42
1:CA:498:G:C4	1:CA:520:G:N2	2.88	0.42
9:AI:125:TYR:CE2	9:AI:127:LYS:HB2	2.55	0.42
28:DD:146:GLU:HG2	28:DD:152:GLY:C	2.40	0.42
25:DA:2457:U:C2'	25:DA:2458:G:H5'	2.50	0.42
1:CA:397:G:OP1	4:CD:74:GLN:HG2	2.20	0.42
1:AA:329:C:H2'	1:AA:330:C:C6	2.55	0.42
8:CH:44:PHE:HA	8:CH:79:VAL:HG11	2.00	0.42
25:BA:2527:C:C5'	56:B9:30:PRO:HB2	2.49	0.42
46:DZ:104:PHE:CD1	46:DZ:139:VAL:HB	2.52	0.42
25:DA:2825:C:H2'	25:DA:2826:A:O4'	2.19	0.42
25:BA:198:C:H6	25:BA:198:C:O5'	2.02	0.42
35:DO:10:VAL:HG23	35:DO:12:ASP:H	1.85	0.42
27:BC:154:ARG:C	27:BC:156:ILE:H	2.23	0.42
20:AT:40:ALA:HB2	20:AT:55:ILE:HG22	2.02	0.42
1:AA:983:A:H5''	1:AA:984:C:OP2	2.19	0.42
1:CA:989:G:C6	1:CA:990:U:C4	3.08	0.42
22:CW:74:C:C2'	22:CW:75:C:H5'	2.50	0.42
25:BA:658:C:H2'	25:BA:659:C:C6	2.55	0.42
15:AO:20:GLY:O	15:AO:22:THR:HG23	2.20	0.42
25:BA:1851:U:C2'	25:BA:1852:C:H5'	2.50	0.42
46:DZ:61:LEU:HB2	46:DZ:65:GLN:HB2	2.00	0.42
1:AA:99:C:H2'	1:AA:100:G:H8	1.83	0.42
1:AA:180:C:O2'	20:AT:85:MET:SD	2.58	0.42
13:CM:120:LYS:HA	13:CM:120:LYS:HD3	1.83	0.42
25:DA:1909:C:H5''	25:DA:1909:C:C6	2.55	0.42
3:AC:207:VAL:HG12	3:AC:207:VAL:O	2.20	0.42
15:AO:47:LYS:HG2	15:AO:47:LYS:H	1.57	0.42
5:CE:7:GLU:HG2	5:CE:37:ARG:HH21	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2726:U:O2'	25:BA:2727:G:H5'	2.20	0.42
25:BA:519:U:O2'	25:BA:520:G:H5'	2.19	0.42
25:BA:108:U:H2'	25:BA:109:G:C8	2.55	0.42
41:BU:83:LEU:HD12	41:BU:113:ALA:HB2	2.02	0.42
23:CV:15:G:N1	23:CV:22:A:C2	2.87	0.42
20:AT:98:PRO:C	20:AT:100:ILE:N	2.73	0.42
25:BA:833:U:H2'	25:BA:834:C:C6	2.55	0.42
36:BP:56:SER:O	36:BP:57:THR:CB	2.68	0.42
50:B3:31:LEU:C	50:B3:33:GLN:N	2.73	0.42
25:BA:2313:C:OP1	31:BG:71:THR:HG21	2.20	0.42
41:DU:105:VAL:CG1	42:DV:40:LEU:CD1	2.98	0.42
25:DA:2228:G:OP1	28:DD:261:LYS:CE	2.68	0.42
28:DD:260:ARG:HD3	28:DD:261:LYS:O	2.19	0.42
26:BB:16:G:O2'	26:BB:17:C:H5'	2.20	0.42
42:BV:21:ARG:O	42:BV:22:VAL:HG13	2.20	0.42
5:CE:112:LEU:HD23	5:CE:112:LEU:N	2.35	0.42
39:DS:16:ASN:O	39:DS:20:ARG:NH2	2.51	0.42
1:CA:1294:U:P	19:CS:6:LYS:HG3	2.60	0.42
45:DY:99:CYS:O	45:DY:100:ALA:CB	2.68	0.42
12:CL:58:VAL:O	12:CL:65:GLU:HA	2.19	0.42
8:CH:109:ILE:HG22	8:CH:137:VAL:HB	2.00	0.42
28:BD:24:ILE:HD12	28:BD:84:TYR:HB2	2.01	0.42
33:DI:68:LEU:O	33:DI:72:LEU:HB3	2.19	0.42
25:DA:589:C:H2'	25:DA:590:A:C8	2.55	0.42
36:BP:6:LEU:N	36:BP:6:LEU:HD23	2.29	0.42
5:AE:41:VAL:CG1	5:AE:112:LEU:C	2.88	0.42
25:DA:1270:C:O2'	25:DA:1648:C:OP2	2.30	0.42
41:BU:66:ASN:OD1	41:BU:76:TYR:CB	2.68	0.42
32:BH:154:PRO:O	32:BH:155:SER:O	2.38	0.42
25:BA:1651:G:OP1	38:BR:40:LYS:HE3	2.20	0.42
2:AB:8:LYS:C	2:AB:12:GLU:HG3	2.39	0.42
32:DH:109:PHE:N	32:DH:109:PHE:CD1	2.83	0.42
34:BN:22:THR:HA	34:BN:61:ARG:O	2.19	0.42
1:CA:1110:C:H2'	1:CA:1112:A:N7	2.34	0.42
25:DA:747:U:OP2	52:D5:3:LYS:NZ	2.49	0.42
2:CB:187:LEU:HA	2:CB:201:ILE:O	2.20	0.42
9:CI:11:LYS:O	9:CI:12:GLU:C	2.58	0.42
46:DZ:150:LEU:N	46:DZ:150:LEU:HD13	2.35	0.42
46:BZ:150:LEU:N	46:BZ:150:LEU:HD13	2.35	0.42
2:AB:178:ARG:HD3	2:AB:178:ARG:HA	1.94	0.42
4:CD:28:SER:O	4:CD:30:LYS:HG2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:170:GLU:HA	2:CB:172:ILE:CD1	2.50	0.42
25:BA:1365:A:H5''	48:B1:41:ARG:NH1	2.22	0.42
29:BE:176:ILE:CG2	29:BE:178:GLU:HB3	2.49	0.42
1:CA:1295:C:H2'	1:CA:1296:U:H6	1.85	0.42
19:CS:39:THR:HG22	19:CS:40:ILE:H	1.82	0.42
29:DE:28:ALA:O	29:DE:29:GLY:O	2.38	0.42
36:BP:91:PHE:N	36:BP:91:PHE:HD1	2.16	0.42
10:CJ:7:LYS:CD	10:CJ:71:LEU:HD13	2.42	0.42
34:BN:136:GLU:OE1	34:BN:137:LYS:N	2.53	0.42
45:BY:46:LYS:HB3	45:BY:47:LYS:H	1.51	0.42
55:D8:50:LEU:O	55:D8:51:ALA:HB3	2.20	0.42
22:AY:43:C:H6	22:AY:43:C:H3'	1.84	0.42
3:AC:34:LEU:HD12	14:AN:25:VAL:CG1	2.50	0.42
43:DW:52:GLU:HA	43:DW:52:GLU:OE2	2.20	0.42
25:DA:10:G:O6	25:DA:2629:A:C8	2.73	0.42
22:CY:28:G:C5	22:CY:29:G:N7	2.87	0.42
34:BN:45:ASN:ND2	34:BN:45:ASN:O	2.52	0.42
25:DA:2675:A:H4'	35:DO:29:ASN:HD22	1.82	0.42
9:CI:18:PHE:HB2	9:CI:62:TYR:HB3	2.02	0.42
31:DG:95:ARG:NH1	31:DG:95:ARG:HG2	2.34	0.42
20:AT:53:LEU:CD1	20:AT:102:GLY:HA3	2.49	0.42
1:AA:1337:G:H2'	1:AA:1338:A:C8	2.54	0.42
25:BA:1108:U:C2'	25:BA:1109:C:H5'	2.50	0.42
25:BA:1348:G:H2'	25:BA:1349:A:C5'	2.45	0.42
1:AA:365:C:C2	1:AA:366:G:C8	3.08	0.42
1:CA:1327:A:N6	1:CA:1356:A:H3'	2.32	0.42
31:BG:64:THR:CG2	31:BG:65:GLY:N	2.79	0.42
1:AA:1206:A:H5'	1:AA:1207:C:OP2	2.20	0.42
49:D2:4:SER:O	49:D2:7:ARG:HG2	2.19	0.42
35:BO:88:ASN:ND2	35:BO:90:GLN:HB2	2.31	0.42
25:DA:2756:U:H4'	25:DA:2757:A:OP1	2.20	0.42
6:CF:30:LEU:HD23	6:CF:75:LEU:HD11	2.01	0.42
1:CA:637:G:H1'	1:CA:736:A:C2	2.55	0.42
3:AC:134:ILE:HG23	3:AC:151:VAL:HB	2.02	0.42
48:D1:23:LYS:CD	48:D1:28:GLY:HA3	2.49	0.42
18:CR:61:LYS:CG	18:CR:65:ILE:HD11	2.49	0.42
23:CV:32:G:C4	23:CV:33:C:C5	3.08	0.42
7:CG:131:LYS:O	7:CG:131:LYS:HG3	2.19	0.42
47:B0:82:ARG:O	47:B0:83:PRO:O	2.38	0.42
25:DA:2525:G:O4'	25:DA:2741:A:H2	2.02	0.42
2:CB:124:SER:O	2:CB:127:ILE:HG12	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1961:C:C2'	25:BA:1962:C:H5'	2.49	0.42
43:DW:19:LEU:HB3	52:D5:25:LEU:HD11	2.02	0.42
25:DA:2223:G:O2'	25:DA:2224:G:H5'	2.20	0.42
25:BA:523:C:C2'	25:BA:524:U:H5'	2.50	0.42
25:BA:1573:G:C2'	25:BA:1574:C:H5'	2.49	0.42
25:BA:2817:G:H21	25:BA:2836:U:H1'	1.84	0.42
34:BN:26:LEU:HG	34:BN:30:ILE:CD1	2.50	0.42
2:CB:132:LYS:HA	2:CB:135:GLN:CG	2.50	0.42
12:CL:113:ARG:NH1	12:CL:113:ARG:HG2	2.34	0.42
1:AA:1397:G:N3	1:AA:1463:G:C2	2.88	0.42
25:BA:2236:C:O2'	25:BA:2237:G:H5'	2.20	0.42
9:CI:125:TYR:CE2	9:CI:127:LYS:HB2	2.54	0.42
1:CA:707:G:C2	1:CA:708:G:C8	3.08	0.42
16:CP:6:LEU:HD12	16:CP:6:LEU:N	2.35	0.42
6:AF:52:ILE:N	6:AF:55:ASP:O	2.43	0.42
6:CF:4:TYR:HD1	6:CF:92:LYS:HA	1.84	0.42
25:DA:30:G:H2'	25:DA:31:C:C6	2.55	0.42
50:D3:23:LEU:CD1	50:D3:50:VAL:HG11	2.49	0.42
25:BA:188:G:H5'	48:B1:14:VAL:HG21	2.02	0.42
14:CN:34:TYR:H	14:CN:34:TYR:HD1	1.66	0.42
7:AG:95:ARG:HG3	7:AG:95:ARG:NH1	2.35	0.42
1:CA:1066:G:OP1	1:CA:1068:U:C4	2.73	0.42
54:B7:31:LEU:O	54:B7:35:ARG:HB2	2.20	0.42
25:DA:1427:A:H4'	25:DA:1428:C:O5'	2.20	0.42
8:AH:97:VAL:HG13	8:AH:98:LYS:N	2.34	0.42
34:DN:128:HIS:HA	34:DN:129:PRO:HD2	1.83	0.42
6:CF:97:PHE:HD2	18:CR:31:LEU:HD21	1.85	0.42
10:AJ:92:THR:HG23	10:AJ:93:GLY:N	2.34	0.42
41:BU:8:VAL:O	41:BU:9:VAL:C	2.58	0.42
48:D1:71:TYR:N	48:D1:71:TYR:CD1	2.88	0.42
1:CA:928:G:C6	1:CA:1212:G:C6	3.08	0.42
4:AD:14:ARG:HG3	4:AD:15:GLU:OE1	2.20	0.42
50:D3:6:VAL:HB	50:D3:54:VAL:HG11	2.01	0.42
45:DY:15:VAL:CG1	45:DY:16:ALA:N	2.82	0.42
19:AS:61:TYR:O	19:AS:62:ILE:HB	2.20	0.42
38:BR:63:ARG:HG3	38:BR:80:PHE:HE2	1.85	0.42
31:BG:114:ILE:O	31:BG:116:ASP:N	2.53	0.42
41:DU:97:ASP:O	41:DU:100:VAL:HB	2.19	0.42
25:BA:1796:U:H4'	28:BD:256:GLY:N	2.35	0.42
39:BS:98:VAL:HG22	39:BS:100:ALA:H	1.84	0.42
26:BB:65:C:C2'	26:BB:66:A:H5'	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:259:U:O2	17:AQ:64:PRO:HG2	2.20	0.42
25:DA:2296:U:H2'	39:DS:13:ARG:NH2	2.35	0.42
39:DS:70:GLY:C	39:DS:72:ALA:N	2.69	0.42
39:DS:88:ASP:CG	39:DS:89:ARG:N	2.73	0.42
10:CJ:51:ARG:HE	10:CJ:61:GLU:HB2	1.84	0.42
31:BG:172:LEU:O	31:BG:176:LEU:HD12	2.20	0.42
45:BY:77:PRO:O	45:BY:78:ALA:CB	2.68	0.42
1:AA:1210:A:O3'	23:AV:31:G:H5''	2.19	0.42
53:D6:45:LYS:HE3	53:D6:45:LYS:HB3	1.22	0.42
25:DA:1686:C:C5'	25:DA:1686:C:C6	2.97	0.42
25:DA:1240:U:O2'	25:DA:1241:A:H5'	2.19	0.42
36:DP:9:ASN:C	36:DP:11:GLY:N	2.71	0.42
23:CV:4:G:N2	23:CV:5:G:H1'	2.34	0.42
2:AB:189:ASP:HB2	2:AB:190:THR:H	1.75	0.42
25:DA:1018:C:C2'	25:DA:1019:U:H5'	2.50	0.42
25:DA:1142(A):A:C5	25:DA:1144:G:C5	3.07	0.42
30:BF:1:MET:CE	30:BF:27:GLU:HG3	2.50	0.42
36:BP:7:ARG:CB	36:BP:7:ARG:CZ	2.98	0.42
41:BU:52:ARG:HD3	41:BU:55:ARG:NE	2.26	0.42
13:CM:12:ASN:O	13:CM:13:LYS:HG2	2.19	0.42
25:BA:589:C:H2'	25:BA:590:A:C8	2.55	0.42
32:DH:170:ARG:HG2	32:DH:171:LEU:N	2.35	0.42
25:DA:2015:A:N3	52:D5:2:ALA:N	2.68	0.42
47:B0:72:ARG:CZ	47:B0:75:LEU:HD13	2.50	0.42
25:BA:2612:C:C4	25:BA:2613:U:H5	2.38	0.42
25:BA:747:U:OP2	52:B5:3:LYS:CE	2.67	0.42
25:DA:2893:G:H5'	25:DA:2893:G:H8	1.83	0.42
29:BE:169:ASN:OD1	29:BE:203:LYS:HB3	2.19	0.42
48:D1:92:LYS:HG3	48:D1:93:GLU:N	2.34	0.42
31:BG:91:ARG:C	31:BG:91:ARG:HD2	2.40	0.42
40:BT:55:ASN:ND2	40:BT:55:ASN:O	2.53	0.42
11:AK:107:SER:OG	11:AK:108:ILE:N	2.53	0.42
25:BA:2538:C:N3	25:BA:2539:C:C5	2.88	0.42
29:DE:176:ILE:HB	29:DE:181:LEU:HB2	2.01	0.42
36:DP:108:LYS:O	36:DP:110:TYR:N	2.52	0.42
43:BW:87:PRO:HA	43:BW:93:ALA:HA	2.01	0.42
11:CK:27:ASN:HA	11:CK:55:LYS:C	2.39	0.42
19:AS:16:LEU:N	19:AS:16:LEU:CD1	2.83	0.42
43:DW:64:MET:CE	43:DW:109:GLU:HG2	2.50	0.42
25:DA:363:G:N7	25:DA:363(A):A:N7	2.68	0.42
20:CT:14:LYS:CA	20:CT:17:ARG:HH21	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DO:28:SER:O	35:DO:29:ASN:C	2.56	0.42
36:BP:30:THR:CG2	36:BP:31:ALA:H	2.19	0.42
1:AA:981:G:H2'	1:AA:982:A:C4'	2.49	0.42
26:BB:73:A:C4	26:BB:105:A:C2	3.07	0.42
1:AA:953:G:OP1	14:AN:32:SER:N	2.52	0.42
25:BA:1048:A:N3	25:BA:1048:A:P	2.93	0.42
10:CJ:90:LEU:N	10:CJ:91:PRO:HD3	2.35	0.42
11:AK:12:ARG:HE	11:AK:14:VAL:CG1	2.32	0.42
1:CA:255:G:H2'	1:CA:256:U:C6	2.55	0.42
54:B7:43:THR:HG23	54:B7:44:PRO:CD	2.43	0.42
25:BA:2754:U:H2'	25:BA:2755:C:H5''	2.02	0.42
27:BC:99:ILE:HG23	27:BC:103:ILE:CB	2.50	0.42
25:BA:1332:G:H21	25:BA:1610:A:H8	1.60	0.42
1:CA:982:A:C6	1:CA:1019:C:N4	2.88	0.42
28:BD:48:ARG:HH11	28:BD:48:ARG:CG	2.27	0.42
48:D1:25:LYS:C	48:D1:27:GLU:N	2.73	0.42
28:DD:176:ARG:CG	28:DD:176:ARG:HH11	2.28	0.42
25:BA:2881:C:C2	25:BA:2882:A:C8	3.07	0.42
43:BW:8:ARG:HD3	43:BW:102:HIS:CD2	2.55	0.42
3:AC:32:LEU:HD22	3:AC:59:ARG:NH1	2.35	0.42
1:AA:802:A:C5	1:AA:1506:G:C6	3.07	0.42
23:AV:41:C:C3'	23:AV:41:C:C6	3.03	0.42
27:DC:168:THR:HA	27:DC:173:ALA:HB1	2.01	0.42
38:DR:14:SER:OG	38:DR:15:SER:N	2.53	0.42
13:AM:34:LEU:HD13	13:AM:41:PRO:CA	2.47	0.42
25:BA:2222:G:O2'	25:BA:2223:G:H5'	2.20	0.42
30:BF:127:GLU:HG2	30:BF:196:LEU:HD11	2.02	0.42
43:DW:20:VAL:HG11	43:DW:44:ALA:HA	2.01	0.42
1:AA:484:C:H2'	1:AA:485:G:C8	2.55	0.42
25:BA:818:G:H5'	25:BA:839:U:OP1	2.20	0.42
41:DU:30:LYS:HD3	41:DU:30:LYS:HA	1.94	0.42
28:BD:232:PRO:HD2	28:BD:249:PRO:HA	2.01	0.42
25:DA:271(J):C:H2'	25:DA:271(K):U:H5''	2.02	0.42
4:CD:81:GLU:CD	4:CD:139:ARG:HH22	2.23	0.42
12:CL:119:LYS:O	12:CL:120:TYR:HB2	2.20	0.42
25:BA:2136:C:N4	25:BA:2155:G:N1	2.67	0.42
1:AA:1141:U:C4	1:AA:1163:G:C4	3.08	0.42
1:AA:762:C:N4	1:AA:763:A:C6	2.88	0.42
4:CD:100:ARG:CZ	4:CD:137:SER:HA	2.50	0.42
19:AS:37:ARG:HG3	19:AS:37:ARG:H	1.58	0.42
45:DY:91:GLU:HB3	45:DY:92:ASN:H	1.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1864:U:H6	25:BA:1864:U:OP2	2.03	0.42
25:BA:703:U:H2'	25:BA:704:G:H5'	2.02	0.42
1:CA:790:A:H2'	1:CA:791:C:C6	2.55	0.42
40:BT:36:GLU:HB2	40:BT:38:ASN:H	1.85	0.42
25:DA:1930:G:N2	25:DA:1968:G:H2'	2.35	0.42
1:CA:1442:C:H2'	1:CA:1443:C:O4'	2.20	0.42
25:BA:640:C:O2'	25:BA:641:C:H5'	2.19	0.42
20:AT:45:GLN:C	20:AT:47:GLY:H	2.22	0.42
1:AA:1493:G:H2'	1:AA:1495:A:OP2	2.19	0.42
25:DA:2239:G:H5'	28:DD:251:GLY:HA3	2.01	0.42
1:CA:113:A:H2'	1:CA:115:G:N7	2.35	0.42
40:DT:125:ARG:HA	40:DT:125:ARG:HD3	1.71	0.42
25:DA:2091:U:O2'	48:D1:47:GLN:HG3	2.20	0.42
25:DA:498:G:O2'	25:DA:499:U:H5'	2.20	0.42
1:AA:542:A:H4'	1:AA:543:U:H3'	2.01	0.42
40:DT:30:VAL:HB	40:DT:43:GLN:H	1.84	0.42
29:DE:57:LYS:HB3	29:DE:57:LYS:HZ3	1.84	0.42
25:DA:2688:U:C5	25:DA:2719:G:C5	3.07	0.42
50:D3:56:VAL:CG1	50:D3:57:GLU:N	2.62	0.42
50:B3:31:LEU:O	50:B3:33:GLN:N	2.52	0.42
39:DS:99:LYS:HE2	39:DS:99:LYS:HB3	1.91	0.42
25:DA:90:U:HO2'	25:DA:92:A:H5''	1.82	0.42
8:CH:119:LEU:CD1	8:CH:124:ALA:HA	2.49	0.42
22:CW:39:U:H5'	22:CW:39:U:H6	1.84	0.42
1:AA:931:G:C5	1:AA:932:U:C4	3.08	0.42
42:DV:19:LYS:HZ3	42:DV:20:LEU:N	2.16	0.42
25:BA:851:U:O4'	50:B3:46:ASN:OD1	2.38	0.42
1:AA:154:A:C2'	1:AA:154:A:N3	2.81	0.42
33:BI:101:LEU:HB3	33:BI:109:ILE:CD1	2.43	0.42
33:BI:72:LEU:CD1	33:BI:138:ILE:HG21	2.49	0.42
33:DI:101:LEU:HA	33:DI:104:GLN:HB3	2.02	0.42
22:AW:30:G:O2'	22:AW:31:A:H5'	2.19	0.42
25:DA:2109:U:H1'	25:DA:2181:G:N2	2.34	0.42
14:AN:8:GLU:HG3	14:AN:12:ARG:HH11	1.85	0.42
25:DA:2465:C:H2'	25:DA:2465:C:O2	2.19	0.42
46:DZ:57:ILE:CG2	46:DZ:58:VAL:N	2.81	0.42
45:BY:28:LYS:N	45:BY:28:LYS:CE	2.83	0.42
45:BY:39:VAL:O	45:BY:40:GLU:HG2	2.20	0.42
34:BN:58:ASP:C	34:BN:60:ILE:HG13	2.40	0.42
34:BN:62:VAL:HG22	34:BN:66:LYS:HB2	2.00	0.42
52:D5:3:LYS:HA	52:D5:3:LYS:HD2	1.70	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:74:LYS:C	2:CB:76:GLN:N	2.72	0.42
9:CI:79:LEU:HD11	9:CI:83:ARG:CZ	2.50	0.42
22:AY:32:U:C4	22:AY:33:U:C4	3.08	0.42
46:DZ:33:LEU:CD1	46:DZ:34:ASN:H	2.31	0.42
46:DZ:53:ILE:HG21	46:DZ:71:VAL:O	2.20	0.42
46:BZ:99:TYR:HD2	46:BZ:99:TYR:N	2.16	0.42
25:BA:676:A:H2	25:BA:802:A:N6	2.17	0.42
4:CD:33:MET:HE2	4:CD:33:MET:HA	2.01	0.42
20:CT:41:ILE:HG13	20:CT:42:GLN:N	2.34	0.42
7:CG:44:TYR:O	7:CG:47:CYS:N	2.53	0.42
25:BA:2230:G:C4'	48:B1:43:TYR:HB2	2.50	0.42
25:BA:1365:A:O2'	48:B1:11:ARG:NH2	2.44	0.42
29:BE:37:ARG:HD3	29:BE:42:ASP:OD2	2.20	0.42
1:CA:1296:U:C4	1:CA:1297:G:C5	3.08	0.42
25:BA:1234:U:O2'	25:BA:1235:G:H5'	2.20	0.42
6:AF:15:ASP:OD1	6:AF:17:SER:HB2	2.20	0.42
36:BP:90:ARG:HB3	36:BP:91:PHE:HD1	1.85	0.42
26:DB:71:C:H2'	26:DB:72:G:C8	2.47	0.42
25:BA:674:G:P	30:BF:54:ARG:HH22	2.43	0.42
25:DA:1914:C:O5'	25:DA:1914:C:O2	2.37	0.42
22:CW:28:G:H2'	22:CW:29:G:C8	2.54	0.42
25:BA:10:G:O6	25:BA:2629:A:C8	2.73	0.42
25:BA:7:G:H1	25:BA:2896:C:H42	1.68	0.42
19:CS:13:ASP:O	19:CS:15:LEU:N	2.53	0.42
36:DP:16:ARG:HD3	36:DP:16:ARG:C	2.39	0.42
23:AV:72:C:C3'	23:AV:72:C:C6	3.02	0.42
28:BD:74:GLY:O	28:BD:76:PRO:HD3	2.19	0.42
25:DA:2675:A:C1'	35:DO:29:ASN:HD21	2.33	0.42
46:DZ:103:ARG:HD3	46:DZ:136:PHE:CE2	2.55	0.42
1:AA:1005:C:H1'	1:AA:1017:A:H2	1.85	0.42
25:DA:1987:G:C8	25:DA:1987:G:C5'	2.97	0.42
11:CK:121:PRO:C	11:CK:122:LYS:O	2.57	0.42
46:BZ:28:MET:CG	46:BZ:33:LEU:HD21	2.48	0.42
1:AA:814:U:O2'	1:AA:815:C:H5'	2.19	0.42
10:CJ:30:SER:CB	10:CJ:80:LYS:HD3	2.50	0.42
31:BG:9:ARG:O	31:BG:10:LYS:C	2.58	0.42
25:DA:1818:U:H2'	28:DD:157:ARG:HG3	2.02	0.42
1:AA:33:A:N3	12:AL:32:PHE:HE2	2.18	0.42
12:AL:83:VAL:CG1	12:AL:84:LEU:N	2.83	0.42
25:DA:904:C:O2'	46:DZ:169:GLU:OE1	2.37	0.42
27:BC:82:LYS:O	27:BC:86:ALA:HB3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:438:C:H2'	1:CA:439:G:H8	1.83	0.42
48:B1:25:LYS:C	48:B1:27:GLU:N	2.74	0.42
52:D5:56:LYS:N	52:D5:56:LYS:HD2	2.34	0.42
43:BW:9:TYR:HD2	43:BW:9:TYR:H	1.66	0.42
12:AL:113:ARG:HG2	12:AL:113:ARG:NH1	2.35	0.42
1:CA:859:C:N4	12:CL:9:GLN:HE22	2.17	0.42
8:AH:118:VAL:O	8:AH:119:LEU:HD23	2.20	0.42
36:BP:121:LYS:O	36:BP:123:LEU:N	2.53	0.42
1:CA:629:U:H2'	1:CA:630:C:H6	1.80	0.42
17:CQ:14:LYS:HB2	17:CQ:14:LYS:HZ3	1.85	0.42
12:CL:86:ARG:NH2	12:CL:99:HIS:CG	2.88	0.42
25:BA:154(A):C:N4	25:BA:172:C:H42	2.16	0.42
1:CA:869:A:C2	1:CA:884:A:C4	3.08	0.42
28:BD:257:LEU:CD2	28:BD:257:LEU:C	2.88	0.42
1:AA:525:G:N2	1:AA:526:C:C2	2.88	0.42
28:DD:130:ALA:O	28:DD:131:LEU:HG	2.20	0.42
25:BA:332:A:O2'	25:BA:333:G:O5'	2.38	0.42
23:AV:76:C:P	23:AV:77:A:OP2	2.78	0.42
25:BA:1352:U:O2'	25:BA:1353:A:H5'	2.20	0.42
25:DA:1352:U:O2'	25:DA:1353:A:H5'	2.20	0.42
32:BH:164:TYR:O	32:BH:165:ALA:HB2	2.20	0.42
1:CA:317:C:H4'	20:CT:23:ARG:HD2	2.01	0.42
1:CA:328:G:N2	1:CA:329:C:C2	2.88	0.42
43:BW:34:ASN:OD1	52:B5:39:MET:HE3	2.20	0.42
1:CA:119:G:H4'	1:CA:617:C:O2	2.20	0.42
20:CT:24:LEU:HD13	20:CT:24:LEU:O	2.19	0.42
25:BA:2638:G:P	29:BE:82:ARG:NH2	2.93	0.42
25:BA:1399:C:O2'	25:BA:1400:G:H5'	2.20	0.42
46:BZ:77:ASP:HB2	46:BZ:84:GLU:OE2	2.20	0.42
46:BZ:110:GLY:O	46:BZ:115:GLY:O	2.37	0.42
9:AI:43:ALA:O	9:AI:45:ALA:N	2.52	0.42
1:CA:1040:G:C5	1:CA:1041:C:C4	3.08	0.42
8:CH:21:LYS:O	8:CH:22:GLU:C	2.58	0.42
25:DA:1841:U:H2'	25:DA:1842:G:C8	2.55	0.42
28:DD:73:VAL:HG13	28:DD:120:GLY:HA2	2.02	0.42
1:CA:447:A:H4'	16:CP:72:ARG:HG3	2.02	0.42
25:BA:1946:U:H2'	25:BA:1947:C:H6	1.85	0.42
47:B0:33:ALA:N	47:B0:64:ASP:OD1	2.53	0.42
46:BZ:152:ALA:HB3	46:BZ:154:ASP:OD1	2.20	0.42
40:BT:50:ILE:HD12	40:BT:50:ILE:N	2.35	0.42
3:AC:66:VAL:O	3:AC:66:VAL:HG12	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2078:C:C4	25:BA:2079:U:C4	3.08	0.42
1:CA:494:C:C2	1:CA:495:U:C5	3.08	0.42
4:CD:52:SER:C	4:CD:54:TYR:N	2.73	0.42
1:AA:619:U:H2'	1:AA:620:G:C8	2.55	0.42
25:DA:2064:C:H2'	25:DA:2065:C:C6	2.54	0.42
4:CD:68:TYR:O	4:CD:69:GLY:C	2.58	0.42
1:AA:1242:A:C6	1:AA:1243:C:C2	3.08	0.42
25:DA:885:C:C2	25:DA:886:C:N4	2.88	0.41
32:DH:19:VAL:HG22	32:DH:24:VAL:HG12	2.01	0.41
32:DH:65:HIS:HD1	32:DH:69:ARG:HD3	1.85	0.41
25:BA:1129:A:C1'	25:BA:2516:G:O4'	2.67	0.41
25:DA:2679:A:H2'	25:DA:2680:C:H6	1.84	0.41
25:BA:2075:U:C5	25:BA:2238:G:C5	3.08	0.41
23:CV:16:C:O2'	23:CV:62:C:OP1	2.38	0.41
45:DY:26:LYS:CG	45:DY:27:VAL:N	2.74	0.41
25:DA:1982:C:C6	25:DA:1982:C:O5'	2.72	0.41
25:BA:2168:G:O2'	25:BA:2170:A:N7	2.41	0.41
25:BA:2415:G:H2'	25:BA:2416:C:C6	2.55	0.41
41:DU:109:LEU:O	41:DU:110:VAL:C	2.58	0.41
25:BA:612:C:C2'	25:BA:613:G:C5'	2.74	0.41
13:CM:65:LYS:HD3	13:CM:65:LYS:HA	1.36	0.41
33:BI:46:ALA:O	33:BI:50:ARG:HG2	2.20	0.41
25:BA:857:C:C3'	25:BA:858:U:H5'	2.50	0.41
28:BD:96:HIS:ND1	28:BD:102:LYS:HG2	2.34	0.41
25:BA:72:U:C1'	49:B2:58:ALA:HA	2.50	0.41
33:BI:79:ILE:CG1	33:BI:140:LEU:HD11	2.47	0.41
33:DI:79:ILE:CG1	33:DI:140:LEU:HD11	2.47	0.41
33:DI:88:ILE:CG2	33:DI:89:TYR:N	2.81	0.41
2:AB:21:ARG:O	2:AB:23:ARG:N	2.50	0.41
14:AN:15:LYS:O	14:AN:16:PHE:C	2.58	0.41
2:AB:12:GLU:C	2:AB:14:GLY:N	2.73	0.41
22:AW:65:G:C2	22:AW:66:U:C2	3.08	0.41
34:BN:62:VAL:HG22	34:BN:66:LYS:HD3	2.00	0.41
25:DA:549:G:H3'	25:DA:551:G:H5''	2.01	0.41
2:CB:8:LYS:C	2:CB:12:GLU:HG3	2.39	0.41
25:DA:2230:G:O3'	48:D1:43:TYR:HB2	2.19	0.41
46:DZ:99:TYR:HD2	46:DZ:99:TYR:H	1.67	0.41
37:BQ:141:GLN:O	46:BZ:53:ILE:O	2.38	0.41
25:DA:2336:A:H61	47:D0:43:THR:CG2	2.33	0.41
25:BA:2308:G:H2'	25:BA:2309:A:H8	1.80	0.41
25:DA:2746:U:O4'	32:DH:139:GLN:HB2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:395:U:HO2'	48:D1:13:ILE:HD13	1.82	0.41
25:BA:921:G:N2	47:B0:26:TYR:CE1	2.84	0.41
29:BE:28:ALA:O	29:BE:29:GLY:O	2.38	0.41
1:CA:955:A:C6	1:CA:1299:A:C6	3.08	0.41
25:BA:1173:G:H3'	25:BA:1174:A:H5'	2.02	0.41
27:DC:212:VAL:O	27:DC:213:TYR:CB	2.68	0.41
29:DE:102:VAL:HB	29:DE:199:ARG:O	2.20	0.41
7:AG:47:CYS:C	7:AG:49:ILE:N	2.74	0.41
20:CT:69:GLY:O	20:CT:73:HIS:CD2	2.73	0.41
36:DP:80:TYR:CE1	36:DP:111:ARG:HB3	2.55	0.41
36:DP:83:VAL:CG1	36:DP:114:ILE:HA	2.50	0.41
1:AA:1188:G:C6	1:AA:1189:C:C4	3.08	0.41
34:DN:136:GLU:OE1	34:DN:137:LYS:N	2.53	0.41
34:DN:26:LEU:HG	34:DN:30:ILE:CD1	2.50	0.41
22:AY:28:G:C2	22:AY:29:G:N7	2.88	0.41
3:CC:30:ARG:O	3:CC:34:LEU:HB3	2.20	0.41
5:CE:153:LYS:HB3	5:CE:154:GLY:H	1.65	0.41
43:BW:64:MET:CE	43:BW:109:GLU:HG2	2.50	0.41
9:AI:37:PHE:CE1	9:AI:74:ILE:HG12	2.55	0.41
31:DG:97:ASP:O	31:DG:99:MET:N	2.53	0.41
3:CC:73:PRO:HA	3:CC:76:VAL:HG22	2.01	0.41
1:CA:855:G:C5'	8:CH:89:PRO:HG2	2.48	0.41
1:AA:815:C:O2'	1:AA:816:U:H6	2.03	0.41
30:BF:140:LEU:CD2	30:BF:170:LEU:HD11	2.50	0.41
26:BB:61:G:H2'	26:BB:62:C:H6	1.84	0.41
30:BF:17:ARG:CG	30:BF:17:ARG:NH1	2.82	0.41
40:BT:126:ALA:O	40:BT:128:GLU:N	2.47	0.41
1:CA:653:G:C5	1:CA:654:G:C8	3.08	0.41
46:BZ:14:LYS:HD3	46:BZ:17:ALA:CB	2.46	0.41
1:CA:581:U:H4'	8:CH:94:TYR:CD2	2.54	0.41
46:BZ:44:PHE:CE1	46:BZ:48:PHE:CB	3.03	0.41
46:DZ:44:PHE:CE1	46:DZ:48:PHE:CB	3.03	0.41
1:AA:768:G:N3	1:AA:781:G:C2	2.88	0.41
6:AF:40:VAL:HA	6:AF:62:TRP:O	2.20	0.41
9:AI:33:PHE:CZ	9:AI:47:LEU:HD13	2.54	0.41
1:AA:649:G:C5	1:AA:724:G:C6	3.08	0.41
53:D6:51:GLU:O	53:D6:52:VAL:HB	2.20	0.41
8:CH:29:SER:O	8:CH:30:ARG:C	2.58	0.41
11:AK:34:ASP:HB2	11:AK:35:PRO:CD	2.50	0.41
1:CA:502:C:H2'	1:CA:503:A:C8	2.55	0.41
19:AS:50:ALA:HA	19:AS:58:VAL:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2726:U:O2'	25:DA:2727:G:H5'	2.19	0.41
25:BA:986:C:C2'	25:BA:987:G:H5'	2.50	0.41
25:DA:1388:G:C2'	25:DA:1389:G:H5'	2.50	0.41
25:DA:624:C:O5'	25:DA:624:C:H6	2.01	0.41
12:CL:120:TYR:CD1	12:CL:120:TYR:N	2.88	0.41
41:BU:12:ARG:C	41:BU:14:HIS:N	2.73	0.41
33:DI:117:GLU:O	33:DI:118:LYS:C	2.57	0.41
5:CE:131:ILE:O	5:CE:134:ALA:HB3	2.19	0.41
36:BP:32:THR:HG21	36:BP:37:GLY:HA2	2.02	0.41
1:AA:1436:C:H4'	20:AT:24:LEU:HD21	2.01	0.41
1:CA:38:G:H4'	1:CA:530:A:N6	2.35	0.41
28:BD:117:VAL:CG2	28:BD:128:GLY:O	2.68	0.41
20:CT:90:GLN:O	20:CT:91:LEU:HD23	2.20	0.41
46:BZ:63:ASP:O	46:BZ:65:GLN:N	2.46	0.41
21:AU:6:ARG:HD3	21:AU:15:ARG:CZ	2.50	0.41
25:BA:20:C:H2'	25:BA:21:A:C8	2.55	0.41
5:CE:122:GLU:O	5:CE:123:LEU:HD23	2.20	0.41
25:DA:803:U:O2'	25:DA:804:A:H5'	2.19	0.41
25:DA:2842:G:O2'	25:DA:2843:G:H5'	2.19	0.41
20:CT:45:GLN:C	20:CT:47:GLY:H	2.23	0.41
23:CV:27:G:C2'	23:CV:28:U:H5'	2.50	0.41
1:AA:415:U:N3	1:AA:417:C:N3	2.68	0.41
25:DA:1763:G:OP1	25:DA:1763:G:H4'	2.21	0.41
1:CA:102:A:C6	1:CA:321:G:C6	3.08	0.41
1:CA:931:G:C6	1:CA:932:U:C4	3.07	0.41
29:BE:57:LYS:HB3	29:BE:57:LYS:NZ	2.36	0.41
25:DA:1129:A:H4'	25:DA:2516:G:C4'	2.50	0.41
25:DA:1184:G:OP1	50:D3:29:ARG:HD2	2.20	0.41
14:AN:42:ILE:O	14:AN:45:ARG:N	2.53	0.41
25:DA:265:A:H1'	25:DA:266:G:O4'	2.20	0.41
25:DA:1983:C:H4'	25:DA:2606:C:H4'	2.01	0.41
36:BP:52:GLU:HG2	36:BP:55:ARG:C	2.39	0.41
3:AC:86:VAL:C	3:AC:89:GLU:HB3	2.41	0.41
25:DA:2172:U:O2'	25:DA:2173:A:OP1	2.38	0.41
13:AM:15:VAL:HG22	13:AM:43:THR:O	2.20	0.41
25:BA:2304:G:C2	25:BA:2313:C:C2	3.08	0.41
41:DU:92:ARG:NH1	41:DU:92:ARG:CG	2.78	0.41
42:DV:35:LEU:HB2	42:DV:57:VAL:HG13	2.01	0.41
19:CS:61:TYR:O	19:CS:62:ILE:HB	2.20	0.41
45:BY:56:PRO:O	45:BY:57:GLN:HG3	2.20	0.41
9:AI:16:ARG:HE	9:AI:64:THR:CG2	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:12:LEU:HD22	5:CE:13:ILE:N	2.25	0.41
5:CE:35:GLY:HA3	5:CE:112:LEU:O	2.19	0.41
39:DS:30:ARG:HA	39:DS:30:ARG:HD2	1.90	0.41
39:DS:98:VAL:HG22	39:DS:100:ALA:H	1.84	0.41
10:CJ:55:LYS:HE2	10:CJ:55:LYS:HB3	1.89	0.41
14:CN:50:LYS:HG3	14:CN:50:LYS:H	1.68	0.41
28:DD:25:THR:C	28:DD:27:THR:H	2.23	0.41
25:DA:2420:C:O2'	25:DA:2421:G:H5'	2.19	0.41
23:AV:55:U:C2'	23:AV:56:U:O4'	2.64	0.41
42:DV:22:VAL:HG21	42:DV:94:LEU:CD1	2.50	0.41
33:DI:72:LEU:CD1	33:DI:138:ILE:HG21	2.49	0.41
25:DA:1204:A:N6	25:DA:1240:U:O2	2.53	0.41
25:BA:1204:A:N6	25:BA:1240:U:O2	2.53	0.41
25:DA:2302:G:C5	25:DA:2315:G:N1	2.88	0.41
31:DG:125:PHE:HZ	31:DG:180:PHE:CZ	2.38	0.41
32:BH:170:ARG:HG2	32:BH:171:LEU:N	2.35	0.41
38:BR:12:ARG:HG3	38:BR:12:ARG:NH1	2.35	0.41
2:AB:187:LEU:HA	2:AB:201:ILE:O	2.19	0.41
35:DO:22:ILE:HA	35:DO:22:ILE:HD13	1.53	0.41
25:BA:571:A:C5	25:BA:575:A:N7	2.88	0.41
25:DA:1544:A:H2'	25:DA:1545:A:O4'	2.20	0.41
2:CB:207:ALA:C	2:CB:209:ARG:N	2.72	0.41
1:CA:1425:G:N1	25:DA:2864:G:OP1	2.42	0.41
33:DI:133:HIS:O	33:DI:134:PRO:C	2.55	0.41
25:BA:2553:G:H3'	25:BA:2554:U:H5''	2.02	0.41
32:DH:54:ARG:CG	32:DH:54:ARG:HH11	2.19	0.41
25:DA:651:G:OP1	55:D8:19:SER:OG	2.37	0.41
25:DA:2538:C:N3	25:DA:2539:C:C5	2.88	0.41
36:DP:102:ARG:HG2	36:DP:102:ARG:O	2.21	0.41
25:BA:1614:A:H62	43:BW:93:ALA:CB	2.23	0.41
23:AV:57:C:H1'	31:BG:76:SER:O	2.20	0.41
1:AA:515:A:H2	1:AA:1188:G:O4'	2.03	0.41
11:CK:27:ASN:OD1	11:CK:28:THR:N	2.51	0.41
25:BA:1902:C:N3	25:BA:1903:G:H1'	2.35	0.41
34:BN:132:ALA:O	34:BN:133:GLN:HB3	2.19	0.41
28:BD:10:THR:HG23	28:BD:13:ARG:HB3	2.01	0.41
29:DE:39:PRO:HA	29:DE:43:GLY:CA	2.42	0.41
29:BE:102:VAL:HB	29:BE:199:ARG:O	2.20	0.41
1:AA:992:A:C2	19:AS:34:TRP:CD1	3.08	0.41
43:DW:58:ALA:HB1	43:DW:64:MET:SD	2.60	0.41
43:BW:52:GLU:HA	43:BW:52:GLU:OE2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:69:LEU:HB2	2:AB:159:PRO:HG2	2.01	0.41
1:AA:1005:C:H2'	1:AA:1006:C:C5	2.55	0.41
26:BB:103:G:O2'	26:BB:104:U:H5'	2.20	0.41
25:BA:2838:G:C1'	38:BR:45:ARG:HH11	2.33	0.41
31:BG:20:ILE:O	31:BG:24:GLY:HA2	2.20	0.41
1:AA:1236:G:OP2	1:AA:1236:G:H8	2.04	0.41
25:BA:2419:U:C5'	53:B6:23:THR:HG21	2.49	0.41
40:BT:130:ALA:O	40:BT:132:LYS:HG3	2.20	0.41
4:AD:170:VAL:O	4:AD:171:GLY:C	2.58	0.41
10:AJ:13:HIS:ND1	10:AJ:13:HIS:C	2.73	0.41
12:AL:83:VAL:HG11	12:AL:100:ILE:HG23	2.01	0.41
25:BA:2756:U:H4'	25:BA:2757:A:OP1	2.20	0.41
1:AA:1414:G:OP1	40:BT:108:ARG:HB3	2.20	0.41
46:BZ:39:VAL:HG21	46:BZ:44:PHE:HB2	2.02	0.41
1:CA:1175:U:H2'	1:CA:1176:C:O4'	2.20	0.41
25:DA:2881:C:C2	25:DA:2882:A:C8	3.07	0.41
7:CG:140:ASP:CG	7:CG:143:ARG:HH12	2.24	0.41
12:AL:119:LYS:O	12:AL:120:TYR:HB2	2.20	0.41
7:AG:143:ARG:NH2	22:AW:42:C:H5"	2.36	0.41
48:B1:58:ILE:HD12	48:B1:91:LYS:CA	2.51	0.41
37:BQ:10:ARG:NH1	37:BQ:10:ARG:HG3	2.32	0.41
25:DA:2720:U:O2	25:DA:2720:U:H2'	2.20	0.41
43:BW:36:LEU:HD23	43:BW:36:LEU:N	2.35	0.41
18:CR:36:ASN:ND2	18:CR:39:VAL:HG21	2.35	0.41
34:BN:79:PRO:C	34:BN:81:GLY:H	2.22	0.41
34:DN:79:PRO:C	34:DN:81:GLY:H	2.22	0.41
8:AH:29:SER:O	8:AH:30:ARG:C	2.58	0.41
17:CQ:76:LEU:HD11	17:CQ:78:GLU:C	2.40	0.41
25:DA:2222:G:O2'	25:DA:2223:G:H5'	2.20	0.41
25:DA:2351:G:HO2'	25:DA:2352:A:H8	1.67	0.41
25:BA:1801:G:C6	25:BA:2202:C:O4'	2.73	0.41
4:AD:147:ALA:HB2	4:AD:182:LYS:HB3	2.02	0.41
1:AA:1396:U:H2'	1:AA:1397:G:H8	1.83	0.41
25:DA:2591:C:OP2	28:DD:239:ARG:HB3	2.20	0.41
1:AA:329:C:O2'	1:AA:330:C:H5'	2.19	0.41
1:AA:1394:C:OP1	12:AL:57:LYS:HE2	2.20	0.41
1:AA:393:C:H2'	1:AA:394:G:H8	1.84	0.41
1:CA:227:G:H2'	1:CA:228:C:O4'	2.20	0.41
1:CA:391:G:O2'	1:CA:393:C:OP1	2.17	0.41
7:CG:75:VAL:HA	7:CG:88:PRO:HA	2.02	0.41
1:AA:571:G:H2'	1:AA:572:C:C6	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2396:G:O2'	48:D1:29:GLY:HA3	2.20	0.41
46:BZ:77:ASP:O	46:BZ:79:ARG:N	2.54	0.41
1:CA:169:C:H4'	20:CT:25:ARG:NH1	2.35	0.41
46:DZ:110:GLY:O	46:DZ:115:GLY:O	2.37	0.41
33:BI:113:ARG:HD2	33:BI:113:ARG:N	2.34	0.41
1:CA:488:G:C6	1:CA:518:A:C2	3.08	0.41
25:BA:803:U:O2'	25:BA:804:A:H5'	2.19	0.41
25:BA:182:A:H2'	25:BA:183:C:O4'	2.20	0.41
1:AA:190:G:H8	1:AA:190:G:OP1	2.02	0.41
35:DO:8:LEU:HD22	35:DO:8:LEU:N	2.35	0.41
25:DA:2242:G:H2'	25:DA:2243:U:O4'	2.20	0.41
25:BA:2586:C:H2'	25:BA:2587:A:C5'	2.48	0.41
32:DH:44:VAL:CG1	32:DH:45:VAL:H	2.14	0.41
29:DE:52:LEU:HA	29:DE:53:PRO:HD3	1.55	0.41
49:D2:5:GLU:H	49:D2:5:GLU:HG3	1.69	0.41
31:BG:97:ASP:O	31:BG:99:MET:N	2.53	0.41
22:CW:23:A:N6	22:CW:24:G:C6	2.88	0.41
25:DA:271(O):C:O2'	25:DA:271(P):C:C6	2.62	0.41
23:CV:53:G:O2'	23:CV:54:G:H5'	2.20	0.41
46:DZ:77:ASP:O	46:DZ:79:ARG:N	2.53	0.41
20:AT:50:GLU:HB3	20:AT:100:ILE:HG13	1.99	0.41
25:DA:2171:A:C2	25:DA:2172:U:N3	2.88	0.41
50:B3:6:VAL:HB	50:B3:54:VAL:HG11	2.01	0.41
13:AM:24:GLY:HA3	13:AM:70:LEU:HD12	2.01	0.41
44:DX:14:SER:O	44:DX:17:ALA:HB3	2.21	0.41
39:BS:88:ASP:CG	39:BS:89:ARG:N	2.73	0.41
25:DA:1803:A:H4'	28:DD:259:THR:HG23	2.02	0.41
25:BA:614(C):A:O4'	30:BF:182:ASN:ND2	2.53	0.41
42:BV:28:GLU:HB3	42:BV:29:PRO:CD	2.48	0.41
5:CE:11:ILE:HG21	5:CE:105:VAL:HG22	2.02	0.41
31:BG:32:PRO:HB3	31:BG:163:ALA:HB2	2.03	0.41
7:CG:152:ALA:O	7:CG:155:ARG:HG3	2.21	0.41
42:DV:20:LEU:N	42:DV:20:LEU:HD12	2.36	0.41
42:DV:61:VAL:O	42:DV:61:VAL:HG22	2.19	0.41
25:BA:1952:A:C6	25:BA:1953:A:N6	2.88	0.41
53:B6:16:CYS:SG	53:B6:47:THR:CG2	3.08	0.41
25:BA:76:C:C5'	49:B2:55:ARG:HG2	2.47	0.41
30:BF:117:ARG:NH2	30:BF:187:VAL:HA	2.36	0.41
1:AA:1160:A:OP2	9:AI:93:ARG:NH2	2.51	0.41
32:BH:50:VAL:HG12	32:BH:51:ARG:N	2.35	0.41
30:DF:1:MET:CE	30:DF:27:GLU:HG3	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1354:U:H2'	1:AA:1355:G:O4'	2.20	0.41
2:AB:187:LEU:O	2:AB:187:LEU:HD13	2.20	0.41
2:AB:221:LEU:H	2:AB:221:LEU:CD2	2.34	0.41
2:AB:50:GLU:O	2:AB:51:LEU:C	2.58	0.41
22:AW:51:U:C4	22:AW:52:G:N7	2.89	0.41
14:CN:8:GLU:HG3	14:CN:12:ARG:HH11	1.85	0.41
34:BN:65:LYS:O	34:BN:67:LEU:N	2.53	0.41
25:DA:355:G:C2	25:DA:356:G:C5	3.07	0.41
2:CB:12:GLU:C	2:CB:14:GLY:H	2.23	0.41
9:CI:98:PRO:C	9:CI:100:GLY:N	2.74	0.41
25:BA:2015:A:C5	52:B5:6:VAL:HG23	2.55	0.41
25:BA:2646:C:OP2	25:BA:2732:G:O2'	2.37	0.41
31:DG:172:LEU:O	31:DG:176:LEU:HD12	2.20	0.41
25:DA:1667:G:N2	25:DA:1991:U:H2'	2.35	0.41
37:DQ:141:GLN:HA	46:DZ:53:ILE:HB	2.01	0.41
46:DZ:120:ILE:O	46:DZ:121:HIS:HB2	2.20	0.41
25:DA:2849:U:OP1	40:DT:95:ARG:CZ	2.68	0.41
40:DT:24:PRO:CA	40:DT:49:VAL:HG13	2.48	0.41
28:BD:172:TYR:HE2	28:BD:269:PHE:HE1	1.67	0.41
4:CD:33:MET:HA	4:CD:33:MET:CE	2.49	0.41
29:DE:169:ASN:OD1	29:DE:203:LYS:HB3	2.19	0.41
40:BT:55:ASN:N	40:BT:59:THR:HG22	2.19	0.41
15:CO:26:GLU:HA	15:CO:81:LEU:HD22	2.02	0.41
30:DF:179:GLU:OE2	30:DF:179:GLU:N	2.53	0.41
25:DA:2175:C:H1'	27:DC:215:THR:CA	2.50	0.41
11:CK:20:TYR:HB2	11:CK:31:THR:CG2	2.50	0.41
36:DP:115:LEU:CD2	36:DP:115:LEU:N	2.82	0.41
28:BD:10:THR:C	28:BD:11:PRO:O	2.56	0.41
11:AK:29:ILE:HD12	11:AK:43:SER:C	2.39	0.41
17:CQ:5:VAL:HA	17:CQ:59:ILE:O	2.19	0.41
36:BP:16:ARG:HH11	36:BP:16:ARG:HB2	1.80	0.41
25:DA:1111:A:HO2'	25:DA:1112:G:H4'	1.84	0.41
7:AG:150:ALA:O	11:AK:57:THR:HG21	2.20	0.41
20:AT:53:LEU:O	20:AT:56:MET:N	2.53	0.41
26:BB:103:G:H21	46:BZ:73:GLN:NE2	2.18	0.41
25:BA:1041:C:O2'	25:BA:1115:G:N2	2.54	0.41
55:D8:26:LYS:NZ	55:D8:47:LYS:HD3	2.34	0.41
31:DG:20:ILE:O	31:DG:24:GLY:HA2	2.20	0.41
2:CB:17:PHE:HD1	2:CB:44:LEU:HD11	1.85	0.41
25:DA:2320:A:C5	25:DA:2333:A:C5	3.09	0.41
2:AB:102:LEU:N	2:AB:102:LEU:HD12	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1286:G:O2'	1:AA:1312:G:N2	2.53	0.41
1:CA:1056:G:H4'	2:CB:103:THR:HG22	2.02	0.41
35:BO:14:THR:O	35:BO:16:ALA:N	2.44	0.41
1:CA:654:G:C2	1:CA:655:U:C2	3.08	0.41
3:AC:150:LYS:CA	3:AC:169:ALA:HB2	2.47	0.41
27:DC:78:ALA:HB1	27:DC:82:LYS:HB2	1.99	0.41
1:CA:963:A:N6	1:CA:964:G:C6	2.88	0.41
8:CH:36:LEU:HD13	8:CH:61:VAL:HG22	2.03	0.41
1:CA:1016:G:H2'	1:CA:1017:A:C8	2.55	0.41
53:B6:51:GLU:O	53:B6:52:VAL:HB	2.20	0.41
43:DW:8:ARG:HD3	43:DW:102:HIS:CD2	2.55	0.41
8:AH:34:GLU:OE1	8:AH:34:GLU:HA	2.20	0.41
26:DB:11:C:OP2	47:D0:72:ARG:NE	2.53	0.41
36:DP:121:LYS:O	36:DP:123:LEU:N	2.53	0.41
25:DA:2445:G:OP1	30:DF:74:ARG:NH2	2.53	0.41
1:AA:537:C:H2'	1:AA:538:C:C6	2.55	0.41
17:AQ:76:LEU:HD11	17:AQ:78:GLU:O	2.20	0.41
25:DA:2286:A:OP1	53:D6:30:THR:HB	2.20	0.41
1:AA:442:A:C4	1:AA:471:A:C2	3.08	0.41
50:D3:1:MET:HE3	50:D3:44:ARG:HH22	1.85	0.41
43:DW:36:LEU:N	43:DW:36:LEU:HD23	2.35	0.41
16:CP:25:ARG:HG3	16:CP:25:ARG:NH1	2.33	0.41
25:BA:171:G:O2'	25:BA:172:C:H5'	2.20	0.41
25:BA:585:G:H2'	25:BA:1251:C:N4	2.35	0.41
34:BN:89:LYS:NZ	34:BN:89:LYS:HB3	2.36	0.41
1:AA:22:G:C2	1:AA:23:C:C2	3.08	0.41
25:DA:523:C:C2'	25:DA:524:U:H5'	2.50	0.41
25:BA:271(J):C:H2'	25:BA:271(K):U:H5''	2.02	0.41
1:CA:645:G:H2'	1:CA:646:A:H8	1.86	0.41
25:BA:2457:U:C2'	25:BA:2458:G:H5'	2.50	0.41
1:AA:1471:G:O6	58:AA:1694:PAR:H42	2.21	0.41
25:BA:731:C:O2'	25:BA:732:C:H5'	2.20	0.41
7:AG:75:VAL:HG12	7:AG:88:PRO:HB3	2.01	0.41
7:AG:75:VAL:HA	7:AG:88:PRO:HA	2.03	0.41
1:CA:724:G:H2'	1:CA:725:G:O4'	2.20	0.41
25:DA:188:G:H2'	25:DA:189:G:H5'	2.02	0.41
1:AA:1381:C:C2	1:AA:1383:G:C5	3.09	0.41
1:CA:1314:A:C2	1:CA:1315:G:H1'	2.55	0.41
25:BA:188:G:H2'	25:BA:189:G:H5'	2.02	0.41
25:BA:1438:U:H2'	25:BA:1439:A:H8	1.85	0.41
29:DE:66:HIS:HD1	29:DE:66:HIS:C	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:249:G:OP1	17:AQ:66:SER:OG	2.28	0.41
13:CM:81:LEU:HD22	13:CM:86:CYS:SG	2.60	0.41
1:AA:8:A:H62	4:AD:208:SER:HB2	1.85	0.41
35:BO:60:ALA:HA	35:BO:87:ILE:HG12	2.02	0.41
12:AL:51:ALA:O	12:AL:52:LEU:HD22	2.20	0.41
1:AA:1460:A:H1'	25:BA:1948:G:H1'	2.03	0.41
1:AA:1040:G:C5	1:AA:1041:C:C4	3.08	0.41
13:AM:37:THR:HG22	13:AM:59:TYR:HB2	2.02	0.41
1:CA:491:C:H6	1:CA:491:C:OP1	2.02	0.41
42:BV:71:LEU:HD23	42:BV:71:LEU:HA	1.82	0.41
25:DA:363(B):G:N3	25:DA:363(B):G:H2'	2.35	0.41
25:DA:1851:U:C2'	25:DA:1852:C:H5'	2.50	0.41
4:CD:39:PRO:O	4:CD:44:GLY:HA3	2.21	0.41
28:BD:73:VAL:HG13	28:BD:120:GLY:HA2	2.02	0.41
1:CA:1207:C:OP2	13:CM:103:THR:OG1	2.30	0.41
4:AD:11:LEU:O	4:AD:12:CYS:C	2.59	0.41
4:AD:18:LYS:C	4:AD:19:LEU:HD12	2.41	0.41
4:AD:31:CYS:O	4:AD:33:MET:N	2.43	0.41
13:AM:108:ARG:HA	13:AM:111:LYS:HG3	2.00	0.41
25:DA:2516:G:C6	25:DA:2517:C:N3	2.88	0.41
25:BA:910:A:C8	37:BQ:13:GLN:OE1	2.73	0.41
25:BA:109:G:H2'	25:BA:110:G:O5'	2.21	0.41
25:BA:2239:G:P	28:BD:244:ARG:NH1	2.88	0.41
41:BU:105:VAL:CG1	42:BV:40:LEU:CD1	2.98	0.41
1:AA:957:C:H2'	14:AN:21:TYR:CE1	2.55	0.41
44:BX:14:SER:O	44:BX:17:ALA:HB3	2.21	0.41
20:AT:48:LYS:HD2	20:AT:51:GLU:OE2	2.20	0.41
36:BP:52:GLU:HB3	36:BP:55:ARG:HD2	2.03	0.41
25:DA:870:A:H5''	37:DQ:6:ARG:CB	2.51	0.41
13:AM:65:LYS:O	13:AM:66:LEU:HG	2.20	0.41
25:BA:2414:G:H21	36:BP:67:MET:HE1	1.85	0.41
42:DV:40:LEU:HD23	42:DV:40:LEU:N	2.35	0.41
42:DV:47:VAL:O	42:DV:49:THR:O	2.39	0.41
39:BS:101:LEU:C	39:BS:101:LEU:HD22	2.41	0.41
39:BS:56:LEU:O	39:BS:57:LYS:CB	2.66	0.41
25:DA:2228:G:H2'	25:DA:2229:C:C6	2.54	0.41
25:BA:2803:C:O3'	25:BA:2804:C:O4'	2.39	0.41
13:CM:3:ARG:HG2	13:CM:9:ILE:HG13	2.01	0.41
25:DA:2377:A:C4'	39:DS:108:GLY:CA	2.96	0.41
39:DS:89:ARG:CB	39:DS:92:TYR:HB3	2.35	0.41
12:CL:25:PRO:C	12:CL:27:LEU:N	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:27:THR:O	28:BD:27:THR:CG2	2.68	0.41
28:BD:83:GLU:OE1	28:BD:104:TYR:OH	2.31	0.41
22:CW:34:G:H2'	22:CW:35:A:C5'	2.51	0.41
23:AV:31:G:N2	23:AV:42:C:C1'	2.83	0.41
42:DV:21:ARG:O	42:DV:22:VAL:HG13	2.20	0.41
33:BI:110:ASP:O	33:BI:114:LEU:HG	2.20	0.41
33:BI:88:ILE:CG2	33:BI:89:TYR:N	2.81	0.41
28:DD:13:ARG:CG	28:DD:13:ARG:O	2.68	0.41
25:BA:2104:G:C6	25:BA:2105:C:C4	3.09	0.41
46:DZ:42:VAL:CG1	46:DZ:43:GLU:N	2.84	0.41
25:BA:590:A:H2'	25:BA:591:C:C6	2.56	0.41
10:AJ:84:GLN:O	10:AJ:85:LEU:HD23	2.20	0.41
2:CB:207:ALA:C	2:CB:209:ARG:H	2.22	0.41
47:B0:70:GLN:HB3	47:B0:70:GLN:HE21	1.54	0.41
1:CA:1100:C:H2'	1:CA:1101:C:C6	2.55	0.41
25:DA:2892:A:C3'	25:DA:2893:G:C5'	2.98	0.41
38:DR:17:ARG:CG	38:DR:17:ARG:HH11	2.33	0.41
31:DG:91:ARG:C	31:DG:91:ARG:HD2	2.40	0.41
26:DB:103:G:H21	46:DZ:73:GLN:NE2	2.19	0.41
46:DZ:85:HIS:HD1	46:DZ:85:HIS:C	2.24	0.41
1:CA:1183:G:N7	1:CA:1184:C:C4	2.88	0.41
48:D1:83:GLU:O	48:D1:86:SER:OG	2.37	0.41
30:BF:179:GLU:OE2	30:BF:179:GLU:N	2.53	0.41
25:BA:528:A:C2	25:BA:2043:C:C4'	2.85	0.41
34:DN:58:ASP:C	34:DN:60:ILE:HG13	2.40	0.41
19:CS:40:ILE:HG21	19:CS:67:VAL:HA	2.02	0.41
25:DA:846:C:C2	25:DA:930:U:C4	3.08	0.41
7:AG:50:ILE:O	7:AG:54:THR:O	2.37	0.41
48:D1:76:ARG:NH2	48:D1:95:LEU:HD22	2.36	0.41
19:CS:16:LEU:O	19:CS:19:VAL:HB	2.20	0.41
29:DE:1:MET:HA	29:DE:200:GLU:CD	2.40	0.41
36:BP:16:ARG:CB	36:BP:16:ARG:HH11	2.32	0.41
36:BP:16:ARG:HD3	36:BP:16:ARG:C	2.39	0.41
35:BO:107:ARG:NE	40:BT:35:LYS:HZ2	2.19	0.41
25:DA:1478:G:HO2'	25:DA:1558:A:H2	1.65	0.41
46:BZ:14:LYS:O	46:BZ:18:LEU:HB2	2.20	0.41
25:DA:778:G:C2	25:DA:787:U:O2	2.74	0.41
3:CC:64:VAL:O	3:CC:100:ALA:HB3	2.21	0.41
27:DC:97:GLU:HA	27:DC:100:ILE:HG12	2.01	0.41
25:DA:986:C:C2'	25:DA:987:G:H5'	2.50	0.41
44:DX:6:ASP:OD1	49:D2:29:LYS:HE3	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:562:G:N2	1:AA:746:G:C4	2.88	0.41
2:AB:124:SER:O	2:AB:127:ILE:HG12	2.21	0.41
28:DD:30:GLU:CD	28:DD:63:ARG:NE	2.72	0.41
1:CA:413:C:H1'	1:CA:523:G:O2'	2.19	0.41
25:DA:1573:G:C2'	25:DA:1574:C:H5'	2.49	0.41
25:DA:535:C:C2'	25:DA:536:A:H5'	2.51	0.41
1:CA:200:C:H2'	1:CA:201:A:H5''	2.02	0.41
1:CA:1259:U:H3'	1:CA:1259:U:C6	2.54	0.41
1:AA:540:G:H2'	1:AA:541:G:O4'	2.20	0.41
27:BC:23:ASP:C	27:BC:25:ALA:N	2.72	0.41
1:AA:316:A:H2'	1:AA:317:C:C6	2.54	0.41
43:BW:17:VAL:O	43:BW:18:ARG:C	2.57	0.41
1:AA:1273:U:H2'	1:AA:1274:G:C8	2.55	0.41
1:CA:64:G:H4'	1:CA:65:U:H5''	2.01	0.41
1:AA:1451:G:C1'	25:BA:1701:A:H2	2.33	0.41
25:BA:992:C:O2'	25:BA:993:G:H5'	2.20	0.41
1:CA:819:G:C6	1:CA:828:G:C5	3.08	0.41
1:CA:728:C:OP1	1:CA:828:G:O2'	2.38	0.41
45:BY:91:GLU:HB3	45:BY:92:ASN:H	1.50	0.41
27:DC:214:VAL:C	27:DC:216:THR:H	2.23	0.41
30:DF:125:LEU:HD11	30:DF:199:TRP:CD1	2.55	0.41
25:DA:2636:U:OP1	29:DE:80:GLU:N	2.41	0.41
29:BE:66:HIS:HD1	29:BE:66:HIS:C	2.21	0.41
1:CA:223:A:H2'	1:CA:224:U:O4'	2.21	0.41
15:CO:32:LEU:O	15:CO:34:LEU:N	2.54	0.41
36:DP:24:GLY:O	36:DP:25:SER:HB3	2.20	0.41
25:DA:234:C:H2'	25:DA:235:U:H6	1.84	0.41
25:BA:2842:G:O2'	25:BA:2843:G:H5'	2.19	0.41
35:BO:65:THR:O	35:BO:79:PHE:HB2	2.21	0.41
25:BA:1841:U:H2'	25:BA:1842:G:C8	2.55	0.41
37:BQ:82:ARG:NH1	47:B0:4:LYS:HE2	2.35	0.41
25:DA:1363:C:H2'	25:DA:1364:G:H8	1.84	0.41
25:BA:2355:C:H1'	47:B0:39:ARG:HH21	1.84	0.41
8:AH:2:LEU:HD13	8:AH:2:LEU:O	2.21	0.41
44:BX:52:VAL:HG21	44:BX:84:ALA:HA	2.02	0.41
28:DD:133:LEU:CB	28:DD:173:VAL:HG11	2.50	0.41
4:AD:196:LEU:HB3	4:AD:197:PRO:HD2	2.02	0.41
40:DT:28:VAL:HG21	40:DT:46:GLU:OE1	2.21	0.41
29:DE:59:VAL:HG21	29:DE:63:LEU:HD12	2.01	0.41
25:BA:2262:U:H2'	25:BA:2263:C:H5''	2.01	0.41
28:DD:161:THR:H	28:DD:196:VAL:HB	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BV:40:LEU:N	42:BV:40:LEU:HD23	2.35	0.41
19:AS:5:LEU:CD1	19:AS:8:GLY:O	2.69	0.41
46:DZ:77:ASP:HB2	46:DZ:84:GLU:OE2	2.20	0.41
25:DA:361:G:C3'	25:DA:362:U:H5''	2.51	0.41
20:AT:43:LEU:HB3	20:AT:48:LYS:HG3	2.03	0.41
36:BP:58:THR:O	36:BP:61:ARG:CG	2.61	0.41
36:BP:62:LEU:CD2	36:BP:62:LEU:H	2.31	0.41
25:BA:2171:A:C2	25:BA:2172:U:N3	2.88	0.41
25:DA:614:U:O4'	25:DA:614(C):A:C6	2.73	0.41
30:DF:40:GLN:OE1	30:DF:183:VAL:HG23	2.20	0.41
39:BS:17:ARG:NH2	39:BS:90:GLY:H	2.18	0.41
25:BA:265:A:H1'	25:BA:266:G:O4'	2.20	0.41
25:BA:1594:G:H8	25:BA:1594:G:C5'	2.33	0.41
25:BA:271(Q):G:N1	25:BA:271(R):G:C6	2.89	0.41
25:DA:320:A:C2'	30:DF:136:THR:HG21	2.50	0.41
53:D6:9:LEU:HD23	53:D6:9:LEU:C	2.40	0.41
1:CA:676:G:C5	1:CA:677:A:C5	3.09	0.41
29:DE:33:VAL:HG12	29:DE:90:THR:H	1.85	0.41
7:AG:78:ARG:NE	7:AG:79:ARG:O	2.53	0.41
2:CB:178:ARG:HG3	8:CH:71:GLY:C	2.41	0.41
2:CB:194:PRO:CB	2:CB:200:ILE:CD1	2.99	0.41
50:B3:3:ARG:HA	50:B3:38:GLU:OE2	2.20	0.41
28:BD:112:GLN:H	28:BD:115:GLN:NE2	2.19	0.41
28:DD:132:PRO:HD3	28:DD:190:TYR:CZ	2.56	0.41
25:DA:271(M):G:H5''	33:DI:53:ALA:HB1	2.03	0.41
45:BY:8:LYS:HE3	45:BY:72:VAL:HG23	2.02	0.41
2:AB:24:TRP:CG	2:AB:40:HIS:HE1	2.38	0.41
2:AB:24:TRP:HB3	2:AB:40:HIS:HE1	1.86	0.41
32:BH:65:HIS:HD1	32:BH:69:ARG:HD3	1.85	0.41
25:DA:2444:G:OP2	30:DF:68:LYS:HE2	2.21	0.41
25:BA:1686:C:H2'	25:BA:1687:G:C5'	2.49	0.41
32:DH:157:TYR:O	32:DH:158:HIS:CB	2.68	0.41
30:BF:63:LYS:NZ	30:BF:67:GLN:CB	2.84	0.41
7:AG:59:LEU:HD23	7:AG:59:LEU:C	2.40	0.41
25:DA:291:C:H42	25:DA:349:G:H1	1.66	0.41
40:BT:90:GLN:CA	40:BT:92:GLY:H	2.33	0.41
31:DG:26:GLN:O	31:DG:28:VAL:N	2.53	0.41
46:DZ:177:PRO:O	46:DZ:178:GLU:CG	2.64	0.41
15:AO:74:ASP:C	15:AO:76:GLU:N	2.71	0.41
1:AA:1184:C:H2'	1:AA:1185:A:O4'	2.21	0.41
48:D1:80:LEU:HD23	48:D1:81:LYS:H	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BG:63:ILE:HA	31:BG:143:GLU:HG3	2.01	0.41
7:AG:9:VAL:O	7:AG:10:ARG:C	2.59	0.41
47:D0:25:ARG:HH11	47:D0:25:ARG:HG2	1.85	0.41
48:B1:80:LEU:HD23	48:B1:81:LYS:H	1.86	0.41
2:CB:211:ILE:O	2:CB:215:LEU:HB2	2.20	0.41
1:CA:685:A:H8	1:CA:685:A:OP1	2.03	0.41
11:CK:82:VAL:HG21	11:CK:98:LEU:HD12	2.03	0.41
23:AV:33:C:H2'	23:AV:34:U:H5'	2.02	0.41
1:CA:1173:C:H2'	1:CA:1174:G:O4'	2.19	0.41
10:CJ:22:LYS:C	10:CJ:24:VAL:H	2.24	0.41
39:BS:106:ARG:O	39:BS:106:ARG:HD2	2.20	0.41
35:DO:1:MET:SD	35:DO:32:TYR:CG	3.14	0.41
1:AA:732:C:O2'	1:AA:733:G:H5'	2.19	0.41
22:AW:16:U:H6	22:AW:17:C:H4'	1.85	0.41
19:AS:13:ASP:O	19:AS:15:LEU:N	2.53	0.41
25:DA:1278:A:O3'	38:DR:34:ILE:HG23	2.20	0.41
46:DZ:103:ARG:HD3	46:DZ:136:PHE:CZ	2.55	0.41
11:CK:29:ILE:HD12	11:CK:43:SER:C	2.39	0.41
30:DF:39:TRP:CD1	30:DF:101:LEU:HB2	2.56	0.41
47:B0:51:VAL:HG21	47:B0:80:HIS:HA	2.03	0.41
25:BA:1505:C:H2'	25:BA:1506:C:O4'	2.21	0.41
19:CS:18:LYS:HD2	19:CS:22:LEU:HD21	2.02	0.41
1:AA:1054:G:C2	1:AA:1055:U:C2	3.08	0.41
4:AD:110:PHE:H	4:AD:110:PHE:HD1	1.67	0.41
1:CA:1056:G:N2	1:CA:1084:A:C4	2.88	0.41
25:BA:2123:G:H2'	25:BA:2124:G:O4'	2.20	0.41
27:BC:95:GLY:HA3	27:BC:99:ILE:CD1	2.51	0.41
47:B0:53:MET:HB3	47:B0:59:LEU:CD2	2.47	0.41
18:AR:37:VAL:O	18:AR:41:LYS:HB2	2.20	0.41
38:DR:18:LEU:HD11	38:DR:22:ARG:NE	2.36	0.41
1:CA:1486:C:N4	1:CA:1503:G:H1	2.15	0.41
11:AK:20:TYR:HB2	11:AK:31:THR:HG22	2.03	0.41
3:CC:62:ASP:HA	3:CC:97:LYS:CE	2.50	0.41
1:AA:1417:G:C2	1:AA:1418:U:C4	3.08	0.41
2:CB:213:LEU:O	2:CB:216:SER:HB3	2.21	0.41
11:AK:34:ASP:OD2	11:AK:36:ASP:N	2.53	0.41
7:AG:151:TYR:N	7:AG:151:TYR:CD1	2.89	0.41
26:DB:24:G:H5'	26:DB:25:A:N7	2.36	0.41
28:BD:130:ALA:O	28:BD:131:LEU:HG	2.20	0.41
25:DA:154(A):C:N4	25:DA:172:C:H42	2.16	0.41
23:CV:38:A:C4	23:CV:39:A:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:35:G:O2'	25:DA:36:G:H5'	2.20	0.41
18:AR:25:THR:O	18:AR:25:THR:HG22	2.21	0.41
25:DA:818:G:H5'	25:DA:839:U:OP1	2.20	0.41
1:CA:487:C:C2	1:CA:525:G:C2	3.08	0.41
25:DA:2236:C:H2'	25:DA:2237:G:O4'	2.19	0.41
5:AE:122:GLU:O	5:AE:123:LEU:HD23	2.21	0.41
25:BA:2530:A:O2'	25:BA:2532:G:OP2	2.27	0.41
29:DE:152:LYS:HA	29:DE:152:LYS:HD2	1.91	0.41
16:AP:6:LEU:CD1	16:AP:6:LEU:N	2.84	0.41
25:BA:1032:A:H2	25:BA:1122:G:H22	1.69	0.41
1:CA:565:U:H2'	1:CA:566:A:H8	1.85	0.41
25:BA:950:G:H2'	25:BA:951:C:H6	1.85	0.41
37:BQ:1:MET:HE2	37:BQ:2:LEU:HB3	2.03	0.41
20:AT:38:LYS:C	20:AT:40:ALA:H	2.22	0.41
1:AA:90:G:C4	1:AA:91:G:C8	3.08	0.41
1:AA:492:A:H2'	1:AA:493:A:C8	2.55	0.41
25:DA:1438:U:H2'	25:DA:1439:A:H8	1.85	0.41
1:AA:645:G:H2'	1:AA:646:A:C8	2.56	0.41
25:BA:25:U:H5'	43:BW:78:GLU:O	2.20	0.41
1:AA:749:A:H2'	1:AA:750:A:O4'	2.21	0.41
25:DA:1844:C:O2'	25:DA:1845:G:H5'	2.20	0.41
51:D4:53:THR:O	51:D4:54:LYS:O	2.38	0.41
5:AE:18:ARG:HH21	5:AE:25:ARG:HB3	1.85	0.41
2:AB:62:ALA:HB1	2:AB:225:ALA:HB3	2.03	0.41
1:CA:1494:G:H1'	25:DA:1919:A:O3'	2.20	0.41
25:BA:2096:U:H3	25:BA:2193:G:H1	1.67	0.41
41:DU:8:VAL:O	41:DU:9:VAL:C	2.58	0.41
25:BA:1161:C:H1'	42:BV:8:GLY:O	2.20	0.41
4:AD:165:MET:O	4:AD:166:LYS:C	2.57	0.41
25:BA:2585:U:C3'	25:BA:2585:U:C6	3.04	0.41
25:DA:2586:C:H2'	25:DA:2587:A:C5'	2.48	0.41
29:DE:61:ARG:CB	29:DE:62:PRO:HD3	2.51	0.41
25:BA:2262:U:C2'	25:BA:2263:C:C5'	2.97	0.41
25:BA:105:C:C2	25:BA:106:C:C5	3.09	0.41
25:BA:77:C:OP1	49:B2:59:ARG:NH1	2.52	0.41
23:AV:68:C:C2'	23:AV:69:C:H5'	2.49	0.41
41:BU:92:ARG:NH1	42:BV:11:GLN:CB	2.83	0.41
41:BU:92:ARG:CD	42:BV:11:GLN:CD	2.82	0.41
42:BV:38:LEU:HD23	42:BV:39:LEU:N	2.35	0.41
1:AA:1297:G:H5''	14:AN:17:LYS:HE3	2.02	0.41
22:CW:14:A:N3	22:CW:14:A:C2'	2.81	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CV:49:C:HO2'	23:CV:50:G:P	2.42	0.41
23:CV:62:C:C2	23:CV:63:C:C5	3.09	0.41
55:B8:51:ALA:N	55:B8:54:GLU:OE2	2.49	0.41
25:BA:833:U:H5''	36:BP:48:PRO:HB3	2.03	0.41
55:D8:6:THR:HA	55:D8:61:LEU:HD11	2.03	0.41
42:DV:47:VAL:HB	42:DV:49:THR:O	2.19	0.41
25:BA:613:G:C8	25:BA:613:G:C5'	2.97	0.41
14:CN:29:ARG:HG2	14:CN:40:CYS:HB2	2.01	0.41
31:BG:26:GLN:O	31:BG:28:VAL:N	2.52	0.41
12:CL:24:VAL:HA	12:CL:25:PRO:HD2	2.01	0.41
12:CL:28:LYS:CG	12:CL:33:ARG:CZ	2.97	0.41
3:AC:3:ASN:O	3:AC:4:LYS:O	2.39	0.41
39:BS:77:ALA:O	39:BS:78:LEU:C	2.59	0.41
2:CB:20:GLU:CD	2:CB:23:ARG:HH22	2.24	0.41
53:B6:45:LYS:HE3	53:B6:45:LYS:HB3	1.27	0.41
33:BI:82:ARG:HH11	33:BI:82:ARG:CG	2.34	0.41
13:CM:16:ASP:HB2	13:CM:27:LYS:HZ1	1.80	0.41
30:BF:22:ALA:C	30:BF:24:LEU:H	2.23	0.41
41:BU:62:ILE:HD13	41:BU:93:LYS:HG2	1.97	0.41
1:CA:665:G:C2	1:CA:666:G:C8	3.09	0.41
32:BH:157:TYR:O	32:BH:158:HIS:CB	2.68	0.41
2:AB:207:ALA:C	2:AB:209:ARG:N	2.73	0.41
22:AW:53:G:C2	22:AW:54:U:C6	3.09	0.41
25:BA:2679:A:H2'	25:BA:2680:C:H6	1.85	0.41
25:DA:2610:C:HO2'	25:DA:2611:U:P	2.44	0.41
53:B6:20:ASN:HD22	53:B6:21:TYR:N	2.15	0.41
25:DA:571:A:C5	25:DA:575:A:N7	2.88	0.41
40:DT:24:PRO:HA	40:DT:49:VAL:CG1	2.48	0.41
25:DA:2848:G:H3'	40:DT:95:ARG:O	2.20	0.41
32:BH:139:GLN:C	32:BH:139:GLN:CD	2.79	0.41
47:D0:41:ARG:HD3	47:D0:44:ARG:HD2	2.03	0.41
25:BA:2069:G:C2'	25:BA:2070:G:H5'	2.51	0.41
4:CD:31:CYS:O	4:CD:32:ALA:HB3	2.21	0.41
4:CD:31:CYS:O	4:CD:33:MET:N	2.42	0.41
1:CA:1183:G:H2'	1:CA:1184:C:H5'	2.01	0.41
48:D1:82:LEU:HB3	48:D1:90:ILE:CD1	2.50	0.41
25:DA:2206:G:N3	25:DA:2207:G:H5'	2.36	0.41
32:DH:121:ILE:HG21	32:DH:133:VAL:HG12	2.00	0.41
25:BA:526:A:O2'	25:BA:2043:C:O2	2.38	0.41
20:CT:41:ILE:HG21	20:CT:84:LEU:CD2	2.49	0.41
1:AA:1280:A:C5	1:AA:1282:U:C2	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:195:A:C8	25:DA:197:A:OP1	2.73	0.41
1:CA:1301:C:OP1	19:CS:70:LYS:NZ	2.52	0.41
25:DA:1290:C:C2	25:DA:1291:C:C5	3.09	0.41
40:DT:3:ARG:C	40:DT:5:ALA:N	2.73	0.41
3:AC:188:LEU:HD12	3:AC:195:VAL:HG11	2.02	0.41
37:DQ:27:VAL:O	37:DQ:29:PHE:N	2.53	0.41
25:DA:1639:U:H2'	25:DA:1640:C:C5'	2.42	0.41
34:DN:45:ASN:O	34:DN:45:ASN:ND2	2.52	0.41
25:DA:994:C:C2'	41:DU:54:LYS:HE3	2.48	0.41
16:AP:20:VAL:CG2	16:AP:21:VAL:N	2.84	0.41
25:DA:1050:A:C4	25:DA:1051:G:N7	2.89	0.41
10:CJ:8:LEU:HD21	10:CJ:96:ILE:HG22	2.01	0.41
2:AB:96:ARG:O	2:AB:97:TRP:C	2.55	0.41
25:DA:1419:A:H2'	25:DA:1421:G:N7	2.36	0.41
49:D2:34:GLU:O	49:D2:38:GLN:HG3	2.20	0.41
25:DA:2754:U:H2'	25:DA:2755:C:H5''	2.02	0.41
8:CH:63:LEU:HB2	8:CH:65:TYR:HE1	1.84	0.41
8:CH:65:TYR:N	8:CH:65:TYR:HD1	2.17	0.41
46:DZ:14:LYS:CD	46:DZ:17:ALA:HB3	2.46	0.41
1:CA:899:G:C6	1:CA:900:A:C6	3.09	0.41
12:AL:120:TYR:CD1	12:AL:120:TYR:N	2.88	0.41
50:B3:11:SER:OG	50:B3:12:PRO:HD2	2.21	0.41
25:DA:558:G:OP1	34:DN:111:PRO:HD2	2.20	0.41
25:BA:2720:U:H2'	25:BA:2720:U:O2	2.19	0.41
34:DN:24:GLY:HA2	34:DN:106:MET:HE1	2.02	0.41
49:D2:29:LYS:HD3	49:D2:57:ILE:CG2	2.48	0.41
34:BN:3:THR:HG22	34:BN:5:VAL:CG1	2.51	0.41
25:DA:171:G:O2'	25:DA:172:C:H5'	2.20	0.41
28:DD:257:LEU:CD2	28:DD:257:LEU:C	2.88	0.41
1:AA:669:U:O2	1:AA:670:A:N7	2.54	0.41
18:AR:76:LEU:HD22	18:AR:76:LEU:N	2.35	0.41
25:DA:271(J):C:H5'	25:DA:271(K):U:OP2	2.21	0.41
25:BA:535:C:C2'	25:BA:536:A:H5'	2.51	0.41
25:DA:2365:G:H4'	47:D0:60:PHE:CE2	2.55	0.41
11:AK:73:MET:SD	11:AK:103:LEU:HD23	2.60	0.41
25:DA:2046:G:O5'	52:D5:19:ARG:HA	2.20	0.41
31:DG:164:GLU:O	31:DG:165:THR:C	2.57	0.41
25:BA:852:G:H2'	25:BA:853:G:H8	1.86	0.41
13:AM:72:ALA:HA	13:AM:75:ALA:HB2	2.02	0.41
20:CT:13:LEU:O	20:CT:16:HIS:HB3	2.20	0.41
9:AI:35:GLU:O	9:AI:38:GLN:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:413:C:H1'	1:AA:523:G:O2'	2.21	0.41
28:DD:117:VAL:CG2	28:DD:128:GLY:O	2.68	0.41
48:B1:29:GLY:O	48:B1:30:VAL:HG23	2.21	0.41
1:CA:492:A:H4'	1:CA:493:A:OP1	2.20	0.41
30:BF:125:LEU:HD11	30:BF:199:TRP:CD1	2.56	0.41
1:CA:925:C:O2'	1:CA:926:A:H5'	2.20	0.41
11:AK:41:THR:CG2	11:AK:42:TRP:N	2.84	0.41
25:DA:2078:C:C4	25:DA:2079:U:C4	3.08	0.41
25:BA:1808:U:H2'	25:BA:1809:A:O4'	2.20	0.41
29:DE:7:VAL:HA	29:DE:194:GLY:O	2.20	0.41
25:DA:2528:U:H2'	25:DA:2530:A:O5'	2.19	0.41
16:AP:75:ARG:C	16:AP:77:ALA:H	2.24	0.41
1:AA:488:G:H2'	1:AA:489:G:H8	1.85	0.41
44:DX:52:VAL:HG21	44:DX:84:ALA:HA	2.02	0.41
43:DW:45:TYR:CD2	43:DW:45:TYR:C	2.93	0.41
34:BN:96:GLU:N	34:BN:96:GLU:OE2	2.34	0.41
1:AA:751:A:O5'	1:AA:751:A:H8	2.03	0.41
3:CC:19:GLU:HG2	3:CC:19:GLU:O	2.21	0.41
4:AD:191:ARG:HD2	4:AD:191:ARG:O	2.20	0.41
25:BA:1763:G:H4'	25:BA:1763:G:OP1	2.21	0.41
12:AL:114:LYS:HB3	12:AL:114:LYS:HE2	1.88	0.41
7:AG:107:ALA:CB	7:AG:134:ALA:HB2	2.50	0.41
25:BA:886:C:C2	25:BA:889:C:N4	2.86	0.41
25:BA:1799:G:C4	25:BA:1819:A:N6	2.89	0.41
25:BA:2260:C:O2'	25:BA:2261:C:H5'	2.21	0.41
20:CT:53:LEU:HA	20:CT:56:MET:HE2	2.03	0.41
25:DA:108:U:H2'	25:DA:109:G:C8	2.55	0.41
25:BA:2075:U:C4	25:BA:2238:G:N1	2.88	0.41
23:CV:17:C:OP2	23:CV:19:G:O5'	2.39	0.41
20:AT:42:GLN:HG3	20:AT:43:LEU:HD23	2.02	0.41
53:B6:9:LEU:C	53:B6:9:LEU:HD23	2.40	0.41
38:DR:84:ALA:N	38:DR:85:PRO:CD	2.84	0.41
39:BS:19:LYS:HG2	39:BS:19:LYS:O	2.21	0.41
25:BA:2804:C:C2'	25:BA:2805:G:H5'	2.50	0.41
39:DS:35:ILE:HG23	39:DS:53:SER:HB2	2.01	0.41
1:CA:950:G:C3'	1:CA:951:A:H5''	2.46	0.41
14:CN:42:ILE:O	14:CN:43:CYS:C	2.59	0.41
33:BI:42:SER:O	33:BI:44:LEU:N	2.54	0.41
31:BG:36:LYS:HE2	31:BG:160:VAL:HG21	2.03	0.41
2:CB:193:ASP:O	2:CB:193:ASP:OD2	2.39	0.41
32:BH:15:VAL:HG23	32:BH:15:VAL:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:851:U:O2	25:BA:927:G:C2	2.74	0.41
33:BI:77:LEU:CD2	33:BI:104:GLN:OE1	2.69	0.41
36:DP:32:THR:HG21	36:DP:37:GLY:HA2	2.02	0.41
25:DA:1140:C:P	34:DN:66:LYS:NZ	2.94	0.41
36:BP:6:LEU:CG	36:BP:9:ASN:HD22	2.14	0.41
25:DA:764:A:OP1	28:DD:208:LYS:HE2	2.19	0.41
14:AN:12:ARG:H	14:AN:12:ARG:HD3	1.84	0.41
37:BQ:52:VAL:HG12	37:BQ:56:ARG:HG3	2.02	0.41
25:BA:2561:A:O2'	35:BO:23:ARG:HB2	2.21	0.41
36:BP:23:PRO:O	36:BP:33:ARG:NH1	2.53	0.41
25:BA:1142(A):A:C4	25:BA:1144:G:C8	3.09	0.41
7:AG:59:LEU:HD23	7:AG:60:LYS:N	2.35	0.41
25:DA:286:C:H6	25:DA:286:C:H5''	1.86	0.41
25:DA:2612:C:C4	25:DA:2613:U:H5	2.38	0.41
37:DQ:134:ARG:HH21	46:DZ:122:ARG:NE	2.17	0.41
2:CB:233:SER:OG	2:CB:234:PRO:CD	2.65	0.41
25:DA:676:A:H2	25:DA:802:A:N6	2.17	0.41
25:DA:1169:G:H2'	25:DA:1170:G:O4'	2.20	0.41
7:CG:20:ASP:HB3	7:CG:23:VAL:CG2	2.50	0.41
25:BA:28:A:H61	25:BA:512:G:H1'	1.84	0.41
15:CO:39:LEU:HD23	15:CO:39:LEU:HA	1.79	0.41
29:BE:39:PRO:HA	29:BE:43:GLY:CA	2.42	0.41
25:BA:195:A:C8	25:BA:197:A:OP1	2.74	0.41
29:DE:2:LYS:HB3	29:DE:95:ILE:CG2	2.51	0.41
36:BP:102:ARG:O	36:BP:102:ARG:HG2	2.20	0.41
36:DP:113:LYS:HG2	36:DP:115:LEU:HD22	2.03	0.41
18:CR:50:ILE:HD11	18:CR:74:ARG:NH1	2.35	0.41
25:DA:28:A:H61	25:DA:512:G:H1'	1.84	0.41
3:CC:3:ASN:O	3:CC:4:LYS:O	2.37	0.41
25:DA:994:C:H3'	41:DU:54:LYS:HE3	2.01	0.41
3:AC:68:VAL:CG1	3:AC:70:VAL:HG23	2.45	0.41
46:BZ:103:ARG:HD3	46:BZ:136:PHE:CE2	2.55	0.41
30:DF:140:LEU:CD2	30:DF:170:LEU:HD11	2.50	0.41
31:DG:10:LYS:HD2	31:DG:10:LYS:HA	1.88	0.41
31:DG:9:ARG:O	31:DG:10:LYS:C	2.58	0.41
22:AW:12:U:H6	22:AW:12:U:O5'	2.04	0.41
25:DA:1717:G:H2'	25:DA:1718:G:H5''	2.02	0.41
1:CA:1474:G:C6	1:CA:1475:U:C4	3.08	0.41
1:AA:1056:G:H1'	2:AB:104:ASN:HD22	1.85	0.41
11:CK:12:ARG:CG	11:CK:13:GLN:H	2.30	0.41
27:DC:99:ILE:HG23	27:DC:103:ILE:CB	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BR:18:LEU:HD21	38:BR:22:ARG:HE	1.85	0.41
25:DA:817:C:H4'	25:DA:932:G:C5	2.56	0.41
30:DF:89:VAL:O	30:DF:91:GLY:N	2.51	0.41
25:DA:143(A):C:C2'	25:DA:143(A):C:O2	2.65	0.41
1:CA:900:A:N6	1:CA:1374:G:O6	2.54	0.41
25:DA:778:G:H2'	25:DA:779:U:C6	2.56	0.41
3:CC:92:ALA:C	3:CC:94:LEU:N	2.72	0.41
25:DA:71:A:O2'	25:DA:72:U:P	2.78	0.41
1:AA:1443:C:H2'	1:AA:1444:G:O4'	2.20	0.41
22:CY:32:U:C2'	22:CY:32:U:O2	2.69	0.41
2:CB:7:VAL:HG12	2:CB:7:VAL:O	2.20	0.41
25:DA:635:C:H2'	25:DA:636:G:O4'	2.21	0.41
1:CA:138:G:N1	1:CA:139:G:C5	2.89	0.41
30:DF:127:GLU:HB2	30:DF:196:LEU:HD11	2.03	0.41
1:AA:669:U:O2'	1:AA:670:A:P	2.78	0.41
25:DA:832:G:OP1	36:DP:40:SER:HB3	2.21	0.41
25:DA:1264:G:OP1	52:D5:19:ARG:NH2	2.40	0.41
4:AD:114:ARG:HG3	4:AD:114:ARG:NH1	2.34	0.41
32:DH:164:TYR:O	32:DH:165:ALA:HB2	2.20	0.41
25:DA:2869:G:H2'	25:DA:2870:C:H6	1.86	0.41
8:CH:40:ALA:C	8:CH:42:GLU:N	2.72	0.41
25:DA:992:C:O2'	25:DA:993:G:H5'	2.20	0.41
43:BW:34:ASN:O	43:BW:37:ARG:HB3	2.21	0.41
1:CA:1078:C:O2'	1:CA:1079:C:H5'	2.20	0.41
55:B8:7:HIS:ND1	55:B8:10:ALA:N	2.69	0.41
1:AA:95:G:H2'	1:AA:96:C:C6	2.55	0.41
25:BA:950:G:O2'	25:BA:951:C:H5'	2.20	0.41
37:DQ:2:LEU:O	37:DQ:2:LEU:HG	2.21	0.41
37:BQ:2:LEU:HG	37:BQ:2:LEU:O	2.21	0.41
1:CA:44:G:C2	1:CA:45:U:H1'	2.56	0.41
48:D1:29:GLY:O	48:D1:30:VAL:HG23	2.21	0.41
25:BA:2655:G:HO2'	25:BA:2656:U:P	2.43	0.41
39:BS:25:ARG:CZ	39:BS:40:ILE:HD12	2.51	0.41
25:BA:1829:A:N3	28:BD:15:PHE:HE1	2.18	0.41
1:CA:1352:G:N7	9:CI:109:VAL:HG11	2.35	0.41
25:BA:498:G:O2'	25:BA:499:U:H5'	2.20	0.41
25:DA:2749:A:H1'	32:DH:63:SER:OG	2.20	0.41
25:DA:658:C:H2'	25:DA:659:C:C6	2.55	0.41
54:B7:36:GLN:HG2	54:B7:36:GLN:O	2.21	0.41
8:CH:2:LEU:HD13	8:CH:2:LEU:O	2.21	0.41
34:DN:96:GLU:OE2	34:DN:96:GLU:N	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:91:C:H2'	26:BB:92:C:C6	2.56	0.41
47:D0:33:ALA:N	47:D0:64:ASP:OD1	2.53	0.41
15:CO:27:VAL:O	15:CO:31:LEU:HB2	2.21	0.41
1:CA:97:G:C2	1:CA:98:G:C8	3.08	0.41
4:AD:64:LEU:HB2	4:AD:198:VAL:HG11	2.03	0.41
13:AM:90:LEU:C	13:AM:92:HIS:N	2.74	0.41
25:BA:885:C:C2	25:BA:886:C:N4	2.88	0.41
29:DE:63:LEU:O	29:DE:64:LYS:C	2.59	0.41
47:B0:9:SER:OG	47:B0:10:THR:N	2.50	0.41
25:BA:952:G:N1	25:BA:953:A:N7	2.68	0.41
25:DA:109:G:H2'	25:DA:110:G:O5'	2.21	0.41
22:CW:2:C:C5	22:CW:3:C:C5	3.09	0.41
22:CW:6:G:N2	22:CW:68:C:N3	2.68	0.41
26:BB:40:U:O2'	26:BB:43:C:C5	2.72	0.41
31:BG:95:ARG:C	31:BG:96:ARG:O	2.59	0.41
22:CW:16:U:C3'	22:CW:17:C:C5'	2.96	0.41
45:DY:39:VAL:O	45:DY:40:GLU:HG2	2.20	0.41
36:BP:49:ARG:HH21	36:BP:50:ARG:HH22	1.58	0.41
25:BA:2171:A:O2'	25:BA:2172:U:H2'	2.21	0.41
38:DR:79:LEU:CD2	38:DR:79:LEU:C	2.89	0.41
39:BS:87:PHE:HZ	39:BS:97:ARG:HH12	1.68	0.41
25:BA:1591:G:O2'	25:BA:1592:C:H5'	2.21	0.41
25:BA:2801(A):A:O3'	25:BA:2802:G:H3'	2.20	0.41
39:DS:101:LEU:HD22	39:DS:101:LEU:C	2.41	0.41
39:DS:19:LYS:O	39:DS:19:LYS:HG2	2.21	0.41
39:DS:29:PHE:HD2	39:DS:30:ARG:N	2.18	0.41
28:DD:27:THR:CG2	28:DD:27:THR:O	2.68	0.41
36:DP:57:THR:HB	36:DP:58:THR:H	1.69	0.41
45:BY:81:LYS:HA	45:BY:82:PRO:HD3	2.00	0.41
23:AV:59:A:C2	23:AV:62:C:C6	3.09	0.41
5:CE:51:VAL:HB	5:CE:52:PRO:CD	2.48	0.41
2:CB:47:THR:HG23	2:CB:202:PRO:HG2	2.03	0.41
1:AA:351:A:O2'	1:AA:363:U:O2'	2.29	0.41
30:BF:202:PHE:O	30:BF:203:GLN:C	2.59	0.41
37:DQ:52:VAL:HG12	37:DQ:56:ARG:HG3	2.02	0.41
25:DA:2402:C:H2'	25:DA:2403:C:H5'	2.03	0.41
31:DG:36:LYS:HE2	31:DG:160:VAL:HG21	2.03	0.41
32:BH:94:TYR:CZ	32:BH:107:VAL:HB	2.55	0.41
30:DF:132:VAL:HG13	30:DF:133:ASN:H	1.85	0.41
32:DH:151:ILE:N	32:DH:151:ILE:HD13	2.35	0.41
45:BY:31:LEU:CD2	45:BY:31:LEU:N	2.78	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2015:A:C2	52:B5:6:VAL:HG23	2.56	0.41
25:DA:2822:G:OP1	29:DE:159:HIS:NE2	2.54	0.41
31:DG:32:PRO:HB3	31:DG:163:ALA:HB2	2.03	0.41
27:BC:187:ASP:O	27:BC:189:ILE:N	2.50	0.41
1:AA:1327:A:C2	7:AG:10:ARG:HD3	2.55	0.41
15:CO:76:GLU:C	15:CO:78:TYR:N	2.74	0.41
1:AA:1281:G:HO2'	1:AA:1282:U:P	2.42	0.41
1:CA:955:A:O2'	1:CA:1303:C:N3	2.47	0.41
25:DA:2124:G:O2'	27:DC:40:THR:C	2.59	0.41
2:AB:170:GLU:HA	2:AB:172:ILE:CD1	2.51	0.41
14:CN:48:ALA:CA	14:CN:53:LEU:HD12	2.51	0.41
36:BP:106:LEU:HD13	36:BP:112:LEU:HD23	2.03	0.41
36:BP:80:TYR:CE1	36:BP:111:ARG:HB3	2.56	0.41
36:BP:111:ARG:HH21	36:BP:111:ARG:HG3	1.86	0.41
36:DP:90:ARG:HB3	36:DP:91:PHE:HD1	1.85	0.41
54:D7:12:ARG:HG3	54:D7:12:ARG:HH11	1.86	0.41
39:BS:85:VAL:HG23	39:BS:86:ALA:H	1.86	0.41
55:D8:51:ALA:N	55:D8:54:GLU:OE2	2.49	0.41
29:DE:37:ARG:HD3	29:DE:42:ASP:OD2	2.20	0.41
22:CY:27:G:N3	22:CY:43:C:N4	2.68	0.41
43:DW:64:MET:HE3	43:DW:109:GLU:HG2	2.03	0.41
25:DA:495:G:O2'	43:DW:62:HIS:HE1	2.02	0.41
25:DA:1041:C:O2'	25:DA:1115:G:N2	2.54	0.41
25:DA:491:G:C4	25:DA:492:A:C8	3.09	0.41
25:BA:1042:G:H3'	25:BA:1043:C:C6	2.56	0.41
1:AA:815:C:O2'	1:AA:816:U:P	2.79	0.41
12:CL:102:ARG:HE	12:CL:102:ARG:HB3	1.79	0.41
1:AA:1286:G:N1	1:AA:1312:G:O2'	2.53	0.41
49:D2:38:GLN:HB3	49:D2:44:LEU:O	2.20	0.41
2:CB:97:TRP:CZ2	2:CB:173:ALA:HA	2.55	0.41
22:AW:21:A:C5	22:AW:46:G:C5	3.08	0.41
27:DC:82:LYS:O	27:DC:86:ALA:HB3	2.20	0.41
27:DC:95:GLY:HA3	27:DC:99:ILE:CD1	2.51	0.41
31:DG:104:GLU:OE2	51:D4:50:THR:HG22	2.20	0.41
6:AF:3:ARG:HD3	6:AF:64:GLN:NE2	2.36	0.41
1:AA:1251:C:H2'	1:AA:1252:G:O4'	2.20	0.41
30:BF:32:LEU:HD22	30:BF:112:MET:CE	2.50	0.41
3:AC:130:VAL:O	3:AC:134:ILE:HG12	2.21	0.41
1:CA:751:A:N7	1:CA:752:G:N7	2.69	0.41
7:AG:69:VAL:HG21	7:AG:104:LEU:CD2	2.50	0.41
1:AA:650:G:H4'	15:AO:51:HIS:ND1	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:133:LEU:CB	28:BD:173:VAL:HG11	2.50	0.41
25:BA:778:G:C2	25:BA:787:U:O2	2.74	0.41
3:CC:92:ALA:HB2	3:CC:99:VAL:HG22	1.99	0.41
48:D1:58:ILE:HD12	48:D1:91:LYS:CA	2.51	0.41
25:DA:221:A:O2'	25:DA:222:A:OP2	2.32	0.41
25:DA:1312:U:H4'	25:DA:1313:U:O5'	2.21	0.41
6:CF:53:ALA:C	6:CF:55:ASP:H	2.24	0.41
1:CA:503:A:H2	1:CA:519:C:O2	2.04	0.41
4:CD:17:VAL:HG11	4:CD:197:PRO:HB2	2.01	0.41
25:BA:470:A:OP1	30:BF:59:TYR:HE2	2.03	0.41
26:BB:24:G:H5'	26:BB:25:A:N7	2.36	0.41
1:CA:998:U:H2'	1:CA:999:G:H8	1.86	0.41
43:DW:17:VAL:O	43:DW:18:ARG:C	2.57	0.41
1:AA:484:C:O2	1:AA:532:C:O2'	2.39	0.41
25:DA:1796:U:H4'	28:DD:256:GLY:N	2.36	0.41
45:BY:2:ARG:HG2	45:BY:2:ARG:NH1	2.36	0.41
25:DA:2521:C:H42	25:DA:2544:G:H1	1.67	0.41
25:BA:603:A:H4'	25:BA:604:G:O5'	2.21	0.41
1:CA:485:G:OP1	12:CL:118:SER:N	2.31	0.41
16:CP:64:ALA:O	16:CP:65:GLN:C	2.57	0.41
11:AK:99:GLN:HA	11:AK:105:VAL:CG1	2.50	0.41
1:AA:423:G:H4'	1:AA:424:U:O5'	2.21	0.41
25:BA:120:U:H5''	25:BA:122:G:OP2	2.21	0.41
25:DA:993:G:N3	42:DV:89:GLN:NE2	2.69	0.41
8:CH:125:ARG:O	8:CH:128:GLY:N	2.45	0.41
25:BA:30:G:H2'	25:BA:31:C:C6	2.55	0.41
1:CA:232:C:H2'	1:CA:233:G:H8	1.85	0.41
40:BT:33:LYS:O	40:BT:40:THR:HB	2.21	0.41
25:DA:2840:C:H4'	38:DR:53:HIS:CD2	2.56	0.41
1:AA:1381:C:C4	1:AA:1383:G:C2	3.09	0.41
1:AA:1072:U:C2	1:AA:1073:U:C5	3.09	0.41
25:DA:1512:U:H2'	25:DA:1513:C:C6	2.56	0.41
48:D1:56:GLN:HB3	48:D1:87:PRO:HB3	2.02	0.41
25:DA:20:C:H2'	25:DA:21:A:C8	2.55	0.41
29:BE:26:ILE:HG22	29:BE:27:LEU:N	2.35	0.41
4:CD:159:ARG:HH11	4:CD:159:ARG:HG3	1.85	0.41
40:BT:114:LEU:HD23	40:BT:114:LEU:HA	1.78	0.41
1:AA:1445:A:H2'	1:AA:1446:G:O4'	2.20	0.41
3:CC:123:GLN:O	3:CC:128:PHE:HB2	2.21	0.41
1:CA:1207:C:H4'	1:CA:1208:A:OP1	2.20	0.41
28:DD:133:LEU:HA	28:DD:136:ILE:HD12	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DD:134:ARG:O	28:DD:168:ARG:NH1	2.53	0.41
25:DA:1782:C:C4	25:DA:2587:A:C2	3.09	0.41
23:CV:57:C:C1'	31:DG:76:SER:O	2.57	0.41
23:CV:35:C:H3'	23:CV:35:C:C6	2.56	0.41
29:BE:56:PRO:O	29:BE:57:LYS:C	2.59	0.41
25:BA:2810:A:H1'	29:BE:61:ARG:HH12	1.85	0.41
29:BE:63:LEU:O	29:BE:64:LYS:C	2.59	0.41
29:BE:88:GLY:O	29:BE:89:ASP:CB	2.69	0.41
29:DE:68:ALA:C	29:DE:70:ALA:H	2.25	0.41
29:DE:57:LYS:HB3	29:DE:57:LYS:NZ	2.36	0.41
29:DE:51:PHE:O	29:DE:74:PRO:HB2	2.21	0.41
9:AI:10:ARG:NE	9:AI:105:ASP:HB3	2.35	0.41
25:DA:105:C:C2	25:DA:106:C:C5	3.08	0.41
42:BV:2:PHE:O	42:BV:3:ALA:CB	2.68	0.41
10:AJ:50:ILE:H	10:AJ:50:ILE:HD13	1.81	0.41
23:CV:50:G:H2'	23:CV:51:U:O4'	2.20	0.41
45:DY:67:LEU:HD12	45:DY:68:HIS:O	2.21	0.41
26:DB:85:G:H2'	26:DB:86:G:C8	2.56	0.41
25:DA:1771:C:O2'	25:DA:1786:A:O4'	2.36	0.41
55:B8:14:VAL:O	55:B8:14:VAL:HG13	2.21	0.41
25:DA:2801(A):A:O3'	25:DA:2802:G:H3'	2.20	0.41
25:DA:2804:C:C2'	25:DA:2805:G:H5'	2.50	0.41
25:BA:2167:U:H6	25:BA:2167:U:O5'	2.04	0.41
25:DA:2167:U:O5'	25:DA:2167:U:H6	2.04	0.41
25:BA:2471:C:N4	25:BA:2476:A:O2'	2.50	0.41
1:CA:1280:A:O3'	1:CA:1281:G:C4'	2.69	0.41
41:DU:92:ARG:NH1	42:DV:11:GLN:CB	2.84	0.41
42:DV:52:VAL:O	42:DV:52:VAL:HG13	2.21	0.41
39:BS:30:ARG:HD2	39:BS:30:ARG:HA	1.81	0.41
39:BS:70:GLY:C	39:BS:72:ALA:N	2.69	0.41
29:BE:18:ASP:OD1	40:BT:81:PRO:HG3	2.21	0.41
40:BT:32:TYR:CD2	40:BT:32:TYR:N	2.89	0.41
25:BA:614:U:O4'	25:BA:614(C):A:C6	2.73	0.41
1:AA:261:G:O3'	17:AQ:67:LYS:HB2	2.20	0.41
1:AA:1126:G:C2	1:AA:1127:C:N3	2.89	0.41
42:BV:22:VAL:HG21	42:BV:94:LEU:CD1	2.50	0.41
39:DS:34:HIS:O	39:DS:35:ILE:HB	2.21	0.41
39:DS:87:PHE:HZ	39:DS:97:ARG:HH12	1.68	0.41
10:CJ:57:LYS:CE	10:CJ:60:ARG:NH2	2.84	0.41
14:CN:22:THR:HB	14:CN:33:VAL:HG21	2.01	0.41
28:DD:24:ILE:O	28:DD:26:LYS:NZ	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:271(O):C:O2'	25:BA:271(P):C:P	2.79	0.41
25:BA:2303:G:H1'	31:BG:132:ASN:ND2	2.36	0.41
45:BY:76:CYS:O	45:BY:77:PRO:C	2.60	0.41
22:CW:30:G:C2	22:CW:31:A:N7	2.88	0.41
1:AA:1209:C:H4'	13:AM:116:THR:O	2.20	0.41
39:BS:49:VAL:CG1	39:BS:50:SER:N	2.82	0.41
5:CE:51:VAL:CB	5:CE:52:PRO:HD3	2.49	0.41
2:CB:196:LEU:HD12	2:CB:197:VAL:HG23	2.03	0.41
34:BN:55:VAL:O	34:BN:56:ASN:C	2.59	0.41
25:BA:71:A:H3'	25:BA:71:A:H8	1.85	0.41
33:DI:42:SER:O	33:DI:44:LEU:N	2.54	0.41
33:DI:40:THR:C	33:DI:42:SER:N	2.73	0.41
39:DS:77:ALA:O	39:DS:78:LEU:C	2.59	0.41
53:D6:47:THR:CB	53:D6:49:HIS:ND1	2.73	0.41
25:DA:1686:C:H2'	25:DA:1687:G:C5'	2.49	0.41
36:DP:9:ASN:H	36:DP:10:PRO:HD2	1.86	0.41
23:CV:6:G:H2'	23:CV:7:G:O5'	2.21	0.41
2:AB:24:TRP:CG	2:AB:25:ASN:N	2.88	0.41
30:BF:1:MET:CE	30:BF:26:ALA:HB1	2.50	0.41
44:DX:63:LYS:HB3	44:DX:72:LYS:HG3	2.01	0.41
32:BH:54:ARG:CG	32:BH:54:ARG:O	2.66	0.41
26:DB:66:A:HO2'	26:DB:67:G:P	2.44	0.41
30:DF:63:LYS:NZ	30:DF:67:GLN:CB	2.84	0.41
25:DA:2464:C:O2'	25:DA:2465:C:O5'	2.32	0.41
32:BH:103:LEU:HD22	32:BH:123:PHE:HD2	1.82	0.41
25:DA:1344:G:C5	25:DA:1385:G:C8	3.09	0.41
22:AW:52:G:N1	22:AW:62:C:N4	2.66	0.41
25:DA:1952:A:C6	25:DA:1953:A:N6	2.89	0.41
30:BF:132:VAL:HG13	30:BF:133:ASN:H	1.85	0.41
5:AE:12:LEU:HD13	5:AE:12:LEU:C	2.41	0.41
26:DB:103:G:O2'	26:DB:104:U:H5'	2.20	0.41
46:DZ:72:ARG:NH2	46:DZ:97:GLU:O	2.54	0.41
46:BZ:98:MET:HE2	46:BZ:99:TYR:O	2.21	0.41
46:BZ:119:GLU:CD	46:BZ:119:GLU:H	2.24	0.41
49:B2:50:ILE:C	49:B2:52:ASP:N	2.74	0.41
25:DA:2069:G:C2'	25:DA:2070:G:H5'	2.51	0.41
25:BA:2746:U:O3'	32:BH:138:LYS:HE3	2.21	0.41
32:BH:85:LYS:HD3	32:BH:133:VAL:CB	2.41	0.41
25:DA:1301:A:H2	25:DA:1626:G:N3	2.19	0.41
23:AV:14:A:C2	23:AV:15:G:C1'	3.03	0.41
23:AV:15:G:N2	23:AV:49:C:C5	2.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:233:SER:OG	2:AB:234:PRO:CD	2.64	0.41
25:BA:1169:G:H2'	25:BA:1170:G:O4'	2.20	0.41
25:DA:1173:G:H3'	25:DA:1174:A:H5'	2.02	0.41
25:BA:2822:G:OP1	29:BE:159:HIS:NE2	2.54	0.41
30:DF:195:ASP:HB2	30:DF:198:ALA:CB	2.51	0.41
29:BE:1:MET:HA	29:BE:200:GLU:CD	2.40	0.41
19:CS:9:VAL:CG1	19:CS:11:VAL:CG1	2.99	0.41
19:CS:10:PHE:HZ	19:CS:70:LYS:CD	2.34	0.41
25:DA:2553:G:H3'	25:DA:2554:U:H5''	2.02	0.41
27:DC:42:GLU:H	27:DC:213:TYR:H	1.67	0.41
2:AB:168:THR:O	2:AB:169:LYS:C	2.59	0.41
25:DA:1232:G:H2'	25:DA:1233:C:C6	2.56	0.41
4:CD:64:LEU:HB2	4:CD:198:VAL:HG11	2.03	0.41
11:CK:95:ILE:HG23	11:CK:108:ILE:HD11	2.03	0.41
29:DE:93:VAL:HG13	29:DE:182:LEU:HD13	2.03	0.41
1:AA:902:G:C6	1:AA:904:G:N7	2.88	0.41
39:DS:106:ARG:HD2	39:DS:106:ARG:O	2.20	0.41
48:D1:3:LYS:CG	48:D1:4:VAL:N	2.71	0.41
25:BA:1914:C:O4'	25:BA:1914:C:O2	2.39	0.41
16:CP:20:VAL:CG2	16:CP:21:VAL:N	2.83	0.41
39:BS:85:VAL:HG22	39:BS:106:ARG:CB	2.50	0.41
25:BA:479:A:H4'	25:BA:480:A:H5'	2.02	0.41
8:AH:25:ASP:HA	8:AH:59:LEU:O	2.21	0.41
48:B1:76:ARG:NH2	48:B1:95:LEU:HD22	2.36	0.41
37:BQ:27:VAL:O	37:BQ:29:PHE:N	2.53	0.41
22:AY:29:G:C2	22:AY:42:C:O2	2.73	0.41
22:CY:28:G:H3'	22:CY:28:G:C8	2.55	0.41
1:CA:6:G:N3	1:CA:6:G:H3'	2.36	0.41
11:AK:123:LYS:O	11:AK:124:LYS:C	2.58	0.41
3:AC:53:ALA:HB2	3:AC:115:LEU:CD2	2.50	0.41
3:AC:53:ALA:HB2	3:AC:115:LEU:HG	2.02	0.41
46:BZ:103:ARG:HD3	46:BZ:136:PHE:CZ	2.55	0.41
25:DA:1042:G:H3'	25:DA:1043:C:O4'	2.21	0.41
25:DA:1050:A:C2	25:DA:1051:G:N7	2.89	0.41
26:DB:43:C:O2	31:DG:95:ARG:NE	2.43	0.41
26:DB:43:C:H3'	26:DB:44:G:C5'	2.51	0.41
26:DB:40:U:H1'	26:DB:45:A:N6	2.36	0.41
3:CC:73:PRO:CD	3:CC:105:GLU:OE2	2.68	0.41
1:AA:981:G:C2'	1:AA:982:A:H4'	2.51	0.41
2:CB:75:LYS:HD3	2:CB:75:LYS:HA	1.86	0.41
1:CA:762:C:O2'	11:CK:120:ARG:HD3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:120:ARG:HA	11:CK:121:PRO:HD3	1.87	0.41
11:AK:59:TYR:CE2	11:AK:63:LEU:HD12	2.56	0.41
46:BZ:85:HIS:C	46:BZ:85:HIS:HD1	2.24	0.41
8:CH:85:ARG:NH1	8:CH:85:ARG:HG3	2.36	0.41
3:CC:54:ARG:NH1	3:CC:56:ASP:HB2	2.36	0.41
25:BA:1050:A:C4	25:BA:1051:G:N7	2.89	0.41
25:BA:1349:A:N6	25:BA:1598:C:N4	2.68	0.41
1:CA:1330:A:C6	1:CA:1356:A:C8	3.09	0.41
30:BF:39:TRP:CD1	30:BF:101:LEU:HB2	2.56	0.41
31:DG:17:PRO:HA	31:DG:20:ILE:CG1	2.50	0.41
25:DA:1668:A:OP1	35:DO:5:GLN:HG3	2.18	0.41
25:DA:1505:C:H2'	25:DA:1506:C:O4'	2.21	0.41
25:BA:651:G:OP1	55:B8:19:SER:OG	2.37	0.41
5:AE:146:ALA:O	5:AE:148:VAL:N	2.54	0.41
1:AA:1206:A:OP1	13:AM:102:ARG:HA	2.21	0.41
31:BG:47:LYS:HE2	31:BG:81:LYS:HD2	2.00	0.41
1:AA:1056:G:H4'	2:AB:103:THR:HG22	2.02	0.41
31:DG:82:LEU:HD22	31:DG:87:PRO:CG	2.47	0.41
25:DA:1324:G:H1'	25:DA:1616:A:N6	2.36	0.41
27:BC:83:ILE:O	27:BC:83:ILE:HG22	2.21	0.41
27:DC:83:ILE:HG22	27:DC:83:ILE:O	2.21	0.41
46:BZ:41:LEU:HD11	46:BZ:82:ARG:HH11	1.86	0.41
15:CO:4:THR:OG1	15:CO:7:GLU:HG3	2.21	0.41
23:CV:10:G:N2	23:CV:26:C:O2	2.43	0.41
46:DZ:14:LYS:O	46:DZ:18:LEU:HB2	2.20	0.41
1:CA:746:G:H2'	1:CA:747:C:H6	1.86	0.41
16:CP:4:ILE:HB	16:CP:66:PRO:CB	2.49	0.41
29:DE:111:ARG:CD	29:DE:160:TYR:HE1	2.31	0.41
28:DD:176:ARG:NH1	28:DD:176:ARG:HG2	2.32	0.41
1:CA:1374:G:C5	1:CA:1375:U:C4	3.09	0.41
12:AL:113:ARG:NH1	12:AL:120:TYR:CD2	2.89	0.41
44:DX:28:PHE:CZ	44:DX:92:LEU:HD11	2.56	0.41
12:CL:6:THR:O	12:CL:7:ILE:C	2.59	0.41
17:AQ:50:LYS:HG3	17:AQ:51:TYR:CD1	2.55	0.41
36:BP:123:LEU:HD12	36:BP:123:LEU:C	2.42	0.41
36:DP:123:LEU:C	36:DP:123:LEU:HD12	2.41	0.41
25:DA:1032:A:H2	25:DA:1122:G:H22	1.69	0.41
47:D0:83:PRO:HB2	47:D0:84:LEU:H	1.78	0.41
25:BA:2033:A:O2'	25:BA:2034:U:P	2.79	0.41
25:BA:33:U:O4	25:BA:446:G:O2'	2.31	0.41
25:BA:35:G:O2'	25:BA:36:G:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1440:C:C5'	40:DT:115:ARG:HH22	2.31	0.41
50:D3:44:ARG:O	50:D3:45:GLY:C	2.60	0.41
12:CL:32:PHE:CB	12:CL:84:LEU:HD11	2.51	0.41
34:BN:78:TYR:H	34:BN:78:TYR:HD1	1.68	0.41
40:DT:39:ARG:O	40:DT:41:ARG:N	2.54	0.41
1:CA:786:G:C6	1:CA:787:U:N3	2.88	0.41
43:DW:14:PRO:O	43:DW:17:VAL:N	2.51	0.41
1:AA:529:G:P	4:AD:72:GLU:HB3	2.60	0.41
43:BW:41:LYS:HB3	43:BW:41:LYS:HE3	1.81	0.41
1:AA:581:U:H4'	8:AH:94:TYR:CG	2.56	0.41
4:CD:4:TYR:HE2	4:CD:6:GLY:C	2.24	0.41
25:DA:1972:A:H2'	25:DA:1973:G:H8	1.86	0.41
8:AH:44:PHE:HA	8:AH:79:VAL:HG12	2.02	0.41
25:BA:601:C:H2'	25:BA:602:G:O4'	2.21	0.41
25:DA:603:A:H4'	25:DA:604:G:O5'	2.21	0.41
2:CB:135:GLN:O	2:CB:139:LYS:HG2	2.21	0.41
4:CD:81:GLU:OE1	4:CD:139:ARG:NH2	2.53	0.41
1:CA:426:A:H2'	1:CA:427:A:O4'	2.21	0.41
50:D3:43:ILE:O	50:D3:47:VAL:HG23	2.21	0.41
32:DH:111:HIS:HA	32:DH:112:PRO:HD2	1.88	0.41
25:DA:1188:U:C4'	42:DV:79:VAL:HG22	2.49	0.41
1:CA:610:G:H2'	1:CA:611:G:C8	2.55	0.41
25:BA:1642:G:O2'	25:BA:1643:G:H5'	2.20	0.41
33:BI:33:ARG:HG2	33:BI:33:ARG:HH11	1.86	0.41
6:AF:50:TYR:CE2	6:AF:52:ILE:HD11	2.55	0.41
1:CA:1392:G:H2'	1:CA:1393:C:C6	2.55	0.41
2:AB:36:ARG:CA	2:AB:36:ARG:NE	2.84	0.41
5:CE:64:ARG:HG3	5:CE:64:ARG:O	2.21	0.41
1:CA:398:C:H2'	1:CA:399:U:H6	1.86	0.41
1:CA:66:G:C6	1:CA:67:C:C5	3.09	0.41
46:BZ:110:GLY:HA3	46:BZ:115:GLY:HA3	2.02	0.41
25:BA:1992:G:H8	25:BA:1992:G:O5'	2.03	0.41
1:AA:1361:G:N1	1:AA:1362:U:C4	2.89	0.41
29:DE:6:GLY:CA	29:DE:27:LEU:O	2.69	0.41
54:D7:31:LEU:HD22	54:D7:42:LEU:HD13	2.03	0.41
25:DA:2065:C:H2'	25:DA:2066:C:C6	2.56	0.41
25:DA:803:U:C2'	25:DA:804:A:H5'	2.50	0.41
25:BA:803:U:C2'	25:BA:804:A:H5'	2.50	0.41
1:AA:379:G:H2'	1:AA:380:C:C6	2.55	0.41
36:BP:131:SER:O	36:BP:132:LYS:C	2.58	0.41
25:DA:1341:U:H2'	25:DA:1397:U:O2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:65:LEU:HD12	14:AN:55:GLY:HA3	2.03	0.41
25:DA:1568:G:H4'	28:DD:59:LYS:CG	2.50	0.41
54:D7:36:GLN:HG2	54:D7:36:GLN:O	2.21	0.41
28:BD:268:ARG:HB3	28:BD:268:ARG:NH1	2.36	0.41
3:CC:101:LEU:HD23	3:CC:102:ASN:O	2.21	0.41
28:BD:201:HIS:C	28:BD:203:ASN:H	2.24	0.41
25:DA:466:A:N3	25:DA:683:C:H1'	2.36	0.41
1:AA:633:G:O2'	1:AA:634:C:H5'	2.21	0.41
25:BA:57:C:O2'	25:BA:58:G:H5'	2.21	0.41
25:BA:200:U:H2'	25:BA:201:C:H5'	2.02	0.41
25:BA:2242:G:H2'	25:BA:2243:U:O4'	2.20	0.41
25:BA:363(B):G:N3	25:BA:363(B):G:H2'	2.35	0.41
47:B0:45:PHE:N	47:B0:45:PHE:CD1	2.89	0.41
29:BE:7:VAL:HA	29:BE:194:GLY:O	2.20	0.41
25:DA:1946:U:H2'	25:DA:1947:C:H6	1.85	0.41
1:AA:1331:A:H2'	1:AA:1332:U:O4'	2.21	0.41
13:CM:90:LEU:C	13:CM:92:HIS:H	2.24	0.41
13:CM:90:LEU:C	13:CM:92:HIS:N	2.74	0.41
4:AD:162:LEU:HD22	4:AD:178:VAL:HG13	2.04	0.41
25:DA:2585:U:C6	25:DA:2585:U:C3'	3.04	0.41
29:BE:51:PHE:O	29:BE:74:PRO:HB2	2.21	0.41
29:BE:75:VAL:HG12	29:BE:76:ARG:N	2.35	0.41
25:BA:2516:G:C6	25:BA:2517:C:N3	2.88	0.41
20:CT:61:SER:O	20:CT:62:LEU:C	2.59	0.41
20:CT:53:LEU:CB	20:CT:102:GLY:CA	2.99	0.41
40:DT:56:GLY:N	40:DT:59:THR:CG2	2.84	0.41
41:BU:78:THR:O	41:BU:79:PHE:C	2.59	0.41
42:BV:5:VAL:HG21	42:BV:35:LEU:HG	2.02	0.41
31:BG:2:PRO:CD	51:B4:51:TYR:CE1	3.04	0.41
19:AS:36:ARG:HH12	19:AS:75:ALA:CB	2.26	0.41
25:DA:310:A:C4	25:DA:312:G:C8	3.09	0.41
4:AD:20:TYR:CD1	6:CF:15:ASP:HB3	2.46	0.41
25:BA:2126:A:H8	25:BA:2126:A:OP2	2.04	0.41
25:BA:2171:A:H2'	25:BA:2172:U:C5	2.56	0.41
25:DA:2171:A:H2'	25:DA:2172:U:C5	2.56	0.41
25:BA:2484:G:C4	25:BA:2485:G:C8	3.09	0.41
25:DA:614(B):G:H5''	25:DA:614(C):A:P	2.61	0.41
25:DA:614(B):G:H5''	25:DA:614(C):A:OP1	2.21	0.41
1:CA:1279:C:O4'	1:CA:1280:A:C5	2.74	0.41
41:DU:92:ARG:HH12	42:DV:11:GLN:H	1.67	0.41
42:DV:2:PHE:O	42:DV:3:ALA:CB	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BY:96:ILE:CD1	45:BY:99:CYS:HB2	2.51	0.41
2:CB:24:TRP:CG	2:CB:40:HIS:HE1	2.39	0.41
35:BO:20:MET:HG2	35:BO:21:CYS:O	2.20	0.41
1:CA:195:G:H2'	1:CA:196:U:C6	2.56	0.41
25:DA:534:U:H5'	41:DU:42:ALA:HB1	2.01	0.41
41:DU:66:ASN:OD1	41:DU:76:TYR:CB	2.68	0.41
30:DF:117:ARG:NH2	30:DF:187:VAL:HA	2.36	0.41
2:AB:20:GLU:CD	2:AB:23:ARG:HH22	2.24	0.41
9:AI:98:PRO:C	9:AI:100:GLY:H	2.25	0.41
9:AI:98:PRO:C	9:AI:100:GLY:N	2.74	0.41
36:DP:66:GLY:O	36:DP:67:MET:CB	2.65	0.41
25:DA:272(B):G:C6	25:DA:404:C:C2	3.09	0.41
1:CA:917:C:H2'	1:CA:918:G:H8	1.85	0.41
1:AA:457:A:H2'	1:AA:458:G:O4'	2.21	0.41
10:AJ:76:ASN:ND2	10:AJ:78:ASN:OD1	2.54	0.41
9:CI:98:PRO:C	9:CI:100:GLY:H	2.25	0.41
31:DG:63:ILE:HA	31:DG:143:GLU:HG3	2.03	0.41
46:DZ:33:LEU:CG	46:DZ:34:ASN:N	2.83	0.41
46:DZ:53:ILE:HD12	46:DZ:53:ILE:O	2.21	0.41
46:BZ:120:ILE:O	46:BZ:121:HIS:HB2	2.20	0.41
15:AO:33:THR:HG23	15:AO:63:ARG:NH1	2.36	0.41
15:AO:63:ARG:NH1	15:AO:87:ILE:HD13	2.36	0.41
25:BA:1301:A:H2	25:BA:1626:G:N3	2.19	0.41
15:CO:3:ILE:N	15:CO:3:ILE:CD1	2.80	0.41
25:DA:395:U:O2'	48:D1:13:ILE:CD1	2.61	0.41
15:CO:26:GLU:H	15:CO:26:GLU:HG2	1.64	0.41
48:B1:15:ALA:HB3	48:B1:40:ARG:HD2	2.03	0.41
2:AB:86:GLU:C	2:AB:88:ALA:H	2.24	0.41
48:B1:82:LEU:HB3	48:B1:90:ILE:CD1	2.50	0.41
25:BA:2554:U:N3	25:BA:2555:U:C4	2.89	0.41
29:BE:37:ARG:O	29:BE:45:THR:N	2.49	0.41
29:BE:93:VAL:HG21	29:BE:180:ASN:C	2.42	0.41
40:BT:7:ILE:HG12	40:BT:7:ILE:H	1.64	0.41
25:DA:2554:U:N3	25:DA:2555:U:C4	2.89	0.41
2:CB:88:ALA:HB2	2:CB:219:VAL:CG1	2.49	0.41
49:D2:17:SER:HB3	49:D2:20:GLU:CB	2.51	0.41
7:AG:46:ALA:O	7:AG:49:ILE:N	2.54	0.41
25:BA:2850:A:OP2	25:BA:2866:U:C5	2.74	0.41
25:DA:1234:U:O2'	25:DA:1235:G:H5'	2.20	0.41
36:DP:106:LEU:HD13	36:DP:112:LEU:HD23	2.03	0.41
36:DP:96:THR:HG22	36:DP:126:VAL:CB	2.47	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:D1:3:LYS:CG	48:D1:4:VAL:H	2.15	0.41
26:DB:69:G:C2	26:DB:70:C:N1	2.89	0.41
25:DA:1914:C:O4'	25:DA:1914:C:O2	2.39	0.41
25:BA:2245:U:H5'	25:BA:2246:G:C5'	2.44	0.41
8:AH:12:ARG:HH11	8:AH:26:VAL:HA	1.86	0.41
19:CS:16:LEU:CD1	19:CS:16:LEU:N	2.84	0.41
25:BA:661:C:O3'	36:BP:18:ARG:HD2	2.20	0.41
11:CK:59:TYR:O	11:CK:63:LEU:HB2	2.21	0.41
1:AA:1112:A:H5''	9:AI:18:PHE:HE1	1.84	0.41
11:CK:123:LYS:O	11:CK:124:LYS:C	2.59	0.41
1:AA:981:G:H2'	1:AA:982:A:H4'	2.03	0.41
25:BA:1042:G:H3'	25:BA:1043:C:O4'	2.21	0.41
25:BA:1050:A:C2	25:BA:1051:G:N7	2.89	0.41
1:AA:818:U:H3	1:AA:828:G:H1	1.68	0.41
9:CI:121:ARG:O	9:CI:121:ARG:CD	2.67	0.41
10:CJ:8:LEU:HB3	10:CJ:16:LEU:CD2	2.44	0.41
2:CB:17:PHE:H	2:CB:17:PHE:HD2	1.68	0.41
25:BA:1993:U:C2'	25:BA:1994:C:O5'	2.69	0.41
45:DY:88:LYS:HZ3	45:DY:93:GLY:N	2.18	0.41
35:BO:88:ASN:O	35:BO:91:LEU:N	2.49	0.41
25:DA:1479:G:C4	25:DA:1480:G:C8	3.09	0.41
8:AH:23:SER:CB	8:AH:62:TYR:HA	2.50	0.41
1:CA:438:C:H2'	1:CA:439:G:C8	2.56	0.41
48:D1:15:ALA:HB3	48:D1:40:ARG:HD2	2.03	0.41
30:DF:32:LEU:HD22	30:DF:112:MET:CE	2.50	0.41
25:BA:1609:A:C2	25:BA:1616:A:C8	3.08	0.41
38:DR:18:LEU:HD21	38:DR:22:ARG:HE	1.85	0.41
54:B7:12:ARG:HH11	54:B7:12:ARG:HG3	1.86	0.41
25:DA:598:G:C5'	36:DP:15:ARG:HD2	2.48	0.41
1:CA:744:G:C5	1:CA:745:C:C5	3.09	0.41
25:BA:778:G:H2'	25:BA:779:U:C6	2.56	0.41
25:BA:2080:G:OP1	48:B1:35:THR:HG21	2.21	0.41
18:AR:47:THR:O	18:AR:83:GLU:HG2	2.21	0.41
27:BC:97:GLU:HA	27:BC:100:ILE:HG12	2.02	0.41
25:BA:2748:A:C2	32:BH:63:SER:HB3	2.56	0.41
25:DA:2739:U:O2'	25:DA:2740:A:H5'	2.21	0.41
25:DA:1386:C:H2'	25:DA:1387:C:H6	1.86	0.41
12:CL:83:VAL:HG11	12:CL:100:ILE:HG23	2.02	0.41
18:AR:36:ASN:O	18:AR:39:VAL:N	2.54	0.41
43:DW:14:PRO:O	43:DW:16:LYS:N	2.54	0.41
27:BC:196:LEU:C	27:BC:198:ALA:N	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:551:G:N7	12:AL:5:PRO:HD3	2.34	0.41
33:DI:33:ARG:HG2	33:DI:33:ARG:HH11	1.86	0.41
4:CD:147:ALA:HB2	4:CD:182:LYS:HB3	2.02	0.41
22:CW:53:G:C6	22:CW:54:U:O4	2.74	0.41
50:B3:43:ILE:O	50:B3:47:VAL:HG23	2.21	0.41
1:CA:39:G:O2'	1:CA:40:C:H5'	2.21	0.41
49:B2:34:GLU:O	49:B2:38:GLN:HG3	2.21	0.41
25:BA:184:C:H2'	25:BA:185:U:C6	2.56	0.41
39:BS:42:ASP:C	39:BS:44:LYS:N	2.73	0.41
25:BA:2164:C:H2'	25:BA:2165:G:O4'	2.20	0.41
25:BA:621:A:H2'	25:BA:622:G:C5'	2.50	0.41
25:DA:2164:C:H2'	25:DA:2165:G:O4'	2.20	0.41
25:DA:1864:U:H6	25:DA:1864:U:OP2	2.03	0.41
1:AA:963:A:C6	1:AA:964:G:C5	3.09	0.41
1:AA:876:C:H2'	1:AA:877:A:O4'	2.21	0.41
25:DA:1488:G:N1	25:DA:1489:U:O2	2.54	0.41
25:DA:1488:G:C6	25:DA:1489:U:N3	2.89	0.41
1:CA:1434:G:H2'	1:CA:1435:G:C8	2.56	0.41
25:BA:1568:G:H4'	28:BD:59:LYS:CG	2.51	0.41
1:CA:1075:A:C2	1:CA:1077:U:H5'	2.56	0.41
25:BA:1930:G:N2	25:BA:1968:G:H2'	2.35	0.41
25:BA:1844:C:O2'	25:BA:1845:G:H5'	2.20	0.41
1:CA:442:A:C4	1:CA:471:A:C2	3.09	0.41
25:BA:1856:G:H2'	25:BA:1857:G:H5'	2.03	0.41
1:CA:864:G:H2'	1:CA:865:G:O4'	2.21	0.41
25:DA:52:A:O2'	25:DA:53:A:H5'	2.21	0.41
43:DW:69:LEU:HD23	43:DW:69:LEU:HA	1.95	0.41
5:AE:127:ASN:HA	5:AE:128:PRO:HD3	1.94	0.41
1:AA:906:G:C6	1:AA:907:C:C4	3.09	0.41
28:DD:136:ILE:HA	28:DD:137:PRO:HD3	1.76	0.40
25:DA:2584:U:C6	25:DA:2584:U:C3'	3.04	0.40
40:DT:28:VAL:CG2	40:DT:46:GLU:HG3	2.51	0.40
29:BE:61:ARG:CB	29:BE:62:PRO:HD3	2.51	0.40
13:AM:90:LEU:C	13:AM:92:HIS:H	2.24	0.40
13:AM:95:GLY:O	13:AM:96:LEU:HG	2.20	0.40
25:DA:2787:C:O2	29:DE:61:ARG:NH1	2.52	0.40
25:BA:1129:A:H4'	25:BA:2516:G:C4'	2.50	0.40
25:BA:2327:A:H2'	25:BA:2328:A:O4'	2.21	0.40
25:BA:952:G:C6	25:BA:966:G:C6	3.09	0.40
25:DA:2260:C:O2'	25:DA:2261:C:H5'	2.21	0.40
49:D2:3:LEU:O	49:D2:6:VAL:HB	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DT:53:ARG:HD2	40:DT:60:THR:OG1	2.21	0.40
22:CW:16:U:H6	22:CW:17:C:H5'	1.86	0.40
22:CW:18:G:H1	22:CW:55:U:C2'	2.34	0.40
25:DA:271(O):C:O2'	25:DA:271(P):C:P	2.79	0.40
23:CV:52:C:C2'	23:CV:53:G:O5'	2.69	0.40
25:DA:309:G:O4'	25:DA:329:G:C4	2.74	0.40
45:DY:31:LEU:CB	45:DY:32:PRO:CA	2.95	0.40
25:BA:1982:C:C6	25:BA:1982:C:O5'	2.72	0.40
53:B6:10:LEU:HD22	53:B6:10:LEU:N	2.35	0.40
25:BA:2392:A:H8	36:BP:60:MET:CB	2.26	0.40
4:AD:20:TYR:CD1	6:CF:15:ASP:CB	2.99	0.40
37:DQ:43:THR:HG1	37:DQ:46:GLN:HG3	1.78	0.40
42:DV:5:VAL:HG11	42:DV:14:VAL:HG11	2.02	0.40
25:BA:614(B):G:H5''	25:BA:614(C):A:P	2.61	0.40
39:DS:88:ASP:CG	39:DS:89:ARG:H	2.24	0.40
39:DS:89:ARG:CD	39:DS:92:TYR:HA	2.40	0.40
28:DD:26:LYS:HD2	28:DD:113:VAL:HG11	2.03	0.40
28:DD:27:THR:HG21	28:DD:81:ALA:HB1	2.03	0.40
25:DA:299:A:C6	25:DA:322:A:N3	2.89	0.40
45:DY:76:CYS:O	45:DY:77:PRO:C	2.59	0.40
25:BA:915:C:C4	25:BA:916:G:C5	3.09	0.40
22:CW:39:U:C5	22:CW:40:C:N4	2.89	0.40
50:B3:26:LEU:HD21	50:B3:46:ASN:HB2	2.03	0.40
33:DI:56:LYS:HB2	33:DI:56:LYS:HE3	1.88	0.40
41:BU:55:ARG:HA	41:BU:58:ARG:HD2	2.03	0.40
27:BC:49:ILE:HG22	27:BC:50:ASP:N	2.36	0.40
25:BA:272(B):G:C6	25:BA:404:C:C2	3.10	0.40
25:BA:941:A:HO2'	36:BP:35:HIS:CE1	2.38	0.40
25:BA:389:G:C2	36:BP:71:VAL:HG12	2.54	0.40
27:DC:49:ILE:HG22	27:DC:50:ASP:N	2.36	0.40
2:CB:221:LEU:H	2:CB:221:LEU:CD2	2.34	0.40
21:CU:6:ARG:CG	21:CU:15:ARG:NH1	2.84	0.40
25:BA:1378:A:C4'	25:BA:1379:A:OP1	2.52	0.40
37:DQ:108:GLY:O	37:DQ:109:VAL:HG23	2.21	0.40
25:DA:2850:A:OP2	25:DA:2866:U:C5	2.74	0.40
31:BG:60:LEU:HD22	31:BG:63:ILE:HD11	2.03	0.40
32:DH:139:GLN:C	32:DH:139:GLN:CD	2.79	0.40
19:CS:9:VAL:HG11	19:CS:11:VAL:CG1	2.51	0.40
1:AA:853:G:C6	1:AA:854:C:C4	3.08	0.40
25:DA:27:G:H1'	25:DA:513:A:H62	1.86	0.40
25:DA:686:G:O6	54:D7:12:ARG:CG	2.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:45:ARG:CG	10:CJ:45:ARG:NH1	2.78	0.40
22:CY:42:C:H5'	22:CY:43:C:OP2	2.20	0.40
9:AI:53:VAL:CG1	9:AI:92:TYR:CD2	2.98	0.40
25:DA:1042:G:H3'	25:DA:1043:C:C6	2.56	0.40
2:CB:78:GLN:O	2:CB:94:ASN:ND2	2.54	0.40
28:BD:147:LEU:HD13	28:BD:155:LEU:CD1	2.48	0.40
25:BA:491:G:C4	25:BA:492:A:C8	3.09	0.40
29:DE:12:THR:HG23	40:DT:8:LYS:NZ	2.36	0.40
8:CH:85:ARG:C	8:CH:85:ARG:CD	2.90	0.40
1:AA:815:C:N4	1:AA:832:G:O6	2.54	0.40
10:CJ:16:LEU:C	10:CJ:16:LEU:HD13	2.41	0.40
31:DG:17:PRO:HA	31:DG:20:ILE:CD1	2.51	0.40
1:CA:653:G:C6	1:CA:654:G:C5	3.09	0.40
40:BT:16:ARG:HH21	40:BT:82:LEU:H	1.69	0.40
1:AA:499:U:C5	1:AA:500:G:C6	3.10	0.40
11:CK:18:ARG:NH2	11:CK:35:PRO:O	2.54	0.40
7:AG:140:ASP:CG	7:AG:143:ARG:HH12	2.25	0.40
7:AG:143:ARG:HD2	22:AW:41:C:O3'	2.21	0.40
25:DA:75:G:H4'	49:D2:55:ARG:NH1	2.33	0.40
25:DA:33:U:O4	25:DA:446:G:O2'	2.31	0.40
17:AQ:50:LYS:HG3	17:AQ:51:TYR:H	1.86	0.40
25:BA:2013:A:H4'	43:BW:96:ILE:HD12	2.02	0.40
25:BA:1827:C:OP2	28:BD:222:ARG:NH1	2.49	0.40
3:CC:149:ALA:O	3:CC:169:ALA:HB1	2.21	0.40
25:DA:850:C:O2'	25:DA:851:U:H5'	2.20	0.40
43:BW:14:PRO:O	43:BW:16:LYS:N	2.54	0.40
25:BA:1388:G:C2'	25:BA:1389:G:H5'	2.50	0.40
1:CA:792:G:C2	1:CA:793:C:C2	3.09	0.40
4:AD:96:LEU:CD1	4:AD:96:LEU:N	2.83	0.40
25:BA:2818:G:H4'	25:BA:2837:G:O4'	2.21	0.40
25:DA:2818:G:H4'	25:DA:2837:G:O4'	2.21	0.40
1:AA:871:G:C6	1:AA:872:G:C5	3.09	0.40
29:BE:9:VAL:CG1	29:BE:25:VAL:O	2.69	0.40
33:BI:29:TYR:HE1	33:BI:33:ARG:HE	1.60	0.40
38:DR:107:ASP:C	38:DR:107:ASP:OD2	2.60	0.40
7:CG:5:ARG:O	7:CG:7:ALA:N	2.50	0.40
5:AE:60:TYR:O	5:AE:64:ARG:HB2	2.21	0.40
1:AA:1278:C:O2'	7:AG:114:ARG:NH2	2.54	0.40
12:CL:70:ILE:HD13	12:CL:77:LEU:HD12	2.03	0.40
1:AA:265:A:H2'	1:AA:266:C:C6	2.56	0.40
25:BA:1488:G:C6	25:BA:1489:U:N3	2.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1488:G:N1	25:BA:1489:U:O2	2.54	0.40
28:BD:201:HIS:C	28:BD:203:ASN:N	2.75	0.40
28:DD:201:HIS:C	28:DD:203:ASN:H	2.24	0.40
7:CG:9:VAL:O	7:CG:10:ARG:C	2.59	0.40
2:CB:62:ALA:HB1	2:CB:225:ALA:HB3	2.03	0.40
34:DN:70:LYS:O	34:DN:86:PRO:HA	2.21	0.40
25:DA:2767:C:H2'	25:DA:2768:C:H6	1.86	0.40
25:BA:466:A:N3	25:BA:683:C:H1'	2.36	0.40
28:DD:268:ARG:NH1	28:DD:268:ARG:HB3	2.36	0.40
1:CA:1248:C:H2'	1:CA:1248:C:O2	2.20	0.40
13:CM:79:LYS:O	13:CM:80:ARG:C	2.60	0.40
13:CM:82:MET:O	13:CM:83:ASP:O	2.40	0.40
29:DE:56:PRO:O	29:DE:57:LYS:C	2.59	0.40
1:AA:1099:G:H4'	9:AI:104:ARG:NH1	2.36	0.40
41:BU:98:LEU:C	41:BU:100:VAL:N	2.75	0.40
26:BB:43:C:H3'	26:BB:44:G:H5'	2.03	0.40
1:AA:1203:G:H2'	1:AA:1204:C:O4'	2.21	0.40
14:AN:42:ILE:O	14:AN:43:CYS:C	2.60	0.40
1:AA:1425:G:C3'	1:AA:1426:A:C5'	2.80	0.40
23:CV:51:U:N3	23:CV:52:C:H5	2.19	0.40
23:CV:56:U:C5	23:CV:58:A:OP2	2.74	0.40
41:DU:98:LEU:C	41:DU:100:VAL:N	2.75	0.40
25:BA:614(C):A:O2'	25:BA:615:G:H5'	2.18	0.40
7:CG:113:GLU:HB3	7:CG:118:VAL:HG23	2.02	0.40
13:CM:15:VAL:HG22	13:CM:43:THR:O	2.21	0.40
39:DS:53:SER:O	39:DS:54:LEU:C	2.60	0.40
31:BG:160:VAL:CG1	31:BG:161:THR:N	2.84	0.40
8:AH:38:ILE:HG12	8:AH:41:ARG:HH11	1.86	0.40
53:D6:25:LYS:CD	55:D8:34:TRP:HZ2	2.33	0.40
23:AV:53:G:O2'	23:AV:54:G:P	2.79	0.40
7:CG:151:TYR:N	7:CG:151:TYR:CD1	2.89	0.40
1:AA:932:U:OP1	13:AM:120:LYS:NZ	2.42	0.40
3:AC:15:THR:CG2	3:AC:16:ARG:H	2.34	0.40
2:CB:19:HIS:CE1	2:CB:189:ASP:OD2	2.74	0.40
50:B3:44:ARG:O	50:B3:45:GLY:C	2.60	0.40
33:BI:88:ILE:HG12	33:BI:122:GLU:CA	2.51	0.40
41:DU:55:ARG:HA	41:DU:58:ARG:HD2	2.03	0.40
33:DI:92:VAL:O	33:DI:92:VAL:HG13	2.20	0.40
45:BY:8:LYS:HE3	45:BY:72:VAL:C	2.41	0.40
23:CV:4:G:C2	23:CV:5:G:N9	2.90	0.40
2:AB:194:PRO:CB	2:AB:200:ILE:CD1	2.99	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:25:PRO:HB3	30:BF:119:ARG:HD3	2.02	0.40
23:AV:51:U:OP2	23:AV:51:U:H6	2.04	0.40
5:AE:69:VAL:HG12	5:AE:71:LEU:HG	2.03	0.40
32:BH:68:THR:O	32:BH:70:THR:O	2.39	0.40
6:AF:87:ARG:HH11	6:AF:87:ARG:HG2	1.85	0.40
25:DA:2302:G:C6	25:DA:2315:G:C5	3.10	0.40
2:AB:235:SER:OG	2:AB:236:TYR:CD1	2.68	0.40
34:BN:91:LEU:HD23	34:BN:98:VAL:HG21	2.03	0.40
1:AA:821:G:H2'	1:AA:822:U:H5''	2.03	0.40
25:BA:291:C:N4	25:BA:349:G:N1	2.64	0.40
10:AJ:32:ALA:C	10:AJ:33:GLN:HG3	2.42	0.40
2:CB:74:LYS:HE3	2:CB:166:ASP:HB3	2.02	0.40
37:DQ:51:ARG:NH1	37:DQ:51:ARG:CG	2.84	0.40
25:BA:2330:G:H2'	25:BA:2331:G:O4'	2.21	0.40
1:CA:1426:A:C8	40:DT:118:ARG:NH1	2.90	0.40
28:DD:182:LEU:N	28:DD:272:ALA:HB3	2.36	0.40
3:CC:191:THR:HB	3:CC:192:THR:H	1.79	0.40
1:CA:733:G:H1'	15:CO:23:GLY:N	2.34	0.40
1:AA:1279:C:H4'	1:AA:1280:A:C4	2.56	0.40
25:DA:526:A:O2'	25:DA:2043:C:O2	2.38	0.40
15:CO:56:LEU:HD21	25:DA:715:G:N3	2.35	0.40
2:CB:77:ALA:CB	2:CB:211:ILE:HD13	2.52	0.40
2:CB:86:GLU:C	2:CB:88:ALA:H	2.25	0.40
25:DA:2536:G:C6	25:DA:2537:U:C4	3.10	0.40
11:CK:82:VAL:CG1	11:CK:108:ILE:HG12	2.51	0.40
29:DE:93:VAL:HG21	29:DE:180:ASN:C	2.41	0.40
36:DP:114:ILE:HD12	36:DP:115:LEU:H	1.84	0.40
3:AC:19:GLU:O	3:AC:40:ARG:NH2	2.52	0.40
25:DA:2306:C:C5	25:DA:2307:G:H1'	2.56	0.40
28:DD:18:VAL:HG13	28:DD:211:ARG:HH12	1.86	0.40
25:DA:1115:G:H2'	25:DA:1116:C:C6	2.56	0.40
28:BD:18:VAL:HG13	28:BD:211:ARG:HH12	1.86	0.40
25:BA:790:C:O2'	25:BA:791:C:OP1	2.30	0.40
22:CY:30:G:H2'	22:CY:30:G:N3	2.36	0.40
45:BY:14:LEU:HG	45:BY:15:VAL:N	2.36	0.40
25:BA:1324:G:H1'	25:BA:1616:A:N6	2.36	0.40
46:DZ:39:VAL:HG21	46:DZ:44:PHE:HB2	2.02	0.40
25:BA:1578:U:C2'	25:BA:1579:A:C5'	2.96	0.40
3:AC:119:ARG:NH1	3:AC:119:ARG:HG3	2.37	0.40
3:AC:92:ALA:C	3:AC:94:LEU:N	2.73	0.40
1:AA:486:C:O2'	1:AA:487:C:H5'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:104:LEU:HD13	7:CG:134:ALA:CB	2.51	0.40
1:CA:1328:G:H5''	9:CI:107:ARG:CB	2.50	0.40
27:BC:122:ALA:HB1	27:BC:129:ARG:CB	2.52	0.40
25:DA:2033:A:O2'	25:DA:2034:U:P	2.79	0.40
25:BA:2739:U:O2'	25:BA:2740:A:H5'	2.21	0.40
25:BA:1859:A:N6	25:BA:1883:G:O2'	2.54	0.40
34:DN:3:THR:HG22	34:DN:5:VAL:CG1	2.51	0.40
30:DF:127:GLU:HG2	30:DF:196:LEU:HD11	2.02	0.40
30:BF:127:GLU:HB2	30:BF:196:LEU:HD11	2.03	0.40
1:CA:869:A:N1	1:CA:884:A:C4	2.89	0.40
25:DA:1796:U:H2'	25:DA:1797:C:H6	1.83	0.40
6:AF:100:ASN:O	6:AF:101:ALA:O	2.39	0.40
12:AL:8:ASN:OD1	17:AQ:34:LYS:HE2	2.22	0.40
4:AD:147:ALA:HB2	4:AD:182:LYS:CB	2.51	0.40
1:AA:722:C:HO2'	15:AO:42:HIS:HD1	1.57	0.40
41:BU:12:ARG:C	41:BU:15:LYS:HZ2	2.20	0.40
39:DS:51:ALA:HB3	39:DS:73:LEU:HB2	2.03	0.40
17:AQ:92:ARG:O	17:AQ:95:TYR:CD2	2.74	0.40
25:BA:1188:U:C4'	42:BV:79:VAL:HG22	2.50	0.40
38:BR:107:ASP:C	38:BR:107:ASP:OD2	2.60	0.40
1:CA:400:U:H3'	1:CA:401:G:H5'	2.03	0.40
25:BA:829:A:N7	25:BA:2248:C:H5'	2.36	0.40
1:CA:875:G:N2	1:CA:878:A:OP2	2.49	0.40
25:DA:1458:C:H4'	25:DA:1459:G:O5'	2.22	0.40
25:BA:2665:A:O2'	25:BA:2666:C:H5'	2.21	0.40
27:BC:107:TRP:O	27:BC:108:MET:CB	2.69	0.40
25:BA:2065:C:H2'	25:BA:2066:C:C6	2.56	0.40
46:DZ:63:ASP:O	46:DZ:65:GLN:N	2.46	0.40
6:CF:97:PHE:N	18:CR:30:ASP:OD1	2.53	0.40
1:AA:1494:G:C5	1:AA:1495:A:C5	3.09	0.40
1:AA:151:G:H1	1:AA:158:U:H3	1.70	0.40
27:BC:208:PHE:O	27:BC:209:LEU:CB	2.69	0.40
15:CO:61:GLY:O	15:CO:65:ARG:HD3	2.21	0.40
25:DA:1252:G:C2	25:DA:1253:A:C2	3.09	0.40
25:DA:1808:U:H2'	25:DA:1809:A:O4'	2.20	0.40
25:BA:52:A:O2'	25:BA:53:A:H5'	2.21	0.40
6:AF:11:ASN:O	6:AF:14:LEU:HG	2.21	0.40
1:AA:881:C:C4	1:AA:882:U:C4	3.09	0.40
42:DV:66:ARG:HH11	42:DV:66:ARG:HG2	1.85	0.40
26:DB:39:A:H2'	26:DB:39:A:N3	2.37	0.40
12:AL:73:GLU:OE1	12:AL:73:GLU:HA	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DI:127:VAL:HA	33:DI:139:GLN:HA	2.03	0.40
47:D0:42:GLY:HA2	47:D0:57:PHE:CE2	2.56	0.40
1:AA:1289:U:C5	13:AM:99:ARG:NH1	2.89	0.40
13:CM:78:ILE:HG23	13:CM:92:HIS:ND1	2.37	0.40
25:BA:2607:G:H2'	25:BA:2608:G:O4'	2.21	0.40
29:BE:57:LYS:HZ3	29:BE:59:VAL:HG12	1.87	0.40
29:BE:33:VAL:HG12	29:BE:90:THR:H	1.85	0.40
32:DH:27:LYS:HG2	32:DH:32:GLU:HB2	2.04	0.40
32:DH:68:THR:O	32:DH:70:THR:O	2.39	0.40
50:D3:31:LEU:C	50:D3:33:GLN:N	2.73	0.40
42:BV:47:VAL:O	42:BV:49:THR:O	2.39	0.40
10:AJ:63:PHE:HA	14:AN:59:ALA:H	1.86	0.40
25:DA:271(R):G:H2'	25:DA:271(S):G:C8	2.56	0.40
23:CV:49:C:O2'	23:CV:50:G:P	2.79	0.40
25:DA:1591:G:O2'	25:DA:1592:C:H5'	2.21	0.40
38:BR:79:LEU:C	38:BR:79:LEU:CD2	2.89	0.40
45:BY:42:VAL:CG1	45:BY:65:ALA:HB3	2.51	0.40
39:BS:29:PHE:HD2	39:BS:30:ARG:N	2.19	0.40
39:BS:53:SER:O	39:BS:54:LEU:C	2.60	0.40
25:BA:614(B):G:H5''	25:BA:614(C):A:OP1	2.21	0.40
25:BA:2795:G:H2'	25:BA:2795:G:N3	2.37	0.40
42:BV:20:LEU:N	42:BV:20:LEU:HD12	2.36	0.40
39:DS:17:ARG:NH2	39:DS:90:GLY:H	2.18	0.40
28:DD:26:LYS:HZ1	28:DD:82:ILE:C	2.24	0.40
25:DA:1567:A:H2'	28:DD:84:TYR:CE2	2.57	0.40
12:CL:58:VAL:O	12:CL:60:LEU:HD22	2.21	0.40
8:CH:38:ILE:HD12	8:CH:118:VAL:HG12	2.02	0.40
8:CH:34:GLU:HA	8:CH:34:GLU:OE1	2.22	0.40
28:DD:31:LYS:HD2	28:DD:31:LYS:HA	1.98	0.40
25:DA:915:C:C4	25:DA:916:G:C5	3.09	0.40
25:BA:850:C:O2'	25:BA:851:U:H5'	2.20	0.40
53:D6:48:VAL:HG23	53:D6:49:HIS:N	2.37	0.40
33:BI:92:VAL:O	33:BI:92:VAL:HG13	2.20	0.40
33:DI:110:ASP:O	33:DI:114:LEU:CD2	2.70	0.40
23:CV:4:G:H21	23:CV:5:G:H1'	1.86	0.40
25:DA:590:A:H2'	25:DA:591:C:C6	2.56	0.40
25:DA:1142(A):A:C4	25:DA:1144:G:C8	3.09	0.40
25:DA:2104:G:C6	25:DA:2105:C:C4	3.09	0.40
22:AY:37:A:C3'	22:AY:38:A:O4'	2.70	0.40
32:BH:54:ARG:HB3	32:BH:65:HIS:HD2	1.86	0.40
26:DB:65:C:H2'	26:DB:66:A:H5'	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BZ:42:VAL:CG1	46:BZ:43:GLU:N	2.84	0.40
46:DZ:4:ARG:HE	46:DZ:60:GLU:HG3	1.87	0.40
1:AA:1269:A:C5	1:AA:1270:A:N7	2.89	0.40
32:DH:158:HIS:NE2	32:DH:170:ARG:HA	2.37	0.40
38:DR:12:ARG:HG3	38:DR:12:ARG:NH1	2.36	0.40
25:DA:747:U:H5	52:D5:3:LYS:HB2	1.81	0.40
1:CA:290:C:HO2'	1:CA:291:U:C5'	2.35	0.40
46:DZ:98:MET:HE2	46:DZ:99:TYR:O	2.21	0.40
25:DA:125:G:C6	54:D7:10:ARG:HG3	2.56	0.40
15:AO:82:ILE:HD11	15:AO:87:ILE:C	2.42	0.40
25:BA:2745:C:H2'	25:BA:2746:U:H6	1.83	0.40
4:CD:29:PRO:O	4:CD:30:LYS:CB	2.69	0.40
23:AV:49:C:O2	23:AV:49:C:C2'	2.69	0.40
30:BF:195:ASP:HB2	30:BF:198:ALA:HB2	2.02	0.40
2:AB:208:ILE:O	2:AB:212:GLN:HB2	2.21	0.40
2:AB:219:VAL:HA	2:AB:222:ILE:HG13	2.02	0.40
25:BA:27:G:O2'	25:BA:28:A:C8	2.54	0.40
29:BE:1:MET:O	29:BE:2:LYS:C	2.60	0.40
25:BA:1290:C:C2	25:BA:1291:C:C5	3.09	0.40
25:BA:2536:G:C6	25:BA:2537:U:C4	3.09	0.40
36:BP:83:VAL:HG23	36:BP:105:LEU:HD12	2.01	0.40
25:BA:7:G:OP1	34:BN:121:LYS:NZ	2.54	0.40
49:D2:67:LYS:O	49:D2:69:ARG:N	2.54	0.40
29:DE:117:MET:HE3	29:DE:124:GLY:HA3	2.02	0.40
19:AS:13:ASP:C	19:AS:15:LEU:N	2.75	0.40
43:DW:46:PHE:O	43:DW:50:VAL:HG12	2.21	0.40
36:DP:17:LYS:O	36:DP:17:LYS:CG	2.69	0.40
8:AH:87:SER:HB3	8:AH:133:LEU:O	2.21	0.40
9:AI:50:LEU:HA	9:AI:53:VAL:HG22	2.02	0.40
25:DA:2305:A:C4	31:DG:154:GLY:HA3	2.57	0.40
25:DA:1108:U:C2'	25:DA:1109:C:H5'	2.49	0.40
46:BZ:33:LEU:CD1	46:BZ:34:ASN:H	2.31	0.40
37:BQ:16:ARG:CG	37:BQ:17:LEU:N	2.83	0.40
3:CC:53:ALA:HB2	3:CC:115:LEU:CD2	2.51	0.40
3:CC:53:ALA:HB2	3:CC:115:LEU:HG	2.03	0.40
25:DA:1349:A:N6	25:DA:1598:C:N4	2.68	0.40
4:CD:170:VAL:O	4:CD:171:GLY:C	2.60	0.40
47:D0:10:THR:C	47:D0:12:ASN:H	2.24	0.40
19:CS:51:VAL:HG12	19:CS:52:TYR:N	2.36	0.40
8:CH:36:LEU:O	8:CH:39:LEU:N	2.55	0.40
28:BD:161:THR:H	28:BD:196:VAL:HB	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2147:G:C2'	25:BA:2148:G:O4'	2.68	0.40
28:DD:127:VAL:HA	28:DD:193:VAL:HG22	2.03	0.40
9:CI:47:LEU:N	9:CI:47:LEU:HD12	2.37	0.40
25:BA:792:G:C4'	25:BA:793:A:H5'	2.52	0.40
28:DD:176:ARG:CG	28:DD:176:ARG:NH1	2.83	0.40
2:AB:114:ARG:HH12	2:AB:118:LEU:HD11	1.86	0.40
1:CA:1374:G:N7	1:CA:1375:U:C5	2.89	0.40
44:DX:92:LEU:C	44:DX:94:GLY:H	2.24	0.40
25:BA:1762:A:C8	25:BA:1762:A:O5'	2.69	0.40
43:DW:18:ARG:HG2	43:DW:18:ARG:HH11	1.86	0.40
25:DA:1473:G:C2'	25:DA:1474:C:H5'	2.51	0.40
3:CC:22:TRP:CE3	3:CC:22:TRP:O	2.75	0.40
25:DA:1654:A:N6	25:DA:2006:C:O4'	2.54	0.40
33:DI:23:PRO:O	33:DI:24:GLY:C	2.59	0.40
29:DE:9:VAL:CG1	29:DE:25:VAL:HG12	2.52	0.40
2:CB:22:LYS:NZ	2:CB:35:GLU:OE1	2.54	0.40
25:DA:833:U:H2'	25:DA:834:C:C6	2.55	0.40
8:AH:21:LYS:HB2	8:AH:21:LYS:HE3	1.97	0.40
29:BE:6:GLY:CA	29:BE:27:LEU:O	2.69	0.40
27:DC:147:PHE:O	27:DC:148:ASN:CB	2.69	0.40
1:AA:583:C:C2	1:AA:622:G:N2	2.89	0.40
47:B0:42:GLY:HA2	47:B0:57:PHE:CE2	2.56	0.40
25:DA:2488:A:H2'	25:DA:2489:G:O4'	2.19	0.40
33:BI:127:VAL:HA	33:BI:139:GLN:HA	2.04	0.40
25:DA:1555:G:N2	25:DA:1556:C:C2	2.89	0.40
15:CO:38:ARG:HH11	15:CO:38:ARG:HG2	1.86	0.40
25:BA:1572:A:H8	25:BA:1572:A:O5'	2.04	0.40
25:BA:1512:U:H2'	25:BA:1513:C:C6	2.56	0.40
34:BN:103:VAL:O	34:BN:106:MET:N	2.43	0.40
25:BA:2091:U:O2'	48:B1:47:GLN:HG3	2.21	0.40
25:DA:1159:U:OP2	50:D3:30:ARG:NH2	2.55	0.40
35:BO:9:GLU:OE2	35:BO:18:LYS:NZ	2.43	0.40
25:BA:253:C:O2'	25:BA:254:G:H5'	2.22	0.40
33:DI:99:GLU:HB3	33:DI:103:ARG:NH1	2.37	0.40
40:DT:30:VAL:HG12	40:DT:43:GLN:C	2.42	0.40
29:BE:69:LYS:O	29:BE:70:ALA:C	2.60	0.40
29:DE:75:VAL:HG12	29:DE:76:ARG:N	2.35	0.40
25:DA:2260:C:H6	25:DA:2260:C:O5'	2.04	0.40
25:BA:2239:G:OP1	28:BD:244:ARG:NH1	2.54	0.40
42:BV:13:ARG:O	42:BV:13:ARG:HG2	2.21	0.40
26:BB:40:U:H1'	26:BB:45:A:N6	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1426:A:O2'	1:AA:1427:G:C8	2.75	0.40
26:DB:83:G:H4'	50:D3:52:HIS:CG	2.56	0.40
26:DB:87:G:C2	26:DB:91:C:N3	2.90	0.40
55:B8:6:THR:HA	55:B8:61:LEU:HD11	2.03	0.40
36:BP:65:ARG:CZ	55:B8:15:LYS:HB2	2.50	0.40
25:DA:2795:G:N3	25:DA:2795:G:H2'	2.37	0.40
5:CE:110:LEU:HD13	5:CE:118:ILE:HG21	2.02	0.40
38:BR:86:ARG:NE	38:BR:118:GLU:OE2	2.55	0.40
38:BR:79:LEU:HD23	38:BR:83:ILE:HB	2.03	0.40
38:BR:84:ALA:N	38:BR:85:PRO:CD	2.84	0.40
11:CK:105:VAL:HG23	11:CK:105:VAL:O	2.21	0.40
25:DA:2171:A:O2'	25:DA:2172:U:H2'	2.21	0.40
41:DU:104:GLN:HB2	42:DV:44:LYS:NZ	2.36	0.40
26:BB:65:C:H2'	26:BB:66:A:H5'	2.04	0.40
25:BA:2791:C:H41	25:BA:2803:C:N4	2.18	0.40
3:CC:6:HIS:CD2	3:CC:8:ILE:H	2.39	0.40
39:DS:34:HIS:HE1	39:DS:55:ALA:HB2	1.87	0.40
8:AH:109:ILE:HD11	8:AH:120:THR:HG22	2.02	0.40
8:AH:109:ILE:CG1	8:AH:110:ALA:H	2.22	0.40
8:CH:109:ILE:CG2	8:CH:137:VAL:HB	2.52	0.40
7:CG:78:ARG:CD	7:CG:79:ARG:N	2.85	0.40
25:BA:925:C:O2'	25:BA:926:A:H5''	2.20	0.40
28:BD:132:PRO:HD3	28:BD:190:TYR:CZ	2.56	0.40
32:DH:15:VAL:HG23	32:DH:15:VAL:O	2.21	0.40
33:DI:110:ASP:O	33:DI:114:LEU:HG	2.20	0.40
9:AI:14:VAL:CG1	9:AI:15:ALA:N	2.84	0.40
9:AI:8:GLY:O	9:AI:14:VAL:HG13	2.21	0.40
30:DF:22:ALA:C	30:DF:24:LEU:H	2.23	0.40
25:DA:2854:G:O2'	25:DA:2855:C:H5'	2.22	0.40
25:BA:2729:G:H5'	29:BE:22:PRO:HG3	2.03	0.40
1:CA:319:G:C5'	20:CT:70:SER:CB	2.95	0.40
10:AJ:83:GLU:C	10:AJ:85:LEU:N	2.74	0.40
9:CI:50:LEU:HD13	9:CI:55:ALA:O	2.21	0.40
25:DA:1655:A:H1'	29:DE:113:PHE:CD2	2.57	0.40
25:BA:2892:A:C8	25:BA:2893:G:O4'	2.75	0.40
31:DG:60:LEU:HD22	31:DG:63:ILE:HD11	2.03	0.40
46:DZ:99:TYR:HD2	46:DZ:99:TYR:N	2.16	0.40
25:BA:676:A:C2	25:BA:802:A:N6	2.83	0.40
4:CD:24:GLU:O	4:CD:27:TYR:HB2	2.22	0.40
20:AT:32:ALA:O	20:AT:33:ILE:C	2.56	0.40
25:BA:2206:G:N3	25:BA:2207:G:H5'	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:63:ARG:NH1	15:CO:87:ILE:HD13	2.36	0.40
30:BF:195:ASP:HB2	30:BF:198:ALA:CB	2.51	0.40
25:BA:2231:C:H2'	25:BA:2232:U:O4'	2.21	0.40
47:B0:41:ARG:HD3	47:B0:44:ARG:HD2	2.03	0.40
7:CG:46:ALA:O	7:CG:49:ILE:N	2.53	0.40
29:BE:93:VAL:HG13	29:BE:182:LEU:HD13	2.03	0.40
11:AK:108:ILE:O	18:AR:86:VAL:HG13	2.21	0.40
36:BP:113:LYS:HG2	36:BP:115:LEU:HD22	2.03	0.40
40:BT:102:ILE:HG13	40:BT:102:ILE:H	1.40	0.40
40:BT:113:LYS:HA	40:BT:113:LYS:HD2	1.92	0.40
34:DN:26:LEU:HD23	34:DN:99:LEU:HD21	2.04	0.40
8:AH:58:TYR:HB3	8:AH:59:LEU:H	1.77	0.40
22:AW:58:A:C2	22:AW:61:C:C6	3.09	0.40
39:DS:48:LEU:N	39:DS:48:LEU:CD1	2.85	0.40
8:AH:84:ARG:CG	8:AH:85:ARG:N	2.77	0.40
28:DD:147:LEU:HD13	28:DD:155:LEU:CD1	2.48	0.40
46:BZ:129:SER:HA	46:BZ:130:PRO:HD3	1.94	0.40
1:CA:1269:A:H2'	1:CA:1270:A:C8	2.57	0.40
10:AJ:95:GLU:HA	10:AJ:95:GLU:OE2	2.21	0.40
10:CJ:78:ASN:HD21	10:CJ:80:LYS:HB2	1.84	0.40
1:CA:343:G:O2'	1:CA:344:A:OP1	2.38	0.40
19:CS:32:LYS:HG2	19:CS:57:HIS:CD2	2.56	0.40
25:DA:2327:A:H2'	25:DA:2328:A:O4'	2.21	0.40
5:AE:87:SER:N	5:AE:125:SER:HB3	2.36	0.40
11:AK:21:ILE:HG13	11:AK:30:VAL:CG1	2.49	0.40
25:BA:1264:G:H5'	52:B5:11:THR:HG1	1.83	0.40
3:AC:22:TRP:CE3	3:AC:22:TRP:O	2.74	0.40
25:BA:668:G:H2'	25:BA:670:A:H62	1.86	0.40
50:D3:11:SER:OG	50:D3:12:PRO:HD2	2.21	0.40
18:CR:47:THR:O	18:CR:83:GLU:HG2	2.21	0.40
8:CH:30:ARG:NH1	8:CH:30:ARG:HB3	2.37	0.40
48:B1:18:ILE:HG22	48:B1:20:ARG:HG3	2.03	0.40
1:AA:536:A:H2'	1:AA:537:C:C6	2.56	0.40
1:AA:442:A:C5	1:AA:471:A:C2	3.10	0.40
9:AI:58:HIS:C	9:AI:59:PHE:CD1	2.95	0.40
34:DN:78:TYR:H	34:DN:78:TYR:HD1	1.68	0.40
25:DA:2256:G:O2'	25:DA:2257:U:H5'	2.22	0.40
1:CA:521:G:H5''	12:CL:114:LYS:HB2	2.03	0.40
27:DC:196:LEU:C	27:DC:198:ALA:N	2.74	0.40
17:AQ:74:LEU:HA	17:AQ:74:LEU:HD22	1.87	0.40
1:CA:525:G:H5'	4:CD:41:GLY:HA3	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1216:G:OP2	41:DU:12:ARG:NH2	2.47	0.40
25:DA:1149:G:H2'	25:DA:1150:C:C6	2.57	0.40
1:AA:926:A:C2	1:AA:1214:G:C2	3.09	0.40
22:CW:53:G:C2'	22:CW:54:U:O5'	2.70	0.40
33:BI:117:GLU:O	33:BI:118:LYS:C	2.57	0.40
25:BA:2528:U:P	56:B9:30:PRO:HG2	2.62	0.40
1:CA:227:G:C5	1:CA:228:C:C5	3.09	0.40
2:AB:17:PHE:H	2:AB:17:PHE:HD2	1.68	0.40
25:DA:621:A:H2'	25:DA:622:G:C5'	2.50	0.40
3:CC:127:ARG:NH1	3:CC:127:ARG:HG2	2.37	0.40
1:CA:371:G:OP1	16:CP:5:ARG:HB2	2.21	0.40
1:CA:1477:A:C2'	1:CA:1478:C:H5'	2.52	0.40
25:BA:1362:C:O2'	25:BA:1363:C:H5'	2.22	0.40
1:AA:171:C:OP1	20:AT:65:LYS:NZ	2.45	0.40
1:AA:744:G:C5	1:AA:745:C:C5	3.10	0.40
6:CF:96:PRO:HB3	18:CR:30:ASP:CG	2.42	0.40
8:CH:21:LYS:HB2	8:CH:21:LYS:HE3	1.98	0.40
28:BD:268:ARG:HB3	28:BD:268:ARG:CZ	2.51	0.40
25:BA:2116:G:O2'	25:BA:2117:A:OP1	2.38	0.40
25:BA:1555:G:N2	25:BA:1556:C:C2	2.89	0.40
13:AM:73:GLU:O	13:AM:77:ASN:HB2	2.21	0.40
25:BA:1014:U:H2'	25:BA:1015:G:H8	1.87	0.40
25:BA:660:G:H5'	30:BF:99:TYR:CD2	2.56	0.40
25:DA:182:A:H2'	25:DA:183:C:O4'	2.20	0.40
47:D0:45:PHE:N	47:D0:45:PHE:CD1	2.89	0.40
4:AD:135:LEU:HD13	4:AD:135:LEU:N	2.37	0.40
1:AA:1057:C:O5'	1:AA:1057:C:H6	2.04	0.40
25:DA:2231:C:H2'	25:DA:2232:U:O4'	2.21	0.40
4:AD:87:GLY:O	4:AD:89:THR:N	2.54	0.40
25:BA:1341:U:H2'	25:BA:1397:U:O2	2.20	0.40
25:BA:2585:U:C6	25:BA:2585:U:H3'	2.57	0.40
25:BA:2810:A:O2'	29:BE:61:ARG:HB2	2.21	0.40
25:DA:2810:A:H2'	29:DE:61:ARG:CZ	2.52	0.40
20:CT:55:ILE:O	20:CT:58:LYS:HB3	2.21	0.40
25:BA:2260:C:O5'	25:BA:2260:C:H6	2.04	0.40
49:B2:59:ARG:O	49:B2:62:THR:HB	2.21	0.40
25:DA:1183:G:O3'	50:D3:29:ARG:NH1	2.55	0.40
42:BV:39:LEU:HD22	42:BV:39:LEU:N	2.36	0.40
42:BV:39:LEU:CB	42:BV:47:VAL:HG11	2.31	0.40
22:CW:4:C:N3	22:CW:70:G:C2	2.90	0.40
1:AA:1421:C:H5'	1:AA:1422:C:OP2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:271(H):G:O6	25:DA:271(Q):G:C6	2.75	0.40
25:DA:332:A:O2'	25:DA:333:G:O5'	2.38	0.40
45:DY:16:ALA:HB1	45:DY:21:LYS:NZ	2.37	0.40
20:AT:41:ILE:HG13	20:AT:42:GLN:N	2.36	0.40
55:B8:22:VAL:CG2	55:B8:53:PRO:HB2	2.52	0.40
25:BA:2391:G:C1'	25:BA:2429:G:N2	2.78	0.40
36:BP:51:PHE:CZ	36:BP:52:GLU:OE1	2.75	0.40
25:BA:272:G:C6	25:BA:421:U:N3	2.84	0.40
55:D8:61:LEU:HD12	55:D8:63:PRO:HD2	2.04	0.40
42:DV:45:THR:O	42:DV:46:VAL:O	2.40	0.40
39:BS:20:ARG:HA	39:BS:20:ARG:HD3	1.76	0.40
25:BA:615:G:C2	25:BA:616:G:C4	3.10	0.40
7:AG:120:ILE:HG22	7:AG:124:LEU:HD12	2.03	0.40
8:CH:37:ARG:HH21	8:CH:38:ILE:CG1	2.34	0.40
23:AV:21:U:O2	23:AV:21:U:O4'	2.40	0.40
24:CX:13:A:H5'	24:CX:14:A:OP2	2.21	0.40
25:DA:856:C:H4'	25:DA:857:C:OP1	2.21	0.40
42:DV:25:LEU:HB2	42:DV:92:THR:HG21	2.04	0.40
33:DI:38:LEU:HB2	33:DI:40:THR:HG23	2.02	0.40
53:D6:15:GLU:CG	53:D6:15:GLU:O	2.60	0.40
33:DI:87:LYS:HB2	33:DI:121:LYS:O	2.21	0.40
36:DP:7:ARG:O	36:DP:9:ASN:N	2.55	0.40
26:DB:16:G:O2'	26:DB:17:C:H5'	2.20	0.40
25:BA:2562:U:H1'	35:BO:23:ARG:HH12	1.75	0.40
28:BD:28:GLU:N	28:BD:29:PRO:CD	2.64	0.40
25:BA:549:G:O5'	25:BA:549:G:C8	2.62	0.40
2:AB:207:ALA:C	2:AB:209:ARG:H	2.24	0.40
25:DA:298:G:H1'	25:DA:340:A:H61	1.87	0.40
1:AA:451:C:C4	1:AA:452:C:N4	2.89	0.40
25:BA:1140:C:H1'	25:BA:1143:A:N3	2.37	0.40
25:DA:1287:A:C4	25:DA:1288:U:C4	3.07	0.40
25:BA:1287:A:C4	25:BA:1288:U:C4	3.07	0.40
10:AJ:32:ALA:N	10:AJ:76:ASN:HD22	2.17	0.40
40:BT:93:ARG:HB3	40:BT:94:ALA:H	1.77	0.40
25:BA:2630:G:H1'	25:BA:2894:G:C4	2.57	0.40
46:DZ:171:ILE:O	46:DZ:172:ALA:CB	2.70	0.40
25:DA:1300:U:O2	25:DA:1626:G:H2'	2.21	0.40
38:BR:54:LEU:HD21	38:BR:65:LEU:HB3	2.03	0.40
25:DA:1174:A:H3'	25:DA:1174:A:N3	2.37	0.40
2:AB:80:ILE:O	2:AB:82:ARG:N	2.54	0.40
28:BD:221:VAL:HG22	28:BD:226:MET:HE3	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:50:ILE:CG2	7:AG:61:VAL:HG21	2.51	0.40
40:DT:3:ARG:HB2	40:DT:6:LEU:CB	2.51	0.40
36:DP:111:ARG:HG3	36:DP:111:ARG:HH21	1.86	0.40
23:AV:34:U:H2'	23:AV:35:C:C3'	2.46	0.40
3:AC:191:THR:HB	3:AC:192:THR:H	1.79	0.40
3:AC:196:LEU:HB3	3:AC:197:GLY:H	1.73	0.40
48:B1:67:ILE:O	48:B1:70:VAL:HB	2.21	0.40
19:AS:16:LEU:H	19:AS:16:LEU:CD1	2.35	0.40
23:AV:75:C:C2	25:BA:2253:G:N2	2.90	0.40
1:CA:608:G:H4'	16:CP:16:HIS:CD2	2.57	0.40
11:CK:48:ILE:CD1	11:CK:64:ALA:HA	2.45	0.40
46:DZ:100:VAL:HG12	46:DZ:136:PHE:HA	2.03	0.40
2:CB:131:PRO:HG2	2:CB:134:GLU:CB	2.45	0.40
1:AA:1005:C:C3'	1:AA:1005:C:C6	3.04	0.40
11:AK:59:TYR:O	11:AK:63:LEU:HB2	2.21	0.40
1:CA:626:C:H5'	8:CH:31:PHE:CE1	2.57	0.40
46:BZ:33:LEU:CG	46:BZ:34:ASN:N	2.83	0.40
33:DI:84:GLY:O	33:DI:85:GLU:CB	2.60	0.40
47:D0:51:VAL:HG21	47:D0:80:HIS:HA	2.03	0.40
47:D0:9:SER:OG	47:D0:10:THR:N	2.50	0.40
25:BA:496:G:H1'	43:BW:61:ASN:OD1	2.21	0.40
1:CA:1056:G:C1'	2:CB:104:ASN:HD22	2.35	0.40
25:BA:1419:A:H2'	25:BA:1421:G:N7	2.35	0.40
1:CA:653:G:C6	1:CA:654:G:N7	2.90	0.40
27:BC:86:ALA:HB2	27:BC:152:ILE:CB	2.51	0.40
1:CA:1044:U:H2'	1:CA:1045:C:C6	2.56	0.40
3:CC:119:ARG:HG3	3:CC:119:ARG:NH1	2.36	0.40
25:BA:1497:U:H3	25:BA:1578:U:P	2.44	0.40
28:BD:176:ARG:CG	28:BD:176:ARG:NH1	2.83	0.40
33:DI:11:ASN:O	33:DI:12:LEU:CB	2.68	0.40
1:CA:259:U:O2'	17:CQ:64:PRO:HB2	2.21	0.40
3:AC:91:LEU:O	3:AC:95:THR:HB	2.22	0.40
3:CC:92:ALA:O	3:CC:94:LEU:N	2.55	0.40
22:AW:41:C:C2	22:AW:42:C:C5	3.10	0.40
1:CA:1291:G:O2'	1:CA:1292:G:H5'	2.21	0.40
1:AA:1308:C:H2'	1:AA:1309:C:C6	2.57	0.40
25:DA:988:A:C5	50:D3:13:ILE:HG21	2.57	0.40
2:AB:213:LEU:O	2:AB:216:SER:HB3	2.22	0.40
25:DA:1176:G:O2'	25:DA:1177:A:C5'	2.70	0.40
40:BT:15:VAL:HG23	40:BT:79:HIS:NE2	2.36	0.40
25:BA:1175:U:H5''	25:BA:1176:G:H8	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:126:LYS:C	12:AL:128:ALA:N	2.75	0.40
25:DA:2720:U:C5'	25:DA:2721:A:OP2	2.70	0.40
12:CL:86:ARG:HB2	12:CL:101:VAL:HG23	2.02	0.40
1:CA:414:C:C2'	1:CA:414:C:O2	2.66	0.40
1:CA:869:A:H2'	1:CA:870:C:C6	2.56	0.40
43:DW:17:VAL:O	43:DW:20:VAL:N	2.49	0.40
12:AL:76:ASN:ND2	12:AL:77:LEU:N	2.68	0.40
34:BN:93:THR:O	34:BN:94:HIS:CB	2.70	0.40
25:BA:271(J):C:C2'	25:BA:271(K):U:H5''	2.52	0.40
28:DD:231:HIS:ND1	28:DD:232:PRO:CD	2.85	0.40
30:DF:114:VAL:HG21	30:DF:202:PHE:CE2	2.57	0.40
25:DA:271(X):G:H2'	25:DA:271(Y):U:C6	2.57	0.40
25:BA:271(X):G:H2'	25:BA:271(Y):U:C6	2.57	0.40
25:DA:184:C:H2'	25:DA:185:U:C6	2.56	0.40
29:DE:9:VAL:CG1	29:DE:25:VAL:O	2.69	0.40
25:DA:829:A:N7	25:DA:2248:C:H5'	2.36	0.40
1:CA:691:C:O2'	1:CA:692:G:H5'	2.22	0.40
37:BQ:103:MET:HE1	37:BQ:125:LEU:HD13	2.02	0.40
46:BZ:45:ASP:HB3	46:BZ:46:LYS:H	1.66	0.40
18:CR:32:ARG:O	18:CR:69:THR:HG21	2.21	0.40
3:AC:101:LEU:HD23	3:AC:102:ASN:O	2.21	0.40
36:BP:24:GLY:O	36:BP:25:SER:HB3	2.20	0.40
15:AO:27:VAL:O	15:AO:31:LEU:HB2	2.21	0.40
13:CM:29:ARG:HB3	13:CM:64:TRP:CZ2	2.57	0.40
4:AD:106:TYR:CE1	4:AD:113:SER:HA	2.57	0.40
42:BV:66:ARG:HH11	42:BV:66:ARG:HG2	1.85	0.40
10:AJ:21:GLN:HG2	10:AJ:21:GLN:O	2.21	0.40
12:CL:73:GLU:HA	12:CL:73:GLU:OE1	2.22	0.40
8:CH:105:ARG:HD3	8:CH:105:ARG:HA	1.89	0.40
42:DV:97:LYS:HD3	42:DV:97:LYS:HA	1.89	0.40
30:BF:197:ASP:O	30:BF:200:GLU:N	2.36	0.40
47:D0:63:VAL:O	47:D0:65:GLY:N	2.54	0.40
4:CD:106:TYR:CE1	4:CD:113:SER:HA	2.56	0.40
25:DA:1956:U:H2'	25:DA:1957:C:H5'	2.04	0.40
35:BO:100:GLY:HA2	35:BO:101:PRO:HD3	1.83	0.40

All (33) 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)
45:BY:55:TYR:CZ	25:DA:355:G:O2'[3_555]	0.78	1.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BY:55:TYR:OH	25:DA:355:G:C2'[3_555]	1.05	1.15
50:B3:1:MET:CB	36:DP:122:PRO:CG[3_455]	1.20	1.00
50:B3:1:MET:CG	36:DP:122:PRO:CB[3_455]	1.33	0.87
45:BY:55:TYR:CE2	25:DA:355:G:O2'[3_555]	1.37	0.83
45:BY:55:TYR:OH	25:DA:355:G:O2'[3_555]	1.38	0.82
45:BY:55:TYR:CZ	25:DA:355:G:C2'[3_555]	1.38	0.82
25:BA:306:U:OP1	49:D2:18:PRO:CG[3_555]	1.49	0.71
28:BD:135:PHE:CZ	4:CD:167:GLY:CA[4_555]	1.52	0.68
42:DV:50:PRO:CD	52:D5:58:LEU:O[4_445]	1.55	0.65
28:BD:135:PHE:CE2	4:CD:167:GLY:CA[4_555]	1.57	0.63
45:BY:55:TYR:CE2	25:DA:355:G:C1'[3_555]	1.62	0.58
32:DH:47:GLU:CA	45:DY:22:GLY:O[4_445]	1.70	0.50
45:BY:55:TYR:CE2	25:DA:355:G:C2'[3_555]	1.75	0.45
43:BW:59:VAL:CG1	45:DY:90:LEU:CD2[3_555]	1.80	0.40
50:B3:1:MET:SD	36:DP:122:PRO:CB[3_455]	1.81	0.39
11:AK:99:GLN:CB	3:CC:79:ARG:NH1[4_555]	1.85	0.35
50:B3:1:MET:N	36:DP:122:PRO:CD[3_455]	1.91	0.29
25:DA:1593:G:O5'	26:DB:55:U:OP1[1_655]	1.91	0.29
50:B3:1:MET:CB	36:DP:122:PRO:CB[3_455]	1.92	0.28
50:B3:1:MET:CB	36:DP:122:PRO:CD[3_455]	1.92	0.28
45:BY:55:TYR:CE1	25:DA:355:G:O2'[3_555]	1.92	0.28
45:BY:55:TYR:OH	25:DA:355:G:C3'[3_555]	1.97	0.23
50:B3:1:MET:CA	36:DP:122:PRO:CD[3_455]	1.99	0.21
50:B3:1:MET:CG	36:DP:122:PRO:CG[3_455]	2.01	0.19
25:BA:2791:C:OP1	32:DH:101:ARG:NH2[2_455]	2.08	0.12
45:BY:56:PRO:CB	25:DA:288:C:O2'[3_555]	2.09	0.11
28:BD:134:ARG:NH1	4:CD:166:LYS:O[4_555]	2.12	0.08
42:DV:50:PRO:CB	52:D5:59:GLU:CA[4_445]	2.12	0.08
45:BY:57:GLN:N	25:DA:288:C:O2'[3_555]	2.15	0.05
28:BD:134:ARG:CZ	4:CD:166:LYS:O[4_555]	2.18	0.02
42:DV:51:VAL:O	52:D5:58:LEU:CD2[4_445]	2.18	0.02
25:BA:1593:G:N3	26:BB:54:G:OP1[1_655]	2.19	0.01

## 5.3 Torsion angles ⓘ

### 5.3.1 Protein backbone ⓘ

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	233/256 (91%)	148 (64%)	65 (28%)	20 (9%)	1	17
2	CB	233/256 (91%)	148 (64%)	65 (28%)	20 (9%)	1	17
3	AC	205/239 (86%)	136 (66%)	45 (22%)	24 (12%)	0	9
3	CC	205/239 (86%)	137 (67%)	43 (21%)	25 (12%)	0	8
4	AD	206/209 (99%)	145 (70%)	40 (19%)	21 (10%)	1	13
4	CD	206/209 (99%)	144 (70%)	40 (19%)	22 (11%)	0	11
5	AE	149/162 (92%)	114 (76%)	19 (13%)	16 (11%)	0	11
5	CE	149/162 (92%)	114 (76%)	19 (13%)	16 (11%)	0	11
6	AF	99/101 (98%)	82 (83%)	13 (13%)	4 (4%)	4	37
6	CF	99/101 (98%)	81 (82%)	15 (15%)	3 (3%)	5	44
7	AG	153/156 (98%)	107 (70%)	32 (21%)	14 (9%)	1	16
7	CG	153/156 (98%)	107 (70%)	32 (21%)	14 (9%)	1	16
8	AH	136/138 (99%)	102 (75%)	26 (19%)	8 (6%)	2	28
8	CH	136/138 (99%)	100 (74%)	28 (21%)	8 (6%)	2	28
9	AI	125/128 (98%)	92 (74%)	21 (17%)	12 (10%)	1	14
9	CI	125/128 (98%)	93 (74%)	22 (18%)	10 (8%)	1	19
10	AJ	97/105 (92%)	66 (68%)	22 (23%)	9 (9%)	1	16
10	CJ	97/105 (92%)	67 (69%)	21 (22%)	9 (9%)	1	16
11	AK	117/129 (91%)	94 (80%)	18 (15%)	5 (4%)	3	35
11	CK	117/129 (91%)	92 (79%)	20 (17%)	5 (4%)	3	35
12	AL	123/132 (93%)	86 (70%)	24 (20%)	13 (11%)	0	11
12	CL	123/132 (93%)	85 (69%)	25 (20%)	13 (11%)	0	11
13	AM	123/126 (98%)	79 (64%)	26 (21%)	18 (15%)	0	5
13	CM	123/126 (98%)	84 (68%)	23 (19%)	16 (13%)	0	7
14	AN	58/61 (95%)	37 (64%)	9 (16%)	12 (21%)	0	2
14	CN	58/61 (95%)	37 (64%)	9 (16%)	12 (21%)	0	2
15	AO	86/89 (97%)	62 (72%)	19 (22%)	5 (6%)	2	28
15	CO	86/89 (97%)	63 (73%)	18 (21%)	5 (6%)	2	28
16	AP	82/88 (93%)	57 (70%)	22 (27%)	3 (4%)	4	39
16	CP	82/88 (93%)	58 (71%)	21 (26%)	3 (4%)	4	39
17	AQ	98/105 (93%)	77 (79%)	14 (14%)	7 (7%)	1	23

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
17	CQ	98/105 (93%)	77 (79%)	13 (13%)	8 (8%)	1	18
18	AR	68/88 (77%)	48 (71%)	15 (22%)	5 (7%)	1	21
18	CR	68/88 (77%)	45 (66%)	17 (25%)	6 (9%)	1	17
19	AS	77/93 (83%)	55 (71%)	11 (14%)	11 (14%)	0	5
19	CS	77/93 (83%)	55 (71%)	12 (16%)	10 (13%)	0	7
20	AT	97/106 (92%)	72 (74%)	14 (14%)	11 (11%)	0	9
20	CT	97/106 (92%)	72 (74%)	15 (16%)	10 (10%)	1	12
21	AU	23/27 (85%)	15 (65%)	4 (17%)	4 (17%)	0	3
21	CU	23/27 (85%)	18 (78%)	3 (13%)	2 (9%)	1	17
27	BC	183/229 (80%)	84 (46%)	45 (25%)	54 (30%)	0	0
27	DC	183/229 (80%)	84 (46%)	44 (24%)	55 (30%)	0	0
28	BD	270/276 (98%)	212 (78%)	33 (12%)	25 (9%)	1	16
28	DD	270/276 (98%)	209 (77%)	36 (13%)	25 (9%)	1	16
29	BE	203/206 (98%)	130 (64%)	35 (17%)	38 (19%)	0	3
29	DE	203/206 (98%)	129 (64%)	36 (18%)	38 (19%)	0	3
30	BF	206/210 (98%)	129 (63%)	54 (26%)	23 (11%)	0	10
30	DF	206/210 (98%)	128 (62%)	55 (27%)	23 (11%)	0	10
31	BG	179/182 (98%)	115 (64%)	39 (22%)	25 (14%)	0	6
31	DG	179/182 (98%)	114 (64%)	39 (22%)	26 (14%)	0	5
32	BH	158/180 (88%)	93 (59%)	31 (20%)	34 (22%)	0	2
32	DH	158/180 (88%)	95 (60%)	31 (20%)	32 (20%)	0	2
33	BI	144/148 (97%)	89 (62%)	28 (19%)	27 (19%)	0	3
33	DI	144/148 (97%)	87 (60%)	30 (21%)	27 (19%)	0	3
34	BN	137/140 (98%)	84 (61%)	33 (24%)	20 (15%)	0	5
34	DN	137/140 (98%)	84 (61%)	33 (24%)	20 (15%)	0	5
35	BO	120/122 (98%)	88 (73%)	25 (21%)	7 (6%)	2	28
35	DO	120/122 (98%)	94 (78%)	16 (13%)	10 (8%)	1	18
36	BP	144/150 (96%)	83 (58%)	32 (22%)	29 (20%)	0	2
36	DP	144/150 (96%)	81 (56%)	33 (23%)	30 (21%)	0	2
37	BQ	139/141 (99%)	104 (75%)	19 (14%)	16 (12%)	0	9
37	DQ	139/141 (99%)	104 (75%)	17 (12%)	18 (13%)	0	7

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
38	BR	115/118 (98%)	83 (72%)	22 (19%)	10 (9%)	1	17
38	DR	115/118 (98%)	83 (72%)	21 (18%)	11 (10%)	1	14
39	BS	97/112 (87%)	38 (39%)	27 (28%)	32 (33%)	0	0
39	DS	97/112 (87%)	38 (39%)	27 (28%)	32 (33%)	0	0
40	BT	136/146 (93%)	82 (60%)	31 (23%)	23 (17%)	0	4
40	DT	136/146 (93%)	88 (65%)	33 (24%)	15 (11%)	0	10
41	BU	115/118 (98%)	70 (61%)	34 (30%)	11 (10%)	1	14
41	DU	115/118 (98%)	70 (61%)	34 (30%)	11 (10%)	1	14
42	BV	99/101 (98%)	63 (64%)	19 (19%)	17 (17%)	0	4
42	DV	99/101 (98%)	64 (65%)	19 (19%)	16 (16%)	0	5
43	BW	111/113 (98%)	75 (68%)	24 (22%)	12 (11%)	0	11
43	DW	111/113 (98%)	75 (68%)	24 (22%)	12 (11%)	0	11
44	BX	91/96 (95%)	66 (72%)	20 (22%)	5 (6%)	2	30
44	DX	91/96 (95%)	66 (72%)	20 (22%)	5 (6%)	2	30
45	BY	99/110 (90%)	54 (54%)	18 (18%)	27 (27%)	0	0
45	DY	99/110 (90%)	53 (54%)	16 (16%)	30 (30%)	0	0
46	BZ	175/206 (85%)	103 (59%)	35 (20%)	37 (21%)	0	2
46	DZ	175/206 (85%)	103 (59%)	35 (20%)	37 (21%)	0	2
47	B0	82/85 (96%)	63 (77%)	12 (15%)	7 (8%)	1	17
47	D0	82/85 (96%)	63 (77%)	12 (15%)	7 (8%)	1	17
48	B1	92/98 (94%)	64 (70%)	19 (21%)	9 (10%)	1	14
48	D1	92/98 (94%)	64 (70%)	19 (21%)	9 (10%)	1	14
49	B2	69/72 (96%)	47 (68%)	13 (19%)	9 (13%)	0	7
49	D2	69/72 (96%)	51 (74%)	9 (13%)	9 (13%)	0	7
50	B3	58/60 (97%)	41 (71%)	7 (12%)	10 (17%)	0	4
50	D3	58/60 (97%)	41 (71%)	7 (12%)	10 (17%)	0	4
51	B4	29/71 (41%)	15 (52%)	7 (24%)	7 (24%)	0	1
51	D4	29/71 (41%)	15 (52%)	7 (24%)	7 (24%)	0	1
52	B5	57/60 (95%)	42 (74%)	8 (14%)	7 (12%)	0	8
52	D5	57/60 (95%)	42 (74%)	8 (14%)	7 (12%)	0	8
53	B6	43/54 (80%)	20 (46%)	12 (28%)	11 (26%)	0	1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
53	D6	43/54 (80%)	20 (46%)	12 (28%)	11 (26%)	0	1
54	B7	47/49 (96%)	44 (94%)	2 (4%)	1 (2%)	9	51
54	D7	47/49 (96%)	44 (94%)	2 (4%)	1 (2%)	9	51
55	B8	62/65 (95%)	40 (64%)	13 (21%)	9 (14%)	0	5
55	D8	62/65 (95%)	39 (63%)	14 (23%)	9 (14%)	0	5
56	B9	34/37 (92%)	27 (79%)	6 (18%)	1 (3%)	6	45
56	D9	34/37 (92%)	27 (79%)	6 (18%)	1 (3%)	6	45
All	All	11698/12586 (93%)	7854 (67%)	2318 (20%)	1526 (13%)	0	7

All (1526) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	9	GLU
2	AB	15	VAL
2	AB	20	GLU
2	AB	88	ALA
2	AB	195	ASP
2	AB	238	LEU
2	AB	239	VAL
3	AC	15	THR
3	AC	47	LEU
3	AC	61	ALA
3	AC	113	ALA
3	AC	189	ALA
3	AC	190	ARG
3	AC	207	VAL
4	AD	3	ARG
4	AD	14	ARG
4	AD	30	LYS
5	AE	16	THR
5	AE	146	ALA
7	AG	33	ASP
7	AG	52	GLU
7	AG	53	LYS
7	AG	58	PRO
7	AG	77	SER
7	AG	116	ALA
8	AH	68	ARG
8	AH	86	ILE
9	AI	89	ASN

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Mol	Chain	Res	Type
9	AI	111	ARG
9	AI	117	HIS
10	AJ	32	ALA
10	AJ	57	LYS
12	AL	18	VAL
12	AL	47	LYS
13	AM	12	ASN
13	AM	59	TYR
13	AM	83	ASP
13	AM	104	ARG
13	AM	113	PRO
13	AM	117	VAL
14	AN	14	PRO
14	AN	16	PHE
14	AN	23	ARG
14	AN	24	CYS
17	AQ	78	GLU
18	AR	20	ALA
18	AR	36	ASN
18	AR	87	ARG
19	AS	28	LYS
19	AS	30	LEU
21	AU	3	LYS
21	AU	7	ARG
27	BC	20	TYR
27	BC	35	ALA
27	BC	38	ASP
27	BC	46	LYS
27	BC	58	VAL
27	BC	63	SER
27	BC	108	MET
27	BC	120	MET
27	BC	122	ALA
27	BC	140	PRO
27	BC	142	ALA
27	BC	148	ASN
27	BC	153	ILE
27	BC	156	ILE
27	BC	167	LYS
27	BC	173	ALA
27	BC	174	PRO
27	BC	179	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
27	BC	182	PRO
27	BC	220	PRO
27	BC	222	VAL
28	BD	25	THR
28	BD	58	HIS
28	BD	169	GLU
28	BD	225	ALA
28	BD	239	ARG
28	BD	267	SER
28	BD	271	ILE
29	BE	4	ILE
29	BE	18	ASP
29	BE	35	GLN
29	BE	44	TYR
29	BE	53	PRO
29	BE	56	PRO
29	BE	59	VAL
29	BE	60	ASN
29	BE	71	GLY
29	BE	73	GLU
29	BE	75	VAL
29	BE	77	ILE
29	BE	84	PHE
29	BE	89	ASP
29	BE	118	LYS
29	BE	169	ASN
29	BE	186	GLY
30	BF	68	LYS
30	BF	89	VAL
30	BF	128	ALA
30	BF	132	VAL
30	BF	134	GLY
30	BF	168	ARG
30	BF	169	ASN
31	BG	14	GLU
31	BG	81	LYS
31	BG	86	MET
31	BG	87	PRO
31	BG	96	ARG
31	BG	97	ASP
31	BG	126	ASP
32	BH	54	ARG

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Mol	Chain	Res	Type
32	BH	55	PRO
32	BH	83	TYR
32	BH	92	ILE
32	BH	98	LEU
32	BH	108	GLY
32	BH	127	GLU
32	BH	155	SER
32	BH	156	ALA
32	BH	159	GLU
32	BH	165	ALA
33	BI	12	LEU
33	BI	15	VAL
33	BI	42	SER
33	BI	77	LEU
33	BI	85	GLU
33	BI	86	THR
33	BI	92	VAL
33	BI	93	THR
33	BI	120	ILE
33	BI	121	LYS
33	BI	133	HIS
34	BN	4	TYR
34	BN	42	TRP
34	BN	57	ALA
34	BN	58	ASP
34	BN	132	ALA
35	BO	114	ILE
35	BO	115	VAL
36	BP	9	ASN
36	BP	14	LYS
36	BP	17	LYS
36	BP	18	ARG
36	BP	31	ALA
36	BP	47	ASP
36	BP	108	LYS
36	BP	147	LEU
37	BQ	2	LEU
37	BQ	5	ARG
37	BQ	60	ARG
37	BQ	134	ARG
37	BQ	135	ASP
37	BQ	138	ASP

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Mol	Chain	Res	Type
38	BR	8	ARG
38	BR	9	LYS
38	BR	12	ARG
38	BR	14	SER
38	BR	107	ASP
39	BS	23	ARG
39	BS	35	ILE
39	BS	57	LYS
39	BS	58	LEU
39	BS	59	LYS
39	BS	62	LYS
39	BS	74	ALA
39	BS	87	PHE
39	BS	88	ASP
39	BS	94	TYR
39	BS	97	ARG
39	BS	100	ALA
40	BT	12	SER
40	BT	32	TYR
40	BT	58	ASN
40	BT	80	SER
40	BT	107	ASP
40	BT	129	ARG
40	BT	133	GLU
41	BU	25	TRP
41	BU	32	PHE
42	BV	15	GLU
42	BV	16	PRO
42	BV	18	LEU
42	BV	19	LYS
42	BV	28	GLU
42	BV	29	PRO
42	BV	46	VAL
42	BV	53	GLU
43	BW	11	ARG
44	BX	4	ALA
44	BX	12	VAL
45	BY	7	VAL
45	BY	44	ILE
45	BY	53	PRO
45	BY	68	HIS
45	BY	77	PRO

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Mol	Chain	Res	Type
45	BY	78	ALA
45	BY	90	LEU
45	BY	96	ILE
46	BZ	31	ARG
46	BZ	45	ASP
46	BZ	111	VAL
46	BZ	136	PHE
46	BZ	165	VAL
47	B0	55	ARG
47	B0	64	ASP
47	B0	83	PRO
48	B1	53	VAL
48	B1	58	ILE
49	B2	44	LEU
49	B2	47	ASN
49	B2	70	GLN
51	B4	46	ASN
51	B4	52	SER
52	B5	4	HIS
52	B5	34	PRO
52	B5	57	VAL
53	B6	16	CYS
53	B6	19	ARG
53	B6	25	LYS
53	B6	26	ASN
53	B6	28	ARG
53	B6	46	HIS
53	B6	52	VAL
55	B8	3	LYS
55	B8	34	TRP
2	CB	9	GLU
2	CB	15	VAL
2	CB	20	GLU
2	CB	88	ALA
2	CB	195	ASP
2	CB	238	LEU
2	CB	239	VAL
3	CC	15	THR
3	CC	47	LEU
3	CC	61	ALA
3	CC	113	ALA
3	CC	189	ALA

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Mol	Chain	Res	Type
3	CC	190	ARG
3	CC	207	VAL
4	CD	3	ARG
4	CD	4	TYR
4	CD	14	ARG
4	CD	30	LYS
5	CE	16	THR
5	CE	146	ALA
7	CG	33	ASP
7	CG	58	PRO
7	CG	77	SER
7	CG	116	ALA
8	CH	68	ARG
8	CH	86	ILE
9	CI	89	ASN
9	CI	111	ARG
10	CJ	32	ALA
10	CJ	57	LYS
12	CL	18	VAL
12	CL	47	LYS
13	CM	59	TYR
13	CM	83	ASP
13	CM	101	GLN
13	CM	104	ARG
13	CM	113	PRO
13	CM	117	VAL
14	CN	14	PRO
14	CN	16	PHE
14	CN	23	ARG
14	CN	24	CYS
17	CQ	78	GLU
18	CR	20	ALA
18	CR	36	ASN
18	CR	45	SER
18	CR	87	ARG
19	CS	28	LYS
19	CS	30	LEU
21	CU	3	LYS
21	CU	25	LYS
27	DC	20	TYR
27	DC	35	ALA
27	DC	38	ASP

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Mol	Chain	Res	Type
27	DC	46	LYS
27	DC	58	VAL
27	DC	63	SER
27	DC	108	MET
27	DC	120	MET
27	DC	122	ALA
27	DC	140	PRO
27	DC	142	ALA
27	DC	148	ASN
27	DC	153	ILE
27	DC	156	ILE
27	DC	167	LYS
27	DC	173	ALA
27	DC	174	PRO
27	DC	179	SER
27	DC	182	PRO
27	DC	220	PRO
27	DC	222	VAL
28	DD	25	THR
28	DD	58	HIS
28	DD	169	GLU
28	DD	225	ALA
28	DD	239	ARG
28	DD	267	SER
28	DD	271	ILE
29	DE	4	ILE
29	DE	18	ASP
29	DE	35	GLN
29	DE	44	TYR
29	DE	54	GLN
29	DE	56	PRO
29	DE	59	VAL
29	DE	60	ASN
29	DE	71	GLY
29	DE	73	GLU
29	DE	75	VAL
29	DE	77	ILE
29	DE	84	PHE
29	DE	89	ASP
29	DE	118	LYS
29	DE	169	ASN
29	DE	186	GLY

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Mol	Chain	Res	Type
30	DF	68	LYS
30	DF	89	VAL
30	DF	128	ALA
30	DF	132	VAL
30	DF	134	GLY
30	DF	168	ARG
30	DF	169	ASN
31	DG	14	GLU
31	DG	81	LYS
31	DG	86	MET
31	DG	87	PRO
31	DG	96	ARG
31	DG	97	ASP
31	DG	110	ALA
31	DG	114	ILE
31	DG	126	ASP
32	DH	55	PRO
32	DH	83	TYR
32	DH	92	ILE
32	DH	98	LEU
32	DH	108	GLY
32	DH	127	GLU
32	DH	155	SER
32	DH	156	ALA
32	DH	159	GLU
32	DH	165	ALA
33	DI	12	LEU
33	DI	15	VAL
33	DI	42	SER
33	DI	77	LEU
33	DI	85	GLU
33	DI	86	THR
33	DI	92	VAL
33	DI	93	THR
33	DI	120	ILE
33	DI	121	LYS
33	DI	133	HIS
34	DN	4	TYR
34	DN	42	TRP
34	DN	57	ALA
34	DN	58	ASP
34	DN	132	ALA

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Mol	Chain	Res	Type
35	DO	28	SER
35	DO	48	PRO
36	DP	9	ASN
36	DP	14	LYS
36	DP	17	LYS
36	DP	18	ARG
36	DP	31	ALA
36	DP	47	ASP
36	DP	108	LYS
36	DP	147	LEU
37	DQ	2	LEU
37	DQ	5	ARG
37	DQ	60	ARG
37	DQ	134	ARG
37	DQ	135	ASP
37	DQ	138	ASP
38	DR	8	ARG
38	DR	9	LYS
38	DR	12	ARG
38	DR	14	SER
38	DR	107	ASP
39	DS	23	ARG
39	DS	35	ILE
39	DS	57	LYS
39	DS	58	LEU
39	DS	59	LYS
39	DS	62	LYS
39	DS	74	ALA
39	DS	87	PHE
39	DS	88	ASP
39	DS	94	TYR
39	DS	97	ARG
39	DS	100	ALA
40	DT	24	PRO
40	DT	40	THR
40	DT	80	SER
41	DU	25	TRP
41	DU	32	PHE
42	DV	15	GLU
42	DV	16	PRO
42	DV	18	LEU
42	DV	19	LYS

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Mol	Chain	Res	Type
42	DV	28	GLU
42	DV	29	PRO
42	DV	46	VAL
42	DV	53	GLU
43	DW	11	ARG
44	DX	4	ALA
44	DX	12	VAL
45	DY	7	VAL
45	DY	44	ILE
45	DY	53	PRO
45	DY	56	PRO
45	DY	68	HIS
45	DY	77	PRO
45	DY	78	ALA
45	DY	90	LEU
45	DY	96	ILE
45	DY	101	LYS
46	DZ	31	ARG
46	DZ	45	ASP
46	DZ	111	VAL
46	DZ	136	PHE
46	DZ	165	VAL
47	D0	55	ARG
47	D0	64	ASP
47	D0	83	PRO
48	D1	53	VAL
48	D1	58	ILE
49	D2	43	GLN
49	D2	44	LEU
49	D2	47	ASN
49	D2	70	GLN
51	D4	46	ASN
51	D4	52	SER
52	D5	4	HIS
52	D5	34	PRO
52	D5	57	VAL
53	D6	16	CYS
53	D6	19	ARG
53	D6	25	LYS
53	D6	26	ASN
53	D6	28	ARG
53	D6	46	HIS

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Mol	Chain	Res	Type
53	D6	52	VAL
55	D8	3	LYS
55	D8	34	TRP
2	AB	18	GLY
2	AB	65	GLY
2	AB	167	PRO
3	AC	4	LYS
3	AC	41	GLY
3	AC	45	LYS
3	AC	62	ASP
3	AC	145	GLY
4	AD	4	TYR
4	AD	24	GLU
4	AD	26	CYS
4	AD	88	VAL
5	AE	6	PHE
5	AE	85	GLY
5	AE	137	GLU
5	AE	147	ASP
6	AF	62	TRP
7	AG	6	ARG
7	AG	14	PRO
7	AG	54	THR
7	AG	155	ARG
8	AH	2	LEU
8	AH	20	TYR
8	AH	71	GLY
8	AH	105	ARG
9	AI	11	LYS
9	AI	12	GLU
9	AI	44	VAL
9	AI	95	LYS
9	AI	100	GLY
9	AI	121	ARG
10	AJ	36	GLY
10	AJ	51	ARG
10	AJ	84	GLN
10	AJ	88	LEU
12	AL	6	THR
12	AL	65	GLU
12	AL	77	LEU
12	AL	80	HIS

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Mol	Chain	Res	Type
12	AL	115	LYS
13	AM	64	TRP
13	AM	67	GLU
13	AM	95	GLY
14	AN	22	THR
14	AN	56	VAL
14	AN	59	ALA
14	AN	60	SER
15	AO	88	ARG
16	AP	63	GLY
17	AQ	33	GLY
17	AQ	99	SER
18	AR	45	SER
19	AS	26	GLY
19	AS	62	ILE
19	AS	80	TYR
20	AT	49	ALA
20	AT	62	LEU
20	AT	97	ALA
21	AU	25	LYS
27	BC	55	ASP
27	BC	78	ALA
27	BC	89	ALA
27	BC	128	GLY
27	BC	133	PRO
27	BC	175	VAL
27	BC	183	GLU
27	BC	209	LEU
27	BC	217	THR
28	BD	3	VAL
28	BD	11	PRO
28	BD	12	SER
28	BD	24	ILE
28	BD	27	THR
28	BD	32	SER
28	BD	33	LEU
28	BD	236	GLY
29	BE	2	LYS
29	BE	29	GLY
29	BE	57	LYS
29	BE	69	LYS
29	BE	76	ARG

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Mol	Chain	Res	Type
29	BE	82	ARG
29	BE	117	MET
29	BE	129	HIS
29	BE	162	ALA
29	BE	189	PRO
30	BF	4	VAL
30	BF	21	ALA
30	BF	25	PRO
30	BF	86	GLY
30	BF	131	GLY
31	BG	27	ASN
31	BG	47	LYS
31	BG	82	LEU
31	BG	110	ALA
31	BG	115	ARG
31	BG	124	SER
32	BH	49	VAL
32	BH	53	GLU
32	BH	138	LYS
32	BH	158	HIS
33	BI	16	GLY
33	BI	81	VAL
33	BI	91	SER
33	BI	95	LYS
33	BI	101	LEU
33	BI	145	VAL
34	BN	8	GLN
34	BN	44	PRO
34	BN	47	ALA
34	BN	64	GLY
34	BN	66	LYS
35	BO	48	PRO
36	BP	11	GLY
36	BP	36	LYS
36	BP	65	ARG
36	BP	83	VAL
36	BP	107	LYS
36	BP	111	ARG
36	BP	122	PRO
36	BP	146	VAL
37	BQ	7	MET
37	BQ	15	GLY

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Mol	Chain	Res	Type
37	BQ	28	ALA
37	BQ	47	ILE
37	BQ	59	ARG
38	BR	78	LYS
38	BR	82	GLU
39	BS	78	LEU
39	BS	79	ALA
39	BS	83	LYS
39	BS	85	VAL
39	BS	90	GLY
39	BS	92	TYR
39	BS	102	ALA
39	BS	103	GLU
39	BS	104	GLY
40	BT	68	TYR
40	BT	83	ILE
40	BT	88	ILE
40	BT	92	GLY
40	BT	97	ALA
40	BT	131	ALA
41	BU	62	ILE
42	BV	31	ALA
42	BV	79	VAL
43	BW	49	LYS
43	BW	98	LYS
43	BW	111	HIS
44	BX	45	THR
45	BY	3	VAL
45	BY	26	LYS
45	BY	38	ILE
45	BY	39	VAL
45	BY	41	GLY
45	BY	47	LYS
45	BY	99	CYS
45	BY	101	LYS
46	BZ	30	ASN
46	BZ	38	TYR
46	BZ	53	ILE
46	BZ	56	VAL
46	BZ	78	LYS
46	BZ	93	ASP
46	BZ	112	ARG

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Mol	Chain	Res	Type
46	BZ	145	GLU
46	BZ	172	ALA
46	BZ	177	PRO
47	B0	13	GLY
48	B1	28	GLY
48	B1	30	VAL
48	B1	45	ASN
48	B1	85	LEU
49	B2	14	ARG
49	B2	41	ILE
49	B2	43	GLN
49	B2	48	HIS
50	B3	13	ILE
50	B3	29	ARG
51	B4	54	LYS
52	B5	33	CYS
52	B5	51	TYR
2	CB	18	GLY
2	CB	65	GLY
2	CB	167	PRO
3	CC	4	LYS
3	CC	41	GLY
3	CC	45	LYS
3	CC	62	ASP
3	CC	145	GLY
4	CD	24	GLU
4	CD	26	CYS
4	CD	88	VAL
5	CE	6	PHE
5	CE	85	GLY
5	CE	137	GLU
5	CE	147	ASP
6	CF	62	TRP
7	CG	6	ARG
7	CG	14	PRO
7	CG	52	GLU
7	CG	53	LYS
7	CG	54	THR
7	CG	155	ARG
8	CH	2	LEU
8	CH	20	TYR
8	CH	71	GLY

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Mol	Chain	Res	Type
9	CI	11	LYS
9	CI	44	VAL
9	CI	95	LYS
9	CI	100	GLY
10	CJ	36	GLY
10	CJ	84	GLN
10	CJ	88	LEU
11	CK	117	ASN
11	CK	122	LYS
12	CL	6	THR
12	CL	65	GLU
12	CL	77	LEU
12	CL	115	LYS
13	CM	95	GLY
14	CN	22	THR
14	CN	56	VAL
14	CN	60	SER
15	CO	88	ARG
16	CP	63	GLY
17	CQ	33	GLY
17	CQ	68	ARG
17	CQ	99	SER
19	CS	26	GLY
19	CS	62	ILE
19	CS	80	TYR
20	CT	49	ALA
27	DC	55	ASP
27	DC	78	ALA
27	DC	89	ALA
27	DC	128	GLY
27	DC	133	PRO
27	DC	175	VAL
27	DC	183	GLU
27	DC	209	LEU
27	DC	217	THR
28	DD	3	VAL
28	DD	12	SER
28	DD	24	ILE
28	DD	27	THR
28	DD	32	SER
28	DD	33	LEU
28	DD	236	GLY

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Mol	Chain	Res	Type
29	DE	2	LYS
29	DE	29	GLY
29	DE	57	LYS
29	DE	69	LYS
29	DE	76	ARG
29	DE	82	ARG
29	DE	117	MET
29	DE	129	HIS
29	DE	131	ALA
29	DE	162	ALA
29	DE	189	PRO
30	DF	4	VAL
30	DF	21	ALA
30	DF	25	PRO
30	DF	86	GLY
30	DF	131	GLY
31	DG	27	ASN
31	DG	47	LYS
31	DG	82	LEU
31	DG	115	ARG
31	DG	124	SER
32	DH	42	ARG
32	DH	49	VAL
32	DH	138	LYS
32	DH	158	HIS
33	DI	16	GLY
33	DI	81	VAL
33	DI	91	SER
33	DI	95	LYS
33	DI	101	LEU
33	DI	145	VAL
34	DN	8	GLN
34	DN	44	PRO
34	DN	47	ALA
34	DN	64	GLY
34	DN	66	LYS
36	DP	11	GLY
36	DP	65	ARG
36	DP	83	VAL
36	DP	107	LYS
36	DP	111	ARG
36	DP	122	PRO

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Mol	Chain	Res	Type
36	DP	146	VAL
37	DQ	7	MET
37	DQ	15	GLY
37	DQ	22	LYS
37	DQ	28	ALA
37	DQ	47	ILE
37	DQ	59	ARG
38	DR	78	LYS
38	DR	82	GLU
39	DS	79	ALA
39	DS	83	LYS
39	DS	85	VAL
39	DS	90	GLY
39	DS	92	TYR
39	DS	102	ALA
39	DS	103	GLU
39	DS	104	GLY
40	DT	46	GLU
40	DT	97	ALA
40	DT	104	ASN
40	DT	107	ASP
40	DT	129	ARG
41	DU	62	ILE
42	DV	31	ALA
42	DV	49	THR
42	DV	79	VAL
43	DW	49	LYS
43	DW	98	LYS
43	DW	111	HIS
44	DX	45	THR
45	DY	3	VAL
45	DY	26	LYS
45	DY	38	ILE
45	DY	39	VAL
45	DY	41	GLY
45	DY	47	LYS
45	DY	51	VAL
45	DY	99	CYS
46	DZ	30	ASN
46	DZ	38	TYR
46	DZ	53	ILE
46	DZ	56	VAL

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Mol	Chain	Res	Type
46	DZ	78	LYS
46	DZ	93	ASP
46	DZ	112	ARG
46	DZ	145	GLU
46	DZ	172	ALA
46	DZ	177	PRO
47	D0	13	GLY
48	D1	28	GLY
48	D1	30	VAL
48	D1	45	ASN
48	D1	85	LEU
49	D2	14	ARG
49	D2	48	HIS
50	D3	13	ILE
50	D3	29	ARG
51	D4	54	LYS
52	D5	33	CYS
52	D5	51	TYR
2	AB	77	ALA
2	AB	78	GLN
2	AB	130	ARG
3	AC	150	LYS
3	AC	154	SER
3	AC	156	ARG
4	AD	29	PRO
4	AD	40	PRO
4	AD	131	ARG
4	AD	171	GLY
4	AD	208	SER
5	AE	8	GLU
5	AE	21	ALA
5	AE	108	ALA
6	AF	68	PRO
8	AH	41	ARG
10	AJ	23	ILE
10	AJ	59	SER
11	AK	117	ASN
12	AL	23	LYS
12	AL	46	LYS
13	AM	48	LEU
13	AM	49	THR
13	AM	75	ALA

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Mol	Chain	Res	Type
14	AN	17	LYS
14	AN	28	GLY
15	AO	73	GLU
16	AP	43	LYS
17	AQ	34	LYS
18	AR	37	VAL
20	AT	71	THR
20	AT	99	LEU
21	AU	9	ARG
27	BC	79	LYS
27	BC	107	TRP
27	BC	144	THR
27	BC	151	GLU
27	BC	164	ARG
28	BD	191	ALA
28	BD	241	PRO
28	BD	268	ARG
29	BE	39	PRO
29	BE	66	HIS
29	BE	72	VAL
29	BE	94	GLU
29	BE	131	ALA
30	BF	14	PRO
30	BF	58	ALA
30	BF	69	HIS
31	BG	9	ARG
31	BG	10	LYS
31	BG	52	ILE
32	BH	13	LYS
32	BH	24	VAL
32	BH	41	MET
32	BH	97	ARG
32	BH	109	PHE
32	BH	154	PRO
32	BH	160	LYS
32	BH	170	ARG
33	BI	43	ASN
33	BI	94	ALA
33	BI	98	ALA
33	BI	111	PRO
33	BI	115	ALA
34	BN	40	PRO

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Mol	Chain	Res	Type
34	BN	60	ILE
34	BN	63	THR
34	BN	68	GLU
36	BP	19	VAL
36	BP	30	THR
36	BP	67	MET
36	BP	106	LEU
36	BP	141	ALA
37	BQ	6	ARG
37	BQ	48	GLU
37	BQ	54	MET
37	BQ	57	HIS
38	BR	10	LEU
38	BR	102	GLU
39	BS	24	LEU
39	BS	26	LEU
39	BS	54	LEU
39	BS	93	LYS
40	BT	3	ARG
40	BT	24	PRO
40	BT	56	GLY
40	BT	135	ALA
41	BU	54	LYS
41	BU	99	ALA
42	BV	49	THR
42	BV	54	GLY
43	BW	14	PRO
43	BW	44	ALA
44	BX	11	PRO
45	BY	37	VAL
45	BY	40	GLU
45	BY	48	ALA
46	BZ	64	GLY
46	BZ	65	GLN
46	BZ	81	ARG
46	BZ	141	VAL
46	BZ	163	LEU
48	B1	52	ARG
48	B1	74	VAL
48	B1	95	LEU
50	B3	50	VAL
50	B3	52	HIS

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Mol	Chain	Res	Type
50	B3	57	GLU
53	B6	44	ARG
54	B7	2	LYS
55	B8	31	HIS
55	B8	33	ASN
55	B8	47	LYS
55	B8	64	TYR
2	CB	77	ALA
2	CB	130	ARG
3	CC	18	TRP
3	CC	150	LYS
3	CC	154	SER
3	CC	156	ARG
3	CC	179	ARG
4	CD	13	ARG
4	CD	29	PRO
4	CD	131	ARG
4	CD	171	GLY
4	CD	208	SER
5	CE	21	ALA
5	CE	64	ARG
5	CE	108	ALA
8	CH	41	ARG
8	CH	105	ARG
9	CI	12	GLU
10	CJ	23	ILE
10	CJ	51	ARG
10	CJ	59	SER
12	CL	46	LYS
12	CL	80	HIS
13	CM	48	LEU
13	CM	64	TRP
13	CM	75	ALA
14	CN	17	LYS
14	CN	28	GLY
14	CN	59	ALA
16	CP	43	LYS
17	CQ	34	LYS
17	CQ	80	GLY
18	CR	37	VAL
20	CT	62	LEU
20	CT	71	THR

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Mol	Chain	Res	Type
20	CT	74	LYS
20	CT	97	ALA
27	DC	79	LYS
27	DC	107	TRP
27	DC	144	THR
27	DC	151	GLU
27	DC	164	ARG
28	DD	191	ALA
28	DD	241	PRO
28	DD	268	ARG
29	DE	39	PRO
29	DE	66	HIS
29	DE	72	VAL
29	DE	94	GLU
30	DF	14	PRO
30	DF	58	ALA
30	DF	69	HIS
31	DG	9	ARG
31	DG	10	LYS
31	DG	52	ILE
32	DH	13	LYS
32	DH	24	VAL
32	DH	97	ARG
32	DH	109	PHE
32	DH	154	PRO
32	DH	160	LYS
32	DH	170	ARG
33	DI	43	ASN
33	DI	94	ALA
33	DI	111	PRO
33	DI	115	ALA
34	DN	40	PRO
34	DN	60	ILE
34	DN	63	THR
34	DN	68	GLU
36	DP	19	VAL
36	DP	30	THR
36	DP	33	ARG
36	DP	38	GLN
36	DP	67	MET
36	DP	106	LEU
36	DP	141	ALA

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Mol	Chain	Res	Type
37	DQ	6	ARG
37	DQ	20	ALA
37	DQ	48	GLU
37	DQ	54	MET
37	DQ	57	HIS
38	DR	10	LEU
38	DR	102	GLU
39	DS	24	LEU
39	DS	26	LEU
39	DS	54	LEU
39	DS	78	LEU
39	DS	93	LYS
40	DT	2	ASN
40	DT	115	ARG
40	DT	132	LYS
41	DU	54	LYS
41	DU	99	ALA
42	DV	54	GLY
43	DW	14	PRO
43	DW	44	ALA
44	DX	11	PRO
45	DY	37	VAL
45	DY	40	GLU
45	DY	48	ALA
45	DY	67	LEU
46	DZ	64	GLY
46	DZ	65	GLN
46	DZ	81	ARG
46	DZ	141	VAL
46	DZ	163	LEU
48	D1	52	ARG
48	D1	74	VAL
48	D1	95	LEU
50	D3	50	VAL
50	D3	52	HIS
50	D3	57	GLU
53	D6	44	ARG
54	D7	2	LYS
55	D8	31	HIS
55	D8	33	ASN
55	D8	47	LYS
55	D8	64	TYR

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Mol	Chain	Res	Type
2	AB	110	GLN
2	AB	157	ARG
2	AB	216	SER
3	AC	18	TRP
3	AC	55	VAL
3	AC	60	ALA
3	AC	96	GLY
3	AC	101	LEU
3	AC	103	VAL
3	AC	179	ARG
4	AD	13	ARG
4	AD	195	ALA
5	AE	64	ARG
5	AE	104	ALA
5	AE	136	MET
5	AE	154	GLY
7	AG	7	ALA
9	AI	109	VAL
11	AK	27	ASN
11	AK	122	LYS
12	AL	79	GLU
12	AL	91	LYS
13	AM	100	GLY
14	AN	26	ARG
15	AO	79	ARG
17	AQ	80	GLY
17	AQ	96	GLU
19	AS	73	GLU
20	AT	74	LYS
20	AT	95	ALA
27	BC	132	GLY
27	BC	162	GLU
27	BC	166	ASP
27	BC	170	ALA
27	BC	184	LYS
27	BC	205	LYS
27	BC	213	TYR
27	BC	215	THR
28	BD	242	ARG
28	BD	272	ALA
30	BF	12	LEU
30	BF	19	GLU

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Mol	Chain	Res	Type
30	BF	84	VAL
30	BF	133	ASN
30	BF	138	GLU
31	BG	50	ALA
31	BG	55	LYS
31	BG	149	VAL
31	BG	165	THR
32	BH	14	GLY
32	BH	66	GLY
32	BH	84	SER
32	BH	85	LYS
33	BI	14	ASP
33	BI	122	GLU
34	BN	127	ASP
34	BN	129	PRO
35	BO	42	SER
36	BP	35	HIS
36	BP	43	GLY
36	BP	48	PRO
36	BP	102	ARG
36	BP	148	LEU
39	BS	14	VAL
40	BT	104	ASN
40	BT	115	ARG
40	BT	127	ALA
41	BU	74	LEU
41	BU	90	VAL
42	BV	3	ALA
42	BV	23	GLU
42	BV	40	LEU
43	BW	6	ILE
43	BW	63	ASP
43	BW	92	ARG
45	BY	50	ARG
45	BY	82	PRO
45	BY	100	ALA
46	BZ	73	GLN
46	BZ	117	LEU
46	BZ	130	PRO
46	BZ	138	GLU
46	BZ	152	ALA
46	BZ	166	SER

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Mol	Chain	Res	Type
47	B0	20	ARG
50	B3	30	ARG
50	B3	32	GLN
50	B3	51	ALA
51	B4	45	GLY
52	B5	35	GLU
53	B6	33	LYS
55	B8	7	HIS
55	B8	35	GLN
2	CB	78	GLN
2	CB	110	GLN
2	CB	157	ARG
3	CC	55	VAL
3	CC	60	ALA
3	CC	96	GLY
3	CC	101	LEU
3	CC	103	VAL
4	CD	15	GLU
4	CD	40	PRO
4	CD	123	HIS
4	CD	195	ALA
5	CE	8	GLU
5	CE	104	ALA
5	CE	154	GLY
7	CG	7	ALA
7	CG	31	MET
9	CI	109	VAL
11	CK	27	ASN
12	CL	23	LYS
12	CL	79	GLU
13	CM	49	THR
13	CM	60	VAL
14	CN	26	ARG
15	CO	33	THR
15	CO	73	GLU
15	CO	79	ARG
17	CQ	96	GLU
19	CS	5	LEU
19	CS	14	HIS
19	CS	73	GLU
20	CT	95	ALA
20	CT	99	LEU

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Mol	Chain	Res	Type
27	DC	132	GLY
27	DC	162	GLU
27	DC	166	ASP
27	DC	170	ALA
27	DC	184	LYS
27	DC	205	LYS
27	DC	213	TYR
27	DC	215	THR
28	DD	244	ARG
28	DD	272	ALA
29	DE	52	LEU
30	DF	12	LEU
30	DF	19	GLU
30	DF	84	VAL
30	DF	133	ASN
30	DF	138	GLU
31	DG	50	ALA
31	DG	55	LYS
31	DG	149	VAL
31	DG	165	THR
32	DH	14	GLY
32	DH	66	GLY
32	DH	84	SER
32	DH	85	LYS
33	DI	98	ALA
33	DI	122	GLU
34	DN	127	ASP
34	DN	129	PRO
35	DO	13	ASN
35	DO	103	ALA
35	DO	115	VAL
36	DP	43	GLY
36	DP	49	ARG
36	DP	102	ARG
36	DP	148	LEU
39	DS	14	VAL
40	DT	32	TYR
40	DT	35	LYS
40	DT	135	ALA
41	DU	74	LEU
41	DU	90	VAL
42	DV	3	ALA

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Mol	Chain	Res	Type
42	DV	23	GLU
43	DW	6	ILE
43	DW	63	ASP
43	DW	92	ARG
45	DY	55	TYR
45	DY	82	PRO
45	DY	100	ALA
46	DZ	73	GLN
46	DZ	117	LEU
46	DZ	130	PRO
46	DZ	138	GLU
46	DZ	152	ALA
46	DZ	166	SER
47	D0	20	ARG
47	D0	30	VAL
50	D3	30	ARG
50	D3	32	GLN
50	D3	51	ALA
51	D4	45	GLY
52	D5	35	GLU
53	D6	33	LYS
55	D8	7	HIS
55	D8	35	GLN
2	AB	22	LYS
2	AB	129	GLU
2	AB	158	LEU
3	AC	81	GLY
4	AD	5	ILE
4	AD	47	ARG
4	AD	123	HIS
5	AE	62	ALA
5	AE	128	PRO
6	AF	29	ALA
7	AG	31	MET
7	AG	100	ALA
8	AH	91	ARG
9	AI	34	ASN
11	AK	39	PRO
12	AL	62	SER
13	AM	3	ARG
13	AM	60	VAL
15	AO	33	THR

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Mol	Chain	Res	Type
19	AS	5	LEU
19	AS	14	HIS
19	AS	25	LYS
19	AS	44	MET
19	AS	61	TYR
20	AT	48	LYS
20	AT	52	ALA
27	BC	52	ARG
27	BC	64	LEU
29	BE	45	THR
29	BE	52	LEU
29	BE	61	ARG
29	BE	98	PRO
30	BF	20	LEU
30	BF	22	ALA
31	BG	17	PRO
31	BG	25	TYR
31	BG	145	THR
31	BG	168	GLU
32	BH	21	PRO
32	BH	90	LYS
33	BI	106	GLY
33	BI	132	PRO
34	BN	135	PRO
36	BP	149	GLU
38	BR	106	GLY
39	BS	89	ARG
40	BT	93	ARG
42	BV	35	LEU
43	BW	93	ALA
44	BX	9	LEU
45	BY	31	LEU
45	BY	55	TYR
45	BY	81	LYS
46	BZ	46	LYS
46	BZ	108	PRO
46	BZ	137	ILE
46	BZ	158	PRO
47	B0	30	VAL
47	B0	47	PRO
49	B2	18	PRO
50	B3	27	GLY

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Mol	Chain	Res	Type
50	B3	39	ASP
51	B4	61	VAL
51	B4	62	CYS
51	B4	65	CYS
53	B6	20	ASN
53	B6	31	PRO
55	B8	40	GLU
2	CB	129	GLU
2	CB	158	LEU
2	CB	216	SER
3	CC	81	GLY
4	CD	5	ILE
4	CD	47	ARG
5	CE	62	ALA
5	CE	128	PRO
5	CE	136	MET
6	CF	13	ASN
7	CG	100	ALA
8	CH	91	ARG
9	CI	34	ASN
10	CJ	82	ILE
12	CL	62	SER
13	CM	3	ARG
13	CM	81	LEU
18	CR	23	LYS
19	CS	61	TYR
27	DC	52	ARG
27	DC	64	LEU
29	DE	45	THR
29	DE	61	ARG
29	DE	98	PRO
30	DF	20	LEU
30	DF	22	ALA
31	DG	17	PRO
31	DG	25	TYR
31	DG	145	THR
31	DG	168	GLU
32	DH	21	PRO
32	DH	90	LYS
33	DI	14	ASP
33	DI	106	GLY
33	DI	132	PRO

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Mol	Chain	Res	Type
34	DN	134	ARG
34	DN	135	PRO
35	DO	49	ARG
35	DO	119	PRO
36	DP	48	PRO
36	DP	149	GLU
38	DR	106	GLY
39	DS	89	ARG
40	DT	34	VAL
42	DV	35	LEU
43	DW	93	ALA
44	DX	9	LEU
45	DY	31	LEU
45	DY	81	LYS
46	DZ	46	LYS
46	DZ	108	PRO
46	DZ	137	ILE
46	DZ	158	PRO
47	D0	47	PRO
49	D2	18	PRO
50	D3	27	GLY
51	D4	61	VAL
51	D4	62	CYS
51	D4	65	CYS
53	D6	20	ASN
53	D6	31	PRO
55	D8	40	GLU
3	AC	14	ILE
4	AD	7	PRO
4	AD	172	PRO
10	AJ	82	ILE
13	AM	4	ILE
13	AM	81	LEU
27	BC	26	ALA
27	BC	74	VAL
27	BC	197	GLU
30	BF	47	GLY
31	BG	153	ARG
32	BH	39	PRO
32	BH	45	VAL
32	BH	101	ARG
34	BN	134	ARG

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Mol	Chain	Res	Type
35	BO	51	ALA
36	BP	70	GLN
39	BS	42	ASP
39	BS	96	GLY
40	BT	7	ILE
41	BU	68	ALA
41	BU	112	ARG
43	BW	15	ARG
45	BY	29	GLU
46	BZ	110	GLY
52	B5	50	GLY
56	B9	25	VAL
2	CB	22	LYS
3	CC	14	ILE
4	CD	7	PRO
4	CD	172	PRO
6	CF	29	ALA
11	CK	39	PRO
12	CL	91	LYS
13	CM	4	ILE
14	CN	25	VAL
19	CS	44	MET
20	CT	52	ALA
27	DC	26	ALA
27	DC	74	VAL
27	DC	197	GLU
28	DD	11	PRO
30	DF	47	GLY
31	DG	153	ARG
32	DH	39	PRO
32	DH	45	VAL
32	DH	101	ARG
35	DO	110	GLY
35	DO	114	ILE
36	DP	70	GLN
38	DR	5	LYS
39	DS	42	ASP
39	DS	96	GLY
41	DU	68	ALA
41	DU	112	ARG
43	DW	15	ARG
45	DY	29	GLU

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Mol	Chain	Res	Type
46	DZ	105	VAL
46	DZ	110	GLY
49	D2	68	ARG
50	D3	39	ASP
52	D5	50	GLY
56	D9	25	VAL
2	AB	232	PRO
4	AD	56	VAL
11	AK	34	ASP
27	BC	49	ILE
27	BC	65	PRO
28	BD	238	GLY
29	BE	86	PRO
32	BH	17	VAL
39	BS	98	VAL
41	BU	9	VAL
42	BV	22	VAL
43	BW	59	VAL
46	BZ	105	VAL
46	BZ	161	VAL
49	B2	17	SER
2	CB	232	PRO
11	CK	34	ASP
27	DC	49	ILE
27	DC	65	PRO
28	DD	238	GLY
29	DE	86	PRO
32	DH	17	VAL
39	DS	98	VAL
41	DU	9	VAL
42	DV	22	VAL
43	DW	59	VAL
46	DZ	161	VAL
49	D2	17	SER
6	AF	67	MET
7	AG	42	ILE
12	AL	121	GLY
14	AN	25	VAL
17	AQ	19	VAL
27	BC	19	VAL
27	BC	62	VAL
33	BI	144	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
34	BN	125	GLY
35	BO	22	ILE
41	BU	8	VAL
46	BZ	114	GLY
4	CD	56	VAL
13	CM	7	VAL
20	CT	96	GLY
27	DC	19	VAL
33	DI	144	VAL
34	DN	125	GLY
35	DO	4	PRO
41	DU	8	VAL
46	DZ	114	GLY
9	AI	90	PRO
13	AM	7	VAL
15	AO	75	PRO
20	AT	96	GLY
27	BC	145	VAL
27	BC	200	LYS
28	BD	34	VAL
29	BE	130	GLY
32	BH	120	GLY
37	BQ	78	PRO
46	BZ	37	VAL
3	CC	174	PRO
4	CD	178	VAL
7	CG	42	ILE
12	CL	121	GLY
15	CO	75	PRO
17	CQ	19	VAL
27	DC	62	VAL
27	DC	145	VAL
27	DC	200	LYS
28	DD	34	VAL
29	DE	130	GLY
32	DH	120	GLY
37	DQ	78	PRO
46	DZ	37	VAL
5	AE	11	ILE
16	AP	15	PRO
28	BD	36	PRO
28	BD	127	VAL

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Mol	Chain	Res	Type
35	BO	43	VAL
36	BP	63	PRO
39	BS	91	PRO
40	BT	20	PRO
46	BZ	146	ILE
5	CE	11	ILE
16	CP	15	PRO
28	DD	36	PRO
28	DD	127	VAL
28	DD	228	PRO
36	DP	63	PRO
39	DS	91	PRO
46	DZ	146	ILE
4	AD	92	VAL
20	AT	98	PRO
28	BD	228	PRO
39	BS	46	VAL
45	BY	98	VAL
46	BZ	116	VAL
9	CI	90	PRO
20	CT	98	PRO
27	DC	22	ILE
39	DS	46	VAL
45	DY	52	SER
45	DY	98	VAL
46	DZ	116	VAL
34	BN	126	PRO
34	DN	126	PRO

### 5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	202/220 (92%)	177 (88%)	25 (12%)	6	32
2	CB	202/220 (92%)	179 (89%)	23 (11%)	7	36
3	AC	160/188 (85%)	149 (93%)	11 (7%)	19	59

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	CC	160/188 (85%)	149 (93%)	11 (7%)	19	59
4	AD	180/181 (99%)	161 (89%)	19 (11%)	8	39
4	CD	180/181 (99%)	161 (89%)	19 (11%)	8	39
5	AE	115/123 (94%)	101 (88%)	14 (12%)	6	33
5	CE	115/123 (94%)	101 (88%)	14 (12%)	6	33
6	AF	90/90 (100%)	83 (92%)	7 (8%)	16	54
6	CF	90/90 (100%)	85 (94%)	5 (6%)	26	65
7	AG	126/127 (99%)	117 (93%)	9 (7%)	18	58
7	CG	126/127 (99%)	117 (93%)	9 (7%)	18	58
8	AH	119/119 (100%)	112 (94%)	7 (6%)	24	64
8	CH	119/119 (100%)	110 (92%)	9 (8%)	16	55
9	AI	98/99 (99%)	86 (88%)	12 (12%)	6	33
9	CI	98/99 (99%)	83 (85%)	15 (15%)	3	24
10	AJ	88/92 (96%)	76 (86%)	12 (14%)	5	29
10	CJ	88/92 (96%)	77 (88%)	11 (12%)	6	32
11	AK	90/99 (91%)	82 (91%)	8 (9%)	12	48
11	CK	90/99 (91%)	82 (91%)	8 (9%)	12	48
12	AL	104/109 (95%)	94 (90%)	10 (10%)	10	44
12	CL	104/109 (95%)	92 (88%)	12 (12%)	7	36
13	AM	99/101 (98%)	81 (82%)	18 (18%)	2	16
13	CM	99/101 (98%)	83 (84%)	16 (16%)	3	22
14	AN	49/50 (98%)	40 (82%)	9 (18%)	2	16
14	CN	49/50 (98%)	42 (86%)	7 (14%)	4	28
15	AO	79/80 (99%)	73 (92%)	6 (8%)	16	55
15	CO	79/80 (99%)	73 (92%)	6 (8%)	16	55
16	AP	72/74 (97%)	64 (89%)	8 (11%)	8	38
16	CP	72/74 (97%)	66 (92%)	6 (8%)	14	51
17	AQ	94/97 (97%)	85 (90%)	9 (10%)	10	44
17	CQ	94/97 (97%)	87 (93%)	7 (7%)	17	56
18	AR	61/77 (79%)	57 (93%)	4 (7%)	21	60
18	CR	61/77 (79%)	57 (93%)	4 (7%)	21	60

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
19	AS	69/80 (86%)	58 (84%)	11 (16%)	3	23
19	CS	69/80 (86%)	58 (84%)	11 (16%)	3	23
20	AT	76/82 (93%)	71 (93%)	5 (7%)	21	60
20	CT	76/82 (93%)	69 (91%)	7 (9%)	11	46
21	AU	19/22 (86%)	18 (95%)	1 (5%)	28	67
21	CU	19/22 (86%)	14 (74%)	5 (26%)	0	6
27	BC	61/181 (34%)	56 (92%)	5 (8%)	14	52
27	DC	61/181 (34%)	56 (92%)	5 (8%)	14	52
28	BD	213/218 (98%)	179 (84%)	34 (16%)	3	23
28	DD	213/218 (98%)	180 (84%)	33 (16%)	3	24
29	BE	165/166 (99%)	140 (85%)	25 (15%)	3	25
29	DE	165/166 (99%)	139 (84%)	26 (16%)	3	23
30	BF	165/166 (99%)	146 (88%)	19 (12%)	7	36
30	DF	165/166 (99%)	146 (88%)	19 (12%)	7	36
31	BG	155/156 (99%)	138 (89%)	17 (11%)	8	38
31	DG	155/156 (99%)	138 (89%)	17 (11%)	8	38
32	BH	132/148 (89%)	119 (90%)	13 (10%)	10	43
32	DH	132/148 (89%)	119 (90%)	13 (10%)	10	43
33	BI	122/124 (98%)	102 (84%)	20 (16%)	3	21
33	DI	122/124 (98%)	107 (88%)	15 (12%)	6	32
34	BN	117/119 (98%)	96 (82%)	21 (18%)	2	17
34	DN	117/119 (98%)	96 (82%)	21 (18%)	2	17
35	BO	100/100 (100%)	92 (92%)	8 (8%)	15	53
35	DO	100/100 (100%)	83 (83%)	17 (17%)	2	20
36	BP	112/116 (97%)	86 (77%)	26 (23%)	1	8
36	DP	112/116 (97%)	89 (80%)	23 (20%)	1	12
37	BQ	111/111 (100%)	96 (86%)	15 (14%)	5	30
37	DQ	111/111 (100%)	94 (85%)	17 (15%)	3	24
38	BR	100/101 (99%)	87 (87%)	13 (13%)	5	31
38	DR	100/101 (99%)	87 (87%)	13 (13%)	5	31
39	BS	77/88 (88%)	66 (86%)	11 (14%)	4	28

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
39	DS	77/88 (88%)	67 (87%)	10 (13%)	5	31
40	BT	120/127 (94%)	90 (75%)	30 (25%)	1	7
40	DT	120/127 (94%)	85 (71%)	35 (29%)	0	4
41	BU	92/94 (98%)	85 (92%)	7 (8%)	16	55
41	DU	92/94 (98%)	85 (92%)	7 (8%)	16	55
42	BV	82/82 (100%)	72 (88%)	10 (12%)	6	33
42	DV	82/82 (100%)	72 (88%)	10 (12%)	6	33
43	BW	91/92 (99%)	82 (90%)	9 (10%)	10	42
43	DW	91/92 (99%)	81 (89%)	10 (11%)	8	38
44	BX	74/78 (95%)	67 (90%)	7 (10%)	11	44
44	DX	74/78 (95%)	67 (90%)	7 (10%)	11	44
45	BY	84/91 (92%)	72 (86%)	12 (14%)	4	28
45	DY	84/91 (92%)	70 (83%)	14 (17%)	3	21
46	BZ	155/179 (87%)	138 (89%)	17 (11%)	8	38
46	DZ	155/179 (87%)	137 (88%)	18 (12%)	7	36
47	B0	66/67 (98%)	58 (88%)	8 (12%)	6	33
47	D0	66/67 (98%)	58 (88%)	8 (12%)	6	33
48	B1	78/83 (94%)	67 (86%)	11 (14%)	4	28
48	D1	78/83 (94%)	67 (86%)	11 (14%)	4	28
49	B2	66/67 (98%)	55 (83%)	11 (17%)	3	21
49	D2	66/67 (98%)	55 (83%)	11 (17%)	3	21
50	B3	51/52 (98%)	49 (96%)	2 (4%)	39	74
50	D3	51/52 (98%)	49 (96%)	2 (4%)	39	74
51	B4	27/63 (43%)	24 (89%)	3 (11%)	8	38
51	D4	27/63 (43%)	24 (89%)	3 (11%)	8	38
52	B5	51/52 (98%)	45 (88%)	6 (12%)	6	35
52	D5	51/52 (98%)	45 (88%)	6 (12%)	6	35
53	B6	43/52 (83%)	32 (74%)	11 (26%)	0	6
53	D6	43/52 (83%)	32 (74%)	11 (26%)	0	6
54	B7	41/42 (98%)	37 (90%)	4 (10%)	10	43
54	D7	41/42 (98%)	37 (90%)	4 (10%)	10	43

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
55	B8	53/55 (96%)	44 (83%)	9 (17%)	2	20
55	D8	53/55 (96%)	43 (81%)	10 (19%)	2	14
56	B9	33/34 (97%)	30 (91%)	3 (9%)	12	47
56	D9	33/34 (97%)	30 (91%)	3 (9%)	12	47
All	All	9654/10428 (93%)	8458 (88%)	1196 (12%)	6	32

All (1196) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	15	VAL
2	AB	16	HIS
2	AB	17	PHE
2	AB	20	GLU
2	AB	24	TRP
2	AB	36	ARG
2	AB	44	LEU
2	AB	45	GLN
2	AB	69	LEU
2	AB	74	LYS
2	AB	80	ILE
2	AB	92	TYR
2	AB	110	GLN
2	AB	119	GLU
2	AB	137	ARG
2	AB	140	HIS
2	AB	145	LEU
2	AB	155	LEU
2	AB	163	PHE
2	AB	178	ARG
2	AB	187	LEU
2	AB	189	ASP
2	AB	196	LEU
2	AB	206	ASP
2	AB	212	GLN
3	AC	12	LEU
3	AC	16	ARG
3	AC	29	TYR
3	AC	34	LEU
3	AC	69	HIS
3	AC	94	LEU
3	AC	98	ASN

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Mol	Chain	Res	Type
3	AC	104	GLN
3	AC	127	ARG
3	AC	156	ARG
3	AC	192	THR
4	AD	3	ARG
4	AD	7	PRO
4	AD	9	CYS
4	AD	11	LEU
4	AD	12	CYS
4	AD	15	GLU
4	AD	26	CYS
4	AD	49	ARG
4	AD	53	ASP
4	AD	58	LEU
4	AD	110	PHE
4	AD	112	VAL
4	AD	122	ARG
4	AD	131	ARG
4	AD	135	LEU
4	AD	153	ARG
4	AD	162	LEU
4	AD	196	LEU
4	AD	200	GLU
5	AE	10	MET
5	AE	18	ARG
5	AE	28	PHE
5	AE	31	LEU
5	AE	41	VAL
5	AE	45	PHE
5	AE	51	VAL
5	AE	56	GLN
5	AE	68	GLU
5	AE	79	GLU
5	AE	101	ILE
5	AE	126	ARG
5	AE	128	PRO
5	AE	147	ASP
6	AF	13	ASN
6	AF	36	ARG
6	AF	54	LYS
6	AF	63	TYR
6	AF	69	GLU

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Mol	Chain	Res	Type
6	AF	82	ARG
6	AF	98	LEU
7	AG	43	PHE
7	AG	52	GLU
7	AG	58	PRO
7	AG	60	LYS
7	AG	79	ARG
7	AG	88	PRO
7	AG	113	GLU
7	AG	114	ARG
7	AG	124	LEU
8	AH	1	MET
8	AH	52	ASP
8	AH	65	TYR
8	AH	82	HIS
8	AH	85	ARG
8	AH	104	ARG
8	AH	127	LEU
9	AI	4	TYR
9	AI	10	ARG
9	AI	20	ARG
9	AI	31	GLN
9	AI	38	GLN
9	AI	92	TYR
9	AI	95	LYS
9	AI	101	PHE
9	AI	104	ARG
9	AI	114	TYR
9	AI	121	ARG
9	AI	125	TYR
10	AJ	13	HIS
10	AJ	22	LYS
10	AJ	40	LEU
10	AJ	45	ARG
10	AJ	47	PHE
10	AJ	50	ILE
10	AJ	62	HIS
10	AJ	63	PHE
10	AJ	80	LYS
10	AJ	86	MET
10	AJ	90	LEU
10	AJ	96	ILE

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Mol	Chain	Res	Type
11	AK	32	ILE
11	AK	39	PRO
11	AK	51	LYS
11	AK	81	ASP
11	AK	84	VAL
11	AK	103	LEU
11	AK	116	HIS
11	AK	125	PHE
12	AL	6	THR
12	AL	12	ARG
12	AL	24	VAL
12	AL	43	VAL
12	AL	52	LEU
12	AL	62	SER
12	AL	80	HIS
12	AL	84	LEU
12	AL	85	ILE
12	AL	89	ARG
13	AM	14	ARG
13	AM	17	VAL
13	AM	47	ASP
13	AM	48	LEU
13	AM	56	LEU
13	AM	64	TRP
13	AM	65	LYS
13	AM	66	LEU
13	AM	69	GLU
13	AM	70	LEU
13	AM	82	MET
13	AM	92	HIS
13	AM	98	VAL
13	AM	99	ARG
13	AM	102	ARG
13	AM	108	ARG
13	AM	111	LYS
13	AM	115	LYS
14	AN	3	ARG
14	AN	12	ARG
14	AN	14	PRO
14	AN	33	VAL
14	AN	34	TYR
14	AN	37	PHE

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Mol	Chain	Res	Type
14	AN	41	ARG
14	AN	44	LEU
14	AN	50	LYS
15	AO	3	ILE
15	AO	10	LYS
15	AO	41	GLU
15	AO	54	ARG
15	AO	65	ARG
15	AO	82	ILE
16	AP	1	MET
16	AP	26	ARG
16	AP	27	LYS
16	AP	45	THR
16	AP	53	VAL
16	AP	65	GLN
16	AP	67	THR
16	AP	69	THR
17	AQ	6	LEU
17	AQ	9	VAL
17	AQ	19	VAL
17	AQ	35	VAL
17	AQ	38	ARG
17	AQ	52	LYS
17	AQ	60	ILE
17	AQ	68	ARG
17	AQ	69	LYS
18	AR	31	LEU
18	AR	32	ARG
18	AR	36	ASN
18	AR	87	ARG
19	AS	6	LYS
19	AS	7	LYS
19	AS	13	ASP
19	AS	14	HIS
19	AS	27	GLU
19	AS	29	ARG
19	AS	33	THR
19	AS	37	ARG
19	AS	43	GLU
19	AS	44	MET
19	AS	49	ILE
20	AT	16	HIS

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Mol	Chain	Res	Type
20	AT	42	GLN
20	AT	73	HIS
20	AT	75	ASN
20	AT	93	GLU
21	AU	15	ARG
27	BC	24	GLU
27	BC	36	LYS
27	BC	56	GLN
27	BC	77	ILE
27	BC	94	VAL
28	BD	10	THR
28	BD	18	VAL
28	BD	24	ILE
28	BD	26	LYS
28	BD	33	LEU
28	BD	44	ASN
28	BD	46	GLN
28	BD	49	ILE
28	BD	61	LEU
28	BD	64	ILE
28	BD	65	ILE
28	BD	91	ARG
28	BD	92	ILE
28	BD	94	LEU
28	BD	103	ARG
28	BD	104	TYR
28	BD	111	LEU
28	BD	113	VAL
28	BD	122	ASP
28	BD	131	LEU
28	BD	166	GLN
28	BD	168	ARG
28	BD	192	THR
28	BD	193	VAL
28	BD	211	ARG
28	BD	213	ARG
28	BD	218	ARG
28	BD	221	VAL
28	BD	228	PRO
28	BD	229	VAL
28	BD	244	ARG
28	BD	257	LEU

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Mol	Chain	Res	Type
28	BD	260	ARG
28	BD	271	ILE
29	BE	1	MET
29	BE	9	VAL
29	BE	16	ARG
29	BE	18	ASP
29	BE	33	VAL
29	BE	40	GLU
29	BE	49	LEU
29	BE	52	LEU
29	BE	66	HIS
29	BE	67	PHE
29	BE	76	ARG
29	BE	78	LEU
29	BE	79	ARG
29	BE	86	PRO
29	BE	89	ASP
29	BE	101	ARG
29	BE	118	LYS
29	BE	119	ARG
29	BE	134	ILE
29	BE	144	ARG
29	BE	154	LYS
29	BE	169	ASN
29	BE	179	GLU
29	BE	202	LYS
29	BE	203	LYS
30	BF	2	LYS
30	BF	3	GLU
30	BF	19	GLU
30	BF	57	VAL
30	BF	59	TYR
30	BF	67	GLN
30	BF	78	ILE
30	BF	95	ARG
30	BF	96	ASP
30	BF	110	LEU
30	BF	112	MET
30	BF	125	LEU
30	BF	140	LEU
30	BF	149	ASP
30	BF	160	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
30	BF	164	ARG
30	BF	171	PRO
30	BF	192	LEU
30	BF	202	PHE
31	BG	4	ASP
31	BG	16	ARG
31	BG	21	ARG
31	BG	22	ARG
31	BG	40	ASN
31	BG	48	GLU
31	BG	58	GLN
31	BG	70	VAL
31	BG	87	PRO
31	BG	101	ILE
31	BG	113	ARG
31	BG	117	PHE
31	BG	143	GLU
31	BG	147	ASP
31	BG	148	MET
31	BG	159	VAL
31	BG	162	THR
32	BH	21	PRO
32	BH	25	LYS
32	BH	41	MET
32	BH	46	GLU
32	BH	54	ARG
32	BH	86	GLU
32	BH	103	LEU
32	BH	109	PHE
32	BH	111	HIS
32	BH	139	GLN
32	BH	153	LYS
32	BH	157	TYR
32	BH	170	ARG
33	BI	38	LEU
33	BI	47	LEU
33	BI	50	ARG
33	BI	51	ILE
33	BI	52	ARG
33	BI	54	GLN
33	BI	56	LYS
33	BI	61	ARG

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Mol	Chain	Res	Type
33	BI	72	LEU
33	BI	75	LEU
33	BI	77	LEU
33	BI	82	ARG
33	BI	96	ASP
33	BI	113	ARG
33	BI	118	LYS
33	BI	122	GLU
33	BI	129	THR
33	BI	134	PRO
33	BI	136	VAL
33	BI	138	ILE
34	BN	4	TYR
34	BN	12	ARG
34	BN	15	LEU
34	BN	22	THR
34	BN	23	LEU
34	BN	25	ARG
34	BN	38	HIS
34	BN	39	ARG
34	BN	42	TRP
34	BN	45	ASN
34	BN	48	MET
34	BN	55	VAL
34	BN	63	THR
34	BN	68	GLU
34	BN	78	TYR
34	BN	87	LEU
34	BN	108	PRO
34	BN	119	ARG
34	BN	121	LYS
34	BN	134	ARG
34	BN	136	GLU
35	BO	14	THR
35	BO	20	MET
35	BO	24	VAL
35	BO	37	ASP
35	BO	38	VAL
35	BO	78	ARG
35	BO	89	ASN
35	BO	91	LEU
36	BP	6	LEU

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Mol	Chain	Res	Type
36	BP	9	ASN
36	BP	13	ASN
36	BP	16	ARG
36	BP	18	ARG
36	BP	29	LYS
36	BP	30	THR
36	BP	39	LYS
36	BP	40	SER
36	BP	41	ARG
36	BP	52	GLU
36	BP	55	ARG
36	BP	57	THR
36	BP	61	ARG
36	BP	64	LYS
36	BP	67	MET
36	BP	81	GLN
36	BP	85	LEU
36	BP	91	PHE
36	BP	98	GLU
36	BP	105	LEU
36	BP	108	LYS
36	BP	114	ILE
36	BP	125	VAL
36	BP	128	HIS
36	BP	135	LEU
37	BQ	1	MET
37	BQ	5	ARG
37	BQ	6	ARG
37	BQ	17	LEU
37	BQ	45	GLN
37	BQ	51	ARG
37	BQ	54	MET
37	BQ	55	VAL
37	BQ	56	ARG
37	BQ	79	LEU
37	BQ	81	VAL
37	BQ	110	THR
37	BQ	111	GLU
37	BQ	131	ILE
37	BQ	134	ARG
38	BR	2	ARG
38	BR	5	LYS

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Mol	Chain	Res	Type
38	BR	8	ARG
38	BR	17	ARG
38	BR	18	LEU
38	BR	33	ARG
38	BR	51	LEU
38	BR	56	LYS
38	BR	60	LEU
38	BR	79	LEU
38	BR	80	PHE
38	BR	94	TYR
38	BR	104	ARG
39	BS	12	PHE
39	BS	18	ILE
39	BS	29	PHE
39	BS	31	SER
39	BS	36	TYR
39	BS	56	LEU
39	BS	89	ARG
39	BS	92	TYR
39	BS	97	ARG
39	BS	101	LEU
39	BS	103	GLU
40	BT	3	ARG
40	BT	6	LEU
40	BT	11	GLU
40	BT	12	SER
40	BT	15	VAL
40	BT	16	ARG
40	BT	18	ASP
40	BT	19	LEU
40	BT	26	ASP
40	BT	27	THR
40	BT	28	VAL
40	BT	31	SER
40	BT	33	LYS
40	BT	36	GLU
40	BT	41	ARG
40	BT	42	ILE
40	BT	48	ILE
40	BT	53	ARG
40	BT	60	THR
40	BT	64	ARG

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Mol	Chain	Res	Type
40	BT	74	ARG
40	BT	75	ILE
40	BT	78	LEU
40	BT	83	ILE
40	BT	84	GLN
40	BT	99	LEU
40	BT	102	ILE
40	BT	123	GLN
40	BT	128	GLU
40	BT	134	GLU
41	BU	15	LYS
41	BU	44	ASN
41	BU	49	HIS
41	BU	60	LEU
41	BU	79	PHE
41	BU	92	ARG
41	BU	104	GLN
42	BV	18	LEU
42	BV	19	LYS
42	BV	21	ARG
42	BV	39	LEU
42	BV	40	LEU
42	BV	66	ARG
42	BV	68	LYS
42	BV	82	ARG
42	BV	91	TYR
42	BV	99	ILE
43	BW	11	ARG
43	BW	51	LEU
43	BW	60	ASN
43	BW	61	ASN
43	BW	63	ASP
43	BW	70	TYR
43	BW	75	TYR
43	BW	76	VAL
43	BW	107	LEU
44	BX	49	VAL
44	BX	52	VAL
44	BX	57	LEU
44	BX	68	ARG
44	BX	76	ARG
44	BX	80	ILE

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Mol	Chain	Res	Type
44	BX	83	VAL
45	BY	2	ARG
45	BY	6	HIS
45	BY	7	VAL
45	BY	28	LYS
45	BY	32	PRO
45	BY	47	LYS
45	BY	50	ARG
45	BY	62	GLU
45	BY	77	PRO
45	BY	89	PHE
45	BY	96	ILE
45	BY	97	ARG
46	BZ	3	TYR
46	BZ	9	TYR
46	BZ	11	GLU
46	BZ	23	LYS
46	BZ	53	ILE
46	BZ	67	LEU
46	BZ	80	ARG
46	BZ	85	HIS
46	BZ	86	VAL
46	BZ	89	PHE
46	BZ	99	TYR
46	BZ	121	HIS
46	BZ	128	VAL
46	BZ	145	GLU
46	BZ	150	LEU
46	BZ	154	ASP
46	BZ	168	GLU
47	B0	3	HIS
47	B0	20	ARG
47	B0	25	ARG
47	B0	53	MET
47	B0	55	ARG
47	B0	70	GLN
47	B0	80	HIS
47	B0	84	LEU
48	B1	25	LYS
48	B1	35	THR
48	B1	40	ARG
48	B1	46	LEU

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Mol	Chain	Res	Type
48	B1	58	ILE
48	B1	59	THR
48	B1	61	ARG
48	B1	72	GLU
48	B1	80	LEU
48	B1	82	LEU
48	B1	94	LEU
49	B2	2	LYS
49	B2	7	ARG
49	B2	32	LEU
49	B2	43	GLN
49	B2	44	LEU
49	B2	47	ASN
49	B2	48	HIS
49	B2	52	ASP
49	B2	53	LEU
49	B2	64	LEU
49	B2	68	ARG
50	B3	17	LYS
50	B3	37	LEU
51	B4	46	ASN
51	B4	48	ILE
51	B4	56	GLU
52	B5	4	HIS
52	B5	11	THR
52	B5	37	LYS
52	B5	40	LYS
52	B5	48	GLU
52	B5	56	LYS
53	B6	10	LEU
53	B6	11	LEU
53	B6	12	GLU
53	B6	18	ARG
53	B6	19	ARG
53	B6	20	ASN
53	B6	31	PRO
53	B6	36	LEU
53	B6	42	TRP
53	B6	45	LYS
53	B6	46	HIS
54	B7	1	MET
54	B7	4	THR

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Mol	Chain	Res	Type
54	B7	10	ARG
54	B7	41	ARG
55	B8	8	LYS
55	B8	30	ARG
55	B8	31	HIS
55	B8	32	LEU
55	B8	34	TRP
55	B8	41	ILE
55	B8	44	LYS
55	B8	49	VAL
55	B8	61	LEU
56	B9	2	LYS
56	B9	28	GLU
56	B9	33	LYS
2	CB	15	VAL
2	CB	17	PHE
2	CB	20	GLU
2	CB	24	TRP
2	CB	36	ARG
2	CB	44	LEU
2	CB	45	GLN
2	CB	69	LEU
2	CB	74	LYS
2	CB	80	ILE
2	CB	92	TYR
2	CB	110	GLN
2	CB	119	GLU
2	CB	137	ARG
2	CB	145	LEU
2	CB	155	LEU
2	CB	163	PHE
2	CB	178	ARG
2	CB	187	LEU
2	CB	189	ASP
2	CB	196	LEU
2	CB	206	ASP
2	CB	212	GLN
3	CC	12	LEU
3	CC	16	ARG
3	CC	29	TYR
3	CC	34	LEU
3	CC	69	HIS

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Mol	Chain	Res	Type
3	CC	94	LEU
3	CC	98	ASN
3	CC	104	GLN
3	CC	127	ARG
3	CC	156	ARG
3	CC	192	THR
4	CD	3	ARG
4	CD	7	PRO
4	CD	9	CYS
4	CD	11	LEU
4	CD	12	CYS
4	CD	15	GLU
4	CD	26	CYS
4	CD	49	ARG
4	CD	53	ASP
4	CD	58	LEU
4	CD	110	PHE
4	CD	112	VAL
4	CD	122	ARG
4	CD	131	ARG
4	CD	135	LEU
4	CD	153	ARG
4	CD	162	LEU
4	CD	196	LEU
4	CD	200	GLU
5	CE	10	MET
5	CE	18	ARG
5	CE	28	PHE
5	CE	31	LEU
5	CE	41	VAL
5	CE	45	PHE
5	CE	51	VAL
5	CE	56	GLN
5	CE	71	LEU
5	CE	72	GLN
5	CE	79	GLU
5	CE	101	ILE
5	CE	126	ARG
5	CE	147	ASP
6	CF	46	ARG
6	CF	63	TYR
6	CF	69	GLU

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Mol	Chain	Res	Type
6	CF	82	ARG
6	CF	98	LEU
7	CG	43	PHE
7	CG	52	GLU
7	CG	58	PRO
7	CG	60	LYS
7	CG	79	ARG
7	CG	88	PRO
7	CG	113	GLU
7	CG	114	ARG
7	CG	124	LEU
8	CH	1	MET
8	CH	18	ARG
8	CH	52	ASP
8	CH	63	LEU
8	CH	65	TYR
8	CH	82	HIS
8	CH	85	ARG
8	CH	104	ARG
8	CH	127	LEU
9	CI	4	TYR
9	CI	10	ARG
9	CI	20	ARG
9	CI	31	GLN
9	CI	38	GLN
9	CI	89	ASN
9	CI	92	TYR
9	CI	95	LYS
9	CI	101	PHE
9	CI	107	ARG
9	CI	114	TYR
9	CI	116	LYS
9	CI	118	LYS
9	CI	121	ARG
9	CI	125	TYR
10	CJ	13	HIS
10	CJ	22	LYS
10	CJ	40	LEU
10	CJ	45	ARG
10	CJ	47	PHE
10	CJ	50	ILE
10	CJ	62	HIS

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Mol	Chain	Res	Type
10	CJ	63	PHE
10	CJ	80	LYS
10	CJ	86	MET
10	CJ	96	ILE
11	CK	32	ILE
11	CK	39	PRO
11	CK	51	LYS
11	CK	81	ASP
11	CK	84	VAL
11	CK	103	LEU
11	CK	116	HIS
11	CK	125	PHE
12	CL	6	THR
12	CL	24	VAL
12	CL	28	LYS
12	CL	33	ARG
12	CL	43	VAL
12	CL	52	LEU
12	CL	62	SER
12	CL	80	HIS
12	CL	84	LEU
12	CL	85	ILE
12	CL	89	ARG
12	CL	106	ASP
13	CM	14	ARG
13	CM	17	VAL
13	CM	47	ASP
13	CM	48	LEU
13	CM	56	LEU
13	CM	64	TRP
13	CM	65	LYS
13	CM	67	GLU
13	CM	69	GLU
13	CM	70	LEU
13	CM	77	ASN
13	CM	82	MET
13	CM	92	HIS
13	CM	99	ARG
13	CM	108	ARG
13	CM	115	LYS
14	CN	3	ARG
14	CN	12	ARG

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Mol	Chain	Res	Type
14	CN	14	PRO
14	CN	33	VAL
14	CN	37	PHE
14	CN	44	LEU
14	CN	50	LYS
15	CO	3	ILE
15	CO	10	LYS
15	CO	41	GLU
15	CO	54	ARG
15	CO	65	ARG
15	CO	82	ILE
16	CP	1	MET
16	CP	27	LYS
16	CP	45	THR
16	CP	53	VAL
16	CP	67	THR
16	CP	69	THR
17	CQ	6	LEU
17	CQ	9	VAL
17	CQ	19	VAL
17	CQ	35	VAL
17	CQ	38	ARG
17	CQ	52	LYS
17	CQ	60	ILE
18	CR	31	LEU
18	CR	32	ARG
18	CR	36	ASN
18	CR	87	ARG
19	CS	6	LYS
19	CS	7	LYS
19	CS	13	ASP
19	CS	14	HIS
19	CS	27	GLU
19	CS	29	ARG
19	CS	33	THR
19	CS	37	ARG
19	CS	43	GLU
19	CS	44	MET
19	CS	49	ILE
20	CT	16	HIS
20	CT	42	GLN
20	CT	50	GLU

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Mol	Chain	Res	Type
20	CT	73	HIS
20	CT	75	ASN
20	CT	85	MET
20	CT	93	GLU
21	CU	7	ARG
21	CU	8	THR
21	CU	10	ARG
21	CU	12	LYS
21	CU	15	ARG
27	DC	24	GLU
27	DC	36	LYS
27	DC	56	GLN
27	DC	77	ILE
27	DC	94	VAL
28	DD	9	TYR
28	DD	10	THR
28	DD	18	VAL
28	DD	24	ILE
28	DD	26	LYS
28	DD	33	LEU
28	DD	44	ASN
28	DD	46	GLN
28	DD	49	ILE
28	DD	61	LEU
28	DD	64	ILE
28	DD	65	ILE
28	DD	91	ARG
28	DD	92	ILE
28	DD	94	LEU
28	DD	103	ARG
28	DD	111	LEU
28	DD	113	VAL
28	DD	122	ASP
28	DD	131	LEU
28	DD	166	GLN
28	DD	168	ARG
28	DD	192	THR
28	DD	193	VAL
28	DD	211	ARG
28	DD	213	ARG
28	DD	218	ARG
28	DD	221	VAL

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Mol	Chain	Res	Type
28	DD	228	PRO
28	DD	229	VAL
28	DD	257	LEU
28	DD	260	ARG
28	DD	271	ILE
29	DE	1	MET
29	DE	9	VAL
29	DE	16	ARG
29	DE	18	ASP
29	DE	33	VAL
29	DE	40	GLU
29	DE	49	LEU
29	DE	52	LEU
29	DE	66	HIS
29	DE	67	PHE
29	DE	76	ARG
29	DE	78	LEU
29	DE	79	ARG
29	DE	86	PRO
29	DE	89	ASP
29	DE	101	ARG
29	DE	118	LYS
29	DE	119	ARG
29	DE	132	HIS
29	DE	134	ILE
29	DE	144	ARG
29	DE	154	LYS
29	DE	169	ASN
29	DE	179	GLU
29	DE	202	LYS
29	DE	203	LYS
30	DF	2	LYS
30	DF	3	GLU
30	DF	19	GLU
30	DF	57	VAL
30	DF	59	TYR
30	DF	67	GLN
30	DF	78	ILE
30	DF	95	ARG
30	DF	96	ASP
30	DF	110	LEU
30	DF	112	MET

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Mol	Chain	Res	Type
30	DF	125	LEU
30	DF	140	LEU
30	DF	149	ASP
30	DF	160	ASN
30	DF	164	ARG
30	DF	171	PRO
30	DF	192	LEU
30	DF	202	PHE
31	DG	4	ASP
31	DG	16	ARG
31	DG	21	ARG
31	DG	22	ARG
31	DG	40	ASN
31	DG	48	GLU
31	DG	58	GLN
31	DG	70	VAL
31	DG	87	PRO
31	DG	101	ILE
31	DG	113	ARG
31	DG	117	PHE
31	DG	143	GLU
31	DG	147	ASP
31	DG	148	MET
31	DG	159	VAL
31	DG	162	THR
32	DH	21	PRO
32	DH	25	LYS
32	DH	41	MET
32	DH	46	GLU
32	DH	54	ARG
32	DH	86	GLU
32	DH	103	LEU
32	DH	109	PHE
32	DH	111	HIS
32	DH	139	GLN
32	DH	153	LYS
32	DH	157	TYR
32	DH	170	ARG
33	DI	38	LEU
33	DI	47	LEU
33	DI	51	ILE
33	DI	61	ARG

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Mol	Chain	Res	Type
33	DI	72	LEU
33	DI	75	LEU
33	DI	82	ARG
33	DI	96	ASP
33	DI	113	ARG
33	DI	118	LYS
33	DI	122	GLU
33	DI	129	THR
33	DI	134	PRO
33	DI	136	VAL
33	DI	138	ILE
34	DN	4	TYR
34	DN	12	ARG
34	DN	15	LEU
34	DN	22	THR
34	DN	23	LEU
34	DN	25	ARG
34	DN	38	HIS
34	DN	39	ARG
34	DN	42	TRP
34	DN	45	ASN
34	DN	48	MET
34	DN	55	VAL
34	DN	63	THR
34	DN	68	GLU
34	DN	78	TYR
34	DN	87	LEU
34	DN	108	PRO
34	DN	119	ARG
34	DN	121	LYS
34	DN	134	ARG
34	DN	136	GLU
35	DO	1	MET
35	DO	17	ARG
35	DO	21	CYS
35	DO	22	ILE
35	DO	24	VAL
35	DO	25	LEU
35	DO	29	ASN
35	DO	42	SER
35	DO	62	VAL
35	DO	64	ARG

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Mol	Chain	Res	Type
35	DO	65	THR
35	DO	68	GLU
35	DO	70	LYS
35	DO	73	ASP
35	DO	91	LEU
35	DO	96	THR
35	DO	104	ARG
36	DP	6	LEU
36	DP	9	ASN
36	DP	16	ARG
36	DP	18	ARG
36	DP	29	LYS
36	DP	30	THR
36	DP	39	LYS
36	DP	40	SER
36	DP	41	ARG
36	DP	52	GLU
36	DP	61	ARG
36	DP	64	LYS
36	DP	67	MET
36	DP	81	GLN
36	DP	85	LEU
36	DP	91	PHE
36	DP	98	GLU
36	DP	105	LEU
36	DP	108	LYS
36	DP	114	ILE
36	DP	125	VAL
36	DP	128	HIS
36	DP	135	LEU
37	DQ	1	MET
37	DQ	5	ARG
37	DQ	6	ARG
37	DQ	17	LEU
37	DQ	18	LYS
37	DQ	21	THR
37	DQ	45	GLN
37	DQ	51	ARG
37	DQ	54	MET
37	DQ	55	VAL
37	DQ	56	ARG
37	DQ	79	LEU

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Mol	Chain	Res	Type
37	DQ	81	VAL
37	DQ	110	THR
37	DQ	111	GLU
37	DQ	131	ILE
37	DQ	134	ARG
38	DR	2	ARG
38	DR	5	LYS
38	DR	8	ARG
38	DR	17	ARG
38	DR	18	LEU
38	DR	33	ARG
38	DR	51	LEU
38	DR	56	LYS
38	DR	60	LEU
38	DR	79	LEU
38	DR	80	PHE
38	DR	94	TYR
38	DR	104	ARG
39	DS	12	PHE
39	DS	18	ILE
39	DS	29	PHE
39	DS	36	TYR
39	DS	56	LEU
39	DS	89	ARG
39	DS	92	TYR
39	DS	97	ARG
39	DS	101	LEU
39	DS	103	GLU
40	DT	3	ARG
40	DT	6	LEU
40	DT	11	GLU
40	DT	12	SER
40	DT	13	ARG
40	DT	16	ARG
40	DT	23	ARG
40	DT	27	THR
40	DT	29	ARG
40	DT	31	SER
40	DT	32	TYR
40	DT	38	ASN
40	DT	39	ARG
40	DT	44	ASP

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Mol	Chain	Res	Type
40	DT	49	VAL
40	DT	51	ARG
40	DT	53	ARG
40	DT	58	ASN
40	DT	65	LYS
40	DT	66	VAL
40	DT	70	VAL
40	DT	74	ARG
40	DT	78	LEU
40	DT	83	ILE
40	DT	84	GLN
40	DT	89	VAL
40	DT	95	ARG
40	DT	96	ARG
40	DT	99	LEU
40	DT	100	TYR
40	DT	102	ILE
40	DT	104	ASN
40	DT	108	ARG
40	DT	113	LYS
40	DT	115	ARG
41	DU	15	LYS
41	DU	44	ASN
41	DU	49	HIS
41	DU	60	LEU
41	DU	79	PHE
41	DU	92	ARG
41	DU	104	GLN
42	DV	18	LEU
42	DV	19	LYS
42	DV	21	ARG
42	DV	39	LEU
42	DV	40	LEU
42	DV	66	ARG
42	DV	68	LYS
42	DV	82	ARG
42	DV	91	TYR
42	DV	99	ILE
43	DW	9	TYR
43	DW	11	ARG
43	DW	51	LEU
43	DW	60	ASN

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Mol	Chain	Res	Type
43	DW	61	ASN
43	DW	63	ASP
43	DW	70	TYR
43	DW	75	TYR
43	DW	76	VAL
43	DW	107	LEU
44	DX	49	VAL
44	DX	52	VAL
44	DX	57	LEU
44	DX	68	ARG
44	DX	76	ARG
44	DX	80	ILE
44	DX	83	VAL
45	DY	2	ARG
45	DY	6	HIS
45	DY	7	VAL
45	DY	19	LYS
45	DY	28	LYS
45	DY	32	PRO
45	DY	47	LYS
45	DY	53	PRO
45	DY	55	TYR
45	DY	62	GLU
45	DY	77	PRO
45	DY	89	PHE
45	DY	96	ILE
45	DY	97	ARG
46	DZ	3	TYR
46	DZ	8	TYR
46	DZ	9	TYR
46	DZ	11	GLU
46	DZ	23	LYS
46	DZ	53	ILE
46	DZ	67	LEU
46	DZ	80	ARG
46	DZ	85	HIS
46	DZ	86	VAL
46	DZ	89	PHE
46	DZ	99	TYR
46	DZ	121	HIS
46	DZ	128	VAL
46	DZ	145	GLU

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Mol	Chain	Res	Type
46	DZ	150	LEU
46	DZ	154	ASP
46	DZ	168	GLU
47	D0	3	HIS
47	D0	20	ARG
47	D0	25	ARG
47	D0	53	MET
47	D0	55	ARG
47	D0	70	GLN
47	D0	80	HIS
47	D0	84	LEU
48	D1	25	LYS
48	D1	35	THR
48	D1	40	ARG
48	D1	46	LEU
48	D1	58	ILE
48	D1	59	THR
48	D1	61	ARG
48	D1	72	GLU
48	D1	80	LEU
48	D1	82	LEU
48	D1	94	LEU
49	D2	2	LYS
49	D2	7	ARG
49	D2	32	LEU
49	D2	43	GLN
49	D2	44	LEU
49	D2	47	ASN
49	D2	48	HIS
49	D2	52	ASP
49	D2	53	LEU
49	D2	64	LEU
49	D2	68	ARG
50	D3	17	LYS
50	D3	37	LEU
51	D4	46	ASN
51	D4	48	ILE
51	D4	56	GLU
52	D5	4	HIS
52	D5	11	THR
52	D5	37	LYS
52	D5	40	LYS

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Mol	Chain	Res	Type
52	D5	48	GLU
52	D5	56	LYS
53	D6	10	LEU
53	D6	11	LEU
53	D6	12	GLU
53	D6	18	ARG
53	D6	19	ARG
53	D6	20	ASN
53	D6	31	PRO
53	D6	36	LEU
53	D6	42	TRP
53	D6	45	LYS
53	D6	46	HIS
54	D7	1	MET
54	D7	4	THR
54	D7	10	ARG
54	D7	41	ARG
55	D8	8	LYS
55	D8	13	ARG
55	D8	30	ARG
55	D8	31	HIS
55	D8	32	LEU
55	D8	34	TRP
55	D8	41	ILE
55	D8	44	LYS
55	D8	49	VAL
55	D8	61	LEU
56	D9	2	LYS
56	D9	28	GLU
56	D9	33	LYS

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (118) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	78	GLN
2	AB	95	GLN
2	AB	110	GLN
2	AB	204	ASN
2	AB	224	GLN
3	AC	3	ASN
5	AE	78	HIS
6	AF	100	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
7	AG	11	GLN
7	AG	106	GLN
9	AI	89	ASN
9	AI	124	GLN
10	AJ	76	ASN
10	AJ	78	ASN
10	AJ	84	GLN
11	AK	99	GLN
12	AL	8	ASN
12	AL	9	GLN
12	AL	75	HIS
13	AM	40	ASN
17	AQ	16	GLN
18	AR	36	ASN
20	AT	73	HIS
28	BD	115	GLN
29	BE	129	HIS
29	BE	132	HIS
29	BE	143	ASN
29	BE	180	ASN
30	BF	75	HIS
30	BF	160	ASN
30	BF	169	ASN
31	BG	27	ASN
31	BG	41	GLN
33	BI	105	HIS
34	BN	131	GLN
35	BO	3	GLN
36	BP	9	ASN
36	BP	13	ASN
36	BP	84	ASN
37	BQ	12	GLN
37	BQ	13	GLN
38	BR	11	ASN
38	BR	13	HIS
38	BR	16	HIS
41	BU	49	HIS
41	BU	72	HIS
41	BU	94	ASN
41	BU	104	GLN
42	BV	11	GLN
43	BW	60	ASN

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Mol	Chain	Res	Type
47	B0	29	GLN
50	B3	19	GLN
51	B4	46	ASN
53	B6	20	ASN
53	B6	26	ASN
53	B6	32	ASN
53	B6	46	HIS
56	B9	34	GLN
2	CB	78	GLN
2	CB	95	GLN
2	CB	104	ASN
2	CB	110	GLN
2	CB	204	ASN
2	CB	224	GLN
3	CC	3	ASN
5	CE	78	HIS
6	CF	100	ASN
7	CG	11	GLN
7	CG	68	ASN
7	CG	106	GLN
9	CI	58	HIS
9	CI	124	GLN
10	CJ	76	ASN
10	CJ	78	ASN
11	CK	99	GLN
11	CK	116	HIS
12	CL	9	GLN
12	CL	75	HIS
13	CM	40	ASN
16	CP	76	GLN
20	CT	73	HIS
28	DD	115	GLN
29	DE	129	HIS
29	DE	180	ASN
30	DF	75	HIS
30	DF	160	ASN
30	DF	169	ASN
31	DG	41	GLN
33	DI	105	HIS
34	DN	131	GLN
35	DO	3	GLN
35	DO	5	GLN

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Mol	Chain	Res	Type
35	DO	29	ASN
36	DP	9	ASN
36	DP	84	ASN
37	DQ	12	GLN
37	DQ	13	GLN
37	DQ	141	GLN
38	DR	11	ASN
38	DR	13	HIS
38	DR	16	HIS
40	DT	38	ASN
40	DT	55	ASN
41	DU	49	HIS
41	DU	72	HIS
41	DU	94	ASN
41	DU	104	GLN
42	DV	11	GLN
43	DW	60	ASN
47	D0	29	GLN
49	D2	38	GLN
50	D3	19	GLN
51	D4	46	ASN
53	D6	20	ASN
53	D6	26	ASN
53	D6	32	ASN
53	D6	46	HIS
56	D9	34	GLN

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1503/1522 (98%)	291 (19%)	27 (1%)
1	CA	1502/1522 (98%)	290 (19%)	32 (2%)
22	AW	75/76 (98%)	22 (29%)	0
22	AY	16/76 (21%)	9 (56%)	0
22	CW	75/76 (98%)	26 (34%)	0
22	CY	16/76 (21%)	7 (43%)	0
23	AV	76/77 (98%)	37 (48%)	5 (6%)
23	CV	76/77 (98%)	34 (44%)	5 (6%)
24	AX	7/24 (29%)	2 (28%)	0
24	CX	9/24 (37%)	3 (33%)	1 (11%)
25	BA	2796/2916 (95%)	557 (19%)	53 (1%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
25	DA	2796/2916 (95%)	564 (20%)	58 (2%)
26	BB	118/122 (96%)	18 (15%)	1 (0%)
26	DB	118/122 (96%)	19 (16%)	1 (0%)
All	All	9183/9626 (95%)	1879 (20%)	183 (1%)

All (1879) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	9	G
1	AA	32	A
1	AA	39	G
1	AA	47	C
1	AA	48	C
1	AA	51	A
1	AA	54	C
1	AA	61	G
1	AA	62	U
1	AA	77	G
1	AA	78	G
1	AA	79	U
1	AA	84	C
1	AA	85	U
1	AA	90	G
1	AA	91	G
1	AA	94	A
1	AA	108	G
1	AA	113	A
1	AA	114	C
1	AA	115	G
1	AA	125	C
1	AA	139	G
1	AA	140	G
1	AA	144	C
1	AA	150	G
1	AA	153	G
1	AA	154	A
1	AA	155	A
1	AA	157	C
1	AA	158	U
1	AA	166	A
1	AA	175	G
1	AA	176	U

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Mol	Chain	Res	Type
1	AA	190	G
1	AA	191	G
1	AA	201	A
1	AA	203	A
1	AA	209	U
1	AA	210	U
1	AA	215	G
1	AA	218	U
1	AA	239	U
1	AA	242	G
1	AA	244	U
1	AA	245	A
1	AA	246	G
1	AA	247	U
1	AA	248	U
1	AA	260	G
1	AA	261	G
1	AA	262	C
1	AA	284	G
1	AA	296	G
1	AA	323	C
1	AA	327	G
1	AA	337	C
1	AA	339	A
1	AA	340	C
1	AA	342	U
1	AA	343	G
1	AA	344	A
1	AA	347	C
1	AA	348	A
1	AA	349	G
1	AA	362	U
1	AA	367	C
1	AA	368	A
1	AA	379	G
1	AA	385	C
1	AA	392	A
1	AA	393	C
1	AA	401	G
1	AA	407	A
1	AA	408	G
1	AA	409	A

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Mol	Chain	Res	Type
1	AA	416	U
1	AA	417	C
1	AA	423	G
1	AA	424	U
1	AA	425	A
1	AA	430	C
1	AA	434	A
1	AA	436	C
1	AA	446	A
1	AA	452	C
1	AA	454	A
1	AA	469	G
1	AA	480	A
1	AA	481	U
1	AA	492	A
1	AA	493	A
1	AA	494	C
1	AA	501	C
1	AA	504	G
1	AA	507	G
1	AA	510	G
1	AA	514	U
1	AA	515	A
1	AA	516	A
1	AA	517	U
1	AA	530	A
1	AA	541	G
1	AA	542	A
1	AA	543	U
1	AA	544	U
1	AA	545	C
1	AA	555	A
1	AA	556	A
1	AA	559	G
1	AA	560	G
1	AA	562	G
1	AA	579	C
1	AA	590	A
1	AA	614	G
1	AA	615	A
1	AA	616	G
1	AA	636	A

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Mol	Chain	Res	Type
1	AA	648	A
1	AA	669	U
1	AA	670	A
1	AA	685	A
1	AA	706	U
1	AA	714	G
1	AA	731	C
1	AA	732	C
1	AA	738	G
1	AA	760	A
1	AA	775	A
1	AA	776	U
1	AA	777	A
1	AA	782	G
1	AA	799	A
1	AA	800	C
1	AA	802	A
1	AA	804	G
1	AA	811	A
1	AA	816	U
1	AA	819	G
1	AA	822	U
1	AA	823	C
1	AA	824	U
1	AA	825	C
1	AA	827	U
1	AA	836	A
1	AA	862	G
1	AA	879	G
1	AA	891	A
1	AA	893	G
1	AA	903	G
1	AA	904	G
1	AA	911	C
1	AA	919	G
1	AA	937	U
1	AA	938	U
1	AA	943	G
1	AA	946	A
1	AA	948	G
1	AA	951	A
1	AA	952	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	AA	953	G
1	AA	954	A
1	AA	955	A
1	AA	957	C
1	AA	958	U
1	AA	959	U
1	AA	968	U
1	AA	969	U
1	AA	970	G
1	AA	972	C
1	AA	979	G
1	AA	982	A
1	AA	983	A
1	AA	984	C
1	AA	1001	G
1	AA	1002	G
1	AA	1005	C
1	AA	1008	C
1	AA	1010	C
1	AA	1013	G
1	AA	1018	G
1	AA	1032	G
1	AA	1035	G
1	AA	1036	C
1	AA	1037	A
1	AA	1046	G
1	AA	1047	U
1	AA	1048	C
1	AA	1049	A
1	AA	1050	G
1	AA	1063	G
1	AA	1067	U
1	AA	1076	G
1	AA	1077	U
1	AA	1081	G
1	AA	1083	A
1	AA	1099	G
1	AA	1100	C
1	AA	1106	G
1	AA	1107	U
1	AA	1108	U
1	AA	1111	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	AA	1112	A
1	AA	1113	G
1	AA	1118	U
1	AA	1119	C
1	AA	1120	G
1	AA	1121	G
1	AA	1127	C
1	AA	1128	A
1	AA	1134	A
1	AA	1139	A
1	AA	1141	U
1	AA	1163	G
1	AA	1168	G
1	AA	1171	G
1	AA	1177	U
1	AA	1178	G
1	AA	1183	G
1	AA	1193	U
1	AA	1194	A
1	AA	1199	C
1	AA	1206	A
1	AA	1207	C
1	AA	1208	A
1	AA	1217	A
1	AA	1219	A
1	AA	1230	C
1	AA	1236	G
1	AA	1237	A
1	AA	1238	U
1	AA	1239	G
1	AA	1241	C
1	AA	1251	C
1	AA	1254	G
1	AA	1259	U
1	AA	1261	A
1	AA	1262	U
1	AA	1263	C
1	AA	1266	A
1	AA	1267	A
1	AA	1268	A
1	AA	1271	G
1	AA	1272	G

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Mol	Chain	Res	Type
1	AA	1274	G
1	AA	1278	C
1	AA	1280	A
1	AA	1281	G
1	AA	1282	U
1	AA	1283	U
1	AA	1286	G
1	AA	1298	C
1	AA	1300	A
1	AA	1301	C
1	AA	1303	C
1	AA	1304	G
1	AA	1312	G
1	AA	1316	C
1	AA	1317	C
1	AA	1319	G
1	AA	1320	A
1	AA	1327	A
1	AA	1328	G
1	AA	1334	G
1	AA	1344	C
1	AA	1345	A
1	AA	1346	U
1	AA	1352	G
1	AA	1377	C
1	AA	1380	A
1	AA	1401	G
1	AA	1421	C
1	AA	1423	G
1	AA	1424	G
1	AA	1425	G
1	AA	1426	A
1	AA	1427	G
1	AA	1431	A
1	AA	1432	C
1	AA	1469	A
1	AA	1476	A
1	AA	1479	A
1	AA	1481	G
1	AA	1482	G
1	AA	1483	U
1	AA	1484	A

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Mol	Chain	Res	Type
1	AA	1485	G
1	AA	1494	G
1	AA	1497	G
1	AA	1506	G
1	AA	1507	G
22	AW	2	C
22	AW	8	U
22	AW	15	G
22	AW	16	U
22	AW	17	C
22	AW	18	G
22	AW	19	G
22	AW	21	A
22	AW	34	G
22	AW	39	U
22	AW	42	C
22	AW	43	C
22	AW	47	U
22	AW	48	C
22	AW	52	G
22	AW	57	G
22	AW	58	A
22	AW	59	U
22	AW	61	C
22	AW	70	G
22	AW	71	G
22	AW	76	A
23	AV	2	G
23	AV	3	C
23	AV	4	G
23	AV	5	G
23	AV	6	G
23	AV	7	G
23	AV	8	U
23	AV	9	G
23	AV	16	C
23	AV	18	U
23	AV	19	G
23	AV	20	G
23	AV	21	U
23	AV	22	A
23	AV	23	G

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Mol	Chain	Res	Type
23	AV	31	G
23	AV	34	U
23	AV	35	C
23	AV	36	A
23	AV	44	A
23	AV	48	U
23	AV	49	C
23	AV	50	G
23	AV	51	U
23	AV	54	G
23	AV	55	U
23	AV	57	C
23	AV	60	A
23	AV	62	C
23	AV	64	G
23	AV	65	G
23	AV	66	C
23	AV	67	C
23	AV	68	C
23	AV	71	G
23	AV	75	C
23	AV	76	C
22	AY	29	G
22	AY	30	G
22	AY	33	U
22	AY	34	G
22	AY	35	A
22	AY	36	A
22	AY	38	A
22	AY	42	C
22	AY	43	C
24	AX	16	A
24	AX	21	C
25	BA	10	G
25	BA	35	G
25	BA	45	C
25	BA	48	G
25	BA	49	A
25	BA	55	G
25	BA	69	C
25	BA	70	G
25	BA	71	A

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Mol	Chain	Res	Type
25	BA	72	U
25	BA	73	A
25	BA	75	G
25	BA	83	G
25	BA	84	A
25	BA	85	G
25	BA	88	G
25	BA	90	U
25	BA	92	A
25	BA	94	C
25	BA	95	G
25	BA	102	G
25	BA	104	U
25	BA	105	C
25	BA	108	U
25	BA	118	A
25	BA	119	A
25	BA	120	U
25	BA	139(A)	G
25	BA	141	A
25	BA	143(A)	C
25	BA	149	A
25	BA	154	G
25	BA	154(A)	C
25	BA	174	C
25	BA	175	G
25	BA	181	A
25	BA	182	A
25	BA	196	A
25	BA	197	A
25	BA	204	A
25	BA	205	G
25	BA	215	G
25	BA	216	A
25	BA	221	A
25	BA	222	A
25	BA	228	A
25	BA	229	A
25	BA	233	A
25	BA	248	G
25	BA	252	G
25	BA	261	G

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Mol	Chain	Res	Type
25	BA	271(J)	C
25	BA	271(K)	U
25	BA	271(L)	U
25	BA	271(N)	U
25	BA	271(O)	C
25	BA	271(P)	C
25	BA	271(R)	G
25	BA	271(T)	C
25	BA	271(V)	G
25	BA	271(X)	G
25	BA	271(Y)	U
25	BA	271(Z)	C
25	BA	272	G
25	BA	272(A)	U
25	BA	272(B)	G
25	BA	272(H)	C
25	BA	272(I)	U
25	BA	272(J)	C
25	BA	283	A
25	BA	284	U
25	BA	286	C
25	BA	287	C
25	BA	311	A
25	BA	329	G
25	BA	330	A
25	BA	332	A
25	BA	333	G
25	BA	351	G
25	BA	352	G
25	BA	353	G
25	BA	354	G
25	BA	356	G
25	BA	358	U
25	BA	359	A
25	BA	361	G
25	BA	362	U
25	BA	363(B)	G
25	BA	363(E)	U
25	BA	363(F)	A
25	BA	364	C
25	BA	365	C
25	BA	372	G

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Mol	Chain	Res	Type
25	BA	379	G
25	BA	380	U
25	BA	386	G
25	BA	388	G
25	BA	395	U
25	BA	396	G
25	BA	405	U
25	BA	406	G
25	BA	411	G
25	BA	412	A
25	BA	428	A
25	BA	444	C
25	BA	448	U
25	BA	451	C
25	BA	456	C
25	BA	457	A
25	BA	470	A
25	BA	475	U
25	BA	481	G
25	BA	482	A
25	BA	505	A
25	BA	508	G
25	BA	509	C
25	BA	512	G
25	BA	530	G
25	BA	531	C
25	BA	532	A
25	BA	533	G
25	BA	542	C
25	BA	551	G
25	BA	552	G
25	BA	556	G
25	BA	563	G
25	BA	573	G
25	BA	587	C
25	BA	604	G
25	BA	607	U
25	BA	613	G
25	BA	614(A)	U
25	BA	614(B)	G
25	BA	615	G
25	BA	627	A

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Mol	Chain	Res	Type
25	BA	637	A
25	BA	645	C
25	BA	646	A
25	BA	670	A
25	BA	673	C
25	BA	686	G
25	BA	708	C
25	BA	722	A
25	BA	730	C
25	BA	753	C
25	BA	759	G
25	BA	762	U
25	BA	764	A
25	BA	776	G
25	BA	782	A
25	BA	784	A
25	BA	785	G
25	BA	790	C
25	BA	791	C
25	BA	792	G
25	BA	805	G
25	BA	812	C
25	BA	819	A
25	BA	827	U
25	BA	828	U
25	BA	830	G
25	BA	846	C
25	BA	848	G
25	BA	856	C
25	BA	857	C
25	BA	858	U
25	BA	859	G
25	BA	866	A
25	BA	886	C
25	BA	890	A
25	BA	896	A
25	BA	897	C
25	BA	904	C
25	BA	910	A
25	BA	911	A
25	BA	912	C
25	BA	917	A

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Mol	Chain	Res	Type
25	BA	919	G
25	BA	926	A
25	BA	932	G
25	BA	933	A
25	BA	941	A
25	BA	945	A
25	BA	946	G
25	BA	953	A
25	BA	958	U
25	BA	959	A
25	BA	961	C
25	BA	965	C
25	BA	974	G
25	BA	975	C
25	BA	975(A)	G
25	BA	983	A
25	BA	991	C
25	BA	996	A
25	BA	1000	A
25	BA	1005	C
25	BA	1012	U
25	BA	1013	C
25	BA	1017	G
25	BA	1022	G
25	BA	1023	U
25	BA	1025	G
25	BA	1026	U
25	BA	1039	G
25	BA	1041	C
25	BA	1044	G
25	BA	1045	A
25	BA	1047	G
25	BA	1049	C
25	BA	1053	C
25	BA	1110	G
25	BA	1111	A
25	BA	1112	G
25	BA	1113	U
25	BA	1115	G
25	BA	1118	C
25	BA	1126	A
25	BA	1130	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	BA	1135	C
25	BA	1136	G
25	BA	1141	U
25	BA	1143	A
25	BA	1155	A
25	BA	1173	G
25	BA	1174	A
25	BA	1175	U
25	BA	1176	G
25	BA	1178	C
25	BA	1195	G
25	BA	1205	U
25	BA	1210	A
25	BA	1211	U
25	BA	1221	C
25	BA	1224	C
25	BA	1236	G
25	BA	1247	A
25	BA	1248	G
25	BA	1250	G
25	BA	1253	A
25	BA	1256	G
25	BA	1271	G
25	BA	1272	A
25	BA	1281	G
25	BA	1300	U
25	BA	1301	A
25	BA	1302	A
25	BA	1313	U
25	BA	1314	C
25	BA	1319	G
25	BA	1321	A
25	BA	1325	G
25	BA	1329	U
25	BA	1330	C
25	BA	1332	G
25	BA	1345	C
25	BA	1349	A
25	BA	1352	U
25	BA	1359	A
25	BA	1365	A
25	BA	1368	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	BA	1379	A
25	BA	1380	G
25	BA	1384	A
25	BA	1385	G
25	BA	1407	C
25	BA	1416	G
25	BA	1417	C
25	BA	1419	A
25	BA	1420	U
25	BA	1421	G
25	BA	1427	A
25	BA	1428	C
25	BA	1437	C
25	BA	1445	A
25	BA	1449	A
25	BA	1450	G
25	BA	1455	G
25	BA	1460	A
25	BA	1461	G
25	BA	1467	C
25	BA	1471	A
25	BA	1475	G
25	BA	1478	G
25	BA	1482	G
25	BA	1485	G
25	BA	1488	G
25	BA	1490	A
25	BA	1493	C
25	BA	1494	A
25	BA	1495	A
25	BA	1496	A
25	BA	1497	U
25	BA	1498	C
25	BA	1502	C
25	BA	1505	C
25	BA	1509	C
25	BA	1509(A)	A
25	BA	1520	G
25	BA	1542	A
25	BA	1544	A
25	BA	1545	A
25	BA	1546	C

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Mol	Chain	Res	Type
25	BA	1547	C
25	BA	1554	A
25	BA	1558	A
25	BA	1559	G
25	BA	1569	A
25	BA	1578	U
25	BA	1579	A
25	BA	1584	C
25	BA	1586	A
25	BA	1588	C
25	BA	1591	G
25	BA	1594	G
25	BA	1603	A
25	BA	1608	A
25	BA	1610	A
25	BA	1616	A
25	BA	1617	C
25	BA	1618	A
25	BA	1640	C
25	BA	1647	G
25	BA	1648	C
25	BA	1653	G
25	BA	1654	A
25	BA	1674	G
25	BA	1686	C
25	BA	1696	G
25	BA	1698	A
25	BA	1700	A
25	BA	1718	G
25	BA	1722	A
25	BA	1739	U
25	BA	1740	G
25	BA	1744	C
25	BA	1746	G
25	BA	1748	G
25	BA	1763	G
25	BA	1764	G
25	BA	1772	G
25	BA	1773	A
25	BA	1779	U
25	BA	1780	A
25	BA	1786	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	BA	1791	A
25	BA	1800	C
25	BA	1801	G
25	BA	1816	G
25	BA	1820	U
25	BA	1829	A
25	BA	1835	G
25	BA	1847	A
25	BA	1858	G
25	BA	1865	G
25	BA	1866	C
25	BA	1877	A
25	BA	1878	G
25	BA	1880	C
25	BA	1882	C
25	BA	1885	A
25	BA	1888	G
25	BA	1889	A
25	BA	1900	A
25	BA	1902	C
25	BA	1906	G
25	BA	1929	G
25	BA	1930	G
25	BA	1936	A
25	BA	1938	A
25	BA	1955	U
25	BA	1963	U
25	BA	1967	C
25	BA	1969	A
25	BA	1970	A
25	BA	1971	A
25	BA	1972	A
25	BA	1982	C
25	BA	1987	G
25	BA	1988	C
25	BA	1991	U
25	BA	1992	G
25	BA	1993	U
25	BA	1994	C
25	BA	1997	G
25	BA	2023	G
25	BA	2031	A

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Mol	Chain	Res	Type
25	BA	2032	G
25	BA	2033	A
25	BA	2034	U
25	BA	2036	C
25	BA	2043	C
25	BA	2055	C
25	BA	2056	G
25	BA	2059	A
25	BA	2060	A
25	BA	2061	G
25	BA	2062	A
25	BA	2069	G
25	BA	2095	C
25	BA	2099	U
25	BA	2103	C
25	BA	2104	G
25	BA	2108	C
25	BA	2110	G
25	BA	2111	C
25	BA	2116	G
25	BA	2117	A
25	BA	2118	U
25	BA	2119	A
25	BA	2120	G
25	BA	2124	G
25	BA	2126	A
25	BA	2127	G
25	BA	2131	G
25	BA	2133	G
25	BA	2147	G
25	BA	2165	G
25	BA	2168	G
25	BA	2170	A
25	BA	2171	A
25	BA	2172	U
25	BA	2173	A
25	BA	2174	C
25	BA	2179	C
25	BA	2187	G
25	BA	2190	G
25	BA	2192	G
25	BA	2193	G

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Mol	Chain	Res	Type
25	BA	2199	A
25	BA	2200	C
25	BA	2207	G
25	BA	2208	A
25	BA	2219	G
25	BA	2225	A
25	BA	2226	C
25	BA	2238	G
25	BA	2239	G
25	BA	2246	G
25	BA	2251	G
25	BA	2263	C
25	BA	2275	C
25	BA	2283	C
25	BA	2287	A
25	BA	2288	A
25	BA	2289	G
25	BA	2290	G
25	BA	2305	A
25	BA	2307	G
25	BA	2308	G
25	BA	2309	A
25	BA	2311	A
25	BA	2313	C
25	BA	2316	C
25	BA	2319	G
25	BA	2320	A
25	BA	2325	G
25	BA	2330	G
25	BA	2331	G
25	BA	2334	G
25	BA	2336	A
25	BA	2345	G
25	BA	2349	G
25	BA	2383	G
25	BA	2385	C
25	BA	2388	A
25	BA	2391	G
25	BA	2392	A
25	BA	2399	G
25	BA	2402	C
25	BA	2423	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	BA	2425	A
25	BA	2429	G
25	BA	2430	A
25	BA	2435	A
25	BA	2439	A
25	BA	2441	C
25	BA	2448	A
25	BA	2464	C
25	BA	2470	G
25	BA	2476	A
25	BA	2478	A
25	BA	2482	G
25	BA	2484	G
25	BA	2491	U
25	BA	2494	G
25	BA	2502	G
25	BA	2505	G
25	BA	2506	U
25	BA	2507	C
25	BA	2516	G
25	BA	2517	C
25	BA	2518	A
25	BA	2520	C
25	BA	2523	G
25	BA	2529	G
25	BA	2534	A
25	BA	2543	G
25	BA	2554	U
25	BA	2566	A
25	BA	2567	G
25	BA	2573	C
25	BA	2582	G
25	BA	2584	U
25	BA	2585	U
25	BA	2586	C
25	BA	2588	G
25	BA	2602	A
25	BA	2610	C
25	BA	2611	U
25	BA	2612	C
25	BA	2615	U
25	BA	2630	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	BA	2646	C
25	BA	2673	G
25	BA	2682	U
25	BA	2690	C
25	BA	2691	C
25	BA	2702	U
25	BA	2712	U
25	BA	2712(A)	A
25	BA	2713	A
25	BA	2714	G
25	BA	2720	U
25	BA	2726	U
25	BA	2733	A
25	BA	2744	G
25	BA	2752	C
25	BA	2754	U
25	BA	2757	A
25	BA	2759	G
25	BA	2762	G
25	BA	2763	G
25	BA	2765	A
25	BA	2766	G
25	BA	2778	A
25	BA	2779	U
25	BA	2780	G
25	BA	2781	A
25	BA	2791	C
25	BA	2792	G
25	BA	2794	C
25	BA	2799	C
25	BA	2802	G
25	BA	2803	C
25	BA	2804	C
25	BA	2808	U
25	BA	2820	A
25	BA	2821	A
25	BA	2833	G
25	BA	2834	G
25	BA	2835	A
25	BA	2849	U
25	BA	2864	G
25	BA	2872	G

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Mol	Chain	Res	Type
25	BA	2879	C
25	BA	2893	G
26	BB	2	C
26	BB	3	C
26	BB	8	U
26	BB	13	A
26	BB	15	A
26	BB	16	G
26	BB	22	U
26	BB	27	C
26	BB	42	C
26	BB	45	A
26	BB	53	A
26	BB	67	G
26	BB	73	A
26	BB	88	C
26	BB	108	U
26	BB	109	C
26	BB	110	G
26	BB	116	G
1	CA	9	G
1	CA	32	A
1	CA	39	G
1	CA	47	C
1	CA	48	C
1	CA	51	A
1	CA	54	C
1	CA	60	A
1	CA	61	G
1	CA	77	G
1	CA	78	G
1	CA	79	U
1	CA	84	C
1	CA	85	U
1	CA	91	G
1	CA	94	A
1	CA	101	G
1	CA	113	A
1	CA	114	C
1	CA	125	C
1	CA	131	C
1	CA	138	G

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Mol	Chain	Res	Type
1	CA	140	G
1	CA	141	G
1	CA	144	C
1	CA	151	G
1	CA	153	G
1	CA	154	A
1	CA	155	A
1	CA	156	A
1	CA	157	C
1	CA	158	U
1	CA	166	A
1	CA	167	U
1	CA	175	G
1	CA	176	U
1	CA	190	G
1	CA	191	G
1	CA	201	A
1	CA	203	A
1	CA	209	U
1	CA	210	U
1	CA	238	A
1	CA	242	G
1	CA	246	G
1	CA	257	A
1	CA	261	G
1	CA	262	C
1	CA	270	G
1	CA	276	G
1	CA	284	G
1	CA	290	C
1	CA	291	U
1	CA	296	G
1	CA	314	G
1	CA	316	A
1	CA	319	G
1	CA	323	C
1	CA	327	G
1	CA	337	C
1	CA	339	A
1	CA	340	C
1	CA	342	U
1	CA	343	G

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Mol	Chain	Res	Type
1	CA	344	A
1	CA	345	G
1	CA	347	C
1	CA	348	A
1	CA	349	G
1	CA	362	U
1	CA	367	C
1	CA	385	C
1	CA	392	A
1	CA	393	C
1	CA	401	G
1	CA	407	A
1	CA	408	G
1	CA	409	A
1	CA	414	C
1	CA	416	U
1	CA	417	C
1	CA	424	U
1	CA	430	C
1	CA	434	A
1	CA	446	A
1	CA	454	A
1	CA	469	G
1	CA	477	G
1	CA	480	A
1	CA	481	U
1	CA	482	A
1	CA	492	A
1	CA	493	A
1	CA	494	C
1	CA	501	C
1	CA	507	G
1	CA	510	G
1	CA	514	U
1	CA	515	A
1	CA	516	A
1	CA	517	U
1	CA	530	A
1	CA	542	A
1	CA	543	U
1	CA	544	U
1	CA	545	C

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Mol	Chain	Res	Type
1	CA	547	C
1	CA	555	A
1	CA	556	A
1	CA	559	G
1	CA	560	G
1	CA	562	G
1	CA	563	U
1	CA	590	A
1	CA	598	C
1	CA	615	A
1	CA	616	G
1	CA	617	C
1	CA	636	A
1	CA	644	G
1	CA	648	A
1	CA	670	A
1	CA	671	G
1	CA	685	A
1	CA	688	U
1	CA	698	A
1	CA	706	U
1	CA	707	G
1	CA	714	G
1	CA	716	A
1	CA	731	C
1	CA	732	C
1	CA	736	A
1	CA	737	C
1	CA	738	G
1	CA	743	G
1	CA	760	A
1	CA	767	C
1	CA	769	G
1	CA	776	U
1	CA	777	A
1	CA	785	A
1	CA	798	A
1	CA	800	C
1	CA	801	G
1	CA	802	A
1	CA	804	G
1	CA	810	U

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Mol	Chain	Res	Type
1	CA	811	A
1	CA	819	G
1	CA	822	U
1	CA	823	C
1	CA	824	U
1	CA	825	C
1	CA	836	A
1	CA	879	G
1	CA	891	A
1	CA	898	U
1	CA	904	G
1	CA	909	C
1	CA	911	C
1	CA	912	A
1	CA	937	U
1	CA	938	U
1	CA	943	G
1	CA	946	A
1	CA	948	G
1	CA	951	A
1	CA	952	A
1	CA	953	G
1	CA	954	A
1	CA	955	A
1	CA	957	C
1	CA	968	U
1	CA	969	U
1	CA	970	G
1	CA	982	A
1	CA	983	A
1	CA	1001	G
1	CA	1004	G
1	CA	1005	C
1	CA	1008	C
1	CA	1009	G
1	CA	1018	G
1	CA	1032	G
1	CA	1036	C
1	CA	1037	A
1	CA	1047	U
1	CA	1048	C
1	CA	1050	G

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Mol	Chain	Res	Type
1	CA	1063	G
1	CA	1067	U
1	CA	1074	A
1	CA	1076	G
1	CA	1077	U
1	CA	1083	A
1	CA	1090	G
1	CA	1099	G
1	CA	1100	C
1	CA	1106	G
1	CA	1107	U
1	CA	1108	U
1	CA	1110	C
1	CA	1111	C
1	CA	1112	A
1	CA	1118	U
1	CA	1119	C
1	CA	1120	G
1	CA	1121	G
1	CA	1127	C
1	CA	1128	A
1	CA	1134	A
1	CA	1139	A
1	CA	1141	U
1	CA	1142	G
1	CA	1143	C
1	CA	1152	G
1	CA	1163	G
1	CA	1171	G
1	CA	1177	U
1	CA	1178	G
1	CA	1182	A
1	CA	1183	G
1	CA	1185	A
1	CA	1193	U
1	CA	1194	A
1	CA	1196	G
1	CA	1206	A
1	CA	1207	C
1	CA	1208	A
1	CA	1217	A
1	CA	1219	A

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Mol	Chain	Res	Type
1	CA	1236	G
1	CA	1237	A
1	CA	1238	U
1	CA	1251	C
1	CA	1254	G
1	CA	1259	U
1	CA	1260	A
1	CA	1261	A
1	CA	1262	U
1	CA	1263	C
1	CA	1267	A
1	CA	1268	A
1	CA	1274	G
1	CA	1275	G
1	CA	1281	G
1	CA	1282	U
1	CA	1283	U
1	CA	1286	G
1	CA	1298	C
1	CA	1301	C
1	CA	1303	C
1	CA	1304	G
1	CA	1312	G
1	CA	1316	C
1	CA	1317	C
1	CA	1319	G
1	CA	1327	A
1	CA	1328	G
1	CA	1334	G
1	CA	1346	U
1	CA	1350	G
1	CA	1352	G
1	CA	1369	G
1	CA	1380	A
1	CA	1401	G
1	CA	1415	A
1	CA	1424	G
1	CA	1425	G
1	CA	1426	A
1	CA	1427	G
1	CA	1431	A
1	CA	1432	C

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Mol	Chain	Res	Type
1	CA	1458	U
1	CA	1464	G
1	CA	1469	A
1	CA	1474	G
1	CA	1476	A
1	CA	1479	A
1	CA	1480	A
1	CA	1481	G
1	CA	1482	G
1	CA	1483	U
1	CA	1484	A
1	CA	1494	G
1	CA	1496	A
1	CA	1497	G
1	CA	1506	G
1	CA	1507	G
22	CW	2	C
22	CW	9	A
22	CW	10	G
22	CW	14	A
22	CW	16	U
22	CW	17	C
22	CW	18	G
22	CW	19	G
22	CW	21	A
22	CW	34	G
22	CW	35	A
22	CW	37	A
22	CW	39	U
22	CW	43	C
22	CW	46	G
22	CW	47	U
22	CW	54	U
22	CW	57	G
22	CW	58	A
22	CW	59	U
22	CW	62	C
22	CW	63	G
22	CW	70	G
22	CW	71	G
22	CW	75	C
22	CW	76	A

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Mol	Chain	Res	Type
23	CV	3	C
23	CV	4	G
23	CV	5	G
23	CV	8	U
23	CV	9	G
23	CV	14	A
23	CV	16	C
23	CV	17	C
23	CV	18	U
23	CV	19	G
23	CV	20	G
23	CV	21	U
23	CV	22	A
23	CV	27	G
23	CV	28	U
23	CV	32	G
23	CV	34	U
23	CV	35	C
23	CV	36	A
23	CV	47	G
23	CV	48	U
23	CV	49	C
23	CV	50	G
23	CV	54	G
23	CV	55	U
23	CV	56	U
23	CV	57	C
23	CV	60	A
23	CV	61	U
23	CV	64	G
23	CV	66	C
23	CV	72	C
23	CV	75	C
23	CV	76	C
22	CY	29	G
22	CY	30	G
22	CY	34	G
22	CY	36	A
22	CY	37	A
22	CY	42	C
22	CY	43	C
24	CX	14	A

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Mol	Chain	Res	Type
24	CX	15	A
24	CX	19	U
25	DA	10	G
25	DA	35	G
25	DA	45	C
25	DA	48	G
25	DA	49	A
25	DA	55	G
25	DA	69	C
25	DA	70	G
25	DA	71	A
25	DA	72	U
25	DA	73	A
25	DA	75	G
25	DA	83	G
25	DA	84	A
25	DA	85	G
25	DA	88	G
25	DA	90	U
25	DA	92	A
25	DA	94	C
25	DA	95	G
25	DA	102	G
25	DA	104	U
25	DA	105	C
25	DA	108	U
25	DA	118	A
25	DA	119	A
25	DA	120	U
25	DA	139(A)	G
25	DA	141	A
25	DA	142(A)	C
25	DA	143(A)	C
25	DA	149	A
25	DA	154	G
25	DA	154(A)	C
25	DA	174	C
25	DA	175	G
25	DA	181	A
25	DA	182	A
25	DA	196	A
25	DA	197	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	DA	204	A
25	DA	205	G
25	DA	215	G
25	DA	216	A
25	DA	221	A
25	DA	222	A
25	DA	228	A
25	DA	229	A
25	DA	233	A
25	DA	248	G
25	DA	252	G
25	DA	261	G
25	DA	271(J)	C
25	DA	271(K)	U
25	DA	271(L)	U
25	DA	271(N)	U
25	DA	271(O)	C
25	DA	271(P)	C
25	DA	271(R)	G
25	DA	271(T)	C
25	DA	271(V)	G
25	DA	271(X)	G
25	DA	271(Y)	U
25	DA	271(Z)	C
25	DA	272	G
25	DA	272(A)	U
25	DA	272(B)	G
25	DA	272(H)	C
25	DA	274	G
25	DA	283	A
25	DA	284	U
25	DA	286	C
25	DA	287	C
25	DA	309	G
25	DA	311	A
25	DA	329	G
25	DA	330	A
25	DA	332	A
25	DA	333	G
25	DA	351	G
25	DA	352	G
25	DA	353	G

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Mol	Chain	Res	Type
25	DA	354	G
25	DA	356	G
25	DA	358	U
25	DA	359	A
25	DA	361	G
25	DA	362	U
25	DA	363(B)	G
25	DA	363(E)	U
25	DA	363(F)	A
25	DA	364	C
25	DA	365	C
25	DA	372	G
25	DA	379	G
25	DA	380	U
25	DA	386	G
25	DA	388	G
25	DA	395	U
25	DA	396	G
25	DA	405	U
25	DA	406	G
25	DA	411	G
25	DA	412	A
25	DA	428	A
25	DA	444	C
25	DA	448	U
25	DA	451	C
25	DA	456	C
25	DA	457	A
25	DA	470	A
25	DA	475	U
25	DA	481	G
25	DA	482	A
25	DA	505	A
25	DA	508	G
25	DA	509	C
25	DA	512	G
25	DA	530	G
25	DA	531	C
25	DA	532	A
25	DA	533	G
25	DA	542	C
25	DA	551	G

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Mol	Chain	Res	Type
25	DA	552	G
25	DA	556	G
25	DA	563	G
25	DA	573	G
25	DA	587	C
25	DA	604	G
25	DA	607	U
25	DA	613	G
25	DA	614(A)	U
25	DA	614(B)	G
25	DA	615	G
25	DA	627	A
25	DA	637	A
25	DA	645	C
25	DA	646	A
25	DA	670	A
25	DA	673	C
25	DA	686	G
25	DA	708	C
25	DA	722	A
25	DA	730	C
25	DA	753	C
25	DA	759	G
25	DA	762	U
25	DA	764	A
25	DA	776	G
25	DA	782	A
25	DA	784	A
25	DA	785	G
25	DA	790	C
25	DA	791	C
25	DA	792	G
25	DA	805	G
25	DA	812	C
25	DA	819	A
25	DA	827	U
25	DA	828	U
25	DA	830	G
25	DA	846	C
25	DA	848	G
25	DA	856	C
25	DA	857	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	DA	858	U
25	DA	859	G
25	DA	866	A
25	DA	886	C
25	DA	890	A
25	DA	896	A
25	DA	897	C
25	DA	904	C
25	DA	910	A
25	DA	911	A
25	DA	912	C
25	DA	917	A
25	DA	919	G
25	DA	926	A
25	DA	932	G
25	DA	933	A
25	DA	941	A
25	DA	945	A
25	DA	946	G
25	DA	953	A
25	DA	958	U
25	DA	959	A
25	DA	961	C
25	DA	965	C
25	DA	974	G
25	DA	975	C
25	DA	975(A)	G
25	DA	983	A
25	DA	991	C
25	DA	996	A
25	DA	1000	A
25	DA	1005	C
25	DA	1012	U
25	DA	1013	C
25	DA	1017	G
25	DA	1022	G
25	DA	1023	U
25	DA	1025	G
25	DA	1026	U
25	DA	1039	G
25	DA	1041	C
25	DA	1044	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	DA	1045	A
25	DA	1047	G
25	DA	1049	C
25	DA	1053	C
25	DA	1110	G
25	DA	1111	A
25	DA	1112	G
25	DA	1113	U
25	DA	1115	G
25	DA	1118	C
25	DA	1126	A
25	DA	1130	U
25	DA	1135	C
25	DA	1136	G
25	DA	1141	U
25	DA	1143	A
25	DA	1155	A
25	DA	1173	G
25	DA	1174	A
25	DA	1175	U
25	DA	1176	G
25	DA	1178	C
25	DA	1195	G
25	DA	1205	U
25	DA	1210	A
25	DA	1211	U
25	DA	1221	C
25	DA	1224	C
25	DA	1236	G
25	DA	1247	A
25	DA	1248	G
25	DA	1250	G
25	DA	1253	A
25	DA	1256	G
25	DA	1271	G
25	DA	1272	A
25	DA	1281	G
25	DA	1300	U
25	DA	1301	A
25	DA	1302	A
25	DA	1313	U
25	DA	1314	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	DA	1319	G
25	DA	1321	A
25	DA	1325	G
25	DA	1329	U
25	DA	1330	C
25	DA	1332	G
25	DA	1345	C
25	DA	1349	A
25	DA	1352	U
25	DA	1359	A
25	DA	1365	A
25	DA	1368	G
25	DA	1379	A
25	DA	1380	G
25	DA	1384	A
25	DA	1385	G
25	DA	1386	C
25	DA	1407	C
25	DA	1416	G
25	DA	1417	C
25	DA	1419	A
25	DA	1420	U
25	DA	1421	G
25	DA	1427	A
25	DA	1428	C
25	DA	1437	C
25	DA	1445	A
25	DA	1447	G
25	DA	1448	G
25	DA	1449	A
25	DA	1450	G
25	DA	1455	G
25	DA	1460	A
25	DA	1461	G
25	DA	1467	C
25	DA	1471	A
25	DA	1475	G
25	DA	1478	G
25	DA	1482	G
25	DA	1485	G
25	DA	1488	G
25	DA	1490	A

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Mol	Chain	Res	Type
25	DA	1493	C
25	DA	1494	A
25	DA	1495	A
25	DA	1496	A
25	DA	1497	U
25	DA	1498	C
25	DA	1502	C
25	DA	1505	C
25	DA	1509	C
25	DA	1509(A)	A
25	DA	1520	G
25	DA	1525	G
25	DA	1542	A
25	DA	1544	A
25	DA	1545	A
25	DA	1546	C
25	DA	1547	C
25	DA	1554	A
25	DA	1558	A
25	DA	1559	G
25	DA	1569	A
25	DA	1578	U
25	DA	1579	A
25	DA	1584	C
25	DA	1586	A
25	DA	1588	C
25	DA	1591	G
25	DA	1594	G
25	DA	1603	A
25	DA	1608	A
25	DA	1610	A
25	DA	1616	A
25	DA	1617	C
25	DA	1618	A
25	DA	1640	C
25	DA	1647	G
25	DA	1648	C
25	DA	1653	G
25	DA	1654	A
25	DA	1674	G
25	DA	1686	C
25	DA	1696	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	DA	1698	A
25	DA	1700	A
25	DA	1718	G
25	DA	1722	A
25	DA	1739	U
25	DA	1740	G
25	DA	1744	C
25	DA	1746	G
25	DA	1748	G
25	DA	1763	G
25	DA	1764	G
25	DA	1772	G
25	DA	1773	A
25	DA	1779	U
25	DA	1780	A
25	DA	1786	A
25	DA	1791	A
25	DA	1800	C
25	DA	1801	G
25	DA	1816	G
25	DA	1818	U
25	DA	1820	U
25	DA	1829	A
25	DA	1835	G
25	DA	1847	A
25	DA	1858	G
25	DA	1865	G
25	DA	1866	C
25	DA	1877	A
25	DA	1878	G
25	DA	1880	C
25	DA	1882	C
25	DA	1885	A
25	DA	1888	G
25	DA	1889	A
25	DA	1900	A
25	DA	1902	C
25	DA	1906	G
25	DA	1929	G
25	DA	1930	G
25	DA	1936	A
25	DA	1938	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	DA	1955	U
25	DA	1963	U
25	DA	1967	C
25	DA	1969	A
25	DA	1970	A
25	DA	1971	A
25	DA	1972	A
25	DA	1982	C
25	DA	1987	G
25	DA	1988	C
25	DA	1991	U
25	DA	1992	G
25	DA	1993	U
25	DA	1994	C
25	DA	1997	G
25	DA	2023	G
25	DA	2031	A
25	DA	2032	G
25	DA	2033	A
25	DA	2034	U
25	DA	2036	C
25	DA	2043	C
25	DA	2055	C
25	DA	2056	G
25	DA	2059	A
25	DA	2060	A
25	DA	2061	G
25	DA	2062	A
25	DA	2069	G
25	DA	2095	C
25	DA	2099	U
25	DA	2103	C
25	DA	2104	G
25	DA	2108	C
25	DA	2110	G
25	DA	2111	C
25	DA	2116	G
25	DA	2117	A
25	DA	2118	U
25	DA	2119	A
25	DA	2120	G
25	DA	2124	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	DA	2126	A
25	DA	2127	G
25	DA	2131	G
25	DA	2133	G
25	DA	2147	G
25	DA	2165	G
25	DA	2168	G
25	DA	2170	A
25	DA	2171	A
25	DA	2172	U
25	DA	2173	A
25	DA	2174	C
25	DA	2179	C
25	DA	2187	G
25	DA	2190	G
25	DA	2192	G
25	DA	2193	G
25	DA	2199	A
25	DA	2200	C
25	DA	2207	G
25	DA	2208	A
25	DA	2219	G
25	DA	2225	A
25	DA	2226	C
25	DA	2238	G
25	DA	2239	G
25	DA	2246	G
25	DA	2251	G
25	DA	2263	C
25	DA	2275	C
25	DA	2283	C
25	DA	2287	A
25	DA	2288	A
25	DA	2289	G
25	DA	2290	G
25	DA	2305	A
25	DA	2307	G
25	DA	2308	G
25	DA	2309	A
25	DA	2311	A
25	DA	2313	C
25	DA	2316	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	DA	2319	G
25	DA	2320	A
25	DA	2325	G
25	DA	2330	G
25	DA	2331	G
25	DA	2334	G
25	DA	2336	A
25	DA	2345	G
25	DA	2349	G
25	DA	2383	G
25	DA	2385	C
25	DA	2388	A
25	DA	2391	G
25	DA	2392	A
25	DA	2399	G
25	DA	2402	C
25	DA	2423	U
25	DA	2424	C
25	DA	2425	A
25	DA	2429	G
25	DA	2430	A
25	DA	2435	A
25	DA	2439	A
25	DA	2441	C
25	DA	2448	A
25	DA	2464	C
25	DA	2470	G
25	DA	2476	A
25	DA	2478	A
25	DA	2482	G
25	DA	2484	G
25	DA	2491	U
25	DA	2494	G
25	DA	2502	G
25	DA	2505	G
25	DA	2506	U
25	DA	2507	C
25	DA	2516	G
25	DA	2517	C
25	DA	2518	A
25	DA	2520	C
25	DA	2523	G

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Mol	Chain	Res	Type
25	DA	2529	G
25	DA	2534	A
25	DA	2543	G
25	DA	2554	U
25	DA	2566	A
25	DA	2567	G
25	DA	2573	C
25	DA	2582	G
25	DA	2584	U
25	DA	2585	U
25	DA	2586	C
25	DA	2588	G
25	DA	2602	A
25	DA	2610	C
25	DA	2611	U
25	DA	2612	C
25	DA	2615	U
25	DA	2630	G
25	DA	2646	C
25	DA	2673	G
25	DA	2682	U
25	DA	2690	C
25	DA	2691	C
25	DA	2702	U
25	DA	2712	U
25	DA	2712(A)	A
25	DA	2713	A
25	DA	2714	G
25	DA	2720	U
25	DA	2726	U
25	DA	2733	A
25	DA	2744	G
25	DA	2752	C
25	DA	2754	U
25	DA	2757	A
25	DA	2759	G
25	DA	2762	G
25	DA	2763	G
25	DA	2765	A
25	DA	2766	G
25	DA	2778	A
25	DA	2779	U

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Mol	Chain	Res	Type
25	DA	2780	G
25	DA	2781	A
25	DA	2791	C
25	DA	2792	G
25	DA	2794	C
25	DA	2799	C
25	DA	2802	G
25	DA	2803	C
25	DA	2804	C
25	DA	2808	U
25	DA	2820	A
25	DA	2821	A
25	DA	2833	G
25	DA	2834	G
25	DA	2835	A
25	DA	2849	U
25	DA	2864	G
25	DA	2872	G
25	DA	2879	C
25	DA	2893	G
26	DB	2	C
26	DB	3	C
26	DB	8	U
26	DB	13	A
26	DB	15	A
26	DB	16	G
26	DB	22	U
26	DB	27	C
26	DB	42	C
26	DB	45	A
26	DB	53	A
26	DB	67	G
26	DB	73	A
26	DB	79	C
26	DB	84	C
26	DB	88	C
26	DB	98	G
26	DB	110	G
26	DB	116	G

All (183) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	60	A
1	AA	77	G
1	AA	112	A
1	AA	238	A
1	AA	246	G
1	AA	261	G
1	AA	343	G
1	AA	361	C
1	AA	423	G
1	AA	424	U
1	AA	468	G
1	AA	492	A
1	AA	516	A
1	AA	542	A
1	AA	543	U
1	AA	731	C
1	AA	969	U
1	AA	1031	U
1	AA	1046	G
1	AA	1047	U
1	AA	1049	A
1	AA	1111	C
1	AA	1182	A
1	AA	1192	U
1	AA	1281	G
1	AA	1481	G
1	AA	1482	G
23	AV	18	U
23	AV	35	C
23	AV	49	C
23	AV	53	G
23	AV	61	U
25	BA	71	A
25	BA	74	A
25	BA	197	A
25	BA	214	G
25	BA	221	A
25	BA	283	A
25	BA	286	C
25	BA	331	A
25	BA	332	A
25	BA	387	U
25	BA	474	G

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Mol	Chain	Res	Type
25	BA	481	G
25	BA	603	A
25	BA	614(C)	A
25	BA	752	A
25	BA	790	C
25	BA	856	C
25	BA	945	A
25	BA	1022	G
25	BA	1210	A
25	BA	1286	A
25	BA	1300	U
25	BA	1301	A
25	BA	1324	G
25	BA	1378	A
25	BA	1395	A
25	BA	1427	A
25	BA	1558	A
25	BA	1608	A
25	BA	1686	C
25	BA	1819	A
25	BA	1987	G
25	BA	2033	A
25	BA	2111	C
25	BA	2116	G
25	BA	2126	A
25	BA	2171	A
25	BA	2172	U
25	BA	2187	G
25	BA	2225	A
25	BA	2263	C
25	BA	2282	G
25	BA	2422	A
25	BA	2481	G
25	BA	2506	U
25	BA	2610	C
25	BA	2681	C
25	BA	2689	U
25	BA	2726	U
25	BA	2756	U
25	BA	2763	G
25	BA	2780	G
25	BA	2864	G

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Mol	Chain	Res	Type
26	BB	66	A
1	CA	60	A
1	CA	77	G
1	CA	112	A
1	CA	238	A
1	CA	245	A
1	CA	261	G
1	CA	262	C
1	CA	269	A
1	CA	343	G
1	CA	361	C
1	CA	423	G
1	CA	468	G
1	CA	492	A
1	CA	516	A
1	CA	543	U
1	CA	670	A
1	CA	731	C
1	CA	776	U
1	CA	969	U
1	CA	1031	U
1	CA	1046	G
1	CA	1047	U
1	CA	1049	A
1	CA	1182	A
1	CA	1192	U
1	CA	1237	A
1	CA	1260	A
1	CA	1266	A
1	CA	1280	A
1	CA	1281	G
1	CA	1480	A
1	CA	1481	G
23	CV	18	U
23	CV	19	G
23	CV	35	C
23	CV	53	G
23	CV	61	U
24	CX	14	A
25	DA	70	G
25	DA	71	A
25	DA	74	A

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Mol	Chain	Res	Type
25	DA	197	A
25	DA	214	G
25	DA	221	A
25	DA	272(J)	C
25	DA	283	A
25	DA	286	C
25	DA	331	A
25	DA	332	A
25	DA	387	U
25	DA	474	G
25	DA	481	G
25	DA	603	A
25	DA	614(C)	A
25	DA	752	A
25	DA	790	C
25	DA	856	C
25	DA	945	A
25	DA	1022	G
25	DA	1210	A
25	DA	1286	A
25	DA	1300	U
25	DA	1301	A
25	DA	1324	G
25	DA	1378	A
25	DA	1385	G
25	DA	1395	A
25	DA	1427	A
25	DA	1447	G
25	DA	1558	A
25	DA	1608	A
25	DA	1686	C
25	DA	1818	U
25	DA	1819	A
25	DA	1987	G
25	DA	2033	A
25	DA	2111	C
25	DA	2116	G
25	DA	2126	A
25	DA	2171	A
25	DA	2172	U
25	DA	2187	G
25	DA	2225	A

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Mol	Chain	Res	Type
25	DA	2263	C
25	DA	2282	G
25	DA	2422	A
25	DA	2481	G
25	DA	2506	U
25	DA	2610	C
25	DA	2681	C
25	DA	2689	U
25	DA	2726	U
25	DA	2756	U
25	DA	2763	G
25	DA	2780	G
25	DA	2864	G
26	DB	66	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 746 ligands modelled in this entry, 744 are monoatomic - leaving 2 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the chemical component dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with  $|Z| > 2$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
58	PAR	AA	1694	-	45,45,45	1.43	9 (20%)	59,67,67	1.25	6 (10%)
58	PAR	CA	1695	-	45,45,45	1.70	11 (24%)	59,67,67	1.39	6 (10%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral



centers analysed, the number of these observed in the model and the number defined in the chemical component dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
58	PAR	AA	1694	-	-	0/18/94/94	0/4/4/4
58	PAR	CA	1695	-	-	0/18/94/94	0/4/4/4

All (20) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
58	CA	1695	PAR	O52-C52	2.01	1.48	1.43
58	AA	1694	PAR	O54-C54	2.01	1.49	1.44
58	AA	1694	PAR	C31-C21	2.03	1.56	1.53
58	CA	1695	PAR	O51-C11	2.06	1.47	1.41
58	CA	1695	PAR	O11-C42	2.09	1.49	1.43
58	AA	1694	PAR	C14-C24	2.11	1.56	1.52
58	CA	1695	PAR	C44-C34	2.12	1.58	1.52
58	CA	1695	PAR	C62-C52	2.16	1.58	1.52
58	CA	1695	PAR	O54-C54	2.34	1.50	1.44
58	AA	1694	PAR	C64-C54	2.41	1.58	1.52
58	AA	1694	PAR	O51-C11	2.56	1.48	1.41
58	AA	1694	PAR	C11-C21	2.57	1.57	1.52
58	CA	1695	PAR	C11-C21	2.80	1.58	1.52
58	CA	1695	PAR	O54-C14	2.91	1.49	1.41
58	AA	1694	PAR	O54-C14	2.96	1.49	1.41
58	AA	1694	PAR	C52-C42	2.99	1.58	1.52
58	CA	1695	PAR	C64-C54	3.07	1.59	1.52
58	AA	1694	PAR	C34-C24	3.33	1.57	1.53
58	CA	1695	PAR	C52-C42	3.54	1.59	1.52
58	CA	1695	PAR	C34-C24	6.03	1.61	1.53

All (12) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	CA	1695	PAR	C11-O51-C51	2.42	118.44	113.75
58	AA	1694	PAR	C11-O51-C51	2.47	118.55	113.75
58	AA	1694	PAR	O11-C11-C21	3.08	113.66	107.96
58	AA	1694	PAR	O52-C13-C23	3.26	114.53	107.75
58	CA	1695	PAR	O33-C14-C24	3.32	114.11	107.96
58	AA	1694	PAR	O33-C14-C24	3.33	114.12	107.96
58	CA	1695	PAR	O11-C11-C21	3.38	114.22	107.96
58	AA	1694	PAR	C14-O54-C54	3.68	120.89	113.75
58	AA	1694	PAR	O54-C54-C64	3.70	113.32	106.10

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Mol	Chain	Res	Type	Atoms	Z	Observed( $^{\circ}$ )	Ideal( $^{\circ}$ )
58	CA	1695	PAR	O54-C54-C64	3.92	113.76	106.10
58	CA	1695	PAR	O52-C13-C23	3.95	115.96	107.75
58	CA	1695	PAR	C14-O54-C54	4.53	122.53	113.75

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

2 monomers are involved in 4 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
58	AA	1694	PAR	3	0
58	CA	1695	PAR	1	0

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

## 6 Fit of model and data ⓘ

### 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<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
1	AA	1504/1522 (98%)	0.19	56 (3%)	45	34	7, 49, 127, 206	0
1	CA	1503/1522 (98%)	0.16	52 (3%)	48	36	2, 41, 123, 215	0
2	AB	235/256 (91%)	0.17	11 (4%)	35	26	44, 88, 131, 174	0
2	CB	235/256 (91%)	0.20	9 (3%)	44	33	40, 81, 123, 166	0
3	AC	207/239 (86%)	0.11	8 (3%)	43	32	38, 71, 111, 143	0
3	CC	207/239 (86%)	0.13	5 (2%)	62	50	28, 62, 104, 145	0
4	AD	208/209 (99%)	-0.01	3 (1%)	78	68	28, 59, 107, 141	0
4	CD	208/209 (99%)	0.12	7 (3%)	49	37	21, 52, 103, 125	0
5	AE	151/162 (93%)	0.12	1 (0%)	89	84	7, 52, 95, 111	0
5	CE	151/162 (93%)	0.16	6 (3%)	42	31	4, 46, 92, 114	0
6	AF	101/101 (100%)	-0.01	2 (1%)	68	57	16, 53, 101, 141	0
6	CF	101/101 (100%)	0.40	8 (7%)	15	10	12, 55, 104, 131	0
7	AG	155/156 (99%)	0.22	11 (7%)	19	12	34, 66, 111, 154	0
7	CG	155/156 (99%)	0.23	8 (5%)	31	22	27, 64, 114, 148	0
8	AH	138/138 (100%)	0.04	3 (2%)	65	54	19, 59, 87, 125	0
8	CH	138/138 (100%)	-0.06	1 (0%)	89	84	12, 49, 82, 122	0
9	AI	127/128 (99%)	0.34	7 (5%)	29	20	31, 75, 120, 153	0
9	CI	127/128 (99%)	0.55	14 (11%)	7	5	27, 75, 114, 148	0
10	AJ	99/105 (94%)	0.79	15 (15%)	3	3	41, 85, 128, 142	0
10	CJ	99/105 (94%)	0.70	10 (10%)	9	7	27, 77, 128, 143	0
11	AK	119/129 (92%)	0.22	6 (5%)	32	24	13, 49, 98, 129	0
11	CK	119/129 (92%)	0.24	4 (3%)	49	37	8, 46, 98, 121	0
12	AL	125/132 (94%)	0.02	4 (3%)	51	38	2, 39, 88, 141	0
12	CL	125/132 (94%)	0.16	4 (3%)	51	38	0, 27, 75, 143	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å <sup>2</sup> )	Q<0.9
13	AM	125/126 (99%)	0.36	7 (5%)	28	20	36, 76, 116, 147	0
13	CM	125/126 (99%)	0.18	5 (4%)	42	31	22, 61, 109, 136	0
14	AN	60/61 (98%)	0.42	2 (3%)	50	38	40, 67, 117, 132	0
14	CN	60/61 (98%)	0.35	2 (3%)	50	38	31, 50, 106, 121	0
15	AO	88/89 (98%)	0.05	3 (3%)	49	37	14, 48, 93, 116	0
15	CO	88/89 (98%)	-0.00	1 (1%)	82	74	9, 45, 89, 132	0
16	AP	84/88 (95%)	0.11	0	100	100	30, 51, 101, 137	0
16	CP	84/88 (95%)	0.09	0	100	100	30, 52, 88, 106	0
17	AQ	100/105 (95%)	0.18	5 (5%)	32	24	24, 56, 103, 111	0
17	CQ	100/105 (95%)	0.16	3 (3%)	54	40	18, 53, 110, 121	0
18	AR	70/88 (79%)	0.15	3 (4%)	39	28	17, 54, 98, 118	0
18	CR	70/88 (79%)	0.05	0	100	100	12, 47, 88, 116	0
19	AS	79/93 (84%)	0.23	6 (7%)	17	11	37, 76, 126, 161	0
19	CS	79/93 (84%)	0.27	1 (1%)	79	70	26, 55, 121, 146	0
20	AT	99/106 (93%)	0.34	8 (8%)	15	10	11, 59, 105, 121	0
20	CT	99/106 (93%)	0.17	3 (3%)	54	40	3, 58, 106, 125	0
21	AU	25/27 (92%)	1.22	6 (24%)	1	1	41, 69, 87, 97	0
21	CU	25/27 (92%)	0.69	2 (8%)	15	10	31, 55, 91, 125	0
22	AW	76/76 (100%)	1.27	19 (25%)	1	1	23, 129, 187, 208	0
22	AY	17/76 (22%)	1.28	2 (11%)	6	5	29, 51, 105, 123	0
22	CW	76/76 (100%)	1.42	22 (28%)	1	1	12, 118, 185, 207	0
22	CY	17/76 (22%)	0.70	2 (11%)	6	5	10, 37, 117, 125	0
23	AV	77/77 (100%)	0.22	2 (2%)	59	47	16, 67, 122, 137	0
23	CV	77/77 (100%)	0.17	4 (5%)	31	22	10, 55, 109, 155	0
24	AX	8/24 (33%)	0.19	0	100	100	15, 33, 63, 66	0
24	CX	10/24 (41%)	0.16	1 (10%)	9	7	9, 26, 96, 134	0
25	BA	2803/2916 (96%)	0.48	163 (5%)	26	18	6, 38, 143, 240	0
25	DA	2803/2916 (96%)	0.42	120 (4%)	39	28	0, 20, 132, 232	0
26	BB	119/122 (97%)	0.55	3 (2%)	61	48	32, 70, 127, 179	0
26	DB	119/122 (97%)	0.36	3 (2%)	61	48	14, 44, 88, 118	0
27	BC	191/229 (83%)	1.85	80 (41%)	0	1	44, 115, 155, 180	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
27	DC	191/229 (83%)	2.12	88 (46%) 0 1	33, 112, 151, 174	0
28	BD	272/276 (98%)	-0.04	0 100 100	6, 23, 70, 121	0
28	DD	272/276 (98%)	-0.17	2 (0%) 89 84	0, 11, 51, 96	0
29	BE	205/206 (99%)	0.05	5 (2%) 62 50	13, 50, 111, 161	0
29	DE	205/206 (99%)	0.14	6 (2%) 55 42	1, 29, 96, 158	0
30	BF	208/210 (99%)	0.06	8 (3%) 44 33	10, 43, 115, 172	0
30	DF	208/210 (99%)	-0.11	3 (1%) 78 68	0, 23, 106, 154	0
31	BG	181/182 (99%)	0.03	7 (3%) 43 32	9, 63, 118, 169	0
31	DG	181/182 (99%)	0.11	10 (5%) 29 20	4, 51, 107, 178	0
32	BH	160/180 (88%)	1.39	46 (28%) 1 1	37, 115, 166, 197	0
32	DH	160/180 (88%)	0.52	9 (5%) 28 20	3, 61, 115, 143	0
33	BI	146/148 (98%)	0.47	14 (9%) 10 7	19, 68, 125, 152	0
33	DI	146/148 (98%)	0.21	5 (3%) 49 37	6, 64, 119, 168	0
34	BN	139/140 (99%)	0.10	2 (1%) 78 68	23, 58, 106, 176	0
34	DN	139/140 (99%)	-0.17	0 100 100	2, 29, 83, 139	0
35	BO	122/122 (100%)	-0.34	0 100 100	17, 42, 82, 99	0
35	DO	122/122 (100%)	-0.45	0 100 100	0, 22, 61, 74	0
36	BP	146/150 (97%)	0.31	4 (2%) 58 46	8, 49, 108, 157	0
36	DP	146/150 (97%)	0.21	5 (3%) 49 37	0, 43, 108, 167	0
37	BQ	141/141 (100%)	0.30	8 (5%) 27 19	7, 50, 102, 180	0
37	DQ	141/141 (100%)	-0.06	2 (1%) 78 68	1, 25, 75, 167	0
38	BR	117/118 (99%)	-0.13	1 (0%) 85 79	18, 39, 91, 120	0
38	DR	117/118 (99%)	-0.16	1 (0%) 85 79	4, 22, 64, 109	0
39	BS	99/112 (88%)	0.24	1 (1%) 84 77	15, 67, 116, 158	0
39	DS	99/112 (88%)	0.11	2 (2%) 68 57	11, 41, 91, 147	0
40	BT	138/146 (94%)	-0.01	7 (5%) 32 23	24, 57, 109, 142	0
40	DT	138/146 (94%)	-0.17	3 (2%) 65 54	3, 39, 96, 120	0
41	BU	117/118 (99%)	0.16	4 (3%) 49 37	14, 48, 114, 142	0
41	DU	117/118 (99%)	-0.19	0 100 100	2, 19, 65, 93	0
42	BV	101/101 (100%)	0.35	4 (3%) 42 31	15, 72, 122, 175	0
42	DV	101/101 (100%)	0.09	2 (1%) 68 57	1, 39, 86, 153	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
43	BW	113/113 (100%)	0.23	7 (6%) 24 15	11, 32, 89, 159	0
43	DW	113/113 (100%)	-0.10	1 (0%) 85 79	2, 17, 64, 110	0
44	BX	93/96 (96%)	0.00	0 100 100	15, 35, 72, 98	0
44	DX	93/96 (96%)	0.05	1 (1%) 82 74	2, 20, 73, 84	0
45	BY	101/110 (91%)	0.75	18 (17%) 2 2	20, 63, 128, 197	0
45	DY	101/110 (91%)	0.46	9 (8%) 12 8	6, 54, 131, 226	0
46	BZ	177/206 (85%)	0.77	18 (10%) 9 7	0, 83, 131, 156	0
46	DZ	177/206 (85%)	0.53	17 (9%) 10 7	4, 66, 131, 155	0
47	B0	84/85 (98%)	0.71	11 (13%) 5 4	11, 44, 92, 147	0
47	D0	84/85 (98%)	0.34	7 (8%) 14 9	4, 23, 85, 144	0
48	B1	94/98 (95%)	0.47	4 (4%) 39 28	6, 33, 89, 106	0
48	D1	94/98 (95%)	0.07	0 100 100	2, 28, 85, 136	0
49	B2	71/72 (98%)	-0.07	1 (1%) 78 68	18, 49, 104, 122	0
49	D2	71/72 (98%)	0.11	3 (4%) 40 29	2, 30, 96, 132	0
50	B3	60/60 (100%)	0.38	2 (3%) 50 38	20, 59, 111, 177	0
50	D3	60/60 (100%)	0.16	1 (1%) 73 62	2, 26, 90, 130	0
51	B4	31/71 (43%)	-0.19	0 100 100	33, 76, 100, 107	0
51	D4	31/71 (43%)	-0.05	0 100 100	8, 66, 113, 156	0
52	B5	59/60 (98%)	0.48	7 (11%) 6 5	1, 43, 128, 147	0
52	D5	59/60 (98%)	0.09	3 (5%) 32 23	0, 29, 112, 160	0
53	B6	45/54 (83%)	1.52	15 (33%) 0 1	26, 85, 131, 153	0
53	D6	45/54 (83%)	1.49	14 (31%) 1 1	15, 78, 124, 159	0
54	B7	49/49 (100%)	0.01	0 100 100	0, 18, 70, 86	0
54	D7	49/49 (100%)	-0.09	1 (2%) 68 57	0, 3, 44, 108	0
55	B8	64/65 (98%)	0.43	5 (7%) 16 10	0, 39, 92, 121	0
55	D8	64/65 (98%)	0.06	1 (1%) 74 64	0, 21, 71, 121	0
56	B9	36/37 (97%)	4.11	33 (91%) 0 0	79, 117, 145, 155	0
56	D9	36/37 (97%)	4.10	31 (86%) 0 0	45, 105, 140, 163	0
All	All	21119/22212 (95%)	0.31	1192 (5%) 28 20	0, 46, 126, 240	0

All (1192) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
25	DA	2802	G	13.5
11	AK	129	SER	13.3
25	BA	2802	G	13.2
56	B9	14	CYS	12.5
27	DC	166	ASP	12.4
45	DY	51	VAL	10.5
25	BA	2795	G	10.2
22	CW	20	U	10.1
7	CG	82	GLY	9.5
25	BA	2801	A	9.5
25	DA	2795	G	9.5
7	CG	83	ALA	9.4
1	CA	84	C	9.1
56	B9	34	GLN	8.9
27	BC	76	ALA	8.9
27	BC	148	ASN	8.8
7	CG	84	ASN	8.8
29	DE	205	ALA	8.7
25	BA	2796	U	8.6
11	AK	128	ALA	8.5
56	D9	14	CYS	8.3
45	BY	56	PRO	8.2
25	DA	1509	C	8.1
45	DY	52	SER	8.1
46	BZ	113	ALA	7.8
27	DC	107	TRP	7.8
25	DA	896	A	7.8
56	D9	25	VAL	7.8
1	AA	1016	G	7.7
27	DC	121	GLY	7.6
41	BU	118	GLY	7.6
27	DC	85	GLU	7.5
22	AW	47	U	7.5
45	DY	59	GLY	7.4
7	AG	83	ALA	7.4
56	B9	13	LYS	7.4
25	BA	1509	C	7.4
11	CK	129	SER	7.3
25	BA	2799	C	7.3
27	BC	79	LYS	7.3
27	DC	38	ASP	7.3
1	AA	84	C	7.2
46	BZ	114	GLY	7.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
27	DC	165	ASN	7.2
26	BB	88	C	7.2
27	DC	120	MET	7.2
25	BA	2138	C	7.1
25	DA	2116	G	7.0
22	CW	47	U	7.0
46	DZ	112	ARG	7.0
50	D3	1	MET	6.9
32	BH	24	VAL	6.9
56	D9	29	ASN	6.9
53	B6	13	CYS	6.9
56	D9	32	HIS	6.9
56	D9	28	GLU	6.9
30	BF	1	MET	6.9
56	D9	34	GLN	6.8
46	BZ	115	GLY	6.8
1	CA	80	U	6.6
1	CA	979	G	6.6
1	CA	83	A	6.6
29	BE	205	ALA	6.6
25	BA	2801(A)	A	6.4
12	CL	129	ALA	6.4
7	AG	2	ALA	6.4
46	DZ	179	ASP	6.3
56	B9	12	ASP	6.3
27	DC	80	GLY	6.2
27	DC	142	ALA	6.2
1	AA	80	U	6.2
47	B0	8	GLY	6.2
27	BC	78	ALA	6.1
25	DA	2801	A	6.0
27	BC	57	ASN	6.0
32	BH	57	ASP	6.0
1	AA	81	U	6.0
25	BA	1026	U	5.9
46	DZ	114	GLY	5.9
25	BA	2895	U	5.9
22	AW	20	U	5.9
25	DA	2796	U	5.9
56	B9	25	VAL	5.9
1	CA	79	U	5.8
7	AG	84	ASN	5.7

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Mol	Chain	Res	Type	RSRZ
22	AW	19	G	5.7
1	AA	979	G	5.7
32	DH	171	LEU	5.7
31	DG	86	MET	5.6
22	CW	59	U	5.6
27	BC	133	PRO	5.6
27	DC	179	SER	5.6
56	D9	12	ASP	5.6
56	B9	27	CYS	5.6
9	CI	4	TYR	5.6
27	BC	95	GLY	5.6
47	B0	3	HIS	5.5
1	CA	78	G	5.5
13	AM	123	ALA	5.5
27	DC	79	LYS	5.4
25	BA	11	G	5.4
25	BA	2893	G	5.4
27	DC	108	MET	5.4
27	DC	84	LYS	5.4
45	BY	59	GLY	5.4
25	DA	2135	A	5.4
2	AB	40	HIS	5.3
56	D9	6	SER	5.3
46	BZ	179	ASP	5.3
43	BW	113	LYS	5.3
32	BH	51	ARG	5.3
1	CA	86	C	5.3
27	DC	81	GLU	5.3
56	D9	24	TYR	5.2
27	DC	140	PRO	5.2
32	BH	23	ARG	5.2
25	BA	2139	C	5.2
12	CL	128	ALA	5.2
1	CA	339	A	5.1
43	BW	1	MET	5.1
52	B5	53	ALA	5.1
23	CV	48	U	5.1
46	DZ	177	PRO	5.1
25	BA	2894	G	5.0
25	BA	2125	G	5.0
56	B9	29	ASN	5.0
21	AU	17	THR	5.0

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Mol	Chain	Res	Type	RSRZ
45	BY	89	PHE	5.0
32	BH	38	SER	4.9
32	BH	52	VAL	4.9
1	AA	213	C	4.9
56	D9	15	LYS	4.9
25	DA	2151	G	4.9
25	DA	2115	G	4.9
1	AA	82	U	4.9
27	DC	128	GLY	4.9
27	BC	77	ILE	4.9
1	CA	407	A	4.8
27	DC	26	ALA	4.8
25	BA	1052	C	4.8
56	B9	5	ALA	4.8
56	D9	17	ILE	4.8
1	CA	1011	G	4.8
32	BH	37	VAL	4.8
1	AA	79	U	4.8
25	DA	2117	A	4.8
25	DA	508	G	4.8
25	DA	2150	U	4.8
46	DZ	113	ALA	4.8
56	D9	30	PRO	4.8
49	B2	72	ALA	4.8
53	D6	26	ASN	4.7
27	BC	59	ARG	4.7
12	CL	127	GLU	4.7
27	DC	139	ASN	4.7
27	BC	56	GLN	4.6
56	B9	9	ARG	4.6
25	DA	272(A)	U	4.6
25	DA	2801(A)	A	4.6
7	CG	81	GLY	4.6
21	AU	18	TYR	4.6
53	D6	43	CYS	4.6
56	B9	36	GLN	4.6
56	D9	7	VAL	4.6
32	BH	19	VAL	4.6
56	D9	27	CYS	4.5
25	BA	1174	A	4.5
25	BA	2892	A	4.5
47	D0	3	HIS	4.5

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Mol	Chain	Res	Type	RSRZ
32	BH	47	GLU	4.5
27	BC	164	ARG	4.5
27	DC	34	THR	4.5
1	AA	1005	C	4.5
27	DC	127	LEU	4.5
25	BA	10	G	4.5
7	AG	82	GLY	4.5
22	CW	48	C	4.5
56	B9	33	LYS	4.5
7	AG	81	GLY	4.5
19	AS	82	GLY	4.5
56	B9	11	CYS	4.4
10	AJ	73	ASP	4.4
46	DZ	115	GLY	4.4
25	BA	1450	G	4.4
37	BQ	140	ALA	4.4
25	BA	2803	C	4.4
56	D9	31	LYS	4.4
56	B9	24	TYR	4.4
25	DA	1046	A	4.4
27	DC	126	LYS	4.4
46	BZ	112	ARG	4.4
25	DA	899	A	4.4
56	B9	32	HIS	4.3
27	BC	125	SER	4.3
25	DA	2310	A	4.3
27	BC	163	PHE	4.3
25	DA	2173	A	4.3
25	DA	2799	C	4.3
52	D5	60	VAL	4.3
27	BC	165	ASN	4.3
27	DC	76	ALA	4.3
10	AJ	64	GLU	4.3
1	AA	1015	G	4.3
27	DC	132	GLY	4.3
19	CS	82	GLY	4.2
1	AA	1431	A	4.2
1	AA	1508	A	4.2
25	BA	888	C	4.2
27	DC	141	LYS	4.2
1	AA	86	C	4.2
1	CA	1241	C	4.2

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Mol	Chain	Res	Type	RSRZ
27	DC	106	GLY	4.2
32	BH	70	THR	4.2
27	DC	18	LYS	4.2
52	B5	58	LEU	4.2
22	CW	50	U	4.2
25	DA	877	U	4.2
1	CA	1012	A	4.2
12	AL	128	ALA	4.2
10	CJ	24	VAL	4.2
25	BA	2602	A	4.2
25	BA	1507	A	4.1
27	DC	101	GLN	4.1
52	B5	59	GLU	4.1
9	CI	8	GLY	4.1
32	BH	35	VAL	4.1
32	BH	17	VAL	4.1
27	BC	149	ILE	4.1
25	BA	2116	G	4.1
27	DC	109	ASP	4.1
25	DA	2136	C	4.1
25	BA	2173	A	4.1
56	D9	16	VAL	4.1
27	DC	39	GLU	4.1
1	AA	212	C	4.0
46	DZ	111	VAL	4.0
25	BA	884	C	4.0
46	DZ	176	PRO	4.0
1	CA	82	U	4.0
25	DA	1026	U	4.0
45	BY	57	GLN	4.0
47	D0	8	GLY	4.0
31	BG	182	LYS	4.0
56	B9	23	VAL	4.0
1	AA	78	G	4.0
45	BY	2	ARG	4.0
56	D9	21	GLY	4.0
25	DA	2896	C	4.0
25	BA	2156	G	4.0
25	DA	2126	A	4.0
7	CG	85	TYR	4.0
25	DA	1593	G	4.0
27	DC	135	GLY	3.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
25	DA	2207	G	3.9
56	B9	4	ARG	3.9
32	BH	53	GLU	3.9
25	BA	2135	A	3.9
2	CB	7	VAL	3.9
47	D0	2	ALA	3.9
27	DC	56	GLN	3.9
27	DC	52	ARG	3.9
25	BA	1108	U	3.9
25	BA	2127	G	3.9
32	BH	32	GLU	3.9
1	CA	1013	G	3.9
25	BA	2154	G	3.9
32	BH	66	GLY	3.9
25	DA	1053	C	3.9
8	CH	46	LYS	3.9
27	DC	125	SER	3.9
27	BC	126	LYS	3.9
29	DE	204	ALA	3.8
52	B5	2	ALA	3.8
56	D9	8	LYS	3.8
56	D9	26	ILE	3.8
25	BA	2136	C	3.8
30	BF	25	PRO	3.8
45	BY	88	LYS	3.8
1	CA	1008	C	3.8
25	DA	11	G	3.8
7	AG	85	TYR	3.8
25	BA	896	A	3.8
10	CJ	34	VAL	3.8
45	BY	51	VAL	3.8
2	AB	21	ARG	3.8
25	DA	884	C	3.8
43	BW	94	ASP	3.8
14	AN	38	GLY	3.8
1	AA	83	A	3.8
10	AJ	34	VAL	3.8
25	DA	2894	G	3.8
56	B9	16	VAL	3.7
8	AH	3	THR	3.7
25	DA	2602	A	3.7
3	AC	159	GLY	3.7

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Mol	Chain	Res	Type	RSRZ
20	AT	104	LEU	3.7
27	BC	162	GLU	3.7
47	B0	5	LYS	3.7
25	DA	2125	G	3.7
1	AA	210	U	3.7
25	BA	1505	C	3.7
26	DB	1	U	3.7
27	BC	51	PRO	3.7
1	AA	211	G	3.7
56	D9	9	ARG	3.7
27	DC	51	PRO	3.7
56	D9	23	VAL	3.7
25	DA	2402	C	3.7
27	BC	63	SER	3.7
33	BI	58	LEU	3.7
46	BZ	144	LEU	3.7
46	DZ	119	GLU	3.7
56	D9	5	ALA	3.7
20	CT	106	ALA	3.7
27	DC	35	ALA	3.7
46	BZ	148	ASP	3.7
22	CW	55	U	3.7
53	B6	14	THR	3.6
25	DA	2113	U	3.6
27	BC	60	GLY	3.6
56	B9	21	GLY	3.6
25	BA	2758	A	3.6
27	BC	96	GLY	3.6
32	BH	56	SER	3.6
1	CA	1238	U	3.6
22	AW	21	A	3.6
9	CI	6	GLY	3.6
11	AK	11	LYS	3.6
25	DA	2138	C	3.6
3	AC	170	GLN	3.6
25	DA	1594	G	3.6
25	DA	352	G	3.6
46	DZ	107	THR	3.6
2	CB	36	ARG	3.6
27	BC	190	ARG	3.6
40	BT	135	ALA	3.6
37	BQ	19	GLY	3.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
13	CM	126	LYS	3.6
29	BE	204	ALA	3.6
22	AW	46	G	3.5
1	CA	74	C	3.5
30	DF	12	LEU	3.5
56	B9	8	LYS	3.5
50	B3	1	MET	3.5
56	B9	35	ARG	3.5
6	CF	39	LYS	3.5
27	DC	92	ASP	3.5
22	CW	21	A	3.5
25	BA	2310	A	3.5
33	BI	61	ARG	3.5
1	CA	1010	C	3.5
45	BY	61	ILE	3.5
25	DA	1450	G	3.5
46	BZ	177	PRO	3.5
5	CE	154	GLY	3.5
27	BC	27	ARG	3.5
56	D9	36	GLN	3.5
27	DC	55	ASP	3.5
1	CA	87	C	3.5
1	AA	1006	C	3.4
31	BG	2	PRO	3.4
25	BA	7	G	3.4
53	B6	31	PRO	3.4
53	D6	46	HIS	3.4
1	AA	971	A	3.4
40	DT	40	THR	3.4
27	DC	24	GLU	3.4
25	DA	2108	C	3.4
25	DA	2132	U	3.4
27	DC	95	GLY	3.4
22	CW	17	C	3.4
32	DH	42	ARG	3.4
25	DA	1762	A	3.4
11	CK	12	ARG	3.4
53	B6	52	VAL	3.4
32	BH	29	PRO	3.4
25	BA	271(A)	A	3.4
25	DA	1048	A	3.4
27	DC	57	ASN	3.4

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Mol	Chain	Res	Type	RSRZ
27	DC	151	GLU	3.4
11	CK	128	ALA	3.4
11	AK	127	LYS	3.4
25	BA	2119	A	3.4
27	BC	178	ALA	3.4
10	AJ	33	GLN	3.4
9	CI	105	ASP	3.4
27	DC	181	PRO	3.4
45	BY	87	LYS	3.4
25	DA	883	G	3.4
37	BQ	33	GLY	3.4
13	CM	123	ALA	3.4
29	DE	69	LYS	3.4
47	B0	6	GLY	3.4
25	DA	1888	G	3.3
32	BH	106	THR	3.3
56	D9	4	ARG	3.3
27	DC	178	ALA	3.3
25	BA	1176	G	3.3
27	DC	180	PHE	3.3
10	AJ	4	ILE	3.3
27	DC	168	THR	3.3
25	BA	2155	G	3.3
25	BA	2631	G	3.3
27	BC	179	SER	3.3
27	DC	53	ARG	3.3
25	BA	2896	C	3.3
46	DZ	162	GLU	3.3
53	B6	53	LYS	3.3
56	B9	31	LYS	3.3
6	CF	38	GLU	3.3
10	CJ	4	ILE	3.3
1	AA	1111	C	3.3
25	BA	362	U	3.3
52	D5	59	GLU	3.3
22	AW	36	A	3.3
46	DZ	163	LEU	3.3
22	CW	5	G	3.3
25	BA	1144	G	3.3
47	B0	4	LYS	3.3
22	AW	56	C	3.3
27	DC	77	ILE	3.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
27	BC	55	ASP	3.3
31	DG	182	LYS	3.3
32	BH	81	GLU	3.3
45	BY	58	GLY	3.3
1	CA	1004	G	3.3
40	BT	39	ARG	3.3
56	B9	15	LYS	3.3
45	BY	60	PHE	3.3
25	DA	888	C	3.2
25	DA	1505	C	3.2
25	DA	2141	G	3.2
25	BA	1445	A	3.2
27	DC	152	ILE	3.2
25	BA	2137	C	3.2
25	BA	2140	C	3.2
56	D9	33	LYS	3.2
27	BC	102	LYS	3.2
32	BH	69	ARG	3.2
20	AT	106	ALA	3.2
27	DC	98	GLU	3.2
32	DH	159	GLU	3.2
25	DA	2794	C	3.2
56	B9	10	ILE	3.2
27	DC	71	GLN	3.2
29	BE	54	GLN	3.2
30	BF	133	ASN	3.2
1	AA	978	A	3.2
1	CA	75	G	3.2
1	CA	311	G	3.2
7	AG	80	VAL	3.2
46	BZ	146	ILE	3.2
56	B9	30	PRO	3.2
45	BY	48	ALA	3.2
2	AB	16	HIS	3.2
25	BA	92	A	3.2
25	BA	2152	G	3.2
27	DC	25	ALA	3.2
6	AF	101	ALA	3.2
22	AY	32	U	3.2
25	BA	1448	G	3.2
27	BC	43	VAL	3.2
31	DG	75	LYS	3.2

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Mol	Chain	Res	Type	RSRZ
27	DC	60	GLY	3.1
1	AA	76	G	3.1
3	AC	149	ALA	3.1
25	DA	1174	A	3.1
27	BC	142	ALA	3.1
27	DC	19	VAL	3.1
53	B6	12	GLU	3.1
46	BZ	149	SER	3.1
2	AB	228	GLY	3.1
20	AT	103	GLY	3.1
27	DC	144	THR	3.1
27	DC	190	ARG	3.1
33	BI	57	ARG	3.1
5	CE	155	GLU	3.1
32	DH	34	GLU	3.1
27	BC	147	PHE	3.1
46	BZ	175	VAL	3.1
22	AW	35	A	3.1
7	AG	156	TRP	3.1
11	AK	126	ARG	3.1
27	DC	150	GLY	3.1
46	DZ	178	GLU	3.1
1	AA	208	U	3.1
25	BA	2891	G	3.1
25	DA	2112	G	3.1
13	AM	124	PRO	3.1
25	DA	1052	C	3.1
47	B0	2	ALA	3.1
47	B0	9	SER	3.1
25	DA	2171	A	3.1
43	BW	2	GLU	3.1
27	DC	169	GLY	3.1
1	CA	85	U	3.1
25	DA	281	G	3.1
25	DA	2668	G	3.1
46	DZ	175	VAL	3.1
6	CF	64	GLN	3.1
27	DC	143	GLY	3.1
32	DH	53	GLU	3.1
39	DS	108	GLY	3.1
47	B0	85	ALA	3.1
52	D5	2	ALA	3.1

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Mol	Chain	Res	Type	RSRZ
27	BC	101	GLN	3.0
23	AV	1	C	3.0
25	DA	2129	C	3.0
53	B6	29	ASN	3.0
32	BH	26	VAL	3.0
25	DA	2895	U	3.0
10	AJ	28	ARG	3.0
27	BC	154	ARG	3.0
25	DA	2131	G	3.0
25	DA	885	C	3.0
25	BA	141	A	3.0
15	CO	89	GLY	3.0
56	B9	6	SER	3.0
25	DA	1108	U	3.0
33	DI	86	THR	3.0
45	DY	50	ARG	3.0
22	CW	60	U	3.0
3	CC	166	GLU	3.0
10	CJ	64	GLU	3.0
1	CA	88	G	3.0
53	D6	25	LYS	3.0
1	AA	469	G	3.0
1	AA	155	A	3.0
2	CB	16	HIS	3.0
22	CW	56	C	3.0
25	BA	2794	C	3.0
48	B1	16	ASN	3.0
25	BA	2146	C	3.0
55	B8	63	PRO	3.0
45	BY	86	ARG	3.0
47	B0	7	LEU	3.0
27	BC	141	LYS	3.0
25	BA	363(F)	A	3.0
25	BA	887	A	3.0
25	DA	2790	A	3.0
25	BA	2162	G	3.0
32	BH	22	GLY	3.0
25	BA	2506	U	3.0
13	CM	125	ARG	3.0
32	BH	20	ALA	3.0
56	B9	19	ARG	3.0
27	BC	151	GLU	3.0

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Mol	Chain	Res	Type	RSRZ
1	AA	970	G	2.9
25	DA	271(L)	U	2.9
56	B9	37	GLY	2.9
11	CK	81	ASP	2.9
25	DA	2119	A	2.9
27	BC	134	ARG	2.9
27	DC	37	PHE	2.9
10	AJ	32	ALA	2.9
31	DG	87	PRO	2.9
25	BA	1387	C	2.9
25	BA	2412	A	2.9
25	DA	288	C	2.9
25	DA	2477	C	2.9
37	BQ	141	GLN	2.9
47	B0	15	ASP	2.9
22	CY	27	G	2.9
33	DI	103	ARG	2.9
27	DC	216	THR	2.9
56	B9	3	VAL	2.9
53	D6	37	ARG	2.9
25	BA	1171	G	2.9
25	BA	885	C	2.9
53	B6	40	CYS	2.9
13	CM	124	PRO	2.9
21	CU	25	LYS	2.9
45	DY	89	PHE	2.9
53	D6	41	PRO	2.9
1	AA	209	U	2.9
32	DH	169	VAL	2.9
32	BH	95	ARG	2.9
27	BC	119	VAL	2.9
25	DA	2803	C	2.9
9	CI	21	PRO	2.9
27	DC	78	ALA	2.9
54	D7	1	MET	2.9
1	CA	553	G	2.9
10	CJ	35	SER	2.9
25	BA	100	G	2.9
49	D2	71	ASN	2.9
32	BH	39	PRO	2.9
32	BH	80	SER	2.9
21	AU	24	ARG	2.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	CA	980	G	2.9
25	BA	1049	C	2.9
42	DV	26	ASP	2.9
47	D0	6	GLY	2.8
23	CV	1	C	2.8
25	BA	878	A	2.8
56	B9	22	ARG	2.8
32	BH	171	LEU	2.8
32	BH	67	LEU	2.8
36	BP	92	GLU	2.8
31	BG	72	ARG	2.8
56	B9	28	GLU	2.8
1	AA	77	G	2.8
42	BV	99	ILE	2.8
32	BH	170	ARG	2.8
32	DH	41	MET	2.8
53	D6	9	LEU	2.8
25	BA	1178	C	2.8
25	BA	877	U	2.8
25	DA	2130	U	2.8
27	BC	168	THR	2.8
17	AQ	100	LYS	2.8
27	BC	174	PRO	2.8
25	DA	897	C	2.8
25	DA	2765	A	2.8
47	D0	5	LYS	2.8
3	AC	105	GLU	2.8
45	BY	3	VAL	2.8
52	B5	60	VAL	2.8
56	D9	37	GLY	2.8
19	AS	80	TYR	2.8
33	BI	10	GLU	2.8
2	AB	153	ARG	2.8
27	BC	18	LYS	2.8
27	BC	140	PRO	2.8
25	DA	2897	U	2.8
1	AA	1400	A	2.8
25	BA	1506	C	2.8
25	BA	2171	A	2.8
27	BC	50	ASP	2.8
31	DG	49	ASP	2.8
27	BC	167	LYS	2.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
7	CG	79	ARG	2.8
25	DA	1592	C	2.8
27	BC	61	THR	2.8
18	AR	24	ALA	2.7
2	AB	15	VAL	2.7
25	BA	1857	G	2.7
25	BA	2792	G	2.7
25	BA	1762	A	2.7
27	BC	80	GLY	2.7
27	BC	105	ASP	2.7
1	AA	156	A	2.7
3	AC	103	VAL	2.7
27	DC	145	VAL	2.7
34	BN	8	GLN	2.7
9	CI	84	ALA	2.7
10	AJ	29	ARG	2.7
25	BA	365	C	2.7
41	BU	73	GLY	2.7
45	DY	61	ILE	2.7
9	CI	85	LEU	2.7
18	AR	88	LYS	2.7
32	DH	18	GLU	2.7
27	DC	133	PRO	2.7
2	AB	37	ASN	2.7
4	AD	209	ARG	2.7
3	CC	107	GLN	2.7
33	DI	85	GLU	2.7
30	BF	10	PRO	2.7
25	BA	879	G	2.7
19	AS	43	GLU	2.7
20	AT	9	ASN	2.7
1	AA	455	C	2.7
22	CW	49	C	2.7
25	DA	1109	C	2.7
27	BC	42	GLU	2.7
53	D6	13	CYS	2.7
32	BH	48	GLY	2.7
36	BP	5	ASP	2.7
32	BH	105	LEU	2.7
25	BA	614(A)	U	2.7
1	CA	613	G	2.7
22	AW	34	G	2.7

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Mol	Chain	Res	Type	RSRZ
25	BA	2793	G	2.7
33	BI	8	PRO	2.7
53	D6	20	ASN	2.7
27	BC	193	ILE	2.7
8	AH	129	VAL	2.7
1	CA	1009	G	2.7
27	DC	155	GLU	2.7
25	BA	9	U	2.7
27	BC	52	ARG	2.7
46	BZ	21	ALA	2.7
27	DC	36	LYS	2.7
1	CA	1015	G	2.7
40	DT	39	ARG	2.7
27	BC	19	VAL	2.6
32	BH	111	HIS	2.6
22	AW	13	C	2.6
25	DA	271(C)	C	2.6
56	D9	18	ARG	2.6
17	AQ	101	ARG	2.6
9	AI	56	LEU	2.6
12	AL	129	ALA	2.6
25	BA	2733	A	2.6
25	BA	2164	C	2.6
13	AM	125	ARG	2.6
25	DA	1176	G	2.6
25	BA	1220	A	2.6
25	BA	2169	A	2.6
10	CJ	100	THR	2.6
29	BE	69	LYS	2.6
32	BH	129	THR	2.6
32	BH	159	GLU	2.6
1	AA	85	U	2.6
22	AW	55	U	2.6
25	BA	2790	A	2.6
25	DA	1410	G	2.6
27	BC	81	GLU	2.6
3	AC	193	TYR	2.6
1	CA	1019	C	2.6
25	DA	898	C	2.6
27	BC	224	ILE	2.6
36	DP	53	GLY	2.6
46	BZ	62	PRO	2.6

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Mol	Chain	Res	Type	RSRZ
56	D9	35	ARG	2.6
1	AA	1267	A	2.6
4	CD	45	GLN	2.6
6	AF	38	GLU	2.6
55	B8	20	GLY	2.6
23	CV	68	C	2.6
31	DG	72	ARG	2.6
10	AJ	74	ILE	2.6
25	DA	359	A	2.6
1	CA	1005	C	2.6
10	AJ	26	ALA	2.6
4	AD	86	LYS	2.6
31	DG	2	PRO	2.6
37	DQ	140	ALA	2.6
27	BC	166	ASP	2.6
25	DA	2169	A	2.6
1	AA	553	G	2.6
25	BA	295	G	2.6
25	BA	2148	G	2.6
45	BY	46	LYS	2.6
56	D9	13	LYS	2.6
25	BA	2268	A	2.6
25	BA	2646	C	2.6
1	AA	1013	G	2.6
17	CQ	101	ARG	2.6
55	B8	65	GLU	2.6
25	BA	12	U	2.5
25	DA	1595	G	2.5
25	DA	2893	G	2.5
27	BC	69	GLY	2.5
33	BI	7	GLU	2.5
31	BG	75	LYS	2.5
33	BI	111	PRO	2.5
1	CA	1164	A	2.5
22	CW	35	A	2.5
25	BA	2126	A	2.5
27	BC	26	ALA	2.5
27	DC	124	GLY	2.5
46	DZ	12	GLY	2.5
1	CA	208	U	2.5
25	BA	380	U	2.5
25	BA	2473	U	2.5

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Mol	Chain	Res	Type	RSRZ
27	BC	70	LYS	2.5
27	DC	167	LYS	2.5
33	BI	65	ALA	2.5
3	CC	102	ASN	2.5
4	CD	38	TYR	2.5
25	DA	271(K)	U	2.5
7	AG	154	TYR	2.5
53	B6	26	ASN	2.5
48	B1	15	ALA	2.5
25	DA	1508	A	2.5
53	B6	51	GLU	2.5
12	CL	126	LYS	2.5
52	B5	54	GLY	2.5
11	AK	121	PRO	2.5
10	AJ	100	THR	2.5
27	BC	53	ARG	2.5
21	AU	26	LYS	2.5
25	BA	352	G	2.5
25	BA	2131	G	2.5
25	BA	2141	G	2.5
27	DC	122	ALA	2.5
2	AB	36	ARG	2.5
25	BA	2791	C	2.5
25	DA	1043	C	2.5
8	AH	128	GLY	2.5
27	DC	157	LYS	2.5
1	CA	1431	A	2.5
25	DA	363(F)	A	2.5
27	BC	153	ILE	2.5
29	BE	68	ALA	2.5
44	DX	68	ARG	2.5
46	DZ	141	VAL	2.5
50	B3	32	GLN	2.5
26	DB	54	G	2.5
25	DA	1409	C	2.5
25	BA	2132	U	2.5
13	AM	62	ASN	2.5
2	CB	67	THR	2.5
1	CA	340	C	2.5
25	BA	1018	C	2.5
27	BC	72	VAL	2.5
1	AA	969	U	2.5

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Mol	Chain	Res	Type	RSRZ
1	CA	706	U	2.5
6	CF	31	GLU	2.4
25	BA	6	A	2.4
55	B8	21	LYS	2.4
1	AA	1004	G	2.4
14	AN	33	VAL	2.4
25	BA	1173	G	2.4
45	DY	48	ALA	2.4
30	BF	12	LEU	2.4
22	CW	36	A	2.4
25	BA	1637	A	2.4
43	DW	63	ASP	2.4
25	BA	1584	C	2.4
32	BH	18	GLU	2.4
37	BQ	80	GLU	2.4
1	AA	706	U	2.4
1	AA	1099	G	2.4
25	DA	2127	G	2.4
25	BA	893	C	2.4
27	DC	153	ILE	2.4
25	DA	10	G	2.4
2	CB	157	ARG	2.4
40	BT	137	LYS	2.4
46	BZ	9	TYR	2.4
6	CF	55	ASP	2.4
20	AT	102	GLY	2.4
24	CX	13	A	2.4
27	DC	88	GLU	2.4
42	BV	101	GLY	2.4
27	BC	71	GLN	2.4
27	DC	103	ILE	2.4
1	CA	1016	G	2.4
22	AW	22	G	2.4
22	AY	27	G	2.4
25	BA	1051	G	2.4
25	BA	1858	G	2.4
27	BC	157	LYS	2.4
38	BR	9	LYS	2.4
4	CD	36	ARG	2.4
25	BA	2161	C	2.4
25	DA	2647	U	2.4
27	BC	54	SER	2.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
10	AJ	98	ILE	2.4
13	AM	43	THR	2.4
17	CQ	7	THR	2.4
25	BA	1447	G	2.4
56	B9	7	VAL	2.4
25	BA	142	A	2.4
10	AJ	27	ALA	2.4
34	BN	9	VAL	2.4
36	BP	149	GLU	2.4
25	BA	64	A	2.4
27	BC	34	THR	2.4
25	DA	2140	C	2.4
4	CD	37	PRO	2.4
52	B5	57	VAL	2.4
53	D6	44	ARG	2.4
13	CM	6	GLY	2.4
30	BF	207	GLY	2.4
1	AA	1238	U	2.4
4	CD	86	LYS	2.4
22	AW	65	G	2.4
48	B1	81	LYS	2.4
4	CD	181	MET	2.4
33	DI	111	PRO	2.4
48	B1	42	GLN	2.4
1	AA	981	G	2.4
1	CA	421	G	2.4
1	CA	614	G	2.4
53	D6	42	TRP	2.4
1	AA	1432	C	2.3
49	D2	43	GLN	2.3
18	AR	19	LYS	2.3
1	AA	339	A	2.3
25	BA	1509(A)	A	2.3
42	DV	36	PRO	2.3
25	DA	361	G	2.3
27	BC	88	GLU	2.3
21	CU	26	LYS	2.3
25	BA	2117	A	2.3
1	CA	212	C	2.3
25	BA	1403	C	2.3
25	BA	2112	G	2.3
42	BV	48	GLY	2.3

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Mol	Chain	Res	Type	RSRZ
56	D9	19	ARG	2.3
9	AI	29	ASN	2.3
22	AW	9	A	2.3
25	BA	2170	A	2.3
37	BQ	20	ALA	2.3
1	CA	345	G	2.3
25	BA	886	C	2.3
25	BA	1435	G	2.3
25	BA	1445(A)	C	2.3
26	BB	87	G	2.3
32	DH	170	ARG	2.3
9	CI	2	GLU	2.3
25	BA	2099	U	2.3
25	DA	358	U	2.3
46	DZ	144	LEU	2.3
36	DP	104	GLY	2.3
27	BC	58	VAL	2.3
4	AD	45	GLN	2.3
47	B0	12	ASN	2.3
56	B9	17	ILE	2.3
53	D6	45	LYS	2.3
5	CE	70	PRO	2.3
20	AT	99	LEU	2.3
27	BC	158	ALA	2.3
32	BH	96	ALA	2.3
25	DA	2107	C	2.3
6	CF	36	ARG	2.3
28	DD	48	ARG	2.3
32	BH	103	LEU	2.3
45	BY	52	SER	2.3
42	BV	36	PRO	2.3
45	DY	2	ARG	2.3
1	AA	980	G	2.3
22	CW	57	G	2.3
25	BA	2382	G	2.3
25	BA	2833	G	2.3
29	DE	54	GLN	2.3
27	BC	132	GLY	2.3
37	BQ	138	ASP	2.3
27	DC	83	ILE	2.3
9	AI	15	ALA	2.3
9	AI	126	SER	2.3

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Mol	Chain	Res	Type	RSRZ
30	BF	208	GLY	2.3
32	BH	90	LYS	2.3
33	BI	20	ASP	2.3
47	D0	15	ASP	2.3
32	BH	54	ARG	2.3
1	AA	1018	G	2.3
3	AC	102	ASN	2.3
25	DA	2793	G	2.3
53	D6	40	CYS	2.3
25	BA	2476	A	2.3
1	CA	213	C	2.3
22	CW	11	C	2.3
22	CW	61	C	2.3
25	BA	2174	C	2.3
25	DA	405	U	2.3
20	CT	98	PRO	2.3
27	DC	102	LYS	2.3
27	BC	194	ARG	2.3
22	CW	34	G	2.3
25	BA	2153	G	2.3
25	BA	1848	A	2.3
26	DB	2	C	2.3
1	AA	123	G	2.2
1	CA	1029	G	2.2
25	DA	353	G	2.2
1	CA	824	U	2.2
22	AW	45	U	2.2
23	CV	18	U	2.2
1	CA	1119	C	2.2
32	BH	58	GLU	2.2
22	CW	15	G	2.2
31	BG	86	MET	2.2
27	BC	177	LYS	2.2
31	BG	84	LYS	2.2
40	BT	136	GLN	2.2
9	AI	4	TYR	2.2
9	CI	81	ILE	2.2
27	DC	75	LEU	2.2
27	DC	41	VAL	2.2
1	AA	154	A	2.2
25	BA	651	G	2.2
25	BA	1154	G	2.2

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Mol	Chain	Res	Type	RSRZ
27	BC	106	GLY	2.2
22	AW	17	C	2.2
20	AT	55	ILE	2.2
27	BC	89	ALA	2.2
10	AJ	99	LYS	2.2
27	BC	97	GLU	2.2
41	BU	85	LYS	2.2
1	CA	81	U	2.2
27	DC	110	PHE	2.2
7	CG	86	GLN	2.2
17	AQ	58	GLU	2.2
20	CT	99	LEU	2.2
25	BA	862	G	2.2
25	BA	1758	G	2.2
25	BA	2523	G	2.2
31	DG	89	GLY	2.2
1	AA	1241	C	2.2
1	CA	455	C	2.2
25	BA	1462	C	2.2
25	BA	2295	C	2.2
25	DA	1463	C	2.2
7	AG	79	ARG	2.2
3	CC	206	GLU	2.2
14	CN	8	GLU	2.2
25	BA	63	U	2.2
25	DA	271(N)	U	2.2
27	BC	39	GLU	2.2
27	DC	96	GLY	2.2
25	BA	1046	A	2.2
2	CB	8	LYS	2.2
9	CI	103	THR	2.2
25	BA	1170	G	2.2
46	BZ	176	PRO	2.2
12	AL	73	GLU	2.2
21	AU	22	ARG	2.2
25	BA	2647	U	2.2
25	DA	2473	U	2.2
22	AW	14	A	2.2
25	DA	1631(A)	A	2.2
28	DD	47	GLY	2.2
33	BI	35	LEU	2.2
17	CQ	58	GLU	2.2

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Mol	Chain	Res	Type	RSRZ
25	BA	1042	G	2.2
25	BA	1114	G	2.2
25	DA	338	G	2.2
10	CJ	77	PRO	2.2
1	CA	210	U	2.2
15	AO	89	GLY	2.2
55	D8	64	TYR	2.2
25	DA	895	U	2.2
14	CN	32	SER	2.2
25	DA	603	A	2.2
25	DA	2892	A	2.2
15	AO	17	ARG	2.2
37	BQ	23	GLY	2.2
2	CB	128	GLU	2.2
25	BA	142(A)	C	2.2
25	BA	2347	C	2.2
25	BA	2752	C	2.2
38	DR	36	THR	2.2
40	BT	38	ASN	2.2
25	BA	715	G	2.2
25	DA	1529	G	2.2
49	D2	72	ALA	2.2
7	AG	86	GLN	2.2
27	DC	172	HIS	2.2
32	BH	46	GLU	2.2
21	AU	9	ARG	2.2
22	AW	11	C	2.2
33	DI	84	GLY	2.2
25	BA	1033	U	2.2
25	BA	88	G	2.2
25	BA	508	G	2.2
25	DA	2168	G	2.2
39	DS	103	GLU	2.2
9	CI	7	THR	2.2
27	DC	61	THR	2.2
9	CI	88	TYR	2.2
10	AJ	20	ALA	2.2
23	AV	77	A	2.2
25	DA	2733	A	2.2
33	BI	19	VAL	2.2
1	AA	463	C	2.1
27	DC	136	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
43	BW	92	ARG	2.1
13	AM	24	GLY	2.1
27	BC	124	GLY	2.1
17	AQ	36	ILE	2.1
25	BA	1359	A	2.1
25	BA	1963	U	2.1
25	DA	2172	U	2.1
1	CA	1018	G	2.1
2	AB	38	GLY	2.1
25	BA	1888	G	2.1
27	BC	121	GLY	2.1
30	BF	21	ALA	2.1
32	BH	68	THR	2.1
25	BA	2765	A	2.1
27	BC	109	ASP	2.1
32	BH	21	PRO	2.1
47	D0	7	LEU	2.1
40	DT	92	GLY	2.1
5	CE	94	ALA	2.1
53	B6	28	ARG	2.1
30	DF	133	ASN	2.1
33	BI	62	LYS	2.1
53	D6	10	LEU	2.1
3	AC	158	GLY	2.1
22	CY	29	G	2.1
56	B9	20	HIS	2.1
9	CI	9	ARG	2.1
4	CD	35	ARG	2.1
29	DE	89	ASP	2.1
27	BC	84	LYS	2.1
45	BY	90	LEU	2.1
1	CA	1026	A	2.1
25	DA	360	G	2.1
27	DC	119	VAL	2.1
27	BC	150	GLY	2.1
27	DC	148	ASN	2.1
56	D9	22	ARG	2.1
29	DE	68	ALA	2.1
1	CA	825	C	2.1
25	BA	2477	C	2.1
32	BH	128	PRO	2.1
2	CB	135	GLN	2.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
31	DG	84	LYS	2.1
45	DY	55	TYR	2.1
25	BA	181	A	2.1
27	BC	120	MET	2.1
25	BA	932	G	2.1
32	BH	34	GLU	2.1
27	DC	90	GLY	2.1
53	B6	41	PRO	2.1
25	BA	1463	C	2.1
43	BW	60	ASN	2.1
53	B6	32	ASN	2.1
3	CC	155	GLY	2.1
25	DA	345	A	2.1
27	DC	193	ILE	2.1
25	BA	2151	G	2.1
25	DA	407	G	2.1
15	AO	26	GLU	2.1
25	DA	271(B)	C	2.1
25	DA	886	C	2.1
27	BC	38	ASP	2.1
40	BT	6	LEU	2.1
7	CG	72	ARG	2.1
22	CW	33	U	2.1
39	BS	34	HIS	2.1
53	B6	42	TRP	2.1
36	DP	118	GLY	2.1
1	AA	1014	G	2.1
19	AS	42	PRO	2.1
25	DA	1421	G	2.1
22	AW	8	U	2.1
36	DP	142	GLY	2.1
6	CF	1	MET	2.1
9	AI	127	LYS	2.1
12	AL	13	LYS	2.1
19	AS	28	LYS	2.1
46	BZ	174	VAL	2.1
37	DQ	48	GLU	2.1
46	BZ	143	GLY	2.1
55	B8	62	LEU	2.1
2	AB	230	VAL	2.1
2	CB	96	ARG	2.1
22	CW	6	G	2.1

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Mol	Chain	Res	Type	RSRZ
25	BA	859	G	2.1
25	DA	2133	G	2.1
25	DA	2175	C	2.1
27	DC	59	ARG	2.1
46	BZ	95	PRO	2.1
53	B6	19	ARG	2.1
6	CF	66	GLU	2.1
33	BI	70	GLU	2.1
17	AQ	12	SER	2.0
20	AT	105	SER	2.0
40	BT	115	ARG	2.0
30	DF	25	PRO	2.0
1	AA	1007	C	2.0
1	CA	1027	C	2.0
13	AM	61	GLU	2.0
25	DA	2137	C	2.0
43	BW	109	GLU	2.0
1	AA	616	G	2.0
22	CW	19	G	2.0
25	BA	379	G	2.0
25	DA	1173	G	2.0
36	BP	53	GLY	2.0
1	AA	1049	A	2.0
2	AB	20	GLU	2.0
25	BA	890	A	2.0
26	BB	26	A	2.0
27	DC	164	ARG	2.0
31	DG	118	ARG	2.0
5	AE	6	PHE	2.0
32	BH	31	GLY	2.0
25	BA	1886	C	2.0
19	AS	30	LEU	2.0
25	BA	1740	G	2.0
33	BI	5	LEU	2.0
36	DP	117	GLU	2.0
25	BA	1449	A	2.0
31	BG	42	GLY	2.0
5	CE	33	VAL	2.0
1	AA	106	G	2.0
10	CJ	5	ARG	2.0
25	BA	551	G	2.0
5	CE	32	VAL	2.0

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Mol	Chain	Res	Type	RSRZ
10	CJ	36	GLY	2.0
1	AA	1164	A	2.0
25	DA	2170	A	2.0
27	BC	92	ASP	2.0
25	BA	2294	C	2.0
27	DC	149	ILE	2.0
9	CI	3	GLN	2.0
41	BU	117	GLN	2.0
45	BY	85	VAL	2.0
9	AI	54	ASP	2.0
10	CJ	3	LYS	2.0
25	BA	1529	G	2.0
25	DA	271(V)	G	2.0
25	BA	1631(A)	A	2.0
25	DA	1128	A	2.0

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

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

## 6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95<sup>th</sup> percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
57	MG	DA	3141	1/1	0.94	0.85	65.99	0,0,0,0	0
57	MG	DA	3033	1/1	0.92	1.67	64.44	1,1,1,1	0
57	MG	DA	3020	1/1	0.40	1.03	60.57	0,0,0,0	0
57	MG	BA	3003	1/1	0.78	1.18	60.39	0,0,0,0	0
57	MG	DA	3072	1/1	0.88	1.41	57.64	1,1,1,1	0
57	MG	CA	1694	1/1	0.88	0.88	57.63	1,1,1,1	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	DA	3127	1/1	0.78	1.40	52.91	1,1,1,1	0
57	MG	DA	3103	1/1	0.91	1.28	51.63	1,1,1,1	0
57	MG	DA	3227	1/1	0.71	0.43	44.76	0,0,0,0	0
57	MG	DA	3235	1/1	0.94	0.96	43.98	0,0,0,0	0
57	MG	DA	3050	1/1	0.90	1.28	43.02	0,0,0,0	0
57	MG	BA	3214	1/1	0.92	1.10	41.15	0,0,0,0	0
57	MG	BA	3007	1/1	0.93	1.25	40.68	0,0,0,0	0
57	MG	DA	3245	1/1	0.85	0.99	39.87	0,0,0,0	1
57	MG	BA	3035	1/1	0.95	1.46	39.68	0,0,0,0	0
57	MG	DA	3056	1/1	0.87	0.83	39.40	0,0,0,0	0
57	MG	BA	3091	1/1	0.88	0.99	37.07	0,0,0,0	0
57	MG	AA	1650	1/1	0.86	1.10	35.80	0,0,0,0	0
57	MG	DA	3146	1/1	0.96	0.58	35.30	0,0,0,0	0
57	MG	CA	1689	1/1	0.81	1.28	33.22	0,0,0,0	1
57	MG	CA	1670	1/1	0.67	0.83	32.91	0,0,0,0	0
57	MG	BA	3048	1/1	0.96	0.58	32.27	0,0,0,0	0
57	MG	BA	3093	1/1	0.90	1.04	31.80	0,0,0,0	0
57	MG	DA	3128	1/1	0.74	1.46	31.54	1,1,1,1	0
57	MG	BA	3051	1/1	0.90	0.67	31.47	0,0,0,0	0
57	MG	DA	3173	1/1	0.87	0.80	31.09	0,0,0,0	0
57	MG	DA	3087	1/1	0.94	1.10	30.53	1,1,1,1	0
57	MG	DA	3023	1/1	0.96	1.12	29.97	0,0,0,0	0
57	MG	AA	1635	1/1	0.89	1.26	29.47	0,0,0,0	0
57	MG	BA	3104	1/1	0.81	0.93	28.08	0,0,0,0	0
57	MG	DA	3177	1/1	0.70	0.81	27.20	1,1,1,1	0
57	MG	DA	3251	1/1	0.46	0.69	27.10	0,0,0,0	1
57	MG	DA	3099	1/1	0.96	0.55	25.88	0,0,0,0	0
57	MG	DA	3098	1/1	0.88	0.83	25.87	1,1,1,1	0
57	MG	DA	3086	1/1	0.89	0.93	25.51	0,0,0,0	0
57	MG	DA	3262	1/1	0.93	0.80	25.46	0,0,0,0	0
57	MG	DA	3045	1/1	0.89	0.61	25.33	0,0,0,0	0
57	MG	DA	3043	1/1	0.86	0.86	25.33	0,0,0,0	0
57	MG	DA	3047	1/1	0.89	0.71	24.50	0,0,0,0	0
57	MG	DA	3259	1/1	0.70	1.08	24.47	0,0,0,0	0
57	MG	DA	3100	1/1	0.84	0.80	24.40	0,0,0,0	0
57	MG	AA	1624	1/1	0.87	0.72	23.81	0,0,0,0	0
57	MG	DA	3145	1/1	0.82	0.68	23.44	1,1,1,1	0
57	MG	CA	1690	1/1	0.98	0.34	22.92	3,3,3,3	0
57	MG	DA	3061	1/1	0.95	0.63	22.63	0,0,0,0	0
57	MG	DA	3070	1/1	0.94	0.99	22.31	0,0,0,0	0
57	MG	BA	3157	1/1	0.98	0.80	22.30	1,1,1,1	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	DA	3129	1/1	0.93	0.53	22.30	0,0,0,0	0
57	MG	DA	3007	1/1	0.89	0.88	22.27	1,1,1,1	0
57	MG	BA	3152	1/1	0.91	0.93	22.24	3,3,3,3	0
57	MG	DA	3004	1/1	0.88	1.03	22.08	1,1,1,1	0
57	MG	DA	3005	1/1	0.92	0.71	21.78	0,0,0,0	0
57	MG	BU	201	1/1	0.27	0.94	21.66	8,8,8,8	0
57	MG	BA	3233	1/1	0.77	0.88	21.23	0,0,0,0	0
57	MG	CA	1626	1/1	0.70	1.19	20.98	0,0,0,0	0
57	MG	BA	3019	1/1	0.96	0.67	20.37	0,0,0,0	0
57	MG	CA	1619	1/1	0.70	0.46	20.28	0,0,0,0	0
57	MG	BA	3020	1/1	0.97	0.70	20.01	0,0,0,0	0
57	MG	DA	3055	1/1	0.92	0.34	19.93	0,0,0,0	0
57	MG	AA	1617	1/1	0.88	0.69	19.44	0,0,0,0	0
57	MG	BA	3201	1/1	0.75	1.25	19.16	0,0,0,0	0
57	MG	DA	3073	1/1	0.90	0.53	18.57	0,0,0,0	0
57	MG	D5	102	1/1	0.71	0.82	18.38	0,0,0,0	1
57	MG	DA	3161	1/1	0.79	0.64	17.80	0,0,0,0	0
57	MG	AA	1691	1/1	0.96	0.80	17.47	58,58,58,58	0
57	MG	DA	3183	1/1	0.96	0.50	17.45	0,0,0,0	0
57	MG	BA	3103	1/1	0.91	0.65	17.04	0,0,0,0	0
57	MG	BA	3257	1/1	0.98	0.59	16.63	0,0,0,0	0
57	MG	BA	3194	1/1	0.90	0.58	16.16	0,0,0,0	0
57	MG	DA	3009	1/1	0.89	1.03	16.07	0,0,0,0	0
57	MG	DA	3112	1/1	0.71	0.81	16.06	0,0,0,0	0
57	MG	DA	3048	1/1	0.95	0.53	15.23	0,0,0,0	0
57	MG	DA	3088	1/1	0.82	0.74	15.05	1,1,1,1	0
57	MG	BA	3125	1/1	0.93	0.67	14.66	0,0,0,0	0
57	MG	DA	3044	1/1	0.87	0.60	14.61	0,0,0,0	0
57	MG	DA	3169	1/1	0.84	0.82	14.60	0,0,0,0	0
57	MG	AA	1664	1/1	0.78	0.39	14.38	0,0,0,0	0
57	MG	DA	3197	1/1	0.16	0.97	14.24	1,1,1,1	0
57	MG	DA	3063	1/1	0.72	0.94	14.17	0,0,0,0	0
57	MG	CA	1620	1/1	0.70	1.01	13.89	1,1,1,1	0
57	MG	DA	3018	1/1	0.95	0.76	13.72	0,0,0,0	0
57	MG	CA	1613	1/1	0.92	0.75	13.64	0,0,0,0	0
57	MG	BA	3138	1/1	0.95	0.81	13.57	0,0,0,0	0
57	MG	BA	3046	1/1	0.87	0.59	13.53	0,0,0,0	0
57	MG	AA	1609	1/1	0.95	0.86	13.49	3,3,3,3	0
57	MG	BA	3095	1/1	0.93	0.62	12.79	0,0,0,0	0
57	MG	DA	3051	1/1	0.87	0.63	12.67	0,0,0,0	0
57	MG	DA	3209	1/1	0.94	0.41	12.50	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	DA	3189	1/1	0.98	0.57	12.37	0,0,0,0	0
57	MG	BA	3161	1/1	0.93	0.73	12.07	0,0,0,0	0
57	MG	DA	3144	1/1	0.92	0.54	11.97	0,0,0,0	0
57	MG	DA	3211	1/1	0.76	0.53	11.89	12,12,12,12	0
57	MG	BA	3055	1/1	0.97	0.41	11.75	0,0,0,0	0
57	MG	DA	3019	1/1	0.84	0.47	11.46	0,0,0,0	0
57	MG	BA	3251	1/1	0.79	0.55	11.16	8,8,8,8	0
57	MG	DA	3062	1/1	0.93	0.41	11.08	1,1,1,1	0
57	MG	DA	3258	1/1	0.88	0.61	10.99	8,8,8,8	0
57	MG	DA	3228	1/1	0.84	0.40	10.64	0,0,0,0	0
57	MG	DA	3238	1/1	0.79	0.42	10.26	0,0,0,0	0
57	MG	BA	3247	1/1	0.93	0.59	10.16	7,7,7,7	0
57	MG	BA	3036	1/1	0.87	0.73	10.12	0,0,0,0	0
57	MG	BA	3075	1/1	0.92	0.73	9.63	0,0,0,0	0
57	MG	BA	3141	1/1	0.90	0.59	9.60	0,0,0,0	0
57	MG	DA	3084	1/1	0.87	0.46	9.58	0,0,0,0	0
57	MG	BA	3053	1/1	0.95	0.37	9.36	0,0,0,0	0
57	MG	AA	1616	1/1	0.91	0.73	9.27	0,0,0,0	0
57	MG	AA	1644	1/1	0.90	0.51	9.26	0,0,0,0	0
57	MG	DA	3158	1/1	0.97	0.41	9.04	0,0,0,0	0
57	MG	CA	1602	1/1	0.98	0.29	8.97	0,0,0,0	0
57	MG	DA	3191	1/1	0.77	0.39	8.94	13,13,13,13	0
57	MG	DA	3155	1/1	0.93	0.52	8.94	0,0,0,0	0
57	MG	DA	3174	1/1	0.93	0.49	8.69	0,0,0,0	0
57	MG	CA	1651	1/1	0.92	0.29	8.60	0,0,0,0	0
57	MG	DA	3092	1/1	0.97	0.37	8.57	0,0,0,0	0
57	MG	CA	1648	1/1	0.97	0.32	8.55	0,0,0,0	0
57	MG	BA	3079	1/1	0.98	0.56	8.50	0,0,0,0	0
57	MG	DA	3201	1/1	0.95	0.47	8.40	0,0,0,0	0
57	MG	BA	3240	1/1	0.67	0.44	8.34	0,0,0,0	0
57	MG	CA	1673	1/1	0.85	0.41	8.31	0,0,0,0	0
57	MG	BA	3114	1/1	0.85	0.52	8.28	0,0,0,0	0
57	MG	DA	3035	1/1	0.96	0.34	8.18	0,0,0,0	0
57	MG	BA	3094	1/1	0.79	0.56	8.00	0,0,0,0	0
57	MG	DA	3109	1/1	0.97	0.56	7.92	0,0,0,0	0
57	MG	BA	3150	1/1	0.67	1.37	7.70	0,0,0,0	0
57	MG	CA	1652	1/1	0.86	0.29	7.63	0,0,0,0	0
57	MG	DA	3046	1/1	0.92	0.35	7.54	0,0,0,0	0
57	MG	BA	3074	1/1	0.97	0.39	7.42	0,0,0,0	0
57	MG	BA	3117	1/1	0.55	0.80	7.34	0,0,0,0	0
57	MG	BA	3142	1/1	0.93	0.62	6.96	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	DA	3149	1/1	0.95	0.44	6.66	0,0,0,0	0
57	MG	DA	3122	1/1	0.87	0.32	6.62	0,0,0,0	0
57	MG	AA	1639	1/1	0.94	0.54	6.49	0,0,0,0	0
57	MG	DA	3250	1/1	0.81	0.35	6.48	46,46,46,46	0
57	MG	DA	3117	1/1	0.98	0.32	6.47	0,0,0,0	0
57	MG	BA	3174	1/1	0.95	0.64	6.43	0,0,0,0	0
57	MG	CA	1622	1/1	0.90	0.58	6.33	0,0,0,0	0
57	MG	BA	3239	1/1	0.94	0.41	5.97	0,0,0,0	0
57	MG	DA	3170	1/1	0.83	0.59	5.85	0,0,0,0	0
57	MG	AA	1667	1/1	0.90	0.33	5.83	15,15,15,15	0
57	MG	BA	3081	1/1	0.88	0.36	5.78	0,0,0,0	0
57	MG	BA	3067	1/1	0.72	0.67	5.77	0,0,0,0	0
57	MG	DA	3119	1/1	0.97	0.48	5.76	0,0,0,0	0
57	MG	CA	1640	1/1	0.73	0.62	5.71	0,0,0,0	0
57	MG	DA	3135	1/1	0.94	0.28	5.68	1,1,1,1	0
57	MG	BA	3173	1/1	0.68	0.43	5.66	0,0,0,0	0
57	MG	BA	3047	1/1	0.97	0.32	5.46	0,0,0,0	0
57	MG	DA	3225	1/1	0.98	0.73	5.37	0,0,0,0	0
57	MG	DA	3080	1/1	0.98	0.40	5.25	0,0,0,0	0
57	MG	DA	3123	1/1	0.96	0.43	5.01	0,0,0,0	0
57	MG	DA	3082	1/1	0.98	0.33	4.99	0,0,0,0	0
57	MG	CA	1666	1/1	0.96	0.57	4.93	0,0,0,0	0
57	MG	AA	1611	1/1	0.96	0.41	4.78	0,0,0,0	0
57	MG	DA	3248	1/1	0.70	0.42	4.76	0,0,0,0	1
57	MG	DA	3107	1/1	0.63	0.53	4.70	0,0,0,0	0
57	MG	AA	1671	1/1	0.96	0.44	4.60	0,0,0,0	0
57	MG	AA	1606	1/1	0.93	0.54	4.53	0,0,0,0	0
57	MG	DA	3232	1/1	0.83	0.33	4.51	0,0,0,0	0
57	MG	BA	3140	1/1	0.90	0.24	4.33	12,12,12,12	0
57	MG	BA	3151	1/1	0.97	0.33	4.28	0,0,0,0	0
57	MG	BA	3146	1/1	0.89	0.24	4.25	0,0,0,0	0
57	MG	DA	3064	1/1	0.72	0.50	4.24	0,0,0,0	0
57	MG	CA	1653	1/1	0.94	0.50	4.23	1,1,1,1	0
57	MG	AA	1604	1/1	0.91	0.34	4.22	0,0,0,0	0
57	MG	BA	3089	1/1	0.96	0.36	4.13	0,0,0,0	0
57	MG	DA	3120	1/1	0.95	0.45	3.95	0,0,0,0	0
57	MG	BA	3215	1/1	0.95	0.29	3.76	18,18,18,18	0
57	MG	DA	3205	1/1	0.98	0.40	3.76	0,0,0,0	0
58	PAR	CA	1695	42/42	0.90	0.34	3.72	36,39,47,50	0
57	MG	BA	3227	1/1	0.94	0.56	3.67	0,0,0,0	0
57	MG	BA	3166	1/1	0.91	0.34	3.63	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
58	PAR	AA	1694	42/42	0.87	0.31	3.61	11,14,23,25	0
57	MG	DA	3114	1/1	0.96	0.27	3.57	0,0,0,0	0
57	MG	CA	1629	1/1	0.98	0.26	3.57	0,0,0,0	0
57	MG	CA	1603	1/1	0.95	0.34	3.42	0,0,0,0	0
57	MG	CA	1615	1/1	0.88	0.37	3.33	1,1,1,1	0
57	MG	AA	1653	1/1	0.97	0.29	3.31	0,0,0,0	0
57	MG	DA	3138	1/1	0.98	0.30	3.29	0,0,0,0	0
57	MG	BA	3183	1/1	0.96	0.30	3.28	1,1,1,1	0
57	MG	DA	3068	1/1	0.95	0.38	3.21	1,1,1,1	0
57	MG	BA	3197	1/1	0.92	0.39	3.11	0,0,0,0	0
57	MG	AA	1657	1/1	0.92	0.27	3.00	1,1,1,1	0
57	MG	CA	1663	1/1	0.91	0.27	2.99	0,0,0,0	0
57	MG	DA	3059	1/1	0.87	0.28	2.98	1,1,1,1	0
57	MG	DA	3194	1/1	0.65	0.33	2.92	0,0,0,0	0
57	MG	DA	3182	1/1	0.82	0.37	2.92	0,0,0,0	0
57	MG	AA	1615	1/1	0.96	0.31	2.78	1,1,1,1	0
57	MG	DA	3196	1/1	0.74	0.25	2.77	3,3,3,3	0
57	MG	BA	3139	1/1	0.92	0.32	2.64	0,0,0,0	0
57	MG	BA	3002	1/1	0.82	0.27	2.62	13,13,13,13	0
57	MG	BA	3113	1/1	0.93	0.30	2.49	0,0,0,0	0
57	MG	AA	1692	1/1	0.96	0.26	2.22	2,2,2,2	0
57	MG	DA	3108	1/1	0.91	0.31	2.20	0,0,0,0	0
57	MG	CA	1650	1/1	0.98	0.29	2.15	0,0,0,0	0
57	MG	BA	3070	1/1	0.85	0.26	2.06	0,0,0,0	0
57	MG	BA	3118	1/1	0.97	0.29	1.98	3,3,3,3	0
57	MG	BA	3033	1/1	0.94	0.32	1.85	0,0,0,0	0
57	MG	CA	1657	1/1	0.81	0.21	1.82	0,0,0,0	0
57	MG	D0	101	1/1	0.75	0.54	1.77	1,1,1,1	0
57	MG	BA	3030	1/1	0.82	0.24	1.74	26,26,26,26	0
57	MG	DA	3032	1/1	0.99	0.25	1.65	0,0,0,0	0
57	MG	CA	1659	1/1	0.94	0.43	1.64	8,8,8,8	0
57	MG	CA	1623	1/1	0.92	0.38	1.49	0,0,0,0	0
57	MG	DA	3078	1/1	0.59	0.22	1.48	0,0,0,0	0
57	MG	BA	3206	1/1	0.95	0.28	1.44	0,0,0,0	0
57	MG	DA	3243	1/1	0.91	0.27	1.29	0,0,0,0	0
57	MG	CA	1688	1/1	0.96	0.28	1.23	1,1,1,1	0
57	MG	DA	3041	1/1	0.94	0.24	1.07	36,36,36,36	0
57	MG	DA	3090	1/1	0.94	0.28	1.03	0,0,0,0	0
57	MG	CA	1614	1/1	0.95	0.20	1.01	0,0,0,0	0
57	MG	BA	3005	1/1	0.98	0.26	0.95	0,0,0,0	0
57	MG	DA	3037	1/1	0.83	0.24	0.89	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	DA	3140	1/1	0.95	0.28	0.86	0,0,0,0	0
57	MG	CA	1655	1/1	0.88	0.24	0.81	21,21,21,21	0
57	MG	AA	1618	1/1	0.94	0.21	0.77	7,7,7,7	0
57	MG	AA	1655	1/1	0.97	0.20	0.66	0,0,0,0	0
57	MG	AA	1659	1/1	0.90	0.22	0.53	0,0,0,0	0
57	MG	CA	1637	1/1	0.83	0.33	0.48	0,0,0,0	0
57	MG	AA	1648	1/1	0.88	0.18	0.47	1,1,1,1	0
57	MG	DA	3030	1/1	0.88	0.20	0.35	0,0,0,0	0
57	MG	DA	3213	1/1	0.89	0.19	0.15	0,0,0,0	0
57	MG	BA	3198	1/1	0.84	0.19	0.12	41,41,41,41	0
57	MG	BF	302	1/1	0.84	0.34	-0.02	0,0,0,0	0
57	MG	CA	1658	1/1	0.94	0.18	-0.17	0,0,0,0	0
57	MG	BA	3179	1/1	0.94	0.24	-0.18	0,0,0,0	0
57	MG	DA	3239	1/1	0.90	0.22	-0.19	0,0,0,0	0
57	MG	DA	3223	1/1	0.98	0.24	-0.19	0,0,0,0	0
57	MG	CA	1649	1/1	0.96	0.18	-0.22	0,0,0,0	0
57	MG	AA	1656	1/1	0.89	0.24	-0.22	9,9,9,9	0
57	MG	DA	3190	1/1	0.91	0.22	-0.32	0,0,0,0	0
57	MG	AA	1665	1/1	0.96	0.18	-0.36	0,0,0,0	0
57	MG	BA	3153	1/1	0.93	0.21	-0.42	0,0,0,0	0
59	ZN	CD	801	1/1	0.86	0.30	-0.43	8,8,8,8	0
57	MG	AA	1668	1/1	0.93	0.18	-0.46	36,36,36,36	0
57	MG	CA	1691	1/1	0.98	0.12	-0.86	0,0,0,0	0
57	MG	BA	3027	1/1	0.95	0.13	-0.87	0,0,0,0	1
57	MG	DA	3115	1/1	0.97	0.19	-0.87	0,0,0,0	0
57	MG	DA	3057	1/1	0.98	0.21	-0.89	0,0,0,0	0
57	MG	DA	3052	1/1	0.94	0.21	-0.97	0,0,0,0	0
57	MG	AA	1663	1/1	0.93	0.16	-0.98	4,4,4,4	0
57	MG	AA	1693	1/1	0.90	0.12	-1.17	5,5,5,5	0
59	ZN	CN	101	1/1	0.91	0.15	-1.20	125,125,125,125	0
57	MG	BA	3107	1/1	0.94	0.17	-1.21	12,12,12,12	0
57	MG	AA	1658	1/1	0.85	0.14	-1.27	41,41,41,41	0
57	MG	DA	3224	1/1	0.95	0.23	-1.28	0,0,0,0	0
59	ZN	AD	801	1/1	0.95	0.26	-1.32	9,9,9,9	0
59	ZN	AN	101	1/1	0.95	0.10	-1.32	76,76,76,76	0
57	MG	DA	3217	1/1	0.97	0.06	-1.42	31,31,31,31	0
57	MG	BA	3207	1/1	0.88	0.19	-1.45	0,0,0,0	0
57	MG	BA	3034	1/1	0.95	0.16	-1.51	2,2,2,2	0
57	MG	BA	3224	1/1	0.96	0.14	-1.57	52,52,52,52	0
57	MG	BA	3052	1/1	0.90	0.16	-1.64	1,1,1,1	0
57	MG	BA	3164	1/1	0.96	0.15	-1.67	54,54,54,54	0
57	MG	CA	1612	1/1	0.94	0.15	-1.70	8,8,8,8	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	CV	101	1/1	0.97	0.12	-1.73	1,1,1,1	0
57	MG	BA	3032	1/1	0.91	0.15	-1.76	0,0,0,0	0
57	MG	AA	1602	1/1	0.97	0.18	-1.76	0,0,0,0	0
57	MG	BA	3171	1/1	0.89	0.12	-1.89	6,6,6,6	0
57	MG	DB	202	1/1	0.95	0.13	-2.05	0,0,0,0	0
57	MG	BA	3088	1/1	0.82	0.17	-2.05	2,2,2,2	0
57	MG	BA	3182	1/1	0.94	0.15	-2.16	17,17,17,17	0
57	MG	BA	3008	1/1	0.90	0.15	-2.24	0,0,0,0	0
57	MG	BA	3246	1/1	0.83	0.09	-2.27	21,21,21,21	0
57	MG	BB	204	1/1	0.81	0.13	-2.62	0,0,0,0	1
57	MG	DB	201	1/1	0.91	0.15	-2.70	0,0,0,0	1
57	MG	CA	1631	1/1	0.97	0.07	-3.32	0,0,0,0	0
57	MG	BA	3060	1/1	0.96	0.08	-3.39	28,28,28,28	0
57	MG	BA	3137	1/1	0.94	0.11	-3.74	108,108,108,108	0
57	MG	AA	1642	1/1	0.90	0.10	-3.94	46,46,46,46	0
57	MG	AA	1661	1/1	0.97	0.08	-4.96	1,1,1,1	0
57	MG	CA	1621	1/1	0.95	0.10	-5.07	34,34,34,34	0
57	MG	BA	3022	1/1	0.94	0.14	-	8,8,8,8	0
57	MG	DA	3008	1/1	0.89	0.67	-	0,0,0,0	0
57	MG	AA	1687	1/1	0.65	0.64	-	0,0,0,0	0
57	MG	CA	1644	1/1	0.93	0.48	-	27,27,27,27	0
57	MG	BA	3120	1/1	0.70	0.84	-	0,0,0,0	0
57	MG	BA	3222	1/1	0.97	0.21	-	4,4,4,4	0
57	MG	CA	1647	1/1	0.85	0.84	-	0,0,0,0	1
57	MG	CA	1635	1/1	0.67	0.89	-	0,0,0,0	0
57	MG	BA	3217	1/1	0.78	0.49	-	0,0,0,0	0
57	MG	DA	3247	1/1	0.63	0.54	-	0,0,0,0	1
57	MG	BA	3163	1/1	0.70	1.33	-	3,3,3,3	0
57	MG	BA	3001	1/1	0.67	1.59	-	17,17,17,17	0
57	MG	DA	3253	1/1	0.99	0.41	-	5,5,5,5	0
57	MG	BA	3043	1/1	0.89	0.14	-	0,0,0,0	1
57	MG	CA	1669	1/1	0.71	0.71	-	0,0,0,0	0
57	MG	DA	3131	1/1	0.92	0.32	-	0,0,0,0	0
57	MG	DA	3093	1/1	0.97	0.47	-	0,0,0,0	0
57	MG	DA	3187	1/1	0.80	0.43	-	0,0,0,0	0
57	MG	DA	3097	1/1	0.98	0.45	-	1,1,1,1	0
57	MG	CA	1608	1/1	0.83	0.39	-	0,0,0,0	0
57	MG	CA	1654	1/1	0.84	0.56	-	0,0,0,0	0
57	MG	AA	1679	1/1	0.77	0.61	-	0,0,0,0	1
57	MG	DA	3162	1/1	0.80	0.71	-	0,0,0,0	0
57	MG	AA	1614	1/1	0.96	0.65	-	2,2,2,2	0
57	MG	DA	3029	1/1	0.89	0.30	-	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	BE	301	1/1	0.90	0.52	-	0,0,0,0	0
57	MG	AA	1613	1/1	0.96	0.39	-	0,0,0,0	0
57	MG	BA	3044	1/1	0.82	0.96	-	0,0,0,0	0
57	MG	CA	1664	1/1	0.84	0.31	-	0,0,0,0	0
57	MG	BA	3170	1/1	0.96	0.32	-	0,0,0,0	0
57	MG	DA	3106	1/1	0.96	0.29	-	0,0,0,0	0
57	MG	BA	3242	1/1	0.55	0.63	-	0,0,0,0	0
57	MG	BA	3156	1/1	0.96	0.47	-	0,0,0,0	0
57	MG	DA	3229	1/1	0.97	0.55	-	1,1,1,1	0
57	MG	DA	3065	1/1	0.68	0.73	-	0,0,0,0	0
57	MG	BA	3159	1/1	0.96	0.46	-	7,7,7,7	0
57	MG	CA	1684	1/1	0.90	0.67	-	0,0,0,0	0
57	MG	DA	3125	1/1	0.99	0.13	-	0,0,0,0	0
57	MG	BA	3235	1/1	0.91	0.22	-	0,0,0,0	0
57	MG	BA	3258	1/1	0.89	0.13	-	23,23,23,23	0
57	MG	DA	3002	1/1	0.81	1.16	-	0,0,0,0	0
57	MG	BA	3092	1/1	0.94	0.41	-	0,0,0,0	0
57	MG	DA	3021	1/1	0.80	0.35	-	18,18,18,18	0
57	MG	AA	1647	1/1	0.77	0.27	-	0,0,0,0	0
57	MG	AA	1684	1/1	0.82	0.36	-	0,0,0,0	0
57	MG	DA	3260	1/1	0.93	0.59	-	0,0,0,0	0
57	MG	AA	1605	1/1	0.93	0.12	-	26,26,26,26	0
57	MG	BA	3230	1/1	0.84	0.84	-	0,0,0,0	0
57	MG	DA	3186	1/1	0.91	1.17	-	0,0,0,0	0
57	MG	BA	3135	1/1	0.76	0.84	-	0,0,0,0	0
57	MG	BA	3029	1/1	0.90	0.30	-	0,0,0,0	0
57	MG	BA	3096	1/1	0.90	0.30	-	0,0,0,0	0
57	MG	AA	1622	1/1	0.90	0.22	-	0,0,0,0	0
57	MG	AA	1619	1/1	0.89	0.44	-	1,1,1,1	0
57	MG	BA	3072	1/1	0.96	0.63	-	0,0,0,0	0
57	MG	BA	3056	1/1	0.93	1.18	-	0,0,0,0	0
57	MG	BA	3108	1/1	0.88	1.13	-	0,0,0,0	0
57	MG	BA	3062	1/1	0.97	0.06	-	42,42,42,42	0
57	MG	BA	3238	1/1	0.94	0.27	-	2,2,2,2	1
57	MG	AA	1652	1/1	0.42	1.74	-	0,0,0,0	1
57	MG	BA	3124	1/1	0.56	1.21	-	2,2,2,2	1
57	MG	DA	3012	1/1	0.85	0.28	-	0,0,0,0	0
57	MG	BA	3200	1/1	0.98	0.06	-	64,64,64,64	0
57	MG	BA	3184	1/1	0.92	0.56	-	0,0,0,0	0
57	MG	DA	3221	1/1	0.65	0.80	-	0,0,0,0	0
57	MG	BA	3049	1/1	0.94	0.40	-	0,0,0,0	0
57	MG	BA	3068	1/1	0.96	0.94	-	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	CA	1660	1/1	0.95	0.11	-	0,0,0,0	0
57	MG	CA	1632	1/1	0.90	1.28	-	0,0,0,0	0
57	MG	DD	301	1/1	0.71	0.35	-	0,0,0,0	0
57	MG	BA	3016	1/1	0.94	0.52	-	1,1,1,1	0
57	MG	B1	101	1/1	0.87	0.20	-	59,59,59,59	1
57	MG	DA	3207	1/1	0.94	0.51	-	0,0,0,0	0
57	MG	DA	3204	1/1	0.75	0.37	-	0,0,0,0	0
57	MG	DA	3079	1/1	0.96	0.58	-	0,0,0,0	0
57	MG	BA	3249	1/1	0.69	1.44	-	0,0,0,0	0
57	MG	BA	3178	1/1	0.90	0.72	-	0,0,0,0	0
57	MG	DA	3034	1/1	0.90	0.36	-	0,0,0,0	0
57	MG	DA	3249	1/1	0.82	0.17	-	0,0,0,0	0
57	MG	CA	1681	1/1	0.98	0.29	-	1,1,1,1	0
57	MG	BA	3076	1/1	0.87	0.24	-	34,34,34,34	0
57	MG	AA	1643	1/1	0.93	0.14	-	35,35,35,35	0
57	MG	BA	3134	1/1	0.73	1.42	-	0,0,0,0	1
57	MG	CA	1609	1/1	0.70	1.56	-	0,0,0,0	0
57	MG	CA	1674	1/1	0.93	0.54	-	0,0,0,0	0
57	MG	BA	3248	1/1	0.61	0.62	-	7,7,7,7	0
57	MG	CA	1679	1/1	0.81	0.18	-	45,45,45,45	0
57	MG	AA	1645	1/1	0.75	0.81	-	0,0,0,0	0
57	MG	DA	3240	1/1	0.81	0.43	-	0,0,0,0	0
57	MG	BA	3144	1/1	0.86	0.37	-	1,1,1,1	0
57	MG	AA	1685	1/1	0.84	1.01	-	0,0,0,0	0
57	MG	BA	3169	1/1	0.88	1.21	-	0,0,0,0	0
57	MG	BA	3069	1/1	0.88	0.08	-	24,24,24,24	0
57	MG	BA	3160	1/1	0.64	0.65	-	0,0,0,0	0
57	MG	BA	3097	1/1	0.76	0.46	-	0,0,0,0	0
57	MG	BA	3223	1/1	0.59	0.47	-	0,0,0,0	0
57	MG	AA	1678	1/1	0.94	0.51	-	2,2,2,2	0
57	MG	BA	3216	1/1	0.89	0.24	-	0,0,0,0	1
57	MG	DA	3017	1/1	0.93	0.42	-	0,0,0,0	0
57	MG	BA	3220	1/1	0.97	0.11	-	16,16,16,16	0
57	MG	BA	3165	1/1	0.96	0.33	-	0,0,0,0	0
57	MG	DA	3094	1/1	0.55	0.92	-	0,0,0,0	0
57	MG	BA	3132	1/1	0.81	0.96	-	0,0,0,0	0
57	MG	AA	1682	1/1	0.96	0.14	-	0,0,0,0	0
57	MG	DA	3154	1/1	0.93	0.21	-	0,0,0,0	0
57	MG	BA	3121	1/1	0.93	0.50	-	0,0,0,0	0
57	MG	DA	3010	1/1	0.95	0.61	-	0,0,0,0	0
57	MG	BA	3004	1/1	0.88	1.38	-	0,0,0,0	0
57	MG	BA	3015	1/1	0.89	0.24	-	0,0,0,0	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	DA	3178	1/1	0.95	0.41	-	0,0,0,0	1
57	MG	BA	3129	1/1	0.93	0.22	-	0,0,0,0	1
57	MG	DA	3267	1/1	0.96	0.11	-	0,0,0,0	0
57	MG	BA	3105	1/1	0.66	1.18	-	0,0,0,0	0
57	MG	DA	3028	1/1	0.71	0.56	-	0,0,0,0	0
57	MG	DA	3042	1/1	0.89	0.50	-	0,0,0,0	0
57	MG	AX	102	1/1	0.96	0.17	-	29,29,29,29	0
57	MG	BA	3122	1/1	0.98	0.41	-	0,0,0,0	0
57	MG	DA	3040	1/1	0.96	0.85	-	0,0,0,0	0
57	MG	CA	1641	1/1	0.84	1.80	-	0,0,0,0	0
57	MG	DA	3212	1/1	0.69	1.32	-	0,0,0,0	0
57	MG	DA	3060	1/1	0.52	0.72	-	11,11,11,11	0
57	MG	CA	1686	1/1	0.97	0.47	-	0,0,0,0	0
57	MG	BA	3127	1/1	0.91	0.17	-	55,55,55,55	0
57	MG	BA	3172	1/1	0.96	0.18	-	0,0,0,0	0
57	MG	BA	3045	1/1	0.83	0.67	-	0,0,0,0	0
57	MG	AA	1626	1/1	0.87	0.40	-	0,0,0,0	0
57	MG	DA	3142	1/1	0.93	0.60	-	0,0,0,0	0
57	MG	BA	3087	1/1	0.64	0.48	-	0,0,0,0	0
57	MG	BA	3187	1/1	0.65	0.72	-	5,5,5,5	0
57	MG	DA	3026	1/1	0.78	0.35	-	0,0,0,0	0
57	MG	DA	3252	1/1	0.86	0.27	-	0,0,0,0	0
57	MG	DA	3168	1/1	0.98	0.47	-	37,37,37,37	1
57	MG	BB	201	1/1	0.88	0.41	-	0,0,0,0	1
57	MG	CA	1675	1/1	0.96	0.39	-	0,0,0,0	0
57	MG	BO	201	1/1	0.78	0.30	-	47,47,47,47	0
57	MG	DA	3126	1/1	0.91	0.38	-	0,0,0,0	0
57	MG	BA	3099	1/1	0.84	0.68	-	0,0,0,0	0
57	MG	DA	3226	1/1	0.98	0.40	-	0,0,0,0	0
57	MG	BA	3054	1/1	0.91	0.76	-	0,0,0,0	0
57	MG	DA	3192	1/1	0.70	0.90	-	0,0,0,0	0
57	MG	DA	3049	1/1	0.92	0.50	-	0,0,0,0	0
57	MG	BA	3147	1/1	0.93	0.14	-	0,0,0,0	0
57	MG	BA	3080	1/1	0.95	0.24	-	13,13,13,13	0
57	MG	BA	3037	1/1	0.64	0.72	-	0,0,0,0	0
57	MG	DA	3102	1/1	0.92	0.71	-	0,0,0,0	0
57	MG	BB	202	1/1	0.95	0.08	-	29,29,29,29	0
57	MG	CA	1661	1/1	0.85	0.47	-	1,1,1,1	0
57	MG	AA	1629	1/1	0.88	0.14	-	29,29,29,29	0
57	MG	CA	1642	1/1	0.91	1.07	-	0,0,0,0	0
57	MG	DA	3261	1/1	0.94	0.16	-	3,3,3,3	0
57	MG	BA	3109	1/1	0.93	0.27	-	2,2,2,2	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	DA	3053	1/1	0.98	0.41	-	0,0,0,0	0
57	MG	DA	3036	1/1	0.88	0.71	-	1,1,1,1	0
57	MG	BA	3116	1/1	0.87	0.30	-	0,0,0,0	0
57	MG	BA	3025	1/1	0.88	0.40	-	0,0,0,0	0
57	MG	BA	3244	1/1	0.83	0.64	-	0,0,0,0	0
57	MG	BA	3066	1/1	0.86	0.13	-	86,86,86,86	0
57	MG	BA	3231	1/1	0.50	0.59	-	0,0,0,0	0
57	MG	DA	3133	1/1	0.98	0.47	-	0,0,0,0	0
57	MG	DA	3027	1/1	0.59	0.22	-	1,1,1,1	0
57	MG	BA	3213	1/1	0.86	0.45	-	0,0,0,0	0
57	MG	DA	3181	1/1	0.72	0.72	-	15,15,15,15	0
57	MG	B3	101	1/1	0.89	0.67	-	0,0,0,0	0
57	MG	AA	1601	1/1	0.80	1.05	-	0,0,0,0	0
57	MG	DA	3265	1/1	0.71	0.70	-	0,0,0,0	0
57	MG	AA	1654	1/1	0.77	0.57	-	0,0,0,0	0
57	MG	BA	3195	1/1	0.65	0.47	-	0,0,0,0	0
57	MG	DA	3134	1/1	0.87	0.57	-	0,0,0,0	0
57	MG	BA	3176	1/1	0.95	0.19	-	24,24,24,24	0
57	MG	BA	3071	1/1	0.92	0.44	-	0,0,0,0	0
57	MG	BA	3256	1/1	0.88	0.87	-	0,0,0,0	0
57	MG	DA	3110	1/1	0.49	0.59	-	0,0,0,0	0
57	MG	AA	1627	1/1	0.94	0.24	-	0,0,0,0	0
57	MG	BA	3219	1/1	0.85	0.10	-	0,0,0,0	0
57	MG	AA	1669	1/1	0.82	0.93	-	3,3,3,3	1
57	MG	CA	1624	1/1	0.82	0.27	-	1,1,1,1	0
57	MG	BA	3057	1/1	0.94	0.08	-	29,29,29,29	0
57	MG	AA	1673	1/1	0.95	1.30	-	0,0,0,0	0
57	MG	DA	3003	1/1	0.84	0.48	-	1,1,1,1	0
57	MG	BA	3189	1/1	0.95	0.63	-	40,40,40,40	0
57	MG	DA	3175	1/1	0.95	0.82	-	0,0,0,0	0
57	MG	DA	3038	1/1	0.78	0.54	-	0,0,0,0	1
57	MG	DA	3071	1/1	0.81	1.22	-	1,1,1,1	0
57	MG	DA	3124	1/1	0.80	0.51	-	0,0,0,0	0
57	MG	DA	3067	1/1	0.92	1.37	-	1,1,1,1	0
57	MG	DA	3148	1/1	0.98	0.19	-	0,0,0,0	0
57	MG	AX	101	1/1	0.95	0.10	-	3,3,3,3	0
57	MG	CA	1611	1/1	0.90	0.58	-	0,0,0,0	0
57	MG	BA	3196	1/1	0.98	0.26	-	0,0,0,0	1
57	MG	AA	1634	1/1	0.51	1.89	-	0,0,0,0	1
57	MG	DA	3220	1/1	0.83	0.75	-	0,0,0,0	0
57	MG	DA	3200	1/1	0.89	0.84	-	0,0,0,0	0
57	MG	BA	3017	1/1	0.87	0.32	-	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
57	MG	CA	1639	1/1	0.97	0.47	-	1,1,1,1	0
57	MG	DA	3202	1/1	0.72	0.35	-	0,0,0,0	0
57	MG	DA	3254	1/1	0.71	2.39	-	0,0,0,0	1
57	MG	CA	1685	1/1	0.68	0.34	-	11,11,11,11	0
57	MG	AA	1608	1/1	0.98	0.28	-	0,0,0,0	0
57	MG	DA	3081	1/1	0.91	0.28	-	0,0,0,0	0
57	MG	CA	1677	1/1	0.76	0.37	-	0,0,0,0	1
57	MG	DA	3111	1/1	0.94	0.71	-	1,1,1,1	0
57	MG	DA	3233	1/1	0.84	1.20	-	0,0,0,0	0
57	MG	AA	1688	1/1	0.72	1.02	-	0,0,0,0	0
57	MG	DA	3210	1/1	0.44	0.38	-	15,15,15,15	0
57	MG	DA	3153	1/1	0.78	0.39	-	0,0,0,0	0
57	MG	BA	3050	1/1	0.91	0.18	-	0,0,0,0	0
57	MG	CA	1616	1/1	0.95	0.25	-	0,0,0,0	0
57	MG	CA	1604	1/1	0.68	0.38	-	0,0,0,0	0
57	MG	DA	3230	1/1	0.71	0.54	-	0,0,0,0	0
57	MG	BA	3149	1/1	0.93	0.18	-	10,10,10,10	0
57	MG	BA	3154	1/1	0.76	0.47	-	0,0,0,0	0
57	MG	BA	3024	1/1	0.83	0.52	-	0,0,0,0	0
57	MG	CA	1618	1/1	0.95	0.13	-	0,0,0,0	0
57	MG	AA	1677	1/1	0.94	0.43	-	0,0,0,0	0
57	MG	AA	1632	1/1	0.90	0.16	-	3,3,3,3	0
57	MG	BA	3102	1/1	0.91	0.33	-	38,38,38,38	0
57	MG	DA	3116	1/1	0.93	0.33	-	0,0,0,0	0
57	MG	BA	3237	1/1	0.28	1.25	-	3,3,3,3	0
57	MG	BA	3228	1/1	0.78	0.29	-	1,1,1,1	0
57	MG	CA	1606	1/1	0.78	1.14	-	5,5,5,5	0
57	MG	DA	3006	1/1	0.73	0.56	-	3,3,3,3	0
57	MG	BA	3061	1/1	0.91	0.22	-	40,40,40,40	0
57	MG	DA	3151	1/1	0.87	0.26	-	0,0,0,0	0
57	MG	BA	3058	1/1	0.84	0.30	-	4,4,4,4	0
57	MG	BA	3115	1/1	0.97	0.48	-	1,1,1,1	0
57	MG	DA	3198	1/1	0.51	0.90	-	0,0,0,0	1
57	MG	AA	1674	1/1	0.83	1.25	-	16,16,16,16	0
57	MG	AA	1623	1/1	0.70	0.47	-	0,0,0,0	0
57	MG	DA	3218	1/1	0.91	0.54	-	0,0,0,0	0
57	MG	DA	3152	1/1	0.90	0.25	-	2,2,2,2	0
57	MG	AA	1633	1/1	0.92	1.06	-	0,0,0,0	0
57	MG	BA	3100	1/1	0.97	0.10	-	73,73,73,73	0
57	MG	AA	1683	1/1	0.97	0.20	-	0,0,0,0	0
57	MG	BA	3225	1/1	0.93	0.96	-	0,0,0,0	0
57	MG	AA	1638	1/1	0.57	0.64	-	9,9,9,9	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	DA	3001	1/1	0.88	0.55	-	0,0,0,0	0
57	MG	BB	203	1/1	0.65	0.75	-	0,0,0,0	1
57	MG	BA	3218	1/1	0.88	0.24	-	0,0,0,0	0
57	MG	CA	1687	1/1	0.85	0.93	-	0,0,0,0	1
57	MG	BA	3064	1/1	0.91	0.18	-	51,51,51,51	0
57	MG	AA	1649	1/1	0.94	0.06	-	67,67,67,67	0
57	MG	DA	3172	1/1	0.97	0.22	-	43,43,43,43	0
57	MG	CA	1682	1/1	0.77	0.72	-	1,1,1,1	0
57	MG	DA	3105	1/1	0.84	0.60	-	0,0,0,0	0
57	MG	CA	1617	1/1	0.84	0.82	-	1,1,1,1	0
57	MG	DA	3074	1/1	0.95	0.25	-	0,0,0,0	0
57	MG	AA	1651	1/1	0.97	0.36	-	0,0,0,0	0
57	MG	DA	3215	1/1	0.86	0.31	-	0,0,0,0	0
57	MG	BA	3162	1/1	0.95	0.22	-	6,6,6,6	0
57	MG	BA	3123	1/1	0.86	0.56	-	0,0,0,0	0
57	MG	BA	3059	1/1	0.71	0.87	-	0,0,0,0	0
57	MG	DA	3039	1/1	0.81	0.53	-	0,0,0,0	0
57	MG	DA	3132	1/1	0.33	0.97	-	0,0,0,0	0
57	MG	BA	3090	1/1	0.83	0.56	-	0,0,0,0	0
57	MG	DA	3014	1/1	0.95	0.19	-	8,8,8,8	0
57	MG	DA	3266	1/1	0.82	0.53	-	0,0,0,0	0
57	MG	BA	3253	1/1	0.83	1.01	-	0,0,0,0	0
57	MG	DA	3237	1/1	0.73	1.39	-	1,1,1,1	0
57	MG	BA	3014	1/1	0.97	0.21	-	0,0,0,0	0
57	MG	CA	1692	1/1	0.98	0.08	-	0,0,0,0	1
57	MG	DA	3255	1/1	0.91	0.40	-	0,0,0,0	0
57	MG	BA	3255	1/1	0.93	0.09	-	0,0,0,0	0
57	MG	BA	3180	1/1	0.89	0.52	-	0,0,0,0	0
57	MG	BA	3082	1/1	0.85	0.28	-	88,88,88,88	0
57	MG	BA	3202	1/1	0.80	0.72	-	0,0,0,0	0
57	MG	CA	1671	1/1	0.95	1.05	-	0,0,0,0	0
57	MG	DA	3167	1/1	0.70	0.61	-	1,1,1,1	0
57	MG	AA	1631	1/1	0.50	1.27	-	0,0,0,0	0
57	MG	DA	3143	1/1	0.91	0.57	-	1,1,1,1	0
57	MG	BA	3175	1/1	0.95	0.19	-	0,0,0,0	0
57	MG	BA	3181	1/1	0.94	1.45	-	8,8,8,8	0
57	MG	DA	3203	1/1	0.93	0.40	-	0,0,0,0	0
57	MG	BA	3130	1/1	0.91	0.22	-	0,0,0,0	0
57	MG	AA	1607	1/1	0.92	0.17	-	0,0,0,0	0
57	MG	CA	1630	1/1	0.74	0.46	-	1,1,1,1	0
57	MG	BA	3018	1/1	0.55	1.16	-	0,0,0,0	0
57	MG	BA	3136	1/1	0.99	0.50	-	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	BA	3023	1/1	0.93	0.10	-	43,43,43,43	0
57	MG	BA	3232	1/1	0.89	0.41	-	0,0,0,0	0
57	MG	DA	3256	1/1	0.76	1.10	-	0,0,0,0	0
57	MG	AA	1662	1/1	0.87	0.45	-	26,26,26,26	0
57	MG	AA	1603	1/1	0.97	0.08	-	55,55,55,55	0
57	MG	BA	3063	1/1	0.90	0.19	-	32,32,32,32	0
57	MG	BA	3128	1/1	0.77	0.19	-	4,4,4,4	0
57	MG	DA	3268	1/1	0.28	0.84	-	0,0,0,0	1
57	MG	DA	3118	1/1	0.93	0.98	-	0,0,0,0	0
57	MG	AA	1681	1/1	0.83	0.41	-	0,0,0,0	0
57	MG	AA	1640	1/1	0.82	0.45	-	0,0,0,0	0
57	MG	BA	3101	1/1	0.92	0.08	-	13,13,13,13	0
57	MG	DA	3263	1/1	0.90	0.43	-	0,0,0,0	0
57	MG	DA	3234	1/1	0.83	1.01	-	0,0,0,0	0
57	MG	BA	3131	1/1	0.86	0.24	-	0,0,0,0	0
57	MG	CA	1665	1/1	0.87	0.32	-	0,0,0,0	0
57	MG	AA	1675	1/1	0.91	0.94	-	0,0,0,0	0
57	MG	BA	3084	1/1	0.88	0.65	-	0,0,0,0	0
57	MG	BA	3229	1/1	0.85	0.32	-	13,13,13,13	0
57	MG	BA	3042	1/1	0.95	0.59	-	0,0,0,0	0
57	MG	DA	3095	1/1	0.94	0.95	-	0,0,0,0	0
57	MG	AA	1689	1/1	0.93	0.53	-	0,0,0,0	0
57	MG	B5	101	1/1	0.91	0.29	-	0,0,0,0	0
57	MG	BA	3021	1/1	0.80	1.50	-	0,0,0,0	0
57	MG	BA	3188	1/1	0.98	0.53	-	5,5,5,5	0
57	MG	CA	1672	1/1	0.89	0.54	-	0,0,0,0	0
57	MG	DA	3101	1/1	0.96	0.60	-	0,0,0,0	0
57	MG	BA	3158	1/1	0.91	0.96	-	0,0,0,0	0
57	MG	CA	1625	1/1	0.47	1.28	-	1,1,1,1	0
57	MG	BA	3259	1/1	0.85	0.87	-	0,0,0,0	0
57	MG	CA	1676	1/1	0.95	0.19	-	0,0,0,0	0
57	MG	DA	3066	1/1	0.93	0.61	-	1,1,1,1	0
57	MG	DA	3206	1/1	0.79	0.32	-	36,36,36,36	0
57	MG	BA	3010	1/1	0.70	0.57	-	0,0,0,0	0
57	MG	DA	3241	1/1	0.26	1.00	-	0,0,0,0	0
57	MG	DA	3159	1/1	0.93	0.65	-	0,0,0,0	0
57	MG	DA	3160	1/1	0.82	1.12	-	0,0,0,0	0
57	MG	BA	3028	1/1	0.82	0.17	-	83,83,83,83	0
57	MG	CA	1638	1/1	0.74	0.57	-	0,0,0,0	0
57	MG	AA	1686	1/1	0.70	0.97	-	0,0,0,0	0
57	MG	BA	3083	1/1	0.94	0.72	-	0,0,0,0	0
57	MG	BA	3126	1/1	0.83	0.61	-	0,0,0,0	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	DA	3166	1/1	0.65	0.37	-	11,11,11,11	0
57	MG	BA	3012	1/1	0.95	0.17	-	68,68,68,68	0
57	MG	DA	3195	1/1	0.54	0.59	-	32,32,32,32	0
57	MG	DA	3176	1/1	0.74	0.93	-	0,0,0,0	0
57	MG	DA	3246	1/1	0.76	1.28	-	0,0,0,0	0
57	MG	BA	3234	1/1	0.98	0.44	-	0,0,0,0	0
57	MG	DA	3075	1/1	0.73	0.51	-	0,0,0,0	0
57	MG	BA	3177	1/1	0.98	0.41	-	0,0,0,0	0
57	MG	AA	1660	1/1	0.82	0.45	-	2,2,2,2	0
57	MG	CA	1683	1/1	0.74	1.04	-	1,1,1,1	0
57	MG	BA	3065	1/1	0.95	0.12	-	16,16,16,16	0
57	MG	BA	3254	1/1	0.76	0.82	-	0,0,0,0	0
57	MG	DA	3236	1/1	0.74	1.43	-	0,0,0,0	0
57	MG	BA	3155	1/1	0.92	0.62	-	0,0,0,0	0
57	MG	CV	102	1/1	0.70	0.78	-	0,0,0,0	0
57	MG	AA	1630	1/1	0.89	0.37	-	29,29,29,29	0
57	MG	DA	3016	1/1	0.83	0.41	-	0,0,0,0	0
57	MG	DA	3024	1/1	0.88	0.40	-	0,0,0,0	0
57	MG	CA	1668	1/1	0.82	1.06	-	0,0,0,0	0
57	MG	BA	3199	1/1	0.26	0.49	-	0,0,0,0	0
57	MG	BA	3191	1/1	0.85	0.89	-	0,0,0,0	0
57	MG	BA	3209	1/1	0.81	1.44	-	0,0,0,0	0
57	MG	BA	3077	1/1	0.95	0.44	-	0,0,0,0	0
57	MG	AA	1610	1/1	0.66	1.51	-	0,0,0,0	0
57	MG	AA	1680	1/1	0.88	1.77	-	0,0,0,0	0
57	MG	DA	3165	1/1	0.61	1.07	-	0,0,0,0	0
57	MG	CA	1667	1/1	0.65	0.62	-	27,27,27,27	0
57	MG	DA	3031	1/1	0.95	0.34	-	0,0,0,0	0
57	MG	DA	3185	1/1	0.75	0.30	-	0,0,0,0	0
57	MG	DA	3219	1/1	0.94	0.63	-	0,0,0,0	0
57	MG	DE	301	1/1	0.78	0.26	-	1,1,1,1	0
57	MG	BA	3193	1/1	0.69	0.75	-	0,0,0,0	0
57	MG	DA	3083	1/1	0.94	0.47	-	1,1,1,1	0
57	MG	B5	102	1/1	0.90	1.07	-	0,0,0,0	1
57	MG	BA	3203	1/1	0.81	0.56	-	0,0,0,0	0
57	MG	CA	1678	1/1	0.73	0.47	-	0,0,0,0	1
57	MG	D5	101	1/1	0.95	0.57	-	0,0,0,0	0
57	MG	BA	3204	1/1	0.45	0.45	-	3,3,3,3	0
57	MG	DA	3104	1/1	0.94	0.73	-	0,0,0,0	0
57	MG	AA	1636	1/1	0.77	0.79	-	4,4,4,4	0
57	MG	BA	3243	1/1	0.59	1.02	-	0,0,0,0	0
57	MG	BA	3186	1/1	0.95	0.59	-	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	AA	1676	1/1	0.64	0.52	-	0,0,0,0	0
57	MG	DA	3139	1/1	0.85	0.47	-	0,0,0,0	0
57	MG	BA	3119	1/1	0.90	0.39	-	0,0,0,0	0
57	MG	BA	3078	1/1	0.89	0.16	-	0,0,0,0	0
57	MG	BA	3192	1/1	0.87	0.40	-	0,0,0,0	0
57	MG	DA	3137	1/1	0.99	0.26	-	0,0,0,0	0
57	MG	BA	3212	1/1	0.88	1.07	-	11,11,11,11	0
57	MG	DA	3054	1/1	0.96	0.85	-	0,0,0,0	0
57	MG	DA	3264	1/1	0.68	0.71	-	1,1,1,1	0
57	MG	DA	3193	1/1	0.95	0.65	-	0,0,0,0	0
57	MG	DA	3091	1/1	0.93	0.68	-	0,0,0,0	0
57	MG	DA	3069	1/1	0.96	0.56	-	0,0,0,0	0
57	MG	DA	3184	1/1	0.76	0.71	-	0,0,0,0	1
57	MG	AA	1670	1/1	0.95	0.37	-	0,0,0,0	0
57	MG	BA	3252	1/1	0.89	0.28	-	0,0,0,0	0
57	MG	BA	3110	1/1	0.86	0.85	-	0,0,0,0	0
57	MG	BA	3026	1/1	0.81	0.77	-	0,0,0,0	0
57	MG	DA	3058	1/1	0.88	1.24	-	0,0,0,0	0
57	MG	CA	1633	1/1	0.97	0.41	-	0,0,0,0	0
57	MG	DA	3164	1/1	0.49	1.04	-	0,0,0,0	0
57	MG	DA	3015	1/1	0.97	0.64	-	0,0,0,0	0
57	MG	CA	1646	1/1	0.86	0.50	-	1,1,1,1	0
57	MG	DA	3121	1/1	0.93	0.70	-	0,0,0,0	0
57	MG	BA	3221	1/1	0.95	0.13	-	79,79,79,79	0
57	MG	DA	3244	1/1	0.66	1.32	-	0,0,0,0	0
57	MG	AA	1672	1/1	0.97	0.69	-	0,0,0,0	0
57	MG	BA	3167	1/1	0.75	0.82	-	0,0,0,0	0
57	MG	CA	1607	1/1	0.90	1.17	-	0,0,0,0	0
57	MG	BA	3009	1/1	0.77	0.46	-	0,0,0,0	0
57	MG	BF	301	1/1	0.92	0.25	-	27,27,27,27	1
57	MG	CA	1693	1/1	0.64	0.44	-	0,0,0,0	0
57	MG	BA	3148	1/1	0.65	0.37	-	0,0,0,0	0
57	MG	CA	1634	1/1	0.85	0.97	-	0,0,0,0	0
57	MG	DA	3180	1/1	0.96	0.25	-	0,0,0,0	0
57	MG	DA	3163	1/1	0.92	0.79	-	0,0,0,0	0
57	MG	DA	3025	1/1	0.96	0.15	-	1,1,1,1	0
57	MG	AA	1625	1/1	0.94	0.07	-	3,3,3,3	0
57	MG	BA	3260	1/1	0.87	0.19	-	13,13,13,13	0
57	MG	DA	3242	1/1	0.93	0.59	-	1,1,1,1	0
57	MG	AA	1646	1/1	0.86	0.85	-	0,0,0,0	0
57	MG	CA	1636	1/1	0.77	0.48	-	0,0,0,0	0
57	MG	CA	1680	1/1	0.79	0.52	-	1,1,1,1	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	DA	3199	1/1	0.53	0.60	-	1,1,1,1	0
57	MG	DA	3011	1/1	0.98	0.12	-	10,10,10,10	0
57	MG	DA	3257	1/1	0.97	0.32	-	0,0,0,0	1
57	MG	AA	1628	1/1	0.63	1.07	-	0,0,0,0	0
57	MG	CA	1610	1/1	0.94	0.48	-	0,0,0,0	0
57	MG	CA	1627	1/1	0.91	0.25	-	3,3,3,3	0
57	MG	BA	3039	1/1	0.84	0.37	-	0,0,0,0	0
57	MG	BA	3245	1/1	0.78	0.69	-	0,0,0,0	0
57	MG	DA	3231	1/1	0.95	0.31	-	0,0,0,0	0
57	MG	BA	3031	1/1	0.97	0.12	-	21,21,21,21	0
57	MG	AA	1690	1/1	0.94	0.20	-	23,23,23,23	0
57	MG	BA	3098	1/1	0.94	1.14	-	0,0,0,0	0
57	MG	DA	3130	1/1	0.88	0.42	-	0,0,0,0	0
57	MG	CA	1662	1/1	0.93	0.32	-	13,13,13,13	0
57	MG	DA	3150	1/1	0.95	0.35	-	0,0,0,0	0
57	MG	BA	3086	1/1	0.93	0.17	-	35,35,35,35	0
57	MG	DA	3188	1/1	0.94	0.75	-	0,0,0,0	0
57	MG	BA	3236	1/1	0.69	0.59	-	0,0,0,0	0
57	MG	BA	3106	1/1	0.92	0.21	-	7,7,7,7	0
57	MG	BA	3208	1/1	0.87	0.33	-	0,0,0,0	0
57	MG	BA	3145	1/1	0.84	1.10	-	0,0,0,0	0
57	MG	DA	3076	1/1	0.93	0.30	-	1,1,1,1	0
57	MG	BA	3190	1/1	0.45	0.76	-	0,0,0,0	0
57	MG	DA	3113	1/1	0.88	0.44	-	0,0,0,0	0
57	MG	BA	3241	1/1	0.74	0.33	-	5,5,5,5	0
57	MG	CA	1601	1/1	0.91	0.43	-	0,0,0,0	0
57	MG	DA	3222	1/1	0.86	1.32	-	1,1,1,1	0
57	MG	BA	3040	1/1	0.84	0.66	-	0,0,0,0	0
57	MG	DA	3208	1/1	0.90	0.21	-	0,0,0,0	0
57	MG	BA	3133	1/1	0.92	0.33	-	0,0,0,0	0
57	MG	AA	1620	1/1	0.84	0.34	-	1,1,1,1	0
57	MG	CA	1628	1/1	0.93	0.19	-	0,0,0,0	0
57	MG	BA	3205	1/1	0.85	0.22	-	33,33,33,33	0
57	MG	BA	3261	1/1	0.81	0.35	-	31,31,31,31	0
57	MG	AA	1612	1/1	0.59	1.05	-	0,0,0,0	0
57	MG	DA	3089	1/1	0.96	0.45	-	0,0,0,0	0
57	MG	BA	3013	1/1	0.93	0.18	-	63,63,63,63	0
57	MG	BA	3038	1/1	0.86	0.50	-	28,28,28,28	0
57	MG	DA	3085	1/1	0.84	0.77	-	0,0,0,0	0
57	MG	BA	3085	1/1	0.77	1.26	-	0,0,0,0	0
57	MG	DA	3157	1/1	0.96	0.42	-	0,0,0,0	0
57	MG	DA	3171	1/1	0.96	0.14	-	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	DA	3179	1/1	0.54	0.69	-	0,0,0,0	0
57	MG	BA	3073	1/1	0.86	0.52	-	0,0,0,0	0
57	MG	AA	1666	1/1	0.96	0.12	-	45,45,45,45	0
57	MG	DA	3077	1/1	0.82	0.61	-	1,1,1,1	0
57	MG	CA	1645	1/1	0.72	1.94	-	1,1,1,1	0
57	MG	DA	3147	1/1	0.94	0.18	-	1,1,1,1	0
57	MG	BA	3168	1/1	0.88	0.13	-	11,11,11,11	0
57	MG	BA	3011	1/1	0.83	1.91	-	0,0,0,0	0
57	MG	AA	1637	1/1	0.91	0.18	-	34,34,34,34	0
57	MG	BA	3111	1/1	0.84	0.90	-	2,2,2,2	0
57	MG	BA	3185	1/1	0.94	0.30	-	13,13,13,13	1
57	MG	BA	3112	1/1	0.95	0.34	-	0,0,0,0	0
57	MG	BA	3226	1/1	0.91	0.32	-	39,39,39,39	0
57	MG	BA	3041	1/1	0.91	0.45	-	0,0,0,0	1
57	MG	DA	3214	1/1	0.71	1.17	-	0,0,0,0	0
57	MG	AA	1621	1/1	0.89	1.04	-	0,0,0,0	0
57	MG	BA	3143	1/1	0.93	0.49	-	0,0,0,0	0
57	MG	DA	3136	1/1	0.75	0.78	-	1,1,1,1	0
57	MG	BA	3210	1/1	0.93	0.23	-	0,0,0,0	0
57	MG	CA	1643	1/1	0.97	0.32	-	0,0,0,0	0
57	MG	AA	1641	1/1	0.77	0.29	-	0,0,0,0	0
57	MG	BA	3250	1/1	0.92	1.37	-	0,0,0,0	1
57	MG	CA	1656	1/1	0.74	1.31	-	0,0,0,0	0
57	MG	BA	3006	1/1	0.84	0.77	-	0,0,0,0	0
57	MG	DA	3096	1/1	0.95	0.40	-	0,0,0,0	0
57	MG	CA	1605	1/1	0.95	0.22	-	1,1,1,1	0
57	MG	DA	3156	1/1	0.96	0.29	-	0,0,0,0	0
57	MG	DA	3216	1/1	0.94	0.59	-	0,0,0,0	0
57	MG	BA	3211	1/1	0.88	0.28	-	0,0,0,0	1
57	MG	DA	3022	1/1	0.94	0.73	-	0,0,0,0	0
57	MG	DA	3013	1/1	0.96	0.23	-	0,0,0,0	0

## 6.5 Other polymers

There are no such residues in this entry.