



Full wwPDB X-ray Structure Validation Report

Jun 16, 2014 – 07:55 PM BST

PDB ID : 4V9C
Title : Allosteric control of the ribosome by small-molecule antibiotics
Authors : Cate, J.H.D.; Pulk, A.; Blanchard, S.C.; Wang, L.; Feldman, M.B.; Wasserman, M.R.; Altman, R.
Deposited on : 2012-07-25
Resolution : 3.30 Å(reported)

This is a full wwPDB validation report for a publicly released PDB entry.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at <http://wwpdb.org/ValidationPDFNotes.html>

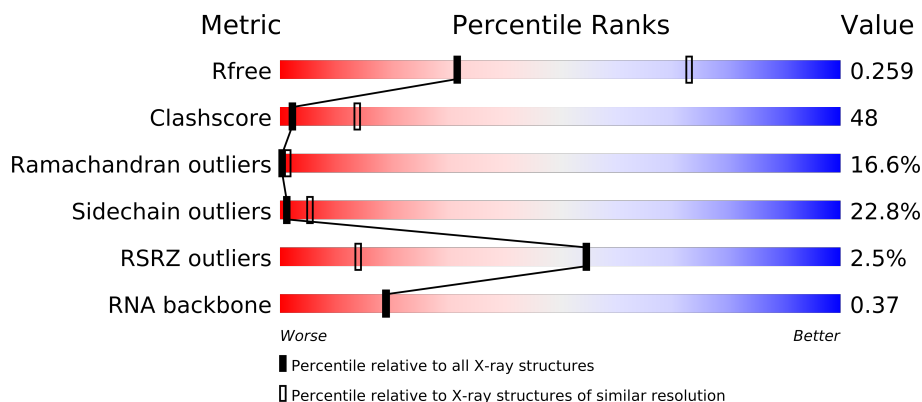
The following versions of software and data (see [references](#)) were used in the production of this report:

MolProbity : 4.02b-467
Mogul : 1.16 November 2013
Xtriage (Phenix) : dev-1323
EDS : stable23397
Percentile statistics : 21963
Refmac : 5.8.0049
CCP4 : 6.3.0 (Settle)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : stable23397

1 Overall quality at a glance

The reported resolution of this entry is 3.30 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}	66092	1341 (3.40-3.20)
Clashscore	79885	1696 (3.40-3.20)
Ramachandran outliers	78287	1664 (3.40-3.20)
Sidechain outliers	78261	1662 (3.40-3.20)
RSRZ outliers	66119	1342 (3.40-3.20)
RNA backbone	1838	1042 (3.90-2.70)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density.

Mol	Chain	Length	Quality of chain
1	AA	1542	
1	CA	1542	
2	AB	241	
2	CB	241	
3	AC	233	
3	CC	233	
4	AD	206	
4	CD	206	
5	AE	167	
5	CE	167	
6	AF	135	
6	CF	135	

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Mol	Chain	Length	Quality of chain
7	AG	179	
7	CG	179	
8	AH	130	
8	CH	130	
9	AI	130	
9	CI	130	
10	AJ	103	
10	CJ	103	
11	AK	129	
11	CK	129	
12	AL	124	
12	CL	124	
13	AM	118	
13	CM	118	
14	AN	101	
14	CN	101	
15	AO	89	
15	CO	89	
16	AP	82	
16	CP	82	
17	AQ	84	
17	CQ	84	
18	AR	75	
18	CR	75	
19	AS	92	
19	CS	92	
20	AT	87	
20	CT	87	
21	AU	71	
21	CU	71	
22	AV	76	
22	CV	76	
23	AX	24	
23	CX	24	
24	BA	2904	
24	DA	2904	
25	BB	120	
25	DB	120	
26	BC	273	
26	DC	273	
27	BD	209	
27	DD	209	

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Mol	Chain	Length	Quality of chain
28	BE	201	
28	DE	201	
29	BF	179	
29	DF	179	
30	BG	177	
30	DG	177	
31	BH	149	
31	DH	149	
32	BI	142	
32	DI	142	
33	BJ	142	
33	DJ	142	
34	BK	123	
34	DK	123	
35	BL	144	
35	DL	144	
36	BM	136	
36	DM	136	
37	BN	127	
37	DN	127	
38	BO	117	
38	DO	117	
39	BP	115	
39	DP	115	
40	BQ	118	
40	DQ	118	
41	BR	103	
41	DR	103	
42	BS	110	
42	DS	110	
43	BT	100	
43	DT	100	
44	BU	104	
44	DU	104	
45	BV	94	
45	DV	94	
46	BW	85	
46	DW	85	
47	BX	78	
47	DX	78	
48	BY	63	
48	DY	63	

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Mol	Chain	Length	Quality of chain
49	BZ	59	
49	DZ	59	
50	B0	57	
50	D0	57	
51	B1	55	
51	D1	55	
52	B2	46	
52	D2	46	
53	B3	65	
53	D3	65	
54	B4	38	
54	D4	38	
55	CY	185	

The following table lists non-polymeric compounds that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Geometry	Electron density
56	MG	AA	1601	-	X
56	MG	AA	1602	-	X
56	MG	AA	1603	-	X
56	MG	AA	1605	-	X
56	MG	AA	1606	-	X
56	MG	AA	1608	-	X
56	MG	AA	1609	-	X
56	MG	AA	1610	-	X
56	MG	AA	1613	-	X
56	MG	AA	1614	-	X
56	MG	AA	1616	-	X
56	MG	AA	1617	-	X
56	MG	AA	1618	-	X
56	MG	AA	1620	-	X
56	MG	AA	1621	-	X
56	MG	AA	1622	-	X
56	MG	AA	1623	-	X
56	MG	AA	1624	-	X
56	MG	AA	1625	-	X
56	MG	AA	1626	-	X
56	MG	AA	1627	-	X
56	MG	AA	1628	-	X
56	MG	AA	1629	-	X
56	MG	AA	1630	-	X

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Mol	Type	Chain	Res	Geometry	Electron density
56	MG	AA	1631	-	X
56	MG	AA	1633	-	X
56	MG	AA	1634	-	X
56	MG	AA	1635	-	X
56	MG	AA	1636	-	X
56	MG	AA	1638	-	X
56	MG	AA	1639	-	X
56	MG	AA	1640	-	X
56	MG	AA	1642	-	X
56	MG	AA	1643	-	X
56	MG	AA	1644	-	X
56	MG	AA	1645	-	X
56	MG	AA	1646	-	X
56	MG	AA	1647	-	X
56	MG	AA	1648	-	X
56	MG	AA	1649	-	X
56	MG	AA	1650	-	X
56	MG	AA	1651	-	X
56	MG	AA	1652	-	X
56	MG	AA	1653	-	X
56	MG	AA	1654	-	X
56	MG	AD	301	-	X
56	MG	AN	201	-	X
56	MG	BA	3003	-	X
56	MG	BA	3004	-	X
56	MG	BA	3005	-	X
56	MG	BA	3007	-	X
56	MG	BA	3008	-	X
56	MG	BA	3009	-	X
56	MG	BA	3011	-	X
56	MG	BA	3012	-	X
56	MG	BA	3013	-	X
56	MG	BA	3014	-	X
56	MG	BA	3015	-	X
56	MG	BA	3018	-	X
56	MG	BA	3019	-	X
56	MG	BA	3020	-	X
56	MG	BA	3021	-	X
56	MG	BA	3022	-	X
56	MG	BA	3023	-	X
56	MG	BA	3024	-	X
56	MG	BA	3025	-	X

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Mol	Type	Chain	Res	Geometry	Electron density
56	MG	BA	3026	-	X
56	MG	BA	3027	-	X
56	MG	BA	3028	-	X
56	MG	BA	3030	-	X
56	MG	BA	3031	-	X
56	MG	BA	3032	-	X
56	MG	BA	3033	-	X
56	MG	BA	3037	-	X
56	MG	BA	3038	-	X
56	MG	BA	3044	-	X
56	MG	BA	3047	-	X
56	MG	BA	3049	-	X
56	MG	BA	3050	-	X
56	MG	BA	3051	-	X
56	MG	BA	3053	-	X
56	MG	BA	3054	-	X
56	MG	BA	3055	-	X
56	MG	BA	3056	-	X
56	MG	BA	3058	-	X
56	MG	BA	3059	-	X
56	MG	BA	3060	-	X
56	MG	BA	3061	-	X
56	MG	BA	3062	-	X
56	MG	BA	3063	-	X
56	MG	BA	3065	-	X
56	MG	BA	3066	-	X
56	MG	BA	3068	-	X
56	MG	BA	3069	-	X
56	MG	BA	3070	-	X
56	MG	BA	3071	-	X
56	MG	BA	3072	-	X
56	MG	BA	3074	-	X
56	MG	BA	3075	-	X
56	MG	BA	3077	-	X
56	MG	BA	3078	-	X
56	MG	BA	3079	-	X
56	MG	BA	3081	-	X
56	MG	BA	3082	-	X
56	MG	BA	3083	-	X
56	MG	BA	3087	-	X
56	MG	BA	3088	-	X
56	MG	BA	3089	-	X

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Mol	Type	Chain	Res	Geometry	Electron density
56	MG	BA	3090	-	X
56	MG	BA	3091	-	X
56	MG	BA	3092	-	X
56	MG	BA	3093	-	X
56	MG	BA	3094	-	X
56	MG	BA	3095	-	X
56	MG	BA	3096	-	X
56	MG	BA	3097	-	X
56	MG	BA	3098	-	X
56	MG	BA	3099	-	X
56	MG	BA	3100	-	X
56	MG	BA	3101	-	X
56	MG	BA	3102	-	X
56	MG	BA	3103	-	X
56	MG	BA	3104	-	X
56	MG	BA	3105	-	X
56	MG	BA	3106	-	X
56	MG	BA	3107	-	X
56	MG	BA	3108	-	X
56	MG	BA	3109	-	X
56	MG	BA	3110	-	X
56	MG	BA	3111	-	X
56	MG	BA	3112	-	X
56	MG	BA	3113	-	X
56	MG	BA	3115	-	X
56	MG	BA	3116	-	X
56	MG	BA	3118	-	X
56	MG	BA	3119	-	X
56	MG	BA	3120	-	X
56	MG	BA	3121	-	X
56	MG	BA	3122	-	X
56	MG	BA	3123	-	X
56	MG	BA	3124	-	X
56	MG	BA	3125	-	X
56	MG	BA	3126	-	X
56	MG	BA	3127	-	X
56	MG	BA	3129	-	X
56	MG	BA	3130	-	X
56	MG	BA	3131	-	X
56	MG	BA	3133	-	X
56	MG	BA	3134	-	X
56	MG	BA	3135	-	X

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Mol	Type	Chain	Res	Geometry	Electron density
56	MG	BA	3136	-	X
56	MG	BA	3137	-	X
56	MG	BA	3138	-	X
56	MG	BA	3139	-	X
56	MG	BA	3142	-	X
56	MG	BA	3143	-	X
56	MG	BA	3144	-	X
56	MG	BA	3145	-	X
56	MG	BA	3146	-	X
56	MG	BA	3147	-	X
56	MG	BA	3148	-	X
56	MG	BA	3149	-	X
56	MG	BA	3150	-	X
56	MG	BA	3151	-	X
56	MG	BA	3152	-	X
56	MG	BA	3153	-	X
56	MG	BA	3154	-	X
56	MG	BA	3155	-	X
56	MG	BA	3156	-	X
56	MG	BA	3157	-	X
56	MG	BA	3158	-	X
56	MG	BA	3159	-	X
56	MG	BA	3160	-	X
56	MG	BA	3168	-	X
56	MG	BA	3169	-	X
56	MG	BA	3170	-	X
56	MG	BB	201	-	X
56	MG	BB	202	-	X
56	MG	BC	301	-	X
56	MG	BQ	201	-	X
56	MG	CA	1601	-	X
56	MG	CA	1602	-	X
56	MG	CA	1603	-	X
56	MG	CA	1605	-	X
56	MG	CA	1607	-	X
56	MG	CA	1608	-	X
56	MG	CA	1609	-	X
56	MG	CA	1611	-	X
56	MG	CA	1612	-	X
56	MG	CA	1613	-	X
56	MG	CA	1614	-	X
56	MG	CA	1615	-	X

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Mol	Type	Chain	Res	Geometry	Electron density
56	MG	CA	1617	-	X
56	MG	CA	1618	-	X
56	MG	CA	1620	-	X
56	MG	CA	1622	-	X
56	MG	CA	1623	-	X
56	MG	CA	1624	-	X
56	MG	CA	1625	-	X
56	MG	CA	1626	-	X
56	MG	CA	1627	-	X
56	MG	CA	1628	-	X
56	MG	CA	1629	-	X
56	MG	CA	1631	-	X
56	MG	CA	1632	-	X
56	MG	CA	1633	-	X
56	MG	CA	1634	-	X
56	MG	CA	1636	-	X
56	MG	CA	1637	-	X
56	MG	CA	1638	-	X
56	MG	CA	1640	-	X
56	MG	CA	1641	-	X
56	MG	CA	1642	-	X
56	MG	CA	1643	-	X
56	MG	CA	1644	-	X
56	MG	CA	1645	-	X
56	MG	CA	1646	-	X
56	MG	CA	1647	-	X
56	MG	CA	1648	-	X
56	MG	CA	1650	-	X
56	MG	CA	1651	-	X
56	MG	CA	1652	-	X
56	MG	CA	1653	-	X
56	MG	CA	1654	-	X
56	MG	CA	1655	-	X
56	MG	CA	1656	-	X
56	MG	CA	1658	-	X
56	MG	CA	1659	-	X
56	MG	CA	1660	-	X
56	MG	CA	1661	-	X
56	MG	CA	1663	-	X
56	MG	CA	1664	-	X
56	MG	CA	1665	-	X
56	MG	CA	1666	-	X

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Mol	Type	Chain	Res	Geometry	Electron density
56	MG	CA	1667	-	X
56	MG	CA	1668	-	X
56	MG	CA	1669	-	X
56	MG	CA	1670	-	X
56	MG	CA	1671	-	X
56	MG	CX	101	-	X
56	MG	DA	3004	-	X
56	MG	DA	3006	-	X
56	MG	DA	3007	-	X
56	MG	DA	3008	-	X
56	MG	DA	3009	-	X
56	MG	DA	3010	-	X
56	MG	DA	3011	-	X
56	MG	DA	3012	-	X
56	MG	DA	3013	-	X
56	MG	DA	3014	-	X
56	MG	DA	3015	-	X
56	MG	DA	3016	-	X
56	MG	DA	3017	-	X
56	MG	DA	3018	-	X
56	MG	DA	3019	-	X
56	MG	DA	3020	-	X
56	MG	DA	3021	-	X
56	MG	DA	3022	-	X
56	MG	DA	3023	-	X
56	MG	DA	3024	-	X
56	MG	DA	3025	-	X
56	MG	DA	3026	-	X
56	MG	DA	3028	-	X
56	MG	DA	3029	-	X
56	MG	DA	3031	-	X
56	MG	DA	3032	-	X
56	MG	DA	3035	-	X
56	MG	DA	3036	-	X
56	MG	DA	3037	-	X
56	MG	DA	3038	-	X
56	MG	DA	3042	-	X
56	MG	DA	3044	-	X
56	MG	DA	3048	-	X
56	MG	DA	3049	-	X
56	MG	DA	3050	-	X
56	MG	DA	3051	-	X

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Mol	Type	Chain	Res	Geometry	Electron density
56	MG	DA	3052	-	X
56	MG	DA	3054	-	X
56	MG	DA	3055	-	X
56	MG	DA	3057	-	X
56	MG	DA	3058	-	X
56	MG	DA	3059	-	X
56	MG	DA	3060	-	X
56	MG	DA	3061	-	X
56	MG	DA	3064	-	X
56	MG	DA	3065	-	X
56	MG	DA	3066	-	X
56	MG	DA	3067	-	X
56	MG	DA	3068	-	X
56	MG	DA	3069	-	X
56	MG	DA	3070	-	X
56	MG	DA	3071	-	X
56	MG	DA	3072	-	X
56	MG	DA	3073	-	X
56	MG	DA	3075	-	X
56	MG	DA	3076	-	X
56	MG	DA	3077	-	X
56	MG	DA	3078	-	X
56	MG	DA	3079	-	X
56	MG	DA	3080	-	X
56	MG	DA	3081	-	X
56	MG	DA	3082	-	X
56	MG	DA	3083	-	X
56	MG	DA	3084	-	X
56	MG	DA	3085	-	X
56	MG	DA	3087	-	X
56	MG	DA	3088	-	X
56	MG	DA	3090	-	X
56	MG	DA	3091	-	X
56	MG	DA	3092	-	X
56	MG	DA	3093	-	X
56	MG	DA	3094	-	X
56	MG	DA	3095	-	X
56	MG	DA	3096	-	X
56	MG	DA	3097	-	X
56	MG	DA	3098	-	X
56	MG	DA	3100	-	X
56	MG	DA	3101	-	X

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Mol	Type	Chain	Res	Geometry	Electron density
56	MG	DA	3102	-	X
56	MG	DA	3103	-	X
56	MG	DA	3104	-	X
56	MG	DA	3105	-	X
56	MG	DA	3106	-	X
56	MG	DA	3107	-	X
56	MG	DA	3108	-	X
56	MG	DA	3109	-	X
56	MG	DA	3110	-	X
56	MG	DA	3111	-	X
56	MG	DA	3113	-	X
56	MG	DA	3114	-	X
56	MG	DA	3116	-	X
56	MG	DA	3118	-	X
56	MG	DA	3119	-	X
56	MG	DA	3120	-	X
56	MG	DA	3121	-	X
56	MG	DA	3122	-	X
56	MG	DA	3123	-	X
56	MG	DA	3124	-	X
56	MG	DA	3125	-	X
56	MG	DA	3127	-	X
56	MG	DA	3129	-	X
56	MG	DA	3130	-	X
56	MG	DA	3131	-	X
56	MG	DA	3134	-	X
56	MG	DA	3135	-	X
56	MG	DA	3136	-	X
56	MG	DA	3137	-	X
56	MG	DA	3138	-	X
56	MG	DA	3139	-	X
56	MG	DA	3140	-	X
56	MG	DA	3141	-	X
56	MG	DA	3142	-	X
56	MG	DA	3143	-	X
56	MG	DA	3144	-	X
56	MG	DA	3145	-	X
56	MG	DA	3146	-	X
56	MG	DA	3147	-	X
56	MG	DA	3148	-	X
56	MG	DA	3149	-	X
56	MG	DA	3150	-	X

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Mol	Type	Chain	Res	Geometry	Electron density
56	MG	DA	3151	-	X
56	MG	DA	3152	-	X
56	MG	DA	3154	-	X
56	MG	DA	3155	-	X
56	MG	DA	3156	-	X
56	MG	DA	3157	-	X
56	MG	DA	3158	-	X
56	MG	DA	3159	-	X
56	MG	DA	3160	-	X
56	MG	DA	3161	-	X
56	MG	DA	3162	-	X
56	MG	DA	3163	-	X
56	MG	DA	3164	-	X
56	MG	DA	3165	-	X
56	MG	DA	3166	-	X
56	MG	DA	3167	-	X
56	MG	DA	3168	-	X
56	MG	DA	3169	-	X
56	MG	DA	3170	-	X
56	MG	DA	3171	-	X
56	MG	DA	3172	-	X
56	MG	DA	3173	-	X
56	MG	DA	3174	-	X
56	MG	DA	3175	-	X
56	MG	DA	3176	-	X
56	MG	DA	3177	-	X
56	MG	DA	3178	-	X
56	MG	DA	3179	-	X
56	MG	DA	3180	-	X
56	MG	DA	3181	-	X
56	MG	DA	3182	-	X
56	MG	DA	3183	-	X
56	MG	DA	3192	-	X
56	MG	DA	3193	-	X
56	MG	DA	3194	-	X
56	MG	DB	201	-	X
56	MG	DB	202	-	X
56	MG	DB	203	-	X
56	MG	DB	204	-	X
56	MG	DL	201	-	X
56	MG	DO	201	-	X
57	NMY	AA	1656	-	X

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Mol	Type	Chain	Res	Geometry	Electron density
57	NMY	AA	1657	-	X
57	NMY	BA	3161	-	X
57	NMY	BA	3162	-	X
57	NMY	BA	3163	-	X
57	NMY	BA	3164	-	X
57	NMY	BA	3165	-	X
57	NMY	BA	3167	-	X
57	NMY	CA	1672	-	X
57	NMY	DA	3184	-	X
57	NMY	DA	3185	-	X
57	NMY	DA	3186	-	X
57	NMY	DA	3187	-	X
57	NMY	DA	3189	-	X
57	NMY	DA	3190	-	X

2 Entry composition

There are 59 unique types of molecules in this entry. The entry contains 293103 atoms, of which 0 are hydrogen and 0 are deuterium.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1539	Total	C	N	O	P	0	0	0
			33015	14725	6052	10699	1539			
1	CA	1538	Total	C	N	O	P	0	0	0
			32995	14716	6050	10691	1538			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	218	Total	C	N	O	S	0	0	0
			1704	1081	305	311	7			
2	CB	218	Total	C	N	O	S	0	0	0
			1704	1081	305	311	7			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AC	206	Total	C	N	O	S	0	0	0
			1624	1028	305	288	3			
3	CC	206	Total	C	N	O	S	0	0	0
			1624	1028	305	288	3			

- Molecule 4 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AD	205	Total	C	N	O	S	0	0	0
			1643	1026	315	298	4			
4	CD	205	Total	C	N	O	S	0	0	0
			1643	1026	315	298	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AE	150	Total	C	N	O	S	0	0	0
			1105	687	211	201	6			
5	CE	150	Total	C	N	O	S	0	0	0
			1105	687	211	201	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	100	Total	C	N	O	S	0	0	0
			817	515	148	148	6			
6	CF	100	Total	C	N	O	S	0	0	0
			817	515	148	148	6			

- Molecule 7 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AG	151	Total	C	N	O	S	0	0	0
			1181	735	227	215	4			
7	CG	151	Total	C	N	O	S	0	0	0
			1181	735	227	215	4			

- Molecule 8 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AH	129	Total	C	N	O	S	0	0	0
			979	616	173	184	6			
8	CH	129	Total	C	N	O	S	0	0	0
			979	616	173	184	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	AI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			
9	CI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AJ	98	Total	C	N	O	S	0	0	0
			786	493	150	142	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	CJ	98	Total	C	N	O	S	0	0	0
			786	493	150	142	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AK	117	Total	C	N	O	S	0	0	0
			877	540	174	160	3			
11	CK	117	Total	C	N	O	S	0	0	0
			877	540	174	160	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AL	123	Total	C	N	O	S	0	0	0
			955	590	196	165	4			
12	CL	123	Total	C	N	O	S	0	0	0
			955	590	196	165	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	114	Total	C	N	O	S	0	0	0
			883	546	178	156	3			
13	CM	114	Total	C	N	O	S	0	0	0
			883	546	178	156	3			

- Molecule 14 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			
14	CN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			

- 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
			714	439	144	130	1			
15	CO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			
16	CP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	80	Total	C	N	O	S	0	0	0
			648	411	121	113	3			
17	CQ	80	Total	C	N	O	S	0	0	0
			648	411	121	113	3			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	AR	55	Total	C	N	O	0	0	0
			455	288	86	81			
18	CR	55	Total	C	N	O	0	0	0
			455	288	86	81			

- 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	0
			637	408	120	107	2			
19	CS	79	Total	C	N	O	S	0	0	0
			637	408	120	107	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			
20	CT	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			

- Molecule 21 is a protein called 30S ribosomal protein S21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	AU	51	Total	C	N	O	S	0	0	0
			425	265	86	73	1			
21	CU	51	Total	C	N	O	S	0	0	0
			425	265	86	73	1			

- Molecule 22 is a RNA chain called Phenylalanine specific transfer RNA, tRNA-Phe.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AV	76	Total	C	N	O	P	0	0	0
			1623	723	290	534	76			
22	CV	76	Total	C	N	O	P	0	0	0
			1623	723	290	534	76			

- Molecule 23 is a RNA chain called Messenger RNA, mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AX	16	Total	C	N	O	P	0	0	0
			346	155	66	109	16			
23	CX	15	Total	C	N	O	P	0	0	0
			324	145	61	103	15			

- Molecule 24 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	BA	2897	Total	C	N	O	P	0	0	0
			62195	27745	11446	20107	2897			
24	DA	2897	Total	C	N	O	P	0	0	0
			62195	27745	11446	20107	2897			

- Molecule 25 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BB	118	Total	C	N	O	P	0	0	0
			2529	1126	464	821	118			
25	DB	119	Total	C	N	O	P	0	0	0
			2549	1135	466	829	119			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BB	12	C	A	SEE REMARK 999	GB AP012306
DB	12	C	A	SEE REMARK 999	GB AP012306

- Molecule 26 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	BC	271	Total	C	N	O	S	0	0	0
			2082	1288	423	364	7			
26	DC	271	Total	C	N	O	S	0	0	0
			2082	1288	423	364	7			

- Molecule 27 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	BD	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			
27	DD	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			

- Molecule 28 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			
28	DE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			

- Molecule 29 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	BF	177	Total	C	N	O	S	0	0	0
			1410	899	249	256	6			
29	DF	177	Total	C	N	O	S	0	0	0
			1410	899	249	256	6			

- Molecule 30 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	BG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			
30	DG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			

- Molecule 31 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	BH	149	Total	C	N	O	S	0	0	0
			1110	699	197	213	1			
31	DH	149	Total	C	N	O	S	0	0	0
			1110	699	197	213	1			

- Molecule 32 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			
32	DI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			

- Molecule 33 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			
33	DJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			

- Molecule 34 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BK	122	Total	C	N	O	S	0	0	0
			938	587	180	165	6			
34	DK	122	Total	C	N	O	S	0	0	0
			938	587	180	165	6			

- Molecule 35 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			
35	DL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			

- Molecule 36 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	BM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	DM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			

- Molecule 37 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BN	120	Total	C	N	O	S	0	0	0
			960	593	196	166	5			
37	DN	120	Total	C	N	O	S	0	0	0
			960	593	196	166	5			

- Molecule 38 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BO	116	Total	C	N	O		0	0	0
			892	552	178	162				
38	DO	116	Total	C	N	O		0	0	0
			892	552	178	162				

- Molecule 39 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			
39	DP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			

- Molecule 40 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BQ	117	Total	C	N	O		0	0	0
			947	604	192	151				
40	DQ	117	Total	C	N	O		0	0	0
			947	604	192	151				

- Molecule 41 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			
41	DR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			

- Molecule 42 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			
42	DS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			

- Molecule 43 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BT	93	Total	C	N	O	S	0	0	0
			738	466	139	131	2			
43	DT	93	Total	C	N	O	S	0	0	0
			738	466	139	131	2			

- Molecule 44 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
44	BU	102	Total	C	N	O	0	0	0
			779	492	146	141			
44	DU	102	Total	C	N	O	0	0	0
			779	492	146	141			

- Molecule 45 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BV	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			
45	DV	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			

- Molecule 46 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BW	75	Total	C	N	O	S	0	0	0
			569	353	113	102	1			
46	DW	76	Total	C	N	O	S	0	0	0
			580	359	117	103	1			

- Molecule 47 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	BX	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			
47	DX	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			

- Molecule 48 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	BY	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			
48	DY	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			

- Molecule 49 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	BZ	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			
49	DZ	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			
50	D0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			

- Molecule 51 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
51	B1	50	Total	C	N	O	0	0	0
			409	263	75	71			
51	D1	50	Total	C	N	O	0	0	0
			409	263	75	71			

- Molecule 52 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	D2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			

- Molecule 53 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	B3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			
53	D3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			

- Molecule 54 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	B4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			
54	D4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			

- Molecule 55 is a protein called Ribosome recycling factor, RRF.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	CY	183	Total	C	N	O	S	0	0	0
			1423	874	260	283	6			

- Molecule 56 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

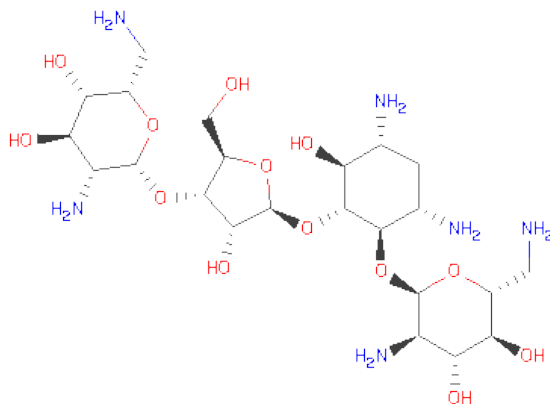
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	BB	3	Total	Mg	0	0
			3	3		
56	DE	1	Total	Mg	0	0
			1	1		
56	BA	163	Total	Mg	0	0
			163	163		
56	CA	71	Total	Mg	0	0
			71	71		
56	DO	1	Total	Mg	0	0
			1	1		
56	DL	1	Total	Mg	0	0
			1	1		
56	DA	187	Total	Mg	0	0
			187	187		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	AA	54	Total	Mg	0	0
			54	54		
56	BQ	1	Total	Mg	0	0
			1	1		
56	AN	1	Total	Mg	0	0
			1	1		
56	AD	1	Total	Mg	0	0
			1	1		
56	CX	1	Total	Mg	0	0
			1	1		
56	BC	1	Total	Mg	0	0
			1	1		
56	DB	4	Total	Mg	0	0
			4	4		

- Molecule 57 is NEOMYCIN (three-letter code: NMY) (formula: $C_{23}H_{46}N_6O_{13}$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
57	AA	1	Total	C	N	O	0	0
			42	23	6	13		
57	AA	1	Total	C	N	O	0	0
			42	23	6	13		
57	AA	1	Total	C	N	O	0	0
			42	23	6	13		
57	BA	1	Total	C	N	O	0	0
			42	23	6	13		

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
57	BA	1	Total	C	N	O	0	0
			42	23	6	13		
57	BA	1	Total	C	N	O	0	0
			42	23	6	13		
57	BA	1	Total	C	N	O	0	0
			42	23	6	13		
57	BA	1	Total	C	N	O	0	0
			42	23	6	13		
57	BA	1	Total	C	N	O	0	0
			42	23	6	13		
57	BA	1	Total	C	N	O	0	0
			42	23	6	13		
57	CA	1	Total	C	N	O	0	0
			42	23	6	13		
57	DA	1	Total	C	N	O	0	0
			42	23	6	13		
57	DA	1	Total	C	N	O	0	0
			42	23	6	13		
57	DA	1	Total	C	N	O	0	0
			42	23	6	13		
57	DA	1	Total	C	N	O	0	0
			42	23	6	13		
57	DA	1	Total	C	N	O	0	0
			42	23	6	13		
57	DA	1	Total	C	N	O	0	0
			42	23	6	13		

- Molecule 58 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	B4	1	Total	Zn	0	0
			1	1		
58	D4	1	Total	Zn	0	0
			1	1		

- Molecule 59 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	AA	188	Total	O	0	0
			188	188		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	AD	2	Total 2	O 2	0	0
59	AK	1	Total 1	O 1	0	0
59	AN	4	Total 4	O 4	0	0
59	AT	2	Total 2	O 2	0	0
59	AU	1	Total 1	O 1	0	0
59	BA	616	Total 616	O 616	0	0
59	BB	13	Total 13	O 13	0	0
59	BC	10	Total 10	O 10	0	0
59	BD	4	Total 4	O 4	0	0
59	BL	4	Total 4	O 4	0	0
59	BN	1	Total 1	O 1	0	0
59	BT	3	Total 3	O 3	0	0
59	BU	3	Total 3	O 3	0	0
59	BV	1	Total 1	O 1	0	0
59	B0	1	Total 1	O 1	0	0
59	B3	1	Total 1	O 1	0	0
59	B4	1	Total 1	O 1	0	0
59	CA	192	Total 192	O 192	0	0
59	CC	1	Total 1	O 1	0	0
59	CE	1	Total 1	O 1	0	0
59	CL	1	Total 1	O 1	0	0

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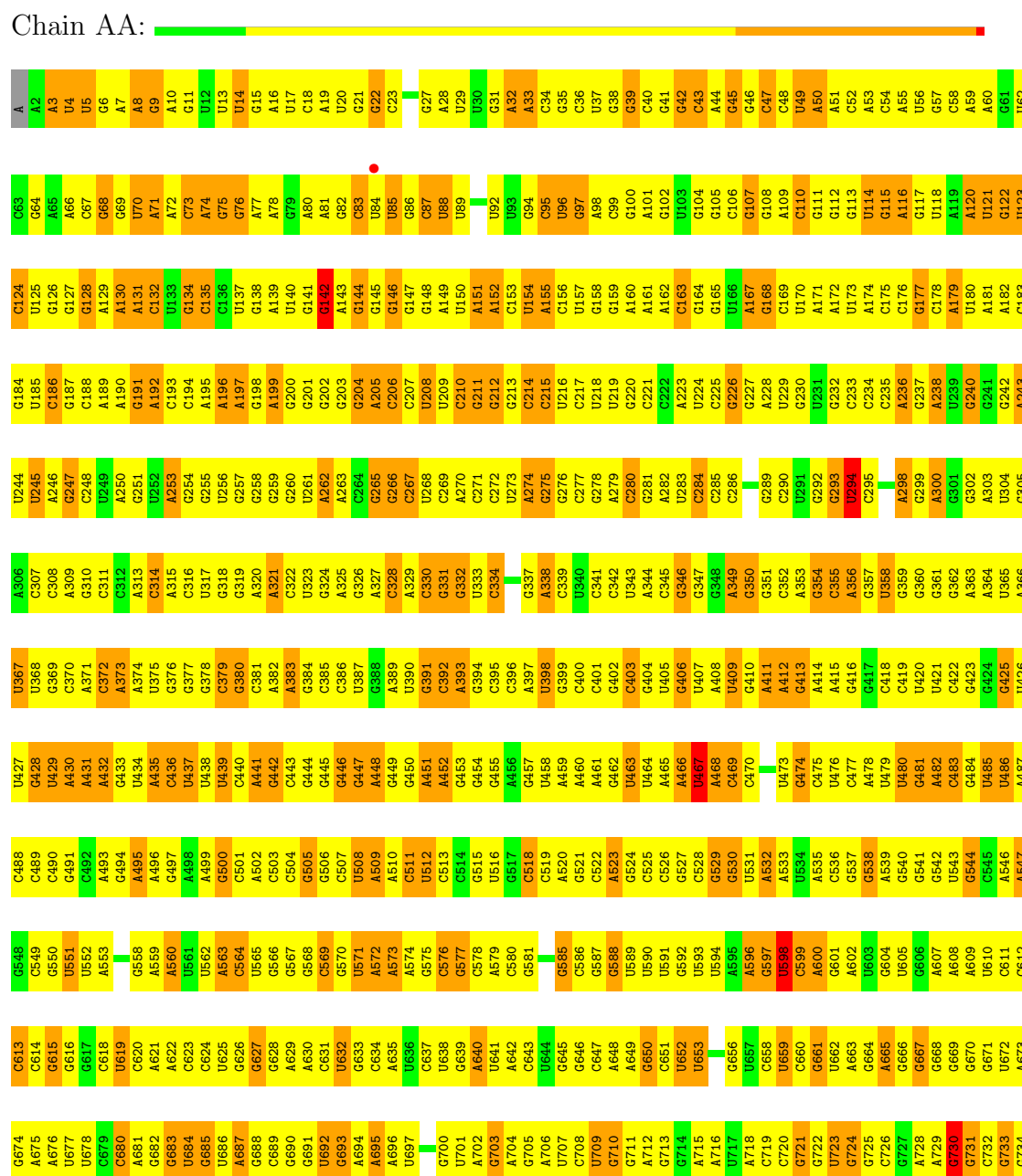
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	CN	6	Total 6	O 6	0	0
59	CT	2	Total 2	O 2	0	0
59	DA	627	Total 627	O 627	0	0
59	DB	13	Total 13	O 13	0	0
59	DC	4	Total 4	O 4	0	0
59	DD	2	Total 2	O 2	0	0
59	DE	4	Total 4	O 4	0	0
59	DF	1	Total 1	O 1	0	0
59	DL	7	Total 7	O 7	0	0
59	DN	2	Total 2	O 2	0	0
59	DQ	1	Total 1	O 1	0	0
59	DS	1	Total 1	O 1	0	0
59	DT	1	Total 1	O 1	0	0
59	DU	1	Total 1	O 1	0	0
59	DV	1	Total 1	O 1	0	0
59	D3	2	Total 2	O 2	0	0
59	D4	1	Total 1	O 1	0	0

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 ribosomal RNA



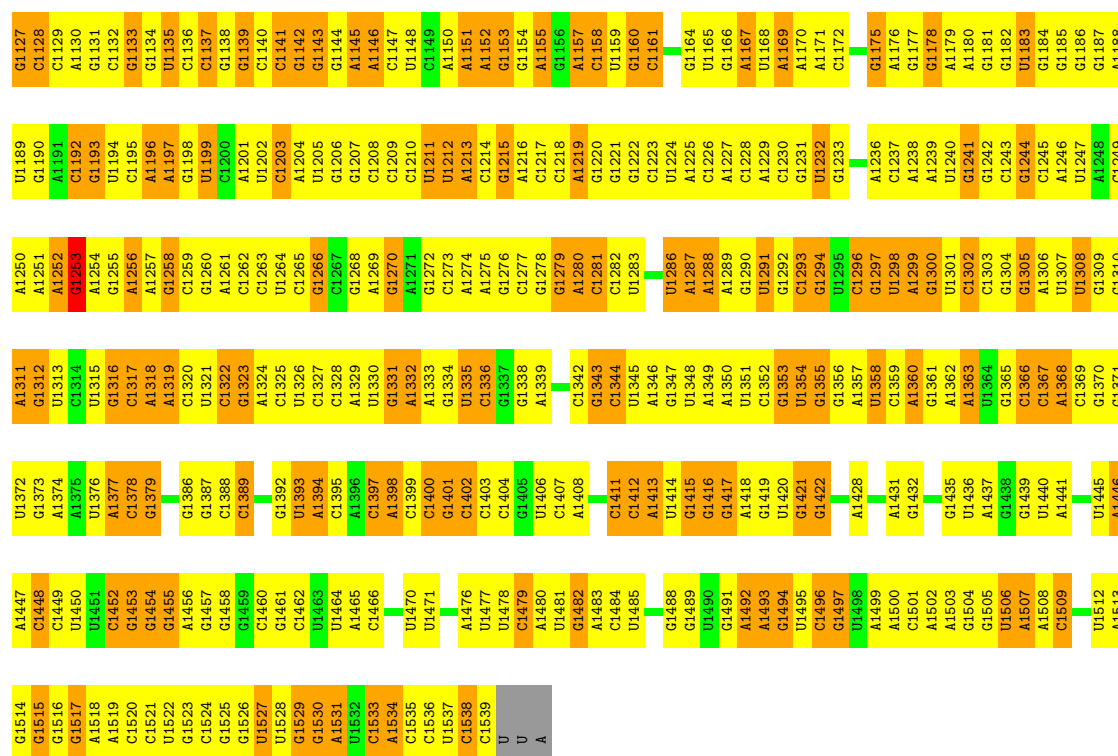
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	C1535	A1408	U1348	U1287	A1287	C1226	A1163	C1100	C979	C979	A918	C857	
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• Molecule 1: 16S ribosomal RNA

Chain CA:

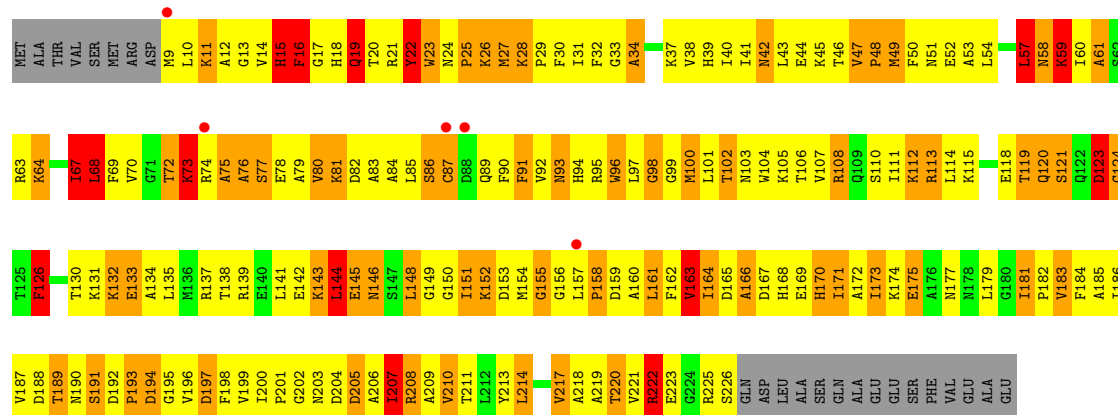
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	U1007	G941	C876	A817	G752	G891	U628	G568	C504	G444	A382	G318	G254	G191	A130	G68
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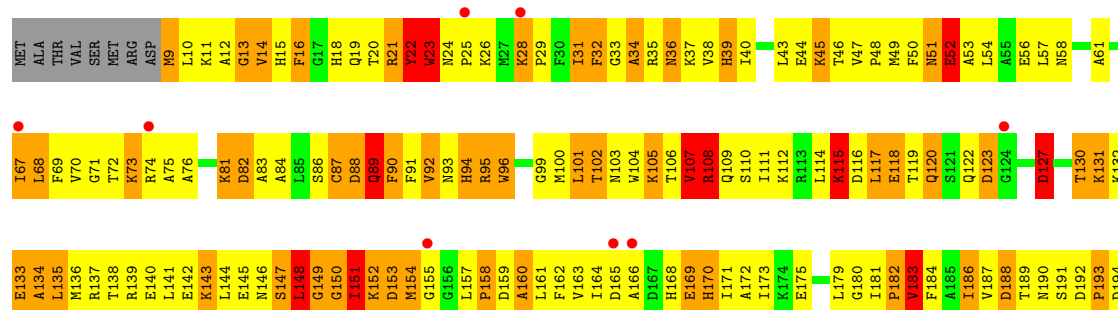
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Chain AB:



• Molecule 2: 30S ribosomal protein S2

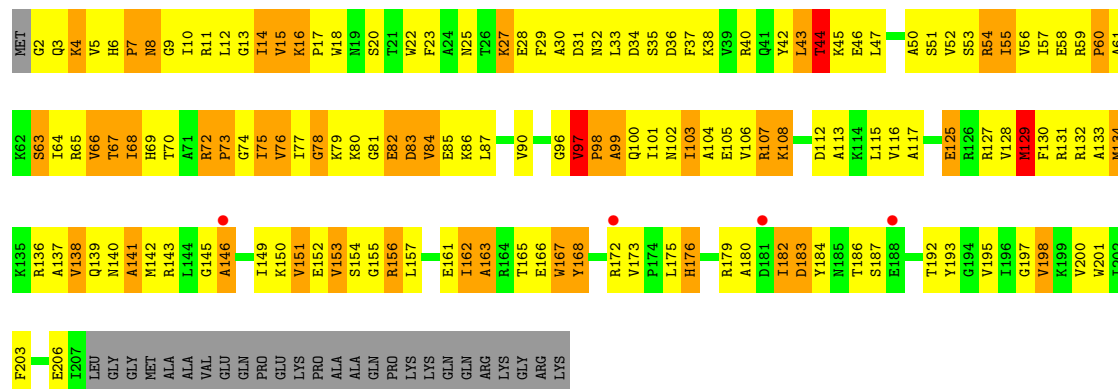
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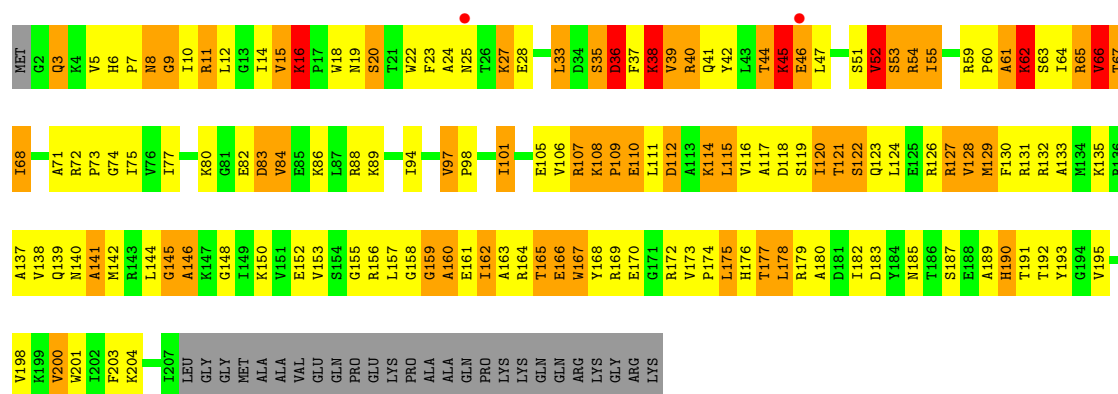
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Chain AC:



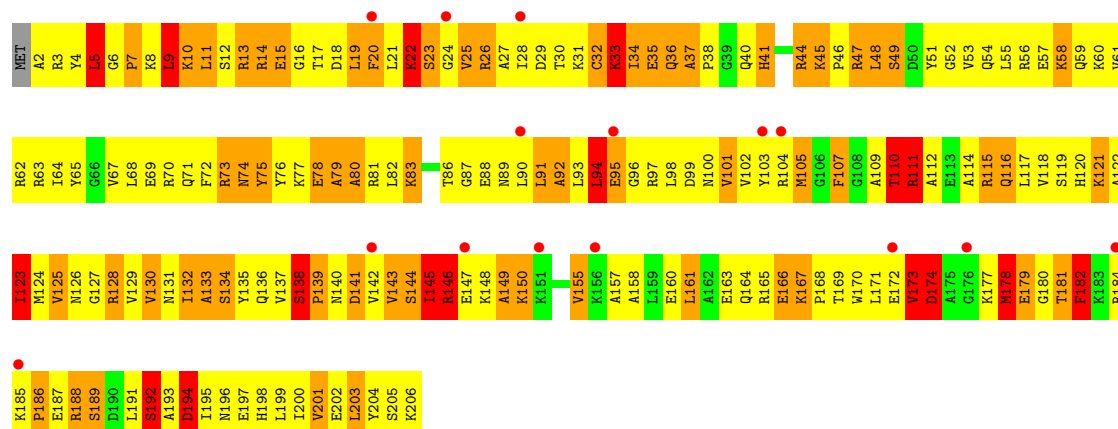
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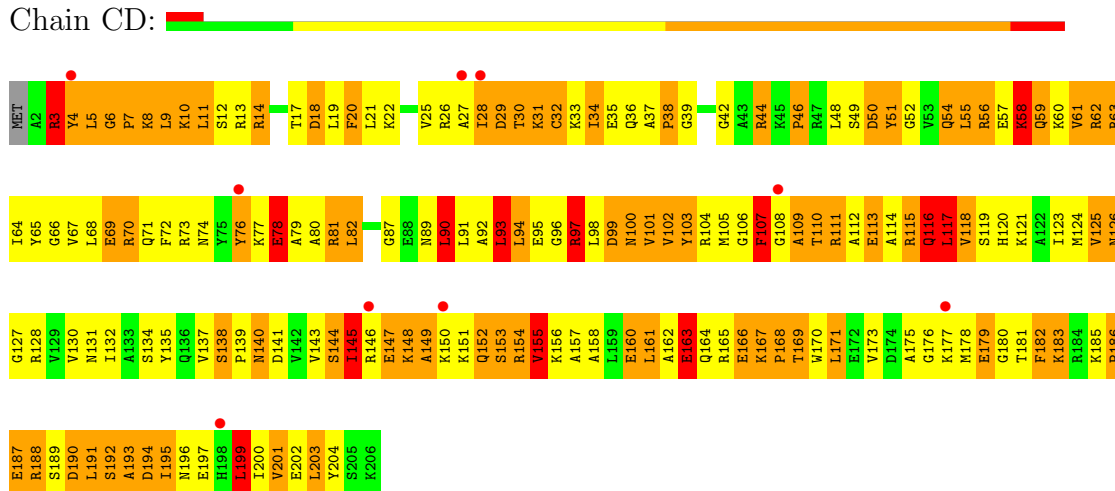
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Chain AD:



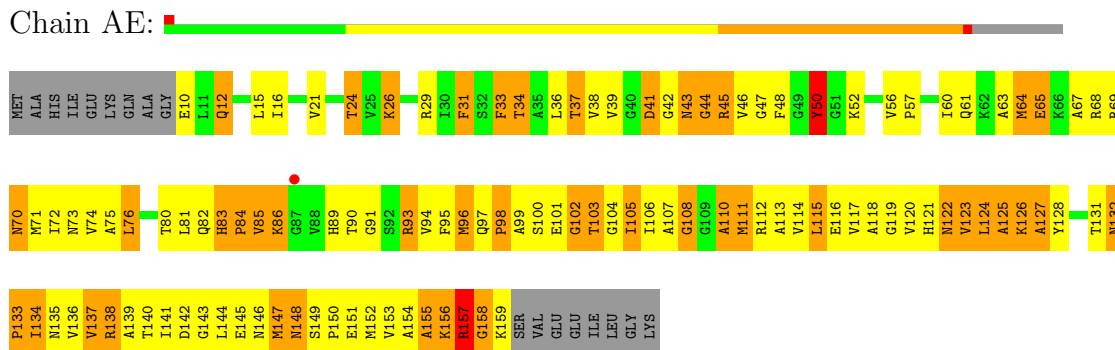
- Molecule 4: 30S ribosomal protein S4

Chain CD:



- Molecule 5: 30S ribosomal protein S5

Chain AE:



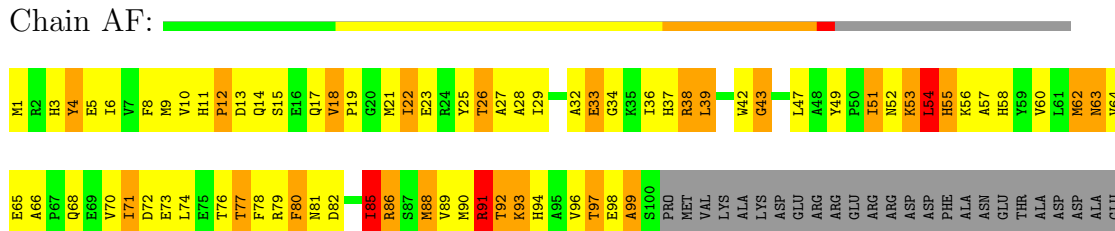
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Chain CE:



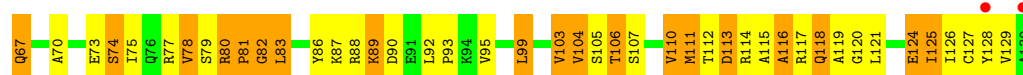
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Chain AF:





Chain CH:



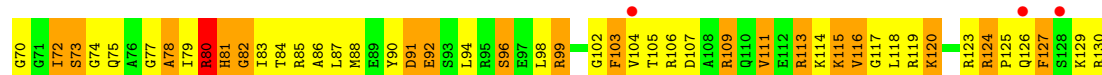
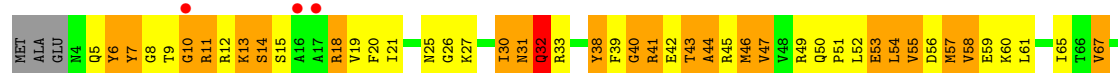
- Molecule 9: 30S ribosomal protein S9

Chain AI:



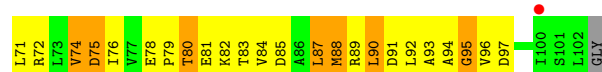
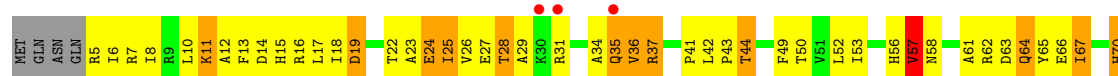
- Molecule 9: 30S ribosomal protein S9

Chain CI:



- Molecule 10: 30S ribosomal protein S10

Chain AJ: 



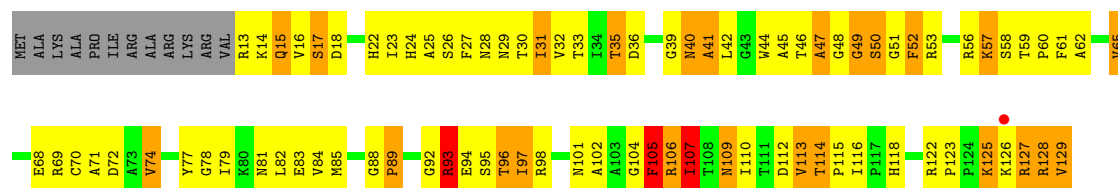
- Molecule 10: 30S ribosomal protein S10

Chain CJ:



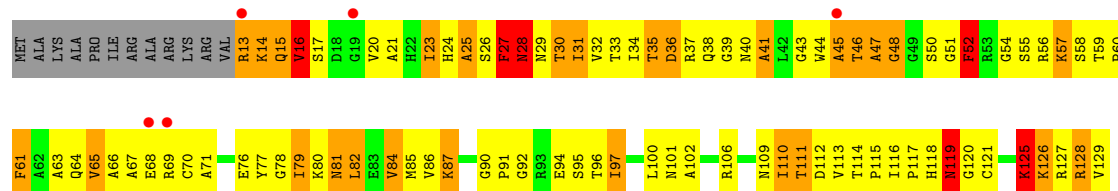
- Molecule 11: 30S ribosomal protein S11

Chain AK:



- Molecule 11: 30S ribosomal protein S11

Chain CK:



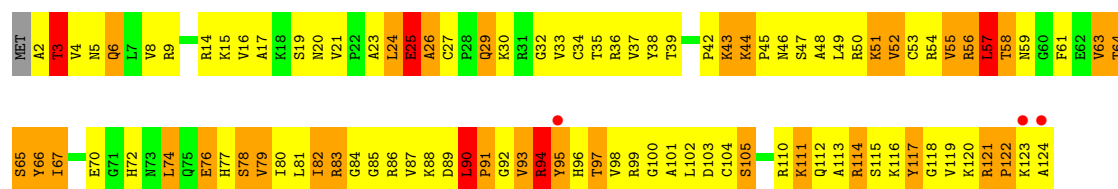
- Molecule 12: 30S ribosomal protein S12

Chain AL:



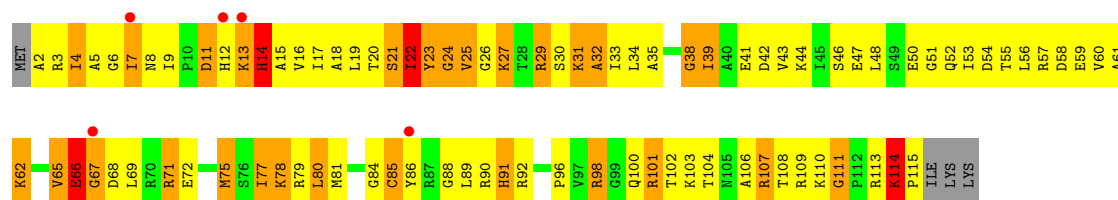
- Molecule 12: 30S ribosomal protein S12

Chain CL:



- Molecule 13: 30S ribosomal protein S13

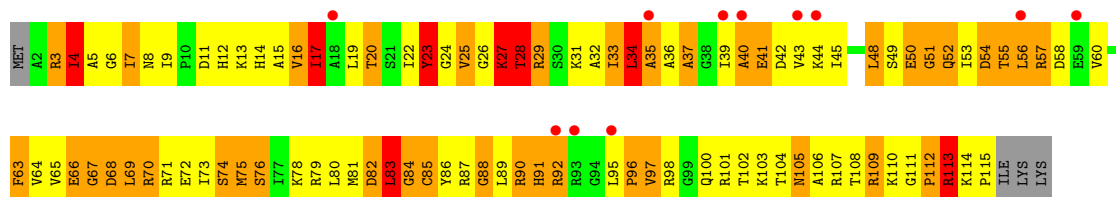
Chain AM:



- Molecule 13: 30S ribosomal protein S13

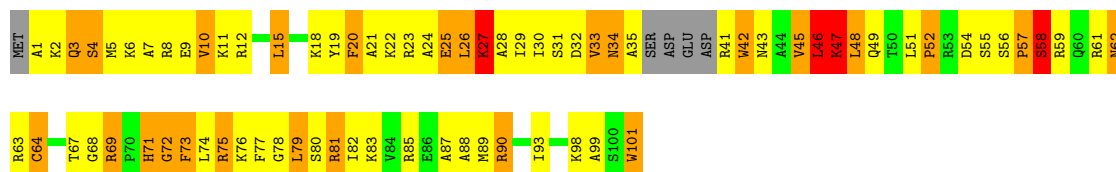
Chain CM:





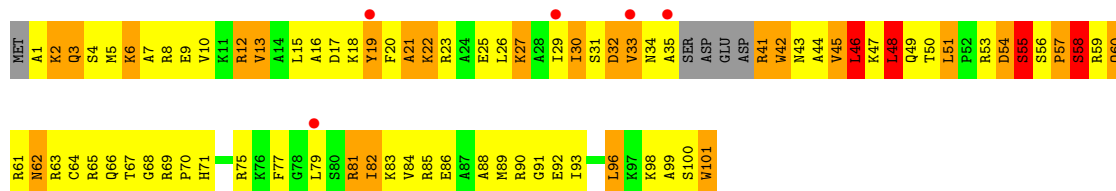
• Molecule 14: 30S ribosomal protein S14

Chain AN:



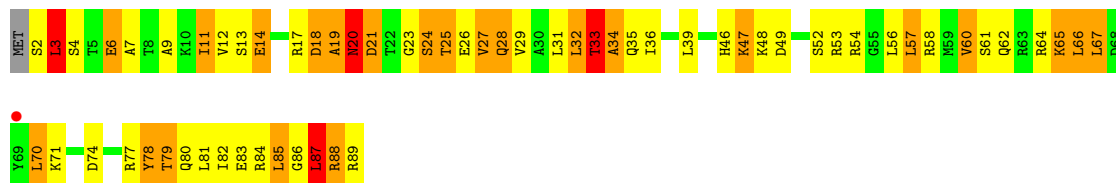
• Molecule 14: 30S ribosomal protein S14

Chain CN:



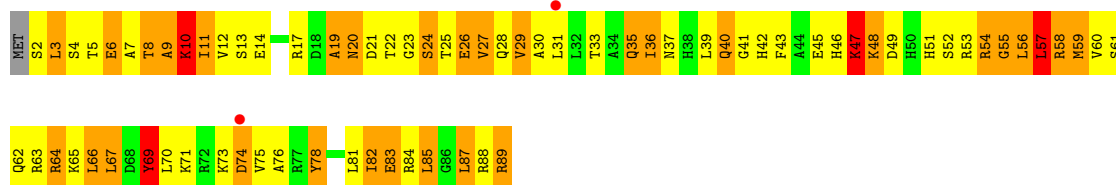
• Molecule 15: 30S ribosomal protein S15

Chain AO:



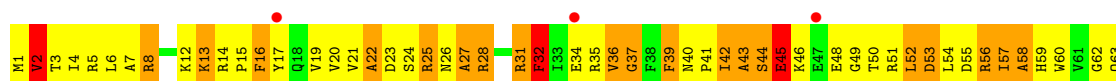
• Molecule 15: 30S ribosomal protein S15

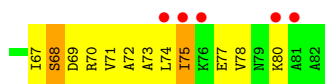
Chain CO:



• Molecule 16: 30S ribosomal protein S16

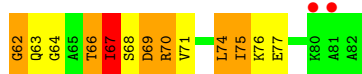
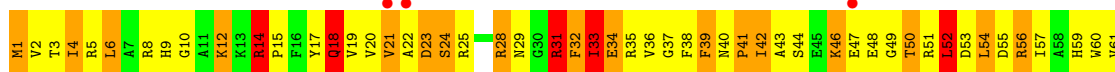
Chain AP:





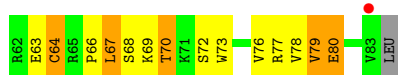
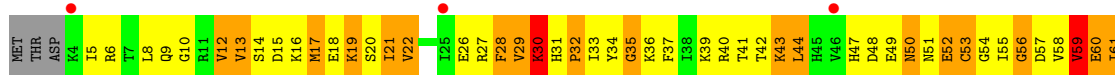
- Molecule 16: 30S ribosomal protein S16

Chain CP:



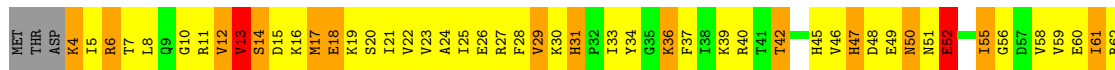
- Molecule 17: 30S ribosomal protein S17

Chain AQ:



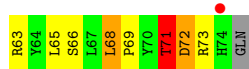
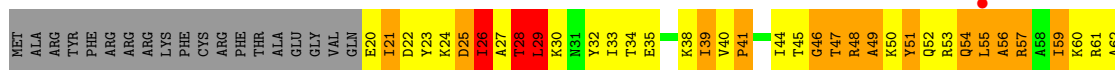
- Molecule 17: 30S ribosomal protein S17

Chain CQ:



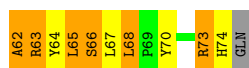
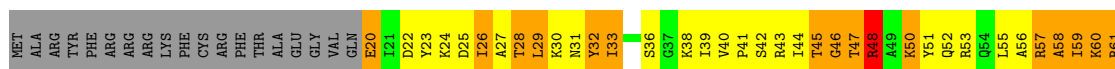
- Molecule 18: 30S ribosomal protein S18

Chain AR:



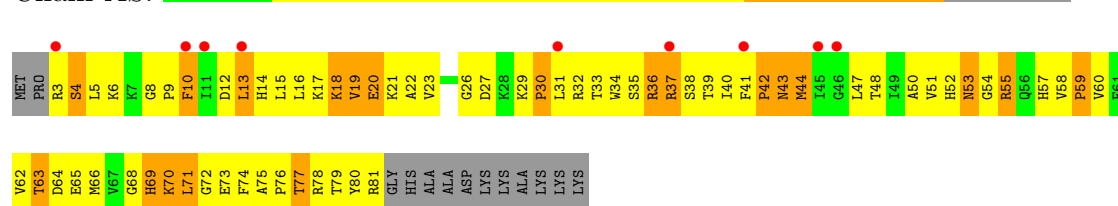
- Molecule 18: 30S ribosomal protein S18

Chain CR:



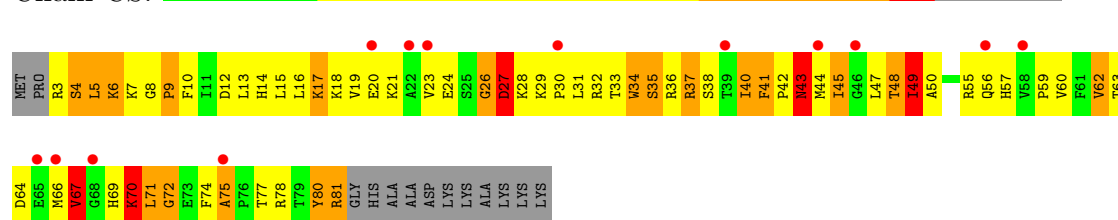
- Molecule 19: 30S ribosomal protein S19

Chain AS:



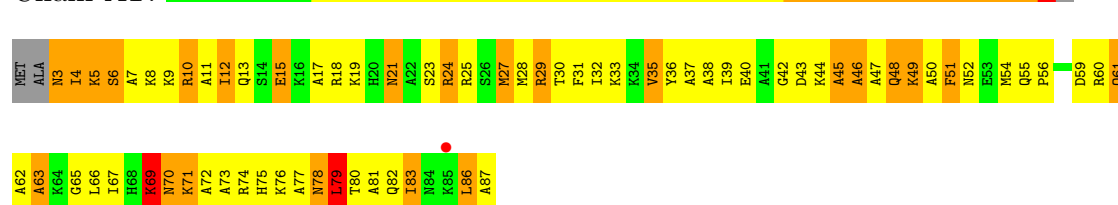
- Molecule 19: 30S ribosomal protein S19

Chain CS:



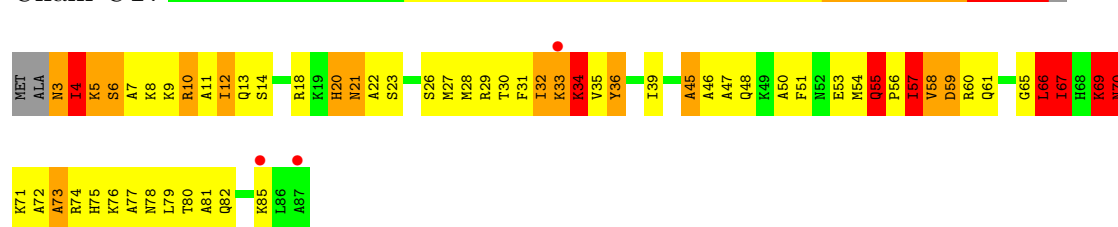
- Molecule 20: 30S ribosomal protein S20

Chain AT:



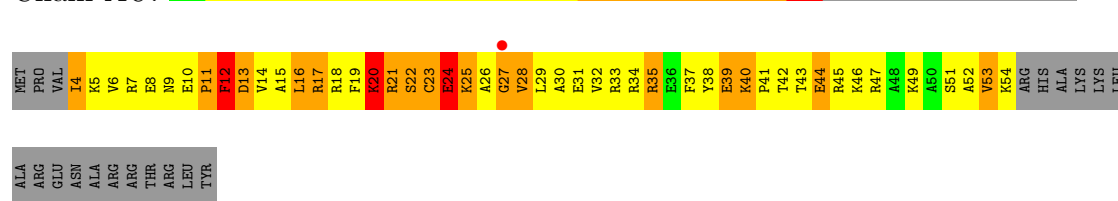
- Molecule 20: 30S ribosomal protein S20

Chain CT:



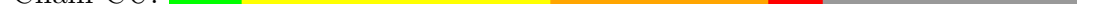
- Molecule 21: 30S ribosomal protein S21

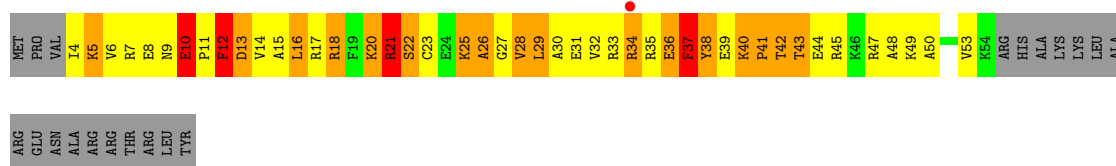
Chain AU:



- Molecule 21: 30S ribosomal protein S21

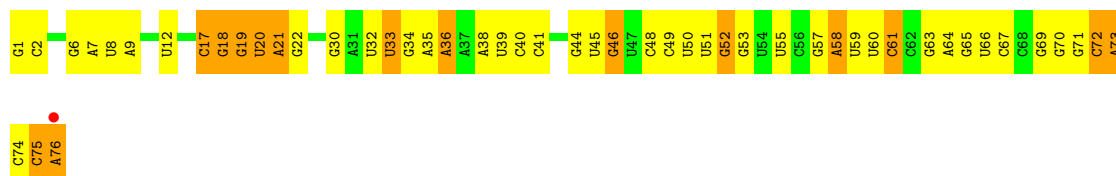
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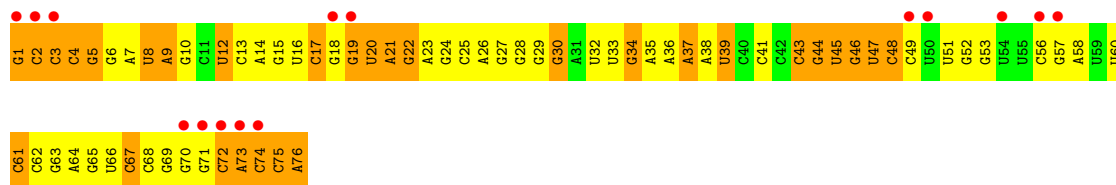
- Molecule 22: Phenylalanine specific transfer RNA, tRNA-Phe

Chain AV:



- Molecule 22: Phenylalanine specific transfer RNA, tRNA-Phe

Chain CV:



- Molecule 23: Messenger RNA, mRNA

Chain AX:



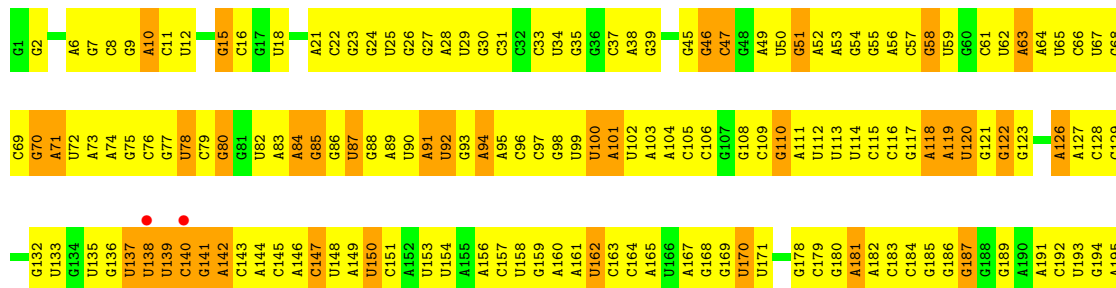
- Molecule 23: Messenger RNA, mRNA

Chain CX:



- Molecule 24: 23S ribosomal RNA

Chain BA:



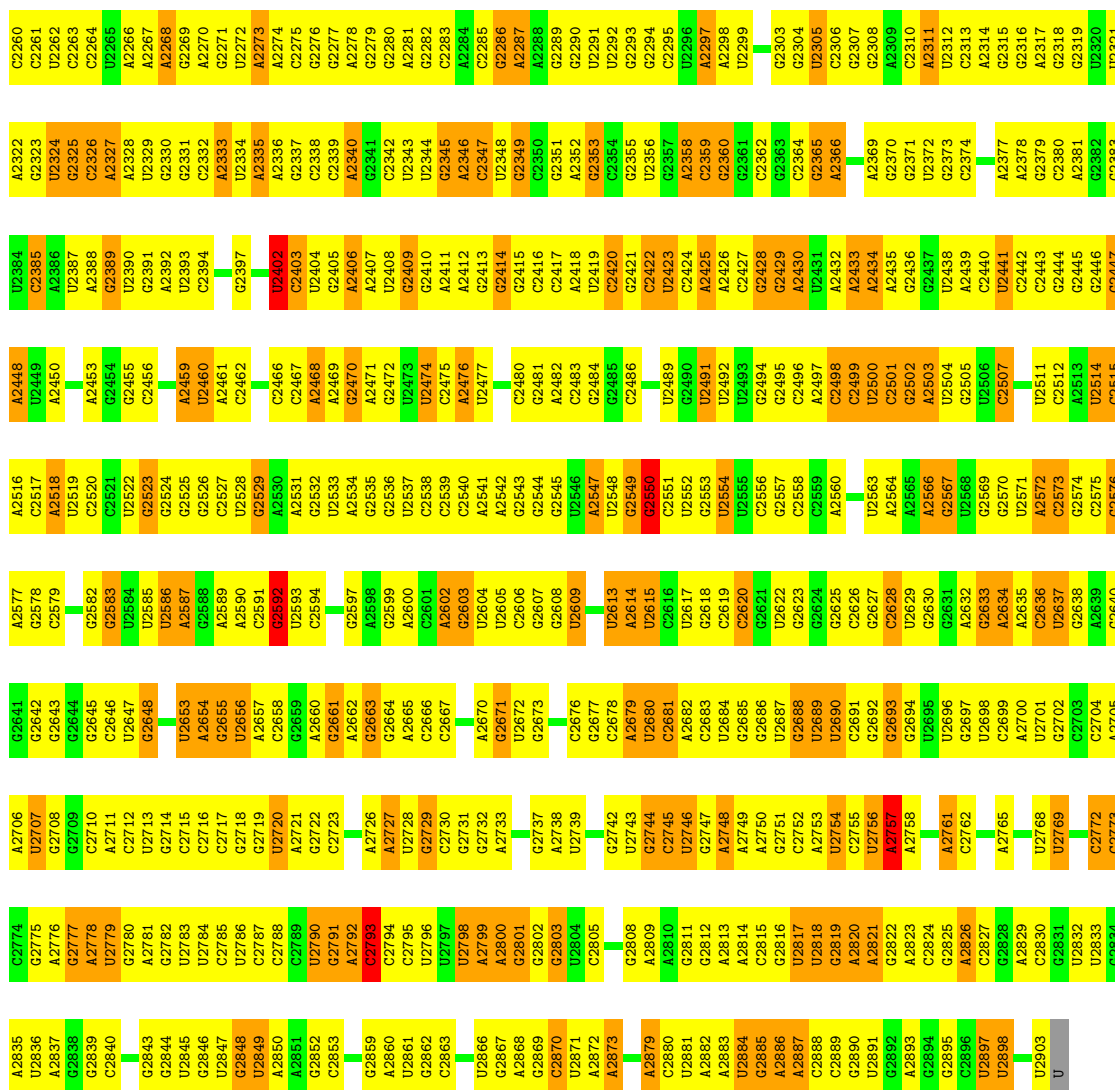
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G1139	U1078	C1013	C949	A	U824	A764	A699	A637	G577	A514	U452	G388	G327	C259	A198
C1140	C1079	G950	C950	U	A825	C765	A699	G638	G578	A515	A453	G328	U328	C260	A199
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C1146	A1085	A1021	G956	C893	G831	G771		A644	C584	U521	U459	C394	G334		G205
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G1115	G1115	G1055	G989	G926	G862	C801	C740	C674	A614	G551	C491	G425	A362		U234
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U1119		G1059	G993	G930	A866	G805	U744	U744	G618	U558	A428	A428	A368	G307	C239
U1181	U1061	U1060	C994	U931	C867	C906	G745	C679	G619	G559	C496	A430	U369	G308	C240
G1182	C995	C995	C995	U932	U868	U807	U746	C680	G620	C560	A497	U431	G370	A309	A241
C1123	C1123	G1062	A996	A933	G869	G808	U747	G681	A621	G561	C498	A432	G371	A310	G242
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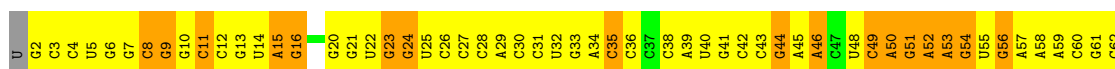
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G1196	U1130	G1063	G994	U929	A863	G797	A730	A666	G605	C542	G477	U415	A346	G277	A213
C1197	G1131	C1064	C995	U931	G864	A800	G731	U667	U606	G543	A478	U416	A347	A278	G214
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G1206	G1139	A1073	C1006	A941	G875	U810	C740	A676	U615	U554	C487	G424	U360	U286	A221
C1207	U1140	G1074	C1007	G942	C876	U811	U741	A677	U616	U555	G491	G425	U361	G287	A223
C1208	U1141	C1075	G1007	A943	G877	C812	A742	C678	A617	A556	A492	G426	A362	U288	U224
U1209	A1142	C1076	A1008	C944	A878	U813	A743	C679	G618	C557	A493	U427	C363	G289	C225
G1210	A1143	A1077	A1009	C944	A879	C814	U746	C680	G619	U558	G494	U430	C364	U292	A226
C1211	A1144	U1078	A1010	A945	G879	C815	U747	G681	G620	G559	G495	A431	U365	U293	A227
G1212	C1145	C1079	G1011	C946	G880	G816	U747	G682	A821	C580	G496	U432	C366	A294	C228
U1213	A1146	U1080	U1012	A947	G881	C817	G748	U683	G622	A563	G497	A433	U367	G295	G230
G1214	A1147	U1081	C948	C948	G882	G818	A749	G684	C823	C564	A498	U434	U368	U296	A231
G1215	U1148	U1082	A1014	C948	G883	A819	A750	A685	G624	C565	U499	U435	U369	G297	G232
U1216	G1149	A1075	U1015	C951	U884	A820	A751	U686	G625	C566	U500	C436	G370	G298	A233
G1217	C1150	U1083	U1016	G952	C885	A821	A752	C687	A626	U566	G501	U437	A371	A299	U234
U1218	A1151	A1086	G1016	G953	A	G822	A753	U688	A827	U567	G512	U437	G372	A300	U235
U1219	C1152	G1087	A1020	G954	U	C823	U754	A689	G628	U568	A502	G438	U373	G301	C238
G1220	C1153	A1088	A1021	U955	C	U824	U755	G690	G629	U569	A503	A439	A374	C302	C239
C1221	G1154	A1089	G1022	G956	C	A825	A756	C691	G630	G570	A504	U440	U374	G303	C239
U1222	A1155	A1090	U1023	C957	C	U826	G757	C692	G630	U571	A505	U441	U375	U304	G242
G1223	A1156	G1091	G1024	U958	G	U827	G757	C693	A633	A572	G506	U442	C378	C305	G243
U1224	G1157	C1092	G1025	A959	A892	U828	A761	A694	C634	U573	A507	U443	C379	U306	U243
G1225	G1093	G1093	G1026	A960	C893	A829	U762	G695	C635	A574	A508	C444	G380	G307	A244
A1226	U1094	A1094	A1027	C961	U894	G830	G763	G696	G636	A575	C509	C445	G381	G308	A245
G1227	G1163	A1095	G1028	C962	U895	G831	A764	G697	A637	U576	C510	G446	A382	A309	G246
G1228	C1164	U1096	A1029	U963	A896	U832	C765	C698	G638	G577	U511	A447	C383	A310	G247
C1229	A1165	U1097	C964	C965	C897	A833	G770	A699	U639	G578	G512	U447	C383	A311	G248
U1230	G1166	A1098	G1031	C965	C898	G834	G770	G700	C640	G579	A513	G450	G386	G312	C249
G1231	C1167	G1099	A1032	C966	A899	C835	G770	G700	U641	U580	A514	U451	U387	G250	G250
C1232	G1168	U1100	U1033	G969	A900	G839	U773	G704	U642	C581	C517	G452	U388	G319	A251
U1234	U1101	C1102	G1038	U970	C901	U839	G774	G704	A643	A582	C517	A453	G389	A320	G252
G1235	G1169	C1102	G1038	G971	G907	U842	G775	G708	A644	A583	C517	U454	U390	U321	U243
A1236	U1174	A1103	A1039	A972	G907	U843	G776	U709	C645	C584	G520	C455	G379	A322	A255
G1237	C1175	C1104	A1040	A973	C908	G843	G777	U710	U646	C585	G521	C456	U392	C323	A256
U1238	U1176	U1105	G1041	G974	A909	A844	G778	G711	G847	A586	A522	A457	C393	A324	C257
G1239	G1177	A975	G1042	G975	A910	A945	G779	G712	G648	C587	C523	G458	C394	G325	G258
U1240	C1178	U1043	C1043	G976	A911	U846	G780	G713	G649	U588	C523	U459	U395	G259	G259
A1241	G1179	A1111	C1044	G977	C912	U847	A781	U714	C650	U589	A526	A460	G396	U328	G260





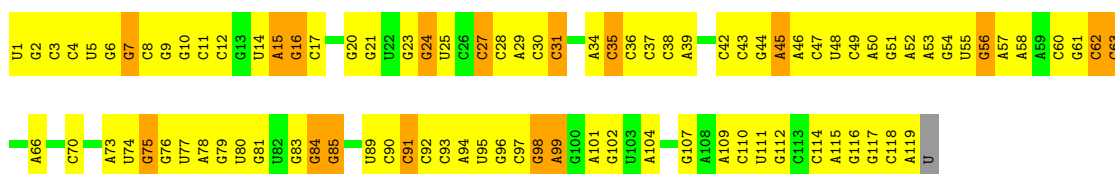
• Molecule 25: 5S ribosomal RNA

Chain BB:



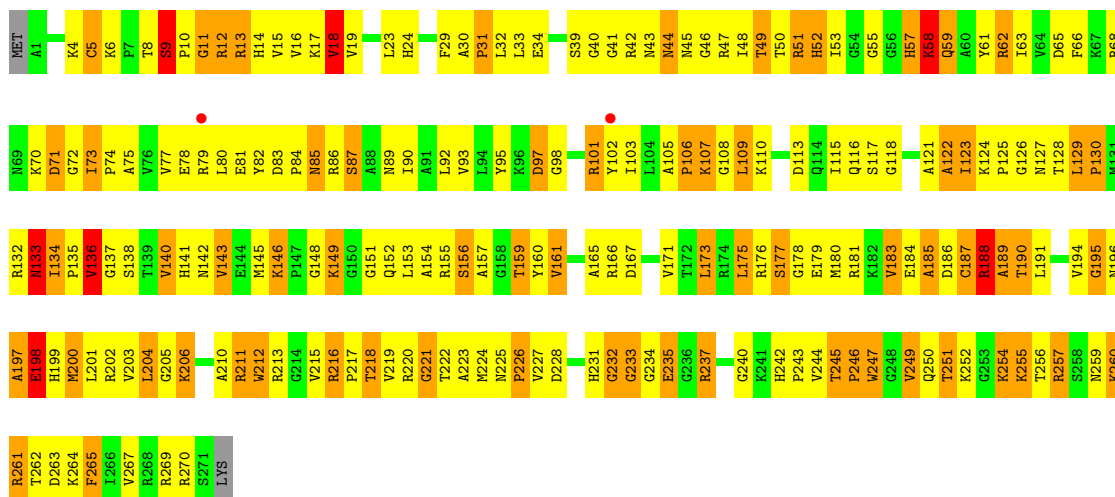
• Molecule 25: 5S ribosomal RNA

Chain DB:



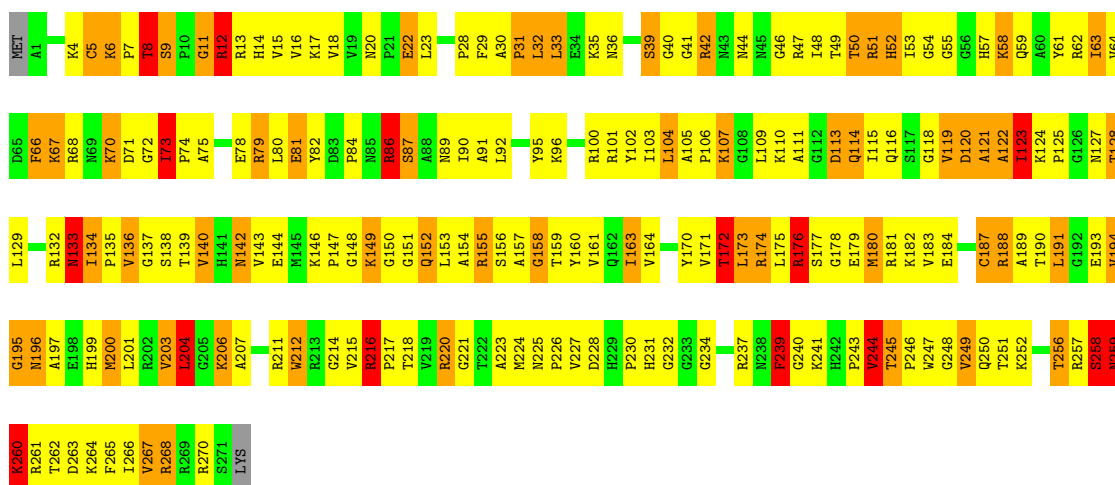
• Molecule 26: 50S ribosomal protein L2

Chain BC:



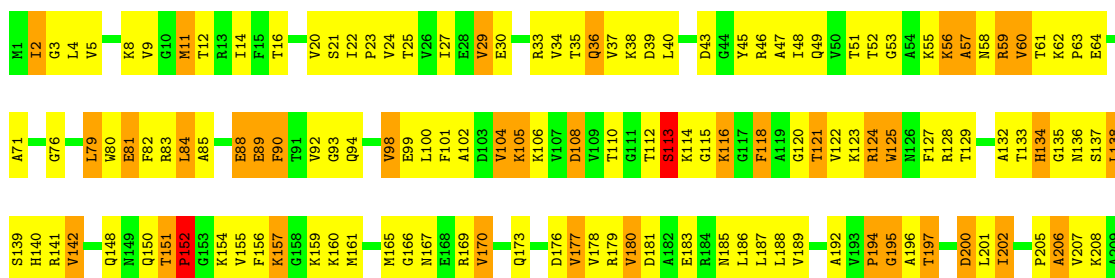
- Molecule 26: 50S ribosomal protein L2

Chain DC:



- Molecule 27: 50S ribosomal protein L3

Chain BD:



- Molecule 27: 50S ribosomal protein L3

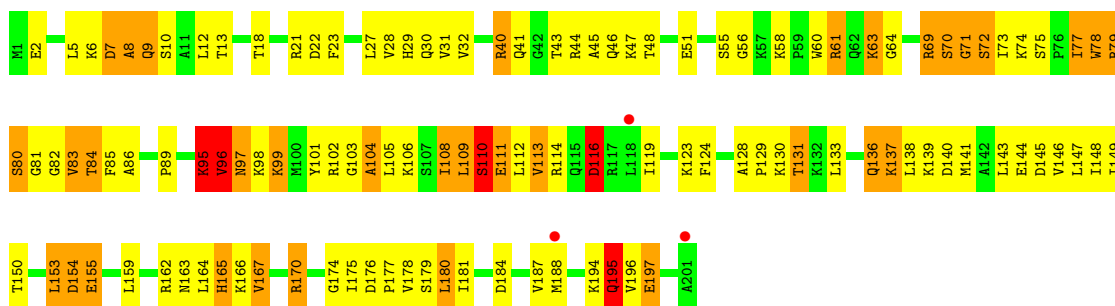
Chain DD:





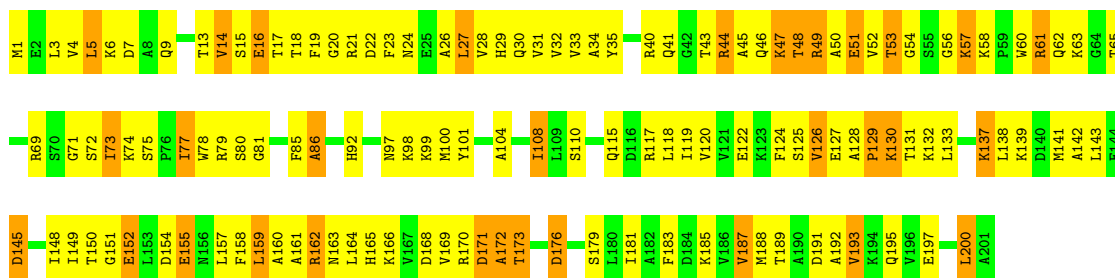
• Molecule 28: 50S ribosomal protein L4

Chain BE:



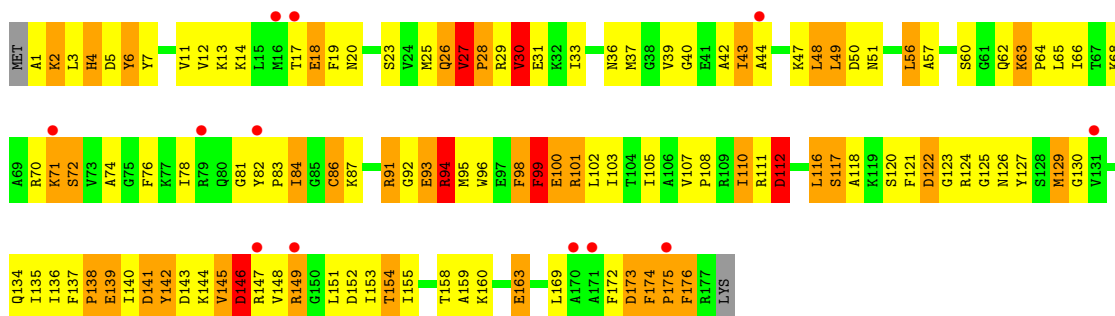
• Molecule 28: 50S ribosomal protein L4

Chain DE:



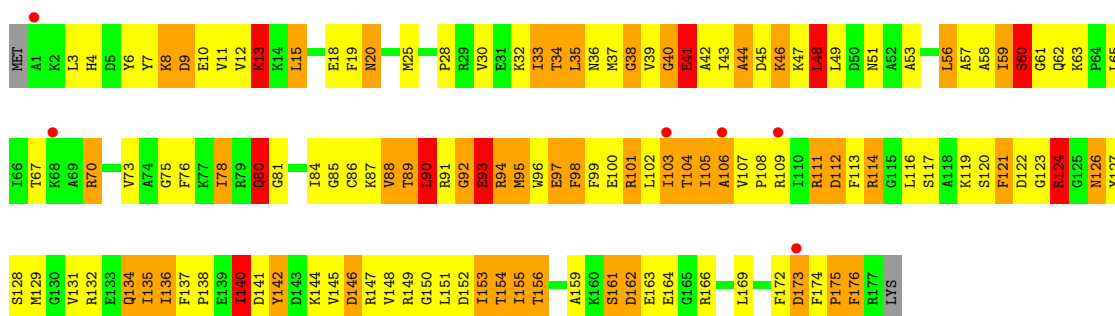
• Molecule 29: 50S ribosomal protein L5

Chain BF:



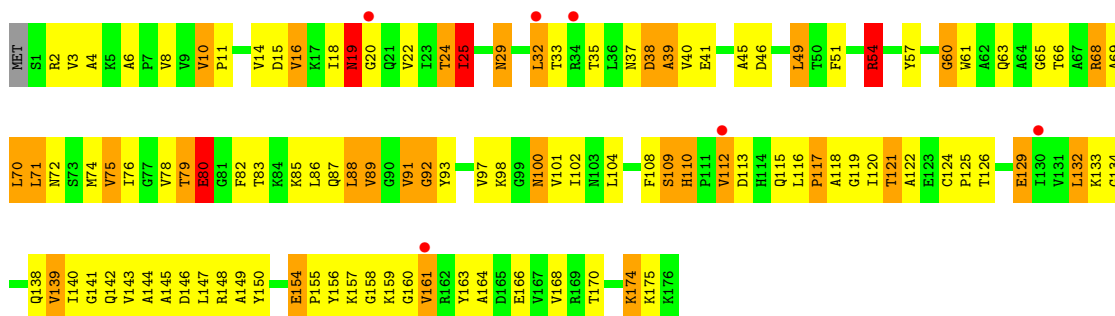
• Molecule 29: 50S ribosomal protein L5

Chain DF:



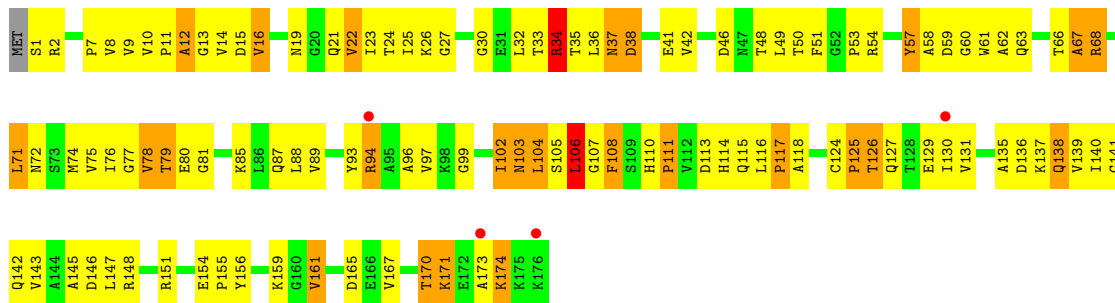
- Molecule 30: 50S ribosomal protein L6

Chain BG:



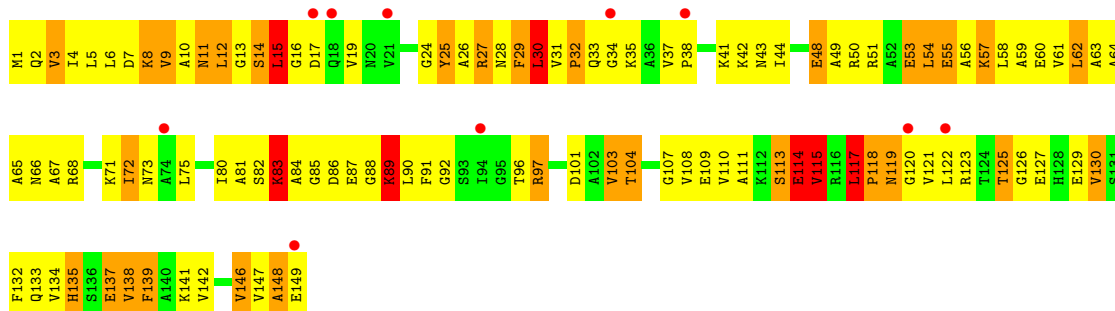
- Molecule 30: 50S ribosomal protein L6

Chain DG:

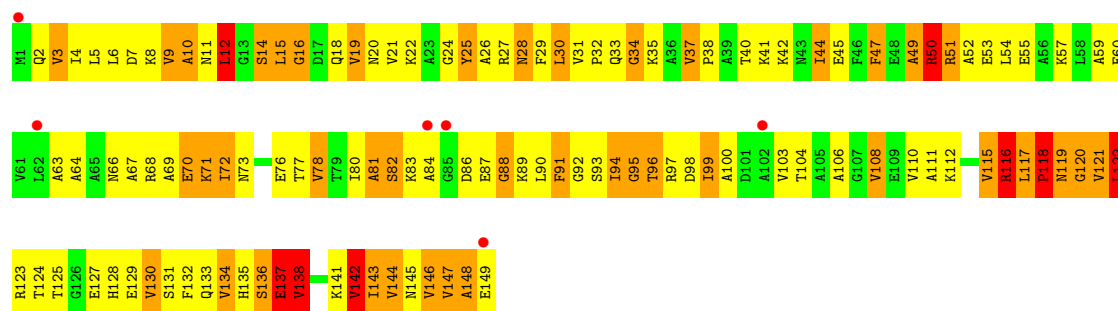


- Molecule 31: 50S ribosomal protein L9

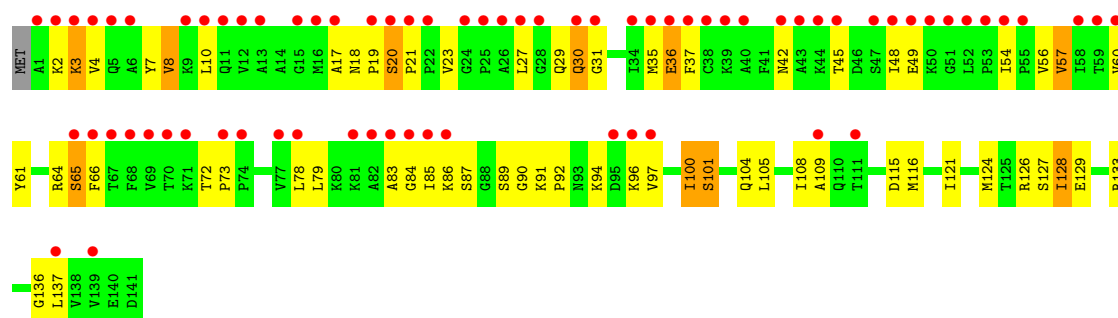
Chain BH:



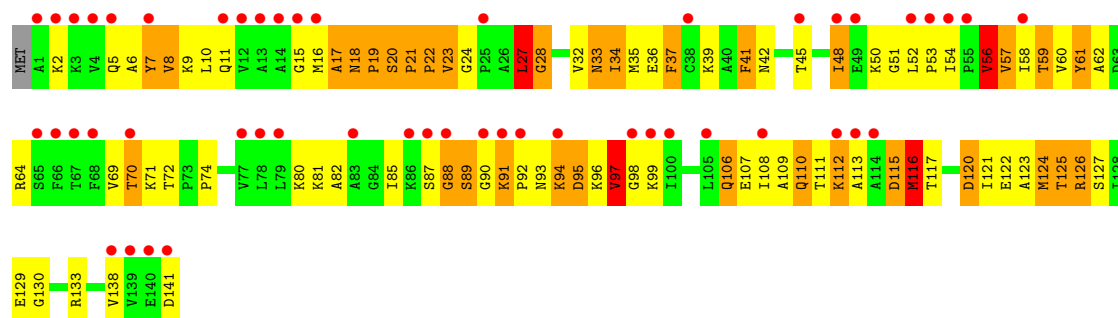
- Molecule 31: 50S ribosomal protein L9

Chain DH: 

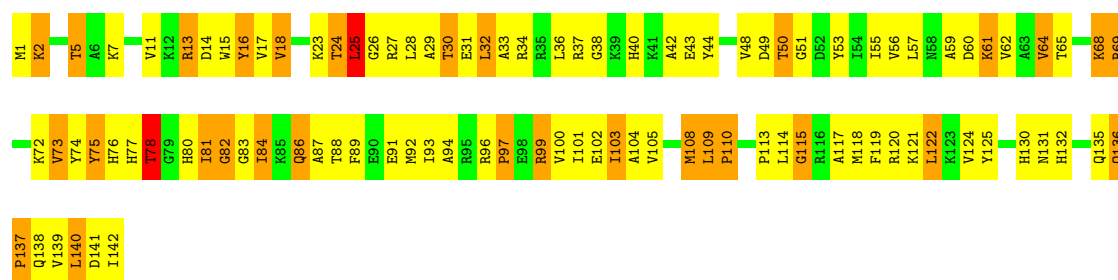
- Molecule 32: 50S ribosomal protein L11

Chain BI: 

- Molecule 32: 50S ribosomal protein L11

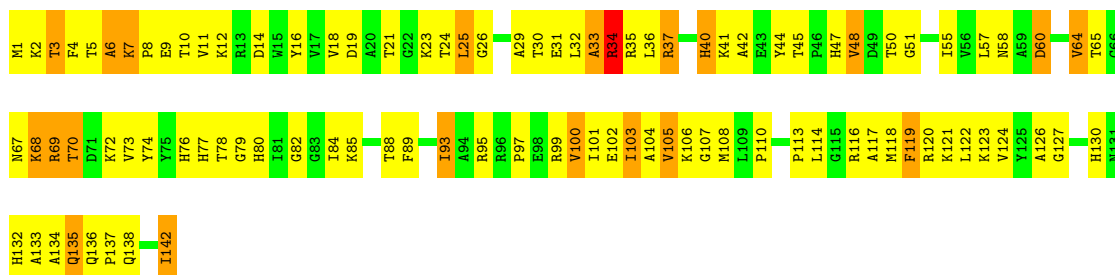
Chain DI: 

- Molecule 33: 50S ribosomal protein L13

Chain BJ: 

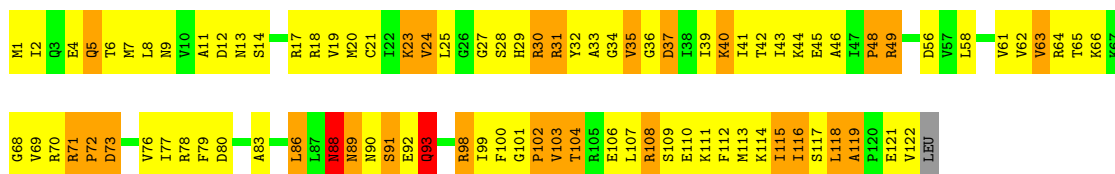
- Molecule 33: 50S ribosomal protein L13

Chain DJ:



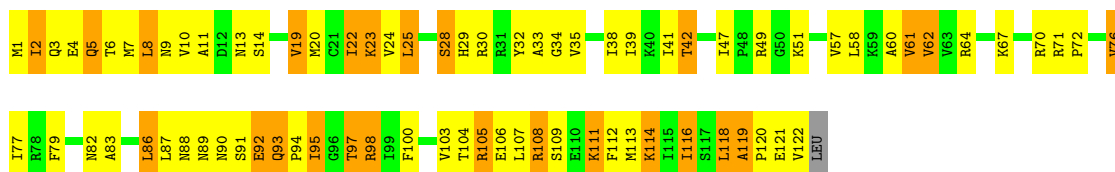
- Molecule 34: 50S ribosomal protein L14

Chain BK:



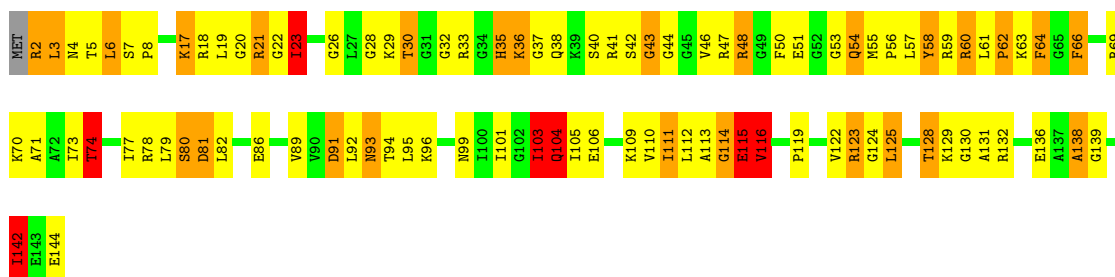
- Molecule 34: 50S ribosomal protein L14

Chain DK:



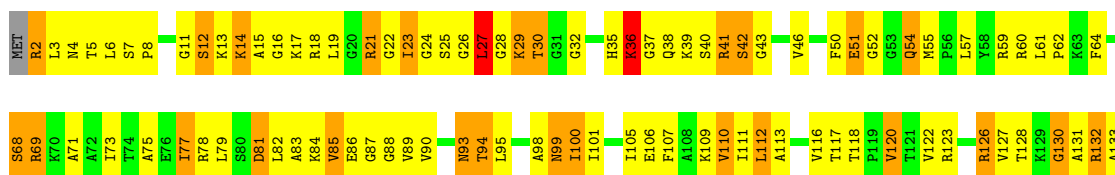
- Molecule 35: 50S ribosomal protein L15

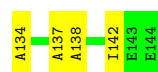
Chain BL:



- Molecule 35: 50S ribosomal protein L15

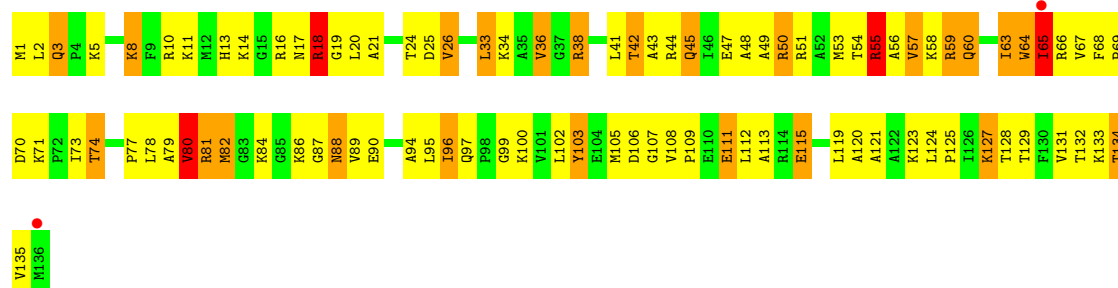
Chain DL:





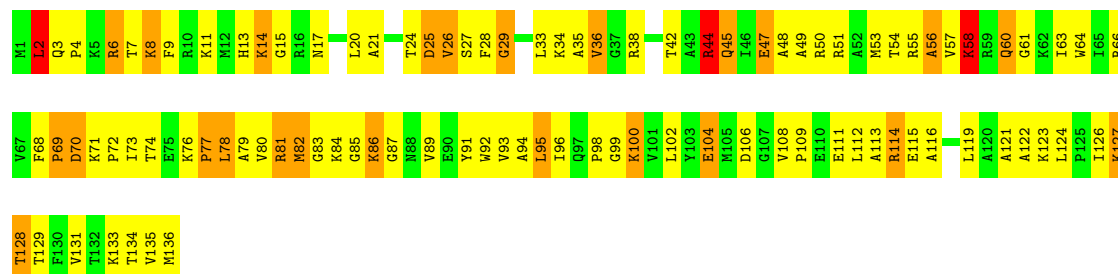
- Molecule 36: 50S ribosomal protein L16

Chain BM:



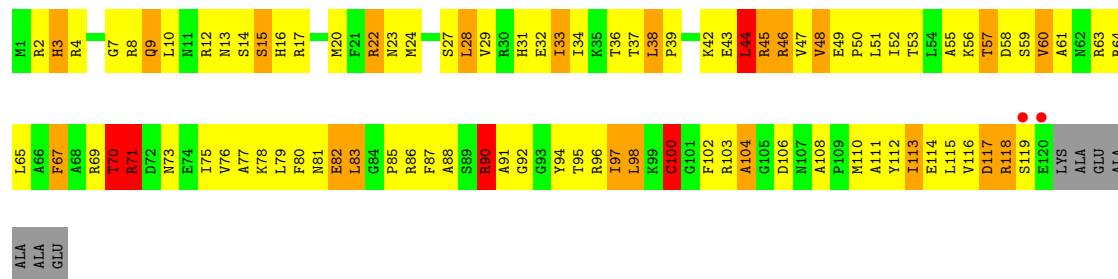
- Molecule 36: 50S ribosomal protein L16

Chain DM:



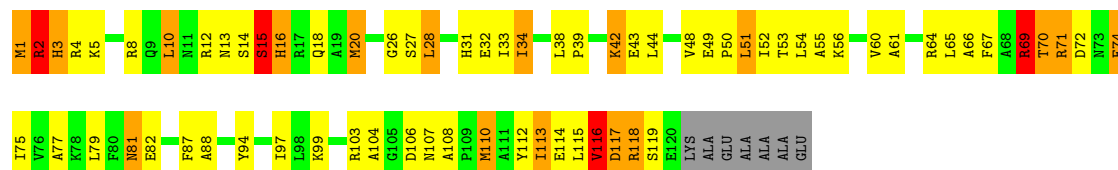
- Molecule 37: 50S ribosomal protein L17

Chain BN:

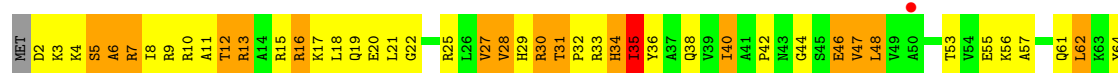


- Molecule 37: 50S ribosomal protein L17

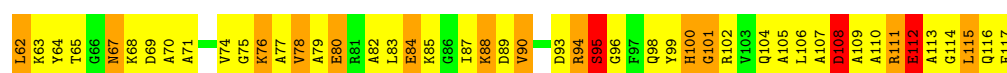
Chain DN:



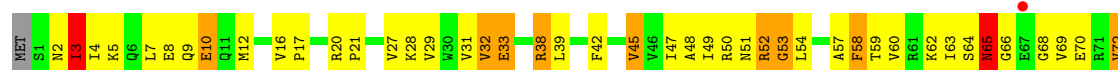
- Molecule 38: 50S ribosomal protein L18

Chain BO: 

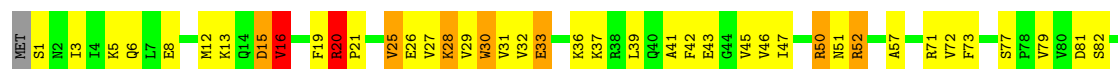
- Molecule 38: 50S ribosomal protein L18

Chain DO: 

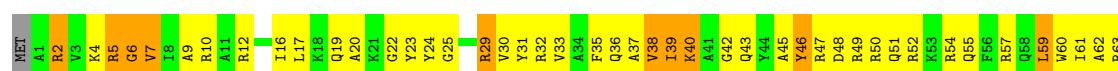
- Molecule 39: 50S ribosomal protein L19

Chain BP: 

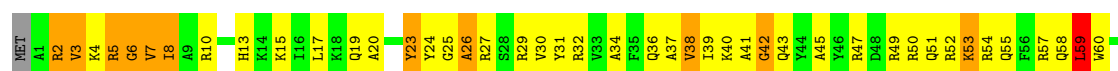
- Molecule 39: 50S ribosomal protein L19

Chain DP: 

- Molecule 40: 50S ribosomal protein L20

Chain BQ: 

- Molecule 40: 50S ribosomal protein L20

Chain DQ: 

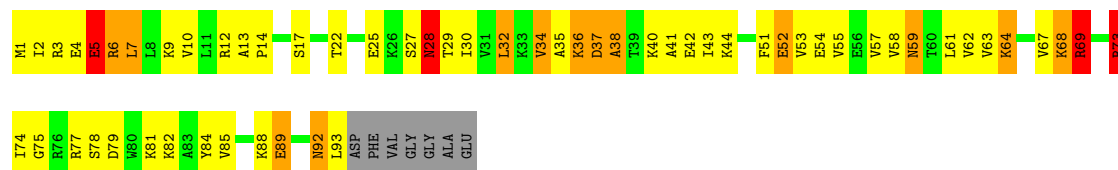


- Molecule 41: 50S ribosomal protein L21

Chain BR:

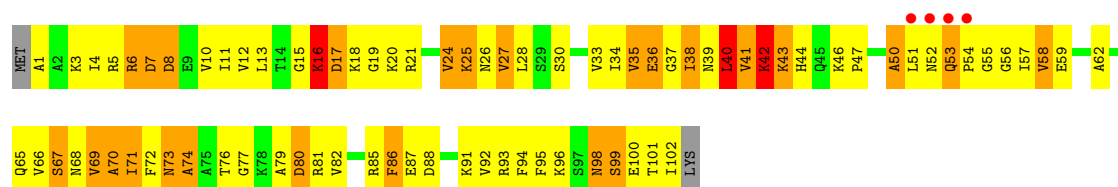


Chain DT:



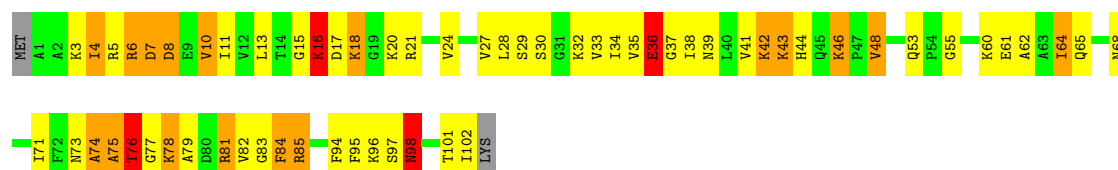
- Molecule 44: 50S ribosomal protein L24

Chain BU:



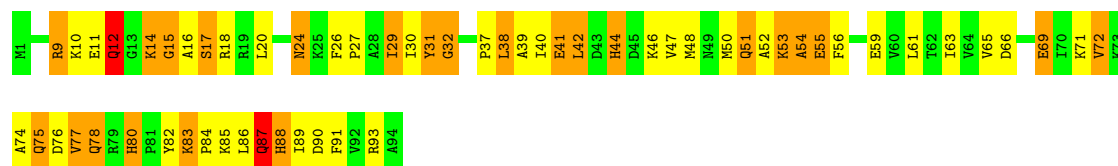
- Molecule 44: 50S ribosomal protein L24

Chain DU:



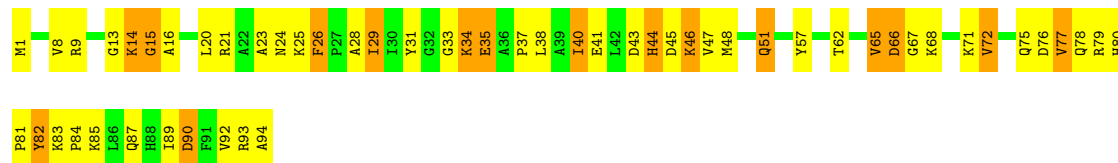
- Molecule 45: 50S ribosomal protein L25

Chain BV:



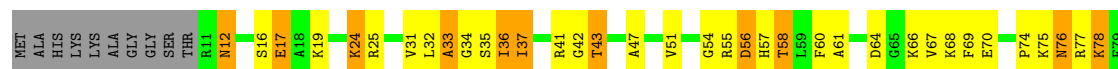
- Molecule 45: 50S ribosomal protein L25

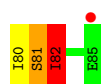
Chain DV:



- Molecule 46: 50S ribosomal protein L27

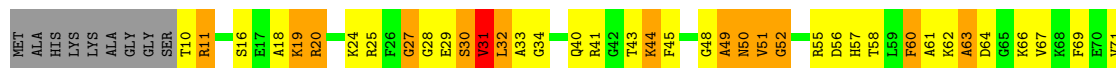
Chain BW:





- Molecule 46: 50S ribosomal protein L27

Chain DW:



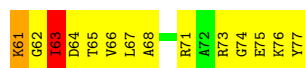
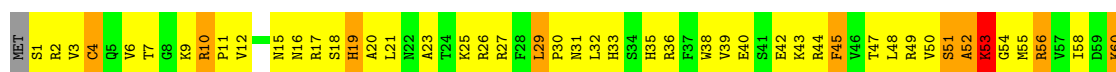
- Molecule 47: 50S ribosomal protein L28

Chain BX:



- Molecule 47: 50S ribosomal protein L28

Chain DX:



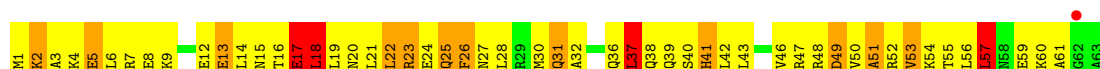
- Molecule 48: 50S ribosomal protein L29

Chain BY:



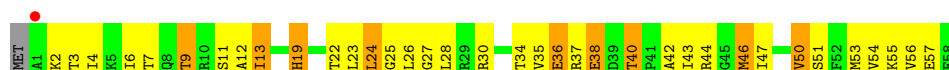
- Molecule 48: 50S ribosomal protein L29

Chain DY:



- Molecule 49: 50S ribosomal protein L30

Chain BZ:



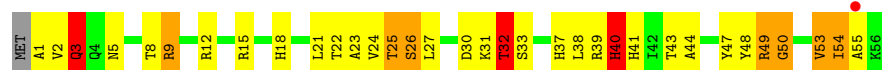
- Molecule 49: 50S ribosomal protein L30

Chain DZ:



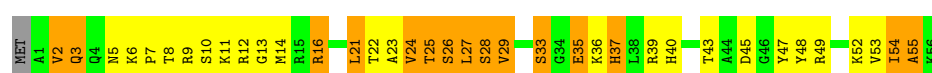
- Molecule 50: 50S ribosomal protein L32

Chain B0:



- Molecule 50: 50S ribosomal protein L32

Chain D0:



- Molecule 51: 50S ribosomal protein L33

Chain B1:



- Molecule 51: 50S ribosomal protein L33

Chain D1:



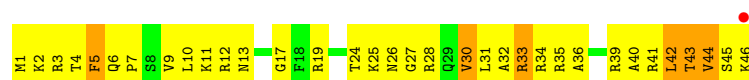
- Molecule 52: 50S ribosomal protein L34

Chain B2: 



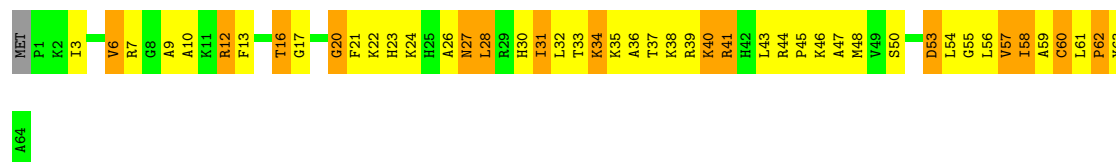
- Molecule 52: 50S ribosomal protein L34

Chain D2:



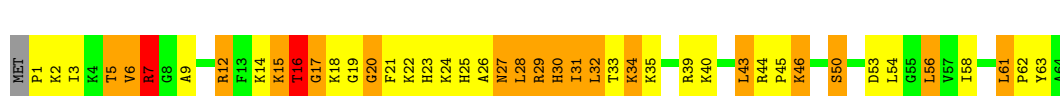
- Molecule 53: 50S ribosomal protein L35

Chain B3:



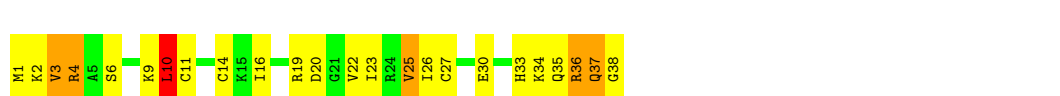
- Molecule 53: 50S ribosomal protein L35

Chain D3:



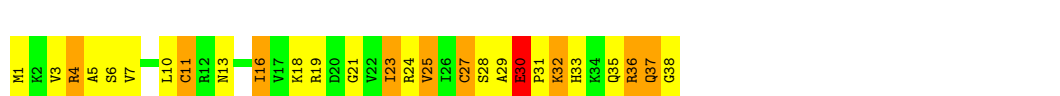
- Molecule 54: 50S ribosomal protein L36

Chain B4:



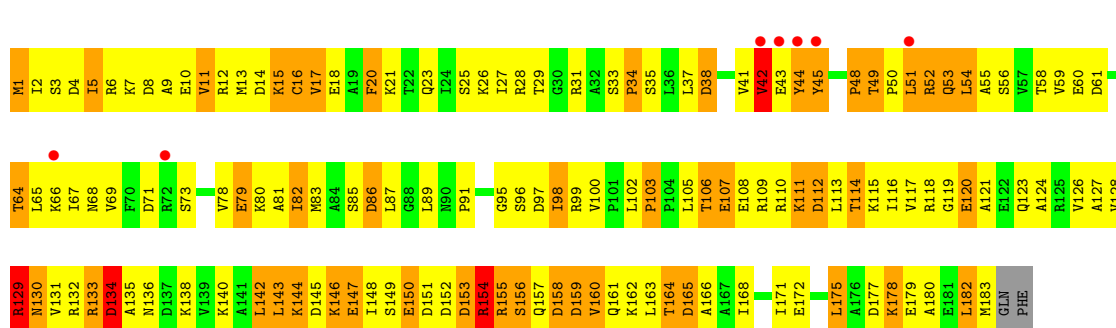
- Molecule 54: 50S ribosomal protein L36

Chain D4:



- Molecule 55: Ribosome recycling factor, RRF

Chain CY:



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	212.18Å 433.90Å 608.03Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	70.00 – 3.30 69.81 – 3.30	Depositor EDS
% Data completeness (in resolution range)	(Not available) (70.00-3.30) 95.0 (69.81-3.30)	Depositor EDS
R_{merge}	0.18	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.71 (at 3.33Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.206 , 0.255 0.208 , 0.259	Depositor DCC
R_{free} test set	2000 reflections (0.25%)	DCC
Wilson B-factor (Å ²)	96.3	Xtriage
Anisotropy	0.202	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.23 , 75.3	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle L \rangle = 0.43$, $\langle L^2 \rangle = 0.26$	Xtriage
Outliers	1 of 793808 reflections (0.000%)	Xtriage
F_o, F_c correlation	0.95	EDS
Total number of atoms	293103	wwPDB-VP
Average B, all atoms (Å ²)	129.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.61% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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, NMY

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	0.34	0/36966	0.95	39/57666 (0.1%)
1	CA	0.33	0/36944	0.93	15/57632 (0.0%)
2	AB	0.28	0/1735	0.61	0/2338
2	CB	0.26	0/1735	0.57	0/2338
3	AC	0.29	0/1651	0.61	0/2225
3	CC	0.30	0/1651	0.58	0/2225
4	AD	0.35	0/1665	0.69	0/2227
4	CD	0.29	0/1665	0.65	0/2227
5	AE	0.28	0/1118	0.66	0/1504
5	CE	0.30	0/1118	0.63	0/1504
6	AF	0.33	0/835	0.67	0/1128
6	CF	0.32	0/835	0.62	0/1128
7	AG	0.25	0/1195	0.52	0/1602
7	CG	0.27	0/1195	0.56	0/1602
8	AH	0.30	0/989	0.66	0/1326
8	CH	0.29	0/989	0.60	0/1326
9	AI	0.25	0/1034	0.59	0/1375
9	CI	0.27	0/1034	0.58	0/1375
10	AJ	0.26	0/796	0.60	0/1077
10	CJ	0.24	0/796	0.53	0/1077
11	AK	0.33	0/893	0.68	0/1205
11	CK	0.30	0/893	0.63	0/1205
12	AL	0.30	0/969	0.71	0/1300
12	CL	0.35	0/969	0.71	1/1300 (0.1%)
13	AM	0.25	0/892	0.57	0/1193
13	CM	0.26	0/892	0.64	0/1193
14	AN	0.26	0/785	0.55	0/1043
14	CN	0.25	0/785	0.56	0/1043
15	AO	0.35	0/722	0.58	0/964
15	CO	0.27	0/722	0.60	0/964
16	AP	0.32	0/659	0.74	2/884 (0.2%)
16	CP	0.29	0/659	0.63	0/884

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	AQ	0.28	0/657	0.61	0/881
17	CQ	0.34	0/657	0.71	0/881
18	AR	0.31	0/462	0.69	0/621
18	CR	0.30	0/462	0.60	0/621
19	AS	0.26	0/652	0.57	0/877
19	CS	0.27	0/652	0.65	0/877
20	AT	0.27	0/671	0.59	0/888
20	CT	0.25	0/671	0.58	0/888
21	AU	0.37	0/430	0.76	0/570
21	CU	0.30	0/430	0.61	0/570
22	AV	0.40	1/1813 (0.1%)	0.89	0/2823
22	CV	0.32	1/1813 (0.1%)	0.77	0/2823
23	AX	0.32	0/388	0.88	0/603
23	CX	0.28	0/363	0.85	0/564
24	BA	0.36	0/69659	0.97	72/108672 (0.1%)
24	DA	0.43	3/69659 (0.0%)	1.07	120/108672 (0.1%)
25	BB	0.28	0/2828	0.84	0/4410
25	DB	0.36	0/2850	0.96	2/4444 (0.0%)
26	BC	0.29	0/2121	0.67	0/2852
26	DC	0.34	0/2121	0.75	2/2852 (0.1%)
27	BD	0.31	0/1586	0.66	0/2134
27	DD	0.36	0/1586	0.68	0/2134
28	BE	0.29	0/1571	0.59	0/2113
28	DE	0.32	0/1571	0.67	1/2113 (0.0%)
29	BF	0.26	0/1434	0.53	0/1926
29	DF	0.29	0/1434	0.66	0/1926
30	BG	0.27	0/1343	0.57	0/1816
30	DG	0.31	0/1343	0.67	1/1816 (0.1%)
31	BH	0.31	0/1121	0.57	1/1515 (0.1%)
31	DH	0.34	1/1121 (0.1%)	0.60	1/1515 (0.1%)
32	BI	0.23	0/1046	0.47	0/1410
32	DI	0.24	0/1046	0.56	0/1410
33	BJ	0.32	0/1152	0.66	0/1551
33	DJ	0.35	0/1152	0.67	0/1551
34	BK	0.32	0/947	0.68	0/1268
34	DK	0.37	0/947	0.71	0/1268
35	BL	0.29	0/1054	0.66	0/1403
35	DL	0.33	0/1054	0.73	0/1403
36	BM	0.28	0/1093	0.61	0/1460
36	DM	0.36	0/1093	0.77	2/1460 (0.1%)
37	BN	0.28	0/973	0.63	0/1301
37	DN	0.36	0/973	0.70	0/1301
38	BO	0.27	0/902	0.55	0/1209

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	DO	0.33	0/902	0.62	0/1209
39	BP	0.33	0/929	0.67	0/1242
39	DP	0.37	0/929	0.74	1/1242 (0.1%)
40	BQ	0.32	0/960	0.60	0/1278
40	DQ	0.34	0/960	0.69	0/1278
41	BR	0.32	0/829	0.66	0/1107
41	DR	0.38	0/829	0.75	0/1107
42	BS	0.31	0/864	0.69	0/1156
42	DS	0.35	0/864	0.70	0/1156
43	BT	0.30	0/744	0.63	1/994 (0.1%)
43	DT	0.34	0/744	0.70	2/994 (0.2%)
44	BU	0.29	0/787	0.59	0/1051
44	DU	0.32	0/787	0.68	0/1051
45	BV	0.26	0/766	0.57	0/1025
45	DV	0.32	0/766	0.68	0/1025
46	BW	0.30	0/576	0.58	0/762
46	DW	0.35	0/587	0.72	0/776
47	BX	0.33	0/635	0.65	0/848
47	DX	0.32	0/635	0.65	0/848
48	BY	0.25	0/510	0.59	0/677
48	DY	0.28	0/510	0.70	0/677
49	BZ	0.29	0/453	0.59	0/605
49	DZ	0.29	0/453	0.73	0/605
50	B0	0.29	0/450	0.62	0/599
50	D0	0.32	0/450	0.67	0/599
51	B1	0.33	0/416	0.57	0/554
51	D1	0.29	0/416	0.63	0/554
52	B2	0.28	0/380	0.58	0/498
52	D2	0.31	0/380	0.67	0/498
53	B3	0.29	0/513	0.63	0/676
53	D3	0.33	0/513	0.71	0/676
54	B4	0.31	0/303	0.62	0/397
54	D4	0.34	0/303	0.75	0/397
55	CY	0.28	0/1434	0.66	1/1929 (0.1%)
All	All	0.36	6/315264 (0.0%)	0.91	264/471562 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
2	AB	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	CB	0	1
3	CC	0	1
4	CD	0	2
5	AE	0	1
8	AH	0	3
9	CI	0	1
12	AL	0	1
13	CM	0	1
16	AP	0	1
16	CP	0	1
26	BC	0	1
26	DC	0	3
27	BD	0	1
27	DD	0	1
31	BH	0	1
31	DH	0	2
33	DJ	0	1
37	BN	0	1
37	DN	0	1
39	DP	0	1
42	DS	0	1
50	D0	0	1
All	All	0	29

All (6) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	CV	1	G	OP3-P	-10.55	1.48	1.61
22	AV	1	G	OP3-P	-10.36	1.48	1.61
24	DA	2204	G	N9-C8	7.67	1.43	1.37
24	DA	733	G	N3-C4	-5.30	1.31	1.35
31	DH	118	PRO	N-CD	5.25	1.55	1.47
24	DA	984	A	N9-C4	-5.06	1.34	1.37

All (264) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	DA	2204	G	C8-N9-C4	-13.18	101.13	106.40
24	DA	733	G	N3-C4-N9	-11.80	118.92	126.00
24	DA	733	G	C6-C5-N7	10.61	136.76	130.40
24	DA	733	G	N9-C4-C5	10.19	109.47	105.40
1	AA	890	G	O4'-C1'-N9	9.65	115.92	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	DA	1666	G	C4-N9-C1'	-9.32	114.39	126.50
24	DA	2204	G	N9-C4-C5	8.90	108.96	105.40
24	DA	1666	G	C8-N9-C1'	8.45	137.98	127.00
24	DA	733	G	C4-C5-N7	-8.25	107.50	110.80
24	DA	1666	G	N3-C4-N9	-7.82	121.31	126.00
24	DA	990	A	N1-C6-N6	-7.71	113.97	118.60
30	DG	34	ARG	NE-CZ-NH1	7.58	124.09	120.30
24	DA	1070	A	N1-C6-N6	7.57	123.14	118.60
24	DA	752	A	O4'-C1'-N9	7.54	114.24	108.20
24	BA	1913	A	N1-C6-N6	7.44	123.06	118.60
24	BA	2473	U	C2-N1-C1'	7.42	126.61	117.70
24	DA	974	G	C8-N9-C4	-7.39	103.44	106.40
36	DM	44	ARG	NE-CZ-NH2	7.33	123.97	120.30
1	AA	332	G	C4-N9-C1'	-7.32	116.98	126.50
39	DP	20	ARG	NE-CZ-NH2	7.29	123.94	120.30
1	AA	332	G	N3-C4-N9	-7.24	121.66	126.00
24	DA	2053	G	C4-N9-C1'	-7.24	117.09	126.50
24	DA	512	G	C6-C5-N7	7.23	134.74	130.40
1	AA	538	G	N3-C4-N9	-7.13	121.72	126.00
1	AA	142	G	C4-N9-C1'	7.08	135.70	126.50
24	DA	948	C	C6-N1-C2	-7.03	117.49	120.30
24	DA	1666	G	C6-C5-N7	6.90	134.54	130.40
24	DA	1938	A	N1-C6-N6	6.84	122.70	118.60
24	BA	2238	G	C4-N9-C1'	6.83	135.38	126.50
24	DA	1666	G	N3-C4-C5	6.82	132.01	128.60
24	DA	528	A	N1-C6-N6	6.79	122.67	118.60
24	DA	2053	G	C8-N9-C1'	6.79	135.83	127.00
24	DA	2213	U	C2-N1-C1'	6.74	125.79	117.70
24	BA	2238	G	N3-C4-N9	6.67	130.00	126.00
24	BA	1699	G	N3-C4-N9	-6.64	122.02	126.00
24	DA	2204	G	C8-N9-C1'	6.63	135.62	127.00
24	BA	752	A	O4'-C1'-N9	6.58	113.47	108.20
24	DA	512	G	N3-C4-N9	-6.56	122.06	126.00
24	BA	2034	U	C2-N1-C1'	6.56	125.57	117.70
1	AA	332	G	C8-N9-C1'	6.53	135.49	127.00
24	BA	2430	A	O4'-C1'-N9	6.52	113.42	108.20
24	DA	1150	C	C6-N1-C2	-6.49	117.70	120.30
24	DA	752	A	N1-C6-N6	6.48	122.49	118.60
24	DA	2016	U	C2-N1-C1'	6.48	125.48	117.70
1	AA	142	G	C8-N9-C1'	-6.45	118.61	127.00
24	BA	1699	G	C4-N9-C1'	-6.44	118.13	126.50
24	DA	2679	A	N1-C6-N6	6.41	122.44	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1482	G	N3-C4-N9	6.40	129.84	126.00
24	DA	2628	C	C6-N1-C2	-6.39	117.74	120.30
1	AA	1492	A	O4'-C1'-N9	6.38	113.31	108.20
24	DA	1564	C	C6-N1-C2	-6.38	117.75	120.30
24	BA	1022	G	C4-N9-C1'	-6.38	118.21	126.50
1	AA	332	G	N3-C4-C5	6.35	131.77	128.60
1	CA	354	G	C4-N9-C1'	6.34	134.74	126.50
1	CA	324	G	N3-C4-N9	-6.33	122.20	126.00
24	BA	122	G	C4-N9-C1'	-6.31	118.30	126.50
43	DT	73	ARG	NE-CZ-NH2	6.30	123.45	120.30
24	BA	2066	C	C6-N1-C2	-6.28	117.79	120.30
24	DA	624	C	C6-N1-C2	-6.27	117.79	120.30
24	DA	481	G	O4'-C1'-N9	6.27	113.22	108.20
24	BA	2238	G	C8-N9-C1'	-6.26	118.86	127.00
1	AA	538	G	C4-N9-C1'	-6.25	118.37	126.50
24	BA	1699	G	C8-N9-C1'	6.25	135.12	127.00
1	CA	354	G	C8-N9-C1'	-6.22	118.91	127.00
1	AA	1530	G	C8-N9-C1'	6.20	135.06	127.00
24	DA	2550	G	N3-C4-N9	6.20	129.72	126.00
1	CA	354	G	N3-C4-N9	6.20	129.72	126.00
24	DA	84	A	N1-C6-N6	-6.19	114.89	118.60
55	CY	129	ARG	NE-CZ-NH1	6.18	123.39	120.30
24	BA	2609	U	C2-N1-C1'	-6.18	110.28	117.70
24	DA	2757	A	N1-C6-N6	6.14	122.29	118.60
1	AA	1530	G	N3-C4-N9	-6.14	122.31	126.00
24	DA	2391	G	O4'-C1'-N9	6.14	113.11	108.20
1	AA	741	G	C4-N9-C1'	-6.13	118.53	126.50
24	DA	2204	G	N7-C8-N9	6.12	116.16	113.10
1	AA	856	C	C2-N1-C1'	6.08	125.49	118.80
24	BA	1022	G	C8-N9-C1'	6.08	134.90	127.00
1	AA	538	G	C8-N9-C1'	6.07	134.90	127.00
24	BA	122	G	C8-N9-C1'	6.07	134.89	127.00
24	DA	2583	G	N3-C4-N9	-6.07	122.36	126.00
24	DA	512	G	O4'-C1'-N9	6.06	113.05	108.20
24	DA	789	A	N1-C6-N6	6.05	122.23	118.60
24	BA	846	U	C2-N1-C1'	6.05	124.96	117.70
24	DA	752	A	N9-C4-C5	-6.04	103.38	105.80
1	AA	14	U	N3-C2-O2	-6.03	117.98	122.20
31	BH	117	LEU	C-N-CD	6.03	141.07	128.40
24	DA	748	G	O4'-C1'-N9	6.02	113.02	108.20
24	DA	733	G	N3-C4-C5	6.01	131.61	128.60
24	DA	752	A	C4-N9-C1'	6.01	137.11	126.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	DA	2213	U	C6-N1-C1'	-6.00	112.80	121.20
24	DA	752	A	C8-N9-C1'	-5.99	116.91	127.70
24	DA	1666	G	N3-C2-N2	-5.98	115.71	119.90
31	DH	117	LEU	C-N-CD	5.96	140.92	128.40
1	AA	741	G	C8-N9-C1'	5.95	134.74	127.00
24	DA	1070	A	C5-C6-N6	-5.95	118.94	123.70
24	DA	1666	G	N1-C2-N2	5.95	121.55	116.20
24	DA	990	A	C5-C6-N6	5.94	128.45	123.70
1	AA	1435	G	N3-C4-N9	-5.94	122.44	126.00
24	DA	647	G	C4-N9-C1'	5.91	134.18	126.50
1	AA	869	G	N9-C4-C5	5.90	107.76	105.40
26	DC	260	LYS	N-CA-C	-5.88	95.11	111.00
24	BA	695	G	C4-N9-C1'	5.86	134.12	126.50
24	DA	535	G	C4-N9-C1'	-5.86	118.88	126.50
24	DA	1478	G	C4-N9-C1'	-5.86	118.89	126.50
1	AA	869	G	N3-C4-N9	-5.82	122.50	126.00
24	BA	1695	G	C4-N9-C1'	5.82	134.07	126.50
24	DA	1478	G	N3-C4-N9	-5.81	122.51	126.00
24	BA	376	G	N3-C4-N9	5.81	129.49	126.00
24	BA	659	G	C4-N9-C1'	-5.80	118.96	126.50
24	DA	2204	G	N3-C4-N9	-5.79	122.53	126.00
24	DA	2550	G	N9-C4-C5	-5.79	103.08	105.40
25	DB	98	G	N3-C4-N9	-5.78	122.53	126.00
24	BA	672	C	C2-N1-C1'	5.78	125.16	118.80
24	BA	2	G	N3-C4-N9	-5.78	122.53	126.00
24	DA	535	G	C8-N9-C1'	5.78	134.51	127.00
1	AA	1530	G	C4-N9-C1'	-5.77	119.00	126.50
1	AA	730	G	N3-C4-N9	5.77	129.46	126.00
24	BA	729	G	O4'-C1'-N9	5.77	112.81	108.20
24	DA	2592	G	C4-N9-C1'	5.75	133.97	126.50
43	BT	77	ARG	NE-CZ-NH1	5.74	123.17	120.30
24	DA	2072	C	C2-N1-C1'	5.74	125.11	118.80
24	DA	203	A	N1-C6-N6	5.72	122.03	118.60
24	BA	2331	G	C4-N9-C1'	5.72	133.93	126.50
1	CA	354	G	C6-C5-N7	-5.70	126.98	130.40
1	AA	741	G	N3-C4-N9	-5.70	122.58	126.00
24	DA	1830	C	C6-N1-C2	-5.70	118.02	120.30
24	DA	647	G	C8-N9-C1'	-5.70	119.60	127.00
24	DA	1064	C	C2-N1-C1'	5.69	125.06	118.80
24	DA	776	G	C6-C5-N7	-5.68	126.99	130.40
24	DA	2053	G	N3-C4-N9	-5.68	122.59	126.00
24	DA	512	G	N9-C4-C5	5.66	107.66	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	856	C	C2-N1-C1'	5.65	125.02	118.80
1	AA	142	G	N3-C4-N9	5.65	129.39	126.00
24	DA	1434	A	O4'-C1'-N9	5.65	112.72	108.20
24	DA	512	G	C8-N9-C1'	5.63	134.32	127.00
24	BA	1187	G	N3-C4-N9	5.62	129.37	126.00
24	DA	19	A	N1-C6-N6	5.62	121.97	118.60
1	AA	910	C	C2-N1-C1'	5.59	124.95	118.80
24	BA	2549	G	N3-C4-C5	-5.59	125.81	128.60
24	BA	2599	G	N3-C4-N9	-5.57	122.66	126.00
24	DA	990	A	N9-C4-C5	5.56	108.03	105.80
24	DA	2501	C	C6-N1-C1'	5.56	127.48	120.80
24	BA	1913	A	C5-C6-N6	-5.56	119.25	123.70
24	DA	1666	G	O4'-C1'-N9	5.55	112.64	108.20
24	BA	549	G	O4'-C1'-N9	5.55	112.64	108.20
24	BA	659	G	C8-N9-C1'	5.54	134.21	127.00
24	BA	2473	U	C6-N1-C1'	-5.52	113.47	121.20
24	DA	1002	G	C4-N9-C1'	-5.49	119.36	126.50
24	BA	1938	A	N1-C6-N6	5.49	121.89	118.60
24	DA	1779	U	O4'-C1'-N1	5.49	112.59	108.20
24	BA	2645	G	C4-N9-C1'	5.48	133.63	126.50
1	CA	711	G	C4-N9-C1'	-5.47	119.39	126.50
1	CA	1192	C	C6-N1-C2	-5.46	118.11	120.30
1	CA	428	G	C4-N9-C1'	-5.46	119.40	126.50
24	DA	1478	G	C8-N9-C1'	5.45	134.08	127.00
24	DA	84	A	N9-C4-C5	5.44	107.98	105.80
24	DA	479	A	O4'-C1'-N9	5.44	112.55	108.20
24	BA	1346	G	C4-N9-C1'	-5.43	119.44	126.50
24	DA	752	A	C5-C6-N6	-5.43	119.36	123.70
24	DA	2727	A	N1-C6-N6	5.42	121.85	118.60
24	DA	752	A	N3-C4-N9	5.42	131.73	127.40
1	CA	711	G	C8-N9-C1'	5.41	134.04	127.00
12	CL	57	LEU	CA-CB-CG	5.39	127.69	115.30
24	BA	2443	C	C6-N1-C2	-5.38	118.15	120.30
16	AP	32	PHE	CB-CG-CD1	5.38	124.57	120.80
24	BA	1971	U	O4'-C1'-N1	5.38	112.50	108.20
24	BA	259	G	N3-C4-N9	-5.38	122.78	126.00
1	AA	598	U	C2-N1-C1'	5.37	124.15	117.70
24	DA	1002	G	C8-N9-C1'	5.37	133.98	127.00
24	BA	1011	G	C4-N9-C1'	-5.35	119.55	126.50
24	DA	995	C	O4'-C1'-N1	-5.34	103.93	108.20
24	BA	780	G	N3-C4-N9	5.34	129.20	126.00
1	AA	1530	G	C6-C5-N7	5.32	133.59	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	DA	2250	G	N1-C2-N2	5.32	120.99	116.20
1	AA	1530	G	N9-C4-C5	5.32	107.53	105.40
24	BA	2066	C	N3-C4-C5	-5.32	119.77	121.90
24	BA	1346	G	C8-N9-C1'	5.31	133.91	127.00
24	BA	1022	G	N3-C4-N9	-5.30	122.82	126.00
24	BA	2014	A	N1-C6-N6	5.30	121.78	118.60
24	DA	1938	A	C5-C6-N6	-5.30	119.46	123.70
24	DA	2066	C	C6-N1-C2	-5.29	118.18	120.30
24	DA	2365	G	N3-C4-N9	5.29	129.18	126.00
24	DA	2620	C	C6-N1-C2	-5.29	118.18	120.30
24	BA	1145	C	P-O3'-C3'	5.28	126.04	119.70
24	BA	748	G	C6-C5-N7	-5.27	127.23	130.40
26	DC	216	ARG	NE-CZ-NH2	-5.27	117.66	120.30
24	DA	600	G	N3-C4-N9	-5.27	122.84	126.00
24	BA	695	G	C8-N9-C1'	-5.27	120.15	127.00
24	BA	1187	G	C6-C5-N7	-5.27	127.24	130.40
24	BA	974	G	O4'-C1'-N9	5.26	112.41	108.20
24	DA	2048	G	N3-C4-N9	5.26	129.16	126.00
24	BA	2034	U	C6-N1-C1'	-5.25	113.84	121.20
24	DA	1155	A	O4'-C1'-N9	5.25	112.40	108.20
24	DA	733	G	C8-N9-C4	-5.25	104.30	106.40
24	DA	1478	G	N3-C4-C5	5.25	131.22	128.60
24	BA	1695	G	N3-C4-N9	5.24	129.15	126.00
24	BA	1358	G	C4-N9-C1'	5.24	133.31	126.50
1	AA	1516	G	C4-N9-C1'	-5.24	119.69	126.50
24	BA	1695	G	C8-N9-C1'	-5.22	120.21	127.00
24	DA	2036	C	C6-N1-C2	-5.20	118.22	120.30
24	DA	2592	G	N3-C4-N9	5.20	129.12	126.00
24	BA	2592	G	N3-C4-N9	5.19	129.12	126.00
24	BA	1253	A	N3-C4-N9	-5.19	123.25	127.40
24	DA	661	A	C6-C5-N7	-5.19	128.67	132.30
24	BA	396	G	N3-C4-N9	5.19	129.11	126.00
24	DA	1646	C	C6-N1-C1'	5.19	127.03	120.80
1	AA	1523	G	C4-N9-C1'	5.18	133.24	126.50
24	DA	1395	A	O4'-C1'-N9	5.18	112.35	108.20
1	CA	711	G	N3-C4-N9	-5.18	122.89	126.00
24	DA	2793	C	C2-N1-C1'	5.18	124.50	118.80
24	BA	257	C	C2-N1-C1'	-5.18	113.11	118.80
24	BA	2	G	C4-N9-C1'	-5.17	119.77	126.50
1	AA	332	G	C6-C5-N7	5.17	133.50	130.40
1	AA	538	G	N3-C4-C5	5.17	131.18	128.60
1	AA	1435	G	C4-N9-C1'	-5.17	119.78	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	DA	2223	G	C8-N9-C1'	5.16	133.70	127.00
24	BA	974	G	C4-N9-C1'	5.15	133.19	126.50
24	DA	2592	G	N7-C8-N9	5.15	115.67	113.10
24	DA	54	G	N3-C4-N9	-5.14	122.91	126.00
24	DA	984	A	N3-C4-C5	5.14	130.40	126.80
24	DA	602	A	N1-C6-N6	5.13	121.68	118.60
1	AA	1355	G	N3-C4-N9	-5.13	122.92	126.00
24	DA	2402	U	P-O3'-C3'	5.13	125.86	119.70
24	BA	1913	A	N9-C4-C5	-5.13	103.75	105.80
36	DM	2	LEU	CA-CB-CG	5.13	127.09	115.30
24	DA	1181	U	O4'-C1'-N1	5.12	112.30	108.20
24	DA	2655	G	O4'-C1'-N9	5.12	112.30	108.20
24	DA	733	G	C4-C5-C6	-5.12	115.73	118.80
24	BA	798	G	C4-N9-C1'	-5.11	119.85	126.50
24	BA	798	G	C8-N9-C1'	5.11	133.65	127.00
1	CA	1417	G	N3-C4-N9	5.11	129.07	126.00
24	DA	1212	G	N3-C4-N9	5.11	129.06	126.00
24	BA	2	G	C8-N9-C1'	5.11	133.64	127.00
24	DA	1983	G	C4-N9-C1'	-5.10	119.87	126.50
24	BA	2331	G	C8-N9-C1'	-5.10	120.37	127.00
1	AA	1486	G	N3-C4-N9	5.10	129.06	126.00
24	DA	1358	G	N7-C8-N9	5.09	115.64	113.10
24	DA	1105	U	O4'-C1'-N1	5.09	112.27	108.20
24	BA	257	C	C6-N1-C1'	5.08	126.90	120.80
24	BA	549	G	C4-N9-C1'	5.08	133.11	126.50
24	DA	604	G	C4-N9-C1'	5.08	133.11	126.50
24	DA	780	G	N3-C4-N9	5.08	129.05	126.00
24	BA	659	G	O4'-C1'-N9	5.08	112.27	108.20
1	AA	294	U	C2-N1-C1'	5.08	123.80	117.70
24	BA	2549	G	N3-C4-N9	5.08	129.04	126.00
24	BA	2331	G	N3-C4-N9	5.07	129.04	126.00
43	DT	73	ARG	NE-CZ-NH1	-5.07	117.77	120.30
28	DE	27	LEU	CA-CB-CG	5.06	126.95	115.30
16	AP	32	PHE	CB-CG-CD2	-5.06	117.26	120.80
24	DA	1677	A	N1-C6-N6	5.06	121.64	118.60
24	DA	984	A	C4-C5-C6	-5.06	114.47	117.00
1	CA	867	G	C4-N9-C1'	5.05	133.07	126.50
24	DA	2223	G	C4-N9-C1'	-5.05	119.94	126.50
24	DA	1573	G	C8-N9-C1'	5.04	133.55	127.00
1	CA	1253	G	C8-N9-C1'	5.03	133.54	127.00
24	DA	2850	A	C4-C5-C6	5.03	119.52	117.00
1	AA	467	U	C2-N1-C1'	5.03	123.73	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1435	G	C8-N9-C1'	5.03	133.53	127.00
1	AA	1516	G	C8-N9-C1'	5.02	133.53	127.00
24	BA	656	G	C8-N9-C1'	5.02	133.52	127.00
24	DA	2550	G	C8-N9-C1'	-5.01	120.48	127.00
25	DB	31	C	C6-N1-C2	-5.01	118.30	120.30
24	BA	197	A	C6-C5-N7	-5.00	128.80	132.30
24	DA	739	A	N1-C6-N6	5.00	121.60	118.60

There are no chirality outliers.

All (29) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	AB	162	PHE	Peptide
5	AE	157	ARG	Peptide
8	AH	125	ILE	Peptide
8	AH	87	LYS	Peptide
8	AH	88	ARG	Peptide
12	AL	38	TYR	Peptide
16	AP	31	ARG	Peptide
26	BC	195	GLY	Peptide
27	BD	151	THR	Peptide
31	BH	148	ALA	Peptide
37	BN	100	CYS	Peptide
2	CB	92	VAL	Peptide
3	CC	128	VAL	Peptide
4	CD	199	LEU	Peptide
4	CD	56	ARG	Peptide
9	CI	111	VAL	Peptide
13	CM	91	HIS	Peptide
16	CP	64	GLY	Peptide
50	D0	2	VAL	Peptide
26	DC	231	HIS	Peptide
26	DC	258	SER	Peptide
26	DC	86	ARG	Peptide
27	DD	151	THR	Peptide
31	DH	118	PRO	Peptide
31	DH	119	ASN	Peptide
33	DJ	1	MET	Peptide
37	DN	113	ILE	Peptide
39	DP	95	LYS	Peptide
42	DS	75	PHE	Peptide

5.2 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 hydrogens added by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, and the number in parentheses is this value normalized per 1000 atoms of the molecule in the chain. The Symm-Clashes column gives symmetry related clashes, in the same way as for the Clashes column.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	33015	0	16617	2761	0
1	CA	32995	0	16607	2603	2
2	AB	1704	0	1732	275	0
2	CB	1704	0	1732	227	0
3	AC	1624	0	1696	188	0
3	CC	1624	0	1696	185	0
4	AD	1643	0	1707	369	0
4	CD	1643	0	1707	356	0
5	AE	1105	0	1148	164	0
5	CE	1105	0	1148	126	0
6	AF	817	0	808	119	0
6	CF	817	0	808	113	0
7	AG	1181	0	1238	102	0
7	CG	1181	0	1238	150	0
8	AH	979	0	1031	209	0
8	CH	979	0	1031	127	0
9	AI	1022	0	1070	143	0
9	CI	1022	0	1070	161	0
10	AJ	786	0	828	71	0
10	CJ	786	0	828	89	0
11	AK	877	0	887	145	0
11	CK	877	0	887	203	0
12	AL	955	0	1016	153	0
12	CL	955	0	1016	179	0
13	AM	883	0	941	137	0
13	CM	883	0	941	173	0
14	AN	774	0	827	114	0
14	CN	774	0	827	142	0
15	AO	714	0	734	72	0
15	CO	714	0	734	128	0
16	AP	649	0	666	101	0
16	CP	649	0	666	96	0
17	AQ	648	0	691	78	0
17	CQ	648	0	691	97	0
18	AR	455	0	478	67	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
18	CR	455	0	478	65	0
19	AS	637	0	665	116	0
19	CS	637	0	665	130	0
20	AT	665	0	714	125	0
20	CT	665	0	714	103	0
21	AU	425	0	449	95	0
21	CU	425	0	449	88	0
22	AV	1623	0	821	70	0
22	CV	1623	0	821	171	0
23	AX	346	0	173	39	0
23	CX	324	0	162	15	0
24	BA	62195	0	31280	4102	1
24	DA	62195	0	31280	3371	1
25	BB	2529	0	1281	202	0
25	DB	2549	0	1291	111	0
26	BC	2082	0	2157	284	0
26	DC	2082	0	2157	277	0
27	BD	1565	0	1616	178	0
27	DD	1565	0	1616	153	0
28	BE	1552	0	1619	176	0
28	DE	1552	0	1619	153	0
29	BF	1410	0	1447	208	0
29	DF	1410	0	1447	252	0
30	BG	1323	0	1374	137	0
30	DG	1323	0	1374	105	0
31	BH	1110	0	1148	131	1
31	DH	1110	0	1148	237	0
32	BI	1032	0	1088	42	0
32	DI	1032	0	1088	87	0
33	BJ	1129	0	1162	133	0
33	DJ	1129	0	1162	105	0
34	BK	938	0	1012	122	0
34	DK	938	0	1012	99	0
35	BL	1045	0	1117	138	0
35	DL	1045	0	1117	115	0
36	BM	1074	0	1157	117	0
36	DM	1074	0	1157	116	0
37	BN	960	0	1000	133	0
37	DN	960	0	1000	98	0
38	BO	892	0	923	147	0
38	DO	892	0	923	123	0
39	BP	917	0	965	102	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
39	DP	917	0	965	72	0
40	BQ	947	0	1022	96	0
40	DQ	947	0	1022	128	0
41	BR	816	0	839	82	0
41	DR	816	0	839	121	0
42	BS	857	0	922	116	0
42	DS	857	0	922	89	0
43	BT	738	0	807	89	0
43	DT	738	0	807	74	0
44	BU	779	0	834	108	0
44	DU	779	0	834	106	0
45	BV	753	0	780	77	0
45	DV	753	0	780	63	1
46	BW	569	0	581	55	0
46	DW	580	0	594	78	0
47	BX	625	0	655	76	0
47	DX	625	0	655	82	0
48	BY	509	0	543	59	0
48	DY	509	0	543	75	0
49	BZ	449	0	491	53	0
49	DZ	449	0	491	32	0
50	B0	444	0	461	43	0
50	D0	444	0	461	39	0
51	B1	409	0	440	50	0
51	D1	409	0	440	38	0
52	B2	377	0	418	52	0
52	D2	377	0	418	40	0
53	B3	504	0	574	66	0
53	D3	504	0	574	69	0
54	B4	302	0	340	33	0
54	D4	302	0	340	39	0
55	CY	1423	0	1476	166	0
56	AA	54	0	0	0	0
56	AD	1	0	0	0	0
56	AN	1	0	0	0	0
56	BA	163	0	0	0	0
56	BB	3	0	0	0	0
56	BC	1	0	0	0	0
56	BQ	1	0	0	0	0
56	CA	71	0	0	0	0
56	CX	1	0	0	0	0
56	DA	187	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	DB	4	0	0	0	0
56	DE	1	0	0	0	0
56	DL	1	0	0	0	0
56	DO	1	0	0	0	0
57	AA	126	0	135	48	0
57	BA	294	0	317	87	0
57	CA	42	0	46	6	0
57	DA	294	0	311	107	0
58	B4	1	0	0	0	0
58	D4	1	0	0	0	0
59	AA	188	0	0	29	0
59	AD	2	0	0	2	0
59	AK	1	0	0	1	0
59	AN	4	0	0	1	0
59	AT	2	0	0	0	0
59	AU	1	0	0	0	0
59	B0	1	0	0	0	0
59	B3	1	0	0	0	0
59	B4	1	0	0	0	0
59	BA	616	0	0	116	0
59	BB	13	0	0	2	0
59	BC	10	0	0	6	0
59	BD	4	0	0	0	0
59	BL	4	0	0	2	0
59	BN	1	0	0	0	0
59	BT	3	0	0	2	0
59	BU	3	0	0	0	0
59	BV	1	0	0	0	0
59	CA	192	0	0	32	0
59	CC	1	0	0	1	0
59	CE	1	0	0	0	0
59	CL	1	0	0	1	0
59	CN	6	0	0	0	0
59	CT	2	0	0	1	0
59	D3	2	0	0	0	0
59	D4	1	0	0	0	0
59	DA	627	0	0	120	0
59	DB	13	0	0	4	0
59	DC	4	0	0	0	0
59	DD	2	0	0	1	0
59	DE	4	0	0	2	0
59	DF	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	DL	7	0	0	4	0
59	DN	2	0	0	0	0
59	DQ	1	0	0	0	0
59	DS	1	0	0	0	0
59	DT	1	0	0	0	0
59	DU	1	0	0	0	0
59	DV	1	0	0	0	0
All	All	293103	0	196267	22971	3

Clashscore is defined as the number of clashes calculated for the entry per 1000 atoms (including hydrogens) of the entry. The overall clashscore for this entry is 48.

All (22971) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BF:96:TRP:CE3	29:BF:99:PHE:CE2	1.79	1.66
29:BF:96:TRP:CZ3	29:BF:99:PHE:HE2	1.31	1.48
31:BH:121:VAL:HB	31:BH:122:LEU:CD2	1.41	1.47
29:BF:96:TRP:CD2	29:BF:99:PHE:CZ	2.03	1.47
31:BH:121:VAL:CB	31:BH:122:LEU:HD23	1.49	1.42
57:AA:1655:NMY:N6	24:BA:1913:A:N7	1.75	1.35
29:BF:96:TRP:CE3	29:BF:99:PHE:CZ	2.17	1.30
24:BA:1157:G:OP1	57:BA:3162:NMY:H81	1.28	1.27
31:DH:116:ARG:NH2	31:DH:132:PHE:O	1.69	1.25
57:AA:1655:NMY:H19	57:AA:1655:NMY:C16	1.61	1.25
29:BF:96:TRP:CZ3	29:BF:99:PHE:CE2	2.12	1.25
1:AA:1405:G:P	57:AA:1655:NMY:N19	2.11	1.24
24:DA:1921:G:N7	57:DA:3184:NMY:N7	1.86	1.24
24:DA:322:A:OP2	28:DE:162:ARG:NH2	1.71	1.22
54:D4:11:CYS:SG	54:D4:33:HIS:ND1	2.13	1.21
31:DH:117:LEU:CD2	31:DH:120:GLY:HA2	1.71	1.21
29:BF:96:TRP:CE2	29:BF:99:PHE:HZ	1.58	1.20
57:AA:1655:NMY:C19	57:AA:1655:NMY:H16	1.65	1.20
31:DH:93:SER:OG	31:DH:122:LEU:HD12	1.37	1.19
1:AA:1220:G:O2'	19:AS:36:ARG:NH2	1.75	1.19
29:BF:93:GLU:O	29:BF:95:MET:N	1.76	1.17
15:AO:67:LEU:O	15:AO:78:TYR:OH	1.61	1.17
1:AA:1317:C:O2'	14:AN:49:GLN:NE2	1.78	1.17
24:DA:250:G:OP2	53:D3:12:ARG:NH1	1.76	1.15
29:BF:3:LEU:CD1	29:BF:96:TRP:CZ2	2.30	1.15
24:DA:690:G:O3'	26:DC:216:ARG:NH2	1.78	1.14
29:BF:3:LEU:HD12	29:BF:96:TRP:CZ2	1.82	1.14
25:BB:69:G:O6	25:BB:107:G:N2	1.81	1.14

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:CV:7:A:H3'	22:CV:8:U:H5'	1.20	1.13
29:BF:42:ALA:O	29:BF:82:TYR:OH	1.66	1.13
24:BA:2418:A:O3'	53:B3:40:LYS:NZ	1.82	1.13
31:DH:120:GLY:O	31:DH:122:LEU:CD2	1.98	1.11
2:CB:84:ALA:O	2:CB:89:GLN:NE2	1.81	1.11
8:AH:39:VAL:O	8:AH:41:LYS:N	1.83	1.11
26:BC:9:SER:OG	26:BC:12:ARG:NH1	1.84	1.11
29:BF:96:TRP:CE3	29:BF:99:PHE:HE2	1.39	1.11
31:DH:120:GLY:O	31:DH:122:LEU:HD23	1.47	1.10
12:CL:24:LEU:O	12:CL:26:ALA:N	1.81	1.10
24:DA:85:G:OP2	44:DU:5:ARG:NH2	1.84	1.10
24:DA:2496:C:OP1	36:DM:81:ARG:NH2	1.84	1.09
1:AA:265:G:O2'	17:AQ:67:LEU:O	1.68	1.09
37:DN:13:ASN:O	37:DN:15:SER:N	1.86	1.09
23:CX:10:A:O2'	23:CX:11:A:OP2	1.68	1.09
24:BA:1730:C:O2'	24:BA:1731:G:OP2	1.71	1.08
31:DH:93:SER:OG	31:DH:122:LEU:HB2	1.53	1.08
7:AG:26:PHE:O	7:AG:28:ASN:N	1.87	1.08
24:BA:2466:C:OP2	54:B4:4:ARG:NH1	1.86	1.08
8:AH:88:ARG:NH2	8:AH:122:GLY:O	1.86	1.08
1:AA:1079:G:O2'	1:AA:1080:A:O5'	1.70	1.08
31:DH:88:GLY:HA2	31:DH:125:THR:CG2	1.83	1.07
1:CA:1530:G:O2'	1:CA:1531:A:OP2	1.71	1.07
1:AA:332:G:O2'	20:AT:10:ARG:NH2	1.88	1.06
39:BP:8:GLU:O	39:BP:10:GLU:N	1.89	1.06
1:CA:1118:U:O4'	9:CI:106:ARG:NH2	1.87	1.06
1:CA:405:U:OP2	4:CD:3:ARG:NH2	1.87	1.06
1:CA:738:C:HO2'	1:CA:739:C:C5'	1.69	1.06
15:CO:73:LYS:O	15:CO:78:TYR:OH	1.73	1.06
24:DA:614:A:O2'	24:DA:615:U:OP2	1.72	1.06
31:DH:88:GLY:HA2	31:DH:125:THR:HG21	1.12	1.06
24:DA:1509:A:O2'	24:DA:1510:G:OP2	1.73	1.06
22:AV:18:G:O2'	22:AV:57:G:N2	1.88	1.06
23:AX:10:A:O2'	23:AX:11:A:OP2	1.71	1.05
57:BA:3161:NMY:O14	57:BA:3161:NMY:C19	2.03	1.05
31:DH:120:GLY:O	31:DH:122:LEU:N	1.90	1.05
6:AF:73:GLU:O	6:AF:76:THR:OG1	1.71	1.05
1:AA:1203:C:OP1	14:AN:1:ALA:N	1.90	1.04
24:BA:83:A:OP1	44:BU:1:ALA:N	1.89	1.04
31:DH:94:ILE:HG13	31:DH:122:LEU:HB3	1.37	1.04
13:CM:85:CYS:SG	13:CM:86:TYR:N	2.29	1.04
31:DH:117:LEU:HD22	31:DH:120:GLY:HA2	1.38	1.04

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1723:G:O6	24:BA:1737:G:O2'	1.73	1.04
37:BN:114:GLU:OE2	37:BN:118:ARG:NH2	1.91	1.04
24:DA:1064:C:N4	24:DA:1070:A:OP1	1.89	1.03
24:DA:1420:A:O2'	24:DA:1421:G:O5'	1.73	1.03
24:BA:1155:A:O3'	40:BQ:54:ARG:NH2	1.89	1.03
1:AA:153:C:N4	1:AA:168:G:O6	1.89	1.03
4:AD:29:ASP:O	4:AD:31:LYS:N	1.91	1.03
24:DA:944:C:P	59:DA:3260:HOH:O	2.16	1.03
1:CA:346:G:OP2	34:DK:108:ARG:NH2	1.91	1.03
24:BA:2484:G:OP2	36:BM:44:ARG:NH1	1.90	1.03
6:CF:15:SER:O	6:CF:17:GLN:N	1.92	1.02
57:DA:3184:NMY:N2	57:DA:3184:NMY:O16	1.92	1.02
57:BA:3161:NMY:O14	57:BA:3161:NMY:H19	1.57	1.02
2:AB:169:GLU:O	2:AB:171:ILE:N	1.93	1.02
4:AD:124:MET:SD	4:AD:146:ARG:NH2	2.32	1.02
24:BA:864:G:O2'	24:BA:914:G:O6	1.76	1.02
31:DH:88:GLY:CA	31:DH:125:THR:HG21	1.88	1.02
14:AN:61:ARG:NH1	59:AN:302:HOH:O	1.91	1.02
24:BA:831:G:OP1	59:BA:3266:HOH:O	1.75	1.02
31:DH:93:SER:OG	31:DH:122:LEU:CD1	2.07	1.01
24:BA:733:G:N7	59:BA:3302:HOH:O	1.91	1.01
55:CY:111:LYS:O	55:CY:113:LEU:N	1.94	1.01
24:BA:819:A:OP2	24:BA:1187:G:N2	1.92	1.01
24:BA:1044:C:O2'	24:BA:1111:A:N1	1.93	1.01
31:DH:116:ARG:NH2	31:DH:132:PHE:C	2.14	1.01
8:AH:36:ILE:O	8:AH:38:ASN:N	1.92	1.01
1:CA:738:C:O2'	1:CA:739:C:O5'	1.78	1.01
15:AO:46:HIS:O	15:AO:48:LYS:N	1.93	1.01
1:CA:1303:C:O2'	59:CA:1868:HOH:O	1.77	1.01
7:AG:5:ARG:O	7:AG:7:ILE:N	1.94	1.01
3:AC:106:VAL:O	3:AC:108:LYS:N	1.93	1.01
24:DA:2256:G:O3'	46:DW:11:ARG:NH2	1.94	1.01
24:BA:1157:G:OP1	57:BA:3162:NMY:C8	2.08	1.00
9:AI:57:MET:SD	9:AI:58:VAL:N	2.34	1.00
24:DA:548:G:O2'	24:DA:549:G:N2	1.94	1.00
4:CD:4:TYR:OH	4:CD:62:ARG:NH1	1.93	1.00
1:CA:1270:G:O2'	1:CA:1313:U:O2'	1.80	1.00
29:BF:96:TRP:CD2	29:BF:99:PHE:HZ	1.60	1.00
22:CV:7:A:C3'	22:CV:8:U:H5'	1.92	1.00
4:CD:147:GLU:O	4:CD:149:ALA:N	1.95	1.00
1:AA:902:G:OP1	57:AA:1657:NMY:N7	1.94	1.00
27:DD:133:THR:O	27:DD:135:GLY:N	1.93	1.00

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:946:A:O2'	1:CA:1333:A:N3	1.95	0.99
24:BA:2278:A:OP1	36:BM:10:ARG:NE	1.94	0.99
1:AA:1226:C:O2'	13:AM:102:THR:O	1.78	0.99
1:AA:375:U:O3'	16:AP:5:ARG:NH2	1.96	0.99
4:AD:15:GLU:OE2	4:AD:63:ARG:NH2	1.95	0.99
2:AB:148:LEU:O	2:AB:150:GLY:N	1.95	0.99
15:CO:89:ARG:NH2	24:DA:716:A:OP2	1.95	0.99
1:AA:261:U:OP2	20:AT:74:ARG:NH2	1.96	0.99
4:CD:117:LEU:O	4:CD:119:SER:N	1.95	0.99
1:AA:927:G:O2'	1:AA:1503:A:N7	1.95	0.99
38:BO:80:GLU:O	38:BO:83:LEU:N	1.95	0.99
24:DA:806:C:OP2	35:DL:41:ARG:NH2	1.95	0.99
57:AA:1656:NMY:H16	57:AA:1656:NMY:C23	1.93	0.98
31:DH:117:LEU:HD21	31:DH:120:GLY:CA	1.93	0.98
8:AH:96:MET:O	8:AH:98:GLY:N	1.96	0.98
2:AB:78:GLU:OE2	2:AB:81:LYS:NZ	1.97	0.98
19:CS:34:TRP:O	19:CS:36:ARG:N	1.96	0.98
57:DA:3188:NMY:O3	49:DZ:30:ARG:NH1	1.96	0.98
24:DA:278:A:N1	24:DA:361:G:O2'	1.95	0.98
22:CV:14:A:H2'	22:CV:15:G:O4'	1.63	0.98
24:BA:1029:A:N1	24:BA:2465:C:O2'	1.96	0.98
1:AA:276:G:OP1	17:AQ:14:SER:OG	1.82	0.98
26:DC:51:ARG:O	26:DC:53:ILE:N	1.96	0.97
31:BH:121:VAL:CB	31:BH:122:LEU:CD2	2.23	0.97
55:CY:155:ARG:O	55:CY:157:GLN:N	1.96	0.97
31:DH:123:ARG:HG3	31:DH:124:THR:H	1.29	0.97
4:CD:77:LYS:O	4:CD:79:ALA:N	1.97	0.97
24:BA:2171:A:O2'	24:BA:2173:A:OP1	1.82	0.97
24:BA:1923:U:O4	57:BA:3161:NMY:N9	1.96	0.97
11:AK:105:PHE:O	11:AK:107:ILE:N	1.98	0.97
24:BA:1204:A:N3	57:BA:3163:NMY:O4	1.96	0.97
1:AA:1015:G:OP1	19:AS:14:HIS:NE2	1.98	0.97
26:DC:49:THR:O	26:DC:51:ARG:NH1	1.98	0.97
24:BA:2731:G:N7	57:BA:3165:NMY:H21	1.78	0.96
6:CF:81:ASN:O	6:CF:83:ALA:N	1.98	0.96
6:AF:77:THR:O	6:AF:79:ARG:N	1.98	0.96
4:AD:13:ARG:NH2	4:AD:32:CYS:SG	2.39	0.96
20:AT:48:GLN:O	20:AT:50:ALA:N	1.99	0.96
1:AA:981:U:OP1	14:AN:8:ARG:NH2	1.98	0.96
24:BA:27:G:O2'	24:BA:28:A:OP2	1.83	0.96
24:DA:1997:C:OP1	27:DD:128:ARG:NE	1.98	0.96
25:DB:60:C:N4	59:DB:303:HOH:O	1.99	0.96

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2706:A:N6	59:DA:3684:HOH:O	1.98	0.96
24:DA:1376:C:OP2	59:DA:3399:HOH:O	1.81	0.96
24:BA:2060:A:N3	59:BA:3494:HOH:O	1.97	0.96
24:DA:395:U:O2'	24:DA:396:G:N7	1.98	0.96
4:CD:187:GLU:O	4:CD:189:SER:N	1.99	0.95
1:AA:626:G:OP1	16:AP:35:ARG:NH2	1.97	0.95
24:DA:1239:G:N7	57:DA:3190:NMY:H62	1.80	0.95
24:BA:526:A:O2'	24:BA:2043:C:O2	1.83	0.95
57:DA:3184:NMY:O17	57:DA:3184:NMY:N2	1.99	0.95
24:DA:564:C:O3'	41:DR:79:ARG:NE	1.99	0.95
24:DA:834:G:HO2'	24:DA:2358:A:HO2'	1.11	0.95
1:AA:1405:G:O5'	57:AA:1655:NMY:N19	1.98	0.95
24:BA:76:C:OP1	48:BY:48:ARG:NH2	1.99	0.95
35:DL:36:LYS:NZ	59:DL:302:HOH:O	1.97	0.95
37:DN:77:ALA:O	37:DN:81:ASN:ND2	1.98	0.95
24:BA:2499:C:OP2	59:BA:3686:HOH:O	1.82	0.95
50:D0:33:SER:OG	50:D0:35:GLU:OE2	1.82	0.95
1:CA:451:A:OP2	16:CP:70:ARG:NH2	1.99	0.95
9:CI:9:THR:O	9:CI:85:ARG:NH1	1.98	0.95
1:CA:877:G:O3'	8:CH:80:ARG:NH2	1.98	0.95
24:DA:1715:G:N2	24:DA:1744:A:OP2	2.00	0.95
1:CA:702:A:O2'	1:CA:703:G:OP1	1.85	0.95
1:CA:429:U:H4'	4:CD:9:LEU:HD23	1.48	0.95
1:CA:501:C:OP1	12:CL:121:ARG:NE	1.99	0.95
31:BH:119:ASN:O	31:BH:121:VAL:N	1.99	0.95
24:BA:2728:U:O2'	24:BA:2729:G:OP2	1.82	0.95
31:DH:117:LEU:HD11	31:DH:121:VAL:HG12	1.47	0.94
57:CA:1672:NMY:N2	57:CA:1672:NMY:O16	1.98	0.94
24:DA:1652:A:OP1	37:DN:8:ARG:NE	2.01	0.94
24:BA:361:G:O2'	24:BA:362:A:O5'	1.84	0.94
28:BE:8:ALA:O	28:BE:10:SER:N	2.00	0.94
1:AA:412:A:OP2	11:CK:16:VAL:HG11	1.66	0.94
11:AK:56:ARG:O	11:AK:58:SER:N	2.00	0.94
24:DA:2021:C:OP2	50:D0:11:LYS:NZ	2.00	0.94
31:BH:121:VAL:HB	31:BH:122:LEU:CG	1.97	0.94
2:AB:57:LEU:O	2:AB:59:LYS:N	2.01	0.94
1:AA:1420:U:O4	57:AA:1656:NMY:H81	1.66	0.94
7:AG:22:LEU:O	7:AG:24:ALA:N	2.01	0.94
57:BA:3165:NMY:O3	57:BA:3165:NMY:N6	1.98	0.94
21:CU:41:PRO:O	21:CU:44:GLU:N	2.00	0.94
1:CA:8:A:N6	4:CD:202:GLU:O	2.01	0.94
53:D3:35:LYS:O	53:D3:40:LYS:NZ	1.99	0.94

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:515:G:N2	1:AA:537:G:N3	2.16	0.94
32:DI:41:PHE:O	32:DI:45:THR:OG1	1.84	0.94
1:AA:1005:A:OP2	1:AA:1024:G:N2	2.00	0.94
24:BA:1253:A:N7	59:BA:3337:HOH:O	2.01	0.94
7:CG:145:ALA:O	7:CG:147:ALA:N	2.00	0.94
24:BA:2780:G:OP2	33:BJ:120:ARG:NH2	2.01	0.94
24:DA:2683:C:O2	34:DK:70:ARG:NH2	2.00	0.94
1:CA:237:G:OP1	17:CQ:42:THR:OG1	1.85	0.94
12:CL:94:ARG:O	12:CL:94:ARG:NH1	2.00	0.94
1:AA:885:G:O2'	1:AA:914:A:N1	2.00	0.93
51:D1:30:PRO:O	51:D1:32:LYS:N	2.02	0.93
57:DA:3186:NMY:C11	57:DA:3186:NMY:HN21	1.80	0.93
22:CV:37:A:H3'	22:CV:38:A:H8	1.33	0.93
22:CV:44:G:H4'	22:CV:45:U:OP1	1.68	0.93
12:CL:87:VAL:HG23	12:CL:90:LEU:HD11	1.50	0.93
24:BA:528:A:C2	24:BA:2043:C:H4'	2.02	0.93
24:BA:1275:A:N1	24:BA:1295:C:O2'	2.01	0.93
24:DA:762:U:OP1	59:DA:3696:HOH:O	1.84	0.93
29:BF:3:LEU:HD11	29:BF:96:TRP:CH2	2.02	0.93
15:CO:7:ALA:O	15:CO:8:THR:OG1	1.86	0.93
51:B1:25:ASN:ND2	51:B1:28:THR:OG1	2.00	0.93
1:CA:259:G:OP1	20:CT:36:TYR:OH	1.84	0.93
24:BA:944:C:OP2	59:BA:3263:HOH:O	1.85	0.93
19:CS:44:MET:SD	19:CS:45:ILE:N	2.42	0.93
49:BZ:2:LYS:NZ	49:BZ:3:THR:O	2.02	0.93
24:DA:182:A:HO2'	24:DA:433:C:HO2'	0.95	0.93
24:BA:1454:C:O5'	37:BN:63:ARG:NH2	2.02	0.93
24:DA:1922:G:O6	57:DA:3184:NMY:N9	2.02	0.93
1:CA:1307:U:O5'	13:CM:98:ARG:NH2	2.02	0.93
1:CA:869:G:N7	59:CA:1821:HOH:O	2.02	0.93
25:BB:91:C:OP1	36:BM:18:ARG:NH1	2.01	0.93
33:DJ:31:GLU:OE2	33:DJ:35:ARG:NH1	2.02	0.92
24:DA:2822:G:O6	37:DN:2:ARG:NH1	2.02	0.92
6:CF:59:TYR:O	6:CF:60:VAL:HG12	1.70	0.92
35:DL:36:LYS:NZ	59:DL:303:HOH:O	1.95	0.92
24:DA:2333:A:O3'	38:DO:9:ARG:NH2	2.03	0.92
24:BA:729:G:OP1	26:BC:12:ARG:NE	2.02	0.92
24:BA:906:U:O2'	36:BM:66:ARG:NH2	2.03	0.92
24:DA:2402:U:O2'	24:DA:2403:C:O5'	1.86	0.92
57:BA:3162:NMY:N6	59:BA:3600:HOH:O	2.03	0.92
1:CA:693:G:OP1	11:CK:127:ARG:NH2	2.03	0.92
9:AI:86:ALA:O	9:AI:88:MET:N	2.02	0.92

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:787:C:OP1	59:DA:3761:HOH:O	1.88	0.92
18:CR:25:ASP:O	18:CR:27:ALA:N	2.03	0.92
24:BA:811:U:OP1	35:BL:29:LYS:N	2.02	0.92
1:AA:938:A:N3	1:AA:1376:U:O2'	2.03	0.92
1:CA:690:G:H2'	1:CA:691:G:O4'	1.68	0.92
26:DC:149:LYS:O	26:DC:149:LYS:CG	2.18	0.92
24:DA:60:G:O2'	24:DA:61:C:O5'	1.88	0.92
31:BH:121:VAL:CG1	31:BH:122:LEU:HD23	1.99	0.92
4:CD:97:ARG:NH1	4:CD:99:ASP:OD2	2.03	0.92
24:BA:614:A:O2'	24:BA:615:U:OP2	1.86	0.92
25:BB:8:C:OP1	38:BO:29:HIS:NE2	2.03	0.91
41:DR:73:LYS:NZ	41:DR:86:GLN:OE1	2.04	0.91
1:AA:1330:U:H4'	13:AM:23:TYR:CE1	2.05	0.91
1:AA:510:A:OP2	59:AA:1762:HOH:O	1.88	0.91
22:CV:27:G:H1	22:CV:43:C:H42	1.17	0.91
1:CA:378:G:C2	1:CA:386:C:O2	2.24	0.91
1:CA:428:G:H4'	4:CD:9:LEU:HD22	1.50	0.91
9:CI:57:MET:O	9:CI:59:GLU:N	2.03	0.91
1:CA:795:C:O2	11:CK:128:ARG:NH2	2.04	0.91
19:CS:3:ARG:O	19:CS:4:SER:OG	1.88	0.91
22:CV:15:G:H2'	22:CV:16:U:C4	2.06	0.91
7:AG:127:ALA:HA	7:AG:135:VAL:HG11	1.53	0.91
29:BF:3:LEU:HD11	29:BF:96:TRP:CZ2	2.01	0.91
4:CD:185:LYS:O	4:CD:187:GLU:N	2.03	0.91
57:BA:3161:NMY:O14	57:BA:3161:NMY:N23	2.02	0.91
26:BC:9:SER:HG	26:BC:12:ARG:NH1	1.66	0.91
1:AA:1535:C:O2'	1:AA:1536:C:OP2	1.87	0.91
57:DA:3190:NMY:H91	57:DA:3190:NMY:H5	1.36	0.91
26:DC:144:GLU:OE1	26:DC:148:GLY:N	2.04	0.91
14:CN:64:CYS:SG	14:CN:83:LYS:NZ	2.42	0.91
1:AA:1364:U:O2'	1:AA:1365:G:O5'	1.89	0.90
1:CA:1524:C:P	11:CK:125:LYS:HE3	2.12	0.90
1:CA:1129:C:O2	1:CA:1130:A:N6	2.04	0.90
1:CA:537:G:OP1	12:CL:110:ARG:NH2	2.04	0.90
25:BB:51:G:OP2	38:BO:67:ASN:ND2	2.04	0.90
9:CI:25:ASN:O	9:CI:60:LYS:N	2.05	0.90
24:BA:636:G:OP2	35:BL:109:LYS:NZ	2.03	0.90
24:DA:1875:G:HO2'	24:DA:1876:A:P	1.94	0.90
4:AD:103:TYR:OH	4:AD:111:ARG:N	2.05	0.90
57:DA:3186:NMY:H172	33:DJ:2:LYS:HZ2	1.36	0.90
24:BA:1356:G:C2	24:BA:1376:C:O2	2.24	0.90
1:CA:1491:G:OP1	12:CL:43:LYS:NZ	2.03	0.90

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1405:G:P	57:AA:1655:NMY:H192	1.86	0.90
1:AA:1135:U:O2'	1:AA:1138:G:O6	1.90	0.90
4:CD:54:GLN:O	4:CD:58:LYS:NZ	2.05	0.90
24:BA:63:A:H4'	43:BT:77:ARG:HD3	1.50	0.90
10:CJ:5:ARG:N	10:CJ:76:ILE:O	2.03	0.90
21:CU:41:PRO:O	21:CU:43:THR:N	2.03	0.90
24:BA:2286:G:OP2	51:B1:24:LYS:NZ	2.04	0.90
4:CD:32:CYS:SG	4:CD:33:LYS:N	2.43	0.90
57:BA:3161:NMY:H19	57:BA:3161:NMY:C14	2.02	0.90
24:BA:2349:G:OP2	53:B3:41:ARG:NH2	2.05	0.90
31:DH:88:GLY:O	31:DH:125:THR:HG23	1.72	0.90
2:CB:203:ASN:OD1	2:CB:204:ASP:N	2.04	0.90
24:DA:2646:C:OP2	24:DA:2732:G:O2'	1.90	0.90
24:DA:1385:A:O2'	24:DA:1396:U:O2	1.90	0.90
8:AH:31:LYS:O	8:AH:33:LYS:N	2.05	0.89
24:BA:308:G:O2'	44:BU:16:LYS:NZ	2.04	0.89
24:BA:1185:G:O2'	59:BA:3373:HOH:O	1.90	0.89
1:AA:1079:G:HO2'	1:AA:1080:A:C5'	1.85	0.89
12:CL:87:VAL:HG22	12:CL:93:VAL:HG21	1.54	0.89
24:DA:221:A:N1	24:DA:265:A:O2'	2.05	0.89
24:BA:2721:A:O2'	24:BA:2873:A:O2'	1.90	0.89
24:DA:971:G:OP2	24:DA:974:G:N2	2.06	0.89
24:DA:2211:A:O2'	24:DA:2212:A:OP1	1.87	0.89
24:DA:2758:A:O4'	59:DA:3822:HOH:O	1.89	0.89
46:DW:20:ARG:CG	46:DW:20:ARG:HH11	1.84	0.89
1:AA:547:A:OP1	4:AD:70:ARG:NH1	2.04	0.89
1:CA:410:G:OP1	4:CD:26:ARG:NH2	2.04	0.89
24:BA:2117:A:N6	24:BA:2170:A:N1	2.19	0.89
2:CB:101:LEU:HG	2:CB:102:THR:N	1.85	0.89
1:AA:673:A:H2'	1:AA:674:G:C8	2.06	0.89
5:CE:77:ASN:O	5:CE:79:GLY:N	2.05	0.89
1:AA:689:C:OP2	11:AK:53:ARG:NH2	2.05	0.89
38:DO:47:VAL:HG13	38:DO:48:LEU:N	1.87	0.89
18:AR:25:ASP:O	18:AR:27:ALA:N	2.06	0.89
29:BF:100:GLU:O	29:BF:102:LEU:N	2.06	0.89
1:CA:1089:G:O2'	1:CA:1090:U:O5'	1.88	0.89
55:CY:164:THR:O	55:CY:166:ALA:N	2.05	0.89
25:BB:45:A:C8	29:BF:91:ARG:CZ	2.56	0.89
29:DF:109:ARG:NH2	29:DF:136:ILE:O	2.05	0.89
15:CO:89:ARG:NH1	24:DA:714:U:C4	2.41	0.89
1:AA:855:U:H2'	1:AA:856:C:H6	1.38	0.89
38:DO:107:ALA:O	38:DO:109:ALA:N	2.04	0.89

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DK:28:SER:O	34:DK:30:ARG:N	2.05	0.89
22:CV:5:G:H2'	22:CV:6:G:H8	1.36	0.89
4:AD:146:ARG:O	4:AD:150:LYS:NZ	2.05	0.89
24:BA:733:G:C6	24:BA:761:A:N7	2.40	0.89
24:BA:2313:C:H5'	29:BF:87:LYS:HE2	1.53	0.89
24:DA:2330:G:O2'	46:DW:44:LYS:NZ	2.05	0.89
1:AA:390:U:O2'	16:AP:28:ARG:NH1	2.05	0.89
24:BA:2720:U:OP1	39:BP:52:ARG:NH2	2.06	0.89
3:AC:63:SER:HA	3:AC:97:VAL:HG13	1.55	0.89
25:DB:45:A:OP1	29:DF:91:ARG:HD3	1.73	0.89
24:BA:2850:A:N7	24:BA:2868:A:O2'	2.05	0.88
9:CI:72:ILE:O	9:CI:74:GLY:N	2.06	0.88
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.08	0.88
1:AA:1432:G:OP2	39:BP:105:LYS:NZ	2.06	0.88
31:DH:94:ILE:H	31:DH:122:LEU:CB	1.86	0.88
31:DH:93:SER:OG	31:DH:122:LEU:CB	2.20	0.88
24:DA:2788:C:O2'	24:DA:2809:A:N3	2.06	0.88
44:DU:32:LYS:NZ	44:DU:64:ILE:O	2.07	0.88
44:DU:32:LYS:HZ1	44:DU:64:ILE:C	1.74	0.88
24:DA:1115:G:O2'	24:DA:1116:G:OP2	1.90	0.88
22:CV:20:U:H3'	22:CV:21:A:H5''	1.53	0.88
36:DM:66:ARG:NH1	36:DM:104:GLU:OE1	2.07	0.88
31:DH:117:LEU:HD21	31:DH:120:GLY:HA2	1.47	0.88
1:AA:376:G:H5''	16:AP:5:ARG:NE	1.89	0.88
8:CH:115:ALA:O	8:CH:117:ARG:N	2.06	0.88
24:DA:1857:G:N2	24:DA:1884:G:O2'	2.07	0.88
1:CA:274:A:H4'	17:CQ:16:LYS:CE	2.04	0.88
32:DI:122:GLU:O	32:DI:125:THR:OG1	1.92	0.88
26:DC:118:GLY:O	26:DC:120:ASP:N	2.07	0.88
9:CI:53:GLU:O	9:CI:55:VAL:N	2.06	0.88
24:BA:2262:U:OP2	46:BW:16:SER:OG	1.90	0.88
1:CA:215:C:O2'	1:CA:465:A:N7	2.05	0.88
35:BL:80:SER:O	35:BL:82:LEU:N	2.07	0.88
48:DY:9:LYS:N	48:DY:12:GLU:OE1	2.07	0.88
21:AU:24:GLU:OE2	21:AU:25:LYS:N	2.07	0.88
21:CU:20:LYS:O	21:CU:22:SER:N	2.06	0.88
1:AA:993:G:O2'	1:AA:994:A:N7	2.07	0.88
24:DA:507:A:C6	57:DA:3189:NMY:N23	2.42	0.88
3:CC:60:PRO:O	3:CC:62:LYS:N	2.07	0.88
31:DH:121:VAL:HG13	31:DH:122:LEU:HD23	1.55	0.88
4:CD:4:TYR:OH	4:CD:67:VAL:O	1.92	0.88
1:AA:1061:G:OP2	3:AC:3:GLN:NE2	2.06	0.88

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:878:A:P	8:CH:80:ARG:NH2	2.46	0.88
18:CR:29:LEU:O	18:CR:31:ASN:N	2.07	0.88
2:CB:101:LEU:O	2:CB:103:ASN:N	2.07	0.88
39:BP:105:LYS:O	39:BP:108:ARG:NH2	2.06	0.88
24:DA:1859:U:O4	57:DA:3187:NMY:N7	2.05	0.88
1:CA:1131:G:O6	1:CA:1143:G:N2	2.07	0.87
38:DO:53:THR:O	38:DO:55:GLU:N	2.07	0.87
24:DA:568:U:O2'	24:DA:570:G:N7	2.05	0.87
24:BA:2248:C:OP2	59:BA:3509:HOH:O	1.91	0.87
30:BG:41:GLU:OE1	30:BG:54:ARG:N	2.06	0.87
24:BA:517:C:OP2	50:B0:9:ARG:NH2	2.07	0.87
29:BF:3:LEU:HD12	29:BF:96:TRP:HZ2	1.34	0.87
57:AA:1655:NMY:C19	57:AA:1655:NMY:C16	2.35	0.87
24:DA:2757:A:N1	30:DG:66:THR:HG21	1.89	0.87
1:AA:854:U:O2'	1:AA:855:U:H5'	1.74	0.87
43:BT:19:LYS:HA	43:BT:22:THR:HG22	1.55	0.87
29:BF:96:TRP:CE2	29:BF:99:PHE:CZ	2.46	0.87
24:DA:1093:G:O2'	24:DA:1098:A:N1	2.07	0.87
24:BA:545:U:H2'	24:BA:547:A:H5'	1.57	0.87
1:AA:1435:G:O6	1:AA:1465:A:N6	2.07	0.87
13:AM:11:ASP:OD1	13:AM:44:LYS:NZ	2.07	0.87
24:DA:2504:U:OP2	59:DA:3487:HOH:O	1.93	0.87
24:BA:1511:G:O2'	24:BA:1512:C:O4'	1.91	0.87
1:AA:901:A:H5''	1:AA:902:G:OP2	1.74	0.86
1:CA:1147:C:O2	9:CI:18:ARG:NH1	2.08	0.86
15:CO:89:ARG:CZ	24:DA:716:A:OP2	2.23	0.86
24:DA:1875:G:O2'	24:DA:1876:A:O5'	1.91	0.86
24:DA:948:C:O2	24:DA:984:A:O2'	1.93	0.86
1:CA:1250:A:N3	1:CA:1370:G:O2'	2.09	0.86
24:BA:2658:C:O3'	30:BG:157:LYS:NZ	2.08	0.86
19:AS:17:LYS:O	19:AS:19:VAL:N	2.08	0.86
24:BA:84:A:OP1	44:BU:5:ARG:NH2	2.08	0.86
8:CH:80:ARG:CZ	8:CH:80:ARG:HB2	2.05	0.86
55:CY:28:ARG:NH2	55:CY:103:PRO:O	2.08	0.86
26:DC:175:LEU:O	26:DC:177:SER:N	2.07	0.86
5:AE:157:ARG:O	5:AE:159:LYS:N	2.08	0.86
1:AA:1178:G:N2	1:AA:1181:G:OP2	2.09	0.86
26:DC:149:LYS:HG3	26:DC:149:LYS:O	1.72	0.86
24:BA:2528:U:N3	24:BA:2535:G:O6	2.08	0.86
28:BE:83:VAL:HG13	28:BE:86:ALA:HB2	1.57	0.86
38:DO:34:HIS:CE1	38:DO:54:VAL:CG1	2.58	0.86
24:DA:2313:C:O4'	29:DF:36:ASN:ND2	2.09	0.86

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1998:A:OP2	27:DD:141:ARG:NH2	2.09	0.86
57:AA:1657:NMY:H5	57:AA:1657:NMY:H91	1.39	0.86
34:DK:111:LYS:O	34:DK:114:LYS:NZ	2.07	0.86
24:BA:2297:A:C2	24:BA:2298:A:C8	2.63	0.86
1:CA:933:G:OP2	7:CG:3:ARG:NE	2.08	0.86
25:BB:2:G:N2	25:BB:3:C:O2	2.09	0.86
24:DA:2062:A:OP2	59:DA:3490:HOH:O	1.94	0.86
1:AA:1264:U:O2	1:AA:1272:G:N2	2.09	0.86
24:BA:2594:C:N4	59:BA:3791:HOH:O	2.09	0.86
1:AA:869:G:N7	59:AA:1819:HOH:O	2.08	0.86
4:CD:19:LEU:O	4:CD:21:LEU:N	2.08	0.86
55:CY:149:SER:O	55:CY:151:ASP:N	2.08	0.86
1:CA:844:G:N7	1:CA:846:G:O2'	2.09	0.86
24:BA:798:G:N7	59:BA:3325:HOH:O	2.08	0.85
22:CV:17:C:H5'	22:CV:18:G:H5''	1.58	0.85
31:DH:117:LEU:CD2	31:DH:120:GLY:CA	2.50	0.85
20:AT:70:ASN:O	20:AT:72:ALA:N	2.08	0.85
24:BA:1265:A:OP2	59:BA:3751:HOH:O	1.94	0.85
1:CA:378:G:N2	1:CA:386:C:O2	2.09	0.85
1:AA:1494:G:N7	57:AA:1655:NMY:N9	2.24	0.85
5:AE:154:ALA:O	5:AE:157:ARG:N	2.08	0.85
4:AD:148:LYS:O	4:AD:150:LYS:NZ	2.08	0.85
1:AA:783:C:C2'	1:AA:784:A:H5'	2.06	0.85
24:BA:2740:A:C6	24:BA:2764:A:C8	2.63	0.85
11:CK:118:HIS:O	11:CK:119:ASN:ND2	2.09	0.85
14:CN:45:VAL:O	14:CN:47:LYS:N	2.08	0.85
1:CA:1089:G:C2'	1:CA:1090:U:O5'	2.24	0.85
1:CA:1250:A:N1	1:CA:1353:G:N2	2.23	0.85
24:DA:2091:C:H4'	47:DX:55:MET:HE1	1.56	0.85
24:DA:6:A:O2'	33:DJ:135:GLN:OE1	1.94	0.85
36:BM:58:LYS:O	36:BM:60:GLN:N	2.08	0.85
1:CA:859:G:O2'	1:CA:860:A:O5'	1.94	0.85
24:BA:787:C:OP1	59:BA:3759:HOH:O	1.95	0.85
2:AB:21:ARG:O	2:AB:190:ASN:ND2	2.09	0.85
5:AE:68:ARG:O	5:AE:70:ASN:N	2.09	0.85
4:CD:187:GLU:OE2	4:CD:188:ARG:NH1	2.09	0.85
7:AG:74:GLU:O	7:AG:89:VAL:HG12	1.76	0.85
4:AD:32:CYS:SG	4:AD:33:LYS:N	2.49	0.85
7:CG:2:PRO:O	7:CG:4:ARG:N	2.08	0.85
2:AB:99:GLY:O	2:AB:103:ASN:N	2.09	0.85
1:CA:1244:G:O6	1:CA:1293:C:N4	2.10	0.85
24:DA:2269:G:OP1	59:DA:3511:HOH:O	1.94	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:587:C:C3'	24:DA:588:U:H5'	2.07	0.85
31:DH:121:VAL:O	31:DH:123:ARG:N	2.10	0.85
20:AT:3:ASN:O	20:AT:5:LYS:N	2.10	0.85
20:CT:32:ILE:N	20:CT:54:MET:SD	2.50	0.85
1:CA:967:C:C1'	9:CI:129:LYS:HE2	2.06	0.85
1:AA:263:A:OP2	20:AT:74:ARG:NH1	2.10	0.84
10:CJ:34:ALA:O	10:CJ:35:GLN:NE2	2.09	0.84
1:CA:1317:C:O5'	14:CN:56:SER:OG	1.94	0.84
27:BD:137:SER:O	27:BD:139:SER:N	2.10	0.84
37:BN:56:LYS:O	37:BN:57:THR:OG1	1.94	0.84
26:BC:62:ARG:O	26:BC:62:ARG:NH2	2.09	0.84
1:CA:493:A:H2'	1:CA:494:G:C4	2.11	0.84
15:CO:57:LEU:O	15:CO:60:VAL:N	2.10	0.84
1:AA:1501:C:OP2	1:AA:1504:G:O2'	1.95	0.84
1:CA:506:G:OP1	59:CA:1762:HOH:O	1.94	0.84
11:AK:13:ARG:O	11:AK:15:GLN:N	2.10	0.84
4:CD:115:ARG:O	4:CD:117:LEU:N	2.09	0.84
1:CA:201:G:N1	1:CA:217:C:O2	2.09	0.84
24:BA:2298:A:OP1	29:BF:70:ARG:NH2	2.10	0.84
1:AA:215:C:O2	1:AA:465:A:N6	2.09	0.84
1:AA:323:U:OP1	20:AT:25:ARG:NH2	2.09	0.84
24:DA:1604:C:OP1	59:DA:3406:HOH:O	1.93	0.84
24:BA:2133:G:O2'	24:BA:2158:A:N6	2.11	0.84
1:CA:1221:G:OP1	19:CS:36:ARG:NH2	2.09	0.84
24:BA:2676:C:OP1	34:BK:31:ARG:NH2	2.11	0.84
24:DA:2230:G:H1'	47:DX:31:ASN:HB3	1.57	0.84
22:CV:74:C:H4'	22:CV:75:C:OP2	1.77	0.84
24:BA:2144:G:N2	24:BA:2146:C:O2	2.09	0.84
24:DA:587:C:H3'	24:DA:588:U:H5'	1.57	0.84
39:BP:64:SER:O	39:BP:66:GLY:N	2.11	0.84
30:DG:94:ARG:O	30:DG:105:SER:OG	1.96	0.84
39:BP:83:ILE:O	39:BP:84:SER:OG	1.95	0.84
13:AM:77:ILE:O	13:AM:79:ARG:N	2.09	0.84
35:BL:29:LYS:NZ	59:BL:303:HOH:O	2.09	0.84
24:BA:1009:A:OP2	59:BA:3783:HOH:O	1.94	0.84
35:BL:96:LYS:NZ	35:BL:103:ILE:O	2.10	0.84
29:BF:96:TRP:HE3	29:BF:99:PHE:CE2	1.93	0.84
1:AA:1014:A:OP1	19:AS:18:LYS:NZ	2.11	0.84
57:DA:3188:NMY:O22	57:DA:3188:NMY:O14	1.96	0.84
9:CI:25:ASN:O	9:CI:61:LEU:N	2.10	0.84
24:DA:2499:C:OP2	59:DA:3686:HOH:O	1.95	0.84
24:BA:993:G:OP1	40:BQ:49:ARG:NH2	2.11	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:D4:11:CYS:SG	54:D4:33:HIS:CE1	2.71	0.84
1:AA:980:C:H3'	1:AA:981:U:C6	2.13	0.84
4:AD:70:ARG:NH1	59:AD:401:HOH:O	2.10	0.84
1:AA:332:G:O2'	20:AT:10:ARG:CZ	2.26	0.84
1:CA:967:C:O4'	9:CI:129:LYS:HE2	1.78	0.84
16:CP:52:LEU:O	16:CP:54:LEU:N	2.11	0.84
2:CB:135:LEU:O	2:CB:139:ARG:N	2.10	0.84
22:CV:37:A:H3'	22:CV:38:A:C8	2.12	0.84
24:DA:189:G:OP2	47:DX:25:LYS:NZ	2.11	0.84
57:DA:3186:NMY:O11	57:DA:3186:NMY:N2	2.10	0.83
24:DA:2355:G:O3'	46:DW:24:LYS:NZ	2.11	0.83
1:CA:536:C:OP1	59:CA:1767:HOH:O	1.95	0.83
27:BD:98:VAL:O	27:BD:100:LEU:N	2.11	0.83
24:BA:2230:G:H1'	47:BX:31:ASN:HB3	1.60	0.83
1:AA:627:G:OP1	16:AP:51:ARG:NH1	2.11	0.83
24:DA:2204:G:H2'	24:DA:2205:A:H8	1.42	0.83
24:DA:600:G:H1'	28:DE:100:MET:HE1	1.59	0.83
1:AA:980:C:O2'	1:AA:981:U:OP1	1.96	0.83
1:CA:501:C:P	12:CL:121:ARG:NE	2.52	0.83
23:AX:4:G:C2'	23:AX:5:A:H5'	2.08	0.83
16:AP:42:ILE:O	16:AP:44:SER:N	2.11	0.83
30:BG:118:ALA:O	30:BG:120:ILE:N	2.10	0.83
31:DH:40:THR:O	31:DH:42:LYS:N	2.10	0.83
39:BP:90:ALA:HB2	39:BP:112:ARG:HA	1.60	0.83
24:DA:1737:G:H2'	24:DA:1738:G:C4	2.13	0.83
38:BO:103:VAL:O	38:BO:105:ALA:N	2.11	0.83
1:CA:751:U:C4	1:CA:752:G:C6	2.66	0.83
13:AM:114:LYS:HB3	13:AM:115:PRO:CD	2.08	0.83
24:DA:733:G:C6	24:DA:761:A:N7	2.47	0.83
24:BA:636:G:HO2'	24:BA:638:G:HO2'	1.08	0.83
24:BA:537:G:OP2	57:BA:3166:NMY:O4	1.95	0.83
24:DA:1188:U:C2'	24:DA:1189:A:H5'	2.09	0.83
24:DA:578:G:OP1	59:DA:3269:HOH:O	1.96	0.83
24:BA:2718:G:O3'	39:BP:95:LYS:NZ	2.10	0.83
22:CV:32:U:H2'	22:CV:33:U:H5'	1.59	0.83
34:BK:92:GLU:N	34:BK:92:GLU:OE1	2.12	0.83
30:BG:138:GLN:OE1	30:BG:139:VAL:N	2.11	0.83
24:DA:1837:C:O2'	24:DA:1927:A:N3	2.12	0.83
16:AP:5:ARG:NH2	16:AP:6:LEU:HB2	1.94	0.83
10:CJ:73:LEU:O	10:CJ:74:VAL:HG12	1.79	0.83
13:AM:20:THR:O	13:AM:22:ILE:N	2.10	0.83
24:DA:2315:G:O2'	29:DF:124:ARG:CZ	2.26	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1393:A:N1	43:BT:19:LYS:NZ	2.26	0.83
26:BC:184:GLU:O	26:BC:186:ASP:N	2.12	0.83
11:CK:27:PHE:O	11:CK:29:ASN:N	2.12	0.83
1:AA:354:G:C2	1:AA:355:C:C6	2.66	0.83
14:CN:32:ASP:O	14:CN:34:ASN:N	2.11	0.83
57:DA:3188:NMY:H1	57:DA:3188:NMY:H172	1.61	0.83
24:DA:2571:U:O2'	27:DD:151:THR:CG2	2.27	0.83
31:DH:81:ALA:HB1	31:DH:149:GLU:OE1	1.79	0.82
4:CD:63:ARG:HA	4:CD:63:ARG:NE	1.94	0.82
6:CF:74:LEU:O	6:CF:77:THR:N	2.12	0.82
57:DA:3186:NMY:H172	33:DJ:2:LYS:NZ	1.94	0.82
25:DB:45:A:OP1	29:DF:91:ARG:NH2	2.11	0.82
28:BE:82:GLY:O	28:BE:84:THR:N	2.11	0.82
1:CA:346:G:P	34:DK:108:ARG:NH2	2.52	0.82
24:DA:1239:G:C5	57:DA:3190:NMY:H62	2.14	0.82
3:CC:39:VAL:O	3:CC:41:GLN:N	2.12	0.82
16:AP:19:VAL:HG21	16:AP:37:GLY:N	1.94	0.82
48:BY:16:THR:O	48:BY:20:ASN:N	2.12	0.82
24:BA:1371:G:N7	59:BA:3405:HOH:O	2.12	0.82
24:DA:2840:C:H5'	37:DN:53:THR:HG21	1.59	0.82
7:CG:122:ASN:O	7:CG:125:SER:OG	1.98	0.82
26:DC:5:CYS:SG	26:DC:15:VAL:HG12	2.19	0.82
20:CT:60:ARG:NH2	59:CT:102:HOH:O	2.12	0.82
24:DA:2330:G:O3'	46:DW:44:LYS:NZ	2.12	0.82
1:AA:1043:G:C6	1:AA:1044:A:N6	2.48	0.82
24:DA:2655:G:O2'	24:DA:2656:U:OP2	1.96	0.82
24:DA:1869:G:N2	24:DA:1873:G:N7	2.28	0.82
28:BE:170:ARG:NH1	28:BE:179:SER:OG	2.13	0.82
1:CA:763:G:H2'	1:CA:764:C:C6	2.15	0.82
1:AA:1032:G:N2	1:AA:1033:G:O4'	2.12	0.82
1:AA:1388:C:H2'	1:AA:1389:C:H6	1.44	0.82
35:BL:123:ARG:O	35:BL:125:LEU:N	2.12	0.82
24:BA:2294:G:O5'	38:BO:10:ARG:NH2	2.13	0.82
4:AD:58:LYS:HA	4:AD:200:ILE:CG1	2.10	0.82
1:AA:846:G:N1	1:AA:847:G:N7	2.27	0.82
1:AA:889:A:H5'	1:AA:891:U:H1'	1.61	0.82
31:DH:117:LEU:HD23	31:DH:118:PRO:C	2.00	0.82
24:DA:944:C:P	59:DA:3262:HOH:O	2.36	0.82
24:BA:2872:A:H2'	24:BA:2873:A:H5'	1.60	0.82
35:BL:78:ARG:HB2	35:BL:113:ALA:HB2	1.60	0.82
28:BE:46:GLN:CB	28:BE:83:VAL:HG11	2.08	0.82
3:AC:73:PRO:O	3:AC:75:ILE:N	2.13	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2483:C:O4'	36:DM:51:ARG:NH2	2.12	0.82
1:AA:642:A:N1	8:AH:86:TYR:OH	2.12	0.82
8:AH:88:ARG:HH11	8:AH:88:ARG:HB2	1.44	0.82
24:DA:1205:A:H5'	57:DA:3190:NMY:H14	1.62	0.82
24:DA:861:A:N3	25:DB:79:G:O2'	2.11	0.82
12:AL:33:VAL:HG22	12:AL:56:ARG:HB3	1.61	0.82
12:CL:5:ASN:O	12:CL:8:VAL:HG12	1.78	0.82
25:BB:113:C:O2'	38:BO:46:GLU:OE1	1.98	0.82
4:AD:58:LYS:HA	4:AD:200:ILE:HG12	1.62	0.82
24:BA:78:U:OP2	48:BY:2:LYS:NZ	2.11	0.82
21:AU:14:VAL:HG23	21:AU:16:LEU:CD2	2.08	0.82
30:DG:36:LEU:O	30:DG:38:ASP:N	2.13	0.82
24:DA:118:A:C8	24:DA:119:A:C8	2.68	0.82
24:BA:2472:G:H3'	24:BA:2473:U:H5'	1.60	0.82
1:AA:132:C:OP1	20:AT:69:LYS:NZ	2.12	0.81
6:CF:91:ARG:O	6:CF:92:THR:OG1	1.98	0.81
29:DF:48:LEU:N	29:DF:51:ASN:OD1	2.12	0.81
24:BA:858:G:O2'	24:BA:2268:A:O2'	1.98	0.81
12:CL:114:ARG:CZ	12:CL:121:ARG:HG3	2.09	0.81
24:DA:1068:G:O6	24:DA:1069:A:N6	2.13	0.81
24:DA:1239:G:N7	57:DA:3190:NMY:C6	2.42	0.81
26:BC:43:ASN:O	26:BC:45:ASN:N	2.12	0.81
13:AM:98:ARG:NE	13:AM:100:GLN:OE1	2.13	0.81
24:BA:2290:G:N2	24:BA:2373:G:O2'	2.11	0.81
1:CA:948:C:OP2	13:CM:107:ARG:N	2.12	0.81
6:CF:21:MET:O	6:CF:23:GLU:N	2.13	0.81
1:AA:783:C:H2'	1:AA:784:A:H5'	1.60	0.81
13:CM:68:ASP:O	13:CM:70:ARG:N	2.13	0.81
38:DO:34:HIS:CE1	38:DO:54:VAL:HG12	2.15	0.81
40:DQ:83:LYS:HE3	40:DQ:84:LYS:HB2	1.61	0.81
24:BA:2094:A:H5''	31:BH:25:TYR:CE2	2.15	0.81
29:BF:116:LEU:O	29:BF:118:ALA:N	2.12	0.81
24:BA:669:G:N3	24:BA:669:G:H2'	1.95	0.81
57:BA:3162:NMY:O11	57:BA:3162:NMY:H1	1.81	0.81
6:AF:70:VAL:O	6:AF:73:GLU:N	2.14	0.81
24:DA:1997:C:OP2	27:DD:129:THR:HG22	1.79	0.81
14:AN:3:GLN:N	14:AN:3:GLN:OE1	2.13	0.81
1:CA:966:G:H2'	9:CI:129:LYS:NZ	1.96	0.81
24:DA:1394:U:OP1	59:DA:3406:HOH:O	1.97	0.81
27:DD:101:PHE:HB3	27:DD:104:VAL:HG21	1.62	0.81
45:BV:83:LYS:O	45:BV:85:LYS:N	2.13	0.81
24:BA:2377:A:N3	38:BO:92:PHE:CE2	2.48	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AI:35:LEU:O	9:AI:38:TYR:N	2.13	0.81
57:BA:3165:NMY:O17	57:BA:3165:NMY:H2	1.78	0.81
24:BA:1176:U:O2'	24:BA:1177:G:O4'	1.98	0.81
1:AA:1160:G:OP1	2:AB:132:LYS:NZ	2.13	0.81
24:BA:1188:U:H2'	24:BA:1189:A:H5'	1.63	0.81
1:AA:1124:G:O2'	1:AA:1145:A:N6	2.12	0.81
38:DO:108:ASP:O	38:DO:111:ARG:N	2.14	0.81
1:AA:377:G:N2	1:AA:387:U:O2	2.14	0.81
24:DA:301:G:OP2	44:DU:81:ARG:NH1	2.13	0.81
24:BA:1666:G:O3'	34:BK:6:THR:HG23	1.79	0.81
22:CV:20:U:H3'	22:CV:21:A:C5'	2.10	0.81
31:DH:88:GLY:CA	31:DH:125:THR:CG2	2.51	0.81
46:DW:20:ARG:HG3	46:DW:20:ARG:HH11	1.45	0.81
4:AD:165:ARG:O	4:AD:167:LYS:N	2.12	0.81
2:CB:146:ASN:O	2:CB:147:SER:OG	1.99	0.81
24:BA:1070:A:O2'	24:BA:1097:U:O3'	1.98	0.81
41:BR:49:ILE:HG13	41:BR:52:PRO:C	2.01	0.81
24:BA:2010:G:C4	24:BA:2011:U:O2	2.33	0.81
27:DD:137:SER:OG	59:DD:302:HOH:O	1.98	0.81
24:BA:2315:G:O2'	29:BF:124:ARG:NE	2.14	0.81
24:DA:1450:G:C6	24:DA:1451:C:N4	2.49	0.81
1:CA:995:C:N3	1:CA:1046:A:O2'	2.12	0.81
32:DI:129:GLU:OE1	32:DI:133:ARG:NH2	2.14	0.81
24:BA:760:G:OP2	59:BA:3301:HOH:O	1.97	0.81
24:BA:1365:A:OP1	47:BX:27:ARG:NH2	2.13	0.81
3:AC:59:ARG:O	3:AC:61:ALA:N	2.14	0.81
44:BU:98:ASN:O	44:BU:99:SER:OG	1.96	0.81
38:BO:103:VAL:O	38:BO:106:LEU:N	2.13	0.81
1:CA:1242:G:N1	1:CA:1296:C:O2	2.13	0.81
24:DA:1060:U:C6	24:DA:1062:G:H5'	2.15	0.81
57:AA:1657:NMY:C5	57:AA:1657:NMY:H91	1.94	0.81
2:AB:151:ILE:O	2:AB:153:ASP:N	2.14	0.81
12:CL:102:LEU:HD12	12:CL:103:ASP:CB	2.11	0.81
1:AA:855:U:H2'	1:AA:856:C:C6	2.16	0.81
55:CY:51:LEU:O	55:CY:53:GLN:N	2.14	0.81
2:CB:18:HIS:O	2:CB:189:THR:OG1	1.97	0.81
24:DA:372:G:O2'	24:DA:400:G:O6	1.97	0.81
24:BA:1859:U:O4	57:BA:3167:NMY:N7	2.14	0.81
2:AB:83:ALA:O	2:AB:89:GLN:NE2	2.13	0.81
57:AA:1655:NMY:H16	57:AA:1655:NMY:H19	0.83	0.81
44:DU:5:ARG:HD2	44:DU:6:ARG:N	1.95	0.81
24:BA:2286:G:P	51:B1:29:LYS:NZ	2.54	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:328:C:H4'	1:CA:329:A:H5''	1.63	0.81
24:DA:1857:G:N2	24:DA:1884:G:N3	2.29	0.81
34:DK:107:LEU:O	34:DK:109:SER:N	2.13	0.81
24:BA:2230:G:H1'	47:BX:31:ASN:CB	2.12	0.80
47:BX:31:ASN:OD1	47:BX:52:ALA:HB2	1.80	0.80
24:BA:2485:G:OP1	36:BM:45:GLN:NE2	2.14	0.80
6:AF:3:HIS:NE2	6:AF:65:GLU:OE1	2.14	0.80
4:AD:93:LEU:O	4:AD:95:GLU:N	2.12	0.80
1:CA:667:G:H4'	15:CO:51:HIS:CD2	2.16	0.80
22:AV:55:U:O2'	22:AV:57:G:N7	2.13	0.80
37:DN:2:ARG:O	37:DN:5:LYS:N	2.13	0.80
22:CV:5:G:H2'	22:CV:6:G:C8	2.16	0.80
24:DA:2091:C:H4'	47:DX:55:MET:CE	2.11	0.80
25:DB:23:G:O6	59:DB:304:HOH:O	1.99	0.80
24:DA:548:G:O2'	24:DA:549:G:C2	2.33	0.80
1:CA:1221:G:OP1	19:CS:36:ARG:NE	2.14	0.80
4:CD:58:LYS:HZ3	4:CD:203:LEU:HB2	1.44	0.80
6:AF:6:ILE:HD12	6:AF:89:VAL:HG22	1.62	0.80
24:DA:585:G:N7	40:DQ:5:ARG:NH1	2.28	0.80
31:DH:93:SER:OG	31:DH:122:LEU:CG	2.30	0.80
20:AT:7:ALA:O	20:AT:9:LYS:N	2.13	0.80
19:CS:48:THR:OG1	19:CS:49:ILE:N	2.09	0.80
7:CG:77:SER:O	7:CG:79:ARG:N	2.14	0.80
24:DA:1178:C:H2'	24:DA:1179:G:C8	2.15	0.80
24:BA:1417:C:O2'	24:BA:1587:G:O2'	1.97	0.80
1:CA:705:G:C6	11:CK:44:TRP:CZ3	2.68	0.80
13:CM:14:HIS:HB3	13:CM:17:ILE:HD11	1.64	0.80
1:AA:1046:A:N6	1:AA:1211:U:O2	2.14	0.80
55:CY:82:ILE:O	55:CY:85:SER:OG	1.99	0.80
2:AB:193:PRO:O	2:AB:195:GLY:N	2.15	0.80
1:CA:1114:C:O2	1:CA:1114:C:H2'	1.81	0.80
24:DA:815:C:OP2	41:DR:85:LYS:NZ	2.15	0.80
12:AL:116:LYS:O	12:AL:117:TYR:CG	2.35	0.80
1:CA:1223:C:OP2	19:CS:78:ARG:NH2	2.15	0.80
24:BA:77:G:H5''	48:BY:2:LYS:CD	2.11	0.80
31:DH:9:VAL:O	31:DH:10:ALA:O	2.00	0.80
1:CA:711:G:O2'	1:CA:712:A:OP1	1.99	0.80
35:DL:87:GLY:O	35:DL:89:VAL:N	2.15	0.80
28:DE:131:THR:OG1	28:DE:162:ARG:NH1	2.15	0.80
4:CD:160:GLU:OE2	4:CD:161:LEU:N	2.15	0.80
24:DA:1997:C:OP1	27:DD:128:ARG:CZ	2.29	0.80
24:DA:1010:A:OP2	59:DA:3784:HOH:O	1.97	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CE:146:ASN:OD1	5:CE:147:MET:N	2.14	0.80
24:DA:1358:G:N7	59:DA:3400:HOH:O	2.13	0.80
24:BA:2313:C:C5'	29:BF:87:LYS:HE2	2.11	0.80
22:CV:56:C:H2'	22:CV:57:G:H5'	1.62	0.80
14:CN:41:ARG:O	14:CN:43:ASN:N	2.15	0.80
24:DA:2484:G:OP1	36:DM:44:ARG:HD3	1.81	0.80
1:CA:1431:A:N6	1:CA:1432:G:O6	2.14	0.80
2:CB:10:LEU:O	2:CB:12:ALA:N	2.15	0.80
24:BA:1188:U:C2'	24:BA:1189:A:H5'	2.12	0.80
24:DA:1901:A:OP2	26:DC:252:LYS:NZ	2.14	0.80
1:CA:613:C:OP2	4:CD:81:ARG:NH2	2.15	0.80
24:BA:2872:A:C2'	24:BA:2873:A:H5'	2.12	0.80
1:AA:413:G:O2'	1:AA:428:G:N2	2.14	0.80
24:DA:1737:G:C4	24:DA:1738:G:N2	2.50	0.80
15:AO:33:THR:OG1	15:AO:34:ALA:N	2.13	0.80
24:DA:2849:U:O2'	24:DA:2866:U:O2	2.00	0.80
41:DR:42:ALA:HA	41:DR:46:GLU:HB2	1.62	0.80
1:AA:1328:C:O3'	13:AM:29:ARG:NH1	2.14	0.79
14:CN:64:CYS:O	14:CN:83:LYS:NZ	2.15	0.79
44:DU:32:LYS:HA	44:DU:32:LYS:HZ3	1.46	0.79
24:DA:587:C:OP2	35:DL:21:ARG:NH1	2.15	0.79
42:BS:47:VAL:O	42:BS:50:VAL:N	2.15	0.79
1:AA:511:C:C2	1:AA:512:U:C6	2.70	0.79
12:AL:25:GLU:O	12:AL:27:CYS:N	2.15	0.79
31:BH:119:ASN:O	31:BH:121:VAL:HG13	1.82	0.79
1:AA:509:A:OP1	4:AD:51:TYR:OH	2.00	0.79
1:CA:501:C:P	12:CL:121:ARG:CZ	2.70	0.79
9:AI:35:LEU:O	9:AI:37:GLN:N	2.15	0.79
8:CH:117:ARG:O	8:CH:120:GLY:N	2.16	0.79
35:DL:77:ILE:HG22	35:DL:110:VAL:HB	1.63	0.79
42:DS:109:ASP:OD1	42:DS:110:ARG:N	2.14	0.79
1:AA:509:A:P	4:AD:51:TYR:OH	2.40	0.79
1:AA:706:A:C5	1:AA:707:U:C5	2.71	0.79
1:AA:664:G:OP1	18:AR:53:ARG:NH2	2.15	0.79
24:DA:2825:G:C3'	24:DA:2826:A:H5'	2.12	0.79
1:AA:981:U:C5	1:AA:982:U:C2	2.70	0.79
22:CV:15:G:H2'	22:CV:16:U:C5	2.17	0.79
13:AM:18:ALA:O	13:AM:21:SER:OG	2.01	0.79
1:CA:722:G:OP1	18:CR:43:ARG:NH2	2.16	0.79
26:BC:97:ASP:N	26:BC:97:ASP:OD1	2.16	0.79
26:BC:220:ARG:NH2	59:BC:408:HOH:O	2.15	0.79
1:AA:174:A:C5	1:AA:175:C:C5	2.70	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1237:C:OP1	59:CA:1868:HOH:O	2.00	0.79
1:CA:1279:G:OP1	10:CJ:9:ARG:NH2	2.15	0.79
28:BE:96:VAL:O	28:BE:97:ASN:HB2	1.81	0.79
1:AA:525:C:OP1	12:AL:86:ARG:NH2	2.16	0.79
26:DC:156:SER:O	26:DC:194:VAL:HG11	1.81	0.79
24:DA:85:G:P	44:DU:5:ARG:HD3	2.23	0.79
1:AA:601:G:N2	1:AA:638:U:O2	2.15	0.79
1:AA:56:U:C4	31:DH:91:PHE:CZ	2.70	0.79
24:BA:2483:C:O2	36:BM:123:LYS:NZ	2.14	0.79
57:AA:1656:NMY:H232	57:AA:1656:NMY:H16	1.64	0.79
2:AB:115:LYS:NZ	1:CA:841:C:O2'	2.14	0.79
24:BA:797:G:OP1	28:BE:55:SER:OG	2.00	0.79
9:CI:130:ARG:NH2	22:CV:33:U:OP2	2.16	0.79
7:CG:111:ARG:NH1	7:CG:119:ARG:O	2.15	0.79
33:BJ:56:VAL:HG22	33:BJ:124:VAL:HA	1.64	0.79
15:AO:87:LEU:O	15:AO:89:ARG:N	2.14	0.79
1:AA:1286:U:O2'	1:AA:1287:A:OP1	2.00	0.79
1:AA:975:A:N1	1:AA:1366:C:O2'	2.15	0.79
1:AA:979:C:H3'	1:AA:980:C:O4'	1.83	0.79
1:AA:376:G:H5''	16:AP:5:ARG:CD	2.12	0.79
1:AA:376:G:C5'	16:AP:5:ARG:NE	2.46	0.79
4:CD:110:THR:OG1	4:CD:113:GLU:OE2	2.00	0.79
24:DA:538:A:OP2	57:DA:3186:NMY:H16	1.81	0.79
1:AA:1305:G:N1	1:AA:1331:G:O2'	2.15	0.79
39:DP:92:ARG:O	39:DP:93:LYS:HB2	1.83	0.79
44:DU:75:ALA:O	44:DU:77:GLY:N	2.16	0.79
1:CA:706:A:HO2'	11:CK:24:HIS:HE2	1.27	0.79
1:CA:203:G:N2	1:CA:215:C:C2	2.50	0.79
30:DG:108:PHE:CZ	30:DG:111:PRO:HA	2.16	0.79
24:BA:475:C:O4'	24:BA:509:C:C5	2.36	0.79
43:BT:60:THR:O	59:BT:203:HOH:O	1.99	0.79
24:BA:1131:G:OP1	33:BJ:82:GLY:HA2	1.82	0.79
24:BA:1059:G:O6	24:BA:1079:C:N4	2.16	0.79
25:BB:44:G:OP1	29:BF:94:ARG:NH1	2.16	0.79
24:DA:2243:U:OP1	59:DA:3743:HOH:O	2.00	0.79
22:CV:47:U:H4'	22:CV:48:C:OP2	1.83	0.79
24:BA:391:A:C5	24:BA:392:U:C6	2.70	0.79
1:AA:1080:A:OP2	5:AE:52:LYS:NZ	2.15	0.79
4:CD:77:LYS:O	4:CD:80:ALA:N	2.16	0.79
12:CL:98:VAL:CG2	12:CL:101:ALA:HB2	2.13	0.79
14:CN:81:ARG:O	14:CN:83:LYS:N	2.16	0.79
24:DA:492:A:OP2	57:DA:3189:NMY:O3	2.01	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BF:163:GLU:N	29:BF:163:GLU:OE1	2.16	0.79
36:DM:81:ARG:CZ	36:DM:81:ARG:HA	2.13	0.78
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.17	0.78
24:BA:1115:G:O2'	24:BA:1116:G:OP2	2.01	0.78
12:CL:102:LEU:HD12	12:CL:103:ASP:HB3	1.64	0.78
24:BA:588:U:H1'	28:BE:85:PHE:CD1	2.19	0.78
24:BA:1417:C:HO2'	24:BA:1587:G:HO2'	1.29	0.78
1:CA:75:G:N1	1:CA:96:U:O4	2.17	0.78
4:AD:10:LYS:O	4:AD:12:SER:N	2.17	0.78
20:CT:32:ILE:HA	20:CT:54:MET:SD	2.23	0.78
24:BA:657:U:H2'	24:BA:658:U:C6	2.18	0.78
1:CA:722:G:O2'	1:CA:723:U:O5'	2.00	0.78
24:BA:2667:C:N3	30:BG:109:SER:OG	2.16	0.78
29:BF:14:LYS:NZ	29:BF:18:GLU:OE2	2.16	0.78
24:BA:997:G:OP1	40:BQ:91:ARG:HG2	1.84	0.78
1:CA:736:C:H2'	1:CA:737:C:C6	2.19	0.78
35:BL:51:GLU:OE1	35:BL:60:ARG:NH1	2.16	0.78
1:CA:1099:G:C2	1:CA:1100:C:O2	2.36	0.78
9:CI:54:LEU:O	9:CI:56:ASP:N	2.15	0.78
2:AB:84:ALA:HA	2:AB:218:ALA:CB	2.13	0.78
24:BA:1210:G:H4'	24:BA:1211:C:H5'	1.64	0.78
24:DA:1666:G:O3'	34:DK:6:THR:HG22	1.83	0.78
5:AE:104:GLY:HA2	5:AE:122:ASN:HA	1.66	0.78
1:AA:537:G:OP1	12:AL:110:ARG:NH2	2.16	0.78
24:DA:536:G:OP2	57:DA:3186:NMY:H81	1.83	0.78
24:BA:545:U:C4	24:BA:547:A:O2'	2.35	0.78
24:DA:2627:G:C2	24:DA:2628:C:O2	2.36	0.78
24:BA:58:G:N3	24:BA:70:G:N2	2.30	0.78
42:DS:25:ARG:NH1	42:DS:74:ILE:O	2.16	0.78
12:AL:110:ARG:NH1	12:AL:112:GLN:O	2.16	0.78
16:AP:43:ALA:O	16:AP:44:SER:OG	2.00	0.78
16:AP:5:ARG:CZ	16:AP:6:LEU:HB2	2.12	0.78
24:DA:1068:G:C6	24:DA:1069:A:C6	2.72	0.78
1:AA:182:A:N1	1:AA:223:A:O2'	2.16	0.78
57:DA:3188:NMY:C17	57:DA:3188:NMY:H1	2.13	0.78
37:DN:2:ARG:HA	37:DN:5:LYS:CD	2.14	0.78
36:DM:44:ARG:HG3	36:DM:44:ARG:HH21	1.47	0.78
31:DH:14:SER:O	31:DH:16:GLY:N	2.17	0.78
24:BA:822:G:OP2	59:BA:3341:HOH:O	2.02	0.78
6:AF:77:THR:HB	6:AF:80:PHE:CE1	2.18	0.78
4:AD:109:ALA:O	4:AD:110:THR:HB	1.84	0.78
24:DA:1653:G:O5'	37:DN:2:ARG:NH2	2.16	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1154:G:OP2	40:DQ:57:ARG:NH1	2.17	0.78
46:DW:56:ASP:HB3	46:DW:58:THR:HG23	1.64	0.78
27:BD:125:TRP:CG	27:BD:160:LYS:HG2	2.19	0.78
24:BA:2207:C:N3	24:BA:2218:G:C2	2.52	0.78
24:DA:1032:A:O2'	24:DA:1033:U:H5'	1.84	0.78
1:AA:52:C:N4	1:AA:359:G:O6	2.15	0.78
24:BA:2470:G:O6	24:BA:2476:A:O2'	2.01	0.78
24:DA:195:A:N7	59:DA:3763:HOH:O	2.17	0.78
1:AA:375:U:O3'	16:AP:5:ARG:CZ	2.32	0.78
4:CD:22:LYS:HZ1	4:CD:26:ARG:HB2	1.48	0.78
24:BA:674:G:H1'	28:BE:69:ARG:HD3	1.65	0.78
24:BA:1202:G:OP2	57:BA:3163:NMY:N6	2.17	0.78
1:CA:878:A:OP1	8:CH:80:ARG:CZ	2.32	0.78
1:CA:386:C:H2'	1:CA:387:U:H5'	1.64	0.78
24:BA:859:G:O2'	24:BA:860:U:OP2	2.01	0.78
12:AL:50:ARG:NH1	12:AL:89:ASP:OD2	2.17	0.78
7:CG:48:GLU:OE2	7:CG:49:THR:N	2.17	0.78
24:DA:2061:G:OP2	59:DA:3491:HOH:O	2.00	0.78
5:AE:104:GLY:CA	5:AE:122:ASN:HA	2.14	0.78
1:AA:1179:A:O3'	9:AI:105:THR:OG1	2.00	0.78
24:DA:544:C:O2'	24:DA:545:U:OP1	2.01	0.78
21:AU:17:ARG:CZ	21:AU:17:ARG:HA	2.14	0.78
24:BA:2197:U:O2'	24:BA:2198:A:OP2	2.02	0.78
1:CA:1397:C:O2'	1:CA:1398:A:OP1	2.02	0.78
1:AA:324:G:N2	1:AA:327:A:C8	2.52	0.78
31:DH:117:LEU:HD21	31:DH:121:VAL:N	1.98	0.78
25:BB:91:C:OP1	36:BM:18:ARG:CZ	2.31	0.78
49:DZ:13:ILE:O	49:DZ:15:ARG:N	2.16	0.78
24:BA:993:G:P	40:BQ:49:ARG:HH21	2.07	0.77
24:BA:2418:A:O2'	24:BA:2419:U:OP1	2.02	0.77
19:CS:43:ASN:ND2	19:CS:43:ASN:O	2.17	0.77
4:CD:54:GLN:NE2	4:CD:202:GLU:OE2	2.17	0.77
1:AA:913:A:H4'	1:AA:914:A:OP1	1.82	0.77
37:DN:2:ARG:HA	37:DN:5:LYS:HD3	1.66	0.77
24:BA:2526:G:N3	54:B4:1:MET:N	2.32	0.77
46:DW:56:ASP:CB	46:DW:58:THR:HG23	2.13	0.77
24:DA:2597:G:H5''	26:DC:239:PHE:O	1.83	0.77
24:BA:320:A:C4	28:BE:131:THR:HG21	2.19	0.77
1:AA:1249:C:O2'	9:AI:71:GLY:O	2.01	0.77
24:BA:2831:G:OP1	27:BD:56:LYS:HE2	1.84	0.77
24:BA:413:C:N4	59:BA:3566:HOH:O	2.17	0.77
1:AA:620:C:H1'	4:AD:132:ILE:HG12	1.65	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2730:C:C5	57:DA:3185:NMY:H22	2.19	0.77
1:AA:846:G:C6	1:AA:847:G:N7	2.53	0.77
24:DA:2014:A:H2'	24:DA:2015:A:C8	2.18	0.77
28:BE:194:LYS:O	28:BE:197:GLU:N	2.16	0.77
15:AO:78:TYR:O	15:AO:80:GLN:N	2.16	0.77
24:BA:612:G:H2'	24:BA:614:A:C8	2.18	0.77
38:DO:53:THR:OG1	38:DO:54:VAL:N	2.13	0.77
1:AA:299:G:H2'	1:AA:300:A:C8	2.18	0.77
24:BA:2874:C:OP1	59:BA:3808:HOH:O	2.01	0.77
1:CA:200:G:N2	1:CA:218:U:O2	2.17	0.77
15:AO:71:LYS:N	15:AO:78:TYR:OH	2.18	0.77
13:CM:17:ILE:N	13:CM:17:ILE:HD12	1.98	0.77
1:CA:1307:U:P	13:CM:98:ARG:NH2	2.57	0.77
12:CL:98:VAL:HG22	12:CL:101:ALA:CB	2.15	0.77
1:CA:857:C:H2'	1:CA:858:G:O4'	1.84	0.77
7:CG:120:LEU:O	7:CG:122:ASN:N	2.16	0.77
41:DR:52:PRO:O	41:DR:53:PHE:CD1	2.38	0.77
1:AA:1122:U:H2'	1:AA:1123:U:H5''	1.66	0.77
11:CK:101:ASN:ND2	21:CU:13:ASP:OD1	2.17	0.77
29:BF:172:PHE:O	29:BF:174:PHE:N	2.18	0.77
24:DA:297:G:O3'	44:DU:84:PHE:CG	2.37	0.77
1:AA:9:G:N2	1:AA:10:A:C4	2.52	0.77
1:AA:671:G:O2'	6:AF:79:ARG:NH2	2.16	0.77
24:DA:31:C:O3'	24:DA:1238:G:H5''	1.82	0.77
6:AF:91:ARG:O	6:AF:92:THR:OG1	2.00	0.77
24:BA:1827:U:H5'	24:BA:1971:U:H5''	1.64	0.77
9:AI:130:ARG:NH2	22:AV:33:U:C5	2.52	0.77
24:DA:446:G:OP2	40:DQ:2:ARG:NE	2.18	0.77
1:AA:793:U:O2	1:AA:1516:G:H4'	1.84	0.77
31:DH:117:LEU:CD1	31:DH:121:VAL:HG12	2.15	0.77
1:AA:1350:A:OP1	9:AI:123:ARG:NH1	2.17	0.77
57:BA:3161:NMY:O17	57:BA:3161:NMY:N2	2.17	0.77
16:CP:6:LEU:HD13	16:CP:17:TYR:CD2	2.19	0.77
26:DC:259:ASN:CG	26:DC:262:THR:HG1	1.87	0.77
24:BA:1183:U:OP1	49:BZ:30:ARG:NH2	2.17	0.77
24:BA:2703:C:O2'	24:BA:2704:C:O5'	2.02	0.77
24:DA:159:G:O2'	24:DA:160:A:O5'	2.01	0.77
30:DG:97:VAL:HG23	30:DG:124:CYS:SG	2.25	0.77
57:BA:3162:NMY:N6	59:BA:3601:HOH:O	2.18	0.77
1:CA:1317:C:P	14:CN:56:SER:HG	2.07	0.77
41:DR:52:PRO:O	41:DR:53:PHE:CG	2.36	0.77
55:CY:44:TYR:OH	55:CY:49:THR:O	2.01	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1132:U:O2'	24:DA:1133:A:H5'	1.84	0.77
31:DH:120:GLY:O	31:DH:122:LEU:CG	2.32	0.77
4:AD:71:GLN:O	4:AD:74:ASN:ND2	2.18	0.77
1:CA:1321:U:O2	19:CS:36:ARG:NH2	2.17	0.77
24:DA:732:C:H2'	24:DA:733:G:O4'	1.85	0.77
42:DS:84:ARG:HB3	42:DS:96:ILE:HG22	1.67	0.77
24:BA:387:U:C2	24:BA:388:G:N7	2.52	0.77
50:D0:24:VAL:O	50:D0:26:SER:N	2.16	0.77
5:CE:108:GLY:O	5:CE:110:ALA:N	2.17	0.77
24:DA:734:A:H2'	24:DA:735:A:H5'	1.66	0.77
53:D3:56:LEU:HD23	53:D3:56:LEU:N	2.00	0.77
24:DA:2057:G:OP2	59:DA:3488:HOH:O	2.02	0.77
1:AA:279:A:N3	1:AA:281:G:N2	2.33	0.77
24:DA:2868:A:C2	24:DA:2869:G:C4	2.73	0.77
12:AL:43:LYS:O	12:AL:45:PRO:CD	2.33	0.77
24:DA:2429:G:OP1	59:DA:3700:HOH:O	2.02	0.77
22:CV:13:C:O2'	22:CV:14:A:H5'	1.85	0.77
1:AA:1138:G:HO2'	1:AA:1140:C:P	2.08	0.77
24:BA:2425:A:O4'	24:BA:2427:C:C6	2.38	0.77
24:DA:1188:U:H2'	24:DA:1189:A:H5'	1.66	0.77
1:AA:846:G:C2	1:AA:847:G:C8	2.72	0.77
24:BA:1428:C:C5	24:BA:1569:A:H5''	2.20	0.77
24:DA:198:C:OP2	59:DA:3763:HOH:O	2.01	0.77
1:AA:267:C:N4	59:AA:1723:HOH:O	2.18	0.77
30:DG:105:SER:HA	30:DG:108:PHE:CE2	2.20	0.77
34:DK:97:THR:O	34:DK:98:ARG:HB3	1.81	0.77
1:AA:435:A:C2	1:AA:436:C:C2	2.73	0.77
24:DA:1439:A:C2	24:DA:1553:A:C4	2.73	0.77
10:AJ:19:ASP:OD1	10:AJ:72:ARG:NH2	2.18	0.77
1:AA:1493:A:OP2	57:AA:1655:NMY:O4	2.03	0.76
1:CA:428:G:H4'	4:CD:9:LEU:CD2	2.14	0.76
22:CV:27:G:H1	22:CV:43:C:N4	1.83	0.76
14:CN:55:SER:O	14:CN:60:GLN:NE2	2.18	0.76
44:BU:15:GLY:O	44:BU:17:ASP:N	2.18	0.76
24:DA:1737:G:N3	24:DA:1738:G:N2	2.33	0.76
24:DA:910:A:C4	36:DM:13:HIS:CE1	2.73	0.76
21:AU:40:LYS:O	21:AU:44:GLU:N	2.18	0.76
24:BA:434:U:O2	24:BA:436:C:N4	2.18	0.76
30:DG:10:VAL:HG23	30:DG:48:THR:HA	1.66	0.76
24:DA:2371:G:H1'	51:D1:38:PHE:CE2	2.21	0.76
4:AD:69:GLU:HA	4:AD:72:PHE:CE1	2.19	0.76
24:BA:2681:C:OP1	27:BD:8:LYS:NZ	2.18	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1651:G:OP1	37:BN:37:THR:HG21	1.84	0.76
24:BA:2375:G:N2	24:BA:2378:A:OP2	2.18	0.76
8:AH:5:ASP:OD2	8:AH:77:ARG:NH1	2.18	0.76
1:AA:44:A:OP2	16:AP:12:LYS:NZ	2.12	0.76
5:AE:101:GLU:O	5:AE:103:THR:N	2.17	0.76
22:CV:27:G:O6	22:CV:43:C:N4	2.18	0.76
1:CA:1134:G:C2	1:CA:1141:C:N4	2.53	0.76
29:BF:125:GLY:O	29:BF:126:ASN:ND2	2.19	0.76
24:BA:2280:G:C2	24:BA:2281:A:C8	2.74	0.76
24:DA:2504:U:OP2	59:DA:3670:HOH:O	2.01	0.76
26:BC:44:ASN:OD1	26:BC:45:ASN:N	2.18	0.76
24:BA:1183:U:O2'	24:BA:1184:U:O5'	2.04	0.76
24:DA:2825:G:H2'	24:DA:2826:A:H5'	1.67	0.76
24:BA:247:G:C8	24:BA:249:C:C6	2.73	0.76
28:BE:136:GLN:O	28:BE:138:LEU:N	2.18	0.76
24:DA:602:A:HO2'	24:DA:604:G:HO2'	1.26	0.76
1:AA:1428:A:C2	1:AA:1473:G:C2	2.74	0.76
24:DA:1968:G:OP1	59:DA:3464:HOH:O	2.01	0.76
11:AK:22:HIS:ND1	11:AK:35:THR:HG21	1.99	0.76
24:BA:108:G:O2'	24:BA:347:A:N3	2.17	0.76
24:DA:2728:U:OP1	57:DA:3185:NMY:O4	2.03	0.76
24:DA:507:A:N1	57:DA:3189:NMY:N23	2.33	0.76
26:DC:68:ARG:HG3	26:DC:128:THR:HG21	1.66	0.76
36:BM:80:VAL:O	36:BM:82:MET:N	2.18	0.76
46:BW:75:LYS:O	46:BW:77:ARG:N	2.19	0.76
5:CE:41:ASP:OD1	5:CE:43:ASN:N	2.18	0.76
37:BN:67:PHE:CE2	37:BN:73:ASN:HB3	2.20	0.76
15:CO:49:ASP:OD1	15:CO:52:SER:OG	2.03	0.76
59:BA:3263:HOH:O	35:BL:36:LYS:NZ	2.09	0.76
18:AR:47:THR:O	18:AR:49:ALA:N	2.18	0.76
1:CA:1109:C:OP2	3:CC:176:HIS:CD2	2.39	0.76
31:DH:116:ARG:NH1	31:DH:133:GLN:HG2	2.00	0.76
14:AN:25:GLU:O	14:AN:27:LYS:N	2.17	0.76
4:AD:171:LEU:HD13	4:AD:173:VAL:HG22	1.68	0.76
1:AA:867:G:N2	1:AA:868:C:C2	2.53	0.76
24:BA:856:G:N2	24:BA:922:C:C2	2.54	0.76
24:BA:1789:A:OP2	26:BC:220:ARG:NH2	2.19	0.76
7:CG:49:THR:O	7:CG:51:ALA:N	2.18	0.76
1:AA:1122:U:H2'	1:AA:1123:U:C5'	2.16	0.76
24:BA:181:A:C2	24:BA:182:A:C4	2.73	0.76
28:DE:15:SER:O	28:DE:17:THR:N	2.19	0.76
24:BA:1347:A:C2	24:BA:1348:C:C2	2.74	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:401:C:N4	59:AA:1775:HOH:O	2.19	0.76
22:CV:43:C:H5'	22:CV:44:G:OP2	1.85	0.76
41:DR:77:PHE:CZ	41:DR:79:ARG:HD3	2.21	0.76
24:DA:565:C:P	41:DR:79:ARG:NE	2.59	0.76
21:AU:16:LEU:O	21:AU:17:ARG:NH1	2.19	0.76
31:BH:26:ALA:O	31:BH:28:ASN:N	2.17	0.76
24:BA:479:A:N3	24:BA:481:G:H5'	2.01	0.76
41:DR:16:GLU:HA	41:DR:98:ILE:HD11	1.68	0.76
3:CC:3:GLN:OE1	3:CC:3:GLN:N	2.19	0.76
24:BA:845:A:C6	24:BA:847:U:C6	2.74	0.76
24:BA:1188:U:O2'	24:BA:1189:A:H5'	1.86	0.76
24:BA:1352:U:O2'	24:BA:1353:A:H5'	1.86	0.76
24:DA:481:G:C4	24:DA:507:A:C2	2.74	0.76
8:CH:23:ALA:HA	8:CH:63:LEU:HD23	1.67	0.76
1:CA:1303:C:O3'	59:CA:1866:HOH:O	2.02	0.76
24:BA:570:G:C4	24:BA:2030:A:N7	2.54	0.76
22:CV:25:C:H2'	22:CV:26:A:C8	2.19	0.76
24:BA:78:U:OP2	48:BY:2:LYS:CE	2.33	0.76
40:BQ:87:VAL:HG12	40:BQ:89:ILE:HG23	1.66	0.76
1:AA:455:G:C2	1:AA:478:A:C2	2.73	0.76
15:CO:89:ARG:CZ	24:DA:714:U:C5	2.69	0.76
24:BA:2731:G:C6	24:BA:2732:G:O6	2.39	0.76
15:CO:6:GLU:OE1	15:CO:7:ALA:N	2.19	0.76
1:CA:195:A:OP2	59:CA:1714:HOH:O	2.04	0.76
24:BA:1172:C:C4	24:BA:1173:U:C2	2.74	0.76
2:CB:144:LEU:HD12	2:CB:145:GLU:N	2.01	0.76
24:BA:2704:C:C4	24:BA:2705:A:C2	2.74	0.76
1:AA:564:C:C5	1:AA:565:U:C5	2.73	0.76
24:BA:1693:U:O2'	26:BC:13:ARG:NH2	2.19	0.75
11:CK:48:GLY:N	11:CK:57:LYS:HE2	2.00	0.75
1:AA:17:U:H1'	1:AA:1080:A:N3	2.01	0.75
4:CD:186:PRO:O	4:CD:188:ARG:N	2.19	0.75
57:DA:3190:NMY:O16	57:DA:3190:NMY:N2	2.19	0.75
20:CT:57:ILE:O	20:CT:59:ASP:N	2.18	0.75
24:BA:2758:A:C2	24:BA:2759:G:H1'	2.21	0.75
3:CC:42:TYR:O	3:CC:45:LYS:NZ	2.16	0.75
24:DA:1175:A:OP1	24:DA:1176:U:O2'	2.04	0.75
39:BP:87:ARG:NH2	39:BP:110:LYS:O	2.18	0.75
24:BA:2639:A:O3'	33:BJ:96:ARG:NH2	2.19	0.75
1:AA:1222:G:OP1	19:AS:78:ARG:NH1	2.18	0.75
22:CV:23:A:H2'	22:CV:24:G:C8	2.20	0.75
1:AA:1036:A:N7	1:AA:1037:C:N4	2.34	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:98:VAL:HG22	12:CL:101:ALA:HB2	1.66	0.75
1:CA:389:A:H2'	1:CA:390:U:H5'	1.68	0.75
1:AA:889:A:H5'	1:AA:891:U:C1'	2.16	0.75
4:AD:120:HIS:O	4:AD:121:LYS:HB2	1.84	0.75
28:DE:98:LYS:NZ	59:DE:403:HOH:O	2.17	0.75
24:BA:2080:A:O5'	47:BX:18:SER:OG	2.04	0.75
1:AA:1182:G:C4'	1:AA:1183:U:H5'	2.16	0.75
1:CA:1014:A:C4	19:CS:34:TRP:CZ2	2.74	0.75
1:CA:974:A:OP1	14:CN:81:ARG:NH2	2.19	0.75
57:DA:3185:NMY:H16	57:DA:3185:NMY:C23	2.15	0.75
2:CB:101:LEU:O	2:CB:104:TRP:N	2.19	0.75
24:DA:1857:G:N3	24:DA:1884:G:C2	2.54	0.75
38:DO:53:THR:OG1	38:DO:65:THR:HG21	1.87	0.75
24:BA:2702:G:C6	24:BA:2703:C:C4	2.74	0.75
1:AA:519:C:OP2	12:AL:47:SER:OG	2.04	0.75
38:BO:6:ALA:O	38:BO:8:ILE:N	2.19	0.75
24:DA:1997:C:OP1	27:DD:128:ARG:NH2	2.19	0.75
24:DA:1604:C:OP2	59:DA:3410:HOH:O	2.05	0.75
24:DA:2483:C:O3'	36:DM:44:ARG:NH2	2.20	0.75
2:CB:162:PHE:HA	2:CB:184:PHE:O	1.84	0.75
24:DA:1274:A:OP1	24:DA:1646:C:N4	2.19	0.75
24:BA:2263:C:H2'	24:BA:2264:C:H5'	1.67	0.75
31:DH:135:HIS:O	31:DH:137:GLU:N	2.19	0.75
24:BA:1653:G:O5'	37:BN:2:ARG:NH1	2.19	0.75
24:DA:2066:C:OP1	59:DA:3508:HOH:O	2.05	0.75
24:DA:784:G:OP2	59:DA:3312:HOH:O	2.04	0.75
24:BA:2415:G:C5	24:BA:2416:C:C5	2.75	0.75
1:CA:787:A:H2'	1:CA:788:U:H5'	1.68	0.75
1:CA:795:C:O2'	11:CK:128:ARG:HG3	1.85	0.75
1:AA:55:A:N6	31:DH:91:PHE:HA	2.01	0.75
1:AA:1256:A:N6	1:AA:1277:C:C2	2.54	0.75
1:CA:1224:U:O2'	1:CA:1322:C:OP1	2.05	0.75
24:BA:2721:A:N3	24:BA:2873:A:C8	2.55	0.75
1:AA:430:A:OP1	4:AD:9:LEU:N	2.19	0.75
1:CA:1215:G:C2	1:CA:1216:A:C8	2.75	0.75
1:CA:918:A:H2'	1:CA:919:A:C8	2.21	0.75
28:BE:46:GLN:HB3	28:BE:83:VAL:HG11	1.68	0.75
1:AA:858:G:N7	1:AA:869:G:C5	2.54	0.75
22:CV:65:G:N1	22:CV:66:U:O2	2.20	0.75
33:BJ:49:ASP:OD1	33:BJ:121:LYS:NZ	2.20	0.75
1:AA:789:U:O2'	1:AA:791:G:N7	2.16	0.75
24:BA:749:A:N1	24:BA:753:A:O2'	2.18	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:CV:8:U:O2	22:CV:21:A:H2	1.68	0.75
5:AE:114:VAL:O	5:AE:118:ALA:N	2.19	0.75
5:AE:83:HIS:HB3	8:AH:96:MET:SD	2.27	0.75
24:DA:1076:C:O3'	32:DI:93:ASN:ND2	2.19	0.75
1:AA:154:U:O2	1:AA:168:G:N2	2.18	0.75
24:DA:545:U:C6	24:DA:547:A:H4'	2.21	0.75
24:DA:1238:G:C6	57:DA:3190:NMY:N6	2.55	0.75
19:CS:62:VAL:HG12	19:CS:66:MET:SD	2.26	0.75
24:DA:2402:U:O2'	24:DA:2403:C:C5'	2.35	0.75
14:CN:57:PRO:O	14:CN:59:ARG:N	2.19	0.75
24:DA:1014:A:OP2	59:DA:3604:HOH:O	2.05	0.75
24:DA:1889:A:N3	24:DA:2086:U:O2'	2.16	0.75
24:BA:2055:C:N4	59:BA:3532:HOH:O	2.19	0.75
1:AA:979:C:N4	1:AA:980:C:N3	2.34	0.75
24:BA:226:A:C6	24:BA:227:A:C6	2.75	0.75
57:AA:1657:NMY:N9	57:AA:1657:NMY:H5	2.01	0.75
34:DK:76:VAL:HB	39:DP:72:VAL:CG2	2.16	0.75
16:AP:19:VAL:CG2	16:AP:36:VAL:HG23	2.17	0.75
1:AA:416:G:N7	59:AA:1757:HOH:O	2.18	0.75
1:AA:976:G:C2	1:AA:1363:A:C2	2.75	0.75
1:CA:692:U:O2'	1:CA:694:A:N7	2.17	0.75
1:AA:625:U:H4'	16:AP:16:PHE:CE2	2.22	0.75
13:CM:8:ASN:ND2	13:CM:66:GLU:OE2	2.19	0.75
24:DA:944:C:OP1	59:DA:3262:HOH:O	2.04	0.75
26:DC:244:VAL:HG22	26:DC:245:THR:O	1.87	0.75
11:CK:15:GLN:O	11:CK:16:VAL:HG13	1.86	0.75
41:DR:20:VAL:HG12	41:DR:22:LEU:HD13	1.67	0.75
24:DA:2710:C:OP2	59:DA:3547:HOH:O	2.04	0.75
1:CA:1202:U:OP2	14:CN:69:ARG:NH2	2.20	0.75
42:DS:45:VAL:O	42:DS:47:VAL:N	2.20	0.75
8:CH:78:VAL:HG12	8:CH:127:CYS:HA	1.69	0.75
25:DB:58:A:OP2	59:DB:301:HOH:O	2.05	0.75
24:DA:1864:U:OP1	24:DA:2410:G:O2'	2.05	0.75
31:DH:95:GLY:HA2	31:DH:122:LEU:HD21	1.69	0.75
1:CA:619:U:N3	4:CD:131:ASN:OD1	2.19	0.75
24:DA:265:A:H4'	24:DA:266:G:OP1	1.85	0.75
22:CV:72:C:O2'	22:CV:73:A:OP1	2.03	0.75
41:DR:49:ILE:HG12	41:DR:53:PHE:N	2.01	0.75
24:BA:1857:G:H1'	24:BA:1884:G:N2	2.02	0.75
25:DB:57:A:OP2	59:DB:301:HOH:O	2.05	0.75
24:DA:140:C:O2'	24:DA:141:G:OP1	2.04	0.75
45:DV:48:MET:HA	45:DV:51:GLN:OE1	1.87	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AI:12:ARG:NH1	9:AI:107:ASP:OD2	2.19	0.74
1:CA:692:U:H1'	1:CA:695:A:N7	2.02	0.74
4:AD:25:VAL:O	4:AD:26:ARG:O	2.05	0.74
1:AA:1149:C:OP1	9:AI:11:ARG:NH1	2.20	0.74
24:DA:833:A:H2'	24:DA:834:G:C8	2.22	0.74
24:DA:532:A:N1	24:DA:2020:A:H1'	2.02	0.74
46:DW:44:LYS:N	46:DW:44:LYS:HE2	2.02	0.74
34:BK:88:ASN:O	34:BK:90:ASN:N	2.19	0.74
27:DD:101:PHE:HD1	27:DD:104:VAL:HG11	1.52	0.74
24:BA:1177:G:H2'	24:BA:1178:C:O4'	1.87	0.74
24:DA:407:G:N2	24:DA:421:C:C2	2.55	0.74
26:BC:51:ARG:O	26:BC:53:ILE:N	2.20	0.74
24:DA:112:U:C5	24:DA:113:U:C5	2.74	0.74
51:B1:31:GLU:N	51:B1:31:GLU:OE2	2.20	0.74
1:CA:78:A:N6	1:CA:91:U:O4	2.20	0.74
25:BB:24:G:N2	25:BB:28:C:O2	2.20	0.74
4:CD:57:GLU:O	4:CD:59:GLN:N	2.20	0.74
4:CD:51:TYR:HA	4:CD:54:GLN:HB2	1.68	0.74
59:DA:3822:HOH:O	30:DG:63:GLN:NE2	2.14	0.74
1:AA:905:U:C5	1:AA:906:A:C8	2.74	0.74
1:CA:266:G:O6	1:CA:270:A:N6	2.20	0.74
25:BB:45:A:C2	25:BB:46:A:C4	2.74	0.74
24:BA:2377:A:N3	38:BO:92:PHE:CZ	2.55	0.74
11:CK:20:VAL:HG13	11:CK:35:THR:CG2	2.17	0.74
28:BE:7:ASP:O	28:BE:9:GLN:N	2.20	0.74
24:DA:1867:G:C2'	24:DA:1868:C:H5'	2.16	0.74
35:DL:2:ARG:O	35:DL:5:THR:N	2.19	0.74
24:DA:2093:G:OP2	31:DH:22:LYS:CE	2.36	0.74
1:CA:1064:G:O6	1:CA:1193:G:N2	2.20	0.74
45:BV:54:ALA:O	45:BV:56:PHE:N	2.20	0.74
1:CA:319:G:N7	59:CA:1735:HOH:O	2.20	0.74
25:BB:11:C:O2'	25:BB:15:A:N6	2.20	0.74
1:AA:55:A:C4	31:DH:91:PHE:CD2	2.75	0.74
24:DA:544:C:O3'	24:DA:545:U:C2	2.41	0.74
1:AA:412:A:P	11:CK:16:VAL:HG11	2.27	0.74
20:CT:57:ILE:O	20:CT:60:ARG:N	2.20	0.74
24:BA:857:G:H5''	46:BW:69:PHE:CD2	2.22	0.74
24:BA:1497:U:O2'	24:BA:1498:C:OP1	2.05	0.74
34:DK:97:THR:O	34:DK:98:ARG:CB	2.33	0.74
40:BQ:39:ILE:HD11	41:BR:77:PHE:CG	2.23	0.74
24:DA:1272:A:OP1	59:DA:3383:HOH:O	2.04	0.74
24:BA:685:A:O2'	24:BA:773:U:O4	2.01	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DF:8:LYS:O	29:DF:10:GLU:N	2.20	0.74
24:BA:391:A:H1'	24:BA:411:G:O4'	1.88	0.74
8:AH:86:TYR:CE2	8:AH:123:GLY:HA2	2.21	0.74
24:BA:1268:A:OP1	59:BA:3382:HOH:O	2.05	0.74
37:DN:2:ARG:O	37:DN:3:HIS:C	2.25	0.74
34:DK:113:MET:SD	34:DK:116:ILE:HD11	2.27	0.74
22:CV:57:G:H2'	22:CV:58:A:H5''	1.68	0.74
21:AU:10:GLU:HB2	21:AU:11:PRO:HD3	1.69	0.74
1:CA:58:C:O2'	1:CA:388:G:N7	2.18	0.74
1:AA:68:G:C5	1:AA:69:G:H1'	2.22	0.74
24:DA:1471:G:C5	24:DA:1472:C:C5	2.75	0.74
1:CA:790:A:N7	1:CA:791:G:C6	2.55	0.74
4:AD:171:LEU:HD13	4:AD:173:VAL:CG2	2.17	0.74
1:AA:1505:G:OP2	59:AA:1877:HOH:O	2.05	0.74
1:CA:711:G:HO2'	1:CA:712:A:P	2.10	0.74
1:CA:1062:U:H2'	1:CA:1063:C:C5	2.22	0.74
24:DA:2407:A:OP1	59:DA:3563:HOH:O	2.05	0.74
46:BW:24:LYS:HD2	46:BW:25:ARG:HG2	1.68	0.74
24:DA:2425:A:O4'	24:DA:2427:C:C6	2.41	0.74
24:BA:398:C:OP1	47:BX:31:ASN:ND2	2.20	0.74
1:CA:706:A:N3	11:CK:44:TRP:CZ2	2.55	0.74
4:AD:49:SER:HB2	4:AD:51:TYR:CE2	2.22	0.74
1:CA:509:A:OP2	59:CA:1760:HOH:O	2.05	0.74
1:AA:1124:G:C2	1:AA:1127:G:N2	2.55	0.74
1:AA:1249:C:O2'	9:AI:70:GLY:O	2.05	0.74
1:AA:356:A:N3	1:AA:368:U:O2'	2.20	0.74
24:BA:1361:G:N7	59:BA:3616:HOH:O	2.19	0.74
24:BA:63:A:O4'	43:BT:77:ARG:NH1	2.21	0.74
24:BA:308:G:N2	24:BA:477:A:C8	2.56	0.74
8:CH:110:VAL:O	8:CH:111:MET:CB	2.36	0.74
22:CV:17:C:O2	22:CV:17:C:H2'	1.86	0.74
24:BA:2744:G:N2	30:BG:142:GLN:OE1	2.20	0.74
7:CG:134:ALA:O	7:CG:137:LYS:N	2.21	0.74
24:DA:2627:G:O2'	24:DA:2781:A:N1	2.16	0.74
24:BA:58:G:C2	24:BA:70:G:C2	2.74	0.74
1:AA:378:G:C2	1:AA:386:C:O2	2.41	0.74
24:BA:527:C:OP1	59:BA:3248:HOH:O	2.04	0.74
2:CB:127:ASP:OD2	2:CB:131:LYS:NZ	2.20	0.74
31:DH:123:ARG:HG3	31:DH:124:THR:N	2.02	0.74
44:DU:85:ARG:NH1	44:DU:101:THR:OG1	2.21	0.74
1:AA:957:U:H1'	1:AA:960:U:C4	2.23	0.74
24:BA:2333:A:O3'	38:BO:9:ARG:NH1	2.20	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CK:24:HIS:O	11:CK:26:SER:N	2.20	0.74
1:CA:1241:G:O2'	59:CA:1869:HOH:O	2.06	0.74
55:CY:156:SER:O	55:CY:160:VAL:HB	1.88	0.74
24:BA:2727:A:C6	24:BA:2728:U:O4	2.41	0.74
1:AA:664:G:P	18:AR:53:ARG:NH2	2.60	0.74
1:AA:106:C:H2'	1:AA:107:G:H5'	1.69	0.74
24:DA:1709:U:O2	24:DA:2859:G:N2	2.20	0.74
2:CB:50:PHE:O	2:CB:52:GLU:N	2.21	0.74
1:CA:1112:C:H5''	1:CA:1113:C:OP2	1.87	0.74
1:AA:1405:G:OP1	57:AA:1655:NMY:N19	2.20	0.74
1:AA:613:C:N4	1:AA:627:G:O6	2.20	0.74
8:AH:88:ARG:HG2	8:AH:89:LYS:N	2.03	0.74
24:BA:572:A:H3'	24:BA:573:U:O4'	1.88	0.74
57:AA:1656:NMY:H16	57:AA:1656:NMY:O22	1.86	0.74
22:CV:23:A:H2'	22:CV:24:G:H8	1.53	0.74
27:DD:151:THR:HG23	27:DD:152:PRO:HD2	1.70	0.74
26:DC:105:ALA:O	26:DC:195:GLY:HA2	1.87	0.74
24:BA:630:G:OP2	53:B3:22:LYS:NZ	2.20	0.74
6:CF:37:HIS:O	6:CF:63:ASN:ND2	2.21	0.74
31:BH:121:VAL:HB	31:BH:122:LEU:HD23	0.75	0.73
1:AA:1317:C:OP1	14:AN:56:SER:OG	2.03	0.73
24:DA:690:G:C3'	26:DC:216:ARG:NH2	2.51	0.73
1:AA:368:U:C6	31:DH:92:GLY:HA3	2.23	0.73
1:CA:414:A:C6	1:CA:431:A:C2	2.76	0.73
11:AK:125:LYS:O	21:AU:34:ARG:NE	2.20	0.73
1:CA:958:A:N6	19:CS:77:THR:O	2.19	0.73
24:BA:1355:G:O2'	24:BA:1356:G:H5'	1.87	0.73
24:BA:1531:C:N4	24:BA:1532:A:C2	2.56	0.73
1:AA:382:A:C5	1:AA:383:A:N7	2.55	0.73
1:AA:292:G:N2	1:AA:309:A:C4	2.56	0.73
12:AL:4:VAL:HG13	12:AL:5:ASN:H	1.51	0.73
1:AA:976:G:OP2	1:AA:1358:U:O2'	2.06	0.73
24:BA:2407:A:C2	24:BA:2408:U:C6	2.76	0.73
57:BA:3165:NMY:H1	57:BA:3165:NMY:N6	2.03	0.73
6:CF:74:LEU:O	6:CF:76:THR:N	2.21	0.73
41:DR:77:PHE:CE1	41:DR:79:ARG:HD3	2.23	0.73
2:CB:22:TYR:HB3	2:CB:190:ASN:HB2	1.70	0.73
24:BA:2657:A:C5'	30:BG:91:VAL:HG21	2.18	0.73
52:D2:13:ASN:O	52:D2:17:GLY:N	2.20	0.73
24:BA:1220:G:C2	24:BA:1221:C:C2	2.76	0.73
33:BJ:99:ARG:O	33:BJ:103:ILE:HG23	1.87	0.73
24:DA:993:G:H1'	41:DR:91:GLN:NE2	2.03	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:152:A:N6	1:CA:170:U:C2	2.56	0.73
4:AD:125:VAL:HG13	4:AD:126:ASN:H	1.53	0.73
24:BA:2286:G:C8	51:B1:24:LYS:HE2	2.24	0.73
24:DA:2204:G:O2'	24:DA:2205:A:O5'	2.06	0.73
24:BA:616:A:OP2	59:BA:3294:HOH:O	2.05	0.73
24:DA:2825:G:C2'	24:DA:2826:A:H5'	2.18	0.73
1:CA:722:G:HO2'	1:CA:723:U:P	2.11	0.73
24:BA:2831:G:OP2	27:BD:59:ARG:NH2	2.21	0.73
37:BN:73:ASN:O	37:BN:76:VAL:HG22	1.88	0.73
34:BK:4:GLU:O	34:BK:5:GLN:HB2	1.87	0.73
29:BF:138:PRO:O	29:BF:140:ILE:N	2.20	0.73
29:BF:103:ILE:HG21	29:BF:174:PHE:CE1	2.24	0.73
24:DA:1059:G:C5	24:DA:1060:U:C4	2.76	0.73
24:BA:572:A:C2	24:BA:2033:A:C2	2.76	0.73
15:CO:11:ILE:HD12	15:CO:12:VAL:N	2.04	0.73
22:CV:60:U:H5''	22:CV:61:C:H5	1.53	0.73
1:CA:154:U:O2	1:CA:168:G:N2	2.22	0.73
24:BA:454:A:H4'	24:BA:455:C:OP2	1.86	0.73
1:AA:1423:G:C5	1:AA:1424:U:C5	2.76	0.73
1:CA:674:G:H2'	1:CA:675:A:C8	2.24	0.73
24:BA:76:C:O3'	48:BY:52:ARG:NH2	2.20	0.73
24:BA:532:A:N3	24:BA:532:A:H2'	2.03	0.73
14:CN:81:ARG:O	14:CN:84:VAL:N	2.21	0.73
1:CA:532:A:H3'	1:CA:533:A:C5'	2.18	0.73
24:DA:1153:C:OP2	59:DA:3358:HOH:O	2.05	0.73
1:CA:74:A:C2	1:CA:97:G:C5	2.77	0.73
24:DA:2532:G:O2'	24:DA:2657:A:N1	2.22	0.73
1:CA:1228:C:OP2	13:CM:110:LYS:NZ	2.20	0.73
24:BA:1760:C:C5	24:BA:1761:C:C5	2.75	0.73
1:AA:345:C:OP2	39:BP:38:ARG:NH2	2.21	0.73
24:DA:1671:U:O4	59:DA:3725:HOH:O	2.06	0.73
24:DA:528:A:C2	24:DA:2043:C:H4'	2.23	0.73
1:CA:1179:A:H2'	1:CA:1180:A:O4'	1.87	0.73
24:DA:1420:A:HO2'	24:DA:1421:G:P	2.12	0.73
2:AB:73:LYS:HG2	2:AB:164:ILE:CD1	2.18	0.73
2:AB:151:ILE:O	2:AB:154:MET:N	2.21	0.73
45:DV:14:LYS:O	45:DV:16:ALA:N	2.21	0.73
24:DA:1131:G:OP1	33:DJ:82:GLY:HA2	1.89	0.73
25:BB:66:A:C2	25:BB:108:A:C2	2.76	0.73
5:CE:39:VAL:CG2	5:CE:67:ALA:HB1	2.19	0.73
1:AA:1359:C:O3'	59:AA:1839:HOH:O	2.06	0.73
1:AA:508:U:H4'	4:AD:51:TYR:CZ	2.23	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:72:GLU:O	13:CM:76:SER:OG	2.03	0.73
9:AI:84:THR:O	9:AI:87:LEU:HD23	1.89	0.73
28:BE:176:ASP:OD2	28:BE:179:SER:OG	2.04	0.73
1:AA:71:A:C8	1:AA:100:G:C2	2.77	0.73
24:BA:1515:A:H1'	24:BA:1557:C:H1'	1.69	0.73
24:DA:1428:C:O2'	24:DA:1569:A:OP2	2.06	0.73
25:BB:60:C:N4	59:BB:301:HOH:O	2.22	0.73
24:DA:2282:G:C4	24:DA:2425:A:N6	2.56	0.73
24:BA:2407:A:C2	24:BA:2408:U:C5	2.77	0.73
16:AP:52:LEU:HD23	16:AP:78:VAL:HG11	1.71	0.73
1:CA:980:C:O3'	14:CN:12:ARG:NH2	2.21	0.73
57:DA:3185:NMY:H232	57:DA:3185:NMY:H16	1.70	0.73
24:BA:2208:C:C2	24:BA:2217:G:N2	2.57	0.73
29:DF:67:THR:OG1	29:DF:85:GLY:O	2.06	0.73
1:AA:950:U:O5'	13:AM:101:ARG:NH2	2.21	0.73
1:CA:104:G:C2'	1:CA:105:G:H5'	2.19	0.73
1:AA:504:C:O4'	1:AA:510:A:C2	2.41	0.73
4:CD:104:ARG:CZ	4:CD:170:TRP:CE2	2.72	0.73
24:DA:1070:A:H3'	24:DA:1071:G:C5'	2.19	0.73
24:DA:1419:A:H4'	24:DA:1419:A:OP1	1.89	0.73
1:AA:412:A:OP1	11:CK:14:LYS:NZ	2.22	0.73
24:DA:761:A:OP2	59:DA:3292:HOH:O	2.05	0.73
14:CN:16:ALA:HA	14:CN:20:PHE:CE2	2.24	0.73
2:CB:106:THR:O	2:CB:108:ARG:N	2.21	0.73
1:CA:966:G:C2	9:CI:129:LYS:HE3	2.24	0.73
24:DA:2848:G:H4'	24:DA:2849:U:OP1	1.88	0.73
5:CE:41:ASP:OD1	5:CE:42:GLY:N	2.21	0.73
4:CD:73:ARG:O	4:CD:76:TYR:CD2	2.41	0.73
30:DG:54:ARG:HD2	30:DG:57:TYR:CE2	2.24	0.73
39:BP:96:LEU:O	39:BP:98:TYR:N	2.22	0.73
35:DL:39:LYS:NZ	59:DL:307:HOH:O	2.17	0.73
12:CL:57:LEU:O	12:CL:59:ASN:N	2.21	0.73
1:AA:17:U:O2'	1:AA:1079:G:N3	2.22	0.73
24:BA:983:A:C6	24:BA:984:A:C2	2.77	0.73
19:CS:31:LEU:O	19:CS:50:ALA:N	2.22	0.73
1:CA:261:U:C4	20:CT:74:ARG:NH2	2.57	0.73
24:DA:464:U:H5'	52:D2:5:PHE:CD1	2.24	0.73
29:DF:155:ILE:HD12	29:DF:155:ILE:C	2.09	0.73
24:BA:550:C:H5''	57:BA:3166:NMY:O12	1.87	0.73
24:DA:2310:C:C2	29:DF:76:PHE:CE2	2.77	0.73
22:CV:64:A:C2'	22:CV:65:G:H5'	2.19	0.73
1:AA:403:C:O2'	1:AA:404:G:H5'	1.89	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1383:A:N1	24:BA:1384:A:C2	2.57	0.73
24:DA:2591:C:H2'	24:DA:2592:G:C8	2.23	0.73
28:DE:40:ARG:HD2	28:DE:92:HIS:CD2	2.24	0.73
1:AA:929:G:C5	1:AA:930:C:C5	2.77	0.72
1:CA:1100:C:N4	1:CA:1103:C:OP1	2.21	0.72
24:BA:2702:G:C5	24:BA:2703:C:C4	2.76	0.72
24:DA:2345:G:H4'	24:DA:2346:A:H5''	1.71	0.72
42:BS:37:THR:HG22	42:BS:38:TYR:CD1	2.23	0.72
39:BP:20:ARG:HB3	39:BP:21:PRO:CD	2.19	0.72
24:BA:762:U:OP1	59:BA:3697:HOH:O	2.06	0.72
25:BB:10:G:C8	25:BB:11:C:C5	2.76	0.72
15:CO:89:ARG:NH2	24:DA:716:A:P	2.62	0.72
1:CA:1222:G:OP1	19:CS:78:ARG:NH1	2.22	0.72
1:AA:403:C:C2'	1:AA:404:G:H5'	2.18	0.72
1:CA:271:C:H2'	1:CA:272:C:C6	2.23	0.72
24:DA:2707:U:O2	37:DN:71:ARG:NH1	2.22	0.72
4:CD:192:SER:OG	4:CD:193:ALA:N	2.21	0.72
24:DA:1050:A:C2	24:DA:2751:G:C4	2.77	0.72
24:DA:1275:A:N1	24:DA:1295:C:O2'	2.19	0.72
24:BA:1288:G:C4	24:BA:1327:A:C2	2.76	0.72
24:BA:2824:C:N4	24:BA:2825:G:N7	2.36	0.72
41:DR:21:ARG:NH2	41:DR:93:PHE:CZ	2.58	0.72
1:AA:625:U:H4'	16:AP:16:PHE:CZ	2.24	0.72
4:AD:103:TYR:CZ	4:AD:111:ARG:HA	2.24	0.72
12:CL:52:VAL:HG23	12:CL:65:SER:O	1.89	0.72
14:CN:15:LEU:O	14:CN:55:SER:OG	2.06	0.72
1:CA:1048:G:H5''	14:CN:2:LYS:HD3	1.70	0.72
1:AA:838:G:C4	1:AA:849:G:N2	2.57	0.72
24:DA:999:U:OP2	59:DA:3356:HOH:O	2.07	0.72
24:DA:601:C:O2	24:DA:605:G:H4'	1.89	0.72
34:DK:8:LEU:HD12	34:DK:19:VAL:O	1.89	0.72
53:D3:26:ALA:O	53:D3:27:ASN:HB2	1.89	0.72
1:AA:518:C:OP2	1:AA:530:G:O2'	2.08	0.72
13:CM:104:THR:O	13:CM:106:ALA:N	2.22	0.72
24:DA:953:G:C2'	24:DA:954:G:H5'	2.19	0.72
17:CQ:12:VAL:HG12	17:CQ:13:VAL:N	2.05	0.72
14:AN:46:LEU:O	14:AN:48:LEU:N	2.22	0.72
24:DA:85:G:OP1	44:DU:5:ARG:HD3	1.88	0.72
1:CA:771:G:C2	1:CA:809:G:C2	2.76	0.72
4:AD:203:LEU:CD1	4:AD:204:TYR:CD1	2.72	0.72
31:DH:82:SER:OG	31:DH:83:LYS:N	2.22	0.72
4:CD:22:LYS:HZ1	4:CD:26:ARG:CG	2.03	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:673:A:C4	1:CA:734:G:N2	2.57	0.72
13:CM:3:ARG:NH1	13:CM:4:ILE:O	2.23	0.72
24:DA:1071:G:OP2	24:DA:1088:A:O2'	2.07	0.72
17:AQ:18:GLU:O	17:AQ:19:LYS:CB	2.36	0.72
35:BL:96:LYS:NZ	35:BL:105:ILE:O	2.23	0.72
24:DA:1009:A:N3	24:DA:1153:C:O2'	2.23	0.72
24:DA:910:A:C6	24:DA:911:A:C6	2.77	0.72
24:DA:1648:U:OP1	59:DA:3383:HOH:O	2.06	0.72
27:DD:14:ILE:HB	27:DD:22:ILE:HG23	1.71	0.72
2:AB:209:ALA:O	2:AB:213:TYR:CD2	2.42	0.72
24:DA:1370:C:OP2	59:DA:3402:HOH:O	2.06	0.72
24:BA:230:G:C2	24:BA:231:A:C8	2.77	0.72
2:CB:83:ALA:O	2:CB:86:SER:N	2.22	0.72
1:CA:735:C:H2'	1:CA:736:C:C6	2.24	0.72
15:CO:75:VAL:HA	15:CO:78:TYR:CZ	2.23	0.72
24:DA:2308:G:O6	24:DA:2311:A:N7	2.23	0.72
24:DA:1471:G:C6	24:DA:1472:C:C4	2.78	0.72
24:BA:630:G:H3'	24:BA:631:A:H5''	1.72	0.72
3:AC:43:LEU:O	3:AC:46:GLU:N	2.22	0.72
13:AM:88:GLY:O	13:AM:91:HIS:N	2.22	0.72
38:BO:17:LYS:O	38:BO:20:GLU:N	2.22	0.72
4:CD:10:LYS:O	4:CD:14:ARG:N	2.23	0.72
11:CK:36:ASP:OD1	11:CK:40:ASN:N	2.22	0.72
17:AQ:17:MET:SD	17:AQ:20:SER:OG	2.48	0.72
41:DR:77:PHE:CZ	41:DR:79:ARG:CD	2.72	0.72
3:AC:100:GLN:HG2	3:AC:101:ILE:N	2.04	0.72
24:BA:2702:G:C5	24:BA:2703:C:C5	2.77	0.72
24:DA:1031:G:H4'	54:D4:6:SER:HB2	1.70	0.72
24:DA:944:C:OP2	59:DA:3260:HOH:O	2.02	0.72
1:AA:1095:U:OP2	59:AA:1852:HOH:O	2.05	0.72
28:BE:70:SER:OG	28:BE:71:GLY:N	2.18	0.72
2:CB:23:TRP:HA	2:CB:190:ASN:HA	1.72	0.72
24:BA:2345:G:C4	24:BA:2381:A:C2	2.77	0.72
24:BA:2011:U:C5	24:BA:2012:G:C4	2.77	0.72
24:BA:2332:C:OP1	46:BW:77:ARG:NH1	2.22	0.72
1:AA:382:A:C4	1:AA:383:A:N7	2.58	0.72
1:CA:563:A:N6	59:CA:1704:HOH:O	2.23	0.72
2:CB:43:LEU:O	2:CB:45:LYS:N	2.23	0.72
24:BA:132:G:N2	24:BA:148:U:C2	2.58	0.72
24:BA:1786:A:C5	24:BA:1938:A:C2	2.77	0.72
24:BA:2554:U:C4	24:BA:2555:U:O4	2.43	0.72
1:CA:671:G:H4'	6:CF:79:ARG:CZ	2.19	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:958:A:C8	19:CS:55:ARG:NH2	2.58	0.72
24:DA:1357:C:OP2	59:DA:3401:HOH:O	2.08	0.72
24:DA:2203:U:H5''	24:DA:2204:G:OP1	1.90	0.72
1:AA:1140:C:O2'	1:AA:1141:C:O5'	2.06	0.72
1:CA:1349:A:OP2	9:CI:120:LYS:NZ	2.20	0.72
24:BA:2343:U:O2'	24:BA:2373:G:O2'	2.08	0.72
12:AL:101:ALA:C	12:AL:102:LEU:HG	2.10	0.72
24:BA:1530:G:O6	24:BA:1541:C:N4	2.22	0.72
13:AM:31:LYS:O	13:AM:33:ILE:N	2.23	0.72
2:AB:225:ARG:O	2:AB:226:SER:OG	2.02	0.72
24:BA:258:G:O2'	35:BL:104:GLN:NE2	2.23	0.72
46:DW:51:VAL:CG2	46:DW:51:VAL:O	2.37	0.72
31:BH:122:LEU:O	31:BH:123:ARG:HG2	1.89	0.72
8:AH:32:LEU:O	8:AH:35:ALA:N	2.23	0.72
12:AL:107:VAL:HG12	12:AL:108:LYS:N	2.04	0.72
4:CD:58:LYS:CD	4:CD:203:LEU:HD13	2.20	0.72
24:DA:1857:G:C2	24:DA:1884:G:N3	2.58	0.72
43:BT:30:ILE:O	43:BT:31:VAL:HG13	1.89	0.72
1:CA:533:A:OP1	59:CA:1763:HOH:O	2.08	0.72
3:CC:156:ARG:HG2	3:CC:193:TYR:CE1	2.25	0.72
19:AS:17:LYS:HG3	19:AS:18:LYS:N	2.04	0.72
29:BF:28:PRO:HA	29:BF:158:THR:HB	1.70	0.72
31:DH:82:SER:HB3	31:DH:146:VAL:CG2	2.20	0.72
4:CD:62:ARG:HD3	4:CD:72:PHE:CE2	2.25	0.72
1:AA:155:A:C2	1:AA:167:A:C2	2.77	0.72
1:CA:386:C:H2'	1:CA:387:U:C5'	2.20	0.72
31:BH:29:PHE:CG	31:BH:30:LEU:N	2.57	0.72
24:BA:1006:C:OP1	59:BA:3782:HOH:O	2.06	0.72
36:BM:81:ARG:O	36:BM:82:MET:HG2	1.89	0.72
15:AO:31:LEU:HD12	15:AO:32:LEU:N	2.04	0.72
24:BA:2641:G:O3'	33:BJ:78:THR:OG1	2.08	0.72
2:CB:218:ALA:O	2:CB:222:ARG:HG2	1.90	0.72
24:BA:2415:G:C4	24:BA:2416:C:C5	2.77	0.71
5:AE:156:LYS:HE3	8:AH:44:GLY:HA3	1.72	0.71
1:AA:390:U:C2	1:AA:391:G:C8	2.78	0.71
1:CA:413:G:O2'	1:CA:414:A:OP1	2.07	0.71
13:CM:49:SER:O	13:CM:51:GLY:N	2.23	0.71
24:DA:733:G:C6	24:DA:761:A:C8	2.78	0.71
55:CY:80:LYS:HG3	55:CY:81:ALA:N	2.05	0.71
1:AA:1388:C:H2'	1:AA:1389:C:C6	2.25	0.71
26:BC:220:ARG:NE	59:BC:407:HOH:O	2.23	0.71
24:BA:812:C:H4'	40:BQ:12:ARG:HH12	1.55	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BQ:71:ASN:OD1	40:BQ:106:THR:HG23	1.90	0.71
8:CH:51:VAL:O	8:CH:53:GLY:N	2.23	0.71
24:DA:2034:U:O4	59:DA:3576:HOH:O	2.07	0.71
4:AD:101:VAL:O	4:AD:101:VAL:HG13	1.89	0.71
24:BA:2073:C:H5''	26:BC:227:VAL:HG22	1.72	0.71
1:AA:542:G:C2	1:AA:543:U:C5	2.77	0.71
1:AA:59:A:C5	1:AA:354:G:C6	2.78	0.71
1:AA:411:A:H4'	1:AA:412:A:OP1	1.90	0.71
4:CD:200:ILE:O	4:CD:203:LEU:N	2.22	0.71
24:BA:1267:U:H2'	24:BA:1268:A:H5''	1.71	0.71
24:DA:2201:G:C4	24:DA:2202:U:C6	2.78	0.71
13:AM:68:ASP:O	13:AM:71:ARG:N	2.23	0.71
24:BA:63:A:H4'	43:BT:77:ARG:CD	2.19	0.71
15:AO:89:ARG:NH2	24:BA:714:U:OP2	2.22	0.71
1:CA:135:C:N3	16:CP:1:MET:HB2	2.05	0.71
26:BC:259:ASN:O	26:BC:261:ARG:N	2.23	0.71
13:CM:33:ILE:O	13:CM:35:ALA:N	2.23	0.71
13:CM:54:ASP:OD1	13:CM:55:THR:N	2.23	0.71
24:BA:1440:U:O4	59:BA:3634:HOH:O	2.08	0.71
24:BA:1866:A:C2	24:BA:1876:A:C4	2.78	0.71
24:BA:250:G:C6	24:BA:251:A:C6	2.79	0.71
24:BA:85:G:OP2	44:BU:6:ARG:NH2	2.23	0.71
1:CA:1221:G:OP1	19:CS:36:ARG:CZ	2.38	0.71
24:BA:2125:G:O2'	24:BA:2173:A:N1	2.23	0.71
1:CA:376:G:H4'	16:CP:5:ARG:HD2	1.70	0.71
26:DC:116:GLN:O	26:DC:127:ASN:ND2	2.23	0.71
24:BA:1394:U:H4'	24:BA:1603:A:H4'	1.71	0.71
1:AA:163:C:H2'	1:AA:163:C:O2	1.89	0.71
1:AA:720:C:H1'	18:AR:39:ILE:HD11	1.72	0.71
1:CA:362:G:O3'	12:CL:30:LYS:NZ	2.24	0.71
1:CA:688:G:N1	1:CA:700:G:N7	2.38	0.71
24:DA:1824:G:OP1	26:DC:51:ARG:HD3	1.89	0.71
12:CL:87:VAL:CG2	12:CL:90:LEU:HD11	2.21	0.71
24:BA:584:C:P	40:BQ:5:ARG:HD3	2.30	0.71
24:BA:547:A:N7	24:BA:548:G:N3	2.37	0.71
24:DA:1301:A:O2'	24:DA:1302:A:H3'	1.90	0.71
24:DA:142:A:C2'	24:DA:143:C:O5'	2.39	0.71
24:BA:630:G:H3'	24:BA:631:A:C5'	2.20	0.71
13:CM:31:LYS:O	13:CM:33:ILE:N	2.23	0.71
24:BA:2529:G:O4'	30:BG:174:LYS:HD2	1.90	0.71
1:CA:176:C:O2	1:CA:177:G:C4	2.43	0.71
24:DA:1939:U:OP1	24:DA:2604:U:O2'	2.06	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2376:A:C2	38:BO:99:TYR:CZ	2.78	0.71
4:AD:14:ARG:HG3	4:AD:38:PRO:HB3	1.70	0.71
1:CA:1239:A:N6	1:CA:1297:G:O4'	2.23	0.71
1:CA:947:G:HO2'	1:CA:1306:A:HO2'	1.33	0.71
9:AI:57:MET:O	9:AI:59:GLU:N	2.22	0.71
1:AA:428:G:H5'	4:AD:9:LEU:HD11	1.71	0.71
24:BA:2352:A:H2'	24:BA:2353:G:H5'	1.72	0.71
28:BE:84:THR:HG22	28:BE:85:PHE:CD2	2.25	0.71
2:AB:111:ILE:HA	2:AB:114:LEU:CD2	2.21	0.71
9:CI:130:ARG:NH1	22:CV:35:A:OP2	2.23	0.71
24:BA:2263:C:C2'	24:BA:2264:C:H5'	2.20	0.71
24:DA:2591:C:H2'	24:DA:2592:G:H8	1.54	0.71
1:CA:782:A:N7	1:CA:783:C:N3	2.39	0.71
1:CA:825:A:O2'	8:CH:9:ASP:OD1	2.06	0.71
1:CA:189:A:N6	1:CA:190:A:N1	2.38	0.71
1:AA:337:G:C6	1:AA:338:A:N6	2.59	0.71
1:CA:585:G:N3	1:CA:879:C:H4'	2.05	0.71
1:AA:933:G:OP1	7:AG:5:ARG:NH2	2.24	0.71
24:BA:2387:U:O2'	46:BW:41:ARG:NH1	2.24	0.71
21:AU:33:ARG:NH1	23:AX:6:G:OP1	2.24	0.71
24:BA:9:G:C6	24:BA:2629:U:C6	2.78	0.71
35:DL:78:ARG:N	35:DL:81:ASP:OD2	2.23	0.71
2:AB:51:ASN:OD1	2:AB:52:GLU:N	2.23	0.71
5:AE:149:SER:O	5:AE:153:VAL:N	2.23	0.71
1:AA:1015:G:OP1	19:AS:14:HIS:CE1	2.44	0.71
24:BA:2014:A:C2	24:BA:2015:A:N1	2.59	0.71
24:DA:2204:G:O6	24:DA:2221:G:C4	2.42	0.71
24:DA:2307:G:N2	24:DA:2311:A:O2'	2.23	0.71
15:AO:33:THR:O	15:AO:36:ILE:N	2.23	0.71
24:DA:1002:G:N7	59:DA:3739:HOH:O	2.23	0.71
1:AA:377:G:C2	1:AA:387:U:O2	2.43	0.71
22:AV:72:C:H2'	22:AV:73:A:O5'	1.90	0.71
24:DA:866:A:C2'	24:DA:867:C:O5'	2.39	0.71
31:BH:14:SER:O	31:BH:16:GLY:N	2.23	0.71
26:BC:107:LYS:O	26:BC:109:LEU:N	2.23	0.71
16:CP:18:GLN:OE1	16:CP:35:ARG:NH1	2.24	0.71
24:BA:991:C:N4	57:BA:3162:NMY:H14	2.06	0.71
8:AH:40:LEU:CB	8:AH:46:ILE:HG21	2.21	0.71
1:CA:716:A:N3	11:CK:120:GLY:HA2	2.06	0.71
13:CM:19:LEU:O	13:CM:25:VAL:HG11	1.91	0.71
20:AT:79:LEU:O	20:AT:82:GLN:N	2.23	0.71
21:CU:37:PHE:CD1	21:CU:38:TYR:N	2.58	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:258:G:OP2	59:CA:1723:HOH:O	2.08	0.71
44:BU:43:LYS:O	44:BU:58:VAL:N	2.23	0.71
1:AA:177:G:H2'	1:AA:178:C:H5'	1.71	0.71
50:D0:25:THR:O	50:D0:27:LEU:N	2.24	0.71
39:DP:29:VAL:HG13	39:DP:79:VAL:HG12	1.73	0.71
1:CA:592:G:C6	1:CA:593:U:C2	2.79	0.71
26:DC:123:ILE:O	26:DC:123:ILE:HG23	1.89	0.71
1:AA:509:A:H2'	1:AA:510:A:C8	2.25	0.71
1:AA:515:G:C2	1:AA:537:G:N3	2.59	0.71
1:CA:686:U:O2	1:CA:687:A:N7	2.23	0.71
57:DA:3190:NMY:C1	57:DA:3190:NMY:O16	2.38	0.71
24:DA:2012:G:OP1	42:DS:98:LYS:CD	2.39	0.71
45:BV:51:GLN:HA	45:BV:56:PHE:CD2	2.26	0.71
8:CH:40:LEU:HB3	8:CH:46:ILE:HG12	1.72	0.71
24:BA:91:A:H4'	24:BA:92:U:O5'	1.88	0.71
47:DX:4:CYS:SG	47:DX:7:THR:HG22	2.30	0.71
30:BG:97:VAL:HG23	30:BG:124:CYS:SG	2.31	0.71
24:DA:2886:A:C2	24:DA:2887:A:H1'	2.26	0.71
24:BA:1163:G:C2	24:BA:1164:C:C6	2.79	0.71
1:AA:1492:A:C2'	1:AA:1493:A:O5'	2.39	0.71
14:AN:24:ALA:O	14:AN:26:LEU:N	2.23	0.71
24:DA:691:C:O2'	24:DA:692:C:H5'	1.90	0.71
4:AD:91:LEU:O	4:AD:93:LEU:N	2.23	0.71
1:CA:738:C:O2'	1:CA:739:C:C5'	2.36	0.71
24:DA:1420:A:O2'	24:DA:1421:G:P	2.48	0.71
9:AI:46:MET:SD	9:AI:49:ARG:HB2	2.31	0.71
24:DA:1356:G:C2	24:DA:1357:C:C2	2.79	0.71
24:BA:2015:A:C2	50:B0:2:VAL:CG2	2.73	0.71
25:BB:91:C:P	36:BM:18:ARG:CZ	2.78	0.71
3:AC:56:VAL:O	3:AC:66:VAL:O	2.09	0.71
3:AC:78:GLY:O	23:CX:2:A:N6	2.23	0.71
2:AB:76:ALA:HB1	2:AB:210:VAL:HG11	1.73	0.71
24:BA:1805:A:N3	26:BC:49:THR:CG2	2.54	0.71
2:CB:91:PHE:O	2:CB:150:GLY:N	2.24	0.71
4:CD:17:THR:O	4:CD:18:ASP:CB	2.39	0.71
1:AA:1181:G:O2'	1:AA:1182:G:C5	2.43	0.70
24:BA:2691:C:N3	24:BA:2719:G:N2	2.38	0.70
1:AA:431:A:H2'	1:AA:432:A:O4'	1.90	0.70
24:DA:1361:G:C6	24:DA:1362:C:N4	2.58	0.70
24:DA:2204:G:O6	24:DA:2221:G:C5	2.44	0.70
3:AC:40:ARG:O	3:AC:44:THR:OG1	2.09	0.70
24:DA:1857:G:N3	24:DA:1884:G:N2	2.39	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:CY:28:ARG:NH1	55:CY:29:THR:O	2.23	0.70
24:BA:2757:A:C2	24:BA:2758:A:C8	2.78	0.70
24:BA:2346:A:H3'	24:BA:2347:C:H5''	1.71	0.70
24:BA:1647:U:OP1	59:BA:3390:HOH:O	2.09	0.70
24:DA:1601:G:OP1	43:DT:62:VAL:HG21	1.89	0.70
24:BA:1298:C:C2	24:BA:1643:G:N2	2.59	0.70
30:BG:116:LEU:CD2	30:BG:121:THR:HA	2.21	0.70
42:DS:73:LYS:HB2	42:DS:106:VAL:CG1	2.20	0.70
33:DJ:23:LYS:HE3	33:DJ:142:ILE:HG22	1.73	0.70
24:BA:1959:G:C2'	24:BA:1960:A:H5'	2.21	0.70
1:AA:1530:G:O2'	1:AA:1531:A:OP2	2.09	0.70
24:DA:1309:G:OP1	52:D2:9:VAL:HG12	1.91	0.70
57:AA:1655:NMY:O11	57:AA:1655:NMY:H1	1.90	0.70
1:AA:1320:C:C2	19:AS:72:GLY:HA3	2.26	0.70
1:AA:394:G:N2	1:AA:395:C:H1'	2.06	0.70
1:CA:666:G:C2	1:CA:741:G:C4	2.79	0.70
1:AA:1104:G:N2	1:AA:1105:A:C4	2.59	0.70
24:DA:733:G:O6	24:DA:761:A:C8	2.44	0.70
1:CA:484:G:H4'	1:CA:485:U:H5'	1.73	0.70
29:BF:121:PHE:O	29:BF:123:GLY:N	2.24	0.70
45:BV:14:LYS:O	45:BV:16:ALA:N	2.25	0.70
1:AA:175:C:H2'	1:AA:176:C:H6	1.55	0.70
24:BA:996:A:C2	24:BA:997:G:C8	2.79	0.70
51:D1:3:GLY:O	51:D1:5:ARG:N	2.23	0.70
3:CC:153:VAL:O	3:CC:165:THR:O	2.09	0.70
34:BK:39:ILE:CG2	34:BK:40:LYS:N	2.54	0.70
29:DF:35:LEU:HA	29:DF:153:ILE:HA	1.72	0.70
1:AA:532:A:C2	1:AA:1207:G:H4'	2.26	0.70
29:BF:96:TRP:CG	29:BF:99:PHE:CZ	2.78	0.70
24:DA:1079:C:N4	24:DA:1088:A:OP1	2.25	0.70
24:BA:1186:G:OP1	59:BA:3578:HOH:O	2.09	0.70
24:BA:811:U:OP1	35:BL:29:LYS:HG3	1.91	0.70
24:BA:1857:G:N2	24:BA:1884:G:O2'	2.24	0.70
24:BA:1414:C:N3	24:BA:1588:G:N2	2.38	0.70
24:BA:71:A:O3'	43:BT:6:ARG:NH2	2.23	0.70
24:DA:2066:C:OP1	59:DA:3506:HOH:O	2.09	0.70
24:BA:2446:G:OP2	59:BA:3496:HOH:O	2.09	0.70
38:DO:84:GLU:OE1	38:DO:85:LYS:N	2.24	0.70
24:BA:1303:G:HO2'	24:BA:1642:G:HO2'	1.37	0.70
1:CA:1524:C:OP2	11:CK:125:LYS:HE3	1.90	0.70
1:AA:8:A:N6	4:AD:202:GLU:O	2.23	0.70
1:AA:711:G:O2'	1:AA:712:A:H5'	1.91	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1359:A:OP1	59:DA:3617:HOH:O	2.10	0.70
24:DA:1205:A:H3'	24:DA:1206:G:H5'	1.73	0.70
1:CA:1127:G:H2'	1:CA:1127:G:N3	2.05	0.70
9:CI:9:THR:O	9:CI:85:ARG:CZ	2.39	0.70
12:AL:87:VAL:HG13	12:AL:93:VAL:HG13	1.73	0.70
1:AA:243:A:C2	1:AA:246:A:C8	2.79	0.70
30:BG:60:GLY:O	30:BG:63:GLN:N	2.24	0.70
24:DA:1491:G:N7	24:DA:1500:G:N2	2.40	0.70
1:CA:939:G:H2'	1:CA:940:C:H5'	1.72	0.70
24:DA:2297:A:N1	24:DA:2321:U:C5	2.59	0.70
43:DT:6:ARG:C	43:DT:6:ARG:CD	2.59	0.70
1:AA:1321:U:O2'	19:AS:78:ARG:NH1	2.24	0.70
13:CM:20:THR:HA	13:CM:25:VAL:HB	1.72	0.70
57:DA:3190:NMY:O16	57:DA:3190:NMY:H1	1.92	0.70
10:CJ:8:ILE:HB	10:CJ:74:VAL:HG11	1.74	0.70
1:CA:390:U:O3'	16:CP:28:ARG:NH1	2.24	0.70
1:CA:1288:A:N3	1:CA:1352:C:O2'	2.21	0.70
18:AR:45:THR:O	18:AR:47:THR:OG1	2.07	0.70
34:DK:103:VAL:O	34:DK:122:VAL:HB	1.91	0.70
24:BA:9:G:C6	24:BA:2629:U:C5	2.80	0.70
1:AA:404:G:H2'	1:AA:405:U:C6	2.27	0.70
24:BA:453:A:OP1	59:BA:3244:HOH:O	2.09	0.70
24:DA:1327:A:H2'	24:DA:1328:A:O4'	1.90	0.70
1:AA:479:U:H2'	1:AA:480:U:H5''	1.74	0.70
30:DG:8:VAL:HG21	30:DG:72:ASN:HA	1.73	0.70
7:CG:21:GLU:O	7:CG:24:ALA:N	2.24	0.70
1:CA:1411:C:H2'	1:CA:1412:C:H5'	1.72	0.70
5:CE:104:GLY:O	5:CE:105:ILE:HG22	1.92	0.70
31:DH:120:GLY:C	31:DH:122:LEU:H	1.93	0.70
22:CV:19:G:O2'	22:CV:20:U:OP1	2.10	0.70
24:BA:2466:C:OP1	54:B4:4:ARG:CG	2.40	0.70
24:BA:2429:G:OP1	59:BA:3702:HOH:O	2.08	0.70
8:CH:29:SER:OG	8:CH:30:SER:N	2.20	0.70
24:BA:1097:U:N3	32:BI:7:TYR:O	2.24	0.70
55:CY:44:TYR:HD1	55:CY:44:TYR:N	1.88	0.70
24:BA:2355:G:H5'	46:BW:24:LYS:HE2	1.74	0.70
24:BA:1824:G:O2'	26:BC:245:THR:CG2	2.40	0.70
24:DA:1489:C:O2	24:DA:1501:G:N1	2.23	0.70
24:BA:2585:U:O2'	24:BA:2586:U:H5'	1.92	0.70
5:CE:148:ASN:OD1	5:CE:148:ASN:N	2.24	0.70
10:AJ:23:ALA:O	10:AJ:25:ILE:N	2.25	0.70
1:AA:1350:A:C2	1:AA:1351:U:C2	2.80	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:415:A:C2	24:BA:2409:G:C2	2.80	0.70
1:AA:482:A:H2'	1:AA:483:C:O5'	1.91	0.70
1:AA:1198:G:O5'	59:AA:1835:HOH:O	2.09	0.70
1:AA:932:C:OP1	7:AG:4:ARG:HB2	1.92	0.70
57:BA:3165:NMY:C1	57:BA:3165:NMY:O17	2.40	0.70
1:CA:1152:A:O3'	10:CJ:15:HIS:NE2	2.25	0.70
40:BQ:37:ALA:HA	40:BQ:40:LYS:HE3	1.73	0.70
35:BL:35:HIS:O	59:BL:301:HOH:O	2.08	0.70
23:AX:4:G:O2'	23:AX:5:A:H5'	1.90	0.70
24:BA:459:U:H4'	43:BT:73:ARG:NH1	2.07	0.70
1:AA:465:A:H2'	1:AA:466:A:C8	2.26	0.70
24:BA:1010:A:OP2	59:BA:3783:HOH:O	2.09	0.70
24:BA:72:U:OP2	43:BT:6:ARG:NH2	2.25	0.70
24:BA:2639:A:H5''	33:BJ:96:ARG:NH1	2.07	0.70
1:AA:1053:G:O3'	59:AA:1848:HOH:O	2.09	0.70
1:CA:1465:A:H2'	1:CA:1466:C:C6	2.26	0.70
29:BF:96:TRP:CZ3	29:BF:99:PHE:CZ	2.67	0.70
22:CV:7:A:H3'	22:CV:8:U:C5'	2.11	0.70
1:AA:929:G:H4'	1:AA:1535:C:H5''	1.73	0.70
28:DE:29:HIS:CE1	28:DE:33:VAL:HG21	2.27	0.70
10:AJ:18:ILE:O	10:AJ:22:THR:N	2.25	0.70
37:DN:55:ALA:HB1	37:DN:79:LEU:O	1.92	0.70
1:CA:6:G:O2'	1:CA:7:A:O5'	2.06	0.70
34:BK:76:VAL:HG12	39:BP:72:VAL:CG2	2.21	0.70
24:BA:774:G:OP1	26:BC:47:ARG:NH1	2.25	0.70
11:CK:65:VAL:CG2	11:CK:65:VAL:O	2.40	0.70
18:AR:28:THR:O	18:AR:30:LYS:N	2.25	0.70
24:BA:1494:A:C6	24:BA:1495:A:C5	2.80	0.70
28:BE:108:ILE:HD11	28:BE:180:LEU:HB3	1.73	0.70
24:BA:2550:G:OP2	59:BA:3725:HOH:O	2.09	0.70
8:AH:111:MET:HE1	8:AH:116:ALA:HA	1.74	0.70
1:CA:597:G:C1'	17:CQ:28:PHE:HE1	2.05	0.70
24:BA:1156:A:P	40:BQ:54:ARG:HH21	2.14	0.70
2:CB:19:GLN:NE2	2:CB:204:ASP:OD1	2.25	0.70
24:BA:2259:U:C5	24:BA:2427:C:N4	2.60	0.70
22:CV:60:U:P	22:CV:61:C:H41	2.15	0.70
26:DC:14:HIS:O	26:DC:203:VAL:CG1	2.39	0.70
1:AA:567:G:O2'	59:AA:1705:HOH:O	2.09	0.70
1:AA:71:A:N1	1:AA:99:C:O2'	2.24	0.70
24:BA:1824:G:O2'	26:BC:245:THR:HG23	1.90	0.70
5:AE:57:PRO:O	5:AE:60:ILE:HG13	1.92	0.70
48:DY:48:ARG:O	48:DY:51:ALA:HB3	1.92	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2287:A:C8	24:DA:2289:G:C8	2.80	0.70
1:CA:173:U:C6	1:CA:197:A:C2	2.80	0.70
1:AA:1493:A:H5''	1:AA:1494:G:OP2	1.91	0.70
31:DH:117:LEU:HD21	31:DH:120:GLY:C	2.12	0.70
1:AA:652:U:O2'	1:AA:653:U:P	2.48	0.70
1:AA:510:A:N7	59:AA:1760:HOH:O	2.25	0.70
24:DA:1509:A:O2'	24:DA:1510:G:P	2.50	0.70
24:DA:1358:G:C6	24:DA:1371:G:C8	2.80	0.70
1:CA:131:A:H2'	1:CA:132:C:C6	2.27	0.70
24:BA:944:C:OP2	59:BA:3265:HOH:O	2.09	0.70
24:DA:1386:C:OP2	24:DA:1396:U:N3	2.22	0.70
1:CA:14:U:H2'	1:CA:14:U:O2	1.92	0.70
29:BF:120:SER:HB3	29:BF:127:TYR:CE1	2.26	0.70
22:CV:17:C:C5'	22:CV:18:G:H5''	2.21	0.70
24:DA:2483:C:C1'	36:DM:51:ARG:NH2	2.55	0.70
24:BA:1413:A:C6	24:BA:1590:A:C2	2.80	0.70
24:BA:1342:A:OP2	59:BA:3717:HOH:O	2.10	0.70
1:AA:74:A:C2	1:AA:97:G:N1	2.60	0.70
24:BA:2311:A:O2'	24:BA:2312:U:O4'	2.09	0.70
1:AA:786:G:C2	1:AA:797:C:O2	2.45	0.70
26:DC:20:ASN:HB3	26:DC:23:LEU:CD1	2.22	0.70
24:BA:987:C:H2'	24:BA:988:A:O4'	1.92	0.70
55:CY:13:MET:O	55:CY:16:CYS:N	2.21	0.70
24:DA:951:C:H2'	24:DA:952:G:H5'	1.73	0.70
1:CA:1338:G:H2'	1:CA:1339:A:C8	2.27	0.70
24:BA:991:C:H41	57:BA:3162:NMY:H14	1.56	0.69
31:DH:123:ARG:CG	31:DH:124:THR:H	2.05	0.69
4:AD:103:TYR:CE2	4:AD:111:ARG:HB3	2.26	0.69
1:CA:1321:U:C4	1:CA:1322:C:C5	2.79	0.69
26:DC:14:HIS:O	26:DC:203:VAL:HG11	1.91	0.69
24:DA:585:G:H5''	24:DA:586:A:OP1	1.92	0.69
24:BA:1394:U:OP1	59:BA:3413:HOH:O	2.09	0.69
24:BA:1022:G:C5	24:BA:1140:C:C4	2.80	0.69
5:CE:39:VAL:HG22	5:CE:67:ALA:HB1	1.73	0.69
4:AD:139:PRO:O	4:AD:182:PHE:CE1	2.44	0.69
1:CA:598:U:H4'	8:CH:86:TYR:CD2	2.27	0.69
31:DH:116:ARG:NH1	31:DH:133:GLN:CG	2.55	0.69
25:BB:33:G:C2	25:BB:50:A:C2	2.79	0.69
1:CA:673:A:H5''	6:CF:86:ARG:NH1	2.07	0.69
1:AA:708:C:C2	1:AA:709:U:C5	2.80	0.69
2:AB:99:GLY:N	2:AB:175:GLU:OE2	2.25	0.69
24:BA:2728:U:OP1	57:BA:3165:NMY:O4	2.10	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:689:C:OP1	11:AK:46:THR:OG1	2.08	0.69
24:BA:577:G:N2	24:BA:578:G:C2	2.60	0.69
13:AM:9:ILE:HG21	29:BF:142:TYR:CD1	2.27	0.69
22:AV:35:A:H2'	22:AV:36:A:H5''	1.72	0.69
5:AE:50:TYR:O	5:AE:63:ALA:HA	1.92	0.69
24:DA:1817:G:OP1	26:DC:86:ARG:NH2	2.24	0.69
24:DA:1474:U:C4	24:DA:1475:G:N2	2.59	0.69
1:AA:1420:U:O4	57:AA:1656:NMY:C8	2.40	0.69
57:BA:3165:NMY:O17	57:BA:3165:NMY:C2	2.40	0.69
24:BA:362:A:H3'	24:BA:363:G:H5'	1.75	0.69
24:BA:1357:C:OP2	59:BA:3408:HOH:O	2.09	0.69
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.57	0.69
24:BA:2658:C:OP1	30:BG:159:LYS:NZ	2.25	0.69
26:BC:62:ARG:NH1	26:BC:83:ASP:OD2	2.25	0.69
40:DQ:87:VAL:HG23	41:DR:49:ILE:HG21	1.74	0.69
6:AF:6:ILE:CD1	6:AF:89:VAL:HG22	2.21	0.69
1:CA:676:A:C2	1:CA:677:U:N3	2.61	0.69
24:DA:2869:G:C2	24:DA:2870:C:C2	2.80	0.69
24:BA:1603:A:H2'	24:BA:1604:C:H5'	1.74	0.69
24:BA:1604:C:OP1	59:BA:3413:HOH:O	2.08	0.69
2:AB:207:ILE:O	2:AB:209:ALA:N	2.25	0.69
24:DA:397:U:OP2	47:DX:9:LYS:NZ	2.23	0.69
24:DA:2800:A:C2	24:DA:2895:G:H1'	2.28	0.69
11:AK:24:HIS:CE1	11:AK:26:SER:HB3	2.26	0.69
24:DA:431:U:H2'	24:DA:432:A:C5'	2.22	0.69
11:AK:81:ASN:HB2	11:AK:106:ARG:HB3	1.74	0.69
34:BK:103:VAL:O	34:BK:122:VAL:HB	1.91	0.69
12:AL:75:GLN:CG	12:AL:76:GLU:N	2.54	0.69
20:CT:55:GLN:HG3	20:CT:56:PRO:CD	2.22	0.69
24:BA:1667:G:N1	59:BA:3430:HOH:O	2.24	0.69
17:AQ:30:LYS:HG3	17:AQ:37:PHE:CE1	2.27	0.69
1:AA:499:A:C6	1:AA:547:A:C8	2.80	0.69
1:AA:1077:G:C2	1:AA:1081:A:C2	2.80	0.69
1:AA:1054:C:OP2	59:AA:1849:HOH:O	2.10	0.69
1:CA:1308:U:O3'	13:CM:87:ARG:NH2	2.25	0.69
1:CA:1226:C:C5	13:CM:103:LYS:HB3	2.27	0.69
24:DA:1372:U:O2'	24:DA:1373:A:H5'	1.92	0.69
9:CI:81:HIS:O	9:CI:84:THR:N	2.25	0.69
1:AA:202:G:N2	1:AA:216:U:O2	2.26	0.69
24:DA:1450:G:O6	24:DA:1451:C:N4	2.26	0.69
2:CB:50:PHE:O	2:CB:53:ALA:N	2.26	0.69
24:DA:993:G:O2'	41:DR:91:GLN:NE2	2.25	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:145:C:H2'	24:BA:146:A:H8	1.57	0.69
1:AA:338:A:H2'	1:AA:339:C:O4'	1.93	0.69
30:DG:71:LEU:HA	30:DG:74:MET:HG2	1.74	0.69
1:CA:1160:G:O2'	1:CA:1161:C:P	2.50	0.69
24:BA:192:C:C5	24:BA:193:U:C6	2.81	0.69
24:BA:1799:G:OP1	26:BC:257:ARG:NH2	2.24	0.69
1:AA:446:G:O6	1:AA:488:C:N4	2.26	0.69
43:DT:73:ARG:HG2	43:DT:74:ILE:N	2.08	0.69
1:AA:1348:U:C5	1:AA:1373:G:N2	2.61	0.69
12:CL:25:GLU:O	12:CL:27:CYS:N	2.25	0.69
1:AA:14:U:H2'	1:AA:14:U:O2	1.91	0.69
24:BA:1203:U:O4	24:BA:1204:A:C6	2.45	0.69
57:DA:3190:NMY:O17	57:DA:3190:NMY:H1	1.92	0.69
10:CJ:37:ARG:N	10:CJ:75:ASP:OD2	2.26	0.69
1:AA:724:G:C2	1:AA:725:G:C8	2.80	0.69
21:AU:30:ALA:HA	21:AU:33:ARG:CZ	2.22	0.69
1:AA:1211:U:O2'	1:AA:1212:U:OP2	2.10	0.69
16:CP:54:LEU:O	16:CP:57:ILE:N	2.26	0.69
24:BA:1169:A:C2	24:BA:1181:U:O2	2.45	0.69
35:DL:110:VAL:HG13	35:DL:127:VAL:HG22	1.73	0.69
2:AB:84:ALA:HA	2:AB:218:ALA:HB2	1.75	0.69
24:BA:1351:C:N3	24:BA:1381:G:C6	2.60	0.69
24:DA:911:A:C5	36:DM:9:PHE:CD2	2.80	0.69
24:BA:1340:U:C5	24:BA:1603:A:C8	2.81	0.69
37:DN:69:ARG:O	37:DN:71:ARG:N	2.22	0.69
46:DW:69:PHE:CE2	46:DW:80:ILE:HD11	2.28	0.69
24:DA:866:A:H2'	24:DA:867:C:O5'	1.92	0.69
34:DK:64:ARG:HB2	34:DK:79:PHE:CG	2.27	0.69
11:CK:35:THR:HG23	11:CK:36:ASP:N	2.07	0.69
2:CB:103:ASN:OD1	2:CB:106:THR:OG1	2.11	0.69
24:DA:192:C:OP1	59:DA:3743:HOH:O	2.11	0.69
6:AF:38:ARG:CZ	6:AF:96:VAL:HG22	2.23	0.69
24:DA:898:C:N4	24:DA:899:A:C5	2.59	0.69
24:BA:1001:A:OP2	59:BA:3739:HOH:O	2.09	0.69
1:CA:283:U:C5	1:CA:284:C:C5	2.80	0.69
24:BA:2502:G:H5'	24:BA:2503:A:H5''	1.72	0.69
26:BC:123:ILE:HG22	26:BC:123:ILE:O	1.92	0.69
25:BB:43:C:C2	25:BB:45:A:N7	2.61	0.69
1:CA:553:A:O2'	12:CL:26:ALA:O	2.10	0.69
1:CA:700:G:N3	1:CA:700:G:H2'	2.07	0.69
8:AH:125:ILE:O	8:AH:125:ILE:HG13	1.91	0.69
8:AH:85:ILE:CG2	8:AH:86:TYR:N	2.55	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:597:G:HO2'	17:CQ:28:PHE:HE1	1.38	0.69
24:DA:1420:A:HO2'	24:DA:1421:G:C5'	2.04	0.69
1:AA:874:G:C6	1:AA:875:U:C4	2.81	0.69
1:AA:151:A:OP2	1:AA:169:C:N4	2.25	0.69
24:BA:168:G:O2'	24:BA:2209:G:O2'	2.10	0.69
48:DY:28:LEU:O	48:DY:31:GLN:N	2.26	0.69
42:BS:23:LEU:O	42:BS:23:LEU:HD23	1.93	0.69
1:CA:82:G:C6	1:CA:88:U:C2	2.81	0.69
1:AA:1493:A:C5'	1:AA:1494:G:OP2	2.41	0.69
57:AA:1655:NMY:C17	57:AA:1655:NMY:H19	2.21	0.69
24:BA:991:C:C5	24:BA:1185:G:C6	2.81	0.69
19:AS:70:LYS:O	19:AS:71:LEU:HD13	1.93	0.69
4:AD:125:VAL:HG13	4:AD:126:ASN:N	2.08	0.69
1:CA:666:G:C6	1:CA:741:G:C5	2.81	0.69
13:CM:6:GLY:O	13:CM:8:ASN:N	2.25	0.69
2:AB:131:LYS:O	2:AB:135:LEU:N	2.23	0.69
57:BA:3165:NMY:N19	57:BA:3165:NMY:O21	2.26	0.69
6:CF:70:VAL:O	6:CF:74:LEU:N	2.26	0.69
24:DA:2204:G:H2'	24:DA:2205:A:C8	2.27	0.69
24:BA:2352:A:C2'	24:BA:2353:G:H5'	2.23	0.69
1:AA:725:G:C2	1:AA:726:C:C6	2.81	0.69
24:DA:1857:G:C2	24:DA:1884:G:C2	2.80	0.69
21:CU:8:GLU:HG3	21:CU:16:LEU:HD11	1.74	0.69
24:DA:475:C:C4	24:DA:481:G:O6	2.45	0.69
34:DK:25:LEU:HD11	34:DK:38:ILE:HG22	1.74	0.69
24:DA:1604:C:OP1	59:DA:3405:HOH:O	2.08	0.69
1:CA:532:A:H3'	1:CA:533:A:H5''	1.74	0.69
15:CO:27:VAL:HG23	15:CO:28:GLN:H	1.58	0.69
40:DQ:80:ASN:O	40:DQ:83:LYS:HG3	1.91	0.69
24:BA:1176:U:H2'	24:BA:1177:G:C8	2.27	0.69
6:AF:4:TYR:OH	6:AF:64:VAL:HB	1.93	0.69
1:CA:722:G:H3'	21:CU:45:ARG:NH2	2.08	0.69
24:BA:2038:G:OP1	59:BA:3253:HOH:O	2.11	0.69
45:BV:55:GLU:N	45:BV:55:GLU:OE2	2.26	0.69
22:AV:72:C:O2'	22:AV:73:A:H5'	1.92	0.69
11:AK:81:ASN:CB	11:AK:106:ARG:HB3	2.23	0.69
24:BA:1820:U:H4'	24:BA:1821:A:OP2	1.93	0.69
39:DP:21:PRO:HA	39:DP:46:VAL:HG23	1.75	0.69
39:BP:92:ARG:O	39:BP:93:LYS:CB	2.41	0.69
29:DF:102:LEU:O	29:DF:102:LEU:HD12	1.92	0.69
24:BA:1228:G:C2'	24:BA:1229:C:H5'	2.23	0.69
30:BG:18:ILE:O	30:BG:20:GLY:N	2.26	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:35:GLU:O	4:AD:37:ALA:N	2.26	0.69
3:CC:6:HIS:CD2	14:CN:89:MET:HB3	2.27	0.69
4:CD:194:ASP:O	4:CD:195:ILE:HG13	1.92	0.69
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.27	0.69
1:AA:506:G:H2'	1:AA:507:C:C6	2.28	0.69
24:DA:1921:G:C5	57:DA:3184:NMY:N7	2.42	0.69
1:AA:1015:G:C8	1:AA:1015:G:OP2	2.46	0.69
1:CA:410:G:H1'	1:CA:432:A:N6	2.08	0.69
4:CD:22:LYS:HZ1	4:CD:26:ARG:CB	2.06	0.69
1:CA:1306:A:C2	1:CA:1332:A:C4	2.81	0.69
24:DA:1420:A:O2'	24:DA:1421:G:C5'	2.41	0.69
57:DA:3188:NMY:O22	57:DA:3188:NMY:C14	2.40	0.69
1:CA:878:A:OP1	8:CH:80:ARG:NH2	2.26	0.69
1:CA:1431:A:C6	1:CA:1432:G:C6	2.81	0.69
1:AA:50:A:N6	1:AA:361:G:H4'	2.07	0.69
24:DA:445:C:C2'	24:DA:446:G:O5'	2.41	0.69
24:DA:1605:C:H2'	24:DA:1606:C:H5'	1.74	0.69
24:BA:1779:U:H5	24:BA:1784:A:N7	1.91	0.69
24:BA:1539:U:H2'	24:BA:1540:G:C8	2.27	0.69
20:AT:43:ASP:OD1	20:AT:46:ALA:N	2.26	0.69
24:DA:572:A:H5''	24:DA:573:U:OP2	1.93	0.69
24:BA:2004:G:H2'	24:BA:2005:A:H5'	1.73	0.69
14:AN:41:ARG:O	14:AN:42:TRP:CD2	2.45	0.69
2:AB:80:VAL:CG1	2:AB:80:VAL:O	2.40	0.69
6:CF:39:LEU:HD13	6:CF:40:GLU:N	2.08	0.69
29:BF:96:TRP:CZ2	29:BF:99:PHE:HZ	2.11	0.69
1:CA:1293:C:H2'	1:CA:1294:G:H5'	1.73	0.69
57:BA:3165:NMY:HN61	57:BA:3165:NMY:C3	2.04	0.69
12:CL:87:VAL:HG23	12:CL:90:LEU:CD1	2.23	0.69
47:DX:31:ASN:O	47:DX:33:HIS:CE1	2.46	0.69
1:AA:858:G:O6	1:AA:869:G:C8	2.46	0.69
27:BD:98:VAL:O	27:BD:101:PHE:N	2.26	0.69
33:BJ:56:VAL:HG21	33:BJ:124:VAL:HG13	1.76	0.69
1:AA:328:C:O2	1:AA:328:C:H2'	1.92	0.69
24:DA:2615:U:OP1	59:DA:3754:HOH:O	2.11	0.69
45:BV:55:GLU:O	45:BV:59:GLU:N	2.26	0.69
1:AA:1423:G:C4	1:AA:1424:U:C6	2.80	0.69
22:CV:70:G:H2'	22:CV:71:G:O4'	1.92	0.69
24:DA:1590:A:N6	59:DA:3619:HOH:O	2.24	0.69
24:BA:370:G:O6	24:BA:424:G:C5	2.45	0.69
24:DA:620:G:H4'	24:DA:621:A:O5'	1.93	0.69
28:DE:1:MET:CE	28:DE:19:PHE:HB2	2.23	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:632:U:OP1	1:CA:633:G:C8	2.46	0.69
24:DA:1992:G:N2	24:DA:1996:C:O2'	2.26	0.68
1:CA:1130:A:N1	1:CA:1144:G:O2'	2.26	0.68
9:CI:10:GLY:HA3	9:CI:85:ARG:NE	2.09	0.68
2:AB:22:TYR:CD1	2:AB:22:TYR:N	2.56	0.68
1:AA:246:A:C5	1:AA:279:A:C2	2.81	0.68
26:DC:116:GLN:N	26:DC:127:ASN:HD21	1.90	0.68
24:DA:2796:U:C5	24:DA:2798:U:C4	2.81	0.68
24:BA:1667:G:O2'	24:BA:1991:U:O4	2.05	0.68
24:DA:1497:U:OP2	24:DA:1498:C:C5	2.46	0.68
30:DG:148:ARG:HA	30:DG:161:VAL:CG2	2.23	0.68
24:DA:1379:U:C6	24:DA:1379:U:OP1	2.46	0.68
1:CA:579:A:C2	1:CA:580:C:C6	2.81	0.68
24:BA:198:C:OP2	59:BA:3763:HOH:O	2.12	0.68
1:AA:1278:G:OP1	1:AA:1281:C:N4	2.25	0.68
1:AA:412:A:H4'	11:CK:16:VAL:HG13	1.74	0.68
12:CL:63:VAL:HG12	12:CL:64:THR:N	2.09	0.68
2:CB:188:ASP:OD1	2:CB:188:ASP:N	2.24	0.68
29:DF:119:LYS:O	29:DF:121:PHE:N	2.25	0.68
21:AU:14:VAL:HG23	21:AU:16:LEU:HG	1.75	0.68
49:DZ:23:LEU:HD21	49:DZ:53:MET:HE1	1.73	0.68
31:BH:147:VAL:HG22	31:BH:148:ALA:H	1.58	0.68
24:DA:2413:G:H2'	24:DA:2414:G:H5'	1.74	0.68
25:BB:76:G:O2'	45:BV:78:GLN:OE1	2.11	0.68
24:DA:404:A:C8	24:DA:406:G:C6	2.81	0.68
31:DH:116:ARG:O	31:DH:118:PRO:HD3	1.91	0.68
17:AQ:18:GLU:O	17:AQ:19:LYS:HB3	1.92	0.68
24:BA:609:A:C5	24:BA:610:C:O2	2.46	0.68
13:AM:2:ALA:HB3	13:AM:9:ILE:HD12	1.73	0.68
24:DA:1873:G:C5	24:DA:1874:C:C5	2.81	0.68
57:DA:3185:NMY:H232	57:DA:3185:NMY:C16	2.24	0.68
1:CA:17:U:H2'	1:CA:18:C:C6	2.28	0.68
22:CV:64:A:H2'	22:CV:65:G:H5'	1.76	0.68
24:BA:1346:G:H2'	24:BA:1347:A:C8	2.29	0.68
1:AA:100:G:N7	1:AA:101:A:N7	2.42	0.68
1:CA:953:G:C4	1:CA:1229:A:C2	2.81	0.68
24:DA:2298:A:C4	24:DA:2321:U:C5	2.81	0.68
1:CA:1411:C:C2'	1:CA:1412:C:H5'	2.23	0.68
24:BA:1844:C:OP1	26:BC:254:LYS:NZ	2.23	0.68
55:CY:1:MET:N	55:CY:1:MET:SD	2.60	0.68
24:DA:2005:A:OP1	59:DA:3381:HOH:O	2.11	0.68
24:DA:355:U:H2'	24:DA:356:G:C8	2.28	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:73:SER:O	9:CI:77:GLY:N	2.26	0.68
1:AA:980:C:N4	59:AA:1842:HOH:O	2.26	0.68
8:AH:40:LEU:O	8:AH:44:GLY:N	2.26	0.68
1:AA:32:A:N6	1:AA:553:A:N1	2.42	0.68
4:AD:200:ILE:O	4:AD:202:GLU:N	2.26	0.68
15:CO:36:ILE:HG22	15:CO:37:ASN:N	2.09	0.68
9:AI:49:ARG:O	9:AI:52:LEU:N	2.25	0.68
1:CA:1014:A:N3	19:CS:34:TRP:CZ2	2.62	0.68
21:CU:40:LYS:N	21:CU:41:PRO:CD	2.56	0.68
24:DA:2756:U:OP2	54:D4:19:ARG:NE	2.25	0.68
29:DF:40:GLY:HA2	29:DF:84:ILE:HD11	1.75	0.68
15:AO:33:THR:O	15:AO:35:GLN:N	2.26	0.68
24:BA:1266:G:OP1	50:B0:15:ARG:NE	2.27	0.68
24:BA:483:A:C2	24:BA:484:C:C1'	2.76	0.68
24:DA:1303:G:HO2'	24:DA:1642:G:HO2'	1.40	0.68
53:D3:6:VAL:HG12	53:D3:9:ALA:HB3	1.74	0.68
24:BA:640:C:C5	24:BA:641:U:C5	2.81	0.68
51:D1:13:SER:OG	51:D1:47:ILE:O	2.10	0.68
32:BI:29:GLN:N	32:BI:29:GLN:OE1	2.27	0.68
3:CC:117:ALA:HB2	3:CC:200:VAL:HG21	1.73	0.68
24:DA:1773:A:H2'	24:DA:1774:C:H5'	1.74	0.68
26:DC:104:LEU:N	26:DC:104:LEU:CD1	2.57	0.68
24:DA:2343:U:O2'	24:DA:2373:G:O2'	2.10	0.68
5:AE:157:ARG:HG2	5:AE:158:GLY:N	2.07	0.68
1:AA:684:U:C2'	1:AA:685:G:O5'	2.41	0.68
1:AA:1068:G:C2'	1:AA:1069:C:H5'	2.23	0.68
4:CD:203:LEU:HD23	4:CD:204:TYR:CD2	2.29	0.68
24:DA:2221:G:C5	24:DA:2222:C:C5	2.82	0.68
22:CV:4:C:O2'	22:CV:5:G:H8	1.77	0.68
8:CH:112:THR:O	8:CH:116:ALA:N	2.26	0.68
1:CA:922:G:O2'	1:CA:923:A:H5'	1.94	0.68
24:BA:1533:C:N4	24:BA:1538:G:O6	2.27	0.68
2:CB:87:CYS:SG	2:CB:218:ALA:HB1	2.34	0.68
24:DA:2794:C:O2	24:DA:2803:G:C2	2.45	0.68
36:DM:108:VAL:HG12	36:DM:109:PRO:HD2	1.75	0.68
24:DA:194:G:OP2	59:DA:3765:HOH:O	2.10	0.68
1:AA:985:C:C2	1:AA:1221:G:C2	2.82	0.68
24:DA:2420:C:OP1	53:D3:33:THR:HG23	1.92	0.68
22:CV:37:A:C3'	22:CV:38:A:H8	2.04	0.68
1:AA:552:U:H2'	1:AA:553:A:C8	2.29	0.68
28:DE:35:TYR:CE2	28:DE:176:ASP:HB2	2.29	0.68
1:AA:1182:G:H4'	1:AA:1183:U:H5'	1.73	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:70:VAL:O	6:CF:73:GLU:N	2.27	0.68
1:AA:1035:A:H2'	1:AA:1036:A:C4'	2.24	0.68
24:DA:2498:C:C2'	24:DA:2499:C:H5'	2.23	0.68
1:CA:9:G:OP2	5:CE:126:LYS:NZ	2.24	0.68
24:DA:58:G:O2'	24:DA:73:A:N1	2.24	0.68
24:DA:2033:A:O2'	59:DA:3471:HOH:O	2.11	0.68
24:BA:1869:G:C2	24:BA:1873:G:C6	2.82	0.68
1:CA:778:G:C2	1:CA:779:C:C2	2.82	0.68
54:B4:11:CYS:SG	54:B4:33:HIS:CE1	2.87	0.68
24:BA:2407:A:OP1	59:BA:3565:HOH:O	2.10	0.68
8:AH:39:VAL:O	8:AH:42:GLU:N	2.26	0.68
20:AT:5:LYS:O	20:AT:5:LYS:HD3	1.93	0.68
24:DA:1358:G:C6	24:DA:1371:G:N7	2.61	0.68
11:AK:48:GLY:O	11:AK:50:SER:N	2.26	0.68
13:AM:8:ASN:ND2	13:AM:21:SER:O	2.27	0.68
24:BA:309:A:N3	24:BA:329:G:O2'	2.26	0.68
22:CV:4:C:O2'	22:CV:5:G:H5''	1.92	0.68
1:AA:874:G:C5	1:AA:875:U:C5	2.81	0.68
15:CO:29:VAL:HG12	15:CO:30:ALA:N	2.09	0.68
3:AC:155:GLY:O	3:AC:157:LEU:N	2.26	0.68
2:AB:47:VAL:HB	2:AB:48:PRO:CD	2.23	0.68
37:DN:26:GLY:HA2	37:DN:75:ILE:HD11	1.75	0.68
36:BM:127:LYS:N	36:BM:127:LYS:HD2	2.08	0.68
24:BA:327:G:N2	44:BU:67:SER:OG	2.27	0.68
39:DP:15:ASP:N	39:DP:15:ASP:OD1	2.25	0.68
26:DC:66:PHE:CZ	26:DC:155:ARG:CZ	2.77	0.68
38:BO:17:LYS:HG3	38:BO:21:LEU:HD11	1.76	0.68
1:AA:376:G:OP1	16:AP:5:ARG:CZ	2.42	0.68
31:DH:82:SER:CB	31:DH:146:VAL:CG2	2.72	0.68
1:CA:539:A:H2'	1:CA:540:G:C8	2.28	0.68
4:AD:26:ARG:NH1	4:AD:27:ALA:O	2.25	0.68
57:DA:3190:NMY:N9	57:DA:3190:NMY:H5	2.09	0.68
40:DQ:37:ALA:O	40:DQ:38:VAL:HB	1.92	0.68
1:AA:207:C:H2'	1:AA:207:C:O2	1.92	0.68
48:BY:26:PHE:O	48:BY:29:ARG:HG2	1.93	0.68
24:BA:2093:G:H4'	31:BH:24:GLY:HA3	1.75	0.68
1:CA:1114:C:O2	1:CA:1115:U:C6	2.47	0.68
46:BW:43:THR:O	46:BW:43:THR:HG23	1.94	0.68
24:BA:784:G:OP2	59:BA:3316:HOH:O	2.11	0.68
24:BA:1799:G:N2	24:BA:1819:A:OP2	2.26	0.68
24:DA:2352:A:C4	24:DA:2366:A:C2	2.82	0.68
24:DA:1805:A:O2'	24:DA:1806:C:H5'	1.93	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AF:18:VAL:HG13	6:AF:19:PRO:CD	2.23	0.68
24:BA:243:U:OP2	53:B3:7:ARG:NH1	2.26	0.68
38:DO:49:VAL:HG21	38:DO:82:ALA:HA	1.74	0.68
31:BH:83:LYS:HE3	31:BH:83:LYS:O	1.93	0.68
25:BB:71:C:H2'	25:BB:72:G:H5'	1.74	0.68
31:DH:120:GLY:O	31:DH:122:LEU:HG	1.93	0.68
25:BB:7:G:O2'	38:BO:38:GLN:OE1	2.06	0.68
24:DA:195:A:OP2	59:DA:3764:HOH:O	2.11	0.68
1:AA:652:U:C2	1:AA:752:G:N2	2.62	0.68
11:CK:112:ASP:OD1	21:CU:25:LYS:NZ	2.27	0.68
11:CK:28:ASN:O	11:CK:58:SER:OG	2.11	0.68
8:AH:94:LYS:HD3	8:AH:113:ASP:OD2	1.94	0.68
4:CD:22:LYS:HG2	4:CD:25:VAL:HG13	1.75	0.68
24:BA:197:A:OP1	59:BA:3763:HOH:O	2.12	0.68
1:AA:933:G:P	7:AG:5:ARG:NH2	2.67	0.68
13:AM:68:ASP:OD1	13:AM:69:LEU:N	2.26	0.68
24:BA:1359:A:OP1	59:BA:3618:HOH:O	2.11	0.68
22:CV:17:C:H5'	22:CV:18:G:C5'	2.23	0.68
24:DA:190:A:N3	24:DA:679:C:O2'	2.23	0.68
24:BA:860:U:H2'	24:BA:860:U:O2	1.93	0.68
25:BB:83:G:C2	25:BB:94:A:C2	2.82	0.68
1:CA:679:C:N3	1:CA:712:A:N1	2.42	0.68
1:AA:50:A:N6	1:AA:361:G:C4'	2.57	0.68
21:AU:41:PRO:O	21:AU:45:ARG:HB3	1.94	0.68
4:AD:36:GLN:O	4:AD:37:ALA:CB	2.41	0.68
1:CA:855:U:C2	1:CA:856:C:C5	2.81	0.68
28:BE:47:LYS:HB3	28:BE:51:GLU:HB2	1.76	0.68
24:BA:1617:C:N3	59:BA:3314:HOH:O	2.26	0.68
24:DA:1780:A:N6	59:DA:3759:HOH:O	2.26	0.68
1:AA:981:U:OP1	14:AN:8:ARG:CZ	2.42	0.68
25:BB:15:A:C8	25:BB:109:A:C6	2.83	0.68
1:CA:757:U:O2'	1:CA:758:C:H5'	1.93	0.68
1:AA:711:G:C2'	1:AA:712:A:H5'	2.24	0.68
11:AK:125:LYS:HB2	21:AU:35:ARG:NE	2.09	0.68
4:AD:23:SER:O	4:AD:25:VAL:N	2.27	0.68
11:AK:82:LEU:CD2	11:AK:105:PHE:CG	2.76	0.68
24:BA:1239:G:H2'	24:BA:1240:U:O4'	1.94	0.68
39:BP:51:ASN:O	39:BP:52:ARG:HD3	1.93	0.68
7:CG:37:SER:OG	7:CG:38:THR:N	2.26	0.68
8:CH:89:LYS:HA	8:CH:92:LEU:HD13	1.76	0.68
1:CA:935:A:N6	7:CG:3:ARG:HD3	2.09	0.68
1:AA:1386:G:N7	59:AA:1866:HOH:O	2.26	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2345:G:H4'	24:BA:2346:A:H5''	1.76	0.68
24:BA:1006:C:O2'	33:BJ:108:MET:O	2.11	0.68
13:CM:112:PRO:O	13:CM:114:LYS:N	2.27	0.68
46:DW:69:PHE:CE2	46:DW:80:ILE:CD1	2.77	0.68
1:AA:786:G:C5	1:AA:787:A:C8	2.81	0.68
1:CA:855:U:H2'	1:CA:856:C:H6	1.57	0.68
1:CA:1537:U:O2	23:CX:6:G:N2	2.27	0.68
33:DJ:37:ARG:HG3	33:DJ:118:MET:HE3	1.75	0.68
1:CA:1399:C:H4'	1:CA:1400:C:C5'	2.24	0.68
31:DH:115:VAL:O	31:DH:133:GLN:HG3	1.95	0.67
24:BA:1876:A:H2'	24:BA:1877:A:O4'	1.94	0.67
24:BA:2414:G:N2	24:BA:2415:G:H1'	2.09	0.67
1:CA:668:G:O2'	1:CA:669:G:H5'	1.94	0.67
1:CA:1299:A:O2'	1:CA:1300:G:OP1	2.11	0.67
13:CM:3:ARG:O	13:CM:8:ASN:O	2.12	0.67
2:AB:73:LYS:HD3	2:AB:75:ALA:HB3	1.76	0.67
24:BA:2734:A:N7	24:BA:2735:G:C8	2.62	0.67
24:BA:2304:G:O5'	29:BF:120:SER:OG	2.12	0.67
24:DA:2055:C:H5'	24:DA:2056:G:H5''	1.75	0.67
24:DA:2013:A:H2'	24:DA:2014:A:H5'	1.76	0.67
1:AA:574:A:N3	1:AA:883:C:H1'	2.09	0.67
3:CC:52:VAL:O	3:CC:115:LEU:HD11	1.94	0.67
29:DF:60:SER:OG	29:DF:61:GLY:N	2.26	0.67
18:CR:48:ARG:HG3	18:CR:51:TYR:HB2	1.76	0.67
24:DA:1269:A:N7	59:DA:3382:HOH:O	2.26	0.67
55:CY:119:GLY:O	55:CY:121:ALA:N	2.26	0.67
24:BA:1505:A:C6	24:BA:1506:U:N3	2.62	0.67
3:CC:173:VAL:O	3:CC:175:LEU:N	2.27	0.67
26:DC:6:LYS:HB2	26:DC:7:PRO:HD2	1.75	0.67
24:BA:1913:A:O2'	24:BA:1914:C:P	2.51	0.67
31:DH:93:SER:OG	31:DH:94:ILE:N	2.26	0.67
1:AA:1364:U:HO2'	1:AA:1365:G:C5'	2.06	0.67
21:CU:25:LYS:O	21:CU:27:GLY:N	2.27	0.67
1:AA:371:A:C2	1:AA:372:C:C5	2.83	0.67
1:AA:570:G:H1'	1:AA:820:U:C4	2.29	0.67
1:AA:672:U:H2'	1:AA:673:A:C8	2.29	0.67
1:CA:1324:A:C2	1:CA:1325:C:H1'	2.29	0.67
1:CA:1238:A:H5''	1:CA:1336:C:N4	2.09	0.67
35:DL:41:ARG:O	35:DL:43:GLY:N	2.27	0.67
6:CF:69:GLU:O	6:CF:71:ILE:N	2.28	0.67
46:BW:24:LYS:CD	46:BW:25:ARG:HG2	2.24	0.67
2:AB:43:LEU:O	2:AB:46:THR:N	2.28	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2311:A:O2'	24:BA:2312:U:P	2.51	0.67
10:AJ:42:LEU:HG	10:AJ:43:PRO:HD2	1.74	0.67
37:DN:103:ARG:HB2	37:DN:110:MET:HE3	1.74	0.67
3:AC:47:LEU:HB3	3:AC:50:ALA:HB3	1.76	0.67
24:DA:2661:G:N1	24:DA:2662:A:C2	2.62	0.67
25:BB:9:G:O2'	38:BO:44:GLY:O	2.07	0.67
24:BA:1255:U:O2'	59:BA:3275:HOH:O	2.12	0.67
26:DC:184:GLU:O	26:DC:187:CYS:SG	2.52	0.67
31:DH:119:ASN:O	31:DH:121:VAL:N	2.27	0.67
1:CA:787:A:H2'	1:CA:788:U:C5'	2.25	0.67
8:AH:101:ILE:HG13	8:AH:112:THR:HB	1.76	0.67
8:AH:85:ILE:HG22	8:AH:86:TYR:N	2.10	0.67
24:DA:1072:C:O2	24:DA:1093:G:N1	2.26	0.67
24:BA:2730:C:C4	57:BA:3165:NMY:O20	2.46	0.67
1:AA:1140:C:O2'	1:AA:1141:C:P	2.52	0.67
29:DF:34:THR:HB	29:DF:89:THR:CG2	2.25	0.67
24:DA:1857:G:N2	24:DA:1884:G:C4	2.63	0.67
24:DA:480:A:O3'	44:DU:43:LYS:NZ	2.26	0.67
24:BA:555:G:O2'	24:BA:556:A:OP2	2.13	0.67
24:BA:2343:U:HO2'	24:BA:2373:G:HO2'	1.42	0.67
44:BU:57:ILE:HD12	44:BU:57:ILE:N	2.10	0.67
7:CG:58:GLU:O	7:CG:61:ALA:N	2.26	0.67
55:CY:44:TYR:CD1	55:CY:44:TYR:N	2.60	0.67
24:DA:2344:U:H4'	24:DA:2345:G:OP1	1.92	0.67
24:BA:852:U:C5	24:BA:853:C:C4	2.82	0.67
24:BA:635:C:O2	24:BA:639:U:H4'	1.95	0.67
1:CA:475:C:H2'	1:CA:476:U:C6	2.29	0.67
24:DA:2318:G:C6	24:DA:2319:G:N1	2.62	0.67
24:BA:729:G:H2'	24:BA:1775:U:H1'	1.77	0.67
11:CK:24:HIS:NE2	11:CK:33:THR:OG1	2.25	0.67
1:AA:376:G:OP1	16:AP:5:ARG:NH1	2.28	0.67
1:AA:508:U:H5'	4:AD:51:TYR:CZ	2.29	0.67
24:BA:1188:U:H2'	24:BA:1189:A:C5'	2.24	0.67
38:BO:80:GLU:O	38:BO:82:ALA:N	2.27	0.67
24:BA:363:G:C2	24:BA:364:C:C2	2.83	0.67
24:BA:533:G:H5'	40:BQ:23:TYR:CE1	2.29	0.67
12:CL:65:SER:HB2	12:CL:95:TYR:HB3	1.75	0.67
1:CA:858:G:C6	1:CA:869:G:C8	2.82	0.67
1:CA:858:G:O6	59:CA:1819:HOH:O	2.08	0.67
24:DA:1340:U:C5	24:DA:1603:A:C8	2.82	0.67
3:AC:100:GLN:CG	3:AC:101:ILE:N	2.57	0.67
6:CF:3:HIS:O	6:CF:92:THR:OG1	2.12	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:170:TRP:CE2	4:AD:186:PRO:HD3	2.29	0.67
24:BA:1827:U:C5'	24:BA:1971:U:H5''	2.23	0.67
21:AU:37:PHE:O	21:AU:38:TYR:CG	2.48	0.67
24:BA:453:A:OP1	59:BA:3245:HOH:O	2.12	0.67
24:BA:121:G:H4'	24:BA:149:A:H5'	1.77	0.67
1:AA:338:A:OP2	34:BK:98:ARG:NH2	2.27	0.67
24:BA:1141:U:H4'	24:BA:1142:A:O5'	1.93	0.67
24:DA:1794:A:O4'	24:DA:1900:A:C2	2.47	0.67
24:BA:720:U:H2'	24:BA:721:A:C8	2.30	0.67
24:BA:2582:G:C2	24:BA:2583:G:C8	2.83	0.67
50:B0:39:ARG:O	50:B0:41:HIS:N	2.27	0.67
1:AA:607:A:C4	1:AA:608:A:C8	2.82	0.67
17:AQ:49:GLU:O	17:AQ:51:ASN:N	2.27	0.67
1:AA:815:A:O2'	1:AA:816:A:OP1	2.12	0.67
19:AS:71:LEU:HA	19:AS:73:GLU:OE2	1.95	0.67
24:DA:2362:C:OP1	53:D3:39:ARG:NH2	2.26	0.67
1:AA:542:G:C2	1:AA:543:U:C6	2.83	0.67
1:CA:1309:G:C2	1:CA:1329:A:C8	2.83	0.67
4:CD:81:ARG:HG3	4:CD:82:LEU:N	2.09	0.67
24:BA:1206:G:C5	24:BA:1207:C:C4	2.82	0.67
24:BA:1263:U:O2'	50:B0:3:GLN:NE2	2.24	0.67
1:CA:722:G:N3	21:CU:45:ARG:NH2	2.42	0.67
49:BZ:50:VAL:O	49:BZ:50:VAL:HG22	1.92	0.67
1:AA:1426:G:C2	1:AA:1427:C:O2	2.47	0.67
22:AV:72:C:C2'	22:AV:73:A:O5'	2.43	0.67
24:BA:1303:G:O2'	24:BA:1642:G:O2'	2.10	0.67
55:CY:121:ALA:CB	55:CY:175:LEU:HD12	2.25	0.67
1:AA:325:A:N6	1:AA:326:G:N1	2.41	0.67
4:CD:151:LYS:NZ	4:CD:175:ALA:O	2.26	0.67
24:BA:2138:G:C2	24:BA:2154:A:C2	2.82	0.67
2:AB:60:ILE:O	2:AB:60:ILE:HG23	1.94	0.67
24:DA:1181:U:H2'	24:DA:1182:G:C8	2.30	0.67
16:AP:24:SER:O	16:AP:26:ASN:N	2.28	0.67
32:DI:107:GLU:OE1	32:DI:107:GLU:N	2.28	0.67
1:CA:827:U:C4	1:CA:870:U:C2	2.83	0.67
38:BO:67:ASN:O	38:BO:69:ASP:N	2.28	0.67
1:CA:765:G:H5''	1:CA:766:A:OP1	1.94	0.67
24:DA:532:A:H2'	24:DA:532:A:N3	2.10	0.67
20:CT:32:ILE:CA	20:CT:54:MET:SD	2.82	0.67
14:CN:17:ASP:O	14:CN:22:LYS:NZ	2.28	0.67
24:DA:2230:G:H1'	47:DX:31:ASN:CB	2.24	0.67
1:CA:966:G:N3	9:CI:129:LYS:HE3	2.10	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:11:HIS:ND1	6:CF:13:ASP:OD1	2.27	0.67
1:AA:150:U:H2'	1:AA:151:A:H8	1.60	0.67
24:DA:734:A:C2'	24:DA:735:A:H5'	2.24	0.67
24:DA:2407:A:C4	24:DA:2408:U:C5	2.82	0.67
24:BA:1760:C:C6	24:BA:1761:C:C5	2.82	0.67
24:BA:883:G:C2	24:BA:894:U:C2	2.81	0.67
34:BK:13:ASN:OD1	34:BK:98:ARG:N	2.28	0.67
24:BA:1421:G:C2	24:BA:1422:G:C8	2.82	0.67
1:AA:490:C:C2	1:AA:491:G:C8	2.81	0.67
42:BS:2:GLU:N	42:BS:2:GLU:OE2	2.28	0.67
26:BC:142:ASN:O	26:BC:142:ASN:ND2	2.28	0.67
24:BA:1045:C:O2	24:BA:1047:G:C2	2.48	0.67
24:BA:1157:G:N3	24:BA:1157:G:H2'	2.10	0.67
4:AD:103:TYR:CZ	4:AD:111:ARG:CA	2.78	0.67
15:CO:78:TYR:CD1	15:CO:78:TYR:N	2.59	0.67
13:CM:75:MET:O	13:CM:79:ARG:N	2.27	0.67
36:BM:1:MET:CE	36:BM:44:ARG:HG2	2.25	0.67
24:DA:713:G:C6	24:DA:714:U:O4	2.47	0.67
1:AA:181:A:N1	1:AA:195:A:C8	2.63	0.67
19:CS:18:LYS:O	19:CS:21:LYS:N	2.28	0.67
24:BA:1205:A:C6	28:BE:165:HIS:CE1	2.83	0.67
24:BA:2259:U:C6	24:BA:2427:C:C4	2.82	0.67
24:BA:2657:A:O3'	30:BG:159:LYS:NZ	2.27	0.67
1:CA:966:G:H2'	9:CI:129:LYS:CD	2.24	0.67
24:DA:2484:G:OP1	36:DM:44:ARG:CD	2.43	0.67
1:AA:560:A:C5'	1:AA:566:G:N2	2.58	0.67
31:BH:147:VAL:HG22	31:BH:148:ALA:N	2.10	0.67
6:AF:18:VAL:HG13	6:AF:19:PRO:HD3	1.75	0.67
52:D2:34:ARG:NH1	52:D2:39:ARG:HD2	2.10	0.67
1:AA:1492:A:O2'	1:AA:1493:A:O5'	2.12	0.67
38:BO:11:ALA:O	38:BO:13:ARG:N	2.27	0.67
1:AA:402:G:O2'	4:AD:132:ILE:CD1	2.43	0.67
1:AA:1084:G:N7	1:AA:1085:U:C2	2.62	0.67
1:CA:1306:A:C5	1:CA:1332:A:C2	2.83	0.67
24:BA:827:U:OP2	59:BA:3702:HOH:O	2.11	0.67
24:DA:31:C:H4'	24:DA:1238:G:H4'	1.75	0.67
1:CA:1408:A:C2	1:CA:1494:G:C5	2.83	0.67
24:BA:1268:A:OP1	59:BA:3383:HOH:O	2.12	0.67
24:BA:2285:C:OP2	51:B1:5:ARG:CZ	2.42	0.67
24:DA:2201:G:C5	24:DA:2202:U:C5	2.83	0.67
24:DA:2204:G:N3	24:DA:2205:A:C8	2.63	0.67
24:DA:2748:A:H1'	30:DG:66:THR:CG2	2.25	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1738:G:O2'	24:DA:1739:A:O5'	2.13	0.67
24:DA:998:C:C2'	24:DA:999:U:O5'	2.43	0.67
24:BA:483:A:N1	24:BA:484:C:C2	2.63	0.67
31:DH:11:ASN:O	31:DH:12:LEU:HB3	1.94	0.67
24:BA:167:A:C5	24:BA:168:G:C8	2.81	0.67
12:AL:50:ARG:HG2	12:AL:90:LEU:HD11	1.77	0.67
55:CY:44:TYR:CE2	55:CY:54:LEU:HD11	2.30	0.67
24:DA:2885:G:H2'	24:DA:2886:A:H5'	1.77	0.67
1:CA:939:G:C2'	1:CA:940:C:H5'	2.23	0.67
24:DA:244:A:C2	24:DA:255:A:C4	2.83	0.67
38:DO:64:TYR:O	38:DO:67:ASN:ND2	2.26	0.67
24:DA:77:G:O3'	48:DY:2:LYS:HD3	1.95	0.67
34:BK:64:ARG:HD2	34:BK:79:PHE:CD2	2.29	0.67
10:AJ:12:ALA:HB2	10:AJ:96:VAL:HG12	1.76	0.67
44:BU:95:PHE:CE1	44:BU:102:ILE:HD13	2.30	0.67
24:DA:1931:U:H5''	57:DA:3184:NMY:H192	1.59	0.67
24:BA:1730:C:HO2'	24:BA:1731:G:P	2.15	0.67
13:CM:75:MET:SD	29:DF:111:ARG:CZ	2.82	0.67
24:BA:733:G:C6	24:BA:761:A:C8	2.83	0.67
57:AA:1656:NMY:H16	57:AA:1656:NMY:N19	2.10	0.67
47:DX:32:LEU:HA	47:DX:50:VAL:O	1.94	0.67
47:DX:52:ALA:O	47:DX:53:LYS:C	2.33	0.67
24:DA:998:C:H2'	24:DA:999:U:O5'	1.94	0.67
24:BA:480:A:O2'	24:BA:481:G:OP1	2.13	0.67
1:AA:175:C:H2'	1:AA:176:C:C6	2.30	0.67
36:DM:83:GLY:O	36:DM:85:GLY:N	2.28	0.67
24:DA:2657:A:O2'	30:DG:159:LYS:NZ	2.28	0.67
1:CA:954:G:C6	1:CA:955:U:C4	2.83	0.67
24:DA:2292:U:H2'	24:DA:2293:G:C8	2.29	0.67
1:AA:786:G:H2'	1:AA:787:A:O5'	1.95	0.67
34:BK:107:LEU:O	34:BK:109:SER:N	2.28	0.67
24:BA:1262:A:OP2	42:BS:99:ARG:NH2	2.27	0.67
24:BA:2514:U:H2'	24:BA:2515:C:C6	2.29	0.67
20:AT:39:ILE:O	20:AT:42:GLY:N	2.27	0.67
24:BA:1291:C:C2	24:BA:1292:G:C8	2.82	0.67
24:DA:1619:G:H2'	24:DA:1620:G:O5'	1.95	0.67
1:AA:1522:U:H2'	1:AA:1523:G:H8	1.60	0.67
24:DA:2122:U:O2'	24:DA:2123:G:P	2.52	0.67
27:BD:120:GLY:O	27:BD:122:VAL:N	2.26	0.67
24:BA:2294:G:OP1	38:BO:10:ARG:NE	2.28	0.67
24:BA:2376:A:H2'	24:BA:2377:A:O4'	1.94	0.67
4:AD:99:ASP:HB2	4:AD:115:ARG:CZ	2.25	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1082:A:H2'	1:AA:1083:U:H5'	1.76	0.67
1:AA:802:A:H2'	1:AA:803:G:H5'	1.77	0.67
24:BA:84:A:H4'	44:BU:5:ARG:HD3	1.77	0.67
1:CA:919:A:O2'	1:CA:920:U:H5'	1.95	0.67
4:CD:19:LEU:HD12	4:CD:64:ILE:HA	1.77	0.67
1:CA:842:U:H3'	1:CA:843:U:H4'	1.76	0.67
22:CV:56:C:C2'	22:CV:57:G:H5'	2.25	0.67
24:DA:2655:G:O2'	24:DA:2656:U:P	2.52	0.67
40:DQ:82:LEU:HG	40:DQ:87:VAL:HG11	1.76	0.67
31:BH:27:ARG:O	31:BH:32:PRO:CG	2.43	0.67
24:BA:1416:G:C8	24:BA:1417:C:C5	2.83	0.67
24:BA:2204:G:C4	24:BA:2205:A:C8	2.83	0.67
1:AA:328:C:H4'	1:AA:329:A:H5'	1.76	0.67
24:DA:446:G:P	40:DQ:2:ARG:HG3	2.34	0.67
24:BA:2250:G:OP1	36:BM:84:LYS:NZ	2.29	0.67
24:DA:64:A:H2'	24:DA:65:U:C6	2.29	0.67
24:DA:2593:U:H2'	24:DA:2594:C:C6	2.30	0.67
24:BA:1579:A:C2	24:BA:1580:A:C2	2.83	0.67
24:DA:2413:G:C2'	24:DA:2414:G:H5'	2.25	0.67
10:CJ:65:TYR:HB3	14:CN:96:LEU:HD13	1.76	0.67
24:DA:2575:C:OP2	59:DA:3714:HOH:O	2.13	0.67
1:AA:508:U:C5'	4:AD:51:TYR:CZ	2.78	0.66
12:AL:116:LYS:O	12:AL:117:TYR:CB	2.43	0.66
4:CD:69:GLU:HA	4:CD:72:PHE:CE2	2.30	0.66
1:AA:784:A:H2'	1:AA:785:G:O4'	1.95	0.66
13:CM:87:ARG:NH2	13:CM:97:VAL:HG11	2.10	0.66
1:AA:669:G:OP1	15:AO:48:LYS:NZ	2.21	0.66
9:AI:45:ARG:O	9:AI:47:VAL:N	2.27	0.66
24:DA:1371:G:O2'	24:DA:1372:U:H5'	1.95	0.66
19:CS:60:VAL:HG12	19:CS:62:VAL:HG13	1.77	0.66
24:BA:616:A:H4'	28:BE:101:TYR:CE2	2.29	0.66
13:AM:66:GLU:O	13:AM:68:ASP:N	2.27	0.66
24:BA:53:A:C8	24:BA:54:G:C8	2.83	0.66
6:AF:92:THR:O	6:AF:94:HIS:N	2.27	0.66
24:BA:1349:C:H2'	24:BA:1350:C:H5'	1.77	0.66
1:AA:73:C:O2'	1:AA:74:A:O5'	2.13	0.66
15:AO:11:ILE:HD11	15:AO:31:LEU:HB3	1.75	0.66
24:DA:397:U:OP2	47:DX:9:LYS:CE	2.43	0.66
24:BA:1799:G:N1	24:BA:1819:A:OP2	2.28	0.66
24:DA:355:U:H2'	24:DA:356:G:H8	1.60	0.66
24:DA:1326:U:O2	59:DA:3824:HOH:O	2.11	0.66
55:CY:61:ASP:OD1	55:CY:64:THR:N	2.28	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BK:34:GLY:O	34:BK:36:GLY:N	2.27	0.66
24:BA:215:G:O3'	24:BA:216:A:H4'	1.95	0.66
24:BA:404:A:C2	24:BA:406:G:N1	2.64	0.66
43:DT:51:PHE:O	43:DT:53:VAL:N	2.28	0.66
24:BA:2563:U:C2	24:BA:2565:A:OP2	2.48	0.66
5:CE:74:VAL:HG23	5:CE:75:ALA:N	2.08	0.66
24:BA:992:C:O3'	41:BR:74:ILE:CD1	2.43	0.66
24:DA:1929:G:H3'	57:DA:3184:NMY:O3	1.94	0.66
1:AA:1232:U:C4	1:AA:1233:G:N7	2.63	0.66
24:BA:2418:A:HO2'	24:BA:2419:U:P	2.18	0.66
1:AA:508:U:H4'	4:AD:51:TYR:OH	1.95	0.66
31:DH:88:GLY:O	31:DH:125:THR:CG2	2.42	0.66
13:CM:14:HIS:HB3	13:CM:17:ILE:CD1	2.25	0.66
2:AB:99:GLY:CA	2:AB:175:GLU:OE2	2.42	0.66
24:BA:1044:C:C2	24:BA:1112:G:N2	2.63	0.66
2:AB:90:PHE:CG	2:AB:154:MET:HE3	2.30	0.66
24:DA:983:A:C6	24:DA:984:A:C2	2.83	0.66
3:AC:20:SER:HA	3:AC:57:ILE:CG1	2.25	0.66
24:DA:1858:A:C4	24:DA:1859:U:C6	2.82	0.66
24:BA:2759:G:N2	30:BG:138:GLN:HG3	2.11	0.66
1:CA:1377:A:OP1	7:CG:92:ARG:NH2	2.28	0.66
24:DA:2656:U:C5	24:DA:2664:G:N2	2.63	0.66
4:AD:101:VAL:O	4:AD:101:VAL:CG1	2.43	0.66
26:DC:123:ILE:O	26:DC:123:ILE:CG2	2.42	0.66
1:CA:63:C:H2'	1:CA:64:G:C5'	2.25	0.66
24:BA:1505:A:C6	24:BA:1506:U:C4	2.84	0.66
5:CE:45:ARG:NH2	5:CE:73:ASN:OD1	2.28	0.66
25:DB:94:A:H2'	25:DB:95:U:O4'	1.95	0.66
17:AQ:78:VAL:O	17:AQ:79:VAL:HG22	1.95	0.66
44:DU:97:SER:O	44:DU:98:ASN:HB3	1.94	0.66
27:BD:114:LYS:HG3	27:BD:196:ALA:HB2	1.75	0.66
43:DT:35:ALA:O	43:DT:36:LYS:O	2.14	0.66
30:BG:79:THR:O	30:BG:79:THR:CG2	2.43	0.66
12:CL:100:GLY:N	12:CL:104:CYS:SG	2.68	0.66
16:AP:39:PHE:CD1	16:AP:39:PHE:C	2.68	0.66
1:AA:1493:A:H5''	24:BA:1913:A:H61	1.60	0.66
1:AA:980:C:HO2'	1:AA:981:U:P	2.18	0.66
15:AO:70:LEU:HB3	15:AO:78:TYR:CE1	2.30	0.66
24:BA:412:A:N6	24:BA:2412:A:O4'	2.28	0.66
5:AE:141:ILE:O	5:AE:143:GLY:N	2.29	0.66
24:DA:1362:C:O2'	24:DA:1363:C:H5'	1.94	0.66
24:BA:77:G:H5''	48:BY:2:LYS:HD3	1.77	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:258:G:C4	1:CA:259:G:C8	2.83	0.66
24:DA:2731:G:C6	24:DA:2732:G:O6	2.49	0.66
38:DO:47:VAL:CG1	38:DO:48:LEU:N	2.59	0.66
24:DA:1187:G:N7	59:DA:3580:HOH:O	2.28	0.66
24:BA:997:G:OP1	40:BQ:91:ARG:CG	2.42	0.66
24:DA:943:A:OP2	35:DL:39:LYS:NZ	2.27	0.66
3:CC:156:ARG:NH2	3:CC:193:TYR:CE2	2.64	0.66
1:AA:479:U:C2'	1:AA:480:U:H5''	2.25	0.66
1:AA:451:A:C2	1:AA:480:U:C5	2.83	0.66
1:CA:5:U:H4'	1:CA:6:G:O5'	1.92	0.66
1:AA:108:G:H5'	1:AA:109:A:C5'	2.26	0.66
1:CA:1169:A:C6	1:CA:1170:A:C2	2.83	0.66
25:BB:53:A:C5	25:BB:54:G:N7	2.63	0.66
1:CA:662:U:H2'	1:CA:663:A:C8	2.30	0.66
24:DA:757:G:N7	59:DA:3301:HOH:O	2.27	0.66
11:CK:45:ALA:O	11:CK:69:ARG:NH1	2.28	0.66
1:AA:35:G:C6	1:AA:36:C:C4	2.84	0.66
1:AA:370:C:C2	1:AA:371:A:C8	2.83	0.66
1:AA:389:A:H2'	1:AA:390:U:H5'	1.77	0.66
4:AD:124:MET:SD	4:AD:127:GLY:HA2	2.36	0.66
1:CA:37:U:OP1	12:CL:120:LYS:CD	2.43	0.66
24:BA:1921:G:N7	57:BA:3161:NMY:N7	2.43	0.66
24:DA:1059:G:C5'	24:DA:1060:U:H2'	2.25	0.66
24:DA:1064:C:O2	24:DA:1064:C:H2'	1.95	0.66
1:CA:1254:A:C2	1:CA:1255:G:C4	2.83	0.66
9:CI:39:PHE:O	9:CI:41:ARG:N	2.27	0.66
27:BD:115:GLY:O	37:BN:3:HIS:NE2	2.26	0.66
14:CN:96:LEU:HD12	14:CN:96:LEU:C	2.15	0.66
47:DX:1:SER:O	47:DX:3:VAL:N	2.28	0.66
2:CB:24:ASN:ND2	2:CB:192:ASP:OD1	2.28	0.66
16:AP:77:GLU:HG2	16:AP:77:GLU:O	1.96	0.66
14:AN:57:PRO:O	14:AN:59:ARG:N	2.28	0.66
4:CD:111:ARG:O	4:CD:114:ALA:HB3	1.96	0.66
1:CA:258:G:N7	59:CA:1717:HOH:O	2.28	0.66
24:DA:2729:G:O2'	24:DA:2730:C:H5'	1.95	0.66
8:CH:115:ALA:O	8:CH:118:GLN:N	2.28	0.66
21:AU:14:VAL:HG23	21:AU:16:LEU:CG	2.25	0.66
41:DR:20:VAL:CG1	41:DR:22:LEU:HD13	2.24	0.66
24:BA:2820:A:O2'	24:BA:2821:A:P	2.53	0.66
24:DA:784:G:OP1	59:DA:3315:HOH:O	2.14	0.66
1:CA:79:G:O2'	1:CA:80:A:O5'	2.09	0.66
24:BA:464:U:H5'	52:B2:5:PHE:CD2	2.29	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:880:C:H2'	1:AA:881:G:H5'	1.78	0.66
24:DA:866:A:C8	24:DA:914:G:C2	2.84	0.66
4:CD:12:SER:OG	4:CD:18:ASP:HA	1.96	0.66
24:DA:2297:A:N1	24:DA:2321:U:H5	1.93	0.66
1:CA:833:G:C2'	1:CA:834:U:O5'	2.44	0.66
24:DA:1827:U:OP2	26:DC:220:ARG:NH1	2.27	0.66
38:DO:2:ASP:HB3	38:DO:5:SER:HB3	1.78	0.66
24:DA:995:C:O2	33:DJ:3:THR:OG1	2.13	0.66
24:DA:1312:U:C4	43:DT:64:LYS:HD3	2.30	0.66
19:AS:36:ARG:HA	19:AS:71:LEU:HB2	1.76	0.66
2:CB:88:ASP:N	2:CB:89:GLN:OE1	2.29	0.66
1:AA:59:A:C2	1:AA:331:G:C2	2.84	0.66
1:AA:132:C:H5'	1:AA:262:A:O2'	1.95	0.66
41:BR:80:ARG:O	41:BR:80:ARG:HG2	1.96	0.66
13:AM:4:ILE:O	13:AM:6:GLY:N	2.29	0.66
1:CA:1048:G:C5'	14:CN:2:LYS:HD3	2.25	0.66
1:CA:1342:C:O2'	1:CA:1343:G:H5'	1.96	0.66
24:DA:1152:C:H5''	40:DQ:79:ILE:HG21	1.76	0.66
1:AA:357:G:C2'	1:AA:358:U:H5'	2.25	0.66
24:DA:2012:G:OP1	42:DS:98:LYS:HG3	1.96	0.66
42:BS:36:LEU:O	42:BS:37:THR:C	2.33	0.66
46:DW:48:GLY:CA	46:DW:80:ILE:O	2.43	0.66
1:AA:157:U:O2	1:AA:165:G:C6	2.48	0.66
24:DA:756:A:N7	59:DA:3301:HOH:O	2.28	0.66
24:BA:726:G:O2'	24:BA:727:A:OP2	2.13	0.66
24:DA:2365:G:H4'	46:DW:60:PHE:CZ	2.30	0.66
36:DM:136:MET:CE	45:DV:57:TYR:CD1	2.78	0.66
21:CU:50:ALA:O	21:CU:53:VAL:HG12	1.95	0.66
24:DA:560:C:O2	40:DQ:47:ARG:NH1	2.29	0.66
33:BJ:125:TYR:CE2	33:BJ:130:HIS:HA	2.30	0.66
19:AS:32:ARG:HA	19:AS:57:HIS:CE1	2.31	0.66
24:BA:691:C:P	26:BC:216:ARG:HH22	2.18	0.66
25:BB:51:G:O6	25:BB:52:A:N6	2.29	0.66
1:AA:354:G:N3	1:AA:355:C:C6	2.63	0.66
1:AA:376:G:P	16:AP:5:ARG:CZ	2.83	0.66
1:AA:45:G:O2'	1:AA:46:G:H5'	1.96	0.66
11:AK:126:LYS:O	11:AK:127:ARG:CG	2.44	0.66
24:BA:1839:G:C8	24:BA:1927:A:H1'	2.31	0.66
1:CA:1241:G:H2'	1:CA:1242:G:C8	2.30	0.66
9:AI:75:GLN:O	9:AI:78:ALA:N	2.28	0.66
20:AT:70:ASN:O	20:AT:73:ALA:N	2.29	0.66
1:CA:261:U:OP2	20:CT:71:LYS:NZ	2.29	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1237:C:OP1	1:AA:1303:C:O2'	2.10	0.66
1:AA:1048:G:OP2	14:AN:3:GLN:NE2	2.29	0.66
4:CD:19:LEU:HD22	4:CD:21:LEU:HG	1.78	0.66
22:CV:72:C:O2'	22:CV:73:A:P	2.53	0.66
3:AC:79:LYS:NZ	1:CA:1539:C:OP2	2.27	0.66
4:AD:185:LYS:O	4:AD:187:GLU:N	2.29	0.66
41:DR:16:GLU:HA	41:DR:98:ILE:CD1	2.24	0.66
1:CA:57:G:C6	1:CA:58:C:N3	2.64	0.66
24:DA:2550:G:OP2	59:DA:3726:HOH:O	2.12	0.66
27:DD:14:ILE:O	27:DD:22:ILE:HG22	1.95	0.66
24:DA:215:G:O3'	24:DA:216:A:H4'	1.95	0.66
24:DA:726:G:O2'	24:DA:727:A:OP2	2.13	0.66
49:DZ:3:THR:O	49:DZ:3:THR:OG1	2.09	0.66
59:BA:3298:HOH:O	35:BL:99:ASN:ND2	2.29	0.66
24:BA:397:U:OP2	47:BX:9:LYS:NZ	2.29	0.66
11:CK:26:SER:O	11:CK:27:PHE:CB	2.44	0.66
1:AA:515:G:C2	1:AA:537:G:C2	2.84	0.66
1:AA:376:G:C5'	16:AP:5:ARG:HE	2.09	0.66
1:CA:1332:A:N6	1:CA:1333:A:C6	2.64	0.66
27:DD:133:THR:CG2	27:DD:134:HIS:N	2.58	0.66
24:BA:1996:C:H4'	24:BA:1997:C:OP1	1.96	0.66
35:DL:35:HIS:O	35:DL:36:LYS:O	2.13	0.66
1:CA:325:A:H2'	1:CA:326:G:O4'	1.96	0.66
1:CA:327:A:C4	1:CA:329:A:C8	2.84	0.66
13:AM:23:TYR:CD1	13:AM:69:LEU:HD22	2.31	0.66
44:BU:35:VAL:O	44:BU:35:VAL:HG22	1.94	0.66
24:BA:2303:G:HO2'	29:BF:120:SER:HG	1.32	0.66
2:AB:188:ASP:OD1	2:AB:189:THR:N	2.29	0.66
24:BA:2038:G:C5	24:BA:2039:U:C5	2.83	0.66
24:BA:2703:C:H2'	24:BA:2704:C:C6	2.30	0.66
24:DA:58:G:OP1	43:DT:78:SER:OG	2.08	0.66
24:BA:1422:G:H1'	24:BA:1495:A:N1	2.10	0.66
1:AA:1360:A:C5	1:AA:1361:G:H1'	2.31	0.66
24:BA:1505:A:C2	24:BA:1506:U:C2	2.84	0.66
1:CA:1097:C:H1'	1:CA:1170:A:H1'	1.77	0.66
24:BA:184:C:H2'	24:BA:185:G:H8	1.59	0.66
1:AA:474:G:C5	1:AA:475:C:C5	2.84	0.66
2:CB:159:ASP:O	2:CB:160:ALA:CB	2.43	0.66
50:D0:29:VAL:HG23	50:D0:36:LYS:HB3	1.78	0.66
11:AK:88:GLY:O	11:AK:93:ARG:CZ	2.44	0.66
24:DA:2512:C:O2'	27:DD:159:LYS:NZ	2.27	0.66
27:DD:197:THR:O	27:DD:197:THR:OG1	2.14	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AS:36:ARG:HB2	19:AS:72:GLY:N	2.11	0.66
31:DH:146:VAL:HG13	31:DH:147:VAL:H	1.61	0.66
20:AT:7:ALA:O	20:AT:10:ARG:N	2.27	0.66
1:CA:597:G:H1'	17:CQ:28:PHE:CE1	2.31	0.66
24:DA:1066:U:N3	24:DA:1069:A:OP2	2.29	0.66
12:CL:82:ILE:HG12	12:CL:95:TYR:CG	2.30	0.66
24:DA:332:A:O2'	24:DA:334:C:OP2	2.14	0.66
8:CH:111:MET:SD	8:CH:116:ALA:HA	2.36	0.66
28:BE:46:GLN:HB2	28:BE:83:VAL:HG11	1.75	0.66
29:DF:131:VAL:CG2	29:DF:151:LEU:HB3	2.26	0.66
22:CV:57:G:C2'	22:CV:58:A:H5''	2.25	0.66
37:BN:52:ILE:O	37:BN:55:ALA:N	2.29	0.66
39:BP:83:ILE:HD13	39:BP:84:SER:N	2.10	0.66
12:AL:85:GLY:O	12:AL:96:HIS:CD2	2.49	0.66
24:BA:2640:G:P	33:BJ:96:ARG:HH12	2.18	0.66
24:DA:943:A:OP2	35:DL:39:LYS:CE	2.44	0.66
1:AA:1018:G:C6	1:AA:1019:A:C6	2.84	0.66
34:BK:21:CYS:HA	34:BK:41:ILE:HG22	1.78	0.66
38:DO:87:ILE:HD12	38:DO:88:LYS:N	2.10	0.66
26:BC:81:GLU:OE1	26:BC:102:TYR:OH	2.06	0.66
24:DA:1623:G:O2'	24:DA:1624:U:H5'	1.96	0.66
24:BA:871:U:H5''	36:BM:68:PHE:CZ	2.31	0.66
26:BC:16:VAL:HB	26:BC:203:VAL:HG22	1.77	0.66
1:AA:4:U:H5''	1:AA:5:U:C4	2.31	0.66
4:CD:104:ARG:NH2	4:CD:170:TRP:CD2	2.64	0.66
12:CL:102:LEU:HD12	12:CL:103:ASP:N	2.11	0.66
1:CA:443:C:C2'	1:CA:444:G:H5'	2.25	0.66
24:BA:1378:A:N3	24:BA:1380:G:C8	2.63	0.66
29:DF:121:PHE:CZ	29:DF:127:TYR:CE1	2.83	0.66
7:CG:68:ASN:ND2	7:CG:130:ASN:OD1	2.29	0.66
41:BR:52:PRO:HG2	41:BR:53:PHE:CD2	2.31	0.66
1:CA:719:C:O2'	18:CR:38:LYS:HG2	1.96	0.66
39:BP:38:ARG:HG3	39:BP:39:LEU:N	2.10	0.66
26:BC:81:GLU:HB3	26:BC:90:ILE:HD11	1.77	0.66
35:DL:132:ARG:NH1	35:DL:142:ILE:HD11	2.11	0.66
24:BA:1670:C:C5	24:BA:1671:U:C4	2.84	0.66
1:AA:317:U:O2	1:AA:318:G:C8	2.49	0.66
28:DE:73:ILE:O	28:DE:73:ILE:CG1	2.43	0.66
45:BV:72:VAL:HG21	45:BV:91:PHE:HB3	1.78	0.66
24:BA:1995:U:OP1	27:BD:128:ARG:NE	2.29	0.66
1:AA:980:C:H2'	1:AA:981:U:O5'	1.96	0.65
24:DA:2359:C:O2'	53:D3:53:ASP:OD2	2.14	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:38:ASN:O	8:AH:42:GLU:HB2	1.96	0.65
1:CA:1523:G:O3'	11:CK:125:LYS:CE	2.44	0.65
14:AN:61:ARG:O	14:AN:62:ASN:CG	2.34	0.65
1:CA:1309:G:OP1	13:CM:87:ARG:NH1	2.29	0.65
24:DA:1060:U:H4'	24:DA:1061:U:H5'	1.77	0.65
1:CA:375:U:H2'	1:CA:376:G:H5''	1.78	0.65
13:AM:71:ARG:NH1	13:AM:72:GLU:OE2	2.28	0.65
1:CA:1090:U:H2'	1:CA:1091:U:C6	2.31	0.65
3:AC:98:PRO:O	3:AC:99:ALA:CB	2.43	0.65
29:DF:126:ASN:HB3	29:DF:155:ILE:CD1	2.26	0.65
1:AA:992:U:O2	1:AA:993:G:N1	2.29	0.65
1:CA:1344:C:O5'	9:CI:124:ARG:NH2	2.29	0.65
24:DA:205:G:O2'	24:DA:206:U:OP2	2.14	0.65
24:DA:973:A:H5''	41:DR:81:LYS:HG3	1.78	0.65
47:DX:71:ARG:NH1	47:DX:77:TYR:OH	2.29	0.65
2:AB:221:VAL:O	2:AB:223:GLU:N	2.29	0.65
1:AA:1516:G:N3	1:AA:1516:G:H2'	2.11	0.65
24:BA:686:U:O4	52:B2:12:ARG:HB2	1.96	0.65
1:AA:451:A:C2	1:AA:480:U:C4	2.84	0.65
24:BA:2243:U:OP1	59:BA:3745:HOH:O	2.14	0.65
1:AA:1315:U:C5	1:AA:1316:G:C5	2.84	0.65
6:CF:51:ILE:O	6:CF:54:LEU:N	2.29	0.65
24:DA:1345:C:C2	24:DA:1346:G:C8	2.83	0.65
4:AD:4:TYR:CE2	4:AD:6:GLY:O	2.49	0.65
24:BA:2521:C:C2'	24:BA:2522:U:O5'	2.43	0.65
5:AE:157:ARG:C	5:AE:159:LYS:N	2.50	0.65
8:AH:14:ILE:O	8:AH:17:GLY:N	2.30	0.65
4:AD:56:ARG:O	4:AD:60:LYS:N	2.29	0.65
1:CA:437:U:C4	1:CA:438:U:H5	2.14	0.65
1:CA:619:U:H4'	4:CD:128:ARG:NH2	2.11	0.65
15:CO:56:LEU:O	15:CO:58:ARG:N	2.28	0.65
1:AA:801:U:C2'	1:AA:802:A:O5'	2.43	0.65
1:CA:1308:U:OP1	13:CM:97:VAL:HG12	1.95	0.65
12:CL:87:VAL:HG22	12:CL:93:VAL:CG2	2.25	0.65
29:DF:122:ASP:OD2	29:DF:124:ARG:NE	2.29	0.65
7:CG:35:LYS:O	7:CG:37:SER:N	2.29	0.65
1:CA:274:A:H4'	17:CQ:16:LYS:HE3	1.76	0.65
28:BE:83:VAL:O	28:BE:86:ALA:N	2.29	0.65
1:AA:862:C:C4	1:AA:863:U:C5	2.84	0.65
24:DA:1152:C:H5''	40:DQ:79:ILE:CG2	2.26	0.65
24:DA:2370:G:N2	51:D1:38:PHE:CE2	2.64	0.65
24:DA:657:U:H2'	24:DA:658:U:C6	2.31	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:560:A:H5'	1:AA:566:G:N2	2.11	0.65
24:BA:447:A:OP2	59:BA:3210:HOH:O	2.13	0.65
2:AB:206:ALA:O	2:AB:210:VAL:HG22	1.97	0.65
3:CC:131:ARG:NH2	3:CC:166:GLU:OE2	2.28	0.65
24:DA:1489:C:O2	24:DA:1501:G:N2	2.29	0.65
1:CA:141:G:N2	1:CA:222:C:N3	2.42	0.65
38:DO:50:ALA:O	38:DO:51:ALA:HB2	1.96	0.65
12:CL:104:CYS:O	12:CL:105:SER:CB	2.43	0.65
24:BA:373:U:OP1	47:BX:53:LYS:NZ	2.28	0.65
24:DA:594:U:H2'	24:DA:595:C:C6	2.31	0.65
12:AL:40:THR:HG22	12:AL:41:THR:N	2.12	0.65
4:CD:196:ASN:HB3	4:CD:199:LEU:HB2	1.77	0.65
1:AA:425:G:O2'	1:AA:426:U:H5'	1.96	0.65
1:AA:958:A:N1	19:AS:54:GLY:CA	2.60	0.65
13:AM:88:GLY:O	13:AM:90:ARG:N	2.30	0.65
1:AA:958:A:OP1	19:AS:55:ARG:NH2	2.30	0.65
1:CA:790:A:C8	1:CA:791:G:N7	2.64	0.65
31:DH:146:VAL:HG13	31:DH:147:VAL:N	2.11	0.65
24:BA:2734:A:C3'	24:BA:2735:G:H5'	2.26	0.65
24:DA:565:C:OP1	41:DR:79:ARG:NE	2.29	0.65
24:DA:565:C:OP1	41:DR:79:ARG:HD2	1.97	0.65
1:CA:982:U:H4'	1:CA:983:A:H5'	1.78	0.65
1:CA:1084:G:C5	1:CA:1085:U:C4	2.85	0.65
22:CV:17:C:O2	22:CV:17:C:C2'	2.44	0.65
24:BA:2755:C:O2'	24:BA:2756:U:H2'	1.96	0.65
4:AD:166:GLU:OE1	6:CF:11:HIS:NE2	2.29	0.65
53:B3:22:LYS:HA	53:B3:47:ALA:O	1.96	0.65
24:DA:1351:C:OP2	59:DA:3397:HOH:O	2.14	0.65
30:BG:39:ALA:HA	30:BG:57:TYR:CD2	2.31	0.65
24:DA:1937:A:OP1	59:DA:3459:HOH:O	2.13	0.65
24:DA:892:A:O2'	24:DA:893:C:OP1	2.08	0.65
8:CH:14:ILE:HD11	8:CH:75:ILE:HG12	1.78	0.65
57:AA:1655:NMY:N6	24:BA:1913:A:C5	2.62	0.65
12:AL:43:LYS:O	12:AL:45:PRO:HD2	1.95	0.65
38:BO:103:VAL:HG23	38:BO:104:GLN:H	1.61	0.65
38:BO:10:ARG:HG3	38:BO:11:ALA:N	2.09	0.65
24:DA:2359:C:O3'	53:D3:50:SER:OG	2.13	0.65
1:AA:1082:A:C2'	1:AA:1083:U:H5'	2.26	0.65
1:AA:17:U:H2'	1:AA:18:C:C6	2.31	0.65
1:CA:418:C:O2'	1:CA:540:G:H1'	1.95	0.65
1:CA:671:G:H4'	6:CF:79:ARG:NH2	2.11	0.65
24:DA:537:G:OP2	57:DA:3186:NMY:O12	2.14	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:113:G:N2	1:CA:114:U:O2	2.29	0.65
28:BE:30:GLN:OE1	28:BE:95:LYS:NZ	2.30	0.65
1:CA:1251:A:N3	1:CA:1369:C:O2'	2.28	0.65
29:DF:131:VAL:HG22	29:DF:151:LEU:HB3	1.79	0.65
40:DQ:75:TYR:OH	40:DQ:91:ARG:NH1	2.28	0.65
40:BQ:89:ILE:CD1	40:BQ:93:ILE:HB	2.27	0.65
24:BA:2705:A:H2'	24:BA:2706:A:H5'	1.77	0.65
24:BA:1327:A:N6	24:BA:1328:A:C2	2.64	0.65
24:BA:1799:G:N7	26:BC:177:SER:CB	2.60	0.65
26:BC:81:GLU:CB	26:BC:90:ILE:HD11	2.25	0.65
24:BA:1906:G:H2'	24:BA:1907:G:H5'	1.78	0.65
12:AL:38:TYR:OH	12:AL:54:ARG:NH2	2.29	0.65
29:DF:107:VAL:CG1	29:DF:108:PRO:HD3	2.27	0.65
29:DF:107:VAL:HG12	29:DF:108:PRO:HD3	1.78	0.65
5:CE:133:PRO:O	5:CE:135:ASN:N	2.29	0.65
18:CR:55:LEU:O	18:CR:59:ILE:N	2.30	0.65
25:BB:73:A:C8	25:BB:104:A:C6	2.85	0.65
18:CR:66:SER:OG	18:CR:66:SER:O	2.14	0.65
24:BA:1038:G:H2'	24:BA:1039:A:C8	2.31	0.65
1:CA:1421:G:H2'	1:CA:1422:G:O5'	1.96	0.65
11:CK:94:GLU:N	11:CK:94:GLU:OE1	2.30	0.65
24:DA:2425:A:H5''	24:DA:2427:C:O4'	1.95	0.65
22:CV:47:U:C4'	22:CV:48:C:OP2	2.44	0.65
1:CA:706:A:C2	1:CA:707:U:C2	2.84	0.65
1:AA:550:G:C6	1:AA:551:U:C4	2.85	0.65
4:AD:58:LYS:HD2	4:AD:203:LEU:HD21	1.77	0.65
1:AA:1083:U:C2'	1:AA:1084:G:O5'	2.44	0.65
1:AA:671:G:N1	1:AA:672:U:O2	2.30	0.65
6:AF:74:LEU:O	6:AF:77:THR:OG1	2.12	0.65
1:AA:1068:G:H2'	1:AA:1069:C:H5'	1.77	0.65
22:CV:15:G:H2'	22:CV:16:U:N3	2.11	0.65
1:CA:259:G:N2	1:CA:260:G:H1'	2.11	0.65
24:DA:2205:A:H2'	24:DA:2206:C:H6	1.61	0.65
24:DA:1867:G:H2'	24:DA:1868:C:H5'	1.78	0.65
24:DA:1725:U:C4	24:DA:1726:C:C5	2.84	0.65
24:BA:2194:U:H2'	24:BA:2195:U:C6	2.31	0.65
24:DA:445:C:O2'	24:DA:446:G:O5'	2.14	0.65
6:CF:36:ILE:HG13	6:CF:37:HIS:N	2.10	0.65
33:BJ:78:THR:HG22	33:BJ:83:GLY:O	1.97	0.65
24:DA:1501:G:H2'	24:DA:1502:A:O5'	1.97	0.65
11:AK:16:VAL:O	11:AK:17:SER:CB	2.44	0.65
24:BA:1798:U:O4	26:BC:270:ARG:NH1	2.29	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:CY:120:GLU:O	55:CY:123:GLN:N	2.30	0.65
24:BA:1727:C:N4	24:BA:1728:C:N3	2.44	0.65
27:DD:27:ILE:CG2	27:DD:29:VAL:HG23	2.25	0.65
24:BA:381:G:OP1	47:BX:17:ARG:NH2	2.30	0.65
1:CA:204:G:H3'	1:CA:205:A:H5''	1.79	0.65
25:BB:44:G:H4'	29:BF:91:ARG:CZ	2.25	0.65
15:AO:71:LYS:N	15:AO:78:TYR:CZ	2.65	0.65
24:BA:2415:G:C6	24:BA:2416:C:C4	2.84	0.65
24:BA:729:G:P	26:BC:12:ARG:NE	2.70	0.65
4:AD:14:ARG:CG	4:AD:38:PRO:HB3	2.27	0.65
24:DA:1079:C:C4	24:DA:1080:A:N7	2.65	0.65
17:AQ:52:GLU:N	17:AQ:52:GLU:OE2	2.29	0.65
24:BA:1204:A:C2	57:BA:3163:NMY:O4	2.47	0.65
1:CA:376:G:O3'	16:CP:5:ARG:HD2	1.96	0.65
24:BA:747:U:C4	24:BA:2613:U:C5	2.84	0.65
24:BA:564:C:P	41:BR:79:ARG:NH1	2.70	0.65
1:CA:446:G:N2	1:CA:489:C:C2	2.64	0.65
24:BA:811:U:H2'	35:BL:21:ARG:HA	1.78	0.65
14:CN:20:PHE:O	14:CN:21:ALA:HB3	1.97	0.65
24:BA:1366:A:C2	24:BA:1367:A:H1'	2.32	0.65
46:BW:33:ALA:N	46:BW:64:ASP:OD1	2.30	0.65
24:DA:947:A:HO2'	24:DA:984:A:H2	1.44	0.65
24:DA:2356:U:O3'	46:DW:20:ARG:HD3	1.97	0.65
24:DA:2305:U:C2	29:DF:150:GLY:HA3	2.31	0.65
1:CA:1350:A:OP1	9:CI:123:ARG:NE	2.30	0.65
1:CA:506:G:OP1	59:CA:1759:HOH:O	2.13	0.65
1:AA:215:C:O2'	1:AA:216:U:H5'	1.96	0.65
24:DA:1187:G:O6	59:DA:3577:HOH:O	2.11	0.65
30:BG:71:LEU:O	30:BG:74:MET:N	2.30	0.65
6:AF:36:ILE:HG22	6:AF:64:VAL:HG13	1.79	0.65
1:AA:790:A:H2'	1:AA:791:G:C8	2.32	0.65
24:BA:2702:G:C4	24:BA:2703:C:C5	2.85	0.65
16:CP:1:MET:H3	16:CP:1:MET:HE3	1.60	0.65
31:BH:81:ALA:HB2	31:BH:147:VAL:CG1	2.27	0.65
41:BR:45:GLU:OE1	41:BR:45:GLU:N	2.30	0.65
42:BS:41:LYS:O	42:BS:44:ALA:HB3	1.96	0.65
24:DA:18:U:O2'	24:DA:19:A:H5'	1.97	0.65
24:BA:835:C:C2'	24:BA:836:G:H5'	2.27	0.65
1:AA:1307:U:O2'	1:AA:1308:U:O5'	2.14	0.65
26:BC:140:VAL:HG21	26:BC:189:ALA:HB1	1.78	0.65
26:BC:173:LEU:CD1	26:BC:173:LEU:N	2.59	0.65
24:DA:2051:A:N7	59:DA:3481:HOH:O	2.29	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2614:A:N7	59:DA:3481:HOH:O	2.30	0.65
24:DA:297:G:H4'	44:DU:84:PHE:CD2	2.32	0.65
1:AA:751:U:C5	1:AA:752:G:C5	2.85	0.65
1:CA:510:A:OP2	59:CA:1760:HOH:O	2.14	0.65
1:CA:666:G:C5	1:CA:741:G:C6	2.85	0.65
1:AA:1088:G:N1	1:AA:1089:G:C5	2.65	0.65
24:DA:565:C:C2'	24:DA:566:U:H5'	2.27	0.65
40:DQ:39:ILE:O	40:DQ:43:GLN:HG3	1.97	0.65
1:CA:1494:G:C2	1:CA:1495:U:C6	2.85	0.65
24:BA:362:A:C3'	24:BA:363:G:H5'	2.27	0.65
1:CA:113:G:C2	1:CA:114:U:C2	2.85	0.65
35:BL:128:THR:HG22	35:BL:131:ALA:HB3	1.77	0.65
24:BA:1379:U:OP1	24:BA:1379:U:C6	2.49	0.65
29:DF:121:PHE:CD2	29:DF:127:TYR:CZ	2.84	0.65
1:CA:993:G:O2'	1:CA:994:A:N7	2.30	0.65
1:AA:174:A:C4	1:AA:175:C:C6	2.85	0.65
33:BJ:36:LEU:HD21	33:BJ:122:LEU:HB2	1.78	0.65
1:CA:1228:C:H2'	1:CA:1228:C:O2	1.97	0.65
1:AA:445:G:C2	1:AA:446:G:C4	2.85	0.65
27:BD:122:VAL:HG12	27:BD:123:LYS:N	2.10	0.65
26:DC:143:VAL:HB	26:DC:153:LEU:HB2	1.79	0.65
8:CH:73:GLU:O	8:CH:74:SER:CB	2.45	0.65
3:CC:108:LYS:N	3:CC:109:PRO:HD3	2.10	0.65
1:CA:142:G:C4	1:CA:143:A:C8	2.84	0.65
1:AA:1151:A:N3	1:AA:1152:A:C8	2.65	0.65
24:BA:1914:C:O5'	24:BA:1914:C:O2	2.15	0.65
24:DA:1931:U:H5''	57:DA:3184:NMY:N19	2.12	0.65
1:AA:979:C:C4	1:AA:980:C:C2	2.85	0.65
1:AA:980:C:C2'	1:AA:981:U:O5'	2.44	0.65
53:D3:31:ILE:C	53:D3:31:ILE:HD12	2.17	0.65
11:CK:27:PHE:CD1	11:CK:28:ASN:N	2.65	0.65
11:CK:125:LYS:C	21:CU:35:ARG:HE	2.00	0.65
4:AD:124:MET:HG3	4:AD:125:VAL:N	2.12	0.65
1:CA:430:A:OP2	4:CD:8:LYS:HG2	1.97	0.65
24:DA:1081:U:H1'	32:DI:127:SER:HB3	1.79	0.65
1:CA:684:U:O2'	11:CK:41:ALA:O	2.15	0.65
4:AD:9:LEU:C	4:AD:13:ARG:NH1	2.49	0.65
16:CP:50:THR:O	16:CP:50:THR:OG1	2.11	0.65
24:DA:329:G:O6	44:DU:16:LYS:HB2	1.96	0.65
1:CA:275:G:O5'	17:CQ:16:LYS:HG2	1.97	0.65
1:CA:966:G:O2'	9:CI:129:LYS:HG2	1.97	0.65
22:CV:74:C:H2'	22:CV:74:C:O2	1.95	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:652:U:O4	1:CA:752:G:O2'	2.15	0.65
24:BA:2753:A:C5	24:BA:2754:U:C5	2.84	0.65
6:AF:96:VAL:HG23	6:AF:97:THR:N	2.12	0.65
24:BA:2221:G:C2'	24:BA:2222:C:H5'	2.27	0.65
24:DA:1439:A:C8	24:DA:1440:U:C6	2.85	0.65
24:BA:182:A:C5	24:BA:183:C:C4	2.85	0.65
46:DW:48:GLY:O	46:DW:50:ASN:N	2.30	0.65
24:BA:2641:G:OP1	33:BJ:76:HIS:NE2	2.28	0.65
24:BA:1421:G:C2	24:BA:1422:G:N7	2.64	0.65
24:DA:1587:G:C4	24:DA:1588:G:C8	2.85	0.65
6:AF:10:VAL:HG21	6:AF:21:MET:CE	2.27	0.65
26:DC:225:ASN:O	26:DC:228:ASP:HB2	1.97	0.65
24:DA:603:A:N1	24:DA:625:G:O2'	2.26	0.65
24:DA:364:C:H2'	24:DA:365:U:C6	2.32	0.65
1:CA:1107:C:H3'	1:CA:1108:G:H5''	1.79	0.65
12:CL:51:LYS:HD2	12:CL:51:LYS:N	2.11	0.65
12:CL:21:VAL:HG23	12:CL:21:VAL:O	1.96	0.65
24:DA:2507:C:OP1	59:DA:3713:HOH:O	2.15	0.65
31:DH:117:LEU:HD11	31:DH:120:GLY:C	2.16	0.65
31:DH:117:LEU:HD21	31:DH:121:VAL:H	1.59	0.65
47:BX:4:CYS:SG	47:BX:51:SER:HB3	2.37	0.65
47:BX:7:THR:O	47:BX:9:LYS:N	2.29	0.65
1:AA:35:G:N2	12:AL:115:SER:OG	2.28	0.65
1:CA:37:U:OP1	12:CL:120:LYS:HD3	1.97	0.65
15:CO:66:LEU:O	15:CO:69:TYR:HB3	1.97	0.65
1:AA:1054:C:H5'	1:AA:1196:A:N3	2.11	0.65
19:CS:30:PRO:O	19:CS:48:THR:OG1	2.14	0.65
24:BA:2720:U:H5''	39:BP:52:ARG:NH2	2.11	0.65
24:BA:347:A:C2	24:BA:348:A:C4	2.85	0.65
1:CA:1255:G:N2	1:CA:1277:C:O2	2.29	0.65
26:DC:146:LYS:HB2	26:DC:149:LYS:HD3	1.77	0.65
24:BA:1380:G:OP2	59:BA:3755:HOH:O	2.13	0.65
1:CA:1083:U:C5	1:CA:1084:G:C5	2.85	0.65
3:AC:66:VAL:O	3:AC:67:THR:HB	1.96	0.65
34:DK:113:MET:HA	34:DK:116:ILE:HD11	1.77	0.65
9:CI:124:ARG:HB2	9:CI:125:PRO:CD	2.27	0.65
1:AA:244:U:H4'	1:AA:245:U:C5'	2.27	0.65
2:CB:146:ASN:O	2:CB:147:SER:CB	2.44	0.65
35:DL:77:ILE:CG2	35:DL:110:VAL:HB	2.26	0.65
24:BA:2821:A:OP2	37:BN:3:HIS:CE1	2.50	0.65
31:DH:28:ASN:N	31:DH:32:PRO:HG2	2.12	0.65
24:DA:1369:G:C5	24:DA:1370:C:C5	2.85	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1056:U:OP1	3:AC:163:ALA:N	2.29	0.65
2:AB:47:VAL:O	2:AB:49:MET:N	2.29	0.65
1:AA:577:G:C4	1:AA:816:A:C2	2.85	0.65
24:BA:1627:G:C2	24:BA:1628:G:C8	2.84	0.65
24:DA:2286:G:OP2	51:D1:29:LYS:NZ	2.30	0.65
43:BT:37:ASP:OD1	43:BT:38:ALA:N	2.30	0.65
1:CA:1197:A:H2'	1:CA:1198:G:H5'	1.78	0.65
55:CY:142:LEU:O	55:CY:142:LEU:HG	1.94	0.65
24:BA:1410:G:N7	59:BA:3620:HOH:O	2.30	0.65
1:AA:1494:G:C8	24:BA:1913:A:N7	2.65	0.65
1:AA:1226:C:C2'	13:AM:102:THR:O	2.44	0.65
19:AS:13:LEU:HD11	19:AS:14:HIS:CE1	2.32	0.65
5:AE:156:LYS:C	5:AE:156:LYS:HD2	2.16	0.65
24:DA:84:A:H3'	44:DU:5:ARG:HD3	1.78	0.65
1:CA:787:A:C5	1:CA:788:U:C6	2.85	0.65
1:AA:374:A:C4	1:AA:375:U:C5	2.85	0.65
1:AA:55:A:C5	31:DH:91:PHE:CD2	2.85	0.65
31:DH:82:SER:HB3	31:DH:146:VAL:HG22	1.77	0.65
24:BA:84:A:C2	24:BA:103:A:C6	2.85	0.65
1:CA:1312:G:N7	19:CS:3:ARG:N	2.44	0.65
21:CU:36:GLU:O	21:CU:37:PHE:CD2	2.50	0.65
24:DA:2356:U:O3'	46:DW:20:ARG:CD	2.44	0.65
2:CB:96:TRP:CH2	2:CB:100:MET:HG2	2.32	0.65
1:CA:1290:G:H2'	1:CA:1291:U:H5'	1.78	0.65
34:DK:88:ASN:OD1	34:DK:89:ASN:N	2.30	0.65
24:DA:605:G:N7	24:DA:606:U:C5	2.65	0.65
24:BA:1220:G:N2	24:BA:1221:C:O2	2.30	0.65
24:DA:2550:G:O3'	59:DA:3430:HOH:O	2.14	0.65
24:BA:2073:C:O2'	26:BC:226:PRO:HB3	1.97	0.65
1:CA:174:A:C5	1:CA:175:C:C5	2.85	0.65
1:CA:173:U:C5	1:CA:197:A:C2	2.85	0.65
1:CA:854:U:H3'	1:CA:871:U:H3	1.62	0.65
2:AB:144:LEU:HD23	2:AB:144:LEU:N	2.11	0.65
1:AA:1248:A:C2	9:AI:72:ILE:HD11	2.31	0.65
55:CY:132:ARG:NH2	24:DA:1942:C:O4'	2.30	0.65
24:BA:120:U:H5''	24:BA:122:G:OP2	1.96	0.65
24:DA:2772:C:H2'	24:DA:2773:C:C6	2.32	0.65
8:CH:95:VAL:HG22	8:CH:128:TYR:CD2	2.32	0.65
24:DA:2422:C:O2'	24:DA:2423:U:OP1	2.15	0.65
38:BO:4:LYS:O	38:BO:7:ARG:NH2	2.30	0.64
1:CA:597:G:C1'	17:CQ:28:PHE:CE1	2.81	0.64
1:AA:705:G:C5	1:AA:706:A:C8	2.85	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1298:U:H4'	1:CA:1299:A:C4	2.32	0.64
24:BA:2734:A:H2'	24:BA:2735:G:H5'	1.80	0.64
24:BA:659:G:O2'	28:BE:95:LYS:CE	2.45	0.64
2:CB:206:ALA:O	2:CB:208:ARG:N	2.29	0.64
24:DA:2728:U:O2'	24:DA:2729:G:P	2.55	0.64
26:BC:83:ASP:OD2	26:BC:86:ARG:NE	2.30	0.64
22:CV:32:U:C2'	22:CV:33:U:H5'	2.26	0.64
42:BS:46:LEU:O	42:BS:47:VAL:HB	1.97	0.64
24:DA:1450:G:C2	24:DA:1462:C:C2	2.86	0.64
24:DA:674:G:H5''	28:DE:71:GLY:N	2.12	0.64
24:DA:159:G:HO2'	24:DA:160:A:P	2.19	0.64
24:BA:1346:G:C4	24:BA:1347:A:N7	2.66	0.64
41:DR:20:VAL:CG1	41:DR:22:LEU:CD1	2.75	0.64
1:CA:174:A:C5	1:CA:175:C:C6	2.85	0.64
26:DC:20:ASN:CB	26:DC:23:LEU:CD1	2.74	0.64
24:DA:1474:U:O4	24:DA:1475:G:N2	2.31	0.64
11:AK:16:VAL:O	11:AK:17:SER:OG	2.15	0.64
24:BA:192:C:OP1	59:BA:3745:HOH:O	2.15	0.64
26:DC:246:PRO:HG2	26:DC:247:TRP:CE3	2.31	0.64
24:DA:2573:C:OP1	59:DA:3714:HOH:O	2.14	0.64
27:DD:27:ILE:HG22	27:DD:29:VAL:HG23	1.79	0.64
42:BS:39:THR:HG23	42:BS:40:ASN:N	2.12	0.64
1:CA:525:C:OP1	12:CL:88:LYS:HE2	1.97	0.64
2:CB:165:ASP:HB3	2:CB:168:HIS:HB3	1.79	0.64
28:DE:48:THR:O	28:DE:50:ALA:N	2.30	0.64
55:CY:95:GLY:O	55:CY:97:ASP:N	2.30	0.64
5:AE:90:THR:OG1	5:AE:91:GLY:N	2.30	0.64
8:AH:55:THR:C	8:AH:57:PRO:HD3	2.18	0.64
25:BB:45:A:N7	29:BF:91:ARG:CZ	2.60	0.64
26:BC:203:VAL:O	26:BC:205:GLY:N	2.31	0.64
1:CA:1513:A:O2'	1:CA:1514:G:H5'	1.97	0.64
1:CA:1523:G:OP1	11:CK:126:LYS:HG3	1.96	0.64
8:AH:88:ARG:HB2	8:AH:88:ARG:NH1	2.11	0.64
1:CA:428:G:O4'	1:CA:430:A:C8	2.50	0.64
4:CD:117:LEU:O	4:CD:120:HIS:N	2.28	0.64
4:CD:138:SER:O	4:CD:182:PHE:CZ	2.51	0.64
19:CS:74:PHE:O	19:CS:75:ALA:CB	2.45	0.64
24:BA:826:U:O2'	35:BL:53:GLY:HA3	1.98	0.64
24:DA:831:G:O2'	35:DL:38:GLN:NE2	2.28	0.64
24:BA:578:G:OP1	59:BA:3277:HOH:O	2.15	0.64
24:BA:2286:G:OP1	51:B1:29:LYS:NZ	2.31	0.64
28:BE:31:VAL:HG21	28:BE:104:ALA:HB2	1.79	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1358:U:C6	1:CA:1359:C:C6	2.85	0.64
24:DA:1859:U:H2'	24:DA:1860:G:C8	2.32	0.64
39:BP:90:ALA:HB2	39:BP:112:ARG:CA	2.28	0.64
41:BR:51:VAL:HB	41:BR:52:PRO:HD2	1.79	0.64
33:BJ:73:VAL:HG12	33:BJ:86:GLN:HG3	1.79	0.64
24:BA:2703:C:C2'	24:BA:2704:C:O5'	2.44	0.64
24:BA:1383:A:C2	24:BA:1384:A:C4	2.85	0.64
24:BA:1386:C:H2'	24:BA:1387:A:C8	2.32	0.64
46:BW:24:LYS:NZ	46:BW:35:SER:HB3	2.11	0.64
24:BA:1220:G:N2	24:BA:1221:C:C2	2.65	0.64
1:CA:164:G:N2	1:CA:165:G:H1'	2.12	0.64
1:AA:86:G:O2'	1:AA:87:C:P	2.54	0.64
6:AF:42:TRP:CZ3	18:AR:24:LYS:HE3	2.32	0.64
29:BF:11:VAL:HG21	29:BF:172:PHE:CZ	2.32	0.64
4:CD:10:LYS:CG	4:CD:11:LEU:N	2.60	0.64
1:CA:1329:A:C6	1:CA:1330:U:C2	2.85	0.64
57:AA:1657:NMY:H172	57:AA:1657:NMY:N2	2.12	0.64
24:BA:2734:A:C5	24:BA:2735:G:C8	2.85	0.64
1:CA:195:A:C5	1:CA:196:A:N1	2.64	0.64
24:BA:1375:U:H2'	24:BA:1376:C:H5''	1.78	0.64
25:DB:114:C:C4'	38:DO:47:VAL:HG11	2.27	0.64
24:BA:591:U:C2	24:BA:592:A:C8	2.85	0.64
24:BA:2748:A:H1'	30:BG:66:THR:CG2	2.26	0.64
4:AD:170:TRP:CD1	4:AD:170:TRP:O	2.50	0.64
24:BA:69:C:O2'	24:BA:73:A:O2'	2.15	0.64
40:BQ:39:ILE:HD11	41:BR:77:PHE:CD2	2.33	0.64
32:DI:106:GLN:NE2	32:DI:107:GLU:OE2	2.30	0.64
34:BK:35:VAL:HG23	34:BK:36:GLY:H	1.62	0.64
24:DA:501:A:N6	24:DA:502:A:C6	2.66	0.64
31:DH:95:GLY:CA	31:DH:122:LEU:HD21	2.27	0.64
1:AA:1352:C:O2	1:AA:1371:G:C2	2.50	0.64
1:AA:371:A:H1'	1:AA:482:A:H1'	1.79	0.64
31:DH:80:ILE:HG13	31:DH:145:ASN:O	1.97	0.64
4:CD:10:LYS:HG3	4:CD:11:LEU:N	2.12	0.64
1:AA:1089:G:C5	1:AA:1090:U:C5	2.86	0.64
41:BR:78:ARG:O	41:BR:80:ARG:N	2.31	0.64
24:DA:2204:G:C2	24:DA:2205:A:C8	2.85	0.64
24:BA:1370:C:H2'	24:BA:1371:G:O4'	1.97	0.64
22:CV:4:C:H1'	22:CV:5:G:OP1	1.97	0.64
21:CU:17:ARG:HG2	21:CU:20:LYS:HD3	1.78	0.64
24:DA:1726:C:N3	24:DA:1735:A:C2	2.65	0.64
24:DA:839:U:O2'	24:DA:1191:G:H1'	1.97	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BJ:80:HIS:O	33:BJ:82:GLY:N	2.31	0.64
24:BA:630:G:C5	24:BA:632:A:OP2	2.51	0.64
16:CP:1:MET:HE3	16:CP:1:MET:N	2.13	0.64
24:BA:1605:C:H2'	24:BA:1606:C:O5'	1.98	0.64
26:DC:71:ASP:O	26:DC:73:ILE:HD12	1.98	0.64
1:AA:946:A:OP2	13:AM:107:ARG:NH2	2.30	0.64
27:BD:22:ILE:HG22	27:BD:24:VAL:HG13	1.80	0.64
35:BL:42:SER:O	35:BL:44:GLY:N	2.30	0.64
1:AA:226:G:C2	1:AA:227:G:C8	2.86	0.64
24:DA:2589:A:OP2	59:DA:3311:HOH:O	2.14	0.64
21:CU:7:ARG:HG3	21:CU:7:ARG:O	1.97	0.64
24:DA:742:A:H2'	24:DA:743:A:C8	2.33	0.64
30:BG:163:TYR:HB2	30:BG:166:GLU:HB2	1.79	0.64
4:AD:142:VAL:C	4:AD:143:VAL:HG13	2.17	0.64
24:BA:1993:U:H4'	27:BD:133:THR:CG2	2.27	0.64
1:AA:1374:A:C2	1:AA:1375:A:C8	2.86	0.64
1:AA:368:U:C2	31:DH:91:PHE:O	2.51	0.64
4:CD:9:LEU:HD12	4:CD:10:LYS:N	2.13	0.64
4:CD:32:CYS:SG	4:CD:34:ILE:N	2.70	0.64
1:CA:717:U:H2'	1:CA:734:G:C8	2.31	0.64
1:AA:676:A:H5''	11:AK:115:PRO:HB3	1.79	0.64
1:AA:1105:A:C2	1:AA:1106:G:C8	2.86	0.64
24:BA:2121:G:C6	24:BA:2122:U:C2	2.85	0.64
24:DA:1239:G:C6	57:DA:3190:NMY:H62	2.32	0.64
10:CJ:35:GLN:O	10:CJ:36:VAL:HB	1.96	0.64
1:CA:829:G:C2'	1:CA:830:G:H5'	2.28	0.64
12:CL:44:LYS:CB	12:CL:45:PRO:HD3	2.28	0.64
44:BU:69:VAL:O	44:BU:70:ALA:CB	2.45	0.64
1:CA:1083:U:H5	1:CA:1084:G:C4	2.15	0.64
24:DA:2330:G:C2'	46:DW:44:LYS:HZ2	2.10	0.64
1:AA:1436:U:H2'	1:AA:1437:A:C8	2.32	0.64
30:BG:157:LYS:O	30:BG:159:LYS:N	2.30	0.64
47:DX:67:LEU:HD22	47:DX:77:TYR:CE2	2.33	0.64
24:DA:408:G:H2'	24:DA:409:G:O5'	1.97	0.64
25:BB:57:A:O4'	29:BF:26:GLN:NE2	2.31	0.64
24:DA:2093:G:OP2	31:DH:22:LYS:CG	2.45	0.64
4:AD:137:VAL:HG12	4:AD:182:PHE:CZ	2.31	0.64
24:DA:898:C:C4	24:DA:899:A:C8	2.86	0.64
54:B4:11:CYS:SG	54:B4:33:HIS:ND1	2.71	0.64
24:DA:2544:G:O2'	24:DA:2545:G:H5'	1.97	0.64
1:CA:31:G:H3'	1:CA:32:A:H5''	1.78	0.64
1:AA:114:U:C2'	1:AA:115:G:O5'	2.45	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:640:A:O2'	8:CH:107:SER:HB2	1.98	0.64
26:DC:11:GLY:O	26:DC:12:ARG:HB2	1.96	0.64
50:D0:54:ILE:HG22	50:D0:55:ALA:N	2.12	0.64
26:BC:237:ARG:NH2	59:BC:404:HOH:O	2.30	0.64
24:DA:322:A:P	28:DE:162:ARG:HH21	2.21	0.64
1:AA:980:C:H5''	1:AA:981:U:C5	2.33	0.64
4:CD:113:GLU:CD	4:CD:113:GLU:N	2.50	0.64
4:CD:98:LEU:O	4:CD:100:ASN:N	2.31	0.64
15:CO:66:LEU:O	15:CO:69:TYR:N	2.29	0.64
1:AA:925:G:H1'	1:AA:1502:A:C4	2.31	0.64
13:CM:109:ARG:NH1	13:CM:109:ARG:O	2.31	0.64
1:AA:409:U:H5''	4:AD:25:VAL:HG12	1.79	0.64
4:AD:31:LYS:NZ	11:CK:37:ARG:CZ	2.61	0.64
24:DA:1238:G:O6	57:DA:3190:NMY:N6	2.31	0.64
1:AA:1028:C:O2	1:AA:1033:G:N2	2.31	0.64
24:DA:2201:G:N3	24:DA:2202:U:C6	2.65	0.64
24:BA:2303:G:C2	24:BA:2304:G:C4	2.86	0.64
7:CG:123:GLU:HA	7:CG:126:ASP:CG	2.18	0.64
24:BA:508:A:H3'	24:BA:509:C:H5'	1.78	0.64
42:BS:3:THR:CB	42:BS:58:ALA:HB1	2.28	0.64
24:BA:1860:G:C6	24:BA:1883:U:O2	2.51	0.64
28:DE:61:ARG:NH2	28:DE:63:LYS:O	2.31	0.64
24:BA:322:A:H5'	24:BA:340:A:H1'	1.80	0.64
24:BA:182:A:H2'	24:BA:183:C:C6	2.33	0.64
1:AA:560:A:N1	1:AA:566:G:H5'	2.13	0.64
24:BA:686:U:OP2	59:BA:3723:HOH:O	2.15	0.64
35:DL:81:ASP:HA	35:DL:84:LYS:HG3	1.79	0.64
24:BA:89:A:C2	24:BA:90:U:C6	2.85	0.64
24:BA:1824:G:OP2	26:BC:52:HIS:CE1	2.50	0.64
24:BA:1422:G:N1	24:BA:1423:G:C5	2.66	0.64
1:AA:475:C:H2'	1:AA:476:U:C6	2.32	0.64
1:AA:317:U:C2	1:AA:318:G:C8	2.86	0.64
1:AA:484:G:H4'	1:AA:485:U:O5'	1.97	0.64
42:DS:49:LYS:HA	42:DS:52:GLU:HG2	1.78	0.64
1:AA:522:C:O4'	1:AA:536:C:H4'	1.98	0.64
24:DA:2080:A:OP1	47:DX:19:HIS:CE1	2.51	0.64
31:DH:76:GLU:N	31:DH:76:GLU:OE1	2.31	0.64
13:AM:85:CYS:HB2	19:AS:73:GLU:HG3	1.78	0.64
1:AA:259:G:OP2	59:AA:1724:HOH:O	2.15	0.64
1:AA:14:U:O2	1:AA:14:U:C2'	2.46	0.64
1:CA:1268:G:C6	1:CA:1269:A:N6	2.66	0.64
1:CA:1329:A:N6	1:CA:1330:U:O2	2.31	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:958:A:C4	19:CS:55:ARG:CZ	2.80	0.64
24:BA:109:C:C4	24:BA:110:G:N7	2.65	0.64
24:BA:566:U:O2'	24:BA:567:U:H5'	1.98	0.64
24:BA:2709:G:C4	24:BA:2710:C:C5	2.85	0.64
24:DA:2334:U:OP2	38:DO:9:ARG:CZ	2.45	0.64
1:AA:1432:G:OP2	39:BP:105:LYS:CE	2.46	0.64
1:CA:274:A:H4'	17:CQ:16:LYS:HE2	1.79	0.64
1:CA:751:U:C5	1:CA:752:G:C6	2.84	0.64
6:AF:64:VAL:HG12	6:AF:65:GLU:N	2.13	0.64
24:BA:1602:U:H3'	24:BA:1603:A:H5'	1.77	0.64
46:DW:51:VAL:HG23	46:DW:51:VAL:O	1.98	0.64
1:AA:158:G:C5	1:AA:159:G:N7	2.66	0.64
35:DL:79:LEU:HB2	35:DL:113:ALA:O	1.98	0.64
24:BA:1779:U:C5	24:BA:1784:A:N7	2.65	0.64
1:AA:1268:G:H2'	1:AA:1269:A:C8	2.32	0.64
24:BA:1291:C:H2'	24:BA:1292:G:O4'	1.98	0.64
51:B1:39:ASP:OD1	51:B1:41:VAL:N	2.31	0.64
53:B3:16:THR:OG1	53:B3:17:GLY:N	2.28	0.64
3:CC:66:VAL:O	3:CC:67:THR:HB	1.97	0.64
1:AA:1372:U:C5	1:AA:1373:G:N7	2.66	0.64
16:AP:51:ARG:HG2	16:AP:52:LEU:H	1.63	0.64
1:CA:761:G:C2	1:CA:762:U:C6	2.85	0.64
24:BA:818:G:N7	24:BA:1187:G:C6	2.66	0.64
57:AA:1656:NMY:H14	57:AA:1656:NMY:N2	2.12	0.64
24:DA:833:A:H2'	24:DA:834:G:H8	1.62	0.64
1:CA:1130:A:N6	1:CA:1131:G:O6	2.31	0.64
24:BA:532:A:N1	24:BA:2020:A:H1'	2.12	0.64
12:CL:101:ALA:O	12:CL:102:LEU:HG	1.96	0.64
25:DB:114:C:H4'	38:DO:47:VAL:HG11	1.80	0.64
1:CA:1357:A:N6	1:CA:1363:A:N7	2.46	0.64
24:DA:309:A:O3'	44:DU:15:GLY:HA2	1.97	0.64
24:BA:829:A:C8	24:BA:2248:C:H5'	2.33	0.64
1:CA:966:G:N3	22:CV:34:G:H4'	2.13	0.64
1:AA:663:A:O3'	18:AR:53:ARG:NH2	2.31	0.64
36:DM:44:ARG:HG3	36:DM:44:ARG:NH2	2.10	0.64
42:BS:17:VAL:CG2	42:BS:76:VAL:HG11	2.28	0.64
44:DU:95:PHE:CE2	44:DU:102:ILE:HG13	2.33	0.64
24:BA:2215:C:N4	24:BA:2216:G:O6	2.30	0.64
9:AI:14:SER:O	9:AI:70:GLY:N	2.31	0.64
24:DA:2549:G:O2'	24:DA:2550:G:H5'	1.98	0.64
1:CA:1399:C:H4'	1:CA:1400:C:H5''	1.80	0.64
24:BA:1309:G:OP1	52:B2:9:VAL:HG22	1.98	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DF:105:ILE:O	29:DF:107:VAL:N	2.30	0.64
25:DB:83:G:C2'	25:DB:84:G:H5''	2.28	0.64
24:BA:118:A:C8	24:BA:119:A:C8	2.85	0.64
24:DA:627:A:C6	24:DA:637:A:C8	2.86	0.64
33:BJ:114:LEU:O	33:BJ:117:ALA:N	2.31	0.64
45:BV:29:ILE:HG23	45:BV:30:ILE:N	2.13	0.64
24:BA:2519:U:C5	24:BA:2542:A:C5	2.86	0.64
24:DA:1334:G:C6	24:DA:1335:C:C4	2.85	0.64
1:AA:1014:A:C4	19:AS:34:TRP:CH2	2.86	0.64
12:CL:55:VAL:HG22	12:CL:56:ARG:O	1.97	0.64
24:BA:2466:C:OP1	54:B4:4:ARG:HG3	1.96	0.64
22:CV:45:U:H3'	22:CV:46:G:C5'	2.28	0.64
24:BA:2674:G:OP2	57:BA:3165:NMY:O12	2.13	0.64
1:CA:1253:G:C2	1:CA:1254:A:N7	2.66	0.64
1:CA:195:A:N7	1:CA:196:A:C6	2.65	0.64
24:DA:2722:G:H4'	37:DN:3:HIS:O	1.98	0.64
14:CN:1:ALA:O	14:CN:2:LYS:HB3	1.98	0.64
1:CA:1082:A:P	5:CE:23:LYS:NZ	2.71	0.64
1:CA:202:G:C2	1:CA:203:G:H1'	2.33	0.64
1:CA:1344:C:P	9:CI:124:ARG:NH2	2.71	0.64
22:CV:64:A:H1'	51:D1:4:ILE:HD11	1.80	0.64
24:BA:247:G:C8	24:BA:249:C:C5	2.86	0.64
1:AA:403:C:H2'	1:AA:404:G:H5'	1.79	0.64
8:CH:18:GLN:OE1	8:CH:70:ALA:HB1	1.98	0.64
24:BA:2543:G:H2'	24:BA:2544:G:C8	2.33	0.64
3:CC:66:VAL:HG22	3:CC:67:THR:N	2.13	0.64
1:AA:1381:U:H1'	7:AG:78:ARG:NH1	2.13	0.64
24:BA:378:C:H2'	24:BA:379:G:C5'	2.28	0.64
24:DA:2599:G:N7	26:DC:234:GLY:O	2.30	0.64
41:DR:55:ASP:O	41:DR:57:GLY:N	2.31	0.64
24:DA:1023:U:H2'	24:DA:1024:G:H5'	1.79	0.64
24:DA:855:G:C4	24:DA:923:G:N2	2.66	0.64
1:AA:1492:A:H5'	12:AL:44:LYS:HA	1.80	0.64
24:DA:321:U:H4'	28:DE:162:ARG:HH21	1.62	0.64
1:CA:790:A:C5	1:CA:791:G:C6	2.86	0.64
1:AA:539:A:N6	1:AA:540:G:O6	2.31	0.64
1:AA:543:U:P	4:AD:14:ARG:HH12	2.19	0.64
4:AD:132:ILE:O	4:AD:134:SER:N	2.31	0.64
4:AD:171:LEU:C	4:AD:171:LEU:HD12	2.18	0.64
1:AA:687:A:O2'	1:AA:701:U:O4	2.09	0.64
9:AI:38:TYR:OH	9:AI:75:GLN:OE1	2.12	0.64
4:CD:54:GLN:O	4:CD:58:LYS:CE	2.44	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:29:ARG:HB3	13:AM:29:ARG:CZ	2.26	0.64
24:BA:1365:A:N6	24:BA:1366:A:C6	2.66	0.64
24:BA:1266:G:O2'	24:BA:2012:G:O6	2.11	0.64
24:BA:2204:G:OP2	26:BC:146:LYS:NZ	2.22	0.64
13:CM:54:ASP:O	13:CM:57:ARG:NH1	2.30	0.64
24:DA:1475:G:O2'	24:DA:1514:G:O6	2.12	0.64
1:CA:642:A:N3	8:CH:105:SER:HB3	2.13	0.64
24:BA:2861:U:C2	24:BA:2862:G:C8	2.86	0.64
24:BA:1474:U:C4	24:BA:1475:G:C2	2.86	0.64
35:DL:22:GLY:O	35:DL:25:SER:OG	2.16	0.64
30:DG:34:ARG:CG	30:DG:34:ARG:HH11	2.11	0.64
24:DA:74:A:H5''	24:DA:74:A:N3	2.13	0.64
24:BA:2406:A:C8	35:BL:69:ARG:NH2	2.66	0.64
1:AA:799:G:N7	59:AA:1810:HOH:O	2.30	0.64
24:DA:1596:A:C2'	24:DA:1597:A:H5'	2.28	0.64
24:DA:1693:U:O4	24:DA:1976:U:O2'	2.12	0.64
31:DH:108:VAL:O	31:DH:108:VAL:HG22	1.97	0.63
1:AA:980:C:H5''	1:AA:981:U:C4	2.32	0.63
25:BB:34:A:C5	25:BB:44:G:C8	2.86	0.63
5:AE:156:LYS:CD	5:AE:156:LYS:C	2.67	0.63
36:DM:81:ARG:NH1	36:DM:81:ARG:HA	2.12	0.63
1:CA:1506:U:H4'	11:CK:128:ARG:HD3	1.79	0.63
1:CA:1309:G:C4	1:CA:1329:A:C5	2.86	0.63
24:DA:1423:G:N7	59:DA:3630:HOH:O	2.30	0.63
11:AK:46:THR:HG23	11:AK:49:GLY:N	2.12	0.63
24:BA:1263:U:O4	42:BS:95:ARG:NH1	2.31	0.63
37:DN:2:ARG:HB3	37:DN:2:ARG:NH1	2.13	0.63
24:DA:2210:U:H4'	24:DA:2211:A:H5'	1.80	0.63
25:DB:43:C:O3'	29:DF:94:ARG:NH2	2.30	0.63
44:DU:43:LYS:HD3	44:DU:44:HIS:N	2.12	0.63
1:CA:862:C:C4	1:CA:863:U:C5	2.86	0.63
24:DA:818:G:OP2	59:DA:3577:HOH:O	2.15	0.63
28:BE:178:VAL:HG12	28:BE:179:SER:N	2.12	0.63
9:CI:126:GLN:O	9:CI:127:PHE:HB3	1.96	0.63
24:BA:1266:G:O6	42:BS:13:SER:HB3	1.97	0.63
1:CA:774:G:O6	1:CA:805:C:N4	2.30	0.63
24:DA:2638:G:O2'	24:DA:2775:G:N2	2.30	0.63
37:DN:66:ALA:O	37:DN:70:THR:HG22	1.97	0.63
24:DA:2321:U:H5'	24:DA:2322:A:OP2	1.97	0.63
1:CA:64:G:C4	1:CA:99:C:N4	2.67	0.63
17:CQ:4:LYS:NZ	17:CQ:5:ILE:O	2.31	0.63
1:CA:456:A:N6	1:CA:476:U:C4	2.65	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1605:C:H2'	24:BA:1606:C:C5'	2.28	0.63
5:AE:64:MET:O	5:AE:67:ALA:N	2.32	0.63
24:BA:776:G:H4'	24:BA:777:G:O5'	1.98	0.63
11:CK:67:ALA:O	11:CK:71:ALA:N	2.30	0.63
1:AA:458:U:H2'	1:AA:459:A:C8	2.33	0.63
31:DH:117:LEU:HD23	31:DH:117:LEU:C	2.18	0.63
24:DA:1928:A:H4'	24:DA:1929:G:OP1	1.98	0.63
54:D4:10:LEU:HD12	54:D4:33:HIS:CE1	2.33	0.63
24:DA:2280:G:C2	24:DA:2281:A:C8	2.86	0.63
24:DA:84:A:C3'	44:DU:5:ARG:HD3	2.29	0.63
36:DM:81:ARG:CZ	36:DM:81:ARG:CA	2.77	0.63
24:BA:2466:C:P	54:B4:4:ARG:HG3	2.38	0.63
24:BA:1188:U:C2'	24:BA:1189:A:C5'	2.76	0.63
57:DA:3190:NMY:C2	57:DA:3190:NMY:O16	2.46	0.63
2:AB:54:LEU:N	2:AB:54:LEU:HD12	2.14	0.63
4:CD:58:LYS:CB	4:CD:200:ILE:HG12	2.27	0.63
15:CO:10:LYS:HD3	15:CO:10:LYS:N	2.13	0.63
3:AC:96:GLY:O	3:AC:97:VAL:HG23	1.99	0.63
29:DF:122:ASP:OD2	29:DF:124:ARG:NH2	2.31	0.63
22:AV:32:U:C3'	22:AV:33:U:H5''	2.28	0.63
24:DA:1550:C:C2	24:DA:1551:A:C8	2.86	0.63
1:CA:1111:A:N1	3:CC:177:THR:HG22	2.13	0.63
24:BA:1653:G:P	37:BN:2:ARG:NH1	2.71	0.63
24:BA:881:G:N2	24:BA:895:U:O2	2.31	0.63
24:BA:1163:G:C6	24:BA:1164:C:C5	2.85	0.63
24:BA:1421:G:N3	24:BA:1422:G:C8	2.66	0.63
1:AA:1361:G:C5	1:AA:1362:A:C8	2.86	0.63
1:AA:108:G:H5'	1:AA:109:A:H5''	1.81	0.63
55:CY:65:LEU:HD23	55:CY:66:LYS:N	2.13	0.63
24:DA:1345:C:N3	24:DA:1346:G:N7	2.47	0.63
24:BA:2885:G:N2	50:B0:31:LYS:HB3	2.13	0.63
24:DA:1459:G:C2	24:DA:1461:C:C2	2.87	0.63
43:DT:13:ALA:O	43:DT:32:LEU:HB2	1.97	0.63
1:CA:1178:G:N7	9:CI:99:ARG:CZ	2.61	0.63
1:AA:958:A:C6	1:AA:959:A:C6	2.86	0.63
24:DA:2420:C:OP1	53:D3:33:THR:CG2	2.46	0.63
1:CA:771:G:C4	1:CA:809:G:N2	2.66	0.63
1:AA:594:U:O2	1:AA:646:G:N1	2.31	0.63
1:CA:36:C:H4'	12:CL:119:VAL:O	1.97	0.63
4:CD:9:LEU:CD1	4:CD:10:LYS:N	2.61	0.63
1:AA:709:U:O2'	1:AA:710:G:H5'	1.99	0.63
1:CA:1310:G:O5'	13:CM:79:ARG:NH2	2.31	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AI:50:GLN:NE2	9:AI:80:ARG:NH1	2.47	0.63
1:CA:1014:A:H5''	19:CS:14:HIS:CD2	2.34	0.63
1:CA:255:G:H4'	17:CQ:19:LYS:HG2	1.79	0.63
1:CA:356:A:H2	1:CA:368:U:O2	1.81	0.63
1:CA:858:G:OP2	59:CA:1818:HOH:O	2.15	0.63
24:DA:983:A:N6	24:DA:984:A:N1	2.46	0.63
29:DF:93:GLU:O	29:DF:96:TRP:N	2.31	0.63
28:BE:82:GLY:O	28:BE:83:VAL:C	2.36	0.63
40:DQ:86:SER:O	41:DR:52:PRO:HB3	1.98	0.63
24:BA:2199:A:O2'	47:BX:35:HIS:NE2	2.31	0.63
24:BA:247:G:H4'	24:BA:386:G:C5	2.33	0.63
24:BA:1345:C:C4	24:BA:1346:G:N7	2.65	0.63
24:DA:782:A:C2	26:DC:224:MET:HG2	2.33	0.63
24:DA:1853:A:H2'	24:DA:1854:A:C8	2.34	0.63
25:BB:23:G:N1	25:BB:24:G:O6	2.32	0.63
1:AA:337:G:C2'	1:AA:338:A:O5'	2.46	0.63
2:CB:67:ILE:O	2:CB:68:LEU:HB3	1.97	0.63
30:BG:102:ILE:O	30:BG:113:ASP:HA	1.97	0.63
54:B4:10:LEU:HD22	54:B4:33:HIS:CD2	2.33	0.63
24:DA:2365:G:H4'	46:DW:60:PHE:CE2	2.33	0.63
26:BC:141:HIS:HB3	26:BC:194:VAL:HG12	1.81	0.63
4:AD:107:PHE:CE1	4:AD:155:VAL:HG11	2.34	0.63
31:BH:53:GLU:OE1	31:BH:54:LEU:N	2.32	0.63
36:DM:21:ALA:CB	36:DM:100:LYS:N	2.60	0.63
27:BD:155:VAL:CG1	27:BD:155:VAL:O	2.47	0.63
4:AD:79:ALA:O	4:AD:81:ARG:N	2.32	0.63
24:BA:663:G:OP1	35:BL:17:LYS:HB3	1.99	0.63
24:BA:1407:G:C2	24:BA:1596:A:C2	2.86	0.63
24:DA:1927:A:C6	24:DA:1928:A:C6	2.86	0.63
1:AA:958:A:N1	19:AS:54:GLY:HA3	2.13	0.63
24:BA:2407:A:OP1	59:BA:3567:HOH:O	2.15	0.63
1:AA:652:U:O2'	1:AA:653:U:O5'	2.16	0.63
4:CD:162:ALA:O	4:CD:165:ARG:N	2.31	0.63
24:BA:2483:C:C2	36:BM:123:LYS:HE3	2.34	0.63
24:BA:2119:A:O2'	24:BA:2120:G:O5'	2.13	0.63
15:CO:10:LYS:O	15:CO:12:VAL:N	2.31	0.63
24:BA:612:G:C6	24:BA:614:A:C2	2.86	0.63
8:CH:110:VAL:O	8:CH:111:MET:HB3	1.98	0.63
24:BA:469:G:O2'	24:BA:470:A:O4'	2.15	0.63
24:BA:2580:U:OP1	27:BD:137:SER:OG	2.14	0.63
30:BG:118:ALA:O	30:BG:120:ILE:HG22	1.98	0.63
21:AU:14:VAL:HG23	21:AU:16:LEU:HD23	1.79	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DQ:82:LEU:CD1	40:DQ:112:ALA:HB2	2.28	0.63
6:AF:3:HIS:O	6:AF:4:TYR:HB3	1.97	0.63
24:BA:2821:A:OP2	37:BN:3:HIS:NE2	2.31	0.63
1:AA:64:G:C8	1:AA:99:C:N4	2.66	0.63
1:AA:580:C:H4'	15:AO:57:LEU:HD11	1.79	0.63
24:DA:1605:C:C2'	24:DA:1606:C:H5'	2.28	0.63
1:AA:1008:U:C2	1:AA:1022:A:N3	2.67	0.63
24:DA:1502:A:C2	24:DA:1503:A:C5	2.86	0.63
26:BC:68:ARG:NH1	26:BC:128:THR:OG1	2.31	0.63
24:BA:2774:C:H2'	24:BA:2775:G:O4'	1.99	0.63
1:CA:556:C:O2'	1:CA:557:G:H5'	1.98	0.63
24:BA:1662:U:O2	24:BA:2687:U:H5''	1.98	0.63
3:AC:184:TYR:CD1	3:AC:201:TRP:NE1	2.66	0.63
24:DA:1490:A:H2'	24:DA:1490:A:N3	2.12	0.63
42:DS:85:ILE:HD12	42:DS:85:ILE:N	2.13	0.63
24:DA:1020:A:C2	24:DA:1141:U:C2	2.86	0.63
24:DA:1277:G:H5'	37:DN:20:MET:CE	2.29	0.63
24:BA:513:A:O2'	40:BQ:10:ARG:NH1	2.32	0.63
1:CA:149:A:C2	1:CA:150:U:C2	2.87	0.63
24:BA:1157:G:OP1	57:BA:3162:NMY:C9	2.46	0.63
24:DA:690:G:H4'	26:DC:216:ARG:NH2	2.14	0.63
24:BA:2415:G:C4	24:BA:2416:C:C6	2.87	0.63
1:AA:330:C:C2'	1:AA:331:G:H5'	2.29	0.63
8:AH:111:MET:CE	8:AH:116:ALA:HA	2.27	0.63
1:AA:687:A:N1	1:AA:700:G:O2'	2.23	0.63
24:BA:1269:A:OP2	59:BA:3388:HOH:O	2.15	0.63
1:CA:179:A:H2'	1:CA:180:U:O4'	1.97	0.63
24:BA:1355:G:C2'	24:BA:1356:G:H5'	2.28	0.63
24:DA:2328:A:H2'	24:DA:2329:U:C6	2.33	0.63
8:CH:89:LYS:HD3	8:CH:90:ASP:N	2.13	0.63
22:CV:18:G:N2	22:CV:58:A:O4'	2.31	0.63
24:BA:1176:U:C2	24:BA:1177:G:C5	2.86	0.63
24:BA:1097:U:C4	24:BA:1098:A:H1'	2.34	0.63
24:BA:1488:C:O2	24:BA:1502:A:C2	2.52	0.63
40:BQ:89:ILE:HD11	40:BQ:93:ILE:HB	1.81	0.63
24:BA:58:G:N2	24:BA:70:G:N3	2.46	0.63
24:BA:1326:U:O2'	24:BA:1327:A:H5'	1.98	0.63
24:BA:784:G:H5'	26:BC:225:ASN:OD1	1.99	0.63
24:BA:2799:A:O2'	24:BA:2800:A:H5''	1.99	0.63
9:CI:30:ILE:O	9:CI:31:ASN:C	2.37	0.63
26:DC:75:ALA:HB2	26:DC:95:TYR:CD1	2.34	0.63
24:DA:2108:A:N7	24:DA:2178:C:N4	2.47	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:410:G:H5''	24:DA:411:G:H5'	1.80	0.63
24:BA:141:G:N2	43:BT:1:MET:SD	2.71	0.63
1:AA:229:U:H2'	1:AA:230:G:O4'	1.97	0.63
24:BA:1623:G:C2	24:BA:1624:U:C2	2.87	0.63
1:AA:442:G:N1	1:AA:493:A:C2	2.66	0.63
28:BE:79:ARG:O	28:BE:80:SER:HB2	1.98	0.63
31:DH:72:ILE:HD12	31:DH:73:ASN:N	2.14	0.63
13:AM:77:ILE:O	13:AM:80:LEU:N	2.32	0.63
1:AA:391:G:C2	1:AA:392:C:H1'	2.33	0.63
4:AD:145:ILE:O	4:AD:146:ARG:HG2	1.98	0.63
1:CA:742:G:OP1	15:CO:58:ARG:NH1	2.32	0.63
1:CA:1330:U:OP1	13:CM:24:GLY:N	2.32	0.63
1:CA:1329:A:OP1	13:CM:28:THR:OG1	2.16	0.63
1:CA:1219:A:C5	1:CA:1220:G:N7	2.67	0.63
24:BA:2043:C:OP1	24:BA:2777:G:O2'	2.12	0.63
24:BA:2709:G:C5	24:BA:2710:C:C5	2.86	0.63
24:DA:733:G:O6	59:DA:3292:HOH:O	2.14	0.63
1:CA:110:C:O2'	16:CP:25:ARG:O	2.17	0.63
24:BA:613:A:N7	24:BA:616:A:N1	2.47	0.63
24:BA:659:G:O3'	28:BE:95:LYS:HG2	1.98	0.63
38:DO:117:PHE:O	38:DO:117:PHE:CD1	2.52	0.63
29:BF:36:ASN:CB	29:BF:87:LYS:HE3	2.28	0.63
24:BA:537:G:OP2	57:BA:3166:NMY:N6	2.31	0.63
22:CV:73:A:H3'	22:CV:73:A:N3	2.12	0.63
24:DA:583:G:OP1	40:DQ:6:GLY:HA2	1.98	0.63
41:DR:41:ILE:HD11	41:DR:54:VAL:HG11	1.79	0.63
1:CA:269:C:H2'	1:CA:270:A:C8	2.34	0.63
24:BA:1820:U:OP1	26:BC:176:ARG:HG2	1.98	0.63
1:AA:487:A:C6	1:AA:488:C:C2	2.86	0.63
1:AA:1269:A:C2	1:AA:1313:U:H1'	2.34	0.63
1:CA:800:G:O6	59:CA:1809:HOH:O	2.14	0.63
55:CY:142:LEU:HD21	55:CY:148:ILE:HD11	1.79	0.63
37:BN:22:ARG:O	37:BN:24:MET:N	2.31	0.63
43:DT:4:GLU:CD	48:DY:18:LEU:HD21	2.19	0.63
24:BA:189:G:O6	24:BA:205:G:O2'	2.11	0.63
24:BA:1952:A:N3	24:BA:2560:A:O2'	2.29	0.63
27:BD:49:GLN:NE2	27:BD:79:LEU:HD13	2.14	0.63
1:AA:1349:A:H2'	1:AA:1350:A:H5'	1.80	0.63
11:CK:24:HIS:CE1	11:CK:31:ILE:HB	2.34	0.63
4:AD:49:SER:CB	4:AD:51:TYR:CE2	2.82	0.63
8:AH:83:LEU:HD13	8:AH:83:LEU:C	2.18	0.63
1:CA:406:G:C2	1:CA:407:U:C6	2.87	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:401:C:O2'	1:CA:621:A:N3	2.31	0.63
1:AA:1088:G:C6	1:AA:1089:G:N7	2.67	0.63
38:DO:111:ARG:O	38:DO:114:GLY:N	2.32	0.63
24:BA:1277:G:H5'	37:BN:20:MET:CE	2.27	0.63
26:BC:62:ARG:HH21	26:BC:62:ARG:HG2	1.62	0.63
24:DA:1733:G:C6	24:DA:1734:G:C5	2.87	0.63
24:BA:1344:U:H5'	24:BA:1384:A:C6	2.33	0.63
24:BA:630:G:C3'	24:BA:631:A:H5''	2.28	0.63
24:DA:1501:G:O2'	24:DA:1502:A:H5'	1.99	0.63
24:DA:431:U:C2'	24:DA:432:A:H5''	2.28	0.63
24:DA:623:C:H2'	24:DA:624:C:H6	1.64	0.63
1:CA:779:C:H2'	1:CA:780:A:O4'	1.99	0.63
24:DA:2406:A:C2	35:DL:69:ARG:NH2	2.66	0.63
37:BN:97:ILE:HD11	37:BN:111:ALA:HB1	1.81	0.63
41:DR:68:ARG:HD3	41:DR:92:TRP:CE2	2.33	0.63
41:DR:25:LEU:HD12	41:DR:94:THR:OG1	1.99	0.63
30:DG:19:ASN:O	30:DG:22:VAL:HG23	1.98	0.63
3:AC:7:PRO:O	3:AC:11:ARG:HG2	1.98	0.63
24:DA:1909:C:C2	24:DA:1922:G:N2	2.66	0.63
24:BA:2413:G:C2'	24:BA:2414:G:H5'	2.29	0.63
24:BA:2416:C:C2	24:BA:2417:C:C5	2.87	0.63
8:AH:11:LEU:HD13	8:AH:15:ARG:NH2	2.14	0.63
1:CA:49:U:C4	1:CA:364:A:C6	2.86	0.63
1:CA:1506:U:H3'	59:CA:1886:HOH:O	1.99	0.63
11:CK:46:THR:CG2	11:CK:47:ALA:N	2.61	0.63
1:AA:35:G:C6	1:AA:36:C:N4	2.67	0.63
1:AA:508:U:C4'	4:AD:51:TYR:OH	2.47	0.63
1:CA:544:G:OP1	4:CD:59:GLN:NE2	2.31	0.63
15:CO:57:LEU:O	15:CO:58:ARG:C	2.37	0.63
1:AA:683:G:C2'	1:AA:684:U:O5'	2.46	0.63
1:CA:1238:A:H2'	1:CA:1239:A:H5''	1.80	0.63
11:CK:20:VAL:HG13	11:CK:35:THR:HG23	1.81	0.63
24:BA:1186:G:H2'	24:BA:1187:G:H5'	1.80	0.63
57:DA:3190:NMY:H2	57:DA:3190:NMY:C17	2.29	0.63
20:CT:67:ILE:HG12	20:CT:71:LYS:HG2	1.80	0.63
1:CA:858:G:C6	1:CA:869:G:N7	2.67	0.63
24:BA:609:A:C6	24:BA:610:C:O2	2.52	0.63
38:DO:108:ASP:HA	38:DO:111:ARG:HB2	1.81	0.63
21:CU:17:ARG:CG	21:CU:20:LYS:HD3	2.29	0.63
1:AA:1047:G:HO2'	1:AA:1215:G:HO2'	1.40	0.63
42:BS:3:THR:HB	42:BS:58:ALA:CB	2.29	0.63
2:AB:218:ALA:HA	2:AB:221:VAL:HG12	1.81	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:58:G:OP1	43:BT:78:SER:HB2	1.99	0.63
24:BA:846:U:H2'	24:BA:846:U:O2	1.99	0.63
24:DA:2093:G:OP2	31:DH:22:LYS:HE2	1.98	0.63
52:B2:44:VAL:O	52:B2:45:SER:OG	2.12	0.63
1:AA:309:A:C2	1:AA:310:G:N7	2.66	0.63
24:BA:145:C:H2'	24:BA:146:A:C8	2.34	0.63
24:DA:2293:G:OP1	38:DO:94:ARG:NH2	2.32	0.63
24:BA:1504:A:C6	24:BA:1505:A:C6	2.87	0.63
43:DT:51:PHE:O	43:DT:52:GLU:C	2.36	0.63
33:BJ:130:HIS:O	33:BJ:130:HIS:ND1	2.31	0.63
1:AA:946:A:N3	1:AA:1236:A:C2	2.67	0.63
20:AT:27:MET:SD	20:AT:27:MET:O	2.56	0.63
24:BA:2448:A:OP2	59:BA:3688:HOH:O	2.16	0.63
25:DB:37:C:C5	25:DB:38:C:C5	2.87	0.63
24:BA:1833:C:O2'	24:BA:1969:A:N1	2.28	0.63
13:AM:85:CYS:O	13:AM:88:GLY:N	2.31	0.63
1:AA:1014:A:C4	19:AS:34:TRP:CZ2	2.86	0.63
24:DA:690:G:C3'	26:DC:216:ARG:HH21	2.11	0.63
35:BL:61:LEU:O	53:B3:12:ARG:HD3	1.98	0.63
4:AD:171:LEU:CD1	4:AD:173:VAL:CG2	2.77	0.63
9:AI:35:LEU:O	9:AI:36:GLU:C	2.37	0.63
9:AI:79:ILE:O	9:AI:82:GLY:N	2.32	0.63
1:AA:1124:G:OP1	10:AJ:37:ARG:O	2.16	0.63
28:BE:165:HIS:N	28:BE:165:HIS:CD2	2.66	0.63
16:CP:40:ASN:O	16:CP:42:ILE:N	2.31	0.63
24:BA:276:U:O2	24:BA:277:G:C8	2.51	0.63
12:CL:82:ILE:HG23	12:CL:95:TYR:CE1	2.33	0.63
24:BA:811:U:C4	35:BL:21:ARG:NH2	2.66	0.63
1:AA:1304:G:N1	1:AA:1305:G:N2	2.47	0.63
24:BA:1356:G:C2	24:BA:1357:C:C2	2.87	0.63
38:DO:111:ARG:O	38:DO:113:ALA:N	2.32	0.63
1:CA:933:G:OP2	7:CG:3:ARG:HG2	1.99	0.63
2:AB:23:TRP:CG	2:AB:23:TRP:O	2.51	0.63
24:DA:1728:C:O2'	24:DA:1731:G:O6	2.03	0.63
30:BG:139:VAL:O	30:BG:142:GLN:N	2.32	0.63
3:CC:44:THR:O	3:CC:45:LYS:C	2.37	0.63
16:AP:32:PHE:CD1	16:AP:32:PHE:C	2.72	0.63
3:AC:79:LYS:HZ1	1:CA:1539:C:P	2.22	0.63
24:BA:479:A:N3	24:BA:481:G:C5'	2.61	0.63
47:DX:68:ALA:HA	47:DX:71:ARG:NH2	2.14	0.63
24:DA:674:G:H1'	28:DE:69:ARG:CD	2.29	0.63
24:BA:1466:U:HO2'	24:BA:1546:G:HO2'	1.47	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:246:A:N3	1:AA:247:G:H1'	2.13	0.63
24:DA:2093:G:OP2	31:DH:22:LYS:HG3	1.99	0.63
24:BA:230:G:N3	24:BA:231:A:C8	2.67	0.63
28:BE:113:VAL:O	28:BE:116:ASP:N	2.30	0.63
4:AD:138:SER:O	4:AD:182:PHE:CZ	2.52	0.63
24:BA:2502:G:H5'	24:BA:2503:A:C5'	2.29	0.63
24:BA:122:G:O6	24:BA:129:C:N4	2.31	0.63
31:BH:5:LEU:O	31:BH:6:LEU:HD12	1.99	0.63
38:DO:100:HIS:CD2	38:DO:101:GLY:N	2.66	0.63
24:DA:378:C:H2'	24:DA:379:G:H5'	1.80	0.63
24:DA:2684:U:C4	24:DA:2685:G:N7	2.67	0.63
24:DA:1563:U:H2'	24:DA:1564:C:H6	1.64	0.63
24:DA:1567:G:H2'	26:DC:84:PRO:HG3	1.81	0.63
4:CD:197:GLU:OE1	4:CD:197:GLU:N	2.32	0.63
36:BM:64:TRP:O	36:BM:65:ILE:HG13	1.99	0.63
17:CQ:11:ARG:NH1	17:CQ:56:GLY:O	2.31	0.63
24:DA:1878:G:C6	24:DA:1879:C:C4	2.86	0.63
24:DA:1921:G:O6	57:DA:3184:NMY:H81	1.98	0.62
1:CA:790:A:N7	1:CA:791:G:C5	2.67	0.62
1:CA:791:G:C5	1:CA:792:A:N7	2.67	0.62
1:AA:32:A:H2	1:AA:33:A:C4	2.16	0.62
1:CA:926:G:C5'	1:CA:927:G:O5'	2.46	0.62
11:AK:126:LYS:NZ	59:AK:201:HOH:O	2.31	0.62
1:CA:1309:G:N2	1:CA:1328:C:C2	2.67	0.62
1:CA:1330:U:C4	1:CA:1331:G:C6	2.87	0.62
19:CS:6:LYS:HG3	19:CS:7:LYS:N	2.12	0.62
4:AD:25:VAL:CG2	4:AD:26:ARG:N	2.61	0.62
1:CA:684:U:H2'	1:CA:685:G:O4'	1.99	0.62
1:AA:1178:G:H2'	1:AA:1180:A:OP2	1.98	0.62
24:DA:686:U:H2'	24:DA:788:A:N1	2.14	0.62
1:AA:1304:G:C6	1:AA:1305:G:C2	2.87	0.62
7:CG:43:VAL:O	7:CG:46:ALA:N	2.32	0.62
1:AA:993:G:N3	1:AA:993:G:H2'	2.14	0.62
3:CC:40:ARG:O	3:CC:44:THR:OG1	2.16	0.62
1:AA:844:G:N2	1:AA:846:G:O2'	2.32	0.62
1:AA:1424:U:H2'	1:AA:1424:U:O2	1.99	0.62
1:CA:855:U:H2'	1:CA:856:C:C6	2.33	0.62
1:CA:1402:C:H2'	1:CA:1403:C:O4'	1.99	0.62
5:CE:45:ARG:HH12	5:CE:74:VAL:HG22	1.64	0.62
24:BA:725:G:C6	24:BA:726:G:N1	2.67	0.62
24:BA:1993:U:H4'	27:BD:133:THR:HG22	1.80	0.62
43:DT:14:PRO:HA	43:DT:32:LEU:HB3	1.81	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BH:114:GLU:OE1	31:BH:134:VAL:N	2.32	0.62
24:BA:1102:C:H2'	24:BA:1103:A:C8	2.33	0.62
24:BA:1105:U:H2'	24:BA:1106:G:C8	2.34	0.62
1:CA:1033:G:H2'	1:CA:1034:G:H5'	1.81	0.62
4:AD:5:LEU:O	4:AD:8:LYS:NZ	2.32	0.62
24:BA:219:A:N3	24:BA:234:U:O2'	2.27	0.62
24:BA:679:C:O2'	24:BA:680:C:H5'	1.98	0.62
24:DA:2881:U:O2'	24:DA:2882:A:H5'	1.99	0.62
28:DE:171:ASP:O	28:DE:172:ALA:C	2.37	0.62
42:BS:7:HIS:CD2	42:BS:10:ALA:HB2	2.34	0.62
57:AA:1655:NMY:HN61	24:BA:1913:A:H62	1.46	0.62
41:BR:68:ARG:HD3	41:BR:92:TRP:CZ2	2.33	0.62
31:DH:77:THR:HG23	31:DH:143:ILE:HD11	1.81	0.62
54:D4:30:GLU:OE1	54:D4:30:GLU:N	2.32	0.62
1:AA:1355:G:C6	1:AA:1368:A:C2	2.86	0.62
24:BA:2294:G:P	38:BO:10:ARG:NH2	2.72	0.62
25:BB:51:G:H5''	38:BO:64:TYR:CG	2.34	0.62
1:CA:787:A:C2'	1:CA:788:U:H5'	2.28	0.62
1:CA:706:A:C4	11:CK:44:TRP:CH2	2.87	0.62
24:BA:2466:C:OP1	54:B4:4:ARG:HG2	2.00	0.62
1:AA:600:A:OP1	8:AH:88:ARG:HD2	1.99	0.62
1:AA:801:U:H2'	1:AA:802:A:O5'	1.99	0.62
11:AK:125:LYS:HG3	11:AK:126:LYS:N	2.14	0.62
1:CA:1309:G:H1'	1:CA:1329:A:C2	2.34	0.62
1:AA:1256:A:C4	1:AA:1278:G:C6	2.87	0.62
9:AI:28:ILE:HA	9:AI:63:LEU:HD21	1.80	0.62
20:AT:76:LYS:HA	20:AT:79:LEU:HD11	1.81	0.62
24:BA:2113:U:C4	24:BA:2114:A:N7	2.67	0.62
39:BP:48:ALA:HA	39:BP:95:LYS:HG2	1.80	0.62
12:CL:89:ASP:O	12:CL:91:PRO:N	2.32	0.62
24:DA:181:A:C2	24:DA:182:A:C4	2.87	0.62
24:BA:63:A:C4'	43:BT:77:ARG:HH11	2.11	0.62
24:DA:2315:G:H4'	29:DF:124:ARG:HH12	1.64	0.62
30:BG:3:VAL:HG12	30:BG:68:ARG:HG2	1.79	0.62
26:DC:5:CYS:SG	26:DC:15:VAL:CG1	2.86	0.62
1:AA:662:U:H2'	1:AA:663:A:C8	2.34	0.62
42:DS:45:VAL:O	42:DS:46:LEU:C	2.36	0.62
1:AA:100:G:C8	1:AA:101:A:C8	2.87	0.62
1:AA:382:A:H2'	1:AA:383:A:C8	2.34	0.62
24:DA:2298:A:H2'	24:DA:2299:U:O4'	1.99	0.62
24:DA:1026:G:OP1	59:DA:3711:HOH:O	2.15	0.62
24:DA:379:G:H2'	24:DA:380:G:O5'	1.99	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DN:97:ILE:O	37:DN:112:TYR:O	2.17	0.62
1:CA:594:U:N3	1:CA:595:A:N1	2.47	0.62
30:DG:103:ASN:ND2	30:DG:113:ASP:OD1	2.31	0.62
24:DA:453:A:H5'	24:DA:454:A:OP2	1.98	0.62
35:DL:46:VAL:HG21	35:DL:50:PHE:CD1	2.33	0.62
24:BA:165:A:N3	47:BX:43:LYS:NZ	2.46	0.62
31:BH:121:VAL:CG1	31:BH:122:LEU:CD2	2.71	0.62
24:DA:321:U:H4'	28:DE:162:ARG:NH2	2.15	0.62
1:AA:984:C:O2	1:AA:1222:G:C2	2.52	0.62
11:CK:55:SER:C	11:CK:57:LYS:H	2.01	0.62
1:AA:538:G:OP1	12:AL:110:ARG:HD2	1.99	0.62
4:AD:131:ASN:O	4:AD:133:ALA:N	2.32	0.62
16:AP:67:ILE:HG22	16:AP:71:VAL:CG2	2.29	0.62
1:AA:332:G:OP2	20:AT:5:LYS:HD2	1.98	0.62
24:DA:1105:U:H2'	24:DA:1106:G:H8	1.64	0.62
4:AD:26:ARG:NH2	4:AD:29:ASP:O	2.33	0.62
40:DQ:39:ILE:HD13	41:DR:77:PHE:CE2	2.35	0.62
25:DB:44:G:OP1	29:DF:94:ARG:NH2	2.32	0.62
1:AA:466:A:C4	1:AA:468:A:C2	2.87	0.62
24:BA:2204:G:C2	24:BA:2205:A:C8	2.87	0.62
27:BD:56:LYS:O	27:BD:58:ASN:N	2.32	0.62
9:AI:130:ARG:NH2	22:AV:35:A:P	2.73	0.62
24:BA:1602:U:C3'	24:BA:1603:A:H5'	2.29	0.62
30:BG:102:ILE:HG21	30:BG:104:LEU:HD13	1.80	0.62
55:CY:64:THR:HG23	55:CY:65:LEU:N	2.14	0.62
1:CA:1169:A:C5	1:CA:1170:A:C2	2.87	0.62
25:BB:75:G:O4'	45:BV:29:ILE:CD1	2.48	0.62
24:BA:2799:A:C6	24:BA:2801:G:C5	2.87	0.62
17:CQ:69:LYS:O	17:CQ:70:THR:HB	1.99	0.62
1:CA:459:A:H2'	1:CA:460:A:C8	2.33	0.62
24:BA:1217:U:H2'	24:BA:1218:G:O5'	2.00	0.62
24:DA:477:A:H2'	24:DA:478:A:C8	2.34	0.62
23:AX:8:U:H3'	23:AX:9:A:C5'	2.27	0.62
5:CE:78:ASN:OD1	5:CE:78:ASN:N	2.32	0.62
9:AI:32:GLN:OE1	9:AI:64:TYR:OH	2.03	0.62
11:CK:81:ASN:CB	11:CK:106:ARG:CZ	2.77	0.62
33:DJ:76:HIS:CE1	33:DJ:85:LYS:HB2	2.33	0.62
24:BA:2652:C:C2'	24:BA:2653:U:H5'	2.28	0.62
22:CV:8:U:O2	22:CV:21:A:C2	2.53	0.62
24:BA:227:A:C2	24:BA:2407:A:H1'	2.35	0.62
1:CA:501:C:OP2	12:CL:121:ARG:CZ	2.48	0.62
24:BA:948:C:C2	24:BA:949:G:C8	2.87	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:615:G:C2	1:CA:616:G:C8	2.86	0.62
24:BA:2285:C:OP2	51:B1:5:ARG:NH1	2.32	0.62
1:CA:262:A:C6	1:CA:263:A:N6	2.66	0.62
12:CL:44:LYS:O	12:CL:46:ASN:N	2.32	0.62
1:CA:1082:A:OP1	5:CE:23:LYS:NZ	2.32	0.62
47:DX:32:LEU:HA	47:DX:51:SER:HA	1.81	0.62
1:AA:215:C:H2'	1:AA:216:U:O4'	2.00	0.62
1:CA:751:U:H4'	15:CO:24:SER:CA	2.29	0.62
1:CA:751:U:H4'	15:CO:24:SER:HA	1.81	0.62
27:DD:101:PHE:O	27:DD:103:ASP:N	2.33	0.62
24:DA:2443:C:O2'	24:DA:2444:G:H5'	2.00	0.62
24:BA:2495:G:O3'	36:BM:81:ARG:O	2.16	0.62
24:DA:408:G:C2'	24:DA:409:G:O5'	2.46	0.62
1:AA:70:U:OP2	1:AA:70:U:C6	2.52	0.62
1:AA:978:A:P	1:AA:1362:A:N6	2.72	0.62
26:BC:188:ARG:O	26:BC:189:ALA:HB2	1.99	0.62
24:BA:2795:C:O2	24:BA:2802:G:N2	2.33	0.62
24:DA:2693:G:N2	24:DA:2717:C:C2	2.67	0.62
1:AA:734:G:O2'	18:AR:60:LYS:CE	2.47	0.62
24:BA:61:C:C2	24:BA:94:A:C2	2.87	0.62
53:D3:14:LYS:O	53:D3:15:LYS:O	2.18	0.62
24:BA:867:C:H2'	24:BA:868:U:H5'	1.82	0.62
26:BC:116:GLN:N	26:BC:127:ASN:OD1	2.32	0.62
24:BA:223:A:N6	24:BA:422:A:C2	2.67	0.62
44:BU:85:ARG:O	44:BU:87:GLU:N	2.32	0.62
11:CK:27:PHE:C	11:CK:27:PHE:CD1	2.71	0.62
11:CK:24:HIS:HA	11:CK:87:LYS:HG2	1.82	0.62
1:CA:400:C:H2'	1:CA:401:C:O5'	1.98	0.62
1:CA:493:A:C4	1:CA:494:G:N1	2.67	0.62
24:DA:1055:G:C6	24:DA:1056:G:C4	2.88	0.62
2:AB:130:THR:OG1	2:AB:131:LYS:N	2.30	0.62
1:CA:375:U:C3'	1:CA:376:G:H5''	2.29	0.62
10:CJ:42:LEU:CD2	10:CJ:71:LEU:HD22	2.29	0.62
24:BA:2286:G:P	51:B1:29:LYS:HZ3	2.21	0.62
1:CA:966:G:N3	9:CI:129:LYS:CE	2.63	0.62
1:CA:536:C:OP1	59:CA:1771:HOH:O	2.15	0.62
41:BR:49:ILE:HG12	41:BR:54:VAL:N	2.14	0.62
42:BS:13:SER:O	42:BS:15:GLN:N	2.33	0.62
27:BD:125:TRP:CB	27:BD:160:LYS:HG2	2.29	0.62
24:BA:2207:C:C2	24:BA:2218:G:N2	2.67	0.62
3:CC:176:HIS:NE2	59:CC:301:HOH:O	2.30	0.62
26:BC:106:PRO:O	26:BC:107:LYS:O	2.17	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AS:15:LEU:HG	19:AS:33:THR:HG21	1.82	0.62
1:AA:318:G:N1	1:AA:319:G:C5	2.68	0.62
24:BA:1995:U:OP1	27:BD:128:ARG:NH2	2.33	0.62
6:AF:43:GLY:HA2	6:AF:58:HIS:CD2	2.34	0.62
7:AG:93:PRO:O	7:AG:95:ARG:N	2.33	0.62
24:DA:1918:A:O2'	24:DA:1920:C:N4	2.32	0.62
23:CX:10:A:O2'	23:CX:11:A:P	2.57	0.62
4:AD:59:GLN:O	4:AD:63:ARG:NE	2.32	0.62
1:CA:666:G:H5'	1:CA:726:C:H1'	1.82	0.62
24:BA:2167:U:H1'	24:BA:2170:A:N7	2.13	0.62
24:DA:564:C:H5''	41:DR:79:ARG:HG2	1.81	0.62
24:BA:109:C:N3	24:BA:110:G:N7	2.47	0.62
24:BA:361:G:HO2'	24:BA:362:A:P	2.19	0.62
12:CL:93:VAL:HG22	12:CL:94:ARG:N	2.13	0.62
57:DA:3186:NMY:H11	57:DA:3186:NMY:HN21	1.59	0.62
29:DF:96:TRP:HA	29:DF:99:PHE:CZ	2.34	0.62
1:CA:1366:C:OP2	9:CI:119:ARG:NH1	2.32	0.62
40:DQ:81:GLY:HA2	40:DQ:116:LEU:HD23	1.80	0.62
24:BA:1383:A:N3	24:BA:1405:U:O2'	2.30	0.62
3:CC:11:ARG:NH2	3:CC:178:LEU:HA	2.14	0.62
1:AA:294:U:C2	1:AA:295:C:C5	2.87	0.62
29:DF:87:LYS:HG2	29:DF:88:VAL:N	2.13	0.62
25:BB:14:U:C2'	25:BB:14:U:O2	2.47	0.62
24:BA:2861:U:N3	24:BA:2862:G:N7	2.48	0.62
33:BJ:30:THR:HG22	33:BJ:31:GLU:N	2.14	0.62
24:BA:1564:C:H2'	24:BA:1565:C:C6	2.35	0.62
24:BA:1566:A:P	26:BC:213:ARG:NH2	2.73	0.62
1:CA:448:A:C8	1:CA:487:A:N1	2.67	0.62
38:DO:12:THR:HA	38:DO:15:ARG:HB2	1.79	0.62
24:DA:597:G:C5	24:DA:598:U:C4	2.87	0.62
24:BA:96:C:H4'	48:BY:41:HIS:CE1	2.35	0.62
29:BF:3:LEU:CD1	29:BF:96:TRP:CH2	2.72	0.62
24:DA:298:G:P	44:DU:84:PHE:HB3	2.39	0.62
1:AA:958:A:C6	19:AS:54:GLY:HA3	2.35	0.62
24:BA:2335:A:N6	24:BA:2337:G:H1'	2.14	0.62
29:BF:92:GLY:O	29:BF:93:GLU:HB2	2.00	0.62
24:DA:2420:C:P	53:D3:33:THR:HG23	2.39	0.62
53:D3:43:LEU:N	53:D3:43:LEU:HD13	2.14	0.62
24:BA:729:G:O5'	26:BC:12:ARG:NH2	2.32	0.62
1:CA:697:U:O4'	1:CA:786:G:O2'	2.18	0.62
1:AA:618:C:H3'	1:AA:619:U:C5'	2.30	0.62
13:CM:11:ASP:HB2	13:CM:45:ILE:HG12	1.81	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1068:G:O2'	24:DA:1096:A:H4'	2.00	0.62
24:DA:359:G:H2'	24:DA:360:U:H5'	1.81	0.62
22:CV:43:C:H2'	22:CV:43:C:O2	2.00	0.62
6:CF:71:ILE:O	6:CF:75:GLU:N	2.32	0.62
24:DA:1359:A:N7	24:DA:1360:G:C8	2.67	0.62
9:CI:47:VAL:HG12	9:CI:80:ARG:HG3	1.82	0.62
27:DD:13:ARG:HD3	27:DD:21:SER:OG	2.00	0.62
1:CA:1086:U:O2'	1:CA:1087:G:H5'	1.99	0.62
29:DF:161:SER:O	29:DF:162:ASP:C	2.37	0.62
43:DT:61:LEU:CD1	43:DT:82:LYS:HB3	2.28	0.62
1:AA:846:G:OP2	18:AR:48:ARG:NH2	2.33	0.62
6:CF:23:GLU:O	6:CF:24:ARG:O	2.17	0.62
1:AA:788:U:C2'	1:AA:789:U:H5'	2.30	0.62
24:BA:847:U:H2'	24:BA:847:U:O2	1.97	0.62
1:CA:1064:G:OP1	1:CA:1386:G:H4'	1.99	0.62
24:DA:636:G:OP2	35:DL:109:LYS:NZ	2.28	0.62
1:AA:489:C:O2	1:AA:490:C:C6	2.53	0.62
26:BC:81:GLU:HB2	26:BC:90:ILE:CD1	2.28	0.62
24:DA:2128:G:N7	24:DA:2129:C:C4	2.67	0.62
38:DO:100:HIS:CG	38:DO:101:GLY:N	2.65	0.62
43:DT:30:ILE:HG13	43:DT:85:VAL:CG1	2.30	0.62
1:AA:1275:A:C5	1:AA:1276:G:N7	2.68	0.62
46:DW:29:GLU:O	46:DW:30:SER:O	2.16	0.62
1:CA:530:G:N3	1:CA:530:G:H2'	2.15	0.62
31:DH:116:ARG:HH11	31:DH:133:GLN:HG2	1.63	0.62
22:CV:13:C:C2'	22:CV:14:A:H5'	2.29	0.62
1:CA:628:G:H2'	1:CA:629:A:C8	2.35	0.62
1:CA:452:A:O4'	16:CP:70:ARG:NH1	2.33	0.62
24:BA:359:G:N1	24:BA:360:U:C2	2.68	0.62
12:CL:37:VAL:HG23	12:CL:37:VAL:O	2.00	0.62
48:DY:49:ASP:O	48:DY:53:VAL:HG12	1.99	0.62
35:BL:78:ARG:HB2	35:BL:113:ALA:CB	2.28	0.62
24:BA:2531:A:H5'	30:BG:156:TYR:CE2	2.35	0.62
29:DF:37:MET:O	29:DF:39:VAL:N	2.33	0.62
26:DC:15:VAL:HG22	26:DC:204:LEU:O	2.00	0.62
3:AC:79:LYS:O	3:AC:81:GLY:N	2.32	0.62
40:DQ:65:ASN:ND2	40:DQ:75:TYR:HB3	2.13	0.62
24:BA:1178:C:H2'	24:BA:1179:G:C8	2.35	0.62
1:CA:1109:C:C5	1:CA:1110:A:N7	2.67	0.62
1:AA:106:C:C2'	1:AA:107:G:H5'	2.30	0.62
15:AO:54:ARG:O	15:AO:57:LEU:HG	1.99	0.62
8:CH:40:LEU:CB	8:CH:46:ILE:HG12	2.29	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:431:U:H2'	24:DA:432:A:H5'	1.80	0.62
24:DA:1414:C:C6	24:DA:1415:U:C5	2.88	0.62
31:BH:148:ALA:O	31:BH:149:GLU:HG3	2.00	0.62
24:DA:387:U:C6	24:DA:388:G:C6	2.88	0.62
24:DA:1797:G:C5	24:DA:1798:U:C5	2.88	0.62
24:DA:2122:U:O2'	24:DA:2123:G:OP1	2.16	0.62
26:BC:140:VAL:CG2	26:BC:189:ALA:HB1	2.30	0.62
24:DA:1754:A:HO2'	24:DA:1755:A:P	2.23	0.62
24:DA:1319:C:C2'	24:DA:1320:C:H5'	2.29	0.62
24:DA:1577:C:H2'	24:DA:1578:U:O4'	2.00	0.62
24:BA:2808:G:N2	24:BA:2891:U:C6	2.68	0.62
27:DD:9:VAL:HG13	27:DD:26:VAL:O	1.98	0.62
24:BA:2091:C:H4'	47:BX:55:MET:CE	2.29	0.62
24:BA:2409:G:O6	24:BA:2410:G:C6	2.53	0.62
26:BC:8:THR:O	26:BC:9:SER:HB3	2.00	0.62
1:CA:429:U:OP1	4:CD:9:LEU:HD22	2.00	0.62
4:CD:171:LEU:C	4:CD:171:LEU:HD12	2.20	0.62
1:AA:682:G:C2'	1:AA:683:G:H5'	2.29	0.62
1:AA:1106:G:H2'	1:AA:1107:C:C6	2.34	0.62
9:AI:46:MET:SD	9:AI:48:VAL:HG22	2.39	0.62
24:DA:1361:G:C6	24:DA:1362:C:C4	2.88	0.62
4:CD:58:LYS:CE	4:CD:203:LEU:HD13	2.30	0.62
12:CL:52:VAL:CG2	12:CL:53:CYS:N	2.62	0.62
1:CA:260:G:H2'	1:CA:261:U:C6	2.33	0.62
22:CV:4:C:O2'	22:CV:5:G:C5'	2.46	0.62
29:DF:121:PHE:CZ	29:DF:162:ASP:O	2.53	0.62
1:CA:965:U:O2'	1:CA:966:G:OP2	2.13	0.62
24:BA:858:G:N2	24:BA:919:U:O4	2.33	0.62
24:BA:2290:G:N1	24:BA:2343:U:O2	2.32	0.62
24:DA:63:A:C2	24:DA:64:A:C5	2.87	0.62
1:AA:101:A:C5	1:AA:102:G:N7	2.68	0.62
24:DA:2636:C:O2'	27:DD:45:TYR:OH	2.18	0.62
34:BK:12:ASP:OD1	34:BK:14:SER:OG	2.14	0.62
3:CC:53:SER:HB2	3:CC:115:LEU:HD21	1.82	0.62
1:CA:1169:A:N6	1:CA:1170:A:C2	2.67	0.62
24:BA:1906:G:C2'	24:BA:1907:G:H5'	2.30	0.62
8:CH:104:VAL:HG22	8:CH:105:SER:O	1.99	0.62
1:CA:1178:G:N7	9:CI:99:ARG:NH1	2.47	0.62
45:DV:23:ALA:O	45:DV:25:LYS:N	2.31	0.62
42:BS:84:ARG:HB2	42:BS:96:ILE:HG22	1.81	0.62
27:DD:16:THR:O	27:DD:19:GLY:N	2.33	0.62
52:D2:43:THR:O	52:D2:44:VAL:HB	1.99	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1719:G:C5	24:BA:1720:U:C5	2.88	0.62
47:BX:51:SER:OG	47:BX:52:ALA:N	2.30	0.62
8:AH:40:LEU:HB3	8:AH:46:ILE:HG21	1.82	0.62
1:AA:419:C:N4	1:AA:420:U:C4	2.67	0.62
1:AA:1197:A:OP2	59:AA:1846:HOH:O	2.16	0.62
9:CI:82:GLY:CA	9:CI:85:ARG:NH1	2.63	0.62
20:CT:54:MET:HG2	20:CT:54:MET:O	2.00	0.62
1:AA:1305:G:O6	59:AA:1861:HOH:O	2.14	0.62
24:DA:974:G:O2'	24:DA:989:G:N2	2.32	0.62
46:DW:18:ALA:O	46:DW:20:ARG:NH1	2.32	0.62
46:DW:20:ARG:CG	46:DW:20:ARG:NH1	2.51	0.62
1:CA:1354:U:C2'	1:CA:1355:G:O5'	2.47	0.62
52:B2:35:ARG:O	52:B2:38:GLY:N	2.33	0.62
24:BA:2748:A:H1'	30:BG:66:THR:HG23	1.82	0.62
24:BA:2761:A:C6	24:BA:2762:C:C5	2.88	0.62
1:CA:1539:C:O3'	21:CU:18:ARG:O	2.11	0.62
6:CF:18:VAL:O	6:CF:21:MET:HB2	2.00	0.62
24:BA:1666:G:OP2	34:BK:66:LYS:NZ	2.32	0.62
42:BS:74:ILE:HD13	42:BS:105:VAL:CG2	2.30	0.62
12:AL:80:ILE:HA	12:AL:102:LEU:HD11	1.82	0.62
1:AA:436:C:C2	1:AA:437:U:C5	2.87	0.62
1:AA:441:A:C2	1:AA:497:G:N1	2.68	0.62
1:AA:574:A:H1'	1:AA:883:C:O4'	1.99	0.62
1:CA:1055:A:H1'	3:CC:193:TYR:OH	2.00	0.62
24:BA:2309:A:H2'	24:BA:2310:C:O5'	1.99	0.62
1:CA:1160:G:O2'	1:CA:1161:C:O5'	2.16	0.62
24:BA:2004:G:C2'	24:BA:2005:A:H5'	2.29	0.62
24:BA:1142:A:C4	24:BA:1144:A:C8	2.87	0.62
24:BA:835:C:H2'	24:BA:836:G:H5'	1.82	0.62
9:CI:30:ILE:O	9:CI:33:ARG:N	2.32	0.62
24:DA:2335:A:N7	24:DA:2337:G:C5	2.68	0.62
7:CG:17:LYS:HB2	7:CG:44:TYR:CZ	2.34	0.62
1:CA:161:A:N1	1:CA:347:G:O2'	2.29	0.62
24:BA:273:G:C5	24:BA:274:C:C4	2.87	0.62
36:DM:77:PRO:O	36:DM:80:VAL:HG12	2.00	0.62
19:CS:27:ASP:N	19:CS:27:ASP:OD1	2.33	0.62
1:CA:1189:U:OP1	14:CN:98:LYS:NZ	2.27	0.62
24:DA:2576:G:O2'	24:DA:2579:C:OP2	2.13	0.62
24:DA:748:G:OP1	42:DS:88:ARG:NH1	2.32	0.62
24:DA:1952:A:N3	24:DA:2560:A:O2'	2.31	0.62
1:AA:632:U:H5''	1:AA:633:G:C8	2.35	0.62
24:DA:298:G:OP1	44:DU:84:PHE:CD1	2.53	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:AN:52:PRO:O	14:AN:55:SER:OG	2.14	0.61
47:BX:11:PRO:HB3	47:BX:29:LEU:HD21	1.79	0.61
1:CA:671:G:C2	1:CA:736:C:C2	2.87	0.61
1:AA:782:A:C2	1:AA:801:U:C2	2.88	0.61
29:DF:112:ASP:O	29:DF:114:ARG:NH2	2.33	0.61
24:BA:2484:G:P	36:BM:44:ARG:NH1	2.73	0.61
24:BA:2846:G:OP2	39:BP:51:ASN:HB2	1.99	0.61
24:BA:564:C:O2'	24:BA:565:C:H5'	2.00	0.61
1:CA:263:A:P	20:CT:74:ARG:NH2	2.73	0.61
24:BA:601:C:O2'	24:BA:605:G:OP1	2.13	0.61
13:AM:114:LYS:HB3	13:AM:115:PRO:HD2	1.82	0.61
42:BS:47:VAL:O	42:BS:51:LEU:N	2.33	0.61
24:BA:1571:A:C2	24:BA:1572:A:C5	2.87	0.61
1:CA:340:U:C2	1:CA:350:G:N2	2.68	0.61
24:DA:1300:G:H4'	24:DA:1301:A:H5''	1.80	0.61
29:BF:23:SER:HB3	29:BF:26:GLN:NE2	2.15	0.61
1:CA:1055:A:C6	1:CA:1206:G:C5	2.88	0.61
1:CA:65:A:C5	1:CA:381:C:C4	2.88	0.61
3:AC:47:LEU:HB3	3:AC:50:ALA:CB	2.30	0.61
34:BK:64:ARG:HB3	34:BK:79:PHE:HD2	1.65	0.61
44:BU:10:VAL:HG12	44:BU:71:ILE:HA	1.81	0.61
12:AL:34:CYS:O	12:AL:34:CYS:SG	2.57	0.61
1:AA:1416:G:C2	1:AA:1485:U:O2	2.52	0.61
24:BA:1953:A:H2	24:BA:2549:G:N3	1.97	0.61
11:CK:46:THR:HG23	11:CK:47:ALA:N	2.14	0.61
1:AA:391:G:H5'	16:AP:8:ARG:NH2	2.15	0.61
1:AA:612:C:H2'	1:AA:613:C:H5'	1.80	0.61
4:AD:72:PHE:HA	4:AD:75:TYR:HB2	1.82	0.61
1:CA:544:G:C5	1:CA:545:C:C5	2.88	0.61
4:CD:22:LYS:NZ	4:CD:26:ARG:HB2	2.14	0.61
4:CD:5:LEU:HD12	4:CD:6:GLY:O	2.00	0.61
11:CK:40:ASN:O	11:CK:41:ALA:CB	2.47	0.61
24:BA:2125:G:N1	24:BA:2171:A:OP1	2.33	0.61
1:CA:1126:U:H4'	1:CA:1127:G:OP2	1.99	0.61
1:CA:1145:A:H1'	1:CA:1146:A:OP2	2.00	0.61
1:AA:1332:A:H2'	1:AA:1333:A:O4'	2.00	0.61
24:DA:2747:G:O2'	30:DG:66:THR:HG22	2.00	0.61
24:DA:2748:A:H1'	30:DG:66:THR:HG22	1.81	0.61
1:CA:1076:U:C2	1:CA:1082:A:C2	2.88	0.61
24:DA:2314:A:C6	24:DA:2315:G:C5	2.88	0.61
8:CH:110:VAL:HG12	8:CH:111:MET:N	2.14	0.61
21:AU:26:ALA:CB	23:AX:5:A:H5''	2.30	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:DA:3189:NMY:H61	57:DA:3189:NMY:H2	1.82	0.61
24:BA:458:G:O2'	24:BA:459:U:P	2.58	0.61
37:DN:53:THR:O	37:DN:56:LYS:HB2	2.00	0.61
31:BH:31:VAL:HB	31:BH:32:PRO:HD3	1.82	0.61
24:BA:340:A:N7	24:BA:341:C:C5	2.68	0.61
24:BA:1449:G:N2	24:BA:1463:C:C2	2.68	0.61
24:DA:2345:G:H4'	24:DA:2346:A:C5'	2.30	0.61
1:AA:692:U:O2	1:AA:694:A:C8	2.52	0.61
1:AA:1360:A:N7	1:AA:1361:G:N3	2.49	0.61
53:D3:6:VAL:CG1	53:D3:6:VAL:O	2.48	0.61
1:CA:1170:A:N7	1:CA:1171:A:C4	2.68	0.61
24:BA:1735:A:C6	24:BA:1736:U:C2	2.89	0.61
18:CR:56:ALA:HA	18:CR:59:ILE:HG22	1.81	0.61
24:DA:1334:G:C5	24:DA:1335:C:C5	2.88	0.61
24:DA:1559:U:H3'	24:DA:1560:G:H5'	1.82	0.61
12:CL:80:ILE:HD12	12:CL:97:THR:CG2	2.31	0.61
24:DA:2517:C:C6	24:DA:2542:A:N7	2.68	0.61
13:AM:52:GLN:O	13:AM:55:THR:OG1	2.18	0.61
30:DG:138:GLN:HG2	30:DG:139:VAL:N	2.15	0.61
24:DA:321:U:OP2	28:DE:130:LYS:CE	2.48	0.61
1:AA:1234:C:H1'	1:AA:1364:U:H6	1.66	0.61
29:BF:92:GLY:O	29:BF:93:GLU:CB	2.48	0.61
24:BA:2414:G:C4	24:BA:2415:G:C8	2.87	0.61
1:CA:1523:G:O3'	11:CK:125:LYS:NZ	2.34	0.61
1:CA:786:G:C6	1:CA:787:A:C8	2.88	0.61
1:AA:38:G:N2	1:AA:397:A:C4	2.68	0.61
1:AA:1102:A:C5	1:AA:1103:C:C5	2.88	0.61
2:AB:163:VAL:HG13	2:AB:164:ILE:N	2.13	0.61
24:BA:817:C:O2'	24:BA:839:U:H5''	2.00	0.61
24:BA:973:A:OP1	59:BA:3776:HOH:O	2.16	0.61
27:DD:12:THR:HG21	39:DP:8:GLU:HG2	1.81	0.61
1:CA:354:G:C6	1:CA:355:C:C4	2.88	0.61
1:CA:468:A:C2	1:CA:469:C:C4	2.88	0.61
57:DA:3189:NMY:O4	57:DA:3189:NMY:N9	2.33	0.61
24:DA:2055:C:H5'	24:DA:2056:G:OP1	1.99	0.61
25:DB:77:U:O5'	45:DV:14:LYS:NZ	2.32	0.61
31:DH:31:VAL:CG1	31:DH:32:PRO:HD3	2.31	0.61
24:BA:1220:G:H2'	24:BA:1221:C:O4'	1.98	0.61
1:CA:154:U:C2	1:CA:168:G:N2	2.67	0.61
1:AA:1051:C:H2'	1:AA:1052:U:C6	2.36	0.61
17:AQ:28:PHE:O	17:AQ:29:VAL:HB	1.98	0.61
24:DA:572:A:C2	24:DA:2033:A:C2	2.88	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:61:ALA:HA	2:AB:64:LYS:HA	1.81	0.61
24:BA:1410:G:O6	59:BA:3622:HOH:O	2.10	0.61
1:CA:1492:A:N1	1:CA:1493:A:C2	2.68	0.61
24:DA:260:G:C6	24:DA:261:G:N7	2.68	0.61
11:AK:45:ALA:HB1	11:AK:69:ARG:HG2	1.83	0.61
43:BT:67:VAL:HG22	43:BT:76:ARG:HB3	1.82	0.61
24:DA:2324:U:O2'	24:DA:2325:G:P	2.57	0.61
19:AS:70:LYS:C	19:AS:71:LEU:HD22	2.20	0.61
4:AD:55:LEU:O	4:AD:58:LYS:N	2.33	0.61
1:AA:8:A:H4'	5:AE:126:LYS:HA	1.82	0.61
4:CD:162:ALA:O	4:CD:164:GLN:N	2.34	0.61
11:AK:39:GLY:O	11:AK:41:ALA:N	2.34	0.61
1:CA:613:C:P	4:CD:81:ARG:NH2	2.73	0.61
57:DA:3190:NMY:HN31	57:DA:3190:NMY:H191	1.46	0.61
9:CI:81:HIS:HB3	9:CI:85:ARG:NH2	2.15	0.61
37:BN:59:SER:O	37:BN:63:ARG:HB2	2.00	0.61
24:BA:659:G:O2'	28:BE:95:LYS:NZ	2.33	0.61
24:DA:2747:G:C2	24:DA:2756:U:C5	2.89	0.61
29:BF:130:GLY:HA2	29:BF:152:ASP:HA	1.82	0.61
1:CA:1354:U:O2'	1:CA:1355:G:O5'	2.18	0.61
24:BA:2290:G:O2'	24:BA:2381:A:H1'	2.01	0.61
24:BA:2191:A:C2	24:BA:2192:U:C2	2.88	0.61
25:BB:57:A:O4'	29:BF:26:GLN:CD	2.38	0.61
24:DA:2163:A:OP1	24:DA:2170:A:O2'	2.18	0.61
24:BA:784:G:O2'	24:BA:785:G:OP2	2.18	0.61
1:AA:337:G:H2'	1:AA:338:A:C8	2.35	0.61
3:AC:192:THR:HG23	3:AC:193:TYR:CD1	2.35	0.61
24:DA:1489:C:O2	24:DA:1501:G:C2	2.53	0.61
1:AA:1151:A:C2	1:AA:1152:A:C5	2.89	0.61
2:AB:143:LYS:O	2:AB:145:GLU:N	2.33	0.61
24:BA:2652:C:H2'	24:BA:2653:U:H5'	1.81	0.61
40:BQ:47:ARG:NH2	40:BQ:48:ASP:OD1	2.33	0.61
24:DA:1985:C:O2'	24:DA:1986:C:H5'	2.01	0.61
24:BA:2602:A:C4'	24:BA:2603:G:OP2	2.48	0.61
21:CU:33:ARG:HG2	21:CU:34:ARG:N	2.15	0.61
24:BA:959:A:N3	24:BA:2457:U:O2'	2.33	0.61
12:AL:72:HIS:CE1	12:AL:74:LEU:HD12	2.35	0.61
27:DD:125:TRP:CD2	27:DD:160:LYS:HG2	2.35	0.61
3:AC:140:ASN:O	3:AC:141:ALA:HB2	2.00	0.61
24:DA:1045:C:C4'	24:DA:1046:A:H5'	2.31	0.61
1:AA:56:U:N3	31:DH:91:PHE:CE1	2.67	0.61
5:AE:83:HIS:CD2	5:AE:84:PRO:HD2	2.35	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:118:GLY:O	12:AL:119:VAL:HB	2.00	0.61
1:CA:725:G:O2'	1:CA:726:C:H5'	2.00	0.61
24:DA:1509:A:HO2'	24:DA:1510:G:P	2.18	0.61
24:BA:2484:G:H1'	36:BM:123:LYS:HE2	1.83	0.61
1:CA:1014:A:H5''	19:CS:14:HIS:CG	2.36	0.61
24:DA:1814:G:H5''	26:DC:53:ILE:CD1	2.31	0.61
24:BA:1663:G:C6	24:BA:1992:G:C8	2.88	0.61
11:AK:31:ILE:HG22	11:AK:46:THR:HA	1.82	0.61
24:BA:532:A:C8	24:BA:2021:C:C6	2.88	0.61
24:BA:2779:U:C4'	24:BA:2781:A:C8	2.84	0.61
1:AA:1331:G:OP1	13:AM:23:TYR:CD2	2.53	0.61
14:CN:9:GLU:OE2	14:CN:12:ARG:NH1	2.33	0.61
7:CG:26:PHE:O	7:CG:28:ASN:N	2.33	0.61
8:CH:111:MET:HE2	8:CH:115:ALA:HB1	1.83	0.61
57:DA:3189:NMY:H171	57:DA:3189:NMY:H231	1.80	0.61
1:CA:754:C:C2'	1:CA:755:G:OP1	2.48	0.61
24:BA:1175:A:OP1	24:BA:1176:U:O2'	2.19	0.61
25:BB:57:A:H2'	25:BB:58:A:O4'	2.00	0.61
24:DA:1244:A:OP1	35:DL:7:SER:HB2	2.01	0.61
1:CA:1064:G:O4'	1:CA:1066:C:C6	2.53	0.61
1:AA:106:C:H2'	1:AA:107:G:C5'	2.29	0.61
24:DA:2657:A:O3'	30:DG:159:LYS:NZ	2.29	0.61
27:DD:22:ILE:HD11	27:DD:190:LYS:CG	2.30	0.61
1:AA:719:C:O2'	18:AR:38:LYS:HG3	2.01	0.61
16:CP:33:ILE:N	16:CP:33:ILE:HD12	2.15	0.61
18:AR:26:ILE:N	18:AR:29:LEU:HD13	2.15	0.61
38:DO:74:VAL:O	38:DO:78:VAL:HG23	2.00	0.61
24:BA:1608:A:C5	24:BA:1611:C:C4	2.88	0.61
1:CA:1106:G:O2'	3:CC:169:ARG:NH1	2.34	0.61
35:DL:68:SER:O	35:DL:69:ARG:CB	2.48	0.61
38:BO:117:PHE:CD1	38:BO:117:PHE:OXT	2.53	0.61
1:CA:40:C:H2'	1:CA:41:G:C8	2.35	0.61
24:DA:1809:A:C6	24:DA:1810:A:C6	2.89	0.61
37:BN:70:THR:O	37:BN:71:ARG:CB	2.48	0.61
29:BF:98:PHE:O	29:BF:100:GLU:N	2.34	0.61
1:AA:959:A:H4'	1:AA:985:C:H5'	1.83	0.61
7:AG:27:VAL:HG13	7:AG:28:ASN:N	2.14	0.61
5:AE:82:GLN:O	5:AE:83:HIS:CB	2.49	0.61
12:AL:115:SER:OG	12:AL:116:LYS:NZ	2.33	0.61
1:AA:1079:G:HO2'	1:AA:1080:A:P	2.21	0.61
5:AE:24:THR:HA	5:AE:29:ARG:HA	1.82	0.61
31:DH:88:GLY:C	31:DH:125:THR:CG2	2.69	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:781:A:C4	1:AA:802:A:C2	2.88	0.61
2:AB:73:LYS:HG2	2:AB:164:ILE:HD13	1.80	0.61
24:BA:572:A:O3'	24:BA:573:U:H4'	1.99	0.61
24:BA:2732:G:H3'	24:BA:2733:A:H5'	1.82	0.61
1:CA:328:C:H4'	1:CA:329:A:C5'	2.31	0.61
48:DY:13:GLU:C	48:DY:15:ASN:H	2.04	0.61
21:AU:24:GLU:O	21:AU:25:LYS:HB3	2.00	0.61
24:BA:2531:A:N3	24:BA:2658:C:O2'	2.28	0.61
1:CA:966:G:H2'	9:CI:129:LYS:HZ3	1.64	0.61
1:CA:588:G:C8	1:CA:753:A:C2	2.89	0.61
31:BH:24:GLY:O	31:BH:26:ALA:O	2.17	0.61
24:BA:480:A:O3'	44:BU:43:LYS:HG2	2.00	0.61
32:BI:115:ASP:OD1	32:BI:116:MET:N	2.34	0.61
12:AL:88:LYS:O	12:AL:89:ASP:HB3	1.99	0.61
24:DA:2445:G:OP1	28:DE:69:ARG:NH2	2.33	0.61
24:DA:144:A:N3	43:DT:3:ARG:NH2	2.48	0.61
24:DA:419:U:H2'	24:DA:420:C:C6	2.36	0.61
25:BB:22:U:N3	59:BB:304:HOH:O	2.31	0.61
1:AA:75:G:C2	1:AA:96:U:C2	2.88	0.61
1:AA:76:G:N2	1:AA:95:C:C2	2.68	0.61
1:CA:104:G:H2'	1:CA:105:G:H5'	1.81	0.61
35:DL:81:ASP:O	35:DL:83:ALA:N	2.33	0.61
1:CA:63:C:H2'	1:CA:64:G:O5'	2.01	0.61
1:CA:780:A:N7	1:CA:800:G:C6	2.69	0.61
24:DA:2051:A:OP2	59:DA:3484:HOH:O	2.16	0.61
30:DG:34:ARG:HG3	30:DG:34:ARG:HH11	1.66	0.61
24:DA:1969:A:O2'	24:DA:1972:G:N3	2.28	0.61
10:AJ:57:VAL:HG13	10:AJ:58:ASN:N	2.16	0.61
24:BA:1467:U:C4	24:BA:1468:U:C5	2.89	0.61
24:BA:2441:U:H2'	24:BA:2442:C:H5'	1.82	0.61
11:AK:113:VAL:HG22	11:AK:114:THR:N	2.16	0.61
6:AF:23:GLU:N	6:AF:23:GLU:OE1	2.34	0.61
5:AE:106:ILE:HD11	5:AE:124:LEU:HD22	1.82	0.61
3:CC:112:ASP:OD1	3:CC:114:LYS:HG2	2.00	0.61
42:DS:17:VAL:HG12	42:DS:76:VAL:HG21	1.83	0.61
24:DA:2078:C:H2'	24:DA:2079:U:O4'	2.01	0.61
25:BB:50:A:OP1	38:BO:68:LYS:N	2.31	0.61
22:CV:7:A:C3'	22:CV:8:U:C5'	2.73	0.61
47:BX:4:CYS:SG	47:BX:51:SER:N	2.71	0.61
1:AA:409:U:C5'	4:AD:25:VAL:HG12	2.30	0.61
57:BA:3163:NMY:H1	57:BA:3163:NMY:O17	2.01	0.61
24:BA:348:A:N7	24:BA:349:U:C5	2.69	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:788:A:P	24:DA:790:U:O4	2.58	0.61
24:BA:621:A:H2'	24:BA:622:G:H5'	1.83	0.61
1:CA:1315:U:O2'	1:CA:1360:A:O2'	2.18	0.61
24:BA:1356:G:N1	24:BA:1357:C:C2	2.69	0.61
24:DA:2727:A:O2'	24:DA:2728:U:H5'	2.01	0.61
2:CB:101:LEU:HD21	2:CB:175:GLU:CD	2.21	0.61
3:AC:20:SER:HA	3:AC:57:ILE:HG13	1.81	0.61
3:AC:64:ILE:HG23	3:AC:97:VAL:HG11	1.82	0.61
23:AX:4:G:H2'	23:AX:5:A:H5'	1.83	0.61
24:DA:1735:A:C6	24:DA:1736:U:C6	2.89	0.61
15:CO:29:VAL:O	15:CO:33:THR:HG23	2.01	0.61
6:AF:64:VAL:CG1	6:AF:65:GLU:N	2.63	0.61
24:BA:72:U:P	43:BT:6:ARG:NH2	2.74	0.61
27:BD:125:TRP:CD2	27:BD:160:LYS:HG2	2.35	0.61
1:AA:576:C:N4	1:AA:759:A:OP1	2.33	0.61
24:DA:1501:G:C2'	24:DA:1502:A:O5'	2.48	0.61
7:CG:21:GLU:O	7:CG:23:LEU:N	2.34	0.61
4:AD:36:GLN:O	4:AD:37:ALA:HB3	2.01	0.61
1:AA:110:C:N3	1:AA:111:G:C5	2.69	0.61
24:DA:1779:U:H5	24:DA:1784:A:N7	1.98	0.61
24:BA:2441:U:C2'	24:BA:2442:C:H5'	2.31	0.61
21:AU:18:ARG:O	21:AU:20:LYS:N	2.34	0.61
21:AU:5:LYS:HD2	21:AU:5:LYS:N	2.15	0.61
39:DP:91:VAL:CG2	39:DP:109:ILE:HD12	2.31	0.61
24:DA:900:A:C4	24:DA:901:C:C6	2.89	0.61
20:CT:26:SER:O	20:CT:30:THR:OG1	2.08	0.61
24:BA:767:U:O2'	24:BA:768:G:H5'	2.00	0.61
22:AV:50:U:C2	22:AV:65:G:N2	2.69	0.61
1:CA:573:A:O2'	1:CA:574:A:H5'	2.01	0.61
29:DF:147:ARG:HG2	29:DF:148:VAL:N	2.15	0.61
24:BA:2365:G:H4'	46:BW:60:PHE:CZ	2.35	0.61
26:BC:221:GLY:O	26:BC:224:MET:CG	2.48	0.61
1:AA:1346:A:H5'	1:AA:1348:U:H1'	1.81	0.61
1:AA:981:U:OP1	14:AN:8:ARG:NH1	2.34	0.61
1:CA:728:A:C6	1:CA:729:A:C6	2.89	0.61
24:DA:1059:G:H3'	24:DA:1060:U:C6	2.35	0.61
9:AI:18:ARG:O	9:AI:65:ILE:HG22	2.01	0.61
24:BA:2278:A:OP1	36:BM:10:ARG:CZ	2.48	0.61
57:AA:1656:NMY:H16	57:AA:1656:NMY:C22	2.30	0.61
1:CA:957:U:H2'	1:CA:957:U:O2	2.01	0.61
1:CA:958:A:N7	1:CA:959:A:C6	2.69	0.61
1:CA:1321:U:O2	19:CS:36:ARG:NH1	2.34	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2117:A:N1	24:BA:2171:A:C6	2.68	0.61
24:DA:1235:G:C6	24:DA:1236:G:N1	2.69	0.61
24:BA:2044:C:C2	24:BA:2625:G:N2	2.69	0.61
1:CA:1134:G:C2	1:CA:1135:U:H1'	2.36	0.61
24:BA:278:A:N6	24:BA:362:A:N7	2.48	0.61
24:BA:463:G:N2	24:BA:466:A:OP2	2.33	0.61
7:CG:77:SER:O	7:CG:78:ARG:C	2.38	0.61
24:DA:1654:A:C2	27:DD:118:PHE:CD2	2.89	0.61
1:CA:923:A:O4'	1:CA:1398:A:C2	2.53	0.61
1:CA:1111:A:C2	3:CC:177:THR:HB	2.36	0.61
3:CC:7:PRO:O	3:CC:11:ARG:HD3	2.01	0.61
24:DA:953:G:H2'	24:DA:954:G:H5'	1.81	0.61
24:DA:2117:A:O2'	24:DA:2118:U:OP2	2.15	0.61
4:CD:17:THR:O	4:CD:18:ASP:HB2	2.01	0.61
1:AA:1265:C:N4	1:AA:1266:G:O6	2.33	0.61
24:BA:2617:U:C2'	24:BA:2618:G:H5'	2.30	0.61
50:D0:54:ILE:O	50:D0:55:ALA:HB3	2.00	0.61
24:BA:1474:U:O4	24:BA:1475:G:N2	2.33	0.61
1:AA:799:G:H2'	1:AA:800:G:H5'	1.82	0.61
24:BA:204:A:H4'	24:BA:205:G:OP1	2.01	0.61
1:CA:645:G:O6	59:CA:1795:HOH:O	2.13	0.61
24:DA:2323:G:H2'	24:DA:2324:U:H5'	1.82	0.61
48:DY:21:LEU:HA	48:DY:25:GLN:HB3	1.82	0.61
24:BA:2791:G:N1	24:BA:2806:C:O2	2.34	0.61
5:CE:118:ALA:O	5:CE:120:VAL:HG22	2.01	0.61
1:CA:538:G:H5''	12:CL:111:LYS:HG2	1.82	0.61
33:BJ:97:PRO:O	33:BJ:100:VAL:HG12	2.01	0.61
2:AB:133:GLU:O	2:AB:137:ARG:HB2	2.00	0.61
24:BA:1319:C:O2'	24:BA:1320:C:H5'	2.01	0.61
1:CA:1501:C:C5	1:CA:1504:G:C4	2.89	0.61
52:B2:3:ARG:CZ	52:B2:3:ARG:HB3	2.29	0.61
24:BA:992:C:N4	57:BA:3162:NMY:O14	2.34	0.61
31:DH:117:LEU:HD23	31:DH:119:ASN:N	2.15	0.61
31:DH:127:GLU:HA	31:DH:144:VAL:O	1.99	0.61
14:AN:46:LEU:N	14:AN:46:LEU:HD12	2.15	0.61
1:CA:790:A:OP1	22:CV:38:A:O2'	2.13	0.61
31:DH:148:ALA:O	31:DH:149:GLU:HB3	2.00	0.61
1:AA:1079:G:C2'	1:AA:1080:A:O5'	2.49	0.61
24:DA:1062:G:N7	24:DA:1070:A:O5'	2.34	0.61
20:AT:76:LYS:CA	20:AT:79:LEU:HD11	2.30	0.61
24:BA:1203:U:C4	24:BA:1204:A:C6	2.88	0.61
41:DR:77:PHE:CZ	41:DR:79:ARG:NE	2.69	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:565:C:P	41:DR:79:ARG:CD	2.89	0.61
1:AA:1023:U:H2'	1:AA:1024:G:C8	2.36	0.61
12:CL:50:ARG:NH2	12:CL:89:ASP:OD2	2.32	0.61
37:DN:3:HIS:O	37:DN:4:ARG:HB2	2.01	0.61
24:DA:1801:A:C8	24:DA:2203:U:C6	2.89	0.61
24:BA:617:G:C2'	24:BA:618:G:O5'	2.49	0.61
1:CA:1315:U:H2'	1:CA:1316:G:O4'	2.01	0.61
24:BA:2302:U:H2'	24:BA:2303:G:C5'	2.30	0.61
24:DA:2315:G:O2'	29:DF:124:ARG:NH1	2.34	0.61
24:DA:2230:G:C1'	47:DX:31:ASN:HB3	2.27	0.61
24:DA:1340:U:H5	24:DA:1603:A:C8	2.19	0.61
28:DE:24:ASN:CG	28:DE:27:LEU:CD1	2.69	0.61
7:CG:76:LYS:O	7:CG:77:SER:CB	2.49	0.61
24:BA:320:A:C5	28:BE:131:THR:HG21	2.36	0.61
24:DA:226:A:C6	24:DA:227:A:C6	2.89	0.61
45:BV:51:GLN:HA	45:BV:56:PHE:CE2	2.35	0.61
1:AA:978:A:OP1	1:AA:1362:A:N6	2.32	0.61
1:AA:505:G:C6	1:AA:535:A:C2	2.89	0.61
1:AA:946:A:N1	1:AA:1235:U:O4	2.34	0.61
24:DA:1319:C:H2'	24:DA:1320:C:H5'	1.82	0.61
30:DG:51:PHE:CE1	30:DG:68:ARG:HA	2.36	0.61
32:DI:56:VAL:HG21	32:DI:70:THR:HA	1.82	0.61
34:DK:14:SER:HA	34:DK:51:LYS:NZ	2.16	0.61
44:BU:66:VAL:O	44:BU:68:ASN:N	2.34	0.61
54:D4:33:HIS:O	54:D4:35:GLN:HG3	1.99	0.61
24:BA:2409:G:C6	24:BA:2410:G:C5	2.88	0.61
24:BA:2417:C:H2'	24:BA:2418:A:C8	2.36	0.61
44:DU:5:ARG:HD2	44:DU:6:ARG:H	1.66	0.61
1:AA:682:G:H2'	1:AA:683:G:H5'	1.82	0.61
1:CA:1309:G:C5	1:CA:1329:A:C5	2.88	0.61
1:AA:1101:A:N1	2:AB:99:GLY:HA3	2.16	0.61
24:BA:804:A:H5''	24:BA:805:G:OP1	2.01	0.61
24:BA:2112:G:OP1	24:BA:2115:G:N1	2.33	0.61
8:CH:83:LEU:HD22	12:CL:4:VAL:HG21	1.82	0.61
1:CA:59:A:H2'	1:CA:59:A:N3	2.16	0.61
24:DA:1738:G:HO2'	24:DA:1739:A:P	2.23	0.61
1:CA:587:G:C2	1:CA:755:G:C5	2.89	0.61
44:BU:98:ASN:O	44:BU:99:SER:CB	2.49	0.61
6:AF:38:ARG:HD3	6:AF:97:THR:HA	1.82	0.61
24:BA:980:A:C4	24:BA:1136:G:O4'	2.54	0.61
22:AV:32:U:H3'	22:AV:33:U:H5''	1.83	0.61
24:DA:636:G:C6	35:DL:111:ILE:HD11	2.36	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BK:39:ILE:HG22	34:BK:40:LYS:N	2.15	0.61
44:BU:73:ASN:O	44:BU:74:ALA:CB	2.48	0.61
42:BS:39:THR:CG2	42:BS:44:ALA:HB1	2.30	0.61
24:BA:378:C:H2'	24:BA:379:G:H5'	1.83	0.61
37:BN:97:ILE:HD11	37:BN:111:ALA:CB	2.31	0.61
24:DA:2633:G:H1'	27:DD:63:PRO:CB	2.31	0.61
7:AG:75:VAL:HA	7:AG:87:VAL:O	2.01	0.61
24:DA:608:A:C2'	24:DA:609:A:O5'	2.49	0.61
24:BA:642:U:O2'	24:BA:644:A:N7	2.25	0.61
24:DA:485:C:C2	24:DA:496:G:N2	2.69	0.61
19:AS:81:ARG:NH2	24:BA:885:C:OP2	2.33	0.61
31:BH:97:ARG:NH2	31:BH:101:ASP:OD2	2.33	0.61
24:DA:2768:U:H2'	24:DA:2769:U:O5'	2.01	0.61
41:BR:66:HIS:CD2	41:BR:94:THR:HG23	2.35	0.61
30:DG:85:LYS:HG2	30:DG:131:VAL:HG22	1.82	0.61
1:AA:342:C:H2'	1:AA:343:U:H5'	1.81	0.61
7:AG:57:SER:OG	7:AG:58:GLU:N	2.31	0.61
24:BA:238:C:C2'	24:BA:239:C:O5'	2.49	0.61
1:AA:278:G:OP2	17:AQ:43:LYS:NZ	2.31	0.61
14:AN:9:GLU:O	14:AN:12:ARG:N	2.34	0.60
1:CA:1524:C:P	11:CK:125:LYS:CE	2.88	0.60
1:AA:599:C:H4'	8:AH:88:ARG:NH1	2.16	0.60
4:AD:62:ARG:HD2	4:AD:72:PHE:CE1	2.36	0.60
8:AH:111:MET:HE3	8:AH:116:ALA:N	2.16	0.60
1:CA:575:G:H4'	1:CA:576:C:OP1	2.00	0.60
13:CM:22:ILE:H	13:CM:25:VAL:HG21	1.65	0.60
19:CS:4:SER:O	19:CS:5:LEU:CB	2.48	0.60
1:AA:1068:G:N2	1:AA:1108:G:H1'	2.16	0.60
1:AA:1095:U:H5'	1:AA:1109:C:O2	2.01	0.60
24:BA:2429:G:OP2	24:BA:2430:A:OP2	2.19	0.60
4:CD:148:LYS:O	4:CD:149:ALA:CB	2.48	0.60
55:CY:158:ASP:O	55:CY:159:ASP:HB3	1.99	0.60
11:AK:107:ILE:O	11:AK:107:ILE:HG23	2.01	0.60
1:CA:1254:A:C2	1:CA:1255:G:C5	2.89	0.60
8:CH:82:GLY:O	8:CH:83:LEU:CB	2.48	0.60
1:CA:446:G:N2	1:CA:489:C:O2	2.34	0.60
24:BA:608:A:C6	24:BA:609:A:C6	2.89	0.60
13:AM:22:ILE:HD11	13:AM:65:VAL:HB	1.83	0.60
44:DU:32:LYS:HZ3	44:DU:32:LYS:CA	2.14	0.60
24:BA:551:G:OP1	57:BA:3166:NMY:H7	2.01	0.60
15:CO:19:ALA:O	15:CO:20:ASN:ND2	2.34	0.60
16:AP:32:PHE:C	16:AP:32:PHE:HD1	2.03	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:860:U:O2'	24:BA:2267:A:H5'	2.01	0.60
24:BA:856:G:C2	24:BA:922:C:N3	2.69	0.60
33:BJ:84:ILE:HG23	33:BJ:84:ILE:O	2.01	0.60
24:BA:1402:U:H2'	24:BA:1403:A:C5'	2.31	0.60
2:AB:10:LEU:O	2:AB:12:ALA:N	2.34	0.60
24:DA:1342:A:OP2	59:DA:3716:HOH:O	2.16	0.60
5:CE:133:PRO:O	5:CE:137:VAL:HG12	2.01	0.60
24:DA:847:U:O2	24:DA:847:U:H2'	2.01	0.60
24:DA:847:U:O2	24:DA:934:U:H1'	2.01	0.60
20:AT:27:MET:O	20:AT:27:MET:CG	2.49	0.60
26:BC:30:ALA:O	26:BC:32:LEU:N	2.34	0.60
17:CQ:46:VAL:HG22	17:CQ:74:THR:HA	1.83	0.60
1:CA:865:A:C5	1:CA:866:C:C5	2.88	0.60
24:DA:12:U:O2	24:DA:12:U:H2'	2.01	0.60
17:CQ:50:ASN:ND2	17:CQ:50:ASN:O	2.34	0.60
24:DA:773:U:H4'	26:DC:46:GLY:HA3	1.83	0.60
36:DM:34:LYS:NZ	45:DV:81:PRO:O	2.34	0.60
24:DA:1931:U:C5'	57:DA:3184:NMY:H192	2.14	0.60
24:DA:297:G:H5''	44:DU:84:PHE:HB2	1.83	0.60
24:BA:2376:A:C4	38:BO:99:TYR:CE2	2.89	0.60
24:DA:2394:C:OP2	53:D3:29:ARG:HD3	2.01	0.60
22:CV:21:A:O4'	22:CV:48:C:N4	2.33	0.60
8:AH:40:LEU:HB2	8:AH:46:ILE:HG21	1.82	0.60
1:AA:482:A:C2'	1:AA:483:C:O5'	2.48	0.60
1:CA:1508:A:C5	1:CA:1509:C:C5	2.88	0.60
1:CA:584:G:H2'	1:CA:585:G:C8	2.36	0.60
1:AA:1256:A:O2'	1:AA:1278:G:O6	2.09	0.60
22:CV:15:G:H2'	22:CV:16:U:C6	2.35	0.60
24:DA:1824:G:OP2	26:DC:52:HIS:NE2	2.34	0.60
24:DA:1358:G:H1'	24:DA:1374:G:N2	2.16	0.60
24:BA:276:U:O2	24:BA:276:U:H2'	1.99	0.60
24:DA:2523:G:O2'	24:DA:2524:G:H5'	2.01	0.60
57:DA:3185:NMY:H232	57:DA:3185:NMY:O18	2.00	0.60
3:AC:63:SER:CA	3:AC:97:VAL:HG13	2.31	0.60
29:DF:33:ILE:HD12	29:DF:99:PHE:CE1	2.36	0.60
7:CG:27:VAL:CG2	7:CG:40:GLU:HB3	2.31	0.60
1:AA:863:U:H2'	1:AA:863:U:O2	2.00	0.60
16:CP:54:LEU:O	16:CP:56:ARG:N	2.34	0.60
24:DA:1725:U:O4	24:DA:1726:C:N4	2.33	0.60
24:DA:1736:U:O2	24:DA:1736:U:H2'	2.01	0.60
7:CG:103:TRP:CZ2	7:CG:133:THR:C	2.74	0.60
1:AA:1446:A:N3	1:AA:1446:A:H2'	2.15	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:246:A:H4'	1:AA:247:G:OP1	2.00	0.60
1:AA:585:G:O2'	12:AL:5:ASN:ND2	2.34	0.60
24:BA:1609:A:C2	24:BA:1616:A:C8	2.89	0.60
24:BA:241:A:C8	24:BA:243:U:C2	2.89	0.60
24:DA:2122:U:HO2'	24:DA:2123:G:P	2.24	0.60
3:CC:77:ILE:HA	3:CC:84:VAL:HG13	1.81	0.60
24:BA:218:A:N6	24:BA:219:A:C6	2.69	0.60
17:CQ:29:VAL:HG22	17:CQ:30:LYS:O	2.01	0.60
22:AV:75:C:H5''	22:AV:76:A:OP2	2.01	0.60
6:AF:51:ILE:CG1	6:AF:51:ILE:O	2.48	0.60
24:DA:2514:U:H2'	24:DA:2515:C:H6	1.66	0.60
29:BF:37:MET:SD	29:BF:56:LEU:CD2	2.89	0.60
5:AE:154:ALA:C	5:AE:156:LYS:N	2.55	0.60
1:AA:394:G:C2	1:AA:395:C:C2	2.89	0.60
1:AA:642:A:N3	8:AH:105:SER:O	2.34	0.60
1:AA:543:U:H5''	4:AD:14:ARG:NH2	2.16	0.60
4:AD:19:LEU:HD12	4:AD:19:LEU:N	2.16	0.60
4:AD:55:LEU:HD23	4:AD:56:ARG:N	2.16	0.60
12:AL:107:VAL:HG23	12:AL:117:TYR:HB3	1.82	0.60
1:CA:1309:G:C2	1:CA:1329:A:N9	2.69	0.60
1:CA:450:G:C8	1:CA:481:G:O6	2.55	0.60
14:CN:49:GLN:C	14:CN:51:LEU:N	2.52	0.60
35:BL:111:ILE:HA	35:BL:128:THR:HG21	1.84	0.60
1:CA:1491:G:OP1	12:CL:43:LYS:CE	2.49	0.60
3:AC:30:ALA:O	3:AC:33:LEU:N	2.34	0.60
47:DX:31:ASN:O	47:DX:33:HIS:ND1	2.33	0.60
1:AA:905:U:C6	1:AA:906:A:C8	2.89	0.60
41:DR:51:VAL:HB	41:DR:52:PRO:CD	2.31	0.60
27:BD:125:TRP:CD1	27:BD:160:LYS:CE	2.85	0.60
24:BA:322:A:OP1	28:BE:162:ARG:NH2	2.34	0.60
24:BA:1603:A:C2'	24:BA:1604:C:H5'	2.31	0.60
42:DS:35:ILE:O	42:DS:39:THR:OG1	2.18	0.60
29:DF:67:THR:HG1	29:DF:85:GLY:C	2.04	0.60
24:BA:1438:U:C5	24:BA:1552:A:N1	2.70	0.60
1:CA:188:C:H2'	1:CA:189:A:O4'	2.01	0.60
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.37	0.60
24:DA:882:G:N1	24:DA:894:U:O2	2.34	0.60
25:DB:83:G:H2'	25:DB:84:G:C5'	2.31	0.60
5:AE:64:MET:O	5:AE:67:ALA:HB3	2.02	0.60
24:DA:1890:A:C5	24:DA:1891:G:C8	2.89	0.60
31:BH:107:GLY:O	31:BH:109:GLU:N	2.34	0.60
20:CT:20:HIS:O	20:CT:22:ALA:N	2.34	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2776:A:N7	24:BA:2782:G:C5	2.69	0.60
27:BD:179:ARG:HG3	27:BD:188:LEU:HD12	1.83	0.60
1:CA:264:C:O3'	17:CQ:65:ARG:NH1	2.33	0.60
3:CC:180:ALA:HB1	3:CC:203:PHE:CE1	2.37	0.60
43:DT:27:SER:O	43:DT:29:THR:N	2.35	0.60
25:DB:46:A:C5	25:DB:47:C:C4	2.90	0.60
2:CB:72:THR:OG1	2:CB:73:LYS:N	2.35	0.60
24:DA:402:A:C2'	24:DA:403:U:H5'	2.32	0.60
1:AA:980:C:O2'	1:AA:981:U:P	2.59	0.60
24:BA:2293:G:P	38:BO:94:ARG:NH1	2.73	0.60
8:AH:12:THR:O	8:AH:14:ILE:N	2.34	0.60
24:DA:103:A:H2'	24:DA:104:A:O5'	2.01	0.60
1:AA:55:A:C4	31:DH:91:PHE:CE2	2.90	0.60
5:AE:104:GLY:HA3	5:AE:122:ASN:HA	1.84	0.60
1:CA:1329:A:N6	1:CA:1330:U:C2	2.69	0.60
24:DA:1418:G:C5'	24:DA:1419:A:OP2	2.48	0.60
40:BQ:51:GLN:O	40:BQ:54:ARG:HG3	2.02	0.60
1:AA:1092:A:C4	1:AA:1183:U:C4	2.90	0.60
24:BA:819:A:C4	24:BA:1189:A:C2	2.89	0.60
24:BA:1203:U:C4	24:BA:1204:A:C5	2.89	0.60
24:BA:1240:U:O4	57:BA:3163:NMY:H9	2.00	0.60
10:CJ:42:LEU:HD22	10:CJ:71:LEU:HD22	1.83	0.60
24:BA:943:A:C2'	24:BA:944:C:H5'	2.31	0.60
24:BA:2740:A:N6	24:BA:2741:A:N1	2.50	0.60
34:DK:90:ASN:O	34:DK:91:SER:OG	2.19	0.60
24:BA:458:G:OP1	24:BA:458:G:H4'	1.99	0.60
1:AA:468:A:N7	1:AA:469:C:C2	2.69	0.60
3:CC:28:GLU:N	3:CC:28:GLU:OE1	2.35	0.60
40:DQ:80:ASN:CG	40:DQ:83:LYS:HE2	2.22	0.60
2:AB:222:ARG:N	2:AB:222:ARG:HD3	2.17	0.60
24:DA:2597:G:H5'	26:DC:240:GLY:HA3	1.82	0.60
24:DA:444:C:H2'	24:DA:445:C:H5'	1.83	0.60
41:DR:16:GLU:CA	41:DR:98:ILE:HD11	2.31	0.60
1:AA:1425:U:O2'	1:AA:1426:G:H5'	2.02	0.60
37:DN:12:ARG:HD3	37:DN:16:HIS:NE2	2.16	0.60
24:BA:1494:A:N6	24:BA:1495:A:C6	2.69	0.60
26:DC:20:ASN:HB2	26:DC:23:LEU:HD13	1.83	0.60
24:BA:186:G:H2'	24:BA:187:G:H5'	1.83	0.60
4:AD:79:ALA:HB2	4:AD:90:LEU:HA	1.82	0.60
24:BA:422:A:C6	24:BA:423:A:N1	2.69	0.60
45:DV:8:VAL:HA	45:DV:40:ILE:HG22	1.83	0.60
24:DA:2738:A:H2'	24:DA:2739:U:O5'	2.00	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1452:C:H4'	1:CA:1453:G:C4	2.36	0.60
30:DG:142:GLN:O	30:DG:145:ALA:N	2.34	0.60
33:DJ:101:ILE:HG22	33:DJ:102:GLU:N	2.16	0.60
28:DE:149:ILE:CG1	28:DE:188:MET:HG2	2.32	0.60
31:DH:71:LYS:O	31:DH:72:ILE:HG13	2.01	0.60
31:DH:94:ILE:H	31:DH:122:LEU:HB3	1.64	0.60
1:AA:1015:G:OP1	19:AS:14:HIS:CD2	2.54	0.60
24:DA:247:G:N7	24:DA:249:C:C2	2.69	0.60
1:AA:356:A:H4'	1:AA:367:U:C5	2.37	0.60
5:AE:126:LYS:O	5:AE:127:ALA:CB	2.49	0.60
1:CA:673:A:O3'	6:CF:86:ARG:NH2	2.35	0.60
24:BA:568:U:C6	24:BA:570:G:OP2	2.55	0.60
57:BA:3165:NMY:H1	57:BA:3165:NMY:O17	2.00	0.60
24:BA:2020:A:C2	24:BA:2035:G:N1	2.69	0.60
1:CA:259:G:C4	1:CA:260:G:C8	2.89	0.60
24:BA:1453:A:C2	37:BN:77:ALA:CB	2.84	0.60
24:BA:604:G:C2'	24:BA:605:G:O5'	2.50	0.60
3:AC:14:ILE:HG22	3:AC:15:VAL:HG13	1.82	0.60
21:AU:26:ALA:HA	21:AU:30:ALA:H	1.66	0.60
1:CA:718:A:C2	11:CK:118:HIS:CE1	2.89	0.60
1:CA:753:A:H5''	1:CA:754:C:N3	2.16	0.60
16:AP:19:VAL:HG23	16:AP:36:VAL:HG23	1.82	0.60
1:AA:908:A:N3	1:AA:909:A:C8	2.69	0.60
6:CF:4:TYR:CD1	6:CF:4:TYR:N	2.70	0.60
24:BA:1415:U:C2	24:BA:1588:G:N2	2.69	0.60
1:CA:805:C:H2'	1:CA:806:C:C6	2.36	0.60
1:CA:74:A:C2	1:CA:97:G:C4	2.89	0.60
24:DA:1131:G:O2'	24:DA:2026:U:H5'	2.01	0.60
24:BA:2331:G:C4	24:BA:2332:C:C5	2.89	0.60
24:DA:1471:G:C5	24:DA:1472:C:C4	2.89	0.60
24:BA:453:A:H1'	24:BA:457:A:C2	2.36	0.60
34:DK:64:ARG:HB2	34:DK:79:PHE:CD2	2.37	0.60
24:DA:1414:C:C5	24:DA:1415:U:C5	2.89	0.60
24:BA:1605:C:H2'	24:BA:1606:C:H5'	1.83	0.60
24:DA:1183:U:H2'	24:DA:1184:U:C6	2.35	0.60
1:AA:485:U:H4'	1:AA:485:U:OP2	2.02	0.60
24:DA:1023:U:C2'	24:DA:1024:G:H5'	2.32	0.60
24:DA:402:A:H2'	24:DA:403:U:H5'	1.83	0.60
18:AR:56:ALA:HA	18:AR:59:ILE:CG2	2.31	0.60
24:BA:1709:U:C2	24:BA:1750:G:N2	2.69	0.60
1:CA:466:A:H2'	1:CA:467:U:C5	2.36	0.60
25:DB:28:C:H2'	25:DB:29:A:O4'	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2242:G:N7	59:BA:3503:HOH:O	2.31	0.60
24:BA:1881:C:H2'	24:BA:1882:U:O4'	2.02	0.60
53:D3:28:LEU:HD22	53:D3:43:LEU:HB2	1.83	0.60
4:AD:55:LEU:HA	4:AD:58:LYS:HB3	1.84	0.60
24:BA:2732:G:H3'	24:BA:2733:A:C5'	2.32	0.60
11:CK:13:ARG:N	11:CK:76:GLU:OE2	2.35	0.60
1:CA:1147:C:O2'	9:CI:18:ARG:HD3	2.02	0.60
24:BA:1360:G:C8	24:BA:1361:G:C8	2.90	0.60
1:CA:1082:A:C4	1:CA:1083:U:O2	2.55	0.60
1:CA:1367:C:OP1	9:CI:116:VAL:HG22	2.00	0.60
1:AA:203:G:O2'	1:AA:465:A:N1	2.34	0.60
24:DA:2243:U:H2'	24:DA:2244:U:C6	2.36	0.60
24:DA:1734:G:C6	24:DA:1735:A:C8	2.90	0.60
24:DA:2654:A:H5'	24:DA:2656:U:H1'	1.83	0.60
24:BA:1264:A:OP1	50:B0:15:ARG:NH1	2.34	0.60
1:CA:719:C:H1'	18:CR:38:LYS:HG3	1.83	0.60
1:AA:177:G:H2'	1:AA:178:C:C5'	2.31	0.60
24:BA:2209:G:C2	24:BA:2216:G:C2	2.90	0.60
2:CB:183:VAL:HG22	2:CB:184:PHE:N	2.16	0.60
1:AA:309:A:C2	1:AA:310:G:C8	2.89	0.60
1:AA:311:C:OP1	16:AP:31:ARG:HD2	2.02	0.60
24:BA:2478:A:C2	24:BA:2529:G:H2'	2.36	0.60
34:BK:106:GLU:N	34:BK:106:GLU:OE1	2.34	0.60
24:BA:126:A:OP1	52:B2:17:GLY:HA3	2.02	0.60
48:DY:6:LEU:HD13	48:DY:56:LEU:HD22	1.84	0.60
10:CJ:63:ASP:HB3	10:CJ:65:TYR:CE1	2.37	0.60
24:BA:2108:A:H2'	24:BA:2109:U:C6	2.36	0.60
24:DA:1425:G:C6	24:DA:1426:G:C2	2.90	0.60
4:AD:177:LYS:O	4:AD:178:MET:CB	2.48	0.60
1:AA:127:G:C6	1:AA:128:G:N7	2.69	0.60
20:CT:45:ALA:O	20:CT:48:GLN:NE2	2.34	0.60
1:AA:238:A:OP1	17:AQ:40:ARG:NH2	2.35	0.60
28:DE:200:LEU:HD23	28:DE:200:LEU:N	2.17	0.60
10:AJ:67:ILE:CG2	10:AJ:67:ILE:O	2.48	0.60
37:DN:33:ILE:O	37:DN:34:ILE:HG12	2.02	0.60
26:DC:30:ALA:O	26:DC:32:LEU:N	2.34	0.60
1:AA:1015:G:P	19:AS:14:HIS:CE1	2.95	0.60
24:BA:2294:G:P	38:BO:10:ARG:CZ	2.89	0.60
2:CB:89:GLN:N	2:CB:89:GLN:CD	2.54	0.60
1:AA:651:C:C5	1:AA:752:G:O2'	2.55	0.60
1:AA:254:G:OP1	17:AQ:70:THR:OG1	2.09	0.60
4:AD:123:ILE:HA	4:AD:145:ILE:HA	1.82	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1061:G:P	3:AC:3:GLN:NE2	2.74	0.60
24:BA:1240:U:H2'	24:BA:1240:U:O2	2.02	0.60
57:BA:3165:NMY:N9	57:BA:3165:NMY:O5	2.28	0.60
41:BR:79:ARG:NE	41:BR:79:ARG:HA	2.16	0.60
24:DA:947:A:O2'	24:DA:984:A:H2	1.84	0.60
46:DW:24:LYS:O	46:DW:25:ARG:HD3	2.02	0.60
29:DF:95:MET:HG3	29:DF:96:TRP:N	2.16	0.60
24:DA:570:G:H2'	24:DA:2030:A:N7	2.15	0.60
24:DA:571:U:C5	24:DA:575:A:C6	2.90	0.60
14:CN:41:ARG:CG	14:CN:42:TRP:N	2.64	0.60
37:BN:57:THR:HG22	37:BN:57:THR:O	2.01	0.60
55:CY:78:VAL:O	55:CY:81:ALA:N	2.35	0.60
30:BG:51:PHE:CE2	30:BG:68:ARG:HB2	2.37	0.60
1:CA:1232:U:OP1	9:CI:126:GLN:HG3	2.02	0.60
24:BA:1079:C:N4	24:BA:1088:A:O4'	2.35	0.60
24:BA:147:C:C4	24:BA:148:U:C5	2.90	0.60
24:BA:67:U:H1'	24:BA:88:G:N2	2.17	0.60
24:DA:2885:G:H2'	24:DA:2886:A:C5'	2.32	0.60
24:DA:1601:G:N7	59:DA:3717:HOH:O	2.31	0.60
26:DC:20:ASN:CB	26:DC:23:LEU:HD13	2.31	0.60
1:CA:635:A:O2'	17:CQ:6:ARG:NH2	2.35	0.60
24:BA:2572:A:OP1	24:BA:2574:G:H4'	2.02	0.60
1:CA:32:A:OP1	1:CA:398:U:H1'	2.01	0.60
3:CC:66:VAL:CG1	3:CC:101:ILE:HA	2.32	0.60
24:DA:608:A:H2'	24:DA:609:A:C8	2.36	0.60
1:AA:126:G:H2'	1:AA:127:G:O4'	2.02	0.60
38:DO:26:LEU:O	38:DO:38:GLN:O	2.19	0.60
7:AG:137:LYS:HA	7:AG:140:ASP:HB2	1.83	0.60
1:AA:658:C:C2'	1:AA:659:U:H5'	2.31	0.60
41:DR:4:VAL:HG22	41:DR:4:VAL:O	2.01	0.60
7:AG:30:LEU:CD2	7:AG:42:ILE:HD11	2.32	0.60
28:BE:149:ILE:O	28:BE:149:ILE:HD12	2.02	0.60
24:BA:596:U:C2	24:BA:662:G:N2	2.70	0.60
36:BM:97:GLN:CD	36:BM:97:GLN:N	2.54	0.60
2:AB:82:ASP:OD1	2:AB:82:ASP:N	2.31	0.60
24:BA:1062:G:C2	24:BA:1063:G:C6	2.90	0.60
18:AR:40:VAL:HG22	18:AR:41:PRO:HD2	1.82	0.60
1:AA:1375:A:C4	1:AA:1376:U:C6	2.90	0.60
1:AA:977:A:OP1	14:AN:71:HIS:NE2	2.35	0.60
1:AA:620:C:N4	1:AA:621:A:C6	2.70	0.60
4:AD:102:VAL:HG12	4:AD:102:VAL:O	2.01	0.60
12:CL:114:ARG:NE	12:CL:121:ARG:HG3	2.17	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1309:G:C5	1:CA:1329:A:C6	2.90	0.60
4:CD:149:ALA:HA	4:CD:152:GLN:NE2	2.16	0.60
1:CA:987:G:C2	1:CA:1219:A:C2	2.90	0.60
24:BA:2125:G:N2	24:BA:2171:A:O5'	2.33	0.60
18:CR:31:ASN:O	18:CR:32:TYR:CG	2.54	0.60
1:CA:1089:G:H2'	1:CA:1090:U:O5'	2.02	0.60
21:AU:25:LYS:NZ	23:AX:5:A:H4'	2.17	0.60
24:BA:1512:C:C2'	24:BA:1513:U:H5'	2.32	0.60
26:DC:259:ASN:O	26:DC:260:LYS:HB3	2.00	0.60
1:CA:842:U:C2	1:CA:844:G:OP1	2.54	0.60
28:DE:27:LEU:O	28:DE:30:GLN:N	2.35	0.60
7:CG:71:PRO:HD3	7:CG:138:ARG:NH2	2.17	0.60
12:AL:32:GLY:HA3	12:AL:56:ARG:O	2.02	0.60
24:BA:2198:A:N3	31:BH:29:PHE:HB3	2.16	0.60
1:AA:363:A:N7	12:AL:27:CYS:SG	2.75	0.60
5:CE:25:VAL:O	5:CE:27:GLY:N	2.34	0.60
1:AA:788:U:H2'	1:AA:789:U:H5'	1.83	0.60
36:BM:81:ARG:O	36:BM:82:MET:CG	2.49	0.60
24:BA:146:A:C2	24:BA:147:C:C2	2.90	0.60
1:AA:448:A:C8	1:AA:487:A:C6	2.89	0.60
1:CA:606:G:C2'	1:CA:607:A:OP1	2.50	0.60
24:DA:2511:U:O4	24:DA:2575:C:N3	2.34	0.60
24:DA:2129:C:H2'	24:DA:2130:U:H5''	1.82	0.60
1:CA:149:A:N3	1:CA:149:A:H2'	2.17	0.60
24:BA:1952:A:OP1	34:BK:44:LYS:NZ	2.34	0.60
43:DT:30:ILE:HG13	43:DT:85:VAL:HG13	1.84	0.60
1:AA:911:U:H2'	1:AA:912:C:C6	2.37	0.60
24:DA:2782:G:N2	24:DA:2783:U:C2	2.69	0.60
40:DQ:13:HIS:O	40:DQ:17:LEU:HD12	2.02	0.60
36:BM:106:ASP:OD1	36:BM:107:GLY:N	2.35	0.60
24:DA:1484:U:O2	24:DA:1484:U:H2'	2.01	0.60
24:BA:2788:C:O2'	24:BA:2809:A:O2'	2.10	0.60
37:BN:13:ASN:N	37:BN:13:ASN:OD1	2.33	0.60
24:BA:402:A:H2'	24:BA:403:U:H5'	1.82	0.60
9:CI:91:ASP:O	9:CI:94:LEU:HG	2.02	0.60
28:BE:44:ARG:O	28:BE:45:ALA:HB2	2.00	0.60
25:BB:29:A:OP2	38:BO:31:THR:OG1	2.09	0.60
24:DA:85:G:P	44:DU:5:ARG:CD	2.89	0.60
1:AA:255:G:O6	1:AA:271:C:N4	2.35	0.60
1:CA:1506:U:OP2	11:CK:128:ARG:NH2	2.33	0.60
4:CD:181:THR:OG1	4:CD:182:PHE:N	2.34	0.60
4:CD:4:TYR:OH	4:CD:68:LEU:HA	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:580:C:H2'	1:CA:581:G:O4'	2.02	0.60
15:CO:54:ARG:O	15:CO:56:LEU:N	2.35	0.60
24:DA:1082:U:OP1	32:DI:123:ALA:HB1	2.02	0.60
1:AA:929:G:C6	1:AA:930:C:C5	2.90	0.60
22:CV:44:G:C4'	22:CV:45:U:OP1	2.48	0.60
20:CT:67:ILE:HG23	20:CT:71:LYS:HB3	1.84	0.60
37:DN:2:ARG:CZ	37:DN:2:ARG:HB2	2.30	0.60
24:BA:656:G:C5	24:BA:657:U:C5	2.89	0.60
1:CA:1083:U:C5	1:CA:1084:G:C4	2.90	0.60
43:BT:19:LYS:CA	43:BT:22:THR:HG22	2.31	0.60
24:BA:589:U:H2'	24:BA:590:A:C8	2.35	0.60
22:CV:60:U:H5''	22:CV:61:C:C5	2.35	0.60
30:BG:3:VAL:O	30:BG:68:ARG:HD3	2.01	0.60
24:BA:1171:G:C2	24:BA:1179:G:C2	2.90	0.60
25:DB:21:G:N2	25:DB:63:C:C2	2.70	0.60
1:AA:176:C:O2	1:AA:177:G:C2	2.55	0.60
47:BX:45:PHE:O	47:BX:46:VAL:HG22	2.02	0.60
31:DH:134:VAL:CG1	31:DH:138:VAL:HG21	2.32	0.60
24:DA:228:C:H5	24:DA:2407:A:HO2'	1.49	0.60
1:AA:60:A:C2	1:AA:107:G:N3	2.70	0.60
37:DN:66:ALA:O	37:DN:70:THR:CG2	2.49	0.60
8:CH:53:GLY:O	8:CH:54:ASP:CB	2.50	0.60
24:BA:784:G:C5'	26:BC:225:ASN:OD1	2.49	0.60
34:BK:39:ILE:CG2	34:BK:41:ILE:HG23	2.32	0.60
43:DT:73:ARG:HG2	43:DT:74:ILE:H	1.66	0.60
1:AA:1316:G:N1	1:AA:1319:A:OP2	2.34	0.60
38:DO:79:ALA:HA	38:DO:115:LEU:CD1	2.32	0.60
31:BH:83:LYS:O	31:BH:90:LEU:HB2	2.02	0.60
43:BT:35:ALA:O	43:BT:37:ASP:N	2.35	0.60
24:BA:122:G:O6	24:BA:129:C:N3	2.35	0.60
24:DA:634:C:H2'	24:DA:635:C:C6	2.35	0.60
7:CG:17:LYS:HB2	7:CG:44:TYR:CE1	2.36	0.60
24:BA:813:U:H2'	24:BA:814:C:C6	2.37	0.60
24:DA:749:A:H4'	24:DA:1271:G:N3	2.17	0.60
15:AO:25:THR:O	15:AO:28:GLN:N	2.35	0.60
34:BK:8:LEU:N	34:BK:8:LEU:HD12	2.17	0.60
24:BA:1113:U:H2'	24:BA:1114:C:C6	2.37	0.60
1:CA:929:G:N2	1:CA:1389:C:C2	2.70	0.60
25:DB:34:A:N3	25:DB:36:C:N4	2.49	0.60
24:DA:320:A:H4'	24:DA:322:A:N7	2.17	0.60
51:D1:21:THR:OG1	53:D3:33:THR:CG2	2.50	0.60
11:CK:52:PHE:CD1	11:CK:57:LYS:HE3	2.37	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:46:G:N2	1:AA:396:C:N3	2.50	0.60
5:AE:111:MET:O	5:AE:115:LEU:HD22	2.02	0.60
1:CA:672:U:HO2'	18:CR:64:TYR:HH	1.48	0.60
24:DA:549:G:H3'	24:DA:549:G:OP2	2.02	0.60
57:AA:1656:NMY:O22	57:AA:1656:NMY:C16	2.49	0.60
24:BA:1205:A:N3	57:BA:3163:NMY:O20	2.23	0.60
24:BA:2734:A:C2'	24:BA:2735:G:H5'	2.32	0.60
1:CA:1133:G:C2	1:CA:1142:G:C2	2.89	0.60
1:CA:353:A:H2'	1:CA:354:G:OP2	2.02	0.60
1:CA:1103:C:N4	1:CA:1104:G:C6	2.70	0.60
30:BG:82:PHE:HB3	30:BG:140:ILE:HD11	1.84	0.60
40:DQ:79:ILE:HG22	40:DQ:80:ASN:N	2.17	0.60
24:BA:481:G:P	44:BU:43:LYS:CG	2.89	0.60
1:AA:580:C:H2'	1:AA:581:G:O4'	2.02	0.60
41:DR:67:GLY:C	41:DR:93:PHE:CE2	2.75	0.60
15:AO:29:VAL:O	15:AO:32:LEU:N	2.35	0.60
1:AA:786:G:C2'	1:AA:787:A:O5'	2.49	0.60
26:DC:23:LEU:HD12	26:DC:23:LEU:N	2.17	0.60
24:BA:1228:G:H2'	24:BA:1229:C:H5'	1.83	0.60
26:DC:70:LYS:HD2	26:DC:95:TYR:CD1	2.35	0.60
28:BE:149:ILE:HG12	28:BE:188:MET:HG2	1.83	0.60
24:DA:753:A:H2'	24:DA:754:U:H6	1.67	0.60
24:BA:1654:A:C2	27:BD:118:PHE:CD2	2.90	0.60
17:CQ:81:LYS:O	17:CQ:83:VAL:N	2.35	0.60
24:BA:1599:U:P	43:BT:40:LYS:HG3	2.42	0.60
24:DA:2681:C:OP1	27:DD:8:LYS:NZ	2.34	0.60
7:AG:101:MET:O	7:AG:105:VAL:HG13	2.01	0.60
24:BA:227:A:C4	24:BA:2407:A:H1'	2.37	0.59
24:BA:391:A:C4	24:BA:392:U:C6	2.90	0.59
24:BA:395:U:O2'	24:BA:396:G:N7	2.34	0.59
23:CX:10:A:HO2'	23:CX:11:A:P	2.20	0.59
4:CD:22:LYS:HZ1	4:CD:26:ARG:CD	2.15	0.59
15:CO:39:LEU:O	15:CO:42:HIS:HB3	2.02	0.59
1:AA:1157:A:C2	1:AA:1181:G:C8	2.90	0.59
2:CB:22:TYR:O	2:CB:23:TRP:CB	2.50	0.59
1:CA:533:A:C2	1:CA:536:C:C5	2.90	0.59
25:BB:94:A:H2'	25:BB:95:U:O4'	2.02	0.59
24:DA:1251:C:OP2	40:DQ:5:ARG:HD2	2.01	0.59
24:BA:1587:G:C5	24:BA:1588:G:N7	2.70	0.59
24:DA:674:G:H1'	28:DE:69:ARG:HD3	1.84	0.59
4:CD:190:ASP:OD1	4:CD:190:ASP:C	2.40	0.59
1:CA:66:A:H4'	1:CA:173:U:C4	2.37	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1619:G:C2'	24:DA:1620:G:O5'	2.50	0.59
6:AF:43:GLY:HA2	6:AF:58:HIS:CE1	2.36	0.59
24:BA:1103:A:C8	24:BA:1104:C:C5	2.90	0.59
1:AA:1275:A:C6	1:AA:1276:G:C5	2.90	0.59
48:DY:24:GLU:O	48:DY:25:GLN:C	2.40	0.59
5:CE:46:VAL:HG13	5:CE:118:ALA:HB2	1.84	0.59
24:DA:2768:U:C2'	24:DA:2769:U:O5'	2.50	0.59
1:AA:749:A:O2'	15:AO:20:ASN:ND2	2.34	0.59
24:BA:1599:U:C5	24:BA:1600:C:C5	2.90	0.59
38:DO:25:ARG:NH2	38:DO:40:ILE:HD11	2.17	0.59
1:CA:828:U:OP1	1:CA:828:U:H4'	2.01	0.59
33:BJ:93:ILE:HD12	33:BJ:94:ALA:N	2.16	0.59
33:DJ:12:LYS:O	33:DJ:41:LYS:NZ	2.35	0.59
24:BA:1893:C:C5	24:BA:1894:C:C5	2.90	0.59
8:CH:10:MET:SD	8:CH:36:ILE:CD1	2.90	0.59
1:AA:597:G:H3'	1:AA:598:U:O4'	2.02	0.59
4:AD:203:LEU:HD12	4:AD:204:TYR:CD1	2.37	0.59
1:CA:409:U:OP1	4:CD:22:LYS:HA	2.02	0.59
1:CA:429:U:P	4:CD:9:LEU:HD22	2.43	0.59
4:CD:117:LEU:O	4:CD:118:VAL:C	2.39	0.59
4:CD:160:GLU:OE2	4:CD:161:LEU:HD22	2.02	0.59
15:CO:69:TYR:CD1	15:CO:69:TYR:C	2.72	0.59
1:AA:693:G:C2	23:AX:10:A:N6	2.69	0.59
1:AA:261:U:C5	20:AT:74:ARG:NH1	2.71	0.59
24:BA:2734:A:H3'	24:BA:2735:G:H5'	1.84	0.59
24:BA:528:A:OP1	59:BA:3247:HOH:O	2.17	0.59
48:BY:49:ASP:HA	48:BY:52:ARG:HD3	1.84	0.59
40:BQ:24:TYR:CD1	40:BQ:25:GLY:N	2.70	0.59
12:CL:102:LEU:CD1	12:CL:103:ASP:HB3	2.31	0.59
37:DN:2:ARG:CB	37:DN:2:ARG:NH1	2.66	0.59
1:CA:1215:G:C2'	1:CA:1216:A:H5'	2.32	0.59
44:BU:35:VAL:O	44:BU:35:VAL:CG2	2.50	0.59
29:DF:99:PHE:O	29:DF:103:ILE:HD11	2.02	0.59
35:BL:78:ARG:CB	35:BL:113:ALA:HB2	2.32	0.59
2:AB:189:THR:HG23	2:AB:190:ASN:ND2	2.17	0.59
1:AA:207:C:H1'	1:AA:213:G:N2	2.17	0.59
7:CG:123:GLU:N	7:CG:123:GLU:OE1	2.35	0.59
7:CG:66:LEU:O	7:CG:68:ASN:N	2.33	0.59
1:AA:496:A:H2'	1:AA:497:G:C8	2.37	0.59
24:DA:1439:A:C2	24:DA:1553:A:C5	2.89	0.59
24:BA:1386:C:O2'	24:BA:1469:A:N3	2.35	0.59
49:BZ:50:VAL:O	49:BZ:50:VAL:CG2	2.49	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:137:U:H2'	24:DA:140:C:C2	2.38	0.59
24:DA:1028:A:N6	24:DA:1125:G:H2'	2.17	0.59
1:AA:1360:A:OP1	14:AN:58:SER:OG	2.19	0.59
1:AA:109:A:C6	1:AA:326:G:C6	2.90	0.59
24:DA:1182:G:C2'	24:DA:1183:U:H5'	2.31	0.59
2:CB:157:LEU:O	2:CB:159:ASP:N	2.35	0.59
1:AA:86:G:HO2'	1:AA:87:C:P	2.24	0.59
24:BA:670:A:H3'	35:BL:43:GLY:HA2	1.84	0.59
37:BN:70:THR:OG1	37:BN:71:ARG:N	2.33	0.59
21:AU:5:LYS:CD	21:AU:5:LYS:N	2.64	0.59
24:DA:238:C:O2'	24:DA:608:A:H1'	2.02	0.59
24:DA:608:A:O2'	24:DA:609:A:O5'	2.17	0.59
6:CF:56:LYS:O	6:CF:57:ALA:HB2	2.02	0.59
24:DA:682:G:O6	24:DA:794:A:N6	2.35	0.59
1:AA:1245:C:C4	1:AA:1246:A:N7	2.70	0.59
44:DU:35:VAL:HB	44:DU:38:ILE:CG1	2.32	0.59
3:AC:6:HIS:HB3	14:AN:89:MET:CE	2.32	0.59
24:DA:1632:A:O2'	24:DA:1633:G:H5'	2.01	0.59
24:BA:324:A:C6	24:BA:325:G:C4	2.90	0.59
24:DA:292:U:C2'	24:DA:293:U:H5'	2.32	0.59
30:DG:11:PRO:O	30:DG:14:VAL:CG1	2.49	0.59
1:AA:1493:A:H3'	24:BA:1913:A:N1	2.18	0.59
14:AN:20:PHE:CD1	14:AN:55:SER:O	2.55	0.59
11:CK:50:SER:O	11:CK:52:PHE:CE1	2.56	0.59
8:AH:101:ILE:HG12	8:AH:112:THR:CG2	2.33	0.59
1:AA:1505:G:H4'	1:AA:1506:U:H5''	1.84	0.59
1:AA:1049:U:OP1	14:AN:1:ALA:HB3	2.01	0.59
1:CA:1309:G:N1	1:CA:1329:A:C8	2.70	0.59
2:AB:163:VAL:HG11	2:AB:185:ALA:CB	2.32	0.59
1:AA:1125:U:O2'	1:AA:1126:U:H2'	2.02	0.59
24:DA:278:A:C2	24:DA:362:A:H1'	2.37	0.59
57:DA:3190:NMY:O21	57:DA:3190:NMY:N19	2.35	0.59
24:BA:348:A:H2'	24:BA:349:U:O4'	2.01	0.59
12:CL:65:SER:HB3	12:CL:82:ILE:HD11	1.83	0.59
37:DN:2:ARG:CZ	37:DN:2:ARG:CB	2.80	0.59
24:DA:2201:G:C4	24:DA:2202:U:C5	2.90	0.59
24:DA:946:C:C2'	24:DA:947:A:O5'	2.49	0.59
1:AA:1211:U:C2'	1:AA:1212:U:OP2	2.50	0.59
24:BA:1478:G:C2	24:BA:1479:G:N7	2.70	0.59
26:DC:258:SER:O	26:DC:259:ASN:HB3	2.02	0.59
24:DA:2230:G:H5''	47:DX:29:LEU:HD13	1.84	0.59
24:BA:590:A:H2'	24:BA:591:U:C6	2.38	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DJ:130:HIS:CD2	33:DJ:132:HIS:HB2	2.37	0.59
37:BN:32:GLU:OE2	37:BN:86:ARG:NH1	2.35	0.59
1:AA:838:G:C2	1:AA:849:G:C2	2.91	0.59
6:AF:38:ARG:HD3	6:AF:97:THR:CA	2.31	0.59
24:BA:7:G:C5	24:BA:8:C:C5	2.91	0.59
2:CB:111:ILE:HG12	2:CB:151:ILE:HG12	1.83	0.59
24:BA:1301:A:C8	24:BA:1303:G:C8	2.89	0.59
24:BA:2311:A:C2	29:BF:76:PHE:HB3	2.36	0.59
53:D3:6:VAL:HG12	53:D3:9:ALA:CB	2.32	0.59
24:BA:1869:G:N2	24:BA:1873:G:C5	2.70	0.59
6:AF:14:GLN:OE1	6:AF:17:GLN:CG	2.50	0.59
1:CA:854:U:C6	1:CA:871:U:O4	2.55	0.59
19:AS:15:LEU:CD2	19:AS:35:SER:HB2	2.32	0.59
1:AA:1152:A:C2	1:AA:1153:G:C8	2.89	0.59
1:CA:20:U:C4	1:CA:21:G:C6	2.89	0.59
1:CA:1538:C:O2	21:CU:21:ARG:NH2	2.35	0.59
26:BC:196:ASN:O	26:BC:198:GLU:N	2.34	0.59
18:CR:62:ALA:HB1	18:CR:67:LEU:HD11	1.83	0.59
1:CA:938:A:N6	59:CA:1832:HOH:O	2.35	0.59
24:DA:1190:G:OP1	35:DL:32:GLY:HA2	2.02	0.59
46:BW:56:ASP:OD2	46:BW:58:THR:OG1	2.20	0.59
1:CA:420:U:O2'	1:CA:421:U:H5''	2.02	0.59
33:DJ:16:TYR:HA	33:DJ:138:GLN:O	2.03	0.59
5:AE:107:ALA:O	5:AE:108:GLY:O	2.19	0.59
5:AE:114:VAL:HG23	5:AE:115:LEU:N	2.17	0.59
1:AA:56:U:N3	31:DH:91:PHE:CZ	2.70	0.59
1:CA:1500:A:OP1	1:CA:1505:G:OP1	2.20	0.59
1:CA:925:G:H2'	1:CA:927:G:H5''	1.85	0.59
4:CD:63:ARG:HA	4:CD:63:ARG:CZ	2.32	0.59
24:BA:572:A:C6	24:BA:573:U:N3	2.71	0.59
1:CA:626:G:C2	1:CA:627:G:C5	2.91	0.59
1:CA:444:G:C2	1:CA:445:G:C4	2.90	0.59
1:CA:485:U:O2	1:CA:485:U:O4'	2.18	0.59
24:BA:1367:A:C5	24:BA:1368:G:H1'	2.38	0.59
29:DF:84:ILE:HG13	29:DF:84:ILE:O	2.02	0.59
24:BA:2748:A:C2'	24:BA:2749:A:O5'	2.50	0.59
25:DB:77:U:P	45:DV:14:LYS:HZ3	2.24	0.59
27:DD:104:VAL:O	27:DD:105:LYS:HB2	2.01	0.59
1:CA:1187:G:N3	14:CN:100:SER:OG	2.26	0.59
1:CA:774:G:C5	1:CA:775:G:N7	2.71	0.59
26:DC:80:LEU:CD2	26:DC:91:ALA:HB2	2.33	0.59
27:BD:33:ARG:HG2	27:BD:51:THR:HG22	1.83	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1109:C:OP1	3:CC:176:HIS:CE1	2.56	0.59
30:DG:41:GLU:OE2	30:DG:54:ARG:NH1	2.35	0.59
1:CA:782:A:C2	1:CA:801:U:C2	2.90	0.59
24:BA:1505:A:C5	24:BA:1506:U:C4	2.91	0.59
24:DA:1183:U:H2'	24:DA:1184:U:H6	1.65	0.59
26:BC:81:GLU:CB	26:BC:90:ILE:CD1	2.80	0.59
24:DA:2128:G:C2'	24:DA:2129:C:O5'	2.50	0.59
3:CC:73:PRO:O	3:CC:77:ILE:HG12	2.01	0.59
24:BA:2107:G:C2	24:BA:2108:A:C4	2.90	0.59
34:BK:7:MET:HA	34:BK:8:LEU:HD12	1.83	0.59
30:BG:8:VAL:HG23	30:BG:49:LEU:HB2	1.84	0.59
1:AA:461:A:C4	1:AA:462:G:C8	2.91	0.59
46:BW:82:ILE:O	46:BW:82:ILE:HG22	2.02	0.59
48:BY:61:ALA:O	48:BY:63:ALA:N	2.36	0.59
28:BE:146:VAL:HG22	28:BE:147:LEU:N	2.17	0.59
35:DL:116:VAL:HG13	35:DL:138:ALA:HB2	1.84	0.59
55:CY:106:THR:O	55:CY:107:GLU:HB2	2.03	0.59
15:CO:82:ILE:O	15:CO:85:LEU:N	2.34	0.59
24:BA:1026:G:C8	24:BA:1134:A:C4	2.90	0.59
3:AC:167:TRP:CE3	3:AC:167:TRP:O	2.56	0.59
24:DA:2808:G:O2'	24:DA:2890:G:O6	2.18	0.59
28:DE:161:ALA:N	28:DE:162:ARG:HE	2.00	0.59
1:AA:958:A:C6	1:AA:959:A:N1	2.71	0.59
1:AA:257:G:C2	1:AA:258:G:N7	2.71	0.59
1:AA:32:A:C2	1:AA:33:A:C5	2.90	0.59
1:AA:612:C:C2'	1:AA:613:C:H5'	2.33	0.59
1:AA:508:U:H5'	4:AD:51:TYR:CE2	2.38	0.59
12:AL:110:ARG:O	12:AL:114:ARG:HG2	2.01	0.59
4:CD:7:PRO:O	4:CD:9:LEU:HG	2.03	0.59
1:CA:583:A:C2	1:CA:584:G:H1'	2.37	0.59
14:AN:80:SER:O	14:AN:82:ILE:N	2.36	0.59
4:AD:22:LYS:O	4:AD:23:SER:C	2.41	0.59
2:AB:169:GLU:O	2:AB:170:HIS:C	2.40	0.59
12:CL:63:VAL:O	12:CL:64:THR:HB	2.03	0.59
1:CA:112:G:O2'	1:CA:113:G:H5'	2.03	0.59
24:BA:608:A:H2'	24:BA:609:A:C8	2.37	0.59
1:AA:1303:C:OP1	59:AA:1862:HOH:O	2.17	0.59
13:AM:16:VAL:O	13:AM:19:LEU:HB2	2.02	0.59
1:CA:980:C:C5	1:CA:981:U:C2	2.91	0.59
24:DA:2786:U:O2'	24:DA:2787:C:H5'	2.02	0.59
24:DA:493:G:N7	57:DA:3189:NMY:H4	2.17	0.59
24:BA:2528:U:C2	24:BA:2535:G:O6	2.55	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:CV:65:G:C2	22:CV:66:U:H1'	2.38	0.59
1:CA:966:G:N2	9:CI:129:LYS:HE3	2.15	0.59
1:AA:466:A:C5	1:AA:468:A:C2	2.90	0.59
9:CI:130:ARG:CZ	22:CV:33:U:C5	2.86	0.59
4:AD:170:TRP:NE1	4:AD:186:PRO:HD3	2.18	0.59
1:CA:680:C:O2	1:CA:711:G:C2	2.56	0.59
24:DA:2825:G:H3'	24:DA:2826:A:H5'	1.85	0.59
33:BJ:18:VAL:HG12	33:BJ:55:ILE:O	2.03	0.59
27:BD:124:ARG:HG3	27:BD:165:MET:HE2	1.84	0.59
24:DA:2012:G:OP1	42:DS:98:LYS:CG	2.50	0.59
28:DE:44:ARG:O	28:DE:45:ALA:HB2	2.03	0.59
24:BA:1544:A:N6	24:BA:1545:A:C6	2.71	0.59
24:DA:1440:U:O4	59:DA:3633:HOH:O	2.11	0.59
24:BA:1401:G:C5	24:BA:1402:U:C5	2.90	0.59
8:CH:78:VAL:HG22	8:CH:79:SER:N	2.16	0.59
25:BB:23:G:C6	25:BB:24:G:O6	2.56	0.59
24:DA:443:A:OP1	28:DE:40:ARG:HG2	2.02	0.59
3:CC:159:GLY:O	3:CC:160:ALA:O	2.21	0.59
1:CA:66:A:C2	1:CA:67:C:C6	2.90	0.59
24:BA:988:A:C6	49:BZ:13:ILE:HD11	2.37	0.59
5:CE:45:ARG:NH1	5:CE:74:VAL:HG22	2.18	0.59
24:BA:1725:U:H2'	24:BA:1726:C:C1'	2.32	0.59
11:AK:88:GLY:C	11:AK:93:ARG:NH2	2.56	0.59
24:DA:630:G:H4'	24:DA:640:C:H4'	1.84	0.59
7:AG:30:LEU:CD1	7:AG:120:LEU:HD12	2.33	0.59
27:BD:47:ALA:C	27:BD:84:LEU:HD22	2.22	0.59
24:BA:920:A:C6	24:BA:921:C:C4	2.91	0.59
24:BA:1710:G:C2	24:BA:1749:A:N3	2.71	0.59
11:AK:70:CYS:O	11:AK:74:VAL:HG22	2.03	0.59
41:DR:82:HIS:O	41:DR:82:HIS:ND1	2.35	0.59
24:BA:1835:G:H5'	24:BA:1835:G:C8	2.37	0.59
4:AD:194:ASP:OD1	4:AD:194:ASP:N	2.34	0.59
12:AL:67:ILE:HG22	12:AL:97:THR:HB	1.83	0.59
1:AA:152:A:N6	1:AA:170:U:C2	2.70	0.59
53:D3:31:ILE:O	53:D3:33:THR:N	2.34	0.59
1:AA:592:G:C6	1:AA:593:U:N3	2.71	0.59
8:AH:78:VAL:HG21	8:AH:128:TYR:CE1	2.38	0.59
1:AA:973:G:C5	1:AA:974:A:N7	2.71	0.59
1:CA:1305:G:O2'	1:CA:1306:A:O4'	2.21	0.59
57:AA:1657:NMY:HN32	57:AA:1657:NMY:H14	1.68	0.59
1:CA:373:A:C2	1:CA:374:A:C8	2.91	0.59
9:CI:78:ALA:O	9:CI:81:HIS:HB2	2.03	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:184:G:C6	1:CA:185:U:C4	2.90	0.59
1:AA:1141:C:O2'	1:AA:1142:G:P	2.61	0.59
24:BA:477:A:C6	24:BA:478:A:C6	2.91	0.59
1:CA:1073:U:O2'	2:CB:103:ASN:ND2	2.35	0.59
29:DF:155:ILE:CD1	29:DF:156:THR:N	2.64	0.59
29:DF:93:GLU:O	29:DF:95:MET:N	2.35	0.59
22:CV:65:G:N2	22:CV:66:U:H1'	2.18	0.59
6:AF:38:ARG:N	6:AF:63:ASN:OD1	2.36	0.59
24:BA:629:G:H1'	24:BA:639:U:H1'	1.83	0.59
13:CM:54:ASP:CG	13:CM:55:THR:N	2.55	0.59
24:BA:2502:G:C5'	24:BA:2503:A:H5''	2.32	0.59
1:AA:1265:C:N4	1:AA:1266:G:C6	2.70	0.59
1:CA:855:U:C2	1:CA:856:C:H5	2.20	0.59
43:DT:36:LYS:O	43:DT:37:ASP:C	2.40	0.59
24:BA:690:G:O3'	26:BC:216:ARG:NH2	2.36	0.59
24:BA:2520:C:H2'	24:BA:2521:C:H5'	1.83	0.59
24:DA:454:A:H4'	24:DA:455:C:OP2	2.02	0.59
24:DA:651:G:OP1	53:D3:16:THR:CG2	2.51	0.59
24:DA:1424:G:N7	59:DA:3627:HOH:O	2.32	0.59
34:BK:7:MET:HG2	34:BK:20:MET:HA	1.84	0.59
24:DA:1753:G:N1	24:DA:1756:G:OP2	2.35	0.59
42:DS:105:VAL:O	42:DS:105:VAL:CG1	2.50	0.59
24:DA:2468:A:H2'	24:DA:2476:A:C6	2.37	0.59
4:CD:29:ASP:N	4:CD:29:ASP:OD1	2.35	0.59
42:DS:55:ILE:HD13	42:DS:66:ILE:HG21	1.84	0.59
24:DA:1581:G:C6	24:DA:1582:C:C4	2.91	0.59
5:AE:137:VAL:O	5:AE:137:VAL:HG13	2.00	0.59
1:CA:425:G:C5	1:CA:426:U:C5	2.91	0.59
31:DH:77:THR:HG22	31:DH:78:VAL:N	2.18	0.59
24:DA:1921:G:C6	57:DA:3184:NMY:N7	2.63	0.59
1:AA:253:A:N6	1:AA:274:A:C6	2.71	0.59
31:DH:82:SER:CB	31:DH:146:VAL:HG23	2.33	0.59
1:AA:572:A:N3	1:AA:917:G:H1'	2.17	0.59
1:CA:416:G:O2'	1:CA:417:G:H5'	2.02	0.59
29:DF:111:ARG:C	29:DF:113:PHE:N	2.54	0.59
1:AA:1159:U:N3	1:AA:1182:G:C4	2.71	0.59
22:CV:12:U:H2'	22:CV:13:C:O4'	2.03	0.59
1:AA:410:G:N2	1:AA:432:A:C8	2.70	0.59
24:DA:31:C:O3'	24:DA:1238:G:C5'	2.49	0.59
10:CJ:43:PRO:O	10:CJ:71:LEU:HD11	2.03	0.59
24:DA:2204:G:HO2'	24:DA:2205:A:C5'	2.15	0.59
29:BF:36:ASN:CG	29:BF:87:LYS:HE3	2.23	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1350:A:C2	1:CA:1351:U:O2	2.54	0.59
1:CA:967:C:O4'	9:CI:129:LYS:CE	2.50	0.59
40:DQ:87:VAL:HA	41:DR:49:ILE:HG21	1.84	0.59
26:DC:197:ALA:O	26:DC:200:MET:CE	2.51	0.59
33:BJ:53:TYR:HA	33:BJ:121:LYS:HB3	1.85	0.59
24:BA:2209:G:N1	24:BA:2216:G:C2	2.71	0.59
24:DA:446:G:OP1	40:DQ:2:ARG:HG3	2.03	0.59
24:BA:2681:C:C2	24:BA:2724:U:O4	2.55	0.59
24:BA:1385:A:C2	24:BA:1386:C:C2	2.90	0.59
6:CF:37:HIS:O	6:CF:38:ARG:HB3	2.03	0.59
2:AB:10:LEU:HA	2:AB:43:LEU:HD13	1.84	0.59
1:CA:782:A:N7	1:CA:783:C:C2	2.71	0.59
17:AQ:28:PHE:O	17:AQ:29:VAL:CB	2.50	0.59
24:DA:387:U:C5	24:DA:388:G:O6	2.55	0.59
23:CX:5:A:H2'	23:CX:6:G:C8	2.38	0.59
1:AA:607:A:C5	1:AA:608:A:N7	2.71	0.59
1:CA:1169:A:N6	1:CA:1170:A:N1	2.50	0.59
24:DA:627:A:C5	24:DA:637:A:N7	2.71	0.59
24:BA:1474:U:O4	24:BA:1475:G:C2	2.56	0.59
48:DY:22:LEU:HD23	48:DY:23:ARG:N	2.17	0.59
26:BC:232:GLY:O	26:BC:233:GLY:C	2.41	0.59
1:AA:1379:G:C6	1:AA:1380:U:O4	2.56	0.59
24:DA:643:A:N1	24:DA:2369:A:O2'	2.32	0.59
1:CA:52:C:H2'	1:CA:53:A:C8	2.38	0.59
24:DA:46:G:N2	24:DA:47:C:C2	2.70	0.59
1:AA:728:A:C6	1:AA:729:A:C6	2.91	0.59
24:DA:2526:G:O2'	54:D4:1:MET:N	2.30	0.59
1:AA:983:A:C2'	1:AA:983:A:N3	2.66	0.59
1:AA:1367:C:H5''	9:AI:116:VAL:HG23	1.84	0.59
24:BA:2294:G:H3'	38:BO:10:ARG:HH22	1.67	0.59
24:DA:2250:G:O2'	24:DA:2496:C:OP1	2.16	0.59
1:CA:1513:A:H2'	1:CA:1514:G:H8	1.67	0.59
1:CA:701:U:H4'	1:CA:703:G:N7	2.18	0.59
1:AA:59:A:N7	1:AA:354:G:C6	2.70	0.59
1:AA:1077:G:C2	1:AA:1081:A:N3	2.71	0.59
1:AA:1078:U:O2'	1:AA:1079:G:P	2.61	0.59
1:AA:1398:A:N6	5:AE:26:LYS:O	2.35	0.59
4:CD:102:VAL:HG11	4:CD:114:ALA:HB2	1.84	0.59
15:CO:75:VAL:HA	15:CO:78:TYR:OH	2.03	0.59
23:AX:10:A:N3	23:AX:11:A:C8	2.71	0.59
24:DA:29:U:O2'	24:DA:30:G:H5'	2.01	0.59
24:BA:110:G:C2	24:BA:111:A:C8	2.91	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2780:G:H4'	24:BA:2781:A:OP2	2.02	0.59
1:CA:181:A:H1'	1:CA:194:C:N4	2.18	0.59
20:CT:31:PHE:HB3	20:CT:54:MET:HG3	1.83	0.59
13:AM:16:VAL:HG12	13:AM:34:LEU:CD1	2.33	0.59
24:BA:308:G:C2'	44:BU:16:LYS:NZ	2.65	0.59
29:BF:122:ASP:OD1	29:BF:125:GLY:N	2.36	0.59
7:CG:26:PHE:HA	7:CG:29:ILE:HG22	1.85	0.59
30:BG:88:LEU:HD12	30:BG:88:LEU:N	2.16	0.59
47:DX:32:LEU:CD1	47:DX:49:ARG:HE	2.16	0.59
48:BY:16:THR:O	48:BY:19:LEU:N	2.36	0.59
28:BE:170:ARG:NH2	28:BE:174:GLY:O	2.35	0.59
2:CB:114:LEU:HD13	2:CB:144:LEU:CD1	2.33	0.59
24:BA:9:G:N1	24:BA:2629:U:C6	2.71	0.59
33:BJ:109:LEU:HB3	33:BJ:110:PRO:CD	2.32	0.59
24:BA:55:G:C2	24:BA:56:A:C8	2.90	0.59
24:BA:2835:A:N6	24:BA:2879:A:OP2	2.36	0.59
24:BA:2680:U:C2'	24:BA:2681:C:O5'	2.50	0.59
26:DC:114:GLN:O	26:DC:124:LYS:CE	2.50	0.59
24:DA:782:A:N3	26:DC:224:MET:HG2	2.17	0.59
25:BB:20:G:C2	25:BB:21:G:C4	2.91	0.59
46:BW:24:LYS:HD2	46:BW:36:ILE:O	2.03	0.59
4:CD:191:LEU:O	4:CD:192:SER:CB	2.51	0.59
1:CA:381:C:H2'	1:CA:382:A:O4'	2.03	0.59
35:DL:98:ALA:O	35:DL:99:ASN:C	2.39	0.59
31:BH:81:ALA:HB2	31:BH:147:VAL:HG13	1.84	0.59
1:CA:1170:A:N7	1:CA:1171:A:N9	2.51	0.59
1:AA:631:C:OP1	1:AA:632:U:O4'	2.21	0.59
18:AR:71:THR:OG1	18:AR:72:ASP:N	2.35	0.59
24:DA:323:C:N4	24:DA:333:G:C8	2.71	0.59
24:DA:2124:G:N2	24:DA:2175:C:O2	2.35	0.59
52:D2:24:THR:HG23	52:D2:27:GLY:HA3	1.84	0.59
11:AK:33:THR:HG22	11:AK:44:TRP:HB3	1.83	0.59
36:DM:73:ILE:HD13	36:DM:93:VAL:HG13	1.84	0.59
24:BA:1281:G:H2'	24:BA:1282:U:H6	1.68	0.59
5:CE:87:GLY:C	5:CE:88:VAL:HG12	2.23	0.59
31:DH:49:ALA:O	31:DH:50:ARG:C	2.40	0.59
42:BS:63:GLY:O	42:BS:64:ALA:HB3	2.03	0.59
2:CB:193:PRO:O	2:CB:195:GLY:N	2.36	0.59
46:BW:34:GLY:HA2	46:BW:61:ALA:O	2.02	0.59
26:BC:87:SER:HB2	26:BC:157:ALA:HB2	1.84	0.59
24:BA:2098:U:C5	24:BA:2099:U:C5	2.90	0.59
24:BA:2738:A:C2	24:BA:2739:U:H1'	2.38	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BF:107:VAL:N	29:BF:108:PRO:CD	2.66	0.59
45:DV:29:ILE:HD12	45:DV:90:ASP:HA	1.83	0.59
24:BA:1808:A:H3'	24:BA:1809:A:C8	2.38	0.59
29:BF:100:GLU:O	29:BF:103:ILE:N	2.35	0.59
1:AA:1372:U:C4	1:AA:1373:G:N7	2.71	0.59
25:BB:34:A:C4	25:BB:44:G:N7	2.71	0.59
38:BO:27:VAL:HG13	38:BO:93:ASP:OD2	2.02	0.59
24:BA:2414:G:C2	24:BA:2415:G:N9	2.70	0.59
8:AH:12:THR:O	8:AH:13:ARG:C	2.41	0.59
8:AH:32:LEU:O	8:AH:36:ILE:N	2.30	0.59
8:AH:36:ILE:O	8:AH:37:ALA:C	2.40	0.59
11:CK:33:THR:HG22	11:CK:44:TRP:CG	2.38	0.59
24:BA:2466:C:OP2	54:B4:4:ARG:CZ	2.51	0.59
1:AA:4:U:H5''	1:AA:5:U:O4	2.03	0.59
1:AA:552:U:C2	1:AA:553:A:C8	2.90	0.59
12:AL:107:VAL:HG12	12:AL:108:LYS:H	1.67	0.59
16:AP:43:ALA:O	16:AP:44:SER:CB	2.51	0.59
16:AP:44:SER:O	16:AP:45:GLU:C	2.41	0.59
31:DH:88:GLY:C	31:DH:125:THR:HG21	2.22	0.59
4:CD:9:LEU:O	4:CD:11:LEU:N	2.36	0.59
1:CA:1299:A:O2'	1:CA:1300:G:P	2.61	0.59
24:DA:1082:U:OP1	32:DI:123:ALA:CB	2.51	0.59
2:AB:72:THR:O	2:AB:73:LYS:CG	2.51	0.59
10:AJ:6:ILE:HG22	10:AJ:7:ARG:N	2.18	0.59
19:CS:18:LYS:CD	19:CS:31:LEU:HD13	2.33	0.59
19:CS:42:PRO:HD3	19:CS:67:VAL:CG2	2.33	0.59
4:AD:9:LEU:HB2	4:AD:13:ARG:CZ	2.33	0.59
24:DA:2204:G:H4'	26:DC:149:LYS:HB2	1.85	0.59
46:DW:20:ARG:HH11	46:DW:20:ARG:HG2	1.66	0.59
1:CA:214:C:O2'	1:CA:215:C:OP1	2.21	0.59
24:BA:995:C:N4	57:BA:3166:NMY:N6	2.51	0.59
29:DF:36:ASN:OD1	29:DF:37:MET:N	2.35	0.59
20:AT:17:ALA:O	20:AT:21:ASN:HB2	2.02	0.59
24:BA:1010:A:N7	59:BA:3781:HOH:O	2.31	0.59
24:DA:1725:U:C4	24:DA:1726:C:C4	2.91	0.59
14:CN:29:ILE:O	14:CN:34:ASN:ND2	2.36	0.59
39:DP:92:ARG:O	39:DP:93:LYS:CB	2.49	0.59
1:AA:49:U:C4	1:AA:364:A:C6	2.90	0.59
1:CA:722:G:O2'	1:CA:723:U:P	2.60	0.59
33:BJ:81:ILE:HG13	33:BJ:82:GLY:H	1.68	0.59
1:CA:96:U:O2'	1:CA:97:G:P	2.61	0.59
24:BA:2218:G:OP1	47:BX:45:PHE:CE1	2.55	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2063:C:O2	24:DA:2450:A:N1	2.35	0.59
1:CA:922:G:H4'	5:CE:25:VAL:HA	1.83	0.59
24:DA:1268:A:OP1	59:DA:3378:HOH:O	2.16	0.59
24:DA:1549:A:C6	24:DA:1550:C:C4	2.91	0.59
1:CA:77:A:N6	1:CA:91:U:O4	2.36	0.59
1:AA:74:A:N3	1:AA:97:G:C2	2.70	0.59
1:CA:188:C:N3	1:CA:189:A:C2	2.70	0.59
5:AE:75:ALA:HB1	5:AE:149:SER:HA	1.83	0.59
2:AB:47:VAL:HB	2:AB:48:PRO:HD2	1.85	0.59
1:CA:204:G:H3'	1:CA:205:A:C5'	2.33	0.59
3:CC:106:VAL:CG1	3:CC:109:PRO:HB3	2.33	0.59
24:BA:1069:A:N1	24:BA:1074:G:C4	2.70	0.59
24:BA:1281:G:H2'	24:BA:1282:U:C6	2.38	0.59
24:DA:2088:A:C6	24:DA:2089:C:N4	2.71	0.59
20:CT:11:ALA:O	20:CT:14:SER:OG	2.18	0.59
1:AA:121:U:O2'	1:AA:122:G:P	2.61	0.59
1:CA:1204:A:OP2	59:CA:1844:HOH:O	2.17	0.59
24:DA:211:C:O2'	24:DA:212:G:H5'	2.03	0.59
24:DA:2379:G:H4'	38:DO:21:LEU:HD21	1.85	0.59
25:BB:43:C:C4	25:BB:45:A:N6	2.70	0.59
24:BA:409:G:N2	24:BA:410:G:C4	2.71	0.59
5:AE:82:GLN:O	5:AE:83:HIS:HB2	2.03	0.59
31:DH:90:LEU:HB2	31:DH:92:GLY:O	2.03	0.59
1:AA:675:A:H1'	11:AK:118:HIS:CG	2.38	0.59
1:AA:1060:U:C5'	10:AJ:53:ILE:HG12	2.33	0.59
1:CA:1309:G:N3	1:CA:1329:A:C4	2.71	0.59
19:CS:3:ARG:C	19:CS:4:SER:HG	1.97	0.59
24:DA:1099:G:N7	24:DA:1100:C:C2	2.71	0.59
1:AA:1181:G:H4'	1:AA:1182:G:OP1	2.03	0.59
24:BA:733:G:OP2	59:BA:3300:HOH:O	2.17	0.59
24:BA:947:A:HO2'	24:BA:984:A:H2	1.51	0.59
24:BA:2734:A:H2'	24:BA:2735:G:C5'	2.33	0.59
24:DA:565:C:OP1	41:DR:79:ARG:CD	2.51	0.59
12:CL:82:ILE:HG12	12:CL:95:TYR:CD1	2.38	0.59
24:BA:2286:G:C8	51:B1:24:LYS:CE	2.86	0.59
1:CA:443:C:H2'	1:CA:444:G:H5'	1.85	0.59
24:BA:943:A:H2'	24:BA:944:C:H5'	1.84	0.59
24:DA:2221:G:C4	24:DA:2222:C:C6	2.91	0.59
57:DA:3185:NMY:H5	57:DA:3185:NMY:H91	1.68	0.59
24:DA:2209:G:C5	24:DA:2210:U:C4	2.90	0.59
25:DB:45:A:P	29:DF:91:ARG:HD3	2.43	0.59
29:DF:91:ARG:HG3	29:DF:92:GLY:N	2.18	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1358:U:H6	1:CA:1359:C:C6	2.20	0.59
21:CU:17:ARG:HG2	21:CU:20:LYS:CD	2.33	0.59
24:BA:555:G:HO2'	24:BA:556:A:P	2.26	0.59
24:BA:1512:C:H2'	24:BA:1513:U:H5'	1.84	0.59
24:BA:2591:C:H2'	24:BA:2592:G:C8	2.38	0.59
22:CV:63:G:H2'	22:CV:64:A:C8	2.38	0.59
1:AA:664:G:C5'	18:AR:53:ARG:NH2	2.66	0.59
42:BS:74:ILE:HD13	42:BS:105:VAL:HG22	1.85	0.59
24:BA:1569:A:N6	24:BA:1570:A:C6	2.71	0.59
24:DA:782:A:O2'	26:DC:223:ALA:HB1	2.02	0.59
24:BA:748:G:C8	42:BS:89:ALA:HB1	2.38	0.59
1:AA:294:U:H2'	1:AA:294:U:O2	2.02	0.59
37:DN:67:PHE:HA	37:DN:70:THR:HG22	1.83	0.59
1:AA:1009:U:O2	1:AA:1021:A:N1	2.35	0.59
55:CY:17:VAL:HG12	55:CY:171:ILE:HG12	1.85	0.59
5:CE:74:VAL:HG23	5:CE:76:LEU:HD12	1.84	0.59
28:DE:73:ILE:HG12	28:DE:73:ILE:O	2.02	0.59
24:DA:846:U:O2	24:DA:846:U:H2'	2.03	0.59
27:BD:133:THR:HG23	27:BD:134:HIS:N	2.18	0.59
53:B3:16:THR:HG22	53:B3:20:GLY:C	2.23	0.59
4:AD:107:PHE:O	4:AD:155:VAL:HG12	2.02	0.59
1:CA:595:A:O2'	1:CA:596:A:OP2	2.21	0.59
17:CQ:45:HIS:CB	17:CQ:71:LYS:HB3	2.33	0.59
27:DD:124:ARG:HG2	27:DD:125:TRP:CD1	2.38	0.59
39:BP:27:VAL:HG21	39:BP:73:PHE:CE1	2.38	0.59
24:DA:1565:C:OP1	26:DC:17:LYS:NZ	2.35	0.59
44:BU:53:GLN:N	44:BU:54:PRO:CD	2.66	0.59
17:CQ:25:ILE:HG22	17:CQ:26:GLU:N	2.17	0.59
1:AA:1287:A:C6	1:AA:1288:A:C6	2.91	0.58
8:AH:70:ALA:O	8:AH:72:VAL:N	2.34	0.58
1:AA:389:A:C2'	1:AA:390:U:H5'	2.31	0.58
1:AA:393:A:C6	1:AA:394:G:N7	2.71	0.58
5:AE:83:HIS:CB	8:AH:96:MET:SD	2.91	0.58
1:CA:407:U:O3'	4:CD:113:GLU:OE1	2.21	0.58
32:DI:111:THR:O	32:DI:112:LYS:C	2.40	0.58
15:CO:89:ARG:CZ	24:DA:714:U:C6	2.86	0.58
24:BA:2725:A:N1	24:BA:2727:A:H1'	2.18	0.58
1:CA:1253:G:H2'	1:CA:1254:A:H8	1.67	0.58
1:CA:194:C:OP1	20:CT:60:ARG:NH2	2.36	0.58
1:CA:1051:C:C4	1:CA:1052:U:C5	2.91	0.58
14:CN:3:GLN:HA	14:CN:6:LYS:HZ3	1.67	0.58
1:AA:1215:G:C4	1:AA:1216:A:C8	2.91	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2297:A:N1	24:BA:2321:U:H5	2.01	0.58
37:BN:52:ILE:HG21	37:BN:94:TYR:CD2	2.38	0.58
24:BA:1381:G:N2	24:BA:1382:G:H1'	2.17	0.58
1:AA:345:C:O4'	1:AA:346:G:N1	2.36	0.58
1:AA:950:U:C6	13:AM:101:ARG:NH2	2.71	0.58
1:CA:560:A:C5	5:CE:128:TYR:CE2	2.91	0.58
24:BA:880:G:N2	24:BA:898:C:C2	2.70	0.58
24:BA:1438:U:C5	24:BA:1552:A:C2	2.90	0.58
1:AA:1010:U:N3	1:AA:1020:G:N2	2.51	0.58
24:BA:2307:G:C2	24:BA:2311:A:N7	2.71	0.58
42:BS:32:ALA:O	42:BS:35:ILE:HB	2.02	0.58
28:DE:1:MET:HE3	28:DE:19:PHE:HB2	1.85	0.58
49:DZ:50:VAL:O	49:DZ:52:PHE:N	2.36	0.58
25:BB:105:G:N2	25:BB:106:G:C4	2.71	0.58
24:DA:2577:A:H5''	24:DA:2578:G:H5'	1.84	0.58
24:BA:1410:G:N2	24:BA:1592:C:N3	2.51	0.58
1:AA:19:A:H5''	5:AE:91:GLY:HA3	1.83	0.58
1:AA:799:G:C2'	1:AA:800:G:H5'	2.32	0.58
11:CK:81:ASN:HB2	11:CK:106:ARG:CZ	2.33	0.58
29:DF:147:ARG:CG	29:DF:148:VAL:N	2.65	0.58
5:CE:46:VAL:O	5:CE:71:MET:HA	2.03	0.58
22:AV:75:C:H3'	22:AV:76:A:H3'	1.85	0.58
48:DY:17:GLU:O	48:DY:20:ASN:N	2.36	0.58
24:BA:2492:U:C2'	24:BA:2493:U:H5'	2.33	0.58
27:DD:85:ALA:O	27:DD:86:GLU:CB	2.50	0.58
1:CA:246:A:C6	1:CA:279:A:N7	2.71	0.58
24:BA:1005:C:O2	24:BA:1005:C:H2'	2.03	0.58
21:AU:4:ILE:N	21:AU:4:ILE:HD13	2.18	0.58
24:DA:1378:A:C8	24:DA:1380:G:N7	2.71	0.58
24:BA:410:G:C2	24:BA:2407:A:N7	2.71	0.58
24:BA:391:A:C5	24:BA:392:U:C5	2.91	0.58
47:BX:4:CYS:SG	47:BX:51:SER:CB	2.91	0.58
8:AH:36:ILE:O	8:AH:39:VAL:N	2.36	0.58
24:BA:729:G:OP1	26:BC:11:GLY:O	2.21	0.58
44:DU:5:ARG:CZ	44:DU:6:ARG:HB3	2.33	0.58
1:AA:540:G:C6	1:AA:541:G:C5	2.91	0.58
1:CA:405:U:OP1	1:CA:406:G:O2'	2.18	0.58
1:CA:430:A:OP1	4:CD:9:LEU:HB3	2.03	0.58
1:AA:680:C:H2'	1:AA:681:A:O4'	2.04	0.58
24:DA:1059:G:H5''	24:DA:1060:U:H2'	1.84	0.58
1:AA:1158:C:C5	1:AA:1160:G:H1'	2.38	0.58
21:CU:37:PHE:O	21:CU:39:GLU:N	2.36	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:CU:41:PRO:O	21:CU:42:THR:C	2.42	0.58
12:CL:65:SER:OG	12:CL:66:TYR:N	2.35	0.58
33:DJ:30:THR:HG22	33:DJ:31:GLU:N	2.19	0.58
24:BA:1378:A:O3'	59:BA:3755:HOH:O	2.17	0.58
1:AA:1133:G:H3'	1:AA:1134:G:C8	2.38	0.58
9:CI:124:ARG:CB	9:CI:125:PRO:CD	2.81	0.58
34:BK:91:SER:OG	34:BK:93:GLN:OE1	2.21	0.58
48:BY:24:GLU:O	48:BY:25:GLN:C	2.42	0.58
24:DA:2482:A:C2	36:DM:51:ARG:NH2	2.71	0.58
24:BA:492:A:OP2	57:BA:3164:NMY:N7	2.35	0.58
33:BJ:29:ALA:HA	33:BJ:32:LEU:CD1	2.34	0.58
24:BA:1341:G:N2	43:BT:84:TYR:HB3	2.18	0.58
24:BA:1448:G:N1	24:BA:1464:G:C2	2.71	0.58
24:DA:735:A:C8	24:DA:736:C:C5	2.91	0.58
26:DC:121:ALA:O	26:DC:122:ALA:O	2.21	0.58
24:DA:1299:G:O2'	24:DA:1640:A:N6	2.36	0.58
45:BV:54:ALA:O	45:BV:55:GLU:C	2.40	0.58
24:DA:953:G:O2'	24:DA:954:G:H5'	2.03	0.58
1:CA:70:U:C6	1:CA:70:U:OP2	2.56	0.58
24:DA:1619:G:O2'	24:DA:1620:G:H5'	2.03	0.58
11:AK:93:ARG:HA	11:AK:93:ARG:NE	2.18	0.58
5:CE:136:VAL:HG23	5:CE:137:VAL:N	2.18	0.58
24:BA:1218:G:N2	24:BA:1232:G:C4	2.71	0.58
26:BC:18:VAL:O	26:BC:18:VAL:HG12	2.03	0.58
3:AC:6:HIS:ND1	14:AN:89:MET:HB3	2.18	0.58
24:DA:146:A:C2	24:DA:147:C:C2	2.91	0.58
25:BB:26:C:C4	25:BB:27:C:C4	2.91	0.58
19:AS:63:THR:N	19:AS:66:MET:SD	2.76	0.58
24:BA:2323:G:C6	24:BA:2324:U:N3	2.70	0.58
24:BA:878:A:C4	24:BA:879:G:H1'	2.38	0.58
15:AO:70:LEU:C	15:AO:78:TYR:HE1	2.07	0.58
11:CK:87:LYS:HA	11:CK:114:THR:HG22	1.84	0.58
1:AA:539:A:C6	1:AA:540:G:C6	2.92	0.58
8:AH:94:LYS:CG	8:AH:98:GLY:HA2	2.34	0.58
1:AA:16:A:C5	1:AA:17:U:C5	2.91	0.58
1:CA:401:C:OP2	4:CD:70:ARG:NE	2.36	0.58
17:CQ:28:PHE:HA	17:CQ:39:LYS:HA	1.85	0.58
1:AA:684:U:H2'	1:AA:685:G:O5'	2.03	0.58
14:AN:73:PHE:C	14:AN:73:PHE:CD1	2.77	0.58
24:DA:1069:A:C5	24:DA:1074:G:C5	2.91	0.58
9:CI:40:GLY:O	9:CI:41:ARG:HB3	2.04	0.58
4:CD:58:LYS:HE2	4:CD:203:LEU:CB	2.33	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:35:VAL:O	20:CT:39:ILE:HD12	2.03	0.58
20:CT:66:LEU:O	20:CT:67:ILE:HB	2.03	0.58
24:BA:604:G:H2'	24:BA:605:G:O5'	2.03	0.58
13:AM:22:ILE:O	13:AM:24:GLY:N	2.36	0.58
24:DA:2523:G:C2'	24:DA:2524:G:H5'	2.34	0.58
24:DA:2314:A:N6	24:DA:2315:G:O6	2.37	0.58
1:CA:1287:A:N6	1:CA:1288:A:N6	2.51	0.58
24:BA:2531:A:H4'	30:BG:156:TYR:CD2	2.38	0.58
1:AA:198:G:C2	1:AA:199:A:C8	2.91	0.58
24:DA:1724:G:N1	24:DA:1736:U:O2	2.37	0.58
24:DA:1176:U:H2'	24:DA:1177:G:C8	2.37	0.58
1:AA:511:C:O2'	1:AA:512:U:OP2	2.20	0.58
27:BD:125:TRP:HB2	27:BD:160:LYS:HG2	1.85	0.58
24:BA:168:G:N2	24:BA:169:G:H1'	2.18	0.58
24:BA:1343:G:C6	24:BA:1344:U:C4	2.90	0.58
2:CB:184:PHE:CZ	2:CB:198:PHE:CD2	2.90	0.58
24:BA:2722:G:H4'	37:BN:4:ARG:HB2	1.84	0.58
1:CA:825:A:O2'	8:CH:13:ARG:NH1	2.36	0.58
24:DA:77:G:O3'	48:DY:2:LYS:CD	2.51	0.58
11:CK:23:ILE:HD12	11:CK:96:THR:HG21	1.85	0.58
22:CV:2:C:C6	22:CV:2:C:OP2	2.56	0.58
38:DO:8:ILE:HD12	38:DO:12:THR:HG23	1.85	0.58
28:BE:164:LEU:HD11	28:BE:167:VAL:HB	1.84	0.58
24:BA:1711:A:C2	24:BA:1748:C:C2	2.91	0.58
26:BC:180:MET:O	26:BC:267:VAL:HB	2.03	0.58
49:DZ:6:ILE:HG22	49:DZ:54:VAL:CG2	2.33	0.58
24:BA:1946:U:O2'	24:BA:1947:C:H5'	2.03	0.58
41:BR:21:ARG:NH2	41:BR:93:PHE:CE2	2.71	0.58
3:AC:154:SER:HB3	3:AC:165:THR:HG22	1.84	0.58
24:BA:2291:U:H2'	24:BA:2292:U:C6	2.38	0.58
25:BB:8:C:OP1	38:BO:29:HIS:CD2	2.56	0.58
37:BN:117:ASP:O	37:BN:118:ARG:CB	2.50	0.58
24:DA:1068:G:O6	24:DA:1069:A:C6	2.57	0.58
1:AA:1156:G:H5''	1:AA:1157:A:OP2	2.04	0.58
1:CA:1223:C:P	1:CA:1224:U:H2'	2.43	0.58
1:CA:375:U:C2'	1:CA:376:G:H5''	2.33	0.58
1:CA:115:G:H4'	1:CA:116:A:O5'	2.03	0.58
1:CA:982:U:H4'	1:CA:983:A:C5'	2.34	0.58
14:CN:22:LYS:HG2	14:CN:23:ARG:N	2.18	0.58
1:AA:992:U:C6	1:AA:1043:G:N7	2.70	0.58
1:CA:966:G:C2'	9:CI:129:LYS:HG2	2.33	0.58
1:CA:590:U:H2'	1:CA:591:U:C6	2.39	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:114:LYS:CB	13:AM:115:PRO:CD	2.79	0.58
24:BA:485:C:N3	24:BA:496:G:C2	2.71	0.58
24:DA:783:A:H2'	24:DA:784:G:H4'	1.83	0.58
24:DA:408:G:C2	24:DA:420:C:O2	2.57	0.58
1:AA:293:G:C4	1:AA:305:G:N2	2.71	0.58
12:AL:9:ARG:O	12:AL:10:LYS:CB	2.50	0.58
18:AR:33:ILE:HD12	18:AR:34:THR:O	2.03	0.58
24:DA:1502:A:C2	24:DA:1503:A:C4	2.92	0.58
24:BA:2562:U:C4	24:BA:2563:U:C5	2.91	0.58
1:CA:1092:A:C4	1:CA:1183:U:C4	2.91	0.58
36:DM:134:THR:OG1	45:DV:79:ARG:NH2	2.36	0.58
1:CA:639:G:C2	1:CA:640:A:C8	2.91	0.58
33:DJ:69:ARG:HA	33:DJ:89:PHE:CD2	2.39	0.58
36:BM:64:TRP:O	36:BM:65:ILE:O	2.21	0.58
17:CQ:11:ARG:HD2	17:CQ:56:GLY:HA2	1.85	0.58
24:DA:597:G:C6	24:DA:598:U:C4	2.92	0.58
24:DA:581:C:H2'	24:DA:582:A:C8	2.38	0.58
24:DA:1511:G:C2	24:DA:1512:C:C2	2.91	0.58
37:DN:117:ASP:O	37:DN:119:SER:N	2.36	0.58
24:BA:1974:C:C4	24:BA:1975:G:N7	2.71	0.58
1:CA:1041:G:C6	1:CA:1042:A:C5	2.91	0.58
34:DK:4:GLU:O	34:DK:5:GLN:CB	2.51	0.58
24:BA:1335:C:P	43:BT:68:LYS:HE3	2.44	0.58
24:DA:71:A:OP1	24:DA:72:U:H2'	2.04	0.58
24:DA:1947:C:C2	24:DA:1960:A:C2	2.91	0.58
1:AA:812:G:OP1	1:AA:903:G:H1'	2.03	0.58
24:BA:2294:G:H5''	38:BO:10:ARG:NH1	2.18	0.58
1:CA:793:U:H3'	1:CA:794:A:H5''	1.84	0.58
1:CA:795:C:HO2'	11:CK:128:ARG:HG3	1.68	0.58
5:AE:114:VAL:CG2	5:AE:115:LEU:N	2.66	0.58
8:AH:82:GLY:O	8:AH:83:LEU:CB	2.51	0.58
4:CD:164:GLN:CD	4:CD:165:ARG:N	2.57	0.58
1:CA:675:A:O2'	11:CK:116:ILE:O	2.17	0.58
1:AA:767:A:O2'	1:AA:1524:C:O2	2.21	0.58
1:CA:946:A:H2'	1:CA:947:G:C8	2.38	0.58
24:BA:674:G:C1'	28:BE:69:ARG:HD3	2.32	0.58
1:AA:1126:U:O2	1:AA:1126:U:O2'	2.18	0.58
24:DA:1362:C:H2'	24:DA:1363:C:O5'	2.04	0.58
1:CA:258:G:C5	1:CA:259:G:C8	2.90	0.58
13:AM:22:ILE:C	13:AM:22:ILE:HD12	2.24	0.58
24:DA:575:A:C2'	24:DA:576:U:H5'	2.33	0.58
1:CA:859:G:H2'	1:CA:860:A:C8	2.39	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1394:A:H4'	1:AA:1395:C:OP2	2.02	0.58
28:DE:28:VAL:O	28:DE:32:VAL:HG13	2.03	0.58
34:BK:88:ASN:O	34:BK:88:ASN:CG	2.40	0.58
36:DM:53:MET:O	36:DM:56:ALA:HB3	2.03	0.58
24:BA:1183:U:H2'	24:BA:1184:U:C6	2.38	0.58
24:BA:480:A:O3'	44:BU:43:LYS:CG	2.51	0.58
1:CA:775:G:C2	1:CA:776:G:C5	2.91	0.58
1:CA:719:C:H1'	18:CR:38:LYS:CG	2.33	0.58
33:BJ:56:VAL:CG2	33:BJ:124:VAL:HG13	2.32	0.58
7:CG:48:GLU:OE2	7:CG:49:THR:OG1	2.21	0.58
24:BA:2820:A:HO2'	24:BA:2821:A:P	2.26	0.58
1:AA:1207:G:H2'	1:AA:1208:C:O4'	2.02	0.58
1:AA:451:A:H1'	1:AA:452:A:N7	2.18	0.58
24:BA:2310:C:H2'	24:BA:2311:A:H5''	1.84	0.58
1:AA:695:A:C6	1:AA:696:A:C6	2.91	0.58
55:CY:13:MET:HG3	55:CY:131:VAL:HG11	1.84	0.58
28:DE:18:THR:HG22	28:DE:19:PHE:CE2	2.38	0.58
24:DA:285:G:C6	24:DA:356:G:C6	2.92	0.58
1:AA:947:G:OP2	13:AM:107:ARG:NE	2.36	0.58
24:BA:2861:U:O2'	24:BA:2862:G:H5'	2.03	0.58
1:AA:442:G:C6	1:AA:443:C:C4	2.92	0.58
24:BA:1071:G:C8	24:BA:1089:A:C5	2.91	0.58
24:BA:2841:C:C2	24:BA:2877:G:N2	2.72	0.58
39:BP:74:GLN:O	39:BP:77:SER:OG	2.20	0.58
41:BR:1:MET:SD	41:BR:43:ASN:HB2	2.43	0.58
27:DD:186:LEU:HD21	39:DP:3:ILE:HG21	1.86	0.58
1:CA:370:C:C4	1:CA:371:A:N7	2.72	0.58
24:DA:2017:U:OP2	59:DA:3272:HOH:O	2.17	0.58
6:AF:1:MET:SD	6:AF:66:ALA:HA	2.43	0.58
2:CB:166:ALA:HB3	2:CB:191:SER:CB	2.33	0.58
30:DG:87:GLN:C	30:DG:88:LEU:HD12	2.24	0.58
24:BA:199:A:C8	24:BA:2433:A:N6	2.71	0.58
2:CB:119:THR:O	2:CB:120:GLN:HB3	2.02	0.58
35:BL:129:LYS:HD3	35:BL:130:GLY:N	2.18	0.58
24:DA:1921:G:O6	57:DA:3184:NMY:C7	2.51	0.58
44:DU:82:VAL:CG1	44:DU:83:GLY:N	2.67	0.58
1:AA:1220:G:HO2'	19:AS:36:ARG:NH2	1.98	0.58
19:AS:73:GLU:OE2	19:AS:74:PHE:CD2	2.57	0.58
1:CA:706:A:O2'	11:CK:33:THR:HG21	2.03	0.58
11:CK:33:THR:HG22	11:CK:44:TRP:CD2	2.38	0.58
24:BA:2467:C:N4	24:BA:2468:A:C6	2.72	0.58
1:AA:32:A:H2	1:AA:33:A:C5	2.21	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:113:GLU:N	4:CD:113:GLU:OE1	2.37	0.58
1:CA:579:A:N3	1:CA:580:C:C6	2.72	0.58
24:DA:1421:G:C2	24:DA:1422:G:C8	2.91	0.58
9:AI:51:PRO:O	9:AI:55:VAL:HG12	2.02	0.58
1:CA:958:A:C5	19:CS:55:ARG:CZ	2.87	0.58
57:BA:3165:NMY:O14	57:BA:3165:NMY:O22	2.20	0.58
10:CJ:73:LEU:O	10:CJ:74:VAL:CG1	2.51	0.58
1:CA:484:G:H4'	1:CA:485:U:C5'	2.33	0.58
24:BA:611:C:C5	24:BA:612:G:C5	2.92	0.58
24:BA:1355:G:C6	24:BA:1377:G:N2	2.71	0.58
24:DA:2211:A:O2'	24:DA:2212:A:P	2.60	0.58
1:CA:1354:U:O2'	1:CA:1355:G:P	2.60	0.58
26:DC:175:LEU:C	26:DC:177:SER:H	2.06	0.58
1:CA:1349:A:P	9:CI:120:LYS:CE	2.91	0.58
4:CD:64:ILE:CG2	4:CD:65:TYR:CD2	2.87	0.58
1:CA:844:G:H2'	1:CA:845:A:H5''	1.84	0.58
1:AA:846:G:C2	1:AA:847:G:N7	2.72	0.58
1:AA:891:U:H2'	1:AA:892:A:H5'	1.85	0.58
24:BA:2370:G:H2'	24:BA:2371:G:O4'	2.04	0.58
1:AA:149:A:C2	1:AA:150:U:C2	2.91	0.58
1:AA:53:A:C2	1:AA:359:G:C2	2.91	0.58
35:DL:109:LYS:NZ	35:DL:128:THR:HG22	2.19	0.58
42:DS:73:LYS:HB2	42:DS:106:VAL:HG11	1.84	0.58
28:BE:113:VAL:CG2	28:BE:114:ARG:N	2.66	0.58
24:BA:1799:G:P	26:BC:257:ARG:HH22	2.26	0.58
36:DM:57:VAL:HG12	36:DM:112:LEU:HD23	1.85	0.58
38:BO:40:ILE:HD12	38:BO:44:GLY:HA2	1.85	0.58
24:DA:77:G:O3'	48:DY:2:LYS:NZ	2.36	0.58
1:CA:1107:C:C3'	1:CA:1108:G:H5''	2.34	0.58
8:CH:95:VAL:HG22	8:CH:128:TYR:CE2	2.38	0.58
26:DC:57:HIS:CD2	26:DC:58:LYS:N	2.72	0.58
24:BA:1429:G:C5	24:BA:1568:G:C6	2.90	0.58
24:DA:1320:C:N3	24:DA:1331:G:O6	2.35	0.58
1:CA:246:A:N6	1:CA:279:A:C8	2.71	0.58
17:CQ:48:ASP:OD1	17:CQ:48:ASP:N	2.35	0.58
33:DJ:36:LEU:O	33:DJ:51:GLY:HA3	2.02	0.58
31:BH:8:LYS:O	31:BH:13:GLY:HA3	2.03	0.58
16:AP:68:SER:OG	16:AP:69:ASP:N	2.36	0.58
24:BA:2293:G:H5''	38:BO:94:ARG:NH2	2.18	0.58
15:AO:71:LYS:N	15:AO:78:TYR:CE1	2.71	0.58
1:CA:701:U:O2	1:CA:703:G:N1	2.37	0.58
1:CA:809:G:H2'	1:CA:810:C:O5'	2.03	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:728:A:C8	15:CO:54:ARG:NE	2.72	0.58
15:CO:70:LEU:HD13	15:CO:78:TYR:CD1	2.38	0.58
57:AA:1656:NMY:O17	57:AA:1656:NMY:N19	2.37	0.58
16:CP:67:ILE:N	16:CP:67:ILE:HD12	2.18	0.58
40:BQ:37:ALA:O	40:BQ:40:LYS:HG3	2.04	0.58
15:CO:7:ALA:O	15:CO:8:THR:CB	2.51	0.58
20:CT:67:ILE:CG2	20:CT:71:LYS:HB3	2.34	0.58
18:CR:31:ASN:O	18:CR:32:TYR:CB	2.51	0.58
24:DA:1386:C:H2'	24:DA:1387:A:C8	2.39	0.58
29:DF:121:PHE:CE1	29:DF:127:TYR:CE1	2.91	0.58
21:CU:10:GLU:CB	21:CU:11:PRO:HD3	2.34	0.58
24:DA:569:U:H2'	24:DA:570:G:O5'	2.03	0.58
24:BA:1315:C:C2	24:BA:1338:G:N2	2.72	0.58
28:BE:84:THR:CG2	28:BE:85:PHE:CD2	2.86	0.58
1:AA:220:G:C6	1:AA:221:C:C4	2.92	0.58
7:CG:136:LYS:O	7:CG:139:GLU:N	2.35	0.58
24:DA:2484:G:P	36:DM:44:ARG:NH2	2.77	0.58
35:DL:110:VAL:CG1	35:DL:127:VAL:HG22	2.34	0.58
2:AB:218:ALA:HA	2:AB:221:VAL:CG1	2.33	0.58
27:BD:159:LYS:HD2	27:BD:160:LYS:N	2.19	0.58
24:BA:1343:G:C6	24:BA:1344:U:O4	2.57	0.58
24:BA:1403:A:C2	24:BA:1404:C:C2	2.91	0.58
24:BA:1557:C:C2	24:BA:1558:C:C5	2.92	0.58
1:CA:1206:G:C6	1:CA:1207:G:C5	2.92	0.58
24:BA:1445:G:C2	24:BA:1446:C:C2	2.90	0.58
1:AA:445:G:C6	1:AA:446:G:C5	2.91	0.58
26:DC:230:PRO:O	26:DC:241:LYS:HD3	2.03	0.58
24:BA:2886:A:C4	24:BA:2887:A:C8	2.91	0.58
24:BA:1408:G:C6	24:BA:1409:U:C4	2.92	0.58
13:AM:92:ARG:NH2	24:BA:885:C:O3'	2.36	0.58
24:BA:238:C:H2'	24:BA:239:C:O5'	2.03	0.58
25:DB:8:C:O3'	38:DO:25:ARG:NH1	2.36	0.58
24:BA:1934:C:H4'	24:BA:1974:C:O3'	2.03	0.58
36:DM:28:PHE:O	36:DM:29:GLY:O	2.22	0.58
27:DD:35:THR:HA	27:DD:71:ALA:HB1	1.86	0.58
31:BH:62:LEU:HD13	31:BH:63:ALA:N	2.19	0.58
48:DY:39:GLN:HB3	48:DY:42:LEU:HD13	1.86	0.58
49:DZ:31:ILE:O	49:DZ:31:ILE:HG13	2.01	0.58
24:BA:2403:C:O2	24:BA:2403:C:H2'	2.02	0.58
34:BK:118:LEU:O	34:BK:119:ALA:CB	2.51	0.58
2:CB:93:ASN:HB3	2:CB:94:HIS:CE1	2.39	0.58
1:AA:1322:C:O4'	1:AA:1322:C:O2	2.20	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2410:G:H2'	24:BA:2411:A:O4'	2.03	0.58
36:DM:81:ARG:NH2	36:DM:82:MET:N	2.51	0.58
1:AA:623:C:N3	1:AA:624:C:C5	2.71	0.58
8:AH:101:ILE:CG1	8:AH:112:THR:HB	2.34	0.58
20:AT:5:LYS:CG	20:AT:5:LYS:O	2.52	0.58
4:CD:34:ILE:HD13	4:CD:35:GLU:N	2.19	0.58
1:CA:1333:A:H2'	1:CA:1334:G:O4'	2.04	0.58
24:DA:1080:A:C2	24:DA:1081:U:C6	2.92	0.58
32:DI:125:THR:OG1	32:DI:126:ARG:N	2.37	0.58
1:AA:1104:G:C2	1:AA:1105:A:C4	2.92	0.58
55:CY:159:ASP:HA	55:CY:162:LYS:CG	2.34	0.58
24:BA:359:G:C2	24:BA:360:U:C2	2.92	0.58
12:CL:86:ARG:O	12:CL:87:VAL:HG13	2.04	0.58
24:DA:2206:C:O2'	24:DA:2207:C:H5'	2.03	0.58
25:DB:45:A:OP1	29:DF:91:ARG:CD	2.51	0.58
21:AU:33:ARG:CZ	23:AX:6:G:OP1	2.51	0.58
38:DO:34:HIS:CE1	38:DO:54:VAL:HG13	2.39	0.58
24:DA:2311:A:C2	29:DF:40:GLY:CA	2.87	0.58
1:CA:934:C:O2'	1:CA:1344:C:OP2	2.22	0.58
24:DA:671:C:H5'	24:DA:671:C:H6	1.69	0.58
1:AA:213:G:C8	1:AA:214:C:C5	2.91	0.58
55:CY:82:ILE:HG13	55:CY:83:MET:N	2.19	0.58
30:BG:82:PHE:N	30:BG:134:GLY:O	2.37	0.58
1:CA:1539:C:O2	23:CX:4:G:N1	2.37	0.58
24:BA:2011:U:C5	24:BA:2012:G:N9	2.72	0.58
34:DK:103:VAL:HG13	34:DK:107:LEU:HD13	1.86	0.58
1:AA:150:U:H2'	1:AA:151:A:C8	2.39	0.58
33:BJ:56:VAL:CG2	33:BJ:124:VAL:HA	2.33	0.58
24:BA:852:U:C5	24:BA:853:C:C5	2.91	0.58
1:CA:1112:C:C5'	1:CA:1113:C:OP2	2.51	0.58
24:DA:2549:G:C2	24:DA:2550:G:C5	2.92	0.58
24:BA:1782:U:O5'	24:BA:1782:U:H6	1.87	0.58
26:BC:175:LEU:O	26:BC:178:GLY:N	2.37	0.58
1:AA:445:G:N1	1:AA:446:G:C5	2.72	0.58
24:BA:118:A:C8	24:BA:119:A:N7	2.72	0.58
24:DA:1024:G:C6	24:DA:1025:G:C6	2.92	0.58
27:DD:24:VAL:HG21	27:DD:188:LEU:HB3	1.83	0.58
24:BA:1709:U:C2	24:BA:1750:G:C2	2.92	0.58
42:DS:55:ILE:HD13	42:DS:66:ILE:CG2	2.34	0.58
27:BD:106:LYS:HB2	27:BD:206:ALA:HB2	1.85	0.58
24:DA:1438:U:C5	24:DA:1552:A:C2	2.92	0.58
24:DA:665:U:C2'	24:DA:666:A:H5'	2.33	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:CY:45:TYR:OH	55:CY:73:SER:O	2.19	0.58
30:DG:24:THR:O	30:DG:25:ILE:HD13	2.03	0.58
3:CC:38:LYS:NZ	3:CC:94:ILE:O	2.31	0.58
24:DA:2304:G:H4'	29:DF:128:SER:O	2.03	0.58
16:CP:36:VAL:O	16:CP:36:VAL:HG23	2.03	0.58
25:BB:40:U:N3	25:BB:44:G:OP2	2.35	0.58
24:BA:410:G:N3	24:BA:2407:A:N7	2.52	0.58
8:AH:15:ARG:NE	8:AH:75:ILE:HG22	2.19	0.58
1:AA:376:G:N3	1:AA:389:A:C2	2.71	0.58
4:AD:51:TYR:CD1	4:AD:51:TYR:C	2.77	0.58
1:AA:927:G:O2'	1:AA:1503:A:N6	2.36	0.58
24:DA:805:G:OP2	24:DA:806:C:N4	2.37	0.58
24:BA:2110:G:N2	24:BA:2180:U:O2	2.37	0.58
40:DQ:40:LYS:HG3	40:DQ:41:ALA:N	2.19	0.58
48:BY:49:ASP:HA	48:BY:52:ARG:HG2	1.85	0.58
19:CS:62:VAL:CG1	19:CS:66:MET:SD	2.91	0.58
24:BA:1378:A:O2'	24:BA:1380:G:N7	2.25	0.58
22:CV:67:C:C2	22:CV:68:C:C5	2.92	0.58
24:BA:547:A:C8	24:BA:548:G:N3	2.71	0.58
24:DA:2228:G:H2'	24:DA:2229:U:C6	2.39	0.58
9:CI:124:ARG:HB2	9:CI:125:PRO:HD2	1.86	0.58
1:AA:858:G:C6	1:AA:869:G:H2'	2.39	0.58
2:AB:19:GLN:NE2	2:AB:204:ASP:OD1	2.37	0.58
16:CP:56:ARG:O	16:CP:59:HIS:HB3	2.03	0.58
24:DA:819:A:OP2	24:DA:1187:G:N2	2.29	0.58
24:BA:1499:C:H2'	24:BA:1500:G:O4'	2.04	0.58
33:BJ:15:TRP:CZ2	33:BJ:53:TYR:CD2	2.92	0.58
24:DA:142:A:H2'	24:DA:143:C:O5'	2.03	0.58
1:AA:95:C:H2'	1:AA:96:U:H5'	1.86	0.58
24:DA:866:A:N7	24:DA:914:G:C6	2.71	0.58
33:DJ:23:LYS:CE	33:DJ:142:ILE:HG22	2.34	0.58
1:CA:939:G:C2	1:CA:940:C:C6	2.92	0.58
4:AD:138:SER:CB	4:AD:139:PRO:CD	2.82	0.58
24:DA:559:G:C6	24:DA:560:C:C4	2.92	0.58
24:DA:2127:G:O2'	24:DA:2128:G:C8	2.56	0.58
1:AA:86:G:O2'	1:AA:87:C:O5'	2.19	0.58
1:AA:1275:A:C4	1:AA:1276:G:C8	2.91	0.58
48:DY:21:LEU:HA	48:DY:25:GLN:CB	2.34	0.58
33:BJ:100:VAL:HG13	33:BJ:101:ILE:N	2.19	0.58
27:BD:3:GLY:C	27:BD:82:PHE:CE2	2.77	0.58
24:DA:579:G:C8	24:DA:2017:U:C4	2.92	0.58
24:DA:2303:G:C6	24:DA:2304:G:N7	2.72	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1841:U:C2	24:DA:1842:G:C8	2.91	0.58
30:BG:4:ALA:HB2	30:BG:65:GLY:N	2.19	0.58
6:AF:88:MET:HE2	6:AF:90:MET:HG2	1.85	0.58
41:DR:27:ILE:HB	41:DR:63:VAL:HG21	1.86	0.58
43:BT:64:LYS:HA	43:BT:79:ASP:OD1	2.03	0.58
3:CC:189:ALA:O	3:CC:190:HIS:CB	2.51	0.58
53:B3:57:VAL:O	53:B3:60:CYS:N	2.37	0.58
25:BB:16:G:N2	25:BB:69:G:H1'	2.19	0.58
24:BA:225:C:H2'	24:BA:226:A:O4'	2.04	0.58
1:AA:499:A:C5	1:AA:547:A:N7	2.72	0.58
4:AD:168:PRO:HG2	4:AD:171:LEU:HD11	1.85	0.58
1:CA:622:A:H5''	1:CA:623:C:OP2	2.03	0.58
1:CA:737:C:O2'	1:CA:738:C:P	2.62	0.58
1:CA:1327:C:C4	1:CA:1328:C:N4	2.72	0.58
11:CK:36:ASP:OD2	11:CK:38:GLN:NE2	2.37	0.58
1:AA:1068:G:O2'	1:AA:1191:A:N1	2.21	0.58
1:AA:901:A:C5'	1:AA:902:G:OP2	2.49	0.58
19:CS:40:ILE:CG1	19:CS:67:VAL:HA	2.33	0.58
24:DA:2705:A:H2'	24:DA:2706:A:O4'	2.03	0.58
2:AB:54:LEU:O	2:AB:57:LEU:HD11	2.03	0.58
10:CJ:5:ARG:O	10:CJ:6:ILE:HB	2.04	0.58
21:CU:14:VAL:O	21:CU:16:LEU:HD23	2.03	0.58
24:BA:2658:C:P	30:BG:159:LYS:NZ	2.77	0.58
6:CF:18:VAL:O	6:CF:21:MET:CB	2.52	0.58
33:BJ:29:ALA:HA	33:BJ:32:LEU:HD12	1.85	0.58
24:BA:2704:C:H2'	24:BA:2705:A:O4'	2.04	0.58
10:AJ:18:ILE:O	10:AJ:22:THR:HB	2.04	0.58
24:BA:1601:G:OP1	43:BT:62:VAL:HG11	2.04	0.58
46:BW:24:LYS:CD	46:BW:36:ILE:O	2.52	0.58
24:BA:1760:C:C5	24:BA:1761:C:C4	2.92	0.58
1:CA:6:G:HO2'	1:CA:7:A:P	2.26	0.58
1:CA:456:A:N6	1:CA:476:U:N3	2.51	0.58
5:CE:44:GLY:O	5:CE:45:ARG:HG2	2.04	0.58
27:DD:196:ALA:O	27:DD:198:GLY:N	2.37	0.58
26:BC:24:HIS:N	26:BC:80:LEU:O	2.36	0.58
3:CC:107:ARG:O	3:CC:108:LYS:HD2	2.04	0.58
24:BA:2799:A:C4	24:BA:2801:G:C8	2.91	0.58
52:D2:43:THR:O	52:D2:44:VAL:CB	2.52	0.58
34:BK:7:MET:CG	34:BK:20:MET:HB2	2.34	0.58
24:DA:1190:G:H5''	35:DL:32:GLY:HA2	1.85	0.58
24:BA:1940:U:C2	24:BA:1965:C:OP2	2.56	0.58
24:DA:1444:G:N2	24:DA:1445:G:H1'	2.19	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:38:VAL:HG13	2:CB:38:VAL:O	2.04	0.58
1:CA:972:C:P	10:CJ:59:LYS:HD2	2.43	0.58
24:BA:2339:C:H2'	24:BA:2340:A:C8	2.39	0.58
10:AJ:90:LEU:HD12	10:AJ:91:ASP:N	2.19	0.58
24:DA:1831:G:H2'	24:DA:1832:C:H6	1.68	0.58
26:BC:265:PHE:CD1	26:BC:265:PHE:N	2.72	0.58
24:BA:900:A:C8	24:BA:901:C:C5	2.92	0.58
38:BO:6:ALA:O	38:BO:7:ARG:C	2.42	0.57
22:CV:37:A:C4	22:CV:38:A:C8	2.92	0.57
1:AA:32:A:C5'	1:AA:398:U:HO2'	2.17	0.57
1:AA:3:A:P	4:AD:83:LYS:NZ	2.77	0.57
5:AE:85:VAL:HG12	5:AE:96:MET:HG3	1.85	0.57
4:CD:155:VAL:O	4:CD:158:ALA:N	2.37	0.57
1:CA:582:C:C2	1:CA:583:A:C8	2.92	0.57
1:CA:741:G:H2'	1:CA:742:G:C8	2.39	0.57
13:CM:75:MET:SD	29:DF:111:ARG:HB2	2.44	0.57
24:BA:805:G:OP2	35:BL:41:ARG:HD3	2.04	0.57
1:AA:1144:G:C2	1:AA:1145:A:C2	2.92	0.57
9:AI:95:ARG:HA	9:AI:98:LEU:HB3	1.86	0.57
24:DA:544:C:H3'	24:DA:545:U:C6	2.38	0.57
1:CA:1138:G:H5'	1:CA:1139:G:OP2	2.04	0.57
2:CB:96:TRP:CD1	2:CB:172:ALA:HB2	2.39	0.57
29:DF:126:ASN:N	29:DF:126:ASN:OD1	2.37	0.57
1:CA:203:G:N2	1:CA:215:C:O2	2.37	0.57
24:BA:2740:A:C2	24:BA:2764:A:C4	2.91	0.57
42:BS:74:ILE:HD12	42:BS:104:THR:O	2.04	0.57
24:BA:167:A:N7	24:BA:168:G:C8	2.72	0.57
42:DS:84:ARG:HB3	42:DS:96:ILE:CG2	2.33	0.57
42:DS:20:VAL:HG11	42:DS:44:ALA:HA	1.86	0.57
25:DB:53:A:C2	25:DB:54:G:C8	2.92	0.57
6:CF:98:GLU:HG2	6:CF:99:ALA:N	2.19	0.57
37:BN:100:CYS:N	37:BN:110:MET:O	2.37	0.57
27:DD:22:ILE:HD11	27:DD:190:LYS:HG3	1.86	0.57
1:CA:174:A:C4	1:CA:175:C:C6	2.92	0.57
12:AL:37:VAL:HG11	12:AL:75:GLN:HA	1.86	0.57
52:B2:16:HIS:CB	52:B2:21:ARG:NH1	2.67	0.57
24:DA:725:G:C6	24:DA:726:G:N1	2.72	0.57
26:BC:173:LEU:HD13	26:BC:173:LEU:N	2.19	0.57
8:CH:73:GLU:O	8:CH:74:SER:HB3	2.04	0.57
24:DA:273:G:N2	24:DA:365:U:C2	2.72	0.57
24:BA:770:G:N2	24:BA:771:G:H1'	2.19	0.57
18:AR:56:ALA:O	18:AR:59:ILE:HG23	2.04	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:67:ILE:HG22	12:AL:97:THR:CB	2.34	0.57
3:AC:154:SER:CB	3:AC:165:THR:HG22	2.34	0.57
24:BA:1335:C:OP1	43:BT:68:LYS:HE3	2.04	0.57
43:BT:69:ARG:NH2	59:BT:201:HOH:O	2.37	0.57
24:DA:231:A:C6	24:DA:232:G:C2	2.92	0.57
19:AS:41:PHE:CD1	19:AS:42:PRO:HD2	2.39	0.57
31:BH:4:ILE:HD11	31:BH:17:ASP:N	2.19	0.57
24:DA:981:A:OP2	24:DA:982:C:N4	2.33	0.57
11:AK:61:PHE:O	11:AK:65:VAL:HG12	2.04	0.57
1:CA:223:A:C5	1:CA:224:U:C5	2.92	0.57
31:DH:96:THR:HA	31:DH:99:ILE:HG22	1.86	0.57
24:BA:1432:G:N2	24:BA:1433:A:C4	2.71	0.57
24:DA:2349:G:OP1	53:D3:44:ARG:NH2	2.35	0.57
1:AA:1302:C:OP1	13:AM:13:LYS:NZ	2.32	0.57
1:AA:1286:U:H2'	1:AA:1286:U:O2	2.03	0.57
1:AA:1374:A:N3	1:AA:1375:A:C8	2.72	0.57
1:AA:1014:A:O4'	19:AS:34:TRP:CZ3	2.57	0.57
38:BO:67:ASN:N	38:BO:67:ASN:OD1	2.37	0.57
1:CA:49:U:C4	1:CA:364:A:C5	2.92	0.57
1:AA:401:C:O2'	1:AA:402:G:H5'	2.03	0.57
1:AA:55:A:C6	31:DH:91:PHE:CG	2.92	0.57
20:AT:7:ALA:C	20:AT:9:LYS:N	2.57	0.57
1:CA:674:G:H2'	1:CA:675:A:H8	1.68	0.57
28:DE:176:ASP:OD1	28:DE:179:SER:N	2.36	0.57
13:CM:95:LEU:O	13:CM:109:ARG:NH2	2.38	0.57
29:DF:134:GLN:HG3	29:DF:135:ILE:N	2.19	0.57
15:CO:89:ARG:NH2	24:DA:716:A:O5'	2.37	0.57
1:CA:1225:A:H4'	19:CS:78:ARG:HD3	1.86	0.57
24:DA:832:U:O2'	24:DA:833:A:H5'	2.04	0.57
24:BA:2015:A:C2	50:B0:2:VAL:HG21	2.39	0.57
1:CA:1342:C:C2'	1:CA:1343:G:H5'	2.34	0.57
24:BA:2748:A:HO2'	24:BA:2749:A:P	2.28	0.57
24:BA:2267:A:H5''	24:BA:2268:A:H5'	1.87	0.57
31:BH:25:TYR:N	31:BH:25:TYR:CD1	2.70	0.57
6:AF:96:VAL:HG23	6:AF:97:THR:H	1.68	0.57
24:DA:2013:A:H2'	24:DA:2014:A:C5'	2.34	0.57
24:DA:911:A:N6	36:DM:11:LYS:O	2.37	0.57
26:DC:114:GLN:O	26:DC:115:ILE:HG23	2.04	0.57
36:BM:81:ARG:O	36:BM:82:MET:CB	2.53	0.57
1:AA:455:G:N2	1:AA:478:A:C2	2.72	0.57
24:DA:227:A:C4	24:DA:2407:A:H1'	2.38	0.57
1:AA:294:U:H5''	1:AA:295:C:OP2	2.04	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:303:A:C5	1:AA:304:U:C6	2.92	0.57
1:AA:309:A:N3	1:AA:310:G:C8	2.72	0.57
1:AA:882:C:O2	1:AA:882:C:H2'	2.03	0.57
15:AO:11:ILE:O	15:AO:14:GLU:N	2.36	0.57
8:CH:51:VAL:O	8:CH:52:GLU:C	2.40	0.57
24:BA:89:A:C2	24:BA:90:U:C5	2.92	0.57
24:DA:387:U:C5	24:DA:388:G:C6	2.92	0.57
1:AA:110:C:C2	1:AA:111:G:C8	2.92	0.57
19:AS:35:SER:HB3	19:AS:38:SER:OG	2.04	0.57
24:DA:704:G:N3	24:DA:726:G:C2	2.73	0.57
24:BA:2520:C:C2'	24:BA:2521:C:H5'	2.35	0.57
1:AA:137:U:H2'	1:AA:138:G:H8	1.67	0.57
24:BA:1563:U:H2'	24:BA:1564:C:C6	2.39	0.57
1:AA:1261:A:H1'	1:AA:1283:U:H5''	1.86	0.57
1:AA:460:A:C2	1:AA:461:A:C4	2.92	0.57
24:BA:2711:A:OP2	59:BA:3553:HOH:O	2.17	0.57
24:DA:170:U:N3	24:DA:171:U:C5	2.72	0.57
27:BD:27:ILE:HD11	27:BD:187:LEU:HD23	1.86	0.57
25:BB:31:C:OP1	29:BF:29:ARG:NH2	2.37	0.57
53:D3:31:ILE:HD12	53:D3:32:LEU:N	2.19	0.57
4:AD:93:LEU:C	4:AD:95:GLU:N	2.56	0.57
1:CA:927:G:OP2	1:CA:1503:A:C4	2.57	0.57
4:CD:25:VAL:HG22	4:CD:26:ARG:HG3	1.86	0.57
23:AX:11:A:H2'	23:AX:12:A:H5'	1.85	0.57
1:AA:182:A:N7	1:AA:184:G:C5	2.72	0.57
19:CS:40:ILE:HG22	19:CS:70:LYS:HA	1.86	0.57
22:CV:15:G:H2'	22:CV:16:U:C2	2.39	0.57
16:CP:71:VAL:O	16:CP:75:ILE:N	2.37	0.57
1:CA:1145:A:O2'	1:CA:1146:A:OP2	2.21	0.57
8:CH:80:ARG:HB2	8:CH:81:PRO:HD2	1.87	0.57
1:CA:872:A:C4	1:CA:874:G:C8	2.93	0.57
24:BA:606:U:OP2	28:BE:99:LYS:NZ	2.30	0.57
24:DA:1867:G:O2'	24:DA:1868:C:H5'	2.04	0.57
24:DA:1866:A:N1	24:DA:1876:A:C8	2.73	0.57
24:DA:2728:U:O2'	24:DA:2729:G:OP2	2.21	0.57
24:BA:2281:A:N1	24:BA:2282:G:C5	2.72	0.57
13:AM:44:LYS:HE2	13:AM:44:LYS:HA	1.84	0.57
1:CA:1349:A:OP2	9:CI:120:LYS:CE	2.52	0.57
24:DA:1001:A:OP2	59:DA:3737:HOH:O	2.17	0.57
1:CA:341:C:C2	1:CA:349:A:C2	2.92	0.57
26:DC:140:VAL:HG22	26:DC:190:THR:O	2.04	0.57
49:BZ:9:THR:HG22	49:BZ:54:VAL:N	2.19	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2264:C:H2'	24:BA:2265:U:O5'	2.04	0.57
25:DB:30:C:H2'	25:DB:31:C:H5'	1.86	0.57
29:DF:9:ASP:O	29:DF:13:LYS:HE2	2.04	0.57
24:BA:1515:A:H1'	24:BA:1557:C:C1'	2.34	0.57
2:AB:44:GLU:O	2:AB:45:LYS:HB2	2.05	0.57
24:BA:88:G:C6	24:BA:89:A:N7	2.72	0.57
24:BA:1422:G:C2	24:BA:1423:G:C8	2.92	0.57
1:CA:455:G:N2	1:CA:478:A:C2	2.72	0.57
1:AA:110:C:H2'	1:AA:111:G:C8	2.40	0.57
3:CC:83:ASP:HA	3:CC:86:LYS:HG2	1.87	0.57
24:BA:1258:U:O4'	28:BE:79:ARG:HG2	2.05	0.57
38:DO:100:HIS:O	38:DO:104:GLN:CB	2.51	0.57
1:AA:1262:C:C2	1:AA:1263:C:C6	2.92	0.57
24:DA:2835:A:H4'	24:DA:2836:U:OP1	2.02	0.57
41:DR:28:ALA:O	41:DR:30:GLY:N	2.36	0.57
5:CE:152:MET:HA	5:CE:155:ALA:HB3	1.85	0.57
1:AA:1500:A:OP2	59:AA:1878:HOH:O	2.17	0.57
24:DA:1913:A:C2	24:DA:1914:C:C5'	2.87	0.57
1:AA:690:G:H2'	1:AA:691:G:O4'	2.05	0.57
5:AE:16:ILE:HD13	5:AE:113:ALA:CB	2.34	0.57
42:DS:59:GLU:HA	42:DS:64:ALA:HA	1.86	0.57
1:AA:1375:A:C5	1:AA:1376:U:C5	2.92	0.57
24:BA:2419:U:C6	53:B3:32:LEU:HD22	2.39	0.57
1:CA:552:U:O3'	12:CL:84:GLY:HA3	2.05	0.57
1:CA:690:G:OP2	11:CK:29:ASN:ND2	2.37	0.57
11:CK:46:THR:O	11:CK:50:SER:OG	2.08	0.57
1:AA:113:G:O4'	1:AA:354:G:H4'	2.04	0.57
5:AE:131:THR:O	5:AE:132:ASN:O	2.22	0.57
4:CD:104:ARG:NE	4:CD:170:TRP:CZ2	2.72	0.57
4:CD:4:TYR:OH	4:CD:62:ARG:CZ	2.52	0.57
1:CA:675:A:O2'	11:CK:116:ILE:HD12	2.04	0.57
1:CA:737:C:C2	1:CA:738:C:C5	2.92	0.57
1:AA:780:A:OP1	11:AK:125:LYS:CG	2.52	0.57
1:AA:933:G:H5''	1:AA:934:C:OP2	2.05	0.57
1:AA:1129:C:O2'	1:AA:1139:G:N7	2.20	0.57
24:DA:1215:G:H2'	24:DA:1216:G:H5'	1.85	0.57
4:CD:58:LYS:NZ	4:CD:203:LEU:HD13	2.20	0.57
24:BA:1365:A:C6	24:BA:1366:A:C5	2.92	0.57
24:BA:2304:G:O2'	29:BF:129:MET:C	2.43	0.57
29:DF:122:ASP:OD2	29:DF:124:ARG:CZ	2.52	0.57
29:DF:34:THR:HB	29:DF:89:THR:HG22	1.87	0.57
24:DA:2229:U:H2'	24:DA:2230:G:C8	2.40	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:459:U:OP2	24:BA:469:G:N1	2.32	0.57
24:DA:189:G:P	47:DX:25:LYS:NZ	2.77	0.57
1:AA:908:A:C2	1:AA:909:A:C8	2.93	0.57
24:BA:2094:A:C5'	31:BH:25:TYR:CE2	2.86	0.57
24:BA:475:C:N4	24:BA:476:G:C6	2.73	0.57
6:AF:4:TYR:CD2	6:AF:5:GLU:N	2.72	0.57
24:BA:2205:A:C2	24:BA:2206:C:C2	2.92	0.57
24:DA:446:G:P	40:DQ:2:ARG:NE	2.77	0.57
24:DA:911:A:C4	36:DM:9:PHE:CE2	2.93	0.57
43:DT:2:ILE:HA	43:DT:3:ARG:C	2.25	0.57
20:AT:44:LYS:HD2	20:AT:87:ALA:HA	1.85	0.57
49:DZ:23:LEU:HD21	49:DZ:53:MET:CE	2.33	0.57
24:DA:2415:G:O2'	24:DA:2416:C:H5'	2.03	0.57
54:B4:25:VAL:CG1	54:B4:35:GLN:HB2	2.35	0.57
1:CA:455:G:N2	1:CA:478:A:N1	2.52	0.57
24:BA:1129:A:O2'	24:BA:2515:C:O2	2.20	0.57
27:BD:151:THR:HG22	27:BD:152:PRO:HD2	1.86	0.57
28:DE:48:THR:C	28:DE:50:ALA:H	2.06	0.57
26:BC:221:GLY:O	26:BC:224:MET:HG2	2.04	0.57
20:CT:20:HIS:O	20:CT:21:ASN:C	2.43	0.57
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.02	0.57
25:BB:4:C:N3	25:BB:116:G:O6	2.37	0.57
40:BQ:31:TYR:CD1	40:BQ:31:TYR:C	2.78	0.57
29:BF:48:LEU:O	29:BF:50:ASP:N	2.37	0.57
35:DL:54:GLN:HG3	35:DL:55:MET:N	2.20	0.57
29:BF:172:PHE:HB2	29:BF:174:PHE:CE2	2.39	0.57
31:BH:117:LEU:HB2	31:BH:118:PRO:CD	2.35	0.57
24:BA:419:U:H2'	24:BA:420:C:C6	2.38	0.57
8:AH:92:LEU:HD21	8:AH:116:ALA:HB3	1.87	0.57
1:AA:865:A:C5	1:AA:866:C:C5	2.93	0.57
4:CD:168:PRO:O	4:CD:169:THR:CB	2.52	0.57
4:CD:3:ARG:O	4:CD:4:TYR:O	2.22	0.57
12:CL:121:ARG:O	12:CL:122:PRO:C	2.42	0.57
24:BA:1722:A:C2	24:BA:1739:A:C4	2.92	0.57
24:DA:1059:G:C5	24:DA:1060:U:N3	2.72	0.57
1:AA:1105:A:C6	1:AA:1106:G:N7	2.73	0.57
24:DA:805:G:OP2	35:DL:41:ARG:HG2	2.04	0.57
1:CA:1014:A:H2'	1:CA:1015:G:C1'	2.35	0.57
24:BA:2162:G:H4'	24:BA:2163:A:OP1	2.03	0.57
24:BA:2163:A:O3'	24:BA:2170:A:O2'	2.19	0.57
24:BA:1239:G:C4	24:BA:1240:U:C6	2.93	0.57
24:BA:2044:C:C2	24:BA:2625:G:C2	2.93	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:78:U:OP2	48:BY:2:LYS:HE2	2.04	0.57
1:CA:1133:G:C4	1:CA:1134:G:C8	2.92	0.57
1:CA:1148:U:H5''	9:CI:9:THR:HG21	1.86	0.57
24:BA:585:G:H5''	24:BA:586:A:OP1	2.04	0.57
40:BQ:5:ARG:O	40:BQ:6:GLY:C	2.42	0.57
1:CA:979:C:C6	1:CA:1318:A:N1	2.72	0.57
1:AA:1133:G:H5'	1:AA:1134:G:OP2	2.05	0.57
44:BU:16:LYS:N	44:BU:16:LYS:HE2	2.19	0.57
2:CB:106:THR:O	2:CB:107:VAL:HG13	2.03	0.57
2:CB:96:TRP:CZ3	2:CB:175:GLU:OE1	2.58	0.57
25:BB:2:G:C2	25:BB:3:C:C2	2.92	0.57
2:AB:112:LYS:NZ	1:CA:842:U:OP1	2.37	0.57
20:AT:21:ASN:O	20:AT:25:ARG:HB2	2.05	0.57
6:AF:6:ILE:HB	6:AF:62:MET:HB2	1.87	0.57
26:DC:196:ASN:OD1	26:DC:196:ASN:C	2.43	0.57
24:BA:157:C:N3	24:BA:158:U:C5	2.72	0.57
24:BA:2830:C:C6	27:BD:59:ARG:NH1	2.73	0.57
42:DS:39:THR:O	42:DS:44:ALA:CB	2.53	0.57
21:AU:11:PRO:C	21:AU:12:PHE:CD1	2.77	0.57
21:AU:12:PHE:O	21:AU:13:ASP:CB	2.52	0.57
1:AA:293:G:C5	1:AA:294:U:C5	2.92	0.57
1:AA:880:C:OP2	12:AL:3:THR:HG21	2.04	0.57
37:DN:16:HIS:C	37:DN:16:HIS:CD2	2.78	0.57
27:DD:22:ILE:C	27:DD:22:ILE:HD12	2.23	0.57
16:CP:1:MET:CE	16:CP:1:MET:N	2.67	0.57
1:CA:939:G:C2	1:CA:940:C:C5	2.93	0.57
1:CA:66:A:C4'	1:CA:173:U:C4	2.88	0.57
26:DC:64:VAL:CG2	26:DC:66:PHE:CD2	2.87	0.57
1:CA:457:G:C2	1:CA:458:U:C2	2.93	0.57
24:DA:1180:U:C4	24:DA:1181:U:C4	2.92	0.57
1:AA:1153:G:N2	1:AA:1154:G:H1'	2.19	0.57
13:AM:106:ALA:O	13:AM:108:THR:N	2.37	0.57
24:DA:2716:C:C2'	24:DA:2717:C:H5'	2.33	0.57
26:BC:124:LYS:O	26:BC:126:GLY:N	2.37	0.57
25:DB:39:A:O2'	25:DB:46:A:N1	2.35	0.57
12:AL:65:SER:OG	12:AL:97:THR:OG1	2.23	0.57
36:DM:74:THR:HG21	36:DM:86:LYS:HE2	1.86	0.57
39:BP:45:VAL:O	39:BP:60:VAL:HA	2.04	0.57
24:DA:96:C:H4'	48:DY:41:HIS:CD2	2.40	0.57
2:CB:31:ILE:HD11	2:CB:39:HIS:HB2	1.87	0.57
1:AA:66:A:H4'	1:AA:173:U:C5	2.39	0.57
3:CC:63:SER:HA	3:CC:97:VAL:HG11	1.85	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1246:A:H2'	24:DA:1247:A:O5'	2.05	0.57
28:BE:145:ASP:HA	28:BE:166:LYS:O	2.05	0.57
24:DA:1922:G:C6	24:DA:1923:U:C4	2.91	0.57
24:BA:2333:A:C8	24:BA:2335:A:C4	2.92	0.57
1:AA:600:A:OP1	8:AH:88:ARG:NH1	2.37	0.57
1:AA:623:C:C4	1:AA:624:C:C5	2.93	0.57
4:AD:103:TYR:CZ	4:AD:111:ARG:N	2.72	0.57
4:AD:123:ILE:HG23	4:AD:124:MET:N	2.20	0.57
4:AD:56:ARG:O	4:AD:63:ARG:NH2	2.37	0.57
12:AL:112:GLN:O	12:AL:113:ALA:HB3	2.04	0.57
4:CD:102:VAL:HG12	4:CD:103:TYR:N	2.19	0.57
1:CA:597:G:H1'	17:CQ:28:PHE:HE1	1.68	0.57
11:CK:34:ILE:HG22	11:CK:35:THR:N	2.19	0.57
1:CA:1225:A:H2'	1:CA:1226:C:C5	2.39	0.57
1:CA:1226:C:C5	13:CM:103:LYS:CB	2.87	0.57
24:BA:2728:U:O2'	24:BA:2729:G:P	2.62	0.57
24:BA:76:C:O2'	24:BA:77:G:H5'	2.04	0.57
48:BY:2:LYS:O	48:BY:5:GLU:N	2.38	0.57
16:CP:66:THR:C	16:CP:67:ILE:HG13	2.24	0.57
19:CS:44:MET:HE3	19:CS:45:ILE:HG12	1.85	0.57
24:BA:584:C:OP2	40:BQ:5:ARG:NH2	2.36	0.57
14:CN:1:ALA:O	14:CN:2:LYS:CB	2.52	0.57
22:CV:4:C:C1'	22:CV:5:G:OP1	2.53	0.57
29:DF:121:PHE:CE1	29:DF:127:TYR:CD1	2.93	0.57
24:BA:2657:A:H5''	30:BG:91:VAL:HG21	1.86	0.57
29:DF:73:VAL:HG22	29:DF:78:ILE:CD1	2.35	0.57
24:DA:578:G:O2'	24:DA:580:U:OP2	2.19	0.57
24:BA:2748:A:H2'	24:BA:2749:A:O5'	2.05	0.57
4:AD:192:SER:O	4:AD:193:ALA:HB3	2.04	0.57
47:BX:38:TRP:CZ3	47:BX:44:ARG:O	2.57	0.57
24:BA:1098:A:O3'	32:BI:4:VAL:CG1	2.53	0.57
24:BA:1857:G:N3	24:BA:1884:G:C2	2.73	0.57
35:DL:77:ILE:CD1	35:DL:95:LEU:HD13	2.34	0.57
24:BA:157:C:C4	24:BA:158:U:C5	2.92	0.57
24:BA:2209:G:C5	24:BA:2210:U:C4	2.93	0.57
1:AA:357:G:N2	1:AA:358:U:C2	2.73	0.57
24:BA:1532:A:C2	24:BA:1533:C:N3	2.72	0.57
46:DW:48:GLY:HA2	46:DW:80:ILE:O	2.03	0.57
1:CA:146:G:C2	1:CA:177:G:N7	2.72	0.57
24:DA:1324:G:N3	24:DA:1328:A:N6	2.52	0.57
24:BA:2308:G:H5'	24:BA:2309:A:OP2	2.04	0.57
49:BZ:11:SER:OG	49:BZ:12:ALA:N	2.37	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BO:40:ILE:CD1	38:BO:44:GLY:HA2	2.34	0.57
34:BK:69:VAL:HG13	34:BK:77:ILE:HB	1.85	0.57
5:CE:74:VAL:CG2	5:CE:76:LEU:CD1	2.82	0.57
1:CA:487:A:C5	1:CA:488:C:C2	2.93	0.57
24:BA:2107:G:H2'	24:BA:2108:A:O4'	2.05	0.57
4:AD:177:LYS:O	4:AD:178:MET:HB3	2.04	0.57
24:BA:444:C:H1'	28:BE:44:ARG:HB2	1.86	0.57
24:DA:1635:A:C2	24:DA:1636:U:H1'	2.40	0.57
24:BA:2714:G:C5	24:BA:2715:C:C5	2.93	0.57
24:BA:289:G:N2	24:BA:352:A:C4	2.72	0.57
24:DA:945:A:C4	24:DA:2448:A:C2	2.92	0.57
1:CA:1521:C:N3	1:CA:1522:U:C5	2.73	0.57
24:BA:1794:A:H1'	24:BA:1900:A:N3	2.19	0.57
7:AG:70:ARG:NH1	7:AG:97:ASN:OD1	2.37	0.57
8:CH:48:ASP:OD2	8:CH:50:LYS:NZ	2.38	0.57
5:CE:83:HIS:HB2	5:CE:84:PRO:HD2	1.86	0.57
2:AB:93:ASN:O	2:AB:94:HIS:ND1	2.37	0.57
24:DA:1764:C:C2'	24:DA:1765:U:H5'	2.34	0.57
2:AB:68:LEU:HD23	2:AB:158:PRO:HB3	1.86	0.57
36:DM:42:THR:OG1	36:DM:45:GLN:HB2	2.04	0.57
1:AA:1273:C:C4	1:AA:1274:A:C8	2.92	0.57
24:BA:391:A:C2	24:BA:411:G:C5	2.92	0.57
11:CK:26:SER:O	11:CK:27:PHE:HB3	2.05	0.57
11:CK:27:PHE:C	11:CK:27:PHE:HD1	2.08	0.57
1:AA:600:A:P	8:AH:88:ARG:HD2	2.45	0.57
4:AD:171:LEU:CD1	4:AD:173:VAL:HG23	2.35	0.57
8:AH:95:VAL:O	8:AH:96:MET:CB	2.52	0.57
1:AA:1088:G:C6	1:AA:1089:G:C5	2.91	0.57
1:AA:1095:U:C4	1:AA:1096:C:N4	2.73	0.57
11:AK:82:LEU:HD22	11:AK:105:PHE:CD1	2.39	0.57
24:BA:2732:G:C3'	24:BA:2733:A:H5'	2.35	0.57
9:CI:39:PHE:O	9:CI:42:GLU:N	2.36	0.57
1:AA:1026:G:C6	1:AA:1027:C:N3	2.72	0.57
15:CO:10:LYS:CD	15:CO:10:LYS:N	2.65	0.57
1:AA:1330:U:H4'	13:AM:23:TYR:CZ	2.39	0.57
29:BF:122:ASP:OD1	29:BF:126:ASN:N	2.37	0.57
21:AU:29:LEU:O	21:AU:33:ARG:N	2.37	0.57
24:DA:2311:A:C2	29:DF:40:GLY:HA2	2.39	0.57
34:DK:88:ASN:ND2	34:DK:90:ASN:O	2.38	0.57
1:CA:656:G:N2	1:CA:751:U:H1'	2.20	0.57
47:DX:65:THR:O	47:DX:68:ALA:HB3	2.03	0.57
24:BA:2831:G:OP1	27:BD:56:LYS:CE	2.53	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BO:33:ARG:O	38:BO:34:HIS:CG	2.57	0.57
24:BA:686:U:O2	52:B2:8:SER:HB3	2.04	0.57
12:AL:9:ARG:O	12:AL:10:LYS:HB2	2.05	0.57
24:BA:1287:A:N1	24:BA:1648:U:O2'	2.34	0.57
2:AB:17:GLY:CA	2:AB:41:ILE:HD13	2.35	0.57
16:CP:1:MET:SD	16:CP:2:VAL:HG22	2.45	0.57
26:BC:259:ASN:O	26:BC:262:THR:N	2.36	0.57
26:BC:106:PRO:HD2	26:BC:109:LEU:HD23	1.85	0.57
1:CA:63:C:H2'	1:CA:64:G:H5'	1.85	0.57
24:BA:1310:G:H2'	24:BA:1311:G:H5'	1.87	0.57
45:BV:30:ILE:O	45:BV:37:PRO:HA	2.05	0.57
24:DA:1596:A:O2'	24:DA:1597:A:H5'	2.05	0.57
24:DA:2102:G:N2	24:DA:2188:U:O2'	2.37	0.57
22:AV:65:G:C6	22:AV:66:U:C4	2.93	0.57
7:AG:30:LEU:HD21	7:AG:42:ILE:HD11	1.86	0.57
24:BA:1063:G:C8	24:BA:1064:C:C6	2.92	0.57
8:CH:34:VAL:CG2	8:CH:35:ALA:N	2.68	0.57
49:DZ:25:GLY:HA3	49:DZ:46:MET:CE	2.34	0.57
24:BA:731:C:OP2	59:BA:3695:HOH:O	2.17	0.57
24:DA:1456:G:C5	24:DA:1457:U:C5	2.92	0.57
24:DA:275:C:H2'	24:DA:275:C:O2	2.04	0.57
28:BE:28:VAL:O	28:BE:32:VAL:HG23	2.04	0.57
18:AR:20:GLU:O	18:AR:22:ASP:N	2.38	0.57
24:BA:1252:G:O4'	40:BQ:32:ARG:HD3	2.05	0.57
2:AB:28:LYS:N	2:AB:29:PRO:HD2	2.19	0.57
24:DA:1910:G:C2	24:DA:1921:G:C2	2.93	0.57
1:AA:599:C:O2	1:AA:640:A:N1	2.38	0.57
1:AA:918:A:H2'	1:AA:919:A:C8	2.38	0.57
1:CA:575:G:H4'	1:CA:576:C:H5'	1.86	0.57
35:BL:53:GLY:O	35:BL:54:GLN:O	2.22	0.57
1:CA:958:A:N7	1:CA:959:A:C5	2.73	0.57
24:BA:532:A:H1'	24:BA:2021:C:C5	2.40	0.57
24:BA:2613:U:OP2	59:BA:3487:HOH:O	2.18	0.57
13:AM:34:LEU:HD22	13:AM:39:ILE:HG21	1.85	0.57
1:CA:386:C:C2'	1:CA:387:U:H5'	2.32	0.57
35:BL:111:ILE:HD12	35:BL:111:ILE:N	2.20	0.57
29:DF:124:ARG:NH2	29:DF:126:ASN:ND2	2.53	0.57
29:DF:33:ILE:CD1	29:DF:99:PHE:CD1	2.87	0.57
1:CA:469:C:C5	1:CA:470:C:C5	2.93	0.57
48:BY:21:LEU:HA	48:BY:25:GLN:HB3	1.86	0.57
7:CG:103:TRP:HZ2	7:CG:133:THR:C	2.07	0.57
1:AA:906:A:C2'	1:AA:907:A:O5'	2.53	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:993:G:O6	1:CA:1045:C:N4	2.37	0.57
1:AA:279:A:OP1	1:AA:280:C:C2'	2.53	0.57
25:DB:30:C:C5	25:DB:31:C:C6	2.93	0.57
24:BA:1287:A:H5'	37:BN:103:ARG:HD2	1.85	0.57
1:AA:1052:U:H5''	1:AA:1053:G:OP2	2.05	0.57
31:BH:81:ALA:CB	31:BH:147:VAL:HG13	2.34	0.57
24:DA:2661:G:O2'	24:DA:2662:A:H5'	2.05	0.57
24:DA:1563:U:C2	24:DA:1564:C:C5	2.92	0.57
1:CA:1418:A:C2	1:CA:1483:A:C2	2.93	0.57
24:BA:1432:G:C2	24:BA:1433:A:C4	2.92	0.57
24:DA:994:C:O2	41:DR:10:LYS:CE	2.52	0.57
24:BA:2856:A:N6	24:BA:2857:G:C6	2.73	0.57
1:CA:1273:C:H2'	1:CA:1274:A:O4'	2.05	0.57
24:BA:136:G:C6	24:BA:137:U:O4	2.57	0.57
24:BA:2186:G:H2'	24:BA:2187:U:O4'	2.05	0.57
1:AA:9:G:N2	1:AA:10:A:N9	2.53	0.57
4:AD:76:TYR:CE2	4:AD:204:TYR:HB2	2.39	0.57
1:CA:404:G:P	4:CD:3:ARG:HH12	2.28	0.57
1:CA:413:G:C3'	1:CA:414:A:H5'	2.34	0.57
1:CA:620:C:C2	4:CD:132:ILE:HD12	2.40	0.57
1:CA:579:A:C2	1:CA:580:C:C5	2.93	0.57
11:AK:126:LYS:O	11:AK:127:ARG:HG3	2.04	0.57
13:CM:81:MET:N	13:CM:83:LEU:CD2	2.68	0.57
1:AA:1118:U:H1'	1:AA:1179:A:C4	2.40	0.57
1:AA:1147:C:O2'	9:AI:18:ARG:HD3	2.04	0.57
9:AI:38:TYR:CD2	9:AI:39:PHE:CE1	2.92	0.57
1:CA:1321:U:C4	1:CA:1322:C:C6	2.92	0.57
24:BA:1206:G:OP2	57:BA:3163:NMY:H231	2.05	0.57
24:BA:2727:A:C6	24:BA:2728:U:C4	2.93	0.57
24:DA:1372:U:C2'	24:DA:1373:A:H5'	2.34	0.57
24:DA:565:C:H2'	24:DA:566:U:H5'	1.87	0.57
24:DA:831:G:H2'	24:DA:832:U:O5'	2.05	0.57
1:CA:1153:G:OP1	10:CJ:15:HIS:CE1	2.58	0.57
9:CI:84:THR:HG21	9:CI:103:PHE:CD1	2.40	0.57
24:BA:1454:C:P	37:BN:63:ARG:NH2	2.78	0.57
24:DA:2820:A:H4'	37:DN:3:HIS:CD2	2.40	0.57
24:BA:599:A:C2	24:BA:659:G:C6	2.92	0.57
24:DA:2564:A:OP1	24:DA:2648:G:H4'	2.05	0.57
29:DF:155:ILE:CD1	29:DF:155:ILE:C	2.72	0.57
22:CV:60:U:C5'	22:CV:61:C:H5	2.17	0.57
22:CV:64:A:O2'	22:CV:65:G:H5'	2.05	0.57
26:DC:4:LYS:O	26:DC:5:CYS:O	2.23	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AF:38:ARG:HB2	6:AF:63:ASN:OD1	2.05	0.57
1:AA:511:C:C2	1:AA:512:U:C5	2.93	0.57
44:DU:73:ASN:O	44:DU:75:ALA:N	2.38	0.57
24:BA:71:A:OP2	24:BA:113:U:H5'	2.04	0.57
24:BA:846:U:O2'	24:BA:847:U:C5'	2.53	0.57
12:AL:7:LEU:HD13	17:AQ:34:TYR:CE1	2.39	0.57
24:BA:749:A:C6	24:BA:750:A:N7	2.73	0.57
1:AA:101:A:C4	1:AA:102:G:C8	2.93	0.57
1:AA:575:G:C6	1:AA:821:G:C8	2.93	0.57
1:CA:106:C:O2'	1:CA:379:C:H5''	2.04	0.57
4:CD:76:TYR:C	4:CD:76:TYR:CD1	2.78	0.57
1:CA:561:U:O2'	1:CA:562:U:OP1	2.17	0.57
1:AA:453:G:C2	1:AA:480:U:O2	2.58	0.57
4:AD:137:VAL:HG12	4:AD:182:PHE:CE2	2.40	0.57
2:CB:132:LYS:C	2:CB:134:ALA:N	2.55	0.57
3:CC:53:SER:O	3:CC:54:ARG:CB	2.52	0.57
24:BA:1141:U:OP1	33:BJ:24:THR:HG21	2.05	0.57
24:DA:81:G:C2	24:DA:82:U:H1'	2.39	0.57
44:DU:98:ASN:C	44:DU:98:ASN:OD1	2.43	0.57
3:CC:66:VAL:HG13	3:CC:101:ILE:HA	1.87	0.57
24:BA:1307:A:C4	24:BA:1308:A:C8	2.92	0.57
24:BA:679:C:H2'	24:BA:680:C:H6	1.70	0.57
24:BA:936:A:H2'	24:BA:937:C:H6	1.69	0.57
24:BA:1945:G:C6	24:BA:1946:U:C4	2.92	0.57
3:CC:189:ALA:O	3:CC:190:HIS:HB2	2.04	0.57
1:CA:1521:C:C2	1:CA:1522:U:C5	2.93	0.57
36:BM:38:ARG:CZ	36:BM:38:ARG:HB3	2.35	0.57
31:BH:72:ILE:HG22	31:BH:73:ASN:N	2.19	0.57
20:CT:5:LYS:O	20:CT:7:ALA:N	2.38	0.57
24:DA:1775:U:H2'	24:DA:1776:G:C5'	2.35	0.57
49:BZ:6:ILE:O	49:BZ:34:THR:HA	2.05	0.57
24:BA:1853:A:N3	24:BA:2233:U:O2'	2.32	0.57
8:AH:12:THR:HA	8:AH:15:ARG:NH1	2.20	0.57
8:AH:102:ALA:O	8:AH:103:VAL:HB	2.04	0.57
1:AA:16:A:C6	1:AA:17:U:C5	2.93	0.57
1:CA:666:G:N2	1:CA:741:G:H1'	2.20	0.57
4:AD:25:VAL:HG23	4:AD:26:ARG:H	1.70	0.57
24:BA:674:G:H1'	28:BE:69:ARG:CD	2.34	0.57
24:BA:1205:A:N6	28:BE:165:HIS:CD2	2.72	0.57
1:AA:430:A:C2'	1:AA:431:A:H5'	2.35	0.57
24:DA:1358:G:C5	24:DA:1371:G:N7	2.73	0.57
1:CA:878:A:C8	1:CA:878:A:OP2	2.58	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:55:LEU:CB	4:CD:58:LYS:HD2	2.35	0.57
24:BA:1265:A:O4'	24:BA:1267:U:C6	2.58	0.57
15:CO:11:ILE:CG1	15:CO:31:LEU:HD11	2.35	0.57
24:BA:607:U:O4	24:BA:620:G:O4'	2.22	0.57
1:CA:1080:A:OP1	5:CE:50:TYR:OH	2.18	0.57
29:DF:121:PHE:CE2	29:DF:162:ASP:O	2.58	0.57
1:CA:1287:A:C6	1:CA:1288:A:C6	2.92	0.57
29:DF:39:VAL:O	29:DF:41:GLU:N	2.38	0.57
47:DX:52:ALA:O	47:DX:55:MET:N	2.38	0.57
30:BG:71:LEU:HD22	30:BG:74:MET:SD	2.45	0.57
24:BA:506:G:H4'	24:BA:509:C:O2	2.05	0.57
35:DL:93:ASN:O	35:DL:94:THR:CB	2.53	0.57
34:DK:3:GLN:O	34:DK:6:THR:OG1	2.12	0.57
1:AA:359:G:H5'	31:DH:89:LYS:CD	2.34	0.57
24:DA:444:C:C2'	24:DA:445:C:H5'	2.35	0.57
24:BA:2639:A:H4'	33:BJ:96:ARG:NH2	2.20	0.57
24:DA:784:G:C6	26:DC:227:VAL:HG11	2.40	0.57
24:BA:1139:G:P	33:BJ:103:ILE:HD11	2.45	0.57
24:BA:449:A:H2'	24:BA:450:G:O5'	2.04	0.57
3:CC:160:ALA:C	3:CC:162:ILE:H	2.09	0.57
4:AD:182:PHE:N	4:AD:182:PHE:CD1	2.72	0.57
11:AK:16:VAL:HG13	11:AK:17:SER:N	2.20	0.57
12:AL:75:GLN:HG2	12:AL:76:GLU:N	2.18	0.57
1:CA:455:G:C2	1:CA:478:A:N1	2.73	0.57
24:BA:2138:G:N2	24:BA:2139:U:O2	2.38	0.57
44:BU:94:PHE:HA	44:BU:102:ILE:HG12	1.87	0.57
55:CY:98:ILE:O	55:CY:100:VAL:N	2.38	0.57
1:AA:522:C:H1'	1:AA:536:C:H5'	1.87	0.57
1:AA:799:G:H2'	1:AA:800:G:C5'	2.35	0.57
24:BA:2052:A:C4	27:BD:155:VAL:HG23	2.40	0.57
1:CA:1034:G:H2'	1:CA:1035:A:O4'	2.05	0.57
11:CK:17:SER:HB3	11:CK:79:ILE:N	2.20	0.57
43:DT:30:ILE:CG1	43:DT:85:VAL:HG13	2.35	0.57
24:DA:2514:U:H2'	24:DA:2515:C:C6	2.39	0.57
24:BA:2323:G:C2'	24:BA:2324:U:H5'	2.35	0.57
34:DK:4:GLU:O	34:DK:5:GLN:HB2	2.05	0.57
3:CC:140:ASN:O	3:CC:141:ALA:HB2	2.05	0.57
24:DA:1617:C:OP1	59:DA:3641:HOH:O	2.18	0.57
24:DA:1432:G:O2'	24:DA:1433:A:H5'	2.03	0.57
12:CL:16:VAL:HG12	12:CL:17:ALA:N	2.20	0.57
24:BA:2046:G:H1'	50:B0:18:HIS:CD2	2.40	0.57
24:DA:127:A:H5'	24:DA:128:C:O4'	2.05	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1708:C:HO2'	24:BA:2860:A:HO2'	1.51	0.57
27:DD:50:VAL:CG2	27:DD:51:THR:N	2.67	0.57
57:BA:3162:NMY:H172	57:BA:3162:NMY:H2	1.86	0.56
24:DA:1921:G:O6	57:DA:3184:NMY:N7	2.37	0.56
24:DA:341:C:O2'	24:DA:342:A:H5'	2.05	0.56
24:DA:2429:G:OP2	24:DA:2430:A:OP2	2.23	0.56
8:AH:32:LEU:HA	8:AH:35:ALA:HB3	1.87	0.56
26:BC:13:ARG:HG2	26:BC:14:HIS:ND1	2.19	0.56
22:CV:37:A:C2	22:CV:38:A:H1'	2.40	0.56
1:AA:542:G:C2'	1:AA:543:U:H5'	2.34	0.56
4:AD:69:GLU:HA	4:AD:72:PHE:CZ	2.39	0.56
4:CD:105:MET:HE2	4:CD:107:PHE:CZ	2.40	0.56
4:CD:9:LEU:HD12	4:CD:10:LYS:HG2	1.87	0.56
1:CA:1306:A:C4	1:CA:1332:A:C2	2.92	0.56
29:DF:59:ILE:HG23	29:DF:137:PHE:CD2	2.40	0.56
1:AA:1279:G:H5''	1:AA:1280:A:OP2	2.04	0.56
20:AT:62:ALA:HA	20:AT:67:ILE:HG23	1.87	0.56
4:CD:90:LEU:O	4:CD:90:LEU:HD22	2.05	0.56
24:BA:2719:G:O2'	24:BA:2720:U:H5'	2.04	0.56
16:CP:70:ARG:HG3	16:CP:70:ARG:O	2.05	0.56
4:CD:58:LYS:NZ	4:CD:203:LEU:HB2	2.19	0.56
12:CL:93:VAL:CG2	12:CL:94:ARG:N	2.67	0.56
1:CA:483:C:H3'	1:CA:484:G:C8	2.40	0.56
1:CA:263:A:O5'	20:CT:74:ARG:NH2	2.38	0.56
24:BA:672:C:C2	24:BA:809:G:N2	2.73	0.56
24:DA:2222:C:C2	24:DA:2223:G:C8	2.92	0.56
1:CA:1216:A:N1	1:CA:1217:C:C4	2.73	0.56
24:BA:1352:U:C2'	24:BA:1353:A:H5'	2.34	0.56
1:AA:1141:C:O2'	1:AA:1142:G:OP2	2.22	0.56
1:CA:468:A:H2	1:CA:469:C:C4	2.23	0.56
30:BG:29:ASN:OD1	30:BG:80:GLU:N	2.38	0.56
7:CG:70:ARG:NH2	7:CG:96:ARG:O	2.36	0.56
7:CG:97:ASN:O	7:CG:99:LEU:N	2.37	0.56
1:AA:741:G:H2'	1:AA:742:G:O4'	2.05	0.56
1:AA:104:G:H4'	1:AA:174:A:O4'	2.04	0.56
24:BA:1210:G:C4'	24:BA:1211:C:H5'	2.34	0.56
26:DC:226:PRO:HA	26:DC:232:GLY:HA2	1.87	0.56
24:DA:1124:G:H1'	54:D4:38:GLY:OXT	2.05	0.56
34:DK:64:ARG:NH2	34:DK:100:PHE:O	2.37	0.56
1:AA:505:G:C5	1:AA:535:A:C2	2.92	0.56
24:BA:1605:C:C2'	24:BA:1606:C:O5'	2.53	0.56
12:CL:99:ARG:HA	12:CL:104:CYS:SG	2.45	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:AK:88:GLY:O	11:AK:93:ARG:NH1	2.38	0.56
1:AA:946:A:C2	1:AA:1236:A:C2	2.93	0.56
24:BA:1071:G:C6	24:BA:1072:C:N3	2.73	0.56
27:DD:125:TRP:CE3	27:DD:160:LYS:HG2	2.40	0.56
5:CE:46:VAL:HG13	5:CE:118:ALA:CB	2.35	0.56
48:DY:41:HIS:CE1	48:DY:42:LEU:CD1	2.88	0.56
1:AA:1297:G:OP1	13:AM:13:LYS:HD3	2.05	0.56
49:BZ:44:ARG:HA	49:BZ:47:ILE:HG12	1.86	0.56
10:CJ:32:THR:OG1	10:CJ:33:GLY:N	2.38	0.56
24:DA:1532:A:C2	24:DA:1533:C:C2	2.92	0.56
3:AC:69:HIS:HA	3:AC:104:ALA:HB3	1.87	0.56
5:CE:134:ILE:HG22	5:CE:134:ILE:O	2.04	0.56
7:AG:13:LEU:N	7:AG:13:LEU:HD22	2.20	0.56
1:CA:225:C:H2'	1:CA:226:G:O4'	2.05	0.56
36:BM:89:VAL:HG12	36:BM:90:GLU:N	2.19	0.56
41:BR:91:GLN:OE1	41:BR:92:TRP:N	2.38	0.56
54:D4:25:VAL:HB	54:D4:35:GLN:HB2	1.87	0.56
1:AA:1224:U:C4	1:AA:1322:C:C2	2.93	0.56
24:BA:1876:A:N6	24:BA:1877:A:C6	2.73	0.56
1:AA:268:U:H2'	1:AA:269:C:C6	2.40	0.56
1:AA:22:G:C5	1:AA:23:C:C5	2.93	0.56
31:DH:88:GLY:HA2	31:DH:125:THR:CB	2.35	0.56
1:CA:430:A:OP1	4:CD:9:LEU:CB	2.53	0.56
1:CA:737:C:HO2'	1:CA:738:C:P	2.27	0.56
15:CO:70:LEU:O	15:CO:78:TYR:CE1	2.58	0.56
57:BA:3161:NMY:H91	57:BA:3161:NMY:H5	1.68	0.56
24:BA:85:G:OP1	44:BU:5:ARG:HB3	2.05	0.56
1:CA:1299:A:C5	1:CA:1301:U:C2	2.93	0.56
13:CM:73:ILE:O	13:CM:74:SER:OG	2.15	0.56
1:AA:182:A:C8	1:AA:184:G:C5	2.93	0.56
24:BA:27:G:HO2'	24:BA:28:A:P	2.27	0.56
57:DA:3190:NMY:C13	57:DA:3190:NMY:H1	2.35	0.56
4:CD:200:ILE:O	4:CD:202:GLU:N	2.38	0.56
24:BA:2017:U:H5''	24:BA:2018:G:P	2.45	0.56
51:B1:27:ARG:HA	51:B1:27:ARG:NE	2.19	0.56
24:DA:686:U:O2'	52:D2:5:PHE:HA	2.05	0.56
24:DA:788:A:O5'	24:DA:790:U:O4	2.23	0.56
18:CR:28:THR:OG1	18:CR:29:LEU:N	2.37	0.56
24:DA:2202:U:H2'	24:DA:2202:U:O2	2.03	0.56
24:DA:1869:G:C3'	24:DA:1870:C:H5'	2.34	0.56
24:DA:947:A:C2	24:DA:948:C:C2	2.93	0.56
55:CY:164:THR:HG22	55:CY:168:ILE:HD13	1.86	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:469:C:C4	1:CA:470:C:C4	2.93	0.56
21:AU:21:ARG:NH1	21:AU:21:ARG:O	2.38	0.56
7:CG:70:ARG:HD3	7:CG:96:ARG:HD3	1.86	0.56
3:AC:100:GLN:CG	3:AC:101:ILE:H	2.18	0.56
40:DQ:82:LEU:HD11	40:DQ:112:ALA:HB2	1.85	0.56
1:AA:106:C:C3'	1:AA:107:G:C5'	2.83	0.56
3:CC:156:ARG:NH1	3:CC:159:GLY:O	2.37	0.56
5:AE:152:MET:HA	5:AE:155:ALA:HB2	1.86	0.56
24:DA:2291:U:H2'	24:DA:2292:U:C6	2.40	0.56
24:BA:1047:G:O2'	24:BA:1110:G:N1	2.31	0.56
6:AF:43:GLY:HA2	6:AF:58:HIS:NE2	2.20	0.56
1:CA:32:A:C2	1:CA:33:A:C5	2.93	0.56
24:BA:534:U:O2'	40:BQ:48:ASP:OD2	2.18	0.56
2:CB:73:LYS:O	2:CB:75:ALA:N	2.39	0.56
1:AA:124:C:C4	1:AA:125:U:C5	2.93	0.56
24:BA:1062:G:N1	24:BA:1077:A:C2	2.74	0.56
25:DB:74:U:C2'	25:DB:75:G:H5'	2.36	0.56
53:B3:54:LEU:O	53:B3:58:ILE:HD12	2.05	0.56
24:BA:1744:A:H2'	24:BA:1745:A:O4'	2.05	0.56
4:AD:45:LYS:O	4:AD:47:ARG:NH2	2.38	0.56
24:DA:1366:A:C2	24:DA:1367:A:H1'	2.39	0.56
24:DA:2586:U:H2'	24:DA:2587:A:O5'	2.05	0.56
44:BU:7:ASP:O	44:BU:8:ASP:CG	2.44	0.56
1:AA:240:G:OP1	1:AA:240:G:H4'	2.05	0.56
3:AC:85:GLU:HG2	3:AC:86:LYS:N	2.19	0.56
1:AA:1458:G:H2'	1:AA:1459:G:C8	2.40	0.56
19:AS:29:LYS:O	19:AS:30:PRO:O	2.23	0.56
1:AA:1349:A:C2'	1:AA:1350:A:H5'	2.35	0.56
1:AA:957:U:H1'	1:AA:960:U:N3	2.21	0.56
24:BA:2379:G:C6	24:BA:2380:C:C4	2.93	0.56
38:BO:67:ASN:ND2	38:BO:69:ASP:OD1	2.38	0.56
8:AH:36:ILE:O	8:AH:38:ASN:CA	2.53	0.56
8:AH:15:ARG:HE	8:AH:75:ILE:HG22	1.70	0.56
1:CA:1515:G:O6	1:CA:1520:C:N4	2.32	0.56
1:CA:1506:U:H2'	59:CA:1884:HOH:O	2.05	0.56
1:AA:32:A:H2'	1:AA:32:A:N3	2.20	0.56
1:AA:59:A:C8	1:AA:354:G:N1	2.72	0.56
1:AA:640:A:H5''	1:AA:641:U:OP2	2.05	0.56
4:AD:103:TYR:OH	4:AD:111:ARG:CA	2.52	0.56
4:AD:98:LEU:O	4:AD:98:LEU:HD23	2.05	0.56
8:AH:94:LYS:CD	8:AH:98:GLY:HA2	2.36	0.56
8:AH:96:MET:O	8:AH:99:LEU:N	2.38	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:164:GLN:OE1	4:CD:165:ARG:N	2.38	0.56
4:CD:22:LYS:HZ3	4:CD:25:VAL:HG22	1.69	0.56
24:BA:1838:C:O4'	59:BA:3813:HOH:O	2.18	0.56
1:CA:1239:A:C2	1:CA:1297:G:C2	2.93	0.56
1:CA:1312:G:C8	19:CS:3:ARG:N	2.73	0.56
29:DF:58:ALA:O	29:DF:59:ILE:C	2.43	0.56
24:DA:1070:A:H61	32:DI:8:VAL:HG12	1.70	0.56
2:AB:70:VAL:HG12	2:AB:163:VAL:HG23	1.88	0.56
2:AB:72:THR:O	2:AB:73:LYS:CB	2.53	0.56
1:AA:933:G:P	7:AG:5:ARG:HH22	2.27	0.56
1:AA:1124:G:N1	1:AA:1127:G:N2	2.54	0.56
1:AA:1149:C:P	9:AI:11:ARG:NH1	2.78	0.56
24:DA:545:U:C5	24:DA:547:A:H4'	2.41	0.56
20:AT:75:HIS:O	20:AT:78:ASN:N	2.38	0.56
1:AA:927:G:C2'	1:AA:928:G:H5'	2.34	0.56
24:BA:532:A:C8	24:BA:2021:C:C5	2.94	0.56
1:CA:263:A:OP2	20:CT:74:ARG:NH1	2.39	0.56
24:DA:2820:A:C2'	24:DA:2821:A:OP1	2.52	0.56
24:DA:2204:G:H21	24:DA:2205:A:H1'	1.70	0.56
24:DA:2205:A:H2'	24:DA:2206:C:C6	2.41	0.56
48:DY:47:ARG:O	48:DY:50:VAL:HG22	2.05	0.56
24:BA:1378:A:C4'	24:BA:1379:U:OP1	2.53	0.56
1:AA:1135:U:O2	1:AA:1137:C:N3	2.39	0.56
46:DW:20:ARG:NH1	46:DW:20:ARG:HG2	2.19	0.56
24:DA:2356:U:P	46:DW:24:LYS:NZ	2.79	0.56
38:DO:116:GLN:O	38:DO:117:PHE:HB3	2.05	0.56
1:CA:1366:C:O2'	1:CA:1367:C:H5'	2.06	0.56
1:CA:1368:A:OP2	9:CI:115:LYS:O	2.24	0.56
26:DC:259:ASN:OD1	26:DC:263:ASP:N	2.39	0.56
24:BA:458:G:N2	24:BA:469:G:H2'	2.20	0.56
2:AB:31:ILE:HD11	2:AB:189:THR:OG1	2.06	0.56
37:BN:52:ILE:O	37:BN:53:THR:C	2.44	0.56
24:DA:1395:A:P	59:DA:3408:HOH:O	2.63	0.56
24:DA:1737:G:C4	24:DA:1738:G:C2	2.93	0.56
1:CA:589:U:O2	1:CA:650:G:N2	2.38	0.56
24:BA:2757:A:N1	30:BG:66:THR:HG21	2.20	0.56
3:CC:22:TRP:CD1	3:CC:23:PHE:N	2.74	0.56
48:BY:15:ASN:O	48:BY:19:LEU:HG	2.06	0.56
7:CG:136:LYS:O	7:CG:140:ASP:OD1	2.23	0.56
6:CF:18:VAL:O	6:CF:21:MET:N	2.38	0.56
6:CF:26:THR:O	6:CF:30:THR:N	2.39	0.56
41:BR:51:VAL:HB	41:BR:52:PRO:CD	2.35	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1412:U:C2	24:BA:1591:A:C2	2.92	0.56
50:D0:2:VAL:HG22	50:D0:3:GLN:HB3	1.88	0.56
1:AA:1122:U:H2'	1:AA:1123:U:H5'	1.86	0.56
26:DC:140:VAL:HG21	26:DC:189:ALA:HB1	1.87	0.56
49:BZ:9:THR:HG23	49:BZ:53:MET:C	2.26	0.56
24:DA:784:G:O2'	24:DA:785:G:H5''	2.06	0.56
45:DV:44:HIS:O	45:DV:48:MET:N	2.37	0.56
24:DA:2093:G:N2	24:DA:2197:U:C2	2.73	0.56
2:CB:53:ALA:O	2:CB:57:LEU:N	2.38	0.56
24:BA:2478:A:C8	24:BA:2479:U:C5	2.93	0.56
24:DA:2312:U:OP1	29:DF:70:ARG:N	2.38	0.56
28:BE:113:VAL:HG22	28:BE:114:ARG:N	2.20	0.56
24:BA:2311:A:O2'	24:BA:2312:U:O5'	2.22	0.56
24:DA:2794:C:O2	24:DA:2803:G:N2	2.38	0.56
24:DA:877:A:C6	24:DA:899:A:C6	2.93	0.56
42:BS:23:LEU:HD22	42:BS:35:ILE:CG2	2.36	0.56
24:DA:2661:G:C6	24:DA:2662:A:C2	2.93	0.56
1:AA:1521:C:O2'	1:AA:1522:U:H5'	2.04	0.56
24:BA:2543:G:C5	24:BA:2765:A:C2	2.93	0.56
25:BB:53:A:C6	25:BB:54:G:N7	2.73	0.56
1:CA:663:A:C6	1:CA:743:A:C2	2.92	0.56
24:DA:1779:U:C5	24:DA:1784:A:N7	2.73	0.56
24:BA:184:C:H2'	24:BA:185:G:C8	2.40	0.56
24:BA:1929:G:H4'	24:BA:1930:G:OP1	2.04	0.56
2:AB:143:LYS:O	2:AB:146:ASN:N	2.33	0.56
45:BV:31:TYR:OH	45:BV:90:ASP:HB3	2.04	0.56
11:CK:67:ALA:O	11:CK:70:CYS:N	2.37	0.56
3:AC:7:PRO:O	3:AC:10:ILE:HG22	2.05	0.56
24:BA:1217:U:C2'	24:BA:1218:G:O5'	2.54	0.56
1:AA:1261:A:C6	1:AA:1262:C:C5	2.93	0.56
42:BS:84:ARG:CB	42:BS:96:ILE:HG22	2.35	0.56
24:DA:2633:G:H1'	27:DD:63:PRO:HB3	1.86	0.56
24:BA:2142:A:C2	24:BA:2150:C:N3	2.73	0.56
24:DA:1190:G:P	35:DL:32:GLY:HA2	2.45	0.56
1:CA:1000:A:C5	1:CA:1001:C:C5	2.94	0.56
24:BA:1317:G:C6	24:BA:1318:U:N3	2.73	0.56
1:AA:1299:A:O2'	1:AA:1301:U:O4'	2.22	0.56
29:BF:48:LEU:O	29:BF:51:ASN:N	2.39	0.56
24:DA:2714:G:O2'	24:DA:2715:C:H5'	2.05	0.56
1:AA:805:C:C2	1:AA:806:C:C5	2.93	0.56
10:AJ:28:THR:O	10:AJ:28:THR:OG1	2.16	0.56
53:D3:20:GLY:O	53:D3:21:PHE:CD1	2.58	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:317:U:C2	1:CA:318:G:C8	2.93	0.56
52:D2:45:SER:O	52:D2:46:LYS:C	2.42	0.56
12:CL:67:ILE:HD12	12:CL:72:HIS:CG	2.41	0.56
1:CA:889:A:H4'	1:CA:890:G:OP1	2.05	0.56
24:BA:643:A:H1'	51:B1:43:ARG:NH1	2.20	0.56
1:AA:1326:U:H2'	1:AA:1327:C:C6	2.40	0.56
21:CU:5:LYS:O	21:CU:5:LYS:CD	2.53	0.56
11:AK:18:ASP:OD1	11:AK:18:ASP:N	2.38	0.56
54:D4:3:VAL:O	54:D4:3:VAL:HG23	2.05	0.56
45:DV:31:TYR:O	45:DV:92:VAL:HA	2.05	0.56
46:DW:28:GLY:HA2	46:DW:66:LYS:HG2	1.86	0.56
1:AA:1346:A:C2	1:AA:1348:U:O4	2.58	0.56
24:BA:2334:U:P	38:BO:9:ARG:NH1	2.79	0.56
24:BA:409:G:C2	24:BA:410:G:C5	2.94	0.56
24:BA:396:G:H1'	47:BX:28:PHE:HB3	1.88	0.56
1:AA:376:G:C2	1:AA:389:A:C2	2.93	0.56
1:AA:543:U:H5''	4:AD:14:ARG:CZ	2.35	0.56
1:AA:1083:U:H2'	1:AA:1084:G:O5'	2.05	0.56
1:CA:1118:U:C4'	9:CI:106:ARG:NH2	2.68	0.56
4:CD:182:PHE:O	4:CD:183:LYS:HB3	2.06	0.56
11:AK:39:GLY:O	11:AK:40:ASN:C	2.44	0.56
24:DA:1056:G:N2	24:DA:1102:C:C5	2.73	0.56
36:BM:11:LYS:HE2	36:BM:87:GLY:O	2.06	0.56
20:AT:80:THR:O	20:AT:83:ILE:HG13	2.05	0.56
8:CH:82:GLY:O	8:CH:83:LEU:HB2	2.04	0.56
24:DA:1715:G:O2'	24:DA:1716:U:P	2.62	0.56
24:BA:607:U:C6	24:BA:607:U:H3'	2.41	0.56
24:BA:617:G:O6	59:BA:3293:HOH:O	2.16	0.56
24:BA:1360:G:N7	24:BA:1361:G:C8	2.73	0.56
44:DU:30:SER:OG	44:DU:32:LYS:HB2	2.05	0.56
21:CU:20:LYS:O	21:CU:22:SER:OG	2.22	0.56
57:BA:3166:NMY:H14	33:BJ:2:LYS:NZ	2.20	0.56
24:BA:2524:G:N2	24:BA:2525:G:H1'	2.18	0.56
37:BN:29:VAL:HG11	37:BN:79:LEU:CD1	2.36	0.56
24:DA:1340:U:H4'	24:DA:1341:G:OP2	2.04	0.56
1:CA:754:C:H2'	1:CA:755:G:OP1	2.05	0.56
24:BA:2472:G:C3'	24:BA:2473:U:H5'	2.34	0.56
24:DA:301:G:P	44:DU:81:ARG:NH1	2.78	0.56
24:BA:495:G:H1'	42:BS:57:ASN:OD1	2.06	0.56
24:BA:497:A:C4	24:BA:498:G:C8	2.94	0.56
5:CE:82:GLN:CD	5:CE:150:PRO:HD3	2.25	0.56
1:AA:405:U:OP2	4:AD:3:ARG:HD3	2.05	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:AU:40:LYS:O	21:AU:44:GLU:HB3	2.06	0.56
46:BW:43:THR:O	46:BW:43:THR:CG2	2.53	0.56
24:DA:1669:A:H5''	24:DA:2550:G:OP1	2.05	0.56
24:BA:1443:U:H2'	24:BA:1444:G:O4'	2.06	0.56
30:BG:116:LEU:HD23	30:BG:121:THR:HA	1.86	0.56
24:BA:988:A:N6	49:BZ:13:ILE:HD11	2.19	0.56
6:AF:10:VAL:HG21	6:AF:21:MET:HE2	1.86	0.56
1:CA:1169:A:N7	1:CA:1170:A:C6	2.73	0.56
1:CA:1421:G:C2'	1:CA:1422:G:O5'	2.53	0.56
3:CC:106:VAL:HG12	3:CC:109:PRO:HB3	1.87	0.56
25:DB:83:G:H2'	25:DB:84:G:H5''	1.86	0.56
24:DA:1568:G:H4'	26:DC:58:LYS:HZ3	1.70	0.56
24:DA:2103:C:H2'	24:DA:2104:C:C6	2.41	0.56
7:AG:58:GLU:HA	7:AG:61:ALA:HB3	1.86	0.56
17:CQ:63:GLU:HA	17:CQ:73:TRP:CD2	2.41	0.56
1:AA:1189:U:C5'	3:AC:5:VAL:HG21	2.36	0.56
24:DA:2031:A:N3	24:DA:2455:G:O2'	2.30	0.56
1:CA:972:C:O5'	10:CJ:59:LYS:HD3	2.04	0.56
36:BM:19:GLY:O	36:BM:38:ARG:NH2	2.36	0.56
24:DA:2267:A:H5''	24:DA:2268:A:H5'	1.85	0.56
24:BA:1657:U:O3'	27:BD:138:LEU:HD23	2.05	0.56
1:CA:121:U:O2'	1:CA:122:G:OP1	2.23	0.56
25:DB:15:A:O2'	25:DB:16:G:H5'	2.05	0.56
51:B1:18:HIS:CE1	51:B1:40:PRO:HG3	2.41	0.56
31:BH:66:ASN:OD1	31:BH:138:VAL:HG11	2.04	0.56
39:DP:112:ARG:O	39:DP:113:LEU:CB	2.53	0.56
24:BA:79:C:C4	24:BA:80:G:N7	2.74	0.56
53:B3:39:ARG:O	53:B3:43:LEU:HD13	2.06	0.56
24:BA:654:A:H3'	24:BA:654:A:N3	2.19	0.56
1:AA:1372:U:C4	1:AA:1373:G:C5	2.93	0.56
24:BA:1878:G:C6	24:BA:1879:C:C4	2.94	0.56
8:AH:5:ASP:CG	8:AH:5:ASP:O	2.44	0.56
24:DA:84:A:O3'	44:DU:5:ARG:HD3	2.06	0.56
44:DU:5:ARG:NH2	44:DU:6:ARG:CB	2.69	0.56
24:DA:1659:G:C4	24:DA:2002:G:N2	2.74	0.56
8:AH:86:TYR:O	8:AH:87:LYS:HB3	2.05	0.56
15:CO:89:ARG:CZ	24:DA:716:A:P	2.93	0.56
1:CA:1014:A:C2	19:CS:34:TRP:CH2	2.94	0.56
4:CD:77:LYS:C	4:CD:79:ALA:N	2.58	0.56
24:BA:2769:U:O2	24:BA:2769:U:H2'	2.03	0.56
1:CA:451:A:H5'	1:CA:452:A:N3	2.20	0.56
10:CJ:35:GLN:O	10:CJ:36:VAL:CB	2.53	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CJ:78:GLU:O	10:CJ:80:THR:N	2.38	0.56
1:CA:131:A:C2	1:CA:132:C:C4	2.93	0.56
35:BL:35:HIS:O	35:BL:36:LYS:O	2.24	0.56
24:BA:1365:A:N6	24:BA:1366:A:N6	2.54	0.56
24:DA:946:C:H2'	24:DA:947:A:O5'	2.06	0.56
2:CB:96:TRP:CH2	2:CB:101:LEU:HD22	2.40	0.56
24:DA:576:U:H2'	24:DA:577:G:C8	2.40	0.56
1:CA:933:G:OP2	7:CG:3:ARG:CG	2.54	0.56
1:AA:1388:C:C2	1:AA:1389:C:C5	2.93	0.56
24:BA:2345:G:H4'	24:BA:2346:A:C5'	2.35	0.56
24:BA:669:G:C4	24:BA:801:G:C6	2.93	0.56
24:BA:1857:G:H1'	24:BA:1884:G:H22	1.69	0.56
33:BJ:32:LEU:O	33:BJ:36:LEU:HD12	2.05	0.56
24:BA:2203:U:H5''	24:BA:2204:G:OP1	2.04	0.56
1:AA:328:C:O2	1:AA:328:C:C2'	2.54	0.56
26:DC:140:VAL:CG2	26:DC:189:ALA:HB1	2.35	0.56
24:DA:112:U:C5	24:DA:113:U:C6	2.94	0.56
24:BA:89:A:C6	24:BA:90:U:C5	2.94	0.56
47:DX:6:VAL:HG12	47:DX:7:THR:N	2.20	0.56
1:CA:1465:A:H2'	1:CA:1466:C:H6	1.69	0.56
31:BH:147:VAL:CG2	31:BH:148:ALA:H	2.18	0.56
53:D3:6:VAL:O	53:D3:6:VAL:HG12	2.05	0.56
2:AB:47:VAL:CB	2:AB:48:PRO:CD	2.82	0.56
28:BE:48:THR:N	28:BE:51:GLU:OE1	2.38	0.56
5:CE:44:GLY:O	5:CE:45:ARG:CB	2.53	0.56
16:AP:77:GLU:CG	16:AP:77:GLU:O	2.52	0.56
24:BA:691:C:O2'	24:BA:692:C:H5'	2.06	0.56
24:BA:1668:A:O2'	24:BA:1674:G:N7	2.20	0.56
1:AA:1151:A:N3	1:AA:1152:A:N7	2.54	0.56
43:DT:32:LEU:N	43:DT:32:LEU:CD2	2.69	0.56
38:DO:100:HIS:O	38:DO:104:GLN:HB3	2.06	0.56
15:CO:83:GLU:OE1	15:CO:83:GLU:N	2.38	0.56
1:AA:728:A:N1	1:AA:729:A:C6	2.73	0.56
48:DY:16:THR:O	48:DY:20:ASN:HB2	2.06	0.56
1:CA:1272:G:H2'	1:CA:1273:C:O4'	2.05	0.56
1:CA:909:A:C2'	1:CA:910:C:H5'	2.36	0.56
3:CC:148:GLY:HA3	3:CC:172:ARG:O	2.05	0.56
7:AG:68:ASN:O	7:AG:138:ARG:HD2	2.06	0.56
24:BA:1284:A:N1	24:BA:1285:A:C2	2.73	0.56
2:AB:85:LEU:O	2:AB:86:SER:CB	2.54	0.56
47:DX:16:ASN:OD1	47:DX:26:ARG:HB3	2.05	0.56
1:AA:983:A:H2'	1:AA:983:A:N3	2.21	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1368:A:OP2	9:AI:116:VAL:N	2.39	0.56
38:BO:103:VAL:O	38:BO:104:GLN:C	2.42	0.56
24:BA:2409:G:O6	24:BA:2410:G:C5	2.59	0.56
1:CA:706:A:N1	1:CA:707:U:C2	2.74	0.56
1:CA:795:C:O2'	11:CK:128:ARG:CG	2.52	0.56
4:AD:127:GLY:O	4:AD:128:ARG:CB	2.53	0.56
4:AD:146:ARG:O	4:AD:150:LYS:CE	2.52	0.56
4:AD:55:LEU:HG	4:AD:58:LYS:HD3	1.87	0.56
4:AD:60:LYS:O	4:AD:64:ILE:HG13	2.06	0.56
1:AA:1081:A:C2'	1:AA:1082:A:H5'	2.36	0.56
1:CA:927:G:O2'	1:CA:1503:A:N7	2.38	0.56
1:CA:735:C:H2'	1:CA:736:C:H6	1.70	0.56
1:AA:701:U:H5''	1:AA:703:G:O4'	2.06	0.56
13:CM:26:GLY:O	13:CM:28:THR:OG1	2.23	0.56
13:CM:66:GLU:O	13:CM:67:GLY:C	2.44	0.56
29:DF:134:GLN:O	29:DF:136:ILE:N	2.36	0.56
1:AA:1179:A:H2'	1:AA:1180:A:O4'	2.05	0.56
9:AI:86:ALA:C	9:AI:88:MET:H	2.07	0.56
24:DA:713:G:H2'	24:DA:714:U:C6	2.40	0.56
1:CA:613:C:C2'	1:CA:614:C:H5'	2.36	0.56
24:BA:1205:A:C5	28:BE:165:HIS:ND1	2.74	0.56
20:AT:48:GLN:O	20:AT:49:LYS:C	2.44	0.56
24:DA:1358:G:H8	24:DA:1358:G:O5'	1.89	0.56
57:DA:3190:NMY:H231	57:DA:3190:NMY:C13	2.36	0.56
1:CA:451:A:C8	1:CA:452:A:N1	2.74	0.56
16:CP:68:SER:O	16:CP:71:VAL:HG22	2.06	0.56
24:DA:1716:U:OP2	24:DA:1743:G:N1	2.37	0.56
4:CD:58:LYS:CB	4:CD:200:ILE:CG1	2.84	0.56
24:BA:2015:A:N3	50:B0:2:VAL:HG21	2.20	0.56
40:BQ:25:GLY:O	40:BQ:29:ARG:HG3	2.05	0.56
1:CA:112:G:C2'	1:CA:113:G:H5'	2.35	0.56
25:BB:85:G:N2	25:BB:92:C:C2	2.73	0.56
35:BL:20:GLY:HA2	35:BL:28:GLY:HA2	1.87	0.56
24:BA:621:A:C8	24:BA:622:G:C8	2.94	0.56
24:BA:659:G:H4'	28:BE:95:LYS:HD3	1.87	0.56
44:BU:35:VAL:O	44:BU:36:GLU:C	2.44	0.56
1:CA:976:G:C8	1:CA:1362:A:N6	2.74	0.56
24:DA:493:G:H2'	24:DA:494:G:O4'	2.05	0.56
1:CA:1539:C:H5''	21:CU:18:ARG:HG3	1.88	0.56
12:AL:85:GLY:O	12:AL:86:ARG:O	2.24	0.56
24:BA:2206:C:C2'	24:BA:2207:C:H5'	2.35	0.56
24:BA:846:U:O2'	24:BA:847:U:O5'	2.23	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:BZ:9:THR:CG2	49:BZ:53:MET:C	2.74	0.56
24:DA:142:A:O2'	24:DA:143:C:O5'	2.23	0.56
31:DH:24:GLY:O	31:DH:27:ARG:O	2.24	0.56
1:AA:74:A:C2	1:AA:97:G:C2	2.94	0.56
24:DA:1570:A:H2'	24:DA:1571:A:C8	2.41	0.56
1:CA:1053:G:O5'	1:CA:1054:C:H3'	2.06	0.56
24:BA:1440:U:O4	59:BA:3632:HOH:O	2.16	0.56
1:AA:1055:A:N6	1:AA:1206:G:C6	2.73	0.56
1:AA:451:A:C1'	1:AA:452:A:N7	2.68	0.56
24:BA:2309:A:C2'	24:BA:2310:C:O5'	2.54	0.56
24:DA:2799:A:C5	24:DA:2801:G:C8	2.94	0.56
24:BA:1799:G:O2'	26:BC:179:GLU:OE2	2.24	0.56
28:DE:1:MET:CE	28:DE:19:PHE:CB	2.83	0.56
24:BA:1797:G:H4'	26:BC:254:LYS:O	2.06	0.56
31:BH:82:SER:O	31:BH:83:LYS:O	2.24	0.56
24:BA:1504:A:H3'	24:BA:1505:A:C8	2.41	0.56
1:CA:456:A:N1	1:CA:477:C:C2	2.73	0.56
24:DA:727:A:C6	24:DA:728:G:C6	2.93	0.56
55:CY:129:ARG:HH11	55:CY:129:ARG:HG2	1.70	0.56
24:DA:411:G:OP2	24:DA:2406:A:O2'	2.22	0.56
24:BA:1623:G:N2	24:BA:1624:U:C2	2.73	0.56
28:DE:171:ASP:N	28:DE:171:ASP:OD1	2.38	0.56
44:DU:17:ASP:OD2	44:DU:38:ILE:O	2.24	0.56
1:AA:937:A:C2	1:AA:1379:G:C6	2.93	0.56
24:DA:1831:G:H2'	24:DA:1832:C:C6	2.41	0.56
3:CC:63:SER:HB2	3:CC:97:VAL:HG13	1.88	0.56
24:BA:1744:A:C2	24:BA:1745:A:C4	2.93	0.56
26:DC:74:PRO:HB2	26:DC:96:LYS:HE2	1.88	0.56
1:CA:1209:C:O2'	1:CA:1214:C:N4	2.38	0.56
1:CA:1261:A:C6	1:CA:1275:A:C4	2.93	0.56
3:CC:152:GLU:CB	3:CC:167:TRP:HB3	2.36	0.56
24:BA:587:C:N3	35:BL:33:ARG:NH2	2.54	0.56
24:BA:2649:C:O2'	24:BA:2650:U:H5'	2.05	0.56
57:DA:3184:NMY:H1	57:DA:3184:NMY:O11	2.04	0.56
1:AA:976:G:N2	1:AA:1363:A:N3	2.54	0.56
24:BA:2378:A:N7	24:BA:2379:G:H1'	2.21	0.56
1:AA:46:G:N2	1:AA:396:C:C2	2.73	0.56
1:AA:541:G:C4	1:AA:542:G:C8	2.93	0.56
1:CA:400:C:O2'	1:CA:401:C:H5'	2.05	0.56
1:CA:737:C:C2	1:CA:738:C:H5	2.23	0.56
1:CA:672:U:O2'	18:CR:64:TYR:OH	2.19	0.56
1:AA:1086:U:H2'	1:AA:1087:G:C5'	2.36	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:80:ALA:O	4:CD:81:ARG:O	2.23	0.56
24:DA:1375:U:H2'	24:DA:1376:C:H5''	1.87	0.56
24:BA:1378:A:C4	24:BA:1380:G:N7	2.74	0.56
24:BA:1278:C:H4'	37:BN:34:ILE:HD12	1.87	0.56
1:AA:216:U:H2'	1:AA:217:C:C6	2.41	0.56
1:CA:517:G:N2	1:CA:533:A:OP2	2.32	0.56
24:BA:1883:U:C4	24:BA:1884:G:C6	2.94	0.56
1:AA:172:A:N7	1:AA:174:A:N7	2.53	0.56
1:AA:525:C:C4	1:AA:526:C:C5	2.93	0.56
1:AA:359:G:H5'	31:DH:89:LYS:HD2	1.88	0.56
21:AU:39:GLU:O	21:AU:40:LYS:HG3	2.06	0.56
49:BZ:9:THR:CG2	49:BZ:54:VAL:N	2.69	0.56
13:CM:112:PRO:O	13:CM:113:ARG:C	2.43	0.56
24:BA:1439:A:N7	24:BA:1440:U:C2	2.74	0.56
24:BA:1805:A:H5''	26:BC:247:TRP:CE2	2.41	0.56
24:BA:1712:U:C4	24:BA:1713:A:C5	2.94	0.56
24:BA:2563:U:O2'	34:BK:28:SER:OG	2.23	0.56
24:BA:726:G:HO2'	24:BA:727:A:P	2.27	0.56
19:AS:32:ARG:NH1	19:AS:57:HIS:CD2	2.74	0.56
24:DA:929:U:H4'	49:DZ:37:ARG:NH2	2.21	0.56
47:BX:42:GLU:O	47:BX:43:LYS:HG3	2.05	0.56
26:BC:231:HIS:O	26:BC:232:GLY:C	2.42	0.56
27:BD:34:VAL:HB	27:BD:48:ILE:HD11	1.88	0.56
42:DS:55:ILE:HG13	42:DS:56:ALA:N	2.21	0.56
45:DV:89:ILE:HG22	45:DV:90:ASP:N	2.21	0.56
24:BA:1252:G:C2	40:BQ:32:ARG:HG3	2.41	0.56
24:DA:1433:A:N1	24:DA:1434:A:N6	2.54	0.56
24:BA:1285:A:C6	24:BA:1329:U:C5	2.94	0.56
12:AL:19:SER:C	12:AL:21:VAL:H	2.08	0.56
30:BG:148:ARG:HA	30:BG:161:VAL:HG11	1.87	0.56
24:BA:751:A:C5	24:BA:789:A:C2	2.93	0.56
51:B1:9:LYS:O	51:B1:50:GLU:HG2	2.06	0.56
4:CD:173:VAL:HG23	4:CD:179:GLU:O	2.06	0.56
26:BC:212:TRP:CD1	26:BC:212:TRP:C	2.79	0.56
47:BX:64:ASP:OD1	47:BX:64:ASP:N	2.38	0.56
38:BO:28:VAL:CG1	38:BO:36:TYR:O	2.54	0.56
24:BA:2377:A:N3	38:BO:92:PHE:HE2	2.00	0.56
14:AN:15:LEU:HD22	14:AN:55:SER:HB3	1.88	0.56
24:BA:2232:C:C4	24:BA:2233:U:C5	2.93	0.56
1:AA:543:U:OP1	4:AD:14:ARG:NH1	2.39	0.56
1:AA:601:G:N2	1:AA:638:U:C2	2.74	0.56
4:AD:20:PHE:CE2	4:AD:103:TYR:HD2	2.23	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:124:MET:HG3	4:AD:125:VAL:H	1.71	0.56
16:AP:67:ILE:HG22	16:AP:71:VAL:HG21	1.87	0.56
1:CA:725:G:N2	1:CA:726:C:C2	2.74	0.56
1:AA:782:A:H2'	1:AA:783:C:O4'	2.05	0.56
24:BA:1922:G:O6	57:BA:3161:NMY:H81	2.05	0.56
1:AA:153:C:H2'	1:AA:154:U:C6	2.41	0.56
24:BA:2726:A:HO2'	24:BA:2727:A:C5'	2.19	0.56
4:AD:9:LEU:CG	4:AD:10:LYS:H	2.19	0.56
24:DA:1215:G:C2'	24:DA:1216:G:H5'	2.34	0.56
24:BA:528:A:H2	24:BA:2043:C:H4'	1.62	0.56
1:CA:376:G:O5'	16:CP:5:ARG:HG3	2.06	0.56
1:CA:1152:A:C2'	1:CA:1153:G:H5'	2.36	0.56
2:AB:57:LEU:HD13	2:AB:220:THR:O	2.05	0.56
24:BA:2780:G:P	33:BJ:120:ARG:NH2	2.79	0.56
1:CA:116:A:OP2	1:CA:116:A:C8	2.59	0.56
29:DF:33:ILE:HB	29:DF:90:LEU:HD11	1.86	0.56
1:CA:1366:C:H2'	1:CA:1367:C:C6	2.40	0.56
29:DF:73:VAL:CG2	29:DF:78:ILE:CD1	2.84	0.56
1:AA:858:G:N1	1:AA:869:G:H2'	2.21	0.56
1:AA:869:G:H4'	1:AA:872:A:C8	2.41	0.56
34:BK:88:ASN:OD1	34:BK:91:SER:OG	2.16	0.56
6:CF:92:THR:HG22	6:CF:93:LYS:N	2.19	0.56
40:BQ:86:SER:HB2	41:BR:51:VAL:HA	1.86	0.56
24:DA:1450:G:H5'	24:DA:1451:C:OP2	2.06	0.56
6:AF:4:TYR:CD2	6:AF:4:TYR:C	2.79	0.56
1:CA:775:G:N1	1:CA:776:G:C6	2.73	0.56
24:BA:1402:U:H2'	24:BA:1403:A:H5''	1.87	0.56
2:CB:183:VAL:HG13	2:CB:184:PHE:H	1.71	0.56
42:DS:47:VAL:O	42:DS:50:VAL:N	2.39	0.56
24:BA:686:U:O2'	52:B2:5:PHE:HA	2.06	0.56
24:BA:782:A:H4'	24:BA:783:A:O5'	2.06	0.56
3:CC:131:ARG:HD3	3:CC:168:TYR:OH	2.06	0.56
6:CF:39:LEU:CD1	6:CF:40:GLU:N	2.68	0.56
25:BB:71:C:N4	25:BB:72:G:C5	2.73	0.56
1:CA:457:G:N2	1:CA:458:U:O2	2.39	0.56
44:BU:71:ILE:N	44:BU:71:ILE:HD12	2.20	0.56
24:BA:1733:G:N7	24:BA:1734:G:N7	2.54	0.56
24:BA:1091:G:C2	24:BA:1092:C:C4	2.94	0.56
6:AF:25:TYR:O	6:AF:26:THR:C	2.44	0.56
7:AG:101:MET:HA	7:AG:104:ILE:HG12	1.88	0.56
36:DM:69:PRO:HA	36:DM:94:ALA:N	2.21	0.56
1:CA:29:U:O2'	1:CA:30:U:H5'	2.06	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:120:ILE:O	3:CC:121:THR:C	2.43	0.56
11:CK:63:ALA:CB	11:CK:92:GLY:HA3	2.36	0.56
29:BF:100:GLU:O	29:BF:101:ARG:C	2.45	0.56
29:BF:98:PHE:C	29:BF:100:GLU:H	2.09	0.56
24:BA:411:G:OP1	59:BA:3565:HOH:O	2.17	0.56
11:CK:47:ALA:HA	11:CK:52:PHE:CE1	2.41	0.56
1:AA:45:G:N2	1:AA:398:U:C2	2.74	0.56
4:AD:103:TYR:OH	4:AD:111:ARG:HA	2.06	0.56
20:AT:5:LYS:CD	20:AT:5:LYS:O	2.54	0.56
1:CA:671:G:O2'	6:CF:79:ARG:NH2	2.36	0.56
1:AA:768:A:OP1	1:AA:804:U:H4'	2.06	0.56
24:DA:1055:G:O6	24:DA:1056:G:C2	2.59	0.56
24:DA:1060:U:C2	24:DA:1062:G:OP2	2.59	0.56
24:DA:1069:A:N7	24:DA:1074:G:C6	2.73	0.56
1:AA:1159:U:C2	1:AA:1182:G:N3	2.74	0.56
24:BA:825:A:C2'	24:BA:826:U:O5'	2.54	0.56
24:BA:833:A:H2'	24:BA:834:G:C8	2.41	0.56
9:AI:10:GLY:HA2	9:AI:81:HIS:CE1	2.41	0.56
1:AA:186:C:N3	1:AA:191:G:O6	2.39	0.56
1:AA:928:G:O2'	1:AA:1533:C:OP1	2.24	0.56
4:CD:81:ARG:C	4:CD:82:LEU:HG	2.26	0.56
24:DA:1362:C:C2'	24:DA:1363:C:O5'	2.54	0.56
1:CA:451:A:N6	1:CA:481:G:H5'	2.21	0.56
10:CJ:10:LEU:HA	10:CJ:97:ASP:O	2.06	0.56
24:BA:1270:C:H5''	24:BA:1271:G:C5'	2.36	0.56
24:BA:2261:C:H3'	46:BW:16:SER:OG	2.06	0.56
26:DC:259:ASN:OD1	26:DC:262:THR:OG1	2.02	0.56
4:CD:61:VAL:O	4:CD:64:ILE:HG22	2.05	0.56
2:AB:111:ILE:O	2:AB:113:ARG:N	2.39	0.56
26:BC:62:ARG:HH21	26:BC:62:ARG:C	2.08	0.56
48:BY:24:GLU:HA	48:BY:28:LEU:HG	1.88	0.56
40:DQ:81:GLY:HA2	40:DQ:116:LEU:CD2	2.36	0.56
24:BA:2096:C:H2'	24:BA:2097:A:C8	2.41	0.56
24:BA:2193:G:C6	24:BA:2194:U:C4	2.94	0.56
35:DL:126:ARG:C	35:DL:127:VAL:HG23	2.27	0.56
1:AA:174:A:C5	1:AA:175:C:C6	2.94	0.56
24:BA:170:U:O2'	24:BA:171:U:H5'	2.06	0.56
1:AA:50:A:C6	1:AA:361:G:O4'	2.59	0.56
12:AL:93:VAL:O	12:AL:93:VAL:HG22	2.06	0.56
24:BA:1428:C:C5	24:BA:1569:A:C5'	2.88	0.56
24:BA:1346:G:H2'	24:BA:1347:A:H8	1.69	0.56
24:BA:1022:G:C6	24:BA:1140:C:C4	2.94	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:345:C:O4'	1:AA:346:G:C2	2.59	0.56
1:CA:156:C:C4	1:CA:157:U:O2	2.58	0.56
24:BA:1440:U:H2'	24:BA:1441:G:C8	2.40	0.56
2:CB:67:ILE:O	2:CB:68:LEU:CB	2.54	0.56
24:DA:2294:G:C6	24:DA:2295:C:C4	2.94	0.56
1:CA:630:A:C5	1:CA:631:C:C5	2.94	0.56
1:AA:318:G:C6	1:AA:319:G:N7	2.74	0.56
24:BA:2521:C:H2'	24:BA:2522:U:O5'	2.06	0.56
1:CA:142:G:C5	1:CA:143:A:C8	2.94	0.56
1:CA:143:A:N3	1:CA:143:A:H2'	2.20	0.56
24:BA:2796:U:C5	24:BA:2798:U:C4	2.94	0.56
48:DY:18:LEU:O	48:DY:22:LEU:CB	2.54	0.56
24:BA:1101:U:H2'	24:BA:1102:C:H5'	1.88	0.56
24:DA:1952:A:O4'	34:DK:42:THR:CG2	2.54	0.56
24:BA:2602:A:H4'	24:BA:2603:G:OP2	2.05	0.56
31:BH:4:ILE:CD1	31:BH:17:ASP:C	2.75	0.56
1:CA:1261:A:C4	1:CA:1275:A:C2	2.94	0.56
24:DA:2552:U:H2'	24:DA:2554:U:OP2	2.06	0.56
24:DA:2556:C:H2'	24:DA:2557:G:O4'	2.05	0.56
50:B0:37:HIS:CD2	50:B0:38:LEU:O	2.59	0.56
27:BD:108:ASP:OD2	27:BD:207:VAL:HG12	2.06	0.56
24:DA:1530:G:N2	24:DA:1542:U:H1'	2.21	0.56
1:CA:1470:U:O2'	1:CA:1471:U:H5'	2.06	0.56
24:DA:457:A:H5'	24:DA:459:U:H1'	1.87	0.56
26:DC:8:THR:HG22	26:DC:9:SER:OG	2.06	0.56
5:AE:134:ILE:HG22	5:AE:135:ASN:N	2.20	0.56
24:BA:2294:G:OP1	38:BO:10:ARG:CZ	2.54	0.56
5:AE:156:LYS:CE	8:AH:44:GLY:HA3	2.36	0.56
1:AA:36:C:H4'	12:AL:119:VAL:O	2.06	0.56
1:AA:376:G:H5'	16:AP:5:ARG:HE	1.71	0.56
1:AA:9:G:C2	1:AA:10:A:C8	2.94	0.56
4:AD:76:TYR:CG	4:AD:204:TYR:HD2	2.24	0.56
1:CA:400:C:C2'	1:CA:401:C:O5'	2.54	0.56
4:CD:165:ARG:NH1	4:CD:167:LYS:O	2.38	0.56
1:CA:764:C:H3'	1:CA:765:G:H8	1.70	0.56
1:AA:700:G:H4'	1:AA:704:A:H1'	1.88	0.56
1:AA:783:C:O2'	1:AA:784:A:H5'	2.04	0.56
11:CK:40:ASN:O	11:CK:41:ALA:HB3	2.04	0.56
24:BA:825:A:O2'	24:BA:826:U:O5'	2.18	0.56
28:BE:58:LYS:HG3	28:BE:71:GLY:HA2	1.88	0.56
1:AA:1126:U:O2	1:AA:1126:U:C2'	2.53	0.56
20:AT:67:ILE:HG12	20:AT:71:LYS:HD2	1.88	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2119:A:O2'	24:BA:2120:G:P	2.63	0.56
24:BA:77:G:P	48:BY:52:ARG:HH22	2.29	0.56
24:BA:276:U:O2	24:BA:276:U:C2'	2.54	0.56
57:DA:3186:NMY:C13	57:DA:3186:NMY:N2	2.69	0.56
2:CB:22:TYR:O	2:CB:23:TRP:HB3	2.05	0.56
2:CB:22:TYR:O	2:CB:23:TRP:CD1	2.59	0.56
24:BA:659:G:H2'	24:BA:660:C:C6	2.41	0.56
14:CN:48:LEU:O	14:CN:49:GLN:HB3	2.06	0.56
1:CA:201:G:C2	1:CA:217:C:O2	2.58	0.56
30:BG:41:GLU:HB2	30:BG:54:ARG:NH2	2.20	0.56
22:CV:61:C:N4	22:CV:62:C:H41	2.04	0.56
1:AA:198:G:N3	1:AA:199:A:C8	2.74	0.56
27:BD:180:VAL:HG22	27:BD:180:VAL:O	2.06	0.56
24:DA:1735:A:C5	24:DA:1736:U:C6	2.93	0.56
31:BH:32:PRO:HB3	47:BX:38:TRP:HB2	1.88	0.56
12:AL:88:LYS:O	12:AL:89:ASP:CB	2.53	0.56
21:AU:40:LYS:HA	21:AU:43:THR:HB	1.86	0.56
31:DH:134:VAL:CG1	31:DH:138:VAL:CG2	2.84	0.56
39:BP:29:VAL:O	39:BP:39:LEU:HG	2.06	0.56
46:DW:48:GLY:HA3	46:DW:80:ILE:O	2.04	0.56
2:CB:217:VAL:O	2:CB:221:VAL:HG12	2.06	0.56
24:BA:1439:A:C8	24:BA:1440:U:C6	2.94	0.56
2:CB:90:PHE:N	2:CB:90:PHE:CD1	2.71	0.56
24:DA:1306:C:C2'	24:DA:1307:A:H5'	2.35	0.56
1:CA:1160:G:C6	1:CA:1181:G:O6	2.59	0.56
3:CC:185:ASN:O	3:CC:200:VAL:HG23	2.06	0.56
24:BA:126:A:C6	24:BA:127:A:N1	2.74	0.56
1:AA:473:U:H2'	1:AA:474:G:C8	2.41	0.56
24:BA:2520:C:C6	24:BA:2567:G:H1'	2.41	0.56
42:BS:39:THR:CG2	42:BS:44:ALA:CB	2.84	0.56
24:DA:630:G:OP1	53:D3:46:LYS:NZ	2.39	0.56
5:AE:106:ILE:HG13	5:AE:124:LEU:HB3	1.88	0.56
24:BA:2365:G:H4'	46:BW:60:PHE:CE2	2.41	0.56
24:DA:2738:A:C2'	24:DA:2739:U:O5'	2.54	0.56
24:BA:1280:G:O2'	24:BA:1281:G:H5'	2.06	0.56
16:CP:36:VAL:O	16:CP:36:VAL:CG2	2.54	0.56
12:AL:52:VAL:CG2	12:AL:53:CYS:N	2.69	0.56
24:BA:2326:C:C1'	24:BA:2327:A:OP1	2.53	0.56
12:CL:77:HIS:O	12:CL:78:SER:C	2.45	0.56
32:BI:97:VAL:N	32:BI:136:GLY:O	2.39	0.56
3:CC:59:ARG:HG2	3:CC:64:ILE:HG22	1.88	0.56
24:DA:2528:U:H1'	24:DA:2536:G:N2	2.21	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:992:C:O2'	41:BR:89:HIS:CD2	2.58	0.55
24:DA:1838:C:C2	24:DA:1898:U:C4	2.95	0.55
38:BO:92:PHE:N	38:BO:92:PHE:CD1	2.74	0.55
4:AD:200:ILE:C	4:AD:202:GLU:N	2.58	0.55
1:AA:1084:G:N7	1:AA:1085:U:N3	2.54	0.55
1:CA:579:A:C4	1:CA:580:C:C5	2.93	0.55
1:CA:669:G:C6	1:CA:670:G:N7	2.74	0.55
1:CA:762:U:O2	1:CA:763:G:C8	2.59	0.55
22:AV:57:G:H2'	22:AV:58:A:H5'	1.88	0.55
1:AA:671:G:H2'	1:AA:672:U:O4'	2.07	0.55
24:DA:1071:G:H3'	24:DA:1072:C:H5''	1.88	0.55
32:DI:124:MET:O	32:DI:127:SER:OG	2.22	0.55
24:BA:1188:U:O2'	24:BA:1189:A:C5'	2.52	0.55
1:AA:144:G:N3	1:AA:179:A:C2	2.75	0.55
1:AA:927:G:O2'	1:AA:1503:A:C5	2.53	0.55
24:DA:360:U:C4	24:DA:361:G:C6	2.94	0.55
24:BA:1268:A:C2	24:BA:2013:A:C4	2.94	0.55
24:BA:577:G:N1	24:BA:578:G:C6	2.74	0.55
24:BA:2779:U:O4'	24:BA:2781:A:C8	2.58	0.55
24:BA:2283:C:C2'	24:BA:2284:A:H5'	2.36	0.55
1:CA:180:U:O4	59:CA:1714:HOH:O	2.14	0.55
24:BA:1378:A:O2'	24:BA:1380:G:OP2	2.24	0.55
44:BU:35:VAL:O	44:BU:38:ILE:HG22	2.06	0.55
25:DB:42:C:OP2	29:DF:63:LYS:NZ	2.39	0.55
24:DA:1856:U:C4	24:DA:1857:G:C6	2.94	0.55
26:DC:176:ARG:NH1	26:DC:177:SER:N	2.54	0.55
1:AA:663:A:H5'	1:AA:836:G:OP1	2.06	0.55
24:BA:2197:U:HO2'	24:BA:2198:A:P	2.26	0.55
31:DH:11:ASN:O	31:DH:12:LEU:CB	2.55	0.55
24:BA:156:A:H2'	24:BA:157:C:O4'	2.06	0.55
24:BA:2883:A:OP1	24:BA:2883:A:H4'	2.06	0.55
21:AU:37:PHE:HB3	21:AU:41:PRO:HD3	1.88	0.55
24:BA:1343:G:C5	24:BA:1344:U:C4	2.94	0.55
24:BA:851:C:H2'	24:BA:851:C:O2	2.05	0.55
24:DA:783:A:H2'	24:DA:784:G:C5'	2.36	0.55
1:AA:74:A:O2'	1:AA:75:G:O4'	2.24	0.55
1:AA:95:C:C2'	1:AA:96:U:H5'	2.36	0.55
1:AA:293:G:N3	1:AA:294:U:C6	2.74	0.55
1:AA:949:A:O2'	1:AA:950:U:H5'	2.05	0.55
24:BA:1287:A:OP1	37:BN:104:ALA:HB3	2.06	0.55
2:AB:32:PHE:HB2	2:AB:42:ASN:HB2	1.89	0.55
24:DA:431:U:C2'	24:DA:432:A:C5'	2.84	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1160:G:O2'	1:CA:1161:C:OP2	2.24	0.55
24:BA:1799:G:P	26:BC:257:ARG:NH2	2.80	0.55
24:DA:1797:G:O2'	26:DC:256:THR:CG2	2.53	0.55
48:DY:2:LYS:CE	48:DY:6:LEU:HD22	2.36	0.55
24:BA:1906:G:C5	24:BA:1929:G:N2	2.74	0.55
1:AA:1151:A:O4'	10:AJ:41:PRO:HB3	2.05	0.55
42:DS:85:ILE:HD12	42:DS:85:ILE:H	1.70	0.55
7:AG:30:LEU:HD13	7:AG:120:LEU:HD12	1.87	0.55
15:AO:23:GLY:O	15:AO:25:THR:N	2.40	0.55
24:DA:323:C:N4	24:DA:333:G:N7	2.53	0.55
1:AA:897:C:O2	1:AA:903:G:C2	2.59	0.55
24:DA:1443:U:C2	24:DA:1444:G:C8	2.95	0.55
19:AS:41:PHE:O	19:AS:43:ASN:N	2.39	0.55
24:DA:21:A:C2'	24:DA:22:C:H5'	2.36	0.55
8:CH:66:PHE:O	8:CH:67:GLN:C	2.43	0.55
1:AA:769:G:H4'	1:AA:1513:A:H4'	1.88	0.55
12:AL:105:SER:OG	12:AL:106:GLY:O	2.18	0.55
9:CI:117:GLY:HA2	10:CJ:60:ASP:OD1	2.06	0.55
16:CP:14:ARG:HG2	16:CP:14:ARG:O	2.06	0.55
24:BA:2547:A:C8	24:BA:2566:A:C5	2.94	0.55
19:AS:22:ALA:O	19:AS:26:GLY:N	2.39	0.55
36:DM:49:ALA:CB	36:DM:124:LEU:HD21	2.36	0.55
1:AA:1492:A:C5'	12:AL:44:LYS:HA	2.35	0.55
1:AA:1374:A:C2	1:AA:1375:A:N9	2.74	0.55
24:BA:2294:G:O5'	38:BO:10:ARG:CZ	2.54	0.55
38:BO:18:LEU:CD1	38:BO:25:ARG:HD2	2.36	0.55
24:DA:249:C:H5'	24:DA:2394:C:O2'	2.07	0.55
35:BL:57:LEU:HG	35:BL:61:LEU:CD1	2.36	0.55
1:AA:652:U:O2'	1:AA:653:U:OP2	2.24	0.55
1:AA:59:A:C4	1:AA:331:G:N2	2.75	0.55
4:AD:55:LEU:C	4:AD:55:LEU:HD23	2.27	0.55
1:AA:572:A:H4'	1:AA:572:A:OP1	2.04	0.55
4:CD:106:GLY:O	4:CD:107:PHE:C	2.45	0.55
4:CD:105:MET:HE2	4:CD:107:PHE:CE2	2.41	0.55
4:CD:3:ARG:CZ	4:CD:3:ARG:CB	2.84	0.55
1:CA:738:C:C2'	1:CA:739:C:O5'	2.54	0.55
24:BA:100:U:H1'	24:BA:101:A:N7	2.21	0.55
29:DF:134:GLN:HB3	29:DF:149:ARG:O	2.06	0.55
1:AA:155:A:C2	1:AA:167:A:N3	2.74	0.55
11:CK:20:VAL:HG13	11:CK:35:THR:HG22	1.86	0.55
1:CA:1321:U:C2	19:CS:36:ARG:NH2	2.74	0.55
55:CY:144:LYS:C	55:CY:146:LYS:H	2.10	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:79:ILE:O	9:CI:80:ARG:C	2.43	0.55
24:BA:1270:C:H5''	24:BA:1271:G:P	2.46	0.55
24:BA:560:C:OP1	59:BA:3251:HOH:O	2.18	0.55
24:BA:625:G:C2	24:BA:626:A:C4	2.95	0.55
1:CA:14:U:C2'	1:CA:14:U:O2	2.54	0.55
24:BA:2313:C:C4'	29:BF:87:LYS:HE2	2.36	0.55
24:DA:2330:G:O2'	46:DW:44:LYS:CE	2.53	0.55
1:CA:1249:C:O2'	9:CI:70:GLY:O	2.16	0.55
24:DA:2230:G:H2'	24:DA:2231:U:C6	2.41	0.55
1:CA:1349:A:C2	1:CA:1374:A:C4	2.94	0.55
35:DL:77:ILE:HD11	35:DL:95:LEU:HD22	1.86	0.55
27:BD:125:TRP:CD1	27:BD:160:LYS:HE2	2.41	0.55
37:BN:36:THR:HG23	37:BN:37:THR:O	2.06	0.55
31:DH:136:SER:O	31:DH:137:GLU:HB3	2.05	0.55
24:DA:407:G:O2'	24:DA:408:G:H5'	2.06	0.55
24:BA:812:C:H5''	24:BA:1250:G:O2'	2.05	0.55
24:BA:1824:G:O2'	26:BC:251:THR:OG1	2.11	0.55
24:BA:1424:G:H2'	24:BA:1424:G:N3	2.20	0.55
24:BA:2310:C:C4	29:BF:76:PHE:CE1	2.94	0.55
24:DA:877:A:N6	24:DA:899:A:C6	2.74	0.55
1:AA:505:G:C8	1:AA:535:A:C4	2.94	0.55
24:DA:243:U:OP1	53:D3:5:THR:OG1	2.20	0.55
24:DA:78:U:H2'	24:DA:79:C:C6	2.42	0.55
44:BU:73:ASN:HA	44:BU:95:PHE:CE2	2.42	0.55
16:AP:39:PHE:C	16:AP:39:PHE:HD1	2.09	0.55
24:BA:1926:U:H1'	24:BA:1929:G:C6	2.40	0.55
1:CA:1197:A:C2'	1:CA:1198:G:H5'	2.36	0.55
1:AA:137:U:H2'	1:AA:138:G:C8	2.41	0.55
24:BA:2796:U:C4	24:BA:2798:U:N3	2.74	0.55
24:DA:1566:A:C6	26:DC:212:TRP:CZ3	2.94	0.55
28:DE:171:ASP:O	28:DE:173:THR:N	2.38	0.55
1:AA:734:G:O2'	18:AR:60:LYS:HE3	2.06	0.55
27:DD:160:LYS:N	27:DD:160:LYS:HE3	2.21	0.55
24:DA:900:A:C5	24:DA:901:C:C5	2.94	0.55
1:CA:573:A:N3	1:CA:883:C:O2'	2.39	0.55
38:DO:27:VAL:O	38:DO:27:VAL:HG22	2.06	0.55
45:DV:76:ASP:O	45:DV:89:ILE:HG23	2.06	0.55
26:BC:265:PHE:HD1	26:BC:265:PHE:N	2.03	0.55
24:DA:1517:G:C6	24:DA:1518:C:C4	2.93	0.55
5:CE:15:LEU:HD22	5:CE:16:ILE:N	2.21	0.55
1:AA:1367:C:OP1	9:AI:117:GLY:N	2.39	0.55
25:BB:45:A:C8	29:BF:91:ARG:NH2	2.74	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BO:17:LYS:HG3	38:BO:21:LEU:CD1	2.36	0.55
15:AO:70:LEU:C	15:AO:78:TYR:CE1	2.80	0.55
22:CV:20:U:C6	22:CV:20:U:OP1	2.60	0.55
24:BA:2231:U:OP1	47:BX:29:LEU:N	2.38	0.55
35:BL:61:LEU:O	35:BL:62:PRO:O	2.24	0.55
5:AE:95:PHE:CE2	5:AE:97:GLN:HG2	2.41	0.55
1:AA:681:A:C6	1:AA:710:G:C6	2.94	0.55
6:AF:70:VAL:O	6:AF:71:ILE:C	2.44	0.55
1:CA:1239:A:H2'	1:CA:1298:U:O4	2.05	0.55
24:DA:1081:U:H2'	32:DI:117:THR:CG2	2.35	0.55
24:BA:864:G:C6	24:BA:865:C:N4	2.74	0.55
24:BA:733:G:H8	24:BA:733:G:O5'	1.89	0.55
1:AA:927:G:H2'	1:AA:928:G:H5'	1.88	0.55
19:CS:18:LYS:HD3	19:CS:31:LEU:HD11	1.88	0.55
24:BA:2727:A:N6	24:BA:2728:U:O4	2.40	0.55
24:BA:2720:U:H4'	24:BA:2845:U:O2'	2.06	0.55
24:DA:566:U:H2'	24:DA:567:U:O4'	2.07	0.55
24:DA:1741:C:C4	24:DA:1742:U:C5	2.94	0.55
35:BL:111:ILE:CG2	35:BL:112:LEU:N	2.69	0.55
35:BL:79:LEU:HD21	35:BL:112:LEU:HD12	1.87	0.55
1:CA:1103:C:N4	1:CA:1104:G:C5	2.75	0.55
7:CG:27:VAL:HG23	7:CG:40:GLU:HB3	1.88	0.55
21:AU:21:ARG:NH2	23:AX:4:G:O4'	2.39	0.55
2:AB:118:GLU:O	2:AB:121:SER:OG	2.25	0.55
43:DT:61:LEU:HD11	43:DT:82:LYS:HB3	1.88	0.55
1:CA:774:G:C4	1:CA:775:G:C8	2.94	0.55
12:AL:50:ARG:HG2	12:AL:90:LEU:HD21	1.87	0.55
1:AA:299:G:C6	1:AA:300:A:C6	2.94	0.55
1:CA:200:G:C2	1:CA:218:U:O2	2.59	0.55
24:BA:1448:G:C2	24:BA:1464:G:C2	2.93	0.55
1:AA:435:A:C6	1:AA:436:C:C4	2.95	0.55
51:D1:33:LEU:HD11	51:D1:35:LEU:HD12	1.89	0.55
24:BA:1342:A:H3'	24:BA:1343:G:H5''	1.88	0.55
6:CF:38:ARG:NH1	6:CF:98:GLU:O	2.39	0.55
24:BA:1230:A:C5	24:BA:1231:U:C4	2.94	0.55
24:BA:783:A:H2'	24:BA:784:G:O5'	2.05	0.55
22:AV:72:C:H2'	22:AV:73:A:C5'	2.36	0.55
24:BA:89:A:N1	24:BA:90:U:C4	2.74	0.55
42:DS:73:LYS:CB	42:DS:106:VAL:CG1	2.83	0.55
1:AA:1008:U:C2	1:AA:1022:A:C4	2.95	0.55
1:AA:1324:A:O4'	1:AA:1362:A:H4'	2.05	0.55
6:AF:12:PRO:HA	6:AF:15:SER:HB2	1.88	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2512:C:H4'	27:BD:127:PHE:CE2	2.42	0.55
50:D0:29:VAL:HG23	50:D0:36:LYS:CB	2.36	0.55
41:BR:46:GLU:C	41:BR:46:GLU:CD	2.64	0.55
33:BJ:62:VAL:HG11	33:BJ:101:ILE:HD11	1.88	0.55
24:DA:485:C:C2	24:DA:496:G:C2	2.94	0.55
36:DM:34:LYS:NZ	36:DM:99:GLY:O	2.35	0.55
7:AG:139:GLU:HA	7:AG:142:HIS:CD2	2.41	0.55
24:DA:257:C:H2'	24:DA:258:G:O4'	2.06	0.55
28:BE:154:ASP:O	28:BE:155:GLU:C	2.44	0.55
24:DA:2879:A:H4'	24:DA:2880:C:OP1	2.06	0.55
24:DA:1769:U:O2'	24:DA:1770:G:H5'	2.06	0.55
24:DA:864:G:C6	24:DA:865:C:N4	2.74	0.55
52:D2:2:LYS:CE	52:D2:6:GLN:OE1	2.54	0.55
12:AL:44:LYS:HB2	12:AL:45:PRO:HD3	1.89	0.55
1:AA:942:G:C6	1:AA:1342:C:N3	2.75	0.55
1:AA:986:U:H2'	1:AA:987:G:C8	2.42	0.55
29:BF:158:THR:O	29:BF:160:LYS:N	2.39	0.55
1:CA:769:G:O2'	1:CA:770:C:H5'	2.07	0.55
1:AA:389:A:C3'	1:AA:390:U:H5'	2.36	0.55
1:CA:926:G:C6	1:CA:1505:G:C6	2.94	0.55
1:CA:543:U:C2'	1:CA:544:G:H5'	2.36	0.55
13:CM:15:ALA:N	13:CM:17:ILE:HD11	2.22	0.55
13:CM:29:ARG:HB2	13:CM:29:ARG:CZ	2.35	0.55
1:AA:1181:G:N2	1:AA:1182:G:N2	2.54	0.55
2:AB:90:PHE:CE2	2:AB:154:MET:HG3	2.42	0.55
24:DA:2205:A:C4	24:DA:2206:C:C5	2.94	0.55
24:BA:1360:G:H2'	24:BA:1361:G:H5'	1.89	0.55
22:CV:67:C:N4	22:CV:68:C:H41	2.04	0.55
1:CA:1343:G:H2'	1:CA:1344:C:C6	2.41	0.55
24:DA:587:C:H3'	24:DA:588:U:C5'	2.33	0.55
26:BC:62:ARG:NH2	26:BC:62:ARG:HG2	2.22	0.55
1:AA:218:U:C4	1:AA:219:U:O4	2.58	0.55
30:DG:105:SER:HA	30:DG:108:PHE:CZ	2.41	0.55
24:BA:1415:U:C2	24:BA:1588:G:C2	2.94	0.55
39:DP:92:ARG:HH11	39:DP:92:ARG:HG3	1.70	0.55
1:AA:357:G:H2'	1:AA:358:U:H5'	1.86	0.55
24:DA:1268:A:C2	24:DA:2013:A:C4	2.95	0.55
1:CA:339:C:OP2	34:DK:98:ARG:NH1	2.39	0.55
24:BA:2250:G:O2'	24:BA:2496:C:OP1	2.24	0.55
31:DH:136:SER:O	31:DH:137:GLU:CB	2.53	0.55
1:AA:71:A:H3'	1:AA:71:A:OP2	2.07	0.55
34:DK:8:LEU:HD12	34:DK:8:LEU:N	2.21	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BK:41:ILE:HD11	34:BK:86:LEU:HD13	1.88	0.55
1:AA:506:G:OP1	59:AA:1761:HOH:O	2.18	0.55
6:AF:11:HIS:O	6:AF:13:ASP:N	2.40	0.55
26:DC:170:TYR:HB3	26:DC:183:VAL:O	2.07	0.55
1:CA:1106:G:C6	1:CA:1107:C:C4	2.95	0.55
7:CG:17:LYS:CB	7:CG:44:TYR:CE1	2.89	0.55
27:DD:123:LYS:HG2	27:DD:165:MET:SD	2.46	0.55
24:DA:1045:C:C3'	24:DA:1046:A:H5'	2.37	0.55
12:CL:35:THR:O	12:CL:36:ARG:HG3	2.05	0.55
39:BP:4:ILE:HG13	39:BP:5:LYS:N	2.22	0.55
1:CA:992:U:O2	1:CA:1043:G:N7	2.39	0.55
1:AA:1476:A:C5	1:AA:1477:U:C5	2.94	0.55
32:DI:15:GLY:HA2	32:DI:50:LYS:HB3	1.88	0.55
20:AT:52:ASN:O	20:AT:56:PRO:CD	2.55	0.55
1:AA:116:A:H2'	1:AA:117:G:O4'	2.07	0.55
1:AA:604:G:N2	1:AA:635:A:N3	2.54	0.55
16:CP:38:PHE:C	16:CP:38:PHE:CD1	2.79	0.55
24:BA:1241:A:C4	24:BA:1242:U:C6	2.94	0.55
24:BA:523:C:H5''	24:BA:540:C:O2'	2.07	0.55
25:BB:50:A:H2'	25:BB:51:G:O4'	2.07	0.55
24:DA:86:G:H4'	24:DA:104:A:O2'	2.07	0.55
1:AA:615:G:C6	1:AA:616:G:C5	2.95	0.55
1:AA:596:A:N6	1:AA:645:G:C6	2.74	0.55
1:AA:55:A:C8	31:DH:91:PHE:CE2	2.95	0.55
4:CD:105:MET:HE3	4:CD:180:GLY:HA3	1.88	0.55
4:CD:9:LEU:HD13	4:CD:10:LYS:HB3	1.89	0.55
15:CO:70:LEU:O	15:CO:78:TYR:CZ	2.59	0.55
1:CA:1243:C:O2	1:CA:1243:C:H3'	2.06	0.55
29:DF:112:ASP:OD2	29:DF:114:ARG:NH2	2.38	0.55
2:AB:163:VAL:CG1	2:AB:185:ALA:HA	2.36	0.55
7:AG:5:ARG:O	7:AG:7:ILE:HG23	2.07	0.55
20:AT:75:HIS:O	20:AT:79:LEU:HD11	2.06	0.55
24:BA:2726:A:O2'	24:BA:2727:A:H5'	2.06	0.55
24:BA:2734:A:C3'	24:BA:2735:G:C5'	2.85	0.55
6:CF:69:GLU:O	6:CF:70:VAL:HG23	2.06	0.55
1:CA:1134:G:N1	1:CA:1135:U:C2	2.74	0.55
1:CA:185:U:H4'	20:CT:69:LYS:CE	2.36	0.55
24:BA:607:U:OP2	28:BE:98:LYS:HG2	2.07	0.55
24:BA:309:A:H5'	44:BU:16:LYS:HD3	1.87	0.55
1:CA:1346:A:C8	1:CA:1348:U:C2	2.94	0.55
1:CA:1366:C:N3	1:CA:1367:C:C4	2.75	0.55
46:BW:16:SER:O	46:BW:17:GLU:C	2.45	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:202:G:O2'	1:CA:468:A:C8	2.60	0.55
24:BA:545:U:H2'	24:BA:547:A:C5'	2.34	0.55
24:DA:1724:G:C5	24:DA:1725:U:C5	2.95	0.55
24:DA:52:A:OP2	24:DA:117:G:N1	2.31	0.55
24:BA:2011:U:OP1	42:BS:42:LYS:HD3	2.06	0.55
24:BA:1883:U:C5	24:BA:1884:G:C6	2.95	0.55
26:DC:154:ALA:CA	26:DC:159:THR:HG23	2.36	0.55
24:BA:8:C:H5''	33:BJ:53:TYR:OH	2.05	0.55
24:BA:2207:C:C2	24:BA:2218:G:C2	2.93	0.55
2:AB:41:ILE:O	2:AB:41:ILE:CG2	2.55	0.55
1:CA:174:A:H2'	1:CA:175:C:H5'	1.88	0.55
1:CA:189:A:C6	1:CA:190:A:C2	2.95	0.55
2:CB:68:LEU:CD1	2:CB:70:VAL:CG2	2.84	0.55
30:BG:102:ILE:CG2	30:BG:104:LEU:HD13	2.36	0.55
5:CE:104:GLY:O	5:CE:105:ILE:CG2	2.54	0.55
24:BA:2311:A:N6	29:BF:40:GLY:HA3	2.21	0.55
20:CT:55:GLN:HG3	20:CT:56:PRO:HD3	1.87	0.55
1:AA:978:A:N1	1:AA:1319:A:C4	2.75	0.55
53:D3:9:ALA:HB1	53:D3:61:LEU:HD21	1.87	0.55
1:CA:778:G:N1	1:CA:779:C:C2	2.75	0.55
24:DA:1619:G:H2'	24:DA:1620:G:C5'	2.35	0.55
1:CA:745:G:C6	1:CA:746:A:C6	2.95	0.55
24:DA:1141:U:H4'	24:DA:1142:A:O5'	2.07	0.55
24:BA:1053:C:C2	24:BA:1107:G:C2	2.95	0.55
1:CA:254:G:OP1	17:CQ:70:THR:HG21	2.07	0.55
8:CH:10:MET:SD	8:CH:36:ILE:HD12	2.47	0.55
27:BD:2:ILE:HG12	27:BD:3:GLY:N	2.21	0.55
24:DA:46:G:C2	24:DA:47:C:C5	2.95	0.55
37:DN:115:LEU:O	37:DN:117:ASP:N	2.39	0.55
48:DY:36:GLN:O	48:DY:37:LEU:HB2	2.06	0.55
12:CL:76:GLU:CD	12:CL:77:HIS:N	2.60	0.55
24:DA:263:G:H2'	24:DA:264:C:O4'	2.06	0.55
1:CA:440:C:OP1	4:CD:121:LYS:NZ	2.39	0.55
36:BM:53:MET:SD	36:BM:103:TYR:HD2	2.30	0.55
40:BQ:116:LEU:O	40:BQ:117:ALA:C	2.45	0.55
32:DI:32:VAL:CG1	32:DI:33:ASN:N	2.69	0.55
28:DE:137:LYS:HG3	28:DE:141:MET:HE1	1.88	0.55
24:BA:1068:G:N3	24:BA:1068:G:H2'	2.21	0.55
24:BA:2506:U:O2	24:BA:2506:U:H2'	2.06	0.55
8:AH:4:GLN:OE1	8:AH:4:GLN:N	2.33	0.55
13:AM:85:CYS:HB2	19:AS:73:GLU:CG	2.36	0.55
38:BO:100:HIS:CG	38:BO:101:GLY:N	2.74	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BO:5:SER:O	38:BO:6:ALA:C	2.44	0.55
24:BA:418:C:H2'	24:BA:419:U:C6	2.42	0.55
8:AH:19:ALA:O	8:AH:20:ALA:C	2.44	0.55
1:CA:689:C:P	11:CK:48:GLY:HA3	2.45	0.55
1:CA:706:A:C6	1:CA:707:U:N3	2.75	0.55
1:AA:393:A:C2	1:AA:394:G:C8	2.95	0.55
8:AH:101:ILE:HG12	8:AH:112:THR:HG21	1.89	0.55
1:CA:503:C:OP1	12:CL:116:LYS:NZ	2.39	0.55
1:CA:728:A:N1	1:CA:729:A:C6	2.75	0.55
1:AA:780:A:OP1	11:AK:125:LYS:HG2	2.07	0.55
24:DA:1095:A:C6	24:DA:1096:A:N6	2.75	0.55
24:BA:674:G:O3'	28:BE:58:LYS:NZ	2.40	0.55
9:AI:54:LEU:O	9:AI:55:VAL:HG12	2.06	0.55
4:CD:87:GLY:O	4:CD:90:LEU:HD12	2.07	0.55
16:CP:71:VAL:HA	16:CP:74:LEU:HB2	1.89	0.55
24:BA:2779:U:O4'	24:BA:2781:A:N7	2.39	0.55
14:CN:56:SER:O	14:CN:57:PRO:C	2.45	0.55
1:CA:529:G:O6	12:CL:46:ASN:HA	2.07	0.55
12:CL:43:LYS:HG3	12:CL:44:LYS:H	1.70	0.55
1:AA:1410:A:H2'	1:AA:1411:C:C6	2.41	0.55
24:BA:1511:G:H2'	24:BA:1512:C:C6	2.42	0.55
24:DA:2231:U:OP1	47:DX:29:LEU:HD12	2.06	0.55
24:BA:2297:A:N7	24:BA:2320:U:C4	2.75	0.55
24:BA:458:G:O2'	24:BA:459:U:OP2	2.22	0.55
35:DL:93:ASN:O	35:DL:94:THR:HB	2.06	0.55
27:BD:30:GLU:OE1	27:BD:53:GLY:HA2	2.06	0.55
24:BA:2705:A:C8	24:BA:2706:A:C8	2.95	0.55
24:BA:2264:C:C2'	24:BA:2265:U:O5'	2.54	0.55
1:CA:1387:G:O2'	1:CA:1388:C:H5'	2.06	0.55
24:BA:1022:G:C5	24:BA:1140:C:N4	2.75	0.55
24:BA:230:G:N2	24:BA:231:A:C4	2.75	0.55
42:DS:73:LYS:HB2	42:DS:106:VAL:HG13	1.87	0.55
5:CE:104:GLY:HA3	5:CE:122:ASN:HB2	1.88	0.55
1:CA:64:G:C5	1:CA:99:C:N4	2.75	0.55
24:BA:1310:G:N2	24:BA:1605:C:C4	2.75	0.55
41:BR:42:ALA:HA	41:BR:46:GLU:HA	1.88	0.55
2:AB:143:LYS:O	2:AB:144:LEU:C	2.45	0.55
24:BA:2776:A:C8	24:BA:2782:G:C5	2.94	0.55
1:CA:1452:C:H4'	1:CA:1453:G:N3	2.22	0.55
1:AA:886:G:C2	1:AA:912:C:C2	2.94	0.55
1:CA:371:A:C2	1:CA:372:C:C5	2.94	0.55
24:DA:807:U:OP1	24:DA:830:G:N2	2.37	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1434:A:N3	24:DA:1435:G:C8	2.75	0.55
49:BZ:44:ARG:O	49:BZ:47:ILE:N	2.39	0.55
31:BH:2:GLN:O	31:BH:3:VAL:C	2.45	0.55
24:DA:517:C:OP2	50:D0:9:ARG:NH2	2.39	0.55
43:DT:92:ASN:OD1	43:DT:93:LEU:N	2.39	0.55
24:BA:2854:G:N2	24:BA:2864:G:C4	2.75	0.55
50:B0:43:THR:HG23	50:B0:47:TYR:O	2.07	0.55
6:CF:88:MET:O	6:CF:90:MET:CE	2.54	0.55
30:BG:15:ASP:OD1	30:BG:16:VAL:N	2.39	0.55
24:BA:2458:G:O2'	24:BA:2460:U:O4	2.23	0.55
9:AI:118:LEU:O	9:AI:120:LYS:N	2.39	0.55
8:AH:92:LEU:HD23	8:AH:117:ARG:CZ	2.36	0.55
1:AA:1083:U:C5	1:AA:1084:G:C6	2.94	0.55
1:CA:666:G:H2'	1:CA:667:G:O4'	2.06	0.55
15:CO:56:LEU:O	15:CO:59:MET:N	2.39	0.55
1:AA:802:A:C2'	1:AA:803:G:H5'	2.36	0.55
24:BA:1838:C:H4'	24:BA:1839:G:C8	2.42	0.55
10:AJ:53:ILE:HG13	14:AN:85:ARG:NH1	2.21	0.55
13:CM:50:GLU:O	13:CM:53:ILE:N	2.40	0.55
24:DA:1071:G:OP2	24:DA:1089:A:N7	2.39	0.55
2:AB:96:TRP:CH2	2:AB:172:ALA:HA	2.42	0.55
24:DA:545:U:H2'	24:DA:546:U:O3'	2.07	0.55
24:BA:27:G:N2	24:BA:512:G:H1'	2.21	0.55
1:AA:429:U:OP1	4:AD:9:LEU:HD13	2.07	0.55
24:DA:1356:G:N1	24:DA:1357:C:C2	2.75	0.55
11:AK:53:ARG:HA	11:AK:57:LYS:HB3	1.89	0.55
12:CL:90:LEU:C	12:CL:90:LEU:HD13	2.27	0.55
24:DA:2821:A:OP2	27:DD:115:GLY:HA3	2.06	0.55
1:AA:1304:G:C2	1:AA:1305:G:N2	2.75	0.55
3:AC:64:ILE:HD12	3:AC:66:VAL:HG23	1.89	0.55
7:CG:42:ILE:HG13	7:CG:43:VAL:N	2.21	0.55
17:CQ:16:LYS:O	17:CQ:17:MET:HB2	2.05	0.55
21:AU:21:ARG:CG	21:AU:21:ARG:O	2.55	0.55
1:CA:655:A:C2	1:CA:656:G:C4	2.94	0.55
15:CO:29:VAL:CG1	15:CO:30:ALA:N	2.70	0.55
39:DP:92:ARG:HH11	39:DP:92:ARG:CG	2.20	0.55
24:BA:322:A:OP2	28:BE:163:ASN:HB2	2.06	0.55
24:DA:446:G:P	40:DQ:2:ARG:HE	2.29	0.55
1:AA:435:A:N1	1:AA:436:C:C2	2.73	0.55
41:DR:58:VAL:HG23	41:DR:59:ILE:N	2.22	0.55
24:DA:526:A:O2'	24:DA:2043:C:O2	2.21	0.55
1:AA:1361:G:H2'	1:AA:1362:A:H5'	1.87	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:833:G:H2'	1:CA:834:U:O5'	2.06	0.55
24:BA:1142:A:N3	24:BA:1144:A:C8	2.74	0.55
24:DA:845:A:C6	24:DA:847:U:C6	2.94	0.55
24:DA:2772:C:H2'	24:DA:2773:C:H6	1.71	0.55
50:D0:52:LYS:CE	50:D0:55:ALA:HA	2.36	0.55
24:DA:2080:A:P	47:DX:19:HIS:NE2	2.79	0.55
25:BB:75:G:C1'	45:BV:29:ILE:HD12	2.37	0.55
1:CA:1176:A:N1	1:CA:1177:G:C2	2.75	0.55
1:CA:25:C:C5	1:CA:558:G:N2	2.75	0.55
11:AK:113:VAL:O	11:AK:114:THR:O	2.25	0.55
24:BA:2599:G:C8	26:BC:235:GLU:HG2	2.41	0.55
5:CE:46:VAL:CG1	5:CE:118:ALA:HB2	2.37	0.55
28:DE:149:ILE:CD1	28:DE:192:ALA:HB1	2.36	0.55
1:AA:237:G:C6	1:AA:238:A:C6	2.94	0.55
24:BA:444:C:OP1	28:BE:40:ARG:NH1	2.40	0.55
3:AC:6:HIS:HB3	14:AN:89:MET:HE2	1.89	0.55
24:DA:323:C:C4	24:DA:333:G:C8	2.95	0.55
39:BP:42:PHE:CE1	39:BP:60:VAL:HG23	2.41	0.55
24:BA:489:G:O4'	24:BA:1284:A:C8	2.60	0.55
22:AV:70:G:N1	22:AV:71:G:C5	2.75	0.55
32:BI:79:LEU:HD23	32:BI:137:LEU:CD2	2.37	0.55
24:BA:2870:C:H2'	24:BA:2871:U:O4'	2.05	0.55
24:BA:1032:A:H1'	54:B4:23:ILE:CD1	2.37	0.55
3:AC:136:ARG:CZ	3:AC:136:ARG:HB2	2.37	0.55
15:AO:78:TYR:O	15:AO:79:THR:C	2.44	0.55
1:CA:692:U:N3	1:CA:695:A:OP2	2.40	0.55
4:AD:11:LEU:CD1	4:AD:63:ARG:HD2	2.36	0.55
1:AA:1078:U:O2'	1:AA:1079:G:OP1	2.21	0.55
1:CA:1237:C:O4'	1:CA:1334:G:N2	2.40	0.55
24:DA:1105:U:H2'	24:DA:1106:G:C8	2.42	0.55
1:AA:167:A:C2	1:AA:168:G:C4	2.95	0.55
1:AA:929:G:H4'	1:AA:1535:C:C5'	2.36	0.55
24:DA:31:C:O2'	24:DA:1238:G:H5'	2.07	0.55
1:CA:878:A:OP2	1:CA:878:A:H8	1.89	0.55
24:BA:359:G:C2'	24:BA:360:U:H5'	2.37	0.55
21:CU:40:LYS:N	21:CU:41:PRO:HD3	2.22	0.55
1:CA:195:A:C5	1:CA:196:A:C2	2.95	0.55
1:CA:258:G:C5	1:CA:259:G:N7	2.74	0.55
24:DA:2201:G:C2	24:DA:2202:U:C6	2.95	0.55
24:DA:61:C:C5'	48:DY:43:LEU:HD21	2.37	0.55
13:AM:22:ILE:HD12	13:AM:23:TYR:N	2.22	0.55
24:DA:2755:C:O2'	24:DA:2756:U:H2'	2.07	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DY:13:GLU:O	48:DY:15:ASN:N	2.40	0.55
29:DF:84:ILE:O	29:DF:84:ILE:CG1	2.55	0.55
41:BR:38:VAL:O	41:BR:53:PHE:HA	2.07	0.55
24:BA:518:G:O5'	42:BS:18:ARG:NH1	2.40	0.55
6:AF:4:TYR:HE2	6:AF:6:ILE:HG12	1.72	0.55
1:CA:677:U:C5	1:CA:678:U:C5	2.95	0.55
1:CA:1431:A:C6	1:CA:1432:G:O6	2.59	0.55
26:DC:158:GLY:HA3	26:DC:197:ALA:CB	2.36	0.55
24:BA:56:A:C6	24:BA:57:C:C4	2.95	0.55
24:BA:2639:A:C5'	33:BJ:96:ARG:NH1	2.70	0.55
1:AA:106:C:C3'	1:AA:107:G:H5'	2.37	0.55
33:BJ:103:ILE:HG13	33:BJ:104:ALA:N	2.22	0.55
27:DD:22:ILE:HD11	27:DD:190:LYS:CB	2.37	0.55
38:DO:76:LYS:O	38:DO:78:VAL:N	2.39	0.55
38:DO:83:LEU:HA	38:DO:87:ILE:HG13	1.87	0.55
24:BA:1142:A:C4	24:BA:1144:A:N7	2.74	0.55
24:BA:186:G:C2'	24:BA:187:G:H5'	2.37	0.55
4:CD:196:ASN:CB	4:CD:199:LEU:HB2	2.36	0.55
22:CV:1:G:H2'	22:CV:2:C:C4	2.42	0.55
8:CH:103:VAL:CG2	8:CH:126:ILE:HB	2.36	0.55
24:DA:2080:A:H5'	47:DX:18:SER:HB2	1.89	0.55
1:AA:1381:U:H1'	7:AG:78:ARG:HH12	1.70	0.55
3:AC:149:ILE:HA	3:AC:201:TRP:O	2.07	0.55
24:DA:36:G:N3	24:DA:450:G:O2'	2.39	0.55
17:CQ:58:VAL:O	17:CQ:58:VAL:HG13	2.07	0.55
24:BA:2714:G:C4	24:BA:2715:C:C5	2.94	0.55
7:AG:138:ARG:CG	7:AG:139:GLU:N	2.69	0.55
1:CA:617:G:H4'	16:CP:46:LYS:HD2	1.87	0.55
9:AI:112:GLU:OE2	9:AI:122:ARG:NH1	2.40	0.55
40:BQ:61:ILE:HG23	40:BQ:75:TYR:CE2	2.41	0.55
24:DA:823:C:C4	24:DA:824:U:C4	2.95	0.55
24:BA:682:G:H5'	52:B2:26:ASN:ND2	2.22	0.55
1:AA:610:U:C4	1:AA:611:C:N4	2.75	0.55
24:BA:2088:A:H2'	24:BA:2089:C:C6	2.42	0.55
24:BA:2089:C:C2	24:BA:2090:A:C8	2.94	0.55
24:BA:2002:G:OP1	37:BN:17:ARG:NH1	2.30	0.55
24:DA:2438:U:O3'	24:DA:2439:A:H3'	2.07	0.55
1:AA:1495:U:O4	57:AA:1655:NMY:N7	2.40	0.55
31:DH:116:ARG:O	31:DH:118:PRO:CD	2.54	0.55
1:AA:980:C:C5'	1:AA:981:U:C5	2.89	0.55
1:AA:371:A:C5'	1:AA:372:C:OP2	2.54	0.55
1:AA:620:C:H2'	1:AA:621:A:O4'	2.07	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:622:A:C8	1:AA:623:C:C6	2.95	0.55
4:AD:145:ILE:O	4:AD:146:ARG:CG	2.55	0.55
5:AE:38:VAL:HA	5:AE:48:PHE:HA	1.87	0.55
1:AA:55:A:N1	31:DH:91:PHE:N	2.55	0.55
1:CA:428:G:C5	1:CA:430:A:C6	2.95	0.55
1:AA:709:U:C2	1:AA:710:G:C8	2.95	0.55
1:AA:780:A:H5''	11:AK:125:LYS:HE2	1.89	0.55
24:DA:1056:G:N2	24:DA:1102:C:C4	2.75	0.55
1:AA:1099:G:C6	1:AA:1100:C:C4	2.94	0.55
1:AA:811:C:O2'	1:AA:901:A:N1	2.40	0.55
19:CS:37:ARG:HG3	19:CS:37:ARG:O	2.07	0.55
24:BA:1205:A:C6	28:BE:165:HIS:NE2	2.74	0.55
1:CA:1152:A:O2'	1:CA:1153:G:H5'	2.06	0.55
4:CD:58:LYS:HB3	4:CD:200:ILE:HG13	1.88	0.55
24:BA:906:U:O2'	36:BM:66:ARG:CZ	2.55	0.55
1:CA:1048:G:O3'	1:CA:1049:U:H3'	2.07	0.55
24:DA:2211:A:C2'	24:DA:2212:A:OP1	2.55	0.55
3:AC:22:TRP:CD1	3:AC:23:PHE:O	2.60	0.55
1:AA:1430:A:N6	1:AA:1431:A:C2	2.75	0.55
24:BA:2281:A:N1	24:BA:2282:G:C6	2.75	0.55
1:CA:840:C:O2'	1:CA:841:C:OP1	2.21	0.55
24:BA:786:C:C2'	24:BA:787:C:H5'	2.37	0.55
1:AA:1394:A:C2	1:AA:1501:C:O4'	2.59	0.55
24:BA:2748:A:C2	24:BA:2749:A:C4	2.94	0.55
30:BG:68:ARG:HG3	30:BG:69:ALA:N	2.22	0.55
3:CC:23:PHE:CD2	10:CJ:13:PHE:CZ	2.95	0.55
31:BH:27:ARG:O	31:BH:32:PRO:HG2	2.06	0.55
42:BS:19:LEU:C	50:B0:21:LEU:HD12	2.27	0.55
24:BA:497:A:H2'	24:BA:498:G:O4'	2.07	0.55
1:CA:714:G:H21	1:CA:777:A:H1'	1.71	0.55
44:DU:73:ASN:CG	44:DU:76:THR:HG21	2.27	0.55
5:CE:25:VAL:HG22	5:CE:26:LYS:N	2.22	0.55
24:DA:2093:G:OP2	31:DH:22:LYS:HE3	2.06	0.55
24:BA:629:G:O2'	24:BA:639:U:O2	2.25	0.55
24:DA:2531:A:C2	24:DA:2532:G:N9	2.75	0.55
1:CA:1228:C:O2	1:CA:1228:C:C2'	2.54	0.55
1:AA:325:A:N6	1:AA:326:G:C2	2.74	0.55
19:AS:15:LEU:HD22	19:AS:35:SER:CB	2.37	0.55
2:AB:144:LEU:N	2:AB:144:LEU:CD2	2.70	0.55
27:BD:155:VAL:O	27:BD:156:PHE:HB2	2.05	0.55
4:AD:79:ALA:HB1	4:AD:86:THR:HG23	1.89	0.55
24:DA:451:U:C2	24:DA:453:A:N7	2.75	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:734:G:O2'	18:AR:60:LYS:HE2	2.07	0.55
24:BA:2078:C:H2'	24:BA:2079:U:O4'	2.07	0.55
1:AA:237:G:O6	1:AA:238:A:N6	2.39	0.55
1:CA:1272:G:C6	1:CA:1273:C:C2	2.94	0.55
24:DA:1535:A:O2'	24:DA:1537:G:N7	2.40	0.55
12:CL:35:THR:O	12:CL:36:ARG:CG	2.55	0.55
12:CL:36:ARG:NH1	12:CL:76:GLU:HB2	2.22	0.55
10:CJ:18:ILE:O	10:CJ:22:THR:N	2.40	0.55
46:DW:40:GLN:NE2	46:DW:43:THR:HA	2.21	0.55
24:DA:797:G:P	28:DE:57:LYS:HE3	2.47	0.55
1:CA:577:G:C4	1:CA:816:A:C2	2.95	0.55
41:DR:74:ILE:HB	41:DR:87:GLN:HB2	1.87	0.55
24:BA:581:C:H2'	24:BA:582:A:H8	1.71	0.55
39:DP:13:LYS:NZ	39:DP:77:SER:O	2.23	0.55
24:DA:672:C:H5	35:DL:42:SER:CB	2.19	0.55
24:BA:2452:C:C4	24:BA:2453:A:C6	2.95	0.55
38:BO:94:ARG:O	38:BO:96:GLY:N	2.40	0.55
24:DA:248:G:H5''	24:DA:386:G:N2	2.22	0.55
1:AA:590:U:C2	1:AA:650:G:C2	2.95	0.55
1:CA:363:A:N7	12:CL:27:CYS:SG	2.79	0.55
1:AA:508:U:C4'	4:AD:51:TYR:CZ	2.90	0.55
5:AE:81:LEU:CD2	5:AE:147:MET:HG2	2.37	0.55
1:AA:683:G:O2'	1:AA:684:U:H5'	2.07	0.55
1:AA:683:G:H2'	1:AA:684:U:O5'	2.06	0.55
1:AA:1097:C:N3	1:AA:1098:C:C5	2.74	0.55
55:CY:155:ARG:O	55:CY:156:SER:C	2.44	0.55
24:BA:2689:U:OP2	24:BA:2719:G:N2	2.36	0.55
4:AD:7:PRO:HB3	4:AD:9:LEU:CD2	2.36	0.55
24:DA:1208:C:C2	24:DA:1239:G:C2	2.95	0.55
40:DQ:25:GLY:O	40:DQ:26:ALA:C	2.44	0.55
1:CA:452:A:C8	1:CA:453:G:C8	2.94	0.55
24:DA:2402:U:O2'	24:DA:2403:C:H5''	2.06	0.55
24:DA:974:G:H8	24:DA:990:A:H62	1.55	0.55
24:BA:2302:U:C4	24:BA:2303:G:N7	2.75	0.55
29:BF:129:MET:N	29:BF:129:MET:HE3	2.22	0.55
1:CA:1348:U:C5	1:CA:1373:G:N2	2.75	0.55
24:DA:1394:U:C4	24:DA:1395:A:C5	2.95	0.55
35:BL:103:ILE:O	35:BL:105:ILE:N	2.40	0.55
24:DA:189:G:H2'	24:DA:205:G:N2	2.22	0.55
24:DA:839:U:O2	24:DA:940:G:C2	2.60	0.55
24:BA:2748:A:O2'	24:BA:2749:A:H5'	2.07	0.55
26:BC:132:ARG:HB2	26:BC:185:ALA:HB1	1.88	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:858:G:O2'	24:BA:2268:A:C2'	2.55	0.55
24:DA:301:G:O5'	44:DU:81:ARG:NH1	2.40	0.55
6:AF:4:TYR:CE2	6:AF:6:ILE:CD1	2.90	0.55
25:DB:61:G:C6	25:DB:62:C:C4	2.95	0.55
2:AB:177:ASN:ND2	2:AB:195:GLY:O	2.40	0.55
24:BA:2680:U:O2'	24:BA:2681:C:O5'	2.24	0.55
28:DE:181:ILE:HG22	35:DL:2:ARG:NH1	2.22	0.55
15:AO:11:ILE:O	15:AO:14:GLU:HB2	2.07	0.55
8:CH:53:GLY:O	8:CH:54:ASP:HB2	2.07	0.55
24:DA:1415:U:C5	24:DA:1588:G:N1	2.75	0.55
1:AA:795:C:O3'	11:AK:128:ARG:NH1	2.40	0.55
24:BA:1733:G:C5	24:BA:1734:G:C5	2.95	0.55
49:DZ:3:THR:HA	49:DZ:37:ARG:O	2.07	0.55
8:CH:11:LEU:HD12	8:CH:75:ILE:CG1	2.37	0.55
1:AA:1152:A:N1	1:AA:1153:G:C5	2.75	0.55
24:BA:49:A:C8	24:BA:51:G:C2	2.95	0.55
1:AA:536:C:OP1	59:AA:1768:HOH:O	2.18	0.55
1:AA:442:G:C2	1:AA:443:C:C2	2.95	0.55
24:DA:660:C:O2'	24:DA:661:A:H5'	2.08	0.55
24:BA:2595:G:N2	24:BA:2598:A:OP2	2.38	0.55
30:DG:11:PRO:O	30:DG:14:VAL:HG12	2.07	0.55
39:BP:42:PHE:HE1	39:BP:60:VAL:HG23	1.71	0.55
24:DA:1445:G:H2'	24:DA:1446:C:O4'	2.07	0.55
11:AK:61:PHE:O	11:AK:65:VAL:CG1	2.55	0.55
18:AR:35:GLU:HB2	21:AU:19:PHE:CZ	2.42	0.55
24:DA:2687:U:H2'	24:DA:2688:G:O4'	2.07	0.55
1:CA:815:A:C2	1:CA:1529:G:C4	2.94	0.55
38:DO:75:GLY:HA2	38:DO:106:LEU:HD12	1.88	0.55
32:BI:89:SER:O	32:BI:91:LYS:N	2.39	0.55
24:DA:279:A:H2'	24:DA:280:U:H5'	1.88	0.55
31:DH:121:VAL:CG1	31:DH:122:LEU:HD23	2.33	0.54
24:DA:322:A:OP1	28:DE:162:ARG:HG3	2.07	0.54
25:BB:15:A:O2'	25:BB:16:G:P	2.64	0.54
12:CL:56:ARG:O	12:CL:57:LEU:CB	2.55	0.54
1:AA:920:U:H2'	1:AA:921:U:C6	2.41	0.54
1:CA:493:A:C2'	1:CA:494:G:N3	2.70	0.54
1:CA:1299:A:N3	1:CA:1299:A:H3'	2.23	0.54
24:DA:1064:C:N4	24:DA:1070:A:P	2.80	0.54
1:AA:1092:A:C6	1:AA:1093:A:C6	2.95	0.54
55:CY:108:GLU:O	55:CY:109:ARG:NE	2.40	0.54
1:AA:181:A:N1	1:AA:195:A:N7	2.54	0.54
1:CA:1320:C:H5'	19:CS:70:LYS:CB	2.37	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CS:16:LEU:O	19:CS:18:LYS:N	2.40	0.54
17:AQ:12:VAL:HG13	17:AQ:21:ILE:CD1	2.37	0.54
40:DQ:24:TYR:O	40:DQ:27:ARG:HG3	2.07	0.54
9:CI:75:GLN:O	9:CI:79:ILE:HD12	2.06	0.54
1:CA:484:G:C4'	1:CA:485:U:H5'	2.36	0.54
20:CT:34:LYS:HG3	20:CT:35:VAL:N	2.22	0.54
20:CT:75:HIS:O	20:CT:79:LEU:HD12	2.07	0.54
26:DC:149:LYS:O	26:DC:149:LYS:HG2	2.05	0.54
24:BA:1360:G:H2'	24:BA:1361:G:C5'	2.37	0.54
24:DA:946:C:OP2	59:DA:3346:HOH:O	2.18	0.54
1:CA:918:A:H2'	1:CA:919:A:H8	1.66	0.54
1:CA:1368:A:OP2	9:CI:116:VAL:HG23	2.07	0.54
24:DA:574:A:H4'	24:DA:575:A:O5'	2.07	0.54
24:BA:1314:C:C2	24:BA:1339:G:N2	2.76	0.54
24:BA:2531:A:C5'	30:BG:156:TYR:CE2	2.90	0.54
24:DA:190:A:N6	24:DA:207:A:H1'	2.22	0.54
24:DA:1734:G:C5	24:DA:1735:A:C8	2.95	0.54
7:CG:67:GLU:O	7:CG:70:ARG:HB3	2.07	0.54
25:DB:77:U:OP2	45:DV:14:LYS:HD3	2.08	0.54
40:DQ:93:ILE:O	40:DQ:95:ALA:N	2.40	0.54
1:AA:364:A:N3	1:AA:365:U:C5	2.75	0.54
26:BC:220:ARG:CZ	59:BC:407:HOH:O	2.54	0.54
1:AA:177:G:C2'	1:AA:178:C:H5'	2.38	0.54
27:BD:125:TRP:CG	27:BD:160:LYS:CG	2.90	0.54
24:BA:2207:C:O2'	24:BA:2208:C:H5'	2.07	0.54
1:AA:790:A:N1	1:AA:1497:G:H5''	2.22	0.54
24:DA:527:C:N4	24:DA:2777:G:O2'	2.40	0.54
5:CE:13:GLU:HB3	5:CE:39:VAL:HG12	1.89	0.54
24:BA:146:A:H2	24:BA:147:C:C2	2.25	0.54
24:DA:858:G:N2	24:DA:919:U:O4	2.40	0.54
35:DL:111:ILE:CG2	35:DL:112:LEU:N	2.71	0.54
3:AC:162:ILE:CD1	3:AC:162:ILE:O	2.55	0.54
38:DO:94:ARG:O	38:DO:96:GLY:N	2.40	0.54
1:CA:381:C:H2'	1:CA:382:A:C8	2.42	0.54
24:DA:1478:G:N3	24:DA:1478:G:H2'	2.22	0.54
24:DA:431:U:H2'	24:DA:432:A:H5''	1.87	0.54
20:AT:45:ALA:O	20:AT:46:ALA:C	2.45	0.54
24:BA:1797:G:C5	24:BA:1798:U:C5	2.95	0.54
37:DN:103:ARG:CZ	37:DN:110:MET:HE1	2.37	0.54
24:BA:2884:U:O4'	50:B0:49:ARG:NH2	2.40	0.54
24:DA:1180:U:O4	24:DA:1181:U:C4	2.60	0.54
24:BA:1629:U:C2	24:BA:1630:A:C8	2.96	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:642:A:H2'	1:CA:643:C:C6	2.43	0.54
53:B3:16:THR:CG2	53:B3:20:GLY:C	2.75	0.54
24:DA:1139:G:O3'	33:DJ:26:GLY:HA3	2.07	0.54
41:DR:68:ARG:HD3	41:DR:92:TRP:CZ2	2.40	0.54
24:DA:379:G:C2'	24:DA:380:G:O5'	2.55	0.54
24:DA:2694:G:C2	24:DA:2716:C:O2	2.60	0.54
24:BA:2603:G:O2'	24:BA:2604:U:H5'	2.07	0.54
27:DD:62:LYS:N	27:DD:63:PRO:HD2	2.22	0.54
24:DA:2783:U:H2'	24:DA:2784:U:H6	1.72	0.54
24:BA:813:U:H2'	24:BA:814:C:H6	1.71	0.54
24:BA:1026:G:H1'	24:BA:1134:A:C2	2.41	0.54
24:DA:1752:C:C2'	24:DA:1753:G:H5'	2.38	0.54
3:CC:138:VAL:HG23	3:CC:139:GLN:N	2.22	0.54
24:DA:1505:A:C2	24:DA:1506:U:C2	2.94	0.54
36:DM:115:GLU:O	36:DM:116:ALA:C	2.46	0.54
39:DP:98:TYR:CE2	39:DP:99:LEU:CD1	2.90	0.54
25:DB:10:G:C5'	25:DB:11:C:OP2	2.55	0.54
24:BA:306:U:H2'	24:BA:307:G:O4'	2.07	0.54
24:BA:2898:U:C2	24:BA:2899:A:C8	2.95	0.54
2:AB:197:ASP:N	2:AB:197:ASP:OD1	2.37	0.54
5:AE:71:MET:C	5:AE:72:ILE:HD12	2.27	0.54
24:DA:321:U:OP2	28:DE:130:LYS:HE3	2.07	0.54
14:AN:46:LEU:O	14:AN:49:GLN:HG2	2.07	0.54
24:DA:85:G:P	44:DU:5:ARG:NH2	2.80	0.54
24:BA:2467:C:OP2	54:B4:4:ARG:NH2	2.38	0.54
1:AA:599:C:H5'	8:AH:88:ARG:NH1	2.21	0.54
8:AH:88:ARG:NH2	8:AH:122:GLY:C	2.58	0.54
12:CL:116:LYS:C	12:CL:117:TYR:CD1	2.81	0.54
1:CA:734:G:C2	1:CA:735:C:C2	2.95	0.54
15:CO:56:LEU:O	15:CO:57:LEU:C	2.45	0.54
57:BA:3161:NMY:O4	57:BA:3161:NMY:N6	2.40	0.54
1:CA:1296:C:OP1	13:CM:14:HIS:NE2	2.40	0.54
1:CA:1323:G:H2'	1:CA:1324:A:C8	2.43	0.54
1:AA:1182:G:C3'	1:AA:1183:U:H5'	2.37	0.54
2:AB:75:ALA:O	2:AB:77:SER:N	2.40	0.54
20:AT:67:ILE:HD13	20:AT:71:LYS:HE3	1.87	0.54
24:DA:2706:A:O2'	37:DN:64:ARG:HD3	2.06	0.54
1:CA:1147:C:O2'	9:CI:7:TYR:OH	2.21	0.54
1:AA:1007:U:OP1	14:AN:18:LYS:HE3	2.07	0.54
12:CL:65:SER:CB	12:CL:95:TYR:HB3	2.38	0.54
12:CL:90:LEU:O	12:CL:92:GLY:N	2.40	0.54
1:CA:112:G:H5'	1:CA:389:A:O2'	2.06	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DR:73:LYS:CE	41:DR:86:GLN:OE1	2.55	0.54
1:CA:1077:G:C2	1:CA:1081:A:C2	2.96	0.54
1:CA:1084:G:C6	1:CA:1085:U:O4	2.60	0.54
1:AA:854:U:O2'	1:AA:855:U:C5'	2.52	0.54
24:BA:2302:U:H2'	24:BA:2303:G:H5''	1.87	0.54
1:AA:1430:A:H2'	1:AA:1431:A:O4'	2.08	0.54
21:CU:6:VAL:HG21	21:CU:17:ARG:CD	2.38	0.54
24:BA:556:A:C8	24:BA:557:C:C5	2.94	0.54
1:CA:753:A:H5''	1:CA:754:C:C2	2.42	0.54
1:AA:893:C:C2'	1:AA:894:G:H5'	2.37	0.54
2:CB:114:LEU:HD13	2:CB:144:LEU:CD2	2.37	0.54
1:AA:50:A:C2	1:AA:52:C:O2	2.60	0.54
1:AA:441:A:C2	1:AA:497:G:C2	2.96	0.54
24:BA:962:G:H4'	24:BA:2496:C:O2'	2.07	0.54
24:BA:930:G:H1'	49:BZ:24:LEU:HD11	1.88	0.54
25:BB:57:A:O4'	29:BF:26:GLN:CG	2.55	0.54
1:AA:101:A:C6	1:AA:102:G:N7	2.74	0.54
24:BA:2354:C:O2'	46:BW:36:ILE:HG12	2.08	0.54
1:AA:293:G:C2	1:AA:294:U:C6	2.95	0.54
1:CA:954:G:C5	1:CA:955:U:C5	2.95	0.54
37:DN:70:THR:HG23	37:DN:71:ARG:N	2.22	0.54
4:CD:192:SER:O	4:CD:193:ALA:HB3	2.07	0.54
35:DL:78:ARG:HB3	35:DL:113:ALA:CB	2.37	0.54
11:AK:79:ILE:O	11:AK:81:ASN:N	2.38	0.54
24:BA:1228:G:C5	24:BA:1229:C:C5	2.95	0.54
24:DA:1806:C:H2'	24:DA:1807:G:O5'	2.07	0.54
27:BD:155:VAL:HG12	27:BD:155:VAL:O	2.07	0.54
26:BC:115:ILE:HG21	26:BC:126:GLY:HA3	1.88	0.54
27:DD:26:VAL:HB	27:DD:188:LEU:CD2	2.37	0.54
24:DA:789:A:H3'	59:DA:3760:HOH:O	2.07	0.54
30:DG:85:LYS:CG	30:DG:131:VAL:HG22	2.37	0.54
24:BA:2142:A:C2	24:BA:2150:C:C2	2.96	0.54
28:BE:149:ILE:HD11	28:BE:188:MET:HA	1.88	0.54
28:BE:145:ASP:HA	28:BE:166:LYS:HB3	1.89	0.54
24:BA:79:C:O2'	24:BA:346:A:N3	2.38	0.54
24:BA:1286:A:C6	24:BA:1329:U:C2	2.96	0.54
1:AA:895:G:C6	1:AA:896:C:C4	2.95	0.54
31:BH:57:LYS:HD2	31:BH:57:LYS:C	2.27	0.54
5:CE:89:HIS:NE2	5:CE:138:ARG:HD3	2.21	0.54
24:DA:53:A:C8	24:DA:54:G:C8	2.95	0.54
1:AA:1369:C:H2'	1:AA:1370:G:O4'	2.07	0.54
8:CH:17:GLY:O	8:CH:22:LYS:HG2	2.07	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DH:108:VAL:HG22	31:DH:110:VAL:HG13	1.89	0.54
1:AA:939:G:C2	1:AA:940:C:C4	2.95	0.54
24:DA:2393:U:O3'	35:DL:62:PRO:HA	2.07	0.54
24:BA:1876:A:C5	24:BA:1877:A:C5	2.95	0.54
1:AA:265:G:N3	17:AQ:69:LYS:HE2	2.23	0.54
11:CK:27:PHE:O	11:CK:30:THR:N	2.40	0.54
4:AD:203:LEU:C	4:AD:203:LEU:CD1	2.76	0.54
1:AA:8:A:O4'	5:AE:107:ALA:HA	2.08	0.54
1:CA:509:A:C6	1:CA:510:A:C6	2.95	0.54
1:AA:784:A:C2	1:AA:785:G:C4	2.96	0.54
1:CA:1238:A:C2	1:CA:1303:C:H4'	2.42	0.54
1:CA:1313:U:OP2	19:CS:6:LYS:HG2	2.07	0.54
1:CA:1312:G:N7	19:CS:3:ARG:CA	2.71	0.54
1:AA:167:A:H2'	1:AA:168:G:O4'	2.07	0.54
24:BA:2485:G:O3'	36:BM:125:PRO:HB3	2.07	0.54
1:AA:1181:G:N2	1:AA:1182:G:H21	2.05	0.54
2:AB:179:LEU:HB2	2:AB:181:ILE:HG23	1.89	0.54
24:BA:2428:G:H5''	24:BA:2429:G:OP1	2.07	0.54
1:AA:132:C:OP1	20:AT:69:LYS:CE	2.55	0.54
22:CV:25:C:H2'	22:CV:26:A:H8	1.69	0.54
24:BA:2733:A:C2	24:BA:2734:A:C4	2.95	0.54
24:BA:2769:U:C2	24:BA:2770:G:C8	2.96	0.54
41:DR:77:PHE:HZ	41:DR:79:ARG:NE	2.06	0.54
4:CD:54:GLN:O	4:CD:58:LYS:HE3	2.07	0.54
24:BA:565:C:O2'	24:BA:566:U:H5'	2.08	0.54
24:BA:2284:A:H3'	51:B1:5:ARG:NH1	2.22	0.54
1:CA:194:C:H5''	20:CT:60:ARG:NH1	2.22	0.54
1:CA:355:C:H2'	1:CA:356:A:C8	2.42	0.54
19:CS:44:MET:CG	19:CS:45:ILE:H	2.21	0.54
1:CA:1216:A:C6	1:CA:1217:C:N4	2.75	0.54
24:DA:2356:U:OP1	46:DW:24:LYS:NZ	2.38	0.54
38:DO:111:ARG:NH2	38:DO:117:PHE:O	2.40	0.54
9:CI:53:GLU:O	9:CI:55:VAL:HG22	2.07	0.54
26:DC:263:ASP:O	26:DC:266:ILE:HG13	2.07	0.54
24:BA:588:U:H2'	24:BA:589:U:C6	2.42	0.54
1:CA:967:C:H3'	1:CA:968:A:H5''	1.89	0.54
24:DA:190:A:H2'	24:DA:191:A:C8	2.42	0.54
24:DA:1737:G:H2'	24:DA:1738:G:N3	2.22	0.54
6:AF:37:HIS:CG	6:AF:38:ARG:N	2.75	0.54
1:CA:712:A:N6	1:CA:713:G:N1	2.55	0.54
24:BA:1058:U:N3	24:BA:1059:G:N7	2.54	0.54
27:BD:57:ALA:O	27:BD:60:VAL:HG12	2.07	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1344:U:H5'	24:BA:1384:A:N1	2.21	0.54
24:BA:1347:A:H2'	24:BA:1348:C:H6	1.73	0.54
42:DS:45:VAL:O	42:DS:48:LYS:N	2.40	0.54
29:DF:11:VAL:HG12	29:DF:15:LEU:HD11	1.89	0.54
1:CA:57:G:C5	1:CA:58:C:C4	2.95	0.54
1:AA:69:G:H2'	1:AA:69:G:N3	2.23	0.54
24:BA:2824:C:C4	24:BA:2825:G:C5	2.95	0.54
24:DA:1324:G:C2	24:DA:1328:A:N6	2.75	0.54
34:BK:103:VAL:CG2	34:BK:107:LEU:CD1	2.85	0.54
24:DA:1773:A:C2'	24:DA:1774:C:H5'	2.37	0.54
6:AF:15:SER:O	6:AF:18:VAL:N	2.38	0.54
55:CY:20:PHE:CE2	55:CY:121:ALA:HA	2.43	0.54
24:DA:559:G:C2'	24:DA:560:C:H5'	2.37	0.54
25:BB:75:G:O2'	45:BV:88:HIS:NE2	2.23	0.54
9:CI:31:ASN:O	9:CI:32:GLN:C	2.44	0.54
37:BN:44:LEU:HA	37:BN:47:VAL:HG12	1.89	0.54
24:BA:1218:G:C2	24:BA:1232:G:C4	2.95	0.54
24:DA:2325:G:H8	24:DA:2325:G:O5'	1.90	0.54
24:DA:1582:C:H3'	24:DA:1583:A:H5''	1.88	0.54
25:DB:75:G:H1'	45:DV:29:ILE:HG12	1.89	0.54
53:B3:56:LEU:O	53:B3:57:VAL:HG23	2.07	0.54
1:CA:1272:G:C6	1:CA:1273:C:N3	2.76	0.54
12:CL:67:ILE:HD12	12:CL:72:HIS:CE1	2.42	0.54
9:CI:117:GLY:C	9:CI:118:LEU:HD12	2.28	0.54
1:AA:721:G:H4'	1:AA:722:G:O4'	2.08	0.54
5:CE:60:ILE:O	5:CE:63:ALA:N	2.41	0.54
6:AF:98:GLU:HG2	6:AF:99:ALA:N	2.22	0.54
55:CY:7:LYS:HG3	55:CY:8:ASP:N	2.21	0.54
37:DN:60:VAL:O	37:DN:61:ALA:C	2.45	0.54
41:BR:4:VAL:HG12	41:BR:40:MET:HB3	1.88	0.54
24:BA:1248:G:C4	40:BQ:2:ARG:HB2	2.43	0.54
51:D1:50:GLU:OE2	51:D1:52:LYS:HG3	2.07	0.54
26:BC:70:LYS:HD3	26:BC:95:TYR:CD2	2.42	0.54
1:AA:944:G:C5'	1:AA:945:G:OP2	2.55	0.54
25:BB:45:A:C8	29:BF:91:ARG:NE	2.75	0.54
47:BX:8:GLY:O	47:BX:9:LYS:O	2.26	0.54
8:AH:37:ALA:C	8:AH:39:VAL:H	2.10	0.54
1:CA:770:C:O2'	1:CA:771:G:H5'	2.08	0.54
1:AA:376:G:H5''	16:AP:5:ARG:HE	1.69	0.54
1:AA:499:A:H4'	1:AA:500:G:OP1	2.07	0.54
1:AA:600:A:H2'	1:AA:601:G:C8	2.42	0.54
5:AE:114:VAL:HG23	5:AE:115:LEU:HD13	1.88	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:81:LEU:HD21	5:AE:147:MET:HG2	1.88	0.54
5:AE:94:VAL:HG12	5:AE:95:PHE:N	2.22	0.54
1:AA:572:A:C5'	1:AA:573:A:OP2	2.56	0.54
6:AF:80:PHE:CE1	6:AF:81:ASN:HB2	2.42	0.54
1:CA:1309:G:C6	1:CA:1329:A:N7	2.76	0.54
1:AA:154:U:O2	1:AA:168:G:C2	2.60	0.54
1:AA:1090:U:O2	1:AA:1091:U:C6	2.59	0.54
24:BA:197:A:H2'	24:BA:198:C:H5'	1.90	0.54
26:DC:50:THR:HG22	26:DC:53:ILE:HD12	1.89	0.54
24:BA:110:G:N2	24:BA:111:A:H1'	2.22	0.54
1:CA:878:A:P	8:CH:80:ARG:HH22	2.26	0.54
7:CG:145:ALA:O	7:CG:146:GLU:C	2.44	0.54
27:DD:12:THR:HG22	27:DD:13:ARG:H	1.72	0.54
1:CA:391:G:C6	1:CA:392:C:C5	2.96	0.54
20:CT:53:GLU:HG2	20:CT:54:MET:N	2.23	0.54
24:BA:811:U:C2	24:BA:1251:C:C5	2.95	0.54
24:DA:2202:U:H5''	24:DA:2203:U:OP1	2.06	0.54
24:DA:2204:G:N2	24:DA:2205:A:H1'	2.22	0.54
24:DA:2216:G:H2'	24:DA:2217:G:C8	2.42	0.54
24:DA:2757:A:H2'	59:DA:3822:HOH:O	2.06	0.54
24:BA:2303:G:N2	24:BA:2304:G:N3	2.55	0.54
3:AC:9:GLY:O	3:AC:12:LEU:HG	2.07	0.54
1:CA:208:U:C2	1:CA:212:G:N2	2.75	0.54
1:CA:214:C:HO2'	1:CA:215:C:P	2.30	0.54
1:AA:869:G:O6	59:AA:1816:HOH:O	2.18	0.54
26:BC:83:ASP:CG	26:BC:86:ARG:HG2	2.27	0.54
30:DG:105:SER:HA	30:DG:108:PHE:HE2	1.69	0.54
21:AU:17:ARG:HA	21:AU:17:ARG:NE	2.22	0.54
21:AU:17:ARG:HA	21:AU:17:ARG:NH1	2.21	0.54
24:BA:509:C:O2'	24:BA:510:C:OP1	2.24	0.54
27:BD:125:TRP:CE3	27:BD:160:LYS:HB2	2.42	0.54
12:AL:87:VAL:HG12	12:AL:93:VAL:O	2.07	0.54
11:CK:101:ASN:OD1	11:CK:102:ALA:N	2.40	0.54
49:BZ:50:VAL:HG23	49:BZ:53:MET:CG	2.37	0.54
1:CA:953:G:O6	1:CA:1228:C:N4	2.41	0.54
24:BA:784:G:C6	26:BC:227:VAL:HG21	2.41	0.54
29:DF:153:ILE:C	29:DF:153:ILE:HD12	2.27	0.54
24:DA:2321:U:C5'	24:DA:2322:A:OP2	2.55	0.54
1:CA:1160:G:HO2'	1:CA:1161:C:P	2.28	0.54
1:AA:1361:G:C2	1:AA:1362:A:N7	2.75	0.54
24:BA:2617:U:H2'	24:BA:2618:G:H5'	1.89	0.54
38:DO:51:ALA:CB	38:DO:78:VAL:HG22	2.37	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:B2:16:HIS:HB2	52:B2:21:ARG:NH1	2.22	0.54
24:BA:2815:C:O2'	50:B0:40:HIS:CD2	2.60	0.54
36:BM:2:LEU:O	36:BM:3:GLN:HB2	2.06	0.54
24:BA:1674:G:N2	24:BA:1677:A:N1	2.55	0.54
24:BA:670:A:H3'	35:BL:43:GLY:CA	2.37	0.54
53:B3:16:THR:HG21	53:B3:48:MET:HE1	1.89	0.54
26:DC:70:LYS:HD2	26:DC:95:TYR:CG	2.43	0.54
24:BA:1090:A:H2'	24:BA:1090:A:N3	2.22	0.54
24:DA:260:G:C2	24:DA:261:G:C8	2.95	0.54
31:BH:110:VAL:HG12	31:BH:111:ALA:N	2.22	0.54
1:CA:242:G:C2	1:CA:245:U:C5	2.96	0.54
24:DA:945:A:C5	24:DA:2448:A:C2	2.96	0.54
24:DA:1536:C:H4'	24:DA:1537:G:N3	2.23	0.54
6:AF:9:MET:HE3	18:AR:65:LEU:HA	1.89	0.54
18:CR:20:GLU:N	18:CR:22:ASP:O	2.40	0.54
5:CE:106:ILE:HG13	5:CE:124:LEU:HB3	1.88	0.54
20:AT:28:MET:CE	20:AT:61:GLN:HG2	2.38	0.54
28:DE:151:GLY:HA3	28:DE:191:ASP:CG	2.27	0.54
33:DJ:103:ILE:HD12	33:DJ:103:ILE:O	2.07	0.54
42:BS:88:ARG:NH2	42:BS:88:ARG:HG2	2.21	0.54
36:BM:54:THR:O	36:BM:56:ALA:N	2.41	0.54
15:CO:46:HIS:C	15:CO:47:LYS:HG3	2.28	0.54
24:DA:322:A:OP1	28:DE:162:ARG:CG	2.56	0.54
1:AA:1221:G:H5'	19:AS:36:ARG:HE	1.72	0.54
1:AA:939:G:N1	1:AA:940:C:N4	2.56	0.54
25:BB:49:C:O2	25:BB:50:A:C8	2.60	0.54
25:BB:49:C:O2'	25:BB:50:A:O5'	2.23	0.54
38:BO:28:VAL:O	38:BO:95:SER:OG	2.21	0.54
1:AA:257:G:C2	1:AA:270:A:C2	2.96	0.54
1:CA:692:U:O2	1:CA:694:A:C8	2.60	0.54
1:AA:596:A:N6	1:AA:645:G:C5	2.76	0.54
1:AA:1077:G:N2	1:AA:1081:A:N3	2.56	0.54
4:CD:99:ASP:HA	4:CD:114:ALA:HB1	1.89	0.54
1:CA:726:C:O2'	1:CA:727:G:H5'	2.08	0.54
15:CO:56:LEU:HA	15:CO:59:MET:HG2	1.89	0.54
1:AA:409:U:O5'	4:AD:25:VAL:HG12	2.07	0.54
9:AI:35:LEU:C	9:AI:35:LEU:HD12	2.27	0.54
20:AT:67:ILE:CD1	20:AT:71:LYS:CE	2.84	0.54
20:AT:78:ASN:O	20:AT:79:LEU:C	2.45	0.54
1:CA:1015:G:C6	1:CA:1016:A:C6	2.95	0.54
24:BA:2122:U:H2'	24:BA:2123:G:C8	2.42	0.54
24:BA:528:A:C2	24:BA:2043:C:C4'	2.86	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DQ:40:LYS:CG	40:DQ:41:ALA:N	2.71	0.54
16:CP:43:ALA:HB1	16:CP:49:GLY:HA2	1.90	0.54
1:CA:1124:G:OP1	10:CJ:37:ARG:HA	2.07	0.54
24:DA:1652:A:C2	24:DA:2006:C:N3	2.75	0.54
1:AA:1004:A:N1	1:AA:1005:A:C2	2.76	0.54
1:AA:1038:C:H2'	1:AA:1039:G:C8	2.43	0.54
24:BA:811:U:OP1	35:BL:29:LYS:CG	2.54	0.54
24:BA:599:A:C2'	24:BA:600:G:H5'	2.38	0.54
24:BA:657:U:C2	24:BA:658:U:C5	2.95	0.54
1:CA:386:C:C2'	1:CA:387:U:C5'	2.84	0.54
12:CL:110:ARG:NH1	12:CL:112:GLN:O	2.40	0.54
24:BA:637:A:OP2	35:BL:128:THR:HG21	2.07	0.54
24:BA:123:G:H4'	24:BA:1376:C:O5'	2.08	0.54
24:BA:1368:G:OP1	52:B2:25:LYS:HD2	2.08	0.54
24:DA:2314:A:C6	24:DA:2315:G:C6	2.96	0.54
1:AA:1432:G:OP1	39:BP:105:LYS:HG2	2.08	0.54
1:AA:1216:A:H2'	1:AA:1217:C:C6	2.43	0.54
24:BA:590:A:H2'	24:BA:591:U:H6	1.72	0.54
24:DA:811:U:C4	35:DL:21:ARG:NH2	2.76	0.54
30:BG:117:PRO:HD2	30:BG:120:ILE:HG21	1.90	0.54
24:DA:1187:G:H5''	41:DR:83:TYR:CE1	2.42	0.54
16:AP:19:VAL:HG22	16:AP:37:GLY:O	2.06	0.54
1:AA:889:A:C5'	1:AA:891:U:C1'	2.85	0.54
24:BA:2473:U:H2'	24:BA:2473:U:O2	2.08	0.54
41:BR:49:ILE:HG13	41:BR:53:PHE:N	2.23	0.54
1:CA:1062:U:C2'	1:CA:1063:C:C6	2.89	0.54
2:AB:225:ARG:O	2:AB:226:SER:CB	2.56	0.54
1:CA:188:C:O2	1:CA:188:C:H2'	2.07	0.54
24:BA:1959:G:H2'	24:BA:1960:A:H5'	1.87	0.54
24:BA:1419:A:C5	24:BA:1579:A:C2	2.95	0.54
24:BA:327:G:H2'	24:BA:328:U:O4'	2.06	0.54
10:AJ:14:ASP:HB3	10:AJ:17:LEU:HB3	1.90	0.54
1:AA:474:G:C6	1:AA:475:C:C4	2.95	0.54
26:BC:90:ILE:O	26:BC:90:ILE:HD12	2.08	0.54
5:CE:36:LEU:HD21	5:CE:137:VAL:HG11	1.88	0.54
24:DA:742:A:H2'	24:DA:743:A:H8	1.70	0.54
24:BA:45:G:O3'	24:BA:46:G:O4'	2.26	0.54
41:DR:56:GLY:O	41:DR:57:GLY:O	2.26	0.54
24:BA:1474:U:O4	24:BA:1475:G:N1	2.40	0.54
37:BN:97:ILE:CD1	37:BN:111:ALA:HB1	2.38	0.54
7:AG:93:PRO:C	7:AG:94:VAL:HG23	2.28	0.54
46:DW:30:SER:O	46:DW:31:VAL:HB	2.06	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:80:ILE:HD12	12:CL:97:THR:HG23	1.89	0.54
24:BA:2804:U:N3	24:BA:2805:C:C5	2.75	0.54
24:DA:700:G:O2'	24:DA:1632:A:H1'	2.08	0.54
1:CA:420:U:O2'	1:CA:423:G:O6	2.17	0.54
31:DH:51:ARG:HG2	31:DH:52:ALA:N	2.22	0.54
25:BB:26:C:C5	25:BB:27:C:C5	2.96	0.54
1:CA:223:A:C6	1:CA:224:U:C4	2.95	0.54
24:DA:1913:A:C2	24:DA:1914:C:H5''	2.43	0.54
24:DA:994:C:O2	41:DR:10:LYS:HE2	2.07	0.54
24:BA:751:A:N7	24:BA:789:A:N1	2.55	0.54
2:AB:187:VAL:HG23	2:AB:191:SER:HB2	1.89	0.54
31:DH:2:GLN:O	31:DH:3:VAL:O	2.26	0.54
42:BS:68:ASP:OD1	42:BS:68:ASP:N	2.40	0.54
24:DA:2721:A:C2	24:DA:2873:A:C5	2.95	0.54
31:DH:77:THR:O	31:DH:78:VAL:HG23	2.08	0.54
24:DA:321:U:H4'	28:DE:162:ARG:HD2	1.89	0.54
1:AA:1222:G:OP1	1:AA:1321:U:O2'	2.25	0.54
19:AS:76:PRO:O	19:AS:78:ARG:N	2.41	0.54
24:DA:2282:G:H4'	24:DA:2389:G:O2'	2.08	0.54
22:CV:19:G:O2'	22:CV:20:U:P	2.64	0.54
1:CA:552:U:C4	1:CA:553:A:N7	2.76	0.54
1:AA:374:A:C5	1:AA:375:U:C5	2.95	0.54
4:AD:91:LEU:C	4:AD:93:LEU:N	2.60	0.54
4:CD:3:ARG:HB2	4:CD:3:ARG:NH1	2.22	0.54
1:CA:740:U:O2'	1:CA:741:G:H5'	2.08	0.54
6:AF:80:PHE:CD1	6:AF:80:PHE:C	2.78	0.54
13:CM:16:VAL:HG22	13:CM:34:LEU:HD21	1.89	0.54
24:DA:1068:G:O2'	24:DA:1069:A:H5'	2.08	0.54
11:CK:36:ASP:O	11:CK:39:GLY:N	2.40	0.54
24:BA:276:U:C2	24:BA:277:G:C8	2.95	0.54
2:AB:54:LEU:HA	2:AB:57:LEU:HG	1.89	0.54
4:CD:55:LEU:HA	4:CD:58:LYS:HG2	1.89	0.54
15:CO:4:SER:O	15:CO:7:ALA:N	2.41	0.54
1:CA:393:A:C2	1:CA:394:G:C8	2.96	0.54
20:CT:28:MET:O	20:CT:32:ILE:HD12	2.07	0.54
24:DA:61:C:C2	24:DA:94:A:C2	2.95	0.54
1:CA:1211:U:H1'	1:CA:1212:U:OP2	2.07	0.54
1:AA:1142:G:C4	1:AA:1143:G:H1'	2.43	0.54
24:BA:309:A:H4'	44:BU:15:GLY:HA2	1.90	0.54
22:CV:4:C:HO2'	22:CV:5:G:H8	1.53	0.54
1:AA:1216:A:C2	1:AA:1217:C:C4	2.95	0.54
24:DA:475:C:C4	24:DA:481:G:C6	2.96	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DC:175:LEU:O	26:DC:178:GLY:N	2.41	0.54
2:AB:115:LYS:CE	1:CA:841:C:O2'	2.56	0.54
24:DA:1724:G:C6	24:DA:1725:U:C4	2.95	0.54
24:BA:2753:A:C4	24:BA:2754:U:C5	2.96	0.54
47:DX:65:THR:O	47:DX:68:ALA:N	2.39	0.54
35:DL:77:ILE:HG22	35:DL:110:VAL:CB	2.36	0.54
1:CA:665:A:C2	1:CA:732:C:C5	2.95	0.54
26:DC:80:LEU:HD23	26:DC:91:ALA:HB2	1.90	0.54
37:BN:38:LEU:HB3	37:BN:39:PRO:CD	2.38	0.54
24:BA:1342:A:C3'	24:BA:1343:G:H5''	2.37	0.54
24:DA:1629:U:O2	24:DA:2698:U:H5''	2.08	0.54
38:BO:62:LEU:CD2	38:BO:65:THR:HA	2.38	0.54
37:DN:70:THR:CG2	37:DN:71:ARG:N	2.71	0.54
24:DA:2162:G:OP2	24:DA:2164:C:N4	2.36	0.54
15:AO:9:ALA:O	15:AO:12:VAL:HG12	2.08	0.54
24:BA:1445:G:H2'	24:BA:1446:C:O4'	2.07	0.54
26:BC:245:THR:HB	26:BC:246:PRO:HD2	1.89	0.54
2:CB:149:GLY:O	2:CB:150:GLY:C	2.45	0.54
2:CB:151:ILE:HD12	2:CB:154:MET:HG2	1.90	0.54
12:AL:76:GLU:HG3	12:AL:77:HIS:N	2.22	0.54
39:BP:92:ARG:O	39:BP:93:LYS:HB2	2.07	0.54
24:DA:1587:G:C5	24:DA:1588:G:N7	2.76	0.54
14:CN:88:ALA:HA	14:CN:93:ILE:HB	1.89	0.54
12:AL:35:THR:HG22	12:AL:36:ARG:N	2.23	0.54
24:BA:2519:U:C6	24:BA:2542:A:N6	2.75	0.54
24:DA:378:C:C2'	24:DA:379:G:H5'	2.38	0.54
24:BA:1218:G:C2	24:BA:1232:G:C5	2.96	0.54
24:BA:272:A:H2'	24:BA:273:G:C8	2.42	0.54
3:AC:140:ASN:O	3:AC:141:ALA:CB	2.56	0.54
32:DI:56:VAL:HG11	32:DI:70:THR:HA	1.88	0.54
1:CA:570:G:H1'	1:CA:820:U:C4	2.43	0.54
18:AR:40:VAL:CG2	18:AR:41:PRO:HD2	2.37	0.54
27:BD:62:LYS:N	27:BD:63:PRO:HD2	2.22	0.54
38:DO:40:ILE:HD12	38:DO:41:ALA:O	2.07	0.54
1:CA:937:A:C5	1:CA:938:A:C8	2.96	0.54
36:DM:74:THR:HG23	36:DM:74:THR:O	2.07	0.54
39:DP:28:LYS:HA	39:DP:41:ALA:HA	1.89	0.54
27:DD:142:VAL:HB	27:DD:143:PRO:HD2	1.90	0.54
24:DA:721:A:N6	24:DA:722:A:N6	2.56	0.54
24:BA:1854:A:C2'	24:BA:1855:U:H5'	2.37	0.54
1:AA:755:G:N3	1:AA:755:G:H2'	2.21	0.54
25:DB:73:A:C4	25:DB:104:A:C2	2.95	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:910:A:C4	36:BM:13:HIS:CE1	2.96	0.54
24:BA:1716:U:C5	24:BA:1743:G:C2	2.96	0.54
24:BA:991:C:N4	57:BA:3162:NMY:C14	2.70	0.54
31:DH:108:VAL:CG2	31:DH:110:VAL:HG13	2.38	0.54
1:AA:976:G:N2	1:AA:1363:A:C4	2.76	0.54
13:AM:77:ILE:O	13:AM:78:LYS:C	2.46	0.54
1:CA:796:C:O3'	11:CK:127:ARG:NH1	2.40	0.54
1:AA:370:C:C4	1:AA:371:A:N7	2.76	0.54
1:AA:3:A:OP1	4:AD:83:LYS:NZ	2.41	0.54
1:AA:501:C:H1'	1:AA:549:C:H1'	1.88	0.54
4:AD:73:ARG:O	4:AD:76:TYR:N	2.41	0.54
5:AE:83:HIS:CG	8:AH:96:MET:SD	3.00	0.54
31:DH:145:ASN:CG	31:DH:146:VAL:N	2.61	0.54
1:AA:1078:U:HO2'	1:AA:1079:G:P	2.30	0.54
1:CA:620:C:H2'	1:CA:621:A:O4'	2.08	0.54
1:CA:673:A:H2'	1:CA:674:G:C8	2.43	0.54
1:CA:1299:A:HO2'	1:CA:1300:G:P	2.29	0.54
1:AA:898:G:HO2'	1:AA:899:C:H5	1.55	0.54
24:BA:109:C:C2	24:BA:110:G:C8	2.95	0.54
24:BA:279:A:C5	24:BA:280:U:C5	2.95	0.54
40:BQ:37:ALA:CA	40:BQ:40:LYS:HE3	2.38	0.54
11:CK:61:PHE:O	11:CK:64:GLN:N	2.40	0.54
1:CA:354:G:N1	1:CA:355:C:C4	2.75	0.54
24:DA:969:G:H2'	24:DA:970:U:C6	2.42	0.54
1:CA:1077:G:N1	1:CA:1081:A:C6	2.76	0.54
1:AA:833:G:C5	1:AA:834:U:C5	2.96	0.54
24:DA:2315:G:C1'	29:DF:124:ARG:NH2	2.70	0.54
1:CA:1290:G:C5'	7:CG:35:LYS:HE3	2.37	0.54
24:DA:2231:U:C2	24:DA:2232:C:C6	2.96	0.54
7:CG:2:PRO:C	7:CG:4:ARG:N	2.61	0.54
14:CN:41:ARG:HG2	14:CN:42:TRP:N	2.23	0.54
1:AA:467:U:OP1	1:AA:467:U:O4'	2.25	0.54
24:BA:507:A:H1'	24:BA:509:C:N3	2.23	0.54
24:BA:508:A:H3'	24:BA:509:C:C5'	2.38	0.54
42:BS:56:ALA:O	42:BS:57:ASN:C	2.45	0.54
1:CA:995:C:H5'	14:CN:7:ALA:HB1	1.89	0.54
1:CA:774:G:C5	1:CA:775:G:C8	2.96	0.54
35:DL:127:VAL:CG1	35:DL:131:ALA:HB3	2.38	0.54
1:CA:722:G:C5	1:CA:724:G:H1'	2.42	0.54
1:CA:350:G:O2'	1:CA:351:G:H5'	2.08	0.54
1:AA:406:G:C5	1:AA:407:U:C5	2.96	0.54
24:BA:2680:U:O2'	24:BA:2681:C:P	2.65	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1601:G:C5	24:BA:1602:U:C4	2.96	0.54
24:BA:932:U:H4'	24:BA:933:A:O5'	2.08	0.54
1:AA:451:A:C8	1:AA:452:A:C6	2.95	0.54
37:DN:52:ILE:O	37:DN:55:ALA:HB3	2.06	0.54
24:DA:621:A:H2'	24:DA:622:G:H5'	1.90	0.54
26:DC:81:GLU:OE1	26:DC:102:TYR:CE2	2.61	0.54
1:CA:853:C:C2	1:CA:854:U:C6	2.96	0.54
50:B0:48:TYR:CE2	50:B0:49:ARG:HD2	2.42	0.54
24:BA:2815:C:HO2'	50:B0:40:HIS:CD2	2.25	0.54
5:CE:74:VAL:CG2	5:CE:76:LEU:HD12	2.38	0.54
24:DA:629:G:N3	24:DA:639:U:O2'	2.38	0.54
33:BJ:114:LEU:O	33:BJ:117:ALA:HB3	2.08	0.54
1:CA:459:A:N1	1:CA:473:U:O2	2.41	0.54
45:DV:20:LEU:O	45:DV:23:ALA:O	2.26	0.54
24:BA:442:G:O4'	28:BE:41:GLN:NE2	2.40	0.54
24:DA:1913:A:N3	24:DA:1913:A:H3'	2.23	0.54
24:BA:2185:U:C2'	24:BA:2186:G:H5'	2.38	0.54
32:BI:35:MET:O	32:BI:37:PHE:N	2.40	0.54
24:DA:979:A:N6	59:DA:3590:HOH:O	2.41	0.54
24:DA:792:A:C3'	24:DA:793:A:H5'	2.38	0.54
24:BA:2488:G:C5	24:BA:2489:U:C5	2.96	0.54
1:AA:1480:A:H2'	1:AA:1481:U:O4'	2.08	0.54
1:AA:860:A:H2'	1:AA:861:G:O4'	2.08	0.54
24:DA:1545:A:H2'	24:DA:1546:G:O4'	2.08	0.54
28:DE:145:ASP:C	28:DE:145:ASP:OD1	2.46	0.54
26:DC:28:PRO:O	26:DC:33:LEU:HD21	2.08	0.54
24:DA:1262:A:N3	50:D0:6:LYS:NZ	2.55	0.54
44:DU:42:LYS:HG2	44:DU:42:LYS:O	2.07	0.54
29:BF:100:GLU:CG	29:BF:101:ARG:N	2.71	0.54
1:AA:1233:G:OP1	9:AI:125:PRO:HB3	2.07	0.54
44:DU:5:ARG:NH2	44:DU:6:ARG:HB2	2.23	0.54
11:CK:24:HIS:HB3	11:CK:87:LYS:CG	2.38	0.54
8:AH:87:LYS:O	8:AH:88:ARG:HB2	2.07	0.54
1:AA:538:G:OP2	12:AL:110:ARG:NH1	2.41	0.54
1:AA:1079:G:N2	1:AA:1080:A:C2	2.76	0.54
1:AA:1085:U:O4'	1:AA:1094:G:C6	2.61	0.54
1:CA:927:G:OP2	1:CA:927:G:H4'	2.07	0.54
1:CA:672:U:H2'	1:CA:673:A:O5'	2.08	0.54
1:CA:673:A:O4'	18:CR:64:TYR:HE1	1.90	0.54
1:AA:767:A:H2'	1:AA:768:A:O4'	2.08	0.54
1:CA:1310:G:OP1	13:CM:79:ARG:NE	2.40	0.54
24:BA:2482:A:H2'	24:BA:2483:C:O4'	2.08	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:170:HIS:CD2	2:AB:171:ILE:N	2.75	0.54
1:AA:1149:C:H2'	1:AA:1150:A:O4'	2.07	0.54
9:AI:5:GLN:O	9:AI:6:TYR:CD1	2.61	0.54
1:CA:1012:A:C6	1:CA:1018:G:C6	2.95	0.54
24:BA:2119:A:N6	24:BA:2169:A:C5	2.76	0.54
1:CA:1406:U:C5	1:CA:1407:C:C5	2.96	0.54
7:CG:149:LYS:HG3	11:CK:61:PHE:CE1	2.43	0.54
24:BA:623:C:N3	24:BA:624:C:C5	2.75	0.54
24:BA:659:G:O2'	28:BE:95:LYS:CD	2.56	0.54
28:BE:101:TYR:O	28:BE:105:LEU:HD12	2.07	0.54
13:AM:2:ALA:N	13:AM:9:ILE:CD1	2.70	0.54
24:BA:2302:U:C3'	24:BA:2303:G:C5'	2.86	0.54
1:AA:993:G:C6	1:AA:1046:A:C2	2.96	0.54
30:BG:91:VAL:O	30:BG:93:TYR:N	2.41	0.54
37:BN:32:GLU:HA	37:BN:115:LEU:CD1	2.37	0.54
30:BG:80:GLU:OE2	30:BG:82:PHE:N	2.41	0.54
24:BA:2749:A:C8	24:BA:2750:A:C8	2.96	0.54
1:AA:836:G:H2'	1:AA:837:U:O4'	2.07	0.54
41:DR:39:LEU:N	41:DR:39:LEU:HD12	2.22	0.54
24:BA:1180:U:O4	24:BA:1181:U:N3	2.40	0.54
42:BS:82:MET:HB2	42:BS:98:LYS:HB2	1.89	0.54
24:DA:2824:C:N4	24:DA:2825:G:N7	2.56	0.54
15:AO:87:LEU:O	15:AO:88:ARG:C	2.46	0.54
44:DU:76:THR:OG1	44:DU:77:GLY:N	2.41	0.54
2:AB:217:VAL:O	2:AB:221:VAL:HG12	2.07	0.54
24:DA:674:G:OP1	28:DE:71:GLY:HA3	2.08	0.54
24:BA:387:U:O2	24:BA:388:G:N7	2.40	0.54
24:DA:911:A:C5	36:DM:9:PHE:CE2	2.96	0.54
24:BA:1383:A:C2	24:BA:1384:A:N3	2.76	0.54
1:AA:528:C:H5'	1:AA:529:G:OP2	2.08	0.54
24:BA:2529:G:H5''	24:BA:2530:A:O5'	2.06	0.54
1:CA:782:A:N1	1:CA:801:U:N1	2.56	0.54
24:DA:1415:U:O2	24:DA:1415:U:C2'	2.55	0.54
25:BB:104:A:H2'	25:BB:105:G:O4'	2.08	0.54
24:BA:165:A:H1'	47:BX:43:LYS:HZ2	1.73	0.54
1:CA:20:U:C2'	1:CA:21:G:H5'	2.38	0.54
27:BD:34:VAL:HG23	27:BD:48:ILE:HG12	1.90	0.54
1:AA:152:A:N6	1:AA:170:U:N3	2.56	0.54
24:BA:1794:A:H2'	24:BA:1795:C:C6	2.43	0.54
2:AB:30:PHE:CD1	2:AB:30:PHE:N	2.75	0.54
24:BA:1707:G:C5	24:BA:1756:G:C6	2.96	0.54
1:CA:990:C:N3	1:CA:991:U:C4	2.76	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1417:G:O2'	1:AA:1483:A:N6	2.40	0.54
27:DD:184:ARG:NH2	39:DP:6:GLN:OE1	2.40	0.54
18:CR:36:SER:HA	21:CU:4:ILE:HD13	1.90	0.54
42:BS:70:LYS:O	42:BS:107:VAL:HG23	2.07	0.54
24:DA:2607:G:H2'	24:DA:2608:G:O4'	2.08	0.54
1:AA:1187:G:H2'	1:AA:1188:A:O4'	2.07	0.54
24:BA:2654:A:C8	24:BA:2656:U:C6	2.95	0.54
12:AL:43:LYS:HG2	12:AL:44:LYS:HD3	1.90	0.54
31:DH:122:LEU:N	31:DH:122:LEU:HD23	2.23	0.54
31:DH:121:VAL:C	31:DH:123:ARG:H	2.11	0.54
24:DA:690:G:C4'	26:DC:216:ARG:NH2	2.71	0.54
1:AA:623:C:C2	1:AA:624:C:C6	2.96	0.54
5:AE:81:LEU:HG	5:AE:147:MET:HG2	1.89	0.54
1:AA:922:G:H2'	1:AA:923:A:C8	2.43	0.54
1:CA:1118:U:O2	1:CA:1179:A:C2	2.61	0.54
24:DA:614:A:HO2'	24:DA:615:U:P	2.26	0.54
22:AV:57:G:C2'	22:AV:58:A:H5'	2.38	0.54
1:AA:1108:G:H2'	1:AA:1109:C:O5'	2.08	0.54
24:BA:570:G:OP1	59:BA:3776:HOH:O	2.19	0.54
1:AA:186:C:N3	1:AA:187:G:C5	2.76	0.54
1:AA:412:A:O2'	1:AA:414:A:H5'	2.08	0.54
24:BA:349:U:H2'	24:BA:350:G:C8	2.43	0.54
1:CA:451:A:H61	1:CA:481:G:H5'	1.73	0.54
16:CP:49:GLY:C	16:CP:50:THR:CG2	2.76	0.54
1:AA:1005:A:C2'	1:AA:1006:G:OP1	2.55	0.54
20:CT:34:LYS:CG	20:CT:35:VAL:N	2.71	0.54
1:CA:858:G:C5	1:CA:869:G:N7	2.76	0.54
24:BA:615:U:H3'	24:BA:616:A:H5'	1.89	0.54
44:BU:35:VAL:HG13	44:BU:38:ILE:HG21	1.89	0.54
1:CA:1357:A:N7	1:CA:1358:U:C4	2.76	0.54
1:CA:214:C:O2'	1:CA:215:C:H5'	2.07	0.54
24:DA:569:U:C2'	24:DA:570:G:O5'	2.56	0.54
2:AB:23:TRP:CE3	2:AB:25:PRO:HA	2.42	0.54
1:CA:750:C:H1'	15:CO:23:GLY:H	1.73	0.54
1:AA:889:A:C5'	1:AA:891:U:H1'	2.36	0.54
25:BB:95:U:H2'	25:BB:96:G:C8	2.43	0.54
24:BA:1171:G:C6	24:BA:1172:C:C4	2.96	0.54
41:BR:49:ILE:HG13	41:BR:52:PRO:CA	2.37	0.54
24:BA:1266:G:O6	42:BS:13:SER:CB	2.55	0.54
24:DA:445:C:H3'	24:DA:445:C:C6	2.43	0.54
24:BA:2704:C:N3	24:BA:2705:A:C2	2.75	0.54
38:BO:33:ARG:O	38:BO:34:HIS:CB	2.55	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DF:67:THR:N	29:DF:85:GLY:O	2.41	0.54
4:CD:12:SER:OG	4:CD:18:ASP:CA	2.55	0.54
1:AA:451:A:O4'	1:AA:452:A:C8	2.60	0.54
24:BA:740:C:H5''	24:BA:1784:A:OP1	2.08	0.54
24:BA:1422:G:C2	24:BA:1423:G:C4	2.95	0.54
31:BH:83:LYS:CE	31:BH:83:LYS:O	2.56	0.54
1:AA:110:C:H2'	1:AA:111:G:O4'	2.08	0.54
24:BA:1676:A:N6	24:BA:1677:A:C6	2.76	0.54
1:AA:82:G:OP2	1:AA:83:C:C5	2.61	0.54
42:DS:17:VAL:CG1	42:DS:76:VAL:HG11	2.38	0.54
24:BA:2804:U:C4	24:BA:2805:C:C5	2.95	0.54
24:DA:1483:G:N7	24:DA:1484:U:C5	2.75	0.54
24:BA:1809:A:H2'	24:BA:1810:A:C8	2.43	0.54
1:CA:1521:C:C2	1:CA:1522:U:C6	2.96	0.54
1:AA:877:G:O2'	8:AH:4:GLN:NE2	2.40	0.54
24:DA:797:G:OP1	28:DE:57:LYS:HD2	2.08	0.54
47:DX:35:HIS:O	47:DX:47:THR:HA	2.08	0.54
3:CC:15:VAL:O	3:CC:16:LYS:HB2	2.08	0.54
28:DE:159:LEU:C	28:DE:159:LEU:HD13	2.28	0.54
1:CA:1476:A:H2'	1:CA:1477:U:O4'	2.08	0.54
24:BA:24:G:O2'	42:BS:78:GLU:O	2.25	0.54
34:BK:113:MET:HA	34:BK:116:ILE:CD1	2.38	0.54
12:CL:42:PRO:HD3	12:CL:48:ALA:O	2.08	0.54
26:DC:42:ARG:HA	26:DC:47:ARG:O	2.07	0.54
36:DM:36:VAL:HG22	45:DV:82:TYR:HD2	1.73	0.54
24:BA:515:A:C2'	24:BA:516:C:H5'	2.37	0.54
29:BF:3:LEU:HA	29:BF:6:TYR:HB2	1.90	0.54
1:AA:1286:U:O2	1:AA:1286:U:C2'	2.55	0.54
25:BB:33:G:N3	25:BB:50:A:C2	2.76	0.54
8:AH:30:SER:OG	8:AH:33:LYS:HB2	2.08	0.54
26:BC:16:VAL:O	26:BC:202:ARG:HA	2.08	0.54
1:CA:771:G:N3	1:CA:809:G:C2	2.76	0.54
4:AD:203:LEU:CD1	4:AD:204:TYR:CE1	2.91	0.54
16:AP:13:LYS:O	16:AP:15:PRO:HD3	2.08	0.54
1:CA:760:G:C8	1:CA:761:G:C8	2.96	0.54
13:CM:75:MET:SD	29:DF:111:ARG:NE	2.80	0.54
3:AC:182:ILE:CD1	3:AC:203:PHE:HB2	2.38	0.54
24:BA:2278:A:OP1	36:BM:10:ARG:CD	2.56	0.54
1:CA:987:G:N2	1:CA:1219:A:C2	2.76	0.54
1:CA:1223:C:O5'	1:CA:1224:U:H5''	2.08	0.54
4:CD:78:GLU:O	4:CD:81:ARG:HB3	2.08	0.54
24:BA:1205:A:C6	28:BE:165:HIS:CD2	2.96	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:74:LEU:HD23	6:CF:74:LEU:C	2.28	0.54
24:DA:1715:G:O2'	24:DA:1716:U:OP2	2.25	0.54
1:AA:1033:G:N3	1:AA:1033:G:H2'	2.22	0.54
25:BB:85:G:C2	25:BB:92:C:C2	2.96	0.54
1:CA:1215:G:H2'	1:CA:1216:A:H5'	1.90	0.54
24:DA:2753:A:H2'	24:DA:2754:U:O5'	2.08	0.54
42:DS:6:LYS:HD3	42:DS:104:THR:HG23	1.90	0.54
24:BA:797:G:H2'	24:BA:798:G:O4'	2.08	0.54
35:BL:93:ASN:HB2	35:BL:96:LYS:HB2	1.90	0.54
1:CA:519:C:O3'	55:CY:80:LYS:NZ	2.41	0.54
13:AM:114:LYS:CG	13:AM:115:PRO:HD3	2.38	0.54
24:BA:2345:G:C5	24:BA:2381:A:C2	2.96	0.54
40:DQ:57:ARG:HA	40:DQ:60:TRP:CE3	2.43	0.54
27:DD:104:VAL:O	27:DD:105:LYS:CB	2.56	0.54
24:BA:1181:U:H2'	24:BA:1182:G:C8	2.42	0.54
41:BR:48:LYS:HG2	41:BR:49:ILE:N	2.22	0.54
24:BA:483:A:C2	24:BA:484:C:N1	2.76	0.54
1:CA:676:A:C6	1:CA:677:U:O4	2.61	0.54
24:BA:1040:A:H2'	24:BA:1041:G:O4'	2.08	0.54
24:BA:69:C:O2'	24:BA:70:G:H5'	2.07	0.54
47:BX:46:VAL:HG23	47:BX:47:THR:N	2.23	0.54
28:BE:128:ALA:O	28:BE:130:LYS:N	2.40	0.54
24:DA:445:C:O2'	24:DA:446:G:P	2.67	0.54
42:DS:84:ARG:CB	42:DS:96:ILE:HG22	2.35	0.54
1:CA:1111:A:N1	3:CC:177:THR:HB	2.23	0.54
49:BZ:26:LEU:HB2	49:BZ:28:LEU:HD13	1.90	0.54
24:DA:1569:A:O2'	24:DA:1570:A:H5'	2.08	0.54
43:DT:73:ARG:HB2	43:DT:73:ARG:NH2	2.23	0.54
1:CA:633:G:H2'	1:CA:634:C:H6	1.72	0.54
24:BA:691:C:O4'	26:BC:42:ARG:NH2	2.41	0.54
12:AL:40:THR:CG2	12:AL:41:THR:N	2.71	0.54
1:CA:1446:A:H2'	1:CA:1447:A:H5'	1.90	0.54
24:DA:2107:G:O2'	24:DA:2108:A:O5'	2.26	0.54
1:AA:1454:G:N2	1:AA:1455:G:H1'	2.23	0.54
18:AR:60:LYS:HD3	18:AR:63:ARG:HH11	1.73	0.54
24:DA:660:C:C2'	24:DA:661:A:H5'	2.38	0.54
24:BA:2599:G:N7	26:BC:235:GLU:CG	2.71	0.54
33:BJ:100:VAL:CG1	33:BJ:101:ILE:N	2.70	0.54
42:DS:55:ILE:HD12	42:DS:55:ILE:C	2.27	0.54
24:DA:665:U:H2'	24:DA:666:A:H5'	1.90	0.54
36:DM:69:PRO:O	36:DM:70:ASP:OD1	2.26	0.54
24:BA:2654:A:O4'	24:BA:2656:U:C6	2.61	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DE:129:PRO:HB3	28:DE:159:LEU:CD1	2.38	0.54
32:BI:42:ASN:HA	32:BI:45:THR:HB	1.90	0.54
24:BA:2643:G:N2	24:BA:2772:C:C2	2.76	0.54
18:CR:42:SER:HA	18:CR:45:THR:CG2	2.38	0.54
5:CE:111:MET:SD	5:CE:140:THR:HG21	2.47	0.54
2:CB:21:ARG:NH2	2:CB:37:LYS:O	2.41	0.54
24:DA:382:A:C2	24:DA:383:C:H1'	2.43	0.54
14:AN:79:LEU:HD23	14:AN:79:LEU:N	2.23	0.54
31:DH:100:ALA:O	31:DH:104:THR:HG23	2.07	0.54
24:DA:1686:C:C2'	24:DA:1687:G:H5'	2.38	0.54
29:BF:173:ASP:O	29:BF:174:PHE:C	2.46	0.53
1:AA:938:A:C6	1:AA:939:G:C5	2.96	0.53
1:AA:943:U:C2'	1:AA:944:G:H5'	2.38	0.53
25:BB:15:A:C5	25:BB:109:A:N1	2.76	0.53
24:BA:391:A:C2	24:BA:392:U:C1'	2.92	0.53
8:AH:64:LYS:HE3	8:AH:66:PHE:CZ	2.43	0.53
26:BC:13:ARG:HD3	26:BC:14:HIS:CE1	2.43	0.53
12:CL:57:LEU:CD1	12:CL:59:ASN:OD1	2.56	0.53
1:CA:787:A:C4	1:CA:788:U:C6	2.97	0.53
1:AA:392:C:N3	1:AA:393:A:C8	2.77	0.53
8:AH:95:VAL:O	8:AH:96:MET:HB2	2.08	0.53
1:CA:429:U:H5	1:CA:431:A:N7	2.06	0.53
4:CD:170:TRP:O	4:CD:182:PHE:HA	2.08	0.53
1:CA:730:G:C5	1:CA:731:G:H1'	2.43	0.53
1:CA:761:G:C5	1:CA:762:U:C5	2.96	0.53
11:AK:125:LYS:O	21:AU:34:ARG:NH2	2.40	0.53
13:CM:75:MET:SD	29:DF:111:ARG:CB	2.96	0.53
36:BM:41:LEU:HD21	36:BM:125:PRO:HD2	1.90	0.53
9:AI:52:LEU:HD11	9:AI:57:MET:SD	2.48	0.53
27:DD:133:THR:HG23	27:DD:134:HIS:N	2.23	0.53
27:DD:133:THR:O	27:DD:134:HIS:C	2.46	0.53
1:AA:131:A:C2	1:AA:132:C:C4	2.95	0.53
19:CS:42:PRO:O	19:CS:43:ASN:OD1	2.24	0.53
48:BY:46:VAL:O	48:BY:49:ASP:N	2.41	0.53
1:CA:1125:U:C4	10:CJ:40:ILE:CD1	2.91	0.53
24:BA:364:C:C4	24:BA:365:U:C4	2.96	0.53
24:BA:565:C:C2'	24:BA:566:U:H5'	2.39	0.53
24:BA:533:G:H4'	40:BQ:40:LYS:NZ	2.23	0.53
41:BR:80:ARG:O	41:BR:80:ARG:CG	2.55	0.53
34:DK:70:ARG:HD2	34:DK:76:VAL:HG23	1.90	0.53
12:CL:90:LEU:HD22	12:CL:90:LEU:O	2.08	0.53
24:BA:1454:C:O2	37:BN:64:ARG:NH2	2.41	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1216:A:C2	1:CA:1217:C:C4	2.95	0.53
1:CA:979:C:OP2	1:CA:980:C:C5	2.60	0.53
1:CA:1082:A:P	5:CE:23:LYS:HZ1	2.31	0.53
22:CV:5:G:C2	22:CV:69:G:C6	2.96	0.53
14:AN:88:ALA:N	14:AN:93:ILE:CD1	2.71	0.53
21:CU:6:VAL:HG21	21:CU:17:ARG:HD3	1.89	0.53
29:DF:73:VAL:O	29:DF:73:VAL:HG23	2.07	0.53
2:AB:23:TRP:CZ3	2:AB:25:PRO:HB3	2.43	0.53
39:BP:83:ILE:O	39:BP:84:SER:CB	2.56	0.53
27:BD:125:TRP:CE3	27:BD:160:LYS:CB	2.92	0.53
9:AI:130:ARG:HH21	22:AV:35:A:P	2.31	0.53
1:AA:496:A:H2'	1:AA:497:G:N7	2.23	0.53
24:DA:1553:A:N1	24:DA:1555:G:H1'	2.23	0.53
24:BA:1387:A:O4'	24:BA:1469:A:H1'	2.08	0.53
1:CA:1190:G:OP1	3:CC:5:VAL:HG12	2.07	0.53
1:AA:560:A:H5''	1:AA:566:G:N2	2.21	0.53
1:AA:293:G:C4	1:AA:294:U:C6	2.96	0.53
1:AA:1426:G:N1	1:AA:1427:C:O2	2.41	0.53
24:DA:2531:A:C2	24:DA:2532:G:H1'	2.43	0.53
25:BB:66:A:C6	25:BB:108:A:C5	2.95	0.53
1:CA:559:A:H4'	1:CA:560:A:H3'	1.89	0.53
7:CG:21:GLU:O	7:CG:22:LEU:C	2.46	0.53
1:CA:63:C:C2'	1:CA:64:G:C5'	2.86	0.53
1:CA:94:G:N1	1:CA:98:A:C2	2.75	0.53
34:BK:61:VAL:HG11	34:BK:112:PHE:CE1	2.43	0.53
1:AA:457:G:N2	1:AA:476:U:N3	2.55	0.53
43:BT:35:ALA:O	43:BT:38:ALA:N	2.41	0.53
24:DA:1026:G:OP1	59:DA:3710:HOH:O	2.18	0.53
11:CK:67:ALA:O	11:CK:68:GLU:C	2.46	0.53
24:BA:1562:U:N3	24:BA:1563:U:C6	2.77	0.53
24:BA:768:G:C5	24:BA:769:U:C5	2.96	0.53
1:CA:245:U:H2'	1:CA:246:A:H5'	1.91	0.53
2:AB:156:GLY:C	2:AB:158:PRO:HD3	2.28	0.53
3:CC:140:ASN:O	3:CC:141:ALA:CB	2.56	0.53
24:BA:368:A:H2'	24:BA:369:U:H5'	1.90	0.53
24:BA:2671:G:C6	24:BA:2672:U:C4	2.96	0.53
43:BT:34:VAL:HG22	43:BT:81:LYS:HB3	1.90	0.53
35:BL:23:ILE:O	35:BL:26:GLY:N	2.41	0.53
22:AV:40:C:C2	22:AV:41:C:C5	2.96	0.53
27:BD:25:THR:CG2	27:BD:189:VAL:HG23	2.38	0.53
1:CA:295:C:C4	1:CA:296:U:C4	2.96	0.53
24:DA:2001:C:O4'	24:DA:2689:U:C5	2.61	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1015:G:C6	1:AA:1016:A:C6	2.96	0.53
24:DA:2419:U:H2'	24:DA:2420:C:C6	2.43	0.53
53:B3:30:HIS:HA	53:B3:32:LEU:HD13	1.89	0.53
24:BA:2418:A:H2'	24:BA:2419:U:O4'	2.07	0.53
12:CL:32:GLY:HA3	12:CL:57:LEU:HB3	1.90	0.53
24:DA:84:A:N3	24:DA:85:G:H1'	2.23	0.53
1:CA:700:G:O4'	1:CA:704:A:H1'	2.08	0.53
11:CK:128:ARG:C	11:CK:128:ARG:HD2	2.28	0.53
5:AE:103:THR:OG1	5:AE:104:GLY:N	2.40	0.53
1:AA:780:A:H5''	11:AK:125:LYS:HG2	1.90	0.53
1:CA:1332:A:H2'	1:CA:1333:A:C5'	2.38	0.53
13:CM:41:GLU:HG3	13:CM:42:ASP:N	2.22	0.53
29:DF:136:ILE:N	29:DF:136:ILE:CD1	2.71	0.53
24:DA:1076:C:H2'	24:DA:1077:A:C1'	2.39	0.53
4:AD:25:VAL:HG23	4:AD:26:ARG:N	2.22	0.53
1:AA:1092:A:H2'	1:AA:1093:A:C8	2.43	0.53
1:AA:1097:C:C2	1:AA:1098:C:C6	2.95	0.53
1:AA:1160:G:OP1	2:AB:132:LYS:CE	2.57	0.53
9:AI:84:THR:O	9:AI:87:LEU:CD2	2.55	0.53
4:CD:91:LEU:HA	4:CD:94:LEU:CD1	2.39	0.53
24:DA:1239:G:N7	57:DA:3190:NMY:H61	2.23	0.53
40:DQ:34:ALA:O	40:DQ:37:ALA:O	2.25	0.53
1:CA:328:C:C2'	1:CA:328:C:O2	2.57	0.53
1:CA:444:G:N2	1:CA:445:G:C4	2.76	0.53
24:DA:2403:C:H2'	24:DA:2403:C:O2	2.06	0.53
24:DA:2204:G:H21	24:DA:2205:A:C1'	2.21	0.53
14:CN:20:PHE:O	14:CN:21:ALA:CB	2.56	0.53
24:BA:627:A:C6	24:BA:637:A:C8	2.96	0.53
1:CA:1099:G:N1	1:CA:1100:C:O2	2.41	0.53
2:CB:104:TRP:O	2:CB:108:ARG:HB2	2.08	0.53
24:DA:2314:A:C5	24:DA:2315:G:N7	2.76	0.53
46:BW:17:GLU:O	46:BW:19:LYS:NZ	2.41	0.53
1:AA:1439:G:H2'	1:AA:1440:U:C6	2.43	0.53
24:BA:2657:A:H2'	24:BA:2658:C:H5'	1.89	0.53
1:AA:872:A:C4	1:AA:874:G:C8	2.97	0.53
14:CN:35:ALA:HB2	14:CN:41:ARG:HB3	1.90	0.53
24:BA:2746:U:C4'	30:BG:138:GLN:HA	2.38	0.53
40:DQ:65:ASN:OD1	40:DQ:69:ARG:NE	2.38	0.53
40:DQ:87:VAL:HG23	41:DR:49:ILE:CG2	2.36	0.53
42:BS:53:SER:O	42:BS:57:ASN:N	2.41	0.53
24:DA:1177:G:H2'	24:DA:1178:C:O4'	2.07	0.53
24:BA:1587:G:C5	24:BA:1588:G:C5	2.96	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:711:G:O2'	1:CA:712:A:P	2.63	0.53
24:BA:1789:A:OP1	26:BC:220:ARG:HG2	2.08	0.53
24:BA:1041:G:C2	24:BA:1115:G:N1	2.77	0.53
24:BA:2666:C:C5	24:BA:2667:C:C5	2.96	0.53
1:AA:403:C:H2'	1:AA:404:G:C5'	2.38	0.53
47:BX:20:ALA:O	47:BX:21:LEU:HB2	2.08	0.53
31:DH:134:VAL:HG13	31:DH:135:HIS:N	2.22	0.53
24:DA:416:U:C5	24:DA:417:C:C5	2.97	0.53
1:CA:79:G:H2'	1:CA:80:A:C8	2.44	0.53
24:BA:1139:G:OP1	33:BJ:103:ILE:HD11	2.07	0.53
27:DD:38:LYS:CE	27:DD:45:TYR:OH	2.56	0.53
24:BA:231:A:H2'	24:BA:232:G:C8	2.43	0.53
35:DL:78:ARG:HB3	35:DL:113:ALA:HB3	1.90	0.53
24:DA:397:U:OP2	47:DX:9:LYS:HE2	2.08	0.53
1:CA:68:G:C6	1:CA:69:G:H1'	2.43	0.53
24:BA:2307:G:N2	24:BA:2311:A:C8	2.76	0.53
26:DC:86:ARG:HH11	26:DC:86:ARG:CG	2.21	0.53
34:BK:111:LYS:HG3	34:BK:112:PHE:CE2	2.43	0.53
1:CA:284:C:H2'	1:CA:285:C:C6	2.43	0.53
1:CA:455:G:N2	1:CA:478:A:C6	2.76	0.53
26:DC:256:THR:O	26:DC:256:THR:OG1	2.24	0.53
24:BA:404:A:C2	24:BA:406:G:C6	2.95	0.53
1:AA:1307:U:C2'	1:AA:1308:U:O5'	2.56	0.53
24:BA:668:A:C6	24:BA:670:A:C4	2.96	0.53
24:BA:378:C:C2'	24:BA:379:G:H5''	2.37	0.53
2:CB:72:THR:O	2:CB:73:LYS:HB3	2.08	0.53
24:BA:2141:G:N2	24:BA:2150:C:N3	2.52	0.53
1:AA:660:C:H2'	1:AA:661:G:O4'	2.08	0.53
1:CA:929:G:C2	1:CA:1389:C:C2	2.95	0.53
1:CA:419:C:C4	1:CA:420:U:C5	2.96	0.53
24:DA:145:C:H2'	24:DA:146:A:C8	2.43	0.53
1:AA:1057:G:H2'	1:AA:1058:G:O4'	2.07	0.53
24:BA:1432:G:N2	24:BA:1433:A:N3	2.56	0.53
4:AD:44:ARG:O	4:AD:45:LYS:C	2.46	0.53
30:BG:147:LEU:HD12	30:BG:148:ARG:N	2.22	0.53
42:BS:70:LYS:C	42:BS:107:VAL:HG23	2.29	0.53
2:AB:67:ILE:O	2:AB:161:LEU:HA	2.08	0.53
4:CD:143:VAL:HG22	4:CD:144:SER:N	2.23	0.53
24:DA:1006:C:O2'	33:DJ:108:MET:O	2.15	0.53
33:DJ:119:PHE:CD1	33:DJ:119:PHE:O	2.61	0.53
4:CD:56:ARG:HA	4:CD:60:LYS:HG2	1.90	0.53
24:DA:2241:A:N6	59:DA:3500:HOH:O	2.40	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BE:63:LYS:NZ	28:BE:63:LYS:HB2	2.23	0.53
12:AL:83:ARG:HG3	12:AL:84:GLY:N	2.22	0.53
1:AA:1494:G:C8	24:BA:1913:A:C5	2.97	0.53
24:DA:320:A:H4'	24:DA:322:A:C8	2.44	0.53
1:AA:1224:U:N3	1:AA:1322:C:O2	2.41	0.53
1:AA:958:A:N1	1:AA:959:A:C2	2.76	0.53
15:AO:64:ARG:HD3	15:AO:67:LEU:HD22	1.90	0.53
14:AN:48:LEU:CD1	14:AN:49:GLN:OE1	2.55	0.53
14:AN:48:LEU:HD12	14:AN:49:GLN:OE1	2.09	0.53
24:BA:1863:G:C2	24:BA:1880:U:O2	2.61	0.53
24:BA:1693:U:H4'	24:BA:1694:C:OP2	2.09	0.53
1:AA:37:U:OP1	12:AL:121:ARG:N	2.39	0.53
4:AD:11:LEU:HG	4:AD:63:ARG:HD2	1.91	0.53
5:AE:80:THR:HG22	5:AE:122:ASN:OD1	2.07	0.53
12:AL:119:VAL:HG12	12:AL:120:LYS:O	2.09	0.53
1:CA:760:G:N7	1:CA:761:G:C8	2.76	0.53
15:CO:36:ILE:CG2	15:CO:37:ASN:N	2.70	0.53
15:CO:53:ARG:O	15:CO:56:LEU:HB3	2.09	0.53
1:CA:1332:A:N3	1:CA:1332:A:H5'	2.23	0.53
1:CA:1332:A:N6	1:CA:1333:A:N1	2.55	0.53
13:CM:87:ARG:CZ	13:CM:97:VAL:HG21	2.38	0.53
1:CA:346:G:N7	39:DP:36:LYS:NZ	2.51	0.53
9:AI:6:TYR:CG	9:AI:89:GLU:CD	2.81	0.53
1:CA:1321:U:O2	19:CS:36:ARG:CZ	2.56	0.53
19:CS:34:TRP:O	19:CS:35:SER:C	2.46	0.53
24:DA:1163:G:N7	57:DA:3188:NMY:H232	2.24	0.53
55:CY:153:ASP:O	55:CY:155:ARG:N	2.42	0.53
24:BA:2117:A:C2	24:BA:2171:A:N1	2.77	0.53
24:BA:2119:A:C6	24:BA:2169:A:C5	2.97	0.53
4:AD:32:CYS:O	4:AD:33:LYS:HB3	2.08	0.53
1:CA:374:A:O4'	1:CA:481:G:N2	2.42	0.53
9:CI:79:ILE:O	9:CI:81:HIS:N	2.41	0.53
1:CA:1408:A:C2	1:CA:1494:G:C6	2.96	0.53
21:CU:37:PHE:CG	21:CU:38:TYR:N	2.76	0.53
1:AA:1002:G:C2	1:AA:1039:G:C6	2.97	0.53
24:DA:2683:C:H4'	27:DD:13:ARG:NH1	2.23	0.53
24:BA:620:G:H4'	24:BA:621:A:O5'	2.09	0.53
2:CB:102:THR:HG22	2:CB:103:ASN:N	2.24	0.53
29:DF:73:VAL:CG2	29:DF:78:ILE:HD11	2.39	0.53
1:AA:198:G:C4	1:AA:199:A:C8	2.96	0.53
24:BA:2133:G:C6	24:BA:2157:G:N7	2.77	0.53
24:DA:819:A:C4	24:DA:820:A:C8	2.97	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:37:PHE:CE2	3:CC:41:GLN:NE2	2.76	0.53
7:CG:127:ALA:O	7:CG:129:GLU:N	2.41	0.53
41:BR:49:ILE:HG23	41:BR:49:ILE:O	2.08	0.53
42:BS:4:ILE:HD12	42:BS:5:ALA:N	2.24	0.53
1:CA:64:G:C8	1:CA:99:C:N4	2.77	0.53
1:AA:1361:G:C6	1:AA:1362:A:C8	2.96	0.53
20:AT:35:VAL:HG12	20:AT:36:TYR:N	2.23	0.53
37:DN:108:ALA:HB3	37:DN:110:MET:CE	2.38	0.53
24:BA:1045:C:O2	24:BA:1047:G:N1	2.40	0.53
48:DY:6:LEU:CD1	48:DY:56:LEU:HD22	2.38	0.53
41:BR:45:GLU:O	41:BR:46:GLU:HG3	2.08	0.53
1:AA:114:U:H2'	1:AA:115:G:O5'	2.06	0.53
24:BA:663:G:OP1	35:BL:17:LYS:CB	2.56	0.53
9:CI:30:ILE:O	9:CI:32:GLN:N	2.41	0.53
23:AX:8:U:H3'	23:AX:9:A:H5''	1.90	0.53
1:AA:342:C:C4	1:AA:343:U:C5	2.96	0.53
28:BE:146:VAL:CG2	28:BE:147:LEU:N	2.71	0.53
24:DA:960:A:H5''	24:DA:961:C:OP1	2.08	0.53
24:DA:1959:G:H2'	24:DA:1960:A:O4'	2.08	0.53
1:AA:610:U:O4	1:AA:611:C:N4	2.41	0.53
1:CA:814:A:C8	1:CA:816:A:C8	2.96	0.53
31:DH:3:VAL:HG23	31:DH:37:VAL:C	2.27	0.53
24:BA:2771:C:H2'	24:BA:2772:C:C6	2.44	0.53
39:DP:25:VAL:O	39:DP:43:GLU:HA	2.08	0.53
7:AG:122:ASN:O	7:AG:124:LEU:N	2.41	0.53
24:BA:1916:A:H2'	24:BA:1917:U:O4'	2.08	0.53
27:BD:104:VAL:O	27:BD:105:LYS:CB	2.56	0.53
16:CP:61:VAL:O	16:CP:63:GLN:N	2.42	0.53
1:AA:1185:G:C6	1:AA:1186:G:C5	2.96	0.53
39:DP:1:SER:O	39:DP:5:LYS:HG2	2.07	0.53
22:AV:6:G:C6	22:AV:7:A:C6	2.96	0.53
24:BA:2246:G:H1'	24:BA:2426:A:C2	2.43	0.53
48:DY:26:PHE:CD1	48:DY:26:PHE:C	2.81	0.53
1:CA:1416:G:C2'	1:CA:1417:G:H5'	2.38	0.53
24:BA:710:U:H2'	24:BA:711:G:C8	2.43	0.53
54:D4:25:VAL:CG1	54:D4:33:HIS:O	2.57	0.53
29:BF:27:VAL:HG23	29:BF:28:PRO:HD2	1.89	0.53
24:BA:2413:G:H2'	24:BA:2414:G:H5'	1.89	0.53
24:BA:407:G:N2	24:BA:421:C:C2	2.76	0.53
8:AH:29:SER:O	8:AH:30:SER:HB3	2.09	0.53
1:CA:793:U:O2	1:CA:1516:G:H4'	2.08	0.53
11:CK:55:SER:C	11:CK:57:LYS:N	2.62	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:367:U:O2	1:AA:367:U:O4'	2.21	0.53
1:AA:367:U:O2	1:AA:394:G:C2	2.61	0.53
1:AA:59:A:N1	1:AA:331:G:N3	2.56	0.53
4:AD:57:GLU:O	4:AD:61:VAL:HG13	2.09	0.53
5:AE:81:LEU:CG	5:AE:147:MET:HG2	2.38	0.53
1:CA:545:C:C2'	1:CA:546:A:H5'	2.38	0.53
4:CD:110:THR:OG1	4:CD:111:ARG:N	2.40	0.53
4:CD:118:VAL:O	4:CD:131:ASN:HA	2.07	0.53
15:CO:61:SER:O	15:CO:65:LYS:CB	2.57	0.53
11:AK:35:THR:HB	11:AK:39:GLY:O	2.08	0.53
1:CA:1309:G:C1'	1:CA:1329:A:C2	2.91	0.53
24:DA:1066:U:C4	24:DA:1069:A:OP2	2.62	0.53
2:AB:163:VAL:HG11	2:AB:185:ALA:HB1	1.90	0.53
9:AI:54:LEU:O	9:AI:55:VAL:CB	2.56	0.53
20:AT:59:ASP:O	20:AT:62:ALA:HB3	2.08	0.53
1:CA:613:C:P	4:CD:81:ARG:CZ	2.96	0.53
24:BA:2725:A:C4	24:BA:2727:A:C8	2.97	0.53
1:AA:414:A:C5	1:AA:431:A:C2	2.95	0.53
16:CP:48:GLU:HG3	16:CP:49:GLY:N	2.24	0.53
24:BA:2015:A:C2	50:B0:2:VAL:HG23	2.42	0.53
1:CA:829:G:H2'	1:CA:830:G:H5'	1.88	0.53
24:DA:788:A:H5''	59:DA:3761:HOH:O	2.08	0.53
24:DA:2204:G:N2	24:DA:2205:A:N9	2.56	0.53
28:BE:30:GLN:OE1	28:BE:95:LYS:CE	2.57	0.53
1:AA:1304:G:C5	1:AA:1305:G:C2	2.97	0.53
1:AA:1333:A:C8	1:AA:1334:G:C8	2.96	0.53
24:DA:2230:G:H2'	24:DA:2231:U:H6	1.73	0.53
9:CI:124:ARG:HB3	9:CI:124:ARG:CZ	2.37	0.53
1:CA:966:G:H2'	9:CI:129:LYS:CE	2.38	0.53
24:DA:940:G:H3'	24:DA:941:A:H5''	1.90	0.53
3:CC:42:TYR:HA	3:CC:45:LYS:HD3	1.91	0.53
25:BB:78:A:N6	25:BB:98:G:O2'	2.41	0.53
1:CA:680:C:C2	1:CA:711:G:N1	2.76	0.53
24:BA:1464:G:H2'	24:BA:1465:G:C8	2.44	0.53
24:DA:1322:A:O3'	42:DS:84:ARG:NH2	2.41	0.53
24:BA:1346:G:O2'	24:BA:1347:A:O5'	2.27	0.53
24:BA:848:C:N4	24:BA:849:A:N6	2.55	0.53
24:DA:1639:C:O2'	24:DA:2699:C:H4'	2.08	0.53
1:AA:68:G:C6	1:AA:69:G:H1'	2.42	0.53
1:AA:881:G:C5	1:AA:882:C:C5	2.97	0.53
24:BA:1021:A:H2'	24:BA:1021:A:N3	2.23	0.53
24:DA:1351:C:O2'	24:DA:1571:A:N3	2.30	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:43:LEU:HD13	2:CB:46:THR:HG21	1.91	0.53
24:BA:1786:A:C6	24:BA:1938:A:C2	2.97	0.53
1:AA:719:C:H3'	1:AA:720:C:C6	2.44	0.53
35:DL:79:LEU:CD1	35:DL:111:ILE:O	2.55	0.53
24:BA:1841:U:C2	24:BA:1842:G:C8	2.96	0.53
2:CB:90:PHE:HD1	2:CB:90:PHE:N	2.06	0.53
24:BA:126:A:C6	24:BA:127:A:C2	2.96	0.53
24:DA:80:G:C2	24:DA:81:G:C8	2.96	0.53
45:BV:29:ILE:CG2	45:BV:30:ILE:N	2.71	0.53
1:CA:254:G:OP1	17:CQ:70:THR:CG2	2.56	0.53
1:CA:448:A:C5	1:CA:487:A:C2	2.96	0.53
27:DD:24:VAL:HA	27:DD:189:VAL:O	2.09	0.53
36:DM:73:ILE:HD12	36:DM:73:ILE:N	2.24	0.53
39:BP:58:PHE:N	39:BP:58:PHE:HD1	2.06	0.53
24:BA:654:A:P	24:BA:654:A:O4'	2.67	0.53
24:BA:2547:A:H2'	24:BA:2548:U:C6	2.43	0.53
24:DA:280:U:O4	24:DA:281:C:N4	2.42	0.53
6:CF:5:GLU:O	6:CF:6:ILE:HG13	2.08	0.53
24:DA:1906:G:H2'	24:DA:1907:G:O5'	2.09	0.53
24:BA:1509:A:O2'	24:BA:1510:G:P	2.67	0.53
24:DA:825:A:H2'	24:DA:826:U:C6	2.44	0.53
43:BT:63:VAL:HG21	43:BT:80:TRP:CE2	2.44	0.53
24:BA:1943:U:H4'	24:BA:1944:U:OP1	2.08	0.53
1:AA:1418:A:N1	24:BA:1948:G:O2'	2.38	0.53
40:DQ:71:ASN:OD1	40:DQ:106:THR:HG23	2.09	0.53
45:BV:65:VAL:O	45:BV:65:VAL:HG23	2.07	0.53
43:DT:59:ASN:OD1	43:DT:59:ASN:N	2.40	0.53
24:BA:2190:G:H2'	24:BA:2190:G:N3	2.22	0.53
55:CY:116:ILE:HD13	55:CY:116:ILE:N	2.22	0.53
39:DP:114:ASN:O	39:DP:114:ASN:ND2	2.41	0.53
45:BV:63:ILE:O	45:BV:69:GLU:HA	2.07	0.53
24:DA:683:U:C2	24:DA:684:G:C8	2.97	0.53
7:AG:115:SER:O	7:AG:117:ALA:N	2.41	0.53
43:DT:44:LYS:HG3	43:DT:55:VAL:CG2	2.38	0.53
13:AM:86:TYR:N	19:AS:73:GLU:HB2	2.23	0.53
1:AA:43:C:C2	1:AA:44:A:C8	2.97	0.53
1:AA:44:A:H2'	1:AA:45:G:H5'	1.91	0.53
5:AE:84:PRO:O	5:AE:86:LYS:NZ	2.42	0.53
8:AH:89:LYS:HA	8:AH:92:LEU:HD13	1.89	0.53
1:CA:926:G:H5'	1:CA:927:G:O5'	2.08	0.53
1:CA:410:G:H1'	1:CA:432:A:H61	1.71	0.53
1:CA:736:C:H2'	1:CA:737:C:C5	2.44	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:581:G:C5	1:CA:758:C:C5	2.96	0.53
15:CO:73:LYS:O	15:CO:74:ASP:C	2.45	0.53
24:BA:85:G:OP1	44:BU:5:ARG:HG2	2.08	0.53
24:DA:1076:C:H2'	24:DA:1077:A:C8	2.43	0.53
24:BA:572:A:O3'	24:BA:573:U:C4'	2.57	0.53
1:AA:1130:A:C2	1:AA:1146:A:N7	2.77	0.53
9:AI:87:LEU:HD12	9:AI:88:MET:N	2.22	0.53
1:CA:1012:A:C5	1:CA:1018:G:N1	2.77	0.53
1:CA:1219:A:C4	1:CA:1220:G:C8	2.96	0.53
24:DA:29:U:O2	24:DA:1215:G:O2'	2.26	0.53
41:DR:77:PHE:CE1	41:DR:79:ARG:CD	2.91	0.53
24:BA:532:A:H1'	24:BA:2021:C:H5	1.73	0.53
24:DA:536:G:P	57:DA:3186:NMY:H81	2.48	0.53
1:CA:447:G:N2	1:CA:486:U:C5	2.76	0.53
48:DY:50:VAL:HA	48:DY:53:VAL:HG13	1.89	0.53
24:BA:608:A:C6	24:BA:609:A:N6	2.77	0.53
24:DA:2727:A:C6	24:DA:2728:U:O4	2.61	0.53
1:AA:834:U:H2'	1:AA:835:U:C6	2.43	0.53
1:AA:1438:G:H2'	1:AA:1439:G:O5'	2.08	0.53
47:DX:32:LEU:HD13	47:DX:49:ARG:NE	2.24	0.53
14:CN:45:VAL:O	14:CN:46:LEU:C	2.46	0.53
24:DA:1394:U:H4'	24:DA:1603:A:H4'	1.90	0.53
24:DA:1734:G:C2	24:DA:1735:A:H1'	2.43	0.53
21:AU:15:ALA:O	21:AU:16:LEU:HD12	2.08	0.53
45:BV:80:HIS:CG	45:BV:83:LYS:O	2.61	0.53
24:BA:1589:U:C5	24:BA:1590:A:N7	2.77	0.53
31:DH:8:LYS:O	31:DH:9:VAL:C	2.46	0.53
24:DA:2824:C:C4	24:DA:2825:G:C5	2.97	0.53
1:CA:719:C:OP2	1:CA:720:C:N4	2.38	0.53
24:BA:2667:C:C2	24:BA:2668:G:C8	2.97	0.53
1:AA:405:U:OP1	1:AA:406:G:O2'	2.17	0.53
24:BA:1603:A:C3'	24:BA:1604:C:H5'	2.38	0.53
49:BZ:9:THR:HG23	49:BZ:53:MET:HA	1.90	0.53
24:DA:136:G:C4	24:DA:144:A:C2	2.96	0.53
40:BQ:35:PHE:O	40:BQ:39:ILE:HG22	2.08	0.53
24:DA:1500:G:C2'	24:DA:1501:G:H5'	2.39	0.53
24:DA:1324:G:C2	24:DA:1328:A:C6	2.95	0.53
24:BA:1001:A:H2'	24:BA:1002:G:O4'	2.08	0.53
1:AA:1315:U:C5	1:AA:1316:G:C6	2.96	0.53
1:CA:834:U:H2'	1:CA:835:U:C6	2.44	0.53
55:CY:65:LEU:CD2	55:CY:67:ILE:HG13	2.38	0.53
11:AK:25:ALA:HA	11:AK:30:THR:HG22	1.91	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:642:A:C5	1:CA:643:C:C4	2.96	0.53
24:BA:2773:C:O2'	24:BA:2774:C:H5'	2.09	0.53
19:AS:80:TYR:CD1	19:AS:81:ARG:N	2.76	0.53
28:BE:149:ILE:HD11	28:BE:188:MET:CA	2.38	0.53
36:DM:73:ILE:HG21	36:DM:91:TYR:OH	2.08	0.53
27:BD:141:ARG:O	27:BD:142:VAL:O	2.27	0.53
24:DA:459:U:OP1	52:D2:40:ALA:N	2.42	0.53
10:CJ:18:ILE:HD11	10:CJ:72:ARG:NH1	2.23	0.53
24:BA:1944:U:C5	24:BA:1955:U:C2	2.97	0.53
48:BY:9:LYS:O	48:BY:12:GLU:HG2	2.09	0.53
45:DV:72:VAL:HG12	45:DV:93:ARG:HA	1.90	0.53
36:DM:26:VAL:HG11	36:DM:133:LYS:HA	1.88	0.53
42:BS:8:ARG:HG3	42:BS:102:HIS:CG	2.44	0.53
2:AB:119:THR:O	2:AB:120:GLN:HB3	2.09	0.53
34:BK:62:VAL:HG11	34:BK:65:THR:CG2	2.39	0.53
52:B2:34:ARG:NH1	52:B2:42:LEU:O	2.42	0.53
24:DA:871:U:H2'	24:DA:872:U:C6	2.44	0.53
1:AA:1405:G:P	57:AA:1655:NMY:H191	2.23	0.53
1:AA:1491:G:H3'	12:AL:44:LYS:NZ	2.24	0.53
41:BR:8:GLY:HA3	41:BR:23:GLU:HB2	1.91	0.53
1:AA:1014:A:C2	19:AS:34:TRP:CZ2	2.96	0.53
1:AA:1320:C:N4	1:AA:1321:U:C4	2.76	0.53
1:AA:1252:A:H2	1:AA:1355:G:HO2'	1.55	0.53
13:AM:85:CYS:CB	19:AS:73:GLU:HG3	2.38	0.53
15:AO:78:TYR:C	15:AO:80:GLN:N	2.60	0.53
24:DA:2259:U:C6	24:DA:2427:C:C4	2.96	0.53
29:BF:82:TYR:CD2	29:BF:83:PRO:O	2.62	0.53
24:BA:2231:U:H2'	24:BA:2232:C:O4'	2.09	0.53
17:AQ:67:LEU:HD23	17:AQ:68:SER:N	2.24	0.53
1:AA:515:G:C2	1:AA:537:G:N2	2.76	0.53
4:AD:203:LEU:C	4:AD:203:LEU:HD12	2.29	0.53
5:AE:126:LYS:O	5:AE:127:ALA:HB2	2.08	0.53
5:AE:144:LEU:HD23	5:AE:144:LEU:N	2.23	0.53
8:AH:92:LEU:HD23	8:AH:117:ARG:NE	2.24	0.53
8:AH:94:LYS:HD2	8:AH:98:GLY:HA2	1.90	0.53
1:AA:55:A:C6	31:DH:91:PHE:HA	2.44	0.53
1:CA:409:U:C2'	1:CA:410:G:O5'	2.56	0.53
1:CA:493:A:H2'	1:CA:494:G:N3	2.23	0.53
4:CD:165:ARG:O	4:CD:167:LYS:N	2.40	0.53
15:CO:56:LEU:HD23	15:CO:57:LEU:N	2.22	0.53
1:AA:708:C:N3	1:AA:709:U:C4	2.77	0.53
1:AA:708:C:N3	1:AA:709:U:C5	2.76	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:709:U:O2'	1:AA:710:G:C5'	2.57	0.53
1:AA:712:A:N1	1:AA:713:G:C2	2.76	0.53
13:CM:3:ARG:O	13:CM:4:ILE:CG1	2.57	0.53
1:AA:1073:U:H3'	1:AA:1074:G:H8	1.74	0.53
24:BA:571:U:C4	24:BA:2030:A:N1	2.76	0.53
9:AI:54:LEU:O	9:AI:55:VAL:HB	2.09	0.53
4:CD:148:LYS:O	4:CD:149:ALA:HB2	2.09	0.53
20:AT:71:LYS:HD3	20:AT:75:HIS:CE1	2.44	0.53
4:CD:79:ALA:CB	4:CD:90:LEU:HB3	2.39	0.53
24:DA:1656:C:H2'	24:DA:1657:U:H6	1.71	0.53
57:DA:3190:NMY:C16	57:DA:3190:NMY:N2	2.71	0.53
4:CD:50:ASP:O	4:CD:54:GLN:HG3	2.09	0.53
35:BL:111:ILE:HG22	35:BL:112:LEU:N	2.23	0.53
3:AC:23:PHE:CD1	3:AC:23:PHE:C	2.82	0.53
21:CU:10:GLU:HB2	21:CU:11:PRO:HD3	1.91	0.53
21:CU:6:VAL:HG12	21:CU:6:VAL:O	2.06	0.53
24:DA:2305:U:N3	29:DF:150:GLY:HA3	2.24	0.53
14:CN:42:TRP:CE2	14:CN:44:ALA:HB3	2.42	0.53
24:DA:1733:G:N1	24:DA:1734:G:C4	2.77	0.53
24:BA:1033:U:C4	24:BA:2750:A:C2	2.96	0.53
26:BC:184:GLU:O	26:BC:185:ALA:C	2.46	0.53
1:AA:908:A:C2	1:AA:909:A:C5	2.97	0.53
29:DF:51:ASN:OD1	29:DF:51:ASN:N	2.41	0.53
24:BA:856:G:C2	24:BA:922:C:C2	2.96	0.53
31:BH:32:PRO:HA	47:BX:38:TRP:HB3	1.90	0.53
25:DB:61:G:C6	25:DB:62:C:N4	2.77	0.53
24:DA:2623:G:OP1	24:DA:2826:A:H1'	2.09	0.53
44:DU:73:ASN:ND2	44:DU:76:THR:HG21	2.23	0.53
24:BA:2027:G:C2	24:BA:2028:U:C2	2.96	0.53
24:BA:55:G:N3	24:BA:56:A:C8	2.76	0.53
24:DA:1131:G:C4	33:DJ:77:HIS:ND1	2.77	0.53
24:BA:246:C:H2'	24:BA:247:G:H5'	1.91	0.53
24:BA:2496:C:C2'	24:BA:2497:A:H5'	2.38	0.53
49:BZ:9:THR:HG22	49:BZ:54:VAL:CA	2.39	0.53
8:CH:65:TYR:CD1	8:CH:70:ALA:HA	2.43	0.53
24:DA:58:G:N2	24:DA:70:G:C4	2.77	0.53
1:CA:270:A:C6	1:CA:271:C:N3	2.77	0.53
1:AA:309:A:C2	1:AA:310:G:C5	2.96	0.53
1:AA:159:G:N2	1:AA:161:A:P	2.82	0.53
24:DA:1310:G:N2	24:DA:1313:U:C4	2.76	0.53
3:CC:165:THR:HG22	3:CC:166:GLU:N	2.24	0.53
24:DA:2293:G:H2'	24:DA:2294:G:O4'	2.09	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DE:18:THR:HG22	28:DE:19:PHE:CD2	2.44	0.53
36:DM:112:LEU:O	36:DM:113:ALA:C	2.47	0.53
24:BA:1608:A:C8	24:BA:1611:C:N4	2.76	0.53
30:BG:79:THR:HG22	30:BG:79:THR:O	2.07	0.53
24:BA:1677:A:N6	59:BA:3770:HOH:O	2.40	0.53
26:BC:65:ASP:OD2	26:BC:101:ARG:NH1	2.41	0.53
1:AA:1152:A:C4	1:AA:1153:G:C8	2.96	0.53
1:AA:88:U:C4	1:AA:89:U:C4	2.97	0.53
43:DT:12:ARG:O	43:DT:13:ALA:HB2	2.09	0.53
24:BA:2052:A:H4'	27:BD:148:GLN:O	2.08	0.53
1:CA:557:G:C6	1:CA:558:G:C6	2.96	0.53
24:DA:1022:G:N2	24:DA:1142:A:C2	2.76	0.53
38:DO:8:ILE:HD12	38:DO:8:ILE:C	2.29	0.53
38:BO:116:GLN:O	38:BO:117:PHE:HB3	2.08	0.53
24:DA:134:G:N2	24:DA:146:A:C4	2.77	0.53
53:B3:6:VAL:HG12	53:B3:6:VAL:O	2.08	0.53
24:DA:1833:C:C2	24:DA:1834:U:C6	2.96	0.53
24:DA:1006:C:OP2	59:DA:3783:HOH:O	2.18	0.53
24:DA:825:A:H2'	24:DA:826:U:H6	1.73	0.53
24:BA:354:A:C2'	24:BA:355:U:O5'	2.57	0.53
1:CA:1439:G:C6	1:CA:1440:U:N3	2.77	0.53
40:BQ:95:ALA:O	40:BQ:99:VAL:HG12	2.08	0.53
17:CQ:60:GLU:C	17:CQ:76:VAL:HG23	2.29	0.53
24:DA:827:U:OP2	59:DA:3701:HOH:O	2.19	0.53
31:BH:118:PRO:HD2	31:BH:119:ASN:H	1.72	0.53
24:DA:1925:C:H2'	24:DA:1926:U:O4'	2.09	0.53
9:AI:118:LEU:O	9:AI:119:ARG:C	2.46	0.53
1:AA:391:G:N2	1:AA:392:C:H1'	2.24	0.53
4:AD:145:ILE:HG23	4:AD:150:LYS:HE2	1.91	0.53
1:CA:757:U:OP1	1:CA:822:U:O2'	2.24	0.53
1:CA:761:G:C6	1:CA:762:U:C5	2.97	0.53
15:CO:61:SER:O	15:CO:65:LYS:HB2	2.08	0.53
15:CO:66:LEU:C	15:CO:66:LEU:HD12	2.29	0.53
24:BA:98:G:H1'	24:BA:103:A:H1'	1.89	0.53
4:AD:21:LEU:O	4:AD:22:LYS:HB3	2.08	0.53
2:AB:175:GLU:O	2:AB:179:LEU:CD2	2.57	0.53
24:BA:1190:G:OP1	35:BL:32:GLY:HA2	2.08	0.53
1:CA:1322:C:O4'	1:CA:1322:C:O2	2.27	0.53
24:BA:2120:G:N2	24:BA:2179:C:C2	2.75	0.53
24:BA:807:U:H1'	24:BA:2445:G:OP1	2.08	0.53
9:CI:26:GLY:HA2	9:CI:57:MET:HE1	1.90	0.53
9:CI:38:TYR:OH	9:CI:75:GLN:OE1	2.09	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:B0:1:ALA:O	50:B0:2:VAL:HG23	2.09	0.53
15:CO:8:THR:O	15:CO:11:ILE:CG1	2.56	0.53
1:AA:1332:A:N6	1:AA:1333:A:C6	2.77	0.53
1:AA:1237:C:C4'	1:AA:1334:G:N2	2.72	0.53
12:CL:44:LYS:HB2	12:CL:45:PRO:HD3	1.91	0.53
24:BA:2352:A:C4	24:BA:2366:A:C2	2.96	0.53
1:AA:725:G:N3	1:AA:726:C:C6	2.77	0.53
44:DU:30:SER:OG	44:DU:32:LYS:CG	2.57	0.53
43:BT:17:SER:N	43:BT:20:ALA:HB3	2.24	0.53
24:DA:2306:C:N4	24:DA:2307:G:C6	2.77	0.53
14:CN:44:ALA:HB1	14:CN:47:LYS:HD3	1.91	0.53
24:BA:2133:G:C5	24:BA:2157:G:C6	2.96	0.53
35:BL:105:ILE:CG2	35:BL:106:GLU:N	2.71	0.53
30:BG:3:VAL:CG1	30:BG:68:ARG:HG2	2.38	0.53
1:AA:906:A:O2'	1:AA:907:A:O5'	2.26	0.53
2:CB:114:LEU:O	2:CB:116:ASP:N	2.42	0.53
39:DP:20:ARG:HH21	39:DP:20:ARG:HG2	1.73	0.53
24:BA:1059:G:H1'	32:BI:116:MET:HE1	1.90	0.53
27:BD:125:TRP:CD2	27:BD:160:LYS:CG	2.91	0.53
24:DA:675:A:N3	24:DA:2443:C:O2'	2.36	0.53
1:CA:922:G:N3	1:CA:1398:A:H2	2.07	0.53
24:DA:167:A:N7	24:DA:168:G:C8	2.77	0.53
41:DR:14:VAL:HG22	41:DR:20:VAL:HG21	1.90	0.53
24:DA:408:G:N1	24:DA:420:C:C2	2.77	0.53
1:AA:100:G:H2'	1:AA:101:A:O4'	2.07	0.53
1:AA:310:G:C6	1:AA:311:C:C4	2.97	0.53
24:BA:145:C:C2	24:BA:146:A:N7	2.76	0.53
24:BA:1419:A:HO2'	24:BA:1421:G:H8	1.54	0.53
11:AK:26:SER:OG	11:AK:29:ASN:O	2.21	0.53
24:DA:2317:A:C2'	24:DA:2318:G:H5'	2.39	0.53
24:DA:501:A:N6	24:DA:502:A:N1	2.56	0.53
24:DA:629:G:C2'	24:DA:630:G:H5'	2.38	0.53
24:BA:1104:C:C2'	24:BA:1105:U:H5'	2.38	0.53
17:CQ:68:SER:O	17:CQ:69:LYS:O	2.26	0.53
1:CA:1492:A:C6	1:CA:1493:A:C2	2.96	0.53
26:DC:30:ALA:HB3	26:DC:31:PRO:HD3	1.91	0.53
44:DU:38:ILE:HD12	44:DU:39:ASN:N	2.23	0.53
36:DM:73:ILE:HG22	36:DM:74:THR:N	2.24	0.53
1:CA:1038:C:H2'	1:CA:1039:G:C8	2.44	0.53
24:DA:980:A:C6	24:DA:981:A:N1	2.76	0.53
24:DA:2348:U:C2'	24:DA:2349:G:H5'	2.38	0.53
24:DA:210:C:H5''	52:D2:25:LYS:HE3	1.91	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BP:63:ILE:HA	39:BP:68:GLY:HA2	1.91	0.53
24:DA:1847:A:N3	24:DA:1848:A:N7	2.56	0.53
24:DA:2843:G:N2	24:DA:2844:G:H1'	2.24	0.53
24:DA:1912:A:N1	24:DA:1919:A:N7	2.57	0.53
24:BA:1977:A:N6	24:BA:1978:A:C2	2.77	0.53
27:BD:61:THR:N	27:BD:64:GLU:OE2	2.41	0.53
24:DA:120:U:H4'	24:DA:121:G:H5''	1.91	0.53
24:BA:21:A:C2	24:BA:520:G:C4	2.96	0.53
1:AA:1494:G:O6	57:AA:1655:NMY:H10	2.09	0.53
31:DH:122:LEU:H	31:DH:122:LEU:HD23	1.73	0.53
1:AA:1363:A:C5	1:AA:1365:G:C6	2.97	0.53
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.44	0.53
24:DA:246:C:C2'	24:DA:247:G:H5'	2.39	0.53
24:BA:1876:A:C6	24:BA:1877:A:C6	2.97	0.53
1:AA:599:C:P	8:AH:86:TYR:CD2	3.01	0.53
16:AP:4:ILE:CG2	16:AP:5:ARG:N	2.71	0.53
1:CA:438:U:C4	1:CA:494:G:N7	2.77	0.53
24:DA:1101:U:C2'	24:DA:1102:C:H5'	2.38	0.53
1:AA:184:G:O2'	1:AA:224:U:H5''	2.08	0.53
1:AA:260:G:H2'	1:AA:261:U:C6	2.44	0.53
1:AA:261:U:P	20:AT:71:LYS:NZ	2.82	0.53
24:BA:1205:A:H4'	24:BA:1206:G:OP2	2.09	0.53
57:BA:3165:NMY:C1	57:BA:3165:NMY:H17	2.22	0.53
24:DA:1209:U:O2	24:DA:1238:G:C6	2.62	0.53
1:CA:1142:G:H5'	1:CA:1143:G:OP2	2.08	0.53
1:AA:1039:G:C5	1:AA:1040:U:C5	2.96	0.53
1:CA:328:C:H2'	1:CA:328:C:O2	2.07	0.53
20:CT:67:ILE:CG1	20:CT:71:LYS:HG2	2.38	0.53
37:DN:1:MET:O	37:DN:2:ARG:HB3	2.09	0.53
18:CR:23:TYR:CE2	18:CR:24:LYS:HG2	2.44	0.53
24:DA:1866:A:C2	24:DA:1876:A:C5	2.97	0.53
24:BA:1366:A:C2	24:BA:1367:A:C1'	2.92	0.53
24:DA:2315:G:H4'	29:DF:124:ARG:NH1	2.24	0.53
1:CA:1371:G:C6	1:CA:1372:U:C4	2.97	0.53
44:DU:28:LEU:O	44:DU:30:SER:N	2.42	0.53
24:DA:1858:A:OP2	57:DA:3187:NMY:N7	2.37	0.53
17:CQ:20:SER:HA	17:CQ:47:HIS:HA	1.89	0.53
21:AU:24:GLU:CG	21:AU:25:LYS:H	2.21	0.53
28:BE:83:VAL:HG22	28:BE:83:VAL:O	2.09	0.53
24:DA:7:G:C6	24:DA:8:C:C4	2.96	0.53
30:DG:93:TYR:CE1	30:DG:106:LEU:HA	2.44	0.53
48:BY:17:GLU:OE2	48:BY:18:LEU:N	2.42	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:891:U:H2'	1:AA:892:A:C5'	2.39	0.53
1:AA:907:A:C2	1:AA:908:A:C8	2.97	0.53
24:BA:2345:G:C8	24:BA:2347:C:C5	2.97	0.53
24:BA:480:A:C2'	24:BA:481:G:OP1	2.57	0.53
44:BU:43:LYS:CE	44:BU:43:LYS:HA	2.38	0.53
24:BA:1414:C:C2	24:BA:1588:G:N2	2.77	0.53
1:CA:1114:C:O2	1:CA:1114:C:C2'	2.53	0.53
26:DC:194:VAL:O	26:DC:195:GLY:O	2.26	0.53
24:DA:444:C:H4'	28:DE:44:ARG:HD2	1.91	0.53
24:BA:246:C:C2'	24:BA:247:G:H5'	2.39	0.53
1:CA:1111:A:N1	3:CC:177:THR:CG2	2.71	0.53
52:B2:44:VAL:O	52:B2:45:SER:CB	2.57	0.53
5:CE:13:GLU:CB	5:CE:39:VAL:HG12	2.38	0.53
37:DN:67:PHE:HA	37:DN:70:THR:CG2	2.39	0.53
24:DA:919:U:H2'	24:DA:920:A:H5'	1.90	0.53
24:BA:784:G:O2'	24:BA:785:G:P	2.67	0.53
1:CA:135:C:H2'	1:CA:136:C:H5'	1.91	0.53
1:AA:1531:A:C6	1:AA:1532:U:C4	2.97	0.53
1:CA:62:U:OP1	1:CA:385:C:O2'	2.27	0.53
1:CA:63:C:C2'	1:CA:64:G:O5'	2.56	0.53
37:DN:72:ASP:CG	37:DN:75:ILE:HG22	2.29	0.53
18:CR:48:ARG:HG3	18:CR:51:TYR:HD2	1.73	0.53
55:CY:65:LEU:HD22	55:CY:100:VAL:HG22	1.89	0.53
6:CF:49:TYR:CD1	6:CF:49:TYR:N	2.77	0.53
24:BA:46:G:C2	24:BA:47:C:C5	2.96	0.53
24:BA:1565:C:H5''	26:BC:17:LYS:CE	2.39	0.53
1:CA:161:A:C6	1:CA:162:A:C6	2.97	0.53
7:AG:58:GLU:CA	7:AG:61:ALA:HB3	2.38	0.53
24:BA:878:A:H2'	24:BA:879:G:O4'	2.09	0.53
42:DS:63:GLY:O	42:DS:64:ALA:HB3	2.09	0.53
51:B1:18:HIS:CE1	51:B1:40:PRO:CG	2.91	0.53
24:BA:751:A:OP1	59:BA:3312:HOH:O	2.18	0.53
24:DA:1467:U:C4	24:DA:1546:G:C2	2.97	0.53
24:BA:723:C:H2'	24:BA:724:U:O4'	2.09	0.53
1:AA:380:G:N2	1:AA:384:G:C5	2.77	0.53
24:BA:295:G:N2	24:BA:296:U:C2	2.76	0.53
24:DA:1392:A:C6	24:DA:1393:A:N1	2.77	0.53
42:DS:19:LEU:HB3	50:D0:21:LEU:HD12	1.90	0.53
24:DA:646:U:H3'	24:DA:647:G:H5''	1.90	0.53
27:BD:45:TYR:OH	27:BD:81:GLU:OE1	2.27	0.53
24:DA:590:A:O2'	24:DA:591:U:H5'	2.09	0.53
24:DA:2259:U:C5	24:DA:2427:C:N4	2.77	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1876:A:N7	24:BA:1877:A:N7	2.57	0.53
24:DA:103:A:C2'	24:DA:104:A:O5'	2.57	0.53
11:CK:127:ARG:CB	21:CU:35:ARG:NH2	2.72	0.53
1:CA:493:A:C4	1:CA:494:G:C6	2.97	0.53
1:CA:543:U:C2	1:CA:544:G:C8	2.97	0.53
4:CD:167:LYS:HD2	4:CD:168:PRO:HD2	1.89	0.53
1:CA:673:A:C2	1:CA:674:G:C5	2.97	0.53
21:AU:34:ARG:O	21:AU:35:ARG:O	2.27	0.53
14:AN:64:CYS:HG	14:AN:67:THR:HG1	1.57	0.53
1:CA:1242:G:C6	1:CA:1243:C:C5	2.97	0.53
13:CM:14:HIS:CB	13:CM:17:ILE:CD1	2.86	0.53
13:CM:39:ILE:O	13:CM:41:GLU:N	2.41	0.53
24:BA:2114:A:C2	24:BA:2115:G:H1'	2.44	0.53
4:AD:7:PRO:HB3	4:AD:9:LEU:HD21	1.89	0.53
24:BA:64:A:H2'	24:BA:65:U:C6	2.44	0.53
2:CB:101:LEU:CD1	2:CB:175:GLU:HB3	2.38	0.53
1:AA:666:G:H5'	1:AA:726:C:H1'	1.90	0.53
24:BA:2302:U:H2'	24:BA:2303:G:H5'	1.91	0.53
24:DA:480:A:H2'	24:DA:481:G:OP1	2.08	0.53
24:DA:2311:A:N7	29:DF:76:PHE:CD1	2.77	0.53
2:AB:23:TRP:CZ3	2:AB:25:PRO:HA	2.43	0.53
37:BN:52:ILE:CG2	37:BN:94:TYR:CE2	2.92	0.53
24:BA:2743:U:H2'	24:BA:2744:G:O4'	2.09	0.53
1:AA:888:G:H1'	1:AA:909:A:H61	1.74	0.53
29:DF:45:ASP:OD1	29:DF:46:LYS:N	2.41	0.53
40:DQ:87:VAL:HA	41:DR:49:ILE:CG2	2.39	0.53
24:BA:2095:A:C2	24:BA:2096:C:C5	2.97	0.53
31:DH:11:ASN:O	31:DH:12:LEU:HD22	2.09	0.53
24:BA:2025:C:H5'	27:BD:154:LYS:HZ1	1.74	0.53
22:AV:35:A:C2'	22:AV:36:A:H5''	2.38	0.53
9:AI:130:ARG:NH2	22:AV:35:A:OP2	2.40	0.53
24:DA:166:U:O2'	24:DA:167:A:H5'	2.09	0.53
55:CY:48:PRO:O	55:CY:49:THR:CB	2.57	0.53
1:AA:405:U:O4	4:AD:2:ALA:N	2.41	0.53
24:BA:845:A:N1	24:BA:847:U:C5	2.77	0.53
10:CJ:55:PRO:O	14:CN:69:ARG:NH2	2.42	0.53
24:DA:1670:C:OP1	59:DA:3435:HOH:O	2.19	0.53
4:CD:73:ARG:O	4:CD:76:TYR:CG	2.62	0.53
24:DA:866:A:C2	24:DA:914:G:H5'	2.44	0.53
24:DA:1324:G:H1'	24:DA:1616:A:N6	2.24	0.53
24:DA:76:C:O2'	48:DY:52:ARG:HA	2.08	0.53
24:BA:987:C:O2'	24:BA:1000:A:N3	2.34	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1323:G:O6	19:AS:4:SER:OG	2.17	0.53
24:DA:1794:A:H1'	24:DA:1900:A:N3	2.24	0.53
24:DA:78:U:OP1	24:DA:102:U:O4	2.27	0.53
24:BA:1668:A:C2	24:BA:1670:C:N3	2.77	0.53
24:BA:1995:U:OP1	27:BD:128:ARG:CZ	2.57	0.53
24:BA:49:A:C8	24:BA:51:G:N2	2.77	0.53
48:DY:18:LEU:O	48:DY:22:LEU:HB3	2.09	0.53
24:BA:1566:A:OP1	26:BC:17:LYS:NZ	2.25	0.53
24:DA:1319:C:O2'	24:DA:1320:C:H5'	2.09	0.53
24:DA:2538:C:O2'	24:DA:2539:C:H5'	2.09	0.53
1:AA:1245:C:H2'	1:AA:1246:A:O4'	2.08	0.53
28:BE:164:LEU:HD12	28:BE:164:LEU:C	2.30	0.53
2:AB:27:MET:C	2:AB:29:PRO:HD2	2.29	0.53
24:DA:863:A:O2'	24:DA:864:G:H5'	2.09	0.53
42:BS:70:LYS:O	42:BS:72:THR:N	2.42	0.53
26:BC:166:ARG:HG3	26:BC:166:ARG:O	2.08	0.53
24:DA:1701:A:C8	24:DA:1702:G:C8	2.97	0.53
39:DP:104:GLY:O	39:DP:107:ALA:N	2.41	0.53
1:CA:289:G:C2'	1:CA:290:C:O5'	2.56	0.53
7:CG:81:GLY:O	7:CG:83:SER:N	2.42	0.53
30:DG:30:GLY:O	30:DG:78:VAL:HG22	2.09	0.53
31:DH:66:ASN:HA	31:DH:69:ALA:HB3	1.90	0.53
24:DA:1285:A:C6	24:DA:1329:U:C5	2.97	0.53
15:AO:62:GLN:O	15:AO:65:LYS:N	2.42	0.53
31:BH:37:VAL:CG2	31:BH:38:PRO:HD2	2.39	0.53
1:AA:1355:G:N1	1:AA:1368:A:C2	2.77	0.53
24:BA:2333:A:N7	24:BA:2335:A:C2	2.77	0.53
38:BO:8:ILE:O	38:BO:9:ARG:C	2.47	0.53
1:CA:706:A:C4	11:CK:44:TRP:HH2	2.27	0.53
11:CK:125:LYS:CG	11:CK:126:LYS:H	2.21	0.53
1:AA:618:C:H3'	1:AA:619:U:H5''	1.91	0.53
4:AD:62:ARG:CD	4:AD:72:PHE:CE1	2.92	0.53
5:AE:84:PRO:HD3	5:AE:98:PRO:HD3	1.90	0.53
1:AA:37:U:OP1	12:AL:120:LYS:HG3	2.09	0.53
31:DH:81:ALA:CB	31:DH:149:GLU:OE1	2.55	0.53
1:CA:430:A:OP2	4:CD:8:LYS:CG	2.55	0.53
18:CR:64:TYR:HB3	18:CR:65:LEU:HD23	1.90	0.53
1:CA:1309:G:P	13:CM:87:ARG:NH1	2.82	0.53
1:AA:1158:C:O2'	2:AB:132:LYS:NZ	2.36	0.53
15:CO:89:ARG:CZ	24:DA:714:U:C4	2.91	0.53
20:AT:67:ILE:HD11	20:AT:71:LYS:CB	2.39	0.53
1:AA:263:A:P	20:AT:74:ARG:NH1	2.82	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2732:G:H4'	24:BA:2733:A:OP2	2.09	0.53
4:AD:9:LEU:CD1	4:AD:10:LYS:HG2	2.39	0.53
24:DA:1996:C:H4'	24:DA:1997:C:OP1	2.08	0.53
40:DQ:37:ALA:HA	40:DQ:40:LYS:CE	2.39	0.53
1:CA:374:A:C2	1:CA:375:U:C2	2.97	0.53
9:CI:15:SER:OG	9:CI:75:GLN:N	2.42	0.53
4:CD:58:LYS:HB2	4:CD:200:ILE:HG12	1.90	0.53
12:CL:66:TYR:CD1	12:CL:66:TYR:C	2.82	0.53
24:BA:1296:G:OP1	24:BA:2709:G:O2'	2.20	0.53
24:DA:947:A:O2'	24:DA:984:A:C2	2.57	0.53
2:CB:107:VAL:O	2:CB:110:SER:N	2.42	0.53
24:DA:1858:A:C5	24:DA:1859:U:C5	2.97	0.53
21:AU:24:GLU:OE2	21:AU:25:LYS:CA	2.57	0.53
21:AU:26:ALA:HB1	23:AX:5:A:OP1	2.09	0.53
1:CA:967:C:O4'	9:CI:129:LYS:HG3	2.09	0.53
39:BP:17:PRO:HD2	39:BP:83:ILE:CG1	2.39	0.53
24:DA:191:A:H2'	24:DA:192:C:C6	2.44	0.53
24:BA:860:U:O2'	24:BA:2267:A:C5'	2.58	0.53
24:BA:481:G:P	44:BU:43:LYS:HG3	2.49	0.53
24:BA:1883:U:C5	24:BA:1884:G:C5	2.96	0.53
33:BJ:18:VAL:CG1	33:BJ:55:ILE:O	2.57	0.53
1:AA:39:G:O2'	1:AA:40:C:H5'	2.08	0.53
1:AA:437:U:O2	4:AD:120:HIS:CE1	2.62	0.53
24:DA:784:G:H5'	24:DA:785:G:OP1	2.08	0.53
24:DA:1014:A:C2	24:DA:1149:G:C2	2.98	0.53
31:DH:33:GLN:HG2	31:DH:33:GLN:O	2.09	0.53
24:DA:528:A:OP2	33:DJ:116:ARG:NH2	2.42	0.53
24:BA:1327:A:H2'	24:BA:1328:A:O4'	2.09	0.53
2:AB:17:GLY:HA2	2:AB:203:ASN:N	2.24	0.53
1:AA:452:A:N6	1:AA:480:U:C2	2.77	0.53
44:BU:72:PHE:CZ	44:BU:77:GLY:HA2	2.44	0.53
24:BA:2568:U:H5''	24:BA:2569:G:OP2	2.09	0.53
24:BA:118:A:N3	24:BA:178:G:H1'	2.24	0.53
24:DA:1568:G:H4'	26:DC:58:LYS:NZ	2.24	0.53
24:DA:1567:G:C8	26:DC:82:TYR:CE2	2.97	0.53
26:BC:234:GLY:O	26:BC:235:GLU:HB3	2.09	0.53
24:DA:1635:A:C2	24:DA:1636:U:C1'	2.92	0.53
1:CA:19:A:C2	1:CA:20:U:C2	2.97	0.53
42:DS:59:GLU:O	42:DS:64:ALA:HB2	2.09	0.53
1:CA:1261:A:C5	1:CA:1275:A:C4	2.97	0.53
24:BA:24:G:H2'	24:BA:25:U:O4'	2.08	0.53
27:BD:61:THR:OG1	27:BD:64:GLU:OE2	2.26	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:265:A:H4'	24:BA:266:G:OP1	2.09	0.53
24:DA:242:G:O5'	53:D3:2:LYS:HD2	2.09	0.53
8:AH:106:THR:OG1	8:AH:121:LEU:CB	2.57	0.53
1:CA:847:G:C2'	1:CA:848:C:H5'	2.38	0.53
25:DB:1:U:O4'	25:DB:1:U:P	2.66	0.53
25:DB:110:C:C4	25:DB:111:U:C5	2.96	0.53
35:DL:73:ILE:C	35:DL:105:ILE:HD13	2.30	0.53
1:AA:1489:G:C4	1:AA:1490:U:C6	2.96	0.52
57:AA:1655:NMY:H13	57:AA:1655:NMY:O12	2.09	0.52
44:DU:10:VAL:HG12	44:DU:71:ILE:HA	1.91	0.52
25:BB:45:A:N7	29:BF:91:ARG:NH1	2.57	0.52
24:BA:2419:U:P	53:B3:40:LYS:NZ	2.82	0.52
1:CA:668:G:H2'	1:CA:669:G:O4'	2.09	0.52
1:CA:737:C:H2'	1:CA:738:C:C6	2.43	0.52
1:CA:738:C:O2'	1:CA:739:C:P	2.67	0.52
1:CA:759:A:H2'	1:CA:760:G:O5'	2.09	0.52
24:DA:614:A:O2'	24:DA:615:U:P	2.67	0.52
1:CA:1266:G:C2	1:CA:1270:G:C6	2.96	0.52
13:CM:72:GLU:HA	13:CM:75:MET:SD	2.49	0.52
13:CM:80:LEU:HD11	13:CM:85:CYS:HB3	1.91	0.52
1:AA:167:A:C6	1:AA:168:G:C5	2.96	0.52
2:AB:170:HIS:CD2	2:AB:171:ILE:HG13	2.44	0.52
24:BA:827:U:O2'	24:BA:2068:U:C2	2.47	0.52
24:BA:817:C:H2'	24:BA:818:G:O4'	2.09	0.52
1:AA:186:C:N4	1:AA:187:G:O6	2.42	0.52
1:CA:956:U:C2	1:CA:1225:A:C2	2.97	0.52
19:CS:18:LYS:CD	19:CS:31:LEU:CD1	2.86	0.52
24:DA:359:G:C2'	24:DA:360:U:H5'	2.39	0.52
24:BA:77:G:H5''	48:BY:2:LYS:HD2	1.91	0.52
1:CA:1126:U:O2	1:CA:1280:A:H5'	2.09	0.52
24:BA:1638:C:H5''	24:BA:2710:C:O2	2.10	0.52
19:CS:44:MET:O	19:CS:45:ILE:HB	2.09	0.52
24:BA:659:G:O3'	28:BE:95:LYS:HB3	2.09	0.52
14:CN:55:SER:O	14:CN:56:SER:C	2.47	0.52
24:BA:1356:G:C6	24:BA:1357:C:N3	2.78	0.52
24:DA:2757:A:C6	30:DG:66:THR:HG21	2.44	0.52
29:DF:121:PHE:CE2	29:DF:127:TYR:CE1	2.97	0.52
25:DB:43:C:H4'	29:DF:94:ARG:NH1	2.24	0.52
29:DF:98:PHE:C	29:DF:98:PHE:CD1	2.82	0.52
1:CA:208:U:C6	1:CA:208:U:OP2	2.63	0.52
21:AU:21:ARG:NE	23:AX:4:G:H1'	2.24	0.52
24:BA:2297:A:H2'	24:BA:2297:A:N3	2.22	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:942:G:N1	1:CA:943:U:C4	2.77	0.52
24:DA:2498:C:O2'	24:DA:2499:C:H5'	2.08	0.52
15:CO:27:VAL:O	15:CO:28:GLN:C	2.48	0.52
3:CC:40:ARG:O	3:CC:44:THR:N	2.41	0.52
7:CG:103:TRP:CZ3	7:CG:104:ILE:HD13	2.44	0.52
3:AC:77:ILE:O	3:AC:78:GLY:C	2.47	0.52
25:DB:77:U:OP2	45:DV:14:LYS:CD	2.57	0.52
29:DF:48:LEU:HD12	29:DF:49:LEU:H	1.74	0.52
40:DQ:72:GLY:O	40:DQ:73:ILE:HB	2.09	0.52
1:AA:149:A:C2	1:AA:150:U:N1	2.77	0.52
26:DC:159:THR:H	26:DC:194:VAL:HG12	1.73	0.52
24:BA:1826:G:C5	24:BA:1827:U:C5	2.97	0.52
24:BA:1545:A:C8	24:BA:1546:G:C8	2.97	0.52
24:DA:2298:A:C5	24:DA:2321:U:C5	2.97	0.52
1:CA:65:A:N7	1:CA:381:C:N4	2.56	0.52
3:CC:12:LEU:HD21	14:CN:91:GLY:HA2	1.89	0.52
24:BA:1261:C:H2'	24:BA:1262:A:O5'	2.10	0.52
17:AQ:79:VAL:O	17:AQ:80:GLU:HB2	2.09	0.52
24:BA:2799:A:C5	24:BA:2801:G:C5	2.97	0.52
1:AA:442:G:C6	1:AA:443:C:N3	2.77	0.52
1:CA:1033:G:H2'	1:CA:1034:G:C5'	2.39	0.52
12:AL:55:VAL:N	12:AL:63:VAL:O	2.42	0.52
28:BE:41:GLN:HG2	28:BE:43:THR:HG23	1.91	0.52
27:BD:47:ALA:CA	27:BD:84:LEU:HD22	2.39	0.52
2:CB:166:ALA:HB3	2:CB:191:SER:HB3	1.90	0.52
52:B2:24:THR:C	52:B2:26:ASN:H	2.12	0.52
10:CJ:12:ALA:HB3	10:CJ:18:ILE:CG2	2.39	0.52
6:AF:98:GLU:O	6:AF:99:ALA:O	2.27	0.52
24:DA:1700:A:C3'	24:DA:1701:A:H5'	2.39	0.52
30:BG:24:THR:HA	30:BG:33:THR:HG22	1.89	0.52
34:BK:42:THR:HA	34:BK:56:ASP:O	2.09	0.52
24:DA:2024:G:O3'	27:DD:154:LYS:HE2	2.07	0.52
24:DA:1681:G:N3	24:DA:1762:A:H2'	2.24	0.52
32:BI:20:SER:HB2	32:BI:21:PRO:CD	2.39	0.52
19:AS:74:PHE:O	19:AS:76:PRO:HD3	2.09	0.52
53:B3:28:LEU:HD11	53:B3:40:LYS:HE3	1.91	0.52
47:BX:11:PRO:HA	47:BX:29:LEU:HD23	1.91	0.52
1:CA:1513:A:H2'	1:CA:1514:G:C8	2.44	0.52
11:CK:32:VAL:HG12	11:CK:46:THR:OG1	2.08	0.52
1:AA:37:U:OP1	12:AL:120:LYS:CG	2.57	0.52
1:AA:58:C:O2'	1:AA:59:A:H5'	2.09	0.52
4:AD:64:ILE:HG22	4:AD:111:ARG:NH1	2.24	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:103:VAL:O	8:AH:103:VAL:HG12	2.08	0.52
4:CD:5:LEU:O	4:CD:6:GLY:C	2.46	0.52
13:CM:22:ILE:HD11	13:CM:25:VAL:HG13	1.90	0.52
24:BA:973:A:O4'	24:BA:1188:U:C6	2.61	0.52
22:CV:24:G:N7	22:CV:25:C:C5	2.77	0.52
27:DD:132:ALA:HA	27:DD:140:HIS:CD2	2.45	0.52
24:BA:2779:U:H4'	24:BA:2781:A:C8	2.43	0.52
1:CA:184:G:C5	1:CA:185:U:C5	2.96	0.52
1:CA:327:A:C2	1:CA:329:A:C4	2.97	0.52
1:CA:484:G:H4'	1:CA:485:U:OP1	2.07	0.52
1:CA:919:A:C2'	1:CA:920:U:O5'	2.57	0.52
1:CA:975:A:N1	1:CA:1366:C:O2'	2.41	0.52
17:CQ:16:LYS:O	17:CQ:17:MET:CB	2.57	0.52
38:DO:53:THR:HG21	38:DO:65:THR:CG2	2.38	0.52
24:BA:2525:G:C2	24:BA:2526:G:N7	2.77	0.52
24:BA:666:A:C5	24:BA:667:U:C5	2.97	0.52
1:CA:1350:A:N1	1:CA:1351:U:O2	2.42	0.52
2:AB:21:ARG:NE	2:AB:21:ARG:HA	2.23	0.52
1:CA:587:G:C2	1:CA:755:G:C6	2.98	0.52
14:CN:32:ASP:CG	14:CN:33:VAL:N	2.63	0.52
25:BB:114:C:H2'	25:BB:114:C:O2	2.09	0.52
57:BA:3167:NMY:O17	57:BA:3167:NMY:N2	2.42	0.52
24:BA:1416:G:N7	24:BA:1417:C:C4	2.77	0.52
24:DA:674:G:H5''	28:DE:71:GLY:CA	2.39	0.52
24:DA:38:A:N3	24:DA:442:G:C2	2.77	0.52
24:BA:1346:G:C2'	24:BA:1347:A:O5'	2.58	0.52
24:DA:1471:G:C2'	24:DA:1472:C:H5'	2.40	0.52
24:DA:2194:U:O2'	24:DA:2195:U:H5'	2.09	0.52
1:AA:159:G:O2'	1:AA:161:A:N7	2.23	0.52
24:BA:1423:G:H2'	24:BA:1423:G:N3	2.24	0.52
1:CA:71:A:N1	1:CA:99:C:O2'	2.36	0.52
24:BA:1802:A:O2'	24:BA:1803:A:OP1	2.26	0.52
24:DA:2052:A:N7	27:DD:146:ILE:HD11	2.24	0.52
24:BA:1145:C:C2'	24:BA:1146:C:O5'	2.57	0.52
1:CA:1167:A:N7	1:CA:1169:A:N1	2.57	0.52
24:DA:559:G:C5	24:DA:560:C:C5	2.98	0.52
1:AA:80:A:H2'	1:AA:81:A:O4'	2.09	0.52
1:CA:640:A:C6	1:CA:641:U:C4	2.98	0.52
47:DX:18:SER:C	47:DX:20:ALA:H	2.11	0.52
26:DC:70:LYS:HD2	26:DC:95:TYR:CE1	2.45	0.52
1:CA:596:A:N3	1:CA:596:A:H2'	2.24	0.52
24:DA:1045:C:H4'	24:DA:1046:A:H5'	1.91	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DS:14:ALA:O	42:DS:18:ARG:HG3	2.09	0.52
24:BA:1600:C:OP2	59:BA:3716:HOH:O	2.19	0.52
44:DU:38:ILE:HD12	44:DU:39:ASN:H	1.74	0.52
35:DL:116:VAL:HG13	35:DL:138:ALA:CB	2.39	0.52
11:AK:71:ALA:O	11:AK:74:VAL:HG23	2.09	0.52
24:BA:2323:G:H2'	24:BA:2324:U:H5'	1.91	0.52
43:BT:72:GLN:O	43:BT:74:ILE:HG23	2.09	0.52
24:DA:1840:G:C5	24:DA:1841:U:C5	2.97	0.52
1:CA:972:C:P	10:CJ:59:LYS:CD	2.97	0.52
1:CA:293:G:N3	1:CA:293:G:H2'	2.24	0.52
24:BA:1794:A:O4'	24:BA:1900:A:C2	2.62	0.52
24:BA:2089:C:N3	24:BA:2090:A:N7	2.55	0.52
24:BA:367:G:O6	24:BA:368:A:C2	2.63	0.52
24:DA:647:G:H2'	24:DA:648:G:O5'	2.09	0.52
1:CA:894:G:C2'	1:CA:895:G:H5'	2.39	0.52
46:DW:45:PHE:CD1	46:DW:78:LYS:HB3	2.45	0.52
24:BA:2597:G:H5'	26:BC:240:GLY:HA3	1.92	0.52
24:DA:1:G:N2	24:DA:2903:U:O2	2.42	0.52
1:CA:1480:A:C5	1:CA:1481:U:C5	2.98	0.52
24:DA:2862:G:C6	24:DA:2863:C:C4	2.98	0.52
20:CT:3:ASN:O	20:CT:4:ILE:O	2.28	0.52
42:DS:83:LYS:HD3	42:DS:95:ARG:NH2	2.23	0.52
1:AA:1225:A:H2'	1:AA:1226:C:C5	2.45	0.52
25:BB:45:A:N3	25:BB:45:A:H2'	2.24	0.52
24:BA:418:C:C4	24:BA:419:U:C4	2.97	0.52
31:DH:80:ILE:CG1	31:DH:145:ASN:O	2.57	0.52
1:AA:572:A:OP1	1:AA:917:G:C5'	2.58	0.52
1:AA:1505:G:H2'	23:AX:12:A:OP2	2.08	0.52
1:AA:1060:U:O4	3:AC:2:GLY:HA3	2.10	0.52
1:CA:1329:A:C5	1:CA:1330:U:N1	2.78	0.52
24:DA:1093:G:H5''	24:DA:1094:U:P	2.50	0.52
1:AA:1102:A:C2'	1:AA:1103:C:H5'	2.40	0.52
24:BA:805:G:C4	24:BA:2068:U:OP1	2.62	0.52
9:AI:63:LEU:N	9:AI:63:LEU:CD2	2.72	0.52
1:CA:988:G:N2	1:CA:1218:C:N3	2.58	0.52
24:DA:1994:C:P	27:DD:132:ALA:HB3	2.50	0.52
10:CJ:100:ILE:CD1	10:CJ:101:SER:N	2.72	0.52
24:BA:2016:U:H2'	24:BA:2017:U:C6	2.44	0.52
12:CL:90:LEU:O	12:CL:90:LEU:HD13	2.09	0.52
1:CA:259:G:OP2	20:CT:78:ASN:ND2	2.42	0.52
24:BA:1353:A:C8	24:BA:1378:A:N6	2.77	0.52
2:CB:186:ILE:HD11	2:CB:203:ASN:O	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:99:GLY:N	2:CB:175:GLU:OE2	2.41	0.52
1:AA:744:C:H4'	1:AA:852:G:O2'	2.08	0.52
29:DF:121:PHE:CE2	29:DF:162:ASP:C	2.83	0.52
1:CA:1372:U:C4	1:CA:1373:G:C5	2.97	0.52
7:CG:26:PHE:HA	7:CG:29:ILE:CG2	2.39	0.52
24:DA:328:U:C2'	24:DA:329:G:OP1	2.56	0.52
21:CU:17:ARG:HG2	21:CU:20:LYS:CE	2.39	0.52
29:DF:40:GLY:O	29:DF:42:ALA:N	2.42	0.52
29:DF:76:PHE:HB2	29:DF:78:ILE:CG1	2.40	0.52
34:DK:94:PRO:HG3	34:DK:114:LYS:HD3	1.92	0.52
1:AA:862:C:H1'	1:AA:874:G:H5''	1.90	0.52
1:AA:212:G:C2	1:AA:213:G:C4	2.97	0.52
27:BD:98:VAL:C	27:BD:100:LEU:N	2.58	0.52
3:CC:45:LYS:O	3:CC:46:GLU:C	2.47	0.52
7:CG:70:ARG:NE	7:CG:96:ARG:CD	2.73	0.52
24:BA:503:A:C6	24:BA:505:A:C6	2.96	0.52
41:DR:1:MET:HG3	41:DR:42:ALA:O	2.10	0.52
41:DR:41:ILE:CD1	41:DR:54:VAL:HG11	2.39	0.52
33:BJ:16:TYR:HA	33:BJ:138:GLN:O	2.09	0.52
24:BA:2666:C:C6	24:BA:2667:C:C5	2.98	0.52
24:BA:846:U:O2'	24:BA:847:U:H5''	2.09	0.52
29:DF:9:ASP:OD1	29:DF:10:GLU:N	2.41	0.52
1:AA:758:C:H4'	1:AA:880:C:O2'	2.09	0.52
1:AA:1426:G:N2	1:AA:1475:G:H1'	2.24	0.52
2:AB:208:ARG:O	2:AB:209:ALA:C	2.47	0.52
1:CA:563:A:C5'	1:CA:566:G:N2	2.73	0.52
29:DF:129:MET:N	29:DF:153:ILE:HD11	2.24	0.52
24:DA:2794:C:C2	24:DA:2802:G:N2	2.77	0.52
3:CC:12:LEU:HD21	14:CN:91:GLY:CA	2.38	0.52
24:BA:1791:A:C8	24:BA:1792:G:C8	2.97	0.52
24:BA:1792:G:OP1	26:BC:204:LEU:HD12	2.10	0.52
26:DC:90:ILE:HD12	26:DC:102:TYR:CD2	2.44	0.52
1:CA:1092:A:H1'	1:CA:1183:U:O4	2.10	0.52
36:DM:136:MET:O	45:DV:79:ARG:NH2	2.42	0.52
24:DA:500:G:N2	24:DA:502:A:H3'	2.25	0.52
37:BN:48:VAL:O	37:BN:51:LEU:N	2.42	0.52
17:CQ:45:HIS:HB3	17:CQ:71:LYS:HB3	1.91	0.52
24:DA:661:A:C8	24:DA:661:A:H3'	2.44	0.52
24:DA:2325:G:C8	24:DA:2325:G:O5'	2.63	0.52
18:AR:72:ASP:O	21:AU:5:LYS:CE	2.57	0.52
24:BA:954:G:N3	24:BA:2274:A:C2	2.77	0.52
25:DB:1:U:O2	25:DB:1:U:H2'	2.08	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AO:85:LEU:HD12	15:AO:86:GLY:N	2.23	0.52
24:DA:1881:C:H2'	24:DA:1882:U:O4'	2.10	0.52
44:BU:25:LYS:O	44:BU:26:ASN:HB3	2.09	0.52
24:BA:294:A:C5	24:BA:345:A:C2	2.98	0.52
24:DA:927:A:H2'	24:DA:928:A:C8	2.44	0.52
50:D0:10:SER:O	50:D0:13:GLY:N	2.43	0.52
24:BA:1847:A:O2'	24:BA:1848:A:H8	1.93	0.52
24:DA:2249:U:O2'	24:DA:2252:G:OP2	2.25	0.52
1:CA:887:G:N2	1:CA:911:U:C2	2.77	0.52
24:DA:1910:G:N3	24:DA:1921:G:C2	2.78	0.52
57:DA:3184:NMY:N2	57:DA:3184:NMY:C17	2.73	0.52
1:AA:939:G:C6	1:AA:940:C:N4	2.77	0.52
24:BA:2376:A:C5	38:BO:99:TYR:CD2	2.98	0.52
1:CA:688:G:N2	1:CA:700:G:C8	2.78	0.52
1:CA:705:G:C5	11:CK:44:TRP:CZ3	2.97	0.52
23:CX:10:A:C4	23:CX:11:A:C8	2.97	0.52
1:AA:35:G:C4	1:AA:36:C:C5	2.98	0.52
1:AA:1078:U:C2'	1:AA:1079:G:O5'	2.57	0.52
1:CA:413:G:H3'	1:CA:414:A:H5'	1.92	0.52
1:CA:620:C:H1'	4:CD:132:ILE:CD1	2.39	0.52
1:CA:673:A:C2	1:CA:674:G:C4	2.98	0.52
24:DA:1087:G:C6	24:DA:1089:A:C2	2.97	0.52
32:DI:110:GLN:HG3	32:DI:111:THR:N	2.25	0.52
1:AA:1159:U:O4'	1:AA:1182:G:N2	2.43	0.52
17:AQ:21:ILE:HG21	17:AQ:48:ASP:HB2	1.90	0.52
11:AK:82:LEU:HD21	11:AK:105:PHE:CD2	2.44	0.52
24:BA:2847:U:OP1	39:BP:95:LYS:HE2	2.09	0.52
1:AA:412:A:H5''	11:CK:14:LYS:HZ2	1.75	0.52
24:DA:1993:U:H2'	24:DA:1994:C:H5'	1.92	0.52
24:DA:1239:G:H2'	24:DA:1240:U:O4'	2.09	0.52
48:BY:52:ARG:O	48:BY:53:VAL:C	2.48	0.52
16:CP:75:ILE:HG13	16:CP:76:LYS:N	2.24	0.52
7:CG:150:ALA:HA	11:CK:61:PHE:CG	2.44	0.52
12:CL:98:VAL:CG2	12:CL:98:VAL:O	2.57	0.52
24:BA:810:U:H3'	35:BL:29:LYS:HA	1.90	0.52
24:DA:2200:C:C2'	24:DA:2201:G:H5'	2.40	0.52
13:AM:22:ILE:HD13	13:AM:66:GLU:HG2	1.91	0.52
24:DA:971:G:C2'	24:DA:972:A:O5'	2.57	0.52
3:AC:57:ILE:CD1	3:AC:59:ARG:HE	2.22	0.52
24:BA:2258:C:H4'	24:BA:2259:U:OP2	2.10	0.52
35:BL:114:GLY:O	35:BL:115:GLU:HB3	2.10	0.52
26:DC:176:ARG:NH1	26:DC:177:SER:HB3	2.25	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2306:C:OP2	24:DA:2307:G:O2'	2.15	0.52
34:DK:91:SER:O	34:DK:93:GLN:N	2.42	0.52
1:AA:862:C:C4	1:AA:863:U:H5	2.27	0.52
35:BL:93:ASN:CB	35:BL:96:LYS:HD3	2.39	0.52
24:DA:1731:G:C6	24:DA:1733:G:C4	2.97	0.52
24:DA:1736:U:O4	24:DA:1737:G:C2	2.62	0.52
24:DA:1737:G:C2'	24:DA:1738:G:N3	2.72	0.52
15:CO:22:THR:O	15:CO:27:VAL:HG21	2.10	0.52
3:AC:78:GLY:CA	21:CU:18:ARG:NE	2.72	0.52
25:DB:78:A:N6	25:DB:98:G:O2'	2.39	0.52
27:DD:101:PHE:CD1	27:DD:104:VAL:HG11	2.41	0.52
24:BA:481:G:C4	24:BA:507:A:C2	2.97	0.52
42:BS:6:LYS:HD3	42:BS:104:THR:HB	1.92	0.52
24:DA:2845:U:H5''	39:DP:51:ASN:O	2.08	0.52
24:BA:1576:U:N3	24:BA:1577:C:C5	2.78	0.52
24:BA:853:C:O2	24:BA:925:A:C2	2.62	0.52
2:CB:54:LEU:HA	2:CB:57:LEU:HG	1.91	0.52
1:AA:382:A:C4	1:AA:383:A:C8	2.98	0.52
1:AA:949:A:C2'	1:AA:950:U:H5'	2.39	0.52
1:CA:104:G:O2'	1:CA:105:G:H5'	2.10	0.52
24:BA:1553:A:C5	24:BA:1555:G:C4	2.98	0.52
1:CA:147:G:H2'	1:CA:148:G:C8	2.43	0.52
1:AA:1012:A:C2	1:AA:1018:G:C2	2.97	0.52
29:DF:153:ILE:O	29:DF:154:THR:CB	2.58	0.52
24:BA:1494:A:N1	24:BA:1495:A:C4	2.78	0.52
24:DA:898:C:N4	24:DA:899:A:C4	2.77	0.52
1:CA:605:U:H2'	1:CA:606:G:O5'	2.10	0.52
6:AF:14:GLN:OE1	6:AF:17:GLN:HG3	2.08	0.52
24:DA:78:U:P	48:DY:2:LYS:HD3	2.50	0.52
36:DM:136:MET:HE3	45:DV:57:TYR:CD1	2.45	0.52
5:AE:90:THR:O	5:AE:93:ARG:NH2	2.43	0.52
53:B3:21:PHE:O	53:B3:48:MET:HA	2.10	0.52
4:AD:78:GLU:O	4:AD:81:ARG:HB3	2.09	0.52
24:BA:1623:G:C6	24:BA:1624:U:C4	2.97	0.52
24:BA:1074:G:H2'	24:BA:1075:C:H5''	1.90	0.52
24:BA:1710:G:C2	24:BA:1749:A:C2	2.98	0.52
1:AA:463:U:C4	1:AA:464:U:N3	2.77	0.52
7:CG:7:ILE:HG22	7:CG:8:GLY:N	2.25	0.52
45:BV:11:GLU:O	45:BV:12:GLN:HB3	2.09	0.52
24:BA:2400:G:C5	24:BA:2401:U:C5	2.97	0.52
24:DA:271:G:C4	24:DA:367:G:N2	2.78	0.52
40:BQ:38:VAL:HG13	40:BQ:38:VAL:O	2.07	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CH:99:LEU:HD23	8:CH:99:LEU:N	2.24	0.52
19:CS:71:LEU:HG	19:CS:71:LEU:O	2.10	0.52
40:BQ:46:TYR:C	40:BQ:46:TYR:CD1	2.82	0.52
24:DA:277:G:N3	24:DA:277:G:H3'	2.24	0.52
29:BF:43:ILE:HG22	29:BF:44:ALA:N	2.25	0.52
1:AA:628:G:H2'	1:AA:629:A:C8	2.45	0.52
29:BF:7:TYR:HA	29:BF:11:VAL:CG2	2.40	0.52
31:DH:117:LEU:CD2	31:DH:119:ASN:N	2.73	0.52
29:BF:91:ARG:CG	29:BF:92:GLY:N	2.71	0.52
38:BO:5:SER:OG	38:BO:6:ALA:N	2.41	0.52
1:AA:504:C:O4'	1:AA:510:A:N1	2.42	0.52
4:CD:103:TYR:CD1	4:CD:104:ARG:N	2.77	0.52
13:CM:81:MET:O	13:CM:82:ASP:C	2.48	0.52
24:DA:1081:U:C4	24:DA:1082:U:O2	2.63	0.52
24:DA:1098:A:O3'	24:DA:1099:G:C8	2.63	0.52
24:DA:1494:A:H2'	24:DA:1495:A:C8	2.44	0.52
36:BM:49:ALA:HB2	36:BM:123:LYS:HB3	1.91	0.52
9:AI:16:ALA:O	9:AI:67:VAL:HG23	2.09	0.52
1:CA:613:C:H2'	1:CA:614:C:C6	2.44	0.52
24:DA:1216:G:H5''	40:DQ:10:ARG:NH1	2.25	0.52
24:DA:1239:G:N7	24:DA:1240:U:C5	2.77	0.52
9:CI:51:PRO:HB3	9:CI:103:PHE:CZ	2.45	0.52
2:AB:219:ALA:O	2:AB:220:THR:HG23	2.10	0.52
51:B1:5:ARG:HA	51:B1:24:LYS:O	2.09	0.52
24:DA:2722:G:H2'	24:DA:2723:C:H6	1.74	0.52
1:CA:1051:C:N3	1:CA:1052:U:C5	2.78	0.52
24:BA:1365:A:C6	24:BA:1366:A:C6	2.98	0.52
24:BA:1370:C:H2'	24:BA:1371:G:C8	2.45	0.52
1:CA:1085:U:H5'	1:CA:1094:G:C2	2.45	0.52
24:BA:2304:G:P	29:BF:120:SER:OG	2.67	0.52
24:BA:1478:G:C2	24:BA:1479:G:C8	2.97	0.52
24:BA:589:U:H2'	24:BA:590:A:H8	1.74	0.52
1:AA:858:G:C8	1:AA:869:G:C6	2.98	0.52
2:AB:188:ASP:HB2	2:AB:204:ASP:HB3	1.91	0.52
24:DA:1735:A:C2	24:DA:1736:U:H1'	2.45	0.52
24:DA:1187:G:HO2'	24:DA:1188:U:H6	1.57	0.52
6:CF:23:GLU:O	6:CF:24:ARG:C	2.47	0.52
24:DA:1010:A:N3	24:DA:1153:C:H1'	2.25	0.52
24:BA:1097:U:C2	32:BI:7:TYR:O	2.63	0.52
42:BS:42:LYS:O	42:BS:46:LEU:HD12	2.10	0.52
24:BA:1789:A:OP2	26:BC:220:ARG:CZ	2.58	0.52
42:DS:22:ASP:HA	42:DS:25:ARG:HG3	1.90	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2703:C:C2	24:BA:2704:C:C5	2.96	0.52
8:CH:64:LYS:O	8:CH:65:TYR:CD1	2.63	0.52
1:AA:106:C:C2'	1:AA:107:G:C5'	2.87	0.52
1:AA:292:G:N7	1:AA:293:G:H1'	2.24	0.52
24:DA:2531:A:N1	24:DA:2532:G:C4	2.78	0.52
24:DA:528:A:H5''	33:DJ:113:PRO:HG3	1.92	0.52
42:BS:37:THR:HG22	42:BS:38:TYR:N	2.24	0.52
1:CA:136:C:H1'	16:CP:1:MET:CE	2.37	0.52
1:AA:158:G:C6	1:AA:159:G:N7	2.77	0.52
34:BK:39:ILE:HG22	34:BK:41:ILE:HG23	1.90	0.52
29:DF:116:LEU:HD22	29:DF:129:MET:HE2	1.91	0.52
1:CA:220:G:H2'	1:CA:221:C:H5'	1.90	0.52
1:CA:68:G:H5'	1:CA:171:A:O2'	2.09	0.52
1:AA:694:A:C2	1:AA:695:A:H1'	2.43	0.52
24:DA:1590:A:C2	24:DA:1591:A:C4	2.98	0.52
6:AF:17:GLN:O	6:AF:21:MET:HG3	2.09	0.52
1:CA:1399:C:H4'	1:CA:1400:C:H5'	1.92	0.52
18:CR:47:THR:OG1	18:CR:52:GLN:HB2	2.10	0.52
14:CN:93:ILE:HG21	14:CN:96:LEU:HD23	1.89	0.52
1:CA:1167:A:C5	1:CA:1169:A:N1	2.77	0.52
11:CK:67:ALA:HA	11:CK:70:CYS:HB3	1.91	0.52
9:CI:99:ARG:O	9:CI:102:GLY:N	2.43	0.52
4:AD:90:LEU:C	4:AD:90:LEU:HD12	2.30	0.52
24:BA:1064:C:C5	24:BA:1066:U:O2	2.62	0.52
24:BA:1069:A:C6	24:BA:1073:A:C6	2.97	0.52
1:CA:937:A:C5	1:CA:938:A:N7	2.77	0.52
42:DS:51:LEU:O	42:DS:54:ALA:N	2.42	0.52
24:DA:2303:G:C4	24:DA:2304:G:C8	2.97	0.52
1:AA:1239:A:H2'	1:AA:1298:U:O4	2.09	0.52
24:DA:171:U:O2'	24:DA:172:A:H5'	2.10	0.52
24:BA:1794:A:H2'	24:BA:1795:C:H6	1.74	0.52
1:CA:909:A:H2'	1:CA:910:C:H5'	1.90	0.52
7:AG:133:THR:O	7:AG:136:LYS:NZ	2.43	0.52
32:DI:23:VAL:HG22	32:DI:24:GLY:N	2.25	0.52
3:CC:157:LEU:HD13	3:CC:164:ARG:HG2	1.90	0.52
50:B0:24:VAL:O	50:B0:26:SER:N	2.43	0.52
1:AA:935:A:N1	7:AG:3:ARG:NH2	2.58	0.52
24:BA:2849:U:O2'	24:BA:2866:U:O2	2.25	0.52
24:BA:792:A:C8	24:BA:2440:C:C2	2.97	0.52
24:BA:2235:G:H2'	24:BA:2236:U:O4'	2.10	0.52
36:DM:114:ARG:HG3	36:DM:114:ARG:HH21	1.72	0.52
24:DA:222:A:C2	24:DA:233:A:H4'	2.44	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1922:G:C5	24:DA:1923:U:C5	2.98	0.52
24:DA:2390:U:O5'	53:D3:34:LYS:HE2	2.10	0.52
53:B3:31:ILE:O	53:B3:31:ILE:HG22	2.09	0.52
24:BA:1876:A:N6	24:BA:1877:A:N6	2.57	0.52
1:CA:702:A:O2'	1:CA:703:G:P	2.67	0.52
5:AE:84:PRO:HA	5:AE:96:MET:O	2.10	0.52
12:AL:114:ARG:O	12:AL:115:SER:C	2.47	0.52
20:AT:5:LYS:HG2	20:AT:5:LYS:O	2.09	0.52
1:CA:414:A:N6	1:CA:431:A:N3	2.57	0.52
1:CA:430:A:OP1	4:CD:9:LEU:CG	2.57	0.52
23:AX:11:A:N6	23:AX:12:A:C2	2.78	0.52
13:CM:66:GLU:HG2	13:CM:70:ARG:NH1	2.25	0.52
24:DA:1059:G:H5'	24:DA:1060:U:H2'	1.90	0.52
24:BA:1111:A:H4'	24:BA:1112:G:OP1	2.10	0.52
7:AG:5:ARG:O	7:AG:6:VAL:C	2.47	0.52
1:AA:181:A:C2	1:AA:195:A:C5	2.98	0.52
1:AA:261:U:OP1	20:AT:71:LYS:NZ	2.40	0.52
24:DA:360:U:O4	24:DA:361:G:C6	2.63	0.52
24:BA:1202:G:C6	24:BA:1203:U:N3	2.78	0.52
6:CF:69:GLU:O	6:CF:71:ILE:CG1	2.58	0.52
11:AK:56:ARG:O	11:AK:57:LYS:C	2.48	0.52
7:CG:148:ASN:O	7:CG:150:ALA:N	2.43	0.52
1:CA:353:A:C2'	1:CA:354:G:OP2	2.57	0.52
24:BA:1368:G:H5'	52:B2:25:LYS:CD	2.39	0.52
1:CA:1354:U:HO2'	1:CA:1355:G:P	2.31	0.52
24:BA:2262:U:OP1	46:BW:41:ARG:NH1	2.42	0.52
1:AA:1537:U:O2	1:AA:1537:U:H2'	2.10	0.52
24:DA:2307:G:O6	29:DF:40:GLY:HA3	2.10	0.52
37:BN:29:VAL:HG13	37:BN:83:LEU:HD11	1.92	0.52
1:AA:202:G:C2	1:AA:216:U:O2	2.63	0.52
6:CF:25:TYR:O	6:CF:28:ALA:N	2.42	0.52
24:BA:1177:G:C6	24:BA:1178:C:C2	2.97	0.52
24:BA:483:A:C2	24:BA:484:C:C2	2.97	0.52
42:BS:17:VAL:HG21	42:BS:76:VAL:HG11	1.90	0.52
24:BA:1080:A:C2	24:BA:1081:U:C2	2.98	0.52
24:BA:1569:A:C6	24:BA:1570:A:C5	2.98	0.52
24:DA:1640:A:H2'	24:DA:1641:A:O4'	2.09	0.52
24:BA:629:G:N3	24:BA:639:U:O2'	2.41	0.52
1:AA:528:C:C5'	1:AA:529:G:OP2	2.58	0.52
2:CB:151:ILE:O	2:CB:152:LYS:C	2.48	0.52
10:AJ:27:GLU:O	10:AJ:31:ARG:HG2	2.10	0.52
17:AQ:29:VAL:HG12	17:AQ:30:LYS:O	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:CR:48:ARG:HG3	18:CR:51:TYR:CB	2.40	0.52
24:BA:126:A:N6	24:BA:127:A:N1	2.57	0.52
24:DA:2121:G:N7	24:DA:2122:U:C4	2.78	0.52
25:BB:54:G:C4	29:BF:25:MET:HE1	2.43	0.52
26:BC:90:ILE:HD13	26:BC:102:TYR:CE1	2.44	0.52
25:BB:14:U:H2'	25:BB:14:U:O2	2.10	0.52
1:AA:82:G:C2	1:AA:88:U:O2	2.63	0.52
1:AA:449:G:H2'	1:AA:450:G:C8	2.45	0.52
45:BV:77:VAL:CG2	45:BV:89:ILE:HG12	2.38	0.52
45:BV:87:GLN:O	45:BV:88:HIS:HB2	2.09	0.52
43:DT:32:LEU:N	43:DT:32:LEU:HD22	2.24	0.52
4:AD:86:THR:HA	4:AD:89:ASN:HB2	1.92	0.52
24:BA:164:C:H2'	24:BA:165:A:O4'	2.10	0.52
17:CQ:70:THR:CG2	17:CQ:71:LYS:N	2.71	0.52
24:BA:96:C:H4'	48:BY:41:HIS:NE2	2.25	0.52
1:AA:1275:A:C5	1:AA:1276:G:C8	2.97	0.52
24:BA:2876:G:H2'	24:BA:2877:G:O4'	2.10	0.52
24:DA:2078:C:C2	24:DA:2079:U:C6	2.97	0.52
52:B2:3:ARG:CB	52:B2:3:ARG:CZ	2.87	0.52
28:DE:149:ILE:HD12	28:DE:192:ALA:CB	2.40	0.52
42:BS:63:GLY:O	42:BS:64:ALA:CB	2.58	0.52
1:CA:243:A:C2	1:CA:246:A:C8	2.98	0.52
17:CQ:48:ASP:HA	17:CQ:75:LEU:HG	1.91	0.52
24:DA:457:A:H5'	24:DA:459:U:C1'	2.40	0.52
24:BA:2546:U:H5''	24:BA:2547:A:OP1	2.09	0.52
18:CR:36:SER:HA	21:CU:4:ILE:CD1	2.40	0.52
1:CA:289:G:H2'	1:CA:290:C:O5'	2.09	0.52
24:BA:1050:A:C2	24:BA:2751:G:C6	2.98	0.52
24:BA:2682:A:C2	27:BD:23:PRO:HB3	2.44	0.52
24:BA:6:A:N3	33:BJ:135:GLN:NE2	2.57	0.52
24:DA:188:G:H1'	24:DA:1365:A:N1	2.25	0.52
24:DA:2852:G:C2	24:DA:2853:C:C2	2.98	0.52
11:AK:84:VAL:CG2	11:AK:85:MET:N	2.73	0.52
43:BT:29:THR:HG23	43:BT:85:VAL:O	2.10	0.52
30:BG:22:VAL:HG12	30:BG:35:THR:OG1	2.10	0.52
51:D1:42:VAL:O	51:D1:43:ARG:C	2.48	0.52
34:DK:57:VAL:C	34:DK:58:LEU:HD23	2.29	0.52
54:B4:36:ARG:O	54:B4:37:GLN:C	2.48	0.52
55:CY:25:SER:C	55:CY:26:LYS:HD2	2.30	0.52
41:BR:24:LYS:HG2	41:BR:92:TRP:HB3	1.91	0.52
25:BB:33:G:O6	25:BB:34:A:N6	2.42	0.52
12:CL:57:LEU:HD12	12:CL:57:LEU:O	2.10	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:694:A:H5''	11:CK:55:SER:HB3	1.90	0.52
1:AA:917:G:C2	1:AA:918:A:C4	2.98	0.52
1:CA:429:U:O5'	4:CD:9:LEU:HD22	2.10	0.52
4:CD:104:ARG:NE	4:CD:170:TRP:CH2	2.78	0.52
4:CD:104:ARG:CD	4:CD:170:TRP:CZ2	2.92	0.52
1:AA:684:U:H1'	11:AK:40:ASN:HA	1.92	0.52
23:AX:10:A:O2'	23:AX:11:A:P	2.65	0.52
1:AA:1061:G:N7	1:AA:1062:U:C5	2.77	0.52
24:DA:1059:G:C2	24:DA:1080:A:C4	2.96	0.52
24:DA:1060:U:C1'	24:DA:1062:G:OP2	2.58	0.52
24:BA:1187:G:H5''	41:BR:83:TYR:CE2	2.45	0.52
9:AI:7:TYR:CD2	9:AI:19:VAL:O	2.63	0.52
10:AJ:34:ALA:O	10:AJ:35:GLN:CB	2.58	0.52
10:AJ:36:VAL:HG23	10:AJ:37:ARG:N	2.23	0.52
1:AA:144:G:C4	1:AA:179:A:C2	2.97	0.52
17:AQ:19:LYS:HG3	17:AQ:48:ASP:HB3	1.91	0.52
24:BA:1206:G:C6	24:BA:1207:C:C4	2.98	0.52
24:DA:1372:U:HO2'	24:DA:1373:A:H5'	1.73	0.52
1:CA:1132:C:H2'	1:CA:1133:G:C8	2.44	0.52
24:DA:1653:G:P	37:DN:2:ARG:NH2	2.83	0.52
24:DA:2204:G:N2	24:DA:2205:A:C1'	2.73	0.52
24:BA:1353:A:O2'	24:BA:1354:A:H5'	2.09	0.52
24:BA:329:G:H4'	24:BA:330:A:OP2	2.08	0.52
1:CA:919:A:H2'	1:CA:920:U:O5'	2.10	0.52
29:DF:123:GLY:HA2	29:DF:162:ASP:CG	2.30	0.52
1:AA:1441:A:H3'	1:AA:1442:G:C8	2.45	0.52
47:DX:52:ALA:O	47:DX:54:GLY:N	2.42	0.52
1:CA:750:C:C5	1:CA:751:U:C5	2.98	0.52
1:CA:654:G:C8	1:CA:753:A:C6	2.97	0.52
24:BA:507:A:C1'	24:BA:509:C:N3	2.72	0.52
44:BU:57:ILE:N	44:BU:57:ILE:CD1	2.72	0.52
1:CA:714:G:N3	1:CA:777:A:H1'	2.24	0.52
1:AA:47:C:C6	1:AA:365:U:H2'	2.45	0.52
26:DC:158:GLY:N	26:DC:194:VAL:CG1	2.73	0.52
24:BA:1131:G:O2'	24:BA:2026:U:H5'	2.10	0.52
24:DA:1321:A:C6	24:DA:1322:A:C5	2.98	0.52
25:BB:57:A:C8	29:BF:26:GLN:NE2	2.77	0.52
1:AA:882:C:C2'	1:AA:883:C:H5'	2.39	0.52
24:DA:2532:G:O2'	24:DA:2657:A:N6	2.41	0.52
5:AE:149:SER:HB3	5:AE:152:MET:HB3	1.91	0.52
1:CA:71:A:OP2	1:CA:72:A:OP2	2.28	0.52
24:DA:285:G:C2	24:DA:356:G:C4	2.97	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1144:A:C4	24:BA:1145:C:C5	2.98	0.52
50:B0:39:ARG:HB3	50:B0:40:HIS:CD2	2.45	0.52
5:CE:44:GLY:O	5:CE:45:ARG:HB2	2.09	0.52
33:BJ:125:TYR:CD2	33:BJ:130:HIS:HA	2.44	0.52
24:BA:373:U:C2	24:BA:374:A:C8	2.98	0.52
24:BA:1906:G:C6	24:BA:1929:G:N2	2.78	0.52
3:CC:107:ARG:O	3:CC:108:LYS:C	2.48	0.52
1:AA:86:G:C2	1:AA:87:C:C2	2.98	0.52
24:DA:1562:U:H2'	24:DA:1563:U:C6	2.44	0.52
11:CK:81:ASN:O	11:CK:82:LEU:CB	2.58	0.52
22:AV:66:U:H2'	22:AV:67:C:C6	2.45	0.52
1:AA:1057:G:O3'	3:AC:197:GLY:HA3	2.09	0.52
27:BD:27:ILE:HG12	27:BD:187:LEU:O	2.10	0.52
24:BA:1286:A:N6	24:BA:1329:U:O2	2.43	0.52
32:DI:24:GLY:O	32:DI:27:LEU:HD23	2.10	0.52
24:DA:2689:U:OP2	24:DA:2719:G:N2	2.31	0.52
8:AH:129:VAL:O	8:AH:130:ALA:HB2	2.10	0.52
28:DE:78:TRP:O	28:DE:81:GLY:N	2.40	0.52
24:BA:305:C:H1'	24:BA:313:G:N2	2.23	0.52
1:AA:990:C:C2	1:AA:991:U:C5	2.98	0.52
31:DH:115:VAL:O	31:DH:116:ARG:HG3	2.10	0.52
1:AA:1234:C:H1'	1:AA:1364:U:C6	2.45	0.52
1:AA:939:G:N2	1:AA:1344:C:O2	2.43	0.52
1:AA:1352:C:C2	1:AA:1371:G:C2	2.98	0.52
24:BA:2335:A:C6	24:BA:2337:G:H1'	2.45	0.52
25:BB:29:A:C2	25:BB:30:C:C2	2.98	0.52
24:DA:693:A:H1'	24:DA:1354:A:H1'	1.92	0.52
12:CL:33:VAL:O	12:CL:55:VAL:HG23	2.10	0.52
24:DA:85:G:OP1	44:DU:5:ARG:CD	2.56	0.52
4:AD:203:LEU:HD11	4:AD:204:TYR:CE1	2.45	0.52
4:AD:98:LEU:HD22	4:AD:118:VAL:CG1	2.40	0.52
1:AA:1084:G:C5	1:AA:1085:U:C4	2.98	0.52
4:CD:9:LEU:O	4:CD:10:LYS:C	2.48	0.52
4:CD:182:PHE:O	4:CD:183:LYS:CB	2.58	0.52
1:CA:739:C:N4	1:CA:740:U:O4	2.43	0.52
1:CA:759:A:C2'	1:CA:760:G:O5'	2.58	0.52
6:CF:59:TYR:O	6:CF:60:VAL:CG1	2.50	0.52
1:AA:705:G:N7	1:AA:706:A:N7	2.58	0.52
11:AK:35:THR:OG1	11:AK:36:ASP:O	2.27	0.52
1:AA:1095:U:C4	1:AA:1096:C:C4	2.98	0.52
24:BA:572:A:C2	24:BA:573:U:O2	2.63	0.52
1:CA:958:A:C4	19:CS:55:ARG:NH2	2.78	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:108:G:N1	24:BA:109:C:O2	2.43	0.52
24:BA:77:G:N2	24:BA:110:G:C4	2.78	0.52
16:CP:68:SER:O	16:CP:70:ARG:N	2.42	0.52
1:CA:1151:A:O4'	10:CJ:41:PRO:HB3	2.10	0.52
1:AA:1035:A:H2'	1:AA:1036:A:O4'	2.09	0.52
24:BA:563:A:N6	59:BA:3271:HOH:O	2.43	0.52
57:DA:3186:NMY:O4	57:DA:3186:NMY:N6	2.43	0.52
24:BA:1275:A:C2	24:BA:1295:C:O2'	2.55	0.52
1:CA:262:A:H3'	1:CA:263:A:H8	1.75	0.52
1:CA:1081:A:O3'	5:CE:23:LYS:NZ	2.42	0.52
3:AC:35:SER:HA	3:AC:38:LYS:HB3	1.91	0.52
39:BP:103:THR:O	39:BP:105:LYS:N	2.43	0.52
48:DY:12:GLU:O	48:DY:15:ASN:HB3	2.10	0.52
21:CU:14:VAL:HG13	21:CU:16:LEU:HB3	1.91	0.52
30:BG:41:GLU:CB	30:BG:54:ARG:CZ	2.88	0.52
24:DA:2500:U:O2	24:DA:2504:U:C4	2.62	0.52
26:DC:176:ARG:HH11	26:DC:177:SER:HB3	1.75	0.52
7:CG:2:PRO:O	7:CG:3:ARG:C	2.48	0.52
22:CV:64:A:C4	22:CV:65:G:C8	2.97	0.52
26:BC:62:ARG:HH21	26:BC:62:ARG:CG	2.23	0.52
11:AK:13:ARG:NH2	11:AK:77:TYR:CE2	2.78	0.52
1:AA:201:G:H2'	1:AA:202:G:C8	2.45	0.52
8:CH:29:SER:CB	8:CH:57:PRO:HB2	2.40	0.52
8:CH:29:SER:HB3	8:CH:57:PRO:CB	2.40	0.52
25:DB:98:G:H22	45:DV:14:LYS:CE	2.23	0.52
12:AL:32:GLY:CA	12:AL:56:ARG:O	2.58	0.52
1:CA:949:A:H2'	1:CA:950:U:O4'	2.10	0.52
24:BA:1078:U:O2'	24:BA:1088:A:OP1	2.28	0.52
26:DC:124:LYS:O	26:DC:125:PRO:C	2.48	0.52
24:BA:850:U:O2'	24:BA:851:C:H5'	2.09	0.52
24:DA:63:A:C2'	24:DA:64:A:H5'	2.40	0.52
24:DA:1242:U:H2'	24:DA:1243:C:C6	2.45	0.52
21:AU:12:PHE:O	21:AU:13:ASP:HB2	2.10	0.52
24:BA:1805:A:N3	26:BC:49:THR:HG22	2.24	0.52
1:AA:1206:G:H4'	3:AC:192:THR:O	2.10	0.52
24:BA:2311:A:O2'	24:BA:2312:U:OP1	2.28	0.52
55:CY:15:LYS:O	55:CY:15:LYS:HG3	2.09	0.52
34:BK:121:GLU:CG	34:BK:122:VAL:H	2.22	0.52
1:AA:487:A:C5	1:AA:488:C:C2	2.98	0.52
1:AA:1324:A:C5	1:AA:1325:C:C6	2.97	0.52
38:DO:50:ALA:O	38:DO:51:ALA:CB	2.57	0.52
10:AJ:96:VAL:HG23	10:AJ:96:VAL:O	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BC:24:HIS:HB2	26:BC:81:GLU:HG3	1.92	0.52
24:DA:1277:G:C5'	37:DN:20:MET:HE1	2.40	0.52
24:DA:1277:G:H5'	37:DN:20:MET:HE2	1.92	0.52
48:DY:18:LEU:O	48:DY:18:LEU:HD13	2.10	0.52
1:AA:123:U:H1'	1:AA:290:C:O2'	2.10	0.52
53:B3:6:VAL:CG1	53:B3:6:VAL:O	2.57	0.52
28:BE:145:ASP:HB3	28:BE:184:ASP:OD1	2.10	0.52
24:DA:275:C:N3	24:DA:276:U:H1'	2.24	0.52
53:B3:39:ARG:O	53:B3:43:LEU:CD1	2.58	0.52
24:BA:2326:C:H1'	24:BA:2327:A:OP1	2.10	0.52
24:DA:2377:A:O2'	24:DA:2378:A:H5'	2.10	0.52
1:CA:1439:G:OP2	20:CT:33:LYS:NZ	2.34	0.52
24:DA:977:G:C2	24:DA:978:G:C8	2.98	0.52
2:AB:104:TRP:CD2	2:AB:108:ARG:HB3	2.45	0.52
24:DA:482:A:P	44:DU:46:LYS:HZ1	2.32	0.52
28:DE:168:ASP:OD1	28:DE:169:VAL:N	2.43	0.52
24:DA:2489:U:O2	24:DA:2491:U:C4	2.63	0.52
38:BO:48:LEU:N	38:BO:48:LEU:HD23	2.24	0.52
35:BL:91:ASP:OD1	35:BL:94:THR:N	2.40	0.52
24:DA:304:U:O2'	24:DA:305:C:H5'	2.09	0.52
24:DA:2520:C:C6	24:DA:2567:G:H1'	2.45	0.52
31:DH:77:THR:O	31:DH:78:VAL:CB	2.58	0.52
24:DA:322:A:C5	24:DA:340:A:C2	2.97	0.52
1:AA:942:G:N2	1:AA:943:U:C2	2.78	0.52
1:AA:1014:A:C2	19:AS:34:TRP:CE2	2.98	0.52
14:AN:49:GLN:C	14:AN:51:LEU:N	2.57	0.52
1:AA:649:A:C6	1:AA:650:G:C8	2.98	0.52
8:AH:64:LYS:C	8:AH:65:TYR:CD1	2.83	0.52
11:CK:31:ILE:CG2	11:CK:46:THR:HG21	2.40	0.52
1:AA:400:C:C4	1:AA:401:C:H5	2.28	0.52
4:AD:197:GLU:O	4:AD:201:VAL:CG1	2.58	0.52
5:AE:125:ALA:O	5:AE:126:LYS:CB	2.57	0.52
4:CD:167:LYS:CD	4:CD:168:PRO:HD2	2.39	0.52
24:DA:1509:A:N3	24:DA:1510:G:C8	2.78	0.52
1:AA:709:U:HO2'	1:AA:710:G:P	2.32	0.52
1:AA:780:A:P	11:AK:125:LYS:HG2	2.50	0.52
57:BA:3161:NMY:C17	57:BA:3161:NMY:N2	2.73	0.52
1:AA:673:A:H5''	6:AF:86:ARG:NH1	2.24	0.52
13:CM:49:SER:O	13:CM:50:GLU:C	2.48	0.52
1:AA:1277:C:O2'	1:AA:1279:G:H1'	2.10	0.52
9:AI:19:VAL:HA	9:AI:65:ILE:HG22	1.92	0.52
10:AJ:36:VAL:HA	10:AJ:76:ILE:HG22	1.92	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1014:A:C5'	19:CS:14:HIS:CE1	2.93	0.52
24:BA:362:A:C3'	24:BA:363:G:C5'	2.88	0.52
1:AA:1003:G:C2	1:AA:1038:C:N3	2.78	0.52
15:CO:9:ALA:O	15:CO:10:LYS:C	2.48	0.52
1:CA:869:G:H5''	1:CA:872:A:O4'	2.10	0.52
24:BA:616:A:H2'	24:BA:617:G:C5'	2.40	0.52
24:BA:602:A:N3	24:BA:655:A:C2	2.78	0.52
7:AG:125:SER:C	7:AG:127:ALA:H	2.13	0.52
1:CA:1213:A:C8	1:CA:1215:G:C5	2.98	0.52
1:AA:1133:G:H5'	1:AA:1134:G:P	2.50	0.52
24:DA:2522:U:O2'	24:DA:2647:U:OP1	2.15	0.52
1:CA:1352:C:H2'	1:CA:1353:G:C1'	2.40	0.52
1:CA:201:G:C6	1:CA:217:C:O2	2.62	0.52
21:AU:21:ARG:O	21:AU:21:ARG:HG3	2.10	0.52
24:BA:545:U:C2'	24:BA:547:A:H5'	2.35	0.52
24:DA:2313:C:C1'	29:DF:36:ASN:ND2	2.72	0.52
22:CV:63:G:OP1	51:D1:27:ARG:NH2	2.42	0.52
1:AA:1385:G:N1	1:AA:1386:G:C5	2.78	0.52
24:BA:2345:G:C8	24:BA:2347:C:C6	2.98	0.52
40:DQ:60:TRP:CE2	40:DQ:92:LYS:HA	2.45	0.52
24:BA:1666:G:OP1	34:BK:66:LYS:HE3	2.10	0.52
24:BA:482:A:N6	24:BA:506:G:H1'	2.24	0.52
42:BS:46:LEU:O	42:BS:47:VAL:CB	2.56	0.52
42:BS:25:ARG:HG2	42:BS:74:ILE:HG23	1.92	0.52
42:BS:75:PHE:CZ	42:BS:104:THR:HG21	2.45	0.52
32:BI:121:ILE:O	32:BI:124:MET:N	2.42	0.52
24:BA:58:G:OP1	43:BT:78:SER:CB	2.57	0.52
24:BA:320:A:P	28:BE:130:LYS:CE	2.98	0.52
1:AA:406:G:C4	1:AA:407:U:C5	2.98	0.52
24:DA:910:A:N1	24:DA:2277:G:H1'	2.25	0.52
35:DL:4:ASN:OD1	35:DL:5:THR:HG22	2.08	0.52
24:DA:2224:G:H4'	24:DA:2226:C:C2	2.45	0.52
45:BV:48:MET:O	45:BV:51:GLN:HB3	2.10	0.52
39:BP:96:LEU:O	39:BP:97:TYR:C	2.49	0.52
1:AA:528:C:N4	1:AA:529:G:O6	2.43	0.52
27:DD:14:ILE:HB	27:DD:22:ILE:CG2	2.40	0.52
1:CA:64:G:N7	1:CA:99:C:C4	2.78	0.52
42:BS:23:LEU:HD22	42:BS:35:ILE:HG21	1.92	0.52
30:DG:148:ARG:HA	30:DG:161:VAL:HG22	1.92	0.52
43:DT:68:LYS:HE3	43:DT:69:ARG:N	2.24	0.52
41:DR:25:LEU:CD1	41:DR:94:THR:OG1	2.58	0.52
33:BJ:139:VAL:HG22	33:BJ:140:LEU:N	2.25	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2603:G:C5	24:BA:2604:U:C5	2.98	0.52
24:BA:661:A:H2'	24:BA:662:G:O4'	2.10	0.52
24:DA:2784:U:C2	24:DA:2785:C:C5	2.98	0.52
24:DA:1831:G:C2'	24:DA:1832:C:O5'	2.58	0.52
24:BA:2714:G:O2'	24:BA:2715:C:H5'	2.10	0.52
24:BA:1657:U:OP1	27:BD:141:ARG:N	2.43	0.52
30:BG:144:ALA:HA	30:BG:147:LEU:HD21	1.90	0.52
24:BA:1241:A:C2	24:BA:1242:U:H1'	2.45	0.52
22:AV:70:G:C2	22:AV:71:G:C4	2.98	0.52
31:BH:64:ALA:O	31:BH:68:ARG:NH2	2.43	0.52
24:BA:1854:A:H2'	24:BA:1855:U:H5'	1.92	0.52
1:AA:463:U:C5	1:AA:464:U:C4	2.98	0.52
31:BH:67:ALA:O	31:BH:71:LYS:N	2.39	0.52
24:BA:855:G:N2	24:BA:923:G:C4	2.78	0.52
24:DA:483:A:C8	24:DA:484:C:C5	2.98	0.52
24:BA:1483:G:N2	24:BA:1484:U:C2	2.78	0.52
1:CA:1496:C:H5''	1:CA:1497:G:OP2	2.10	0.52
18:CR:73:ARG:O	18:CR:74:HIS:CG	2.63	0.52
33:BJ:64:VAL:HG11	33:BJ:89:PHE:CZ	2.44	0.52
24:BA:206:U:O2	24:BA:206:U:H2'	2.10	0.52
16:AP:57:ILE:O	16:AP:58:ALA:C	2.48	0.52
1:AA:960:U:H2'	1:AA:1225:A:H62	1.74	0.52
19:AS:36:ARG:HB2	19:AS:72:GLY:CA	2.40	0.52
24:BA:1866:A:N3	24:BA:1876:A:C2	2.78	0.52
24:BA:391:A:C6	24:BA:392:U:C6	2.97	0.52
8:AH:22:LYS:O	8:AH:65:TYR:OH	2.24	0.52
12:CL:25:GLU:O	12:CL:26:ALA:C	2.49	0.52
1:CA:1506:U:C4'	11:CK:128:ARG:HD3	2.39	0.52
1:CA:706:A:N3	11:CK:44:TRP:HZ2	2.04	0.52
1:AA:392:C:HO2'	1:AA:482:A:H2	1.56	0.52
1:AA:614:C:H3'	1:AA:615:G:H5''	1.91	0.52
4:AD:11:LEU:HD21	4:AD:63:ARG:HG2	1.92	0.52
5:AE:83:HIS:CG	5:AE:84:PRO:N	2.78	0.52
8:AH:102:ALA:O	8:AH:103:VAL:CB	2.57	0.52
8:AH:113:ASP:O	8:AH:117:ARG:HG2	2.09	0.52
12:AL:118:GLY:O	12:AL:119:VAL:CB	2.57	0.52
1:AA:17:U:H4'	1:AA:1080:A:O4'	2.10	0.52
1:CA:406:G:C6	1:CA:495:A:C8	2.98	0.52
4:CD:22:LYS:NZ	4:CD:25:VAL:O	2.38	0.52
1:CA:763:G:C5	1:CA:764:C:C4	2.98	0.52
1:CA:1329:A:C8	1:CA:1330:U:C6	2.98	0.52
1:CA:1307:U:H3'	13:CM:98:ARG:NH2	2.25	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:73:LYS:O	2:AB:75:ALA:N	2.40	0.52
1:AA:182:A:N7	1:AA:184:G:C4	2.77	0.52
1:AA:275:G:C2	1:AA:276:G:C8	2.98	0.52
24:BA:2691:C:O2'	24:BA:2692:G:H5'	2.09	0.52
57:DA:3190:NMY:N19	57:DA:3190:NMY:N23	2.57	0.52
9:CI:40:GLY:O	9:CI:41:ARG:CB	2.57	0.52
9:CI:82:GLY:HA2	9:CI:85:ARG:NH1	2.25	0.52
12:CL:89:ASP:O	12:CL:90:LEU:C	2.48	0.52
36:BM:18:ARG:HE	36:BM:18:ARG:HA	1.74	0.52
24:BA:608:A:C2	24:BA:621:A:C2	2.98	0.52
24:BA:659:G:C2	24:BA:660:C:C2	2.97	0.52
1:CA:974:A:P	14:CN:81:ARG:NH2	2.83	0.52
24:DA:2754:U:O2'	24:DA:2756:U:OP1	2.23	0.52
1:CA:1084:G:C6	1:CA:1085:U:C4	2.98	0.52
24:DA:2336:A:N3	24:DA:2385:C:H1'	2.25	0.52
1:CA:212:G:N2	1:CA:213:G:C5	2.78	0.52
24:DA:1603:A:OP1	59:DA:3410:HOH:O	2.18	0.52
24:BA:2131:U:H5'	24:BA:2132:U:H5''	1.91	0.52
24:DA:192:C:H2'	24:DA:193:U:H5'	1.91	0.52
24:DA:1733:G:N1	24:DA:1734:G:C5	2.78	0.52
24:DA:1188:U:H4'	41:DR:81:LYS:O	2.10	0.52
34:BK:92:GLU:O	34:BK:93:GLN:O	2.28	0.52
1:AA:664:G:P	18:AR:53:ARG:HH22	2.29	0.52
6:CF:21:MET:O	6:CF:23:GLU:CG	2.58	0.52
41:DR:1:MET:HG2	41:DR:2:TYR:N	2.25	0.52
1:CA:665:A:OP2	18:CR:57:ARG:NH2	2.43	0.52
1:AA:175:C:O2'	1:AA:1447:A:N1	2.41	0.52
30:BG:108:PHE:C	30:BG:110:HIS:N	2.62	0.52
1:AA:790:A:C5	1:AA:791:G:C6	2.97	0.52
24:BA:1385:A:C2	24:BA:1386:C:N3	2.78	0.52
28:DE:98:LYS:NZ	59:DE:404:HOH:O	2.40	0.52
2:CB:184:PHE:CE2	2:CB:198:PHE:CD2	2.98	0.52
42:DS:32:ALA:HA	42:DS:35:ILE:HD12	1.92	0.52
24:DA:407:G:C2	24:DA:421:C:C2	2.98	0.52
2:CB:50:PHE:HB3	2:CB:54:LEU:HB2	1.92	0.52
1:AA:294:U:C5'	1:AA:295:C:OP2	2.58	0.52
12:AL:6:GLN:O	12:AL:9:ARG:N	2.43	0.52
16:CP:1:MET:HG2	16:CP:2:VAL:N	2.25	0.52
1:CA:4:U:H5''	1:CA:5:U:OP1	2.10	0.52
1:CA:220:G:C2'	1:CA:221:C:H5'	2.39	0.52
34:BK:121:GLU:HG3	34:BK:122:VAL:N	2.24	0.52
35:DL:98:ALA:O	35:DL:100:ILE:N	2.43	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DO:87:ILE:O	38:DO:88:LYS:CG	2.58	0.52
1:CA:1400:C:H3'	1:CA:1401:G:H5'	1.92	0.52
1:CA:663:A:N1	1:CA:743:A:C2	2.77	0.52
26:BC:24:HIS:CB	26:BC:81:GLU:HG3	2.40	0.52
11:CK:94:GLU:O	11:CK:97:ILE:N	2.42	0.52
45:BV:89:ILE:HG22	45:BV:90:ASP:N	2.25	0.52
24:BA:663:G:OP1	35:BL:17:LYS:N	2.43	0.52
9:CI:30:ILE:HG13	9:CI:31:ASN:N	2.25	0.52
34:DK:4:GLU:O	34:DK:5:GLN:HG2	2.10	0.52
1:AA:1240:U:OP2	7:AG:116:MET:N	2.43	0.52
8:CH:34:VAL:HG23	8:CH:35:ALA:N	2.25	0.52
24:BA:137:U:OP2	24:BA:140:C:C4	2.63	0.52
46:DW:28:GLY:CA	46:DW:66:LYS:HG2	2.39	0.52
25:DB:15:A:O2'	25:DB:16:G:C5'	2.58	0.52
27:DD:108:ASP:OD2	27:DD:207:VAL:HG12	2.08	0.52
7:CG:54:SER:OG	7:CG:55:GLY:N	2.43	0.52
1:CA:1264:U:H2'	1:CA:1265:C:H5'	1.92	0.52
3:AC:53:SER:O	3:AC:54:ARG:HB3	2.10	0.52
24:BA:1681:G:N3	24:BA:1762:A:H2'	2.24	0.52
36:BM:105:MET:CE	36:BM:113:ALA:HA	2.40	0.52
16:AP:54:LEU:C	16:AP:54:LEU:HD23	2.30	0.52
24:DA:299:A:N3	24:DA:319:G:O2'	2.33	0.52
24:DA:1041:G:C2	24:DA:1042:G:C8	2.98	0.52
24:BA:250:G:H2'	24:BA:251:A:C8	2.45	0.51
24:BA:416:U:C4	24:BA:417:C:C5	2.98	0.51
24:BA:398:C:OP2	47:BX:52:ALA:HB1	2.10	0.51
1:AA:827:U:O2'	8:AH:20:ALA:HB2	2.10	0.51
1:AA:112:G:H2'	1:AA:113:G:H5'	1.93	0.51
1:AA:46:G:C6	1:AA:366:A:C2	2.97	0.51
4:AD:69:GLU:CA	4:AD:72:PHE:CE1	2.93	0.51
1:CA:1298:U:O4'	1:CA:1299:A:C6	2.63	0.51
13:CM:41:GLU:OE1	13:CM:41:GLU:HA	2.10	0.51
24:DA:1074:G:C6	24:DA:1075:C:C4	2.99	0.51
41:DR:79:ARG:HD2	41:DR:80:ARG:H	1.75	0.51
24:BA:348:A:C8	24:BA:349:U:C5	2.98	0.51
24:BA:2454:G:C4	24:BA:2455:G:C8	2.98	0.51
1:CA:1153:G:C5	1:CA:1154:G:C8	2.98	0.51
24:BA:1270:C:H5''	24:BA:1271:G:H5'	1.92	0.51
24:BA:2627:G:O2'	24:BA:2781:A:N1	2.18	0.51
12:CL:64:THR:HG23	12:CL:64:THR:O	2.09	0.51
19:CS:45:ILE:HA	19:CS:62:VAL:HG23	1.92	0.51
24:DA:2819:G:OP1	59:DA:3811:HOH:O	2.19	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DF:124:ARG:HH22	29:DF:126:ASN:ND2	2.08	0.51
24:BA:2260:C:H2'	24:BA:2261:C:H6	1.75	0.51
1:CA:657:U:H5'	15:CO:28:GLN:OE1	2.10	0.51
30:BG:51:PHE:CE2	30:BG:68:ARG:CB	2.92	0.51
3:CC:40:ARG:NH1	3:CC:55:ILE:O	2.43	0.51
16:AP:19:VAL:CG2	16:AP:37:GLY:N	2.71	0.51
1:AA:838:G:N3	1:AA:849:G:N2	2.57	0.51
1:AA:664:G:C5'	18:AR:53:ARG:HH21	2.23	0.51
6:CF:24:ARG:O	6:CF:27:ALA:N	2.44	0.51
24:BA:481:G:OP2	44:BU:43:LYS:HG3	2.10	0.51
24:DA:1450:G:N2	24:DA:1462:C:C2	2.77	0.51
24:BA:1589:U:H2'	24:BA:1590:A:C8	2.45	0.51
35:DL:126:ARG:C	35:DL:127:VAL:CG2	2.79	0.51
33:BJ:16:TYR:CD1	33:BJ:16:TYR:N	2.76	0.51
24:BA:59:U:H4'	24:BA:73:A:C5	2.46	0.51
27:BD:125:TRP:CG	27:BD:160:LYS:HE2	2.45	0.51
40:DQ:2:ARG:HD2	40:DQ:2:ARG:O	2.10	0.51
3:CC:7:PRO:O	3:CC:11:ARG:CD	2.58	0.51
24:DA:417:C:H2'	24:DA:418:C:H6	1.75	0.51
29:DF:12:VAL:O	29:DF:13:LYS:C	2.48	0.51
24:BA:1532:A:C2	24:BA:1533:C:N4	2.78	0.51
24:BA:1542:U:H2'	24:BA:1543:G:O4'	2.09	0.51
24:DA:1306:C:O2'	24:DA:1307:A:H5'	2.11	0.51
11:CK:65:VAL:O	11:CK:65:VAL:HG23	2.10	0.51
28:BE:109:LEU:HD11	28:BE:180:LEU:CD1	2.40	0.51
1:AA:696:A:C5	1:AA:697:U:C5	2.99	0.51
24:DA:2052:A:N6	24:DA:2618:G:C2	2.78	0.51
2:CB:159:ASP:O	2:CB:160:ALA:HB3	2.10	0.51
24:DA:2128:G:H2'	24:DA:2129:C:O5'	2.09	0.51
24:BA:374:A:H2'	24:BA:374:A:N3	2.26	0.51
24:BA:1929:G:H2'	24:BA:1929:G:N3	2.25	0.51
24:BA:1038:G:N2	24:BA:1118:C:C2	2.79	0.51
24:DA:2422:C:O2'	24:DA:2423:U:P	2.68	0.51
24:BA:2798:U:H4'	24:BA:2799:A:C5'	2.40	0.51
1:CA:27:G:C6	1:CA:557:G:C2	2.98	0.51
24:DA:2108:A:H2'	24:DA:2109:U:O5'	2.10	0.51
30:DG:19:ASN:O	30:DG:22:VAL:CG2	2.57	0.51
24:DA:2339:C:H2'	24:DA:2340:A:H8	1.75	0.51
24:BA:2603:G:H2'	24:BA:2604:U:O5'	2.10	0.51
17:CQ:64:CYS:N	17:CQ:72:SER:O	2.43	0.51
3:AC:6:HIS:CE1	14:AN:89:MET:HB3	2.45	0.51
1:CA:425:G:C6	1:CA:426:U:C4	2.98	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1000:A:C6	1:CA:1001:C:C4	2.98	0.51
34:DK:4:GLU:OE2	34:DK:23:LYS:NZ	2.36	0.51
24:BA:199:A:C8	24:BA:2433:A:C6	2.97	0.51
24:BA:2185:U:C5	24:BA:2186:G:N7	2.78	0.51
1:AA:1311:A:C2	1:AA:1327:C:N3	2.78	0.51
3:CC:120:ILE:HG21	3:CC:198:VAL:HG21	1.92	0.51
24:BA:1937:A:H2'	24:BA:1939:U:OP2	2.10	0.51
24:DA:957:C:N4	24:DA:2459:A:C8	2.78	0.51
34:DK:86:LEU:HD23	34:DK:86:LEU:N	2.24	0.51
44:DU:11:ILE:HG22	44:DU:21:ARG:HG2	1.93	0.51
38:BO:21:LEU:HD12	38:BO:21:LEU:N	2.26	0.51
14:AN:45:VAL:HG22	14:AN:46:LEU:N	2.26	0.51
25:BB:15:A:C5	25:BB:109:A:C2	2.99	0.51
24:BA:2414:G:C2	24:BA:2415:G:C8	2.98	0.51
24:BA:2419:U:H2'	24:BA:2420:C:C6	2.44	0.51
12:CL:56:ARG:O	12:CL:57:LEU:HG	2.09	0.51
1:CA:688:G:C2	1:CA:700:G:N7	2.78	0.51
1:AA:621:A:H2'	1:AA:622:A:O4'	2.09	0.51
1:AA:624:C:N3	1:AA:625:U:C4	2.79	0.51
1:CA:499:A:C6	1:CA:547:A:C8	2.98	0.51
13:CM:68:ASP:O	13:CM:71:ARG:N	2.44	0.51
24:DA:1064:C:N3	24:DA:1066:U:N3	2.58	0.51
1:AA:1256:A:H2'	1:AA:1278:G:N7	2.25	0.51
55:CY:143:LEU:CD1	55:CY:143:LEU:C	2.78	0.51
24:BA:1202:G:C2	24:BA:1244:A:C2	2.98	0.51
24:BA:1205:A:C2	28:BE:165:HIS:CE1	2.98	0.51
4:AD:9:LEU:HG	4:AD:10:LYS:N	2.25	0.51
19:CS:60:VAL:CG1	19:CS:62:VAL:HG13	2.39	0.51
1:CA:869:G:H4'	1:CA:872:A:C8	2.45	0.51
24:DA:1801:A:C8	24:DA:2203:U:C5	2.98	0.51
1:AA:1304:G:C6	1:AA:1305:G:N2	2.79	0.51
1:AA:1305:G:C2	1:AA:1331:G:O2'	2.63	0.51
44:BU:12:VAL:HA	44:BU:69:VAL:HA	1.92	0.51
3:AC:65:ARG:O	3:AC:66:VAL:HB	2.10	0.51
24:DA:328:U:H2'	24:DA:329:G:OP1	2.10	0.51
35:BL:114:GLY:O	35:BL:115:GLU:CB	2.59	0.51
21:CU:20:LYS:HB2	21:CU:20:LYS:NZ	2.25	0.51
1:AA:992:U:O2	1:AA:993:G:C2	2.63	0.51
1:CA:942:G:C6	1:CA:943:U:C4	2.98	0.51
7:CG:120:LEU:O	7:CG:121:ALA:C	2.47	0.51
1:AA:844:G:O2'	1:AA:845:A:N7	2.43	0.51
1:AA:891:U:C2'	1:AA:892:A:H5'	2.40	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:101:ILE:HD12	3:AC:102:ASN:N	2.26	0.51
24:BA:861:A:N3	25:BB:79:G:O2'	2.43	0.51
2:CB:114:LEU:HG	2:CB:115:LYS:N	2.25	0.51
24:BA:2011:U:O2	24:BA:2011:U:O4'	2.28	0.51
35:DL:127:VAL:HG12	35:DL:131:ALA:HB3	1.91	0.51
33:BJ:86:GLN:HG2	33:BJ:87:ALA:N	2.26	0.51
32:BI:116:MET:HB3	32:BI:124:MET:SD	2.50	0.51
24:DA:160:A:H2'	24:DA:161:A:C8	2.45	0.51
24:BA:2640:G:P	33:BJ:96:ARG:NH1	2.84	0.51
1:CA:1202:U:C6	14:CN:69:ARG:NH1	2.78	0.51
27:DD:38:LYS:HE2	27:DD:45:TYR:OH	2.10	0.51
40:BQ:71:ASN:HB3	40:BQ:109:VAL:HG11	1.92	0.51
1:CA:188:C:O2	1:CA:189:A:C4	2.64	0.51
22:AV:72:C:O2'	22:AV:73:A:C5'	2.58	0.51
16:CP:23:ASP:O	16:CP:24:SER:C	2.47	0.51
1:CA:380:G:C2	1:CA:384:G:N1	2.78	0.51
55:CY:13:MET:HA	55:CY:16:CYS:HB2	1.93	0.51
24:DA:1410:G:O6	24:DA:1591:A:N6	2.43	0.51
24:BA:1869:G:N2	24:BA:1871:A:O2'	2.42	0.51
6:AF:10:VAL:CG2	6:AF:21:MET:CE	2.88	0.51
44:BU:73:ASN:O	44:BU:74:ALA:HB3	2.10	0.51
30:BG:163:TYR:CB	30:BG:166:GLU:HB2	2.40	0.51
33:DJ:68:LYS:O	33:DJ:70:THR:N	2.43	0.51
24:BA:262:A:C2	24:BA:430:A:N3	2.78	0.51
31:DH:50:ARG:O	31:DH:51:ARG:C	2.49	0.51
30:DG:75:VAL:CG2	30:DG:76:ILE:N	2.73	0.51
24:DA:2553:G:H2'	24:DA:2554:U:O4'	2.10	0.51
1:AA:604:G:C2	1:AA:635:A:C2	2.98	0.51
24:BA:2636:C:H2'	24:BA:2637:U:C6	2.45	0.51
1:CA:1264:U:C2'	1:CA:1265:C:H5'	2.40	0.51
34:DK:11:ALA:HB2	34:DK:83:ALA:HB1	1.91	0.51
29:BF:12:VAL:HG23	29:BF:13:LYS:H	1.75	0.51
24:BA:950:G:C6	24:BA:951:C:C4	2.99	0.51
24:BA:1684:G:C2	24:BA:1705:A:C2	2.99	0.51
1:AA:1540:U:N3	23:AX:3:G:N2	2.57	0.51
27:BD:202:ILE:CG1	27:BD:202:ILE:O	2.59	0.51
24:BA:1148:U:H2'	24:BA:1149:G:O4'	2.10	0.51
35:DL:23:ILE:O	35:DL:26:GLY:N	2.37	0.51
24:BA:1987:A:N3	24:BA:1987:A:H2'	2.25	0.51
1:CA:951:G:H1'	1:CA:1231:G:N2	2.24	0.51
17:CQ:23:VAL:HG12	17:CQ:24:ALA:O	2.11	0.51
31:DH:71:LYS:HE3	31:DH:108:VAL:HB	1.91	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DC:216:ARG:HD3	26:DC:217:PRO:HD2	1.92	0.51
24:BA:1864:U:C2'	24:BA:1865:U:H5'	2.40	0.51
24:BA:2414:G:H21	24:BA:2415:G:H1'	1.74	0.51
24:BA:2415:G:N3	24:BA:2416:C:C6	2.78	0.51
47:BX:31:ASN:O	47:BX:32:LEU:O	2.28	0.51
2:CB:83:ALA:O	2:CB:84:ALA:C	2.49	0.51
8:AH:37:ALA:C	8:AH:39:VAL:N	2.63	0.51
1:CA:363:A:N6	1:CA:364:A:C6	2.78	0.51
1:AA:546:A:OP1	4:AD:70:ARG:N	2.32	0.51
4:AD:148:LYS:O	4:AD:149:ALA:HB3	2.10	0.51
4:AD:65:TYR:HB2	4:AD:67:VAL:HG23	1.90	0.51
31:DH:82:SER:HB3	31:DH:146:VAL:HG23	1.91	0.51
1:AA:865:A:H5'	1:AA:1078:U:O4	2.10	0.51
1:CA:437:U:C4	1:CA:438:U:C5	2.97	0.51
1:CA:502:A:OP1	12:CL:115:SER:HB3	2.10	0.51
9:AI:67:VAL:HG22	9:AI:68:LYS:N	2.25	0.51
1:AA:929:G:C4'	1:AA:1535:C:H5''	2.40	0.51
19:CS:16:LEU:HD12	19:CS:19:VAL:CG1	2.39	0.51
1:CA:2:A:C6	1:CA:3:A:N1	2.78	0.51
24:DA:1993:U:C2'	24:DA:1994:C:H5'	2.40	0.51
24:DA:1375:U:C5	24:DA:1376:C:C5	2.98	0.51
24:BA:2455:G:H2'	24:BA:2456:C:C6	2.45	0.51
4:CD:51:TYR:CA	4:CD:54:GLN:HB2	2.38	0.51
18:CR:24:LYS:O	18:CR:26:ILE:HG22	2.11	0.51
24:BA:1356:G:N1	24:BA:1357:C:O2	2.43	0.51
46:BW:31:VAL:CG2	46:BW:32:LEU:N	2.73	0.51
1:CA:1074:G:O3'	2:CB:102:THR:CG2	2.58	0.51
29:DF:95:MET:O	29:DF:99:PHE:CD1	2.64	0.51
24:DA:507:A:N6	57:DA:3189:NMY:HN32	2.09	0.51
24:BA:1338:G:O2'	43:BT:19:LYS:NZ	2.26	0.51
24:BA:667:U:H2'	24:BA:667:U:O2	2.10	0.51
24:BA:2753:A:C4	24:BA:2754:U:C6	2.98	0.51
7:CG:67:GLU:C	7:CG:70:ARG:HB3	2.31	0.51
24:DA:2483:C:H1'	36:DM:51:ARG:NH2	2.26	0.51
24:BA:862:G:O2'	25:BB:78:A:N3	2.38	0.51
24:DA:584:C:OP1	40:DQ:5:ARG:HG3	2.09	0.51
5:CE:82:GLN:NE2	5:CE:150:PRO:HD3	2.25	0.51
24:DA:2846:G:OP1	39:DP:52:ARG:NH1	2.43	0.51
1:CA:722:G:OP2	21:CU:45:ARG:NH1	2.43	0.51
1:AA:149:A:H2'	1:AA:149:A:N3	2.25	0.51
33:BJ:75:TYR:HA	33:BJ:86:GLN:HB2	1.91	0.51
24:BA:1059:G:N2	24:BA:1080:A:H1'	2.26	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AF:92:THR:HG22	6:AF:93:LYS:N	2.25	0.51
24:BA:386:G:H4'	24:BA:387:U:OP2	2.10	0.51
28:BE:138:LEU:O	28:BE:139:LYS:C	2.49	0.51
24:BA:182:A:C6	24:BA:183:C:C4	2.98	0.51
53:D3:26:ALA:O	53:D3:27:ASN:CB	2.57	0.51
24:DA:2167:U:N3	24:DA:2170:A:OP2	2.43	0.51
26:BC:261:ARG:NE	26:BC:262:THR:HG23	2.25	0.51
24:BA:1441:G:C2	24:BA:1551:A:N3	2.79	0.51
1:AA:158:G:C4	1:AA:159:G:C8	2.98	0.51
28:BE:109:LEU:O	28:BE:112:LEU:N	2.44	0.51
1:AA:978:A:N7	1:AA:1318:A:N6	2.59	0.51
24:DA:1414:C:C5	24:DA:1415:U:C4	2.98	0.51
1:AA:1520:C:H2'	1:AA:1521:C:H6	1.74	0.51
24:DA:1789:A:OP1	26:DC:220:ARG:HD3	2.09	0.51
24:BA:1562:U:C4	24:BA:1563:U:C5	2.98	0.51
38:DO:11:ALA:O	38:DO:13:ARG:N	2.44	0.51
24:DA:2761:A:O2'	30:DG:142:GLN:NE2	2.43	0.51
24:DA:1759:A:H4'	24:DA:2715:C:O4'	2.10	0.51
32:DI:23:VAL:HG13	32:DI:24:GLY:H	1.75	0.51
32:BI:108:ILE:O	32:BI:109:ALA:HB3	2.09	0.51
8:AH:106:THR:OG1	8:AH:121:LEU:HB3	2.09	0.51
11:CK:59:THR:HB	11:CK:60:PRO:HD2	1.92	0.51
55:CY:114:THR:CG2	55:CY:115:LYS:N	2.72	0.51
24:DA:2471:A:N6	24:DA:2472:G:C2	2.78	0.51
28:BE:119:ILE:O	28:BE:187:VAL:HA	2.10	0.51
22:CV:30:G:N2	22:CV:41:C:C2	2.78	0.51
41:BR:12:HIS:N	41:BR:12:HIS:ND1	2.58	0.51
37:DN:38:LEU:HB3	37:DN:39:PRO:HD3	1.92	0.51
16:AP:60:TRP:CE3	16:AP:60:TRP:HA	2.46	0.51
1:AA:984:C:O2	1:AA:1222:G:N2	2.43	0.51
25:BB:8:C:O3'	38:BO:25:ARG:NH1	2.44	0.51
14:AN:25:GLU:OE1	14:AN:26:LEU:N	2.43	0.51
24:BA:1853:A:N1	24:BA:2087:G:H1'	2.26	0.51
1:CA:693:G:C2	23:CX:10:A:N6	2.78	0.51
1:AA:572:A:H1'	1:AA:917:G:O4'	2.10	0.51
11:AK:125:LYS:HA	21:AU:35:ARG:CB	2.41	0.51
57:BA:3161:NMY:H14	57:BA:3161:NMY:H19	1.88	0.51
1:CA:1242:G:C6	1:CA:1243:C:H5	2.27	0.51
1:CA:1268:G:C6	1:CA:1269:A:C6	2.99	0.51
1:CA:1309:G:C2	1:CA:1329:A:C4	2.98	0.51
24:DA:1059:G:C4	24:DA:1060:U:C4	2.98	0.51
24:DA:1091:G:C6	24:DA:1101:U:N3	2.78	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1074:G:C6	1:AA:1075:U:C4	2.98	0.51
1:AA:1091:U:C2	1:AA:1093:A:OP2	2.63	0.51
9:AI:38:TYR:CE2	9:AI:39:PHE:CE1	2.98	0.51
20:AT:67:ILE:HD11	20:AT:71:LYS:HE2	1.92	0.51
22:CV:9:A:C5	22:CV:46:G:N2	2.79	0.51
24:BA:2179:C:H2'	24:BA:2180:U:C6	2.46	0.51
1:CA:489:C:H2'	1:CA:490:C:C6	2.44	0.51
24:BA:613:A:H3'	24:BA:614:A:H5'	1.93	0.51
24:BA:621:A:H2'	24:BA:622:G:C5'	2.40	0.51
7:AG:132:GLY:O	7:AG:135:VAL:HG22	2.11	0.51
24:BA:1368:G:H5'	52:B2:25:LYS:HD2	1.92	0.51
12:CL:44:LYS:HB3	12:CL:45:PRO:HD3	1.93	0.51
24:DA:971:G:H2'	24:DA:972:A:O4'	2.10	0.51
29:DF:121:PHE:CD2	29:DF:162:ASP:CG	2.84	0.51
24:DA:2447:G:O2'	24:DA:2500:U:OP2	2.17	0.51
1:AA:213:G:N7	1:AA:214:C:C5	2.79	0.51
8:CH:56:LYS:O	8:CH:57:PRO:O	2.29	0.51
15:CO:25:THR:OG1	15:CO:26:GLU:N	2.42	0.51
30:BG:139:VAL:HG12	30:BG:143:VAL:HG23	1.93	0.51
16:AP:19:VAL:HG21	16:AP:36:VAL:HG23	1.93	0.51
7:CG:116:MET:HE1	7:CG:119:ARG:NH1	2.25	0.51
34:DK:105:ARG:HG2	34:DK:122:VAL:HG12	1.90	0.51
1:CA:713:G:H21	1:CA:777:A:H4'	1.75	0.51
26:DC:158:GLY:CA	26:DC:194:VAL:HG12	2.41	0.51
1:CA:96:U:HO2'	1:CA:97:G:P	2.33	0.51
24:BA:2204:G:N3	24:BA:2205:A:C8	2.79	0.51
1:AA:298:A:H3'	1:AA:299:G:C8	2.44	0.51
9:AI:129:LYS:O	9:AI:130:ARG:HG2	2.10	0.51
22:AV:33:U:O2	22:AV:35:A:C8	2.63	0.51
24:BA:1448:G:C5	24:BA:1449:G:C5	2.99	0.51
24:DA:1439:A:N7	24:DA:1440:U:C2	2.78	0.51
24:DA:140:C:O2	24:DA:140:C:O4'	2.28	0.51
24:DA:528:A:H2	24:DA:2043:C:H5'	1.76	0.51
24:DA:528:A:C2	24:DA:2042:A:H2'	2.45	0.51
41:DR:21:ARG:NH2	41:DR:93:PHE:CE2	2.78	0.51
46:DW:50:ASN:O	46:DW:50:ASN:CG	2.49	0.51
24:BA:1553:A:C8	24:BA:1555:G:C6	2.98	0.51
24:DA:866:A:C8	24:DA:914:G:N1	2.78	0.51
29:DF:153:ILE:O	29:DF:154:THR:HB	2.09	0.51
26:BC:175:LEU:HD12	26:BC:179:GLU:O	2.11	0.51
43:DT:73:ARG:CG	43:DT:73:ARG:HH21	2.23	0.51
26:DC:64:VAL:HG21	26:DC:66:PHE:CD2	2.46	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:CR:48:ARG:HG3	18:CR:51:TYR:CD2	2.46	0.51
44:BU:94:PHE:CD1	44:BU:94:PHE:C	2.84	0.51
18:CR:39:ILE:HD11	18:CR:59:ILE:HD12	1.91	0.51
43:DT:4:GLU:O	43:DT:5:GLU:C	2.49	0.51
24:BA:1071:G:C1'	24:BA:1089:A:C8	2.94	0.51
26:BC:74:PRO:HA	26:BC:116:GLN:OE1	2.11	0.51
24:DA:1483:G:C5	24:DA:1484:U:C6	2.98	0.51
34:BK:7:MET:HG2	34:BK:20:MET:CA	2.40	0.51
24:DA:753:A:H2'	24:DA:754:U:C6	2.46	0.51
1:AA:121:U:O2'	1:AA:122:G:O5'	2.22	0.51
1:CA:1204:A:H2'	1:CA:1205:U:O4'	2.10	0.51
48:DY:32:ALA:HA	48:DY:37:LEU:HB3	1.92	0.51
36:BM:89:VAL:CG1	36:BM:90:GLU:N	2.73	0.51
24:DA:2553:G:O4'	24:DA:2582:G:O2'	2.25	0.51
24:DA:863:A:H2'	24:DA:864:G:C8	2.44	0.51
32:DI:21:PRO:HB2	32:DI:22:PRO:HD3	1.93	0.51
24:BA:682:G:C2	24:BA:683:U:C6	2.98	0.51
24:BA:910:A:N1	24:BA:2277:G:H1'	2.26	0.51
24:DA:242:G:H5''	53:D3:63:TYR:CE2	2.46	0.51
20:CT:3:ASN:O	20:CT:4:ILE:HG13	2.10	0.51
12:CL:83:ARG:NH2	12:CL:96:HIS:CG	2.78	0.51
27:DD:107:VAL:HB	27:DD:204:LYS:O	2.10	0.51
24:BA:1843:C:H4'	26:BC:250:GLN:NE2	2.25	0.51
1:CA:126:G:H2'	1:CA:127:G:O4'	2.08	0.51
24:BA:1199:U:H2'	24:BA:1200:C:C6	2.46	0.51
35:BL:4:ASN:OD1	35:BL:4:ASN:C	2.48	0.51
3:CC:191:THR:O	3:CC:192:THR:C	2.49	0.51
28:DE:122:GLU:N	28:DE:122:GLU:OE1	2.41	0.51
29:DF:19:PHE:O	29:DF:20:ASN:C	2.49	0.51
11:AK:101:ASN:C	11:AK:101:ASN:OD1	2.49	0.51
34:DK:77:ILE:CG1	39:DP:71:ARG:HG2	2.40	0.51
31:BH:118:PRO:CD	31:BH:119:ASN:H	2.24	0.51
1:AA:1350:A:C2	1:AA:1351:U:N3	2.79	0.51
47:BX:6:VAL:HG12	47:BX:7:THR:N	2.24	0.51
1:AA:419:C:C4	1:AA:420:U:C4	2.99	0.51
1:AA:594:U:O2	1:AA:646:G:C6	2.64	0.51
4:AD:59:GLN:HG3	4:AD:63:ARG:NH1	2.25	0.51
4:AD:65:TYR:CD2	4:AD:94:LEU:HD22	2.46	0.51
1:AA:332:G:P	20:AT:5:LYS:HD2	2.50	0.51
4:CD:104:ARG:NH1	4:CD:171:LEU:HD23	2.25	0.51
14:AN:61:ARG:O	14:AN:62:ASN:CB	2.58	0.51
1:CA:1239:A:C2'	1:CA:1298:U:O4	2.58	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1068:G:H4'	32:DI:10:LEU:HD11	1.91	0.51
1:AA:1092:A:N6	1:AA:1093:A:N6	2.59	0.51
1:AA:1171:A:C2	1:AA:1172:C:C2	2.98	0.51
1:AA:1159:U:C4	1:AA:1182:G:C5	2.98	0.51
2:AB:73:LYS:CD	2:AB:75:ALA:HB3	2.40	0.51
24:BA:863:A:O2'	24:BA:864:G:H5'	2.11	0.51
24:BA:2428:G:H5''	24:BA:2429:G:P	2.51	0.51
1:AA:223:A:H2'	1:AA:224:U:C6	2.46	0.51
4:CD:87:GLY:O	4:CD:91:LEU:HD12	2.11	0.51
24:DA:1205:A:O4'	57:DA:3190:NMV:H15	2.10	0.51
24:DA:1205:A:H4'	24:DA:1206:G:OP2	2.10	0.51
11:AK:46:THR:HG23	11:AK:49:GLY:CA	2.39	0.51
12:CL:65:SER:HA	12:CL:95:TYR:CB	2.40	0.51
1:CA:329:A:C2	1:CA:332:G:C4	2.99	0.51
1:CA:194:C:C5'	20:CT:60:ARG:NH1	2.73	0.51
7:AG:131:LYS:N	7:AG:135:VAL:HG21	2.26	0.51
24:BA:627:A:O3'	24:BA:628:G:H8	1.94	0.51
2:CB:101:LEU:O	2:CB:102:THR:C	2.48	0.51
14:AN:88:ALA:HA	14:AN:93:ILE:HD12	1.92	0.51
29:DF:34:THR:HB	29:DF:89:THR:HA	1.92	0.51
29:DF:62:GLN:OE1	29:DF:90:LEU:HB3	2.11	0.51
7:CG:26:PHE:O	7:CG:27:VAL:C	2.48	0.51
21:CU:12:PHE:CD2	21:CU:14:VAL:HG12	2.46	0.51
1:CA:840:C:C2'	1:CA:841:C:OP1	2.57	0.51
24:BA:2157:G:HO2'	24:BA:2158:A:P	2.33	0.51
21:CU:18:ARG:CG	21:CU:18:ARG:O	2.58	0.51
40:DQ:82:LEU:HG	40:DQ:87:VAL:CG1	2.39	0.51
24:BA:1183:U:H2'	24:BA:1184:U:H6	1.76	0.51
24:BA:494:G:O2'	24:BA:495:G:H5'	2.11	0.51
24:BA:1856:U:O4	24:BA:1857:G:C6	2.64	0.51
24:DA:2848:G:O3'	39:DP:92:ARG:NH1	2.43	0.51
1:AA:512:U:C2	1:AA:513:C:C6	2.99	0.51
24:DA:1265:A:O4'	24:DA:1267:U:C6	2.63	0.51
24:DA:38:A:C2	24:DA:442:G:C2	2.98	0.51
50:D0:24:VAL:HG13	50:D0:25:THR:N	2.24	0.51
24:DA:604:G:H8	24:DA:604:G:H5''	1.76	0.51
24:BA:1346:G:N3	24:BA:1347:A:C8	2.78	0.51
45:DV:48:MET:CA	45:DV:51:GLN:OE1	2.57	0.51
1:AA:100:G:C8	1:AA:101:A:N7	2.78	0.51
24:DA:2531:A:O4'	30:DG:173:ALA:CB	2.59	0.51
13:CM:111:GLY:O	13:CM:112:PRO:C	2.48	0.51
27:DD:22:ILE:HD11	27:DD:190:LYS:HB2	1.93	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:14:VAL:O	2:AB:15:HIS:ND1	2.42	0.51
1:CA:174:A:C2	1:CA:175:C:C1'	2.94	0.51
2:CB:150:GLY:O	2:CB:151:ILE:C	2.49	0.51
2:CB:152:LYS:HG3	2:CB:153:ASP:N	2.25	0.51
11:CK:65:VAL:O	11:CK:65:VAL:HG22	2.11	0.51
1:AA:697:U:O2	1:AA:798:U:H1'	2.10	0.51
24:BA:1141:U:OP2	33:BJ:65:THR:CG2	2.59	0.51
24:BA:2138:G:C6	24:BA:2154:A:N1	2.79	0.51
24:BA:2565:A:H62	34:BK:28:SER:CB	2.23	0.51
25:DB:95:U:H2'	25:DB:96:G:C8	2.45	0.51
24:BA:379:G:H2'	24:BA:380:G:O5'	2.10	0.51
24:DA:1459:G:H2'	24:DA:1460:U:H5''	1.93	0.51
1:AA:734:G:C2	1:AA:735:C:C2	2.99	0.51
24:BA:1429:G:O4'	24:BA:1568:G:C2'	2.58	0.51
26:BC:17:LYS:O	26:BC:18:VAL:HG23	2.10	0.51
1:CA:518:C:H2'	1:CA:530:G:C8	2.46	0.51
1:CA:1493:A:C8	1:CA:1493:A:H3'	2.46	0.51
22:AV:65:G:C6	22:AV:66:U:O4	2.64	0.51
24:DA:2784:U:H2'	24:DA:2785:C:C6	2.46	0.51
12:AL:97:THR:O	12:AL:98:VAL:C	2.48	0.51
24:BA:2323:G:C6	24:BA:2324:U:C4	2.97	0.51
1:CA:291:U:O2'	1:CA:292:G:H5'	2.09	0.51
1:AA:173:U:C6	1:AA:197:A:C2	2.99	0.51
1:AA:1421:G:C6	1:AA:1480:A:N1	2.78	0.51
16:CP:61:VAL:C	16:CP:63:GLN:N	2.62	0.51
15:AO:2:SER:O	15:AO:3:LEU:HD13	2.10	0.51
13:AM:110:LYS:O	13:AM:111:GLY:C	2.48	0.51
24:DA:2602:A:H4'	24:DA:2603:G:OP2	2.11	0.51
44:DU:10:VAL:O	44:DU:21:ARG:HA	2.10	0.51
1:AA:1347:G:N2	1:AA:1373:G:C4	2.79	0.51
25:BB:49:C:H4'	38:BO:68:LYS:HE2	1.92	0.51
5:AE:156:LYS:HG2	8:AH:64:LYS:NZ	2.26	0.51
1:CA:769:G:H4'	1:CA:1513:A:H4'	1.93	0.51
11:CK:52:PHE:CD1	11:CK:57:LYS:CE	2.94	0.51
5:AE:83:HIS:CG	5:AE:84:PRO:HD2	2.45	0.51
1:AA:368:U:N3	31:DH:91:PHE:HB3	2.26	0.51
1:AA:571:U:H3'	1:AA:572:A:H5''	1.93	0.51
20:AT:7:ALA:C	20:AT:9:LYS:H	2.14	0.51
4:CD:100:ASN:OD1	4:CD:111:ARG:NH2	2.44	0.51
1:CA:668:G:C2	1:CA:669:G:C4	2.98	0.51
24:BA:98:G:N3	24:BA:98:G:H2'	2.26	0.51
1:CA:1309:G:C4	1:CA:1329:A:C6	2.99	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:109:ARG:CZ	13:CM:109:ARG:HB2	2.39	0.51
36:BM:11:LYS:HE3	36:BM:88:ASN:HA	1.91	0.51
1:AA:1533:C:O2	1:AA:1533:C:O4'	2.26	0.51
19:CS:18:LYS:O	19:CS:19:VAL:C	2.49	0.51
55:CY:158:ASP:CG	55:CY:159:ASP:N	2.64	0.51
4:CD:91:LEU:C	4:CD:93:LEU:N	2.63	0.51
24:BA:2726:A:O2'	24:BA:2727:A:C5'	2.58	0.51
11:CK:13:ARG:O	11:CK:14:LYS:HB2	2.10	0.51
1:CA:1134:G:C2	1:CA:1135:U:C2	2.98	0.51
9:CI:81:HIS:O	9:CI:83:ILE:N	2.43	0.51
11:AK:28:ASN:O	11:AK:57:LYS:HE3	2.11	0.51
2:AB:219:ALA:O	2:AB:220:THR:OG1	2.29	0.51
24:DA:538:A:OP2	57:DA:3186:NMY:C16	2.54	0.51
1:CA:193:C:H2'	1:CA:194:C:C6	2.46	0.51
2:CB:206:ALA:O	2:CB:207:ILE:C	2.48	0.51
29:BF:36:ASN:C	29:BF:36:ASN:OD1	2.49	0.51
1:CA:214:C:H2'	1:CA:215:C:O5'	2.11	0.51
21:CU:20:LYS:C	21:CU:22:SER:N	2.64	0.51
24:DA:575:A:H2'	24:DA:576:U:H5'	1.93	0.51
30:DG:104:LEU:CD2	30:DG:106:LEU:HD21	2.40	0.51
30:DG:93:TYR:HA	30:DG:105:SER:O	2.10	0.51
24:DA:2656:U:OP2	24:DA:2664:G:N1	2.33	0.51
1:AA:908:A:C4	1:AA:909:A:C8	2.98	0.51
42:BS:33:LEU:HB3	42:BS:51:LEU:CD2	2.41	0.51
6:AF:96:VAL:CG2	6:AF:97:THR:N	2.73	0.51
31:DH:12:LEU:C	31:DH:12:LEU:HD23	2.31	0.51
24:DA:1265:A:OP2	59:DA:3754:HOH:O	2.19	0.51
24:BA:1448:G:C6	24:BA:1464:G:N1	2.78	0.51
55:CY:48:PRO:O	55:CY:49:THR:HB	2.11	0.51
24:BA:2331:G:O3'	46:BW:43:THR:HG22	2.11	0.51
24:DA:136:G:N3	24:DA:144:A:C2	2.79	0.51
59:BA:3723:HOH:O	52:B2:11:LYS:NZ	2.44	0.51
24:BA:1287:A:C5'	37:BN:103:ARG:HD2	2.41	0.51
2:AB:17:GLY:HA3	2:AB:202:GLY:HA2	1.93	0.51
46:DW:51:VAL:O	46:DW:52:GLY:O	2.29	0.51
24:BA:2529:G:O4'	30:BG:174:LYS:NZ	2.43	0.51
1:AA:337:G:O2'	1:AA:338:A:O5'	2.28	0.51
3:AC:155:GLY:O	3:AC:156:ARG:C	2.48	0.51
1:CA:64:G:H4'	1:CA:65:A:H3'	1.92	0.51
1:AA:1315:U:HO2'	1:AA:1360:A:HO2'	1.58	0.51
6:CF:40:GLU:O	6:CF:42:TRP:CD1	2.63	0.51
1:CA:1536:C:C4	1:CA:1537:U:C4	2.99	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2491:U:C5'	24:BA:2570:G:H5''	2.40	0.51
24:BA:691:C:P	26:BC:216:ARG:NH2	2.83	0.51
12:CL:21:VAL:CG2	12:CL:21:VAL:O	2.58	0.51
25:BB:75:G:C4'	45:BV:29:ILE:CD1	2.89	0.51
24:DA:1335:C:OP1	43:DT:68:LYS:HE2	2.10	0.51
24:DA:1141:U:OP2	33:DJ:65:THR:HG21	2.11	0.51
24:DA:1558:C:N3	24:DA:1560:G:C2	2.79	0.51
24:DA:1424:G:C2	24:DA:1425:G:H1'	2.46	0.51
24:BA:1069:A:C6	24:BA:1074:G:N3	2.79	0.51
24:BA:1192:G:H2'	24:BA:1193:G:H5'	1.92	0.51
1:AA:460:A:C2	1:AA:461:A:C5	2.99	0.51
27:BD:34:VAL:CB	27:BD:48:ILE:HD11	2.40	0.51
45:DV:90:ASP:OD1	45:DV:90:ASP:N	2.43	0.51
1:AA:769:G:C6	1:AA:770:C:C5	2.98	0.51
25:DB:10:G:H5'	25:DB:11:C:OP2	2.11	0.51
14:AN:101:TRP:CD1	14:AN:101:TRP:N	2.77	0.51
55:CY:7:LYS:O	55:CY:11:VAL:HG12	2.11	0.51
5:CE:106:ILE:CG1	5:CE:124:LEU:HB3	2.41	0.51
24:BA:1847:A:O2'	24:BA:1848:A:P	2.68	0.51
1:AA:1193:G:N3	1:AA:1193:G:H2'	2.26	0.51
25:DB:91:C:H2'	25:DB:92:C:C6	2.45	0.51
24:BA:2581:G:C4	24:BA:2610:C:C5	2.98	0.51
1:CA:1122:U:H2'	1:CA:1123:U:O4'	2.11	0.51
10:AJ:5:ARG:CZ	10:AJ:79:PRO:HG3	2.40	0.51
36:BM:26:VAL:HG11	36:BM:132:THR:C	2.31	0.51
11:AK:122:ARG:HG2	11:AK:123:PRO:O	2.11	0.51
25:BB:61:G:C6	25:BB:62:C:C4	2.98	0.51
29:BF:110:ILE:HG13	29:BF:110:ILE:O	2.10	0.51
29:BF:4:HIS:CG	29:BF:96:TRP:CD1	2.83	0.51
1:AA:1405:G:O2'	1:AA:1406:U:H5'	2.10	0.51
1:AA:1489:G:C5	1:AA:1490:U:C5	2.98	0.51
57:DA:3184:NMY:N2	57:DA:3184:NMY:C16	2.73	0.51
1:AA:1285:A:H5''	1:AA:1286:U:N3	2.25	0.51
1:AA:826:C:H5'	8:AH:27:MET:HE1	1.91	0.51
8:AH:10:MET:HE2	8:AH:33:LYS:HG2	1.93	0.51
1:CA:795:C:O2	11:CK:128:ARG:CZ	2.58	0.51
11:CK:51:GLY:O	11:CK:52:PHE:CD1	2.64	0.51
1:AA:503:C:O2	1:AA:510:A:H2	1.94	0.51
1:AA:541:G:C6	1:AA:542:G:C5	2.98	0.51
1:CA:1312:G:N7	19:CS:3:ARG:HA	2.25	0.51
13:CM:68:ASP:HB3	13:CM:71:ARG:CD	2.41	0.51
13:CM:80:LEU:HA	13:CM:83:LEU:HD21	1.92	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1494:A:C5	24:DA:1495:A:C5	2.99	0.51
36:BM:41:LEU:HD21	36:BM:125:PRO:CD	2.41	0.51
2:AB:131:LYS:HA	2:AB:134:ALA:HB3	1.91	0.51
24:BA:573:U:O4	24:BA:2030:A:H3'	2.11	0.51
1:CA:1225:A:H2'	1:CA:1226:C:C6	2.46	0.51
22:CV:27:G:C6	22:CV:43:C:N4	2.66	0.51
24:BA:1239:G:C5	24:BA:1240:U:C5	2.98	0.51
1:AA:411:A:C5	1:AA:429:U:C5	2.99	0.51
11:CK:76:GLU:N	24:DA:2141:G:OP1	2.43	0.51
4:CD:187:GLU:O	4:CD:188:ARG:C	2.48	0.51
1:CA:1151:A:O2'	1:CA:1152:A:H5''	2.11	0.51
24:BA:1268:A:C6	24:BA:2013:A:C8	2.98	0.51
24:DA:538:A:H8	57:DA:3186:NMY:H192	1.59	0.51
24:BA:605:G:H2'	24:BA:606:U:C6	2.46	0.51
14:CN:54:ASP:HA	14:CN:59:ARG:HG2	1.91	0.51
24:BA:309:A:H1'	24:BA:329:G:N3	2.26	0.51
3:AC:98:PRO:O	3:AC:99:ALA:HB3	2.10	0.51
29:DF:91:ARG:O	29:DF:92:GLY:O	2.29	0.51
3:CC:61:ALA:O	3:CC:62:LYS:HB3	2.10	0.51
43:BT:17:SER:HB2	43:BT:19:LYS:HE3	1.93	0.51
1:CA:931:C:O2	1:CA:932:C:C6	2.64	0.51
24:BA:1277:G:H2'	24:BA:1278:C:O4'	2.11	0.51
16:CP:52:LEU:HD23	16:CP:57:ILE:HD11	1.92	0.51
16:AP:19:VAL:C	16:AP:20:VAL:CG2	2.78	0.51
24:DA:2483:C:C1'	36:DM:51:ARG:HH21	2.22	0.51
4:AD:170:TRP:CD1	4:AD:186:PRO:HD3	2.45	0.51
40:DQ:81:GLY:CA	40:DQ:116:LEU:HD23	2.41	0.51
24:BA:2092:U:OP2	31:BH:27:ARG:NH2	2.44	0.51
2:CB:144:LEU:HB2	2:CB:148:LEU:HD11	1.91	0.51
1:CA:805:C:H2'	1:CA:806:C:H6	1.76	0.51
24:DA:2061:G:N3	24:DA:2063:C:C4	2.79	0.51
24:DA:2870:C:C4	24:DA:2871:U:C5	2.98	0.51
24:BA:1350:C:C6	24:BA:1382:G:N2	2.78	0.51
24:DA:605:G:C5	24:DA:606:U:C5	2.98	0.51
24:BA:2330:G:C5	24:BA:2331:G:C8	2.99	0.51
24:BA:2048:G:N7	59:BA:3678:HOH:O	2.35	0.51
24:DA:223:A:N7	24:DA:422:A:H1'	2.26	0.51
1:AA:96:U:O2'	1:AA:97:G:OP1	2.27	0.51
24:BA:2447:G:C8	24:BA:2501:C:C6	2.99	0.51
5:AE:60:ILE:HD12	5:AE:61:GLN:N	2.26	0.51
1:CA:81:A:H2'	1:CA:82:G:H5'	1.92	0.51
1:AA:978:A:C2	1:AA:1319:A:N3	2.79	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1414:C:C4	24:DA:1415:U:C5	2.99	0.51
54:B4:30:GLU:HB2	54:B4:33:HIS:ND1	2.24	0.51
1:CA:832:G:H2'	1:CA:833:G:H5'	1.91	0.51
24:BA:2562:U:H2'	24:BA:2563:U:H5'	1.92	0.51
24:DA:933:A:H5'	24:DA:934:U:OP2	2.11	0.51
2:CB:164:ILE:HG23	2:CB:165:ASP:N	2.26	0.51
50:D0:54:ILE:O	50:D0:55:ALA:CB	2.58	0.51
4:AD:86:THR:O	4:AD:90:LEU:HD23	2.10	0.51
24:DA:34:U:O2'	24:DA:35:G:OP1	2.26	0.51
24:DA:2517:C:C5	24:DA:2542:A:C5	2.99	0.51
27:DD:125:TRP:CD2	27:DD:160:LYS:CG	2.94	0.51
24:BA:2782:G:C2	24:BA:2783:U:C6	2.99	0.51
39:BP:58:PHE:N	39:BP:58:PHE:CD1	2.77	0.51
24:DA:133:U:H2'	24:DA:134:G:O4'	2.10	0.51
30:DG:75:VAL:O	30:DG:79:THR:N	2.38	0.51
39:DP:28:LYS:HE3	39:DP:82:SER:HB2	1.92	0.51
24:BA:2539:C:H5'	54:B4:3:VAL:HG21	1.93	0.51
24:DA:2711:A:OP2	59:DA:3546:HOH:O	2.20	0.51
9:AI:100:LYS:O	9:AI:102:GLY:N	2.43	0.51
24:BA:699:A:C8	24:BA:734:A:C2	2.98	0.51
1:AA:775:G:O2'	1:AA:776:G:O5'	2.13	0.51
30:DG:116:LEU:HD23	30:DG:117:PRO:HD3	1.92	0.51
24:DA:2572:A:N7	27:DD:150:GLN:HB2	2.26	0.51
35:DL:28:GLY:O	35:DL:29:LYS:HB3	2.10	0.51
30:DG:115:GLN:O	30:DG:115:GLN:HG2	2.10	0.51
36:BM:108:VAL:CG1	36:BM:112:LEU:HB3	2.41	0.51
8:AH:48:ASP:OD1	8:AH:49:PHE:N	2.41	0.51
1:CA:138:G:C6	1:CA:139:A:C6	2.99	0.51
13:AM:85:CYS:CB	19:AS:73:GLU:CG	2.89	0.51
19:AS:74:PHE:C	19:AS:76:PRO:HD3	2.31	0.51
24:BA:2295:C:C2	24:BA:2296:U:C5	2.99	0.51
25:BB:33:G:C6	25:BB:34:A:C6	2.99	0.51
53:D3:31:ILE:HD13	53:D3:34:LYS:HB3	1.91	0.51
24:BA:729:G:P	26:BC:12:ARG:CZ	2.99	0.51
1:AA:391:G:C5	1:AA:392:C:C6	2.99	0.51
1:AA:56:U:C6	31:DH:91:PHE:CE2	2.99	0.51
4:AD:123:ILE:CG1	4:AD:124:MET:H	2.23	0.51
4:AD:62:ARG:HD2	4:AD:72:PHE:CZ	2.46	0.51
16:AP:67:ILE:CG2	16:AP:71:VAL:HG21	2.40	0.51
1:AA:15:G:C6	1:AA:16:A:C5	2.99	0.51
1:AA:866:C:O2	1:AA:866:C:H2'	2.10	0.51
4:CD:164:GLN:C	4:CD:164:GLN:CD	2.69	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:37:U:OP1	12:CL:120:LYS:HD2	2.11	0.51
1:CA:760:G:N7	1:CA:761:G:N7	2.59	0.51
24:BA:1921:G:O6	57:BA:3161:NMY:N7	2.37	0.51
44:BU:4:ILE:O	44:BU:5:ARG:HG3	2.11	0.51
1:CA:1270:G:OP2	1:CA:1270:G:O4'	2.29	0.51
13:CM:15:ALA:C	13:CM:17:ILE:HD12	2.31	0.51
24:DA:1062:G:N7	24:DA:1070:A:C5'	2.74	0.51
24:DA:944:C:OP1	59:DA:3261:HOH:O	2.19	0.51
1:AA:1102:A:O2'	2:AB:97:LEU:O	2.28	0.51
24:BA:571:U:N3	24:BA:2030:A:C2	2.78	0.51
35:DL:41:ARG:N	35:DL:41:ARG:HD2	2.26	0.51
24:BA:1206:G:C5	24:BA:1207:C:C5	2.99	0.51
1:AA:428:G:C5'	4:AD:9:LEU:HD11	2.39	0.51
24:DA:2704:C:H2'	24:DA:2705:A:O4'	2.11	0.51
24:DA:565:C:OP1	41:DR:79:ARG:CZ	2.59	0.51
1:CA:1256:A:N6	1:CA:1277:C:C4	2.79	0.51
9:CI:82:GLY:O	9:CI:86:ALA:N	2.43	0.51
11:AK:46:THR:O	11:AK:50:SER:OG	2.18	0.51
24:BA:1270:C:H5''	24:BA:1271:G:O5'	2.11	0.51
12:CL:93:VAL:C	12:CL:94:ARG:HG3	2.31	0.51
1:CA:112:G:N1	1:CA:330:C:C5	2.79	0.51
20:CT:35:VAL:HG22	20:CT:50:ALA:HB1	1.92	0.51
24:DA:2200:C:H2'	24:DA:2201:G:H5'	1.93	0.51
1:AA:1329:A:C5'	13:AM:29:ARG:HD2	2.41	0.51
1:CA:1048:G:H5'	14:CN:2:LYS:CE	2.41	0.51
1:CA:980:C:H4'	14:CN:59:ARG:NH1	2.26	0.51
1:CA:1072:G:C5	1:CA:1073:U:C5	2.99	0.51
1:AA:723:U:H2'	1:AA:855:U:H4'	1.92	0.51
7:CG:27:VAL:HG21	7:CG:40:GLU:OE1	2.10	0.51
44:DU:16:LYS:C	44:DU:16:LYS:CD	2.78	0.51
21:AU:26:ALA:CB	23:AX:5:A:C5'	2.88	0.51
43:BT:16:VAL:CG2	43:BT:17:SER:N	2.72	0.51
1:AA:1438:G:C4	1:AA:1439:G:C8	2.98	0.51
1:AA:465:A:C2	1:AA:466:A:C4	2.99	0.51
55:CY:80:LYS:HA	55:CY:83:MET:CG	2.41	0.51
28:DE:24:ASN:CG	28:DE:27:LEU:HD12	2.30	0.51
18:AR:49:ALA:O	18:AR:52:GLN:HB3	2.11	0.51
41:BR:49:ILE:HG12	41:BR:53:PHE:C	2.31	0.51
42:BS:74:ILE:CD1	42:BS:104:THR:O	2.59	0.51
24:BA:1856:U:O4	24:BA:1857:G:N1	2.44	0.51
24:BA:1489:C:N3	24:BA:1501:G:C2	2.78	0.51
24:BA:1500:G:C5	24:BA:1501:G:N7	2.78	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DC:159:THR:N	26:DC:194:VAL:HG12	2.26	0.51
31:DH:5:LEU:O	31:DH:6:LEU:HD12	2.08	0.51
24:BA:2216:G:H2'	24:BA:2217:G:C8	2.45	0.51
34:DK:98:ARG:HA	34:DK:118:LEU:HD22	1.93	0.51
1:AA:307:C:C5	1:AA:308:C:C5	2.99	0.51
1:AA:580:C:H4'	15:AO:57:LEU:CD1	2.41	0.51
24:DA:1369:G:C4	24:DA:1370:C:C6	2.99	0.51
1:CA:136:C:H1'	16:CP:1:MET:SD	2.50	0.51
24:BA:1442:U:C4	24:BA:1443:U:C5	2.98	0.51
1:AA:718:A:C8	1:AA:719:C:C5	2.99	0.51
2:CB:90:PHE:HB2	2:CB:150:GLY:HA2	1.93	0.51
1:CA:68:G:C4'	1:CA:171:A:H1'	2.41	0.51
24:DA:1415:U:O2	24:DA:1415:U:H2'	2.10	0.51
24:DA:1269:A:H2'	24:DA:1270:C:C6	2.45	0.51
1:AA:109:A:H3'	1:AA:110:C:H5'	1.93	0.51
27:BD:150:GLN:O	27:BD:152:PRO:C	2.48	0.51
10:CJ:65:TYR:OH	14:CN:85:ARG:HB2	2.10	0.51
5:CE:74:VAL:HG21	5:CE:76:LEU:HD11	1.92	0.51
24:BA:1322:A:C5	24:BA:1323:C:C5	2.99	0.51
24:BA:2107:G:N2	24:BA:2108:A:N3	2.58	0.51
24:BA:1654:A:H2	27:BD:118:PHE:CD2	2.29	0.51
26:BC:197:ALA:O	26:BC:199:HIS:N	2.44	0.51
24:BA:1281:G:C2'	24:BA:1282:U:O5'	2.59	0.51
31:DH:50:ARG:HA	31:DH:50:ARG:NE	2.25	0.51
24:BA:2737:G:C6	24:BA:2738:A:C6	2.99	0.51
1:CA:1057:G:N2	1:CA:1204:A:H1'	2.26	0.51
24:DA:2303:G:C5	24:DA:2304:G:C8	2.98	0.51
1:AA:1298:U:H4'	1:AA:1299:A:C4	2.46	0.51
51:D1:50:GLU:CG	51:D1:51:ALA:N	2.74	0.51
24:DA:1847:A:O2'	24:DA:1848:A:C8	2.63	0.51
1:CA:894:G:O2'	1:CA:895:G:H5'	2.10	0.51
42:BS:24:ILE:HA	42:BS:27:LYS:HG3	1.93	0.51
24:DA:155:A:H2'	24:DA:156:A:C8	2.45	0.51
33:BJ:42:ALA:O	40:BQ:63:ARG:HD2	2.11	0.51
24:BA:194:G:OP2	59:BA:3761:HOH:O	2.18	0.51
3:AC:133:ALA:O	3:AC:137:ALA:HB3	2.09	0.51
12:AL:57:LEU:CD2	12:AL:59:ASN:OD1	2.59	0.51
24:BA:1225:G:OP1	41:BR:71:LYS:NZ	2.42	0.51
22:AV:21:A:C8	22:AV:21:A:OP2	2.64	0.51
8:CH:93:PRO:HG3	8:CH:125:ILE:CD1	2.41	0.51
24:BA:1771:C:H2'	24:BA:1772:A:C8	2.46	0.51
24:DA:447:A:C5	24:DA:473:G:C5	2.98	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1760:C:C2'	24:DA:1761:C:H5'	2.41	0.51
28:DE:119:ILE:HB	28:DE:187:VAL:HG22	1.92	0.51
54:D4:27:CYS:SG	54:D4:30:GLU:CD	2.89	0.51
1:AA:981:U:P	14:AN:8:ARG:NH1	2.84	0.51
53:D3:29:ARG:O	53:D3:30:HIS:HB3	2.10	0.51
12:CL:24:LEU:HG	12:CL:25:GLU:N	2.26	0.51
24:DA:84:A:N6	24:DA:99:U:H5'	2.26	0.51
11:CK:57:LYS:O	11:CK:58:SER:CB	2.59	0.51
1:AA:35:G:C5	1:AA:36:C:C5	2.98	0.51
4:AD:18:ASP:C	4:AD:19:LEU:HG	2.30	0.51
4:AD:61:VAL:CG2	4:AD:62:ARG:N	2.74	0.51
1:CA:545:C:H2'	1:CA:546:A:H5'	1.93	0.51
1:CA:620:C:C1'	4:CD:132:ILE:HD11	2.40	0.51
1:CA:1296:C:P	13:CM:14:HIS:CE1	3.04	0.51
13:CM:67:GLY:C	13:CM:71:ARG:NH2	2.64	0.51
29:DF:134:GLN:CG	29:DF:135:ILE:N	2.74	0.51
24:DA:1068:G:N1	24:DA:1069:A:C6	2.79	0.51
24:DA:1081:U:H5'	32:DI:126:ARG:NH1	2.26	0.51
11:CK:20:VAL:HG12	11:CK:36:ASP:C	2.32	0.51
24:BA:948:C:N3	24:BA:949:G:N7	2.59	0.51
24:BA:2719:G:C5'	39:BP:95:LYS:HZ3	2.24	0.51
15:CO:11:ILE:HD13	15:CO:31:LEU:HD11	1.92	0.51
1:CA:256:U:H2'	1:CA:257:G:O4'	2.11	0.51
14:CN:2:LYS:HZ2	14:CN:4:SER:HB3	1.76	0.51
44:BU:69:VAL:O	44:BU:70:ALA:HB2	2.10	0.51
1:CA:1080:A:P	5:CE:52:LYS:NZ	2.84	0.51
21:AU:26:ALA:HB2	23:AX:5:A:H5''	1.92	0.51
38:DO:54:VAL:O	38:DO:56:LYS:N	2.44	0.51
1:AA:1438:G:C2'	1:AA:1439:G:O5'	2.58	0.51
29:DF:39:VAL:HG13	29:DF:40:GLY:N	2.25	0.51
37:BN:28:LEU:O	37:BN:32:GLU:N	2.44	0.51
24:BA:2744:G:H2'	24:BA:2744:G:N3	2.26	0.51
7:CG:140:ASP:N	7:CG:140:ASP:OD1	2.43	0.51
24:DA:1157:G:H2'	24:DA:1157:G:N3	2.25	0.51
45:BV:80:HIS:ND1	45:BV:85:LYS:O	2.43	0.51
24:DA:372:G:OP2	47:DX:60:LYS:HD3	2.10	0.51
24:BA:1587:G:C6	24:BA:1588:G:C5	2.99	0.51
26:BC:220:ARG:O	26:BC:222:THR:N	2.44	0.51
33:BJ:29:ALA:HB3	33:BJ:108:MET:HE1	1.92	0.51
24:BA:57:C:H2'	24:BA:58:G:O4'	2.11	0.51
24:DA:445:C:C3'	24:DA:445:C:C6	2.94	0.51
24:DA:161:A:C6	24:DA:162:U:C4	2.99	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1347:A:OP1	59:BA:3756:HOH:O	2.18	0.51
24:BA:1602:U:H3'	24:BA:1603:A:C5'	2.40	0.51
49:BZ:46:MET:O	49:BZ:50:VAL:HG12	2.11	0.51
1:AA:565:U:H3'	1:AA:566:G:H2'	1.93	0.51
24:BA:2822:G:H2'	24:BA:2823:A:H5''	1.92	0.51
1:CA:79:G:N2	1:CA:90:C:N3	2.58	0.51
38:BO:61:GLN:O	38:BO:62:LEU:HB2	2.11	0.51
24:DA:527:C:O2	24:DA:528:A:N6	2.44	0.51
24:BA:1326:U:C2'	24:BA:1327:A:H5'	2.41	0.51
29:DF:116:LEU:HD23	29:DF:117:SER:N	2.25	0.51
29:DF:153:ILE:CD1	29:DF:154:THR:N	2.74	0.51
1:CA:66:A:O4'	1:CA:173:U:N3	2.44	0.51
2:CB:134:ALA:O	2:CB:137:ARG:HG2	2.10	0.51
42:BS:28:LYS:O	42:BS:32:ALA:N	2.39	0.51
3:CC:9:GLY:HA2	3:CC:12:LEU:HD13	1.93	0.51
24:DA:1407:G:O6	24:DA:1595:C:N3	2.44	0.51
24:DA:1415:U:C6	24:DA:1588:G:C2	2.99	0.51
1:AA:164:G:C5	1:AA:165:G:C8	2.99	0.51
3:CC:117:ALA:HB2	3:CC:200:VAL:CG2	2.40	0.51
1:CA:476:U:H2'	1:CA:477:C:C6	2.45	0.51
1:AA:109:A:N7	1:AA:326:G:H2'	2.26	0.51
52:D2:30:VAL:O	52:D2:33:ARG:HB2	2.11	0.51
24:DA:995:C:H5'	24:DA:995:C:C6	2.45	0.51
43:DT:64:LYS:O	43:DT:64:LYS:HG2	2.10	0.51
38:DO:98:GLN:O	38:DO:100:HIS:N	2.43	0.51
24:BA:1085:A:N1	24:BA:1086:A:N6	2.59	0.51
24:DA:1984:G:C2'	24:DA:1985:C:H5'	2.41	0.51
45:DV:80:HIS:ND1	45:DV:83:LYS:HB2	2.26	0.51
6:AF:54:LEU:C	6:AF:55:HIS:CG	2.83	0.51
48:BY:60:LYS:O	48:BY:60:LYS:HG3	2.10	0.51
24:BA:1965:C:H5''	24:BA:1966:A:H2'	1.93	0.51
24:DA:1434:A:N3	24:DA:1435:G:N7	2.59	0.51
24:DA:2586:U:C2'	24:DA:2587:A:O5'	2.58	0.51
3:AC:76:VAL:HG13	3:AC:83:ASP:OD2	2.11	0.51
3:AC:76:VAL:O	3:AC:84:VAL:HG13	2.10	0.51
15:CO:43:PHE:O	15:CO:47:LYS:HB3	2.11	0.51
45:DV:82:TYR:CD1	45:DV:82:TYR:N	2.79	0.51
1:AA:1192:C:C5	1:AA:1193:G:C8	2.99	0.51
28:DE:52:VAL:O	28:DE:53:THR:C	2.49	0.51
1:CA:101:A:C5	1:CA:102:G:C8	2.99	0.51
4:CD:27:ALA:O	4:CD:28:ILE:HB	2.11	0.51
32:DI:96:LYS:O	32:DI:97:VAL:HB	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1223:G:OP2	41:BR:68:ARG:NH1	2.44	0.51
14:AN:24:ALA:O	14:AN:25:GLU:C	2.49	0.51
24:BA:391:A:C2	24:BA:411:G:N7	2.79	0.51
24:BA:729:G:OP2	26:BC:206:LYS:CE	2.58	0.51
1:AA:257:G:N2	1:AA:258:G:C5	2.79	0.51
1:CA:1499:A:OP2	59:CA:1881:HOH:O	2.20	0.51
1:CA:701:U:O2	1:CA:703:G:C6	2.64	0.51
1:AA:508:U:H4'	4:AD:51:TYR:CE1	2.45	0.51
1:AA:515:G:N1	1:AA:537:G:C2	2.79	0.51
1:AA:599:C:H2'	1:AA:600:A:C8	2.46	0.51
5:AE:115:LEU:HB3	5:AE:120:VAL:HG23	1.93	0.51
9:AI:50:GLN:NE2	9:AI:103:PHE:CE1	2.79	0.51
24:DA:563:A:C4	24:DA:2018:G:C2	2.99	0.51
3:CC:27:LYS:HD2	3:CC:27:LYS:N	2.25	0.51
1:CA:1494:G:H2'	1:CA:1495:U:H5'	1.92	0.51
40:DQ:20:ALA:HA	40:DQ:23:TYR:CE2	2.46	0.51
24:BA:1270:C:C5'	24:BA:1271:G:O5'	2.59	0.51
12:CL:82:ILE:O	12:CL:82:ILE:CG2	2.58	0.51
1:CA:262:A:H3'	1:CA:263:A:C8	2.46	0.51
25:BB:85:G:C2	25:BB:86:G:C8	2.99	0.51
37:DN:2:ARG:HA	37:DN:5:LYS:HB2	1.93	0.51
18:CR:28:THR:O	18:CR:29:LEU:C	2.49	0.51
2:CB:186:ILE:HD12	2:CB:201:PRO:O	2.11	0.51
3:AC:12:LEU:O	3:AC:14:ILE:N	2.44	0.51
24:BA:2259:U:H1'	24:BA:2427:C:C2	2.46	0.51
30:BG:41:GLU:HB3	30:BG:54:ARG:CZ	2.40	0.51
24:BA:1392:A:C6	24:BA:1393:A:C6	2.99	0.51
47:DX:32:LEU:CD1	47:DX:49:ARG:NE	2.74	0.51
36:BM:58:LYS:O	36:BM:59:ARG:C	2.50	0.51
37:BN:28:LEU:C	37:BN:28:LEU:HD13	2.31	0.51
37:BN:90:ARG:HG2	37:BN:94:TYR:CE1	2.46	0.51
22:CV:73:A:O2'	22:CV:74:C:OP2	2.23	0.51
24:DA:1724:G:O6	24:DA:1736:U:C2	2.64	0.51
24:DA:819:A:C6	24:DA:820:A:C5	2.99	0.51
7:CG:102:ARG:C	7:CG:104:ILE:N	2.63	0.51
34:BK:2:ILE:HG22	34:BK:33:ALA:O	2.11	0.51
41:BR:49:ILE:CG1	41:BR:53:PHE:N	2.74	0.51
42:BS:25:ARG:HA	42:BS:74:ILE:HG22	1.93	0.51
47:DX:60:LYS:O	47:DX:62:GLY:N	2.44	0.51
7:CG:76:LYS:O	7:CG:77:SER:HB2	2.11	0.51
24:BA:1586:A:C6	24:BA:1587:G:C4	2.99	0.51
1:AA:792:A:H4'	1:AA:793:U:O5'	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2681:C:C5	24:BA:2724:U:C5	2.98	0.51
41:DR:14:VAL:HG13	41:DR:98:ILE:HG12	1.93	0.51
42:DS:36:LEU:HD13	42:DS:48:LYS:HA	1.93	0.51
25:DB:53:A:O2'	25:DB:54:G:H5'	2.10	0.51
38:BO:62:LEU:HD23	38:BO:65:THR:HA	1.92	0.51
1:CA:155:A:C2	1:CA:167:A:C2	2.99	0.51
24:DA:2297:A:N3	24:DA:2297:A:H2'	2.26	0.51
2:AB:80:VAL:HG12	2:AB:80:VAL:O	2.09	0.51
24:DA:2352:A:H5''	24:DA:2353:G:OP2	2.11	0.51
1:CA:831:A:H5''	1:CA:832:G:OP2	2.11	0.51
24:BA:2562:U:C2'	24:BA:2563:U:H5'	2.40	0.51
24:DA:1364:G:C5	47:DX:1:SER:OG	2.62	0.51
24:BA:668:A:C5	24:BA:670:A:C8	2.99	0.51
24:BA:867:C:C2'	24:BA:868:U:H5'	2.41	0.51
42:DS:17:VAL:HG11	42:DS:76:VAL:HG11	1.93	0.51
24:BA:2791:G:C2	24:BA:2806:C:O2	2.64	0.51
29:BF:37:MET:HG2	29:BF:151:LEU:HB2	1.93	0.51
28:DE:149:ILE:HD12	28:DE:192:ALA:HB1	1.93	0.51
24:DA:172:A:H2'	24:DA:173:A:C8	2.45	0.51
24:DA:222:A:C5	24:DA:224:U:C2	2.99	0.51
16:AP:57:ILE:O	16:AP:59:HIS:N	2.44	0.51
1:AA:192:A:C6	1:AA:193:C:C4	2.99	0.51
31:DH:64:ALA:O	31:DH:67:ALA:HB3	2.11	0.51
24:BA:969:G:H2'	24:BA:970:U:H6	1.74	0.51
13:CM:36:ALA:O	13:CM:37:ALA:HB2	2.11	0.51
1:AA:1491:G:H3'	12:AL:44:LYS:HZ2	1.76	0.50
47:BX:55:MET:HA	47:BX:58:ILE:HG22	1.94	0.50
1:CA:1512:U:H2'	1:CA:1513:A:C8	2.46	0.50
4:AD:145:ILE:O	4:AD:146:ARG:NH1	2.44	0.50
4:AD:65:TYR:CE2	4:AD:94:LEU:HB3	2.45	0.50
16:AP:41:PRO:O	16:AP:42:ILE:HG12	2.11	0.50
16:AP:52:LEU:O	16:AP:53:ASP:HB2	2.11	0.50
1:AA:572:A:C4'	1:AA:572:A:OP1	2.59	0.50
1:CA:429:U:C5	1:CA:431:A:N7	2.79	0.50
4:CD:98:LEU:C	4:CD:100:ASN:N	2.64	0.50
1:CA:669:G:C5	1:CA:670:G:N7	2.79	0.50
1:AA:706:A:C6	1:AA:707:U:C4	2.99	0.50
1:CA:1244:G:N7	1:CA:1245:C:C5	2.78	0.50
24:DA:1086:A:H5''	24:DA:1087:G:OP1	2.11	0.50
1:AA:408:A:OP1	4:AD:110:THR:HG21	2.11	0.50
1:AA:1090:U:C2	1:AA:1091:U:C6	2.99	0.50
1:AA:1100:C:C2	1:AA:1102:A:H5'	2.46	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:197:A:N6	24:BA:2430:A:H2'	2.26	0.50
24:BA:1186:G:C6	24:BA:1187:G:C4	2.99	0.50
24:BA:568:U:H2'	24:BA:570:G:OP2	2.11	0.50
1:AA:131:A:N1	1:AA:132:C:C4	2.78	0.50
24:BA:2721:A:C4	24:BA:2873:A:C8	2.99	0.50
24:DA:831:G:C2'	24:DA:832:U:O5'	2.59	0.50
16:CP:41:PRO:O	16:CP:42:ILE:HB	2.10	0.50
4:CD:58:LYS:HA	4:CD:200:ILE:HG12	1.92	0.50
24:BA:1270:C:C5'	24:BA:1271:G:H5'	2.40	0.50
24:BA:2015:A:C2'	24:BA:2016:U:H5'	2.41	0.50
1:CA:59:A:C8	1:CA:354:G:C2	2.98	0.50
37:DN:2:ARG:O	37:DN:4:ARG:N	2.43	0.50
24:BA:811:U:P	35:BL:29:LYS:HG3	2.51	0.50
24:BA:636:G:O5'	35:BL:128:THR:OG1	2.28	0.50
35:BL:128:THR:HG22	35:BL:131:ALA:CB	2.41	0.50
2:CB:104:TRP:O	2:CB:105:LYS:C	2.50	0.50
24:DA:2787:C:H2'	24:DA:2788:C:H6	1.76	0.50
8:CH:113:ASP:C	8:CH:115:ALA:N	2.64	0.50
21:AU:26:ALA:HB3	23:AX:5:A:H5''	1.92	0.50
24:DA:2229:U:H2'	24:DA:2230:G:H8	1.76	0.50
24:BA:2525:G:C2	24:BA:2526:G:C5	2.99	0.50
24:BA:666:A:H2'	24:BA:667:U:H6	1.74	0.50
29:BF:70:ARG:O	29:BF:72:SER:N	2.44	0.50
7:CG:99:LEU:HG	7:CG:100:ALA:N	2.25	0.50
1:AA:1386:G:O2'	1:AA:1387:G:H5'	2.11	0.50
24:BA:2345:G:C5	24:BA:2347:C:C5	2.99	0.50
31:BH:24:GLY:O	31:BH:28:ASN:HB2	2.10	0.50
24:BA:481:G:H1'	24:BA:507:A:N1	2.25	0.50
24:BA:483:A:C6	24:BA:484:C:C2	2.99	0.50
27:BD:125:TRP:CD1	27:BD:160:LYS:HD3	2.47	0.50
7:CG:58:GLU:HA	7:CG:61:ALA:HB2	1.91	0.50
1:AA:246:A:C4	1:AA:279:A:N1	2.79	0.50
26:DC:140:VAL:HG21	26:DC:189:ALA:CB	2.41	0.50
24:BA:2822:G:OP1	27:BD:115:GLY:C	2.50	0.50
37:BN:2:ARG:O	37:BN:3:HIS:C	2.48	0.50
25:DB:53:A:N3	25:DB:54:G:C8	2.79	0.50
1:CA:1064:G:O3'	1:CA:1065:U:H4'	2.11	0.50
1:AA:303:A:C5	1:AA:304:U:C5	2.99	0.50
24:BA:1288:G:C4	24:BA:1327:A:N1	2.79	0.50
24:BA:147:C:N4	24:BA:148:U:O4	2.44	0.50
1:CA:188:C:O2	1:CA:188:C:C2'	2.60	0.50
55:CY:15:LYS:O	55:CY:15:LYS:CG	2.58	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:138:SER:CB	4:AD:139:PRO:HD2	2.41	0.50
24:BA:1799:G:C2	24:BA:1819:A:OP2	2.64	0.50
43:DT:73:ARG:HH21	43:DT:73:ARG:HG3	1.76	0.50
24:BA:1144:A:C6	24:BA:1145:C:N4	2.79	0.50
48:DY:2:LYS:CG	48:DY:3:ALA:N	2.72	0.50
24:BA:1735:A:H2'	24:BA:1736:U:O4'	2.11	0.50
1:AA:425:G:C2'	1:AA:426:U:H5'	2.41	0.50
1:AA:1306:A:C5	1:AA:1307:U:C5	3.00	0.50
1:AA:1152:A:C6	1:AA:1153:G:N7	2.79	0.50
9:CI:30:ILE:CG1	9:CI:31:ASN:N	2.74	0.50
43:BT:2:ILE:HG23	43:BT:4:GLU:N	2.26	0.50
1:AA:734:G:C6	1:AA:735:C:C4	2.99	0.50
24:DA:598:U:H2'	24:DA:599:A:C8	2.47	0.50
26:BC:221:GLY:O	26:BC:224:MET:HG3	2.10	0.50
24:BA:2107:G:N2	24:BA:2183:A:C2	2.78	0.50
20:CT:48:GLN:OE1	20:CT:48:GLN:N	2.44	0.50
9:CI:90:TYR:O	9:CI:91:ASP:O	2.28	0.50
24:DA:2680:U:C2'	24:DA:2681:C:O5'	2.59	0.50
1:CA:828:U:H2'	2:CB:25:PRO:HB3	1.93	0.50
24:DA:956:G:OP1	36:DM:86:LYS:HD2	2.11	0.50
1:CA:120:A:H4'	1:CA:121:U:OP1	2.11	0.50
24:BA:522:A:H2'	24:BA:523:C:O4'	2.10	0.50
33:DJ:29:ALA:HB3	33:DJ:108:MET:CE	2.41	0.50
24:DA:1283:G:N2	24:DA:1285:A:H3'	2.25	0.50
43:BT:29:THR:OG1	43:BT:86:THR:HA	2.10	0.50
55:CY:182:LEU:HG	55:CY:183:MET:H	1.76	0.50
24:BA:915:C:C5	24:BA:916:G:C5	2.99	0.50
3:AC:130:PHE:CZ	3:AC:131:ARG:HD3	2.46	0.50
4:AD:195:ILE:HG23	4:AD:196:ASN:N	2.24	0.50
17:CQ:52:GLU:N	17:CQ:52:GLU:CD	2.64	0.50
17:AQ:41:THR:HG22	17:AQ:42:THR:N	2.25	0.50
24:DA:1021:A:O2'	24:DA:1123:C:OP1	2.24	0.50
1:CA:1060:U:O2	1:CA:1061:G:C8	2.63	0.50
1:AA:982:U:H4'	1:AA:983:A:H5'	1.93	0.50
24:DA:195:A:H2'	24:DA:198:C:N4	2.25	0.50
1:CA:789:U:N3	1:CA:792:A:OP2	2.43	0.50
11:CK:27:PHE:O	11:CK:28:ASN:C	2.50	0.50
1:AA:599:C:H4'	8:AH:88:ARG:CZ	2.41	0.50
1:CA:620:C:N4	1:CA:621:A:C6	2.79	0.50
4:CD:62:ARG:CD	4:CD:72:PHE:CE2	2.93	0.50
1:CA:584:G:H2'	1:CA:585:G:H8	1.76	0.50
1:AA:1197:A:O2'	1:AA:1198:G:H5'	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2484:G:H1'	36:BM:123:LYS:CE	2.41	0.50
2:AB:130:THR:OG1	2:AB:132:LYS:N	2.44	0.50
2:AB:96:TRP:CE2	2:AB:172:ALA:HB2	2.46	0.50
24:BA:818:G:O6	24:BA:1187:G:C8	2.64	0.50
1:CA:354:G:C6	1:CA:355:C:N4	2.80	0.50
2:CB:23:TRP:CD1	2:CB:23:TRP:C	2.84	0.50
24:BA:810:U:OP1	35:BL:29:LYS:NZ	2.39	0.50
13:AM:3:ARG:NH1	29:BF:142:TYR:HB3	2.27	0.50
24:DA:2211:A:H1'	24:DA:2212:A:OP1	2.12	0.50
24:DA:2746:U:O4	24:DA:2755:C:H4'	2.11	0.50
1:CA:1077:G:N3	1:CA:1081:A:C2	2.79	0.50
2:CB:169:GLU:O	2:CB:171:ILE:N	2.44	0.50
3:AC:36:ASP:OD2	3:AC:59:ARG:NH2	2.44	0.50
29:DF:98:PHE:CD1	29:DF:99:PHE:N	2.80	0.50
21:AU:26:ALA:CB	23:AX:5:A:O5'	2.59	0.50
21:AU:30:ALA:CB	21:AU:33:ARG:NH1	2.73	0.50
1:AA:1043:G:N1	1:AA:1044:A:C6	2.79	0.50
1:AA:199:A:C2	1:AA:200:G:C5	2.98	0.50
28:DE:29:HIS:CE1	35:DL:8:PRO:HB3	2.46	0.50
7:CG:100:ALA:O	7:CG:104:ILE:HD11	2.11	0.50
24:DA:1152:C:O2'	24:DA:1153:C:H5'	2.11	0.50
24:DA:998:C:OP2	40:DQ:57:ARG:NH2	2.41	0.50
40:DQ:82:LEU:N	40:DQ:82:LEU:CD1	2.74	0.50
42:BS:16:LYS:HA	42:BS:19:LEU:HD13	1.91	0.50
1:CA:722:G:C2	1:CA:724:G:C8	2.98	0.50
1:CA:665:A:H2	1:CA:732:C:C5	2.30	0.50
26:DC:158:GLY:HA3	26:DC:197:ALA:HB2	1.92	0.50
26:DC:197:ALA:O	26:DC:200:MET:HE1	2.11	0.50
24:BA:1451:C:H1'	24:BA:1452:G:N7	2.27	0.50
24:DA:943:A:OP2	35:DL:39:LYS:HE2	2.10	0.50
41:DR:93:PHE:C	41:DR:93:PHE:CD1	2.85	0.50
3:AC:42:TYR:OH	3:AC:46:GLU:OE1	2.24	0.50
24:DA:857:G:H5'	46:DW:69:PHE:CD2	2.46	0.50
1:CA:62:U:C2'	1:CA:63:C:H5'	2.41	0.50
24:DA:2039:U:O2'	24:DA:2040:G:H5'	2.12	0.50
31:BH:147:VAL:CG2	31:BH:148:ALA:N	2.73	0.50
6:AF:10:VAL:CG1	6:AF:11:HIS:N	2.74	0.50
1:CA:1536:C:H2'	1:CA:1537:U:O4'	2.10	0.50
52:B2:18:PHE:O	52:B2:21:ARG:N	2.44	0.50
33:BJ:130:HIS:O	33:BJ:132:HIS:N	2.36	0.50
27:BD:14:ILE:HG22	27:BD:22:ILE:HD12	1.94	0.50
24:BA:1218:G:N2	24:BA:1232:G:N9	2.60	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AV:75:C:OP2	22:AV:76:A:O3'	2.28	0.50
31:DH:53:GLU:HG2	31:DH:54:LEU:N	2.26	0.50
24:BA:2098:U:C5	24:BA:2099:U:C6	3.00	0.50
24:BA:1934:C:C2'	24:BA:1935:G:O5'	2.58	0.50
24:BA:1335:C:OP1	43:BT:68:LYS:CE	2.58	0.50
3:CC:190:HIS:CD2	3:CC:195:VAL:HG22	2.46	0.50
7:AG:97:ASN:O	7:AG:100:ALA:N	2.44	0.50
36:DM:45:GLN:O	36:DM:48:ALA:HB3	2.11	0.50
24:DA:1517:G:C5	24:DA:1518:C:C5	2.99	0.50
24:BA:581:C:H2'	24:BA:582:A:C8	2.47	0.50
1:CA:1496:C:C5'	1:CA:1497:G:OP2	2.60	0.50
11:AK:97:ILE:C	11:AK:97:ILE:HD12	2.32	0.50
25:BB:61:G:C2	25:BB:62:C:C2	3.00	0.50
3:AC:179:ARG:CG	3:AC:180:ALA:N	2.74	0.50
39:DP:50:ARG:HD3	39:DP:57:ALA:HB3	1.93	0.50
12:CL:14:ARG:NH2	59:CL:201:HOH:O	2.44	0.50
27:DD:100:LEU:HD13	27:DD:100:LEU:O	2.11	0.50
24:BA:1816:C:C5	26:BC:61:TYR:CE2	2.99	0.50
39:BP:54:LEU:O	39:BP:54:LEU:HD12	2.11	0.50
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.46	0.50
38:BO:28:VAL:HG13	38:BO:36:TYR:O	2.12	0.50
24:DA:250:G:C6	24:DA:251:A:C6	2.99	0.50
7:AG:26:PHE:O	7:AG:27:VAL:C	2.41	0.50
1:AA:373:A:O2'	1:AA:374:A:H5'	2.11	0.50
8:AH:87:LYS:HG3	8:AH:88:ARG:N	2.26	0.50
16:AP:7:ALA:HB1	16:AP:28:ARG:O	2.11	0.50
5:AE:34:THR:OG1	5:AE:34:THR:O	2.29	0.50
4:CD:97:ARG:O	4:CD:100:ASN:HB3	2.11	0.50
1:AA:782:A:N1	1:AA:801:U:N1	2.58	0.50
1:AA:780:A:H1'	1:AA:803:G:N2	2.25	0.50
29:DF:56:LEU:HA	29:DF:59:ILE:HD12	1.93	0.50
1:AA:1097:C:H1'	1:AA:1170:A:H1'	1.93	0.50
3:AC:106:VAL:O	3:AC:107:ARG:C	2.49	0.50
24:DA:2257:U:P	46:DW:11:ARG:NH2	2.84	0.50
1:AA:899:C:C5	1:AA:900:A:C5	2.99	0.50
1:AA:928:G:C2	1:AA:929:G:C4	3.00	0.50
19:CS:40:ILE:HG13	19:CS:67:VAL:HA	1.92	0.50
17:AQ:19:LYS:CE	17:AQ:48:ASP:O	2.60	0.50
1:CA:612:C:N4	1:CA:613:C:N4	2.59	0.50
1:CA:628:G:C2	1:CA:629:A:C4	2.99	0.50
57:BA:3165:NMY:C1	57:BA:3165:NMY:N6	2.73	0.50
48:BY:5:GLU:O	48:BY:7:ARG:N	2.40	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:51:PRO:O	9:CI:52:LEU:HD23	2.11	0.50
57:CA:1672:NMY:O17	57:CA:1672:NMY:N2	2.44	0.50
12:CL:103:ASP:CG	12:CL:103:ASP:O	2.49	0.50
1:CA:444:G:C4	1:CA:491:G:C2	2.98	0.50
19:CS:44:MET:CE	19:CS:45:ILE:HG12	2.42	0.50
24:BA:586:A:C2	24:BA:1254:A:C2	3.00	0.50
14:CN:15:LEU:HD23	14:CN:54:ASP:HB2	1.93	0.50
14:CN:66:GLN:HB2	14:CN:83:LYS:HZ3	1.76	0.50
24:BA:1356:G:C2	24:BA:1357:C:O2	2.65	0.50
24:BA:2280:G:O2'	24:BA:2388:A:N1	2.37	0.50
34:DK:25:LEU:HD11	34:DK:38:ILE:CG2	2.41	0.50
3:CC:22:TRP:HD1	3:CC:23:PHE:N	2.09	0.50
1:AA:387:U:H3'	1:AA:387:U:H6	1.75	0.50
1:CA:679:C:H2'	1:CA:680:C:H5'	1.93	0.50
41:DR:41:ILE:O	41:DR:46:GLU:HG2	2.10	0.50
24:BA:1448:G:H2'	24:BA:1449:G:C8	2.45	0.50
24:BA:1351:C:O2'	24:BA:1571:A:H1'	2.11	0.50
24:BA:1347:A:C2'	24:BA:1348:C:O5'	2.59	0.50
24:BA:1532:A:C2	24:BA:1533:C:C4	3.00	0.50
24:DA:2171:A:O2'	24:DA:2172:U:H5'	2.11	0.50
1:CA:298:A:C2	1:CA:299:G:H1'	2.46	0.50
1:CA:477:C:H2'	1:CA:478:A:C8	2.46	0.50
24:DA:1794:A:O2'	24:DA:1795:C:H5'	2.11	0.50
47:DX:1:SER:O	47:DX:3:VAL:HG12	2.12	0.50
46:DW:60:PHE:N	46:DW:60:PHE:CD1	2.79	0.50
24:DA:2129:C:H2'	24:DA:2130:U:C5'	2.41	0.50
43:BT:35:ALA:O	43:BT:36:LYS:C	2.49	0.50
2:CB:71:GLY:HA2	2:CB:164:ILE:HG22	1.92	0.50
24:BA:1565:C:H5''	26:BC:17:LYS:HE3	1.93	0.50
24:BA:273:G:C6	24:BA:274:C:N3	2.80	0.50
6:AF:26:THR:O	6:AF:29:ILE:N	2.44	0.50
25:DB:35:C:H5'	25:DB:36:C:OP2	2.11	0.50
36:DM:73:ILE:CG2	36:DM:74:THR:N	2.73	0.50
5:CE:87:GLY:C	5:CE:88:VAL:CG1	2.80	0.50
17:CQ:10:GLY:CA	17:CQ:25:ILE:HD13	2.40	0.50
17:CQ:10:GLY:HA3	17:CQ:25:ILE:HD13	1.94	0.50
1:AA:1273:C:N4	1:AA:1274:A:N7	2.59	0.50
36:BM:105:MET:HE1	36:BM:113:ALA:HA	1.93	0.50
24:DA:1515:A:H1'	24:DA:1557:C:H1'	1.94	0.50
50:B0:25:THR:O	50:B0:27:LEU:N	2.45	0.50
24:DA:2467:C:O2	36:DM:123:LYS:NZ	2.41	0.50
55:CY:55:ALA:HB2	55:CY:69:VAL:HG13	1.92	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:709:U:O2'	24:DA:710:U:O5'	2.27	0.50
24:BA:2053:G:N2	24:BA:2054:A:H1'	2.26	0.50
24:DA:654:A:H5'	24:DA:655:A:OP2	2.11	0.50
9:CI:92:GLU:CA	9:CI:92:GLU:OE2	2.59	0.50
24:DA:1586:A:H8	24:DA:1586:A:O5'	1.94	0.50
38:BO:22:GLY:HA2	38:BO:42:PRO:HB3	1.94	0.50
29:DF:174:PHE:O	29:DF:176:PHE:HB2	2.11	0.50
17:AQ:8:LEU:O	17:AQ:60:GLU:HA	2.11	0.50
53:B3:26:ALA:O	53:B3:27:ASN:CB	2.60	0.50
1:AA:258:G:N1	1:AA:269:C:C2	2.80	0.50
1:CA:790:A:C8	1:CA:791:G:C5	3.00	0.50
11:CK:127:ARG:HB2	21:CU:35:ARG:NH2	2.27	0.50
1:CA:437:U:O2'	1:CA:438:U:H5'	2.11	0.50
1:AA:684:U:O2'	1:AA:685:G:P	2.69	0.50
24:DA:1059:G:C6	24:DA:1060:U:O4	2.64	0.50
1:AA:1106:G:H2'	1:AA:1107:C:H6	1.77	0.50
24:DA:359:G:C5	24:DA:360:U:C5	2.99	0.50
1:CA:624:C:O2'	1:CA:625:U:H5'	2.11	0.50
24:BA:1663:G:C6	24:BA:1992:G:N7	2.80	0.50
24:BA:2719:G:H5'	39:BP:95:LYS:NZ	2.27	0.50
24:DA:1656:C:H2'	24:DA:1657:U:C6	2.46	0.50
48:BY:49:ASP:O	48:BY:52:ARG:N	2.45	0.50
1:CA:232:G:C5	1:CA:233:C:C5	2.98	0.50
24:BA:1358:G:N7	24:BA:1371:G:O6	2.44	0.50
2:CB:205:ASP:O	2:CB:206:ALA:HB2	2.12	0.50
1:CA:16:A:H2'	1:CA:17:U:H5'	1.94	0.50
24:BA:2313:C:H5''	29:BF:87:LYS:HG3	1.92	0.50
24:DA:1855:U:C5	24:DA:1856:U:C5	2.99	0.50
1:AA:1435:G:C5	1:AA:1436:U:C5	2.98	0.50
34:DK:88:ASN:N	34:DK:93:GLN:O	2.42	0.50
1:AA:872:A:N3	1:AA:872:A:H2'	2.25	0.50
22:CV:58:A:H1'	22:CV:60:U:OP2	2.11	0.50
2:AB:189:THR:CG2	2:AB:190:ASN:ND2	2.75	0.50
16:CP:51:ARG:O	16:CP:52:LEU:HD12	2.11	0.50
30:BG:72:ASN:HA	30:BG:75:VAL:CG1	2.42	0.50
7:CG:99:LEU:HD12	7:CG:137:LYS:NZ	2.27	0.50
6:CF:16:GLU:O	6:CF:18:VAL:N	2.44	0.50
6:CF:18:VAL:HB	6:CF:19:PRO:CD	2.42	0.50
41:DR:49:ILE:HG12	41:DR:52:PRO:HA	1.94	0.50
24:BA:1168:G:C2'	24:BA:1169:A:O5'	2.60	0.50
24:BA:1665:A:N3	34:BK:1:MET:HE2	2.27	0.50
40:BQ:111:LYS:HD3	41:BR:48:LYS:HG3	1.93	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1413:A:C6	24:BA:1414:C:C4	3.00	0.50
24:BA:1413:A:C6	24:BA:1414:C:N3	2.79	0.50
24:DA:2846:G:H2'	24:DA:2847:U:O4'	2.11	0.50
24:BA:8:C:C2	24:BA:9:G:C8	2.99	0.50
24:BA:322:A:H3'	28:BE:163:ASN:OD1	2.10	0.50
24:BA:2830:C:O5'	27:BD:59:ARG:NH1	2.44	0.50
1:AA:279:A:H5''	1:AA:281:G:H5'	1.92	0.50
24:DA:604:G:N2	24:DA:657:U:H4'	2.26	0.50
24:BA:2639:A:O3'	33:BJ:96:ARG:NH1	2.45	0.50
24:DA:1638:C:H4'	24:DA:2710:C:O2	2.12	0.50
24:BA:451:U:H2'	24:BA:453:A:OP2	2.11	0.50
24:DA:1306:C:H41	24:DA:1606:C:H2'	1.75	0.50
29:DF:116:LEU:HD13	29:DF:129:MET:SD	2.52	0.50
1:AA:1207:G:H2'	1:AA:1208:C:C6	2.47	0.50
3:AC:162:ILE:O	3:AC:163:ALA:C	2.50	0.50
28:BE:111:GLU:HG2	28:BE:114:ARG:HE	1.77	0.50
2:CB:132:LYS:O	2:CB:134:ALA:N	2.44	0.50
30:DG:148:ARG:HA	30:DG:161:VAL:HG21	1.92	0.50
49:DZ:23:LEU:HD11	49:DZ:50:VAL:HG11	1.93	0.50
44:BU:101:THR:CG2	44:BU:102:ILE:N	2.75	0.50
6:CF:51:ILE:C	6:CF:53:LYS:N	2.64	0.50
26:DC:11:GLY:O	26:DC:12:ARG:CB	2.60	0.50
24:DA:2406:A:H2'	24:DA:2406:A:OP2	2.11	0.50
24:BA:1562:U:C2	24:BA:1563:U:C6	3.00	0.50
6:AF:23:GLU:O	6:AF:27:ALA:HB3	2.11	0.50
45:DV:8:VAL:HA	45:DV:40:ILE:CG2	2.41	0.50
38:DO:27:VAL:O	38:DO:27:VAL:CG2	2.60	0.50
24:BA:1935:G:H1'	24:BA:1964:G:N2	2.27	0.50
1:CA:1002:G:C2	1:CA:1039:G:C2	2.99	0.50
1:CA:1483:A:H2	24:DA:1959:G:N3	2.09	0.50
53:B3:6:VAL:HG12	53:B3:9:ALA:HB3	1.92	0.50
26:BC:210:ALA:O	26:BC:212:TRP:N	2.44	0.50
55:CY:5:ILE:O	55:CY:5:ILE:HG23	2.10	0.50
51:B1:11:VAL:O	51:B1:48:TYR:HA	2.11	0.50
36:DM:33:LEU:HD11	36:DM:128:THR:OG1	2.12	0.50
35:DL:90:VAL:HB	35:DL:122:VAL:HA	1.93	0.50
12:AL:58:THR:HG23	12:AL:58:THR:O	2.11	0.50
24:DA:541:A:H2'	24:DA:542:C:O4'	2.11	0.50
55:CY:134:ASP:O	55:CY:135:ALA:C	2.50	0.50
50:D0:39:ARG:O	50:D0:40:HIS:HB2	2.11	0.50
1:CA:768:A:OP1	1:CA:804:U:H4'	2.11	0.50
5:AE:33:PHE:CD1	5:AE:33:PHE:N	2.79	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:10:A:H2'	24:BA:10:A:N3	2.26	0.50
24:DA:2245:U:O2'	24:DA:2436:G:OP2	2.23	0.50
35:BL:132:ARG:O	35:BL:136:GLU:HG2	2.12	0.50
38:BO:35:ILE:HD11	38:BO:106:LEU:HD11	1.92	0.50
25:BB:11:C:H2'	25:BB:12:C:O4'	2.12	0.50
24:BA:416:U:C2	24:BA:417:C:C6	2.99	0.50
8:AH:9:ASP:OD1	8:AH:9:ASP:C	2.50	0.50
26:BC:11:GLY:O	26:BC:12:ARG:HB3	2.11	0.50
1:CA:49:U:C5	1:CA:364:A:C6	3.00	0.50
1:AA:265:G:H4'	17:AQ:67:LEU:O	2.11	0.50
1:AA:501:C:O3'	12:AL:115:SER:HB2	2.12	0.50
1:AA:619:U:H3	4:AD:131:ASN:HB3	1.76	0.50
8:AH:83:LEU:CD1	8:AH:83:LEU:C	2.79	0.50
1:CA:620:C:H1'	4:CD:132:ILE:HD11	1.92	0.50
1:CA:1293:C:C2'	1:CA:1294:G:H5'	2.38	0.50
1:CA:1329:A:P	13:CM:28:THR:OG1	2.69	0.50
13:CM:45:ILE:HA	13:CM:48:LEU:HG	1.93	0.50
24:BA:1737:G:C4	24:BA:1738:G:N2	2.79	0.50
24:BA:571:U:C4	24:BA:575:A:C5	3.00	0.50
20:AT:79:LEU:O	20:AT:80:THR:C	2.49	0.50
24:DA:1814:G:H5''	26:DC:53:ILE:HD11	1.92	0.50
24:BA:31:C:O3'	24:BA:1238:G:H5'	2.10	0.50
24:BA:2767:C:H2'	24:BA:2768:U:H5'	1.93	0.50
1:AA:430:A:O5'	4:AD:9:LEU:HD23	2.11	0.50
4:AD:33:LYS:O	4:AD:34:ILE:O	2.29	0.50
24:DA:1239:G:C5	24:DA:1240:U:C5	3.00	0.50
1:CA:375:U:H3'	1:CA:376:G:H5''	1.93	0.50
1:CA:453:G:C6	1:CA:454:G:C5	3.00	0.50
4:CD:58:LYS:CA	4:CD:200:ILE:HG12	2.41	0.50
1:CA:356:A:H2'	1:CA:357:G:H5'	1.94	0.50
20:CT:69:LYS:HG3	20:CT:70:ASN:N	2.27	0.50
24:BA:586:A:H1'	24:BA:672:C:H1'	1.93	0.50
24:BA:586:A:H2	24:BA:809:G:N3	2.09	0.50
24:DA:221:A:C8	24:DA:266:G:C6	3.00	0.50
1:CA:1082:A:OP1	5:CE:23:LYS:CE	2.59	0.50
24:DA:2331:G:C6	24:DA:2332:C:N3	2.80	0.50
3:AC:57:ILE:HD12	3:AC:59:ARG:HE	1.76	0.50
1:CA:1353:G:C6	1:CA:1370:G:C2	3.00	0.50
1:AA:1431:A:N6	1:AA:1432:G:H1	2.09	0.50
24:DA:2632:A:C2	24:DA:2787:C:C2	2.99	0.50
22:CV:73:A:O4'	22:CV:73:A:P	2.69	0.50
24:BA:2267:A:H5''	24:BA:2268:A:C5'	2.41	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BS:74:ILE:HD12	42:BS:75:PHE:H	1.76	0.50
1:CA:678:U:H2'	1:CA:679:C:O4'	2.12	0.50
42:DS:29:VAL:HG23	42:DS:69:LEU:C	2.32	0.50
44:DU:73:ASN:HB2	44:DU:78:LYS:O	2.11	0.50
24:BA:1341:G:H4'	43:BT:60:THR:O	2.11	0.50
24:BA:981:A:N1	24:BA:2027:G:O2'	2.34	0.50
30:BG:108:PHE:O	30:BG:110:HIS:N	2.45	0.50
46:DW:56:ASP:O	46:DW:57:HIS:CD2	2.65	0.50
49:DZ:15:ARG:O	49:DZ:20:LYS:HE3	2.10	0.50
28:BE:194:LYS:O	28:BE:195:GLN:C	2.49	0.50
28:DE:115:GLN:OE1	28:DE:117:ARG:HD3	2.12	0.50
1:AA:383:A:N3	1:AA:383:A:H2'	2.26	0.50
2:CB:43:LEU:O	2:CB:46:THR:N	2.45	0.50
24:BA:2553:G:N1	24:BA:2554:U:O2	2.43	0.50
1:AA:159:G:C6	1:AA:163:C:N4	2.80	0.50
26:BC:246:PRO:HB2	26:BC:247:TRP:CE3	2.47	0.50
24:BA:404:A:C2	24:BA:406:G:C2	2.99	0.50
12:CL:104:CYS:O	12:CL:105:SER:HB3	2.10	0.50
26:DC:72:GLY:O	26:DC:73:ILE:O	2.30	0.50
3:CC:66:VAL:O	3:CC:67:THR:CB	2.59	0.50
24:BA:378:C:C2'	24:BA:379:G:C5'	2.89	0.50
41:DR:38:VAL:CG1	41:DR:57:GLY:O	2.60	0.50
24:DA:477:A:O2'	24:DA:478:A:P	2.69	0.50
1:CA:1492:A:C2	1:CA:1493:A:C2	2.99	0.50
27:DD:160:LYS:HB2	27:DD:160:LYS:HZ2	1.76	0.50
1:CA:39:G:C5	1:CA:40:C:C5	3.00	0.50
24:BA:1316:U:H2'	24:BA:1317:G:C8	2.47	0.50
27:DD:187:LEU:C	27:DD:187:LEU:HD13	2.31	0.50
28:DE:56:GLY:O	28:DE:57:LYS:C	2.49	0.50
18:CR:44:ILE:O	18:CR:45:THR:C	2.49	0.50
22:AV:40:C:O2	22:AV:41:C:C6	2.65	0.50
52:D2:25:LYS:HA	52:D2:28:ARG:NH2	2.26	0.50
8:AH:73:GLU:N	8:AH:130:ALA:O	2.44	0.50
47:DX:44:ARG:HG2	47:DX:45:PHE:N	2.25	0.50
2:AB:184:PHE:CE2	2:AB:198:PHE:CD2	2.99	0.50
1:CA:899:C:H2'	1:CA:900:A:O4'	2.11	0.50
31:BH:85:GLY:N	31:BH:89:LYS:O	2.44	0.50
34:BK:9:ASN:OD1	34:BK:18:ARG:NH1	2.42	0.50
24:BA:1037:G:C2	24:BA:1119:U:O2	2.65	0.50
33:DJ:42:ALA:O	40:DQ:63:ARG:HD3	2.12	0.50
1:AA:320:A:H2'	1:AA:321:A:C8	2.47	0.50
24:BA:1223:G:C6	24:BA:1227:G:C6	2.99	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DH:72:ILE:HG21	31:DH:132:PHE:CD2	2.46	0.50
31:DH:77:THR:O	31:DH:78:VAL:HB	2.11	0.50
24:DA:1927:A:N6	24:DA:1928:A:N6	2.60	0.50
1:AA:1321:U:C4	1:AA:1322:C:C5	3.00	0.50
24:DA:690:G:C4'	26:DC:216:ARG:HH21	2.24	0.50
24:BA:391:A:C2	24:BA:392:U:H1'	2.47	0.50
8:AH:40:LEU:CB	8:AH:46:ILE:CG2	2.90	0.50
8:AH:66:PHE:O	8:AH:67:GLN:C	2.49	0.50
1:CA:770:C:C2'	1:CA:771:G:H5'	2.42	0.50
1:AA:627:G:OP2	16:AP:35:ARG:NH1	2.44	0.50
5:AE:122:ASN:O	5:AE:123:VAL:O	2.28	0.50
1:CA:402:G:C6	1:CA:403:C:C4	2.99	0.50
4:CD:168:PRO:CG	4:CD:171:LEU:CD1	2.90	0.50
1:CA:673:A:H2'	1:CA:674:G:H8	1.77	0.50
1:CA:579:A:C4	1:CA:763:G:N2	2.79	0.50
11:AK:35:THR:HA	11:AK:42:LEU:HD13	1.92	0.50
1:AA:1506:U:OP2	23:AX:11:A:H5''	2.12	0.50
1:CA:1309:G:C4	1:CA:1329:A:C4	2.98	0.50
10:AJ:6:ILE:O	10:AJ:75:ASP:OD2	2.30	0.50
1:AA:275:G:H2'	1:AA:275:G:N3	2.26	0.50
17:AQ:21:ILE:CG2	17:AQ:48:ASP:HB2	2.42	0.50
1:CA:182:A:N7	1:CA:184:G:C5	2.80	0.50
24:DA:1005:C:O2'	33:DJ:30:THR:HG21	2.12	0.50
24:BA:809:G:C2'	24:BA:810:U:H5'	2.41	0.50
24:BA:615:U:H3'	24:BA:616:A:C5'	2.39	0.50
24:BA:617:G:H2'	24:BA:618:G:O5'	2.12	0.50
13:AM:26:GLY:O	13:AM:30:SER:OG	2.20	0.50
24:DA:1868:C:C2	24:DA:1869:G:H1'	2.46	0.50
24:DA:2730:C:H5	57:DA:3185:NMY:H22	1.72	0.50
44:BU:35:VAL:HG22	44:BU:38:ILE:CG2	2.42	0.50
1:CA:921:U:H4'	5:CE:23:LYS:NZ	2.27	0.50
3:AC:64:ILE:O	3:AC:99:ALA:HA	2.12	0.50
8:CH:117:ARG:O	8:CH:119:ALA:N	2.45	0.50
24:BA:2259:U:C4	24:BA:2427:C:N4	2.80	0.50
24:BA:2261:C:C2	24:BA:2280:G:N2	2.79	0.50
1:AA:1538:C:H2'	1:AA:1539:C:O4'	2.12	0.50
38:DO:58:ILE:O	38:DO:62:LEU:CD1	2.60	0.50
1:AA:1465:A:C8	1:AA:1466:C:C5	3.00	0.50
24:BA:2655:G:N3	24:BA:2664:G:C6	2.80	0.50
1:CA:967:C:H2'	1:CA:968:A:C8	2.47	0.50
1:CA:516:U:C4	1:CA:517:G:C6	2.99	0.50
24:BA:2759:G:C5	24:BA:2760:C:C5	2.99	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2748:A:H1'	30:BG:66:THR:HG22	1.94	0.50
24:BA:1883:U:O4	24:BA:1884:G:C6	2.64	0.50
28:DE:75:SER:HB3	28:DE:77:ILE:CD1	2.41	0.50
32:BI:115:ASP:O	32:BI:116:MET:HB2	2.12	0.50
42:DS:25:ARG:HG2	42:DS:74:ILE:HG23	1.92	0.50
24:BA:319:G:C2'	24:BA:320:A:H5'	2.42	0.50
1:AA:279:A:OP1	1:AA:280:C:O2'	2.30	0.50
1:AA:282:A:H2'	1:AA:283:U:H5'	1.93	0.50
21:AU:40:LYS:N	21:AU:41:PRO:HD2	2.26	0.50
24:BA:1394:U:OP1	59:BA:3415:HOH:O	2.20	0.50
24:BA:1601:G:C6	24:BA:1602:U:C4	2.99	0.50
24:BA:2822:G:OP1	27:BD:115:GLY:CA	2.60	0.50
45:DV:43:ASP:O	45:DV:47:VAL:HG12	2.11	0.50
45:DV:45:ASP:O	45:DV:48:MET:HB3	2.11	0.50
2:AB:14:VAL:HG22	2:AB:208:ARG:NH1	2.27	0.50
35:DL:78:ARG:HA	35:DL:113:ALA:HB3	1.93	0.50
24:BA:1805:A:N3	26:BC:49:THR:HG21	2.25	0.50
24:BA:1422:G:N2	24:BA:1423:G:C4	2.80	0.50
24:DA:898:C:C5	24:DA:899:A:C8	3.00	0.50
54:B4:25:VAL:HG12	54:B4:35:GLN:HB2	1.93	0.50
1:AA:457:G:N2	1:AA:476:U:C2	2.79	0.50
11:CK:80:LYS:O	11:CK:80:LYS:HG3	2.10	0.50
1:AA:238:A:OP1	17:AQ:40:ARG:CZ	2.59	0.50
28:BE:149:ILE:CG1	28:BE:188:MET:HG2	2.42	0.50
6:CF:47:LEU:HD13	6:CF:56:LYS:N	2.26	0.50
24:BA:324:A:C5	24:BA:325:G:C8	3.00	0.50
24:BA:2714:G:H2'	24:BA:2715:C:C5'	2.42	0.50
1:CA:908:A:H2'	1:CA:909:A:C8	2.47	0.50
52:D2:2:LYS:HE3	52:D2:6:GLN:OE1	2.12	0.50
31:BH:61:VAL:HG12	31:BH:61:VAL:O	2.12	0.50
24:BA:1716:U:C5	24:BA:1743:G:N2	2.79	0.50
22:AV:39:U:C2	22:AV:40:C:C5	2.99	0.50
40:BQ:59:LEU:O	40:BQ:62:ALA:N	2.45	0.50
24:BA:1050:A:C2	24:BA:2751:G:C5	3.00	0.50
11:AK:101:ASN:OD1	11:AK:102:ALA:N	2.44	0.50
12:AL:57:LEU:C	12:AL:59:ASN:H	2.14	0.50
24:DA:709:U:C2'	24:DA:710:U:O5'	2.59	0.50
17:CQ:31:HIS:CE1	17:CQ:34:TYR:CD2	2.99	0.50
24:BA:372:G:C6	47:BX:56:ARG:NH2	2.79	0.50
33:BJ:38:GLY:O	33:BJ:44:TYR:HB2	2.12	0.50
24:BA:1773:A:H2'	24:BA:1774:C:H5'	1.94	0.50
33:BJ:88:THR:HG23	33:BJ:91:GLU:HB2	1.94	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BG:78:VAL:O	30:BG:78:VAL:HG13	2.12	0.50
1:AA:1030:U:H4'	1:AA:1030:U:OP1	2.11	0.50
24:DA:1918:A:HO2'	24:DA:1920:C:N4	2.09	0.50
1:AA:1376:U:C2	1:AA:1377:A:N7	2.80	0.50
53:D3:31:ILE:HD11	53:D3:35:LYS:HE2	1.94	0.50
24:DA:197:A:OP1	59:DA:3764:HOH:O	2.19	0.50
35:BL:57:LEU:C	35:BL:59:ARG:H	2.15	0.50
26:BC:16:VAL:CB	26:BC:203:VAL:HG22	2.42	0.50
1:CA:1524:C:H2'	1:CA:1525:G:O4'	2.12	0.50
1:CA:786:G:H5''	1:CA:787:A:OP2	2.11	0.50
1:AA:390:U:O2	1:AA:391:G:C8	2.65	0.50
1:AA:919:A:C4	1:AA:920:U:C5	3.00	0.50
4:CD:153:SER:OG	4:CD:154:ARG:N	2.45	0.50
4:CD:154:ARG:O	4:CD:156:LYS:N	2.44	0.50
4:CD:4:TYR:CE1	4:CD:68:LEU:HD22	2.47	0.50
24:BA:86:G:C2	24:BA:97:C:C2	2.99	0.50
1:CA:1239:A:N3	1:CA:1241:G:N1	2.60	0.50
19:CS:4:SER:O	19:CS:5:LEU:HB3	2.11	0.50
20:AT:79:LEU:O	20:AT:83:ILE:N	2.43	0.50
1:CA:1014:A:OP2	19:CS:14:HIS:HB2	2.12	0.50
19:CS:69:HIS:O	19:CS:70:LYS:O	2.29	0.50
22:CV:9:A:O2'	22:CV:10:G:N7	2.43	0.50
11:AK:105:PHE:O	11:AK:107:ILE:HB	2.11	0.50
57:DA:3190:NMY:O11	57:DA:3190:NMY:H1	2.11	0.50
24:BA:76:C:O2'	48:BY:55:THR:HG21	2.12	0.50
1:CA:376:G:C4'	16:CP:5:ARG:HD2	2.41	0.50
1:CA:1153:G:C6	1:CA:1154:G:N7	2.80	0.50
10:CJ:42:LEU:HD22	10:CJ:71:LEU:HD13	1.94	0.50
1:CA:391:G:C5	1:CA:392:C:C6	2.99	0.50
24:BA:616:A:H2'	24:BA:617:G:H5'	1.92	0.50
1:CA:1050:G:C2'	1:CA:1051:C:H5'	2.42	0.50
14:CN:19:TYR:CD1	14:CN:19:TYR:C	2.85	0.50
57:DA:3185:NMY:H16	57:DA:3185:NMY:N19	2.26	0.50
2:CB:104:TRP:O	2:CB:106:THR:O	2.30	0.50
2:CB:171:ILE:HG22	2:CB:175:GLU:OE1	2.12	0.50
29:DF:95:MET:SD	29:DF:99:PHE:CE1	3.05	0.50
1:CA:1366:C:C2	1:CA:1367:C:C5	3.00	0.50
38:DO:54:VAL:HG23	38:DO:55:GLU:H	1.77	0.50
24:DA:2055:C:N4	59:DA:3532:HOH:O	2.44	0.50
29:DF:131:VAL:HG21	29:DF:151:LEU:HD23	1.94	0.50
14:CN:44:ALA:O	14:CN:47:LYS:HG2	2.12	0.50
24:DA:2498:C:H2'	24:DA:2499:C:H5'	1.93	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:192:C:O2'	24:DA:802:A:N3	2.44	0.50
3:AC:101:ILE:HD12	3:AC:102:ASN:CA	2.41	0.50
25:BB:113:C:H2'	25:BB:114:C:H6	1.77	0.50
31:BH:24:GLY:O	31:BH:25:TYR:C	2.49	0.50
47:BX:39:VAL:CG2	47:BX:44:ARG:O	2.59	0.50
44:DU:73:ASN:CB	44:DU:78:LYS:O	2.60	0.50
33:BJ:75:TYR:HB3	33:BJ:84:ILE:HD11	1.93	0.50
1:CA:1397:C:O2'	1:CA:1398:A:P	2.69	0.50
1:AA:1122:U:C2'	1:AA:1123:U:C5'	2.89	0.50
50:D0:27:LEU:HD23	50:D0:37:HIS:O	2.12	0.50
24:BA:434:U:H4'	24:BA:435:C:OP1	2.12	0.50
24:DA:1203:U:H1'	35:DL:4:ASN:HB3	1.93	0.50
1:CA:1112:C:O2'	3:CC:179:ARG:HD3	2.12	0.50
24:BA:1537:G:C2	24:BA:1538:G:H1'	2.46	0.50
1:AA:293:G:C4	1:AA:294:U:C5	3.00	0.50
16:CP:20:VAL:HG11	16:CP:32:PHE:CD2	2.46	0.50
29:DF:153:ILE:HD12	29:DF:154:THR:N	2.27	0.50
34:BK:71:ARG:HG3	34:BK:72:PRO:HD2	1.93	0.50
26:BC:143:VAL:HG21	26:BC:161:VAL:HG21	1.94	0.50
1:AA:1361:G:C6	1:AA:1362:A:N7	2.80	0.50
31:BH:84:ALA:HA	31:BH:90:LEU:HA	1.93	0.50
24:BA:1505:A:N1	24:BA:1506:U:C2	2.80	0.50
52:B2:21:ARG:HG3	52:B2:27:GLY:O	2.11	0.50
33:BJ:125:TYR:CE2	33:BJ:130:HIS:HB2	2.47	0.50
18:CR:39:ILE:CG2	18:CR:40:VAL:N	2.74	0.50
26:BC:140:VAL:HG23	26:BC:190:THR:O	2.12	0.50
24:BA:1305:C:O2	24:BA:1305:C:H2'	2.12	0.50
11:AK:45:ALA:HB1	11:AK:69:ARG:CG	2.41	0.50
33:DJ:55:ILE:HA	33:DJ:123:LYS:O	2.12	0.50
7:AG:101:MET:O	7:AG:105:VAL:HG22	2.12	0.50
11:AK:70:CYS:O	11:AK:74:VAL:CG2	2.59	0.50
1:CA:1038:C:N4	1:CA:1039:G:O6	2.45	0.50
8:CH:59:LEU:HD12	8:CH:59:LEU:O	2.11	0.50
32:DI:27:LEU:O	32:DI:28:GLY:C	2.50	0.50
10:CJ:22:THR:C	10:CJ:24:GLU:H	2.14	0.50
36:DM:115:GLU:OE1	36:DM:119:LEU:HD11	2.11	0.50
55:CY:7:LYS:HA	55:CY:10:GLU:HB3	1.93	0.50
24:DA:778:G:C6	24:DA:779:U:C4	3.00	0.50
48:BY:9:LYS:CB	48:BY:12:GLU:HG2	2.42	0.50
24:BA:295:G:C4	24:BA:344:A:C2	3.00	0.50
24:DA:591:U:C2'	24:DA:592:A:O5'	2.60	0.50
31:BH:37:VAL:HG23	31:BH:38:PRO:HD2	1.94	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:130:PHE:CD2	3:CC:157:LEU:HD23	2.45	0.50
33:BJ:69:ARG:HA	33:BJ:89:PHE:CD2	2.47	0.50
16:AP:57:ILE:HG22	16:AP:58:ALA:N	2.27	0.50
27:BD:20:VAL:HG12	27:BD:21:SER:N	2.27	0.50
24:DA:2792:A:N3	24:DA:2792:A:H2'	2.26	0.50
18:AR:68:LEU:N	18:AR:68:LEU:HD12	2.27	0.50
42:BS:71:VAL:HG12	42:BS:71:VAL:O	2.12	0.50
24:BA:2271:G:O6	59:BA:3515:HOH:O	2.20	0.50
53:B3:44:ARG:HB3	53:B3:45:PRO:HD3	1.94	0.50
31:DH:71:LYS:O	31:DH:73:ASN:N	2.38	0.50
24:DA:321:U:P	28:DE:130:LYS:HD2	2.51	0.50
25:BB:45:A:N1	25:BB:46:A:C4	2.80	0.50
38:BO:103:VAL:C	38:BO:105:ALA:N	2.64	0.50
24:DA:2258:C:O2'	24:DA:2426:A:H4'	2.11	0.50
1:CA:1516:G:C2	1:CA:1518:A:OP2	2.65	0.50
11:CK:31:ILE:HA	11:CK:46:THR:HG21	1.94	0.50
11:CK:127:ARG:CB	21:CU:35:ARG:HH22	2.25	0.50
1:AA:597:G:C5	1:AA:598:U:C6	3.00	0.50
4:AD:95:GLU:HA	4:AD:104:ARG:HH11	1.77	0.50
4:AD:103:TYR:HE1	4:AD:114:ALA:CB	2.25	0.50
4:AD:95:GLU:HG2	4:AD:96:GLY:N	2.25	0.50
1:CA:416:G:C2'	1:CA:417:G:H5'	2.42	0.50
1:CA:544:G:C6	1:CA:545:C:C4	3.00	0.50
22:AV:18:G:C5	22:AV:58:A:C6	3.00	0.50
2:AB:181:ILE:HG13	2:AB:182:PRO:O	2.12	0.50
1:CA:957:U:C2	1:CA:959:A:OP2	2.65	0.50
1:AA:412:A:C4'	11:CK:14:LYS:HE3	2.42	0.50
24:BA:1273:U:H4'	24:BA:1275:A:OP2	2.10	0.50
1:CA:185:U:H4'	20:CT:69:LYS:HE2	1.92	0.50
1:CA:258:G:C6	1:CA:259:G:C5	2.99	0.50
1:CA:42:G:H2'	1:CA:43:C:C6	2.46	0.50
24:DA:2722:G:H4'	37:DN:4:ARG:HB2	1.93	0.50
24:BA:599:A:N1	24:BA:659:G:C6	2.79	0.50
1:AA:1237:C:H4'	1:AA:1334:G:N2	2.26	0.50
1:AA:853:C:C2'	1:AA:854:U:O5'	2.60	0.50
29:BF:154:THR:CG2	29:BF:155:ILE:N	2.75	0.50
21:AU:26:ALA:O	21:AU:28:VAL:N	2.45	0.50
24:BA:592:A:C5	24:BA:593:U:C5	2.99	0.50
2:AB:21:ARG:HA	2:AB:21:ARG:HE	1.77	0.50
35:BL:93:ASN:OD1	35:BL:93:ASN:O	2.30	0.50
16:CP:52:LEU:HD23	16:CP:57:ILE:CD1	2.42	0.50
24:DA:973:A:O4'	24:DA:1188:U:C6	2.65	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BC:132:ARG:HB3	26:BC:132:ARG:CZ	2.41	0.50
1:AA:1387:G:C6	1:AA:1388:C:N4	2.80	0.50
1:AA:741:G:OP1	15:AO:35:GLN:NE2	2.45	0.50
1:CA:1539:C:O2'	23:CX:4:G:N2	2.44	0.50
36:DM:54:THR:HG22	36:DM:55:ARG:N	2.25	0.50
24:BA:802:A:H2'	24:BA:802:A:N3	2.26	0.50
24:DA:2061:G:C2	24:DA:2063:C:C4	3.00	0.50
5:CE:126:LYS:HG3	5:CE:127:ALA:O	2.11	0.50
1:AA:246:A:C4	1:AA:279:A:C2	3.00	0.50
24:BA:1571:A:C2	24:BA:1572:A:C4	2.99	0.50
1:AA:40:C:H2'	1:AA:41:G:C8	2.47	0.50
1:AA:441:A:C2	1:AA:497:G:C6	3.00	0.50
24:DA:2592:G:C5	24:DA:2593:U:C5	3.00	0.50
24:BA:1332:G:O6	24:BA:1609:A:C8	2.65	0.50
2:CB:47:VAL:CG2	2:CB:48:PRO:HD3	2.41	0.50
24:DA:1313:U:H2'	24:DA:1610:A:C2	2.46	0.50
24:BA:1423:G:C4	24:BA:1424:G:C8	3.00	0.50
24:BA:193:U:O2	24:BA:193:U:H2'	2.11	0.50
39:BP:91:VAL:HG22	39:BP:92:ARG:N	2.26	0.50
26:BC:254:LYS:HA	26:BC:254:LYS:CE	2.40	0.50
10:AJ:42:LEU:HD23	10:AJ:71:LEU:CD2	2.42	0.50
2:AB:60:ILE:O	2:AB:61:ALA:HB2	2.11	0.50
14:CN:96:LEU:HD12	14:CN:96:LEU:O	2.12	0.50
55:CY:100:VAL:HG23	55:CY:100:VAL:O	2.10	0.50
1:CA:1166:G:N2	1:CA:1171:A:N6	2.59	0.50
24:DA:995:C:H5'	24:DA:995:C:H6	1.77	0.50
19:AS:51:VAL:N	19:AS:58:VAL:O	2.43	0.50
24:DA:2128:G:C5	24:DA:2129:C:N3	2.79	0.50
1:AA:1152:A:C2	1:AA:1153:G:N9	2.80	0.50
26:DC:71:ASP:OD1	26:DC:188:ARG:NH1	2.44	0.50
24:BA:1232:G:C6	24:BA:1233:C:C4	3.00	0.50
6:AF:51:ILE:HG12	6:AF:51:ILE:O	2.12	0.50
27:DD:8:LYS:HE3	27:DD:193:VAL:HG22	1.93	0.50
5:AE:133:PRO:O	5:AE:136:VAL:HG12	2.11	0.50
24:BA:1808:A:H5'	24:BA:1809:A:C8	2.47	0.50
12:CL:67:ILE:CD1	12:CL:72:HIS:CD2	2.95	0.50
30:BG:148:ARG:O	30:BG:150:TYR:N	2.45	0.50
7:AG:113:ASP:HB2	7:AG:119:ARG:HG2	1.94	0.50
40:BQ:95:ALA:O	40:BQ:99:VAL:CG1	2.60	0.50
24:DA:1701:A:N7	24:DA:1702:G:C8	2.80	0.50
39:BP:54:LEU:HD12	39:BP:76:HIS:HB2	1.94	0.50
47:DX:44:ARG:CG	47:DX:45:PHE:N	2.75	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:220:G:C6	24:DA:427:U:C5	3.00	0.50
51:B1:38:PHE:HB2	51:B1:45:HIS:CE1	2.46	0.50
26:DC:163:ILE:HG22	26:DC:171:VAL:HG22	1.92	0.50
1:AA:1257:A:N3	1:AA:1257:A:H2'	2.27	0.50
8:AH:76:GLN:N	8:AH:76:GLN:OE1	2.45	0.50
7:AG:90:GLU:OE1	7:AG:90:GLU:N	2.45	0.50
32:DI:121:ILE:HG22	32:DI:121:ILE:O	2.11	0.50
5:CE:102:GLY:O	5:CE:103:THR:HB	2.12	0.50
29:BF:98:PHE:C	29:BF:100:GLU:N	2.64	0.50
31:DH:76:GLU:O	31:DH:143:ILE:HG12	2.12	0.50
24:DA:1926:U:H5'	24:DA:1927:A:OP2	2.12	0.50
44:DU:85:ARG:HD3	44:DU:94:PHE:CE2	2.46	0.50
1:AA:1014:A:H2'	1:AA:1015:G:O4'	2.12	0.50
24:DA:1353:A:C8	24:DA:1378:A:N6	2.80	0.50
24:BA:228:C:C5'	24:BA:229:C:C6	2.95	0.50
5:AE:157:ARG:CG	5:AE:158:GLY:N	2.68	0.50
24:DA:2250:G:O5'	24:DA:2250:G:H8	1.95	0.50
1:CA:1404:C:O4'	1:CA:1499:A:C2	2.65	0.50
1:AA:418:C:H1'	1:AA:540:G:O2'	2.12	0.50
1:AA:638:U:C4	1:AA:639:G:N7	2.80	0.50
1:AA:55:A:C5	31:DH:91:PHE:CE2	3.00	0.50
4:CD:113:GLU:OE1	4:CD:113:GLU:CA	2.60	0.50
4:CD:132:ILE:HG13	4:CD:132:ILE:O	2.12	0.50
12:CL:114:ARG:HG3	12:CL:119:VAL:HB	1.94	0.50
1:CA:673:A:H4'	6:CF:86:ARG:CZ	2.42	0.50
1:AA:709:U:O2'	1:AA:710:G:P	2.70	0.50
1:AA:779:C:O2'	1:AA:780:A:H5'	2.12	0.50
29:DF:59:ILE:HG23	29:DF:137:PHE:CE2	2.47	0.50
24:DA:1069:A:C5	24:DA:1074:G:C6	3.00	0.50
4:AD:25:VAL:HG22	4:AD:26:ARG:HG2	1.94	0.50
1:AA:1086:U:H2'	1:AA:1087:G:O5'	2.12	0.50
1:AA:1096:C:H2'	1:AA:1097:C:H6	1.77	0.50
1:CA:1012:A:N6	1:CA:1013:G:N1	2.59	0.50
24:BA:2734:A:N7	24:BA:2735:G:N7	2.59	0.50
57:BA:3165:NMY:H1	57:BA:3165:NMY:HN61	1.74	0.50
40:DQ:25:GLY:O	40:DQ:27:ARG:N	2.44	0.50
48:BY:52:ARG:HB3	48:BY:52:ARG:HH21	1.76	0.50
1:CA:1133:G:C5	1:CA:1134:G:C8	3.00	0.50
1:CA:356:A:C2'	1:CA:357:G:H5'	2.42	0.50
24:BA:809:G:H2'	24:BA:810:U:H5'	1.94	0.50
24:BA:608:A:H3'	24:BA:609:A:H8	1.77	0.50
24:BA:1361:G:C6	24:BA:1371:G:N2	2.80	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BU:39:ASN:O	44:BU:40:LEU:C	2.50	0.50
29:DF:98:PHE:HD1	29:DF:99:PHE:N	2.10	0.50
1:CA:202:G:N3	1:CA:203:G:H1'	2.26	0.50
4:CD:19:LEU:CD1	4:CD:64:ILE:O	2.60	0.50
1:CA:519:C:H2'	1:CA:520:A:O4'	2.11	0.50
24:BA:2761:A:C2	24:BA:2762:C:C6	3.00	0.50
18:AR:45:THR:O	18:AR:46:GLY:C	2.50	0.50
25:BB:79:G:H2'	25:BB:80:U:O4'	2.12	0.50
45:BV:14:LYS:O	45:BV:15:GLY:C	2.48	0.50
24:DA:1000:A:H62	24:DA:1154:G:H2'	1.76	0.50
24:BA:2095:A:C2	24:BA:2096:C:C6	3.00	0.50
24:BA:2198:A:O2'	24:BA:2199:A:OP2	2.23	0.50
24:BA:500:G:N2	24:BA:502:A:H3'	2.27	0.50
26:DC:154:ALA:HB1	26:DC:159:THR:HG23	1.92	0.50
26:DC:80:LEU:HD21	26:DC:105:ALA:HB2	1.93	0.50
24:DA:2063:C:C5	24:DA:2064:C:C5	3.00	0.50
24:DA:2615:U:C2	50:D0:3:GLN:HA	2.47	0.50
9:AI:129:LYS:O	9:AI:129:LYS:HD2	2.12	0.50
28:DE:43:THR:O	28:DE:44:ARG:HB3	2.12	0.50
24:BA:2704:C:N4	24:BA:2705:A:C2	2.79	0.50
1:CA:1190:G:O2'	3:CC:3:GLN:CG	2.60	0.50
24:BA:2820:A:C6	27:BD:197:THR:HG23	2.46	0.50
24:DA:2407:A:H2'	24:DA:2408:U:C6	2.46	0.50
42:BS:36:LEU:O	42:BS:38:TYR:N	2.45	0.50
24:BA:1648:U:OP1	59:BA:3390:HOH:O	2.20	0.50
24:DA:1369:G:C6	24:DA:1370:C:C4	3.00	0.50
24:DA:2298:A:OP1	29:DF:70:ARG:NH2	2.44	0.50
3:CC:9:GLY:CA	3:CC:12:LEU:HD13	2.41	0.50
24:BA:335:C:C4	24:BA:336:C:C5	3.00	0.50
26:DC:230:PRO:CD	26:DC:246:PRO:O	2.59	0.50
24:BA:1605:C:H1'	24:BA:1610:A:C6	2.46	0.50
24:BA:579:G:N3	24:BA:1262:A:C2	2.79	0.50
24:DA:1620:G:O2'	24:DA:1621:U:H5'	2.12	0.50
24:BA:2766:A:C8	24:BA:2766:A:O5'	2.65	0.50
45:BV:72:VAL:CG2	45:BV:91:PHE:HB3	2.42	0.50
1:CA:205:A:H4'	1:CA:205:A:OP1	2.11	0.50
6:AF:42:TRP:N	6:AF:42:TRP:CD1	2.79	0.50
24:BA:2406:A:N7	35:BL:69:ARG:NH2	2.60	0.50
24:DA:1141:U:OP2	33:DJ:65:THR:CG2	2.60	0.50
37:BN:43:GLU:O	37:BN:46:ARG:N	2.44	0.50
24:BA:1071:G:N2	24:BA:1091:G:N7	2.59	0.50
6:AF:51:ILE:O	6:AF:54:LEU:HD21	2.12	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BN:14:SER:O	37:BN:15:SER:C	2.50	0.50
2:CB:123:ASP:N	2:CB:123:ASP:OD1	2.45	0.50
34:BK:118:LEU:O	34:BK:119:ALA:HB2	2.12	0.50
19:AS:44:MET:O	19:AS:62:VAL:HG21	2.12	0.50
24:BA:137:U:O2'	24:BA:138:U:OP1	2.26	0.50
1:CA:316:C:C2	1:CA:317:U:C5	2.99	0.50
32:DI:33:ASN:OD1	32:DI:64:ARG:NH2	2.45	0.50
28:DE:145:ASP:OD2	28:DE:166:LYS:NZ	2.44	0.50
24:DA:778:G:C5	24:DA:779:U:C4	3.00	0.50
24:BA:1847:A:C2'	24:BA:1848:A:OP2	2.60	0.50
45:DV:65:VAL:O	45:DV:67:GLY:N	2.44	0.50
36:DM:71:LYS:HD3	36:DM:95:LEU:HD13	1.93	0.50
31:BH:80:ILE:HG23	31:BH:146:VAL:CG2	2.42	0.50
24:BA:1583:A:H4'	24:BA:1585:C:C4	2.47	0.50
1:AA:1227:A:C2	1:AA:1228:C:C2	3.00	0.50
24:DA:2671:G:C6	24:DA:2672:U:N3	2.80	0.50
6:AF:49:TYR:CE2	18:AR:66:SER:HA	2.47	0.50
24:BA:310:A:N3	24:BA:312:G:C8	2.79	0.50
24:DA:2076:U:O5'	24:DA:2076:U:O2	2.30	0.50
35:BL:50:PHE:C	35:BL:50:PHE:CD1	2.83	0.50
27:DD:5:VAL:HG21	27:DD:80:TRP:CD2	2.47	0.50
32:DI:89:SER:O	32:DI:91:LYS:N	2.44	0.50
25:BB:6:G:C4	25:BB:115:A:C2	2.99	0.49
47:BX:4:CYS:SG	47:BX:7:THR:HG22	2.51	0.49
12:CL:57:LEU:HD12	12:CL:59:ASN:OD1	2.11	0.49
1:CA:794:A:C6	1:CA:795:C:N4	2.80	0.49
7:AG:27:VAL:CG1	7:AG:28:ASN:N	2.75	0.49
8:AH:102:ALA:O	8:AH:127:CYS:O	2.30	0.49
8:AH:84:ARG:O	8:AH:85:ILE:CG1	2.60	0.49
12:AL:107:VAL:N	12:AL:117:TYR:O	2.45	0.49
12:AL:116:LYS:O	12:AL:117:TYR:HB2	2.11	0.49
1:CA:406:G:C5	1:CA:495:A:C5	3.00	0.49
4:CD:104:ARG:O	4:CD:165:ARG:NH2	2.44	0.49
1:CA:725:G:C2	1:CA:726:C:C2	3.00	0.49
1:CA:726:C:C2'	1:CA:727:G:H5'	2.42	0.49
1:CA:1308:U:H5''	13:CM:97:VAL:HG11	1.94	0.49
13:CM:89:LEU:C	13:CM:91:HIS:N	2.63	0.49
24:DA:1059:G:C4	24:DA:1080:A:C2	2.99	0.49
9:AI:81:HIS:O	9:AI:84:THR:OG1	2.24	0.49
1:AA:184:G:O2'	1:AA:224:U:C5'	2.60	0.49
19:CS:42:PRO:HD3	19:CS:67:VAL:HG21	1.94	0.49
22:CV:24:G:C4	22:CV:25:C:C6	2.99	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1028:A:N6	24:BA:1125:G:H2'	2.27	0.49
24:BA:110:G:N2	24:BA:111:A:C1'	2.75	0.49
48:BY:51:ALA:O	48:BY:55:THR:HB	2.11	0.49
9:CI:50:GLN:N	9:CI:51:PRO:HD2	2.26	0.49
12:CL:87:VAL:H	12:CL:93:VAL:HG11	1.77	0.49
1:AA:885:G:N3	1:AA:914:A:C2	2.79	0.49
16:CP:8:ARG:HG2	16:CP:8:ARG:O	2.11	0.49
1:CA:872:A:C5	1:CA:874:G:C8	3.00	0.49
24:BA:601:C:C4	24:BA:602:A:N7	2.80	0.49
1:CA:980:C:H3'	1:CA:981:U:C6	2.47	0.49
1:AA:832:G:N2	1:AA:855:U:C2	2.80	0.49
1:AA:834:U:H2'	1:AA:835:U:H6	1.77	0.49
3:AC:15:VAL:HG23	3:AC:15:VAL:O	2.12	0.49
29:DF:127:TYR:N	29:DF:155:ILE:HD11	2.27	0.49
24:DA:332:A:C2	24:DA:335:C:C5	3.00	0.49
24:BA:180:G:OP1	52:B2:35:ARG:NH2	2.44	0.49
1:CA:966:G:H2'	9:CI:129:LYS:HD3	1.93	0.49
24:DA:192:C:C2'	24:DA:193:U:H5'	2.42	0.49
24:BA:2746:U:H4'	30:BG:138:GLN:HA	1.94	0.49
30:BG:68:ARG:CG	30:BG:69:ALA:N	2.75	0.49
7:CG:103:TRP:HZ3	7:CG:104:ILE:HD13	1.76	0.49
24:BA:2472:G:H3'	24:BA:2473:U:C5'	2.36	0.49
24:BA:507:A:O4'	24:BA:509:C:N3	2.45	0.49
1:AA:52:C:H2'	1:AA:53:A:C8	2.47	0.49
1:AA:1516:G:C2'	1:AA:1516:G:N3	2.74	0.49
1:AA:436:C:N3	1:AA:437:U:C5	2.80	0.49
24:BA:1385:A:N6	24:BA:1403:A:C5	2.80	0.49
49:BZ:23:LEU:O	49:BZ:27:GLY:N	2.41	0.49
1:AA:455:G:C2	1:AA:478:A:N1	2.80	0.49
1:CA:57:G:H2'	1:CA:58:C:O4'	2.12	0.49
1:AA:72:A:H2'	1:AA:73:C:C6	2.47	0.49
12:AL:8:VAL:HG12	12:AL:9:ARG:N	2.25	0.49
1:CA:5:U:C4'	1:CA:6:G:O5'	2.60	0.49
24:DA:2040:G:H2'	24:DA:2041:U:O4'	2.12	0.49
26:BC:160:TYR:CD2	26:BC:176:ARG:NH1	2.79	0.49
33:BJ:23:LYS:O	33:BJ:25:LEU:N	2.45	0.49
1:AA:577:G:H4'	1:AA:817:C:OP1	2.12	0.49
24:BA:1261:C:C2'	24:BA:1262:A:O5'	2.60	0.49
11:AK:92:GLY:O	11:AK:93:ARG:C	2.50	0.49
24:DA:2286:G:P	51:D1:29:LYS:HE3	2.52	0.49
3:CC:72:ARG:N	3:CC:73:PRO:CD	2.75	0.49
43:DT:68:LYS:HZ2	43:DT:69:ARG:NE	2.10	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1139:G:O3'	33:DJ:26:GLY:CA	2.59	0.49
1:AA:1449:C:C2	1:AA:1455:G:N2	2.79	0.49
24:BA:422:A:N1	24:BA:423:A:C2	2.80	0.49
27:DD:17:GLU:C	27:DD:19:GLY:H	2.15	0.49
24:DA:1614:A:OP1	59:DA:3306:HOH:O	2.20	0.49
12:AL:63:VAL:CG1	12:AL:64:THR:N	2.75	0.49
27:DD:123:LYS:O	27:DD:124:ARG:HB3	2.12	0.49
24:BA:1062:G:H2'	24:BA:1063:G:C8	2.46	0.49
24:DA:211:C:C2'	24:DA:212:G:H5'	2.43	0.49
24:BA:1945:G:C5	24:BA:1946:U:C5	3.00	0.49
24:BA:1335:C:P	43:BT:68:LYS:CE	2.99	0.49
24:DA:1913:A:C2	24:DA:1914:C:H5'	2.47	0.49
24:BA:136:G:C5	24:BA:137:U:O4	2.65	0.49
36:DM:115:GLU:O	36:DM:119:LEU:HD12	2.12	0.49
24:BA:1248:G:N9	40:BQ:2:ARG:HB2	2.27	0.49
24:DA:222:A:C2	24:DA:233:A:C5'	2.95	0.49
28:DE:148:ILE:HD12	28:DE:187:VAL:CG1	2.42	0.49
26:DC:137:GLY:N	26:DC:163:ILE:O	2.41	0.49
27:BD:89:GLU:HG2	27:BD:90:PHE:H	1.77	0.49
31:DH:18:GLN:C	31:DH:19:VAL:HG22	2.32	0.49
32:DI:16:MET:SD	32:DI:19:PRO:HB3	2.52	0.49
50:B0:30:ASP:HB3	50:B0:33:SER:OG	2.12	0.49
5:CE:153:VAL:HG13	5:CE:154:ALA:N	2.26	0.49
27:BD:35:THR:O	27:BD:36:GLN:HB3	2.12	0.49
27:BD:38:LYS:HG3	27:BD:43:ASP:CG	2.32	0.49
36:BM:69:PRO:HA	36:BM:94:ALA:HA	1.93	0.49
47:BX:1:SER:O	47:BX:3:VAL:N	2.43	0.49
24:BA:993:G:O2'	24:BA:994:C:H5'	2.12	0.49
31:DH:71:LYS:HE3	31:DH:108:VAL:HG23	1.94	0.49
1:AA:1014:A:H5''	19:AS:14:HIS:CB	2.42	0.49
38:BO:30:ARG:HD3	38:BO:31:THR:N	2.27	0.49
53:B3:26:ALA:O	53:B3:27:ASN:HB2	2.12	0.49
8:AH:13:ARG:NH2	8:AH:27:MET:HB2	2.27	0.49
8:AH:64:LYS:HE3	8:AH:66:PHE:CE1	2.47	0.49
1:CA:692:U:C2'	1:CA:694:A:N7	2.75	0.49
1:AA:510:A:H1'	1:AA:543:U:O4'	2.12	0.49
16:AP:75:ILE:HA	16:AP:78:VAL:HG22	1.94	0.49
4:CD:168:PRO:HB3	4:CD:171:LEU:HG	1.93	0.49
1:CA:727:G:N1	1:CA:731:G:C6	2.81	0.49
1:CA:1304:G:C6	1:CA:1305:G:N2	2.80	0.49
9:AI:11:ARG:HB2	9:AI:16:ALA:HB2	1.94	0.49
20:AT:67:ILE:HD13	20:AT:71:LYS:CE	2.42	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2768:U:N3	24:BA:2769:U:C6	2.80	0.49
1:AA:430:A:H2'	1:AA:431:A:H5'	1.94	0.49
24:DA:1358:G:N2	24:DA:1372:U:OP2	2.36	0.49
1:CA:878:A:H5''	8:CH:81:PRO:HG2	1.94	0.49
24:BA:2014:A:H2'	24:BA:2015:A:C8	2.47	0.49
15:CO:8:THR:O	15:CO:11:ILE:HD11	2.12	0.49
1:CA:230:G:H4'	16:CP:25:ARG:NH2	2.27	0.49
24:BA:1453:A:C3'	37:BN:63:ARG:HH22	2.25	0.49
1:CA:869:G:C5'	1:CA:872:A:O4'	2.59	0.49
24:BA:604:G:O6	24:BA:625:G:C6	2.66	0.49
14:CN:2:LYS:HE3	14:CN:4:SER:OG	2.12	0.49
1:CA:1317:C:C5'	14:CN:56:SER:HG	2.16	0.49
38:DO:47:VAL:O	38:DO:48:LEU:HD12	2.12	0.49
22:CV:67:C:N3	22:CV:68:C:C5	2.80	0.49
24:BA:2304:G:O2'	29:BF:130:GLY:N	2.45	0.49
25:DB:44:G:P	29:DF:94:ARG:NH2	2.85	0.49
57:DA:3187:NMY:H14	57:DA:3187:NMY:N2	2.27	0.49
48:DY:13:GLU:C	48:DY:15:ASN:N	2.66	0.49
38:DO:58:ILE:O	38:DO:62:LEU:HD11	2.11	0.49
24:BA:536:G:C6	24:BA:537:G:C4	3.00	0.49
24:BA:547:A:H2'	24:BA:548:G:H5'	1.94	0.49
24:BA:2527:C:H2'	24:BA:2528:U:O4'	2.11	0.49
1:AA:869:G:C5'	1:AA:872:A:O4'	2.60	0.49
30:DG:104:LEU:HD21	30:DG:106:LEU:HD21	1.94	0.49
40:DQ:78:PHE:O	40:DQ:82:LEU:HD13	2.12	0.49
24:BA:479:A:C2	24:BA:481:G:H5''	2.47	0.49
24:BA:1856:U:C4	24:BA:1857:G:C6	3.00	0.49
24:DA:2720:U:OP1	39:DP:52:ARG:NH2	2.43	0.49
27:BD:125:TRP:CG	27:BD:160:LYS:CD	2.96	0.49
24:BA:1349:C:C2'	24:BA:1350:C:H5'	2.42	0.49
1:CA:339:C:H2'	1:CA:340:U:C6	2.47	0.49
1:AA:406:G:C2	1:AA:407:U:C6	3.00	0.49
24:BA:182:A:C5	24:BA:183:C:C5	3.00	0.49
2:CB:183:VAL:HG11	2:CB:197:ASP:N	2.27	0.49
24:BA:749:A:C2	24:BA:753:A:O2'	2.65	0.49
28:DE:101:TYR:O	28:DE:104:ALA:HB3	2.13	0.49
24:DA:2092:U:OP1	24:DA:2199:A:O2'	2.29	0.49
1:AA:580:C:N4	1:AA:581:G:C6	2.80	0.49
1:AA:585:G:N3	1:AA:879:C:H4'	2.27	0.49
26:BC:259:ASN:O	26:BC:261:ARG:HG3	2.12	0.49
35:DL:78:ARG:CA	35:DL:113:ALA:HB3	2.42	0.49
22:AV:72:C:HO2'	22:AV:73:A:P	2.34	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BC:245:THR:CB	26:BC:246:PRO:CD	2.90	0.49
24:BA:1641:A:H2'	24:BA:1642:G:O4'	2.12	0.49
24:DA:1487:U:C2	24:DA:1503:A:C2	3.00	0.49
43:DT:6:ARG:O	43:DT:9:LYS:N	2.43	0.49
39:DP:21:PRO:HA	39:DP:46:VAL:CG2	2.41	0.49
24:DA:412:A:C6	24:DA:2412:A:H1'	2.47	0.49
25:BB:71:C:H2'	25:BB:72:G:C5'	2.41	0.49
1:AA:109:A:H3'	1:AA:110:C:C5'	2.42	0.49
24:BA:2543:G:O4'	24:BA:2766:A:H5'	2.12	0.49
26:BC:118:GLY:O	26:BC:129:LEU:HB3	2.13	0.49
4:AD:142:VAL:HG13	4:AD:143:VAL:N	2.26	0.49
1:CA:32:A:C2	1:CA:33:A:C4	3.00	0.49
47:DX:18:SER:C	47:DX:20:ALA:N	2.64	0.49
24:BA:2799:A:N6	24:BA:2801:G:C6	2.80	0.49
46:DW:30:SER:O	46:DW:31:VAL:CB	2.60	0.49
26:DC:32:LEU:O	26:DC:63:ILE:HG13	2.12	0.49
28:BE:149:ILE:HG12	28:BE:188:MET:CG	2.42	0.49
38:DO:41:ALA:O	38:DO:43:ASN:N	2.45	0.49
36:DM:74:THR:CG2	36:DM:86:LYS:HE2	2.41	0.49
25:DB:74:U:H2'	25:DB:75:G:H5'	1.94	0.49
24:BA:1933:G:C6	24:BA:1934:C:C4	3.00	0.49
24:DA:1843:C:H5'	26:DC:250:GLN:OE1	2.12	0.49
1:CA:972:C:C2'	1:CA:973:G:H5'	2.42	0.49
12:CL:72:HIS:CE1	12:CL:74:LEU:HD12	2.48	0.49
52:D2:2:LYS:HE3	52:D2:6:GLN:CD	2.33	0.49
24:BA:2459:A:C6	24:BA:2460:U:C2	3.00	0.49
39:DP:28:LYS:HZ2	39:DP:82:SER:N	2.10	0.49
34:BK:43:ILE:HG13	34:BK:56:ASP:HB2	1.93	0.49
24:BA:2480:C:O2'	24:BA:2481:G:H5'	2.11	0.49
24:DA:2547:A:H2'	24:DA:2548:U:C6	2.47	0.49
24:DA:1165:A:C2	24:DA:1185:G:C2	2.99	0.49
1:AA:965:U:O2	1:AA:969:A:C2	2.65	0.49
12:AL:14:ARG:HD2	12:AL:14:ARG:N	2.26	0.49
10:CJ:87:LEU:O	10:CJ:89:ARG:N	2.45	0.49
34:DK:1:MET:HE2	34:DK:67:LYS:HG2	1.94	0.49
1:AA:1371:G:C6	1:AA:1372:U:C4	3.00	0.49
53:B3:36:ALA:O	53:B3:40:LYS:HB2	2.12	0.49
11:CK:51:GLY:C	11:CK:52:PHE:CD1	2.86	0.49
1:AA:389:A:C6	1:AA:390:U:H1'	2.48	0.49
1:AA:394:G:N2	1:AA:395:C:C1'	2.75	0.49
1:AA:56:U:H4'	31:DH:83:LYS:HE2	1.95	0.49
4:AD:146:ARG:HB3	4:AD:148:LYS:HG2	1.94	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:145:ILE:CD1	4:AD:150:LYS:HZ1	2.24	0.49
4:AD:87:GLY:HA3	4:AD:197:GLU:HB3	1.94	0.49
1:AA:572:A:H5'	1:AA:573:A:OP2	2.12	0.49
4:CD:104:ARG:CZ	4:CD:170:TRP:CD2	2.96	0.49
1:CA:764:C:H2'	1:CA:765:G:O4'	2.11	0.49
15:CO:57:LEU:O	15:CO:61:SER:N	2.44	0.49
29:DF:137:PHE:HB3	29:DF:138:PRO:HD2	1.93	0.49
24:DA:1062:G:O6	24:DA:1075:C:N4	2.45	0.49
24:BA:1188:U:H4'	41:BR:81:LYS:O	2.13	0.49
1:AA:1129:C:N4	1:AA:1139:G:HO2'	2.11	0.49
9:AI:47:VAL:C	9:AI:80:ARG:NH2	2.65	0.49
1:CA:1016:A:N7	1:CA:1017:U:H1'	2.26	0.49
24:BA:2119:A:C6	24:BA:2170:A:C5	2.99	0.49
11:AK:82:LEU:HD22	11:AK:105:PHE:CG	2.48	0.49
1:CA:376:G:OP1	16:CP:6:LEU:HG	2.12	0.49
24:BA:359:G:O2'	24:BA:360:U:H5'	2.11	0.49
1:CA:112:G:C2	1:CA:113:G:C8	2.99	0.49
1:CA:263:A:P	20:CT:74:ARG:HH22	2.34	0.49
18:CR:28:THR:HG23	18:CR:29:LEU:N	2.27	0.49
24:DA:2221:G:C4	24:DA:2222:C:C5	3.00	0.49
13:AM:65:VAL:O	13:AM:69:LEU:HB2	2.11	0.49
24:DA:1387:A:H2'	24:DA:1388:G:O4'	2.13	0.49
22:CV:5:G:N1	22:CV:69:G:C6	2.80	0.49
24:DA:2331:G:P	46:DW:44:LYS:NZ	2.85	0.49
1:AA:1432:G:OP2	39:BP:105:LYS:HE3	2.13	0.49
17:CQ:17:MET:HB3	17:CQ:20:SER:OG	2.13	0.49
21:CU:14:VAL:HG22	21:CU:16:LEU:N	2.27	0.49
24:BA:1392:A:C6	24:BA:1393:A:N6	2.80	0.49
43:BT:20:ALA:HB1	43:BT:31:VAL:HG21	1.93	0.49
24:BA:537:G:N2	24:BA:557:C:N4	2.60	0.49
1:AA:1437:A:C2	1:AA:1438:G:N7	2.81	0.49
24:BA:666:A:C4	24:BA:667:U:C5	3.00	0.49
1:CA:930:C:C4	1:CA:931:C:C5	3.00	0.49
1:CA:514:C:H2'	1:CA:515:G:O4'	2.11	0.49
30:BG:138:GLN:OE1	30:BG:139:VAL:CA	2.60	0.49
4:AD:187:GLU:O	4:AD:188:ARG:C	2.50	0.49
40:DQ:82:LEU:HA	40:DQ:85:ALA:HB3	1.94	0.49
31:BH:27:ARG:CG	31:BH:28:ASN:N	2.75	0.49
24:BA:482:A:C2	57:BA:3164:NMY:H62	2.47	0.49
24:BA:1858:A:C2	24:BA:1859:U:H1'	2.47	0.49
25:DB:20:G:C2'	25:DB:21:G:H5'	2.42	0.49
39:DP:51:ASN:O	39:DP:52:ARG:HD3	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:511:C:O2	1:AA:512:U:C6	2.66	0.49
24:BA:160:A:C2	24:BA:161:A:C4	3.00	0.49
24:BA:160:A:C8	24:BA:167:A:C2	2.99	0.49
24:BA:169:G:C2	24:BA:170:U:C5	3.00	0.49
24:DA:674:G:O2'	28:DE:69:ARG:HD3	2.12	0.49
9:AI:130:ARG:NH2	22:AV:33:U:C4	2.80	0.49
24:BA:1463:C:H2'	24:BA:1464:G:C8	2.46	0.49
24:BA:2704:C:N4	24:BA:2705:A:N1	2.61	0.49
47:BX:19:HIS:C	47:BX:21:LEU:N	2.65	0.49
25:BB:24:G:O2'	25:BB:56:G:N7	2.38	0.49
29:DF:15:LEU:HA	29:DF:18:GLU:HB3	1.94	0.49
1:AA:96:U:O2'	1:AA:97:G:P	2.70	0.49
1:AA:1422:G:H2'	1:AA:1423:G:H5'	1.95	0.49
4:AD:137:VAL:CG1	4:AD:182:PHE:CE2	2.95	0.49
28:DE:18:THR:CG2	28:DE:19:PHE:CE2	2.94	0.49
1:AA:109:A:C6	1:AA:326:G:C5	3.01	0.49
24:BA:1129:A:C2	24:BA:2569:G:N3	2.79	0.49
1:AA:316:C:C2	1:AA:317:U:C5	3.01	0.49
24:BA:1906:G:C5	24:BA:1929:G:C2	3.00	0.49
24:DA:1277:G:C5'	37:DN:20:MET:CE	2.90	0.49
1:CA:487:A:C6	1:CA:488:C:O2	2.65	0.49
1:AA:1276:G:N3	1:AA:1282:C:O2'	2.40	0.49
24:DA:2101:A:C2	24:DA:2189:U:C2	3.00	0.49
24:BA:2840:C:H2'	24:BA:2841:C:C6	2.47	0.49
1:CA:1501:C:C4	1:CA:1504:G:C4	3.00	0.49
20:CT:20:HIS:O	20:CT:23:SER:N	2.43	0.49
1:AA:1379:G:C4	1:AA:1380:U:C5	3.01	0.49
1:AA:1299:A:H2'	1:AA:1301:U:C6	2.47	0.49
3:AC:76:VAL:O	3:AC:84:VAL:CG1	2.60	0.49
3:CC:152:GLU:HG3	3:CC:152:GLU:O	2.12	0.49
24:BA:2327:A:H3'	24:BA:2328:A:C8	2.47	0.49
33:DJ:119:PHE:C	33:DJ:119:PHE:CD1	2.85	0.49
24:DA:1848:A:H2'	24:DA:1849:G:O4'	2.12	0.49
24:BA:792:A:C8	24:BA:2440:C:O2	2.66	0.49
2:AB:104:TRP:HA	2:AB:107:VAL:HB	1.93	0.49
11:AK:98:ARG:O	11:AK:102:ALA:CB	2.60	0.49
1:AA:965:U:O2	1:AA:969:A:C4	2.65	0.49
1:AA:284:C:N3	1:AA:285:C:C5	2.81	0.49
24:DA:2813:A:C2	24:DA:2814:A:C4	3.00	0.49
24:BA:529:A:C4	24:BA:2023:C:C5	3.00	0.49
24:BA:823:C:H2'	24:BA:824:U:O5'	2.12	0.49
29:DF:53:ALA:O	29:DF:57:ALA:N	2.41	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2129:C:H2'	24:BA:2130:U:O4'	2.12	0.49
17:CQ:14:SER:HB2	17:CQ:22:VAL:HB	1.93	0.49
12:CL:61:PHE:CD1	12:CL:61:PHE:N	2.79	0.49
2:CB:32:PHE:O	2:CB:32:PHE:CG	2.65	0.49
29:BF:100:GLU:HG2	29:BF:101:ARG:N	2.27	0.49
57:AA:1655:NMY:H91	24:BA:1913:A:H62	1.60	0.49
24:DA:1922:G:H2'	24:DA:1923:U:O4'	2.12	0.49
54:D4:30:GLU:HG2	54:D4:30:GLU:O	2.12	0.49
1:AA:1232:U:N3	1:AA:1233:G:N7	2.60	0.49
1:AA:983:A:C8	1:AA:1201:A:N1	2.80	0.49
19:AS:36:ARG:HD3	19:AS:72:GLY:HA2	1.95	0.49
25:BB:8:C:P	38:BO:29:HIS:NE2	2.84	0.49
53:D3:39:ARG:O	53:D3:43:LEU:HD22	2.11	0.49
24:BA:2417:C:H2'	24:BA:2418:A:H8	1.76	0.49
24:BA:393:C:C2	24:BA:394:C:C5	3.00	0.49
1:CA:1404:C:O2	1:CA:1519:A:O2'	2.27	0.49
1:AA:112:G:C2'	1:AA:113:G:H5'	2.42	0.49
1:AA:32:A:C2'	1:AA:32:A:N3	2.75	0.49
1:AA:354:G:C2	1:AA:355:C:C5	3.00	0.49
1:AA:55:A:H61	31:DH:91:PHE:HA	1.76	0.49
1:AA:572:A:OP1	1:AA:917:G:H5''	2.12	0.49
1:CA:408:A:N1	1:CA:435:A:C6	2.80	0.49
4:CD:98:LEU:O	4:CD:99:ASP:C	2.50	0.49
6:AF:80:PHE:CD1	6:AF:81:ASN:N	2.80	0.49
1:CA:1239:A:O2'	1:CA:1298:U:O4	2.26	0.49
1:CA:1311:A:C2	1:CA:1327:C:O2	2.65	0.49
24:DA:1062:G:C4	24:DA:1063:G:N7	2.80	0.49
24:DA:1090:A:N3	24:DA:1090:A:H2'	2.27	0.49
1:CA:345:C:O2'	34:DK:108:ARG:NH2	2.44	0.49
20:AT:76:LYS:HA	20:AT:79:LEU:CD1	2.42	0.49
20:AT:78:ASN:O	20:AT:81:ALA:N	2.46	0.49
1:CA:1014:A:N7	1:CA:1015:G:C6	2.80	0.49
11:AK:82:LEU:O	11:AK:107:ILE:HA	2.13	0.49
24:BA:2719:G:H5'	39:BP:95:LYS:HZ3	1.77	0.49
48:BY:2:LYS:C	48:BY:4:LYS:N	2.65	0.49
1:AA:1034:G:O2'	1:AA:1035:A:O5'	2.30	0.49
12:CL:65:SER:HA	12:CL:95:TYR:HB3	1.95	0.49
1:CA:45:G:H2'	1:CA:46:G:O4'	2.12	0.49
2:CB:22:TYR:O	2:CB:23:TRP:CG	2.65	0.49
25:BB:89:U:H4'	25:BB:89:U:OP2	2.13	0.49
18:CR:25:ASP:O	18:CR:26:ILE:C	2.51	0.49
24:BA:811:U:OP1	35:BL:29:LYS:CA	2.59	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1359:A:H2'	24:BA:1360:G:H5'	1.94	0.49
1:CA:16:A:N1	1:CA:920:U:C2	2.81	0.49
29:BF:36:ASN:HA	29:BF:87:LYS:CD	2.42	0.49
24:BA:2261:C:C2'	24:BA:2262:U:H5'	2.42	0.49
24:BA:2281:A:C2	24:BA:2282:G:C4	3.00	0.49
21:AU:24:GLU:HG2	21:AU:25:LYS:H	1.77	0.49
38:DO:53:THR:O	38:DO:55:GLU:CB	2.60	0.49
43:BT:19:LYS:HA	43:BT:22:THR:CG2	2.35	0.49
30:BG:154:GLU:OE2	30:BG:156:TYR:N	2.40	0.49
24:BA:666:A:H4'	35:BL:48:ARG:HD2	1.95	0.49
7:CG:104:ILE:O	7:CG:108:ALA:N	2.43	0.49
7:CG:103:TRP:CZ2	7:CG:134:ALA:N	2.80	0.49
1:CA:1539:C:O2	23:CX:4:G:C6	2.66	0.49
40:DQ:73:ILE:CG2	40:DQ:73:ILE:O	2.59	0.49
24:BA:2095:A:C4	24:BA:2096:C:C5	3.01	0.49
44:BU:43:LYS:HD3	44:BU:44:HIS:N	2.26	0.49
24:DA:374:A:H61	24:DA:400:G:C2'	2.26	0.49
41:DR:42:ALA:HA	41:DR:46:GLU:CB	2.38	0.49
12:AL:94:ARG:O	12:AL:95:TYR:CG	2.66	0.49
24:BA:2027:G:C6	24:BA:2028:U:C4	3.00	0.49
24:DA:2060:A:O2'	24:DA:2061:G:OP2	2.29	0.49
1:AA:435:A:H2'	1:AA:436:C:O4'	2.13	0.49
36:BM:77:PRO:O	36:BM:80:VAL:CG2	2.61	0.49
24:BA:1404:C:N3	24:BA:1405:U:C5	2.81	0.49
31:DH:68:ARG:NH2	31:DH:134:VAL:HG23	2.28	0.49
24:DA:418:C:C2	24:DA:419:U:C6	3.01	0.49
25:BB:57:A:OP2	25:BB:58:A:OP2	2.30	0.49
24:BA:1021:A:HO2'	24:BA:1022:G:P	2.35	0.49
24:BA:455:C:N3	24:BA:472:A:H2'	2.27	0.49
1:AA:529:G:H5'	1:AA:530:G:OP2	2.13	0.49
24:BA:1529:G:H2'	24:BA:1530:G:O4'	2.12	0.49
3:CC:160:ALA:HB1	3:CC:162:ILE:HG22	1.94	0.49
3:CC:165:THR:HG22	3:CC:166:GLU:H	1.76	0.49
3:AC:162:ILE:HD12	3:AC:162:ILE:O	2.13	0.49
24:DA:2793:C:O2	24:DA:2793:C:H2'	2.12	0.49
11:AK:81:ASN:HB3	11:AK:106:ARG:HB3	1.93	0.49
24:BA:2243:U:H2'	24:BA:2244:U:C6	2.47	0.49
24:BA:424:G:H2'	24:BA:425:G:O4'	2.13	0.49
24:DA:287:G:C2	24:DA:354:A:C2	3.00	0.49
1:CA:1401:G:C2	1:CA:1402:C:H1'	2.47	0.49
24:BA:2887:A:H5''	24:BA:2888:C:OP2	2.12	0.49
14:CN:85:ARG:HG3	14:CN:86:GLU:N	2.27	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:CN:93:ILE:HG21	14:CN:96:LEU:CG	2.43	0.49
1:AA:318:G:C2	1:AA:319:G:C8	3.01	0.49
1:CA:1106:G:C2'	3:CC:169:ARG:NH1	2.76	0.49
3:CC:142:MET:HG3	3:CC:170:GLU:HG2	1.93	0.49
48:DY:22:LEU:CD2	48:DY:23:ARG:N	2.74	0.49
24:DA:2104:C:C5	24:DA:2184:A:N6	2.80	0.49
24:BA:2804:U:C2	24:BA:2805:C:C6	3.00	0.49
45:DV:80:HIS:CE1	45:DV:83:LYS:HB2	2.47	0.49
24:BA:2776:A:C8	24:BA:2782:G:C6	3.01	0.49
24:BA:2811:G:H5'	27:BD:63:PRO:HG2	1.94	0.49
24:BA:442:G:C4	24:BA:444:C:C5	3.00	0.49
46:BW:54:GLY:O	46:BW:56:ASP:N	2.45	0.49
27:BD:34:VAL:HG12	27:BD:94:GLN:O	2.13	0.49
1:CA:53:A:C2	1:CA:359:G:C2	3.00	0.49
1:AA:728:A:C6	1:AA:729:A:N6	2.79	0.49
48:DY:42:LEU:O	48:DY:46:VAL:HG23	2.11	0.49
24:BA:1965:C:OP1	24:BA:1966:A:O2'	2.29	0.49
19:AS:44:MET:HA	19:AS:47:LEU:HD22	1.94	0.49
1:CA:1272:G:C5	1:CA:1273:C:C4	3.01	0.49
31:BH:138:VAL:HG13	31:BH:138:VAL:O	2.12	0.49
28:DE:137:LYS:HG3	28:DE:141:MET:CE	2.41	0.49
28:DE:128:ALA:HB1	28:DE:129:PRO:CD	2.42	0.49
24:BA:2444:G:OP2	28:BE:63:LYS:CE	2.60	0.49
35:DL:75:ALA:HB2	35:DL:105:ILE:HD12	1.94	0.49
24:DA:1480:C:H2'	24:DA:1481:U:O4'	2.13	0.49
31:DH:44:ILE:HG22	31:DH:45:GLU:N	2.27	0.49
15:AO:19:ALA:O	15:AO:21:ASP:N	2.45	0.49
17:AQ:15:ASP:CG	17:AQ:16:LYS:N	2.66	0.49
31:BH:103:VAL:CG1	31:BH:103:VAL:O	2.60	0.49
26:DC:160:TYR:CD2	26:DC:193:GLU:OE2	2.65	0.49
24:DA:2897:U:H2'	24:DA:2898:U:C6	2.47	0.49
5:CE:53:ALA:CB	5:CE:59:ALA:HA	2.43	0.49
29:BF:5:ASP:O	29:BF:6:TYR:C	2.51	0.49
19:AS:12:ASP:OD1	19:AS:13:LEU:N	2.42	0.49
24:BA:729:G:OP1	26:BC:12:ARG:CZ	2.61	0.49
44:DU:5:ARG:NH2	44:DU:6:ARG:HB3	2.27	0.49
1:CA:790:A:N7	1:CA:791:G:O6	2.46	0.49
11:CK:87:LYS:HB3	11:CK:113:VAL:O	2.13	0.49
4:AD:49:SER:HB2	4:AD:51:TYR:CD2	2.47	0.49
1:AA:599:C:H4'	8:AH:88:ARG:NH2	2.28	0.49
1:AA:919:A:C2	1:AA:920:U:C5	3.00	0.49
1:AA:15:G:O2'	5:AE:29:ARG:NH1	2.46	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:117:LEU:HD12	4:CD:118:VAL:N	2.27	0.49
1:CA:597:G:OP1	17:CQ:27:ARG:NH1	2.46	0.49
1:AA:684:U:O2'	1:AA:685:G:O5'	2.30	0.49
1:AA:782:A:C8	1:AA:783:C:C6	3.00	0.49
1:AA:782:A:N7	1:AA:783:C:C2	2.81	0.49
1:AA:780:A:C5'	11:AK:125:LYS:HG2	2.42	0.49
44:BU:4:ILE:HG22	44:BU:5:ARG:N	2.27	0.49
1:CA:1329:A:C5	1:CA:1330:U:C2	3.01	0.49
1:CA:1310:G:P	13:CM:79:ARG:HH21	2.35	0.49
13:CM:92:ARG:HG3	13:CM:92:ARG:O	2.12	0.49
1:CA:451:A:C8	1:CA:452:A:C2	3.01	0.49
24:BA:277:G:O2'	24:BA:278:A:C2	2.65	0.49
24:DA:538:A:OP2	57:DA:3186:NMY:C17	2.60	0.49
51:B1:27:ARG:O	51:B1:28:THR:CG2	2.60	0.49
1:CA:59:A:C8	1:CA:354:G:N1	2.80	0.49
1:CA:355:C:C2	1:CA:356:A:C8	3.00	0.49
24:BA:613:A:H2'	24:BA:614:A:H5''	1.94	0.49
24:BA:655:A:H4'	24:BA:656:G:OP1	2.12	0.49
1:CA:1216:A:OP1	14:CN:2:LYS:CE	2.60	0.49
25:DB:42:C:C6	29:DF:65:LEU:HD22	2.47	0.49
24:DA:2315:G:O4'	29:DF:124:ARG:NH2	2.45	0.49
24:BA:2867:G:O2'	24:BA:2868:A:OP2	2.27	0.49
8:CH:92:LEU:CD2	8:CH:116:ALA:HB1	2.42	0.49
1:CA:214:C:C2'	1:CA:215:C:O5'	2.60	0.49
24:BA:548:G:O5'	24:BA:549:G:OP1	2.30	0.49
1:CA:844:G:O2'	1:CA:845:A:C4	2.64	0.49
1:CA:515:G:C6	1:CA:516:U:N3	2.80	0.49
24:DA:1735:A:N1	24:DA:1736:U:H1'	2.27	0.49
24:BA:2749:A:O3'	30:BG:61:TRP:CZ3	2.65	0.49
12:AL:33:VAL:HG13	12:AL:56:ARG:HE	1.77	0.49
24:BA:503:A:H5'	24:BA:505:A:OP1	2.12	0.49
34:DK:105:ARG:NH1	34:DK:122:VAL:HG13	2.27	0.49
2:AB:222:ARG:HG2	2:AB:223:GLU:N	2.28	0.49
24:BA:2680:U:C2	24:BA:2681:C:C5	3.01	0.49
24:BA:2680:U:O4'	27:BD:192:ALA:HB1	2.12	0.49
24:BA:1387:A:C4'	24:BA:1469:A:H1'	2.43	0.49
24:DA:1627:G:C4	24:DA:1640:A:C2	3.01	0.49
26:DC:221:GLY:HA2	26:DC:224:MET:HE3	1.94	0.49
24:DA:2198:A:HO2'	24:DA:2199:A:H8	1.58	0.49
1:AA:757:U:O2'	1:AA:879:C:H1'	2.12	0.49
15:AO:57:LEU:C	15:AO:57:LEU:HD12	2.32	0.49
1:CA:560:A:C4	5:CE:128:TYR:CE2	3.00	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1491:G:C6	24:DA:1500:G:C2	3.01	0.49
43:DT:6:ARG:HD2	43:DT:6:ARG:C	2.32	0.49
34:BK:76:VAL:HG12	39:BP:72:VAL:HG21	1.93	0.49
14:AN:35:ALA:O	14:AN:41:ARG:HB3	2.12	0.49
14:AN:41:ARG:O	14:AN:42:TRP:CE3	2.65	0.49
24:BA:242:G:H5'	53:B3:63:TYR:CG	2.47	0.49
24:BA:1310:G:C2'	24:BA:1311:G:H5'	2.43	0.49
34:BK:64:ARG:HD2	34:BK:79:PHE:HD2	1.76	0.49
44:BU:71:ILE:CD1	44:BU:80:ASP:O	2.60	0.49
44:BU:11:ILE:HD11	44:BU:79:ALA:HB2	1.95	0.49
34:BK:37:ASP:OD1	34:BK:37:ASP:N	2.46	0.49
1:CA:661:G:C2	1:CA:745:G:N1	2.81	0.49
3:CC:107:ARG:N	3:CC:107:ARG:CD	2.75	0.49
27:BD:133:THR:HG23	27:BD:134:HIS:H	1.77	0.49
1:CA:1175:G:C2	1:CA:1176:A:N7	2.80	0.49
41:DR:68:ARG:HG2	41:DR:92:TRP:CD2	2.47	0.49
24:BA:1833:C:C4	24:BA:1834:U:C5	3.01	0.49
37:BN:70:THR:O	37:BN:71:ARG:HB2	2.11	0.49
24:DA:1632:A:H2'	24:DA:1633:G:C8	2.48	0.49
24:DA:1581:G:C5	24:DA:1582:C:C5	3.01	0.49
1:AA:1378:C:N3	1:AA:1379:G:H1'	2.28	0.49
24:DA:45:G:H5'	24:DA:46:G:OP1	2.11	0.49
1:AA:728:A:H2'	1:AA:729:A:C8	2.47	0.49
17:CQ:25:ILE:CG2	17:CQ:26:GLU:N	2.76	0.49
24:BA:1317:G:C2	24:BA:1336:A:C2	3.01	0.49
48:DY:37:LEU:C	48:DY:37:LEU:HD12	2.33	0.49
30:DG:75:VAL:HG23	30:DG:76:ILE:N	2.26	0.49
24:DA:2348:U:O2'	24:DA:2349:G:H5'	2.13	0.49
2:AB:68:LEU:CD2	2:AB:158:PRO:HB3	2.42	0.49
36:BM:17:ASN:O	36:BM:38:ARG:NH1	2.45	0.49
32:DI:28:GLY:CA	32:DI:32:VAL:HB	2.41	0.49
24:DA:280:U:C4	24:DA:281:C:C4	3.01	0.49
26:DC:33:LEU:HD12	26:DC:33:LEU:O	2.12	0.49
24:BA:2636:C:H2'	24:BA:2637:U:H6	1.78	0.49
33:BJ:74:TYR:HB2	33:BJ:92:MET:HE2	1.94	0.49
35:DL:26:GLY:O	35:DL:27:LEU:HG	2.12	0.49
54:D4:24:ARG:NH2	54:D4:36:ARG:HD2	2.27	0.49
1:AA:1257:A:N3	1:AA:1257:A:C2'	2.75	0.49
48:DY:5:GLU:O	48:DY:5:GLU:HG2	2.10	0.49
40:DQ:104:ALA:O	40:DQ:107:ALA:HB3	2.12	0.49
35:BL:66:PHE:N	35:BL:66:PHE:CD1	2.81	0.49
25:DB:50:A:OP1	38:DO:68:LYS:HG3	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BO:18:LEU:HD13	38:BO:25:ARG:HD2	1.95	0.49
53:D3:23:HIS:ND1	53:D3:24:LYS:O	2.44	0.49
24:DA:1379:U:C5	24:DA:1379:U:OP1	2.66	0.49
24:BA:2409:G:H3'	24:BA:2410:G:H5''	1.94	0.49
47:BX:7:THR:OG1	47:BX:7:THR:O	2.30	0.49
2:CB:88:ASP:OD1	2:CB:88:ASP:N	2.45	0.49
8:AH:12:THR:C	8:AH:14:ILE:N	2.64	0.49
17:AQ:68:SER:C	17:AQ:70:THR:H	2.16	0.49
1:CA:704:A:N6	1:CA:705:G:N1	2.60	0.49
1:AA:542:G:H2'	1:AA:543:U:H5'	1.95	0.49
1:AA:59:A:N3	1:AA:59:A:H2'	2.27	0.49
8:AH:88:ARG:HE	8:AH:122:GLY:N	2.10	0.49
8:AH:87:LYS:HD2	8:AH:93:PRO:HD3	1.94	0.49
8:AH:92:LEU:CD2	8:AH:117:ARG:HG2	2.43	0.49
1:CA:408:A:N3	1:CA:435:A:C2	2.81	0.49
1:CA:728:A:N6	1:CA:729:A:N6	2.61	0.49
2:AB:164:ILE:HG23	2:AB:165:ASP:H	1.77	0.49
1:CA:1226:C:H2'	13:CM:102:THR:HG23	1.93	0.49
19:CS:16:LEU:O	19:CS:17:LYS:C	2.51	0.49
27:DD:129:THR:O	27:DD:129:THR:HG23	2.11	0.49
57:DA:3190:NMY:O17	57:DA:3190:NMY:C1	2.60	0.49
1:CA:1125:U:C5	1:CA:1127:G:C5	3.00	0.49
10:CJ:100:ILE:HD13	10:CJ:101:SER:N	2.28	0.49
21:CU:37:PHE:CE1	21:CU:41:PRO:HB3	2.47	0.49
20:CT:57:ILE:O	20:CT:58:VAL:C	2.49	0.49
24:BA:623:C:C2	24:BA:624:C:C6	3.00	0.49
13:AM:22:ILE:HG23	13:AM:25:VAL:HG13	1.95	0.49
13:AM:71:ARG:O	13:AM:75:MET:HG2	2.12	0.49
1:CA:1216:A:C2	1:CA:1217:C:N3	2.81	0.49
24:DA:2331:G:N2	24:DA:2385:C:C2	2.80	0.49
29:DF:126:ASN:HB3	29:DF:155:ILE:HD11	1.93	0.49
1:CA:1365:G:C2'	1:CA:1366:C:H5'	2.42	0.49
1:AA:1429:A:C2	1:AA:1430:A:C4	3.00	0.49
8:CH:110:VAL:HG12	8:CH:111:MET:H	1.77	0.49
1:AA:994:A:N3	14:AN:4:SER:OG	2.34	0.49
24:BA:2657:A:C2'	24:BA:2658:C:H5'	2.43	0.49
24:DA:2231:U:C4	24:DA:2232:C:C5	3.01	0.49
22:CV:34:G:H8	22:CV:34:G:OP1	1.95	0.49
16:CP:37:GLY:HA3	16:CP:52:LEU:HA	1.95	0.49
34:BK:88:ASN:OD1	34:BK:91:SER:N	2.46	0.49
24:BA:2744:G:C6	24:BA:2761:A:C6	3.01	0.49
7:CG:69:VAL:HG23	7:CG:138:ARG:NH2	2.27	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DC:203:VAL:O	26:DC:203:VAL:HG13	2.12	0.49
40:DQ:65:ASN:HA	40:DQ:75:TYR:HB2	1.93	0.49
31:BH:27:ARG:HG2	31:BH:28:ASN:N	2.28	0.49
26:DC:195:GLY:O	26:DC:196:ASN:C	2.51	0.49
24:BA:2221:G:C5	24:BA:2222:C:C5	3.01	0.49
27:BD:8:LYS:HD2	27:BD:195:GLY:O	2.13	0.49
35:DL:39:LYS:NZ	59:DL:306:HOH:O	2.41	0.49
1:AA:487:A:H2'	1:AA:488:C:O4'	2.12	0.49
30:BG:18:ILE:O	30:BG:18:ILE:HG12	2.12	0.49
6:AF:10:VAL:HG12	6:AF:11:HIS:N	2.28	0.49
24:BA:2884:U:O4	50:B0:39:ARG:HD3	2.13	0.49
16:AP:26:ASN:O	16:AP:27:ALA:O	2.30	0.49
50:D0:52:LYS:HE2	50:D0:55:ALA:N	2.27	0.49
24:BA:2519:U:C5	24:BA:2542:A:N7	2.81	0.49
24:BA:378:C:H2'	24:BA:379:G:H5''	1.94	0.49
24:BA:2687:U:C4	24:BA:2688:G:C6	3.00	0.49
24:DA:1022:G:C5	24:DA:1140:C:C4	3.00	0.49
24:DA:1140:C:H5'	33:DJ:26:GLY:HA3	1.93	0.49
31:BH:114:GLU:O	31:BH:115:VAL:C	2.51	0.49
1:CA:1034:G:H2'	1:CA:1035:A:C8	2.48	0.49
24:BA:1468:U:O2	24:BA:1525:A:C2	2.66	0.49
1:AA:749:A:C5	1:AA:750:C:C5	3.00	0.49
48:BY:56:LEU:O	48:BY:57:LEU:HB3	2.13	0.49
24:DA:1834:U:H2'	24:DA:1834:U:O2	2.11	0.49
49:BZ:35:VAL:HG21	49:BZ:37:ARG:NH2	2.27	0.49
24:DA:1434:A:C2	24:DA:1435:G:C5	3.00	0.49
24:BA:1283:G:N2	24:BA:1286:A:OP2	2.45	0.49
20:AT:55:GLN:HB3	20:AT:56:PRO:HD3	1.93	0.49
24:BA:368:A:C2'	24:BA:369:U:H5'	2.42	0.49
24:BA:1847:A:O2'	24:BA:1848:A:C8	2.65	0.49
1:AA:730:G:H3'	1:AA:731:G:O4'	2.11	0.49
15:CO:2:SER:O	15:CO:3:LEU:O	2.29	0.49
2:AB:33:GLY:N	2:AB:40:ILE:HG23	2.28	0.49
36:DM:72:PRO:HB3	36:DM:92:TRP:CZ3	2.47	0.49
36:DM:72:PRO:HB2	36:DM:89:VAL:CG1	2.42	0.49
24:BA:927:A:H2'	24:BA:928:A:O4'	2.11	0.49
1:AA:1229:A:O2'	22:AV:30:G:OP1	2.27	0.49
24:BA:2697:G:H2'	24:BA:2698:U:O4'	2.13	0.49
55:CY:145:ASP:O	55:CY:147:GLU:N	2.46	0.49
3:AC:125:GLU:N	3:AC:125:GLU:OE2	2.46	0.49
30:DG:165:ASP:N	30:DG:165:ASP:OD1	2.45	0.49
16:AP:17:TYR:N	16:AP:17:TYR:CD1	2.79	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BG:38:ASP:O	30:BG:40:VAL:N	2.46	0.49
24:DA:1220:G:H2'	24:DA:1221:C:O4'	2.12	0.49
1:AA:1405:G:C5'	57:AA:1655:NMY:H192	2.25	0.49
29:BF:92:GLY:O	29:BF:93:GLU:HG2	2.12	0.49
1:AA:393:A:C6	1:AA:394:G:C8	3.01	0.49
5:AE:47:GLY:HA3	5:AE:70:ASN:O	2.12	0.49
1:AA:376:G:H5'	16:AP:5:ARG:NE	2.27	0.49
1:AA:14:U:H2'	1:AA:16:A:N7	2.28	0.49
1:CA:37:U:O2'	1:CA:500:G:H4'	2.12	0.49
1:CA:761:G:N3	1:CA:762:U:C6	2.81	0.49
15:CO:54:ARG:C	15:CO:56:LEU:N	2.66	0.49
1:AA:681:A:N1	1:AA:710:G:C6	2.80	0.49
1:AA:780:A:OP1	11:AK:125:LYS:HG3	2.12	0.49
1:CA:1309:G:N2	1:CA:1329:A:C1'	2.76	0.49
1:CA:1306:A:C2	1:CA:1332:A:N3	2.81	0.49
13:CM:50:GLU:O	13:CM:51:GLY:C	2.50	0.49
13:CM:95:LEU:C	13:CM:109:ARG:NH2	2.65	0.49
1:AA:1097:C:C2	1:AA:1098:C:C5	3.00	0.49
1:CA:958:A:C5	19:CS:55:ARG:NH2	2.81	0.49
22:CV:24:G:C5	22:CV:25:C:C6	3.00	0.49
24:BA:1125:G:C6	24:BA:1126:A:N6	2.80	0.49
24:BA:511:U:O4	24:BA:512:G:N1	2.45	0.49
1:AA:412:A:H4'	11:CK:14:LYS:HE3	1.94	0.49
1:AA:414:A:H2'	1:AA:415:A:C8	2.48	0.49
1:AA:414:A:C6	1:AA:431:A:C2	3.00	0.49
24:BA:359:G:C6	24:BA:360:U:N3	2.81	0.49
24:BA:563:A:C2	24:BA:564:C:C2	3.01	0.49
24:BA:613:A:H2'	24:BA:614:A:C5'	2.43	0.49
24:BA:622:G:H2'	24:BA:623:C:H6	1.78	0.49
35:BL:77:ILE:HD11	35:BL:110:VAL:HG22	1.93	0.49
5:CE:23:LYS:HB3	5:CE:30:ILE:HG13	1.95	0.49
24:BA:2304:G:C4'	29:BF:129:MET:HA	2.42	0.49
29:BF:127:TYR:O	29:BF:129:MET:HE1	2.13	0.49
29:DF:32:LYS:O	29:DF:33:ILE:HG13	2.12	0.49
43:BT:30:ILE:C	43:BT:31:VAL:HG22	2.33	0.49
24:BA:525:U:OP1	24:BA:556:A:H4'	2.13	0.49
22:CV:63:G:C6	22:CV:64:A:C6	3.01	0.49
24:DA:6:A:O2'	24:DA:7:G:H5'	2.12	0.49
2:AB:188:ASP:HB2	2:AB:204:ASP:CB	2.43	0.49
1:AA:323:U:P	20:AT:25:ARG:HH22	2.34	0.49
24:DA:205:G:O2'	24:DA:206:U:P	2.70	0.49
24:BA:2758:A:C2	24:BA:2759:G:C1'	2.93	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BG:71:LEU:O	30:BG:72:ASN:C	2.51	0.49
1:AA:905:U:H5	1:AA:906:A:C4	2.31	0.49
2:CB:142:GLU:O	2:CB:144:LEU:N	2.45	0.49
41:BR:51:VAL:HG12	41:BR:52:PRO:HD3	1.94	0.49
24:BA:483:A:H2'	24:BA:484:C:O5'	2.13	0.49
6:AF:38:ARG:CD	6:AF:96:VAL:O	2.61	0.49
30:BG:108:PHE:O	30:BG:109:SER:C	2.50	0.49
1:CA:9:G:H5'	5:CE:108:GLY:HA3	1.93	0.49
24:DA:1274:A:N3	24:DA:1297:C:H1'	2.27	0.49
24:BA:749:A:C5	24:BA:750:A:N7	2.81	0.49
1:CA:270:A:C2	1:CA:271:C:C2	3.01	0.49
24:DA:2095:A:N1	24:DA:2194:U:C4	2.80	0.49
25:BB:66:A:N1	25:BB:108:A:C4	2.81	0.49
34:BK:11:ALA:O	34:BK:12:ASP:HB3	2.13	0.49
24:BA:92:U:C5	24:BA:93:G:N7	2.80	0.49
29:DF:129:MET:O	29:DF:153:ILE:HD11	2.13	0.49
24:BA:1419:A:C6	24:BA:1579:A:C2	3.01	0.49
20:AT:45:ALA:O	20:AT:47:ALA:N	2.46	0.49
49:DZ:50:VAL:O	49:DZ:51:SER:C	2.51	0.49
24:BA:126:A:N7	24:BA:127:A:C6	2.81	0.49
24:DA:2318:G:C6	24:DA:2319:G:C2	3.01	0.49
5:CE:74:VAL:CG2	5:CE:76:LEU:HD11	2.42	0.49
43:DT:36:LYS:O	43:DT:81:LYS:HD3	2.12	0.49
1:CA:1108:G:O6	59:CA:1858:HOH:O	2.20	0.49
24:BA:1408:G:C2	24:BA:1409:U:C2	3.01	0.49
24:DA:627:A:O4'	24:DA:637:A:N6	2.46	0.49
24:DA:68:G:N2	24:DA:74:A:C4	2.81	0.49
9:CI:99:ARG:CZ	9:CI:104:VAL:HG11	2.42	0.49
31:BH:115:VAL:O	31:BH:115:VAL:HG22	2.12	0.49
7:AG:93:PRO:HA	7:AG:96:ARG:HB2	1.94	0.49
6:AF:25:TYR:O	6:AF:27:ALA:N	2.45	0.49
28:DE:189:THR:O	28:DE:192:ALA:HB3	2.13	0.49
30:DG:11:PRO:O	30:DG:14:VAL:HG13	2.12	0.49
27:BD:34:VAL:HB	27:BD:48:ILE:CD1	2.42	0.49
24:BA:1946:U:H2'	24:BA:1947:C:C6	2.47	0.49
34:BK:118:LEU:HD23	34:BK:118:LEU:N	2.27	0.49
1:AA:1297:G:O2'	7:AG:114:LYS:NZ	2.45	0.49
1:AA:1421:G:C4	1:AA:1480:A:C2	3.00	0.49
24:DA:1907:G:C6	24:DA:1908:C:C4	3.00	0.49
3:CC:157:LEU:O	3:CC:158:GLY:C	2.50	0.49
33:BJ:72:LYS:HB3	33:BJ:89:PHE:HB2	1.94	0.49
16:AP:54:LEU:O	16:AP:55:ASP:C	2.51	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BM:25:ASP:OD1	36:BM:26:VAL:N	2.42	0.49
35:DL:29:LYS:HG2	35:DL:30:THR:HG23	1.94	0.49
27:BD:16:THR:HG22	27:BD:20:VAL:HB	1.94	0.49
1:AA:965:U:O2	1:AA:969:A:N3	2.45	0.49
10:CJ:87:LEU:HD12	10:CJ:88:MET:N	2.27	0.49
39:BP:88:ARG:NH1	39:BP:114:ASN:O	2.45	0.49
24:DA:1404:C:H2'	24:DA:1405:U:H6	1.77	0.49
1:AA:609:A:N3	1:AA:609:A:H2'	2.27	0.49
8:AH:7:ILE:HD12	8:AH:7:ILE:O	2.12	0.49
35:DL:106:GLU:C	35:DL:107:PHE:CD1	2.86	0.49
29:BF:103:ILE:CG2	29:BF:174:PHE:CE1	2.95	0.49
1:AA:1408:A:C2	1:AA:1494:G:C5	3.00	0.49
24:BA:992:C:C2'	24:BA:993:G:H5'	2.43	0.49
31:DH:143:ILE:CG1	31:DH:144:VAL:N	2.75	0.49
24:DA:322:A:C6	24:DA:340:A:C2	3.00	0.49
29:BF:65:LEU:HG	29:BF:66:ILE:N	2.27	0.49
24:BA:2376:A:C5	38:BO:99:TYR:CE2	3.01	0.49
1:AA:620:C:C2	4:AD:132:ILE:HG12	2.48	0.49
4:AD:132:ILE:HG13	4:AD:132:ILE:O	2.13	0.49
4:AD:200:ILE:O	4:AD:201:VAL:C	2.50	0.49
5:AE:147:MET:O	5:AE:148:ASN:C	2.50	0.49
5:AE:96:MET:CE	5:AE:125:ALA:HB2	2.43	0.49
1:CA:541:G:C4	1:CA:542:G:C8	3.01	0.49
1:CA:1266:G:C5	1:CA:1268:G:OP2	2.66	0.49
29:DF:135:ILE:HG12	29:DF:142:TYR:CZ	2.48	0.49
1:AA:1118:U:H1'	1:AA:1179:A:C5	2.48	0.49
24:BA:572:A:C5'	24:BA:573:U:OP2	2.61	0.49
1:AA:1144:G:C6	1:AA:1145:A:N1	2.80	0.49
2:AB:91:PHE:CE1	2:AB:150:GLY:HA2	2.48	0.49
1:CA:1012:A:N1	1:CA:1013:G:C2	2.81	0.49
39:BP:51:ASN:O	39:BP:52:ARG:CD	2.61	0.49
24:DA:1208:C:C2	24:DA:1239:G:N2	2.80	0.49
24:BA:528:A:C2	24:BA:2042:A:H2'	2.48	0.49
1:AA:1006:G:H2'	1:AA:1007:U:C6	2.46	0.49
57:DA:3186:NMY:H14	33:DJ:2:LYS:NZ	2.28	0.49
20:CT:57:ILE:C	20:CT:59:ASP:N	2.64	0.49
24:BA:1453:A:O3'	37:BN:63:ARG:NH2	2.43	0.49
25:BB:91:C:P	36:BM:18:ARG:NE	2.86	0.49
48:DY:50:VAL:HA	48:DY:53:VAL:CG1	2.43	0.49
24:BA:624:C:C2	24:BA:625:G:C8	3.01	0.49
24:BA:656:G:N7	24:BA:657:U:C5	2.81	0.49
7:AG:131:LYS:H	7:AG:135:VAL:HG21	1.77	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1216:A:C2	1:CA:1217:C:C2	3.01	0.49
24:BA:1363:C:O2'	24:BA:1364:G:H5'	2.12	0.49
24:DA:2209:G:C6	24:DA:2210:U:C4	3.01	0.49
1:CA:1089:G:N2	1:CA:1090:U:H1'	2.28	0.49
38:DO:112:GLU:OE2	38:DO:113:ALA:N	2.46	0.49
3:AC:23:PHE:CD2	10:AJ:13:PHE:CZ	3.01	0.49
1:CA:976:G:OP1	14:CN:71:HIS:HB3	2.12	0.49
1:AA:858:G:O6	1:AA:869:G:H3'	2.13	0.49
24:BA:2118:U:OP1	24:BA:2147:A:O2'	2.17	0.49
16:AP:32:PHE:O	16:AP:32:PHE:HD1	1.95	0.49
37:DN:53:THR:HG22	37:DN:94:TYR:OH	2.13	0.49
1:AA:1385:G:C2	1:AA:1386:G:C4	3.00	0.49
1:AA:174:A:C6	1:AA:175:C:C4	3.01	0.49
24:BA:716:A:H3'	24:BA:717:C:H5''	1.94	0.49
24:BA:1131:G:C4	33:BJ:77:HIS:CD2	3.01	0.49
24:BA:2668:G:C2	24:BA:2669:G:C8	3.00	0.49
40:BQ:87:VAL:CG1	40:BQ:89:ILE:HG23	2.38	0.49
24:BA:58:G:N3	24:BA:70:G:C2	2.80	0.49
24:DA:2344:U:O2'	51:D1:35:LEU:HD22	2.13	0.49
43:BT:61:LEU:CD1	43:BT:82:LYS:CB	2.90	0.49
24:BA:749:A:H5''	24:BA:750:A:OP2	2.12	0.49
1:AA:529:G:C5'	1:AA:530:G:OP2	2.61	0.49
2:AB:210:VAL:HG23	2:AB:211:THR:H	1.76	0.49
1:AA:161:A:H2'	1:AA:162:A:C8	2.48	0.49
24:DA:2298:A:C2	24:DA:2321:U:C5	3.00	0.49
10:AJ:26:VAL:HG12	10:AJ:27:GLU:N	2.26	0.49
24:BA:1422:G:C2	24:BA:1423:G:C5	3.01	0.49
24:BA:1494:A:C6	24:BA:1495:A:C4	3.01	0.49
26:DC:64:VAL:CG2	26:DC:66:PHE:HD2	2.25	0.49
1:CA:853:C:N3	1:CA:854:U:C5	2.80	0.49
24:DA:2317:A:H2'	24:DA:2318:G:H5'	1.93	0.49
48:DY:1:MET:O	48:DY:2:LYS:C	2.51	0.49
1:AA:1152:A:N3	1:AA:1153:G:C8	2.81	0.49
53:B3:20:GLY:O	53:B3:21:PHE:CD1	2.66	0.49
17:CQ:63:GLU:HB2	17:CQ:73:TRP:CZ2	2.47	0.49
31:BH:110:VAL:CG1	31:BH:111:ALA:N	2.76	0.49
27:BD:178:VAL:CG2	27:BD:179:ARG:N	2.75	0.49
24:BA:1076:C:C4	24:BA:1077:A:N7	2.81	0.49
28:BE:164:LEU:HD11	28:BE:167:VAL:CB	2.41	0.49
24:BA:1317:G:H5''	24:BA:1318:U:OP2	2.12	0.49
24:DA:1246:A:C2'	24:DA:1247:A:O5'	2.61	0.49
5:CE:84:PRO:HB3	5:CE:97:GLN:HG2	1.95	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CJ:29:ALA:N	10:CJ:32:THR:HG22	2.27	0.49
1:CA:577:G:N9	1:CA:816:A:C2	2.81	0.49
24:DA:1912:A:C2	24:DA:1919:A:C6	3.01	0.49
24:DA:1688:U:H1'	24:DA:1701:A:C6	2.48	0.49
24:DA:222:A:C6	24:DA:224:U:O2	2.65	0.49
24:DA:95:A:H4'	48:DY:38:GLN:O	2.13	0.49
25:DB:80:U:H2'	25:DB:81:G:C8	2.48	0.49
24:DA:1885:A:H2'	24:DA:1886:U:O4'	2.13	0.49
26:BC:260:LYS:HA	26:BC:263:ASP:OD2	2.12	0.49
24:DA:1166:G:C6	24:DA:1167:C:N4	2.81	0.49
24:DA:2387:U:H5''	24:DA:2388:A:OP2	2.12	0.49
1:CA:35:G:C2	1:CA:550:G:C2	3.01	0.49
48:DY:60:LYS:O	48:DY:61:ALA:HB3	2.12	0.49
24:BA:114:U:N3	24:BA:115:C:C5	2.80	0.49
42:DS:37:THR:HG22	42:DS:38:TYR:CE2	2.48	0.49
32:DI:51:GLY:C	32:DI:52:LEU:HD12	2.33	0.49
27:DD:114:LYS:O	27:DD:167:ASN:N	2.44	0.49
48:DY:19:LEU:O	48:DY:19:LEU:CD2	2.61	0.49
49:BZ:56:VAL:HG13	49:BZ:56:VAL:O	2.13	0.49
40:DQ:8:ILE:O	40:DQ:8:ILE:HG13	2.13	0.49
34:BK:108:ARG:NH2	39:BP:33:GLU:CG	2.75	0.49
37:BN:61:ALA:O	37:BN:65:LEU:HD13	2.13	0.49
24:BA:706:A:OP1	26:BC:6:LYS:NZ	2.32	0.49
33:BJ:13:ARG:HD3	33:BJ:51:GLY:O	2.13	0.49
1:AA:976:G:C2	1:AA:1363:A:N3	2.80	0.49
25:BB:8:C:P	38:BO:29:HIS:CE1	3.06	0.49
29:BF:93:GLU:C	29:BF:95:MET:H	2.14	0.49
24:DA:2429:G:H5''	24:DA:2430:A:OP2	2.13	0.49
24:BA:2230:G:H1'	47:BX:31:ASN:CA	2.43	0.49
24:BA:228:C:H5''	24:BA:229:C:C6	2.48	0.49
1:AA:257:G:N2	1:AA:270:A:C2	2.81	0.49
1:CA:809:G:C2'	1:CA:810:C:O5'	2.60	0.49
1:AA:44:A:C2	1:AA:399:G:C2	3.01	0.49
1:AA:542:G:N1	1:AA:543:U:C5	2.80	0.49
16:AP:71:VAL:HG23	16:AP:72:ALA:N	2.28	0.49
13:CM:109:ARG:NH1	13:CM:109:ARG:HB2	2.28	0.49
13:CM:87:ARG:O	13:CM:89:LEU:N	2.45	0.49
19:CS:5:LEU:O	19:CS:6:LYS:CG	2.60	0.49
24:DA:1069:A:C6	24:DA:1074:G:C5	3.00	0.49
24:DA:1076:C:H2'	24:DA:1077:A:N9	2.27	0.49
1:AA:1160:G:OP1	2:AB:132:LYS:HE2	2.13	0.49
2:AB:138:THR:HG1	2:AB:139:ARG:H	1.61	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AI:78:ALA:O	9:AI:79:ILE:C	2.51	0.49
1:CA:1320:C:H5'	19:CS:70:LYS:HB3	1.94	0.49
24:BA:2685:G:C2	24:BA:2725:A:C2	3.01	0.49
4:AD:9:LEU:CG	4:AD:10:LYS:N	2.75	0.49
1:CA:373:A:H1'	1:CA:481:G:N3	2.27	0.49
1:CA:451:A:O4'	1:CA:452:A:C2	2.66	0.49
1:CA:1135:U:C2	1:CA:1137:C:O2	2.66	0.49
41:BR:79:ARG:HA	41:BR:79:ARG:CZ	2.43	0.49
1:CA:1491:G:OP1	12:CL:43:LYS:HE2	2.12	0.49
24:DA:947:A:H2'	24:DA:948:C:C6	2.48	0.49
21:AU:26:ALA:O	21:AU:27:GLY:C	2.51	0.49
26:DC:257:ARG:CG	26:DC:258:SER:N	2.74	0.49
2:AB:111:ILE:HA	2:AB:114:LEU:HD21	1.94	0.49
2:AB:114:LEU:O	2:AB:118:GLU:N	2.46	0.49
24:DA:1338:G:H2'	24:DA:1339:G:O5'	2.12	0.49
2:CB:135:LEU:O	2:CB:138:THR:N	2.46	0.49
24:DA:1721:G:N1	24:DA:1738:G:C2	2.81	0.49
3:CC:39:VAL:O	3:CC:40:ARG:C	2.51	0.49
48:BY:17:GLU:HA	48:BY:20:ASN:CB	2.41	0.49
24:DA:1792:G:C2'	24:DA:1793:C:H5'	2.42	0.49
28:BE:170:ARG:NH1	28:BE:179:SER:HG	2.08	0.49
41:BR:49:ILE:HG13	41:BR:51:VAL:O	2.12	0.49
35:DL:89:VAL:HG13	35:DL:89:VAL:O	2.13	0.49
1:CA:665:A:C2	1:CA:732:C:C4	3.01	0.49
5:CE:25:VAL:O	5:CE:26:LYS:C	2.51	0.49
24:BA:1651:G:O6	24:BA:2006:C:N3	2.46	0.49
38:BO:34:HIS:CE1	38:BO:65:THR:HB	2.48	0.49
28:DE:31:VAL:O	28:DE:34:ALA:HB3	2.13	0.49
1:AA:881:G:C4	1:AA:882:C:C6	3.01	0.49
24:BA:449:A:C2'	24:BA:450:G:O5'	2.61	0.49
24:BA:812:C:OP1	40:BQ:12:ARG:NH1	2.46	0.49
24:DA:1601:G:OP1	43:DT:62:VAL:CG2	2.61	0.49
30:BG:112:VAL:HG23	30:BG:113:ASP:N	2.27	0.49
3:AC:155:GLY:HA2	3:AC:163:ALA:CB	2.43	0.49
24:DA:1288:G:C4	24:DA:1327:A:C2	3.01	0.49
1:AA:786:G:C4	1:AA:787:A:C8	3.01	0.49
34:BK:102:PRO:HA	34:BK:121:GLU:HB3	1.95	0.49
34:BK:111:LYS:HG3	34:BK:112:PHE:CD2	2.47	0.49
1:AA:1361:G:N1	1:AA:1362:A:N7	2.60	0.49
24:DA:622:G:O2'	24:DA:623:C:H5'	2.13	0.49
24:DA:2352:A:N1	46:DW:34:GLY:HA3	2.28	0.49
24:DA:1181:U:H2'	24:DA:1182:G:H8	1.74	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1520:C:H2'	1:AA:1521:C:C6	2.48	0.49
24:DA:559:G:O2'	24:DA:560:C:H5'	2.13	0.49
3:CC:84:VAL:HG12	3:CC:101:ILE:HD11	1.94	0.49
24:BA:945:A:C5	24:BA:2448:A:C2	3.00	0.49
38:DO:8:ILE:HD12	38:DO:12:THR:CG2	2.43	0.49
1:AA:633:G:H2'	1:AA:634:C:H6	1.77	0.49
37:BN:69:ARG:O	37:BN:70:THR:HG23	2.12	0.49
24:DA:2737:G:H2'	24:DA:2738:A:C8	2.48	0.49
28:BE:149:ILE:CD1	28:BE:188:MET:HG2	2.43	0.49
24:BA:2787:C:H2'	24:BA:2788:C:C6	2.48	0.49
25:BB:116:G:C5	25:BB:117:G:N7	2.79	0.49
39:DP:112:ARG:O	39:DP:113:LEU:HB3	2.12	0.49
24:BA:2326:C:O4'	24:BA:2327:A:OP1	2.31	0.49
24:DA:1465:G:O2'	24:DA:1545:A:N1	2.41	0.49
24:DA:778:G:H5'	26:DC:47:ARG:NH1	2.27	0.49
27:BD:104:VAL:O	27:BD:105:LYS:CG	2.61	0.49
1:AA:1185:G:C5	1:AA:1186:G:N7	2.81	0.49
16:AP:21:VAL:HG21	16:AP:60:TRP:CD1	2.47	0.49
1:AA:1192:C:H5''	1:AA:1193:G:OP2	2.12	0.49
25:DB:27:C:OP2	38:DO:33:ARG:NH2	2.46	0.49
24:DA:520:G:C6	24:DA:521:U:C4	3.00	0.49
24:DA:1355:G:N2	24:DA:1377:G:H1'	2.28	0.49
20:AT:63:ALA:O	20:AT:65:GLY:N	2.46	0.49
35:DL:13:LYS:HD2	35:DL:14:LYS:N	2.27	0.49
24:DA:2518:A:N3	24:DA:2518:A:H2'	2.28	0.49
24:BA:2287:A:H2'	24:BA:2287:A:N3	2.28	0.49
24:BA:2578:G:H4'	24:BA:2578:G:OP2	2.13	0.49
33:DJ:6:ALA:HB2	33:DJ:45:THR:CG2	2.43	0.49
3:AC:87:LEU:O	3:AC:90:VAL:HG12	2.13	0.49
55:CY:33:SER:N	55:CY:34:PRO:HD3	2.27	0.49
1:AA:1337:G:H5''	1:AA:1338:G:OP1	2.13	0.49
38:BO:30:ARG:HA	38:BO:35:ILE:HA	1.95	0.49
24:BA:226:A:N6	24:BA:227:A:N6	2.61	0.49
24:BA:2418:A:O2'	24:BA:2419:U:P	2.68	0.49
1:AA:650:G:H2'	1:AA:651:C:O4'	2.13	0.49
44:DU:5:ARG:HG3	44:DU:6:ARG:O	2.12	0.49
24:DA:2003:A:H2'	24:DA:2004:G:O5'	2.13	0.49
37:DN:13:ASN:C	37:DN:15:SER:N	2.65	0.49
1:AA:602:A:C2	1:AA:637:C:O2	2.66	0.49
4:AD:99:ASP:HB2	4:AD:115:ARG:NE	2.27	0.49
5:AE:114:VAL:O	5:AE:118:ALA:CB	2.61	0.49
1:CA:738:C:OP2	6:CF:2:ARG:NH2	2.42	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1329:A:C6	1:CA:1330:U:H1'	2.47	0.49
24:BA:1740:G:H2'	24:BA:1741:C:O4'	2.12	0.49
24:BA:2483:C:O2	36:BM:123:LYS:CE	2.61	0.49
1:AA:1088:G:C4	1:AA:1089:G:C8	3.01	0.49
2:AB:99:GLY:O	2:AB:103:ASN:CB	2.61	0.49
9:AI:84:THR:OG1	9:AI:103:PHE:O	2.31	0.49
57:AA:1656:NMY:N19	57:AA:1656:NMY:C16	2.75	0.49
1:CA:986:U:H2'	1:CA:987:G:O4'	2.13	0.49
24:BA:2684:U:O4'	34:BK:70:ARG:NH1	2.45	0.49
4:AD:9:LEU:HD12	4:AD:10:LYS:H	1.76	0.49
40:DQ:39:ILE:HG21	41:DR:77:PHE:CE2	2.47	0.49
1:AA:1003:G:N2	1:AA:1037:C:O2	2.45	0.49
24:BA:2284:A:C3'	51:B1:5:ARG:HH12	2.25	0.49
20:CT:31:PHE:O	20:CT:32:ILE:C	2.51	0.49
20:CT:71:LYS:HD2	20:CT:74:ARG:HD2	1.95	0.49
1:CA:858:G:C8	1:CA:869:G:O6	2.66	0.49
24:BA:607:U:C3'	24:BA:607:U:C6	2.96	0.49
1:CA:1216:A:OP1	14:CN:2:LYS:HE2	2.13	0.49
44:BU:41:VAL:HG21	44:BU:62:ALA:HB2	1.94	0.49
24:DA:2314:A:N6	24:DA:2315:G:C6	2.80	0.49
24:DA:1858:A:N6	24:DA:1884:G:H1'	2.28	0.49
24:BA:545:U:O4	24:BA:547:A:O2'	2.30	0.49
24:DA:2446:G:C3'	24:DA:2447:G:H5''	2.42	0.49
28:BE:82:GLY:C	28:BE:84:THR:N	2.66	0.49
34:DK:111:LYS:C	34:DK:114:LYS:NZ	2.66	0.49
22:CV:64:A:H2'	22:CV:65:G:C5'	2.42	0.49
1:AA:1394:A:C8	1:AA:1394:A:O5'	2.66	0.49
24:BA:2747:G:H2'	24:BA:2748:A:C8	2.48	0.49
1:AA:664:G:H5''	18:AR:53:ARG:HH21	1.77	0.49
25:DB:98:G:N1	45:DV:14:LYS:HG2	2.28	0.49
1:CA:949:A:C2	1:CA:1233:G:C4	3.00	0.49
4:AD:188:ARG:HH22	4:AD:192:SER:CB	2.25	0.49
40:DQ:91:ARG:C	40:DQ:93:ILE:N	2.62	0.49
24:BA:1060:U:H4'	24:BA:1061:U:H5'	1.94	0.49
40:BQ:105:PHE:HA	40:BQ:108:LEU:HD12	1.95	0.49
1:CA:679:C:O2	1:CA:712:A:C2	2.66	0.49
39:DP:20:ARG:HH21	39:DP:20:ARG:CG	2.26	0.49
24:BA:1448:G:C6	24:BA:1464:G:C2	3.01	0.49
24:BA:2706:A:C6	24:BA:2707:U:C2	3.01	0.49
24:DA:1321:A:N6	24:DA:1322:A:C6	2.81	0.49
1:AA:441:A:N1	1:AA:497:G:C6	2.81	0.49
24:BA:2496:C:H2'	24:BA:2497:A:H5'	1.95	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1202:U:O4'	14:CN:69:ARG:HD2	2.13	0.49
1:AA:76:G:H2'	1:AA:77:A:O4'	2.13	0.49
1:AA:292:G:C5	1:AA:293:G:H1'	2.48	0.49
24:DA:2531:A:C2	24:DA:2532:G:C1'	2.96	0.49
2:AB:17:GLY:HA3	2:AB:41:ILE:HD13	1.95	0.49
2:CB:218:ALA:O	2:CB:221:VAL:HG13	2.13	0.49
30:BG:121:THR:CG2	30:BG:122:ALA:N	2.76	0.49
24:DA:1309:G:H4'	52:D2:7:PRO:HG2	1.95	0.49
34:BK:76:VAL:HG12	39:BP:72:VAL:HG23	1.94	0.49
24:BA:1419:A:C5	24:BA:1579:A:N1	2.81	0.49
1:AA:445:G:N1	1:AA:446:G:C4	2.81	0.49
1:CA:606:G:C4	1:CA:633:G:O6	2.66	0.49
26:DC:230:PRO:HD2	26:DC:246:PRO:HA	1.95	0.49
38:DO:51:ALA:HB1	38:DO:78:VAL:HG22	1.95	0.49
11:AK:128:ARG:C	11:AK:129:VAL:CG2	2.81	0.49
26:BC:29:PHE:CD2	26:BC:81:GLU:OE2	2.66	0.49
26:BC:90:ILE:HD13	26:BC:102:TYR:HE1	1.78	0.49
1:AA:425:G:C5	1:AA:426:U:C5	3.01	0.49
24:BA:1906:G:H2'	24:BA:1907:G:C5'	2.41	0.49
22:CV:1:G:H4'	24:DA:2423:U:C2	2.47	0.49
24:BA:1071:G:H2'	24:BA:1072:C:H5'	1.95	0.49
24:BA:218:A:C6	24:BA:219:A:C5	3.00	0.49
29:DF:147:ARG:CG	29:DF:148:VAL:H	2.26	0.49
34:DK:14:SER:HA	34:DK:51:LYS:HZ2	1.76	0.49
44:DU:17:ASP:O	44:DU:18:LYS:C	2.51	0.49
1:AA:121:U:HO2'	1:AA:122:G:P	2.36	0.49
24:DA:1433:A:C2'	24:DA:1434:A:O5'	2.61	0.49
4:AD:44:ARG:O	4:AD:46:PRO:N	2.45	0.49
24:DA:1750:G:H2'	24:DA:2860:A:C2	2.48	0.49
31:DH:66:ASN:O	31:DH:69:ALA:HB3	2.13	0.49
49:DZ:41:PRO:O	49:DZ:45:GLY:N	2.31	0.49
24:DA:1219:U:H2'	24:DA:1220:G:C8	2.47	0.49
1:CA:892:A:O2'	1:CA:1415:G:H4'	2.13	0.49
24:DA:90:U:C4	24:DA:91:A:C5	3.01	0.49
4:CD:124:MET:SD	4:CD:146:ARG:HA	2.53	0.49
26:BC:136:VAL:CG1	26:BC:165:ALA:HA	2.43	0.49
19:AS:50:ALA:HA	19:AS:59:PRO:HA	1.93	0.49
22:AV:19:G:O2'	22:AV:20:U:OP1	2.27	0.49
26:DC:113:ASP:OD1	26:DC:113:ASP:N	2.46	0.49
1:CA:1286:U:O2	1:CA:1286:U:C2'	2.60	0.49
15:AO:53:ARG:O	15:AO:56:LEU:N	2.46	0.49
24:DA:2790:U:H5'	24:DA:2893:A:N7	2.28	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:CY:27:ILE:HD12	55:CY:27:ILE:C	2.33	0.49
1:AA:1343:G:H2'	1:AA:1344:C:C6	2.48	0.48
38:BO:7:ARG:CD	38:BO:97:PHE:CZ	2.96	0.48
53:D3:34:LYS:HG3	53:D3:34:LYS:O	2.13	0.48
24:BA:1874:C:C4	24:BA:1875:G:C6	3.01	0.48
8:AH:10:MET:HE1	8:AH:36:ILE:HD11	1.94	0.48
1:AA:266:G:H1'	1:AA:268:U:OP2	2.13	0.48
11:CK:47:ALA:C	11:CK:57:LYS:HE2	2.32	0.48
1:AA:400:C:C2'	1:AA:401:C:H5'	2.43	0.48
1:AA:543:U:H5''	4:AD:14:ARG:NH1	2.28	0.48
1:AA:558:G:OP1	59:AA:1729:HOH:O	2.20	0.48
1:AA:597:G:C2	1:AA:598:U:H1'	2.49	0.48
4:AD:124:MET:SD	4:AD:127:GLY:CA	3.01	0.48
4:AD:146:ARG:O	4:AD:148:LYS:N	2.46	0.48
4:AD:171:LEU:HD12	4:AD:172:GLU:N	2.27	0.48
31:DH:90:LEU:CB	31:DH:92:GLY:O	2.61	0.48
20:AT:3:ASN:CG	20:AT:4:ILE:N	2.66	0.48
4:CD:9:LEU:CD1	4:CD:10:LYS:H	2.25	0.48
1:CA:667:G:H2'	15:CO:49:ASP:OD2	2.12	0.48
1:AA:1088:G:C5	1:AA:1089:G:N7	2.81	0.48
1:CA:1320:C:H5	1:CA:1321:U:N3	2.11	0.48
57:DA:3188:NMY:H4	57:DA:3188:NMY:HN61	1.49	0.48
55:CY:159:ASP:O	55:CY:162:LYS:HB2	2.13	0.48
24:BA:2119:A:N7	24:BA:2170:A:C6	2.81	0.48
24:BA:2117:A:N1	24:BA:2171:A:N1	2.61	0.48
24:BA:1205:A:N1	28:BE:165:HIS:CE1	2.81	0.48
24:BA:347:A:C2	24:BA:348:A:C5	3.01	0.48
9:CI:81:HIS:HB3	9:CI:85:ARG:CZ	2.43	0.48
1:AA:1004:A:O2'	1:AA:1036:A:N1	2.32	0.48
15:CO:10:LYS:O	15:CO:11:ILE:C	2.51	0.48
24:DA:2201:G:C2'	24:DA:2202:U:O5'	2.61	0.48
24:DA:1866:A:C2	24:DA:1876:A:C8	3.01	0.48
24:BA:63:A:C2	24:BA:64:A:C5	3.01	0.48
1:CA:920:U:O4'	1:CA:1080:A:C2	2.66	0.48
1:AA:1471:U:O2'	1:AA:1472:U:H5'	2.13	0.48
14:AN:3:GLN:OE1	14:AN:3:GLN:CA	2.60	0.48
25:BB:2:G:N3	25:BB:2:G:H2'	2.27	0.48
1:AA:874:G:C6	1:AA:875:U:C5	3.01	0.48
1:AA:872:A:C5	1:AA:874:G:C8	3.01	0.48
2:AB:111:ILE:HA	2:AB:114:LEU:HD23	1.95	0.48
2:AB:111:ILE:O	2:AB:114:LEU:HD23	2.13	0.48
1:AA:207:C:O2	1:AA:207:C:C2'	2.59	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:CY:83:MET:HE3	55:CY:91:PRO:HD2	1.95	0.48
1:AA:908:A:C2	1:AA:909:A:C4	3.00	0.48
24:DA:997:G:OP1	40:DQ:91:ARG:CG	2.60	0.48
2:CB:15:HIS:C	2:CB:16:PHE:CG	2.86	0.48
31:DH:5:LEU:HD11	31:DH:15:LEU:N	2.28	0.48
24:DA:734:A:H2'	24:DA:735:A:C5'	2.40	0.48
24:DA:2276:G:OP2	36:DM:83:GLY:O	2.30	0.48
24:DA:910:A:C6	24:DA:911:A:N6	2.81	0.48
28:BE:138:LEU:O	28:BE:141:MET:N	2.46	0.48
26:DC:114:GLN:O	26:DC:124:LYS:HE3	2.13	0.48
24:BA:933:A:H5'	24:BA:934:U:OP2	2.12	0.48
24:BA:748:G:O2'	24:BA:749:A:H5''	2.13	0.48
31:DH:31:VAL:HG12	31:DH:32:PRO:HD3	1.95	0.48
1:AA:295:C:N3	1:AA:303:A:C2	2.81	0.48
24:BA:447:A:N3	24:BA:473:G:C8	2.81	0.48
25:BB:66:A:C4	25:BB:108:A:C6	3.01	0.48
39:BP:96:LEU:C	39:BP:98:TYR:N	2.65	0.48
24:BA:144:A:C6	24:BA:145:C:C4	3.00	0.48
24:DA:2604:U:C4	24:DA:2605:U:C5	3.00	0.48
1:AA:1010:U:C4	1:AA:1020:G:N2	2.81	0.48
1:CA:6:G:H4'	1:CA:298:A:H4'	1.94	0.48
1:AA:797:C:O2'	1:AA:798:U:H5'	2.13	0.48
1:CA:632:U:OP1	1:CA:633:G:N7	2.46	0.48
24:DA:1979:U:C2'	24:DA:1980:G:H5'	2.43	0.48
26:DC:104:LEU:N	26:DC:104:LEU:HD13	2.25	0.48
35:BL:42:SER:O	35:BL:43:GLY:C	2.51	0.48
24:DA:1027:A:C6	24:DA:1126:A:N3	2.81	0.48
12:AL:34:CYS:CA	12:AL:55:VAL:HG23	2.43	0.48
24:BA:1953:A:C2	24:BA:2549:G:N3	2.78	0.48
24:BA:2598:A:C8	24:BA:2599:G:H1'	2.48	0.48
5:CE:69:ARG:O	5:CE:71:MET:N	2.46	0.48
24:BA:2776:A:O4'	24:BA:2778:A:C8	2.66	0.48
1:CA:1452:C:O4'	1:CA:1453:G:C2	2.66	0.48
24:BA:2811:G:H5'	27:BD:63:PRO:CG	2.43	0.48
48:DY:40:SER:O	48:DY:42:LEU:N	2.45	0.48
24:BA:877:A:O2'	24:BA:900:A:N6	2.46	0.48
1:CA:292:G:N7	1:CA:293:G:H1'	2.28	0.48
3:CC:63:SER:HB2	3:CC:98:PRO:O	2.12	0.48
24:BA:1794:A:H1'	24:BA:1900:A:C2	2.48	0.48
24:BA:751:A:N6	24:BA:789:A:C6	2.81	0.48
28:BE:153:LEU:O	28:BE:155:GLU:N	2.46	0.48
5:CE:106:ILE:HG13	5:CE:124:LEU:CB	2.43	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DM:26:VAL:HG13	36:DM:26:VAL:O	2.13	0.48
12:AL:57:LEU:HD23	12:AL:59:ASN:N	2.28	0.48
31:DH:4:ILE:HG22	31:DH:18:GLN:CB	2.43	0.48
30:DG:15:ASP:HB3	30:DG:26:LYS:HB3	1.95	0.48
31:BH:88:GLY:HA2	31:BH:125:THR:CG2	2.43	0.48
1:CA:1460:C:H2'	1:CA:1461:G:O4'	2.12	0.48
24:BA:1672:A:N6	24:BA:1673:G:C6	2.81	0.48
24:BA:1300:G:C5	24:BA:1634:A:O4'	2.66	0.48
7:AG:63:GLU:O	7:AG:63:GLU:CD	2.51	0.48
4:AD:140:ASN:O	4:AD:141:ASP:HB3	2.12	0.48
24:BA:1989:G:H2'	24:BA:1990:C:O4'	2.12	0.48
32:DI:94:LYS:HG3	32:DI:95:ASP:N	2.28	0.48
1:AA:1489:G:O2'	1:AA:1490:U:H5'	2.12	0.48
24:DA:1838:C:H4'	24:DA:1839:G:C8	2.48	0.48
13:AM:96:PRO:CG	13:AM:102:THR:HG22	2.42	0.48
25:BB:45:A:H2	25:BB:46:A:H1'	1.78	0.48
53:D3:30:HIS:O	53:D3:31:ILE:HG13	2.13	0.48
53:B3:28:LEU:CD1	53:B3:40:LYS:HG2	2.44	0.48
11:CK:44:TRP:CD1	11:CK:44:TRP:N	2.80	0.48
1:AA:356:A:H2	1:AA:368:U:O2	1.96	0.48
1:AA:392:C:H2'	1:AA:392:C:O2	2.13	0.48
1:AA:6:G:O6	5:AE:99:ALA:HB1	2.13	0.48
16:AP:3:THR:HG22	16:AP:4:ILE:O	2.13	0.48
4:CD:169:THR:HG22	4:CD:169:THR:O	2.12	0.48
4:CD:4:TYR:O	4:CD:5:LEU:CB	2.60	0.48
1:AA:686:U:H1'	1:AA:687:A:C8	2.49	0.48
14:AN:72:GLY:O	14:AN:80:SER:HA	2.13	0.48
1:CA:1306:A:N7	1:CA:1307:U:C4	2.81	0.48
24:DA:1494:A:C8	24:DA:1495:A:N7	2.81	0.48
4:AD:161:LEU:HD23	4:AD:161:LEU:O	2.13	0.48
11:CK:35:THR:HG23	11:CK:36:ASP:H	1.76	0.48
24:BA:2428:G:H4'	24:BA:2429:G:O5'	2.13	0.48
35:BL:38:GLN:O	35:BL:41:ARG:HG3	2.12	0.48
24:BA:573:U:O2'	24:BA:574:A:H3'	2.13	0.48
9:AI:89:GLU:O	9:AI:94:LEU:CD1	2.61	0.48
1:AA:131:A:H2'	1:AA:131:A:N3	2.28	0.48
26:DC:51:ARG:HD2	26:DC:51:ARG:H	1.78	0.48
57:BA:3165:NMY:N23	57:BA:3165:NMY:N19	2.60	0.48
24:DA:1362:C:H3'	24:DA:1362:C:C6	2.49	0.48
24:DA:834:G:O2'	24:DA:2358:A:O2'	2.04	0.48
1:AA:1004:A:C6	1:AA:1005:A:C6	3.01	0.48
27:DD:13:ARG:HD2	27:DD:15:PHE:CZ	2.49	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BE:101:TYR:O	28:BE:104:ALA:HB3	2.13	0.48
14:CN:81:ARG:O	14:CN:82:ILE:C	2.51	0.48
1:CA:1086:U:OP1	1:CA:1086:U:H4'	2.13	0.48
24:BA:2302:U:C2'	24:BA:2303:G:H5''	2.42	0.48
1:AA:1411:C:H2'	1:AA:1412:C:O5'	2.13	0.48
24:BA:2280:G:C6	24:BA:2281:A:N7	2.81	0.48
43:BT:17:SER:O	43:BT:18:GLU:C	2.50	0.48
2:AB:111:ILE:O	2:AB:112:LYS:C	2.52	0.48
1:CA:844:G:N3	1:CA:845:A:C8	2.81	0.48
24:BA:2157:G:O2'	24:BA:2158:A:O5'	2.29	0.48
55:CY:78:VAL:HA	55:CY:81:ALA:HB3	1.95	0.48
26:BC:186:ASP:N	26:BC:186:ASP:OD1	2.46	0.48
1:AA:664:G:P	18:AR:53:ARG:HH21	2.30	0.48
24:DA:118:A:N3	24:DA:178:G:H1'	2.29	0.48
24:BA:1061:U:H1'	24:BA:1070:A:OP1	2.13	0.48
40:BQ:108:LEU:O	40:BQ:111:LYS:N	2.46	0.48
24:BA:518:G:H4'	42:BS:18:ARG:CZ	2.43	0.48
28:DE:74:LYS:O	28:DE:75:SER:C	2.50	0.48
33:BJ:18:VAL:HG13	33:BJ:56:VAL:HG12	1.95	0.48
1:AA:564:C:H5'	17:AQ:34:TYR:HE1	1.78	0.48
24:DA:415:A:N1	24:DA:2409:G:C6	2.81	0.48
1:AA:293:G:C6	1:AA:294:U:C5	3.01	0.48
24:DA:2531:A:O4'	30:DG:173:ALA:HB2	2.13	0.48
27:DD:38:LYS:O	27:DD:46:ARG:HA	2.13	0.48
24:DA:1500:G:H2'	24:DA:1501:G:H5'	1.94	0.48
24:BA:1419:A:C3'	24:BA:1420:A:H5''	2.43	0.48
26:DC:22:GLU:HG2	26:DC:22:GLU:O	2.13	0.48
24:BA:2061:G:H5'	24:BA:2503:A:C2	2.48	0.48
2:AB:80:VAL:HG13	2:AB:80:VAL:O	2.12	0.48
18:CR:48:ARG:CG	18:CR:51:TYR:HB2	2.41	0.48
55:CY:20:PHE:HA	55:CY:23:GLN:HG2	1.95	0.48
50:B0:40:HIS:HA	50:B0:48:TYR:HE1	1.77	0.48
34:BK:68:GLY:HA3	34:BK:77:ILE:O	2.13	0.48
24:DA:2122:U:O2'	24:DA:2123:G:O5'	2.31	0.48
55:CY:61:ASP:OD1	55:CY:64:THR:HG22	2.14	0.48
1:AA:946:A:C6	1:AA:947:G:C6	3.01	0.48
3:CC:88:ARG:HG3	3:CC:101:ILE:HG23	1.96	0.48
45:BV:77:VAL:O	45:BV:77:VAL:CG1	2.62	0.48
24:DA:1022:G:O6	33:DJ:68:LYS:HE3	2.13	0.48
1:CA:149:A:H1'	1:CA:1446:A:C2	2.49	0.48
24:DA:239:C:H1'	24:DA:259:G:N2	2.28	0.48
3:CC:174:PRO:HG2	3:CC:203:PHE:CZ	2.48	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1192:G:C2'	24:BA:1193:G:H5'	2.43	0.48
24:BA:1710:G:N2	24:BA:1749:A:N3	2.62	0.48
1:CA:1002:G:N2	1:CA:1039:G:C2	2.82	0.48
24:DA:945:A:C8	24:DA:2448:A:C2	3.01	0.48
55:CY:7:LYS:O	55:CY:10:GLU:N	2.45	0.48
26:BC:166:ARG:CG	26:BC:166:ARG:O	2.61	0.48
24:BA:221:A:C4	24:BA:266:G:N7	2.81	0.48
1:AA:1192:C:C5'	1:AA:1193:G:OP2	2.61	0.48
22:AV:21:A:H8	22:AV:21:A:OP2	1.97	0.48
4:CD:123:ILE:HG22	4:CD:124:MET:N	2.27	0.48
28:BE:177:PRO:O	28:BE:181:ILE:HD12	2.13	0.48
3:AC:113:ALA:CB	3:AC:183:ASP:HB3	2.43	0.48
24:BA:1153:C:N4	24:BA:1154:G:C6	2.81	0.48
25:DB:7:G:H5''	38:DO:29:HIS:CD2	2.48	0.48
24:BA:993:G:H2'	24:BA:994:C:O5'	2.14	0.48
41:BR:68:ARG:HG2	41:BR:92:TRP:CE3	2.48	0.48
44:DU:84:PHE:CG	44:DU:85:ARG:N	2.74	0.48
13:AM:84:GLY:O	13:AM:85:CYS:SG	2.67	0.48
24:BA:414:C:H2'	24:BA:415:A:C8	2.48	0.48
47:BX:31:ASN:O	47:BX:33:HIS:NE2	2.45	0.48
1:AA:648:A:N6	1:AA:649:A:C6	2.81	0.48
1:CA:688:G:C2	1:CA:700:G:C8	3.01	0.48
1:AA:32:A:C2'	1:AA:33:A:O5'	2.60	0.48
1:AA:502:A:OP1	12:AL:115:SER:N	2.46	0.48
1:AA:541:G:H2'	1:AA:542:G:O4'	2.14	0.48
1:AA:622:A:N7	1:AA:623:C:C6	2.81	0.48
4:AD:62:ARG:HG3	4:AD:72:PHE:CE1	2.48	0.48
12:AL:121:ARG:O	12:AL:122:PRO:O	2.32	0.48
1:CA:429:U:C4'	4:CD:9:LEU:HD23	2.31	0.48
1:CA:762:U:O2	1:CA:762:U:H2'	2.14	0.48
15:CO:62:GLN:O	15:CO:63:ARG:C	2.50	0.48
4:AD:158:ALA:HA	4:AD:161:LEU:CD2	2.43	0.48
1:AA:1090:U:H2'	1:AA:1090:U:O2	2.14	0.48
2:AB:164:ILE:HG12	2:AB:165:ASP:N	2.28	0.48
1:AA:186:C:H4'	20:AT:76:LYS:HG3	1.96	0.48
1:CA:1225:A:H3'	13:CM:102:THR:HG21	1.95	0.48
1:CA:1320:C:C4	19:CS:36:ARG:NE	2.81	0.48
19:CS:16:LEU:HD12	19:CS:19:VAL:HG12	1.95	0.48
1:CA:613:C:O2'	1:CA:614:C:H5'	2.14	0.48
24:BA:2730:C:C5	57:BA:3165:NMY:O20	2.64	0.48
24:BA:528:A:H2	24:BA:2043:C:C4'	2.26	0.48
16:CP:40:ASN:O	16:CP:43:ALA:N	2.47	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:19:VAL:HG22	9:CI:65:ILE:HG12	1.96	0.48
51:B1:4:ILE:O	51:B1:5:ARG:C	2.52	0.48
1:CA:109:A:H3'	1:CA:110:C:H5'	1.94	0.48
1:CA:490:C:C2	1:CA:491:G:C8	3.01	0.48
24:BA:611:C:O2'	24:BA:612:G:H5'	2.13	0.48
1:AA:1304:G:N2	1:AA:1334:G:O6	2.45	0.48
13:AM:34:LEU:HD22	13:AM:39:ILE:HG12	1.94	0.48
10:CJ:6:ILE:O	10:CJ:76:ILE:CG2	2.61	0.48
1:AA:1048:G:O3'	14:AN:2:LYS:NZ	2.47	0.48
14:AN:3:GLN:O	14:AN:6:LYS:HG2	2.12	0.48
1:AA:1434:A:H2'	1:AA:1435:G:O4'	2.14	0.48
24:DA:2228:G:OP1	26:DC:260:LYS:CE	2.61	0.48
1:CA:932:C:O2	1:CA:932:C:H2'	2.12	0.48
1:AA:211:G:O2'	1:AA:212:G:OP1	2.28	0.48
1:AA:217:C:O2'	1:AA:470:C:H1'	2.13	0.48
24:DA:190:A:H3'	24:DA:204:A:N6	2.28	0.48
27:BD:180:VAL:CG2	27:BD:180:VAL:O	2.61	0.48
39:BP:112:ARG:O	39:BP:113:LEU:HD23	2.13	0.48
8:CH:29:SER:CB	8:CH:57:PRO:CB	2.91	0.48
8:CH:29:SER:OG	8:CH:57:PRO:CB	2.61	0.48
24:DA:1191:G:C2'	24:DA:1192:G:H5'	2.43	0.48
24:BA:2473:U:H5'	24:BA:2475:C:N4	2.29	0.48
24:BA:1171:G:C6	24:BA:1172:C:N4	2.82	0.48
6:AF:37:HIS:CE1	6:AF:96:VAL:O	2.66	0.48
1:AA:1446:A:N1	1:AA:1447:A:C5	2.82	0.48
24:BA:2668:G:C2	24:BA:2669:G:N9	2.81	0.48
24:DA:1666:G:C3'	34:DK:6:THR:HG22	2.43	0.48
27:BD:33:ARG:CG	27:BD:33:ARG:O	2.61	0.48
22:AV:36:A:C2	23:AX:14:U:O2	2.67	0.48
1:AA:495:A:C2	1:AA:496:A:C6	3.01	0.48
24:DA:910:A:N6	24:DA:911:A:N6	2.61	0.48
36:DM:13:HIS:O	36:DM:14:LYS:C	2.51	0.48
28:BE:136:GLN:O	28:BE:137:LYS:C	2.51	0.48
41:DR:16:GLU:HG2	41:DR:101:ILE:HG23	1.95	0.48
24:BA:849:A:H2'	24:BA:850:U:C6	2.48	0.48
40:BQ:39:ILE:O	40:BQ:43:GLN:HG3	2.14	0.48
29:BF:138:PRO:O	29:BF:139:GLU:C	2.50	0.48
24:BA:240:C:H1'	24:BA:258:G:N2	2.28	0.48
30:BG:122:ALA:HB2	30:BG:132:LEU:HB3	1.94	0.48
30:BG:122:ALA:CB	30:BG:132:LEU:HB3	2.43	0.48
1:AA:1314:C:OP2	19:AS:6:LYS:CD	2.60	0.48
54:B4:25:VAL:HG11	54:B4:35:GLN:OE1	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1794:A:H2'	24:DA:1795:C:C6	2.49	0.48
26:BC:24:HIS:HB3	26:BC:81:GLU:HG2	1.95	0.48
11:CK:94:GLU:O	11:CK:95:SER:C	2.52	0.48
1:AA:88:U:C4	1:AA:89:U:O4	2.66	0.48
3:CC:72:ARG:C	3:CC:74:GLY:H	2.16	0.48
24:BA:45:G:H5''	24:BA:46:G:H5'	1.94	0.48
24:BA:2798:U:H4'	24:BA:2799:A:H5'	1.96	0.48
11:CK:17:SER:HA	11:CK:79:ILE:HA	1.94	0.48
11:CK:81:ASN:HB3	11:CK:106:ARG:CZ	2.43	0.48
24:DA:597:G:C2	24:DA:661:A:C2	3.01	0.48
7:CG:17:LYS:N	7:CG:44:TYR:OH	2.45	0.48
45:DV:83:LYS:O	45:DV:85:LYS:N	2.46	0.48
6:AF:51:ILE:O	6:AF:52:ASN:HB2	2.12	0.48
24:DA:754:U:C2	24:DA:755:U:C5	3.02	0.48
1:CA:1040:U:H2'	1:CA:1041:G:C8	2.48	0.48
31:BH:7:ASP:O	31:BH:13:GLY:O	2.31	0.48
24:BA:2325:G:N1	24:BA:2326:C:N4	2.62	0.48
7:AG:113:ASP:OD2	7:AG:122:ASN:ND2	2.46	0.48
24:DA:120:U:H4'	24:DA:121:G:C5'	2.43	0.48
1:AA:380:G:C2	1:AA:384:G:C6	3.01	0.48
24:BA:2101:A:C2	24:BA:2102:G:N7	2.81	0.48
1:AA:840:C:H3'	1:AA:841:C:C5'	2.43	0.48
1:CA:1449:C:C4	1:CA:1450:U:C5	3.01	0.48
27:BD:29:VAL:N	27:BD:185:ASN:O	2.46	0.48
53:B3:34:LYS:CE	53:B3:34:LYS:O	2.61	0.48
50:D0:5:ASN:O	50:D0:7:PRO:HD3	2.12	0.48
24:BA:2363:G:C2	24:BA:2364:C:C5	3.01	0.48
3:AC:145:GLY:O	3:AC:146:ALA:O	2.30	0.48
6:AF:8:PHE:CZ	6:AF:60:VAL:HG21	2.49	0.48
38:DO:7:ARG:HA	38:DO:10:ARG:CZ	2.43	0.48
10:CJ:96:VAL:O	10:CJ:96:VAL:HG13	2.13	0.48
29:BF:96:TRP:CH2	29:BF:99:PHE:CZ	3.01	0.48
1:AA:986:U:O2	1:AA:1220:G:N2	2.47	0.48
24:BA:2231:U:C2	24:BA:2232:C:C6	3.01	0.48
11:CK:52:PHE:HA	11:CK:56:ARG:CZ	2.44	0.48
4:AD:68:LEU:O	4:AD:71:GLN:HB2	2.13	0.48
31:DH:87:GLU:CD	31:DH:88:GLY:H	2.17	0.48
1:CA:543:U:O2'	1:CA:544:G:H5'	2.14	0.48
1:AA:675:A:C4	1:AA:676:A:C8	3.01	0.48
11:AK:125:LYS:O	21:AU:34:ARG:CZ	2.60	0.48
24:BA:84:A:C2	24:BA:103:A:C5	3.01	0.48
1:CA:1302:C:C5	13:CM:17:ILE:HG21	2.48	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1087:G:N2	24:DA:1103:A:C4	2.82	0.48
1:AA:1074:G:O3'	2:AB:102:THR:CG2	2.61	0.48
24:BA:2357:G:C2	24:BA:2361:G:C6	3.01	0.48
24:BA:675:A:OP1	28:BE:58:LYS:NZ	2.42	0.48
19:CS:55:ARG:HD3	19:CS:55:ARG:N	2.29	0.48
17:AQ:12:VAL:C	17:AQ:13:VAL:HG23	2.33	0.48
17:AQ:14:SER:HB3	17:AQ:22:VAL:HG12	1.95	0.48
24:BA:1205:A:C5	28:BE:165:HIS:CE1	3.02	0.48
4:CD:185:LYS:O	4:CD:186:PRO:C	2.52	0.48
24:DA:1252:G:C2	24:DA:1253:A:C2	3.01	0.48
1:CA:451:A:C2	1:CA:480:U:C5	3.01	0.48
16:CP:67:ILE:HG22	16:CP:71:VAL:HG21	1.94	0.48
9:CI:39:PHE:CE1	9:CI:44:ALA:O	2.66	0.48
24:BA:278:A:C6	24:BA:362:A:C8	3.01	0.48
7:CG:146:GLU:HA	7:CG:149:LYS:HB3	1.95	0.48
24:DA:761:A:OP1	59:DA:3695:HOH:O	2.20	0.48
1:CA:261:U:OP2	20:CT:71:LYS:CE	2.61	0.48
24:BA:623:C:C2	24:BA:624:C:C5	3.01	0.48
24:DA:2330:G:C3'	46:DW:44:LYS:HZ2	2.27	0.48
21:CU:11:PRO:O	21:CU:12:PHE:HB3	2.12	0.48
24:BA:2531:A:C4	24:BA:2532:G:C8	3.01	0.48
4:CD:19:LEU:C	4:CD:19:LEU:HD23	2.33	0.48
24:BA:459:U:P	52:B2:39:ARG:CZ	3.01	0.48
37:BN:32:GLU:HA	37:BN:115:LEU:HD13	1.95	0.48
24:BA:1278:C:O3'	37:BN:34:ILE:HD12	2.13	0.48
24:BA:2756:U:O4'	24:BA:2757:A:H5''	2.14	0.48
24:BA:714:U:H2'	24:BA:716:A:N7	2.28	0.48
42:DS:25:ARG:NH1	42:DS:74:ILE:HG23	2.28	0.48
27:BD:55:LYS:HB2	27:BD:76:GLY:O	2.12	0.48
1:AA:282:A:N7	1:AA:283:U:C5	2.81	0.48
1:CA:349:A:O2'	1:CA:350:G:H5'	2.13	0.48
37:BN:37:THR:HG22	37:BN:39:PRO:N	2.28	0.48
26:DC:122:ALA:HB3	26:DC:127:ASN:OD1	2.13	0.48
24:BA:1342:A:C6	24:BA:1345:C:C2	3.01	0.48
8:CH:63:LEU:HD13	8:CH:65:TYR:CD2	2.49	0.48
24:BA:2820:A:O2'	24:BA:2821:A:OP2	2.30	0.48
1:CA:1192:C:H2'	1:CA:1193:G:O5'	2.13	0.48
17:CQ:12:VAL:O	17:CQ:13:VAL:HB	2.13	0.48
24:BA:812:C:H4'	40:BQ:12:ARG:NH1	2.24	0.48
16:CP:21:VAL:O	16:CP:33:ILE:CD1	2.62	0.48
24:BA:1163:G:N1	24:BA:1164:C:C5	2.81	0.48
1:AA:1012:A:N6	1:AA:1013:G:C6	2.82	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:66:A:C6	1:CA:67:C:C5	3.01	0.48
26:DC:20:ASN:CB	26:DC:23:LEU:HD11	2.44	0.48
14:AN:41:ARG:O	14:AN:42:TRP:O	2.31	0.48
1:CA:607:A:C2	1:CA:608:A:N9	2.81	0.48
24:DA:463:G:N1	24:DA:467:G:C6	2.81	0.48
44:BU:21:ARG:NH1	44:BU:72:PHE:CD2	2.82	0.48
44:DU:98:ASN:OD1	44:DU:98:ASN:O	2.30	0.48
1:CA:1105:A:C2	1:CA:1106:G:C5	3.02	0.48
24:DA:2286:G:P	51:D1:29:LYS:CE	3.01	0.48
1:AA:946:A:C4	1:AA:1236:A:C2	3.01	0.48
24:DA:2080:A:OP1	47:DX:19:HIS:CD2	2.66	0.48
24:BA:2519:U:C6	24:BA:2542:A:C6	3.02	0.48
1:CA:27:G:C5	1:CA:557:G:N2	2.81	0.48
38:DO:8:ILE:CD1	38:DO:12:THR:CG2	2.91	0.48
1:AA:1275:A:N6	1:AA:1276:G:C6	2.80	0.48
24:DA:1986:C:H2'	24:DA:1987:A:O5'	2.13	0.48
1:AA:125:U:C2	1:AA:126:G:C8	3.01	0.48
17:CQ:58:VAL:CG1	17:CQ:80:GLU:HG3	2.43	0.48
39:BP:57:ALA:HB2	39:BP:74:GLN:OE1	2.14	0.48
24:DA:945:A:C4	24:DA:2448:A:N3	2.81	0.48
24:DA:729:G:H4'	24:DA:763:G:C5'	2.44	0.48
24:DA:1535:A:H4'	24:DA:1536:C:OP2	2.14	0.48
24:BA:1717:A:N6	24:BA:1743:G:O2'	2.46	0.48
4:CD:56:ARG:CZ	4:CD:60:LYS:CE	2.91	0.48
29:BF:12:VAL:HG23	29:BF:13:LYS:N	2.28	0.48
1:CA:767:A:H2'	1:CA:768:A:O4'	2.12	0.48
15:AO:56:LEU:O	15:AO:60:VAL:HG23	2.13	0.48
17:AQ:63:GLU:O	17:AQ:64:CYS:HB3	2.14	0.48
1:CA:1533:C:C5'	1:CA:1534:A:OP1	2.61	0.48
55:CY:58:THR:OG1	55:CY:59:VAL:N	2.46	0.48
3:AC:152:GLU:O	3:AC:198:VAL:HA	2.13	0.48
24:BA:292:U:H2'	24:BA:293:U:C6	2.49	0.48
24:BA:2134:A:N1	24:BA:2135:A:C4	2.81	0.48
50:D0:12:ARG:O	50:D0:16:ARG:HD2	2.13	0.48
10:AJ:84:VAL:HG23	10:AJ:85:ASP:N	2.27	0.48
1:AA:1041:G:C6	1:AA:1042:A:N7	2.81	0.48
38:DO:93:ASP:O	38:DO:95:SER:N	2.45	0.48
24:BA:2424:C:C3'	24:BA:2424:C:C6	2.96	0.48
34:DK:7:MET:SD	34:DK:20:MET:HB2	2.54	0.48
24:DA:1048:A:C6	24:DA:1049:C:C4	3.01	0.48
24:BA:2063:C:O2	24:BA:2450:A:N1	2.46	0.48
48:BY:37:LEU:HD11	48:BY:39:GLN:HB2	1.95	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:42:PRO:HD3	12:AL:48:ALA:O	2.13	0.48
24:BA:1223:G:P	41:BR:68:ARG:HH12	2.36	0.48
1:AA:1376:U:H2'	1:AA:1376:U:O2	2.12	0.48
24:BA:2392:A:H5''	53:B3:27:ASN:OD1	2.13	0.48
24:BA:398:C:P	47:BX:31:ASN:HD21	2.36	0.48
1:CA:690:G:C2'	1:CA:691:G:O4'	2.49	0.48
4:AD:118:VAL:O	4:AD:131:ASN:HA	2.13	0.48
11:AK:35:THR:CB	11:AK:39:GLY:O	2.61	0.48
1:AA:1061:G:OP2	3:AC:3:GLN:CD	2.52	0.48
32:DI:124:MET:O	32:DI:127:SER:N	2.37	0.48
24:DA:1418:G:N1	24:DA:1579:A:OP2	2.40	0.48
1:AA:167:A:N1	1:AA:168:G:C5	2.81	0.48
10:AJ:74:VAL:HG12	10:AJ:75:ASP:N	2.28	0.48
20:AT:75:HIS:O	20:AT:76:LYS:C	2.52	0.48
20:AT:80:THR:HA	20:AT:83:ILE:HG23	1.95	0.48
1:AA:927:G:N2	1:AA:1391:U:H1'	2.27	0.48
1:CA:1014:A:H5'	19:CS:14:HIS:CE1	2.48	0.48
19:CS:50:ALA:HB1	19:CS:57:HIS:CD2	2.49	0.48
1:CA:626:G:H2'	1:CA:627:G:H8	1.79	0.48
6:CF:81:ASN:O	6:CF:82:ASP:C	2.51	0.48
1:CA:1124:G:H4'	10:CJ:37:ARG:O	2.13	0.48
1:CA:1154:G:N1	1:CA:1155:A:C5	2.81	0.48
9:CI:44:ALA:HA	9:CI:47:VAL:CG2	2.44	0.48
1:CA:1526:G:OP2	21:CU:39:GLU:HB2	2.12	0.48
4:CD:200:ILE:O	4:CD:201:VAL:C	2.52	0.48
24:BA:2021:C:OP1	50:B0:8:THR:HG21	2.14	0.48
24:BA:1295:C:C2	24:BA:1296:G:C8	3.01	0.48
24:DA:732:C:H3'	24:DA:733:G:C8	2.48	0.48
20:CT:32:ILE:O	20:CT:34:LYS:N	2.43	0.48
24:BA:584:C:H2'	24:BA:585:G:O5'	2.13	0.48
1:CA:1049:U:O2'	1:CA:1050:G:P	2.72	0.48
24:DA:983:A:C6	24:DA:984:A:N1	2.81	0.48
1:CA:1073:U:H2'	1:CA:1074:G:O4'	2.13	0.48
55:CY:164:THR:O	55:CY:165:ASP:C	2.47	0.48
38:DO:111:ARG:C	38:DO:113:ALA:N	2.67	0.48
1:CA:1353:G:C6	1:CA:1370:G:N2	2.81	0.48
1:CA:212:G:N3	1:CA:212:G:H2'	2.28	0.48
24:BA:545:U:C5	24:BA:547:A:O3'	2.66	0.48
24:BA:547:A:O5'	24:BA:548:G:C6	2.66	0.48
24:DA:2228:G:P	26:DC:260:LYS:HD2	2.54	0.48
24:BA:591:U:H2'	24:BA:592:A:C8	2.49	0.48
1:AA:872:A:C4	1:AA:874:G:N7	2.82	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BN:79:LEU:C	37:BN:81:ASN:H	2.17	0.48
37:BN:82:GLU:O	37:BN:86:ARG:CB	2.61	0.48
1:AA:1402:C:H2'	1:AA:1403:C:O4'	2.14	0.48
31:DH:38:PRO:HB2	31:DH:40:THR:HG23	1.95	0.48
1:CA:650:G:C6	1:CA:651:C:C4	3.01	0.48
18:AR:48:ARG:O	18:AR:50:LYS:N	2.47	0.48
21:CU:18:ARG:O	21:CU:18:ARG:HG3	2.12	0.48
41:BR:52:PRO:HG2	41:BR:53:PHE:CE2	2.48	0.48
24:BA:499:U:O3'	44:BU:42:LYS:HE2	2.13	0.48
25:DB:62:C:C2'	25:DB:63:C:O5'	2.61	0.48
1:CA:720:C:N4	1:CA:721:G:C2	2.81	0.48
12:AL:86:ARG:HA	12:AL:94:ARG:HA	1.94	0.48
6:AF:92:THR:O	6:AF:93:LYS:C	2.51	0.48
1:AA:247:G:OP1	1:AA:247:G:H4'	2.12	0.48
24:DA:2870:C:C5	24:DA:2871:U:C5	3.01	0.48
37:BN:73:ASN:C	37:BN:76:VAL:HG22	2.34	0.48
24:BA:1395:A:O2'	24:BA:1397:U:C6	2.65	0.48
24:BA:845:A:N1	24:BA:847:U:C6	2.82	0.48
24:DA:783:A:O2'	24:DA:785:G:OP1	2.24	0.48
24:DA:137:U:O2'	24:DA:138:U:OP1	2.24	0.48
24:DA:142:A:O2'	24:DA:143:C:P	2.72	0.48
25:BB:28:C:OP1	38:BO:34:HIS:HB2	2.13	0.48
1:AA:882:C:H2'	1:AA:883:C:H5'	1.95	0.48
1:AA:1422:G:C2'	1:AA:1423:G:H5'	2.43	0.48
1:AA:950:U:P	13:AM:101:ARG:HH21	2.37	0.48
24:DA:942:G:H2'	24:DA:943:A:O4'	2.13	0.48
16:CP:1:MET:CG	16:CP:2:VAL:N	2.77	0.48
30:BG:102:ILE:CD1	30:BG:116:LEU:HD11	2.44	0.48
24:DA:1486:U:H2'	24:DA:1487:U:O4'	2.13	0.48
24:DA:1288:G:O2'	24:DA:1327:A:N1	2.38	0.48
37:DN:48:VAL:O	37:DN:51:LEU:HB2	2.13	0.48
24:BA:1422:G:C4	24:BA:1423:G:C8	3.01	0.48
24:BA:2550:G:N2	24:BA:2559:C:H1'	2.29	0.48
26:BC:161:VAL:HG12	26:BC:175:LEU:HA	1.95	0.48
1:AA:1314:C:OP2	19:AS:6:LYS:HG3	2.13	0.48
1:CA:778:G:C2	1:CA:779:C:O2	2.67	0.48
6:AF:18:VAL:HG22	6:AF:19:PRO:HD3	1.95	0.48
33:BJ:65:THR:HG22	33:BJ:68:LYS:NZ	2.29	0.48
1:AA:607:A:H2'	1:AA:608:A:C8	2.49	0.48
48:DY:2:LYS:HG2	48:DY:3:ALA:N	2.29	0.48
48:DY:56:LEU:O	48:DY:56:LEU:HD12	2.14	0.48
24:BA:404:A:OP2	24:BA:404:A:H2'	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BV:61:LEU:HB2	45:BV:72:VAL:CG1	2.43	0.48
42:BS:41:LYS:O	42:BS:44:ALA:CB	2.61	0.48
55:CY:129:ARG:HH11	55:CY:129:ARG:CG	2.27	0.48
1:AA:19:A:C2	1:AA:20:U:C2	3.02	0.48
1:AA:81:A:H2'	1:AA:82:G:H8	1.78	0.48
1:AA:226:G:N3	1:AA:227:G:C8	2.81	0.48
50:D0:53:VAL:O	50:D0:54:ILE:HG13	2.13	0.48
20:AT:27:MET:SD	20:AT:31:PHE:CZ	3.07	0.48
24:BA:1071:G:O4'	24:BA:1089:A:C8	2.67	0.48
10:AJ:67:ILE:HG22	10:AJ:67:ILE:O	2.13	0.48
1:AA:659:U:H2'	1:AA:660:C:C6	2.48	0.48
28:BE:45:ALA:HB2	28:BE:89:PRO:HD3	1.96	0.48
46:BW:56:ASP:O	46:BW:57:HIS:HB2	2.14	0.48
1:CA:1041:G:O6	1:CA:1042:A:C6	2.66	0.48
3:CC:120:ILE:O	3:CC:123:GLN:N	2.47	0.48
24:BA:2328:A:C2	24:BA:2329:U:C2	3.01	0.48
24:DA:778:G:C5	24:DA:779:U:C5	3.01	0.48
1:CA:138:G:O6	1:CA:139:A:N6	2.47	0.48
12:AL:57:LEU:O	12:AL:59:ASN:N	2.46	0.48
24:BA:970:U:C2	24:BA:971:G:C8	3.02	0.48
27:BD:92:VAL:HG12	27:BD:93:GLY:N	2.28	0.48
45:BV:93:ARG:HG3	45:BV:93:ARG:O	2.12	0.48
24:DA:1015:U:O2'	24:DA:1016:G:H5'	2.12	0.48
42:DS:27:LYS:N	42:DS:27:LYS:HE2	2.28	0.48
4:CD:150:LYS:NZ	4:CD:177:LYS:O	2.47	0.48
24:BA:1490:A:H2'	24:BA:1490:A:N3	2.29	0.48
55:CY:126:VAL:CG1	24:DA:1963:U:O2	2.62	0.48
1:AA:188:C:H2'	1:AA:189:A:O4'	2.12	0.48
33:DJ:136:GLN:N	33:DJ:137:PRO:HD3	2.27	0.48
15:AO:78:TYR:O	15:AO:81:LEU:N	2.46	0.48
24:DA:2425:A:C4'	24:DA:2427:C:C6	2.97	0.48
24:BA:1863:G:C6	24:BA:1864:U:N3	2.82	0.48
24:BA:414:C:C2	24:BA:2410:G:N2	2.82	0.48
24:BA:2416:C:OP1	35:BL:64:PHE:HB2	2.13	0.48
24:BA:414:C:H1'	24:BA:1864:U:O2'	2.13	0.48
35:BL:57:LEU:HG	35:BL:61:LEU:HD11	1.94	0.48
24:BA:1775:U:H2'	24:BA:1776:G:C5'	2.43	0.48
1:AA:258:G:H2'	1:AA:259:G:O4'	2.13	0.48
1:AA:394:G:N1	1:AA:395:C:C2	2.82	0.48
1:AA:509:A:O5'	4:AD:51:TYR:OH	2.32	0.48
1:AA:921:U:H2'	1:AA:922:G:O4'	2.13	0.48
1:CA:542:G:C2	1:CA:543:U:C6	3.01	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:139:PRO:HA	4:CD:182:PHE:CE1	2.48	0.48
4:CD:62:ARG:HD3	4:CD:72:PHE:CD2	2.49	0.48
1:CA:669:G:C6	1:CA:670:G:C5	3.01	0.48
24:DA:1060:U:N1	24:DA:1062:G:H5'	2.29	0.48
24:DA:1068:G:C6	24:DA:1069:A:C5	3.02	0.48
1:AA:1090:U:C2	1:AA:1091:U:C5	3.01	0.48
1:CA:988:G:C2	1:CA:989:U:C2	3.01	0.48
4:CD:78:GLU:OE2	4:CD:79:ALA:N	2.44	0.48
4:CD:81:ARG:CG	4:CD:82:LEU:N	2.74	0.48
24:BA:511:U:C5	24:BA:512:G:C5	3.02	0.48
24:BA:363:G:C6	24:BA:364:C:C4	3.01	0.48
2:AB:57:LEU:CD1	2:AB:58:ASN:N	2.77	0.48
12:CL:93:VAL:O	12:CL:94:ARG:HG3	2.14	0.48
1:CA:113:G:C6	1:CA:315:A:N6	2.80	0.48
19:CS:41:PHE:CD1	19:CS:41:PHE:N	2.81	0.48
24:DA:2204:G:C2'	24:DA:2205:A:O5'	2.61	0.48
1:AA:1304:G:C6	1:AA:1305:G:N1	2.81	0.48
13:AM:23:TYR:CD1	13:AM:69:LEU:CD2	2.96	0.48
57:DA:3185:NMY:N23	57:DA:3185:NMY:O21	2.47	0.48
5:CE:34:THR:HB	5:CE:50:TYR:CE1	2.48	0.48
3:AC:34:ASP:O	3:AC:38:LYS:N	2.47	0.48
29:DF:62:GLN:CG	29:DF:94:ARG:HD2	2.43	0.48
29:DF:91:ARG:CG	29:DF:92:GLY:N	2.76	0.48
8:CH:115:ALA:HA	8:CH:118:GLN:HB2	1.95	0.48
24:BA:2524:G:H2'	24:BA:2741:A:H2	1.78	0.48
24:BA:790:U:OP2	59:BA:3759:HOH:O	2.20	0.48
37:BN:115:LEU:HD12	37:BN:115:LEU:N	2.28	0.48
1:AA:212:G:N1	1:AA:213:G:C5	2.82	0.48
24:DA:600:G:H5''	28:DE:27:LEU:HD11	1.95	0.48
7:CG:133:THR:OG1	7:CG:133:THR:O	2.27	0.48
1:AA:893:C:C2	1:AA:894:G:C8	3.01	0.48
25:BB:78:A:OP2	45:BV:18:ARG:NH2	2.47	0.48
41:DR:3:ALA:HA	41:DR:40:MET:O	2.13	0.48
24:BA:669:G:C6	24:BA:801:G:O6	2.67	0.48
27:DD:101:PHE:C	27:DD:104:VAL:HG22	2.33	0.48
24:BA:1169:A:H8	24:BA:1169:A:O5'	1.96	0.48
1:CA:995:C:C5'	14:CN:7:ALA:HB1	2.43	0.48
1:CA:665:A:N7	1:CA:733:G:C2	2.82	0.48
26:BC:146:LYS:O	26:BC:149:LYS:HB3	2.14	0.48
24:BA:340:A:C8	24:BA:341:C:C5	3.01	0.48
46:BW:75:LYS:O	46:BW:76:ASN:C	2.50	0.48
13:CM:104:THR:OG1	13:CM:105:ASN:N	2.46	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1553:A:N7	24:BA:1555:G:C6	2.81	0.48
1:AA:163:C:O2	1:AA:163:C:C2'	2.59	0.48
1:CA:174:A:C2'	1:CA:175:C:H5'	2.44	0.48
48:DY:52:ARG:O	48:DY:55:THR:HB	2.14	0.48
1:CA:221:C:N3	1:CA:222:C:C5	2.81	0.48
5:AE:37:THR:HG22	5:AE:63:ALA:HB1	1.94	0.48
24:BA:1799:G:N7	26:BC:177:SER:HB3	2.27	0.48
24:BA:1870:C:H5''	24:BA:1871:A:C8	2.49	0.48
24:BA:1144:A:C6	24:BA:1145:C:C4	3.01	0.48
17:AQ:49:GLU:HG2	17:AQ:50:ASN:OD1	2.13	0.48
44:BU:72:PHE:CE2	44:BU:74:ALA:HA	2.49	0.48
24:BA:2569:G:C2	24:BA:2570:G:C8	3.02	0.48
11:AK:25:ALA:HB3	11:AK:93:ARG:NH2	2.29	0.48
24:BA:1628:G:C5	24:BA:1629:U:C5	3.02	0.48
13:AM:106:ALA:O	13:AM:107:ARG:C	2.52	0.48
45:BV:31:TYR:OH	45:BV:90:ASP:OD2	2.23	0.48
24:BA:1661:G:C5	24:BA:1662:U:C5	3.02	0.48
24:DA:1277:G:H5''	37:DN:20:MET:HE1	1.94	0.48
24:BA:1216:G:C6	24:BA:1217:U:C4	3.02	0.48
24:BA:1563:U:O2	24:BA:1563:U:H2'	2.12	0.48
28:BE:149:ILE:O	28:BE:149:ILE:CD1	2.61	0.48
24:BA:2788:C:H1'	24:BA:2810:A:H1'	1.94	0.48
24:BA:937:C:C2	24:BA:938:G:C8	3.02	0.48
3:AC:153:VAL:O	3:AC:165:THR:O	2.31	0.48
24:DA:170:U:C2	24:DA:171:U:C6	3.01	0.48
3:CC:152:GLU:HB3	3:CC:167:TRP:HB2	1.96	0.48
51:B1:50:GLU:HG3	51:B1:51:ALA:N	2.28	0.48
28:DE:137:LYS:HD2	28:DE:141:MET:HE2	1.96	0.48
6:CF:87:SER:O	6:CF:88:MET:HB2	2.13	0.48
24:DA:123:G:N2	24:DA:129:C:C2	2.81	0.48
24:BA:969:G:H2'	24:BA:970:U:C6	2.48	0.48
27:DD:5:VAL:HG21	27:DD:80:TRP:CG	2.49	0.48
24:DA:1185:G:H5''	24:DA:1186:G:OP1	2.13	0.48
24:BA:529:A:H4'	24:BA:530:G:OP1	2.11	0.48
27:BD:136:ASN:HD22	27:BD:140:HIS:CD2	2.32	0.48
5:AE:21:VAL:O	5:AE:31:PHE:CB	2.62	0.48
4:CD:71:GLN:OE1	4:CD:71:GLN:HA	2.12	0.48
8:AH:63:LEU:HD23	8:AH:63:LEU:N	2.28	0.48
39:BP:16:VAL:O	39:BP:16:VAL:HG12	2.13	0.48
24:DA:1676:A:H2'	24:DA:1677:A:O4'	2.14	0.48
1:AA:959:A:C4'	1:AA:985:C:H5'	2.44	0.48
8:AH:31:LYS:O	8:AH:32:LEU:C	2.52	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:256:U:H2'	1:AA:257:G:O4'	2.14	0.48
1:CA:706:A:N3	11:CK:44:TRP:CH2	2.81	0.48
11:CK:126:LYS:O	21:CU:35:ARG:NH2	2.47	0.48
1:AA:599:C:H4'	8:AH:88:ARG:HH12	1.79	0.48
4:AD:95:GLU:HA	4:AD:104:ARG:NH1	2.28	0.48
4:AD:133:ALA:O	4:AD:134:SER:HB3	2.14	0.48
1:AA:1079:G:C2	1:AA:1080:A:N1	2.82	0.48
1:CA:1157:A:N7	1:CA:1180:A:N6	2.62	0.48
4:CD:102:VAL:O	4:CD:106:GLY:N	2.46	0.48
4:CD:116:GLN:OE1	4:CD:117:LEU:N	2.46	0.48
12:CL:122:PRO:O	12:CL:123:LYS:HD2	2.14	0.48
15:CO:75:VAL:O	15:CO:76:ALA:HB3	2.14	0.48
24:DA:615:U:C4	28:DE:35:TYR:CE1	3.01	0.48
11:AK:125:LYS:HE3	11:AK:126:LYS:HG3	1.94	0.48
24:DA:1417:C:N4	24:DA:1418:G:C6	2.81	0.48
9:AI:50:GLN:NE2	9:AI:80:ARG:CZ	2.77	0.48
1:AA:927:G:H4'	1:AA:1503:A:N7	2.27	0.48
22:CV:26:A:C5	22:CV:27:G:N7	2.82	0.48
55:CY:153:ASP:OD1	55:CY:154:ARG:N	2.46	0.48
55:CY:159:ASP:HA	55:CY:162:LYS:HB2	1.95	0.48
24:BA:2119:A:N6	24:BA:2169:A:N7	2.62	0.48
11:AK:82:LEU:CD2	11:AK:105:PHE:CD2	2.97	0.48
24:BA:77:G:C2	24:BA:110:G:C4	3.02	0.48
10:CJ:80:THR:O	10:CJ:83:THR:HG22	2.14	0.48
24:BA:1265:A:OP2	59:BA:3752:HOH:O	2.20	0.48
24:BA:1270:C:O2	24:BA:1270:C:H2'	2.12	0.48
24:BA:2285:C:H3'	51:B1:24:LYS:HZ3	1.78	0.48
1:CA:230:G:C2	1:CA:231:U:C2	3.02	0.48
1:CA:391:G:C6	1:CA:392:C:C4	3.01	0.48
20:CT:46:ALA:O	20:CT:50:ALA:N	2.46	0.48
20:CT:61:GLN:HG3	20:CT:66:LEU:HD11	1.95	0.48
24:BA:1454:C:P	37:BN:63:ARG:HH22	2.36	0.48
35:BL:20:GLY:O	35:BL:21:ARG:NE	2.47	0.48
35:BL:111:ILE:HA	35:BL:128:THR:CG2	2.42	0.48
29:BF:130:GLY:CA	29:BF:152:ASP:HA	2.44	0.48
29:DF:103:ILE:N	29:DF:103:ILE:HD12	2.29	0.48
29:DF:73:VAL:HG22	29:DF:78:ILE:HD12	1.95	0.48
24:DA:2310:C:C4	29:DF:76:PHE:CZ	3.02	0.48
24:BA:795:C:N4	24:BA:796:C:N4	2.62	0.48
37:BN:79:LEU:O	37:BN:80:PHE:HB2	2.14	0.48
1:CA:651:C:C4	1:CA:652:U:O4	2.67	0.48
30:BG:68:ARG:O	30:BG:72:ASN:N	2.47	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:CN:32:ASP:O	14:CN:33:VAL:C	2.52	0.48
24:DA:2840:C:C5'	37:DN:53:THR:HG21	2.35	0.48
45:DV:14:LYS:O	45:DV:15:GLY:C	2.52	0.48
24:BA:1168:G:H2'	24:BA:1169:A:O5'	2.14	0.48
24:BA:1859:U:C6	24:BA:1859:U:OP2	2.67	0.48
1:AA:511:C:N3	1:AA:512:U:C5	2.82	0.48
1:AA:47:C:O4'	1:AA:365:U:C2	2.67	0.48
15:AO:87:LEU:C	15:AO:89:ARG:N	2.67	0.48
24:DA:2015:A:C2	50:D0:2:VAL:HB	2.48	0.48
24:DA:910:A:N3	24:DA:2264:C:O2'	2.40	0.48
24:BA:432:A:H2'	24:BA:433:C:O4'	2.14	0.48
24:DA:2371:G:C2'	24:DA:2372:U:O5'	2.62	0.48
26:DC:140:VAL:HG23	26:DC:191:LEU:HA	1.96	0.48
24:BA:1401:G:C6	24:BA:1402:U:C4	3.01	0.48
8:CH:63:LEU:HD12	8:CH:63:LEU:C	2.33	0.48
24:BA:748:G:H2'	24:BA:750:A:OP2	2.13	0.48
24:DA:70:G:H5''	24:DA:112:U:O2	2.13	0.48
1:AA:67:C:O2'	1:AA:68:G:O5'	2.32	0.48
24:BA:450:G:H2'	24:BA:451:U:H5''	1.96	0.48
39:BP:97:TYR:HD1	39:BP:100:ARG:NH1	2.12	0.48
2:CB:47:VAL:CG2	2:CB:48:PRO:CD	2.92	0.48
1:CA:134:G:H2'	1:CA:135:C:O4'	2.14	0.48
1:AA:1021:A:H2'	1:AA:1022:A:O4'	2.13	0.48
1:CA:298:A:H2'	1:CA:299:G:C8	2.49	0.48
24:BA:989:G:C5	49:BZ:13:ILE:HD12	2.49	0.48
1:AA:489:C:O2	1:AA:490:C:C5	2.67	0.48
6:AF:15:SER:O	6:AF:18:VAL:HG12	2.12	0.48
38:DO:51:ALA:HB3	38:DO:78:VAL:HG13	1.95	0.48
1:CA:832:G:N3	1:CA:832:G:H2'	2.28	0.48
55:CY:100:VAL:O	55:CY:100:VAL:CG2	2.61	0.48
25:BB:53:A:C4	25:BB:54:G:C8	3.01	0.48
24:DA:560:C:OP2	59:DA:3249:HOH:O	2.20	0.48
36:BM:2:LEU:HD23	36:BM:68:PHE:CD2	2.49	0.48
22:CV:2:C:N3	22:CV:3:C:N4	2.61	0.48
37:BN:24:MET:CE	37:BN:44:LEU:HD13	2.44	0.48
24:BA:1216:G:C2'	24:BA:1217:U:H5'	2.44	0.48
24:BA:767:U:O2'	24:BA:768:G:C5'	2.62	0.48
24:BA:2599:G:N7	26:BC:235:GLU:HG2	2.29	0.48
31:BH:101:ASP:HA	31:BH:104:THR:HB	1.94	0.48
34:BK:7:MET:CA	34:BK:8:LEU:HD12	2.43	0.48
48:BY:57:LEU:HA	48:BY:60:LYS:HG2	1.95	0.48
27:BD:48:ILE:N	27:BD:84:LEU:HD22	2.29	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1710:G:N2	24:BA:1749:A:C4	2.82	0.48
25:DB:75:G:H1'	45:DV:29:ILE:CG1	2.44	0.48
24:DA:1433:A:C6	24:DA:1434:A:N6	2.82	0.48
1:AA:1458:G:N2	1:AA:1459:G:C4	2.81	0.48
24:DA:2267:A:H5''	24:DA:2268:A:C5'	2.43	0.48
40:BQ:65:ASN:OD1	40:BQ:75:TYR:HB2	2.14	0.48
24:BA:2899:A:H2'	24:BA:2900:A:C8	2.48	0.48
24:DA:1686:C:H2'	24:DA:1687:G:H5'	1.94	0.48
24:DA:210:C:OP1	52:D2:25:LYS:HE3	2.14	0.48
40:DQ:15:LYS:O	40:DQ:19:GLN:HG3	2.13	0.48
29:BF:19:PHE:O	29:BF:20:ASN:HB2	2.13	0.48
31:BH:130:VAL:CG2	31:BH:132:PHE:CE1	2.96	0.48
27:DD:180:VAL:HG12	27:DD:180:VAL:O	2.13	0.48
24:DA:196:A:N3	24:DA:196:A:H2'	2.29	0.48
2:CB:9:MET:SD	2:CB:9:MET:N	2.86	0.48
16:AP:2:VAL:HG12	16:AP:22:ALA:O	2.14	0.48
34:DK:35:VAL:HA	34:DK:62:VAL:HG23	1.94	0.48
36:BM:36:VAL:HG13	45:BV:82:TYR:CE2	2.49	0.48
24:DA:697:G:C6	24:DA:698:C:N4	2.82	0.48
1:AA:1405:G:OP2	57:AA:1655:NMY:N19	2.44	0.48
24:BA:993:G:C2'	24:BA:994:C:O5'	2.61	0.48
24:DA:342:A:H2'	24:DA:343:C:O4'	2.14	0.48
25:BB:45:A:N1	25:BB:46:A:N3	2.61	0.48
24:BA:2407:A:N3	24:BA:2408:U:C6	2.82	0.48
24:BA:2420:C:OP1	53:B3:33:THR:N	2.44	0.48
35:BL:63:LYS:O	35:BL:64:PHE:HB3	2.13	0.48
1:AA:652:U:HO2'	1:AA:653:U:P	2.30	0.48
1:CA:706:A:C2	11:CK:44:TRP:HZ2	2.32	0.48
1:CA:706:A:HO2'	11:CK:24:HIS:CD2	2.30	0.48
1:AA:374:A:N3	1:AA:375:U:C6	2.81	0.48
1:AA:502:A:H5''	12:AL:115:SER:HB3	1.95	0.48
4:CD:170:TRP:CD1	4:CD:170:TRP:O	2.67	0.48
12:CL:117:TYR:CD1	12:CL:117:TYR:N	2.82	0.48
1:AA:671:G:O3'	6:AF:79:ARG:NH2	2.46	0.48
1:AA:1072:G:N2	1:AA:1104:G:H1'	2.29	0.48
1:AA:1256:A:O4'	1:AA:1258:G:C8	2.67	0.48
9:AI:87:LEU:HD22	9:AI:95:ARG:HB3	1.96	0.48
10:AJ:29:ALA:HB1	10:AJ:36:VAL:CG1	2.44	0.48
20:AT:67:ILE:HD11	20:AT:71:LYS:CE	2.43	0.48
20:AT:75:HIS:C	20:AT:79:LEU:HD11	2.33	0.48
1:CA:1321:U:C5	1:CA:1322:C:C6	3.02	0.48
57:DA:3188:NMY:H172	57:DA:3188:NMY:C1	2.36	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1205:A:O4'	57:BA:3163:NMY:H18	2.14	0.48
24:DA:834:G:C2	24:DA:835:C:C2	3.01	0.48
1:CA:1125:U:C4	10:CJ:40:ILE:HD11	2.49	0.48
1:CA:1142:G:H3'	1:CA:1143:G:O4'	2.13	0.48
9:CI:42:GLU:O	9:CI:44:ALA:N	2.44	0.48
24:DA:2020:A:H5'	50:D0:8:THR:HG22	1.95	0.48
24:BA:2283:C:H2'	24:BA:2284:A:H5'	1.96	0.48
1:CA:830:G:H5''	2:CB:23:TRP:HE1	1.78	0.48
24:DA:2402:U:HO2'	24:DA:2403:C:P	2.35	0.48
14:CN:15:LEU:HD23	14:CN:54:ASP:CB	2.44	0.48
24:BA:1357:C:H3'	24:BA:1358:G:C8	2.49	0.48
24:BA:2352:A:C5	24:BA:2366:A:C2	3.01	0.48
46:BW:31:VAL:HG22	46:BW:32:LEU:N	2.28	0.48
24:DA:984:A:C5'	24:DA:985:C:OP2	2.62	0.48
1:CA:1082:A:C2	1:CA:1083:U:O2	2.66	0.48
2:CB:103:ASN:O	2:CB:107:VAL:HG13	2.14	0.48
1:AA:1430:A:C2	1:AA:1471:U:C2	3.02	0.48
21:CU:11:PRO:O	21:CU:12:PHE:CB	2.61	0.48
24:BA:545:U:C5	24:BA:548:G:P	3.06	0.48
30:BG:91:VAL:O	30:BG:92:GLY:C	2.52	0.48
34:DK:93:GLN:HG3	34:DK:94:PRO:HD2	1.96	0.48
2:AB:23:TRP:O	2:AB:23:TRP:CD2	2.67	0.48
39:BP:112:ARG:O	39:BP:113:LEU:CD2	2.61	0.48
1:CA:651:C:N3	1:CA:652:U:C4	2.81	0.48
24:BA:2753:A:C2'	24:BA:2754:U:H5'	2.44	0.48
24:BA:2748:A:C6	24:BA:2757:A:N7	2.82	0.48
7:CG:70:ARG:HD3	7:CG:96:ARG:CD	2.43	0.48
1:AA:838:G:C2	1:AA:849:G:N3	2.82	0.48
40:DQ:75:TYR:C	40:DQ:75:TYR:CD1	2.87	0.48
24:BA:1171:G:N2	24:BA:1179:G:N3	2.62	0.48
44:BU:44:HIS:HB3	44:BU:57:ILE:HA	1.96	0.48
47:DX:60:LYS:HG2	47:DX:61:LYS:N	2.29	0.48
6:AF:62:MET:O	6:AF:63:ASN:C	2.52	0.48
42:DS:29:VAL:HG23	42:DS:69:LEU:O	2.13	0.48
44:DU:73:ASN:HA	44:DU:95:PHE:CE1	2.49	0.48
32:BI:127:SER:C	32:BI:128:ILE:HG13	2.34	0.48
46:DW:41:ARG:HA	46:DW:41:ARG:HE	1.78	0.48
24:DA:1033:U:H4'	24:DA:1033:U:OP2	2.13	0.48
24:BA:300:A:H1'	24:BA:319:G:O4'	2.13	0.48
26:DC:114:GLN:O	26:DC:115:ILE:CG2	2.61	0.48
24:BA:1347:A:O2'	24:BA:1348:C:P	2.71	0.48
24:DA:137:U:H2'	24:DA:140:C:O2	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:78:A:C6	1:CA:79:G:H1'	2.49	0.48
28:DE:108:ILE:HD13	28:DE:181:ILE:HG23	1.96	0.48
1:AA:68:G:O4'	1:AA:171:A:H1'	2.14	0.48
1:AA:71:A:C2	1:AA:72:A:C4	3.02	0.48
24:DA:1470:A:C8	24:DA:1471:G:C8	3.01	0.48
24:DA:2531:A:C2	24:DA:2532:G:C4	3.02	0.48
41:DR:21:ARG:NH2	41:DR:93:PHE:CE1	2.82	0.48
16:CP:1:MET:HE2	16:CP:1:MET:H1	1.79	0.48
1:CA:198:G:C6	1:CA:220:G:N1	2.82	0.48
24:DA:214:G:O2'	24:DA:217:A:H5'	2.14	0.48
24:BA:1799:G:N2	24:BA:1818:U:O2'	2.47	0.48
42:BS:21:ALA:O	42:BS:23:LEU:N	2.46	0.48
1:AA:1313:U:P	19:AS:6:LYS:HD2	2.54	0.48
24:DA:621:A:OP2	35:DL:99:ASN:ND2	2.47	0.48
1:CA:636:U:H5'	17:CQ:6:ARG:NE	2.28	0.48
24:DA:1498:C:C5	24:DA:1499:C:C5	3.02	0.48
34:BK:64:ARG:HB2	34:BK:83:ALA:HB3	1.95	0.48
24:BA:1260:A:O2'	24:BA:1261:C:H5'	2.13	0.48
55:CY:65:LEU:HD23	55:CY:66:LYS:C	2.34	0.48
24:DA:625:G:H2'	24:DA:626:A:C8	2.49	0.48
24:BA:1628:G:C6	24:BA:1629:U:C5	3.01	0.48
1:AA:19:A:H5''	5:AE:91:GLY:CA	2.44	0.48
25:DB:83:G:C2'	25:DB:84:G:C5'	2.91	0.48
45:BV:77:VAL:HG13	45:BV:77:VAL:O	2.13	0.48
24:DA:1023:U:OP2	59:DA:3711:HOH:O	2.20	0.48
24:DA:2107:G:O2'	24:DA:2108:A:O4'	2.27	0.48
24:BA:1833:C:H2'	24:BA:1834:U:H6	1.78	0.48
24:DA:451:U:C5	24:DA:453:A:C8	3.02	0.48
17:CQ:70:THR:HG23	17:CQ:71:LYS:N	2.28	0.48
24:DA:661:A:H2'	24:DA:662:G:O4'	2.14	0.48
19:CS:26:GLY:O	19:CS:27:ASP:C	2.52	0.48
24:DA:2323:G:H2'	24:DA:2324:U:C5'	2.44	0.48
27:DD:160:LYS:HZ2	27:DD:160:LYS:H	1.61	0.48
30:DG:67:ALA:O	30:DG:68:ARG:C	2.52	0.48
17:CQ:30:LYS:HG2	17:CQ:37:PHE:CE1	2.49	0.48
28:BE:149:ILE:CD1	28:BE:188:MET:HA	2.43	0.48
24:BA:1658:C:H5'	27:BD:138:LEU:CD2	2.44	0.48
1:CA:1261:A:N1	1:CA:1275:A:H1'	2.29	0.48
1:CA:577:G:H1'	1:CA:816:A:N3	2.29	0.48
24:BA:2671:G:C2	24:BA:2672:U:C2	3.02	0.48
24:DA:591:U:H1'	53:D3:1:PRO:H2	1.78	0.48
30:BG:24:THR:O	30:BG:25:ILE:CG1	2.62	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CS:71:LEU:O	19:CS:71:LEU:CG	2.62	0.48
55:CY:114:THR:HA	55:CY:117:VAL:HG22	1.96	0.48
34:DK:77:ILE:HG12	39:DP:71:ARG:HG2	1.95	0.48
54:D4:24:ARG:NH2	54:D4:36:ARG:CD	2.77	0.48
2:AB:33:GLY:O	2:AB:34:ALA:HB3	2.14	0.48
24:BA:2424:C:C6	24:BA:2424:C:H3'	2.49	0.48
39:DP:30:TRP:CZ3	39:DP:81:ASP:CG	2.87	0.48
1:AA:765:G:C5'	1:AA:766:A:OP1	2.62	0.48
28:DE:125:SER:OG	28:DE:126:VAL:N	2.46	0.48
24:DA:1643:G:C2	24:DA:1644:C:H1'	2.49	0.48
24:DA:1225:G:C2	24:DA:1226:A:C2	3.02	0.48
24:BA:2699:C:H2'	24:BA:2700:A:C8	2.49	0.48
24:DA:1292:G:H2'	24:DA:1293:C:C6	2.49	0.48
18:CR:33:ILE:HG23	18:CR:33:ILE:O	2.14	0.48
44:DU:48:VAL:O	44:DU:53:GLN:HA	2.13	0.48
24:BA:1256:G:C5	24:BA:1257:C:C5	3.02	0.48
36:DM:2:LEU:O	36:DM:3:GLN:HB3	2.13	0.48
29:BF:103:ILE:HG21	29:BF:174:PHE:CZ	2.48	0.48
1:AA:1492:A:H2'	1:AA:1493:A:O5'	2.11	0.48
31:DH:76:GLU:C	31:DH:142:VAL:HG12	2.33	0.48
1:AA:1221:G:H5'	19:AS:36:ARG:HH21	1.79	0.48
1:AA:979:C:C4	1:AA:980:C:N3	2.82	0.48
9:AI:123:ARG:HB2	9:AI:123:ARG:NH1	2.28	0.48
1:AA:958:A:N1	19:AS:54:GLY:HA2	2.28	0.48
38:BO:94:ARG:O	38:BO:97:PHE:N	2.43	0.48
24:DA:246:C:H2'	24:DA:247:G:H5'	1.95	0.48
47:BX:57:VAL:HG13	47:BX:58:ILE:N	2.29	0.48
24:DA:2496:C:P	36:DM:81:ARG:NH2	2.83	0.48
1:AA:330:C:H2'	1:AA:331:G:H5'	1.95	0.48
1:CA:620:C:C2	4:CD:132:ILE:CD1	2.97	0.48
4:CD:139:PRO:O	4:CD:140:ASN:C	2.53	0.48
1:CA:542:G:H5'	4:CD:39:GLY:HA3	1.96	0.48
1:AA:683:G:O2'	1:AA:684:U:C5'	2.62	0.48
44:BU:4:ILE:O	44:BU:5:ARG:CG	2.62	0.48
1:CA:1309:G:H2'	1:CA:1310:G:C8	2.48	0.48
29:DF:137:PHE:CD1	29:DF:137:PHE:N	2.81	0.48
1:CA:345:C:HO2'	34:DK:108:ARG:HH22	1.61	0.48
4:CD:149:ALA:HA	4:CD:152:GLN:CD	2.34	0.48
2:AB:69:PHE:CD1	2:AB:90:PHE:O	2.67	0.48
2:AB:91:PHE:CE1	2:AB:150:GLY:CA	2.97	0.48
24:BA:2166:U:C3'	24:BA:2167:U:H5'	2.44	0.48
24:BA:27:G:O2'	24:BA:28:A:P	2.70	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:BA:3163:NMY:C17	57:BA:3163:NMY:H2	2.43	0.48
34:DK:70:ARG:HD2	34:DK:76:VAL:CG2	2.44	0.48
15:CO:31:LEU:CD1	15:CO:31:LEU:N	2.77	0.48
15:CO:6:GLU:OE1	15:CO:7:ALA:CA	2.62	0.48
24:DA:181:A:H2'	24:DA:181:A:N3	2.29	0.48
25:BB:91:C:H2'	25:BB:92:C:C6	2.49	0.48
24:BA:608:A:H3'	24:BA:609:A:C8	2.48	0.48
24:BA:1358:G:N2	24:BA:1372:U:OP2	2.31	0.48
24:DA:971:G:H2'	24:DA:972:A:O5'	2.14	0.48
29:DF:121:PHE:CG	29:DF:127:TYR:CZ	3.01	0.48
29:DF:95:MET:SD	29:DF:99:PHE:HE1	2.37	0.48
9:CI:12:ARG:O	9:CI:13:LYS:CB	2.61	0.48
24:BA:2387:U:H1'	46:BW:41:ARG:CD	2.43	0.48
1:AA:1047:G:H5''	14:AN:3:GLN:HG2	1.94	0.48
38:DO:34:HIS:NE2	38:DO:54:VAL:CG1	2.76	0.48
1:CA:1349:A:H5''	9:CI:123:ARG:HB2	1.96	0.48
43:DT:82:LYS:HD3	43:DT:84:TYR:CE1	2.49	0.48
39:BP:83:ILE:CD1	39:BP:83:ILE:C	2.82	0.48
55:CY:87:LEU:CB	55:CY:89:LEU:HG	2.44	0.48
30:BG:120:ILE:CD1	30:BG:134:GLY:HA3	2.43	0.48
24:DA:1188:U:O2'	24:DA:1189:A:H5'	2.13	0.48
16:AP:19:VAL:HG22	16:AP:37:GLY:C	2.33	0.48
48:BY:24:GLU:O	48:BY:26:PHE:N	2.47	0.48
24:BA:2348:U:OP2	53:B3:37:THR:HG21	2.13	0.48
24:DA:996:A:C2	24:DA:997:G:C8	3.01	0.48
40:DQ:87:VAL:HB	41:DR:49:ILE:HG22	1.96	0.48
40:DQ:90:ASP:OD2	41:DR:11:GLN:HB2	2.13	0.48
41:BR:49:ILE:CG1	41:BR:52:PRO:C	2.77	0.48
24:BA:2668:G:C2	24:BA:2669:G:C4	3.01	0.48
24:BA:2221:G:O2'	24:BA:2222:C:H5'	2.13	0.48
1:AA:361:G:H2'	1:AA:362:G:H5'	1.96	0.48
24:DA:2064:C:H2'	24:DA:2065:C:C6	2.49	0.48
1:AA:327:A:C2	1:AA:329:A:C4	3.02	0.48
1:AA:496:A:N3	1:AA:497:G:N7	2.61	0.48
24:BA:1998:A:O3'	24:BA:2724:U:H4'	2.13	0.48
24:BA:962:G:H21	24:BA:2250:G:H1	1.61	0.48
43:BT:61:LEU:CD1	43:BT:82:LYS:HB2	2.44	0.48
24:DA:1301:A:C2	24:DA:1303:G:C6	3.01	0.48
24:DA:782:A:C2	26:DC:224:MET:SD	3.07	0.48
24:DA:63:A:C2	24:DA:64:A:C8	3.01	0.48
1:CA:89:U:O2'	1:CA:90:C:H5'	2.14	0.48
28:DE:23:PHE:CE1	35:DL:2:ARG:NH2	2.82	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:72:A:C6	1:AA:73:C:N4	2.82	0.48
1:AA:1478:U:H2'	1:AA:1479:C:C6	2.49	0.48
24:DA:526:A:N1	24:DA:2625:G:O2'	2.44	0.48
37:DN:71:ARG:HH21	37:DN:71:ARG:CG	2.27	0.48
34:DK:8:LEU:CD1	34:DK:19:VAL:HG12	2.43	0.48
27:DD:22:ILE:HD12	27:DD:23:PRO:N	2.29	0.48
40:BQ:109:VAL:O	40:BQ:113:LYS:HB2	2.14	0.48
13:CM:54:ASP:O	13:CM:56:LEU:N	2.47	0.48
16:CP:4:ILE:HD13	16:CP:21:VAL:HG12	1.96	0.48
16:CP:20:VAL:HG13	16:CP:34:GLU:O	2.14	0.48
1:AA:1008:U:C2	1:AA:1022:A:C2	3.02	0.48
24:BA:1422:G:C6	24:BA:1423:G:N7	2.82	0.48
24:BA:1712:U:C4	24:BA:1713:A:C6	3.02	0.48
24:BA:1819:A:H5'	26:BC:156:SER:OG	2.14	0.48
1:AA:1324:A:N7	1:AA:1325:C:C5	2.82	0.48
55:CY:20:PHE:HB2	55:CY:124:ALA:HB1	1.95	0.48
37:DN:108:ALA:HB3	37:DN:110:MET:HE2	1.96	0.48
24:BA:187:G:C2	24:BA:210:C:C2	3.02	0.48
26:BC:188:ARG:O	26:BC:189:ALA:CB	2.61	0.48
37:BN:44:LEU:HA	37:BN:47:VAL:CG1	2.43	0.48
24:DA:450:G:N1	24:DA:454:A:OP2	2.40	0.48
24:DA:477:A:C2'	24:DA:478:A:O5'	2.61	0.48
11:CK:81:ASN:HB3	11:CK:106:ARG:NE	2.28	0.48
7:AG:92:ARG:CB	7:AG:93:PRO:HD2	2.44	0.48
1:AA:632:U:O2	1:AA:632:U:C2'	2.62	0.48
24:DA:2780:G:OP2	33:DJ:120:ARG:NH2	2.47	0.48
1:AA:126:G:OP1	1:AA:605:U:O2'	2.31	0.48
29:BF:107:VAL:HG12	29:BF:108:PRO:HD3	1.96	0.48
2:CB:166:ALA:HB2	2:CB:187:VAL:HA	1.96	0.48
17:CQ:48:ASP:O	17:CQ:49:GLU:C	2.52	0.48
24:DA:1832:C:H2'	24:DA:1833:C:O4'	2.14	0.48
24:DA:729:G:C6	26:DC:206:LYS:HB2	2.48	0.48
24:DA:1434:A:H1'	24:DA:1435:G:C8	2.48	0.48
54:D4:3:VAL:CG2	54:D4:3:VAL:O	2.62	0.48
7:AG:68:ASN:OD1	7:AG:128:ALA:HA	2.14	0.48
3:CC:152:GLU:HB3	3:CC:167:TRP:CB	2.44	0.48
24:BA:1068:G:N3	24:BA:1068:G:C2'	2.76	0.48
24:BA:1517:G:C6	24:BA:1518:C:N3	2.82	0.48
51:D1:50:GLU:HG2	51:D1:51:ALA:N	2.29	0.48
36:DM:36:VAL:HG22	45:DV:82:TYR:CD2	2.48	0.48
4:CD:143:VAL:O	4:CD:144:SER:HB2	2.14	0.48
24:DA:1:G:H2'	24:DA:2:G:H8	1.78	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DL:26:GLY:C	35:DL:27:LEU:HG	2.33	0.48
1:CA:914:A:C6	1:CA:915:A:C5	3.01	0.48
24:DA:1015:U:C2'	24:DA:1016:G:H5'	2.44	0.48
2:CB:118:GLU:HA	2:CB:141:LEU:HD11	1.96	0.48
45:BV:42:LEU:HD23	45:BV:42:LEU:N	2.28	0.48
1:CA:12:U:H4'	1:CA:526:C:H4'	1.96	0.48
27:DD:68:PHE:CD1	27:DD:75:ALA:HA	2.48	0.48
28:DE:79:ARG:O	28:DE:80:SER:HB2	2.14	0.48
24:BA:755:U:H2'	24:BA:756:A:C8	2.49	0.48
24:DA:1695:G:N7	26:DC:13:ARG:NH2	2.61	0.48
41:DR:7:SER:O	41:DR:9:GLY:N	2.40	0.48
28:DE:154:ASP:OD1	28:DE:155:GLU:N	2.47	0.48
8:CH:7:ILE:N	8:CH:7:ILE:HD12	2.29	0.48
24:DA:2146:C:C6	24:DA:2146:C:OP1	2.67	0.48
47:DX:15:ASN:ND2	47:DX:23:ALA:HB1	2.29	0.48
1:CA:601:G:C6	1:CA:602:A:C6	3.02	0.48
29:BF:3:LEU:C	29:BF:3:LEU:HD12	2.34	0.48
19:AS:36:ARG:HD3	19:AS:75:ALA:HB3	1.95	0.48
22:CV:21:A:C4	22:CV:48:C:N3	2.82	0.48
24:BA:1865:U:C5	24:BA:1875:G:C2	3.02	0.48
24:BA:416:U:C4	24:BA:417:C:C4	3.02	0.48
1:AA:265:G:C2'	17:AQ:67:LEU:O	2.61	0.48
1:CA:692:U:H2'	1:CA:694:A:C8	2.49	0.48
11:CK:57:LYS:O	11:CK:58:SER:HB2	2.14	0.48
1:AA:551:U:C4	1:AA:552:U:C5	3.01	0.48
5:AE:83:HIS:CG	5:AE:84:PRO:CD	2.96	0.48
16:AP:4:ILE:HG22	16:AP:5:ARG:N	2.29	0.48
16:AP:67:ILE:N	16:AP:67:ILE:HD12	2.29	0.48
13:CM:48:LEU:O	13:CM:48:LEU:HD13	2.14	0.48
29:DF:109:ARG:CZ	29:DF:136:ILE:O	2.61	0.48
2:AB:96:TRP:CH2	2:AB:175:GLU:OE2	2.67	0.48
9:AI:50:GLN:O	9:AI:51:PRO:C	2.50	0.48
9:AI:30:ILE:HG13	9:AI:65:ILE:HD12	1.95	0.48
15:CO:89:ARG:NH1	24:DA:714:U:C5	2.81	0.48
24:BA:2464:G:H2'	24:BA:2465:C:O4'	2.14	0.48
4:CD:77:LYS:O	4:CD:78:GLU:C	2.52	0.48
24:BA:1205:A:C5	28:BE:165:HIS:CG	3.02	0.48
40:DQ:37:ALA:CB	40:DQ:40:LYS:HE2	2.43	0.48
10:CJ:81:GLU:O	10:CJ:85:ASP:CG	2.52	0.48
2:AB:53:ALA:HB3	2:AB:54:LEU:HD12	1.95	0.48
1:CA:193:C:H2'	1:CA:194:C:H6	1.79	0.48
18:CR:28:THR:HG23	18:CR:29:LEU:HD12	1.96	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:21:SER:C	13:AM:22:ILE:HG22	2.35	0.48
1:CA:980:C:O2'	14:CN:12:ARG:NH2	2.47	0.48
1:CA:983:A:H2'	1:CA:983:A:N3	2.29	0.48
14:CN:27:LYS:HA	14:CN:30:ILE:HG22	1.95	0.48
1:CA:1074:G:C5	1:CA:1075:U:C5	3.02	0.48
1:CA:1102:A:C2	1:CA:1103:C:C2	3.02	0.48
29:DF:33:ILE:HA	29:DF:155:ILE:HA	1.95	0.48
1:CA:1371:G:C5	1:CA:1372:U:C5	3.02	0.48
24:BA:2425:A:H5''	24:BA:2427:C:O4'	2.14	0.48
25:BB:2:G:N2	25:BB:3:C:C2	2.82	0.48
24:DA:1338:G:C2'	24:DA:1339:G:O5'	2.62	0.48
24:DA:1341:G:C2	43:DT:84:TYR:CD2	3.01	0.48
24:DA:204:A:H4'	24:DA:205:G:OP1	2.14	0.48
12:CL:39:THR:OG1	55:CY:83:MET:O	2.21	0.48
48:BY:17:GLU:HA	48:BY:20:ASN:HB2	1.95	0.48
7:CG:123:GLU:HA	7:CG:126:ASP:OD2	2.14	0.48
2:CB:144:LEU:HB2	2:CB:148:LEU:HD21	1.96	0.48
26:DC:156:SER:O	26:DC:159:THR:CG2	2.62	0.48
44:DU:73:ASN:O	44:DU:74:ALA:C	2.52	0.48
24:DA:2060:A:O2'	24:DA:2061:G:P	2.72	0.48
49:DZ:13:ILE:HG22	49:DZ:14:GLY:N	2.29	0.48
24:BA:2816:G:C5	24:BA:2817:U:C5	3.02	0.48
24:BA:1462:C:C4'	24:BA:2702:G:H21	2.27	0.48
1:AA:71:A:C2	1:AA:72:A:C5	3.01	0.48
12:AL:4:VAL:HG22	12:AL:5:ASN:N	2.27	0.48
37:DN:10:LEU:O	37:DN:12:ARG:HG3	2.14	0.48
1:CA:940:C:N3	1:CA:941:G:C5	2.81	0.48
24:BA:1782:U:H1'	24:BA:2609:U:H5'	1.96	0.48
1:CA:607:A:C4	1:CA:608:A:C8	3.02	0.48
24:BA:1144:A:H2'	24:BA:1145:C:O5'	2.14	0.48
1:AA:1152:A:C6	1:AA:1153:G:C5	3.02	0.48
24:DA:1458:U:O2	24:DA:1459:G:O6	2.31	0.48
37:BN:44:LEU:O	37:BN:48:VAL:HG23	2.13	0.48
1:CA:459:A:N1	1:CA:460:A:C6	2.82	0.48
24:BA:422:A:C6	24:BA:423:A:C6	3.01	0.48
24:DA:2519:U:C4	24:DA:2542:A:C5	3.01	0.48
24:BA:2840:C:H2'	24:BA:2841:C:H6	1.79	0.48
24:BA:769:U:C2	24:BA:770:G:C8	3.02	0.48
44:BU:66:VAL:C	44:BU:68:ASN:N	2.67	0.48
45:DV:80:HIS:CD2	45:DV:81:PRO:HD2	2.49	0.48
1:CA:20:U:O4	1:CA:21:G:C6	2.67	0.48
11:AK:72:ASP:C	11:AK:74:VAL:H	2.17	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:136:VAL:O	5:AE:138:ARG:N	2.43	0.48
24:DA:2455:G:H2'	24:DA:2456:C:C6	2.49	0.48
42:BS:62:ASP:O	42:BS:63:GLY:C	2.52	0.48
1:AA:1298:U:O4'	1:AA:1299:A:C2	2.67	0.48
44:BU:7:ASP:N	44:BU:24:VAL:HG23	2.28	0.48
1:CA:992:U:C2	1:CA:1043:G:N7	2.82	0.48
55:CY:2:ILE:O	55:CY:5:ILE:N	2.47	0.48
6:AF:9:MET:HB2	6:AF:85:ILE:HG12	1.96	0.48
1:CA:847:G:H2'	1:CA:848:C:H5'	1.96	0.48
11:AK:94:GLU:O	11:AK:96:THR:N	2.47	0.48
31:BH:103:VAL:O	31:BH:103:VAL:HG13	2.14	0.48
1:CA:343:U:O3'	1:CA:344:A:H2'	2.13	0.48
24:DA:2743:U:H2'	24:DA:2744:G:O4'	2.13	0.48
40:BQ:78:PHE:O	40:BQ:78:PHE:CD1	2.67	0.48
7:CG:88:PRO:HD2	7:CG:151:PHE:CD1	2.49	0.48
45:BV:17:SER:HA	45:BV:20:LEU:HD13	1.96	0.48
24:DA:1821:A:O5'	24:DA:1821:A:H8	1.97	0.48
44:BU:3:LYS:O	44:BU:82:VAL:HG21	2.14	0.48
45:DV:87:GLN:HA	45:DV:87:GLN:OE1	2.14	0.48
12:CL:49:LEU:HD12	12:CL:49:LEU:N	2.29	0.48
6:CF:32:ALA:O	6:CF:33:GLU:C	2.51	0.48
3:CC:128:VAL:O	3:CC:129:MET:CB	2.62	0.48
24:DA:1816:C:H3'	26:DC:61:TYR:CE1	2.49	0.48
31:DH:70:GLU:O	31:DH:71:LYS:O	2.32	0.47
24:DA:297:G:O3'	44:DU:84:PHE:CB	2.61	0.47
1:AA:1366:C:H2'	1:AA:1367:C:H6	1.79	0.47
1:AA:1220:G:H4'	19:AS:34:TRP:HB3	1.94	0.47
25:BB:49:C:OP1	38:BO:102:ARG:HD3	2.13	0.47
14:AN:48:LEU:O	14:AN:49:GLN:HB2	2.13	0.47
24:BA:2419:U:H5''	51:B1:21:THR:HG21	1.96	0.47
37:DN:15:SER:HA	37:DN:18:GLN:HB3	1.96	0.47
1:AA:371:A:H5''	1:AA:372:C:OP2	2.12	0.47
1:AA:392:C:C2	1:AA:393:A:C8	3.02	0.47
1:AA:395:C:C4	1:AA:396:C:N4	2.82	0.47
5:AE:83:HIS:CE1	5:AE:84:PRO:O	2.66	0.47
1:CA:1503:A:C8	1:CA:1531:A:N3	2.81	0.47
4:CD:138:SER:OG	4:CD:139:PRO:CD	2.62	0.47
1:CA:716:A:C2'	1:CA:717:U:O5'	2.62	0.47
1:AA:678:U:C2	1:AA:713:G:N2	2.81	0.47
1:AA:684:U:H1'	11:AK:40:ASN:CA	2.43	0.47
1:CA:1304:G:C6	1:CA:1305:G:C2	3.02	0.47
40:BQ:51:GLN:O	40:BQ:54:ARG:CG	2.62	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1086:U:O2'	1:AA:1087:G:H5'	2.13	0.47
24:BA:2033:A:N6	24:BA:2036:C:C2	2.82	0.47
9:AI:50:GLN:CG	9:AI:51:PRO:CD	2.92	0.47
24:BA:955:U:OP1	36:BM:86:LYS:HE2	2.14	0.47
20:AT:79:LEU:HD12	20:AT:80:THR:H	1.79	0.47
19:CS:18:LYS:HD3	19:CS:31:LEU:CD1	2.44	0.47
24:BA:2721:A:H1'	24:BA:2873:A:O2'	2.14	0.47
1:AA:428:G:H5'	4:AD:9:LEU:CD1	2.41	0.47
1:CA:1125:U:C5	10:CJ:40:ILE:CD1	2.97	0.47
4:CD:52:GLY:O	4:CD:55:LEU:HD12	2.13	0.47
1:CA:390:U:C2	1:CA:391:G:C8	3.02	0.47
20:CT:70:ASN:OD1	20:CT:70:ASN:N	2.39	0.47
1:CA:261:U:OP2	20:CT:71:LYS:HE2	2.14	0.47
20:CT:73:ALA:O	20:CT:77:ALA:N	2.46	0.47
13:AM:16:VAL:HG12	13:AM:34:LEU:HD12	1.96	0.47
24:DA:1873:G:C4	24:DA:1874:C:C6	3.02	0.47
44:BU:12:VAL:HG11	44:BU:38:ILE:CD1	2.44	0.47
24:DA:2209:G:C6	24:DA:2210:U:O4	2.67	0.47
24:DA:2315:G:O2'	29:DF:124:ARG:NE	2.46	0.47
1:AA:1411:C:C2'	1:AA:1412:C:O5'	2.62	0.47
44:DU:32:LYS:NZ	44:DU:64:ILE:C	2.58	0.47
21:AU:21:ARG:CZ	23:AX:4:G:H1'	2.43	0.47
30:BG:89:VAL:HG23	30:BG:160:GLY:N	2.30	0.47
39:BP:113:LEU:O	39:BP:113:LEU:HG	2.13	0.47
1:CA:588:G:N2	1:CA:589:U:H1'	2.29	0.47
24:DA:819:A:C4	24:DA:1189:A:C2	3.02	0.47
24:BA:2745:C:H2'	24:BA:2746:U:O4'	2.13	0.47
1:AA:893:C:H2'	1:AA:894:G:H5'	1.94	0.47
41:DR:51:VAL:HG23	41:DR:52:PRO:N	2.29	0.47
1:AA:511:C:O2'	1:AA:512:U:P	2.72	0.47
1:AA:176:C:H2'	1:AA:176:C:O2	2.13	0.47
24:DA:1666:G:O2'	34:DK:6:THR:CG2	2.62	0.47
24:BA:1343:G:C5	24:BA:1344:U:O4	2.67	0.47
42:DS:23:LEU:CD1	42:DS:39:THR:HG21	2.44	0.47
25:DB:30:C:OP1	38:DO:3:LYS:CE	2.62	0.47
24:DA:416:U:H2'	24:DA:417:C:H6	1.79	0.47
25:BB:24:G:N2	25:BB:28:C:C2	2.81	0.47
24:DA:1244:A:OP1	35:DL:7:SER:CB	2.62	0.47
39:BP:47:ILE:HA	39:BP:96:LEU:HD12	1.96	0.47
24:BA:1288:G:N3	24:BA:1327:A:C2	2.82	0.47
1:AA:529:G:H4'	1:AA:530:G:OP2	2.14	0.47
17:CQ:12:VAL:O	17:CQ:13:VAL:CB	2.62	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:31:LYS:HG3	13:AM:32:ALA:N	2.29	0.47
1:AA:337:G:C6	1:AA:338:A:C6	3.01	0.47
3:CC:165:THR:CG2	3:CC:166:GLU:N	2.76	0.47
24:BA:1493:C:C3'	24:BA:1494:A:H5'	2.44	0.47
12:AL:75:GLN:HG2	12:AL:76:GLU:CB	2.44	0.47
1:CA:606:G:H2'	1:CA:607:A:OP1	2.14	0.47
26:DC:106:PRO:O	26:DC:107:LYS:C	2.52	0.47
1:CA:831:A:C5'	1:CA:832:G:OP2	2.62	0.47
24:BA:712:G:C2'	24:BA:713:G:H5'	2.44	0.47
1:AA:577:G:N9	1:AA:816:A:C2	2.82	0.47
26:BC:141:HIS:CB	26:BC:194:VAL:HG12	2.44	0.47
3:CC:169:ARG:HG3	3:CC:170:GLU:N	2.29	0.47
1:AA:81:A:H2'	1:AA:82:G:C8	2.49	0.47
1:CA:149:A:C2	1:CA:150:U:N1	2.82	0.47
20:AT:27:MET:HG3	20:AT:27:MET:O	2.14	0.47
24:BA:1107:G:H2'	24:BA:1108:U:O4'	2.14	0.47
26:BC:122:ALA:HB3	26:BC:127:ASN:ND2	2.29	0.47
24:BA:1719:G:C6	24:BA:1720:U:C4	3.02	0.47
24:BA:2803:G:H2'	24:BA:2804:U:H6	1.77	0.47
41:DR:4:VAL:HA	41:DR:12:HIS:O	2.14	0.47
24:DA:514:A:H1'	24:DA:581:C:O2'	2.14	0.47
6:CF:43:GLY:CA	6:CF:58:HIS:CD2	2.97	0.47
27:BD:34:VAL:CG2	27:BD:48:ILE:HG12	2.44	0.47
24:DA:1441:G:H2'	24:DA:1442:U:C6	2.48	0.47
11:AK:52:PHE:CZ	11:AK:62:ALA:HA	2.49	0.47
8:CH:58:GLU:O	8:CH:59:LEU:C	2.51	0.47
1:AA:1273:C:C4	1:AA:1274:A:N7	2.81	0.47
51:B1:32:LYS:HD3	51:B1:50:GLU:HA	1.96	0.47
26:BC:212:TRP:HD1	26:BC:212:TRP:C	2.18	0.47
55:CY:2:ILE:HD12	55:CY:3:SER:N	2.29	0.47
51:D1:49:LYS:O	51:D1:50:GLU:O	2.32	0.47
34:BK:62:VAL:HG11	34:BK:65:THR:HG22	1.96	0.47
1:AA:665:A:C2	1:AA:732:C:C5	3.01	0.47
1:CA:1286:U:O2	1:CA:1286:U:H2'	2.14	0.47
40:BQ:104:ALA:O	40:BQ:107:ALA:HB3	2.14	0.47
5:CE:96:MET:HB3	5:CE:125:ALA:CB	2.44	0.47
24:BA:1559:U:H4'	24:BA:1560:G:OP2	2.13	0.47
24:DA:439:A:C6	24:DA:440:C:C4	3.02	0.47
11:AK:109:ASN:ND2	21:AU:6:VAL:O	2.47	0.47
40:DQ:51:GLN:O	40:DQ:54:ARG:N	2.45	0.47
51:D1:12:SER:OG	51:D1:18:HIS:O	2.21	0.47
34:BK:23:LYS:HA	34:BK:23:LYS:HE3	1.96	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:341:C:C2	1:AA:349:A:C2	3.02	0.47
36:BM:73:ILE:HG22	36:BM:74:THR:N	2.29	0.47
24:DA:2152:G:N7	24:DA:2153:C:C4	2.82	0.47
33:DJ:5:THR:HB	33:DJ:7:LYS:CE	2.44	0.47
24:BA:2644:G:C8	24:BA:2645:G:C2	3.02	0.47
31:DH:71:LYS:C	31:DH:72:ILE:HG13	2.34	0.47
28:DE:131:THR:CG2	28:DE:162:ARG:NH1	2.77	0.47
1:AA:1224:U:C4	1:AA:1322:C:O2	2.67	0.47
19:AS:18:LYS:C	19:AS:19:VAL:HG23	2.34	0.47
25:BB:29:A:P	38:BO:32:PRO:HD2	2.54	0.47
24:BA:2294:G:C3'	38:BO:10:ARG:HH12	2.27	0.47
24:BA:2295:C:P	38:BO:10:ARG:HH12	2.37	0.47
53:D3:25:HIS:CB	53:D3:43:LEU:HB3	2.43	0.47
24:DA:2392:A:O2'	35:DL:60:ARG:O	2.27	0.47
8:AH:43:GLU:CG	8:AH:44:GLY:H	2.27	0.47
26:BC:16:VAL:N	26:BC:203:VAL:HG22	2.29	0.47
1:CA:702:A:H5''	1:CA:703:G:N7	2.29	0.47
11:CK:127:ARG:HB2	21:CU:35:ARG:HH22	1.79	0.47
1:AA:625:U:H2'	1:AA:626:G:H8	1.79	0.47
4:AD:88:GLU:O	4:AD:92:ALA:N	2.47	0.47
5:AE:111:MET:CE	5:AE:125:ALA:HB1	2.44	0.47
8:AH:78:VAL:HG12	8:AH:85:ILE:HD12	1.95	0.47
1:AA:37:U:P	12:AL:120:LYS:HA	2.54	0.47
1:CA:1507:A:H8	1:CA:1507:A:H5''	1.79	0.47
1:CA:1508:A:C6	1:CA:1509:C:C4	3.03	0.47
1:CA:499:A:N3	1:CA:500:G:H1'	2.29	0.47
6:CF:9:MET:HG3	6:CF:85:ILE:CG2	2.44	0.47
1:AA:782:A:N7	1:AA:783:C:C4	2.83	0.47
13:CM:14:HIS:CE1	13:CM:42:ASP:HB3	2.49	0.47
13:CM:68:ASP:HA	13:CM:71:ARG:NE	2.29	0.47
24:DA:1072:C:O2'	24:DA:1094:U:O4	2.31	0.47
36:BM:41:LEU:HG	36:BM:96:ILE:HD11	1.96	0.47
24:BA:1190:G:P	35:BL:32:GLY:HA2	2.54	0.47
9:AI:51:PRO:O	9:AI:53:GLU:N	2.46	0.47
26:DC:244:VAL:CG2	26:DC:248:GLY:C	2.83	0.47
24:BA:2165:C:O2	24:BA:2165:C:C2'	2.61	0.47
24:BA:2725:A:C5	24:BA:2727:A:C4	3.02	0.47
24:DA:1361:G:C5	24:DA:1362:C:N4	2.81	0.47
24:BA:347:A:N1	24:BA:348:A:C6	2.82	0.47
9:CI:25:ASN:N	9:CI:25:ASN:OD1	2.46	0.47
21:CU:37:PHE:CD1	21:CU:37:PHE:C	2.88	0.47
51:B1:28:THR:O	51:B1:29:LYS:CB	2.62	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:615:U:H5''	24:BA:616:A:C8	2.49	0.47
24:BA:637:A:C6	24:BA:652:U:H4'	2.49	0.47
1:CA:1087:G:N2	1:CA:1099:G:H1'	2.29	0.47
21:AU:26:ALA:HB2	23:AX:5:A:C5'	2.43	0.47
1:AA:1264:U:C2	1:AA:1272:G:N2	2.80	0.47
52:B2:35:ARG:O	52:B2:37:LYS:N	2.47	0.47
1:AA:465:A:C6	1:AA:466:A:C6	3.02	0.47
1:CA:654:G:C4	1:CA:655:A:C8	3.02	0.47
15:CO:24:SER:O	15:CO:27:VAL:CG2	2.62	0.47
13:AM:114:LYS:CB	13:AM:115:PRO:HD3	2.44	0.47
24:DA:839:U:C2	24:DA:940:G:C2	3.02	0.47
30:BG:138:GLN:O	30:BG:139:VAL:C	2.52	0.47
1:CA:1345:U:C2	1:CA:1377:A:N1	2.82	0.47
1:AA:907:A:C2	1:AA:908:A:N9	2.82	0.47
24:DA:2484:G:OP1	36:DM:44:ARG:NE	2.46	0.47
24:DA:179:C:H2'	24:DA:180:G:O4'	2.14	0.47
26:BC:43:ASN:O	26:BC:44:ASN:C	2.53	0.47
24:BA:1172:C:N4	24:BA:1173:U:C2	2.82	0.47
24:BA:475:C:O4'	24:BA:509:C:C6	2.67	0.47
2:AB:24:ASN:O	2:AB:26:LYS:N	2.47	0.47
1:CA:774:G:C6	1:CA:775:G:C5	3.02	0.47
12:AL:86:ARG:CZ	12:AL:86:ARG:HB2	2.43	0.47
1:CA:95:C:C2	1:CA:96:U:C5	3.02	0.47
27:BD:124:ARG:CD	27:BD:160:LYS:HZ1	2.28	0.47
27:BD:125:TRP:CD2	27:BD:160:LYS:HB2	2.50	0.47
24:BA:2204:G:O6	24:BA:2221:G:C5	2.67	0.47
47:BX:45:PHE:C	47:BX:46:VAL:HG13	2.34	0.47
24:DA:2013:A:C2'	24:DA:2014:A:C5'	2.92	0.47
24:DA:167:A:C5	24:DA:168:G:C8	3.02	0.47
50:D0:24:VAL:CG1	50:D0:25:THR:N	2.77	0.47
50:D0:25:THR:HG23	50:D0:26:SER:N	2.30	0.47
24:DA:1551:A:N6	59:DA:3633:HOH:O	2.47	0.47
42:BS:89:ALA:O	42:BS:90:LYS:HB2	2.14	0.47
24:BA:1021:A:C2'	24:BA:1021:A:N3	2.77	0.47
24:DA:2531:A:H5'	30:DG:156:TYR:CZ	2.50	0.47
1:CA:175:C:H2'	1:CA:176:C:C6	2.49	0.47
1:CA:782:A:C6	1:CA:801:U:C6	3.02	0.47
26:BC:245:THR:CB	26:BC:246:PRO:HD2	2.44	0.47
24:BA:2447:G:C4	24:BA:2501:C:C5	3.01	0.47
1:CA:940:C:O2	1:CA:941:G:N9	2.47	0.47
24:BA:2211:A:C1'	24:BA:2212:A:OP1	2.62	0.47
24:BA:2211:A:H1'	24:BA:2212:A:OP1	2.13	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:489:C:H2'	1:AA:489:C:O2	2.14	0.47
24:DA:1773:A:H2'	24:DA:1774:C:C5'	2.43	0.47
52:D2:34:ARG:NH1	52:D2:39:ARG:CD	2.76	0.47
11:AK:93:ARG:CA	11:AK:93:ARG:NE	2.77	0.47
24:BA:871:U:H2'	24:BA:872:U:C6	2.49	0.47
3:CC:73:PRO:O	3:CC:77:ILE:CG1	2.62	0.47
24:BA:2795:C:H2'	24:BA:2796:U:C6	2.48	0.47
24:BA:2773:C:OP1	27:BD:169:ARG:NH2	2.47	0.47
24:BA:1053:C:C2	24:BA:1107:G:N2	2.83	0.47
1:CA:1025:U:H4'	1:CA:1026:G:C8	2.49	0.47
18:AR:60:LYS:HD3	18:AR:63:ARG:NH1	2.29	0.47
24:DA:2339:C:C2'	24:DA:2340:A:O5'	2.62	0.47
52:D2:43:THR:O	52:D2:44:VAL:HG12	2.14	0.47
24:BA:2435:A:C6	24:BA:2436:G:N7	2.82	0.47
1:CA:1501:C:C6	1:CA:1504:G:C8	3.02	0.47
41:BR:63:VAL:HG13	41:BR:94:THR:CG2	2.45	0.47
24:DA:773:U:H5'	26:DC:46:GLY:HA3	1.96	0.47
24:BA:2776:A:C2	24:BA:2778:A:C4	3.02	0.47
18:AR:56:ALA:CA	18:AR:59:ILE:CG2	2.91	0.47
1:AA:656:G:O2'	15:AO:28:GLN:NE2	2.46	0.47
49:BZ:36:GLU:O	49:BZ:37:ARG:NH1	2.47	0.47
24:DA:1539:U:H2'	24:DA:1540:G:C8	2.49	0.47
1:CA:908:A:C2	1:CA:909:A:C5	3.02	0.47
39:DP:90:ALA:HB2	39:DP:112:ARG:HA	1.96	0.47
3:AC:54:ARG:O	3:AC:54:ARG:HG3	2.14	0.47
12:AL:31:ARG:O	12:AL:58:THR:HB	2.13	0.47
24:DA:1885:A:C2	24:DA:1886:U:H1'	2.49	0.47
34:BK:108:ARG:NH2	39:BP:33:GLU:HG2	2.29	0.47
47:DX:38:TRP:NE1	47:DX:40:GLU:HG2	2.29	0.47
1:AA:1295:U:H2'	1:AA:1296:C:C6	2.49	0.47
24:DA:2466:C:H5''	54:D4:5:ALA:HB3	1.96	0.47
24:BA:142:A:C2'	24:BA:143:C:O5'	2.62	0.47
1:CA:511:C:H5'	4:CD:44:ARG:NH1	2.30	0.47
12:AL:43:LYS:O	12:AL:45:PRO:HD3	2.14	0.47
31:DH:71:LYS:HE3	31:DH:108:VAL:CG2	2.43	0.47
24:DA:1921:G:O6	57:DA:3184:NMY:C8	2.61	0.47
24:DA:340:A:H2'	24:DA:341:C:H5'	1.96	0.47
1:AA:1349:A:C4	1:AA:1350:A:C8	3.01	0.47
38:BO:99:TYR:O	38:BO:100:HIS:HB3	2.13	0.47
24:BA:1877:A:C6	24:BA:1878:G:C4	3.03	0.47
24:BA:228:C:H4'	24:BA:229:C:H5''	1.96	0.47
8:AH:27:MET:CB	8:AH:28:PRO:HD2	2.44	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BC:12:ARG:HA	26:BC:15:VAL:HG21	1.95	0.47
1:AA:400:C:C4	1:AA:401:C:C5	3.02	0.47
1:AA:586:C:H5''	8:AH:82:GLY:HA2	1.96	0.47
8:AH:126:ILE:HG22	8:AH:127:CYS:HB3	1.95	0.47
1:CA:1530:G:O2'	1:CA:1531:A:P	2.70	0.47
1:CA:401:C:OP2	4:CD:70:ARG:CD	2.62	0.47
1:CA:509:A:C6	1:CA:510:A:N1	2.82	0.47
4:CD:153:SER:O	4:CD:155:VAL:N	2.47	0.47
1:CA:739:C:C4	1:CA:740:U:C4	3.01	0.47
11:AK:42:LEU:HD12	11:AK:42:LEU:N	2.29	0.47
1:AA:1054:C:H5'	1:AA:1196:A:C2	2.49	0.47
10:AJ:52:LEU:HB2	14:AN:81:ARG:HD2	1.95	0.47
24:BA:84:A:N6	24:BA:99:U:C5'	2.77	0.47
13:CM:69:LEU:O	13:CM:70:ARG:HG3	2.14	0.47
24:DA:1058:U:O2	24:DA:1081:U:N3	2.46	0.47
24:DA:1494:A:H2'	24:DA:1495:A:O4'	2.14	0.47
1:AA:1182:G:C5'	1:AA:1183:U:H5'	2.44	0.47
1:AA:1117:A:O3'	9:AI:106:ARG:HD2	2.14	0.47
24:BA:733:G:O6	24:BA:761:A:C8	2.68	0.47
9:AI:78:ALA:O	9:AI:82:GLY:N	2.40	0.47
10:AJ:34:ALA:O	10:AJ:35:GLN:HB3	2.15	0.47
2:AB:91:PHE:HE1	2:AB:150:GLY:HA2	1.79	0.47
19:CS:36:ARG:O	19:CS:38:SER:N	2.45	0.47
55:CY:152:ASP:O	55:CY:155:ARG:HG3	2.14	0.47
4:CD:82:LEU:HD11	4:CD:89:ASN:ND2	2.29	0.47
40:DQ:39:ILE:HG22	40:DQ:43:GLN:HE21	1.79	0.47
1:CA:1148:U:C5'	9:CI:9:THR:HG21	2.43	0.47
1:CA:1150:A:O3'	10:CJ:43:PRO:HA	2.14	0.47
24:BA:360:U:C4	24:BA:361:G:N2	2.83	0.47
24:BA:2019:A:H2'	24:BA:2020:A:O5'	2.14	0.47
7:CG:146:GLU:O	7:CG:149:LYS:HB3	2.14	0.47
15:CO:13:SER:O	15:CO:14:GLU:HB3	2.13	0.47
24:DA:2206:C:H2'	24:DA:2207:C:O5'	2.14	0.47
24:BA:608:A:N6	24:BA:609:A:N6	2.63	0.47
13:AM:66:GLU:OE1	13:AM:67:GLY:N	2.41	0.47
1:CA:981:U:C4	1:CA:982:U:N3	2.82	0.47
24:BA:1360:G:O6	24:BA:1372:U:C6	2.67	0.47
2:CB:208:ARG:O	2:CB:212:LEU:CD1	2.63	0.47
24:DA:1386:C:O2'	24:DA:1469:A:N3	2.31	0.47
24:DA:2756:U:C1'	24:DA:2757:A:H5''	2.43	0.47
29:DF:97:GLU:O	29:DF:98:PHE:C	2.51	0.47
8:CH:111:MET:CG	8:CH:112:THR:H	2.27	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CH:111:MET:CG	8:CH:112:THR:N	2.78	0.47
21:AU:26:ALA:CB	23:AX:5:A:P	3.02	0.47
1:AA:1439:G:C2	1:AA:1440:U:C4	3.02	0.47
1:AA:858:G:N7	1:AA:869:G:C6	2.83	0.47
1:CA:967:C:C4'	9:CI:129:LYS:HG3	2.44	0.47
24:BA:2145:C:H5''	24:BA:2146:C:P	2.54	0.47
39:BP:113:LEU:O	39:BP:113:LEU:CG	2.63	0.47
30:BG:3:VAL:O	30:BG:68:ARG:CD	2.61	0.47
14:CN:77:PHE:CD1	14:CN:77:PHE:N	2.82	0.47
14:CN:77:PHE:HD1	14:CN:77:PHE:N	2.12	0.47
1:AA:888:G:H1'	1:AA:909:A:N6	2.30	0.47
31:BH:29:PHE:CD2	31:BH:30:LEU:N	2.82	0.47
2:CB:114:LEU:C	2:CB:114:LEU:HD12	2.34	0.47
42:BS:3:THR:HB	42:BS:58:ALA:HB1	1.89	0.47
24:BA:2221:G:H2'	24:BA:2222:C:H5'	1.94	0.47
9:AI:130:ARG:HD2	22:AV:33:U:OP2	2.14	0.47
24:DA:602:A:O2'	24:DA:604:G:O2'	2.01	0.47
45:DV:48:MET:O	45:DV:51:GLN:HG2	2.14	0.47
1:CA:91:U:C5	1:CA:92:U:C2	3.02	0.47
25:BB:57:A:O4'	29:BF:26:GLN:HG3	2.14	0.47
31:DH:26:ALA:O	31:DH:32:PRO:HD3	2.14	0.47
24:BA:1139:G:N2	24:BA:1140:C:C2	2.82	0.47
37:BN:106:ASP:OD1	37:BN:108:ALA:N	2.47	0.47
1:CA:188:C:C2	1:CA:189:A:C4	3.01	0.47
24:BA:89:A:N3	24:BA:90:U:C6	2.82	0.47
24:BA:90:U:C2	24:BA:91:A:N7	2.83	0.47
2:CB:68:LEU:HA	2:CB:90:PHE:O	2.14	0.47
10:AJ:23:ALA:O	10:AJ:26:VAL:N	2.47	0.47
24:DA:2290:G:H2'	24:DA:2291:U:C6	2.49	0.47
24:DA:2799:A:O2'	24:DA:2800:A:H5''	2.14	0.47
20:AT:35:VAL:O	20:AT:36:TYR:C	2.52	0.47
24:DA:1414:C:C2	24:DA:1415:U:H5	2.33	0.47
24:BA:370:G:C6	24:BA:424:G:C8	3.03	0.47
6:AF:18:VAL:HG13	6:AF:19:PRO:HD2	1.96	0.47
24:BA:2563:U:O2	24:BA:2565:A:H8	1.96	0.47
12:CL:104:CYS:O	12:CL:105:SER:OG	2.30	0.47
1:CA:1170:A:C8	1:CA:1171:A:C8	3.02	0.47
8:CH:95:VAL:CG2	8:CH:128:TYR:CD2	2.96	0.47
1:AA:85:U:C2	1:AA:86:G:C6	3.03	0.47
1:AA:227:G:H3'	1:AA:228:A:H8	1.78	0.47
1:AA:522:C:O2'	59:AA:1768:HOH:O	2.20	0.47
24:DA:661:A:C8	24:DA:661:A:C3'	2.97	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AV:50:U:H2'	22:AV:51:U:C5'	2.44	0.47
8:CH:10:MET:SD	8:CH:36:ILE:HD11	2.53	0.47
24:BA:1759:A:C8	24:BA:2696:U:O2	2.66	0.47
24:DA:169:G:C2	24:DA:170:U:C5	3.02	0.47
2:AB:29:PRO:HG2	2:AB:30:PHE:CD1	2.49	0.47
24:BA:1285:A:N6	24:BA:1329:U:C6	2.82	0.47
3:CC:152:GLU:HB2	3:CC:167:TRP:HB3	1.96	0.47
11:CK:63:ALA:HB2	11:CK:92:GLY:HA3	1.96	0.47
32:BI:108:ILE:HG22	32:BI:109:ALA:H	1.80	0.47
24:BA:682:G:C4	24:BA:683:U:C5	3.02	0.47
24:BA:367:G:C6	24:BA:368:A:N3	2.82	0.47
1:CA:895:G:H2'	1:CA:896:C:H6	1.79	0.47
36:BM:132:THR:HG22	36:BM:133:LYS:O	2.13	0.47
24:BA:969:G:C4	24:BA:970:U:C5	3.02	0.47
24:BA:969:G:N2	24:BA:985:C:OP1	2.47	0.47
27:BD:16:THR:CG2	27:BD:20:VAL:HB	2.45	0.47
30:BG:37:ASN:O	30:BG:38:ASP:C	2.52	0.47
17:AQ:63:GLU:O	17:AQ:64:CYS:CB	2.61	0.47
29:BF:111:ARG:C	29:BF:112:ASP:OD1	2.52	0.47
24:DA:1411:U:C4	24:DA:1412:U:C4	3.02	0.47
24:BA:1024:G:C6	24:BA:1025:G:C6	3.02	0.47
24:BA:116:C:H2'	24:BA:116:C:O2	2.15	0.47
13:AM:51:GLY:O	13:AM:54:ASP:N	2.48	0.47
22:AV:63:G:H2'	22:AV:64:A:O4'	2.15	0.47
9:CI:21:ILE:O	9:CI:21:ILE:HG23	2.15	0.47
25:DB:24:G:C6	25:DB:56:G:C2	3.01	0.47
27:DD:30:GLU:O	27:DD:31:ALA:C	2.52	0.47
33:DJ:133:ALA:O	33:DJ:134:ALA:C	2.52	0.47
41:BR:74:ILE:O	41:BR:86:GLN:HA	2.14	0.47
14:AN:46:LEU:C	14:AN:48:LEU:N	2.67	0.47
12:CL:24:LEU:HB2	12:CL:59:ASN:ND2	2.30	0.47
1:AA:394:G:C2	1:AA:395:C:N1	2.83	0.47
4:AD:65:TYR:N	4:AD:65:TYR:CD1	2.80	0.47
4:AD:67:VAL:HG12	4:AD:68:LEU:N	2.28	0.47
4:AD:69:GLU:O	4:AD:73:ARG:HB2	2.13	0.47
4:CD:170:TRP:O	4:CD:182:PHE:CA	2.62	0.47
1:AA:925:G:H5''	1:AA:926:G:OP1	2.14	0.47
11:AK:125:LYS:HA	21:AU:35:ARG:HA	1.97	0.47
1:AA:1061:G:C6	1:AA:1062:U:C2	3.02	0.47
14:AN:63:ARG:O	14:AN:64:CYS:C	2.51	0.47
13:CM:11:ASP:O	13:CM:13:LYS:N	2.46	0.47
13:CM:73:ILE:HA	13:CM:76:SER:OG	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:685:G:C6	1:CA:686:U:O4	2.67	0.47
1:AA:1096:C:H2'	1:AA:1097:C:C6	2.50	0.47
1:AA:180:U:O4	1:AA:195:A:OP2	2.32	0.47
1:CA:1219:A:H2'	1:CA:1220:G:O4'	2.13	0.47
4:AD:13:ARG:HB3	4:AD:13:ARG:CZ	2.43	0.47
24:DA:1360:G:C6	24:DA:1361:G:H1'	2.49	0.47
40:DQ:39:ILE:HG21	41:DR:77:PHE:CD2	2.49	0.47
1:CA:373:A:N3	1:CA:374:A:C8	2.82	0.47
1:CA:1133:G:N2	1:CA:1142:G:C2	2.82	0.47
28:BE:8:ALA:O	28:BE:9:GLN:C	2.50	0.47
24:BA:2021:C:P	50:B0:8:THR:HG21	2.54	0.47
12:CL:94:ARG:NH1	12:CL:95:TYR:CD2	2.82	0.47
12:CL:98:VAL:HG22	12:CL:98:VAL:O	2.14	0.47
24:BA:2709:G:C6	24:BA:2710:C:C4	3.02	0.47
20:CT:73:ALA:O	20:CT:74:ARG:C	2.53	0.47
24:BA:958:U:H2'	25:BB:89:U:C2	2.49	0.47
24:BA:655:A:H4'	24:BA:656:G:H5'	1.95	0.47
1:AA:1304:G:N2	1:AA:1334:G:C6	2.82	0.47
29:BF:142:TYR:CD1	29:BF:142:TYR:O	2.68	0.47
12:CL:44:LYS:CB	12:CL:45:PRO:CD	2.89	0.47
2:CB:186:ILE:CD1	2:CB:201:PRO:O	2.63	0.47
24:DA:983:A:N7	24:DA:984:A:C6	2.82	0.47
3:AC:97:VAL:O	3:AC:98:PRO:O	2.32	0.47
24:DA:2315:G:H1'	29:DF:124:ARG:NH2	2.28	0.47
21:CU:12:PHE:CD1	21:CU:12:PHE:N	2.81	0.47
21:CU:15:ALA:O	21:CU:16:LEU:HG	2.13	0.47
38:DO:35:ILE:O	38:DO:53:THR:HG23	2.13	0.47
38:DO:54:VAL:O	38:DO:55:GLU:C	2.51	0.47
24:DA:2056:G:H2'	24:DA:2056:G:N3	2.29	0.47
24:BA:2661:G:C6	24:BA:2662:A:C2	3.02	0.47
24:DA:1799:G:O2'	26:DC:179:GLU:OE2	2.13	0.47
24:BA:2740:A:C5	24:BA:2764:A:N7	2.83	0.47
24:BA:2298:A:C6	24:BA:2299:U:O2	2.67	0.47
4:CD:19:LEU:HD12	4:CD:64:ILE:O	2.15	0.47
24:DA:189:G:P	47:DX:25:LYS:HZ3	2.38	0.47
24:DA:1737:G:C2	24:DA:1738:G:N2	2.82	0.47
6:CF:3:HIS:HA	6:CF:64:VAL:O	2.14	0.47
24:BA:860:U:H5''	24:BA:861:A:OP2	2.13	0.47
2:CB:114:LEU:CD2	2:CB:144:LEU:HD13	2.44	0.47
24:BA:476:G:O4'	24:BA:505:A:C2	2.67	0.47
24:BA:1789:A:H5'	26:BC:219:VAL:HG22	1.96	0.47
46:DW:41:ARG:HA	46:DW:41:ARG:NE	2.29	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2832:U:O4	24:BA:2883:A:H5''	2.15	0.47
24:DA:159:G:N2	24:DA:166:U:C4	2.82	0.47
41:DR:101:ILE:CG1	41:DR:101:ILE:O	2.61	0.47
24:DA:1638:C:H1'	24:DA:2698:U:O2'	2.14	0.47
24:DA:422:A:N1	24:DA:423:A:C2	2.82	0.47
24:DA:64:A:OP1	43:DT:77:ARG:HD2	2.14	0.47
1:CA:1387:G:C5	1:CA:1388:C:C5	3.02	0.47
1:AA:74:A:C2	1:AA:97:G:C6	3.02	0.47
2:AB:17:GLY:HA3	2:AB:41:ILE:CD1	2.45	0.47
24:BA:1553:A:N7	24:BA:1555:G:C5	2.83	0.47
28:DE:1:MET:HG3	28:DE:14:VAL:HG23	1.96	0.47
1:CA:833:G:O2'	1:CA:834:U:O5'	2.32	0.47
44:BU:11:ILE:HA	44:BU:21:ARG:HA	1.96	0.47
24:BA:1675:C:C4	24:BA:1676:A:C5	3.02	0.47
24:DA:1342:A:C2	24:DA:1345:C:C6	3.02	0.47
1:CA:142:G:N2	1:CA:143:A:H1'	2.29	0.47
24:DA:273:G:N2	24:DA:365:U:O2	2.47	0.47
22:CV:2:C:O2'	22:CV:3:C:C6	2.59	0.47
5:AE:64:MET:O	5:AE:67:ALA:CB	2.63	0.47
24:BA:1661:G:C6	24:BA:1662:U:C5	3.02	0.47
48:DY:18:LEU:O	48:DY:22:LEU:HB2	2.15	0.47
12:AL:34:CYS:HA	12:AL:55:VAL:HA	1.96	0.47
37:BN:69:ARG:O	37:BN:71:ARG:N	2.48	0.47
1:CA:1458:G:OP1	20:CT:30:THR:OG1	2.33	0.47
33:DJ:120:ARG:O	33:DJ:123:LYS:HE3	2.15	0.47
17:AQ:27:ARG:NH2	17:AQ:40:ARG:NH1	2.62	0.47
24:BA:1064:C:O2	24:BA:1075:C:C2	2.67	0.47
2:CB:117:LEU:HA	2:CB:120:GLN:HG2	1.97	0.47
24:BA:2404:U:O4	24:BA:2405:G:C6	2.67	0.47
53:B3:55:GLY:O	53:B3:59:ALA:HB2	2.13	0.47
1:CA:972:C:H4'	10:CJ:59:LYS:HB2	1.95	0.47
24:BA:2714:G:C2'	24:BA:2715:C:H5'	2.44	0.47
1:AA:1499:A:H2'	1:AA:1500:A:H8	1.80	0.47
24:BA:140:C:O2	24:BA:140:C:O4'	2.31	0.47
24:BA:1518:C:H2'	24:BA:1519:G:C8	2.49	0.47
1:CA:815:A:N3	1:CA:1527:U:O2'	2.43	0.47
39:DP:96:LEU:HB2	39:DP:98:TYR:CE1	2.49	0.47
31:BH:57:LYS:CG	31:BH:58:LEU:N	2.77	0.47
55:CY:6:ARG:O	55:CY:7:LYS:C	2.53	0.47
20:AT:28:MET:CE	20:AT:61:GLN:CG	2.93	0.47
4:CD:144:SER:O	4:CD:145:ILE:C	2.53	0.47
24:DA:1286:A:C6	24:DA:1329:U:C2	3.03	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2236:U:H2'	24:BA:2237:G:O4'	2.14	0.47
24:BA:970:U:H2'	24:BA:971:G:H8	1.78	0.47
24:BA:2128:G:O6	24:BA:2160:C:N4	2.47	0.47
55:CY:55:ALA:CB	55:CY:69:VAL:HG13	2.43	0.47
31:BH:146:VAL:O	31:BH:146:VAL:HG12	2.14	0.47
24:DA:1219:U:H2'	24:DA:1220:G:H8	1.79	0.47
4:CD:123:ILE:CG2	4:CD:124:MET:N	2.77	0.47
24:BA:543:G:C6	24:BA:544:C:C4	3.03	0.47
1:AA:878:A:C5'	8:AH:81:PRO:HG2	2.44	0.47
43:BT:39:THR:CG2	43:BT:42:GLU:CG	2.92	0.47
24:DA:642:U:O2	24:DA:644:A:C8	2.68	0.47
37:BN:96:ARG:O	37:BN:113:ILE:HD13	2.14	0.47
24:DA:1224:U:H4'	41:DR:88:GLY:O	2.14	0.47
29:BF:57:ALA:HB2	29:BF:64:PRO:HD3	1.95	0.47
57:AA:1655:NMY:N9	24:BA:1913:A:N6	2.62	0.47
24:DA:1838:C:C5	24:DA:1899:A:C6	3.02	0.47
54:D4:27:CYS:HB3	54:D4:30:GLU:OE1	2.14	0.47
38:BO:11:ALA:O	38:BO:12:THR:C	2.52	0.47
24:DA:251:A:C5	24:DA:252:G:H1'	2.50	0.47
47:BX:4:CYS:SG	47:BX:7:THR:CG2	3.03	0.47
7:AG:26:PHE:O	7:AG:29:ILE:N	2.41	0.47
5:AE:111:MET:HE2	5:AE:125:ALA:CB	2.45	0.47
8:AH:113:ASP:N	8:AH:113:ASP:OD1	2.45	0.47
16:AP:6:LEU:CD1	16:AP:71:VAL:HG12	2.45	0.47
1:CA:400:C:H2'	1:CA:401:C:C5'	2.44	0.47
1:CA:408:A:O4'	4:CD:154:ARG:NH2	2.45	0.47
4:CD:162:ALA:O	4:CD:163:GLU:C	2.53	0.47
1:CA:597:G:O4'	17:CQ:28:PHE:CE1	2.67	0.47
1:CA:728:A:C2	1:CA:729:A:C4	3.03	0.47
1:CA:1236:A:O2'	1:CA:1334:G:N2	2.47	0.47
1:CA:1239:A:C2	1:CA:1241:G:N1	2.82	0.47
1:CA:1293:C:H2'	1:CA:1294:G:C5'	2.44	0.47
1:CA:945:G:H2'	1:CA:945:G:N3	2.30	0.47
19:CS:74:PHE:O	19:CS:75:ALA:HB2	2.14	0.47
24:DA:1061:U:HO2'	24:DA:1062:G:P	2.35	0.47
24:DA:1087:G:C2	24:DA:1103:A:C2	3.02	0.47
4:AD:109:ALA:HB2	4:AD:158:ALA:CB	2.45	0.47
1:AA:409:U:O5'	4:AD:25:VAL:CG1	2.63	0.47
24:BA:2485:G:C2'	24:BA:2486:C:H5'	2.43	0.47
2:AB:179:LEU:HD22	2:AB:179:LEU:N	2.29	0.47
28:BE:58:LYS:HG3	28:BE:71:GLY:CA	2.44	0.47
19:CS:12:ASP:OD1	19:CS:14:HIS:CG	2.67	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CS:30:PRO:HA	19:CS:48:THR:OG1	2.14	0.47
1:CA:624:C:N3	1:CA:625:U:C2	2.83	0.47
4:CD:74:ASN:O	4:CD:78:GLU:OE1	2.31	0.47
24:BA:2110:G:C6	24:BA:2120:G:H1'	2.50	0.47
24:BA:2171:A:H3'	24:BA:2173:A:N7	2.29	0.47
24:BA:1204:A:C2	24:BA:1240:U:N3	2.79	0.47
24:BA:2727:A:C5	24:BA:2728:U:C4	3.02	0.47
27:DD:129:THR:O	27:DD:129:THR:CG2	2.62	0.47
48:BY:52:ARG:NH2	48:BY:52:ARG:HB3	2.29	0.47
24:BA:2031:A:C6	24:BA:2498:C:H1'	2.50	0.47
1:CA:1133:G:N1	1:CA:1142:G:C6	2.83	0.47
28:BE:5:LEU:O	28:BE:7:ASP:N	2.47	0.47
27:DD:12:THR:HG23	39:DP:8:GLU:OE2	2.14	0.47
35:BL:29:LYS:O	35:BL:30:THR:HB	2.13	0.47
24:BA:1368:G:P	52:B2:25:LYS:HD2	2.54	0.47
44:BU:69:VAL:HG23	44:BU:70:ALA:N	2.29	0.47
1:CA:1081:A:H2'	1:CA:1082:A:O4'	2.15	0.47
1:CA:17:U:N3	1:CA:18:C:C4	2.83	0.47
7:CG:28:ASN:O	7:CG:31:MET:N	2.43	0.47
1:AA:994:A:C2	14:AN:4:SER:HB2	2.49	0.47
1:AA:869:G:H5''	1:AA:872:A:O4'	2.14	0.47
14:CN:42:TRP:CZ2	14:CN:44:ALA:HB3	2.49	0.47
37:BN:28:LEU:O	37:BN:32:GLU:HA	2.14	0.47
37:BN:79:LEU:O	37:BN:81:ASN:N	2.45	0.47
24:BA:2133:G:N7	24:BA:2157:G:O6	2.48	0.47
7:CG:66:LEU:HD12	7:CG:67:GLU:N	2.30	0.47
1:AA:1385:G:C4	1:AA:1386:G:C8	3.03	0.47
3:AC:100:GLN:HG2	3:AC:101:ILE:O	2.13	0.47
3:AC:77:ILE:HG21	3:AC:103:ILE:HD13	1.95	0.47
40:DQ:84:LYS:C	40:DQ:86:SER:N	2.67	0.47
40:DQ:91:ARG:O	40:DQ:92:LYS:C	2.53	0.47
44:BU:43:LYS:HE2	44:BU:44:HIS:CE1	2.50	0.47
2:CB:16:PHE:CE2	2:CB:18:HIS:NE2	2.83	0.47
1:AA:148:G:O2'	1:AA:1446:A:H2'	2.13	0.47
33:BJ:84:ILE:O	33:BJ:84:ILE:CG2	2.63	0.47
24:BA:340:A:C8	24:BA:341:C:C6	3.02	0.47
24:DA:445:C:H2'	24:DA:446:G:O5'	2.14	0.47
24:BA:1569:A:C6	24:BA:1570:A:C6	3.03	0.47
10:AJ:19:ASP:HA	10:AJ:22:THR:CG2	2.44	0.47
24:BA:2821:A:O5'	27:BD:115:GLY:HA3	2.14	0.47
1:AA:69:G:H2'	1:AA:70:U:C5	2.49	0.47
2:AB:206:ALA:HB3	2:AB:209:ALA:HB3	1.97	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:337:G:H2'	1:AA:338:A:O5'	2.15	0.47
16:CP:20:VAL:HG11	16:CP:32:PHE:CG	2.49	0.47
24:BA:2446:G:O3'	24:BA:2447:G:H4'	2.15	0.47
43:DT:6:ARG:HD3	43:DT:6:ARG:C	2.33	0.47
1:CA:1160:G:C5	1:CA:1181:G:O6	2.67	0.47
24:BA:2617:U:O2'	24:BA:2618:G:H5'	2.14	0.47
24:DA:1589:U:H2'	24:DA:1590:A:C8	2.49	0.47
24:DA:623:C:H2'	24:DA:624:C:C6	2.45	0.47
24:DA:354:A:C6	24:DA:355:U:C4	3.02	0.47
24:DA:80:G:N2	24:DA:81:G:C4	2.83	0.47
24:BA:2545:G:O2'	24:BA:2565:A:N1	2.41	0.47
24:BA:1676:A:C6	24:BA:1677:A:C5	3.03	0.47
33:BJ:115:GLY:HA2	33:BJ:118:MET:HG2	1.94	0.47
1:AA:1381:U:H1'	7:AG:78:ARG:CZ	2.45	0.47
4:AD:80:ALA:HA	4:AD:86:THR:OG1	2.14	0.47
33:BJ:140:LEU:HD12	33:BJ:142:ILE:N	2.28	0.47
21:CU:33:ARG:O	21:CU:34:ARG:C	2.52	0.47
18:AR:72:ASP:N	18:AR:72:ASP:OD1	2.46	0.47
1:CA:865:A:C6	1:CA:866:C:C4	3.03	0.47
27:BD:47:ALA:HB1	27:BD:82:PHE:O	2.13	0.47
24:BA:199:A:C6	24:BA:2434:A:C6	3.03	0.47
53:B3:54:LEU:O	53:B3:58:ILE:CD1	2.62	0.47
24:DA:1533:C:N4	24:DA:1534:U:C4	2.82	0.47
3:CC:187:SER:O	3:CC:198:VAL:HG12	2.15	0.47
24:DA:257:C:C2'	24:DA:258:G:H5'	2.44	0.47
1:CA:439:U:C5	1:CA:440:C:C4	3.01	0.47
55:CY:5:ILE:HG12	55:CY:138:LYS:HD3	1.97	0.47
24:DA:1138:G:O2'	33:DJ:107:GLY:HA3	2.14	0.47
43:DT:43:ILE:O	43:DT:44:LYS:C	2.51	0.47
3:CC:157:LEU:HD12	3:CC:157:LEU:N	2.29	0.47
24:BA:969:G:C6	24:BA:970:U:C4	3.02	0.47
55:CY:27:ILE:HD12	55:CY:27:ILE:O	2.15	0.47
24:BA:2424:C:H5'	24:BA:2424:C:H6	1.80	0.47
24:DA:1048:A:C5	24:DA:1049:C:C5	3.02	0.47
44:DU:24:VAL:HG13	44:DU:33:VAL:CG2	2.44	0.47
27:DD:73:VAL:HG23	27:DD:74:GLU:N	2.29	0.47
1:CA:1456:A:H2'	1:CA:1457:G:O4'	2.15	0.47
24:BA:1567:G:C8	26:BC:82:TYR:CE1	3.03	0.47
24:DA:1863:G:C2	24:DA:1880:U:O2	2.68	0.47
24:BA:700:G:OP1	24:BA:1554:U:C5	2.67	0.47
29:BF:3:LEU:HG	29:BF:99:PHE:CE1	2.49	0.47
24:BA:992:C:O3'	41:BR:74:ILE:HD13	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1346:A:N1	1:AA:1374:A:H5''	2.30	0.47
19:AS:17:LYS:HG3	19:AS:18:LYS:H	1.76	0.47
1:AA:751:U:C5	1:AA:752:G:C6	3.03	0.47
1:CA:1517:G:C6	1:CA:1518:A:C6	3.03	0.47
11:CK:27:PHE:CG	11:CK:28:ASN:N	2.81	0.47
1:AA:598:U:H2'	1:AA:598:U:O2	2.13	0.47
4:AD:171:LEU:HD13	4:AD:173:VAL:HG23	1.92	0.47
4:AD:198:HIS:CE1	5:AE:104:GLY:O	2.68	0.47
16:AP:42:ILE:O	16:AP:43:ALA:C	2.50	0.47
1:CA:493:A:C8	1:CA:493:A:OP2	2.67	0.47
1:CA:575:G:C4'	1:CA:576:C:H5''	2.44	0.47
15:CO:54:ARG:O	15:CO:57:LEU:CD1	2.62	0.47
1:AA:1199:U:H5'	10:AJ:56:HIS:CE1	2.49	0.47
24:BA:84:A:N6	24:BA:99:U:H5'	2.29	0.47
1:CA:1324:A:C2	1:CA:1325:C:C1'	2.95	0.47
13:CM:14:HIS:C	13:CM:17:ILE:CD1	2.83	0.47
13:CM:16:VAL:HG12	13:CM:27:LYS:HD2	1.95	0.47
32:DI:123:ALA:CB	32:DI:126:ARG:NH2	2.77	0.47
32:DI:125:THR:C	32:DI:127:SER:H	2.17	0.47
1:AA:1089:G:C4	1:AA:1090:U:C6	3.02	0.47
1:AA:1118:U:O2	1:AA:1179:A:C6	2.67	0.47
1:AA:1256:A:H5'	1:AA:1258:G:H1'	1.97	0.47
2:AB:91:PHE:C	2:AB:91:PHE:CD1	2.85	0.47
1:AA:194:C:O2'	1:AA:195:A:H5'	2.15	0.47
20:AT:67:ILE:HD11	20:AT:71:LYS:HB3	1.97	0.47
1:CA:1320:C:C2	19:CS:36:ARG:HD2	2.49	0.47
55:CY:155:ARG:O	55:CY:158:ASP:N	2.48	0.47
24:BA:2683:C:O2'	24:BA:2684:U:H5'	2.15	0.47
24:BA:2731:G:C6	24:BA:2732:G:C6	3.02	0.47
1:CA:1256:A:O4'	1:CA:1258:G:C4	2.68	0.47
24:BA:277:G:H3'	24:BA:277:G:N3	2.29	0.47
1:AA:1037:C:H2'	1:AA:1038:C:O4'	2.15	0.47
51:D1:31:GLU:O	51:D1:32:LYS:C	2.53	0.47
1:CA:109:A:H2'	1:CA:326:G:N2	2.30	0.47
1:CA:354:G:C4	1:CA:355:C:C5	3.03	0.47
24:DA:686:U:O4	52:D2:12:ARG:HB2	2.15	0.47
24:DA:2201:G:H2'	24:DA:2202:U:H6	1.80	0.47
24:DA:2204:G:C6	24:DA:2221:G:C4	3.03	0.47
24:BA:659:G:O3'	28:BE:95:LYS:CG	2.61	0.47
24:BA:636:G:C6	35:BL:111:ILE:HD11	2.50	0.47
2:CB:186:ILE:CD1	2:CB:203:ASN:O	2.63	0.47
29:DF:161:SER:HB2	29:DF:164:GLU:HG3	1.95	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1288:A:H2'	1:CA:1289:A:O4'	2.13	0.47
1:CA:1355:G:C5	1:CA:1368:A:C2	3.02	0.47
44:DU:28:LEU:C	44:DU:30:SER:N	2.68	0.47
43:BT:19:LYS:O	43:BT:23:ALA:N	2.48	0.47
24:BA:2297:A:N1	24:BA:2298:A:C8	2.83	0.47
26:BC:184:GLU:C	26:BC:186:ASP:N	2.65	0.47
7:CG:122:ASN:OD1	7:CG:123:GLU:N	2.47	0.47
1:AA:1385:G:O2'	1:AA:1386:G:H5'	2.13	0.47
1:AA:905:U:H2'	1:AA:906:A:H5'	1.96	0.47
24:DA:117:G:C6	24:DA:119:A:N6	2.82	0.47
41:DR:51:VAL:CB	41:DR:52:PRO:CD	2.93	0.47
6:AF:38:ARG:HG3	6:AF:96:VAL:O	2.14	0.47
6:AF:62:MET:HA	6:AF:62:MET:HE3	1.97	0.47
12:AL:101:ALA:O	12:AL:102:LEU:HG	2.14	0.47
24:BA:9:G:C5	24:BA:2629:U:C5	3.02	0.47
24:BA:2703:C:N3	24:BA:2704:C:N4	2.62	0.47
24:BA:252:G:O2'	24:BA:253:C:H5'	2.15	0.47
1:AA:438:U:H5'	4:AD:120:HIS:HB3	1.96	0.47
24:BA:1651:G:C2	24:BA:2007:U:C2	3.02	0.47
24:BA:1347:A:HO2'	24:BA:1348:C:P	2.38	0.47
41:DR:14:VAL:CG2	41:DR:20:VAL:HG21	2.44	0.47
24:DA:1297:C:OP1	24:DA:2710:C:H4'	2.15	0.47
35:DL:4:ASN:OD1	35:DL:5:THR:CG2	2.62	0.47
24:DA:2531:A:O5'	30:DG:173:ALA:HB1	2.15	0.47
1:AA:950:U:C6	13:AM:101:ARG:CZ	2.98	0.47
1:CA:174:A:C2	1:CA:175:C:H1'	2.50	0.47
22:AV:72:C:C2'	22:AV:73:A:C5'	2.92	0.47
1:CA:67:C:H2'	1:CA:68:G:C8	2.50	0.47
1:AA:444:G:C5	1:AA:445:G:C8	3.03	0.47
25:BB:76:G:C2'	45:BV:78:GLN:OE1	2.62	0.47
24:DA:2352:A:N3	24:DA:2366:A:C2	2.83	0.47
26:DC:6:LYS:HB2	26:DC:7:PRO:CD	2.44	0.47
25:DB:83:G:H2'	25:DB:84:G:H5'	1.96	0.47
9:CI:96:SER:O	9:CI:99:ARG:HB3	2.14	0.47
20:AT:24:ARG:HA	20:AT:27:MET:HG3	1.95	0.47
24:DA:453:A:OP1	59:DA:3243:HOH:O	2.21	0.47
11:CK:80:LYS:O	11:CK:81:ASN:HB3	2.14	0.47
24:DA:2579:C:OP1	59:DA:3540:HOH:O	2.20	0.47
24:DA:1614:A:N6	42:DS:87:PRO:O	2.47	0.47
24:DA:1973:G:O2'	24:DA:1974:C:H5'	2.14	0.47
30:DG:51:PHE:CD1	30:DG:68:ARG:HA	2.49	0.47
24:BA:2078:C:C4	24:BA:2079:U:C5	3.03	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:46:GLN:HG3	6:CF:47:LEU:N	2.29	0.47
49:DZ:7:THR:O	49:DZ:54:VAL:HA	2.15	0.47
24:DA:230:G:H2'	24:DA:231:A:O5'	2.14	0.47
3:CC:141:ALA:O	3:CC:146:ALA:CB	2.62	0.47
46:DW:28:GLY:N	46:DW:67:VAL:O	2.44	0.47
7:AG:138:ARG:HG2	7:AG:139:GLU:H	1.79	0.47
27:DD:139:SER:HB3	27:DD:142:VAL:HG21	1.97	0.47
24:DA:224:U:C4	24:DA:225:C:C5	3.03	0.47
34:DK:9:ASN:O	34:DK:83:ALA:HA	2.14	0.47
47:DX:39:VAL:O	47:DX:43:LYS:N	2.48	0.47
31:BH:42:LYS:NZ	31:BH:43:ASN:OD1	2.46	0.47
37:DN:28:LEU:O	37:DN:32:GLU:N	2.46	0.47
24:BA:745:G:H2'	24:BA:746:U:H5'	1.96	0.47
24:BA:1655:A:C2	24:BA:1656:C:H1'	2.49	0.47
24:DA:821:A:H5''	24:DA:822:G:O5'	2.15	0.47
31:DH:59:ALA:O	31:DH:63:ALA:HB3	2.14	0.47
53:B3:3:ILE:CG2	53:B3:62:PRO:HG3	2.45	0.47
7:AG:110:LYS:O	7:AG:112:GLY:N	2.47	0.47
31:DH:77:THR:HG22	31:DH:78:VAL:H	1.78	0.47
31:DH:108:VAL:O	31:DH:108:VAL:CG2	2.62	0.47
1:AA:1253:G:N2	1:AA:1254:A:C4	2.83	0.47
1:AA:1345:U:H4'	1:AA:1346:A:O5'	2.13	0.47
1:AA:985:C:C2	1:AA:1221:G:N2	2.83	0.47
29:BF:29:ARG:O	29:BF:30:VAL:C	2.53	0.47
38:BO:28:VAL:C	38:BO:29:HIS:CG	2.88	0.47
24:DA:2360:G:OP1	53:D3:50:SER:OG	2.33	0.47
24:BA:1864:U:H2'	24:BA:1865:U:H5'	1.95	0.47
24:BA:2413:G:C4	24:BA:2414:G:C8	3.03	0.47
24:BA:414:C:H1'	24:BA:1864:U:H1'	1.97	0.47
8:AH:40:LEU:HB3	8:AH:46:ILE:CG2	2.43	0.47
12:CL:33:VAL:HG22	12:CL:79:VAL:HG13	1.96	0.47
1:CA:689:C:OP1	11:CK:48:GLY:HA3	2.15	0.47
1:CA:771:G:C2'	1:CA:772:U:H5'	2.44	0.47
1:AA:33:A:C2'	1:AA:34:C:O5'	2.63	0.47
1:AA:401:C:O2'	1:AA:621:A:H1'	2.14	0.47
4:AD:105:MET:HG3	4:AD:171:LEU:HD22	1.97	0.47
4:AD:103:TYR:CE1	4:AD:114:ALA:HB3	2.49	0.47
5:AE:48:PHE:CD1	5:AE:141:ILE:CD1	2.98	0.47
5:AE:140:THR:HG23	5:AE:141:ILE:N	2.29	0.47
1:AA:355:C:H2'	1:AA:356:A:C8	2.50	0.47
4:AD:102:VAL:CG1	4:AD:102:VAL:O	2.63	0.47
1:AA:375:U:C3'	16:AP:5:ARG:NH2	2.77	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:502:A:H2'	1:CA:503:C:O4'	2.15	0.47
4:CD:117:LEU:C	4:CD:117:LEU:HD12	2.35	0.47
4:CD:138:SER:CB	4:CD:139:PRO:CD	2.92	0.47
1:AA:1506:U:H2'	59:AA:1880:HOH:O	2.14	0.47
1:AA:676:A:C2	1:AA:677:U:C4	3.03	0.47
1:AA:685:G:C2	1:AA:686:U:O4	2.67	0.47
1:AA:973:G:H1'	10:AJ:56:HIS:CD2	2.50	0.47
14:AN:80:SER:O	14:AN:81:ARG:C	2.53	0.47
1:CA:1246:A:H2'	1:CA:1247:U:O4'	2.15	0.47
13:CM:89:LEU:O	13:CM:90:ARG:C	2.53	0.47
1:CA:1309:G:C2	1:CA:1328:C:C2	3.03	0.47
32:DI:125:THR:C	32:DI:127:SER:N	2.67	0.47
1:AA:1098:C:H2'	1:AA:1099:G:O4'	2.15	0.47
1:AA:1089:G:C5	1:AA:1090:U:C6	3.03	0.47
2:AB:73:LYS:CE	2:AB:75:ALA:HB3	2.45	0.47
9:AI:83:ILE:O	9:AI:86:ALA:HB3	2.14	0.47
9:AI:28:ILE:HG21	9:AI:35:LEU:HB2	1.97	0.47
19:CS:48:THR:C	19:CS:49:ILE:HG13	2.35	0.47
17:AQ:52:GLU:OE2	17:AQ:53:CYS:N	2.44	0.47
4:CD:91:LEU:C	4:CD:93:LEU:H	2.18	0.47
24:DA:1356:G:C2	24:DA:1357:C:O2	2.67	0.47
57:DA:3190:NMY:H231	57:DA:3190:NMY:H13	1.97	0.47
40:DQ:41:ALA:O	40:DQ:42:GLY:C	2.52	0.47
16:CP:39:PHE:CD1	16:CP:39:PHE:C	2.86	0.47
1:CA:1124:G:H5'	10:CJ:37:ARG:HB3	1.96	0.47
1:CA:1279:G:H5''	10:CJ:9:ARG:NH2	2.29	0.47
9:CI:52:LEU:HD13	9:CI:57:MET:HG2	1.97	0.47
24:BA:360:U:N3	24:BA:361:G:N2	2.63	0.47
24:BA:2051:A:C2	24:BA:2614:A:C2	3.02	0.47
1:CA:260:G:C2	1:CA:261:U:C4	3.02	0.47
1:CA:391:G:O6	1:CA:392:C:C4	2.68	0.47
20:CT:35:VAL:HG12	20:CT:79:LEU:CD2	2.45	0.47
19:CS:44:MET:O	19:CS:45:ILE:CB	2.62	0.47
19:CS:60:VAL:HG12	19:CS:62:VAL:CG1	2.45	0.47
1:CA:191:G:C6	1:CA:192:A:C5	3.02	0.47
24:DA:182:A:O2'	24:DA:433:C:O2'	1.94	0.47
24:BA:809:G:O4'	24:BA:1254:A:H1'	2.14	0.47
48:DY:43:LEU:O	48:DY:47:ARG:HG3	2.14	0.47
1:CA:1317:C:H1'	14:CN:49:GLN:CD	2.33	0.47
14:CN:17:ASP:OD1	14:CN:18:LYS:N	2.48	0.47
1:CA:979:C:H2'	1:CA:980:C:H5'	1.97	0.47
35:BL:111:ILE:CG2	35:BL:112:LEU:H	2.27	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1358:G:O6	24:BA:1371:G:N7	2.48	0.47
24:BA:1362:C:C4	24:BA:1363:C:C5	3.02	0.47
24:BA:1365:A:C5	24:BA:1366:A:N7	2.83	0.47
24:DA:2523:G:H2'	24:DA:2524:G:H5'	1.97	0.47
1:AA:853:C:H2'	1:AA:854:U:H6	1.79	0.47
1:AA:855:U:C2'	1:AA:856:C:H6	2.19	0.47
22:CV:68:C:O2'	22:CV:69:G:H5'	2.15	0.47
24:BA:2302:U:C2'	24:BA:2303:G:C5'	2.92	0.47
3:AC:14:ILE:N	3:AC:14:ILE:CD1	2.78	0.47
29:DF:126:ASN:CA	29:DF:155:ILE:HD11	2.45	0.47
29:DF:98:PHE:HA	29:DF:101:ARG:NH2	2.29	0.47
1:CA:1288:A:N1	1:CA:1371:G:H1'	2.30	0.47
1:CA:1346:A:C8	1:CA:1348:U:O2	2.67	0.47
8:CH:110:VAL:O	8:CH:111:MET:HB2	2.13	0.47
1:CA:207:C:O2	1:CA:213:G:N2	2.48	0.47
35:BL:80:SER:OG	35:BL:81:ASP:N	2.47	0.47
21:CU:17:ARG:HG2	21:CU:20:LYS:HE3	1.97	0.47
57:DA:3189:NMY:N19	57:DA:3189:NMY:O21	2.47	0.47
24:DA:568:U:C2	24:DA:570:G:OP2	2.68	0.47
24:BA:2531:A:C2	24:BA:2532:G:H1'	2.49	0.47
47:DX:32:LEU:HD12	47:DX:32:LEU:O	2.14	0.47
24:BA:2524:G:C2	24:BA:2525:G:H1'	2.50	0.47
24:BA:2740:A:N6	24:BA:2741:A:C6	2.83	0.47
28:BE:84:THR:HG22	28:BE:85:PHE:N	2.29	0.47
22:CV:53:G:N2	22:CV:61:C:N3	2.62	0.47
22:CV:64:A:C4	22:CV:65:G:H8	2.32	0.47
37:BN:82:GLU:O	37:BN:86:ARG:HB2	2.14	0.47
1:AA:323:U:H5''	20:AT:21:ASN:OD1	2.13	0.47
39:BP:83:ILE:CD1	39:BP:84:SER:N	2.77	0.47
3:CC:39:VAL:HG23	3:CC:40:ARG:N	2.29	0.47
28:BE:176:ASP:OD1	28:BE:179:SER:N	2.45	0.47
1:AA:664:G:N2	1:AA:742:G:C2	2.83	0.47
15:AO:33:THR:O	15:AO:34:ALA:C	2.53	0.47
25:BB:113:C:H1'	38:BO:46:GLU:HA	1.97	0.47
4:AD:170:TRP:CD1	4:AD:184:ARG:O	2.68	0.47
40:DQ:109:VAL:HG12	40:DQ:113:LYS:CE	2.45	0.47
31:BH:32:PRO:HA	47:BX:38:TRP:CB	2.45	0.47
24:BA:1183:U:C2'	24:BA:1184:U:O5'	2.62	0.47
42:BS:3:THR:CB	42:BS:58:ALA:CB	2.90	0.47
24:BA:495:G:H4'	42:BS:4:ILE:O	2.13	0.47
24:BA:2010:G:H2'	24:BA:2011:U:O2	2.15	0.47
42:BS:20:VAL:HG11	42:BS:43:ALA:CB	2.44	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AF:4:TYR:O	6:AF:63:ASN:HA	2.15	0.47
1:CA:773:G:N2	1:CA:774:G:H1'	2.30	0.47
1:CA:722:G:H3'	21:CU:45:ARG:CZ	2.43	0.47
1:CA:665:A:C8	1:CA:733:G:N3	2.82	0.47
1:CA:96:U:O2'	1:CA:97:G:O5'	2.29	0.47
24:BA:998:C:P	40:BQ:91:ARG:NH2	2.87	0.47
47:BX:45:PHE:N	47:BX:45:PHE:CD1	2.82	0.47
12:AL:90:LEU:HB2	12:AL:93:VAL:HG11	1.95	0.47
27:BD:33:ARG:CG	27:BD:51:THR:HG22	2.45	0.47
27:BD:53:GLY:O	27:BD:76:GLY:HA2	2.15	0.47
24:DA:2691:C:O3'	24:DA:2871:U:H4'	2.15	0.47
24:BA:2723:C:N4	24:BA:2724:U:C4	2.82	0.47
24:BA:1347:A:H2'	24:BA:1348:C:C6	2.48	0.47
43:BT:61:LEU:HD11	43:BT:82:LYS:HB3	1.96	0.47
1:AA:564:C:C5	1:AA:565:U:C4	3.03	0.47
24:DA:2710:C:P	59:DA:3549:HOH:O	2.71	0.47
24:DA:223:A:C8	24:DA:422:A:C1'	2.98	0.47
38:BO:34:HIS:ND1	38:BO:53:THR:HG23	2.30	0.47
38:BO:62:LEU:HD21	38:BO:70:ALA:HB2	1.95	0.47
1:AA:101:A:C6	1:AA:102:G:C5	3.03	0.47
1:AA:344:A:H4'	1:AA:345:C:OP2	2.15	0.47
24:DA:2593:U:C2	24:DA:2594:C:C5	3.02	0.47
24:DA:919:U:C2'	24:DA:920:A:H5'	2.44	0.47
46:DW:49:ALA:HB3	46:DW:81:SER:OG	2.14	0.47
24:DA:866:A:N7	24:DA:914:G:N1	2.62	0.47
47:DX:7:THR:HG21	47:DX:9:LYS:HD3	1.96	0.47
24:BA:1162:G:C6	24:BA:1163:G:N7	2.83	0.47
1:AA:1530:G:HO2'	1:AA:1531:A:P	2.35	0.47
1:AA:1010:U:O4	1:AA:1011:C:N4	2.47	0.47
24:DA:2287:A:C4	24:DA:2289:G:N7	2.82	0.47
1:CA:66:A:O4'	1:CA:173:U:C4	2.68	0.47
24:BA:1667:G:N3	24:BA:1991:U:C5	2.83	0.47
24:BA:2059:A:H4'	28:BE:64:GLY:O	2.15	0.47
24:DA:1414:C:C4	24:DA:1415:U:H5	2.33	0.47
24:DA:621:A:OP2	24:DA:622:G:OP2	2.32	0.47
36:DM:108:VAL:HG12	36:DM:109:PRO:CD	2.42	0.47
37:DN:72:ASP:HB3	37:DN:75:ILE:CG2	2.44	0.47
24:DA:1806:C:C2'	24:DA:1807:G:O5'	2.62	0.47
1:CA:1400:C:H3'	1:CA:1401:G:C5'	2.45	0.47
33:DJ:47:HIS:C	33:DJ:114:LEU:HD11	2.35	0.47
34:BK:64:ARG:HB3	34:BK:79:PHE:CD2	2.48	0.47
33:BJ:130:HIS:O	33:BJ:130:HIS:CG	2.67	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1622:G:C2	24:DA:1623:G:C8	3.03	0.47
1:CA:142:G:C5	1:CA:143:A:N7	2.83	0.47
24:BA:52:A:C2	24:BA:178:G:N3	2.82	0.47
24:DA:1139:G:C2	24:DA:1140:C:C6	3.03	0.47
24:DA:391:A:H1'	24:DA:411:G:O4'	2.14	0.47
24:BA:2838:G:H2'	24:BA:2839:G:O4'	2.14	0.47
38:DO:100:HIS:O	38:DO:104:GLN:HB2	2.15	0.47
1:CA:1004:A:C2	1:CA:1026:G:C2	3.03	0.47
1:CA:596:A:N6	1:CA:645:G:C6	2.83	0.47
47:BX:42:GLU:O	47:BX:43:LYS:CG	2.62	0.47
24:DA:651:G:H4'	53:D3:17:GLY:HA3	1.97	0.47
24:DA:1331:G:O2'	24:DA:1332:G:H5'	2.15	0.47
42:DS:18:ARG:HG2	42:DS:76:VAL:HG23	1.97	0.47
5:CE:118:ALA:O	5:CE:120:VAL:CG2	2.62	0.47
32:DI:56:VAL:O	32:DI:57:VAL:O	2.33	0.47
24:DA:607:U:H2'	24:DA:608:A:H5'	1.97	0.47
24:BA:442:G:C4	24:BA:444:C:H5	2.33	0.47
34:BK:7:MET:C	34:BK:8:LEU:HD12	2.35	0.47
44:DU:37:GLY:HA2	44:DU:61:GLU:OE1	2.14	0.47
1:CA:936:C:H2'	1:CA:937:A:O4'	2.14	0.47
1:CA:246:A:C2	1:CA:282:A:C6	3.03	0.47
27:BD:205:PRO:O	27:BD:206:ALA:C	2.52	0.47
19:AS:44:MET:O	19:AS:47:LEU:HB2	2.15	0.47
24:DA:1452:G:H2'	24:DA:1457:U:O4	2.14	0.47
28:BE:28:VAL:O	28:BE:29:HIS:C	2.53	0.47
24:DA:2714:G:C2'	24:DA:2715:C:H5'	2.44	0.47
24:DA:1944:U:C2	24:DA:1955:U:O4'	2.68	0.47
32:DI:27:LEU:HG	32:DI:28:GLY:N	2.30	0.47
10:CJ:18:ILE:HD11	10:CJ:72:ARG:CZ	2.45	0.47
25:DB:11:C:C5	25:DB:12:C:C4	3.03	0.47
43:BT:80:TRP:N	43:BT:80:TRP:CD1	2.82	0.47
48:BY:9:LYS:HB3	48:BY:12:GLU:HG2	1.97	0.47
55:CY:150:GLU:HB2	24:DA:2254:C:H1'	1.97	0.47
30:BG:19:ASN:HB3	30:BG:22:VAL:HG23	1.95	0.47
24:DA:447:A:N7	24:DA:473:G:C6	2.82	0.47
24:DA:1760:C:H2'	24:DA:1761:C:H5'	1.96	0.47
32:DI:96:LYS:O	32:DI:97:VAL:CB	2.62	0.47
24:DA:2742:G:OP1	54:D4:36:ARG:HD3	2.15	0.47
45:DV:65:VAL:O	45:DV:66:ASP:C	2.53	0.47
25:DB:49:C:O2'	25:DB:50:A:H5'	2.15	0.47
24:DA:1220:G:O2'	24:DA:1221:C:H5'	2.14	0.47
48:DY:19:LEU:HD23	48:DY:19:LEU:O	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DJ:6:ALA:CB	33:DJ:45:THR:CG2	2.93	0.47
24:DA:1196:C:H2'	24:DA:1197:G:C8	2.49	0.47
27:DD:68:PHE:CD2	27:DD:75:ALA:HB2	2.50	0.47
43:DT:22:THR:O	43:DT:25:GLU:HB2	2.13	0.47
10:CJ:53:ILE:HG12	10:CJ:61:ALA:HB1	1.96	0.47
3:AC:128:VAL:O	3:AC:129:MET:C	2.53	0.47
1:AA:27:G:O2'	1:AA:28:A:H5'	2.14	0.47
45:BV:52:ALA:O	45:BV:53:LYS:HB3	2.14	0.47
24:DA:2097:A:C2	24:DA:2098:U:C2	3.02	0.47
10:AJ:81:GLU:C	10:AJ:83:THR:N	2.67	0.47
15:AO:49:ASP:OD2	15:AO:52:SER:HB2	2.14	0.47
24:BA:1214:A:O2'	59:BA:3704:HOH:O	2.20	0.47
30:BG:10:VAL:HG23	30:BG:14:VAL:HB	1.96	0.47
26:BC:153:LEU:N	26:BC:153:LEU:HD23	2.30	0.47
17:AQ:31:HIS:O	17:AQ:33:ILE:N	2.47	0.47
29:BF:3:LEU:O	29:BF:4:HIS:C	2.53	0.47
1:AA:944:G:O5'	1:AA:945:G:OP2	2.32	0.47
13:AM:78:LYS:O	13:AM:81:MET:N	2.48	0.47
29:BF:93:GLU:O	29:BF:95:MET:CA	2.60	0.47
24:BA:2377:A:C1'	38:BO:92:PHE:HZ	2.28	0.47
5:AE:154:ALA:O	5:AE:156:LYS:N	2.48	0.47
8:AH:26:THR:O	8:AH:27:MET:HG2	2.14	0.47
1:CA:1404:C:O4'	1:CA:1499:A:N1	2.48	0.47
1:CA:1513:A:C6	1:CA:1523:G:O6	2.68	0.47
1:CA:793:U:C3'	1:CA:794:A:H5''	2.44	0.47
1:AA:551:U:H2'	1:AA:552:U:C6	2.49	0.47
1:AA:587:G:O2'	1:AA:588:G:H5'	2.15	0.47
1:AA:6:G:O6	5:AE:99:ALA:CB	2.63	0.47
8:AH:111:MET:CE	8:AH:116:ALA:CA	2.93	0.47
31:DH:82:SER:HB2	31:DH:146:VAL:HG23	1.95	0.47
1:CA:408:A:C6	1:CA:435:A:C6	3.03	0.47
4:CD:9:LEU:CD1	4:CD:10:LYS:HB3	2.44	0.47
1:AA:777:A:H2'	1:AA:778:G:H8	1.80	0.47
1:CA:1306:A:C8	1:CA:1307:U:C5	3.02	0.47
13:CM:71:ARG:NH2	29:DF:109:ARG:NH1	2.62	0.47
1:AA:155:A:C2	1:AA:167:A:C4	3.02	0.47
1:AA:1103:C:C2	1:AA:1104:G:C8	3.03	0.47
24:BA:760:G:C2	24:BA:761:A:H1'	2.50	0.47
24:BA:572:A:C3'	24:BA:573:U:O4'	2.60	0.47
1:AA:186:C:C2	1:AA:191:G:O6	2.68	0.47
1:CA:958:A:N9	19:CS:55:ARG:NH2	2.63	0.47
24:DA:360:U:O4	24:DA:361:G:N1	2.48	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2846:G:P	39:BP:51:ASN:HB2	2.55	0.47
1:CA:375:U:O3'	16:CP:6:LEU:HD12	2.14	0.47
24:BA:279:A:N6	24:BA:361:G:H1'	2.29	0.47
1:AA:1027:C:O2	1:AA:1035:A:N1	2.48	0.47
24:BA:563:A:C6	24:BA:2018:G:C4	3.02	0.47
1:CA:109:A:C6	1:CA:327:A:C6	3.03	0.47
1:CA:446:G:C6	1:CA:447:G:C4	3.03	0.47
25:BB:89:U:H3'	25:BB:90:C:O4'	2.15	0.47
24:DA:61:C:C5'	48:DY:43:LEU:HD11	2.45	0.47
14:CN:53:ARG:O	14:CN:55:SER:N	2.48	0.47
14:CN:64:CYS:SG	14:CN:83:LYS:CE	3.03	0.47
1:AA:1138:G:O2'	1:AA:1140:C:O5'	2.28	0.47
1:CA:1077:G:N2	1:CA:1080:A:OP2	2.44	0.47
46:DW:44:LYS:H	46:DW:44:LYS:HE2	1.77	0.47
3:AC:35:SER:O	3:AC:38:LYS:N	2.48	0.47
29:DF:163:GLU:O	29:DF:166:ARG:N	2.47	0.47
29:DF:92:GLY:N	29:DF:95:MET:HG2	2.30	0.47
1:CA:1290:G:H5'	7:CG:35:LYS:HE3	1.97	0.47
24:BA:829:A:N7	24:BA:2248:C:H5'	2.29	0.47
24:BA:666:A:H2'	24:BA:667:U:C6	2.49	0.47
24:BA:666:A:H4'	35:BL:48:ARG:CD	2.45	0.47
34:DK:113:MET:SD	34:DK:116:ILE:CD1	3.01	0.47
1:AA:210:C:H4'	1:AA:211:G:H5''	1.96	0.47
24:DA:189:G:C2'	24:DA:190:A:O5'	2.62	0.47
24:DA:204:A:H5'	24:DA:206:U:O4'	2.14	0.47
1:CA:656:G:C4	1:CA:657:U:C5	3.02	0.47
1:CA:750:C:O2'	15:CO:21:ASP:OD1	2.29	0.47
24:BA:2748:A:O2'	24:BA:2749:A:P	2.72	0.47
16:AP:19:VAL:O	16:AP:20:VAL:HG22	2.15	0.47
24:DA:1000:A:C6	24:DA:1001:A:C6	3.03	0.47
40:BQ:86:SER:CB	41:BR:51:VAL:HA	2.45	0.47
24:BA:479:A:H4'	24:BA:480:A:OP1	2.15	0.47
24:BA:483:A:N1	24:BA:484:C:O2	2.47	0.47
47:DX:62:GLY:O	47:DX:64:ASP:N	2.48	0.47
12:AL:90:LEU:HB2	12:AL:93:VAL:CG1	2.44	0.47
24:BA:1381:G:N2	24:BA:1382:G:C1'	2.77	0.47
26:DC:128:THR:HA	26:DC:189:ALA:O	2.14	0.47
24:BA:181:A:H2'	24:BA:182:A:C8	2.50	0.47
41:DR:15:SER:C	41:DR:98:ILE:HD11	2.36	0.47
25:DB:53:A:C2	25:DB:54:G:N9	2.82	0.47
24:DA:2407:A:H2'	24:DA:2408:U:H6	1.80	0.47
24:DA:417:C:C2	24:DA:418:C:C6	3.03	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1953:A:H2	24:DA:2549:G:N3	2.13	0.47
1:CA:1055:A:C6	1:CA:1206:G:C6	3.03	0.47
13:CM:56:LEU:HD12	13:CM:57:ARG:N	2.29	0.47
26:BC:106:PRO:HD2	26:BC:109:LEU:CD2	2.44	0.47
1:CA:380:G:C2	1:CA:384:G:C6	3.03	0.47
26:DC:64:VAL:HA	26:DC:102:TYR:CB	2.45	0.47
26:DC:64:VAL:HG23	26:DC:66:PHE:CD2	2.50	0.47
24:BA:1142:A:H4'	33:BJ:27:ARG:HH22	1.79	0.47
50:B0:40:HIS:N	50:B0:40:HIS:CD2	2.81	0.47
19:AS:31:LEU:O	19:AS:32:ARG:HB3	2.13	0.47
42:DS:85:ILE:CD1	42:DS:85:ILE:N	2.76	0.47
24:DA:1277:G:H2'	24:DA:1278:C:C6	2.50	0.47
31:BH:113:SER:O	31:BH:114:GLU:C	2.53	0.47
9:AI:20:PHE:CD1	9:AI:64:TYR:O	2.68	0.47
24:BA:1321:A:C5	24:BA:1322:A:C5	3.03	0.47
52:B2:3:ARG:HB2	52:B2:3:ARG:NH2	2.30	0.47
24:BA:237:C:O2'	24:BA:238:C:H5'	2.15	0.47
29:BF:151:LEU:C	29:BF:151:LEU:HD12	2.35	0.47
33:DJ:120:ARG:O	33:DJ:123:LYS:CE	2.62	0.47
34:BK:7:MET:HG2	34:BK:19:VAL:O	2.15	0.47
15:CO:82:ILE:HD13	15:CO:87:LEU:O	2.14	0.47
41:DR:82:HIS:O	41:DR:82:HIS:CG	2.66	0.47
5:AE:136:VAL:HG13	5:AE:137:VAL:N	2.29	0.47
24:DA:2303:G:O2'	24:DA:2304:G:H5'	2.14	0.47
24:BA:2714:G:H2'	24:BA:2715:C:O5'	2.15	0.47
24:BA:1794:A:C1'	24:BA:1900:A:C2	2.97	0.47
1:AA:240:G:OP1	1:AA:240:G:C4'	2.62	0.47
2:AB:85:LEU:O	2:AB:86:SER:HB3	2.15	0.47
52:D2:2:LYS:CE	52:D2:6:GLN:CD	2.84	0.47
55:CY:2:ILE:HG13	55:CY:3:SER:N	2.29	0.47
24:DA:2249:U:N3	24:DA:2253:G:OP2	2.48	0.47
47:DX:10:ARG:HG3	47:DX:11:PRO:HD2	1.97	0.47
1:CA:101:A:C2'	1:CA:102:G:H5'	2.44	0.47
9:CI:92:GLU:N	9:CI:92:GLU:OE2	2.48	0.47
35:BL:132:ARG:HG2	35:BL:142:ILE:HD13	1.97	0.47
24:BA:1672:A:C6	24:BA:1673:G:C5	3.03	0.47
24:DA:1198:U:H2'	24:DA:1199:U:C6	2.49	0.47
24:BA:356:G:C6	24:BA:357:C:C4	3.03	0.47
36:DM:35:ALA:HB2	36:DM:102:LEU:HD21	1.96	0.47
35:BL:119:PRO:HG3	35:BL:138:ALA:O	2.14	0.47
1:AA:1517:G:H1'	24:BA:1919:A:O3'	2.14	0.47
33:DJ:32:LEU:O	33:DJ:33:ALA:C	2.53	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1509:C:O2	1:AA:1509:C:H2'	2.13	0.47
5:CE:121:HIS:N	5:CE:121:HIS:CD2	2.82	0.47
24:BA:1396:U:O4'	24:BA:1396:U:O2	2.33	0.47
24:DA:1691:C:H2'	24:DA:1692:U:H5'	1.97	0.47
29:BF:7:TYR:CD1	29:BF:7:TYR:C	2.88	0.47
1:AA:1351:U:O2'	1:AA:1352:C:H5'	2.14	0.47
29:BF:91:ARG:HG3	29:BF:92:GLY:N	2.30	0.47
1:AA:651:C:C4	1:AA:652:U:O4	2.68	0.47
8:AH:11:LEU:HD13	8:AH:15:ARG:HH21	1.80	0.47
26:BC:15:VAL:HG22	26:BC:205:GLY:HA3	1.96	0.47
1:AA:400:C:H2'	1:AA:401:C:H5'	1.97	0.47
1:AA:55:A:N9	31:DH:91:PHE:CE2	2.83	0.47
1:CA:408:A:C2	1:CA:435:A:C2	3.03	0.47
1:CA:499:A:C5	1:CA:547:A:N7	2.83	0.47
4:CD:168:PRO:HG3	4:CD:171:LEU:HD11	1.96	0.47
1:CA:1296:C:OP1	13:CM:14:HIS:CE1	2.68	0.47
1:CA:1311:A:N7	19:CS:3:ARG:NH2	2.63	0.47
13:CM:48:LEU:HD13	13:CM:53:ILE:HD11	1.96	0.47
24:DA:1080:A:N1	24:DA:1081:U:C5	2.83	0.47
32:DI:111:THR:O	32:DI:113:ALA:N	2.48	0.47
24:DA:1097:U:O2'	32:DI:7:TYR:O	2.32	0.47
24:DA:1420:A:H1'	24:DA:1421:G:OP1	2.15	0.47
36:BM:1:MET:HE1	36:BM:44:ARG:HG2	1.94	0.47
24:BA:941:A:C2	24:BA:942:G:C4	3.03	0.47
46:DW:10:THR:C	46:DW:11:ARG:HG3	2.35	0.47
1:AA:1124:G:O2'	1:AA:1125:U:OP2	2.30	0.47
9:AI:67:VAL:HG21	9:AI:75:GLN:CG	2.44	0.47
9:AI:79:ILE:O	9:AI:80:ARG:C	2.52	0.47
9:AI:87:LEU:C	9:AI:87:LEU:HD12	2.34	0.47
1:CA:1320:C:H5	1:CA:1321:U:C4	2.33	0.47
1:CA:1321:U:O4	1:CA:1322:C:C5	2.68	0.47
19:CS:15:LEU:C	19:CS:15:LEU:HD12	2.36	0.47
19:CS:48:THR:HG1	19:CS:49:ILE:N	2.09	0.47
4:AD:10:LYS:C	4:AD:12:SER:N	2.66	0.47
24:DA:151:C:H5'	24:DA:1360:G:OP1	2.15	0.47
1:AA:1005:A:H3'	1:AA:1006:G:C8	2.50	0.47
24:BA:531:C:H5''	24:BA:532:A:C5	2.50	0.47
41:BR:78:ARG:O	41:BR:79:ARG:C	2.52	0.47
24:BA:2285:C:P	51:B1:5:ARG:NH1	2.88	0.47
20:CT:69:LYS:HE3	20:CT:70:ASN:HA	1.96	0.47
13:AM:20:THR:CG2	13:AM:21:SER:N	2.78	0.47
1:CA:983:A:C2'	1:CA:983:A:N3	2.78	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1364:G:H1'	24:BA:1368:G:N2	2.30	0.47
1:CA:1076:U:N3	1:CA:1082:A:C2	2.83	0.47
29:DF:123:GLY:O	29:DF:124:ARG:HG2	2.15	0.47
29:DF:155:ILE:HD13	29:DF:156:THR:N	2.30	0.47
1:AA:1430:A:N6	1:AA:1431:A:N1	2.62	0.47
8:CH:113:ASP:C	8:CH:115:ALA:H	2.18	0.47
3:CC:60:PRO:O	3:CC:61:ALA:C	2.54	0.47
24:DA:809:G:C5	24:DA:810:U:C5	3.02	0.47
1:CA:658:C:O4'	15:CO:22:THR:HG21	2.14	0.47
24:BA:2761:A:H2'	24:BA:2762:C:H5''	1.96	0.47
18:AR:53:ARG:CZ	18:AR:53:ARG:HB2	2.43	0.47
25:DB:78:A:C2	25:DB:99:A:C4	3.03	0.47
4:AD:192:SER:HB2	6:CF:16:GLU:CD	2.35	0.47
40:DQ:87:VAL:CG2	41:DR:49:ILE:HG21	2.45	0.47
32:BI:3:LYS:O	32:BI:7:TYR:CD2	2.68	0.47
40:BQ:97:ILE:HG13	40:BQ:98:ALA:N	2.29	0.47
24:BA:1417:C:H2'	24:BA:1418:G:C1'	2.45	0.47
24:DA:814:C:H2'	24:DA:815:C:O5'	2.15	0.47
9:CI:54:LEU:C	9:CI:56:ASP:N	2.67	0.47
24:BA:321:U:OP2	28:BE:130:LYS:NZ	2.47	0.47
24:DA:1266:G:H5''	42:DS:15:GLN:HE22	1.80	0.47
24:BA:1826:G:C6	24:BA:1827:U:C4	3.03	0.47
1:AA:435:A:C2	1:AA:436:C:N1	2.83	0.47
24:BA:1340:U:H3'	43:BT:61:LEU:HD23	1.96	0.47
42:DS:39:THR:O	42:DS:44:ALA:HB2	2.14	0.47
24:DA:415:A:C2	24:DA:2409:G:C2	3.03	0.47
45:DV:26:PHE:CD1	45:DV:26:PHE:C	2.88	0.47
29:DF:12:VAL:HA	29:DF:15:LEU:CD1	2.45	0.47
1:AA:575:G:O2'	1:AA:821:G:OP2	2.26	0.47
25:BB:66:A:C2	25:BB:108:A:N1	2.83	0.47
41:DR:67:GLY:HA3	41:DR:93:PHE:CZ	2.50	0.47
24:BA:147:C:N3	24:BA:148:U:C5	2.83	0.47
24:BA:784:G:C2'	24:BA:785:G:OP2	2.63	0.47
1:CA:144:G:N2	1:CA:145:G:H1'	2.30	0.47
24:BA:1297:C:H2'	24:BA:1298:C:C6	2.50	0.47
24:BA:1783:A:OP1	24:BA:1784:A:OP2	2.33	0.47
28:BE:109:LEU:HA	28:BE:112:LEU:HD12	1.96	0.47
24:BA:2005:A:O2'	24:BA:2049:G:OP1	2.27	0.47
54:B4:9:LYS:O	54:B4:10:LEU:C	2.53	0.47
24:BA:328:U:H4'	44:BU:65:GLN:OE1	2.15	0.47
1:AA:109:A:H5'	1:AA:110:C:C5	2.50	0.47
24:DA:77:G:O3'	48:DY:2:LYS:CE	2.63	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BK:69:VAL:CG1	34:BK:77:ILE:HB	2.45	0.47
44:BU:11:ILE:HA	44:BU:20:LYS:O	2.15	0.47
1:CA:661:G:N2	1:CA:662:U:C2	2.83	0.47
24:BA:210:C:C2'	24:BA:211:C:O5'	2.63	0.47
24:BA:870:U:C4	24:BA:871:U:C5	3.03	0.47
24:BA:2522:U:H2'	24:BA:2523:G:H5'	1.96	0.47
2:AB:144:LEU:O	2:AB:146:ASN:N	2.48	0.47
24:DA:637:A:H4'	24:DA:638:G:O5'	2.15	0.47
31:BH:49:ALA:O	31:BH:53:GLU:HB3	2.14	0.47
24:BA:2800:A:H3'	24:BA:2801:G:H5'	1.95	0.47
37:BN:98:LEU:O	37:BN:112:TYR:N	2.47	0.47
1:CA:595:A:HO2'	1:CA:596:A:P	2.38	0.47
7:AG:92:ARG:HB3	7:AG:93:PRO:HD2	1.96	0.47
24:DA:2101:A:C2	24:DA:2102:G:C6	3.03	0.47
30:DG:136:ASP:O	30:DG:140:ILE:HG22	2.15	0.47
1:CA:1501:C:N4	1:CA:1504:G:C2	2.83	0.47
24:DA:27:G:N2	24:DA:512:G:H1'	2.29	0.47
1:AA:1189:U:OP1	14:AN:98:LYS:HE2	2.14	0.47
24:BA:1946:U:H2'	24:BA:1947:C:H6	1.79	0.47
33:DJ:36:LEU:O	33:DJ:121:LYS:NZ	2.45	0.47
24:DA:2303:G:C2'	24:DA:2304:G:H5'	2.44	0.47
6:AF:88:MET:CE	6:AF:90:MET:HG2	2.45	0.47
24:BA:1241:A:H2'	24:BA:1241:A:N3	2.28	0.47
24:BA:523:C:O2'	24:BA:524:G:H5'	2.15	0.47
32:DI:21:PRO:CB	32:DI:22:PRO:HD3	2.45	0.47
24:DA:280:U:C4	24:DA:281:C:N4	2.83	0.47
39:DP:25:VAL:HG23	39:DP:85:VAL:HA	1.96	0.47
24:DA:1847:A:H2'	24:DA:1848:A:H8	1.80	0.47
24:DA:852:U:C2	24:DA:926:G:N2	2.83	0.47
1:AA:1540:U:C2	23:AX:3:G:N2	2.83	0.47
35:BL:132:ARG:NH1	35:BL:136:GLU:OE1	2.46	0.47
35:BL:122:VAL:CG1	35:BL:142:ILE:HG22	2.45	0.47
42:DS:37:THR:HG22	42:DS:38:TYR:CD2	2.50	0.47
1:CA:600:A:H2'	1:CA:601:G:H8	1.80	0.47
37:DN:32:GLU:O	37:DN:114:GLU:HA	2.13	0.47
37:BN:87:PHE:O	37:BN:88:ALA:C	2.53	0.47
42:BS:29:VAL:O	42:BS:30:SER:C	2.53	0.47
24:DA:2749:A:H5''	30:DG:1:SER:HB3	1.95	0.47
32:BI:64:ARG:HG3	32:BI:65:SER:N	2.29	0.47
24:DA:2666:C:C5	24:DA:2667:C:C5	3.03	0.47
14:AN:33:VAL:O	14:AN:34:ASN:CB	2.63	0.47
24:DA:283:G:C6	24:DA:284:U:C4	3.03	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:315:G:H2'	24:BA:316:C:O4'	2.15	0.47
4:AD:135:TYR:CD1	4:AD:135:TYR:C	2.87	0.47
40:DQ:98:ALA:HB2	40:DQ:105:PHE:CD1	2.50	0.47
34:BK:99:ILE:CG2	34:BK:100:PHE:N	2.78	0.47
34:BK:99:ILE:HD13	34:BK:115:ILE:HD12	1.96	0.47
31:DH:121:VAL:C	31:DH:123:ARG:N	2.64	0.47
1:AA:1233:G:H2'	1:AA:1234:C:C6	2.50	0.47
24:BA:2377:A:H1'	38:BO:92:PHE:CZ	2.50	0.47
14:AN:45:VAL:HG13	14:AN:46:LEU:H	1.79	0.47
24:BA:2414:G:N3	24:BA:2415:G:C8	2.83	0.47
4:AD:145:ILE:O	4:AD:146:ARG:CB	2.62	0.47
4:AD:94:LEU:O	4:AD:97:ARG:HB2	2.15	0.47
5:AE:111:MET:HE1	5:AE:125:ALA:HB1	1.97	0.47
1:AA:866:C:N3	1:AA:867:G:H1'	2.30	0.47
1:CA:716:A:H2'	1:CA:717:U:O5'	2.15	0.47
1:AA:705:G:C8	1:AA:706:A:C8	3.03	0.47
14:AN:63:ARG:HD3	14:AN:68:GLY:O	2.14	0.47
24:BA:84:A:O2'	24:BA:85:G:OP2	2.31	0.47
13:CM:22:ILE:O	13:CM:22:ILE:HD12	2.15	0.47
24:DA:1103:A:C8	24:DA:1104:C:C5	3.03	0.47
2:AB:163:VAL:HG13	2:AB:164:ILE:O	2.14	0.47
2:AB:164:ILE:HG23	2:AB:165:ASP:N	2.29	0.47
1:CA:1014:A:C8	1:CA:1015:G:C4	3.03	0.47
24:BA:2719:G:P	39:BP:95:LYS:NZ	2.88	0.47
6:CF:69:GLU:O	6:CF:71:ILE:HG13	2.15	0.47
57:DA:3190:NMY:O14	57:DA:3190:NMY:N19	2.48	0.47
32:DI:41:PHE:CD1	32:DI:41:PHE:C	2.88	0.47
1:CA:230:G:N1	1:CA:231:U:C2	2.83	0.47
1:CA:445:G:O6	1:CA:489:C:N3	2.48	0.47
20:CT:78:ASN:O	20:CT:82:GLN:HG2	2.15	0.47
2:CB:22:TYR:HB3	2:CB:190:ASN:CB	2.42	0.47
1:AA:1303:C:OP1	1:AA:1304:G:OP2	2.33	0.47
24:DA:1865:U:C5	24:DA:1875:G:N1	2.83	0.47
1:AA:1142:G:C5	1:AA:1143:G:H1'	2.50	0.47
24:BA:2352:A:C2	46:BW:33:ALA:HB1	2.50	0.47
24:DA:970:U:H1'	24:DA:985:C:OP1	2.15	0.47
2:CB:101:LEU:HG	2:CB:102:THR:CB	2.44	0.47
1:AA:854:U:C2'	1:AA:855:U:O5'	2.62	0.47
3:AC:12:LEU:C	3:AC:14:ILE:N	2.68	0.47
24:DA:310:A:O2'	24:DA:311:A:OP2	2.30	0.47
1:CA:842:U:N3	1:CA:844:G:OP1	2.48	0.47
1:CA:859:G:H2'	1:CA:860:A:O4'	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:206:C:H2'	1:AA:207:C:O4'	2.14	0.47
30:BG:120:ILE:HD12	30:BG:133:LYS:O	2.15	0.47
15:CO:25:THR:O	15:CO:27:VAL:N	2.48	0.47
24:BA:2759:G:H21	30:BG:138:GLN:HG3	1.79	0.47
3:AC:72:ARG:HG3	3:AC:75:ILE:HB	1.97	0.47
6:CF:3:HIS:C	6:CF:4:TYR:CD1	2.89	0.47
24:BA:858:G:OP1	46:BW:78:LYS:NZ	2.43	0.47
24:BA:2343:U:H2'	24:BA:2344:U:C6	2.50	0.47
1:CA:948:C:H2'	1:CA:949:A:H5'	1.97	0.47
24:BA:2097:A:C2	24:BA:2193:G:C2	3.02	0.47
24:BA:1665:A:H5'	34:BK:66:LYS:HG2	1.96	0.47
1:CA:1045:C:H2'	1:CA:1046:A:H5'	1.97	0.47
6:AF:37:HIS:O	6:AF:38:ARG:O	2.33	0.47
24:BA:1416:G:O2'	24:BA:1417:C:OP2	2.26	0.47
2:AB:26:LYS:HE2	2:AB:193:PRO:HD2	1.97	0.47
24:DA:2848:G:C4'	24:DA:2849:U:OP1	2.60	0.47
1:CA:720:C:H5'	18:CR:41:PRO:HA	1.97	0.47
24:BA:1801:A:H5'	24:BA:2203:U:O2'	2.14	0.47
24:BA:2204:G:C6	24:BA:2205:A:N7	2.83	0.47
24:BA:2209:G:C6	24:BA:2210:U:O4	2.68	0.47
24:BA:1544:A:C6	24:BA:1545:A:C6	3.02	0.47
42:DS:20:VAL:HG21	42:DS:43:ALA:HB3	1.97	0.47
1:AA:71:A:N1	1:AA:72:A:C5	2.82	0.47
24:DA:2193:G:C2	24:DA:2194:U:C5	3.03	0.47
5:CE:13:GLU:CB	5:CE:39:VAL:CG1	2.92	0.47
17:CQ:12:VAL:CG1	17:CQ:13:VAL:N	2.74	0.47
24:BA:2553:G:C6	24:BA:2554:U:O2	2.68	0.47
15:AO:11:ILE:CD1	15:AO:31:LEU:HB3	2.43	0.47
16:CP:22:ALA:HA	16:CP:33:ILE:CD1	2.45	0.47
24:BA:1422:G:N3	24:BA:1423:G:C8	2.82	0.47
1:CA:173:U:H5'	1:CA:197:A:O4'	2.15	0.47
26:DC:20:ASN:HB2	26:DC:23:LEU:CD1	2.42	0.47
26:DC:23:LEU:HD21	26:DC:89:ASN:ND2	2.29	0.47
11:AK:29:ASN:OD1	11:AK:47:ALA:HB3	2.15	0.47
39:BP:92:ARG:O	39:BP:93:LYS:HB3	2.15	0.47
24:DA:2373:G:C6	24:DA:2374:C:C4	3.02	0.47
37:DN:106:ASP:O	37:DN:107:ASN:CB	2.63	0.47
33:BJ:25:LEU:O	33:BJ:28:LEU:HB3	2.15	0.47
43:DT:34:VAL:O	43:DT:35:ALA:C	2.53	0.47
1:CA:1092:A:C4	1:CA:1183:U:O4	2.68	0.47
24:DA:1364:G:H1'	24:DA:1368:G:N2	2.30	0.47
24:DA:559:G:H2'	24:DA:560:C:H5'	1.97	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DY:18:LEU:O	48:DY:18:LEU:CD1	2.63	0.47
48:DY:23:ARG:HA	48:DY:23:ARG:CZ	2.45	0.47
1:CA:1034:G:C6	1:CA:1035:A:C6	3.03	0.47
1:CA:459:A:C2	1:CA:460:A:C4	3.03	0.47
11:CK:80:LYS:O	11:CK:106:ARG:HG2	2.15	0.47
24:BA:1561:C:H2'	24:BA:1562:U:H6	1.80	0.47
24:DA:599:A:H4'	28:DE:26:ALA:HB1	1.97	0.47
1:AA:632:U:O2	1:AA:632:U:H2'	2.15	0.47
22:AV:51:U:H2'	22:AV:52:G:O4'	2.15	0.47
26:BC:221:GLY:O	26:BC:224:MET:N	2.48	0.47
24:BA:2599:G:C8	26:BC:235:GLU:CB	2.98	0.47
24:BA:2790:U:C4'	24:BA:2791:G:OP1	2.63	0.47
17:CQ:72:SER:C	17:CQ:73:TRP:CD1	2.89	0.47
1:CA:1452:C:C4'	1:CA:1453:G:C4	2.98	0.47
1:AA:660:C:H2'	1:AA:661:G:C8	2.50	0.47
27:DD:8:LYS:HB2	27:DD:201:LEU:HD11	1.97	0.47
4:CD:29:ASP:O	4:CD:31:LYS:NZ	2.47	0.47
24:DA:145:C:H2'	24:DA:146:A:H8	1.79	0.47
53:D3:44:ARG:N	53:D3:45:PRO:CD	2.78	0.47
24:DA:2418:A:OP1	53:D3:44:ARG:NH1	2.47	0.47
24:BA:1708:C:O2'	24:BA:2860:A:O2'	2.25	0.47
41:DR:72:VAL:O	41:DR:74:ILE:HD12	2.14	0.47
47:DX:35:HIS:N	47:DX:48:LEU:O	2.47	0.47
7:AG:118:LEU:HA	7:AG:121:ALA:HB3	1.95	0.47
1:AA:1418:A:N6	1:AA:1482:G:O2'	2.46	0.47
40:BQ:59:LEU:C	40:BQ:59:LEU:HD12	2.34	0.47
24:BA:21:A:H2'	24:BA:22:C:O4'	2.14	0.47
30:DG:27:GLY:HA3	30:DG:78:VAL:HG13	1.96	0.47
24:DA:187:G:C6	24:DA:188:G:C5	3.03	0.47
24:DA:187:G:C6	24:DA:188:G:N7	2.83	0.47
31:BH:71:LYS:CD	31:BH:71:LYS:C	2.83	0.47
31:DH:4:ILE:HG22	31:DH:18:GLN:HB3	1.97	0.47
24:DA:2897:U:H2'	24:DA:2898:U:H6	1.80	0.47
28:BE:123:LYS:HG2	28:BE:124:PHE:H	1.80	0.47
24:DA:1249:U:H4'	40:DQ:3:VAL:CG2	2.44	0.47
40:DQ:67:ALA:O	40:DQ:68:ALA:C	2.53	0.47
10:AJ:92:LEU:O	10:AJ:94:ALA:N	2.48	0.47
7:AG:43:VAL:HG12	7:AG:44:TYR:N	2.29	0.47
24:BA:978:G:C2	24:BA:986:C:C2	3.02	0.47
24:BA:1584:U:H3'	24:BA:1584:U:O2	2.15	0.47
27:BD:113:SER:HB3	27:BD:166:GLY:CA	2.45	0.47
24:DA:1850:G:C6	24:DA:1851:U:C4	3.02	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:715:A:H2'	1:AA:716:A:O4'	2.15	0.47
5:CE:56:VAL:N	5:CE:57:PRO:HD2	2.29	0.47
29:BF:172:PHE:O	29:BF:173:ASP:C	2.53	0.46
54:D4:28:SER:OG	54:D4:29:ALA:N	2.47	0.46
1:AA:1338:G:H2'	1:AA:1339:A:C8	2.50	0.46
24:BA:2333:A:N7	24:BA:2335:A:C4	2.82	0.46
25:BB:44:G:H4'	29:BF:91:ARG:NH1	2.29	0.46
24:BA:2413:G:C6	24:BA:2414:G:N7	2.83	0.46
5:AE:156:LYS:HE2	8:AH:64:LYS:HZ2	1.79	0.46
24:BA:729:G:C5	26:BC:206:LYS:HB3	2.50	0.46
1:AA:515:G:N7	1:AA:516:U:C4	2.82	0.46
1:AA:597:G:N3	1:AA:598:U:H1'	2.29	0.46
1:AA:9:G:OP2	5:AE:126:LYS:HG3	2.15	0.46
1:AA:508:U:C3'	4:AD:51:TYR:OH	2.63	0.46
8:AH:111:MET:CE	8:AH:116:ALA:N	2.78	0.46
16:AP:5:ARG:NH1	16:AP:6:LEU:HD13	2.30	0.46
1:CA:430:A:H4'	4:CD:7:PRO:HB3	1.96	0.46
1:AA:706:A:C4	1:AA:707:U:C5	3.03	0.46
1:CA:1302:C:C6	13:CM:17:ILE:HG21	2.49	0.46
1:AA:1179:A:H4'	9:AI:105:THR:HA	1.96	0.46
1:CA:1018:G:N7	1:CA:1019:A:N6	2.62	0.46
4:AD:10:LYS:N	4:AD:13:ARG:NH1	2.63	0.46
16:CP:49:GLY:O	16:CP:50:THR:HG22	2.16	0.46
1:CA:109:A:C3'	1:CA:110:C:H5'	2.46	0.46
1:CA:194:C:O3'	20:CT:60:ARG:NH1	2.45	0.46
18:CR:31:ASN:O	18:CR:32:TYR:HB2	2.15	0.46
24:BA:2366:A:H2'	24:BA:2367:G:O4'	2.15	0.46
1:CA:1103:C:C4	1:CA:1104:G:N7	2.84	0.46
2:CB:171:ILE:HG22	2:CB:175:GLU:CD	2.34	0.46
1:AA:1043:G:O6	1:AA:1044:A:N6	2.48	0.46
24:DA:574:A:H4'	24:DA:575:A:C5'	2.45	0.46
24:BA:468:G:O3'	28:BE:55:SER:HB2	2.15	0.46
26:BC:85:ASN:HD22	26:BC:85:ASN:N	2.13	0.46
43:DT:61:LEU:C	43:DT:61:LEU:HD12	2.35	0.46
24:DA:189:G:P	47:DX:25:LYS:HZ2	2.38	0.46
1:CA:588:G:C4	1:CA:589:U:C6	3.03	0.46
24:DA:2840:C:OP1	37:DN:53:THR:HG21	2.15	0.46
7:CG:138:ARG:O	7:CG:142:HIS:CB	2.63	0.46
18:AR:53:ARG:C	18:AR:57:ARG:NH1	2.68	0.46
30:DG:36:LEU:O	30:DG:37:ASN:C	2.53	0.46
4:AD:170:TRP:O	4:AD:170:TRP:CG	2.68	0.46
24:DA:2824:C:N4	24:DA:2825:G:C5	2.84	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AO:88:ARG:O	15:AO:89:ARG:C	2.53	0.46
24:BA:2026:U:C2	24:BA:2027:G:C8	3.03	0.46
24:BA:1058:U:C2	24:BA:1059:G:C8	3.03	0.46
24:BA:1210:G:C3'	24:BA:1211:C:H5'	2.44	0.46
24:BA:71:A:C2	24:BA:73:A:C2	3.02	0.46
1:AA:50:A:N3	1:AA:52:C:C2	2.83	0.46
24:DA:2013:A:C2'	24:DA:2014:A:H5'	2.42	0.46
1:AA:7:A:C8	1:AA:298:A:H1'	2.50	0.46
24:DA:37:C:O2	24:DA:37:C:H2'	2.14	0.46
21:AU:43:THR:O	21:AU:46:LYS:N	2.48	0.46
24:DA:2344:U:O2'	51:D1:35:LEU:CD2	2.63	0.46
39:BP:87:ARG:NH1	39:BP:109:ILE:HD13	2.29	0.46
27:BD:115:GLY:HA2	27:BD:167:ASN:HB2	1.95	0.46
24:DA:2409:G:C6	24:DA:2410:G:C5	3.02	0.46
24:DA:2092:U:H4'	24:DA:2093:G:O5'	2.16	0.46
24:DA:1031:G:N2	24:DA:1124:G:C4	2.83	0.46
24:BA:784:G:H5''	26:BC:225:ASN:OD1	2.15	0.46
16:CP:21:VAL:HG11	16:CP:60:TRP:CD1	2.50	0.46
29:DF:35:LEU:HD12	29:DF:153:ILE:HG22	1.97	0.46
24:BA:1784:A:N6	59:BA:3694:HOH:O	2.47	0.46
1:CA:198:G:C6	1:CA:220:G:C2	3.02	0.46
4:AD:137:VAL:HG12	4:AD:182:PHE:HZ	1.77	0.46
24:DA:2802:G:H8	24:DA:2802:G:O5'	1.98	0.46
17:AQ:28:PHE:O	17:AQ:29:VAL:HG23	2.15	0.46
55:CY:1:MET:O	55:CY:4:ASP:HB2	2.15	0.46
24:DA:557:C:O2'	33:DJ:114:LEU:HD12	2.15	0.46
52:B2:13:ASN:O	52:B2:17:GLY:N	2.48	0.46
1:AA:794:A:C2	1:AA:795:C:C2	3.02	0.46
34:BK:35:VAL:HG23	34:BK:36:GLY:N	2.30	0.46
1:CA:142:G:N3	1:CA:142:G:H2'	2.30	0.46
24:BA:1408:G:C6	24:BA:1409:U:N3	2.83	0.46
1:CA:1447:A:O2'	1:CA:1448:C:O5'	2.26	0.46
36:BM:65:ILE:O	36:BM:65:ILE:HG13	2.14	0.46
24:BA:679:C:C2'	24:BA:680:C:H5'	2.44	0.46
1:CA:594:U:O2	1:CA:645:G:O6	2.33	0.46
24:DA:35:G:H22	24:DA:450:G:H1'	1.79	0.46
48:BY:41:HIS:CE1	48:BY:42:LEU:HD12	2.50	0.46
22:AV:65:G:C5	22:AV:66:U:C4	3.03	0.46
28:DE:149:ILE:HD11	28:DE:188:MET:CG	2.44	0.46
1:AA:1246:A:H1'	1:AA:1292:G:N2	2.31	0.46
31:DH:52:ALA:O	31:DH:55:GLU:HB3	2.15	0.46
24:DA:71:A:OP1	24:DA:72:U:C2'	2.62	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AS:41:PHE:O	19:AS:44:MET:CG	2.63	0.46
1:CA:293:G:C4	1:CA:305:G:N2	2.83	0.46
53:B3:38:LYS:CG	53:B3:39:ARG:N	2.78	0.46
24:BA:1032:A:H1'	54:B4:23:ILE:HD11	1.96	0.46
24:DA:2459:A:C2	24:DA:2460:U:H1'	2.50	0.46
24:DA:2461:A:H2'	24:DA:2462:C:C6	2.50	0.46
1:CA:139:A:H2'	1:CA:140:U:C6	2.50	0.46
1:CA:1436:U:H2'	1:CA:1437:A:C8	2.50	0.46
24:BA:10:A:C6	24:BA:11:C:C4	3.02	0.46
27:BD:20:VAL:CG1	27:BD:21:SER:N	2.78	0.46
27:DD:49:GLN:HA	27:DD:80:TRP:O	2.16	0.46
55:CY:33:SER:C	55:CY:35:SER:H	2.18	0.46
34:DK:34:GLY:O	34:DK:62:VAL:HG22	2.15	0.46
1:CA:511:C:O2	1:CA:512:U:C2	2.68	0.46
33:DJ:93:ILE:HG22	33:DJ:97:PRO:HB3	1.97	0.46
27:DD:109:VAL:HG22	27:DD:203:VAL:HG13	1.96	0.46
49:BZ:4:ILE:HG22	49:BZ:57:GLU:O	2.15	0.46
6:AF:32:ALA:O	6:AF:34:GLY:N	2.48	0.46
26:DC:267:VAL:CG2	26:DC:268:ARG:N	2.77	0.46
3:CC:110:GLU:OE1	3:CC:110:GLU:N	2.48	0.46
24:BA:1936:A:N6	24:BA:1963:U:C4	2.83	0.46
27:DD:6:GLY:O	27:DD:7:LYS:HB2	2.15	0.46
24:BA:993:G:H1'	41:BR:91:GLN:CG	2.45	0.46
54:D4:16:ILE:HG22	54:D4:25:VAL:HG23	1.97	0.46
14:AN:12:ARG:HG2	14:AN:54:ASP:HB3	1.97	0.46
19:AS:75:ALA:O	19:AS:77:THR:HG23	2.16	0.46
24:BA:2333:A:N7	24:BA:2335:A:N3	2.62	0.46
38:BO:8:ILE:O	38:BO:11:ALA:N	2.48	0.46
24:BA:2230:G:H1'	47:BX:31:ASN:HA	1.96	0.46
24:BA:226:A:N6	24:BA:227:A:C6	2.83	0.46
24:BA:408:G:C5	24:BA:409:G:N7	2.83	0.46
1:CA:361:G:C2'	1:CA:362:G:H5'	2.45	0.46
1:CA:706:A:O3'	11:CK:24:HIS:CD2	2.69	0.46
7:AG:28:ASN:HA	7:AG:31:MET:HB2	1.95	0.46
1:AA:391:G:C6	1:AA:392:C:C6	3.03	0.46
1:AA:515:G:N2	1:AA:537:G:H1'	2.31	0.46
1:AA:551:U:C2	1:AA:552:U:C5	3.04	0.46
4:AD:58:LYS:HA	4:AD:200:ILE:CD1	2.45	0.46
1:CA:406:G:N3	1:CA:406:G:H2'	2.29	0.46
1:AA:784:A:H4'	24:BA:1837:C:OP1	2.15	0.46
11:AK:126:LYS:O	11:AK:127:ARG:CB	2.63	0.46
13:CM:3:ARG:CZ	13:CM:7:ILE:HA	2.46	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DF:135:ILE:HA	29:DF:140:ILE:HD12	1.97	0.46
1:AA:408:A:OP1	4:AD:112:ALA:HB3	2.15	0.46
1:AA:1102:A:OP2	1:AA:1102:A:O4'	2.33	0.46
1:AA:1104:G:C2	1:AA:1105:A:C8	3.03	0.46
2:AB:170:HIS:C	2:AB:172:ALA:N	2.68	0.46
1:AA:1130:A:C2	1:AA:1146:A:C8	3.03	0.46
15:CO:89:ARG:NE	24:DA:714:U:C5	2.83	0.46
1:AA:261:U:C5	20:AT:74:ARG:CZ	2.98	0.46
19:CS:18:LYS:HD2	19:CS:31:LEU:HD13	1.96	0.46
22:CV:23:A:C6	22:CV:24:G:C6	3.03	0.46
24:BA:2180:U:C5	24:BA:2181:U:C4	3.03	0.46
24:DA:1358:G:H2'	24:DA:1359:A:OP2	2.15	0.46
1:CA:373:A:H2'	1:CA:481:G:H21	1.80	0.46
1:CA:1152:A:H2'	1:CA:1153:G:O4'	2.14	0.46
11:AK:46:THR:C	11:AK:48:GLY:N	2.66	0.46
1:AA:688:G:O5'	11:AK:49:GLY:HA3	2.16	0.46
4:CD:58:LYS:HE2	4:CD:203:LEU:HD22	1.97	0.46
24:BA:533:G:H5'	40:BQ:23:TYR:CD1	2.50	0.46
24:BA:18:U:H5''	40:BQ:23:TYR:O	2.15	0.46
1:CA:392:C:N3	1:CA:393:A:N7	2.63	0.46
24:BA:584:C:OP1	40:BQ:5:ARG:HD3	2.14	0.46
24:BA:123:G:C5	59:BA:3222:HOH:O	2.67	0.46
24:BA:63:A:C4'	43:BT:77:ARG:HD3	2.32	0.46
24:DA:975:A:H2'	24:DA:976:G:O5'	2.16	0.46
24:DA:2753:A:C2'	24:DA:2754:U:O5'	2.62	0.46
2:CB:101:LEU:CD2	2:CB:175:GLU:CD	2.83	0.46
3:AC:30:ALA:C	3:AC:32:ASN:N	2.69	0.46
14:AN:88:ALA:HA	14:AN:93:ILE:CD1	2.45	0.46
43:BT:16:VAL:HG23	43:BT:17:SER:N	2.30	0.46
14:CN:43:ASN:C	14:CN:45:VAL:N	2.69	0.46
22:CV:74:C:C2'	22:CV:74:C:O2	2.63	0.46
39:BP:90:ALA:HB2	39:BP:112:ARG:N	2.29	0.46
30:BG:72:ASN:O	30:BG:75:VAL:HG13	2.16	0.46
7:CG:111:ARG:NH1	7:CG:122:ASN:OD1	2.48	0.46
1:AA:843:U:P	1:AA:846:G:N2	2.89	0.46
24:DA:2469:A:H4'	36:DM:55:ARG:HD2	1.97	0.46
26:BC:44:ASN:C	26:BC:46:GLY:H	2.18	0.46
2:CB:114:LEU:HD22	2:CB:144:LEU:HD13	1.97	0.46
24:BA:499:U:H4'	44:BU:42:LYS:HD2	1.96	0.46
24:DA:673:C:H4'	28:DE:77:ILE:CD1	2.45	0.46
1:CA:681:A:N1	1:CA:710:G:C6	2.84	0.46
24:DA:1654:A:H2	27:DD:118:PHE:CD2	2.32	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1500:G:O2'	26:BC:98:GLY:CA	2.63	0.46
2:AB:84:ALA:CA	2:AB:218:ALA:CB	2.91	0.46
24:BA:160:A:C8	24:BA:167:A:N1	2.83	0.46
47:BX:36:ARG:HG2	47:BX:47:THR:HB	1.98	0.46
24:DA:2502:G:C5'	24:DA:2503:A:H5''	2.45	0.46
1:CA:923:A:C2	1:CA:1395:C:N3	2.83	0.46
24:DA:1266:G:O2'	24:DA:2012:G:O6	2.24	0.46
1:AA:403:C:C2'	1:AA:404:G:C5'	2.90	0.46
10:AJ:19:ASP:HA	10:AJ:22:THR:HG22	1.96	0.46
1:CA:1064:G:O6	1:CA:1193:G:C2	2.68	0.46
1:AA:74:A:N3	1:AA:97:G:N2	2.63	0.46
1:AA:74:A:C2'	1:AA:75:G:O4'	2.63	0.46
24:BA:1531:C:H2'	24:BA:1532:A:H1'	1.97	0.46
24:DA:954:G:OP1	36:DM:15:GLY:N	2.42	0.46
1:CA:560:A:C5	5:CE:128:TYR:HE2	2.33	0.46
1:CA:175:C:C2	1:CA:176:C:C5	3.03	0.46
16:CP:21:VAL:HG23	16:CP:33:ILE:HD13	1.96	0.46
3:AC:161:GLU:CG	3:AC:161:GLU:O	2.63	0.46
24:DA:1327:A:N6	24:DA:1328:A:C2	2.83	0.46
24:BA:2308:G:O6	24:BA:2311:A:C5	2.69	0.46
24:DA:183:C:O2	24:DA:432:A:H2	1.97	0.46
24:DA:214:G:H2'	24:DA:216:A:O2'	2.15	0.46
1:AA:444:G:C4	1:AA:445:G:C8	3.03	0.46
1:AA:1266:G:C4	1:AA:1268:G:OP2	2.68	0.46
24:BA:1844:C:H2'	24:BA:1845:G:O4'	2.14	0.46
24:DA:1772:A:H2'	24:DA:1773:A:O3'	2.15	0.46
52:B2:16:HIS:CD2	52:B2:16:HIS:N	2.83	0.46
25:BB:54:G:C2	29:BF:25:MET:SD	3.08	0.46
25:BB:54:G:O2'	25:BB:55:U:H5'	2.16	0.46
24:BA:691:C:C2'	24:BA:692:C:H5'	2.46	0.46
1:AA:1152:A:C2	1:AA:1153:G:C4	3.04	0.46
1:CA:641:U:H4'	8:CH:107:SER:O	2.15	0.46
24:DA:391:A:H2'	24:DA:392:U:H5'	1.97	0.46
36:BM:65:ILE:O	36:BM:65:ILE:CG1	2.63	0.46
24:BA:1089:A:O2'	24:BA:1090:A:N7	2.45	0.46
24:DA:748:G:O6	24:DA:751:A:H5'	2.15	0.46
26:BC:234:GLY:O	26:BC:235:GLU:CB	2.63	0.46
24:BA:2183:A:C6	24:BA:2184:A:N1	2.84	0.46
24:BA:443:A:H3'	28:BE:40:ARG:NH1	2.30	0.46
24:DA:2476:A:C2	24:DA:2477:U:C2	3.04	0.46
24:DA:961:C:C6	24:DA:2031:A:C6	3.03	0.46
24:BA:2736:A:C5	24:BA:2737:G:N7	2.83	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:211:C:H2'	24:DA:212:G:O4'	2.14	0.46
1:CA:246:A:N3	1:CA:247:G:H1'	2.30	0.46
1:CA:246:A:O3'	1:CA:247:G:H4'	2.15	0.46
33:DJ:36:LEU:HD11	33:DJ:122:LEU:HD13	1.96	0.46
24:DA:1442:U:H2'	24:DA:1443:U:H6	1.80	0.46
24:BA:1285:A:C5	24:BA:1329:U:C5	3.04	0.46
5:AE:72:ILE:HG22	5:AE:73:ASN:N	2.30	0.46
31:BH:57:LYS:O	31:BH:61:VAL:HG23	2.15	0.46
36:DM:26:VAL:CG1	36:DM:133:LYS:HA	2.45	0.46
24:DA:646:U:H3'	24:DA:647:G:C5'	2.44	0.46
1:CA:126:G:C2	1:CA:127:G:C4	3.04	0.46
24:DA:654:A:N3	24:DA:654:A:H3'	2.30	0.46
33:BJ:43:GLU:O	33:BJ:44:TYR:C	2.54	0.46
24:BA:1256:G:C4	24:BA:1257:C:C5	3.03	0.46
49:BZ:40:THR:HB	49:BZ:42:ALA:N	2.31	0.46
10:AJ:63:ASP:HB3	10:AJ:65:TYR:CZ	2.50	0.46
24:BA:1829:A:H2'	24:BA:1830:C:H5'	1.97	0.46
2:CB:170:HIS:O	2:CB:173:ILE:HG13	2.15	0.46
7:AG:10:ARG:HG3	7:AG:11:LYS:N	2.30	0.46
1:CA:1478:U:H2'	1:CA:1479:C:H6	1.81	0.46
13:AM:56:LEU:O	13:AM:59:GLU:N	2.48	0.46
36:BM:47:GLU:OE1	36:BM:50:ARG:HD3	2.15	0.46
24:BA:597:G:C6	24:BA:598:U:N3	2.83	0.46
14:AN:90:ARG:HB2	14:AN:90:ARG:CZ	2.45	0.46
5:AE:116:GLU:CG	5:AE:117:VAL:HG23	2.45	0.46
25:DB:3:C:C5	25:DB:4:C:C5	3.03	0.46
24:BA:333:G:H5''	24:BA:334:C:OP2	2.15	0.46
19:AS:20:GLU:OE1	19:AS:20:GLU:N	2.48	0.46
38:BO:107:ALA:O	38:BO:110:ALA:HB3	2.15	0.46
38:BO:112:GLU:O	38:BO:113:ALA:HB2	2.15	0.46
24:DA:2529:G:OP1	30:DG:171:LYS:NZ	2.43	0.46
17:AQ:55:ILE:HG13	17:AQ:56:GLY:N	2.29	0.46
24:DA:1839:G:C8	24:DA:1927:A:C1'	2.99	0.46
1:AA:1219:A:H2'	1:AA:1220:G:O4'	2.15	0.46
24:BA:2294:G:H2'	24:BA:2295:C:O4'	2.16	0.46
24:DA:249:C:H4'	24:DA:250:G:H5''	1.97	0.46
35:BL:62:PRO:O	53:B3:12:ARG:HG3	2.14	0.46
24:BA:1866:A:C2	24:BA:1876:A:N3	2.84	0.46
24:BA:2397:G:N2	24:BA:2420:C:H1'	2.30	0.46
47:BX:31:ASN:CG	47:BX:52:ALA:HB2	2.35	0.46
47:BX:58:ILE:HG13	47:BX:63:ILE:HA	1.96	0.46
1:AA:591:U:P	8:AH:31:LYS:HZ1	2.39	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:24:LEU:HB2	12:CL:59:ASN:HD22	1.80	0.46
1:AA:393:A:C4	1:AA:394:G:C8	3.03	0.46
1:AA:401:C:C2	1:AA:402:G:C8	3.03	0.46
5:AE:141:ILE:C	5:AE:143:GLY:H	2.18	0.46
1:AA:599:C:O5'	8:AH:86:TYR:CD2	2.68	0.46
20:AT:5:LYS:O	20:AT:6:SER:C	2.54	0.46
1:CA:438:U:N3	1:CA:494:G:N7	2.64	0.46
4:CD:3:ARG:CZ	4:CD:3:ARG:HB3	2.44	0.46
15:CO:71:LYS:HA	15:CO:78:TYR:CE2	2.50	0.46
1:CA:945:G:O6	1:CA:1236:A:N1	2.48	0.46
1:CA:1239:A:C8	1:CA:1298:U:C4	3.03	0.46
24:DA:1067:A:H2'	24:DA:1067:A:N3	2.30	0.46
24:DA:1092:C:H2'	24:DA:1093:G:C4'	2.45	0.46
24:BA:569:U:H1'	24:BA:947:A:O4'	2.16	0.46
9:CI:26:GLY:N	9:CI:59:GLU:OE1	2.47	0.46
9:CI:83:ILE:O	9:CI:87:LEU:HD13	2.15	0.46
24:BA:282:A:C6	24:BA:359:G:N1	2.83	0.46
15:CO:8:THR:O	15:CO:11:ILE:HG13	2.16	0.46
1:CA:179:A:N7	59:CA:1716:HOH:O	2.48	0.46
1:CA:258:G:H2'	1:CA:259:G:O5'	2.15	0.46
25:BB:85:G:N2	25:BB:92:C:O2	2.48	0.46
24:DA:2722:G:H2'	24:DA:2723:C:C6	2.51	0.46
24:BA:811:U:OP2	35:BL:20:GLY:O	2.33	0.46
24:BA:610:C:O2'	24:BA:611:C:H5'	2.14	0.46
1:CA:1317:C:H2'	19:CS:10:PHE:CZ	2.50	0.46
1:CA:1316:G:C2'	1:CA:1317:C:H5'	2.45	0.46
24:DA:1872:A:C8	24:DA:1873:G:C1'	2.98	0.46
24:BA:308:G:N2	24:BA:477:A:N7	2.63	0.46
44:BU:38:ILE:HG23	44:BU:39:ASN:N	2.30	0.46
1:CA:1100:C:O5'	2:CB:95:ARG:NH1	2.41	0.46
22:CV:5:G:C2	22:CV:6:G:C5	3.03	0.46
24:DA:2330:G:O2'	46:DW:44:LYS:HE3	2.16	0.46
1:AA:1431:A:C6	1:AA:1432:G:N1	2.82	0.46
24:DA:1114:C:O2'	24:DA:1115:G:H5'	2.15	0.46
21:CU:14:VAL:HG22	21:CU:16:LEU:H	1.80	0.46
24:DA:475:C:C5	24:DA:481:G:O6	2.69	0.46
24:BA:2663:G:C5	24:BA:2664:G:C5	3.02	0.46
29:DF:78:ILE:O	29:DF:78:ILE:HD12	2.15	0.46
37:BN:52:ILE:CG2	37:BN:94:TYR:CD2	2.98	0.46
22:CV:75:C:H4'	22:CV:76:A:OP1	2.15	0.46
55:CY:80:LYS:HA	55:CY:83:MET:HG3	1.97	0.46
7:CG:116:MET:O	7:CG:118:LEU:N	2.48	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DQ:87:VAL:CB	41:DR:49:ILE:CG2	2.93	0.46
24:BA:1172:C:N4	24:BA:1173:U:O2	2.49	0.46
24:BA:1171:G:N2	24:BA:1179:G:C4	2.83	0.46
1:AA:377:G:N2	1:AA:387:U:C2	2.83	0.46
24:BA:483:A:C2	24:BA:484:C:H1'	2.50	0.46
6:AF:4:TYR:HE2	6:AF:6:ILE:CD1	2.28	0.46
24:BA:2024:G:H2'	24:BA:2025:C:O4'	2.15	0.46
24:BA:319:G:O2'	24:BA:320:A:H5'	2.15	0.46
9:AI:130:ARG:CZ	22:AV:33:U:C5	2.98	0.46
1:AA:243:A:N1	1:AA:246:A:C8	2.83	0.46
1:AA:41:G:C2'	1:AA:42:G:H5'	2.44	0.46
1:AA:407:U:C2	1:AA:435:A:N1	2.84	0.46
24:BA:2331:G:C5	24:BA:2332:C:C5	3.03	0.46
49:BZ:50:VAL:HG23	49:BZ:53:MET:HG3	1.98	0.46
1:AA:454:G:C2'	1:AA:455:G:H5'	2.46	0.46
24:DA:1629:U:O2	24:DA:2698:U:C5'	2.63	0.46
31:DH:137:GLU:C	31:DH:138:VAL:HG23	2.36	0.46
37:BN:3:HIS:O	37:BN:4:ARG:HB2	2.15	0.46
24:DA:1853:A:C6	24:DA:1889:A:C5	3.02	0.46
24:DA:1853:A:C5	24:DA:1889:A:C6	3.02	0.46
24:DA:141:G:OP2	24:DA:142:A:N6	2.47	0.46
24:DA:407:G:C2	24:DA:421:C:N3	2.83	0.46
24:BA:1531:C:H3'	24:BA:1532:A:O4'	2.15	0.46
24:DA:528:A:C8	24:DA:528:A:H3'	2.50	0.46
37:DN:67:PHE:O	37:DN:69:ARG:O	2.33	0.46
1:CA:1055:A:C1'	3:CC:193:TYR:OH	2.64	0.46
24:DA:1309:G:H2'	24:DA:1310:G:O4'	2.16	0.46
55:CY:13:MET:C	55:CY:15:LYS:N	2.68	0.46
1:CA:1160:G:O6	1:CA:1181:G:O6	2.33	0.46
3:CC:8:ASN:O	3:CC:9:GLY:C	2.53	0.46
1:AA:577:G:C1'	1:AA:816:A:H2'	2.46	0.46
1:CA:1095:U:C4	1:CA:1096:C:N4	2.83	0.46
24:BA:696:G:N3	24:BA:696:G:H2'	2.30	0.46
24:DA:1623:G:N2	24:DA:1624:U:C2	2.83	0.46
1:AA:317:U:N3	1:AA:318:G:N7	2.63	0.46
1:CA:204:G:C3'	1:CA:205:A:H5''	2.43	0.46
24:DA:2772:C:C2'	24:DA:2773:C:O5'	2.64	0.46
30:BG:163:TYR:N	30:BG:166:GLU:OE1	2.48	0.46
24:DA:74:A:C5'	24:DA:74:A:N3	2.78	0.46
1:CA:1446:A:C2'	1:CA:1447:A:H5'	2.44	0.46
24:BA:189:G:O2'	24:BA:207:A:N6	2.48	0.46
24:BA:770:G:C6	24:BA:771:G:C5	3.03	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BW:47:ALA:HA	46:BW:51:VAL:HG12	1.97	0.46
13:AM:92:ARG:NH1	24:BA:885:C:O3'	2.49	0.46
36:DM:34:LYS:HB3	36:DM:129:THR:HG23	1.97	0.46
37:DN:33:ILE:HD12	37:DN:33:ILE:C	2.36	0.46
40:DQ:13:HIS:CD2	40:DQ:31:TYR:CD1	3.03	0.46
1:AA:748:G:N1	1:AA:749:A:C5	2.82	0.46
17:CQ:58:VAL:HG12	17:CQ:80:GLU:HG3	1.96	0.46
1:CA:370:C:H2'	1:CA:371:A:O4'	2.14	0.46
48:DY:37:LEU:HD11	48:DY:39:GLN:O	2.15	0.46
24:DA:2839:G:N2	24:DA:2880:C:N3	2.64	0.46
20:AT:55:GLN:HB3	20:AT:56:PRO:CD	2.45	0.46
5:CE:89:HIS:ND1	5:CE:90:THR:HG23	2.30	0.46
24:BA:271:G:C2	24:BA:367:G:C2	3.04	0.46
4:CD:144:SER:O	4:CD:145:ILE:O	2.33	0.46
40:BQ:60:TRP:HB3	40:BQ:95:ALA:HB2	1.95	0.46
24:DA:647:G:C2'	24:DA:648:G:O5'	2.64	0.46
24:DA:1760:C:H2'	24:DA:1761:C:O4'	2.15	0.46
51:B1:12:SER:HA	51:B1:48:TYR:CD2	2.49	0.46
1:AA:764:C:H2'	1:AA:765:G:O4'	2.15	0.46
5:CE:96:MET:HB3	5:CE:125:ALA:HB2	1.96	0.46
47:DX:40:GLU:HA	47:DX:43:LYS:HD3	1.98	0.46
26:DC:55:GLY:O	26:DC:214:GLY:HA2	2.16	0.46
31:BH:48:GLU:OE1	31:BH:51:ARG:CZ	2.63	0.46
24:BA:1197:G:H2'	24:BA:1198:U:H6	1.80	0.46
24:DA:185:G:H2'	24:DA:186:G:O4'	2.16	0.46
2:AB:79:ALA:O	2:AB:214:LEU:HD11	2.15	0.46
1:CA:108:G:N3	1:CA:108:G:H5'	2.30	0.46
29:BF:39:VAL:O	29:BF:39:VAL:HG23	2.15	0.46
17:AQ:35:GLY:O	17:AQ:36:LYS:C	2.52	0.46
44:DU:3:LYS:O	44:DU:4:ILE:HB	2.15	0.46
26:DC:78:GLU:OE1	26:DC:100:ARG:NH1	2.49	0.46
24:DA:965:C:C4'	24:DA:2273:A:H1'	2.45	0.46
29:BF:103:ILE:HB	29:BF:174:PHE:CD1	2.49	0.46
31:BH:121:VAL:CG2	31:BH:122:LEU:HG	2.45	0.46
24:BA:992:C:O3'	41:BR:74:ILE:HD11	2.16	0.46
38:BO:5:SER:O	38:BO:7:ARG:N	2.48	0.46
24:BA:224:U:H2'	24:BA:225:C:O5'	2.15	0.46
1:AA:253:A:C2'	1:AA:254:G:O5'	2.64	0.46
1:CA:787:A:C4	1:CA:788:U:H6	2.33	0.46
11:CK:128:ARG:HD2	11:CK:129:VAL:N	2.30	0.46
1:AA:375:U:OP1	16:AP:70:ARG:NH1	2.48	0.46
4:AD:65:TYR:CE2	4:AD:94:LEU:HD22	2.51	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:144:LEU:O	5:AE:147:MET:N	2.49	0.46
1:AA:1083:U:H5	1:AA:1084:G:C6	2.33	0.46
1:AA:570:G:O4'	1:AA:820:U:C2	2.69	0.46
4:CD:4:TYR:O	4:CD:5:LEU:HB3	2.16	0.46
24:DA:1074:G:H2'	24:DA:1075:C:C5'	2.46	0.46
24:DA:1071:G:H4'	24:DA:1089:A:OP2	2.16	0.46
24:DA:1081:U:C5'	32:DI:126:ARG:NH1	2.78	0.46
1:AA:1072:G:C6	1:AA:1073:U:C4	3.03	0.46
1:AA:1170:A:N6	1:AA:1171:A:C2	2.83	0.46
1:AA:1074:G:O3'	2:AB:102:THR:HG23	2.14	0.46
2:AB:72:THR:HG21	2:AB:169:GLU:OE2	2.16	0.46
24:BA:569:U:O4	24:BA:570:G:N1	2.48	0.46
3:AC:106:VAL:C	3:AC:108:LYS:N	2.67	0.46
1:AA:1126:U:O4'	1:AA:1281:C:H1'	2.15	0.46
24:DA:547:A:N7	24:DA:548:G:C4	2.83	0.46
1:AA:263:A:P	20:AT:74:ARG:HH11	2.38	0.46
1:AA:1534:A:H4'	1:AA:1535:C:OP1	2.14	0.46
1:CA:1224:U:C4	1:CA:1322:C:C2	3.04	0.46
26:DC:251:THR:HG22	26:DC:252:LYS:N	2.31	0.46
1:CA:626:G:H2'	1:CA:627:G:C8	2.49	0.46
24:BA:2115:G:H5''	24:BA:2116:G:OP2	2.15	0.46
4:AD:9:LEU:HD12	4:AD:10:LYS:HG2	1.98	0.46
24:DA:30:G:H2'	24:DA:31:C:C6	2.50	0.46
1:CA:1124:G:P	10:CJ:37:ARG:O	2.73	0.46
10:CJ:15:HIS:CG	10:CJ:16:ARG:N	2.81	0.46
10:CJ:8:ILE:HD12	10:CJ:100:ILE:HG22	1.96	0.46
2:AB:219:ALA:O	2:AB:220:THR:CB	2.63	0.46
12:CL:54:ARG:HA	12:CL:64:THR:HA	1.98	0.46
1:CA:872:A:C4	1:CA:874:G:N7	2.83	0.46
24:DA:2821:A:H3'	24:DA:2821:A:OP2	2.16	0.46
1:CA:1317:C:C5	1:CA:1318:A:C4	3.03	0.46
1:CA:979:C:C5	1:CA:1318:A:N1	2.84	0.46
14:CN:18:LYS:HE3	14:CN:18:LYS:O	2.15	0.46
24:BA:1359:A:C2	24:BA:1360:G:H1'	2.50	0.46
12:CL:43:LYS:HG3	12:CL:44:LYS:N	2.30	0.46
1:AA:1133:G:H3'	1:AA:1134:G:H8	1.78	0.46
1:CA:1372:U:OP1	9:CI:72:ILE:O	2.34	0.46
1:AA:1409:C:H3'	1:AA:1409:C:C6	2.50	0.46
57:DA:3187:NMY:H13	57:DA:3187:NMY:H12	1.40	0.46
35:BL:115:GLU:O	35:BL:116:VAL:HB	2.15	0.46
24:DA:2306:C:C4	24:DA:2307:G:C5	3.04	0.46
29:DF:39:VAL:CG1	29:DF:40:GLY:N	2.77	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2321:U:C2'	24:BA:2322:A:OP1	2.64	0.46
24:BA:2592:G:H2'	24:BA:2593:U:O4'	2.15	0.46
4:CD:65:TYR:O	4:CD:66:GLY:C	2.52	0.46
47:DX:53:LYS:NZ	47:DX:53:LYS:HB2	2.30	0.46
1:CA:966:G:C4	22:CV:34:G:H4'	2.49	0.46
24:DA:1340:U:C6	24:DA:1603:A:O4'	2.68	0.46
30:DG:108:PHE:C	30:DG:108:PHE:CD1	2.88	0.46
27:BD:101:PHE:O	27:BD:180:VAL:HG23	2.15	0.46
24:DA:1725:U:H2'	24:DA:1726:C:O4'	2.15	0.46
15:CO:25:THR:O	15:CO:26:GLU:C	2.53	0.46
7:CG:103:TRP:CD1	7:CG:137:LYS:HD3	2.50	0.46
36:DM:50:ARG:O	36:DM:53:MET:HG2	2.15	0.46
24:BA:856:G:O2'	24:BA:857:G:H5'	2.15	0.46
24:BA:1172:C:C5	24:BA:1173:U:C2	3.04	0.46
2:CB:15:HIS:O	2:CB:16:PHE:CG	2.68	0.46
24:BA:1413:A:C2	24:BA:1414:C:C2	3.03	0.46
1:AA:47:C:O4'	1:AA:365:U:N3	2.48	0.46
1:AA:1446:A:C2	1:AA:1447:A:C4	3.03	0.46
33:BJ:32:LEU:O	33:BJ:33:ALA:C	2.53	0.46
24:BA:1058:U:C2	24:BA:1059:G:N7	2.83	0.46
1:AA:790:A:C6	1:AA:791:G:C6	3.03	0.46
24:BA:1426:G:O2'	24:BA:1572:A:N6	2.44	0.46
1:AA:39:G:C5	1:AA:404:G:C2	3.03	0.46
25:DB:30:C:OP1	38:DO:3:LYS:HE3	2.15	0.46
1:AA:64:G:C2	1:AA:67:C:C4	3.03	0.46
5:AE:74:VAL:HG23	5:AE:75:ALA:N	2.29	0.46
16:CP:21:VAL:O	16:CP:33:ILE:HD12	2.16	0.46
24:DA:2294:G:C5	24:DA:2295:C:C5	3.03	0.46
1:AA:505:G:H2'	1:AA:506:G:H8	1.81	0.46
24:DA:2617:U:H2'	24:DA:2618:G:O4'	2.15	0.46
34:BK:79:PHE:CD1	39:BP:69:VAL:HG22	2.51	0.46
44:BU:72:PHE:O	44:BU:73:ASN:C	2.54	0.46
24:BA:2511:U:O4	24:BA:2575:C:N3	2.48	0.46
1:CA:205:A:H2'	1:CA:206:C:H5'	1.97	0.46
3:CC:73:PRO:HG3	3:CC:105:GLU:HG3	1.97	0.46
43:DT:67:VAL:HG23	43:DT:68:LYS:N	2.31	0.46
24:DA:1460:U:O2'	24:DA:1461:C:H5'	2.14	0.46
24:DA:1142:A:C4	24:DA:1144:A:C8	3.03	0.46
24:BA:1719:G:H2'	24:BA:1720:U:O4'	2.16	0.46
5:CE:68:ARG:CG	5:CE:69:ARG:N	2.78	0.46
45:DV:28:ALA:HB3	45:DV:40:ILE:CD1	2.46	0.46
1:AA:236:A:H5"	17:AQ:44:LEU:CD2	2.45	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BE:149:ILE:HD11	28:BE:188:MET:CB	2.46	0.46
28:BE:149:ILE:HD11	28:BE:188:MET:HG2	1.98	0.46
18:AR:32:TYR:O	18:AR:40:VAL:HG12	2.15	0.46
24:BA:442:G:N3	24:BA:444:C:C5	2.84	0.46
1:AA:1245:C:C2	1:AA:1246:A:C8	3.03	0.46
26:BC:199:HIS:C	26:BC:201:LEU:H	2.19	0.46
36:DM:73:ILE:CG2	36:DM:74:THR:H	2.29	0.46
24:DA:134:G:N2	24:DA:146:A:C2	2.83	0.46
24:BA:2403:C:C2	24:BA:2404:U:C6	3.03	0.46
24:BA:876:C:H2'	24:BA:877:A:O4'	2.15	0.46
24:DA:1763:G:H2'	24:DA:1764:C:H5'	1.96	0.46
27:DD:32:ASN:HB3	27:DD:50:VAL:HG21	1.96	0.46
24:DA:1783:A:C2	24:DA:2587:A:C4	3.04	0.46
32:DI:28:GLY:HA3	32:DI:32:VAL:CG1	2.45	0.46
1:AA:721:G:C6	1:AA:733:G:C2	3.04	0.46
55:CY:2:ILE:CG1	55:CY:3:SER:N	2.78	0.46
14:AN:78:GLY:C	14:AN:79:LEU:HD23	2.35	0.46
24:DA:1006:C:C2	24:DA:1138:G:N2	2.84	0.46
1:CA:895:G:H2'	1:CA:896:C:C6	2.50	0.46
27:DD:68:PHE:CE1	27:DD:75:ALA:HA	2.51	0.46
43:BT:39:THR:HG22	43:BT:42:GLU:CD	2.36	0.46
1:AA:562:U:H1'	12:AL:12:ARG:HD2	1.97	0.46
24:DA:2640:G:OP1	33:DJ:95:ARG:NH1	2.49	0.46
22:AV:12:U:H4'	24:BA:1908:C:O2	2.15	0.46
24:DA:2817:U:OP1	37:DN:42:LYS:NZ	2.47	0.46
24:DA:370:G:C6	24:DA:424:G:C8	3.04	0.46
7:AG:88:PRO:HG3	7:AG:149:LYS:HA	1.98	0.46
29:DF:144:LYS:O	29:DF:146:ASP:N	2.48	0.46
24:DA:1011:G:H4'	24:DA:1011:G:OP1	2.16	0.46
4:CD:20:PHE:CD1	4:CD:20:PHE:N	2.80	0.46
24:DA:83:A:C2	24:DA:101:A:C2	3.04	0.46
1:AA:1365:G:N2	1:AA:1366:C:H1'	2.30	0.46
1:AA:1374:A:C4	1:AA:1375:A:C8	3.04	0.46
38:BO:28:VAL:O	38:BO:29:HIS:CG	2.68	0.46
24:BA:2415:G:C5	24:BA:2416:C:C4	3.04	0.46
1:CA:361:G:H2'	1:CA:362:G:H5'	1.98	0.46
36:DM:81:ARG:HH22	36:DM:82:MET:CB	2.29	0.46
1:AA:501:C:O2	1:AA:549:C:O2'	2.22	0.46
4:AD:64:ILE:CG2	4:AD:111:ARG:NH1	2.78	0.46
8:AH:87:LYS:HE2	8:AH:93:PRO:CD	2.45	0.46
4:CD:99:ASP:O	4:CD:114:ALA:CB	2.63	0.46
6:CF:9:MET:HE1	18:CR:65:LEU:HB2	1.96	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:778:G:C4	1:AA:779:C:C6	3.03	0.46
29:DF:135:ILE:HG12	29:DF:142:TYR:CE2	2.50	0.46
3:AC:107:ARG:O	3:AC:108:LYS:HB3	2.15	0.46
1:AA:141:G:N3	1:AA:223:A:C2	2.83	0.46
1:AA:224:U:C2'	1:AA:225:C:H5'	2.46	0.46
1:CA:1013:G:H2'	1:CA:1015:G:OP2	2.15	0.46
1:CA:1018:G:H2'	1:CA:1019:A:C8	2.50	0.46
24:BA:2674:G:OP2	57:BA:3165:NMY:C12	2.63	0.46
1:AA:412:A:O2'	1:AA:414:A:C5'	2.64	0.46
57:DA:3190:NMY:O3	57:DA:3190:NMY:N6	2.43	0.46
24:DA:563:A:C2	24:DA:564:C:C2	3.03	0.46
1:AA:1004:A:H2'	1:AA:1005:A:O4'	2.16	0.46
57:DA:3186:NMY:H14	33:DJ:2:LYS:HZ1	1.81	0.46
15:CO:11:ILE:CD1	15:CO:12:VAL:N	2.77	0.46
1:CA:444:G:N3	1:CA:491:G:C2	2.84	0.46
19:CS:45:ILE:HD12	19:CS:63:THR:C	2.36	0.46
28:BE:103:GLY:HA2	28:BE:106:LYS:CE	2.46	0.46
2:CB:188:ASP:CG	2:CB:204:ASP:HB3	2.36	0.46
24:DA:2756:U:O4'	24:DA:2757:A:H5''	2.16	0.46
22:CV:67:C:N3	22:CV:68:C:C4	2.83	0.46
3:AC:18:TRP:C	3:AC:20:SER:H	2.18	0.46
1:CA:1369:C:H2'	1:CA:1370:G:C1'	2.46	0.46
7:CG:31:MET:HG3	7:CG:32:VAL:N	2.31	0.46
7:CG:32:VAL:O	7:CG:35:LYS:HB2	2.15	0.46
1:AA:1432:G:P	39:BP:105:LYS:HG2	2.56	0.46
35:BL:115:GLU:O	35:BL:116:VAL:CB	2.63	0.46
1:AA:994:A:C2'	1:AA:995:C:H5'	2.45	0.46
57:BA:3166:NMY:H15	33:BJ:2:LYS:NZ	2.30	0.46
24:BA:549:G:OP2	24:BA:550:C:OP1	2.33	0.46
24:BA:180:G:H2'	24:BA:180:G:N3	2.30	0.46
24:DA:670:A:H4'	24:DA:671:C:O5'	2.14	0.46
30:DG:93:TYR:CD1	30:DG:106:LEU:HA	2.50	0.46
24:DA:1736:U:O4	24:DA:1737:G:N2	2.49	0.46
3:CC:33:LEU:HA	3:CC:36:ASP:HB2	1.97	0.46
24:BA:669:G:C5	24:BA:801:G:C6	3.04	0.46
24:BA:484:C:C2'	24:BA:485:C:O5'	2.63	0.46
24:BA:483:A:O3'	44:BU:47:PRO:HD3	2.16	0.46
1:CA:713:G:N2	1:CA:777:A:H4'	2.31	0.46
24:DA:2847:U:H3'	39:DP:94:ALA:HB2	1.97	0.46
1:AA:511:C:H1'	4:AD:41:HIS:CD2	2.50	0.46
27:BD:51:THR:OG1	27:BD:76:GLY:HA3	2.15	0.46
24:BA:2639:A:C3'	33:BJ:96:ARG:HH22	2.28	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:139:U:O2	24:DA:141:G:N1	2.49	0.46
24:BA:449:A:H2'	24:BA:450:G:C5'	2.45	0.46
1:AA:1422:G:C2	1:AA:1423:G:C8	3.03	0.46
24:DA:2531:A:C6	24:DA:2532:G:C5	3.04	0.46
1:AA:1055:A:N6	1:AA:1206:G:C5	2.84	0.46
34:BK:104:THR:HB	34:BK:106:GLU:OE1	2.16	0.46
26:BC:160:TYR:CG	26:BC:176:ARG:NH1	2.84	0.46
24:DA:556:A:H2'	24:DA:557:C:O4'	2.14	0.46
1:CA:474:G:C5	1:CA:475:C:C5	3.03	0.46
17:AQ:78:VAL:O	17:AQ:79:VAL:CG2	2.63	0.46
24:DA:995:C:OP2	40:DQ:53:LYS:HE3	2.15	0.46
24:DA:882:G:N1	24:DA:883:G:C5	2.83	0.46
29:DF:105:ILE:O	29:DF:108:PRO:CD	2.63	0.46
26:BC:128:THR:C	26:BC:129:LEU:HD23	2.35	0.46
1:AA:86:G:O2'	1:AA:87:C:OP2	2.32	0.46
1:AA:520:A:N1	1:AA:536:C:H1'	2.31	0.46
24:DA:2080:A:OP1	47:DX:19:HIS:CG	2.69	0.46
1:CA:538:G:H5''	12:CL:111:LYS:CG	2.45	0.46
2:AB:133:GLU:CD	2:AB:133:GLU:C	2.74	0.46
45:DV:9:ARG:HG3	45:DV:40:ILE:CA	2.46	0.46
24:BA:1069:A:N1	24:BA:1073:A:C6	2.84	0.46
1:CA:311:C:H2'	1:CA:312:C:O4'	2.16	0.46
1:CA:1272:G:N7	1:CA:1273:C:C4	2.83	0.46
1:AA:806:C:H2'	1:AA:807:A:C8	2.51	0.46
7:AG:136:LYS:O	7:AG:139:GLU:N	2.49	0.46
24:DA:1944:U:O2	24:DA:1955:U:H5''	2.15	0.46
40:BQ:75:TYR:C	40:BQ:75:TYR:CD1	2.89	0.46
24:BA:2771:C:O2	24:BA:2771:C:H2'	2.16	0.46
24:DA:1906:G:C2'	24:DA:1907:G:O5'	2.64	0.46
39:DP:30:TRP:CH2	39:DP:81:ASP:CG	2.89	0.46
24:BA:142:A:N7	24:BA:143:C:C5	2.84	0.46
24:DA:965:C:H4'	24:DA:2273:A:H1'	1.98	0.46
36:DM:78:LEU:O	36:DM:79:ALA:HB3	2.16	0.46
24:BA:963:U:H2'	24:BA:964:C:C6	2.50	0.46
1:CA:1194:U:C5	1:CA:1195:C:C4	3.03	0.46
24:BA:1850:G:C5	24:BA:1851:U:C5	3.03	0.46
26:DC:164:VAL:O	26:DC:164:VAL:HG22	2.15	0.46
24:BA:1920:C:O5'	24:BA:1920:C:H6	1.99	0.46
20:CT:72:ALA:O	20:CT:76:LYS:N	2.45	0.46
26:DC:36:ASN:HB3	26:DC:59:GLN:O	2.16	0.46
15:CO:40:GLN:OE1	15:CO:41:GLY:N	2.48	0.46
29:BF:7:TYR:HA	29:BF:11:VAL:HG23	1.96	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DH:123:ARG:CG	31:DH:124:THR:N	2.71	0.46
1:AA:1320:C:OP1	19:AS:70:LYS:HE2	2.16	0.46
24:BA:2379:G:C6	24:BA:2380:C:N4	2.84	0.46
14:AN:20:PHE:HA	14:AN:24:ALA:HB2	1.96	0.46
24:BA:227:A:N3	24:BA:2407:A:H1'	2.30	0.46
8:AH:64:LYS:O	8:AH:65:TYR:CD1	2.69	0.46
22:CV:38:A:H2'	22:CV:38:A:N3	2.31	0.46
1:AA:56:U:C5	31:DH:91:PHE:CZ	3.04	0.46
1:AA:616:G:C2	1:AA:625:U:O2	2.68	0.46
4:AD:61:VAL:HG22	4:AD:62:ARG:N	2.31	0.46
4:AD:98:LEU:CD1	4:AD:130:VAL:HG11	2.46	0.46
1:CA:675:A:O2'	11:CK:116:ILE:CD1	2.63	0.46
28:DE:179:SER:O	28:DE:183:PHE:HD1	1.97	0.46
1:AA:780:A:C5'	11:AK:125:LYS:HE2	2.45	0.46
13:CM:48:LEU:HB2	13:CM:52:GLN:CG	2.45	0.46
13:CM:68:ASP:HB3	13:CM:71:ARG:HD2	1.96	0.46
13:CM:87:ARG:C	13:CM:89:LEU:N	2.68	0.46
24:BA:675:A:C6	24:BA:676:A:C6	3.04	0.46
24:BA:2429:G:N7	35:BL:55:MET:HG2	2.31	0.46
24:DA:545:U:O2	24:DA:545:U:H3'	2.16	0.46
1:AA:809:G:C2'	1:AA:810:C:H5'	2.45	0.46
1:CA:626:G:C2	1:CA:627:G:C4	3.03	0.46
24:DA:1997:C:O2'	24:DA:1998:A:H5'	2.15	0.46
24:DA:1359:A:C8	24:DA:1360:G:C8	3.04	0.46
24:DA:1234:U:C2'	24:DA:1235:G:H5'	2.45	0.46
1:CA:1276:G:N3	1:CA:1282:C:H1'	2.31	0.46
9:CI:80:ARG:NE	9:CI:103:PHE:CZ	2.83	0.46
10:CJ:73:LEU:O	10:CJ:74:VAL:CB	2.64	0.46
4:CD:203:LEU:CD2	4:CD:204:TYR:CD2	2.96	0.46
4:CD:54:GLN:C	4:CD:58:LYS:HZ1	2.17	0.46
1:AA:1035:A:N7	1:AA:1036:A:C8	2.83	0.46
24:BA:2019:A:C2	24:BA:2020:A:C4	3.03	0.46
24:BA:2020:A:C2	24:BA:2035:G:C6	3.03	0.46
24:BA:564:C:OP2	41:BR:79:ARG:CZ	2.64	0.46
34:DK:76:VAL:HB	39:DP:72:VAL:HG21	1.97	0.46
12:CL:94:ARG:NH1	12:CL:95:TYR:CE2	2.84	0.46
24:DA:536:G:H2'	24:DA:537:G:H5'	1.97	0.46
1:CA:194:C:H5''	20:CT:60:ARG:CZ	2.45	0.46
1:CA:194:C:H4'	20:CT:60:ARG:HG2	1.97	0.46
1:CA:261:U:P	20:CT:71:LYS:NZ	2.88	0.46
1:CA:858:G:O6	1:CA:869:G:C8	2.68	0.46
1:CA:874:G:C6	1:CA:875:U:C4	3.04	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:659:G:C4'	28:BE:95:LYS:HD3	2.46	0.46
1:AA:1237:C:C6	1:AA:1336:C:N4	2.84	0.46
14:CN:67:THR:OG1	14:CN:68:GLY:N	2.46	0.46
24:BA:65:U:C2	24:BA:66:C:C5	3.03	0.46
1:CA:1074:G:C6	1:CA:1075:U:C4	3.04	0.46
1:CA:1075:U:C2'	1:CA:1076:U:H5'	2.45	0.46
3:AC:22:TRP:CD1	3:AC:59:ARG:HB2	2.50	0.46
29:DF:33:ILE:CD1	29:DF:99:PHE:CE1	2.98	0.46
7:CG:39:ALA:O	7:CG:40:GLU:CG	2.64	0.46
24:DA:1857:G:H22	24:DA:1884:G:C2'	2.28	0.46
24:DA:475:C:H4'	24:DA:510:C:H5'	1.98	0.46
24:DA:479:A:C2	24:DA:480:A:C5	3.04	0.46
38:DO:55:GLU:O	38:DO:56:LYS:C	2.54	0.46
24:BA:545:U:C6	24:BA:547:A:O3'	2.69	0.46
26:DC:175:LEU:C	26:DC:177:SER:N	2.65	0.46
11:AK:15:GLN:HG3	11:AK:15:GLN:O	2.14	0.46
1:AA:213:G:C5	1:AA:214:C:C5	3.04	0.46
16:AP:19:VAL:HG21	16:AP:37:GLY:CA	2.46	0.46
37:DN:94:TYR:O	37:DN:116:VAL:HG22	2.16	0.46
36:DM:44:ARG:HH21	36:DM:44:ARG:CG	2.25	0.46
25:BB:97:C:C5	25:BB:98:G:C8	3.04	0.46
13:AM:98:ARG:HD3	13:AM:100:GLN:HB2	1.98	0.46
42:BS:17:VAL:O	42:BS:20:VAL:CG1	2.64	0.46
1:AA:512:U:H2'	1:AA:513:C:C6	2.51	0.46
24:DA:1654:A:H1'	24:DA:2823:A:H5'	1.98	0.46
1:AA:174:A:C2	1:AA:175:C:C1'	2.99	0.46
24:BA:2025:C:C2	24:BA:2026:U:C5	3.03	0.46
24:BA:2705:A:N7	24:BA:2706:A:C8	2.84	0.46
34:DK:13:ASN:ND2	34:DK:97:THR:O	2.48	0.46
24:DA:2344:U:O5'	51:D1:36:LYS:HD3	2.16	0.46
24:BA:2724:U:OP1	27:BD:116:LYS:HE2	2.16	0.46
36:BM:80:VAL:O	36:BM:81:ARG:C	2.54	0.46
24:BA:929:U:O2'	24:BA:930:G:H5'	2.16	0.46
24:DA:1301:A:C4	24:DA:1303:G:C8	3.04	0.46
25:DB:57:A:C5	29:DF:25:MET:HG3	2.51	0.46
24:DA:223:A:C8	24:DA:422:A:H1'	2.51	0.46
24:DA:63:A:C2	24:DA:64:A:C4	3.03	0.46
1:CA:954:G:C4	1:CA:955:U:C5	3.03	0.46
24:BA:1760:C:C6	24:BA:1761:C:C6	3.03	0.46
24:BA:1288:G:C2'	24:BA:1327:A:N1	2.79	0.46
24:BA:1444:G:C4	24:BA:1445:G:C8	3.04	0.46
1:AA:1010:U:C4	1:AA:1011:C:N4	2.84	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:197:A:H4'	1:CA:198:G:O5'	2.16	0.46
2:CB:132:LYS:O	2:CB:133:GLU:C	2.54	0.46
24:DA:1588:G:C2	24:DA:1589:U:C6	3.04	0.46
24:DA:2318:G:C5	24:DA:2319:G:C6	3.04	0.46
1:AA:577:G:O2'	1:AA:578:C:H5'	2.15	0.46
24:DA:1182:G:H2'	24:DA:1183:U:H5'	1.98	0.46
34:BK:77:ILE:CG2	34:BK:79:PHE:HE1	2.29	0.46
11:AK:128:ARG:O	11:AK:129:VAL:HG22	2.15	0.46
26:BC:128:THR:HG23	26:BC:189:ALA:C	2.36	0.46
33:DJ:64:VAL:HG22	33:DJ:68:LYS:HZ2	1.80	0.46
1:CA:150:U:H2'	1:CA:151:A:H8	1.80	0.46
11:CK:81:ASN:HA	11:CK:106:ARG:HG2	1.98	0.46
43:BT:67:VAL:HG22	43:BT:76:ARG:CB	2.44	0.46
24:DA:1809:A:N6	24:DA:1810:A:C6	2.84	0.46
28:DE:149:ILE:HG12	28:DE:188:MET:HE3	1.97	0.46
24:DA:26:G:C6	24:DA:27:G:N1	2.84	0.46
24:BA:1193:G:O2'	24:BA:1194:A:H5'	2.15	0.46
24:BA:1333:G:C2	24:BA:1334:G:C8	3.03	0.46
24:DA:994:C:H1'	41:DR:10:LYS:HE2	1.98	0.46
12:CL:35:THR:HG22	12:CL:36:ARG:N	2.31	0.46
22:AV:70:G:C2	22:AV:71:G:C5	3.03	0.46
24:DA:1505:A:C2	24:DA:1506:U:O2	2.69	0.46
39:DP:96:LEU:HD12	39:DP:96:LEU:O	2.15	0.46
11:AK:84:VAL:HG22	11:AK:85:MET:N	2.29	0.46
29:BF:12:VAL:HG23	29:BF:13:LYS:HG3	1.98	0.46
12:CL:61:PHE:HD1	12:CL:61:PHE:N	2.14	0.46
30:DG:53:PRO:HG3	30:DG:61:TRP:CD2	2.51	0.46
34:BK:45:GLU:HG2	34:BK:46:ALA:N	2.31	0.46
32:BI:72:THR:HB	32:BI:73:PRO:HD2	1.97	0.46
1:CA:881:G:C6	1:CA:882:C:C5	3.04	0.46
1:CA:888:G:H4'	1:CA:1488:G:O2'	2.16	0.46
28:DE:131:THR:O	28:DE:132:LYS:C	2.54	0.46
24:BA:2342:C:O2'	24:BA:2374:C:H5''	2.15	0.46
1:CA:796:C:O2'	1:CA:797:C:H5'	2.15	0.46
11:CK:86:VAL:N	11:CK:113:VAL:HG22	2.31	0.46
1:AA:4:U:C5'	1:AA:5:U:O4	2.63	0.46
1:AA:625:U:H2'	1:AA:626:G:C8	2.50	0.46
4:AD:124:MET:SD	4:AD:128:ARG:N	2.89	0.46
5:AE:95:PHE:O	5:AE:125:ALA:HB1	2.16	0.46
1:CA:406:G:C4	1:CA:495:A:C5	3.03	0.46
1:CA:408:A:C6	1:CA:409:U:C4	3.03	0.46
1:CA:409:U:OP1	4:CD:22:LYS:HG3	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:727:G:C2	1:CA:731:G:C6	3.04	0.46
1:CA:673:A:C5'	6:CF:86:ARG:NH1	2.78	0.46
1:AA:1505:G:C3'	23:AX:12:A:OP2	2.64	0.46
1:AA:768:A:H5'	1:AA:1524:C:H1'	1.98	0.46
1:AA:712:A:H2'	1:AA:713:G:O4'	2.16	0.46
57:BA:3161:NMY:H1	57:BA:3161:NMY:O11	2.16	0.46
1:CA:1306:A:H2'	1:CA:1307:U:H5'	1.98	0.46
13:CM:98:ARG:HD2	13:CM:100:GLN:OE1	2.16	0.46
1:AA:1108:G:C2'	1:AA:1109:C:O5'	2.63	0.46
1:AA:1170:A:N6	1:AA:1171:A:N3	2.64	0.46
24:BA:831:G:O2'	35:BL:38:GLN:HG3	2.16	0.46
24:BA:1186:G:C2'	24:BA:1187:G:H5'	2.44	0.46
9:AI:30:ILE:HG21	9:AI:38:TYR:CD2	2.50	0.46
1:CA:1321:U:C6	1:CA:1322:C:H2'	2.51	0.46
1:CA:625:U:H2'	1:CA:626:G:C8	2.51	0.46
57:BA:3165:NMY:H2	57:BA:3165:NMY:C17	2.44	0.46
24:DA:1996:C:H4'	27:DD:128:ARG:HE	1.81	0.46
1:CA:1254:A:N3	1:CA:1255:G:C8	2.84	0.46
24:DA:1719:G:N2	24:DA:1742:U:H1'	2.31	0.46
24:BA:1269:A:C6	24:BA:1270:C:N4	2.83	0.46
24:BA:1453:A:N3	37:BN:77:ALA:CB	2.79	0.46
26:DC:151:GLY:O	26:DC:152:GLN:HG3	2.14	0.46
24:BA:600:G:H4'	28:BE:27:LEU:CD1	2.45	0.46
28:BE:102:ARG:O	28:BE:106:LYS:HB3	2.15	0.46
1:AA:1330:U:C4	1:AA:1331:G:O6	2.69	0.46
24:BA:1358:G:C5	24:BA:1371:G:C6	3.04	0.46
44:BU:39:ASN:HB3	44:BU:62:ALA:O	2.16	0.46
24:DA:2209:G:C2	24:DA:2216:G:C2	3.04	0.46
29:DF:123:GLY:C	29:DF:124:ARG:CG	2.84	0.46
24:DA:2786:U:O2'	27:DD:66:GLY:HA3	2.16	0.46
24:BA:547:A:C8	24:BA:548:G:C2	3.04	0.46
24:BA:2657:A:H4'	30:BG:91:VAL:HG21	1.97	0.46
22:CV:61:C:N4	22:CV:62:C:N4	2.63	0.46
2:AB:22:TYR:C	2:AB:23:TRP:CD1	2.89	0.46
37:BN:57:THR:O	37:BN:58:ASP:C	2.54	0.46
24:DA:1337:G:O2'	24:DA:1338:G:H5'	2.15	0.46
18:AR:51:TYR:O	18:AR:55:LEU:HD23	2.16	0.46
44:DU:73:ASN:CG	44:DU:76:THR:CG2	2.84	0.46
27:BD:125:TRP:CD1	27:BD:160:LYS:CD	2.99	0.46
24:BA:1342:A:C8	24:BA:1397:U:C2	3.03	0.46
31:DH:134:VAL:HG11	31:DH:138:VAL:HG21	1.98	0.46
42:DS:32:ALA:O	42:DS:36:LEU:HG	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:B2:8:SER:OG	52:B2:11:LYS:HB2	2.15	0.46
1:CA:167:A:H2'	1:CA:168:G:O4'	2.15	0.46
34:DK:19:VAL:CG2	34:DK:41:ILE:HD12	2.45	0.46
24:DA:1369:G:C4	24:DA:1370:C:C5	3.04	0.46
1:CA:782:A:C5	1:CA:783:C:C2	3.03	0.46
30:BG:102:ILE:HD11	30:BG:116:LEU:HD11	1.96	0.46
37:DN:48:VAL:HG12	37:DN:52:ILE:HD13	1.97	0.46
18:AR:28:THR:HB	18:AR:29:LEU:HD12	1.97	0.46
28:BE:108:ILE:HG13	28:BE:109:LEU:N	2.31	0.46
49:DZ:50:VAL:HG12	49:DZ:50:VAL:O	2.15	0.46
26:DC:104:LEU:O	26:DC:106:PRO:HD3	2.16	0.46
6:AF:10:VAL:CG1	6:AF:11:HIS:H	2.28	0.46
24:BA:2888:C:O2	24:BA:2888:C:H2'	2.15	0.46
52:D2:34:ARG:HH11	52:D2:42:LEU:HA	1.80	0.46
24:DA:81:G:H2'	24:DA:82:U:O4'	2.16	0.46
24:BA:1734:G:H2'	24:BA:1735:A:O4'	2.16	0.46
26:BC:72:GLY:O	26:BC:73:ILE:C	2.54	0.46
55:CY:142:LEU:HD21	55:CY:148:ILE:CD1	2.46	0.46
55:CY:142:LEU:O	55:CY:142:LEU:CG	2.62	0.46
24:BA:1993:U:H4'	27:BD:133:THR:HG21	1.98	0.46
1:CA:642:A:N7	8:CH:107:SER:HA	2.30	0.46
5:AE:64:MET:O	5:AE:65:GLU:C	2.54	0.46
24:BA:513:A:H1'	40:BQ:10:ARG:HH12	1.80	0.46
24:BA:1307:A:C6	24:BA:1622:G:C6	3.04	0.46
41:DR:66:HIS:CD2	41:DR:94:THR:HB	2.51	0.46
36:BM:65:ILE:O	36:BM:65:ILE:HD12	2.16	0.46
24:DA:1483:G:C8	24:DA:1484:U:C5	3.03	0.46
1:CA:1203:C:H2'	1:CA:1204:A:H5'	1.97	0.46
25:BB:26:C:C5	25:BB:27:C:C4	3.04	0.46
1:CA:1001:C:H2'	1:CA:1002:G:O4'	2.14	0.46
24:DA:2836:U:H2'	24:DA:2837:A:C8	2.51	0.46
24:DA:1764:C:O2'	24:DA:1765:U:H5'	2.15	0.46
36:DM:68:PHE:O	36:DM:69:PRO:O	2.34	0.46
24:DA:1518:C:O2'	24:DA:1519:G:H5'	2.16	0.46
20:AT:28:MET:O	20:AT:32:ILE:HG13	2.16	0.46
45:BV:65:VAL:O	45:BV:65:VAL:CG2	2.63	0.46
7:AG:46:ALA:CB	7:AG:117:ALA:O	2.63	0.46
2:AB:120:GLN:HA	2:AB:123:ASP:HB2	1.97	0.46
30:DG:77:GLY:O	30:DG:78:VAL:HG23	2.15	0.46
24:DA:2248:C:H2'	24:DA:2249:U:H5'	1.97	0.46
5:CE:153:VAL:HG13	5:CE:154:ALA:H	1.81	0.46
24:DA:1218:G:C2	24:DA:1232:G:C5	3.04	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BC:136:VAL:HG11	26:BC:165:ALA:HA	1.98	0.46
26:DC:61:TYR:CD2	26:DC:62:ARG:O	2.69	0.46
24:DA:2466:C:OP1	54:D4:4:ARG:CD	2.64	0.46
14:AN:33:VAL:O	14:AN:34:ASN:CG	2.54	0.46
5:AE:116:GLU:HG3	5:AE:117:VAL:HG23	1.98	0.46
24:DA:2817:U:H2'	24:DA:2818:U:O5'	2.16	0.46
6:CF:66:ALA:HB1	6:CF:67:PRO:HD2	1.98	0.46
24:DA:1678:A:C2	24:DA:1989:G:N2	2.83	0.46
27:DD:47:ALA:HA	27:DD:84:LEU:HG	1.97	0.46
3:CC:19:ASN:O	3:CC:20:SER:HB3	2.16	0.46
12:AL:103:ASP:O	12:AL:104:CYS:O	2.34	0.46
36:BM:34:LYS:HB3	36:BM:129:THR:CG2	2.45	0.46
18:CR:60:LYS:HA	18:CR:63:ARG:HG3	1.97	0.46
24:DA:530:G:N2	24:DA:2023:C:C5	2.84	0.46
24:DA:770:G:P	52:D2:11:LYS:HD2	2.56	0.46
5:CE:24:THR:OG1	5:CE:24:THR:O	2.33	0.46
24:DA:2155:U:C5	24:DA:2156:G:C4	3.04	0.46
44:DU:82:VAL:HG12	44:DU:83:GLY:N	2.30	0.46
1:AA:982:U:O2	1:AA:1222:G:O6	2.34	0.46
25:BB:30:C:OP1	38:BO:3:LYS:HE3	2.16	0.46
24:DA:693:A:C5	24:DA:694:U:C4	3.04	0.46
24:BA:2416:C:O2	24:BA:2416:C:H2'	2.15	0.46
1:AA:826:C:C2	1:AA:827:U:C5	3.03	0.46
8:AH:12:THR:O	8:AH:16:ASN:OD1	2.34	0.46
8:AH:10:MET:O	8:AH:13:ARG:HG2	2.16	0.46
1:AA:258:G:C2'	1:AA:259:G:O5'	2.63	0.46
1:CA:1512:U:H2'	1:CA:1513:A:H8	1.78	0.46
1:AA:393:A:C5	1:AA:394:G:C8	3.04	0.46
4:AD:99:ASP:O	4:AD:102:VAL:N	2.47	0.46
4:AD:19:LEU:HB3	4:AD:64:ILE:HG12	1.96	0.46
5:AE:110:ALA:O	5:AE:111:MET:HB2	2.15	0.46
31:DH:81:ALA:O	31:DH:149:GLU:OE1	2.33	0.46
1:AA:1085:U:C6	1:AA:1094:G:N1	2.83	0.46
1:CA:1157:A:C5	1:CA:1180:A:C6	3.04	0.46
1:CA:428:G:C6	1:CA:430:A:N6	2.84	0.46
1:CA:504:C:H1'	1:CA:510:A:C4	2.51	0.46
4:CD:171:LEU:CD1	4:CD:171:LEU:C	2.84	0.46
11:AK:35:THR:CA	11:AK:42:LEU:HD13	2.46	0.46
1:CA:1266:G:N2	1:CA:1270:G:C5	2.84	0.46
1:CA:1325:C:H2'	1:CA:1326:U:C6	2.51	0.46
13:CM:96:PRO:HA	13:CM:109:ARG:CZ	2.46	0.46
13:CM:48:LEU:O	13:CM:49:SER:C	2.53	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AI:7:TYR:CD1	9:AI:8:GLY:N	2.84	0.46
10:AJ:6:ILE:N	10:AJ:6:ILE:HD12	2.31	0.46
57:AA:1657:NMY:C15	57:AA:1657:NMY:N23	2.79	0.46
1:CA:1014:A:N3	1:CA:1219:A:H1'	2.31	0.46
24:DA:361:G:O2'	24:DA:362:A:C8	2.69	0.46
6:CF:70:VAL:O	6:CF:71:ILE:C	2.53	0.46
1:CA:1146:A:C2	1:CA:1147:C:C2	3.04	0.46
1:CA:1253:G:C2	1:CA:1254:A:C8	3.03	0.46
10:CJ:8:ILE:HG22	10:CJ:9:ARG:N	2.31	0.46
1:CA:1494:G:N7	57:CA:1672:NMY:N9	2.63	0.46
24:BA:278:A:C5	24:BA:362:A:C4	3.04	0.46
12:CL:37:VAL:HA	12:CL:53:CYS:HA	1.97	0.46
13:AM:19:LEU:O	13:AM:22:ILE:CG2	2.64	0.46
24:BA:1368:G:OP1	52:B2:25:LYS:CD	2.64	0.46
2:CB:200:ILE:O	2:CB:201:PRO:O	2.34	0.46
44:BU:35:VAL:HG22	44:BU:38:ILE:HG21	1.97	0.46
38:DO:90:VAL:O	38:DO:117:PHE:CB	2.63	0.46
3:AC:40:ARG:NH2	3:AC:57:ILE:HG12	2.31	0.46
21:AU:25:LYS:HZ1	23:AX:5:A:H4'	1.81	0.46
1:AA:993:G:N2	1:AA:995:C:N4	2.63	0.46
24:DA:2307:G:C6	29:DF:40:GLY:HA3	2.51	0.46
24:DA:2306:C:N4	29:DF:38:GLY:O	2.48	0.46
1:AA:200:G:C2	1:AA:201:G:C8	3.04	0.46
1:CA:948:C:C2'	1:CA:949:A:H5'	2.46	0.46
24:DA:999:U:O2	24:DA:1157:G:C2	2.69	0.46
24:DA:997:G:O2'	24:DA:998:C:H5'	2.16	0.46
24:BA:801:G:H3'	24:BA:802:A:H5'	1.98	0.46
45:BV:44:HIS:O	45:BV:47:VAL:N	2.47	0.46
24:BA:508:A:C3'	24:BA:509:C:H5'	2.45	0.46
24:DA:1177:G:C2	24:DA:1178:C:H1'	2.50	0.46
2:AB:24:ASN:ND2	2:AB:26:LYS:HE3	2.31	0.46
1:CA:712:A:N6	1:CA:713:G:C6	2.84	0.46
1:CA:714:G:N2	1:CA:777:A:H1'	2.30	0.46
12:AL:25:GLU:O	12:AL:27:CYS:HB2	2.16	0.46
24:BA:1450:G:C6	24:BA:1451:C:N4	2.84	0.46
24:BA:387:U:H4'	24:BA:388:G:OP1	2.14	0.46
1:AA:436:C:N3	1:AA:437:U:C4	2.84	0.46
24:BA:2678:C:C2	24:BA:2679:A:C8	3.04	0.46
27:BD:194:PRO:O	27:BD:195:GLY:O	2.33	0.46
24:BA:932:U:O2	24:BA:933:A:C5	2.69	0.46
49:BZ:22:THR:O	49:BZ:23:LEU:C	2.54	0.46
24:DA:1243:C:C4	24:DA:1244:A:N7	2.84	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:100:G:C2'	1:AA:101:A:H5'	2.46	0.46
2:AB:15:HIS:CE1	2:AB:208:ARG:HB3	2.51	0.46
1:CA:1055:A:C2'	3:CC:193:TYR:OH	2.64	0.46
15:AO:29:VAL:CG2	15:AO:66:LEU:HD22	2.46	0.46
30:DG:71:LEU:O	30:DG:72:ASN:C	2.54	0.46
1:AA:1315:U:O4	1:AA:1316:G:N1	2.49	0.46
36:DM:108:VAL:CG1	36:DM:112:LEU:HD22	2.46	0.46
55:CY:121:ALA:CB	55:CY:175:LEU:CD1	2.93	0.46
1:AA:607:A:H2'	1:AA:608:A:O4'	2.16	0.46
10:CJ:67:ILE:HD13	14:CN:96:LEU:HB2	1.98	0.46
5:CE:136:VAL:O	5:CE:139:ALA:HB3	2.16	0.46
51:D1:28:THR:O	51:D1:29:LYS:HB3	2.16	0.46
37:BN:24:MET:HG2	37:BN:44:LEU:HD13	1.98	0.46
36:BM:65:ILE:C	36:BM:65:ILE:HD12	2.36	0.46
24:DA:2335:A:C6	24:DA:2337:G:H1'	2.51	0.46
1:CA:464:U:H2'	1:CA:466:A:OP2	2.16	0.46
6:CF:47:LEU:HD13	6:CF:56:LYS:CA	2.45	0.46
24:DA:46:G:C2	24:DA:47:C:C4	3.03	0.46
24:DA:2089:C:C4	24:DA:2090:A:N7	2.84	0.46
31:BH:62:LEU:C	31:BH:62:LEU:HD13	2.36	0.46
24:BA:751:A:C5	24:BA:789:A:N1	2.84	0.46
3:CC:123:GLN:O	3:CC:124:LEU:C	2.54	0.46
24:DA:1848:A:H2'	24:DA:1849:G:C1'	2.46	0.46
24:BA:1977:A:N6	24:BA:1978:A:N1	2.63	0.46
26:BC:166:ARG:O	26:BC:167:ASP:C	2.54	0.46
8:AH:106:THR:HG1	8:AH:121:LEU:HB3	1.80	0.46
40:BQ:19:GLN:HB2	40:BQ:38:VAL:HG21	1.97	0.46
2:AB:184:PHE:CD1	2:AB:184:PHE:N	2.84	0.46
25:DB:51:G:O2'	25:DB:52:A:H5'	2.16	0.46
24:DA:1199:U:H2'	24:DA:1200:C:C6	2.51	0.46
24:DA:2744:G:C2'	24:DA:2745:C:H5'	2.46	0.46
44:BU:3:LYS:HE3	44:BU:82:VAL:O	2.16	0.46
24:DA:1691:C:C2'	24:DA:1692:U:H5'	2.45	0.46
31:BH:48:GLU:OE1	31:BH:51:ARG:NH1	2.48	0.46
24:BA:1197:G:H2'	24:BA:1198:U:C6	2.51	0.46
24:BA:1548:A:H2'	24:BA:1549:A:C8	2.50	0.46
27:DD:90:PHE:HA	27:DD:94:GLN:OE1	2.15	0.46
45:BV:26:PHE:CD1	45:BV:26:PHE:C	2.89	0.46
2:CB:49:MET:HE2	2:CB:199:VAL:HG13	1.98	0.46
29:BF:175:PRO:O	29:BF:176:PHE:CD2	2.69	0.46
26:DC:39:SER:C	26:DC:41:GLY:H	2.19	0.46
32:DI:99:LYS:HD2	32:DI:138:VAL:HB	1.97	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1920:C:O2'	24:DA:1921:G:H5'	2.15	0.46
24:DA:297:G:O3'	44:DU:84:PHE:HB3	2.16	0.46
1:AA:1342:C:H1'	9:AI:126:GLN:HG3	1.98	0.46
24:BA:2379:G:H4'	38:BO:21:LEU:HD21	1.98	0.46
44:DU:6:ARG:HG2	44:DU:7:ASP:OD1	2.15	0.46
11:CK:128:ARG:C	11:CK:128:ARG:CD	2.83	0.46
22:CV:36:A:C6	22:CV:37:A:C8	3.03	0.46
1:AA:9:G:C2	1:AA:10:A:C4	3.03	0.46
8:AH:88:ARG:HG2	8:AH:89:LYS:H	1.80	0.46
1:CA:429:U:OP1	4:CD:13:ARG:NH1	2.49	0.46
4:CD:22:LYS:CG	4:CD:22:LYS:O	2.64	0.46
4:CD:8:LYS:O	4:CD:9:LEU:O	2.34	0.46
1:AA:707:U:H4'	11:AK:22:HIS:ND1	2.31	0.46
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.51	0.46
1:CA:1306:A:C2'	1:CA:1307:U:H5'	2.46	0.46
24:DA:1064:C:O2	24:DA:1064:C:C2'	2.64	0.46
2:AB:70:VAL:HG23	2:AB:92:VAL:O	2.15	0.46
24:BA:831:G:H2'	24:BA:832:U:O5'	2.16	0.46
24:BA:568:U:C5	59:BA:3779:HOH:O	2.68	0.46
24:DA:715:A:C6	24:DA:716:A:C6	3.03	0.46
26:DC:40:GLY:C	26:DC:53:ILE:HG22	2.37	0.46
55:CY:143:LEU:CD2	55:CY:153:ASP:HB2	2.46	0.46
1:CA:624:C:H2'	1:CA:625:U:C5'	2.46	0.46
24:BA:2116:G:H5''	24:BA:2117:A:P	2.56	0.46
24:BA:2872:A:C2'	24:BA:2873:A:C5'	2.90	0.46
1:CA:1124:G:O2'	1:CA:1127:G:O6	2.33	0.46
1:CA:1143:G:H2'	1:CA:1144:G:O4'	2.15	0.46
24:BA:361:G:C2'	24:BA:362:A:O5'	2.63	0.46
4:CD:55:LEU:HB2	4:CD:58:LYS:HD2	1.97	0.46
24:BA:565:C:H5'	24:BA:1253:A:N6	2.31	0.46
24:BA:562:U:H1'	24:BA:2035:G:O2'	2.16	0.46
1:CA:391:G:C5	1:CA:392:C:C5	3.04	0.46
1:CA:55:A:C4	1:CA:56:U:C6	3.04	0.46
24:DA:2201:G:H2'	24:DA:2202:U:O5'	2.15	0.46
14:CN:66:GLN:NE2	14:CN:79:LEU:HD21	2.31	0.46
24:BA:1358:G:C6	24:BA:1371:G:C5	3.04	0.46
38:DO:90:VAL:O	38:DO:117:PHE:HB3	2.15	0.46
29:BF:127:TYR:O	29:BF:155:ILE:CG2	2.64	0.46
1:CA:1347:G:O2'	1:CA:1348:U:P	2.73	0.46
7:CG:40:GLU:HA	7:CG:43:VAL:HB	1.96	0.46
24:DA:1858:A:C5	24:DA:1859:U:C6	3.04	0.46
1:CA:212:G:N2	1:CA:213:G:C4	2.84	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:214:C:O2'	1:CA:215:C:P	2.72	0.46
35:BL:82:LEU:HD12	35:BL:116:VAL:HG21	1.97	0.46
1:AA:204:G:C5	1:AA:205:A:C5	3.04	0.46
24:DA:1191:G:O2'	24:DA:1192:G:H5'	2.16	0.46
4:AD:166:GLU:O	4:AD:167:LYS:O	2.33	0.46
42:BS:4:ILE:HD12	42:BS:105:VAL:O	2.16	0.46
42:BS:20:VAL:HG11	42:BS:43:ALA:HB1	1.98	0.46
24:BA:1858:A:H2'	24:BA:1859:U:C6	2.51	0.46
24:DA:2622:U:O2'	24:DA:2825:G:N7	2.48	0.46
24:BA:2221:G:C6	24:BA:2222:C:C5	3.04	0.46
24:BA:1465:G:C6	24:BA:1466:U:C4	3.04	0.46
1:AA:404:G:H2'	1:AA:405:U:H6	1.77	0.46
41:DR:14:VAL:CG1	41:DR:98:ILE:HD13	2.46	0.46
24:DA:782:A:H4'	24:DA:783:A:O5'	2.15	0.46
29:DF:7:TYR:HA	29:DF:11:VAL:CG2	2.46	0.46
24:BA:1532:A:H2'	24:BA:1533:C:C6	2.51	0.46
29:BF:139:GLU:N	29:BF:139:GLU:OE1	2.49	0.46
24:DA:1351:C:O2'	24:DA:1571:A:C2'	2.63	0.46
34:DK:19:VAL:HG21	34:DK:41:ILE:CD1	2.46	0.46
24:BA:147:C:C4	24:BA:148:U:C4	3.03	0.46
1:CA:175:C:H2'	1:CA:176:C:H6	1.81	0.46
1:CA:781:A:C3'	1:CA:782:A:H5'	2.46	0.46
1:CA:300:A:H2'	1:CA:301:G:O4'	2.15	0.46
24:DA:2287:A:H2'	24:DA:2287:A:N3	2.31	0.46
24:DA:2289:G:C2	24:DA:2290:G:C8	3.04	0.46
24:DA:2799:A:C6	24:DA:2801:G:C4	3.04	0.46
34:BK:121:GLU:CG	34:BK:122:VAL:N	2.78	0.46
26:DC:64:VAL:HG23	26:DC:66:PHE:HD2	1.80	0.46
24:DA:1805:A:H5''	26:DC:247:TRP:CD2	2.51	0.46
48:DY:56:LEU:HA	48:DY:59:GLU:HB3	1.96	0.46
24:BA:1259:G:H2'	24:BA:1260:A:C8	2.51	0.46
1:CA:659:U:C2	1:CA:660:C:C5	3.04	0.46
19:AS:15:LEU:HD22	19:AS:35:SER:HB2	1.97	0.46
12:AL:40:THR:HG22	12:AL:41:THR:O	2.15	0.46
5:CE:136:VAL:CG2	5:CE:137:VAL:N	2.79	0.46
26:BC:71:ASP:O	26:BC:73:ILE:HD12	2.15	0.46
45:BV:88:HIS:CG	45:BV:89:ILE:N	2.84	0.46
4:AD:79:ALA:HB2	4:AD:90:LEU:CA	2.45	0.46
24:BA:94:A:H3'	24:BA:95:A:C8	2.51	0.46
24:BA:1429:G:C8	24:BA:1568:G:C5	3.03	0.46
42:DS:14:ALA:HB1	42:DS:18:ARG:CZ	2.46	0.46
22:AV:49:C:H2'	22:AV:50:U:H6	1.81	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BC:231:HIS:O	26:BC:233:GLY:N	2.49	0.46
29:BF:37:MET:HG2	29:BF:151:LEU:CB	2.46	0.46
53:B3:56:LEU:O	53:B3:57:VAL:CB	2.63	0.46
1:AA:1297:G:H4'	1:AA:1298:U:H5'	1.97	0.46
24:DA:1517:G:C4	24:DA:1518:C:C5	3.04	0.46
32:DI:28:GLY:HA2	32:DI:32:VAL:HB	1.97	0.46
32:BI:100:ILE:HG22	32:BI:101:SER:N	2.31	0.46
24:DA:2852:G:O2'	24:DA:2853:C:H5'	2.16	0.46
35:BL:94:THR:HG23	35:BL:95:LEU:N	2.31	0.46
1:CA:101:A:C6	1:CA:102:G:N7	2.84	0.46
24:BA:312:G:H2'	24:BA:312:G:N3	2.31	0.46
24:BA:2101:A:C2	24:BA:2102:G:C8	3.04	0.46
24:DA:2466:C:C5'	54:D4:5:ALA:HB3	2.46	0.46
43:BT:39:THR:O	43:BT:43:ILE:N	2.47	0.46
7:AG:107:ALA:O	7:AG:110:LYS:N	2.48	0.46
24:DA:1690:A:C8	24:DA:1691:C:C5	3.04	0.46
24:DA:2154:A:C6	24:DA:2155:U:C4	3.04	0.46
10:AJ:66:GLU:HG2	14:AN:99:ALA:HB3	1.98	0.46
24:DA:909:A:H2'	24:DA:912:C:C5	2.51	0.46
1:AA:135:C:O2	16:AP:1:MET:HB3	2.16	0.46
24:DA:918:A:H5''	25:DB:97:C:O2'	2.16	0.46
24:DA:1296:G:N2	24:DA:1645:G:C4	2.84	0.46
31:BH:1:MET:O	31:BH:19:VAL:HG23	2.16	0.46
28:DE:124:PHE:C	28:DE:124:PHE:CD1	2.89	0.46
30:DG:155:PRO:O	30:DG:170:THR:HA	2.16	0.46
24:DA:342:A:O2'	24:DA:343:C:OP1	2.21	0.46
1:AA:1350:A:P	9:AI:123:ARG:HH12	2.39	0.46
1:AA:1358:U:OP1	14:AN:75:ARG:N	2.49	0.46
13:AM:96:PRO:HG2	13:AM:102:THR:HG22	1.98	0.46
1:AA:1317:C:N3	19:AS:37:ARG:NH2	2.63	0.46
24:DA:2360:G:P	53:D3:50:SER:OG	2.74	0.46
24:DA:249:C:C5'	24:DA:2394:C:O2'	2.64	0.46
24:BA:409:G:C2	24:BA:410:G:C4	3.04	0.46
1:CA:693:G:C6	1:CA:694:A:C6	3.04	0.46
5:AE:83:HIS:CD2	5:AE:84:PRO:CD	2.98	0.46
8:AH:86:TYR:CD2	8:AH:123:GLY:HA2	2.51	0.46
1:AA:1084:G:C5	1:AA:1085:U:N3	2.84	0.46
1:CA:1118:U:P	9:CI:106:ARG:HH12	2.38	0.46
1:CA:404:G:C5	1:CA:405:U:C5	3.04	0.46
1:CA:492:C:C4	1:CA:493:A:C2	3.04	0.46
1:CA:493:A:C5	1:CA:494:G:C6	3.04	0.46
4:CD:115:ARG:C	4:CD:117:LEU:N	2.69	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:167:LYS:HD3	4:CD:168:PRO:HD3	1.97	0.46
1:CA:501:C:OP2	12:CL:121:ARG:NH1	2.49	0.46
1:CA:761:G:C4	1:CA:762:U:C6	3.03	0.46
1:AA:676:A:H4'	11:AK:115:PRO:HB2	1.98	0.46
1:AA:706:A:C4	1:AA:707:U:C6	3.04	0.46
24:BA:1904:G:O2'	24:BA:1905:C:H5'	2.16	0.46
24:BA:1910:G:C2	24:BA:1921:G:C4	3.04	0.46
14:AN:73:PHE:HA	14:AN:80:SER:HA	1.96	0.46
13:CM:11:ASP:OD1	13:CM:11:ASP:N	2.48	0.46
13:CM:66:GLU:CG	13:CM:70:ARG:NH1	2.78	0.46
24:DA:1069:A:C8	24:DA:1074:G:C6	3.04	0.46
24:DA:1101:U:H2'	24:DA:1102:C:H5'	1.98	0.46
1:AA:1088:G:C2	1:AA:1089:G:C4	3.04	0.46
1:AA:1101:A:H1'	1:AA:1102:A:OP2	2.16	0.46
9:AI:78:ALA:O	9:AI:81:HIS:N	2.49	0.46
1:AA:276:G:C2'	1:AA:277:C:H5'	2.46	0.46
4:AD:10:LYS:C	4:AD:12:SER:H	2.19	0.46
4:AD:7:PRO:CB	4:AD:9:LEU:HD21	2.47	0.46
24:DA:1373:A:H2'	24:DA:1374:G:O4'	2.16	0.46
4:CD:188:ARG:HG3	4:CD:189:SER:N	2.31	0.46
24:DA:1239:G:C5	57:DA:3190:NMY:C6	2.90	0.46
48:BY:48:ARG:O	48:BY:51:ALA:HB3	2.16	0.46
1:CA:1408:A:H61	57:CA:1672:NMY:H1	1.81	0.46
24:DA:761:A:OP1	59:DA:3694:HOH:O	2.20	0.46
1:CA:329:A:C2	1:CA:332:G:N9	2.84	0.46
1:CA:857:C:C5	1:CA:858:G:C5	3.03	0.46
24:DA:61:C:H5'	48:DY:43:LEU:HD21	1.98	0.46
24:BA:607:U:HO2'	24:BA:608:A:P	2.38	0.46
1:CA:1048:G:H2'	1:CA:1050:G:C8	2.51	0.46
1:CA:1217:C:OP1	14:CN:8:ARG:HD3	2.16	0.46
14:CN:18:LYS:HA	14:CN:22:LYS:HE3	1.97	0.46
14:CN:19:TYR:CD1	14:CN:55:SER:HB3	2.51	0.46
14:CN:26:LEU:O	14:CN:27:LYS:HG2	2.16	0.46
14:CN:57:PRO:O	14:CN:58:SER:C	2.55	0.46
14:CN:66:GLN:N	14:CN:83:LYS:HZ3	2.14	0.46
1:CA:1089:G:O2'	1:CA:1090:U:P	2.74	0.46
1:AA:856:C:H2'	1:AA:857:C:H5'	1.97	0.46
1:CA:1370:G:O5'	9:CI:111:VAL:HG13	2.16	0.46
57:BA:3166:NMY:O16	57:BA:3166:NMY:H1	2.16	0.46
24:DA:2228:G:OP1	26:DC:260:LYS:HE2	2.16	0.46
24:DA:1799:G:OP1	26:DC:257:ARG:CD	2.64	0.46
1:AA:874:G:C4	1:AA:875:U:C5	3.04	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1736:U:C3'	24:DA:1737:G:H5'	2.46	0.46
1:AA:909:A:OP1	12:AL:18:LYS:HD2	2.16	0.46
3:AC:78:GLY:CA	21:CU:18:ARG:HE	2.29	0.46
42:BS:47:VAL:O	42:BS:48:LYS:C	2.55	0.46
6:AF:5:GLU:HA	6:AF:63:ASN:HA	1.98	0.46
24:DA:159:G:N2	24:DA:166:U:C5	2.84	0.46
1:AA:243:A:N1	1:AA:246:A:N7	2.64	0.46
24:BA:850:U:H2'	24:BA:851:C:H6	1.80	0.46
24:DA:1889:A:H1'	24:DA:2086:U:O2'	2.15	0.46
1:AA:1163:A:C2	1:AA:1174:G:C2	3.04	0.46
38:BO:34:HIS:ND1	38:BO:65:THR:HB	2.31	0.46
1:AA:310:G:C5	1:AA:311:C:C5	3.03	0.46
16:CP:32:PHE:CD1	16:CP:32:PHE:C	2.90	0.46
24:DA:1501:G:O2'	24:DA:1502:A:C5'	2.63	0.46
1:AA:786:G:C6	1:AA:787:A:C8	3.03	0.46
26:DC:183:VAL:O	26:DC:184:GLU:C	2.52	0.46
24:DA:1796:U:O2'	24:DA:1797:G:H5'	2.16	0.46
44:BU:94:PHE:HB2	44:BU:100:GLU:O	2.16	0.46
26:BC:128:THR:HA	26:BC:190:THR:HA	1.97	0.46
24:DA:273:G:C6	24:DA:274:C:N4	2.84	0.46
4:AD:142:VAL:CG1	4:AD:143:VAL:N	2.79	0.46
1:CA:642:A:C4	8:CH:106:THR:O	2.69	0.46
24:BA:2436:G:O2'	24:BA:2598:A:N1	2.40	0.46
24:BA:2074:U:H1'	24:BA:2598:A:N3	2.30	0.46
24:BA:237:C:C2'	24:BA:238:C:H5'	2.46	0.46
28:DE:149:ILE:HG12	28:DE:188:MET:HG2	1.97	0.46
1:AA:236:A:H2'	1:AA:237:G:C8	2.51	0.46
38:DO:26:LEU:C	38:DO:27:VAL:HG13	2.36	0.46
7:AG:38:THR:O	7:AG:42:ILE:HG23	2.15	0.46
24:BA:936:A:H2'	24:BA:937:C:C6	2.51	0.46
1:CA:425:G:C6	1:CA:426:U:C5	3.04	0.46
31:DH:53:GLU:O	31:DH:57:LYS:HB3	2.17	0.46
24:DA:96:C:H4'	48:DY:41:HIS:NE2	2.30	0.46
30:DG:79:THR:HG22	30:DG:80:GLU:N	2.30	0.46
24:DA:1841:U:C4	24:DA:1842:G:N7	2.84	0.46
10:CJ:57:VAL:HG12	10:CJ:58:ASN:H	1.81	0.46
24:DA:729:G:C5	26:DC:206:LYS:HB2	2.51	0.46
1:CA:29:U:C2'	1:CA:30:U:H5'	2.46	0.46
24:DA:1505:A:C2	24:DA:1506:U:N3	2.84	0.46
31:BH:55:GLU:O	31:BH:57:LYS:N	2.48	0.46
24:BA:910:A:C4	36:BM:13:HIS:ND1	2.84	0.46
3:CC:16:LYS:NZ	3:CC:182:ILE:O	2.44	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:3:ASN:HA	20:CT:8:LYS:HE3	1.97	0.46
1:AA:990:C:N4	1:AA:991:U:O4	2.49	0.46
24:BA:1770:G:C2'	24:BA:1771:C:H5'	2.46	0.46
40:BQ:77:LYS:O	40:BQ:79:ILE:N	2.48	0.46
24:DA:100:U:C2	24:DA:101:A:N6	2.84	0.46
24:DA:1936:A:H2	24:DA:1943:U:O4	1.98	0.46
49:DZ:16:LEU:O	49:DZ:19:HIS:HB2	2.15	0.46
40:BQ:52:ARG:HA	40:BQ:55:GLN:HB2	1.97	0.46
24:DA:2829:A:C5	24:DA:2830:C:C5	3.04	0.46
24:DA:616:A:H2'	24:DA:617:G:H5'	1.98	0.46
2:CB:14:VAL:HG23	2:CB:14:VAL:O	2.16	0.46
29:BF:3:LEU:C	29:BF:5:ASP:N	2.66	0.45
1:AA:1288:A:N1	1:AA:1371:G:H1'	2.31	0.45
1:AA:1320:C:O2	19:AS:72:GLY:HA3	2.16	0.45
1:AA:1371:G:OP1	9:AI:13:LYS:NZ	2.33	0.45
1:AA:938:A:C4	1:AA:939:G:C8	3.04	0.45
1:CA:706:A:O2'	11:CK:33:THR:OG1	2.32	0.45
1:CA:771:G:N2	1:CA:809:G:C4	2.84	0.45
11:CK:44:TRP:O	11:CK:45:ALA:O	2.34	0.45
5:AE:48:PHE:CD1	5:AE:141:ILE:HD11	2.51	0.45
1:CA:580:C:N3	1:CA:581:G:C4	2.84	0.45
1:CA:737:C:O2'	1:CA:738:C:O5'	2.33	0.45
15:CO:36:ILE:O	15:CO:39:LEU:HB3	2.16	0.45
24:BA:974:G:C2	24:BA:1186:G:N1	2.84	0.45
1:AA:1124:G:C2	1:AA:1127:G:C2	3.03	0.45
10:AJ:6:ILE:CG2	10:AJ:7:ARG:N	2.79	0.45
24:DA:549:G:P	24:DA:549:G:H3'	2.56	0.45
57:AA:1657:NMY:HN32	57:AA:1657:NMY:C15	2.28	0.45
1:AA:809:G:H2'	1:AA:810:C:H5'	1.97	0.45
36:BM:10:ARG:HG3	36:BM:11:LYS:N	2.31	0.45
1:AA:141:G:H2'	1:AA:142:G:O4'	2.16	0.45
1:AA:931:C:C2	1:AA:932:C:C6	3.04	0.45
1:CA:1221:G:H5''	19:CS:36:ARG:CZ	2.45	0.45
22:CV:24:G:C8	22:CV:25:C:C5	3.03	0.45
26:DC:244:VAL:HG23	26:DC:249:VAL:C	2.36	0.45
4:CD:77:LYS:C	4:CD:79:ALA:H	2.20	0.45
24:BA:2123:G:N2	24:BA:2176:A:C4	2.84	0.45
1:AA:430:A:H4'	4:AD:7:PRO:HB3	1.98	0.45
24:BA:807:U:O2'	24:BA:2060:A:N1	2.49	0.45
1:CA:1134:G:N2	1:CA:1135:U:O2	2.49	0.45
1:AA:1036:A:H5'	1:AA:1037:C:OP2	2.16	0.45
24:BA:1268:A:H3'	24:BA:1269:A:H8	1.80	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1270:C:C5'	24:BA:1271:G:C5'	2.95	0.45
1:CA:111:G:O2'	1:CA:389:A:H1'	2.16	0.45
1:CA:829:G:O2'	1:CA:830:G:H5'	2.16	0.45
24:DA:2819:G:C6	24:DA:2821:A:C2	3.04	0.45
18:CR:26:ILE:O	18:CR:27:ALA:C	2.54	0.45
24:BA:612:G:O2'	24:BA:613:A:C8	2.69	0.45
28:BE:95:LYS:HD2	28:BE:96:VAL:C	2.36	0.45
14:CN:23:ARG:O	14:CN:26:LEU:O	2.34	0.45
24:BA:63:A:C4'	43:BT:77:ARG:NH1	2.76	0.45
2:CB:101:LEU:HD11	2:CB:175:GLU:HB3	1.98	0.45
29:DF:163:GLU:O	29:DF:166:ARG:HB3	2.15	0.45
29:DF:90:LEU:HD13	29:DF:95:MET:CB	2.45	0.45
1:CA:976:G:N7	1:CA:1362:A:N6	2.65	0.45
21:CU:6:VAL:CG1	21:CU:6:VAL:O	2.65	0.45
38:DO:55:GLU:O	38:DO:58:ILE:HG22	2.16	0.45
29:DF:36:ASN:O	29:DF:151:LEU:HD12	2.16	0.45
29:BF:71:LYS:O	29:BF:72:SER:C	2.54	0.45
1:CA:859:G:C2'	1:CA:860:A:O5'	2.64	0.45
2:AB:23:TRP:HA	2:AB:189:THR:O	2.16	0.45
24:DA:671:C:H5'	24:DA:671:C:C6	2.50	0.45
24:BA:2118:U:P	24:BA:2147:A:HO2'	2.36	0.45
24:DA:190:A:H3'	24:DA:204:A:H61	1.81	0.45
28:DE:29:HIS:O	28:DE:30:GLN:C	2.55	0.45
24:BA:2753:A:H2'	24:BA:2754:U:H5'	1.98	0.45
7:CG:123:GLU:O	7:CG:126:ASP:OD1	2.34	0.45
18:AR:55:LEU:HD12	18:AR:55:LEU:O	2.16	0.45
4:AD:193:ALA:HB1	6:CF:12:PRO:O	2.16	0.45
29:BF:116:LEU:O	29:BF:117:SER:C	2.55	0.45
24:BA:1098:A:O3'	32:BI:4:VAL:HG11	2.16	0.45
57:BA:3167:NMY:C13	57:BA:3167:NMY:H17	2.29	0.45
24:DA:814:C:C2'	24:DA:815:C:O5'	2.65	0.45
24:DA:2012:G:OP1	42:DS:98:LYS:HD2	2.16	0.45
1:AA:438:U:C4	1:AA:494:G:C5	3.04	0.45
24:DA:1549:A:C5	24:DA:1550:C:C5	3.04	0.45
5:CE:41:ASP:OD1	5:CE:41:ASP:C	2.53	0.45
1:AA:74:A:H2'	1:AA:75:G:O4'	2.16	0.45
1:AA:106:C:O2	1:AA:379:C:H4'	2.15	0.45
12:AL:3:THR:N	12:AL:6:GLN:OE1	2.49	0.45
24:BA:1754:A:H4'	39:BP:98:TYR:CE2	2.52	0.45
24:BA:896:A:H3'	24:BA:897:C:H5'	1.99	0.45
24:BA:2478:A:H2'	24:BA:2479:U:O4'	2.17	0.45
16:CP:32:PHE:CD1	16:CP:33:ILE:N	2.84	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:89:A:N1	24:BA:90:U:C5	2.84	0.45
2:CB:68:LEU:HD12	2:CB:68:LEU:C	2.36	0.45
24:DA:1491:G:C5	24:DA:1500:G:N2	2.84	0.45
17:CQ:4:LYS:HD2	17:CQ:5:ILE:N	2.30	0.45
24:BA:1798:U:O2'	24:BA:1802:A:N3	2.29	0.45
2:AB:9:MET:HG2	2:AB:47:VAL:HG21	1.98	0.45
38:DO:51:ALA:CB	38:DO:78:VAL:HG13	2.46	0.45
24:BA:1144:A:C5	24:BA:1145:C:C5	3.04	0.45
34:BK:64:ARG:HG2	34:BK:79:PHE:HE2	1.81	0.45
24:BA:579:G:C4	24:BA:1262:A:N1	2.84	0.45
1:CA:661:G:N3	1:CA:745:G:N2	2.64	0.45
24:DA:595:C:O2	24:DA:663:G:C2	2.69	0.45
9:AI:72:ILE:HD12	9:AI:72:ILE:N	2.31	0.45
4:AD:79:ALA:C	4:AD:81:ARG:N	2.69	0.45
24:DA:2337:G:C6	24:DA:2338:C:C4	3.04	0.45
36:DM:76:LYS:C	36:DM:77:PRO:O	2.54	0.45
42:DS:87:PRO:O	42:DS:88:ARG:C	2.55	0.45
42:DS:88:ARG:O	42:DS:89:ALA:O	2.34	0.45
24:DA:2537:U:H2'	24:DA:2538:C:C6	2.51	0.45
24:DA:2539:C:C4	24:DA:2540:C:C5	3.04	0.45
24:DA:1984:G:H2'	24:DA:1985:C:H5'	1.97	0.45
1:CA:573:A:C2	1:CA:574:A:C2	3.04	0.45
24:BA:2142:A:N3	24:BA:2150:C:C2	2.83	0.45
7:AG:39:ALA:O	7:AG:42:ILE:HG13	2.15	0.45
24:BA:841:G:H2'	24:BA:842:U:C6	2.51	0.45
24:DA:1753:G:N2	24:DA:1756:G:OP2	2.49	0.45
5:CE:87:GLY:O	5:CE:94:VAL:HG12	2.16	0.45
24:BA:1334:G:C6	24:BA:1335:C:C4	3.04	0.45
1:CA:293:G:N2	1:CA:294:U:C1'	2.79	0.45
49:BZ:47:ILE:O	49:BZ:51:SER:N	2.49	0.45
1:AA:805:C:N3	1:AA:806:C:C5	2.84	0.45
12:CL:67:ILE:HD12	12:CL:72:HIS:CD2	2.51	0.45
30:DG:27:GLY:HA3	30:DG:78:VAL:CG1	2.45	0.45
24:DA:271:G:C4	24:DA:367:G:C2	3.04	0.45
12:AL:57:LEU:CD2	12:AL:59:ASN:CG	2.85	0.45
33:BJ:88:THR:CG2	33:BJ:91:GLU:HB2	2.45	0.45
24:BA:2129:C:C5	24:BA:2130:U:C5	3.04	0.45
24:BA:927:A:H2'	24:BA:928:A:C8	2.51	0.45
38:DO:28:VAL:CG2	38:DO:29:HIS:N	2.78	0.45
24:DA:2048:G:C5	24:DA:2049:G:C8	3.03	0.45
24:DA:2474:U:H3'	24:DA:2475:C:C6	2.51	0.45
27:DD:91:THR:O	27:DD:92:VAL:C	2.54	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:288:U:C4	24:DA:289:G:N7	2.84	0.45
39:DP:110:LYS:N	39:DP:110:LYS:HE3	2.31	0.45
19:CS:80:TYR:CG	19:CS:81:ARG:N	2.84	0.45
46:BW:67:VAL:HG12	46:BW:68:LYS:N	2.30	0.45
27:BD:85:ALA:HB3	27:BD:88:GLU:OE1	2.16	0.45
1:AA:1286:U:HO2'	1:AA:1287:A:P	2.36	0.45
9:AI:13:LYS:O	9:AI:15:SER:N	2.48	0.45
25:BB:49:C:OP1	38:BO:101:GLY:HA3	2.15	0.45
24:BA:250:G:OP2	53:B3:12:ARG:NH1	2.49	0.45
8:AH:32:LEU:O	8:AH:33:LYS:C	2.53	0.45
24:BA:729:G:OP2	26:BC:206:LYS:NZ	2.47	0.45
24:DA:85:G:OP1	44:DU:5:ARG:HA	2.16	0.45
1:AA:373:A:C2	1:AA:374:A:C8	3.04	0.45
5:AE:83:HIS:CE1	5:AE:84:PRO:HB2	2.51	0.45
8:AH:101:ILE:CG2	8:AH:103:VAL:HG23	2.47	0.45
8:AH:88:ARG:NE	8:AH:122:GLY:N	2.63	0.45
12:AL:112:GLN:O	12:AL:113:ALA:CB	2.64	0.45
17:AQ:6:ARG:HA	17:AQ:6:ARG:NE	2.32	0.45
1:AA:709:U:C2'	1:AA:710:G:O5'	2.64	0.45
13:CM:16:VAL:C	13:CM:17:ILE:HG13	2.37	0.45
24:DA:1061:U:O4'	24:DA:1061:U:O2	2.34	0.45
32:DI:116:MET:HE1	32:DI:127:SER:O	2.16	0.45
24:DA:1422:G:C4	24:DA:1423:G:C8	3.04	0.45
24:DA:1495:A:HO2'	24:DA:1579:A:H5'	1.81	0.45
2:AB:99:GLY:O	2:AB:103:ASN:HB3	2.15	0.45
2:AB:169:GLU:C	2:AB:171:ILE:N	2.66	0.45
24:BA:197:A:C2'	24:BA:198:C:H5'	2.46	0.45
24:DA:2257:U:H5'	46:DW:11:ARG:NH2	2.30	0.45
24:BA:1992:G:N2	24:BA:1996:C:O2'	2.50	0.45
10:CJ:75:ASP:C	10:CJ:75:ASP:OD1	2.54	0.45
1:AA:1031:C:H4'	1:AA:1032:G:C2	2.51	0.45
1:CA:330:C:H2'	1:CA:331:G:H5'	1.98	0.45
26:DC:149:LYS:HZ1	26:DC:152:GLN:CD	2.19	0.45
14:CN:26:LEU:O	14:CN:27:LYS:CB	2.65	0.45
29:BF:86:CYS:O	29:BF:87:LYS:HD3	2.16	0.45
1:CA:930:C:N3	1:CA:931:C:C5	2.84	0.45
9:CI:124:ARG:CB	9:CI:125:PRO:HD2	2.46	0.45
52:B2:38:GLY:O	52:B2:39:ARG:C	2.55	0.45
26:BC:83:ASP:OD1	26:BC:83:ASP:C	2.55	0.45
6:CF:24:ARG:HB2	6:CF:25:TYR:CD2	2.52	0.45
34:BK:24:VAL:CG1	34:BK:33:ALA:N	2.79	0.45
24:DA:2849:U:O4	39:DP:20:ARG:NH1	2.49	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DC:80:LEU:HD21	26:DC:105:ALA:CB	2.47	0.45
24:BA:2024:G:C4	24:BA:2040:G:N2	2.85	0.45
31:DH:7:ASP:C	31:DH:15:LEU:HD22	2.37	0.45
1:AA:1122:U:C4	1:AA:1123:U:C6	3.04	0.45
33:DJ:77:HIS:C	33:DJ:79:GLY:H	2.19	0.45
24:DA:1439:A:H2	24:DA:1553:A:C4	2.32	0.45
21:AU:39:GLU:O	21:AU:40:LYS:CB	2.63	0.45
24:BA:634:C:H2'	24:BA:635:C:C6	2.51	0.45
1:AA:292:G:N2	1:AA:309:A:C5	2.84	0.45
35:DL:78:ARG:CB	35:DL:113:ALA:HB3	2.46	0.45
24:BA:1164:C:H2'	24:BA:1165:A:C8	2.52	0.45
24:DA:1485:U:H2'	24:DA:1486:U:C6	2.51	0.45
1:CA:1464:U:O2'	1:CA:1465:A:H5'	2.16	0.45
1:CA:300:A:H1'	1:CA:565:U:O2	2.16	0.45
24:BA:1494:A:C4	24:BA:1495:A:C8	3.04	0.45
1:CA:64:G:C5	1:CA:99:C:C4	3.04	0.45
1:CA:69:G:H2'	1:CA:70:U:C6	2.51	0.45
29:BF:74:ALA:C	29:BF:76:PHE:N	2.69	0.45
24:BA:1819:A:C5'	26:BC:156:SER:OG	2.65	0.45
24:BA:1803:A:H4'	26:BC:256:THR:OG1	2.16	0.45
1:CA:778:G:H2'	1:CA:779:C:O4'	2.15	0.45
24:DA:1806:C:N4	24:DA:1807:G:C5	2.84	0.45
24:BA:1608:A:C4	24:BA:1611:C:C5	3.04	0.45
24:BA:2514:U:H2'	24:BA:2515:C:H6	1.79	0.45
55:CY:129:ARG:O	55:CY:132:ARG:HB3	2.16	0.45
1:CA:640:A:C5	1:CA:641:U:C5	3.04	0.45
24:BA:2799:A:C5	24:BA:2801:G:C8	3.03	0.45
1:CA:25:C:C4	1:CA:558:G:N2	2.84	0.45
24:BA:1085:A:C6	24:BA:1086:A:N6	2.84	0.45
24:BA:1091:G:O2'	24:BA:1092:C:OP2	2.25	0.45
9:AI:20:PHE:O	9:AI:64:TYR:O	2.33	0.45
1:CA:160:A:H2'	1:CA:161:A:O4'	2.16	0.45
6:AF:23:GLU:O	6:AF:27:ALA:CB	2.65	0.45
24:BA:261:G:C2	24:BA:262:A:C8	3.04	0.45
24:BA:2078:C:C2	24:BA:2079:U:C6	3.04	0.45
1:AA:1292:G:H2'	1:AA:1293:C:O4'	2.17	0.45
44:BU:52:ASN:CG	44:BU:54:PRO:HD2	2.36	0.45
24:BA:1759:A:H4'	24:BA:2715:C:O4'	2.16	0.45
24:BA:2104:C:O2	24:BA:2186:G:N2	2.49	0.45
24:DA:1538:G:OP2	24:DA:1538:G:H8	1.99	0.45
24:DA:1955:U:O2'	24:DA:2552:U:H4'	2.16	0.45
24:BA:2325:G:C6	24:BA:2326:C:N4	2.84	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:59:ARG:HG2	3:CC:64:ILE:CG2	2.46	0.45
16:CP:10:GLY:HA3	16:CP:15:PRO:HA	1.97	0.45
41:BR:4:VAL:HG23	41:BR:13:ARG:CA	2.46	0.45
24:BA:1954:G:O2'	24:BA:1956:U:O4	2.27	0.45
1:CA:1439:G:C6	1:CA:1440:U:C2	3.04	0.45
35:BL:94:THR:CG2	35:BL:95:LEU:N	2.78	0.45
24:BA:735:A:C8	24:BA:736:C:C5	3.05	0.45
24:DA:1344:U:H4'	24:DA:1384:A:C6	2.51	0.45
1:CA:892:A:C6	1:CA:893:C:C4	3.04	0.45
18:CR:60:LYS:O	18:CR:63:ARG:HG3	2.17	0.45
14:CN:63:ARG:CZ	14:CN:70:PRO:HG3	2.45	0.45
1:AA:1383:C:C2'	1:AA:1384:C:H5'	2.47	0.45
5:CE:81:LEU:HD13	5:CE:123:VAL:HG11	1.99	0.45
24:BA:2219:U:C4	24:BA:2220:U:C4	3.05	0.45
34:DK:61:VAL:CG1	34:DK:87:LEU:HD21	2.46	0.45
24:BA:869:G:O2'	36:BM:8:LYS:HD3	2.16	0.45
29:BF:3:LEU:CD2	29:BF:99:PHE:CE1	2.99	0.45
29:BF:96:TRP:HA	29:BF:99:PHE:CD1	2.51	0.45
24:BA:1913:A:HO2'	24:BA:1914:C:P	2.36	0.45
31:DH:103:VAL:HG12	31:DH:108:VAL:HG22	1.97	0.45
54:D4:29:ALA:O	54:D4:30:GLU:HB3	2.16	0.45
25:BB:42:C:O2'	29:BF:62:GLN:HB3	2.16	0.45
24:DA:2390:U:OP2	53:D3:34:LYS:HE3	2.15	0.45
24:DA:2424:C:O2	24:DA:2429:G:O2'	2.27	0.45
24:DA:1378:A:N9	24:DA:1380:G:N7	2.63	0.45
24:BA:2412:A:H2'	24:BA:2413:G:O4'	2.17	0.45
2:CB:69:PHE:CD1	2:CB:84:ALA:HB1	2.51	0.45
24:DA:104:A:C6	24:DA:105:C:C4	3.05	0.45
24:DA:1659:G:C6	24:DA:1660:G:C5	3.04	0.45
1:CA:1523:G:OP1	11:CK:126:LYS:CD	2.64	0.45
7:AG:22:LEU:HA	7:AG:25:LYS:CE	2.47	0.45
1:AA:370:C:N3	1:AA:371:A:N7	2.65	0.45
1:AA:375:U:H2'	1:AA:375:U:O2	2.15	0.45
1:AA:537:G:P	12:AL:110:ARG:NH2	2.89	0.45
4:AD:94:LEU:O	4:AD:100:ASN:HB2	2.17	0.45
1:AA:620:C:C1'	4:AD:132:ILE:HG12	2.41	0.45
4:AD:200:ILE:O	4:AD:203:LEU:N	2.50	0.45
8:AH:126:ILE:HG22	8:AH:127:CYS:N	2.31	0.45
1:CA:406:G:C4	1:CA:495:A:C6	3.04	0.45
4:CD:32:CYS:HG	4:CD:33:LYS:H	1.59	0.45
15:CO:56:LEU:O	15:CO:59:MET:HG2	2.17	0.45
13:CM:22:ILE:C	13:CM:22:ILE:HD12	2.36	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1310:G:C5'	13:CM:79:ARG:CZ	2.93	0.45
24:DA:1078:U:H5''	24:DA:1079:C:O4'	2.16	0.45
24:DA:1095:A:C5	24:DA:1096:A:N6	2.85	0.45
24:BA:831:G:C5	24:BA:832:U:C6	3.05	0.45
28:BE:58:LYS:CG	28:BE:71:GLY:HA2	2.46	0.45
24:BA:973:A:OP2	41:BR:81:LYS:HD2	2.17	0.45
24:BA:2729:G:C5	24:BA:2730:C:C4	3.05	0.45
6:CF:69:GLU:O	6:CF:70:VAL:CG2	2.64	0.45
24:BA:528:A:N1	24:BA:2042:A:H2'	2.31	0.45
24:BA:111:A:C2	24:BA:112:U:C2	3.05	0.45
1:CA:1280:A:O2'	1:CA:1281:C:C5'	2.64	0.45
1:CA:1256:A:OP1	3:CC:27:LYS:NZ	2.49	0.45
1:AA:1031:C:C5'	1:AA:1032:G:OP1	2.64	0.45
24:BA:1267:U:C2'	24:BA:1268:A:H5''	2.42	0.45
12:CL:82:ILE:HG12	12:CL:95:TYR:CD2	2.51	0.45
24:BA:2286:G:N7	51:B1:24:LYS:HD3	2.31	0.45
51:B1:28:THR:O	51:B1:29:LYS:HD2	2.16	0.45
24:BA:611:C:C2'	24:BA:612:G:H5'	2.46	0.45
24:BA:616:A:C2'	24:BA:617:G:H5'	2.47	0.45
24:DA:1866:A:C6	24:DA:1876:A:N7	2.84	0.45
1:AA:1134:G:C6	1:AA:1135:U:H6	2.34	0.45
1:CA:1356:G:N2	1:CA:1367:C:C2	2.84	0.45
7:CG:32:VAL:HG13	7:CG:33:ASP:CG	2.37	0.45
1:AA:1212:U:H4'	1:AA:1213:A:C8	2.51	0.45
24:BA:2659:G:N2	24:BA:2663:G:C6	2.84	0.45
47:DX:31:ASN:HB2	47:DX:33:HIS:CE1	2.52	0.45
3:AC:78:GLY:HA2	21:CU:18:ARG:NE	2.31	0.45
40:DQ:85:ALA:O	40:DQ:86:SER:HB2	2.15	0.45
24:BA:1170:C:H2'	24:BA:1171:G:C8	2.51	0.45
24:BA:1180:U:C4	24:BA:1181:U:C2	3.04	0.45
42:BS:49:LYS:HD2	42:BS:49:LYS:O	2.16	0.45
24:DA:2720:U:C4	24:DA:2872:A:C2	3.04	0.45
24:BA:1491:G:C6	24:BA:1500:G:C2	3.04	0.45
33:BJ:15:TRP:C	33:BJ:16:TYR:CD1	2.90	0.45
24:BA:1210:G:C3'	24:BA:1211:C:C5'	2.94	0.45
24:BA:54:G:N1	24:BA:55:G:C5	2.85	0.45
24:BA:2832:U:C2	24:BA:2834:G:C2	3.03	0.45
1:AA:247:G:C6	1:AA:248:C:C5	3.03	0.45
1:CA:338:A:C6	1:CA:339:C:C4	3.04	0.45
8:CH:78:VAL:HG12	8:CH:127:CYS:CA	2.44	0.45
24:DA:2408:U:C2'	24:DA:2409:G:H5'	2.47	0.45
1:AA:101:A:N1	1:AA:102:G:C5	2.84	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2532:G:O2'	24:DA:2657:A:C6	2.68	0.45
39:BP:38:ARG:NH2	39:BP:38:ARG:HB3	2.32	0.45
39:BP:20:ARG:HB3	39:BP:21:PRO:HD3	1.96	0.45
1:CA:1055:A:N6	1:CA:1206:G:C6	2.85	0.45
24:BA:1443:U:C2	24:BA:1444:G:C8	3.04	0.45
1:CA:63:C:O2'	1:CA:64:G:C5'	2.64	0.45
24:DA:2037:A:C6	24:DA:2038:G:C6	3.04	0.45
37:DN:72:ASP:O	37:DN:75:ILE:HG23	2.16	0.45
24:DA:2661:G:C6	24:DA:2662:A:N1	2.84	0.45
24:DA:1619:G:C2'	24:DA:1620:G:H5'	2.47	0.45
1:AA:795:C:H4'	11:AK:128:ARG:NH1	2.31	0.45
1:CA:1095:U:H2'	1:CA:1096:C:C6	2.51	0.45
24:BA:1725:U:H2'	24:BA:1726:C:O4'	2.16	0.45
33:BJ:125:TYR:CE2	33:BJ:130:HIS:CA	2.99	0.45
24:BA:872:U:H2'	24:BA:873:C:C6	2.51	0.45
24:BA:1408:G:N1	24:BA:1595:C:O2	2.50	0.45
24:DA:800:A:H4'	24:DA:801:G:O5'	2.16	0.45
45:BV:77:VAL:HG23	45:BV:89:ILE:HG12	1.98	0.45
4:AD:79:ALA:CB	4:AD:86:THR:HG23	2.45	0.45
24:BA:1087:G:C5	24:BA:1089:A:H1'	2.50	0.45
24:BA:1099:G:C6	24:BA:1100:C:C4	3.04	0.45
46:BW:51:VAL:HA	46:BW:60:PHE:O	2.15	0.45
24:DA:773:U:C5'	26:DC:46:GLY:HA3	2.46	0.45
24:DA:2783:U:H2'	24:DA:2784:U:C6	2.51	0.45
17:CQ:79:VAL:O	17:CQ:80:GLU:HB2	2.17	0.45
44:DU:39:ASN:HB3	44:DU:62:ALA:HB3	1.98	0.45
15:CO:82:ILE:CD1	15:CO:87:LEU:N	2.79	0.45
1:CA:243:A:C5	1:CA:245:U:C4	3.04	0.45
24:DA:980:A:C6	24:DA:981:A:C6	3.04	0.45
24:BA:2714:G:H2'	24:BA:2715:C:H5'	1.98	0.45
3:CC:97:VAL:HG13	3:CC:98:PRO:N	2.30	0.45
24:DA:729:G:H4'	24:DA:763:G:H5'	1.97	0.45
24:DA:2715:C:H6	24:DA:2715:C:O5'	1.99	0.45
2:AB:86:SER:O	2:AB:87:CYS:C	2.55	0.45
11:CK:63:ALA:O	11:CK:66:ALA:CB	2.65	0.45
38:DO:75:GLY:O	38:DO:110:ALA:HA	2.15	0.45
1:AA:1369:C:H2'	1:AA:1370:G:C1'	2.46	0.45
1:CA:1484:C:H2'	1:CA:1485:U:O4'	2.15	0.45
24:DA:1:G:H2'	24:DA:2:G:C8	2.50	0.45
24:DA:1365:A:HO2'	47:DX:10:ARG:HE	1.60	0.45
34:DK:58:LEU:N	34:DK:58:LEU:HD23	2.31	0.45
1:CA:1230:C:H5'	22:CV:30:G:H4'	1.98	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:D4:7:VAL:HG11	54:D4:36:ARG:O	2.16	0.45
29:DF:174:PHE:HD2	29:DF:176:PHE:CE1	2.35	0.45
36:BM:69:PRO:HA	36:BM:94:ALA:CA	2.46	0.45
24:BA:114:U:C2	24:BA:115:C:C5	3.04	0.45
28:BE:181:ILE:HG22	35:BL:3:LEU:HA	1.97	0.45
1:CA:600:A:P	8:CH:88:ARG:HG3	2.56	0.45
24:DA:2816:G:H2'	24:DA:2817:U:H5'	1.97	0.45
24:DA:312:G:H5'	24:DA:331:C:O2'	2.17	0.45
26:DC:135:PRO:O	26:DC:136:VAL:C	2.55	0.45
32:BI:56:VAL:HG22	32:BI:57:VAL:N	2.32	0.45
24:DA:2569:G:C2	24:DA:2570:G:C8	3.04	0.45
5:CE:141:ILE:C	5:CE:143:GLY:H	2.20	0.45
31:BH:137:GLU:O	31:BH:139:PHE:N	2.49	0.45
24:BA:687:C:H2'	24:BA:688:U:O4'	2.16	0.45
47:BX:15:ASN:HA	47:BX:24:THR:O	2.16	0.45
15:AO:6:GLU:CD	15:AO:6:GLU:C	2.74	0.45
54:D4:23:ILE:HD13	54:D4:23:ILE:N	2.31	0.45
5:CE:101:GLU:HA	5:CE:101:GLU:OE2	2.16	0.45
17:AQ:61:ILE:HD12	17:AQ:61:ILE:C	2.35	0.45
24:DA:2143:C:N4	24:DA:2148:G:O6	2.50	0.45
1:AA:738:C:H5''	6:AF:68:GLN:NE2	2.31	0.45
31:BH:121:VAL:HB	31:BH:122:LEU:HG	1.93	0.45
1:AA:1408:A:C2	1:AA:1494:G:C6	3.03	0.45
1:AA:1014:A:C2'	1:AA:1015:G:O4'	2.65	0.45
1:AA:945:G:N3	1:AA:945:G:H2'	2.30	0.45
19:AS:13:LEU:HG	19:AS:14:HIS:ND1	2.31	0.45
24:BA:2377:A:C2'	24:BA:2378:A:H5'	2.46	0.45
25:BB:45:A:C2	25:BB:46:A:N3	2.85	0.45
24:BA:410:G:C2	24:BA:2407:A:C5	3.05	0.45
8:AH:11:LEU:HD21	8:AH:77:ARG:HG2	1.98	0.45
24:BA:1775:U:H2'	24:BA:1776:G:O5'	2.16	0.45
5:AE:48:PHE:CE1	5:AE:141:ILE:HD11	2.52	0.45
1:AA:1083:U:C5	1:AA:1084:G:C5	3.03	0.45
15:CO:42:HIS:O	15:CO:45:GLU:O	2.34	0.45
22:AV:17:C:H3'	22:AV:18:G:C5'	2.46	0.45
1:AA:1197:A:C2'	1:AA:1198:G:H5'	2.47	0.45
24:BA:84:A:N6	24:BA:101:A:C2	2.84	0.45
13:CM:96:PRO:HA	13:CM:109:ARG:NH2	2.31	0.45
1:AA:1102:A:C6	1:AA:1103:C:C5	3.05	0.45
1:AA:1104:G:N1	1:AA:1105:A:C5	2.83	0.45
1:AA:1182:G:H5''	1:AA:1183:U:H5'	1.98	0.45
24:BA:571:U:O2'	24:BA:573:U:O5'	2.35	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:6:ILE:HD13	10:AJ:76:ILE:HG13	1.99	0.45
2:AB:151:ILE:O	2:AB:152:LYS:C	2.54	0.45
1:AA:143:A:N3	1:AA:143:A:H2'	2.31	0.45
19:CS:42:PRO:O	19:CS:43:ASN:CG	2.54	0.45
24:BA:2120:G:C2	24:BA:2121:G:C4	3.04	0.45
24:BA:2768:U:C4	24:BA:2769:U:C5	3.04	0.45
24:DA:1238:G:H21	24:DA:1239:G:H1'	1.80	0.45
1:CA:453:G:C2'	1:CA:454:G:O5'	2.65	0.45
9:CI:51:PRO:HB3	9:CI:103:PHE:CE2	2.51	0.45
1:CA:192:A:C6	1:CA:193:C:C4	3.04	0.45
1:CA:444:G:C4	1:CA:491:G:N2	2.84	0.45
24:BA:614:A:O2'	24:BA:615:U:P	2.75	0.45
13:AM:15:ALA:O	13:AM:18:ALA:N	2.50	0.45
12:CL:44:LYS:O	12:CL:45:PRO:C	2.55	0.45
24:DA:2648:G:N2	24:DA:2673:G:H1'	2.32	0.45
38:DO:108:ASP:O	38:DO:109:ALA:C	2.55	0.45
25:DB:42:C:N3	29:DF:89:THR:OG1	2.48	0.45
1:CA:1371:G:C6	1:CA:1372:U:O4	2.69	0.45
21:CU:10:GLU:OE1	21:CU:10:GLU:N	2.50	0.45
24:BA:517:C:P	50:B0:9:ARG:NH2	2.88	0.45
24:BA:547:A:N7	24:BA:548:G:C2	2.85	0.45
24:BA:2659:G:OP1	30:BG:157:LYS:HD3	2.17	0.45
24:BA:593:U:H2'	24:BA:594:U:C6	2.50	0.45
24:DA:2308:G:C5	29:DF:76:PHE:CE1	3.04	0.45
24:BA:797:G:C4	24:BA:798:G:C8	3.05	0.45
22:CV:53:G:H1	22:CV:58:A:H2'	1.80	0.45
1:AA:204:G:H3'	1:AA:205:A:C8	2.52	0.45
35:BL:92:LEU:HD12	35:BL:93:ASN:N	2.31	0.45
24:DA:1733:G:C2	24:DA:1734:G:C4	3.04	0.45
25:BB:96:G:O2'	25:BB:97:C:H5'	2.16	0.45
24:BA:2346:A:H3'	24:BA:2347:C:C5'	2.44	0.45
24:BA:2093:G:N2	24:BA:2197:U:C2	2.84	0.45
42:BS:13:SER:O	42:BS:14:ALA:C	2.55	0.45
34:DK:103:VAL:CG1	34:DK:107:LEU:HD13	2.46	0.45
24:BA:1588:G:H2'	24:BA:1589:U:C6	2.51	0.45
1:CA:709:U:C2	1:CA:710:G:C8	3.05	0.45
1:AA:363:A:H4'	12:AL:81:LEU:CD1	2.46	0.45
33:BJ:15:TRP:CH2	33:BJ:53:TYR:HD2	2.34	0.45
24:DA:2627:G:C6	24:DA:2628:C:N3	2.84	0.45
24:BA:158:U:H2'	24:BA:159:G:H5'	1.98	0.45
7:CG:51:ALA:HB2	7:CG:58:GLU:OE2	2.17	0.45
24:DA:2345:G:N3	24:DA:2381:A:H2'	2.30	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2371:G:H2'	24:DA:2372:U:O5'	2.15	0.45
24:BA:2681:C:C4	24:BA:2724:U:C4	3.04	0.45
24:DA:1967:C:H2'	24:DA:1968:G:H5'	1.97	0.45
24:BA:930:G:C2	24:BA:933:A:N7	2.84	0.45
49:BZ:25:GLY:C	49:BZ:46:MET:HE1	2.37	0.45
26:DC:226:PRO:CA	26:DC:232:GLY:HA2	2.47	0.45
24:DA:142:A:C2	24:DA:143:C:O2	2.70	0.45
28:DE:108:ILE:C	28:DE:108:ILE:HD12	2.36	0.45
1:AA:73:C:O2'	1:AA:74:A:C8	2.64	0.45
24:DA:1672:A:N6	24:DA:1673:G:C6	2.84	0.45
24:DA:2590:A:H2'	24:DA:2591:C:C6	2.52	0.45
24:DA:1276:A:O2'	37:DN:16:HIS:NE2	2.49	0.45
2:AB:43:LEU:O	2:AB:44:GLU:C	2.54	0.45
1:CA:1054:C:OP1	59:CA:1839:HOH:O	2.20	0.45
24:DA:2162:G:H4'	24:DA:2171:A:C8	2.51	0.45
18:AR:34:THR:HG22	18:AR:38:LYS:O	2.16	0.45
2:CB:91:PHE:O	2:CB:150:GLY:CA	2.65	0.45
24:DA:1609:A:C2	24:DA:1616:A:C8	3.04	0.45
18:AR:26:ILE:N	18:AR:29:LEU:CD1	2.80	0.45
1:CA:69:G:N3	1:CA:69:G:H2'	2.31	0.45
1:AA:696:A:H1'	1:AA:786:G:O2'	2.17	0.45
1:AA:505:G:N7	1:AA:535:A:C4	2.84	0.45
24:DA:1415:U:C6	24:DA:1588:G:N1	2.84	0.45
24:DA:389:G:H2'	24:DA:390:U:H5'	1.99	0.45
24:BA:712:G:N2	24:BA:720:U:H1'	2.32	0.45
44:BU:94:PHE:HB2	44:BU:101:THR:HA	1.98	0.45
44:BU:101:THR:HG22	44:BU:102:ILE:N	2.31	0.45
1:CA:1421:G:HO2'	1:CA:1422:G:P	2.40	0.45
24:BA:1409:U:C4	24:BA:1593:A:N1	2.85	0.45
3:CC:83:ASP:O	3:CC:84:VAL:C	2.54	0.45
24:DA:1026:G:H2'	24:DA:1027:A:C8	2.51	0.45
33:DJ:68:LYS:O	33:DJ:69:ARG:C	2.55	0.45
1:CA:1036:A:N7	1:CA:1037:C:C4	2.84	0.45
24:BA:644:A:H2'	24:BA:645:C:O4'	2.17	0.45
29:BF:37:MET:SD	29:BF:56:LEU:HD23	2.56	0.45
44:DU:35:VAL:O	44:DU:37:GLY:N	2.50	0.45
3:AC:5:VAL:CG1	3:AC:6:HIS:N	2.80	0.45
24:DA:292:U:H2'	24:DA:293:U:H5'	1.96	0.45
24:BA:1281:G:HO2'	24:BA:1282:U:P	2.39	0.45
48:DY:37:LEU:CD1	48:DY:37:LEU:C	2.85	0.45
3:CC:189:ALA:O	3:CC:190:HIS:CG	2.69	0.45
11:AK:51:GLY:O	11:AK:52:PHE:O	2.35	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:310:G:C6	1:CA:311:C:C4	3.04	0.45
24:DA:1913:A:N3	24:DA:1914:C:C5'	2.79	0.45
24:BA:1707:G:C6	24:BA:1708:C:C4	3.04	0.45
3:AC:83:ASP:O	3:AC:85:GLU:N	2.49	0.45
3:CC:120:ILE:O	3:CC:122:SER:N	2.50	0.45
37:BN:16:HIS:O	37:BN:17:ARG:C	2.55	0.45
42:BS:88:ARG:CG	42:BS:88:ARG:HH21	2.29	0.45
15:CO:46:HIS:O	15:CO:47:LYS:HG3	2.16	0.45
25:DB:110:C:H2'	25:DB:111:U:O4'	2.17	0.45
39:DP:42:PHE:CD2	39:DP:71:ARG:HD3	2.52	0.45
3:AC:87:LEU:HD12	3:AC:87:LEU:N	2.31	0.45
24:BA:756:A:H2'	24:BA:757:G:O4'	2.16	0.45
1:AA:349:A:H2'	1:AA:350:G:O4'	2.17	0.45
24:BA:116:C:N4	24:BA:117:G:C6	2.84	0.45
24:BA:2848:G:OP2	39:BP:94:ALA:N	2.35	0.45
24:BA:1011:G:C4	24:BA:1151:A:C2	3.04	0.45
47:DX:73:ARG:O	47:DX:75:GLU:N	2.47	0.45
32:DI:53:PRO:O	32:DI:54:ILE:HG23	2.16	0.45
24:BA:1034:G:C4	24:BA:1122:G:C2	3.05	0.45
32:DI:6:ALA:O	32:DI:58:ILE:CG2	2.64	0.45
26:DC:173:LEU:HD22	26:DC:173:LEU:H	1.82	0.45
24:DA:2072:C:H5''	24:DA:2072:C:H6	1.82	0.45
24:DA:1787:A:O5'	24:DA:1787:A:C8	2.70	0.45
34:DK:24:VAL:O	34:DK:24:VAL:HG13	2.16	0.45
24:DA:2888:C:H2'	24:DA:2889:C:C6	2.51	0.45
24:DA:776:G:H4'	24:DA:777:G:O5'	2.16	0.45
29:BF:172:PHE:CB	29:BF:174:PHE:CZ	3.00	0.45
29:BF:3:LEU:HD21	29:BF:99:PHE:CE1	2.52	0.45
1:AA:1490:U:O2'	1:AA:1491:G:H5'	2.17	0.45
24:BA:975:A:C2	24:BA:990:A:C8	3.05	0.45
31:DH:93:SER:HG	31:DH:122:LEU:CG	2.30	0.45
1:AA:1321:U:H5''	1:AA:1322:C:OP2	2.16	0.45
1:AA:941:G:C6	1:AA:1343:G:N1	2.85	0.45
8:AH:9:ASP:OD1	8:AH:10:MET:N	2.50	0.45
1:AA:508:U:C5'	4:AD:51:TYR:CE2	2.98	0.45
5:AE:101:GLU:O	5:AE:101:GLU:OE1	2.35	0.45
8:AH:127:CYS:O	8:AH:128:TYR:HD1	1.99	0.45
1:CA:403:C:H2'	1:CA:404:G:O4'	2.17	0.45
1:CA:417:G:C6	1:CA:418:C:C4	3.05	0.45
15:CO:66:LEU:O	15:CO:67:LEU:C	2.54	0.45
24:BA:1910:G:C6	24:BA:1921:G:C6	3.05	0.45
24:BA:82:U:H2'	24:BA:83:A:C8	2.51	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:16:VAL:CG2	13:CM:41:GLU:OE1	2.65	0.45
24:DA:1081:U:H5'	32:DI:126:ARG:HH12	1.81	0.45
24:DA:1081:U:O2'	32:DI:127:SER:HB3	2.17	0.45
24:DA:1495:A:O2'	24:DA:1579:A:H5'	2.17	0.45
4:AD:22:LYS:NZ	4:AD:25:VAL:HG13	2.31	0.45
24:BA:2484:G:H2'	24:BA:2485:G:O5'	2.17	0.45
36:BM:42:THR:HG23	36:BM:45:GLN:OE1	2.16	0.45
24:BA:733:G:N1	24:BA:761:A:C8	2.85	0.45
24:BA:569:U:O4	24:BA:570:G:C6	2.69	0.45
24:DA:715:A:H2'	24:DA:716:A:C8	2.51	0.45
1:CA:615:G:C6	1:CA:626:G:O6	2.69	0.45
24:BA:30:G:C6	24:BA:511:U:O2	2.70	0.45
24:BA:2692:G:H1'	24:BA:2847:U:H1'	1.99	0.45
24:BA:277:G:C2'	24:BA:277:G:N3	2.79	0.45
1:CA:1526:G:P	21:CU:39:GLU:HB2	2.56	0.45
1:CA:483:C:H3'	1:CA:484:G:H8	1.81	0.45
48:DY:53:VAL:HG22	48:DY:54:LYS:N	2.30	0.45
24:BA:657:U:H2'	24:BA:658:U:C5	2.52	0.45
24:BA:63:A:H4'	43:BT:77:ARG:HH11	1.80	0.45
24:DA:2754:U:H2'	24:DA:2756:U:OP1	2.17	0.45
5:CE:77:ASN:O	5:CE:80:THR:N	2.50	0.45
1:CA:1369:C:OP2	9:CI:114:LYS:HB3	2.17	0.45
1:CA:214:C:H2'	1:CA:215:C:C5'	2.47	0.45
21:AU:30:ALA:O	21:AU:31:GLU:C	2.55	0.45
57:DA:3189:NMY:H61	57:DA:3189:NMY:HO3	1.82	0.45
24:DA:480:A:C2'	24:DA:481:G:OP1	2.64	0.45
14:CN:35:ALA:HA	14:CN:41:ARG:HB2	1.99	0.45
7:AG:73:VAL:HA	7:AG:89:VAL:O	2.17	0.45
24:DA:1340:U:O2	24:DA:1340:U:H2'	2.15	0.45
30:DG:108:PHE:CD1	30:DG:110:HIS:C	2.90	0.45
15:CO:20:ASN:O	15:CO:22:THR:N	2.50	0.45
24:BA:2748:A:H4'	30:BG:3:VAL:HG21	1.98	0.45
24:BA:669:G:C5	24:BA:801:G:O6	2.70	0.45
34:DK:121:GLU:O	34:DK:122:VAL:C	2.54	0.45
24:BA:1416:G:C8	24:BA:1417:C:C4	3.04	0.45
1:CA:679:C:C2	1:CA:712:A:N1	2.85	0.45
24:BA:2667:C:H2'	24:BA:2667:C:O2	2.15	0.45
24:BA:320:A:OP1	28:BE:130:LYS:HE3	2.17	0.45
8:CH:63:LEU:HD22	8:CH:65:TYR:CE2	2.52	0.45
2:CB:161:LEU:O	2:CB:183:VAL:O	2.34	0.45
24:DA:140:C:O2'	24:DA:141:G:P	2.74	0.45
31:DH:31:VAL:HG13	31:DH:32:PRO:HD3	1.98	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:99:ALA:O	6:CF:100:SER:HB3	2.17	0.45
24:BA:1531:C:C5	24:BA:1532:A:C4	3.04	0.45
1:AA:1423:G:H2'	1:AA:1424:U:O4'	2.17	0.45
24:DA:2192:U:O2'	24:DA:2193:G:H5'	2.17	0.45
1:CA:104:G:N2	1:CA:105:G:C4	2.84	0.45
24:BA:1754:A:N1	24:BA:1755:A:C2	2.84	0.45
24:BA:2642:G:OP1	33:BJ:78:THR:HG21	2.17	0.45
26:BC:109:LEU:HD12	26:BC:110:LYS:N	2.31	0.45
26:BC:251:THR:CG2	26:BC:252:LYS:N	2.79	0.45
33:DJ:142:ILE:OXT	33:DJ:142:ILE:HG23	2.15	0.45
1:AA:1009:U:H1'	1:AA:1021:A:N1	2.31	0.45
24:DA:1489:C:H6	24:DA:1489:C:H3'	1.82	0.45
1:CA:173:U:C5'	1:CA:197:A:O4'	2.64	0.45
24:DA:621:A:H2'	24:DA:622:G:C5'	2.46	0.45
1:CA:604:G:C2	1:CA:635:A:C2	3.04	0.45
24:DA:2415:G:H2'	24:DA:2416:C:C6	2.51	0.45
1:AA:109:A:N6	1:AA:326:G:C5	2.84	0.45
1:CA:660:C:H2'	1:CA:661:G:C8	2.52	0.45
24:BA:1926:U:H1'	24:BA:1929:G:O6	2.17	0.45
1:CA:1106:G:H2'	3:CC:169:ARG:NH1	2.32	0.45
22:CV:1:G:H5'	24:DA:2423:U:N3	2.31	0.45
24:DA:2544:G:H2'	24:DA:2545:G:O4'	2.16	0.45
45:BV:87:GLN:O	45:BV:88:HIS:CB	2.64	0.45
9:CI:30:ILE:HG12	9:CI:33:ARG:HG2	1.98	0.45
24:DA:377:G:C6	24:DA:378:C:C4	3.05	0.45
24:DA:477:A:O2'	24:DA:478:A:O5'	2.33	0.45
1:CA:818:G:O2'	1:CA:819:A:H5'	2.16	0.45
1:CA:371:A:H1'	1:CA:482:A:H1'	1.97	0.45
24:BA:2714:G:C6	24:BA:2715:C:C4	3.05	0.45
24:DA:1538:G:N2	24:DA:1539:U:C2	2.85	0.45
24:BA:1241:A:C2	24:BA:1242:U:C1'	3.00	0.45
1:CA:617:G:H4'	16:CP:46:LYS:CD	2.47	0.45
24:BA:2088:A:H2'	24:BA:2089:C:H6	1.82	0.45
24:DA:797:G:OP1	28:DE:57:LYS:CD	2.64	0.45
51:D1:24:LYS:HE3	51:D1:51:ALA:CB	2.47	0.45
28:DE:129:PRO:CB	28:DE:159:LEU:HD11	2.47	0.45
2:AB:161:LEU:HB3	2:AB:183:VAL:HG22	1.97	0.45
24:BA:520:G:H2'	24:BA:521:U:C6	2.52	0.45
24:BA:2400:G:C6	24:BA:2401:U:C4	3.04	0.45
24:DA:2461:A:H1'	24:DA:2492:U:C2	2.51	0.45
1:CA:1121:U:H2'	1:CA:1122:U:H5'	1.99	0.45
36:BM:108:VAL:HG11	36:BM:112:LEU:HD23	1.98	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:27:ALA:C	4:CD:28:ILE:HG13	2.37	0.45
25:DB:50:A:C6	25:DB:51:G:C5	3.05	0.45
24:BA:742:A:C2	24:BA:756:A:C2	3.04	0.45
24:DA:370:G:C6	24:DA:424:G:C5	3.04	0.45
50:B0:32:THR:OG1	50:B0:50:GLY:HA2	2.16	0.45
52:B2:10:LEU:O	52:B2:14:ARG:HB2	2.17	0.45
1:CA:462:G:H3'	1:CA:463:U:C6	2.51	0.45
25:BB:63:C:H2'	25:BB:64:G:O4'	2.17	0.45
22:AV:60:U:H5''	22:AV:61:C:H5	1.81	0.45
24:BA:15:G:C6	24:BA:16:C:C4	3.05	0.45
24:DA:875:G:H2'	24:DA:876:C:O4'	2.17	0.45
57:AA:1655:NMY:HN61	24:BA:1913:A:N6	2.13	0.45
24:DA:1839:G:C8	24:DA:1927:A:H1'	2.52	0.45
1:AA:1320:C:C4	1:AA:1321:U:C4	3.04	0.45
1:AA:1346:A:N3	1:AA:1348:U:C4	2.84	0.45
1:AA:945:G:C2	1:AA:1337:G:C2	3.05	0.45
24:BA:2335:A:OP1	38:BO:13:ARG:HD2	2.16	0.45
24:DA:692:C:C2'	24:DA:693:A:O5'	2.65	0.45
24:BA:1876:A:C8	24:BA:1877:A:C8	3.05	0.45
1:AA:643:C:H5''	8:AH:32:LEU:HD21	1.99	0.45
1:AA:401:C:H1'	1:AA:622:A:H1'	1.97	0.45
5:AE:141:ILE:C	5:AE:143:GLY:N	2.70	0.45
16:AP:4:ILE:O	16:AP:5:ARG:HB2	2.17	0.45
1:AA:922:G:C6	1:AA:923:A:C6	3.05	0.45
4:CD:59:GLN:HA	4:CD:62:ARG:CG	2.46	0.45
1:AA:678:U:H1'	1:AA:777:A:O2'	2.17	0.45
1:AA:781:A:C4	1:AA:802:A:H2	2.32	0.45
24:BA:1839:G:C8	24:BA:1927:A:C1'	2.99	0.45
1:AA:1061:G:OP2	3:AC:3:GLN:HG2	2.16	0.45
1:CA:1300:G:C6	1:CA:1334:G:N7	2.84	0.45
29:DF:135:ILE:HG23	29:DF:135:ILE:O	2.17	0.45
24:DA:1064:C:N3	24:DA:1066:U:C2	2.85	0.45
2:AB:96:TRP:CZ3	2:AB:171:ILE:O	2.70	0.45
24:BA:2391:G:N2	24:BA:2429:G:O4'	2.49	0.45
1:AA:931:C:O2	1:AA:932:C:C6	2.70	0.45
1:CA:1018:G:H3'	1:CA:1019:A:C8	2.51	0.45
1:CA:988:G:N2	1:CA:989:U:O2	2.50	0.45
19:CS:16:LEU:O	19:CS:19:VAL:N	2.50	0.45
19:CS:42:PRO:O	19:CS:43:ASN:CB	2.65	0.45
26:DC:53:ILE:CG2	26:DC:54:GLY:N	2.78	0.45
24:BA:1203:U:O4	24:BA:1204:A:N1	2.50	0.45
24:DA:563:A:N3	40:DQ:36:GLN:NE2	2.63	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DQ:40:LYS:CG	40:DQ:41:ALA:H	2.30	0.45
24:BA:348:A:C5	24:BA:349:U:C5	3.04	0.45
24:BA:2018:G:C2'	24:BA:2019:A:H5'	2.46	0.45
24:BA:564:C:P	41:BR:79:ARG:CZ	3.04	0.45
24:DA:2221:G:C2	24:DA:2222:C:C6	3.05	0.45
26:DC:142:ASN:ND2	26:DC:151:GLY:HA3	2.32	0.45
1:AA:1330:U:C4	1:AA:1331:G:C6	3.05	0.45
13:AM:2:ALA:CB	13:AM:9:ILE:HD12	2.42	0.45
1:CA:1318:A:H5'	1:CA:1319:A:OP2	2.16	0.45
24:DA:221:A:C4	24:DA:266:G:N7	2.84	0.45
1:CA:1077:G:C6	1:CA:1081:A:C6	3.04	0.45
3:AC:22:TRP:CE3	10:AJ:95:GLY:HA2	2.52	0.45
44:DU:32:LYS:HE2	44:DU:65:GLN:HA	1.98	0.45
24:DA:475:C:N3	24:DA:481:G:C6	2.85	0.45
24:DA:1254:A:H5''	24:DA:1255:U:C5'	2.47	0.45
24:BA:1339:G:O5'	43:BT:19:LYS:HD2	2.17	0.45
30:BG:154:GLU:HG2	30:BG:155:PRO:CD	2.46	0.45
1:AA:212:G:N2	1:AA:213:G:C4	2.84	0.45
24:DA:1737:G:O2'	24:DA:1738:G:C1'	2.64	0.45
1:CA:649:A:H2'	1:CA:650:G:H5''	1.98	0.45
1:CA:751:U:C4	1:CA:752:G:N1	2.84	0.45
1:CA:750:C:O2'	1:CA:751:U:H5'	2.17	0.45
1:CA:1378:C:OP1	1:CA:1378:C:C6	2.70	0.45
7:CG:70:ARG:NE	7:CG:96:ARG:HD2	2.31	0.45
24:DA:2663:G:C4	24:DA:2664:G:C8	3.04	0.45
24:BA:488:G:C2	24:BA:493:G:O6	2.70	0.45
6:AF:37:HIS:CG	6:AF:38:ARG:H	2.34	0.45
6:AF:38:ARG:HB2	6:AF:63:ASN:ND2	2.32	0.45
24:BA:1586:A:N6	24:BA:1587:G:C6	2.85	0.45
31:DH:10:ALA:O	31:DH:12:LEU:HD22	2.16	0.45
1:CA:722:G:C6	1:CA:724:G:C4	3.05	0.45
1:AA:525:C:OP1	12:AL:86:ARG:CZ	2.64	0.45
24:BA:2034:U:O2	24:BA:2034:U:H2'	2.17	0.45
24:BA:319:G:C6	24:BA:320:A:C5	3.04	0.45
24:DA:167:A:C8	24:DA:168:G:C8	3.05	0.45
1:AA:406:G:C8	1:AA:495:A:C2	3.04	0.45
28:BE:136:GLN:C	28:BE:138:LEU:N	2.70	0.45
24:DA:605:G:C8	24:DA:606:U:C5	3.03	0.45
24:DA:1967:C:C2'	24:DA:1968:G:H5'	2.47	0.45
28:DE:16:GLU:O	28:DE:20:GLY:N	2.50	0.45
47:BX:19:HIS:O	47:BX:21:LEU:N	2.49	0.45
24:DA:1301:A:C4	24:DA:1303:G:N7	2.85	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DF:7:TYR:C	29:DF:8:LYS:O	2.55	0.45
24:BA:2355:G:O4'	46:BW:36:ILE:HD11	2.16	0.45
2:AB:10:LEU:HG	2:AB:13:GLY:HA2	1.99	0.45
2:AB:41:ILE:O	2:AB:41:ILE:HG22	2.16	0.45
24:BA:146:A:C2	24:BA:147:C:C6	3.05	0.45
24:BA:1541:C:C4	24:BA:1542:U:C2	3.05	0.45
24:DA:2111:U:OP1	24:DA:2118:U:O2'	2.32	0.45
24:BA:1551:A:N6	24:BA:1552:A:C6	2.85	0.45
1:AA:720:C:H1'	18:AR:39:ILE:CD1	2.46	0.45
35:DL:79:LEU:HD13	35:DL:111:ILE:O	2.16	0.45
1:AA:532:A:N1	1:AA:1207:G:H5'	2.32	0.45
1:CA:299:G:H2'	1:CA:300:A:C8	2.51	0.45
1:AA:694:A:H2'	1:AA:695:A:O5'	2.17	0.45
24:BA:126:A:C5	24:BA:127:A:N1	2.84	0.45
24:DA:1797:G:C6	24:DA:1798:U:C4	3.05	0.45
34:BK:63:VAL:HG12	34:BK:64:ARG:HG3	1.97	0.45
24:BA:184:C:O2	24:BA:213:A:C2	2.70	0.45
1:AA:226:G:C4	1:AA:227:G:C8	3.05	0.45
8:CH:124:GLU:O	8:CH:126:ILE:HG13	2.15	0.45
24:DA:629:G:H2'	24:DA:630:G:H5'	1.97	0.45
1:CA:555:U:H2'	1:CA:556:C:C6	2.52	0.45
20:AT:24:ARG:HA	20:AT:27:MET:CB	2.47	0.45
24:DA:651:G:OP1	53:D3:16:THR:HG21	2.16	0.45
24:BA:1429:G:N9	24:BA:1568:G:C4	2.85	0.45
24:DA:1986:C:C2'	24:DA:1987:A:O5'	2.65	0.45
27:DD:125:TRP:O	27:DD:126:ASN:HB2	2.15	0.45
6:AF:25:TYR:O	6:AF:28:ALA:N	2.42	0.45
24:BA:2598:A:OP1	26:BC:233:GLY:O	2.34	0.45
24:BA:2790:U:H4'	24:BA:2791:G:OP1	2.14	0.45
17:CQ:21:ILE:CD1	17:CQ:46:VAL:CG1	2.93	0.45
24:BA:2142:A:N1	24:BA:2149:U:O4	2.50	0.45
24:BA:1063:G:O6	24:BA:1075:C:N3	2.49	0.45
3:CC:155:GLY:HA2	3:CC:163:ALA:HB1	1.99	0.45
32:DI:20:SER:O	32:DI:23:VAL:N	2.50	0.45
24:BA:1954:G:O2'	24:BA:1955:U:OP2	2.34	0.45
42:BS:79:GLY:HA2	42:BS:102:HIS:CE1	2.52	0.45
36:BM:132:THR:HG22	36:BM:133:LYS:N	2.32	0.45
41:BR:71:LYS:HE2	41:BR:88:GLY:HA3	1.99	0.45
39:BP:12:MET:HB2	39:BP:76:HIS:CD2	2.52	0.45
5:CE:53:ALA:HB2	5:CE:59:ALA:HA	1.98	0.45
55:CY:177:ASP:OD1	55:CY:178:LYS:N	2.50	0.45
5:AE:116:GLU:CG	5:AE:117:VAL:N	2.80	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:125:VAL:O	4:CD:127:GLY:N	2.46	0.45
12:AL:30:LYS:O	12:AL:82:ILE:N	2.49	0.45
53:D3:3:ILE:HG21	53:D3:62:PRO:HG2	1.99	0.45
2:CB:33:GLY:O	2:CB:34:ALA:HB2	2.15	0.45
43:BT:7:LEU:HG	43:BT:46:ALA:HB2	1.97	0.45
24:BA:677:A:O2'	24:BA:2070:A:O3'	2.34	0.45
24:DA:200:U:C5	24:DA:201:C:C5	3.04	0.45
52:D2:32:ALA:O	52:D2:36:ALA:CB	2.65	0.45
31:DH:120:GLY:C	31:DH:122:LEU:N	2.57	0.45
1:AA:1358:U:C6	1:AA:1359:C:C6	3.04	0.45
14:AN:49:GLN:OE1	14:AN:49:GLN:HA	2.16	0.45
24:BA:410:G:N2	24:BA:2407:A:C5	2.85	0.45
17:AQ:66:PRO:O	17:AQ:68:SER:N	2.49	0.45
1:CA:1523:G:H5''	11:CK:125:LYS:NZ	2.32	0.45
1:AA:551:U:N3	1:AA:552:U:C5	2.84	0.45
1:AA:597:G:H5'	1:AA:598:U:OP2	2.16	0.45
4:AD:14:ARG:CG	4:AD:38:PRO:CB	2.94	0.45
12:AL:110:ARG:NH1	12:AL:113:ALA:HB3	2.32	0.45
14:AN:80:SER:O	14:AN:83:LYS:N	2.48	0.45
13:CM:17:ILE:HA	13:CM:20:THR:OG1	2.17	0.45
24:BA:1722:A:N6	24:BA:1737:G:O2'	2.50	0.45
24:BA:1738:G:C1'	24:BA:1739:A:OP2	2.64	0.45
24:DA:1062:G:N7	24:DA:1070:A:H5'	2.31	0.45
1:AA:1157:A:N1	1:AA:1181:G:C8	2.85	0.45
24:BA:2360:G:P	53:B3:50:SER:HG	2.39	0.45
24:BA:947:A:O2'	24:BA:984:A:H2	2.00	0.45
9:AI:33:ARG:NH2	9:AI:37:GLN:OE1	2.49	0.45
24:BA:955:U:OP1	36:BM:86:LYS:CE	2.64	0.45
1:AA:929:G:O3'	1:AA:1535:C:H5''	2.16	0.45
57:AA:1656:NMY:H14	57:AA:1656:NMY:HN21	1.82	0.45
26:DC:243:PRO:C	26:DC:244:VAL:HG12	2.36	0.45
55:CY:159:ASP:O	55:CY:163:LEU:N	2.48	0.45
1:CA:628:G:H2'	1:CA:629:A:H8	1.79	0.45
42:BS:80:PRO:HD2	42:BS:100:THR:OG1	2.17	0.45
24:BA:2675:A:H5'	34:BK:30:ARG:HA	1.99	0.45
24:DA:1239:G:O6	57:DA:3190:NMY:H62	2.16	0.45
1:CA:1154:G:C2	1:CA:1155:A:C8	3.05	0.45
1:CA:1252:A:C2	1:CA:1253:G:C4	3.05	0.45
20:CT:69:LYS:O	20:CT:71:LYS:N	2.49	0.45
20:CT:35:VAL:HG11	20:CT:79:LEU:HD22	1.98	0.45
24:DA:2204:G:N7	24:DA:2221:G:C2	2.85	0.45
13:AM:38:GLY:O	13:AM:39:ILE:HG23	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:CN:22:LYS:HE2	14:CN:23:ARG:HG2	1.99	0.45
24:DA:1866:A:C2	24:DA:1876:A:N7	2.85	0.45
9:CI:12:ARG:O	9:CI:13:LYS:HB3	2.17	0.45
24:BA:2248:C:H2'	24:BA:2249:U:H5'	1.99	0.45
24:BA:797:G:C2	24:BA:798:G:C4	3.04	0.45
37:BN:29:VAL:HG11	37:BN:79:LEU:HD13	1.98	0.45
1:AA:323:U:H5'	20:AT:18:ARG:HA	1.98	0.45
3:CC:42:TYR:HA	3:CC:45:LYS:HG2	1.98	0.45
16:AP:36:VAL:O	16:AP:37:GLY:O	2.34	0.45
40:DQ:80:ASN:O	40:DQ:81:GLY:C	2.55	0.45
41:BR:51:VAL:CB	41:BR:52:PRO:CD	2.95	0.45
24:BA:491:G:C2	24:BA:492:A:H1'	2.51	0.45
42:BS:3:THR:HB	42:BS:58:ALA:HB2	1.99	0.45
2:CB:15:HIS:C	2:CB:16:PHE:CD1	2.89	0.45
25:DB:62:C:H2'	25:DB:63:C:O5'	2.17	0.45
1:CA:680:C:O2	1:CA:711:G:N1	2.49	0.45
1:AA:49:U:C4	1:AA:364:A:C5	3.04	0.45
24:BA:1501:G:C2	24:BA:1502:A:C5	3.04	0.45
24:BA:2668:G:H2'	24:BA:2669:G:O4'	2.16	0.45
24:DA:2444:G:OP2	28:DE:63:LYS:CE	2.64	0.45
27:BD:55:LYS:O	27:BD:57:ALA:N	2.49	0.45
24:DA:1132:U:H5'	33:DJ:84:ILE:HD13	1.98	0.45
1:AA:247:G:C2	1:AA:248:C:C6	3.05	0.45
24:BA:2639:A:O3'	33:BJ:96:ARG:CZ	2.65	0.45
1:AA:1173:U:H2'	1:AA:1174:G:O4'	2.17	0.45
33:BJ:103:ILE:HD12	33:BJ:103:ILE:C	2.36	0.45
24:BA:1288:G:O2'	24:BA:1327:A:N1	2.42	0.45
37:BN:108:ALA:O	37:BN:110:MET:HG2	2.17	0.45
24:BA:783:A:C8	24:BA:784:G:H4'	2.51	0.45
13:CM:57:ARG:HA	13:CM:60:VAL:HG12	1.99	0.45
24:BA:1439:A:C2	24:BA:1553:A:C4	3.04	0.45
24:BA:92:U:C4	24:BA:93:G:C5	3.04	0.45
2:CB:90:PHE:CE2	2:CB:154:MET:HB3	2.52	0.45
24:DA:2298:A:C6	24:DA:2321:U:C4	3.05	0.45
24:BA:1579:A:C2	24:BA:1580:A:N3	2.85	0.45
1:CA:384:G:C6	1:CA:385:C:N4	2.85	0.45
24:BA:2307:G:H4'	24:BA:2308:G:O4'	2.17	0.45
26:DC:23:LEU:HD21	26:DC:89:ASN:HD21	1.81	0.45
24:DA:2801:G:C2	24:DA:2802:G:C4	3.05	0.45
24:DA:1588:G:C6	24:DA:1589:U:C4	3.04	0.45
28:DE:3:LEU:HD22	28:DE:14:VAL:HG11	1.99	0.45
24:BA:1506:U:C4	24:BA:1507:C:N4	2.85	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2052:A:C2	24:DA:2053:G:C8	3.04	0.45
24:BA:1142:A:H4'	33:BJ:27:ARG:NH2	2.31	0.45
24:BA:2884:U:O2	24:BA:2884:U:H2'	2.17	0.45
2:AB:60:ILE:O	2:AB:60:ILE:CG2	2.64	0.45
24:BA:2572:A:O2'	24:BA:2575:C:OP1	2.29	0.45
5:CE:44:GLY:HA2	5:CE:76:LEU:HD11	1.98	0.45
27:DD:196:ALA:O	27:DD:197:THR:C	2.55	0.45
55:CY:133:ARG:NH2	24:DA:1941:C:N3	2.65	0.45
24:BA:122:G:O6	24:BA:129:C:C4	2.70	0.45
24:DA:801:G:C8	28:DE:50:ALA:HB2	2.52	0.45
24:BA:2799:A:C5	24:BA:2801:G:N7	2.84	0.45
3:AC:138:VAL:HG22	3:AC:149:ILE:HD13	1.99	0.45
1:CA:1447:A:HO2'	1:CA:1448:C:C5'	2.30	0.45
43:BT:2:ILE:HA	43:BT:3:ARG:C	2.37	0.45
24:BA:1833:C:C2	24:BA:1834:U:C5	3.05	0.45
24:BA:1429:G:C8	24:BA:1568:G:C8	3.05	0.45
24:DA:1969:A:H1'	24:DA:1973:G:O4'	2.17	0.45
52:B2:3:ARG:CB	52:B2:3:ARG:NH2	2.80	0.45
15:AO:25:THR:O	15:AO:26:GLU:C	2.55	0.45
1:AA:461:A:C5	1:AA:462:G:C8	3.05	0.45
29:BF:107:VAL:N	29:BF:108:PRO:HD2	2.31	0.45
24:BA:1808:A:H3'	24:BA:1809:A:H8	1.80	0.45
27:DD:186:LEU:O	27:DD:187:LEU:HB2	2.17	0.45
53:B3:60:CYS:O	53:B3:61:LEU:HD23	2.17	0.45
24:BA:2714:G:C4	24:BA:2715:C:C6	3.04	0.45
1:AA:1273:C:N3	1:AA:1274:A:C8	2.85	0.45
24:DA:1532:A:H2'	24:DA:1533:C:O4'	2.17	0.45
11:CK:63:ALA:O	11:CK:66:ALA:HB2	2.17	0.45
24:DA:279:A:C2'	24:DA:280:U:H5'	2.46	0.45
25:DB:111:U:H2'	25:DB:112:G:H8	1.81	0.45
22:AV:21:A:N1	22:AV:46:G:C2	2.85	0.45
28:DE:52:VAL:O	28:DE:54:GLY:N	2.49	0.45
26:BC:34:GLU:O	26:BC:61:TYR:HB3	2.16	0.45
1:CA:276:G:OP1	17:CQ:14:SER:OG	2.27	0.45
1:CA:599:C:H2'	1:CA:600:A:H8	1.81	0.45
24:DA:1821:A:H2'	24:DA:1822:C:C6	2.52	0.45
38:DO:31:THR:HG23	38:DO:32:PRO:CD	2.46	0.45
26:BC:145:MET:HB2	26:BC:152:GLN:OE1	2.16	0.45
32:BI:48:ILE:HD12	32:BI:49:GLU:N	2.32	0.45
24:BA:1822:C:N4	59:BA:3659:HOH:O	2.48	0.45
36:BM:21:ALA:HB1	36:BM:100:LYS:CG	2.47	0.45
24:DA:611:C:C2'	24:DA:612:G:H5'	2.46	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:9:LYS:HA	20:CT:12:ILE:CD1	2.47	0.45
26:BC:39:SER:O	26:BC:41:GLY:N	2.50	0.45
54:B4:20:ASP:C	54:B4:22:VAL:H	2.20	0.45
29:BF:84:ILE:O	29:BF:84:ILE:HD12	2.17	0.45
41:BR:84:ARG:O	41:BR:84:ARG:HG2	2.16	0.45
55:CY:14:ASP:O	55:CY:18:GLU:OE1	2.35	0.45
36:DM:6:ARG:O	36:DM:7:THR:HG23	2.16	0.45
31:DH:116:ARG:O	31:DH:118:PRO:N	2.50	0.45
31:DH:122:LEU:H	31:DH:122:LEU:CD2	2.29	0.45
44:DU:84:PHE:CD2	44:DU:85:ARG:N	2.84	0.45
1:AA:1373:G:O4'	7:AG:34:GLY:O	2.35	0.45
1:AA:1014:A:N3	19:AS:34:TRP:CZ2	2.85	0.45
38:BO:18:LEU:HD11	38:BO:25:ARG:HD2	1.99	0.45
38:BO:27:VAL:HG12	38:BO:28:VAL:H	1.81	0.45
24:BA:1876:A:C8	24:BA:1877:A:N7	2.85	0.45
24:BA:407:G:C2	24:BA:421:C:C2	3.04	0.45
8:AH:39:VAL:O	8:AH:40:LEU:C	2.48	0.45
36:DM:81:ARG:NH2	36:DM:82:MET:CB	2.79	0.45
1:AA:376:G:H5''	16:AP:5:ARG:HD3	1.96	0.45
1:AA:391:G:C6	1:AA:392:C:C5	3.05	0.45
1:AA:598:U:O3'	8:AH:86:TYR:CD2	2.70	0.45
4:AD:198:HIS:CE1	5:AE:105:ILE:HB	2.52	0.45
1:CA:1503:A:OP1	1:CA:1531:A:H4'	2.15	0.45
1:CA:499:A:H4'	1:CA:500:G:OP1	2.17	0.45
1:CA:668:G:N2	1:CA:669:G:C4	2.85	0.45
1:CA:737:C:C2'	1:CA:738:C:O5'	2.63	0.45
15:CO:51:HIS:O	15:CO:54:ARG:N	2.50	0.45
15:CO:78:TYR:HA	15:CO:81:LEU:HG	1.99	0.45
1:AA:803:G:O2'	1:AA:804:U:H5'	2.17	0.45
11:AK:125:LYS:HB2	21:AU:35:ARG:HE	1.80	0.45
24:DA:1077:A:C6	24:DA:1078:U:C2	3.04	0.45
1:AA:155:A:N1	1:AA:167:A:C6	2.85	0.45
35:BL:54:GLN:O	35:BL:55:MET:C	2.55	0.45
9:AI:89:GLU:O	9:AI:94:LEU:HD11	2.17	0.45
24:DA:544:C:H3'	24:DA:545:U:C5	2.52	0.45
1:AA:186:C:C5'	20:AT:76:LYS:HD2	2.46	0.45
1:AA:927:G:C4'	1:AA:1503:A:N7	2.80	0.45
22:CV:14:A:H2'	22:CV:15:G:C4'	2.46	0.45
24:BA:2165:C:H2'	24:BA:2165:C:O2	2.16	0.45
24:DA:1357:C:H2'	24:DA:1358:G:O4'	2.17	0.45
24:BA:2455:G:C6	24:BA:2456:C:N4	2.85	0.45
10:CJ:80:THR:O	10:CJ:84:VAL:HG13	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:354:G:C5	1:CA:355:C:C5	3.05	0.45
1:CA:485:U:H4'	1:CA:486:U:OP2	2.17	0.45
19:CS:63:THR:O	19:CS:66:MET:HG2	2.16	0.45
24:DA:464:U:C2	24:DA:788:A:C6	3.05	0.45
1:CA:1211:U:C1'	1:CA:1212:U:OP2	2.64	0.45
14:CN:1:ALA:HB2	14:CN:68:GLY:HA3	1.98	0.45
1:CA:528:C:H2'	1:CA:529:G:H5'	1.99	0.45
2:CB:209:ALA:O	2:CB:212:LEU:HB2	2.16	0.45
29:DF:121:PHE:CD1	29:DF:162:ASP:OD1	2.70	0.45
1:CA:213:G:C4	1:CA:214:C:C5	3.05	0.45
35:BL:81:ASP:O	35:BL:81:ASP:CG	2.53	0.45
24:DA:494:G:H4'	42:DS:6:LYS:HB2	1.98	0.45
24:BA:2531:A:H4'	30:BG:156:TYR:CE2	2.52	0.45
24:DA:1799:G:O6	26:DC:176:ARG:NH1	2.49	0.45
24:BA:592:A:C4	24:BA:593:U:C5	3.04	0.45
1:AA:863:U:O2	1:AA:863:U:C2'	2.64	0.45
1:CA:859:G:O2'	1:CA:860:A:P	2.73	0.45
37:BN:86:ARG:HG2	37:BN:86:ARG:O	2.17	0.45
1:AA:210:C:O2	1:AA:210:C:H3'	2.16	0.45
24:BA:2144:G:C2	24:BA:2146:C:O2	2.69	0.45
1:CA:649:A:C3'	1:CA:650:G:H5''	2.47	0.45
1:CA:588:G:N9	1:CA:753:A:C2	2.84	0.45
24:DA:580:U:O3'	40:DQ:30:VAL:HG13	2.17	0.45
7:CG:95:ARG:O	7:CG:99:LEU:HD23	2.17	0.45
24:BA:2347:C:OP1	24:BA:2347:C:H4'	2.17	0.45
40:DQ:87:VAL:HB	41:DR:49:ILE:CG2	2.47	0.45
24:BA:1172:C:C5	24:BA:1173:U:N3	2.85	0.45
1:CA:1045:C:C2'	1:CA:1046:A:H5'	2.47	0.45
33:BJ:109:LEU:HD13	33:BJ:119:PHE:HB2	1.99	0.45
44:DU:95:PHE:CE2	44:DU:102:ILE:CG1	3.00	0.45
24:BA:980:A:C6	24:BA:981:A:N1	2.85	0.45
33:BJ:73:VAL:CG1	33:BJ:86:GLN:HG3	2.45	0.45
24:BA:2204:G:C5	24:BA:2205:A:N7	2.84	0.45
24:DA:675:A:OP1	28:DE:58:LYS:HD2	2.16	0.45
28:DE:58:LYS:HG2	28:DE:60:TRP:O	2.16	0.45
24:BA:321:U:OP2	28:BE:130:LYS:HD2	2.16	0.45
24:BA:2816:G:C6	24:BA:2817:U:C4	3.05	0.45
27:BD:33:ARG:HG2	27:BD:51:THR:CG2	2.46	0.45
24:DA:1265:A:C1'	24:DA:1267:U:C6	2.99	0.45
37:BN:38:LEU:HD23	37:BN:42:LYS:HD2	1.99	0.45
37:BN:73:ASN:HA	37:BN:76:VAL:HG13	1.98	0.45
1:CA:1111:A:N1	3:CC:177:THR:CB	2.79	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1190:G:O2'	3:CC:3:GLN:HG2	2.17	0.45
24:BA:932:U:O2	24:BA:932:U:O4'	2.32	0.45
42:DS:47:VAL:O	42:DS:48:LYS:C	2.54	0.45
1:AA:64:G:N7	1:AA:99:C:N4	2.65	0.45
1:AA:304:U:H2'	1:AA:304:U:O2	2.16	0.45
1:AA:309:A:H2'	1:AA:310:G:H8	1.81	0.45
24:BA:449:A:C4	24:BA:450:G:C8	3.05	0.45
1:AA:1423:G:C4	1:AA:1424:U:C5	3.04	0.45
24:DA:2193:G:C2	24:DA:2194:U:C6	3.04	0.45
25:BB:66:A:C6	25:BB:108:A:C4	3.05	0.45
2:AB:14:VAL:CG2	2:AB:208:ARG:NH1	2.79	0.45
26:BC:245:THR:HB	26:BC:246:PRO:CD	2.46	0.45
30:BG:122:ALA:HB2	30:BG:132:LEU:CB	2.47	0.45
24:DA:2285:C:OP2	51:D1:5:ARG:HD2	2.17	0.45
24:BA:1580:A:N7	24:BA:1581:G:H1'	2.32	0.45
28:BE:109:LEU:HD12	28:BE:112:LEU:HD12	1.99	0.45
1:CA:283:U:C5	1:CA:284:C:C4	3.05	0.45
19:AS:5:LEU:HD23	19:AS:6:LYS:N	2.32	0.45
6:CF:39:LEU:HD13	6:CF:40:GLU:H	1.77	0.45
24:DA:1588:G:C2	24:DA:1589:U:C5	3.05	0.45
24:DA:354:A:C5	24:DA:355:U:C4	3.05	0.45
26:DC:104:LEU:HD12	26:DC:104:LEU:N	2.31	0.45
10:AJ:17:LEU:HD21	10:AJ:96:VAL:HG13	1.99	0.45
1:AA:449:G:C6	1:AA:450:G:C6	3.05	0.45
33:DJ:64:VAL:HG22	33:DJ:68:LYS:NZ	2.32	0.45
24:DA:1561:C:C2	24:DA:1562:U:C5	3.05	0.45
24:BA:1071:G:H2'	24:BA:1072:C:C5'	2.47	0.45
11:CK:17:SER:O	11:CK:81:ASN:OD1	2.34	0.45
26:BC:30:ALA:O	26:BC:33:LEU:N	2.49	0.45
31:BH:109:GLU:O	31:BH:110:VAL:HG23	2.17	0.45
24:BA:2776:A:C5	24:BA:2782:G:C4	3.05	0.45
24:BA:442:G:C2	24:BA:444:C:C5	3.04	0.45
15:AO:24:SER:O	15:AO:27:VAL:N	2.48	0.45
46:BW:81:SER:O	46:BW:82:ILE:CG1	2.65	0.45
24:BA:1710:G:N2	24:BA:1749:A:H1'	2.32	0.45
44:BU:50:ALA:O	44:BU:52:ASN:N	2.50	0.45
27:DD:186:LEU:HD21	39:DP:3:ILE:CG2	2.46	0.45
24:DA:55:G:N3	24:DA:127:A:H2	2.15	0.45
10:AJ:28:THR:OG1	10:AJ:87:LEU:HB3	2.17	0.45
21:CU:5:LYS:O	21:CU:5:LYS:HD2	2.17	0.45
51:B1:9:LYS:CE	51:B1:52:LYS:HD2	2.46	0.45
3:CC:124:LEU:O	3:CC:127:ARG:N	2.50	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DM:49:ALA:HB3	36:DM:124:LEU:HD21	1.97	0.45
1:AA:1369:C:OP1	14:AN:101:TRP:CH2	2.70	0.45
24:BA:954:G:OP2	36:BM:16:ARG:NH2	2.50	0.45
2:AB:67:ILE:O	2:AB:160:ALA:O	2.35	0.45
24:BA:354:A:H2'	24:BA:355:U:O5'	2.17	0.45
24:BA:2597:G:C5'	26:BC:240:GLY:HA3	2.46	0.45
51:D1:16:THR:HG21	51:D1:39:ASP:OD2	2.16	0.45
29:DF:174:PHE:O	29:DF:175:PRO:C	2.54	0.45
24:BA:1300:G:C4	24:BA:1626:A:C2	3.05	0.45
24:BA:2134:A:C6	24:BA:2135:A:C5	3.05	0.45
1:AA:189:A:C5	1:AA:190:A:C6	3.05	0.45
1:AA:27:G:C2'	1:AA:28:A:H5'	2.47	0.45
52:D2:32:ALA:O	52:D2:36:ALA:HB3	2.17	0.45
15:AO:82:ILE:HG13	15:AO:83:GLU:N	2.32	0.45
12:AL:16:VAL:O	12:AL:17:ALA:C	2.54	0.45
24:DA:106:C:HO2'	24:DA:294:A:HO2'	1.62	0.45
10:CJ:64:GLN:O	14:CN:99:ALA:N	2.49	0.45
33:BJ:60:ASP:OD1	33:BJ:61:LYS:HD3	2.16	0.45
24:DA:2113:U:C2	24:DA:2114:A:N7	2.84	0.45
34:DK:2:ILE:HD12	34:DK:2:ILE:C	2.36	0.45
24:BA:2254:C:H2'	24:BA:2255:G:C8	2.51	0.45
7:CG:14:PRO:O	7:CG:15:ASP:O	2.35	0.45
24:BA:338:G:N2	24:BA:339:U:H1'	2.31	0.45
28:BE:75:SER:O	28:BE:77:ILE:N	2.50	0.45
29:BF:100:GLU:OE1	29:BF:101:ARG:N	2.50	0.45
12:AL:43:LYS:C	12:AL:44:LYS:HG2	2.37	0.45
24:BA:990:A:C5'	57:BA:3162:NMY:H82	2.47	0.45
41:BR:24:LYS:C	41:BR:25:LEU:HG	2.37	0.45
1:AA:1354:U:H2'	1:AA:1355:G:O4'	2.17	0.45
24:BA:2333:A:C8	24:BA:2335:A:N3	2.85	0.45
24:BA:2377:A:C2'	38:BO:92:PHE:HZ	2.30	0.45
25:BB:43:C:C5	25:BB:45:A:N6	2.85	0.45
38:BO:17:LYS:C	38:BO:21:LEU:HD13	2.37	0.45
38:BO:36:TYR:CD1	38:BO:36:TYR:N	2.83	0.45
24:DA:2281:A:N1	24:DA:2282:G:C5	2.85	0.45
24:BA:2414:G:C2	24:BA:2415:G:C4	3.05	0.45
1:AA:32:A:C2	1:AA:33:A:C8	3.05	0.45
1:AA:34:C:N3	1:AA:35:G:N7	2.64	0.45
1:AA:59:A:C5	1:AA:354:G:C5	3.04	0.45
4:AD:117:LEU:O	4:AD:118:VAL:CB	2.65	0.45
4:CD:97:ARG:NH1	4:CD:99:ASP:CG	2.69	0.45
14:AN:62:ASN:C	14:AN:63:ARG:HG3	2.38	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:83:A:O3'	24:BA:84:A:O4'	2.34	0.45
1:CA:1326:U:H2'	1:CA:1327:C:O4'	2.16	0.45
24:DA:1072:C:O2	24:DA:1093:G:C6	2.70	0.45
24:DA:1080:A:O2'	32:DI:126:ARG:O	2.30	0.45
24:DA:547:A:N7	24:DA:548:G:N3	2.65	0.45
24:BA:1029:A:N6	24:BA:1125:G:O2'	2.49	0.45
4:CD:78:GLU:C	4:CD:81:ARG:HB3	2.37	0.45
24:BA:1207:C:C2	24:BA:1208:C:C5	3.05	0.45
24:DA:1212:G:N2	24:DA:1236:G:O2'	2.50	0.45
1:CA:1124:G:C5'	10:CJ:37:ARG:O	2.65	0.45
9:CI:52:LEU:HD22	9:CI:57:MET:HG2	1.99	0.45
10:CJ:15:HIS:O	10:CJ:17:LEU:N	2.47	0.45
24:BA:279:A:C4	24:BA:280:U:C6	3.05	0.45
24:BA:362:A:H2'	24:BA:363:G:C5'	2.47	0.45
1:AA:1037:C:H2'	1:AA:1038:C:C6	2.52	0.45
42:BS:95:ARG:O	42:BS:95:ARG:HG3	2.16	0.45
1:CA:329:A:C2	1:CA:332:G:C8	3.05	0.45
1:CA:390:U:O2'	1:CA:391:G:H5'	2.17	0.45
1:CA:858:G:C5	1:CA:869:G:C5	3.05	0.45
24:DA:2202:U:C5'	24:DA:2203:U:OP1	2.64	0.45
24:DA:2221:G:N3	24:DA:2222:C:C6	2.85	0.45
13:AM:7:ILE:O	13:AM:8:ASN:C	2.55	0.45
1:CA:1083:U:C5	1:CA:1084:G:C6	3.05	0.45
1:AA:723:U:H4'	1:AA:724:G:O5'	2.16	0.45
1:AA:854:U:C2	1:AA:871:U:O4	2.69	0.45
29:DF:90:LEU:HD13	29:DF:95:MET:HB3	1.99	0.45
1:CA:215:C:C4	1:CA:216:U:C4	3.05	0.45
34:DK:91:SER:O	34:DK:92:GLU:C	2.54	0.45
2:AB:189:THR:HG23	2:AB:190:ASN:HD22	1.82	0.45
37:BN:28:LEU:HD13	37:BN:29:VAL:N	2.31	0.45
37:BN:28:LEU:HA	37:BN:34:ILE:HG12	1.98	0.45
43:DT:61:LEU:HD12	43:DT:82:LYS:HB3	1.98	0.45
39:BP:64:SER:O	39:BP:65:ASN:C	2.55	0.45
1:CA:656:G:N2	1:CA:751:U:C2	2.85	0.45
9:CI:130:ARG:CZ	22:CV:33:U:H5	2.30	0.45
1:CA:1376:U:H2'	1:CA:1377:A:C8	2.51	0.45
6:CF:11:HIS:HB2	6:CF:12:PRO:HD2	1.98	0.45
24:BA:1061:U:C6	24:BA:1070:A:C4	3.04	0.45
24:BA:2011:U:H5	24:BA:2012:G:C4	2.34	0.45
24:BA:493:G:O2'	24:BA:494:G:H5'	2.16	0.45
24:BA:509:C:HO2'	24:BA:510:C:P	2.39	0.45
42:BS:51:LEU:O	42:BS:55:ILE:HG23	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2012:G:OP1	42:BS:98:LYS:HD2	2.17	0.45
2:AB:192:ASP:HA	2:AB:193:PRO:HD2	1.71	0.45
42:DS:29:VAL:HG21	42:DS:69:LEU:HB3	1.99	0.45
26:DC:159:THR:HG22	26:DC:194:VAL:HG11	1.98	0.45
26:DC:80:LEU:CD2	26:DC:105:ALA:HB2	2.47	0.45
15:AO:87:LEU:HG	15:AO:88:ARG:H	1.82	0.45
24:BA:1132:U:H5'	33:BJ:84:ILE:CD1	2.47	0.45
1:AA:53:A:H2'	1:AA:54:C:O5'	2.17	0.45
1:CA:922:G:C6	1:CA:923:A:C6	3.04	0.45
24:BA:1545:A:N7	24:BA:1546:G:C8	2.85	0.45
24:BA:851:C:O4'	49:BZ:46:MET:HG3	2.17	0.45
24:BA:934:U:H2'	24:BA:935:C:H6	1.81	0.45
1:AA:1174:G:C2'	1:AA:1175:G:H5'	2.47	0.45
24:DA:408:G:C6	24:DA:420:C:N3	2.84	0.45
24:BA:686:U:OP2	59:BA:3719:HOH:O	2.21	0.45
21:AU:8:GLU:HB2	21:AU:12:PHE:CZ	2.52	0.45
24:DA:1669:A:H2'	24:DA:1670:C:H5'	1.99	0.45
24:DA:14:A:C6	24:DA:526:A:C2	3.04	0.45
24:BA:2824:C:N4	24:BA:2825:G:C5	2.84	0.45
24:BA:121:G:H5''	24:BA:149:A:C5'	2.47	0.45
1:AA:451:A:N1	1:AA:480:U:C5	2.84	0.45
24:BA:1419:A:C4	24:BA:1579:A:C2	3.05	0.45
20:AT:46:ALA:O	20:AT:47:ALA:C	2.55	0.45
1:CA:631:C:OP1	1:CA:632:U:H5'	2.17	0.45
54:B4:10:LEU:HD12	54:B4:10:LEU:N	2.32	0.45
24:BA:327:G:O2'	24:BA:328:U:H5'	2.17	0.45
28:BE:47:LYS:HB3	28:BE:51:GLU:CB	2.45	0.45
24:BA:2886:A:C5	50:B0:39:ARG:NH2	2.84	0.45
24:BA:2544:G:O2'	24:BA:2545:G:H5'	2.17	0.45
1:CA:1096:C:C2'	1:CA:1170:A:O2'	2.65	0.45
24:DA:848:C:H2'	24:DA:849:A:C8	2.52	0.45
24:DA:849:A:C6	24:DA:930:G:C6	3.05	0.45
26:BC:68:ARG:NH2	26:BC:117:SER:HB3	2.32	0.45
50:D0:53:VAL:O	50:D0:54:ILE:CG1	2.65	0.45
1:CA:1036:A:C5	1:CA:1037:C:C2	3.04	0.45
24:BA:1216:G:C5	24:BA:1217:U:C5	3.04	0.45
11:CK:81:ASN:O	11:CK:82:LEU:HB3	2.16	0.45
6:AF:54:LEU:O	6:AF:55:HIS:CG	2.70	0.45
43:DT:27:SER:O	43:DT:28:ASN:C	2.55	0.45
1:AA:123:U:C2'	1:AA:124:C:O5'	2.65	0.45
27:BD:62:LYS:N	27:BD:63:PRO:CD	2.80	0.45
33:DJ:40:HIS:CE1	33:DJ:41:LYS:HG3	2.52	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1336:A:OP2	43:BT:68:LYS:NZ	2.35	0.45
20:CT:5:LYS:O	20:CT:6:SER:C	2.53	0.45
12:AL:105:SER:C	12:AL:106:GLY:O	2.53	0.45
42:BS:88:ARG:HH21	42:BS:88:ARG:HG2	1.82	0.45
34:BK:114:LYS:O	34:BK:117:SER:CB	2.65	0.45
34:BK:113:MET:O	34:BK:117:SER:HB2	2.17	0.45
24:BA:2444:G:P	28:BE:63:LYS:HZ1	2.38	0.45
43:DT:41:ALA:O	43:DT:43:ILE:N	2.50	0.45
17:CQ:59:VAL:HG22	17:CQ:78:VAL:HA	1.98	0.45
36:BM:133:LYS:HG2	36:BM:134:THR:N	2.31	0.45
39:BP:31:VAL:HG11	39:BP:33:GLU:OE2	2.17	0.45
31:BH:130:VAL:N	31:BH:142:VAL:O	2.50	0.45
27:DD:93:GLY:O	27:DD:94:GLN:O	2.35	0.45
34:DK:33:ALA:CB	34:DK:39:ILE:HG22	2.47	0.45
59:BA:3241:HOH:O	28:BE:81:GLY:HA2	2.16	0.45
1:CA:1164:G:N3	1:CA:1164:G:H2'	2.32	0.45
3:AC:151:VAL:HG12	3:AC:200:VAL:HA	1.99	0.45
22:AV:9:A:C2	22:AV:44:G:C8	3.05	0.45
9:AI:22:LYS:O	9:AI:62:ASP:N	2.48	0.45
24:DA:219:A:N6	59:DA:3224:HOH:O	2.48	0.45
1:AA:958:A:N6	1:AA:959:A:C6	2.85	0.45
9:AI:115:LYS:O	9:AI:116:VAL:HG12	2.16	0.45
19:AS:73:GLU:OE2	19:AS:74:PHE:CG	2.70	0.45
38:BO:17:LYS:CG	38:BO:21:LEU:HD11	2.45	0.45
14:AN:46:LEU:O	14:AN:47:LYS:C	2.55	0.45
24:DA:2258:C:H4'	24:DA:2259:U:OP2	2.16	0.45
1:CA:1506:U:O4'	11:CK:128:ARG:HG2	2.17	0.45
1:CA:1519:A:C8	1:CA:1520:C:H1'	2.52	0.45
1:AA:640:A:O2'	8:AH:108:LYS:HD3	2.17	0.45
8:AH:88:ARG:O	8:AH:91:GLU:N	2.50	0.45
5:AE:147:MET:SD	8:AH:96:MET:CE	3.05	0.45
1:AA:918:A:C6	1:AA:919:A:C6	3.05	0.45
1:CA:403:C:OP1	4:CD:134:SER:HB3	2.17	0.45
1:CA:409:U:H2'	1:CA:410:G:O5'	2.16	0.45
1:CA:493:A:H1'	1:CA:494:G:C2	2.51	0.45
1:CA:509:A:C5	1:CA:510:A:C6	3.05	0.45
1:CA:501:C:H1'	1:CA:549:C:H1'	1.99	0.45
1:CA:576:C:N4	1:CA:759:A:OP1	2.46	0.45
1:CA:671:G:C4'	6:CF:79:ARG:NH2	2.79	0.45
17:CQ:39:LYS:HG3	17:CQ:39:LYS:O	2.17	0.45
1:CA:1329:A:N7	1:CA:1330:U:C6	2.85	0.45
13:CM:19:LEU:O	13:CM:22:ILE:HG13	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1056:G:C2	24:DA:1102:C:C5	3.05	0.45
24:BA:1156:A:P	40:BQ:54:ARG:NH2	2.83	0.45
1:CA:345:C:H5''	39:DP:33:GLU:O	2.17	0.45
1:AA:1086:U:C2'	1:AA:1087:G:O5'	2.65	0.45
1:AA:1125:U:H2'	1:AA:1127:G:N7	2.32	0.45
10:AJ:35:GLN:O	10:AJ:36:VAL:HG22	2.17	0.45
1:AA:184:G:C1'	1:AA:224:U:H4'	2.47	0.45
57:DA:3188:NMY:C17	57:DA:3188:NMY:C1	2.91	0.45
24:BA:1205:A:N3	57:BA:3163:NMY:H19	2.32	0.45
27:BD:173:GLN:CD	27:BD:208:LYS:HE2	2.37	0.45
24:DA:28:A:OP2	59:DA:3209:HOH:O	2.21	0.45
1:CA:1407:C:C2'	1:CA:1408:A:H5'	2.47	0.45
11:AK:31:ILE:CG2	11:AK:46:THR:HA	2.46	0.45
1:AA:1001:C:H2'	1:AA:1002:G:C1'	2.47	0.45
1:AA:1005:A:H2'	1:AA:1006:G:OP1	2.17	0.45
24:BA:2014:A:C2	24:BA:2015:A:C2	3.05	0.45
24:BA:578:G:C6	24:BA:2018:G:O4'	2.70	0.45
40:BQ:20:ALA:HA	40:BQ:23:TYR:CE2	2.52	0.45
1:CA:394:G:C5	1:CA:395:C:C5	3.05	0.45
28:BE:105:LEU:O	28:BE:106:LYS:C	2.53	0.45
1:AA:1332:A:N6	1:AA:1333:A:N1	2.65	0.45
22:CV:5:G:N1	22:CV:69:G:O6	2.50	0.45
29:BF:36:ASN:HA	29:BF:87:LYS:CE	2.47	0.45
25:DB:42:C:O2'	29:DF:62:GLN:HB3	2.17	0.45
42:DS:75:PHE:CD1	42:DS:104:THR:HB	2.51	0.45
2:AB:114:LEU:HG	2:AB:115:LYS:N	2.31	0.45
2:AB:204:ASP:OD1	2:AB:204:ASP:N	2.46	0.45
26:BC:62:ARG:HH11	26:BC:83:ASP:CG	2.21	0.45
1:AA:1395:C:H5''	1:AA:1402:C:H4'	1.99	0.45
28:DE:27:LEU:O	28:DE:28:VAL:C	2.55	0.45
41:DR:52:PRO:HG2	41:DR:52:PRO:O	2.16	0.45
2:CB:13:GLY:O	2:CB:15:HIS:N	2.50	0.45
24:DA:813:U:H2'	24:DA:814:C:H6	1.82	0.45
24:BA:1497:U:HO2'	24:BA:1498:C:P	2.39	0.45
24:DA:674:G:N2	24:DA:2444:G:O3'	2.49	0.45
24:DA:2061:G:H5'	24:DA:2503:A:C2	2.52	0.45
4:AD:116:GLN:NE2	4:AD:120:HIS:CE1	2.85	0.45
28:DE:15:SER:O	28:DE:16:GLU:C	2.55	0.45
3:CC:5:VAL:O	3:CC:7:PRO:HD3	2.17	0.45
49:BZ:9:THR:HG23	49:BZ:53:MET:CA	2.47	0.45
24:BA:2821:A:O2'	24:BA:2826:A:N1	2.36	0.45
28:DE:115:GLN:OE1	28:DE:117:ARG:CD	2.65	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2550:G:C6	24:DA:2551:C:C4	3.05	0.45
1:CA:157:U:O2	1:CA:165:G:C6	2.70	0.45
24:DA:2887:A:H2'	24:DA:2887:A:N3	2.31	0.45
24:BA:1842:G:H1'	26:BC:242:HIS:CD2	2.52	0.45
24:DA:1501:G:H2'	24:DA:1502:A:H8	1.81	0.45
1:CA:1411:C:N3	1:CA:1412:C:C5	2.85	0.45
4:AD:137:VAL:CG1	4:AD:182:PHE:HE2	2.29	0.45
26:DC:86:ARG:HH11	26:DC:86:ARG:HG3	1.81	0.45
11:AK:17:SER:O	11:AK:79:ILE:HA	2.17	0.45
24:BA:1819:A:H1'	24:BA:1821:A:C6	2.51	0.45
1:AA:487:A:C6	1:AA:488:C:O2	2.70	0.45
24:DA:2353:G:H4'	46:DW:32:LEU:HD12	1.99	0.45
14:CN:96:LEU:C	14:CN:96:LEU:CD1	2.84	0.45
24:BA:2543:G:H5'	24:BA:2766:A:H4'	1.97	0.45
24:DA:2130:U:C5	24:DA:2131:U:C4	3.04	0.45
24:BA:374:A:N6	24:BA:400:G:O2'	2.50	0.45
1:AA:1152:A:O2'	1:AA:1153:G:H5'	2.16	0.45
24:BA:1408:G:N1	24:BA:1409:U:C2	2.84	0.45
1:CA:1177:G:H2'	1:CA:1178:G:O5'	2.17	0.45
31:BH:49:ALA:O	31:BH:53:GLU:CB	2.65	0.45
37:BN:43:GLU:O	37:BN:45:ARG:N	2.50	0.45
1:CA:1034:G:C2'	1:CA:1035:A:O4'	2.65	0.45
17:CQ:45:HIS:HB2	17:CQ:71:LYS:HB3	1.98	0.45
24:DA:2338:C:O2'	24:DA:2339:C:H5'	2.17	0.45
1:AA:1261:A:C5	1:AA:1262:C:C6	3.05	0.45
24:DA:2323:G:C2'	24:DA:2324:U:H5'	2.47	0.45
24:DA:1957:C:H5'	24:DA:1984:G:O2'	2.16	0.45
24:DA:1809:A:N1	24:DA:1810:A:C2	2.85	0.45
24:BA:767:U:C2'	24:BA:768:G:O5'	2.65	0.45
24:BA:2803:G:H2'	24:BA:2804:U:C6	2.52	0.45
17:CQ:46:VAL:HG23	17:CQ:73:TRP:C	2.36	0.45
17:CQ:50:ASN:O	17:CQ:50:ASN:CG	2.56	0.45
27:BD:178:VAL:HG23	27:BD:179:ARG:N	2.31	0.45
28:DE:118:LEU:HD11	28:DE:188:MET:HG3	1.99	0.45
24:BA:324:A:C2	24:BA:325:G:H1'	2.51	0.45
28:BE:164:LEU:HD11	28:BE:167:VAL:HG12	1.99	0.45
27:BD:46:ARG:O	27:BD:47:ALA:HB2	2.16	0.45
1:CA:1203:C:C2'	1:CA:1204:A:H5'	2.47	0.45
43:BT:64:LYS:O	43:BT:65:GLY:C	2.55	0.45
24:DA:1533:C:H5'	24:DA:1534:U:OP2	2.17	0.45
6:CF:88:MET:SD	18:CR:61:ARG:HG3	2.57	0.45
30:BG:15:ASP:O	30:BG:16:VAL:HG13	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:138:VAL:O	3:CC:139:GLN:C	2.55	0.45
1:AA:895:G:C4	1:AA:896:C:C5	3.05	0.45
3:CC:14:ILE:HG23	3:CC:15:VAL:HG23	1.99	0.45
5:CE:144:LEU:HD12	5:CE:144:LEU:N	2.32	0.45
7:AG:121:ALA:O	7:AG:124:LEU:HB2	2.16	0.45
24:BA:710:U:O2	24:BA:722:A:C2	2.70	0.45
11:AK:94:GLU:HG3	11:AK:95:SER:N	2.31	0.45
9:AI:97:GLU:HA	9:AI:100:LYS:CE	2.47	0.45
24:DA:542:C:H2'	24:DA:543:G:C8	2.52	0.45
2:AB:184:PHE:CD2	2:AB:198:PHE:HB2	2.51	0.45
32:DI:120:ASP:CG	32:DI:121:ILE:N	2.71	0.45
45:DV:65:VAL:O	45:DV:68:LYS:N	2.50	0.45
31:DH:18:GLN:O	31:DH:19:VAL:HG13	2.17	0.45
32:DI:16:MET:O	32:DI:18:ASN:N	2.50	0.45
24:BA:114:U:C4	24:BA:115:C:C5	3.05	0.45
1:CA:1414:U:H2'	1:CA:1415:G:C8	2.51	0.45
24:BA:2450:A:C2	24:BA:2451:A:C4	3.04	0.45
24:DA:1197:G:H2'	24:DA:1198:U:C6	2.52	0.45
24:DA:918:A:H4'	25:DB:97:C:O2	2.17	0.45
24:DA:1936:A:H2	24:DA:1943:U:H3	1.65	0.45
24:DA:200:U:C5	24:DA:201:C:C4	3.04	0.45
1:CA:1164:G:N1	1:CA:1165:U:C2	2.85	0.45
1:CA:1164:G:O6	1:CA:1172:C:N3	2.50	0.45
25:BB:38:C:C4	25:BB:39:A:N7	2.85	0.45
17:CQ:8:LEU:HB2	17:CQ:61:ILE:HG23	1.99	0.45
25:BB:100:G:H2'	25:BB:101:A:O4'	2.17	0.45
1:AA:961:U:OP2	1:AA:1223:C:H1'	2.17	0.45
24:DA:1714:U:P	24:DA:1714:U:C6	3.11	0.45
18:CR:50:LYS:HG2	18:CR:50:LYS:O	2.17	0.45
24:BA:1521:G:C6	24:BA:1522:A:C6	3.05	0.45
24:DA:2070:A:H2'	24:DA:2071:A:O4'	2.17	0.45
24:BA:1994:C:P	27:BD:132:ALA:HB3	2.57	0.45
24:DA:1928:A:H2'	24:DA:1929:G:O4'	2.17	0.44
1:AA:980:C:OP2	59:AA:1860:HOH:O	2.21	0.44
1:AA:1221:G:H5'	19:AS:36:ARG:NE	2.32	0.44
24:DA:252:G:O6	53:D3:7:ARG:HG3	2.18	0.44
24:BA:398:C:OP2	47:BX:52:ALA:CB	2.65	0.44
8:AH:64:LYS:O	8:AH:71:VAL:HG12	2.17	0.44
8:AH:71:VAL:HG13	8:AH:72:VAL:N	2.32	0.44
1:CA:771:G:O2'	1:CA:772:U:H5'	2.17	0.44
1:AA:3:A:H1'	1:AA:613:C:O4'	2.16	0.44
1:CA:1507:A:C2	1:CA:1508:A:C4	3.05	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:621:A:H2'	1:CA:622:A:O4'	2.17	0.44
6:CF:84:VAL:HG22	6:CF:85:ILE:N	2.33	0.44
1:AA:682:G:O2'	1:AA:683:G:H5'	2.17	0.44
1:AA:705:G:N7	1:AA:706:A:C8	2.85	0.44
24:BA:86:G:C2'	24:BA:87:U:O5'	2.65	0.44
13:CM:65:VAL:O	13:CM:66:GLU:C	2.55	0.44
24:DA:1059:G:N7	24:DA:1060:U:N3	2.65	0.44
24:DA:1087:G:C5	24:DA:1089:A:C2	3.04	0.44
1:AA:1191:A:P	1:AA:1191:A:H3'	2.57	0.44
2:AB:96:TRP:HH2	2:AB:175:GLU:CD	2.21	0.44
2:AB:99:GLY:HA2	2:AB:175:GLU:CD	2.37	0.44
1:CA:1219:A:C6	1:CA:1220:G:C5	3.05	0.44
22:CV:14:A:H2'	22:CV:15:G:C5'	2.47	0.44
24:BA:2112:G:C6	24:BA:2113:U:C2	3.05	0.44
24:BA:2734:A:C2'	24:BA:2735:G:C5'	2.94	0.44
4:AD:10:LYS:O	4:AD:13:ARG:HG2	2.16	0.44
1:CA:373:A:N3	1:CA:481:G:N2	2.62	0.44
16:CP:39:PHE:CD1	16:CP:40:ASN:N	2.84	0.44
24:BA:2614:A:O4'	50:B0:1:ALA:HB1	2.17	0.44
24:BA:2015:A:C4	50:B0:2:VAL:HG21	2.52	0.44
24:BA:564:C:OP1	41:BR:79:ARG:NH1	2.51	0.44
51:B1:27:ARG:C	51:B1:28:THR:HG23	2.37	0.44
1:CA:113:G:O4'	1:CA:354:G:H4'	2.17	0.44
1:CA:446:G:H2'	1:CA:446:G:N3	2.31	0.44
24:DA:2334:U:OP2	38:DO:9:ARG:NE	2.50	0.44
1:AA:1237:C:C5	1:AA:1336:C:C4	3.05	0.44
24:BA:1357:C:C5	24:BA:1358:G:C6	3.05	0.44
24:BA:477:A:N6	24:BA:478:A:C6	2.85	0.44
24:DA:975:A:C2	24:DA:990:A:C8	3.05	0.44
3:AC:14:ILE:CG2	3:AC:15:VAL:HG13	2.46	0.44
29:DF:127:TYR:H	29:DF:155:ILE:HD11	1.82	0.44
25:DB:43:C:O2'	29:DF:90:LEU:HA	2.16	0.44
7:CG:42:ILE:CG1	7:CG:43:VAL:N	2.80	0.44
2:AB:113:ARG:O	2:AB:114:LEU:C	2.56	0.44
1:CA:860:A:H3'	1:CA:861:G:C8	2.52	0.44
1:AA:214:C:C4	1:AA:215:C:N4	2.84	0.44
24:DA:1341:G:C6	43:DT:84:TYR:CE2	3.05	0.44
43:DT:82:LYS:CD	43:DT:84:TYR:HE1	2.29	0.44
55:CY:78:VAL:O	55:CY:79:GLU:C	2.56	0.44
28:DE:24:ASN:OD1	28:DE:27:LEU:HD12	2.18	0.44
1:AA:1387:G:C2'	1:AA:1388:C:O5'	2.65	0.44
25:BB:114:C:C4'	38:BO:47:VAL:HG12	2.46	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BH:25:TYR:HD1	31:BH:25:TYR:N	2.15	0.44
24:BA:1177:G:O2'	24:BA:1178:C:H5'	2.16	0.44
24:BA:479:A:C2	24:BA:481:G:C5'	3.00	0.44
42:BS:17:VAL:CG2	42:BS:18:ARG:N	2.80	0.44
42:BS:18:ARG:O	42:BS:19:LEU:C	2.55	0.44
24:DA:585:G:O2'	28:DE:77:ILE:HG22	2.17	0.44
24:BA:694:U:OP1	24:BA:1569:A:H1'	2.17	0.44
49:BZ:26:LEU:HD23	49:BZ:46:MET:HE2	1.99	0.44
24:DA:1299:G:N2	24:DA:1642:G:C6	2.85	0.44
24:DA:2199:A:N6	24:DA:2224:G:H1'	2.31	0.44
1:AA:64:G:C2	1:AA:67:C:N4	2.85	0.44
24:BA:1442:U:N3	24:BA:1443:U:C5	2.84	0.44
1:AA:159:G:N2	1:AA:161:A:O5'	2.50	0.44
1:AA:338:A:O5'	1:AA:338:A:H8	1.99	0.44
16:CP:32:PHE:HD1	16:CP:32:PHE:C	2.20	0.44
2:CB:150:GLY:O	2:CB:152:LYS:HG2	2.16	0.44
34:BK:86:LEU:CD2	34:BK:86:LEU:N	2.80	0.44
36:DM:57:VAL:C	36:DM:58:LYS:O	2.53	0.44
24:BA:332:A:C6	24:BA:335:C:C2	3.05	0.44
38:DO:51:ALA:O	38:DO:74:VAL:HG11	2.17	0.44
44:BU:95:PHE:CZ	44:BU:102:ILE:HD13	2.51	0.44
1:AA:1523:G:OP1	11:AK:128:ARG:NH2	2.49	0.44
1:CA:1169:A:N7	1:CA:1170:A:N1	2.65	0.44
24:DA:272:A:H2'	24:DA:273:G:C8	2.52	0.44
8:AH:56:LYS:O	8:AH:58:GLU:N	2.51	0.44
4:AD:86:THR:O	4:AD:90:LEU:CG	2.65	0.44
37:BN:8:ARG:NE	37:BN:43:GLU:OE1	2.50	0.44
30:DG:140:ILE:HG23	30:DG:141:GLY:N	2.31	0.44
37:DN:33:ILE:O	37:DN:34:ILE:CG1	2.65	0.44
24:BA:2810:A:H5'	27:BD:62:LYS:HD2	2.00	0.44
1:AA:1190:G:H5'	3:AC:176:HIS:NE2	2.32	0.44
1:CA:19:A:H5'	5:CE:91:GLY:HA3	1.98	0.44
24:DA:2088:A:N6	24:DA:2089:C:N4	2.65	0.44
24:BA:1747:U:H2'	24:BA:1748:C:C6	2.52	0.44
24:BA:1974:C:C4	24:BA:1975:G:C8	3.05	0.44
24:BA:2402:U:O2	24:BA:2404:U:OP2	2.36	0.44
24:BA:2403:C:N3	24:BA:2404:U:C5	2.85	0.44
1:CA:223:A:C4	1:CA:224:U:C5	3.05	0.44
1:CA:293:G:N2	1:CA:294:U:H1'	2.32	0.44
24:BA:137:U:O2'	24:BA:139:U:H2'	2.16	0.44
24:DA:729:G:C4	24:DA:1775:U:O2	2.70	0.44
24:DA:1519:G:C5	24:DA:1520:U:C5	3.05	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AV:70:G:N1	22:AV:71:G:C6	2.85	0.44
55:CY:2:ILE:O	55:CY:3:SER:C	2.56	0.44
7:AG:118:LEU:O	7:AG:121:ALA:HB3	2.17	0.44
1:AA:990:C:C4	1:AA:991:U:O4	2.70	0.44
1:CA:101:A:H2'	1:CA:102:G:H5'	2.00	0.44
3:AC:130:PHE:CD1	3:AC:130:PHE:C	2.90	0.44
24:DA:655:A:N3	24:DA:656:G:H1'	2.31	0.44
29:DF:174:PHE:HD2	29:DF:176:PHE:CD1	2.35	0.44
53:B3:44:ARG:N	53:B3:45:PRO:CD	2.80	0.44
40:BQ:73:ILE:CG2	40:BQ:78:PHE:HB2	2.47	0.44
7:CG:74:GLU:O	7:CG:88:PRO:HA	2.16	0.44
24:DA:269:C:C2	24:DA:424:G:C2	3.05	0.44
24:DA:1786:A:H1'	24:DA:1938:A:N6	2.32	0.44
36:DM:60:GLN:HG2	36:DM:61:GLY:N	2.31	0.44
24:BA:2201:G:C5	24:BA:2202:U:C5	3.05	0.44
18:AR:23:TYR:HB2	18:AR:62:ALA:HB2	1.98	0.44
43:BT:47:VAL:HG12	43:BT:55:VAL:HG11	1.98	0.44
21:AU:53:VAL:HG23	21:AU:54:LYS:H	1.82	0.44
28:DE:142:ALA:O	28:DE:143:LEU:HD23	2.17	0.44
26:BC:59:GLN:HG2	26:BC:84:PRO:HB2	1.99	0.44
45:BV:75:GLN:HA	45:BV:75:GLN:OE1	2.16	0.44
24:BA:448:U:O2	24:BA:448:U:O2'	2.24	0.44
4:AD:174:ASP:OD1	4:AD:174:ASP:N	2.50	0.44
31:DH:130:VAL:HG23	31:DH:131:SER:N	2.31	0.44
31:DH:116:ARG:HH12	31:DH:133:GLN:HA	1.83	0.44
14:AN:51:LEU:O	14:AN:52:PRO:C	2.56	0.44
24:DA:2360:G:H1'	35:DL:60:ARG:HD3	1.99	0.44
24:BA:392:U:N3	24:BA:393:C:C5	2.85	0.44
1:AA:258:G:N1	1:AA:269:C:O2	2.50	0.44
1:AA:624:C:N3	1:AA:625:U:N3	2.64	0.44
16:AP:51:ARG:HG2	16:AP:52:LEU:N	2.30	0.44
1:CA:401:C:H2'	1:CA:402:G:C8	2.52	0.44
1:CA:738:C:O2'	1:CA:739:C:H5'	2.13	0.44
1:CA:1329:A:C2	1:CA:1330:U:H1'	2.52	0.44
1:CA:1330:U:C5	1:CA:1331:G:C6	3.04	0.44
13:CM:108:THR:CG2	13:CM:109:ARG:HG3	2.47	0.44
13:CM:108:THR:HG22	13:CM:109:ARG:HG3	2.00	0.44
1:AA:1095:U:N3	1:AA:1096:C:C4	2.86	0.44
9:AI:50:GLN:HG2	9:AI:51:PRO:CD	2.47	0.44
1:AA:1535:C:O2	1:AA:1536:C:C5	2.70	0.44
1:AA:928:G:N1	1:AA:929:G:C5	2.85	0.44
1:CA:1012:A:N1	1:CA:1013:G:N3	2.65	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:987:G:C2	1:CA:1219:A:N1	2.85	0.44
19:CS:13:LEU:O	19:CS:16:LEU:HB3	2.17	0.44
19:CS:31:LEU:O	19:CS:50:ALA:HB3	2.18	0.44
22:CV:14:A:C2'	22:CV:15:G:H5'	2.47	0.44
1:CA:612:C:O2	1:CA:629:A:C2	2.71	0.44
24:BA:1203:U:C5	24:BA:1204:A:C4	3.05	0.44
24:BA:1238:G:O2'	24:BA:1239:G:H5'	2.16	0.44
24:BA:2720:U:C6	24:BA:2872:A:N6	2.84	0.44
34:BK:31:ARG:C	34:BK:32:TYR:CD1	2.90	0.44
24:DA:1205:A:N1	28:DE:165:HIS:HB2	2.31	0.44
1:CA:374:A:H5''	1:CA:452:A:C2	2.52	0.44
1:CA:452:A:H8	1:CA:453:G:C8	2.35	0.44
1:CA:1142:G:N7	1:CA:1143:G:C4	2.85	0.44
21:CU:41:PRO:C	21:CU:43:THR:N	2.71	0.44
24:BA:532:A:N3	24:BA:532:A:C2'	2.78	0.44
24:BA:2628:C:O4'	24:BA:2781:A:C2	2.70	0.44
15:CO:10:LYS:HG2	15:CO:11:ILE:H	1.82	0.44
1:CA:329:A:N1	1:CA:332:G:C4	2.85	0.44
1:CA:444:G:C2'	1:CA:445:G:O5'	2.65	0.44
1:CA:830:G:H5''	2:CB:23:TRP:NE1	2.32	0.44
24:DA:686:U:HO2'	52:D2:5:PHE:HA	1.82	0.44
24:BA:584:C:H2'	24:BA:585:G:H8	1.81	0.44
24:BA:659:G:O2'	28:BE:95:LYS:HD3	2.17	0.44
1:AA:1329:A:OP1	13:AM:29:ARG:HD2	2.18	0.44
24:BA:2352:A:H2'	24:BA:2353:G:C5'	2.45	0.44
24:DA:2522:U:H2'	24:DA:2523:G:H5'	1.98	0.44
3:AC:33:LEU:HD12	3:AC:36:ASP:HB2	1.99	0.44
29:DF:121:PHE:CD1	29:DF:127:TYR:CD1	3.05	0.44
1:AA:1539:C:C2	23:AX:4:G:N2	2.85	0.44
1:AA:1438:G:HO2'	1:AA:1439:G:P	2.40	0.44
1:AA:1465:A:N7	1:AA:1466:C:C5	2.85	0.44
24:BA:2525:G:N2	24:BA:2526:G:C5	2.85	0.44
24:BA:2591:C:H2'	24:BA:2592:G:H8	1.82	0.44
14:CN:41:ARG:O	14:CN:42:TRP:C	2.56	0.44
1:CA:966:G:N3	9:CI:129:LYS:NZ	2.65	0.44
7:CG:136:LYS:HE2	7:CG:137:LYS:N	2.32	0.44
1:AA:888:G:C4	1:AA:889:A:N7	2.85	0.44
41:DR:39:LEU:HA	41:DR:49:ILE:HG13	1.99	0.44
24:BA:1171:G:H2'	24:BA:1172:C:O4'	2.18	0.44
1:CA:1114:C:N3	1:CA:1115:U:C4	2.85	0.44
12:AL:25:GLU:O	12:AL:26:ALA:C	2.55	0.44
24:BA:2668:G:C4	24:BA:2669:G:C8	3.05	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2444:G:OP2	28:DE:63:LYS:HE3	2.18	0.44
42:DS:15:GLN:O	42:DS:16:LYS:C	2.55	0.44
1:AA:298:A:H3'	1:AA:299:G:H8	1.80	0.44
1:AA:790:A:C2	1:AA:1497:G:H5''	2.53	0.44
21:AU:43:THR:O	21:AU:44:GLU:C	2.55	0.44
24:BA:852:U:C4	24:BA:853:C:C4	3.05	0.44
1:CA:954:G:C2	1:CA:955:U:C2	3.06	0.44
27:DD:48:ILE:O	27:DD:81:GLU:HA	2.17	0.44
24:DA:2194:U:N3	24:DA:2195:U:C5	2.85	0.44
13:AM:31:LYS:O	13:AM:32:ALA:C	2.55	0.44
1:CA:174:A:C6	1:CA:175:C:C6	3.05	0.44
2:CB:90:PHE:CE2	2:CB:154:MET:CB	3.01	0.44
1:CA:62:U:O2'	1:CA:63:C:H5'	2.17	0.44
42:BS:21:ALA:C	42:BS:23:LEU:H	2.20	0.44
1:CA:605:U:C2'	1:CA:606:G:O5'	2.65	0.44
24:DA:2404:U:O4	24:DA:2405:G:C6	2.70	0.44
24:BA:127:A:OP2	52:B2:46:LYS:CE	2.65	0.44
1:AA:794:A:C6	1:AA:795:C:N4	2.85	0.44
14:CN:93:ILE:HG21	14:CN:96:LEU:CD2	2.46	0.44
26:BC:42:ARG:HH12	26:BC:48:ILE:HD11	1.82	0.44
49:DZ:36:GLU:C	49:DZ:37:ARG:HG2	2.38	0.44
24:BA:1823:G:N7	59:BA:3661:HOH:O	2.35	0.44
8:CH:106:THR:O	8:CH:107:SER:C	2.54	0.44
51:B1:39:ASP:CG	51:B1:42:VAL:HG12	2.37	0.44
1:AA:1381:U:C2'	1:AA:1382:C:O5'	2.65	0.44
24:BA:2796:U:C4	24:BA:2798:U:C2	3.05	0.44
24:DA:2179:C:C5	24:DA:2180:U:C5	3.05	0.44
24:BA:189:G:H2'	24:BA:205:G:N2	2.32	0.44
24:BA:1108:U:C5	24:BA:1109:C:C5	3.05	0.44
17:CQ:69:LYS:O	17:CQ:70:THR:CB	2.65	0.44
24:BA:1216:G:H2'	24:BA:1217:U:H5'	2.00	0.44
5:CE:115:LEU:HD22	5:CE:120:VAL:HG21	1.98	0.44
6:AF:55:HIS:ND1	6:AF:55:HIS:N	2.64	0.44
7:AG:42:ILE:C	7:AG:42:ILE:HD12	2.37	0.44
24:BA:1069:A:N1	24:BA:1073:A:C5	2.85	0.44
24:BA:371:A:N6	24:BA:402:A:OP2	2.47	0.44
24:DA:749:A:N3	24:DA:1618:A:H2'	2.32	0.44
6:CF:43:GLY:HA2	6:CF:58:HIS:CD2	2.52	0.44
1:CA:1204:A:C2	1:CA:1205:U:H1'	2.52	0.44
1:CA:247:G:C6	1:CA:248:C:C5	3.05	0.44
1:CA:246:A:C6	1:CA:279:A:C8	3.05	0.44
24:DA:134:G:C2	24:DA:146:A:C2	3.04	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DN:117:ASP:OD1	37:DN:118:ARG:N	2.50	0.44
24:DA:1913:A:N3	24:DA:1914:C:H5''	2.31	0.44
25:BB:116:G:OP1	38:BO:55:GLU:HG3	2.17	0.44
1:AA:66:A:O4'	1:AA:173:U:C4	2.70	0.44
27:DD:50:VAL:HG23	27:DD:51:THR:N	2.32	0.44
1:AA:1459:G:H2'	1:AA:1460:C:H5'	1.99	0.44
1:CA:121:U:C4'	1:CA:121:U:OP2	2.65	0.44
1:AA:116:A:N1	1:AA:313:A:O2'	2.47	0.44
24:BA:2671:G:H2'	24:BA:2671:G:N3	2.32	0.44
24:BA:1987:A:C2	24:BA:1988:G:C5	3.05	0.44
55:CY:114:THR:HG22	55:CY:115:LYS:N	2.31	0.44
4:CD:27:ALA:O	4:CD:28:ILE:CB	2.64	0.44
1:CA:1435:G:C6	1:CA:1436:U:C4	3.05	0.44
24:DA:1384:A:H1'	24:DA:1405:U:H1'	1.98	0.44
1:CA:1449:C:N3	1:CA:1454:G:O6	2.51	0.44
55:CY:126:VAL:HG11	24:DA:1963:U:O2	2.17	0.44
39:DP:30:TRP:CE2	39:DP:39:LEU:CD1	3.01	0.44
24:DA:1678:A:H2'	24:DA:1679:A:O4'	2.17	0.44
45:BV:26:PHE:CD1	45:BV:27:PRO:O	2.70	0.44
2:CB:33:GLY:HA2	2:CB:40:ILE:HG23	1.98	0.44
40:BQ:7:VAL:C	40:BQ:9:ALA:N	2.71	0.44
24:DA:2270:A:H2'	24:DA:2271:G:C8	2.52	0.44
24:DA:152:A:C2	24:DA:175:G:C2	3.04	0.44
40:BQ:64:ILE:HG12	40:BQ:94:LEU:HB3	1.99	0.44
24:BA:1195:G:O2'	24:BA:1196:C:H5'	2.17	0.44
41:BR:55:ASP:O	41:BR:56:GLY:O	2.35	0.44
2:CB:28:LYS:HB2	2:CB:29:PRO:HD3	1.99	0.44
24:DA:718:A:H5''	24:DA:719:C:OP2	2.17	0.44
35:BL:37:GLY:O	35:BL:40:SER:OG	2.35	0.44
28:BE:2:GLU:HG2	28:BE:13:THR:HG22	1.98	0.44
24:DA:368:A:C2'	24:DA:369:U:H5'	2.47	0.44
10:AJ:78:GLU:HB2	10:AJ:80:THR:HG23	1.99	0.44
21:CU:29:LEU:HD23	21:CU:30:ALA:N	2.33	0.44
26:BC:4:LYS:O	26:BC:5:CYS:C	2.55	0.44
24:DA:856:G:O4'	46:DW:27:GLY:HA3	2.17	0.44
40:BQ:70:GLN:HA	40:BQ:70:GLN:OE1	2.17	0.44
1:AA:997:U:H2'	1:AA:998:C:O4'	2.17	0.44
24:BA:2369:A:N6	24:BA:2382:G:O6	2.50	0.44
24:DA:1039:A:H2'	24:DA:1040:A:H5''	2.00	0.44
31:DH:94:ILE:H	31:DH:122:LEU:HB2	1.76	0.44
1:AA:943:U:H2'	1:AA:944:G:H5'	2.00	0.44
13:AM:80:LEU:HD11	13:AM:88:GLY:HA2	1.99	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2293:G:C5'	38:BO:94:ARG:NH2	2.81	0.44
25:BB:7:G:O3'	38:BO:29:HIS:CG	2.69	0.44
24:BA:2408:U:N3	24:BA:2409:G:C5	2.85	0.44
24:BA:2419:U:OP2	53:B3:32:LEU:HB3	2.18	0.44
1:AA:826:C:N3	1:AA:827:U:C5	2.85	0.44
1:CA:552:U:C2'	1:CA:553:A:H5'	2.48	0.44
24:DA:2495:G:O2'	36:DM:82:MET:HE3	2.18	0.44
1:CA:809:G:H2'	1:CA:810:C:O4'	2.18	0.44
8:AH:84:ARG:O	8:AH:85:ILE:HG13	2.17	0.44
23:AX:10:A:C4	23:AX:11:A:N7	2.84	0.44
6:AF:77:THR:HB	6:AF:80:PHE:CD1	2.52	0.44
24:BA:85:G:OP1	44:BU:5:ARG:CB	2.65	0.44
1:CA:947:G:O3'	13:CM:108:THR:HB	2.18	0.44
13:CM:24:GLY:CA	13:CM:69:LEU:CD2	2.94	0.44
13:CM:67:GLY:O	13:CM:71:ARG:NH2	2.50	0.44
11:CK:37:ARG:HG3	11:CK:38:GLN:N	2.32	0.44
1:AA:1109:C:H2'	1:AA:1110:A:O4'	2.17	0.44
9:AI:30:ILE:O	9:AI:31:ASN:C	2.56	0.44
2:AB:90:PHE:CG	2:AB:154:MET:CE	2.97	0.44
1:AA:931:C:N3	1:AA:932:C:C5	2.86	0.44
55:CY:156:SER:C	55:CY:158:ASP:O	2.56	0.44
1:CA:628:G:N2	1:CA:629:A:N3	2.66	0.44
24:BA:1244:A:P	35:BL:7:SER:HG	2.39	0.44
24:DA:1650:A:H2'	24:DA:1651:G:H5''	1.99	0.44
1:CA:230:G:H2'	1:CA:231:U:O4'	2.17	0.44
1:CA:255:G:H2'	1:CA:256:U:C6	2.52	0.44
1:CA:490:C:H2'	1:CA:491:G:C8	2.52	0.44
12:CL:112:GLN:O	12:CL:113:ALA:HB3	2.17	0.44
24:DA:2315:G:C4'	29:DF:124:ARG:HH22	2.31	0.44
1:CA:1289:A:H5'	1:CA:1290:G:OP2	2.17	0.44
1:CA:1355:G:O6	1:CA:1367:C:N3	2.51	0.44
7:CG:42:ILE:HG13	7:CG:43:VAL:HG23	1.99	0.44
1:CA:1344:C:OP1	9:CI:124:ARG:CZ	2.66	0.44
22:CV:52:G:C6	22:CV:53:G:C5	3.06	0.44
22:CV:52:G:C6	22:CV:53:G:C6	3.05	0.44
22:CV:62:C:O2'	51:D1:27:ARG:NH1	2.51	0.44
2:AB:21:ARG:HD3	2:AB:23:TRP:CD1	2.52	0.44
1:AA:212:G:C2	1:AA:213:G:C8	3.05	0.44
1:CA:751:U:C5	1:CA:752:G:O6	2.71	0.44
26:BC:183:VAL:HG12	26:BC:187:CYS:SG	2.57	0.44
14:CN:31:SER:O	14:CN:32:ASP:HB2	2.17	0.44
1:CA:1377:A:H4'	1:CA:1378:C:OP2	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:116:MET:CE	7:CG:119:ARG:NH1	2.81	0.44
41:DR:52:PRO:O	41:DR:53:PHE:CB	2.65	0.44
24:BA:2094:A:C5'	31:BH:25:TYR:CD2	3.01	0.44
1:AA:104:G:C2'	1:AA:105:G:H5'	2.47	0.44
24:DA:1266:G:O2'	24:DA:1267:U:OP2	2.36	0.44
24:BA:2703:C:O2'	24:BA:2704:C:P	2.76	0.44
50:D0:27:LEU:O	50:D0:28:SER:O	2.36	0.44
24:BA:2330:G:H21	46:BW:42:GLY:HA2	1.81	0.44
49:BZ:26:LEU:CD2	49:BZ:46:MET:HE2	2.48	0.44
1:AA:564:C:H5'	17:AQ:34:TYR:CE1	2.52	0.44
24:BA:2048:G:H4'	24:BA:2823:A:C2	2.51	0.44
24:DA:2092:U:OP2	31:DH:27:ARG:NE	2.51	0.44
1:AA:1423:G:N2	1:AA:1478:U:H1'	2.32	0.44
1:CA:105:G:C5	1:CA:106:C:C4	3.05	0.44
24:BA:2824:C:C4	24:BA:2825:G:N7	2.85	0.44
1:AA:529:G:C4'	1:AA:530:G:OP2	2.65	0.44
2:AB:76:ALA:CB	2:AB:210:VAL:HG11	2.46	0.44
35:BL:73:ILE:HG23	35:BL:104:GLN:O	2.17	0.44
2:CB:220:THR:HG22	2:CB:221:VAL:N	2.32	0.44
24:BA:2477:U:H4'	24:BA:2479:U:O4	2.18	0.44
1:CA:141:G:O5'	1:CA:141:G:H8	2.00	0.44
24:BA:2311:A:C2	29:BF:76:PHE:CB	2.99	0.44
26:BC:160:TYR:CD1	26:BC:160:TYR:O	2.71	0.44
26:BC:175:LEU:CD1	26:BC:179:GLU:O	2.64	0.44
1:CA:633:G:O2'	1:CA:634:C:O5'	2.29	0.44
24:DA:1979:U:O2'	24:DA:1980:G:H5'	2.17	0.44
10:AJ:42:LEU:HD23	10:AJ:71:LEU:HG	1.98	0.44
24:BA:1129:A:H1'	24:BA:2516:A:H1'	1.99	0.44
24:DA:1312:U:C6	43:DT:64:LYS:HE3	2.52	0.44
24:DA:849:A:H2'	24:DA:850:U:C6	2.52	0.44
24:BA:2564:A:C2	24:BA:2647:U:H4'	2.53	0.44
2:CB:71:GLY:CA	2:CB:164:ILE:HG22	2.47	0.44
4:AD:78:GLU:O	4:AD:81:ARG:CB	2.66	0.44
1:CA:555:U:C4	1:CA:556:C:N4	2.85	0.44
33:DJ:65:THR:HG22	33:DJ:68:LYS:NZ	2.32	0.44
24:DA:651:G:OP1	53:D3:18:LYS:HG2	2.17	0.44
26:BC:75:ALA:N	26:BC:116:GLN:OE1	2.50	0.44
48:BY:41:HIS:CE1	48:BY:42:LEU:CD1	3.00	0.44
24:BA:2107:G:C2	24:BA:2108:A:N3	2.85	0.44
1:CA:1000:A:N3	1:CA:1041:G:N2	2.65	0.44
1:AA:1486:G:H2'	1:AA:1487:G:C1'	2.47	0.44
1:CA:1521:C:N3	1:CA:1522:U:C4	2.85	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2378:A:N3	38:DO:18:LEU:HD11	2.31	0.44
55:CY:11:VAL:O	55:CY:12:ARG:C	2.56	0.44
1:AA:859:G:H2'	1:AA:860:A:O4'	2.18	0.44
28:DE:129:PRO:HB3	28:DE:159:LEU:HD11	1.97	0.44
24:DA:1847:A:C2'	24:DA:1848:A:C8	3.01	0.44
24:BA:2538:C:O2'	54:B4:3:VAL:CG2	2.65	0.44
24:BA:969:G:C5	24:BA:970:U:C5	3.06	0.44
17:AQ:58:VAL:O	17:AQ:59:VAL:HG13	2.16	0.44
51:B1:12:SER:N	51:B1:48:TYR:CD2	2.85	0.44
31:BH:125:THR:OG1	31:BH:126:GLY:N	2.50	0.44
17:AQ:31:HIS:HA	17:AQ:32:PRO:HD2	1.72	0.44
24:DA:2888:C:H2'	24:DA:2889:C:H6	1.82	0.44
24:DA:1845:G:N3	24:DA:1896:G:C2	2.85	0.44
24:DA:163:C:H2'	24:DA:164:C:C6	2.53	0.44
24:DA:1819:A:H4'	24:DA:1820:U:H5''	1.98	0.44
24:DA:1547:C:H2'	24:DA:1548:A:O4'	2.17	0.44
24:BA:1763:G:H2'	24:BA:1764:C:H5'	1.99	0.44
24:DA:461:C:C2'	24:DA:462:C:H5'	2.47	0.44
35:BL:2:ARG:HA	35:BL:5:THR:HG22	1.99	0.44
24:DA:1112:G:C5	24:DA:1113:U:C5	3.06	0.44
24:BA:743:A:OP1	27:BD:135:GLY:HA2	2.18	0.44
57:AA:1655:NMY:H172	57:AA:1655:NMY:H19	1.99	0.44
24:DA:1838:C:C5	24:DA:1899:A:C5	3.06	0.44
44:DU:11:ILE:HD11	44:DU:79:ALA:CB	2.48	0.44
1:AA:1015:G:C5	1:AA:1016:A:C5	3.05	0.44
13:AM:96:PRO:CA	13:AM:109:ARG:HG3	2.47	0.44
24:BA:2295:C:N4	24:BA:2296:U:O4	2.49	0.44
25:BB:45:A:C2	25:BB:46:A:N9	2.85	0.44
24:DA:197:A:O4'	24:DA:2068:U:C2	2.71	0.44
25:BB:15:A:C4	25:BB:109:A:C2	3.06	0.44
24:BA:391:A:N7	24:BA:392:U:C5	2.85	0.44
35:BL:64:PHE:CD1	35:BL:64:PHE:N	2.85	0.44
8:AH:10:MET:C	8:AH:12:THR:N	2.71	0.44
1:AA:253:A:N6	1:AA:274:A:N6	2.66	0.44
1:CA:1514:G:C2	1:CA:1515:G:C4	3.06	0.44
1:CA:705:G:N1	11:CK:44:TRP:CZ3	2.85	0.44
1:CA:789:U:C6	1:CA:791:G:OP2	2.69	0.44
1:AA:38:G:N1	1:AA:397:A:OP1	2.50	0.44
1:AA:587:G:OP1	8:AH:84:ARG:NH2	2.50	0.44
5:AE:83:HIS:N	5:AE:147:MET:HE3	2.32	0.44
1:CA:581:G:C6	1:CA:758:C:C6	3.05	0.44
11:AK:40:ASN:O	11:AK:41:ALA:O	2.35	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:25:VAL:O	13:CM:25:VAL:HG23	2.17	0.44
13:CM:40:ALA:O	13:CM:41:GLU:C	2.56	0.44
11:CK:20:VAL:HG22	11:CK:21:ALA:N	2.33	0.44
9:AI:25:ASN:HA	9:AI:59:GLU:O	2.17	0.44
1:AA:131:A:C2	1:AA:132:C:C2	3.06	0.44
20:AT:71:LYS:HD3	20:AT:75:HIS:HE1	1.81	0.44
1:CA:625:U:H2'	1:CA:626:G:H8	1.82	0.44
4:CD:81:ARG:O	4:CD:82:LEU:HG	2.16	0.44
24:BA:28:A:C2'	24:BA:29:U:H5'	2.47	0.44
24:BA:31:C:O3'	24:BA:1238:G:C5'	2.65	0.44
1:AA:411:A:N7	1:AA:429:U:C5	2.85	0.44
1:CA:1258:G:H2'	1:CA:1259:C:H6	1.82	0.44
1:AA:1004:A:H5'	1:AA:1024:G:N2	2.31	0.44
24:BA:532:A:H4'	24:BA:533:G:O4'	2.17	0.44
12:CL:52:VAL:HG23	12:CL:53:CYS:N	2.31	0.44
1:CA:191:G:C4	1:CA:192:A:C8	3.05	0.44
24:DA:2204:G:HO2'	24:DA:2205:A:P	2.38	0.44
13:AM:22:ILE:O	13:AM:22:ILE:HG13	2.17	0.44
13:AM:16:VAL:HG13	13:AM:41:GLU:HA	1.97	0.44
13:AM:65:VAL:O	13:AM:69:LEU:CB	2.65	0.44
7:AG:127:ALA:CA	7:AG:135:VAL:HG11	2.37	0.44
1:CA:1316:G:C4	1:CA:1318:A:OP2	2.70	0.44
24:BA:2303:G:N2	24:BA:2304:G:C4	2.85	0.44
3:AC:18:TRP:CD1	14:AN:93:ILE:O	2.71	0.44
1:CA:1287:A:N6	1:CA:1288:A:C6	2.85	0.44
1:CA:1371:G:C4	1:CA:1372:U:C5	3.05	0.44
7:CG:43:VAL:O	7:CG:46:ALA:HB3	2.18	0.44
24:BA:2262:U:OP1	46:BW:19:LYS:HG3	2.17	0.44
24:DA:481:G:H1'	24:DA:507:A:N1	2.32	0.44
24:BA:1478:G:N1	24:BA:1479:G:N7	2.64	0.44
1:CA:934:C:OP2	7:CG:3:ARG:NH2	2.50	0.44
24:BA:2593:U:H2'	24:BA:2594:C:H6	1.83	0.44
22:CV:61:C:C4	22:CV:62:C:C5	3.05	0.44
1:CA:862:C:C5	1:CA:863:U:C5	3.05	0.44
2:AB:23:TRP:CZ3	2:AB:25:PRO:CB	3.01	0.44
24:DA:1394:U:C4	24:DA:1395:A:C6	3.05	0.44
27:BD:98:VAL:C	27:BD:100:LEU:H	2.19	0.44
34:BK:88:ASN:HB3	34:BK:92:GLU:O	2.17	0.44
3:CC:36:ASP:O	3:CC:39:VAL:HG22	2.17	0.44
18:AR:50:LYS:O	18:AR:53:ARG:N	2.51	0.44
3:AC:79:LYS:C	3:AC:81:GLY:N	2.70	0.44
41:DR:51:VAL:HB	41:DR:52:PRO:HD3	2.00	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1070:A:C8	24:BA:1096:A:O3'	2.71	0.44
32:BI:7:TYR:O	32:BI:8:VAL:HG13	2.17	0.44
42:BS:3:THR:OG1	42:BS:58:ALA:HB1	2.18	0.44
24:BA:480:A:O3'	44:BU:43:LYS:HG3	2.17	0.44
40:DQ:5:ARG:O	40:DQ:6:GLY:C	2.56	0.44
12:AL:24:LEU:O	12:AL:25:GLU:C	2.54	0.44
1:AA:1446:A:H2	1:AA:1447:A:C4	2.35	0.44
32:BI:128:ILE:HG22	32:BI:128:ILE:O	2.17	0.44
27:BD:125:TRP:CB	27:BD:160:LYS:HE2	2.47	0.44
1:AA:1122:U:C4	1:AA:1123:U:C5	3.05	0.44
24:DA:735:A:H2'	24:DA:736:C:O5'	2.17	0.44
24:BA:2640:G:OP2	33:BJ:96:ARG:NH1	2.50	0.44
24:DA:1627:G:C2	24:DA:1628:G:C8	3.05	0.44
1:CA:954:G:C5	1:CA:955:U:C4	3.05	0.44
24:BA:881:G:N2	24:BA:882:G:C6	2.83	0.44
1:CA:1053:G:O2'	1:CA:1199:U:H5	2.00	0.44
24:BA:784:G:N1	26:BC:227:VAL:HG21	2.33	0.44
1:CA:146:G:N2	1:CA:177:G:C8	2.85	0.44
24:DA:1478:G:C2'	24:DA:1478:G:N3	2.80	0.44
1:AA:1324:A:C6	1:AA:1325:C:C2	3.06	0.44
1:AA:1318:A:H4'	19:AS:10:PHE:CE2	2.52	0.44
1:AA:1319:A:OP1	19:AS:5:LEU:HD12	2.17	0.44
1:AA:505:G:N7	1:AA:535:A:N3	2.66	0.44
24:BA:2617:U:H2'	24:BA:2618:G:C5'	2.48	0.44
22:CV:70:G:C2	22:CV:71:G:H1'	2.52	0.44
24:BA:243:U:C2'	24:BA:244:A:H5''	2.48	0.44
1:CA:852:G:H2'	1:CA:853:C:O4'	2.18	0.44
24:DA:1619:G:C2'	24:DA:1620:G:C5'	2.94	0.44
27:BD:120:GLY:C	27:BD:121:THR:HG22	2.38	0.44
43:DT:35:ALA:O	43:DT:38:ALA:HB3	2.18	0.44
24:DA:1335:C:P	43:DT:68:LYS:HZ3	2.39	0.44
4:AD:79:ALA:O	4:AD:80:ALA:C	2.56	0.44
37:BN:43:GLU:O	37:BN:44:LEU:C	2.55	0.44
24:DA:1558:C:C2	24:DA:1560:G:C4	3.05	0.44
24:DA:1561:C:N3	24:DA:1562:U:C5	2.85	0.44
24:BA:1322:A:N7	24:BA:1323:C:C5	2.85	0.44
17:CQ:29:VAL:O	17:CQ:37:PHE:HA	2.17	0.44
1:AA:1189:U:H5'	3:AC:5:VAL:HG21	1.98	0.44
24:DA:1190:G:OP1	35:DL:32:GLY:CA	2.65	0.44
1:CA:1057:G:H2'	1:CA:1058:G:O5'	2.17	0.44
1:AA:1299:A:C5	1:AA:1301:U:O2	2.71	0.44
24:DA:1533:C:C2	24:DA:1534:U:H1'	2.52	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BG:148:ARG:C	30:BG:150:TYR:H	2.20	0.44
24:DA:2552:U:C2	24:DA:2554:U:H5''	2.53	0.44
24:BA:681:G:H2'	24:BA:682:G:O4'	2.17	0.44
24:DA:499:U:H4'	44:DU:42:LYS:HE3	2.00	0.44
24:BA:270:A:C2	24:BA:369:U:H4'	2.52	0.44
24:DA:646:U:C3'	24:DA:647:G:H5''	2.48	0.44
7:CG:7:ILE:CG2	7:CG:8:GLY:N	2.80	0.44
1:CA:1435:G:C5	1:CA:1436:U:C4	3.05	0.44
17:AQ:59:VAL:HB	17:AQ:60:GLU:H	1.68	0.44
31:BH:130:VAL:HG21	31:BH:132:PHE:CE1	2.53	0.44
24:DA:370:G:O6	24:DA:424:G:C5	2.71	0.44
24:DA:1936:A:C2	24:DA:1943:U:O4	2.70	0.44
34:DK:33:ALA:HB2	34:DK:39:ILE:HG22	1.99	0.44
24:DA:49:A:C5'	24:DA:51:G:O4'	2.66	0.44
36:DM:96:ILE:HG21	36:DM:126:ILE:CD1	2.47	0.44
28:DE:85:PHE:O	28:DE:86:ALA:C	2.56	0.44
13:AM:47:GLU:CG	13:AM:47:GLU:O	2.65	0.44
24:BA:2057:G:OP2	59:BA:3490:HOH:O	2.21	0.44
6:AF:47:LEU:HD21	6:AF:57:ALA:HB3	1.98	0.44
19:CS:8:GLY:O	19:CS:9:PRO:O	2.36	0.44
24:DA:649:G:H2'	24:DA:650:C:C6	2.52	0.44
24:DA:2213:U:H4'	24:DA:2214:C:OP2	2.17	0.44
24:DA:124:G:C6	52:D2:19:ARG:NH1	2.85	0.44
36:BM:78:LEU:HD23	36:BM:79:ALA:N	2.32	0.44
26:BC:134:ILE:HA	26:BC:135:PRO:HD3	1.82	0.44
24:BA:1185:G:H5''	59:BA:3581:HOH:O	2.17	0.44
1:AA:1224:U:O2'	1:AA:1322:C:OP1	2.34	0.44
24:BA:2379:G:O6	24:BA:2380:C:N4	2.50	0.44
38:BO:17:LYS:O	38:BO:19:GLN:N	2.50	0.44
38:BO:10:ARG:HG2	38:BO:96:GLY:HA2	1.98	0.44
24:BA:415:A:O2'	24:BA:1866:A:OP1	2.36	0.44
1:AA:590:U:OP1	8:AH:31:LYS:N	2.50	0.44
7:AG:22:LEU:HA	7:AG:25:LYS:HE3	2.00	0.44
24:BA:2467:C:H2'	24:BA:2468:A:H5'	2.00	0.44
1:AA:35:G:N1	1:AA:36:C:C4	2.85	0.44
4:AD:102:VAL:C	4:AD:103:TYR:CD1	2.91	0.44
4:AD:124:MET:SD	4:AD:146:ARG:CZ	3.04	0.44
5:AE:95:PHE:O	5:AE:96:MET:HE3	2.18	0.44
8:AH:101:ILE:CG2	8:AH:103:VAL:CG2	2.95	0.44
8:AH:78:VAL:CG2	8:AH:125:ILE:O	2.65	0.44
1:CA:546:A:P	4:CD:69:GLU:HB3	2.57	0.44
1:CA:666:G:N2	1:CA:741:G:C1'	2.81	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:666:G:N1	1:CA:741:G:C5	2.86	0.44
6:CF:9:MET:CE	6:CF:59:TYR:CE2	3.01	0.44
1:AA:671:G:C6	1:AA:672:U:O2	2.71	0.44
24:BA:83:A:C2	24:BA:104:A:N6	2.86	0.44
1:CA:1239:A:N3	1:CA:1241:G:C2	2.86	0.44
13:CM:91:HIS:O	13:CM:92:ARG:HB3	2.17	0.44
24:DA:1073:A:O2'	24:DA:1074:G:OP1	2.30	0.44
11:CK:36:ASP:OD1	11:CK:39:GLY:N	2.47	0.44
1:AA:1095:U:N3	1:AA:1096:C:N3	2.65	0.44
1:AA:1166:G:N2	1:AA:1171:A:N6	2.65	0.44
1:AA:1129:C:C2	1:AA:1144:G:N2	2.85	0.44
9:AI:67:VAL:HG11	9:AI:75:GLN:HG2	1.99	0.44
19:CS:30:PRO:O	19:CS:49:ILE:HA	2.17	0.44
22:CV:43:C:C2'	22:CV:43:C:O2	2.65	0.44
17:AQ:12:VAL:O	17:AQ:13:VAL:HG23	2.18	0.44
26:DC:51:ARG:O	26:DC:52:HIS:C	2.51	0.44
55:CY:155:ARG:C	55:CY:157:GLN:N	2.65	0.44
24:BA:2123:G:C2	24:BA:2176:A:C4	3.06	0.44
24:BA:2683:C:C6	24:BA:2684:U:C5	3.06	0.44
24:DA:1360:G:N7	24:DA:1371:G:N2	2.65	0.44
1:CA:1281:C:O2'	1:CA:1282:C:C6	2.68	0.44
10:CJ:41:PRO:O	10:CJ:42:LEU:HB3	2.18	0.44
50:B0:2:VAL:HG13	50:B0:3:GLN:CB	2.48	0.44
24:BA:2284:A:C3'	51:B1:5:ARG:NH1	2.81	0.44
1:CA:257:G:O2'	1:CA:258:G:H5'	2.16	0.44
1:CA:393:A:OP2	16:CP:12:LYS:HE3	2.17	0.44
24:BA:583:G:C6	24:BA:584:C:N4	2.86	0.44
24:DA:2205:A:C5	24:DA:2206:C:C5	3.06	0.44
13:AM:68:ASP:O	13:AM:69:LEU:C	2.52	0.44
14:CN:13:VAL:O	14:CN:16:ALA:HB3	2.18	0.44
24:BA:1356:G:C6	24:BA:1357:C:C2	3.06	0.44
24:DA:2727:A:C2'	24:DA:2728:U:H5'	2.48	0.44
24:DA:1385:A:C2	24:DA:1386:C:C2	3.05	0.44
29:BF:121:PHE:O	29:BF:122:ASP:C	2.55	0.44
29:BF:127:TYR:O	29:BF:155:ILE:HG22	2.17	0.44
3:AC:22:TRP:CE3	10:AJ:95:GLY:N	2.86	0.44
29:DF:121:PHE:CG	29:DF:162:ASP:OD1	2.70	0.44
29:DF:155:ILE:HD13	29:DF:156:THR:CA	2.47	0.44
1:CA:976:G:H5''	1:CA:1358:U:O2'	2.17	0.44
37:BN:115:LEU:HD12	37:BN:115:LEU:H	1.82	0.44
1:AA:204:G:C6	1:AA:205:A:C6	3.06	0.44
24:BA:2131:U:H1'	24:BA:2133:G:H1'	2.00	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:135:LEU:HA	2:CB:138:THR:OG1	2.17	0.44
1:CA:653:U:H5'	8:CH:56:LYS:NZ	2.33	0.44
24:DA:2571:U:O2'	27:DD:151:THR:HG22	2.16	0.44
16:AP:20:VAL:HG11	16:AP:32:PHE:CD2	2.53	0.44
1:AA:664:G:H5'	18:AR:53:ARG:NH2	2.33	0.44
1:AA:242:G:C2	1:AA:245:U:C4	3.05	0.44
40:DQ:87:VAL:CA	41:DR:49:ILE:HG21	2.48	0.44
41:BR:49:ILE:HG23	41:BR:51:VAL:O	2.18	0.44
39:DP:20:ARG:NH2	39:DP:20:ARG:HG2	2.33	0.44
24:DA:2848:G:OP2	39:DP:94:ALA:HB3	2.18	0.44
33:BJ:122:LEU:HG	33:BJ:124:VAL:CG2	2.48	0.44
32:BI:124:MET:O	32:BI:127:SER:O	2.36	0.44
46:DW:41:ARG:O	46:DW:57:HIS:CD2	2.71	0.44
24:BA:320:A:OP1	28:BE:130:LYS:CE	2.65	0.44
1:AA:439:U:C4	1:AA:440:C:C5	3.06	0.44
51:D1:10:LEU:HD21	51:D1:33:LEU:CD2	2.47	0.44
1:AA:563:A:N1	1:AA:567:G:C2	2.86	0.44
25:BB:20:G:H2'	25:BB:21:G:C8	2.52	0.44
1:AA:64:G:N1	1:AA:67:C:N4	2.65	0.44
24:DA:1471:G:C4	24:DA:1472:C:C5	3.05	0.44
2:CB:51:ASN:O	2:CB:52:GLU:HB2	2.17	0.44
6:CF:63:ASN:HB2	6:CF:96:VAL:HG23	1.99	0.44
1:AA:757:U:H2'	1:AA:758:C:O4'	2.17	0.44
24:DA:2636:C:C2'	24:DA:2637:U:O5'	2.65	0.44
46:DW:51:VAL:HG11	46:DW:81:SER:C	2.37	0.44
1:CA:299:G:C6	1:CA:300:A:C6	3.05	0.44
1:CA:198:G:C5	1:CA:220:G:N2	2.85	0.44
26:DC:20:ASN:HB3	26:DC:22:GLU:OE1	2.17	0.44
4:AD:16:GLY:HA2	4:AD:35:GLU:HB2	2.00	0.44
24:DA:404:A:C8	24:DA:406:G:C5	3.06	0.44
24:DA:404:A:O4'	24:DA:406:G:N9	2.50	0.44
17:AQ:49:GLU:O	17:AQ:50:ASN:C	2.55	0.44
24:BA:1906:G:O2'	24:BA:1907:G:H5'	2.17	0.44
8:CH:103:VAL:HG23	8:CH:126:ILE:HB	1.98	0.44
24:DA:2107:G:HO2'	24:DA:2108:A:C5'	2.31	0.44
24:BA:2839:G:H4'	37:BN:49:GLU:OE1	2.17	0.44
24:BA:1833:C:N3	24:BA:1834:U:C5	2.86	0.44
24:DA:379:G:H2'	24:DA:380:G:O4'	2.18	0.44
24:BA:1086:A:H5'	24:BA:1087:G:OP1	2.18	0.44
6:AF:29:ILE:N	6:AF:29:ILE:HD12	2.33	0.44
17:CQ:21:ILE:HD11	17:CQ:46:VAL:HG11	1.98	0.44
24:DA:2779:U:OP1	24:DA:2780:G:H2'	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1116:U:C2	1:CA:1185:G:N1	2.86	0.44
1:CA:937:A:H1'	1:CA:1379:G:N2	2.31	0.44
24:DA:1759:A:C8	24:DA:2696:U:O2	2.71	0.44
7:AG:138:ARG:HG3	7:AG:139:GLU:N	2.33	0.44
24:BA:1283:G:N1	24:BA:1286:A:OP2	2.51	0.44
24:DA:1944:U:O2	24:DA:1955:U:O4'	2.36	0.44
24:DA:381:G:H2'	24:DA:382:A:H5'	2.00	0.44
24:BA:271:G:C2	24:BA:367:G:N3	2.86	0.44
54:B4:3:VAL:HG11	54:B4:36:ARG:NH2	2.32	0.44
39:BP:32:VAL:O	39:BP:33:GLU:C	2.55	0.44
33:DJ:6:ALA:CB	33:DJ:45:THR:HG21	2.47	0.44
6:AF:8:PHE:CE1	6:AF:60:VAL:HG21	2.52	0.44
22:AV:59:U:C4	22:AV:60:U:C4	3.06	0.44
24:BA:2382:G:H3'	24:BA:2383:G:H5'	1.99	0.44
1:AA:235:C:H4'	17:AQ:73:TRP:CH2	2.52	0.44
45:DV:71:LYS:NZ	45:DV:94:ALA:O	2.31	0.44
31:BH:11:ASN:HB3	31:BH:12:LEU:HD23	1.99	0.44
17:AQ:5:ILE:O	17:AQ:5:ILE:CG2	2.65	0.44
24:BA:2111:U:O2	24:BA:2111:U:O4'	2.35	0.44
40:DQ:59:LEU:C	40:DQ:59:LEU:CD2	2.85	0.44
24:BA:781:A:C8	26:BC:217:PRO:HG2	2.53	0.44
24:BA:1914:C:H2'	24:BA:1915:U:O4'	2.18	0.44
44:DU:71:ILE:HD13	44:DU:82:VAL:CG2	2.47	0.44
54:D4:31:PRO:O	54:D4:33:HIS:N	2.51	0.44
1:AA:944:G:H5''	1:AA:945:G:OP2	2.18	0.44
24:DA:250:G:P	53:D3:12:ARG:HH12	2.40	0.44
53:D3:24:LYS:HG3	53:D3:25:HIS:O	2.18	0.44
24:DA:2393:U:H5''	35:DL:62:PRO:HB3	2.00	0.44
24:BA:250:G:C5	24:BA:251:A:C5	3.05	0.44
12:CL:25:GLU:C	12:CL:27:CYS:N	2.70	0.44
24:DA:85:G:P	44:DU:5:ARG:HH21	2.40	0.44
1:AA:36:C:O2'	1:AA:501:C:H5''	2.18	0.44
1:AA:597:G:N7	1:AA:598:U:C5	2.86	0.44
5:AE:125:ALA:O	5:AE:126:LYS:HB3	2.16	0.44
1:AA:56:U:C2	31:DH:91:PHE:CE2	3.05	0.44
1:AA:686:U:O2	1:AA:687:A:C8	2.71	0.44
11:AK:41:ALA:C	11:AK:42:LEU:HD12	2.38	0.44
1:AA:1054:C:P	59:AA:1846:HOH:O	2.76	0.44
13:CM:95:LEU:C	13:CM:109:ARG:CZ	2.86	0.44
24:DA:1095:A:C8	24:DA:1096:A:N7	2.86	0.44
1:CA:686:U:O2	1:CA:687:A:C5	2.71	0.44
1:AA:1095:U:O4	1:AA:1096:C:N4	2.51	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1159:U:C2	1:AA:1182:G:C2	3.06	0.44
22:CV:26:A:C6	22:CV:27:G:C5	3.06	0.44
24:BA:30:G:H2'	24:BA:31:C:O4'	2.18	0.44
24:BA:2691:C:C2'	24:BA:2692:G:H5'	2.48	0.44
24:BA:2727:A:C5	24:BA:2728:U:O4	2.70	0.44
24:DA:394:C:C4	24:DA:395:U:C4	3.06	0.44
1:CA:1126:U:O2	1:CA:1280:A:H2'	2.17	0.44
24:BA:279:A:N7	24:BA:280:U:C5	2.85	0.44
1:CA:390:U:O2	1:CA:391:G:C8	2.71	0.44
20:CT:61:GLN:CG	20:CT:66:LEU:HD11	2.48	0.44
1:CA:983:A:C8	1:CA:1201:A:N1	2.86	0.44
24:BA:1353:A:C4	24:BA:1378:A:N6	2.86	0.44
29:DF:34:THR:HB	29:DF:89:THR:HG23	1.98	0.44
7:CG:41:SER:O	7:CG:42:ILE:HG23	2.18	0.44
1:CA:1367:C:P	9:CI:116:VAL:HG22	2.57	0.44
24:DA:1856:U:H2'	24:DA:1857:G:O4'	2.18	0.44
24:BA:2280:G:N1	24:BA:2281:A:N7	2.66	0.44
30:BG:88:LEU:O	30:BG:89:VAL:HG13	2.18	0.44
24:BA:2740:A:N1	24:BA:2764:A:C8	2.86	0.44
34:DK:38:ILE:CD1	34:DK:92:GLU:OE2	2.66	0.44
4:CD:64:ILE:CG2	4:CD:65:TYR:CE2	3.00	0.44
24:BA:463:G:N1	24:BA:467:G:C6	2.86	0.44
14:CN:43:ASN:C	14:CN:45:VAL:H	2.20	0.44
2:AB:22:TYR:O	2:AB:23:TRP:O	2.35	0.44
24:DA:1726:C:N3	24:DA:1735:A:N1	2.65	0.44
34:BK:88:ASN:OD1	34:BK:93:GLN:OE1	2.35	0.44
7:CG:118:LEU:CD1	7:CG:118:LEU:N	2.81	0.44
4:AD:192:SER:OG	6:CF:16:GLU:HG2	2.18	0.44
40:DQ:82:LEU:O	40:DQ:83:LYS:C	2.56	0.44
24:BA:2199:A:O4'	31:BH:28:ASN:OD1	2.36	0.44
24:BA:2200:C:O5'	24:BA:2200:C:H6	2.00	0.44
24:BA:2010:G:N3	24:BA:2011:U:O2	2.50	0.44
24:BA:1858:A:C6	24:BA:1859:U:C2	3.05	0.44
24:DA:2849:U:H5''	39:DP:92:ARG:NH2	2.33	0.44
24:DA:1132:U:H5'	33:DJ:84:ILE:CD1	2.47	0.44
53:D3:56:LEU:CD2	53:D3:56:LEU:N	2.70	0.44
24:DA:601:C:O2'	24:DA:605:G:OP1	2.33	0.44
24:BA:1385:A:C6	24:BA:1403:A:C5	3.06	0.44
24:DA:416:U:C4	24:DA:417:C:C4	3.06	0.44
25:BB:20:G:C6	25:BB:21:G:C6	3.06	0.44
24:BA:629:G:H5''	24:BA:650:C:O2'	2.16	0.44
24:BA:447:A:N1	24:BA:454:A:O2'	2.43	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:782:A:C2	1:CA:801:U:H1'	2.52	0.44
24:DA:1605:C:C3'	24:DA:1606:C:H5'	2.48	0.44
24:DA:2292:U:H2'	24:DA:2293:G:H8	1.77	0.44
1:AA:446:G:C6	1:AA:447:G:C4	3.06	0.44
20:AT:44:LYS:CD	20:AT:87:ALA:HA	2.47	0.44
24:BA:2619:C:OP1	27:BD:157:LYS:HE3	2.18	0.44
24:DA:1588:G:C4	24:DA:1589:U:C5	3.06	0.44
24:DA:2415:G:C2'	24:DA:2416:C:H5'	2.47	0.44
24:DA:2052:A:H4'	27:DD:148:GLN:O	2.18	0.44
24:DA:1797:G:C4	24:DA:1798:U:C6	3.06	0.44
1:CA:745:G:H1'	1:CA:836:G:O2'	2.17	0.44
26:BC:159:THR:O	26:BC:194:VAL:HG13	2.18	0.44
2:AB:144:LEU:C	2:AB:146:ASN:N	2.70	0.44
1:AA:20:U:C2'	1:AA:21:G:H5'	2.48	0.44
1:AA:20:U:C5	1:AA:21:G:N7	2.86	0.44
24:BA:378:C:C3'	24:BA:379:G:C5'	2.95	0.44
24:DA:2716:C:H2'	24:DA:2717:C:H5'	1.99	0.44
27:DD:26:VAL:HG22	27:DD:26:VAL:O	2.18	0.44
24:BA:1719:G:C4	24:BA:1720:U:C6	3.06	0.44
24:DA:789:A:N1	59:DA:3306:HOH:O	2.36	0.44
24:BA:2603:G:H2'	24:BA:2604:U:C5'	2.48	0.44
12:AL:73:ASN:ND2	12:AL:74:LEU:N	2.66	0.44
24:DA:2768:U:C4	24:DA:2769:U:C5	3.06	0.44
6:AF:51:ILE:O	6:AF:52:ASN:CB	2.66	0.44
1:AA:128:G:C2	1:AA:234:C:C2	3.06	0.44
24:BA:1062:G:C6	24:BA:1063:G:O6	2.70	0.44
45:DV:76:ASP:O	45:DV:89:ILE:CG2	2.65	0.44
1:CA:370:C:H2'	1:CA:371:A:H8	1.83	0.44
49:DZ:31:ILE:CG1	49:DZ:31:ILE:O	2.66	0.44
53:B3:57:VAL:C	53:B3:59:ALA:N	2.68	0.44
1:CA:972:C:H2'	1:CA:973:G:H5'	2.00	0.44
2:AB:93:ASN:O	2:AB:93:ASN:CG	2.55	0.44
49:DZ:24:LEU:O	49:DZ:27:GLY:N	2.49	0.44
49:BZ:37:ARG:O	49:BZ:38:GLU:O	2.35	0.44
1:CA:909:A:H2'	1:CA:910:C:C5'	2.47	0.44
47:BX:66:VAL:O	47:BX:67:LEU:C	2.56	0.44
36:DM:70:ASP:OD1	36:DM:70:ASP:C	2.54	0.44
3:CC:126:ARG:O	3:CC:127:ARG:HB3	2.18	0.44
6:CF:88:MET:O	6:CF:90:MET:HE1	2.18	0.44
24:BA:1031:G:O6	24:BA:1032:A:C6	2.71	0.44
24:DA:721:A:C6	24:DA:722:A:C6	3.05	0.44
49:DZ:41:PRO:O	49:DZ:42:ALA:C	2.56	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:AP:21:VAL:HG11	16:AP:60:TRP:CD1	2.52	0.44
24:BA:1770:G:H2'	24:BA:1771:C:H5'	1.99	0.44
17:AQ:57:ASP:O	17:AQ:59:VAL:HG22	2.17	0.44
27:BD:89:GLU:O	27:BD:90:PHE:HB2	2.16	0.44
24:BA:823:C:C2'	24:BA:824:U:O5'	2.66	0.44
31:DH:44:ILE:CG2	31:DH:45:GLU:N	2.80	0.44
24:DA:2261:C:H3'	46:DW:16:SER:HB2	1.99	0.44
25:DB:7:G:H5''	38:DO:29:HIS:NE2	2.31	0.44
24:BA:2134:A:C2	24:BA:2135:A:C4	3.06	0.44
45:BV:9:ARG:HB3	45:BV:41:GLU:HG2	1.99	0.44
3:CC:128:VAL:O	3:CC:129:MET:HG2	2.18	0.44
24:DA:439:A:H2'	24:DA:440:C:O4'	2.18	0.44
12:AL:29:GLN:CB	12:AL:82:ILE:O	2.66	0.44
31:BH:41:LYS:C	31:BH:44:ILE:HG22	2.38	0.44
24:BA:445:C:N4	24:BA:446:G:O6	2.50	0.44
27:DD:170:VAL:HG12	27:DD:171:THR:O	2.18	0.44
24:DA:503:A:C6	24:DA:506:G:C6	3.05	0.44
33:DJ:105:VAL:O	33:DJ:106:LYS:C	2.56	0.44
24:BA:678:C:OP1	24:BA:2072:C:OP1	2.35	0.44
29:BF:135:ILE:C	29:BF:137:PHE:N	2.71	0.44
24:BA:2590:A:C2	24:BA:2605:U:C2	3.05	0.44
2:CB:181:ILE:O	2:CB:182:PRO:O	2.35	0.44
26:DC:161:VAL:HG13	26:DC:174:ARG:O	2.18	0.44
13:AM:48:LEU:HD13	13:AM:53:ILE:HG12	2.00	0.44
36:BM:115:GLU:OE1	36:BM:115:GLU:N	2.51	0.44
33:DJ:60:ASP:OD1	33:DJ:126:ALA:O	2.36	0.44
24:BA:1979:U:H2'	24:BA:1980:G:H5'	2.00	0.44
24:BA:426:C:C4	24:BA:427:U:C5	3.05	0.44
1:AA:1242:G:H2'	1:AA:1243:C:O4'	2.16	0.44
27:BD:5:VAL:HG11	27:BD:80:TRP:CZ3	2.52	0.44
31:DH:116:ARG:NH1	31:DH:133:GLN:HG3	2.32	0.44
24:DA:1925:C:H5''	24:DA:1926:U:OP2	2.18	0.44
1:AA:1232:U:H5''	9:AI:127:PHE:HA	1.99	0.44
1:AA:1347:G:N7	9:AI:109:ARG:CZ	2.80	0.44
24:BA:391:A:H4'	24:BA:412:A:O3'	2.18	0.44
24:BA:391:A:H5'	24:BA:412:A:H4'	1.99	0.44
47:BX:31:ASN:OD1	47:BX:52:ALA:CB	2.59	0.44
12:CL:23:ALA:O	12:CL:24:LEU:C	2.56	0.44
1:CA:1523:G:OP1	11:CK:126:LYS:NZ	2.37	0.44
5:AE:126:LYS:HD2	5:AE:128:TYR:CE1	2.53	0.44
1:AA:44:A:OP1	16:AP:12:LYS:HB3	2.18	0.44
1:AA:43:C:H3'	16:AP:12:LYS:NZ	2.32	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1500:A:H5''	1:CA:1508:A:H5''	2.00	0.44
4:CD:22:LYS:O	4:CD:22:LYS:HG2	2.17	0.44
1:CA:672:U:C2'	1:CA:673:A:O5'	2.65	0.44
1:CA:734:G:H2'	1:CA:735:C:C6	2.53	0.44
1:CA:671:G:N2	1:CA:736:C:C2	2.85	0.44
3:AC:3:GLN:C	3:AC:4:LYS:HG2	2.36	0.44
24:BA:1740:G:C5	24:BA:1741:C:C4	3.06	0.44
24:DA:1094:U:H1'	24:DA:1098:A:C2	2.52	0.44
32:DI:109:ALA:O	32:DI:110:GLN:C	2.56	0.44
1:AA:1105:A:N1	1:AA:1106:G:C5	2.85	0.44
24:BA:2428:G:O2'	35:BL:54:GLN:HA	2.17	0.44
24:BA:1188:U:H2'	24:BA:1189:A:O5'	2.17	0.44
1:AA:1130:A:C2	1:AA:1146:A:C5	3.06	0.44
1:AA:899:C:C5	1:AA:900:A:N7	2.85	0.44
36:BM:11:LYS:HD3	36:BM:86:LYS:HD3	1.99	0.44
1:AA:929:G:C2'	1:AA:930:C:H5'	2.48	0.44
22:CV:14:A:C5	22:CV:22:G:C2	3.06	0.44
1:AA:276:G:C5	1:AA:277:C:C5	3.05	0.44
24:DA:1823:G:C6	24:DA:1824:G:C5	3.06	0.44
55:CY:159:ASP:HA	55:CY:162:LYS:HG3	1.99	0.44
24:BA:2731:G:C8	57:BA:3165:NMY:H21	2.49	0.44
4:AD:10:LYS:HA	4:AD:13:ARG:HD2	2.00	0.44
24:DA:1359:A:OP2	24:DA:1371:G:N1	2.46	0.44
1:CA:1133:G:C2'	1:CA:1134:G:H5'	2.48	0.44
9:CI:67:VAL:HG21	9:CI:79:ILE:CD1	2.47	0.44
9:CI:9:THR:HG22	9:CI:10:GLY:N	2.31	0.44
24:DA:1741:C:C2	24:DA:1742:U:C6	3.06	0.44
24:DA:1651:G:C2	24:DA:2007:U:N3	2.86	0.44
24:DA:550:C:OP2	33:DJ:2:LYS:NZ	2.49	0.44
1:CA:195:A:P	20:CT:60:ARG:NH1	2.91	0.44
1:CA:43:C:OP1	16:CP:12:LYS:HG2	2.17	0.44
24:BA:607:U:O2'	24:BA:608:A:OP1	2.35	0.44
1:CA:386:C:H2'	1:CA:387:U:H5''	1.98	0.44
1:CA:1318:A:C5'	1:CA:1319:A:OP2	2.65	0.44
1:CA:17:U:H4'	1:CA:1080:A:O4'	2.18	0.44
2:CB:106:THR:C	2:CB:108:ARG:N	2.71	0.44
1:AA:854:U:H2'	1:AA:855:U:O5'	2.17	0.44
8:CH:115:ALA:O	8:CH:116:ALA:C	2.56	0.44
24:BA:995:C:H41	57:BA:3166:NMY:HN61	1.63	0.44
30:BG:88:LEU:N	30:BG:88:LEU:CD1	2.80	0.44
4:CD:64:ILE:HG23	4:CD:65:TYR:CD2	2.52	0.44
24:DA:973:A:H5'	24:DA:1188:U:H1'	2.00	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:24:ALA:HB1	3:CC:28:GLU:HB2	2.00	0.44
30:DG:36:LEU:C	30:DG:38:ASP:N	2.69	0.44
29:DF:46:LYS:HG2	29:DF:47:LYS:N	2.32	0.44
25:BB:79:G:C6	25:BB:80:U:C2	3.06	0.44
1:CA:949:A:C2	1:CA:1233:G:N3	2.86	0.44
24:BA:1183:U:HO2'	24:BA:1184:U:C5'	2.29	0.44
42:BS:17:VAL:HG23	42:BS:76:VAL:HG21	1.99	0.44
31:DH:10:ALA:O	31:DH:11:ASN:C	2.55	0.44
31:DH:10:ALA:O	31:DH:12:LEU:CD2	2.66	0.44
24:DA:2849:U:P	39:DP:92:ARG:NH1	2.90	0.44
1:AA:31:G:N2	1:AA:47:C:H4'	2.33	0.44
12:AL:80:ILE:HD12	12:AL:81:LEU:H	1.82	0.44
35:DL:93:ASN:O	35:DL:94:THR:HG22	2.17	0.44
24:BA:1500:G:C6	24:BA:1501:G:C5	3.05	0.44
33:BJ:121:LYS:O	33:BJ:122:LEU:C	2.56	0.44
24:BA:1131:G:H4'	24:BA:1132:U:OP1	2.18	0.44
1:AA:966:G:C4	22:AV:34:G:H4'	2.52	0.44
24:DA:2344:U:H2'	51:D1:35:LEU:CD2	2.47	0.44
1:CA:1110:A:C6	1:CA:1111:A:C6	3.05	0.44
1:AA:563:A:H5''	1:AA:565:U:O4	2.18	0.44
24:DA:1301:A:C2	24:DA:1303:G:C5	3.05	0.44
42:DS:7:HIS:HB2	42:DS:50:VAL:HG22	1.99	0.44
52:B2:43:THR:OG1	52:B2:44:VAL:N	2.51	0.44
1:AA:1422:G:N1	1:AA:1423:G:C5	2.86	0.44
24:DA:1953:A:C2	24:DA:2549:G:N3	2.86	0.44
27:DD:38:LYS:HE3	27:DD:45:TYR:OH	2.17	0.44
27:DD:45:TYR:OH	27:DD:81:GLU:OE2	2.35	0.44
34:DK:22:ILE:O	34:DK:22:ILE:HG12	2.17	0.44
2:AB:17:GLY:HA2	2:AB:203:ASN:H	1.83	0.44
2:AB:42:ASN:OD1	2:AB:44:GLU:O	2.35	0.44
24:BA:880:G:C5	24:BA:881:G:C8	3.05	0.44
1:CA:826:C:H4'	8:CH:13:ARG:HD3	2.00	0.44
35:DL:78:ARG:CZ	35:DL:113:ALA:HB1	2.47	0.44
1:AA:1055:A:C6	1:AA:1206:G:C5	3.06	0.44
1:AA:479:U:H2'	1:AA:480:U:C5'	2.45	0.44
43:DT:74:ILE:HG13	43:DT:75:GLY:N	2.32	0.44
20:AT:35:VAL:O	20:AT:38:ALA:N	2.50	0.44
24:DA:1593:A:H2'	24:DA:1594:U:O4'	2.17	0.44
54:B4:10:LEU:HD11	54:B4:35:GLN:OE1	2.18	0.44
33:DJ:110:PRO:HD2	33:DJ:118:MET:CE	2.48	0.44
37:DN:103:ARG:NH2	37:DN:106:ASP:OD2	2.45	0.44
24:BA:2812:G:H2'	24:BA:2813:A:O4'	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2138:G:C2	24:BA:2139:U:O2	2.71	0.44
24:BA:579:G:C2	24:BA:1262:A:C4	3.06	0.44
25:BB:73:A:N7	25:BB:104:A:C5	2.86	0.44
1:AA:1151:A:H5'	10:AJ:44:THR:HG23	2.00	0.44
24:BA:178:G:C2'	24:BA:179:C:H5'	2.48	0.44
1:CA:1492:A:O2'	1:CA:1493:A:P	2.75	0.44
17:CQ:21:ILE:HG13	17:CQ:46:VAL:CG1	2.47	0.44
33:DJ:117:ALA:HA	33:DJ:120:ARG:HE	1.82	0.44
24:BA:1193:G:C2	24:BA:1194:A:C4	3.06	0.44
15:AO:25:THR:HA	15:AO:28:GLN:HB2	2.00	0.44
24:DA:961:C:C4	24:DA:2031:A:C5	3.05	0.44
39:BP:57:ALA:HB1	39:BP:73:PHE:O	2.16	0.44
24:BA:1946:U:O2'	24:BA:1947:C:C5'	2.64	0.44
53:B3:57:VAL:O	53:B3:58:ILE:C	2.56	0.44
53:B3:6:VAL:HB	53:B3:60:CYS:HB3	2.00	0.44
5:AE:112:ARG:HD2	5:AE:113:ALA:N	2.32	0.44
1:AA:66:A:C4'	1:AA:173:U:C5	3.00	0.44
24:DA:457:A:O4'	24:DA:459:U:C6	2.71	0.44
1:AA:895:G:C5	1:AA:896:C:C5	3.05	0.44
55:CY:2:ILE:C	55:CY:2:ILE:HD12	2.38	0.44
36:BM:54:THR:C	36:BM:56:ALA:N	2.71	0.44
24:DA:792:A:C4'	24:DA:793:A:H5'	2.48	0.44
35:BL:23:ILE:HD12	35:BL:23:ILE:O	2.17	0.44
27:DD:98:VAL:C	27:DD:100:LEU:N	2.69	0.44
36:DM:121:ALA:O	36:DM:123:LYS:N	2.51	0.44
1:AA:730:G:C5'	1:AA:731:G:OP2	2.66	0.44
24:DA:1228:G:C6	24:DA:1229:C:C4	3.05	0.44
24:BA:2102:G:C6	24:BA:2188:U:N3	2.86	0.44
24:DA:2816:G:C2'	24:DA:2817:U:H5'	2.48	0.44
26:DC:164:VAL:CG1	26:DC:172:THR:O	2.66	0.44
24:DA:875:G:C2'	24:DA:876:C:H5'	2.47	0.44
24:BA:1521:G:C6	24:BA:1522:A:N6	2.86	0.44
21:AU:22:SER:O	21:AU:23:CYS:SG	2.76	0.44
24:BA:2852:G:H2'	24:BA:2853:C:O4'	2.18	0.44
5:AE:41:ASP:OD1	5:AE:42:GLY:N	2.50	0.44
32:DI:82:ALA:HB1	32:DI:108:ILE:HG12	2.00	0.44
41:BR:14:VAL:HG21	41:BR:98:ILE:CD1	2.48	0.44
15:CO:64:ARG:HD2	15:CO:64:ARG:HA	1.70	0.44
1:AA:1017:U:C6	1:AA:1017:U:OP2	2.71	0.44
32:DI:34:ILE:HG13	32:DI:34:ILE:O	2.17	0.44
24:BA:704:G:HO2'	24:BA:705:A:P	2.41	0.44
1:AA:1407:C:C2'	1:AA:1408:A:H5'	2.48	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:298:G:OP1	44:DU:84:PHE:HD1	1.99	0.44
24:BA:2291:U:OP1	24:BA:2380:C:O2'	2.29	0.44
24:BA:2292:U:H2'	24:BA:2293:G:O4'	2.18	0.44
24:BA:2335:A:N6	24:BA:2337:G:N3	2.66	0.44
24:DA:2282:G:C5	24:DA:2425:A:C6	3.06	0.44
25:BB:15:A:C8	25:BB:109:A:N6	2.86	0.44
24:BA:2415:G:H3'	24:BA:2416:C:H6	1.83	0.44
35:BL:58:TYR:HA	53:B3:12:ARG:HD2	1.99	0.44
1:AA:648:A:N1	1:AA:649:A:N3	2.66	0.44
1:AA:391:G:H3'	1:AA:392:C:H5''	1.99	0.44
1:AA:623:C:N3	1:AA:624:C:C6	2.86	0.44
1:AA:637:C:OP1	17:AQ:6:ARG:NH2	2.51	0.44
4:AD:103:TYR:HE1	4:AD:114:ALA:HB3	1.82	0.44
12:AL:118:GLY:C	12:AL:119:VAL:HG23	2.39	0.44
1:CA:545:C:O2'	1:CA:549:C:H5''	2.17	0.44
4:CD:97:ARG:HG3	4:CD:99:ASP:OD1	2.18	0.44
1:CA:1268:G:O6	1:CA:1269:A:N6	2.51	0.44
13:CM:50:GLU:HA	13:CM:53:ILE:HD12	2.00	0.44
13:CM:85:CYS:SG	13:CM:87:ARG:N	2.91	0.44
29:DF:134:GLN:NE2	29:DF:149:ARG:HG3	2.32	0.44
4:AD:26:ARG:HH22	4:AD:29:ASP:C	2.21	0.44
1:AA:1159:U:C4	1:AA:1182:G:C4	3.05	0.44
24:BA:831:G:C2'	24:BA:832:U:O5'	2.65	0.44
55:CY:109:ARG:O	55:CY:110:ARG:C	2.56	0.44
9:AI:47:VAL:O	9:AI:80:ARG:CZ	2.66	0.44
9:AI:63:LEU:C	9:AI:63:LEU:HD23	2.38	0.44
9:AI:80:ARG:HD2	9:AI:103:PHE:CG	2.52	0.44
17:AQ:19:LYS:NZ	17:AQ:48:ASP:O	2.51	0.44
55:CY:153:ASP:O	55:CY:154:ARG:C	2.56	0.44
24:BA:2692:G:N3	24:BA:2847:U:O2'	2.44	0.44
1:AA:427:U:C4	1:AA:428:G:C6	3.06	0.44
24:DA:1360:G:N7	24:DA:1361:G:C8	2.85	0.44
24:BA:360:U:C4	24:BA:361:G:C2	3.05	0.44
24:BA:360:U:C5	24:BA:361:G:N1	2.86	0.44
15:CO:9:ALA:O	15:CO:11:ILE:HG13	2.18	0.44
1:CA:184:G:C6	1:CA:185:U:C5	3.05	0.44
1:CA:445:G:C6	1:CA:446:G:C4	3.06	0.44
1:CA:446:G:C6	1:CA:447:G:C5	3.06	0.44
1:CA:444:G:C6	1:CA:491:G:C6	3.05	0.44
1:AA:1329:A:P	13:AM:29:ARG:HD2	2.58	0.44
14:CN:16:ALA:CA	14:CN:20:PHE:CE2	2.98	0.44
24:DA:1869:G:N2	24:DA:1873:G:C5	2.86	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1865:U:C5	24:DA:1875:G:C2	3.06	0.44
12:CL:44:LYS:HB3	12:CL:45:PRO:CD	2.48	0.44
1:CA:1088:G:C2'	1:CA:1089:G:O5'	2.65	0.44
38:DO:108:ASP:HA	38:DO:111:ARG:CB	2.48	0.44
24:BA:2304:G:H4'	29:BF:129:MET:HA	1.98	0.44
29:BF:36:ASN:HA	29:BF:87:LYS:HE3	1.99	0.44
1:CA:275:G:P	17:CQ:16:LYS:HE3	2.57	0.44
24:BA:2259:U:C2	24:BA:2260:C:C6	3.06	0.44
21:CU:6:VAL:HG13	21:CU:8:GLU:HG2	2.00	0.44
24:BA:550:C:H2'	24:BA:550:C:O2	2.16	0.44
1:AA:1434:A:N6	1:AA:1435:G:C6	2.85	0.44
26:DC:259:ASN:CG	26:DC:260:LYS:N	2.70	0.44
47:DX:33:HIS:O	47:DX:49:ARG:HA	2.17	0.44
2:AB:21:ARG:HG3	2:AB:22:TYR:H	1.81	0.44
1:AA:202:G:H2'	1:AA:203:G:O4'	2.18	0.44
7:CG:110:LYS:CE	7:CG:133:THR:HG21	2.47	0.44
7:CG:121:ALA:O	7:CG:122:ASN:C	2.56	0.44
12:AL:56:ARG:CG	12:AL:56:ARG:O	2.65	0.44
24:BA:918:A:O2'	25:BB:80:U:O2'	2.11	0.44
25:BB:81:G:O6	25:BB:96:G:C6	2.71	0.44
25:BB:97:C:H2'	25:BB:98:G:H5'	1.98	0.44
40:DQ:109:VAL:O	40:DQ:112:ALA:HB3	2.17	0.44
40:DQ:89:ILE:HG23	40:DQ:93:ILE:HG21	2.00	0.44
41:BR:49:ILE:CG1	41:BR:51:VAL:O	2.66	0.44
24:DA:584:C:P	40:DQ:5:ARG:HG3	2.58	0.44
40:DQ:5:ARG:O	40:DQ:7:VAL:N	2.50	0.44
26:DC:157:ALA:HB1	26:DC:196:ASN:O	2.18	0.44
24:BA:58:G:N2	24:BA:70:G:C2	2.85	0.44
24:BA:161:A:P	24:BA:162:U:H3'	2.58	0.44
24:BA:167:A:C8	24:BA:168:G:C8	3.05	0.44
55:CY:38:ASP:CG	55:CY:52:ARG:HG2	2.38	0.44
24:DA:735:A:N7	24:DA:736:C:C4	2.86	0.44
24:BA:1602:U:C3'	24:BA:1603:A:C5'	2.96	0.44
31:DH:31:VAL:N	31:DH:32:PRO:CD	2.81	0.44
1:CA:1387:G:C4	1:CA:1388:C:C5	3.06	0.44
1:AA:293:G:N3	1:AA:293:G:H2'	2.33	0.44
1:CA:953:G:N3	1:CA:1229:A:C2	2.86	0.44
24:DA:2549:G:HO2'	24:DA:2550:G:P	2.41	0.44
24:BA:1753:G:H2'	24:BA:1755:A:OP2	2.17	0.44
2:AB:17:GLY:N	2:AB:41:ILE:HD13	2.33	0.44
2:AB:207:ILE:HD13	2:AB:207:ILE:N	2.33	0.44
24:BA:121:G:H4'	24:BA:148:U:H2'	2.00	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BC:225:ASN:ND2	59:BC:402:HOH:O	2.50	0.44
47:DX:7:THR:HG21	47:DX:9:LYS:CD	2.46	0.44
1:AA:1531:A:N6	1:AA:1532:U:C4	2.86	0.44
1:AA:1008:U:N3	1:AA:1021:A:N6	2.66	0.44
10:AJ:23:ALA:O	10:AJ:24:GLU:C	2.56	0.44
1:CA:1464:U:C2	1:CA:1465:A:C8	3.06	0.44
1:AA:692:U:C2	1:AA:694:A:OP2	2.71	0.44
48:DY:30:MET:CG	48:DY:31:GLN:N	2.81	0.44
20:AT:43:ASP:O	20:AT:47:ALA:HB2	2.17	0.44
1:CA:604:G:H2'	1:CA:605:U:O4'	2.17	0.44
24:DA:388:G:N7	24:DA:390:U:H2'	2.32	0.44
6:AF:10:VAL:CG2	6:AF:21:MET:HE2	2.48	0.44
3:CC:150:LYS:HB3	3:CC:201:TRP:HB2	1.99	0.44
24:DA:467:G:OP1	52:D2:33:ARG:HD2	2.18	0.44
24:DA:929:U:C4	24:DA:930:G:N7	2.86	0.44
26:BC:103:ILE:N	26:BC:103:ILE:HD12	2.33	0.44
4:AD:107:PHE:CD1	4:AD:155:VAL:HG11	2.52	0.44
26:DC:57:HIS:HD2	26:DC:58:LYS:O	2.01	0.44
24:BA:1084:A:C8	24:BA:1085:A:N7	2.85	0.44
1:CA:594:U:C2	1:CA:595:A:C2	3.06	0.44
7:AG:92:ARG:O	7:AG:93:PRO:O	2.36	0.44
29:BF:37:MET:SD	29:BF:56:LEU:HD22	2.57	0.44
25:DB:47:C:C4	25:DB:48:U:C5	3.06	0.44
2:CB:75:ALA:O	2:CB:76:ALA:HB3	2.18	0.44
28:DE:150:THR:C	28:DE:192:ALA:HB2	2.38	0.44
24:DA:27:G:C2	24:DA:512:G:N3	2.86	0.44
15:AO:27:VAL:CG1	15:AO:28:GLN:N	2.81	0.44
27:DD:8:LYS:HE3	27:DD:193:VAL:CG2	2.48	0.44
24:DA:1633:G:C6	24:DA:1635:A:C5	3.06	0.44
3:AC:154:SER:HA	3:AC:165:THR:HA	2.00	0.44
24:BA:1975:G:C2	24:BA:1976:U:C2	3.06	0.44
1:CA:1041:G:C6	1:CA:1042:A:C6	3.06	0.44
2:CB:120:GLN:HA	2:CB:123:ASP:O	2.17	0.44
24:DA:1841:U:N3	24:DA:1842:G:N7	2.66	0.44
5:CE:151:GLU:CG	5:CE:152:MET:N	2.80	0.44
21:CU:5:LYS:O	21:CU:5:LYS:HD3	2.17	0.44
26:DC:74:PRO:HB2	26:DC:96:LYS:CE	2.47	0.44
24:DA:672:C:C5	35:DL:42:SER:HB3	2.53	0.44
24:BA:910:A:H2'	24:BA:911:A:C8	2.53	0.44
31:DH:98:ASP:C	31:DH:100:ALA:H	2.21	0.44
24:BA:2581:G:C8	24:BA:2610:C:N4	2.85	0.44
10:AJ:5:ARG:NH1	10:AJ:79:PRO:HG3	2.33	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BJ:42:ALA:O	40:BQ:63:ARG:CD	2.66	0.44
36:DM:72:PRO:HB2	36:DM:89:VAL:HG11	2.00	0.44
24:BA:1153:C:C4	24:BA:1154:G:C5	3.06	0.44
24:DA:1048:A:C4	24:DA:1111:A:C2	3.05	0.44
24:DA:843:G:H2'	24:DA:844:A:C8	2.53	0.44
24:BA:745:G:C2'	24:BA:746:U:H5'	2.47	0.44
33:DJ:93:ILE:HG22	33:DJ:97:PRO:HG3	2.00	0.44
7:AG:146:GLU:HG2	7:AG:149:LYS:HE3	2.00	0.44
24:BA:1902:C:C5	24:BA:1903:G:C8	3.06	0.44
24:DA:711:G:H2'	24:DA:712:G:O5'	2.17	0.44
24:BA:2140:G:N2	24:BA:2152:G:C4	2.86	0.44
26:BC:55:GLY:HA3	26:BC:211:ARG:CZ	2.48	0.44
24:DA:1008:A:N6	24:DA:1136:G:C6	2.86	0.44
7:CG:18:PHE:CD2	7:CG:19:GLY:N	2.86	0.44
24:BA:1435:G:C6	24:BA:1436:G:C5	3.06	0.44
38:DO:17:LYS:HE2	38:DO:20:GLU:OE2	2.17	0.44
24:BA:1157:G:OP1	57:BA:3162:NMY:N9	2.51	0.44
31:DH:143:ILE:HG13	31:DH:144:VAL:N	2.32	0.44
1:AA:1226:C:N4	13:AM:103:LYS:HD2	2.32	0.44
1:AA:1342:C:O2'	1:AA:1343:G:H5'	2.18	0.44
1:AA:941:G:C6	1:AA:1343:G:C6	3.06	0.44
1:AA:1371:G:C5	1:AA:1372:U:C4	3.06	0.44
25:BB:43:C:H4'	29:BF:62:GLN:CD	2.38	0.44
24:DA:2280:G:O2'	24:DA:2281:A:H5'	2.18	0.44
24:DA:2427:C:H5''	24:DA:2428:G:OP1	2.17	0.44
24:BA:2232:C:C4	24:BA:2233:U:C4	3.06	0.44
35:BL:62:PRO:HD3	53:B3:26:ALA:CB	2.48	0.44
1:CA:1506:U:O4'	11:CK:128:ARG:CD	2.66	0.44
4:AD:94:LEU:O	4:AD:100:ASN:CB	2.65	0.44
4:AD:92:ALA:O	4:AD:93:LEU:HG	2.17	0.44
5:AE:102:GLY:O	5:AE:103:THR:C	2.57	0.44
8:AH:96:MET:C	8:AH:98:GLY:N	2.68	0.44
1:AA:1078:U:O2'	1:AA:1079:G:H5'	2.18	0.44
31:DH:88:GLY:CA	31:DH:125:THR:OG1	2.65	0.44
1:CA:429:U:O5'	4:CD:9:LEU:CD2	2.65	0.44
4:CD:100:ASN:O	4:CD:102:VAL:N	2.50	0.44
1:CA:582:C:O2	1:CA:582:C:H2'	2.17	0.44
1:CA:730:G:O2'	1:CA:766:A:H5'	2.18	0.44
1:AA:1505:G:H4'	1:AA:1506:U:C5'	2.46	0.44
1:AA:706:A:C6	1:AA:707:U:C5	3.05	0.44
24:BA:1839:G:N3	24:BA:1839:G:H2'	2.32	0.44
1:CA:1299:A:OP2	1:CA:1299:A:H3'	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1309:G:P	13:CM:87:ARG:CZ	3.06	0.44
36:BM:33:LEU:HD21	36:BM:128:THR:HB	2.00	0.44
28:BE:72:SER:C	28:BE:74:LYS:N	2.71	0.44
1:AA:144:G:C2	1:AA:179:A:C2	3.06	0.44
20:AT:71:LYS:O	20:AT:75:HIS:N	2.47	0.44
1:CA:958:A:C6	19:CS:55:ARG:NH1	2.86	0.44
22:CV:10:G:H8	22:CV:10:G:OP1	2.00	0.44
24:BA:1205:A:H3'	24:BA:1206:G:H5'	2.00	0.44
4:AD:13:ARG:HB2	4:AD:33:LYS:HD3	2.00	0.44
24:BA:108:G:N1	24:BA:109:C:C2	2.86	0.44
1:CA:1277:C:H2'	1:CA:1279:G:C8	2.53	0.44
24:DA:1651:G:N2	24:DA:2007:U:C2	2.86	0.44
24:DA:1652:A:C2	24:DA:2006:C:C2	3.06	0.44
15:CO:12:VAL:HG23	15:CO:13:SER:N	2.33	0.44
24:BA:2284:A:O3'	51:B1:5:ARG:NH1	2.51	0.44
1:CA:324:G:N2	1:CA:326:G:H3'	2.33	0.44
1:CA:394:G:H2'	1:CA:394:G:N3	2.33	0.44
24:DA:1801:A:N7	24:DA:2203:U:C5	2.86	0.44
24:BA:611:C:C6	24:BA:612:G:N7	2.86	0.44
1:CA:981:U:OP1	14:CN:8:ARG:NH2	2.47	0.44
24:BA:1372:U:O2	24:BA:1372:U:H2'	2.18	0.44
38:DO:111:ARG:O	38:DO:112:GLU:C	2.56	0.44
8:CH:113:ASP:CG	8:CH:114:ARG:N	2.71	0.44
8:CH:115:ALA:HA	8:CH:118:GLN:CB	2.48	0.44
24:BA:2259:U:C5	24:BA:2427:C:C4	3.05	0.44
1:CA:470:C:N3	1:CA:471:U:C4	2.85	0.44
21:AU:24:GLU:O	21:AU:25:LYS:CB	2.64	0.44
14:AN:3:GLN:HA	14:AN:6:LYS:HE2	1.99	0.44
24:BA:1392:A:C5	24:BA:1393:A:N6	2.86	0.44
1:AA:1465:A:N7	1:AA:1466:C:C4	2.86	0.44
1:AA:862:C:H1'	1:AA:874:G:C5'	2.48	0.44
24:BA:459:U:OP1	52:B2:39:ARG:HA	2.18	0.44
1:AA:218:U:C4	1:AA:219:U:C4	3.06	0.44
7:CG:96:ARG:HA	7:CG:99:LEU:HD23	1.99	0.44
1:AA:845:A:N3	1:AA:845:A:H2'	2.33	0.44
29:DF:44:ALA:C	29:DF:48:LEU:HD21	2.38	0.44
6:AF:38:ARG:HB2	6:AF:63:ASN:CG	2.38	0.44
18:CR:41:PRO:HB3	18:CR:43:ARG:CZ	2.47	0.44
24:BA:2668:G:N3	24:BA:2669:G:C8	2.86	0.44
50:D0:25:THR:HG23	50:D0:26:SER:H	1.83	0.44
1:AA:1428:A:N1	1:AA:1473:G:C6	2.86	0.44
45:DV:43:ASP:O	45:DV:44:HIS:C	2.56	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:111:A:C2	24:DA:112:U:C2	3.06	0.44
24:BA:685:A:OP1	52:B2:15:SER:OG	2.25	0.44
46:BW:24:LYS:HZ1	46:BW:35:SER:HB3	1.80	0.44
24:BA:1531:C:C3'	24:BA:1532:A:O4'	2.65	0.44
4:CD:190:ASP:O	4:CD:191:LEU:O	2.36	0.44
2:AB:10:LEU:HG	2:AB:13:GLY:CA	2.48	0.44
46:DW:50:ASN:C	46:DW:51:VAL:HG12	2.39	0.44
46:DW:80:ILE:HG22	46:DW:81:SER:N	2.32	0.44
26:BC:225:ASN:O	26:BC:226:PRO:C	2.56	0.44
24:BA:91:A:C4'	24:BA:92:U:O5'	2.62	0.44
1:AA:1011:C:H2'	1:AA:1012:A:O4'	2.18	0.44
55:CY:13:MET:HE2	55:CY:131:VAL:HB	2.00	0.44
4:AD:35:GLU:HG3	4:AD:36:GLN:N	2.33	0.44
24:DA:1594:U:H2'	24:DA:1595:C:C6	2.53	0.44
1:CA:631:C:H5''	1:CA:632:U:H5'	1.99	0.44
24:BA:2032:G:H1'	27:BD:150:GLN:OE1	2.17	0.44
24:BA:1734:G:C2	24:BA:1735:A:C4	3.05	0.44
24:BA:209:C:C2'	24:BA:210:C:H5'	2.48	0.44
24:BA:2522:U:O2'	24:BA:2647:U:OP1	2.22	0.44
24:BA:1926:U:H2'	24:BA:1928:A:N7	2.33	0.44
22:CV:2:C:OP2	22:CV:2:C:H2'	2.17	0.44
24:BA:118:A:H8	24:BA:119:A:C8	2.35	0.44
24:DA:630:G:N2	24:DA:634:C:C4	2.85	0.44
43:BT:2:ILE:HA	43:BT:3:ARG:HB2	1.99	0.44
1:CA:1394:A:C5	1:CA:1501:C:H4'	2.52	0.44
26:BC:30:ALA:N	26:BC:31:PRO:HD2	2.33	0.44
24:DA:773:U:C4'	26:DC:46:GLY:HA3	2.48	0.44
1:AA:237:G:C6	1:AA:238:A:C5	3.06	0.44
7:AG:30:LEU:HD23	7:AG:30:LEU:O	2.18	0.44
42:DS:54:ALA:HB2	42:DS:105:VAL:CG1	2.47	0.44
24:DA:2089:C:C2	24:DA:2090:A:C8	3.06	0.44
24:BA:1945:G:C4	24:BA:1946:U:C5	3.06	0.44
1:AA:196:A:H5''	1:AA:197:A:OP1	2.17	0.44
30:BG:144:ALA:O	30:BG:147:LEU:HD11	2.17	0.44
39:DP:45:VAL:O	39:DP:47:ILE:HG23	2.18	0.44
55:CY:11:VAL:HG22	55:CY:12:ARG:N	2.32	0.44
34:BK:113:MET:HA	34:BK:116:ILE:HD12	1.98	0.44
2:CB:36:ASN:O	2:CB:37:LYS:HB3	2.17	0.44
24:BA:2670:A:C2	24:BA:2671:G:C8	3.05	0.44
24:DA:648:G:O2'	24:DA:2351:G:OP1	2.23	0.44
24:DA:1680:U:C4	24:DA:1681:G:C6	3.06	0.44
33:BJ:74:TYR:N	33:BJ:74:TYR:CD1	2.85	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DH:60:GLU:O	31:DH:64:ALA:CB	2.65	0.44
24:DA:426:C:H2'	24:DA:427:U:O4'	2.18	0.44
24:BA:823:C:O2'	24:BA:824:U:H5'	2.17	0.44
38:DO:68:LYS:O	38:DO:71:ALA:HB3	2.18	0.44
1:AA:731:G:O2'	1:AA:732:C:H5'	2.18	0.44
55:CY:27:ILE:HD11	55:CY:178:LYS:NZ	2.33	0.44
10:CJ:93:ALA:HB1	10:CJ:96:VAL:HG11	1.99	0.44
34:DK:34:GLY:O	34:DK:62:VAL:CG2	2.66	0.44
24:BA:301:G:H5'	24:BA:334:C:O2'	2.17	0.44
24:DA:2816:G:H4'	37:DN:99:LYS:HE3	1.98	0.44
18:CR:60:LYS:HA	18:CR:63:ARG:HD2	1.99	0.44
26:DC:173:LEU:HD22	26:DC:181:ARG:O	2.17	0.44
15:CO:64:ARG:NH1	15:CO:64:ARG:HG3	2.33	0.44
26:BC:211:ARG:HD2	26:BC:211:ARG:O	2.17	0.44
40:BQ:42:GLY:HA3	41:BR:75:VAL:HG11	2.00	0.44
33:BJ:37:ARG:O	33:BJ:50:THR:HG23	2.18	0.44
1:AA:1392:G:H2'	1:AA:1393:U:O4'	2.18	0.44
29:DF:30:VAL:O	29:DF:30:VAL:HG13	2.18	0.44
30:DG:23:ILE:C	30:DG:23:ILE:HD12	2.39	0.44
24:BA:908:C:H1'	36:BM:70:ASP:OD2	2.17	0.44
2:AB:166:ALA:O	2:AB:168:HIS:N	2.51	0.44
29:BF:96:TRP:CZ2	29:BF:99:PHE:CZ	2.95	0.43
31:DH:93:SER:CB	31:DH:122:LEU:HB2	2.45	0.43
1:AA:1349:A:H2'	1:AA:1349:A:N3	2.33	0.43
19:AS:18:LYS:C	19:AS:19:VAL:CG2	2.87	0.43
51:D1:21:THR:OG1	53:D3:33:THR:HG22	2.17	0.43
24:DA:2259:U:H1'	24:DA:2427:C:C2	2.52	0.43
29:BF:68:LYS:NZ	29:BF:82:TYR:O	2.51	0.43
24:BA:2416:C:C4	24:BA:2417:C:N4	2.85	0.43
24:BA:418:C:H2'	24:BA:419:U:H6	1.83	0.43
2:CB:82:ASP:O	2:CB:83:ALA:C	2.55	0.43
8:AH:16:ASN:HA	8:AH:19:ALA:HB3	2.00	0.43
1:CA:1514:G:C2'	1:CA:1515:G:O5'	2.66	0.43
1:AA:374:A:O4'	1:AA:481:G:N2	2.51	0.43
1:AA:540:G:C5	1:AA:541:G:N7	2.86	0.43
1:AA:619:U:O2	4:AD:130:VAL:HG22	2.17	0.43
5:AE:84:PRO:HD3	5:AE:98:PRO:CD	2.48	0.43
8:AH:125:ILE:O	8:AH:125:ILE:CG1	2.62	0.43
4:CD:163:GLU:HA	4:CD:167:LYS:HE2	1.99	0.43
1:CA:716:A:C6	1:CA:717:U:N3	2.86	0.43
1:CA:738:C:H2'	1:CA:739:C:C6	2.53	0.43
1:AA:708:C:O2	1:AA:709:U:C6	2.70	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1904:G:H1'	24:BA:1927:A:N1	2.33	0.43
1:CA:1237:C:H2'	1:CA:1238:A:OP1	2.18	0.43
1:AA:153:C:C4	1:AA:168:G:O6	2.65	0.43
1:CA:346:G:OP1	34:DK:108:ARG:NH2	2.51	0.43
24:BA:675:A:C8	24:BA:804:A:C6	3.05	0.43
46:DW:11:ARG:CZ	46:DW:11:ARG:HB3	2.48	0.43
19:CS:12:ASP:OD1	19:CS:14:HIS:CD2	2.71	0.43
1:CA:613:C:OP1	4:CD:81:ARG:CZ	2.65	0.43
11:AK:104:GLY:O	11:AK:105:PHE:CG	2.71	0.43
24:BA:1203:U:C5	24:BA:1204:A:C5	3.06	0.43
24:BA:29:U:H2'	24:BA:30:G:C8	2.53	0.43
24:DA:1995:U:H5''	24:DA:1996:C:H2'	1.99	0.43
24:DA:29:U:C2'	24:DA:30:G:H5'	2.48	0.43
41:DR:77:PHE:CE1	41:DR:79:ARG:CG	3.01	0.43
35:DL:38:GLN:C	35:DL:40:SER:H	2.22	0.43
24:BA:108:G:N2	24:BA:109:C:H1'	2.33	0.43
48:BY:46:VAL:O	48:BY:47:ARG:C	2.56	0.43
1:CA:1119:C:O2	1:CA:1155:A:C2	2.71	0.43
24:BA:364:C:N3	24:BA:365:U:C4	2.85	0.43
34:DK:70:ARG:CD	34:DK:76:VAL:CG2	2.95	0.43
1:CA:51:A:O2'	1:CA:116:A:H4'	2.18	0.43
13:AM:6:GLY:O	13:AM:8:ASN:N	2.51	0.43
24:BA:1361:G:C6	24:BA:1362:C:N4	2.86	0.43
24:BA:2350:C:H2'	24:BA:2351:G:O4'	2.18	0.43
2:CB:107:VAL:C	2:CB:109:GLN:N	2.70	0.43
8:CH:89:LYS:HD3	8:CH:90:ASP:CA	2.48	0.43
1:CA:468:A:C2	1:CA:469:C:N3	2.86	0.43
14:AN:2:LYS:HB3	14:AN:5:MET:HB2	2.00	0.43
24:DA:507:A:H4'	24:DA:509:C:C6	2.53	0.43
29:DF:76:PHE:HB2	29:DF:78:ILE:HD11	1.99	0.43
37:BN:81:ASN:O	37:BN:85:PRO:HD2	2.18	0.43
2:CB:135:LEU:O	2:CB:135:LEU:HD12	2.17	0.43
15:CO:28:GLN:O	15:CO:29:VAL:C	2.57	0.43
30:BG:138:GLN:OE1	30:BG:139:VAL:HA	2.18	0.43
7:CG:103:TRP:CZ2	7:CG:133:THR:HG23	2.53	0.43
1:AA:888:G:H4'	1:AA:1488:G:O2'	2.18	0.43
26:BC:43:ASN:O	26:BC:46:GLY:N	2.50	0.43
6:CF:21:MET:O	6:CF:23:GLU:HG3	2.17	0.43
42:BS:17:VAL:HG22	42:BS:76:VAL:HG11	1.98	0.43
1:CA:1114:C:O2	1:CA:1115:U:N1	2.50	0.43
1:AA:147:G:N2	1:AA:176:C:C6	2.86	0.43
1:AA:176:C:O2	1:AA:177:G:C4	2.71	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2668:G:N2	24:BA:2669:G:C4	2.86	0.43
30:DG:124:CYS:O	30:DG:125:PRO:C	2.55	0.43
24:BA:1469:A:C2	24:BA:1470:A:C5	3.06	0.43
24:BA:852:U:H2'	24:BA:853:C:O4'	2.18	0.43
49:BZ:22:THR:HG21	49:BZ:50:VAL:CG1	2.48	0.43
24:DA:139:U:O4	43:DT:2:ILE:HG13	2.16	0.43
24:DA:58:G:OP1	43:DT:78:SER:CB	2.66	0.43
25:BB:22:U:H2'	25:BB:23:G:C8	2.53	0.43
6:CF:37:HIS:O	6:CF:96:VAL:O	2.36	0.43
24:BA:1515:A:H3'	24:BA:1516:G:H8	1.83	0.43
37:DN:65:LEU:O	37:DN:66:ALA:C	2.56	0.43
24:BA:1287:A:C5	24:BA:1288:G:C6	3.06	0.43
24:BA:1528:A:N6	24:BA:1543:G:O2'	2.51	0.43
35:BL:73:ILE:C	35:BL:74:THR:HG22	2.38	0.43
18:AR:34:THR:CG2	18:AR:38:LYS:HB3	2.48	0.43
35:DL:111:ILE:CD1	35:DL:111:ILE:N	2.81	0.43
24:DA:1606:C:O4'	24:DA:1608:A:C2	2.71	0.43
1:CA:604:G:C2	1:CA:635:A:N3	2.86	0.43
38:DO:78:VAL:O	38:DO:82:ALA:CB	2.65	0.43
24:BA:1144:A:C2'	24:BA:1145:C:O5'	2.66	0.43
49:DZ:2:LYS:O	49:DZ:3:THR:C	2.56	0.43
29:DF:105:ILE:O	29:DF:108:PRO:HD2	2.17	0.43
24:DA:18:U:OP1	40:DQ:29:ARG:NH2	2.51	0.43
1:AA:484:G:H4'	1:AA:485:U:C5'	2.48	0.43
1:AA:799:G:O2'	1:AA:800:G:H5'	2.18	0.43
31:BH:114:GLU:OE1	31:BH:133:GLN:C	2.56	0.43
24:BA:1218:G:N1	24:BA:1232:G:C5	2.85	0.43
22:AV:49:C:H2'	22:AV:50:U:C6	2.53	0.43
27:BD:178:VAL:HG22	27:BD:188:LEU:HB2	1.99	0.43
24:BA:2405:G:OP1	35:BL:70:LYS:CE	2.66	0.43
24:DA:2303:G:C6	24:DA:2304:G:C8	3.06	0.43
24:BA:2185:U:H2'	24:BA:2186:G:H5'	2.01	0.43
24:DA:1533:C:N3	24:DA:1538:G:N2	2.62	0.43
1:AA:807:A:C5	1:AA:808:C:C5	3.07	0.43
3:CC:152:GLU:CB	3:CC:167:TRP:CB	2.96	0.43
16:CP:14:ARG:N	16:CP:15:PRO:HD3	2.33	0.43
6:CF:88:MET:HE2	6:CF:90:MET:HE1	2.00	0.43
24:DA:381:G:OP1	47:DX:17:ARG:NH2	2.49	0.43
31:DH:98:ASP:C	31:DH:100:ALA:N	2.71	0.43
1:AA:1114:C:O2	1:AA:1186:G:N2	2.46	0.43
24:DA:646:U:H5'	24:DA:647:G:H5''	2.00	0.43
1:AA:1229:A:C2	1:AA:1230:C:N3	2.86	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1218:G:C6	24:DA:1219:U:C4	3.06	0.43
24:DA:2790:U:C4'	24:DA:2791:G:OP1	2.66	0.43
55:CY:56:SER:O	55:CY:58:THR:HG23	2.17	0.43
5:AE:21:VAL:O	5:AE:31:PHE:HB3	2.18	0.43
24:DA:1298:C:C2	24:DA:1643:G:N2	2.86	0.43
24:DA:1225:G:N1	24:DA:1226:A:N1	2.66	0.43
40:BQ:80:ASN:O	40:BQ:84:LYS:HB2	2.17	0.43
1:CA:1194:U:C5	1:CA:1195:C:N4	2.86	0.43
24:DA:875:G:O2'	24:DA:876:C:H5'	2.18	0.43
26:BC:55:GLY:HA3	26:BC:211:ARG:NH2	2.33	0.43
1:AA:824:G:O4'	8:AH:2:SER:N	2.51	0.43
5:CE:107:ALA:HB3	5:CE:112:ARG:HA	2.00	0.43
32:BI:60:VAL:HB	32:BI:66:PHE:CE2	2.53	0.43
32:BI:129:GLU:O	32:BI:133:ARG:N	2.50	0.43
33:BJ:17:VAL:CG2	33:BJ:57:LEU:HD11	2.48	0.43
24:BA:718:A:H5''	24:BA:719:C:OP2	2.18	0.43
1:AA:1355:G:N3	1:AA:1355:G:H2'	2.32	0.43
25:BB:45:A:N1	25:BB:46:A:C2	2.86	0.43
29:BF:27:VAL:O	29:BF:29:ARG:N	2.50	0.43
24:DA:2428:G:H5''	24:DA:2429:G:O5'	2.18	0.43
24:DA:1378:A:C8	24:DA:1380:G:C5	3.05	0.43
24:BA:2413:G:C2	24:BA:2414:G:C8	3.06	0.43
24:BA:2417:C:O2'	24:BA:2418:A:H5'	2.18	0.43
8:AH:15:ARG:HG3	8:AH:16:ASN:N	2.34	0.43
1:AA:258:G:C6	1:AA:269:C:C2	3.06	0.43
1:CA:706:A:C6	1:CA:707:U:C4	3.06	0.43
1:AA:392:C:O2'	1:AA:482:A:H2	2.01	0.43
4:AD:125:VAL:HG22	4:AD:126:ASN:N	2.32	0.43
31:DH:146:VAL:HG22	31:DH:147:VAL:H	1.84	0.43
1:CA:406:G:C2	1:CA:407:U:C5	3.07	0.43
1:CA:412:A:H4'	1:CA:413:G:C5'	2.48	0.43
4:CD:59:GLN:HA	4:CD:62:ARG:HG2	2.00	0.43
1:CA:585:G:C2	1:CA:757:U:O2	2.71	0.43
2:AB:70:VAL:HA	2:AB:92:VAL:O	2.18	0.43
3:AC:172:ARG:O	3:AC:203:PHE:CD2	2.71	0.43
24:BA:830:G:H4'	24:BA:831:G:OP2	2.17	0.43
1:AA:927:G:C6	1:AA:928:G:N7	2.86	0.43
55:CY:149:SER:O	55:CY:152:ASP:N	2.51	0.43
48:BY:49:ASP:HA	48:BY:52:ARG:CG	2.48	0.43
16:CP:66:THR:C	16:CP:67:ILE:CG1	2.86	0.43
9:CI:79:ILE:C	9:CI:81:HIS:N	2.69	0.43
4:CD:58:LYS:HD3	4:CD:203:LEU:HD13	1.96	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1033:G:H2'	1:AA:1034:G:H5'	2.00	0.43
15:CO:11:ILE:HD12	15:CO:12:VAL:CA	2.47	0.43
1:CA:354:G:C2	1:CA:355:C:C6	3.07	0.43
1:CA:369:G:C2	1:CA:393:A:C4	3.06	0.43
1:CA:55:A:C5	1:CA:56:U:C5	3.07	0.43
24:DA:1999:C:H5''	24:DA:2723:C:O2'	2.17	0.43
13:AM:2:ALA:CA	13:AM:9:ILE:HD12	2.48	0.43
24:DA:1870:C:H5''	24:DA:1871:A:C5	2.53	0.43
1:CA:1072:G:C5	1:CA:1073:U:C4	3.06	0.43
1:CA:1082:A:P	5:CE:23:LYS:HZ3	2.40	0.43
29:BF:129:MET:N	29:BF:129:MET:CE	2.82	0.43
35:BL:78:ARG:HG3	35:BL:80:SER:OG	2.18	0.43
1:AA:996:A:C2	1:AA:1046:A:H5'	2.52	0.43
1:AA:1048:G:C2	1:AA:1050:G:C5	3.06	0.43
28:BE:82:GLY:O	28:BE:84:THR:CA	2.65	0.43
37:BN:75:ILE:O	37:BN:79:LEU:HD13	2.18	0.43
39:BP:83:ILE:HD12	39:BP:83:ILE:N	2.33	0.43
1:CA:520:A:N1	1:CA:536:C:H1'	2.33	0.43
30:BG:82:PHE:O	30:BG:133:LYS:HA	2.18	0.43
1:CA:749:A:C2	1:CA:750:C:C2	3.06	0.43
37:DN:56:LYS:NZ	37:DN:87:PHE:O	2.45	0.43
7:CG:69:VAL:HG22	7:CG:70:ARG:N	2.33	0.43
18:AR:55:LEU:O	18:AR:55:LEU:CG	2.66	0.43
25:DB:77:U:C6	45:DV:14:LYS:NZ	2.84	0.43
24:BA:1168:G:H2'	24:BA:1169:A:C8	2.53	0.43
24:BA:1413:A:N1	24:BA:1590:A:C2	2.86	0.43
1:CA:773:G:C2	1:CA:774:G:H1'	2.54	0.43
24:BA:1115:G:HO2'	24:BA:1116:G:P	2.31	0.43
28:BE:194:LYS:HA	28:BE:194:LYS:HD2	1.87	0.43
1:AA:1515:G:C4	1:AA:1516:G:C8	3.06	0.43
27:BD:170:VAL:HG13	27:BD:194:PRO:HB3	2.00	0.43
25:BB:57:A:C1'	29:BF:26:GLN:CD	2.86	0.43
1:CA:1192:C:C2'	1:CA:1193:G:O5'	2.67	0.43
1:AA:378:G:N1	1:AA:386:C:C2	2.85	0.43
1:AA:530:G:OP1	1:AA:531:U:H5'	2.17	0.43
16:CP:32:PHE:HD1	16:CP:33:ILE:N	2.16	0.43
26:BC:52:HIS:HB3	26:BC:218:THR:HG23	2.00	0.43
2:CB:152:LYS:CG	2:CB:153:ASP:N	2.80	0.43
4:CD:17:THR:O	4:CD:18:ASP:HB3	2.18	0.43
24:DA:1489:C:C6	24:DA:1489:C:H3'	2.53	0.43
1:CA:1412:C:H2'	1:CA:1413:A:H8	1.81	0.43
20:CT:55:GLN:O	20:CT:56:PRO:C	2.52	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1270:G:H4'	1:AA:1314:C:H5'	2.00	0.43
1:CA:604:G:C6	1:CA:605:U:C4	3.07	0.43
33:DJ:110:PRO:CD	33:DJ:118:MET:CE	2.95	0.43
18:CR:47:THR:O	18:CR:48:ARG:C	2.56	0.43
55:CY:119:GLY:O	55:CY:120:GLU:C	2.55	0.43
24:BA:127:A:OP2	52:B2:46:LYS:HE3	2.18	0.43
33:BJ:24:THR:O	33:BJ:25:LEU:C	2.57	0.43
24:DA:1794:A:C1'	24:DA:1900:A:C2	3.00	0.43
24:DA:80:G:C2	24:DA:81:G:N9	2.86	0.43
14:CN:93:ILE:CG2	14:CN:96:LEU:HG	2.48	0.43
34:BK:34:GLY:O	34:BK:37:ASP:OD1	2.36	0.43
24:BA:1675:C:H2'	24:BA:1676:A:O4'	2.18	0.43
25:BB:14:U:O4'	25:BB:106:G:N2	2.52	0.43
25:BB:73:A:H3'	25:BB:74:U:C6	2.53	0.43
26:BC:141:HIS:HB3	26:BC:194:VAL:CG1	2.45	0.43
25:BB:75:G:O4'	45:BV:29:ILE:HD12	2.18	0.43
24:DA:1024:G:O6	24:DA:1025:G:N1	2.51	0.43
24:BA:777:G:H2'	24:BA:778:G:O4'	2.18	0.43
24:BA:1622:G:C2	24:BA:1623:G:C8	3.05	0.43
37:BN:47:VAL:C	37:BN:50:PRO:HD2	2.39	0.43
24:BA:1931:U:O4	24:BA:1969:A:C8	2.70	0.43
24:DA:1566:A:O2'	24:DA:1567:G:H5'	2.18	0.43
1:CA:1035:A:N6	1:CA:1036:A:N6	2.66	0.43
24:DA:597:G:C5	24:DA:598:U:C5	3.06	0.43
24:BA:2807:U:O2	24:BA:2892:G:C2	2.71	0.43
32:DI:56:VAL:HG13	32:DI:57:VAL:N	2.32	0.43
25:DB:46:A:C6	25:DB:47:C:N3	2.86	0.43
24:BA:1069:A:C6	24:BA:1073:A:N6	2.86	0.43
10:AJ:50:THR:HG22	10:AJ:64:GLN:OE1	2.18	0.43
15:CO:82:ILE:C	15:CO:84:ARG:N	2.70	0.43
49:DZ:6:ILE:CG2	49:DZ:54:VAL:HG21	2.48	0.43
1:AA:1499:A:O2'	1:AA:1500:A:H5'	2.18	0.43
3:CC:97:VAL:HG22	3:CC:98:PRO:HD2	2.00	0.43
24:DA:830:G:C4	24:DA:2448:A:C5	3.06	0.43
24:BA:2104:C:C5	24:BA:2105:U:C4	3.05	0.43
24:DA:1532:A:C2	24:DA:1533:C:N1	2.85	0.43
40:DQ:45:ALA:O	40:DQ:49:ARG:HG3	2.18	0.43
24:BA:1248:G:C8	40:BQ:2:ARG:HB2	2.54	0.43
39:DP:85:VAL:O	39:DP:85:VAL:HG22	2.18	0.43
2:AB:123:ASP:O	2:AB:124:GLY:C	2.55	0.43
34:DK:57:VAL:O	34:DK:58:LEU:HB3	2.18	0.43
2:AB:104:TRP:O	2:AB:107:VAL:N	2.51	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:AP:60:TRP:O	16:AP:63:GLN:N	2.50	0.43
11:AK:60:PRO:HB2	11:AK:95:SER:CB	2.48	0.43
11:AK:98:ARG:O	11:AK:102:ALA:HB2	2.18	0.43
51:B1:12:SER:CA	51:B1:48:TYR:CE2	3.01	0.43
35:BL:132:ARG:CG	35:BL:142:ILE:HD13	2.48	0.43
24:DA:2262:U:H2'	24:DA:2263:C:C6	2.53	0.43
46:BW:55:ARG:O	46:BW:55:ARG:HG3	2.17	0.43
24:BA:2644:G:N7	24:BA:2645:G:N1	2.67	0.43
43:BT:39:THR:CG2	43:BT:42:GLU:HB3	2.48	0.43
26:BC:66:PHE:CD2	26:BC:155:ARG:NH2	2.86	0.43
1:AA:568:G:C2'	1:AA:569:C:H5'	2.48	0.43
1:AA:1399:C:C2	1:AA:1401:G:C5	3.06	0.43
24:BA:2306:C:O2	29:BF:149:ARG:NH1	2.50	0.43
1:AA:953:G:C6	1:AA:954:G:C4	3.05	0.43
1:CA:1006:G:H2'	1:CA:1007:U:C6	2.53	0.43
24:DA:125:A:C6	52:D2:10:LEU:HD13	2.53	0.43
24:BA:248:G:N3	24:BA:2431:U:H4'	2.32	0.43
26:DC:48:ILE:C	26:DC:48:ILE:HD12	2.38	0.43
38:DO:63:LYS:N	38:DO:63:LYS:CD	2.81	0.43
12:AL:47:SER:O	12:AL:48:ALA:HB2	2.19	0.43
57:BA:3162:NMY:O21	57:BA:3162:NMY:N19	2.52	0.43
24:DA:1838:C:H4'	24:DA:1839:G:N7	2.33	0.43
1:AA:1363:A:C5	1:AA:1365:G:C5	3.07	0.43
9:AI:107:ASP:OD2	9:AI:109:ARG:HB2	2.19	0.43
19:AS:16:LEU:HD12	19:AS:17:LYS:N	2.33	0.43
24:BA:2295:C:OP2	38:BO:10:ARG:NH1	2.51	0.43
25:BB:43:C:H2'	29:BF:91:ARG:HE	1.82	0.43
14:AN:27:LYS:CA	14:AN:30:ILE:HB	2.48	0.43
53:B3:30:HIS:CA	53:B3:32:LEU:HD13	2.48	0.43
8:AH:39:VAL:HG12	8:AH:40:LEU:H	1.83	0.43
1:AA:255:G:H2'	1:AA:256:U:C6	2.54	0.43
11:CK:86:VAL:O	11:CK:113:VAL:N	2.44	0.43
1:AA:419:C:C4	1:AA:420:U:C5	3.07	0.43
1:AA:15:G:H5'	1:AA:1396:A:O2'	2.18	0.43
1:AA:779:C:C2'	1:AA:780:A:H5'	2.48	0.43
1:CA:1310:G:N2	1:CA:1328:C:C2	2.86	0.43
24:BA:1722:A:H2'	24:BA:1723:G:C8	2.53	0.43
24:BA:569:U:O2	24:BA:947:A:H4'	2.19	0.43
9:AI:28:ILE:HG12	9:AI:35:LEU:HD22	2.00	0.43
36:BM:10:ARG:CZ	36:BM:11:LYS:NZ	2.81	0.43
22:CV:24:G:C5	22:CV:25:C:C5	3.07	0.43
24:BA:2114:A:N6	24:BA:2115:G:N3	2.66	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:BA:3163:NMY:H172	57:BA:3163:NMY:H2	1.99	0.43
24:BA:511:U:H2'	24:BA:512:G:H5'	1.98	0.43
24:BA:77:G:OP1	48:BY:52:ARG:NH1	2.50	0.43
7:CG:141:VAL:O	7:CG:145:ALA:N	2.51	0.43
12:CL:63:VAL:CG1	12:CL:64:THR:N	2.76	0.43
12:CL:82:ILE:CG2	12:CL:95:TYR:CE1	2.99	0.43
15:CO:9:ALA:HB3	15:CO:10:LYS:HD3	2.00	0.43
1:CA:109:A:C8	1:CA:326:G:H2'	2.53	0.43
24:BA:1453:A:N3	37:BN:77:ALA:HB2	2.33	0.43
13:AM:34:LEU:CD2	13:AM:39:ILE:HG21	2.49	0.43
1:CA:1048:G:P	14:CN:3:GLN:HG2	2.59	0.43
24:DA:2732:G:OP1	27:DD:208:LYS:HE2	2.18	0.43
44:BU:38:ILE:HG23	44:BU:39:ASN:H	1.83	0.43
1:CA:16:A:H2'	1:CA:17:U:C5'	2.48	0.43
1:CA:17:U:O2	1:CA:18:C:C2	2.72	0.43
55:CY:165:ASP:O	55:CY:168:ILE:N	2.51	0.43
3:AC:59:ARG:HA	3:AC:64:ILE:HG22	2.00	0.43
24:DA:310:A:O2'	24:DA:311:A:P	2.76	0.43
1:CA:843:U:OP1	1:CA:846:G:N1	2.50	0.43
24:BA:460:A:OP2	52:B2:41:ARG:NH1	2.50	0.43
26:BC:62:ARG:NH1	26:BC:83:ASP:CG	2.72	0.43
24:DA:1337:G:C2'	24:DA:1338:G:H5'	2.49	0.43
1:CA:520:A:N7	1:CA:521:G:C8	2.86	0.43
24:BA:2757:A:C2	24:BA:2758:A:N7	2.86	0.43
26:BC:184:GLU:O	26:BC:187:CYS:SG	2.74	0.43
1:CA:1345:U:C4	1:CA:1377:A:C2	3.06	0.43
7:CG:92:ARG:O	7:CG:96:ARG:HB2	2.17	0.43
24:DA:2482:A:N3	36:DM:51:ARG:NH2	2.66	0.43
24:DA:2483:C:O3'	36:DM:44:ARG:CZ	2.66	0.43
25:BB:98:G:O6	45:BV:14:LYS:N	2.52	0.43
4:AD:192:SER:OG	6:CF:16:GLU:CB	2.67	0.43
24:BA:2094:A:C2	24:BA:2196:C:H1'	2.54	0.43
24:BA:2199:A:H2'	24:BA:2200:C:O5'	2.18	0.43
24:BA:1176:U:C2	24:BA:1177:G:C6	3.07	0.43
24:BA:1266:G:N7	42:BS:16:LYS:HE2	2.33	0.43
32:DI:129:GLU:HG3	32:DI:130:GLY:N	2.33	0.43
24:DA:673:C:H4'	28:DE:77:ILE:HD13	2.00	0.43
42:DS:29:VAL:O	42:DS:30:SER:C	2.56	0.43
1:AA:1446:A:N3	1:AA:1446:A:C2'	2.79	0.43
26:DC:157:ALA:O	26:DC:158:GLY:C	2.56	0.43
24:BA:2027:G:C4	24:BA:2028:U:C5	3.06	0.43
1:CA:340:U:O2'	1:CA:341:C:H5'	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:AU:40:LYS:N	21:AU:41:PRO:CD	2.81	0.43
51:D1:10:LEU:HD21	51:D1:33:LEU:HD21	2.00	0.43
1:CA:1110:A:H2'	1:CA:1111:A:C8	2.54	0.43
49:BZ:22:THR:O	49:BZ:25:GLY:N	2.50	0.43
31:DH:134:VAL:CG1	31:DH:135:HIS:N	2.82	0.43
24:DA:135:U:O2'	24:DA:136:G:H5'	2.18	0.43
31:DH:29:PHE:O	31:DH:33:GLN:NE2	2.52	0.43
31:DH:33:GLN:O	31:DH:34:GLY:C	2.56	0.43
46:BW:24:LYS:CE	46:BW:36:ILE:O	2.66	0.43
1:AA:293:G:C6	1:AA:294:U:C4	3.06	0.43
1:CA:1228:C:OP1	13:CM:115:PRO:HG2	2.18	0.43
39:BP:39:LEU:HD23	39:BP:39:LEU:C	2.39	0.43
24:DA:2195:U:C4	24:DA:2196:C:C5	3.06	0.43
1:AA:527:G:C6	1:AA:528:C:C5	3.06	0.43
46:DW:50:ASN:O	46:DW:50:ASN:OD1	2.36	0.43
3:CC:193:TYR:C	3:CC:193:TYR:CD1	2.91	0.43
1:AA:532:A:C2	1:AA:1207:G:C4'	2.99	0.43
34:BK:103:VAL:HG22	34:BK:104:THR:N	2.34	0.43
1:AA:491:G:N3	1:AA:491:G:H2'	2.32	0.43
1:CA:608:A:C6	1:CA:609:A:C5	3.06	0.43
24:BA:1802:A:HO2'	24:BA:1803:A:P	2.40	0.43
24:DA:354:A:C6	24:DA:355:U:N3	2.87	0.43
54:B4:2:LYS:O	54:B4:35:GLN:HA	2.18	0.43
38:DO:76:LYS:O	38:DO:79:ALA:N	2.42	0.43
55:CY:20:PHE:CD1	55:CY:21:LYS:N	2.87	0.43
52:B2:9:VAL:O	52:B2:13:ASN:OD1	2.36	0.43
50:B0:39:ARG:O	50:B0:40:HIS:C	2.57	0.43
1:AA:794:A:C6	1:AA:795:C:C4	3.06	0.43
24:BA:1733:G:C6	24:BA:1734:G:C5	3.06	0.43
1:AA:1153:G:C2'	1:AA:1154:G:O5'	2.65	0.43
24:DA:638:G:H2'	24:DA:639:U:O4'	2.18	0.43
45:BV:77:VAL:HG23	45:BV:89:ILE:HG23	1.99	0.43
24:BA:2861:U:C2	24:BA:2862:G:N7	2.87	0.43
24:DA:68:G:H2'	24:DA:69:C:O4'	2.18	0.43
48:DY:18:LEU:CD1	48:DY:22:LEU:HD12	2.47	0.43
24:BA:1100:C:H2'	24:BA:1101:U:O4'	2.18	0.43
1:CA:1005:A:N6	1:CA:1024:G:O2'	2.51	0.43
1:AA:1261:A:C5	1:AA:1275:A:C2	3.07	0.43
24:DA:2104:C:H5''	24:DA:2105:U:P	2.58	0.43
24:DA:260:G:C6	24:DA:261:G:C8	3.06	0.43
26:BC:224:MET:O	26:BC:232:GLY:CA	2.65	0.43
24:DA:581:C:H2'	24:DA:582:A:H8	1.83	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:840:C:O2'	24:BA:841:G:H5'	2.18	0.43
24:DA:579:G:H4'	24:DA:2017:U:H2'	1.98	0.43
24:DA:1442:U:H2'	24:DA:1443:U:C6	2.53	0.43
7:AG:142:HIS:C	7:AG:142:HIS:ND1	2.71	0.43
1:CA:1261:A:N6	1:CA:1275:A:C8	2.86	0.43
24:BA:681:G:C4	24:BA:682:G:C8	3.05	0.43
37:BN:12:ARG:HD3	37:BN:16:HIS:CD2	2.53	0.43
41:DR:72:VAL:CG2	41:DR:72:VAL:O	2.67	0.43
24:DA:497:A:H2'	24:DA:498:G:O4'	2.18	0.43
24:BA:515:A:H2'	24:BA:516:C:H5'	2.00	0.43
33:DJ:29:ALA:HB3	33:DJ:108:MET:HE1	2.00	0.43
17:CQ:59:VAL:HG12	17:CQ:60:GLU:O	2.18	0.43
24:DA:2903:U:O4'	24:DA:2903:U:O2	2.35	0.43
24:DA:2248:C:C2'	24:DA:2249:U:H5'	2.47	0.43
24:DA:2249:U:H4'	24:DA:2275:C:C5	2.54	0.43
45:DV:65:VAL:C	45:DV:67:GLY:N	2.70	0.43
3:AC:186:THR:HG22	3:AC:187:SER:N	2.33	0.43
24:DA:2744:G:H2'	24:DA:2745:C:H5'	1.98	0.43
30:BG:10:VAL:HG23	30:BG:14:VAL:CG1	2.48	0.43
14:AN:32:ASP:O	14:AN:33:VAL:C	2.56	0.43
31:BH:48:GLU:O	31:BH:51:ARG:HG2	2.18	0.43
26:DC:164:VAL:HG12	26:DC:172:THR:O	2.19	0.43
7:CG:13:LEU:HD12	7:CG:15:ASP:N	2.33	0.43
24:DA:1038:G:H2'	24:DA:1039:A:C8	2.53	0.43
35:DL:118:THR:O	35:DL:120:VAL:HG12	2.18	0.43
45:DV:77:VAL:CG2	45:DV:78:GLN:N	2.81	0.43
46:DW:62:LYS:O	46:DW:63:ALA:HB2	2.18	0.43
24:BA:1293:C:C4	24:BA:1294:U:C5	3.05	0.43
2:AB:98:GLY:C	2:AB:100:MET:N	2.70	0.43
30:BG:145:ALA:O	30:BG:146:ASP:C	2.57	0.43
13:AM:60:VAL:O	13:AM:62:LYS:N	2.51	0.43
50:D0:45:ASP:OD1	50:D0:45:ASP:N	2.51	0.43
42:DS:4:ILE:O	42:DS:4:ILE:HG13	2.17	0.43
24:DA:1926:U:O2	24:DA:1928:A:H3'	2.18	0.43
1:AA:1350:A:N7	9:AI:120:LYS:NZ	2.66	0.43
24:BA:2337:G:C6	24:BA:2338:C:C4	3.06	0.43
25:BB:6:G:C6	25:BB:7:G:C6	3.06	0.43
24:BA:729:G:OP2	26:BC:206:LYS:HE3	2.19	0.43
1:CA:552:U:C2	1:CA:553:A:C8	3.07	0.43
11:CK:57:LYS:CG	11:CK:58:SER:N	2.82	0.43
1:AA:55:A:C2'	1:AA:56:U:H5'	2.48	0.43
1:AA:600:A:C2	1:AA:601:G:C4	3.05	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:600:A:O5'	8:AH:88:ARG:HD2	2.19	0.43
1:AA:8:A:C4'	5:AE:107:ALA:HA	2.48	0.43
4:AD:125:VAL:HG22	4:AD:126:ASN:H	1.83	0.43
4:AD:132:ILE:O	4:AD:132:ILE:HG23	2.18	0.43
1:AA:599:C:P	8:AH:86:TYR:HD2	2.40	0.43
16:AP:7:ALA:CB	16:AP:28:ARG:O	2.67	0.43
1:AA:56:U:N1	31:DH:91:PHE:CE2	2.87	0.43
4:CD:162:ALA:O	4:CD:165:ARG:HG3	2.18	0.43
22:AV:18:G:C6	22:AV:58:A:C6	3.07	0.43
3:AC:2:GLY:O	3:AC:3:GLN:CG	2.67	0.43
13:CM:96:PRO:N	13:CM:109:ARG:CZ	2.82	0.43
13:CM:80:LEU:CA	13:CM:83:LEU:HD21	2.48	0.43
29:DF:59:ILE:HG12	29:DF:137:PHE:CD2	2.52	0.43
24:DA:1419:A:OP1	24:DA:1419:A:C4'	2.62	0.43
2:AB:175:GLU:O	2:AB:179:LEU:HD23	2.17	0.43
9:AI:105:THR:HG23	9:AI:106:ARG:N	2.34	0.43
9:AI:54:LEU:O	9:AI:55:VAL:CG1	2.65	0.43
2:AB:91:PHE:HE1	2:AB:150:GLY:CA	2.31	0.43
15:CO:89:ARG:HD3	24:DA:714:U:C5	2.53	0.43
1:AA:185:U:O2	1:AA:185:U:H2'	2.17	0.43
1:CA:978:A:H4'	1:CA:1322:C:C5	2.54	0.43
1:CA:957:U:O2'	1:CA:958:A:N7	2.50	0.43
19:CS:30:PRO:O	19:CS:49:ILE:CA	2.67	0.43
57:DA:3188:NMY:H2	57:DA:3188:NMY:C17	2.47	0.43
24:DA:1824:G:N3	26:DC:251:THR:HG21	2.33	0.43
55:CY:152:ASP:O	55:CY:155:ARG:CG	2.66	0.43
1:CA:625:U:H6	1:CA:625:U:H3'	1.84	0.43
24:BA:2684:U:OP2	39:BP:50:ARG:NH1	2.51	0.43
1:AA:412:A:O5'	11:CK:16:VAL:CG1	2.67	0.43
24:DA:1362:C:C3'	24:DA:1362:C:C6	3.01	0.43
24:DA:831:G:C5	24:DA:832:U:C5	3.07	0.43
1:CA:1137:C:O4'	1:CA:1138:G:N2	2.52	0.43
1:CA:1256:A:C6	1:CA:1277:C:C4	3.06	0.43
28:BE:8:ALA:O	28:BE:10:SER:CB	2.66	0.43
1:CA:257:G:N7	59:CA:1721:HOH:O	2.37	0.43
14:CN:20:PHE:CD1	14:CN:21:ALA:N	2.87	0.43
14:CN:18:LYS:O	14:CN:22:LYS:CE	2.67	0.43
1:AA:1138:G:O2'	1:AA:1140:C:OP1	2.36	0.43
1:CA:1087:G:H2'	1:CA:1088:G:H5'	2.00	0.43
1:CA:571:U:O2	1:CA:918:A:H5'	2.19	0.43
1:CA:1074:G:H4'	2:CB:102:THR:HG22	1.99	0.43
2:CB:107:VAL:O	2:CB:108:ARG:C	2.56	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:96:TRP:NE1	2:CB:172:ALA:HB2	2.34	0.43
3:AC:57:ILE:O	3:AC:58:GLU:CG	2.67	0.43
44:DU:32:LYS:CE	44:DU:65:GLN:HA	2.48	0.43
46:BW:19:LYS:HG3	46:BW:41:ARG:HH12	1.82	0.43
1:AA:1215:G:C2	1:AA:1216:A:C8	3.06	0.43
30:BG:155:PRO:O	30:BG:170:THR:HG22	2.19	0.43
24:DA:2228:G:OP1	26:DC:260:LYS:HD2	2.18	0.43
29:DF:40:GLY:CA	29:DF:84:ILE:HD11	2.46	0.43
2:AB:20:THR:HG23	2:AB:21:ARG:N	2.33	0.43
40:DQ:80:ASN:HA	40:DQ:83:LYS:CG	2.48	0.43
2:CB:147:SER:O	2:CB:148:LEU:CB	2.66	0.43
24:BA:1070:A:N7	24:BA:1096:A:O3'	2.51	0.43
1:AA:146:G:C2'	1:AA:147:G:H5'	2.48	0.43
24:BA:2834:G:C2'	24:BA:2835:A:H5''	2.49	0.43
1:AA:790:A:C8	1:AA:791:G:N7	2.86	0.43
26:DC:128:THR:CG2	26:DC:190:THR:OG1	2.66	0.43
24:BA:749:A:C5	24:BA:750:A:C8	3.06	0.43
24:DA:137:U:C4	24:DA:140:C:H1'	2.52	0.43
26:BC:50:THR:OG1	26:BC:53:ILE:CD1	2.66	0.43
24:BA:685:A:H4'	24:BA:686:U:O5'	2.17	0.43
1:AA:77:A:H2'	1:AA:78:A:C8	2.54	0.43
1:AA:94:G:O4'	1:AA:95:C:C5	2.71	0.43
6:CF:63:ASN:CB	6:CF:96:VAL:HG23	2.48	0.43
15:AO:57:LEU:HD12	15:AO:58:ARG:N	2.32	0.43
24:DA:2531:A:OP1	30:DG:174:LYS:CE	2.67	0.43
24:DA:2549:G:N2	24:DA:2550:G:C4	2.86	0.43
24:DA:2635:A:C6	24:DA:2636:C:C4	3.06	0.43
3:AC:43:LEU:O	3:AC:45:LYS:N	2.51	0.43
24:BA:121:G:H5''	24:BA:149:A:H5'	2.00	0.43
24:DA:857:G:H2'	24:DA:858:G:O4'	2.18	0.43
1:CA:1053:G:HO2'	1:CA:1199:U:H5	1.66	0.43
40:BQ:71:ASN:CG	40:BQ:109:VAL:HG21	2.39	0.43
24:DA:1600:C:O2'	24:DA:1601:G:H5'	2.18	0.43
24:BA:2307:G:N2	24:BA:2311:A:N7	2.67	0.43
1:AA:786:G:C6	1:AA:787:A:N7	2.86	0.43
24:DA:1815:A:C8	24:DA:1817:G:C4	3.06	0.43
24:DA:2802:G:H2'	24:DA:2803:G:O4'	2.18	0.43
2:CB:133:GLU:O	2:CB:137:ARG:HB3	2.18	0.43
1:AA:448:A:C8	1:AA:487:A:N1	2.86	0.43
4:CD:194:ASP:N	4:CD:194:ASP:OD1	2.49	0.43
24:DA:2415:G:H2'	24:DA:2416:C:H6	1.84	0.43
26:BC:254:LYS:HE3	26:BC:255:LYS:N	2.33	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:116:VAL:CG1	3:CC:117:ALA:N	2.82	0.43
24:DA:929:U:N3	24:DA:930:G:N7	2.66	0.43
50:D0:29:VAL:HA	50:D0:36:LYS:HA	1.99	0.43
24:BA:1668:A:O2'	24:BA:1674:G:C8	2.67	0.43
24:DA:846:U:O2'	24:DA:847:U:C6	2.71	0.43
10:AJ:44:THR:HG22	10:AJ:70:HIS:HA	2.01	0.43
25:BB:75:G:H4'	45:BV:29:ILE:CD1	2.49	0.43
24:BA:945:A:C4	24:BA:2448:A:C2	3.07	0.43
24:BA:273:G:C6	24:BA:274:C:C4	3.06	0.43
12:AL:34:CYS:HA	12:AL:55:VAL:HG23	2.01	0.43
24:BA:2603:G:C4	24:BA:2604:U:C6	3.07	0.43
24:DA:1809:A:C6	24:DA:1810:A:N1	2.87	0.43
6:AF:53:LYS:O	6:AF:54:LEU:HB3	2.19	0.43
24:DA:2780:G:N1	33:DJ:102:GLU:OE2	2.51	0.43
1:AA:660:C:C2'	1:AA:661:G:O4'	2.67	0.43
36:BM:97:GLN:N	36:BM:97:GLN:OE1	2.50	0.43
37:BN:13:ASN:O	37:BN:14:SER:C	2.57	0.43
28:BE:44:ARG:O	28:BE:45:ALA:CB	2.65	0.43
24:BA:841:G:H2'	24:BA:842:U:H6	1.82	0.43
39:BP:74:GLN:O	39:BP:75:THR:C	2.56	0.43
24:BA:1744:A:C2	24:BA:1745:A:H1'	2.54	0.43
24:BA:2488:G:C4	24:BA:2489:U:C5	3.06	0.43
38:BO:48:LEU:CD2	38:BO:48:LEU:N	2.82	0.43
35:BL:122:VAL:HB	35:BL:142:ILE:HG23	1.99	0.43
24:DA:2262:U:OP2	46:DW:16:SER:OG	2.32	0.43
24:DA:2098:U:H2'	24:DA:2099:U:O4'	2.19	0.43
27:DD:93:GLY:C	27:DD:94:GLN:O	2.56	0.43
26:BC:39:SER:C	26:BC:41:GLY:H	2.22	0.43
54:B4:19:ARG:O	54:B4:20:ASP:HB2	2.17	0.43
43:BT:44:LYS:HA	43:BT:47:VAL:HB	2.00	0.43
17:AQ:72:SER:HB2	17:AQ:73:TRP:CZ3	2.52	0.43
41:BR:16:GLU:HA	41:BR:98:ILE:CG2	2.48	0.43
1:CA:158:G:C5	1:CA:159:G:N7	2.86	0.43
24:DA:2138:G:H2'	24:DA:2139:U:O4'	2.19	0.43
1:CA:322:C:H4'	20:CT:18:ARG:HG3	2.00	0.43
24:DA:2190:G:C2	24:DA:2191:A:C5	3.06	0.43
29:BF:145:VAL:C	29:BF:146:ASP:CG	2.77	0.43
24:DA:2028:U:C4	24:DA:2029:G:C6	3.07	0.43
24:BA:956:G:N7	36:BM:14:LYS:HE3	2.33	0.43
13:CM:9:ILE:HG22	13:CM:9:ILE:O	2.17	0.43
32:BI:30:GLN:OE1	32:BI:30:GLN:N	2.47	0.43
21:CU:32:VAL:O	21:CU:32:VAL:CG1	2.66	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:227:G:H2'	1:CA:228:A:O4'	2.19	0.43
30:DG:12:ALA:O	30:DG:13:GLY:C	2.56	0.43
1:AA:1494:G:H8	24:BA:1913:A:C5	2.36	0.43
57:AA:1655:NMY:N23	57:AA:1655:NMY:O21	2.52	0.43
24:DA:322:A:H5'	24:DA:340:A:C1'	2.48	0.43
1:AA:1220:G:H4'	19:AS:34:TRP:O	2.19	0.43
9:AI:117:GLY:C	9:AI:118:LEU:HD12	2.39	0.43
24:BA:2334:U:H5'	38:BO:12:THR:HG21	2.01	0.43
25:BB:42:C:C5	29:BF:65:LEU:HD22	2.54	0.43
38:BO:99:TYR:O	38:BO:100:HIS:CB	2.66	0.43
35:BL:56:PRO:HD2	35:BL:59:ARG:HD3	2.00	0.43
8:AH:10:MET:O	8:AH:12:THR:N	2.52	0.43
24:DA:103:A:H2'	24:DA:104:A:O4'	2.18	0.43
1:CA:792:A:N3	1:CA:794:A:C5	2.86	0.43
1:AA:34:C:C2	1:AA:35:G:C8	3.07	0.43
1:AA:396:C:C3'	1:AA:397:A:H5''	2.48	0.43
1:AA:504:C:C1'	1:AA:510:A:C2	3.01	0.43
1:AA:541:G:O2'	4:AD:40:GLN:HB3	2.18	0.43
4:AD:70:ARG:O	4:AD:74:ASN:OD1	2.37	0.43
9:CI:105:THR:HG22	9:CI:106:ARG:N	2.33	0.43
1:CA:619:U:C2	4:CD:131:ASN:ND2	2.87	0.43
1:CA:413:G:O6	4:CD:32:CYS:HA	2.18	0.43
1:CA:585:G:C6	1:CA:586:C:C4	3.06	0.43
1:CA:1242:G:N1	1:CA:1243:C:H5	2.16	0.43
24:DA:1078:U:H4'	24:DA:1079:C:C1'	2.48	0.43
32:DI:125:THR:O	32:DI:127:SER:N	2.51	0.43
1:AA:1102:A:C6	1:AA:1103:C:C4	3.07	0.43
1:AA:1155:A:H2'	1:AA:1156:G:C1'	2.49	0.43
24:BA:2360:G:N2	24:BA:2428:G:C6	2.87	0.43
24:BA:974:G:C6	24:BA:1186:G:C6	3.07	0.43
1:AA:898:G:C2	1:AA:902:G:C6	3.06	0.43
20:AT:70:ASN:O	20:AT:71:LYS:C	2.54	0.43
38:BO:80:GLU:OE1	38:BO:80:GLU:C	2.56	0.43
19:CS:35:SER:O	19:CS:38:SER:OG	2.21	0.43
22:CV:28:G:C6	22:CV:29:G:C6	3.06	0.43
42:BS:80:PRO:O	42:BS:100:THR:OG1	2.27	0.43
24:DA:1356:G:C2	24:DA:1376:C:O2	2.71	0.43
48:BY:49:ASP:C	48:BY:51:ALA:N	2.72	0.43
16:CP:6:LEU:CD1	16:CP:17:TYR:CD2	2.95	0.43
1:CA:1280:A:O2'	1:CA:1281:C:H5'	2.19	0.43
15:CO:11:ILE:CD1	15:CO:31:LEU:HD11	2.49	0.43
1:CA:44:A:C2	1:CA:45:G:C4	3.07	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:490:C:H2'	1:CA:491:G:O4'	2.19	0.43
13:AM:30:SER:O	13:AM:34:LEU:HD12	2.18	0.43
1:CA:1049:U:H4'	1:CA:1050:G:H5''	1.99	0.43
35:BL:77:ILE:O	35:BL:110:VAL:O	2.37	0.43
38:DO:108:ASP:HA	38:DO:111:ARG:CG	2.49	0.43
24:BA:2303:G:O2'	29:BF:120:SER:O	2.37	0.43
3:AC:14:ILE:C	3:AC:15:VAL:HG13	2.38	0.43
3:AC:30:ALA:O	3:AC:32:ASN:N	2.51	0.43
3:AC:34:ASP:O	3:AC:38:LYS:CB	2.67	0.43
3:AC:38:LYS:O	3:AC:38:LYS:HG2	2.19	0.43
29:DF:93:GLU:C	29:DF:95:MET:N	2.68	0.43
24:BA:1512:C:H2'	24:BA:1513:U:C5'	2.47	0.43
24:BA:2662:A:C5	24:BA:2663:G:H1'	2.54	0.43
1:CA:933:G:OP2	7:CG:3:ARG:CD	2.66	0.43
22:CV:64:A:C5	22:CV:65:G:C8	3.06	0.43
45:DV:13:GLY:O	45:DV:14:LYS:O	2.36	0.43
24:DA:1154:G:H5''	24:DA:1155:A:OP2	2.18	0.43
24:DA:997:G:C2'	24:DA:998:C:H5'	2.48	0.43
45:BV:44:HIS:NE2	45:BV:85:LYS:HG3	2.33	0.43
34:BK:2:ILE:HG13	34:BK:6:THR:HB	2.01	0.43
42:BS:56:ALA:O	42:BS:58:ALA:N	2.52	0.43
1:CA:1432:G:P	39:DP:105:LYS:HD3	2.57	0.43
24:DA:2690:U:O2'	24:DA:2872:A:H1'	2.19	0.43
1:AA:364:A:C2	1:AA:365:U:C5	3.06	0.43
24:DA:2825:G:C3'	24:DA:2826:A:C5'	2.91	0.43
24:BA:2206:C:O2'	24:BA:2207:C:H5'	2.18	0.43
24:BA:2834:G:H2'	24:BA:2835:A:H5''	2.00	0.43
24:DA:446:G:OP2	40:DQ:2:ARG:CZ	2.66	0.43
55:CY:52:ARG:O	55:CY:54:LEU:N	2.51	0.43
5:CE:110:ALA:O	5:CE:113:ALA:HB3	2.19	0.43
24:BA:464:U:H2'	24:BA:465:G:O4'	2.19	0.43
24:DA:2776:A:H4'	24:DA:2777:G:H5''	2.00	0.43
24:DA:2194:U:H2'	24:DA:2195:U:O4'	2.19	0.43
24:BA:783:A:C2'	24:BA:784:G:O5'	2.66	0.43
24:BA:1444:G:C5	24:BA:1445:G:N7	2.86	0.43
26:BC:245:THR:C	26:BC:247:TRP:H	2.21	0.43
1:AA:1055:A:H2'	3:AC:156:ARG:HD3	2.00	0.43
24:BA:1782:U:H2'	24:BA:1783:A:H5'	1.99	0.43
1:CA:297:G:C4	1:CA:299:G:OP2	2.72	0.43
24:BA:1419:A:H2'	24:BA:1421:G:N7	2.33	0.43
24:BA:1423:G:C6	24:BA:1424:G:C5	3.06	0.43
24:BA:1495:A:N1	24:BA:1496:A:C6	2.86	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BF:74:ALA:C	29:BF:76:PHE:H	2.20	0.43
26:DC:22:GLU:OE1	26:DC:22:GLU:N	2.43	0.43
24:BA:977:G:C2	24:BA:987:C:C2	3.05	0.43
4:AD:182:PHE:HD1	4:AD:182:PHE:N	2.14	0.43
1:CA:1158:C:C4	1:CA:1160:G:C8	3.06	0.43
1:AA:1268:G:O2'	1:AA:1269:A:O4'	2.33	0.43
1:AA:978:A:N7	1:AA:1318:A:C6	2.86	0.43
24:DA:1413:A:C2	24:DA:1414:C:O2	2.72	0.43
1:AA:164:G:C6	1:AA:165:G:C5	3.06	0.43
24:DA:389:G:C8	24:DA:2413:G:H4'	2.53	0.43
24:DA:1795:C:C4	24:DA:1796:U:C4	3.06	0.43
11:CK:94:GLU:O	11:CK:96:THR:N	2.52	0.43
50:D0:54:ILE:CG2	50:D0:55:ALA:N	2.80	0.43
24:DA:2599:G:O2'	24:DA:2600:A:H5'	2.18	0.43
24:DA:855:G:C5	24:DA:923:G:C2	3.06	0.43
24:DA:1459:G:C5	24:DA:1461:C:C4	3.06	0.43
33:DJ:88:THR:O	33:DJ:89:PHE:C	2.57	0.43
31:BH:113:SER:O	31:BH:114:GLU:O	2.37	0.43
30:DG:102:ILE:HD12	30:DG:103:ASN:N	2.33	0.43
24:DA:452:G:C2	24:DA:453:A:C2	3.07	0.43
24:DA:452:G:C2'	24:DA:453:A:O5'	2.66	0.43
24:BA:1232:G:C5	24:BA:1233:C:C5	3.06	0.43
33:DJ:76:HIS:HE1	33:DJ:85:LYS:HB2	1.82	0.43
1:CA:530:G:N3	1:CA:530:G:C2'	2.81	0.43
24:DA:2101:A:N3	24:DA:2189:U:C2	2.86	0.43
42:BS:84:ARG:HB2	42:BS:96:ILE:CG2	2.49	0.43
42:DS:18:ARG:HA	42:DS:76:VAL:HG21	1.99	0.43
30:DG:68:ARG:HD2	30:DG:68:ARG:C	2.38	0.43
24:BA:2109:U:OP1	24:BA:2150:C:H5'	2.18	0.43
1:AA:1058:G:H2'	1:AA:1059:C:O4'	2.19	0.43
19:AS:41:PHE:O	19:AS:44:MET:HG3	2.18	0.43
13:AM:12:HIS:O	13:AM:13:LYS:HB2	2.18	0.43
7:AG:97:ASN:O	7:AG:98:ALA:C	2.57	0.43
1:AA:805:C:C2	1:AA:806:C:H5	2.35	0.43
5:CE:15:LEU:C	5:CE:15:LEU:HD22	2.39	0.43
37:BN:9:GLN:O	37:BN:10:LEU:HB2	2.18	0.43
24:BA:1917:U:H2'	24:BA:1918:A:H5'	2.00	0.43
24:BA:1956:U:H1'	24:BA:2552:U:OP1	2.18	0.43
48:BY:9:LYS:O	48:BY:10:SER:C	2.56	0.43
24:DA:592:A:C5	24:DA:593:U:C5	3.06	0.43
24:DA:3:U:O5'	24:DA:3:U:H6	2.01	0.43
28:BE:119:ILE:HG22	28:BE:187:VAL:HG23	2.01	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:57:LEU:CB	12:AL:61:PHE:HB2	2.49	0.43
51:B1:11:VAL:C	51:B1:48:TYR:CD2	2.91	0.43
5:CE:102:GLY:O	5:CE:103:THR:CB	2.66	0.43
27:BD:37:VAL:HG12	27:BD:38:LYS:N	2.33	0.43
1:AA:763:G:O2'	1:AA:764:C:H5'	2.18	0.43
24:DA:1196:C:H1'	24:DA:1226:A:C4	2.53	0.43
1:CA:158:G:C4	1:CA:159:G:C8	3.05	0.43
24:DA:2534:A:H2'	24:DA:2535:G:O5'	2.18	0.43
33:DJ:99:ARG:O	33:DJ:100:VAL:C	2.57	0.43
24:BA:1398:C:OP1	43:BT:59:ASN:ND2	2.50	0.43
24:BA:1885:A:N1	24:BA:1886:U:C2	2.86	0.43
9:CI:43:THR:O	9:CI:43:THR:HG23	2.18	0.43
26:DC:261:ARG:HB3	26:DC:261:ARG:NH1	2.33	0.43
32:DI:87:SER:O	32:DI:88:GLY:C	2.56	0.43
33:DJ:57:LEU:O	33:DJ:58:ASN:HB2	2.18	0.43
38:BO:56:LYS:O	38:BO:57:ALA:C	2.56	0.43
24:DA:747:U:C4	24:DA:2613:U:C4	3.06	0.43
24:DA:2433:A:H5''	24:DA:2434:A:P	2.58	0.43
24:DA:343:C:OP1	24:DA:343:C:H4'	2.18	0.43
1:AA:1220:G:C4'	19:AS:34:TRP:HB3	2.48	0.43
24:DA:245:G:N7	53:D3:7:ARG:NH1	2.66	0.43
1:AA:649:A:H3'	1:AA:650:G:H5''	1.99	0.43
1:AA:273:U:O4	1:AA:274:A:N6	2.51	0.43
1:CA:700:G:O2'	1:CA:701:U:H5''	2.18	0.43
1:AA:503:C:O2	1:AA:510:A:C2	2.72	0.43
4:AD:54:GLN:O	4:AD:203:LEU:HD23	2.19	0.43
4:AD:98:LEU:HD13	4:AD:130:VAL:CG1	2.49	0.43
1:CA:540:G:H2'	1:CA:541:G:O4'	2.18	0.43
1:CA:510:A:N3	1:CA:543:U:H1'	2.33	0.43
4:CD:138:SER:OG	4:CD:139:PRO:HD3	2.19	0.43
4:CD:11:LEU:HD11	4:CD:63:ARG:HD3	1.99	0.43
1:CA:728:A:H2'	1:CA:729:A:C8	2.54	0.43
1:AA:712:A:C2	1:AA:713:G:N3	2.86	0.43
11:AK:40:ASN:O	11:AK:41:ALA:C	2.56	0.43
1:CA:1270:G:OP2	1:CA:1270:G:H8	2.02	0.43
24:DA:1069:A:N6	24:DA:1074:G:C4	2.87	0.43
32:DI:124:MET:O	32:DI:125:THR:C	2.56	0.43
1:AA:1157:A:C4'	1:AA:1158:C:C2	3.02	0.43
1:AA:1159:U:H4'	1:AA:1160:G:H5'	2.00	0.43
3:AC:173:VAL:HG13	3:AC:182:ILE:HD11	2.00	0.43
24:BA:2428:G:C5'	24:BA:2429:G:O5'	2.66	0.43
24:BA:1186:G:O6	24:BA:1187:G:C2	2.72	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:927:G:C2	1:AA:1391:U:O2	2.71	0.43
17:AQ:19:LYS:HE3	17:AQ:47:HIS:NE2	2.33	0.43
40:DQ:37:ALA:O	40:DQ:38:VAL:CB	2.61	0.43
1:CA:376:G:O3'	16:CP:5:ARG:CD	2.65	0.43
1:CA:1260:G:H4'	1:CA:1283:U:O2'	2.19	0.43
1:CA:1280:A:H5''	10:CJ:42:LEU:HD21	2.01	0.43
12:CL:90:LEU:HD11	12:CL:93:VAL:HB	2.00	0.43
1:CA:323:U:H2'	1:CA:324:G:O4'	2.18	0.43
20:CT:54:MET:HA	20:CT:57:ILE:HD11	1.99	0.43
19:CS:45:ILE:CA	19:CS:62:VAL:HG23	2.48	0.43
24:DA:2205:A:C6	24:DA:2206:C:C4	3.07	0.43
13:AM:9:ILE:HG21	29:BF:142:TYR:CE1	2.54	0.43
1:CA:1216:A:C6	1:CA:1217:C:C4	3.07	0.43
1:CA:977:A:H1'	1:CA:982:U:O4	2.18	0.43
1:CA:1088:G:HO2'	1:CA:1089:G:P	2.41	0.43
3:AC:12:LEU:HD23	3:AC:12:LEU:N	2.33	0.43
24:DA:2315:G:C4'	29:DF:124:ARG:NH2	2.82	0.43
1:AA:1409:C:C6	1:AA:1409:C:C3'	3.02	0.43
24:DA:328:U:H4'	44:DU:65:GLN:CD	2.39	0.43
44:DU:65:GLN:O	44:DU:68:ASN:HB2	2.18	0.43
24:DA:1858:A:C8	24:DA:1859:U:C5	3.07	0.43
48:DY:13:GLU:HG2	48:DY:57:LEU:HD23	2.01	0.43
21:CU:14:VAL:O	21:CU:14:VAL:HG13	2.18	0.43
1:AA:1438:G:C2	1:AA:1439:G:C8	3.07	0.43
47:DX:32:LEU:HD12	47:DX:32:LEU:C	2.38	0.43
4:CD:19:LEU:O	4:CD:21:LEU:HG	2.19	0.43
2:AB:121:SER:O	2:AB:126:PHE:HB3	2.19	0.43
24:BA:463:G:N2	24:BA:466:A:C8	2.87	0.43
2:AB:23:TRP:CH2	2:AB:25:PRO:HB3	2.54	0.43
1:CA:966:G:HO2'	9:CI:129:LYS:HG2	1.81	0.43
25:DB:98:G:H22	45:DV:14:LYS:HE3	1.83	0.43
30:DG:38:ASP:C	30:DG:38:ASP:OD1	2.56	0.43
4:AD:166:GLU:O	4:AD:167:LYS:C	2.57	0.43
40:DQ:85:ALA:HB3	40:DQ:87:VAL:HG12	2.00	0.43
24:BA:499:U:O3'	44:BU:42:LYS:CD	2.66	0.43
44:BU:46:LYS:HB3	44:BU:47:PRO:HD2	2.00	0.43
1:AA:145:G:N2	1:AA:178:C:N3	2.66	0.43
24:BA:2024:G:O3'	27:BD:154:LYS:NZ	2.51	0.43
24:BA:2037:A:H2'	24:BA:2038:G:C8	2.53	0.43
24:BA:2038:G:C6	24:BA:2039:U:C4	3.06	0.43
24:BA:2666:C:C6	24:BA:2667:C:C6	3.07	0.43
24:BA:998:C:H2'	24:BA:999:U:O5'	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2061:G:C8	24:DA:2501:C:H4'	2.53	0.43
1:AA:1122:U:C2'	1:AA:1123:U:H5'	2.49	0.43
55:CY:44:TYR:OH	55:CY:49:THR:HB	2.18	0.43
29:BF:23:SER:HB3	29:BF:26:GLN:CD	2.39	0.43
29:DF:12:VAL:HA	29:DF:15:LEU:HD12	2.00	0.43
29:DF:8:LYS:O	29:DF:9:ASP:C	2.55	0.43
2:CB:57:LEU:C	2:CB:57:LEU:HD12	2.39	0.43
24:BA:1139:G:O3'	33:BJ:26:GLY:HA3	2.18	0.43
24:DA:2777:G:H5''	24:DA:2778:A:OP1	2.18	0.43
24:DA:528:A:C3'	24:DA:528:A:C8	3.02	0.43
24:DA:2590:A:O2'	24:DA:2591:C:H5'	2.17	0.43
3:CC:160:ALA:C	3:CC:162:ILE:N	2.71	0.43
24:BA:1553:A:C6	24:BA:1555:G:C4	3.07	0.43
5:AE:149:SER:CB	5:AE:152:MET:HB3	2.48	0.43
24:BA:90:U:N3	24:BA:91:A:C5	2.86	0.43
29:DF:87:LYS:CG	29:DF:88:VAL:N	2.80	0.43
4:AD:181:THR:O	4:AD:182:PHE:CB	2.66	0.43
34:BK:71:ARG:NH1	34:BK:106:GLU:OE2	2.51	0.43
24:BA:191:A:H2'	24:BA:192:C:O4'	2.19	0.43
1:AA:978:A:C5	1:AA:1318:A:C6	3.07	0.43
24:DA:2342:C:H2'	24:DA:2343:U:O4'	2.18	0.43
1:CA:456:A:C8	1:CA:457:G:N7	2.87	0.43
14:CN:85:ARG:CG	14:CN:86:GLU:N	2.81	0.43
24:BA:1670:C:H2'	24:BA:1671:U:O4'	2.18	0.43
25:DB:84:G:H2'	25:DB:85:G:O5'	2.18	0.43
24:BA:2560:A:C2'	24:BA:2561:U:H5'	2.48	0.43
3:AC:7:PRO:O	3:AC:8:ASN:C	2.55	0.43
24:BA:218:A:C5	24:BA:219:A:C5	3.06	0.43
24:DA:1575:C:H2'	24:DA:1576:U:O4'	2.19	0.43
24:DA:1576:U:O2'	24:DA:1577:C:H5'	2.18	0.43
27:DD:16:THR:OG1	27:DD:18:ASP:OD1	2.34	0.43
3:CC:112:ASP:OD1	3:CC:114:LYS:CG	2.65	0.43
24:BA:2892:G:H5''	24:BA:2894:G:N2	2.33	0.43
33:DJ:101:ILE:O	33:DJ:104:ALA:N	2.52	0.43
18:AR:56:ALA:N	18:AR:59:ILE:HG22	2.33	0.43
1:AA:1379:G:C6	1:AA:1380:U:C4	3.06	0.43
5:CE:94:VAL:HG22	5:CE:95:PHE:N	2.33	0.43
1:CA:1483:A:C2	24:DA:1959:G:N3	2.86	0.43
24:DA:1444:G:C2	24:DA:1445:G:C4	3.06	0.43
49:DZ:24:LEU:O	49:DZ:25:GLY:C	2.56	0.43
36:BM:38:ARG:CZ	36:BM:38:ARG:CB	2.97	0.43
1:AA:772:U:C2'	1:AA:773:G:H5'	2.49	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2649:C:C2'	24:BA:2650:U:H5'	2.49	0.43
24:BA:2326:C:C4'	24:BA:2327:A:OP1	2.66	0.43
24:BA:1517:G:C2	24:BA:1518:C:C2	3.06	0.43
39:DP:28:LYS:CE	39:DP:82:SER:HB2	2.47	0.43
24:DA:2:G:H2'	24:DA:3:U:C6	2.54	0.43
55:CY:26:LYS:HD2	55:CY:26:LYS:N	2.34	0.43
25:DB:91:C:H2'	25:DB:92:C:H6	1.81	0.43
3:CC:128:VAL:HG23	3:CC:129:MET:N	2.33	0.43
27:DD:33:ARG:NH2	27:DD:74:GLU:O	2.51	0.43
26:DC:78:GLU:O	26:DC:79:ARG:HB3	2.19	0.43
26:BC:58:LYS:HG3	26:BC:59:GLN:H	1.83	0.43
1:AA:954:G:C5	1:AA:955:U:C5	3.06	0.43
24:DA:2692:G:C6	24:DA:2718:G:N1	2.86	0.43
28:DE:5:LEU:O	28:DE:6:LYS:HB3	2.18	0.43
24:DA:2364:C:OP1	46:DW:55:ARG:NH1	2.49	0.43
24:BA:201:C:C5	24:BA:202:U:C5	3.06	0.43
32:DI:61:TYR:N	32:DI:61:TYR:CD1	2.87	0.43
36:DM:127:LYS:CE	36:DM:127:LYS:HA	2.48	0.43
10:AJ:15:HIS:CG	10:AJ:16:ARG:N	2.87	0.43
31:BH:121:VAL:CG2	31:BH:122:LEU:CD2	2.92	0.43
31:DH:117:LEU:CD2	31:DH:117:LEU:C	2.86	0.43
1:AA:1371:G:C5	1:AA:1372:U:C5	3.07	0.43
1:AA:939:G:N1	1:AA:940:C:C4	2.87	0.43
1:AA:987:G:C2	1:AA:988:G:C4	3.07	0.43
1:AA:1226:C:H2'	13:AM:102:THR:O	2.18	0.43
14:AN:12:ARG:NH1	14:AN:59:ARG:NH1	2.67	0.43
14:AN:8:ARG:HH12	14:AN:12:ARG:NH2	2.17	0.43
25:BB:30:C:H2'	25:BB:31:C:H5'	2.00	0.43
29:BF:92:GLY:O	29:BF:93:GLU:CG	2.66	0.43
24:DA:245:G:O6	53:D3:7:ARG:HD3	2.19	0.43
24:BA:413:C:N3	24:BA:2411:A:C2	2.87	0.43
8:AH:10:MET:CE	8:AH:33:LYS:HG2	2.48	0.43
11:CK:125:LYS:CB	11:CK:125:LYS:HZ2	2.32	0.43
11:CK:129:VAL:HG12	23:CX:10:A:C5'	2.48	0.43
1:AA:542:G:N3	1:AA:543:U:C6	2.86	0.43
1:AA:552:U:H2'	1:AA:553:A:H8	1.79	0.43
1:AA:615:G:O6	1:AA:625:U:C2	2.72	0.43
1:CA:664:G:N2	1:CA:742:G:N2	2.66	0.43
1:AA:780:A:H5''	11:AK:125:LYS:CE	2.49	0.43
24:BA:1837:C:H2'	24:BA:1838:C:H5'	2.01	0.43
24:BA:1910:G:C2	24:BA:1921:G:N3	2.87	0.43
10:AJ:61:ALA:C	10:AJ:62:ARG:HG2	2.38	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:AN:69:ARG:HB3	14:AN:80:SER:OG	2.18	0.43
14:AN:82:ILE:O	14:AN:85:ARG:HB3	2.19	0.43
13:CM:22:ILE:O	13:CM:23:TYR:CB	2.65	0.43
24:DA:1082:U:O4'	32:DI:117:THR:CG2	2.66	0.43
24:DA:1071:G:N1	24:DA:1091:G:N7	2.67	0.43
24:BA:675:A:N6	24:BA:676:A:N6	2.66	0.43
9:AI:38:TYR:CE2	9:AI:39:PHE:CZ	3.07	0.43
2:AB:150:GLY:O	2:AB:151:ILE:HG23	2.18	0.43
1:AA:929:G:O2'	1:AA:930:C:H5'	2.19	0.43
22:CV:23:A:N6	22:CV:24:G:O6	2.51	0.43
1:CA:614:C:O2'	1:CA:615:G:OP1	2.33	0.43
6:CF:77:THR:HB	6:CF:80:PHE:CE1	2.53	0.43
6:CF:80:PHE:O	6:CF:82:ASP:N	2.52	0.43
1:AA:428:G:C5'	4:AD:9:LEU:CD1	2.96	0.43
11:CK:76:GLU:C	11:CK:78:GLY:H	2.22	0.43
40:DQ:37:ALA:HA	40:DQ:40:LYS:HE2	2.01	0.43
1:CA:452:A:C1'	16:CP:70:ARG:NH1	2.81	0.43
24:BA:275:C:C5	24:BA:276:U:O4'	2.72	0.43
24:BA:362:A:C2'	24:BA:363:G:H5'	2.49	0.43
4:CD:203:LEU:HD23	4:CD:204:TYR:CG	2.53	0.43
1:AA:1032:G:N2	1:AA:1033:G:C1'	2.81	0.43
1:CA:195:A:C6	1:CA:196:A:N1	2.87	0.43
36:BM:18:ARG:CA	36:BM:18:ARG:NE	2.82	0.43
13:AM:27:LYS:O	13:AM:30:SER:HB2	2.19	0.43
1:CA:386:C:C2'	1:CA:387:U:H5''	2.48	0.43
24:BA:309:A:H5'	44:BU:16:LYS:CE	2.49	0.43
44:BU:12:VAL:HG22	44:BU:17:ASP:O	2.19	0.43
24:DA:2756:U:H4'	24:DA:2757:A:O5'	2.18	0.43
5:CE:23:LYS:HB3	5:CE:30:ILE:CG1	2.49	0.43
29:BF:121:PHE:C	29:BF:123:GLY:N	2.72	0.43
24:DA:1857:G:C2	24:DA:1884:G:C4	3.06	0.43
1:CA:213:G:C5	1:CA:214:C:C5	3.07	0.43
21:AU:26:ALA:HB1	21:AU:30:ALA:HB3	2.00	0.43
24:DA:809:G:O2'	24:DA:810:U:H5'	2.17	0.43
57:BA:3166:NMY:H18	57:BA:3166:NMY:H171	2.01	0.43
24:BA:1511:G:HO2'	24:BA:1512:C:C1'	2.23	0.43
24:BA:1478:G:C6	24:BA:1514:G:N2	2.86	0.43
30:BG:88:LEU:HD22	30:BG:93:TYR:O	2.19	0.43
37:BN:55:ALA:HA	37:BN:80:PHE:CE1	2.54	0.43
26:BC:62:ARG:NH1	26:BC:85:ASN:HB2	2.34	0.43
1:AA:208:U:C2	1:AA:210:C:H1'	2.53	0.43
43:DT:61:LEU:O	43:DT:61:LEU:HD12	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BL:105:ILE:HG22	35:BL:106:GLU:N	2.32	0.43
24:DA:189:G:H2'	24:DA:205:G:H22	1.83	0.43
3:CC:23:PHE:CD1	3:CC:24:ALA:N	2.87	0.43
1:AA:1387:G:H2'	1:AA:1388:C:C6	2.54	0.43
1:AA:910:C:O2	1:AA:910:C:H2'	2.19	0.43
3:AC:102:ASN:C	3:AC:102:ASN:OD1	2.57	0.43
24:BA:2472:G:C2'	24:BA:2473:U:OP1	2.67	0.43
41:BR:49:ILE:HG13	41:BR:52:PRO:HA	2.00	0.43
24:BA:2314:A:C5	24:BA:2315:G:N7	2.87	0.43
47:DX:63:ILE:HD12	47:DX:63:ILE:O	2.18	0.43
2:AB:173:ILE:CD1	2:AB:195:GLY:O	2.67	0.43
1:CA:776:G:C2'	1:CA:777:A:OP2	2.66	0.43
24:BA:1132:U:H5'	33:BJ:84:ILE:HD12	2.00	0.43
24:BA:2706:A:H2'	24:BA:2707:U:O4'	2.18	0.43
1:AA:496:A:C2	1:AA:497:G:C5	3.06	0.43
24:DA:910:A:C5	36:DM:13:HIS:NE2	2.87	0.43
24:BA:2679:A:H2'	24:BA:2680:U:H5'	2.00	0.43
24:BA:932:U:C4'	24:BA:933:A:O5'	2.67	0.43
42:DS:45:VAL:HG12	42:DS:46:LEU:N	2.33	0.43
24:DA:422:A:C2	24:DA:423:A:C2	3.07	0.43
1:CA:955:U:O4'	1:CA:1227:A:N6	2.51	0.43
24:DA:1351:C:H2'	24:DA:1352:U:C1'	2.48	0.43
30:DG:54:ARG:O	30:DG:57:TYR:HB2	2.18	0.43
27:DD:22:ILE:HA	27:DD:23:PRO:HD2	1.63	0.43
2:CB:47:VAL:HG22	2:CB:48:PRO:HD3	2.01	0.43
24:BA:149:A:C5	24:BA:150:U:C5	3.06	0.43
22:AV:72:C:C2'	22:AV:73:A:H5'	2.48	0.43
1:CA:592:G:C6	1:CA:648:A:C6	3.06	0.43
1:CA:1160:G:OP2	2:CB:132:LYS:NZ	2.36	0.43
24:BA:2503:A:H4'	24:BA:2504:U:OP1	2.18	0.43
26:BC:123:ILE:CG2	26:BC:123:ILE:O	2.63	0.43
20:AT:43:ASP:O	20:AT:44:LYS:C	2.57	0.43
1:CA:659:U:N3	1:CA:660:C:C5	2.87	0.43
19:AS:32:ARG:HD2	19:AS:57:HIS:CE1	2.54	0.43
26:BC:90:ILE:C	26:BC:90:ILE:HD12	2.38	0.43
3:CC:71:ALA:HB2	3:CC:106:VAL:HB	2.01	0.43
24:DA:273:G:N1	24:DA:274:C:C4	2.86	0.43
24:DA:1140:C:OP2	33:DJ:68:LYS:NZ	2.52	0.43
1:AA:442:G:C6	1:AA:493:A:C2	3.06	0.43
1:CA:1004:A:C6	1:CA:1005:A:C4	3.07	0.43
48:DY:24:GLU:O	48:DY:27:ASN:N	2.52	0.43
24:BA:2791:G:N2	24:BA:2806:C:H1'	2.33	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CE:68:ARG:HG2	5:CE:69:ARG:N	2.34	0.43
34:DK:14:SER:HA	34:DK:51:LYS:HZ1	1.84	0.43
17:CQ:64:CYS:HB2	17:CQ:73:TRP:HA	2.01	0.43
17:CQ:80:GLU:C	17:CQ:81:LYS:HG3	2.39	0.43
38:DO:43:ASN:C	38:DO:43:ASN:OD1	2.57	0.43
26:BC:196:ASN:O	26:BC:197:ALA:C	2.56	0.43
24:BA:2736:A:C5	24:BA:2737:G:C8	3.07	0.43
1:AA:120:A:O3'	1:AA:121:U:H4'	2.18	0.43
1:CA:279:A:H5''	1:CA:281:G:O4'	2.19	0.43
24:BA:1934:C:H2'	24:BA:1935:G:O5'	2.19	0.43
1:CA:292:G:C2	1:CA:309:A:C2	3.06	0.43
8:CH:34:VAL:HG12	8:CH:59:LEU:HD23	2.01	0.43
18:AR:20:GLU:O	18:AR:21:ILE:C	2.57	0.43
24:BA:135:U:C2	24:BA:136:G:C8	3.07	0.43
31:BH:65:ALA:O	31:BH:66:ASN:C	2.56	0.43
36:BM:51:ARG:O	36:BM:55:ARG:HB3	2.18	0.43
30:BG:24:THR:O	30:BG:25:ILE:HG12	2.19	0.43
1:AA:665:A:N1	1:AA:732:C:C4	2.87	0.43
42:DS:26:GLY:C	42:DS:27:LYS:HE2	2.39	0.43
18:CR:63:ARG:HB2	18:CR:70:TYR:CE1	2.54	0.43
1:CA:433:G:C6	1:CA:434:U:N3	2.87	0.43
33:DJ:19:ASP:OD1	33:DJ:21:THR:HB	2.17	0.43
24:BA:1235:G:C6	24:BA:1236:G:N1	2.87	0.43
6:AF:39:LEU:CD1	6:AF:39:LEU:C	2.87	0.43
16:AP:49:GLY:O	16:AP:50:THR:OG1	2.27	0.43
14:AN:74:LEU:O	14:AN:76:LYS:N	2.52	0.43
24:DA:321:U:C4'	28:DE:162:ARG:NH2	2.81	0.43
1:AA:959:A:C2	1:AA:1222:G:O4'	2.71	0.43
1:AA:1287:A:N6	1:AA:1288:A:N6	2.67	0.43
1:AA:1364:U:O2	1:AA:1364:U:H2'	2.18	0.43
14:AN:7:ALA:O	14:AN:8:ARG:C	2.57	0.43
19:AS:76:PRO:C	19:AS:77:THR:OG1	2.56	0.43
24:BA:2408:U:C2	24:BA:2409:G:C8	3.06	0.43
24:BA:414:C:OP1	24:BA:1879:C:O2'	2.33	0.43
8:AH:20:ALA:O	8:AH:21:ASN:CB	2.66	0.43
1:CA:1506:U:O4'	11:CK:128:ARG:NE	2.51	0.43
1:AA:8:A:H5''	5:AE:126:LYS:HB2	2.00	0.43
4:AD:144:SER:C	4:AD:145:ILE:HG22	2.38	0.43
5:AE:82:GLN:CD	5:AE:150:PRO:HB3	2.39	0.43
8:AH:101:ILE:HG23	8:AH:103:VAL:HG23	2.01	0.43
1:CA:1502:A:C8	1:CA:1505:G:N2	2.87	0.43
1:CA:406:G:N2	1:CA:437:U:O2	2.52	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:104:ARG:CZ	4:CD:170:TRP:CZ2	3.01	0.43
15:CO:54:ARG:O	15:CO:55:GLY:C	2.57	0.43
1:AA:708:C:O2	1:AA:709:U:C5	2.72	0.43
24:BA:86:G:H2'	24:BA:87:U:O5'	2.19	0.43
24:DA:1098:A:H2'	24:DA:1099:G:C4	2.54	0.43
4:AD:158:ALA:HA	4:AD:161:LEU:HD21	2.00	0.43
1:AA:1104:G:C2	1:AA:1105:A:C5	3.07	0.43
1:AA:142:G:C5	1:AA:143:A:C8	3.07	0.43
1:AA:179:A:C6	1:AA:180:U:C2	3.07	0.43
20:AT:67:ILE:HG23	20:AT:67:ILE:O	2.19	0.43
17:AQ:20:SER:O	17:AQ:21:ILE:O	2.36	0.43
1:CA:626:G:N2	1:CA:627:G:C4	2.87	0.43
24:BA:2164:C:P	24:BA:2170:A:HO2'	2.42	0.43
24:BA:1663:G:O6	24:BA:1992:G:C8	2.72	0.43
24:BA:2675:A:C2'	24:BA:2676:C:H5'	2.49	0.43
27:BD:173:GLN:OE1	27:BD:208:LYS:HE2	2.19	0.43
24:DA:1992:G:H4'	24:DA:1993:U:OP1	2.19	0.43
24:DA:531:C:O2'	24:DA:563:A:H5''	2.19	0.43
1:CA:1132:C:N3	1:CA:1142:G:O6	2.51	0.43
9:CI:39:PHE:C	9:CI:39:PHE:CD1	2.91	0.43
11:AK:46:THR:O	11:AK:48:GLY:N	2.51	0.43
24:DA:538:A:OP1	57:DA:3186:NMY:O17	2.37	0.43
1:CA:113:G:C2	1:CA:315:A:N1	2.87	0.43
1:CA:357:G:N1	1:CA:358:U:C4	2.87	0.43
1:CA:389:A:C6	1:CA:390:U:H1'	2.54	0.43
20:CT:35:VAL:CG1	20:CT:79:LEU:HD22	2.49	0.43
24:BA:599:A:C2	24:BA:659:G:C5	3.07	0.43
24:BA:608:A:N3	24:BA:621:A:C2	2.87	0.43
24:DA:2754:U:C2'	24:DA:2756:U:OP1	2.66	0.43
3:AC:20:SER:OG	3:AC:40:ARG:NH2	2.52	0.43
7:CG:32:VAL:O	7:CG:33:ASP:C	2.57	0.43
1:AA:1431:A:N6	1:AA:1432:G:N1	2.66	0.43
24:DA:2786:U:H2'	24:DA:2787:C:H6	1.84	0.43
1:CA:202:G:N2	1:CA:216:U:C2	2.87	0.43
43:BT:13:ALA:O	43:BT:32:LEU:HB2	2.19	0.43
1:AA:1439:G:OP1	20:AT:33:LYS:NZ	2.46	0.43
28:BE:85:PHE:O	28:BE:86:ALA:C	2.56	0.43
1:CA:968:A:H4'	1:CA:969:A:OP2	2.17	0.43
1:CA:966:G:H2'	9:CI:129:LYS:CG	2.48	0.43
24:DA:2571:U:O2'	27:DD:151:THR:HG23	2.16	0.43
7:CG:126:ASP:OD1	7:CG:126:ASP:C	2.57	0.43
7:CG:134:ALA:O	7:CG:135:VAL:C	2.57	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DC:16:VAL:N	26:DC:203:VAL:HG12	2.34	0.43
18:AR:53:ARG:CZ	18:AR:53:ARG:CB	2.93	0.43
25:BB:114:C:O4'	38:BO:47:VAL:CG1	2.66	0.43
24:BA:858:G:C5	24:BA:2268:A:C2	3.07	0.43
24:BA:2094:A:H2'	24:BA:2095:A:C8	2.53	0.43
42:BS:19:LEU:HB3	50:B0:21:LEU:CD1	2.48	0.43
24:BA:1586:A:C5	24:BA:1587:G:C5	3.07	0.43
24:DA:674:G:H1'	28:DE:69:ARG:HD2	1.99	0.43
24:DA:160:A:C4	24:DA:167:A:C2	3.07	0.43
24:BA:1350:C:C4	24:BA:1382:G:N1	2.87	0.43
24:DA:418:C:N3	24:DA:419:U:C5	2.87	0.43
25:BB:24:G:C8	25:BB:56:G:C8	3.06	0.43
1:CA:270:A:N1	1:CA:271:C:C2	2.86	0.43
31:DH:27:ARG:CG	31:DH:28:ASN:N	2.82	0.43
29:DF:7:TYR:HA	29:DF:11:VAL:HB	2.01	0.43
29:DF:11:VAL:O	29:DF:15:LEU:HD12	2.18	0.43
24:BA:447:A:OP1	40:BQ:4:LYS:NZ	2.51	0.43
24:BA:447:A:C2	24:BA:473:G:C8	3.06	0.43
24:DA:2531:A:H5'	30:DG:156:TYR:CE1	2.54	0.43
30:DG:89:VAL:O	30:DG:159:LYS:HA	2.19	0.43
1:CA:954:G:N2	1:CA:1228:C:C5	2.87	0.43
1:CA:954:G:C4	1:CA:955:U:C6	3.07	0.43
2:AB:186:ILE:CD1	2:AB:213:TYR:CE2	3.01	0.43
24:BA:146:A:C2	24:BA:147:C:C4	3.07	0.43
35:BL:73:ILE:O	35:BL:73:ILE:HG22	2.19	0.43
3:CC:160:ALA:O	3:CC:162:ILE:N	2.52	0.43
30:BG:97:VAL:CG2	30:BG:124:CYS:SG	3.04	0.43
30:BG:100:ASN:C	30:BG:116:LEU:HD13	2.39	0.43
24:DA:1501:G:H2'	24:DA:1502:A:C5'	2.49	0.43
24:BA:1817:G:C2'	24:BA:1818:U:H5'	2.48	0.43
1:CA:635:A:O3'	17:CQ:6:ARG:NH2	2.52	0.43
24:BA:1802:A:O2'	24:BA:1803:A:P	2.76	0.43
1:CA:778:G:N2	1:CA:779:C:H1'	2.33	0.43
1:CA:778:G:N2	1:CA:779:C:O2	2.51	0.43
54:B4:33:HIS:O	54:B4:35:GLN:HG3	2.18	0.43
24:BA:1017:G:C6	24:BA:1018:U:C4	3.06	0.43
24:BA:2575:C:H5''	24:BA:2576:G:OP2	2.19	0.43
1:CA:1093:A:C5	1:CA:1095:U:O4'	2.72	0.43
1:CA:836:G:C5	1:CA:851:G:C6	3.07	0.43
24:BA:2522:U:C2'	24:BA:2523:G:H5'	2.48	0.43
24:DA:595:C:H2'	24:DA:596:U:H6	1.84	0.43
24:DA:18:U:HO2'	24:DA:19:A:H5'	1.81	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:142:VAL:O	4:AD:143:VAL:HG22	2.18	0.43
4:AD:142:VAL:O	4:AD:143:VAL:O	2.37	0.43
45:BV:31:TYR:HB3	45:BV:37:PRO:HB3	2.00	0.43
24:BA:214:G:O2'	24:BA:217:A:H5'	2.18	0.43
24:DA:261:G:C2	24:DA:262:A:C8	3.06	0.43
24:DA:235:U:O2	24:DA:430:A:C2	2.71	0.43
11:AK:112:ASP:HB2	21:AU:20:LYS:CD	2.48	0.43
1:AA:342:C:N4	1:AA:343:U:C4	2.87	0.43
8:CH:27:MET:HG2	8:CH:28:PRO:HD2	2.01	0.43
1:AA:460:A:N3	1:AA:461:A:C8	2.87	0.43
1:CA:426:U:C2	1:CA:427:U:C5	3.07	0.43
24:DA:2088:A:C6	24:DA:2089:C:C4	3.06	0.43
39:BP:27:VAL:O	39:BP:42:PHE:N	2.52	0.43
43:BT:68:LYS:HA	43:BT:68:LYS:HD2	1.71	0.43
31:BH:8:LYS:O	31:BH:13:GLY:CA	2.67	0.43
24:BA:1433:A:H5''	24:BA:1434:A:OP2	2.19	0.43
25:BB:117:G:N2	25:BB:118:C:H1'	2.34	0.43
12:AL:19:SER:C	12:AL:21:VAL:N	2.72	0.43
51:B1:9:LYS:O	51:B1:50:GLU:CG	2.67	0.43
24:BA:2547:A:N7	24:BA:2566:A:C8	2.87	0.43
10:CJ:18:ILE:HD12	10:CJ:19:ASP:N	2.34	0.43
24:DA:1661:G:C5	24:DA:1662:U:C5	3.07	0.43
55:CY:5:ILE:HA	55:CY:8:ASP:HB2	2.01	0.43
3:CC:14:ILE:HG13	3:CC:15:VAL:HG23	2.01	0.43
27:BD:11:MET:HG3	27:BD:25:THR:HA	1.99	0.43
24:DA:2001:C:H4'	24:DA:2689:U:H2'	2.00	0.43
27:BD:104:VAL:O	27:BD:105:LYS:HG3	2.19	0.43
16:CP:61:VAL:O	16:CP:62:GLY:C	2.55	0.43
24:DA:1284:A:C2	24:DA:1285:A:C2	3.06	0.43
24:DA:1680:U:H2'	24:DA:1681:G:O4'	2.19	0.43
24:DA:271:G:C2	24:DA:367:G:N3	2.87	0.43
2:AB:104:TRP:CE2	2:AB:108:ARG:HB3	2.53	0.43
24:DA:2470:G:O2'	24:DA:2471:A:H5'	2.18	0.43
25:BB:61:G:N1	25:BB:62:C:C2	2.87	0.43
25:DB:50:A:H2'	25:DB:51:G:O5'	2.19	0.43
1:AA:188:C:C2'	1:AA:189:A:O4'	2.66	0.43
10:AJ:49:PHE:O	10:AJ:65:TYR:N	2.49	0.43
24:DA:2533:U:H2'	24:DA:2534:A:O4'	2.19	0.43
24:DA:2084:C:C4	24:DA:2085:U:C4	3.07	0.43
24:BA:2858:C:H2'	24:BA:2859:G:O4'	2.19	0.43
26:DC:132:ARG:O	26:DC:133:ASN:HB2	2.18	0.43
29:DF:28:PRO:HG3	29:DF:159:ALA:HA	2.01	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1675:C:O2	24:DA:1675:C:H2'	2.19	0.43
14:CN:5:MET:O	14:CN:5:MET:CG	2.67	0.43
20:CT:10:ARG:HD3	20:CT:10:ARG:HA	1.82	0.43
33:BJ:5:THR:O	33:BJ:5:THR:HG22	2.19	0.43
1:CA:568:G:N3	1:CA:568:G:H2'	2.33	0.43
50:D0:48:TYR:O	50:D0:49:ARG:C	2.57	0.43
33:BJ:136:GLN:N	33:BJ:137:PRO:CD	2.81	0.43
24:BA:1166:G:O2'	24:BA:1167:C:H5'	2.17	0.43
24:DA:695:G:C2	24:DA:696:G:C8	3.07	0.43
29:BF:3:LEU:HD11	29:BF:99:PHE:CZ	2.54	0.43
1:AA:1342:C:H2'	1:AA:1343:G:C8	2.54	0.43
38:BO:7:ARG:HD3	38:BO:97:PHE:CZ	2.53	0.43
29:BF:82:TYR:CE2	29:BF:83:PRO:O	2.72	0.43
8:AH:27:MET:CB	8:AH:28:PRO:CD	2.97	0.43
8:AH:27:MET:HB3	8:AH:28:PRO:HD2	2.00	0.43
8:AH:40:LEU:C	8:AH:46:ILE:HG23	2.39	0.43
8:AH:65:TYR:CD2	8:AH:70:ALA:HA	2.54	0.43
24:DA:2496:C:OP1	36:DM:81:ARG:CZ	2.59	0.43
1:AA:269:C:N4	1:AA:270:A:N6	2.67	0.43
1:CA:1523:G:OP1	11:CK:126:LYS:CG	2.63	0.43
11:CK:31:ILE:HG22	11:CK:46:THR:HG21	2.01	0.43
4:AD:197:GLU:O	4:AD:201:VAL:HG11	2.18	0.43
4:AD:11:LEU:HD11	4:AD:63:ARG:HD2	2.00	0.43
8:AH:113:ASP:C	8:AH:115:ALA:N	2.72	0.43
1:CA:620:C:C4	1:CA:621:A:C5	3.07	0.43
4:CD:103:TYR:CE1	4:CD:104:ARG:HB2	2.54	0.43
4:CD:167:LYS:HD3	4:CD:168:PRO:CD	2.49	0.43
4:CD:3:ARG:N	4:CD:68:LEU:HD21	2.33	0.43
1:CA:737:C:H2'	1:CA:738:C:H6	1.81	0.43
1:AA:778:G:C5	1:AA:779:C:C5	3.07	0.43
1:AA:782:A:N1	1:AA:801:U:C2	2.87	0.43
1:AA:926:G:H2'	1:AA:1505:G:N3	2.34	0.43
6:AF:70:VAL:O	6:AF:74:LEU:N	2.50	0.43
3:AC:2:GLY:C	3:AC:3:GLN:HG3	2.39	0.43
1:CA:1293:C:C3'	1:CA:1294:G:C5'	2.97	0.43
1:CA:1298:U:O4'	1:CA:1299:A:C5	2.71	0.43
1:CA:1309:G:C8	1:CA:1329:A:C6	3.06	0.43
1:AA:433:G:C6	1:AA:434:U:H1'	2.53	0.43
1:AA:1068:G:C6	1:AA:1069:C:N4	2.87	0.43
24:BA:2428:G:C4'	24:BA:2429:G:O5'	2.67	0.43
9:AI:52:LEU:HD21	9:AI:57:MET:SD	2.58	0.43
1:AA:143:A:H5'	1:AA:144:G:O5'	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:186:C:N3	1:AA:187:G:C6	2.87	0.43
38:BO:80:GLU:O	38:BO:81:ARG:C	2.57	0.43
19:CS:30:PRO:O	19:CS:31:LEU:HB3	2.18	0.43
55:CY:146:LYS:HZ1	24:DA:2255:G:P	2.42	0.43
1:AA:412:A:O5'	11:CK:16:VAL:HG11	2.18	0.43
24:DA:1211:C:H4'	24:DA:1212:G:OP2	2.19	0.43
9:CI:80:ARG:NE	9:CI:103:PHE:CE1	2.87	0.43
9:CI:7:TYR:CD2	9:CI:8:GLY:O	2.72	0.43
10:CJ:9:ARG:C	10:CJ:10:LEU:HD12	2.38	0.43
2:AB:54:LEU:O	2:AB:57:LEU:CD1	2.67	0.43
20:CT:31:PHE:O	20:CT:34:LYS:HG2	2.19	0.43
24:DA:2822:G:OP2	27:DD:115:GLY:O	2.36	0.43
14:CN:79:LEU:HD23	14:CN:83:LYS:HD3	2.00	0.43
24:BA:1377:G:H5''	24:BA:1378:A:OP2	2.19	0.43
24:DA:2326:C:H1'	24:DA:2327:A:OP1	2.19	0.43
29:DF:90:LEU:HD12	29:DF:90:LEU:C	2.39	0.43
1:CA:1290:G:C2'	1:CA:1291:U:H5'	2.45	0.43
35:BL:78:ARG:CG	35:BL:113:ALA:HB2	2.48	0.43
35:BL:78:ARG:HG3	35:BL:113:ALA:CB	2.49	0.43
1:CA:932:C:H5'	7:CG:4:ARG:HB2	2.01	0.43
24:BA:452:G:N2	24:BA:458:G:C4	2.87	0.43
24:BA:459:U:OP1	52:B2:39:ARG:CZ	2.67	0.43
2:AB:20:THR:HG23	2:AB:21:ARG:H	1.83	0.43
1:AA:467:U:H3'	1:AA:468:A:C5'	2.48	0.43
24:DA:1737:G:O2'	24:DA:1738:G:H1'	2.19	0.43
24:DA:817:C:O2'	24:DA:839:U:H5'	2.18	0.43
30:BG:66:THR:O	30:BG:70:LEU:HB2	2.19	0.43
24:DA:2571:U:O2'	27:DD:151:THR:HG21	2.14	0.43
7:CG:116:MET:O	7:CG:117:ALA:C	2.57	0.43
24:BA:857:G:H2'	24:BA:858:G:O4'	2.18	0.43
6:CF:24:ARG:O	6:CF:27:ALA:HB3	2.19	0.43
41:DR:52:PRO:O	41:DR:52:PRO:CG	2.65	0.43
27:DD:103:ASP:C	27:DD:104:VAL:CG2	2.87	0.43
24:BA:1070:A:H2'	24:BA:1097:U:O5'	2.19	0.43
40:BQ:98:ALA:HB2	40:BQ:105:PHE:CD1	2.53	0.43
6:AF:4:TYR:HE2	6:AF:6:ILE:CG1	2.32	0.43
1:CA:710:G:O2'	1:CA:711:G:H5'	2.19	0.43
1:AA:363:A:H2'	1:AA:364:A:O5'	2.19	0.43
1:CA:719:C:H4'	18:CR:38:LYS:HD3	2.00	0.43
24:BA:1575:C:H2'	24:BA:1576:U:O4'	2.19	0.43
59:BA:3748:HOH:O	26:BC:220:ARG:CZ	2.66	0.43
24:BA:1136:G:C2	24:BA:1137:G:C8	3.07	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2024:G:OP2	24:BA:2034:U:H4'	2.18	0.43
24:BA:981:A:H4'	24:BA:2037:A:H5'	2.01	0.43
1:AA:50:A:N3	1:AA:52:C:O2	2.51	0.43
1:AA:966:G:O2'	9:AI:130:ARG:OXT	2.31	0.43
24:BA:1462:C:H2'	24:BA:1463:C:C6	2.54	0.43
24:BA:1570:A:N6	24:BA:1571:A:N6	2.67	0.43
24:DA:1550:C:O2	24:DA:1551:A:C8	2.71	0.43
24:BA:2723:C:N4	24:BA:2724:U:N3	2.66	0.43
28:BE:138:LEU:O	28:BE:140:ASP:N	2.52	0.43
24:DA:1300:G:C4	24:DA:1626:A:C2	3.07	0.43
45:DV:45:ASP:HA	45:DV:48:MET:HB3	1.99	0.43
24:DA:112:U:C6	24:DA:113:U:C6	3.07	0.43
52:B2:12:ARG:NH2	52:B2:44:VAL:CG2	2.81	0.43
1:AA:581:G:N2	1:AA:759:A:OP2	2.46	0.43
1:AA:821:G:H2'	1:AA:821:G:N3	2.33	0.43
24:DA:2549:G:O2'	24:DA:2550:G:C5'	2.65	0.43
24:BA:1609:A:N1	24:BA:1616:A:C5	2.87	0.43
24:DA:1030:C:O2'	24:DA:1031:G:H5'	2.19	0.43
2:CB:70:VAL:O	2:CB:163:VAL:HA	2.19	0.43
24:DA:1504:A:N3	24:DA:1504:A:H2'	2.33	0.43
24:DA:1477:A:N6	24:DA:1514:G:O2'	2.52	0.43
24:DA:216:A:C4	24:DA:432:A:C2	3.06	0.43
1:AA:1360:A:H2'	1:AA:1361:G:C5'	2.49	0.43
24:DA:1772:A:N1	24:DA:1980:G:C6	2.87	0.43
24:BA:242:G:O2'	24:BA:243:U:OP2	2.37	0.43
1:CA:856:C:O2	1:CA:856:C:H2'	2.18	0.43
24:DA:2574:G:O2'	27:DD:148:GLN:HB3	2.18	0.43
52:B2:16:HIS:HB3	52:B2:21:ARG:NH1	2.34	0.43
24:BA:1309:G:OP1	52:B2:9:VAL:CG2	2.66	0.43
1:AA:325:A:C6	1:AA:326:G:C2	3.06	0.43
24:DA:467:G:OP1	52:D2:33:ARG:HB3	2.19	0.43
44:BU:71:ILE:CD1	44:BU:80:ASP:C	2.87	0.43
24:BA:2491:U:H5'	24:BA:2570:G:H5''	2.00	0.43
24:BA:2565:A:N6	34:BK:28:SER:HB3	2.33	0.43
11:AK:25:ALA:O	11:AK:93:ARG:NH2	2.52	0.43
1:CA:142:G:C2	1:CA:143:A:H1'	2.53	0.43
24:DA:1567:G:C2'	26:DC:84:PRO:HG3	2.46	0.43
1:AA:734:G:N2	1:AA:735:C:C2	2.87	0.43
24:BA:1429:G:C1'	24:BA:1568:G:H1'	2.49	0.43
44:BU:66:VAL:C	44:BU:68:ASN:H	2.22	0.43
18:AR:40:VAL:HG21	18:AR:44:ILE:HG21	2.01	0.43
1:AA:750:C:O2'	15:AO:23:GLY:N	2.43	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BY:60:LYS:O	48:BY:61:ALA:HB2	2.18	0.43
27:BD:3:GLY:O	27:BD:4:LEU:HD12	2.19	0.43
27:BD:47:ALA:HA	27:BD:84:LEU:HD22	2.01	0.43
1:CA:1057:G:H5''	3:CC:155:GLY:HA3	2.01	0.43
39:BP:42:PHE:CE1	39:BP:60:VAL:CG2	3.02	0.43
39:DP:89:GLY:O	39:DP:112:ARG:NH1	2.52	0.43
9:CI:117:GLY:O	9:CI:118:LEU:HD12	2.18	0.43
20:AT:55:GLN:N	20:AT:56:PRO:HD2	2.33	0.43
10:CJ:19:ASP:HA	10:CJ:22:THR:HB	2.01	0.43
3:CC:138:VAL:HG23	3:CC:139:GLN:H	1.83	0.43
39:DP:47:ILE:HA	39:DP:96:LEU:HD11	2.01	0.43
1:AA:1480:A:C6	1:AA:1481:U:N3	2.87	0.43
20:CT:29:ARG:O	20:CT:33:LYS:CB	2.67	0.43
11:AK:97:ILE:HG13	11:AK:98:ARG:N	2.34	0.43
12:AL:59:ASN:O	12:AL:59:ASN:OD1	2.37	0.43
31:BH:80:ILE:HG23	31:BH:146:VAL:HG23	2.01	0.43
15:AO:19:ALA:C	15:AO:21:ASP:N	2.72	0.43
24:BA:2100:G:C6	24:BA:2101:A:C6	3.07	0.43
55:CY:126:VAL:O	55:CY:127:ALA:C	2.57	0.43
24:BA:1257:C:H5''	28:BE:78:TRP:CH2	2.54	0.43
13:AM:46:SER:O	13:AM:47:GLU:HB3	2.18	0.43
32:BI:129:GLU:OE2	32:BI:129:GLU:N	2.50	0.43
24:DA:747:U:C4	24:DA:2613:U:C5	3.07	0.43
7:CG:64:VAL:HG12	7:CG:64:VAL:O	2.18	0.43
24:DA:1168:G:H2'	24:DA:1169:A:H8	1.84	0.43
24:BA:2880:C:O2'	37:BN:92:GLY:O	2.26	0.43
26:DC:182:LYS:N	26:DC:265:PHE:O	2.50	0.43
33:DJ:78:THR:OG1	33:DJ:80:HIS:HB2	2.19	0.43
24:BA:1223:G:N1	24:BA:1227:G:C5	2.87	0.43
31:DH:116:ARG:O	31:DH:117:LEU:C	2.58	0.43
24:DA:297:G:H2'	24:DA:298:G:O4'	2.19	0.43
24:BA:2377:A:C2'	38:BO:92:PHE:CZ	3.02	0.43
47:BX:10:ARG:CB	47:BX:11:PRO:HD2	2.48	0.43
24:BA:398:C:P	47:BX:52:ALA:HB1	2.59	0.43
1:AA:265:G:H21	17:AQ:69:LYS:HE3	1.83	0.43
24:DA:2002:G:OP1	37:DN:13:ASN:HA	2.19	0.43
1:CA:702:A:HO2'	1:CA:703:G:P	2.27	0.43
1:CA:704:A:C6	1:CA:705:G:C4	3.06	0.43
1:CA:706:A:H1'	11:CK:44:TRP:CH2	2.53	0.43
7:AG:22:LEU:O	7:AG:23:LEU:C	2.57	0.43
1:AA:542:G:O2'	1:AA:543:U:H5'	2.19	0.43
4:AD:98:LEU:HD22	4:AD:118:VAL:HG11	1.98	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:51:TYR:HA	4:AD:54:GLN:HG2	2.01	0.43
4:AD:93:LEU:N	4:AD:95:GLU:OE2	2.52	0.43
8:AH:82:GLY:O	8:AH:83:LEU:HB2	2.19	0.43
16:AP:12:LYS:O	16:AP:13:LYS:CB	2.67	0.43
1:CA:412:A:C8	1:CA:413:G:C8	3.07	0.43
1:CA:429:U:H2'	1:CA:429:U:O2	2.19	0.43
4:CD:101:VAL:O	4:CD:102:VAL:HG23	2.19	0.43
4:CD:13:ARG:HH21	4:CD:37:ALA:HB1	1.83	0.43
4:CD:155:VAL:O	4:CD:156:LYS:C	2.57	0.43
15:CO:56:LEU:CD2	15:CO:57:LEU:N	2.82	0.43
1:AA:680:C:O2'	1:AA:681:A:H5'	2.19	0.43
1:AA:781:A:C5	1:AA:802:A:C2	3.07	0.43
11:AK:125:LYS:HA	21:AU:35:ARG:CG	2.49	0.43
1:CA:1243:C:C2'	1:CA:1243:C:O2	2.66	0.43
1:CA:1298:U:C4'	1:CA:1299:A:C5	3.02	0.43
13:CM:14:HIS:CB	13:CM:17:ILE:HD13	2.48	0.43
1:CA:1330:U:H5''	13:CM:23:TYR:CE1	2.54	0.43
24:DA:1494:A:N6	24:DA:1495:A:C6	2.87	0.43
1:AA:1107:C:OP1	3:AC:172:ARG:HG2	2.19	0.43
1:AA:144:G:C2	1:AA:179:A:N3	2.87	0.43
20:AT:75:HIS:O	20:AT:79:LEU:CD1	2.66	0.43
22:CV:15:G:C4	22:CV:16:U:O4	2.72	0.43
1:CA:1150:A:H2'	10:CJ:41:PRO:HB2	2.01	0.43
1:CA:1279:G:H4'	1:CA:1280:A:OP1	2.17	0.43
9:CI:67:VAL:HG21	9:CI:79:ILE:HD11	2.00	0.43
24:DA:1651:G:C2	24:DA:2007:U:C2	3.07	0.43
2:AB:57:LEU:CD1	2:AB:58:ASN:H	2.32	0.43
1:AA:1002:G:C4	1:AA:1003:G:C8	3.06	0.43
50:B0:2:VAL:HG13	50:B0:3:GLN:HB2	2.01	0.43
24:BA:2020:A:N1	24:BA:2035:G:C6	2.87	0.43
39:DP:72:VAL:HG23	39:DP:72:VAL:O	2.18	0.43
12:CL:29:GLN:CB	12:CL:82:ILE:O	2.67	0.43
12:CL:86:ARG:HG2	12:CL:87:VAL:N	2.34	0.43
24:DA:538:A:O2'	33:DJ:8:PRO:HD2	2.19	0.43
15:CO:11:ILE:HD13	15:CO:31:LEU:CD1	2.48	0.43
24:BA:2284:A:C2'	24:BA:2285:C:O5'	2.67	0.43
1:CA:444:G:N1	1:CA:445:G:C5	2.87	0.43
20:CT:67:ILE:HG13	20:CT:71:LYS:CG	2.49	0.43
24:BA:584:C:C2'	24:BA:585:G:O5'	2.66	0.43
24:DA:2223:G:H4'	26:DC:264:LYS:NZ	2.34	0.43
13:AM:38:GLY:C	13:AM:39:ILE:HG23	2.39	0.43
24:DA:1876:A:C2	24:DA:1877:A:C4	3.07	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1357:C:C5	24:BA:1358:G:C5	3.07	0.43
24:BA:1372:U:O2	24:BA:1373:A:C8	2.72	0.43
24:BA:1376:C:H2'	24:BA:1377:G:O4'	2.19	0.43
24:DA:970:U:O2'	24:DA:971:G:H5'	2.19	0.43
24:DA:2331:G:P	46:DW:44:LYS:HZ1	2.41	0.43
3:AC:60:PRO:O	3:AC:63:SER:OG	2.36	0.43
1:CA:212:G:H2'	1:CA:213:G:C8	2.54	0.43
21:AU:29:LEU:HD23	21:AU:30:ALA:N	2.34	0.43
1:AA:1438:G:H5''	20:AT:29:ARG:NH1	2.33	0.43
1:CA:1349:A:P	9:CI:120:LYS:HE3	2.58	0.43
39:BP:17:PRO:HG2	39:BP:83:ILE:HD11	2.01	0.43
26:BC:43:ASN:C	26:BC:45:ASN:N	2.70	0.43
4:AD:192:SER:O	4:AD:193:ALA:CB	2.67	0.43
40:DQ:69:ARG:O	40:DQ:72:GLY:N	2.43	0.43
24:BA:2094:A:H5'	31:BH:25:TYR:CD2	2.54	0.43
2:CB:147:SER:O	2:CB:148:LEU:HB3	2.19	0.43
24:BA:496:G:C6	24:BA:497:A:C5	3.06	0.43
42:BS:43:ALA:O	42:BS:46:LEU:O	2.37	0.43
25:DB:23:G:C2	25:DB:61:G:C2	3.07	0.43
24:DA:813:U:H2'	24:DA:814:C:C6	2.54	0.43
1:AA:174:A:C6	1:AA:175:C:C5	3.06	0.43
24:DA:1665:A:H2'	24:DA:1666:G:O4'	2.19	0.43
1:AA:361:G:C2'	1:AA:362:G:H5'	2.49	0.43
24:DA:2061:G:N3	24:DA:2063:C:C5	2.86	0.43
24:DA:168:G:H2'	24:DA:168:G:N3	2.33	0.43
43:BT:61:LEU:CD1	43:BT:82:LYS:HB3	2.49	0.43
24:DA:223:A:H2	24:DA:407:G:N3	2.16	0.43
24:DA:1243:C:N3	24:DA:1244:A:C8	2.87	0.43
24:DA:954:G:N3	24:DA:2274:A:C2	2.87	0.43
24:BA:222:A:N6	24:BA:231:A:C2	2.87	0.43
2:CB:43:LEU:HA	2:CB:46:THR:HG23	2.00	0.43
24:BA:89:A:C6	24:BA:90:U:C4	3.07	0.43
2:CB:81:LYS:HE2	2:CB:91:PHE:CZ	2.54	0.43
1:AA:1531:A:C2'	1:AA:1532:U:H5'	2.48	0.43
24:BA:1420:A:C2	24:BA:2211:A:C4	3.07	0.43
28:BE:109:LEU:O	28:BE:111:GLU:N	2.52	0.43
1:CA:198:G:N2	1:CA:199:A:C4	2.87	0.43
26:BC:154:ALA:C	26:BC:156:SER:H	2.22	0.43
24:BA:1869:G:N2	24:BA:1873:G:C6	2.87	0.43
33:DJ:114:LEU:O	33:DJ:118:MET:N	2.51	0.43
24:BA:126:A:C4	52:B2:18:PHE:CE2	3.06	0.43
24:DA:102:U:O2	24:DA:102:U:C2'	2.66	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1724:G:C2'	24:BA:1725:U:O5'	2.66	0.43
24:DA:1622:G:N3	24:DA:1623:G:C8	2.87	0.43
26:BC:71:ASP:OD1	26:BC:118:GLY:HA2	2.18	0.43
55:CY:132:ARG:O	55:CY:133:ARG:C	2.57	0.43
11:CK:109:ASN:HB2	21:CU:7:ARG:HD3	2.00	0.43
1:CA:639:G:C6	1:CA:640:A:N7	2.87	0.43
41:DR:23:GLU:O	41:DR:24:LYS:C	2.58	0.43
33:DJ:102:GLU:CG	33:DJ:124:VAL:HG11	2.49	0.43
27:BD:34:VAL:CG2	27:BD:48:ILE:HD11	2.49	0.43
2:CB:38:VAL:O	2:CB:39:HIS:C	2.57	0.43
1:CA:292:G:N2	1:CA:309:A:C4	2.87	0.43
1:CA:1272:G:C8	1:CA:1273:C:C5	3.07	0.43
24:BA:2103:C:H2'	24:BA:2104:C:C5	2.54	0.43
24:DA:1782:U:C4	24:DA:2587:A:C2	3.06	0.43
44:BU:7:ASP:O	44:BU:8:ASP:CB	2.67	0.43
12:AL:52:VAL:HG23	12:AL:53:CYS:N	2.33	0.43
43:DT:92:ASN:C	43:DT:92:ASN:OD1	2.57	0.43
32:BI:105:LEU:O	32:BI:108:ILE:O	2.37	0.43
24:DA:797:G:OP1	28:DE:57:LYS:CE	2.67	0.43
24:BA:2898:U:H2'	24:BA:2899:A:H8	1.83	0.43
41:BR:4:VAL:CG1	41:BR:40:MET:HB3	2.49	0.43
4:CD:56:ARG:NE	4:CD:60:LYS:HE2	2.34	0.43
4:CD:56:ARG:CZ	4:CD:60:LYS:HE2	2.49	0.43
34:BK:62:VAL:CG1	34:BK:65:THR:HG22	2.49	0.43
22:AV:21:A:C6	22:AV:46:G:C5	3.06	0.43
8:CH:93:PRO:HG3	8:CH:125:ILE:HD12	2.00	0.43
1:AA:320:A:C2	1:AA:334:C:N3	2.87	0.43
1:AA:969:A:H2'	1:AA:970:C:O4'	2.19	0.43
1:AA:731:G:C2'	1:AA:732:C:H5'	2.49	0.43
45:BV:41:GLU:C	45:BV:42:LEU:HD23	2.39	0.43
40:BQ:77:LYS:O	40:BQ:78:PHE:C	2.57	0.43
5:AE:116:GLU:HG3	5:AE:117:VAL:N	2.34	0.43
1:AA:1242:G:C2	1:AA:1243:C:C2	3.07	0.43
1:CA:1007:U:O4	1:CA:1022:A:N1	2.52	0.43
37:DN:49:GLU:HB2	37:DN:50:PRO:HD3	2.01	0.43
24:BA:1455:G:C2	24:BA:1456:G:C8	3.07	0.43
41:BR:41:ILE:CG1	41:BR:47:VAL:HG12	2.49	0.43
7:AG:148:ASN:C	7:AG:150:ALA:N	2.72	0.43
24:BA:2694:G:C6	24:BA:2695:U:C4	3.07	0.43
12:CL:3:THR:HB	12:CL:6:GLN:HB2	2.01	0.43
1:AA:314:C:O2'	1:AA:315:A:H5'	2.19	0.43
24:DA:730:A:OP2	24:DA:731:C:OP2	2.37	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1688:U:O2	24:BA:1700:A:H5''	2.19	0.43
22:CV:39:U:OP2	22:CV:39:U:C6	2.72	0.43
46:BW:80:ILE:N	46:BW:80:ILE:HD12	2.33	0.43
12:AL:44:LYS:N	12:AL:44:LYS:HD2	2.34	0.42
24:BA:1223:G:C2	24:BA:1227:G:C4	3.07	0.42
24:DA:1910:G:C6	24:DA:1921:G:C6	3.07	0.42
1:AA:1375:A:C2	1:AA:1376:U:H1'	2.54	0.42
25:BB:29:A:H2'	25:BB:30:C:O4'	2.19	0.42
14:AN:19:TYR:O	14:AN:22:LYS:HB3	2.18	0.42
53:B3:28:LEU:HD12	53:B3:40:LYS:HG2	2.01	0.42
47:BX:7:THR:O	47:BX:8:GLY:C	2.58	0.42
8:AH:10:MET:HE2	8:AH:33:LYS:CG	2.49	0.42
8:AH:15:ARG:NH1	8:AH:15:ARG:HG2	2.33	0.42
1:CA:554:A:H5'	12:CL:26:ALA:HB1	2.01	0.42
1:AA:257:G:C2	1:AA:270:A:N1	2.86	0.42
1:CA:787:A:C2	1:CA:788:U:H1'	2.54	0.42
11:CK:25:ALA:O	11:CK:26:SER:C	2.57	0.42
1:AA:540:G:O6	1:AA:541:G:C6	2.72	0.42
1:AA:550:G:C5	1:AA:551:U:C5	3.06	0.42
1:AA:59:A:C5	1:AA:331:G:N2	2.87	0.42
4:AD:103:TYR:CE1	4:AD:114:ALA:CB	3.02	0.42
5:AE:107:ALA:HB1	5:AE:125:ALA:HB3	2.01	0.42
1:AA:1078:U:H2'	1:AA:1079:G:C8	2.54	0.42
1:CA:1503:A:H5'	1:CA:1531:A:H1'	2.01	0.42
4:CD:22:LYS:CG	4:CD:25:VAL:HG13	2.46	0.42
4:CD:4:TYR:CE1	4:CD:63:ARG:NH2	2.87	0.42
4:CD:95:GLU:OE2	4:CD:100:ASN:ND2	2.52	0.42
1:AA:681:A:N1	1:AA:710:G:C5	2.86	0.42
1:AA:1505:G:C2'	23:AX:12:A:OP2	2.66	0.42
13:CM:75:MET:HA	13:CM:78:LYS:HB2	2.01	0.42
37:BN:31:HIS:C	37:BN:33:ILE:H	2.21	0.42
24:DA:1073:A:H3'	24:DA:1074:G:H5''	2.00	0.42
1:AA:1108:G:H2'	1:AA:1109:C:C5'	2.48	0.42
1:AA:1069:C:O4'	1:AA:1191:A:C2	2.72	0.42
2:AB:135:LEU:O	2:AB:138:THR:N	2.51	0.42
2:AB:170:HIS:O	2:AB:172:ALA:N	2.52	0.42
41:BR:83:TYR:C	41:BR:83:TYR:CD1	2.91	0.42
1:AA:1124:G:O2'	1:AA:1125:U:P	2.76	0.42
57:AA:1657:NMY:HN21	57:AA:1657:NMY:H172	1.83	0.42
1:AA:141:G:C2	1:AA:223:A:C2	3.06	0.42
1:CA:1017:U:H2'	1:CA:1018:G:H5''	2.01	0.42
1:CA:957:U:O2	1:CA:959:A:OP2	2.37	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:CV:15:G:C2'	22:CV:16:U:C6	3.02	0.42
17:AQ:12:VAL:O	17:AQ:22:VAL:O	2.37	0.42
55:CY:159:ASP:HA	55:CY:162:LYS:CB	2.49	0.42
24:BA:2119:A:N6	24:BA:2170:A:N7	2.67	0.42
24:BA:2685:G:OP1	34:BK:78:ARG:NH2	2.52	0.42
34:BK:27:GLY:HA3	34:BK:30:ARG:HB3	2.01	0.42
24:BA:1996:C:OP1	34:BK:31:ARG:CZ	2.67	0.42
24:BA:2041:U:C5	24:BA:2042:A:N7	2.87	0.42
24:BA:110:G:H2'	24:BA:111:A:H5'	2.01	0.42
1:CA:1128:C:H4'	1:CA:1148:U:O2	2.19	0.42
10:CJ:36:VAL:HA	10:CJ:75:ASP:OD1	2.18	0.42
1:AA:1003:G:N1	1:AA:1036:A:N6	2.67	0.42
24:BA:564:C:H1'	40:BQ:36:GLN:OE1	2.19	0.42
57:DA:3186:NMY:C14	57:DA:3186:NMY:N2	2.82	0.42
24:BA:2285:C:H3'	51:B1:24:LYS:NZ	2.34	0.42
20:CT:51:PHE:C	20:CT:53:GLU:N	2.70	0.42
25:BB:91:C:P	36:BM:18:ARG:NH1	2.89	0.42
26:DC:144:GLU:OE1	26:DC:147:PRO:HA	2.19	0.42
1:AA:1329:A:C5	1:AA:1330:U:C5	3.07	0.42
1:AA:1332:A:C6	1:AA:1333:A:C6	3.07	0.42
7:AG:125:SER:O	7:AG:127:ALA:N	2.51	0.42
1:CA:1316:G:N2	1:CA:1318:A:H3'	2.34	0.42
24:BA:2367:G:C6	24:BA:2368:C:N4	2.86	0.42
1:AA:830:G:O2'	1:AA:831:A:H5'	2.19	0.42
24:BA:2302:U:N3	24:BA:2303:G:C8	2.87	0.42
29:BF:127:TYR:C	29:BF:155:ILE:HG22	2.39	0.42
24:DA:2314:A:H5''	29:DF:34:THR:HG21	2.00	0.42
29:DF:4:HIS:HB2	29:DF:96:TRP:CD2	2.54	0.42
47:DX:30:PRO:C	47:DX:32:LEU:H	2.22	0.42
24:BA:2524:G:O2'	24:BA:2740:A:N6	2.51	0.42
34:DK:111:LYS:HD2	34:DK:112:PHE:CE1	2.54	0.42
24:BA:458:G:H22	24:BA:469:G:H2'	1.82	0.42
1:AA:828:U:O2'	2:AB:25:PRO:HB2	2.19	0.42
37:BN:83:LEU:N	37:BN:83:LEU:HD23	2.33	0.42
1:AA:205:A:C5	1:AA:206:C:N4	2.87	0.42
24:DA:189:G:OP1	47:DX:25:LYS:HD3	2.19	0.42
24:DA:678:C:H2'	24:DA:679:C:C6	2.54	0.42
7:CG:102:ARG:O	7:CG:103:TRP:C	2.58	0.42
7:CG:120:LEU:O	7:CG:122:ASN:CG	2.58	0.42
7:CG:126:ASP:OD1	7:CG:132:GLY:HA3	2.19	0.42
26:DC:203:VAL:O	26:DC:204:LEU:HB2	2.19	0.42
28:BE:176:ASP:OD1	28:BE:178:VAL:N	2.52	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:79:LYS:CE	1:CA:1539:C:OP2	2.66	0.42
25:DB:98:G:H22	45:DV:14:LYS:HE2	1.84	0.42
21:AU:14:VAL:O	21:AU:16:LEU:CD1	2.67	0.42
40:DQ:109:VAL:CG1	40:DQ:113:LYS:HE2	2.49	0.42
31:BH:27:ARG:O	31:BH:32:PRO:HG3	2.16	0.42
24:BA:483:A:C2	24:BA:484:C:O4'	2.72	0.42
1:AA:177:G:OP1	20:AT:60:ARG:HD3	2.19	0.42
24:BA:72:U:P	43:BT:6:ARG:HH22	2.42	0.42
24:BA:158:U:H2'	24:BA:159:G:C5'	2.49	0.42
24:DA:2597:G:C5'	26:DC:239:PHE:O	2.61	0.42
24:DA:735:A:N7	24:DA:736:C:C5	2.86	0.42
24:BA:693:A:C5	24:BA:694:U:C5	3.07	0.42
24:DA:910:A:H2'	24:DA:911:A:C8	2.54	0.42
49:BZ:24:LEU:HD22	49:BZ:24:LEU:HA	1.87	0.42
24:DA:227:A:C5	24:DA:2407:A:H1'	2.54	0.42
24:DA:137:U:O2'	24:DA:139:U:H2'	2.19	0.42
24:DA:1243:C:C2	24:DA:1244:A:C8	3.07	0.42
24:BA:1531:C:C4	24:BA:1532:A:C2	3.07	0.42
1:AA:575:G:H4'	1:AA:576:C:OP1	2.18	0.42
12:AL:2:ALA:O	12:AL:3:THR:C	2.58	0.42
13:CM:114:LYS:N	13:CM:115:PRO:CD	2.82	0.42
13:CM:114:LYS:N	13:CM:115:PRO:HD2	2.34	0.42
30:DG:54:ARG:CD	30:DG:57:TYR:CE2	3.00	0.42
1:CA:156:C:N4	1:CA:157:U:O2	2.52	0.42
17:AQ:29:VAL:CG1	17:AQ:30:LYS:N	2.82	0.42
1:CA:1158:C:N4	1:CA:1160:G:C5	2.87	0.42
1:AA:490:C:C4	1:AA:491:G:N7	2.87	0.42
1:AA:490:C:H2'	1:AA:491:G:O4'	2.19	0.42
1:AA:978:A:N6	1:AA:1318:A:C5	2.87	0.42
1:AA:506:G:C5	1:AA:507:C:C4	3.07	0.42
1:CA:608:A:C4	1:CA:609:A:C8	3.07	0.42
18:CR:48:ARG:CG	18:CR:51:TYR:HD2	2.31	0.42
24:DA:2618:G:HO2'	24:DA:2619:C:H5'	1.84	0.42
24:DA:2318:G:N7	24:DA:2319:G:C6	2.87	0.42
24:BA:2813:A:H2'	24:BA:2814:A:O4'	2.19	0.42
24:BA:2814:A:C2'	24:BA:2815:C:H5'	2.49	0.42
24:BA:2886:A:C5	24:BA:2887:A:C8	3.07	0.42
24:BA:2886:A:C6	24:BA:2887:A:C5	3.07	0.42
2:AB:63:ARG:O	2:AB:64:LYS:C	2.57	0.42
24:DA:79:C:O2'	24:DA:346:A:N3	2.41	0.42
38:DO:5:SER:O	38:DO:6:ALA:C	2.55	0.42
24:DA:2128:G:C5	24:DA:2129:C:C4	3.06	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2614:A:O5'	24:DA:2614:A:H2'	2.19	0.42
24:BA:1592:C:H2'	24:BA:1593:A:C8	2.54	0.42
1:AA:227:G:H2'	1:AA:228:A:C8	2.53	0.42
1:AA:522:C:H2'	1:AA:523:A:C8	2.54	0.42
26:BC:235:GLU:CG	26:BC:235:GLU:O	2.67	0.42
17:CQ:63:GLU:HA	17:CQ:73:TRP:CE3	2.54	0.42
15:AO:25:THR:OG1	15:AO:26:GLU:N	2.52	0.42
4:CD:30:THR:C	4:CD:31:LYS:HE2	2.39	0.42
19:AS:44:MET:O	19:AS:62:VAL:CG2	2.67	0.42
24:DA:2557:G:H2'	24:DA:2558:C:C6	2.54	0.42
50:B0:43:THR:O	50:B0:44:ALA:C	2.56	0.42
24:DA:498:G:C6	24:DA:499:U:C4	3.07	0.42
39:BP:62:LYS:HG2	39:BP:63:ILE:N	2.34	0.42
24:BA:21:A:C2	24:BA:520:G:N3	2.87	0.42
24:DA:2024:G:O3'	27:DD:154:LYS:CE	2.67	0.42
1:AA:935:A:C2	7:AG:3:ARG:NH2	2.87	0.42
43:BT:29:THR:OG1	43:BT:86:THR:HG22	2.19	0.42
2:AB:104:TRP:CZ2	2:AB:155:GLY:HA2	2.54	0.42
3:AC:112:ASP:OD2	3:AC:115:LEU:HB2	2.18	0.42
36:BM:108:VAL:HG13	36:BM:109:PRO:HD2	2.01	0.42
32:DI:17:ALA:O	32:DI:18:ASN:HB3	2.18	0.42
3:AC:125:GLU:C	3:AC:127:ARG:N	2.70	0.42
24:BA:1300:G:C2	24:BA:1626:A:C6	3.07	0.42
1:AA:341:C:O2	1:AA:349:A:C2	2.72	0.42
4:AD:136:GLN:HG3	4:AD:136:GLN:O	2.19	0.42
36:BM:34:LYS:HD3	36:BM:99:GLY:HA2	2.01	0.42
34:DK:61:VAL:HG12	34:DK:87:LEU:HD21	1.99	0.42
24:BA:1195:G:C2'	24:BA:1196:C:H5'	2.49	0.42
3:AC:150:LYS:HA	3:AC:168:TYR:O	2.19	0.42
16:AP:73:ALA:C	16:AP:74:LEU:HD23	2.40	0.42
38:DO:44:GLY:C	38:DO:46:GLU:H	2.22	0.42
24:BA:2588:G:OP1	59:BA:3319:HOH:O	2.22	0.42
24:BA:105:C:H2'	24:BA:106:C:C6	2.54	0.42
27:BD:39:ASP:OD1	27:BD:40:LEU:N	2.52	0.42
1:CA:1393:U:H2'	1:CA:1393:U:O2	2.18	0.42
41:BR:26:ASP:O	41:BR:27:ILE:HD13	2.19	0.42
24:DA:1964:G:H3'	24:DA:1965:C:H5'	2.01	0.42
1:AA:1220:G:C2'	19:AS:36:ARG:HH21	2.28	0.42
19:AS:71:LEU:O	19:AS:74:PHE:N	2.47	0.42
24:BA:2377:A:N3	38:BO:92:PHE:HZ	2.14	0.42
24:DA:2428:G:H5''	24:DA:2429:G:P	2.59	0.42
26:DC:216:ARG:NH1	26:DC:216:ARG:HG3	2.34	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:250:G:C5	24:BA:251:A:C6	3.06	0.42
24:BA:408:G:C6	24:BA:409:G:C5	3.07	0.42
1:CA:363:A:OP1	12:CL:30:LYS:HE3	2.19	0.42
1:CA:794:A:O2'	1:CA:795:C:H5'	2.18	0.42
1:AA:10:A:P	5:AE:131:THR:HG21	2.58	0.42
1:AA:646:G:C2'	1:AA:647:C:H5'	2.49	0.42
4:AD:115:ARG:O	4:AD:117:LEU:O	2.36	0.42
1:AA:36:C:H5''	12:AL:119:VAL:C	2.39	0.42
4:CD:168:PRO:O	4:CD:169:THR:HB	2.18	0.42
1:CA:760:G:H5'	1:CA:761:G:OP2	2.19	0.42
1:CA:1245:C:H2'	1:CA:1246:A:C8	2.55	0.42
1:CA:1310:G:H5''	13:CM:79:ARG:CZ	2.49	0.42
29:DF:106:ALA:HA	29:DF:136:ILE:HG22	2.00	0.42
24:DA:1060:U:H4'	24:DA:1061:U:C5'	2.47	0.42
24:DA:1417:C:C4	24:DA:1418:G:C6	3.07	0.42
24:DA:806:C:OP2	35:DL:37:GLY:CA	2.67	0.42
1:CA:1014:A:C2	19:CS:34:TRP:CZ2	3.06	0.42
55:CY:158:ASP:O	55:CY:160:VAL:N	2.45	0.42
24:BA:2689:U:H4'	24:BA:2690:U:OP2	2.18	0.42
11:CK:14:LYS:O	11:CK:15:GLN:CB	2.67	0.42
57:DA:3190:NMY:O17	57:DA:3190:NMY:H2	2.18	0.42
24:BA:577:G:O2'	24:BA:578:G:H5'	2.18	0.42
24:BA:2709:G:C6	24:BA:2710:C:N4	2.87	0.42
20:CT:69:LYS:O	20:CT:70:ASN:C	2.57	0.42
24:DA:2221:G:C6	24:DA:2222:C:C5	3.07	0.42
24:BA:608:A:C3'	24:BA:609:A:H8	2.31	0.42
1:AA:1237:C:C6	1:AA:1336:C:C4	3.06	0.42
14:CN:19:TYR:CE2	14:CN:51:LEU:HB3	2.54	0.42
12:CL:44:LYS:HD2	12:CL:44:LYS:HA	1.89	0.42
24:DA:2326:C:C1'	24:DA:2327:A:OP1	2.66	0.42
3:AC:29:PHE:O	3:AC:33:LEU:N	2.49	0.42
14:AN:87:ALA:O	14:AN:88:ALA:C	2.58	0.42
29:DF:127:TYR:CD1	29:DF:169:LEU:HD11	2.54	0.42
11:AK:89:PRO:HG3	21:AU:29:LEU:HD21	2.02	0.42
21:CU:10:GLU:CB	21:CU:11:PRO:CD	2.96	0.42
1:AA:1048:G:H2'	1:AA:1050:G:C8	2.54	0.42
14:AN:2:LYS:HB3	14:AN:5:MET:CG	2.49	0.42
1:AA:1465:A:H2'	1:AA:1466:C:O4'	2.19	0.42
24:BA:2655:G:C2	24:BA:2664:G:C5	3.07	0.42
24:BA:591:U:N3	24:BA:592:A:N7	2.67	0.42
2:AB:39:HIS:HB2	2:AB:189:THR:HG21	2.01	0.42
22:CV:76:A:C2	24:DA:2421:G:C6	3.06	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BL:93:ASN:HB2	35:BL:96:LYS:HD3	2.01	0.42
9:CI:130:ARG:CZ	22:CV:33:U:C6	3.02	0.42
30:BG:139:VAL:HG12	30:BG:143:VAL:CG2	2.49	0.42
25:BB:114:C:C4'	38:BO:47:VAL:CG1	2.97	0.42
25:BB:114:C:H4'	38:BO:47:VAL:CG1	2.49	0.42
24:DA:1002:G:C6	24:DA:1154:G:N2	2.87	0.42
45:BV:80:HIS:HB2	45:BV:83:LYS:NZ	2.34	0.42
24:BA:1172:C:C5	24:BA:1173:U:C4	3.07	0.42
44:BU:42:LYS:N	44:BU:59:GLU:OE1	2.51	0.42
1:CA:723:U:OP1	21:CU:49:LYS:HG3	2.19	0.42
24:DA:1666:G:H4'	34:DK:6:THR:CG2	2.49	0.42
24:BA:2204:G:C6	24:BA:2221:G:C4	3.08	0.42
1:AA:328:C:H4'	1:AA:329:A:C5'	2.46	0.42
9:AI:129:LYS:C	9:AI:130:ARG:HG2	2.39	0.42
1:AA:791:G:C5	1:AA:792:A:N7	2.87	0.42
24:BA:2703:C:O2'	24:BA:2704:C:C5'	2.67	0.42
24:BA:1425:G:H2'	24:BA:1426:G:C8	2.54	0.42
24:DA:2347:C:O2	51:D1:38:PHE:CD2	2.72	0.42
24:BA:2496:C:P	36:BM:81:ARG:O	2.77	0.42
49:BZ:50:VAL:CG2	49:BZ:53:MET:HG3	2.49	0.42
24:DA:1628:G:O2'	24:DA:1629:U:H5'	2.19	0.42
24:DA:1014:A:C2	24:DA:1149:G:N3	2.86	0.42
25:BB:21:G:H2'	25:BB:22:U:O4'	2.19	0.42
1:CA:1192:C:H2'	1:CA:1193:G:O4'	2.19	0.42
6:CF:96:VAL:O	6:CF:97:THR:HG23	2.19	0.42
6:CF:98:GLU:O	6:CF:99:ALA:C	2.57	0.42
1:CA:105:G:H2'	1:CA:106:C:C6	2.53	0.42
39:BP:97:TYR:CD1	39:BP:100:ARG:NH1	2.88	0.42
2:AB:186:ILE:HA	2:AB:200:ILE:HB	2.01	0.42
3:CC:156:ARG:CZ	3:CC:193:TYR:CZ	3.02	0.42
24:DA:2117:A:N3	24:DA:2117:A:H2'	2.33	0.42
15:AO:11:ILE:C	15:AO:13:SER:N	2.72	0.42
5:AE:151:GLU:O	5:AE:155:ALA:N	2.52	0.42
1:AA:1020:G:N2	1:AA:1021:A:C6	2.87	0.42
17:AQ:29:VAL:HG13	17:AQ:30:LYS:N	2.34	0.42
1:AA:1269:A:C2	1:AA:1313:U:C1'	3.01	0.42
3:CC:116:VAL:HA	3:CC:119:SER:HB3	2.01	0.42
3:CC:175:LEU:HD11	3:CC:201:TRP:CD1	2.54	0.42
1:CA:476:U:H2'	1:CA:477:C:H6	1.84	0.42
24:BA:1606:C:C2'	24:BA:1607:C:OP2	2.66	0.42
44:BU:10:VAL:O	44:BU:21:ARG:HG2	2.19	0.42
24:BA:2513:A:C6	24:BA:2574:G:C5	3.07	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1789:A:H5''	26:DC:218:THR:O	2.19	0.42
24:DA:2128:G:C6	24:DA:2129:C:N3	2.87	0.42
8:CH:11:LEU:HA	8:CH:11:LEU:HD13	1.88	0.42
26:DC:72:GLY:C	26:DC:73:ILE:HD12	2.39	0.42
1:CA:31:G:O4'	1:CA:306:A:C2	2.72	0.42
50:D0:52:LYS:HE2	50:D0:55:ALA:CA	2.49	0.42
3:CC:73:PRO:HG3	3:CC:105:GLU:CG	2.49	0.42
24:DA:2599:G:C2'	24:DA:2600:A:H5'	2.49	0.42
1:CA:1175:G:C2	1:CA:1176:A:C8	3.07	0.42
24:BA:1832:C:N4	24:BA:1833:C:C4	2.86	0.42
24:DA:1429:G:N3	24:DA:1568:G:C2	2.87	0.42
24:BA:214:G:H1'	24:BA:217:A:H5'	2.01	0.42
24:BA:1322:A:O3'	42:BS:84:ARG:NH1	2.45	0.42
24:DA:2540:C:C2	24:DA:2541:A:C8	3.07	0.42
24:DA:1985:C:C2'	24:DA:1986:C:H5'	2.49	0.42
24:BA:2806:C:H2'	24:BA:2807:U:O4'	2.20	0.42
33:DJ:117:ALA:HA	33:DJ:120:ARG:NE	2.35	0.42
24:BA:2142:A:N1	24:BA:2149:U:C4	2.87	0.42
24:BA:1075:C:C4	24:BA:1076:C:N4	2.87	0.42
44:DU:35:VAL:HB	44:DU:38:ILE:HG13	2.01	0.42
42:DS:51:LEU:C	42:DS:53:SER:N	2.73	0.42
30:DG:25:ILE:HG21	30:DG:75:VAL:HA	2.01	0.42
53:B3:6:VAL:CG1	53:B3:60:CYS:CB	2.97	0.42
1:CA:972:C:O2'	10:CJ:57:VAL:HA	2.19	0.42
24:BA:876:C:C4	24:BA:877:A:C4	3.08	0.42
19:AS:47:LEU:O	19:AS:62:VAL:HG22	2.19	0.42
1:AA:1302:C:OP1	13:AM:13:LYS:CE	2.67	0.42
32:BI:100:ILE:CG2	32:BI:105:LEU:HG	2.50	0.42
24:DA:1661:G:C4	24:DA:1662:U:C5	3.07	0.42
43:BT:63:VAL:CG2	43:BT:80:TRP:CE2	3.02	0.42
35:BL:91:ASP:H	35:BL:94:THR:HG22	1.83	0.42
1:CA:320:A:O2'	1:CA:1435:G:H1'	2.19	0.42
24:DA:2884:U:H5	50:D0:39:ARG:HG3	1.84	0.42
26:DC:138:SER:HB3	26:DC:163:ILE:HD11	2.00	0.42
11:AK:109:ASN:CG	11:AK:110:ILE:N	2.72	0.42
24:DA:283:G:H2'	24:DA:284:U:O4'	2.19	0.42
24:DA:330:A:H4'	24:DA:331:C:OP2	2.18	0.42
26:BC:58:LYS:O	26:BC:59:GLN:HG3	2.19	0.42
41:BR:41:ILE:HD11	41:BR:47:VAL:HG12	2.02	0.42
3:CC:111:LEU:HD21	3:CC:144:LEU:HB2	2.01	0.42
1:CA:807:A:C5	1:CA:808:C:N3	2.86	0.42
24:BA:375:G:N2	24:BA:376:G:H1'	2.34	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2219:U:H2'	24:DA:2220:U:O4'	2.18	0.42
30:BG:115:GLN:CD	30:BG:115:GLN:N	2.72	0.42
4:AD:199:LEU:HD23	4:AD:199:LEU:HA	1.85	0.42
24:DA:2075:U:C4	24:DA:2238:G:C6	3.08	0.42
54:D4:25:VAL:HG11	54:D4:33:HIS:O	2.18	0.42
54:D4:31:PRO:C	54:D4:33:HIS:N	2.71	0.42
1:AA:1234:C:C1'	1:AA:1364:U:H6	2.31	0.42
1:AA:1355:G:C2	1:AA:1368:A:C2	3.07	0.42
13:AM:78:LYS:O	13:AM:79:ARG:C	2.56	0.42
19:AS:36:ARG:CD	19:AS:72:GLY:HA2	2.49	0.42
38:BO:16:ARG:HD2	38:BO:19:GLN:OE1	2.20	0.42
53:D3:25:HIS:HB2	53:D3:43:LEU:HB3	2.00	0.42
1:CA:47:C:O2	1:CA:49:U:C5	2.73	0.42
1:AA:57:G:C5	1:AA:58:C:C4	3.07	0.42
4:AD:104:ARG:O	4:AD:171:LEU:HD21	2.19	0.42
5:AE:141:ILE:O	5:AE:144:LEU:N	2.40	0.42
8:AH:104:VAL:HG11	8:AH:116:ALA:HB2	2.01	0.42
31:DH:148:ALA:O	31:DH:149:GLU:CB	2.66	0.42
1:AA:55:A:N1	31:DH:91:PHE:CA	2.82	0.42
1:AA:923:A:O4'	1:AA:1398:A:C2	2.72	0.42
5:AE:34:THR:HB	5:AE:52:LYS:HB3	2.01	0.42
4:CD:62:ARG:NH1	4:CD:69:GLU:N	2.66	0.42
1:CA:725:G:C2	1:CA:726:C:N1	2.87	0.42
1:AA:676:A:H5''	11:AK:115:PRO:CB	2.47	0.42
1:AA:676:A:C2	1:AA:677:U:N3	2.87	0.42
1:AA:707:U:C2	1:AA:708:C:C5	3.08	0.42
11:AK:125:LYS:O	21:AU:35:ARG:HB2	2.20	0.42
1:AA:671:G:C3'	6:AF:79:ARG:HH22	2.32	0.42
3:AC:2:GLY:O	3:AC:3:GLN:HG2	2.19	0.42
13:CM:84:GLY:N	19:CS:74:PHE:CZ	2.87	0.42
24:DA:1060:U:O4'	24:DA:1061:U:H3'	2.19	0.42
11:CK:20:VAL:CG2	11:CK:21:ALA:N	2.82	0.42
28:BE:60:TRP:O	28:BE:61:ARG:O	2.37	0.42
1:AA:1130:A:O2'	9:AI:5:GLN:NE2	2.52	0.42
1:AA:184:G:C5	1:AA:185:U:C5	3.06	0.42
1:CA:952:U:O4	13:CM:103:LYS:HE3	2.19	0.42
19:CS:31:LEU:O	19:CS:50:ALA:CB	2.67	0.42
19:CS:12:ASP:OD2	19:CS:37:ARG:NH2	2.52	0.42
19:CS:48:THR:HG1	19:CS:49:ILE:H	1.67	0.42
24:BA:1124:G:H2'	24:BA:1125:G:O4'	2.18	0.42
4:CD:91:LEU:O	4:CD:93:LEU:N	2.49	0.42
24:BA:2001:C:H1'	24:BA:2689:U:C4	2.55	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CJ:40:ILE:HG12	10:CJ:73:LEU:HD12	2.01	0.42
24:DA:1651:G:C6	24:DA:1652:A:C5	3.07	0.42
24:BA:2779:U:O4'	24:BA:2781:A:C5	2.72	0.42
1:CA:110:C:N4	1:CA:111:G:C6	2.87	0.42
1:CA:392:C:OP1	16:CP:8:ARG:NH2	2.46	0.42
24:DA:2820:A:N1	37:DN:4:ARG:NH2	2.63	0.42
24:DA:2820:A:O2'	24:DA:2821:A:OP1	2.36	0.42
24:DA:2221:G:H2'	24:DA:2222:C:H6	1.84	0.42
1:CA:1211:U:O4'	1:CA:1213:A:N3	2.53	0.42
1:CA:649:A:H3'	1:CA:650:G:H5''	2.00	0.42
8:CH:29:SER:HB3	8:CH:57:PRO:HB2	2.00	0.42
15:CO:27:VAL:HG23	15:CO:28:GLN:N	2.28	0.42
24:BA:2748:A:N1	24:BA:2749:A:C4	2.87	0.42
3:CC:36:ASP:O	3:CC:39:VAL:CG2	2.67	0.42
7:CG:99:LEU:CD1	7:CG:137:LYS:NZ	2.81	0.42
6:CF:25:TYR:O	6:CF:26:THR:C	2.58	0.42
24:DA:1153:C:N4	24:DA:1154:G:C6	2.88	0.42
31:BH:29:PHE:C	31:BH:29:PHE:CD1	2.92	0.42
24:BA:1266:G:N2	24:BA:2012:G:H2'	2.34	0.42
1:AA:512:U:C2	1:AA:513:C:C5	3.07	0.42
26:DC:87:SER:HB2	26:DC:157:ALA:H	1.84	0.42
24:BA:716:A:C3'	24:BA:717:C:H5''	2.49	0.42
24:BA:182:A:C8	24:BA:183:C:C5	3.08	0.42
41:DR:59:ILE:HA	41:DR:101:ILE:HA	2.01	0.42
41:DR:16:GLU:N	41:DR:98:ILE:HD11	2.34	0.42
24:DA:2697:G:H2'	24:DA:2698:U:O4'	2.19	0.42
24:DA:137:U:O2	43:DT:1:MET:CE	2.66	0.42
24:DA:223:A:C5	24:DA:422:A:C8	3.07	0.42
38:BO:62:LEU:HD21	38:BO:70:ALA:CB	2.49	0.42
31:DH:29:PHE:O	31:DH:30:LEU:O	2.36	0.42
45:BV:54:ALA:C	45:BV:56:PHE:N	2.72	0.42
1:AA:308:C:C2	1:AA:309:A:C8	3.08	0.42
2:CB:47:VAL:N	2:CB:48:PRO:HD2	2.35	0.42
24:DA:2164:C:O2'	24:DA:2164:C:O2	2.23	0.42
24:DA:2166:U:O4	24:DA:2170:A:C6	2.70	0.42
24:BA:1163:G:C5	24:BA:1164:C:C5	3.08	0.42
34:BK:39:ILE:HG23	34:BK:40:LYS:N	2.33	0.42
39:BP:59:THR:OG1	39:BP:72:VAL:HG12	2.19	0.42
26:DC:86:ARG:NH1	26:DC:86:ARG:CG	2.77	0.42
24:DA:1413:A:N1	24:DA:1414:C:O2	2.52	0.42
54:B4:14:CYS:SG	54:B4:33:HIS:ND1	2.92	0.42
1:CA:854:U:C2	1:CA:855:U:C5	3.08	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DC:183:VAL:C	26:DC:184:GLU:O	2.56	0.42
24:BA:1141:U:OP2	33:BJ:65:THR:HG21	2.19	0.42
44:BU:11:ILE:HG23	44:BU:21:ARG:HG3	2.00	0.42
1:CA:1092:A:C6	1:CA:1093:A:C6	3.08	0.42
25:BB:53:A:C4	25:BB:54:G:N7	2.87	0.42
24:DA:2128:G:H2'	24:DA:2129:C:O4'	2.20	0.42
24:DA:2129:C:H3'	24:DA:2130:U:H5'	2.00	0.42
24:BA:2521:C:O2'	24:BA:2522:U:O5'	2.34	0.42
24:BA:836:G:C5	24:BA:837:C:C4	3.08	0.42
55:CY:133:ARG:NH2	24:DA:1941:C:O2	2.52	0.42
24:BA:668:A:C2	24:BA:670:A:C6	3.06	0.42
24:BA:1429:G:C2	24:BA:1430:G:C4	3.07	0.42
48:BY:42:LEU:CD1	48:BY:42:LEU:N	2.82	0.42
27:DD:124:ARG:HG2	27:DD:125:TRP:N	2.34	0.42
24:DA:900:A:C4	24:DA:901:C:C5	3.08	0.42
34:DK:14:SER:HB2	34:DK:95:ILE:CG2	2.49	0.42
24:BA:1076:C:H2'	24:BA:1077:A:O4'	2.19	0.42
24:DA:26:G:C6	24:DA:27:G:C6	3.07	0.42
8:CH:6:PRO:O	8:CH:10:MET:N	2.53	0.42
28:BE:164:LEU:HD11	28:BE:167:VAL:CG1	2.48	0.42
24:BA:1835:G:H5'	24:BA:1835:G:H8	1.81	0.42
39:BP:58:PHE:HE1	39:BP:73:PHE:HB2	1.83	0.42
8:CH:32:LEU:C	8:CH:34:VAL:N	2.72	0.42
1:AA:1457:G:C4	1:AA:1458:G:C8	3.07	0.42
31:BH:55:GLU:O	31:BH:59:ALA:HB3	2.20	0.42
24:BA:954:G:O3'	36:BM:13:HIS:CD2	2.72	0.42
24:DA:778:G:C4	24:DA:779:U:C6	3.07	0.42
18:CR:44:ILE:O	18:CR:46:GLY:N	2.52	0.42
24:DA:646:U:C5'	24:DA:647:G:H5''	2.49	0.42
24:DA:208:C:C2'	24:DA:209:C:O5'	2.67	0.42
51:D1:39:ASP:CG	51:D1:42:VAL:HG22	2.40	0.42
24:DA:1042:G:H2'	24:DA:1043:C:O4'	2.19	0.42
1:AA:1192:C:H3'	1:AA:1193:G:O4'	2.20	0.42
55:CY:59:VAL:HG12	55:CY:60:GLU:N	2.35	0.42
24:BA:2058:A:N6	59:BA:3489:HOH:O	2.51	0.42
5:AE:44:GLY:O	5:AE:45:ARG:O	2.37	0.42
39:BP:2:ASN:O	39:BP:3:ILE:C	2.57	0.42
3:CC:133:ALA:O	3:CC:137:ALA:HB2	2.18	0.42
7:AG:126:ASP:C	7:AG:129:GLU:OE1	2.58	0.42
30:BG:85:LYS:HG3	30:BG:164:ALA:HB3	2.01	0.42
40:DQ:101:ASP:OD1	40:DQ:103:VAL:HG23	2.20	0.42
27:BD:200:ASP:OD1	27:BD:200:ASP:N	2.52	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:AP:56:ARG:HA	16:AP:56:ARG:HD3	1.79	0.42
23:AX:16:U:H3'	23:AX:16:U:P	2.58	0.42
42:DS:33:LEU:HA	42:DS:33:LEU:HD12	1.90	0.42
36:DM:17:ASN:O	36:DM:38:ARG:NH1	2.52	0.42
8:CH:12:THR:HA	8:CH:15:ARG:NH2	2.35	0.42
29:BF:2:LYS:HE2	29:BF:100:GLU:HG3	2.02	0.42
1:AA:1285:A:H5''	1:AA:1286:U:C4	2.54	0.42
1:AA:958:A:N6	1:AA:959:A:N6	2.67	0.42
24:BA:2375:G:N3	24:BA:2377:A:C8	2.87	0.42
24:BA:2375:G:C5	24:BA:2377:A:OP2	2.73	0.42
25:BB:50:A:C6	25:BB:51:G:C5	3.07	0.42
38:BO:28:VAL:HG12	38:BO:36:TYR:O	2.19	0.42
24:DA:2360:G:O3'	35:DL:61:LEU:HD21	2.18	0.42
24:DA:252:G:N3	24:DA:252:G:H2'	2.35	0.42
1:CA:705:G:C5	11:CK:44:TRP:HZ3	2.37	0.42
4:AD:14:ARG:HG3	4:AD:14:ARG:HH11	1.84	0.42
4:AD:53:VAL:C	4:AD:55:LEU:H	2.22	0.42
8:AH:111:MET:HE1	8:AH:116:ALA:CA	2.47	0.42
1:CA:430:A:OP1	4:CD:9:LEU:HD23	2.19	0.42
1:CA:541:G:H2'	1:CA:542:G:O4'	2.18	0.42
1:CA:543:U:N3	1:CA:544:G:C8	2.88	0.42
12:CL:121:ARG:HB3	12:CL:124:ALA:HB2	2.02	0.42
22:AV:18:G:C4	22:AV:58:A:C2	3.08	0.42
6:AF:77:THR:HA	6:AF:80:PHE:CG	2.54	0.42
1:AA:1061:G:N7	1:AA:1062:U:C4	2.88	0.42
13:CM:16:VAL:O	13:CM:27:LYS:NZ	2.51	0.42
13:CM:16:VAL:HA	13:CM:19:LEU:HD21	2.01	0.42
13:CM:24:GLY:O	13:CM:29:ARG:NH1	2.52	0.42
29:DF:137:PHE:N	29:DF:140:ILE:HD11	2.34	0.42
24:BA:1722:A:H2'	24:BA:1723:G:O4'	2.19	0.42
36:BM:44:ARG:O	36:BM:48:ALA:HB2	2.19	0.42
24:BA:818:G:H5'	24:BA:839:U:OP1	2.20	0.42
46:DW:10:THR:O	46:DW:11:ARG:CB	2.67	0.42
20:AT:69:LYS:HD3	20:AT:70:ASN:OD1	2.19	0.42
1:AA:261:U:P	20:AT:71:LYS:HZ3	2.41	0.42
24:BA:31:C:N4	59:BA:3212:HOH:O	2.52	0.42
24:BA:2729:G:C6	24:BA:2730:C:C4	3.08	0.42
24:BA:2690:U:C4	24:BA:2873:A:N1	2.87	0.42
4:AD:9:LEU:CD1	4:AD:10:LYS:H	2.32	0.42
24:DA:834:G:H8	24:DA:834:G:O5'	2.02	0.42
1:CA:375:U:C4	1:CA:376:G:N7	2.87	0.42
9:CI:10:GLY:O	9:CI:11:ARG:HB3	2.20	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CJ:40:ILE:HB	10:CJ:41:PRO:HD2	2.01	0.42
10:CJ:8:ILE:CB	10:CJ:74:VAL:HG11	2.47	0.42
24:DA:1718:G:C6	24:DA:1719:G:C5	3.06	0.42
24:BA:18:U:OP1	40:BQ:25:GLY:N	2.49	0.42
24:BA:2018:G:O2'	24:BA:2019:A:H5'	2.20	0.42
17:CQ:18:GLU:O	17:CQ:19:LYS:HG2	2.19	0.42
20:CT:54:MET:CA	20:CT:57:ILE:HD11	2.50	0.42
24:DA:2820:A:H2'	24:DA:2821:A:OP1	2.19	0.42
37:DN:2:ARG:HA	37:DN:5:LYS:HD2	1.97	0.42
24:DA:2221:G:C6	24:DA:2222:C:C4	3.07	0.42
28:BE:27:LEU:O	28:BE:31:VAL:HG23	2.20	0.42
24:BA:1361:G:C4	24:BA:1362:C:C5	3.07	0.42
1:CA:1103:C:C4	1:CA:1104:G:C5	3.07	0.42
2:CB:101:LEU:HD11	2:CB:175:GLU:O	2.20	0.42
24:DA:2230:G:C4	24:DA:2231:U:C5	3.08	0.42
1:CA:588:G:C5	1:CA:589:U:C5	3.08	0.42
24:DA:819:A:C5	24:DA:820:A:N7	2.87	0.42
16:AP:19:VAL:C	16:AP:20:VAL:HG23	2.40	0.42
37:DN:53:THR:OG1	37:DN:54:LEU:N	2.52	0.42
1:AA:1385:G:C6	1:AA:1386:G:C5	3.07	0.42
1:AA:892:A:C6	1:AA:893:C:C4	3.08	0.42
40:DQ:64:ILE:HG22	40:DQ:75:TYR:HD2	1.84	0.42
24:BA:2097:A:N1	24:BA:2193:G:C2	2.87	0.42
24:BA:1097:U:C5	24:BA:1098:A:N3	2.88	0.42
24:BA:2316:G:C4'	29:BF:124:ARG:HD3	2.49	0.42
42:DS:69:LEU:HD23	42:DS:109:ASP:N	2.33	0.42
24:BA:170:U:H2'	24:BA:171:U:O5'	2.19	0.42
27:BD:56:LYS:O	27:BD:57:ALA:C	2.57	0.42
24:BA:1466:U:O4'	24:BA:1545:A:C2	2.72	0.42
26:DC:128:THR:CG2	26:DC:190:THR:HA	2.49	0.42
24:DA:2407:A:N3	24:DA:2408:U:C5	2.87	0.42
24:DA:63:A:N1	24:DA:64:A:C5	2.88	0.42
1:CA:90:C:C2	1:CA:91:U:C5	3.07	0.42
29:DF:6:TYR:O	29:DF:11:VAL:HG23	2.19	0.42
1:AA:67:C:C2'	1:AA:68:G:O5'	2.66	0.42
46:BW:24:LYS:HE3	46:BW:36:ILE:HG12	2.00	0.42
24:DA:2625:G:H2'	24:DA:2626:C:O4'	2.18	0.42
37:BN:106:ASP:C	37:BN:106:ASP:OD1	2.56	0.42
1:AA:518:C:H6	1:AA:530:G:H1'	1.84	0.42
2:AB:10:LEU:O	2:AB:11:LYS:C	2.57	0.42
24:BA:2529:G:C1'	30:BG:174:LYS:HZ2	2.32	0.42
1:CA:782:A:N6	1:CA:801:U:C6	2.87	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BC:245:THR:OG1	26:BC:249:VAL:HG23	2.19	0.42
24:DA:1599:U:C4	24:DA:1600:C:N4	2.87	0.42
1:CA:94:G:C6	1:CA:98:A:C2	3.08	0.42
1:AA:696:A:O2'	1:AA:697:U:H5'	2.20	0.42
24:DA:431:U:C3'	24:DA:432:A:C5'	2.98	0.42
24:DA:1415:U:O2	24:DA:1415:U:H3'	2.19	0.42
39:DP:15:ASP:O	39:DP:16:VAL:O	2.36	0.42
1:AA:607:A:H2'	1:AA:608:A:H8	1.83	0.42
1:AA:577:G:H1'	1:AA:816:A:H2'	2.01	0.42
52:D2:26:ASN:O	52:D2:30:VAL:N	2.50	0.42
24:DA:467:G:O2'	24:DA:468:G:H5'	2.19	0.42
34:BK:64:ARG:HG2	34:BK:79:PHE:CE2	2.55	0.42
24:DA:1312:U:N1	43:DT:64:LYS:HE3	2.34	0.42
19:AS:33:THR:O	19:AS:57:HIS:NE2	2.49	0.42
24:BA:2861:U:H2'	24:BA:2862:G:O5'	2.19	0.42
1:CA:27:G:H2'	1:CA:28:A:O4'	2.19	0.42
24:DA:2109:U:H5''	24:DA:2110:G:P	2.59	0.42
24:DA:2881:U:O2'	24:DA:2882:A:C5'	2.68	0.42
24:DA:2335:A:N6	24:DA:2337:G:N3	2.68	0.42
42:BS:96:ILE:O	42:BS:97:LEU:HD13	2.19	0.42
3:CC:112:ASP:C	3:CC:112:ASP:OD1	2.57	0.42
39:DP:91:VAL:HG21	39:DP:109:ILE:HD12	2.01	0.42
24:BA:770:G:C2	24:BA:771:G:N9	2.88	0.42
24:BA:769:U:N3	24:BA:770:G:C8	2.87	0.42
24:BA:642:U:O2	24:BA:644:A:C8	2.72	0.42
17:CQ:29:VAL:CG2	17:CQ:30:LYS:O	2.66	0.42
24:BA:2776:A:N7	24:BA:2782:G:C4	2.87	0.42
1:AA:236:A:H5''	17:AQ:44:LEU:HD23	2.01	0.42
24:BA:2810:A:O3'	27:BD:63:PRO:HD3	2.19	0.42
46:BW:82:ILE:O	46:BW:82:ILE:CG2	2.68	0.42
49:DZ:6:ILE:CG2	49:DZ:54:VAL:CG2	2.96	0.42
1:AA:1057:G:H5''	3:AC:154:SER:O	2.18	0.42
43:BT:69:ARG:HA	43:BT:74:ILE:HG21	2.01	0.42
39:DP:3:ILE:HD13	39:DP:3:ILE:N	2.33	0.42
1:CA:371:A:C2	1:CA:372:C:C6	3.06	0.42
31:BH:13:GLY:O	31:BH:15:LEU:N	2.52	0.42
24:BA:900:A:N7	24:BA:901:C:C4	2.88	0.42
24:DA:231:A:N6	24:DA:232:G:C2	2.87	0.42
1:AA:1239:A:H4'	1:AA:1240:U:OP1	2.19	0.42
24:BA:136:G:H2'	24:BA:137:U:C6	2.55	0.42
12:AL:52:VAL:HG23	12:AL:53:CYS:H	1.84	0.42
24:DA:1662:U:O2	24:DA:2687:U:H5''	2.20	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1187:G:C6	1:AA:1188:A:C5	3.08	0.42
27:BD:11:MET:O	27:BD:12:THR:HG23	2.19	0.42
24:DA:825:A:O2'	24:DA:826:U:H5'	2.20	0.42
36:DM:114:ARG:CG	36:DM:114:ARG:HH21	2.31	0.42
35:BL:89:VAL:O	35:BL:94:THR:HG21	2.19	0.42
24:DA:483:A:H3'	24:DA:484:C:H6	1.84	0.42
27:BD:35:THR:HG22	27:BD:71:ALA:HB1	2.02	0.42
10:CJ:88:MET:O	10:CJ:88:MET:HG3	2.19	0.42
2:AB:16:PHE:CD2	2:AB:40:ILE:HD11	2.55	0.42
24:DA:1816:C:H5''	26:DC:61:TYR:CE1	2.53	0.42
24:DA:842:U:C2'	24:DA:843:G:H5'	2.48	0.42
47:DX:38:TRP:HE1	47:DX:40:GLU:HG2	1.85	0.42
24:BA:1830:C:H2'	24:BA:1831:G:O5'	2.18	0.42
34:BK:17:ARG:HG2	34:BK:45:GLU:OE2	2.19	0.42
1:CA:1488:G:C2	1:CA:1489:G:C4	3.07	0.42
1:AA:235:C:O3'	17:AQ:73:TRP:HH2	2.02	0.42
26:DC:174:ARG:HB2	26:DC:180:MET:HG3	2.00	0.42
5:AE:10:GLU:O	5:AE:41:ASP:HA	2.20	0.42
24:DA:2380:C:OP1	38:DO:17:LYS:NZ	2.52	0.42
13:AM:60:VAL:C	13:AM:62:LYS:N	2.72	0.42
24:DA:324:A:N6	24:DA:338:G:O2'	2.49	0.42
2:CB:58:ASN:HA	2:CB:61:ALA:HB3	2.02	0.42
24:DA:1893:C:C5	24:DA:1894:C:C5	3.07	0.42
19:AS:52:HIS:ND1	19:AS:53:ASN:N	2.67	0.42
32:BI:85:ILE:HG22	32:BI:86:LYS:N	2.34	0.42
24:DA:1194:A:C2'	24:DA:1195:G:O5'	2.68	0.42
24:DA:2140:G:N3	24:DA:2140:G:H2'	2.34	0.42
30:DG:114:HIS:ND1	30:DG:147:LEU:HD21	2.33	0.42
25:DB:5:U:H2'	25:DB:6:G:C8	2.54	0.42
10:AJ:10:LEU:HD12	10:AJ:10:LEU:N	2.34	0.42
24:BA:153:U:H2'	24:BA:154:U:C6	2.54	0.42
26:BC:130:PRO:HB2	26:BC:133:ASN:HB2	2.01	0.42
1:AA:1363:A:C6	1:AA:1365:G:C6	3.07	0.42
1:AA:981:U:OP1	14:AN:12:ARG:NH2	2.53	0.42
25:BB:45:A:C2	25:BB:46:A:H1'	2.54	0.42
24:DA:2280:G:N3	24:DA:2281:A:C8	2.88	0.42
24:DA:690:G:O2'	24:DA:691:C:H5'	2.18	0.42
24:BA:224:U:OP2	24:BA:408:G:N2	2.49	0.42
24:BA:2413:G:O2'	24:BA:2414:G:H5'	2.19	0.42
24:BA:2420:C:H5''	51:B1:7:LYS:CE	2.49	0.42
1:CA:787:A:C2'	1:CA:788:U:C5'	2.94	0.42
7:AG:28:ASN:HA	7:AG:31:MET:CB	2.48	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:482:A:H2'	1:AA:483:C:C5'	2.48	0.42
1:AA:1077:G:H5'	1:AA:1078:U:OP2	2.20	0.42
1:AA:570:G:C4	1:AA:571:U:C5	3.07	0.42
4:CD:112:ALA:C	4:CD:113:GLU:OE1	2.58	0.42
4:CD:99:ASP:CA	4:CD:114:ALA:HB1	2.49	0.42
4:CD:171:LEU:HB3	4:CD:182:PHE:HA	2.01	0.42
1:AA:925:G:C1'	1:AA:1502:A:C4	3.02	0.42
1:AA:1061:G:C4	1:AA:1197:A:C2	3.07	0.42
1:CA:1305:G:O2'	1:CA:1306:A:C5'	2.68	0.42
13:CM:87:ARG:O	13:CM:91:HIS:N	2.41	0.42
29:DF:137:PHE:HD1	29:DF:137:PHE:N	2.18	0.42
24:DA:1067:A:C2	24:DA:1068:G:C8	3.07	0.42
24:DA:1074:G:H2'	24:DA:1075:C:H5'	2.02	0.42
24:DA:1104:C:N3	24:DA:1105:U:C5	2.88	0.42
1:AA:1160:G:P	2:AB:132:LYS:HE2	2.60	0.42
2:AB:134:ALA:O	2:AB:138:THR:N	2.45	0.42
24:BA:568:U:O4	41:BR:81:LYS:NZ	2.46	0.42
1:AA:1124:G:HO2'	1:AA:1125:U:P	2.42	0.42
27:DD:133:THR:HG22	27:DD:134:HIS:N	2.33	0.42
1:AA:927:G:H4'	1:AA:927:G:OP2	2.19	0.42
24:BA:2119:A:C2	24:BA:2170:A:O4'	2.72	0.42
24:BA:26:G:OP1	42:BS:80:PRO:HB3	2.19	0.42
6:CF:74:LEU:O	6:CF:75:GLU:C	2.57	0.42
1:AA:412:A:H4'	11:CK:16:VAL:CG1	2.47	0.42
24:BA:2454:G:C5	24:BA:2455:G:C8	3.08	0.42
24:BA:359:G:C2	24:BA:360:U:O2	2.72	0.42
4:CD:201:VAL:HG23	4:CD:202:GLU:N	2.34	0.42
12:CL:29:GLN:HG3	12:CL:81:LEU:HD21	2.02	0.42
12:CL:37:VAL:HG12	12:CL:53:CYS:HB2	2.02	0.42
1:CA:114:U:C2'	1:CA:115:G:H5'	2.49	0.42
1:CA:181:A:N1	1:CA:195:A:C4	2.88	0.42
1:CA:195:A:N7	1:CA:196:A:N1	2.65	0.42
1:CA:232:G:C5	1:CA:233:C:C6	3.07	0.42
20:CT:78:ASN:O	20:CT:81:ALA:HB3	2.19	0.42
24:DA:1868:C:N3	24:DA:1873:G:O6	2.52	0.42
24:DA:1385:A:H4'	24:DA:1385:A:OP1	2.20	0.42
2:CB:101:LEU:HD21	2:CB:175:GLU:CG	2.50	0.42
1:AA:725:G:C2	1:AA:726:C:C5	3.07	0.42
29:BF:127:TYR:N	29:BF:155:ILE:HG21	2.34	0.42
29:BF:127:TYR:N	29:BF:155:ILE:CG2	2.83	0.42
29:DF:98:PHE:O	29:DF:101:ARG:HG3	2.19	0.42
7:CG:39:ALA:O	7:CG:40:GLU:HG2	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:307:G:N2	24:DA:310:A:C8	2.88	0.42
24:BA:2261:C:C2	24:BA:2262:U:C5	3.08	0.42
1:AA:1216:A:OP1	14:AN:4:SER:HB3	2.20	0.42
24:BA:2532:G:H3'	24:BA:2533:U:H6	1.84	0.42
26:DC:257:ARG:NH1	26:DC:259:ASN:HD21	2.18	0.42
24:BA:2527:C:O2'	24:BA:2528:U:H5'	2.19	0.42
24:DA:6:A:C2'	33:DJ:135:GLN:OE1	2.67	0.42
24:DA:2243:U:H2'	24:DA:2244:U:H6	1.80	0.42
24:BA:2748:A:O2'	24:BA:2749:A:C5'	2.67	0.42
24:BA:2750:A:OP2	30:BG:61:TRP:HZ3	2.02	0.42
3:CC:37:PHE:CD2	3:CC:37:PHE:O	2.72	0.42
7:CG:135:VAL:O	7:CG:138:ARG:HB2	2.18	0.42
28:BE:178:VAL:O	28:BE:179:SER:C	2.58	0.42
18:AR:52:GLN:HA	18:AR:55:LEU:HG	2.01	0.42
40:DQ:109:VAL:HG12	40:DQ:113:LYS:HE3	2.00	0.42
2:CB:114:LEU:O	2:CB:115:LYS:C	2.58	0.42
24:BA:494:G:N7	57:BA:3164:NMY:N9	2.63	0.42
1:CA:994:A:H2'	1:CA:994:A:N3	2.35	0.42
47:DX:60:LYS:O	47:DX:61:LYS:C	2.58	0.42
1:CA:773:G:C2	1:CA:774:G:N9	2.88	0.42
1:AA:172:A:C5	1:AA:174:A:N7	2.87	0.42
44:DU:73:ASN:O	44:DU:75:ALA:O	2.36	0.42
24:BA:2834:G:O3'	27:BD:56:LYS:NZ	2.52	0.42
24:BA:2706:A:N1	24:BA:2707:U:C2	2.88	0.42
24:DA:2868:A:C2	24:DA:2869:G:N9	2.88	0.42
49:BZ:19:HIS:O	49:BZ:22:THR:N	2.43	0.42
31:DH:68:ARG:HH21	31:DH:134:VAL:HG23	1.85	0.42
24:DA:226:A:N6	24:DA:227:A:N6	2.67	0.42
24:DA:223:A:C6	24:DA:408:G:O4'	2.73	0.42
1:CA:154:U:O2	1:CA:168:G:C2	2.72	0.42
1:AA:1423:G:H2'	1:AA:1424:U:H6	1.84	0.42
24:BA:144:A:C5	24:BA:145:C:C5	3.06	0.42
15:AO:11:ILE:CG1	15:AO:12:VAL:N	2.80	0.42
16:CP:18:GLN:O	16:CP:20:VAL:HG23	2.20	0.42
16:CP:22:ALA:O	16:CP:23:ASP:HB2	2.19	0.42
24:DA:2798:U:H4'	24:DA:2799:A:C4	2.54	0.42
1:AA:978:A:N6	1:AA:1318:A:N7	2.68	0.42
1:CA:635:A:C2	1:CA:636:U:C2	3.08	0.42
24:DA:2316:G:C6	24:DA:2317:A:C5	3.07	0.42
24:DA:1794:A:H2'	24:DA:1795:C:H6	1.84	0.42
42:BS:2:GLU:HA	42:BS:108:SER:HB3	2.00	0.42
24:BA:1735:A:C2	24:BA:1736:U:H1'	2.54	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:316:C:N3	1:AA:317:U:C5	2.87	0.42
8:CH:75:ILE:HD13	8:CH:129:VAL:HG22	2.01	0.42
25:BB:73:A:H3'	25:BB:74:U:H6	1.85	0.42
8:AH:56:LYS:O	8:AH:57:PRO:C	2.58	0.42
1:AA:947:G:OP2	13:AM:107:ARG:CZ	2.68	0.42
24:DA:855:G:C4	24:DA:923:G:C2	3.07	0.42
24:BA:1652:A:OP1	37:BN:8:ARG:HD3	2.18	0.42
1:AA:1275:A:C5	1:AA:1276:G:C5	3.08	0.42
42:DS:18:ARG:NH2	42:DS:76:VAL:O	2.52	0.42
24:DA:900:A:C2	24:DA:901:C:H1'	2.54	0.42
1:AA:236:A:H2'	1:AA:237:G:O4'	2.19	0.42
7:AG:137:LYS:CA	7:AG:140:ASP:HB2	2.49	0.42
1:AA:886:G:N2	1:AA:912:C:C2	2.88	0.42
1:AA:1292:G:H2'	1:AA:1293:C:C6	2.54	0.42
27:BD:34:VAL:HG21	27:BD:48:ILE:HD11	2.01	0.42
24:BA:1281:G:H2'	24:BA:1282:U:O5'	2.20	0.42
17:CQ:25:ILE:O	17:CQ:26:GLU:CG	2.68	0.42
1:CA:246:A:O2'	1:CA:247:G:OP2	2.30	0.42
43:BT:74:ILE:HD12	43:BT:75:GLY:N	2.34	0.42
24:DA:1959:G:C2	24:DA:1960:A:C4	3.07	0.42
24:BA:587:C:C2	35:BL:33:ARG:NH2	2.87	0.42
51:B1:50:GLU:CG	51:B1:51:ALA:N	2.83	0.42
24:DA:2582:G:H2'	24:DA:2582:G:N3	2.35	0.42
2:AB:161:LEU:HB3	2:AB:183:VAL:CG2	2.49	0.42
43:DT:44:LYS:HG3	43:DT:55:VAL:HG21	2.01	0.42
2:AB:104:TRP:O	2:AB:105:LYS:C	2.57	0.42
16:AP:21:VAL:HG21	16:AP:60:TRP:NE1	2.34	0.42
34:DK:77:ILE:HG13	39:DP:71:ARG:HG2	2.02	0.42
51:B1:12:SER:HA	51:B1:48:TYR:CE2	2.54	0.42
33:BJ:88:THR:HG22	33:BJ:91:GLU:CD	2.39	0.42
33:DJ:6:ALA:HB2	33:DJ:45:THR:HG23	2.01	0.42
24:DA:1048:A:C5	24:DA:1111:A:C2	3.07	0.42
3:CC:128:VAL:O	3:CC:129:MET:HB2	2.18	0.42
24:DA:2829:A:C6	24:DA:2830:C:C5	3.07	0.42
27:BD:85:ALA:N	27:BD:88:GLU:OE1	2.47	0.42
1:AA:1290:G:H2'	1:AA:1291:U:O4'	2.19	0.42
46:DW:61:ALA:HB1	46:DW:82:ILE:HD12	2.01	0.42
24:DA:523:C:H4'	24:DA:540:C:O2	2.18	0.42
25:BB:35:C:H2'	25:BB:36:C:H5'	2.01	0.42
5:CE:130:SER:OG	5:CE:132:ASN:HB3	2.19	0.42
24:BA:1388:G:O2'	24:BA:1389:G:H5'	2.20	0.42
14:CN:90:ARG:HD2	14:CN:92:GLU:CD	2.40	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:15:LEU:O	5:AE:15:LEU:HD12	2.19	0.42
25:DB:17:C:H2'	25:DB:17:C:O2	2.19	0.42
24:DA:109:C:H2'	24:DA:110:G:O4'	2.20	0.42
29:BF:96:TRP:HA	29:BF:99:PHE:CE1	2.54	0.42
24:BA:991:C:N4	57:BA:3162:NMY:O14	2.53	0.42
31:DH:77:THR:O	31:DH:78:VAL:CG2	2.67	0.42
1:AA:1252:A:C6	1:AA:1253:G:C8	3.07	0.42
24:BA:2294:G:C5'	38:BO:10:ARG:NH1	2.82	0.42
53:D3:31:ILE:HG13	53:D3:35:LYS:CE	2.49	0.42
24:DA:2281:A:N1	24:DA:2282:G:C6	2.88	0.42
24:DA:2425:A:O4'	24:DA:2427:C:C5	2.71	0.42
25:BB:10:G:N7	25:BB:11:C:C5	2.86	0.42
24:BA:2417:C:C2	24:BA:2418:A:N7	2.87	0.42
24:BA:391:A:C4	24:BA:392:U:H6	2.35	0.42
8:AH:11:LEU:CD1	8:AH:15:ARG:NH2	2.81	0.42
24:DA:85:G:N3	24:DA:103:A:C2	2.88	0.42
1:CA:786:G:N3	1:CA:797:C:O2	2.52	0.42
11:CK:24:HIS:ND1	11:CK:31:ILE:O	2.52	0.42
22:CV:37:A:H5'	22:CV:38:A:OP2	2.20	0.42
1:AA:34:C:N4	1:AA:35:G:O6	2.53	0.42
1:AA:3:A:O3'	1:AA:5:U:O4	2.38	0.42
1:AA:4:U:O4'	1:AA:4:U:O2	2.37	0.42
1:AA:596:A:C2	1:AA:597:G:C8	3.07	0.42
4:AD:145:ILE:HD13	4:AD:150:LYS:HE3	2.01	0.42
16:AP:15:PRO:HB2	16:AP:41:PRO:HG3	2.01	0.42
1:CA:430:A:OP1	4:CD:9:LEU:HG	2.19	0.42
4:CD:13:ARG:NE	4:CD:37:ALA:O	2.40	0.42
1:CA:727:G:N3	1:CA:731:G:C2	2.87	0.42
13:CM:96:PRO:HG3	13:CM:109:ARG:CD	2.49	0.42
24:DA:1059:G:C2	24:DA:1080:A:C5	3.07	0.42
24:DA:1078:U:H4'	24:DA:1079:C:O4'	2.20	0.42
24:DA:1103:A:H2'	24:DA:1104:C:H5'	2.01	0.42
1:AA:167:A:H3'	1:AA:168:G:H5''	2.00	0.42
2:AB:99:GLY:HA2	2:AB:175:GLU:OE2	2.19	0.42
24:BA:2357:G:C2	24:BA:2361:G:C5	3.08	0.42
9:AI:33:ARG:O	9:AI:34:SER:O	2.37	0.42
27:DD:133:THR:HG22	27:DD:134:HIS:H	1.85	0.42
1:AA:186:C:H5'	20:AT:76:LYS:HD2	2.01	0.42
20:AT:72:ALA:O	20:AT:76:LYS:HG2	2.19	0.42
1:CA:1222:G:C2	1:CA:1223:C:C2	3.08	0.42
22:CV:28:G:C6	22:CV:29:G:C5	3.08	0.42
24:BA:2164:C:O2'	24:BA:2165:C:H5'	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1362:C:O2'	24:DA:1363:C:C5'	2.67	0.42
4:CD:188:ARG:CG	4:CD:189:SER:N	2.82	0.42
21:CU:36:GLU:O	21:CU:37:PHE:CB	2.68	0.42
4:CD:52:GLY:O	4:CD:55:LEU:CD1	2.68	0.42
1:AA:1028:C:H2'	1:AA:1029:U:O4'	2.19	0.42
24:BA:1295:C:C4	24:BA:1296:G:N7	2.88	0.42
1:CA:255:G:H4'	17:CQ:19:LYS:CG	2.48	0.42
28:BE:103:GLY:O	28:BE:106:LYS:HG2	2.19	0.42
13:AM:16:VAL:HG23	13:AM:17:ILE:N	2.35	0.42
14:CN:19:TYR:CD1	14:CN:20:PHE:N	2.87	0.42
1:CA:1317:C:H1'	14:CN:49:GLN:NE2	2.34	0.42
1:AA:1140:C:O2'	1:AA:1141:C:OP2	2.38	0.42
1:CA:16:A:C3'	1:CA:17:U:H5'	2.50	0.42
25:DB:115:A:C2	25:DB:116:G:C5	3.07	0.42
38:DO:109:ALA:O	38:DO:113:ALA:HB3	2.19	0.42
24:BA:2304:G:C1'	29:BF:129:MET:HA	2.50	0.42
3:AC:12:LEU:HB3	3:AC:18:TRP:CH2	2.55	0.42
29:DF:103:ILE:H	29:DF:103:ILE:HD12	1.85	0.42
29:DF:123:GLY:O	29:DF:124:ARG:CB	2.67	0.42
1:CA:1356:G:C2	1:CA:1367:C:O2	2.72	0.42
1:AA:1410:A:C2	1:AA:1411:C:C4	3.07	0.42
24:DA:2786:U:C2'	24:DA:2787:C:O5'	2.68	0.42
1:AA:1047:G:O2'	1:AA:1215:G:O2'	2.17	0.42
24:DA:507:A:O4'	24:DA:509:C:C2	2.73	0.42
24:DA:809:G:O4'	24:DA:1254:A:H1'	2.19	0.42
24:BA:1392:A:H2'	24:BA:1393:A:C8	2.55	0.42
24:BA:995:C:N4	57:BA:3166:NMY:HN62	2.16	0.42
34:DK:113:MET:O	34:DK:114:LYS:C	2.58	0.42
24:BA:798:G:OP2	28:BE:56:GLY:HA3	2.18	0.42
51:D1:4:ILE:HG21	51:D1:25:ASN:ND2	2.34	0.42
30:BG:32:LEU:CD1	30:BG:74:MET:HG2	2.49	0.42
1:AA:893:C:C4	1:AA:894:G:N7	2.87	0.42
6:CF:21:MET:HA	6:CF:24:ARG:HD2	2.01	0.42
24:BA:2094:A:H2	24:BA:2196:C:H1'	1.84	0.42
1:CA:719:C:C5	1:CA:720:C:C4	3.07	0.42
24:BA:1491:G:C4	26:BC:97:ASP:O	2.73	0.42
1:AA:525:C:N4	1:AA:526:C:N4	2.68	0.42
24:BA:160:A:C6	24:BA:161:A:C6	3.07	0.42
24:DA:1263:U:O2'	50:D0:3:GLN:NE2	2.51	0.42
1:AA:299:G:H2'	1:AA:300:A:H8	1.80	0.42
24:BA:1385:A:C6	24:BA:1403:A:C4	3.08	0.42
1:AA:560:A:H5'	1:AA:566:G:C2	2.55	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:782:A:C2	26:DC:224:MET:CG	3.01	0.42
45:DV:44:HIS:O	45:DV:47:VAL:HG13	2.20	0.42
1:CA:1065:U:O2'	1:CA:1066:C:P	2.77	0.42
24:BA:464:U:H2'	24:BA:465:G:C8	2.55	0.42
24:BA:1219:U:O2'	24:BA:1220:G:H5'	2.19	0.42
24:BA:1022:G:C4	24:BA:1140:C:N4	2.88	0.42
34:BK:48:PRO:HB2	34:BK:49:ARG:CZ	2.50	0.42
1:CA:1207:G:C6	1:CA:1208:C:C2	3.07	0.42
1:CA:1411:C:O2	1:CA:1411:C:H2'	2.18	0.42
38:DO:94:ARG:O	38:DO:94:ARG:HG3	2.18	0.42
34:BK:107:LEU:O	34:BK:112:PHE:HB2	2.20	0.42
24:DA:2036:C:O2'	24:DA:2037:A:H5'	2.19	0.42
24:DA:877:A:N6	24:DA:899:A:N6	2.68	0.42
1:AA:1360:A:H2'	1:AA:1361:G:C4'	2.50	0.42
53:D3:6:VAL:O	53:D3:9:ALA:N	2.53	0.42
37:DN:72:ASP:HB3	37:DN:75:ILE:HG21	2.01	0.42
38:DO:87:ILE:O	38:DO:88:LYS:HG3	2.19	0.42
3:CC:53:SER:CB	3:CC:115:LEU:HD21	2.49	0.42
24:BA:2138:G:C2	24:BA:2154:A:N1	2.88	0.42
24:BA:2138:G:N3	24:BA:2154:A:C2	2.87	0.42
24:BA:2138:G:N1	24:BA:2154:A:C6	2.87	0.42
24:DA:79:C:C4	24:DA:80:G:N7	2.87	0.42
39:BP:69:VAL:HG13	39:BP:70:GLU:N	2.34	0.42
24:BA:2572:A:N7	27:BD:150:GLN:HB2	2.35	0.42
1:CA:1167:A:N7	1:CA:1169:A:C6	2.86	0.42
19:AS:32:ARG:CZ	19:AS:57:HIS:CD2	3.02	0.42
19:AS:51:VAL:N	19:AS:57:HIS:CE1	2.87	0.42
24:BA:691:C:OP1	26:BC:216:ARG:NH2	2.44	0.42
26:BC:24:HIS:HB3	26:BC:81:GLU:CG	2.50	0.42
24:BA:1670:C:C5	24:BA:1671:U:N3	2.87	0.42
12:AL:35:THR:HB	12:AL:54:ARG:HB3	2.02	0.42
24:DA:18:U:H2'	24:DA:19:A:C8	2.55	0.42
5:AE:89:HIS:CD2	5:AE:90:THR:HG23	2.55	0.42
24:BA:2796:U:C2	24:BA:2799:A:N1	2.87	0.42
24:BA:1307:A:C5	24:BA:1308:A:N7	2.88	0.42
24:DA:2685:G:H2'	24:DA:2686:G:H8	1.84	0.42
24:BA:1084:A:N7	24:BA:1085:A:C5	2.87	0.42
24:BA:165:A:O2'	47:BX:43:LYS:NZ	2.52	0.42
33:BJ:31:GLU:O	33:BJ:34:ARG:HB3	2.20	0.42
24:BA:1429:G:H1'	24:BA:1568:G:H1'	2.00	0.42
24:DA:2335:A:N7	24:DA:2337:G:C6	2.88	0.42
1:CA:518:C:C5	1:CA:530:G:C5	3.07	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:D2:43:THR:O	52:D2:44:VAL:CG1	2.68	0.42
24:DA:1766:G:C6	24:DA:1987:A:C6	3.07	0.42
24:BA:260:G:C6	24:BA:261:G:N7	2.87	0.42
24:DA:956:G:P	36:DM:86:LYS:HD2	2.59	0.42
49:DZ:54:VAL:HG13	49:DZ:54:VAL:O	2.19	0.42
49:DZ:9:THR:O	49:DZ:31:ILE:HB	2.20	0.42
5:AE:16:ILE:HD13	5:AE:113:ALA:HB3	2.00	0.42
24:DA:1537:G:N2	24:DA:1538:G:C5	2.87	0.42
5:AE:135:ASN:O	5:AE:139:ALA:HB2	2.18	0.42
24:BA:1242:U:N3	24:BA:1243:C:C4	2.87	0.42
24:DA:823:C:C2'	24:DA:824:U:H5'	2.50	0.42
24:BA:682:G:N3	24:BA:683:U:C6	2.87	0.42
1:CA:815:A:C2	1:CA:1529:G:N3	2.87	0.42
8:CH:17:GLY:HA2	8:CH:22:LYS:CE	2.49	0.42
42:BS:88:ARG:NH2	42:BS:88:ARG:CG	2.83	0.42
24:DA:2607:G:C6	24:DA:2608:G:C6	3.08	0.42
5:CE:140:THR:O	5:CE:144:LEU:HD12	2.19	0.42
43:DT:41:ALA:C	43:DT:43:ILE:H	2.23	0.42
1:AA:384:G:C2	1:AA:385:C:C2	3.07	0.42
24:DA:2253:G:C6	24:DA:2254:C:C4	3.08	0.42
11:AK:83:GLU:HG2	11:AK:84:VAL:N	2.34	0.42
33:BJ:74:TYR:CB	33:BJ:92:MET:CE	2.97	0.42
24:DA:1042:G:C6	24:DA:1043:C:C4	3.07	0.42
27:BD:202:ILE:HG12	27:BD:202:ILE:O	2.20	0.42
55:CY:117:VAL:HG23	55:CY:118:ARG:N	2.35	0.42
9:AI:99:ARG:O	9:AI:100:LYS:C	2.57	0.42
39:BP:31:VAL:HG12	39:BP:32:VAL:N	2.34	0.42
34:BK:99:ILE:HD13	34:BK:115:ILE:CD1	2.50	0.42
24:DA:611:C:H2'	24:DA:612:G:H5'	2.02	0.42
21:AU:53:VAL:HG23	21:AU:54:LYS:N	2.34	0.42
24:BA:1435:G:C2'	24:BA:1436:G:H5'	2.49	0.42
24:BA:2880:C:N3	24:BA:2881:U:C5	2.88	0.42
24:DA:324:A:C8	24:DA:325:G:C8	3.07	0.42
24:BA:1458:U:H4'	24:BA:1459:G:O5'	2.19	0.42
24:BA:38:A:C2	24:BA:39:G:C4	3.07	0.42
24:DA:1722:A:H2'	24:DA:1723:G:O4'	2.19	0.42
5:AE:39:VAL:O	5:AE:46:VAL:HG23	2.20	0.42
24:BA:715:A:OP1	24:BA:715:A:H8	2.02	0.42
28:DE:21:ARG:N	28:DE:110:SER:OG	2.52	0.42
31:DH:116:ARG:NH1	31:DH:133:GLN:HA	2.34	0.42
1:AA:1287:A:N6	1:AA:1288:A:C6	2.88	0.42
1:AA:977:A:C2	1:AA:1224:U:C4	3.08	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:85:CYS:O	13:AM:88:GLY:CA	2.67	0.42
24:BA:2377:A:H2'	24:BA:2378:A:H5'	2.00	0.42
29:BF:93:GLU:OE1	29:BF:93:GLU:HA	2.19	0.42
8:AH:10:MET:CE	8:AH:33:LYS:CG	2.98	0.42
17:AQ:68:SER:O	17:AQ:68:SER:OG	2.32	0.42
11:CK:129:VAL:HG12	23:CX:10:A:H5''	2.01	0.42
7:AG:24:ALA:O	7:AG:28:ASN:CG	2.58	0.42
1:AA:391:G:C2	1:AA:392:C:C1'	3.01	0.42
1:AA:391:G:H2'	1:AA:391:G:N3	2.35	0.42
1:AA:44:A:N3	1:AA:399:G:C2	2.88	0.42
1:AA:515:G:N2	1:AA:537:G:C4	2.86	0.42
4:AD:200:ILE:C	4:AD:202:GLU:H	2.22	0.42
5:AE:96:MET:HE3	5:AE:125:ALA:HB2	2.01	0.42
1:CA:503:C:O2	1:CA:510:A:H2	2.02	0.42
1:AA:780:A:H5''	11:AK:125:LYS:CD	2.49	0.42
11:AK:127:ARG:N	21:AU:34:ARG:NH2	2.68	0.42
24:BA:103:A:C4	24:BA:104:A:C8	3.07	0.42
1:CA:1242:G:N1	1:CA:1243:C:C5	2.87	0.42
13:CM:96:PRO:HA	13:CM:109:ARG:NE	2.35	0.42
13:CM:19:LEU:O	13:CM:25:VAL:HG21	2.19	0.42
13:CM:75:MET:SD	29:DF:111:ARG:CD	3.08	0.42
24:BA:1738:G:O4'	24:BA:1739:A:OP2	2.38	0.42
36:BM:121:ALA:C	36:BM:123:LYS:H	2.23	0.42
1:AA:1101:A:N1	2:AB:99:GLY:CA	2.82	0.42
1:AA:1117:A:O3'	9:AI:106:ARG:CD	2.68	0.42
24:BA:570:G:N3	24:BA:2030:A:C8	2.88	0.42
1:AA:1146:A:C2	1:AA:1147:C:C2	3.08	0.42
1:CA:1014:A:C8	1:CA:1015:G:C5	3.08	0.42
1:CA:956:U:C2	1:CA:957:U:C6	3.07	0.42
19:CS:55:ARG:N	19:CS:55:ARG:CD	2.83	0.42
24:DA:992:C:C4	24:DA:1163:G:N1	2.88	0.42
22:CV:14:A:C8	22:CV:22:G:N2	2.87	0.42
26:DC:251:THR:O	26:DC:252:LYS:HB2	2.19	0.42
1:CA:615:G:C4	1:CA:616:G:C8	3.08	0.42
24:BA:2114:A:C6	24:BA:2115:G:N3	2.87	0.42
24:BA:2683:C:N4	24:BA:2727:A:N3	2.68	0.42
57:BA:3165:NMY:N6	57:BA:3165:NMY:C3	2.73	0.42
24:DA:393:C:C2	24:DA:394:C:C5	3.08	0.42
4:CD:188:ARG:CG	4:CD:189:SER:H	2.32	0.42
24:BA:347:A:N1	24:BA:348:A:C5	2.88	0.42
10:CJ:35:GLN:OE1	10:CJ:80:THR:CG2	2.68	0.42
4:CD:58:LYS:HE2	4:CD:203:LEU:HB3	2.00	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:236:A:C4	1:CA:237:G:C8	3.08	0.42
12:CL:63:VAL:O	12:CL:64:THR:CB	2.66	0.42
15:CO:31:LEU:N	15:CO:31:LEU:HD12	2.35	0.42
25:BB:91:C:OP2	36:BM:18:ARG:HD2	2.19	0.42
24:DA:61:C:H5'	48:DY:43:LEU:HD11	2.02	0.42
24:BA:659:G:H4'	28:BE:95:LYS:CB	2.50	0.42
1:CA:1316:G:H2'	1:CA:1317:C:H5'	2.01	0.42
24:DA:1869:G:H3'	24:DA:1870:C:H5'	2.00	0.42
24:DA:1869:G:H2'	24:DA:1869:G:N3	2.35	0.42
1:CA:528:C:C2'	1:CA:529:G:H5'	2.50	0.42
24:DA:221:A:C8	24:DA:266:G:C5	3.07	0.42
1:CA:1082:A:OP1	5:CE:23:LYS:HE2	2.19	0.42
1:CA:17:U:C4'	1:CA:1080:A:O4'	2.68	0.42
1:AA:856:C:C2'	1:AA:857:C:H5'	2.50	0.42
1:CA:1287:A:H2	1:CA:1353:G:N3	2.18	0.42
7:CG:39:ALA:O	7:CG:40:GLU:CB	2.67	0.42
1:AA:1410:A:C2	1:AA:1411:C:C2	3.08	0.42
1:CA:215:C:N4	1:CA:216:U:O4	2.52	0.42
30:BG:41:GLU:OE1	30:BG:54:ARG:CA	2.67	0.42
24:DA:1799:G:OP1	26:DC:257:ARG:NE	2.52	0.42
24:BA:2525:G:N3	24:BA:2525:G:H2'	2.34	0.42
24:BA:2534:A:H3'	24:BA:2535:G:H5''	2.02	0.42
24:DA:2310:C:N3	29:DF:76:PHE:CE2	2.87	0.42
22:CV:61:C:N3	22:CV:62:C:C5	2.88	0.42
2:AB:38:VAL:HG12	2:AB:39:HIS:N	2.34	0.42
37:BN:58:ASP:HA	37:BN:80:PHE:CD1	2.55	0.42
34:BK:92:GLU:O	34:BK:93:GLN:HG2	2.19	0.42
30:BG:75:VAL:HG13	30:BG:76:ILE:H	1.85	0.42
7:CG:103:TRP:HE3	7:CG:104:ILE:HG12	1.84	0.42
7:CG:107:ALA:O	7:CG:111:ARG:NH2	2.53	0.42
1:AA:844:G:O2'	1:AA:845:A:C8	2.73	0.42
1:AA:846:G:N3	1:AA:847:G:C8	2.87	0.42
18:AR:52:GLN:C	18:AR:54:GLN:N	2.72	0.42
6:CF:24:ARG:O	6:CF:25:TYR:C	2.57	0.42
40:DQ:91:ARG:HA	40:DQ:94:LEU:HB2	2.02	0.42
31:BH:31:VAL:O	31:BH:33:GLN:N	2.52	0.42
24:BA:507:A:O4'	24:BA:509:C:C2	2.72	0.42
42:BS:48:LYS:O	42:BS:52:GLU:HG2	2.19	0.42
2:CB:15:HIS:CD2	2:CB:15:HIS:C	2.93	0.42
24:BA:7:G:H4'	33:BJ:15:TRP:CH2	2.55	0.42
26:BC:148:GLY:O	26:BC:149:LYS:C	2.58	0.42
22:AV:36:A:H8	22:AV:36:A:C5'	2.33	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:CY:41:VAL:HG22	55:CY:42:VAL:N	2.34	0.42
24:DA:2869:G:C6	24:DA:2870:C:C4	3.08	0.42
1:AA:1428:A:N1	1:AA:1473:G:N1	2.68	0.42
24:DA:1243:C:H2'	24:DA:1244:A:O4'	2.19	0.42
24:BA:2354:C:HO2'	46:BW:36:ILE:H	1.68	0.42
1:AA:293:G:C5	1:AA:305:G:N2	2.88	0.42
1:AA:882:C:N4	12:AL:2:ALA:HB2	2.35	0.42
24:BA:1220:G:C5	24:BA:1230:A:C2	3.07	0.42
1:AA:949:A:C5	1:AA:950:U:C5	3.07	0.42
13:AM:101:ARG:O	13:AM:101:ARG:CG	2.68	0.42
37:DN:12:ARG:HD3	37:DN:16:HIS:CD2	2.54	0.42
2:AB:200:ILE:N	2:AB:200:ILE:HD12	2.34	0.42
24:BA:230:G:C2	24:BA:231:A:N9	2.88	0.42
24:BA:1541:C:N3	24:BA:1542:U:C2	2.88	0.42
1:CA:592:G:N1	1:CA:648:A:C4	2.88	0.42
2:CB:151:ILE:HG13	2:CB:152:LYS:N	2.34	0.42
2:CB:153:ASP:N	2:CB:153:ASP:OD1	2.52	0.42
24:DA:1599:U:OP1	43:DT:40:LYS:HG3	2.20	0.42
24:DA:1503:A:H2'	24:DA:1504:A:C1'	2.50	0.42
24:DA:2312:U:OP1	29:DF:70:ARG:HB2	2.19	0.42
24:DA:2796:U:C5	24:DA:2798:U:O4	2.72	0.42
24:DA:2794:C:C2	24:DA:2803:G:C2	3.07	0.42
11:AK:17:SER:O	11:AK:79:ILE:O	2.38	0.42
26:DC:66:PHE:CZ	26:DC:155:ARG:NE	2.87	0.42
24:BA:404:A:H1'	24:BA:405:U:OP2	2.19	0.42
1:CA:1169:A:N7	1:CA:1170:A:C2	2.88	0.42
24:DA:727:A:N6	24:DA:728:G:O6	2.52	0.42
45:BV:61:LEU:HB2	45:BV:72:VAL:HG12	2.02	0.42
6:CF:49:TYR:CE1	18:CR:66:SER:HA	2.54	0.42
24:DA:2286:G:OP2	51:D1:29:LYS:CE	2.68	0.42
4:AD:143:VAL:O	4:AD:179:GLU:HB2	2.19	0.42
24:DA:630:G:C4'	24:DA:640:C:H4'	2.47	0.42
45:BV:88:HIS:C	45:BV:89:ILE:HG13	2.40	0.42
24:DA:1141:U:H4'	24:DA:1142:A:O4'	2.20	0.42
20:AT:24:ARG:HA	20:AT:27:MET:CG	2.50	0.42
1:CA:594:U:O2	1:CA:595:A:C2	2.72	0.42
53:D3:15:LYS:O	53:D3:16:THR:CB	2.68	0.42
24:DA:1289:C:O2'	24:DA:1330:C:H4'	2.19	0.42
30:DG:136:ASP:CG	30:DG:139:VAL:HG23	2.39	0.42
28:DE:149:ILE:HD12	28:DE:149:ILE:C	2.40	0.42
1:CA:1116:U:O2	1:CA:1185:G:C2	2.73	0.42
28:BE:146:VAL:HG13	28:BE:167:VAL:CG2	2.50	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1947:C:N3	24:DA:1960:A:C2	2.88	0.42
24:DA:96:C:H4'	48:DY:41:HIS:CE1	2.55	0.42
24:DA:169:G:C2	24:DA:170:U:C6	3.08	0.42
1:AA:66:A:O2'	1:AA:173:U:H2'	2.20	0.42
27:BD:105:LYS:O	27:BD:177:VAL:HG12	2.19	0.42
1:CA:886:G:C6	1:CA:887:G:C4	3.07	0.42
2:AB:104:TRP:O	2:AB:108:ARG:N	2.40	0.42
24:BA:1200:C:C2	24:BA:1246:A:C2	3.08	0.42
11:AK:96:THR:HG22	11:AK:97:ILE:N	2.34	0.42
11:AK:98:ARG:O	11:AK:102:ALA:HB3	2.20	0.42
22:AV:21:A:C6	22:AV:46:G:C4	3.08	0.42
24:BA:915:C:C5	24:BA:916:G:N7	2.88	0.42
34:DK:67:LYS:HA	34:DK:67:LYS:HD2	1.80	0.42
1:AA:763:G:C2'	1:AA:764:C:H5'	2.50	0.42
24:DA:2146:C:H5''	24:DA:2147:A:O5'	2.20	0.42
37:DN:28:LEU:HA	37:DN:28:LEU:HD23	1.87	0.42
24:DA:1249:U:H5'	40:DQ:3:VAL:HG13	2.02	0.42
24:BA:301:G:C2	24:BA:317:G:C4	3.08	0.42
1:CA:107:G:H3'	1:CA:108:G:H5''	2.02	0.42
24:DA:1844:C:H2'	24:DA:1845:G:O4'	2.19	0.42
13:AM:50:GLU:O	13:AM:53:ILE:HB	2.19	0.42
5:AE:43:ASN:O	5:AE:44:GLY:O	2.38	0.42
19:AS:52:HIS:CE1	19:AS:53:ASN:O	2.72	0.42
49:BZ:7:THR:N	49:BZ:55:LYS:O	2.51	0.42
24:DA:2563:U:H1'	24:DA:2566:A:N6	2.34	0.42
1:CA:1031:C:H4'	1:CA:1032:G:OP2	2.20	0.42
21:CU:28:VAL:HG13	21:CU:31:GLU:OE1	2.19	0.42
24:DA:1825:U:H2'	24:DA:1826:G:O4'	2.18	0.42
32:DI:5:GLN:CD	32:DI:60:VAL:O	2.58	0.42
15:AO:4:SER:OG	15:AO:7:ALA:HB2	2.20	0.42
1:AA:232:G:H2'	1:AA:233:C:O4'	2.20	0.42
6:CF:65:GLU:CG	6:CF:65:GLU:O	2.67	0.42
24:BA:2648:G:C4	24:BA:2673:G:C2	3.08	0.42
42:DS:57:ASN:O	42:DS:61:ASN:HB2	2.19	0.42
31:DH:121:VAL:O	31:DH:123:ARG:HG2	2.20	0.42
1:AA:1321:U:C4	1:AA:1322:C:C6	3.08	0.42
1:AA:1374:A:C2'	1:AA:1375:A:H5'	2.50	0.42
24:BA:2379:G:O3'	38:BO:17:LYS:NZ	2.53	0.42
24:BA:2294:G:P	38:BO:94:ARG:HH22	2.43	0.42
35:BL:57:LEU:HD22	53:B3:53:ASP:CB	2.50	0.42
8:AH:29:SER:O	8:AH:30:SER:CB	2.66	0.42
1:AA:254:G:C2'	1:AA:255:G:H5'	2.50	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:103:TYR:C	4:AD:105:MET:H	2.23	0.42
1:AA:8:A:C6	4:AD:206:LYS:HG2	2.55	0.42
4:AD:71:GLN:O	4:AD:74:ASN:CG	2.58	0.42
5:AE:97:GLN:O	5:AE:123:VAL:HA	2.20	0.42
8:AH:94:LYS:HG2	8:AH:117:ARG:NH2	2.34	0.42
31:DH:147:VAL:O	31:DH:148:ALA:HB3	2.20	0.42
1:AA:55:A:C6	31:DH:91:PHE:CA	3.03	0.42
1:AA:865:A:N7	1:AA:866:C:C5	2.88	0.42
4:CD:166:GLU:O	4:CD:167:LYS:O	2.38	0.42
4:CD:165:ARG:CZ	4:CD:167:LYS:C	2.88	0.42
1:CA:579:A:C5	1:CA:580:C:C5	3.07	0.42
1:CA:584:G:C6	1:CA:585:G:C6	3.08	0.42
6:CF:9:MET:HE1	6:CF:59:TYR:CE2	2.55	0.42
24:BA:1838:C:C2	24:BA:1898:U:C4	3.08	0.42
1:CA:1269:A:C2	1:CA:1326:U:O2	2.73	0.42
1:CA:1237:C:C4'	1:CA:1334:G:N2	2.83	0.42
24:BA:1722:A:C6	24:BA:1723:G:C6	3.07	0.42
24:DA:1090:A:N1	24:DA:1091:G:C5	2.88	0.42
24:BA:674:G:H4'	28:BE:70:SER:O	2.19	0.42
9:AI:75:GLN:O	9:AI:78:ALA:HB3	2.20	0.42
1:CA:3:A:H4'	1:CA:613:C:H5'	2.02	0.42
24:BA:2691:C:C4	24:BA:2719:G:N2	2.87	0.42
6:CF:74:LEU:C	6:CF:76:THR:N	2.73	0.42
24:BA:77:G:P	48:BY:52:ARG:NH2	2.93	0.42
9:CI:61:LEU:HD12	9:CI:61:LEU:C	2.40	0.42
32:DI:41:PHE:CD1	32:DI:42:ASN:OD1	2.72	0.42
1:AA:1029:U:O2	1:AA:1029:U:C2'	2.68	0.42
1:CA:392:C:O2'	1:CA:483:C:H1'	2.19	0.42
1:CA:393:A:OP2	16:CP:12:LYS:CE	2.68	0.42
20:CT:66:LEU:O	20:CT:67:ILE:CB	2.66	0.42
20:CT:73:ALA:O	20:CT:75:HIS:N	2.53	0.42
14:CN:64:CYS:SG	14:CN:68:GLY:O	2.58	0.42
24:DA:1866:A:N1	24:DA:1876:A:N7	2.68	0.42
24:BA:1352:U:O2'	24:BA:1353:A:C5'	2.63	0.42
24:BA:1359:A:C2'	24:BA:1360:G:H5'	2.50	0.42
24:BA:646:U:O4	24:BA:2368:C:H1'	2.19	0.42
1:CA:1083:U:H5	1:CA:1084:G:C2	2.38	0.42
1:CA:14:U:O2	1:CA:16:A:OP2	2.38	0.42
2:CB:101:LEU:HD12	2:CB:179:LEU:CD1	2.50	0.42
29:BF:152:ASP:N	29:BF:152:ASP:OD1	2.52	0.42
24:DA:2329:U:H2'	24:DA:2330:G:O4'	2.20	0.42
14:AN:88:ALA:CA	14:AN:93:ILE:CD1	2.97	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:329:G:O6	44:DU:16:LYS:CB	2.66	0.42
24:BA:2282:G:C5	24:BA:2425:A:N1	2.88	0.42
21:AU:26:ALA:HB1	21:AU:30:ALA:CB	2.50	0.42
1:AA:1437:A:C2	1:AA:1465:A:C2	3.08	0.42
24:BA:592:A:C6	24:BA:593:U:C4	3.08	0.42
9:CI:123:ARG:NH1	9:CI:124:ARG:O	2.48	0.42
24:BA:466:A:N1	24:BA:796:C:O4'	2.53	0.42
37:BN:32:GLU:CA	37:BN:115:LEU:HD13	2.49	0.42
9:CI:130:ARG:NH1	22:CV:33:U:C6	2.87	0.42
7:CG:70:ARG:HE	7:CG:96:ARG:HG2	1.84	0.42
6:CF:21:MET:O	6:CF:23:GLU:HG2	2.19	0.42
1:CA:679:C:C2'	1:CA:680:C:H5'	2.49	0.42
24:DA:2823:A:C5	24:DA:2824:C:C5	3.08	0.42
24:BA:2028:U:H2'	24:BA:2029:G:O4'	2.19	0.42
24:DA:2277:G:H2'	24:DA:2278:A:O5'	2.20	0.42
21:AU:37:PHE:O	21:AU:38:TYR:CD2	2.72	0.42
27:BD:194:PRO:O	27:BD:195:GLY:C	2.58	0.42
26:DC:68:ARG:HG3	26:DC:128:THR:CG2	2.44	0.42
24:BA:2250:G:O5'	24:BA:2250:G:H8	2.01	0.42
24:BA:2336:A:H61	46:BW:43:THR:HG21	1.85	0.42
3:CC:10:ILE:HG23	3:CC:11:ARG:HD2	2.02	0.42
24:BA:933:A:C5'	24:BA:934:U:OP2	2.67	0.42
24:DA:784:G:H4'	24:DA:785:G:O5'	2.19	0.42
24:DA:408:G:O2'	24:DA:409:G:H5'	2.19	0.42
25:BB:20:G:H2'	25:BB:21:G:O4'	2.20	0.42
1:CA:1386:G:C2	1:CA:1387:G:C5	3.07	0.42
1:AA:1422:G:C6	1:AA:1423:G:N7	2.88	0.42
24:BA:895:U:C4	24:BA:897:C:N4	2.88	0.42
13:CM:31:LYS:O	13:CM:31:LYS:HD2	2.19	0.42
1:CA:145:G:C2	1:CA:146:G:C5	3.08	0.42
24:DA:2605:U:H2'	24:DA:2606:C:C6	2.55	0.42
24:BA:90:U:H2'	24:BA:91:A:C8	2.55	0.42
24:DA:1310:G:N2	24:DA:1313:U:C5	2.88	0.42
24:BA:1419:A:N7	24:BA:1579:A:C6	2.87	0.42
24:BA:1494:A:N3	24:BA:1494:A:H2'	2.35	0.42
24:DA:1474:U:H2'	24:DA:1475:G:H5'	2.01	0.42
24:DA:1478:G:C6	24:DA:1514:G:C2	3.07	0.42
34:BK:102:PRO:O	34:BK:103:VAL:HB	2.19	0.42
24:DA:2414:G:O2'	24:DA:2415:G:H5'	2.20	0.42
53:D3:5:THR:HG22	53:D3:61:LEU:HA	2.02	0.42
1:AA:577:G:C8	1:AA:816:A:C6	3.07	0.42
1:AA:577:G:C8	1:AA:816:A:N1	2.88	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:466:A:P	52:D2:34:ARG:HH21	2.42	0.42
19:AS:15:LEU:HD21	19:AS:35:SER:HB2	2.02	0.42
24:BA:185:G:C4	24:BA:186:G:C8	3.08	0.42
18:CR:55:LEU:O	18:CR:58:ALA:HB3	2.20	0.42
51:D1:28:THR:O	51:D1:29:LYS:CB	2.68	0.42
1:CA:1177:G:N7	1:CA:1178:G:C5	2.88	0.42
37:BN:49:GLU:N	37:BN:50:PRO:CD	2.82	0.42
24:DA:1430:G:H2'	24:DA:1431:A:O4'	2.18	0.42
1:AA:1453:G:C2	1:AA:1454:G:H1'	2.55	0.42
24:BA:1103:A:N7	24:BA:1104:C:C4	2.88	0.42
24:DA:34:U:O4'	24:DA:34:U:OP1	2.37	0.42
1:CA:487:A:N7	1:CA:488:C:C2	2.88	0.42
24:DA:1289:C:H2'	24:DA:1290:C:H6	1.84	0.42
18:AR:71:THR:HG1	18:AR:72:ASP:N	2.18	0.42
24:BA:2803:G:N2	24:BA:2804:U:C2	2.87	0.42
1:CA:819:A:H4'	1:CA:820:U:OP2	2.20	0.42
24:BA:2107:G:C2'	24:BA:2108:A:O4'	2.68	0.42
28:BE:41:GLN:CG	28:BE:43:THR:HG23	2.50	0.42
24:DA:2680:U:O2'	24:DA:2681:C:O5'	2.38	0.42
24:DA:2808:G:C2	24:DA:2891:U:C6	3.08	0.42
27:BD:2:ILE:H	27:BD:2:ILE:HD13	1.85	0.42
24:BA:920:A:C2	24:BA:921:C:C2	3.08	0.42
25:DB:101:A:H2'	25:DB:102:G:O4'	2.20	0.42
24:BA:2714:G:N3	24:BA:2715:C:C6	2.88	0.42
8:CH:50:LYS:O	8:CH:59:LEU:HA	2.20	0.42
24:DA:729:G:C4	24:DA:1775:U:C2	3.08	0.42
49:BZ:34:THR:HG22	49:BZ:35:VAL:N	2.34	0.42
31:BH:61:VAL:HG13	31:BH:64:ALA:HB3	2.01	0.42
1:AA:1480:A:C5	1:AA:1481:U:C4	3.08	0.42
24:DA:778:G:C4	24:DA:779:U:C5	3.07	0.42
24:BA:367:G:C6	24:BA:368:A:C2	3.07	0.42
35:BL:22:GLY:C	35:BL:23:ILE:HG22	2.40	0.42
22:AV:40:C:O2	22:AV:40:C:H2'	2.19	0.42
2:AB:183:VAL:CG1	2:AB:196:VAL:HG23	2.50	0.42
24:BA:1509:A:O2'	24:BA:1510:G:OP2	2.28	0.42
1:CA:1439:G:N1	1:CA:1440:U:C2	2.88	0.42
24:DA:2024:G:H2'	24:DA:2025:C:O4'	2.19	0.42
33:BJ:74:TYR:CD2	33:BJ:92:MET:HE3	2.54	0.42
35:DL:90:VAL:O	35:DL:123:ARG:N	2.51	0.42
3:AC:87:LEU:H	3:AC:87:LEU:CD1	2.33	0.42
1:AA:840:C:C3'	1:AA:841:C:C5'	2.97	0.42
24:DA:2666:C:N4	30:DG:107:GLY:O	2.51	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:294:A:H2'	24:DA:295:G:C5'	2.50	0.42
1:AA:824:G:H1'	8:AH:2:SER:N	2.34	0.42
33:BJ:17:VAL:CG2	33:BJ:57:LEU:CD1	2.98	0.42
24:BA:1633:G:C6	24:BA:1635:A:C4	3.08	0.42
24:DA:13:A:N3	24:DA:15:G:C6	2.88	0.42
33:DJ:24:THR:O	33:DJ:25:LEU:C	2.58	0.42
1:AA:129:A:H1'	1:AA:130:A:C8	2.55	0.42
19:AS:64:ASP:OD1	19:AS:64:ASP:N	2.51	0.42
27:DD:39:ASP:OD1	27:DD:41:ALA:HB3	2.19	0.42
29:DF:172:PHE:O	29:DF:173:ASP:HB2	2.19	0.42
24:DA:322:A:OP1	28:DE:162:ARG:HG2	2.19	0.42
24:BA:2233:U:H2'	24:BA:2234:G:C8	2.54	0.42
24:BA:396:G:C6	24:BA:397:U:C4	3.08	0.42
24:BA:416:U:N3	24:BA:417:C:C5	2.88	0.42
1:CA:1516:G:N3	1:CA:1518:A:OP2	2.52	0.42
1:CA:689:C:N3	1:CA:690:G:C5	2.88	0.42
1:CA:702:A:C5'	1:CA:703:G:N7	2.83	0.42
1:AA:373:A:H2'	1:AA:374:A:O5'	2.19	0.42
1:AA:374:A:H2'	1:AA:375:U:H6	1.84	0.42
1:AA:509:A:C2'	1:AA:510:A:C8	3.00	0.42
1:AA:645:G:C4	1:AA:646:G:C8	3.08	0.42
4:AD:55:LEU:HD22	4:AD:56:ARG:HD2	2.01	0.42
16:AP:5:ARG:HG3	16:AP:6:LEU:O	2.20	0.42
31:DH:86:ASP:O	31:DH:87:GLU:HB3	2.19	0.42
1:CA:667:G:N2	1:CA:740:U:O2	2.53	0.42
1:CA:673:A:N1	1:CA:674:G:C6	2.88	0.42
24:DA:1509:A:C4	24:DA:1510:G:C8	3.08	0.42
1:AA:777:A:C4	1:AA:778:G:C8	3.08	0.42
24:BA:98:G:O2'	24:BA:103:A:C8	2.73	0.42
1:CA:1266:G:C4	1:CA:1268:G:OP2	2.73	0.42
13:CM:84:GLY:C	19:CS:74:PHE:CZ	2.93	0.42
24:DA:1087:G:C6	24:DA:1089:A:H2	2.37	0.42
1:AA:1074:G:N3	1:AA:1074:G:H2'	2.35	0.42
28:BE:60:TRP:CZ2	28:BE:70:SER:HB2	2.54	0.42
24:BA:572:A:C2	24:BA:573:U:C2	3.07	0.42
24:DA:1372:U:H2'	24:DA:1373:A:C5'	2.50	0.42
24:DA:1205:A:N1	28:DE:165:HIS:CB	2.83	0.42
48:BY:49:ASP:HA	48:BY:52:ARG:CD	2.49	0.42
9:CI:57:MET:HB3	9:CI:60:LYS:NZ	2.35	0.42
10:CJ:73:LEU:C	10:CJ:73:LEU:HD22	2.40	0.42
24:BA:278:A:N6	24:BA:362:A:C8	2.88	0.42
2:AB:57:LEU:HD13	2:AB:58:ASN:H	1.84	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2222:C:N3	24:DA:2223:G:C8	2.87	0.42
24:BA:658:U:C2	24:BA:659:G:C8	3.07	0.42
1:AA:1304:G:H2'	1:AA:1305:G:H1'	2.01	0.42
13:AM:68:ASP:C	13:AM:72:GLU:OE1	2.58	0.42
35:BL:110:VAL:O	35:BL:111:ILE:HB	2.20	0.42
1:CA:1491:G:H5''	12:CL:43:LYS:CD	2.50	0.42
24:BA:65:U:N3	24:BA:66:C:C5	2.88	0.42
10:CJ:5:ARG:O	10:CJ:76:ILE:HG23	2.20	0.42
2:CB:200:ILE:HD12	2:CB:200:ILE:N	2.35	0.42
2:CB:203:ASN:OD1	2:CB:205:ASP:N	2.53	0.42
1:CA:1084:G:N1	1:CA:1085:U:O4	2.53	0.42
3:AC:40:ARG:HG2	3:AC:55:ILE:HD11	2.02	0.42
29:DF:95:MET:O	29:DF:99:PHE:CE1	2.73	0.42
44:DU:64:ILE:HG13	44:DU:65:GLN:N	2.35	0.42
30:BG:41:GLU:HB2	30:BG:54:ARG:CZ	2.50	0.42
24:BA:2657:A:H2'	24:BA:2658:C:C5'	2.50	0.42
1:CA:942:G:C2	1:CA:1342:C:O2	2.73	0.42
47:DX:55:MET:O	47:DX:58:ILE:N	2.52	0.42
43:DT:61:LEU:HD11	43:DT:82:LYS:CB	2.50	0.42
30:BG:68:ARG:O	30:BG:69:ALA:C	2.56	0.42
7:CG:124:LEU:O	7:CG:127:ALA:HB3	2.19	0.42
3:AC:79:LYS:HB3	3:AC:82:GLU:HG2	2.02	0.42
31:BH:31:VAL:HB	31:BH:32:PRO:CD	2.49	0.42
24:BA:481:G:OP2	44:BU:43:LYS:HD2	2.19	0.42
47:DX:62:GLY:O	47:DX:63:ILE:C	2.58	0.42
59:BA:3748:HOH:O	26:BC:220:ARG:NH1	2.52	0.42
24:DA:675:A:OP1	28:DE:58:LYS:CD	2.68	0.42
24:DA:2371:G:C2	24:DA:2372:U:C6	3.08	0.42
24:BA:2331:G:C4	24:BA:2332:C:C6	3.07	0.42
24:BA:850:U:H2'	24:BA:851:C:C6	2.55	0.42
24:DA:137:U:C5	24:DA:140:C:C6	3.08	0.42
24:BA:630:G:N2	24:BA:634:C:C4	2.88	0.42
1:AA:580:C:C4	1:AA:581:G:C5	3.08	0.42
24:DA:2194:U:C2	24:DA:2195:U:C6	3.07	0.42
24:BA:1515:A:H5'	24:BA:1516:G:OP2	2.20	0.42
24:DA:1275:A:N3	24:DA:1276:A:H1'	2.35	0.42
24:DA:1030:C:C4	24:DA:1125:G:N2	2.88	0.42
1:CA:135:C:C2	16:CP:1:MET:HB2	2.54	0.42
1:AA:161:A:H2'	1:AA:162:A:O4'	2.19	0.42
10:AJ:23:ALA:C	10:AJ:25:ILE:N	2.73	0.42
48:DY:51:ALA:O	48:DY:52:ARG:C	2.58	0.42
11:AK:16:VAL:CG1	11:AK:17:SER:N	2.83	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1979:U:H2'	24:DA:1980:G:H5'	2.01	0.42
26:DC:64:VAL:HA	26:DC:102:TYR:HB2	2.02	0.42
46:DW:32:LEU:HB3	46:DW:64:ASP:OD1	2.20	0.42
10:AJ:42:LEU:HB3	10:AJ:71:LEU:HD23	2.01	0.42
24:DA:2318:G:H2'	24:DA:2319:G:O4'	2.19	0.42
24:DA:467:G:C2'	24:DA:468:G:H5'	2.49	0.42
24:DA:244:A:C2	24:DA:255:A:N3	2.87	0.42
14:CN:93:ILE:HG21	14:CN:96:LEU:HG	2.01	0.42
19:AS:15:LEU:HD21	19:AS:33:THR:OG1	2.19	0.42
24:DA:723:C:H2'	24:DA:724:U:O4'	2.20	0.42
24:DA:724:U:H2'	24:DA:725:G:O4'	2.20	0.42
24:BA:1677:A:N1	24:BA:1678:A:C2	2.87	0.42
1:AA:425:G:C4	1:AA:426:U:C6	3.08	0.42
1:AA:86:G:H1'	1:AA:87:C:O4'	2.20	0.42
6:AF:42:TRP:O	6:AF:43:GLY:O	2.37	0.42
1:AA:1381:U:H1'	7:AG:78:ARG:NH2	2.35	0.42
36:DM:21:ALA:CB	36:DM:98:PRO:O	2.68	0.42
41:DR:68:ARG:HG2	41:DR:92:TRP:CE3	2.54	0.42
24:DA:1562:U:H2'	24:DA:1563:U:H6	1.84	0.42
28:DE:171:ASP:C	28:DE:173:THR:N	2.72	0.42
35:DL:50:PHE:CE1	35:DL:52:GLY:N	2.88	0.42
24:DA:597:G:C6	24:DA:598:U:N3	2.87	0.42
24:DA:1330:C:C2'	24:DA:1331:G:H5'	2.49	0.42
24:BA:1319:C:H2'	24:BA:1319:C:O2	2.19	0.42
45:DV:80:HIS:CD2	45:DV:81:PRO:CD	3.03	0.42
24:DA:1425:G:C6	24:DA:1426:G:N1	2.88	0.42
1:AA:658:C:H2'	1:AA:659:U:H5'	2.00	0.42
24:BA:1252:G:H2'	59:BA:3338:HOH:O	2.19	0.42
24:DA:1532:A:N1	24:DA:1533:C:C2	2.87	0.42
1:CA:316:C:N3	1:CA:317:U:C5	2.88	0.42
24:BA:1283:G:N2	24:BA:1286:A:H5'	2.35	0.42
6:CF:90:MET:HB2	6:CF:90:MET:HE3	1.80	0.42
24:DA:1661:G:C6	24:DA:1662:U:C4	3.08	0.42
24:DA:778:G:C5'	26:DC:47:ARG:NH1	2.83	0.42
42:BS:24:ILE:HA	42:BS:27:LYS:CG	2.49	0.42
32:DI:97:VAL:CG1	32:DI:98:GLY:N	2.83	0.42
24:DA:1292:G:H2'	24:DA:1293:C:H6	1.85	0.42
8:CH:7:ILE:CD1	8:CH:7:ILE:N	2.83	0.42
40:BQ:77:LYS:O	40:BQ:80:ASN:N	2.53	0.42
5:CE:85:VAL:HG12	5:CE:96:MET:HG3	2.02	0.42
4:AD:135:TYR:CD1	4:AD:136:GLN:N	2.88	0.42
6:AF:32:ALA:O	6:AF:33:GLU:C	2.58	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BO:79:ALA:HB2	38:BO:110:ALA:HA	2.01	0.42
24:DA:1989:G:H2'	24:DA:1990:C:O4'	2.19	0.42
12:AL:79:VAL:O	12:AL:103:ASP:HB2	2.20	0.42
34:DK:60:ALA:HA	34:DK:87:LEU:HG	2.01	0.42
1:AA:824:G:C1'	8:AH:2:SER:N	2.83	0.42
29:BF:147:ARG:HD2	29:BF:149:ARG:HG2	2.01	0.42
28:DE:21:ARG:HG2	28:DE:22:ASP:O	2.20	0.42
24:DA:1935:G:C6	24:DA:1962:C:C5	3.08	0.42
1:CA:307:C:H5''	1:CA:308:C:OP2	2.20	0.42
1:CA:824:G:H1'	8:CH:2:SER:CB	2.50	0.42
24:BA:664:G:O2'	24:BA:940:G:OP1	2.27	0.42
28:BE:21:ARG:O	28:BE:110:SER:OG	2.35	0.42
10:CJ:51:VAL:O	10:CJ:62:ARG:HA	2.19	0.42
24:DA:2676:C:C2'	24:DA:2677:G:H5'	2.49	0.42
3:CC:183:ASP:HB2	3:CC:204:LYS:HE3	2.02	0.42
28:DE:157:LEU:O	28:DE:158:PHE:C	2.59	0.42
14:AN:77:PHE:N	14:AN:77:PHE:CD1	2.87	0.42
22:CV:51:U:O2	22:CV:51:U:H2'	2.20	0.42
24:BA:50:U:O2	24:BA:50:U:O2'	2.27	0.42
1:AA:1168:U:H5''	1:AA:1169:A:OP2	2.19	0.42
36:BM:71:LYS:HD2	36:BM:95:LEU:HD22	2.01	0.42
24:DA:962:G:H2'	24:DA:963:U:O4'	2.20	0.42
44:DU:84:PHE:O	44:DU:94:PHE:CD2	2.72	0.42
13:AM:85:CYS:HB3	19:AS:74:PHE:CE1	2.54	0.42
25:BB:48:U:H2'	25:BB:49:C:H6	1.84	0.42
24:BA:392:U:C2	24:BA:393:C:C6	3.08	0.42
12:CL:56:ARG:O	12:CL:57:LEU:CG	2.67	0.42
24:DA:2496:C:P	36:DM:81:ARG:HH22	2.42	0.42
24:DA:2002:G:H2'	24:DA:2003:A:H5'	2.01	0.42
1:AA:418:C:N3	1:AA:419:C:C5	2.87	0.42
4:AD:62:ARG:CG	4:AD:72:PHE:CE1	3.03	0.42
8:AH:83:LEU:CD1	8:AH:83:LEU:O	2.68	0.42
20:AT:10:ARG:O	20:AT:11:ALA:C	2.58	0.42
1:CA:408:A:N3	1:CA:408:A:H2'	2.35	0.42
4:CD:137:VAL:HG12	4:CD:138:SER:N	2.35	0.42
4:CD:3:ARG:O	4:CD:4:TYR:C	2.57	0.42
4:CD:9:LEU:HD11	4:CD:10:LYS:HE3	2.01	0.42
1:CA:585:G:OP1	17:CQ:39:LYS:NZ	2.52	0.42
6:CF:9:MET:CE	18:CR:65:LEU:HB2	2.50	0.42
1:AA:687:A:C6	1:AA:704:A:N7	2.88	0.42
13:CM:48:LEU:CD1	13:CM:48:LEU:O	2.68	0.42
37:BN:116:VAL:HG23	37:BN:117:ASP:N	2.35	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1062:G:H2'	24:DA:1063:G:H5''	2.02	0.42
1:AA:809:G:C6	1:AA:810:C:C5	3.08	0.42
1:AA:810:C:H2'	1:AA:811:C:C6	2.54	0.42
1:AA:186:C:N4	1:AA:187:G:C6	2.87	0.42
55:CY:143:LEU:O	55:CY:146:LYS:N	2.53	0.42
11:AK:107:ILE:CG2	11:AK:107:ILE:O	2.67	0.42
39:BP:50:ARG:CZ	39:BP:52:ARG:HG3	2.50	0.42
39:BP:52:ARG:O	39:BP:53:GLY:C	2.58	0.42
9:CI:39:PHE:HB2	9:CI:44:ALA:HB3	2.00	0.42
9:CI:82:GLY:HA3	9:CI:85:ARG:NH1	2.35	0.42
24:BA:364:C:N3	24:BA:365:U:N3	2.68	0.42
4:CD:54:GLN:C	4:CD:58:LYS:NZ	2.73	0.42
24:BA:2020:A:C6	24:BA:2022:U:C2	3.08	0.42
12:CL:101:ALA:O	12:CL:103:ASP:N	2.49	0.42
24:DA:538:A:C8	57:DA:3186:NMY:N19	2.87	0.42
20:CT:67:ILE:HG23	20:CT:71:LYS:CB	2.49	0.42
1:CA:830:G:C6	1:CA:857:C:N3	2.88	0.42
13:AM:22:ILE:C	13:AM:22:ILE:CD1	2.86	0.42
1:CA:981:U:C5	1:CA:982:U:C2	3.08	0.42
24:BA:637:A:N6	24:BA:652:U:H4'	2.35	0.42
29:BF:154:THR:HG23	29:BF:155:ILE:N	2.35	0.42
8:CH:113:ASP:O	8:CH:115:ALA:N	2.53	0.42
21:AU:30:ALA:CA	21:AU:33:ARG:CZ	2.94	0.42
24:BA:548:G:H3'	24:BA:548:G:C8	2.55	0.42
24:DA:2231:U:H2'	24:DA:2232:C:H6	1.84	0.42
1:AA:872:A:C8	1:AA:874:G:C8	3.08	0.42
2:AB:22:TYR:O	2:AB:23:TRP:C	2.57	0.42
24:DA:587:C:C4'	24:DA:588:U:H5'	2.48	0.42
1:CA:967:C:N1	9:CI:129:LYS:HE2	2.35	0.42
1:CA:532:A:C3'	1:CA:533:A:C5'	2.96	0.42
55:CY:78:VAL:O	55:CY:81:ALA:HB3	2.19	0.42
24:BA:2747:G:C6	24:BA:2754:U:C2	3.08	0.42
14:CN:31:SER:O	14:CN:32:ASP:CB	2.67	0.42
48:BY:17:GLU:O	48:BY:21:LEU:CD1	2.68	0.42
7:CG:123:GLU:O	7:CG:127:ALA:N	2.52	0.42
7:CG:66:LEU:HD12	7:CG:67:GLU:HB2	2.02	0.42
35:BL:125:LEU:N	35:BL:125:LEU:HD13	2.34	0.42
24:BA:2343:U:H2'	24:BA:2344:U:C5	2.54	0.42
24:BA:2345:G:N3	24:BA:2381:A:H2'	2.34	0.42
41:DR:52:PRO:C	41:DR:53:PHE:CD1	2.94	0.42
24:BA:499:U:O3'	44:BU:42:LYS:CE	2.68	0.42
5:CE:82:GLN:H	5:CE:147:MET:CE	2.33	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DC:154:ALA:CB	26:DC:159:THR:HG23	2.49	0.42
9:AI:14:SER:OG	9:AI:14:SER:O	2.29	0.42
6:AF:91:ARG:O	6:AF:92:THR:CB	2.68	0.42
1:AA:441:A:N3	1:AA:497:G:C2	2.88	0.42
37:BN:37:THR:CG2	37:BN:38:LEU:N	2.83	0.42
24:BA:181:A:C2	24:BA:182:A:N3	2.88	0.42
24:DA:416:U:C6	24:DA:417:C:C5	3.07	0.42
24:BA:1230:A:C6	24:BA:1231:U:C4	3.07	0.42
29:BF:105:ILE:CG2	29:BF:138:PRO:HG2	2.50	0.42
13:AM:31:LYS:HD2	13:AM:35:ALA:CB	2.50	0.42
1:CA:1053:G:C4	1:CA:1199:U:C4	3.08	0.42
1:CA:801:U:H2'	1:CA:802:A:O5'	2.20	0.42
1:AA:1012:A:N3	1:AA:1018:G:C2	2.88	0.42
24:DA:2298:A:C4	24:DA:2321:U:H5	2.33	0.42
1:CA:6:G:N3	1:CA:6:G:H3'	2.35	0.42
24:DA:2038:G:H2'	24:DA:2039:U:O4'	2.20	0.42
1:AA:1265:C:C4	1:AA:1266:G:C6	3.08	0.42
17:CQ:4:LYS:CE	17:CQ:5:ILE:O	2.68	0.42
24:DA:2412:A:H3'	24:DA:2413:G:C8	2.55	0.42
24:BA:1872:A:N7	24:BA:1873:G:C1'	2.83	0.42
24:BA:242:G:H5''	53:B3:63:TYR:CE1	2.55	0.42
50:B0:48:TYR:O	50:B0:49:ARG:HB2	2.19	0.42
5:CE:44:GLY:O	5:CE:45:ARG:CG	2.67	0.42
5:CE:133:PRO:C	5:CE:135:ASN:H	2.17	0.42
8:CH:77:ARG:NH1	8:CH:126:ILE:HG23	2.35	0.42
47:DX:18:SER:O	47:DX:20:ALA:N	2.52	0.42
41:DR:24:LYS:CG	41:DR:25:LEU:N	2.83	0.42
24:DA:1561:C:C4	24:DA:1562:U:C5	3.08	0.42
24:DA:1568:G:OP1	26:DC:84:PRO:HG2	2.20	0.42
24:BA:1099:G:C5	24:BA:1100:C:C5	3.08	0.42
7:AG:93:PRO:HA	7:AG:96:ARG:CB	2.50	0.42
33:BJ:31:GLU:HG3	33:BJ:142:ILE:CD1	2.50	0.42
27:DD:160:LYS:HB2	27:DD:160:LYS:NZ	2.34	0.42
26:BC:221:GLY:C	26:BC:223:ALA:N	2.73	0.42
24:DA:2633:G:H3'	24:DA:2634:A:H5''	2.02	0.42
1:CA:424:G:C2	1:CA:425:G:C8	3.08	0.42
1:CA:291:U:O2	1:CA:310:G:C2	2.73	0.42
36:DM:47:GLU:O	36:DM:48:ALA:C	2.57	0.42
1:CA:1210:C:O4'	1:CA:1214:C:C4	2.73	0.42
36:BM:103:TYR:CD1	36:BM:103:TYR:N	2.87	0.42
4:CD:143:VAL:O	4:CD:144:SER:CB	2.68	0.42
24:BA:2443:C:H5'	28:BE:63:LYS:NZ	2.35	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:130:PHE:CE2	3:CC:157:LEU:HD23	2.55	0.42
24:DA:2032:G:O2'	27:DD:150:GLN:NE2	2.52	0.42
24:BA:971:G:C2'	24:BA:972:A:H5'	2.49	0.42
1:AA:1112:C:H1'	3:AC:179:ARG:NH2	2.35	0.42
31:DH:45:GLU:C	31:DH:47:PHE:H	2.22	0.42
24:BA:2134:A:N1	24:BA:2135:A:C5	2.88	0.42
1:AA:764:C:C4	1:AA:765:G:C5	3.08	0.42
36:DM:3:GLN:HB2	36:DM:4:PRO:CD	2.50	0.42
45:BV:50:MET:O	45:BV:53:LYS:HG2	2.20	0.42
14:AN:29:ILE:HA	14:AN:32:ASP:HB3	2.02	0.42
18:CR:63:ARG:HA	18:CR:68:LEU:HG	2.02	0.42
34:DK:2:ILE:HD11	34:DK:39:ILE:HG21	2.01	0.42
24:BA:201:C:C2'	24:BA:202:U:H5'	2.50	0.42
24:DA:764:A:C5	26:DC:207:ALA:CB	3.03	0.42
1:CA:267:C:H2'	1:CA:268:U:C6	2.55	0.42
30:DG:7:PRO:HB3	30:DG:50:THR:HG22	2.02	0.42
25:DB:14:U:O2	25:DB:107:G:H4'	2.20	0.42
27:DD:163:GLY:O	27:DD:164:GLN:C	2.58	0.42
3:CC:65:ARG:HA	3:CC:65:ARG:HD3	1.88	0.42
26:DC:211:ARG:HD2	26:DC:211:ARG:HA	1.77	0.42
20:AT:66:LEU:C	20:AT:66:LEU:HD12	2.40	0.42
27:DD:169:ARG:HG3	27:DD:169:ARG:O	2.20	0.42
5:CE:38:VAL:HG21	5:CE:114:VAL:HG12	2.02	0.42
24:BA:342:A:H2'	24:BA:343:C:O5'	2.20	0.42
57:BA:3162:NMY:H172	57:BA:3162:NMY:C2	2.48	0.41
24:BA:993:G:N2	41:BR:23:GLU:OE1	2.43	0.41
54:D4:31:PRO:C	54:D4:33:HIS:H	2.23	0.41
13:AM:109:ARG:HA	13:AM:109:ARG:NE	2.35	0.41
24:DA:2359:C:HO2'	53:D3:53:ASP:CG	2.19	0.41
24:DA:195:A:H4'	24:DA:251:A:O2'	2.20	0.41
25:BB:109:A:C5	25:BB:110:C:C5	3.08	0.41
47:BX:31:ASN:O	47:BX:33:HIS:CD2	2.73	0.41
1:CA:1517:G:H5'	1:CA:1518:A:OP2	2.20	0.41
11:CK:43:GLY:C	11:CK:44:TRP:HD1	2.23	0.41
1:AA:586:C:H5''	8:AH:82:GLY:CA	2.49	0.41
4:AD:119:SER:HA	4:AD:131:ASN:OD1	2.20	0.41
1:AA:16:A:C5	1:AA:17:U:H5	2.36	0.41
1:AA:917:G:C6	1:AA:918:A:C6	3.08	0.41
4:CD:107:PHE:O	4:CD:155:VAL:HG23	2.20	0.41
4:CD:14:ARG:NH1	4:CD:38:PRO:HB3	2.35	0.41
4:CD:97:ARG:CG	4:CD:99:ASP:OD1	2.68	0.41
1:AA:708:C:C2'	1:AA:709:U:O5'	2.68	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:100:U:H1'	24:BA:101:A:C8	2.55	0.41
1:CA:1243:C:H2'	1:CA:1244:G:O4'	2.19	0.41
1:AA:155:A:C6	1:AA:167:A:C6	3.08	0.41
24:BA:863:A:C2'	24:BA:864:G:O5'	2.67	0.41
1:AA:132:C:OP1	20:AT:69:LYS:HE3	2.18	0.41
19:CS:33:THR:OG1	19:CS:34:TRP:N	2.53	0.41
24:DA:1824:G:OP2	26:DC:52:HIS:CD2	2.73	0.41
55:CY:160:VAL:HG12	55:CY:161:GLN:N	2.35	0.41
24:BA:2731:G:O3'	27:BD:208:LYS:HE3	2.20	0.41
24:DA:1358:G:O6	24:DA:1371:G:C8	2.71	0.41
24:DA:1212:G:H1'	24:DA:1236:G:N2	2.35	0.41
40:DQ:38:VAL:HG12	40:DQ:39:ILE:N	2.34	0.41
24:BA:111:A:N1	24:BA:112:U:C2	2.88	0.41
48:BY:2:LYS:HB3	48:BY:2:LYS:HE3	1.89	0.41
1:CA:1129:C:H4'	1:CA:1130:A:OP1	2.20	0.41
1:CA:1153:G:C4	1:CA:1154:G:C8	3.07	0.41
1:CA:1253:G:N3	1:CA:1254:A:C8	2.88	0.41
1:CA:1277:C:C2'	1:CA:1279:G:H8	2.33	0.41
9:CI:7:TYR:CD2	9:CI:19:VAL:O	2.73	0.41
10:CJ:36:VAL:O	10:CJ:36:VAL:HG12	2.19	0.41
1:CA:263:A:OP1	20:CT:70:ASN:HB2	2.20	0.41
20:CT:31:PHE:CB	20:CT:54:MET:HG3	2.47	0.41
24:BA:809:G:H4'	24:BA:1254:A:O4'	2.20	0.41
24:BA:625:G:N1	24:BA:626:A:C5	2.88	0.41
13:AM:69:LEU:HD23	13:AM:69:LEU:C	2.41	0.41
1:CA:1317:C:H1'	14:CN:49:GLN:CG	2.50	0.41
24:BA:636:G:C5	35:BL:111:ILE:HD11	2.55	0.41
24:DA:2524:G:N2	24:DA:2525:G:H1'	2.34	0.41
29:DF:92:GLY:O	29:DF:93:GLU:C	2.58	0.41
1:CA:1347:G:O2'	1:CA:1348:U:OP2	2.32	0.41
1:CA:1363:A:C8	1:CA:1365:G:O6	2.73	0.41
1:CA:1372:U:OP2	9:CI:13:LYS:NZ	2.50	0.41
1:CA:1358:U:OP2	14:CN:75:ARG:NE	2.53	0.41
44:DU:32:LYS:NZ	44:DU:32:LYS:CA	2.82	0.41
35:BL:115:GLU:O	35:BL:116:VAL:HG12	2.19	0.41
21:AU:24:GLU:CG	21:AU:25:LYS:N	2.83	0.41
24:BA:2657:A:C4'	30:BG:91:VAL:HG21	2.49	0.41
24:DA:2231:U:N3	24:DA:2232:C:C5	2.89	0.41
26:DC:257:ARG:CZ	26:DC:259:ASN:ND2	2.83	0.41
24:BA:467:G:H2'	24:BA:468:G:O4'	2.19	0.41
1:CA:859:G:H2'	1:CA:860:A:H8	1.83	0.41
1:CA:966:G:H2'	9:CI:129:LYS:HG2	2.00	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2744:G:C6	24:BA:2761:A:N6	2.87	0.41
26:BC:184:GLU:O	26:BC:187:CYS:N	2.48	0.41
18:AR:52:GLN:O	18:AR:54:GLN:N	2.46	0.41
2:CB:114:LEU:CG	2:CB:115:LYS:N	2.82	0.41
24:BA:1266:G:OP1	50:B0:15:ARG:CD	2.68	0.41
35:DL:85:VAL:HG22	35:DL:94:THR:HG23	2.01	0.41
24:BA:1059:G:C6	24:BA:1080:A:C2	3.08	0.41
24:BA:2667:C:N3	24:BA:2668:G:N7	2.67	0.41
28:DE:44:ARG:O	28:DE:45:ALA:CB	2.67	0.41
24:BA:1448:G:C2	24:BA:1464:G:N3	2.88	0.41
24:DA:2276:G:C2'	24:DA:2277:G:H5'	2.50	0.41
24:BA:2330:G:N2	46:BW:42:GLY:HA2	2.35	0.41
24:BA:851:C:H4'	49:BZ:46:MET:HA	2.02	0.41
1:AA:454:G:O2'	1:AA:455:G:H5'	2.20	0.41
2:CB:183:VAL:CG2	2:CB:196:VAL:HG23	2.50	0.41
24:DA:2086:U:H2'	24:DA:2087:G:O4'	2.20	0.41
21:AU:12:PHE:N	21:AU:12:PHE:CD1	2.86	0.41
24:BA:1532:A:C6	24:BA:1533:C:N4	2.88	0.41
24:BA:1532:A:N1	24:BA:1533:C:N4	2.68	0.41
24:DA:1670:C:C4	24:DA:1671:U:C2	3.08	0.41
37:DN:12:ARG:HD3	37:DN:16:HIS:CE1	2.54	0.41
2:AB:205:ASP:O	2:AB:206:ALA:HB2	2.20	0.41
24:DA:1028:A:N3	24:DA:2486:C:O2'	2.42	0.41
24:BA:132:G:H2'	24:BA:133:U:C6	2.55	0.41
24:BA:1555:G:H2'	24:BA:1555:G:N3	2.34	0.41
24:BA:1841:U:C2'	24:BA:1842:G:O5'	2.68	0.41
3:CC:9:GLY:HA2	14:CN:89:MET:O	2.20	0.41
14:AN:41:ARG:C	14:AN:42:TRP:CG	2.94	0.41
1:CA:607:A:N3	1:CA:608:A:C8	2.88	0.41
24:DA:1806:C:C5	24:DA:1807:G:N7	2.88	0.41
55:CY:17:VAL:O	55:CY:20:PHE:N	2.50	0.41
24:BA:2884:U:C4'	50:B0:49:ARG:NH2	2.83	0.41
25:DB:95:U:H2'	25:DB:96:G:H8	1.85	0.41
24:DA:1312:U:C4	43:DT:64:LYS:CD	3.01	0.41
24:DA:725:G:C6	24:DA:726:G:C6	3.08	0.41
11:AK:30:THR:HG21	11:AK:92:GLY:HA3	2.02	0.41
24:DA:2578:G:P	59:DA:3484:HOH:O	2.77	0.41
24:DA:1335:C:OP1	43:DT:68:LYS:CE	2.68	0.41
24:BA:379:G:C2'	24:BA:380:G:O5'	2.68	0.41
1:CA:1176:A:C2	1:CA:1177:G:C2	3.08	0.41
24:DA:1559:U:H3'	24:DA:1560:G:C5'	2.48	0.41
24:BA:1072:C:C2	24:BA:1093:G:O6	2.73	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BS:7:HIS:C	42:BS:7:HIS:CD2	2.93	0.41
24:DA:451:U:C6	24:DA:453:A:C8	3.08	0.41
24:BA:1429:G:O6	24:BA:1564:C:N4	2.52	0.41
24:DA:2183:A:H2'	24:DA:2184:A:C8	2.55	0.41
24:DA:2515:C:O2'	24:DA:2516:A:H5'	2.20	0.41
24:BA:2078:C:O2'	24:BA:2079:U:H5'	2.20	0.41
15:AO:24:SER:O	15:AO:25:THR:C	2.58	0.41
8:CH:10:MET:HA	8:CH:27:MET:CE	2.50	0.41
8:CH:10:MET:HG2	8:CH:27:MET:SD	2.60	0.41
24:DA:1190:G:C5'	35:DL:32:GLY:HA2	2.50	0.41
1:CA:425:G:C4	1:CA:426:U:C6	3.08	0.41
24:DA:961:C:C5	24:DA:2031:A:C6	3.08	0.41
1:CA:246:A:C5	1:CA:279:A:C5	3.08	0.41
24:BA:1711:A:H2	24:BA:1748:C:C2	2.36	0.41
41:BR:1:MET:HG2	41:BR:43:ASN:CB	2.50	0.41
24:DA:2303:G:C2	24:DA:2304:G:C8	3.08	0.41
24:BA:2104:C:C4	24:BA:2105:U:C4	3.08	0.41
49:BZ:44:ARG:HA	49:BZ:47:ILE:CG1	2.48	0.41
24:DA:2714:G:H2'	24:DA:2715:C:C5'	2.50	0.41
53:B3:38:LYS:HG2	53:B3:39:ARG:N	2.35	0.41
55:CY:6:ARG:O	55:CY:9:ALA:N	2.45	0.41
24:DA:590:A:C2'	24:DA:591:U:H5'	2.50	0.41
24:DA:592:A:C4	24:DA:593:U:C5	3.07	0.41
24:DA:1688:U:O2	24:DA:1700:A:H8	2.03	0.41
24:BA:2751:G:C6	30:BG:2:ARG:NH2	2.88	0.41
24:DA:1041:G:N3	24:DA:1041:G:H2'	2.33	0.41
51:B1:12:SER:HA	51:B1:48:TYR:CG	2.55	0.41
48:DY:5:GLU:C	48:DY:7:ARG:N	2.71	0.41
1:AA:951:G:O6	1:AA:1230:C:N4	2.53	0.41
24:DA:1166:G:H2'	24:DA:1167:C:C6	2.54	0.41
24:BA:2102:G:C6	24:BA:2188:U:C2	3.07	0.41
37:DN:31:HIS:O	37:DN:32:GLU:HB2	2.20	0.41
24:DA:2816:G:C6	24:DA:2817:U:C4	3.09	0.41
24:DA:2817:U:C2'	24:DA:2818:U:O5'	2.68	0.41
24:DA:1990:C:H2'	24:DA:1991:U:C1'	2.49	0.41
26:DC:48:ILE:O	26:DC:48:ILE:HD12	2.20	0.41
1:AA:1167:A:C8	1:AA:1169:A:C8	3.08	0.41
39:DP:27:VAL:HG11	39:DP:73:PHE:CE1	2.55	0.41
24:DA:937:C:H2'	24:DA:938:G:O4'	2.20	0.41
24:DA:1350:C:C2	24:DA:1382:G:C2	3.08	0.41
29:DF:80:GLN:CG	29:DF:81:GLY:N	2.83	0.41
51:B1:6:GLU:O	51:B1:23:THR:HA	2.19	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BP:7:LEU:HD12	39:BP:7:LEU:O	2.20	0.41
20:AT:19:LYS:HA	20:AT:19:LYS:HD2	1.87	0.41
1:AA:1491:G:C3'	12:AL:44:LYS:HZ2	2.33	0.41
31:DH:71:LYS:HE3	31:DH:108:VAL:CB	2.50	0.41
9:AI:113:ARG:C	9:AI:114:LYS:O	2.55	0.41
38:BO:18:LEU:HD12	38:BO:19:GLN:N	2.35	0.41
35:DL:61:LEU:HB3	35:DL:62:PRO:HD2	2.03	0.41
35:BL:57:LEU:CD1	35:BL:61:LEU:HD11	2.51	0.41
47:BX:58:ILE:O	47:BX:58:ILE:CG1	2.68	0.41
1:CA:48:C:C6	1:CA:364:A:H2	2.38	0.41
1:CA:794:A:C6	1:CA:795:C:C4	3.07	0.41
1:AA:593:U:H2'	1:AA:594:U:O4'	2.19	0.41
4:AD:123:ILE:CD1	4:AD:144:SER:O	2.68	0.41
1:CA:542:G:N2	1:CA:543:U:C2	2.88	0.41
24:BA:103:A:C5	24:BA:104:A:C8	3.07	0.41
1:CA:1242:G:C6	1:CA:1296:C:O2	2.72	0.41
13:CM:45:ILE:O	13:CM:45:ILE:CG2	2.68	0.41
24:DA:1060:U:H1'	24:DA:1062:G:OP2	2.20	0.41
32:DI:124:MET:O	32:DI:126:ARG:N	2.53	0.41
32:DI:124:MET:C	32:DI:127:SER:HG	2.22	0.41
24:DA:1419:A:H3'	24:DA:1420:A:H5''	2.02	0.41
55:CY:111:LYS:O	55:CY:112:ASP:C	2.51	0.41
24:BA:1189:A:H2'	24:BA:1190:G:O5'	2.19	0.41
1:AA:179:A:C6	1:AA:180:U:O2	2.73	0.41
24:DA:1162:G:N7	57:DA:3188:NMY:N19	2.44	0.41
24:BA:2119:A:C5	24:BA:2170:A:C5	3.08	0.41
1:AA:411:A:C5	1:AA:429:U:C4	3.08	0.41
16:CP:17:TYR:CD1	16:CP:41:PRO:HG3	2.55	0.41
24:BA:362:A:H2'	24:BA:363:G:H5'	2.01	0.41
24:BA:2016:U:HO2'	24:BA:2017:U:P	2.43	0.41
1:CA:261:U:N3	20:CT:74:ARG:NH2	2.67	0.41
24:DA:2206:C:C2'	24:DA:2207:C:O5'	2.68	0.41
24:BA:608:A:C3'	24:BA:609:A:C8	3.03	0.41
24:BA:625:G:N2	24:BA:626:A:C4	2.88	0.41
13:AM:68:ASP:HB2	13:AM:71:ARG:CZ	2.50	0.41
35:BL:109:LYS:HB3	35:BL:109:LYS:HE2	1.84	0.41
24:DA:1866:A:N7	24:DA:1867:G:C8	2.88	0.41
24:BA:1361:G:C6	24:BA:1362:C:C4	3.08	0.41
1:AA:1135:U:H2'	1:AA:1137:C:O2	2.19	0.41
24:BA:309:A:H5'	44:BU:16:LYS:CD	2.49	0.41
1:CA:1089:G:C2	1:CA:1090:U:C2	3.08	0.41
29:DF:163:GLU:OE1	29:DF:163:GLU:C	2.57	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DF:92:GLY:O	29:DF:94:ARG:N	2.53	0.41
24:DA:311:A:C6	24:DA:328:U:C4	3.08	0.41
8:CH:39:VAL:HG11	8:CH:112:THR:CG2	2.49	0.41
1:AA:1215:G:N3	1:AA:1216:A:C8	2.88	0.41
1:AA:993:G:N3	1:AA:993:G:C2'	2.83	0.41
24:DA:479:A:N3	24:DA:481:G:H5''	2.34	0.41
43:BT:19:LYS:HG2	43:BT:20:ALA:H	1.85	0.41
4:CD:19:LEU:HD22	4:CD:21:LEU:CG	2.47	0.41
4:CD:19:LEU:HD22	4:CD:21:LEU:CD2	2.50	0.41
14:CN:35:ALA:CB	14:CN:41:ARG:CB	2.98	0.41
14:CN:45:VAL:HG23	14:CN:46:LEU:CD2	2.50	0.41
24:DA:587:C:C3'	24:DA:588:U:C5'	2.91	0.41
55:CY:87:LEU:O	55:CY:89:LEU:HG	2.20	0.41
24:DA:1730:C:H2'	24:DA:1731:G:OP2	2.20	0.41
1:CA:653:U:O2'	1:CA:654:G:H8	2.02	0.41
8:CH:29:SER:OG	8:CH:57:PRO:HB3	2.20	0.41
37:DN:87:PHE:O	37:DN:88:ALA:C	2.56	0.41
3:AC:102:ASN:CG	3:AC:103:ILE:N	2.72	0.41
24:BA:860:U:C6	24:BA:2268:A:O4'	2.73	0.41
24:BA:2347:C:C2	24:BA:2348:U:C5	3.09	0.41
40:DQ:80:ASN:HA	40:DQ:83:LYS:HG2	2.02	0.41
24:BA:1169:A:H2'	24:BA:1170:C:O4'	2.20	0.41
24:BA:1182:G:C6	24:BA:1183:U:C4	3.08	0.41
24:BA:499:U:C4	24:BA:500:G:C5	3.08	0.41
42:BS:20:VAL:CG1	42:BS:43:ALA:HB1	2.50	0.41
1:CA:1046:A:H2'	1:CA:1047:G:H5'	2.01	0.41
47:DX:65:THR:CG2	47:DX:66:VAL:N	2.83	0.41
47:DX:63:ILE:HD11	47:DX:67:LEU:HD11	2.01	0.41
24:BA:1413:A:N1	24:BA:1414:C:C2	2.88	0.41
33:BJ:15:TRP:CH2	33:BJ:53:TYR:CD2	3.08	0.41
24:BA:996:A:O3'	40:BQ:90:ASP:HB2	2.20	0.41
24:DA:2061:G:C4	24:DA:2063:C:N4	2.88	0.41
9:AI:129:LYS:CG	22:AV:32:U:OP1	2.68	0.41
24:BA:2705:A:N7	24:BA:2706:A:C4	2.88	0.41
24:DA:1131:G:C5	33:DJ:77:HIS:ND1	2.88	0.41
24:BA:247:G:C2	24:BA:252:G:C6	3.08	0.41
24:DA:911:A:C8	36:DM:9:PHE:HE2	2.38	0.41
24:DA:601:C:H2'	24:DA:602:A:O5'	2.21	0.41
24:BA:2330:G:N3	46:BW:42:GLY:CA	2.83	0.41
41:DR:15:SER:O	41:DR:16:GLU:C	2.57	0.41
24:DA:1639:C:C2'	24:DA:1640:A:H5'	2.50	0.41
1:AA:294:U:N3	1:AA:295:C:C4	2.88	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2531:A:C5'	30:DG:156:TYR:CZ	3.03	0.41
24:DA:1670:C:C5	24:DA:1671:U:C4	3.08	0.41
24:DA:1569:A:C2'	24:DA:1570:A:H5'	2.49	0.41
1:AA:950:U:C5	13:AM:101:ARG:CZ	3.03	0.41
2:CB:45:LYS:C	2:CB:48:PRO:HD2	2.40	0.41
24:BA:144:A:C5	24:BA:145:C:C4	3.08	0.41
2:CB:221:VAL:O	2:CB:222:ARG:C	2.59	0.41
24:BA:1163:G:C2	24:BA:1164:C:C5	3.08	0.41
24:DA:1606:C:H2'	24:DA:1607:C:OP2	2.19	0.41
3:AC:155:GLY:HA2	3:AC:163:ALA:HB1	2.00	0.41
30:DG:8:VAL:CG1	30:DG:49:LEU:HB2	2.50	0.41
49:BZ:12:ALA:O	49:BZ:13:ILE:C	2.58	0.41
24:DA:951:C:C2'	24:DA:952:G:H5'	2.45	0.41
24:DA:2794:C:H2'	24:DA:2795:C:C6	2.54	0.41
24:DA:2794:C:H2'	24:DA:2795:C:H6	1.86	0.41
24:DA:2798:U:C3'	24:DA:2799:A:H5'	2.50	0.41
24:BA:1799:G:O5'	24:BA:1819:A:N6	2.53	0.41
24:DA:572:A:H3'	24:DA:573:U:O4'	2.19	0.41
1:CA:605:U:O2'	1:CA:606:G:H5'	2.20	0.41
24:BA:311:A:C2	24:BA:328:U:O4	2.73	0.41
24:BA:335:C:H5'	44:BU:81:ARG:HD3	2.02	0.41
38:DO:74:VAL:HG12	38:DO:78:VAL:HG22	2.01	0.41
38:DO:82:ALA:HB1	38:DO:87:ILE:HG12	2.02	0.41
38:DO:87:ILE:HD12	38:DO:88:LYS:CA	2.49	0.41
24:BA:1309:G:H2'	24:BA:1310:G:O4'	2.19	0.41
44:BU:71:ILE:HD11	44:BU:80:ASP:O	2.19	0.41
5:CE:45:ARG:CD	5:CE:73:ASN:HA	2.50	0.41
24:DA:1789:A:P	26:DC:220:ARG:HE	2.43	0.41
26:BC:42:ARG:NH1	26:BC:48:ILE:HD11	2.34	0.41
24:DA:1460:U:O2'	24:DA:1461:C:C5'	2.67	0.41
24:BA:1053:C:O2	24:BA:1107:G:C2	2.73	0.41
1:CA:1035:A:H2'	1:CA:1036:A:C1'	2.50	0.41
24:DA:2186:G:H2'	24:DA:2187:U:O4'	2.21	0.41
12:AL:55:VAL:HG12	12:AL:63:VAL:O	2.20	0.41
3:AC:140:ASN:C	3:AC:140:ASN:OD1	2.59	0.41
38:DO:26:LEU:O	38:DO:27:VAL:O	2.38	0.41
34:BK:7:MET:HG3	34:BK:20:MET:HB2	2.03	0.41
24:DA:2526:G:H2'	24:DA:2527:C:C6	2.55	0.41
31:DH:53:GLU:C	31:DH:55:GLU:H	2.22	0.41
19:AS:40:ILE:HD13	19:AS:69:HIS:O	2.20	0.41
30:DG:87:GLN:NE2	30:DG:129:GLU:OE1	2.51	0.41
33:DJ:36:LEU:HD21	33:DJ:122:LEU:HB2	2.01	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1536:C:H4'	24:DA:1537:G:C2	2.55	0.41
4:AD:46:PRO:O	4:AD:47:ARG:C	2.58	0.41
46:DW:66:LYS:HB3	46:DW:83:GLU:HB2	2.02	0.41
30:BG:86:LEU:HD22	30:BG:147:LEU:HD11	2.01	0.41
47:BX:64:ASP:O	47:BX:67:LEU:HG	2.20	0.41
36:BM:53:MET:CB	36:BM:120:ALA:HB2	2.51	0.41
37:BN:9:GLN:O	37:BN:17:ARG:NH2	2.52	0.41
14:AN:101:TRP:N	14:AN:101:TRP:HD1	2.18	0.41
24:BA:353:C:C2'	24:BA:354:A:H5'	2.50	0.41
30:DG:77:GLY:O	30:DG:135:ALA:HB1	2.20	0.41
24:BA:2682:A:H2	27:BD:23:PRO:HB3	1.85	0.41
24:BA:1483:G:C6	24:BA:1484:U:C4	3.08	0.41
24:BA:1987:A:C2	24:BA:1988:G:C8	3.08	0.41
36:BM:108:VAL:HG11	36:BM:112:LEU:HB3	2.02	0.41
54:D4:36:ARG:O	54:D4:37:GLN:C	2.59	0.41
33:DJ:42:ALA:O	40:DQ:63:ARG:CD	2.68	0.41
5:AE:12:GLN:CG	5:AE:117:VAL:HG13	2.51	0.41
28:DE:5:LEU:O	28:DE:6:LYS:CB	2.68	0.41
24:DA:1168:G:H2'	24:DA:1169:A:C8	2.54	0.41
20:AT:15:GLU:OE1	20:AT:19:LYS:HD3	2.20	0.41
24:BA:1897:G:H2'	24:BA:1897:G:N3	2.35	0.41
38:DO:36:TYR:CD1	38:DO:36:TYR:N	2.88	0.41
1:AA:1320:C:N3	1:AA:1321:U:C2	2.88	0.41
1:AA:1358:U:C6	1:AA:1359:C:C5	3.08	0.41
1:AA:1355:G:N1	1:AA:1368:A:N3	2.69	0.41
1:AA:982:U:H4'	1:AA:983:A:C5'	2.49	0.41
35:DL:57:LEU:HD22	53:D3:53:ASP:HB3	2.02	0.41
24:DA:1353:A:C6	24:DA:1354:A:C6	3.08	0.41
53:B3:30:HIS:ND1	53:B3:31:ILE:HG13	2.34	0.41
2:CB:82:ASP:OD2	2:CB:214:LEU:HD21	2.20	0.41
1:CA:791:G:C4	1:CA:792:A:N7	2.89	0.41
11:CK:24:HIS:HB3	11:CK:87:LYS:HG3	2.02	0.41
11:CK:51:GLY:C	11:CK:52:PHE:CG	2.94	0.41
7:AG:23:LEU:O	7:AG:26:PHE:HB3	2.20	0.41
1:AA:354:G:C6	1:AA:355:C:C5	3.08	0.41
1:AA:369:G:N2	1:AA:393:A:H1'	2.35	0.41
4:AD:69:GLU:N	4:AD:72:PHE:CE1	2.88	0.41
4:AD:70:ARG:NH1	59:AD:402:HOH:O	2.53	0.41
5:AE:147:MET:SD	8:AH:96:MET:HE2	2.60	0.41
8:AH:87:LYS:HG3	8:AH:88:ARG:HA	2.02	0.41
8:AH:88:ARG:HH11	8:AH:88:ARG:CB	2.23	0.41
1:CA:1293:C:C3'	1:CA:1294:G:H5'	2.50	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1238:A:C5'	1:CA:1336:C:N4	2.80	0.41
29:DF:111:ARG:O	29:DF:113:PHE:N	2.53	0.41
28:BE:71:GLY:O	28:BE:72:SER:HB2	2.20	0.41
1:AA:928:G:H5'	1:AA:1503:A:H62	1.85	0.41
38:BO:77:ALA:O	38:BO:81:ARG:N	2.48	0.41
1:CA:957:U:C2'	1:CA:957:U:O2	2.68	0.41
19:CS:19:VAL:CG2	19:CS:43:ASN:ND2	2.83	0.41
17:AQ:12:VAL:O	17:AQ:13:VAL:CB	2.67	0.41
1:AA:428:G:H4'	4:AD:9:LEU:HD13	2.02	0.41
4:AD:13:ARG:NE	4:AD:33:LYS:HD2	2.35	0.41
24:BA:2454:G:C6	24:BA:2499:C:N4	2.88	0.41
1:CA:1130:A:C2	1:CA:1146:A:C6	3.09	0.41
1:CA:1282:C:H2'	1:CA:1283:U:O4'	2.20	0.41
1:CA:1282:C:O2	1:CA:1283:U:N1	2.53	0.41
8:CH:80:ARG:CZ	8:CH:81:PRO:HD2	2.50	0.41
24:BA:282:A:C5	24:BA:283:G:N7	2.89	0.41
24:BA:278:A:C8	24:BA:362:A:C2	3.08	0.41
24:BA:1268:A:H3'	24:BA:1269:A:C8	2.54	0.41
12:CL:63:VAL:HG11	12:CL:95:TYR:CD2	2.56	0.41
12:CL:85:GLY:O	12:CL:95:TYR:N	2.53	0.41
1:CA:113:G:N2	1:CA:114:U:C2	2.89	0.41
1:CA:232:G:H1'	1:CA:262:A:N1	2.35	0.41
1:CA:44:A:H1'	1:CA:399:G:H22	1.84	0.41
26:DC:144:GLU:OE1	26:DC:149:LYS:N	2.53	0.41
24:BA:624:C:N3	24:BA:625:G:N7	2.69	0.41
1:CA:386:C:C3'	1:CA:387:U:H5'	2.51	0.41
1:CA:1211:U:O4'	1:CA:1213:A:C2	2.73	0.41
1:CA:1088:G:H2'	1:CA:1089:G:O5'	2.20	0.41
1:CA:16:A:C5	1:CA:17:U:C5	3.08	0.41
9:CI:115:LYS:O	9:CI:116:VAL:HG23	2.20	0.41
24:BA:2281:A:C2	24:BA:2282:G:C5	3.08	0.41
50:B0:9:ARG:O	50:B0:12:ARG:HB3	2.19	0.41
26:DC:257:ARG:HG3	26:DC:258:SER:N	2.35	0.41
24:DA:2308:G:C6	29:DF:76:PHE:CE1	3.08	0.41
30:DG:93:TYR:CE1	30:DG:106:LEU:CA	3.03	0.41
1:CA:656:G:C5	1:CA:657:U:C5	3.08	0.41
24:DA:2655:G:HO2'	24:DA:2656:U:P	2.29	0.41
1:AA:908:A:N1	1:AA:909:A:C5	2.88	0.41
24:DA:179:C:O2'	24:DA:180:G:H5'	2.20	0.41
2:CB:142:GLU:O	2:CB:143:LYS:C	2.58	0.41
32:BI:3:LYS:O	32:BI:7:TYR:CE2	2.73	0.41
6:AF:36:ILE:HB	6:AF:64:VAL:HG22	2.01	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DL:94:THR:HG22	35:DL:95:LEU:N	2.35	0.41
15:AO:87:LEU:CG	15:AO:88:ARG:N	2.83	0.41
27:BD:125:TRP:HB2	27:BD:160:LYS:HE2	2.03	0.41
12:AL:87:VAL:CG1	12:AL:93:VAL:O	2.68	0.41
12:AL:87:VAL:CG2	12:AL:90:LEU:HD13	2.50	0.41
7:CG:47:LEU:O	7:CG:48:GLU:C	2.58	0.41
43:DT:1:MET:O	43:DT:3:ARG:HB2	2.20	0.41
1:CA:57:G:C6	1:CA:58:C:C4	3.08	0.41
2:CB:52:GLU:O	2:CB:56:GLU:HB3	2.20	0.41
24:BA:1760:C:C2'	24:BA:1761:C:H5'	2.51	0.41
24:BA:1326:U:H2'	24:BA:1327:A:H5'	2.02	0.41
24:DA:2163:A:H5''	24:DA:2170:A:H2'	2.02	0.41
15:AO:11:ILE:O	15:AO:12:VAL:C	2.58	0.41
2:CB:220:THR:CG2	2:CB:221:VAL:N	2.84	0.41
1:CA:145:G:C2	1:CA:146:G:N7	2.89	0.41
1:CA:939:G:N3	1:CA:940:C:C6	2.89	0.41
12:AL:75:GLN:C	12:AL:76:GLU:HG2	2.41	0.41
17:AQ:28:PHE:O	17:AQ:29:VAL:CG2	2.68	0.41
24:DA:1409:U:H2'	24:DA:1410:G:O4'	2.20	0.41
17:CQ:4:LYS:HE3	17:CQ:7:THR:N	2.35	0.41
24:BA:1872:A:N7	24:BA:1873:G:H1'	2.35	0.41
4:CD:151:LYS:CE	4:CD:175:ALA:O	2.68	0.41
24:DA:81:G:C6	24:DA:82:U:C2	3.07	0.41
24:DA:849:A:N6	24:DA:930:G:O6	2.53	0.41
45:BV:61:LEU:N	45:BV:72:VAL:O	2.49	0.41
8:CH:95:VAL:HG13	8:CH:128:TYR:CE2	2.55	0.41
1:AA:138:G:C6	1:AA:226:G:N1	2.89	0.41
24:DA:633:A:OP1	35:DL:71:ALA:HB2	2.21	0.41
31:BH:49:ALA:O	31:BH:53:GLU:N	2.54	0.41
24:DA:391:A:C4	24:DA:392:U:C6	3.07	0.41
37:BN:46:ARG:O	37:BN:50:PRO:HG2	2.21	0.41
20:AT:24:ARG:HA	20:AT:27:MET:HB3	2.02	0.41
24:BA:1429:G:C5	24:BA:1568:G:C5	3.08	0.41
24:DA:2339:C:H2'	24:DA:2340:A:O5'	2.20	0.41
27:DD:26:VAL:HB	27:DD:188:LEU:HD22	2.01	0.41
5:CE:46:VAL:CG1	5:CE:118:ALA:CB	2.98	0.41
27:DD:62:LYS:N	27:DD:63:PRO:CD	2.83	0.41
24:DA:609:A:H2'	24:DA:610:C:O4'	2.21	0.41
1:AA:342:C:C2'	1:AA:343:U:H5'	2.48	0.41
7:AG:137:LYS:HA	7:AG:140:ASP:CB	2.50	0.41
24:BA:402:A:C2'	24:BA:403:U:H5'	2.48	0.41
6:CF:43:GLY:O	6:CF:58:HIS:HA	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AS:40:ILE:HD12	19:AS:66:MET:O	2.21	0.41
34:DK:4:GLU:O	34:DK:5:GLN:CG	2.68	0.41
24:DA:1833:C:H2'	24:DA:1834:U:H6	1.85	0.41
24:BA:2711:A:N7	24:BA:2714:G:C8	2.88	0.41
5:AE:16:ILE:CD1	5:AE:113:ALA:HB3	2.50	0.41
3:CC:167:TRP:O	3:CC:167:TRP:CG	2.72	0.41
24:DA:21:A:H2'	24:DA:22:C:H5'	2.02	0.41
1:CA:1416:G:H2'	1:CA:1417:G:H5'	2.02	0.41
24:BA:2235:G:C2	24:BA:2236:U:C2	3.08	0.41
24:DA:156:A:H2'	24:DA:157:C:O4'	2.20	0.41
1:CA:768:A:OP1	1:CA:804:U:C5'	2.68	0.41
44:DU:24:VAL:HG22	44:DU:33:VAL:HG21	2.02	0.41
24:BA:1011:G:C4	24:BA:1013:C:C6	3.08	0.41
43:BT:7:LEU:C	43:BT:7:LEU:HD23	2.41	0.41
36:DM:7:THR:O	36:DM:8:LYS:C	2.59	0.41
24:DA:368:A:O2'	24:DA:369:U:H5'	2.20	0.41
24:BA:2057:G:N7	59:BA:3489:HOH:O	2.37	0.41
31:BH:10:ALA:O	31:BH:11:ASN:HB2	2.20	0.41
29:BF:135:ILE:C	29:BF:135:ILE:HD12	2.41	0.41
24:BA:2589:A:O2'	24:BA:2590:A:H5'	2.21	0.41
32:DI:2:LYS:NZ	32:DI:61:TYR:CE2	2.88	0.41
25:DB:14:U:OP2	25:DB:70:C:O2'	2.27	0.41
14:CN:61:ARG:O	14:CN:62:ASN:HB2	2.20	0.41
24:DA:2441:U:C2'	24:DA:2442:C:H5'	2.51	0.41
24:DA:879:G:C6	24:DA:880:G:C5	3.08	0.41
32:DI:69:VAL:HG12	32:DI:71:LYS:NZ	2.35	0.41
2:CB:225:ARG:CG	2:CB:225:ARG:O	2.67	0.41
32:BI:17:ALA:O	32:BI:18:ASN:HB3	2.21	0.41
24:DA:1402:U:H5'	24:DA:1522:A:OP2	2.20	0.41
31:DH:127:GLU:HG2	31:DH:143:ILE:HD12	2.03	0.41
24:DA:1917:U:H2'	24:DA:1918:A:H5'	2.02	0.41
1:AA:979:C:H5''	1:AA:980:C:O5'	2.21	0.41
24:BA:2397:G:H2'	24:BA:2398:U:C6	2.56	0.41
24:BA:2417:C:C2'	24:BA:2418:A:H5'	2.51	0.41
8:AH:30:SER:O	8:AH:34:VAL:HG23	2.20	0.41
1:CA:362:G:H5''	12:CL:58:THR:HG23	2.02	0.41
1:CA:771:G:N3	1:CA:809:G:N2	2.68	0.41
1:AA:600:A:H2'	1:AA:601:G:H8	1.84	0.41
1:AA:614:C:C3'	1:AA:615:G:H5''	2.50	0.41
1:AA:621:A:N6	1:AA:622:A:N1	2.69	0.41
4:AD:117:LEU:O	4:AD:118:VAL:HB	2.20	0.41
4:AD:20:PHE:C	4:AD:20:PHE:CD1	2.94	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:87:LYS:CG	8:AH:88:ARG:N	2.80	0.41
16:AP:72:ALA:HA	16:AP:75:ILE:HG23	2.01	0.41
1:AA:1078:U:H2'	1:AA:1079:G:O5'	2.19	0.41
1:AA:865:A:H2'	1:AA:866:C:O4'	2.19	0.41
1:CA:500:G:C6	1:CA:501:C:C4	3.09	0.41
1:CA:509:A:N3	1:CA:543:U:O2'	2.44	0.41
1:CA:547:A:H4'	1:CA:548:G:O5'	2.21	0.41
10:AJ:52:LEU:HA	10:AJ:62:ARG:HD2	2.02	0.41
1:CA:1305:G:N2	1:CA:1331:G:H1'	2.36	0.41
24:DA:1062:G:C2'	24:DA:1063:G:O5'	2.68	0.41
24:DA:1093:G:H4'	24:DA:1094:U:OP1	2.20	0.41
1:CA:346:G:P	34:DK:108:ARG:HH21	2.38	0.41
1:AA:1089:G:N7	1:AA:1090:U:C5	2.89	0.41
2:AB:170:HIS:CD2	2:AB:171:ILE:H	2.38	0.41
1:AA:930:C:N3	1:AA:931:C:C5	2.88	0.41
1:CA:1219:A:O2'	1:CA:1220:G:H5'	2.19	0.41
17:AQ:19:LYS:O	17:AQ:19:LYS:HG2	2.20	0.41
24:BA:2692:G:C6	24:BA:2718:G:N1	2.89	0.41
24:BA:2719:G:C5'	39:BP:95:LYS:NZ	2.83	0.41
24:DA:1361:G:C5	24:DA:1362:C:C4	3.09	0.41
1:CA:1494:G:OP2	57:CA:1672:NMY:N9	2.46	0.41
2:AB:53:ALA:CB	2:AB:54:LEU:HD12	2.50	0.41
39:DP:8:GLU:O	39:DP:12:MET:HG3	2.21	0.41
12:CL:29:GLN:HB2	12:CL:82:ILE:O	2.20	0.41
24:DA:60:G:O2'	24:DA:61:C:P	2.78	0.41
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.20	0.41
1:CA:1049:U:O2'	1:CA:1050:G:OP2	2.38	0.41
24:DA:2646:C:H2'	24:DA:2647:U:O4'	2.21	0.41
24:BA:2302:U:O2'	29:BF:122:ASP:O	2.20	0.41
29:BF:36:ASN:CA	29:BF:87:LYS:HE3	2.50	0.41
29:DF:123:GLY:O	29:DF:124:ARG:CG	2.68	0.41
29:DF:97:GLU:O	29:DF:100:GLU:HG2	2.19	0.41
29:DF:95:MET:C	29:DF:99:PHE:CE1	2.93	0.41
1:CA:1358:U:C5	1:CA:1359:C:C6	3.08	0.41
44:DU:28:LEU:HD13	44:DU:28:LEU:HA	1.89	0.41
8:CH:117:ARG:C	8:CH:119:ALA:N	2.74	0.41
24:DA:479:A:H4'	24:DA:480:A:C5'	2.50	0.41
43:BT:30:ILE:CG1	43:BT:31:VAL:H	2.33	0.41
43:BT:31:VAL:O	43:BT:32:LEU:HB3	2.20	0.41
24:BA:2526:G:C2'	24:BA:2527:C:H5'	2.51	0.41
24:BA:2528:U:O2	24:BA:2536:G:C2	2.74	0.41
29:DF:73:VAL:CG2	29:DF:78:ILE:HD12	2.50	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:470:A:N1	24:BA:471:A:C2	2.89	0.41
22:CV:65:G:N3	22:CV:65:G:H2'	2.34	0.41
24:BA:1277:G:C5'	37:BN:20:MET:CE	2.97	0.41
1:CA:515:G:C5	1:CA:516:U:C4	3.08	0.41
24:DA:1730:C:O2'	24:DA:1731:G:C8	2.73	0.41
1:CA:590:U:OP1	8:CH:30:SER:C	2.59	0.41
15:CO:25:THR:C	15:CO:27:VAL:N	2.74	0.41
24:BA:2744:G:H2'	24:BA:2745:C:H5'	2.02	0.41
24:BA:2746:U:H2'	24:BA:2747:G:H5'	2.02	0.41
24:BA:1033:U:C5	24:BA:2750:A:C2	3.08	0.41
1:CA:1377:A:O2'	1:CA:1378:C:OP1	2.31	0.41
24:DA:1792:G:OP1	26:DC:204:LEU:HD23	2.20	0.41
24:DA:2663:G:C5	24:DA:2664:G:C5	3.08	0.41
35:BL:125:LEU:HD22	35:BL:125:LEU:H	1.85	0.41
1:AA:907:A:C4	1:AA:908:A:C8	3.08	0.41
3:AC:78:GLY:HA3	21:CU:18:ARG:NE	2.34	0.41
24:BA:2192:U:H2'	24:BA:2193:G:C8	2.55	0.41
47:DX:76:LYS:NZ	47:DX:77:TYR:OXT	2.46	0.41
1:CA:681:A:C2	1:CA:710:G:C6	3.08	0.41
24:BA:1498:C:C2'	24:BA:1499:C:O5'	2.68	0.41
26:BC:220:ARG:NH2	59:BC:407:HOH:O	2.53	0.41
24:BA:55:G:C4	24:BA:56:A:C8	3.08	0.41
24:BA:2206:C:H2'	24:BA:2207:C:H5'	2.02	0.41
24:BA:2204:G:O2'	26:BC:149:LYS:N	2.54	0.41
1:AA:360:G:C6	1:AA:361:G:C6	3.09	0.41
24:BA:1428:C:C6	24:BA:1569:A:H5''	2.55	0.41
24:BA:1351:C:O2'	24:BA:1571:A:N3	2.45	0.41
24:BA:1347:A:C2	24:BA:1348:C:N1	2.88	0.41
8:CH:78:VAL:CG1	8:CH:127:CYS:HA	2.46	0.41
28:DE:31:VAL:HG21	28:DE:104:ALA:HB2	2.01	0.41
24:BA:1219:U:H2'	24:BA:1220:G:H8	1.85	0.41
24:BA:1230:A:C6	24:BA:1231:U:N3	2.88	0.41
24:BA:449:A:C6	24:BA:450:G:C5	3.09	0.41
1:AA:1422:G:O2'	34:BK:49:ARG:NH2	2.52	0.41
1:AA:160:A:H4'	1:AA:344:A:C2	2.56	0.41
24:BA:1288:G:C8	24:BA:1327:A:C6	3.08	0.41
24:BA:2479:U:H5''	24:BA:2537:U:O4'	2.21	0.41
1:CA:189:A:N6	1:CA:190:A:C2	2.87	0.41
1:AA:1055:A:O2'	3:AC:161:GLU:HA	2.20	0.41
24:BA:1494:A:C5	24:BA:1495:A:C5	3.08	0.41
28:BE:109:LEU:CD1	28:BE:180:LEU:CD1	2.98	0.41
1:AA:695:A:N1	1:AA:696:A:C2	2.89	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1158:C:C6	1:CA:1160:G:H5'	2.54	0.41
24:BA:191:A:H2'	24:BA:192:C:C6	2.55	0.41
53:D3:9:ALA:CB	53:D3:61:LEU:HD21	2.50	0.41
24:BA:244:A:H8	24:BA:244:A:H5'	1.84	0.41
24:BA:1610:A:H4'	24:BA:1611:C:OP2	2.20	0.41
17:AQ:49:GLU:CG	17:AQ:50:ASN:OD1	2.69	0.41
10:AJ:17:LEU:CD2	10:AJ:96:VAL:HG13	2.51	0.41
24:BA:2576:G:H3'	24:BA:2576:G:N3	2.34	0.41
24:BA:2562:U:C4	24:BA:2563:U:H5	2.36	0.41
1:CA:1107:C:H2'	1:CA:1108:G:H5''	2.02	0.41
24:DA:2080:A:C5'	47:DX:18:SER:HB2	2.48	0.41
33:DJ:65:THR:HG22	33:DJ:68:LYS:HZ1	1.85	0.41
48:DY:18:LEU:CD1	48:DY:22:LEU:CD1	2.98	0.41
1:CA:1034:G:N1	1:CA:1035:A:C2	2.89	0.41
24:DA:2335:A:N6	24:DA:2337:G:H1'	2.35	0.41
38:DO:8:ILE:O	38:DO:11:ALA:N	2.54	0.41
1:AA:630:A:C4	1:AA:631:C:C6	3.08	0.41
1:CA:1493:A:H8	1:CA:1493:A:H3'	1.84	0.41
24:DA:261:G:N3	24:DA:261:G:H2'	2.34	0.41
42:DS:13:SER:O	42:DS:14:ALA:C	2.59	0.41
1:AA:342:C:N4	1:AA:343:U:C5	2.89	0.41
25:DB:48:U:OP1	38:DO:30:ARG:NH2	2.53	0.41
24:DA:26:G:H1'	24:DA:514:A:N6	2.35	0.41
24:DA:2679:A:O2'	24:DA:2680:U:H5'	2.20	0.41
6:CF:46:GLN:HA	6:CF:56:LYS:HG2	2.02	0.41
1:AA:460:A:C2	1:AA:461:A:C8	3.08	0.41
3:CC:35:SER:O	3:CC:38:LYS:HE2	2.21	0.41
53:B3:6:VAL:HG11	53:B3:60:CYS:CB	2.50	0.41
24:BA:1965:C:OP1	24:BA:1966:A:C2'	2.68	0.41
10:CJ:59:LYS:O	10:CJ:59:LYS:HG2	2.19	0.41
11:AK:62:ALA:C	11:AK:65:VAL:HG12	2.40	0.41
29:BF:48:LEU:O	29:BF:49:LEU:C	2.59	0.41
7:AG:66:LEU:HD23	7:AG:70:ARG:HD2	2.03	0.41
24:DA:459:U:H5''	52:D2:40:ALA:HB2	2.02	0.41
32:DI:64:ARG:NE	32:DI:64:ARG:HA	2.36	0.41
24:BA:1473:G:C2	24:BA:1519:G:C2	3.08	0.41
24:BA:2488:G:C4	24:BA:2489:U:C6	3.09	0.41
42:BS:70:LYS:O	42:BS:107:VAL:CG2	2.69	0.41
24:DA:1285:A:C5	24:DA:1329:U:C4	3.09	0.41
24:DA:927:A:C2	49:DZ:42:ALA:HB1	2.55	0.41
24:DA:829:A:N7	24:DA:2248:C:H5'	2.36	0.41
24:BA:1684:G:C5	24:BA:1685:C:C5	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BL:4:ASN:C	35:BL:6:LEU:H	2.23	0.41
24:BA:10:A:C5	24:BA:11:C:C5	3.09	0.41
1:AA:285:C:C4	1:AA:286:C:C5	3.08	0.41
13:AM:56:LEU:O	13:AM:58:ASP:N	2.53	0.41
26:DC:100:ARG:O	26:DC:101:ARG:HG2	2.20	0.41
55:CY:14:ASP:OD1	55:CY:14:ASP:C	2.59	0.41
24:BA:445:C:N4	24:BA:446:G:C6	2.88	0.41
33:DJ:58:ASN:N	33:DJ:127:GLY:O	2.53	0.41
33:DJ:18:VAL:CG1	33:DJ:19:ASP:N	2.83	0.41
25:BB:35:C:C2'	25:BB:36:C:H5'	2.50	0.41
28:BE:21:ARG:O	28:BE:22:ASP:C	2.59	0.41
3:AC:16:LYS:CG	3:AC:17:PRO:HD2	2.50	0.41
3:CC:132:ARG:HD2	3:CC:135:LYS:HE3	2.03	0.41
1:CA:901:A:C5	1:CA:902:G:H1'	2.55	0.41
38:DO:102:ARG:O	38:DO:105:ALA:HB3	2.20	0.41
24:BA:2223:G:C6	24:BA:2224:G:C4	3.07	0.41
31:BH:86:ASP:O	31:BH:87:GLU:CB	2.68	0.41
42:BS:66:ILE:O	42:BS:69:LEU:HB2	2.19	0.41
4:CD:176:GLY:C	4:CD:178:MET:H	2.24	0.41
24:BA:1057:A:N3	24:BA:1057:A:H2'	2.35	0.41
41:BR:101:ILE:O	41:BR:101:ILE:HG13	2.20	0.41
6:AF:22:ILE:HD12	6:AF:22:ILE:C	2.40	0.41
24:BA:2634:A:C2	24:BA:2635:A:C4	3.08	0.41
24:BA:1159:U:H2'	24:BA:1160:G:C8	2.56	0.41
24:DA:1120:G:C6	24:DA:1121:C:C4	3.08	0.41
10:CJ:91:ASP:OD1	10:CJ:92:LEU:N	2.53	0.41
14:CN:101:TRP:N	14:CN:101:TRP:CD1	2.87	0.41
8:CH:20:ALA:O	8:CH:21:ASN:HB2	2.21	0.41
12:AL:43:LYS:HG2	12:AL:44:LYS:HG2	2.01	0.41
24:DA:1911:U:O2	24:DA:1920:C:O2	2.38	0.41
1:AA:986:U:H2'	1:AA:987:G:O4'	2.21	0.41
14:AN:30:ILE:HG22	14:AN:31:SER:N	2.35	0.41
24:DA:1378:A:C4'	24:DA:1379:U:OP1	2.69	0.41
29:BF:68:LYS:CE	29:BF:81:GLY:C	2.89	0.41
24:BA:1866:A:N3	24:BA:1876:A:N3	2.68	0.41
1:CA:363:A:P	12:CL:30:LYS:HZ1	2.42	0.41
11:CK:125:LYS:HG2	11:CK:126:LYS:H	1.84	0.41
1:AA:38:G:C2	1:AA:397:A:C4	3.09	0.41
1:AA:9:G:O6	1:AA:558:G:H2'	2.21	0.41
1:AA:598:U:O4	1:AA:599:C:C2	2.74	0.41
1:AA:621:A:C5	1:AA:622:A:C5	3.08	0.41
4:AD:55:LEU:CD2	4:AD:56:ARG:HD2	2.51	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1082:A:O2'	1:AA:1083:U:H5'	2.21	0.41
1:CA:406:G:N1	1:CA:407:U:C5	2.89	0.41
1:CA:428:G:C1'	1:CA:430:A:N7	2.83	0.41
1:CA:438:U:H4'	4:CD:120:HIS:CD2	2.56	0.41
4:CD:158:ALA:O	4:CD:161:LEU:HD22	2.20	0.41
4:CD:37:ALA:HA	4:CD:42:GLY:O	2.21	0.41
4:CD:5:LEU:O	4:CD:6:GLY:O	2.39	0.41
11:AK:125:LYS:HA	21:AU:35:ARG:CA	2.50	0.41
1:AA:1198:G:H2'	1:AA:1199:U:C6	2.55	0.41
1:CA:1237:C:H3'	1:CA:1238:A:H5'	2.01	0.41
1:CA:1312:G:N2	1:CA:1313:U:C2	2.88	0.41
13:CM:24:GLY:N	13:CM:69:LEU:HD23	2.36	0.41
13:CM:87:ARG:O	13:CM:88:GLY:C	2.57	0.41
37:BN:95:THR:N	37:BN:116:VAL:HG13	2.35	0.41
32:DI:112:LYS:HD3	32:DI:116:MET:HE2	2.02	0.41
1:AA:408:A:N1	1:AA:434:U:O2	2.53	0.41
1:AA:1110:A:N6	1:AA:1111:A:N1	2.67	0.41
2:AB:72:THR:O	2:AB:73:LYS:HB3	2.20	0.41
3:AC:108:LYS:HG3	3:AC:108:LYS:O	2.19	0.41
9:AI:38:TYR:CD2	9:AI:39:PHE:CD1	3.08	0.41
1:CA:1016:A:C8	1:CA:1017:U:H1'	2.55	0.41
19:CS:15:LEU:HD12	19:CS:16:LEU:N	2.35	0.41
1:CA:615:G:N3	1:CA:616:G:C8	2.88	0.41
24:BA:1206:G:C6	24:BA:1207:C:N3	2.89	0.41
1:CA:1256:A:N1	1:CA:1277:C:N4	2.67	0.41
24:DA:1717:A:N6	24:DA:1743:G:H1'	2.35	0.41
24:DA:532:A:H4'	24:DA:533:G:C8	2.55	0.41
21:CU:37:PHE:HB2	21:CU:40:LYS:HG2	2.03	0.41
32:DI:41:PHE:C	32:DI:41:PHE:HD1	2.23	0.41
1:AA:1001:C:N3	1:AA:1039:G:O6	2.52	0.41
24:BA:1268:A:C4	24:BA:2013:A:C5	3.09	0.41
24:DA:536:G:H2'	24:DA:537:G:C5'	2.51	0.41
15:CO:4:SER:O	15:CO:5:THR:C	2.59	0.41
1:CA:261:U:H5''	1:CA:262:A:OP2	2.21	0.41
1:CA:393:A:N3	1:CA:394:G:C8	2.88	0.41
19:CS:45:ILE:HG13	19:CS:64:ASP:OD1	2.21	0.41
24:DA:1999:C:H5''	24:DA:2723:C:HO2'	1.84	0.41
37:DN:2:ARG:HB3	37:DN:2:ARG:HH11	1.84	0.41
1:CA:1050:G:H2'	1:CA:1051:C:H5'	2.02	0.41
14:CN:2:LYS:HE3	14:CN:4:SER:CB	2.51	0.41
24:BA:1372:U:C2	24:BA:1373:A:C8	3.08	0.41
46:BW:32:LEU:HB2	46:BW:64:ASP:OD1	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:DA:3185:NMY:O22	57:DA:3185:NMY:H16	2.21	0.41
1:CA:1074:G:H2'	1:CA:1075:U:C6	2.55	0.41
3:AC:30:ALA:O	3:AC:34:ASP:N	2.53	0.41
21:AU:26:ALA:HB3	23:AX:5:A:C5'	2.49	0.41
38:DO:62:LEU:CD2	38:DO:70:ALA:HA	2.50	0.41
43:BT:19:LYS:HG2	43:BT:20:ALA:N	2.36	0.41
24:BA:2526:G:O3'	54:B4:34:LYS:NZ	2.52	0.41
24:BA:2593:U:C2	24:BA:2594:C:C5	3.09	0.41
22:CV:57:G:H2'	22:CV:58:A:C5'	2.46	0.41
47:DX:55:MET:O	47:DX:56:ARG:C	2.59	0.41
2:AB:21:ARG:C	2:AB:22:TYR:CG	2.94	0.41
35:BL:101:ILE:O	35:BL:105:ILE:HD13	2.21	0.41
1:CA:587:G:N2	1:CA:755:G:C5	2.88	0.41
1:CA:754:C:O4'	1:CA:754:C:O2	2.37	0.41
3:CC:33:LEU:HD11	14:CN:77:PHE:O	2.20	0.41
7:CG:107:ALA:HA	7:CG:110:LYS:HG2	2.03	0.41
1:AA:664:G:H5''	18:AR:53:ARG:NH2	2.35	0.41
3:AC:78:GLY:HA3	21:CU:18:ARG:HE	1.85	0.41
21:AU:14:VAL:CG2	21:AU:16:LEU:HD23	2.48	0.41
6:CF:91:ARG:O	6:CF:92:THR:CB	2.68	0.41
45:BV:15:GLY:HA2	45:BV:18:ARG:HB3	2.02	0.41
40:DQ:82:LEU:HB3	40:DQ:87:VAL:HG13	2.01	0.41
24:BA:1180:U:C5	24:BA:1181:U:C5	3.08	0.41
2:CB:144:LEU:O	2:CB:145:GLU:C	2.58	0.41
24:BA:1098:A:C5'	32:BI:7:TYR:OH	2.68	0.41
24:BA:492:A:N1	42:BS:49:LYS:NZ	2.68	0.41
24:BA:507:A:O4'	24:BA:509:C:O2	2.38	0.41
42:BS:47:VAL:O	42:BS:50:VAL:CA	2.68	0.41
1:CA:665:A:N7	1:CA:733:G:C4	2.88	0.41
24:BA:1498:C:O4'	24:BA:1577:C:C4'	2.69	0.41
1:AA:148:G:C4	1:AA:149:A:C8	3.09	0.41
24:BA:1040:A:OP1	45:BV:46:LYS:HE3	2.21	0.41
1:CA:95:C:H2'	1:CA:96:U:C5	2.55	0.41
24:DA:1663:G:H2'	24:DA:1664:A:OP2	2.20	0.41
1:AA:54:C:O2	1:AA:358:U:O2	2.38	0.41
26:DC:115:ILE:HB	26:DC:127:ASN:ND2	2.36	0.41
24:BA:852:U:C6	24:BA:853:C:C5	3.08	0.41
24:BA:2055:C:H5'	24:BA:2056:G:O5'	2.20	0.41
45:DV:48:MET:O	45:DV:51:GLN:CG	2.69	0.41
24:DA:223:A:N1	24:DA:408:G:O4'	2.54	0.41
1:AA:94:G:N1	1:AA:98:A:C2	2.88	0.41
1:AA:382:A:C8	1:AA:383:A:N7	2.88	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:449:A:C5	24:BA:450:G:C8	3.09	0.41
2:CB:47:VAL:HG23	2:CB:48:PRO:HD3	2.03	0.41
26:BC:105:ALA:HA	26:BC:106:PRO:HD3	1.92	0.41
18:AR:28:THR:HB	18:AR:29:LEU:H	1.64	0.41
1:CA:220:G:C2	1:CA:221:C:C6	3.09	0.41
1:CA:64:G:C8	1:CA:99:C:C4	3.08	0.41
24:BA:2502:G:C5'	24:BA:2503:A:C5'	2.97	0.41
1:AA:978:A:C2	1:AA:1319:A:C4	3.09	0.41
35:DL:100:ILE:HG23	35:DL:101:ILE:HG23	2.01	0.41
24:DA:387:U:C6	24:DA:388:G:C5	3.08	0.41
1:CA:474:G:C6	1:CA:475:C:C4	3.09	0.41
24:DA:1797:G:C6	24:DA:1798:U:C5	3.08	0.41
26:BC:93:VAL:HG11	26:BC:103:ILE:CD1	2.51	0.41
45:BV:61:LEU:O	45:BV:72:VAL:HG12	2.20	0.41
24:DA:893:C:H2'	24:DA:894:U:O4'	2.20	0.41
26:BC:65:ASP:OD2	26:BC:68:ARG:HA	2.20	0.41
24:DA:2544:G:C2'	24:DA:2545:G:H5'	2.50	0.41
1:AA:442:G:N1	1:AA:443:C:N3	2.68	0.41
1:AA:1283:U:H2'	1:AA:1284:C:C6	2.55	0.41
24:DA:1289:C:C2	24:DA:1290:C:C5	3.08	0.41
24:DA:1984:G:C6	24:DA:1985:C:C5	3.08	0.41
24:DA:1425:G:N2	24:DA:1573:G:N7	2.68	0.41
24:DA:1752:C:O2'	24:DA:1753:G:H5'	2.20	0.41
1:CA:242:G:N2	1:CA:245:U:C6	2.88	0.41
43:BT:74:ILE:HD12	43:BT:74:ILE:C	2.41	0.41
1:CA:370:C:C5	1:CA:371:A:N7	2.88	0.41
53:B3:56:LEU:O	53:B3:57:VAL:HB	2.20	0.41
1:CA:292:G:C5	1:CA:293:G:H1'	2.56	0.41
24:BA:751:A:C6	24:BA:789:A:C6	3.08	0.41
44:DU:42:LYS:H	44:DU:42:LYS:HE2	1.85	0.41
24:BA:2670:A:C2	24:BA:2671:G:C4	3.08	0.41
27:BD:104:VAL:O	27:BD:105:LYS:HB2	2.21	0.41
24:BA:2636:C:H4'	27:BD:81:GLU:CD	2.40	0.41
24:DA:851:C:O2'	49:DZ:42:ALA:O	2.33	0.41
55:CY:179:GLU:O	55:CY:182:LEU:HG	2.20	0.41
24:BA:1225:G:OP1	41:BR:71:LYS:HE2	2.21	0.41
24:DA:2814:A:C6	24:DA:2815:C:C4	3.09	0.41
55:CY:56:SER:N	55:CY:68:ASN:O	2.54	0.41
1:AA:764:C:C5	1:AA:765:G:N7	2.88	0.41
45:BV:40:ILE:HG22	45:BV:41:GLU:N	2.36	0.41
1:CA:11:G:C5	1:CA:12:U:C5	3.08	0.41
1:AA:1296:C:OP1	13:AM:14:HIS:CE1	2.73	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:283:G:C6	24:DA:284:U:N3	2.89	0.41
38:BO:79:ALA:HB1	38:BO:113:ALA:HB3	2.02	0.41
25:BB:64:G:C6	25:BB:65:U:N3	2.89	0.41
28:DE:138:LEU:O	28:DE:139:LYS:C	2.58	0.41
24:DA:1136:G:N2	24:DA:1137:G:C4	2.89	0.41
24:DA:1121:C:H2'	24:DA:1122:G:O4'	2.20	0.41
24:DA:1122:G:H2'	24:DA:1122:G:N3	2.36	0.41
4:AD:157:ALA:O	4:AD:160:GLU:HB3	2.20	0.41
1:CA:240:G:C2	1:CA:287:U:O2	2.74	0.41
30:DG:59:ASP:O	30:DG:62:ALA:N	2.54	0.41
24:BA:580:U:O3'	40:BQ:30:VAL:HG13	2.21	0.41
24:DA:554:U:O4	24:DA:555:G:C6	2.73	0.41
24:BA:1460:U:O2	24:BA:1460:U:O2'	2.23	0.41
52:D2:31:LEU:O	52:D2:35:ARG:N	2.48	0.41
24:BA:1702:G:H2'	24:BA:1703:G:O4'	2.20	0.41
24:DA:2700:A:C2	24:DA:2708:G:C2	3.08	0.41
32:BI:10:LEU:HD11	32:BI:23:VAL:HG11	2.02	0.41
12:AL:44:LYS:HB2	12:AL:45:PRO:CD	2.48	0.41
54:D4:30:GLU:HG2	54:D4:33:HIS:CG	2.56	0.41
1:AA:1015:G:O6	1:AA:1016:A:C6	2.74	0.41
1:AA:1352:C:H1'	1:AA:1371:G:N2	2.36	0.41
38:BO:7:ARG:HD2	38:BO:97:PHE:CZ	2.56	0.41
14:AN:15:LEU:HD11	14:AN:52:PRO:HB3	2.03	0.41
1:AA:827:U:O2'	8:AH:20:ALA:CB	2.69	0.41
24:BA:729:G:OP1	26:BC:12:ARG:NH2	2.53	0.41
1:CA:693:G:H2'	1:CA:694:A:O4'	2.21	0.41
1:CA:701:U:O2	1:CA:703:G:C2	2.74	0.41
1:AA:354:G:C4	1:AA:355:C:C5	3.09	0.41
1:AA:543:U:C5'	4:AD:14:ARG:HH22	2.33	0.41
8:AH:78:VAL:N	8:AH:126:ILE:O	2.53	0.41
8:AH:94:LYS:HB3	8:AH:98:GLY:HA2	2.03	0.41
1:CA:1507:A:H2'	1:CA:1508:A:O4'	2.20	0.41
20:AT:6:SER:O	20:AT:7:ALA:C	2.59	0.41
15:CO:58:ARG:O	15:CO:62:GLN:CB	2.68	0.41
22:AV:55:U:C2'	22:AV:57:G:N7	2.83	0.41
1:AA:677:U:C5	1:AA:678:U:C5	3.08	0.41
13:CM:68:ASP:OD2	13:CM:71:ARG:NH1	2.54	0.41
24:BA:1721:G:HO2'	24:BA:1722:A:H8	1.67	0.41
1:AA:1069:C:O4'	1:AA:1191:A:H2	2.04	0.41
24:BA:825:A:C6	24:BA:833:A:N1	2.89	0.41
1:AA:1256:A:H2'	3:AC:27:LYS:HE2	2.01	0.41
9:AI:49:ARG:C	9:AI:51:PRO:HD2	2.41	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AT:75:HIS:C	20:AT:77:ALA:N	2.73	0.41
1:AA:929:G:H2'	1:AA:930:C:C5'	2.50	0.41
24:BA:2110:G:C5	24:BA:2120:G:O4'	2.73	0.41
24:BA:2676:C:O2	24:BA:2732:G:N2	2.51	0.41
57:BA:3165:NMY:H191	57:BA:3165:NMY:HN31	1.64	0.41
24:BA:2731:G:N7	57:BA:3165:NMY:O20	2.53	0.41
24:DA:1234:U:H2'	24:DA:1235:G:O4'	2.20	0.41
57:DA:3190:NMY:C2	57:DA:3190:NMY:C16	2.97	0.41
24:DA:565:C:H5'	24:DA:1253:A:N6	2.35	0.41
40:DQ:41:ALA:O	40:DQ:43:GLN:N	2.53	0.41
24:DA:831:G:C6	24:DA:832:U:C4	3.09	0.41
1:CA:1127:G:N3	1:CA:1127:G:C2'	2.78	0.41
24:BA:359:G:N1	24:BA:360:U:O2	2.54	0.41
50:B0:2:VAL:O	50:B0:3:GLN:O	2.39	0.41
24:BA:747:U:C5	24:BA:2613:U:C5	3.08	0.41
12:CL:87:VAL:N	12:CL:93:VAL:HG21	2.36	0.41
1:AA:885:G:C2	1:AA:913:A:N1	2.89	0.41
24:DA:761:A:H5''	24:DA:762:U:OP1	2.21	0.41
1:CA:131:A:C2	1:CA:132:C:N3	2.88	0.41
17:CQ:19:LYS:HG3	17:CQ:19:LYS:O	2.21	0.41
20:CT:70:ASN:O	20:CT:73:ALA:HB3	2.21	0.41
24:BA:599:A:H2'	24:BA:600:G:H5'	2.02	0.41
24:BA:615:U:C3'	24:BA:616:A:H5'	2.49	0.41
14:CN:56:SER:O	14:CN:57:PRO:O	2.39	0.41
24:DA:2210:U:O3'	24:DA:2211:A:H4'	2.20	0.41
24:DA:2747:G:O6	24:DA:2755:C:H5''	2.21	0.41
24:DA:2756:U:H1'	24:DA:2757:A:H5''	2.02	0.41
1:CA:1100:C:H2'	1:CA:1102:A:OP1	2.20	0.41
1:AA:830:G:C2	1:AA:857:C:C2	3.08	0.41
22:CV:5:G:C4	22:CV:6:G:N7	2.89	0.41
9:CI:113:ARG:NH1	9:CI:114:LYS:O	2.54	0.41
24:DA:1859:U:H2'	24:DA:1860:G:O4'	2.21	0.41
24:BA:2258:C:O2'	24:BA:2427:C:OP2	2.24	0.41
24:BA:538:A:H4'	33:BJ:7:LYS:HG2	2.02	0.41
14:CN:45:VAL:C	14:CN:47:LYS:N	2.71	0.41
24:DA:7:G:H5'	33:DJ:132:HIS:CD2	2.56	0.41
16:CP:56:ARG:HD2	16:CP:56:ARG:HA	1.67	0.41
1:CA:753:A:H5''	1:CA:754:C:O2	2.20	0.41
9:CI:130:ARG:NE	22:CV:33:U:H5	2.17	0.41
26:DC:16:VAL:HB	26:DC:203:VAL:HB	2.03	0.41
1:AA:909:A:H2'	1:AA:910:C:H6	1.86	0.41
24:DA:2469:A:C2	24:DA:2482:A:H1'	2.56	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DQ:93:ILE:O	40:DQ:96:ASP:N	2.54	0.41
24:BA:1061:U:C5	24:BA:1070:A:C5	3.09	0.41
42:BS:13:SER:HB2	42:BS:16:LYS:HE3	2.02	0.41
24:DA:585:G:O5'	24:DA:585:G:H8	2.04	0.41
2:AB:24:ASN:HB3	2:AB:26:LYS:NZ	2.35	0.41
1:CA:1114:C:C6	1:CA:1187:G:N2	2.88	0.41
1:CA:775:G:N1	1:CA:776:G:C5	2.89	0.41
1:CA:1431:A:N6	1:CA:1432:G:C6	2.86	0.41
24:BA:1078:U:H5''	24:BA:1079:C:P	2.61	0.41
42:DS:98:LYS:CB	42:DS:98:LYS:NZ	2.84	0.41
28:BE:194:LYS:O	28:BE:196:VAL:N	2.54	0.41
9:AI:128:SER:O	9:AI:129:LYS:C	2.59	0.41
1:AA:243:A:C6	1:AA:246:A:N7	2.88	0.41
24:BA:1383:A:C2	24:BA:1384:A:C2	3.09	0.41
47:BX:18:SER:O	47:BX:21:LEU:HA	2.21	0.41
28:DE:117:ARG:NH1	35:DL:2:ARG:HD2	2.35	0.41
24:BA:686:U:H2'	24:BA:788:A:N1	2.35	0.41
1:AA:76:G:C2	1:AA:95:C:C2	3.08	0.41
1:AA:294:U:N3	1:AA:295:C:C5	2.88	0.41
24:DA:1671:U:O2'	24:DA:1673:G:N7	2.45	0.41
24:DA:2637:U:O4	24:DA:2638:G:C6	2.74	0.41
1:CA:562:U:C4	1:CA:884:U:C6	3.09	0.41
35:BL:71:ALA:HA	35:BL:74:THR:CG2	2.51	0.41
26:BC:225:ASN:O	26:BC:228:ASP:N	2.52	0.41
16:CP:2:VAL:O	16:CP:2:VAL:HG23	2.20	0.41
24:BA:2529:G:O4'	30:BG:174:LYS:CD	2.65	0.41
1:CA:188:C:N3	1:CA:189:A:C4	2.89	0.41
24:BA:1494:A:C6	24:BA:1495:A:C6	3.08	0.41
34:BK:103:VAL:CG2	34:BK:107:LEU:HD13	2.50	0.41
12:AL:75:GLN:HG2	12:AL:76:GLU:HG2	2.01	0.41
1:CA:283:U:C4	1:CA:284:C:C4	3.09	0.41
20:AT:38:ALA:HB1	20:AT:47:ALA:HA	2.01	0.41
24:BA:1844:C:OP1	26:BC:254:LYS:CD	2.69	0.41
24:DA:285:G:N1	24:DA:356:G:C5	2.88	0.41
24:DA:2353:G:O2'	46:DW:33:ALA:O	2.27	0.41
6:AF:15:SER:O	6:AF:17:GLN:N	2.54	0.41
1:CA:854:U:H2'	1:CA:855:U:C6	2.56	0.41
14:CN:93:ILE:CG2	14:CN:96:LEU:HB3	2.51	0.41
26:BC:29:PHE:CD2	26:BC:92:LEU:HD22	2.55	0.41
1:AA:317:U:C2	1:AA:318:G:N7	2.89	0.41
26:BC:128:THR:OG1	26:BC:190:THR:HB	2.20	0.41
22:CV:2:C:C2	22:CV:3:C:C4	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BB:75:G:HO2'	45:BV:88:HIS:CD2	2.24	0.41
43:DT:68:LYS:HE3	43:DT:68:LYS:C	2.41	0.41
43:BT:2:ILE:HA	43:BT:3:ARG:O	2.20	0.41
24:BA:1307:A:C5	24:BA:1308:A:C8	3.08	0.41
24:DA:1560:G:C5	24:DA:1561:C:C5	3.08	0.41
24:DA:1566:A:C6	26:DC:212:TRP:CE3	3.09	0.41
33:BJ:140:LEU:HD12	33:BJ:141:ASP:N	2.35	0.41
24:DA:2187:U:H2'	24:DA:2188:U:O4'	2.20	0.41
24:DA:1952:A:O4'	34:DK:42:THR:HG23	2.21	0.41
24:DA:259:G:O2'	24:DA:260:G:H5'	2.20	0.41
24:DA:261:G:N2	24:DA:262:A:C4	2.88	0.41
24:BA:2803:G:O2'	24:BA:2804:U:H5'	2.20	0.41
24:BA:2805:C:H2'	24:BA:2806:C:C6	2.55	0.41
1:CA:466:A:H2'	1:CA:467:U:H5	1.83	0.41
24:DA:582:A:OP1	40:DQ:13:HIS:ND1	2.54	0.41
27:BD:2:ILE:CG1	27:BD:3:GLY:N	2.84	0.41
24:BA:137:U:H2'	24:BA:140:C:O2	2.20	0.41
24:DA:1775:U:H2'	24:DA:1776:G:H5'	2.02	0.41
12:CL:16:VAL:CG1	12:CL:17:ALA:N	2.84	0.41
12:CL:67:ILE:HD12	12:CL:72:HIS:ND1	2.35	0.41
11:CK:63:ALA:CB	11:CK:92:GLY:CA	2.98	0.41
28:BE:150:THR:CG2	28:BE:153:LEU:HA	2.50	0.41
32:DI:20:SER:CB	32:DI:21:PRO:CD	2.98	0.41
20:AT:28:MET:HE1	20:AT:61:GLN:HB3	2.03	0.41
26:DC:28:PRO:O	26:DC:33:LEU:CD2	2.69	0.41
45:BV:10:LYS:O	45:BV:11:GLU:HG2	2.20	0.41
24:BA:855:G:C2	24:BA:923:G:C4	3.08	0.41
24:BA:699:A:N7	24:BA:734:A:C5	2.88	0.41
36:BM:109:PRO:C	36:BM:111:GLU:N	2.71	0.41
24:DA:447:A:C4	24:DA:473:G:N7	2.88	0.41
9:CI:92:GLU:HA	9:CI:92:GLU:OE2	2.20	0.41
24:DA:2076:U:O4'	24:DA:2076:U:O2	2.39	0.41
24:DA:2812:G:H2'	24:DA:2813:A:O4'	2.21	0.41
1:AA:667:G:P	1:AA:732:C:HO2'	2.43	0.41
24:BA:2364:C:OP1	46:BW:55:ARG:NH1	2.53	0.41
24:DA:1411:U:N3	24:DA:1412:U:C4	2.88	0.41
24:BA:1567:G:N7	26:BC:82:TYR:CE1	2.89	0.41
26:DC:267:VAL:HG22	26:DC:268:ARG:N	2.35	0.41
24:DA:370:G:C6	24:DA:424:G:N7	2.89	0.41
24:DA:770:G:OP1	52:D2:11:LYS:HD2	2.20	0.41
24:DA:2134:A:N7	24:DA:2156:G:C2	2.88	0.41
1:CA:462:G:H2'	1:CA:462:G:N3	2.36	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:41:ASP:OD1	5:AE:43:ASN:N	2.47	0.41
41:BR:61:ALA:HB2	41:BR:98:ILE:HA	2.01	0.41
7:CG:64:VAL:O	7:CG:128:ALA:HB2	2.20	0.41
24:BA:2880:C:O4'	37:BN:91:ALA:HB3	2.21	0.41
24:DA:1964:G:H4'	24:DA:1965:C:OP2	2.21	0.41
24:DA:937:C:C2	24:DA:938:G:C8	3.08	0.41
1:AA:1462:C:H2'	1:AA:1463:U:O4'	2.20	0.41
24:DA:988:A:P	49:DZ:11:SER:HB3	2.60	0.41
4:CD:46:PRO:O	4:CD:48:LEU:HD23	2.21	0.41
24:DA:132:G:H8	24:DA:132:G:O5'	2.02	0.41
1:AA:1510:C:C2	1:AA:1526:G:N2	2.89	0.41
24:DA:868:U:C4	24:DA:869:G:N7	2.88	0.41
54:D4:25:VAL:HG11	54:D4:35:GLN:OE1	2.21	0.41
1:AA:1221:G:H5'	19:AS:36:ARG:NH2	2.35	0.41
1:AA:979:C:OP2	1:AA:981:U:C4	2.73	0.41
9:AI:114:LYS:O	9:AI:115:LYS:CG	2.69	0.41
25:BB:34:A:C6	25:BB:44:G:C8	3.09	0.41
38:BO:18:LEU:HD12	38:BO:18:LEU:C	2.41	0.41
38:BO:28:VAL:O	38:BO:29:HIS:CD2	2.74	0.41
14:AN:20:PHE:O	14:AN:22:LYS:N	2.53	0.41
14:AN:47:LYS:O	14:AN:48:LEU:O	2.39	0.41
24:DA:197:A:N6	24:DA:2430:A:H2'	2.35	0.41
24:DA:247:G:H4'	24:DA:386:G:C5	2.56	0.41
24:DA:693:A:H2'	24:DA:694:U:O4'	2.20	0.41
24:BA:1876:A:H62	24:BA:1877:A:N6	2.18	0.41
24:BA:396:G:O2'	47:BX:29:LEU:O	2.38	0.41
8:AH:37:ALA:O	8:AH:39:VAL:N	2.54	0.41
1:CA:693:G:C5	1:CA:694:A:C5	3.08	0.41
21:CU:25:LYS:O	21:CU:26:ALA:C	2.59	0.41
22:CV:37:A:C2'	22:CV:38:A:H8	2.34	0.41
1:AA:10:A:H2'	1:AA:11:G:H8	1.84	0.41
1:AA:32:A:H2'	1:AA:33:A:O5'	2.21	0.41
1:AA:400:C:H6	1:AA:400:C:O5'	2.04	0.41
1:AA:5:U:H5''	1:AA:6:G:O4'	2.21	0.41
4:AD:98:LEU:HD11	4:AD:123:ILE:HG22	2.02	0.41
20:AT:10:ARG:O	20:AT:13:GLN:HB3	2.20	0.41
1:CA:409:U:H2'	1:CA:410:G:C8	2.56	0.41
18:CR:65:LEU:HD23	18:CR:65:LEU:N	2.36	0.41
1:AA:701:U:O5'	1:AA:703:G:H5'	2.21	0.41
1:AA:803:G:C5	1:AA:804:U:C4	3.09	0.41
1:AA:1061:G:C2	1:AA:1197:A:N3	2.88	0.41
1:AA:1062:U:C3'	1:AA:1063:C:C6	3.04	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1306:A:C6	1:CA:1332:A:C2	3.08	0.41
1:CA:946:A:H2'	1:CA:947:G:H8	1.85	0.41
13:CM:83:LEU:HD23	13:CM:84:GLY:N	2.35	0.41
24:DA:1057:A:N1	24:DA:1087:G:OP2	2.53	0.41
24:DA:1420:A:O2'	24:DA:1421:G:H5'	2.17	0.41
4:AD:26:ARG:NH2	4:AD:29:ASP:C	2.73	0.41
11:CK:34:ILE:HG22	11:CK:35:THR:H	1.84	0.41
11:CK:35:THR:CG2	11:CK:36:ASP:N	2.78	0.41
24:BA:2485:G:P	36:BM:45:GLN:NE2	2.93	0.41
1:AA:1155:A:H5''	1:AA:1156:G:OP2	2.20	0.41
1:AA:1158:C:C5	1:AA:1160:G:C1'	3.03	0.41
1:AA:1092:A:C1'	1:AA:1183:U:O4	2.68	0.41
2:AB:70:VAL:HG12	2:AB:163:VAL:CG2	2.50	0.41
35:BL:55:MET:HB3	35:BL:60:ARG:HG3	2.02	0.41
24:DA:2257:U:P	46:DW:11:ARG:HH21	2.44	0.41
46:DW:10:THR:C	46:DW:11:ARG:CG	2.88	0.41
1:AA:1256:A:N6	1:AA:1277:C:N3	2.68	0.41
9:AI:87:LEU:HD22	9:AI:95:ARG:CB	2.51	0.41
1:CA:1012:A:N6	1:CA:1018:G:C6	2.88	0.41
1:CA:1320:C:H1'	19:CS:72:GLY:HA3	2.02	0.41
19:CS:18:LYS:O	19:CS:20:GLU:N	2.54	0.41
1:CA:624:C:C2'	1:CA:625:U:H5'	2.51	0.41
24:BA:2114:A:N1	24:BA:2115:G:H1'	2.36	0.41
24:BA:2123:G:C4	24:BA:2124:G:C8	3.08	0.41
24:BA:26:G:C6	24:BA:27:G:N1	2.88	0.41
24:BA:2845:U:H5''	39:BP:51:ASN:O	2.21	0.41
41:DR:77:PHE:CE1	41:DR:79:ARG:HG2	2.55	0.41
9:CI:25:ASN:OD1	9:CI:27:LYS:HE2	2.20	0.41
24:BA:277:G:H2'	24:BA:277:G:N3	2.34	0.41
32:DI:37:PHE:O	32:DI:41:PHE:CG	2.74	0.41
12:CL:52:VAL:HG22	12:CL:53:CYS:N	2.34	0.41
1:CA:232:G:H2'	1:CA:233:C:O4'	2.20	0.41
19:CS:41:PHE:O	19:CS:44:MET:HB3	2.21	0.41
1:CA:1049:U:O4	14:CN:1:ALA:HB1	2.21	0.41
24:BA:2349:G:C5	24:BA:2350:C:C6	3.08	0.41
1:CA:919:A:O2'	1:CA:920:U:C5'	2.65	0.41
1:CA:1074:G:O3'	2:CB:102:THR:HG23	2.20	0.41
38:DO:47:VAL:HG13	38:DO:48:LEU:H	1.81	0.41
7:CG:25:LYS:O	7:CG:29:ILE:HG22	2.21	0.41
24:DA:310:A:OP1	44:DU:15:GLY:N	2.47	0.41
1:CA:212:G:C2	1:CA:213:G:C5	3.09	0.41
1:AA:994:A:H2'	1:AA:995:C:H5'	2.01	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2248:C:P	59:BA:3510:HOH:O	2.79	0.41
24:DA:2056:G:P	59:DA:3487:HOH:O	2.78	0.41
24:BA:1478:G:N2	24:BA:1513:U:O2	2.42	0.41
47:DX:32:LEU:HD13	47:DX:49:ARG:HE	1.81	0.41
1:CA:590:U:N3	1:CA:650:G:N3	2.68	0.41
24:BA:2756:U:H4'	24:BA:2757:A:O5'	2.20	0.41
7:CG:69:VAL:O	7:CG:70:ARG:C	2.58	0.41
41:DR:39:LEU:CD1	41:DR:39:LEU:N	2.84	0.41
47:BX:38:TRP:CE3	47:BX:44:ARG:O	2.74	0.41
2:CB:114:LEU:CD1	2:CB:144:LEU:HD13	2.50	0.41
24:BA:483:A:H5''	44:BU:46:LYS:HG2	2.02	0.41
1:CA:676:A:H5''	11:CK:115:PRO:HB3	2.03	0.41
24:BA:1500:G:C4	24:BA:1501:G:C8	3.08	0.41
26:DC:157:ALA:CB	26:DC:199:HIS:HB3	2.50	0.41
24:DA:1664:A:N6	24:DA:1665:A:N6	2.69	0.41
24:BA:59:U:H5'	24:BA:73:A:C6	2.56	0.41
24:DA:160:A:C5	24:DA:167:A:N3	2.88	0.41
24:DA:1323:C:OP1	42:DS:84:ARG:NH2	2.45	0.41
37:BN:38:LEU:O	37:BN:39:PRO:C	2.59	0.41
24:BA:2331:G:O2'	46:BW:43:THR:N	2.53	0.41
49:BZ:22:THR:HG21	49:BZ:50:VAL:HG11	2.02	0.41
24:DA:1243:C:H1'	35:DL:4:ASN:O	2.21	0.41
1:AA:575:G:C8	1:AA:881:G:N2	2.89	0.41
1:AA:950:U:P	13:AM:101:ARG:NH2	2.94	0.41
24:DA:2592:G:C5	24:DA:2593:U:C6	3.09	0.41
2:AB:186:ILE:HD11	2:AB:203:ASN:O	2.21	0.41
24:BA:230:G:C2	24:BA:231:A:C4	3.09	0.41
24:BA:2554:U:H2'	24:BA:2555:U:C6	2.56	0.41
24:BA:1441:G:H2'	24:BA:1442:U:C6	2.55	0.41
1:CA:826:C:H5'	8:CH:13:ARG:CZ	2.50	0.41
2:CB:67:ILE:HG22	2:CB:68:LEU:N	2.36	0.41
29:DF:35:LEU:HB2	29:DF:88:VAL:CG1	2.50	0.41
1:AA:1053:G:C2	1:AA:1056:U:C5	3.08	0.41
24:DA:1487:U:O2	24:DA:1503:A:C2	2.74	0.41
24:DA:1815:A:O4'	24:DA:1817:G:H1'	2.21	0.41
17:CQ:4:LYS:NZ	17:CQ:6:ARG:O	2.51	0.41
24:BA:1797:G:C6	24:BA:1798:U:C4	3.08	0.41
24:BA:640:C:O2	24:BA:649:G:C2	2.74	0.41
36:DM:108:VAL:HG12	36:DM:112:LEU:HB2	2.02	0.41
6:AF:12:PRO:O	6:AF:15:SER:HB2	2.21	0.41
24:BA:1017:G:N2	24:BA:1146:C:C2	2.89	0.41
1:CA:660:C:O2	1:CA:661:G:C8	2.73	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:186:G:H2'	24:BA:186:G:N3	2.36	0.41
24:BA:187:G:C2	24:BA:210:C:O2	2.74	0.41
1:CA:204:G:O6	1:CA:206:C:N4	2.53	0.41
24:DA:625:G:C6	24:DA:626:A:N6	2.88	0.41
6:AF:43:GLY:HA2	6:AF:58:HIS:CG	2.56	0.41
24:DA:2589:A:P	59:DA:3311:HOH:O	2.77	0.41
45:BV:29:ILE:HG13	45:BV:39:ALA:HA	2.02	0.41
24:BA:1661:G:C5	24:BA:1662:U:H5	2.39	0.41
24:DA:2406:A:OP1	59:DA:3562:HOH:O	2.22	0.41
35:DL:68:SER:O	35:DL:69:ARG:HB3	2.18	0.41
27:DD:62:LYS:HB2	27:DD:63:PRO:HD3	2.03	0.41
24:BA:259:G:C5	24:BA:260:G:N7	2.88	0.41
3:CC:174:PRO:HD3	3:CC:203:PHE:CD2	2.56	0.41
6:CF:56:LYS:O	6:CF:57:ALA:CB	2.68	0.41
15:CO:82:ILE:HG13	15:CO:83:GLU:N	2.35	0.41
24:BA:1026:G:H2'	24:BA:1027:A:H8	1.86	0.41
34:BK:73:ASP:O	39:BP:74:GLN:HG3	2.21	0.41
24:BA:2461:A:H1'	24:BA:2492:U:C2	2.55	0.41
43:BT:68:LYS:HG3	43:BT:69:ARG:H	1.86	0.41
5:CE:157:ARG:O	5:CE:158:GLY:C	2.59	0.41
20:AT:51:PHE:CD1	20:AT:52:ASN:N	2.89	0.41
24:DA:280:U:N3	24:DA:281:C:C4	2.89	0.41
24:BA:1705:A:H2'	24:BA:1706:C:H5'	2.02	0.41
55:CY:114:THR:OG1	55:CY:182:LEU:CD2	2.69	0.41
36:BM:26:VAL:HG13	36:BM:133:LYS:HA	2.02	0.41
28:DE:47:LYS:HB2	28:DE:52:VAL:HG22	2.03	0.41
38:DO:7:ARG:HA	38:DO:10:ARG:NH1	2.35	0.41
40:DQ:51:GLN:O	40:DQ:52:ARG:C	2.59	0.41
35:BL:119:PRO:HB3	35:BL:139:GLY:C	2.40	0.41
33:DJ:33:ALA:O	33:DJ:34:ARG:C	2.58	0.41
1:AA:1508:A:H2'	1:AA:1509:C:O4'	2.21	0.41
5:CE:56:VAL:HB	5:CE:57:PRO:CD	2.50	0.41
24:DA:294:A:H2'	24:DA:295:G:H5'	2.03	0.41
1:AA:961:U:O2'	1:AA:962:C:H5'	2.20	0.41
24:BA:1196:C:O4'	24:BA:1226:A:C2	2.74	0.41
24:DA:2534:A:C2'	24:DA:2535:G:O5'	2.68	0.41
24:BA:2858:C:N4	24:BA:2859:G:C2	2.89	0.41
8:AH:68:GLY:O	8:AH:69:LYS:O	2.38	0.41
24:BA:909:A:C6	24:BA:912:C:O2	2.74	0.41
27:DD:121:THR:HB	27:DD:127:PHE:CD2	2.56	0.41
36:DM:25:ASP:O	36:DM:27:SER:N	2.51	0.41
9:CI:45:ARG:HG3	9:CI:46:MET:SD	2.60	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DR:34:GLU:HB3	41:DR:60:LYS:CG	2.50	0.41
1:AA:139:A:H2'	1:AA:140:U:C6	2.54	0.41
45:DV:34:LYS:HG3	45:DV:35:GLU:N	2.36	0.41
24:BA:297:G:OP1	44:BU:91:LYS:HD3	2.20	0.41
29:BF:3:LEU:HG	29:BF:99:PHE:CZ	2.56	0.41
24:DA:1836:C:C4	24:DA:1837:C:C5	3.09	0.41
24:DA:322:A:H5'	24:DA:340:A:H1'	2.02	0.41
44:DU:83:GLY:O	44:DU:84:PHE:O	2.37	0.41
38:BO:101:GLY:C	38:BO:103:VAL:N	2.73	0.41
24:DA:2393:U:H2'	24:DA:2394:C:C6	2.55	0.41
24:BA:1880:U:H5''	24:BA:1880:U:H6	1.85	0.41
47:BX:58:ILE:O	47:BX:58:ILE:HG12	2.21	0.41
2:CB:69:PHE:CG	2:CB:84:ALA:HB1	2.55	0.41
8:AH:18:GLN:NE2	8:AH:70:ALA:O	2.54	0.41
8:AH:36:ILE:C	8:AH:38:ASN:N	2.69	0.41
1:AA:257:G:C2	1:AA:258:G:C5	3.08	0.41
11:CK:112:ASP:O	11:CK:113:VAL:HG13	2.20	0.41
1:AA:34:C:C4	1:AA:35:G:N7	2.89	0.41
1:AA:637:C:N4	1:AA:638:U:O4	2.53	0.41
4:AD:98:LEU:O	4:AD:102:VAL:HG23	2.21	0.41
5:AE:38:VAL:CG2	5:AE:47:GLY:O	2.69	0.41
1:AA:598:U:O3'	8:AH:86:TYR:CG	2.74	0.41
1:AA:1080:A:C2'	1:AA:1081:A:O5'	2.69	0.41
24:BA:1838:C:N4	24:BA:1898:U:H2'	2.35	0.41
1:AA:1203:C:H4'	14:AN:67:THR:HG22	2.02	0.41
10:AJ:53:ILE:HD11	14:AN:85:ARG:NH2	2.36	0.41
1:CA:1239:A:C8	1:CA:1298:U:N3	2.88	0.41
13:CM:89:LEU:O	13:CM:91:HIS:N	2.54	0.41
13:CM:3:ARG:HA	13:CM:8:ASN:O	2.20	0.41
13:CM:90:ARG:HG2	13:CM:96:PRO:O	2.21	0.41
29:DF:111:ARG:O	29:DF:112:ASP:OD1	2.38	0.41
1:AA:154:U:H2'	1:AA:154:U:O2	2.21	0.41
1:AA:1104:G:C2	1:AA:1105:A:N9	2.89	0.41
2:AB:96:TRP:CZ3	2:AB:175:GLU:OE2	2.74	0.41
7:AG:6:VAL:HG13	7:AG:6:VAL:O	2.21	0.41
22:CV:27:G:O2'	22:CV:28:G:H5'	2.21	0.41
17:AQ:12:VAL:HG21	17:AQ:54:GLY:O	2.20	0.41
39:BP:51:ASN:O	39:BP:52:ARG:CG	2.69	0.41
11:CK:76:GLU:C	11:CK:78:GLY:N	2.74	0.41
4:CD:188:ARG:HG3	4:CD:189:SER:H	1.86	0.41
24:DA:511:U:O3'	24:DA:1215:G:N2	2.54	0.41
24:BA:2498:C:OP2	59:BA:3686:HOH:O	2.22	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1132:C:H3'	1:CA:1133:G:C8	2.55	0.41
1:CA:1134:G:N3	1:CA:1135:U:H1'	2.36	0.41
1:CA:1145:A:C2'	1:CA:1146:A:OP2	2.69	0.41
9:CI:83:ILE:HG22	9:CI:87:LEU:HD22	2.03	0.41
57:CA:1672:NMY:H1	57:CA:1672:NMY:O11	2.21	0.41
24:BA:560:C:H2'	24:BA:561:G:O4'	2.21	0.41
15:CO:11:ILE:O	15:CO:12:VAL:C	2.57	0.41
1:CA:258:G:C2'	1:CA:259:G:O5'	2.68	0.41
20:CT:59:ASP:C	20:CT:61:GLN:N	2.74	0.41
24:DA:2333:A:O3'	38:DO:9:ARG:CZ	2.66	0.41
24:DA:2204:G:C2	24:DA:2205:A:N9	2.89	0.41
13:AM:9:ILE:CG2	29:BF:142:TYR:CE1	3.04	0.41
1:CA:961:U:O2	1:CA:983:A:C5	2.73	0.41
24:BA:1358:G:N7	24:BA:1371:G:C6	2.89	0.41
1:CA:1080:A:OP1	5:CE:52:LYS:HE2	2.20	0.41
1:CA:1086:U:O2'	1:CA:1087:G:C5'	2.68	0.41
1:CA:1371:G:H5''	9:CI:70:GLY:HA2	2.03	0.41
24:DA:577:G:O2'	24:DA:1254:A:OP1	2.31	0.41
1:AA:1440:U:H2'	1:AA:1441:A:H5''	2.02	0.41
22:CV:52:G:H2'	22:CV:53:G:O4'	2.21	0.41
24:DA:587:C:C4	24:DA:671:C:C6	3.09	0.41
1:CA:590:U:OP1	8:CH:31:LYS:N	2.54	0.41
34:BK:91:SER:O	34:BK:92:GLU:C	2.57	0.41
24:DA:2654:A:N1	24:DA:2665:A:H5''	2.36	0.41
24:BA:2268:A:OP1	59:BA:3513:HOH:O	2.22	0.41
31:BH:24:GLY:O	31:BH:28:ASN:CB	2.68	0.41
31:BH:29:PHE:O	31:BH:30:LEU:C	2.59	0.41
42:BS:55:ILE:HG13	42:BS:56:ALA:N	2.36	0.41
57:BA:3167:NMY:H13	57:BA:3167:NMY:H12	1.97	0.41
31:DH:8:LYS:O	31:DH:9:VAL:O	2.39	0.41
1:CA:714:G:C2	1:CA:777:A:H1'	2.56	0.41
1:AA:364:A:C2	1:AA:365:U:C4	3.09	0.41
24:BA:1487:U:H2'	24:BA:1488:C:O4'	2.21	0.41
24:BA:7:G:C6	24:BA:8:C:C4	3.08	0.41
33:BJ:105:VAL:O	33:BJ:108:MET:N	2.53	0.41
15:AO:87:LEU:HD12	15:AO:88:ARG:N	2.36	0.41
24:BA:1341:G:C2	43:BT:84:TYR:HB3	2.55	0.41
24:BA:2209:G:C5	24:BA:2210:U:C5	3.08	0.41
1:AA:1249:C:H1'	9:AI:71:GLY:O	2.21	0.41
24:BA:1450:G:N1	24:BA:1451:C:N4	2.68	0.41
55:CY:43:GLU:C	55:CY:44:TYR:HD1	2.24	0.41
1:AA:438:U:N3	1:AA:494:G:C6	2.89	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2679:A:C2'	24:BA:2680:U:H5'	2.50	0.41
26:DC:224:MET:O	26:DC:232:GLY:O	2.39	0.41
24:DA:137:U:O2'	24:DA:138:U:P	2.79	0.41
25:BB:56:G:N2	25:BB:59:A:C2	2.88	0.41
24:DA:1471:G:C6	24:DA:1472:C:N4	2.89	0.41
33:BJ:102:GLU:O	33:BJ:103:ILE:C	2.57	0.41
37:BN:103:ARG:HD3	37:BN:110:MET:HE3	2.02	0.41
24:BA:230:G:C4	24:BA:231:A:C8	3.08	0.41
24:DA:2163:A:OP1	24:DA:2171:A:C8	2.73	0.41
24:BA:1439:A:OP2	59:BA:3632:HOH:O	2.22	0.41
39:DP:29:VAL:O	39:DP:31:VAL:CG1	2.69	0.41
24:BA:1901:A:OP2	26:BC:252:LYS:NZ	2.48	0.41
55:CY:13:MET:O	55:CY:15:LYS:N	2.53	0.41
1:CA:1158:C:N4	1:CA:1160:G:C8	2.88	0.41
26:BC:176:ARG:CZ	26:BC:176:ARG:HB2	2.50	0.41
1:CA:81:A:H2'	1:CA:82:G:C5'	2.51	0.41
20:AT:35:VAL:HG21	20:AT:54:MET:SD	2.61	0.41
24:DA:2373:G:C6	24:DA:2374:C:N4	2.89	0.41
5:CE:45:ARG:CZ	5:CE:73:ASN:OD1	2.69	0.41
24:DA:740:C:H5'	24:DA:1784:A:H3'	2.03	0.41
24:BA:1726:C:H2'	24:BA:1727:C:C6	2.55	0.41
24:BA:1733:G:C8	24:BA:1734:G:N7	2.89	0.41
55:CY:142:LEU:O	55:CY:148:ILE:HG12	2.21	0.41
2:CB:164:ILE:HG23	2:CB:165:ASP:H	1.85	0.41
24:DA:2080:A:OP1	47:DX:19:HIS:NE2	2.53	0.41
36:DM:21:ALA:HB1	36:DM:100:LYS:CA	2.50	0.41
24:BA:2795:C:O2	24:BA:2802:G:C2	2.73	0.41
24:BA:1623:G:O2'	24:BA:1624:U:H5'	2.21	0.41
37:BN:51:LEU:HD23	37:BN:51:LEU:N	2.36	0.41
20:AT:23:SER:O	20:AT:27:MET:HB3	2.21	0.41
36:BM:63:ILE:CG1	36:BM:64:TRP:N	2.81	0.41
24:BA:1053:C:C4	24:BA:1054:A:N7	2.89	0.41
30:DG:96:ALA:O	30:DG:102:ILE:HD12	2.21	0.41
24:DA:2335:A:C5	24:DA:2337:G:C4	3.08	0.41
24:DA:260:G:C4	24:DA:261:G:C8	3.09	0.41
2:CB:72:THR:HG1	2:CB:73:LYS:H	1.67	0.41
24:BA:2183:A:C5	24:BA:2184:A:C6	3.09	0.41
24:BA:1192:G:H2'	24:BA:1193:G:C5'	2.50	0.41
12:AL:67:ILE:O	12:AL:67:ILE:HG13	2.21	0.41
1:AA:728:A:N6	1:AA:729:A:N6	2.68	0.41
31:DH:51:ARG:O	31:DH:54:LEU:N	2.54	0.41
24:BA:2737:G:C2	24:BA:2738:A:C4	3.08	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DJ:51:GLY:C	33:DJ:121:LYS:HE3	2.41	0.41
5:CE:155:ALA:C	5:CE:157:ARG:N	2.74	0.41
3:CC:141:ALA:O	3:CC:146:ALA:HB2	2.20	0.41
1:AA:604:G:C2	1:AA:635:A:N3	2.89	0.41
24:BA:681:G:H2'	24:BA:682:G:O5'	2.20	0.41
24:DA:721:A:C6	24:DA:722:A:C5	3.08	0.41
1:AA:859:G:H2'	1:AA:860:A:C8	2.56	0.41
28:DE:129:PRO:CB	28:DE:159:LEU:CD1	2.99	0.41
24:BA:2671:G:C4	24:BA:2672:U:C5	3.08	0.41
55:CY:180:ALA:C	55:CY:182:LEU:H	2.23	0.41
1:CA:101:A:C4	1:CA:102:G:C8	3.09	0.41
33:BJ:13:ARG:HB3	33:BJ:51:GLY:O	2.21	0.41
3:AC:187:SER:HB3	3:AC:198:VAL:HG23	2.02	0.41
24:BA:2134:A:C2	24:BA:2135:A:N9	2.89	0.41
37:DN:31:HIS:O	37:DN:32:GLU:CB	2.69	0.41
24:DA:1690:A:H3'	24:DA:1691:C:H6	1.86	0.41
32:BI:36:GLU:HG2	32:BI:65:SER:CB	2.51	0.41
13:AM:56:LEU:HA	13:AM:59:GLU:HB3	2.02	0.41
1:CA:881:G:C6	1:CA:882:C:C4	3.08	0.41
2:CB:49:MET:HE2	2:CB:199:VAL:HG22	2.03	0.41
54:D4:23:ILE:HD13	54:D4:23:ILE:H	1.86	0.41
24:DA:2114:A:N3	24:DA:2114:A:H3'	2.36	0.41
17:AQ:72:SER:HB2	17:AQ:73:TRP:CE3	2.56	0.41
24:DA:503:A:H4'	24:DA:504:A:H3'	2.01	0.41
5:AE:42:GLY:O	5:AE:119:GLY:HA2	2.20	0.41
33:DJ:19:ASP:OD1	33:DJ:21:THR:CB	2.69	0.41
55:CY:128:VAL:C	55:CY:130:ASN:N	2.73	0.41
24:DA:1453:A:N1	37:DN:74:GLU:HA	2.36	0.41
24:BA:558:U:OP2	33:BJ:113:PRO:HG2	2.21	0.41
26:DC:44:ASN:OD1	26:DC:44:ASN:N	2.53	0.41
3:CC:68:ILE:HG12	3:CC:68:ILE:O	2.21	0.41
29:BF:63:LYS:O	29:BF:63:LYS:HG2	2.21	0.41
50:D0:43:THR:OG1	50:D0:47:TYR:HB2	2.20	0.41
1:AA:1493:A:H5''	24:BA:1913:A:N6	2.31	0.41
31:DH:132:PHE:CE2	31:DH:142:VAL:CG2	3.04	0.41
24:DA:1917:U:C2'	24:DA:1918:A:H5'	2.51	0.41
44:DU:84:PHE:CD2	44:DU:85:ARG:HA	2.56	0.41
54:D4:25:VAL:O	54:D4:25:VAL:HG12	2.21	0.41
1:AA:1342:C:H4'	9:AI:127:PHE:CE1	2.56	0.41
1:AA:1014:A:N3	19:AS:34:TRP:CE2	2.88	0.41
1:AA:1224:U:O2'	19:AS:78:ARG:NH2	2.52	0.41
1:AA:1224:U:C2	1:AA:1322:C:O2	2.74	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:945:G:C6	1:AA:1337:G:C5	3.09	0.41
1:AA:959:A:H5'	1:AA:960:U:OP2	2.21	0.41
14:AN:9:GLU:CD	14:AN:10:VAL:N	2.74	0.41
25:BB:30:C:C2'	25:BB:31:C:H5'	2.51	0.41
38:BO:6:ALA:C	38:BO:8:ILE:N	2.74	0.41
29:BF:28:PRO:HA	29:BF:158:THR:CB	2.45	0.41
24:DA:197:A:H62	24:DA:2430:A:H2'	1.86	0.41
24:DA:692:C:C6	24:DA:692:C:H3'	2.56	0.41
24:DA:693:A:C6	24:DA:694:U:C4	3.09	0.41
24:BA:394:C:H2'	24:BA:395:U:O4'	2.20	0.41
24:BA:2412:A:C2'	24:BA:2413:G:H5'	2.51	0.41
5:AE:156:LYS:O	5:AE:156:LYS:HD2	2.21	0.41
8:AH:43:GLU:CG	8:AH:44:GLY:N	2.84	0.41
1:CA:787:A:C5	1:CA:788:U:C5	3.09	0.41
1:AA:504:C:H1'	1:AA:510:A:C4	2.56	0.41
1:AA:646:G:C5	1:AA:647:C:C5	3.08	0.41
1:AA:8:A:C6	4:AD:206:LYS:CG	3.03	0.41
4:AD:11:LEU:CG	4:AD:63:ARG:HD2	2.50	0.41
5:AE:82:GLN:NE2	5:AE:150:PRO:HG3	2.35	0.41
1:AA:397:A:O3'	1:AA:398:U:C5	2.74	0.41
16:AP:12:LYS:O	16:AP:13:LYS:HB3	2.21	0.41
1:AA:1081:A:H2'	1:AA:1082:A:O4'	2.21	0.41
1:AA:917:G:N1	1:AA:918:A:C6	2.88	0.41
1:CA:406:G:C6	1:CA:407:U:C5	3.08	0.41
1:CA:406:G:C6	1:CA:495:A:N7	2.89	0.41
1:CA:620:C:C1'	4:CD:132:ILE:CD1	2.99	0.41
4:CD:162:ALA:C	4:CD:164:GLN:N	2.73	0.41
4:CD:22:LYS:NZ	4:CD:25:VAL:HG22	2.35	0.41
4:CD:7:PRO:O	4:CD:9:LEU:CD1	2.68	0.41
15:CO:62:GLN:O	15:CO:66:LEU:N	2.53	0.41
1:CA:736:C:C2'	1:CA:737:C:C6	2.98	0.41
1:AA:711:G:H2'	1:AA:712:A:H5'	1.99	0.41
1:AA:777:A:C2	1:AA:778:G:H1'	2.56	0.41
1:AA:780:A:C2	1:AA:803:G:N1	2.89	0.41
11:AK:36:ASP:OD1	11:AK:39:GLY:C	2.60	0.41
1:AA:683:G:O2'	1:AA:684:U:O5'	2.39	0.41
1:AA:710:G:O2'	1:AA:711:G:H5'	2.21	0.41
14:AN:64:CYS:HB2	14:AN:80:SER:CB	2.51	0.41
13:CM:80:LEU:HD12	13:CM:83:LEU:HD11	2.01	0.41
24:DA:1416:G:HO2'	24:DA:1417:C:H6	1.63	0.41
24:DA:1418:G:H5'	24:DA:1419:A:OP2	2.21	0.41
32:DI:115:ASP:O	32:DI:116:MET:CB	2.69	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:408:A:H2'	1:AA:409:U:O4'	2.21	0.41
1:AA:1117:A:O3'	9:AI:106:ARG:NE	2.53	0.41
1:AA:1069:C:H3'	1:AA:1069:C:H6	1.85	0.41
9:AI:43:THR:C	9:AI:45:ARG:H	2.24	0.41
57:AA:1657:NMY:HN32	57:AA:1657:NMY:C14	2.31	0.41
1:AA:185:U:C4	1:AA:186:C:C5	3.09	0.41
1:CA:1014:A:H5''	19:CS:14:HIS:CE1	2.55	0.41
57:DA:3188:NMY:H2	57:DA:3188:NMY:H171	2.03	0.41
22:CV:14:A:O2'	22:CV:15:G:H5'	2.21	0.41
24:BA:1124:G:H1'	54:B4:38:GLY:OXT	2.21	0.41
24:BA:2112:G:H2'	24:BA:2112:G:N3	2.36	0.41
6:CF:69:GLU:CD	6:CF:70:VAL:H	2.25	0.41
4:AD:13:ARG:HH11	4:AD:13:ARG:HG2	1.86	0.41
1:AA:413:G:OP2	11:CK:16:VAL:HA	2.21	0.41
24:DA:1995:U:H5'	24:DA:1996:C:O5'	2.21	0.41
24:DA:833:A:O4'	35:DL:51:GLU:HA	2.21	0.41
1:CA:451:A:H4'	1:CA:452:A:O5'	2.20	0.41
1:CA:453:G:C4	1:CA:454:G:C8	3.08	0.41
1:CA:1133:G:H2'	1:CA:1134:G:H5'	2.02	0.41
1:CA:1133:G:N2	1:CA:1142:G:N3	2.68	0.41
8:CH:81:PRO:O	8:CH:83:LEU:N	2.49	0.41
1:CA:1494:G:H2'	1:CA:1495:U:C5'	2.51	0.41
24:DA:2021:C:P	50:D0:8:THR:HG21	2.61	0.41
1:AA:1025:U:C5'	1:AA:1026:G:O5'	2.68	0.41
1:AA:1031:C:H5''	1:AA:1032:G:OP1	2.21	0.41
24:BA:18:U:O3'	40:BQ:22:GLY:HA2	2.20	0.41
24:BA:577:G:C6	24:BA:578:G:C6	3.09	0.41
1:CA:236:A:H2'	1:CA:237:G:H8	1.86	0.41
12:CL:37:VAL:HG12	12:CL:53:CYS:CB	2.51	0.41
24:DA:733:G:H8	24:DA:733:G:O5'	2.03	0.41
15:CO:31:LEU:O	15:CO:35:GLN:HB2	2.21	0.41
51:B1:24:LYS:HD2	51:B1:24:LYS:HA	1.83	0.41
1:CA:445:G:C2	1:CA:446:G:H1'	2.56	0.41
1:CA:131:A:O2'	1:CA:262:A:H2'	2.20	0.41
25:BB:90:C:H5'	36:BM:18:ARG:HA	2.03	0.41
2:CB:23:TRP:HA	2:CB:190:ASN:CA	2.48	0.41
1:AA:1238:A:C6	1:AA:1303:C:O4'	2.74	0.41
13:AM:3:ARG:O	13:AM:4:ILE:HG13	2.20	0.41
13:AM:9:ILE:O	13:AM:9:ILE:HG13	2.20	0.41
24:DA:1871:A:C8	24:DA:1872:A:C5	3.08	0.41
24:DA:1869:G:N3	24:DA:1873:G:O6	2.54	0.41
24:BA:1357:C:C4	24:BA:1358:G:C6	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1378:A:N3	24:BA:1380:G:N7	2.69	0.41
1:AA:1135:U:O2	1:AA:1135:U:C2'	2.69	0.41
24:DA:2731:G:N7	57:DA:3185:NMY:H21	2.36	0.41
24:DA:2731:G:C6	24:DA:2732:G:C6	3.09	0.41
44:BU:17:ASP:O	44:BU:19:GLY:N	2.53	0.41
46:DW:19:LYS:O	46:DW:20:ARG:C	2.60	0.41
2:CB:104:TRP:CD1	2:CB:108:ARG:HB2	2.56	0.41
1:CA:1088:G:O2'	1:CA:1089:G:P	2.79	0.41
38:DO:108:ASP:O	38:DO:111:ARG:HB2	2.21	0.41
3:AC:57:ILE:C	3:AC:58:GLU:HG3	2.40	0.41
29:DF:62:GLN:HG2	29:DF:94:ARG:HD2	2.02	0.41
9:CI:13:LYS:O	9:CI:14:SER:HB2	2.20	0.41
1:CA:1370:G:O5'	9:CI:111:VAL:CG1	2.69	0.41
24:BA:2261:C:C2	24:BA:2280:G:C2	3.09	0.41
21:AU:21:ARG:NH2	23:AX:4:G:C1'	2.84	0.41
38:DO:53:THR:HG21	38:DO:65:THR:HG22	2.02	0.41
57:BA:3166:NMY:C14	33:BJ:2:LYS:NZ	2.83	0.41
4:CD:64:ILE:HG22	4:CD:65:TYR:CD2	2.54	0.41
24:BA:466:A:C2	24:BA:796:C:O4'	2.73	0.41
24:BA:468:G:H2'	24:BA:469:G:H5'	2.02	0.41
37:BN:29:VAL:HG11	37:BN:75:ILE:HG23	2.03	0.41
26:BC:85:ASN:ND2	26:BC:85:ASN:N	2.69	0.41
1:CA:656:G:C6	1:CA:657:U:C4	3.08	0.41
24:DA:940:G:H5''	24:DA:941:A:OP2	2.21	0.41
16:AP:34:GLU:OE1	16:AP:36:VAL:CG1	2.69	0.41
1:AA:1389:C:H2'	1:AA:1390:U:O4'	2.21	0.41
1:AA:891:U:C4	1:AA:906:A:C2	3.09	0.41
24:DA:178:G:C6	24:DA:179:C:C4	3.09	0.41
42:BS:50:VAL:HG21	42:BS:103:ILE:HD11	2.01	0.41
57:BA:3167:NMY:O11	57:BA:3167:NMY:N2	2.42	0.41
24:BA:1587:G:C4	24:BA:1588:G:C8	3.08	0.41
1:CA:711:G:C2'	1:CA:712:A:O5'	2.69	0.41
1:CA:722:G:C2	21:CU:45:ARG:NH2	2.88	0.41
24:BA:1489:C:O2	24:BA:1501:G:N3	2.54	0.41
24:BA:1006:C:N3	24:BA:1007:C:C5	2.89	0.41
40:BQ:89:ILE:HD12	40:BQ:90:ASP:N	2.35	0.41
31:DH:5:LEU:HD11	31:DH:14:SER:C	2.41	0.41
24:BA:157:C:C2	24:BA:158:U:C6	3.09	0.41
24:DA:2503:A:H3'	24:DA:2503:A:OP2	2.21	0.41
5:CE:25:VAL:CG2	5:CE:26:LYS:N	2.83	0.41
24:BA:320:A:H4'	24:BA:322:A:C8	2.56	0.41
24:BA:2831:G:O4'	24:BA:2883:A:C2	2.73	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DS:98:LYS:NZ	42:DS:98:LYS:HB2	2.35	0.41
24:BA:1450:G:C2	24:BA:1462:C:N3	2.89	0.41
24:DA:2026:U:C2	24:DA:2027:G:C8	3.09	0.41
24:DA:1131:G:H4'	24:DA:1132:U:OP1	2.20	0.41
33:DJ:77:HIS:HD2	33:DJ:79:GLY:N	2.18	0.41
51:D1:35:LEU:O	51:D1:48:TYR:HB2	2.21	0.41
24:BA:1342:A:N6	24:BA:1345:C:C2	2.89	0.41
24:BA:1384:A:O2'	24:BA:1404:C:O2	2.38	0.41
24:BA:851:C:O2	24:BA:852:U:C6	2.73	0.41
8:CH:65:TYR:HD1	8:CH:70:ALA:HA	1.86	0.41
24:BA:2821:A:H2'	24:BA:2822:G:O4'	2.19	0.41
24:BA:2822:G:P	27:BD:115:GLY:HA3	2.61	0.41
24:DA:783:A:H2'	24:DA:784:G:C4'	2.50	0.41
24:BA:2263:C:O2'	24:BA:2264:C:H5'	2.20	0.41
24:BA:2822:G:O6	37:BN:2:ARG:HD2	2.21	0.41
25:DB:54:G:O2'	25:DB:55:U:H5'	2.21	0.41
42:DS:31:GLN:O	42:DS:35:ILE:HD12	2.20	0.41
25:DB:53:A:C2'	25:DB:54:G:H5'	2.51	0.41
25:BB:58:A:H2'	25:BB:59:A:H5'	2.03	0.41
1:CA:90:C:O2'	1:CA:91:U:H5''	2.20	0.41
1:AA:101:A:N6	1:AA:102:G:O6	2.54	0.41
24:BA:1531:C:N4	24:BA:1532:A:N1	2.68	0.41
12:AL:8:VAL:CG1	12:AL:9:ARG:N	2.84	0.41
24:BA:1021:A:O2'	24:BA:1022:G:P	2.78	0.41
24:BA:450:G:N2	24:BA:454:A:OP2	2.53	0.41
24:DA:1669:A:OP2	24:DA:1671:U:O4	2.39	0.41
24:DA:2095:A:C2	24:DA:2194:U:N3	2.89	0.41
37:DN:12:ARG:CD	37:DN:16:HIS:CD2	3.04	0.41
24:BA:1609:A:N3	24:BA:1616:A:O4'	2.52	0.41
34:DK:22:ILE:HG23	34:DK:41:ILE:HA	2.03	0.41
1:CA:563:A:H5''	1:CA:566:G:N2	2.36	0.41
24:BA:2554:U:C6	24:BA:2555:U:C5	3.08	0.41
3:CC:156:ARG:NH2	3:CC:193:TYR:CZ	2.89	0.41
24:DA:2117:A:N3	24:DA:2117:A:C2'	2.83	0.41
24:BA:2073:C:O2'	26:BC:226:PRO:CB	2.66	0.41
30:BG:83:THR:HA	30:BG:132:LEU:O	2.21	0.41
1:AA:1018:G:C5	1:AA:1019:A:C6	3.08	0.41
29:DF:35:LEU:HD13	29:DF:35:LEU:N	2.36	0.41
1:AA:1208:C:C4	1:AA:1209:C:C4	3.09	0.41
1:CA:939:G:O2'	1:CA:940:C:C5'	2.69	0.41
1:AA:451:A:C1'	1:AA:452:A:C8	3.04	0.41
1:CA:64:G:N9	1:CA:99:C:N4	2.68	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BK:121:GLU:HG3	34:BK:122:VAL:H	1.85	0.41
24:DA:2037:A:H2'	24:DA:2038:G:O5'	2.21	0.41
24:BA:1799:G:C4'	24:BA:1800:C:H6	2.34	0.41
2:CB:133:GLU:OE1	2:CB:136:MET:SD	2.79	0.41
24:BA:1820:U:C2	26:BC:200:MET:HB3	2.56	0.41
1:CA:82:G:O6	1:CA:88:U:N3	2.53	0.41
24:BA:2618:G:C5	24:BA:2619:C:C5	3.08	0.41
24:BA:1868:C:H2'	24:BA:1869:G:C1'	2.51	0.41
38:DO:79:ALA:HA	38:DO:115:LEU:HD12	2.03	0.41
55:CY:121:ALA:HB2	55:CY:175:LEU:HD12	2.02	0.41
37:DN:106:ASP:O	37:DN:107:ASN:HB3	2.21	0.41
25:BB:9:G:OP2	38:BO:15:ARG:NH2	2.53	0.41
52:B2:18:PHE:CD1	52:B2:18:PHE:C	2.94	0.41
1:AA:325:A:N6	1:AA:326:G:C6	2.89	0.41
24:BA:1047:G:N2	24:BA:1110:G:N9	2.69	0.41
52:D2:30:VAL:HG23	52:D2:33:ARG:HH11	1.86	0.41
24:DA:1619:G:H2'	24:DA:1620:G:H5'	2.01	0.41
24:DA:1619:G:O5'	24:DA:1619:G:C8	2.74	0.41
16:AP:39:PHE:HD1	16:AP:40:ASN:N	2.19	0.41
24:BA:1725:U:H2'	24:BA:1726:C:N1	2.36	0.41
24:DA:2128:G:C8	24:DA:2129:C:C5	3.09	0.41
24:DA:2131:U:H5''	24:DA:2132:U:H5'	2.02	0.41
18:CR:56:ALA:O	18:CR:58:ALA:N	2.49	0.41
24:BA:1593:A:H2'	24:BA:1594:U:N1	2.35	0.41
1:CA:1197:A:P	1:CA:1197:A:H3'	2.61	0.41
28:DE:48:THR:C	28:DE:50:ALA:N	2.73	0.41
24:DA:633:A:H5''	24:DA:634:C:OP2	2.21	0.41
24:DA:1596:A:H2'	24:DA:1597:A:H5'	2.02	0.41
24:DA:2108:A:C2'	24:DA:2109:U:O5'	2.68	0.41
24:DA:2110:G:N2	24:DA:2180:U:C2	2.89	0.41
43:BT:1:MET:O	43:BT:2:ILE:CG1	2.69	0.41
26:DC:70:LYS:HD2	26:DC:95:TYR:CD2	2.55	0.41
24:DA:1562:U:C2'	24:DA:1563:U:O5'	2.69	0.41
1:CA:1033:G:C6	1:CA:1034:G:N7	2.89	0.41
1:CA:595:A:O2'	1:CA:596:A:P	2.78	0.41
9:AI:20:PHE:HD1	9:AI:64:TYR:HB3	1.85	0.41
24:DA:2324:U:HO2'	24:DA:2325:G:P	2.43	0.41
24:BA:1613:G:H4'	52:B2:3:ARG:NH2	2.36	0.41
17:CQ:21:ILE:HD11	17:CQ:46:VAL:CG1	2.51	0.41
17:CQ:65:ARG:O	17:CQ:66:PRO:C	2.58	0.41
30:DG:142:GLN:O	30:DG:143:VAL:C	2.59	0.41
18:AR:56:ALA:HA	18:AR:59:ILE:HG23	2.03	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:124:C:N4	1:AA:125:U:O4	2.54	0.41
1:AA:238:A:P	17:AQ:40:ARG:HH22	2.44	0.41
24:DA:1482:G:C2	24:DA:1483:G:C8	3.09	0.41
24:BA:936:A:C5	24:BA:937:C:C5	3.09	0.41
24:DA:1190:G:H5'	35:DL:32:GLY:CA	2.51	0.41
24:DA:1582:C:H2'	24:DA:1583:A:O4'	2.20	0.41
1:AA:728:A:N1	1:AA:729:A:N1	2.69	0.41
24:BA:1281:G:H2'	24:BA:1282:U:O4'	2.20	0.41
24:BA:1281:G:O2'	24:BA:1282:U:P	2.79	0.41
31:DH:50:ARG:HG3	31:DH:54:LEU:CD2	2.51	0.41
25:BB:25:U:C2'	25:BB:26:C:H5'	2.51	0.41
19:AS:68:GLY:O	19:AS:69:HIS:HB2	2.21	0.41
41:BR:21:ARG:NH2	41:BR:93:PHE:CZ	2.89	0.41
24:DA:1842:G:C6	24:DA:1843:C:N3	2.89	0.41
53:B3:54:LEU:O	53:B3:55:GLY:C	2.59	0.41
24:DA:230:G:C2'	24:DA:231:A:O5'	2.68	0.41
24:DA:2417:C:C2	24:DA:2418:A:C8	3.08	0.41
7:AG:13:LEU:CD2	7:AG:13:LEU:N	2.84	0.41
24:DA:2712:C:H2'	24:DA:2714:G:O3'	2.21	0.41
24:BA:1283:G:N2	24:BA:1285:A:H3'	2.36	0.41
24:DA:1542:U:H2'	24:DA:1543:G:C8	2.56	0.41
24:BA:2854:G:C2	24:BA:2864:G:C2	3.09	0.41
24:BA:2864:G:C5	24:BA:2865:U:C4	3.09	0.41
40:BQ:74:SER:O	40:BQ:75:TYR:C	2.57	0.41
31:BH:57:LYS:CD	31:BH:57:LYS:C	2.87	0.41
55:CY:2:ILE:HG13	55:CY:3:SER:H	1.86	0.41
27:BD:25:THR:HG23	27:BD:189:VAL:CG2	2.51	0.41
40:BQ:59:LEU:O	40:BQ:60:TRP:C	2.58	0.41
24:DA:592:A:C6	24:DA:593:U:C4	3.09	0.41
24:DA:851:C:H2'	24:DA:852:U:C6	2.56	0.41
24:DA:222:A:N7	24:DA:224:U:C2	2.89	0.41
24:BA:2751:G:N2	24:BA:2751:G:OP1	2.54	0.41
24:DA:482:A:O5'	44:DU:46:LYS:NZ	2.53	0.41
24:BA:855:G:N3	24:BA:923:G:C2	2.89	0.41
17:CQ:23:VAL:CG1	17:CQ:24:ALA:N	2.84	0.41
24:BA:1224:U:C5	24:BA:1225:G:C6	3.09	0.41
33:DJ:44:TYR:O	40:DQ:63:ARG:NE	2.47	0.41
24:BA:310:A:C2	24:BA:312:G:H1'	2.55	0.41
2:CB:32:PHE:CD1	2:CB:32:PHE:C	2.94	0.41
24:BA:2102:G:N1	24:BA:2188:U:C2	2.89	0.41
24:BA:745:G:C3'	24:BA:746:U:H5'	2.50	0.41
13:AM:56:LEU:C	13:AM:58:ASP:N	2.72	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:323:C:C4	24:BA:333:G:C8	3.09	0.41
26:DC:100:ARG:O	26:DC:101:ARG:CG	2.69	0.41
27:DD:90:PHE:CE2	27:DD:96:ILE:CD1	3.04	0.41
24:DA:2474:U:H5''	24:DA:2475:C:OP2	2.20	0.41
24:BA:687:C:O4'	52:B2:4:THR:HA	2.21	0.41
26:BC:135:PRO:O	26:BC:137:GLY:N	2.53	0.41
24:BA:2305:U:C4	24:BA:2306:C:C4	3.09	0.41
24:DA:199:A:N6	24:DA:2434:A:C5	2.89	0.41
1:CA:433:G:C2'	1:CA:434:U:H5'	2.51	0.41
24:DA:1381:G:C2'	24:DA:1382:G:H5'	2.50	0.41
10:CJ:48:ARG:CZ	14:CN:101:TRP:CH2	3.03	0.41
4:AD:157:ALA:O	4:AD:160:GLU:N	2.53	0.41
3:CC:68:ILE:CG1	3:CC:68:ILE:O	2.68	0.41
24:DA:1757:A:H3'	24:DA:1758:U:H5''	2.02	0.41
44:BU:27:VAL:HB	44:BU:33:VAL:HG12	2.02	0.41
9:CI:5:GLN:O	9:CI:6:TYR:HB3	2.21	0.41
11:CK:110:ILE:C	11:CK:110:ILE:HD12	2.41	0.41
21:CU:47:ARG:CG	21:CU:48:ALA:N	2.83	0.41
19:AS:79:THR:O	19:AS:79:THR:OG1	2.38	0.41
24:DA:1454:C:H3'	24:DA:1454:C:OP2	2.21	0.41
25:BB:77:U:H2'	25:BB:77:U:O2	2.20	0.41
7:AG:62:PHE:C	7:AG:62:PHE:CD1	2.93	0.41
33:DJ:9:GLU:O	33:DJ:10:THR:CG2	2.69	0.41
3:AC:132:ARG:O	3:AC:134:MET:N	2.54	0.41
31:DH:111:ALA:O	31:DH:112:LYS:C	2.57	0.41
1:CA:449:G:O5'	1:CA:449:G:H8	2.04	0.41
11:AK:116:ILE:O	11:AK:116:ILE:CG2	2.69	0.41
24:DA:1668:A:O2'	24:DA:1674:G:N7	2.48	0.41
4:CD:108:GLY:O	4:CD:109:ALA:O	2.38	0.41
24:DA:687:C:N4	24:DA:688:U:N3	2.69	0.41
1:CA:1420:U:H4'	24:DA:1950:G:OP1	2.20	0.41
24:BA:1914:C:O4'	24:BA:1914:C:O2	2.38	0.41
28:DE:162:ARG:HE	28:DE:162:ARG:N	2.19	0.41
1:AA:976:G:C8	1:AA:1358:U:C2	3.09	0.41
14:AN:12:ARG:CZ	14:AN:59:ARG:NH1	2.84	0.41
53:D3:7:ARG:HE	53:D3:7:ARG:HA	1.86	0.41
24:BA:1865:U:C5	24:BA:1875:G:N1	2.88	0.41
24:BA:227:A:H4'	24:BA:228:C:OP1	2.20	0.41
24:BA:392:U:C2	24:BA:393:C:C5	3.09	0.41
47:BX:4:CYS:O	47:BX:6:VAL:N	2.54	0.41
8:AH:13:ARG:CZ	8:AH:27:MET:HB2	2.51	0.41
8:AH:40:LEU:O	8:AH:44:GLY:CA	2.69	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:729:G:P	26:BC:206:LYS:HE3	2.61	0.41
12:CL:56:ARG:CG	12:CL:57:LEU:N	2.83	0.41
36:DM:82:MET:HB2	36:DM:82:MET:HE2	1.82	0.41
1:AA:254:G:N2	1:AA:255:G:H1'	2.35	0.41
1:AA:267:C:H2'	1:AA:268:U:H6	1.85	0.41
24:DA:1659:G:C4	24:DA:2002:G:C2	3.09	0.41
1:CA:702:A:H3'	1:CA:703:G:H8	1.85	0.41
1:CA:702:A:O5'	1:CA:703:G:N7	2.54	0.41
11:CK:87:LYS:HE2	11:CK:113:VAL:HB	2.03	0.41
1:AA:396:C:H3'	1:AA:397:A:H5''	2.03	0.41
1:AA:543:U:C2'	1:AA:544:G:O5'	2.69	0.41
4:AD:20:PHE:CE2	4:AD:103:TYR:CD2	3.08	0.41
4:AD:98:LEU:HD13	4:AD:130:VAL:HG11	2.03	0.41
5:AE:83:HIS:ND1	5:AE:84:PRO:O	2.54	0.41
5:AE:95:PHE:CZ	5:AE:97:GLN:HG2	2.55	0.41
1:AA:551:U:O4'	12:AL:116:LYS:HD3	2.21	0.41
31:DH:88:GLY:HA3	31:DH:125:THR:OG1	2.21	0.41
1:CA:926:G:C6	1:CA:1505:G:C5	3.08	0.41
20:AT:3:ASN:O	20:AT:4:ILE:C	2.58	0.41
1:CA:428:G:C1'	1:CA:430:A:C8	3.03	0.41
1:CA:597:G:H1'	17:CQ:28:PHE:CZ	2.55	0.41
1:AA:778:G:C2	1:AA:779:C:C2	3.09	0.41
1:AA:1060:U:H5'	10:AJ:53:ILE:HG12	2.02	0.41
1:CA:1243:C:O2	1:CA:1243:C:C3'	2.68	0.41
24:DA:1416:G:O2'	24:DA:1417:C:C6	2.74	0.41
1:AA:1072:G:C5	1:AA:1073:U:C4	3.08	0.41
24:BA:827:U:OP1	24:BA:2429:G:OP2	2.39	0.41
55:CY:109:ARG:O	55:CY:113:LEU:HB3	2.21	0.41
1:AA:1144:G:N1	1:AA:1145:A:C2	2.89	0.41
1:AA:1145:A:HO2'	1:AA:1146:A:H8	1.67	0.41
9:AI:49:ARG:O	9:AI:51:PRO:N	2.53	0.41
24:DA:805:G:OP2	35:DL:41:ARG:CG	2.68	0.41
1:AA:414:A:H2'	1:AA:415:A:O4'	2.20	0.41
1:AA:429:U:H4'	1:AA:430:A:O5'	2.21	0.41
11:CK:15:GLN:C	11:CK:16:VAL:HG22	2.40	0.41
10:CJ:81:GLU:OE1	10:CJ:84:VAL:HG21	2.21	0.41
1:CA:1494:G:C2'	1:CA:1495:U:H5'	2.51	0.41
11:AK:28:ASN:O	11:AK:57:LYS:CE	2.68	0.41
2:AB:54:LEU:CD1	2:AB:54:LEU:N	2.83	0.41
24:BA:2627:G:H2'	24:BA:2781:A:C2	2.56	0.41
24:BA:2628:C:H1'	24:BA:2781:A:N3	2.36	0.41
12:CL:86:ARG:CG	12:CL:87:VAL:N	2.84	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:261:U:C5	20:CT:74:ARG:CZ	3.03	0.41
24:BA:671:C:C2	24:BA:672:C:C5	3.09	0.41
24:BA:657:U:H2'	24:BA:658:U:H6	1.79	0.41
1:AA:1309:G:O6	1:AA:1329:A:C6	2.74	0.41
14:CN:48:LEU:O	14:CN:49:GLN:CB	2.68	0.41
24:BA:1361:G:H2'	24:BA:1362:C:C6	2.56	0.41
1:AA:833:G:N2	1:AA:854:U:H1'	2.35	0.41
24:DA:335:C:N3	24:DA:336:C:C5	2.89	0.41
21:AU:26:ALA:HB3	23:AX:5:A:P	2.61	0.41
1:AA:1216:A:C2	1:AA:1217:C:C5	3.09	0.41
24:DA:570:G:H2'	24:DA:2030:A:C8	2.55	0.41
2:AB:111:ILE:C	2:AB:113:ARG:N	2.74	0.41
14:CN:35:ALA:CB	14:CN:41:ARG:HB3	2.50	0.41
37:BN:29:VAL:CG1	37:BN:75:ILE:HG23	2.51	0.41
37:BN:56:LYS:C	37:BN:57:THR:OG1	2.58	0.41
1:AA:219:U:H2'	1:AA:220:G:O4'	2.21	0.41
24:DA:1315:C:C2	24:DA:1338:G:C2	3.08	0.41
55:CY:85:SER:O	55:CY:87:LEU:HG	2.20	0.41
30:BG:120:ILE:HD13	30:BG:134:GLY:HA3	2.02	0.41
7:CG:134:ALA:C	7:CG:136:LYS:N	2.74	0.41
3:AC:72:ARG:O	3:AC:75:ILE:HG22	2.20	0.41
30:DG:35:THR:HG22	30:DG:36:LEU:N	2.36	0.41
29:DF:45:ASP:N	29:DF:48:LEU:HD21	2.36	0.41
24:BA:2344:U:C2	51:B1:35:LEU:HD22	2.56	0.41
4:AD:184:ARG:O	4:AD:185:LYS:C	2.58	0.41
2:CB:114:LEU:CD1	2:CB:144:LEU:CD1	2.99	0.41
24:BA:483:A:C2'	24:BA:484:C:O5'	2.67	0.41
24:DA:1250:G:H5''	40:DQ:5:ARG:HD3	2.02	0.41
15:AO:89:ARG:NH1	24:BA:716:A:OP2	2.53	0.41
24:BA:2816:G:C4	24:BA:2831:G:N2	2.89	0.41
24:DA:2014:A:H2'	24:DA:2015:A:N7	2.35	0.41
24:DA:38:A:O2'	28:DE:44:ARG:N	2.54	0.41
24:BA:1449:G:N2	24:BA:1463:C:O2	2.54	0.41
1:AA:247:G:N3	1:AA:282:A:C2	2.89	0.41
1:AA:41:G:C2	1:AA:42:G:C5	3.10	0.41
49:BZ:19:HIS:O	49:BZ:22:THR:HB	2.20	0.41
1:AA:565:U:OP2	1:AA:566:G:O2'	2.32	0.41
25:DB:53:A:C2	25:DB:54:G:C4	3.10	0.41
24:DA:64:A:OP1	43:DT:77:ARG:CD	2.69	0.41
29:DF:9:ASP:C	29:DF:13:LYS:HE2	2.41	0.41
21:AU:9:ASN:C	21:AU:12:PHE:CE1	2.95	0.41
24:BA:232:G:H4'	24:BA:233:A:OP1	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:47:VAL:HG22	2:CB:48:PRO:CD	2.51	0.41
24:BA:2553:G:H2'	24:BA:2554:U:O4'	2.21	0.41
13:AM:31:LYS:HD2	13:AM:35:ALA:HB2	2.03	0.41
24:BA:882:G:O6	24:BA:894:U:O2	2.39	0.41
1:AA:1009:U:C2	1:AA:1021:A:N1	2.89	0.41
1:CA:383:A:H5''	1:CA:384:G:OP2	2.20	0.41
1:AA:692:U:H1'	1:AA:695:A:N7	2.36	0.41
24:DA:217:A:N6	24:DA:218:A:C6	2.89	0.41
34:BK:103:VAL:HG22	34:BK:107:LEU:CD1	2.51	0.41
2:CB:133:GLU:O	2:CB:134:ALA:O	2.39	0.41
1:AA:488:C:H2'	1:AA:489:C:H6	1.86	0.41
42:BS:21:ALA:C	42:BS:23:LEU:N	2.74	0.41
1:AA:164:G:C4	1:AA:165:G:C8	3.09	0.41
53:B3:7:ARG:O	53:B3:10:ALA:HB3	2.21	0.41
33:BJ:65:THR:HG22	33:BJ:68:LYS:HZ2	1.83	0.41
24:BA:2583:G:H2'	24:BA:2584:U:O4'	2.20	0.41
12:CL:104:CYS:SG	12:CL:105:SER:N	2.94	0.41
1:AA:476:U:H2'	1:AA:477:C:H6	1.86	0.41
25:BB:73:A:C4	25:BB:74:U:C6	3.09	0.41
26:BC:141:HIS:CE1	26:BC:190:THR:HG23	2.56	0.41
24:BA:1408:G:C2	24:BA:1595:C:O2	2.74	0.41
24:DA:2543:G:H2'	24:DA:2544:G:C8	2.55	0.41
26:DC:12:ARG:HD3	26:DC:12:ARG:O	2.21	0.41
45:BV:30:ILE:HB	45:BV:38:LEU:HD12	2.03	0.41
41:DR:38:VAL:HG11	41:DR:57:GLY:O	2.21	0.41
48:DY:23:ARG:NE	48:DY:23:ARG:HA	2.37	0.41
24:DA:1561:C:C2'	24:DA:1562:U:H5'	2.51	0.41
24:BA:1091:G:C2	24:BA:1092:C:N4	2.90	0.41
24:BA:217:A:H2'	24:BA:218:A:O4'	2.21	0.41
24:DA:751:A:C6	24:DA:789:A:C5	3.08	0.41
24:DA:607:U:C2'	24:DA:608:A:H5'	2.51	0.41
24:BA:1069:A:N6	24:BA:1074:G:N3	2.68	0.41
24:BA:840:C:H4'	24:BA:1192:G:O2'	2.21	0.41
44:DU:35:VAL:O	44:DU:36:GLU:C	2.59	0.41
10:AJ:64:GLN:O	14:AN:98:LYS:HA	2.21	0.41
1:CA:419:C:C2	1:CA:420:U:C6	3.08	0.41
42:DS:105:VAL:O	42:DS:105:VAL:HG13	2.19	0.41
4:CD:29:ASP:O	4:CD:31:LYS:CE	2.69	0.41
3:AC:154:SER:HB3	3:AC:165:THR:HA	2.03	0.41
24:BA:1973:G:H2'	24:BA:1974:C:O4'	2.21	0.41
24:DA:1842:G:C2	24:DA:1843:C:C2	3.08	0.41
43:BT:64:LYS:HD2	43:BT:64:LYS:C	2.40	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1434:A:OP1	24:BA:1434:A:H4'	2.20	0.41
1:AA:173:U:C5	1:AA:197:A:C2	3.09	0.41
1:AA:773:G:C6	1:AA:807:A:N1	2.89	0.41
45:DV:31:TYR:HB3	45:DV:37:PRO:HB3	2.03	0.41
39:DP:112:ARG:O	39:DP:113:LEU:CG	2.69	0.41
1:CA:1261:A:C6	1:CA:1275:A:N9	2.89	0.41
32:DI:20:SER:O	32:DI:21:PRO:C	2.59	0.41
1:CA:577:G:C8	1:CA:816:A:N1	2.89	0.41
31:BH:55:GLU:O	31:BH:56:ALA:C	2.59	0.41
18:CR:45:THR:HG23	18:CR:46:GLY:N	2.36	0.41
1:CA:295:C:H2'	1:CA:296:U:O4'	2.21	0.41
48:BY:9:LYS:O	48:BY:12:GLU:HB2	2.20	0.41
40:BQ:46:TYR:HD1	40:BQ:46:TYR:C	2.23	0.41
3:AC:53:SER:HA	3:AC:115:LEU:CD1	2.51	0.41
22:CV:30:G:O5'	22:CV:30:G:H8	2.04	0.41
24:BA:2581:G:C5	24:BA:2610:C:C4	3.09	0.41
24:BA:734:A:C5	24:BA:735:A:C8	3.09	0.41
22:AV:8:U:H1'	22:AV:48:C:O2	2.21	0.41
33:DJ:4:PHE:CE2	33:DJ:6:ALA:HB2	2.56	0.41
3:AC:113:ALA:HB3	3:AC:183:ASP:HB3	2.03	0.41
42:DS:24:ILE:O	42:DS:26:GLY:N	2.53	0.41
5:AE:31:PHE:CD1	5:AE:31:PHE:N	2.88	0.41
31:BH:129:GLU:HG2	31:BH:130:VAL:N	2.36	0.41
6:CF:32:ALA:O	6:CF:34:GLY:N	2.54	0.41
45:BV:52:ALA:O	45:BV:53:LYS:CB	2.68	0.41
24:DA:1249:U:H4'	40:DQ:3:VAL:HG22	2.03	0.41
33:DJ:93:ILE:CG2	33:DJ:97:PRO:HB3	2.51	0.41
19:CS:80:TYR:O	19:CS:81:ARG:HB2	2.21	0.41
26:DC:129:LEU:HB2	26:DC:134:ILE:CD1	2.51	0.41
26:DC:134:ILE:HA	26:DC:135:PRO:HD3	1.86	0.41
52:B2:10:LEU:HD21	52:B2:14:ARG:CZ	2.50	0.41
28:DE:138:LEU:HD23	28:DE:143:LEU:HD12	2.02	0.41
24:BA:448:U:O2	24:BA:448:U:C2'	2.69	0.41
24:DA:856:G:N2	24:DA:922:C:C2	2.89	0.41
24:BA:1979:U:C2'	24:BA:1980:G:H5'	2.51	0.41
10:AJ:10:LEU:O	10:AJ:11:LYS:CB	2.69	0.41
7:AG:62:PHE:C	7:AG:64:VAL:H	2.25	0.41
1:CA:1067:A:H4'	1:CA:1068:G:O5'	2.19	0.41
1:CA:803:G:OP1	59:CA:1801:HOH:O	2.21	0.41
24:DA:1705:A:N6	24:DA:1706:C:N4	2.69	0.41
4:AD:48:LEU:HD22	4:AD:52:GLY:C	2.40	0.41
5:AE:76:LEU:HD23	5:AE:76:LEU:C	2.41	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:51:LYS:HB2	12:AL:51:LYS:HE3	1.89	0.41
24:DA:752:A:H62	24:DA:2609:U:H3	1.68	0.41
29:BF:3:LEU:HA	29:BF:6:TYR:CB	2.50	0.40
29:BF:1:ALA:HB1	29:BF:4:HIS:CB	2.51	0.40
31:BH:117:LEU:HD13	31:BH:121:VAL:HG22	2.04	0.40
24:DA:1918:A:O2'	24:DA:1920:C:C4	2.74	0.40
54:D4:10:LEU:CD1	54:D4:33:HIS:CE1	3.03	0.40
1:AA:1346:A:O4'	1:AA:1348:U:N1	2.54	0.40
14:AN:7:ALA:O	14:AN:11:LYS:HG2	2.22	0.40
24:BA:2295:C:N3	24:BA:2296:U:C5	2.89	0.40
25:BB:7:G:O3'	38:BO:29:HIS:CE1	2.74	0.40
24:BA:2412:A:H2'	24:BA:2413:G:H5'	2.02	0.40
24:BA:2420:C:OP1	53:B3:33:THR:HB	2.21	0.40
24:BA:228:C:O2	24:BA:418:C:H4'	2.21	0.40
26:BC:14:HIS:O	26:BC:203:VAL:HG23	2.21	0.40
11:CK:51:GLY:O	11:CK:52:PHE:O	2.38	0.40
1:AA:501:C:H3'	1:AA:501:C:C6	2.56	0.40
1:AA:600:A:C6	1:AA:639:G:C6	3.09	0.40
1:AA:626:G:H2'	1:AA:627:G:C8	2.56	0.40
4:AD:62:ARG:HG3	4:AD:72:PHE:CD1	2.56	0.40
5:AE:107:ALA:CB	5:AE:125:ALA:HB3	2.51	0.40
8:AH:83:LEU:HD13	8:AH:84:ARG:O	2.21	0.40
1:CA:404:G:C4	1:CA:405:U:C5	3.09	0.40
4:CD:168:PRO:HG2	4:CD:171:LEU:HD12	2.03	0.40
15:CO:36:ILE:HD11	15:CO:60:VAL:HG22	2.02	0.40
1:CA:1246:A:C2	1:CA:1292:G:N1	2.90	0.40
1:CA:1334:G:H3'	1:CA:1335:U:H5'	2.03	0.40
37:BN:33:ILE:CD1	37:BN:114:GLU:HB3	2.50	0.40
37:BN:33:ILE:HG13	37:BN:118:ARG:NE	2.36	0.40
24:DA:1082:U:OP1	32:DI:123:ALA:HB3	2.21	0.40
32:DI:110:GLN:O	32:DI:111:THR:C	2.59	0.40
36:BM:49:ALA:CB	36:BM:124:LEU:HD21	2.51	0.40
1:AA:1160:G:N7	1:AA:1161:C:C4	2.89	0.40
28:BE:72:SER:O	28:BE:74:LYS:N	2.54	0.40
24:BA:942:G:O2'	24:BA:1189:A:H1'	2.20	0.40
24:BA:838:C:H2'	24:BA:839:U:O4'	2.22	0.40
24:BA:947:A:H2'	24:BA:948:C:C6	2.57	0.40
3:AC:106:VAL:O	3:AC:106:VAL:HG22	2.21	0.40
20:AT:73:ALA:O	20:AT:77:ALA:HB2	2.21	0.40
20:AT:80:THR:CA	20:AT:83:ILE:HG23	2.50	0.40
20:AT:80:THR:O	20:AT:83:ILE:N	2.54	0.40
19:CS:20:GLU:HA	19:CS:23:VAL:HG22	2.04	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:CV:13:C:H2'	22:CV:14:A:H5'	2.01	0.40
17:AQ:53:CYS:SG	17:AQ:54:GLY:N	2.94	0.40
26:DC:244:VAL:HA	26:DC:251:THR:H	1.86	0.40
1:CA:626:G:N1	1:CA:627:G:C6	2.89	0.40
4:CD:78:GLU:HA	4:CD:81:ARG:CB	2.51	0.40
4:CD:87:GLY:O	4:CD:90:LEU:CD1	2.68	0.40
1:AA:412:A:H3'	1:AA:413:G:C5'	2.52	0.40
24:BA:109:C:H2'	24:BA:110:G:O4'	2.21	0.40
1:CA:453:G:C5	1:CA:454:G:N7	2.89	0.40
1:CA:1145:A:C1'	1:CA:1146:A:OP2	2.69	0.40
1:CA:1257:A:H4'	1:CA:1258:G:OP2	2.21	0.40
1:AA:689:C:OP1	11:AK:48:GLY:HA3	2.21	0.40
24:BA:2019:A:C2'	24:BA:2020:A:O5'	2.70	0.40
1:CA:444:G:C5	1:CA:491:G:N1	2.88	0.40
20:CT:81:ALA:O	20:CT:85:LYS:HG3	2.21	0.40
36:BM:18:ARG:HE	36:BM:18:ARG:CA	2.34	0.40
18:CR:25:ASP:CG	18:CR:28:THR:HG22	2.42	0.40
24:BA:616:A:H2'	24:BA:617:G:O5'	2.21	0.40
24:BA:1362:C:H2'	24:BA:1363:C:H6	1.86	0.40
10:CJ:6:ILE:HA	10:CJ:6:ILE:HD13	1.95	0.40
10:CJ:6:ILE:O	10:CJ:76:ILE:HG23	2.20	0.40
24:DA:2522:U:C2'	24:DA:2523:G:H5'	2.51	0.40
1:CA:1099:G:C6	1:CA:1100:C:O2	2.74	0.40
22:CV:67:C:N4	22:CV:68:C:N4	2.68	0.40
22:CV:6:G:N2	22:CV:68:C:C2	2.89	0.40
29:BF:121:PHE:CE2	29:BF:127:TYR:HB2	2.56	0.40
24:DA:2330:G:C2'	46:DW:44:LYS:NZ	2.78	0.40
1:AA:1409:C:C4	1:AA:1410:A:N7	2.89	0.40
44:DU:28:LEU:C	44:DU:30:SER:H	2.24	0.40
21:CU:8:GLU:HG3	21:CU:16:LEU:CD1	2.48	0.40
1:AA:1436:U:H2'	1:AA:1437:A:H8	1.83	0.40
24:BA:667:U:O2	24:BA:667:U:C2'	2.68	0.40
34:DK:114:LYS:N	34:DK:114:LYS:HD2	2.36	0.40
24:BA:2298:A:O3'	29:BF:71:LYS:HE3	2.22	0.40
37:BN:28:LEU:O	37:BN:32:GLU:CA	2.69	0.40
37:BN:75:ILE:O	37:BN:79:LEU:HB2	2.21	0.40
37:BN:90:ARG:HG2	37:BN:94:TYR:CD1	2.56	0.40
24:BA:2146:C:H4'	24:BA:2147:A:C8	2.56	0.40
1:CA:532:A:H4'	1:CA:533:A:OP2	2.21	0.40
3:CC:22:TRP:CH2	3:CC:36:ASP:CG	2.94	0.40
43:BT:8:LEU:HD22	48:BY:21:LEU:CD2	2.51	0.40
37:DN:53:THR:HA	37:DN:56:LYS:HD2	2.03	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BB:114:C:H4'	38:BO:47:VAL:HG12	2.03	0.40
21:AU:14:VAL:O	21:AU:16:LEU:HD11	2.22	0.40
6:CF:27:ALA:O	6:CF:30:THR:HG22	2.21	0.40
24:BA:1176:U:N3	24:BA:1177:G:C6	2.89	0.40
24:BA:509:C:O2'	24:BA:510:C:P	2.79	0.40
55:CY:50:PRO:O	55:CY:51:LEU:C	2.58	0.40
2:AB:177:ASN:OD1	2:AB:177:ASN:N	2.54	0.40
1:AA:364:A:C2	1:AA:365:U:O4	2.74	0.40
2:AB:221:VAL:O	2:AB:222:ARG:C	2.60	0.40
24:BA:68:G:H2'	24:BA:69:C:O4'	2.21	0.40
27:BD:159:LYS:HD2	27:BD:160:LYS:H	1.86	0.40
1:AA:361:G:H3'	1:AA:361:G:C8	2.56	0.40
24:DA:675:A:H4'	28:DE:62:GLN:OE1	2.21	0.40
34:DK:97:THR:O	34:DK:97:THR:HG23	2.21	0.40
24:BA:433:C:C2	24:BA:434:U:C5	3.09	0.40
24:BA:2681:C:C4	24:BA:2724:U:C5	3.08	0.40
1:AA:1473:G:O2'	1:AA:1474:U:H5'	2.22	0.40
49:BZ:28:LEU:N	49:BZ:28:LEU:HD12	2.36	0.40
24:DA:785:G:C6	24:DA:786:C:C4	3.09	0.40
24:DA:416:U:H2'	24:DA:417:C:C6	2.57	0.40
31:DH:29:PHE:CD2	31:DH:30:LEU:HD12	2.56	0.40
1:CA:58:C:C2'	1:CA:388:G:N7	2.84	0.40
2:CB:131:LYS:HA	2:CB:131:LYS:HE3	2.01	0.40
24:BA:1534:U:O2'	24:BA:1537:G:O6	2.39	0.40
24:BA:1221:C:C4	24:BA:1222:U:C4	3.10	0.40
24:DA:2531:A:OP1	30:DG:174:LYS:HE2	2.21	0.40
39:BP:38:ARG:HH21	39:BP:38:ARG:CB	2.34	0.40
24:DA:1428:C:C5	24:DA:1569:A:H5'	2.57	0.40
29:DF:67:THR:OG1	29:DF:85:GLY:C	2.58	0.40
1:AA:949:A:C4	1:AA:950:U:C6	3.09	0.40
1:CA:560:A:H5'	1:CA:566:G:N2	2.36	0.40
24:BA:881:G:N2	24:BA:895:U:H1'	2.37	0.40
46:DW:51:VAL:HG22	46:DW:51:VAL:O	2.19	0.40
24:DA:1486:U:H2'	24:DA:1487:U:C6	2.56	0.40
37:DN:48:VAL:HG12	37:DN:52:ILE:CD1	2.51	0.40
24:BA:1421:G:C2	24:BA:1422:G:C5	3.08	0.40
20:AT:86:LEU:O	20:AT:87:ALA:C	2.59	0.40
37:DN:26:GLY:CA	37:DN:75:ILE:HD11	2.47	0.40
55:CY:20:PHE:HB2	55:CY:124:ALA:CB	2.50	0.40
24:BA:1309:G:H4'	52:B2:7:PRO:HB2	2.03	0.40
34:BK:79:PHE:CD1	34:BK:79:PHE:N	2.88	0.40
44:BU:95:PHE:CZ	44:BU:102:ILE:CD1	3.04	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:708:G:N2	24:DA:724:U:H1'	2.37	0.40
26:BC:24:HIS:CB	26:BC:81:GLU:CG	2.99	0.40
24:DA:2129:C:H3'	24:DA:2130:U:C5'	2.51	0.40
11:CK:96:THR:OG1	11:CK:97:ILE:N	2.54	0.40
26:BC:71:ASP:HA	26:BC:117:SER:O	2.20	0.40
12:CL:51:LYS:N	12:CL:51:LYS:CD	2.80	0.40
28:DE:48:THR:HG22	28:DE:51:GLU:HG2	2.03	0.40
33:BJ:114:LEU:O	33:BJ:115:GLY:C	2.59	0.40
33:BJ:114:LEU:HG	33:BJ:118:MET:HE3	2.03	0.40
45:BV:89:ILE:CG2	45:BV:90:ASP:N	2.84	0.40
24:BA:1474:U:C4	24:BA:1475:G:N2	2.90	0.40
24:DA:1459:G:C6	24:DA:1461:C:C4	3.09	0.40
3:AC:139:GLN:HG3	3:AC:143:ARG:HG3	2.02	0.40
24:DA:1878:G:C2	24:DA:1879:C:C2	3.09	0.40
24:DA:1878:G:C5	24:DA:1879:C:C4	3.09	0.40
24:BA:1090:A:N6	24:BA:1102:C:C2	2.89	0.40
53:D3:16:THR:HG22	53:D3:19:GLY:H	1.84	0.40
26:BC:124:LYS:HG2	26:BC:127:ASN:ND2	2.36	0.40
24:BA:1564:C:C2	24:BA:1565:C:C5	3.09	0.40
7:CG:16:PRO:HD2	7:CG:44:TYR:OH	2.21	0.40
1:AA:633:G:H2'	1:AA:634:C:C6	2.54	0.40
27:DD:160:LYS:H	27:DD:160:LYS:NZ	2.18	0.40
1:AA:127:G:C6	1:AA:128:G:C5	3.09	0.40
26:DC:30:ALA:C	26:DC:32:LEU:H	2.25	0.40
8:CH:36:ILE:HG13	8:CH:37:ALA:N	2.36	0.40
11:AK:72:ASP:C	11:AK:74:VAL:N	2.73	0.40
36:DM:73:ILE:HG21	36:DM:91:TYR:CZ	2.56	0.40
1:AA:1057:G:C5'	3:AC:154:SER:O	2.69	0.40
5:CE:152:MET:O	5:CE:156:LYS:HB3	2.21	0.40
24:DA:275:C:H2'	24:DA:276:U:H4'	2.03	0.40
49:BZ:44:ARG:O	49:BZ:47:ILE:HG13	2.21	0.40
24:BA:1744:A:C2	24:BA:1745:A:N9	2.89	0.40
1:AA:772:U:O2'	1:AA:773:G:H5'	2.21	0.40
26:BC:210:ALA:C	26:BC:212:TRP:H	2.24	0.40
36:BM:53:MET:HG3	36:BM:120:ALA:HB2	2.03	0.40
51:D1:24:LYS:HD2	51:D1:51:ALA:HB1	2.02	0.40
22:AV:38:A:N7	22:AV:39:U:C5	2.89	0.40
24:DA:2689:U:C2	24:DA:2713:U:C6	3.09	0.40
43:DT:41:ALA:C	43:DT:43:ILE:N	2.74	0.40
1:CA:288:A:H2'	1:CA:289:G:H4'	2.03	0.40
24:DA:447:A:OP2	59:DA:3210:HOH:O	2.21	0.40
17:CQ:31:HIS:N	17:CQ:36:LYS:O	2.54	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1773:A:C2'	24:BA:1774:C:H5'	2.51	0.40
24:BA:142:A:H2'	24:BA:143:C:O5'	2.20	0.40
24:DA:2749:A:N6	24:DA:2750:A:C6	2.89	0.40
24:DA:283:G:C2'	24:DA:284:U:H5'	2.51	0.40
4:AD:135:TYR:CE1	4:AD:136:GLN:O	2.74	0.40
24:BA:964:C:O2'	24:BA:2273:A:N3	2.35	0.40
18:CR:60:LYS:HA	18:CR:63:ARG:CD	2.51	0.40
24:DA:2829:A:C6	24:DA:2830:C:C4	3.09	0.40
24:DA:49:A:H5''	24:DA:51:G:O4'	2.21	0.40
2:CB:180:GLY:O	2:CB:181:ILE:C	2.60	0.40
40:BQ:42:GLY:O	40:BQ:45:ALA:HB3	2.20	0.40
10:AJ:15:HIS:ND1	10:AJ:16:ARG:N	2.69	0.40
11:CK:84:VAL:HG12	11:CK:110:ILE:HG22	2.02	0.40
24:BA:2843:G:H2'	24:BA:2844:G:O4'	2.21	0.40
29:BF:141:ASP:O	29:BF:143:ASP:N	2.54	0.40
33:DJ:48:VAL:CG1	33:DJ:50:THR:HG23	2.50	0.40
22:AV:74:C:N3	24:BA:2253:G:C2	2.89	0.40
41:DR:96:VAL:HG23	41:DR:96:VAL:O	2.21	0.40
24:DA:2112:G:N3	24:DA:2112:G:H2'	2.36	0.40
3:AC:206:GLU:N	3:AC:206:GLU:OE1	2.54	0.40
52:D2:3:ARG:NH1	52:D2:4:THR:HG22	2.37	0.40
29:BF:100:GLU:O	29:BF:103:ILE:HG23	2.21	0.40
29:BF:3:LEU:HD13	29:BF:172:PHE:CE2	2.57	0.40
1:AA:1494:G:OP2	24:BA:1913:A:N6	2.54	0.40
24:DA:1922:G:O6	24:DA:1923:U:C4	2.75	0.40
28:DE:161:ALA:N	28:DE:162:ARG:NE	2.67	0.40
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.56	0.40
1:AA:976:G:H5'	1:AA:977:A:OP1	2.21	0.40
19:AS:13:LEU:HA	19:AS:16:LEU:HD23	2.02	0.40
24:BA:2415:G:N3	24:BA:2415:G:H2'	2.36	0.40
1:CA:704:A:N6	1:CA:705:G:C6	2.88	0.40
11:CK:32:VAL:O	11:CK:33:THR:HG23	2.21	0.40
24:BA:2466:C:H5''	54:B4:6:SER:HB3	2.02	0.40
4:AD:51:TYR:O	4:AD:54:GLN:HG2	2.20	0.40
4:AD:91:LEU:HD23	4:AD:94:LEU:HD12	2.03	0.40
1:CA:539:A:N6	1:CA:540:G:O6	2.54	0.40
1:CA:760:G:C8	1:CA:761:G:N7	2.89	0.40
1:AA:778:G:C6	1:AA:779:C:C4	3.10	0.40
1:AA:1195:C:C2	1:AA:1197:A:C8	3.09	0.40
3:AC:2:GLY:C	3:AC:3:GLN:CG	2.90	0.40
13:CM:19:LEU:HD12	13:CM:20:THR:N	2.36	0.40
24:DA:1094:U:C2	24:DA:1096:A:OP2	2.73	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1082:U:P	32:DI:123:ALA:HB1	2.61	0.40
36:BM:121:ALA:HB1	36:BM:128:THR:HG21	2.03	0.40
1:AA:1072:G:H22	1:AA:1104:G:H1'	1.87	0.40
1:AA:1103:C:H5''	2:AB:97:LEU:HD23	2.03	0.40
24:BA:974:G:C4	24:BA:1186:G:C2	3.09	0.40
24:BA:982:C:H5''	24:BA:983:A:P	2.61	0.40
1:AA:810:C:O2	1:AA:899:C:N4	2.54	0.40
1:AA:276:G:C6	1:AA:277:C:C5	3.09	0.40
4:CD:78:GLU:CD	4:CD:78:GLU:N	2.75	0.40
24:DA:1356:G:C6	24:DA:1357:C:N3	2.89	0.40
48:BY:49:ASP:O	48:BY:50:VAL:C	2.59	0.40
1:CA:1154:G:N3	1:CA:1154:G:H2'	2.35	0.40
1:AA:1007:U:OP1	14:AN:18:LYS:CE	2.69	0.40
24:BA:2284:A:H2'	24:BA:2285:C:O5'	2.20	0.40
1:CA:255:G:O2'	1:CA:256:U:H5'	2.21	0.40
16:CP:28:ARG:NH2	16:CP:29:ASN:OD1	2.54	0.40
35:BL:28:GLY:O	35:BL:29:LYS:C	2.58	0.40
7:AG:65:ALA:HB1	7:AG:127:ALA:HB3	2.02	0.40
1:CA:1317:C:OP1	14:CN:57:PRO:HD2	2.22	0.40
14:CN:64:CYS:C	14:CN:83:LYS:NZ	2.74	0.40
2:CB:107:VAL:O	2:CB:109:GLN:N	2.54	0.40
29:DF:162:ASP:O	29:DF:163:GLU:C	2.59	0.40
24:BA:538:A:OP2	57:BA:3166:NMY:H171	2.21	0.40
1:CA:1343:G:H4'	9:CI:124:ARG:HG2	2.03	0.40
7:CG:114:LYS:HG3	7:CG:118:LEU:HD23	2.04	0.40
18:AR:50:LYS:C	18:AR:52:GLN:N	2.74	0.40
1:AA:890:G:O2'	1:AA:906:A:N6	2.54	0.40
45:BV:44:HIS:CE1	45:BV:85:LYS:HG3	2.56	0.40
24:BA:493:G:H2'	24:BA:494:G:O4'	2.21	0.40
6:AF:4:TYR:CE2	6:AF:6:ILE:HG12	2.55	0.40
1:AA:49:U:C5	1:AA:364:A:C6	3.09	0.40
26:DC:154:ALA:HA	26:DC:159:THR:HG23	2.02	0.40
24:DA:2063:C:C4	24:DA:2064:C:C5	3.09	0.40
24:DA:1131:G:C8	33:DJ:77:HIS:CE1	3.09	0.40
26:DC:125:PRO:HA	26:DC:191:LEU:O	2.20	0.40
24:BA:1346:G:C6	24:BA:1601:G:C6	3.10	0.40
41:DR:14:VAL:HA	41:DR:18:GLN:OE1	2.20	0.40
24:BA:848:C:O2	24:BA:933:A:C2	2.74	0.40
49:BZ:22:THR:HG23	49:BZ:46:MET:HG2	2.03	0.40
24:BA:753:A:H2'	24:BA:754:U:H6	1.85	0.40
31:DH:25:TYR:CD1	31:DH:30:LEU:HD13	2.57	0.40
31:DH:29:PHE:C	31:DH:32:PRO:HD2	2.41	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1351:C:O3'	24:DA:1571:A:O2'	2.37	0.40
24:BA:1324:G:C2	24:BA:1328:A:N6	2.89	0.40
2:AB:17:GLY:C	2:AB:18:HIS:CG	2.95	0.40
24:BA:230:G:O2'	24:BA:231:A:H5'	2.21	0.40
3:AC:42:TYR:CZ	3:AC:46:GLU:OE1	2.74	0.40
1:CA:560:A:N7	1:CA:566:G:C4	2.89	0.40
24:BA:121:G:C4'	24:BA:149:A:H5'	2.46	0.40
1:CA:1053:G:H4'	1:CA:1055:A:OP1	2.20	0.40
1:CA:136:C:H1'	16:CP:1:MET:HE2	2.03	0.40
1:CA:146:G:C2	1:CA:177:G:C8	3.09	0.40
34:BK:13:ASN:O	34:BK:14:SER:C	2.60	0.40
24:DA:2298:A:N3	24:DA:2321:U:C5	2.89	0.40
24:BA:1422:G:C2	24:BA:1423:G:N9	2.89	0.40
1:CA:198:G:C2	1:CA:199:A:C8	3.09	0.40
1:CA:65:A:C5	1:CA:381:C:C5	3.09	0.40
34:BK:102:PRO:HB3	34:BK:121:GLU:HB3	2.03	0.40
1:AA:448:A:N7	1:AA:486:U:N3	2.69	0.40
1:CA:631:C:C5'	1:CA:632:U:H5'	2.50	0.40
18:CR:52:GLN:HA	18:CR:52:GLN:OE1	2.21	0.40
52:B2:16:HIS:HB2	52:B2:21:ARG:HH12	1.86	0.40
24:BA:1145:C:H2'	24:BA:1146:C:O5'	2.21	0.40
24:BA:2511:U:C5	24:BA:2512:C:C5	3.09	0.40
25:DB:93:C:H2'	25:DB:94:A:C8	2.56	0.40
24:DA:704:G:N2	24:DA:726:G:N3	2.69	0.40
5:CE:133:PRO:C	5:CE:135:ASN:N	2.70	0.40
18:CR:39:ILE:HG22	18:CR:40:VAL:N	2.35	0.40
1:AA:87:C:H2'	1:AA:88:U:C6	2.56	0.40
1:AA:226:G:O2'	1:AA:227:G:H5'	2.21	0.40
4:AD:142:VAL:O	4:AD:180:GLY:O	2.38	0.40
24:BA:1474:U:C4	24:BA:1475:G:N1	2.88	0.40
24:BA:2799:A:C6	24:BA:2801:G:C6	3.09	0.40
24:DA:1022:G:C5	24:DA:1140:C:N4	2.89	0.40
24:DA:1022:G:C6	24:DA:1141:U:C5	3.09	0.40
37:BN:98:LEU:O	37:BN:112:TYR:HB2	2.22	0.40
24:DA:452:G:N1	24:DA:453:A:C2	2.89	0.40
24:DA:2519:U:N3	24:DA:2541:A:C2	2.89	0.40
30:DG:140:ILE:HG23	30:DG:141:GLY:H	1.86	0.40
24:DA:1933:G:O2'	24:DA:1974:C:H4'	2.21	0.40
33:BJ:59:ALA:O	33:BJ:62:VAL:HG13	2.21	0.40
29:BF:56:LEU:O	29:BF:60:SER:OG	2.26	0.40
24:BA:2783:U:C2	24:BA:2784:U:C5	3.09	0.40
24:BA:1062:G:C2	24:BA:1063:G:N1	2.89	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:57:ALA:O	6:CF:58:HIS:O	2.39	0.40
24:BA:1747:U:H2'	24:BA:1748:C:H6	1.85	0.40
24:DA:666:A:H2'	24:DA:667:U:H6	1.86	0.40
2:AB:28:LYS:N	2:AB:29:PRO:CD	2.83	0.40
1:CA:1262:C:C4	1:CA:1263:C:N4	2.90	0.40
24:BA:2328:A:H61	24:BA:2386:A:N6	2.19	0.40
19:AS:22:ALA:HB1	19:AS:27:ASP:HA	2.01	0.40
36:BM:54:THR:O	36:BM:55:ARG:C	2.59	0.40
15:CO:46:HIS:O	15:CO:48:LYS:N	2.48	0.40
22:AV:39:U:H2'	22:AV:40:C:H6	1.86	0.40
35:BL:91:ASP:OD1	35:BL:94:THR:HB	2.21	0.40
35:DL:23:ILE:O	35:DL:24:GLY:C	2.59	0.40
1:CA:100:G:H2'	1:CA:101:A:O5'	2.21	0.40
24:BA:2127:G:O3'	24:BA:2128:G:O4'	2.39	0.40
36:BM:69:PRO:HB3	36:BM:94:ALA:N	2.36	0.40
40:BQ:78:PHE:CE1	40:BQ:82:LEU:HD11	2.57	0.40
24:BA:301:G:OP1	24:BA:301:G:H4'	2.20	0.40
24:BA:301:G:C4	24:BA:302:C:C5	3.09	0.40
19:AS:20:GLU:HA	19:AS:23:VAL:CG1	2.51	0.40
24:DA:1936:A:H2	24:DA:1943:U:C4	2.38	0.40
24:BA:1456:G:C5	24:BA:1457:U:C5	3.09	0.40
11:CK:84:VAL:O	11:CK:85:MET:C	2.60	0.40
1:CA:342:C:C2	1:CA:348:G:N2	2.89	0.40
20:AT:37:ALA:O	20:AT:40:GLU:N	2.54	0.40
6:CF:61:LEU:HG	6:CF:62:MET:H	1.86	0.40
24:BA:1950:G:N7	24:BA:1951:U:C5	2.89	0.40
24:DA:460:A:C2	24:DA:470:A:C4	3.09	0.40
24:DA:885:C:O2	24:DA:885:C:O4'	2.37	0.40
29:BF:78:ILE:HG23	29:BF:78:ILE:O	2.21	0.40
1:AA:1113:C:O2	1:AA:1113:C:H2'	2.20	0.40
24:BA:1055:G:O6	24:BA:1056:G:C6	2.74	0.40
31:DH:117:LEU:HD23	31:DH:117:LEU:O	2.20	0.40
31:DH:132:PHE:HE2	31:DH:142:VAL:CG2	2.35	0.40
24:DA:1917:U:C4	24:DA:1918:A:N7	2.89	0.40
28:DE:131:THR:CG2	28:DE:162:ARG:HH12	2.34	0.40
1:AA:958:A:N1	1:AA:959:A:N1	2.70	0.40
1:AA:977:A:N6	1:AA:1224:U:O5'	2.55	0.40
25:BB:6:G:N1	25:BB:7:G:C6	2.90	0.40
15:AO:70:LEU:CB	15:AO:78:TYR:HE1	2.33	0.40
53:D3:28:LEU:HD12	53:D3:32:LEU:HD22	2.04	0.40
24:BA:1875:G:O2'	24:BA:1876:A:H5'	2.22	0.40
24:BA:2091:C:H1'	47:BX:33:HIS:CD2	2.57	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2392:A:OP2	53:B3:30:HIS:NE2	2.53	0.40
24:BA:2412:A:C5	24:BA:2413:G:C8	3.09	0.40
24:BA:2419:U:C6	53:B3:32:LEU:CD2	3.04	0.40
24:BA:417:C:O2'	24:BA:418:C:H5'	2.21	0.40
47:BX:29:LEU:HA	47:BX:29:LEU:HD23	1.82	0.40
1:CA:1514:G:H2'	1:CA:1515:G:O5'	2.21	0.40
1:CA:788:U:H2'	1:CA:788:U:O2	2.20	0.40
1:AA:401:C:O2	1:AA:402:G:C8	2.74	0.40
1:AA:37:U:O2'	1:AA:547:A:N1	2.40	0.40
4:AD:172:GLU:C	4:AD:173:VAL:HG23	2.42	0.40
4:AD:58:LYS:HA	4:AD:200:ILE:HD11	2.03	0.40
1:AA:919:A:C2'	1:AA:920:U:O5'	2.69	0.40
1:CA:493:A:N3	1:CA:494:G:N1	2.69	0.40
1:CA:503:C:O5'	1:CA:503:C:H6	2.03	0.40
1:CA:673:A:N1	1:CA:674:G:C5	2.90	0.40
1:AA:778:G:C4	1:AA:779:C:C5	3.09	0.40
24:BA:1838:C:H4'	24:BA:1839:G:H8	1.85	0.40
1:AA:1202:U:H2'	1:AA:1203:C:H5'	2.02	0.40
37:BN:33:ILE:HD13	37:BN:114:GLU:HB3	2.04	0.40
24:DA:1079:C:N4	24:DA:1088:A:P	2.94	0.40
24:DA:1092:C:H2'	24:DA:1093:G:O4'	2.21	0.40
24:DA:1494:A:N7	24:DA:1495:A:N7	2.68	0.40
1:AA:154:U:C2	1:AA:168:G:N2	2.89	0.40
24:BA:1189:A:C2'	24:BA:1190:G:O5'	2.69	0.40
9:AI:11:ARG:HB3	9:AI:16:ALA:CB	2.52	0.40
9:AI:57:MET:SD	9:AI:58:VAL:CA	3.09	0.40
9:AI:6:TYR:HB3	9:AI:89:GLU:CD	2.42	0.40
1:AA:142:G:C2	1:AA:143:A:H1'	2.57	0.40
20:AT:78:ASN:O	20:AT:80:THR:N	2.54	0.40
24:BA:2729:G:C5	24:BA:2730:C:C5	3.09	0.40
24:DA:1657:U:OP1	27:DD:141:ARG:N	2.46	0.40
24:DA:394:C:N4	24:DA:395:U:O4	2.54	0.40
24:BA:2043:C:H2'	24:BA:2044:C:H6	1.86	0.40
9:CI:57:MET:O	9:CI:58:VAL:C	2.59	0.40
24:DA:533:G:O5'	40:DQ:23:TYR:CD1	2.73	0.40
24:DA:536:G:C2'	24:DA:537:G:H5'	2.51	0.40
14:CN:3:GLN:OE1	14:CN:6:LYS:NZ	2.36	0.40
1:AA:854:U:HO2'	1:AA:855:U:H5'	1.82	0.40
29:BF:120:SER:CB	29:BF:127:TYR:CE1	3.02	0.40
3:AC:67:THR:C	3:AC:68:ILE:HG22	2.41	0.40
24:DA:2315:G:H4'	29:DF:124:ARG:HH22	1.86	0.40
29:DF:98:PHE:HA	29:DF:101:ARG:CZ	2.51	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:310:A:P	44:DU:15:GLY:HA2	2.61	0.40
48:DY:13:GLU:HG2	48:DY:57:LEU:CD2	2.51	0.40
33:BJ:1:MET:O	33:BJ:2:LYS:C	2.59	0.40
24:BA:592:A:C5	24:BA:593:U:C4	3.09	0.40
28:BE:83:VAL:O	28:BE:84:THR:C	2.59	0.40
24:DA:2305:U:H2'	24:DA:2306:C:C6	2.56	0.40
29:DF:36:ASN:CG	29:DF:37:MET:N	2.75	0.40
34:DK:38:ILE:HD13	34:DK:92:GLU:OE2	2.21	0.40
34:DK:90:ASN:O	34:DK:91:SER:CB	2.67	0.40
1:CA:862:C:C5	1:CA:863:U:H5	2.38	0.40
24:DA:811:U:H2'	35:DL:21:ARG:HA	2.03	0.40
24:BA:2156:G:C6	24:BA:2157:G:N2	2.89	0.40
30:DG:108:PHE:CE2	30:DG:111:PRO:HA	2.54	0.40
28:DE:97:ASN:HB2	28:DE:100:MET:HG2	2.02	0.40
8:CH:29:SER:HB3	8:CH:57:PRO:HB3	2.03	0.40
15:CO:21:ASP:O	15:CO:27:VAL:HG11	2.20	0.40
24:DA:817:C:H2'	24:DA:818:G:O4'	2.21	0.40
24:BA:2761:A:C5	24:BA:2762:C:C5	3.10	0.40
1:AA:906:A:O2'	1:AA:907:A:O4'	2.37	0.40
3:AC:77:ILE:HD12	3:AC:78:GLY:N	2.36	0.40
25:DB:78:A:H2'	25:DB:79:G:O4'	2.21	0.40
25:BB:96:G:C2'	25:BB:97:C:H5'	2.51	0.40
40:DQ:90:ASP:OD1	40:DQ:91:ARG:N	2.55	0.40
40:DQ:90:ASP:N	41:DR:11:GLN:OE1	2.47	0.40
45:BV:24:ASN:O	45:BV:44:HIS:HB3	2.20	0.40
42:BS:17:VAL:CG2	42:BS:76:VAL:HG21	2.52	0.40
24:BA:483:A:H8	44:BU:44:HIS:CD2	2.39	0.40
24:BA:1007:C:H4'	33:BJ:109:LEU:O	2.21	0.40
27:BD:124:ARG:HB3	27:BD:160:LYS:CE	2.52	0.40
24:BA:170:U:C2'	24:BA:171:U:O5'	2.69	0.40
24:DA:674:G:H5''	28:DE:71:GLY:HA3	2.02	0.40
24:BA:340:A:N7	24:BA:341:C:C6	2.89	0.40
24:BA:2703:C:N3	24:BA:2704:C:C4	2.90	0.40
1:AA:407:U:OP1	4:AD:3:ARG:NH2	2.54	0.40
24:BA:932:U:O2	24:BA:933:A:C6	2.74	0.40
49:BZ:26:LEU:CB	49:BZ:28:LEU:CD1	2.99	0.40
49:BZ:9:THR:HG22	49:BZ:54:VAL:HA	2.03	0.40
31:DH:25:TYR:CE1	31:DH:30:LEU:HD11	2.56	0.40
1:AA:100:G:N7	1:AA:101:A:C5	2.89	0.40
1:AA:97:G:C5	1:AA:98:A:H1'	2.56	0.40
24:BA:635:C:O2	24:BA:639:U:C5'	2.69	0.40
1:AA:1424:U:C2	1:AA:1425:U:C6	3.10	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1425:U:C2'	1:AA:1426:G:H5'	2.52	0.40
34:BK:48:PRO:HB2	34:BK:49:ARG:NH1	2.36	0.40
24:DA:528:A:H8	24:DA:528:A:H3'	1.86	0.40
24:BA:1324:G:C4	24:BA:1328:A:N6	2.89	0.40
27:DD:22:ILE:CD1	27:DD:190:LYS:HG3	2.51	0.40
2:AB:41:ILE:O	2:AB:42:ASN:O	2.39	0.40
1:CA:198:G:C5	1:CA:220:G:C2	3.09	0.40
48:DY:30:MET:HG3	48:DY:31:GLN:N	2.37	0.40
1:CA:636:U:H5''	17:CQ:6:ARG:CG	2.52	0.40
2:AB:47:VAL:HG12	2:AB:48:PRO:N	2.36	0.40
31:BH:82:SER:C	31:BH:83:LYS:HE2	2.41	0.40
24:BA:2886:A:C5	24:BA:2887:A:N7	2.90	0.40
24:DA:79:C:C2	24:DA:80:G:C8	3.10	0.40
24:BA:2513:A:C5	24:BA:2514:U:C4	3.09	0.40
2:CB:157:LEU:O	2:CB:158:PRO:C	2.59	0.40
1:AA:425:G:H2'	1:AA:426:U:C5'	2.51	0.40
1:AA:1153:G:H2'	1:AA:1154:G:O5'	2.20	0.40
1:AA:20:U:H2'	1:AA:21:G:H5'	2.02	0.40
3:CC:101:ILE:HD12	3:CC:101:ILE:C	2.42	0.40
3:CC:73:PRO:HG3	3:CC:105:GLU:HB2	2.03	0.40
37:BN:97:ILE:HD12	37:BN:98:LEU:N	2.36	0.40
41:DR:23:GLU:O	41:DR:24:LYS:O	2.38	0.40
24:DA:662:G:O3'	35:DL:16:GLY:HA2	2.22	0.40
7:CG:16:PRO:HG2	7:CG:44:TYR:CE2	2.56	0.40
1:AA:1415:G:C4	1:AA:1416:G:C8	3.10	0.40
30:DG:137:LYS:O	30:DG:140:ILE:HG22	2.21	0.40
1:CA:1492:A:HO2'	1:CA:1493:A:P	2.44	0.40
27:DD:122:VAL:HG23	27:DD:123:LYS:N	2.36	0.40
1:CA:1445:U:O2	1:CA:1458:G:C6	2.74	0.40
24:BA:1613:G:N2	59:BA:3313:HOH:O	2.53	0.40
24:BA:262:A:H2	24:BA:430:A:N3	2.18	0.40
17:CQ:63:GLU:N	17:CQ:73:TRP:CE3	2.90	0.40
1:CA:466:A:C2'	1:CA:467:U:C5	3.03	0.40
24:BA:1073:A:H2'	24:BA:1074:G:H5'	2.04	0.40
24:DA:1484:U:O2	24:DA:1484:U:C2'	2.69	0.40
24:DA:2678:C:H2'	24:DA:2679:A:C8	2.57	0.40
6:CF:46:GLN:CG	6:CF:47:LEU:N	2.85	0.40
24:DA:956:G:N2	24:DA:960:A:OP2	2.52	0.40
36:DM:29:GLY:HA3	36:DM:106:ASP:HB2	2.02	0.40
30:DG:16:VAL:HG13	30:DG:25:ILE:CD1	2.52	0.40
24:BA:877:A:C6	24:BA:899:A:C6	3.10	0.40
24:BA:2712:C:H2'	24:BA:2714:G:O3'	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:310:G:OP1	16:CP:31:ARG:N	2.49	0.40
20:CT:6:SER:OG	20:CT:7:ALA:N	2.54	0.40
24:DA:1534:U:H3'	24:DA:1536:C:H5	1.87	0.40
40:DQ:49:ARG:NH2	41:DR:74:ILE:HG13	2.36	0.40
11:CK:111:THR:HA	21:CU:4:ILE:O	2.22	0.40
28:DE:129:PRO:HA	28:DE:160:ALA:HB2	2.03	0.40
24:DA:381:G:C2'	24:DA:382:A:H5'	2.52	0.40
24:DA:2000:C:C2'	24:DA:2001:C:H5'	2.52	0.40
24:BA:2443:C:H5'	28:BE:63:LYS:HZ3	1.86	0.40
24:DA:852:U:C4	24:DA:853:C:N4	2.90	0.40
24:DA:2253:G:C5	24:DA:2254:C:C5	3.09	0.40
45:BV:11:GLU:O	45:BV:12:GLN:CB	2.68	0.40
33:BJ:64:VAL:CG1	33:BJ:89:PHE:CZ	3.05	0.40
33:BJ:89:PHE:O	33:BJ:92:MET:HB2	2.22	0.40
1:CA:951:G:C4	1:CA:1231:G:C2	3.10	0.40
37:BN:60:VAL:CG1	37:BN:61:ALA:N	2.82	0.40
1:CA:1454:G:C2'	1:CA:1455:G:O5'	2.70	0.40
45:BV:32:GLY:HA3	45:BV:93:ARG:HG2	2.03	0.40
24:BA:741:U:C2	24:BA:757:G:N2	2.90	0.40
24:BA:116:C:C4	24:BA:117:G:C5	3.08	0.40
13:AM:54:ASP:OD1	13:AM:54:ASP:C	2.60	0.40
24:DA:1863:G:N1	24:DA:1880:U:O2	2.53	0.40
24:BA:1963:U:H6	24:BA:1963:U:H3'	1.87	0.40
1:CA:1195:C:H5''	1:CA:1196:A:OP2	2.21	0.40
30:DG:154:GLU:HG3	30:DG:155:PRO:HD2	2.04	0.40
4:CD:125:VAL:HG23	4:CD:126:ASN:N	2.36	0.40
26:BC:39:SER:C	26:BC:41:GLY:N	2.74	0.40
3:AC:116:VAL:HG12	3:AC:200:VAL:HG21	2.02	0.40
24:DA:2069:G:C2	24:DA:2070:A:C8	3.10	0.40
1:AA:1241:G:C2	1:AA:1242:G:N7	2.89	0.40
36:BM:70:ASP:OD1	36:BM:70:ASP:N	2.45	0.40
26:BC:66:PHE:O	26:BC:151:GLY:N	2.50	0.40
30:BG:141:GLY:O	30:BG:145:ALA:CB	2.69	0.40
24:BA:1398:C:N4	24:BA:1399:C:N4	2.69	0.40
12:CL:2:ALA:O	12:CL:3:THR:C	2.59	0.40
24:DA:324:A:H2'	24:DA:325:G:O4'	2.21	0.40
21:CU:28:VAL:HG12	21:CU:28:VAL:O	2.20	0.40
5:AE:145:GLU:CG	5:AE:146:ASN:N	2.83	0.40
24:DA:1146:C:H2'	24:DA:1147:A:O4'	2.22	0.40
35:DL:134:ALA:O	35:DL:137:ALA:HB3	2.22	0.40
24:DA:2642:G:H2'	24:DA:2643:G:H8	1.85	0.40
41:DR:62:GLU:O	41:DR:64:VAL:HG23	2.20	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1485:U:H2'	24:BA:1486:U:O4'	2.21	0.40
24:DA:2480:C:N4	24:DA:2481:G:C6	2.90	0.40
24:BA:2358:A:C2	24:BA:2359:C:H1'	2.55	0.40
24:BA:2438:U:O3'	24:BA:2439:A:H3'	2.21	0.40
37:BN:102:PHE:O	37:BN:102:PHE:CG	2.74	0.40
24:BA:1804:C:H6	24:BA:1804:C:O5'	2.04	0.40
16:CP:47:GLU:N	16:CP:47:GLU:OE1	2.53	0.40
34:DK:119:ALA:HA	34:DK:120:PRO:HD3	1.80	0.40
12:AL:42:PRO:HB2	12:AL:43:LYS:H	1.76	0.40
24:DA:298:G:H1'	24:DA:340:A:H61	1.86	0.40
44:DU:84:PHE:CD2	44:DU:85:ARG:CA	3.04	0.40
54:D4:29:ALA:C	54:D4:30:GLU:CD	2.80	0.40
1:AA:1357:A:H5''	1:AA:1358:U:OP2	2.22	0.40
19:AS:71:LEU:N	19:AS:71:LEU:HD22	2.35	0.40
24:BA:2374:C:N4	24:BA:2375:G:O6	2.54	0.40
15:AO:70:LEU:HB3	15:AO:78:TYR:CZ	2.57	0.40
15:AO:80:GLN:HA	15:AO:84:ARG:NH1	2.36	0.40
35:DL:61:LEU:HB3	35:DL:62:PRO:CD	2.52	0.40
29:BF:68:LYS:HE2	29:BF:81:GLY:O	2.21	0.40
24:BA:420:C:C2'	24:BA:421:C:O5'	2.69	0.40
24:BA:729:G:P	26:BC:12:ARG:NH2	2.95	0.40
26:BC:9:SER:OG	26:BC:10:PRO:CD	2.69	0.40
1:CA:49:U:O4	1:CA:365:U:H5	2.04	0.40
12:CL:33:VAL:CG1	12:CL:34:CYS:N	2.84	0.40
1:CA:695:A:C6	1:CA:696:A:C6	3.10	0.40
23:CX:10:A:N3	23:CX:11:A:C8	2.89	0.40
1:AA:9:G:C2	1:AA:10:A:C5	3.08	0.40
1:AA:355:C:C2	1:AA:356:A:C8	3.09	0.40
1:AA:45:G:H2'	1:AA:46:G:O5'	2.22	0.40
1:AA:376:G:OP1	16:AP:5:ARG:HD3	2.22	0.40
20:AT:12:ILE:O	20:AT:13:GLN:C	2.59	0.40
1:CA:540:G:C4	1:CA:541:G:C8	3.09	0.40
4:CD:99:ASP:O	4:CD:114:ALA:HB1	2.21	0.40
1:CA:666:G:N1	1:CA:741:G:C8	2.90	0.40
15:CO:66:LEU:O	15:CO:69:TYR:CB	2.68	0.40
1:AA:778:G:C5	1:AA:779:C:C4	3.09	0.40
1:CA:1333:A:C8	1:CA:1334:G:C8	3.09	0.40
13:CM:13:LYS:O	13:CM:17:ILE:HD13	2.21	0.40
13:CM:80:LEU:HD21	13:CM:85:CYS:SG	2.62	0.40
29:DF:109:ARG:HD3	29:DF:136:ILE:O	2.22	0.40
24:DA:1091:G:O2'	24:DA:1092:C:H5'	2.22	0.40
24:DA:1097:U:O2'	24:DA:1098:A:OP1	2.36	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:163:VAL:HG11	2:AB:185:ALA:HA	2.01	0.40
24:BA:195:A:H2'	24:BA:198:C:N4	2.36	0.40
24:BA:831:G:C5	24:BA:832:U:C5	3.10	0.40
28:BE:72:SER:C	28:BE:74:LYS:H	2.23	0.40
24:BA:572:A:H5''	24:BA:573:U:OP2	2.21	0.40
1:AA:184:G:N2	1:AA:194:C:N3	2.69	0.40
19:CS:12:ASP:OD1	19:CS:14:HIS:N	2.55	0.40
19:CS:13:LEU:HG	19:CS:14:HIS:N	2.36	0.40
26:DC:50:THR:CG2	26:DC:53:ILE:HD12	2.52	0.40
24:DA:28:A:C5	24:DA:29:U:C5	3.09	0.40
1:CA:1124:G:H2'	1:CA:1145:A:N6	2.37	0.40
9:CI:78:ALA:O	9:CI:81:HIS:CB	2.69	0.40
24:DA:1742:U:C4	24:DA:1743:G:C6	3.10	0.40
12:CL:81:LEU:O	12:CL:98:VAL:HG13	2.21	0.40
1:CA:444:G:C2	1:CA:445:G:N9	2.89	0.40
20:CT:27:MET:HG3	20:CT:28:MET:N	2.36	0.40
20:CT:31:PHE:HB3	20:CT:54:MET:CG	2.50	0.40
20:CT:73:ALA:O	20:CT:77:ALA:HB3	2.22	0.40
24:BA:811:U:C2	24:BA:1251:C:C6	3.09	0.40
24:BA:611:C:C6	24:BA:612:G:C8	3.09	0.40
24:BA:616:A:O2'	24:BA:617:G:H5'	2.22	0.40
14:CN:19:TYR:O	14:CN:23:ARG:HB2	2.21	0.40
24:DA:2564:A:C2	24:DA:2647:U:H4'	2.56	0.40
1:CA:1072:G:C6	1:CA:1073:U:C4	3.09	0.40
1:CA:1100:C:C2'	1:CA:1102:A:OP1	2.69	0.40
25:DB:114:C:H2'	25:DB:115:A:O4'	2.21	0.40
14:AN:88:ALA:N	14:AN:93:ILE:HD12	2.36	0.40
24:DA:570:G:C2'	24:DA:571:U:H5'	2.52	0.40
47:DX:29:LEU:CB	47:DX:30:PRO:CD	3.00	0.40
1:CA:1349:A:OP1	9:CI:123:ARG:N	2.53	0.40
1:AA:218:U:H2'	1:AA:219:U:C6	2.56	0.40
1:AA:837:U:H2'	1:AA:838:G:C8	2.57	0.40
18:AR:57:ARG:HG3	18:AR:61:ARG:NH1	2.37	0.40
1:AA:904:U:H2'	1:AA:905:U:O2	2.21	0.40
40:DQ:93:ILE:HG22	40:DQ:94:LEU:N	2.37	0.40
24:BA:2092:U:OP2	47:BX:35:HIS:NE2	2.54	0.40
27:DD:103:ASP:O	27:DD:105:LYS:N	2.54	0.40
2:CB:146:ASN:O	2:CB:146:ASN:OD1	2.40	0.40
44:BU:43:LYS:CE	44:BU:44:HIS:CE1	3.04	0.40
1:AA:145:G:C6	1:AA:146:G:N7	2.89	0.40
33:BJ:122:LEU:HG	33:BJ:124:VAL:HG23	2.03	0.40
24:BA:2024:G:C5	24:BA:2040:G:C2	3.09	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1381:G:C2	24:BA:1382:G:N9	2.89	0.40
24:DA:785:G:C5	24:DA:786:C:C4	3.09	0.40
24:DA:142:A:C2	24:DA:143:C:C2	3.09	0.40
45:DV:43:ASP:OD2	45:DV:46:LYS:HG2	2.21	0.40
43:DT:77:ARG:HG3	43:DT:78:SER:N	2.36	0.40
28:DE:104:ALA:O	28:DE:108:ILE:HG23	2.21	0.40
1:AA:100:G:C5	1:AA:101:A:C5	3.09	0.40
1:AA:71:A:N1	1:AA:72:A:C6	2.90	0.40
24:BA:635:C:O2	24:BA:639:U:H5''	2.21	0.40
33:BJ:99:ARG:HG3	33:BJ:102:GLU:OE1	2.22	0.40
39:BP:98:TYR:CZ	39:BP:99:LEU:HD21	2.56	0.40
24:DA:1966:A:C2	24:DA:2592:G:H2'	2.56	0.40
3:AC:42:TYR:CE1	3:AC:46:GLU:CG	3.04	0.40
1:CA:560:A:N7	1:CA:566:G:C5	2.89	0.40
26:BC:259:ASN:HA	26:BC:261:ARG:NH1	2.37	0.40
24:DA:1489:C:C3'	24:DA:1489:C:C6	3.03	0.40
24:DA:1478:G:C5	24:DA:1514:G:N2	2.90	0.40
34:BK:109:SER:O	34:BK:110:GLU:C	2.60	0.40
12:AL:75:GLN:HG2	12:AL:76:GLU:HB3	2.02	0.40
24:BA:2059:A:N6	24:BA:2503:A:H2'	2.37	0.40
1:AA:1361:G:C2'	1:AA:1362:A:H5'	2.50	0.40
24:DA:412:A:C5	24:DA:2412:A:H1'	2.57	0.40
2:AB:47:VAL:O	2:AB:50:PHE:N	2.52	0.40
39:DP:15:ASP:O	39:DP:16:VAL:HG23	2.20	0.40
24:BA:1302:A:H5'	24:BA:1608:A:OP1	2.22	0.40
24:BA:1309:G:H1	24:BA:1605:C:H42	1.69	0.40
24:BA:1016:G:N2	24:BA:1146:C:O2	2.54	0.40
1:AA:815:A:C2	1:AA:1529:G:C4	3.09	0.40
27:BD:151:THR:HG22	27:BD:152:PRO:CD	2.51	0.40
26:BC:92:LEU:HG	26:BC:93:VAL:N	2.36	0.40
24:BA:1670:C:H5	24:BA:1671:U:C4	2.36	0.40
8:CH:11:LEU:CD1	8:CH:75:ILE:HD11	2.51	0.40
25:BB:75:G:H4'	45:BV:29:ILE:HD11	2.02	0.40
36:DM:20:LEU:HD23	36:DM:98:PRO:HG2	2.03	0.40
3:AC:138:VAL:HG12	3:AC:139:GLN:N	2.37	0.40
24:DA:391:A:H2'	24:DA:392:U:C5'	2.51	0.40
24:DA:477:A:O5'	24:DA:477:A:H8	2.03	0.40
24:DA:2335:A:N7	24:DA:2337:G:C4	2.90	0.40
24:DA:2335:A:P	38:DO:13:ARG:HG3	2.61	0.40
7:CG:16:PRO:O	7:CG:17:LYS:HG3	2.22	0.40
30:DG:137:LYS:O	30:DG:140:ILE:CG2	2.70	0.40
24:BA:1074:G:C2'	24:BA:1075:C:H5''	2.50	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AO:25:THR:O	15:AO:28:GLN:HB2	2.22	0.40
1:AA:1190:G:OP2	3:AC:5:VAL:HG23	2.21	0.40
25:DB:74:U:O4	25:DB:102:G:N2	2.39	0.40
48:DY:39:GLN:CB	48:DY:42:LEU:HD13	2.52	0.40
11:AK:65:VAL:HA	11:AK:68:GLU:HB2	2.02	0.40
1:AA:1404:C:H1'	1:AA:1499:A:C2	2.56	0.40
24:BA:2856:A:C6	24:BA:2857:G:C5	3.10	0.40
24:DA:1775:U:P	59:DA:3446:HOH:O	2.80	0.40
4:AD:47:ARG:HG2	4:AD:47:ARG:O	2.22	0.40
52:D2:45:SER:O	52:D2:46:LYS:OXT	2.39	0.40
24:DA:1516:G:C2'	24:DA:1517:G:H5'	2.52	0.40
24:DA:2839:G:N2	24:DA:2880:C:C4	2.90	0.40
32:BI:100:ILE:CD1	32:BI:137:LEU:HD22	2.51	0.40
24:BA:2869:G:C5	24:BA:2870:C:C5	3.10	0.40
24:BA:1032:A:O3'	54:B4:16:ILE:CD1	2.69	0.40
24:BA:2900:A:C6	24:BA:2901:C:C4	3.09	0.40
24:BA:2469:A:H4'	36:BM:55:ARG:HE	1.86	0.40
24:BA:1715:G:O2'	24:BA:1743:G:O6	2.28	0.40
4:CD:56:ARG:O	4:CD:60:LYS:HG3	2.21	0.40
24:BA:1917:U:C2'	24:BA:1918:A:H5'	2.52	0.40
1:CA:1439:G:C6	1:CA:1440:U:C4	3.09	0.40
24:BA:2636:C:H4'	27:BD:81:GLU:OE1	2.21	0.40
24:DA:1700:A:H5'	24:DA:1701:A:OP2	2.21	0.40
35:DL:23:ILE:HD12	41:DR:84:ARG:HG2	2.04	0.40
25:DB:51:G:N1	25:DB:52:A:C6	2.88	0.40
27:DD:113:SER:HB2	27:DD:167:ASN:N	2.36	0.40
44:DU:24:VAL:CG2	44:DU:33:VAL:HG21	2.51	0.40
27:BD:112:THR:O	27:BD:113:SER:C	2.59	0.40
24:DA:2272:U:H5''	24:DA:2273:A:OP1	2.21	0.40
1:AA:134:G:H2'	1:AA:135:C:C6	2.57	0.40
32:DI:58:ILE:HG23	32:DI:59:THR:H	1.87	0.40
34:DK:33:ALA:CB	34:DK:39:ILE:CG2	3.00	0.40
26:BC:57:HIS:ND1	26:BC:58:LYS:N	2.69	0.40
13:AM:60:VAL:C	13:AM:62:LYS:H	2.25	0.40
24:BA:2226:C:C2'	24:BA:2226:C:O2	2.67	0.40
32:BI:23:VAL:CG1	32:BI:27:LEU:HG	2.52	0.40
37:DN:44:LEU:HD23	37:DN:113:ILE:HD13	2.03	0.40
1:AA:736:C:H2'	1:AA:737:C:C6	2.56	0.40
23:CX:7:G:C6	23:CX:8:U:C5	3.09	0.40
36:DM:63:ILE:HG22	36:DM:64:TRP:N	2.36	0.40
53:D3:54:LEU:O	53:D3:58:ILE:HD13	2.21	0.40
27:DD:205:PRO:O	27:DD:206:ALA:C	2.60	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DL:130:GLY:HA2	35:DL:133:ALA:HB3	2.03	0.40
10:AJ:88:MET:O	10:AJ:89:ARG:HB2	2.22	0.40
24:DA:39:G:H2'	24:DA:40:U:C6	2.56	0.40
27:DD:175:LEU:N	27:DD:175:LEU:HD23	2.37	0.40
39:DP:37:LYS:O	39:DP:37:LYS:HG2	2.22	0.40
13:AM:42:ASP:OD1	13:AM:42:ASP:C	2.60	0.40
24:DA:2701:U:H3'	24:DA:2702:G:H5''	2.03	0.40
34:DK:71:ARG:HB3	34:DK:72:PRO:HD2	2.03	0.40
7:AG:111:ARG:HD3	7:AG:123:GLU:OE1	2.21	0.40
24:DA:1223:G:C2	24:DA:1227:G:C5	3.09	0.40
31:BH:118:PRO:CD	31:BH:119:ASN:N	2.84	0.40
31:BH:121:VAL:CB	31:BH:122:LEU:CG	2.83	0.40
1:AA:1358:U:H6	1:AA:1359:C:C5	2.39	0.40
1:AA:1345:U:C5	1:AA:1377:A:C2	3.10	0.40
14:AN:22:LYS:HG3	14:AN:23:ARG:N	2.35	0.40
24:BA:2230:G:C1'	47:BX:31:ASN:HB3	2.42	0.40
8:AH:29:SER:OG	8:AH:30:SER:N	2.53	0.40
12:CL:56:ARG:O	12:CL:57:LEU:HB3	2.21	0.40
1:CA:689:C:H2'	1:CA:689:C:O2	2.21	0.40
1:CA:787:A:O2'	1:CA:788:U:H5'	2.22	0.40
11:CK:52:PHE:HB2	11:CK:57:LYS:HB2	2.03	0.40
1:AA:10:A:H2'	1:AA:11:G:C8	2.56	0.40
4:AD:125:VAL:CG1	4:AD:126:ASN:N	2.78	0.40
4:AD:146:ARG:HA	4:AD:146:ARG:HD3	1.69	0.40
1:AA:1076:U:C2	1:AA:1082:A:C2	3.09	0.40
20:AT:5:LYS:O	20:AT:7:ALA:N	2.54	0.40
9:CI:105:THR:CG2	9:CI:106:ARG:N	2.83	0.40
4:CD:154:ARG:O	4:CD:155:VAL:C	2.60	0.40
4:CD:96:GLY:O	4:CD:97:ARG:C	2.59	0.40
1:CA:668:G:O4'	15:CO:49:ASP:HB2	2.22	0.40
1:AA:693:G:OP1	11:AK:127:ARG:NH2	2.53	0.40
1:AA:702:A:H3'	1:AA:703:G:C5'	2.51	0.40
1:AA:1061:G:O5'	3:AC:3:GLN:NE2	2.55	0.40
10:AJ:53:ILE:HG22	10:AJ:61:ALA:C	2.42	0.40
13:CM:15:ALA:N	13:CM:17:ILE:CD1	2.84	0.40
24:DA:1418:G:H5''	24:DA:1419:A:OP2	2.21	0.40
40:BQ:51:GLN:HA	40:BQ:54:ARG:HG2	2.04	0.40
11:CK:36:ASP:OD1	11:CK:39:GLY:C	2.60	0.40
1:CA:346:G:H1'	39:DP:33:GLU:OE2	2.21	0.40
2:AB:163:VAL:HG11	2:AB:185:ALA:CA	2.51	0.40
2:AB:70:VAL:CG1	2:AB:163:VAL:CG2	2.99	0.40
2:AB:90:PHE:CZ	2:AB:154:MET:HB2	2.56	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2872:A:O2'	24:BA:2873:A:C5'	2.69	0.40
24:DA:1372:U:H2'	24:DA:1373:A:H5'	2.04	0.40
24:BA:2624:G:C2'	24:BA:2625:G:H5'	2.52	0.40
40:DQ:27:ARG:HH22	40:DQ:40:LYS:HE2	1.86	0.40
16:CP:68:SER:O	16:CP:69:ASP:C	2.60	0.40
1:CA:1282:C:H2'	1:CA:1282:C:O2	2.21	0.40
1:CA:1494:G:N2	1:CA:1495:U:N1	2.70	0.40
12:CL:65:SER:CA	12:CL:95:TYR:HB3	2.52	0.40
24:BA:2285:C:H5''	24:BA:2286:G:OP2	2.21	0.40
20:CT:61:GLN:HG3	20:CT:66:LEU:CD1	2.52	0.40
25:BB:85:G:C2	25:BB:92:C:O2	2.74	0.40
1:AA:1237:C:H2'	1:AA:1336:C:C5	2.56	0.40
1:CA:979:C:C2'	1:CA:980:C:H5'	2.52	0.40
35:BL:77:ILE:O	35:BL:77:ILE:CG1	2.70	0.40
57:DA:3185:NMY:H232	57:DA:3185:NMY:C15	2.51	0.40
54:D4:19:ARG:C	54:D4:21:GLY:H	2.25	0.40
1:CA:1077:G:C4	1:CA:1081:A:C2	3.09	0.40
1:CA:16:A:O2'	5:CE:21:VAL:HB	2.21	0.40
22:CV:5:G:N1	22:CV:6:G:C6	2.90	0.40
24:DA:2327:A:H2'	24:DA:2328:A:C8	2.57	0.40
7:CG:26:PHE:C	7:CG:28:ASN:N	2.75	0.40
8:CH:112:THR:O	8:CH:116:ALA:HB2	2.22	0.40
1:CA:201:G:H2'	1:CA:202:G:O4'	2.21	0.40
1:AA:995:C:N3	1:AA:1046:A:O2'	2.45	0.40
24:BA:2298:A:C6	24:BA:2299:U:C2	3.09	0.40
1:CA:861:G:C6	1:CA:862:C:C4	3.09	0.40
24:DA:1339:G:N2	24:DA:1603:A:H1'	2.37	0.40
24:DA:1737:G:C2'	24:DA:1738:G:C4	2.94	0.40
24:DA:2653:U:H5''	24:DA:2654:A:P	2.61	0.40
18:AR:55:LEU:HG	18:AR:55:LEU:O	2.21	0.40
1:AA:244:U:C5	1:AA:894:G:C2	3.09	0.40
3:AC:73:PRO:HB2	3:AC:77:ILE:HG12	2.03	0.40
36:DM:53:MET:HG3	36:DM:54:THR:N	2.36	0.40
24:DA:861:A:C2	24:DA:917:A:C4	3.10	0.40
40:DQ:80:ASN:ND2	40:DQ:83:LYS:HE2	2.36	0.40
41:DR:39:LEU:O	41:DR:40:MET:CB	2.67	0.40
31:BH:31:VAL:C	31:BH:33:GLN:H	2.24	0.40
24:BA:500:G:N1	24:BA:503:A:OP2	2.55	0.40
44:BU:57:ILE:O	44:BU:57:ILE:HG22	2.21	0.40
47:DX:65:THR:HG23	47:DX:66:VAL:N	2.37	0.40
1:CA:1187:G:H2'	1:CA:1188:A:O4'	2.22	0.40
24:BA:1078:U:H5''	24:BA:1079:C:O5'	2.22	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:218:ALA:CA	2:AB:221:VAL:HG12	2.51	0.40
27:BD:125:TRP:CE2	27:BD:160:LYS:HD3	2.57	0.40
24:BA:300:A:H1'	24:BA:319:G:C1'	2.52	0.40
24:DA:167:A:H2'	24:DA:168:G:O4'	2.21	0.40
55:CY:42:VAL:HG13	55:CY:43:GLU:N	2.36	0.40
24:BA:1570:A:C6	24:BA:1571:A:C6	3.10	0.40
24:BA:1570:A:H2'	24:BA:1571:A:C8	2.57	0.40
1:AA:406:G:N3	1:AA:407:U:C6	2.89	0.40
1:AA:435:A:N1	1:AA:436:C:N3	2.69	0.40
24:DA:1553:A:C6	24:DA:1555:G:H1'	2.56	0.40
27:BD:8:LYS:CB	27:BD:201:LEU:HD11	2.52	0.40
26:DC:67:LYS:O	26:DC:68:ARG:HB2	2.20	0.40
24:BA:853:C:C4	24:BA:854:C:C5	3.09	0.40
45:DV:26:PHE:CD2	45:DV:44:HIS:HA	2.57	0.40
38:BO:33:ARG:O	38:BO:34:HIS:HB2	2.20	0.40
1:CA:272:C:C2'	1:CA:273:U:H5'	2.52	0.40
1:AA:78:A:C2	1:AA:92:U:O2	2.75	0.40
24:BA:2355:G:C5'	46:BW:24:LYS:HE2	2.47	0.40
4:CD:76:TYR:HD1	4:CD:76:TYR:C	2.23	0.40
46:DW:69:PHE:CD2	46:DW:80:ILE:CD1	3.05	0.40
5:AE:74:VAL:CG2	5:AE:75:ALA:N	2.85	0.40
1:CA:592:G:C2	1:CA:593:U:H1'	2.57	0.40
26:BC:245:THR:HG22	26:BC:246:PRO:CD	2.52	0.40
2:CB:91:PHE:N	2:CB:150:GLY:HA2	2.36	0.40
42:DS:73:LYS:CB	42:DS:106:VAL:HG13	2.48	0.40
24:BA:1493:C:H3'	24:BA:1494:A:H5'	2.03	0.40
24:BA:1494:A:C2	24:BA:1495:A:N9	2.90	0.40
24:DA:2039:U:O2'	24:DA:2040:G:C5'	2.70	0.40
4:AD:35:GLU:O	4:AD:36:GLN:C	2.59	0.40
1:AA:157:U:O2	1:AA:164:G:O6	2.40	0.40
24:DA:2660:A:H2'	24:DA:2661:G:C8	2.57	0.40
24:DA:2619:C:OP1	27:DD:157:LYS:HE3	2.21	0.40
24:BA:404:A:H5'	24:BA:406:G:O4'	2.22	0.40
17:AQ:78:VAL:HG12	17:AQ:79:VAL:N	2.37	0.40
24:BA:1668:A:H2	24:BA:1670:C:N3	2.18	0.40
24:BA:1627:G:N1	24:BA:1628:G:C5	2.90	0.40
1:AA:114:U:O2'	1:AA:115:G:O5'	2.39	0.40
8:CH:103:VAL:HG23	8:CH:104:VAL:N	2.37	0.40
24:DA:639:U:H2'	24:DA:640:C:C6	2.57	0.40
24:DA:1278:C:H2'	24:DA:1279:G:C8	2.57	0.40
24:DA:1429:G:O2'	24:DA:1430:G:H5'	2.22	0.40
1:CA:1026:G:O6	1:CA:1035:A:N1	2.55	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CK:17:SER:HB3	11:CK:79:ILE:H	1.85	0.40
45:DV:20:LEU:HD11	45:DV:41:GLU:HB2	2.03	0.40
11:AK:45:ALA:HB2	11:AK:69:ARG:HG3	2.04	0.40
24:BA:2842:G:C2	24:BA:2876:G:C2	3.09	0.40
24:BA:2603:G:C2'	24:BA:2604:U:O5'	2.69	0.40
24:DA:1934:C:H4'	24:DA:1974:C:O3'	2.21	0.40
6:AF:26:THR:O	6:AF:27:ALA:C	2.57	0.40
17:CQ:46:VAL:CG2	17:CQ:74:THR:HA	2.48	0.40
1:AA:125:U:N3	1:AA:126:G:N7	2.70	0.40
28:BE:149:ILE:CG1	28:BE:188:MET:CG	3.00	0.40
1:AA:1245:C:N3	1:AA:1246:A:C8	2.89	0.40
1:AA:460:A:N1	1:AA:461:A:C5	2.90	0.40
42:DS:55:ILE:CG1	42:DS:56:ALA:N	2.84	0.40
42:DS:66:ILE:HG13	42:DS:66:ILE:O	2.21	0.40
5:AE:136:VAL:C	5:AE:138:ARG:N	2.74	0.40
27:DD:85:ALA:O	27:DD:86:GLU:HB3	2.18	0.40
53:B3:6:VAL:HG11	53:B3:60:CYS:HB3	2.04	0.40
24:BA:137:U:O2'	24:BA:139:U:C2'	2.69	0.40
24:DA:1435:G:C4	24:DA:1436:G:C8	3.10	0.40
51:B1:18:HIS:CG	51:B1:40:PRO:HG2	2.57	0.40
1:CA:1261:A:C5	1:CA:1275:A:C5	3.10	0.40
3:CC:126:ARG:O	3:CC:127:ARG:CB	2.69	0.40
12:CL:36:ARG:HH12	12:CL:76:GLU:HB2	1.85	0.40
24:BA:2898:U:H2'	24:BA:2899:A:C8	2.56	0.40
5:CE:89:HIS:CE1	5:CE:138:ARG:HD3	2.57	0.40
26:DC:42:ARG:CA	26:DC:47:ARG:O	2.69	0.40
2:CB:21:ARG:NE	2:CB:21:ARG:HA	2.35	0.40
1:AA:1114:C:N3	1:AA:1115:U:C4	2.90	0.40
7:AG:46:ALA:HB2	7:AG:117:ALA:O	2.21	0.40
1:CA:1480:A:C6	1:CA:1481:U:C4	3.09	0.40
20:CT:3:ASN:C	20:CT:4:ILE:O	2.60	0.40
40:BQ:16:ILE:HG23	40:BQ:38:VAL:HG11	2.03	0.40
16:AP:59:HIS:O	16:AP:62:GLY:N	2.55	0.40
24:BA:734:A:C4	24:BA:735:A:C8	3.09	0.40
24:DA:473:G:H2'	24:DA:473:G:N3	2.35	0.40
15:AO:60:VAL:O	15:AO:61:SER:C	2.59	0.40
24:DA:2096:C:H2'	24:DA:2097:A:O4'	2.22	0.40
1:AA:1509:C:C2'	1:AA:1509:C:O2	2.69	0.40
24:BA:1963:U:H3'	24:BA:1963:U:C6	2.57	0.40
24:BA:1829:A:C8	24:BA:1830:C:C5	3.10	0.40
1:CA:881:G:C5	1:CA:882:C:C5	3.10	0.40
24:DA:2830:C:H5''	27:DD:56:LYS:HD2	2.02	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1234:U:H2'	24:BA:1235:G:O4'	2.22	0.40
3:CC:144:LEU:O	3:CC:145:GLY:C	2.59	0.40
24:BA:2224:G:H4'	24:BA:2226:C:C2	2.56	0.40
24:BA:2226:C:H2'	24:BA:2226:C:O2	2.21	0.40
15:AO:17:ARG:O	15:AO:18:ASP:CG	2.60	0.40
35:DL:11:GLY:O	35:DL:12:SER:O	2.39	0.40
24:DA:1207:C:H6	24:DA:1207:C:O5'	2.05	0.40
33:DJ:72:LYS:HD3	33:DJ:74:TYR:CE1	2.56	0.40
25:DB:117:G:C6	25:DB:118:C:C4	3.10	0.40
38:DO:22:GLY:O	38:DO:42:PRO:HB3	2.21	0.40
28:DE:193:VAL:O	28:DE:197:GLU:OE1	2.40	0.40

All (3) 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	Distance(Å)	Clash(Å)
31:BH:123:ARG:NH2	1:CA:358:U:OP1[4_555]	2.07	0.13
24:BA:2152:G:N2	1:CA:416:G:OP1[4_555]	2.15	0.05
24:DA:544:C:OP2	45:DV:34:LYS:NZ[4_545]	2.16	0.04

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	216/241 (90%)	106 (49%)	51 (24%)	59 (27%)	0	0
2	CB	216/241 (90%)	110 (51%)	51 (24%)	55 (26%)	0	0
3	AC	204/233 (88%)	124 (61%)	46 (22%)	34 (17%)	0	1
3	CC	204/233 (88%)	122 (60%)	48 (24%)	34 (17%)	0	1
4	AD	203/206 (98%)	100 (49%)	48 (24%)	55 (27%)	0	0
4	CD	203/206 (98%)	92 (45%)	49 (24%)	62 (30%)	0	0
5	AE	148/167 (89%)	86 (58%)	30 (20%)	32 (22%)	0	1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
5	CE	148/167 (89%)	106 (72%)	22 (15%)	20 (14%)	0	3
6	AF	98/135 (73%)	53 (54%)	27 (28%)	18 (18%)	0	1
6	CF	98/135 (73%)	47 (48%)	22 (22%)	29 (30%)	0	0
7	AG	149/179 (83%)	92 (62%)	33 (22%)	24 (16%)	0	1
7	CG	149/179 (83%)	65 (44%)	46 (31%)	38 (26%)	0	0
8	AH	127/130 (98%)	62 (49%)	37 (29%)	28 (22%)	0	0
8	CH	127/130 (98%)	80 (63%)	28 (22%)	19 (15%)	0	2
9	AI	125/130 (96%)	60 (48%)	36 (29%)	29 (23%)	0	0
9	CI	125/130 (96%)	61 (49%)	36 (29%)	28 (22%)	0	0
10	AJ	96/103 (93%)	62 (65%)	22 (23%)	12 (12%)	1	4
10	CJ	96/103 (93%)	55 (57%)	21 (22%)	20 (21%)	0	1
11	AK	115/129 (89%)	76 (66%)	19 (16%)	20 (17%)	0	1
11	CK	115/129 (89%)	52 (45%)	40 (35%)	23 (20%)	0	1
12	AL	121/124 (98%)	58 (48%)	28 (23%)	35 (29%)	0	0
12	CL	121/124 (98%)	72 (60%)	26 (22%)	23 (19%)	0	1
13	AM	112/118 (95%)	65 (58%)	19 (17%)	28 (25%)	0	0
13	CM	112/118 (95%)	55 (49%)	22 (20%)	35 (31%)	0	0
14	AN	92/101 (91%)	50 (54%)	21 (23%)	21 (23%)	0	0
14	CN	92/101 (91%)	64 (70%)	11 (12%)	17 (18%)	0	1
15	AO	86/89 (97%)	52 (60%)	20 (23%)	14 (16%)	0	1
15	CO	86/89 (97%)	42 (49%)	23 (27%)	21 (24%)	0	0
16	AP	80/82 (98%)	35 (44%)	27 (34%)	18 (22%)	0	0
16	CP	80/82 (98%)	39 (49%)	23 (29%)	18 (22%)	0	0
17	AQ	78/84 (93%)	40 (51%)	20 (26%)	18 (23%)	0	0
17	CQ	78/84 (93%)	51 (65%)	12 (15%)	15 (19%)	0	1
18	AR	53/75 (71%)	31 (58%)	8 (15%)	14 (26%)	0	0
18	CR	53/75 (71%)	28 (53%)	12 (23%)	13 (24%)	0	0
19	AS	77/92 (84%)	43 (56%)	23 (30%)	11 (14%)	0	2
19	CS	77/92 (84%)	35 (46%)	23 (30%)	19 (25%)	0	0
20	AT	83/87 (95%)	45 (54%)	23 (28%)	15 (18%)	0	1
20	CT	83/87 (95%)	42 (51%)	22 (26%)	19 (23%)	0	0

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
21	AU	49/71 (69%)	18 (37%)	16 (33%)	15 (31%)	0	0
21	CU	49/71 (69%)	23 (47%)	14 (29%)	12 (24%)	0	0
26	BC	269/273 (98%)	171 (64%)	48 (18%)	50 (19%)	0	1
26	DC	269/273 (98%)	187 (70%)	51 (19%)	31 (12%)	1	5
27	BD	207/209 (99%)	159 (77%)	29 (14%)	19 (9%)	1	9
27	DD	207/209 (99%)	159 (77%)	33 (16%)	15 (7%)	2	16
28	BE	199/201 (99%)	126 (63%)	49 (25%)	24 (12%)	1	4
28	DE	199/201 (99%)	131 (66%)	53 (27%)	15 (8%)	2	15
29	BF	175/179 (98%)	104 (59%)	44 (25%)	27 (15%)	0	1
29	DF	175/179 (98%)	96 (55%)	39 (22%)	40 (23%)	0	0
30	BG	174/177 (98%)	107 (62%)	43 (25%)	24 (14%)	0	2
30	DG	174/177 (98%)	127 (73%)	27 (16%)	20 (12%)	1	5
31	BH	147/149 (99%)	82 (56%)	39 (26%)	26 (18%)	0	1
31	DH	147/149 (99%)	67 (46%)	37 (25%)	43 (29%)	0	0
32	BI	139/142 (98%)	77 (55%)	45 (32%)	17 (12%)	1	4
32	DI	139/142 (98%)	65 (47%)	39 (28%)	35 (25%)	0	0
33	BJ	140/142 (99%)	108 (77%)	19 (14%)	13 (9%)	1	9
33	DJ	140/142 (99%)	110 (79%)	25 (18%)	5 (4%)	5	40
34	BK	120/123 (98%)	77 (64%)	29 (24%)	14 (12%)	1	5
34	DK	120/123 (98%)	95 (79%)	18 (15%)	7 (6%)	3	23
35	BL	141/144 (98%)	84 (60%)	35 (25%)	22 (16%)	0	1
35	DL	141/144 (98%)	98 (70%)	29 (21%)	14 (10%)	1	8
36	BM	134/136 (98%)	94 (70%)	27 (20%)	13 (10%)	1	8
36	DM	134/136 (98%)	94 (70%)	28 (21%)	12 (9%)	1	10
37	BN	118/127 (93%)	72 (61%)	30 (25%)	16 (14%)	0	3
37	DN	118/127 (93%)	84 (71%)	22 (19%)	12 (10%)	1	7
38	BO	114/117 (97%)	65 (57%)	30 (26%)	19 (17%)	0	1
38	DO	114/117 (97%)	64 (56%)	25 (22%)	25 (22%)	0	0
39	BP	112/115 (97%)	80 (71%)	18 (16%)	14 (12%)	1	4
39	DP	112/115 (97%)	92 (82%)	12 (11%)	8 (7%)	2	17
40	BQ	115/118 (98%)	98 (85%)	13 (11%)	4 (4%)	6	41

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
40	DQ	115/118 (98%)	89 (77%)	16 (14%)	10 (9%)	1	11
41	BR	101/103 (98%)	76 (75%)	18 (18%)	7 (7%)	2	17
41	DR	101/103 (98%)	67 (66%)	23 (23%)	11 (11%)	1	6
42	BS	108/110 (98%)	68 (63%)	22 (20%)	18 (17%)	0	1
42	DS	108/110 (98%)	77 (71%)	21 (19%)	10 (9%)	1	9
43	BT	91/100 (91%)	54 (59%)	26 (29%)	11 (12%)	1	4
43	DT	91/100 (91%)	60 (66%)	18 (20%)	13 (14%)	0	2
44	BU	100/104 (96%)	55 (55%)	21 (21%)	24 (24%)	0	0
44	DU	100/104 (96%)	73 (73%)	12 (12%)	15 (15%)	0	2
45	BV	92/94 (98%)	50 (54%)	26 (28%)	16 (17%)	0	1
45	DV	92/94 (98%)	79 (86%)	4 (4%)	9 (10%)	1	8
46	BW	73/85 (86%)	56 (77%)	9 (12%)	8 (11%)	1	6
46	DW	74/85 (87%)	51 (69%)	14 (19%)	9 (12%)	1	4
47	BX	75/78 (96%)	55 (73%)	10 (13%)	10 (13%)	0	3
47	DX	75/78 (96%)	51 (68%)	14 (19%)	10 (13%)	0	3
48	BY	61/63 (97%)	38 (62%)	17 (28%)	6 (10%)	1	8
48	DY	61/63 (97%)	31 (51%)	19 (31%)	11 (18%)	0	1
49	BZ	56/59 (95%)	42 (75%)	12 (21%)	2 (4%)	5	40
49	DZ	56/59 (95%)	37 (66%)	16 (29%)	3 (5%)	3	26
50	B0	54/57 (95%)	34 (63%)	9 (17%)	11 (20%)	0	1
50	D0	54/57 (95%)	36 (67%)	10 (18%)	8 (15%)	0	2
51	B1	48/55 (87%)	29 (60%)	15 (31%)	4 (8%)	1	12
51	D1	48/55 (87%)	28 (58%)	10 (21%)	10 (21%)	0	1
52	B2	44/46 (96%)	29 (66%)	8 (18%)	7 (16%)	0	1
52	D2	44/46 (96%)	31 (70%)	10 (23%)	3 (7%)	2	18
53	B3	62/65 (95%)	47 (76%)	9 (14%)	6 (10%)	1	8
53	D3	62/65 (95%)	47 (76%)	7 (11%)	8 (13%)	0	3
54	B4	36/38 (95%)	27 (75%)	7 (19%)	2 (6%)	3	25
54	D4	36/38 (95%)	26 (72%)	7 (19%)	3 (8%)	1	12
55	CY	181/185 (98%)	99 (55%)	52 (29%)	30 (17%)	0	1
All	All	11416/12155 (94%)	7014 (61%)	2503 (22%)	1899 (17%)	0	1

All (1899) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	11	LYS
2	AB	16	PHE
2	AB	23	TRP
2	AB	58	ASN
2	AB	64	LYS
2	AB	67	ILE
2	AB	73	LYS
2	AB	86	SER
2	AB	87	CYS
2	AB	120	GLN
2	AB	121	SER
2	AB	144	LEU
2	AB	148	LEU
2	AB	149	GLY
2	AB	152	LYS
2	AB	158	PRO
2	AB	159	ASP
2	AB	166	ALA
2	AB	170	HIS
2	AB	193	PRO
2	AB	201	PRO
2	AB	208	ARG
2	AB	222	ARG
3	AC	8	ASN
3	AC	54	ARG
3	AC	60	PRO
3	AC	74	GLY
3	AC	75	ILE
3	AC	98	PRO
3	AC	99	ALA
3	AC	107	ARG
3	AC	108	LYS
3	AC	146	ALA
3	AC	156	ARG
4	AD	7	PRO
4	AD	9	LEU
4	AD	10	LYS
4	AD	15	GLU
4	AD	22	LYS
4	AD	23	SER
4	AD	24	GLY
4	AD	26	ARG

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Mol	Chain	Res	Type
4	AD	30	THR
4	AD	33	LYS
4	AD	34	ILE
4	AD	36	GLN
4	AD	37	ALA
4	AD	92	ALA
4	AD	110	THR
4	AD	121	LYS
4	AD	132	ILE
4	AD	133	ALA
4	AD	134	SER
4	AD	139	PRO
4	AD	141	ASP
4	AD	143	VAL
4	AD	145	ILE
4	AD	146	ARG
4	AD	166	GLU
4	AD	167	LYS
4	AD	178	MET
4	AD	179	GLU
4	AD	189	SER
5	AE	26	LYS
5	AE	41	ASP
5	AE	45	ARG
5	AE	50	TYR
5	AE	69	ARG
5	AE	70	ASN
5	AE	100	SER
5	AE	102	GLY
5	AE	108	GLY
5	AE	110	ALA
5	AE	123	VAL
5	AE	126	LYS
5	AE	127	ALA
5	AE	132	ASN
5	AE	134	ILE
5	AE	142	ASP
5	AE	157	ARG
5	AE	158	GLY
6	AF	12	PRO
6	AF	26	THR
6	AF	71	ILE

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Mol	Chain	Res	Type
6	AF	77	THR
6	AF	78	PHE
6	AF	85	ILE
6	AF	91	ARG
6	AF	92	THR
6	AF	93	LYS
6	AF	99	ALA
7	AG	6	VAL
7	AG	22	LEU
7	AG	23	LEU
7	AG	27	VAL
7	AG	57	SER
7	AG	143	ARG
8	AH	21	ASN
8	AH	30	SER
8	AH	32	LEU
8	AH	36	ILE
8	AH	37	ALA
8	AH	40	LEU
8	AH	69	LYS
8	AH	75	ILE
8	AH	83	LEU
8	AH	87	LYS
8	AH	97	ALA
8	AH	103	VAL
8	AH	126	ILE
9	AI	34	SER
9	AI	36	GLU
9	AI	38	TYR
9	AI	43	THR
9	AI	46	MET
9	AI	52	LEU
9	AI	55	VAL
9	AI	57	MET
9	AI	86	ALA
9	AI	87	LEU
9	AI	119	ARG
10	AJ	24	GLU
10	AJ	35	GLN
10	AJ	36	VAL
10	AJ	57	VAL
11	AK	14	LYS

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Mol	Chain	Res	Type
11	AK	17	SER
11	AK	40	ASN
11	AK	41	ALA
11	AK	49	GLY
11	AK	52	PHE
11	AK	57	LYS
11	AK	65	VAL
11	AK	106	ARG
11	AK	125	LYS
11	AK	127	ARG
12	AL	4	VAL
12	AL	10	LYS
12	AL	24	LEU
12	AL	26	ALA
12	AL	35	THR
12	AL	39	THR
12	AL	42	PRO
12	AL	44	LYS
12	AL	58	THR
12	AL	86	ARG
12	AL	107	VAL
12	AL	115	SER
12	AL	117	TYR
12	AL	119	VAL
12	AL	122	PRO
13	AM	13	LYS
13	AM	14	HIS
13	AM	21	SER
13	AM	32	ALA
13	AM	67	GLY
13	AM	77	ILE
13	AM	78	LYS
13	AM	85	CYS
13	AM	107	ARG
13	AM	114	LYS
14	AN	25	GLU
14	AN	26	LEU
14	AN	28	ALA
14	AN	33	VAL
14	AN	34	ASN
14	AN	42	TRP
14	AN	48	LEU

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Mol	Chain	Res	Type
14	AN	58	SER
14	AN	81	ARG
15	AO	19	ALA
15	AO	34	ALA
15	AO	47	LYS
15	AO	79	THR
15	AO	85	LEU
15	AO	88	ARG
16	AP	2	VAL
16	AP	27	ALA
16	AP	32	PHE
16	AP	37	GLY
16	AP	43	ALA
16	AP	44	SER
17	AQ	17	MET
17	AQ	19	LYS
17	AQ	21	ILE
17	AQ	29	VAL
17	AQ	50	ASN
17	AQ	59	VAL
18	AR	21	ILE
18	AR	26	ILE
18	AR	28	THR
18	AR	29	LEU
18	AR	47	THR
18	AR	48	ARG
18	AR	49	ALA
18	AR	71	THR
19	AS	18	LYS
19	AS	30	PRO
19	AS	42	PRO
20	AT	4	ILE
20	AT	6	SER
20	AT	8	LYS
20	AT	48	GLN
20	AT	49	LYS
20	AT	71	LYS
20	AT	78	ASN
20	AT	79	LEU
21	AU	11	PRO
21	AU	35	ARG
21	AU	40	LYS

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Mol	Chain	Res	Type
26	BC	12	ARG
26	BC	18	VAL
26	BC	44	ASN
26	BC	52	HIS
26	BC	58	LYS
26	BC	59	GLN
26	BC	107	LYS
26	BC	108	GLY
26	BC	125	PRO
26	BC	130	PRO
26	BC	133	ASN
26	BC	136	VAL
26	BC	156	SER
26	BC	185	ALA
26	BC	188	ARG
26	BC	189	ALA
26	BC	195	GLY
26	BC	198	GLU
26	BC	215	VAL
26	BC	260	LYS
27	BD	57	ALA
27	BD	99	GLU
27	BD	102	ALA
27	BD	105	LYS
27	BD	138	LEU
27	BD	142	VAL
27	BD	152	PRO
27	BD	194	PRO
27	BD	206	ALA
28	BE	8	ALA
28	BE	9	GLN
28	BE	61	ARG
28	BE	83	VAL
28	BE	84	THR
28	BE	95	LYS
28	BE	104	ALA
28	BE	131	THR
28	BE	137	LYS
28	BE	153	LEU
29	BF	71	LYS
29	BF	93	GLU
29	BF	94	ARG

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Mol	Chain	Res	Type
29	BF	101	ARG
29	BF	117	SER
29	BF	122	ASP
29	BF	139	GLU
29	BF	146	ASP
29	BF	159	ALA
29	BF	173	ASP
29	BF	175	PRO
30	BG	19	ASN
30	BG	80	GLU
30	BG	91	VAL
30	BG	92	GLY
30	BG	117	PRO
30	BG	119	GLY
30	BG	125	PRO
31	BH	3	VAL
31	BH	15	LEU
31	BH	27	ARG
31	BH	35	LYS
31	BH	55	GLU
31	BH	57	LYS
31	BH	83	LYS
31	BH	108	VAL
31	BH	113	SER
31	BH	114	GLU
31	BH	115	VAL
31	BH	120	GLY
31	BH	139	PHE
31	BH	141	LYS
32	BI	128	ILE
33	BJ	24	THR
33	BJ	25	LEU
33	BJ	81	ILE
33	BJ	109	LEU
33	BJ	110	PRO
33	BJ	131	ASN
34	BK	35	VAL
34	BK	93	GLN
34	BK	108	ARG
34	BK	119	ALA
35	BL	17	LYS
35	BL	30	THR

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Mol	Chain	Res	Type
35	BL	36	LYS
35	BL	54	GLN
35	BL	62	PRO
35	BL	81	ASP
35	BL	103	ILE
35	BL	111	ILE
35	BL	115	GLU
35	BL	116	VAL
35	BL	124	GLY
36	BM	57	VAL
36	BM	59	ARG
36	BM	81	ARG
36	BM	82	MET
37	BN	22	ARG
37	BN	23	ASN
37	BN	57	THR
37	BN	90	ARG
37	BN	119	SER
38	BO	5	SER
38	BO	7	ARG
38	BO	12	THR
38	BO	34	HIS
38	BO	35	ILE
38	BO	68	LYS
38	BO	95	SER
38	BO	100	HIS
38	BO	104	GLN
38	BO	113	ALA
39	BP	9	GLN
39	BP	65	ASN
39	BP	83	ILE
39	BP	84	SER
39	BP	93	LYS
39	BP	97	TYR
39	BP	110	LYS
40	BQ	85	ALA
40	BQ	86	SER
41	BR	79	ARG
42	BS	14	ALA
42	BS	36	LEU
42	BS	37	THR
42	BS	57	ASN

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Mol	Chain	Res	Type
42	BS	59	GLU
42	BS	62	ASP
42	BS	64	ALA
42	BS	71	VAL
43	BT	2	ILE
43	BT	30	ILE
43	BT	31	VAL
43	BT	36	LYS
43	BT	38	ALA
44	BU	7	ASP
44	BU	18	LYS
44	BU	24	VAL
44	BU	36	GLU
44	BU	38	ILE
44	BU	42	LYS
44	BU	67	SER
44	BU	70	ALA
44	BU	74	ALA
44	BU	86	PHE
44	BU	96	LYS
44	BU	99	SER
45	BV	14	LYS
45	BV	15	GLY
45	BV	44	HIS
45	BV	55	GLU
45	BV	84	PRO
46	BW	56	ASP
46	BW	76	ASN
46	BW	82	ILE
47	BX	9	LYS
47	BX	32	LEU
47	BX	46	VAL
48	BY	7	ARG
48	BY	25	GLN
49	BZ	38	GLU
50	B0	3	GLN
50	B0	25	THR
50	B0	26	SER
50	B0	40	HIS
50	B0	54	ILE
51	B1	12	SER
51	B1	29	LYS

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Mol	Chain	Res	Type
52	B2	45	SER
53	B3	27	ASN
53	B3	57	VAL
54	B4	10	LEU
2	CB	11	LYS
2	CB	23	TRP
2	CB	31	ILE
2	CB	34	ALA
2	CB	39	HIS
2	CB	51	ASN
2	CB	52	GLU
2	CB	67	ILE
2	CB	68	LEU
2	CB	101	LEU
2	CB	102	THR
2	CB	112	LYS
2	CB	120	GLN
2	CB	127	ASP
2	CB	134	ALA
2	CB	147	SER
2	CB	148	LEU
2	CB	151	ILE
2	CB	158	PRO
2	CB	160	ALA
2	CB	170	HIS
2	CB	182	PRO
2	CB	183	VAL
2	CB	194	ASP
2	CB	201	PRO
2	CB	206	ALA
2	CB	207	ILE
3	CC	9	GLY
3	CC	39	VAL
3	CC	40	ARG
3	CC	45	LYS
3	CC	46	GLU
3	CC	54	ARG
3	CC	61	ALA
3	CC	62	LYS
3	CC	66	VAL
3	CC	121	THR
3	CC	127	ARG

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Mol	Chain	Res	Type
3	CC	129	MET
3	CC	160	ALA
3	CC	190	HIS
4	CD	4	TYR
4	CD	7	PRO
4	CD	9	LEU
4	CD	10	LYS
4	CD	18	ASP
4	CD	20	PHE
4	CD	28	ILE
4	CD	44	ARG
4	CD	58	LYS
4	CD	78	GLU
4	CD	81	ARG
4	CD	102	VAL
4	CD	107	PHE
4	CD	109	ALA
4	CD	110	THR
4	CD	111	ARG
4	CD	116	GLN
4	CD	117	LEU
4	CD	118	VAL
4	CD	125	VAL
4	CD	144	SER
4	CD	145	ILE
4	CD	148	LYS
4	CD	149	ALA
4	CD	154	ARG
4	CD	163	GLU
4	CD	166	GLU
4	CD	168	PRO
4	CD	169	THR
4	CD	183	LYS
4	CD	186	PRO
4	CD	187	GLU
4	CD	188	ARG
4	CD	191	LEU
4	CD	192	SER
5	CE	12	GLN
5	CE	26	LYS
5	CE	45	ARG
5	CE	78	ASN

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Mol	Chain	Res	Type
5	CE	101	GLU
5	CE	109	GLY
5	CE	120	VAL
5	CE	134	ILE
6	CF	16	GLU
6	CF	17	GLN
6	CF	21	MET
6	CF	22	ILE
6	CF	24	ARG
6	CF	25	TYR
6	CF	33	GLU
6	CF	57	ALA
6	CF	58	HIS
6	CF	63	ASN
6	CF	75	GLU
6	CF	82	ASP
6	CF	88	MET
6	CF	92	THR
6	CF	94	HIS
6	CF	99	ALA
7	CG	3	ARG
7	CG	22	LEU
7	CG	36	LYS
7	CG	37	SER
7	CG	42	ILE
7	CG	50	LEU
7	CG	70	ARG
7	CG	77	SER
7	CG	78	ARG
7	CG	82	GLY
7	CG	121	ALA
7	CG	146	GLU
7	CG	151	PHE
8	CH	23	ALA
8	CH	52	GLU
8	CH	54	ASP
8	CH	57	PRO
8	CH	59	LEU
8	CH	67	GLN
8	CH	74	SER
8	CH	83	LEU
8	CH	111	MET

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Mol	Chain	Res	Type
8	CH	116	ALA
9	CI	14	SER
9	CI	31	ASN
9	CI	40	GLY
9	CI	53	GLU
9	CI	54	LEU
9	CI	55	VAL
9	CI	58	VAL
9	CI	73	SER
9	CI	91	ASP
9	CI	113	ARG
9	CI	115	LYS
10	CJ	36	VAL
10	CJ	57	VAL
10	CJ	61	ALA
10	CJ	74	VAL
10	CJ	89	ARG
10	CJ	96	VAL
11	CK	14	LYS
11	CK	16	VAL
11	CK	25	ALA
11	CK	27	PHE
11	CK	28	ASN
11	CK	41	ALA
11	CK	45	ALA
11	CK	79	ILE
11	CK	91	PRO
11	CK	119	ASN
11	CK	125	LYS
11	CK	126	LYS
12	CL	19	SER
12	CL	24	LEU
12	CL	25	GLU
12	CL	26	ALA
12	CL	43	LYS
12	CL	44	LYS
12	CL	56	ARG
12	CL	57	LEU
12	CL	58	THR
12	CL	64	THR
12	CL	94	ARG
12	CL	105	SER

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Mol	Chain	Res	Type
13	CM	4	ILE
13	CM	5	ALA
13	CM	7	ILE
13	CM	25	VAL
13	CM	32	ALA
13	CM	33	ILE
13	CM	34	LEU
13	CM	37	ALA
13	CM	50	GLU
13	CM	66	GLU
13	CM	69	LEU
13	CM	70	ARG
13	CM	74	SER
13	CM	83	LEU
13	CM	96	PRO
13	CM	97	VAL
13	CM	105	ASN
13	CM	112	PRO
13	CM	113	ARG
14	CN	33	VAL
14	CN	42	TRP
14	CN	45	VAL
14	CN	46	LEU
14	CN	48	LEU
14	CN	57	PRO
14	CN	58	SER
14	CN	82	ILE
15	CO	3	LEU
15	CO	9	ALA
15	CO	10	LYS
15	CO	11	ILE
15	CO	27	VAL
15	CO	56	LEU
15	CO	57	LEU
16	CP	42	ILE
16	CP	53	ASP
17	CQ	13	VAL
17	CQ	17	MET
17	CQ	55	ILE
17	CQ	69	LYS
17	CQ	75	LEU
17	CQ	82	ALA

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Mol	Chain	Res	Type
18	CR	26	ILE
19	CS	4	SER
19	CS	5	LEU
19	CS	9	PRO
19	CS	28	LYS
19	CS	35	SER
19	CS	49	ILE
19	CS	67	VAL
19	CS	70	LYS
19	CS	75	ALA
20	CT	4	ILE
20	CT	6	SER
20	CT	20	HIS
20	CT	21	ASN
20	CT	45	ALA
20	CT	57	ILE
20	CT	58	VAL
21	CU	21	ARG
21	CU	25	LYS
21	CU	26	ALA
21	CU	34	ARG
21	CU	37	PHE
21	CU	38	TYR
21	CU	41	PRO
21	CU	42	THR
55	CY	49	THR
55	CY	51	LEU
55	CY	52	ARG
55	CY	112	ASP
55	CY	120	GLU
55	CY	146	LYS
55	CY	150	GLU
55	CY	155	ARG
55	CY	156	SER
26	DC	5	CYS
26	DC	8	THR
26	DC	29	PHE
26	DC	52	HIS
26	DC	81	GLU
26	DC	119	VAL
26	DC	121	ALA
26	DC	122	ALA

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Mol	Chain	Res	Type
26	DC	133	ASN
26	DC	172	THR
26	DC	176	ARG
26	DC	195	GLY
27	DD	7	LYS
27	DD	92	VAL
27	DD	94	GLN
27	DD	105	LYS
27	DD	134	HIS
27	DD	152	PRO
27	DD	197	THR
28	DE	4	VAL
28	DE	16	GLU
28	DE	49	ARG
28	DE	53	THR
28	DE	126	VAL
29	DF	8	LYS
29	DF	9	ASP
29	DF	33	ILE
29	DF	41	GLU
29	DF	46	LYS
29	DF	80	GLN
29	DF	88	VAL
29	DF	93	GLU
29	DF	120	SER
29	DF	124	ARG
29	DF	145	VAL
29	DF	153	ILE
29	DF	154	THR
29	DF	155	ILE
29	DF	175	PRO
30	DG	37	ASN
30	DG	60	GLY
30	DG	94	ARG
31	DH	3	VAL
31	DH	9	VAL
31	DH	10	ALA
31	DH	12	LEU
31	DH	14	SER
31	DH	15	LEU
31	DH	28	ASN
31	DH	30	LEU

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Mol	Chain	Res	Type
31	DH	41	LYS
31	DH	49	ALA
31	DH	50	ARG
31	DH	51	ARG
31	DH	71	LYS
31	DH	78	VAL
31	DH	84	ALA
31	DH	116	ARG
31	DH	121	VAL
31	DH	129	GLU
31	DH	134	VAL
31	DH	136	SER
31	DH	137	GLU
32	DI	9	LYS
32	DI	19	PRO
32	DI	20	SER
32	DI	23	VAL
32	DI	57	VAL
32	DI	62	ALA
32	DI	88	GLY
32	DI	89	SER
32	DI	97	VAL
32	DI	110	GLN
32	DI	112	LYS
32	DI	124	MET
32	DI	125	THR
33	DJ	6	ALA
34	DK	29	HIS
34	DK	92	GLU
34	DK	108	ARG
35	DL	12	SER
35	DL	36	LYS
35	DL	42	SER
35	DL	81	ASP
35	DL	88	GLY
35	DL	99	ASN
36	DM	26	VAL
36	DM	29	GLY
36	DM	69	PRO
36	DM	82	MET
36	DM	84	LYS
37	DN	14	SER

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Mol	Chain	Res	Type
37	DN	116	VAL
38	DO	13	ARG
38	DO	51	ALA
38	DO	76	LYS
38	DO	77	ALA
38	DO	88	LYS
38	DO	95	SER
38	DO	108	ASP
38	DO	111	ARG
39	DP	16	VAL
39	DP	93	LYS
39	DP	112	ARG
39	DP	113	LEU
40	DQ	38	VAL
40	DQ	73	ILE
41	DR	51	VAL
41	DR	52	PRO
41	DR	53	PHE
41	DR	57	GLY
42	DS	40	ASN
42	DS	46	LEU
42	DS	89	ALA
43	DT	5	GLU
43	DT	28	ASN
43	DT	36	LYS
43	DT	37	ASP
43	DT	52	GLU
43	DT	88	LYS
43	DT	92	ASN
44	DU	29	SER
44	DU	76	THR
44	DU	84	PHE
44	DU	85	ARG
45	DV	14	LYS
45	DV	24	ASN
46	DW	30	SER
46	DW	49	ALA
46	DW	52	GLY
47	DX	2	ARG
47	DX	42	GLU
47	DX	52	ALA
47	DX	53	LYS

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Mol	Chain	Res	Type
47	DX	60	LYS
47	DX	63	ILE
48	DY	22	LEU
48	DY	25	GLN
48	DY	37	LEU
48	DY	57	LEU
49	DZ	3	THR
50	D0	3	GLN
50	D0	23	ALA
50	D0	24	VAL
50	D0	25	THR
50	D0	26	SER
50	D0	28	SER
50	D0	54	ILE
51	D1	4	ILE
51	D1	31	GLU
51	D1	45	HIS
51	D1	50	GLU
52	D2	44	VAL
53	D3	15	LYS
53	D3	32	LEU
54	D4	30	GLU
2	AB	15	HIS
2	AB	19	GLN
2	AB	34	ALA
2	AB	42	ASN
2	AB	57	LEU
2	AB	61	ALA
2	AB	75	ALA
2	AB	98	GLY
2	AB	112	LYS
2	AB	126	PHE
2	AB	145	GLU
2	AB	151	ILE
2	AB	155	GLY
2	AB	207	ILE
2	AB	210	VAL
3	AC	15	VAL
3	AC	28	GLU
3	AC	66	VAL
3	AC	78	GLY
3	AC	80	LYS

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Mol	Chain	Res	Type
3	AC	141	ALA
4	AD	11	LEU
4	AD	41	HIS
4	AD	79	ALA
4	AD	80	ALA
4	AD	123	ILE
4	AD	128	ARG
4	AD	173	VAL
4	AD	182	PHE
4	AD	186	PRO
4	AD	188	ARG
4	AD	192	SER
4	AD	201	VAL
5	AE	12	GLN
5	AE	44	GLY
5	AE	83	HIS
5	AE	111	MET
5	AE	137	VAL
5	AE	138	ARG
6	AF	4	TYR
6	AF	33	GLU
6	AF	38	ARG
6	AF	43	GLY
6	AF	54	LEU
6	AF	56	LYS
7	AG	16	PRO
7	AG	26	PHE
7	AG	54	SER
7	AG	93	PRO
7	AG	111	ARG
7	AG	116	MET
7	AG	123	GLU
7	AG	126	ASP
7	AG	140	ASP
8	AH	14	ILE
8	AH	28	PRO
8	AH	38	ASN
8	AH	71	VAL
8	AH	88	ARG
8	AH	104	VAL
9	AI	9	THR
9	AI	24	GLY

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Mol	Chain	Res	Type
9	AI	53	GLU
9	AI	79	ILE
9	AI	101	ALA
9	AI	111	VAL
9	AI	116	VAL
9	AI	121	ALA
9	AI	125	PRO
10	AJ	11	LYS
10	AJ	70	HIS
10	AJ	93	ALA
11	AK	50	SER
11	AK	105	PHE
11	AK	114	THR
12	AL	5	ASN
12	AL	25	GLU
12	AL	51	LYS
12	AL	87	VAL
12	AL	92	GLY
12	AL	104	CYS
12	AL	110	ARG
12	AL	113	ALA
13	AM	4	ILE
13	AM	5	ALA
13	AM	11	ASP
13	AM	23	TYR
13	AM	38	GLY
13	AM	39	ILE
13	AM	66	GLU
13	AM	89	LEU
13	AM	98	ARG
13	AM	111	GLY
14	AN	27	LYS
14	AN	45	VAL
14	AN	46	LEU
14	AN	47	LYS
14	AN	57	PRO
14	AN	62	ASN
15	AO	3	LEU
15	AO	20	ASN
15	AO	24	SER
15	AO	33	THR
15	AO	74	ASP

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Mol	Chain	Res	Type
16	AP	22	ALA
16	AP	25	ARG
16	AP	53	ASP
16	AP	58	ALA
17	AQ	10	GLY
17	AQ	32	PRO
17	AQ	56	GLY
17	AQ	64	CYS
17	AQ	67	LEU
17	AQ	80	GLU
18	AR	54	GLN
18	AR	56	ALA
18	AR	72	ASP
19	AS	19	VAL
19	AS	77	THR
20	AT	35	VAL
20	AT	86	LEU
21	AU	12	PHE
21	AU	13	ASP
21	AU	23	CYS
21	AU	25	LYS
21	AU	27	GLY
21	AU	53	VAL
26	BC	40	GLY
26	BC	57	HIS
26	BC	121	ALA
26	BC	122	ALA
26	BC	123	ILE
26	BC	204	LEU
26	BC	221	GLY
26	BC	232	GLY
26	BC	233	GLY
26	BC	235	GLU
27	BD	98	VAL
27	BD	113	SER
27	BD	195	GLY
28	BE	72	SER
28	BE	96	VAL
28	BE	116	ASP
28	BE	154	ASP
28	BE	155	GLU
29	BF	30	VAL

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Mol	Chain	Res	Type
29	BF	43	ILE
29	BF	49	LEU
29	BF	72	SER
29	BF	99	PHE
29	BF	142	TYR
29	BF	144	LYS
29	BF	176	PHE
30	BG	39	ALA
30	BG	60	GLY
30	BG	149	ALA
30	BG	158	GLY
30	BG	174	LYS
31	BH	9	VAL
31	BH	14	SER
31	BH	30	LEU
31	BH	34	GLY
31	BH	89	LYS
31	BH	92	GLY
31	BH	118	PRO
31	BH	135	HIS
31	BH	138	VAL
32	BI	8	VAL
32	BI	36	GLU
32	BI	65	SER
32	BI	90	GLY
32	BI	92	PRO
33	BJ	78	THR
33	BJ	122	LEU
34	BK	48	PRO
34	BK	73	ASP
34	BK	101	GLY
34	BK	103	VAL
35	BL	43	GLY
35	BL	74	THR
35	BL	86	GLU
35	BL	114	GLY
35	BL	138	ALA
36	BM	3	GLN
36	BM	55	ARG
36	BM	65	ILE
37	BN	3	HIS
37	BN	7	GLY

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Mol	Chain	Res	Type
37	BN	70	THR
37	BN	71	ARG
37	BN	104	ALA
37	BN	118	ARG
38	BO	6	ALA
38	BO	69	ASP
38	BO	74	VAL
38	BO	81	ARG
39	BP	3	ILE
39	BP	10	GLU
39	BP	52	ARG
39	BP	104	GLY
40	BQ	6	GLY
40	BQ	78	PHE
41	BR	48	LYS
41	BR	53	PHE
41	BR	56	GLY
41	BR	57	GLY
42	BS	47	VAL
42	BS	63	GLY
43	BT	9	LYS
44	BU	8	ASP
44	BU	16	LYS
44	BU	37	GLY
44	BU	40	LEU
44	BU	50	ALA
44	BU	51	LEU
44	BU	69	VAL
45	BV	9	ARG
45	BV	12	GLN
45	BV	24	ASN
45	BV	53	LYS
45	BV	74	ALA
45	BV	75	GLN
45	BV	88	HIS
46	BW	12	ASN
46	BW	33	ALA
47	BX	8	GLY
47	BX	21	LEU
48	BY	61	ALA
48	BY	62	GLY
50	B0	23	ALA

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Mol	Chain	Res	Type
50	B0	32	THR
51	B1	13	SER
52	B2	36	ALA
2	CB	16	PHE
2	CB	35	ARG
2	CB	44	GLU
2	CB	45	LYS
2	CB	82	ASP
2	CB	87	CYS
2	CB	89	GLN
2	CB	108	ARG
2	CB	133	GLU
2	CB	143	LYS
2	CB	149	GLY
2	CB	152	LYS
2	CB	155	GLY
2	CB	193	PRO
2	CB	224	GLY
3	CC	20	SER
3	CC	36	ASP
3	CC	53	SER
3	CC	120	ILE
3	CC	141	ALA
3	CC	145	GLY
3	CC	166	GLU
3	CC	167	TRP
4	CD	5	LEU
4	CD	6	GLY
4	CD	8	LYS
4	CD	69	GLU
4	CD	97	ARG
4	CD	99	ASP
4	CD	100	ASN
4	CD	101	VAL
4	CD	126	ASN
4	CD	140	ASN
4	CD	147	GLU
4	CD	153	SER
4	CD	182	PHE
4	CD	195	ILE
4	CD	201	VAL
5	CE	24	THR

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Mol	Chain	Res	Type
5	CE	110	ALA
5	CE	135	ASN
5	CE	158	GLY
6	CF	2	ARG
6	CF	15	SER
6	CF	23	GLU
6	CF	43	GLY
6	CF	70	VAL
6	CF	71	ILE
6	CF	98	GLU
7	CG	18	PHE
7	CG	27	VAL
7	CG	34	GLY
7	CG	54	SER
7	CG	98	ALA
7	CG	99	LEU
7	CG	114	LYS
7	CG	120	LEU
7	CG	135	VAL
7	CG	149	LYS
8	CH	30	SER
8	CH	81	PRO
8	CH	82	GLY
8	CH	104	VAL
8	CH	110	VAL
8	CH	118	GLN
9	CI	10	GLY
9	CI	13	LYS
9	CI	38	TYR
9	CI	41	ARG
9	CI	43	THR
9	CI	44	ALA
9	CI	78	ALA
9	CI	80	ARG
9	CI	96	SER
9	CI	109	ARG
10	CJ	6	ILE
10	CJ	17	LEU
10	CJ	23	ALA
10	CJ	76	ILE
10	CJ	79	PRO
10	CJ	86	ALA

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Mol	Chain	Res	Type
11	CK	52	PHE
11	CK	82	LEU
11	CK	90	GLY
12	CL	63	VAL
12	CL	76	GLU
12	CL	118	GLY
13	CM	17	ILE
13	CM	27	LYS
13	CM	28	THR
13	CM	35	ALA
13	CM	40	ALA
13	CM	41	GLU
13	CM	44	LYS
13	CM	51	GLY
13	CM	55	THR
13	CM	56	LEU
13	CM	67	GLY
13	CM	88	GLY
14	CN	25	GLU
14	CN	32	ASP
14	CN	54	ASP
15	CO	24	SER
15	CO	55	GLY
15	CO	74	ASP
16	CP	23	ASP
16	CP	44	SER
16	CP	52	LEU
16	CP	62	GLY
16	CP	67	ILE
16	CP	69	ASP
17	CQ	6	ARG
17	CQ	50	ASN
17	CQ	70	THR
18	CR	28	THR
18	CR	30	LYS
18	CR	32	TYR
18	CR	46	GLY
18	CR	58	ALA
19	CS	17	LYS
19	CS	37	ARG
19	CS	43	ASN
19	CS	45	ILE

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Mol	Chain	Res	Type
20	CT	34	LYS
21	CU	9	ASN
21	CU	12	PHE
55	CY	31	ARG
55	CY	53	GLN
55	CY	86	ASP
55	CY	96	SER
55	CY	99	ARG
55	CY	107	GLU
55	CY	111	LYS
55	CY	133	ARG
55	CY	165	ASP
26	DC	12	ARG
26	DC	73	ILE
26	DC	150	GLY
26	DC	158	GLY
26	DC	259	ASN
26	DC	260	LYS
27	DD	31	ALA
27	DD	104	VAL
27	DD	113	SER
27	DD	187	LEU
28	DE	61	ARG
28	DE	86	ALA
28	DE	133	LEU
28	DE	155	GLU
29	DF	13	LYS
29	DF	38	GLY
29	DF	40	GLY
29	DF	48	LEU
29	DF	59	ILE
29	DF	92	GLY
29	DF	106	ALA
29	DF	114	ARG
29	DF	135	ILE
30	DG	57	TYR
30	DG	58	ALA
30	DG	78	VAL
30	DG	79	THR
30	DG	81	GLY
30	DG	99	GLY
30	DG	108	PHE

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Mol	Chain	Res	Type
30	DG	174	LYS
31	DH	34	GLY
31	DH	35	LYS
31	DH	72	ILE
31	DH	88	GLY
31	DH	115	VAL
31	DH	120	GLY
31	DH	122	LEU
31	DH	142	VAL
31	DH	143	ILE
31	DH	148	ALA
32	DI	11	GLN
32	DI	28	GLY
32	DI	48	ILE
32	DI	90	GLY
32	DI	116	MET
33	DJ	33	ALA
34	DK	5	GLN
34	DK	28	SER
34	DK	98	ARG
35	DL	17	LYS
35	DL	18	ARG
36	DM	56	ALA
37	DN	2	ARG
37	DN	3	HIS
37	DN	15	SER
37	DN	34	ILE
37	DN	70	THR
38	DO	4	LYS
38	DO	27	VAL
38	DO	55	GLU
38	DO	89	ASP
38	DO	99	TYR
39	DP	52	ARG
39	DP	110	LYS
40	DQ	23	TYR
40	DQ	26	ALA
40	DQ	42	GLY
40	DQ	59	LEU
40	DQ	72	GLY
40	DQ	94	LEU
40	DQ	103	VAL

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Mol	Chain	Res	Type
41	DR	24	LYS
41	DR	29	THR
41	DR	56	GLY
42	DS	25	ARG
42	DS	45	VAL
42	DS	88	ARG
43	DT	38	ALA
43	DT	42	GLU
43	DT	89	GLU
44	DU	4	ILE
44	DU	6	ARG
44	DU	7	ASP
44	DU	8	ASP
44	DU	16	LYS
44	DU	36	GLU
44	DU	55	GLY
44	DU	74	ALA
45	DV	15	GLY
45	DV	33	GLY
46	DW	11	ARG
46	DW	31	VAL
48	DY	14	LEU
48	DY	17	GLU
48	DY	41	HIS
49	DZ	14	GLY
49	DZ	51	SER
50	D0	55	ALA
51	D1	29	LYS
51	D1	39	ASP
51	D1	46	VAL
53	D3	27	ASN
2	AB	48	PRO
2	AB	59	LYS
2	AB	76	ALA
2	AB	119	THR
2	AB	143	LYS
2	AB	164	ILE
2	AB	167	ASP
2	AB	194	ASP
2	AB	220	THR
3	AC	31	ASP
3	AC	63	SER

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Mol	Chain	Res	Type
3	AC	129	MET
4	AD	111	ARG
4	AD	149	ALA
4	AD	169	THR
4	AD	174	ASP
5	AE	98	PRO
5	AE	103	THR
6	AF	53	LYS
7	AG	41	SER
7	AG	94	VAL
7	AG	96	ARG
7	AG	130	ASN
7	AG	149	LYS
8	AH	13	ARG
8	AH	46	ILE
8	AH	57	PRO
9	AI	45	ARG
9	AI	78	ALA
9	AI	114	LYS
10	AJ	88	MET
11	AK	15	GLN
11	AK	47	ALA
11	AK	93	ARG
12	AL	17	ALA
12	AL	20	ASN
12	AL	59	ASN
12	AL	105	SER
12	AL	108	LYS
13	AM	22	ILE
13	AM	43	VAL
13	AM	62	LYS
13	AM	65	VAL
14	AN	20	PHE
14	AN	21	ALA
15	AO	78	TYR
16	AP	13	LYS
16	AP	16	PHE
16	AP	23	ASP
16	AP	36	VAL
16	AP	45	GLU
17	AQ	30	LYS
18	AR	46	GLY

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Mol	Chain	Res	Type
20	AT	45	ALA
20	AT	69	LYS
20	AT	70	ASN
21	AU	24	GLU
26	BC	51	ARG
26	BC	113	ASP
26	BC	183	VAL
26	BC	197	ALA
26	BC	200	MET
26	BC	211	ARG
26	BC	247	TRP
27	BD	121	THR
27	BD	183	GLU
28	BE	18	THR
28	BE	129	PRO
29	BF	28	PRO
29	BF	136	ILE
29	BF	138	PRO
30	BG	38	ASP
31	BH	137	GLU
32	BI	20	SER
32	BI	83	ALA
32	BI	87	SER
32	BI	101	SER
34	BK	89	ASN
34	BK	91	SER
35	BL	80	SER
35	BL	104	GLN
35	BL	142	ILE
36	BM	5	LYS
37	BN	44	LEU
38	BO	103	VAL
41	BR	7	SER
41	BR	51	VAL
42	BS	22	ASP
42	BS	40	ASN
42	BS	43	ALA
43	BT	56	GLU
44	BU	55	GLY
44	BU	88	ASP
44	BU	98	ASN
46	BW	37	ILE

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Mol	Chain	Res	Type
47	BX	2	ARG
47	BX	20	ALA
47	BX	39	VAL
47	BX	73	ARG
48	BY	53	VAL
50	B0	55	ALA
52	B2	4	THR
52	B2	25	LYS
53	B3	20	GLY
53	B3	58	ILE
54	B4	37	GLN
2	CB	74	ARG
2	CB	105	LYS
2	CB	107	VAL
2	CB	115	LYS
2	CB	150	GLY
2	CB	208	ARG
3	CC	18	TRP
3	CC	25	ASN
3	CC	67	THR
3	CC	146	ALA
3	CC	161	GLU
4	CD	3	ARG
4	CD	32	CYS
4	CD	38	PRO
4	CD	93	LEU
4	CD	167	LYS
5	CE	69	ARG
5	CE	70	ASN
5	CE	90	THR
5	CE	99	ALA
6	CF	13	ASP
6	CF	18	VAL
6	CF	81	ASN
6	CF	97	THR
7	CG	81	GLY
7	CG	122	ASN
7	CG	150	ALA
8	CH	29	SER
8	CH	124	GLU
9	CI	32	GLN
9	CI	107	ASP

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Mol	Chain	Res	Type
10	CJ	16	ARG
10	CJ	32	THR
10	CJ	91	ASP
10	CJ	100	ILE
12	CL	90	LEU
12	CL	91	PRO
12	CL	111	LYS
13	CM	3	ARG
13	CM	84	GLY
14	CN	2	LYS
14	CN	21	ALA
14	CN	62	ASN
14	CN	81	ARG
15	CO	17	ARG
15	CO	19	ALA
15	CO	47	LYS
15	CO	59	MET
16	CP	28	ARG
16	CP	55	ASP
17	CQ	18	GLU
17	CQ	51	ASN
17	CQ	52	GLU
17	CQ	81	LYS
18	CR	29	LEU
18	CR	45	THR
18	CR	48	ARG
19	CS	27	ASP
19	CS	59	PRO
20	CT	5	LYS
20	CT	47	ALA
20	CT	67	ILE
20	CT	73	ALA
21	CU	10	GLU
55	CY	103	PRO
55	CY	154	ARG
55	CY	164	THR
26	DC	79	ARG
26	DC	107	LYS
26	DC	123	ILE
26	DC	152	GLN
28	DE	57	LYS
28	DE	152	GLU

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Mol	Chain	Res	Type
28	DE	172	ALA
28	DE	173	THR
29	DF	20	ASN
29	DF	104	THR
29	DF	111	ARG
29	DF	146	ASP
30	DG	67	ALA
30	DG	117	PRO
30	DG	118	ALA
30	DG	125	PRO
31	DH	81	ALA
31	DH	97	ARG
31	DH	138	VAL
31	DH	146	VAL
32	DI	7	TYR
32	DI	27	LEU
32	DI	59	THR
32	DI	115	ASP
35	DL	29	LYS
35	DL	69	ARG
36	DM	14	LYS
36	DM	58	LYS
38	DO	12	THR
38	DO	54	VAL
38	DO	112	GLU
40	DQ	6	GLY
42	DS	15	GLN
44	DU	18	LYS
44	DU	75	ALA
45	DV	44	HIS
45	DV	46	LYS
45	DV	75	GLN
47	DX	19	HIS
47	DX	61	LYS
47	DX	74	GLY
48	DY	2	LYS
48	DY	51	ALA
51	D1	43	ARG
54	D4	32	LYS
54	D4	37	GLN
2	AB	95	ARG
2	AB	113	ARG

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Mol	Chain	Res	Type
2	AB	124	GLY
2	AB	132	LYS
3	AC	13	GLY
3	AC	43	LEU
3	AC	44	THR
3	AC	83	ASP
3	AC	117	ALA
3	AC	163	ALA
4	AD	5	LEU
4	AD	35	GLU
4	AD	94	LEU
4	AD	125	VAL
4	AD	144	SER
5	AE	122	ASN
5	AE	148	ASN
6	AF	63	ASN
7	AG	3	ARG
8	AH	33	LYS
8	AH	39	VAL
8	AH	68	GLY
8	AH	70	ALA
8	AH	96	MET
9	AI	58	VAL
9	AI	91	ASP
11	AK	89	PRO
12	AL	83	ARG
12	AL	103	ASP
12	AL	112	GLN
13	AM	24	GLY
13	AM	61	ALA
14	AN	75	ARG
15	AO	18	ASP
19	AS	43	ASN
20	AT	46	ALA
20	AT	63	ALA
21	AU	52	ALA
26	BC	5	CYS
26	BC	9	SER
26	BC	11	GLY
26	BC	269	ARG
27	BD	29	VAL
27	BD	104	VAL

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Mol	Chain	Res	Type
28	BE	97	ASN
28	BE	110	SER
29	BF	174	PHE
30	BG	54	ARG
30	BG	129	GLU
30	BG	139	VAL
30	BG	161	VAL
30	BG	175	LYS
31	BH	91	PHE
32	BI	3	LYS
32	BI	100	ILE
33	BJ	2	LYS
33	BJ	97	PRO
34	BK	5	GLN
36	BM	43	ALA
36	BM	102	LEU
37	BN	45	ARG
37	BN	117	ASP
38	BO	13	ARG
38	BO	62	LEU
39	BP	33	GLU
39	BP	53	GLY
39	BP	87	ARG
42	BS	56	ALA
43	BT	41	ALA
43	BT	65	GLY
45	BV	54	ALA
45	BV	80	HIS
46	BW	81	SER
48	BY	6	LEU
50	B0	49	ARG
50	B0	50	GLY
52	B2	5	PHE
3	CC	8	ASN
3	CC	16	LYS
4	CD	46	PRO
4	CD	90	LEU
4	CD	157	ALA
4	CD	193	ALA
6	CF	38	ARG
7	CG	11	LYS
7	CG	19	GLY

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Mol	Chain	Res	Type
7	CG	26	PHE
7	CG	67	GLU
7	CG	117	ALA
7	CG	136	LYS
9	CI	6	TYR
9	CI	11	ARG
10	CJ	42	LEU
10	CJ	93	ALA
11	CK	30	THR
11	CK	61	PHE
11	CK	81	ASN
11	CK	84	VAL
13	CM	63	PHE
14	CN	51	LEU
14	CN	55	SER
15	CO	58	ARG
15	CO	69	TYR
15	CO	83	GLU
16	CP	31	ARG
16	CP	41	PRO
16	CP	46	LYS
16	CP	54	LEU
18	CR	33	ILE
19	CS	47	LEU
20	CT	32	ILE
20	CT	66	LEU
20	CT	69	LYS
20	CT	70	ASN
55	CY	45	TYR
55	CY	106	THR
55	CY	134	ASP
55	CY	182	LEU
27	DD	41	ALA
28	DE	129	PRO
29	DF	162	ASP
30	DG	12	ALA
30	DG	106	LEU
30	DG	111	PRO
31	DH	106	ALA
32	DI	17	ALA
32	DI	22	PRO
32	DI	126	ARG

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Mol	Chain	Res	Type
33	DJ	34	ARG
35	DL	3	LEU
35	DL	15	ALA
35	DL	130	GLY
36	DM	8	LYS
36	DM	87	GLY
36	DM	122	ALA
37	DN	69	ARG
37	DN	104	ALA
38	DO	47	VAL
38	DO	48	LEU
38	DO	56	LYS
38	DO	80	GLU
38	DO	94	ARG
38	DO	100	HIS
39	DP	105	LYS
41	DR	40	MET
41	DR	49	ILE
42	DS	84	ARG
43	DT	7	LEU
46	DW	63	ALA
48	DY	4	LYS
48	DY	18	LEU
51	D1	22	THR
51	D1	51	ALA
52	D2	33	ARG
53	D3	7	ARG
53	D3	16	THR
2	AB	22	TYR
2	AB	25	PRO
2	AB	68	LEU
2	AB	74	ARG
2	AB	123	ASP
3	AC	162	ILE
3	AC	166	GLU
4	AD	138	SER
5	AE	84	PRO
5	AE	125	ALA
5	AE	155	ALA
7	AG	49	THR
7	AG	131	LYS
9	AI	35	LEU

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Mol	Chain	Res	Type
10	AJ	75	ASP
10	AJ	80	THR
11	AK	78	GLY
13	AM	57	ARG
14	AN	64	CYS
15	AO	87	LEU
16	AP	42	ILE
16	AP	57	ILE
19	AS	53	ASN
21	AU	20	LYS
21	AU	21	ARG
21	AU	44	GLU
26	BC	73	ILE
27	BD	36	GLN
27	BD	90	PHE
28	BE	6	LYS
28	BE	80	SER
28	BE	136	GLN
29	BF	18	GLU
29	BF	27	VAL
29	BF	112	ASP
30	BG	11	PRO
30	BG	45	ALA
30	BG	109	SER
31	BH	32	PRO
32	BI	31	GLY
32	BI	96	LYS
33	BJ	82	GLY
34	BK	72	PRO
34	BK	88	ASN
35	BL	58	TYR
36	BM	80	VAL
37	BN	15	SER
37	BN	100	CYS
38	BO	46	GLU
38	BO	83	LEU
42	BS	15	GLN
42	BS	65	ASP
43	BT	17	SER
43	BT	45	ALA
44	BU	56	GLY
45	BV	87	GLN

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Mol	Chain	Res	Type
49	BZ	19	HIS
52	B2	8	SER
53	B3	62	PRO
2	CB	13	GLY
2	CB	14	VAL
2	CB	22	TYR
2	CB	28	LYS
2	CB	95	ARG
2	CB	130	THR
3	CC	38	LYS
4	CD	92	ALA
5	CE	32	SER
7	CG	15	ASP
7	CG	20	SER
7	CG	63	GLU
7	CG	103	TRP
7	CG	113	ASP
8	CH	15	ARG
9	CI	82	GLY
9	CI	99	ARG
10	CJ	15	HIS
11	CK	47	ALA
11	CK	117	PRO
12	CL	70	GLU
15	CO	8	THR
15	CO	26	GLU
15	CO	54	ARG
16	CP	33	ILE
18	CR	57	ARG
18	CR	73	ARG
19	CS	26	GLY
19	CS	72	GLY
20	CT	33	LYS
20	CT	55	GLN
55	CY	71	ASP
26	DC	11	GLY
26	DC	18	VAL
26	DC	31	PRO
26	DC	111	ALA
26	DC	204	LEU
26	DC	239	PHE
26	DC	270	ARG

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Mol	Chain	Res	Type
27	DD	23	PRO
27	DD	86	GLU
27	DD	206	ALA
29	DF	60	SER
29	DF	78	ILE
29	DF	90	LEU
29	DF	94	ARG
29	DF	98	PHE
29	DF	173	ASP
30	DG	68	ARG
30	DG	126	THR
31	DH	16	GLY
31	DH	99	ILE
31	DH	147	VAL
32	DI	34	ILE
32	DI	36	GLU
32	DI	39	LYS
32	DI	74	PRO
32	DI	92	PRO
33	DJ	25	LEU
33	DJ	69	ARG
34	DK	119	ALA
37	DN	42	LYS
37	DN	118	ARG
39	DP	87	ARG
42	DS	30	SER
43	DT	69	ARG
44	DU	98	ASN
45	DV	84	PRO
47	DX	56	ARG
53	D3	50	SER
3	AC	73	PRO
3	AC	195	VAL
4	AD	122	ALA
4	AD	194	ASP
9	AI	47	VAL
10	AJ	44	THR
10	AJ	95	GLY
14	AN	52	PRO
16	AP	48	GLU
17	AQ	60	GLU
19	AS	70	LYS

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Mol	Chain	Res	Type
21	AU	22	SER
26	BC	78	GLU
26	BC	106	PRO
26	BC	143	VAL
27	BD	56	LYS
28	BE	195	GLN
30	BG	6	ALA
32	BI	30	GLN
32	BI	84	GLY
36	BM	18	ARG
42	BS	35	ILE
45	BV	32	GLY
2	CB	73	LYS
3	CC	109	PRO
4	CD	82	LEU
4	CD	155	VAL
6	CF	7	VAL
7	CG	128	ALA
9	CI	127	PHE
11	CK	54	GLY
12	CL	3	THR
12	CL	38	TYR
12	CL	122	PRO
13	CM	23	TYR
15	CO	85	LEU
16	CP	18	GLN
16	CP	24	SER
18	CR	62	ALA
20	CT	65	GLY
26	DC	136	VAL
28	DE	200	LEU
29	DF	44	ALA
29	DF	97	GLU
31	DH	95	GLY
32	DI	18	ASN
32	DI	21	PRO
32	DI	80	LYS
35	DL	27	LEU
37	DN	10	LEU
38	DO	3	LYS
42	DS	66	ILE
45	DV	66	ASP

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Mol	Chain	Res	Type
52	D2	5	PHE
3	AC	52	VAL
4	AD	28	ILE
4	AD	45	LYS
11	AK	107	ILE
17	AQ	12	VAL
17	AQ	61	ILE
18	AR	41	PRO
19	AS	9	PRO
30	BG	25	ILE
30	BG	112	VAL
35	BL	23	ILE
11	CK	48	GLY
38	DO	42	PRO
46	DW	27	GLY
46	DW	51	VAL
2	AB	47	VAL
3	AC	7	PRO
3	AC	97	VAL
5	AE	133	PRO
8	AH	44	GLY
9	AI	71	GLY
12	AL	85	GLY
14	AN	72	GLY
19	AS	59	PRO
26	BC	246	PRO
28	BE	71	GLY
29	BF	148	VAL
32	BI	19	PRO
33	BJ	115	GLY
33	BJ	137	PRO
42	BS	80	PRO
44	BU	53	GLN
53	B3	31	ILE
5	CE	74	VAL
5	CE	119	GLY
10	CJ	41	PRO
17	CQ	12	VAL
17	CQ	76	VAL
55	CY	34	PRO
26	DC	244	VAL
29	DF	75	GLY

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Mol	Chain	Res	Type
29	DF	140	ILE
31	DH	144	VAL
38	DO	101	GLY
41	DR	88	GLY
43	DT	57	VAL
53	D3	20	GLY
2	AB	171	ILE
3	AC	72	ARG
13	AM	7	ILE
17	AQ	35	GLY
18	AR	69	PRO
19	AS	8	GLY
26	BC	243	PRO
35	BL	8	PRO
36	BM	36	VAL
46	BW	74	PRO
47	BX	63	ILE
52	B2	44	VAL
3	CC	52	VAL
5	CE	105	ILE
12	CL	93	VAL
55	CY	42	VAL
29	DF	43	ILE
31	DH	130	VAL
2	AB	163	VAL
7	AG	81	GLY
9	AI	50	GLN
12	AL	16	VAL
17	AQ	13	VAL
26	BC	226	PRO
50	B0	53	VAL
19	CS	29	LYS
21	CU	28	VAL
55	CY	5	ILE
55	CY	48	PRO
32	DI	72	THR
46	DW	71	VAL
53	D3	17	GLY
12	AL	11	PRO
12	AL	37	VAL
26	BC	31	PRO
26	BC	244	VAL

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Mol	Chain	Res	Type
34	BK	102	PRO
51	B1	30	PRO
3	CC	15	VAL
3	CC	159	GLY
16	CP	14	ARG
31	DH	118	PRO
32	DI	56	VAL
36	DM	77	PRO
41	DR	44	GLY

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	180/199 (90%)	128 (71%)	52 (29%)	0	2
2	CB	180/199 (90%)	137 (76%)	43 (24%)	1	4
3	AC	170/190 (90%)	138 (81%)	32 (19%)	2	11
3	CC	170/190 (90%)	130 (76%)	40 (24%)	1	4
4	AD	172/173 (99%)	116 (67%)	56 (33%)	0	1
4	CD	172/173 (99%)	125 (73%)	47 (27%)	0	2
5	AE	113/126 (90%)	91 (80%)	22 (20%)	2	9
5	CE	113/126 (90%)	94 (83%)	19 (17%)	3	16
6	AF	87/116 (75%)	72 (83%)	15 (17%)	3	15
6	CF	87/116 (75%)	65 (75%)	22 (25%)	1	3
7	AG	124/147 (84%)	96 (77%)	28 (23%)	1	5
7	CG	124/147 (84%)	101 (82%)	23 (18%)	2	11
8	AH	104/105 (99%)	81 (78%)	23 (22%)	1	6
8	CH	104/105 (99%)	87 (84%)	17 (16%)	3	17
9	AI	105/107 (98%)	81 (77%)	24 (23%)	1	5
9	CI	105/107 (98%)	84 (80%)	21 (20%)	2	9
10	AJ	86/90 (96%)	73 (85%)	13 (15%)	4	21
10	CJ	86/90 (96%)	67 (78%)	19 (22%)	1	6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
11	AK	90/99 (91%)	74 (82%)	16 (18%)	2	13
11	CK	90/99 (91%)	67 (74%)	23 (26%)	1	3
12	AL	103/104 (99%)	69 (67%)	34 (33%)	0	1
12	CL	103/104 (99%)	77 (75%)	26 (25%)	1	3
13	AM	92/96 (96%)	77 (84%)	15 (16%)	3	17
13	CM	92/96 (96%)	63 (68%)	29 (32%)	0	1
14	AN	79/84 (94%)	64 (81%)	15 (19%)	2	11
14	CN	79/84 (94%)	60 (76%)	19 (24%)	1	4
15	AO	76/77 (99%)	55 (72%)	21 (28%)	0	2
15	CO	76/77 (99%)	57 (75%)	19 (25%)	1	3
16	AP	65/65 (100%)	51 (78%)	14 (22%)	1	7
16	CP	65/65 (100%)	41 (63%)	24 (37%)	0	0
17	AQ	74/78 (95%)	59 (80%)	15 (20%)	2	8
17	CQ	74/78 (95%)	54 (73%)	20 (27%)	1	2
18	AR	48/65 (74%)	36 (75%)	12 (25%)	1	3
18	CR	48/65 (74%)	36 (75%)	12 (25%)	1	3
19	AS	70/79 (89%)	53 (76%)	17 (24%)	1	3
19	CS	70/79 (89%)	53 (76%)	17 (24%)	1	3
20	AT	65/66 (98%)	50 (77%)	15 (23%)	1	5
20	CT	65/66 (98%)	50 (77%)	15 (23%)	1	5
21	AU	44/61 (72%)	30 (68%)	14 (32%)	0	1
21	CU	44/61 (72%)	29 (66%)	15 (34%)	0	1
26	BC	216/218 (99%)	164 (76%)	52 (24%)	1	4
26	DC	216/218 (99%)	147 (68%)	69 (32%)	0	1
27	BD	164/164 (100%)	131 (80%)	33 (20%)	2	8
27	DD	164/164 (100%)	125 (76%)	39 (24%)	1	4
28	BE	165/165 (100%)	133 (81%)	32 (19%)	2	10
28	DE	165/165 (100%)	130 (79%)	35 (21%)	1	7
29	BF	148/150 (99%)	115 (78%)	33 (22%)	1	6
29	DF	148/150 (99%)	114 (77%)	34 (23%)	1	5
30	BG	137/138 (99%)	108 (79%)	29 (21%)	1	7

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
30	DG	137/138 (99%)	111 (81%)	26 (19%)	2	11
31	BH	114/114 (100%)	83 (73%)	31 (27%)	0	2
31	DH	114/114 (100%)	92 (81%)	22 (19%)	2	10
32	BI	109/110 (99%)	101 (93%)	8 (7%)	20	63
32	DI	109/110 (99%)	89 (82%)	20 (18%)	2	12
33	BJ	116/116 (100%)	90 (78%)	26 (22%)	1	6
33	DJ	116/116 (100%)	95 (82%)	21 (18%)	2	12
34	BK	103/104 (99%)	81 (79%)	22 (21%)	1	7
34	DK	103/104 (99%)	77 (75%)	26 (25%)	1	3
35	BL	102/103 (99%)	76 (74%)	26 (26%)	1	3
35	DL	102/103 (99%)	74 (72%)	28 (28%)	0	2
36	BM	109/109 (100%)	80 (73%)	29 (27%)	1	2
36	DM	109/109 (100%)	86 (79%)	23 (21%)	1	7
37	BN	100/103 (97%)	81 (81%)	19 (19%)	2	11
37	DN	100/103 (97%)	83 (83%)	17 (17%)	3	15
38	BO	86/87 (99%)	67 (78%)	19 (22%)	1	6
38	DO	86/87 (99%)	61 (71%)	25 (29%)	0	2
39	BP	99/100 (99%)	81 (82%)	18 (18%)	2	12
39	DP	99/100 (99%)	80 (81%)	19 (19%)	2	10
40	BQ	89/90 (99%)	66 (74%)	23 (26%)	1	3
40	DQ	89/90 (99%)	69 (78%)	20 (22%)	1	6
41	BR	84/84 (100%)	66 (79%)	18 (21%)	1	7
41	DR	84/84 (100%)	70 (83%)	14 (17%)	3	16
42	BS	93/93 (100%)	70 (75%)	23 (25%)	1	3
42	DS	93/93 (100%)	68 (73%)	25 (27%)	1	2
43	BT	80/84 (95%)	57 (71%)	23 (29%)	0	2
43	DT	80/84 (95%)	62 (78%)	18 (22%)	1	6
44	BU	83/85 (98%)	61 (74%)	22 (26%)	1	2
44	DU	83/85 (98%)	63 (76%)	20 (24%)	1	4
45	BV	78/78 (100%)	60 (77%)	18 (23%)	1	5
45	DV	78/78 (100%)	63 (81%)	15 (19%)	2	10

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
46	BW	56/63 (89%)	45 (80%)	11 (20%)	2	9
46	DW	57/63 (90%)	48 (84%)	9 (16%)	4	18
47	BX	67/68 (98%)	47 (70%)	20 (30%)	0	1
47	DX	67/68 (98%)	56 (84%)	11 (16%)	3	16
48	BY	55/55 (100%)	47 (86%)	8 (14%)	5	23
48	DY	55/55 (100%)	43 (78%)	12 (22%)	1	7
49	BZ	48/49 (98%)	40 (83%)	8 (17%)	3	16
49	DZ	48/49 (98%)	42 (88%)	6 (12%)	7	31
50	B0	47/48 (98%)	39 (83%)	8 (17%)	3	15
50	D0	47/48 (98%)	38 (81%)	9 (19%)	2	10
51	B1	45/49 (92%)	39 (87%)	6 (13%)	6	27
51	D1	45/49 (92%)	36 (80%)	9 (20%)	2	9
52	B2	38/38 (100%)	26 (68%)	12 (32%)	0	1
52	D2	38/38 (100%)	33 (87%)	5 (13%)	6	28
53	B3	51/52 (98%)	37 (72%)	14 (28%)	0	2
53	D3	51/52 (98%)	36 (71%)	15 (29%)	0	2
54	B4	34/34 (100%)	27 (79%)	7 (21%)	2	8
54	D4	34/34 (100%)	23 (68%)	11 (32%)	0	1
55	CY	158/160 (99%)	122 (77%)	36 (23%)	1	5
All	All	9485/9916 (96%)	7325 (77%)	2160 (23%)	1	5

All (2160) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	15	HIS
2	AB	16	PHE
2	AB	19	GLN
2	AB	22	TYR
2	AB	26	LYS
2	AB	27	MET
2	AB	28	LYS
2	AB	37	LYS
2	AB	49	MET
2	AB	57	LEU
2	AB	59	LYS

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Mol	Chain	Res	Type
2	AB	67	ILE
2	AB	68	LEU
2	AB	72	THR
2	AB	73	LYS
2	AB	77	SER
2	AB	80	VAL
2	AB	81	LYS
2	AB	91	PHE
2	AB	93	ASN
2	AB	96	TRP
2	AB	100	MET
2	AB	101	LEU
2	AB	102	THR
2	AB	106	THR
2	AB	108	ARG
2	AB	110	SER
2	AB	123	ASP
2	AB	126	PHE
2	AB	133	GLU
2	AB	141	LEU
2	AB	142	GLU
2	AB	144	LEU
2	AB	146	ASN
2	AB	157	LEU
2	AB	161	LEU
2	AB	163	VAL
2	AB	173	ILE
2	AB	174	LYS
2	AB	175	GLU
2	AB	181	ILE
2	AB	183	VAL
2	AB	189	THR
2	AB	191	SER
2	AB	194	ASP
2	AB	197	ASP
2	AB	199	VAL
2	AB	205	ASP
2	AB	207	ILE
2	AB	214	LEU
2	AB	217	VAL
2	AB	222	ARG
3	AC	4	LYS

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Mol	Chain	Res	Type
3	AC	14	ILE
3	AC	16	LYS
3	AC	25	ASN
3	AC	27	LYS
3	AC	37	PHE
3	AC	44	THR
3	AC	51	SER
3	AC	55	ILE
3	AC	67	THR
3	AC	68	ILE
3	AC	70	THR
3	AC	76	VAL
3	AC	82	GLU
3	AC	84	VAL
3	AC	97	VAL
3	AC	103	ILE
3	AC	105	GLU
3	AC	125	GLU
3	AC	129	MET
3	AC	134	MET
3	AC	138	VAL
3	AC	142	MET
3	AC	151	VAL
3	AC	153	VAL
3	AC	167	TRP
3	AC	168	TYR
3	AC	175	LEU
3	AC	176	HIS
3	AC	182	ILE
3	AC	183	ASP
3	AC	198	VAL
4	AD	5	LEU
4	AD	9	LEU
4	AD	13	ARG
4	AD	14	ARG
4	AD	17	THR
4	AD	19	LEU
4	AD	20	PHE
4	AD	22	LYS
4	AD	25	VAL
4	AD	32	CYS
4	AD	33	LYS

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Mol	Chain	Res	Type
4	AD	44	ARG
4	AD	47	ARG
4	AD	48	LEU
4	AD	49	SER
4	AD	58	LYS
4	AD	73	ARG
4	AD	74	ASN
4	AD	75	TYR
4	AD	77	LYS
4	AD	78	GLU
4	AD	82	LEU
4	AD	83	LYS
4	AD	91	LEU
4	AD	94	LEU
4	AD	95	GLU
4	AD	101	VAL
4	AD	105	MET
4	AD	107	PHE
4	AD	110	THR
4	AD	111	ARG
4	AD	115	ARG
4	AD	116	GLN
4	AD	123	ILE
4	AD	129	VAL
4	AD	130	VAL
4	AD	138	SER
4	AD	145	ILE
4	AD	146	ARG
4	AD	147	GLU
4	AD	150	LYS
4	AD	155	VAL
4	AD	161	LEU
4	AD	163	GLU
4	AD	164	GLN
4	AD	173	VAL
4	AD	174	ASP
4	AD	178	MET
4	AD	181	THR
4	AD	182	PHE
4	AD	189	SER
4	AD	191	LEU
4	AD	192	SER

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Mol	Chain	Res	Type
4	AD	194	ASP
4	AD	203	LEU
4	AD	205	SER
5	AE	24	THR
5	AE	31	PHE
5	AE	33	PHE
5	AE	34	THR
5	AE	36	LEU
5	AE	37	THR
5	AE	43	ASN
5	AE	50	TYR
5	AE	56	VAL
5	AE	64	MET
5	AE	65	GLU
5	AE	76	LEU
5	AE	85	VAL
5	AE	86	LYS
5	AE	93	ARG
5	AE	96	MET
5	AE	105	ILE
5	AE	115	LEU
5	AE	121	HIS
5	AE	124	LEU
5	AE	147	MET
5	AE	156	LYS
6	AF	18	VAL
6	AF	22	ILE
6	AF	39	LEU
6	AF	51	ILE
6	AF	54	LEU
6	AF	55	HIS
6	AF	62	MET
6	AF	72	ASP
6	AF	80	PHE
6	AF	82	ASP
6	AF	85	ILE
6	AF	86	ARG
6	AF	88	MET
6	AF	91	ARG
6	AF	97	THR
7	AG	3	ARG
7	AG	9	GLN

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Mol	Chain	Res	Type
7	AG	10	ARG
7	AG	11	LYS
7	AG	12	ILE
7	AG	21	GLU
7	AG	26	PHE
7	AG	29	ILE
7	AG	50	LEU
7	AG	59	LEU
7	AG	62	PHE
7	AG	66	LEU
7	AG	67	GLU
7	AG	70	ARG
7	AG	90	GLU
7	AG	91	VAL
7	AG	92	ARG
7	AG	94	VAL
7	AG	97	ASN
7	AG	106	GLU
7	AG	114	LYS
7	AG	116	MET
7	AG	120	LEU
7	AG	129	GLU
7	AG	136	LYS
7	AG	139	GLU
7	AG	140	ASP
7	AG	142	HIS
8	AH	4	GLN
8	AH	5	ASP
8	AH	7	ILE
8	AH	9	ASP
8	AH	11	LEU
8	AH	15	ARG
8	AH	21	ASN
8	AH	32	LEU
8	AH	40	LEU
8	AH	41	LYS
8	AH	46	ILE
8	AH	55	THR
8	AH	63	LEU
8	AH	72	VAL
8	AH	75	ILE
8	AH	86	TYR

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Mol	Chain	Res	Type
8	AH	92	LEU
8	AH	96	MET
8	AH	99	LEU
8	AH	108	LYS
8	AH	117	ARG
8	AH	121	LEU
8	AH	125	ILE
9	AI	15	SER
9	AI	18	ARG
9	AI	20	PHE
9	AI	31	ASN
9	AI	35	LEU
9	AI	39	PHE
9	AI	46	MET
9	AI	61	LEU
9	AI	63	LEU
9	AI	65	ILE
9	AI	66	THR
9	AI	68	LYS
9	AI	75	GLN
9	AI	79	ILE
9	AI	87	LEU
9	AI	90	TYR
9	AI	95	ARG
9	AI	99	ARG
9	AI	105	THR
9	AI	106	ARG
9	AI	109	ARG
9	AI	122	ARG
9	AI	126	GLN
9	AI	129	LYS
10	AJ	8	ILE
10	AJ	19	ASP
10	AJ	25	ILE
10	AJ	28	THR
10	AJ	37	ARG
10	AJ	57	VAL
10	AJ	64	GLN
10	AJ	67	ILE
10	AJ	74	VAL
10	AJ	82	LYS
10	AJ	87	LEU

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Mol	Chain	Res	Type
10	AJ	90	LEU
10	AJ	97	ASP
11	AK	23	ILE
11	AK	27	PHE
11	AK	31	ILE
11	AK	32	VAL
11	AK	35	THR
11	AK	59	THR
11	AK	74	VAL
11	AK	93	ARG
11	AK	96	THR
11	AK	97	ILE
11	AK	105	PHE
11	AK	107	ILE
11	AK	109	ASN
11	AK	113	VAL
11	AK	128	ARG
11	AK	129	VAL
12	AL	4	VAL
12	AL	8	VAL
12	AL	21	VAL
12	AL	24	LEU
12	AL	27	CYS
12	AL	29	GLN
12	AL	34	CYS
12	AL	38	TYR
12	AL	44	LYS
12	AL	47	SER
12	AL	49	LEU
12	AL	50	ARG
12	AL	52	VAL
12	AL	55	VAL
12	AL	57	LEU
12	AL	58	THR
12	AL	64	THR
12	AL	65	SER
12	AL	66	TYR
12	AL	74	LEU
12	AL	75	GLN
12	AL	79	VAL
12	AL	82	ILE
12	AL	86	ARG

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Mol	Chain	Res	Type
12	AL	87	VAL
12	AL	88	LYS
12	AL	93	VAL
12	AL	98	VAL
12	AL	102	LEU
12	AL	104	CYS
12	AL	109	ASP
12	AL	110	ARG
12	AL	112	GLN
12	AL	116	LYS
13	AM	14	HIS
13	AM	22	ILE
13	AM	25	VAL
13	AM	27	LYS
13	AM	29	ARG
13	AM	31	LYS
13	AM	66	GLU
13	AM	71	ARG
13	AM	75	MET
13	AM	80	LEU
13	AM	91	HIS
13	AM	101	ARG
13	AM	104	THR
13	AM	113	ARG
13	AM	114	LYS
14	AN	3	GLN
14	AN	4	SER
14	AN	10	VAL
14	AN	15	LEU
14	AN	27	LYS
14	AN	43	ASN
14	AN	46	LEU
14	AN	47	LYS
14	AN	58	SER
14	AN	69	ARG
14	AN	71	HIS
14	AN	73	PHE
14	AN	79	LEU
14	AN	90	ARG
14	AN	101	TRP
15	AO	3	LEU
15	AO	6	GLU

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Mol	Chain	Res	Type
15	AO	11	ILE
15	AO	14	GLU
15	AO	20	ASN
15	AO	21	ASP
15	AO	25	THR
15	AO	27	VAL
15	AO	28	GLN
15	AO	32	LEU
15	AO	33	THR
15	AO	39	LEU
15	AO	47	LYS
15	AO	57	LEU
15	AO	60	VAL
15	AO	65	LYS
15	AO	66	LEU
15	AO	67	LEU
15	AO	70	LEU
15	AO	77	ARG
15	AO	87	LEU
16	AP	2	VAL
16	AP	8	ARG
16	AP	14	ARG
16	AP	25	ARG
16	AP	28	ARG
16	AP	32	PHE
16	AP	39	PHE
16	AP	45	GLU
16	AP	46	LYS
16	AP	52	LEU
16	AP	56	ARG
16	AP	68	SER
16	AP	75	ILE
16	AP	80	LYS
17	AQ	9	GLN
17	AQ	22	VAL
17	AQ	26	GLU
17	AQ	28	PHE
17	AQ	30	LYS
17	AQ	39	LYS
17	AQ	43	LYS
17	AQ	44	LEU
17	AQ	52	GLU

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Mol	Chain	Res	Type
17	AQ	53	CYS
17	AQ	59	VAL
17	AQ	70	THR
17	AQ	76	VAL
17	AQ	77	ARG
17	AQ	79	VAL
18	AR	25	ASP
18	AR	26	ILE
18	AR	28	THR
18	AR	29	LEU
18	AR	39	ILE
18	AR	51	TYR
18	AR	55	LEU
18	AR	57	ARG
18	AR	59	ILE
18	AR	68	LEU
18	AR	71	THR
18	AR	73	ARG
19	AS	3	ARG
19	AS	4	SER
19	AS	10	PHE
19	AS	13	LEU
19	AS	20	GLU
19	AS	21	LYS
19	AS	36	ARG
19	AS	37	ARG
19	AS	39	THR
19	AS	44	MET
19	AS	48	THR
19	AS	55	ARG
19	AS	60	VAL
19	AS	63	THR
19	AS	65	GLU
19	AS	69	HIS
19	AS	71	LEU
20	AT	3	ASN
20	AT	5	LYS
20	AT	10	ARG
20	AT	12	ILE
20	AT	15	GLU
20	AT	21	ASN
20	AT	24	ARG

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Mol	Chain	Res	Type
20	AT	27	MET
20	AT	29	ARG
20	AT	30	THR
20	AT	51	PHE
20	AT	61	GLN
20	AT	69	LYS
20	AT	79	LEU
20	AT	83	ILE
21	AU	4	ILE
21	AU	7	ARG
21	AU	12	PHE
21	AU	16	LEU
21	AU	17	ARG
21	AU	20	LYS
21	AU	24	GLU
21	AU	28	VAL
21	AU	32	VAL
21	AU	39	GLU
21	AU	42	THR
21	AU	47	ARG
21	AU	49	LYS
21	AU	51	SER
26	BC	9	SER
26	BC	13	ARG
26	BC	18	VAL
26	BC	19	VAL
26	BC	23	LEU
26	BC	49	THR
26	BC	58	LYS
26	BC	62	ARG
26	BC	63	ILE
26	BC	71	ASP
26	BC	77	VAL
26	BC	79	ARG
26	BC	85	ASN
26	BC	87	SER
26	BC	89	ASN
26	BC	97	ASP
26	BC	101	ARG
26	BC	109	LEU
26	BC	129	LEU
26	BC	133	ASN

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Mol	Chain	Res	Type
26	BC	134	ILE
26	BC	136	VAL
26	BC	138	SER
26	BC	140	VAL
26	BC	146	LYS
26	BC	149	LYS
26	BC	159	THR
26	BC	161	VAL
26	BC	171	VAL
26	BC	173	LEU
26	BC	175	LEU
26	BC	177	SER
26	BC	181	ARG
26	BC	187	CYS
26	BC	188	ARG
26	BC	190	THR
26	BC	191	LEU
26	BC	198	GLU
26	BC	206	LYS
26	BC	212	TRP
26	BC	216	ARG
26	BC	218	THR
26	BC	237	ARG
26	BC	245	THR
26	BC	249	VAL
26	BC	251	THR
26	BC	254	LYS
26	BC	255	LYS
26	BC	257	ARG
26	BC	261	ARG
26	BC	264	LYS
26	BC	265	PHE
27	BD	2	ILE
27	BD	9	VAL
27	BD	11	MET
27	BD	52	THR
27	BD	59	ARG
27	BD	60	VAL
27	BD	79	LEU
27	BD	81	GLU
27	BD	83	ARG
27	BD	84	LEU

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Mol	Chain	Res	Type
27	BD	88	GLU
27	BD	89	GLU
27	BD	108	ASP
27	BD	110	THR
27	BD	113	SER
27	BD	116	LYS
27	BD	118	PHE
27	BD	124	ARG
27	BD	125	TRP
27	BD	129	THR
27	BD	134	HIS
27	BD	152	PRO
27	BD	157	LYS
27	BD	161	MET
27	BD	170	VAL
27	BD	176	ASP
27	BD	177	VAL
27	BD	180	VAL
27	BD	181	ASP
27	BD	186	LEU
27	BD	197	THR
27	BD	200	ASP
27	BD	202	ILE
28	BE	7	ASP
28	BE	12	LEU
28	BE	23	PHE
28	BE	40	ARG
28	BE	63	LYS
28	BE	69	ARG
28	BE	70	SER
28	BE	73	ILE
28	BE	77	ILE
28	BE	78	TRP
28	BE	79	ARG
28	BE	95	LYS
28	BE	96	VAL
28	BE	99	LYS
28	BE	108	ILE
28	BE	109	LEU
28	BE	110	SER
28	BE	111	GLU
28	BE	113	VAL

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Mol	Chain	Res	Type
28	BE	116	ASP
28	BE	133	LEU
28	BE	143	LEU
28	BE	144	GLU
28	BE	148	ILE
28	BE	159	LEU
28	BE	165	HIS
28	BE	167	VAL
28	BE	170	ARG
28	BE	175	ILE
28	BE	180	LEU
28	BE	195	GLN
28	BE	197	GLU
29	BF	2	LYS
29	BF	4	HIS
29	BF	6	TYR
29	BF	17	THR
29	BF	26	GLN
29	BF	27	VAL
29	BF	30	VAL
29	BF	31	GLU
29	BF	33	ILE
29	BF	47	LYS
29	BF	48	LEU
29	BF	56	LEU
29	BF	63	LYS
29	BF	84	ILE
29	BF	86	CYS
29	BF	91	ARG
29	BF	94	ARG
29	BF	98	PHE
29	BF	99	PHE
29	BF	100	GLU
29	BF	110	ILE
29	BF	112	ASP
29	BF	116	LEU
29	BF	129	MET
29	BF	134	GLN
29	BF	141	ASP
29	BF	145	VAL
29	BF	146	ASP
29	BF	149	ARG

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Mol	Chain	Res	Type
29	BF	153	ILE
29	BF	154	THR
29	BF	163	GLU
29	BF	169	LEU
30	BG	10	VAL
30	BG	16	VAL
30	BG	19	ASN
30	BG	24	THR
30	BG	25	ILE
30	BG	29	ASN
30	BG	32	LEU
30	BG	46	ASP
30	BG	49	LEU
30	BG	54	ARG
30	BG	68	ARG
30	BG	70	LEU
30	BG	71	LEU
30	BG	75	VAL
30	BG	79	THR
30	BG	80	GLU
30	BG	87	GLN
30	BG	88	LEU
30	BG	89	VAL
30	BG	98	LYS
30	BG	100	ASN
30	BG	101	VAL
30	BG	110	HIS
30	BG	121	THR
30	BG	126	THR
30	BG	129	GLU
30	BG	132	LEU
30	BG	154	GLU
30	BG	168	VAL
31	BH	8	LYS
31	BH	9	VAL
31	BH	11	ASN
31	BH	12	LEU
31	BH	15	LEU
31	BH	25	TYR
31	BH	29	PHE
31	BH	30	LEU
31	BH	48	GLU

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Mol	Chain	Res	Type
31	BH	50	ARG
31	BH	53	GLU
31	BH	54	LEU
31	BH	60	GLU
31	BH	62	LEU
31	BH	72	ILE
31	BH	75	LEU
31	BH	83	LYS
31	BH	89	LYS
31	BH	96	THR
31	BH	97	ARG
31	BH	103	VAL
31	BH	104	THR
31	BH	114	GLU
31	BH	115	VAL
31	BH	117	LEU
31	BH	119	ASN
31	BH	125	THR
31	BH	127	GLU
31	BH	130	VAL
31	BH	135	HIS
31	BH	146	VAL
32	BI	2	LYS
32	BI	54	ILE
32	BI	57	VAL
32	BI	61	TYR
32	BI	78	LEU
32	BI	94	LYS
32	BI	104	GLN
32	BI	126	ARG
33	BJ	5	THR
33	BJ	11	VAL
33	BJ	13	ARG
33	BJ	14	ASP
33	BJ	16	TYR
33	BJ	18	VAL
33	BJ	25	LEU
33	BJ	30	THR
33	BJ	32	LEU
33	BJ	40	HIS
33	BJ	48	VAL
33	BJ	50	THR

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Mol	Chain	Res	Type
33	BJ	61	LYS
33	BJ	64	VAL
33	BJ	68	LYS
33	BJ	69	ARG
33	BJ	73	VAL
33	BJ	75	TYR
33	BJ	78	THR
33	BJ	84	ILE
33	BJ	86	GLN
33	BJ	99	ARG
33	BJ	103	ILE
33	BJ	108	MET
33	BJ	136	GLN
33	BJ	140	LEU
34	BK	23	LYS
34	BK	24	VAL
34	BK	25	LEU
34	BK	29	HIS
34	BK	30	ARG
34	BK	31	ARG
34	BK	37	ASP
34	BK	40	LYS
34	BK	49	ARG
34	BK	58	LEU
34	BK	63	VAL
34	BK	71	ARG
34	BK	80	ASP
34	BK	86	LEU
34	BK	88	ASN
34	BK	89	ASN
34	BK	93	GLN
34	BK	98	ARG
34	BK	104	THR
34	BK	115	ILE
34	BK	116	ILE
34	BK	118	LEU
35	BL	2	ARG
35	BL	3	LEU
35	BL	6	LEU
35	BL	18	ARG
35	BL	19	LEU
35	BL	21	ARG

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Mol	Chain	Res	Type
35	BL	23	ILE
35	BL	35	HIS
35	BL	46	VAL
35	BL	47	ARG
35	BL	48	ARG
35	BL	60	ARG
35	BL	64	PHE
35	BL	66	PHE
35	BL	74	THR
35	BL	91	ASP
35	BL	93	ASN
35	BL	103	ILE
35	BL	104	GLN
35	BL	115	GLU
35	BL	116	VAL
35	BL	123	ARG
35	BL	125	LEU
35	BL	128	THR
35	BL	142	ILE
35	BL	144	GLU
36	BM	8	LYS
36	BM	18	ARG
36	BM	20	LEU
36	BM	24	THR
36	BM	26	VAL
36	BM	33	LEU
36	BM	38	ARG
36	BM	42	THR
36	BM	45	GLN
36	BM	50	ARG
36	BM	55	ARG
36	BM	57	VAL
36	BM	60	GLN
36	BM	63	ILE
36	BM	64	TRP
36	BM	65	ILE
36	BM	67	VAL
36	BM	74	THR
36	BM	80	VAL
36	BM	88	ASN
36	BM	96	ILE
36	BM	103	TYR

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Mol	Chain	Res	Type
36	BM	111	GLU
36	BM	115	GLU
36	BM	119	LEU
36	BM	127	LYS
36	BM	131	VAL
36	BM	134	THR
36	BM	135	VAL
37	BN	9	GLN
37	BN	27	SER
37	BN	28	LEU
37	BN	33	ILE
37	BN	38	LEU
37	BN	44	LEU
37	BN	46	ARG
37	BN	48	VAL
37	BN	60	VAL
37	BN	67	PHE
37	BN	70	THR
37	BN	71	ARG
37	BN	78	LYS
37	BN	82	GLU
37	BN	83	LEU
37	BN	90	ARG
37	BN	97	ILE
37	BN	98	LEU
37	BN	113	ILE
38	BO	2	ASP
38	BO	16	ARG
38	BO	27	VAL
38	BO	28	VAL
38	BO	30	ARG
38	BO	31	THR
38	BO	35	ILE
38	BO	40	ILE
38	BO	47	VAL
38	BO	48	LEU
38	BO	67	ASN
38	BO	68	LYS
38	BO	69	ASP
38	BO	83	LEU
38	BO	89	ASP
38	BO	93	ASP

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Mol	Chain	Res	Type
38	BO	100	HIS
38	BO	102	ARG
38	BO	106	LEU
39	BP	3	ILE
39	BP	28	LYS
39	BP	32	VAL
39	BP	38	ARG
39	BP	45	VAL
39	BP	49	ILE
39	BP	58	PHE
39	BP	65	ASN
39	BP	72	VAL
39	BP	77	SER
39	BP	83	ILE
39	BP	92	ARG
39	BP	99	LEU
39	BP	101	GLU
39	BP	102	ARG
39	BP	105	LYS
39	BP	109	ILE
39	BP	113	LEU
40	BQ	2	ARG
40	BQ	5	ARG
40	BQ	7	VAL
40	BQ	17	LEU
40	BQ	29	ARG
40	BQ	33	VAL
40	BQ	38	VAL
40	BQ	39	ILE
40	BQ	40	LYS
40	BQ	46	TYR
40	BQ	50	ARG
40	BQ	57	ARG
40	BQ	59	LEU
40	BQ	73	ILE
40	BQ	77	LYS
40	BQ	89	ILE
40	BQ	91	ARG
40	BQ	93	ILE
40	BQ	94	LEU
40	BQ	97	ILE
40	BQ	99	VAL

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Mol	Chain	Res	Type
40	BQ	106	THR
40	BQ	111	LYS
41	BR	12	HIS
41	BR	19	THR
41	BR	24	LYS
41	BR	32	THR
41	BR	34	GLU
41	BR	46	GLU
41	BR	48	LYS
41	BR	49	ILE
41	BR	51	VAL
41	BR	66	HIS
41	BR	70	GLU
41	BR	75	VAL
41	BR	79	ARG
41	BR	80	ARG
41	BR	83	TYR
41	BR	84	ARG
41	BR	90	ARG
41	BR	98	ILE
42	BS	2	GLU
42	BS	4	ILE
42	BS	6	LYS
42	BS	13	SER
42	BS	33	LEU
42	BS	46	LEU
42	BS	49	LYS
42	BS	53	SER
42	BS	55	ILE
42	BS	59	GLU
42	BS	68	ASP
42	BS	69	LEU
42	BS	81	SER
42	BS	86	MET
42	BS	88	ARG
42	BS	92	ARG
42	BS	96	ILE
42	BS	97	LEU
42	BS	100	THR
42	BS	102	HIS
42	BS	104	THR
42	BS	105	VAL

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Mol	Chain	Res	Type
42	BS	107	VAL
43	BT	1	MET
43	BT	2	ILE
43	BT	3	ARG
43	BT	5	GLU
43	BT	16	VAL
43	BT	19	LYS
43	BT	22	THR
43	BT	30	ILE
43	BT	31	VAL
43	BT	32	LEU
43	BT	40	LYS
43	BT	42	GLU
43	BT	43	ILE
43	BT	53	VAL
43	BT	55	VAL
43	BT	60	THR
43	BT	61	LEU
43	BT	62	VAL
43	BT	63	VAL
43	BT	73	ARG
43	BT	82	LYS
43	BT	91	GLN
43	BT	93	LEU
44	BU	6	ARG
44	BU	13	LEU
44	BU	16	LYS
44	BU	17	ASP
44	BU	25	LYS
44	BU	27	VAL
44	BU	28	LEU
44	BU	30	SER
44	BU	34	ILE
44	BU	35	VAL
44	BU	40	LEU
44	BU	41	VAL
44	BU	42	LYS
44	BU	43	LYS
44	BU	58	VAL
44	BU	71	ILE
44	BU	73	ASN
44	BU	76	THR

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Mol	Chain	Res	Type
44	BU	80	ASP
44	BU	86	PHE
44	BU	92	VAL
44	BU	93	ARG
45	BV	12	GLN
45	BV	17	SER
45	BV	29	ILE
45	BV	31	TYR
45	BV	38	LEU
45	BV	41	GLU
45	BV	42	LEU
45	BV	51	GLN
45	BV	66	ASP
45	BV	69	GLU
45	BV	71	LYS
45	BV	72	VAL
45	BV	76	ASP
45	BV	77	VAL
45	BV	78	GLN
45	BV	83	LYS
45	BV	86	LEU
45	BV	87	GLN
46	BW	12	ASN
46	BW	17	GLU
46	BW	24	LYS
46	BW	36	ILE
46	BW	37	ILE
46	BW	43	THR
46	BW	58	THR
46	BW	66	LYS
46	BW	70	GLU
46	BW	78	LYS
46	BW	82	ILE
47	BX	3	VAL
47	BX	6	VAL
47	BX	7	THR
47	BX	10	ARG
47	BX	21	LEU
47	BX	22	ASN
47	BX	24	THR
47	BX	27	ARG
47	BX	43	LYS

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Mol	Chain	Res	Type
47	BX	45	PHE
47	BX	46	VAL
47	BX	48	LEU
47	BX	49	ARG
47	BX	50	VAL
47	BX	56	ARG
47	BX	64	ASP
47	BX	65	THR
47	BX	67	LEU
47	BX	70	LEU
47	BX	75	GLU
48	BY	1	MET
48	BY	7	ARG
48	BY	17	GLU
48	BY	40	SER
48	BY	52	ARG
48	BY	53	VAL
48	BY	55	THR
48	BY	57	LEU
49	BZ	9	THR
49	BZ	13	ILE
49	BZ	24	LEU
49	BZ	36	GLU
49	BZ	40	THR
49	BZ	43	ILE
49	BZ	46	MET
49	BZ	50	VAL
50	B0	3	GLN
50	B0	5	ASN
50	B0	9	ARG
50	B0	22	THR
50	B0	32	THR
50	B0	40	HIS
50	B0	53	VAL
50	B0	54	ILE
51	B1	9	LYS
51	B1	22	THR
51	B1	24	LYS
51	B1	27	ARG
51	B1	43	ARG
51	B1	49	LYS
52	B2	9	VAL

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Mol	Chain	Res	Type
52	B2	10	LEU
52	B2	11	LYS
52	B2	13	ASN
52	B2	14	ARG
52	B2	16	HIS
52	B2	24	THR
52	B2	25	LYS
52	B2	26	ASN
52	B2	34	ARG
52	B2	39	ARG
52	B2	44	VAL
53	B3	6	VAL
53	B3	12	ARG
53	B3	13	PHE
53	B3	16	THR
53	B3	23	HIS
53	B3	24	LYS
53	B3	28	LEU
53	B3	34	LYS
53	B3	35	LYS
53	B3	40	LYS
53	B3	41	ARG
53	B3	46	LYS
53	B3	53	ASP
53	B3	60	CYS
54	B4	3	VAL
54	B4	4	ARG
54	B4	10	LEU
54	B4	25	VAL
54	B4	26	ILE
54	B4	27	CYS
54	B4	36	ARG
2	CB	9	MET
2	CB	20	THR
2	CB	21	ARG
2	CB	22	TYR
2	CB	23	TRP
2	CB	26	LYS
2	CB	32	PHE
2	CB	36	ASN
2	CB	52	GLU
2	CB	81	LYS

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Mol	Chain	Res	Type
2	CB	88	ASP
2	CB	89	GLN
2	CB	90	PHE
2	CB	92	VAL
2	CB	94	HIS
2	CB	96	TRP
2	CB	107	VAL
2	CB	108	ARG
2	CB	115	LYS
2	CB	117	LEU
2	CB	118	GLU
2	CB	122	GLN
2	CB	123	ASP
2	CB	127	ASP
2	CB	130	THR
2	CB	131	LYS
2	CB	135	LEU
2	CB	140	GLU
2	CB	148	LEU
2	CB	151	ILE
2	CB	153	ASP
2	CB	154	MET
2	CB	169	GLU
2	CB	183	VAL
2	CB	186	ILE
2	CB	188	ASP
2	CB	196	VAL
2	CB	199	VAL
2	CB	204	ASP
2	CB	213	TYR
2	CB	220	THR
2	CB	221	VAL
2	CB	222	ARG
3	CC	3	GLN
3	CC	11	ARG
3	CC	16	LYS
3	CC	27	LYS
3	CC	33	LEU
3	CC	35	SER
3	CC	36	ASP
3	CC	38	LYS
3	CC	44	THR

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Mol	Chain	Res	Type
3	CC	45	LYS
3	CC	47	LEU
3	CC	51	SER
3	CC	52	VAL
3	CC	55	ILE
3	CC	62	LYS
3	CC	65	ARG
3	CC	66	VAL
3	CC	68	ILE
3	CC	75	ILE
3	CC	80	LYS
3	CC	82	GLU
3	CC	83	ASP
3	CC	84	VAL
3	CC	89	LYS
3	CC	97	VAL
3	CC	101	ILE
3	CC	107	ARG
3	CC	108	LYS
3	CC	110	GLU
3	CC	112	ASP
3	CC	114	LYS
3	CC	115	LEU
3	CC	118	ASP
3	CC	122	SER
3	CC	162	ILE
3	CC	165	THR
3	CC	175	LEU
3	CC	177	THR
3	CC	178	LEU
3	CC	200	VAL
4	CD	3	ARG
4	CD	11	LEU
4	CD	14	ARG
4	CD	29	ASP
4	CD	30	THR
4	CD	31	LYS
4	CD	34	ILE
4	CD	36	GLN
4	CD	49	SER
4	CD	50	ASP
4	CD	51	TYR

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Mol	Chain	Res	Type
4	CD	54	GLN
4	CD	55	LEU
4	CD	58	LYS
4	CD	59	GLN
4	CD	61	VAL
4	CD	62	ARG
4	CD	63	ARG
4	CD	70	ARG
4	CD	76	TYR
4	CD	78	GLU
4	CD	90	LEU
4	CD	93	LEU
4	CD	94	LEU
4	CD	97	ARG
4	CD	103	TYR
4	CD	107	PHE
4	CD	113	GLU
4	CD	115	ARG
4	CD	116	GLN
4	CD	117	LEU
4	CD	130	VAL
4	CD	135	TYR
4	CD	138	SER
4	CD	141	ASP
4	CD	145	ILE
4	CD	152	GLN
4	CD	155	VAL
4	CD	160	GLU
4	CD	161	LEU
4	CD	163	GLU
4	CD	171	LEU
4	CD	179	GLU
4	CD	190	ASP
4	CD	194	ASP
4	CD	199	LEU
4	CD	203	LEU
5	CE	12	GLN
5	CE	15	LEU
5	CE	20	ARG
5	CE	32	SER
5	CE	37	THR
5	CE	39	VAL

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Mol	Chain	Res	Type
5	CE	54	ARG
5	CE	56	VAL
5	CE	78	ASN
5	CE	83	HIS
5	CE	117	VAL
5	CE	120	VAL
5	CE	121	HIS
5	CE	122	ASN
5	CE	124	LEU
5	CE	137	VAL
5	CE	142	ASP
5	CE	148	ASN
5	CE	157	ARG
6	CF	3	HIS
6	CF	4	TYR
6	CF	10	VAL
6	CF	18	VAL
6	CF	22	ILE
6	CF	33	GLU
6	CF	36	ILE
6	CF	39	LEU
6	CF	41	ASP
6	CF	42	TRP
6	CF	45	ARG
6	CF	49	TYR
6	CF	51	ILE
6	CF	69	GLU
6	CF	70	VAL
6	CF	71	ILE
6	CF	78	PHE
6	CF	80	PHE
6	CF	86	ARG
6	CF	90	MET
6	CF	96	VAL
6	CF	97	THR
7	CG	3	ARG
7	CG	9	GLN
7	CG	12	ILE
7	CG	26	PHE
7	CG	29	ILE
7	CG	31	MET
7	CG	32	VAL

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Mol	Chain	Res	Type
7	CG	35	LYS
7	CG	37	SER
7	CG	48	GLU
7	CG	50	LEU
7	CG	52	GLN
7	CG	70	ARG
7	CG	84	THR
7	CG	91	VAL
7	CG	99	LEU
7	CG	104	ILE
7	CG	109	ARG
7	CG	118	LEU
7	CG	130	ASN
7	CG	133	THR
7	CG	135	VAL
7	CG	140	ASP
8	CH	25	VAL
8	CH	27	MET
8	CH	29	SER
8	CH	32	LEU
8	CH	46	ILE
8	CH	59	LEU
8	CH	61	LEU
8	CH	78	VAL
8	CH	80	ARG
8	CH	87	LYS
8	CH	89	LYS
8	CH	99	LEU
8	CH	103	VAL
8	CH	106	THR
8	CH	113	ASP
8	CH	121	LEU
8	CH	125	ILE
9	CI	7	TYR
9	CI	18	ARG
9	CI	20	PHE
9	CI	30	ILE
9	CI	32	GLN
9	CI	46	MET
9	CI	47	VAL
9	CI	49	ARG
9	CI	57	MET

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Mol	Chain	Res	Type
9	CI	67	VAL
9	CI	72	ILE
9	CI	80	ARG
9	CI	81	HIS
9	CI	88	MET
9	CI	92	GLU
9	CI	98	LEU
9	CI	103	PHE
9	CI	109	ARG
9	CI	116	VAL
9	CI	120	LYS
9	CI	124	ARG
10	CJ	10	LEU
10	CJ	11	LYS
10	CJ	17	LEU
10	CJ	26	VAL
10	CJ	32	THR
10	CJ	35	GLN
10	CJ	46	LYS
10	CJ	48	ARG
10	CJ	50	THR
10	CJ	51	VAL
10	CJ	53	ILE
10	CJ	71	LEU
10	CJ	72	ARG
10	CJ	73	LEU
10	CJ	74	VAL
10	CJ	76	ILE
10	CJ	80	THR
10	CJ	82	LYS
10	CJ	84	VAL
11	CK	13	ARG
11	CK	15	GLN
11	CK	16	VAL
11	CK	23	ILE
11	CK	27	PHE
11	CK	28	ASN
11	CK	31	ILE
11	CK	35	THR
11	CK	36	ASP
11	CK	46	THR
11	CK	52	PHE

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Mol	Chain	Res	Type
11	CK	57	LYS
11	CK	65	VAL
11	CK	77	TYR
11	CK	87	LYS
11	CK	97	ILE
11	CK	100	LEU
11	CK	110	ILE
11	CK	111	THR
11	CK	119	ASN
11	CK	121	CYS
11	CK	125	LYS
11	CK	128	ARG
12	CL	3	THR
12	CL	6	GLN
12	CL	9	ARG
12	CL	15	LYS
12	CL	20	ASN
12	CL	25	GLU
12	CL	29	GLN
12	CL	47	SER
12	CL	51	LYS
12	CL	52	VAL
12	CL	55	VAL
12	CL	65	SER
12	CL	66	TYR
12	CL	67	ILE
12	CL	74	LEU
12	CL	78	SER
12	CL	79	VAL
12	CL	82	ILE
12	CL	83	ARG
12	CL	90	LEU
12	CL	94	ARG
12	CL	95	TYR
12	CL	97	THR
12	CL	114	ARG
12	CL	117	TYR
12	CL	121	ARG
13	CM	4	ILE
13	CM	12	HIS
13	CM	16	VAL
13	CM	17	ILE

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Mol	Chain	Res	Type
13	CM	20	THR
13	CM	23	TYR
13	CM	27	LYS
13	CM	28	THR
13	CM	29	ARG
13	CM	34	LEU
13	CM	43	VAL
13	CM	48	LEU
13	CM	52	GLN
13	CM	54	ASP
13	CM	57	ARG
13	CM	58	ASP
13	CM	63	PHE
13	CM	64	VAL
13	CM	68	ASP
13	CM	75	MET
13	CM	76	SER
13	CM	82	ASP
13	CM	83	LEU
13	CM	85	CYS
13	CM	90	ARG
13	CM	92	ARG
13	CM	101	ARG
13	CM	109	ARG
13	CM	113	ARG
14	CN	3	GLN
14	CN	6	LYS
14	CN	10	VAL
14	CN	12	ARG
14	CN	13	VAL
14	CN	19	TYR
14	CN	22	LYS
14	CN	27	LYS
14	CN	30	ILE
14	CN	41	ARG
14	CN	46	LEU
14	CN	48	LEU
14	CN	50	THR
14	CN	55	SER
14	CN	58	SER
14	CN	60	GLN
14	CN	65	ARG

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Mol	Chain	Res	Type
14	CN	96	LEU
14	CN	101	TRP
15	CO	6	GLU
15	CO	10	LYS
15	CO	20	ASN
15	CO	29	VAL
15	CO	35	GLN
15	CO	36	ILE
15	CO	40	GLN
15	CO	47	LYS
15	CO	48	LYS
15	CO	57	LEU
15	CO	64	ARG
15	CO	66	LEU
15	CO	67	LEU
15	CO	69	TYR
15	CO	78	TYR
15	CO	82	ILE
15	CO	87	LEU
15	CO	88	ARG
15	CO	89	ARG
16	CP	1	MET
16	CP	3	THR
16	CP	4	ILE
16	CP	6	LEU
16	CP	9	HIS
16	CP	12	LYS
16	CP	14	ARG
16	CP	18	GLN
16	CP	19	VAL
16	CP	21	VAL
16	CP	31	ARG
16	CP	32	PHE
16	CP	33	ILE
16	CP	34	GLU
16	CP	39	PHE
16	CP	50	THR
16	CP	52	LEU
16	CP	56	ARG
16	CP	66	THR
16	CP	67	ILE
16	CP	70	ARG

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Mol	Chain	Res	Type
16	CP	74	LEU
16	CP	75	ILE
16	CP	77	GLU
17	CQ	4	LYS
17	CQ	13	VAL
17	CQ	14	SER
17	CQ	15	ASP
17	CQ	29	VAL
17	CQ	31	HIS
17	CQ	33	ILE
17	CQ	36	LYS
17	CQ	40	ARG
17	CQ	42	THR
17	CQ	47	HIS
17	CQ	52	GLU
17	CQ	55	ILE
17	CQ	61	ILE
17	CQ	62	ARG
17	CQ	63	GLU
17	CQ	67	LEU
17	CQ	75	LEU
17	CQ	76	VAL
17	CQ	81	LYS
18	CR	20	GLU
18	CR	47	THR
18	CR	48	ARG
18	CR	50	LYS
18	CR	53	ARG
18	CR	59	ILE
18	CR	60	LYS
18	CR	61	ARG
18	CR	63	ARG
18	CR	65	LEU
18	CR	66	SER
18	CR	68	LEU
19	CS	6	LYS
19	CS	24	GLU
19	CS	27	ASP
19	CS	32	ARG
19	CS	34	TRP
19	CS	40	ILE
19	CS	41	PHE

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Mol	Chain	Res	Type
19	CS	43	ASN
19	CS	48	THR
19	CS	49	ILE
19	CS	56	GLN
19	CS	62	VAL
19	CS	67	VAL
19	CS	70	LYS
19	CS	71	LEU
19	CS	80	TYR
19	CS	81	ARG
20	CT	3	ASN
20	CT	4	ILE
20	CT	10	ARG
20	CT	12	ILE
20	CT	13	GLN
20	CT	34	LYS
20	CT	36	TYR
20	CT	55	GLN
20	CT	57	ILE
20	CT	59	ASP
20	CT	66	LEU
20	CT	67	ILE
20	CT	69	LYS
20	CT	70	ASN
20	CT	80	THR
21	CU	5	LYS
21	CU	10	GLU
21	CU	12	PHE
21	CU	13	ASP
21	CU	16	LEU
21	CU	18	ARG
21	CU	20	LYS
21	CU	21	ARG
21	CU	22	SER
21	CU	23	CYS
21	CU	29	LEU
21	CU	36	GLU
21	CU	37	PHE
21	CU	40	LYS
21	CU	43	THR
55	CY	1	MET
55	CY	11	VAL

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Mol	Chain	Res	Type
55	CY	15	LYS
55	CY	16	CYS
55	CY	17	VAL
55	CY	20	PHE
55	CY	37	LEU
55	CY	38	ASP
55	CY	42	VAL
55	CY	44	TYR
55	CY	54	LEU
55	CY	64	THR
55	CY	79	GLU
55	CY	82	ILE
55	CY	86	ASP
55	CY	98	ILE
55	CY	102	LEU
55	CY	105	LEU
55	CY	114	THR
55	CY	129	ARG
55	CY	130	ASN
55	CY	134	ASP
55	CY	136	ASN
55	CY	140	LYS
55	CY	142	LEU
55	CY	143	LEU
55	CY	144	LYS
55	CY	147	GLU
55	CY	153	ASP
55	CY	154	ARG
55	CY	158	ASP
55	CY	159	ASP
55	CY	160	VAL
55	CY	172	GLU
55	CY	175	LEU
55	CY	178	LYS
26	DC	6	LYS
26	DC	8	THR
26	DC	9	SER
26	DC	12	ARG
26	DC	22	GLU
26	DC	32	LEU
26	DC	33	LEU
26	DC	35	LYS

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Mol	Chain	Res	Type
26	DC	39	SER
26	DC	42	ARG
26	DC	50	THR
26	DC	51	ARG
26	DC	58	LYS
26	DC	63	ILE
26	DC	66	PHE
26	DC	67	LYS
26	DC	70	LYS
26	DC	73	ILE
26	DC	86	ARG
26	DC	87	SER
26	DC	92	LEU
26	DC	103	ILE
26	DC	104	LEU
26	DC	109	LEU
26	DC	110	LYS
26	DC	113	ASP
26	DC	114	GLN
26	DC	119	VAL
26	DC	120	ASP
26	DC	123	ILE
26	DC	128	THR
26	DC	133	ASN
26	DC	134	ILE
26	DC	139	THR
26	DC	140	VAL
26	DC	142	ASN
26	DC	149	LYS
26	DC	155	ARG
26	DC	163	ILE
26	DC	172	THR
26	DC	173	LEU
26	DC	174	ARG
26	DC	176	ARG
26	DC	180	MET
26	DC	187	CYS
26	DC	188	ARG
26	DC	191	LEU
26	DC	194	VAL
26	DC	196	ASN
26	DC	200	MET

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Mol	Chain	Res	Type
26	DC	201	LEU
26	DC	203	VAL
26	DC	204	LEU
26	DC	206	LYS
26	DC	212	TRP
26	DC	215	VAL
26	DC	216	ARG
26	DC	220	ARG
26	DC	237	ARG
26	DC	239	PHE
26	DC	244	VAL
26	DC	245	THR
26	DC	249	VAL
26	DC	256	THR
26	DC	258	SER
26	DC	259	ASN
26	DC	260	LYS
26	DC	267	VAL
26	DC	268	ARG
27	DD	9	VAL
27	DD	13	ARG
27	DD	20	VAL
27	DD	22	ILE
27	DD	24	VAL
27	DD	26	VAL
27	DD	28	GLU
27	DD	30	GLU
27	DD	33	ARG
27	DD	38	LYS
27	DD	46	ARG
27	DD	48	ILE
27	DD	50	VAL
27	DD	56	LYS
27	DD	61	THR
27	DD	64	GLU
27	DD	67	HIS
27	DD	73	VAL
27	DD	74	GLU
27	DD	88	GLU
27	DD	91	THR
27	DD	92	VAL
27	DD	98	VAL

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Mol	Chain	Res	Type
27	DD	103	ASP
27	DD	104	VAL
27	DD	118	PHE
27	DD	123	LYS
27	DD	128	ARG
27	DD	133	THR
27	DD	137	SER
27	DD	138	LEU
27	DD	151	THR
27	DD	159	LYS
27	DD	160	LYS
27	DD	168	GLU
27	DD	169	ARG
27	DD	186	LEU
27	DD	189	VAL
27	DD	197	THR
28	DE	5	LEU
28	DE	7	ASP
28	DE	9	GLN
28	DE	13	THR
28	DE	14	VAL
28	DE	41	GLN
28	DE	44	ARG
28	DE	46	GLN
28	DE	47	LYS
28	DE	48	THR
28	DE	49	ARG
28	DE	51	GLU
28	DE	65	THR
28	DE	72	SER
28	DE	73	ILE
28	DE	77	ILE
28	DE	99	LYS
28	DE	108	ILE
28	DE	120	VAL
28	DE	127	GLU
28	DE	130	LYS
28	DE	137	LYS
28	DE	145	ASP
28	DE	152	GLU
28	DE	159	LEU
28	DE	162	ARG

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Mol	Chain	Res	Type
28	DE	163	ASN
28	DE	164	LEU
28	DE	170	ARG
28	DE	171	ASP
28	DE	176	ASP
28	DE	185	LYS
28	DE	187	VAL
28	DE	193	VAL
28	DE	195	GLN
29	DF	3	LEU
29	DF	13	LYS
29	DF	15	LEU
29	DF	34	THR
29	DF	35	LEU
29	DF	41	GLU
29	DF	48	LEU
29	DF	56	LEU
29	DF	60	SER
29	DF	70	ARG
29	DF	80	GLN
29	DF	86	CYS
29	DF	89	THR
29	DF	90	LEU
29	DF	93	GLU
29	DF	95	MET
29	DF	101	ARG
29	DF	103	ILE
29	DF	104	THR
29	DF	105	ILE
29	DF	112	ASP
29	DF	121	PHE
29	DF	124	ARG
29	DF	126	ASN
29	DF	132	ARG
29	DF	134	GLN
29	DF	136	ILE
29	DF	140	ILE
29	DF	141	ASP
29	DF	142	TYR
29	DF	152	ASP
29	DF	156	THR
29	DF	161	SER

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Mol	Chain	Res	Type
29	DF	176	PHE
30	DG	2	ARG
30	DG	9	VAL
30	DG	16	VAL
30	DG	21	GLN
30	DG	22	VAL
30	DG	32	LEU
30	DG	33	THR
30	DG	34	ARG
30	DG	38	ASP
30	DG	42	VAL
30	DG	46	ASP
30	DG	71	LEU
30	DG	102	ILE
30	DG	103	ASN
30	DG	104	LEU
30	DG	106	LEU
30	DG	126	THR
30	DG	127	GLN
30	DG	130	ILE
30	DG	138	GLN
30	DG	146	ASP
30	DG	151	ARG
30	DG	161	VAL
30	DG	167	VAL
30	DG	170	THR
30	DG	171	LYS
31	DH	12	LEU
31	DH	19	VAL
31	DH	20	ASN
31	DH	21	VAL
31	DH	25	TYR
31	DH	37	VAL
31	DH	44	ILE
31	DH	47	PHE
31	DH	50	ARG
31	DH	70	GLU
31	DH	82	SER
31	DH	91	PHE
31	DH	94	ILE
31	DH	96	THR
31	DH	108	VAL

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Mol	Chain	Res	Type
31	DH	116	ARG
31	DH	122	LEU
31	DH	128	HIS
31	DH	137	GLU
31	DH	138	VAL
31	DH	141	LYS
31	DH	142	VAL
32	DI	8	VAL
32	DI	27	LEU
32	DI	33	ASN
32	DI	35	MET
32	DI	37	PHE
32	DI	41	PHE
32	DI	48	ILE
32	DI	56	VAL
32	DI	61	TYR
32	DI	70	THR
32	DI	81	LYS
32	DI	85	ILE
32	DI	91	LYS
32	DI	94	LYS
32	DI	95	ASP
32	DI	97	VAL
32	DI	106	GLN
32	DI	116	MET
32	DI	120	ASP
32	DI	141	ASP
33	DJ	3	THR
33	DJ	7	LYS
33	DJ	11	VAL
33	DJ	14	ASP
33	DJ	34	ARG
33	DJ	37	ARG
33	DJ	40	HIS
33	DJ	48	VAL
33	DJ	60	ASP
33	DJ	64	VAL
33	DJ	67	ASN
33	DJ	68	LYS
33	DJ	70	THR
33	DJ	73	VAL
33	DJ	93	ILE

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Mol	Chain	Res	Type
33	DJ	100	VAL
33	DJ	103	ILE
33	DJ	105	VAL
33	DJ	119	PHE
33	DJ	135	GLN
33	DJ	142	ILE
34	DK	2	ILE
34	DK	8	LEU
34	DK	10	VAL
34	DK	19	VAL
34	DK	22	ILE
34	DK	23	LYS
34	DK	25	LEU
34	DK	32	TYR
34	DK	42	THR
34	DK	47	ILE
34	DK	49	ARG
34	DK	61	VAL
34	DK	62	VAL
34	DK	76	VAL
34	DK	82	ASN
34	DK	86	LEU
34	DK	93	GLN
34	DK	95	ILE
34	DK	97	THR
34	DK	104	THR
34	DK	105	ARG
34	DK	106	GLU
34	DK	111	LYS
34	DK	114	LYS
34	DK	116	ILE
34	DK	118	LEU
35	DL	2	ARG
35	DL	6	LEU
35	DL	14	LYS
35	DL	19	LEU
35	DL	21	ARG
35	DL	23	ILE
35	DL	27	LEU
35	DL	30	THR
35	DL	36	LYS
35	DL	41	ARG

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Mol	Chain	Res	Type
35	DL	51	GLU
35	DL	54	GLN
35	DL	59	ARG
35	DL	64	PHE
35	DL	68	SER
35	DL	77	ILE
35	DL	82	LEU
35	DL	85	VAL
35	DL	86	GLU
35	DL	93	ASN
35	DL	94	THR
35	DL	100	ILE
35	DL	110	VAL
35	DL	112	LEU
35	DL	117	THR
35	DL	120	VAL
35	DL	126	ARG
35	DL	132	ARG
36	DM	2	LEU
36	DM	6	ARG
36	DM	24	THR
36	DM	25	ASP
36	DM	36	VAL
36	DM	44	ARG
36	DM	45	GLN
36	DM	47	GLU
36	DM	58	LYS
36	DM	60	GLN
36	DM	70	ASP
36	DM	78	LEU
36	DM	81	ARG
36	DM	86	LYS
36	DM	95	LEU
36	DM	100	LYS
36	DM	104	GLU
36	DM	111	GLU
36	DM	114	ARG
36	DM	127	LYS
36	DM	128	THR
36	DM	131	VAL
36	DM	135	VAL
37	DN	1	MET

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Mol	Chain	Res	Type
37	DN	2	ARG
37	DN	15	SER
37	DN	16	HIS
37	DN	20	MET
37	DN	27	SER
37	DN	28	LEU
37	DN	43	GLU
37	DN	51	LEU
37	DN	69	ARG
37	DN	71	ARG
37	DN	74	GLU
37	DN	81	ASN
37	DN	82	GLU
37	DN	110	MET
37	DN	116	VAL
37	DN	117	ASP
38	DO	3	LYS
38	DO	8	ILE
38	DO	15	ARG
38	DO	17	LYS
38	DO	21	LEU
38	DO	26	LEU
38	DO	27	VAL
38	DO	28	VAL
38	DO	31	THR
38	DO	36	TYR
38	DO	47	VAL
38	DO	48	LEU
38	DO	53	THR
38	DO	60	GLU
38	DO	62	LEU
38	DO	67	ASN
38	DO	69	ASP
38	DO	78	VAL
38	DO	80	GLU
38	DO	84	GLU
38	DO	90	VAL
38	DO	95	SER
38	DO	108	ASP
38	DO	112	GLU
38	DO	115	LEU
39	DP	15	ASP

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Mol	Chain	Res	Type
39	DP	16	VAL
39	DP	19	PHE
39	DP	20	ARG
39	DP	25	VAL
39	DP	26	GLU
39	DP	28	LYS
39	DP	30	TRP
39	DP	32	VAL
39	DP	33	GLU
39	DP	50	ARG
39	DP	85	VAL
39	DP	92	ARG
39	DP	96	LEU
39	DP	102	ARG
39	DP	109	ILE
39	DP	110	LYS
39	DP	111	GLU
39	DP	113	LEU
40	DQ	2	ARG
40	DQ	3	VAL
40	DQ	4	LYS
40	DQ	5	ARG
40	DQ	7	VAL
40	DQ	8	ILE
40	DQ	32	ARG
40	DQ	50	ARG
40	DQ	53	LYS
40	DQ	55	GLN
40	DQ	58	GLN
40	DQ	59	LEU
40	DQ	71	ASN
40	DQ	73	ILE
40	DQ	79	ILE
40	DQ	83	LYS
40	DQ	84	LYS
40	DQ	91	ARG
40	DQ	103	VAL
40	DQ	116	LEU
41	DR	20	VAL
41	DR	26	ASP
41	DR	29	THR
41	DR	38	VAL

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Mol	Chain	Res	Type
41	DR	41	ILE
41	DR	46	GLU
41	DR	58	VAL
41	DR	59	ILE
41	DR	70	GLU
41	DR	79	ARG
41	DR	84	ARG
41	DR	85	LYS
41	DR	94	THR
41	DR	101	ILE
42	DS	3	THR
42	DS	4	ILE
42	DS	7	HIS
42	DS	11	ARG
42	DS	13	SER
42	DS	19	LEU
42	DS	33	LEU
42	DS	39	THR
42	DS	46	LEU
42	DS	48	LYS
42	DS	55	ILE
42	DS	67	ASP
42	DS	68	ASP
42	DS	74	ILE
42	DS	76	VAL
42	DS	77	ASP
42	DS	81	SER
42	DS	84	ARG
42	DS	85	ILE
42	DS	97	LEU
42	DS	98	LYS
42	DS	99	ARG
42	DS	104	THR
42	DS	105	VAL
42	DS	106	VAL
43	DT	5	GLU
43	DT	6	ARG
43	DT	7	LEU
43	DT	10	VAL
43	DT	17	SER
43	DT	28	ASN
43	DT	32	LEU

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Mol	Chain	Res	Type
43	DT	34	VAL
43	DT	54	GLU
43	DT	58	VAL
43	DT	59	ASN
43	DT	63	VAL
43	DT	64	LYS
43	DT	68	LYS
43	DT	69	ARG
43	DT	73	ARG
43	DT	79	ASP
43	DT	89	GLU
44	DU	8	ASP
44	DU	10	VAL
44	DU	13	LEU
44	DU	16	LYS
44	DU	20	LYS
44	DU	27	VAL
44	DU	34	ILE
44	DU	36	GLU
44	DU	41	VAL
44	DU	42	LYS
44	DU	43	LYS
44	DU	46	LYS
44	DU	48	VAL
44	DU	60	LYS
44	DU	64	ILE
44	DU	76	THR
44	DU	78	LYS
44	DU	81	ARG
44	DU	96	LYS
44	DU	98	ASN
45	DV	1	MET
45	DV	21	ARG
45	DV	26	PHE
45	DV	29	ILE
45	DV	34	LYS
45	DV	35	GLU
45	DV	38	LEU
45	DV	40	ILE
45	DV	51	GLN
45	DV	62	THR
45	DV	65	VAL

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Mol	Chain	Res	Type
45	DV	72	VAL
45	DV	77	VAL
45	DV	82	TYR
45	DV	90	ASP
46	DW	19	LYS
46	DW	20	ARG
46	DW	31	VAL
46	DW	32	LEU
46	DW	44	LYS
46	DW	50	ASN
46	DW	60	PHE
46	DW	82	ILE
46	DW	85	GLU
47	DX	4	CYS
47	DX	10	ARG
47	DX	12	VAL
47	DX	21	LEU
47	DX	27	ARG
47	DX	29	LEU
47	DX	36	ARG
47	DX	45	PHE
47	DX	51	SER
47	DX	53	LYS
47	DX	63	ILE
48	DY	5	GLU
48	DY	8	GLU
48	DY	13	GLU
48	DY	17	GLU
48	DY	18	LEU
48	DY	23	ARG
48	DY	26	PHE
48	DY	31	GLN
48	DY	37	LEU
48	DY	49	ASP
48	DY	53	VAL
48	DY	57	LEU
49	DZ	2	LYS
49	DZ	3	THR
49	DZ	4	ILE
49	DZ	23	LEU
49	DZ	29	ARG
49	DZ	34	THR

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Mol	Chain	Res	Type
50	D0	14	MET
50	D0	16	ARG
50	D0	21	LEU
50	D0	22	THR
50	D0	27	LEU
50	D0	29	VAL
50	D0	33	SER
50	D0	35	GLU
50	D0	37	HIS
51	D1	10	LEU
51	D1	23	THR
51	D1	29	LYS
51	D1	31	GLU
51	D1	32	LYS
51	D1	35	LEU
51	D1	36	LYS
51	D1	45	HIS
51	D1	47	ILE
52	D2	1	MET
52	D2	30	VAL
52	D2	41	ARG
52	D2	42	LEU
52	D2	43	THR
53	D3	5	THR
53	D3	6	VAL
53	D3	7	ARG
53	D3	12	ARG
53	D3	16	THR
53	D3	22	LYS
53	D3	28	LEU
53	D3	29	ARG
53	D3	30	HIS
53	D3	31	ILE
53	D3	34	LYS
53	D3	43	LEU
53	D3	46	LYS
53	D3	56	LEU
53	D3	61	LEU
54	D4	4	ARG
54	D4	11	CYS
54	D4	13	ASN
54	D4	16	ILE

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Mol	Chain	Res	Type
54	D4	18	LYS
54	D4	23	ILE
54	D4	25	VAL
54	D4	27	CYS
54	D4	30	GLU
54	D4	32	LYS
54	D4	36	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (84) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	18	HIS
2	AB	190	ASN
3	AC	3	GLN
3	AC	69	HIS
4	AD	120	HIS
4	AD	198	HIS
9	AI	50	GLN
10	AJ	58	ASN
11	AK	24	HIS
12	AL	5	ASN
12	AL	96	HIS
14	AN	49	GLN
15	AO	20	ASN
15	AO	38	HIS
16	AP	63	GLN
20	AT	75	HIS
26	BC	52	HIS
26	BC	85	ASN
26	BC	229	HIS
26	BC	242	HIS
27	BD	140	HIS
28	BE	92	HIS
31	BH	128	HIS
35	BL	38	GLN
35	BL	54	GLN
35	BL	104	GLN
39	BP	65	ASN
41	BR	66	HIS
41	BR	89	HIS
42	BS	7	HIS
42	BS	40	ASN

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Mol	Chain	Res	Type
42	BS	61	ASN
44	BU	44	HIS
44	BU	68	ASN
49	BZ	8	GLN
49	BZ	33	HIS
50	B0	3	GLN
50	B0	37	HIS
50	B0	41	HIS
51	B1	25	ASN
2	CB	94	HIS
3	CC	6	HIS
3	CC	176	HIS
3	CC	190	HIS
4	CD	41	HIS
4	CD	54	GLN
4	CD	89	ASN
5	CE	121	HIS
6	CF	3	HIS
6	CF	58	HIS
11	CK	22	HIS
13	CM	105	ASN
14	CN	34	ASN
15	CO	42	HIS
15	CO	46	HIS
15	CO	51	HIS
17	CQ	45	HIS
17	CQ	47	HIS
19	CS	43	ASN
19	CS	52	HIS
19	CS	69	HIS
20	CT	20	HIS
20	CT	78	ASN
55	CY	136	ASN
26	DC	57	HIS
26	DC	127	ASN
27	DD	150	GLN
28	DE	92	HIS
30	DG	142	GLN
31	DH	135	HIS
32	DI	29	GLN
33	DJ	130	HIS
33	DJ	132	HIS

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Mol	Chain	Res	Type
35	DL	38	GLN
35	DL	54	GLN
37	DN	3	HIS
38	DO	38	GLN
40	DQ	43	GLN
40	DQ	80	ASN
41	DR	66	HIS
41	DR	89	HIS
41	DR	91	GLN
45	DV	44	HIS
45	DV	78	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1538/1542 (99%)	503 (32%)	31 (2%)
1	CA	1537/1542 (99%)	498 (32%)	37 (2%)
22	AV	75/76 (98%)	19 (25%)	1 (1%)
22	CV	75/76 (98%)	27 (36%)	6 (8%)
23	AX	15/24 (62%)	7 (46%)	0
23	CX	14/24 (58%)	6 (42%)	1 (7%)
24	BA	2896/2904 (99%)	884 (30%)	70 (2%)
24	DA	2896/2904 (99%)	826 (28%)	71 (2%)
25	BB	117/120 (97%)	29 (24%)	1 (0%)
25	DB	118/120 (98%)	24 (20%)	0
All	All	9281/9332 (99%)	2823 (30%)	218 (2%)

All (2823) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	3	A
1	AA	4	U
1	AA	5	U
1	AA	8	A
1	AA	9	G
1	AA	13	U
1	AA	22	G
1	AA	29	U
1	AA	32	A
1	AA	33	A
1	AA	39	G

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Mol	Chain	Res	Type
1	AA	42	G
1	AA	43	C
1	AA	45	G
1	AA	47	C
1	AA	48	C
1	AA	49	U
1	AA	50	A
1	AA	51	A
1	AA	62	U
1	AA	68	G
1	AA	70	U
1	AA	71	A
1	AA	73	C
1	AA	74	A
1	AA	75	G
1	AA	76	G
1	AA	83	C
1	AA	84	U
1	AA	85	U
1	AA	87	C
1	AA	88	U
1	AA	95	C
1	AA	96	U
1	AA	97	G
1	AA	107	G
1	AA	110	C
1	AA	115	G
1	AA	116	A
1	AA	118	U
1	AA	120	A
1	AA	121	U
1	AA	122	G
1	AA	123	U
1	AA	124	C
1	AA	128	G
1	AA	130	A
1	AA	131	A
1	AA	132	C
1	AA	134	G
1	AA	135	C
1	AA	142	G
1	AA	144	G

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Mol	Chain	Res	Type
1	AA	146	G
1	AA	151	A
1	AA	152	A
1	AA	154	U
1	AA	155	A
1	AA	156	C
1	AA	163	C
1	AA	167	A
1	AA	168	G
1	AA	177	G
1	AA	179	A
1	AA	183	C
1	AA	186	C
1	AA	191	G
1	AA	192	A
1	AA	196	A
1	AA	197	A
1	AA	199	A
1	AA	204	G
1	AA	205	A
1	AA	206	C
1	AA	208	U
1	AA	209	U
1	AA	210	C
1	AA	211	G
1	AA	212	G
1	AA	214	C
1	AA	215	C
1	AA	226	G
1	AA	236	A
1	AA	238	A
1	AA	240	G
1	AA	245	U
1	AA	247	G
1	AA	250	A
1	AA	251	G
1	AA	253	A
1	AA	262	A
1	AA	265	G
1	AA	266	G
1	AA	267	C
1	AA	272	C

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Mol	Chain	Res	Type
1	AA	275	G
1	AA	280	C
1	AA	284	C
1	AA	289	G
1	AA	293	G
1	AA	294	U
1	AA	298	A
1	AA	300	A
1	AA	302	G
1	AA	314	C
1	AA	321	A
1	AA	322	C
1	AA	328	C
1	AA	330	C
1	AA	331	G
1	AA	333	U
1	AA	334	C
1	AA	338	A
1	AA	346	G
1	AA	347	G
1	AA	349	A
1	AA	350	G
1	AA	351	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	355	C
1	AA	356	A
1	AA	358	U
1	AA	367	U
1	AA	372	C
1	AA	373	A
1	AA	379	C
1	AA	381	C
1	AA	383	A
1	AA	391	G
1	AA	392	C
1	AA	393	A
1	AA	398	U
1	AA	403	C
1	AA	406	G
1	AA	409	U

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Mol	Chain	Res	Type
1	AA	411	A
1	AA	412	A
1	AA	413	G
1	AA	421	U
1	AA	422	C
1	AA	423	G
1	AA	425	G
1	AA	428	G
1	AA	429	U
1	AA	430	A
1	AA	431	A
1	AA	432	A
1	AA	435	A
1	AA	436	C
1	AA	437	U
1	AA	439	U
1	AA	441	A
1	AA	442	G
1	AA	446	G
1	AA	447	G
1	AA	448	A
1	AA	451	A
1	AA	452	A
1	AA	463	U
1	AA	466	A
1	AA	467	U
1	AA	468	A
1	AA	469	C
1	AA	474	G
1	AA	480	U
1	AA	481	G
1	AA	482	A
1	AA	483	C
1	AA	485	U
1	AA	486	U
1	AA	495	A
1	AA	500	G
1	AA	505	G
1	AA	508	U
1	AA	509	A
1	AA	511	C
1	AA	512	U

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Mol	Chain	Res	Type
1	AA	518	C
1	AA	521	G
1	AA	523	A
1	AA	524	G
1	AA	529	G
1	AA	530	G
1	AA	532	A
1	AA	533	A
1	AA	544	G
1	AA	547	A
1	AA	551	U
1	AA	559	A
1	AA	560	A
1	AA	563	A
1	AA	564	C
1	AA	569	C
1	AA	571	U
1	AA	572	A
1	AA	573	A
1	AA	576	C
1	AA	577	G
1	AA	579	A
1	AA	585	G
1	AA	588	G
1	AA	589	U
1	AA	596	A
1	AA	597	G
1	AA	598	U
1	AA	599	C
1	AA	600	A
1	AA	613	C
1	AA	615	G
1	AA	619	U
1	AA	627	G
1	AA	632	U
1	AA	640	A
1	AA	650	G
1	AA	653	U
1	AA	659	U
1	AA	661	G
1	AA	665	A
1	AA	667	G

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Mol	Chain	Res	Type
1	AA	668	G
1	AA	670	G
1	AA	680	C
1	AA	683	G
1	AA	684	U
1	AA	685	G
1	AA	687	A
1	AA	692	U
1	AA	693	G
1	AA	695	A
1	AA	703	G
1	AA	709	U
1	AA	710	G
1	AA	721	G
1	AA	723	U
1	AA	724	G
1	AA	730	G
1	AA	731	G
1	AA	733	G
1	AA	745	G
1	AA	747	A
1	AA	748	G
1	AA	755	G
1	AA	759	A
1	AA	766	A
1	AA	767	A
1	AA	774	G
1	AA	776	G
1	AA	778	G
1	AA	780	A
1	AA	784	A
1	AA	785	G
1	AA	787	A
1	AA	792	A
1	AA	793	U
1	AA	794	A
1	AA	802	A
1	AA	805	C
1	AA	808	C
1	AA	811	C
1	AA	813	U
1	AA	814	A

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Mol	Chain	Res	Type
1	AA	815	A
1	AA	816	A
1	AA	817	C
1	AA	818	G
1	AA	819	A
1	AA	821	G
1	AA	822	U
1	AA	827	U
1	AA	828	U
1	AA	829	G
1	AA	830	G
1	AA	841	C
1	AA	842	U
1	AA	843	U
1	AA	844	G
1	AA	845	A
1	AA	846	G
1	AA	848	C
1	AA	849	G
1	AA	851	G
1	AA	852	G
1	AA	854	U
1	AA	856	C
1	AA	859	G
1	AA	867	G
1	AA	868	C
1	AA	870	U
1	AA	872	A
1	AA	873	A
1	AA	880	C
1	AA	891	U
1	AA	893	C
1	AA	899	C
1	AA	900	A
1	AA	901	A
1	AA	902	G
1	AA	910	C
1	AA	911	U
1	AA	914	A
1	AA	919	A
1	AA	922	G
1	AA	925	G

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Mol	Chain	Res	Type
1	AA	933	G
1	AA	934	C
1	AA	935	A
1	AA	942	G
1	AA	955	U
1	AA	960	U
1	AA	961	U
1	AA	966	G
1	AA	967	C
1	AA	968	A
1	AA	969	A
1	AA	971	G
1	AA	972	C
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	980	C
1	AA	981	U
1	AA	983	A
1	AA	984	C
1	AA	985	C
1	AA	993	G
1	AA	1004	A
1	AA	1006	G
1	AA	1008	U
1	AA	1009	U
1	AA	1015	G
1	AA	1018	G
1	AA	1019	A
1	AA	1020	G
1	AA	1021	A
1	AA	1025	U
1	AA	1026	G
1	AA	1028	C
1	AA	1030	U
1	AA	1032	G
1	AA	1033	G
1	AA	1034	G
1	AA	1035	A
1	AA	1036	A
1	AA	1037	C

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Mol	Chain	Res	Type
1	AA	1043	G
1	AA	1044	A
1	AA	1049	U
1	AA	1050	G
1	AA	1065	U
1	AA	1066	C
1	AA	1069	C
1	AA	1070	U
1	AA	1078	U
1	AA	1079	G
1	AA	1080	A
1	AA	1084	G
1	AA	1086	U
1	AA	1087	G
1	AA	1092	A
1	AA	1093	A
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1102	A
1	AA	1103	C
1	AA	1105	A
1	AA	1109	C
1	AA	1113	C
1	AA	1118	U
1	AA	1123	U
1	AA	1125	U
1	AA	1133	G
1	AA	1135	U
1	AA	1136	C
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1140	C
1	AA	1141	C
1	AA	1142	G
1	AA	1145	A
1	AA	1152	A
1	AA	1154	G
1	AA	1156	G
1	AA	1157	A
1	AA	1159	U

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Mol	Chain	Res	Type
1	AA	1160	G
1	AA	1161	C
1	AA	1168	U
1	AA	1170	A
1	AA	1171	A
1	AA	1181	G
1	AA	1182	G
1	AA	1183	U
1	AA	1184	G
1	AA	1189	U
1	AA	1190	G
1	AA	1191	A
1	AA	1192	C
1	AA	1193	G
1	AA	1196	A
1	AA	1197	A
1	AA	1198	G
1	AA	1199	U
1	AA	1201	A
1	AA	1212	U
1	AA	1213	A
1	AA	1227	A
1	AA	1228	C
1	AA	1229	A
1	AA	1238	A
1	AA	1239	A
1	AA	1240	U
1	AA	1241	G
1	AA	1250	A
1	AA	1253	G
1	AA	1256	A
1	AA	1264	U
1	AA	1267	C
1	AA	1275	A
1	AA	1277	C
1	AA	1278	G
1	AA	1280	A
1	AA	1281	C
1	AA	1282	C
1	AA	1286	U
1	AA	1287	A
1	AA	1292	G

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Mol	Chain	Res	Type
1	AA	1298	U
1	AA	1299	A
1	AA	1301	U
1	AA	1302	C
1	AA	1305	G
1	AA	1308	U
1	AA	1317	C
1	AA	1318	A
1	AA	1320	C
1	AA	1322	C
1	AA	1326	U
1	AA	1327	C
1	AA	1328	C
1	AA	1332	A
1	AA	1335	U
1	AA	1336	C
1	AA	1338	G
1	AA	1346	A
1	AA	1350	A
1	AA	1353	G
1	AA	1355	G
1	AA	1357	A
1	AA	1359	C
1	AA	1360	A
1	AA	1361	G
1	AA	1363	A
1	AA	1364	U
1	AA	1365	G
1	AA	1368	A
1	AA	1376	U
1	AA	1377	A
1	AA	1378	C
1	AA	1379	G
1	AA	1382	C
1	AA	1383	C
1	AA	1384	C
1	AA	1394	A
1	AA	1395	C
1	AA	1401	G
1	AA	1408	A
1	AA	1412	C
1	AA	1415	G

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Mol	Chain	Res	Type
1	AA	1418	A
1	AA	1419	G
1	AA	1424	U
1	AA	1426	G
1	AA	1439	G
1	AA	1440	U
1	AA	1441	A
1	AA	1442	G
1	AA	1447	A
1	AA	1450	U
1	AA	1452	C
1	AA	1454	G
1	AA	1455	G
1	AA	1463	U
1	AA	1478	U
1	AA	1480	A
1	AA	1486	G
1	AA	1492	A
1	AA	1493	A
1	AA	1494	G
1	AA	1506	U
1	AA	1509	C
1	AA	1517	G
1	AA	1519	A
1	AA	1529	G
1	AA	1530	G
1	AA	1534	A
1	AA	1535	C
1	AA	1536	C
1	AA	1539	C
22	AV	2	C
22	AV	17	C
22	AV	18	G
22	AV	19	G
22	AV	20	U
22	AV	21	A
22	AV	22	G
22	AV	33	U
22	AV	36	A
22	AV	45	U
22	AV	46	G
22	AV	52	G

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Mol	Chain	Res	Type
22	AV	53	G
22	AV	58	A
22	AV	61	C
22	AV	69	G
22	AV	73	A
22	AV	75	C
22	AV	76	A
23	AX	3	G
23	AX	5	A
23	AX	9	A
23	AX	10	A
23	AX	11	A
23	AX	15	C
23	AX	16	U
24	BA	10	A
24	BA	12	U
24	BA	15	G
24	BA	23	G
24	BA	33	C
24	BA	34	U
24	BA	35	G
24	BA	37	C
24	BA	46	G
24	BA	47	C
24	BA	51	G
24	BA	58	G
24	BA	62	U
24	BA	63	A
24	BA	70	G
24	BA	71	A
24	BA	74	A
24	BA	75	G
24	BA	78	U
24	BA	80	G
24	BA	84	A
24	BA	85	G
24	BA	87	U
24	BA	92	U
24	BA	94	A
24	BA	100	U
24	BA	101	A
24	BA	102	U

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Mol	Chain	Res	Type
24	BA	110	G
24	BA	118	A
24	BA	119	A
24	BA	120	U
24	BA	126	A
24	BA	128	C
24	BA	137	U
24	BA	138	U
24	BA	139	U
24	BA	140	C
24	BA	141	G
24	BA	142	A
24	BA	147	C
24	BA	150	U
24	BA	151	C
24	BA	162	U
24	BA	163	C
24	BA	170	U
24	BA	181	A
24	BA	187	G
24	BA	196	A
24	BA	199	A
24	BA	204	A
24	BA	210	C
24	BA	211	C
24	BA	214	G
24	BA	215	G
24	BA	216	A
24	BA	218	A
24	BA	221	A
24	BA	222	A
24	BA	223	A
24	BA	224	U
24	BA	227	A
24	BA	228	C
24	BA	233	A
24	BA	239	C
24	BA	241	A
24	BA	244	A
24	BA	248	G
24	BA	249	C
24	BA	255	A

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Mol	Chain	Res	Type
24	BA	266	G
24	BA	272	A
24	BA	273	G
24	BA	276	U
24	BA	278	A
24	BA	282	A
24	BA	283	G
24	BA	284	U
24	BA	285	G
24	BA	301	G
24	BA	311	A
24	BA	316	C
24	BA	329	G
24	BA	330	A
24	BA	331	C
24	BA	333	G
24	BA	334	C
24	BA	335	C
24	BA	338	G
24	BA	341	C
24	BA	342	A
24	BA	346	A
24	BA	350	G
24	BA	353	C
24	BA	354	A
24	BA	355	U
24	BA	359	G
24	BA	361	G
24	BA	362	A
24	BA	363	G
24	BA	367	G
24	BA	371	A
24	BA	372	G
24	BA	373	U
24	BA	379	G
24	BA	380	G
24	BA	384	A
24	BA	386	G
24	BA	388	G
24	BA	389	G
24	BA	391	A
24	BA	396	G

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Mol	Chain	Res	Type
24	BA	399	U
24	BA	404	A
24	BA	405	U
24	BA	406	G
24	BA	411	G
24	BA	412	A
24	BA	413	C
24	BA	419	U
24	BA	421	C
24	BA	424	G
24	BA	429	A
24	BA	435	C
24	BA	447	A
24	BA	450	G
24	BA	451	U
24	BA	452	G
24	BA	455	C
24	BA	458	G
24	BA	473	G
24	BA	474	G
24	BA	479	A
24	BA	480	A
24	BA	481	G
24	BA	484	C
24	BA	490	C
24	BA	491	G
24	BA	504	A
24	BA	505	A
24	BA	507	A
24	BA	508	A
24	BA	509	C
24	BA	510	C
24	BA	516	C
24	BA	530	G
24	BA	531	C
24	BA	532	A
24	BA	533	G
24	BA	543	G
24	BA	544	C
24	BA	545	U
24	BA	546	U
24	BA	547	A

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Mol	Chain	Res	Type
24	BA	548	G
24	BA	549	G
24	BA	550	C
24	BA	557	C
24	BA	563	A
24	BA	573	U
24	BA	574	A
24	BA	575	A
24	BA	577	G
24	BA	579	G
24	BA	584	C
24	BA	585	G
24	BA	586	A
24	BA	587	C
24	BA	588	U
24	BA	600	G
24	BA	601	C
24	BA	603	A
24	BA	605	G
24	BA	608	A
24	BA	613	A
24	BA	614	A
24	BA	615	U
24	BA	616	A
24	BA	617	G
24	BA	619	G
24	BA	620	G
24	BA	627	A
24	BA	631	A
24	BA	637	A
24	BA	644	A
24	BA	645	C
24	BA	647	G
24	BA	651	G
24	BA	653	U
24	BA	654	A
24	BA	655	A
24	BA	659	G
24	BA	661	A
24	BA	663	G
24	BA	668	A
24	BA	682	G

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Mol	Chain	Res	Type
24	BA	686	U
24	BA	695	G
24	BA	696	G
24	BA	714	U
24	BA	715	A
24	BA	717	C
24	BA	718	A
24	BA	730	A
24	BA	737	C
24	BA	743	A
24	BA	746	U
24	BA	747	U
24	BA	748	G
24	BA	749	A
24	BA	753	A
24	BA	754	U
24	BA	757	G
24	BA	762	U
24	BA	764	A
24	BA	765	C
24	BA	771	G
24	BA	775	G
24	BA	776	G
24	BA	782	A
24	BA	784	G
24	BA	785	G
24	BA	787	C
24	BA	789	A
24	BA	792	A
24	BA	794	A
24	BA	795	C
24	BA	799	G
24	BA	800	A
24	BA	801	G
24	BA	805	G
24	BA	811	U
24	BA	812	C
24	BA	813	U
24	BA	815	C
24	BA	819	A
24	BA	820	A
24	BA	824	U

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Mol	Chain	Res	Type
24	BA	826	U
24	BA	827	U
24	BA	828	U
24	BA	830	G
24	BA	832	U
24	BA	836	G
24	BA	837	C
24	BA	845	A
24	BA	846	U
24	BA	847	U
24	BA	852	U
24	BA	856	G
24	BA	857	G
24	BA	858	G
24	BA	859	G
24	BA	860	U
24	BA	868	U
24	BA	878	A
24	BA	879	G
24	BA	880	G
24	BA	884	U
24	BA	893	C
24	BA	894	U
24	BA	896	A
24	BA	897	C
24	BA	910	A
24	BA	915	C
24	BA	923	G
24	BA	924	G
24	BA	927	A
24	BA	931	U
24	BA	932	U
24	BA	933	A
24	BA	941	A
24	BA	945	A
24	BA	946	C
24	BA	952	G
24	BA	953	G
24	BA	958	U
24	BA	961	C
24	BA	973	A
24	BA	974	G

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Mol	Chain	Res	Type
24	BA	982	C
24	BA	983	A
24	BA	985	C
24	BA	990	A
24	BA	993	G
24	BA	994	C
24	BA	995	C
24	BA	996	A
24	BA	997	G
24	BA	1005	C
24	BA	1008	A
24	BA	1009	A
24	BA	1012	U
24	BA	1013	C
24	BA	1017	G
24	BA	1020	A
24	BA	1021	A
24	BA	1022	G
24	BA	1023	U
24	BA	1025	G
24	BA	1026	G
24	BA	1027	A
24	BA	1033	U
24	BA	1046	A
24	BA	1056	G
24	BA	1057	A
24	BA	1060	U
24	BA	1061	U
24	BA	1062	G
24	BA	1065	U
24	BA	1066	U
24	BA	1067	A
24	BA	1068	G
24	BA	1070	A
24	BA	1071	G
24	BA	1072	C
24	BA	1073	A
24	BA	1074	G
24	BA	1075	C
24	BA	1079	C
24	BA	1083	U
24	BA	1088	A

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Mol	Chain	Res	Type
24	BA	1089	A
24	BA	1090	A
24	BA	1091	G
24	BA	1092	C
24	BA	1094	U
24	BA	1096	A
24	BA	1097	U
24	BA	1098	A
24	BA	1101	U
24	BA	1104	C
24	BA	1105	U
24	BA	1106	G
24	BA	1110	G
24	BA	1111	A
24	BA	1112	G
24	BA	1115	G
24	BA	1132	U
24	BA	1133	A
24	BA	1134	A
24	BA	1135	C
24	BA	1136	G
24	BA	1139	G
24	BA	1142	A
24	BA	1143	A
24	BA	1144	A
24	BA	1146	C
24	BA	1155	A
24	BA	1169	A
24	BA	1172	C
24	BA	1173	U
24	BA	1174	U
24	BA	1175	A
24	BA	1176	U
24	BA	1177	G
24	BA	1181	U
24	BA	1184	U
24	BA	1186	G
24	BA	1189	A
24	BA	1205	A
24	BA	1211	C
24	BA	1212	G
24	BA	1217	U

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Mol	Chain	Res	Type
24	BA	1218	G
24	BA	1224	U
24	BA	1227	G
24	BA	1229	C
24	BA	1237	A
24	BA	1238	G
24	BA	1248	G
24	BA	1250	G
24	BA	1253	A
24	BA	1256	G
24	BA	1262	A
24	BA	1266	G
24	BA	1268	A
24	BA	1269	A
24	BA	1271	G
24	BA	1272	A
24	BA	1275	A
24	BA	1282	U
24	BA	1284	A
24	BA	1286	A
24	BA	1288	G
24	BA	1292	G
24	BA	1300	G
24	BA	1301	A
24	BA	1306	C
24	BA	1317	G
24	BA	1318	U
24	BA	1319	C
24	BA	1329	U
24	BA	1334	G
24	BA	1340	U
24	BA	1344	U
24	BA	1345	C
24	BA	1346	G
24	BA	1347	A
24	BA	1348	C
24	BA	1350	C
24	BA	1352	U
24	BA	1353	A
24	BA	1355	G
24	BA	1357	C
24	BA	1358	G

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Mol	Chain	Res	Type
24	BA	1365	A
24	BA	1368	G
24	BA	1373	A
24	BA	1374	G
24	BA	1376	C
24	BA	1377	G
24	BA	1378	A
24	BA	1379	U
24	BA	1383	A
24	BA	1384	A
24	BA	1385	A
24	BA	1395	A
24	BA	1398	C
24	BA	1400	U
24	BA	1403	A
24	BA	1405	U
24	BA	1406	U
24	BA	1410	G
24	BA	1413	A
24	BA	1416	G
24	BA	1417	C
24	BA	1419	A
24	BA	1420	A
24	BA	1424	G
24	BA	1427	A
24	BA	1428	C
24	BA	1429	G
24	BA	1433	A
24	BA	1434	A
24	BA	1435	G
24	BA	1436	G
24	BA	1444	G
24	BA	1451	C
24	BA	1452	G
24	BA	1458	U
24	BA	1460	U
24	BA	1464	G
24	BA	1476	U
24	BA	1482	G
24	BA	1486	U
24	BA	1490	A
24	BA	1494	A

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Mol	Chain	Res	Type
24	BA	1495	A
24	BA	1496	A
24	BA	1497	U
24	BA	1498	C
24	BA	1499	C
24	BA	1503	A
24	BA	1504	A
24	BA	1510	G
24	BA	1511	G
24	BA	1515	A
24	BA	1517	G
24	BA	1519	G
24	BA	1522	A
24	BA	1524	G
24	BA	1532	A
24	BA	1533	C
24	BA	1534	U
24	BA	1535	A
24	BA	1536	C
24	BA	1537	G
24	BA	1538	G
24	BA	1548	A
24	BA	1555	G
24	BA	1563	U
24	BA	1566	A
24	BA	1569	A
24	BA	1572	A
24	BA	1574	C
24	BA	1578	U
24	BA	1579	A
24	BA	1581	G
24	BA	1582	C
24	BA	1584	U
24	BA	1585	C
24	BA	1586	A
24	BA	1587	G
24	BA	1589	U
24	BA	1591	A
24	BA	1593	A
24	BA	1602	U
24	BA	1604	C
24	BA	1605	C

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Mol	Chain	Res	Type
24	BA	1606	C
24	BA	1607	C
24	BA	1608	A
24	BA	1610	A
24	BA	1616	A
24	BA	1617	C
24	BA	1625	C
24	BA	1638	C
24	BA	1647	U
24	BA	1648	U
24	BA	1649	G
24	BA	1651	G
24	BA	1652	A
24	BA	1654	A
24	BA	1656	C
24	BA	1661	G
24	BA	1674	G
24	BA	1677	A
24	BA	1681	G
24	BA	1685	C
24	BA	1694	C
24	BA	1697	G
24	BA	1703	G
24	BA	1704	C
24	BA	1714	U
24	BA	1715	G
24	BA	1716	U
24	BA	1725	U
24	BA	1729	U
24	BA	1730	C
24	BA	1731	G
24	BA	1733	G
24	BA	1735	A
24	BA	1739	A
24	BA	1743	G
24	BA	1750	G
24	BA	1752	C
24	BA	1757	A
24	BA	1762	A
24	BA	1764	C
24	BA	1765	U
24	BA	1773	A

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Mol	Chain	Res	Type
24	BA	1775	U
24	BA	1776	G
24	BA	1781	U
24	BA	1785	A
24	BA	1791	A
24	BA	1800	C
24	BA	1801	A
24	BA	1803	A
24	BA	1808	A
24	BA	1809	A
24	BA	1811	G
24	BA	1812	U
24	BA	1816	C
24	BA	1818	U
24	BA	1819	A
24	BA	1821	A
24	BA	1828	G
24	BA	1829	A
24	BA	1835	G
24	BA	1841	U
24	BA	1842	G
24	BA	1847	A
24	BA	1848	A
24	BA	1858	A
24	BA	1859	U
24	BA	1867	G
24	BA	1869	G
24	BA	1870	C
24	BA	1871	A
24	BA	1872	A
24	BA	1873	G
24	BA	1876	A
24	BA	1880	U
24	BA	1882	U
24	BA	1884	G
24	BA	1892	C
24	BA	1897	G
24	BA	1903	G
24	BA	1906	G
24	BA	1908	C
24	BA	1913	A
24	BA	1914	C

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Mol	Chain	Res	Type
24	BA	1915	U
24	BA	1926	U
24	BA	1927	A
24	BA	1930	G
24	BA	1931	U
24	BA	1932	A
24	BA	1935	G
24	BA	1937	A
24	BA	1938	A
24	BA	1943	U
24	BA	1944	U
24	BA	1955	U
24	BA	1956	U
24	BA	1958	C
24	BA	1961	C
24	BA	1964	G
24	BA	1965	C
24	BA	1967	C
24	BA	1970	A
24	BA	1972	G
24	BA	1980	G
24	BA	1991	U
24	BA	1993	U
24	BA	1995	U
24	BA	1996	C
24	BA	1997	C
24	BA	2001	C
24	BA	2002	G
24	BA	2004	G
24	BA	2006	C
24	BA	2007	U
24	BA	2008	C
24	BA	2017	U
24	BA	2018	G
24	BA	2020	A
24	BA	2023	C
24	BA	2025	C
24	BA	2027	G
24	BA	2030	A
24	BA	2031	A
24	BA	2033	A
24	BA	2034	U

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Mol	Chain	Res	Type
24	BA	2035	G
24	BA	2036	C
24	BA	2043	C
24	BA	2044	C
24	BA	2049	G
24	BA	2051	A
24	BA	2055	C
24	BA	2056	G
24	BA	2060	A
24	BA	2061	G
24	BA	2062	A
24	BA	2063	C
24	BA	2068	U
24	BA	2069	G
24	BA	2070	A
24	BA	2072	C
24	BA	2076	U
24	BA	2080	A
24	BA	2081	U
24	BA	2092	U
24	BA	2093	G
24	BA	2095	A
24	BA	2096	C
24	BA	2099	U
24	BA	2105	U
24	BA	2109	U
24	BA	2110	G
24	BA	2111	U
24	BA	2112	G
24	BA	2113	U
24	BA	2115	G
24	BA	2116	G
24	BA	2117	A
24	BA	2118	U
24	BA	2119	A
24	BA	2120	G
24	BA	2123	G
24	BA	2125	G
24	BA	2126	A
24	BA	2127	G
24	BA	2128	G
24	BA	2131	U

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Mol	Chain	Res	Type
24	BA	2132	U
24	BA	2133	G
24	BA	2136	G
24	BA	2137	U
24	BA	2138	G
24	BA	2139	U
24	BA	2141	G
24	BA	2143	C
24	BA	2145	C
24	BA	2146	C
24	BA	2147	A
24	BA	2158	A
24	BA	2159	G
24	BA	2160	C
24	BA	2161	C
24	BA	2163	A
24	BA	2164	C
24	BA	2165	C
24	BA	2167	U
24	BA	2169	A
24	BA	2171	A
24	BA	2172	U
24	BA	2173	A
24	BA	2184	A
24	BA	2185	U
24	BA	2186	G
24	BA	2189	U
24	BA	2190	G
24	BA	2198	A
24	BA	2199	A
24	BA	2200	C
24	BA	2203	U
24	BA	2204	G
24	BA	2207	C
24	BA	2211	A
24	BA	2212	A
24	BA	2213	U
24	BA	2215	C
24	BA	2218	G
24	BA	2225	A
24	BA	2226	C
24	BA	2230	G

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Mol	Chain	Res	Type
24	BA	2238	G
24	BA	2239	G
24	BA	2250	G
24	BA	2252	G
24	BA	2262	U
24	BA	2264	C
24	BA	2265	U
24	BA	2268	A
24	BA	2278	A
24	BA	2283	C
24	BA	2285	C
24	BA	2286	G
24	BA	2287	A
24	BA	2289	G
24	BA	2295	C
24	BA	2299	U
24	BA	2303	G
24	BA	2304	G
24	BA	2305	U
24	BA	2307	G
24	BA	2309	A
24	BA	2310	C
24	BA	2311	A
24	BA	2312	U
24	BA	2313	C
24	BA	2321	U
24	BA	2322	A
24	BA	2323	G
24	BA	2325	G
24	BA	2326	C
24	BA	2327	A
24	BA	2331	G
24	BA	2333	A
24	BA	2334	U
24	BA	2335	A
24	BA	2343	U
24	BA	2347	C
24	BA	2348	U
24	BA	2350	C
24	BA	2358	A
24	BA	2360	G
24	BA	2367	G

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Mol	Chain	Res	Type
24	BA	2378	A
24	BA	2382	G
24	BA	2383	G
24	BA	2384	U
24	BA	2385	C
24	BA	2386	A
24	BA	2402	U
24	BA	2403	C
24	BA	2406	A
24	BA	2410	G
24	BA	2415	G
24	BA	2418	A
24	BA	2419	U
24	BA	2420	C
24	BA	2421	G
24	BA	2422	C
24	BA	2423	U
24	BA	2424	C
24	BA	2425	A
24	BA	2426	A
24	BA	2428	G
24	BA	2429	G
24	BA	2430	A
24	BA	2433	A
24	BA	2434	A
24	BA	2435	A
24	BA	2441	U
24	BA	2444	G
24	BA	2447	G
24	BA	2448	A
24	BA	2470	G
24	BA	2473	U
24	BA	2474	U
24	BA	2476	A
24	BA	2480	C
24	BA	2482	A
24	BA	2484	G
24	BA	2488	G
24	BA	2491	U
24	BA	2493	U
24	BA	2501	C
24	BA	2502	G

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Mol	Chain	Res	Type
24	BA	2505	G
24	BA	2513	A
24	BA	2514	U
24	BA	2518	A
24	BA	2521	C
24	BA	2522	U
24	BA	2523	G
24	BA	2524	G
24	BA	2525	G
24	BA	2529	G
24	BA	2534	A
24	BA	2535	G
24	BA	2536	G
24	BA	2547	A
24	BA	2554	U
24	BA	2563	U
24	BA	2566	A
24	BA	2567	G
24	BA	2568	U
24	BA	2569	G
24	BA	2572	A
24	BA	2573	C
24	BA	2574	G
24	BA	2576	G
24	BA	2585	U
24	BA	2591	C
24	BA	2602	A
24	BA	2603	G
24	BA	2605	U
24	BA	2609	U
24	BA	2613	U
24	BA	2615	U
24	BA	2623	G
24	BA	2629	U
24	BA	2645	G
24	BA	2646	C
24	BA	2650	U
24	BA	2651	C
24	BA	2653	U
24	BA	2655	G
24	BA	2656	U
24	BA	2661	G

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Mol	Chain	Res	Type
24	BA	2662	A
24	BA	2663	G
24	BA	2680	U
24	BA	2681	C
24	BA	2689	U
24	BA	2690	U
24	BA	2704	C
24	BA	2710	C
24	BA	2714	G
24	BA	2718	G
24	BA	2726	A
24	BA	2729	G
24	BA	2733	A
24	BA	2735	G
24	BA	2736	A
24	BA	2744	G
24	BA	2745	C
24	BA	2748	A
24	BA	2749	A
24	BA	2751	G
24	BA	2755	C
24	BA	2757	A
24	BA	2758	A
24	BA	2762	C
24	BA	2765	A
24	BA	2767	C
24	BA	2768	U
24	BA	2778	A
24	BA	2781	A
24	BA	2791	G
24	BA	2792	A
24	BA	2793	C
24	BA	2794	C
24	BA	2797	U
24	BA	2798	U
24	BA	2799	A
24	BA	2808	G
24	BA	2820	A
24	BA	2821	A
24	BA	2833	U
24	BA	2834	G
24	BA	2837	A

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Mol	Chain	Res	Type
24	BA	2848	G
24	BA	2852	G
24	BA	2861	U
24	BA	2863	C
24	BA	2866	U
24	BA	2867	G
24	BA	2873	A
24	BA	2879	A
24	BA	2880	C
24	BA	2883	A
24	BA	2884	U
24	BA	2886	A
24	BA	2887	A
24	BA	2893	A
24	BA	2895	G
24	BA	2903	U
25	BB	5	U
25	BB	8	C
25	BB	9	G
25	BB	11	C
25	BB	13	G
25	BB	15	A
25	BB	16	G
25	BB	23	G
25	BB	24	G
25	BB	32	U
25	BB	35	C
25	BB	41	G
25	BB	44	G
25	BB	46	A
25	BB	49	C
25	BB	50	A
25	BB	51	G
25	BB	52	A
25	BB	53	A
25	BB	54	G
25	BB	56	G
25	BB	78	A
25	BB	88	C
25	BB	89	U
25	BB	90	C
25	BB	99	A

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Mol	Chain	Res	Type
25	BB	109	A
25	BB	113	C
25	BB	116	G
1	CA	5	U
1	CA	6	G
1	CA	7	A
1	CA	9	G
1	CA	16	A
1	CA	17	U
1	CA	19	A
1	CA	21	G
1	CA	27	G
1	CA	31	G
1	CA	32	A
1	CA	33	A
1	CA	38	G
1	CA	39	G
1	CA	41	G
1	CA	47	C
1	CA	48	C
1	CA	51	A
1	CA	58	C
1	CA	60	A
1	CA	63	C
1	CA	64	G
1	CA	65	A
1	CA	70	U
1	CA	71	A
1	CA	74	A
1	CA	75	G
1	CA	76	G
1	CA	78	A
1	CA	79	G
1	CA	80	A
1	CA	81	A
1	CA	82	G
1	CA	83	C
1	CA	85	U
1	CA	86	G
1	CA	87	C
1	CA	89	U
1	CA	90	C

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Mol	Chain	Res	Type
1	CA	91	U
1	CA	92	U
1	CA	94	G
1	CA	95	C
1	CA	96	U
1	CA	97	G
1	CA	100	G
1	CA	101	A
1	CA	106	C
1	CA	108	G
1	CA	109	A
1	CA	110	C
1	CA	111	G
1	CA	115	G
1	CA	116	A
1	CA	118	U
1	CA	120	A
1	CA	121	U
1	CA	122	G
1	CA	123	U
1	CA	127	G
1	CA	130	A
1	CA	131	A
1	CA	139	A
1	CA	140	U
1	CA	143	A
1	CA	144	G
1	CA	156	C
1	CA	163	C
1	CA	168	G
1	CA	173	U
1	CA	189	A
1	CA	195	A
1	CA	197	A
1	CA	199	A
1	CA	204	G
1	CA	205	A
1	CA	206	C
1	CA	208	U
1	CA	209	U
1	CA	210	C
1	CA	211	G

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Mol	Chain	Res	Type
1	CA	214	C
1	CA	215	C
1	CA	220	G
1	CA	226	G
1	CA	240	G
1	CA	245	U
1	CA	247	G
1	CA	251	G
1	CA	252	U
1	CA	253	A
1	CA	259	G
1	CA	262	A
1	CA	266	G
1	CA	267	C
1	CA	273	U
1	CA	289	G
1	CA	290	C
1	CA	294	U
1	CA	299	G
1	CA	301	G
1	CA	317	U
1	CA	321	A
1	CA	328	C
1	CA	329	A
1	CA	330	C
1	CA	331	G
1	CA	332	G
1	CA	343	U
1	CA	344	A
1	CA	346	G
1	CA	347	G
1	CA	348	G
1	CA	349	A
1	CA	352	C
1	CA	354	G
1	CA	355	C
1	CA	358	U
1	CA	367	U
1	CA	372	C
1	CA	376	G
1	CA	382	A
1	CA	384	G

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Mol	Chain	Res	Type
1	CA	387	U
1	CA	388	G
1	CA	389	A
1	CA	390	U
1	CA	394	G
1	CA	400	C
1	CA	401	C
1	CA	406	G
1	CA	410	G
1	CA	411	A
1	CA	412	A
1	CA	413	G
1	CA	414	A
1	CA	421	U
1	CA	422	C
1	CA	423	G
1	CA	424	G
1	CA	427	U
1	CA	428	G
1	CA	429	U
1	CA	444	G
1	CA	446	G
1	CA	448	A
1	CA	454	G
1	CA	456	A
1	CA	458	U
1	CA	462	G
1	CA	463	U
1	CA	465	A
1	CA	466	A
1	CA	467	U
1	CA	468	A
1	CA	474	G
1	CA	475	C
1	CA	481	G
1	CA	482	A
1	CA	483	C
1	CA	484	G
1	CA	485	U
1	CA	486	U
1	CA	492	C
1	CA	493	A

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Mol	Chain	Res	Type
1	CA	496	A
1	CA	498	A
1	CA	505	G
1	CA	509	A
1	CA	511	C
1	CA	512	U
1	CA	513	C
1	CA	518	C
1	CA	527	G
1	CA	531	U
1	CA	532	A
1	CA	533	A
1	CA	536	C
1	CA	547	A
1	CA	549	C
1	CA	555	U
1	CA	559	A
1	CA	562	U
1	CA	563	A
1	CA	572	A
1	CA	573	A
1	CA	575	G
1	CA	576	C
1	CA	577	G
1	CA	580	C
1	CA	591	U
1	CA	592	G
1	CA	595	A
1	CA	607	A
1	CA	610	U
1	CA	613	C
1	CA	614	C
1	CA	615	G
1	CA	619	U
1	CA	622	A
1	CA	632	U
1	CA	633	G
1	CA	634	C
1	CA	640	A
1	CA	650	G
1	CA	653	U
1	CA	658	C

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Mol	Chain	Res	Type
1	CA	661	G
1	CA	665	A
1	CA	674	G
1	CA	679	C
1	CA	686	U
1	CA	692	U
1	CA	693	G
1	CA	694	A
1	CA	702	A
1	CA	703	G
1	CA	706	A
1	CA	712	A
1	CA	718	A
1	CA	719	C
1	CA	721	G
1	CA	722	G
1	CA	723	U
1	CA	724	G
1	CA	729	A
1	CA	731	G
1	CA	733	G
1	CA	734	G
1	CA	738	C
1	CA	739	C
1	CA	740	U
1	CA	747	A
1	CA	753	A
1	CA	755	G
1	CA	756	C
1	CA	764	C
1	CA	766	A
1	CA	772	U
1	CA	774	G
1	CA	777	A
1	CA	778	G
1	CA	786	G
1	CA	787	A
1	CA	788	U
1	CA	789	U
1	CA	793	U
1	CA	794	A
1	CA	796	C

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Mol	Chain	Res	Type
1	CA	810	C
1	CA	815	A
1	CA	817	C
1	CA	828	U
1	CA	829	G
1	CA	830	G
1	CA	831	A
1	CA	832	G
1	CA	833	G
1	CA	834	U
1	CA	838	G
1	CA	840	C
1	CA	841	C
1	CA	842	U
1	CA	843	U
1	CA	845	A
1	CA	846	G
1	CA	849	G
1	CA	850	U
1	CA	855	U
1	CA	859	G
1	CA	860	A
1	CA	867	G
1	CA	868	C
1	CA	872	A
1	CA	873	A
1	CA	878	A
1	CA	880	C
1	CA	887	G
1	CA	890	G
1	CA	902	G
1	CA	906	A
1	CA	911	U
1	CA	914	A
1	CA	924	C
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	935	A
1	CA	938	A
1	CA	940	C
1	CA	942	G

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Mol	Chain	Res	Type
1	CA	945	G
1	CA	948	C
1	CA	949	A
1	CA	960	U
1	CA	966	G
1	CA	967	C
1	CA	968	A
1	CA	969	A
1	CA	973	G
1	CA	975	A
1	CA	976	G
1	CA	977	A
1	CA	979	C
1	CA	983	A
1	CA	990	C
1	CA	991	U
1	CA	992	U
1	CA	993	G
1	CA	994	A
1	CA	996	A
1	CA	1002	G
1	CA	1004	A
1	CA	1007	U
1	CA	1009	U
1	CA	1015	G
1	CA	1018	G
1	CA	1025	U
1	CA	1026	G
1	CA	1028	C
1	CA	1030	U
1	CA	1031	C
1	CA	1032	G
1	CA	1033	G
1	CA	1034	G
1	CA	1036	A
1	CA	1037	C
1	CA	1043	G
1	CA	1049	U
1	CA	1050	G
1	CA	1051	C
1	CA	1053	G
1	CA	1054	C

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Mol	Chain	Res	Type
1	CA	1058	G
1	CA	1061	G
1	CA	1063	C
1	CA	1064	G
1	CA	1065	U
1	CA	1066	C
1	CA	1076	U
1	CA	1081	A
1	CA	1086	U
1	CA	1088	G
1	CA	1089	G
1	CA	1090	U
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
1	CA	1102	A
1	CA	1104	G
1	CA	1106	G
1	CA	1108	G
1	CA	1109	C
1	CA	1112	C
1	CA	1114	C
1	CA	1118	U
1	CA	1122	U
1	CA	1123	U
1	CA	1124	G
1	CA	1125	U
1	CA	1127	G
1	CA	1128	C
1	CA	1133	G
1	CA	1135	U
1	CA	1136	C
1	CA	1137	C
1	CA	1139	G
1	CA	1140	C
1	CA	1141	C
1	CA	1142	G
1	CA	1143	G
1	CA	1145	A
1	CA	1146	A
1	CA	1151	A
1	CA	1152	A

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Mol	Chain	Res	Type
1	CA	1153	G
1	CA	1155	A
1	CA	1157	A
1	CA	1158	C
1	CA	1159	U
1	CA	1160	G
1	CA	1161	C
1	CA	1167	A
1	CA	1168	U
1	CA	1169	A
1	CA	1175	G
1	CA	1178	G
1	CA	1182	G
1	CA	1183	U
1	CA	1184	G
1	CA	1186	G
1	CA	1193	G
1	CA	1196	A
1	CA	1197	A
1	CA	1199	U
1	CA	1203	C
1	CA	1212	U
1	CA	1213	A
1	CA	1215	G
1	CA	1219	A
1	CA	1232	U
1	CA	1240	U
1	CA	1241	G
1	CA	1244	G
1	CA	1252	A
1	CA	1253	G
1	CA	1256	A
1	CA	1258	G
1	CA	1266	G
1	CA	1270	G
1	CA	1278	G
1	CA	1280	A
1	CA	1281	C
1	CA	1286	U
1	CA	1287	A
1	CA	1288	A
1	CA	1291	U

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Mol	Chain	Res	Type
1	CA	1293	C
1	CA	1294	G
1	CA	1296	C
1	CA	1297	G
1	CA	1298	U
1	CA	1299	A
1	CA	1300	G
1	CA	1302	C
1	CA	1305	G
1	CA	1308	U
1	CA	1311	A
1	CA	1312	G
1	CA	1316	G
1	CA	1317	C
1	CA	1318	A
1	CA	1319	A
1	CA	1322	C
1	CA	1323	G
1	CA	1331	G
1	CA	1332	A
1	CA	1335	U
1	CA	1336	C
1	CA	1343	G
1	CA	1344	C
1	CA	1353	G
1	CA	1355	G
1	CA	1358	U
1	CA	1360	A
1	CA	1361	G
1	CA	1363	A
1	CA	1366	C
1	CA	1367	C
1	CA	1368	A
1	CA	1378	C
1	CA	1379	G
1	CA	1389	C
1	CA	1392	G
1	CA	1393	U
1	CA	1394	A
1	CA	1397	C
1	CA	1398	A
1	CA	1400	C

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Mol	Chain	Res	Type
1	CA	1401	G
1	CA	1402	C
1	CA	1411	C
1	CA	1412	C
1	CA	1413	A
1	CA	1415	G
1	CA	1416	G
1	CA	1419	G
1	CA	1422	G
1	CA	1428	A
1	CA	1441	A
1	CA	1446	A
1	CA	1448	C
1	CA	1452	C
1	CA	1453	G
1	CA	1454	G
1	CA	1455	G
1	CA	1462	C
1	CA	1479	C
1	CA	1482	G
1	CA	1492	A
1	CA	1493	A
1	CA	1494	G
1	CA	1496	C
1	CA	1497	G
1	CA	1506	U
1	CA	1507	A
1	CA	1509	C
1	CA	1515	G
1	CA	1517	G
1	CA	1527	U
1	CA	1528	U
1	CA	1529	G
1	CA	1530	G
1	CA	1531	A
1	CA	1533	C
1	CA	1534	A
1	CA	1535	C
1	CA	1538	C
22	CV	2	C
22	CV	3	C
22	CV	5	G

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Mol	Chain	Res	Type
22	CV	8	U
22	CV	9	A
22	CV	12	U
22	CV	17	C
22	CV	19	G
22	CV	20	U
22	CV	21	A
22	CV	22	G
22	CV	30	G
22	CV	34	G
22	CV	37	A
22	CV	39	U
22	CV	43	C
22	CV	45	U
22	CV	46	G
22	CV	48	C
22	CV	49	C
22	CV	61	C
22	CV	67	C
22	CV	72	C
22	CV	73	A
22	CV	74	C
22	CV	75	C
22	CV	76	A
23	CX	3	G
23	CX	4	G
23	CX	9	A
23	CX	11	A
23	CX	14	U
23	CX	16	U
24	DA	2	G
24	DA	10	A
24	DA	12	U
24	DA	14	A
24	DA	15	G
24	DA	22	C
24	DA	23	G
24	DA	31	C
24	DA	33	C
24	DA	34	U
24	DA	35	G
24	DA	37	C

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Mol	Chain	Res	Type
24	DA	39	G
24	DA	42	A
24	DA	45	G
24	DA	46	G
24	DA	49	A
24	DA	50	U
24	DA	51	G
24	DA	54	G
24	DA	55	G
24	DA	58	G
24	DA	61	C
24	DA	64	A
24	DA	71	A
24	DA	74	A
24	DA	75	G
24	DA	76	C
24	DA	77	G
24	DA	80	G
24	DA	84	A
24	DA	101	A
24	DA	102	U
24	DA	103	A
24	DA	104	A
24	DA	118	A
24	DA	119	A
24	DA	120	U
24	DA	121	G
24	DA	122	G
24	DA	124	G
24	DA	127	A
24	DA	128	C
24	DA	132	G
24	DA	135	U
24	DA	137	U
24	DA	138	U
24	DA	139	U
24	DA	140	C
24	DA	141	G
24	DA	142	A
24	DA	143	C
24	DA	147	C
24	DA	150	U

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Mol	Chain	Res	Type
24	DA	155	A
24	DA	157	C
24	DA	160	A
24	DA	162	U
24	DA	168	G
24	DA	181	A
24	DA	191	A
24	DA	196	A
24	DA	199	A
24	DA	209	C
24	DA	215	G
24	DA	216	A
24	DA	222	A
24	DA	230	G
24	DA	231	A
24	DA	233	A
24	DA	245	G
24	DA	248	G
24	DA	249	C
24	DA	250	G
24	DA	251	A
24	DA	252	G
24	DA	255	A
24	DA	264	C
24	DA	265	A
24	DA	266	G
24	DA	276	U
24	DA	277	G
24	DA	288	U
24	DA	293	U
24	DA	294	A
24	DA	295	G
24	DA	302	C
24	DA	308	G
24	DA	309	A
24	DA	311	A
24	DA	323	C
24	DA	325	G
24	DA	329	G
24	DA	330	A
24	DA	331	C
24	DA	332	A

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Mol	Chain	Res	Type
24	DA	343	C
24	DA	352	A
24	DA	362	A
24	DA	371	A
24	DA	372	G
24	DA	379	G
24	DA	380	G
24	DA	386	G
24	DA	389	G
24	DA	396	G
24	DA	405	U
24	DA	406	G
24	DA	408	G
24	DA	409	G
24	DA	411	G
24	DA	412	A
24	DA	420	C
24	DA	424	G
24	DA	432	A
24	DA	434	U
24	DA	435	C
24	DA	437	U
24	DA	440	C
24	DA	443	A
24	DA	445	C
24	DA	446	G
24	DA	453	A
24	DA	454	A
24	DA	455	C
24	DA	459	U
24	DA	462	C
24	DA	477	A
24	DA	478	A
24	DA	479	A
24	DA	480	A
24	DA	481	G
24	DA	482	A
24	DA	483	A
24	DA	486	C
24	DA	487	C
24	DA	491	G
24	DA	505	A

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Mol	Chain	Res	Type
24	DA	508	A
24	DA	528	A
24	DA	529	A
24	DA	532	A
24	DA	533	G
24	DA	538	A
24	DA	543	G
24	DA	544	C
24	DA	545	U
24	DA	546	U
24	DA	547	A
24	DA	548	G
24	DA	549	G
24	DA	550	C
24	DA	556	A
24	DA	557	C
24	DA	563	A
24	DA	569	U
24	DA	570	G
24	DA	573	U
24	DA	575	A
24	DA	576	U
24	DA	578	G
24	DA	586	A
24	DA	588	U
24	DA	589	U
24	DA	602	A
24	DA	603	A
24	DA	604	G
24	DA	608	A
24	DA	609	A
24	DA	613	A
24	DA	614	A
24	DA	615	U
24	DA	618	G
24	DA	620	G
24	DA	621	A
24	DA	622	G
24	DA	630	G
24	DA	637	A
24	DA	645	C
24	DA	647	G

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Mol	Chain	Res	Type
24	DA	648	G
24	DA	653	U
24	DA	654	A
24	DA	661	A
24	DA	662	G
24	DA	666	A
24	DA	667	U
24	DA	668	A
24	DA	671	C
24	DA	672	C
24	DA	676	A
24	DA	681	G
24	DA	686	U
24	DA	692	C
24	DA	693	A
24	DA	697	G
24	DA	710	U
24	DA	715	A
24	DA	716	A
24	DA	717	C
24	DA	718	A
24	DA	722	A
24	DA	729	G
24	DA	730	A
24	DA	736	C
24	DA	737	C
24	DA	740	C
24	DA	746	U
24	DA	747	U
24	DA	757	G
24	DA	761	A
24	DA	764	A
24	DA	765	C
24	DA	775	G
24	DA	776	G
24	DA	782	A
24	DA	784	G
24	DA	785	G
24	DA	788	A
24	DA	789	A
24	DA	792	A
24	DA	794	A

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Mol	Chain	Res	Type
24	DA	800	A
24	DA	805	G
24	DA	806	C
24	DA	811	U
24	DA	812	C
24	DA	815	C
24	DA	819	A
24	DA	824	U
24	DA	827	U
24	DA	828	U
24	DA	831	G
24	DA	832	U
24	DA	839	U
24	DA	844	A
24	DA	845	A
24	DA	846	U
24	DA	858	G
24	DA	859	G
24	DA	866	A
24	DA	867	C
24	DA	869	G
24	DA	878	A
24	DA	883	G
24	DA	884	U
24	DA	885	C
24	DA	893	C
24	DA	894	U
24	DA	896	A
24	DA	899	A
24	DA	907	G
24	DA	910	A
24	DA	914	G
24	DA	915	C
24	DA	919	U
24	DA	927	A
24	DA	928	A
24	DA	932	U
24	DA	938	G
24	DA	941	A
24	DA	942	G
24	DA	943	A
24	DA	946	C

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Mol	Chain	Res	Type
24	DA	947	A
24	DA	952	G
24	DA	953	G
24	DA	954	G
24	DA	955	U
24	DA	958	U
24	DA	959	A
24	DA	961	C
24	DA	972	A
24	DA	974	G
24	DA	976	G
24	DA	983	A
24	DA	984	A
24	DA	985	C
24	DA	990	A
24	DA	995	C
24	DA	996	A
24	DA	1012	U
24	DA	1013	C
24	DA	1016	G
24	DA	1023	U
24	DA	1025	G
24	DA	1027	A
24	DA	1033	U
24	DA	1040	A
24	DA	1044	C
24	DA	1045	C
24	DA	1046	A
24	DA	1047	G
24	DA	1058	U
24	DA	1061	U
24	DA	1062	G
24	DA	1065	U
24	DA	1066	U
24	DA	1070	A
24	DA	1071	G
24	DA	1072	C
24	DA	1073	A
24	DA	1074	G
24	DA	1075	C
24	DA	1080	A
24	DA	1082	U

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Mol	Chain	Res	Type
24	DA	1083	U
24	DA	1087	G
24	DA	1088	A
24	DA	1092	C
24	DA	1094	U
24	DA	1095	A
24	DA	1097	U
24	DA	1098	A
24	DA	1099	G
24	DA	1101	U
24	DA	1102	C
24	DA	1105	U
24	DA	1112	G
24	DA	1115	G
24	DA	1116	G
24	DA	1117	C
24	DA	1118	C
24	DA	1122	G
24	DA	1130	U
24	DA	1132	U
24	DA	1133	A
24	DA	1135	C
24	DA	1136	G
24	DA	1139	G
24	DA	1142	A
24	DA	1149	G
24	DA	1151	A
24	DA	1154	G
24	DA	1156	A
24	DA	1157	G
24	DA	1174	U
24	DA	1175	A
24	DA	1176	U
24	DA	1177	G
24	DA	1178	C
24	DA	1179	G
24	DA	1180	U
24	DA	1184	U
24	DA	1190	G
24	DA	1204	A
24	DA	1206	G
24	DA	1213	A

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Mol	Chain	Res	Type
24	DA	1216	G
24	DA	1222	U
24	DA	1227	G
24	DA	1238	G
24	DA	1244	A
24	DA	1247	A
24	DA	1248	G
24	DA	1253	A
24	DA	1256	G
24	DA	1258	U
24	DA	1266	G
24	DA	1268	A
24	DA	1270	C
24	DA	1271	G
24	DA	1272	A
24	DA	1273	U
24	DA	1300	G
24	DA	1301	A
24	DA	1306	C
24	DA	1307	A
24	DA	1308	A
24	DA	1313	U
24	DA	1318	U
24	DA	1321	A
24	DA	1339	G
24	DA	1341	G
24	DA	1350	C
24	DA	1351	C
24	DA	1352	U
24	DA	1353	A
24	DA	1360	G
24	DA	1362	C
24	DA	1363	C
24	DA	1365	A
24	DA	1368	G
24	DA	1372	U
24	DA	1374	G
24	DA	1376	C
24	DA	1377	G
24	DA	1378	A
24	DA	1379	U
24	DA	1380	G

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Mol	Chain	Res	Type
24	DA	1383	A
24	DA	1394	U
24	DA	1398	C
24	DA	1399	C
24	DA	1407	G
24	DA	1416	G
24	DA	1417	C
24	DA	1418	G
24	DA	1419	A
24	DA	1420	A
24	DA	1421	G
24	DA	1429	G
24	DA	1434	A
24	DA	1435	G
24	DA	1437	C
24	DA	1444	G
24	DA	1449	G
24	DA	1450	G
24	DA	1452	G
24	DA	1454	C
24	DA	1460	U
24	DA	1461	C
24	DA	1472	C
24	DA	1478	G
24	DA	1482	G
24	DA	1485	U
24	DA	1489	C
24	DA	1490	A
24	DA	1493	C
24	DA	1497	U
24	DA	1501	G
24	DA	1502	A
24	DA	1504	A
24	DA	1505	A
24	DA	1508	A
24	DA	1509	A
24	DA	1510	G
24	DA	1511	G
24	DA	1515	A
24	DA	1516	G
24	DA	1523	U
24	DA	1533	C

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Mol	Chain	Res	Type
24	DA	1534	U
24	DA	1537	G
24	DA	1539	U
24	DA	1546	G
24	DA	1547	C
24	DA	1552	A
24	DA	1554	U
24	DA	1562	U
24	DA	1563	U
24	DA	1566	A
24	DA	1569	A
24	DA	1571	A
24	DA	1578	U
24	DA	1583	A
24	DA	1584	U
24	DA	1594	U
24	DA	1597	A
24	DA	1598	A
24	DA	1606	C
24	DA	1607	C
24	DA	1608	A
24	DA	1609	A
24	DA	1620	G
24	DA	1628	G
24	DA	1630	A
24	DA	1634	A
24	DA	1637	A
24	DA	1644	C
24	DA	1645	G
24	DA	1647	U
24	DA	1648	U
24	DA	1649	G
24	DA	1650	A
24	DA	1651	G
24	DA	1652	A
24	DA	1664	A
24	DA	1669	A
24	DA	1674	G
24	DA	1686	C
24	DA	1687	G
24	DA	1688	U
24	DA	1693	U

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Mol	Chain	Res	Type
24	DA	1695	G
24	DA	1702	G
24	DA	1714	U
24	DA	1715	G
24	DA	1729	U
24	DA	1730	C
24	DA	1732	C
24	DA	1736	U
24	DA	1737	G
24	DA	1738	G
24	DA	1739	A
24	DA	1753	G
24	DA	1754	A
24	DA	1755	A
24	DA	1757	A
24	DA	1764	C
24	DA	1765	U
24	DA	1771	C
24	DA	1773	A
24	DA	1776	G
24	DA	1781	U
24	DA	1788	C
24	DA	1791	A
24	DA	1797	G
24	DA	1800	C
24	DA	1801	A
24	DA	1802	A
24	DA	1808	A
24	DA	1810	A
24	DA	1811	G
24	DA	1816	C
24	DA	1828	G
24	DA	1829	A
24	DA	1831	G
24	DA	1832	C
24	DA	1833	C
24	DA	1834	U
24	DA	1836	C
24	DA	1845	G
24	DA	1846	G
24	DA	1849	G
24	DA	1851	U

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Mol	Chain	Res	Type
24	DA	1866	A
24	DA	1868	C
24	DA	1869	G
24	DA	1870	C
24	DA	1872	A
24	DA	1873	G
24	DA	1874	C
24	DA	1876	A
24	DA	1877	A
24	DA	1881	C
24	DA	1882	U
24	DA	1890	A
24	DA	1891	G
24	DA	1903	G
24	DA	1906	G
24	DA	1907	G
24	DA	1912	A
24	DA	1914	C
24	DA	1916	A
24	DA	1923	U
24	DA	1924	C
24	DA	1925	C
24	DA	1926	U
24	DA	1927	A
24	DA	1929	G
24	DA	1930	G
24	DA	1931	U
24	DA	1932	A
24	DA	1935	G
24	DA	1936	A
24	DA	1937	A
24	DA	1938	A
24	DA	1944	U
24	DA	1945	G
24	DA	1946	U
24	DA	1955	U
24	DA	1960	A
24	DA	1964	G
24	DA	1965	C
24	DA	1967	C
24	DA	1970	A
24	DA	1971	U

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Mol	Chain	Res	Type
24	DA	1972	G
24	DA	1987	A
24	DA	1991	U
24	DA	1992	G
24	DA	1993	U
24	DA	1997	C
24	DA	2000	C
24	DA	2001	C
24	DA	2003	A
24	DA	2004	G
24	DA	2011	U
24	DA	2012	G
24	DA	2014	A
24	DA	2015	A
24	DA	2019	A
24	DA	2020	A
24	DA	2022	U
24	DA	2023	C
24	DA	2031	A
24	DA	2033	A
24	DA	2038	G
24	DA	2041	U
24	DA	2043	C
24	DA	2051	A
24	DA	2055	C
24	DA	2056	G
24	DA	2060	A
24	DA	2061	G
24	DA	2062	A
24	DA	2069	G
24	DA	2072	C
24	DA	2078	C
24	DA	2088	A
24	DA	2089	C
24	DA	2092	U
24	DA	2095	A
24	DA	2102	G
24	DA	2105	U
24	DA	2109	U
24	DA	2110	G
24	DA	2111	U
24	DA	2112	G

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Mol	Chain	Res	Type
24	DA	2113	U
24	DA	2114	A
24	DA	2115	G
24	DA	2116	G
24	DA	2117	A
24	DA	2118	U
24	DA	2119	A
24	DA	2122	U
24	DA	2123	G
24	DA	2126	A
24	DA	2127	G
24	DA	2128	G
24	DA	2129	C
24	DA	2130	U
24	DA	2131	U
24	DA	2132	U
24	DA	2133	G
24	DA	2134	A
24	DA	2136	G
24	DA	2138	G
24	DA	2141	G
24	DA	2142	A
24	DA	2145	C
24	DA	2146	C
24	DA	2147	A
24	DA	2154	A
24	DA	2159	G
24	DA	2161	C
24	DA	2163	A
24	DA	2164	C
24	DA	2166	U
24	DA	2167	U
24	DA	2169	A
24	DA	2170	A
24	DA	2171	A
24	DA	2172	U
24	DA	2173	A
24	DA	2177	C
24	DA	2178	C
24	DA	2185	U
24	DA	2190	G
24	DA	2196	C

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Mol	Chain	Res	Type
24	DA	2198	A
24	DA	2201	G
24	DA	2202	U
24	DA	2203	U
24	DA	2204	G
24	DA	2205	A
24	DA	2210	U
24	DA	2211	A
24	DA	2212	A
24	DA	2214	C
24	DA	2225	A
24	DA	2238	G
24	DA	2239	G
24	DA	2246	G
24	DA	2250	G
24	DA	2254	C
24	DA	2255	G
24	DA	2260	C
24	DA	2266	A
24	DA	2268	A
24	DA	2273	A
24	DA	2279	G
24	DA	2283	C
24	DA	2286	G
24	DA	2287	A
24	DA	2297	A
24	DA	2305	U
24	DA	2311	A
24	DA	2324	U
24	DA	2325	G
24	DA	2327	A
24	DA	2333	A
24	DA	2335	A
24	DA	2340	A
24	DA	2345	G
24	DA	2346	A
24	DA	2347	C
24	DA	2349	G
24	DA	2353	G
24	DA	2358	A
24	DA	2359	C
24	DA	2360	G

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Mol	Chain	Res	Type
24	DA	2366	A
24	DA	2383	G
24	DA	2385	C
24	DA	2389	G
24	DA	2397	G
24	DA	2402	U
24	DA	2403	C
24	DA	2406	A
24	DA	2409	G
24	DA	2411	A
24	DA	2414	G
24	DA	2420	C
24	DA	2422	C
24	DA	2423	U
24	DA	2425	A
24	DA	2428	G
24	DA	2429	G
24	DA	2430	A
24	DA	2433	A
24	DA	2434	A
24	DA	2435	A
24	DA	2440	C
24	DA	2441	U
24	DA	2447	G
24	DA	2448	A
24	DA	2453	A
24	DA	2459	A
24	DA	2460	U
24	DA	2468	A
24	DA	2470	G
24	DA	2474	U
24	DA	2476	A
24	DA	2491	U
24	DA	2494	G
24	DA	2497	A
24	DA	2498	C
24	DA	2499	C
24	DA	2500	U
24	DA	2502	G
24	DA	2503	A
24	DA	2505	G
24	DA	2507	C

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Mol	Chain	Res	Type
24	DA	2514	U
24	DA	2515	C
24	DA	2518	A
24	DA	2523	G
24	DA	2529	G
24	DA	2547	A
24	DA	2549	G
24	DA	2550	G
24	DA	2554	U
24	DA	2566	A
24	DA	2567	G
24	DA	2572	A
24	DA	2573	C
24	DA	2576	G
24	DA	2583	G
24	DA	2585	U
24	DA	2586	U
24	DA	2587	A
24	DA	2592	G
24	DA	2602	A
24	DA	2603	G
24	DA	2609	U
24	DA	2613	U
24	DA	2614	A
24	DA	2615	U
24	DA	2620	C
24	DA	2629	U
24	DA	2630	G
24	DA	2633	G
24	DA	2634	A
24	DA	2636	C
24	DA	2637	U
24	DA	2645	G
24	DA	2648	G
24	DA	2653	U
24	DA	2654	A
24	DA	2656	U
24	DA	2658	C
24	DA	2661	G
24	DA	2663	G
24	DA	2670	A
24	DA	2671	G

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Mol	Chain	Res	Type
24	DA	2681	C
24	DA	2682	A
24	DA	2688	G
24	DA	2689	U
24	DA	2690	U
24	DA	2693	G
24	DA	2707	U
24	DA	2720	U
24	DA	2726	A
24	DA	2729	G
24	DA	2733	A
24	DA	2744	G
24	DA	2745	C
24	DA	2746	U
24	DA	2748	A
24	DA	2752	C
24	DA	2754	U
24	DA	2757	A
24	DA	2761	A
24	DA	2762	C
24	DA	2765	A
24	DA	2769	U
24	DA	2773	C
24	DA	2777	G
24	DA	2778	A
24	DA	2779	U
24	DA	2791	G
24	DA	2792	A
24	DA	2793	C
24	DA	2798	U
24	DA	2799	A
24	DA	2800	A
24	DA	2801	G
24	DA	2803	G
24	DA	2805	C
24	DA	2811	G
24	DA	2817	U
24	DA	2818	U
24	DA	2819	G
24	DA	2820	A
24	DA	2821	A
24	DA	2826	A

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Mol	Chain	Res	Type
24	DA	2827	C
24	DA	2832	U
24	DA	2833	U
24	DA	2849	U
24	DA	2861	U
24	DA	2867	G
24	DA	2870	C
24	DA	2873	A
24	DA	2879	A
24	DA	2883	A
24	DA	2884	U
24	DA	2885	G
24	DA	2886	A
24	DA	2887	A
24	DA	2897	U
24	DA	2898	U
25	DB	2	G
25	DB	7	G
25	DB	9	G
25	DB	15	A
25	DB	16	G
25	DB	24	G
25	DB	25	U
25	DB	27	C
25	DB	35	C
25	DB	45	A
25	DB	56	G
25	DB	62	C
25	DB	63	C
25	DB	66	A
25	DB	75	G
25	DB	76	G
25	DB	84	G
25	DB	85	G
25	DB	89	U
25	DB	90	C
25	DB	91	C
25	DB	99	A
25	DB	109	A
25	DB	119	A

All (218) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	32	A
1	AA	96	U
1	AA	114	U
1	AA	211	G
1	AA	243	A
1	AA	274	A
1	AA	380	G
1	AA	411	A
1	AA	429	U
1	AA	447	G
1	AA	529	G
1	AA	572	A
1	AA	652	U
1	AA	683	G
1	AA	684	U
1	AA	709	U
1	AA	723	U
1	AA	733	G
1	AA	786	G
1	AA	890	G
1	AA	913	A
1	AA	979	C
1	AA	980	C
1	AA	1078	U
1	AA	1079	G
1	AA	1101	A
1	AA	1211	U
1	AA	1286	U
1	AA	1394	A
1	AA	1438	G
1	AA	1491	G
22	AV	72	C
24	BA	91	A
24	BA	162	U
24	BA	196	A
24	BA	199	A
24	BA	249	C
24	BA	271	G
24	BA	361	G
24	BA	387	U
24	BA	404	A
24	BA	451	U
24	BA	479	A

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Mol	Chain	Res	Type
24	BA	503	A
24	BA	509	C
24	BA	529	A
24	BA	546	U
24	BA	584	C
24	BA	587	C
24	BA	607	U
24	BA	746	U
24	BA	748	G
24	BA	764	A
24	BA	784	G
24	BA	800	A
24	BA	810	U
24	BA	827	U
24	BA	846	U
24	BA	892	A
24	BA	932	U
24	BA	984	A
24	BA	993	G
24	BA	1021	A
24	BA	1078	U
24	BA	1128	G
24	BA	1145	C
24	BA	1261	C
24	BA	1281	G
24	BA	1347	A
24	BA	1378	A
24	BA	1730	C
24	BA	1738	G
24	BA	1802	A
24	BA	1818	U
24	BA	1820	U
24	BA	1835	G
24	BA	1847	A
24	BA	1939	U
24	BA	2016	U
24	BA	2116	G
24	BA	2157	G
24	BA	2158	A
24	BA	2162	G
24	BA	2211	A
24	BA	2264	C

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Mol	Chain	Res	Type
24	BA	2282	G
24	BA	2308	G
24	BA	2311	A
24	BA	2326	C
24	BA	2418	A
24	BA	2425	A
24	BA	2428	G
24	BA	2473	U
24	BA	2481	G
24	BA	2602	A
24	BA	2680	U
24	BA	2703	C
24	BA	2748	A
24	BA	2756	U
24	BA	2790	U
24	BA	2820	A
24	BA	2849	U
25	BB	89	U
1	CA	5	U
1	CA	6	G
1	CA	63	C
1	CA	79	G
1	CA	115	G
1	CA	120	A
1	CA	214	C
1	CA	251	G
1	CA	400	C
1	CA	428	G
1	CA	462	G
1	CA	484	G
1	CA	575	G
1	CA	614	C
1	CA	711	G
1	CA	722	G
1	CA	737	C
1	CA	738	C
1	CA	754	C
1	CA	793	U
1	CA	795	C
1	CA	840	C
1	CA	859	G
1	CA	889	A

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Mol	Chain	Res	Type
1	CA	1031	C
1	CA	1049	U
1	CA	1088	G
1	CA	1089	G
1	CA	1145	A
1	CA	1211	U
1	CA	1279	G
1	CA	1299	A
1	CA	1354	U
1	CA	1377	A
1	CA	1421	G
1	CA	1493	A
1	CA	1533	C
22	CV	2	C
22	CV	4	C
22	CV	44	G
22	CV	47	U
22	CV	73	A
22	CV	74	C
23	CX	10	A
24	DA	142	A
24	DA	159	G
24	DA	190	A
24	DA	265	A
24	DA	329	G
24	DA	342	A
24	DA	371	A
24	DA	379	G
24	DA	408	G
24	DA	445	C
24	DA	477	A
24	DA	544	C
24	DA	608	A
24	DA	620	G
24	DA	692	C
24	DA	746	U
24	DA	764	A
24	DA	784	G
24	DA	827	U
24	DA	866	A
24	DA	892	A
24	DA	984	A

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Mol	Chain	Res	Type
24	DA	995	C
24	DA	1073	A
24	DA	1093	G
24	DA	1247	A
24	DA	1362	C
24	DA	1378	A
24	DA	1379	U
24	DA	1420	A
24	DA	1497	U
24	DA	1501	G
24	DA	1509	A
24	DA	1597	A
24	DA	1606	C
24	DA	1617	C
24	DA	1619	G
24	DA	1663	G
24	DA	1738	G
24	DA	1754	A
24	DA	1831	G
24	DA	1875	G
24	DA	1906	G
24	DA	1928	A
24	DA	1943	U
24	DA	1959	G
24	DA	2003	A
24	DA	2104	C
24	DA	2122	U
24	DA	2127	G
24	DA	2141	G
24	DA	2211	A
24	DA	2286	G
24	DA	2324	U
24	DA	2326	C
24	DA	2402	U
24	DA	2406	A
24	DA	2422	C
24	DA	2428	G
24	DA	2432	A
24	DA	2447	G
24	DA	2549	G
24	DA	2585	U
24	DA	2602	A

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Mol	Chain	Res	Type
24	DA	2680	U
24	DA	2756	U
24	DA	2772	C
24	DA	2790	U
24	DA	2820	A
24	DA	2848	G
24	DA	2873	A

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

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

5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

5.6 Ligand geometry ⓘ

Of 510 ligands modelled in this entry, 492 are monoatomic - leaving 18 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	$\# Z > 2$
57	NMY	AA	1655	-	45,45,45	0.55	0	67,67,67	0.97	4 (5%)
57	NMY	AA	1656	-	45,45,45	2.14	11 (24%)	67,67,67	1.80	20 (29%)
57	NMY	AA	1657	-	45,45,45	2.18	11 (24%)	67,67,67	1.77	17 (25%)
57	NMY	BA	3161	-	45,45,45	0.50	0	67,67,67	0.99	4 (5%)
57	NMY	BA	3162	-	45,45,45	0.50	0	67,67,67	1.02	5 (7%)
57	NMY	BA	3163	-	45,45,45	2.18	10 (22%)	67,67,67	2.35	27 (40%)
57	NMY	BA	3164	-	45,45,45	2.12	10 (22%)	67,67,67	2.33	25 (37%)
57	NMY	BA	3165	-	45,45,45	0.51	0	67,67,67	1.08	7 (10%)
57	NMY	BA	3166	-	45,45,45	2.04	10 (22%)	67,67,67	2.35	17 (25%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
57	NMY	BA	3167	-	45,45,45	2.14	11 (24%)	67,67,67	1.86	14 (20%)
57	NMY	CA	1672	-	45,45,45	0.52	0	67,67,67	0.94	3 (4%)
57	NMY	DA	3184	-	45,45,45	0.57	0	67,67,67	1.19	5 (7%)
57	NMY	DA	3185	-	45,45,45	2.18	12 (26%)	67,67,67	1.70	16 (23%)
57	NMY	DA	3186	-	45,45,45	2.22	11 (24%)	67,67,67	2.30	16 (23%)
57	NMY	DA	3187	-	45,45,45	2.16	11 (24%)	67,67,67	1.47	14 (20%)
57	NMY	DA	3188	-	45,45,45	2.08	13 (28%)	67,67,67	1.91	22 (32%)
57	NMY	DA	3189	-	45,45,45	2.08	12 (26%)	67,67,67	2.31	25 (37%)
57	NMY	DA	3190	-	45,45,45	2.13	10 (22%)	67,67,67	2.53	27 (40%)

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
57	NMY	AA	1655	-	-	1/18/94/94	0/4/4/4
57	NMY	AA	1656	-	-	0/18/94/94	0/4/4/4
57	NMY	AA	1657	-	-	1/18/94/94	0/4/4/4
57	NMY	BA	3161	-	-	0/18/94/94	0/4/4/4
57	NMY	BA	3162	-	-	0/18/94/94	0/4/4/4
57	NMY	BA	3163	-	-	0/18/94/94	0/4/4/4
57	NMY	BA	3164	-	-	0/18/94/94	0/4/4/4
57	NMY	BA	3165	-	-	0/18/94/94	0/4/4/4
57	NMY	BA	3166	-	-	0/18/94/94	0/4/4/4
57	NMY	BA	3167	-	-	0/18/94/94	0/4/4/4
57	NMY	CA	1672	-	-	0/18/94/94	0/4/4/4
57	NMY	DA	3184	-	-	0/18/94/94	0/4/4/4
57	NMY	DA	3185	-	-	0/18/94/94	0/4/4/4
57	NMY	DA	3186	-	-	0/18/94/94	0/4/4/4
57	NMY	DA	3187	-	-	0/18/94/94	0/4/4/4
57	NMY	DA	3188	-	-	0/18/94/94	0/4/4/4
57	NMY	DA	3189	-	-	0/18/94/94	0/4/4/4
57	NMY	DA	3190	-	-	1/18/94/94	0/4/4/4

All (132) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	DA	3187	NMY	C20-C19	-9.18	1.40	1.53
57	DA	3186	NMY	C20-C19	-9.02	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	AA	1657	NMY	C20-C19	-9.00	1.41	1.53
57	DA	3190	NMY	C20-C19	-8.94	1.41	1.53
57	DA	3185	NMY	C20-C19	-8.90	1.41	1.53
57	BA	3167	NMY	C20-C19	-8.87	1.41	1.53
57	AA	1656	NMY	C20-C19	-8.75	1.41	1.53
57	BA	3163	NMY	C20-C19	-8.46	1.41	1.53
57	BA	3164	NMY	C20-C19	-8.44	1.41	1.53
57	DA	3189	NMY	C20-C19	-8.33	1.42	1.53
57	BA	3166	NMY	C20-C19	-8.28	1.42	1.53
57	DA	3188	NMY	C20-C19	-7.93	1.42	1.53
57	BA	3166	NMY	C3-C2	-5.22	1.46	1.53
57	DA	3185	NMY	C3-C2	-5.14	1.46	1.53
57	DA	3186	NMY	C3-C2	-4.86	1.46	1.53
57	BA	3167	NMY	C3-C2	-4.84	1.46	1.53
57	DA	3186	NMY	C14-C15	-4.78	1.41	1.53
57	BA	3164	NMY	C3-C2	-4.70	1.47	1.53
57	AA	1657	NMY	C3-C2	-4.64	1.47	1.53
57	BA	3163	NMY	C14-C15	-4.64	1.42	1.53
57	DA	3187	NMY	C3-C2	-4.58	1.47	1.53
57	AA	1656	NMY	C3-C2	-4.54	1.47	1.53
57	DA	3190	NMY	C3-C2	-4.50	1.47	1.53
57	AA	1656	NMY	C14-C15	-4.43	1.42	1.53
57	DA	3188	NMY	C3-C2	-4.38	1.47	1.53
57	DA	3189	NMY	C3-C2	-4.35	1.47	1.53
57	BA	3163	NMY	C3-C2	-4.31	1.47	1.53
57	DA	3185	NMY	C14-C15	-4.24	1.43	1.53
57	BA	3164	NMY	C14-C15	-4.23	1.43	1.53
57	DA	3188	NMY	C14-C15	-4.21	1.43	1.53
57	DA	3187	NMY	C14-C15	-4.15	1.43	1.53
57	BA	3167	NMY	C14-C15	-4.11	1.43	1.53
57	AA	1657	NMY	C14-C15	-4.05	1.43	1.53
57	DA	3188	NMY	C13-C14	-3.91	1.48	1.52
57	DA	3186	NMY	C4-C3	-3.83	1.42	1.52
57	DA	3190	NMY	C4-C3	-3.81	1.42	1.52
57	BA	3163	NMY	C4-C3	-3.73	1.42	1.52
57	DA	3189	NMY	C14-C15	-3.69	1.44	1.53
57	DA	3185	NMY	C4-C3	-3.66	1.42	1.52
57	DA	3189	NMY	C4-C3	-3.63	1.42	1.52
57	BA	3163	NMY	C13-C14	-3.58	1.48	1.52
57	BA	3167	NMY	C4-C3	-3.57	1.42	1.52
57	AA	1657	NMY	C13-C14	-3.46	1.48	1.52
57	DA	3188	NMY	C4-C3	-3.44	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	DA	3187	NMY	C4-C3	-3.40	1.43	1.52
57	DA	3190	NMY	C14-C15	-3.39	1.45	1.53
57	BA	3166	NMY	C4-C3	-3.38	1.43	1.52
57	AA	1657	NMY	C4-C3	-3.38	1.43	1.52
57	DA	3187	NMY	O22-C18	3.37	1.50	1.41
57	BA	3163	NMY	O22-C18	3.36	1.50	1.41
57	BA	3164	NMY	O12-C12	-3.36	1.34	1.43
57	AA	1656	NMY	O22-C18	3.35	1.50	1.41
57	DA	3189	NMY	O12-C12	-3.30	1.35	1.43
57	BA	3164	NMY	C13-C14	-3.29	1.48	1.52
57	BA	3166	NMY	C14-C15	-3.26	1.45	1.53
57	DA	3190	NMY	O12-C12	-3.25	1.35	1.43
57	AA	1656	NMY	C4-C3	-3.23	1.43	1.52
57	BA	3164	NMY	O22-C18	3.23	1.50	1.41
57	DA	3186	NMY	O22-C18	3.22	1.50	1.41
57	BA	3166	NMY	O12-C12	-3.21	1.35	1.43
57	DA	3186	NMY	C13-C14	-3.17	1.48	1.52
57	AA	1657	NMY	O12-C12	-3.14	1.35	1.43
57	DA	3189	NMY	O22-C18	3.14	1.49	1.41
57	AA	1657	NMY	O22-C18	3.12	1.49	1.41
57	BA	3164	NMY	C4-C3	-3.10	1.44	1.52
57	BA	3167	NMY	O12-C12	-3.09	1.35	1.43
57	AA	1656	NMY	C13-C14	-3.07	1.49	1.52
57	DA	3185	NMY	C13-C14	-3.05	1.49	1.52
57	BA	3163	NMY	O12-C12	-3.04	1.35	1.43
57	DA	3185	NMY	O22-C18	2.99	1.49	1.41
57	DA	3188	NMY	O22-C18	2.97	1.49	1.41
57	AA	1656	NMY	O12-C12	-2.93	1.35	1.43
57	DA	3186	NMY	O12-C12	-2.92	1.35	1.43
57	DA	3190	NMY	O22-C18	2.92	1.49	1.41
57	DA	3187	NMY	C13-C14	-2.87	1.49	1.52
57	BA	3164	NMY	O5-C5	2.84	1.51	1.44
57	DA	3188	NMY	O5-C5	2.83	1.51	1.44
57	DA	3189	NMY	O5-C5	2.82	1.51	1.44
57	DA	3185	NMY	O12-C12	-2.81	1.36	1.43
57	BA	3166	NMY	O22-C18	2.80	1.49	1.41
57	DA	3188	NMY	O12-C12	-2.80	1.36	1.43
57	BA	3167	NMY	O22-C18	2.79	1.48	1.41
57	DA	3189	NMY	C13-C14	-2.78	1.49	1.52
57	DA	3187	NMY	O12-C12	-2.77	1.36	1.43
57	DA	3185	NMY	O5-C5	2.72	1.51	1.44
57	BA	3163	NMY	O16-C16	-2.71	1.38	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	BA	3167	NMY	C13-C14	-2.68	1.49	1.52
57	DA	3189	NMY	C2-N2	-2.60	1.43	1.47
57	DA	3187	NMY	O16-C16	-2.59	1.39	1.45
57	DA	3190	NMY	C13-C14	-2.56	1.49	1.52
57	BA	3167	NMY	O5-C5	2.56	1.50	1.44
57	DA	3190	NMY	O16-C16	-2.54	1.39	1.45
57	DA	3187	NMY	O5-C5	2.51	1.50	1.44
57	AA	1656	NMY	O16-C16	-2.47	1.39	1.45
57	BA	3166	NMY	O16-C16	-2.45	1.39	1.45
57	BA	3167	NMY	O14-C14	-2.43	1.37	1.43
57	DA	3188	NMY	O22-C22	-2.43	1.38	1.44
57	AA	1656	NMY	O5-C5	2.43	1.50	1.44
57	DA	3186	NMY	O5-C5	2.40	1.50	1.44
57	BA	3163	NMY	O14-C14	-2.38	1.37	1.43
57	DA	3186	NMY	C2-N2	-2.35	1.43	1.47
57	DA	3190	NMY	O14-C14	-2.33	1.37	1.43
57	AA	1657	NMY	O5-C5	2.30	1.50	1.44
57	DA	3190	NMY	O5-C5	2.30	1.50	1.44
57	DA	3185	NMY	O14-C14	-2.27	1.37	1.43
57	BA	3166	NMY	O22-C22	-2.26	1.38	1.44
57	BA	3164	NMY	O14-C14	-2.25	1.37	1.43
57	AA	1657	NMY	O16-C16	-2.23	1.39	1.45
57	BA	3167	NMY	O16-C16	-2.22	1.39	1.45
57	DA	3189	NMY	C10-C11	-2.22	1.47	1.52
57	BA	3166	NMY	O14-C14	-2.22	1.37	1.43
57	DA	3186	NMY	O14-C14	-2.21	1.37	1.43
57	BA	3167	NMY	C2-N2	-2.21	1.43	1.47
57	AA	1656	NMY	O14-C14	-2.21	1.37	1.43
57	BA	3163	NMY	O5-C5	2.20	1.49	1.44
57	DA	3185	NMY	O16-C16	-2.18	1.40	1.45
57	DA	3188	NMY	C20-C21	-2.18	1.46	1.52
57	AA	1657	NMY	O22-C22	-2.16	1.38	1.44
57	DA	3187	NMY	O14-C14	-2.14	1.37	1.43
57	BA	3164	NMY	O16-C13	2.13	1.45	1.41
57	AA	1656	NMY	C2-N2	-2.10	1.43	1.47
57	DA	3185	NMY	O22-C22	-2.10	1.39	1.44
57	DA	3189	NMY	O16-C16	-2.10	1.40	1.45
57	DA	3188	NMY	C2-N2	-2.08	1.43	1.47
57	DA	3188	NMY	O14-C14	-2.06	1.38	1.43
57	DA	3186	NMY	C20-C21	-2.06	1.46	1.52
57	AA	1657	NMY	O14-C14	-2.05	1.38	1.43
57	DA	3189	NMY	O14-C14	-2.05	1.38	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	DA	3187	NMY	C2-N2	-2.05	1.44	1.47
57	DA	3185	NMY	C2-N2	-2.04	1.44	1.47
57	DA	3188	NMY	O16-C16	-2.03	1.40	1.45
57	BA	3166	NMY	C2-N2	-2.03	1.44	1.47

All (268) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	DA	3186	NMY	O11-C13-O16	11.17	122.39	111.57
57	BA	3166	NMY	O11-C13-C14	8.36	122.43	107.50
57	DA	3186	NMY	C8-C7-C12	6.39	119.85	110.13
57	BA	3163	NMY	C8-C7-C12	6.18	119.52	110.13
57	BA	3163	NMY	C1-O1-C10	-6.13	102.42	118.00
57	DA	3189	NMY	O11-C13-O16	5.97	117.35	111.57
57	BA	3164	NMY	O11-C13-O16	5.96	117.34	111.57
57	DA	3190	NMY	C13-C14-C15	5.87	109.92	102.05
57	BA	3166	NMY	C12-C7-N7	5.60	121.48	110.90
57	DA	3189	NMY	O5-C5-C6	5.59	116.62	105.97
57	DA	3190	NMY	C1-O1-C10	-5.51	104.00	118.00
57	DA	3190	NMY	O11-C13-O16	5.38	116.79	111.57
57	DA	3190	NMY	O11-C13-C14	5.27	116.90	107.50
57	BA	3167	NMY	O22-C22-C21	5.23	119.45	109.73
57	BA	3166	NMY	C13-C14-C15	5.06	108.85	102.05
57	DA	3189	NMY	C18-O18-C15	-5.06	105.14	118.00
57	AA	1657	NMY	C18-O18-C15	-5.04	105.18	118.00
57	BA	3166	NMY	C9-C8-C7	-4.94	100.79	111.59
57	BA	3164	NMY	C13-C14-C15	4.84	108.55	102.05
57	DA	3190	NMY	C1-O5-C5	-4.83	104.39	113.73
57	DA	3186	NMY	O16-C13-C14	-4.74	98.20	104.81
57	BA	3163	NMY	C13-C14-C15	4.73	108.40	102.05
57	BA	3166	NMY	O11-C11-C10	4.70	119.40	107.42
57	BA	3164	NMY	O5-C5-C6	4.67	114.86	105.97
57	BA	3163	NMY	C1-O5-C5	-4.61	104.82	113.73
57	DA	3190	NMY	C18-O18-C15	4.60	129.69	118.00
57	DA	3190	NMY	O22-C22-C21	4.58	118.24	109.73
57	DA	3190	NMY	C20-C19-N23	-4.54	102.04	111.00
57	BA	3164	NMY	O22-C22-C21	4.53	118.15	109.73
57	DA	3188	NMY	C13-C14-C15	-4.50	96.01	102.05
57	BA	3167	NMY	O11-C13-O16	4.49	115.92	111.57
57	DA	3189	NMY	C1-O1-C10	-4.42	106.76	118.00
57	BA	3166	NMY	C20-C19-N23	-4.42	102.27	111.00
57	DA	3184	NMY	C18-O18-C15	-4.36	106.91	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	DA	3190	NMY	C12-C11-C10	-4.36	101.94	111.43
57	BA	3164	NMY	C3-C4-C5	4.33	117.95	110.17
57	BA	3166	NMY	O18-C18-C19	4.28	116.54	108.08
57	DA	3188	NMY	C20-C19-N23	-4.25	102.61	111.00
57	BA	3167	NMY	C20-C21-C22	4.21	117.73	110.17
57	BA	3164	NMY	C18-O18-C15	-4.20	107.33	118.00
57	DA	3189	NMY	O20-C20-C19	-4.20	102.87	110.12
57	DA	3189	NMY	C20-C21-C22	4.18	117.68	110.17
57	BA	3167	NMY	O5-C5-C6	4.18	113.93	105.97
57	BA	3167	NMY	O18-C18-C19	4.17	116.32	108.08
57	BA	3163	NMY	C8-C9-C10	4.12	119.55	109.37
57	DA	3189	NMY	C13-O11-C11	-4.06	107.68	118.00
57	AA	1656	NMY	O5-C5-C6	4.04	113.67	105.97
57	BA	3167	NMY	C13-C14-C15	4.04	107.47	102.05
57	BA	3164	NMY	C21-C20-C19	4.01	118.34	111.39
57	BA	3166	NMY	C1-O1-C10	-4.00	107.84	118.00
57	DA	3189	NMY	C6-C5-C4	-3.99	105.83	113.31
57	BA	3164	NMY	O20-C20-C19	-3.94	103.32	110.12
57	AA	1657	NMY	C20-C19-N23	-3.90	103.29	111.00
57	DA	3187	NMY	O5-C5-C6	3.90	113.40	105.97
57	DA	3188	NMY	O5-C5-C4	3.90	116.97	109.73
57	DA	3185	NMY	O3-C3-C2	-3.87	103.43	110.12
57	BA	3167	NMY	O11-C11-C12	3.87	116.97	107.17
57	BA	3166	NMY	O3-C3-C2	-3.86	103.46	110.12
57	DA	3189	NMY	C21-C20-C19	3.82	118.01	111.39
57	DA	3189	NMY	C20-C19-N23	-3.81	103.47	111.00
57	DA	3190	NMY	C8-C9-C10	3.79	118.73	109.37
57	AA	1656	NMY	C1-O5-C5	-3.78	106.41	113.73
57	DA	3190	NMY	C20-C21-C22	3.78	116.96	110.17
57	DA	3185	NMY	O11-C13-C14	3.78	114.25	107.50
57	BA	3163	NMY	C12-C11-C10	3.76	119.63	111.43
57	BA	3164	NMY	C20-C21-C22	3.72	116.85	110.17
57	BA	3163	NMY	O5-C5-C6	3.72	113.06	105.97
57	DA	3189	NMY	O11-C13-C14	3.71	114.13	107.50
57	DA	3189	NMY	O22-C22-C21	3.70	116.62	109.73
57	BA	3166	NMY	O1-C10-C9	-3.70	100.13	108.97
57	BA	3164	NMY	C8-C9-C10	3.66	118.42	109.37
57	DA	3189	NMY	C18-C19-C20	3.66	120.36	109.99
57	BA	3163	NMY	C11-C12-C7	3.66	119.63	109.53
57	BA	3164	NMY	C18-C19-C20	3.64	120.32	109.99
57	DA	3187	NMY	C18-O18-C15	-3.59	108.87	118.00
57	DA	3185	NMY	O5-C5-C6	3.58	112.78	105.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	DA	3188	NMY	C4-C3-C2	3.57	117.57	111.39
57	DA	3186	NMY	O5-C5-C6	3.55	112.73	105.97
57	AA	1656	NMY	C13-C14-C15	3.54	106.80	102.05
57	AA	1657	NMY	C20-C21-C22	3.54	116.52	110.17
57	AA	1657	NMY	C3-C4-C5	3.53	116.51	110.17
57	BA	3163	NMY	C9-C8-C7	3.49	119.21	111.59
57	DA	3186	NMY	C13-C14-C15	-3.49	97.38	102.05
57	DA	3188	NMY	C18-C19-C20	3.48	119.85	109.99
57	DA	3190	NMY	O11-C11-C10	3.40	116.09	107.42
57	BA	3163	NMY	O3-C3-C2	-3.37	104.31	110.12
57	BA	3163	NMY	C10-C9-N9	-3.33	103.53	110.77
57	DA	3186	NMY	C9-C8-C7	3.31	118.83	111.59
57	BA	3166	NMY	O14-C14-C13	-3.28	102.19	111.56
57	DA	3186	NMY	O11-C13-C14	3.28	113.35	107.50
57	BA	3163	NMY	O12-C12-C7	-3.26	103.74	109.86
57	AA	1656	NMY	C1-O1-C10	-3.26	109.72	118.00
57	BA	3163	NMY	C11-C10-C9	3.24	118.47	111.27
57	DA	3185	NMY	C13-O11-C11	-3.22	109.82	118.00
57	DA	3190	NMY	O5-C5-C4	3.22	115.72	109.73
57	BA	3166	NMY	C10-C9-N9	3.22	117.75	110.77
57	BA	3164	NMY	O3-C3-C2	-3.21	104.57	110.12
57	DA	3186	NMY	C20-C19-N23	-3.21	104.67	111.00
57	DA	3190	NMY	O17-C17-C16	3.20	122.52	111.37
57	DA	3190	NMY	O14-C14-C13	-3.19	102.44	111.56
57	DA	3190	NMY	O18-C15-C16	3.17	124.36	111.68
57	BA	3164	NMY	O1-C10-C11	3.16	115.47	107.42
57	DA	3186	NMY	C1-O1-C10	-3.15	110.00	118.00
57	BA	3167	NMY	C20-C19-N23	-3.14	104.81	111.00
57	AA	1656	NMY	C20-C19-N23	-3.13	104.82	111.00
57	DA	3190	NMY	O1-C10-C11	3.12	115.38	107.42
57	DA	3187	NMY	C1-O1-C10	-3.11	110.09	118.00
57	BA	3161	NMY	C18-O18-C15	-3.11	110.11	118.00
57	BA	3163	NMY	O11-C13-C14	3.10	113.03	107.50
57	AA	1657	NMY	O3-C3-C2	-3.08	104.80	110.12
57	BA	3167	NMY	C1-O5-C5	-3.08	107.78	113.73
57	DA	3186	NMY	C11-C12-C7	3.06	117.98	109.53
57	DA	3187	NMY	O11-C13-C14	3.06	112.97	107.50
57	BA	3165	NMY	C13-C14-C15	3.05	106.14	102.05
57	BA	3163	NMY	C13-O11-C11	-3.04	110.27	118.00
57	DA	3190	NMY	C18-C19-C20	3.04	118.61	109.99
57	DA	3188	NMY	O1-C10-C11	3.04	115.16	107.42
57	CA	1672	NMY	C13-O11-C11	-3.03	110.30	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	BA	3166	NMY	C3-C4-C5	3.03	115.61	110.17
57	AA	1656	NMY	O11-C13-C14	3.00	112.86	107.50
57	DA	3188	NMY	O1-C10-C9	-2.99	101.83	108.97
57	AA	1656	NMY	C18-C19-N23	-2.94	104.56	110.30
57	DA	3185	NMY	C18-O18-C15	-2.93	110.55	118.00
57	DA	3185	NMY	C20-C19-N23	-2.93	105.21	111.00
57	DA	3185	NMY	O18-C18-C19	2.92	113.86	108.08
57	AA	1656	NMY	C18-O18-C15	-2.92	110.59	118.00
57	DA	3189	NMY	C8-C7-C12	2.91	114.56	110.13
57	AA	1657	NMY	O5-C5-C4	2.90	115.13	109.73
57	BA	3164	NMY	O1-C1-O5	2.90	117.90	110.70
57	DA	3188	NMY	O3-C3-C2	-2.89	105.13	110.12
57	BA	3161	NMY	C13-C14-C15	2.88	105.92	102.05
57	DA	3190	NMY	C12-C7-N7	2.88	116.34	110.90
57	BA	3164	NMY	C12-C7-N7	2.88	116.33	110.90
57	DA	3187	NMY	C8-C7-C12	2.87	114.50	110.13
57	AA	1657	NMY	C8-C7-C12	2.87	114.50	110.13
57	BA	3164	NMY	C20-C19-N23	-2.87	105.34	111.00
57	BA	3163	NMY	C1-C2-N2	2.86	115.89	110.30
57	DA	3187	NMY	C13-C14-C15	2.86	105.89	102.05
57	BA	3166	NMY	O22-C22-C21	2.85	115.03	109.73
57	AA	1656	NMY	O11-C11-C10	2.84	114.67	107.42
57	DA	3185	NMY	O1-C10-C9	-2.82	102.21	108.97
57	AA	1655	NMY	C13-O11-C11	-2.81	110.87	118.00
57	DA	3188	NMY	O1-C1-O5	2.80	117.66	110.70
57	DA	3188	NMY	O5-C5-C6	2.80	111.30	105.97
57	BA	3162	NMY	C13-C14-C15	2.79	105.80	102.05
57	BA	3164	NMY	C10-C9-N9	-2.78	104.74	110.77
57	AA	1657	NMY	O22-C22-C21	2.75	114.84	109.73
57	DA	3185	NMY	O11-C13-O16	2.71	114.20	111.57
57	BA	3163	NMY	O14-C14-C13	-2.70	103.86	111.56
57	AA	1656	NMY	O22-C22-C21	2.70	114.74	109.73
57	DA	3184	NMY	O5-C5-C6	2.69	111.09	105.97
57	BA	3164	NMY	C18-O22-C22	2.67	118.90	113.73
57	BA	3164	NMY	O18-C18-C19	2.66	113.35	108.08
57	AA	1657	NMY	C18-C19-C20	2.66	117.53	109.99
57	DA	3189	NMY	C5-C6-N6	2.65	122.92	112.61
57	BA	3164	NMY	O1-C10-C9	-2.65	102.63	108.97
57	BA	3161	NMY	C1-O1-C10	-2.65	111.27	118.00
57	BA	3166	NMY	C5-C6-N6	2.65	122.91	112.61
57	DA	3184	NMY	C1-O1-C10	-2.65	111.28	118.00
57	BA	3164	NMY	O11-C11-C12	2.63	113.84	107.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	BA	3163	NMY	C22-C23-N19	2.61	122.76	112.61
57	BA	3167	NMY	C1-O1-C10	-2.61	111.37	118.00
57	DA	3188	NMY	O1-C1-C2	-2.61	102.92	108.08
57	AA	1656	NMY	O22-C18-C19	2.61	116.12	110.32
57	BA	3163	NMY	O18-C15-C14	-2.60	102.97	111.10
57	AA	1656	NMY	O3-C3-C2	-2.60	105.63	110.12
57	DA	3188	NMY	C1-C2-C3	2.60	117.35	109.99
57	DA	3189	NMY	C22-C23-N19	2.59	122.70	112.61
57	DA	3188	NMY	O22-C18-C19	2.59	116.09	110.32
57	DA	3185	NMY	C3-C2-N2	-2.56	105.94	111.00
57	DA	3185	NMY	C6-C5-C4	-2.55	108.53	113.31
57	AA	1656	NMY	C3-C4-C5	2.55	114.75	110.17
57	DA	3188	NMY	C3-C4-C5	2.52	114.69	110.17
57	DA	3184	NMY	C13-C14-C15	2.52	105.43	102.05
57	AA	1656	NMY	O11-C11-C12	2.50	113.50	107.17
57	DA	3188	NMY	O14-C14-C13	-2.49	104.44	111.56
57	AA	1657	NMY	O18-C18-C19	2.49	112.99	108.08
57	DA	3190	NMY	O1-C1-C2	2.47	112.97	108.08
57	DA	3188	NMY	O16-C13-C14	-2.46	101.37	104.81
57	DA	3190	NMY	C13-O11-C11	-2.46	111.75	118.00
57	BA	3165	NMY	C1-O1-C10	-2.46	111.75	118.00
57	DA	3187	NMY	C13-O11-C11	-2.45	111.78	118.00
57	AA	1657	NMY	C1-O1-C10	-2.45	111.78	118.00
57	DA	3190	NMY	C1-C2-N2	2.45	115.08	110.30
57	DA	3189	NMY	C10-C9-N9	-2.44	105.48	110.77
57	BA	3162	NMY	C1-O1-C10	-2.44	111.81	118.00
57	BA	3165	NMY	C13-O11-C11	-2.44	111.81	118.00
57	BA	3162	NMY	C13-O11-C11	-2.44	111.81	118.00
57	BA	3166	NMY	O18-C18-O22	-2.43	104.67	110.70
57	BA	3162	NMY	C18-O18-C15	-2.42	111.85	118.00
57	DA	3187	NMY	O22-C22-C21	2.42	114.23	109.73
57	DA	3185	NMY	O14-C14-C13	-2.40	104.72	111.56
57	DA	3186	NMY	C3-C2-N2	-2.38	106.29	111.00
57	CA	1672	NMY	C1-O1-C10	-2.38	111.95	118.00
57	BA	3164	NMY	O1-C1-C2	-2.38	103.37	108.08
57	DA	3190	NMY	O3-C3-C2	-2.37	106.02	110.12
57	DA	3190	NMY	O20-C20-C19	-2.37	106.03	110.12
57	BA	3163	NMY	O22-C22-C21	2.36	114.13	109.73
57	AA	1656	NMY	C18-O22-C22	2.36	118.30	113.73
57	BA	3167	NMY	O14-C14-C13	-2.36	104.83	111.56
57	DA	3189	NMY	O3-C3-C2	-2.35	106.07	110.12
57	DA	3189	NMY	O18-C18-C19	2.33	112.68	108.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	AA	1656	NMY	C13-O11-C11	-2.33	112.08	118.00
57	BA	3166	NMY	C8-C7-C12	-2.33	106.60	110.13
57	DA	3187	NMY	O18-C18-C19	2.31	112.65	108.08
57	AA	1656	NMY	O22-C22-C23	2.31	110.37	105.97
57	BA	3163	NMY	O11-C13-O16	2.30	113.80	111.57
57	DA	3187	NMY	C20-C19-N23	-2.30	106.46	111.00
57	DA	3188	NMY	C6-C5-C4	-2.29	109.03	113.31
57	DA	3185	NMY	O1-C1-C2	-2.28	103.56	108.08
57	BA	3163	NMY	O16-C16-C15	2.28	110.04	104.87
57	DA	3189	NMY	O11-C11-C10	2.27	113.20	107.42
57	BA	3163	NMY	C20-C19-N23	-2.27	106.52	111.00
57	DA	3184	NMY	C3-C2-N2	-2.27	106.52	111.00
57	AA	1655	NMY	O22-C22-C23	2.27	110.28	105.97
57	DA	3185	NMY	O5-C5-C4	2.27	113.94	109.73
57	DA	3188	NMY	O11-C13-O16	2.26	113.76	111.57
57	CA	1672	NMY	O11-C13-C14	2.26	111.53	107.50
57	AA	1656	NMY	O14-C14-C13	-2.25	105.15	111.56
57	DA	3186	NMY	O11-C11-C12	2.23	112.83	107.17
57	BA	3164	NMY	O5-C5-C4	2.22	113.86	109.73
57	DA	3189	NMY	O14-C14-C13	-2.22	105.23	111.56
57	DA	3188	NMY	C20-C21-C22	-2.21	106.19	110.17
57	DA	3190	NMY	O11-C11-C12	2.22	112.78	107.17
57	BA	3162	NMY	O5-C5-C4	2.21	113.84	109.73
57	DA	3190	NMY	C22-C23-N19	2.21	121.20	112.61
57	BA	3165	NMY	O16-C13-C14	2.20	107.89	104.81
57	AA	1656	NMY	C4-C3-C2	2.20	115.19	111.39
57	BA	3164	NMY	O14-C14-C13	-2.17	105.37	111.56
57	DA	3186	NMY	C18-O18-C15	-2.17	112.50	118.00
57	DA	3189	NMY	C8-C9-C10	2.16	114.71	109.37
57	BA	3163	NMY	O17-C17-C16	2.16	118.88	111.37
57	DA	3190	NMY	C9-C8-C7	2.15	116.28	111.59
57	DA	3188	NMY	C1-O5-C5	2.15	117.89	113.73
57	BA	3165	NMY	O5-C5-C6	2.14	110.05	105.97
57	DA	3186	NMY	O12-C12-C7	-2.13	105.86	109.86
57	BA	3165	NMY	C8-C7-N7	-2.13	104.42	111.09
57	AA	1657	NMY	O11-C11-C10	2.13	112.86	107.42
57	DA	3187	NMY	O22-C18-C19	2.12	115.04	110.32
57	DA	3188	NMY	C11-C12-C7	2.12	115.38	109.53
57	AA	1657	NMY	O14-C14-C13	-2.12	105.51	111.56
57	DA	3188	NMY	O17-C17-C16	2.12	118.73	111.37
57	BA	3165	NMY	O11-C13-O16	-2.11	109.53	111.57
57	BA	3163	NMY	C20-C21-C22	2.10	113.95	110.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	DA	3187	NMY	C1-O5-C5	-2.10	109.67	113.73
57	DA	3187	NMY	O14-C14-C13	-2.10	105.56	111.56
57	DA	3185	NMY	O1-C1-O5	2.10	115.91	110.70
57	BA	3161	NMY	C13-O11-C11	-2.08	112.71	118.00
57	BA	3167	NMY	O3-C3-C2	-2.07	106.54	110.12
57	AA	1657	NMY	C13-O11-C11	-2.07	112.74	118.00
57	DA	3187	NMY	O1-C10-C11	2.06	112.68	107.42
57	DA	3189	NMY	C18-O22-C22	2.05	117.70	113.73
57	AA	1656	NMY	O20-C20-C21	-2.05	105.77	110.36
57	BA	3163	NMY	C18-C19-C20	2.04	115.78	109.99
57	AA	1655	NMY	C13-C14-C15	2.04	104.79	102.05
57	AA	1657	NMY	C8-C9-C10	2.04	114.42	109.37
57	AA	1657	NMY	O11-C13-C14	2.04	111.14	107.50
57	AA	1657	NMY	O14-C14-C15	2.04	117.20	111.20
57	AA	1655	NMY	C1-O1-C10	-2.04	112.83	118.00
57	BA	3164	NMY	C1-O1-C10	-2.03	112.83	118.00
57	DA	3189	NMY	C13-O16-C16	-2.03	98.02	105.77
57	BA	3163	NMY	O20-C20-C19	-2.03	106.62	110.12
57	DA	3189	NMY	O22-C18-C19	2.02	114.83	110.32
57	BA	3167	NMY	C21-C20-C19	2.02	114.89	111.39
57	BA	3167	NMY	O17-C17-C16	2.02	118.40	111.37
57	DA	3186	NMY	C8-C9-C10	2.01	114.35	109.37
57	DA	3185	NMY	O17-C17-C16	2.01	118.35	111.37
57	DA	3186	NMY	O3-C3-C2	-2.00	106.66	110.12

There are no chirality outliers.

All (3) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
57	AA	1655	NMY	C15-O18-C18-C19
57	DA	3190	NMY	C18-O18-C15-C16
57	AA	1657	NMY	C15-O18-C18-C19

There are no ring outliers.

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	AA	1539/1542 (99%)	-0.55	2 (0%) 93 77	67, 121, 207, 543	0
1	CA	1538/1542 (99%)	-0.54	2 (0%) 93 77	63, 120, 240, 527	0
2	AB	218/241 (90%)	0.40	5 (2%) 57 15	86, 172, 404, 542	0
2	CB	218/241 (90%)	0.27	8 (3%) 39 9	96, 215, 508, 545	0
3	AC	206/233 (88%)	0.27	4 (1%) 64 20	81, 139, 325, 514	0
3	CC	206/233 (88%)	0.08	2 (0%) 79 33	80, 120, 286, 513	0
4	AD	205/206 (99%)	0.42	15 (7%) 15 4	83, 161, 372, 537	0
4	CD	205/206 (99%)	0.31	9 (4%) 33 7	81, 148, 442, 537	0
5	AE	150/167 (89%)	-0.00	1 (0%) 84 42	79, 130, 272, 478	0
5	CE	150/167 (89%)	0.22	2 (1%) 74 27	68, 114, 292, 527	0
6	AF	100/135 (74%)	0.02	0 100 100	85, 142, 331, 528	0
6	CF	100/135 (74%)	0.24	4 (4%) 36 8	87, 178, 386, 531	0
7	AG	151/179 (84%)	0.13	3 (1%) 62 19	93, 161, 365, 539	0
7	CG	151/179 (84%)	0.43	10 (6%) 18 4	112, 234, 452, 540	0
8	AH	129/130 (99%)	0.09	0 100 100	79, 145, 341, 424	0
8	CH	129/130 (99%)	0.28	3 (2%) 57 15	81, 121, 307, 437	0
9	AI	127/130 (97%)	0.32	6 (4%) 30 7	101, 180, 459, 535	0
9	CI	127/130 (97%)	0.49	6 (4%) 30 7	97, 216, 478, 540	0
10	AJ	98/103 (95%)	0.42	4 (4%) 35 8	95, 165, 363, 543	0
10	CJ	98/103 (95%)	0.95	15 (15%) 3 1	101, 202, 530, 543	0
11	AK	117/129 (90%)	0.12	1 (0%) 81 37	75, 112, 337, 492	0
11	CK	117/129 (90%)	0.59	5 (4%) 34 8	83, 243, 494, 531	0
12	AL	123/124 (99%)	0.29	1 (0%) 83 39	75, 109, 299, 403	0
12	CL	123/124 (99%)	-0.05	3 (2%) 56 15	62, 93, 294, 386	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	AM	114/118 (96%)	0.33	5 (4%) 33 7	106, 239, 498, 530	0
13	CM	114/118 (96%)	0.71	11 (9%) 8 2	122, 312, 536, 547	0
14	AN	96/101 (95%)	0.20	0 100 100	89, 175, 381, 527	0
14	CN	96/101 (95%)	0.41	5 (5%) 26 6	95, 183, 535, 545	0
15	AO	88/89 (98%)	0.15	1 (1%) 77 30	90, 136, 315, 374	0
15	CO	88/89 (98%)	0.17	2 (2%) 57 15	94, 176, 350, 510	0
16	AP	82/82 (100%)	0.80	8 (9%) 8 2	76, 125, 380, 528	0
16	CP	82/82 (100%)	0.67	5 (6%) 21 5	75, 115, 387, 524	0
17	AQ	80/84 (95%)	0.58	4 (5%) 28 6	88, 162, 370, 434	0
17	CQ	80/84 (95%)	0.18	0 100 100	75, 141, 337, 496	0
18	AR	55/75 (73%)	0.17	2 (3%) 41 9	84, 115, 320, 391	0
18	CR	55/75 (73%)	0.07	0 100 100	107, 159, 370, 440	0
19	AS	79/92 (85%)	0.78	9 (11%) 6 2	118, 215, 454, 530	0
19	CS	79/92 (85%)	0.96	13 (16%) 2 1	133, 302, 496, 542	0
20	AT	85/87 (97%)	0.18	1 (1%) 75 29	93, 158, 363, 497	0
20	CT	85/87 (97%)	0.46	3 (3%) 42 10	82, 128, 351, 491	0
21	AU	51/71 (71%)	0.18	1 (1%) 62 19	83, 133, 326, 395	0
21	CU	51/71 (71%)	0.29	1 (1%) 62 19	108, 193, 374, 512	0
22	AV	76/76 (100%)	-0.29	1 (1%) 74 27	63, 117, 160, 255	0
22	CV	76/76 (100%)	1.00	15 (19%) 2 1	61, 257, 424, 542	0
23	AX	16/24 (66%)	-0.13	1 (6%) 19 5	76, 139, 214, 261	0
23	CX	15/24 (62%)	0.05	1 (6%) 17 4	83, 191, 269, 339	0
24	BA	2897/2904 (99%)	-0.50	21 (0%) 84 42	54, 96, 294, 544	0
24	DA	2897/2904 (99%)	-0.38	87 (3%) 48 11	37, 67, 231, 547	0
25	BB	118/120 (98%)	-0.83	0 100 100	78, 151, 201, 231	0
25	DB	119/120 (99%)	-0.71	0 100 100	47, 88, 129, 188	0
26	BC	271/273 (99%)	0.15	2 (0%) 84 42	56, 106, 196, 362	0
26	DC	271/273 (99%)	-0.01	0 100 100	46, 81, 188, 348	0
27	BD	209/209 (100%)	0.00	0 100 100	58, 88, 195, 401	0
27	DD	209/209 (100%)	-0.15	0 100 100	38, 57, 129, 253	0
28	BE	201/201 (100%)	0.19	3 (1%) 70 24	59, 105, 224, 424	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	DE	201/201 (100%)	-0.05	0 100 100	40, 72, 155, 487	0
29	BF	177/179 (98%)	0.62	12 (6%) 17 4	125, 257, 446, 539	0
29	DF	177/179 (98%)	0.50	6 (3%) 43 10	76, 147, 367, 520	0
30	BG	176/177 (99%)	0.47	6 (3%) 43 10	93, 155, 360, 507	0
30	DG	176/177 (99%)	0.18	4 (2%) 57 15	54, 94, 190, 439	0
31	BH	149/149 (100%)	0.49	10 (6%) 17 4	15, 223, 436, 532	0
31	DH	149/149 (100%)	0.31	6 (4%) 36 8	25, 213, 475, 538	0
32	BI	141/142 (99%)	2.14	72 (51%) 0 0	126, 471, 546, 549	0
32	DI	141/142 (99%)	1.64	50 (35%) 1 0	123, 380, 542, 548	0
33	BJ	142/142 (100%)	0.09	0 100 100	56, 83, 169, 348	0
33	DJ	142/142 (100%)	-0.09	0 100 100	38, 60, 146, 265	0
34	BK	122/123 (99%)	0.24	0 100 100	65, 93, 197, 357	0
34	DK	122/123 (99%)	-0.03	0 100 100	43, 63, 112, 229	0
35	BL	143/144 (99%)	0.02	0 100 100	55, 110, 265, 507	0
35	DL	143/144 (99%)	-0.17	0 100 100	41, 68, 170, 291	0
36	BM	136/136 (100%)	0.42	2 (1%) 70 24	65, 99, 208, 340	0
36	DM	136/136 (100%)	-0.04	0 100 100	47, 67, 153, 262	0
37	BN	120/127 (94%)	0.04	2 (1%) 67 21	66, 107, 190, 466	0
37	DN	120/127 (94%)	-0.07	0 100 100	40, 61, 151, 420	0
38	BO	116/117 (99%)	0.42	2 (1%) 67 21	96, 193, 363, 537	0
38	DO	116/117 (99%)	0.19	0 100 100	66, 94, 183, 322	0
39	BP	114/115 (99%)	0.14	1 (0%) 81 37	71, 109, 288, 356	0
39	DP	114/115 (99%)	-0.11	0 100 100	47, 69, 178, 330	0
40	BQ	117/118 (99%)	-0.05	0 100 100	55, 76, 170, 304	0
40	DQ	117/118 (99%)	-0.24	0 100 100	38, 54, 156, 310	0
41	BR	103/103 (100%)	0.02	1 (0%) 79 33	57, 92, 180, 286	0
41	DR	103/103 (100%)	-0.09	0 100 100	42, 68, 152, 458	0
42	BS	110/110 (100%)	0.05	1 (0%) 81 37	60, 92, 175, 299	0
42	DS	110/110 (100%)	0.00	0 100 100	38, 56, 115, 161	0
43	BT	93/100 (93%)	0.59	5 (5%) 25 6	93, 155, 337, 441	0
43	DT	93/100 (93%)	0.24	0 100 100	56, 90, 192, 530	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	BU	102/104 (98%)	0.51	4 (3%) 37 8	78, 133, 337, 443	0
44	DU	102/104 (98%)	-0.12	0 100 100	52, 82, 226, 299	0
45	BV	94/94 (100%)	0.27	0 100 100	86, 144, 310, 421	0
45	DV	94/94 (100%)	0.22	0 100 100	60, 94, 183, 336	0
46	BW	75/85 (88%)	0.30	1 (1%) 74 27	70, 113, 202, 321	0
46	DW	76/85 (89%)	0.09	0 100 100	46, 70, 156, 244	0
47	BX	77/78 (98%)	0.14	0 100 100	62, 110, 268, 318	0
47	DX	77/78 (98%)	0.18	0 100 100	48, 83, 165, 320	0
48	BY	63/63 (100%)	0.32	0 100 100	95, 176, 353, 521	0
48	DY	63/63 (100%)	0.19	1 (1%) 68 22	58, 106, 283, 388	0
49	BZ	58/59 (98%)	0.26	1 (1%) 67 21	67, 93, 170, 515	0
49	DZ	58/59 (98%)	-0.06	0 100 100	44, 59, 141, 198	0
50	B0	56/57 (98%)	-0.04	1 (1%) 65 20	59, 98, 294, 405	0
50	D0	56/57 (98%)	-0.24	0 100 100	33, 64, 166, 282	0
51	B1	50/55 (90%)	1.30	9 (18%) 2 1	88, 147, 326, 377	0
51	D1	50/55 (90%)	0.98	5 (10%) 8 2	78, 120, 326, 532	0
52	B2	46/46 (100%)	0.10	0 100 100	70, 95, 239, 293	0
52	D2	46/46 (100%)	0.09	1 (2%) 59 16	54, 67, 171, 292	0
53	B3	64/65 (98%)	-0.00	0 100 100	67, 91, 201, 286	0
53	D3	64/65 (98%)	-0.05	0 100 100	47, 61, 161, 254	0
54	B4	38/38 (100%)	0.04	0 100 100	78, 108, 174, 322	0
54	D4	38/38 (100%)	0.05	0 100 100	53, 67, 150, 295	0
55	CY	183/185 (98%)	0.17	7 (3%) 38 9	53, 148, 442, 539	0
All	All	20909/21487 (97%)	-0.06	523 (2%) 54 14	15, 110, 357, 549	0

All (523) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
24	DA	2145	C	11.2
16	AP	47	GLU	9.9
22	CV	71	G	9.7
32	BI	2	LYS	9.5
24	DA	2140	G	9.4
24	DA	2138	G	9.0

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Mol	Chain	Res	Type	RSRZ
24	DA	2177	C	8.8
2	AB	9	MET	8.8
49	BZ	1	ALA	8.7
32	DI	1	ALA	8.5
7	CG	85	TYR	8.1
24	DA	2148	G	7.8
22	CV	72	C	7.8
22	CV	73	A	7.8
24	DA	2115	G	7.7
32	DI	53	PRO	7.7
24	DA	2139	U	7.6
4	AD	24	GLY	7.6
32	BI	5	GLN	7.6
51	B1	17	GLY	7.5
32	BI	66	PHE	7.5
32	DI	2	LYS	7.4
24	DA	2105	U	7.4
24	DA	2142	A	7.4
32	BI	59	THR	7.4
24	DA	2144	G	7.4
22	CV	2	C	6.9
24	DA	2176	A	6.8
38	BO	114	GLY	6.8
24	DA	2181	U	6.7
11	CK	13	ARG	6.6
24	DA	2178	C	6.6
24	DA	2157	G	6.5
4	AD	184	ARG	6.5
24	DA	546	U	6.3
24	DA	2180	U	6.3
24	DA	2111	U	6.3
24	DA	2185	U	6.3
24	DA	2141	G	6.3
24	DA	2104	C	6.3
24	DA	2117	A	6.2
32	DI	52	LEU	6.2
24	DA	846	U	6.1
24	DA	2163	A	6.1
24	DA	2174	C	6.1
24	BA	2172	U	6.1
24	DA	2158	A	6.0
24	DA	2137	U	5.9

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Mol	Chain	Res	Type	RSRZ
22	CV	19	G	5.9
46	BW	85	GLU	5.8
16	CP	80	LYS	5.8
32	DI	68	PHE	5.8
29	DF	106	ALA	5.7
19	CS	58	VAL	5.7
32	DI	48	ILE	5.7
24	DA	2147	A	5.7
32	DI	13	ALA	5.7
24	DA	2106	U	5.7
24	DA	2175	C	5.6
32	BI	13	ALA	5.5
24	DA	2103	C	5.5
19	AS	13	LEU	5.5
24	DA	2153	C	5.5
32	BI	10	LEU	5.5
29	DF	109	ARG	5.5
24	DA	2155	U	5.4
55	CY	72	ARG	5.4
22	CV	1	G	5.4
24	DA	2134	A	5.4
10	CJ	102	LEU	5.4
24	DA	2100	G	5.3
24	DA	2107	G	5.3
24	DA	2143	C	5.3
32	BI	52	LEU	5.3
43	BT	83	ALA	5.2
32	DI	86	LYS	5.2
32	BI	3	LYS	5.2
24	BA	546	U	5.2
10	CJ	31	ARG	5.1
24	BA	1175	A	5.1
12	AL	124	ALA	5.0
24	DA	2168	G	5.0
32	DI	3	LYS	5.0
32	BI	35	MET	5.0
32	DI	11	GLN	5.0
24	BA	613	A	5.0
48	DY	62	GLY	5.0
2	AB	88	ASP	5.0
32	DI	99	LYS	5.0
24	DA	2123	G	4.9

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Mol	Chain	Res	Type	RSRZ
24	DA	2136	G	4.8
24	DA	2118	U	4.8
24	DA	2150	C	4.8
32	BI	21	PRO	4.8
32	BI	40	ALA	4.8
24	DA	2125	G	4.8
32	DI	54	ILE	4.7
24	BA	1068	G	4.7
24	DA	2127	G	4.7
24	DA	2188	U	4.7
24	DA	2112	G	4.7
10	CJ	12	ALA	4.7
24	BA	2144	G	4.6
11	CK	19	GLY	4.6
12	CL	124	ALA	4.6
32	BI	54	ILE	4.6
32	BI	95	ASP	4.6
9	AI	97	GLU	4.5
24	DA	2169	A	4.5
24	DA	2162	G	4.5
32	DI	5	GLN	4.4
24	DA	2154	A	4.4
32	BI	11	GLN	4.4
51	D1	51	ALA	4.4
8	CH	128	TYR	4.3
4	AD	28	ILE	4.3
24	BA	140	C	4.3
32	DI	94	LYS	4.3
19	AS	37	ARG	4.3
16	AP	74	LEU	4.2
51	B1	51	ALA	4.2
32	DI	15	GLY	4.2
24	BA	2142	A	4.2
19	CS	65	GLU	4.2
32	DI	98	GLY	4.2
24	DA	2152	G	4.2
19	CS	23	VAL	4.2
32	BI	53	PRO	4.2
24	DA	2156	G	4.2
24	DA	2110	G	4.2
10	CJ	30	LYS	4.1
24	BA	2118	U	4.1

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Mol	Chain	Res	Type	RSRZ
32	BI	43	ALA	4.1
19	AS	11	ILE	4.1
10	AJ	35	GLN	4.1
32	BI	70	THR	4.1
24	DA	2187	U	4.0
19	AS	46	GLY	4.0
7	CG	59	LEU	4.0
32	BI	30	GLN	4.0
2	AB	87	CYS	4.0
7	CG	90	GLU	4.0
8	CH	27	MET	4.0
32	BI	67	THR	3.9
24	DA	2120	G	3.9
32	BI	39	LYS	3.9
32	DI	12	VAL	3.9
32	DI	77	VAL	3.9
22	CV	3	C	3.9
16	AP	80	LYS	3.9
31	DH	85	GLY	3.9
22	CV	70	G	3.9
4	CD	76	TYR	3.8
24	DA	2124	G	3.8
10	CJ	34	ALA	3.7
11	AK	126	LYS	3.7
32	DI	114	ALA	3.7
24	DA	2151	U	3.7
4	AD	147	GLU	3.7
32	BI	15	GLY	3.7
22	CV	54	U	3.7
32	BI	12	VAL	3.7
4	AD	104	ARG	3.7
43	BT	84	TYR	3.6
24	DA	2108	A	3.6
24	DA	2126	A	3.6
24	DA	2109	U	3.6
24	DA	138	U	3.6
43	BT	11	LEU	3.6
32	DI	139	VAL	3.6
44	BU	53	GLN	3.6
51	D1	52	LYS	3.6
32	DI	108	ILE	3.6
20	AT	85	LYS	3.5

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Mol	Chain	Res	Type	RSRZ
7	CG	86	GLN	3.5
37	BN	120	GLU	3.5
36	BM	136	MET	3.5
29	BF	170	ALA	3.5
19	AS	10	PHE	3.5
29	BF	149	ARG	3.5
6	CF	83	ALA	3.5
4	CD	198	HIS	3.5
32	BI	24	GLY	3.5
9	CI	128	SER	3.5
24	DA	2146	C	3.5
32	BI	60	VAL	3.5
32	BI	81	LYS	3.4
13	AM	67	GLY	3.4
24	DA	545	U	3.4
32	BI	38	CYS	3.4
24	DA	2114	A	3.4
24	DA	2173	A	3.4
4	CD	28	ILE	3.4
24	DA	2135	A	3.4
52	D2	46	LYS	3.4
19	CS	22	ALA	3.4
32	BI	19	PRO	3.4
32	DI	138	VAL	3.4
32	BI	6	ALA	3.4
24	DA	2161	C	3.4
22	CV	74	C	3.4
4	AD	20	PHE	3.4
9	CI	10	GLY	3.4
2	CB	74	ARG	3.3
9	AI	41	ARG	3.3
17	AQ	83	VAL	3.3
24	DA	2165	C	3.3
32	BI	109	ALA	3.3
24	DA	2179	C	3.3
13	CM	44	LYS	3.3
32	DI	58	ILE	3.3
41	BR	50	GLY	3.3
51	B1	15	GLY	3.3
32	DI	100	ILE	3.3
32	BI	111	THR	3.3
32	DI	88	GLY	3.3

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Mol	Chain	Res	Type	RSRZ
32	BI	4	VAL	3.3
32	DI	4	VAL	3.3
32	BI	28	GLY	3.3
32	BI	16	MET	3.3
31	DH	1	MET	3.2
4	AD	185	LYS	3.2
32	BI	49	GLU	3.2
7	AG	50	LEU	3.2
32	DI	113	ALA	3.2
13	CM	56	LEU	3.2
19	AS	45	ILE	3.2
32	DI	7	TYR	3.2
16	AP	81	ALA	3.2
21	CU	34	ARG	3.2
14	CN	33	VAL	3.2
32	BI	20	SER	3.2
7	CG	76	LYS	3.2
51	D1	27	ARG	3.2
32	DI	25	PRO	3.1
24	DA	2132	U	3.1
24	DA	2184	A	3.1
19	AS	3	ARG	3.1
24	DA	2133	G	3.1
24	DA	2166	U	3.1
15	AO	69	TYR	3.1
32	BI	96	LYS	3.1
24	DA	2116	G	3.1
11	CK	45	ALA	3.1
32	BI	78	LEU	3.1
32	DI	55	PRO	3.1
24	BA	1583	A	3.1
11	CK	69	ARG	3.1
32	BI	58	ILE	3.0
10	CJ	49	PHE	3.0
24	DA	2172	U	3.0
2	CB	155	GLY	3.0
44	BU	51	LEU	3.0
32	DI	79	LEU	3.0
22	CV	50	U	3.0
10	CJ	65	TYR	3.0
31	BH	38	PRO	3.0
12	CL	123	LYS	3.0

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Mol	Chain	Res	Type	RSRZ
32	DI	70	THR	3.0
32	BI	36	GLU	3.0
30	BG	32	LEU	2.9
32	BI	25	PRO	2.9
16	CP	22	ALA	2.9
24	DA	2119	A	2.9
32	DI	14	ALA	2.9
32	DI	65	SER	2.9
37	BN	119	SER	2.9
3	CC	46	GLU	2.9
22	CV	56	C	2.9
14	CN	29	ILE	2.9
32	BI	68	PHE	2.9
28	BE	188	MET	2.9
9	CI	16	ALA	2.9
19	CS	44	MET	2.9
19	CS	66	MET	2.9
1	AA	1032	G	2.9
51	B1	52	LYS	2.9
17	AQ	4	LYS	2.8
31	DH	149	GLU	2.8
21	AU	27	GLY	2.8
10	AJ	30	LYS	2.8
32	DI	16	MET	2.8
2	AB	74	ARG	2.8
8	CH	130	ALA	2.8
24	DA	2167	U	2.8
32	BI	50	LYS	2.8
4	AD	156	LYS	2.8
13	CM	35	ALA	2.8
4	CD	4	TYR	2.8
51	B1	16	THR	2.8
13	CM	40	ALA	2.8
6	CF	61	LEU	2.8
10	CJ	33	GLY	2.8
24	DA	2102	G	2.8
32	BI	37	PHE	2.8
4	AD	142	VAL	2.7
19	AS	41	PHE	2.7
10	CJ	36	VAL	2.7
43	BT	44	LYS	2.7
24	DA	2128	G	2.7

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Mol	Chain	Res	Type	RSRZ
14	CN	19	TYR	2.7
29	BF	82	TYR	2.7
6	CF	7	VAL	2.7
32	DI	78	LEU	2.7
32	BI	51	GLY	2.7
38	BO	50	ALA	2.7
32	DI	90	GLY	2.7
28	BE	201	ALA	2.7
3	AC	181	ASP	2.7
22	CV	49	C	2.7
13	AM	13	LYS	2.7
32	BI	42	ASN	2.7
5	AE	87	GLY	2.7
10	CJ	86	ALA	2.7
7	CG	79	ARG	2.6
32	BI	97	VAL	2.6
24	BA	2163	A	2.6
24	BA	2146	C	2.6
32	BI	1	ALA	2.6
32	BI	69	VAL	2.6
32	BI	77	VAL	2.6
31	BH	21	VAL	2.6
5	CE	35	ALA	2.6
19	AS	31	LEU	2.6
4	AD	176	GLY	2.6
32	BI	22	PRO	2.6
24	BA	1176	U	2.6
32	DI	91	LYS	2.6
32	BI	85	ILE	2.6
30	DG	176	LYS	2.6
13	AM	7	ILE	2.6
16	CP	81	ALA	2.6
22	CV	57	G	2.5
23	CX	9	A	2.5
24	DA	2170	A	2.5
32	BI	47	SER	2.5
11	CK	68	GLU	2.5
32	DI	105	LEU	2.5
32	DI	67	THR	2.5
4	AD	172	GLU	2.5
32	DI	66	PHE	2.5
13	CM	43	VAL	2.5

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Mol	Chain	Res	Type	RSRZ
32	DI	38	CYS	2.5
19	CS	30	PRO	2.5
10	AJ	100	ILE	2.5
24	DA	140	C	2.5
32	BI	48	ILE	2.5
13	CM	92	ARG	2.5
9	AI	72	ILE	2.5
51	D1	4	ILE	2.5
2	CB	67	ILE	2.5
24	DA	1175	A	2.5
24	BA	2103	C	2.5
9	CI	126	GLN	2.5
29	DF	1	ALA	2.5
2	CB	25	PRO	2.5
10	CJ	50	THR	2.5
32	BI	65	SER	2.5
16	AP	34	GLU	2.5
18	AR	55	LEU	2.5
19	CS	75	ALA	2.5
29	BF	175	PRO	2.4
29	BF	44	ALA	2.4
24	DA	2164	C	2.4
24	DA	2189	U	2.4
30	DG	173	ALA	2.4
32	BI	71	LYS	2.4
55	CY	66	LYS	2.4
10	AJ	31	ARG	2.4
32	DI	141	ASP	2.4
9	CI	17	ALA	2.4
20	CT	87	ALA	2.4
4	CD	150	LYS	2.4
13	CM	18	ALA	2.4
13	AM	12	HIS	2.4
24	DA	2182	U	2.4
32	BI	34	ILE	2.4
9	AI	38	TYR	2.4
28	BE	118	LEU	2.4
55	CY	43	GLU	2.4
31	BH	120	GLY	2.4
32	BI	9	LYS	2.4
15	CO	31	LEU	2.4
19	CS	68	GLY	2.4

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Mol	Chain	Res	Type	RSRZ
32	BI	139	VAL	2.4
30	BG	34	ARG	2.4
16	AP	75	ILE	2.4
24	BA	2131	U	2.4
32	DI	45	THR	2.4
24	BA	2141	G	2.4
16	CP	21	VAL	2.4
13	CM	95	LEU	2.4
19	CS	46	GLY	2.4
32	DI	112	LYS	2.4
26	BC	79	ARG	2.4
30	DG	94	ARG	2.4
4	CD	108	GLY	2.4
42	BS	82	MET	2.4
24	BA	2164	C	2.4
31	BH	122	LEU	2.4
29	BF	71	LYS	2.4
10	CJ	29	ALA	2.4
32	BI	55	PRO	2.4
5	CE	51	GLY	2.4
9	AI	36	GLU	2.4
32	BI	45	THR	2.3
32	BI	82	ALA	2.3
55	CY	44	TYR	2.3
4	AD	103	TYR	2.3
16	CP	47	GLU	2.3
6	CF	9	MET	2.3
24	BA	2111	U	2.3
10	CJ	87	LEU	2.3
29	BF	16	MET	2.3
4	CD	146	ARG	2.3
10	CJ	63	ASP	2.3
24	DA	2159	G	2.3
7	CG	131	LYS	2.3
31	BH	18	GLN	2.3
10	CJ	47	GLU	2.3
32	BI	86	LYS	2.3
31	DH	84	ALA	2.3
32	BI	83	ALA	2.3
32	BI	84	GLY	2.3
32	BI	44	LYS	2.3
29	DF	103	ILE	2.3

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Mol	Chain	Res	Type	RSRZ
14	CN	35	ALA	2.3
22	AV	76	A	2.3
51	B1	48	TYR	2.3
32	BI	31	GLY	2.3
44	BU	54	PRO	2.3
51	B1	20	TYR	2.3
44	BU	52	ASN	2.3
32	BI	137	LEU	2.3
29	BF	131	VAL	2.3
24	BA	138	U	2.3
1	CA	86	G	2.2
1	CA	78	A	2.2
24	DA	2101	A	2.2
23	AX	16	U	2.2
4	AD	95	GLU	2.2
13	AM	86	TYR	2.2
2	AB	157	LEU	2.2
29	BF	79	ARG	2.2
29	BF	171	ALA	2.2
9	CI	104	VAL	2.2
24	DA	2171	A	2.2
32	BI	74	PRO	2.2
13	CM	93	ARG	2.2
7	CG	81	GLY	2.2
32	BI	17	ALA	2.2
7	AG	14	PRO	2.2
32	BI	27	LEU	2.2
32	DI	92	PRO	2.2
20	CT	85	LYS	2.2
43	BT	82	LYS	2.2
55	CY	51	LEU	2.2
39	BP	67	GLU	2.2
4	CD	177	LYS	2.2
19	CS	39	THR	2.2
4	AD	151	LYS	2.2
17	AQ	25	ILE	2.2
3	AC	172	ARG	2.1
7	CG	84	THR	2.1
13	CM	39	ILE	2.1
31	BH	94	ILE	2.1
51	B1	32	LYS	2.1
55	CY	45	TYR	2.1

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Mol	Chain	Res	Type	RSRZ
7	AG	55	GLY	2.1
3	AC	188	GLU	2.1
3	CC	25	ASN	2.1
20	CT	33	LYS	2.1
31	BH	17	ASP	2.1
55	CY	42	VAL	2.1
26	BC	102	TYR	2.1
2	CB	28	LYS	2.1
24	BA	846	U	2.1
17	AQ	46	VAL	2.1
2	CB	124	GLY	2.1
12	CL	95	TYR	2.1
32	BI	26	ALA	2.1
30	BG	161	VAL	2.1
7	CG	152	ALA	2.1
31	BH	149	GLU	2.1
9	AI	39	PHE	2.1
3	AC	146	ALA	2.1
32	DI	83	ALA	2.1
29	BF	17	THR	2.1
30	BG	130	ILE	2.1
30	BG	112	VAL	2.1
31	DH	102	ALA	2.1
51	D1	14	ALA	2.1
16	AP	76	LYS	2.1
4	AD	90	LEU	2.1
31	BH	34	GLY	2.1
1	AA	84	U	2.1
16	AP	17	TYR	2.1
2	CB	165	ASP	2.1
30	BG	20	GLY	2.1
29	DF	68	LYS	2.1
51	B1	36	LYS	2.1
32	BI	73	PRO	2.1
29	DF	173	ASP	2.1
4	CD	27	ALA	2.0
24	BA	2117	A	2.0
36	BM	65	ILE	2.0
15	CO	74	ASP	2.0
19	CS	20	GLU	2.0
32	DI	87	SER	2.0
22	CV	18	G	2.0

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Mol	Chain	Res	Type	RSRZ
19	CS	56	GLN	2.0
14	CN	79	LEU	2.0
31	DH	62	LEU	2.0
32	DI	140	GLU	2.0
30	DG	130	ILE	2.0
24	DA	2129	C	2.0
31	BH	74	ALA	2.0
32	DI	49	GLU	2.0
18	AR	74	HIS	2.0
2	CB	166	ALA	2.0
50	B0	55	ALA	2.0
29	BF	147	ARG	2.0
13	CM	59	GLU	2.0

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

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

6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

6.4 Ligands ⓘ

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, 95th 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	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	BA	3024	1/1	0.55	831.00	114,114,114,114	0
56	MG	BA	3007	1/1	0.63	344.36	127,127,127,127	0
56	MG	BA	3157	1/1	1.21	293.06	97,97,97,97	0
56	MG	DA	3073	1/1	0.26	251.00	99,99,99,99	0
56	MG	AA	1650	1/1	2.89	196.96	118,118,118,118	0
56	MG	DA	3165	1/1	0.72	152.21	78,78,78,78	0
56	MG	CA	1652	1/1	0.41	149.00	106,106,106,106	0
56	MG	BA	3143	1/1	0.53	142.67	103,103,103,103	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	BA	3059	1/1	1.32	126.31	122,122,122,122	0
56	MG	BA	3135	1/1	0.72	110.89	74,74,74,74	0
56	MG	BA	3152	1/1	0.78	105.01	115,115,115,115	0
56	MG	CA	1668	1/1	0.90	98.69	107,107,107,107	0
56	MG	AA	1639	1/1	1.04	92.82	113,113,113,113	0
56	MG	BA	3053	1/1	0.69	89.82	98,98,98,98	0
56	MG	BA	3097	1/1	1.16	87.74	111,111,111,111	0
56	MG	DA	3166	1/1	0.89	86.26	87,87,87,87	0
56	MG	DA	3143	1/1	1.25	85.51	79,79,79,79	0
56	MG	BA	3058	1/1	0.98	84.41	108,108,108,108	0
56	MG	BA	3151	1/1	0.69	83.40	92,92,92,92	0
56	MG	DB	202	1/1	0.71	76.57	122,122,122,122	0
56	MG	BA	3159	1/1	0.71	75.81	109,109,109,109	0
56	MG	CA	1633	1/1	0.81	73.61	116,116,116,116	0
56	MG	DA	3081	1/1	1.17	71.41	110,110,110,110	0
56	MG	DA	3160	1/1	0.89	69.90	92,92,92,92	0
56	MG	DA	3151	1/1	1.02	68.62	101,101,101,101	0
56	MG	BA	3155	1/1	0.94	68.58	114,114,114,114	0
56	MG	DA	3141	1/1	0.68	66.04	73,73,73,73	0
56	MG	DA	3025	1/1	0.78	63.88	118,118,118,118	0
56	MG	CA	1651	1/1	1.05	63.63	103,103,103,103	0
56	MG	DA	3057	1/1	0.88	61.51	114,114,114,114	0
56	MG	DA	3137	1/1	0.55	59.50	93,93,93,93	0
56	MG	DA	3015	1/1	0.77	59.48	124,124,124,124	0
56	MG	DA	3154	1/1	0.76	57.99	86,86,86,86	0
56	MG	DA	3068	1/1	0.78	57.51	117,117,117,117	0
56	MG	CA	1644	1/1	1.09	57.28	118,118,118,118	0
56	MG	BA	3149	1/1	0.68	56.95	85,85,85,85	0
56	MG	AA	1649	1/1	1.05	56.72	90,90,90,90	0
56	MG	CA	1650	1/1	0.67	56.69	102,102,102,102	0
56	MG	DA	3169	1/1	0.76	56.56	94,94,94,94	0
56	MG	BA	3154	1/1	0.78	56.05	97,97,97,97	0
56	MG	CA	1645	1/1	0.42	55.91	96,96,96,96	0
56	MG	DA	3042	1/1	0.76	55.91	105,105,105,105	0
56	MG	CA	1654	1/1	1.13	53.25	116,116,116,116	0
56	MG	DL	201	1/1	0.84	52.18	110,110,110,110	0
56	MG	DA	3164	1/1	0.72	49.33	94,94,94,94	0
56	MG	DA	3152	1/1	0.83	48.55	105,105,105,105	0
56	MG	CA	1637	1/1	1.04	48.04	139,139,139,139	0
56	MG	BA	3156	1/1	0.74	47.71	106,106,106,106	0
56	MG	CA	1636	1/1	1.03	47.37	134,134,134,134	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	BA	3026	1/1	0.86	46.99	134,134,134,134	0
56	MG	CA	1647	1/1	0.62	46.40	112,112,112,112	0
56	MG	AA	1654	1/1	0.70	46.34	110,110,110,110	0
56	MG	CA	1632	1/1	1.14	46.18	128,128,128,128	0
56	MG	CA	1629	1/1	1.02	46.16	123,123,123,123	0
56	MG	DA	3172	1/1	0.62	45.09	109,109,109,109	0
56	MG	CA	1664	1/1	0.29	45.00	112,112,112,112	0
56	MG	BA	3168	1/1	0.92	44.68	114,114,114,114	0
56	MG	CA	1640	1/1	0.87	44.68	114,114,114,114	0
56	MG	DA	3052	1/1	0.60	44.63	95,95,95,95	0
56	MG	DA	3023	1/1	0.60	43.36	120,120,120,120	0
56	MG	CA	1656	1/1	0.60	43.27	106,106,106,106	0
56	MG	BA	3096	1/1	0.84	42.79	118,118,118,118	0
56	MG	CX	101	1/1	1.03	42.70	112,112,112,112	0
56	MG	CA	1642	1/1	0.36	42.44	106,106,106,106	0
56	MG	BA	3014	1/1	0.73	41.83	106,106,106,106	0
56	MG	DA	3095	1/1	1.75	40.69	116,116,116,116	0
56	MG	BA	3025	1/1	0.47	40.37	103,103,103,103	0
56	MG	DA	3105	1/1	0.39	39.14	90,90,90,90	0
56	MG	AA	1653	1/1	0.60	38.46	106,106,106,106	0
56	MG	DB	204	1/1	0.86	38.10	109,109,109,109	0
56	MG	AA	1628	1/1	0.38	37.71	116,116,116,116	0
56	MG	AA	1648	1/1	1.21	35.43	116,116,116,116	0
56	MG	BA	3103	1/1	0.89	35.18	105,105,105,105	0
56	MG	DA	3167	1/1	0.74	34.97	84,84,84,84	0
56	MG	DA	3058	1/1	0.41	34.66	96,96,96,96	0
56	MG	BA	3107	1/1	0.45	34.40	106,106,106,106	0
56	MG	DA	3113	1/1	0.52	33.80	106,106,106,106	0
56	MG	DA	3150	1/1	0.64	33.64	78,78,78,78	0
56	MG	BA	3060	1/1	0.53	33.59	106,106,106,106	0
56	MG	DA	3159	1/1	0.63	33.27	90,90,90,90	0
56	MG	BA	3037	1/1	0.76	32.74	97,97,97,97	0
56	MG	BA	3069	1/1	0.45	32.71	129,129,129,129	0
56	MG	BA	3054	1/1	1.66	32.45	119,119,119,119	0
56	MG	DA	3179	1/1	0.45	32.38	113,113,113,113	0
56	MG	BA	3032	1/1	0.64	31.99	110,110,110,110	0
56	MG	BA	3158	1/1	0.60	31.54	106,106,106,106	0
56	MG	CA	1653	1/1	0.54	31.07	99,99,99,99	0
56	MG	DA	3163	1/1	0.24	30.71	99,99,99,99	0
56	MG	AA	1625	1/1	0.82	30.67	117,117,117,117	0
56	MG	DA	3175	1/1	0.72	30.58	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	AA	1631	1/1	0.59	30.11	126,126,126,126	0
56	MG	CA	1665	1/1	0.43	29.97	112,112,112,112	0
56	MG	CA	1663	1/1	0.43	29.84	82,82,82,82	0
56	MG	DA	3103	1/1	0.35	29.72	81,81,81,81	0
56	MG	DA	3129	1/1	1.80	29.70	124,124,124,124	0
56	MG	BA	3013	1/1	0.52	29.45	114,114,114,114	0
56	MG	BA	3150	1/1	0.60	28.28	95,95,95,95	0
56	MG	DA	3192	1/1	0.47	28.17	95,95,95,95	0
56	MG	BA	3104	1/1	0.56	28.14	106,106,106,106	0
56	MG	DA	3170	1/1	0.46	27.94	94,94,94,94	0
56	MG	DA	3138	1/1	0.74	27.71	81,81,81,81	0
56	MG	BQ	201	1/1	1.37	26.86	93,93,93,93	0
56	MG	AD	301	1/1	0.80	26.83	119,119,119,119	0
56	MG	CA	1643	1/1	0.43	26.80	103,103,103,103	0
56	MG	BA	3012	1/1	1.00	26.69	118,118,118,118	0
56	MG	BA	3139	1/1	0.79	26.66	83,83,83,83	0
56	MG	DA	3102	1/1	0.61	26.06	94,94,94,94	0
56	MG	AA	1638	1/1	0.78	26.00	104,104,104,104	0
56	MG	BA	3062	1/1	0.48	26.00	91,91,91,91	0
56	MG	DA	3061	1/1	0.64	25.75	106,106,106,106	0
56	MG	BA	3087	1/1	0.57	25.44	112,112,112,112	0
56	MG	CA	1670	1/1	0.70	25.06	102,102,102,102	0
56	MG	BA	3129	1/1	0.63	25.06	107,107,107,107	0
56	MG	BA	3102	1/1	0.57	24.98	119,119,119,119	0
56	MG	BA	3147	1/1	0.58	24.82	95,95,95,95	0
56	MG	CA	1618	1/1	0.38	24.81	83,83,83,83	0
56	MG	AA	1626	1/1	0.58	24.70	111,111,111,111	0
56	MG	BA	3123	1/1	0.48	24.47	88,88,88,88	0
56	MG	BA	3142	1/1	0.55	24.16	103,103,103,103	0
56	MG	DA	3147	1/1	0.78	23.92	107,107,107,107	0
56	MG	DA	3176	1/1	0.56	23.85	78,78,78,78	0
56	MG	DA	3026	1/1	0.55	23.55	98,98,98,98	0
56	MG	CA	1608	1/1	0.37	23.27	115,115,115,115	0
56	MG	AA	1616	1/1	0.43	23.05	113,113,113,113	0
56	MG	BA	3079	1/1	0.62	22.53	103,103,103,103	0
56	MG	CA	1602	1/1	0.47	22.52	105,105,105,105	0
56	MG	DA	3071	1/1	0.42	22.36	97,97,97,97	0
56	MG	DA	3085	1/1	0.45	22.25	108,108,108,108	0
56	MG	BA	3160	1/1	0.51	22.21	102,102,102,102	0
56	MG	BA	3093	1/1	0.54	22.06	109,109,109,109	0
56	MG	DA	3055	1/1	0.33	21.82	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	DA	3072	1/1	0.37	21.76	93,93,93,93	0
56	MG	DA	3144	1/1	0.19	21.75	108,108,108,108	0
56	MG	CA	1628	1/1	0.37	21.68	116,116,116,116	0
56	MG	DA	3174	1/1	0.62	21.49	105,105,105,105	0
56	MG	CA	1661	1/1	0.77	21.45	101,101,101,101	0
56	MG	CA	1660	1/1	0.51	21.03	104,104,104,104	0
56	MG	DA	3018	1/1	0.74	20.86	102,102,102,102	0
56	MG	CA	1612	1/1	0.36	20.74	116,116,116,116	0
56	MG	CA	1659	1/1	0.61	20.72	110,110,110,110	0
56	MG	DA	3180	1/1	0.41	20.65	93,93,93,93	0
56	MG	AA	1610	1/1	0.27	20.57	120,120,120,120	0
56	MG	DA	3079	1/1	0.51	20.36	99,99,99,99	0
56	MG	CA	1638	1/1	0.72	20.32	113,113,113,113	0
56	MG	DA	3177	1/1	0.54	20.30	96,96,96,96	0
56	MG	BA	3027	1/1	1.45	20.16	108,108,108,108	0
56	MG	DA	3161	1/1	0.31	20.05	103,103,103,103	0
56	MG	CA	1623	1/1	0.71	20.01	117,117,117,117	0
56	MG	CA	1609	1/1	0.39	19.86	117,117,117,117	0
56	MG	DA	3093	1/1	0.61	19.73	105,105,105,105	0
56	MG	CA	1607	1/1	0.51	19.68	110,110,110,110	0
56	MG	BA	3050	1/1	0.34	19.31	101,101,101,101	0
56	MG	CA	1667	1/1	0.53	19.22	111,111,111,111	0
56	MG	DA	3077	1/1	0.38	19.19	98,98,98,98	0
56	MG	DA	3139	1/1	0.55	19.16	77,77,77,77	0
56	MG	DA	3136	1/1	0.57	18.76	74,74,74,74	0
56	MG	BA	3101	1/1	0.57	18.62	102,102,102,102	0
56	MG	BA	3068	1/1	0.21	18.50	126,126,126,126	0
56	MG	CA	1648	1/1	0.43	18.43	103,103,103,103	0
56	MG	DA	3193	1/1	0.53	18.28	95,95,95,95	0
56	MG	BA	3148	1/1	0.48	18.11	101,101,101,101	0
56	MG	DA	3064	1/1	0.32	17.95	95,95,95,95	0
56	MG	BA	3144	1/1	0.46	17.93	87,87,87,87	0
56	MG	DA	3183	1/1	0.49	17.91	87,87,87,87	0
56	MG	DA	3013	1/1	0.47	17.88	107,107,107,107	0
56	MG	BA	3082	1/1	0.39	17.78	126,126,126,126	0
56	MG	DA	3182	1/1	0.48	17.51	96,96,96,96	0
56	MG	DA	3075	1/1	0.40	17.47	106,106,106,106	0
56	MG	CA	1603	1/1	0.24	17.46	120,120,120,120	0
56	MG	BA	3127	1/1	0.37	17.39	95,95,95,95	0
56	MG	BA	3138	1/1	0.69	17.35	88,88,88,88	0
56	MG	AA	1617	1/1	0.47	17.22	112,112,112,112	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	BA	3008	1/1	0.28	16.91	107,107,107,107	0
56	MG	AA	1636	1/1	0.34	16.89	103,103,103,103	0
56	MG	BA	3118	1/1	0.47	16.77	109,109,109,109	0
56	MG	BA	3136	1/1	0.58	16.45	94,94,94,94	0
56	MG	BA	3145	1/1	0.48	16.14	99,99,99,99	0
56	MG	DA	3156	1/1	0.40	16.12	101,101,101,101	0
56	MG	AA	1602	1/1	0.49	16.10	106,106,106,106	0
56	MG	BA	3133	1/1	0.32	16.04	106,106,106,106	0
56	MG	AA	1622	1/1	0.36	15.90	107,107,107,107	0
56	MG	CA	1617	1/1	0.38	15.84	115,115,115,115	0
56	MG	DA	3044	1/1	0.39	15.70	105,105,105,105	0
56	MG	DA	3107	1/1	0.45	15.30	98,98,98,98	0
56	MG	AA	1614	1/1	0.51	15.17	123,123,123,123	0
56	MG	DA	3011	1/1	0.51	15.05	103,103,103,103	0
56	MG	CA	1626	1/1	0.37	15.01	99,99,99,99	0
56	MG	BA	3018	1/1	0.75	14.77	118,118,118,118	0
56	MG	DA	3080	1/1	0.26	14.74	100,100,100,100	0
56	MG	AA	1640	1/1	0.51	14.42	110,110,110,110	0
56	MG	BA	3071	1/1	0.30	14.36	104,104,104,104	0
56	MG	DA	3016	1/1	0.23	14.27	103,103,103,103	0
56	MG	BA	3153	1/1	0.51	14.25	112,112,112,112	0
56	MG	BA	3131	1/1	0.47	14.07	114,114,114,114	0
56	MG	BA	3110	1/1	0.44	14.01	110,110,110,110	0
57	NMY	DA	3190	42/42	0.38	13.99	57,66,70,74	42
56	MG	CA	1605	1/1	0.15	13.93	97,97,97,97	0
56	MG	BA	3137	1/1	0.40	13.90	82,82,82,82	0
56	MG	BA	3109	1/1	0.42	13.84	106,106,106,106	0
56	MG	DA	3059	1/1	0.44	13.78	92,92,92,92	0
56	MG	DA	3171	1/1	0.36	13.77	108,108,108,108	0
56	MG	BA	3125	1/1	0.43	13.71	100,100,100,100	0
56	MG	DA	3146	1/1	0.36	13.70	76,76,76,76	0
56	MG	BA	3112	1/1	0.36	13.59	101,101,101,101	0
56	MG	DA	3054	1/1	0.30	13.45	93,93,93,93	0
56	MG	AA	1609	1/1	0.37	13.44	111,111,111,111	0
56	MG	BA	3115	1/1	0.28	13.26	105,105,105,105	0
56	MG	BA	3100	1/1	0.37	13.24	107,107,107,107	0
56	MG	DA	3094	1/1	0.34	13.21	87,87,87,87	0
56	MG	AA	1624	1/1	0.38	13.13	110,110,110,110	0
56	MG	BA	3033	1/1	0.50	13.01	98,98,98,98	0
56	MG	BA	3011	1/1	0.45	12.94	81,81,81,81	0
56	MG	AA	1634	1/1	0.45	12.91	120,120,120,120	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	AA	1629	1/1	0.64	12.90	118,118,118,118	0
56	MG	DA	3007	1/1	0.22	12.55	103,103,103,103	0
56	MG	DA	3106	1/1	0.47	12.55	100,100,100,100	0
56	MG	DA	3145	1/1	0.41	12.53	91,91,91,91	0
56	MG	BA	3077	1/1	0.44	12.49	121,121,121,121	0
56	MG	DA	3157	1/1	0.40	12.46	96,96,96,96	0
56	MG	DA	3049	1/1	0.31	12.42	97,97,97,97	0
56	MG	AA	1646	1/1	0.60	12.41	95,95,95,95	0
56	MG	DA	3004	1/1	0.39	12.37	99,99,99,99	0
56	MG	BA	3061	1/1	0.27	12.34	85,85,85,85	0
56	MG	DA	3149	1/1	0.33	12.26	107,107,107,107	0
56	MG	AA	1620	1/1	0.23	12.10	118,118,118,118	0
56	MG	BA	3044	1/1	0.34	11.98	114,114,114,114	0
56	MG	DA	3134	1/1	0.35	11.95	77,77,77,77	0
56	MG	BA	3081	1/1	0.34	11.81	109,109,109,109	0
56	MG	BA	3023	1/1	0.34	11.75	108,108,108,108	0
56	MG	BB	201	1/1	0.20	11.57	137,137,137,137	0
56	MG	DA	3065	1/1	0.26	11.56	81,81,81,81	0
56	MG	AA	1651	1/1	0.19	11.39	119,119,119,119	0
56	MG	BA	3022	1/1	0.63	11.33	110,110,110,110	0
56	MG	CA	1655	1/1	0.33	11.27	117,117,117,117	0
56	MG	BA	3121	1/1	0.41	11.25	110,110,110,110	0
56	MG	BA	3020	1/1	0.27	11.24	95,95,95,95	0
56	MG	DB	203	1/1	0.27	11.14	100,100,100,100	0
56	MG	DA	3050	1/1	0.26	11.10	86,86,86,86	0
56	MG	DA	3173	1/1	0.45	11.09	90,90,90,90	0
56	MG	DA	3131	1/1	0.69	11.09	118,118,118,118	0
56	MG	DA	3060	1/1	0.28	11.03	89,89,89,89	0
56	MG	BA	3126	1/1	0.26	11.02	110,110,110,110	0
56	MG	DA	3101	1/1	0.36	10.90	86,86,86,86	0
56	MG	DA	3087	1/1	0.29	10.85	113,113,113,113	0
56	MG	DA	3010	1/1	0.33	10.79	106,106,106,106	0
56	MG	BA	3063	1/1	0.61	10.69	106,106,106,106	0
56	MG	BA	3072	1/1	0.29	10.64	103,103,103,103	0
56	MG	BA	3091	1/1	0.32	10.43	115,115,115,115	0
56	MG	BA	3074	1/1	0.33	10.39	115,115,115,115	0
56	MG	DO	201	1/1	0.53	10.18	109,109,109,109	0
56	MG	CA	1631	1/1	0.48	10.09	120,120,120,120	0
56	MG	DA	3051	1/1	0.26	9.85	86,86,86,86	0
56	MG	DA	3009	1/1	0.37	9.79	102,102,102,102	0
56	MG	AA	1621	1/1	0.44	9.76	116,116,116,116	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3047	1/1	0.30	9.64	103,103,103,103	0
56	MG	AA	1645	1/1	0.28	9.54	93,93,93,93	0
56	MG	DA	3109	1/1	0.26	9.52	102,102,102,102	0
56	MG	BB	202	1/1	0.61	9.51	123,123,123,123	0
57	NMY	BA	3164	42/42	0.29	9.47	90,100,104,105	42
56	MG	AA	1613	1/1	0.24	9.47	115,115,115,115	0
56	MG	BA	3075	1/1	0.37	9.46	104,104,104,104	0
56	MG	BA	3146	1/1	0.35	9.44	98,98,98,98	0
56	MG	DA	3032	1/1	0.50	9.23	97,97,97,97	0
56	MG	DA	3116	1/1	0.21	9.08	107,107,107,107	0
56	MG	AA	1633	1/1	0.33	9.06	128,128,128,128	0
56	MG	DA	3084	1/1	0.23	8.98	104,104,104,104	0
56	MG	BA	3030	1/1	0.33	8.94	94,94,94,94	0
56	MG	AA	1606	1/1	0.30	8.91	111,111,111,111	0
56	MG	AA	1605	1/1	0.34	8.85	121,121,121,121	0
56	MG	DA	3098	1/1	0.25	8.79	99,99,99,99	0
56	MG	DA	3083	1/1	0.32	8.70	82,82,82,82	0
57	NMY	AA	1656	42/42	0.27	8.65	94,99,103,104	42
56	MG	DA	3067	1/1	0.34	8.65	120,120,120,120	0
56	MG	AA	1652	1/1	0.38	8.57	101,101,101,101	0
56	MG	BA	3005	1/1	0.25	8.55	106,106,106,106	0
56	MG	BA	3083	1/1	0.27	8.53	110,110,110,110	0
56	MG	BA	3049	1/1	0.25	8.47	88,88,88,88	0
57	NMY	DA	3187	42/42	0.31	8.38	106,109,112,114	42
56	MG	DA	3006	1/1	0.20	8.36	92,92,92,92	0
56	MG	DA	3092	1/1	0.33	8.35	95,95,95,95	0
56	MG	DA	3031	1/1	0.28	8.20	108,108,108,108	0
56	MG	AA	1608	1/1	0.39	8.20	114,114,114,114	0
56	MG	BA	3070	1/1	0.33	8.12	90,90,90,90	0
56	MG	BA	3051	1/1	0.34	8.00	106,106,106,106	0
56	MG	DA	3076	1/1	0.25	7.96	100,100,100,100	0
56	MG	DA	3096	1/1	0.24	7.94	75,75,75,75	0
56	MG	DA	3029	1/1	0.25	7.91	84,84,84,84	0
56	MG	DA	3162	1/1	0.36	7.90	95,95,95,95	0
56	MG	BA	3095	1/1	0.33	7.86	107,107,107,107	0
56	MG	CA	1611	1/1	0.17	7.85	110,110,110,110	0
56	MG	BA	3028	1/1	0.32	7.75	89,89,89,89	0
56	MG	AN	201	1/1	0.63	7.74	133,133,133,133	0
56	MG	BA	3031	1/1	0.23	7.73	87,87,87,87	0
56	MG	DA	3127	1/1	0.31	7.62	77,77,77,77	0
56	MG	AA	1630	1/1	0.30	7.57	105,105,105,105	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	BA	3066	1/1	0.23	7.56	96,96,96,96	0
56	MG	DA	3100	1/1	0.42	7.52	96,96,96,96	0
56	MG	BC	301	1/1	0.75	7.43	122,122,122,122	0
56	MG	BA	3090	1/1	0.64	7.40	130,130,130,130	0
56	MG	BA	3098	1/1	0.33	7.32	100,100,100,100	0
56	MG	DA	3121	1/1	0.29	7.27	86,86,86,86	0
56	MG	CA	1646	1/1	0.32	7.18	95,95,95,95	0
56	MG	DA	3038	1/1	0.25	7.15	81,81,81,81	0
56	MG	DA	3024	1/1	0.23	7.04	73,73,73,73	0
56	MG	DA	3158	1/1	0.28	6.93	91,91,91,91	0
57	NMY	BA	3163	42/42	0.30	6.82	89,98,100,101	42
56	MG	CA	1624	1/1	0.27	6.80	106,106,106,106	0
57	NMY	AA	1657	42/42	0.28	6.71	81,84,88,90	42
56	MG	DA	3135	1/1	0.22	6.65	71,71,71,71	0
56	MG	CA	1634	1/1	0.25	6.58	120,120,120,120	0
56	MG	DA	3048	1/1	0.29	6.55	96,96,96,96	0
56	MG	BA	3094	1/1	0.23	6.53	92,92,92,92	0
56	MG	AA	1627	1/1	0.54	6.53	121,121,121,121	0
56	MG	BA	3169	1/1	0.26	6.52	101,101,101,101	0
56	MG	BA	3106	1/1	0.36	6.52	100,100,100,100	0
56	MG	DA	3069	1/1	0.28	6.45	81,81,81,81	0
56	MG	CA	1625	1/1	0.20	6.44	107,107,107,107	0
56	MG	DA	3194	1/1	0.56	6.40	90,90,90,90	0
56	MG	DA	3140	1/1	0.33	6.37	98,98,98,98	0
57	NMY	BA	3167	42/42	0.29	6.25	117,120,124,125	42
56	MG	DA	3108	1/1	0.28	6.20	100,100,100,100	0
56	MG	CA	1622	1/1	0.30	6.18	108,108,108,108	0
56	MG	DA	3020	1/1	0.26	6.13	93,93,93,93	0
56	MG	CA	1627	1/1	0.35	5.95	111,111,111,111	0
56	MG	AA	1635	1/1	0.27	5.80	105,105,105,105	0
56	MG	BA	3065	1/1	0.29	5.78	101,101,101,101	0
56	MG	BA	3122	1/1	0.32	5.74	112,112,112,112	0
56	MG	DA	3122	1/1	0.27	5.71	97,97,97,97	0
56	MG	DA	3019	1/1	0.30	5.66	78,78,78,78	0
56	MG	BA	3105	1/1	0.29	5.58	91,91,91,91	0
56	MG	BA	3003	1/1	0.21	5.57	115,115,115,115	0
56	MG	DA	3142	1/1	0.19	5.52	86,86,86,86	0
56	MG	BA	3170	1/1	0.40	5.43	88,88,88,88	0
56	MG	DA	3008	1/1	0.25	5.41	88,88,88,88	0
56	MG	DA	3097	1/1	0.55	5.38	105,105,105,105	0
56	MG	CA	1666	1/1	0.23	5.26	112,112,112,112	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	BA	3021	1/1	0.25	5.26	108,108,108,108	0
56	MG	BA	3108	1/1	0.30	5.21	99,99,99,99	0
56	MG	DA	3181	1/1	0.40	5.20	77,77,77,77	0
56	MG	DA	3088	1/1	0.18	5.18	115,115,115,115	0
56	MG	DA	3091	1/1	0.19	5.16	104,104,104,104	0
56	MG	BA	3111	1/1	0.24	5.15	98,98,98,98	0
56	MG	BA	3134	1/1	0.26	5.13	109,109,109,109	0
56	MG	BA	3088	1/1	0.28	5.09	101,101,101,101	0
56	MG	DA	3090	1/1	0.23	5.07	107,107,107,107	0
56	MG	BA	3113	1/1	0.43	5.06	121,121,121,121	0
56	MG	AA	1644	1/1	0.41	4.99	106,106,106,106	0
56	MG	AA	1642	1/1	0.23	4.96	94,94,94,94	0
56	MG	DA	3120	1/1	0.24	4.93	98,98,98,98	0
56	MG	AA	1643	1/1	0.19	4.84	110,110,110,110	0
57	NMY	DA	3185	42/42	0.22	4.83	46,58,63,67	42
56	MG	BA	3015	1/1	0.26	4.82	115,115,115,115	0
56	MG	CA	1613	1/1	0.17	4.79	103,103,103,103	0
56	MG	DA	3130	1/1	0.24	4.78	96,96,96,96	0
56	MG	CA	1669	1/1	0.35	4.68	107,107,107,107	0
56	MG	BA	3009	1/1	0.29	4.61	95,95,95,95	0
56	MG	DA	3123	1/1	0.27	4.60	102,102,102,102	0
56	MG	DA	3021	1/1	0.35	4.53	108,108,108,108	0
57	NMY	BA	3165	42/42	0.30	4.50	79,84,87,90	42
56	MG	BA	3078	1/1	0.22	4.47	119,119,119,119	0
57	NMY	BA	3162	42/42	0.27	4.46	65,79,86,93	42
56	MG	DA	3111	1/1	0.44	4.43	102,102,102,102	0
56	MG	BA	3119	1/1	0.19	4.40	106,106,106,106	0
56	MG	DA	3022	1/1	0.28	4.40	81,81,81,81	0
56	MG	BA	3130	1/1	0.61	4.40	103,103,103,103	0
56	MG	DA	3036	1/1	0.28	4.35	90,90,90,90	0
57	NMY	BA	3161	42/42	0.25	4.27	61,70,77,82	42
56	MG	DA	3124	1/1	0.25	4.13	78,78,78,78	0
57	NMY	CA	1672	42/42	0.24	4.07	54,65,74,77	42
56	MG	DA	3168	1/1	0.21	4.05	89,89,89,89	0
56	MG	DA	3035	1/1	0.24	3.99	94,94,94,94	0
56	MG	BA	3120	1/1	0.25	3.98	94,94,94,94	0
56	MG	DA	3014	1/1	0.21	3.98	90,90,90,90	0
56	MG	AA	1603	1/1	0.22	3.92	117,117,117,117	0
56	MG	DA	3148	1/1	0.36	3.76	60,60,60,60	0
57	NMY	DA	3186	42/42	0.25	3.74	53,58,64,71	42
56	MG	BA	3092	1/1	0.24	3.73	119,119,119,119	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	DB	201	1/1	0.22	3.69	113,113,113,113	0
56	MG	DA	3017	1/1	0.24	3.63	76,76,76,76	0
56	MG	DA	3012	1/1	0.26	3.61	83,83,83,83	0
56	MG	DA	3119	1/1	0.23	3.58	82,82,82,82	0
56	MG	DA	3118	1/1	0.26	3.54	88,88,88,88	0
56	MG	CA	1615	1/1	0.18	3.46	112,112,112,112	0
56	MG	BA	3019	1/1	0.22	3.43	101,101,101,101	0
56	MG	BA	3116	1/1	0.18	3.39	99,99,99,99	0
56	MG	DA	3070	1/1	0.22	3.35	56,56,56,56	0
56	MG	DA	3110	1/1	0.26	3.29	93,93,93,93	0
56	MG	DA	3082	1/1	0.25	3.29	92,92,92,92	0
56	MG	DA	3155	1/1	0.25	3.21	115,115,115,115	0
56	MG	CA	1671	1/1	0.27	3.18	96,96,96,96	0
57	NMY	DA	3189	42/42	0.22	3.13	55,63,70,72	42
56	MG	DA	3066	1/1	0.21	3.12	90,90,90,90	0
56	MG	CA	1620	1/1	0.19	3.10	118,118,118,118	0
56	MG	DA	3037	1/1	0.25	3.07	72,72,72,72	0
56	MG	DA	3178	1/1	0.23	3.04	88,88,88,88	0
56	MG	DA	3125	1/1	0.19	3.00	113,113,113,113	0
56	MG	BA	3055	1/1	0.21	2.97	101,101,101,101	0
56	MG	CA	1641	1/1	0.22	2.91	85,85,85,85	0
56	MG	CA	1614	1/1	0.18	2.89	120,120,120,120	0
57	NMY	DA	3184	42/42	0.26	2.80	57,71,80,89	42
56	MG	DA	3104	1/1	0.20	2.76	81,81,81,81	0
56	MG	DA	3028	1/1	0.31	2.70	85,85,85,85	0
56	MG	CA	1601	1/1	0.45	2.63	140,140,140,140	0
56	MG	AA	1647	1/1	0.27	2.58	109,109,109,109	0
56	MG	BA	3038	1/1	0.21	2.31	104,104,104,104	0
56	MG	CA	1658	1/1	0.44	2.26	115,115,115,115	0
56	MG	BA	3124	1/1	0.20	2.18	114,114,114,114	0
56	MG	AA	1601	1/1	0.39	2.16	132,132,132,132	0
56	MG	AA	1618	1/1	0.26	2.12	96,96,96,96	0
56	MG	BA	3099	1/1	0.38	2.12	112,112,112,112	0
56	MG	AA	1623	1/1	1.08	2.12	119,119,119,119	0
56	MG	BA	3004	1/1	0.19	2.10	120,120,120,120	0
56	MG	BA	3056	1/1	0.17	2.10	99,99,99,99	0
56	MG	DA	3078	1/1	0.19	2.07	84,84,84,84	0
56	MG	DA	3114	1/1	0.18	2.01	77,77,77,77	0
56	MG	BA	3089	1/1	0.18	2.01	109,109,109,109	0
58	ZN	D4	101	1/1	0.47	1.98	162,162,162,162	0
56	MG	AA	1637	1/1	0.24	1.94	103,103,103,103	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	DA	3030	1/1	0.19	1.94	76,76,76,76	0
56	MG	CA	1610	1/1	0.23	1.90	102,102,102,102	0
56	MG	DA	3153	1/1	0.19	1.75	95,95,95,95	0
56	MG	BA	3076	1/1	0.36	1.73	120,120,120,120	0
56	MG	DA	3115	1/1	0.17	1.72	95,95,95,95	0
56	MG	CA	1606	1/1	0.15	1.70	99,99,99,99	0
56	MG	BA	3040	1/1	0.24	1.59	112,112,112,112	0
56	MG	BA	3064	1/1	0.16	1.56	96,96,96,96	0
56	MG	AA	1641	1/1	0.42	1.55	105,105,105,105	0
56	MG	BA	3114	1/1	0.29	1.36	120,120,120,120	0
57	NMY	BA	3166	42/42	0.24	1.36	68,77,83,90	42
56	MG	BA	3141	1/1	0.13	1.20	114,114,114,114	0
56	MG	AA	1619	1/1	0.18	1.18	95,95,95,95	0
56	MG	BA	3029	1/1	0.22	1.14	99,99,99,99	0
56	MG	BA	3034	1/1	0.17	1.10	88,88,88,88	0
56	MG	DA	3047	1/1	0.19	1.01	76,76,76,76	0
57	NMY	DA	3188	42/42	0.19	1.01	45,60,66,70	42
56	MG	DA	3133	1/1	0.25	0.99	100,100,100,100	0
56	MG	BA	3052	1/1	0.21	0.96	97,97,97,97	0
56	MG	BA	3046	1/1	0.18	0.95	109,109,109,109	0
56	MG	AA	1607	1/1	0.22	0.95	116,116,116,116	0
56	MG	DA	3040	1/1	0.18	0.94	91,91,91,91	0
57	NMY	AA	1655	42/42	0.20	0.91	61,73,90,121	0
56	MG	DA	3112	1/1	0.24	0.89	108,108,108,108	0
56	MG	DA	3056	1/1	0.16	0.87	86,86,86,86	0
56	MG	BB	203	1/1	0.12	0.87	107,107,107,107	0
56	MG	BA	3017	1/1	0.14	0.85	107,107,107,107	0
56	MG	BA	3057	1/1	0.17	0.85	98,98,98,98	0
56	MG	DA	3117	1/1	0.18	0.84	93,93,93,93	0
56	MG	AA	1632	1/1	0.17	0.83	114,114,114,114	0
56	MG	CA	1616	1/1	0.14	0.80	98,98,98,98	0
56	MG	DA	3039	1/1	0.32	0.79	117,117,117,117	0
56	MG	BA	3043	1/1	0.18	0.79	108,108,108,108	0
56	MG	BA	3140	1/1	0.18	0.79	101,101,101,101	0
56	MG	CA	1621	1/1	0.16	0.59	111,111,111,111	0
56	MG	DA	3034	1/1	0.17	0.40	84,84,84,84	0
56	MG	DA	3003	1/1	0.15	0.35	105,105,105,105	0
56	MG	DA	3053	1/1	0.18	0.33	93,93,93,93	0
56	MG	BA	3132	1/1	0.19	0.33	96,96,96,96	0
56	MG	DA	3045	1/1	0.13	0.32	95,95,95,95	0
56	MG	BA	3001	1/1	0.16	0.28	99,99,99,99	0
56	MG	DA	3005	1/1	0.14	0.22	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3041	1/1	0.15	0.19	96,96,96,96	0
56	MG	BA	3002	1/1	0.15	0.14	89,89,89,89	0
56	MG	BA	3045	1/1	0.17	0.13	118,118,118,118	0
56	MG	AA	1615	1/1	0.13	0.10	112,112,112,112	0
56	MG	DA	3062	1/1	0.18	0.06	76,76,76,76	0
56	MG	DA	3099	1/1	0.17	0.05	90,90,90,90	0
56	MG	BA	3016	1/1	0.16	0.04	83,83,83,83	0
56	MG	BA	3084	1/1	0.19	0.04	95,95,95,95	0
58	ZN	B4	101	1/1	0.24	0.02	186,186,186,186	0
56	MG	BA	3085	1/1	0.15	0.02	95,95,95,95	0
56	MG	AA	1612	1/1	0.14	-0.06	107,107,107,107	0
56	MG	DA	3043	1/1	0.14	-0.08	90,90,90,90	0
56	MG	BA	3035	1/1	0.16	-0.09	94,94,94,94	0
56	MG	CA	1630	1/1	0.21	-0.12	118,118,118,118	0
56	MG	DA	3128	1/1	0.17	-0.14	92,92,92,92	0
56	MG	DA	3074	1/1	0.13	-0.29	95,95,95,95	0
56	MG	BA	3117	1/1	0.15	-0.32	89,89,89,89	0
56	MG	DE	301	1/1	0.12	-0.39	100,100,100,100	0
56	MG	BA	3036	1/1	0.15	-0.40	95,95,95,95	0
56	MG	CA	1635	1/1	0.16	-0.42	113,113,113,113	0
56	MG	DA	3001	1/1	0.12	-0.57	91,91,91,91	0
56	MG	CA	1662	1/1	0.15	-0.67	114,114,114,114	0
56	MG	BA	3006	1/1	0.10	-0.71	101,101,101,101	0
56	MG	BA	3039	1/1	0.15	-0.73	96,96,96,96	0
56	MG	CA	1639	1/1	0.11	-0.76	94,94,94,94	0
56	MG	DA	3089	1/1	0.09	-1.01	97,97,97,97	0
56	MG	BA	3073	1/1	0.14	-1.01	101,101,101,101	0
56	MG	DA	3046	1/1	0.15	-1.10	86,86,86,86	0
56	MG	DA	3027	1/1	0.15	-1.10	79,79,79,79	0
56	MG	DA	3041	1/1	0.12	-1.29	81,81,81,81	0
56	MG	DA	3033	1/1	0.14	-1.33	91,91,91,91	0
56	MG	DA	3132	1/1	0.14	-1.51	96,96,96,96	0
56	MG	BA	3086	1/1	0.11	-2.05	109,109,109,109	0
56	MG	DA	3191	1/1	0.14	-2.35	80,80,80,80	0
56	MG	AA	1604	1/1	0.12	-2.37	102,102,102,102	0
56	MG	BA	3042	1/1	0.09	-2.44	97,97,97,97	0
56	MG	CA	1619	1/1	0.14	-2.50	93,93,93,93	0
56	MG	BA	3080	1/1	0.15	-2.98	73,73,73,73	0
56	MG	BA	3128	1/1	0.12	-3.05	94,94,94,94	0
56	MG	BA	3048	1/1	0.09	-3.13	93,93,93,93	0
56	MG	BA	3010	1/1	0.12	-3.40	85,85,85,85	0
56	MG	DA	3063	1/1	0.09	-3.42	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3086	1/1	0.10	-3.81	97,97,97,97	0
56	MG	AA	1611	1/1	0.07	-4.45	104,104,104,104	0
56	MG	CA	1604	1/1	0.11	-5.14	86,86,86,86	0
56	MG	DA	3126	1/1	0.15	-5.16	60,60,60,60	0
56	MG	DA	3002	1/1	0.08	-5.67	86,86,86,86	0
56	MG	BA	3067	1/1	0.10	-6.43	89,89,89,89	0
56	MG	CA	1649	1/1	1.19	-	107,107,107,107	0
56	MG	CA	1657	1/1	1.33	-	119,119,119,119	0

6.5 Other polymers ⓘ

There are no such residues in this entry.