



# Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 09:59 PM GMT

PDB ID : 4V5K  
Title : Structure of cytotoxic domain of colicin E3 bound to the 70S ribosome  
Authors : Ng, C.L.; Lang, K.; Meenan, N.A.G.; Sharma, A.; Kelley, A.C.; Kleanthous, C.; Ramakrishnan, V.  
Deposited on : 2010-05-29  
Resolution : 3.20 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.  
We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)  
A user guide is available at  
<http://wwpdb.org/validation/2016/XrayValidationReportHelp>  
with specific help available everywhere you see the ⓘ symbol.

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

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

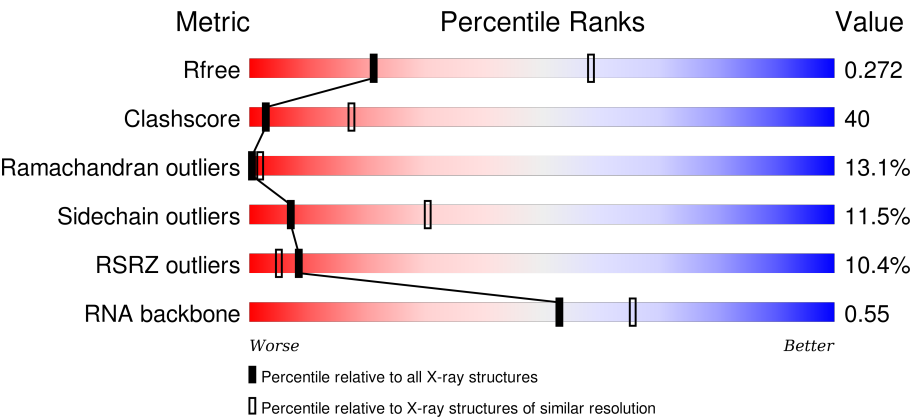
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.20 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
$R_{free}$	91344	1124 (3.24-3.16)
Clashscore	102246	1024 (3.22-3.18)
Ramachandran outliers	100387	1004 (3.22-3.18)
Sidechain outliers	100360	1003 (3.22-3.18)
RSRZ outliers	91569	1129 (3.24-3.16)
RNA backbone	2183	1079 (3.70-2.70)

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

Mol	Chain	Length	Quality of chain
1	AA	1522	<div><div>3%</div><div>29%</div><div>61%</div><div>9%</div><div>.</div></div>
1	CA	1522	<div><div>13%</div><div>23%</div><div>63%</div><div>13%</div><div>.</div></div>
2	AB	256	<div><div>7%</div><div>17%</div><div>61%</div><div>13%</div><div>.</div><div>8%</div></div>
2	CB	256	<div><div>18%</div><div>18%</div><div>61%</div><div>13%</div><div>.</div><div>8%</div></div>

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Mol	Chain	Length	Quality of chain
3	AC	239	
3	CC	239	
4	AD	209	
4	CD	209	
5	AE	162	
5	CE	162	
6	AF	101	
6	CF	101	
7	AG	156	
7	CG	156	
8	AH	138	
8	CH	138	
9	AI	128	
9	CI	128	
10	AJ	105	
10	CJ	105	
11	AK	129	
11	CK	129	
12	AL	135	
12	CL	135	
13	AM	126	
13	CM	126	
14	AN	61	
14	CN	61	
15	AO	89	

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Mol	Chain	Length	Quality of chain
15	CO	89	
16	AP	88	
16	CP	88	
17	AQ	105	
17	CQ	105	
18	AR	88	
18	CR	88	
19	AS	93	
19	CS	93	
20	AT	106	
20	CT	106	
21	AU	27	
21	CU	27	
22	AV	77	
22	AW	77	
22	CV	77	
22	CW	77	
23	AX	25	
24	AY	97	
24	CY	97	
25	B0	85	
25	D0	85	
26	B1	98	
26	D1	98	
27	B2	72	

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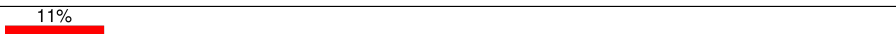
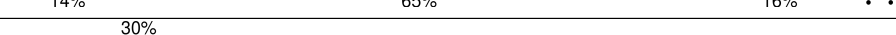
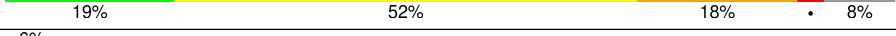
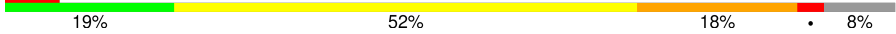
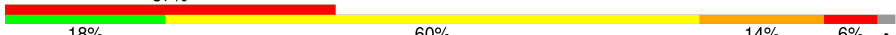

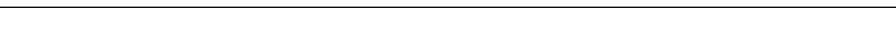
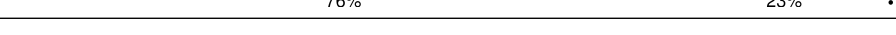


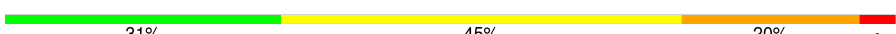

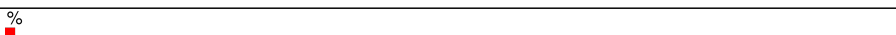


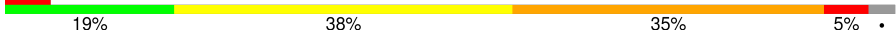
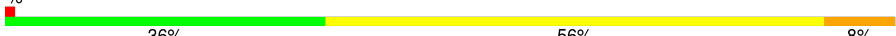


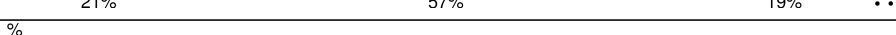
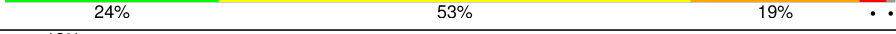



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Mol	Chain	Length	Quality of chain
27	D2	72	
28	B3	60	
28	D3	60	
29	B4	71	
29	D4	71	
30	B5	60	
30	D5	60	
31	B6	54	
31	D6	54	
32	B7	49	
32	D7	49	
33	B8	65	
33	D8	65	
34	B9	37	
34	D9	37	
35	BA	2848	
35	DA	2848	
36	BB	122	
36	DB	122	
37	BC	229	
37	DC	229	
38	BD	276	
38	DD	276	
39	BE	206	
39	DE	206	


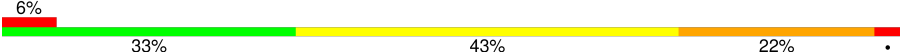

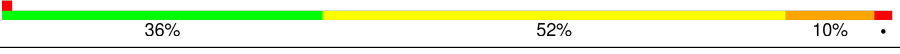
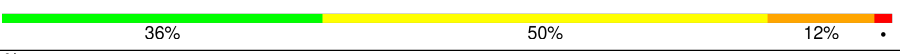
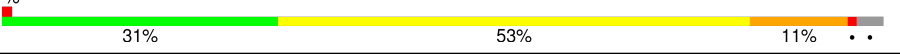



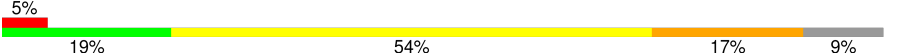
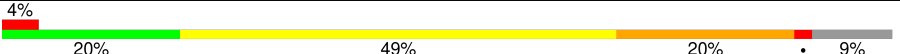

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Mol	Chain	Length	Quality of chain
40	BF	210	
40	DF	210	
41	BG	182	
41	DG	182	
42	BH	180	
42	DH	180	
43	BI	148	
43	DI	148	
44	BJ	131	
44	DJ	131	
45	BN	140	
45	DN	140	
46	BO	122	
46	DO	122	
47	BP	150	
47	DP	150	
48	BQ	141	
48	DQ	141	
49	BR	118	
49	DR	118	
50	BS	112	
50	DS	112	
51	BT	146	
51	DT	146	
52	BU	118	

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Mol	Chain	Length	Quality of chain
52	DU	118	
53	BV	101	
53	DV	101	
54	BW	113	
54	DW	113	
55	BX	96	
55	DX	96	
56	BY	110	
56	DY	110	
57	BZ	206	
57	DZ	206	
58	CX	25	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
1	A3P	AA	1493	-	-	X	-
59	MG	AA	1616	-	-	-	X
59	MG	AA	1630	-	-	-	X
59	MG	AA	1650	-	-	-	X
59	MG	AA	1662	-	-	-	X
59	MG	AA	1669	-	-	-	X
59	MG	AA	1691	-	-	-	X
59	MG	AA	1692	-	-	-	X
59	MG	AA	1694	-	-	-	X
59	MG	AA	1697	-	-	-	X
59	MG	AA	1726	-	-	-	X
59	MG	AA	1729	-	-	-	X
59	MG	AA	1737	-	-	-	X
59	MG	AA	1760	-	-	-	X
59	MG	AA	1790	-	-	-	X
59	MG	AA	1812	-	-	-	X
59	MG	AA	1820	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
59	MG	AA	1829	-	-	-	X
59	MG	AA	1845	-	-	-	X
59	MG	AA	1848	-	-	-	X
59	MG	AA	1857	-	-	-	X
59	MG	AA	1858	-	-	-	X
59	MG	AA	1862	-	-	-	X
59	MG	AA	1872	-	-	-	X
59	MG	AA	1888	-	-	-	X
59	MG	AA	1893	-	-	-	X
59	MG	AA	1899	-	-	-	X
59	MG	AA	1905	-	-	-	X
59	MG	AA	1915	-	-	-	X
59	MG	AA	1932	-	-	-	X
59	MG	AA	1938	-	-	-	X
59	MG	AA	1948	-	-	-	X
59	MG	AA	1968	-	-	-	X
59	MG	AV	102	-	-	-	X
59	MG	B6	101	-	-	-	X
59	MG	BA	2920	-	-	-	X
59	MG	BA	2925	-	-	-	X
59	MG	BA	2927	-	-	-	X
59	MG	BA	2937	-	-	-	X
59	MG	BA	2940	-	-	-	X
59	MG	BA	2947	-	-	-	X
59	MG	BA	2953	-	-	-	X
59	MG	BA	2954	-	-	-	X
59	MG	BA	2969	-	-	-	X
59	MG	BA	2974	-	-	-	X
59	MG	BA	2975	-	-	-	X
59	MG	BA	2979	-	-	-	X
59	MG	BA	2980	-	-	-	X
59	MG	BA	2985	-	-	-	X
59	MG	BA	2989	-	-	-	X
59	MG	BA	2992	-	-	-	X
59	MG	BA	2993	-	-	-	X
59	MG	BA	2997	-	-	-	X
59	MG	BA	3003	-	-	-	X
59	MG	BA	3010	-	-	-	X
59	MG	BA	3012	-	-	-	X
59	MG	BA	3019	-	-	-	X
59	MG	BA	3028	-	-	-	X
59	MG	BA	3031	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
59	MG	BA	3032	-	-	-	X
59	MG	BA	3035	-	-	-	X
59	MG	BA	3037	-	-	-	X
59	MG	BA	3039	-	-	-	X
59	MG	BA	3040	-	-	-	X
59	MG	BA	3043	-	-	-	X
59	MG	BA	3052	-	-	-	X
59	MG	BA	3053	-	-	-	X
59	MG	BA	3055	-	-	-	X
59	MG	BA	3058	-	-	-	X
59	MG	BA	3063	-	-	-	X
59	MG	BA	3064	-	-	-	X
59	MG	BA	3066	-	-	-	X
59	MG	BA	3068	-	-	-	X
59	MG	BA	3074	-	-	-	X
59	MG	BA	3081	-	-	-	X
59	MG	BA	3094	-	-	-	X
59	MG	BA	3099	-	-	-	X
59	MG	BA	3119	-	-	-	X
59	MG	BA	3137	-	-	-	X
59	MG	BA	3155	-	-	-	X
59	MG	BA	3161	-	-	-	X
59	MG	BA	3162	-	-	-	X
59	MG	BA	3167	-	-	-	X
59	MG	BA	3168	-	-	-	X
59	MG	BA	3169	-	-	-	X
59	MG	BA	3171	-	-	-	X
59	MG	BA	3172	-	-	-	X
59	MG	BA	3176	-	-	-	X
59	MG	BA	3177	-	-	-	X
59	MG	BA	3184	-	-	-	X
59	MG	BA	3187	-	-	-	X
59	MG	BA	3191	-	-	-	X
59	MG	BA	3197	-	-	-	X
59	MG	BA	3204	-	-	-	X
59	MG	BA	3206	-	-	-	X
59	MG	BA	3210	-	-	-	X
59	MG	BA	3211	-	-	-	X
59	MG	BA	3213	-	-	-	X
59	MG	BA	3214	-	-	-	X
59	MG	BA	3221	-	-	-	X
59	MG	BA	3243	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
59	MG	BA	3246	-	-	-	X
59	MG	BA	3247	-	-	-	X
59	MG	BA	3248	-	-	-	X
59	MG	BA	3249	-	-	-	X
59	MG	BA	3255	-	-	-	X
59	MG	BA	3256	-	-	-	X
59	MG	BA	3257	-	-	-	X
59	MG	BA	3261	-	-	-	X
59	MG	BA	3265	-	-	-	X
59	MG	BA	3271	-	-	-	X
59	MG	BA	3273	-	-	-	X
59	MG	BA	3286	-	-	-	X
59	MG	BA	3292	-	-	-	X
59	MG	BA	3305	-	-	-	X
59	MG	BA	3309	-	-	-	X
59	MG	BA	3312	-	-	-	X
59	MG	BA	3323	-	-	-	X
59	MG	BA	3327	-	-	-	X
59	MG	BA	3329	-	-	-	X
59	MG	BA	3330	-	-	-	X
59	MG	BA	3337	-	-	-	X
59	MG	BA	3351	-	-	-	X
59	MG	BA	3352	-	-	-	X
59	MG	BA	3368	-	-	-	X
59	MG	BA	3373	-	-	-	X
59	MG	BA	3381	-	-	-	X
59	MG	BA	3395	-	-	-	X
59	MG	BA	3397	-	-	-	X
59	MG	BA	3402	-	-	-	X
59	MG	BA	3405	-	-	-	X
59	MG	BA	3410	-	-	-	X
59	MG	BA	3412	-	-	-	X
59	MG	BA	3413	-	-	-	X
59	MG	BA	3414	-	-	-	X
59	MG	BA	3419	-	-	-	X
59	MG	BA	3428	-	-	-	X
59	MG	BA	3438	-	-	-	X
59	MG	BA	3439	-	-	-	X
59	MG	BA	3445	-	-	-	X
59	MG	BA	3446	-	-	-	X
59	MG	BA	3448	-	-	-	X
59	MG	BA	3450	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
59	MG	BA	3452	-	-	-	X
59	MG	BA	3456	-	-	-	X
59	MG	BA	3460	-	-	-	X
59	MG	BA	3462	-	-	-	X
59	MG	BA	3463	-	-	-	X
59	MG	BA	3465	-	-	-	X
59	MG	BA	3468	-	-	-	X
59	MG	BA	3484	-	-	-	X
59	MG	BA	3488	-	-	-	X
59	MG	BA	3490	-	-	-	X
59	MG	BA	3496	-	-	-	X
59	MG	BA	3509	-	-	-	X
59	MG	BA	3510	-	-	-	X
59	MG	BA	3512	-	-	-	X
59	MG	BA	3514	-	-	-	X
59	MG	BA	3517	-	-	-	X
59	MG	BA	3521	-	-	-	X
59	MG	BA	3525	-	-	-	X
59	MG	BA	3527	-	-	-	X
59	MG	BA	3558	-	-	-	X
59	MG	BA	3559	-	-	-	X
59	MG	BA	3574	-	-	-	X
59	MG	BA	3582	-	-	-	X
59	MG	BA	3583	-	-	-	X
59	MG	BA	3584	-	-	-	X
59	MG	BA	3594	-	-	-	X
59	MG	BA	3603	-	-	-	X
59	MG	BD	301	-	-	-	X
59	MG	BD	302	-	-	-	X
59	MG	BE	304	-	-	-	X
59	MG	BF	301	-	-	-	X
59	MG	BN	201	-	-	-	X
59	MG	BP	202	-	-	X	-
59	MG	BP	203	-	-	X	-
59	MG	BR	203	-	-	-	X
59	MG	BU	201	-	-	-	X
59	MG	BU	202	-	-	-	X
59	MG	CA	1611	-	-	-	X
59	MG	CA	1626	-	-	-	X
59	MG	CA	1631	-	-	-	X
59	MG	CA	1668	-	-	-	X
59	MG	CA	1680	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
59	MG	CA	1700	-	-	-	X
59	MG	CA	1752	-	-	-	X
59	MG	CA	1765	-	-	-	X
59	MG	CH	201	-	-	-	X
59	MG	D6	102	-	-	-	X
59	MG	D7	102	-	-	-	X
59	MG	D7	103	-	-	-	X
59	MG	DA	2901	-	-	-	X
59	MG	DA	2904	-	-	-	X
59	MG	DA	2908	-	-	-	X
59	MG	DA	2913	-	-	-	X
59	MG	DA	2918	-	-	-	X
59	MG	DA	2919	-	-	-	X
59	MG	DA	2924	-	-	-	X
59	MG	DA	2927	-	-	-	X
59	MG	DA	2930	-	-	-	X
59	MG	DA	2935	-	-	-	X
59	MG	DA	2939	-	-	-	X
59	MG	DA	2942	-	-	-	X
59	MG	DA	2946	-	-	-	X
59	MG	DA	2953	-	-	-	X
59	MG	DA	2959	-	-	-	X
59	MG	DA	2964	-	-	-	X
59	MG	DA	2967	-	-	-	X
59	MG	DA	2990	-	-	-	X
59	MG	DA	2997	-	-	-	X
59	MG	DA	3003	-	-	-	X
59	MG	DA	3012	-	-	-	X
59	MG	DA	3013	-	-	-	X
59	MG	DA	3015	-	-	-	X
59	MG	DA	3017	-	-	-	X
59	MG	DA	3019	-	-	-	X
59	MG	DA	3022	-	-	-	X
59	MG	DA	3025	-	-	-	X
59	MG	DA	3026	-	-	-	X
59	MG	DA	3028	-	-	-	X
59	MG	DA	3031	-	-	-	X
59	MG	DA	3032	-	-	-	X
59	MG	DA	3037	-	-	-	X
59	MG	DA	3042	-	-	-	X
59	MG	DA	3050	-	-	-	X
59	MG	DA	3060	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
59	MG	DA	3068	-	-	-	X
59	MG	DA	3071	-	-	-	X
59	MG	DA	3072	-	-	-	X
59	MG	DA	3080	-	-	-	X
59	MG	DA	3084	-	-	-	X
59	MG	DA	3086	-	-	-	X
59	MG	DA	3087	-	-	-	X
59	MG	DA	3090	-	-	-	X
59	MG	DA	3122	-	-	-	X
59	MG	DA	3126	-	-	-	X
59	MG	DA	3137	-	-	-	X
59	MG	DA	3140	-	-	-	X
59	MG	DA	3141	-	-	-	X
59	MG	DA	3157	-	-	-	X
59	MG	DA	3169	-	-	-	X
59	MG	DA	3176	-	-	-	X
59	MG	DA	3178	-	-	-	X
59	MG	DA	3180	-	-	-	X
59	MG	DA	3187	-	-	-	X
59	MG	DA	3197	-	-	-	X
59	MG	DA	3199	-	-	-	X
59	MG	DA	3211	-	-	-	X
59	MG	DA	3215	-	-	-	X
59	MG	DA	3217	-	-	-	X
59	MG	DA	3219	-	-	-	X
59	MG	DA	3224	-	-	-	X
59	MG	DA	3232	-	-	-	X
59	MG	DA	3236	-	-	-	X
59	MG	DA	3244	-	-	-	X
59	MG	DA	3247	-	-	-	X
59	MG	DA	3251	-	-	-	X
59	MG	DA	3255	-	-	-	X
59	MG	DA	3257	-	-	-	X
59	MG	DA	3262	-	-	-	X
59	MG	DA	3264	-	-	-	X
59	MG	DA	3266	-	-	-	X
59	MG	DA	3268	-	-	-	X
59	MG	DA	3271	-	-	-	X
59	MG	DA	3276	-	-	-	X
59	MG	DA	3277	-	-	-	X
59	MG	DA	3278	-	-	-	X
59	MG	DA	3281	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
59	MG	DA	3282	-	-	-	X
59	MG	DA	3284	-	-	-	X
59	MG	DA	3290	-	-	-	X
59	MG	DA	3292	-	-	-	X
59	MG	DA	3298	-	-	-	X
59	MG	DA	3300	-	-	-	X
59	MG	DA	3301	-	-	-	X
59	MG	DA	3303	-	-	-	X
59	MG	DA	3305	-	-	-	X
59	MG	DA	3333	-	-	-	X
59	MG	DA	3335	-	-	-	X
59	MG	DA	3339	-	-	-	X
59	MG	DA	3341	-	-	-	X
59	MG	DA	3342	-	-	-	X
59	MG	DA	3343	-	-	-	X
59	MG	DA	3344	-	-	-	X
59	MG	DA	3345	-	-	-	X
59	MG	DA	3346	-	-	-	X
59	MG	DA	3349	-	-	-	X
59	MG	DA	3350	-	-	-	X
59	MG	DA	3356	-	-	-	X
59	MG	DA	3363	-	-	-	X
59	MG	DA	3364	-	-	-	X
59	MG	DA	3365	-	-	-	X
59	MG	DA	3366	-	-	-	X
59	MG	DA	3372	-	-	-	X
59	MG	DA	3381	-	-	-	X
59	MG	DA	3390	-	-	-	X
59	MG	DA	3394	-	-	-	X
59	MG	DA	3396	-	-	-	X
59	MG	DA	3397	-	-	-	X
59	MG	DA	3398	-	-	-	X
59	MG	DA	3401	-	-	-	X
59	MG	DA	3402	-	-	-	X
59	MG	DA	3406	-	-	-	X
59	MG	DA	3408	-	-	-	X
59	MG	DA	3412	-	-	-	X
59	MG	DA	3416	-	-	-	X
59	MG	DA	3426	-	-	-	X
59	MG	DA	3444	-	-	-	X
59	MG	DA	3452	-	-	-	X
59	MG	DA	3454	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
59	MG	DA	3458	-	-	-	X
59	MG	DA	3459	-	-	-	X
59	MG	DA	3462	-	-	-	X
59	MG	DA	3468	-	-	-	X
59	MG	DA	3473	-	-	-	X
59	MG	DA	3477	-	-	-	X
59	MG	DA	3488	-	-	-	X
59	MG	DA	3489	-	-	-	X
59	MG	DA	3494	-	-	-	X
59	MG	DA	3500	-	-	-	X
59	MG	DA	3502	-	-	-	X
59	MG	DA	3503	-	-	-	X
59	MG	DA	3522	-	-	-	X
59	MG	DA	3535	-	-	-	X
59	MG	DA	3536	-	-	-	X
59	MG	DA	3543	-	-	-	X
59	MG	DA	3553	-	-	-	X
59	MG	DA	3579	-	-	-	X
59	MG	DA	3589	-	-	-	X
59	MG	DA	3600	-	-	-	X
59	MG	DA	3604	-	-	-	X
59	MG	DA	3608	-	-	-	X
59	MG	DA	3611	-	-	-	X
59	MG	DA	3624	-	-	-	X
59	MG	DA	3625	-	-	-	X
59	MG	DA	3631	-	-	-	X
59	MG	DA	3635	-	-	-	X
59	MG	DA	3638	-	-	-	X
59	MG	DA	3641	-	-	-	X
59	MG	DA	3649	-	-	-	X
59	MG	DA	3662	-	-	-	X
59	MG	DA	3669	-	-	-	X
59	MG	DA	3677	-	-	-	X
59	MG	DA	3679	-	-	-	X
59	MG	DA	3696	-	-	-	X
59	MG	DA	3705	-	-	-	X
59	MG	DA	3717	-	-	-	X
59	MG	DA	3722	-	-	-	X
59	MG	DA	3729	-	-	-	X
59	MG	DA	3741	-	-	-	X
59	MG	DA	3759	-	-	-	X
59	MG	DA	3763	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
59	MG	DA	3771	-	-	-	X
59	MG	DA	3782	-	-	-	X
59	MG	DA	3788	-	-	-	X
59	MG	DA	3795	-	-	-	X
59	MG	DD	303	-	-	-	X
59	MG	DE	301	-	-	-	X
59	MG	DP	202	-	-	-	X
59	MG	DP	203	-	-	-	X
59	MG	DP	205	-	-	-	X
59	MG	DU	202	-	-	-	X
59	MG	DU	203	-	-	-	X

## 2 Entry composition

There are 61 unique types of molecules in this entry. The entry contains 296762 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1508	Total	C	N	O	P	0	0	0
			32412	14427	6003	10475	1507			
1	CA	1508	Total	C	N	O	P	0	0	0
			32413	14427	6004	10475	1507			

- Molecule 2 is a protein called 30S RIBOSOMAL PROTEIN S2.

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

- Molecule 3 is a protein called 30S RIBOSOMAL PROTEIN S3.

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

- Molecule 4 is a protein called 30S RIBOSOMAL PROTEIN S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AD	208	Total	C	N	O	S	0	0	1
			1692	1060	336	289	7			
4	CD	208	Total	C	N	O	S	0	0	1
			1692	1060	336	289	7			

- Molecule 5 is a protein called 30S RIBOSOMAL PROTEIN S5.

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

- Molecule 6 is a protein called 30S RIBOSOMAL PROTEIN S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
6	CF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			

- Molecule 7 is a protein called 30S RIBOSOMAL PROTEIN S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			
7	CG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			

- Molecule 8 is a protein called 30S RIBOSOMAL PROTEIN S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AH	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			
8	CH	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			

- Molecule 9 is a protein called 30S RIBOSOMAL PROTEIN S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	AI	127	Total	C	N	O	0	0	0
			1011	639	198	174			
9	CI	127	Total	C	N	O	0	0	0
			1011	639	198	174			

- Molecule 10 is a protein called 30S RIBOSOMAL PROTEIN S10.

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

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

- Molecule 11 is a protein called 30S RIBOSOMAL PROTEIN S11.

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

- Molecule 12 is a protein called 30S RIBOSOMAL PROTEIN S12.

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

- Molecule 13 is a protein called 30S RIBOSOMAL PROTEIN S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	118	Total	C	N	O	S	0	0	1
			934	577	193	162	2			
13	CM	118	Total	C	N	O	S	0	0	1
			934	577	193	162	2			

- Molecule 14 is a protein called 30S RIBOSOMAL PROTEIN S14 TYPE Z.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
14	CN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			

- Molecule 15 is a protein called 30S RIBOSOMAL PROTEIN S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AO	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			
15	CO	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			

- Molecule 16 is a protein called 30S RIBOSOMAL PROTEIN S16.

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

- Molecule 17 is a protein called 30S RIBOSOMAL PROTEIN S17.

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

- Molecule 18 is a protein called 30S RIBOSOMAL PROTEIN S18.

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

- Molecule 19 is a protein called 30S RIBOSOMAL PROTEIN S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	85	Total	C	N	O	S	0	0	1
			671	427	124	118	2			
19	CS	85	Total	C	N	O	S	0	0	1
			671	427	124	118	2			

- Molecule 20 is a protein called 30S RIBOSOMAL PROTEIN S20.

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

- Molecule 21 is a protein called 30S RIBOSOMAL PROTEIN THX.



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

- Molecule 22 is a RNA chain called E-SITE TRNA PHE OR P-SITE TRNA PHE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AV	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			
22	AW	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			
22	CV	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			
22	CW	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			

- Molecule 23 is a RNA chain called MRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AX	16	Total	C	N	O	P	0	0	0
			341	155	66	105	15			

- Molecule 24 is a protein called COLICIN-E3.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
24	AY	97	Total	C	N	O	0	0	0
			769	483	144	142			
24	CY	16	Total	C	N	O	0	0	1
			126	82	23	21			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AY	58	ALA	HIS	ENGINEERED MUTATION	UNP P06646
CY	58	ALA	HIS	ENGINEERED MUTATION	UNP P00646

- Molecule 25 is a protein called 50S RIBOSOMAL PROTEIN L27.

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

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

- Molecule 26 is a protein called 50S RIBOSOMAL PROTEIN L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	B1	94	Total	C	N	O	S	0	0	1
			734	460	148	125	1			
26	D1	94	Total	C	N	O	S	0	0	1
			734	460	148	125	1			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B1	81	ARG	LYS	CONFLICT	UNP P60494
D1	81	ARG	LYS	CONFLICT	UNP P60494

- Molecule 27 is a protein called 50S RIBOSOMAL PROTEIN L29.

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

- Molecule 28 is a protein called 50S RIBOSOMAL PROTEIN L30.

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

- Molecule 29 is a protein called 50S RIBOSOMAL PROTEIN L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	B4	56	Total	C	N	O	S	0	0	1
			434	274	75	81	4			
29	D4	56	Total	C	N	O	S	0	0	1
			434	274	75	81	4			

- Molecule 30 is a protein called 50S RIBOSOMAL PROTEIN L32.

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

- Molecule 31 is a protein called 50S RIBOSOMAL PROTEIN L33.

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

- Molecule 32 is a protein called 50S RIBOSOMAL PROTEIN L34.

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

- Molecule 33 is a protein called 50S RIBOSOMAL PROTEIN L35.

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

- Molecule 34 is a protein called 50S RIBOSOMAL PROTEIN L36.

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

- Molecule 35 is a RNA chain called RNA (2848-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BA	2807	Total	C	N	O	P	0	0	0
			60459	26907	11311	19435	2806			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	DA	2807	Total	C	N	O	P	0	0	0
			60459	26907	11311	19435	2806			

- Molecule 36 is a RNA chain called RNA (119-MER).

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

- Molecule 37 is a protein called 50S RIBOSOMAL PROTEIN L1.

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

- Molecule 38 is a protein called 50S RIBOSOMAL PROTEIN L2.

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

- Molecule 39 is a protein called 50S RIBOSOMAL PROTEIN L3.

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

- Molecule 40 is a protein called 50S RIBOSOMAL PROTEIN L4.

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

- Molecule 41 is a protein called 50S RIBOSOMAL PROTEIN L5.

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

- Molecule 42 is a protein called 50S RIBOSOMAL PROTEIN L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BH	165	Total	C	N	O	S	0	0	1
			1260	800	234	225	1			
42	DH	165	Total	C	N	O	S	0	0	1
			1260	800	234	225	1			

- Molecule 43 is a protein called 50S RIBOSOMAL PROTEIN L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BI	145	Total	C	N	O	S	0	0	1
			1125	718	200	206	1			
43	DI	145	Total	C	N	O	S	0	0	1
			1125	718	200	206	1			

- Molecule 44 is a protein called 50S RIBOSOMAL PROTEIN L10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
44	BJ	130	Total	C	N	O	0	0	0
			651	390	130	131			
44	DJ	131	Total	C	N	O	0	0	1
			651	390	131	130			

- Molecule 45 is a protein called 50S RIBOSOMAL PROTEIN L13.

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

- Molecule 46 is a protein called 50S RIBOSOMAL PROTEIN L14.

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

- Molecule 47 is a protein called 50S RIBOSOMAL PROTEIN L15.

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

- Molecule 48 is a protein called 50S RIBOSOMAL PROTEIN L16.

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

- Molecule 49 is a protein called 50S RIBOSOMAL PROTEIN L17.

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

- Molecule 50 is a protein called 50S RIBOSOMAL PROTEIN L18.

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

- Molecule 51 is a protein called 50S RIBOSOMAL PROTEIN L19.

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

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

- Molecule 52 is a protein called 50S RIBOSOMAL PROTEIN L20.

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

- Molecule 53 is a protein called 50S RIBOSOMAL PROTEIN L21.

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

- Molecule 54 is a protein called 50S RIBOSOMAL PROTEIN L22.

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

- Molecule 55 is a protein called 50S RIBOSOMAL PROTEIN L23.

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

- Molecule 56 is a protein called 50S RIBOSOMAL PROTEIN L24.

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

- Molecule 57 is a protein called 50S RIBOSOMAL PROTEIN L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
57	BZ	187	Total	C	N	O	S	0	0	1
			1482	944	264	272	2			
57	DZ	187	Total	C	N	O	S	0	0	1
			1482	944	264	272	2			

- Molecule 58 is a RNA chain called MRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
58	CX	8	Total	C	N	O	P	0	0	0
			173	79	37	50	7			

- Molecule 59 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	AP	1	Total	Mg	0	0
			1	1		
59	BA	709	Total	Mg	0	0
			709	709		
59	CA	184	Total	Mg	0	0
			184	184		
59	DN	3	Total	Mg	0	0
			3	3		
59	CH	1	Total	Mg	0	0
			1	1		
59	DF	3	Total	Mg	0	0
			3	3		
59	CV	12	Total	Mg	0	0
			12	12		
59	D2	1	Total	Mg	0	0
			1	1		
59	BE	4	Total	Mg	0	0
			4	4		
59	DU	4	Total	Mg	0	0
			4	4		
59	B1	1	Total	Mg	0	0
			1	1		
59	AN	2	Total	Mg	0	0
			2	2		
59	BP	4	Total	Mg	0	0
			4	4		
59	AX	4	Total	Mg	0	0
			4	4		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	D6	2	Total 2	Mg 2	0	0
59	CY	1	Total 1	Mg 1	0	0
59	DD	6	Total 6	Mg 6	0	0
59	B5	3	Total 3	Mg 3	0	0
59	BB	6	Total 6	Mg 6	0	0
59	BT	1	Total 1	Mg 1	0	0
59	DO	1	Total 1	Mg 1	0	0
59	D3	1	Total 1	Mg 1	0	0
59	BF	1	Total 1	Mg 1	0	0
59	AV	7	Total 7	Mg 7	0	0
59	DR	2	Total 2	Mg 2	0	0
59	D8	1	Total 1	Mg 1	0	0
59	AA	373	Total 373	Mg 373	0	0
59	BQ	1	Total 1	Mg 1	0	0
59	CQ	1	Total 1	Mg 1	0	0
59	D7	4	Total 4	Mg 4	0	0
59	B6	1	Total 1	Mg 1	0	0
59	BU	2	Total 2	Mg 2	0	0
59	CC	3	Total 3	Mg 3	0	0
59	AD	3	Total 3	Mg 3	0	0
59	BN	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	D0	4	Total 4	Mg 4	0	0
59	AI	3	Total 3	Mg 3	0	0
59	BY	1	Total 1	Mg 1	0	0
59	DE	4	Total 4	Mg 4	0	0
59	D9	1	Total 1	Mg 1	0	0
59	CJ	2	Total 2	Mg 2	0	0
59	BR	5	Total 5	Mg 5	0	0
59	CP	1	Total 1	Mg 1	0	0
59	DA	897	Total 897	Mg 897	0	0
59	DW	1	Total 1	Mg 1	0	0
59	D5	3	Total 3	Mg 3	0	0
59	B7	1	Total 1	Mg 1	0	0
59	AL	6	Total 6	Mg 6	0	0
59	CM	3	Total 3	Mg 3	0	0
59	BO	1	Total 1	Mg 1	0	0
59	AQ	3	Total 3	Mg 3	0	0
59	D1	2	Total 2	Mg 2	0	0
59	AH	1	Total 1	Mg 1	0	0
59	DP	6	Total 6	Mg 6	0	0
59	AC	2	Total 2	Mg 2	0	0
59	DY	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	DB	11	Total 11	Mg 11	0	0
59	CS	2	Total 2	Mg 2	0	0
59	CD	1	Total 1	Mg 1	0	0
59	BD	5	Total 5	Mg 5	0	0
59	AT	1	Total 1	Mg 1	0	0
59	DT	1	Total 1	Mg 1	0	0
59	B0	2	Total 2	Mg 2	0	0
59	AO	2	Total 2	Mg 2	0	0
59	AY	3	Total 3	Mg 3	0	0
59	BH	4	Total 4	Mg 4	0	0

- Molecule 60 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	AD	2	Total 2	Zn 2	0	0
60	CD	1	Total 1	Zn 1	0	0
60	AN	1	Total 1	Zn 1	0	0

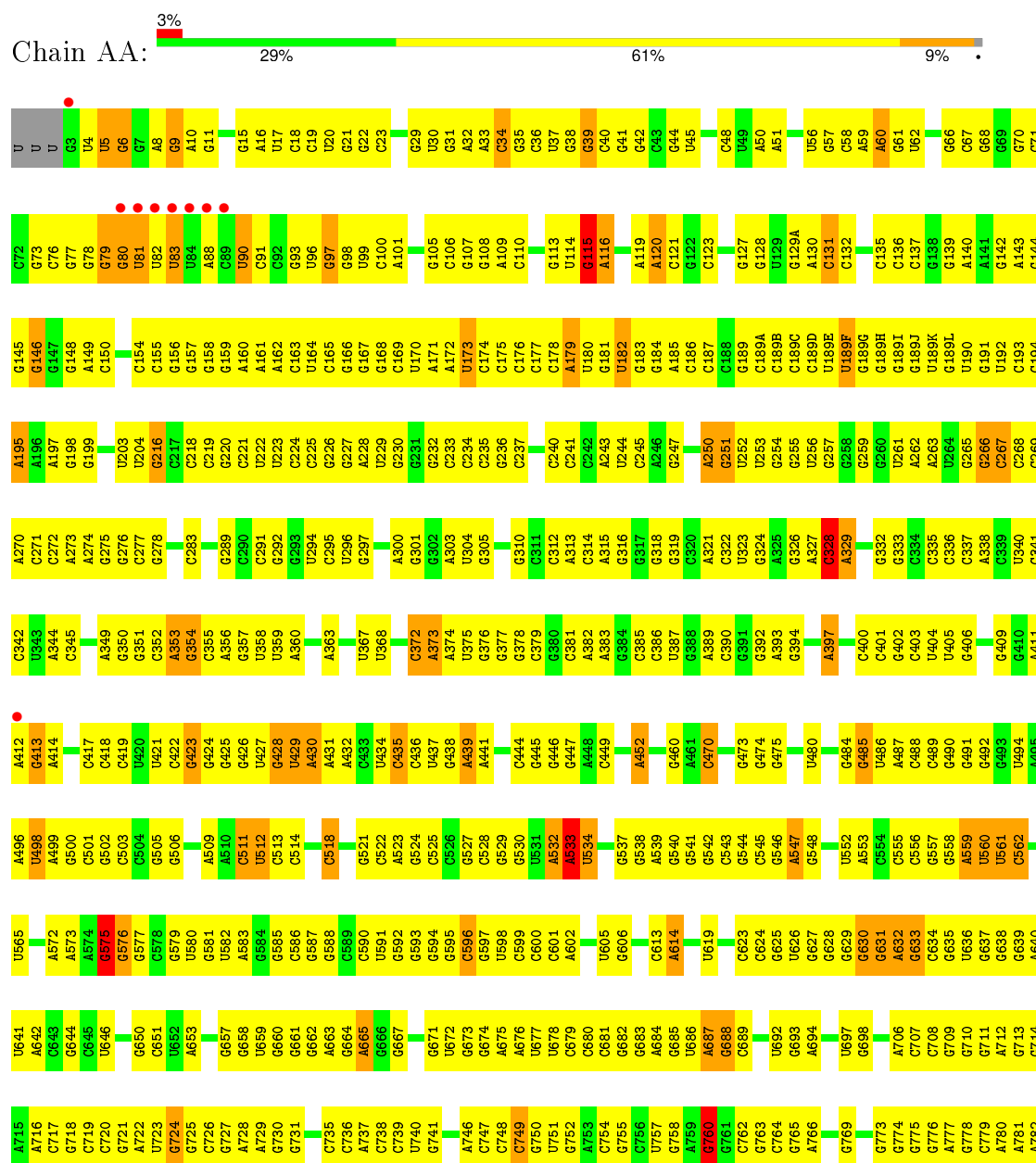
- Molecule 61 is water.

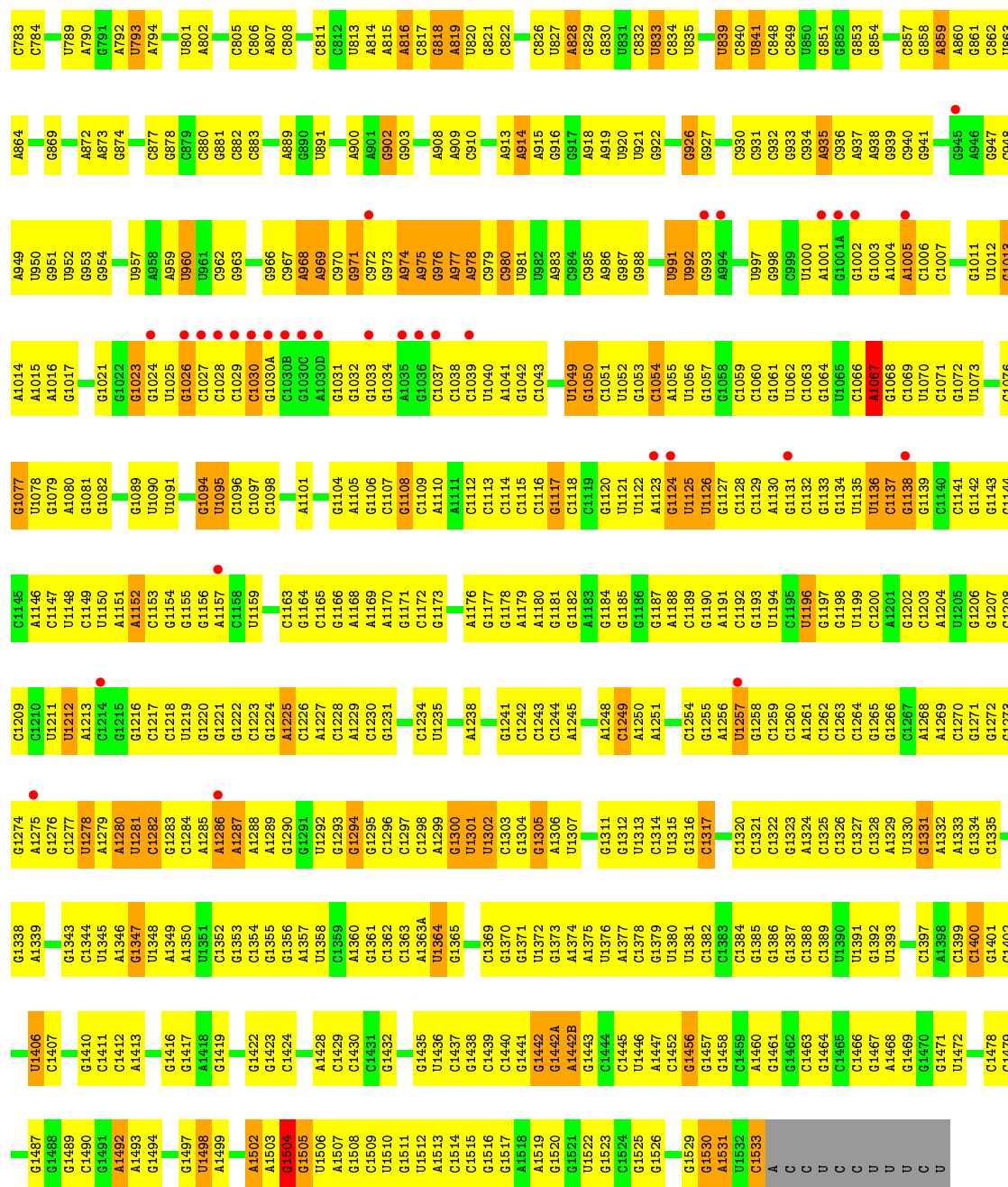
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	AA	2	Total 2	O 2	0	0

### 3 Residue-property plots

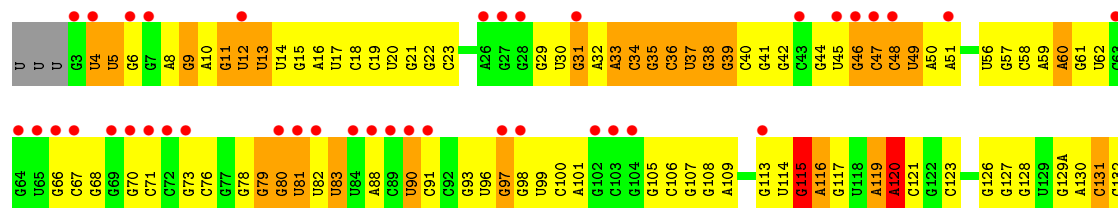
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according 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 rRNA

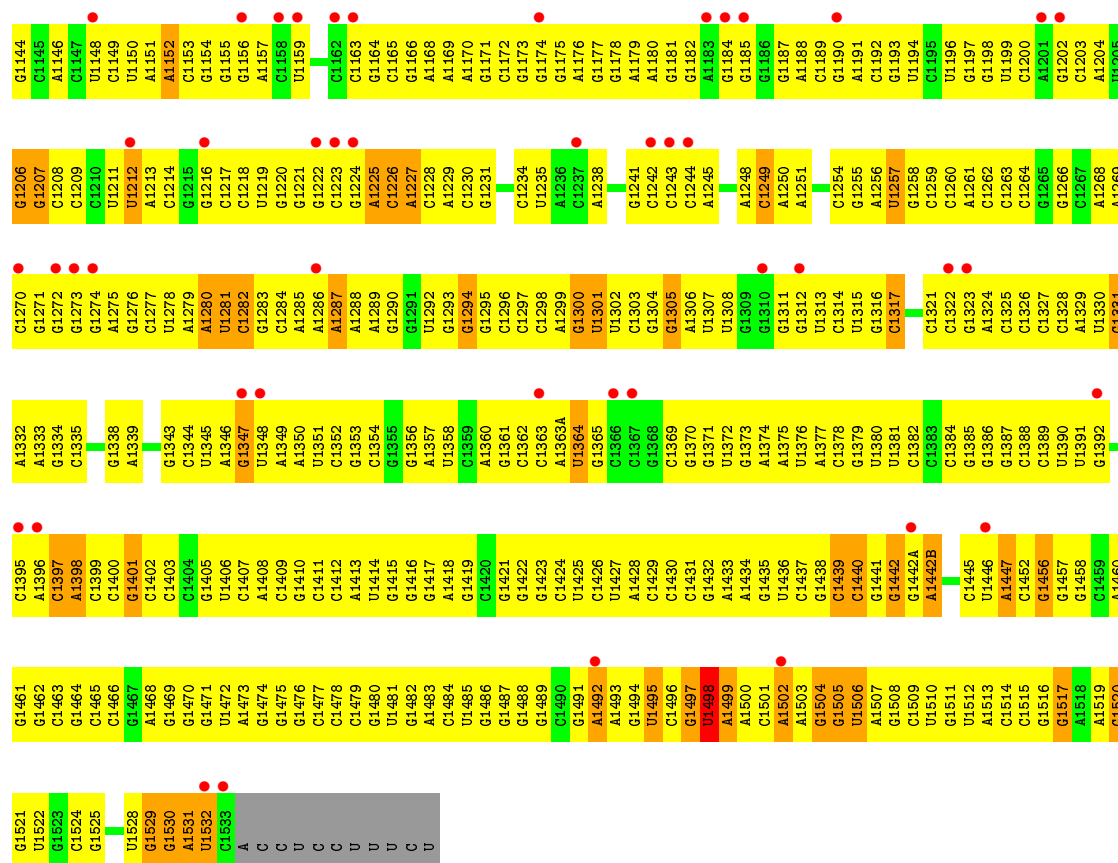




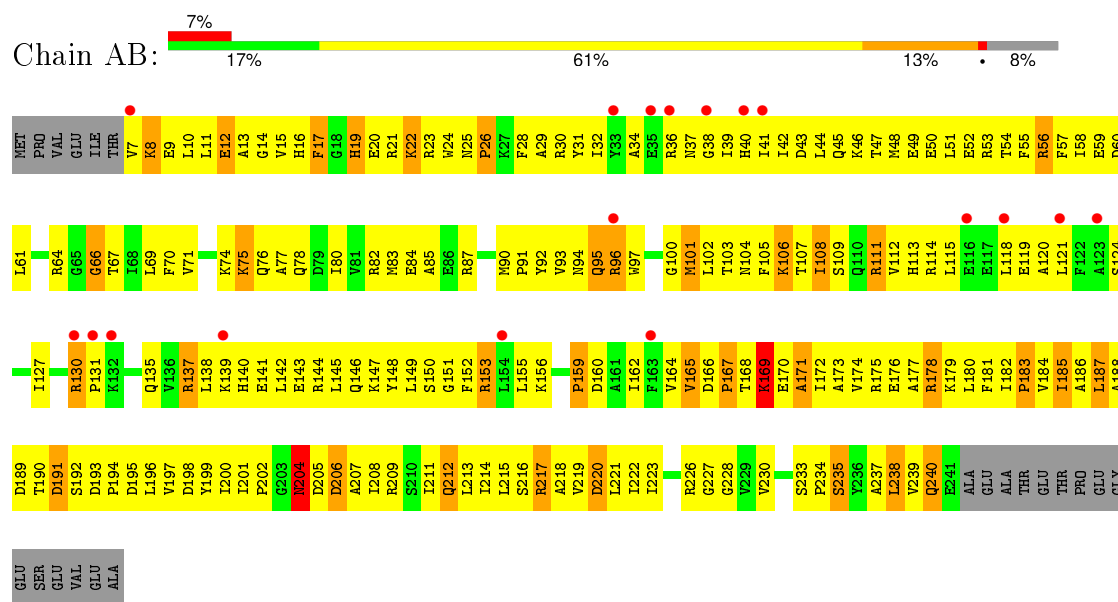
● Molecule 1: 16S rRNA



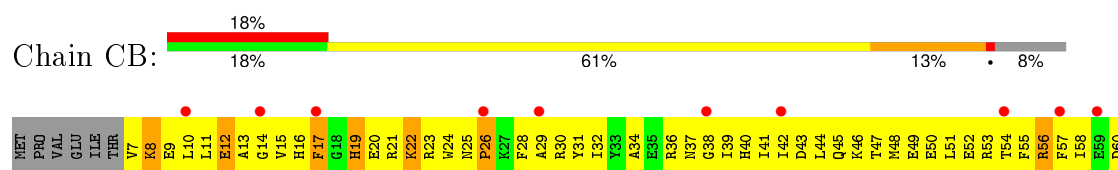


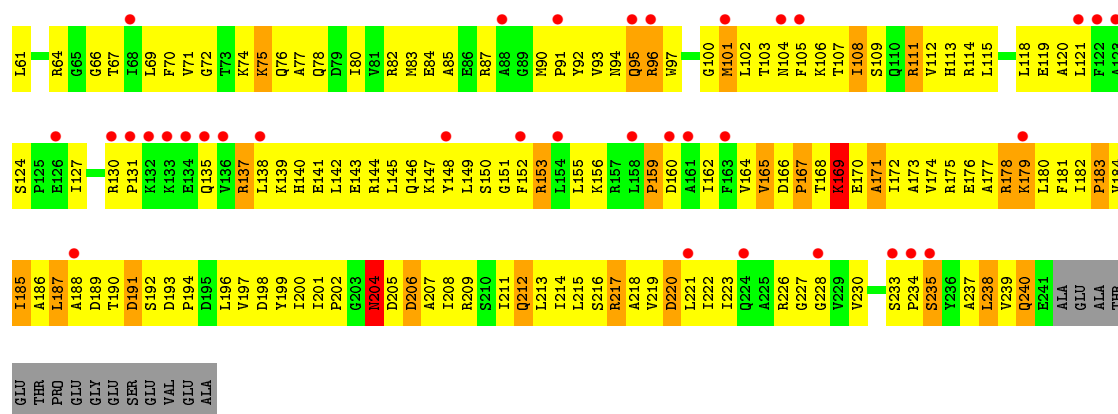


• Molecule 2: 30S RIBOSOMAL PROTEIN S2

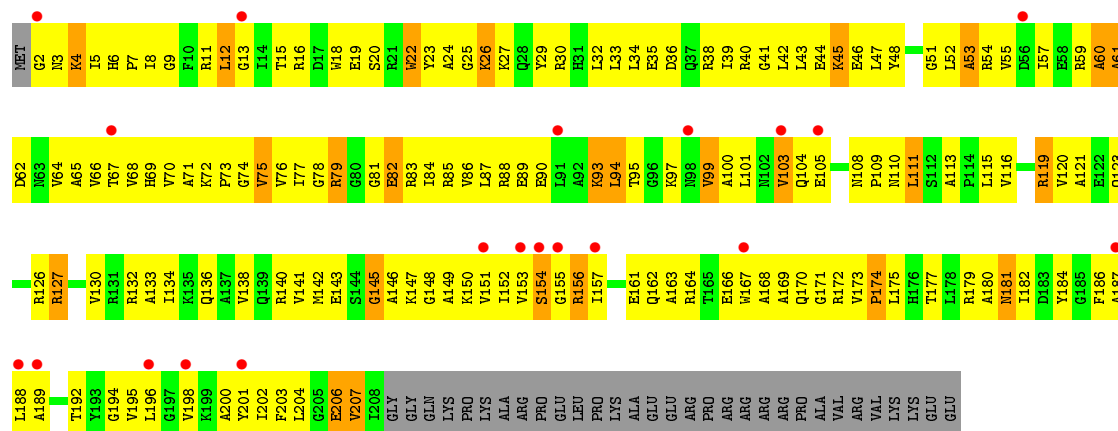


• Molecule 2: 30S RIBOSOMAL PROTEIN S2

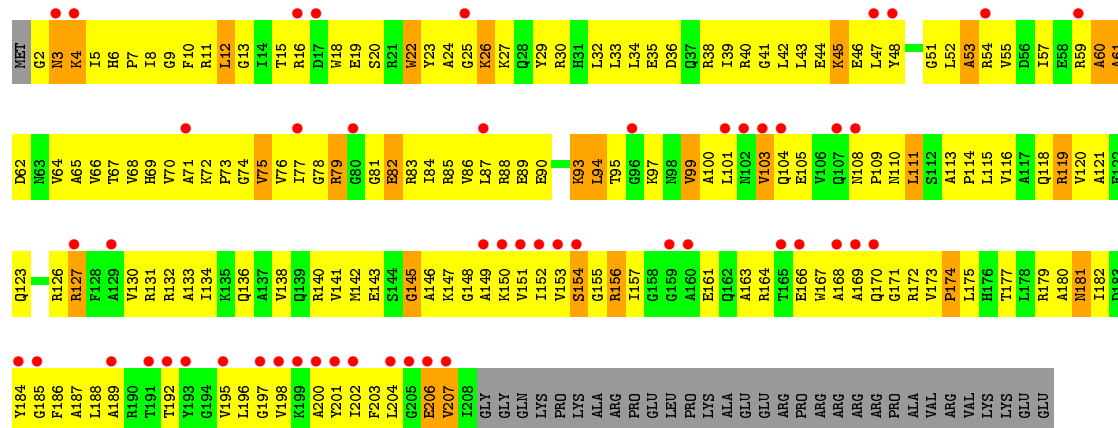




### • Molecule 3: 30S RIBOSOMAL PROTEIN S3



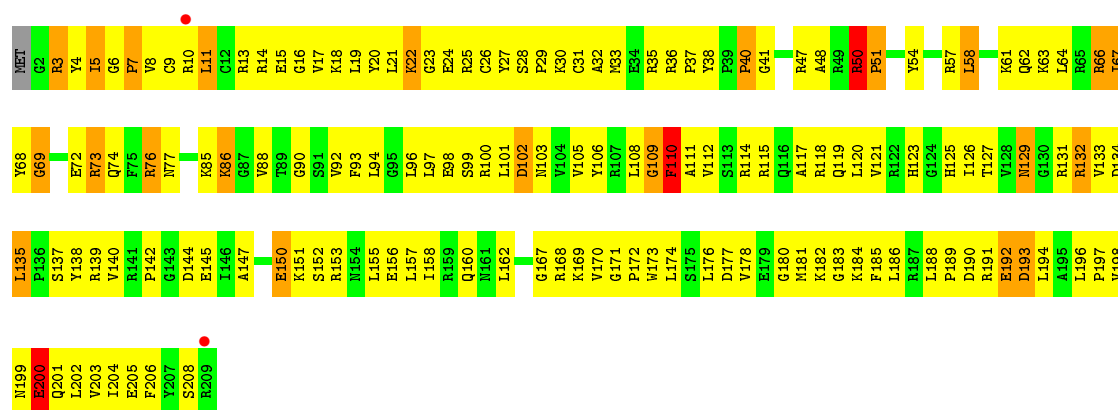
### • Molecule 3: 30S RIBOSOMAL PROTEIN S3



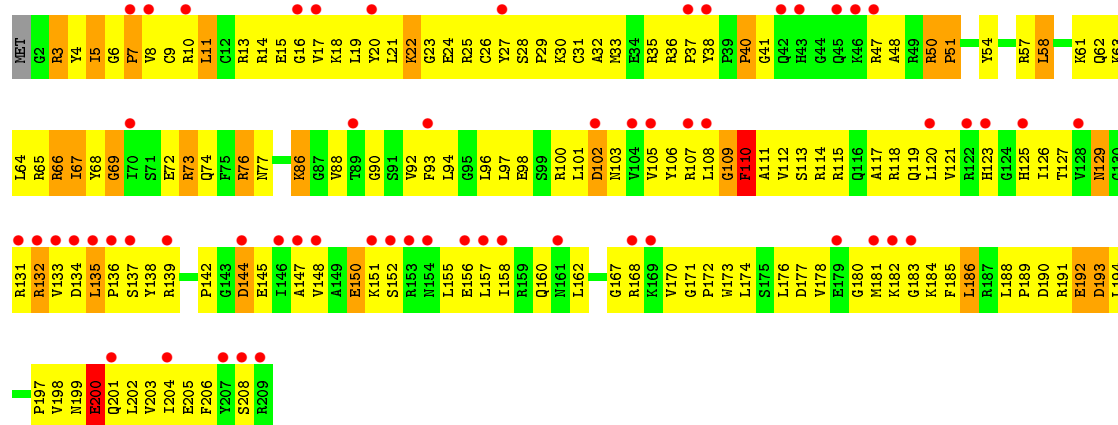
### • Molecule 4: 30S RIBOSOMAL PROTEIN S4



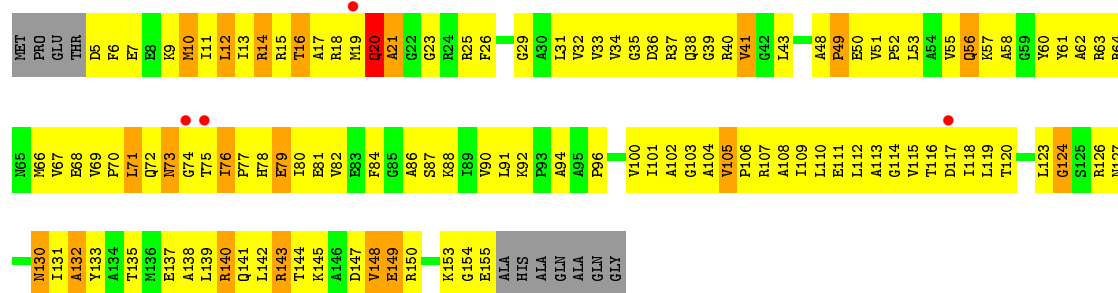




• Molecule 4: 30S RIBOSOMAL PROTEIN S4

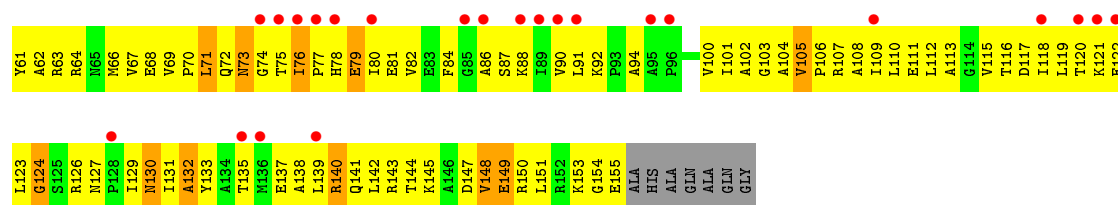


• Molecule 5: 30S RIBOSOMAL PROTEIN S5

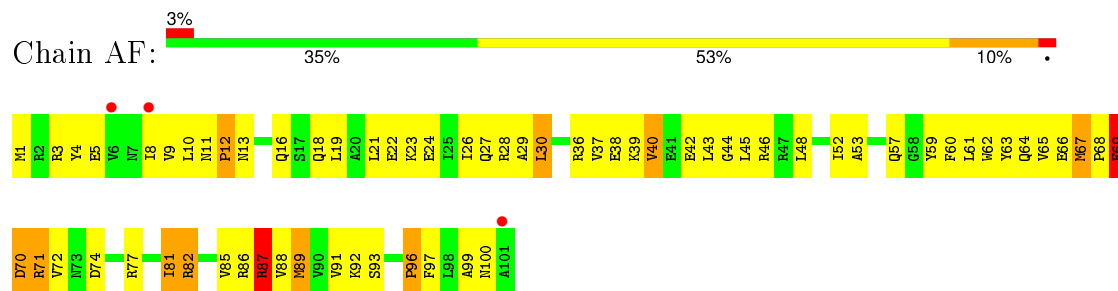


• Molecule 5: 30S RIBOSOMAL PROTEIN S5

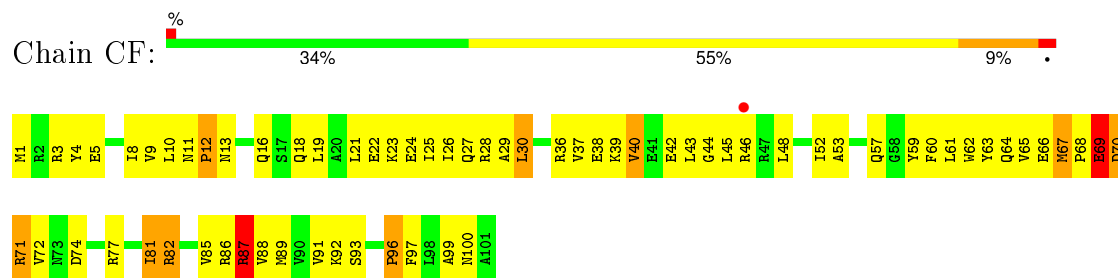




• Molecule 6: 30S RIBOSOMAL PROTEIN S6



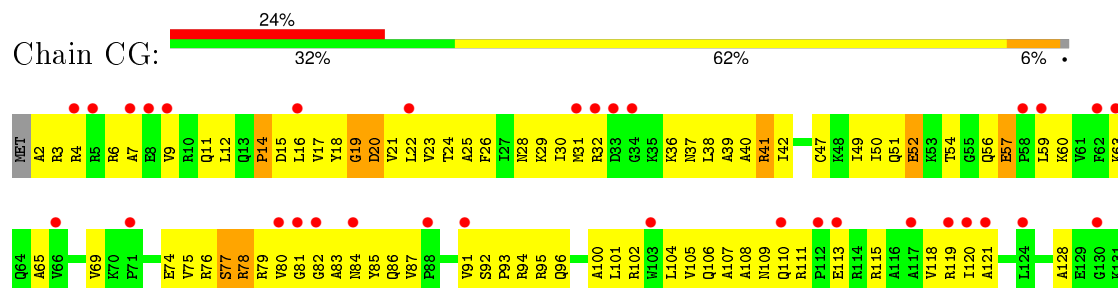
• Molecule 6: 30S RIBOSOMAL PROTEIN S6

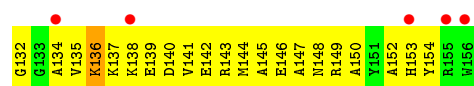


• Molecule 7: 30S RIBOSOMAL PROTEIN S7

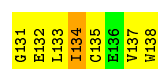
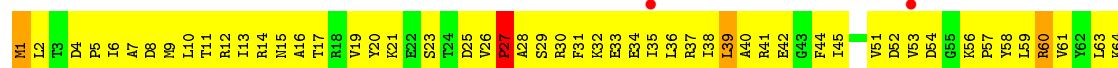


• Molecule 7: 30S RIBOSOMAL PROTEIN S7

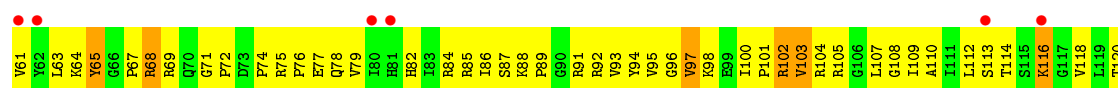
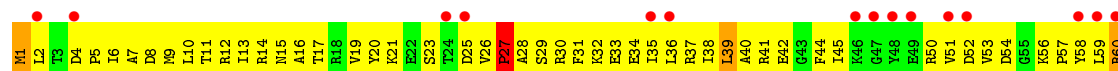




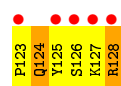
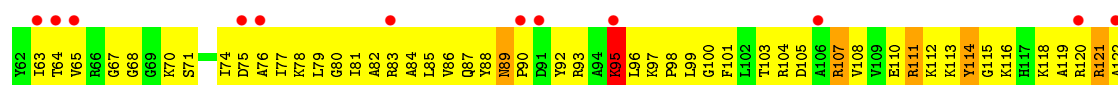
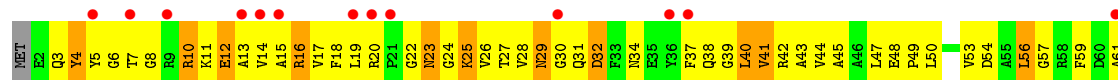
• Molecule 8: 30S RIBOSOMAL PROTEIN S8



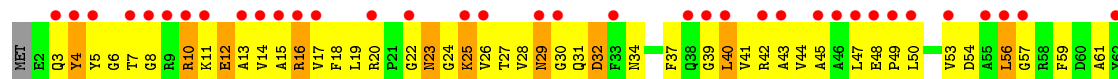
• Molecule 8: 30S RIBOSOMAL PROTEIN S8



• Molecule 9: 30S RIBOSOMAL PROTEIN S9

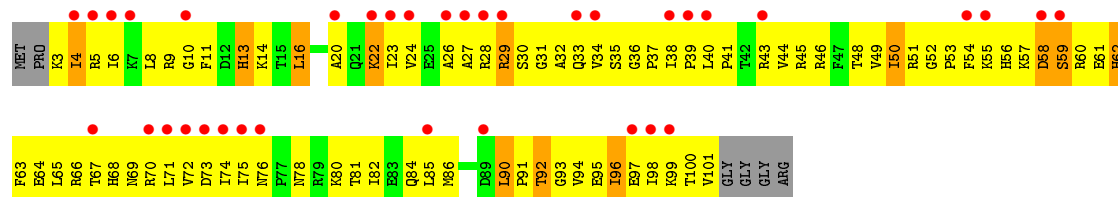


• Molecule 9: 30S RIBOSOMAL PROTEIN S9

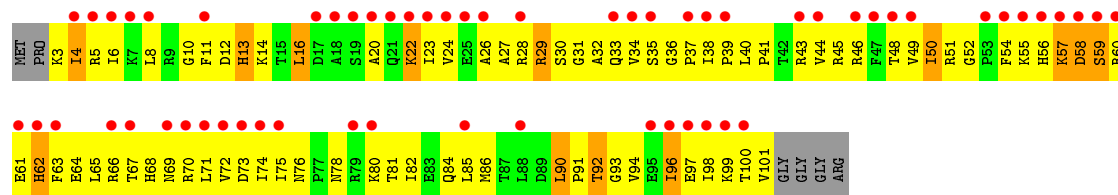




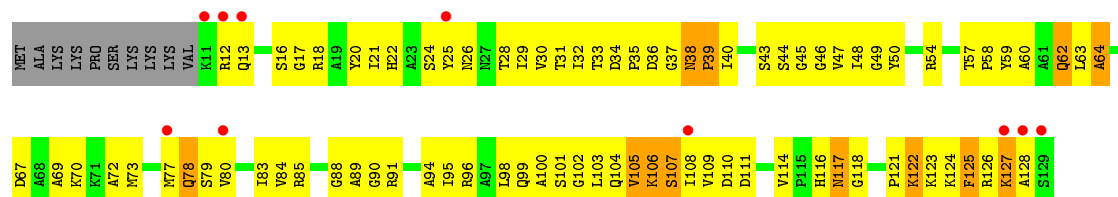
• Molecule 10: 30S RIBOSOMAL PROTEIN S10



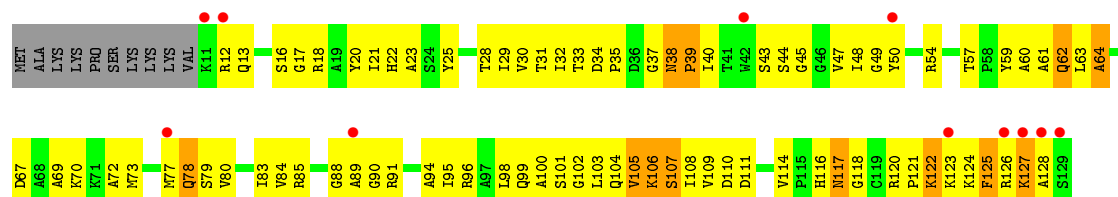
• Molecule 10: 30S RIBOSOMAL PROTEIN S10



• Molecule 11: 30S RIBOSOMAL PROTEIN S11

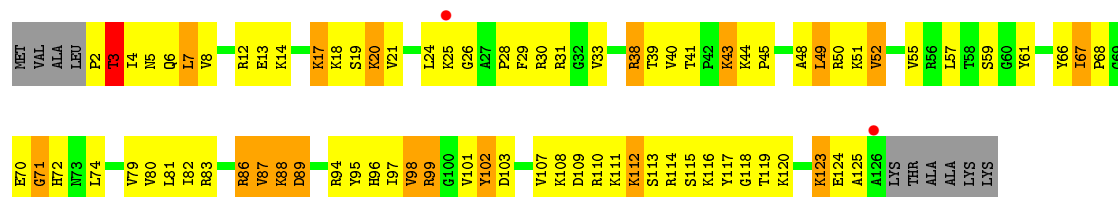


• Molecule 11: 30S RIBOSOMAL PROTEIN S11

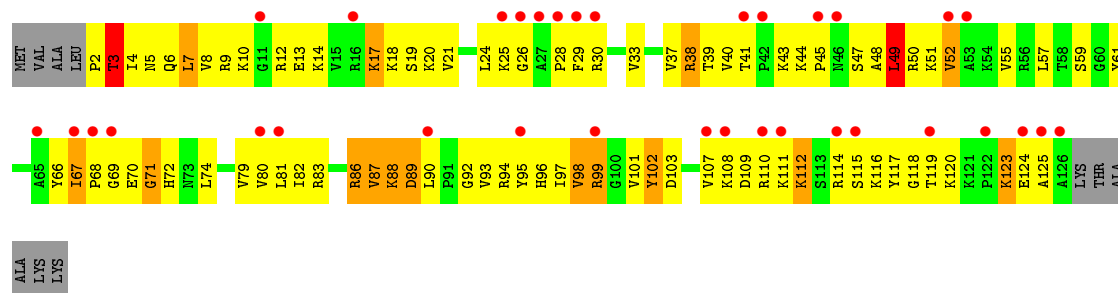


• Molecule 12: 30S RIBOSOMAL PROTEIN S12

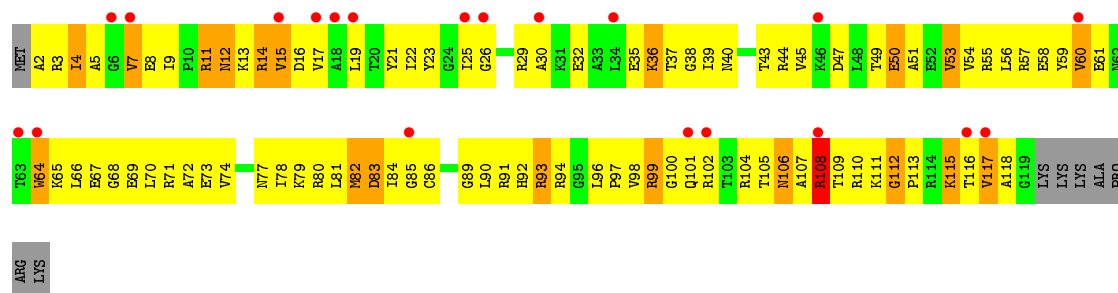




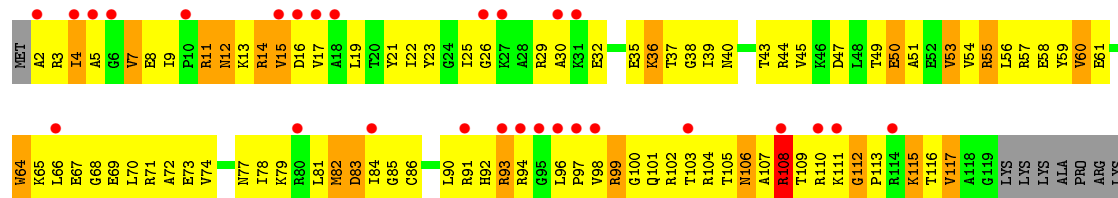
● Molecule 12: 30S RIBOSOMAL PROTEIN S12



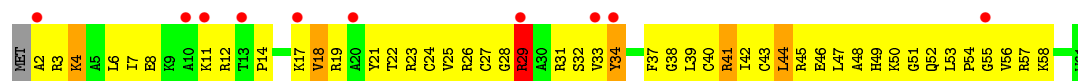
● Molecule 13: 30S RIBOSOMAL PROTEIN S13



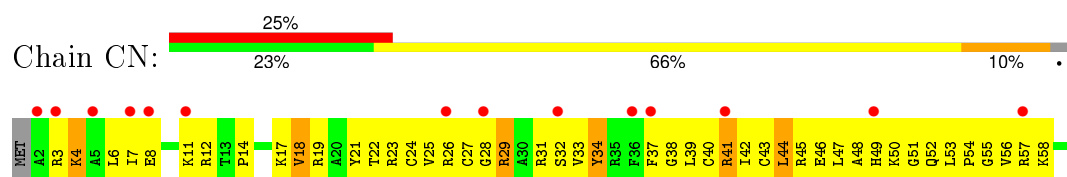
● Molecule 13: 30S RIBOSOMAL PROTEIN S13



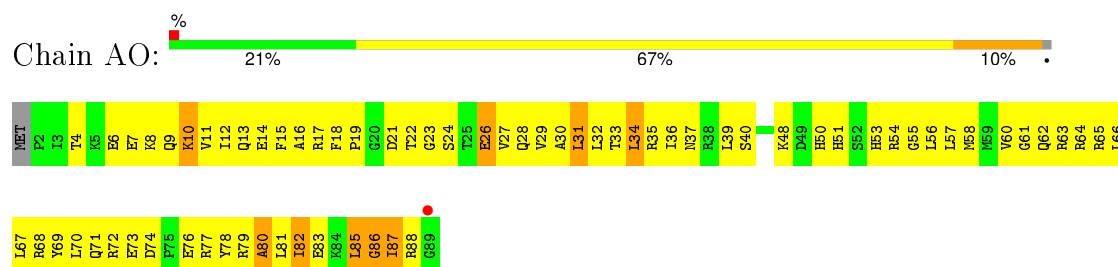
- Molecule 14: 30S RIBOSOMAL PROTEIN S14 TYPE Z



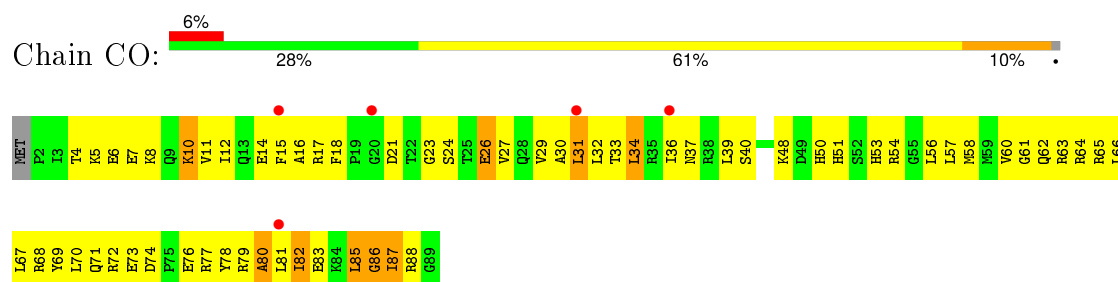
- Molecule 14: 30S RIBOSOMAL PROTEIN S14 TYPE Z



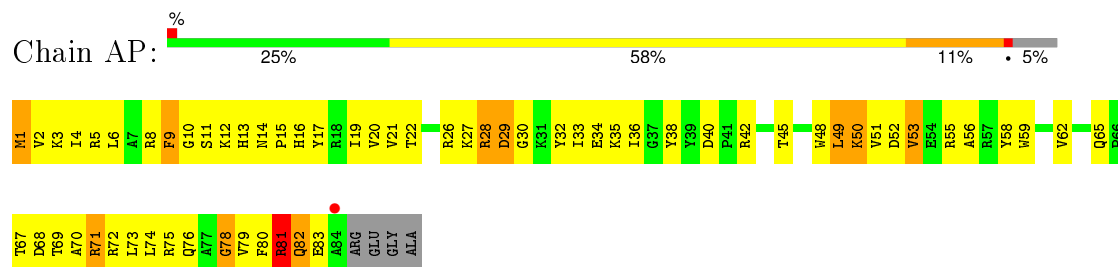
• Molecule 15: 30S RIBOSOMAL PROTEIN S15



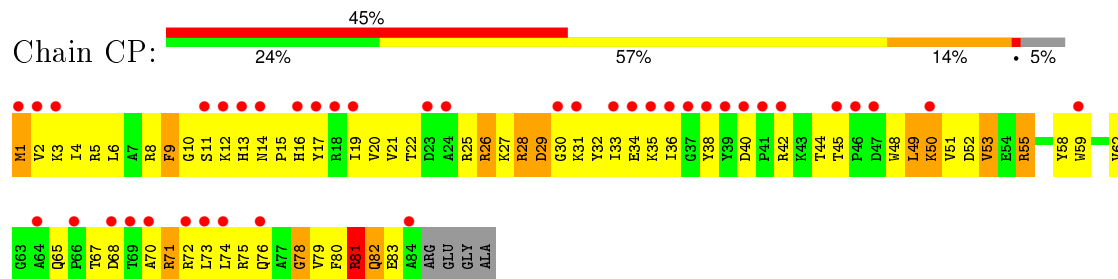
• Molecule 15: 30S RIBOSOMAL PROTEIN S15



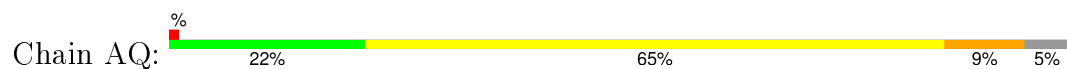
• Molecule 16: 30S RIBOSOMAL PROTEIN S16

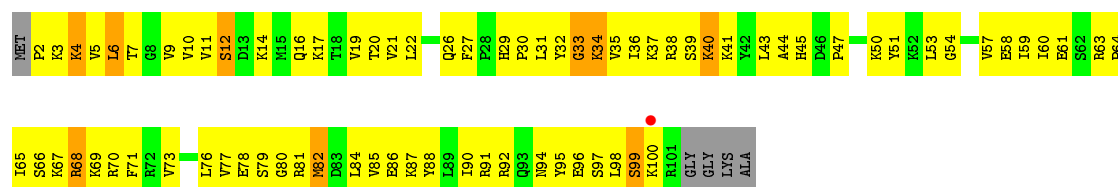


• Molecule 16: 30S RIBOSOMAL PROTEIN S16

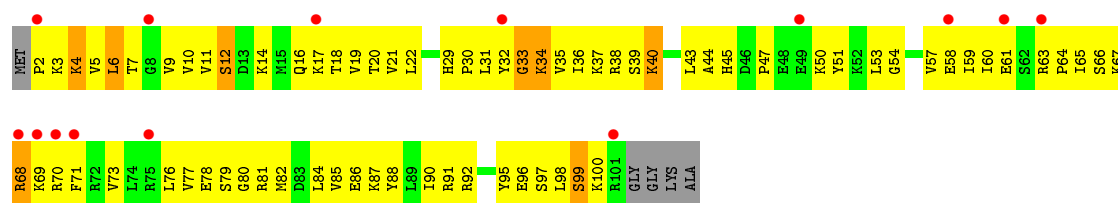


• Molecule 17: 30S RIBOSOMAL PROTEIN S17

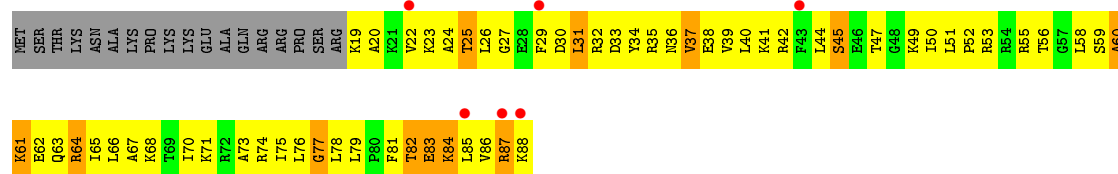
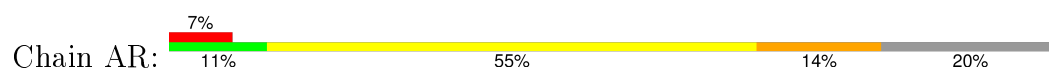




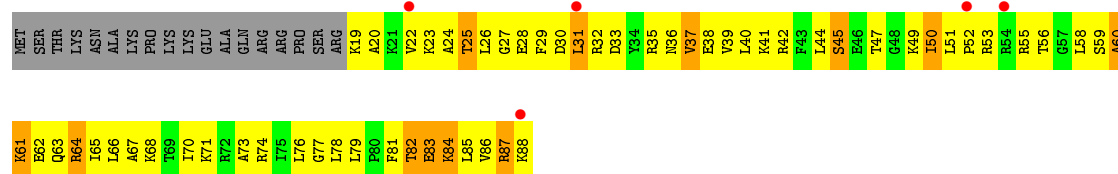
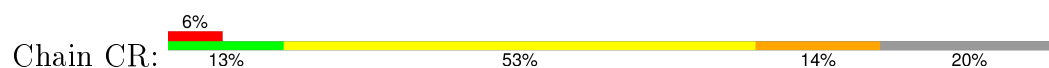
• Molecule 17: 30S RIBOSOMAL PROTEIN S17



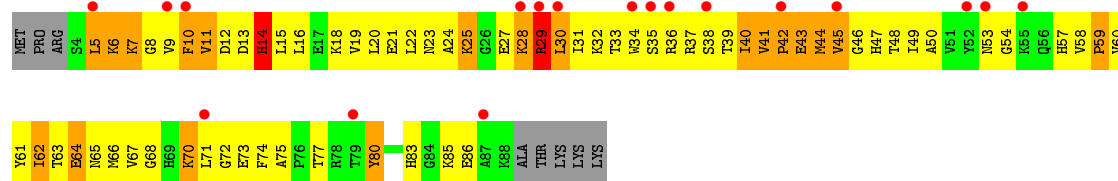
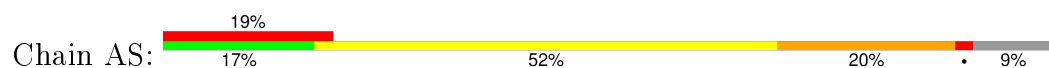
• Molecule 18: 30S RIBOSOMAL PROTEIN S18



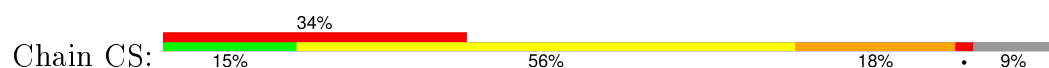
• Molecule 18: 30S RIBOSOMAL PROTEIN S18

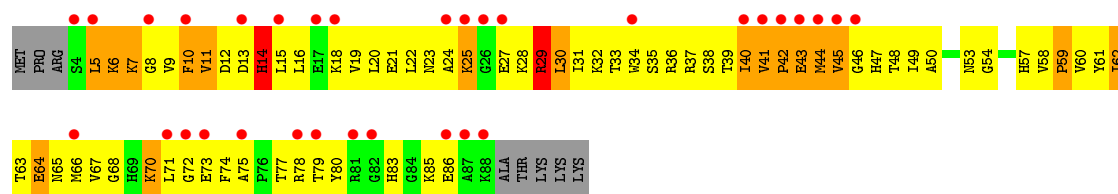


• Molecule 19: 30S RIBOSOMAL PROTEIN S19

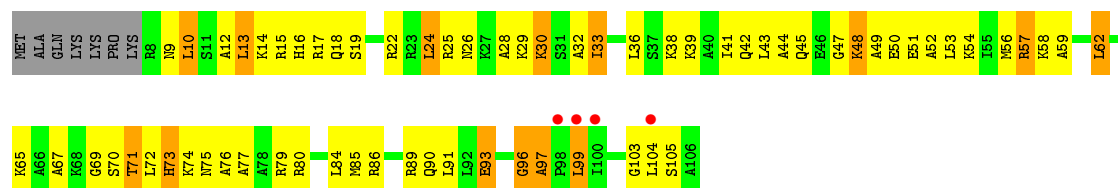


• Molecule 19: 30S RIBOSOMAL PROTEIN S19

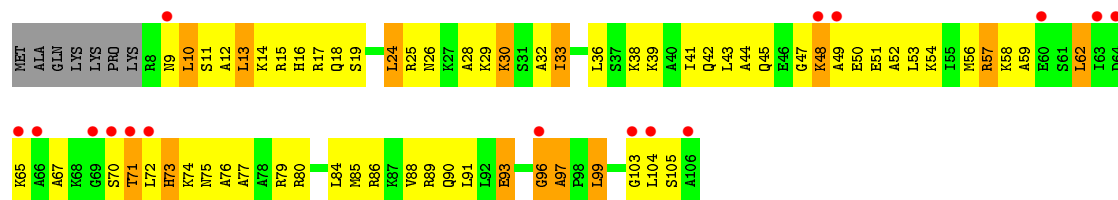




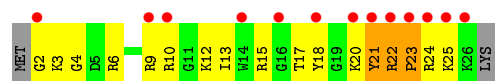
• Molecule 20: 30S RIBOSOMAL PROTEIN S20



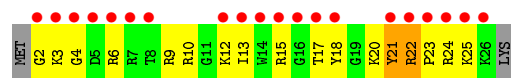
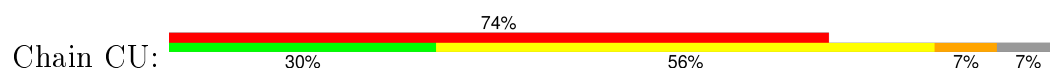
• Molecule 20: 30S RIBOSOMAL PROTEIN S20



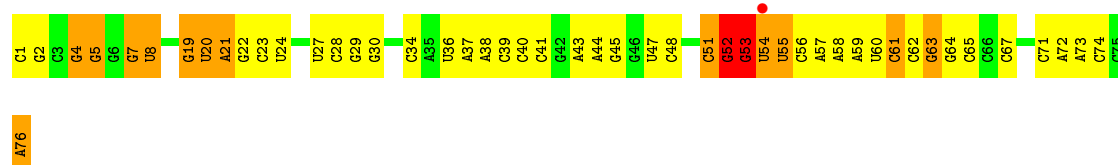
• Molecule 21: 30S RIBOSOMAL PROTEIN THX



• Molecule 21: 30S RIBOSOMAL PROTEIN THX

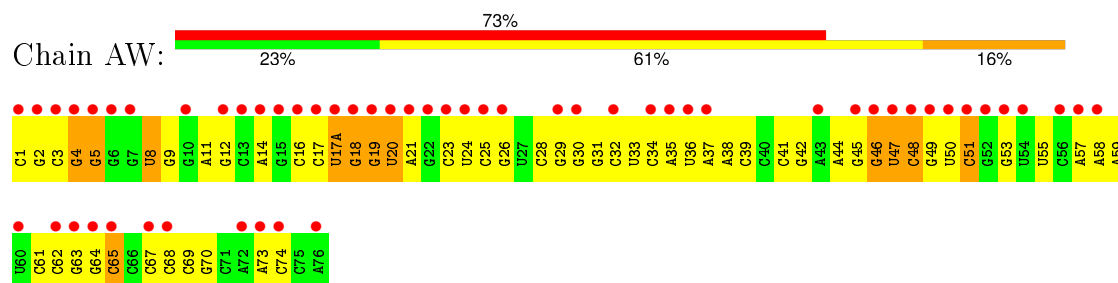


• Molecule 22: E-SITE TRNA PHE OR P-SITE TRNA PHE

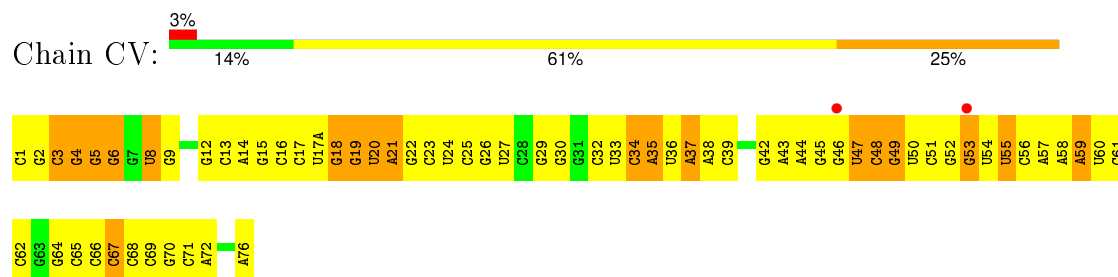




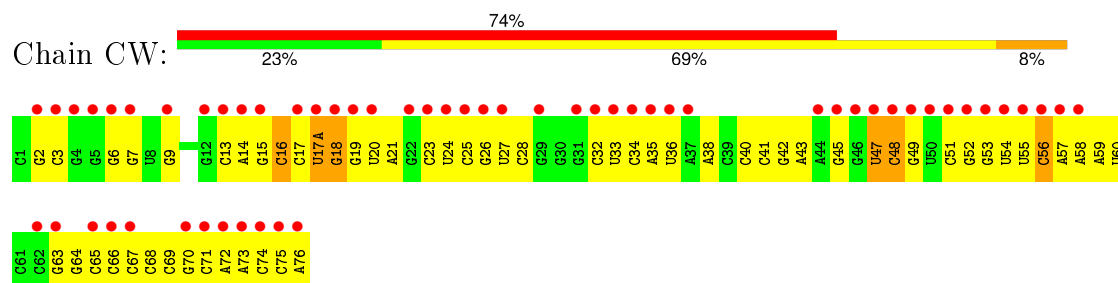
## ● Molecule 22: E-SITE TRNA PHE OR P-SITE TRNA PHE



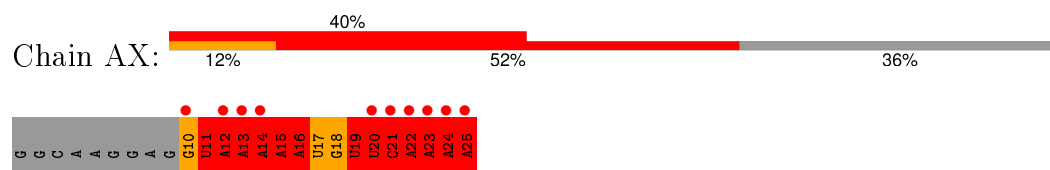
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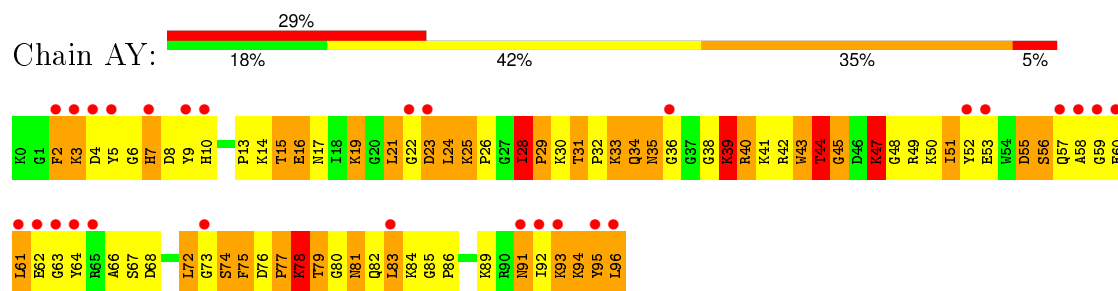
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## ● Molecule 23: MRNA

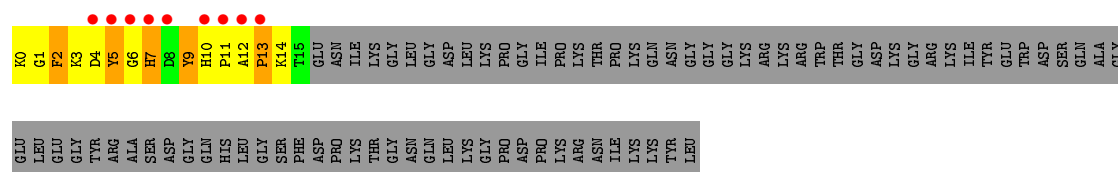


## ● Molecule 24: COLICIN-E3

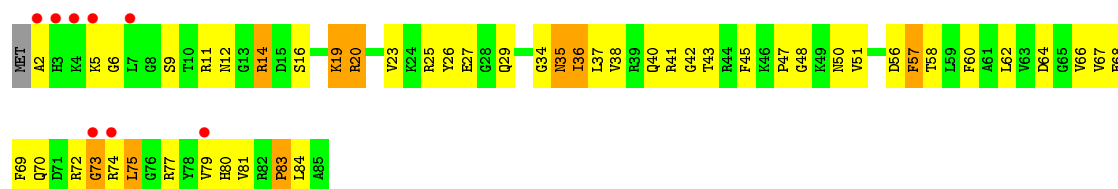


## ● Molecule 24: COLICIN-E3

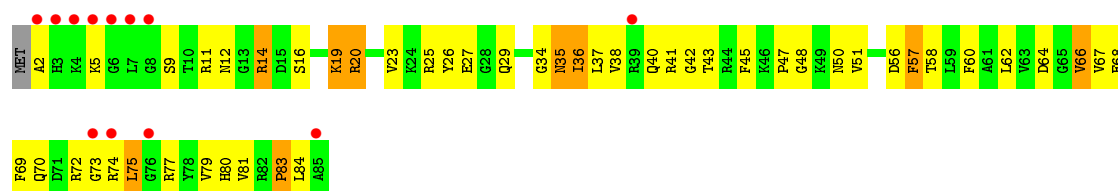
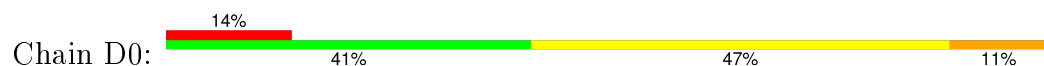




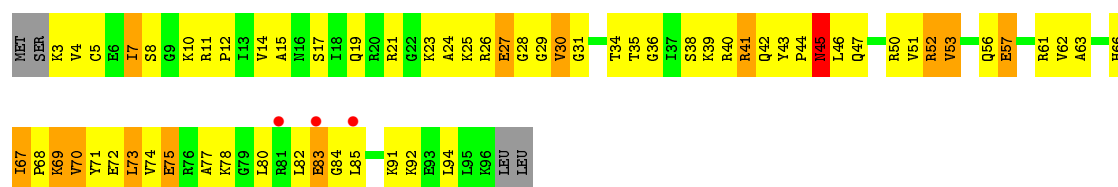
• Molecule 25: 50S RIBOSOMAL PROTEIN L27



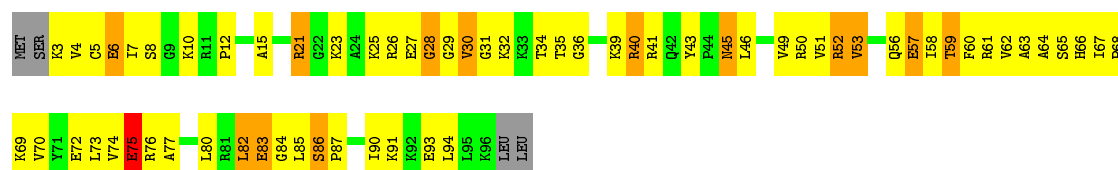
• Molecule 25: 50S RIBOSOMAL PROTEIN L27



• Molecule 26: 50S RIBOSOMAL PROTEIN L28

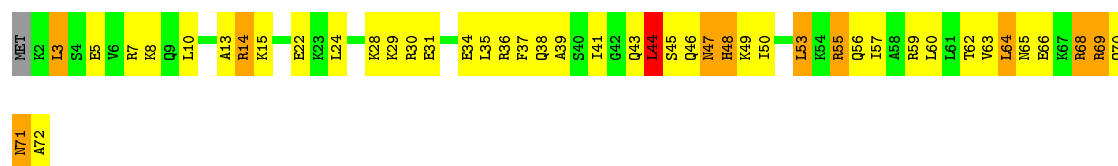


• Molecule 26: 50S RIBOSOMAL PROTEIN L28

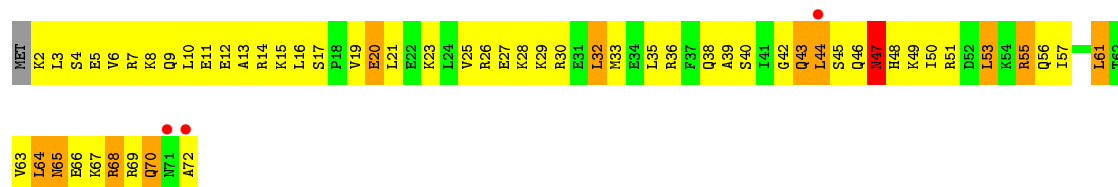


• Molecule 27: 50S RIBOSOMAL PROTEIN L29

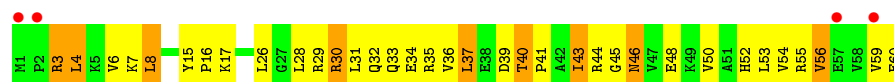
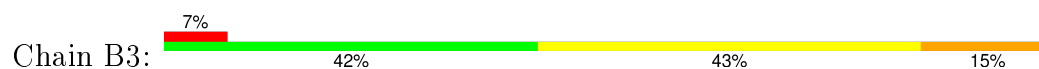




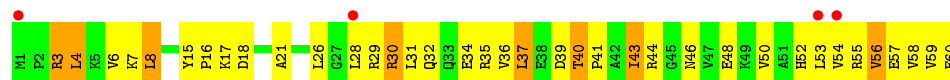
• Molecule 27: 50S RIBOSOMAL PROTEIN L29



• Molecule 28: 50S RIBOSOMAL PROTEIN L30



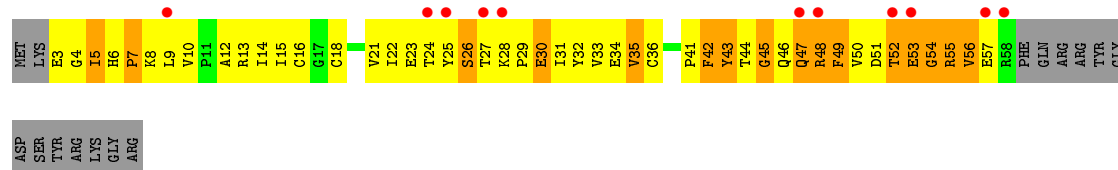
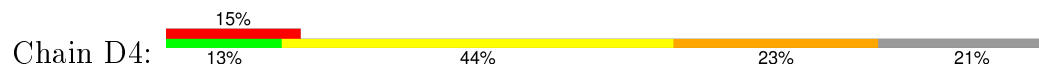
• Molecule 28: 50S RIBOSOMAL PROTEIN L30



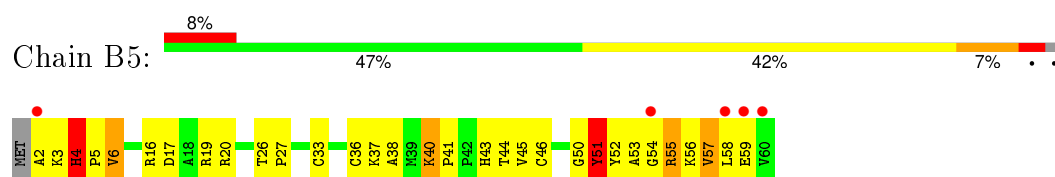
• Molecule 29: 50S RIBOSOMAL PROTEIN L31



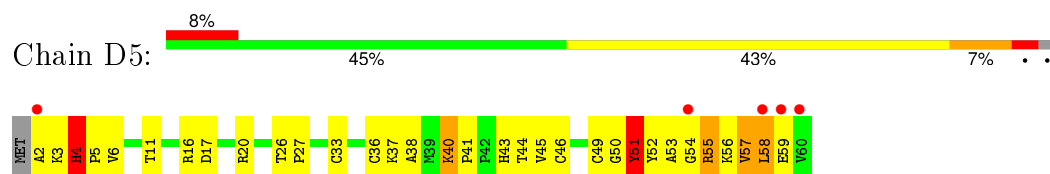
• Molecule 29: 50S RIBOSOMAL PROTEIN L31



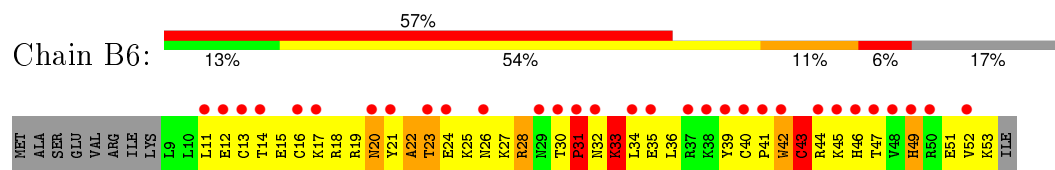
• Molecule 30: 50S RIBOSOMAL PROTEIN L32



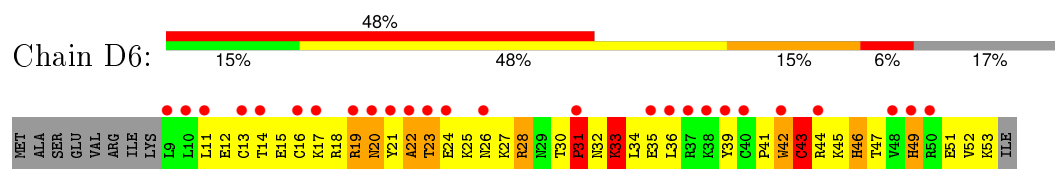
- Molecule 30: 50S RIBOSOMAL PROTEIN L32



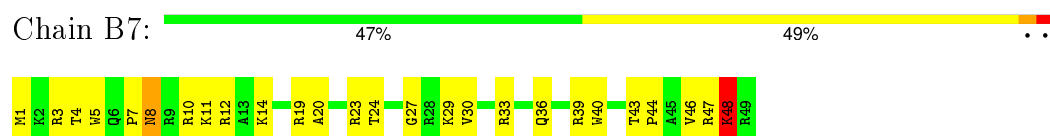
- Molecule 31: 50S RIBOSOMAL PROTEIN L33



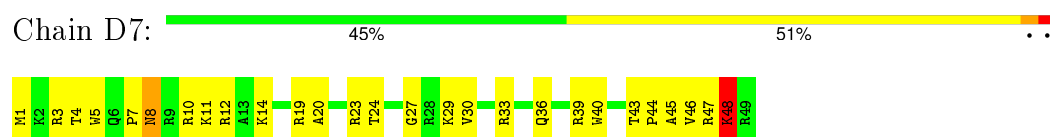
- Molecule 31: 50S RIBOSOMAL PROTEIN L33



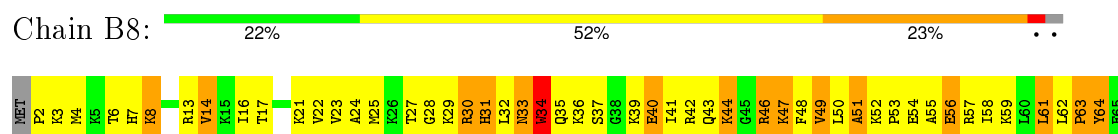
- Molecule 32: 50S RIBOSOMAL PROTEIN L34



- Molecule 32: 50S RIBOSOMAL PROTEIN L34



- Molecule 33: 50S RIBOSOMAL PROTEIN L35



- Molecule 33: 50S RIBOSOMAL PROTEIN L35

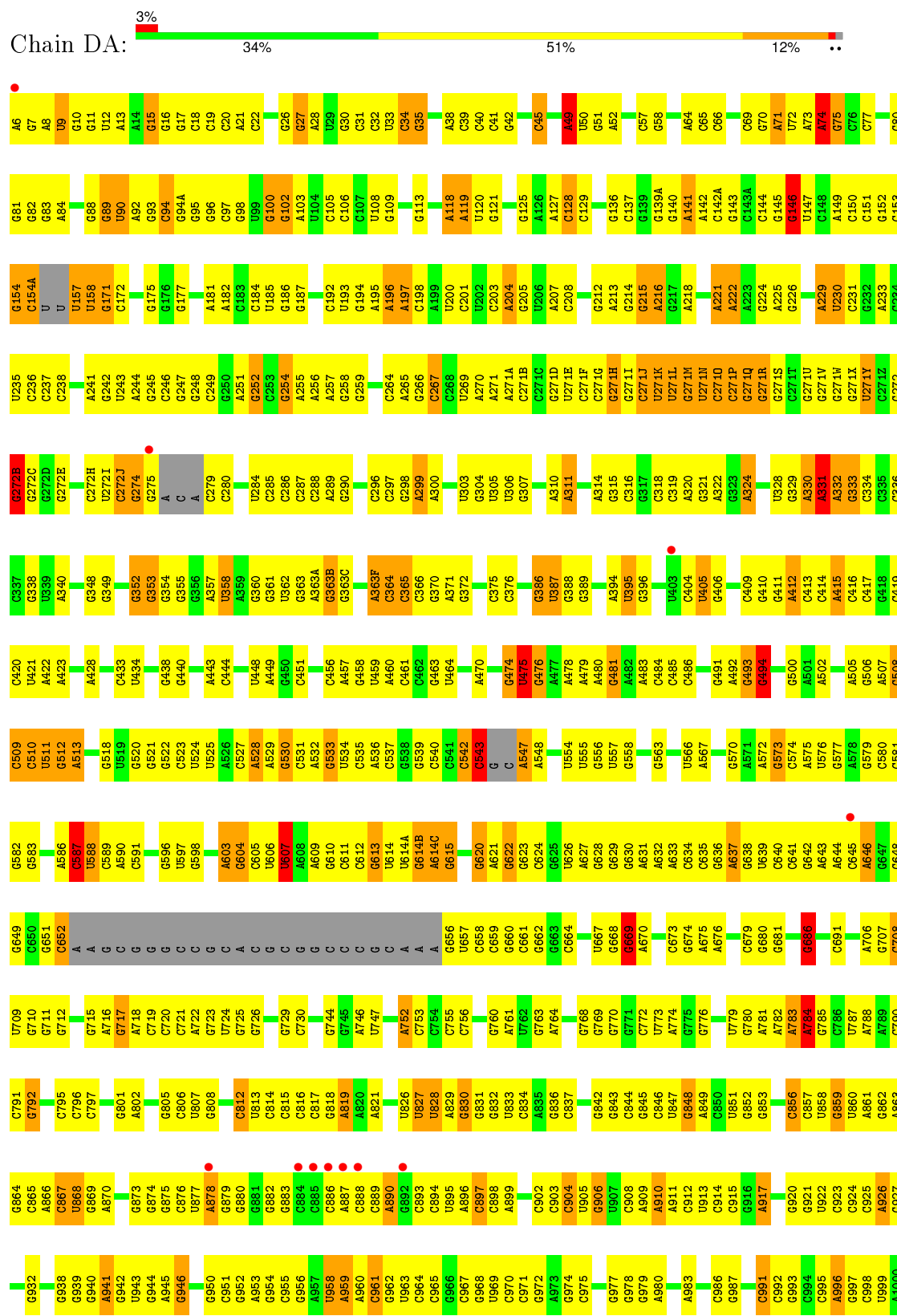




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C1743	C1561	G1561	G1500	G1435	G1358	A1276	G1196	A1126	C1004	G932	A863	A789	C708	G647
G1744	A1562	G1562	C1501	G1436	G1359	G1278	U1198	U1130	C1006	G938	G864	C791	U709	G648
C1745	C1563	G1563	C1502	U1437	G1360	G1279	U1203	U1131	G1011	A941	A866	A793	G711	G649
G1746	C1564	G1564	U1503	U1438	G1361	G1280	G1205	U1019	U1012	G942				
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G1747	A1566	A1566	C1505	G1440	G1363	U1282	G1205	U1011	C1014	U943	A870	C797	A716	A
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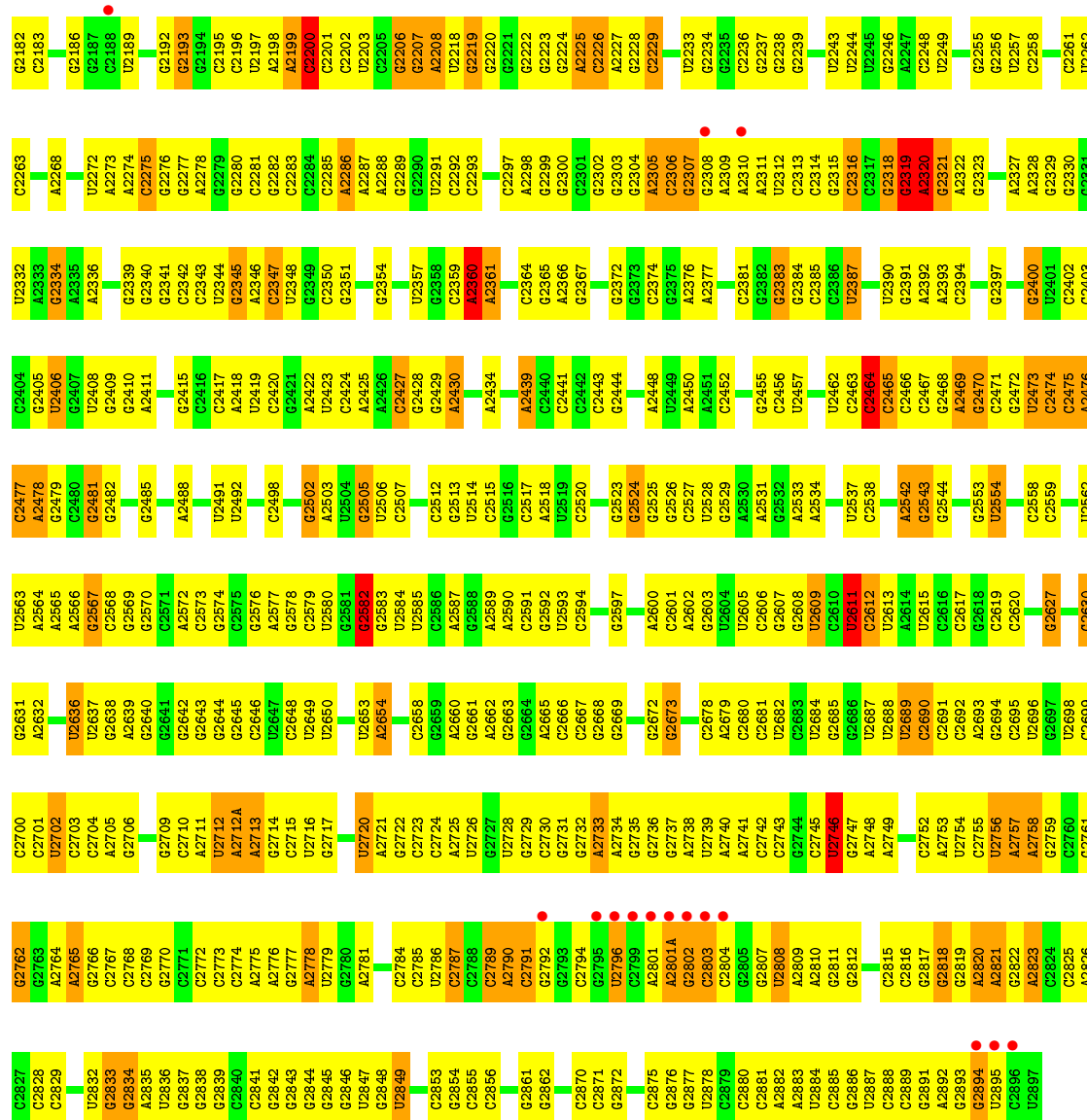


● Molecule 35: RNA (2848-MER)

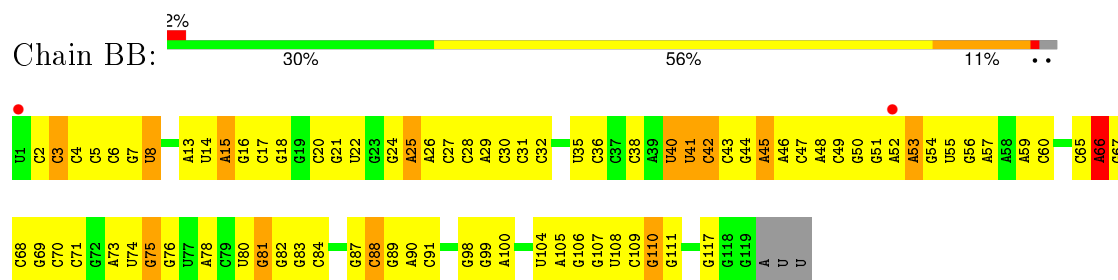




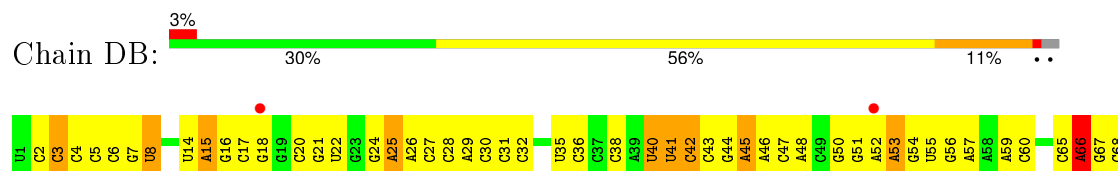
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G2146		A1918	A1918	G1839		A1889	G1595	C1531			G1228	G1151	A1032
G2147	U2079	A1919	A1919		G1776		G1596	C1532		C1314			U1033
G2148	G2080	G2000	G1920	C1844	U1777	U1692	A1597	G1533	A1471	C1315	G1231	G1154	U1034
G2149		A2001	G1921	G1845	U1777	U1693	A1597	U	A1472	U1316	G1232	A1155	U1035
U2086	G2002	G2002	G1922	G1846	U1778	G1694	C1598	A	G1475	A1317	G1233	A1156	G1036
G2151		U1923	U1923	A1847	U1779	C1695		C	G1476	G1332		U1159	G1037
G2152	C2007	C1924	C1924	G1848	A1780	G1696	C1607	G	A1477	C1333	G1239	G1160	C1038
G2153	C2008	C1925	C1925	A1853	C1781	G1697	A1608	G	G1478	A1336	U1240	G1161	G1039
G2154	U2091	U1926	U1926	G1854	G1782	G1697	A1609	U	G1479	A1337	A1241	C1040	C1040
G2155	G2092	A1927	A1927	G1855	A1783	G1699	A1610	U	G1480	G1338	G1242	G1162	U1026
G2156	G2010	G1928	G1928	G1856	A1784	G1699		A	U1481	G1339	G1243	G1163	G1037
G2157	A2014	G1929	G1929	G1857	A1785	A1700	G1613	C1543	G1482			G1164	G1044
A2015	U2016	G1930	G1930	G1858	A1786	A1701	A1614	C1544	G1483	A1246	A1247	U1185	A1045
U2098		U1931	U1931	G1859	A1787	G1702	G1815	A1544	G1484	G1344		G1166	G1046
U2099		A1932	A1932	G1859	C1788		A1616	G1485	G1485	G1345	G1250	G1169	A1047
G2160	A2019	G1933	G1933	G1860	A1789	G1705	C1617	C1545	A1486	G1346	G1251	G1170	A1048
G2161	G2101	C1934	C1934	G1861	C1790	U1706	A1618	C1547	G1487	G1347	G1252	G1171	C1049
U2102	A2020	G1935	G1935	G1862	A1791			C1548	G1488	G1348	A1253	G1173	A1050
C2021	C2021	A1936	A1936	G1863	G1792	U1709	G1625	C1550	U1489	A1349		A1174	G1051
G2104	U2022	G1937	G1937	U1864	C1793	C1710	G1626	C1551	A1490		G1256	A1175	C1052
C2105	G2023	A1938	A1938		U1794	C1711		C1552	G1491	G1352	G1257	U1176	C1053
G2106	G2024	C1939	C1939	A1876	C1795	C1712	C1636	A1554	G1492	A1353	A1257	A1177	A1056
U2107	C2025	U1939	U1939	A1877	U1796	U1713	A1637		C1493	A1354	G1178	C1109	G1107
G2108	C2026	G1940	G1940	G1878	C1797	U1714	C1638	C1557	A1494	G1355	C1179	G1180	A1111
A2109	G2027	G1941	G1941	G1879	U1798	G1717	U1639	A1558	A1495	G1356	C1181	A1182	G1112
G2110	U2028	G1942	G1942	C1880	G1799	G1718	C1640	A1559	U1496	G1357	G1262	G1187	U1108
G2111	C2029	A1943	A1943	C1881	C1800	G1719	A1641	G1560	U1497	U1357	G1263	G1188	G1109
G2112	A2030			C1882	G1801	U1720	A1642	G1561	C1498	G1264	U1267	G1189	G1110
U2113	A2031	U1955	U1955	G1883		G1721	G1643	A1562	C1499	A1358	G1268	G1187	A1111
A2114	G2032	G1956	G1956	A1884	C1804	A1722	C1644	G1563	G1500	A1359	A1269	G1188	G1112
G2115	A2033	U1957	U1957	A1885	U1805	U1739	C1644	G1564	G1501	A1360	G1269	G1114	U1113
G2116	C2034	C1957	C1957	G1886	C1806	G1740		C1565	C1502	G1361	A1268	G1115	G1115
G2117	G2035			C1887	G1807	A1741	G1648	C1566	C1503	G1362	C1270	G1116	G1116
U2118	C2036	A1960	A1960	C1887	G1807	U1742	A1652	C1567	U1503	C1363	G1271	A1189	G1117
A2119	G2037	C1961	C1961	G1888	U1808	G1743	A1653	A1566	C1504	U1364	G1272	G1190	G1118
G2120	C2038	G1962	G1962	A1889	A1810	C1744	G1654	A1567	A1439	A1365		G1191	G1119
G2121	C2039							G1568	C1506	G1440	U1273	G1192	

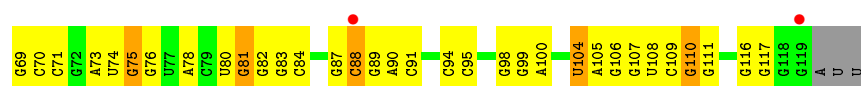


• Molecule 36: RNA (119-MER)

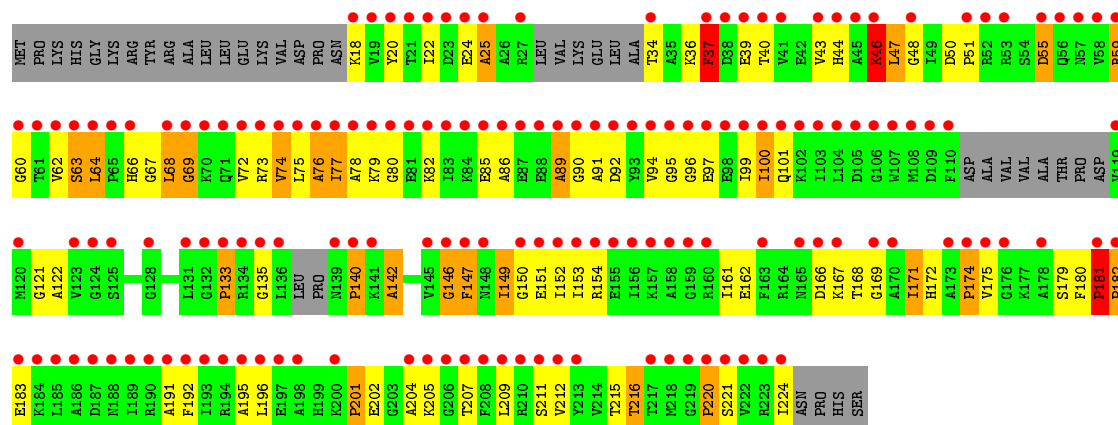
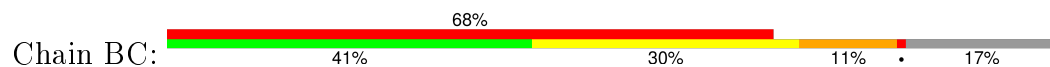


• Molecule 36: RNA (119-MER)

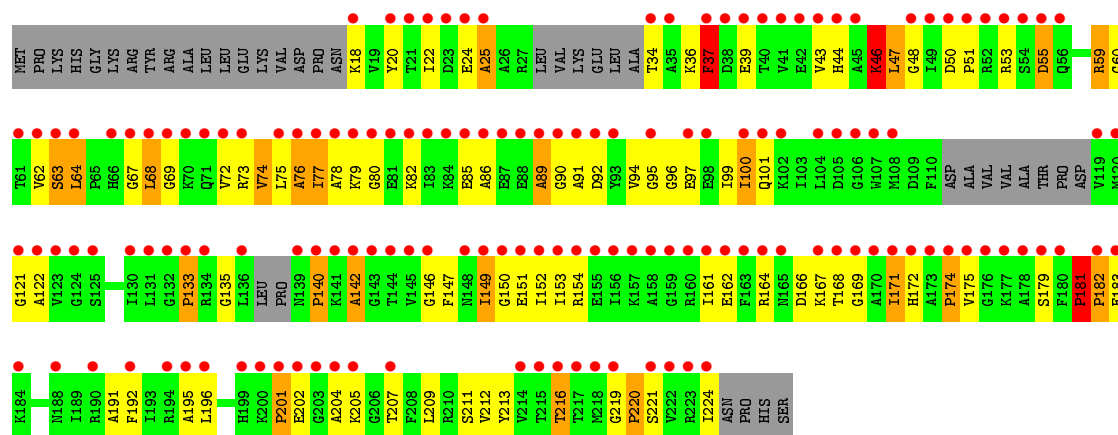




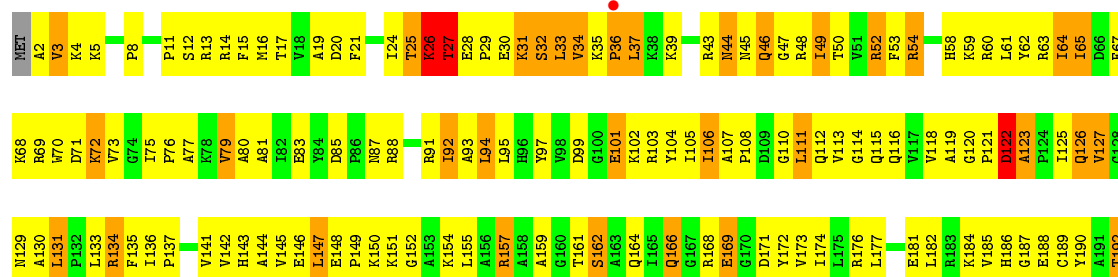
• Molecule 37: 50S RIBOSOMAL PROTEIN L1



• Molecule 37: 50S RIBOSOMAL PROTEIN L1

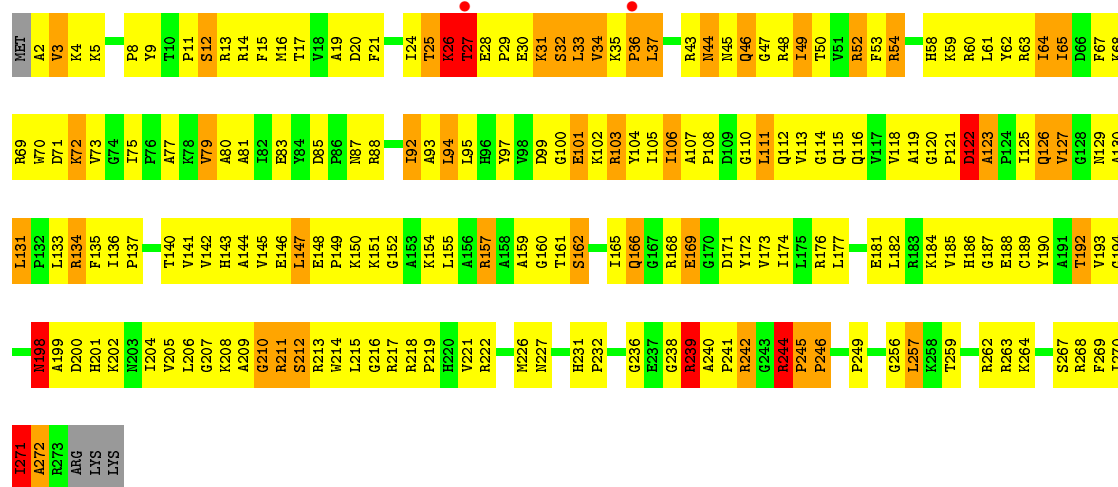


• Molecule 38: 50S RIBOSOMAL PROTEIN L2

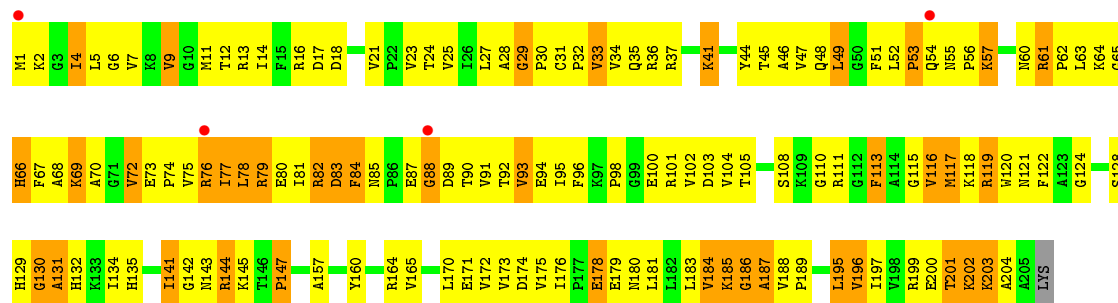




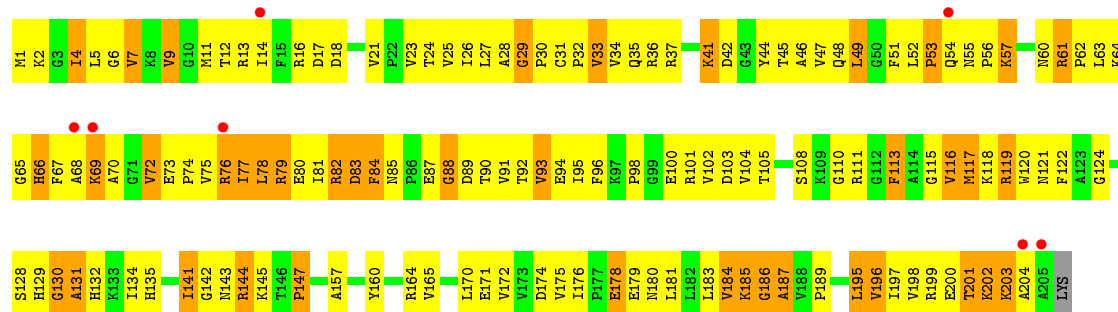
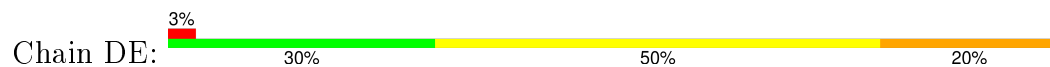
• Molecule 38: 50S RIBOSOMAL PROTEIN L2



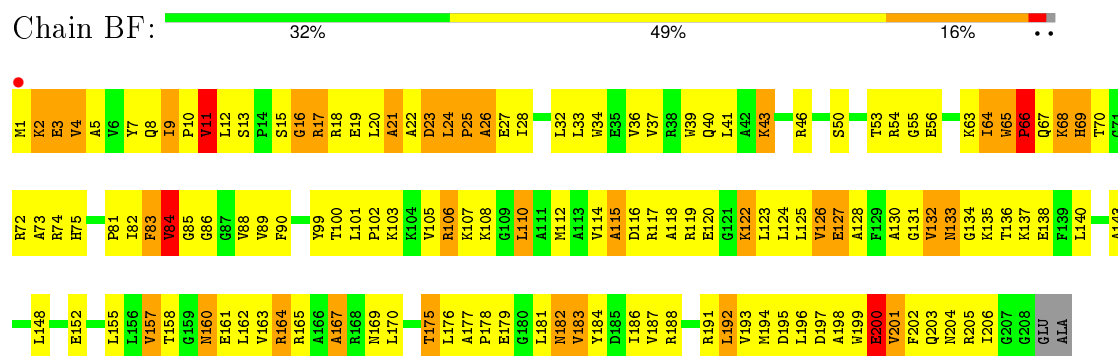
• Molecule 39: 50S RIBOSOMAL PROTEIN L3



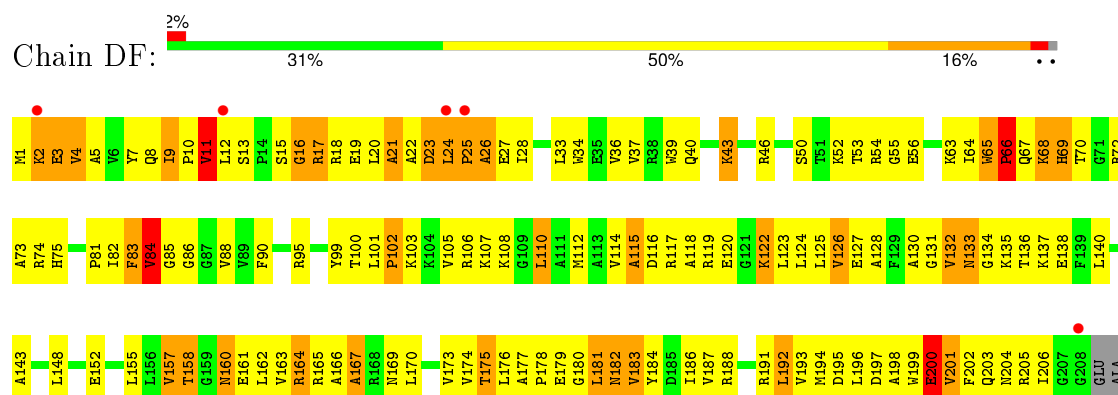
• Molecule 39: 50S RIBOSOMAL PROTEIN L3



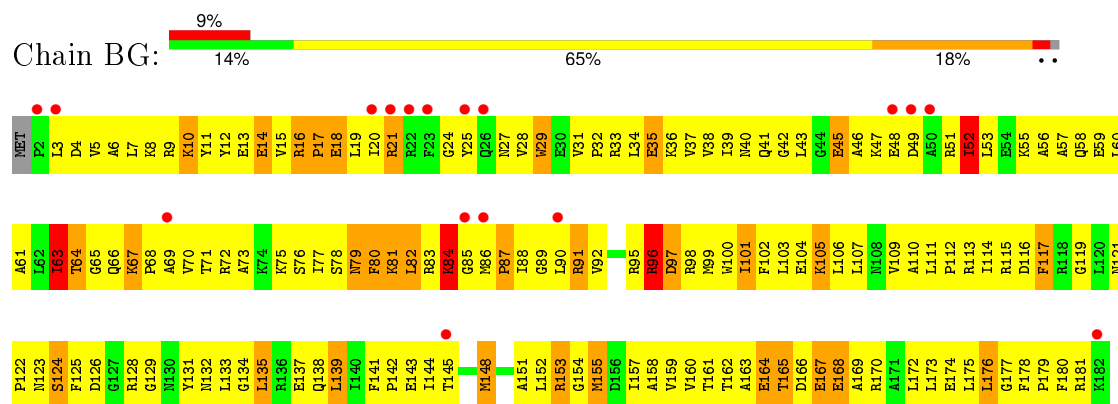
• Molecule 40: 50S RIBOSOMAL PROTEIN L4



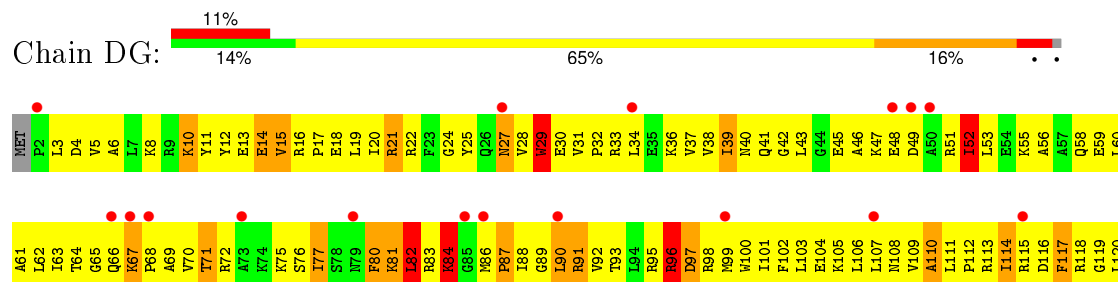
• Molecule 40: 50S RIBOSOMAL PROTEIN L4



• Molecule 41: 50S RIBOSOMAL PROTEIN L5

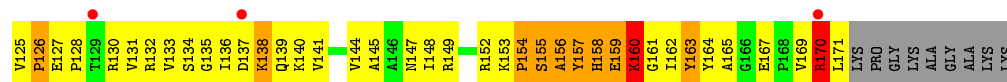
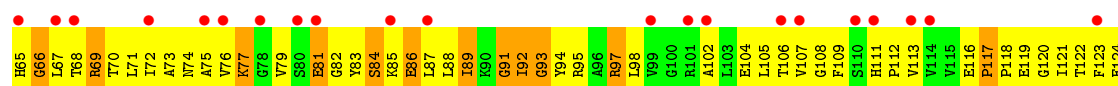
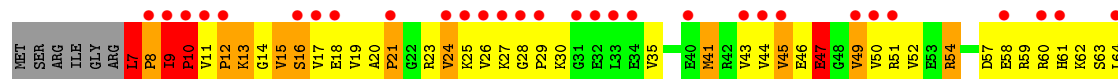
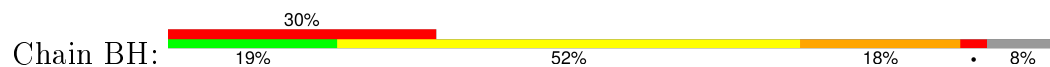


• Molecule 41: 50S RIBOSOMAL PROTEIN L5

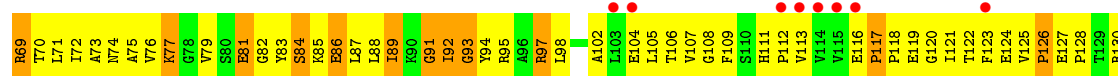
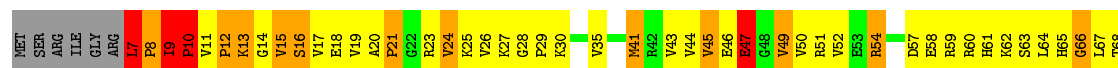
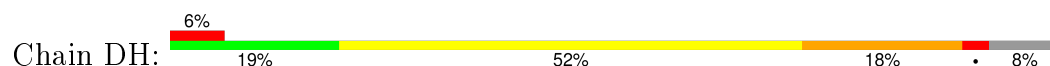




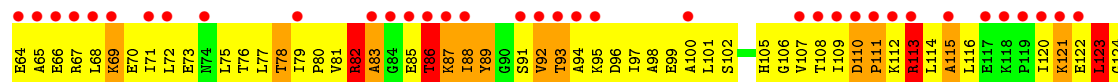
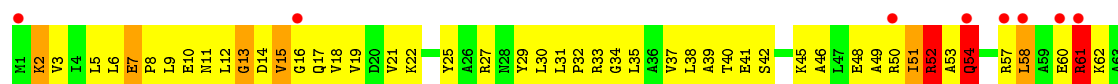
• Molecule 42: 50S RIBOSOMAL PROTEIN L6



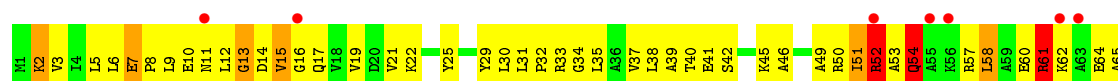
• Molecule 42: 50S RIBOSOMAL PROTEIN L6

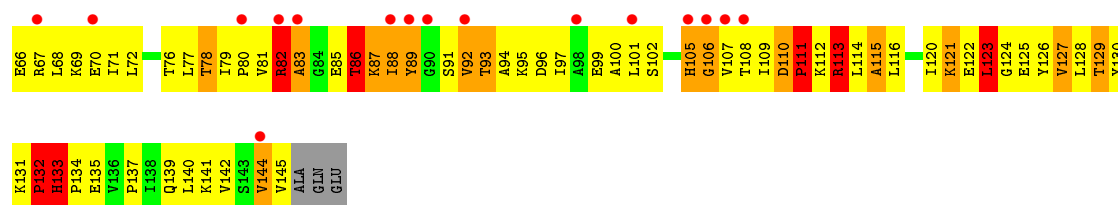


• Molecule 43: 50S RIBOSOMAL PROTEIN L9



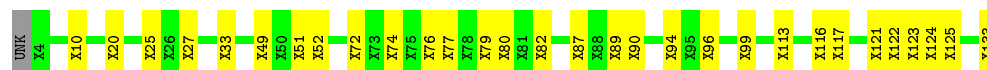
• Molecule 43: 50S RIBOSOMAL PROTEIN L9





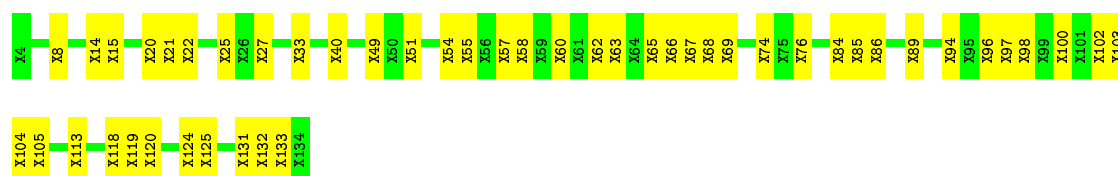
• Molecule 44: 50S RIBOSOMAL PROTEIN L10

Chain BJ: 76% 23%



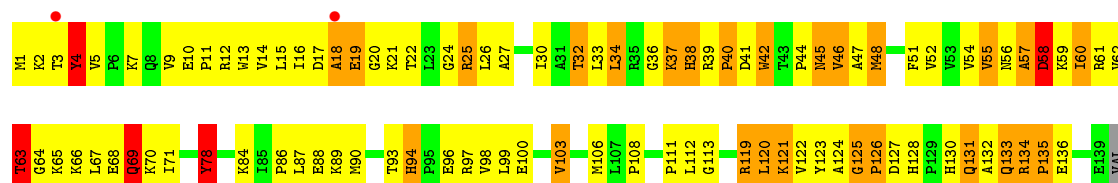
• Molecule 44: 50S RIBOSOMAL PROTEIN L10

Chain DJ: 63% 37%



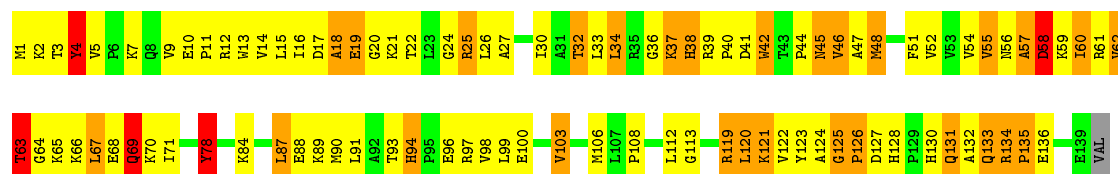
• Molecule 45: 50S RIBOSOMAL PROTEIN L13

Chain BN: 30% 47% 19%



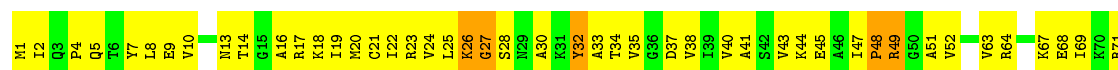
• Molecule 45: 50S RIBOSOMAL PROTEIN L13

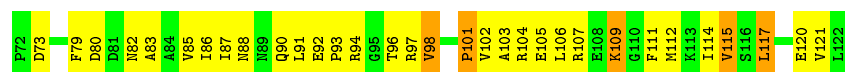
Chain DN: 31% 45% 20%



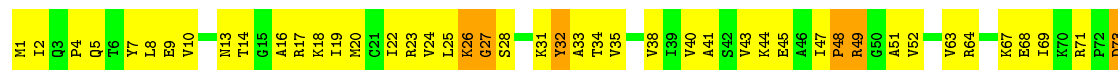
• Molecule 46: 50S RIBOSOMAL PROTEIN L14

Chain BO: 36% 56% 8%

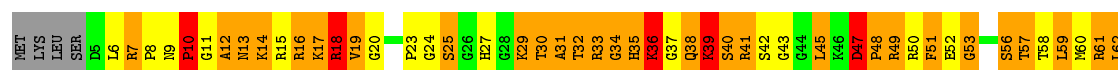
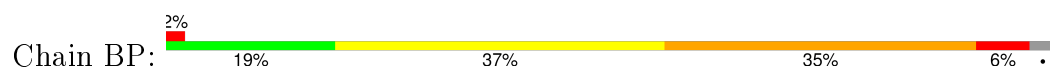




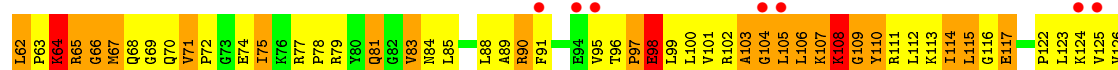
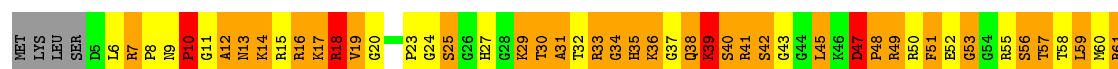
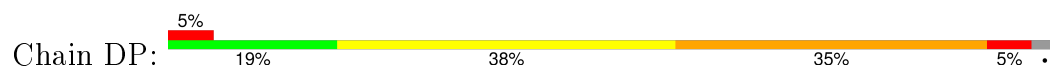
• Molecule 46: 50S RIBOSOMAL PROTEIN L14



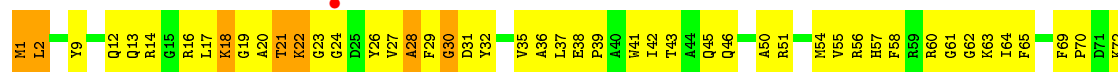
• Molecule 47: 50S RIBOSOMAL PROTEIN L15



• Molecule 47: 50S RIBOSOMAL PROTEIN L15

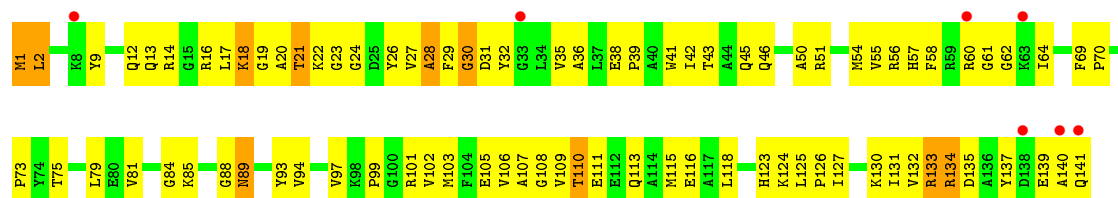


• Molecule 48: 50S RIBOSOMAL PROTEIN L16

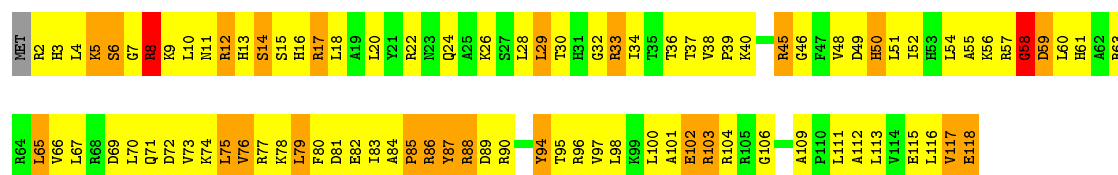


• Molecule 48: 50S RIBOSOMAL PROTEIN L16

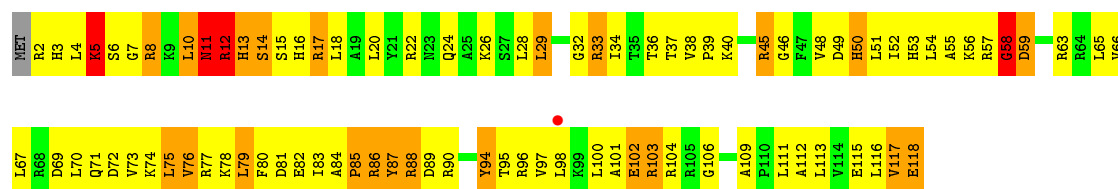




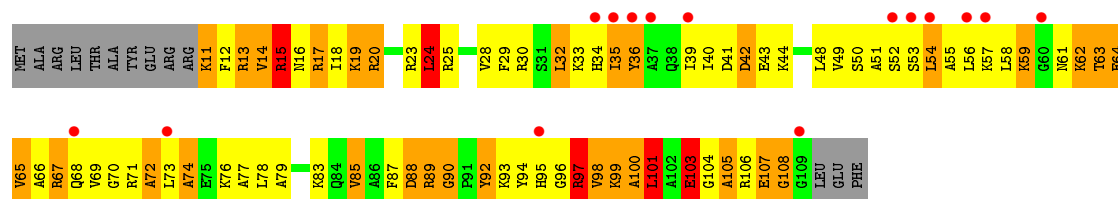
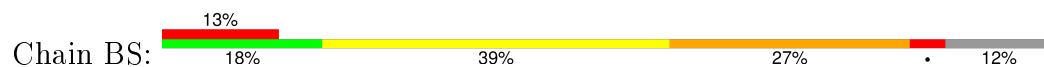
• Molecule 49: 50S RIBOSOMAL PROTEIN L17



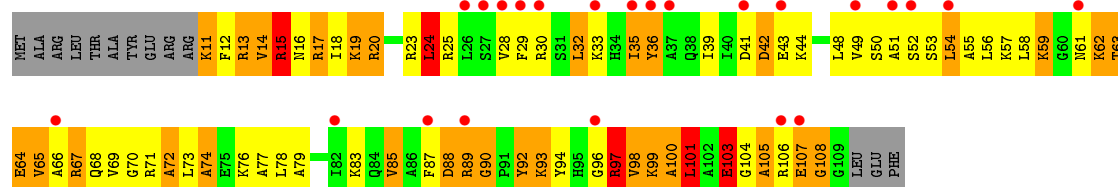
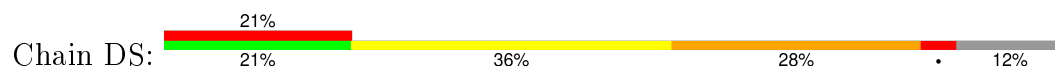
• Molecule 49: 50S RIBOSOMAL PROTEIN L17



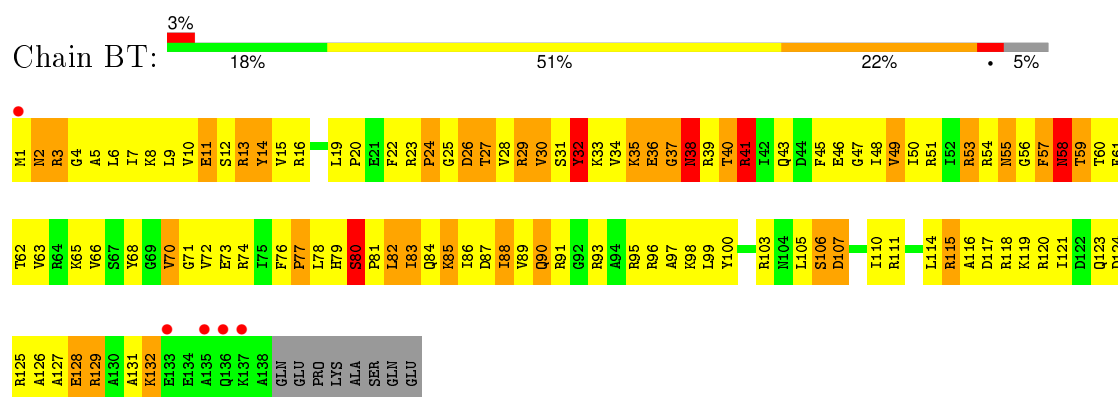
• Molecule 50: 50S RIBOSOMAL PROTEIN L18



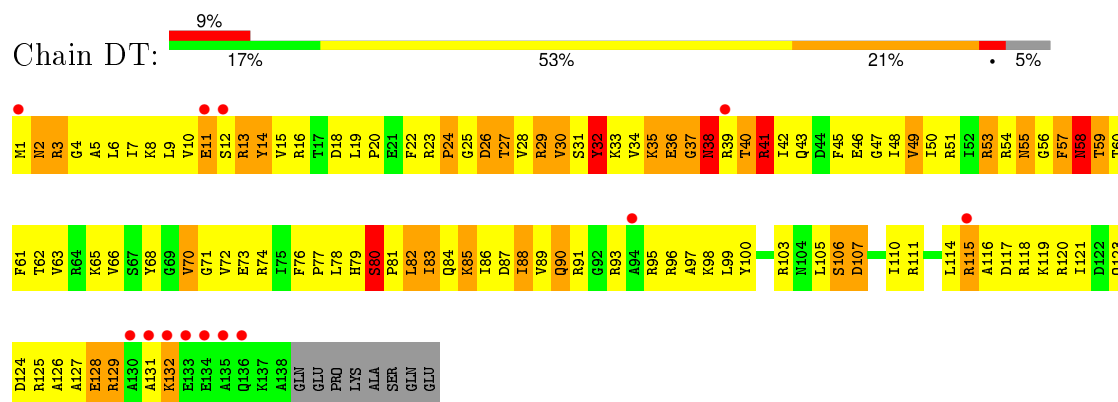
• Molecule 50: 50S RIBOSOMAL PROTEIN L18



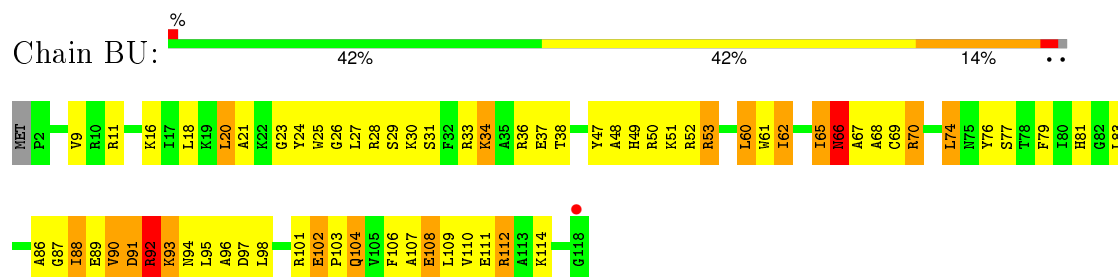
• Molecule 51: 50S RIBOSOMAL PROTEIN L19



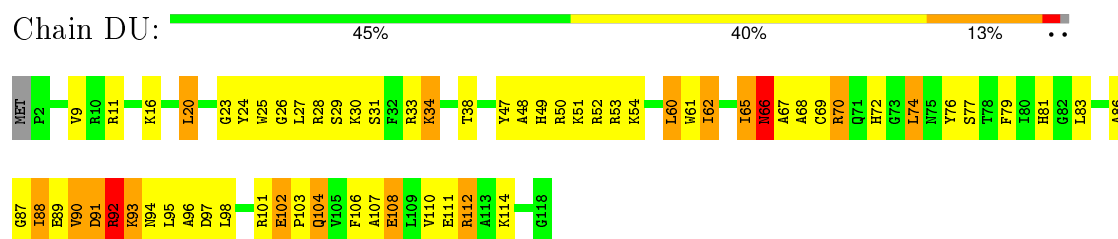
• Molecule 51: 50S RIBOSOMAL PROTEIN L19



● Molecule 52: 50S RIBOSOMAL PROTEIN L20

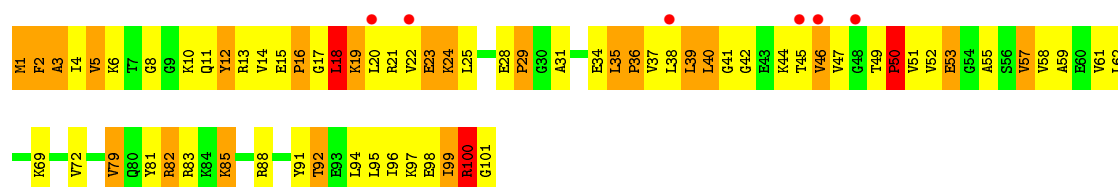


- Molecule 52: 50S RIBOSOMAL PROTEIN L20



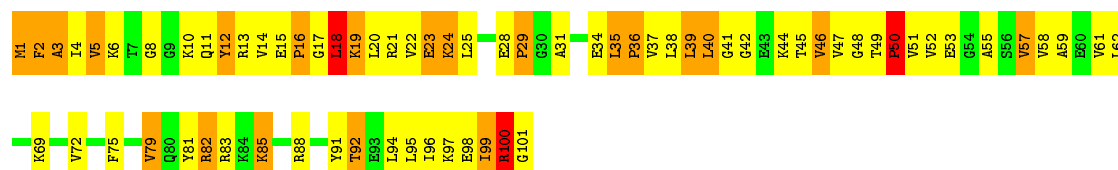
- Molecule 53: 50S RIBOSOMAL PROTEIN L21





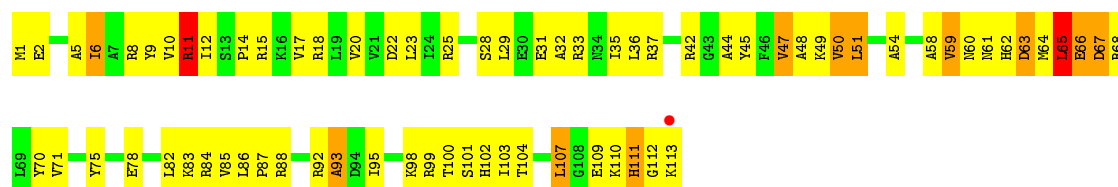
• Molecule 53: 50S RIBOSOMAL PROTEIN L21

Chain DV: 31% 46% 21% .



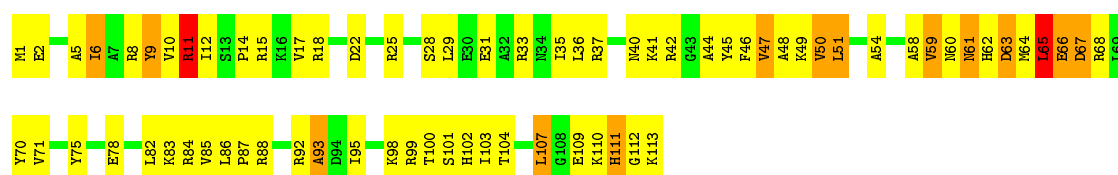
• Molecule 54: 50S RIBOSOMAL PROTEIN L22

Chain BW: 36% 52% 10% .



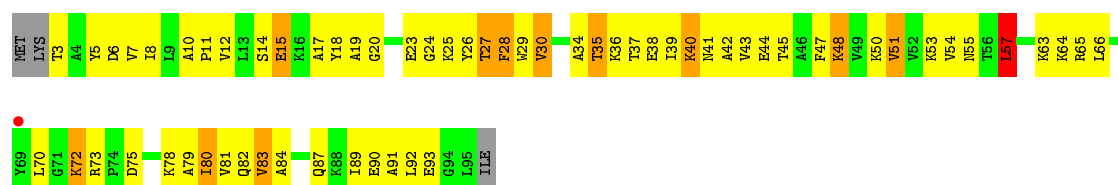
• Molecule 54: 50S RIBOSOMAL PROTEIN L22

Chain DW: 36% 50% 12% .



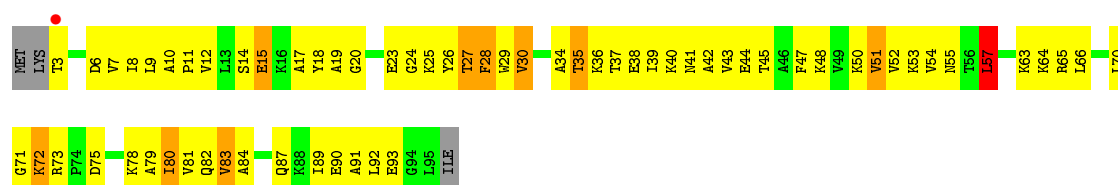
• Molecule 55: 50S RIBOSOMAL PROTEIN L23

Chain BX: 31% 53% 11% . .

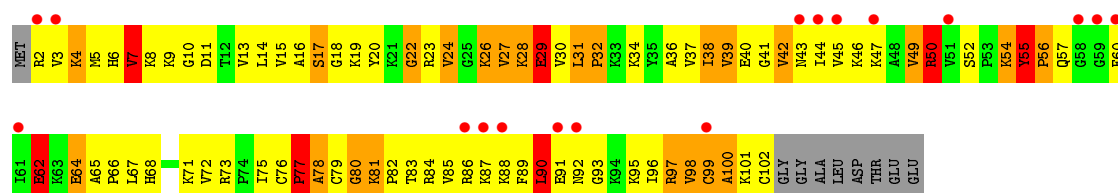
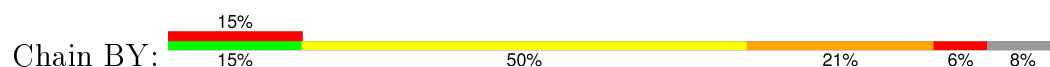


• Molecule 55: 50S RIBOSOMAL PROTEIN L23

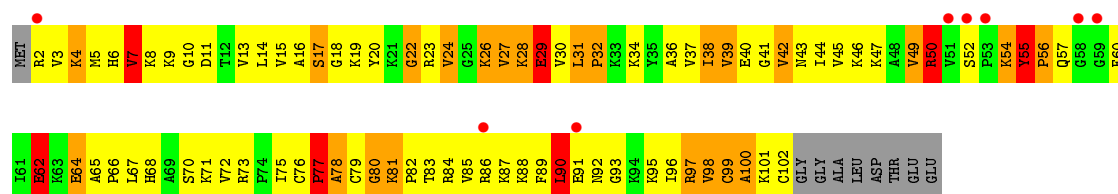
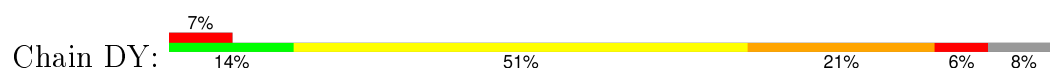
Chain DX: 29% 57% 9% . .



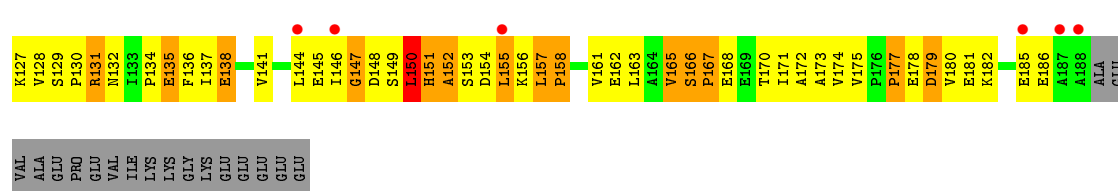
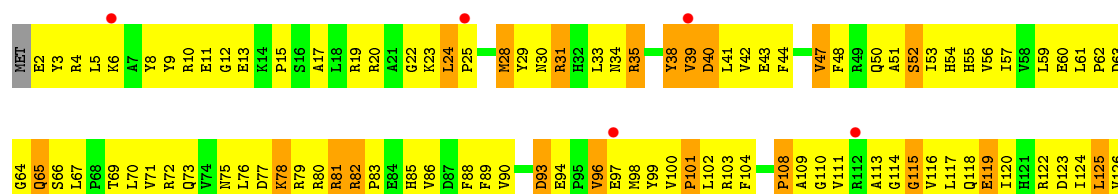
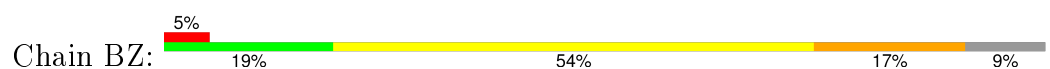
• Molecule 56: 50S RIBOSOMAL PROTEIN L24



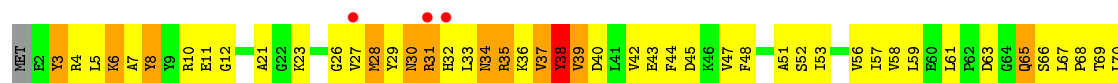
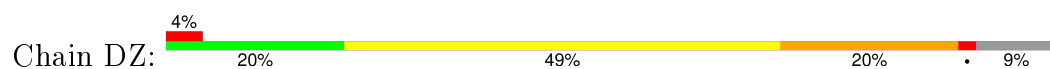
• Molecule 56: 50S RIBOSOMAL PROTEIN L24

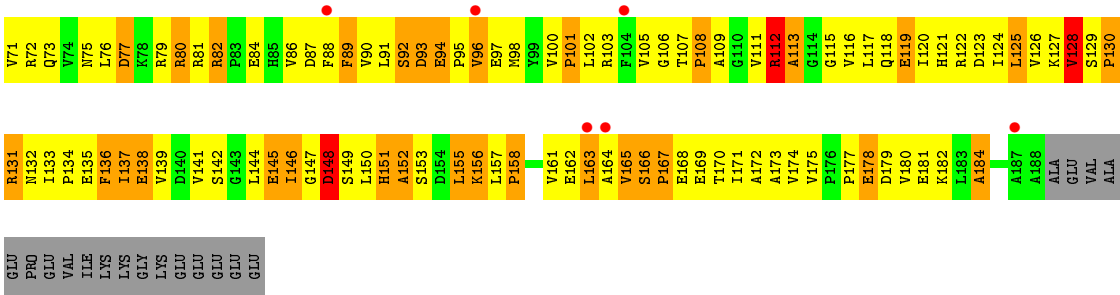


• Molecule 57: 50S RIBOSOMAL PROTEIN L25



• Molecule 57: 50S RIBOSOMAL PROTEIN L25





• Molecule 58: MRNA



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	212.04Å 453.51Å 616.10Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	44.53 – 3.20 44.53 – 3.20	Depositor EDS
% Data completeness (in resolution range)	99.4 (44.53-3.20) 99.5 (44.53-3.20)	Depositor EDS
$R_{merge}$	0.11	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.81 (at 3.19Å)	Xtriage
Refinement program	CNS 1.2	Depositor
R, $R_{free}$	0.228 , 0.270 0.230 , 0.272	Depositor DCC
$R_{free}$ test set	44837 reflections (4.90%)	DCC
Wilson B-factor (Å <sup>2</sup> )	87.1	Xtriage
Anisotropy	0.142	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.27 , 108.0	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.45$ , $\langle L^2 \rangle = 0.28$	Xtriage
Outliers	0 of 960332 reflections	Xtriage
$F_o, F_c$ correlation	0.92	EDS
Total number of atoms	296762	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	113.0	wwPDB-VP

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

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

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

## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, A3P, MG

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z  > 5$	RMSZ	# $ Z  > 5$
1	AA	0.39	0/36252	0.68	9/56580 (0.0%)
1	CA	0.37	1/36253 (0.0%)	0.70	17/56582 (0.0%)
2	AB	0.32	0/1936	0.59	0/2611
2	CB	0.32	0/1936	0.59	0/2611
3	AC	0.30	0/1637	0.55	0/2207
3	CC	0.31	0/1637	0.55	0/2207
4	AD	0.37	0/1722	0.85	6/2306 (0.3%)
4	CD	0.35	0/1722	0.85	6/2306 (0.3%)
5	AE	0.34	0/1163	0.62	0/1566
5	CE	0.34	0/1163	0.61	0/1566
6	AF	0.32	0/856	0.62	0/1154
6	CF	0.34	0/856	0.63	0/1154
7	AG	0.29	0/1276	0.52	0/1709
7	CG	0.29	0/1276	0.51	0/1709
8	AH	0.33	0/1136	0.60	0/1527
8	CH	0.31	0/1136	0.60	0/1527
9	AI	0.32	0/1027	0.57	0/1372
9	CI	0.32	0/1027	0.57	0/1372
10	AJ	0.33	0/808	0.55	0/1087
10	CJ	0.33	0/808	0.55	0/1087
11	AK	0.31	0/900	0.58	0/1213
11	CK	0.33	0/900	0.58	0/1213
12	AL	0.38	0/987	0.87	3/1322 (0.2%)
12	CL	0.37	0/987	0.89	3/1322 (0.2%)
13	AM	0.31	0/941	0.62	0/1258
13	CM	0.32	0/941	0.61	0/1258
14	AN	0.33	0/501	0.54	0/664
14	CN	0.33	0/501	0.54	0/664
15	AO	0.35	0/745	0.60	0/992
15	CO	0.34	0/745	0.60	0/992
16	AP	0.37	0/717	0.61	0/965
16	CP	0.35	0/717	0.59	0/965

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
17	AQ	0.37	0/837	0.62	0/1119
17	CQ	0.34	0/837	0.62	0/1119
18	AR	0.33	0/579	0.60	0/768
18	CR	0.33	0/579	0.59	0/768
19	AS	0.33	0/685	0.54	0/922
19	CS	0.34	0/685	0.54	0/922
20	AT	0.31	0/765	0.57	0/1007
20	CT	0.29	0/765	0.57	0/1007
21	AU	0.45	0/213	0.53	0/279
21	CU	0.45	0/213	0.54	0/279
22	AV	2.00	34/1832 (1.9%)	2.16	50/2855 (1.8%)
22	AW	0.41	0/1832	0.71	0/2855
22	CV	0.44	1/1832 (0.1%)	0.72	0/2855
22	CW	0.40	0/1832	0.71	0/2855
23	AX	2.66	24/383 (6.3%)	4.32	117/595 (19.7%)
24	AY	1.30	4/790 (0.5%)	1.44	14/1055 (1.3%)
24	CY	1.10	0/132	1.27	0/177
25	B0	0.39	0/671	0.64	0/892
25	D0	0.39	0/671	0.63	0/892
26	B1	0.47	0/741	0.75	0/986
26	D1	0.47	0/741	0.78	0/986
27	B2	0.36	0/600	0.63	0/793
27	D2	0.45	0/600	0.71	0/793
28	B3	0.42	0/473	0.68	0/636
28	D3	0.41	0/473	0.67	0/636
29	B4	0.39	0/444	0.65	0/602
29	D4	0.40	0/444	0.65	0/602
30	B5	0.48	0/473	0.76	0/639
30	D5	0.48	0/473	0.76	0/639
31	B6	0.41	0/387	0.64	0/517
31	D6	0.41	0/387	0.64	0/517
32	B7	0.52	0/427	0.68	0/563
32	D7	0.56	0/427	0.71	0/563
33	B8	0.56	0/516	0.94	1/681 (0.1%)
33	D8	0.53	0/516	0.93	1/681 (0.1%)
34	B9	0.33	0/302	0.62	0/397
34	D9	0.34	0/302	0.62	0/397
35	BA	0.60	55/67715 (0.1%)	0.77	106/105714 (0.1%)
35	DA	0.60	28/67714 (0.0%)	0.78	109/105710 (0.1%)
36	BB	0.38	0/2853	0.69	0/4451
36	DB	0.38	0/2853	0.69	0/4451
37	BC	0.33	0/1145	0.60	7/1556 (0.4%)
37	DC	0.33	0/1145	0.60	7/1556 (0.4%)



Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
38	BD	0.48	0/2155	0.78	1/2907 (0.0%)
38	DD	0.51	0/2155	0.80	1/2907 (0.0%)
39	BE	0.45	0/1597	0.74	0/2155
39	DE	0.44	0/1597	0.75	0/2155
40	BF	0.47	0/1659	0.75	1/2246 (0.0%)
40	DF	0.50	0/1659	0.75	0/2246
41	BG	0.33	0/1498	0.62	0/2013
41	DG	0.34	0/1498	0.64	0/2013
42	BH	0.61	1/1285 (0.1%)	0.85	3/1741 (0.2%)
42	DH	0.61	1/1285 (0.1%)	0.85	3/1741 (0.2%)
43	BI	0.38	0/1140	1.09	9/1543 (0.6%)
43	DI	0.37	0/1140	1.07	9/1543 (0.6%)
45	BN	0.41	0/1132	0.75	0/1527
45	DN	0.44	0/1132	0.76	0/1527
46	BO	0.44	0/943	0.71	0/1269
46	DO	0.41	0/943	0.69	0/1269
47	BP	0.57	0/1131	1.03	4/1504 (0.3%)
47	DP	0.56	0/1131	1.02	5/1504 (0.3%)
48	BQ	0.40	0/1143	0.63	0/1527
48	DQ	0.37	0/1143	0.63	0/1527
49	BR	0.40	0/974	0.70	1/1302 (0.1%)
49	DR	0.75	3/974 (0.3%)	0.95	6/1302 (0.5%)
50	BS	0.39	0/779	0.67	0/1038
50	DS	0.40	0/779	0.67	0/1038
51	BT	0.42	0/1156	0.74	1/1544 (0.1%)
51	DT	0.40	0/1156	0.72	1/1544 (0.1%)
52	BU	0.43	0/975	0.68	0/1297
52	DU	0.49	0/975	0.71	0/1297
53	BV	0.42	0/790	0.74	0/1057
53	DV	0.46	0/790	0.76	0/1057
54	BW	0.48	0/907	0.75	0/1216
54	DW	0.50	1/907 (0.1%)	0.76	0/1216
55	BX	0.48	0/740	0.71	1/995 (0.1%)
55	DX	0.54	0/740	0.73	1/995 (0.1%)
56	BY	0.48	0/789	0.79	1/1053 (0.1%)
56	DY	0.51	0/789	0.80	1/1053 (0.1%)
57	BZ	0.37	0/1514	0.67	0/2056
57	DZ	0.36	0/1514	0.64	0/2056
58	CX	3.13	24/195 (12.3%)	4.52	67/303 (22.1%)
All	All	0.53	177/318302 (0.1%)	0.78	572/475638 (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
1	AA	1	10
1	CA	1	9
22	AV	0	1
22	CV	0	1
24	AY	0	1
35	BA	20	57
35	DA	20	70
36	BB	0	1
36	DB	0	2
42	BH	0	1
42	DH	0	1
49	BR	0	1
49	DR	0	2
All	All	42	157

All (177) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	AV	53	G	N3-C4	-27.79	1.16	1.35
22	AV	53	G	C2-N3	-27.03	1.11	1.32
22	AV	52	G	N7-C5	-25.47	1.24	1.39
22	AV	52	G	N9-C4	-25.25	1.17	1.38
22	AV	52	G	C5-C6	-22.33	1.20	1.42
22	AV	53	G	C6-N1	-19.57	1.25	1.39
22	AV	53	G	P-O5'	-19.25	1.40	1.59
22	AV	53	G	C5-C4	-17.53	1.26	1.38
22	AV	53	G	N9-C4	-17.28	1.24	1.38
22	AV	53	G	O5'-C5'	-16.59	1.16	1.42
35	BA	777	A	N3-C4	-15.33	1.25	1.34
22	AV	52	G	C6-O6	-14.69	1.10	1.24
35	BA	777	A	N7-C5	-14.20	1.30	1.39
35	BA	777	A	C6-N1	-13.47	1.26	1.35
35	BA	775	G	C6-N1	-12.30	1.30	1.39
35	BA	777	A	P-O5'	-11.84	1.48	1.59
35	BA	775	G	P-O5'	-11.81	1.48	1.59
35	BA	775	G	N7-C5	-11.67	1.32	1.39
22	AV	52	G	C2-N3	-11.61	1.23	1.32
35	DA	1493	C	P-O5'	-11.44	1.48	1.59
22	AV	52	G	O5'-C5'	-11.39	1.24	1.42
23	AX	16	A	N7-C5	-11.23	1.32	1.39
22	AV	52	G	N3-C4	-11.20	1.27	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	AV	53	G	N1-C2	-11.02	1.28	1.37
22	AV	52	G	C2'-C1'	-10.87	1.41	1.53
23	AX	14	A	C3'-O3'	10.85	1.57	1.42
22	AV	52	G	C5-C4	-10.77	1.30	1.38
22	AV	53	G	C3'-C2'	-10.57	1.41	1.52
35	BA	776	G	P-O5'	-10.36	1.49	1.59
35	BA	777	A	C5-C4	-10.25	1.31	1.38
35	BA	774	A	O3'-P	-10.16	1.49	1.61
58	CX	16	A	C3'-O3'	-10.05	1.28	1.42
35	BA	777	A	O3'-P	-9.82	1.49	1.61
35	BA	775	G	N1-C2	-9.81	1.29	1.37
22	AV	52	G	P-O5'	-9.66	1.50	1.59
22	AV	53	G	C6-O6	-9.61	1.15	1.24
35	BA	777	A	N9-C4	-9.12	1.32	1.37
58	CX	14	A	O5'-C5'	9.08	1.58	1.44
35	DA	2319	G	C2'-C1'	-9.06	1.43	1.53
35	BA	777	A	N9-C8	-9.04	1.30	1.37
23	AX	15	A	N7-C5	-9.04	1.33	1.39
58	CX	16	A	C4'-C3'	-8.98	1.43	1.53
35	DA	1911	U	C2-N3	-8.89	1.31	1.37
35	DA	1911	U	N1-C2	-8.87	1.30	1.38
35	DA	1493	C	O3'-P	-8.74	1.50	1.61
35	DA	1911	U	C1'-N1	8.72	1.61	1.48
23	AX	16	A	C5-C4	-8.61	1.32	1.38
22	AV	52	G	C2-N2	-8.59	1.25	1.34
35	DA	2320	A	C2'-C1'	-8.48	1.44	1.53
35	BA	775	G	O3'-P	-8.44	1.51	1.61
35	BA	777	A	C6-N6	-8.43	1.27	1.33
35	BA	775	G	C8-N7	-8.36	1.25	1.30
22	AV	53	G	C4'-O4'	-8.35	1.34	1.45
35	DA	1492	G	O3'-P	-8.34	1.51	1.61
35	DA	1493	C	C4-C5	-8.31	1.36	1.43
35	DA	1543	C	C1'-N1	-8.27	1.35	1.46
35	BA	777	A	C5-C6	-8.25	1.33	1.41
22	AV	52	G	C8-N7	-8.15	1.26	1.30
35	DA	1911	U	C2-O2	-8.12	1.15	1.22
35	BA	775	G	P-OP1	-8.11	1.35	1.49
35	BA	777	A	C3'-O3'	-8.06	1.30	1.42
35	BA	776	G	C1'-N9	-8.06	1.35	1.46
22	AV	52	G	C1'-N9	-8.03	1.35	1.46
35	DA	1493	C	N1-C6	-7.98	1.32	1.37
35	BA	776	G	C2'-C1'	-7.95	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	AX	19	U	P-O5'	-7.87	1.51	1.59
35	BA	775	G	N9-C8	-7.84	1.32	1.37
35	BA	775	G	C5-C4	-7.81	1.32	1.38
35	BA	776	G	P-OP1	-7.79	1.35	1.49
23	AX	16	A	C3'-O3'	-7.75	1.31	1.42
35	BA	777	A	C2'-O2'	-7.65	1.31	1.41
24	AY	43	TRP	CB-CG	-7.64	1.36	1.50
22	AV	53	G	C8-N7	-7.58	1.26	1.30
35	BA	777	A	O5'-C5'	-7.54	1.30	1.42
35	BA	775	G	C6-O6	-7.49	1.17	1.24
35	DA	2319	G	P-O5'	-7.45	1.52	1.59
35	DA	1493	C	P-OP1	-7.44	1.36	1.49
35	BA	776	G	O3'-P	-7.41	1.52	1.61
35	BA	652	C	C3'-O3'	7.37	1.52	1.42
35	BA	777	A	C2'-C1'	-7.34	1.45	1.53
23	AX	13	A	N9-C4	-7.29	1.33	1.37
35	BA	775	G	O4'-C1'	-7.22	1.32	1.41
58	CX	13	A	P-O5'	7.21	1.67	1.59
58	CX	14	A	N3-C4	-7.21	1.30	1.34
22	AV	53	G	O4'-C1'	-7.20	1.32	1.41
22	AV	53	G	C2-N2	-7.19	1.27	1.34
58	CX	14	A	P-O5'	7.10	1.66	1.59
58	CX	16	A	C2'-C1'	-7.10	1.45	1.53
35	BA	777	A	N1-C2	-7.09	1.27	1.34
23	AX	15	A	O5'-C5'	-7.08	1.31	1.42
35	DA	1911	U	N3-C4	-7.03	1.32	1.38
35	DA	1493	C	C2-N3	-7.03	1.30	1.35
35	BA	777	A	P-OP1	-6.95	1.37	1.49
35	BA	775	G	C5-C6	-6.90	1.35	1.42
35	DA	1493	C	P-OP2	-6.86	1.37	1.49
35	BA	775	G	C4'-O4'	-6.83	1.36	1.45
35	BA	775	G	P-OP2	-6.81	1.37	1.49
58	CX	16	A	C5-C6	-6.80	1.34	1.41
23	AX	11	U	N1-C2	-6.79	1.32	1.38
49	DR	5	LYS	CD-CE	6.78	1.68	1.51
22	AV	53	G	P-OP1	-6.74	1.37	1.49
23	AX	16	A	C8-N7	-6.69	1.26	1.31
23	AX	11	U	O5'-C5'	6.69	1.55	1.44
35	BA	656	G	O5'-C5'	6.68	1.55	1.44
58	CX	13	A	C3'-C2'	6.63	1.60	1.52
58	CX	14	A	N9-C4	-6.61	1.33	1.37
35	BA	775	G	C2-N2	-6.57	1.27	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	776	G	P-OP2	-6.57	1.37	1.49
23	AX	16	A	C6-N1	-6.40	1.31	1.35
58	CX	19	G	C8-N7	-6.37	1.27	1.30
58	CX	16	A	C2'-O2'	-6.35	1.33	1.41
49	DR	12	ARG	CG-CD	-6.34	1.36	1.51
23	AX	14	A	N7-C5	-6.34	1.35	1.39
22	AV	53	G	C2'-C1'	-6.33	1.46	1.53
23	AX	23	A	C4'-C3'	6.33	1.60	1.53
58	CX	16	A	N7-C5	-6.33	1.35	1.39
35	DA	1493	C	C2-O2	-6.28	1.18	1.24
23	AX	13	A	N7-C5	-6.19	1.35	1.39
35	DA	1493	C	N3-C4	-6.19	1.29	1.33
23	AX	16	A	P-OP2	-6.16	1.38	1.49
58	CX	13	A	C1'-N9	-6.15	1.38	1.46
35	BA	777	A	P-OP2	-6.15	1.38	1.49
24	AY	45	GLY	CA-C	-6.07	1.42	1.51
23	AX	23	A	C3'-O3'	6.06	1.50	1.42
22	AV	52	G	O4'-C1'	-6.04	1.33	1.41
35	BA	776	G	O4'-C1'	-6.00	1.33	1.41
58	CX	17	U	O4'-C1'	-5.99	1.33	1.41
23	AX	16	A	P-OP1	-5.94	1.38	1.49
58	CX	15	A	C2'-C1'	-5.91	1.46	1.53
49	DR	12	ARG	CB-CG	-5.89	1.36	1.52
58	CX	16	A	C4'-O4'	-5.88	1.38	1.45
35	BA	652	C	O3'-P	5.85	1.68	1.61
35	DA	1493	C	O5'-C5'	-5.84	1.33	1.42
23	AX	16	A	C4'-O4'	-5.84	1.38	1.45
35	BA	652	C	O5'-C5'	5.83	1.53	1.44
24	AY	95	TYR	CD2-CE2	-5.69	1.30	1.39
58	CX	16	A	C3'-C2'	-5.69	1.46	1.52
42	BH	9	ILE	C-O	-5.68	1.12	1.23
22	CV	53	G	C1'-N9	-5.68	1.38	1.46
42	DH	9	ILE	C-O	-5.67	1.12	1.23
35	DA	2319	G	C1'-N9	-5.66	1.39	1.46
58	CX	18	G	N1-C2	5.61	1.42	1.37
23	AX	12	A	N9-C4	-5.58	1.34	1.37
24	AY	39	LYS	C-O	-5.58	1.12	1.23
23	AX	24	A	N9-C4	-5.56	1.34	1.37
23	AX	22	A	N9-C8	-5.55	1.33	1.37
22	AV	53	G	C5-C6	-5.54	1.36	1.42
58	CX	15	A	N9-C4	-5.54	1.34	1.37
35	DA	2320	A	C5-C6	-5.54	1.36	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	775	G	C2-N3	-5.52	1.28	1.32
35	BA	777	A	C2-N3	-5.47	1.28	1.33
35	DA	2319	G	C8-N7	-5.39	1.27	1.30
58	CX	16	A	O4'-C1'	-5.38	1.34	1.41
58	CX	15	A	C5'-C4'	5.38	1.57	1.51
35	DA	2320	A	P-OP2	-5.37	1.39	1.49
35	DA	2319	G	N3-C4	-5.34	1.31	1.35
1	CA	401	C	C4'-C3'	5.25	1.58	1.53
35	BA	777	A	C1'-N9	-5.25	1.39	1.46
35	DA	2319	G	C5-C4	-5.25	1.34	1.38
35	BA	1490	A	C5-C4	-5.23	1.35	1.38
22	AV	52	G	C3'-O3'	5.23	1.49	1.42
58	CX	18	G	C5-C6	-5.23	1.37	1.42
35	DA	1493	C	N1-C2	-5.20	1.34	1.40
23	AX	16	A	C3'-C2'	-5.20	1.47	1.52
58	CX	13	A	N9-C8	-5.20	1.33	1.37
22	AV	52	G	P-OP1	-5.19	1.40	1.49
35	BA	1490	A	C5-C6	-5.19	1.36	1.41
35	BA	652	C	C5'-C4'	5.16	1.57	1.51
35	BA	776	G	C4'-C3'	-5.14	1.47	1.52
35	BA	656	G	C5'-C4'	5.13	1.57	1.51
54	DW	9	TYR	CE1-CZ	5.11	1.45	1.38
35	DA	2320	A	C6-N6	-5.09	1.29	1.33
23	AX	10	G	C3'-O3'	5.07	1.49	1.42
35	BA	776	G	O5'-C5'	-5.05	1.34	1.42
35	BA	777	A	C3'-C2'	-5.05	1.47	1.52
22	AV	53	G	C2'-O2'	-5.00	1.35	1.41
35	BA	775	G	O5'-C5'	-5.00	1.34	1.42

All (572) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	AV	52	G	C4-C5-N7	30.84	123.13	110.80
22	AV	53	G	N3-C2-N2	-29.82	99.03	119.90
22	AV	52	G	C5-N7-C8	-28.61	89.99	104.30
22	AV	53	G	C5'-C4'-O4'	-26.14	77.74	109.10
22	AV	53	G	N3-C4-N9	-25.89	110.46	126.00
35	DA	1911	U	O4'-C1'-N1	24.97	128.18	108.20
23	AX	24	A	O4'-C1'-N9	-22.40	90.28	108.20
22	AV	53	G	N9-C4-C5	22.19	114.27	105.40
22	AV	51	C	O3'-P-O5'	-22.11	61.99	104.00
23	AX	11	U	O4'-C4'-C3'	-20.67	83.33	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	775	G	O4'-C1'-N9	-20.45	91.84	108.20
22	AV	52	G	N1-C6-O6	19.99	131.90	119.90
23	AX	16	A	O4'-C1'-N9	-19.90	92.28	108.20
22	AV	52	G	N3-C4-C5	19.51	138.35	128.60
22	AV	52	G	C6-C5-N7	-19.35	118.79	130.40
22	AV	52	G	C5-C6-O6	-18.52	117.49	128.60
35	DA	1911	U	C5-C4-O4	17.89	136.63	125.90
23	AX	15	A	C5'-C4'-O4'	-17.74	87.81	109.10
35	BA	776	G	O5'-P-OP1	-17.74	89.42	110.70
22	AV	53	G	O5'-P-OP1	-17.34	89.89	110.70
23	AX	11	U	C5'-C4'-O4'	-16.75	89.00	109.10
22	AV	53	G	C5-C6-O6	16.65	138.59	128.60
22	AV	52	G	N7-C8-N9	16.21	121.21	113.10
23	AX	19	U	O4'-C1'-N1	-16.04	95.37	108.20
58	CX	17	U	P-O3'-C3'	15.68	138.51	119.70
35	DA	1911	U	C6-N1-C2	-15.62	111.62	121.00
22	AV	53	G	C1'-O4'-C4'	-15.11	97.81	109.90
23	AX	19	U	O4'-C4'-C3'	-14.89	89.11	104.00
22	AV	51	C	P-O3'-C3'	-14.86	101.87	119.70
58	CX	16	A	O4'-C4'-C3'	-14.79	89.21	104.00
22	AV	52	G	N3-C4-N9	-14.73	117.16	126.00
22	AV	52	G	C2-N3-C4	-14.67	104.56	111.90
23	AX	22	A	O4'-C1'-N9	-14.50	96.60	108.20
58	CX	12	A	C3'-C2'-C1'	-14.43	89.96	101.50
22	AV	53	G	N1-C2-N2	14.34	129.11	116.20
4	CD	50	ARG	NE-CZ-NH2	-14.25	113.17	120.30
4	AD	50	ARG	NE-CZ-NH1	-14.19	113.21	120.30
4	AD	47	ARG	NE-CZ-NH1	-14.18	113.21	120.30
58	CX	17	U	C3'-C2'-C1'	14.12	112.80	101.50
43	BI	113	ARG	NE-CZ-NH1	-13.88	113.36	120.30
43	DI	113	ARG	NE-CZ-NH2	-13.88	113.36	120.30
4	CD	50	ARG	NE-CZ-NH1	13.87	127.24	120.30
4	CD	47	ARG	NE-CZ-NH2	-13.77	113.41	120.30
58	CX	13	A	C5'-C4'-O4'	13.65	125.48	109.10
4	AD	50	ARG	NE-CZ-NH2	13.64	127.12	120.30
58	CX	17	U	C5'-C4'-O4'	-13.56	92.82	109.10
4	CD	47	ARG	NE-CZ-NH1	13.53	127.06	120.30
43	BI	113	ARG	NE-CZ-NH2	13.51	127.06	120.30
22	AV	52	G	O5'-P-OP1	13.41	126.79	110.70
4	AD	47	ARG	NE-CZ-NH2	13.39	127.00	120.30
22	AV	53	G	C4-C5-N7	-13.34	105.46	110.80
43	DI	113	ARG	NE-CZ-NH1	13.30	126.95	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	BI	61	ARG	NE-CZ-NH1	13.29	126.94	120.30
23	AX	23	A	P-O3'-C3'	13.16	135.49	119.70
12	CL	38	ARG	NE-CZ-NH1	-13.16	113.72	120.30
22	AV	53	G	N1-C2-N3	13.09	131.75	123.90
12	CL	38	ARG	NE-CZ-NH2	13.06	126.83	120.30
22	AV	52	G	O3'-P-O5'	-13.02	79.26	104.00
22	AV	52	G	C8-N9-C4	-13.00	101.20	106.40
22	AV	53	G	N9-C1'-C2'	12.98	130.87	114.00
43	BI	61	ARG	NE-CZ-NH2	-12.88	113.86	120.30
22	AV	53	G	N3-C4-C5	12.74	134.97	128.60
35	DA	1543	C	N1-C2-O2	12.66	126.50	118.90
43	DI	61	ARG	NE-CZ-NH1	-12.59	114.00	120.30
22	AV	52	G	O5'-P-OP2	12.53	125.74	110.70
12	AL	38	ARG	NE-CZ-NH1	12.42	126.51	120.30
43	BI	52	ARG	NE-CZ-NH2	-12.41	114.09	120.30
35	DA	2319	G	O5'-P-OP2	-12.40	94.54	105.70
43	BI	52	ARG	NE-CZ-NH1	12.37	126.48	120.30
22	AV	52	G	C8-N9-C1'	12.36	143.06	127.00
22	AV	52	G	OP1-P-O3'	12.34	132.34	105.20
58	CX	18	G	O4'-C4'-C3'	-12.28	91.72	104.00
12	AL	38	ARG	NE-CZ-NH2	-12.26	114.17	120.30
43	DI	52	ARG	NE-CZ-NH1	-12.26	114.17	120.30
35	BA	775	G	O4'-C1'-C2'	-12.24	93.56	105.80
22	AV	52	G	C5'-C4'-O4'	-12.15	94.52	109.10
35	DA	1911	U	N1-C2-N3	12.14	122.19	114.90
43	DI	52	ARG	NE-CZ-NH2	12.10	126.35	120.30
58	CX	18	G	O4'-C1'-N9	-12.07	98.55	108.20
35	BA	775	G	C8-N9-C4	-11.91	101.64	106.40
23	AX	24	A	O5'-P-OP2	-11.89	95.00	105.70
43	DI	61	ARG	NE-CZ-NH2	11.66	126.13	120.30
23	AX	11	U	C5'-C4'-C3'	11.62	134.60	116.00
22	AV	53	G	C6-C5-N7	11.59	137.36	130.40
58	CX	16	A	C1'-O4'-C4'	-11.59	100.63	109.90
1	CA	401	C	C3'-C2'-C1'	-11.56	92.25	101.50
22	AV	53	G	C2-N3-C4	-11.54	106.13	111.90
23	AX	11	U	C4'-C3'-C2'	-11.47	91.13	102.60
35	BA	775	G	N1-C6-O6	-11.38	113.07	119.90
35	DA	2320	A	O4'-C1'-C2'	-11.35	94.45	105.80
35	DA	1543	C	N3-C2-O2	-11.34	113.97	121.90
22	AV	53	G	C3'-C2'-C1'	-11.29	92.47	101.50
23	AX	19	U	N1-C1'-C2'	11.27	128.65	114.00
35	BA	776	G	O4'-C1'-N9	-11.12	99.30	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2319	G	C3'-C2'-C1'	-11.11	92.61	101.50
23	AX	25	A	O5'-P-OP2	-11.10	95.71	105.70
35	BA	1992	G	C2'-C3'-O3'	10.99	133.67	109.50
23	AX	25	A	N9-C1'-C2'	10.98	128.28	114.00
23	AX	25	A	O4'-C1'-N9	-10.86	99.51	108.20
35	DA	1543	C	N3-C4-C5	-10.81	117.57	121.90
23	AX	14	A	O5'-P-OP2	-10.81	95.97	105.70
58	CX	18	G	C1'-O4'-C4'	-10.75	101.30	109.90
23	AX	12	A	P-O5'-C5'	10.71	138.04	120.90
22	AV	53	G	C5-C6-N1	-10.71	106.14	111.50
35	BA	777	A	N9-C4-C5	10.68	110.07	105.80
58	CX	13	A	O4'-C1'-N9	-10.63	99.70	108.20
23	AX	15	A	C8-N9-C4	-10.59	101.56	105.80
35	DA	2319	G	O5'-P-OP1	-10.55	96.21	105.70
35	DA	1911	U	C6-N1-C1'	10.52	135.92	121.20
35	BA	1490	A	O4'-C1'-N9	10.51	116.61	108.20
35	DA	1992	G	C2'-C3'-O3'	10.49	132.57	109.50
49	DR	5	LYS	CD-CE-NZ	10.42	135.66	111.70
35	BA	777	A	C8-N9-C4	-10.34	101.66	105.80
23	AX	11	U	C1'-O4'-C4'	-10.31	101.65	109.90
35	BA	669	G	N9-C1'-C2'	10.29	127.37	114.00
35	DA	1493	C	O5'-P-OP2	-10.23	96.49	105.70
35	DA	1820	U	C2'-C3'-O3'	10.11	131.74	109.50
35	DA	2319	G	C1'-C2'-O2'	-10.10	80.30	110.60
35	BA	587	C	C2'-C3'-O3'	10.03	131.57	109.50
35	DA	669	G	N9-C1'-C2'	10.03	127.04	114.00
35	BA	1820	U	C2'-C3'-O3'	10.02	131.54	109.50
35	DA	2320	A	O4'-C4'-C3'	-9.78	94.22	104.00
49	DR	10	LEU	CA-CB-CG	9.77	137.78	115.30
23	AX	25	A	C3'-C2'-C1'	-9.75	93.70	101.50
35	BA	1962	C	N1-C1'-C2'	9.73	126.65	114.00
58	CX	18	G	P-O5'-C5'	9.71	136.43	120.90
35	DA	2320	A	C1'-O4'-C4'	-9.64	102.19	109.90
35	BA	775	G	N7-C8-N9	9.60	117.90	113.10
58	CX	12	A	O4'-C1'-N9	9.59	115.87	108.20
23	AX	24	A	O5'-P-OP1	9.58	122.20	110.70
1	AA	575	G	C2'-C3'-O3'	9.56	130.54	109.50
23	AX	25	A	O4'-C1'-C2'	-9.54	96.25	105.80
1	CA	401	C	C5'-C4'-O4'	-9.54	97.65	109.10
23	AX	11	U	O4'-C1'-C2'	-9.52	96.28	105.80
35	DA	1543	C	C3'-C2'-C1'	-9.46	93.93	101.50
58	CX	17	U	C4'-C3'-C2'	-9.44	93.16	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	CX	18	G	C5'-C4'-C3'	9.40	131.04	116.00
23	AX	15	A	O4'-C1'-N9	9.39	115.72	108.20
35	DA	1962	C	N1-C1'-C2'	9.39	126.21	114.00
23	AX	14	A	C2'-C3'-O3'	9.36	130.10	109.50
23	AX	20	U	N1-C2-O2	9.36	129.35	122.80
35	BA	775	G	C5'-C4'-O4'	-9.35	97.88	109.10
1	CA	575	G	C2'-C3'-O3'	9.34	130.05	109.50
58	CX	17	U	O5'-P-OP2	9.33	121.89	110.70
35	DA	1799	G	C2'-C3'-O3'	9.30	129.97	109.50
35	DA	2320	A	N9-C4-C5	-9.29	102.08	105.80
35	DA	587	C	C2'-C3'-O3'	9.27	129.90	109.50
23	AX	19	U	N3-C4-C5	9.27	120.16	114.60
22	AV	52	G	O4'-C1'-N9	9.20	115.56	108.20
23	AX	20	U	O4'-C1'-C2'	-9.18	96.62	105.80
22	AV	53	G	C8-N9-C1'	9.16	138.91	127.00
35	DA	1911	U	N3-C4-C5	-9.15	109.11	114.60
47	BP	53	GLY	N-CA-C	-9.13	90.28	113.10
35	DA	474	G	C2'-C3'-O3'	9.12	129.57	109.50
35	DA	1911	U	C5-C6-N1	9.11	127.25	122.70
58	CX	17	U	O5'-P-OP1	-9.10	97.51	105.70
35	BA	1799	G	C2'-C3'-O3'	9.08	129.47	109.50
47	DP	53	GLY	N-CA-C	-9.03	90.54	113.10
58	CX	17	U	C5'-C4'-C3'	9.01	130.42	116.00
1	CA	401	C	C5'-C4'-C3'	8.98	130.37	116.00
58	CX	16	A	C4'-C3'-C2'	-8.94	93.66	102.60
23	AX	20	U	N3-C2-O2	-8.93	115.95	122.20
35	BA	1694	C	C2'-C3'-O3'	8.92	129.13	109.50
22	AV	52	G	C4-N9-C1'	-8.91	114.92	126.50
35	BA	777	A	N1-C6-N6	-8.85	113.29	118.60
35	DA	1786	A	N9-C1'-C2'	8.82	125.47	114.00
58	CX	18	G	C5'-C4'-O4'	-8.82	98.52	109.10
35	DA	2319	G	C8-N9-C4	8.74	109.89	106.40
22	AV	52	G	C1'-C2'-O2'	-8.70	84.50	110.60
42	BH	9	ILE	CB-CA-C	-8.69	94.22	111.60
35	BA	1819	A	C2'-C3'-O3'	8.69	128.61	109.50
35	DA	2320	A	C8-N9-C4	8.68	109.27	105.80
22	AV	52	G	OP1-P-OP2	-8.66	106.61	119.60
42	DH	9	ILE	CB-CA-C	-8.66	94.28	111.60
35	DA	1911	U	C3'-C2'-C1'	8.65	108.42	101.50
35	BA	1786	A	N9-C1'-C2'	8.61	125.19	114.00
23	AX	16	A	C3'-C2'-C1'	8.60	108.38	101.50
35	DA	1911	U	N3-C2-O2	-8.55	116.21	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	AX	15	A	C4-C5-C6	8.48	121.24	117.00
58	CX	18	G	C5-C6-O6	-8.47	123.52	128.60
35	DA	1543	C	O4'-C1'-N1	-8.47	101.43	108.20
35	DA	752	A	C2'-C3'-O3'	8.44	128.08	109.50
23	AX	19	U	P-O3'-C3'	8.43	129.81	119.70
23	AX	16	A	C5'-C4'-O4'	-8.42	99.00	109.10
35	BA	474	G	C2'-C3'-O3'	8.38	127.95	109.50
35	DA	1694	C	C2'-C3'-O3'	8.37	127.92	109.50
22	AV	53	G	P-O5'-C5'	-8.36	107.52	120.90
35	BA	752	A	C2'-C3'-O3'	8.33	127.83	109.50
35	BA	1490	A	C1'-O4'-C4'	-8.31	103.25	109.90
58	CX	16	A	O4'-C1'-N9	8.31	114.85	108.20
58	CX	17	U	O5'-C5'-C4'	8.26	127.40	111.70
22	AV	53	G	C4'-C3'-C2'	-8.25	94.35	102.60
23	AX	20	U	C2-N1-C1'	8.24	127.59	117.70
1	CA	401	C	N1-C1'-C2'	-8.20	102.98	112.00
23	AX	16	A	C1'-O4'-C4'	8.19	116.45	109.90
23	AX	23	A	C4'-C3'-O3'	8.18	129.35	113.00
35	DA	1022	G	C2'-C3'-O3'	8.15	127.43	109.50
58	CX	16	A	N1-C6-N6	8.14	123.48	118.60
23	AX	16	A	C5-C6-N1	8.10	121.75	117.70
35	DA	1819	A	C2'-C3'-O3'	8.08	127.27	109.50
35	BA	603	A	C2'-C3'-O3'	8.03	127.16	109.50
35	BA	777	A	C3'-C2'-C1'	8.03	107.92	101.50
35	DA	2319	G	O4'-C1'-N9	-8.01	101.79	108.20
58	CX	12	A	C1'-O4'-C4'	-8.00	103.50	109.90
35	DA	1653	G	C2'-C3'-O3'	7.96	127.01	109.50
58	CX	13	A	N1-C2-N3	-7.95	125.33	129.30
35	BA	775	G	O4'-C4'-C3'	-7.93	96.07	104.00
35	DA	2796	U	N1-C1'-C2'	7.93	124.31	114.00
58	CX	13	A	O4'-C4'-C3'	-7.92	96.08	104.00
35	DA	49	A	C2'-C3'-O3'	7.92	126.92	109.50
23	AX	13	A	N1-C2-N3	-7.90	125.35	129.30
58	CX	16	A	N1-C2-N3	-7.88	125.36	129.30
22	AV	53	G	N1-C6-O6	-7.87	115.18	119.90
35	BA	49	A	C2'-C3'-O3'	7.87	126.82	109.50
22	AV	53	G	C4-N9-C1'	-7.86	116.28	126.50
35	BA	100	G	N9-C1'-C2'	7.84	124.19	114.00
35	BA	777	A	C4'-C3'-C2'	-7.82	94.78	102.60
35	DA	100	G	N9-C1'-C2'	7.80	124.15	114.00
58	CX	19	G	N3-C2-N2	7.77	125.34	119.90
35	BA	2796	U	N1-C1'-C2'	7.77	124.10	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	BP	52	GLU	N-CA-C	7.77	131.98	111.00
47	DP	52	GLU	N-CA-C	7.73	131.88	111.00
35	DA	603	A	C2'-C3'-O3'	7.72	126.49	109.50
58	CX	13	A	C2'-C3'-O3'	7.72	126.48	109.50
35	BA	1022	G	C2'-C3'-O3'	7.70	126.44	109.50
35	BA	1653	G	C2'-C3'-O3'	7.69	126.42	109.50
22	AV	52	G	C4'-C3'-O3'	7.64	128.28	113.00
58	CX	14	A	P-O5'-C5'	7.64	133.12	120.90
23	AX	19	U	C5-C4-O4	-7.62	121.33	125.90
23	AX	11	U	P-O5'-C5'	7.62	133.09	120.90
35	BA	774	A	P-O3'-C3'	-7.61	110.57	119.70
23	AX	13	A	C6-N1-C2	7.60	123.16	118.60
35	BA	331	A	C2'-C3'-O3'	7.59	126.20	109.50
35	DA	331	A	C2'-C3'-O3'	7.57	126.16	109.50
23	AX	24	A	C5'-C4'-O4'	7.56	118.17	109.10
1	AA	1498	U	C2'-C3'-O3'	7.48	125.96	109.50
35	DA	1911	U	C5'-C4'-O4'	-7.47	100.14	109.10
58	CX	13	A	N9-C1'-C2'	-7.46	103.79	112.00
23	AX	19	U	N1-C2-O2	7.46	128.02	122.80
23	AX	25	A	C4-C5-C6	-7.45	113.27	117.00
4	CD	50	ARG	CD-NE-CZ	7.44	134.02	123.60
58	CX	14	A	O4'-C1'-N9	7.39	114.11	108.20
35	DA	1484	G	C2'-C3'-O3'	7.39	125.76	109.50
35	BA	1694	C	N1-C1'-C2'	7.38	123.60	114.00
35	DA	1300	U	N1-C1'-C2'	7.37	123.58	114.00
23	AX	13	A	C5'-C4'-O4'	7.35	117.92	109.10
35	DA	1911	U	N3-C4-O4	-7.34	114.26	119.40
49	DR	10	LEU	CB-CG-CD1	7.34	123.48	111.00
24	AY	61	LEU	CA-CB-CG	7.32	132.14	115.30
35	BA	776	G	O4'-C4'-C3'	-7.32	96.68	104.00
35	DA	1493	C	C6-N1-C2	-7.32	117.37	120.30
23	AX	14	A	N1-C6-N6	7.30	122.98	118.60
35	BA	1490	A	N9-C1'-C2'	-7.29	103.98	112.00
58	CX	15	A	C4'-C3'-C2'	7.28	109.88	102.60
35	BA	1484	G	C2'-C3'-O3'	7.26	125.47	109.50
23	AX	18	G	O3'-P-O5'	7.25	117.77	104.00
42	BH	7	LEU	CA-CB-CG	-7.25	98.63	115.30
24	AY	28	ILE	C-N-CD	-7.24	104.67	120.60
42	DH	7	LEU	CA-CB-CG	-7.24	98.66	115.30
35	DA	2360	A	N9-C1'-C2'	-7.23	104.04	112.00
35	DA	1694	C	N1-C1'-C2'	7.22	123.38	114.00
23	AX	25	A	C1'-O4'-C4'	-7.20	104.14	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	777	A	N9-C1'-C2'	-7.20	104.08	112.00
35	BA	2360	A	N9-C1'-C2'	-7.20	104.08	112.00
35	BA	776	G	O3'-P-O5'	-7.19	90.35	104.00
43	BI	113	ARG	CD-NE-CZ	7.16	133.62	123.60
35	BA	775	G	OP1-P-O3'	-7.15	89.46	105.20
23	AX	19	U	N1-C2-N3	-7.14	110.61	114.90
4	CD	47	ARG	CD-NE-CZ	7.12	133.57	123.60
23	AX	14	A	N7-C8-N9	7.12	117.36	113.80
1	CA	401	C	OP1-P-OP2	-7.12	108.93	119.60
58	CX	15	A	O4'-C1'-C2'	7.10	113.99	107.60
58	CX	16	A	O5'-P-OP1	-7.07	99.33	105.70
35	BA	774	A	OP2-P-O3'	-7.05	89.70	105.20
35	BA	387	U	C2'-C3'-O3'	7.03	124.96	109.50
35	BA	775	G	C5-C6-O6	7.00	132.80	128.60
35	BA	776	G	C1'-C2'-O2'	-7.00	89.61	110.60
35	BA	776	G	C1'-O4'-C4'	6.98	115.49	109.90
58	CX	18	G	C4-C5-N7	6.98	113.59	110.80
23	AX	12	A	C5'-C4'-O4'	-6.96	100.74	109.10
1	CA	400	C	OP2-P-O3'	6.96	120.51	105.20
58	CX	19	G	N9-C4-C5	-6.95	102.62	105.40
35	DA	1543	C	O3'-P-O5'	-6.94	90.82	104.00
4	AD	50	ARG	CD-NE-CZ	6.93	133.31	123.60
43	DI	113	ARG	CD-NE-CZ	6.93	133.30	123.60
35	DA	1911	U	C2-N3-C4	6.92	131.15	127.00
58	CX	16	A	C5'-C4'-C3'	-6.87	105.01	116.00
58	CX	17	U	C1'-C2'-O2'	-6.86	90.03	110.60
35	BA	1300	U	N1-C1'-C2'	6.86	122.91	114.00
58	CX	15	A	N9-C1'-C2'	-6.86	104.46	112.00
23	AX	21	C	C5-C4-N4	-6.84	115.41	120.20
35	DA	387	U	C2'-C3'-O3'	6.84	124.64	113.70
35	BA	2286	A	N9-C1'-C2'	6.84	122.89	114.00
35	DA	2320	A	C5-C6-N6	-6.83	118.23	123.70
23	AX	23	A	C5'-C4'-O4'	-6.83	100.90	109.10
24	AY	47	LYS	N-CA-C	-6.83	92.56	111.00
58	CX	18	G	C5-N7-C8	-6.83	100.89	104.30
35	BA	1490	A	C5'-C4'-O4'	-6.81	100.93	109.10
1	CA	401	C	O4'-C1'-N1	6.80	113.64	108.20
58	CX	18	G	O5'-P-OP1	-6.80	99.58	105.70
58	CX	15	A	C2-N3-C4	-6.80	107.20	110.60
35	BA	775	G	N9-C1'-C2'	6.79	122.83	114.00
23	AX	11	U	C4'-C3'-O3'	6.77	126.55	113.00
35	BA	1493	C	N1-C1'-C2'	6.76	122.78	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	AX	10	G	C8-N9-C4	-6.75	103.70	106.40
23	AX	20	U	O4'-C1'-N1	6.74	113.59	108.20
24	AY	34	GLN	N-CA-C	-6.74	92.81	111.00
35	BA	2225	A	C2'-C3'-O3'	6.74	124.48	113.70
43	BI	61	ARG	CD-NE-CZ	6.74	133.03	123.60
4	AD	47	ARG	CD-NE-CZ	6.73	133.03	123.60
23	AX	19	U	C4-C5-C6	-6.72	115.67	119.70
12	AL	38	ARG	CD-NE-CZ	6.69	132.97	123.60
23	AX	10	G	C3'-C2'-C1'	6.68	106.84	101.50
35	DA	2320	A	N1-C6-N6	6.67	122.61	118.60
35	DA	2286	A	N9-C1'-C2'	6.67	122.67	114.00
35	DA	2320	A	N1-C2-N3	-6.66	125.97	129.30
23	AX	15	A	N7-C8-N9	6.64	117.12	113.80
24	AY	61	LEU	CB-CG-CD2	-6.64	99.71	111.00
23	AX	25	A	N1-C2-N3	-6.63	125.99	129.30
35	DA	1781	C	N1-C1'-C2'	6.62	122.60	114.00
23	AX	13	A	O4'-C4'-C3'	-6.61	97.39	104.00
35	DA	2225	A	C2'-C3'-O3'	6.59	124.24	113.70
23	AX	24	A	P-O5'-C5'	6.57	131.42	120.90
58	CX	18	G	N3-C4-C5	6.57	131.88	128.60
58	CX	16	A	C4-C5-N7	6.55	113.98	110.70
24	AY	83	LEU	CA-CB-CG	-6.55	100.24	115.30
23	AX	14	A	C5-N7-C8	-6.54	100.63	103.90
58	CX	16	A	C5-C6-N6	-6.54	118.47	123.70
56	DY	7	VAL	N-CA-C	6.52	128.62	111.00
23	AX	14	A	P-O3'-C3'	-6.49	111.92	119.70
23	AX	12	A	C8-N9-C4	6.46	108.39	105.80
35	BA	1616	A	N9-C1'-C2'	6.46	122.40	114.00
35	DA	2319	G	C8-N9-C1'	-6.46	118.60	127.00
35	BA	1379	A	N9-C1'-C2'	6.45	122.39	114.00
22	AV	52	G	C4'-C3'-C2'	-6.45	96.15	102.60
43	DI	61	ARG	CD-NE-CZ	6.43	132.61	123.60
35	DA	2320	A	O3'-P-O5'	-6.43	91.79	104.00
23	AX	14	A	C8-N9-C4	-6.41	103.24	105.80
24	AY	55	ASP	CB-CG-OD1	-6.39	112.55	118.30
1	CA	400	C	O3'-P-O5'	-6.39	91.86	104.00
1	AA	328	C	C2'-C3'-O3'	6.38	123.90	113.70
23	AX	19	U	C6-N1-C2	6.37	124.82	121.00
56	BY	7	VAL	N-CA-C	6.37	128.19	111.00
23	AX	23	A	C2'-C3'-O3'	-6.36	95.51	109.50
35	BA	775	G	O3'-P-O5'	6.36	116.08	104.00
35	BA	1781	C	N1-C1'-C2'	6.35	122.26	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	AX	14	A	C6-C5-N7	-6.34	127.86	132.30
35	BA	1490	A	C4-C5-C6	-6.33	113.83	117.00
35	BA	1427	A	N9-C1'-C2'	6.30	122.19	114.00
35	DA	1616	A	N9-C1'-C2'	6.29	122.18	114.00
49	DR	12	ARG	CG-CD-NE	-6.29	98.59	111.80
35	DA	2319	G	N7-C8-N9	-6.28	109.96	113.10
23	AX	14	A	C4'-C3'-C2'	-6.28	96.32	102.60
35	DA	2796	U	O4'-C1'-N1	6.28	113.22	108.20
58	CX	12	A	P-O3'-C3'	6.27	127.23	119.70
35	DA	2319	G	N9-C1'-C2'	-6.25	105.13	112.00
43	DI	52	ARG	CD-NE-CZ	6.23	132.32	123.60
23	AX	23	A	C1'-O4'-C4'	-6.22	104.92	109.90
23	AX	20	U	C6-N1-C1'	-6.17	112.55	121.20
23	AX	23	A	C5'-C4'-C3'	6.17	125.87	116.00
35	DA	1379	A	N9-C1'-C2'	6.17	122.02	114.00
23	AX	10	G	N7-C8-N9	6.17	116.18	113.10
35	DA	1493	C	C5-C6-N1	6.16	124.08	121.00
58	CX	18	G	N1-C6-O6	6.14	123.59	119.90
35	BA	1490	A	C5'-C4'-C3'	6.13	125.82	116.00
58	CX	19	G	P-O5'-C5'	-6.12	111.10	120.90
35	BA	2796	U	O4'-C1'-N1	6.12	113.10	108.20
12	CL	38	ARG	CD-NE-CZ	6.12	132.17	123.60
35	BA	777	A	C6-N1-C2	-6.09	114.94	118.60
22	AV	53	G	C1'-C2'-O2'	-6.07	92.39	110.60
43	BI	52	ARG	CD-NE-CZ	6.07	132.09	123.60
23	AX	14	A	O4'-C4'-C3'	-6.06	97.94	104.00
35	BA	1490	A	C4-C5-N7	6.06	113.73	110.70
23	AX	20	U	C4'-C3'-C2'	-6.06	96.54	102.60
35	BA	776	G	P-O5'-C5'	-6.06	111.21	120.90
35	BA	775	G	OP1-P-OP2	6.05	128.67	119.60
23	AX	25	A	O5'-C5'-C4'	-6.05	100.21	111.70
35	DA	1773	A	N9-C1'-C2'	-6.04	105.35	112.00
35	BA	1970	A	C5'-C4'-O4'	6.03	116.34	109.10
23	AX	14	A	O5'-P-OP1	5.99	117.89	110.70
35	BA	945	A	N9-C1'-C2'	5.97	121.77	114.00
35	DA	1910	G	OP2-P-O3'	5.97	118.33	105.20
35	BA	1490	A	N1-C2-N3	-5.96	126.32	129.30
35	BA	2611	U	C5'-C4'-O4'	-5.96	101.94	109.10
35	DA	1819	A	C4'-C3'-O3'	5.96	124.93	113.00
35	BA	1490	A	O5'-P-OP2	-5.96	100.34	105.70
35	DA	1427	A	N9-C1'-C2'	5.94	121.72	114.00
1	CA	401	C	N3-C4-C5	-5.94	119.53	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	AX	21	C	N3-C4-C5	5.93	124.27	121.90
23	AX	16	A	C8-N9-C4	-5.92	103.43	105.80
58	CX	15	A	N3-C4-C5	5.89	130.93	126.80
35	DA	1543	C	C2-N1-C1'	5.89	125.28	118.80
22	AV	53	G	OP1-P-OP2	-5.89	110.77	119.60
58	CX	13	A	C4'-C3'-C2'	-5.89	96.71	102.60
35	DA	493	G	C5'-C4'-C3'	-5.89	106.58	116.00
23	AX	15	A	N3-C4-C5	-5.89	122.68	126.80
37	DC	174	PRO	N-CA-CB	5.88	110.36	103.30
35	BA	1970	A	C5'-C4'-C3'	5.88	125.41	116.00
58	CX	15	A	N3-C4-N9	-5.87	122.70	127.40
23	AX	12	A	N1-C6-N6	5.87	122.12	118.60
35	BA	1490	A	O4'-C4'-C3'	-5.85	98.15	104.00
58	CX	19	G	N1-C2-N3	-5.85	120.39	123.90
22	AV	53	G	O4'-C4'-C3'	5.84	110.77	106.10
37	BC	174	PRO	N-CA-CB	5.84	110.31	103.30
23	AX	13	A	O4'-C1'-C2'	-5.84	99.96	105.80
23	AX	24	A	C4-C5-C6	-5.81	114.09	117.00
23	AX	14	A	C5-C6-N6	-5.81	119.05	123.70
35	BA	474	G	C4'-C3'-O3'	5.80	124.61	113.00
23	AX	14	A	C3'-C2'-C1'	-5.80	96.86	101.50
1	CA	401	C	C1'-O4'-C4'	-5.79	105.27	109.90
23	AX	14	A	O5'-C5'-C4'	-5.77	100.74	111.70
35	DA	1962	C	C5'-C4'-O4'	5.75	116.01	109.10
58	CX	13	A	C8-N9-C4	5.75	108.10	105.80
23	AX	16	A	N9-C1'-C2'	-5.75	105.68	112.00
24	AY	39	LYS	O-C-N	-5.75	113.51	122.70
23	AX	19	U	O5'-P-OP1	-5.74	100.53	105.70
23	AX	19	U	P-O5'-C5'	-5.74	111.72	120.90
1	CA	328	C	C2'-C3'-O3'	5.73	122.87	113.70
37	DC	181	PRO	N-CA-CB	5.71	110.16	103.30
23	AX	16	A	N1-C6-N6	-5.71	115.17	118.60
1	CA	760	G	N9-C1'-C2'	-5.71	105.72	112.00
37	DC	133	PRO	N-CA-CB	5.70	110.14	103.30
37	DC	220	PRO	N-CA-CB	5.70	110.14	103.30
37	BC	181	PRO	N-CA-CB	5.69	110.13	103.30
35	BA	272(B)	G	O4'-C1'-N9	5.69	112.75	108.20
35	BA	2031	A	N9-C1'-C2'	5.69	121.40	114.00
35	DA	1970	A	C5'-C4'-C3'	5.68	125.09	116.00
35	DA	2320	A	N9-C1'-C2'	-5.68	105.75	112.00
37	BC	182	PRO	N-CA-CB	5.68	110.11	103.30
37	DC	201	PRO	N-CA-CB	5.68	110.11	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	AY	44	THR	N-CA-C	-5.67	95.69	111.00
35	BA	1819	A	C4'-C3'-O3'	5.66	124.32	113.00
35	DA	1543	C	C5'-C4'-O4'	5.65	115.88	109.10
23	AX	14	A	C1'-O4'-C4'	-5.64	105.39	109.90
35	BA	776	G	C4'-C3'-C2'	-5.63	96.97	102.60
23	AX	13	A	C1'-O4'-C4'	5.63	114.40	109.90
37	BC	220	PRO	N-CA-CB	5.61	110.03	103.30
1	AA	533	A	C2'-C3'-O3'	5.60	122.65	113.70
35	DA	272(B)	G	O4'-C1'-N9	5.59	112.67	108.20
35	DA	945	A	N9-C1'-C2'	5.59	121.27	114.00
37	DC	182	PRO	N-CA-CB	5.58	110.00	103.30
38	DD	244	ARG	C-N-CD	-5.58	108.32	120.60
37	BC	201	PRO	N-CA-CB	5.57	109.99	103.30
35	BA	776	G	O4'-C1'-C2'	-5.56	100.24	105.80
23	AX	11	U	C6-N1-C2	5.56	124.34	121.00
24	AY	39	LYS	CD-CE-NZ	5.54	124.44	111.70
24	AY	79	THR	N-CA-C	5.54	125.96	111.00
58	CX	14	A	C8-N9-C4	-5.54	103.58	105.80
23	AX	15	A	C6-C5-N7	-5.54	128.43	132.30
35	BA	783	A	N9-C1'-C2'	-5.54	105.91	112.00
35	BA	1987	G	C5'-C4'-C3'	-5.54	107.14	116.00
35	BA	493	G	C5'-C4'-C3'	-5.53	107.15	116.00
24	AY	85	GLY	N-CA-C	-5.53	99.28	113.10
37	BC	133	PRO	N-CA-CB	5.53	109.93	103.30
35	BA	1490	A	C5-N7-C8	-5.52	101.14	103.90
35	BA	752	A	C4'-C3'-O3'	5.52	124.05	113.00
1	AA	1067	A	C2'-C3'-O3'	5.52	122.53	113.70
35	DA	2200	C	C5'-C4'-C3'	-5.52	107.17	116.00
37	DC	140	PRO	N-CA-CB	5.52	109.92	103.30
35	DA	2320	A	C1'-C2'-O2'	-5.50	94.10	110.60
23	AX	23	A	N1-C6-N6	-5.50	115.30	118.60
35	BA	776	G	C5'-C4'-O4'	-5.49	102.51	109.10
24	AY	39	LYS	N-CA-CB	-5.48	100.73	110.60
35	BA	1962	C	C5'-C4'-O4'	5.48	115.67	109.10
35	BA	1773	A	N9-C1'-C2'	-5.47	105.98	112.00
37	BC	140	PRO	N-CA-CB	5.47	109.86	103.30
23	AX	13	A	C5-C6-N1	-5.46	114.97	117.70
23	AX	16	A	C4'-C3'-O3'	5.46	123.92	113.00
58	CX	13	A	C2-N3-C4	5.45	113.33	110.60
1	CA	401	C	C2-N3-C4	5.45	122.62	119.90
23	AX	20	U	P-O3'-C3'	5.44	126.22	119.70
35	DA	2320	A	C4-C5-C6	-5.43	114.28	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	BP	51	PHE	N-CA-C	5.42	125.63	111.00
35	BA	1155	A	C5'-C4'-O4'	-5.42	102.60	109.10
23	AX	24	A	C6-C5-N7	5.41	136.09	132.30
35	BA	1300	U	C5'-C4'-C3'	5.40	124.64	116.00
35	DA	2031	A	N9-C1'-C2'	5.40	121.02	114.00
35	DA	1970	A	C5'-C4'-O4'	5.39	115.57	109.10
35	DA	783	A	N9-C1'-C2'	-5.38	106.08	112.00
23	AX	25	A	C4-N9-C1'	-5.37	116.63	126.30
35	BA	1970	A	O4'-C4'-C3'	5.37	110.40	106.10
58	CX	16	A	C4'-C3'-O3'	-5.36	98.14	109.40
23	AX	23	A	O4'-C1'-N9	5.34	112.47	108.20
42	DH	13	LYS	CB-CA-C	-5.34	99.73	110.40
23	AX	11	U	N3-C2-O2	5.33	125.93	122.20
35	BA	676	A	O4'-C1'-N9	5.33	112.46	108.20
42	BH	13	LYS	CB-CA-C	-5.33	99.74	110.40
38	BD	244	ARG	C-N-CD	-5.33	108.88	120.60
35	DA	752	A	C4'-C3'-O3'	5.32	123.65	113.00
49	DR	11	ASN	C-N-CA	5.32	135.01	121.70
35	BA	1300	U	C5'-C4'-O4'	5.32	115.48	109.10
23	AX	22	A	O5'-C5'-C4'	-5.31	101.61	111.70
47	DP	51	PHE	N-CA-C	5.31	125.34	111.00
35	DA	2611	U	C5'-C4'-O4'	-5.31	102.73	109.10
35	BA	784	A	N9-C1'-C2'	5.31	120.90	114.00
35	DA	543	C	N1-C1'-C2'	-5.31	106.16	112.00
1	AA	760	G	N9-C1'-C2'	-5.30	106.17	112.00
58	CX	14	A	C2-N3-C4	-5.30	107.95	110.60
35	BA	2061	G	OP1-P-O3'	5.30	116.85	105.20
1	AA	1504	G	OP2-P-O3'	5.29	116.83	105.20
23	AX	24	A	N9-C1'-C2'	5.29	120.87	114.00
58	CX	16	A	C1'-C2'-O2'	-5.29	94.74	110.60
35	DA	1159	U	C5'-C4'-C3'	-5.28	107.55	116.00
23	AX	13	A	N9-C1'-C2'	5.28	120.86	114.00
58	CX	14	A	O5'-C5'-C4'	5.27	121.72	111.70
35	DA	2746	U	N1-C1'-C2'	-5.27	106.20	112.00
23	AX	14	A	N1-C2-N3	5.27	131.94	129.30
58	CX	19	G	C5'-C4'-O4'	-5.26	102.79	109.10
35	BA	776	G	C4-N9-C1'	5.26	133.34	126.50
47	BP	43	GLY	N-CA-C	-5.26	99.96	113.10
51	BT	80	SER	N-CA-C	5.25	125.17	111.00
35	DA	1543	C	C2-N3-C4	5.25	122.52	119.90
35	BA	669	G	C5'-C4'-O4'	5.24	115.39	109.10
49	BR	58	GLY	N-CA-C	5.24	126.19	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	AX	20	U	C4'-C3'-O3'	-5.23	98.42	109.40
35	DA	2320	A	C4-C5-N7	5.23	113.32	110.70
58	CX	14	A	C5-N7-C8	-5.23	101.29	103.90
35	DA	1300	U	C5'-C4'-C3'	5.20	124.32	116.00
35	BA	775	G	C5-C6-N1	5.20	114.10	111.50
23	AX	14	A	C4-C5-N7	5.19	113.30	110.70
1	CA	401	C	C2'-C3'-O3'	-5.19	98.08	109.50
23	AX	24	A	C4-N9-C1'	-5.19	116.97	126.30
35	DA	752	A	C4'-C3'-C2'	5.19	107.79	102.60
35	BA	467	G	N9-C1'-C2'	-5.18	106.30	112.00
35	BA	372	G	O4'-C1'-N9	5.18	112.34	108.20
55	DX	57	LEU	CA-CB-CG	5.18	127.21	115.30
35	DA	1543	C	O4'-C4'-C3'	-5.17	98.83	104.00
35	DA	1155	A	C5'-C4'-O4'	-5.17	102.90	109.10
35	DA	1970	A	O4'-C4'-C3'	5.17	110.23	106.10
35	BA	2200	C	C5'-C4'-C3'	-5.16	107.74	116.00
55	BX	57	LEU	CA-CB-CG	5.16	127.17	115.30
58	CX	14	A	N3-C4-N9	-5.16	123.27	127.40
35	DA	784	A	N9-C1'-C2'	5.16	120.70	114.00
22	AV	53	G	O5'-P-OP2	5.16	116.89	110.70
35	BA	2609	U	N1-C1'-C2'	5.15	120.70	114.00
47	DP	43	GLY	N-CA-C	-5.15	100.22	113.10
35	BA	775	G	C5-N7-C8	-5.15	101.72	104.30
22	AV	53	G	C5'-C4'-C3'	-5.15	107.77	116.00
35	BA	1799	G	C4'-C3'-O3'	5.15	123.29	113.00
23	AX	20	U	C3'-C2'-C1'	-5.14	97.39	101.50
33	D8	34	TRP	N-CA-C	-5.14	97.12	111.00
23	AX	20	U	C1'-O4'-C4'	-5.14	105.79	109.90
1	CA	400	C	OP1-P-O3'	5.14	116.50	105.20
35	DA	2464	C	N1-C1'-C2'	-5.13	106.35	112.00
35	DA	1799	G	C4'-C3'-O3'	5.13	123.27	113.00
33	B8	34	TRP	N-CA-C	-5.12	97.17	111.00
40	BF	66	PRO	N-CA-C	5.12	125.40	112.10
35	DA	146	G	C5'-C4'-O4'	-5.11	102.97	109.10
35	DA	2319	G	N9-C4-C5	-5.10	103.36	105.40
23	AX	11	U	N1-C2-N3	-5.09	111.84	114.90
35	DA	2318	G	OP1-P-O3'	5.09	116.40	105.20
35	DA	74	A	N9-C1'-C2'	5.09	120.61	114.00
23	AX	19	U	O5'-C5'-C4'	5.09	121.36	111.70
35	DA	1223	G	C5'-C4'-C3'	-5.08	107.87	116.00
1	AA	115	G	N9-C1'-C2'	5.07	120.59	114.00
47	DP	52	GLU	CA-C-N	-5.06	106.08	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	494	G	C5'-C4'-C3'	-5.05	107.91	116.00
35	BA	494	G	C5'-C4'-C3'	-5.05	107.92	116.00
35	BA	775	G	OP2-P-O3'	5.05	116.31	105.20
35	DA	474	G	C4'-C3'-O3'	5.05	123.10	113.00
35	DA	2319	G	C1'-O4'-C4'	-5.05	105.86	109.90
23	AX	10	G	O3'-P-O5'	5.04	113.59	104.00
1	AA	1225	A	N9-C1'-C2'	5.04	120.55	114.00
24	AY	51	ILE	CB-CA-C	-5.04	101.53	111.60
58	CX	15	A	O4'-C1'-N9	5.04	112.23	108.20
35	BA	1223	G	C5'-C4'-C3'	-5.03	107.95	116.00
49	DR	58	GLY	N-CA-C	5.02	125.65	113.10
51	DT	80	SER	N-CA-C	5.02	124.56	111.00
58	CX	19	G	C4-C5-N7	5.02	112.81	110.80
1	CA	586	C	N1-C1'-C2'	-5.01	106.49	112.00
23	AX	13	A	N7-C8-N9	5.00	116.30	113.80
58	CX	15	A	C4-C5-C6	-5.00	114.50	117.00

All (42) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	AA	575	G	C3'
35	BA	100	G	C1'
35	BA	474	G	C3'
35	BA	587	C	C3'
35	BA	669	G	C4',C3',C1'
35	BA	752	A	C3'
35	BA	945	A	C1'
35	BA	1300	U	C4'
35	BA	1379	A	C1'
35	BA	1484	G	C3'
35	BA	1694	C	C4',C3'
35	BA	1799	G	C3'
35	BA	1819	A	C3'
35	BA	1962	C	C4',C1'
35	BA	1992	G	C3'
35	BA	2286	A	C1'
35	BA	2796	U	C1'
1	CA	575	G	C3'
35	DA	100	G	C1'
35	DA	474	G	C3'
35	DA	587	C	C3'
35	DA	669	G	C4',C3',C1'

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Mol	Chain	Res	Type	Atom
35	DA	752	A	C3'
35	DA	945	A	C1'
35	DA	1300	U	C4'
35	DA	1379	A	C1'
35	DA	1484	G	C3'
35	DA	1694	C	C4',C3'
35	DA	1799	G	C3'
35	DA	1819	A	C3'
35	DA	1962	C	C4',C1'
35	DA	1992	G	C3'
35	DA	2286	A	C1'
35	DA	2796	U	C1'

All (157) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	1077	G	Sidechain
1	AA	115	G	Sidechain
1	AA	120	A	Sidechain
1	AA	1406	U	Sidechain
1	AA	1502	A	Sidechain
1	AA	575	G	Sidechain
1	AA	587	G	Sidechain
1	AA	731	G	Sidechain
1	AA	760	G	Sidechain
1	AA	819	A	Sidechain
22	AV	4	G	Sidechain
24	AY	15	THR	Peptide
35	BA	1025	G	Sidechain
35	BA	1040	C	Sidechain
35	BA	1112	G	Sidechain
35	BA	114	U	Sidechain
35	BA	1191	G	Sidechain
35	BA	1192	G	Sidechain
35	BA	1193	G	Sidechain
35	BA	1215	G	Sidechain
35	BA	1271	G	Sidechain
35	BA	1288	U	Sidechain
35	BA	1397	U	Sidechain
35	BA	1418	G	Sidechain
35	BA	1425	G	Sidechain
35	BA	15	G	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	1613	G	Sidechain
35	BA	1772	G	Sidechain
35	BA	1779	U	Sidechain
35	BA	1801	G	Sidechain
35	BA	1807	G	Sidechain
35	BA	2009	G	Sidechain
35	BA	201	C	Sidechain
35	BA	2010	G	Sidechain
35	BA	2020	A	Sidechain
35	BA	2022	U	Sidechain
35	BA	2031	A	Sidechain
35	BA	2360	A	Sidechain
35	BA	2413	G	Sidechain
35	BA	2427	C	Sidechain
35	BA	2434	A	Sidechain
35	BA	2464	C	Sidechain
35	BA	249	C	Sidechain
35	BA	2517	C	Sidechain
35	BA	2582	G	Sidechain
35	BA	2587	A	Sidechain
35	BA	2589	A	Sidechain
35	BA	2597	G	Sidechain
35	BA	2627	G	Sidechain
35	BA	27	G	Sidechain
35	BA	271(H)	G	Sidechain
35	BA	271(Q)	G	Sidechain
35	BA	271(Y)	U	Sidechain
35	BA	2746	U	Sidechain
35	BA	2779	U	Sidechain
35	BA	372	G	Sidechain
35	BA	384	U	Sidechain
35	BA	395	U	Sidechain
35	BA	446	G	Sidechain
35	BA	463	G	Sidechain
35	BA	476	G	Sidechain
35	BA	543	C	Sidechain
35	BA	607	U	Sidechain
35	BA	652	C	Sidechain
35	BA	669	G	Sidechain
35	BA	675	A	Sidechain
35	BA	792	G	Sidechain
35	BA	859	G	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	938	G	Sidechain
36	BB	66	A	Sidechain
42	BH	7	LEU	Peptide
49	BR	87	TYR	Sidechain
1	CA	115	G	Sidechain
1	CA	120	A	Sidechain
1	CA	1498	U	Sidechain
1	CA	1522	U	Sidechain
1	CA	324	G	Sidechain
1	CA	575	G	Sidechain
1	CA	587	G	Sidechain
1	CA	760	G	Sidechain
1	CA	819	A	Sidechain
22	CV	4	G	Sidechain
35	DA	1025	G	Sidechain
35	DA	1027	A	Sidechain
35	DA	1040	C	Sidechain
35	DA	1112	G	Sidechain
35	DA	1126	A	Sidechain
35	DA	1141	U	Sidechain
35	DA	1192	G	Sidechain
35	DA	1215	G	Sidechain
35	DA	125	G	Sidechain
35	DA	1271	G	Sidechain
35	DA	1288	U	Sidechain
35	DA	1354	A	Sidechain
35	DA	1391	U	Sidechain
35	DA	1393	A	Sidechain
35	DA	1397	U	Sidechain
35	DA	1418	G	Sidechain
35	DA	1425	G	Sidechain
35	DA	15	G	Sidechain
35	DA	1613	G	Sidechain
35	DA	177	G	Sidechain
35	DA	1772	G	Sidechain
35	DA	1773	A	Sidechain
35	DA	1779	U	Sidechain
35	DA	1788	C	Sidechain
35	DA	1801	G	Sidechain
35	DA	1807	G	Sidechain
35	DA	1833	U	Sidechain
35	DA	1968	G	Sidechain

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Mol	Chain	Res	Type	Group
35	DA	2009	G	Sidechain
35	DA	201	C	Sidechain
35	DA	2020	A	Sidechain
35	DA	2031	A	Sidechain
35	DA	2229	C	Sidechain
35	DA	2255	G	Sidechain
35	DA	2360	A	Sidechain
35	DA	2387	U	Sidechain
35	DA	2427	C	Sidechain
35	DA	2434	A	Sidechain
35	DA	2462	U	Sidechain
35	DA	2464	C	Sidechain
35	DA	249	C	Sidechain
35	DA	2517	C	Sidechain
35	DA	254	G	Sidechain
35	DA	2582	G	Sidechain
35	DA	2587	A	Sidechain
35	DA	2589	A	Sidechain
35	DA	2597	G	Sidechain
35	DA	2627	G	Sidechain
35	DA	27	G	Sidechain
35	DA	271(H)	G	Sidechain
35	DA	271(Q)	G	Sidechain
35	DA	271(Y)	U	Sidechain
35	DA	2746	U	Sidechain
35	DA	372	G	Sidechain
35	DA	395	U	Sidechain
35	DA	463	G	Sidechain
35	DA	475	U	Sidechain
35	DA	476	G	Sidechain
35	DA	511	U	Sidechain
35	DA	52	A	Sidechain
35	DA	543	C	Sidechain
35	DA	607	U	Sidechain
35	DA	669	G	Sidechain
35	DA	675	A	Sidechain
35	DA	686	G	Sidechain
35	DA	726	G	Sidechain
35	DA	792	G	Sidechain
35	DA	801	G	Sidechain
35	DA	859	G	Sidechain
35	DA	938	G	Sidechain

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Mol	Chain	Res	Type	Group
36	DB	104	U	Sidechain
36	DB	66	A	Sidechain
42	DH	7	LEU	Peptide
49	DR	11	ASN	Peptide
49	DR	87	TYR	Sidechain

## 5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	32412	0	16354	1303	0
1	CA	32413	0	16353	1699	0
2	AB	1901	0	1951	297	0
2	CB	1901	0	1951	304	0
3	AC	1613	0	1676	245	0
3	CC	1613	0	1677	238	0
4	AD	1692	0	1751	196	0
4	CD	1692	0	1753	218	0
5	AE	1147	0	1206	172	0
5	CE	1147	0	1207	191	0
6	AF	843	0	857	95	0
6	CF	843	0	857	99	0
7	AG	1257	0	1296	134	0
7	CG	1257	0	1296	146	0
8	AH	1116	0	1177	159	0
8	CH	1116	0	1177	167	0
9	AI	1011	0	1041	160	0
9	CI	1011	0	1041	161	0
10	AJ	795	0	840	156	0
10	CJ	795	0	840	157	0
11	AK	885	0	904	99	0
11	CK	885	0	904	95	0
12	AL	971	0	1055	117	0
12	CL	971	0	1056	116	0
13	AM	934	0	989	124	0
13	CM	934	0	987	135	0
14	AN	492	0	530	74	0
14	CN	492	0	533	78	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
15	AO	734	0	771	82	0
15	CO	734	0	771	77	0
16	AP	701	0	719	93	0
16	CP	701	0	720	105	0
17	AQ	824	0	890	88	0
17	CQ	824	0	891	91	0
18	AR	574	0	644	90	0
18	CR	574	0	644	88	0
19	AS	671	0	689	118	0
19	CS	671	0	689	112	0
20	AT	763	0	861	74	0
20	CT	763	0	861	75	0
21	AU	209	0	221	42	0
21	CU	209	0	221	39	0
22	AV	1640	0	832	85	0
22	AW	1640	0	837	60	0
22	CV	1640	0	833	134	0
22	CW	1640	0	837	71	0
23	AX	341	0	174	126	0
24	AY	769	0	763	234	0
24	CY	126	0	115	33	0
25	B0	662	0	688	60	0
25	D0	662	0	688	56	0
26	B1	734	0	808	85	0
26	D1	734	0	808	83	0
27	B2	598	0	653	65	0
27	D2	598	0	653	79	0
28	B3	468	0	523	42	0
28	D3	468	0	523	45	0
29	B4	434	0	424	92	0
29	D4	434	0	424	69	0
30	B5	459	0	480	45	0
30	D5	459	0	479	45	0
31	B6	381	0	390	61	0
31	D6	381	0	390	63	0
32	B7	419	0	467	32	0
32	D7	419	0	467	34	0
33	B8	508	0	576	123	0
33	D8	508	0	576	122	0
34	B9	299	0	326	28	0
34	D9	299	0	326	30	0
35	BA	60459	0	30475	1946	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
35	DA	60459	0	30466	2110	1
36	BB	2551	0	1295	101	0
36	DB	2551	0	1294	90	1
37	BC	1142	0	865	72	0
37	DC	1142	0	865	71	0
38	BD	2105	0	2182	299	0
38	DD	2105	0	2182	311	0
39	BE	1564	0	1628	223	0
39	DE	1564	0	1628	233	0
40	BF	1624	0	1677	218	0
40	DF	1624	0	1676	225	0
41	BG	1474	0	1534	280	0
41	DG	1474	0	1534	306	0
42	BH	1260	0	1326	250	0
42	DH	1260	0	1326	242	0
43	BI	1125	0	1209	181	0
43	DI	1125	0	1209	169	0
44	BJ	651	0	165	21	0
44	DJ	651	0	166	35	0
45	BN	1105	0	1180	139	0
45	DN	1105	0	1180	133	0
46	BO	933	0	996	101	0
46	DO	933	0	996	114	0
47	BP	1114	0	1187	315	0
47	DP	1114	0	1187	310	0
48	BQ	1122	0	1179	113	0
48	DQ	1122	0	1179	112	0
49	BR	960	0	1021	132	0
49	DR	960	0	1019	127	0
50	BS	771	0	832	143	0
50	DS	771	0	832	132	0
51	BT	1142	0	1202	223	0
51	DT	1142	0	1201	226	0
52	BU	958	0	1015	121	0
52	DU	958	0	1015	116	0
53	BV	779	0	852	162	0
53	DV	779	0	852	158	0
54	BW	896	0	953	80	0
54	DW	896	0	952	77	0
55	BX	726	0	778	71	0
55	DX	726	0	778	73	0
56	BY	776	0	870	194	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	DY	776	0	870	192	0
57	BZ	1482	0	1503	210	0
57	DZ	1482	0	1503	244	0
58	CX	173	0	89	53	0
59	AA	373	0	0	0	0
59	AC	2	0	0	0	0
59	AD	3	0	0	0	0
59	AH	1	0	0	0	0
59	AI	3	0	0	0	0
59	AL	6	0	0	0	0
59	AN	2	0	0	0	0
59	AO	2	0	0	0	0
59	AP	1	0	0	0	0
59	AQ	3	0	0	0	0
59	AT	1	0	0	0	0
59	AV	7	0	0	0	0
59	AX	4	0	0	0	0
59	AY	3	0	0	0	0
59	B0	2	0	0	0	0
59	B1	1	0	0	0	0
59	B5	3	0	0	0	0
59	B6	1	0	0	0	0
59	B7	1	0	0	0	0
59	BA	709	0	0	0	0
59	BB	6	0	0	0	0
59	BD	5	0	0	0	0
59	BE	4	0	0	0	0
59	BF	1	0	0	0	0
59	BH	4	0	0	0	0
59	BN	1	0	0	0	0
59	BO	1	0	0	0	0
59	BP	4	0	0	5	0
59	BQ	1	0	0	0	0
59	BR	5	0	0	0	0
59	BT	1	0	0	0	0
59	BU	2	0	0	0	0
59	BY	1	0	0	0	0
59	CA	184	0	0	0	0
59	CC	3	0	0	0	0
59	CD	1	0	0	0	0
59	CH	1	0	0	0	0
59	CJ	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	CM	3	0	0	0	0
59	CP	1	0	0	0	0
59	CQ	1	0	0	0	0
59	CS	2	0	0	0	0
59	CV	12	0	0	0	0
59	CY	1	0	0	0	0
59	D0	4	0	0	0	0
59	D1	2	0	0	0	0
59	D2	1	0	0	0	0
59	D3	1	0	0	0	0
59	D5	3	0	0	0	0
59	D6	2	0	0	0	0
59	D7	4	0	0	0	0
59	D8	1	0	0	0	0
59	D9	1	0	0	0	0
59	DA	897	0	0	0	0
59	DB	11	0	0	0	0
59	DD	6	0	0	0	0
59	DE	4	0	0	0	0
59	DF	3	0	0	0	0
59	DN	3	0	0	0	0
59	DO	1	0	0	0	0
59	DP	6	0	0	0	0
59	DR	2	0	0	0	0
59	DT	1	0	0	0	0
59	DU	4	0	0	0	0
59	DW	1	0	0	0	0
59	DY	1	0	0	0	0
60	AD	2	0	0	0	0
60	AN	1	0	0	0	0
60	CD	1	0	0	0	0
61	AA	2	0	0	0	0
All	All	296762	0	199834	19831	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 40.

All (19831) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:162:GLN:HB2	23:AX:23:A:C5	1.34	1.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:11:VAL:HG22	42:BH:49:VAL:CG1	1.08	1.56
42:DH:11:VAL:HG22	42:DH:49:VAL:CG1	1.08	1.55
1:CA:644:G:C2'	1:CA:645:C:H5''	1.39	1.53
24:AY:57:GLN:HG3	35:BA:1913:A:C2	1.45	1.47
12:AL:41:THR:CG2	24:AY:7:HIS:HB3	1.44	1.47
35:DA:865:C:H4'	35:DA:866:A:N7	1.14	1.46
47:BP:59:LEU:CD1	59:BP:203:MG:MG	0.90	1.43
12:AL:38:ARG:NH2	24:AY:6:GLY:N	1.62	1.43
1:CA:644:G:H2'	1:CA:645:C:C5'	1.53	1.38
22:CV:54:U:C3'	22:CV:55:U:H5''	1.51	1.37
42:BH:11:VAL:CG2	42:BH:49:VAL:CG1	2.03	1.36
24:AY:28:ILE:CD1	24:AY:29:PRO:HD2	1.55	1.36
1:CA:37:U:C2'	1:CA:38:G:H5'	1.53	1.36
35:DA:2473:U:C2'	35:DA:2474:C:H5''	1.54	1.35
35:DA:2473:U:C3'	35:DA:2474:C:H5''	1.54	1.35
24:AY:33:LYS:CB	24:AY:36:GLY:HA3	1.57	1.35
1:CA:401:C:P	4:CD:73:ARG:HH21	1.49	1.35
42:DH:11:VAL:CG2	42:DH:49:VAL:CG1	2.03	1.34
3:AC:162:GLN:CB	23:AX:23:A:C5	2.10	1.33
35:DA:2473:U:H5''	35:DA:2475:C:N4	1.44	1.32
35:DA:1914:C:H2'	35:DA:1915:U:C5'	1.57	1.32
24:CY:2:PHE:O	24:CY:2:PHE:HD1	1.02	1.31
3:AC:162:GLN:HB2	23:AX:23:A:N7	1.41	1.30
22:AV:54:U:H3'	22:AV:55:U:C5'	1.60	1.30
35:BA:774:A:C2'	35:BA:775:G:OP2	1.68	1.30
23:AX:21:C:C5'	23:AX:21:C:H6	1.45	1.30
35:DA:2472:G:C3'	35:DA:2473:U:H5'	1.61	1.30
35:DA:2472:G:H3'	35:DA:2473:U:C5'	1.54	1.30
58:CX:19:G:N3	58:CX:19:G:H5''	1.43	1.30
35:DA:1911:U:O2	35:DA:1918:A:C2	1.84	1.29
22:CV:54:U:H3'	22:CV:55:U:C5'	1.62	1.29
3:AC:162:GLN:CG	23:AX:23:A:N7	1.96	1.29
35:DA:865:C:O4'	35:DA:866:A:N6	1.64	1.29
35:DA:1911:U:C2	35:DA:1918:A:C2	2.20	1.28
49:DR:10:LEU:HD11	49:DR:17:ARG:CB	0.81	1.27
3:AC:162:GLN:CB	23:AX:23:A:N7	1.96	1.27
5:AE:15:ARG:NH1	23:AX:24:A:H5'	1.50	1.27
12:AL:41:THR:HG23	24:AY:7:HIS:CB	1.62	1.26
1:CA:401:C:H3'	1:CA:401:C:C6	1.61	1.26
42:DH:52:VAL:O	42:DH:65:HIS:HE1	1.14	1.26
24:AY:28:ILE:HD12	24:AY:29:PRO:CD	1.64	1.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:940:C:O2'	1:CA:941:G:H5'	1.34	1.25
35:DA:92:A:C2	35:DA:93:G:H1'	1.71	1.24
35:BA:1490:A:H5'	35:BA:1490:A:C8	1.72	1.24
47:BP:59:LEU:HA	47:BP:61:ARG:NE	1.52	1.23
1:CA:1226:C:H5'	13:CM:96:LEU:CD2	1.68	1.23
23:AX:19:U:H2'	23:AX:20:U:C6	1.72	1.23
35:DA:865:C:C4'	35:DA:866:A:N7	2.02	1.22
35:DA:1910:G:C2'	35:DA:1911:U:H5'	1.70	1.22
56:BY:76:CYS:SG	56:BY:77:PRO:HD2	1.78	1.22
1:CA:36:C:C2'	1:CA:37:U:H5'	1.69	1.21
42:DH:52:VAL:O	42:DH:65:HIS:CE1	1.93	1.21
42:BH:52:VAL:O	42:BH:65:HIS:HE1	1.14	1.21
35:DA:1911:U:N3	35:DA:1918:A:C2	2.08	1.21
56:DY:76:CYS:SG	56:DY:77:PRO:HD2	1.81	1.21
1:CA:1060:C:C5	3:CC:2:GLY:N	2.08	1.20
24:AY:33:LYS:HB3	24:AY:36:GLY:CA	1.71	1.20
58:CX:16:A:C2	58:CX:17:U:C6	2.30	1.20
1:CA:37:U:O2'	1:CA:38:G:H5'	1.41	1.20
42:BH:11:VAL:CG2	42:BH:49:VAL:HG12	1.70	1.20
35:DA:1915:U:C5	35:DA:1916:A:C8	2.30	1.20
23:AX:13:A:C5'	23:AX:14:A:H5''	1.70	1.19
42:BH:52:VAL:O	42:BH:65:HIS:CE1	1.93	1.19
47:DP:59:LEU:HA	47:DP:61:ARG:NE	1.56	1.19
3:AC:162:GLN:HB2	23:AX:23:A:C6	1.78	1.19
24:AY:33:LYS:CG	24:AY:36:GLY:HA3	1.71	1.19
24:CY:2:PHE:CD1	24:CY:2:PHE:O	1.95	1.18
19:AS:6:LYS:H	19:AS:6:LYS:HE3	1.07	1.18
24:AY:57:GLN:CG	35:BA:1913:A:C2	2.25	1.18
22:AV:54:U:H3'	22:AV:55:U:C4'	1.72	1.18
35:DA:1911:U:C2	35:DA:1918:A:N1	2.12	1.17
35:BA:774:A:H2'	35:BA:775:G:OP2	1.42	1.17
6:CF:18:GLN:HA	6:CF:21:LEU:HD23	1.24	1.17
35:DA:92:A:C2	35:DA:93:G:C1'	2.28	1.17
42:BH:11:VAL:CG2	42:BH:49:VAL:HG11	1.68	1.17
8:AH:51:VAL:HG11	8:AH:60:ARG:HD3	1.26	1.17
1:CA:38:G:N2	1:CA:397:A:OP1	1.78	1.16
3:AC:162:GLN:N	23:AX:23:A:N6	1.94	1.16
35:BA:1747(A):G:H2'	35:BA:1748:G:H5''	1.20	1.16
53:DV:15:GLU:HB3	53:DV:16:PRO:HD2	1.25	1.16
23:AX:21:C:C6	23:AX:21:C:C5'	2.29	1.16
12:AL:41:THR:CG2	24:AY:7:HIS:CB	2.17	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:836:G:O6	1:CA:837:G:O6	1.63	1.16
23:AX:21:C:H5''	23:AX:21:C:C6	1.82	1.15
22:CV:55:U:C4	22:CV:57:A:O5'	2.00	1.15
35:DA:1747(A):G:H2'	35:DA:1748:G:H5''	1.21	1.15
35:DA:507:A:H5''	35:DA:508:G:C5'	1.76	1.14
35:BA:1490:A:C5'	35:BA:1490:A:C8	2.29	1.14
23:AX:19:U:H2'	23:AX:20:U:C5	1.79	1.14
52:DU:108:GLU:HG3	53:DV:44:LYS:HD3	1.27	1.14
56:DY:96:ILE:HB	56:DY:99:CYS:HB2	1.28	1.14
35:DA:865:C:H4'	35:DA:866:A:C5	1.81	1.14
47:DP:23:PRO:HB2	47:DP:33:ARG:CD	1.78	1.14
42:DH:11:VAL:CG2	42:DH:49:VAL:HG11	1.67	1.13
1:CA:401:C:OP1	4:CD:73:ARG:NH2	1.80	1.13
56:DY:28:LYS:NZ	56:DY:28:LYS:H	1.47	1.13
1:CA:10:A:O2'	1:CA:11:G:H5'	1.49	1.13
56:BY:96:ILE:HB	56:BY:99:CYS:HB2	1.26	1.13
40:BF:9:ILE:HG13	40:BF:15:SER:HB3	1.31	1.13
24:AY:74:SER:C	24:AY:75:PHE:HD1	1.51	1.12
24:AY:82:GLN:O	24:AY:83:LEU:HD23	1.47	1.12
42:BH:98:LEU:HB2	42:BH:125:VAL:HG21	1.21	1.12
24:AY:21:LEU:HD12	24:AY:22:GLY:N	1.61	1.12
26:B1:3:LYS:HG3	26:B1:4:VAL:N	1.56	1.12
35:BA:612:C:H2'	35:BA:613:G:H5''	1.29	1.12
42:DH:11:VAL:CG2	42:DH:49:VAL:HG12	1.70	1.12
1:CA:37:U:H2'	1:CA:38:G:H5'	1.27	1.12
42:DH:85:LYS:HD3	42:DH:133:VAL:HB	1.28	1.12
1:CA:632:A:H2'	1:CA:633:G:H5''	1.30	1.12
23:AX:13:A:H5''	23:AX:14:A:H5''	1.27	1.11
49:DR:4:LEU:O	49:DR:5:LYS:CB	1.98	1.11
47:BP:23:PRO:HB2	47:BP:33:ARG:CD	1.80	1.11
35:BA:1528(A):A:N7	35:BA:1529:G:C8	2.18	1.11
22:CV:55:U:C5	22:CV:57:A:OP2	2.02	1.11
23:AX:23:A:H8	23:AX:23:A:H5''	1.14	1.11
1:CA:37:U:C2	1:CA:38:G:C8	2.38	1.11
35:BA:1533:G:H3'	35:BA:1543:C:OP2	1.48	1.11
1:AA:613:C:H2'	1:AA:614:A:H5''	1.32	1.11
35:DA:1543:C:C6	35:DA:1543:C:H3'	1.80	1.11
3:AC:162:GLN:OE1	23:AX:23:A:N7	1.84	1.11
19:CS:6:LYS:HE3	19:CS:6:LYS:H	1.09	1.11
53:BV:49:THR:HB	53:BV:50:PRO:HD2	1.33	1.11
42:DH:16:SER:HB2	42:DH:27:LYS:HB3	1.33	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:401:C:C6	1:CA:401:C:C3'	2.30	1.10
22:AV:54:U:C3'	22:AV:55:U:H5''	1.81	1.10
57:DZ:151:HIS:HA	57:DZ:171:ILE:HG12	1.33	1.10
51:BT:83:ILE:HG13	51:BT:84:GLN:H	1.08	1.10
35:DA:612:C:H2'	35:DA:613:G:H5''	1.30	1.10
33:D8:59:LYS:HD3	47:DP:50:ARG:HB3	1.32	1.10
3:AC:162:GLN:HG2	23:AX:23:A:C8	1.87	1.10
49:DR:10:LEU:HD11	49:DR:17:ARG:HB2	1.14	1.10
1:AA:1400:C:O2'	23:AX:19:U:H5	1.35	1.10
36:BB:7:G:H3'	36:BB:8:U:H5''	1.32	1.10
35:DA:1914:C:C2'	35:DA:1915:U:C5'	2.30	1.10
1:CA:1226:C:H5'	13:CM:96:LEU:HD21	1.14	1.10
36:DB:7:G:H3'	36:DB:8:U:H5''	1.32	1.10
23:AX:19:U:C2'	23:AX:20:U:C6	2.33	1.10
35:DA:2833:G:H3'	35:DA:2834:G:H5'	1.34	1.10
8:CH:51:VAL:HG11	8:CH:60:ARG:HD3	1.26	1.10
56:BY:28:LYS:N	56:BY:28:LYS:HZ2	1.48	1.10
35:BA:1489:U:O3'	35:BA:1490:A:N7	1.85	1.09
56:BY:28:LYS:NZ	56:BY:28:LYS:H	1.48	1.09
35:DA:905:U:H2'	35:DA:906:G:H5''	1.28	1.09
40:DF:157:VAL:HG13	40:DF:194:MET:HB3	1.33	1.09
42:BH:8:PRO:HD2	42:BH:9:ILE:H	0.94	1.09
35:DA:1914:C:H2'	35:DA:1915:U:H5''	1.34	1.09
24:CY:2:PHE:C	24:CY:2:PHE:HD1	1.55	1.09
35:DA:90:U:H1'	35:DA:92:A:C8	1.87	1.09
35:DA:865:C:O4'	35:DA:866:A:C6	2.06	1.09
23:AX:16:A:O2'	23:AX:17:U:H5'	1.52	1.09
42:DH:98:LEU:HB2	42:DH:125:VAL:HG21	1.21	1.09
23:AX:24:A:H4'	23:AX:25:A:OP2	1.37	1.09
22:CV:55:U:H3	22:CV:57:A:H3'	1.00	1.09
35:DA:2473:U:C5'	35:DA:2475:C:H42	1.65	1.09
23:AX:16:A:O2'	23:AX:17:U:C5'	2.00	1.09
2:AB:177:ALA:HB1	2:AB:182:ILE:HB	1.35	1.09
19:CS:50:ALA:HB1	19:CS:57:HIS:HB3	1.34	1.09
53:BV:15:GLU:HB3	53:BV:16:PRO:HD2	1.24	1.08
42:BH:8:PRO:O	42:BH:9:ILE:HG23	1.51	1.08
22:AV:54:U:H3'	22:AV:55:U:H5''	1.17	1.08
36:DB:74:U:H2'	36:DB:75:G:H5''	1.35	1.08
50:DS:97:ARG:HH21	50:DS:98:VAL:HA	1.15	1.08
42:DH:8:PRO:O	42:DH:9:ILE:HG23	1.51	1.08
35:DA:2472:G:C5'	35:DA:2473:U:H5'	1.81	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:DV:49:THR:HB	53:DV:50:PRO:HD2	1.33	1.08
1:CA:4:U:O4'	1:CA:5:U:H5'	1.53	1.08
42:BH:85:LYS:HD3	42:BH:133:VAL:HB	1.27	1.08
51:DT:83:ILE:HG13	51:DT:84:GLN:H	1.10	1.08
35:DA:868:U:C4	35:DA:869:G:N7	2.21	1.08
35:DA:867:C:H2'	35:DA:868:U:C5'	1.84	1.08
35:BA:905:U:H2'	35:BA:906:G:H5''	1.28	1.08
35:BA:1899:G:N2	35:BA:1902:C:H41	1.51	1.08
33:D8:25:MET:HG3	47:DP:64:LYS:HB3	1.35	1.08
35:DA:2473:U:H3'	35:DA:2474:C:C5'	1.83	1.07
35:DA:2491:U:H5'	35:DA:2570:G:H5''	1.36	1.07
3:AC:162:GLN:H	23:AX:23:A:N6	1.48	1.07
35:DA:1914:C:H2'	35:DA:1915:U:H5'	1.18	1.07
40:BF:157:VAL:HG13	40:BF:194:MET:HB3	1.30	1.07
57:BZ:151:HIS:HA	57:BZ:171:ILE:HG12	1.32	1.07
1:CA:33:A:H2'	1:CA:34:C:H5''	1.20	1.07
41:DG:52:ILE:HG12	41:DG:53:LEU:H	1.16	1.07
24:AY:33:LYS:HB3	24:AY:36:GLY:N	1.67	1.07
24:AY:75:PHE:N	24:AY:75:PHE:HD1	1.52	1.07
33:B8:25:MET:HG3	47:BP:64:LYS:HB3	1.35	1.07
35:DA:2473:U:C3'	35:DA:2474:C:C5'	2.31	1.07
6:AF:18:GLN:HA	6:AF:21:LEU:HD23	1.23	1.07
52:BU:108:GLU:HG3	53:BV:44:LYS:HD3	1.24	1.07
35:BA:2833:G:H3'	35:BA:2834:G:H5'	1.35	1.07
33:B8:51:ALA:H	33:B8:53:PRO:HD2	1.18	1.07
12:CL:67:ILE:HG23	12:CL:97:ILE:HD12	1.37	1.07
12:AL:38:ARG:NH2	24:AY:6:GLY:CA	2.18	1.06
47:BP:23:PRO:HB2	47:BP:33:ARG:HD2	1.34	1.06
2:CB:177:ALA:HB1	2:CB:182:ILE:HB	1.33	1.06
11:AK:67:ASP:HA	11:AK:70:LYS:HE2	1.36	1.06
35:DA:1484:G:H2'	35:DA:1485:G:H5''	1.10	1.06
35:BA:2523:G:H2'	35:BA:2524:G:H5''	1.38	1.06
1:AA:632:A:H2'	1:AA:633:G:H5''	1.35	1.06
33:D8:51:ALA:H	33:D8:53:PRO:HD2	1.18	1.06
33:B8:59:LYS:HD3	47:BP:50:ARG:HB3	1.35	1.06
50:BS:97:ARG:HH21	50:BS:98:VAL:HA	1.14	1.06
1:CA:36:C:H2'	1:CA:37:U:C5'	1.84	1.06
40:DF:9:ILE:HG13	40:DF:15:SER:HB3	1.31	1.06
1:AA:939:G:H5''	7:AG:102:ARG:HH22	1.17	1.06
3:AC:76:VAL:HG21	3:AC:103:VAL:HG11	1.37	1.05
42:BH:16:SER:HB2	42:BH:27:LYS:HB3	1.33	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DH:12:PRO:HB2	42:DH:15:VAL:HG21	1.37	1.05
35:DA:612:C:C2'	35:DA:613:G:H5''	1.86	1.05
33:B8:49:VAL:HG23	33:B8:53:PRO:HD3	1.35	1.05
42:BH:8:PRO:CD	42:BH:9:ILE:H	1.68	1.05
42:DH:8:PRO:HD2	42:DH:9:ILE:H	0.93	1.05
47:BP:59:LEU:HD11	59:BP:203:MG:MG	0.78	1.05
35:DA:1912:A:H2	35:DA:1919:A:C6	1.74	1.05
47:DP:23:PRO:HB2	47:DP:33:ARG:HD2	1.33	1.05
1:CA:1071:C:H5''	5:CE:49:PRO:HG2	1.37	1.05
24:AY:74:SER:C	24:AY:75:PHE:CD1	2.29	1.05
24:AY:33:LYS:CB	24:AY:36:GLY:CA	2.29	1.05
22:CV:55:U:C6	22:CV:57:A:OP2	2.10	1.05
35:DA:2394:C:OP1	47:DP:63:PRO:HD2	1.56	1.05
33:D8:49:VAL:HG23	33:D8:53:PRO:HD3	1.37	1.05
12:AL:67:ILE:HG23	12:AL:97:ILE:HD12	1.39	1.05
35:BA:1484:G:H2'	35:BA:1485:G:H5''	1.09	1.05
27:D2:39:ALA:HA	27:D2:45:SER:HB3	1.36	1.05
31:D6:35:GLU:HB3	31:D6:51:GLU:HB3	1.38	1.05
40:DF:67:GLN:O	40:DF:67:GLN:HG3	1.54	1.05
1:CA:1078:U:H1'	5:CE:130:ASN:HD21	1.20	1.05
42:DH:8:PRO:HD2	42:DH:9:ILE:N	1.71	1.04
35:BA:2394:C:OP1	47:BP:63:PRO:HD2	1.55	1.04
35:DA:2192:G:H2'	35:DA:2193:G:H5''	1.37	1.04
24:AY:49:ARG:C	24:AY:66:ALA:HB2	1.77	1.04
35:BA:807:U:OP2	47:BP:39:LYS:HG3	1.57	1.04
24:CY:2:PHE:C	24:CY:2:PHE:CD1	2.27	1.04
56:DY:28:LYS:N	56:DY:28:LYS:HZ2	1.54	1.04
35:DA:867:C:H2'	35:DA:868:U:H5'	1.05	1.04
47:BP:38:GLN:HG3	47:BP:39:LYS:H	1.22	1.04
47:DP:38:GLN:HG3	47:DP:39:LYS:H	1.20	1.04
35:DA:2523:G:H2'	35:DA:2524:G:H5''	1.35	1.04
35:BA:612:C:C2'	35:BA:613:G:H5''	1.87	1.04
57:DZ:151:HIS:HB2	57:DZ:170:THR:HA	1.34	1.04
30:D5:4:HIS:HB3	30:D5:5:PRO:HD3	1.36	1.04
11:CK:67:ASP:HA	11:CK:70:LYS:HE2	1.36	1.04
42:DH:7:LEU:N	42:DH:8:PRO:HA	1.71	1.04
1:CA:4:U:H4'	1:CA:5:U:C5'	1.87	1.04
1:CA:4:U:H4'	1:CA:5:U:H5''	1.33	1.04
1:CA:4:U:H5''	4:CD:86:LYS:HD3	1.39	1.04
23:AX:22:A:H5''	23:AX:22:A:N3	1.72	1.04
42:BH:12:PRO:HB2	42:BH:15:VAL:HG21	1.37	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:D8:51:ALA:N	33:D8:53:PRO:HD2	1.73	1.04
40:BF:67:GLN:HG3	40:BF:67:GLN:O	1.54	1.04
1:AA:1152:A:H5'	10:AJ:70:ARG:HH22	1.20	1.04
3:CC:76:VAL:HG21	3:CC:103:VAL:HG11	1.36	1.04
35:DA:1910:G:H2'	35:DA:1911:U:H5'	1.34	1.03
35:DA:807:U:OP2	47:DP:39:LYS:HG3	1.54	1.03
37:DC:59:ARG:H	37:DC:59:ARG:HD3	1.23	1.03
1:CA:1363(A):A:H4'	1:CA:1364:U:H5''	1.35	1.03
35:DA:2473:U:H5''	35:DA:2475:C:H42	0.91	1.03
22:AV:56:C:O5'	22:AV:56:C:H6	1.41	1.03
1:AA:1399:C:H4'	1:AA:1400:C:C5'	1.86	1.03
22:AW:34:C:O2	23:AX:14:A:C2	2.10	1.03
35:BA:1024:G:H3'	35:BA:1025:G:H5''	1.33	1.03
33:B8:51:ALA:N	33:B8:53:PRO:HD2	1.73	1.03
51:BT:13:ARG:HA	51:BT:13:ARG:NH1	1.73	1.03
42:DH:8:PRO:CD	42:DH:9:ILE:H	1.68	1.03
1:CA:178:C:H2'	1:CA:179:A:H5''	1.38	1.03
2:CB:178:ARG:O	8:CH:71:GLY:HA2	1.59	1.03
35:DA:1899:G:N2	35:DA:1902:C:H41	1.55	1.03
55:DX:84:ALA:HB3	55:DX:87:GLN:HE21	1.22	1.03
3:AC:93:LYS:HB2	3:AC:93:LYS:HZ3	1.21	1.03
50:BS:13:ARG:HG3	50:BS:14:VAL:H	1.24	1.03
57:DZ:4:ARG:HG2	57:DZ:58:VAL:HB	1.39	1.03
1:CA:939:G:H5''	7:CG:102:ARG:HH22	1.19	1.02
42:BH:8:PRO:HD2	42:BH:9:ILE:N	1.71	1.02
1:AA:1399:C:H4'	1:AA:1400:C:H5'	1.05	1.02
55:BX:84:ALA:HB3	55:BX:87:GLN:HE21	1.24	1.02
3:AC:162:GLN:CD	23:AX:23:A:N7	2.12	1.02
35:DA:1912:A:H2	35:DA:1919:A:N6	1.55	1.02
1:CA:1506:U:O4	1:CA:1521:G:H5''	1.60	1.02
31:B6:35:GLU:HB3	31:B6:51:GLU:HB3	1.42	1.02
15:CO:82:ILE:HG12	15:CO:87:ILE:HG13	1.39	1.02
42:BH:7:LEU:N	42:BH:8:PRO:HA	1.71	1.02
1:CA:4:U:C5'	4:CD:86:LYS:HD3	1.90	1.02
35:DA:1024:G:H3'	35:DA:1025:G:H5''	1.38	1.02
42:BH:11:VAL:HG22	42:BH:49:VAL:HG12	1.02	1.02
24:AY:28:ILE:HD12	24:AY:29:PRO:HD2	1.03	1.02
26:B1:3:LYS:CG	26:B1:4:VAL:H	1.73	1.02
35:BA:2491:U:H5'	35:BA:2570:G:H5''	1.37	1.02
47:BP:85:LEU:HA	47:BP:88:LEU:HD22	1.42	1.02
35:BA:2192:G:H2'	35:BA:2193:G:H5''	1.38	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:401:C:P	4:CD:73:ARG:NH2	2.30	1.01
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	1.36	1.01
35:BA:2068:U:N3	35:BA:2430:A:H2	1.57	1.01
24:AY:64:TYR:CG	24:AY:92:ILE:HD13	1.95	1.01
1:CA:657:G:O2'	1:CA:658:G:H5'	1.61	1.01
24:AY:33:LYS:HB3	24:AY:36:GLY:HA3	1.22	1.01
35:DA:507:A:H5''	35:DA:508:G:H5''	1.07	1.01
50:BS:97:ARG:NH2	50:BS:98:VAL:HA	1.76	1.01
22:AW:34:C:O2	23:AX:14:A:H2	1.40	1.01
47:BP:59:LEU:HA	47:BP:61:ARG:CZ	1.91	1.01
1:CA:36:C:H2'	1:CA:37:U:H5'	1.02	1.01
29:B4:52:THR:HG22	29:B4:53:GLU:H	1.24	1.01
33:D8:62:LEU:HD13	35:DA:242:G:H5''	1.39	1.01
40:DF:24:LEU:HB3	40:DF:25:PRO:HD3	1.39	1.01
5:AE:101:ILE:HD11	5:AE:119:LEU:HD23	1.40	1.01
3:AC:162:GLN:CG	23:AX:23:A:C8	2.43	1.00
35:DA:2473:U:O2'	35:DA:2474:C:H5''	1.61	1.00
26:B1:3:LYS:HG3	26:B1:4:VAL:H	0.86	1.00
1:AA:178:C:H2'	1:AA:179:A:H5''	1.42	1.00
24:AY:23:ASP:O	24:AY:25:LYS:HG2	1.61	1.00
22:CV:52:G:O2'	22:CV:53:G:H5'	1.59	1.00
35:DA:1914:C:C2'	35:DA:1915:U:H5''	1.90	1.00
1:CA:1080:A:H5'	5:CE:14:ARG:NH2	1.76	1.00
38:DD:16:MET:HA	38:DD:205:VAL:HG12	1.40	1.00
35:DA:2476:A:H2'	35:DA:2477:C:H5''	1.41	1.00
35:DA:1912:A:C2	35:DA:1919:A:N6	2.29	1.00
35:BA:1490:A:C8	35:BA:1490:A:P	2.55	1.00
35:BA:1490:A:N9	35:BA:1490:A:H5'	1.67	1.00
38:BD:35:LYS:N	38:BD:36:PRO:HD2	1.72	1.00
36:BB:74:U:H2'	36:BB:75:G:H5''	1.37	1.00
35:DA:1301:A:O2'	35:DA:1302:A:H2'	1.60	1.00
35:BA:2476:A:H2'	35:BA:2477:C:H5''	1.43	1.00
42:DH:98:LEU:H	42:DH:125:VAL:HG11	1.27	1.00
41:BG:52:ILE:HD13	41:BG:52:ILE:H	1.27	1.00
1:CA:1225:A:C6	1:CA:1226:C:N4	2.30	1.00
50:DS:97:ARG:NH2	50:DS:98:VAL:HA	1.77	1.00
26:D1:45:ASN:HD21	35:DA:2090:G:H21	1.06	1.00
24:AY:21:LEU:CD1	24:AY:22:GLY:H	1.74	1.00
35:BA:1449:A:N3	35:BA:1529:G:H1'	1.76	1.00
1:AA:939:G:H5''	7:AG:102:ARG:NH2	1.75	1.00
3:CC:93:LYS:HZ3	3:CC:93:LYS:HB2	1.21	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:101:ILE:HD11	5:CE:119:LEU:HD23	1.42	0.99
42:BH:98:LEU:H	42:BH:125:VAL:HG11	1.27	0.99
46:DO:2:ILE:HD11	46:DO:82:ASN:HD22	1.27	0.99
2:AB:17:PHE:HD1	2:AB:44:LEU:HD21	1.27	0.99
29:D4:52:THR:HG22	29:D4:53:GLU:H	1.24	0.99
57:BZ:10:ARG:HB2	57:BZ:38:TYR:HB3	1.44	0.99
35:BA:1449:A:C2	35:BA:1529:G:H1'	1.97	0.99
3:CC:70:VAL:HG12	3:CC:72:LYS:H	1.27	0.99
39:BE:195:LEU:HD12	39:BE:196:VAL:N	1.78	0.99
38:DD:35:LYS:N	38:DD:36:PRO:HD2	1.71	0.99
38:BD:16:MET:HA	38:BD:205:VAL:HG12	1.45	0.99
1:AA:1221:G:H4'	19:AS:77:THR:HG21	1.39	0.99
1:AA:1363(A):A:H4'	1:AA:1364:U:H5''	1.41	0.99
41:DG:114:ILE:HG22	41:DG:116:ASP:H	1.26	0.99
35:DA:508:G:H4'	35:DA:509:C:OP2	1.60	0.99
3:AC:94:LEU:HD23	3:AC:94:LEU:H	1.26	0.99
30:B5:4:HIS:HB3	30:B5:5:PRO:HD3	1.41	0.99
57:BZ:24:LEU:HD11	57:BZ:86:VAL:HG23	1.43	0.99
1:CA:588:G:C6	1:CA:589:C:N4	2.30	0.99
1:CA:1506:U:O2'	1:CA:1507:A:H5'	1.62	0.99
23:AX:21:C:H2'	23:AX:22:A:H5''	1.41	0.99
23:AX:15:A:OP2	23:AX:15:A:H4'	1.59	0.99
39:DE:195:LEU:HD12	39:DE:196:VAL:N	1.77	0.99
46:DO:13:ASN:ND2	46:DO:97:ARG:HB2	1.78	0.99
35:DA:1912:A:C2	35:DA:1919:A:C6	2.50	0.98
1:CA:1221:G:H4'	19:CS:77:THR:HG21	1.43	0.98
2:CB:52:GLU:HG2	2:CB:56:ARG:HH12	1.27	0.98
42:DH:11:VAL:HG22	42:DH:49:VAL:HG12	1.02	0.98
35:DA:1915:U:C5	35:DA:1916:A:N7	2.30	0.98
23:AX:14:A:N1	23:AX:15:A:C2	2.31	0.98
35:BA:1747(A):G:C2'	35:BA:1748:G:H5''	1.93	0.98
47:DP:85:LEU:HA	47:DP:88:LEU:HD22	1.44	0.98
31:D6:11:LEU:HD12	31:D6:24:GLU:HB2	1.46	0.98
35:DA:271(M):G:H5''	43:DI:57:ARG:HH12	1.27	0.98
4:AD:76:ARG:HH11	4:AD:76:ARG:HB2	1.26	0.98
1:CA:939:G:H5''	7:CG:102:ARG:NH2	1.77	0.98
1:AA:1399:C:C4'	1:AA:1400:C:H5'	1.93	0.98
40:BF:24:LEU:HB3	40:BF:25:PRO:HD3	1.44	0.98
1:CA:4:U:C4'	1:CA:5:U:C5'	2.41	0.98
38:BD:31:LYS:HD2	38:BD:94:LEU:HD11	1.45	0.98
46:BO:13:ASN:ND2	46:BO:97:ARG:HB2	1.78	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DP:59:LEU:HA	47:DP:61:ARG:CZ	1.92	0.98
36:BB:20:C:H2'	36:BB:21:G:H5''	1.42	0.98
23:AX:21:C:H2'	23:AX:22:A:C5'	1.93	0.98
19:CS:11:VAL:HG22	19:CS:12:ASP:H	1.28	0.98
50:DS:13:ARG:HG3	50:DS:14:VAL:H	1.24	0.98
51:DT:53:ARG:HB2	51:DT:53:ARG:HH11	1.28	0.98
35:DA:905:U:C2'	35:DA:906:G:H5''	1.94	0.98
33:B8:62:LEU:HD13	35:BA:242:G:H5''	1.46	0.98
41:DG:124:SER:HB2	41:DG:131:TYR:CE1	1.97	0.98
47:DP:126:VAL:HG12	47:DP:148:LEU:HD11	1.46	0.98
23:AX:21:C:C2'	23:AX:22:A:H5''	1.93	0.98
24:AY:21:LEU:HD12	24:AY:22:GLY:H	0.81	0.98
19:CS:36:ARG:HA	19:CS:71:LEU:HB2	1.46	0.98
35:DA:2068:U:N3	35:DA:2430:A:H2	1.61	0.98
15:AO:82:ILE:HG12	15:AO:87:ILE:HG13	1.43	0.97
1:CA:735:C:H2'	1:CA:736:C:H6	1.28	0.97
56:DY:95:LYS:NZ	56:DY:99:CYS:H	1.61	0.97
1:CA:1060:C:C5	3:CC:2:GLY:CA	2.47	0.97
49:DR:4:LEU:O	49:DR:5:LYS:HB2	1.16	0.97
10:AJ:50:ILE:H	10:AJ:50:ILE:HD13	1.28	0.97
35:BA:271(M):G:H5''	43:BI:57:ARG:HH12	1.28	0.97
1:CA:37:U:H2'	1:CA:38:G:C5'	1.94	0.97
47:DP:146:VAL:HG22	47:DP:147:LEU:H	1.28	0.97
51:BT:28:VAL:HG22	51:BT:46:GLU:HA	1.44	0.97
31:D6:11:LEU:HD21	31:D6:51:GLU:HB2	1.47	0.97
37:BC:59:ARG:H	37:BC:59:ARG:HD3	1.23	0.97
35:DA:1914:C:H5'	35:DA:1914:C:O2	1.64	0.97
47:BP:126:VAL:HG12	47:BP:148:LEU:HD11	1.44	0.97
47:BP:146:VAL:HG22	47:BP:147:LEU:H	1.30	0.97
28:B3:3:ARG:HH11	28:B3:3:ARG:HB2	1.30	0.97
24:AY:96:LEU:CD1	24:AY:96:LEU:C	2.33	0.97
1:CA:400:C:C2'	1:CA:401:C:H5'	1.95	0.97
35:BA:776:G:C8	35:BA:776:G:H5''	1.99	0.97
24:AY:33:LYS:HG3	24:AY:36:GLY:HA3	1.43	0.97
22:AV:23:C:H2'	22:AV:24:U:C6	1.99	0.97
35:DA:865:C:C4'	35:DA:866:A:C5	2.46	0.97
1:CA:1152:A:H5'	10:CJ:70:ARG:HH22	1.29	0.97
2:CB:96:ARG:H	2:CB:96:ARG:HD2	1.30	0.97
38:DD:31:LYS:HD2	38:DD:94:LEU:HD11	1.44	0.97
36:DB:20:C:H2'	36:DB:21:G:H5''	1.44	0.97
58:CX:16:A:N3	58:CX:17:U:C6	2.32	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:5:PRO:HG2	8:CH:6:ILE:HD12	1.46	0.96
5:AE:15:ARG:HH11	23:AX:24:A:H5'	1.15	0.96
35:DA:2472:G:C4'	35:DA:2473:U:H5'	1.95	0.96
2:CB:17:PHE:HD1	2:CB:44:LEU:HD21	1.27	0.96
35:DA:676:A:H8	35:DA:2069:G:H21	0.97	0.96
35:DA:630:G:N2	35:DA:633:A:OP2	1.97	0.96
35:BA:905:U:C2'	35:BA:906:G:H5''	1.94	0.96
51:DT:13:ARG:NH1	51:DT:13:ARG:HA	1.78	0.96
35:DA:2474:C:O2	35:DA:2474:C:H2'	1.65	0.96
3:CC:94:LEU:HD23	3:CC:94:LEU:H	1.25	0.96
42:BH:13:LYS:HG3	42:BH:14:GLY:N	1.79	0.96
22:CW:55:U:H2'	22:CW:56:C:H5''	1.43	0.96
46:BO:2:ILE:HD11	46:BO:82:ASN:HD22	1.24	0.96
23:AX:21:C:C2'	23:AX:22:A:C5'	2.43	0.96
10:CJ:50:ILE:HD13	10:CJ:50:ILE:H	1.28	0.96
35:DA:2833:G:H3'	35:DA:2834:G:C5'	1.95	0.96
1:CA:34:C:H2'	1:CA:35:G:H5'	1.47	0.96
35:BA:676:A:H8	35:BA:2069:G:H21	0.97	0.96
35:BA:2091:U:H3'	35:BA:2092:U:H5''	1.47	0.96
9:CI:28:VAL:HG13	9:CI:63:ILE:O	1.65	0.96
1:CA:1226:C:C5'	13:CM:96:LEU:CD2	2.43	0.96
51:BT:35:LYS:HE2	51:BT:41:ARG:HE	1.25	0.96
3:AC:70:VAL:HG12	3:AC:72:LYS:H	1.27	0.96
51:BT:56:GLY:O	51:BT:59:THR:HG22	1.66	0.96
4:CD:76:ARG:HH11	4:CD:76:ARG:HB2	1.28	0.96
1:CA:37:U:C2'	1:CA:38:G:C5'	2.44	0.96
35:DA:2472:G:H3'	35:DA:2473:U:H5'	1.15	0.96
35:BA:1529:G:C6	35:BA:1530:C:N4	2.34	0.96
35:DA:1346:G:H2'	35:DA:1347:G:H5''	1.46	0.96
7:CG:113:GLU:HB2	7:CG:119:ARG:HG2	1.48	0.96
23:AX:21:C:O5'	23:AX:21:C:H6	1.47	0.95
4:CD:133:VAL:HG13	4:CD:135:LEU:HD22	1.46	0.95
42:DH:7:LEU:CD1	42:DH:7:LEU:N	2.29	0.95
24:AY:38:GLY:C	24:AY:39:LYS:HD2	1.84	0.95
35:BA:2833:G:H3'	35:BA:2834:G:C5'	1.95	0.95
45:BN:57:ALA:H	45:BN:124:ALA:HA	1.29	0.95
42:DH:11:VAL:HG22	42:DH:49:VAL:HG11	0.95	0.95
22:CV:55:U:O2	22:CV:57:A:C8	2.19	0.95
1:AA:1400:C:O2'	23:AX:19:U:C5	2.19	0.95
47:BP:7:ARG:HA	47:BP:7:ARG:NH1	1.81	0.95
48:DQ:133:ARG:HH11	48:DQ:133:ARG:HB2	1.30	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DH:13:LYS:HG3	42:DH:14:GLY:N	1.79	0.95
58:CX:19:G:N3	58:CX:19:G:C5'	2.29	0.95
35:DA:145:G:H2'	35:DA:146:G:H5''	1.46	0.95
35:BA:1301:A:O2'	35:BA:1302:A:H2'	1.66	0.95
42:BH:11:VAL:HG22	42:BH:49:VAL:HG11	0.96	0.95
22:CV:23:C:H2'	22:CV:24:U:H6	1.30	0.95
47:BP:59:LEU:HA	47:BP:61:ARG:HE	1.18	0.95
51:DT:35:LYS:HE2	51:DT:41:ARG:HE	1.27	0.95
35:BA:774:A:H2	35:BA:787:U:HO2'	1.00	0.95
35:DA:1747(A):G:C2'	35:DA:1748:G:H5''	1.95	0.95
40:BF:84:VAL:HG12	40:BF:85:GLY:N	1.82	0.95
26:B1:45:ASN:HD21	35:BA:2090:G:H21	0.99	0.95
13:CM:2:ALA:HB3	13:CM:9:ILE:HG23	1.49	0.95
24:AY:49:ARG:O	24:AY:66:ALA:HB2	1.66	0.95
35:DA:1911:U:C2	35:DA:1918:A:C6	2.47	0.95
10:CJ:5:ARG:HB3	10:CJ:99:LYS:HB2	1.48	0.95
23:AX:22:A:N3	23:AX:22:A:C5'	2.29	0.94
19:AS:11:VAL:HG22	19:AS:12:ASP:H	1.29	0.94
19:AS:36:ARG:HA	19:AS:71:LEU:HB2	1.46	0.94
2:AB:52:GLU:HG2	2:AB:56:ARG:HH12	1.28	0.94
3:CC:141:VAL:HG11	3:CC:202:ILE:HD12	1.48	0.94
35:DA:1592:C:C2'	35:DA:1593:G:H5''	1.96	0.94
57:DZ:96:VAL:HG22	57:DZ:97:GLU:H	1.30	0.94
31:B6:11:LEU:HD12	31:B6:24:GLU:HB2	1.46	0.94
47:DP:7:ARG:HA	47:DP:7:ARG:NH1	1.82	0.94
4:AD:199:ASN:HD22	4:AD:202:LEU:HG	1.31	0.94
22:AV:53:G:C2	22:AV:62:C:O2	2.20	0.94
1:CA:1060:C:C6	3:CC:2:GLY:HA2	2.02	0.94
7:AG:113:GLU:HB2	7:AG:119:ARG:HG2	1.47	0.94
16:AP:73:LEU:H	16:AP:73:LEU:HD12	1.29	0.94
42:BH:8:PRO:C	42:BH:9:ILE:HG23	1.86	0.94
24:AY:96:LEU:C	24:AY:96:LEU:HD13	1.86	0.94
24:AY:64:TYR:CB	24:AY:92:ILE:CD1	2.45	0.94
24:AY:64:TYR:CB	24:AY:92:ILE:HD13	1.97	0.94
1:CA:613:C:H2'	1:CA:614:A:H5''	1.50	0.94
35:BA:1346:G:H2'	35:BA:1347:G:H5''	1.45	0.94
35:DA:2473:U:H3'	35:DA:2474:C:H5''	1.44	0.94
35:DA:145:G:C2'	35:DA:146:G:H5''	1.98	0.94
45:DN:57:ALA:H	45:DN:124:ALA:HA	1.32	0.94
8:AH:20:TYR:HA	8:AH:65:TYR:HE2	1.33	0.94
42:BH:12:PRO:HB2	42:BH:15:VAL:CG2	1.98	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1060:C:H5	3:CC:2:GLY:N	1.54	0.94
51:DT:28:VAL:HG22	51:DT:46:GLU:HA	1.45	0.94
4:AD:76:ARG:NH1	4:AD:76:ARG:HB2	1.83	0.94
35:BA:1175:U:H4'	35:BA:1176:G:H5'	1.49	0.94
22:AW:64:G:H2'	22:AW:65:C:H4'	1.50	0.94
47:BP:24:GLY:CA	59:BP:202:MG:MG	1.39	0.94
35:BA:1915:U:H2'	35:BA:1916:A:H5''	1.50	0.94
2:AB:8:LYS:HA	2:AB:217:ARG:HH22	1.33	0.94
1:AA:736:C:H2'	1:AA:737:A:C8	2.03	0.94
43:BI:81:VAL:HG12	43:BI:89:TYR:HB3	1.49	0.94
3:CC:3:ASN:HD22	3:CC:3:ASN:H	1.11	0.94
1:AA:735:C:H2'	1:AA:736:C:H6	1.29	0.94
33:B8:14:VAL:HG23	33:B8:24:ALA:HB2	1.50	0.94
29:D4:42:PHE:HD1	29:D4:43:TYR:H	1.09	0.94
43:BI:61:ARG:H	43:BI:61:ARG:HD3	1.32	0.94
24:AY:82:GLN:HG2	24:AY:83:LEU:N	1.83	0.93
48:BQ:133:ARG:HH11	48:BQ:133:ARG:HB2	1.31	0.93
1:CA:1226:C:C5'	13:CM:96:LEU:HD21	1.98	0.93
10:CJ:24:VAL:HG22	10:CJ:72:VAL:HG11	1.47	0.93
23:AX:23:A:C8	23:AX:23:A:H5''	2.03	0.93
51:DT:91:ARG:HB3	51:DT:116:ALA:HA	1.49	0.93
1:CA:1531:A:H2'	1:CA:1532:U:H5''	1.49	0.93
35:DA:2392:A:H2	35:DA:2424:C:H42	1.14	0.93
35:BA:145:G:C2'	35:BA:146:G:H5''	1.98	0.93
23:AX:21:C:HO2'	23:AX:22:A:H2	1.01	0.93
24:AY:44:THR:HA	24:AY:50:LYS:O	1.67	0.93
1:AA:34:C:H6	1:AA:34:C:H5'	1.29	0.93
39:DE:111:ARG:HD2	39:DE:160:TYR:CD1	2.04	0.93
41:DG:121:ASN:HD22	41:DG:122:PRO:HD2	1.31	0.93
35:BA:1346:G:C2'	35:BA:1347:G:H5''	1.98	0.93
35:BA:145:G:H2'	35:BA:146:G:H5''	1.50	0.93
23:AX:19:U:H2'	23:AX:20:U:H6	1.31	0.93
12:CL:41:THR:HG23	24:CY:7:HIS:HA	1.47	0.93
4:AD:110:PHE:H	4:AD:110:PHE:HD1	1.16	0.93
3:AC:141:VAL:HG11	3:AC:202:ILE:HD12	1.51	0.93
4:AD:133:VAL:HG13	4:AD:135:LEU:HD22	1.51	0.93
42:BH:7:LEU:N	42:BH:7:LEU:CD1	2.29	0.93
53:DV:38:LEU:O	53:DV:39:LEU:HD13	1.68	0.93
42:BH:13:LYS:CG	42:BH:14:GLY:N	2.32	0.93
28:D3:3:ARG:HB2	28:D3:3:ARG:HH11	1.30	0.93
35:BA:1592:C:C2'	35:BA:1593:G:H5''	1.99	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:239:ARG:HH21	38:BD:239:ARG:HG2	1.32	0.93
35:DA:2320:A:H1'	35:DA:2321:G:C6	2.03	0.93
42:BH:10:PRO:HG2	42:BH:10:PRO:O	1.65	0.93
22:CV:54:U:C3'	22:CV:55:U:C5'	2.33	0.93
56:BY:14:LEU:HD11	56:BY:22:GLY:HA2	1.50	0.93
24:AY:64:TYR:HB2	24:AY:92:ILE:CD1	1.99	0.93
2:AB:96:ARG:H	2:AB:96:ARG:HD2	1.33	0.93
43:DI:81:VAL:HG12	43:DI:89:TYR:HB3	1.48	0.93
24:AY:96:LEU:HD12	24:AY:96:LEU:O	1.68	0.93
33:B8:59:LYS:HB2	33:B8:59:LYS:HZ3	1.32	0.93
42:DH:13:LYS:CG	42:DH:14:GLY:N	2.32	0.93
35:BA:2681:C:H5	35:BA:2725:A:H62	1.09	0.93
29:D4:24:THR:HG22	29:D4:25:TYR:H	1.32	0.93
4:CD:199:ASN:HD22	4:CD:202:LEU:HG	1.30	0.93
42:BH:8:PRO:O	42:BH:9:ILE:HD13	1.69	0.92
10:AJ:5:ARG:HB3	10:AJ:99:LYS:HB2	1.49	0.92
9:AI:19:LEU:HD23	9:AI:61:ALA:HB2	1.51	0.92
38:DD:125:ILE:HD12	38:DD:137:PRO:HD3	1.51	0.92
2:CB:179:LYS:HA	8:CH:72:PRO:HD3	1.49	0.92
40:DF:84:VAL:HG12	40:DF:85:GLY:N	1.83	0.92
35:DA:2681:C:H5	35:DA:2725:A:H62	1.14	0.92
48:BQ:63:LYS:HD2	57:BZ:175:VAL:HG21	1.48	0.92
56:BY:7:VAL:HB	56:BY:8:LYS:HD2	1.49	0.92
43:BI:82:ARG:HD3	43:BI:82:ARG:H	1.33	0.92
10:AJ:24:VAL:HG22	10:AJ:72:VAL:HG11	1.50	0.92
16:CP:73:LEU:HD12	16:CP:73:LEU:H	1.34	0.92
6:CF:36:ARG:HB3	6:CF:36:ARG:HH11	1.33	0.92
51:BT:53:ARG:HB2	51:BT:53:ARG:HH11	1.31	0.92
29:B4:12:ALA:HA	29:B4:29:PRO:HG3	1.51	0.92
31:B6:11:LEU:HD21	31:B6:51:GLU:HB2	1.47	0.92
35:BA:2392:A:H2	35:BA:2424:C:H42	1.13	0.92
42:DH:10:PRO:O	42:DH:10:PRO:HG2	1.65	0.92
1:AA:613:C:C2'	1:AA:614:A:H5''	1.99	0.92
47:DP:59:LEU:HA	47:DP:61:ARG:HE	1.21	0.92
51:BT:83:ILE:HG13	51:BT:84:GLN:N	1.84	0.92
41:BG:52:ILE:HG12	41:BG:53:LEU:H	1.35	0.92
35:DA:1846:G:H5'	35:DA:1847:A:OP2	1.68	0.92
57:BZ:103:ARG:HH11	57:BZ:136:PHE:HB3	1.32	0.92
3:AC:34:LEU:HB2	3:AC:38:ARG:HH21	1.35	0.92
42:DH:12:PRO:HB2	42:DH:15:VAL:CG2	1.98	0.92
56:BY:95:LYS:NZ	56:BY:99:CYS:H	1.67	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:20:TYR:HA	8:AH:65:TYR:CE2	2.04	0.92
6:AF:36:ARG:HH11	6:AF:36:ARG:HB3	1.34	0.92
35:BA:902:C:H2'	35:BA:903:C:C6	2.05	0.92
42:DH:158:HIS:NE2	42:DH:170:ARG:HA	1.85	0.92
9:CI:19:LEU:HD23	9:CI:61:ALA:HB2	1.49	0.92
12:AL:107:VAL:HG21	12:AL:117:TYR:HD2	1.35	0.92
24:AY:57:GLN:CG	35:BA:1913:A:N3	2.31	0.92
33:B8:25:MET:HG3	47:BP:64:LYS:CB	1.99	0.92
35:DA:902:C:H2'	35:DA:903:C:C6	2.04	0.92
35:BA:1902:C:O2'	38:BD:244:ARG:HB2	1.70	0.92
1:CA:736:C:H2'	1:CA:737:A:C8	2.03	0.92
9:AI:28:VAL:HG13	9:AI:63:ILE:O	1.69	0.92
35:DA:2091:U:H3'	35:DA:2092:U:H5''	1.51	0.92
29:B4:42:PHE:HD1	29:B4:43:TYR:H	1.09	0.92
47:DP:13:ASN:C	47:DP:13:ASN:HD22	1.74	0.92
57:BZ:35:ARG:HA	57:BZ:35:ARG:NE	1.82	0.92
39:DE:203:LYS:HE3	39:DE:204:ALA:HB2	1.51	0.92
26:B1:73:LEU:HD13	26:B1:94:LEU:HD22	1.50	0.92
42:DH:7:LEU:N	42:DH:8:PRO:CA	2.29	0.91
47:BP:59:LEU:CA	47:BP:61:ARG:HE	1.81	0.91
35:BA:2127:G:H5'	37:BC:36:LYS:HB2	1.52	0.91
36:BB:57:A:H1'	41:BG:29:TRP:O	1.70	0.91
2:CB:8:LYS:HA	2:CB:217:ARG:HH22	1.33	0.91
12:CL:107:VAL:HG21	12:CL:117:TYR:HD2	1.35	0.91
39:BE:203:LYS:HE3	39:BE:204:ALA:HB2	1.51	0.91
5:AE:15:ARG:HH11	23:AX:24:A:C5'	1.83	0.91
57:BZ:151:HIS:HB2	57:BZ:170:THR:HA	1.50	0.91
13:AM:2:ALA:HB3	13:AM:9:ILE:HG23	1.49	0.91
8:AH:5:PRO:HG2	8:AH:6:ILE:HD12	1.50	0.91
35:DA:1175:U:H4'	35:DA:1176:G:H5'	1.51	0.91
29:B4:24:THR:HG22	29:B4:25:TYR:H	1.33	0.91
39:BE:132:HIS:CD2	39:BE:135:HIS:NE2	2.38	0.91
24:AY:28:ILE:CG1	24:AY:29:PRO:HD2	2.01	0.91
5:CE:81:GLU:HG2	5:CE:90:VAL:HG22	1.53	0.91
22:CV:55:U:C4	22:CV:57:A:P	2.63	0.91
1:CA:736:C:H2'	1:CA:737:A:H8	1.33	0.91
43:DI:82:ARG:H	43:DI:82:ARG:HD3	1.34	0.91
4:CD:110:PHE:HD1	4:CD:110:PHE:H	1.18	0.91
35:DA:2127:G:H5'	37:DC:36:LYS:HB2	1.52	0.91
35:BA:2305:A:H3'	35:BA:2306:C:H5''	1.52	0.91
42:BH:7:LEU:N	42:BH:8:PRO:CA	2.29	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1401:G:OP1	58:CX:19:G:N2	2.03	0.91
7:CG:80:VAL:HG12	7:CG:81:GLY:H	1.34	0.91
1:CA:34:C:H2'	1:CA:35:G:C5'	2.00	0.91
35:DA:2192:G:C2'	35:DA:2193:G:H5''	2.00	0.91
42:DH:8:PRO:C	42:DH:9:ILE:HG23	1.86	0.91
47:DP:59:LEU:CA	47:DP:61:ARG:HE	1.84	0.91
40:BF:22:ALA:O	40:BF:26:ALA:HB2	1.71	0.91
2:CB:196:LEU:HD12	2:CB:197:VAL:HG13	1.53	0.91
4:CD:76:ARG:NH1	4:CD:76:ARG:HB2	1.85	0.91
45:DN:133:GLN:HG2	45:DN:134:ARG:H	1.33	0.91
22:AV:54:U:C5'	22:AV:55:U:H5''	2.01	0.91
33:D8:59:LYS:HZ3	33:D8:59:LYS:HB2	1.34	0.91
33:B8:48:PHE:O	33:B8:49:VAL:HG22	1.70	0.91
47:DP:18:ARG:HB3	47:DP:18:ARG:NH1	1.86	0.91
38:BD:79:VAL:HG21	38:BD:111:LEU:HD11	1.51	0.91
35:BA:1771:C:HO2'	35:BA:1786:A:H8	1.01	0.91
22:CV:33:U:C2	22:CV:35:A:H5'	2.06	0.91
49:BR:98:LEU:HB2	49:BR:113:LEU:HD21	1.53	0.91
35:BA:83:G:H22	35:BA:102:G:H2'	1.35	0.91
51:BT:80:SER:HB3	51:BT:81:PRO:HD3	1.53	0.91
42:BH:158:HIS:NE2	42:BH:170:ARG:HA	1.85	0.91
22:CW:9:G:H1'	22:CW:45:G:O2'	1.70	0.91
41:BG:51:ARG:HA	41:BG:51:ARG:HE	1.33	0.91
35:DA:2305:A:H3'	35:DA:2306:C:H5''	1.51	0.90
35:DA:774:A:H2	35:DA:787:U:HO2'	0.96	0.90
42:DH:8:PRO:O	42:DH:9:ILE:HD13	1.69	0.90
51:BT:91:ARG:HB3	51:BT:116:ALA:HA	1.50	0.90
38:DD:35:LYS:H	38:DD:36:PRO:HD2	1.34	0.90
10:AJ:40:LEU:HB3	10:AJ:41:PRO:HD2	1.51	0.90
57:DZ:29:TYR:HB3	57:DZ:34:ASN:HD22	1.36	0.90
39:DE:77:ILE:HG22	39:DE:78:LEU:H	1.36	0.90
4:CD:114:ARG:HG3	4:CD:114:ARG:HH11	1.34	0.90
41:BG:32:PRO:HA	41:BG:162:THR:HB	1.51	0.90
47:BP:18:ARG:HB3	47:BP:18:ARG:NH1	1.85	0.90
1:CA:645:C:H6	1:CA:645:C:H5'	1.34	0.90
22:CV:55:U:C2	22:CV:57:A:C8	2.59	0.90
56:DY:14:LEU:HD11	56:DY:22:GLY:HA2	1.53	0.90
35:BA:1846:G:H5'	35:BA:1847:A:OP2	1.71	0.90
29:B4:56:VAL:HG13	29:B4:57:GLU:H	1.36	0.90
51:DT:83:ILE:HG13	51:DT:84:GLN:N	1.86	0.90
1:AA:736:C:H2'	1:AA:737:A:H8	1.36	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:37:U:C4	1:CA:38:G:N7	2.38	0.90
35:DA:1902:C:O2'	38:DD:244:ARG:HB2	1.70	0.90
7:AG:80:VAL:HG12	7:AG:81:GLY:H	1.34	0.90
57:BZ:63:ASP:HB2	57:BZ:65:GLN:HE21	1.36	0.90
37:DC:191:ALA:HA	37:DC:195:ALA:HB3	1.53	0.90
1:AA:801:U:H2'	1:AA:802:A:H8	1.36	0.90
1:CA:4:U:OP2	4:CD:86:LYS:HD3	1.71	0.90
35:DA:64:A:H5'	55:DX:64:LYS:HE2	1.53	0.90
22:CV:55:U:N3	22:CV:57:A:H3'	1.85	0.90
35:DA:90:U:C1'	35:DA:92:A:C8	2.54	0.90
22:CV:36:U:H2'	22:CV:37:A:C4'	2.01	0.90
35:BA:2192:G:C2'	35:BA:2193:G:H5''	2.01	0.90
35:DA:271(O):C:O2'	35:DA:271(P):C:H5'	1.72	0.90
51:BT:60:THR:HG22	51:BT:77:PRO:HA	1.53	0.90
12:AL:41:THR:HB	24:AY:9:TYR:HE2	1.37	0.90
35:DA:2473:U:C2'	35:DA:2474:C:C5'	2.48	0.90
7:CG:25:ALA:HA	7:CG:28:ASN:HD22	1.34	0.90
56:DY:95:LYS:HZ2	56:DY:99:CYS:H	1.18	0.90
35:BA:1530:C:H1'	35:BA:1531:C:H5'	1.53	0.90
45:BN:133:GLN:HG2	45:BN:134:ARG:H	1.34	0.90
38:DD:239:ARG:HG2	38:DD:239:ARG:HH21	1.37	0.90
22:CV:23:C:H2'	22:CV:24:U:C6	2.07	0.90
1:CA:673:G:H2'	1:CA:674:G:C8	2.07	0.90
50:BS:99:LYS:HD2	50:BS:99:LYS:H	1.36	0.90
49:DR:7:GLY:O	49:DR:8:ARG:HG3	1.71	0.90
33:D8:25:MET:HG3	47:DP:64:LYS:CB	2.00	0.89
1:CA:10:A:C2'	1:CA:11:G:H5'	2.01	0.89
57:BZ:102:LEU:HG	57:BZ:123:ASP:HA	1.52	0.89
35:BA:1484:G:C2'	35:BA:1485:G:H5''	2.01	0.89
38:BD:35:LYS:O	38:BD:37:LEU:N	2.05	0.89
6:CF:52:ILE:HD13	6:CF:87:ARG:HH12	1.36	0.89
35:DA:1430:C:H2'	35:DA:1431:U:H6	1.36	0.89
4:AD:114:ARG:HG3	4:AD:114:ARG:HH11	1.37	0.89
29:D4:12:ALA:HA	29:D4:29:PRO:HG3	1.51	0.89
56:DY:28:LYS:NZ	56:DY:28:LYS:N	2.14	0.89
42:DH:85:LYS:CD	42:DH:133:VAL:HB	2.02	0.89
41:DG:107:LEU:HD22	41:DG:177:GLY:O	1.70	0.89
1:CA:801:U:H2'	1:CA:802:A:H8	1.36	0.89
10:AJ:96:ILE:HD13	10:AJ:96:ILE:H	1.36	0.89
1:CA:1141:C:H2'	1:CA:1142:G:C8	2.08	0.89
35:DA:2473:U:C5'	35:DA:2475:C:N4	2.30	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1060:C:C5	3:CC:2:GLY:HA2	2.05	0.89
8:CH:20:TYR:HA	8:CH:65:TYR:CE2	2.07	0.89
19:CS:39:THR:HG22	19:CS:40:ILE:H	1.37	0.89
35:BA:271(O):C:O2'	35:BA:271(P):C:H5'	1.72	0.89
23:AX:24:A:C4'	23:AX:25:A:OP2	2.20	0.89
35:BA:1530:C:O2'	35:BA:1531:C:H4'	1.72	0.89
42:BH:85:LYS:CD	42:BH:133:VAL:HB	2.02	0.89
33:B8:52:LYS:N	33:B8:53:PRO:HD2	1.88	0.89
33:B8:61:LEU:HD23	33:B8:61:LEU:H	1.37	0.89
19:AS:42:PRO:CG	29:B4:50:VAL:HG21	2.02	0.89
22:AV:53:G:C8	22:AV:53:G:H5''	2.07	0.89
35:DA:2472:G:C3'	35:DA:2473:U:C5'	2.32	0.89
35:DA:2303:G:H1'	41:DG:132:ASN:ND2	1.87	0.89
10:AJ:46:ARG:HH22	10:AJ:66:ARG:HH21	1.21	0.89
38:DD:210:GLY:O	38:DD:212:SER:N	2.05	0.89
50:DS:99:LYS:HD2	50:DS:99:LYS:H	1.37	0.89
42:DH:7:LEU:HD13	42:DH:7:LEU:N	1.88	0.89
33:D8:49:VAL:HG12	35:DA:2360:A:OP1	1.72	0.89
2:CB:84:GLU:HG3	2:CB:215:LEU:HB3	1.54	0.89
50:BS:15:ARG:HH11	50:BS:15:ARG:CB	1.86	0.89
10:CJ:40:LEU:HB3	10:CJ:41:PRO:HD2	1.51	0.89
11:AK:99:GLN:HG2	11:AK:105:VAL:HG11	1.54	0.89
51:DT:56:GLY:O	51:DT:59:THR:HG22	1.70	0.89
1:CA:1060:C:O2'	10:CJ:56:HIS:CD2	2.25	0.89
35:DA:2303:G:O2'	41:DG:132:ASN:HB2	1.73	0.89
24:CY:7:HIS:ND1	24:CY:7:HIS:N	2.19	0.89
25:B0:27:GLU:HG3	25:B0:68:GLU:HA	1.55	0.89
27:B2:10:LEU:HD21	27:B2:59:ARG:HD2	1.54	0.89
10:CJ:48:THR:HA	10:CJ:62:HIS:HB3	1.53	0.89
5:AE:82:VAL:HG21	5:AE:138:ALA:HA	1.54	0.89
23:AX:13:A:H5''	23:AX:14:A:C5'	2.01	0.89
33:D8:48:PHE:O	33:D8:49:VAL:HG22	1.71	0.89
50:DS:15:ARG:HH11	50:DS:15:ARG:HB3	1.38	0.89
3:AC:52:LEU:HD23	3:AC:52:LEU:H	1.37	0.89
35:DA:963:U:H2'	35:DA:964:C:H6	1.36	0.89
37:DC:82:LYS:NZ	37:DC:94:VAL:HG11	1.88	0.89
33:D8:14:VAL:HG23	33:D8:24:ALA:HB2	1.54	0.89
1:AA:673:G:H2'	1:AA:674:G:C8	2.08	0.89
24:AY:57:GLN:HG3	35:BA:1913:A:H2	0.84	0.89
1:CA:11:G:O2'	1:CA:12:U:H5'	1.73	0.89
35:DA:1346:G:C2'	35:DA:1347:G:H5''	2.01	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:B4:24:THR:HG23	41:BG:5:VAL:HG11	1.52	0.89
32:B7:8:ASN:ND2	32:B7:11:LYS:H	1.69	0.89
35:DA:1038:C:H3'	35:DA:1039:G:H5''	1.52	0.89
12:AL:41:THR:HG21	24:AY:7:HIS:CB	2.01	0.89
1:CA:401:C:OP1	4:CD:73:ARG:CZ	2.20	0.89
35:DA:1910:G:O2'	35:DA:1911:U:H5'	1.71	0.89
35:BA:775:G:O2'	35:BA:776:G:P	2.30	0.89
36:DB:74:U:C2'	36:DB:75:G:H5''	2.02	0.89
8:CH:20:TYR:HA	8:CH:65:TYR:HE2	1.37	0.89
2:AB:196:LEU:HD12	2:AB:197:VAL:HG13	1.55	0.89
38:DD:44:ASN:HB3	38:DD:49:ILE:HA	1.55	0.89
1:CA:1417:G:H22	1:CA:1482:G:H2'	1.37	0.89
35:BA:528:A:O2'	35:BA:529:A:H5'	1.72	0.89
52:DU:90:VAL:O	52:DU:92:ARG:N	2.06	0.88
9:CI:27:THR:HG23	9:CI:31:GLN:O	1.73	0.88
39:BE:77:ILE:HG22	39:BE:78:LEU:H	1.38	0.88
1:AA:1004:A:H61	1:AA:1034:G:H2'	1.37	0.88
1:CA:1457:G:H2'	1:CA:1458:G:H8	1.38	0.88
37:BC:191:ALA:HA	37:BC:195:ALA:HB3	1.54	0.88
1:AA:1141:C:H2'	1:AA:1142:G:C8	2.08	0.88
35:DA:2591:C:H2'	35:DA:2592:G:C8	2.06	0.88
35:BA:1899:G:N2	35:BA:1902:C:N4	2.21	0.88
18:AR:53:ARG:HH21	18:AR:59:SER:HA	1.37	0.88
7:AG:25:ALA:HA	7:AG:28:ASN:HD22	1.35	0.88
4:CD:25:ARG:HH12	4:CD:35:ARG:HH12	1.20	0.88
11:CK:99:GLN:HG2	11:CK:105:VAL:HG11	1.54	0.88
22:CV:33:U:O2	22:CV:35:A:H5'	1.73	0.88
38:BD:35:LYS:H	38:BD:36:PRO:HD2	1.33	0.88
26:B1:73:LEU:HD11	26:B1:94:LEU:HB3	1.55	0.88
41:BG:112:PRO:HG2	41:BG:113:ARG:HA	1.53	0.88
16:CP:53:VAL:HG12	16:CP:79:VAL:HG22	1.55	0.88
35:BA:518:G:H4'	54:BW:18:ARG:NH1	1.88	0.88
35:DA:543:C:HO2'	35:DA:547:A:H8	0.89	0.88
47:BP:13:ASN:HD22	47:BP:13:ASN:C	1.74	0.88
41:DG:52:ILE:HD13	41:DG:52:ILE:H	1.37	0.88
26:B1:45:ASN:ND2	35:BA:2090:G:H21	1.72	0.88
37:DC:78:ALA:HB3	37:DC:82:LYS:HG3	1.55	0.88
39:BE:111:ARG:HD2	39:BE:160:TYR:CD1	2.07	0.88
40:DF:22:ALA:O	40:DF:26:ALA:HB2	1.74	0.88
2:AB:22:LYS:HA	2:AB:22:LYS:NZ	1.88	0.88
2:AB:84:GLU:HG3	2:AB:215:LEU:HB3	1.53	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:27:THR:HG23	9:AI:31:GLN:O	1.73	0.88
47:DP:17:LYS:O	47:DP:19:VAL:N	2.06	0.88
10:AJ:48:THR:HA	10:AJ:62:HIS:HB3	1.53	0.88
10:CJ:96:ILE:H	10:CJ:96:ILE:HD13	1.35	0.88
56:DY:7:VAL:HB	56:DY:8:LYS:HD2	1.55	0.88
38:DD:35:LYS:O	38:DD:37:LEU:N	2.07	0.88
1:CA:1427:U:H2'	1:CA:1428:A:C8	2.08	0.88
43:DI:133:HIS:HB3	43:DI:134:PRO:CD	2.02	0.88
35:BA:1779:U:H5	35:BA:1784:A:N7	1.71	0.88
19:AS:9:VAL:HG22	29:B4:53:GLU:CG	2.04	0.88
38:BD:125:ILE:HD12	38:BD:137:PRO:HD3	1.56	0.88
29:D4:56:VAL:HG13	29:D4:57:GLU:H	1.36	0.88
35:BA:925:C:C2'	35:BA:926:A:H5''	2.04	0.88
38:DD:134:ARG:HG3	38:DD:135:PHE:CD1	2.09	0.88
40:DF:164:ARG:HG3	40:DF:175:THR:OG1	1.74	0.88
5:AE:15:ARG:NH1	23:AX:24:A:C5'	2.34	0.88
35:DA:865:C:H4'	35:DA:866:A:C8	2.08	0.88
22:CV:55:U:C5	22:CV:57:A:P	2.66	0.88
53:BV:38:LEU:O	53:BV:39:LEU:HD13	1.73	0.88
35:DA:146:G:H5'	35:DA:146:G:H8	1.38	0.88
35:DA:83:G:H22	35:DA:102:G:H2'	1.39	0.88
10:AJ:92:THR:HG23	10:AJ:93:GLY:H	1.38	0.88
3:AC:162:GLN:OE1	23:AX:23:A:C8	2.25	0.88
42:BH:7:LEU:N	42:BH:7:LEU:HD13	1.88	0.88
10:CJ:46:ARG:HH22	10:CJ:66:ARG:HH21	1.21	0.88
24:AY:38:GLY:C	24:AY:39:LYS:CD	2.42	0.88
7:CG:102:ARG:HG2	7:CG:106:GLN:HE21	1.39	0.88
2:CB:22:LYS:NZ	2:CB:22:LYS:HA	1.89	0.88
2:CB:97:TRP:CZ3	2:CB:172:ILE:HB	2.09	0.88
26:D1:5:CYS:SG	26:D1:62:VAL:HG23	2.14	0.88
43:BI:133:HIS:HB3	43:BI:134:PRO:CD	2.04	0.88
37:BC:78:ALA:HB3	37:BC:82:LYS:HG3	1.56	0.88
37:BC:89:ALA:HB3	37:BC:153:ILE:HA	1.54	0.88
7:CG:81:GLY:O	58:CX:13:A:H5'	1.73	0.87
33:D8:61:LEU:HD23	33:D8:61:LEU:H	1.36	0.87
19:AS:39:THR:HG22	19:AS:40:ILE:H	1.39	0.87
5:CE:50:GLU:HG3	5:CE:52:PRO:HD2	1.56	0.87
3:CC:34:LEU:HB2	3:CC:38:ARG:HH21	1.37	0.87
37:DC:89:ALA:HB3	37:DC:153:ILE:HA	1.56	0.87
35:DA:90:U:C1'	35:DA:92:A:H8	1.87	0.87
4:CD:101:LEU:HD23	4:CD:121:VAL:HG13	1.55	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DH:8:PRO:CD	42:DH:9:ILE:N	2.30	0.87
35:DA:1913:A:OP1	35:DA:1913:A:H3'	1.74	0.87
1:AA:1293:G:HO2'	1:AA:1294:G:H8	0.93	0.87
5:CE:82:VAL:HG21	5:CE:138:ALA:HA	1.54	0.87
25:D0:27:GLU:HG3	25:D0:68:GLU:HA	1.54	0.87
22:CV:36:U:H3	58:CX:16:A:H61	1.18	0.87
56:DY:7:VAL:HB	56:DY:8:LYS:CE	2.05	0.87
52:BU:92:ARG:NH1	53:BV:11:GLN:H	1.72	0.87
1:CA:1417:G:N2	1:CA:1482:G:H2'	1.89	0.87
27:D2:29:LYS:HD3	27:D2:57:ILE:HD13	1.57	0.87
22:CV:52:G:N2	22:CV:62:C:N3	2.23	0.87
1:CA:836:G:C6	1:CA:837:G:C6	2.62	0.87
37:BC:82:LYS:NZ	37:BC:94:VAL:HG11	1.88	0.87
1:AA:1012:U:H3'	1:AA:1013:G:H5''	1.54	0.87
1:CA:192:U:H4'	20:CT:103:GLY:H	1.40	0.87
18:CR:53:ARG:HH21	18:CR:59:SER:HA	1.38	0.87
10:CJ:92:THR:HG23	10:CJ:93:GLY:H	1.39	0.87
35:BA:1430:C:H2'	35:BA:1431:U:H6	1.36	0.87
35:BA:776:G:H5''	35:BA:776:G:H8	1.35	0.87
57:DZ:144:LEU:HG	57:DZ:150:LEU:HD22	1.57	0.87
35:DA:1779:U:H5	35:DA:1784:A:N7	1.72	0.87
35:DA:2115:G:H22	35:DA:2118:U:H5''	1.38	0.87
1:AA:818:G:O2'	1:AA:819:A:H5'	1.73	0.87
1:CA:11:G:C2'	1:CA:12:U:H5'	2.05	0.87
50:DS:15:ARG:HH11	50:DS:15:ARG:CB	1.86	0.87
46:BO:2:ILE:CD1	46:BO:82:ASN:HD22	1.87	0.87
35:BA:1038:C:H3'	35:BA:1039:G:H5''	1.56	0.87
32:D7:8:ASN:ND2	32:D7:11:LYS:H	1.71	0.87
42:BH:15:VAL:O	42:BH:16:SER:OG	1.92	0.87
22:CV:54:U:C2'	22:CV:55:U:H5''	2.03	0.87
35:BA:1490:A:N7	35:BA:1490:A:P	2.48	0.87
1:CA:1060:C:OP1	14:CN:45:ARG:NH2	2.08	0.87
52:DU:92:ARG:NH1	53:DV:11:GLN:H	1.73	0.87
24:AY:49:ARG:O	24:AY:66:ALA:CB	2.23	0.87
12:CL:110:ARG:HB3	12:CL:119:THR:HG21	1.56	0.87
35:BA:1528(A):A:N7	35:BA:1529:G:N7	2.22	0.86
1:CA:6:G:H5''	1:CA:6:G:N3	1.89	0.86
5:CE:102:ALA:HB1	5:CE:106:PRO:HG2	1.54	0.86
1:AA:979:C:H3'	1:AA:980:C:H5''	1.56	0.86
48:BQ:43:THR:OG1	48:BQ:46:GLN:HG3	1.75	0.86
27:D2:36:ARG:HH21	55:DX:9:LEU:HA	1.39	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1717:G:H2'	35:DA:1718:G:H5''	1.56	0.86
28:B3:3:ARG:HH11	28:B3:3:ARG:CB	1.87	0.86
1:CA:1012:U:H3'	1:CA:1013:G:H5''	1.54	0.86
35:DA:1494:A:H2'	35:DA:1495:A:H5''	1.57	0.86
35:BA:902:C:H2'	35:BA:903:C:H6	1.40	0.86
7:AG:102:ARG:HG2	7:AG:106:GLN:HE21	1.39	0.86
36:BB:74:U:C2'	36:BB:75:G:H5''	2.04	0.86
38:BD:134:ARG:HG3	38:BD:135:PHE:CD1	2.10	0.86
35:DA:528:A:O2'	35:DA:529:A:H5'	1.74	0.86
42:BH:17:VAL:HG22	42:BH:26:VAL:HG22	1.58	0.86
3:AC:162:GLN:CB	23:AX:23:A:C6	2.50	0.86
24:AY:93:LYS:HB2	24:AY:96:LEU:OXT	1.76	0.86
50:BS:15:ARG:HB3	50:BS:15:ARG:HH11	1.38	0.86
5:AE:50:GLU:HG3	5:AE:52:PRO:HD2	1.56	0.86
22:CV:53:G:N2	22:CV:61:C:O2	2.06	0.86
33:B8:4:MET:HB2	33:B8:61:LEU:CD1	2.05	0.86
47:BP:17:LYS:O	47:BP:19:VAL:N	2.08	0.86
1:CA:36:C:C2'	1:CA:37:U:C5'	2.47	0.86
49:DR:10:LEU:HD11	49:DR:17:ARG:HB3	1.48	0.86
52:BU:90:VAL:O	52:BU:92:ARG:N	2.09	0.86
35:BA:1187:G:H5''	53:BV:81:TYR:CE2	2.11	0.86
35:BA:2115:G:H22	35:BA:2118:U:H5''	1.39	0.86
22:AV:52:G:C2'	22:AV:52:G:N3	2.28	0.86
46:DO:104:ARG:HH21	51:DT:33:LYS:NZ	1.74	0.86
35:DA:2472:G:H5''	35:DA:2473:U:H5'	1.57	0.86
22:AV:54:U:C3'	22:AV:55:U:C5'	2.39	0.86
56:DY:28:LYS:H	56:DY:28:LYS:HZ2	0.91	0.86
56:BY:28:LYS:HA	56:BY:38:ILE:HG22	1.55	0.86
1:CA:6:G:N7	5:CE:119:LEU:HD11	1.89	0.86
33:B8:49:VAL:HG12	35:BA:2360:A:OP1	1.74	0.86
30:D5:4:HIS:HB3	30:D5:5:PRO:CD	2.06	0.86
2:CB:71:VAL:HG23	2:CB:164:VAL:HG13	1.57	0.86
49:DR:98:LEU:HB2	49:DR:113:LEU:HD21	1.57	0.86
38:DD:79:VAL:HG21	38:DD:111:LEU:HD11	1.54	0.86
42:DH:17:VAL:HG22	42:DH:26:VAL:HG22	1.58	0.86
38:BD:210:GLY:O	38:BD:212:SER:N	2.07	0.86
35:DA:2473:U:O2	35:DA:2474:C:H6	1.59	0.86
57:BZ:127:LYS:HB2	57:BZ:162:GLU:HB2	1.57	0.86
48:DQ:132:VAL:HG11	57:DZ:81:ARG:HH21	1.41	0.86
1:CA:1199:U:H4'	10:CJ:54:PHE:CE1	2.11	0.86
3:CC:121:ALA:HB2	3:CC:187:ALA:HB1	1.56	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:B6:28:ARG:HA	31:B6:32:ASN:ND2	1.91	0.86
42:DH:15:VAL:O	42:DH:16:SER:OG	1.92	0.86
35:BA:613:G:H5'	35:BA:613:G:H8	1.41	0.86
1:CA:632:A:C2'	1:CA:633:G:H5''	2.04	0.86
2:AB:97:TRP:CZ3	2:AB:172:ILE:HB	2.10	0.86
35:DA:1592:C:H2'	35:DA:1593:G:H5''	1.57	0.86
26:D1:23:LYS:HD2	26:D1:28:GLY:HA3	1.58	0.86
58:CX:13:A:C2	58:CX:14:A:O2'	2.29	0.86
33:D8:4:MET:HB2	33:D8:61:LEU:CD1	2.06	0.86
53:BV:15:GLU:HB3	53:BV:16:PRO:CD	2.05	0.86
35:DA:1484:G:H2'	35:DA:1485:G:C5'	2.02	0.86
35:DA:1899:G:N2	35:DA:1902:C:N4	2.23	0.86
9:AI:111:ARG:HG2	9:AI:112:LYS:H	1.40	0.86
29:D4:6:HIS:HB2	29:D4:7:PRO:HD2	1.58	0.86
23:AX:19:U:C2'	23:AX:20:U:C5	2.53	0.85
53:BV:39:LEU:HD12	53:BV:47:VAL:HG11	1.57	0.85
35:BA:1717:G:H2'	35:BA:1718:G:H5''	1.55	0.85
1:CA:1301:U:H2'	1:CA:1303:C:H5	1.41	0.85
22:AW:28:C:H2'	22:AW:29:G:H8	1.40	0.85
35:BA:1114:G:C3'	35:BA:1115:G:H5''	2.04	0.85
35:DA:925:C:C2'	35:DA:926:A:H5''	2.06	0.85
24:AY:24:LEU:CD1	24:AY:43:TRP:HB3	2.06	0.85
56:BY:7:VAL:HB	56:BY:8:LYS:CE	2.05	0.85
1:AA:632:A:C2'	1:AA:633:G:H5''	2.05	0.85
22:CW:17(A):U:H2'	22:CW:18:G:H5'	1.58	0.85
28:D3:3:ARG:CB	28:D3:3:ARG:HH11	1.87	0.85
35:DA:1405:U:H2'	35:DA:1406:U:C6	2.11	0.85
35:DA:848:G:H2'	35:DA:849:A:C8	2.10	0.85
35:BA:1484:G:H2'	35:BA:1485:G:C5'	2.02	0.85
57:BZ:10:ARG:HD3	57:BZ:12:GLY:HA2	1.58	0.85
38:DD:31:LYS:HB3	38:DD:34:VAL:HG23	1.58	0.85
1:CA:626:U:H5''	16:CP:38:TYR:CD2	2.10	0.85
24:CY:6:GLY:N	24:CY:7:HIS:ND1	2.23	0.85
1:CA:1129:C:H4'	1:CA:1130:A:H5'	1.57	0.85
1:CA:1516:G:H2'	1:CA:1517:G:H5'	1.55	0.85
31:D6:28:ARG:HA	31:D6:32:ASN:ND2	1.91	0.85
35:BA:64:A:H5'	55:BX:64:LYS:HE2	1.57	0.85
24:AY:15:THR:HB	24:AY:16:GLU:HG2	1.58	0.85
35:BA:2154:G:H2'	35:BA:2155:G:H8	1.42	0.85
38:BD:44:ASN:HB3	38:BD:49:ILE:HA	1.56	0.85
24:AY:24:LEU:HD12	24:AY:43:TRP:HB3	1.56	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:CX:14:A:H2'	58:CX:15:A:H5''	1.57	0.85
35:DA:1504:C:C2'	35:DA:1505:C:H5''	2.06	0.85
35:BA:1592:C:H2'	35:BA:1593:G:H5''	1.58	0.85
35:BA:83:G:N2	35:BA:102:G:H2'	1.90	0.85
45:BN:55:VAL:HG22	45:BN:126:PRO:HA	1.56	0.85
51:BT:28:VAL:CG2	51:BT:46:GLU:HA	2.06	0.85
1:CA:979:C:H3'	1:CA:980:C:H5''	1.56	0.85
26:B1:44:PRO:HG2	26:B1:46:LEU:HD13	1.56	0.85
4:AD:101:LEU:HD23	4:AD:121:VAL:HG13	1.54	0.85
41:BG:63:ILE:HD13	41:BG:144:ILE:HD11	1.57	0.85
35:DA:2147:G:H2'	35:DA:2148:G:H4'	1.58	0.85
46:DO:35:VAL:HG11	46:DO:103:ALA:HB3	1.58	0.85
49:BR:100:LEU:HD13	49:BR:112:ALA:HA	1.58	0.85
39:DE:132:HIS:CD2	39:DE:135:HIS:NE2	2.45	0.85
20:CT:89:ARG:NH2	20:CT:104:LEU:HD11	1.91	0.85
20:AT:9:ASN:O	20:AT:10:LEU:HB2	1.77	0.85
24:AY:28:ILE:HG23	24:AY:29:PRO:N	1.92	0.85
23:AX:13:A:C3'	23:AX:14:A:H5''	2.07	0.85
2:AB:71:VAL:HG23	2:AB:164:VAL:HG13	1.56	0.85
38:BD:31:LYS:HB3	38:BD:34:VAL:HG23	1.58	0.85
46:BO:13:ASN:HD21	46:BO:97:ARG:HB2	1.42	0.85
35:DA:1187:G:H5''	53:DV:81:TYR:CE2	2.11	0.85
18:CR:66:LEU:HG	18:CR:70:ILE:HD11	1.59	0.85
4:AD:50:ARG:O	4:AD:50:ARG:HD2	1.75	0.85
35:BA:1654:A:P	49:BR:3:HIS:HB2	2.17	0.85
1:CA:401:C:H6	1:CA:401:C:C3'	1.78	0.85
1:CA:4:U:OP2	4:CD:86:LYS:CD	2.25	0.85
35:BA:2523:G:C2'	35:BA:2524:G:H5''	2.07	0.85
38:BD:25:THR:HG22	38:BD:26:LYS:HD2	1.59	0.85
3:AC:65:ALA:HA	3:AC:100:ALA:HB3	1.57	0.85
3:CC:65:ALA:HA	3:CC:100:ALA:HB3	1.57	0.85
35:DA:1914:C:C2'	35:DA:1915:U:H5'	1.97	0.85
8:CH:6:ILE:H	8:CH:6:ILE:HD12	1.42	0.85
1:CA:1427:U:H2'	1:CA:1428:A:H8	1.41	0.85
7:CG:26:PHE:O	7:CG:30:ILE:HG12	1.75	0.85
29:B4:5:ILE:HD12	41:BG:67:LYS:HZ1	1.38	0.85
41:BG:72:ARG:NE	41:BG:86:MET:HB2	1.92	0.85
35:DA:902:C:H2'	35:DA:903:C:H6	1.37	0.85
3:CC:52:LEU:H	3:CC:52:LEU:HD23	1.39	0.85
35:BA:1378:A:H4'	35:BA:1379:A:OP1	1.77	0.85
50:DS:23:ARG:HG3	50:DS:24:LEU:HD13	1.59	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1293:G:HO2'	1:CA:1294:G:H8	0.89	0.85
35:DA:1654:A:P	49:DR:3:HIS:HB2	2.17	0.85
35:DA:1403:C:H5''	35:DA:1471:A:H1'	1.59	0.85
53:DV:15:GLU:HB3	53:DV:16:PRO:CD	2.06	0.84
6:CF:36:ARG:NH1	6:CF:36:ARG:HB3	1.92	0.84
51:DT:60:THR:HG22	51:DT:77:PRO:HA	1.57	0.84
12:AL:86:ARG:HA	12:AL:94:ARG:HA	1.59	0.84
53:BV:19:LYS:HG2	53:BV:94:LEU:HB2	1.58	0.84
35:BA:963:U:H2'	35:BA:964:C:H6	1.40	0.84
35:BA:1405:U:H2'	35:BA:1406:U:C6	2.11	0.84
22:CV:51:C:H5''	22:CV:51:C:H6	1.39	0.84
22:CV:54:U:H3'	22:CV:55:U:H5''	0.84	0.84
56:BY:28:LYS:HZ2	56:BY:28:LYS:H	0.84	0.84
45:DN:133:GLN:HG2	45:DN:135:PRO:HD3	1.58	0.84
35:DA:83:G:N2	35:DA:102:G:H2'	1.92	0.84
13:AM:57:ARG:NH1	29:B4:34:GLU:HG3	1.92	0.84
35:DA:518:G:H4'	54:DW:18:ARG:NH1	1.92	0.84
1:CA:836:G:C6	1:CA:837:G:O6	2.29	0.84
56:BY:7:VAL:HB	56:BY:8:LYS:CD	2.06	0.84
35:DA:2523:G:C2'	35:DA:2524:G:H5''	2.06	0.84
5:AE:102:ALA:HB1	5:AE:106:PRO:HG2	1.59	0.84
46:DO:13:ASN:HD21	46:DO:97:ARG:HB2	1.41	0.84
6:AF:36:ARG:NH1	6:AF:36:ARG:HB3	1.92	0.84
1:CA:1452:C:H4'	1:CA:1456:G:C2	2.12	0.84
35:DA:1496:A:H8	35:DA:1577:C:HO2'	0.87	0.84
54:DW:9:TYR:H	54:DW:102:HIS:HD2	1.26	0.84
45:DN:55:VAL:HG22	45:DN:126:PRO:HA	1.57	0.84
35:BA:848:G:H2'	35:BA:849:A:C8	2.12	0.84
35:BA:1504:C:C2'	35:BA:1505:C:H5''	2.07	0.84
12:CL:86:ARG:HA	12:CL:94:ARG:HA	1.60	0.84
51:DT:80:SER:HB3	51:DT:81:PRO:HD3	1.57	0.84
41:BG:16:ARG:NH2	41:BG:31:VAL:HB	1.93	0.84
18:CR:19:LYS:HG3	18:CR:20:ALA:H	1.42	0.84
35:BA:2591:C:H2'	35:BA:2592:G:C8	2.12	0.84
46:BO:35:VAL:HG11	46:BO:103:ALA:HB3	1.57	0.84
22:CV:56:C:O5'	22:CV:56:C:H6	1.60	0.84
47:BP:41:ARG:CA	47:BP:41:ARG:NE	2.39	0.84
26:D1:73:LEU:HD11	26:D1:94:LEU:HB3	1.58	0.84
41:BG:27:ASN:ND2	41:BG:28:VAL:H	1.76	0.84
35:BA:1496:A:H8	35:BA:1577:C:HO2'	0.89	0.84
4:AD:25:ARG:HH12	4:AD:35:ARG:HH12	1.22	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1504:G:H4'	1:CA:1505:G:O4'	1.78	0.84
35:DA:867:C:C2'	35:DA:868:U:H5'	2.00	0.84
57:BZ:150:LEU:HG	57:BZ:171:ILE:HD11	1.59	0.84
35:DA:866:A:OP1	35:DA:866:A:C8	2.30	0.84
35:DA:2473:U:O2	35:DA:2473:U:H2'	1.75	0.84
23:AX:19:U:C2'	23:AX:20:U:H6	1.84	0.84
47:DP:23:PRO:HD2	47:DP:33:ARG:CZ	2.07	0.84
46:DO:2:ILE:CD1	46:DO:82:ASN:HD22	1.90	0.84
27:D2:65:ASN:HD22	27:D2:69:ARG:HH22	1.22	0.84
27:D2:19:VAL:HG12	27:D2:23:LYS:HE2	1.57	0.84
35:DA:2645:G:H3'	35:DA:2646:C:H5'	1.60	0.84
48:DQ:43:THR:OG1	48:DQ:46:GLN:HG3	1.78	0.84
37:DC:72:VAL:HG11	37:DC:161:ILE:HA	1.59	0.84
45:BN:47:ALA:HB2	45:BN:112:LEU:HD11	1.60	0.84
35:BA:2810:A:H2'	39:BE:61:ARG:NH2	1.92	0.84
35:DA:867:C:N4	35:DA:912:C:O2'	2.11	0.84
1:AA:192:U:H4'	20:AT:103:GLY:H	1.42	0.84
8:AH:89:PRO:HA	8:AH:92:ARG:HH12	1.43	0.84
35:BA:1490:A:C8	35:BA:1490:A:O5'	2.29	0.84
8:CH:13:ILE:O	8:CH:17:THR:HG23	1.77	0.84
45:BN:133:GLN:HG2	45:BN:135:PRO:HD3	1.58	0.84
54:DW:5:ALA:HB1	54:DW:50:VAL:HG23	1.60	0.84
55:DX:3:THR:HA	55:DX:6:ASP:OD2	1.78	0.84
5:CE:148:VAL:HG21	8:CH:107:LEU:HD13	1.58	0.84
25:D0:48:GLY:HA3	25:D0:80:HIS:ND1	1.93	0.84
24:AY:82:GLN:C	24:AY:83:LEU:HD23	1.98	0.84
47:DP:59:LEU:CA	47:DP:61:ARG:NE	2.41	0.84
12:CL:72:HIS:HD2	12:CL:74:LEU:HB2	1.42	0.84
26:B1:71:TYR:HE1	43:BI:27:ARG:HD2	1.41	0.84
57:DZ:165:VAL:HG12	57:DZ:166:SER:H	1.42	0.84
3:AC:121:ALA:HB2	3:AC:187:ALA:HB1	1.57	0.84
12:AL:123:LYS:HE2	12:AL:125:ALA:HB2	1.58	0.84
56:BY:45:VAL:HG13	56:BY:60:PHE:HB3	1.60	0.84
56:BY:95:LYS:HZ2	56:BY:99:CYS:H	1.21	0.83
35:DA:903:C:C2'	35:DA:904:C:H5''	2.08	0.83
1:CA:1071:C:H5''	5:CE:49:PRO:CG	2.07	0.83
50:DS:83:LYS:HG2	50:DS:105:ALA:HB3	1.60	0.83
45:DN:125:GLY:HA3	45:DN:126:PRO:O	1.78	0.83
53:DV:6:LYS:HE2	53:DV:37:VAL:HG11	1.60	0.83
51:DT:28:VAL:CG2	51:DT:46:GLU:HA	2.07	0.83
35:BA:903:C:C2'	35:BA:904:C:H5''	2.08	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2014:A:H4'	54:BW:92:ARG:HH22	1.42	0.83
35:BA:1494:A:H2'	35:BA:1495:A:H5''	1.58	0.83
35:DA:2810:A:H2'	39:DE:61:ARG:NH2	1.92	0.83
47:DP:45:LEU:HD12	47:DP:45:LEU:H	1.42	0.83
18:AR:19:LYS:HG3	18:AR:20:ALA:H	1.42	0.83
35:DA:1484:G:C2'	35:DA:1485:G:H5''	2.02	0.83
35:BA:2147:G:H2'	35:BA:2148:G:H4'	1.58	0.83
15:CO:40:SER:HB2	35:DA:715:G:H21	1.43	0.83
35:DA:1970:A:H5'	35:DA:1972:A:H1'	1.59	0.83
56:DY:28:LYS:HA	56:DY:38:ILE:HG22	1.60	0.83
8:AH:6:ILE:H	8:AH:6:ILE:HD12	1.42	0.83
12:CL:123:LYS:HE2	12:CL:125:ALA:HB2	1.60	0.83
35:DA:886:C:H4'	35:DA:888:C:H41	1.43	0.83
41:DG:25:TYR:HD2	41:DG:31:VAL:HG22	1.44	0.83
43:BI:52:ARG:HD3	43:BI:53:ALA:N	1.93	0.83
7:AG:26:PHE:O	7:AG:30:ILE:HG12	1.79	0.83
52:BU:102:GLU:HG3	53:BV:2:PHE:CZ	2.13	0.83
37:BC:72:VAL:HG11	37:BC:161:ILE:HA	1.58	0.83
45:DN:32:THR:HG22	45:DN:37:LYS:HB2	1.61	0.83
1:CA:644:G:H4'	8:CH:92:ARG:HH21	1.41	0.83
35:DA:631:A:OP1	47:DP:64:LYS:HE2	1.78	0.83
1:CA:33:A:O2'	1:CA:34:C:OP1	1.95	0.83
46:BO:104:ARG:HH21	51:BT:33:LYS:NZ	1.75	0.83
6:AF:52:ILE:HD13	6:AF:87:ARG:HH12	1.40	0.83
1:AA:1129:C:H4'	1:AA:1130:A:H5'	1.60	0.83
53:DV:19:LYS:HG2	53:DV:94:LEU:HB2	1.60	0.83
43:DI:61:ARG:HD2	43:DI:61:ARG:H	1.43	0.83
5:AE:81:GLU:HG2	5:AE:90:VAL:HG22	1.57	0.83
1:CA:644:G:C2'	1:CA:645:C:C5'	2.30	0.83
58:CX:19:G:C2	58:CX:19:G:H5''	2.13	0.83
35:DA:1568:G:H5'	38:DD:60:ARG:HA	1.60	0.83
35:BA:543:C:HO2'	35:BA:547:A:H8	0.89	0.83
35:BA:2801(A):A:H4'	35:BA:2802:G:H5'	1.60	0.83
8:AH:13:ILE:O	8:AH:17:THR:HG23	1.79	0.83
1:AA:1199:U:H4'	10:AJ:54:PHE:CE1	2.13	0.83
24:AY:33:LYS:HB3	24:AY:36:GLY:H	1.44	0.83
19:AS:6:LYS:CE	19:AS:6:LYS:H	1.92	0.83
35:DA:1504:C:H2'	35:DA:1505:C:H5''	1.61	0.83
41:BG:112:PRO:C	41:BG:114:ILE:H	1.82	0.83
4:CD:19:LEU:HD23	4:CD:21:LEU:HD21	1.60	0.83
40:BF:164:ARG:HG3	40:BF:175:THR:OG1	1.79	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DU:102:GLU:HG3	53:DV:2:PHE:CZ	2.14	0.83
22:CV:55:U:N3	22:CV:57:A:O5'	2.11	0.83
19:AS:42:PRO:HG2	29:B4:50:VAL:HG21	1.60	0.83
12:AL:110:ARG:HB3	12:AL:119:THR:HG21	1.61	0.83
36:BB:48:A:H4'	50:BS:95:HIS:HD2	1.43	0.83
53:BV:6:LYS:HE2	53:BV:37:VAL:HG11	1.60	0.83
49:DR:24:GLN:NE2	49:DR:36:THR:HG21	1.92	0.83
54:BW:5:ALA:HB1	54:BW:50:VAL:HG23	1.61	0.83
24:CY:0:LYS:O	35:DA:1914:C:C6	2.30	0.83
1:CA:1224:G:H4'	13:CM:102:ARG:HE	1.44	0.83
35:BA:1916:A:H5'	35:BA:1916:A:H8	1.43	0.83
29:B4:6:HIS:HB2	29:B4:7:PRO:HD2	1.58	0.83
35:BA:539:G:H2'	35:BA:540:C:H6	1.44	0.83
42:BH:8:PRO:CD	42:BH:9:ILE:N	2.30	0.83
24:AY:75:PHE:CD1	24:AY:75:PHE:N	2.29	0.83
57:BZ:102:LEU:HD21	57:BZ:124:ILE:HG12	1.59	0.83
38:DD:19:ALA:HB2	38:DD:204:ILE:HD11	1.61	0.83
35:BA:1568:G:H5'	38:BD:60:ARG:HA	1.61	0.83
35:BA:146:G:H5'	35:BA:146:G:H8	1.42	0.83
1:CA:1457:G:H2'	1:CA:1458:G:C8	2.14	0.83
28:D3:44:ARG:O	28:D3:48:GLU:HG2	1.78	0.83
35:BA:2645:G:H3'	35:BA:2646:C:H5'	1.59	0.83
35:DA:2685:G:H5'	46:DO:68:GLU:OE2	1.79	0.83
42:DH:11:VAL:HG22	42:DH:49:VAL:CB	2.09	0.82
8:CH:89:PRO:HA	8:CH:92:ARG:HH12	1.43	0.82
24:AY:21:LEU:HD23	24:AY:52:TYR:OH	1.78	0.82
1:AA:1152:A:H5'	10:AJ:70:ARG:NH2	1.94	0.82
41:BG:138:GLN:NE2	41:BG:153:ARG:H	1.76	0.82
35:BA:1494:A:C2'	35:BA:1495:A:H5''	2.09	0.82
8:CH:37:ARG:HH21	8:CH:38:ILE:HG13	1.44	0.82
24:AY:60:GLU:OE1	24:AY:74:SER:HB2	1.78	0.82
35:DA:2472:G:H5''	35:DA:2473:U:C5'	2.08	0.82
35:BA:1915:U:C2'	35:BA:1916:A:H5''	2.07	0.82
41:BG:98:ARG:HA	41:BG:101:ILE:HD11	1.60	0.82
4:CD:74:GLN:HA	4:CD:77:ASN:HD22	1.43	0.82
35:DA:1021:A:H62	35:DA:1141:U:H3	1.25	0.82
1:CA:818:G:O2'	1:CA:819:A:H5'	1.78	0.82
35:DA:2472:G:H5''	35:DA:2473:U:H4'	1.61	0.82
1:CA:1226:C:C5'	13:CM:96:LEU:HD23	2.09	0.82
50:BS:15:ARG:HB3	50:BS:15:ARG:NH1	1.95	0.82
6:CF:5:GLU:HB3	6:CF:62:TRP:HE1	1.44	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BI:129:THR:HG22	43:BI:130:TYR:H	1.44	0.82
35:DA:2801(A):A:H4'	35:DA:2802:G:H5'	1.61	0.82
8:CH:112:LEU:HA	8:CH:134:ILE:HG12	1.60	0.82
35:DA:2853:C:H2'	35:DA:2854:G:H8	1.44	0.82
57:DZ:102:LEU:HD11	57:DZ:124:ILE:HG23	1.61	0.82
55:BX:3:THR:HA	55:BX:6:ASP:OD2	1.77	0.82
23:AX:22:A:O2'	23:AX:23:A:O4'	1.95	0.82
1:CA:401:C:H6	1:CA:401:C:H3'	1.01	0.82
1:CA:181:G:O2'	1:CA:182:U:H5'	1.79	0.82
35:DA:1494:A:C2'	35:DA:1495:A:H5''	2.09	0.82
4:AD:19:LEU:HD23	4:AD:21:LEU:HD21	1.60	0.82
20:AT:89:ARG:NH2	20:AT:104:LEU:HD11	1.93	0.82
35:BA:1403:C:H5''	35:BA:1471:A:H1'	1.61	0.82
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.13	0.82
1:CA:1059:C:H6	1:CA:1059:C:O5'	1.62	0.82
47:BP:23:PRO:HD2	47:BP:33:ARG:CZ	2.08	0.82
50:BS:23:ARG:HG3	50:BS:24:LEU:HD13	1.59	0.82
35:DA:1427:A:H4'	35:DA:1428:C:O5'	1.79	0.82
47:BP:45:LEU:H	47:BP:45:LEU:HD12	1.43	0.82
1:CA:864:A:H5'	5:CE:86:ALA:HB2	1.62	0.82
35:DA:141:A:H8	35:DA:1408:C:HO2'	0.84	0.82
20:CT:10:LEU:HD22	20:CT:12:ALA:HB2	1.58	0.82
47:BP:59:LEU:CA	47:BP:61:ARG:NE	2.38	0.82
1:CA:4:U:C4'	1:CA:5:U:H5''	2.09	0.82
35:BA:1504:C:H2'	35:BA:1505:C:H5''	1.60	0.82
33:B8:43:GLN:C	33:B8:44:LYS:HD2	2.00	0.82
9:AI:111:ARG:HG2	9:AI:112:LYS:N	1.94	0.82
53:BV:6:LYS:HB3	53:BV:37:VAL:HG11	1.62	0.82
1:CA:1499:A:H5'	1:CA:1499:A:H8	1.44	0.82
9:CI:111:ARG:HG2	9:CI:112:LYS:H	1.42	0.82
39:DE:100:GLU:O	39:DE:172:VAL:HG23	1.78	0.82
16:AP:53:VAL:HG12	16:AP:79:VAL:HG22	1.59	0.82
1:AA:1301:U:H2'	1:AA:1303:C:H5	1.44	0.82
35:DA:2154:G:H2'	35:DA:2155:G:H8	1.41	0.82
1:CA:590:C:H2'	1:CA:591:U:C6	2.14	0.82
20:AT:10:LEU:HD22	20:AT:12:ALA:HB2	1.59	0.82
35:BA:1378:A:O2'	35:BA:1379:A:H5''	1.79	0.82
27:D2:2:LYS:HB3	35:DA:97:C:H5''	1.60	0.82
35:BA:141:A:H8	35:BA:1408:C:HO2'	0.84	0.82
2:CB:219:VAL:HG12	2:CB:223:ILE:HG13	1.62	0.82
32:D7:8:ASN:C	32:D7:8:ASN:HD22	1.83	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:9:ASN:O	20:CT:10:LEU:HB2	1.79	0.82
5:AE:137:GLU:HG3	5:AE:141:GLN:HE21	1.45	0.82
8:AH:37:ARG:HH21	8:AH:38:ILE:HG13	1.45	0.82
18:AR:66:LEU:HG	18:AR:70:ILE:HD11	1.61	0.82
1:CA:1194:U:H4'	5:CE:22:GLY:O	1.79	0.82
15:AO:54:ARG:HG2	15:AO:58:MET:HE2	1.62	0.82
1:CA:976:G:H5'	1:CA:1358:U:O2'	1.78	0.82
33:D8:52:LYS:N	33:D8:53:PRO:HD2	1.93	0.82
42:BH:86:GLU:HA	42:BH:132:ARG:HB3	1.62	0.82
35:DA:1114:G:C3'	35:DA:1115:G:H5''	2.10	0.82
38:DD:134:ARG:HG3	38:DD:135:PHE:HD1	1.45	0.82
54:DW:110:LYS:HG3	54:DW:111:HIS:H	1.43	0.82
5:AE:80:ILE:HG22	8:AH:104:ARG:NH1	1.95	0.82
54:BW:110:LYS:HG3	54:BW:111:HIS:H	1.45	0.82
42:BH:11:VAL:HG22	42:BH:49:VAL:CB	2.09	0.81
42:BH:9:ILE:HG12	42:BH:9:ILE:O	1.78	0.81
10:AJ:34:VAL:HG12	10:AJ:35:SER:H	1.43	0.81
39:DE:60:ASN:OD1	39:DE:62:PRO:HD3	1.80	0.81
1:CA:1207:G:H2'	1:CA:1208:C:C6	2.15	0.81
35:BA:1697:G:H3'	35:BA:1698:A:C5'	2.10	0.81
35:BA:774:A:O2'	35:BA:775:G:OP2	1.97	0.81
56:DY:13:VAL:HG23	56:DY:73:ARG:C	2.01	0.81
19:CS:43:GLU:HB3	19:CS:44:MET:HE1	1.62	0.81
38:BD:49:ILE:HD11	38:BD:52:ARG:HA	1.63	0.81
35:DA:1049:C:H2'	35:DA:1050:A:H8	1.45	0.81
18:CR:31:LEU:HD23	18:CR:31:LEU:H	1.45	0.81
4:AD:74:GLN:HA	4:AD:77:ASN:HD22	1.44	0.81
49:DR:100:LEU:HD13	49:DR:112:ALA:HA	1.63	0.81
42:DH:83:TYR:HB3	42:DH:135:GLY:O	1.80	0.81
56:BY:13:VAL:HG23	56:BY:73:ARG:C	2.01	0.81
56:BY:28:LYS:NZ	56:BY:28:LYS:N	2.14	0.81
52:DU:91:ASP:O	52:DU:95:LEU:HB2	1.80	0.81
1:CA:1071:C:C5'	5:CE:49:PRO:HG2	2.10	0.81
12:AL:72:HIS:HD2	12:AL:74:LEU:HB2	1.45	0.81
1:CA:178:C:C2'	1:CA:179:A:H5''	2.10	0.81
50:DS:15:ARG:NH1	50:DS:15:ARG:HB3	1.95	0.81
10:CJ:34:VAL:HG12	10:CJ:35:SER:H	1.45	0.81
53:DV:6:LYS:HB3	53:DV:37:VAL:HG11	1.62	0.81
54:DW:66:GLU:O	54:DW:68:ARG:N	2.13	0.81
38:BD:19:ALA:HB2	38:BD:204:ILE:HD11	1.62	0.81
38:DD:27:THR:HG23	38:DD:83:GLU:HB3	1.61	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:79:ARG:HH21	22:CW:34:C:H42	1.26	0.81
28:B3:44:ARG:O	28:B3:48:GLU:HG2	1.80	0.81
15:CO:56:LEU:O	15:CO:60:VAL:HG23	1.80	0.81
32:D7:5:TRP:NE1	32:D7:7:PRO:HG3	1.96	0.81
10:AJ:29:ARG:NH1	10:AJ:29:ARG:HB3	1.95	0.81
3:AC:162:GLN:N	23:AX:23:A:H62	1.77	0.81
42:BH:8:PRO:O	42:BH:9:ILE:CG1	2.28	0.81
42:DH:9:ILE:O	42:DH:9:ILE:HG12	1.78	0.81
47:DP:63:PRO:O	47:DP:65:ARG:N	2.13	0.81
52:BU:66:ASN:HD21	52:BU:70:ARG:HE	1.26	0.81
23:AX:16:A:H8	23:AX:16:A:O5'	1.64	0.81
9:AI:115:GLY:O	9:AI:116:LYS:HG3	1.80	0.81
36:DB:54:G:H21	41:DG:29:TRP:HE1	1.26	0.81
24:CY:0:LYS:O	35:DA:1914:C:H6	1.61	0.81
56:DY:7:VAL:HB	56:DY:8:LYS:CD	2.11	0.81
35:DA:613:G:H8	35:DA:613:G:H5'	1.45	0.81
42:BH:83:TYR:HB3	42:BH:135:GLY:O	1.80	0.81
35:DA:2320:A:N3	35:DA:2320:A:H2'	1.96	0.81
15:AO:56:LEU:O	15:AO:60:VAL:HG23	1.81	0.81
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.15	0.81
25:B0:48:GLY:HA3	25:B0:80:HIS:ND1	1.95	0.81
53:BV:99:ILE:H	53:BV:99:ILE:HD13	1.46	0.81
42:DH:8:PRO:O	42:DH:9:ILE:CG1	2.28	0.81
1:CA:399:G:H2'	1:CA:400:C:C6	2.14	0.81
35:DA:1914:C:O2'	35:DA:1915:U:H5''	1.79	0.81
35:BA:1528(A):A:N7	35:BA:1529:G:C5	2.48	0.81
35:DA:1543:C:C6	35:DA:1543:C:C3'	2.42	0.81
5:CE:13:ILE:HG22	5:CE:14:ARG:H	1.43	0.81
1:AA:1060:C:C5	3:AC:2:GLY:N	2.48	0.81
4:CD:199:ASN:ND2	4:CD:202:LEU:HG	1.95	0.81
42:BH:8:PRO:O	42:BH:9:ILE:CG2	2.28	0.81
47:DP:64:LYS:C	47:DP:66:GLY:H	1.84	0.81
41:DG:52:ILE:HG12	41:DG:53:LEU:N	1.96	0.81
3:CC:3:ASN:HD22	3:CC:3:ASN:N	1.71	0.81
47:BP:18:ARG:HH11	47:BP:18:ARG:HB3	1.45	0.81
46:DO:104:ARG:HH21	51:DT:33:LYS:HZ3	1.29	0.81
1:AA:181:G:O2'	1:AA:182:U:H5'	1.80	0.81
35:BA:1826:G:H4'	38:BD:242:ARG:HE	1.46	0.81
45:DN:67:LEU:H	45:DN:67:LEU:HD12	1.45	0.81
5:CE:137:GLU:HG3	5:CE:141:GLN:HE21	1.45	0.81
38:BD:45:ASN:CG	38:BD:46:GLN:H	1.84	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:775:G:HO2'	35:BA:776:G:P	2.04	0.81
52:DU:95:LEU:HD12	53:DV:11:GLN:HE21	1.45	0.81
37:BC:82:LYS:HZ1	37:BC:94:VAL:HG11	1.44	0.81
15:AO:62:GLN:O	15:AO:66:LEU:HD13	1.80	0.81
42:DH:8:PRO:O	42:DH:9:ILE:CG2	2.28	0.81
35:DA:2472:G:C5'	35:DA:2473:U:C5'	2.59	0.81
1:CA:1225:A:C5	1:CA:1226:C:N4	2.49	0.81
42:DH:86:GLU:HA	42:DH:132:ARG:HB3	1.62	0.81
52:BU:95:LEU:HD12	53:BV:11:GLN:HE21	1.46	0.81
29:D4:31:ILE:HG23	29:D4:33:VAL:HG23	1.61	0.81
26:B1:71:TYR:CE1	43:BI:27:ARG:HD2	2.15	0.81
35:BA:1478:G:HO2'	35:BA:1558:A:H2	1.26	0.81
1:CA:1373:G:H5''	7:CG:36:LYS:HB2	1.61	0.81
1:CA:1006:C:H1'	1:CA:1023:G:H22	1.44	0.81
54:BW:66:GLU:O	54:BW:68:ARG:N	2.13	0.81
57:BZ:185:GLU:HG3	57:BZ:186:GLU:H	1.46	0.81
42:BH:11:VAL:CB	42:BH:49:VAL:HG12	2.11	0.81
42:DH:11:VAL:CB	42:DH:49:VAL:HG12	2.11	0.81
1:CA:1403:C:H42	58:CX:18:G:P	2.04	0.81
1:CA:11:G:H2'	1:CA:12:U:H5'	1.60	0.81
57:BZ:155:LEU:HD23	57:BZ:155:LEU:H	1.46	0.81
57:DZ:5:LEU:HD12	57:DZ:47:VAL:HG21	1.63	0.81
1:CA:674:G:H2'	1:CA:675:A:H8	1.46	0.81
35:DA:2591:C:H2'	35:DA:2592:G:H8	1.43	0.81
38:DD:24:ILE:HD12	38:DD:25:THR:N	1.96	0.81
45:DN:47:ALA:HB2	45:DN:112:LEU:HD11	1.60	0.81
17:CQ:7:THR:HG22	17:CQ:58:GLU:HG2	1.63	0.81
56:DY:45:VAL:HG13	56:DY:60:PHE:HB3	1.62	0.81
26:D1:51:VAL:HG21	26:D1:74:VAL:HG21	1.62	0.81
23:AX:19:U:O2'	23:AX:20:U:C6	2.32	0.80
50:BS:89:ARG:HB3	50:BS:92:TYR:HB3	1.61	0.80
2:CB:97:TRP:HZ3	2:CB:172:ILE:HB	1.44	0.80
2:AB:219:VAL:HG12	2:AB:223:ILE:HG13	1.63	0.80
35:DA:676:A:H2	35:DA:802:A:H61	1.26	0.80
49:DR:7:GLY:O	49:DR:8:ARG:CB	2.29	0.80
57:DZ:165:VAL:HG12	57:DZ:166:SER:N	1.95	0.80
15:CO:62:GLN:O	15:CO:66:LEU:HD13	1.79	0.80
5:AE:13:ILE:HG22	5:AE:14:ARG:H	1.46	0.80
35:DA:1170:G:H1	35:DA:1179:C:H42	1.28	0.80
35:BA:1970:A:H5'	35:BA:1972:A:H1'	1.63	0.80
35:DA:322:A:H3'	40:DF:169:ASN:HD21	1.46	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:5:GLU:HB3	6:AF:62:TRP:HE1	1.45	0.80
35:BA:1021:A:H62	35:BA:1141:U:H3	1.26	0.80
24:AY:83:LEU:O	24:AY:84:LYS:CD	2.30	0.80
22:CV:54:U:H2'	22:CV:55:U:C4'	2.11	0.80
1:CA:1226:C:H5'	13:CM:96:LEU:HD23	1.61	0.80
52:BU:83:LEU:HG	52:BU:88:ILE:HD11	1.63	0.80
5:CE:103:GLY:H	5:CE:106:PRO:CG	1.94	0.80
57:DZ:6:LYS:HE2	57:DZ:6:LYS:H	1.46	0.80
39:BE:77:ILE:HG22	39:BE:78:LEU:HD12	1.64	0.80
50:DS:89:ARG:HB3	50:DS:92:TYR:HB3	1.62	0.80
22:CW:6:G:H21	22:CW:68:C:H41	1.27	0.80
12:CL:4:ILE:O	12:CL:8:VAL:HG23	1.81	0.80
1:AA:1137:C:H4'	1:AA:1138:G:N2	1.96	0.80
10:CJ:29:ARG:HB3	10:CJ:29:ARG:NH1	1.96	0.80
19:AS:6:LYS:N	19:AS:6:LYS:HE3	1.93	0.80
52:DU:66:ASN:HD21	52:DU:70:ARG:HE	1.26	0.80
52:DU:92:ARG:HH22	53:DV:10:LYS:HA	1.45	0.80
53:DV:39:LEU:HD12	53:DV:47:VAL:HG11	1.61	0.80
29:D4:6:HIS:HB3	41:DG:67:LYS:HD2	1.63	0.80
29:B4:31:ILE:HG23	29:B4:33:VAL:HG23	1.61	0.80
25:D0:20:ARG:HD2	25:D0:20:ARG:N	1.96	0.80
8:AH:121:ASP:HB2	8:AH:125:ARG:HH12	1.46	0.80
1:CA:1004:A:H61	1:CA:1034:G:H2'	1.46	0.80
40:BF:4:VAL:HA	40:BF:19:GLU:HB3	1.64	0.80
52:DU:83:LEU:HG	52:DU:88:ILE:HD11	1.62	0.80
33:B8:51:ALA:H	33:B8:53:PRO:CD	1.93	0.80
35:DA:2014:A:H4'	54:DW:92:ARG:HH22	1.46	0.80
4:AD:199:ASN:ND2	4:AD:202:LEU:HG	1.96	0.80
43:BI:123:LEU:HD11	43:BI:144:VAL:HG22	1.61	0.80
1:CA:1128:C:H1'	1:CA:1146:A:H61	1.46	0.80
38:BD:27:THR:HG23	38:BD:83:GLU:HB3	1.63	0.80
16:CP:19:ILE:HG22	16:CP:36:ILE:HD11	1.63	0.80
26:B1:11:ARG:HB2	26:B1:12:PRO:HD2	1.62	0.80
43:BI:13:GLY:HA3	43:BI:17:GLN:OE1	1.81	0.80
35:DA:2101:G:H2'	35:DA:2102:U:O4'	1.81	0.80
1:CA:1000:U:H2'	1:CA:1001:A:H8	1.46	0.80
51:BT:106:SER:N	51:BT:110:ILE:HD11	1.97	0.80
49:BR:11:ASN:O	49:BR:12:ARG:HG3	1.81	0.80
38:DD:45:ASN:CG	38:DD:46:GLN:H	1.84	0.80
1:CA:645:C:H2'	1:CA:646:U:C6	2.16	0.80
24:AY:74:SER:OG	24:AY:84:LYS:CG	2.29	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:776:G:C8	35:BA:776:G:C5'	2.64	0.80
35:BA:1530:C:O2'	35:BA:1531:C:H5'	1.82	0.80
52:BU:92:ARG:HH22	53:BV:10:LYS:HA	1.45	0.80
26:D1:45:ASN:ND2	35:DA:2090:G:H21	1.78	0.80
35:BA:676:A:H2	35:BA:802:A:H61	1.29	0.80
12:CL:41:THR:CG2	24:CY:7:HIS:HA	2.11	0.80
49:BR:4:LEU:HD12	49:BR:5:LYS:H	1.45	0.80
35:DA:1826:G:H4'	38:DD:242:ARG:HE	1.45	0.80
54:BW:9:TYR:H	54:BW:102:HIS:HD2	1.26	0.80
24:AY:42:ARG:HA	24:AY:52:TYR:O	1.81	0.80
1:CA:37:U:C4	1:CA:38:G:C5	2.69	0.80
35:DA:1913:A:C3'	35:DA:1913:A:OP1	2.30	0.80
1:CA:837:G:H2'	1:CA:838:G:C8	2.16	0.80
50:BS:83:LYS:HG2	50:BS:105:ALA:HB3	1.61	0.80
53:DV:38:LEU:HD23	53:DV:39:LEU:N	1.97	0.80
57:BZ:166:SER:HB2	57:BZ:168:GLU:H	1.46	0.80
8:CH:20:TYR:HE2	8:CH:75:ARG:HD2	1.47	0.80
6:AF:86:ARG:O	6:AF:87:ARG:HB2	1.79	0.80
45:DN:34:LEU:HD21	45:DN:120:LEU:HB2	1.63	0.80
57:DZ:79:ARG:O	57:DZ:80:ARG:HB2	1.81	0.80
39:BE:100:GLU:O	39:BE:172:VAL:HG23	1.80	0.80
35:DA:1378:A:O2'	35:DA:1379:A:H5''	1.82	0.80
23:AX:22:A:N3	23:AX:22:A:C4'	2.44	0.80
24:AY:82:GLN:O	24:AY:83:LEU:CD2	2.29	0.80
22:AW:34:C:C2	23:AX:14:A:C2	2.70	0.80
1:CA:4:U:O4'	1:CA:5:U:C5'	2.30	0.80
57:BZ:109:ALA:O	57:BZ:113:ALA:HB3	1.81	0.80
41:DG:98:ARG:O	41:DG:101:ILE:HG12	1.82	0.80
22:AW:28:C:H2'	22:AW:29:G:C8	2.17	0.80
41:BG:56:ALA:HB2	41:BG:153:ARG:HH21	1.46	0.80
1:AA:693:G:H2'	1:AA:694:A:C8	2.17	0.80
40:DF:24:LEU:HB3	40:DF:25:PRO:CD	2.11	0.80
1:CA:34:C:C2'	1:CA:35:G:H5'	2.12	0.80
2:CB:197:VAL:HG21	2:CB:200:ILE:HG12	1.64	0.80
1:AA:1128:C:H1'	1:AA:1146:A:H61	1.47	0.80
22:AV:52:G:N3	22:AV:52:G:H2'	1.96	0.80
22:AV:1:C:H42	22:AV:72:A:H61	1.29	0.80
47:BP:63:PRO:O	47:BP:65:ARG:N	2.14	0.80
35:DA:1911:U:N3	35:DA:1918:A:N3	1.90	0.80
1:CA:6:G:O2'	1:CA:298:A:O4'	2.00	0.80
2:CB:162:ILE:HD11	2:CB:184:VAL:HA	1.62	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BS:17:ARG:HA	50:BS:20:ARG:HH12	1.46	0.80
43:DI:129:THR:HG22	43:DI:130:TYR:H	1.47	0.80
25:B0:20:ARG:HD2	25:B0:20:ARG:N	1.97	0.80
27:B2:38:GLN:NE2	27:B2:44:LEU:HD22	1.97	0.80
22:AV:54:U:C3'	22:AV:55:U:C4'	2.56	0.80
56:DY:10:GLY:HA2	56:DY:27:VAL:HG13	1.64	0.80
40:BF:28:ILE:O	40:BF:28:ILE:HD12	1.82	0.80
19:CS:6:LYS:HE3	19:CS:6:LYS:N	1.95	0.80
52:BU:91:ASP:O	52:BU:95:LEU:HB2	1.82	0.80
57:DZ:10:ARG:HH21	57:DZ:26:GLY:H	1.29	0.80
57:BZ:44:PHE:CE2	57:BZ:86:VAL:HG21	2.17	0.80
1:AA:674:G:H2'	1:AA:675:A:H8	1.47	0.80
51:DT:106:SER:N	51:DT:110:ILE:HD11	1.96	0.80
39:DE:2:LYS:HA	39:DE:84:PHE:CD2	2.17	0.80
9:CI:115:GLY:O	9:CI:116:LYS:HG3	1.82	0.80
42:DH:8:PRO:O	42:DH:9:ILE:CD1	2.30	0.79
22:CV:55:U:H6	22:CV:55:U:H5'	1.46	0.79
40:DF:4:VAL:HA	40:DF:19:GLU:HB3	1.65	0.79
40:DF:66:PRO:O	40:DF:67:GLN:HB3	1.80	0.79
47:BP:16:ARG:CZ	47:BP:18:ARG:HG2	2.12	0.79
49:DR:7:GLY:O	49:DR:8:ARG:CG	2.29	0.79
9:CI:111:ARG:HG2	9:CI:112:LYS:N	1.96	0.79
35:BA:1019:U:H3	35:BA:1142(A):A:H62	1.29	0.79
1:CA:1369:C:H2'	1:CA:1370:G:C8	2.16	0.79
35:BA:2101:G:H2'	35:BA:2102:U:O4'	1.82	0.79
35:DA:2199:A:H3'	35:DA:2200:C:H6	1.47	0.79
22:AW:3:C:H2'	22:AW:4:G:H5'	1.61	0.79
51:DT:100:TYR:HD2	51:DT:103:ARG:HH21	1.29	0.79
19:CS:6:LYS:H	19:CS:6:LYS:CE	1.93	0.79
2:AB:162:ILE:HD11	2:AB:184:VAL:HA	1.63	0.79
30:B5:4:HIS:HB3	30:B5:5:PRO:CD	2.11	0.79
4:CD:120:LEU:HB3	4:CD:126:ILE:HD11	1.63	0.79
10:CJ:28:ARG:HG3	10:CJ:34:VAL:H	1.46	0.79
3:CC:32:LEU:HB3	3:CC:59:ARG:HH22	1.46	0.79
48:DQ:12:GLN:HE21	48:DQ:73:PRO:HD3	1.47	0.79
7:CG:15:ASP:HB3	7:CG:19:GLY:N	1.95	0.79
42:BH:8:PRO:O	42:BH:9:ILE:CD1	2.30	0.79
24:AY:23:ASP:O	24:AY:25:LYS:CG	2.29	0.79
24:AY:96:LEU:CD1	24:AY:96:LEU:O	2.30	0.79
23:AX:15:A:OP2	23:AX:15:A:C4'	2.30	0.79
22:AV:53:G:C8	22:AV:53:G:C5'	2.65	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:8:LYS:HD3	2:AB:217:ARG:NH2	1.96	0.79
1:CA:973:G:H3'	1:CA:974:A:H5''	1.64	0.79
45:BN:125:GLY:HA3	45:BN:126:PRO:O	1.82	0.79
13:AM:57:ARG:HH12	29:B4:34:GLU:HG3	1.45	0.79
39:BE:60:ASN:OD1	39:BE:62:PRO:HD3	1.81	0.79
35:BA:2853:C:H2'	35:BA:2854:G:H8	1.46	0.79
57:BZ:157:LEU:H	57:BZ:157:LEU:HD23	1.45	0.79
27:D2:55:ARG:HH21	27:D2:55:ARG:HG2	1.48	0.79
3:CC:16:ARG:HE	3:CC:54:ARG:HH21	1.30	0.79
22:AV:54:U:H6	22:AV:54:U:H5''	1.46	0.79
42:DH:98:LEU:HB2	42:DH:125:VAL:CG2	2.10	0.79
47:DP:41:ARG:NE	47:DP:41:ARG:CA	2.45	0.79
2:AB:172:ILE:HD12	2:AB:172:ILE:H	1.47	0.79
3:CC:150:LYS:HG3	3:CC:169:ALA:HB2	1.65	0.79
4:AD:189:PRO:HB2	4:AD:194:LEU:HD21	1.64	0.79
3:CC:35:GLU:O	3:CC:38:ARG:HG2	1.82	0.79
35:DA:1019:U:HO2'	35:DA:1021:A:H2	1.26	0.79
1:CA:1206:G:C2'	1:CA:1207:G:O5'	2.30	0.79
35:BA:2579:C:O3'	39:BE:131:ALA:HB2	1.83	0.79
6:CF:69:GLU:HG2	6:CF:70:ASP:H	1.47	0.79
6:AF:69:GLU:HG2	6:AF:70:ASP:H	1.47	0.79
29:B4:9:LEU:HD21	41:BG:101:ILE:CD1	2.12	0.79
31:B6:33:LYS:HA	31:B6:33:LYS:HE2	1.64	0.79
52:DU:102:GLU:HG3	53:DV:2:PHE:HZ	1.46	0.79
17:AQ:7:THR:HG22	17:AQ:58:GLU:HG2	1.63	0.79
1:AA:671:G:H2'	1:AA:672:U:H6	1.47	0.79
35:BA:298:G:H5'	35:BA:299:A:OP1	1.82	0.79
42:BH:144:VAL:HA	42:BH:147:ASN:HB2	1.65	0.79
35:BA:886:C:H4'	35:BA:888:C:H41	1.45	0.79
51:BT:100:TYR:HD2	51:BT:103:ARG:HH21	1.29	0.79
35:BA:1530:C:O2'	35:BA:1531:C:C5'	2.30	0.79
53:BV:19:LYS:NZ	53:BV:20:LEU:H	1.81	0.79
49:BR:24:GLN:NE2	49:BR:36:THR:HG21	1.98	0.79
1:AA:1373:G:H5''	7:AG:36:LYS:HB2	1.65	0.79
41:DG:133:LEU:HD13	41:DG:134:GLY:N	1.98	0.79
45:BN:34:LEU:HD21	45:BN:120:LEU:HB2	1.64	0.79
23:AX:22:A:H5''	23:AX:22:A:C2	2.17	0.79
1:CA:400:C:O2'	1:CA:401:C:H5'	1.81	0.79
38:DD:15:PHE:O	38:DD:205:VAL:HG11	1.83	0.79
19:AS:43:GLU:HB3	19:AS:44:MET:HE1	1.64	0.79
43:DI:82:ARG:HB2	43:DI:145:VAL:N	1.96	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:32:LEU:HB3	3:AC:59:ARG:HH22	1.46	0.79
6:CF:86:ARG:O	6:CF:87:ARG:HB2	1.79	0.79
1:CA:1414:U:H3	1:CA:1487:G:H1	1.27	0.79
31:D6:33:LYS:HA	31:D6:33:LYS:HE2	1.65	0.79
56:BY:49:VAL:O	56:BY:50:ARG:HB2	1.81	0.79
53:DV:99:ILE:H	53:DV:99:ILE:HD13	1.47	0.79
27:B2:65:ASN:HB3	27:B2:69:ARG:NH2	1.97	0.79
46:DO:88:ASN:HD21	46:DO:90:GLN:HB2	1.46	0.79
8:AH:12:ARG:NH1	8:AH:26:VAL:HA	1.97	0.79
1:AA:1493:A3P:O4P	24:AY:34:GLN:HB3	1.83	0.79
35:DA:90:U:H1'	35:DA:92:A:H8	1.35	0.79
3:AC:35:GLU:O	3:AC:38:ARG:HG2	1.82	0.79
1:CA:1293:G:O2'	1:CA:1294:G:H8	1.64	0.79
52:BU:102:GLU:HG3	53:BV:2:PHE:HZ	1.46	0.79
1:AA:973:G:H3'	1:AA:974:A:H5''	1.63	0.79
51:BT:125:ARG:O	51:BT:128:GLU:HG3	1.82	0.79
35:BA:1049:C:H2'	35:BA:1050:A:H8	1.46	0.79
42:DH:144:VAL:HA	42:DH:147:ASN:HB2	1.65	0.79
35:BA:1427:A:H4'	35:BA:1428:C:O5'	1.81	0.79
18:AR:31:LEU:H	18:AR:31:LEU:HD23	1.46	0.79
35:BA:2199:A:H3'	35:BA:2200:C:H6	1.46	0.79
22:CV:66:C:H2'	22:CV:67:C:C6	2.18	0.79
47:BP:64:LYS:C	47:BP:66:GLY:H	1.83	0.79
35:DA:2473:U:O2'	35:DA:2474:C:C5'	2.30	0.79
35:DA:1910:G:O2'	35:DA:1911:U:C5'	2.30	0.79
53:BV:38:LEU:HD23	53:BV:39:LEU:N	1.98	0.79
52:BU:108:GLU:HG3	53:BV:44:LYS:CD	2.11	0.79
2:AB:97:TRP:HZ3	2:AB:172:ILE:HB	1.45	0.79
1:AA:976:G:H5'	1:AA:1358:U:O2'	1.82	0.79
10:AJ:28:ARG:HG3	10:AJ:34:VAL:H	1.46	0.79
53:BV:5:VAL:HG21	53:BV:35:LEU:HG	1.63	0.79
48:BQ:12:GLN:HE21	48:BQ:73:PRO:CD	1.96	0.79
35:DA:1833:U:H2'	35:DA:1834:U:H6	1.47	0.79
7:AG:15:ASP:HB3	7:AG:19:GLY:N	1.97	0.79
41:DG:47:LYS:HD2	41:DG:82:LEU:HD13	1.65	0.79
9:CI:65:VAL:HG11	9:CI:77:ILE:HD11	1.65	0.79
43:BI:77:LEU:HD13	43:BI:140:LEU:HG	1.65	0.79
31:D6:28:ARG:HA	31:D6:32:ASN:HD22	1.47	0.79
36:BB:14:U:O2'	36:BB:15:A:H5''	1.83	0.79
56:BY:2:ARG:N	56:BY:4:LYS:HE3	1.98	0.79
15:AO:26:GLU:HG3	15:AO:81:LEU:HD22	1.64	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:82:MET:HB2	13:AM:93:ARG:NH1	1.98	0.79
24:AY:73:GLY:HA3	24:AY:82:GLN:HE21	1.48	0.78
47:DP:23:PRO:O	47:DP:33:ARG:HD2	1.82	0.78
40:BF:1:MET:O	40:BF:3:GLU:HG2	1.83	0.78
8:AH:16:ALA:O	8:AH:19:VAL:HG22	1.83	0.78
12:CL:41:THR:HG23	24:CY:7:HIS:CA	2.12	0.78
51:DT:125:ARG:O	51:DT:128:GLU:HG3	1.84	0.78
21:AU:6:ARG:HE	21:AU:15:ARG:HH22	1.30	0.78
35:BA:1170:G:H1	35:BA:1179:C:H42	1.28	0.78
57:DZ:126:VAL:HA	57:DZ:163:LEU:HA	1.65	0.78
43:DI:13:GLY:HA3	43:DI:17:GLN:OE1	1.82	0.78
23:AX:21:C:C6	23:AX:21:C:O5'	2.33	0.78
23:AX:13:A:C5'	23:AX:14:A:C5'	2.58	0.78
51:BT:82:LEU:HD12	51:BT:82:LEU:H	1.48	0.78
48:DQ:12:GLN:HE21	48:DQ:73:PRO:CD	1.95	0.78
12:AL:4:ILE:O	12:AL:8:VAL:HG23	1.83	0.78
54:BW:6:ILE:HG12	54:BW:104:THR:OG1	1.84	0.78
1:CA:1446:U:H4'	1:CA:1447:A:N7	1.97	0.78
20:AT:13:LEU:HD13	20:AT:17:ARG:HH12	1.48	0.78
38:DD:25:THR:HG22	38:DD:26:LYS:HD2	1.64	0.78
8:AH:112:LEU:HA	8:AH:134:ILE:HG12	1.63	0.78
21:CU:6:ARG:HH21	21:CU:15:ARG:NH2	1.81	0.78
6:CF:61:LEU:HB3	6:CF:63:TYR:HE2	1.49	0.78
8:CH:12:ARG:NH1	8:CH:26:VAL:HA	1.98	0.78
36:BB:20:C:C2'	36:BB:21:G:H5''	2.12	0.78
3:CC:172:ARG:HH21	3:CC:174:PRO:HG2	1.49	0.78
43:BI:82:ARG:HB2	43:BI:145:VAL:N	1.99	0.78
1:AA:1250:A:H4'	9:AI:68:GLY:H	1.48	0.78
38:DD:206:LEU:HD23	38:DD:211:ARG:NH1	1.97	0.78
40:DF:201:VAL:HA	40:DF:204:ASN:HD22	1.49	0.78
3:AC:16:ARG:HE	3:AC:54:ARG:HH21	1.28	0.78
35:DA:652:C:H2'	35:DA:652:C:O2	1.83	0.78
37:DC:211:SER:HA	37:DC:220:PRO:HA	1.66	0.78
1:CA:1225:A:C6	1:CA:1226:C:C4	2.71	0.78
23:AX:13:A:H3'	23:AX:14:A:C5'	2.11	0.78
47:DP:23:PRO:HD2	47:DP:33:ARG:NH2	1.98	0.78
5:CE:105:VAL:H	5:CE:106:PRO:HD2	1.48	0.78
5:AE:105:VAL:H	5:AE:106:PRO:HD2	1.48	0.78
5:AE:11:ILE:HG21	5:AE:105:VAL:HG22	1.65	0.78
39:BE:195:LEU:HD12	39:BE:196:VAL:H	1.45	0.78
3:AC:40:ARG:HA	3:AC:43:LEU:HD12	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:24:ILE:HD12	38:BD:25:THR:N	1.98	0.78
43:BI:5:LEU:HD12	43:BI:17:GLN:HB3	1.66	0.78
21:AU:6:ARG:HH21	21:AU:15:ARG:NH2	1.82	0.78
35:DA:2178:C:H3'	35:DA:2179:C:H5''	1.66	0.78
1:CA:1440:C:H1'	1:CA:1462:G:N2	1.99	0.78
35:BA:887:A:H2	35:BA:889:C:H2'	1.48	0.78
35:DA:1915:U:C4	35:DA:1916:A:C8	2.71	0.78
35:DA:1915:U:C6	35:DA:1916:A:C8	2.70	0.78
35:DA:92:A:C2	35:DA:93:G:O4'	2.36	0.78
22:CV:36:U:H2'	22:CV:37:A:H4'	1.66	0.78
33:D8:43:GLN:C	33:D8:44:LYS:HD2	2.03	0.78
47:DP:101:VAL:HG13	47:DP:106:LEU:HD23	1.66	0.78
24:CY:4:ASP:HB3	24:CY:7:HIS:O	1.84	0.78
46:BO:88:ASN:HD21	46:BO:90:GLN:HB2	1.47	0.78
7:AG:9:VAL:HG11	7:AG:94:ARG:NH1	1.99	0.78
35:DA:539:G:H2'	35:DA:540:C:H6	1.49	0.78
1:AA:718:G:H5'	11:AK:117:ASN:HB2	1.66	0.78
7:CG:25:ALA:HA	7:CG:28:ASN:ND2	1.99	0.78
36:BB:74:U:H2'	36:BB:75:G:C5'	2.14	0.78
50:DS:17:ARG:HA	50:DS:20:ARG:HH12	1.48	0.78
10:AJ:50:ILE:HA	10:AJ:60:ARG:HD3	1.66	0.78
38:BD:121:PRO:HB3	38:BD:135:PHE:CE2	2.18	0.78
35:DA:1658:C:OP1	39:DE:132:HIS:CE1	2.37	0.78
6:AF:61:LEU:HB3	6:AF:63:TYR:HE2	1.48	0.78
45:BN:67:LEU:H	45:BN:67:LEU:HD12	1.49	0.78
17:AQ:65:ILE:N	17:AQ:65:ILE:HD12	1.99	0.78
31:B6:27:LYS:HD2	35:BA:2285:C:OP2	1.84	0.78
13:CM:82:MET:HB2	13:CM:93:ARG:NH1	1.99	0.78
1:CA:255:G:H2'	1:CA:256:U:H6	1.49	0.78
47:BP:132:LYS:HA	47:BP:132:LYS:HE3	1.66	0.78
7:CG:9:VAL:HG11	7:CG:94:ARG:NH1	1.98	0.78
35:BA:2178:C:H3'	35:BA:2179:C:H5''	1.65	0.78
23:AX:21:C:O2'	23:AX:22:A:C2	2.34	0.78
1:AA:1504:G:OP1	1:AA:1507:A:H4'	1.84	0.78
1:CA:1502:A:H2	1:CA:1505:G:H22	1.32	0.78
5:CE:11:ILE:HG21	5:CE:105:VAL:HG22	1.66	0.78
22:CV:24:U:H2'	22:CV:25:C:O4'	1.84	0.78
1:CA:1107:C:H2'	1:CA:1108:G:H5''	1.66	0.78
57:BZ:103:ARG:NH1	57:BZ:136:PHE:HB3	1.98	0.78
47:DP:18:ARG:HH11	47:DP:18:ARG:HB3	1.48	0.78
4:CD:189:PRO:HB2	4:CD:194:LEU:HD21	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1430:C:H2'	35:DA:1431:U:C6	2.19	0.78
41:BG:96:ARG:O	41:BG:99:MET:HG2	1.84	0.78
1:AA:642:A:N3	8:AH:113:SER:HB3	1.99	0.78
8:CH:121:ASP:HB2	8:CH:125:ARG:HH12	1.49	0.78
24:AY:13:PRO:CG	24:AY:13:PRO:O	2.30	0.78
40:DF:165:ARG:HH11	40:DF:165:ARG:HB3	1.49	0.78
35:BA:1528(A):A:C5	35:BA:1529:G:C8	2.72	0.78
1:AA:178:C:C2'	1:AA:179:A:H5''	2.12	0.78
36:DB:106:G:H5''	57:DZ:31:ARG:HB3	1.64	0.78
35:BA:910:A:H62	48:BQ:12:GLN:HA	1.49	0.78
39:BE:92:THR:O	39:BE:95:ILE:HG12	1.84	0.78
1:AA:405:U:H3'	1:AA:406:G:H5'	1.66	0.78
40:BF:165:ARG:HH11	40:BF:165:ARG:HB3	1.47	0.78
8:AH:11:THR:HG23	8:AH:14:ARG:HH12	1.49	0.78
38:DD:172:TYR:CD1	38:DD:186:HIS:HA	2.18	0.78
12:AL:41:THR:HB	24:AY:9:TYR:CE2	2.19	0.77
58:CX:16:A:N3	58:CX:17:U:H6	1.79	0.77
1:CA:836:G:O6	1:CA:837:G:C6	2.37	0.77
36:DB:74:U:H2'	36:DB:75:G:C5'	2.13	0.77
42:BH:83:TYR:CB	42:BH:135:GLY:H	1.97	0.77
43:DI:123:LEU:HD11	43:DI:144:VAL:HG22	1.64	0.77
38:BD:43:ARG:NH1	38:BD:44:ASN:ND2	2.31	0.77
55:BX:54:VAL:HG22	55:BX:81:VAL:HG12	1.65	0.77
1:CA:37:U:O2'	1:CA:38:G:C5'	2.30	0.77
35:DA:1911:U:O2	35:DA:1918:A:N1	2.08	0.77
36:DB:20:C:C2'	36:DB:21:G:H5''	2.14	0.77
10:AJ:34:VAL:HG12	10:AJ:35:SER:N	1.98	0.77
13:AM:40:ASN:HD22	13:AM:43:THR:HG23	1.50	0.77
39:BE:48:GLN:NE2	39:BE:78:LEU:HD22	1.99	0.77
5:AE:139:LEU:HA	5:AE:142:LEU:HD12	1.65	0.77
35:DA:17:G:H4'	52:DU:25:TRP:CH2	2.19	0.77
13:AM:49:THR:HG22	13:AM:51:ALA:H	1.48	0.77
35:DA:2579:C:O3'	39:DE:131:ALA:HB2	1.84	0.77
13:CM:49:THR:HG22	13:CM:51:ALA:H	1.49	0.77
35:DA:298:G:H5'	35:DA:299:A:OP1	1.85	0.77
1:CA:36:C:C3'	1:CA:37:U:H5'	2.15	0.77
58:CX:16:A:C4	58:CX:17:U:C6	2.73	0.77
52:BU:92:ARG:NH2	53:BV:10:LYS:HA	2.00	0.77
36:DB:75:G:H5'	36:DB:75:G:H8	1.49	0.77
1:CA:33:A:H2'	1:CA:34:C:C5'	2.09	0.77
24:AY:64:TYR:HB2	24:AY:92:ILE:HD11	1.64	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DE:195:LEU:HD12	39:DE:196:VAL:H	1.46	0.77
35:DA:2334:G:N3	50:DS:18:ILE:HD11	1.99	0.77
3:CC:47:LEU:HD23	3:CC:52:LEU:HD13	1.65	0.77
8:CH:58:TYR:O	8:CH:59:LEU:HD23	1.83	0.77
35:DA:1697:G:H3'	35:DA:1698:A:C5'	2.12	0.77
43:DI:42:SER:HA	43:DI:45:LYS:HE2	1.67	0.77
37:BC:211:SER:HA	37:BC:220:PRO:HA	1.65	0.77
38:BD:172:TYR:CD1	38:BD:186:HIS:HA	2.19	0.77
3:AC:175:LEU:HD23	3:AC:175:LEU:O	1.84	0.77
15:CO:26:GLU:HG3	15:CO:81:LEU:HD22	1.67	0.77
35:BA:612:C:H2'	35:BA:613:G:C5'	2.14	0.77
9:AI:65:VAL:HG11	9:AI:77:ILE:HD11	1.65	0.77
38:DD:49:ILE:HD11	38:DD:52:ARG:HA	1.65	0.77
35:BA:1430:C:H2'	35:BA:1431:U:C6	2.18	0.77
4:AD:120:LEU:HB3	4:AD:126:ILE:HD11	1.65	0.77
18:AR:50:ILE:HD12	18:AR:70:ILE:HG21	1.65	0.77
35:DA:1378:A:H4'	35:DA:1379:A:OP1	1.84	0.77
49:BR:104:ARG:HD2	49:BR:109:ALA:HB3	1.66	0.77
40:DF:103:LYS:HA	40:DF:106:ARG:HG3	1.66	0.77
14:AN:33:VAL:HA	14:AN:40:CYS:HA	1.67	0.77
48:DQ:58:PHE:HD1	48:DQ:58:PHE:O	1.67	0.77
8:AH:91:ARG:HG2	8:AH:91:ARG:HH11	1.50	0.77
41:DG:165:THR:OG1	41:DG:168:GLU:HG2	1.83	0.77
35:DA:2472:G:H3'	35:DA:2473:U:H5''	1.61	0.77
33:D8:51:ALA:H	33:D8:53:PRO:CD	1.94	0.77
33:D8:59:LYS:CD	47:DP:50:ARG:HB3	2.12	0.77
35:BA:806:C:OP2	47:BP:39:LYS:HD3	1.84	0.77
41:DG:114:ILE:HD12	41:DG:117:PHE:HD2	1.49	0.77
7:CG:115:ARG:HB2	7:CG:118:VAL:HG23	1.66	0.77
7:AG:115:ARG:HB2	7:AG:118:VAL:HG23	1.67	0.77
8:AH:20:TYR:HE2	8:AH:75:ARG:HD2	1.50	0.77
3:AC:47:LEU:HD23	3:AC:52:LEU:HD13	1.64	0.77
38:DD:121:PRO:HB3	38:DD:135:PHE:CE2	2.20	0.77
35:DA:1639:U:C2'	35:DA:1640:C:H5''	2.15	0.77
1:CA:693:G:H2'	1:CA:694:A:C8	2.19	0.77
5:AE:15:ARG:HH12	23:AX:24:A:H5'	1.47	0.77
24:AY:55:ASP:HB3	24:AY:58:ALA:HB3	1.66	0.77
1:CA:1346:A:N1	1:CA:1374:A:H5''	2.00	0.77
58:CX:16:A:C2	58:CX:17:U:N1	2.53	0.77
42:DH:83:TYR:CB	42:DH:135:GLY:H	1.97	0.77
35:BA:1899:G:H22	35:BA:1902:C:H41	1.31	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:806:C:OP2	47:DP:39:LYS:HD3	1.85	0.77
2:CB:17:PHE:CD1	2:CB:44:LEU:HD21	2.17	0.77
41:DG:106:LEU:O	41:DG:110:ALA:HB3	1.83	0.77
30:B5:2:ALA:HA	35:BA:2015:A:H1'	1.67	0.77
35:BA:747:U:H1'	54:BW:92:ARG:NH1	2.00	0.77
24:CY:6:GLY:H	24:CY:7:HIS:CE1	2.02	0.77
2:CB:8:LYS:HD3	2:CB:217:ARG:NH2	1.99	0.77
37:DC:82:LYS:HZ1	37:DC:94:VAL:HG11	1.50	0.77
41:BG:16:ARG:HH21	41:BG:31:VAL:HB	1.49	0.77
43:BI:42:SER:HA	43:BI:45:LYS:HE2	1.67	0.77
35:DA:330:A:H2	35:DA:1210:A:H2'	1.49	0.77
41:BG:121:ASN:ND2	41:BG:123:ASN:H	1.83	0.77
25:D0:11:ARG:HB2	25:D0:11:ARG:NH1	2.00	0.77
35:BA:330:A:H2	35:BA:1210:A:H2'	1.49	0.77
22:CW:47:U:H3'	22:CW:48:C:C5'	2.15	0.77
35:DA:92:A:H2	35:DA:93:G:H1'	1.48	0.77
23:AX:19:U:H2'	23:AX:20:U:H5	1.49	0.77
56:DY:8:LYS:HD2	56:DY:8:LYS:N	2.00	0.77
5:AE:103:GLY:H	5:AE:106:PRO:CG	1.97	0.77
47:DP:132:LYS:HA	47:DP:132:LYS:HE3	1.66	0.77
4:CD:101:LEU:HD23	4:CD:121:VAL:CG1	2.15	0.77
43:BI:82:ARG:HD3	43:BI:82:ARG:N	1.99	0.77
1:CA:501:C:H2'	1:CA:502:G:H8	1.48	0.77
35:BA:661:C:O3'	47:BP:18:ARG:HD2	1.85	0.77
3:CC:40:ARG:HA	3:CC:43:LEU:HD12	1.65	0.77
7:CG:79:ARG:NH2	22:CW:34:C:H42	1.82	0.77
22:CW:26:G:H5''	22:CW:27:U:C5	2.19	0.77
35:BA:911:A:H2'	48:BQ:9:TYR:OH	1.84	0.77
4:AD:64:LEU:O	4:AD:64:LEU:HD23	1.84	0.77
1:CA:762:C:H2'	1:CA:763:G:H8	1.49	0.77
41:DG:139:LEU:HA	41:DG:144:ILE:CG2	2.14	0.77
35:DA:2630:G:H1'	35:DA:2894:G:H1'	1.67	0.77
35:BA:991:C:H6	35:BA:991:C:H5'	1.49	0.77
52:BU:74:LEU:HD12	52:BU:74:LEU:H	1.50	0.77
1:CA:735:C:H2'	1:CA:736:C:C6	2.16	0.77
57:DZ:72:ARG:HG2	57:DZ:89:PHE:HB2	1.67	0.77
7:AG:146:GLU:HA	7:AG:149:ARG:HB2	1.65	0.77
35:DA:963:U:H2'	35:DA:964:C:C6	2.20	0.77
35:DA:779:U:OP1	38:DD:49:ILE:HG22	1.85	0.77
7:AG:25:ALA:HA	7:AG:28:ASN:ND2	2.00	0.77
18:CR:50:ILE:HD12	18:CR:70:ILE:HG21	1.67	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:13:LEU:HD13	20:CT:17:ARG:HH12	1.49	0.77
22:CV:66:C:H2'	22:CV:67:C:H6	1.49	0.77
55:DX:35:THR:O	55:DX:39:ILE:HG12	1.84	0.77
35:BA:1887:C:H2'	35:BA:1888:G:H5''	1.67	0.77
1:CA:1137:C:H4'	1:CA:1138:G:N2	2.00	0.77
42:BH:54:ARG:HH11	42:BH:54:ARG:HG2	1.50	0.77
24:AY:33:LYS:CB	24:AY:36:GLY:N	2.44	0.77
35:BA:1465:G:O4'	35:BA:1528:A:H8	1.68	0.77
52:DU:92:ARG:NH2	53:DV:10:LYS:HA	1.99	0.77
12:AL:81:LEU:HD23	12:AL:98:VAL:HG21	1.65	0.77
10:CJ:34:VAL:HG22	10:CJ:74:ILE:HG12	1.67	0.77
10:CJ:34:VAL:HG12	10:CJ:35:SER:N	2.00	0.77
1:AA:1004:A:H5''	1:AA:1025:U:H3	1.49	0.77
31:B6:28:ARG:HA	31:B6:32:ASN:HD22	1.47	0.77
35:DA:652:C:O2	35:DA:652:C:C2'	2.33	0.77
41:DG:32:PRO:HB2	41:DG:172:LEU:HD22	1.67	0.77
41:DG:139:LEU:HA	41:DG:144:ILE:HG21	1.67	0.77
35:BA:2685:G:H5'	46:BO:68:GLU:OE2	1.85	0.77
7:CG:77:SER:HA	7:CG:86:GLN:HA	1.67	0.77
40:DF:132:VAL:HG22	40:DF:133:ASN:N	2.00	0.77
26:B1:7:ILE:HG21	26:B1:66:HIS:HB3	1.67	0.77
1:CA:1506:U:OP2	58:CX:15:A:OP2	2.03	0.77
2:CB:165:VAL:HG23	2:CB:166:ASP:H	1.50	0.77
2:CB:55:PHE:HB3	2:CB:221:LEU:HD12	1.67	0.77
2:AB:165:VAL:HG23	2:AB:166:ASP:H	1.50	0.77
47:BP:101:VAL:HG13	47:BP:106:LEU:HD23	1.67	0.77
12:AL:116:LYS:HB2	12:AL:117:TYR:HD1	1.50	0.77
35:DA:597:U:H4'	47:DP:15:ARG:HH11	1.50	0.77
46:DO:47:ILE:HG12	46:DO:48:PRO:HD2	1.65	0.77
4:AD:126:ILE:HD12	4:AD:126:ILE:N	1.99	0.77
38:DD:206:LEU:HD23	38:DD:211:ARG:HH11	1.49	0.77
1:CA:671:G:H2'	1:CA:672:U:H6	1.48	0.77
49:DR:55:ALA:HB2	49:DR:79:LEU:HD13	1.66	0.77
16:AP:19:ILE:HG22	16:AP:36:ILE:HD11	1.65	0.77
22:CV:4:G:HO2'	22:CV:5:G:H8	1.30	0.77
1:CA:37:U:O2	1:CA:397:A:N6	2.15	0.76
51:DT:82:LEU:H	51:DT:82:LEU:HD12	1.49	0.76
35:BA:1899:G:H22	35:BA:1902:C:N4	1.80	0.76
2:CB:84:GLU:HB3	2:CB:219:VAL:HG21	1.67	0.76
2:AB:77:ALA:HB2	2:AB:211:ILE:HD13	1.67	0.76
22:AV:53:G:N2	22:AV:62:C:O2	2.17	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DI:123:LEU:HD13	43:DI:124:GLY:H	1.50	0.76
27:D2:65:ASN:HD22	27:D2:69:ARG:NH2	1.81	0.76
35:BA:1019:U:HO2'	35:BA:1021:A:H2	1.33	0.76
7:AG:77:SER:HA	7:AG:86:GLN:HA	1.67	0.76
35:BA:1639:U:C2'	35:BA:1640:C:H5''	2.15	0.76
24:AY:40:ARG:HG3	24:AY:53:GLU:HB3	1.67	0.76
55:DX:84:ALA:HB3	55:DX:87:GLN:NE2	1.99	0.76
35:BA:197:A:H5'	35:BA:197:A:H8	1.51	0.76
2:AB:58:ILE:HG23	2:AB:222:ILE:HD11	1.68	0.76
35:BA:1915:U:C3'	35:BA:1916:A:H5''	2.14	0.76
43:DI:82:ARG:N	43:DI:82:ARG:HD3	2.00	0.76
35:BA:925:C:H2'	35:BA:926:A:H5''	1.66	0.76
35:DA:1658:C:OP1	39:DE:132:HIS:O	2.03	0.76
5:CE:139:LEU:HA	5:CE:142:LEU:HD12	1.66	0.76
2:AB:24:TRP:CZ3	2:AB:26:PRO:HA	2.20	0.76
1:CA:250:A:H4'	1:CA:251:G:O5'	1.84	0.76
36:DB:14:U:O2'	36:DB:15:A:H5''	1.84	0.76
1:AA:1228:C:H2'	1:AA:1229:A:H8	1.50	0.76
39:DE:92:THR:O	39:DE:95:ILE:HG12	1.84	0.76
42:BH:12:PRO:HD2	42:BH:49:VAL:HA	1.67	0.76
35:DA:597:U:H4'	47:DP:15:ARG:NH1	2.00	0.76
5:AE:78:HIS:HD2	8:AH:107:LEU:HD12	1.49	0.76
1:CA:1206:G:H2'	1:CA:1207:G:O5'	1.85	0.76
54:BW:9:TYR:H	54:BW:102:HIS:CD2	2.04	0.76
35:DA:1887:C:H2'	35:DA:1888:G:H5''	1.67	0.76
47:BP:75:ILE:HD13	47:BP:77:ARG:HH12	1.50	0.76
45:BN:32:THR:HG22	45:BN:37:LYS:HB2	1.67	0.76
25:B0:11:ARG:HB2	25:B0:11:ARG:NH1	2.00	0.76
47:BP:23:PRO:O	47:BP:33:ARG:HD2	1.84	0.76
36:BB:75:G:H5'	36:BB:75:G:H8	1.50	0.76
1:AA:1060:C:C6	3:AC:2:GLY:HA2	2.19	0.76
47:DP:9:ASN:N	47:DP:10:PRO:HD3	2.00	0.76
1:AA:735:C:H2'	1:AA:736:C:C6	2.18	0.76
41:BG:51:ARG:NE	41:BG:51:ARG:HA	2.00	0.76
4:AD:101:LEU:HD23	4:AD:121:VAL:CG1	2.14	0.76
39:BE:2:LYS:HA	39:BE:84:PHE:CD2	2.21	0.76
35:DA:780:G:H21	35:DA:783:A:H62	1.34	0.76
1:CA:1492:A:O2'	24:CY:9:TYR:CD1	2.38	0.76
49:BR:55:ALA:HB2	49:BR:79:LEU:HD13	1.67	0.76
35:DA:2468:G:H22	35:DA:2481:G:H2'	1.49	0.76
7:CG:146:GLU:HA	7:CG:149:ARG:HB2	1.66	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DN:25:ARG:HG3	45:DN:25:ARG:HH11	1.48	0.76
48:BQ:58:PHE:O	48:BQ:58:PHE:HD1	1.69	0.76
35:DA:1766:U:H2'	35:DA:1767:C:H6	1.51	0.76
1:AA:1172:C:H2'	1:AA:1173:G:H8	1.49	0.76
38:BD:206:LEU:HD23	38:BD:211:ARG:HH11	1.50	0.76
32:B7:20:ALA:HA	32:B7:23:ARG:HE	1.51	0.76
8:CH:51:VAL:CG1	8:CH:60:ARG:HD3	2.13	0.76
56:BY:10:GLY:HA2	56:BY:27:VAL:HG13	1.66	0.76
5:AE:11:ILE:HD12	5:AE:31:LEU:HD12	1.67	0.76
41:DG:75:LYS:HG2	41:DG:76:SER:H	1.51	0.76
46:BO:104:ARG:HH21	51:BT:33:LYS:HZ3	1.29	0.76
41:BG:40:ASN:HB2	41:BG:91:ARG:HB2	1.68	0.76
32:B7:5:TRP:NE1	32:B7:7:PRO:HG3	2.00	0.76
3:AC:150:LYS:HG3	3:AC:169:ALA:HB2	1.64	0.76
2:CB:114:ARG:O	2:CB:118:LEU:HG	1.86	0.76
22:AV:56:C:O5'	22:AV:56:C:C6	2.32	0.76
1:CA:1225:A:C4	1:CA:1226:C:C5	2.74	0.76
41:DG:121:ASN:HD22	41:DG:122:PRO:CD	1.98	0.76
4:AD:108:LEU:HD21	4:AD:183:GLY:HA3	1.67	0.76
43:DI:77:LEU:HD13	43:DI:140:LEU:HG	1.67	0.76
1:AA:1124:G:H2'	1:AA:1125:U:H5'	1.67	0.76
47:DP:16:ARG:CZ	47:DP:18:ARG:HG2	2.14	0.76
1:AA:1347:G:N2	1:AA:1373:G:H2'	2.00	0.76
21:CU:6:ARG:HE	21:CU:15:ARG:HH22	1.30	0.76
35:BA:1281:G:H8	35:BA:1281:G:H5'	1.50	0.76
15:CO:54:ARG:HH11	15:CO:58:MET:HE1	1.49	0.76
1:AA:1057:G:H4'	3:AC:196:LEU:O	1.85	0.76
14:CN:33:VAL:HA	14:CN:40:CYS:HA	1.66	0.76
43:DI:127:VAL:HG22	43:DI:139:GLN:HA	1.67	0.76
1:CA:436:C:H4'	4:CD:157:LEU:HD11	1.67	0.76
42:BH:9:ILE:CG1	42:BH:9:ILE:O	2.30	0.76
42:DH:54:ARG:HH11	42:DH:54:ARG:HG2	1.50	0.76
1:CA:644:G:O2'	1:CA:645:C:H5''	1.85	0.76
1:AA:1493:A3P:O4P	24:AY:34:GLN:CB	2.34	0.76
22:AV:54:U:H5''	22:AV:55:U:H5''	1.66	0.76
27:D2:47:ASN:ND2	35:DA:94(A):G:N3	2.34	0.76
35:DA:867:C:O2	35:DA:868:U:H5'	1.85	0.76
33:B8:59:LYS:HB2	33:B8:59:LYS:NZ	1.98	0.76
40:BF:66:PRO:O	40:BF:67:GLN:HB3	1.85	0.76
8:CH:16:ALA:O	8:CH:19:VAL:HG22	1.84	0.76
47:DP:79:ARG:O	47:DP:110:TYR:HB3	1.84	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BN:57:ALA:O	45:BN:58:ASP:O	2.04	0.76
10:AJ:34:VAL:HG22	10:AJ:74:ILE:HG12	1.66	0.76
35:DA:661:C:O3'	47:DP:18:ARG:HD2	1.84	0.76
1:AA:1003:G:H2'	1:AA:1004:A:H4'	1.68	0.76
1:AA:1346:A:N1	1:AA:1374:A:H5''	2.01	0.76
31:B6:28:ARG:O	31:B6:32:ASN:HB3	1.86	0.76
37:DC:74:VAL:HB	37:DC:91:ALA:HB2	1.68	0.76
13:CM:79:LYS:O	13:CM:82:MET:HB3	1.85	0.76
35:BA:2298:A:H2'	35:BA:2299:G:O4'	1.86	0.76
40:BF:132:VAL:HG22	40:BF:133:ASN:N	2.01	0.76
25:B0:50:ASN:C	25:B0:62:LEU:HD12	2.06	0.76
35:DA:2206:G:N2	35:DA:2207:G:H5'	2.01	0.76
47:DP:75:ILE:HD13	47:DP:77:ARG:HH12	1.51	0.76
1:CA:718:G:H5'	11:CK:117:ASN:HB2	1.68	0.76
35:BA:903:C:H2'	35:BA:904:C:H5''	1.67	0.76
12:CL:81:LEU:HD23	12:CL:98:VAL:HG21	1.68	0.76
27:D2:44:LEU:H	27:D2:44:LEU:HD12	1.51	0.76
38:DD:125:ILE:CD1	38:DD:137:PRO:HD3	2.16	0.76
57:BZ:103:ARG:O	57:BZ:138:GLU:HA	1.86	0.76
31:D6:28:ARG:O	31:D6:32:ASN:HB3	1.86	0.76
37:BC:74:VAL:HB	37:BC:91:ALA:HB2	1.68	0.76
26:B1:50:ARG:NH2	35:BA:2199:A:H5'	2.01	0.76
9:CI:85:LEU:HD12	9:CI:86:VAL:N	2.00	0.76
22:AV:59:A:H2'	22:AV:60:U:H5'	1.67	0.76
38:DD:181:GLU:HA	38:DD:272:ALA:HB3	1.67	0.76
25:D0:50:ASN:C	25:D0:62:LEU:HD12	2.06	0.76
3:AC:162:GLN:HB3	23:AX:23:A:C5	2.20	0.76
51:BT:119:LYS:O	51:BT:123:GLN:HG2	1.86	0.76
2:CB:172:ILE:H	2:CB:172:ILE:HD12	1.50	0.76
2:AB:197:VAL:HG21	2:AB:200:ILE:HG12	1.66	0.76
19:CS:33:THR:HG22	19:CS:35:SER:H	1.51	0.76
39:DE:77:ILE:HG22	39:DE:78:LEU:HD12	1.67	0.76
1:CA:1347:G:N2	1:CA:1373:G:H2'	2.01	0.76
8:AH:58:TYR:O	8:AH:59:LEU:HD23	1.86	0.76
35:DA:887:A:H2	35:DA:889:C:H2'	1.49	0.76
1:AA:1112:C:H1'	3:AC:179:ARG:NH1	2.00	0.76
32:B7:47:ARG:HB2	32:B7:48:LYS:NZ	2.01	0.76
55:BX:35:THR:O	55:BX:39:ILE:HG12	1.86	0.76
56:DY:49:VAL:O	56:DY:50:ARG:HB2	1.85	0.76
1:CA:940:C:H2'	1:CA:941:G:C8	2.21	0.76
1:CA:975:A:H4'	1:CA:976:G:H5''	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1508:G:H2'	1:CA:1509:C:H6	1.51	0.76
1:CA:11:G:H2'	1:CA:12:U:C5'	2.16	0.76
40:DF:1:MET:O	40:DF:3:GLU:HG2	1.86	0.76
47:DP:126:VAL:HA	47:DP:145:PRO:HG2	1.66	0.76
37:DC:82:LYS:HB3	37:DC:82:LYS:HZ2	1.51	0.76
3:CC:18:TRP:CD1	14:CN:54:PRO:HA	2.21	0.76
41:DG:16:ARG:HH22	41:DG:33:ARG:HD3	1.50	0.76
5:CE:9:LYS:HB3	5:CE:112:LEU:HD11	1.68	0.76
40:BF:103:LYS:HA	40:BF:106:ARG:HG3	1.66	0.76
35:DA:2298:A:H2'	35:DA:2299:G:O4'	1.86	0.76
45:BN:25:ARG:HH11	45:BN:25:ARG:HG3	1.51	0.76
1:CA:976:G:N2	1:CA:1362:C:H2'	2.01	0.75
26:B1:3:LYS:CG	26:B1:4:VAL:N	2.39	0.75
35:BA:1530:C:O2'	35:BA:1531:C:C4'	2.34	0.75
41:DG:5:VAL:HG12	41:DG:6:ALA:H	1.52	0.75
5:CE:50:GLU:HB3	5:CE:53:LEU:HD12	1.68	0.75
36:DB:70:C:H2'	36:DB:71:C:H6	1.51	0.75
1:CA:1057:G:H4'	3:CC:196:LEU:O	1.86	0.75
3:CC:175:LEU:O	3:CC:175:LEU:HD23	1.87	0.75
1:CA:750:G:N3	15:CO:23:GLY:HA3	2.01	0.75
35:DA:1914:C:C5'	35:DA:1914:C:O2	2.35	0.75
1:CA:1401:G:P	58:CX:19:G:H22	2.10	0.75
31:D6:27:LYS:HD2	35:DA:2285:C:OP2	1.86	0.75
1:AA:1151:A:HO2'	1:AA:1152:A:H8	1.31	0.75
54:BW:6:ILE:HA	54:BW:103:ILE:O	1.85	0.75
2:CB:24:TRP:CZ3	2:CB:26:PRO:HA	2.20	0.75
35:DA:2406:U:O4	47:DP:70:GLN:HB2	1.86	0.75
57:BZ:11:GLU:HB2	57:BZ:13:GLU:OE1	1.86	0.75
42:BH:10:PRO:O	42:BH:10:PRO:CG	2.29	0.75
40:DF:28:ILE:O	40:DF:28:ILE:HD12	1.86	0.75
38:DD:32:SER:O	38:DD:36:PRO:HD3	1.86	0.75
1:CA:590:C:H2'	1:CA:591:U:C5	2.21	0.75
2:CB:53:ARG:HA	2:CB:56:ARG:HG3	1.68	0.75
35:DA:676:A:H8	35:DA:2069:G:N2	1.81	0.75
43:BI:61:ARG:N	43:BI:61:ARG:HD3	2.02	0.75
1:AA:619:U:N3	4:AD:135:LEU:HD11	2.01	0.75
9:AI:85:LEU:HD12	9:AI:86:VAL:N	2.02	0.75
1:AA:671:G:H2'	1:AA:672:U:C6	2.21	0.75
35:DA:1639:U:O2'	35:DA:1640:C:H5''	1.87	0.75
41:BG:133:LEU:HD13	41:BG:134:GLY:N	2.01	0.75
13:AM:23:TYR:HB3	13:AM:67:GLU:HA	1.68	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2821:A:OP2	39:DE:110:GLY:HA3	1.85	0.75
49:DR:4:LEU:HD12	49:DR:5:LYS:H	1.51	0.75
2:CB:19:HIS:CD2	2:CB:204:ASN:HA	2.22	0.75
2:CB:77:ALA:HB2	2:CB:211:ILE:HD13	1.69	0.75
31:B6:12:GLU:HA	31:B6:23:THR:HA	1.68	0.75
41:DG:38:VAL:HB	41:DG:93:THR:HG22	1.68	0.75
35:DA:197:A:H5'	35:DA:197:A:C8	2.21	0.75
27:B2:10:LEU:HB3	27:B2:14:ARG:HH11	1.51	0.75
1:CA:1250:A:H4'	9:CI:68:GLY:H	1.50	0.75
43:DI:5:LEU:HD12	43:DI:17:GLN:HB3	1.66	0.75
41:DG:13:GLU:O	41:DG:14:GLU:HB2	1.87	0.75
54:DW:6:ILE:HG12	54:DW:104:THR:OG1	1.86	0.75
56:BY:88:LYS:NZ	56:BY:93:GLY:HA3	2.02	0.75
51:DT:24:PRO:HA	51:DT:49:VAL:HG13	1.68	0.75
40:BF:201:VAL:HA	40:BF:204:ASN:HD22	1.51	0.75
53:BV:52:VAL:HG11	53:BV:55:ALA:HB3	1.68	0.75
51:DT:119:LYS:O	51:DT:123:GLN:HG2	1.87	0.75
33:D8:32:LEU:HB3	33:D8:36:LYS:NZ	2.01	0.75
35:DA:747:U:H1'	54:DW:92:ARG:NH1	2.02	0.75
2:CB:58:ILE:HG23	2:CB:222:ILE:HD11	1.67	0.75
13:CM:40:ASN:HD22	13:CM:43:THR:HG23	1.50	0.75
45:DN:57:ALA:O	45:DN:58:ASP:O	2.05	0.75
49:DR:7:GLY:O	49:DR:8:ARG:HB2	1.87	0.75
38:BD:125:ILE:CD1	38:BD:137:PRO:HD3	2.17	0.75
1:CA:979:C:H3'	1:CA:980:C:C5'	2.17	0.75
53:BV:22:VAL:O	53:BV:23:GLU:HB2	1.87	0.75
53:DV:5:VAL:HG21	53:DV:35:LEU:HG	1.69	0.75
56:DY:2:ARG:N	56:DY:4:LYS:HE3	2.00	0.75
27:D2:13:ALA:O	27:D2:16:LEU:HB2	1.87	0.75
35:BA:142:A:H8	35:BA:1595:G:H21	1.35	0.75
45:DN:121:LYS:HD2	45:DN:121:LYS:N	2.02	0.75
35:BA:1489:U:O3'	35:BA:1490:A:C8	2.37	0.75
1:CA:1502:A:H2	1:CA:1505:G:N2	1.85	0.75
47:DP:47:ASP:HB3	47:DP:48:PRO:CA	2.17	0.75
57:DZ:6:LYS:CE	57:DZ:6:LYS:H	1.99	0.75
1:CA:657:G:C2'	1:CA:658:G:H5'	2.17	0.75
57:BZ:25:PRO:O	57:BZ:85:HIS:HA	1.86	0.75
42:BH:13:LYS:HG3	42:BH:14:GLY:H	1.51	0.75
39:DE:111:ARG:HD2	39:DE:160:TYR:CE1	2.20	0.75
38:BD:134:ARG:HG3	38:BD:135:PHE:HD1	1.47	0.75
41:DG:59:GLU:HG3	41:DG:60:LEU:N	2.00	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:30:ILE:HD12	7:CG:120:ILE:HD13	1.69	0.75
50:DS:49:VAL:HG13	50:DS:76:LYS:HE3	1.68	0.75
1:AA:693:G:H2'	1:AA:694:A:H8	1.51	0.75
17:CQ:67:LYS:HA	17:CQ:70:ARG:HH12	1.49	0.75
1:AA:639:G:H2'	1:AA:640:A:H8	1.52	0.75
50:BS:56:LEU:HD22	50:BS:58:LEU:HD11	1.69	0.75
1:CA:1112:C:H1'	3:CC:179:ARG:NH1	2.01	0.75
56:DY:7:VAL:C	56:DY:8:LYS:HD2	2.07	0.75
51:DT:82:LEU:HD12	51:DT:82:LEU:N	2.01	0.75
2:CB:87:ARG:HE	2:CB:223:ILE:HD11	1.50	0.75
10:CJ:28:ARG:HG3	10:CJ:34:VAL:N	2.01	0.75
13:AM:54:VAL:O	13:AM:58:GLU:HG2	1.87	0.75
53:DV:22:VAL:O	53:DV:23:GLU:HB2	1.85	0.75
21:AU:6:ARG:NE	21:AU:15:ARG:HH22	1.84	0.75
35:BA:1639:U:O2'	35:BA:1640:C:H5''	1.86	0.75
35:BA:365:C:H6	35:BA:365:C:H5'	1.52	0.75
35:BA:1833:U:H2'	35:BA:1834:U:H6	1.51	0.75
39:BE:16:ARG:O	39:BE:17:ASP:HB3	1.87	0.75
7:CG:92:SER:HB3	7:CG:95:ARG:HB2	1.68	0.75
1:AA:250:A:H4'	1:AA:251:G:O5'	1.87	0.75
35:DA:296:C:O2'	35:DA:297:C:H5'	1.86	0.75
35:DA:2820:A:O3'	49:DR:5:LYS:HE3	1.87	0.75
8:CH:63:LEU:H	8:CH:63:LEU:HD22	1.52	0.75
35:DA:1899:G:H22	35:DA:1902:C:H41	1.35	0.75
1:CA:613:C:C2'	1:CA:614:A:H5''	2.16	0.75
37:DC:195:ALA:HB1	37:DC:224:ILE:N	2.02	0.75
32:B7:8:ASN:HD22	32:B7:8:ASN:C	1.89	0.75
5:AE:50:GLU:HB3	5:AE:53:LEU:HD12	1.67	0.75
35:DA:141:A:H8	35:DA:1408:C:O2'	1.67	0.75
43:DI:8:PRO:HD3	43:DI:15:VAL:HB	1.69	0.75
2:AB:114:ARG:O	2:AB:118:LEU:HG	1.87	0.75
7:CG:38:LEU:HD12	7:CG:41:ARG:HD2	1.69	0.75
1:AA:204:U:H4'	1:AA:216:G:C8	2.21	0.75
28:B3:4:LEU:HD11	28:B3:39:ASP:HA	1.69	0.75
46:BO:47:ILE:HG12	46:BO:48:PRO:HD2	1.69	0.75
49:BR:13:HIS:HE1	49:BR:15:SER:HB2	1.52	0.75
24:AY:95:TYR:O	24:AY:96:LEU:HB2	1.87	0.75
35:DA:1911:U:O2'	35:DA:1912:A:O5'	2.05	0.75
1:CA:1225:A:H2'	1:CA:1225:A:N3	2.02	0.75
51:BT:82:LEU:N	51:BT:82:LEU:HD12	2.01	0.75
37:DC:59:ARG:HG2	37:DC:62:VAL:HG22	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DZ:35:ARG:NE	57:DZ:35:ARG:HA	2.02	0.75
35:DA:2302:G:H1'	41:DG:128:ARG:HE	1.52	0.75
35:DA:2068:U:H3	35:DA:2430:A:H2	0.80	0.75
36:BB:45:A:C1'	41:BG:95:ARG:HH21	2.00	0.75
49:BR:10:LEU:HB3	49:BR:17:ARG:NE	2.02	0.75
16:CP:22:THR:HA	16:CP:33:ILE:HG12	1.69	0.75
35:BA:296:C:O2'	35:BA:297:C:H5'	1.86	0.75
49:DR:104:ARG:HD2	49:DR:109:ALA:HB3	1.68	0.75
1:CA:943:U:H6	1:CA:943:U:O5'	1.70	0.75
42:DH:9:ILE:O	42:DH:9:ILE:CG1	2.30	0.74
35:DA:632:A:O2'	35:DA:633:A:H5'	1.87	0.74
35:BA:613:G:H5'	35:BA:613:G:C8	2.23	0.74
51:BT:89:VAL:HB	51:BT:91:ARG:NE	2.02	0.74
1:CA:178:C:H2'	1:CA:179:A:C5'	2.16	0.74
2:CB:71:VAL:HG12	2:CB:93:VAL:HB	1.69	0.74
47:BP:115:LEU:HD23	47:BP:115:LEU:H	1.51	0.74
10:CJ:5:ARG:HA	10:CJ:73:ASP:OD1	1.86	0.74
41:BG:91:ARG:HH11	41:BG:91:ARG:HG3	1.51	0.74
35:BA:963:U:H2'	35:BA:964:C:C6	2.22	0.74
48:BQ:12:GLN:HE21	48:BQ:73:PRO:HD3	1.50	0.74
21:CU:6:ARG:NE	21:CU:15:ARG:HH22	1.84	0.74
5:CE:67:VAL:HG13	5:CE:69:VAL:HG23	1.69	0.74
35:DA:1161:C:H1'	53:DV:8:GLY:O	1.86	0.74
1:CA:1172:C:H2'	1:CA:1173:G:H8	1.52	0.74
35:DA:1465:G:O4'	35:DA:1528:A:H8	1.69	0.74
35:BA:1797:C:H4'	38:BD:257:LEU:O	1.87	0.74
24:AY:28:ILE:HD12	24:AY:29:PRO:HD3	1.64	0.74
24:AY:30:LYS:HE3	24:AY:96:LEU:HB2	1.69	0.74
10:CJ:50:ILE:HA	10:CJ:60:ARG:HD3	1.66	0.74
40:BF:24:LEU:HB3	40:BF:25:PRO:CD	2.15	0.74
42:BH:98:LEU:CB	42:BH:125:VAL:HG21	2.12	0.74
53:BV:52:VAL:CG1	53:BV:55:ALA:HB3	2.17	0.74
1:CA:16:A:O2'	1:CA:17:U:H5'	1.86	0.74
50:BS:13:ARG:CG	50:BS:14:VAL:H	1.99	0.74
2:AB:84:GLU:HB3	2:AB:219:VAL:HG21	1.68	0.74
41:DG:111:LEU:HD22	41:DG:117:PHE:HE2	1.51	0.74
41:DG:82:LEU:HD22	41:DG:87:PRO:HB3	1.68	0.74
35:BA:597:U:H4'	47:BP:15:ARG:HH11	1.52	0.74
43:BI:102:SER:HB3	43:BI:109:ILE:HB	1.69	0.74
43:DI:102:SER:HB3	43:DI:109:ILE:HB	1.67	0.74
1:CA:671:G:H2'	1:CA:672:U:C6	2.22	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1000:U:H2'	1:AA:1001:A:H8	1.52	0.74
39:DE:101:ARG:NH1	39:DE:171:GLU:HB2	2.02	0.74
38:DD:70:TRP:CH2	38:DD:150:LYS:HA	2.22	0.74
7:AG:100:ALA:O	7:AG:104:LEU:HD23	1.86	0.74
7:AG:92:SER:HB3	7:AG:95:ARG:HB2	1.69	0.74
35:BA:2334:G:N3	50:BS:18:ILE:HD11	2.02	0.74
2:AB:87:ARG:HE	2:AB:223:ILE:HD11	1.51	0.74
2:AB:71:VAL:HG12	2:AB:93:VAL:HB	1.69	0.74
19:AS:33:THR:HG22	19:AS:35:SER:H	1.51	0.74
43:DI:82:ARG:O	43:DI:89:TYR:HB2	1.87	0.74
10:AJ:30:SER:HB3	10:AJ:84:GLN:OE1	1.87	0.74
35:BA:1658:C:OP1	39:BE:132:HIS:O	2.04	0.74
4:CD:108:LEU:HD21	4:CD:183:GLY:HA3	1.67	0.74
36:BB:42:C:H4'	41:BG:67:LYS:HG2	1.68	0.74
3:AC:187:ALA:HB3	3:AC:198:VAL:HB	1.69	0.74
15:CO:39:LEU:HD12	15:CO:56:LEU:HB2	1.68	0.74
24:AY:63:GLY:O	24:AY:72:LEU:N	2.19	0.74
1:CA:1029:C:H4'	1:CA:1033:G:H22	1.51	0.74
42:DH:10:PRO:O	42:DH:10:PRO:CG	2.29	0.74
23:AX:13:A:H3'	23:AX:14:A:H5"	1.69	0.74
31:D6:12:GLU:HA	31:D6:23:THR:HA	1.68	0.74
35:DA:2684:U:P	51:DT:53:ARG:HE	2.10	0.74
3:AC:20:SER:HB2	3:AC:40:ARG:NH2	2.02	0.74
1:AA:501:C:H2'	1:AA:502:G:H8	1.51	0.74
12:CL:116:LYS:HB2	12:CL:117:TYR:HD1	1.52	0.74
57:BZ:9:TYR:CE2	57:BZ:61:LEU:HD13	2.22	0.74
37:BC:195:ALA:HB1	37:BC:224:ILE:N	2.02	0.74
29:B4:5:ILE:HD12	41:BG:67:LYS:NZ	2.02	0.74
6:AF:37:VAL:HG13	6:AF:65:VAL:HG12	1.69	0.74
43:BI:8:PRO:HD3	43:BI:15:VAL:HB	1.70	0.74
56:BY:88:LYS:HZ1	56:BY:93:GLY:HA3	1.52	0.74
1:CA:1241:G:H2'	1:CA:1242:C:C6	2.22	0.74
22:AV:29:G:O2'	22:AV:30:G:H5'	1.87	0.74
35:BA:2630:G:H1'	35:BA:2894:G:H1'	1.67	0.74
35:BA:322:A:H3'	40:BF:169:ASN:HD21	1.51	0.74
8:CH:30:ARG:NH1	8:CH:30:ARG:HB3	2.03	0.74
42:DH:19:VAL:HG21	42:DH:44:VAL:HA	1.70	0.74
15:CO:63:ARG:O	15:CO:67:LEU:HD12	1.88	0.74
1:CA:1152:A:H5"	10:CJ:13:HIS:ND1	2.03	0.74
45:DN:30:ILE:HG23	45:DN:52:VAL:HG11	1.67	0.74
49:DR:7:GLY:C	49:DR:8:ARG:HG3	2.07	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:187:ALA:HB3	3:CC:198:VAL:HB	1.69	0.74
13:AM:79:LYS:O	13:AM:82:MET:HB3	1.88	0.74
1:AA:1097:C:H2'	1:AA:1098:C:H6	1.53	0.74
35:DA:991:C:H5'	35:DA:991:C:H6	1.52	0.74
51:BT:85:LYS:HZ3	51:BT:85:LYS:HA	1.52	0.74
52:DU:74:LEU:HD12	52:DU:74:LEU:H	1.50	0.74
26:D1:45:ASN:HD21	35:DA:2090:G:N2	1.85	0.74
2:AB:19:HIS:CD2	2:AB:204:ASN:HA	2.23	0.74
10:AJ:28:ARG:HG3	10:AJ:34:VAL:N	2.02	0.74
38:BD:108:PRO:HB3	38:BD:143:HIS:CE1	2.23	0.74
22:AV:51:C:H2'	22:AV:52:G:O4'	1.87	0.74
49:DR:24:GLN:HE22	49:DR:36:THR:HG21	1.50	0.74
31:B6:15:GLU:OE2	31:B6:43:CYS:HB3	1.88	0.74
39:DE:46:ALA:HA	39:DE:82:ARG:O	1.87	0.74
49:DR:57:ARG:O	49:DR:57:ARG:HG3	1.84	0.74
35:BA:1332:G:H5''	35:BA:1332:G:H8	1.53	0.74
13:CM:23:TYR:HB3	13:CM:67:GLU:HA	1.69	0.74
35:DA:2473:U:H3'	35:DA:2475:C:N4	2.02	0.74
23:AX:14:A:N6	23:AX:15:A:C6	2.56	0.74
35:DA:612:C:H2'	35:DA:613:G:C5'	2.13	0.74
57:BZ:28:MET:HB3	57:BZ:88:PHE:HB2	1.69	0.74
35:BA:197:A:C8	35:BA:197:A:H5'	2.22	0.74
2:AB:17:PHE:CD1	2:AB:44:LEU:HD21	2.17	0.74
35:BA:747:U:H1'	54:BW:92:ARG:HH11	1.51	0.74
3:AC:18:TRP:CD1	14:AN:54:PRO:HA	2.22	0.74
39:BE:111:ARG:HG3	49:BR:2:ARG:NE	2.02	0.74
5:AE:51:VAL:O	5:AE:55:VAL:HG23	1.87	0.74
38:DD:108:PRO:HB3	38:DD:143:HIS:CE1	2.23	0.74
53:DV:19:LYS:NZ	53:DV:20:LEU:H	1.86	0.74
35:DA:910:A:H62	48:DQ:12:GLN:HA	1.53	0.74
38:BD:206:LEU:HD23	38:BD:211:ARG:NH1	2.02	0.74
11:AK:110:ASP:O	18:AR:84:LYS:HB3	1.88	0.74
28:D3:17:LYS:HG2	35:DA:969:U:OP1	1.88	0.74
38:DD:30:GLU:CD	38:DD:63:ARG:HH21	1.90	0.74
47:DP:122:PRO:HG3	47:DP:141:ALA:O	1.87	0.74
35:BA:631:A:OP1	47:BP:64:LYS:HE2	1.87	0.74
22:CV:55:U:H3	22:CV:57:A:C3'	1.91	0.74
42:BH:123:PHE:HA	42:BH:133:VAL:HG22	1.69	0.74
8:CH:40:ALA:HB2	8:CH:45:ILE:HG13	1.69	0.74
57:DZ:35:ARG:HA	57:DZ:35:ARG:CZ	2.17	0.74
33:B8:32:LEU:HB3	33:B8:36:LYS:NZ	2.01	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:738:C:H5''	6:AF:69:GLU:HB2	1.69	0.74
2:CB:8:LYS:HA	2:CB:217:ARG:NH2	2.02	0.74
29:B4:7:PRO:HG2	41:BG:65:GLY:O	1.87	0.74
1:CA:1116:C:C3'	1:CA:1117:G:H5''	2.18	0.74
45:BN:51:PHE:CZ	45:BN:119:ARG:HD2	2.23	0.74
8:AH:11:THR:HG23	8:AH:14:ARG:NH1	2.03	0.74
1:AA:1107:C:H2'	1:AA:1108:G:H5''	1.68	0.74
15:CO:23:GLY:O	15:CO:27:VAL:HB	1.87	0.74
24:AY:63:GLY:O	24:AY:72:LEU:HB2	1.87	0.74
1:AA:194:C:H2'	1:AA:195:A:H5''	1.69	0.74
37:DC:95:GLY:HA2	37:DC:99:ILE:HD12	1.69	0.74
1:AA:750:G:N3	15:AO:23:GLY:HA3	2.03	0.74
32:D7:20:ALA:HA	32:D7:23:ARG:HE	1.50	0.74
8:CH:64:LYS:HG2	8:CH:79:VAL:HG21	1.70	0.74
32:D7:47:ARG:HB2	32:D7:48:LYS:NZ	2.01	0.74
23:AX:21:C:O2'	23:AX:22:A:H2	1.69	0.74
42:DH:12:PRO:HD2	42:DH:49:VAL:HA	1.67	0.74
47:DP:56:SER:O	47:DP:57:THR:O	2.06	0.74
56:BY:8:LYS:HD2	56:BY:8:LYS:N	2.03	0.74
30:D5:2:ALA:HA	35:DA:2015:A:H1'	1.70	0.74
2:AB:178:ARG:HH11	2:AB:178:ARG:HG2	1.53	0.74
47:BP:79:ARG:O	47:BP:110:TYR:HB3	1.88	0.74
43:DI:88:ILE:HG12	43:DI:92:VAL:HG23	1.70	0.74
29:B4:56:VAL:HG22	29:B4:57:GLU:HG3	1.70	0.74
4:CD:28:SER:HB2	4:CD:29:PRO:HD2	1.68	0.74
54:DW:9:TYR:H	54:DW:102:HIS:CD2	2.05	0.74
26:D1:51:VAL:O	26:D1:57:GLU:HG2	1.88	0.74
35:DA:2807:G:H3'	35:DA:2808:U:H5''	1.70	0.74
22:AV:59:A:C2'	22:AV:60:U:H5'	2.17	0.74
8:CH:39:LEU:O	8:CH:44:PHE:HB2	1.88	0.74
1:CA:865:A:C2	1:CA:918:A:H4'	2.22	0.74
2:CB:173:ALA:HA	2:CB:176:GLU:HG3	1.69	0.74
35:BA:925:C:H2'	35:BA:926:A:C5'	2.18	0.74
35:DA:1019:U:H3	35:DA:1142(A):A:H62	1.33	0.74
38:DD:181:GLU:HA	38:DD:272:ALA:CB	2.17	0.74
35:DA:1053:C:O2'	44:DJ:33:UNK:HA	1.88	0.74
35:DA:2737:G:H2'	35:DA:2738:A:H8	1.53	0.74
1:CA:413:G:H1'	1:CA:428:G:N2	2.03	0.74
26:D1:3:LYS:HG3	26:D1:4:VAL:H	1.52	0.74
8:CH:11:THR:HG23	8:CH:14:ARG:HH12	1.51	0.74
35:BA:2196:C:O2'	35:BA:2197:U:H5'	1.87	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DE:110:GLY:O	49:DR:5:LYS:NZ	2.21	0.73
33:D8:4:MET:HB2	33:D8:61:LEU:HD13	1.68	0.73
5:CE:13:ILE:HA	5:CE:29:GLY:O	1.88	0.73
43:BI:123:LEU:HD13	43:BI:124:GLY:H	1.53	0.73
1:AA:979:C:H3'	1:AA:980:C:C5'	2.17	0.73
8:CH:91:ARG:HG2	8:CH:91:ARG:HH11	1.52	0.73
1:CA:1116:C:H3'	1:CA:1117:G:H5''	1.70	0.73
51:DT:129:ARG:CZ	51:DT:131:ALA:HB3	2.18	0.73
3:AC:172:ARG:HH21	3:AC:174:PRO:HG2	1.50	0.73
35:DA:1797:C:H4'	38:DD:257:LEU:O	1.87	0.73
10:CJ:30:SER:HB3	10:CJ:84:GLN:OE1	1.87	0.73
35:BA:2302:G:H1'	41:BG:128:ARG:NE	2.02	0.73
35:DA:2010:G:H5''	54:DW:42:ARG:HB2	1.70	0.73
5:AE:9:LYS:HB3	5:AE:112:LEU:HD11	1.69	0.73
35:BA:780:G:H21	35:BA:783:A:H62	1.36	0.73
33:B8:25:MET:HB2	47:BP:62:LEU:CD2	2.18	0.73
42:BH:98:LEU:HB2	42:BH:125:VAL:CG2	2.10	0.73
1:AA:624:C:H2'	1:AA:625:G:H8	1.53	0.73
35:DA:868:U:N3	35:DA:869:G:N7	2.35	0.73
9:AI:28:VAL:HG22	9:AI:63:ILE:HB	1.70	0.73
45:DN:133:GLN:HG2	45:DN:134:ARG:N	2.03	0.73
39:DE:48:GLN:NE2	39:DE:78:LEU:HD22	2.02	0.73
5:CE:51:VAL:O	5:CE:55:VAL:HG23	1.89	0.73
41:BG:56:ALA:CB	41:BG:153:ARG:HH21	2.01	0.73
41:DG:18:GLU:OE1	41:DG:19:LEU:HD12	1.87	0.73
3:AC:150:LYS:HE2	3:AC:152:ILE:HD11	1.70	0.73
3:AC:161:GLU:HB2	23:AX:23:A:H61	1.53	0.73
1:CA:1344:C:O2'	1:CA:1345:U:H5'	1.88	0.73
42:DH:123:PHE:HA	42:DH:133:VAL:HG22	1.69	0.73
50:BS:24:LEU:HD23	50:BS:85:VAL:HG12	1.70	0.73
33:B8:4:MET:HB2	33:B8:61:LEU:HD13	1.70	0.73
35:DA:1899:G:H22	35:DA:1902:C:N4	1.83	0.73
2:AB:22:LYS:HA	2:AB:22:LYS:HZ2	1.48	0.73
35:DA:197:A:H8	35:DA:197:A:H5'	1.51	0.73
47:BP:126:VAL:HA	47:BP:145:PRO:HG2	1.70	0.73
4:AD:28:SER:HB2	4:AD:29:PRO:HD2	1.70	0.73
35:DA:1141:U:H2'	45:DN:63:THR:HG21	1.69	0.73
6:CF:60:PHE:C	6:CF:61:LEU:HD12	2.09	0.73
35:DA:1332:G:H5''	35:DA:1332:G:H8	1.53	0.73
7:CG:100:ALA:O	7:CG:104:LEU:HD23	1.87	0.73
51:BT:3:ARG:HD2	51:BT:6:LEU:HD22	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:181:GLU:HA	38:BD:272:ALA:HB3	1.70	0.73
16:AP:22:THR:HA	16:AP:33:ILE:HG12	1.68	0.73
17:AQ:67:LYS:HA	17:AQ:70:ARG:HH12	1.50	0.73
1:AA:16:A:O2'	1:AA:17:U:H5'	1.88	0.73
57:DZ:151:HIS:HB3	57:DZ:170:THR:HG23	1.69	0.73
33:B8:59:LYS:CD	47:BP:50:ARG:HB3	2.15	0.73
38:DD:13:ARG:NH1	38:DD:16:MET:SD	2.62	0.73
46:DO:1:MET:HB3	46:DO:32:TYR:HD2	1.53	0.73
2:AB:55:PHE:HB3	2:AB:221:LEU:HD12	1.68	0.73
2:AB:87:ARG:HD3	2:AB:233:SER:HB3	1.70	0.73
41:DG:117:PHE:HZ	41:DG:179:PRO:HG2	1.53	0.73
9:CI:28:VAL:CG2	9:CI:63:ILE:HB	2.17	0.73
42:DH:13:LYS:HG3	42:DH:14:GLY:H	1.52	0.73
43:BI:88:ILE:HG12	43:BI:92:VAL:HG23	1.68	0.73
45:BN:30:ILE:HG23	45:BN:52:VAL:HG11	1.70	0.73
1:CA:1053:G:C3'	1:CA:1054:C:H5'	2.18	0.73
7:AG:30:ILE:HD12	7:AG:120:ILE:HD13	1.69	0.73
7:CG:15:ASP:OD1	7:CG:18:TYR:HB2	1.89	0.73
1:CA:405:U:H3'	1:CA:406:G:H5'	1.70	0.73
28:D3:4:LEU:HD11	28:D3:39:ASP:HA	1.71	0.73
1:CA:386:C:C2'	1:CA:387:U:H5'	2.18	0.73
35:DA:2219:G:O2'	35:DA:2220:G:H5'	1.87	0.73
36:BB:70:C:H2'	36:BB:71:C:H6	1.53	0.73
24:AY:38:GLY:HA2	24:AY:39:LYS:HD3	1.67	0.73
35:DA:833:U:H5''	47:DP:48:PRO:HB3	1.68	0.73
50:BS:49:VAL:HG13	50:BS:76:LYS:HE3	1.70	0.73
56:BY:7:VAL:HB	56:BY:8:LYS:NZ	2.02	0.73
10:AJ:5:ARG:HA	10:AJ:73:ASP:OD1	1.87	0.73
39:DE:52:LEU:N	39:DE:74:PRO:HB3	2.03	0.73
35:BA:597:U:H4'	47:BP:15:ARG:NH1	2.02	0.73
35:BA:2591:C:H2'	35:BA:2592:G:H8	1.51	0.73
35:DA:1278:A:O2'	35:DA:1279:G:H5'	1.88	0.73
35:BA:141:A:H8	35:BA:1408:C:O2'	1.66	0.73
6:CF:37:VAL:HG13	6:CF:65:VAL:HG12	1.69	0.73
1:AA:1270:C:O2'	1:AA:1271:G:H5'	1.88	0.73
39:DE:16:ARG:O	39:DE:17:ASP:HB3	1.86	0.73
22:AW:41:C:H2'	22:AW:42:G:H8	1.51	0.73
47:BP:111:ARG:HH21	47:BP:111:ARG:HG3	1.53	0.73
1:CA:1270:C:O2'	1:CA:1271:G:H5'	1.87	0.73
35:DA:903:C:H2'	35:DA:904:C:H5''	1.70	0.73
55:BX:84:ALA:HB3	55:BX:87:GLN:NE2	2.03	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DG:131:TYR:H	41:DG:159:VAL:HG22	1.53	0.73
37:BC:59:ARG:HG2	37:BC:62:VAL:HG22	1.70	0.73
3:CC:141:VAL:O	3:CC:146:ALA:HB2	1.89	0.73
3:CC:20:SER:HB2	3:CC:40:ARG:NH2	2.03	0.73
35:DA:924:C:H2'	35:DA:925:C:C6	2.24	0.73
1:AA:973:G:H1'	10:AJ:55:LYS:HG2	1.71	0.73
9:AI:75:ASP:O	9:AI:79:LEU:HD23	1.88	0.73
35:BA:1141:U:H2'	45:BN:63:THR:HG21	1.70	0.73
9:CI:86:VAL:HG21	9:CI:96:LEU:HD22	1.68	0.73
35:BA:2206:G:N2	35:BA:2207:G:H5'	2.03	0.73
1:AA:505:G:H2'	1:AA:506:G:H8	1.54	0.73
41:DG:72:ARG:HD3	41:DG:86:MET:HA	1.71	0.73
37:BC:95:GLY:HA2	37:BC:99:ILE:HD12	1.69	0.73
42:BH:19:VAL:HG21	42:BH:44:VAL:HA	1.70	0.73
12:AL:41:THR:HG21	24:AY:7:HIS:HB2	1.69	0.73
36:DB:7:G:C3'	36:DB:8:U:H5''	2.14	0.73
57:BZ:166:SER:CB	57:BZ:168:GLU:H	2.01	0.73
50:DS:13:ARG:CG	50:DS:14:VAL:H	2.00	0.73
9:CI:28:VAL:HG22	9:CI:63:ILE:HB	1.68	0.73
39:DE:111:ARG:HG3	49:DR:2:ARG:NE	2.03	0.73
1:AA:1347:G:OP2	9:AI:107:ARG:HB3	1.87	0.73
51:BT:129:ARG:CZ	51:BT:131:ALA:HB3	2.18	0.73
46:BO:87:ILE:HG22	46:BO:88:ASN:O	1.89	0.73
1:CA:255:G:H2'	1:CA:256:U:C6	2.23	0.73
1:CA:1492:A:O2'	24:CY:9:TYR:CB	2.36	0.73
9:CI:75:ASP:O	9:CI:79:LEU:HD23	1.89	0.73
15:AO:23:GLY:O	15:AO:27:VAL:HB	1.89	0.73
35:BA:18:C:O3'	52:BU:23:GLY:HA2	1.89	0.73
50:DS:11:LYS:HE2	50:DS:11:LYS:N	2.04	0.73
24:AY:33:LYS:CB	24:AY:36:GLY:H	2.00	0.73
22:CV:34:C:H3'	22:CV:35:A:H5''	1.71	0.73
35:DA:1747(A):G:H2'	35:DA:1748:G:C5'	2.13	0.73
33:B8:52:LYS:N	33:B8:53:PRO:CD	2.52	0.73
12:CL:67:ILE:CG2	12:CL:97:ILE:HD12	2.17	0.73
24:AY:64:TYR:CB	24:AY:92:ILE:HD11	2.16	0.73
1:CA:1152:A:H5'	10:CJ:70:ARG:NH2	2.02	0.73
19:AS:48:THR:HG22	19:AS:61:TYR:HA	1.71	0.73
8:AH:63:LEU:H	8:AH:63:LEU:HD22	1.53	0.73
41:DG:5:VAL:HG12	41:DG:6:ALA:N	2.02	0.73
55:BX:27:THR:HB	55:BX:80:ILE:HB	1.69	0.73
38:BD:181:GLU:HA	38:BD:272:ALA:CB	2.19	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:65:ILE:HD12	17:CQ:65:ILE:N	2.04	0.73
49:BR:81:ASP:O	49:BR:85:PRO:HG2	1.89	0.73
1:AA:93:G:O2'	1:AA:96:U:H5'	1.87	0.73
35:BA:89:G:OP2	35:BA:90:U:H2'	1.89	0.73
39:BE:101:ARG:NH1	39:BE:171:GLU:HB2	2.03	0.73
24:AY:28:ILE:CD1	24:AY:29:PRO:CD	2.42	0.73
23:AX:13:A:H5'	23:AX:14:A:H5''	1.69	0.73
56:DY:7:VAL:HB	56:DY:8:LYS:NZ	2.02	0.73
50:BS:28:VAL:HB	50:BS:89:ARG:HB2	1.71	0.73
51:DT:89:VAL:HB	51:DT:91:ARG:NE	2.03	0.73
47:BP:47:ASP:HB3	47:BP:48:PRO:CA	2.19	0.73
2:CB:22:LYS:H	2:CB:40:HIS:HE1	1.36	0.73
13:CM:54:VAL:O	13:CM:58:GLU:HG2	1.88	0.73
8:CH:5:PRO:HB2	8:CH:32:LYS:HE2	1.71	0.73
3:CC:181:ASN:C	3:CC:182:ILE:HD12	2.10	0.73
18:CR:66:LEU:O	18:CR:70:ILE:HG13	1.88	0.73
45:DN:51:PHE:CZ	45:DN:119:ARG:HD2	2.23	0.73
18:AR:38:GLU:HA	18:AR:41:LYS:HB3	1.70	0.73
33:D8:25:MET:HB2	47:DP:62:LEU:CD2	2.18	0.73
52:DU:92:ARG:HG2	52:DU:95:LEU:H	1.54	0.73
5:CE:126:ARG:HA	5:CE:131:ILE:HD11	1.71	0.73
1:CA:659:U:O2'	1:CA:660:G:H5'	1.89	0.73
13:CM:83:ASP:CG	13:CM:84:ILE:H	1.92	0.73
43:BI:88:ILE:HG12	43:BI:92:VAL:CG2	2.19	0.73
39:DE:5:LEU:HB2	39:DE:51:PHE:HD2	1.54	0.73
47:BP:18:ARG:HH11	47:BP:18:ARG:CB	2.02	0.73
1:CA:1473:A:O2'	1:CA:1474:G:H5'	1.87	0.73
41:BG:56:ALA:HB2	41:BG:153:ARG:NH2	2.04	0.73
48:DQ:43:THR:HG1	48:DQ:46:GLN:HG3	1.53	0.73
41:DG:17:PRO:HA	41:DG:20:ILE:CD1	2.19	0.73
35:DA:2580:U:H4'	39:DE:130:GLY:CA	2.19	0.73
37:DC:79:LYS:HE2	37:DC:149:ILE:HA	1.71	0.73
15:AO:85:LEU:HD23	15:AO:85:LEU:O	1.87	0.73
6:CF:39:LYS:HB2	6:CF:64:GLN:HB3	1.71	0.73
12:AL:41:THR:HG23	24:AY:7:HIS:HB3	0.76	0.72
51:DT:19:LEU:HD22	51:DT:85:LYS:HG3	1.71	0.72
51:DT:23:ARG:HH21	51:DT:120:ARG:HD3	1.53	0.72
57:BZ:108:PRO:HB2	57:BZ:144:LEU:O	1.88	0.72
35:DA:2524:G:H8	35:DA:2524:G:H5'	1.54	0.72
2:CB:87:ARG:HD3	2:CB:233:SER:HB3	1.71	0.72
41:DG:108:ASN:O	41:DG:112:PRO:HG3	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1124:G:H2'	1:CA:1125:U:H5'	1.71	0.72
47:BP:24:GLY:HA2	59:BP:202:MG:MG	1.12	0.72
35:BA:924:C:H2'	35:BA:925:C:C6	2.23	0.72
38:BD:68:LYS:HD3	38:BD:70:TRP:CZ2	2.24	0.72
50:DS:28:VAL:HB	50:DS:89:ARG:HB2	1.69	0.72
35:BA:259:G:H21	35:BA:621:A:H8	1.35	0.72
54:DW:6:ILE:HA	54:DW:103:ILE:O	1.88	0.72
37:BC:79:LYS:HE2	37:BC:149:ILE:HA	1.70	0.72
11:CK:48:ILE:HD11	11:CK:64:ALA:HA	1.71	0.72
35:DA:557:U:H2'	35:DA:558:G:H8	1.52	0.72
15:CO:85:LEU:HD23	15:CO:85:LEU:O	1.88	0.72
1:CA:397:A:H3'	1:CA:397:A:N3	2.04	0.72
56:DY:76:CYS:HG	56:DY:77:PRO:HD2	1.52	0.72
47:BP:9:ASN:N	47:BP:10:PRO:HD3	2.01	0.72
3:CC:150:LYS:HE2	3:CC:152:ILE:HD11	1.69	0.72
39:BE:52:LEU:N	39:BE:74:PRO:HB3	2.04	0.72
26:D1:67:ILE:N	26:D1:68:PRO:HD2	2.04	0.72
35:DA:925:C:O2'	35:DA:926:A:H5''	1.87	0.72
1:CA:1369:C:H2'	1:CA:1370:G:H8	1.52	0.72
35:DA:651:G:C2	35:DA:652:C:N4	2.55	0.72
35:DA:259:G:H21	35:DA:621:A:H8	1.37	0.72
1:CA:764:C:H2'	1:CA:765:G:H8	1.53	0.72
38:DD:58:HIS:HD2	38:DD:59:LYS:O	1.72	0.72
35:DA:2784:C:H1'	39:DE:37:ARG:HH12	1.53	0.72
55:DX:54:VAL:HG22	55:DX:81:VAL:HG12	1.71	0.72
35:BA:1563:G:H2'	35:BA:1564:C:H6	1.54	0.72
35:DA:911:A:H2'	48:DQ:9:TYR:OH	1.88	0.72
45:BN:45:ASN:HD22	45:BN:45:ASN:H	1.36	0.72
32:B7:10:ARG:NH1	32:B7:14:LYS:HE3	2.04	0.72
24:AY:38:GLY:CA	24:AY:39:LYS:HD3	2.18	0.72
56:BY:29:GLU:N	56:BY:29:GLU:OE1	2.22	0.72
40:DF:28:ILE:HG21	40:DF:116:ASP:HB2	1.70	0.72
2:CB:187:LEU:HD23	2:CB:201:ILE:O	1.89	0.72
35:DA:2312:U:H4'	41:DG:71:THR:HG23	1.71	0.72
41:DG:43:LEU:HB3	41:DG:88:ILE:HG22	1.70	0.72
2:AB:53:ARG:HA	2:AB:56:ARG:HG3	1.71	0.72
47:BP:24:GLY:HA3	59:BP:202:MG:MG	1.13	0.72
43:DI:77:LEU:HD23	43:DI:78:THR:N	2.04	0.72
45:BN:133:GLN:HG2	45:BN:134:ARG:N	2.04	0.72
38:DD:43:ARG:NH1	38:DD:44:ASN:ND2	2.37	0.72
35:BA:2807:G:H3'	35:BA:2808:U:H5''	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:255:G:H2'	1:AA:256:U:H6	1.53	0.72
17:CQ:45:HIS:HB2	17:CQ:65:ILE:HG12	1.70	0.72
46:DO:18:LYS:HB2	46:DO:45:GLU:HG2	1.71	0.72
7:AG:38:LEU:HD12	7:AG:41:ARG:HD2	1.71	0.72
38:DD:95:LEU:HD12	38:DD:95:LEU:O	1.89	0.72
17:AQ:22:LEU:HD11	17:AQ:39:SER:HB3	1.71	0.72
35:DA:1491:G:O2'	38:DD:101:GLU:HG3	1.88	0.72
51:BT:28:VAL:HG22	51:BT:47:GLY:H	1.54	0.72
42:BH:83:TYR:HB3	42:BH:135:GLY:H	1.54	0.72
1:AA:975:A:H4'	1:AA:976:G:H5''	1.70	0.72
1:AA:1116:C:H3'	1:AA:1117:G:H5''	1.71	0.72
9:AI:86:VAL:HG21	9:AI:96:LEU:HD22	1.70	0.72
5:AE:13:ILE:HA	5:AE:29:GLY:O	1.88	0.72
1:AA:255:G:H2'	1:AA:256:U:C6	2.25	0.72
3:CC:127:ARG:HD2	3:CC:127:ARG:N	2.05	0.72
50:DS:56:LEU:HD22	50:DS:58:LEU:HD11	1.71	0.72
17:CQ:22:LEU:HD11	17:CQ:39:SER:HB3	1.70	0.72
1:AA:664:G:P	18:AR:64:ARG:HH21	2.13	0.72
43:BI:127:VAL:HG22	43:BI:139:GLN:HA	1.71	0.72
3:AC:127:ARG:HD2	3:AC:127:ARG:N	2.04	0.72
35:BA:1161:C:H1'	53:BV:8:GLY:O	1.90	0.72
40:BF:192:LEU:HD21	40:BF:194:MET:HE2	1.70	0.72
52:BU:92:ARG:HG2	52:BU:95:LEU:H	1.52	0.72
53:BV:49:THR:CB	53:BV:50:PRO:HD2	2.15	0.72
1:AA:178:C:H2'	1:AA:179:A:C5'	2.19	0.72
1:CA:1125:U:H2'	1:CA:1281:U:O2	1.89	0.72
43:BI:92:VAL:HG21	43:BI:142:VAL:HG13	1.70	0.72
35:BA:2468:G:H22	35:BA:2481:G:H2'	1.53	0.72
12:AL:116:LYS:HB2	12:AL:117:TYR:CD1	2.25	0.72
39:BE:48:GLN:HE21	39:BE:78:LEU:HD22	1.54	0.72
26:B1:50:ARG:HH21	35:BA:2199:A:H5'	1.54	0.72
20:AT:70:SER:HA	20:AT:73:HIS:CD2	2.24	0.72
2:CB:185:ILE:HA	2:CB:199:TYR:O	1.89	0.72
8:AH:30:ARG:NH1	8:AH:30:ARG:HB3	2.04	0.72
36:BB:80:U:H2'	36:BB:81:G:H21	1.53	0.72
56:BY:7:VAL:C	56:BY:8:LYS:HD2	2.10	0.72
35:DA:747:U:H1'	54:DW:92:ARG:HH11	1.52	0.72
41:DG:39:ILE:HG13	41:DG:155:MET:HG3	1.70	0.72
41:DG:51:ARG:NE	41:DG:51:ARG:HA	2.04	0.72
42:BH:155:SER:O	42:BH:157:TYR:N	2.21	0.72
29:D4:56:VAL:HG22	29:D4:57:GLU:HG3	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:70:TRP:CH2	38:BD:150:LYS:HA	2.24	0.72
35:DA:925:C:H2'	35:DA:926:A:C5'	2.20	0.72
46:DO:87:ILE:HG22	46:DO:88:ASN:O	1.89	0.72
1:CA:1439:C:H2'	1:CA:1440:C:H5'	1.72	0.72
8:CH:11:THR:HG23	8:CH:14:ARG:NH1	2.04	0.72
56:BY:101:LYS:HG2	56:BY:102:CYS:N	2.05	0.72
1:CA:707:C:O2'	1:CA:708:C:H5'	1.89	0.72
38:BD:95:LEU:O	38:BD:95:LEU:HD12	1.89	0.72
33:D8:61:LEU:HG	33:D8:62:LEU:H	1.53	0.72
36:BB:7:G:C3'	36:BB:8:U:H5''	2.15	0.72
50:BS:35:ILE:HG21	50:BS:66:ALA:HB2	1.72	0.72
41:DG:131:TYR:HB3	41:DG:159:VAL:HG22	1.70	0.72
51:BT:35:LYS:HE2	51:BT:41:ARG:NE	2.03	0.72
9:AI:28:VAL:CG2	9:AI:63:ILE:HB	2.20	0.72
8:AH:5:PRO:HB2	8:AH:32:LYS:HE2	1.70	0.72
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.24	0.72
39:BE:111:ARG:HD2	39:BE:160:TYR:CE1	2.25	0.72
35:BA:2821:A:OP2	39:BE:110:GLY:HA3	1.90	0.72
50:DS:24:LEU:HD23	50:DS:85:VAL:HG12	1.69	0.72
46:DO:90:GLN:O	46:DO:91:LEU:HB2	1.89	0.72
9:AI:48:GLU:N	9:AI:49:PRO:HD2	2.05	0.72
35:BA:2473:U:O2	35:BA:2473:U:H2'	1.89	0.72
35:DA:142:A:H8	35:DA:1595:G:H21	1.34	0.72
35:BA:2406:U:O4	47:BP:70:GLN:HB2	1.88	0.72
35:BA:2208:A:H1'	35:BA:2219:G:C5	2.24	0.72
28:B3:26:LEU:HB2	28:B3:28:LEU:HD23	1.72	0.72
45:BN:121:LYS:HD2	45:BN:121:LYS:N	2.04	0.72
57:BZ:15:PRO:O	57:BZ:19:ARG:HG2	1.88	0.72
1:CA:93:G:O2'	1:CA:96:U:H5'	1.89	0.72
46:BO:4:PRO:O	46:BO:5:GLN:HB2	1.90	0.72
35:DA:1348:G:H2'	35:DA:1349:A:H5''	1.71	0.72
42:BH:11:VAL:CG1	42:BH:49:VAL:HG12	2.19	0.72
35:DA:92:A:N1	35:DA:93:G:H1'	2.04	0.72
57:DZ:23:LYS:HB3	57:DZ:38:TYR:CE1	2.24	0.72
19:AS:9:VAL:HG22	29:B4:53:GLU:HG2	1.72	0.72
2:AB:22:LYS:H	2:AB:40:HIS:HE1	1.35	0.72
51:DT:35:LYS:HE2	51:DT:41:ARG:NE	2.04	0.72
7:AG:113:GLU:CB	7:AG:119:ARG:HG2	2.20	0.72
35:BA:2155:G:H2'	35:BA:2156:G:H5'	1.71	0.72
35:DA:2155:G:H2'	35:DA:2156:G:H5'	1.72	0.72
14:CN:33:VAL:HG12	14:CN:40:CYS:HB3	1.69	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:67:VAL:HG13	5:AE:69:VAL:HG23	1.71	0.72
1:CA:716:A:N3	11:CK:118:GLY:HA2	2.05	0.72
20:CT:70:SER:HA	20:CT:73:HIS:CD2	2.25	0.72
28:B3:17:LYS:HG2	35:BA:969:U:OP1	1.90	0.72
1:AA:1287:A:H2'	1:AA:1288:A:C8	2.25	0.72
42:DH:8:PRO:HD3	42:DH:69:ARG:CG	2.20	0.72
22:CV:36:U:H2'	22:CV:37:A:C5'	2.20	0.72
33:D8:13:ARG:HD2	47:DP:61:ARG:HD3	1.72	0.72
40:BF:28:ILE:HG21	40:BF:116:ASP:HB2	1.70	0.72
50:BS:66:ALA:O	50:BS:69:VAL:HG12	1.90	0.72
42:BH:83:TYR:HD1	42:BH:84:SER:H	1.38	0.72
2:AB:187:LEU:HD23	2:AB:201:ILE:O	1.90	0.72
47:DP:115:LEU:HD23	47:DP:115:LEU:H	1.54	0.72
48:DQ:133:ARG:HB2	48:DQ:133:ARG:NH1	2.04	0.72
2:AB:185:ILE:HA	2:AB:199:TYR:O	1.88	0.72
3:CC:182:ILE:HG13	3:CC:203:PHE:HA	1.72	0.72
42:DH:155:SER:O	42:DH:157:TYR:N	2.21	0.72
41:DG:55:LYS:HA	41:DG:58:GLN:HG3	1.71	0.72
41:BG:106:LEU:HD12	41:BG:107:LEU:N	2.05	0.72
1:AA:1053:G:C3'	1:AA:1054:C:H5'	2.20	0.72
35:DA:2208:A:H1'	35:DA:2219:G:C5	2.25	0.72
39:DE:49:LEU:HD23	39:DE:49:LEU:N	2.05	0.72
1:AA:401:C:P	4:AD:73:ARG:HH21	2.12	0.72
35:BA:409:C:O2'	35:BA:410:G:H5'	1.88	0.72
31:D6:42:TRP:HA	31:D6:42:TRP:CE3	2.25	0.72
1:CA:1228:C:H2'	1:CA:1229:A:H8	1.55	0.72
47:BP:56:SER:O	47:BP:57:THR:O	2.08	0.72
35:DA:1912:A:N1	35:DA:1919:A:C5	2.57	0.72
1:AA:624:C:O3'	16:AP:10:GLY:HA2	1.89	0.72
42:DH:98:LEU:CB	42:DH:125:VAL:HG21	2.12	0.72
12:AL:67:ILE:CG2	12:AL:97:ILE:HD12	2.20	0.72
2:AB:70:PHE:HB2	2:AB:92:TYR:HB2	1.72	0.72
10:CJ:28:ARG:HA	10:CJ:34:VAL:HG23	1.72	0.72
13:AM:15:VAL:O	13:AM:19:LEU:HD23	1.89	0.72
41:BG:121:ASN:HD22	41:BG:122:PRO:HD2	1.54	0.72
45:DN:19:GLU:HB3	45:DN:56:ASN:O	1.89	0.72
35:BA:2109:U:H2'	35:BA:2110:G:C8	2.25	0.72
2:AB:75:LYS:HA	2:AB:78:GLN:HE21	1.54	0.72
1:CA:664:G:P	18:CR:64:ARG:HH21	2.13	0.72
35:BA:2784:C:H1'	39:BE:37:ARG:HH12	1.54	0.72
35:DA:1563:G:H2'	35:DA:1564:C:H6	1.54	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:B6:42:TRP:CE3	31:B6:42:TRP:HA	2.25	0.72
6:CF:19:LEU:HD23	6:CF:19:LEU:O	1.90	0.72
51:DT:85:LYS:HZ3	51:DT:85:LYS:HA	1.55	0.71
1:CA:922:G:H1'	5:CE:19:MET:HB2	1.69	0.71
38:BD:35:LYS:N	38:BD:36:PRO:CD	2.52	0.71
1:CA:1414:U:O2'	1:CA:1415:G:H5'	1.89	0.71
1:AA:1128:C:H42	1:AA:1143:G:H1	1.37	0.71
1:CA:1073:U:OP2	5:CE:57:LYS:HE3	1.90	0.71
1:AA:979:C:C3'	1:AA:980:C:H5''	2.20	0.71
50:DS:35:ILE:HG21	50:DS:66:ALA:HB2	1.71	0.71
46:DO:111:PHE:O	46:DO:115:VAL:HG23	1.90	0.71
35:DA:18:C:O3'	52:DU:23:GLY:HA2	1.90	0.71
57:BZ:158:PRO:HD2	57:BZ:161:VAL:HG21	1.71	0.71
18:CR:38:GLU:HA	18:CR:41:LYS:HB3	1.71	0.71
47:DP:111:ARG:HG3	47:DP:111:ARG:HH21	1.55	0.71
11:CK:88:GLY:C	11:CK:90:GLY:H	1.93	0.71
42:DH:11:VAL:CG1	42:DH:49:VAL:HG12	2.19	0.71
35:DA:2474:C:C2'	35:DA:2474:C:O2	2.37	0.71
1:AA:1400:C:O2	23:AX:19:U:O4	2.06	0.71
1:CA:572:A:H4'	1:CA:917:G:H5'	1.72	0.71
1:CA:986:A:H1'	19:CS:54:GLY:O	1.90	0.71
15:AO:82:ILE:HG23	15:AO:83:GLU:H	1.54	0.71
1:CA:624:C:H2'	1:CA:625:G:H8	1.55	0.71
47:DP:16:ARG:C	47:DP:16:ARG:HH11	1.94	0.71
1:CA:979:C:C3'	1:CA:980:C:H5''	2.20	0.71
35:BA:543:C:O2'	35:BA:547:A:H8	1.70	0.71
20:AT:89:ARG:HH21	20:AT:104:LEU:HD11	1.55	0.71
25:D0:81:VAL:O	25:D0:83:PRO:HD3	1.90	0.71
49:BR:57:ARG:HG3	49:BR:57:ARG:O	1.90	0.71
41:BG:71:THR:HG22	41:BG:89:GLY:C	2.10	0.71
35:DA:2109:U:H2'	35:DA:2110:G:C8	2.24	0.71
35:DA:1281:G:H5'	35:DA:1281:G:H8	1.55	0.71
35:BA:212:G:O2'	35:BA:213:A:H5'	1.89	0.71
1:AA:1203:C:H2'	1:AA:1204:A:H8	1.54	0.71
51:DT:3:ARG:HD2	51:DT:6:LEU:HD22	1.71	0.71
2:CB:75:LYS:HA	2:CB:78:GLN:HE21	1.55	0.71
24:AY:74:SER:OG	24:AY:84:LYS:HG2	1.89	0.71
1:CA:37:U:N3	1:CA:38:G:C5	2.58	0.71
47:BP:23:PRO:HD2	47:BP:33:ARG:NH2	2.03	0.71
33:D8:32:LEU:HB3	33:D8:36:LYS:HZ1	1.54	0.71
2:CB:218:ALA:C	2:CB:220:ASP:H	1.93	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:48:THR:HG22	19:CS:61:TYR:HA	1.72	0.71
1:AA:976:G:N2	1:AA:1362:C:H2'	2.04	0.71
40:BF:84:VAL:HG12	40:BF:85:GLY:H	1.53	0.71
47:BP:16:ARG:HH11	47:BP:16:ARG:C	1.92	0.71
35:BA:1717:G:C2'	35:BA:1718:G:H5''	2.20	0.71
41:BG:135:LEU:HD22	41:BG:155:MET:HE1	1.72	0.71
1:AA:413:G:H1'	1:AA:428:G:N2	2.05	0.71
5:AE:137:GLU:HG3	5:AE:141:GLN:NE2	2.05	0.71
56:DY:31:LEU:HB2	56:DY:32:PRO:HA	1.72	0.71
38:BD:30:GLU:CD	38:BD:63:ARG:HH21	1.94	0.71
38:BD:30:GLU:CG	38:BD:63:ARG:HH21	2.03	0.71
1:AA:1422:G:H4'	46:BO:49:ARG:NH2	2.04	0.71
42:DH:28:GLY:HA3	42:DH:79:VAL:HB	1.73	0.71
35:DA:2472:G:H5''	35:DA:2473:U:C4'	2.21	0.71
1:CA:34:C:C2'	1:CA:35:G:C5'	2.67	0.71
47:BP:40:SER:O	47:BP:41:ARG:CZ	2.38	0.71
1:AA:1060:C:H4'	10:AJ:52:GLY:HA2	1.71	0.71
51:BT:40:THR:O	51:BT:41:ARG:HB2	1.89	0.71
35:BA:518:G:H4'	54:BW:18:ARG:HH12	1.55	0.71
35:BA:779:U:OP1	38:BD:49:ILE:HG22	1.89	0.71
36:BB:42:C:H42	41:BG:91:ARG:HH21	1.37	0.71
49:BR:24:GLN:HE22	49:BR:36:THR:HG21	1.53	0.71
38:DD:30:GLU:CG	38:DD:63:ARG:HH21	2.04	0.71
1:AA:1066:C:H3'	1:AA:1067:A:C8	2.25	0.71
35:DA:880:G:H1	35:DA:897:C:H42	1.39	0.71
33:B8:16:ILE:O	33:B8:16:ILE:HD12	1.90	0.71
22:CV:2:G:H2'	22:CV:3:C:C6	2.26	0.71
28:D3:26:LEU:HB2	28:D3:28:LEU:HD23	1.71	0.71
1:CA:145:G:C2	1:CA:146:G:H1'	2.25	0.71
1:CA:644:G:H2'	1:CA:645:C:H5''	0.73	0.71
35:DA:2473:U:H3'	35:DA:2474:C:H5'	1.71	0.71
35:DA:2473:U:C2'	35:DA:2473:U:O2	2.38	0.71
1:CA:399:G:O2'	1:CA:400:C:H5'	1.88	0.71
1:CA:33:A:C2'	1:CA:34:C:H5''	2.12	0.71
39:DE:48:GLN:HE21	39:DE:78:LEU:HD22	1.56	0.71
38:BD:142:VAL:HG23	38:BD:193:VAL:HA	1.71	0.71
35:BA:2580:U:H5'	39:BE:131:ALA:H	1.55	0.71
10:CJ:23:ILE:HG23	10:CJ:85:LEU:HD13	1.73	0.71
1:AA:337:C:H2'	1:AA:338:A:H8	1.55	0.71
1:CA:521:G:O2'	1:CA:522:C:H5'	1.90	0.71
35:DA:1710:C:O2'	35:DA:1711:C:H5'	1.91	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DY:88:LYS:NZ	56:DY:93:GLY:HA3	2.05	0.71
17:AQ:12:SER:HB3	17:AQ:20:THR:HB	1.72	0.71
1:AA:716:A:N3	11:AK:118:GLY:HA2	2.04	0.71
42:BH:43:VAL:HG12	42:BH:52:VAL:HA	1.71	0.71
1:AA:926:G:H21	1:AA:1505:G:H2'	1.54	0.71
1:CA:738:C:H5''	6:CF:69:GLU:HB2	1.70	0.71
47:DP:7:ARG:CA	47:DP:7:ARG:NH1	2.54	0.71
43:BI:82:ARG:CD	43:BI:82:ARG:H	2.03	0.71
56:DY:88:LYS:HZ1	56:DY:93:GLY:HA3	1.56	0.71
17:AQ:21:VAL:HG21	17:AQ:59:ILE:HD11	1.72	0.71
24:AY:76:ASP:OD2	24:AY:78:LYS:HB2	1.90	0.71
34:B9:7:VAL:HG12	34:B9:34:GLN:HE21	1.55	0.71
52:BU:34:LYS:HA	52:BU:34:LYS:HE3	1.71	0.71
35:DA:484:C:H2'	35:DA:485:C:H6	1.56	0.71
45:DN:45:ASN:HD22	45:DN:45:ASN:H	1.38	0.71
23:AX:22:A:O2'	23:AX:23:A:O5'	2.09	0.71
42:DH:43:VAL:HG12	42:DH:52:VAL:HA	1.71	0.71
56:BY:27:VAL:HA	56:BY:28:LYS:HZ1	1.55	0.71
53:DV:49:THR:CB	53:DV:50:PRO:HD2	2.16	0.71
47:DP:40:SER:O	47:DP:41:ARG:CZ	2.39	0.71
1:CA:737:A:H2'	1:CA:738:C:C6	2.26	0.71
4:CD:126:ILE:HD12	4:CD:126:ILE:N	2.05	0.71
2:AB:8:LYS:HA	2:AB:217:ARG:NH2	2.03	0.71
3:AC:182:ILE:HG13	3:AC:203:PHE:HA	1.71	0.71
47:DP:18:ARG:HH11	47:DP:18:ARG:CB	2.04	0.71
1:CA:1472:U:O2'	1:CA:1473:A:H5'	1.90	0.71
35:BA:2219:G:O2'	35:BA:2220:G:H5'	1.91	0.71
11:CK:110:ASP:O	18:CR:84:LYS:HB3	1.90	0.71
1:CA:194:C:H2'	1:CA:195:A:H5''	1.73	0.71
45:BN:19:GLU:HB3	45:BN:56:ASN:O	1.90	0.71
32:D7:43:THR:HG23	32:D7:44:PRO:HD2	1.72	0.71
35:DA:365:C:H6	35:DA:365:C:H5'	1.54	0.71
42:BH:148:ILE:O	42:BH:162:ILE:HD11	1.91	0.71
4:CD:22:LYS:HB2	4:CD:26:CYS:SG	2.30	0.71
50:DS:52:SER:HB2	50:DS:55:ALA:HB3	1.73	0.71
1:CA:1225:A:H3'	1:CA:1226:C:C6	2.25	0.71
1:CA:836:G:C6	1:CA:837:G:C5	2.79	0.71
52:DU:108:GLU:HG3	53:DV:44:LYS:CD	2.14	0.71
50:BS:88:ASP:CG	50:BS:89:ARG:H	1.94	0.71
40:BF:63:LYS:NZ	40:BF:67:GLN:HB2	2.05	0.71
2:CB:22:LYS:HA	2:CB:22:LYS:HZ2	1.54	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:182:ILE:HG23	3:AC:202:ILE:O	1.91	0.71
10:AJ:4:ILE:HD12	10:AJ:4:ILE:H	1.55	0.71
40:DF:83:PHE:O	40:DF:84:VAL:HB	1.90	0.71
1:CA:947:G:H4'	1:CA:1332:A:H2	1.55	0.71
6:AF:60:PHE:C	6:AF:61:LEU:HD12	2.10	0.71
27:B2:38:GLN:HB3	27:B2:44:LEU:HB2	1.72	0.71
7:AG:15:ASP:OD1	7:AG:18:TYR:HB2	1.90	0.71
31:D6:15:GLU:OE2	31:D6:43:CYS:HB3	1.90	0.71
8:AH:97:VAL:HG13	8:AH:98:LYS:N	2.06	0.71
35:DA:2761:G:C3'	35:DA:2762:G:H5''	2.21	0.71
35:DA:2777:G:H5''	35:DA:2778:A:H5''	1.73	0.71
26:B1:5:CYS:SG	26:B1:62:VAL:HG23	2.30	0.71
1:CA:688:G:H2'	1:CA:689:C:H6	1.55	0.71
17:CQ:12:SER:HB3	17:CQ:20:THR:HB	1.73	0.71
38:BD:58:HIS:HD2	38:BD:59:LYS:O	1.74	0.71
42:BH:8:PRO:HD3	42:BH:69:ARG:CG	2.20	0.71
35:BA:1529:G:H5''	35:BA:1529:G:N3	2.06	0.71
47:DP:38:GLN:CG	47:DP:39:LYS:H	1.99	0.71
46:DO:24:VAL:HG23	46:DO:33:ALA:HB2	1.73	0.71
49:BR:98:LEU:HB2	49:BR:113:LEU:CD2	2.21	0.71
35:DA:925:C:H2'	35:DA:926:A:H5''	1.72	0.71
15:AO:39:LEU:HD12	15:AO:56:LEU:HB2	1.73	0.71
27:B2:46:GLN:OE1	27:B2:46:GLN:HA	1.90	0.71
48:DQ:12:GLN:HG2	48:DQ:73:PRO:HD2	1.71	0.71
22:CW:47:U:H3'	22:CW:48:C:H5''	1.73	0.71
35:DA:1887:C:C3'	35:DA:1888:G:H5''	2.21	0.71
41:DG:72:ARG:CZ	41:DG:86:MET:HB2	2.21	0.71
40:DF:33:LEU:O	40:DF:37:VAL:HG23	1.91	0.71
8:AH:39:LEU:O	8:AH:44:PHE:HB2	1.90	0.71
3:CC:57:ILE:HG12	3:CC:66:VAL:HG13	1.73	0.71
35:DA:1910:G:C2'	35:DA:1911:U:C5'	2.61	0.71
35:DA:1192:G:O2'	35:DA:1193:G:H5'	1.90	0.71
40:BF:25:PRO:C	40:BF:27:GLU:H	1.95	0.71
42:DH:83:TYR:HB3	42:DH:135:GLY:H	1.54	0.71
53:DV:52:VAL:CG1	53:DV:55:ALA:HB3	2.21	0.71
5:CE:11:ILE:HD12	5:CE:31:LEU:HD12	1.71	0.71
30:D5:50:GLY:HA3	30:D5:56:LYS:HB3	1.72	0.71
43:DI:78:THR:HA	43:DI:141:LYS:O	1.90	0.71
12:AL:114:ARG:HB3	12:AL:119:THR:O	1.90	0.71
1:AA:1116:C:C3'	1:AA:1117:G:H5''	2.21	0.71
1:CA:1003:G:H2'	1:CA:1004:A:H4'	1.70	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2580:U:H4'	39:BE:130:GLY:CA	2.21	0.71
41:BG:122:PRO:HG2	41:BG:123:ASN:OD1	1.91	0.71
35:BA:1210:A:H5''	35:BA:1212:G:O4'	1.90	0.71
15:CO:54:ARG:NH1	15:CO:58:MET:HE1	2.06	0.71
17:AQ:57:VAL:HG12	17:AQ:76:LEU:HA	1.73	0.71
1:AA:1006:C:H1'	1:AA:1023:G:H22	1.54	0.71
17:CQ:21:VAL:HG21	17:CQ:59:ILE:HD11	1.73	0.71
1:CA:1287:A:H2'	1:CA:1288:A:C8	2.26	0.71
52:DU:34:LYS:HA	52:DU:34:LYS:HE3	1.72	0.71
22:CW:16:C:H5'	22:CW:59:A:H2	1.56	0.71
11:AK:88:GLY:C	11:AK:90:GLY:H	1.92	0.71
1:CA:1203:C:H2'	1:CA:1204:A:H8	1.56	0.71
35:BA:2737:G:H2'	35:BA:2738:A:H8	1.56	0.71
35:DA:613:G:C8	35:DA:613:G:H5'	2.26	0.70
1:CA:658:G:O2'	1:CA:659:U:H5'	1.91	0.70
2:AB:55:PHE:HA	2:AB:58:ILE:HB	1.73	0.70
43:BI:78:THR:HA	43:BI:141:LYS:O	1.91	0.70
35:DA:2392:A:H2	35:DA:2424:C:N4	1.88	0.70
29:B4:24:THR:HG22	29:B4:25:TYR:N	2.06	0.70
41:BG:103:LEU:O	41:BG:106:LEU:HG	1.90	0.70
21:AU:2:GLY:O	21:AU:4:GLY:N	2.24	0.70
45:DN:36:GLY:HA3	45:DN:48:MET:CE	2.20	0.70
1:AA:266:G:H5''	1:AA:268:C:H41	1.55	0.70
1:AA:17:U:H2'	1:AA:18:C:C6	2.26	0.70
1:AA:1463:C:P	51:BT:111:ARG:HH21	2.14	0.70
42:DH:11:VAL:HG13	42:DH:49:VAL:HG12	1.73	0.70
58:CX:16:A:C6	58:CX:17:U:C5	2.79	0.70
1:CA:4:U:C4'	1:CA:5:U:H5'	2.16	0.70
35:DA:867:C:H2'	35:DA:867:C:O2	1.89	0.70
57:BZ:97:GLU:HB3	57:BZ:125:LEU:HD21	1.72	0.70
2:CB:19:HIS:ND1	2:CB:20:GLU:HG2	2.07	0.70
13:CM:15:VAL:O	13:CM:19:LEU:HD23	1.91	0.70
13:AM:83:ASP:CG	13:AM:84:ILE:H	1.94	0.70
3:AC:141:VAL:O	3:AC:146:ALA:HB2	1.91	0.70
1:AA:1241:G:H2'	1:AA:1242:C:C6	2.25	0.70
39:DE:4:ILE:HG13	39:DE:31:CYS:SG	2.32	0.70
1:CA:801:U:H2'	1:CA:802:A:C8	2.24	0.70
50:DS:68:GLN:HA	50:DS:71:ARG:HH12	1.56	0.70
1:AA:644:G:H4'	8:AH:92:ARG:HH21	1.55	0.70
35:BA:539:G:H2'	35:BA:540:C:C6	2.26	0.70
1:CA:1207:G:H2'	1:CA:1208:C:H6	1.55	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:B5:50:GLY:HA3	30:B5:56:LYS:HB3	1.72	0.70
1:CA:243:A:H4'	1:CA:244:U:H5''	1.72	0.70
4:AD:22:LYS:HB2	4:AD:26:CYS:SG	2.31	0.70
4:CD:64:LEU:HD23	4:CD:64:LEU:O	1.91	0.70
53:BV:83:ARG:HG2	53:BV:83:ARG:HH11	1.56	0.70
31:D6:36:LEU:HD23	31:D6:36:LEU:H	1.56	0.70
24:AY:83:LEU:O	24:AY:84:LYS:HD3	1.91	0.70
22:CV:53:G:H2'	22:CV:54:U:C6	2.26	0.70
58:CX:16:A:H2'	58:CX:17:U:H5'	1.74	0.70
35:DA:507:A:C5'	35:DA:508:G:H5''	2.03	0.70
35:BA:997:G:O2'	35:BA:998:C:H5'	1.91	0.70
57:DZ:108:PRO:HB3	57:DZ:144:LEU:H	1.56	0.70
40:DF:25:PRO:C	40:DF:27:GLU:H	1.95	0.70
51:DT:28:VAL:HG22	51:DT:47:GLY:H	1.55	0.70
33:B8:61:LEU:HG	33:B8:62:LEU:H	1.56	0.70
2:CB:55:PHE:HA	2:CB:58:ILE:HB	1.72	0.70
15:CO:82:ILE:HG23	15:CO:83:GLU:H	1.56	0.70
38:DD:35:LYS:N	38:DD:36:PRO:CD	2.52	0.70
1:CA:588:G:C5	1:CA:589:C:N4	2.59	0.70
7:AG:113:GLU:HB2	7:AG:119:ARG:CG	2.21	0.70
45:DN:128:HIS:HD2	45:DN:130:HIS:HB2	1.56	0.70
35:DA:1719:G:O2'	35:DA:1720:U:H5'	1.91	0.70
35:BA:2801(A):A:C4'	35:BA:2802:G:H2'	2.21	0.70
1:AA:947:G:H4'	1:AA:1332:A:H2	1.56	0.70
5:CE:137:GLU:HG3	5:CE:141:GLN:NE2	2.05	0.70
17:AQ:45:HIS:HB2	17:AQ:65:ILE:HG12	1.72	0.70
22:CV:4:G:O2'	22:CV:5:G:H8	1.74	0.70
38:DD:68:LYS:HD3	38:DD:70:TRP:CZ2	2.26	0.70
1:CA:76:C:H42	1:CA:93:G:H1	1.39	0.70
38:DD:65:ILE:HD11	38:DD:67:PHE:CE1	2.26	0.70
53:BV:100:ARG:O	53:BV:100:ARG:HD2	1.90	0.70
56:DY:101:LYS:HG2	56:DY:102:CYS:N	2.05	0.70
4:CD:156:GLU:HG2	4:CD:160:GLN:HE21	1.56	0.70
3:AC:57:ILE:HG12	3:AC:66:VAL:HG13	1.72	0.70
25:B0:43:THR:O	25:B0:43:THR:HG23	1.91	0.70
25:B0:72:ARG:HH11	25:B0:75:LEU:HD13	1.55	0.70
42:DH:85:LYS:HB2	42:DH:141:VAL:HG13	1.73	0.70
42:BH:85:LYS:HB2	42:BH:141:VAL:HG13	1.73	0.70
1:CA:17:U:H2'	1:CA:18:C:C6	2.25	0.70
2:CB:178:ARG:HG2	2:CB:178:ARG:HH11	1.54	0.70
2:AB:218:ALA:C	2:AB:220:ASP:H	1.93	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2303:G:H1'	41:DG:132:ASN:HD22	1.56	0.70
47:BP:7:ARG:NH1	47:BP:7:ARG:CA	2.53	0.70
53:DV:82:ARG:HH11	53:DV:82:ARG:HG2	1.54	0.70
1:CA:693:G:H2'	1:CA:694:A:H8	1.55	0.70
47:DP:122:PRO:HG3	47:DP:141:ALA:HB1	1.72	0.70
22:AW:11:A:H2'	22:AW:12:G:H8	1.57	0.70
50:BS:52:SER:HB2	50:BS:55:ALA:HB3	1.74	0.70
1:AA:521:G:O2'	1:AA:522:C:H5'	1.91	0.70
23:AX:21:C:O2'	23:AX:22:A:H5''	1.92	0.70
24:AY:93:LYS:HA	24:AY:96:LEU:C	2.12	0.70
22:CV:54:U:H2'	22:CV:55:U:O4'	1.92	0.70
58:CX:19:G:N3	58:CX:19:G:H3'	2.06	0.70
22:CV:37:A:C2	58:CX:16:A:C8	2.79	0.70
53:DV:52:VAL:HG11	53:DV:55:ALA:HB3	1.72	0.70
5:CE:43:LEU:HD21	5:CE:132:ALA:HB1	1.74	0.70
33:B8:49:VAL:HG23	33:B8:53:PRO:CD	2.18	0.70
15:AO:63:ARG:O	15:AO:67:LEU:HD12	1.91	0.70
35:BA:271(M):G:H2'	35:BA:271(N):U:H5''	1.72	0.70
40:BF:83:PHE:O	40:BF:84:VAL:HB	1.90	0.70
12:CL:107:VAL:HG21	12:CL:117:TYR:CD2	2.24	0.70
35:BA:1658:C:OP1	39:BE:132:HIS:CE1	2.45	0.70
1:CA:973:G:H1'	10:CJ:55:LYS:HG2	1.73	0.70
37:BC:72:VAL:HG12	37:BC:74:VAL:HG23	1.74	0.70
1:AA:1369:C:H2'	1:AA:1370:G:H8	1.55	0.70
26:D1:50:ARG:HH11	26:D1:50:ARG:HB3	1.57	0.70
35:BA:1280:G:C2'	35:BA:1281:G:H5''	2.22	0.70
10:CJ:78:ASN:O	10:CJ:82:ILE:HG12	1.91	0.70
41:DG:36:LYS:HB3	41:DG:160:VAL:HB	1.73	0.70
1:CA:266:G:H5''	1:CA:268:C:H41	1.56	0.70
7:AG:32:ARG:HH11	7:AG:32:ARG:HG2	1.55	0.70
1:AA:421:U:H2'	1:AA:421:U:O2	1.92	0.70
6:AF:39:LYS:HB2	6:AF:64:GLN:HB3	1.71	0.70
1:AA:707:C:O2'	1:AA:708:C:H5'	1.91	0.70
47:BP:59:LEU:HA	47:BP:61:ARG:NH2	2.06	0.70
1:CA:1060:C:H4'	10:CJ:52:GLY:HA2	1.72	0.70
1:AA:1221:G:H4'	19:AS:77:THR:CG2	2.21	0.70
29:D4:35:VAL:HG21	41:DG:113:ARG:CZ	2.21	0.70
10:CJ:4:ILE:H	10:CJ:4:ILE:HD12	1.55	0.70
12:CL:41:THR:CG2	24:CY:7:HIS:HB3	2.21	0.70
1:AA:1124:G:H4'	10:AJ:35:SER:OG	1.92	0.70
53:DV:18:LEU:N	53:DV:18:LEU:HD12	2.06	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2735:G:H2'	35:BA:2736:G:H8	1.56	0.70
9:CI:10:ARG:HH21	9:CI:108:VAL:HG12	1.57	0.70
17:CQ:67:LYS:O	17:CQ:69:LYS:N	2.24	0.70
39:BE:200:GLU:OE2	39:BE:200:GLU:N	2.23	0.70
39:BE:46:ALA:HA	39:BE:82:ARG:O	1.91	0.70
44:DJ:25:UNK:H	44:DJ:86:UNK:CB	2.04	0.70
1:AA:591:U:H2'	1:AA:592:G:H8	1.55	0.70
1:CA:1015:A:H2'	1:CA:1016:A:C8	2.27	0.70
38:BD:65:ILE:HD11	38:BD:67:PHE:CZ	2.26	0.70
8:CH:97:VAL:HG13	8:CH:98:LYS:N	2.06	0.70
49:DR:10:LEU:CD1	49:DR:17:ARG:HB2	1.85	0.70
13:CM:92:HIS:HB2	13:CM:98:VAL:HG23	1.74	0.70
8:AH:51:VAL:CG1	8:AH:60:ARG:HD3	2.14	0.70
35:BA:2524:G:H8	35:BA:2524:G:H5'	1.55	0.70
35:DA:2302:G:H1'	41:DG:128:ARG:NE	2.07	0.70
1:AA:33:A:C2'	1:AA:34:C:H5''	2.21	0.70
40:DF:84:VAL:HG12	40:DF:85:GLY:H	1.52	0.70
40:DF:84:VAL:CG1	40:DF:85:GLY:N	2.55	0.70
12:CL:116:LYS:HB2	12:CL:117:TYR:CD1	2.27	0.70
39:DE:6:GLY:HA2	39:DE:51:PHE:CE2	2.26	0.70
35:DA:1038:C:C3'	35:DA:1039:G:H5''	2.20	0.70
15:CO:40:SER:HB2	35:DA:715:G:N2	2.06	0.70
53:BV:99:ILE:H	53:BV:99:ILE:CD1	2.05	0.70
43:DI:113:ARG:HD3	43:DI:131:LYS:HB2	1.74	0.70
56:BY:52:SER:HB3	56:BY:55:TYR:HE1	1.57	0.70
35:DA:2580:U:H5'	39:DE:131:ALA:H	1.56	0.70
55:DX:44:GLU:HG2	55:DX:51:VAL:HG23	1.73	0.70
35:BA:880:G:H1	35:BA:897:C:H42	1.38	0.70
56:BY:31:LEU:HB2	56:BY:32:PRO:HA	1.74	0.70
24:AY:95:TYR:O	24:AY:96:LEU:CB	2.40	0.70
1:AA:625:G:H4'	16:AP:16:HIS:CD2	2.27	0.70
2:AB:173:ALA:HA	2:AB:176:GLU:HG3	1.73	0.70
35:DA:2302:G:H1'	41:DG:128:ARG:HH21	1.57	0.70
47:BP:7:ARG:HH11	47:BP:7:ARG:CA	2.04	0.70
1:CA:1409:C:H42	1:CA:1491:G:H1	1.39	0.70
9:AI:40:LEU:HD23	9:AI:42:ARG:H	1.57	0.70
38:BD:172:TYR:HD1	38:BD:186:HIS:HA	1.56	0.70
18:CR:47:THR:HG22	18:CR:85:LEU:H	1.56	0.70
1:CA:1066:C:H3'	1:CA:1067:A:C8	2.27	0.70
35:BA:2010:G:H5''	54:BW:42:ARG:HB2	1.72	0.70
32:D7:10:ARG:NH1	32:D7:14:LYS:HE3	2.05	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1053:C:H1'	44:BJ:33:UNK:HA	1.74	0.70
1:CA:204:U:H4'	1:CA:216:G:C8	2.27	0.70
53:DV:83:ARG:HG2	53:DV:83:ARG:HH11	1.56	0.70
7:AG:47:CYS:O	7:AG:50:ILE:HB	1.92	0.70
35:DA:953:A:O2'	35:DA:954:G:H5'	1.91	0.70
42:BH:28:GLY:HA3	42:BH:79:VAL:HB	1.73	0.70
35:BA:1530:C:O2	35:BA:1530:C:H2'	1.92	0.70
1:AA:1344:C:O2'	1:AA:1345:U:H5'	1.91	0.70
2:AB:84:GLU:OE1	2:AB:216:SER:HA	1.92	0.70
7:CG:113:GLU:HB2	7:CG:119:ARG:CG	2.21	0.70
35:DA:146:G:H5'	35:DA:146:G:C8	2.24	0.70
3:AC:181:ASN:C	3:AC:182:ILE:HD12	2.12	0.70
35:DA:1717:G:C2'	35:DA:1718:G:H5''	2.20	0.70
41:DG:60:LEU:O	41:DG:60:LEU:HD23	1.92	0.70
35:DA:2735:G:H2'	35:DA:2736:G:H8	1.57	0.70
35:DA:2801(A):A:C4'	35:DA:2802:G:H2'	2.22	0.70
26:D1:52:ARG:NH1	26:D1:57:GLU:HB2	2.07	0.70
3:AC:19:GLU:HA	3:AC:54:ARG:HH12	1.57	0.70
38:DD:172:TYR:HD1	38:DD:186:HIS:HA	1.55	0.70
35:DA:2637:U:H5''	39:DE:82:ARG:HH21	1.55	0.70
1:AA:38:G:C2	1:AA:397:A:C2	2.79	0.70
1:CA:434:U:H2'	1:CA:435:C:C6	2.26	0.70
17:CQ:78:GLU:OE1	17:CQ:81:ARG:HD3	1.92	0.70
43:DI:2:LYS:HZ3	43:DI:2:LYS:N	1.89	0.70
35:BA:1766:U:H2'	35:BA:1767:C:H6	1.54	0.70
22:CW:41:C:H2'	22:CW:42:G:H8	1.56	0.70
42:BH:11:VAL:HG13	42:BH:49:VAL:HG12	1.73	0.70
1:CA:940:C:O2'	1:CA:941:G:C5'	2.26	0.70
47:DP:59:LEU:HA	47:DP:61:ARG:NH2	2.05	0.70
1:CA:836:G:C5	1:CA:837:G:N7	2.60	0.70
56:DY:27:VAL:HA	56:DY:28:LYS:HZ1	1.55	0.70
42:DH:86:GLU:H	42:DH:86:GLU:CD	1.94	0.70
5:CE:102:ALA:HB1	5:CE:106:PRO:CG	2.22	0.70
1:AA:1254:C:OP1	10:AJ:45:ARG:HG3	1.92	0.70
39:BE:78:LEU:C	39:BE:79:ARG:HD2	2.12	0.70
1:CA:1292:U:H2'	1:CA:1293:G:C8	2.27	0.70
53:DV:19:LYS:HG3	53:DV:20:LEU:N	2.07	0.70
38:BD:17:THR:O	38:BD:204:ILE:HG23	1.92	0.70
3:CC:19:GLU:HA	3:CC:54:ARG:HH12	1.56	0.70
5:AE:126:ARG:HA	5:AE:131:ILE:HD11	1.72	0.70
8:AH:44:PHE:HA	8:AH:79:VAL:HG11	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:409:C:O2'	35:DA:410:G:H5'	1.91	0.70
35:BA:1710:C:O2'	35:BA:1711:C:H5'	1.92	0.70
35:BA:2668:G:O2'	35:BA:2669:G:H5'	1.92	0.70
16:CP:71:ARG:NH1	16:CP:71:ARG:HB2	2.06	0.70
35:BA:951:C:O2'	35:BA:952:G:H5'	1.92	0.70
33:D8:16:ILE:HD12	33:D8:16:ILE:O	1.91	0.70
56:BY:28:LYS:HA	56:BY:39:VAL:H	1.56	0.69
52:DU:66:ASN:ND2	52:DU:70:ARG:HE	1.90	0.69
57:BZ:171:ILE:HG13	57:BZ:172:ALA:N	2.06	0.69
27:D2:39:ALA:HA	27:D2:45:SER:CB	2.17	0.69
31:D6:52:VAL:HG12	31:D6:53:LYS:N	2.07	0.69
41:DG:82:LEU:CD2	41:DG:87:PRO:HB3	2.22	0.69
35:BA:676:A:H8	35:BA:2069:G:N2	1.80	0.69
47:BP:7:ARG:HA	47:BP:7:ARG:HH11	1.56	0.69
1:AA:986:A:H1'	19:AS:54:GLY:O	1.92	0.69
8:AH:40:ALA:HB2	8:AH:45:ILE:HG13	1.73	0.69
1:AA:737:A:H2'	1:AA:738:C:C6	2.27	0.69
35:BA:1114:G:H3'	35:BA:1115:G:H5''	1.71	0.69
5:AE:78:HIS:CE1	5:AE:142:LEU:HD23	2.27	0.69
9:AI:10:ARG:HH21	9:AI:108:VAL:HG12	1.56	0.69
5:CE:35:GLY:HA3	5:CE:112:LEU:O	1.92	0.69
51:BT:24:PRO:HA	51:BT:49:VAL:HG13	1.73	0.69
21:CU:24:ARG:HG2	21:CU:24:ARG:HH11	1.57	0.69
1:CA:9:G:H5'	5:CE:122:GLU:OE2	1.92	0.69
46:DO:93:PRO:HD3	46:DO:114:ILE:HD11	1.72	0.69
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.27	0.69
18:AR:36:ASN:HB3	18:AR:39:VAL:CG2	2.22	0.69
42:DH:54:ARG:HG2	42:DH:65:HIS:CD2	2.27	0.69
42:BH:98:LEU:N	42:BH:125:VAL:HG11	2.05	0.69
56:BY:26:LYS:HG2	56:BY:27:VAL:H	1.57	0.69
2:CB:178:ARG:NH2	8:CH:74:PRO:HG3	2.07	0.69
7:CG:113:GLU:CB	7:CG:119:ARG:HG2	2.20	0.69
43:DI:88:ILE:HG12	43:DI:92:VAL:CG2	2.21	0.69
39:DE:48:GLN:HE22	39:DE:64:LYS:NZ	1.91	0.69
35:BA:2732:G:C3'	35:BA:2733:A:H5'	2.22	0.69
8:CH:37:ARG:HH21	8:CH:38:ILE:CG1	2.04	0.69
5:CE:39:GLY:HA2	5:CE:71:LEU:HD21	1.72	0.69
35:BA:17:G:H4'	52:BU:25:TRP:CH2	2.26	0.69
35:BA:1564:C:O2'	35:BA:1565:C:H5'	1.91	0.69
17:AQ:78:GLU:OE1	17:AQ:81:ARG:HD3	1.92	0.69
12:AL:21:VAL:HG13	12:AL:95:TYR:CE2	2.27	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1348:G:H2'	35:BA:1349:A:H5''	1.74	0.69
35:BA:833:U:H5''	47:BP:48:PRO:HB3	1.73	0.69
40:DF:63:LYS:NZ	40:DF:67:GLN:HB2	2.06	0.69
51:DT:40:THR:O	51:DT:41:ARG:HB2	1.91	0.69
6:AF:1:MET:HA	6:AF:67:MET:O	1.92	0.69
25:B0:23:VAL:HA	25:B0:38:VAL:HG22	1.74	0.69
50:DS:66:ALA:O	50:DS:69:VAL:HG12	1.92	0.69
1:AA:1250:A:H4'	9:AI:68:GLY:N	2.06	0.69
35:BA:1021:A:H8	35:BA:1021:A:H3'	1.57	0.69
49:BR:13:HIS:CE1	49:BR:15:SER:HB2	2.27	0.69
38:DD:142:VAL:HG23	38:DD:193:VAL:HA	1.74	0.69
8:CH:44:PHE:HA	8:CH:79:VAL:HG11	1.73	0.69
38:BD:65:ILE:HD11	38:BD:67:PHE:CE1	2.25	0.69
2:CB:140:HIS:HA	2:CB:143:GLU:HG3	1.75	0.69
39:DE:69:LYS:NZ	39:DE:89:ASP:HA	2.07	0.69
47:BP:122:PRO:HG3	47:BP:141:ALA:O	1.92	0.69
35:DA:271(E):U:H2'	35:DA:271(F):C:C6	2.28	0.69
4:AD:119:GLN:HG3	4:AD:123:HIS:CD2	2.28	0.69
19:CS:64:GLU:O	19:CS:66:MET:N	2.25	0.69
52:DU:16:LYS:O	52:DU:20:LEU:HD23	1.91	0.69
31:B6:36:LEU:HD23	31:B6:36:LEU:H	1.58	0.69
34:D9:7:VAL:HG12	34:D9:34:GLN:HE21	1.57	0.69
46:BO:18:LYS:HB2	46:BO:45:GLU:HG2	1.73	0.69
1:CA:37:U:N3	1:CA:38:G:N7	2.39	0.69
53:DV:49:THR:HB	53:DV:50:PRO:CD	2.18	0.69
57:BZ:108:PRO:HG2	57:BZ:109:ALA:H	1.56	0.69
47:DP:41:ARG:CD	47:DP:41:ARG:N	2.54	0.69
47:DP:112:LEU:HD23	47:DP:113:LYS:N	2.08	0.69
22:AV:23:C:H2'	22:AV:24:U:H6	1.52	0.69
30:D5:33:CYS:HB3	30:D5:36:CYS:O	1.92	0.69
41:BG:101:ILE:O	41:BG:105:LYS:HG3	1.92	0.69
1:CA:1128:C:H42	1:CA:1143:G:H1	1.39	0.69
35:DA:1019:U:O2'	35:DA:1021:A:H2	1.74	0.69
1:AA:728:A:H2'	1:AA:729:A:C8	2.27	0.69
35:BA:2472:G:H5'	35:BA:2473:U:H5''	1.74	0.69
35:DA:1047:G:H2'	35:DA:1110:G:N2	2.07	0.69
35:BA:2761:G:C3'	35:BA:2762:G:H5''	2.23	0.69
35:DA:951:C:O2'	35:DA:952:G:H5'	1.91	0.69
35:DA:952:G:P	48:DQ:16:ARG:HH22	2.14	0.69
1:CA:645:C:H2'	1:CA:646:U:H6	1.57	0.69
35:BA:1530:C:C1'	35:BA:1531:C:H5'	2.21	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DF:24:LEU:CB	40:DF:25:PRO:HD3	2.19	0.69
2:CB:204:ASN:C	2:CB:204:ASN:HD22	1.95	0.69
41:DG:82:LEU:HG	41:DG:83:ARG:H	1.58	0.69
43:BI:82:ARG:O	43:BI:89:TYR:HB2	1.91	0.69
31:D6:30:THR:HB	31:D6:31:PRO:HD2	1.73	0.69
53:BV:18:LEU:HD12	53:BV:18:LEU:N	2.07	0.69
2:CB:115:LEU:HD13	2:CB:145:LEU:HB3	1.75	0.69
18:AR:47:THR:HG22	18:AR:85:LEU:H	1.57	0.69
1:CA:392:G:H2'	1:CA:393:A:H8	1.58	0.69
39:BE:49:LEU:HD23	39:BE:49:LEU:N	2.07	0.69
38:DD:166:GLN:HE21	38:DD:166:GLN:CA	2.06	0.69
42:DH:148:ILE:O	42:DH:162:ILE:HD11	1.91	0.69
35:DA:2408:U:H2'	35:DA:2409:G:H8	1.57	0.69
35:DA:864:G:O2'	35:DA:865:C:H5'	1.93	0.69
19:AS:9:VAL:HG22	29:B4:53:GLU:HG3	1.72	0.69
19:CS:39:THR:O	19:CS:40:ILE:HG23	1.93	0.69
10:AJ:44:VAL:HG22	10:AJ:66:ARG:HG2	1.75	0.69
31:B6:30:THR:HB	31:B6:31:PRO:HD2	1.74	0.69
50:DS:88:ASP:CG	50:DS:89:ARG:H	1.95	0.69
8:AH:37:ARG:HH21	8:AH:38:ILE:CG1	2.04	0.69
35:DA:1170:G:H1	35:DA:1179:C:N4	1.91	0.69
45:BN:68:GLU:HB2	45:BN:88:GLU:CD	2.13	0.69
17:AQ:67:LYS:O	17:AQ:69:LYS:N	2.25	0.69
35:BA:952:G:P	48:BQ:16:ARG:HH22	2.15	0.69
27:D2:32:LEU:HA	27:D2:35:LEU:HD12	1.73	0.69
49:DR:38:VAL:HB	49:DR:39:PRO:HD3	1.73	0.69
35:BA:953:A:O2'	35:BA:954:G:H5'	1.93	0.69
35:BA:865:C:H4'	35:BA:866:A:N7	2.06	0.69
12:CL:40:VAL:HG23	12:CL:52:VAL:HG21	1.74	0.69
33:B8:13:ARG:HD2	47:BP:61:ARG:HD3	1.73	0.69
22:CV:57:A:O2'	22:CV:58:A:H5'	1.92	0.69
23:AX:13:A:C4'	23:AX:14:A:H5''	2.23	0.69
24:AY:64:TYR:HB2	24:AY:92:ILE:HD13	1.66	0.69
41:DG:106:LEU:HD12	41:DG:107:LEU:N	2.07	0.69
46:BO:1:MET:HB3	46:BO:32:TYR:HD2	1.56	0.69
8:AH:63:LEU:HB2	8:AH:65:TYR:HE1	1.58	0.69
35:BA:2392:A:H2	35:BA:2424:C:N4	1.87	0.69
51:DT:32:TYR:HD2	51:DT:81:PRO:O	1.75	0.69
53:BV:19:LYS:HG3	53:BV:20:LEU:N	2.07	0.69
35:BA:1280:G:H2'	35:BA:1281:G:H5''	1.74	0.69
7:AG:54:THR:HG23	7:AG:56:GLN:HG2	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1453:U:H5'	49:BR:63:ARG:NE	2.07	0.69
45:DN:97:ARG:HA	45:DN:100:GLU:HB2	1.75	0.69
40:BF:136:THR:HG22	40:BF:140:LEU:HD21	1.74	0.69
31:D6:46:HIS:HB3	31:D6:47:THR:HG21	1.75	0.69
50:BS:11:LYS:N	50:BS:11:LYS:HE2	2.06	0.69
13:AM:92:HIS:HB2	13:AM:98:VAL:HG23	1.75	0.69
42:BH:54:ARG:HG2	42:BH:65:HIS:CD2	2.27	0.69
24:AY:33:LYS:HG3	24:AY:36:GLY:CA	2.22	0.69
35:DA:865:C:C5'	35:DA:866:A:N7	2.56	0.69
22:AV:54:U:H3'	22:AV:55:U:H4'	1.71	0.69
39:DE:110:GLY:O	49:DR:5:LYS:HE2	1.91	0.69
51:DT:28:VAL:HG21	51:DT:46:GLU:OE2	1.93	0.69
35:DA:867:C:C2'	35:DA:868:U:C5'	2.66	0.69
1:CA:865:A:H2	1:CA:918:A:H4'	1.56	0.69
2:CB:84:GLU:OE1	2:CB:216:SER:HA	1.92	0.69
38:BD:11:PRO:C	38:BD:13:ARG:H	1.96	0.69
6:CF:52:ILE:HD13	6:CF:87:ARG:NH1	2.07	0.69
25:B0:66:VAL:HG12	25:B0:67:VAL:N	2.08	0.69
38:DD:133:LEU:HD13	38:DD:173:VAL:HG11	1.74	0.69
35:DA:858:U:O2	35:DA:2268:A:H2'	1.93	0.69
41:BG:138:GLN:HE21	41:BG:153:ARG:H	1.41	0.69
41:BG:12:TYR:O	41:BG:17:PRO:HD3	1.92	0.69
15:AO:66:LEU:H	15:AO:66:LEU:CD1	2.05	0.69
35:BA:1887:C:C3'	35:BA:1888:G:H5''	2.22	0.69
1:AA:235:C:H5'	17:AQ:70:ARG:HG2	1.75	0.69
35:BA:1799:G:H5'	35:BA:1819:A:N6	2.07	0.69
31:B6:42:TRP:HA	31:B6:42:TRP:HE3	1.58	0.69
53:DV:100:ARG:HD2	53:DV:100:ARG:O	1.92	0.69
9:CI:48:GLU:N	9:CI:49:PRO:HD2	2.08	0.69
49:BR:73:VAL:O	49:BR:76:VAL:HG12	1.92	0.69
52:BU:112:ARG:HG2	52:BU:112:ARG:HH11	1.57	0.69
50:DS:62:LYS:O	50:DS:65:VAL:HB	1.92	0.69
49:DR:18:LEU:HD11	49:DR:22:ARG:CZ	2.23	0.69
1:AA:1207:G:H2'	1:AA:1208:C:C6	2.28	0.69
1:CA:1217:C:H2'	1:CA:1218:C:C6	2.28	0.69
1:CA:382:A:H2'	1:CA:383:A:C8	2.27	0.69
35:BA:1491:G:O2'	38:BD:101:GLU:HG3	1.91	0.69
40:DF:136:THR:HG22	40:DF:140:LEU:HD21	1.75	0.69
1:CA:505:G:H2'	1:CA:506:G:H8	1.57	0.69
42:DH:19:VAL:HG23	42:DH:45:VAL:HG23	1.74	0.69
35:DA:997:G:O2'	35:DA:998:C:H5'	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:20:TYR:CE2	8:CH:75:ARG:HD2	2.28	0.69
1:CA:1151:A:HO2'	1:CA:1152:A:H8	1.37	0.69
47:DP:7:ARG:CA	47:DP:7:ARG:HH11	2.05	0.69
26:B1:67:ILE:O	26:B1:70:VAL:HG13	1.93	0.69
37:BC:82:LYS:HB3	37:BC:82:LYS:HZ2	1.58	0.69
1:AA:1293:G:O2'	1:AA:1294:G:H8	1.70	0.69
30:D5:20:ARG:NH1	54:DW:15:ARG:NE	2.41	0.69
35:DA:1021:A:H8	35:DA:1021:A:H3'	1.58	0.69
35:DA:1887:C:C2'	35:DA:1888:G:H5''	2.23	0.69
55:DX:27:THR:HB	55:DX:80:ILE:HB	1.73	0.69
35:BA:864:G:O2'	35:BA:865:C:H5'	1.91	0.69
21:AU:24:ARG:HG2	21:AU:24:ARG:HH11	1.58	0.69
4:AD:156:GLU:HG2	4:AD:160:GLN:HE21	1.57	0.69
2:CB:155:LEU:HD11	2:CB:159:PRO:HD3	1.73	0.69
43:DI:31:LEU:H	43:DI:31:LEU:HD12	1.58	0.69
11:AK:123:LYS:O	11:AK:127:LYS:HG2	1.93	0.69
9:CI:43:ALA:HB2	9:CI:74:ILE:HD13	1.75	0.69
55:DX:65:ARG:HH11	55:DX:65:ARG:HG2	1.57	0.69
33:D8:52:LYS:N	33:D8:53:PRO:CD	2.56	0.69
42:BH:86:GLU:H	42:BH:86:GLU:CD	1.94	0.69
2:CB:192:SER:OG	2:CB:196:LEU:HD21	1.93	0.69
2:CB:70:PHE:HB2	2:CB:92:TYR:HB2	1.73	0.69
41:DG:48:GLU:O	41:DG:51:ARG:HG2	1.92	0.69
13:CM:15:VAL:HG12	13:CM:45:VAL:HG22	1.75	0.69
1:CA:626:U:H2'	1:CA:627:G:C8	2.27	0.69
1:AA:358:U:H5''	43:DI:87:LYS:HD3	1.75	0.69
57:BZ:63:ASP:CB	57:BZ:65:GLN:HE21	2.06	0.69
1:AA:801:U:H2'	1:AA:802:A:C8	2.23	0.69
3:CC:34:LEU:HD22	14:CN:25:VAL:HG11	1.75	0.69
35:BA:1038:C:C3'	35:BA:1039:G:H5''	2.22	0.69
4:AD:126:ILE:HG22	4:AD:127:THR:N	2.08	0.69
50:DS:49:VAL:HG12	50:DS:73:LEU:HD23	1.75	0.69
29:B4:15:ILE:HB	29:B4:31:ILE:O	1.93	0.69
37:DC:72:VAL:HG12	37:DC:74:VAL:HG23	1.74	0.69
10:AJ:29:ARG:HH11	10:AJ:29:ARG:HB3	1.58	0.69
35:BA:2302:G:H1'	41:BG:128:ARG:HE	1.58	0.69
26:D1:35:THR:OG1	35:DA:2079:U:O3'	2.11	0.69
1:CA:807:A:H2'	1:CA:808:C:C6	2.28	0.69
17:CQ:57:VAL:HG12	17:CQ:76:LEU:HA	1.75	0.69
7:CG:32:ARG:HH11	7:CG:32:ARG:HG2	1.57	0.69
39:DE:41:LYS:HB2	39:DE:41:LYS:NZ	2.07	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D0:72:ARG:HH11	25:D0:75:LEU:HD13	1.58	0.69
23:AX:24:A:O4'	23:AX:25:A:H5'	1.93	0.68
1:CA:940:C:HO2'	1:CA:941:G:H5'	1.53	0.68
56:DY:28:LYS:HA	56:DY:39:VAL:H	1.58	0.68
52:BU:66:ASN:ND2	52:BU:70:ARG:HE	1.91	0.68
36:BB:8:U:O2'	50:BS:40:ILE:HD13	1.92	0.68
2:CB:211:ILE:O	2:CB:215:LEU:HD23	1.93	0.68
15:CO:82:ILE:HG12	15:CO:87:ILE:CG1	2.21	0.68
2:AB:192:SER:OG	2:AB:196:LEU:HD21	1.93	0.68
41:DG:111:LEU:CD2	41:DG:120:LEU:HD21	2.23	0.68
35:DA:145:G:H2'	35:DA:146:G:C5'	2.22	0.68
26:D1:23:LYS:HD2	26:D1:28:GLY:CA	2.23	0.68
20:CT:89:ARG:HH21	20:CT:104:LEU:HD11	1.56	0.68
10:CJ:29:ARG:HB3	10:CJ:29:ARG:HH11	1.58	0.68
14:AN:33:VAL:HG12	14:AN:40:CYS:HB3	1.74	0.68
31:D6:42:TRP:HA	31:D6:42:TRP:HE3	1.58	0.68
35:DA:880:G:H1	35:DA:897:C:N4	1.91	0.68
8:AH:64:LYS:HG2	8:AH:79:VAL:HG21	1.74	0.68
11:AK:38:ASN:HD22	11:AK:38:ASN:N	1.91	0.68
1:AA:688:G:H2'	1:AA:689:C:H6	1.58	0.68
21:CU:2:GLY:O	21:CU:4:GLY:N	2.26	0.68
6:CF:88:VAL:HG12	6:CF:88:VAL:O	1.93	0.68
1:CA:1060:C:O2	1:CA:1198:G:C2	2.46	0.68
56:DY:29:GLU:N	56:DY:29:GLU:OE1	2.25	0.68
42:DH:83:TYR:HD1	42:DH:84:SER:H	1.38	0.68
5:CE:103:GLY:H	5:CE:106:PRO:HG2	1.59	0.68
31:B6:52:VAL:HG12	31:B6:53:LYS:N	2.08	0.68
2:AB:19:HIS:ND1	2:AB:20:GLU:HG2	2.07	0.68
35:BA:145:G:H2'	35:BA:146:G:C5'	2.23	0.68
29:D4:24:THR:HG22	29:D4:25:TYR:N	2.06	0.68
10:AJ:28:ARG:HA	10:AJ:34:VAL:HG23	1.73	0.68
47:DP:16:ARG:HD3	47:DP:18:ARG:H	1.58	0.68
4:CD:114:ARG:HG3	4:CD:114:ARG:NH1	2.07	0.68
43:DI:133:HIS:HB3	43:DI:134:PRO:HD2	1.75	0.68
35:BA:926:A:H5'	35:BA:926:A:H8	1.58	0.68
25:D0:66:VAL:HG12	25:D0:67:VAL:N	2.08	0.68
1:CA:1301:U:H2'	1:CA:1303:C:C5	2.25	0.68
35:DA:1654:A:OP2	49:DR:3:HIS:HB2	1.94	0.68
54:DW:65:LEU:O	54:DW:66:GLU:O	2.10	0.68
5:CE:78:HIS:CE1	5:CE:142:LEU:HD23	2.28	0.68
1:CA:1004:A:H5''	1:CA:1025:U:H3	1.56	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2469:A:H2	35:DA:2481:G:H21	1.41	0.68
13:CM:74:VAL:HA	13:CM:77:ASN:HD22	1.58	0.68
1:AA:1203:C:H2'	1:AA:1204:A:C8	2.28	0.68
38:DD:65:ILE:HD11	38:DD:67:PHE:CZ	2.28	0.68
35:BA:880:G:H1	35:BA:897:C:N4	1.91	0.68
31:B6:46:HIS:HB3	31:B6:47:THR:HG21	1.75	0.68
56:DY:19:LYS:HD2	56:DY:20:TYR:CE1	2.29	0.68
5:CE:68:GLU:O	5:CE:70:PRO:HD3	1.94	0.68
7:CG:47:CYS:O	7:CG:50:ILE:HB	1.94	0.68
45:BN:97:ARG:HA	45:BN:100:GLU:HB2	1.74	0.68
11:AK:48:ILE:HD11	11:AK:64:ALA:HA	1.73	0.68
35:BA:1481:U:H5'	35:BA:1482:G:OP2	1.93	0.68
35:DA:1453:U:H5'	49:DR:63:ARG:NE	2.08	0.68
35:DA:284:U:H2'	35:DA:285:C:H6	1.58	0.68
45:DN:78:TYR:CD1	45:DN:78:TYR:N	2.57	0.68
35:BA:1047:G:H2'	35:BA:1110:G:N2	2.07	0.68
27:B2:70:GLN:C	27:B2:72:ALA:H	1.94	0.68
23:AX:21:C:O2'	23:AX:22:A:C5'	2.41	0.68
22:AV:54:U:C4'	22:AV:55:U:H5''	2.23	0.68
56:DY:26:LYS:HG2	56:DY:27:VAL:H	1.57	0.68
5:AE:43:LEU:HD21	5:AE:132:ALA:HB1	1.74	0.68
35:DA:271(M):G:H2'	35:DA:271(N):U:H5''	1.73	0.68
2:CB:96:ARG:N	2:CB:96:ARG:HD2	2.07	0.68
3:AC:34:LEU:HD22	14:AN:25:VAL:HG11	1.74	0.68
39:DE:78:LEU:C	39:DE:79:ARG:HD2	2.12	0.68
18:AR:53:ARG:HH21	18:AR:59:SER:CA	2.06	0.68
55:DX:30:VAL:HG21	55:DX:39:ILE:HD11	1.76	0.68
40:DF:132:VAL:HG22	40:DF:133:ASN:H	1.56	0.68
40:BF:132:VAL:HG22	40:BF:133:ASN:H	1.55	0.68
56:DY:52:SER:HB3	56:DY:55:TYR:HE1	1.57	0.68
5:AE:39:GLY:HA2	5:AE:71:LEU:HD21	1.74	0.68
1:AA:243:A:H4'	1:AA:244:U:H5''	1.75	0.68
4:CD:119:GLN:HG3	4:CD:123:HIS:CD2	2.27	0.68
14:CN:26:ARG:NH1	14:CN:47:LEU:HD21	2.08	0.68
35:BA:1598:C:H5'	55:BX:36:LYS:HB2	1.75	0.68
1:AA:1059:C:O2	10:AJ:53:PRO:HG3	1.93	0.68
35:DA:212:G:O2'	35:DA:213:A:H5'	1.93	0.68
35:DA:92:A:N3	35:DA:93:G:O4'	2.27	0.68
42:DH:83:TYR:O	42:DH:84:SER:HB2	1.93	0.68
51:BT:19:LEU:HD22	51:BT:85:LYS:HG3	1.75	0.68
57:DZ:56:VAL:HG22	57:DZ:70:LEU:HG	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2302:G:H1'	41:DG:128:ARG:NH2	2.08	0.68
1:CA:737:A:H2'	1:CA:738:C:H6	1.56	0.68
57:DZ:101:PRO:O	57:DZ:102:LEU:HD23	1.93	0.68
39:DE:200:GLU:OE2	39:DE:200:GLU:N	2.25	0.68
48:BQ:12:GLN:HG2	48:BQ:73:PRO:HD2	1.75	0.68
6:CF:63:TYR:O	6:CF:65:VAL:HG13	1.93	0.68
35:BA:271(U):G:O2'	35:BA:271(V):G:H5'	1.94	0.68
39:BE:183:LEU:HD11	51:BT:11:GLU:OE2	1.93	0.68
47:BP:122:PRO:HG3	47:BP:141:ALA:HB1	1.76	0.68
1:CA:1338:G:O2'	1:CA:1339:A:H5'	1.93	0.68
1:CA:373:A:O2'	1:CA:374:A:H5'	1.94	0.68
35:BA:1419:A:O2'	35:BA:1420:U:H5''	1.92	0.68
42:BH:8:PRO:HD3	42:BH:69:ARG:CD	2.23	0.68
1:CA:940:C:H2'	1:CA:941:G:H8	1.57	0.68
33:B8:50:LEU:HA	33:B8:53:PRO:HG3	1.76	0.68
10:AJ:39:PRO:HB3	10:AJ:70:ARG:NH1	2.08	0.68
31:B6:11:LEU:HD22	31:B6:12:GLU:H	1.58	0.68
29:D4:52:THR:HG22	29:D4:53:GLU:N	2.05	0.68
40:BF:84:VAL:CG1	40:BF:85:GLY:N	2.54	0.68
35:BA:1916:A:H2'	35:BA:1917:U:O4'	1.93	0.68
13:AM:15:VAL:HG12	13:AM:45:VAL:HG22	1.75	0.68
39:DE:75:VAL:C	39:DE:77:ILE:H	1.97	0.68
45:BN:128:HIS:HD2	45:BN:130:HIS:HB2	1.58	0.68
1:AA:1144:G:N2	1:AA:1146:A:H62	1.91	0.68
4:CD:25:ARG:NH1	4:CD:30:LYS:HB3	2.08	0.68
43:BI:133:HIS:HB3	43:BI:134:PRO:HD2	1.75	0.68
1:AA:1292:U:H2'	1:AA:1293:G:C8	2.29	0.68
43:DI:102:SER:CB	43:DI:109:ILE:HB	2.23	0.68
25:B0:81:VAL:O	25:B0:83:PRO:HD3	1.93	0.68
1:CA:428:G:OP2	4:CD:7:PRO:HG2	1.94	0.68
22:CW:51:C:H2'	22:CW:52:G:O4'	1.93	0.68
35:DA:1876:A:H2'	35:DA:1877:A:C8	2.29	0.68
46:BO:111:PHE:O	46:BO:115:VAL:HG23	1.92	0.68
1:CA:1097:C:H2'	1:CA:1098:C:H6	1.56	0.68
1:AA:1029:C:H4'	1:AA:1033:G:H22	1.59	0.68
50:BS:62:LYS:O	50:BS:65:VAL:HB	1.93	0.68
1:AA:1163:C:H2'	1:AA:1164:G:H8	1.59	0.68
42:DH:8:PRO:HD3	42:DH:69:ARG:CD	2.23	0.68
38:DD:11:PRO:C	38:DD:13:ARG:H	1.97	0.68
2:AB:211:ILE:O	2:AB:215:LEU:HD23	1.94	0.68
47:BP:6:LEU:HG	47:BP:8:PRO:HD2	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:DT:80:SER:CB	51:DT:81:PRO:HD3	2.23	0.68
50:DS:106:ARG:HD2	50:DS:107:GLU:O	1.93	0.68
4:CD:31:CYS:C	4:CD:33:MET:H	1.96	0.68
35:DA:2761:G:H3'	35:DA:2762:G:H5''	1.75	0.68
1:CA:1203:C:H2'	1:CA:1204:A:C8	2.28	0.68
46:DO:19:ILE:HG22	46:DO:43:VAL:HA	1.76	0.68
39:BE:116:VAL:O	39:BE:117:MET:HB2	1.92	0.68
33:D8:13:ARG:HD2	47:DP:61:ARG:CD	2.24	0.68
56:DY:10:GLY:CA	56:DY:27:VAL:HG13	2.24	0.68
56:DY:28:LYS:HB3	56:DY:37:VAL:HB	1.75	0.68
1:AA:624:C:H2'	1:AA:625:G:C8	2.28	0.68
33:D8:50:LEU:HA	33:D8:53:PRO:HG3	1.75	0.68
51:BT:13:ARG:HA	51:BT:13:ARG:CZ	2.23	0.68
3:CC:94:LEU:CD2	3:CC:94:LEU:H	2.04	0.68
6:CF:9:VAL:C	6:CF:10:LEU:HD12	2.13	0.68
38:DD:145:VAL:HG12	38:DD:146:GLU:O	1.93	0.68
35:DA:1280:G:C2'	35:DA:1281:G:H5''	2.23	0.68
1:AA:1207:G:H2'	1:AA:1208:C:H6	1.59	0.68
2:AB:140:HIS:HA	2:AB:143:GLU:HG3	1.74	0.68
42:DH:41:MET:HA	42:DH:41:MET:HE3	1.75	0.68
2:CB:162:ILE:CD1	2:CB:184:VAL:HA	2.23	0.68
33:B8:32:LEU:HB3	33:B8:36:LYS:HZ1	1.59	0.68
47:BP:112:LEU:HD23	47:BP:113:LYS:N	2.08	0.68
41:DG:128:ARG:C	41:DG:130:ASN:H	1.97	0.68
39:DE:55:ASN:HB2	39:DE:72:VAL:HG11	1.75	0.68
1:CA:1254:C:OP1	10:CJ:45:ARG:HG3	1.94	0.68
1:CA:692:U:OP1	11:CK:124:LYS:HE2	1.93	0.68
35:BA:271(E):U:H2'	35:BA:271(F):C:C6	2.28	0.68
1:AA:386:C:C2'	1:AA:387:U:H5'	2.24	0.68
35:BA:914:C:H2'	35:BA:915:C:H5'	1.76	0.68
42:BH:8:PRO:HD3	42:BH:69:ARG:HD2	1.76	0.68
33:D8:2:PRO:HA	35:DA:591:C:O2	1.94	0.68
50:BS:106:ARG:HD2	50:BS:107:GLU:O	1.93	0.68
50:BS:49:VAL:HG12	50:BS:73:LEU:HD23	1.75	0.68
35:DA:905:U:C3'	35:DA:906:G:H5''	2.24	0.68
33:B8:4:MET:HB2	33:B8:61:LEU:HD11	1.74	0.68
48:DQ:134:ARG:HG2	57:DZ:122:ARG:NH1	2.08	0.68
13:CM:3:ARG:HH21	13:CM:7:VAL:HG22	1.59	0.68
19:AS:39:THR:O	19:AS:40:ILE:HG23	1.94	0.68
3:CC:182:ILE:HG23	3:CC:202:ILE:O	1.93	0.68
16:AP:71:ARG:NH1	16:AP:71:ARG:HB2	2.08	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:125:ILE:HD13	38:DD:136:ILE:HG23	1.74	0.68
35:BA:1654:A:OP2	49:BR:3:HIS:HB2	1.94	0.68
21:CU:6:ARG:HE	21:CU:15:ARG:NH2	1.92	0.68
35:DA:1799:G:H5'	35:DA:1819:A:N6	2.09	0.68
1:CA:106:C:H2'	1:CA:107:G:H8	1.59	0.68
22:AV:28:C:H2'	22:AV:29:G:H8	1.58	0.68
39:BE:116:VAL:O	39:BE:117:MET:CB	2.42	0.68
2:AB:34:ALA:HB1	2:AB:36:ARG:HH11	1.58	0.68
1:AA:382:A:H2'	1:AA:383:A:C8	2.27	0.68
1:AA:1015:A:H2'	1:AA:1016:A:C8	2.29	0.68
35:BA:2777:G:H5''	35:BA:2778:A:H5''	1.75	0.68
35:BA:2593:U:H2'	35:BA:2594:C:H6	1.58	0.68
1:AA:762:C:H2'	1:AA:763:G:H8	1.57	0.68
1:CA:1463:C:H2'	1:CA:1464:G:H8	1.58	0.68
6:AF:19:LEU:HD23	6:AF:19:LEU:O	1.94	0.68
1:AA:950:U:H2'	1:AA:951:G:C8	2.28	0.68
52:DU:112:ARG:HG2	52:DU:112:ARG:HH11	1.57	0.68
4:AD:188:LEU:HD12	4:AD:188:LEU:H	1.59	0.68
25:D0:43:THR:O	25:D0:43:THR:HG23	1.93	0.68
1:AA:447:G:H2'	1:AA:485:G:N2	2.08	0.68
3:AC:162:GLN:CD	23:AX:23:A:C8	2.63	0.68
35:BA:1533:G:C3'	35:BA:1543:C:OP2	2.35	0.68
40:DF:8:GLN:HB3	40:DF:126:VAL:HA	1.76	0.68
42:BH:83:TYR:O	42:BH:84:SER:HB2	1.93	0.68
57:BZ:35:ARG:HA	57:BZ:35:ARG:CZ	2.24	0.68
43:DI:92:VAL:HG21	43:DI:142:VAL:HG13	1.74	0.68
10:AJ:78:ASN:O	10:AJ:82:ILE:HG12	1.93	0.68
45:BN:24:GLY:HA2	45:BN:27:ALA:HB3	1.76	0.68
1:CA:1144:G:N2	1:CA:1146:A:H62	1.92	0.68
32:B7:8:ASN:HD21	32:B7:11:LYS:H	1.41	0.68
35:BA:528:A:H2	35:BA:2043:C:H5'	1.58	0.68
54:BW:12:ILE:HD13	54:BW:17:VAL:HG22	1.75	0.68
35:DA:857:C:O2	35:DA:857:C:H2'	1.94	0.68
1:CA:639:G:H2'	1:CA:640:A:H8	1.56	0.68
35:BA:1170:G:H1	35:BA:1179:C:N4	1.92	0.68
1:CA:1439:C:O2	1:CA:1439:C:H2'	1.94	0.68
1:CA:235:C:H1'	17:CQ:61:GLU:OE2	1.94	0.68
1:AA:235:C:H1'	17:AQ:61:GLU:OE2	1.94	0.68
35:BA:2777:G:H4'	35:BA:2778:A:H5'	1.74	0.68
27:D2:64:LEU:HD22	27:D2:68:ARG:HH11	1.59	0.68
26:D1:82:LEU:O	26:D1:83:GLU:HG2	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1095:U:H5'	1:AA:1109:C:O2	1.93	0.68
35:BA:1192:G:O2'	35:BA:1193:G:H5'	1.94	0.68
4:CD:13:ARG:HD2	4:CD:38:TYR:O	1.93	0.68
39:BE:41:LYS:NZ	39:BE:41:LYS:HB2	2.09	0.68
11:CK:123:LYS:O	11:CK:127:LYS:HG2	1.94	0.68
40:BF:33:LEU:O	40:BF:37:VAL:HG23	1.94	0.68
43:BI:31:LEU:H	43:BI:31:LEU:HD12	1.59	0.68
22:AV:54:U:C3'	22:AV:55:U:H4'	2.23	0.67
40:BF:1:MET:C	40:BF:3:GLU:H	1.96	0.67
1:CA:4:U:H4'	1:CA:5:U:OP1	1.92	0.67
1:CA:35:G:N3	12:CL:115:SER:HA	2.09	0.67
47:BP:38:GLN:CG	47:BP:39:LYS:H	1.99	0.67
41:DG:41:GLN:HG2	41:DG:155:MET:HB3	1.76	0.67
48:BQ:133:ARG:HG2	48:BQ:134:ARG:N	2.09	0.67
1:CA:1471:G:O2'	1:CA:1472:U:H5'	1.94	0.67
45:DN:68:GLU:HB2	45:DN:88:GLU:CD	2.15	0.67
9:CI:40:LEU:HD23	9:CI:42:ARG:H	1.60	0.67
35:DA:651:G:N2	35:DA:652:C:H41	1.91	0.67
35:BA:2637:U:H5''	39:BE:82:ARG:HH21	1.59	0.67
11:CK:22:HIS:HB3	11:CK:29:ILE:CG2	2.24	0.67
46:BO:19:ILE:HG22	46:BO:43:VAL:HA	1.75	0.67
11:AK:12:ARG:HG2	11:AK:13:GLN:H	1.60	0.67
42:BH:19:VAL:HG23	42:BH:45:VAL:HG23	1.74	0.67
23:AX:14:A:C6	23:AX:15:A:C2	2.82	0.67
52:BU:92:ARG:CZ	53:BV:11:GLN:H	2.08	0.67
53:BV:39:LEU:O	53:BV:40:LEU:HB2	1.93	0.67
2:CB:30:ARG:NH2	2:CB:194:PRO:HB2	2.10	0.67
2:CB:52:GLU:HG2	2:CB:56:ARG:NH1	2.06	0.67
1:AA:1125:U:H2'	1:AA:1281:U:O2	1.93	0.67
26:B1:69:LYS:O	26:B1:73:LEU:HB2	1.94	0.67
39:DE:51:PHE:HD1	39:DE:52:LEU:N	1.92	0.67
50:DS:49:VAL:CG1	50:DS:76:LYS:HE3	2.25	0.67
35:DA:2732:G:C3'	35:DA:2733:A:H5'	2.24	0.67
35:DA:2769:C:H2'	35:DA:2770:G:H8	1.59	0.67
1:CA:235:C:H5'	17:CQ:70:ARG:HG2	1.74	0.67
24:AY:13:PRO:HG2	24:AY:13:PRO:O	1.93	0.67
35:DA:2777:G:H4'	35:DA:2778:A:H5'	1.76	0.67
35:BA:816:C:O2'	35:BA:817:C:H5'	1.94	0.67
30:D5:43:HIS:HD2	35:DA:2815:C:O2'	1.76	0.67
35:DA:1419:A:O2'	35:DA:1420:U:H5''	1.93	0.67
20:AT:53:LEU:HD12	20:AT:53:LEU:H	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:92:VAL:O	4:CD:96:LEU:HD13	1.93	0.67
48:BQ:108:GLY:HA3	57:BZ:116:VAL:HG11	1.76	0.67
1:CA:642:A:N3	8:CH:113:SER:HB3	2.09	0.67
36:BB:52:A:H62	50:BS:33:LYS:HB2	1.59	0.67
35:BA:860:U:H5	35:BA:917:A:N7	1.92	0.67
1:AA:1226:C:H4'	19:AS:80:TYR:CE2	2.30	0.67
38:BD:166:GLN:CA	38:BD:166:GLN:HE21	2.06	0.67
4:CD:57:ARG:HB3	4:CD:206:PHE:HB2	1.76	0.67
1:CA:1349:A:H2'	1:CA:1350:A:O4'	1.93	0.67
51:BT:23:ARG:HH21	51:BT:120:ARG:HD3	1.56	0.67
35:DA:997:G:OP1	52:DU:93:LYS:HD3	1.94	0.67
1:CA:1079:G:H2'	1:CA:1080:A:C8	2.29	0.67
2:AB:162:ILE:CD1	2:AB:184:VAL:HA	2.24	0.67
1:AA:1217:C:H2'	1:AA:1218:C:C6	2.28	0.67
39:BE:5:LEU:HB2	39:BE:51:PHE:HD2	1.58	0.67
41:DG:60:LEU:O	41:DG:64:THR:HG22	1.95	0.67
50:DS:69:VAL:O	50:DS:72:ALA:HB3	1.93	0.67
53:BV:19:LYS:HZ3	53:BV:20:LEU:H	1.40	0.67
27:B2:38:GLN:O	27:B2:41:ILE:HG12	1.94	0.67
2:AB:115:LEU:HD13	2:AB:145:LEU:HB3	1.75	0.67
40:BF:102:PRO:HB2	40:BF:105:VAL:HG23	1.76	0.67
39:DE:101:ARG:HH11	39:DE:171:GLU:N	1.92	0.67
35:DA:271(U):G:O2'	35:DA:271(V):G:H5'	1.94	0.67
1:AA:1385:G:O2'	1:AA:1386:G:H5'	1.95	0.67
38:DD:147:LEU:CD1	38:DD:155:LEU:HD11	2.24	0.67
33:B8:2:PRO:HA	35:BA:591:C:O2	1.93	0.67
1:CA:950:U:H2'	1:CA:951:G:C8	2.29	0.67
1:CA:950:U:H2'	1:CA:951:G:H8	1.59	0.67
9:CI:22:GLY:H	9:CI:59:PHE:HA	1.59	0.67
48:DQ:60:ARG:HA	57:DZ:179:ASP:HB3	1.75	0.67
9:AI:23:ASN:HD22	9:AI:23:ASN:H	1.41	0.67
40:BF:162:LEU:HD22	40:BF:162:LEU:H	1.59	0.67
30:B5:43:HIS:HD2	35:BA:2815:C:O2'	1.76	0.67
1:AA:1400:C:H1'	23:AX:18:G:O6	1.94	0.67
4:AD:110:PHE:N	4:AD:110:PHE:CD1	2.62	0.67
12:AL:107:VAL:HG21	12:AL:117:TYR:CD2	2.25	0.67
26:B1:73:LEU:CD1	26:B1:94:LEU:HB3	2.24	0.67
41:BG:5:VAL:HG12	41:BG:6:ALA:N	2.10	0.67
35:BA:1434:A:H61	35:BA:1558:A:H62	1.42	0.67
49:BR:12:ARG:HG3	49:BR:12:ARG:HH11	1.59	0.67
25:B0:51:VAL:N	25:B0:62:LEU:HD12	2.09	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:74:VAL:HA	13:AM:77:ASN:HD22	1.57	0.67
35:DA:2222:G:O2'	35:DA:2223:G:H5'	1.93	0.67
1:AA:189(E):U:O2'	1:AA:189(F):U:H5'	1.95	0.67
9:CI:23:ASN:H	9:CI:23:ASN:HD22	1.42	0.67
18:CR:36:ASN:HB3	18:CR:39:VAL:CG2	2.24	0.67
2:AB:144:ARG:HA	2:AB:147:LYS:HB3	1.76	0.67
1:CA:189(K):U:H2'	1:CA:189(L):G:C8	2.29	0.67
39:DE:116:VAL:O	39:DE:117:MET:HB2	1.93	0.67
12:AL:40:VAL:HG23	12:AL:52:VAL:HG21	1.77	0.67
35:DA:2653:U:H5''	35:DA:2654:A:H2'	1.76	0.67
22:AW:8:U:H3	22:AW:14:A:H62	1.42	0.67
52:DU:92:ARG:HD2	52:DU:95:LEU:HD12	1.76	0.67
53:DV:39:LEU:O	53:DV:40:LEU:HB2	1.94	0.67
31:D6:11:LEU:HD22	31:D6:12:GLU:H	1.58	0.67
43:BI:77:LEU:HD23	43:BI:78:THR:N	2.09	0.67
35:BA:144:C:H2'	35:BA:145:G:H8	1.60	0.67
10:AJ:23:ILE:HG23	10:AJ:85:LEU:HD13	1.75	0.67
35:BA:858:U:O2	35:BA:2268:A:H2'	1.94	0.67
46:DO:102:VAL:HB	46:DO:106:LEU:HD12	1.77	0.67
9:AI:112:LYS:HA	9:AI:119:ALA:HB2	1.76	0.67
36:BB:44:G:H5''	36:BB:45:A:OP1	1.94	0.67
1:AA:962:C:H2'	1:AA:963:G:C8	2.30	0.67
38:DD:27:THR:CG2	38:DD:83:GLU:HB3	2.25	0.67
53:DV:99:ILE:CD1	53:DV:99:ILE:H	2.06	0.67
21:CU:6:ARG:HG2	21:CU:15:ARG:HH12	1.59	0.67
18:CR:71:LYS:HA	18:CR:74:ARG:HG3	1.75	0.67
28:D3:6:VAL:HG12	28:D3:56:VAL:HG12	1.76	0.67
35:BA:1876:A:H2'	35:BA:1877:A:C8	2.30	0.67
55:BX:44:GLU:HG2	55:BX:51:VAL:HG23	1.75	0.67
22:CV:53:G:N2	22:CV:62:C:C2	2.62	0.67
51:BT:28:VAL:HG13	51:BT:46:GLU:HA	1.75	0.67
56:BY:28:LYS:HB3	56:BY:37:VAL:HB	1.76	0.67
35:DA:1347:G:H5'	35:DA:1347:G:H8	1.60	0.67
1:CA:1429:C:H2'	1:CA:1430:C:C6	2.30	0.67
53:BV:18:LEU:HD13	53:BV:19:LYS:N	2.10	0.67
1:AA:190:U:H2'	1:AA:191:G:H8	1.60	0.67
47:BP:75:ILE:HD13	47:BP:77:ARG:NH1	2.09	0.67
1:CA:386:C:O2'	1:CA:387:U:H5'	1.95	0.67
49:BR:87:TYR:O	49:BR:89:ASP:N	2.20	0.67
18:AR:38:GLU:OE2	18:AR:41:LYS:HD3	1.94	0.67
35:DA:1280:G:H2'	35:DA:1281:G:H5''	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:337:C:H2'	1:AA:338:A:C8	2.28	0.67
36:DB:44:G:H5''	36:DB:45:A:OP1	1.95	0.67
1:AA:1090:U:H2'	1:AA:1091:U:C6	2.30	0.67
2:CB:144:ARG:HA	2:CB:147:LYS:HB3	1.76	0.67
35:BA:27:G:H22	35:BA:512:G:H2'	1.58	0.67
9:AI:22:GLY:H	9:AI:59:PHE:HA	1.59	0.67
1:AA:474:G:H2'	1:AA:475:G:H8	1.59	0.67
1:AA:145:G:C2	1:AA:146:G:H1'	2.30	0.67
35:BA:1314:C:H5'	35:BA:1314:C:H6	1.60	0.67
23:AX:21:C:H2'	23:AX:22:A:H5'	1.76	0.67
51:BT:29:ARG:HG2	51:BT:86:ILE:N	2.10	0.67
35:DA:610:G:H2'	35:DA:611:C:C6	2.30	0.67
56:BY:28:LYS:CA	56:BY:38:ILE:HG22	2.24	0.67
19:AS:15:LEU:O	19:AS:19:VAL:HG23	1.95	0.67
4:CD:105:VAL:HG21	4:CD:126:ILE:HG12	1.77	0.67
30:D5:33:CYS:HG	30:D5:46:CYS:HG	1.42	0.67
19:AS:33:THR:HG22	19:AS:34:TRP:N	2.09	0.67
1:CA:624:C:O3'	16:CP:10:GLY:HA2	1.94	0.67
47:BP:16:ARG:HD3	47:BP:18:ARG:H	1.59	0.67
35:DA:1405:U:H2'	35:DA:1406:U:H6	1.60	0.67
41:BG:63:ILE:HG21	41:BG:141:PHE:HB3	1.76	0.67
53:BV:35:LEU:O	53:BV:37:VAL:N	2.28	0.67
46:BO:90:GLN:O	46:BO:91:LEU:HB2	1.94	0.67
35:DA:539:G:H2'	35:DA:540:C:C6	2.30	0.67
56:DY:50:ARG:HG3	56:DY:55:TYR:O	1.94	0.67
35:DA:1106:A:H2'	35:DA:1107:G:C8	2.30	0.67
28:D3:4:LEU:O	28:D3:36:VAL:HA	1.94	0.67
35:DA:271(A):A:H5'	35:DA:271(B):C:OP2	1.95	0.67
35:BA:1106:A:H2'	35:BA:1107:G:C8	2.30	0.67
1:CA:1165:C:H2'	1:CA:1166:G:C8	2.30	0.67
35:BA:2758:A:C2	35:BA:2759:G:H1'	2.30	0.67
35:DA:2842:G:O2'	35:DA:2843:G:H5'	1.95	0.67
1:CA:1479:C:H2'	1:CA:1480:G:H8	1.58	0.67
27:B2:47:ASN:O	27:B2:49:LYS:N	2.27	0.67
15:CO:16:ALA:HB1	15:CO:21:ASP:HB3	1.75	0.67
23:AX:23:A:HO2'	23:AX:24:A:H8	1.41	0.67
33:D8:4:MET:HB2	33:D8:61:LEU:HD11	1.77	0.67
33:D8:61:LEU:N	33:D8:61:LEU:HD23	2.09	0.67
57:BZ:97:GLU:HG2	57:BZ:127:LYS:HG2	1.77	0.67
57:DZ:10:ARG:HB2	57:DZ:37:VAL:O	1.94	0.67
29:D4:28:LYS:HG3	29:D4:30:GLU:HB2	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:126:ILE:HG22	4:CD:127:THR:N	2.10	0.67
47:DP:6:LEU:O	47:DP:10:PRO:HB3	1.95	0.67
57:BZ:81:ARG:HG3	57:BZ:82:ARG:N	2.10	0.67
28:D3:3:ARG:NH1	28:D3:3:ARG:HB2	2.06	0.67
38:BD:145:VAL:HG12	38:BD:146:GLU:O	1.94	0.67
18:AR:66:LEU:O	18:AR:70:ILE:HG13	1.95	0.67
1:AA:1250:A:H5'	9:AI:67:GLY:HA2	1.74	0.67
27:B2:44:LEU:HD12	27:B2:44:LEU:H	1.60	0.67
1:AA:1269:A:OP1	21:AU:24:ARG:HD2	1.94	0.67
5:AE:68:GLU:O	5:AE:70:PRO:HD3	1.95	0.67
35:DA:2052:G:H4'	39:DE:143:ASN:O	1.95	0.67
24:AY:94:LYS:HG3	24:AY:94:LYS:O	1.94	0.67
49:DR:73:VAL:O	49:DR:76:VAL:HG12	1.94	0.67
35:DA:1771:C:HO2'	35:DA:1786:A:H8	1.43	0.67
19:AS:22:LEU:HD13	19:AS:27:GLU:HB2	1.76	0.67
24:AY:82:GLN:HG2	24:AY:83:LEU:H	1.60	0.67
58:CX:14:A:C2'	58:CX:15:A:H5''	2.23	0.67
19:AS:5:LEU:HD13	19:AS:7:LYS:H	1.60	0.67
47:DP:23:PRO:HB2	47:DP:33:ARG:NE	2.10	0.67
47:BP:41:ARG:CD	47:BP:41:ARG:N	2.56	0.67
41:DG:114:ILE:HD12	41:DG:117:PHE:CD2	2.30	0.67
43:DI:82:ARG:H	43:DI:82:ARG:CD	2.05	0.67
12:CL:114:ARG:HB3	12:CL:119:THR:O	1.95	0.67
51:BT:80:SER:CB	51:BT:81:PRO:HD3	2.23	0.67
46:DO:71:ARG:HH11	46:DO:71:ARG:HG3	1.60	0.67
35:DA:2377:A:H5''	50:DS:107:GLU:OE2	1.95	0.67
1:CA:253:U:H2'	1:CA:254:G:H8	1.60	0.67
2:AB:142:LEU:HD21	2:AB:146:GLN:HE21	1.60	0.67
28:B3:4:LEU:O	28:B3:36:VAL:HA	1.94	0.67
35:DA:1598:C:H5'	55:DX:36:LYS:HB2	1.75	0.67
1:AA:437:U:H2'	1:AA:438:G:O4'	1.95	0.67
11:AK:22:HIS:HB3	11:AK:29:ILE:CG2	2.25	0.67
35:BA:284:U:H2'	35:BA:285:C:H6	1.59	0.67
35:DA:2758:A:C2	35:DA:2759:G:H1'	2.29	0.67
14:AN:26:ARG:NH1	14:AN:47:LEU:HD21	2.09	0.67
1:CA:1399:C:H4'	1:CA:1400:C:H5''	1.75	0.67
42:DH:106:THR:HG22	42:DH:112:PRO:HB3	1.77	0.67
4:CD:184:LYS:HB3	4:CD:184:LYS:NZ	2.09	0.67
1:AA:726:C:H2'	1:AA:727:G:H8	1.59	0.67
35:DA:1915:U:C4	35:DA:1916:A:N7	2.63	0.67
40:DF:2:LYS:C	40:DF:24:LEU:HG	2.15	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DZ:44:PHE:CE2	57:DZ:86:VAL:HG11	2.30	0.67
29:D4:15:ILE:HB	29:D4:31:ILE:O	1.95	0.67
41:DG:40:ASN:HB2	41:DG:90:LEU:O	1.95	0.67
1:CA:589:C:O2'	1:CA:590:C:H5'	1.94	0.67
1:CA:1104:G:H2'	1:CA:1105:A:H8	1.60	0.67
35:BA:1346:G:H2'	35:BA:1347:G:C5'	2.21	0.67
43:BI:83:ALA:HB2	43:BI:88:ILE:HA	1.77	0.67
1:AA:34:C:H5'	1:AA:34:C:C6	2.21	0.67
2:AB:96:ARG:N	2:AB:96:ARG:HD2	2.09	0.67
38:DD:125:ILE:HD12	38:DD:137:PRO:CD	2.24	0.67
29:B4:24:THR:HG23	41:BG:5:VAL:CG1	2.23	0.67
45:DN:24:GLY:HA2	45:DN:27:ALA:HB3	1.77	0.67
35:DA:1040:C:H42	35:DA:1115:G:H1	1.41	0.67
39:BE:4:ILE:HG13	39:BE:31:CYS:SG	2.34	0.67
53:DV:19:LYS:HB3	53:DV:94:LEU:O	1.95	0.67
6:AF:9:VAL:C	6:AF:10:LEU:HD12	2.16	0.67
1:CA:1440:C:O2'	1:CA:1441:G:H5'	1.94	0.67
35:DA:607:U:H3	35:DA:621:A:H2	1.43	0.67
47:BP:75:ILE:H	47:BP:75:ILE:HD12	1.60	0.67
35:DA:80:G:O2'	35:DA:81:G:H5'	1.95	0.67
49:DR:57:ARG:O	49:DR:59:ASP:N	2.27	0.67
1:AA:235:C:H2'	1:AA:236:G:H8	1.60	0.67
35:BA:2653:U:H5''	35:BA:2654:A:H2'	1.75	0.67
19:AS:21:GLU:HG3	19:AS:22:LEU:HD22	1.77	0.67
35:DA:1434:A:H61	35:DA:1558:A:H62	1.41	0.67
1:AA:80:G:H3'	1:AA:81:U:C5'	2.25	0.67
35:DA:860:U:H5	35:DA:917:A:N7	1.93	0.67
12:AL:99:ARG:HH11	12:AL:99:ARG:HG3	1.59	0.67
55:BX:65:ARG:HH11	55:BX:65:ARG:HG2	1.60	0.67
49:DR:81:ASP:O	49:DR:85:PRO:HG2	1.94	0.67
35:DA:866:A:N3	35:DA:866:A:H2'	2.09	0.66
56:BY:96:ILE:HG22	56:BY:97:ARG:N	2.10	0.66
36:BB:7:G:H4'	50:BS:29:PHE:CD1	2.30	0.66
51:DT:28:VAL:HG13	51:DT:46:GLU:HA	1.77	0.66
57:BZ:127:LYS:N	57:BZ:162:GLU:O	2.29	0.66
57:BZ:165:VAL:HG12	57:BZ:166:SER:N	2.08	0.66
47:DP:38:GLN:HG3	47:DP:39:LYS:N	2.04	0.66
5:AE:101:ILE:CD1	5:AE:119:LEU:HD23	2.20	0.66
2:AB:215:LEU:O	2:AB:219:VAL:HG23	1.96	0.66
35:DA:2312:U:O2'	41:DG:71:THR:HG21	1.95	0.66
10:CJ:39:PRO:HB3	10:CJ:70:ARG:NH1	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1346:G:H2'	35:DA:1347:G:C5'	2.23	0.66
26:B1:45:ASN:HD21	35:BA:2090:G:N2	1.84	0.66
3:CC:3:ASN:N	3:CC:3:ASN:ND2	2.40	0.66
3:AC:34:LEU:HB2	3:AC:38:ARG:NH2	2.09	0.66
32:B7:12:ARG:HD3	32:B7:46:VAL:HG21	1.76	0.66
27:D2:2:LYS:CB	35:DA:97:C:H5''	2.25	0.66
35:DA:322:A:H3'	40:DF:169:ASN:ND2	2.09	0.66
2:AB:137:ARG:HD3	2:AB:138:LEU:N	2.09	0.66
27:D2:28:LYS:HE3	27:D2:56:GLN:OE1	1.95	0.66
26:D1:35:THR:HG21	35:DA:2080:G:OP1	1.95	0.66
7:CG:54:THR:HG23	7:CG:56:GLN:HG2	1.76	0.66
49:DR:87:TYR:O	49:DR:89:ASP:N	2.23	0.66
49:BR:18:LEU:HD11	49:BR:22:ARG:CZ	2.25	0.66
39:BE:36:ARG:NH2	39:BE:88:GLY:HA2	2.10	0.66
11:CK:12:ARG:HG2	11:CK:13:GLN:H	1.60	0.66
12:CL:48:ALA:O	12:CL:49:LEU:HD12	1.94	0.66
42:DH:8:PRO:HD3	42:DH:69:ARG:HD2	1.76	0.66
56:DY:96:ILE:HG22	56:DY:97:ARG:N	2.08	0.66
33:D8:25:MET:CG	47:DP:64:LYS:HB3	2.21	0.66
35:BA:905:U:C3'	35:BA:906:G:H5''	2.25	0.66
38:BD:32:SER:O	38:BD:36:PRO:HD3	1.95	0.66
8:AH:20:TYR:CE2	8:AH:75:ARG:HD2	2.30	0.66
41:BG:29:TRP:CE3	41:BG:29:TRP:HA	2.30	0.66
39:BE:55:ASN:HB2	39:BE:72:VAL:HG11	1.76	0.66
35:DA:141:A:C8	35:DA:1408:C:O2'	2.43	0.66
21:AU:6:ARG:HE	21:AU:15:ARG:NH2	1.93	0.66
35:DA:2206:G:N3	35:DA:2206:G:H3'	2.11	0.66
36:DB:80:U:H2'	36:DB:81:G:H21	1.60	0.66
22:AV:20:U:H5'	22:AV:21:A:OP2	1.95	0.66
19:AS:64:GLU:O	19:AS:66:MET:N	2.24	0.66
4:AD:13:ARG:HD2	4:AD:38:TYR:O	1.95	0.66
17:AQ:87:LYS:HB3	17:AQ:87:LYS:HZ2	1.60	0.66
47:DP:100:LEU:HD22	47:DP:100:LEU:N	2.10	0.66
1:CA:45:U:H6	1:CA:45:U:O5'	1.78	0.66
1:AA:434:U:H2'	1:AA:435:C:C6	2.29	0.66
42:BH:9:ILE:HG22	42:BH:51:ARG:HG3	1.76	0.66
41:BG:83:ARG:HG3	41:BG:83:ARG:HH11	1.61	0.66
49:DR:13:HIS:O	49:DR:14:SER:C	2.33	0.66
56:DY:84:ARG:HH12	56:DY:97:ARG:HB3	1.60	0.66
33:D8:59:LYS:CB	33:D8:59:LYS:HZ3	2.05	0.66
50:BS:68:GLN:HA	50:BS:71:ARG:HH12	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BZ:151:HIS:HB3	57:BZ:170:THR:HG23	1.77	0.66
1:AA:1152:A:H5''	10:AJ:13:HIS:ND1	2.10	0.66
50:BS:17:ARG:HA	50:BS:20:ARG:NH1	2.10	0.66
57:DZ:28:MET:HB3	57:DZ:88:PHE:HB2	1.77	0.66
16:AP:73:LEU:CD1	16:AP:73:LEU:H	2.07	0.66
35:DA:1114:G:H3'	35:DA:1115:G:H5''	1.76	0.66
54:BW:5:ALA:HB2	54:BW:54:ALA:HB2	1.78	0.66
35:BA:2732:G:H3'	35:BA:2733:A:C5'	2.26	0.66
15:CO:66:LEU:CD1	15:CO:66:LEU:H	2.07	0.66
35:BA:1887:C:C2'	35:BA:1888:G:H5''	2.24	0.66
35:BA:2761:G:H3'	35:BA:2762:G:H5''	1.75	0.66
1:AA:555:C:H2'	1:AA:556:C:H6	1.60	0.66
12:AL:48:ALA:O	12:AL:49:LEU:HD12	1.94	0.66
1:AA:1123:A:H5'	10:AJ:36:GLY:HA3	1.75	0.66
15:AO:29:VAL:HG12	15:AO:30:ALA:N	2.10	0.66
1:CA:585:G:P	17:CQ:37:LYS:HE2	2.35	0.66
1:AA:224:C:H2'	1:AA:225:C:C6	2.30	0.66
1:CA:839:U:H3'	1:CA:839:U:O2	1.94	0.66
16:AP:51:VAL:HG12	16:AP:52:ASP:N	2.09	0.66
35:BA:1490:A:O5'	35:BA:1490:A:H8	1.74	0.66
52:DU:92:ARG:CZ	53:DV:11:GLN:H	2.09	0.66
12:CL:72:HIS:CD2	12:CL:74:LEU:HB2	2.29	0.66
57:DZ:5:LEU:HA	57:DZ:6:LYS:NZ	2.11	0.66
2:AB:204:ASN:C	2:AB:204:ASN:HD22	1.97	0.66
1:CA:587:G:O2'	1:CA:588:G:OP2	2.09	0.66
50:DS:13:ARG:HG3	50:DS:14:VAL:N	2.06	0.66
46:DO:107:ARG:HH22	51:DT:35:LYS:HD2	1.60	0.66
1:CA:1107:C:C2'	1:CA:1108:G:H5''	2.25	0.66
47:DP:6:LEU:HG	47:DP:8:PRO:HD2	1.77	0.66
46:BO:102:VAL:HB	46:BO:106:LEU:HD12	1.77	0.66
4:CD:188:LEU:H	4:CD:188:LEU:HD12	1.59	0.66
49:DR:6:SER:OG	49:DR:7:GLY:N	2.29	0.66
3:CC:34:LEU:HB2	3:CC:38:ARG:NH2	2.10	0.66
35:BA:1040:C:H42	35:BA:1115:G:H1	1.42	0.66
41:BG:40:ASN:CB	41:BG:91:ARG:HB2	2.24	0.66
53:DV:18:LEU:HD13	53:DV:19:LYS:N	2.10	0.66
1:AA:1301:U:H2'	1:AA:1303:C:C5	2.29	0.66
35:BA:1021:A:C8	35:BA:1021:A:H3'	2.30	0.66
35:BA:2580:U:C5'	39:BE:131:ALA:H	2.06	0.66
1:CA:235:C:H2'	1:CA:236:G:H8	1.59	0.66
2:CB:137:ARG:HD3	2:CB:138:LEU:N	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:71:THR:HG22	41:BG:89:GLY:CA	2.26	0.66
30:B5:52:TYR:CD1	30:B5:53:ALA:N	2.63	0.66
15:AO:16:ALA:HB1	15:AO:21:ASP:HB3	1.75	0.66
35:DA:1481:U:H5'	35:DA:1482:G:OP2	1.95	0.66
36:DB:35:U:O2'	36:DB:36:C:H5'	1.95	0.66
7:CG:137:LYS:O	7:CG:141:VAL:HG23	1.96	0.66
35:DA:2593:U:H2'	35:DA:2594:C:H6	1.59	0.66
22:CV:59:A:H2'	22:CV:60:U:H5'	1.77	0.66
1:AA:444:C:H2'	1:AA:445:G:H8	1.61	0.66
24:AY:33:LYS:O	24:AY:35:ASN:N	2.29	0.66
56:BY:81:LYS:HB3	56:BY:96:ILE:CG2	2.25	0.66
51:BT:28:VAL:HG21	51:BT:46:GLU:OE2	1.95	0.66
51:DT:13:ARG:CZ	51:DT:13:ARG:HA	2.25	0.66
35:BA:2684:U:P	51:BT:53:ARG:HE	2.18	0.66
41:BG:117:PHE:CE1	41:BG:119:GLY:HA2	2.30	0.66
39:BE:75:VAL:C	39:BE:77:ILE:H	1.98	0.66
26:D1:5:CYS:SG	26:D1:8:SER:OG	2.54	0.66
25:D0:23:VAL:HA	25:D0:38:VAL:HG22	1.78	0.66
10:CJ:54:PHE:CE1	10:CJ:55:LYS:HE3	2.31	0.66
29:D4:7:PRO:HG2	41:DG:65:GLY:O	1.95	0.66
36:DB:55:U:H2'	36:DB:56:G:C8	2.31	0.66
9:AI:98:PRO:C	9:AI:99:LEU:HD22	2.15	0.66
35:BA:1278:A:O2'	35:BA:1279:G:H5'	1.94	0.66
32:B7:7:PRO:HB2	35:BA:1309:G:H4'	1.78	0.66
50:BS:56:LEU:O	50:BS:56:LEU:HD23	1.95	0.66
35:DA:1332:G:N2	35:DA:1609:A:O2'	2.29	0.66
35:BA:89:G:H3'	35:BA:90:U:H5'	1.78	0.66
18:CR:38:GLU:OE2	18:CR:41:LYS:HD3	1.94	0.66
53:DV:98:GLU:OE1	53:DV:100:ARG:HG2	1.96	0.66
1:CA:607:A:C2	16:CP:31:LYS:HG3	2.30	0.66
12:CL:21:VAL:HG13	12:CL:95:TYR:CE2	2.30	0.66
35:BA:1719:G:O2'	35:BA:1720:U:H5'	1.95	0.66
24:AY:80:GLY:C	24:AY:81:ASN:HD22	1.99	0.66
1:CA:545:C:H5''	4:CD:72:GLU:HG2	1.78	0.66
35:DA:2728:U:O2'	35:DA:2729:G:H5'	1.95	0.66
12:CL:37:VAL:O	12:CL:38:ARG:HG3	1.94	0.66
48:DQ:140:ALA:O	48:DQ:141:GLN:HB2	1.96	0.66
15:CO:29:VAL:HG12	15:CO:30:ALA:N	2.09	0.66
42:BH:7:LEU:C	42:BH:69:ARG:HD2	2.16	0.66
35:DA:1913:A:OP1	35:DA:1914:C:P	2.53	0.66
50:BS:69:VAL:O	50:BS:72:ALA:HB3	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DG:105:LYS:NZ	41:DG:142:PRO:HG2	2.10	0.66
15:AO:82:ILE:HG12	15:AO:87:ILE:CG1	2.24	0.66
48:BQ:133:ARG:NH1	48:BQ:133:ARG:HB2	2.06	0.66
35:BA:146:G:H5'	35:BA:146:G:C8	2.29	0.66
10:AJ:34:VAL:CG1	10:AJ:35:SER:H	2.08	0.66
41:BG:48:GLU:HG3	41:BG:49:ASP:OD1	1.96	0.66
35:DA:2853:C:H2'	35:DA:2854:G:C8	2.28	0.66
37:DC:44:HIS:HB2	37:DC:211:SER:O	1.96	0.66
11:CK:124:LYS:HD2	11:CK:125:PHE:CE1	2.31	0.66
1:AA:1107:C:C3'	1:AA:1108:G:H5''	2.26	0.66
9:CI:98:PRO:C	9:CI:99:LEU:HD22	2.15	0.66
55:BX:30:VAL:HG21	55:BX:39:ILE:HD11	1.75	0.66
35:BA:2790:A:H2'	35:BA:2893:G:O2'	1.96	0.66
1:AA:1165:C:H2'	1:AA:1166:G:C8	2.31	0.66
8:CH:11:THR:HG22	8:CH:15:ASN:HD21	1.61	0.66
17:CQ:45:HIS:CD2	17:CQ:47:PRO:HD3	2.31	0.66
30:B5:50:GLY:O	30:B5:51:TYR:HB2	1.96	0.66
49:DR:81:ASP:HB2	49:DR:82:GLU:OE2	1.96	0.66
49:BR:38:VAL:HB	49:BR:39:PRO:HD3	1.76	0.66
1:AA:59:A:C5'	1:AA:60:A:H5''	2.26	0.66
35:BA:2408:U:H2'	35:BA:2409:G:H8	1.59	0.66
2:CB:34:ALA:HB1	2:CB:36:ARG:HH11	1.59	0.66
11:CK:38:ASN:N	11:CK:38:ASN:HD22	1.91	0.66
35:DA:2061:G:H5''	35:DA:2503:A:C2	2.31	0.66
10:CJ:50:ILE:HG22	10:CJ:60:ARG:HD3	1.78	0.66
1:AA:1442:G:N7	1:AA:1442(B):A:H2	1.94	0.66
35:BA:2377:A:H5''	50:BS:107:GLU:OE2	1.96	0.66
51:DT:23:ARG:NH2	51:DT:120:ARG:HD3	2.10	0.66
41:DG:52:ILE:CD1	41:DG:52:ILE:H	2.08	0.66
57:DZ:4:ARG:CG	57:DZ:58:VAL:HB	2.23	0.66
35:BA:2469:A:H2	35:BA:2481:G:H21	1.42	0.66
13:AM:3:ARG:HH21	13:AM:7:VAL:HG22	1.60	0.66
11:AK:99:GLN:CG	11:AK:105:VAL:HG11	2.26	0.66
25:D0:23:VAL:HG21	35:DA:857:C:H4'	1.77	0.66
4:AD:132:ARG:HH11	4:AD:132:ARG:HG2	1.60	0.66
4:AD:19:LEU:HB3	4:AD:21:LEU:HG	1.78	0.66
45:BN:36:GLY:HA3	45:BN:48:MET:CE	2.24	0.66
53:BV:35:LEU:C	53:BV:37:VAL:H	1.99	0.66
9:CI:112:LYS:HA	9:CI:119:ALA:HB2	1.75	0.66
1:CA:1250:A:H4'	9:CI:68:GLY:N	2.09	0.66
27:B2:65:ASN:O	27:B2:69:ARG:HB2	1.94	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DF:160:ASN:C	40:DF:160:ASN:HD22	1.98	0.66
22:CW:26:G:H5''	22:CW:27:U:H5	1.58	0.66
35:BA:1332:G:N2	35:BA:1609:A:O2'	2.29	0.66
35:BA:17:G:H2'	35:BA:18:C:C6	2.31	0.66
50:DS:56:LEU:O	50:DS:56:LEU:HD23	1.95	0.66
14:CN:26:ARG:HG3	14:CN:39:LEU:HD21	1.77	0.66
35:BA:2222:G:O2'	35:BA:2223:G:H5'	1.96	0.66
35:DA:1907:G:O2'	35:DA:1908:C:H5'	1.95	0.66
56:DY:95:LYS:NZ	56:DY:99:CYS:N	2.41	0.66
47:DP:23:PRO:CB	47:DP:33:ARG:HD2	2.20	0.66
57:BZ:113:ALA:HB1	57:BZ:146:ILE:HD11	1.77	0.66
47:DP:40:SER:HB3	47:DP:41:ARG:HH21	1.61	0.66
35:DA:2305:A:H62	41:DG:42:GLY:HA3	1.61	0.66
19:CS:33:THR:HG22	19:CS:34:TRP:N	2.11	0.66
48:DQ:134:ARG:HG2	57:DZ:122:ARG:HH12	1.60	0.66
24:CY:6:GLY:N	24:CY:7:HIS:CE1	2.63	0.66
42:DH:154:PRO:O	42:DH:156:ALA:N	2.28	0.66
45:DN:134:ARG:O	45:DN:136:GLU:N	2.29	0.66
51:BT:32:TYR:HD2	51:BT:81:PRO:O	1.78	0.66
42:BH:154:PRO:O	42:BH:156:ALA:N	2.28	0.66
35:DA:962:G:O2'	35:DA:963:U:H5'	1.95	0.66
4:CD:19:LEU:HB3	4:CD:21:LEU:HG	1.78	0.66
18:CR:53:ARG:HH21	18:CR:59:SER:CA	2.06	0.66
35:DA:1718:G:H5'	35:DA:1718:G:H8	1.60	0.66
41:BG:41:GLN:HG2	41:BG:155:MET:CB	2.26	0.66
35:BA:80:G:O2'	35:BA:81:G:H5'	1.96	0.66
46:BO:87:ILE:HG21	46:BO:91:LEU:HA	1.77	0.66
47:DP:75:ILE:HD13	47:DP:77:ARG:NH1	2.10	0.66
25:D0:51:VAL:HG22	25:D0:81:VAL:HG23	1.76	0.66
39:BE:101:ARG:HH11	39:BE:171:GLU:N	1.93	0.66
39:BE:69:LYS:NZ	39:BE:89:ASP:HA	2.11	0.66
35:BA:557:U:H2'	35:BA:558:G:H8	1.60	0.66
42:DH:70:THR:HG22	42:DH:74:ASN:ND2	2.11	0.66
37:DC:46:LYS:HE3	37:DC:171:ILE:O	1.96	0.66
1:AA:328:C:H4'	1:AA:329:A:H5'	1.78	0.66
4:AD:184:LYS:NZ	4:AD:184:LYS:HB3	2.11	0.66
35:BA:2182:G:H2'	35:BA:2183:C:H6	1.60	0.66
1:AA:1492:A:H4'	1:AA:1493:A3P:O4P	1.96	0.66
56:BY:19:LYS:HD2	56:BY:20:TYR:CE1	2.30	0.66
35:DA:2491:U:H4'	35:DA:2570:G:OP1	1.96	0.66
57:DZ:69:THR:HG22	57:DZ:90:VAL:HG22	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:591:U:H2'	1:CA:592:G:H8	1.61	0.66
47:BP:6:LEU:O	47:BP:10:PRO:HB3	1.95	0.66
1:CA:1107:C:C3'	1:CA:1108:G:H5''	2.26	0.66
43:DI:83:ALA:HB2	43:DI:88:ILE:HA	1.77	0.66
41:BG:14:GLU:O	41:BG:18:GLU:HB2	1.95	0.66
1:CA:1499:A:H1'	1:CA:1520:G:H5'	1.76	0.66
21:AU:2:GLY:C	21:AU:4:GLY:H	1.99	0.66
35:BA:2653:U:H3'	35:BA:2654:A:H8	1.61	0.66
3:AC:33:LEU:HD11	14:AN:53:LEU:HD23	1.76	0.66
42:BH:106:THR:HG22	42:BH:112:PRO:HB3	1.77	0.66
37:BC:46:LYS:HE3	37:BC:171:ILE:O	1.96	0.66
9:AI:126:SER:O	9:AI:127:LYS:HB3	1.95	0.66
3:AC:120:VAL:HA	3:AC:123:GLN:HE21	1.60	0.66
35:DA:2542:A:N3	35:DA:2542:A:H5''	2.11	0.66
49:DR:11:ASN:N	49:DR:11:ASN:OD1	2.28	0.66
7:AG:49:ILE:HA	7:AG:52:GLU:CG	2.26	0.66
9:AI:3:GLN:HG2	9:AI:20:ARG:HG2	1.78	0.66
1:AA:807:A:H2'	1:AA:808:C:C6	2.31	0.66
42:DH:41:MET:HA	42:DH:41:MET:CE	2.26	0.66
23:AX:13:A:C3'	23:AX:14:A:C5'	2.74	0.66
35:BA:587:C:H2'	47:BP:33:ARG:NH2	2.11	0.66
53:BV:49:THR:HB	53:BV:50:PRO:CD	2.19	0.66
1:AA:1442(A):G:H2'	51:BT:118:ARG:HH11	1.60	0.66
56:BY:14:LEU:HD12	56:BY:15:VAL:H	1.60	0.66
56:BY:66:PRO:O	56:BY:67:LEU:HB3	1.96	0.66
10:AJ:39:PRO:HB3	10:AJ:70:ARG:HH11	1.60	0.66
8:CH:63:LEU:HB2	8:CH:65:TYR:HE1	1.60	0.66
33:B8:34:TRP:HA	35:BA:2420:C:OP1	1.96	0.66
39:BE:105:THR:O	39:BE:196:VAL:HG23	1.96	0.66
38:BD:15:PHE:O	38:BD:205:VAL:HG11	1.95	0.66
47:BP:105:LEU:H	47:BP:105:LEU:HD12	1.61	0.66
10:AJ:80:LYS:O	10:AJ:84:GLN:HG3	1.96	0.66
39:DE:48:GLN:HE22	39:DE:64:LYS:HZ3	1.42	0.66
39:BE:51:PHE:HD1	39:BE:52:LEU:N	1.94	0.66
35:BA:925:C:O2'	35:BA:926:A:H5''	1.95	0.66
26:D1:67:ILE:O	26:D1:70:VAL:HG22	1.96	0.66
37:BC:82:LYS:HZ2	37:BC:86:ALA:HB1	1.60	0.66
49:DR:98:LEU:HB2	49:DR:113:LEU:CD2	2.25	0.66
9:AI:111:ARG:CG	9:AI:112:LYS:H	2.09	0.66
27:D2:69:ARG:HG3	27:D2:69:ARG:HH11	1.60	0.66
35:DA:1021:A:C8	35:DA:1021:A:H3'	2.31	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:141:A:C8	35:BA:1408:C:O2'	2.43	0.66
3:AC:179:ARG:O	3:AC:206:GLU:HG3	1.96	0.66
1:AA:1226:C:N4	13:AM:104:ARG:HD2	2.10	0.66
1:CA:839:U:C2'	1:CA:839:U:O2	2.44	0.66
46:BO:71:ARG:HH11	46:BO:71:ARG:HG3	1.61	0.66
1:CA:1385:G:O2'	1:CA:1386:G:H5'	1.96	0.66
42:BH:70:THR:HG22	42:BH:74:ASN:ND2	2.11	0.66
35:BA:2792:G:H1	35:BA:2804:C:H42	1.44	0.66
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.31	0.66
52:BU:53:ARG:HH11	52:BU:53:ARG:HG3	1.61	0.66
39:BE:9:VAL:HG13	39:BE:25:VAL:O	1.95	0.66
35:BA:1805:U:O2	38:BD:50:THR:HB	1.96	0.66
12:CL:99:ARG:HH11	12:CL:99:ARG:HG3	1.61	0.66
42:DH:9:ILE:HG22	42:DH:51:ARG:HG3	1.77	0.65
24:AY:55:ASP:CB	24:AY:58:ALA:HB3	2.25	0.65
24:AY:57:GLN:HG2	35:BA:1913:A:N3	2.09	0.65
51:DT:28:VAL:HG22	51:DT:46:GLU:CA	2.25	0.65
29:B4:52:THR:HG22	29:B4:53:GLU:N	2.05	0.65
50:DS:17:ARG:HA	50:DS:20:ARG:NH1	2.12	0.65
13:CM:40:ASN:ND2	13:CM:43:THR:HG23	2.11	0.65
35:DA:1592:C:O2'	35:DA:1593:G:H5''	1.96	0.65
47:DP:7:ARG:HD2	47:DP:7:ARG:N	2.11	0.65
1:CA:624:C:H2'	1:CA:625:G:C8	2.31	0.65
3:AC:35:GLU:HA	3:AC:38:ARG:NE	2.12	0.65
35:DA:2115:G:N2	35:DA:2118:U:H5''	2.10	0.65
35:BA:2115:G:N2	35:BA:2118:U:H5''	2.10	0.65
41:BG:138:GLN:HE21	41:BG:152:LEU:HA	1.59	0.65
1:AA:728:A:H2'	1:AA:729:A:H8	1.59	0.65
27:B2:39:ALA:HA	27:B2:45:SER:HB3	1.78	0.65
2:CB:114:ARG:HD3	2:CB:114:ARG:O	1.96	0.65
38:DD:8:PRO:HG3	38:DD:14:ARG:HB2	1.76	0.65
35:BA:1722:A:O2'	35:BA:1739:U:H5''	1.96	0.65
1:AA:106:C:H2'	1:AA:107:G:H8	1.61	0.65
19:CS:22:LEU:HD13	19:CS:27:GLU:HB2	1.77	0.65
1:AA:392:G:H2'	1:AA:393:A:H8	1.59	0.65
36:BB:35:U:O2'	36:BB:36:C:H5'	1.95	0.65
7:AG:6:ARG:HB2	7:AG:6:ARG:NH1	2.10	0.65
44:DJ:62:UNK:HA	44:DJ:65:UNK:O	1.96	0.65
39:DE:36:ARG:NH2	39:DE:88:GLY:HA2	2.11	0.65
10:CJ:50:ILE:CD1	10:CJ:50:ILE:H	2.05	0.65
1:CA:34:C:H2'	1:CA:35:G:H5''	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:84:GLU:HB3	2:CB:219:VAL:CG2	2.26	0.65
2:AB:44:LEU:HD22	2:AB:44:LEU:N	2.12	0.65
6:CF:69:GLU:O	6:CF:72:VAL:HG12	1.96	0.65
9:CI:27:THR:OG1	9:CI:32:ASP:HA	1.95	0.65
2:CB:11:LEU:HD12	2:CB:217:ARG:NH1	2.11	0.65
41:BG:112:PRO:HB2	41:BG:113:ARG:HG3	1.77	0.65
27:B2:10:LEU:HB3	27:B2:14:ARG:NH1	2.10	0.65
41:BG:41:GLN:HB3	41:BG:43:LEU:HD13	1.77	0.65
53:BV:19:LYS:HB3	53:BV:94:LEU:O	1.96	0.65
35:DA:518:G:H4'	54:DW:18:ARG:HH12	1.61	0.65
3:AC:187:ALA:C	3:AC:188:LEU:HD22	2.17	0.65
38:BD:242:ARG:HH11	38:BD:242:ARG:HG2	1.60	0.65
12:CL:7:LEU:HD11	12:CL:12:ARG:HE	1.60	0.65
9:CI:10:ARG:HH22	9:CI:108:VAL:HA	1.61	0.65
35:BA:2853:C:H2'	35:BA:2854:G:C8	2.29	0.65
45:DN:17:ASP:OD2	45:DN:19:GLU:HG3	1.96	0.65
35:DA:1564:C:O2'	35:DA:1565:C:H5'	1.96	0.65
45:DN:40:PRO:HB3	52:DU:68:ALA:HB2	1.78	0.65
1:CA:1380:U:N3	7:CG:3:ARG:HD3	2.11	0.65
22:AW:19:G:C8	22:AW:57:A:H2	2.14	0.65
47:BP:133:SER:HA	47:BP:136:GLU:HG2	1.77	0.65
22:CW:13:C:H2'	22:CW:14:A:H8	1.60	0.65
40:BF:82:ILE:HG13	40:BF:82:ILE:O	1.95	0.65
1:AA:240:C:H2'	1:AA:241:C:C6	2.32	0.65
42:DH:7:LEU:C	42:DH:69:ARG:HD2	2.16	0.65
35:DA:90:U:H1'	35:DA:92:A:N7	2.10	0.65
35:DA:903:C:O2'	35:DA:904:C:H5''	1.97	0.65
40:DF:10:PRO:O	40:DF:11:VAL:HG13	1.97	0.65
38:BD:13:ARG:NH1	38:BD:16:MET:SD	2.68	0.65
47:BP:7:ARG:HH11	47:BP:7:ARG:N	1.94	0.65
35:DA:2722:G:H2'	35:DA:2723:C:H6	1.61	0.65
50:DS:99:LYS:O	50:DS:101:LEU:N	2.30	0.65
38:DD:44:ASN:OD1	38:DD:44:ASN:N	2.28	0.65
39:BE:77:ILE:HG22	39:BE:78:LEU:CD1	2.26	0.65
1:AA:1143:G:H2'	1:AA:1144:G:C8	2.30	0.65
26:D1:64:ALA:HA	26:D1:67:ILE:HG13	1.78	0.65
38:BD:44:ASN:N	38:BD:44:ASN:OD1	2.30	0.65
41:BG:57:ALA:O	41:BG:68:PRO:HG3	1.96	0.65
29:B4:6:HIS:HB3	41:BG:67:LYS:HE3	1.77	0.65
53:DV:35:LEU:O	53:DV:37:VAL:N	2.29	0.65
5:AE:148:VAL:HG21	8:AH:107:LEU:HD13	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1051:C:N3	1:CA:1207:G:N2	2.43	0.65
35:DA:1826:G:H4'	38:DD:242:ARG:NE	2.12	0.65
8:AH:11:THR:HG22	8:AH:15:ASN:HD21	1.61	0.65
1:CA:421:U:O2	1:CA:421:U:H2'	1.95	0.65
38:BD:30:GLU:HG3	38:BD:63:ARG:NH2	2.12	0.65
32:D7:10:ARG:HH11	32:D7:14:LYS:HE3	1.60	0.65
1:AA:950:U:H2'	1:AA:951:G:H8	1.61	0.65
39:DE:11:MET:HB2	39:DE:23:VAL:O	1.95	0.65
35:DA:185:U:H4'	35:DA:218:A:H4'	1.78	0.65
20:CT:54:LYS:HZ2	20:CT:54:LYS:HB2	1.62	0.65
15:CO:10:LYS:HE2	15:CO:10:LYS:HA	1.78	0.65
51:DT:14:TYR:HD1	51:DT:14:TYR:H	1.43	0.65
2:AB:155:LEU:HD11	2:AB:159:PRO:HD3	1.76	0.65
11:CK:54:ARG:HH12	22:CW:40:C:H5'	1.61	0.65
1:CA:1060:C:H5	3:CC:2:GLY:CA	1.98	0.65
40:BF:10:PRO:O	40:BF:11:VAL:HG13	1.96	0.65
35:BA:997:G:OP1	52:BU:93:LYS:HD3	1.97	0.65
53:BV:38:LEU:HD22	53:BV:52:VAL:HG11	1.78	0.65
40:DF:2:LYS:HB2	40:DF:24:LEU:CD1	2.27	0.65
2:CB:215:LEU:O	2:CB:219:VAL:HG23	1.95	0.65
1:AA:1014:A:H4'	19:AS:14:HIS:ND1	2.12	0.65
38:DD:17:THR:O	38:DD:204:ILE:HG23	1.95	0.65
35:DA:1592:C:H2'	35:DA:1593:G:C5'	2.26	0.65
1:CA:227:G:H2'	1:CA:228:A:C8	2.31	0.65
35:BA:2801(A):A:H5'	35:BA:2802:G:C8	2.32	0.65
1:CA:1347:G:OP2	9:CI:107:ARG:HB3	1.96	0.65
21:AU:6:ARG:HG2	21:AU:15:ARG:HH12	1.60	0.65
35:DA:1210:A:H5''	35:DA:1212:G:O4'	1.95	0.65
49:BR:57:ARG:O	49:BR:59:ASP:N	2.28	0.65
39:DE:183:LEU:HD11	51:DT:11:GLU:OE2	1.97	0.65
39:DE:116:VAL:O	39:DE:117:MET:CB	2.43	0.65
42:BH:68:THR:C	42:BH:70:THR:H	1.99	0.65
22:CW:13:C:H2'	22:CW:14:A:C8	2.31	0.65
1:CA:437:U:H2'	1:CA:438:G:O4'	1.96	0.65
41:BG:145:THR:OG1	41:BG:148:MET:HB2	1.96	0.65
4:AD:57:ARG:HB3	4:AD:206:PHE:HB2	1.78	0.65
38:BD:240:ALA:HB1	38:BD:241:PRO:HD2	1.78	0.65
3:CC:120:VAL:HA	3:CC:123:GLN:HE21	1.60	0.65
1:CA:11:G:C2'	1:CA:12:U:C5'	2.73	0.65
47:BP:29:LYS:HB3	47:BP:34:GLY:H	1.61	0.65
1:AA:626:U:H2'	1:AA:627:G:C8	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DZ:108:PRO:HD3	57:DZ:141:VAL:O	1.97	0.65
40:DF:1:MET:C	40:DF:3:GLU:H	1.98	0.65
4:AD:205:GLU:OE1	5:AE:100:VAL:HG22	1.97	0.65
35:DA:2315:G:H21	41:DG:128:ARG:NH1	1.95	0.65
19:CS:36:ARG:HB2	19:CS:72:GLY:H	1.62	0.65
1:CA:1124:G:H4'	10:CJ:35:SER:OG	1.96	0.65
2:AB:52:GLU:HG2	2:AB:56:ARG:NH1	2.07	0.65
47:DP:7:ARG:HH11	47:DP:7:ARG:N	1.94	0.65
10:CJ:44:VAL:HG22	10:CJ:66:ARG:HG2	1.77	0.65
32:D7:8:ASN:ND2	32:D7:8:ASN:C	2.50	0.65
50:DS:87:PHE:O	50:DS:88:ASP:HB2	1.96	0.65
29:B4:28:LYS:HG3	29:B4:30:GLU:HB2	1.77	0.65
53:DV:35:LEU:C	53:DV:37:VAL:H	2.00	0.65
43:DI:61:ARG:O	43:DI:65:ALA:HB3	1.97	0.65
1:CA:1187:G:H4'	9:CI:111:ARG:NH1	2.12	0.65
35:DA:2580:U:C5'	39:DE:131:ALA:H	2.10	0.65
49:BR:81:ASP:HB2	49:BR:82:GLU:OE2	1.97	0.65
1:AA:764:C:H2'	1:AA:765:G:H8	1.61	0.65
35:DA:2653:U:H3'	35:DA:2654:A:H8	1.59	0.65
22:CW:63:G:H2'	22:CW:64:G:H8	1.62	0.65
57:BZ:53:ILE:HG22	57:BZ:71:VAL:O	1.96	0.65
7:CG:49:ILE:HA	7:CG:52:GLU:CG	2.25	0.65
7:AG:137:LYS:O	7:AG:141:VAL:HG23	1.96	0.65
26:B1:35:THR:HG21	35:BA:2080:G:OP1	1.96	0.65
35:DA:2182:G:H2'	35:DA:2183:C:H6	1.59	0.65
35:DA:1925:C:O2'	35:DA:1926:U:H5'	1.96	0.65
41:BG:165:THR:OG1	41:BG:168:GLU:HG2	1.96	0.65
47:DP:133:SER:HA	47:DP:136:GLU:HG2	1.78	0.65
23:AX:21:C:C2'	23:AX:22:A:H2	2.09	0.65
42:BH:8:PRO:O	42:BH:9:ILE:HG12	1.97	0.65
33:B8:13:ARG:HD2	47:BP:61:ARG:CD	2.26	0.65
56:DY:66:PRO:O	56:DY:67:LEU:HB3	1.95	0.65
51:BT:117:ASP:O	51:BT:121:ILE:HG13	1.97	0.65
36:BB:28:C:H2'	36:BB:29:A:C8	2.31	0.65
35:BA:876:C:H2'	35:BA:877:U:O4'	1.97	0.65
2:CB:100:GLY:O	2:CB:104:ASN:N	2.22	0.65
1:CA:1152:A:H2'	1:CA:1153:C:H6	1.61	0.65
1:CA:1104:G:H2'	1:CA:1105:A:C8	2.30	0.65
35:BA:1174:A:OP2	35:BA:1175:U:H5''	1.97	0.65
12:CL:41:THR:HG23	24:CY:7:HIS:CB	2.27	0.65
42:DH:158:HIS:CD2	42:DH:170:ARG:HA	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BB:55:U:H2'	36:BB:56:G:C8	2.31	0.65
39:DE:4:ILE:HD13	39:DE:28:ALA:HB1	1.77	0.65
4:CD:30:LYS:C	4:CD:32:ALA:H	2.00	0.65
22:CV:51:C:H6	22:CV:51:C:C5'	2.10	0.65
18:AR:71:LYS:HA	18:AR:74:ARG:HG3	1.79	0.65
35:DA:184:C:H2'	35:DA:185:U:C6	2.31	0.65
31:D6:13:CYS:O	31:D6:21:TYR:HA	1.96	0.65
1:AA:775:G:O2'	1:AA:776:G:H5'	1.96	0.65
35:DA:914:C:H2'	35:DA:915:C:H5'	1.78	0.65
1:CA:1508:G:H2'	1:CA:1509:C:C6	2.31	0.65
51:BT:23:ARG:NH2	51:BT:120:ARG:HD3	2.11	0.65
33:D8:49:VAL:HG23	33:D8:53:PRO:CD	2.20	0.65
33:B8:50:LEU:O	33:B8:51:ALA:HB2	1.96	0.65
30:D5:3:LYS:HB2	35:DA:747:U:H5	1.62	0.65
41:DG:40:ASN:O	41:DG:155:MET:HB2	1.96	0.65
10:AJ:49:VAL:O	10:AJ:60:ARG:HB2	1.97	0.65
47:BP:7:ARG:O	47:BP:10:PRO:HG3	1.97	0.65
2:AB:11:LEU:HD12	2:AB:217:ARG:NH1	2.12	0.65
6:CF:1:MET:HA	6:CF:67:MET:O	1.96	0.65
13:AM:40:ASN:ND2	13:AM:43:THR:HG23	2.11	0.65
41:BG:32:PRO:HB2	41:BG:172:LEU:HD22	1.78	0.65
25:D0:36:ILE:HD13	25:D0:58:THR:HG23	1.78	0.65
36:BB:42:C:H4'	41:BG:67:LYS:CG	2.26	0.65
54:DW:12:ILE:HD13	54:DW:17:VAL:HG22	1.78	0.65
4:AD:25:ARG:NH1	4:AD:30:LYS:HB3	2.12	0.65
9:AI:10:ARG:HH22	9:AI:108:VAL:HA	1.61	0.65
12:CL:2:PRO:O	12:CL:7:LEU:HD23	1.95	0.65
35:BA:1171:G:C8	35:BA:1173:G:H1'	2.31	0.65
35:DA:2790:A:H2'	35:DA:2893:G:O2'	1.96	0.65
25:D0:51:VAL:N	25:D0:62:LEU:HD12	2.10	0.65
45:BN:20:GLY:O	45:BN:61:ARG:HG2	1.96	0.65
35:BA:1453:U:H5'	49:BR:63:ARG:HE	1.62	0.65
6:AF:23:LYS:O	6:AF:27:GLN:HG2	1.96	0.65
27:B2:3:LEU:HD12	27:B2:7:ARG:HH21	1.62	0.65
7:CG:6:ARG:HB2	7:CG:6:ARG:NH1	2.12	0.65
24:AY:45:GLY:O	24:AY:48:GLY:N	2.30	0.65
31:B6:13:CYS:O	31:B6:21:TYR:HA	1.96	0.65
51:BT:27:THR:OG1	51:BT:28:VAL:N	2.27	0.65
51:BT:28:VAL:HG22	51:BT:46:GLU:CA	2.24	0.65
40:DF:2:LYS:HB2	40:DF:24:LEU:HD11	1.78	0.65
52:DU:92:ARG:HB3	53:DV:11:GLN:NE2	2.12	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:572:A:H5''	1:CA:917:G:H4'	1.78	0.65
2:CB:71:VAL:CG2	2:CB:164:VAL:HG22	2.27	0.65
2:CB:22:LYS:HZ3	2:CB:22:LYS:HA	1.62	0.65
2:AB:101:MET:HA	2:AB:108:ILE:HG21	1.79	0.65
12:CL:41:THR:HG23	24:CY:7:HIS:HB3	1.77	0.65
22:CW:9:G:N3	22:CW:45:G:H2'	2.12	0.65
39:DE:4:ILE:CD1	39:DE:28:ALA:HB1	2.27	0.65
3:CC:35:GLU:HA	3:CC:38:ARG:NE	2.11	0.65
35:BA:2801(A):A:O4'	35:BA:2802:G:H2'	1.97	0.65
35:DA:2801(A):A:H5'	35:DA:2802:G:C8	2.32	0.65
35:DA:17:G:H2'	35:DA:18:C:C6	2.31	0.65
8:AH:116:LYS:HE3	8:AH:116:LYS:HA	1.78	0.65
35:BA:2302:G:H2'	35:BA:2303:G:H5'	1.78	0.65
49:BR:85:PRO:O	49:BR:87:TYR:N	2.29	0.65
38:DD:65:ILE:O	38:DD:65:ILE:HD13	1.97	0.65
20:AT:49:ALA:O	20:AT:53:LEU:HD13	1.97	0.65
14:AN:26:ARG:HG3	14:AN:39:LEU:HD21	1.78	0.65
42:DH:68:THR:C	42:DH:70:THR:H	1.99	0.65
30:B5:57:VAL:HG23	30:B5:58:LEU:N	2.12	0.65
7:AG:132:GLY:O	7:AG:136:LYS:HG2	1.96	0.65
56:BY:89:PHE:C	56:BY:90:LEU:HD23	2.17	0.65
54:DW:78:GLU:OE2	54:DW:99:ARG:HD2	1.97	0.65
35:BA:484:C:H2'	35:BA:485:C:H6	1.60	0.65
36:DB:28:C:H2'	36:DB:29:A:C8	2.32	0.65
1:CA:328:C:H4'	1:CA:329:A:H5'	1.78	0.65
3:AC:162:GLN:HB2	23:AX:23:A:N6	2.10	0.65
1:CA:37:U:N3	1:CA:38:G:C8	2.63	0.65
35:BA:1490:A:OP2	35:BA:1490:A:N7	2.29	0.65
14:CN:41:ARG:HE	14:CN:42:ILE:HD11	1.62	0.65
35:DA:833:U:H2'	35:DA:834:C:C6	2.32	0.65
1:CA:4:U:C5'	4:CD:86:LYS:CD	2.71	0.65
1:CA:17:U:C1'	1:CA:1080:A:H1'	2.27	0.65
5:AE:102:ALA:HB1	5:AE:106:PRO:CG	2.27	0.65
2:AB:49:GLU:O	2:AB:52:GLU:HB3	1.96	0.65
3:AC:20:SER:O	14:AN:54:PRO:HG3	1.97	0.65
4:CD:170:VAL:HG12	4:CD:174:LEU:HB2	1.79	0.65
1:CA:1130:A:H1'	1:CA:1146:A:C2	2.32	0.65
39:BE:6:GLY:HA2	39:BE:51:PHE:CE2	2.32	0.65
35:DA:2732:G:H3'	35:DA:2733:A:C5'	2.27	0.65
17:CQ:7:THR:CG2	17:CQ:58:GLU:HG2	2.26	0.65
38:DD:186:HIS:CD2	38:DD:188:GLU:H	2.14	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BC:44:HIS:HB2	37:BC:211:SER:O	1.96	0.65
55:DX:30:VAL:HG21	55:DX:39:ILE:CD1	2.27	0.65
35:BA:621:A:H2'	35:BA:622:G:H5'	1.79	0.65
1:AA:377:G:OP1	16:AP:3:LYS:HD2	1.97	0.65
45:DN:20:GLY:O	45:DN:61:ARG:HG2	1.97	0.65
1:CA:1399:C:H4'	1:CA:1400:C:C5'	2.26	0.65
55:DX:29:TRP:CZ3	55:DX:78:LYS:HB3	2.31	0.65
35:DA:1805:U:O2	38:DD:50:THR:HB	1.96	0.65
40:DF:65:TRP:CZ2	40:DF:75:HIS:HD2	2.15	0.65
1:CA:775:G:O2'	1:CA:776:G:H5'	1.96	0.65
20:CT:49:ALA:O	20:CT:53:LEU:HD13	1.97	0.65
20:CT:53:LEU:HD12	20:CT:53:LEU:H	1.60	0.65
1:AA:1349:A:H2'	1:AA:1350:A:O4'	1.96	0.65
24:AY:74:SER:CA	24:AY:75:PHE:HD1	2.10	0.65
19:CS:5:LEU:HD13	19:CS:7:LYS:H	1.60	0.65
57:DZ:56:VAL:HG13	57:DZ:69:THR:O	1.96	0.65
5:AE:110:LEU:O	5:AE:115:VAL:HB	1.97	0.65
19:CS:15:LEU:O	19:CS:19:VAL:HG23	1.97	0.65
41:BG:5:VAL:HG12	41:BG:6:ALA:H	1.62	0.65
42:BH:158:HIS:CD2	42:BH:170:ARG:HA	2.32	0.65
57:DZ:30:ASN:HA	57:DZ:89:PHE:HE2	1.62	0.65
35:BA:1718:G:H8	35:BA:1718:G:H5'	1.60	0.65
10:AJ:54:PHE:CE1	10:AJ:55:LYS:HE3	2.32	0.65
36:DB:56:G:H4'	36:DB:57:A:C8	2.32	0.65
54:BW:1:MET:HE3	54:BW:2:GLU:H	1.60	0.65
1:CA:1434:A:H2'	1:CA:1435:G:O4'	1.97	0.65
35:DA:1789:A:OP1	38:DD:222:ARG:HG3	1.97	0.65
20:CT:50:GLU:HB2	20:CT:99:LEU:HD13	1.78	0.65
1:AA:373:A:O2'	1:AA:374:A:H5'	1.97	0.65
32:B7:43:THR:HG23	32:B7:44:PRO:HD2	1.78	0.65
35:BA:1665:A:O2'	35:BA:1666:G:H5'	1.97	0.65
28:B3:6:VAL:HG12	28:B3:56:VAL:HG12	1.79	0.65
1:CA:80:G:H3'	1:CA:81:U:C5'	2.27	0.65
42:BH:41:MET:CE	42:BH:41:MET:HA	2.26	0.64
33:B8:27:THR:HG22	47:BP:62:LEU:CD1	2.27	0.64
5:CE:110:LEU:O	5:CE:115:VAL:HB	1.98	0.64
51:DT:27:THR:OG1	51:DT:28:VAL:N	2.30	0.64
33:B8:51:ALA:HA	33:B8:54:GLU:OE1	1.97	0.64
35:DA:1505:C:C6	35:DA:1506:C:H6	2.15	0.64
19:AS:11:VAL:HG22	19:AS:12:ASP:N	2.09	0.64
2:AB:30:ARG:NH2	2:AB:194:PRO:HB2	2.11	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1234:C:H1'	1:AA:1364:U:O2	1.96	0.64
35:DA:2305:A:C3'	35:DA:2306:C:H5''	2.27	0.64
47:BP:105:LEU:HD12	47:BP:105:LEU:N	2.12	0.64
57:DZ:96:VAL:HG22	57:DZ:97:GLU:N	2.09	0.64
16:CP:73:LEU:H	16:CP:73:LEU:CD1	2.10	0.64
1:CA:1143:G:H2'	1:CA:1144:G:C8	2.32	0.64
35:BA:857:C:O2	35:BA:857:C:H2'	1.96	0.64
6:AF:52:ILE:HD13	6:AF:87:ARG:NH1	2.11	0.64
18:AR:63:GLN:OE1	18:AR:66:LEU:HD23	1.98	0.64
6:AF:63:TYR:O	6:AF:65:VAL:HG13	1.97	0.64
1:CA:1479:C:H2'	1:CA:1480:G:C8	2.32	0.64
35:DA:648:G:O2'	35:DA:649:G:H5'	1.97	0.64
1:CA:447:G:H2'	1:CA:485:G:N2	2.11	0.64
52:BU:16:LYS:O	52:BU:20:LEU:HD23	1.97	0.64
48:BQ:140:ALA:O	48:BQ:141:GLN:HB2	1.97	0.64
9:CI:126:SER:O	9:CI:127:LYS:HB3	1.97	0.64
47:BP:100:LEU:HD22	47:BP:100:LEU:N	2.12	0.64
35:DA:2792:G:H1	35:DA:2804:C:H42	1.44	0.64
33:B8:25:MET:CG	47:BP:64:LYS:HB3	2.21	0.64
1:CA:836:G:C4	1:CA:837:G:N7	2.66	0.64
35:DA:508:G:C4'	35:DA:509:C:OP2	2.41	0.64
40:BF:24:LEU:CB	40:BF:25:PRO:HD3	2.22	0.64
40:BF:8:GLN:HB3	40:BF:126:VAL:HA	1.77	0.64
33:D8:59:LYS:HB2	33:D8:59:LYS:NZ	2.00	0.64
47:DP:50:ARG:NH2	47:DP:50:ARG:HG2	2.13	0.64
33:B8:61:LEU:C	33:B8:63:PRO:HD2	2.18	0.64
27:D2:45:SER:O	27:D2:46:GLN:NE2	2.29	0.64
10:CJ:39:PRO:HB3	10:CJ:70:ARG:HH11	1.63	0.64
22:CW:18:G:H22	22:CW:55:U:H3	1.45	0.64
51:BT:57:PHE:O	51:BT:59:THR:N	2.30	0.64
39:DE:51:PHE:CD1	39:DE:52:LEU:N	2.65	0.64
1:CA:1053:G:O6	1:CA:1199:U:H2'	1.96	0.64
1:CA:1206:G:H4'	3:CC:192:THR:O	1.96	0.64
18:CR:31:LEU:HD23	18:CR:31:LEU:N	2.12	0.64
56:BY:50:ARG:HG3	56:BY:55:TYR:O	1.97	0.64
18:AR:31:LEU:N	18:AR:31:LEU:HD23	2.13	0.64
3:AC:7:PRO:O	3:AC:11:ARG:HG2	1.97	0.64
40:BF:160:ASN:HD22	40:BF:160:ASN:C	1.98	0.64
35:BA:271(A):A:H5'	35:BA:271(B):C:OP2	1.96	0.64
35:BA:2206:G:N3	35:BA:2206:G:H3'	2.12	0.64
49:DR:85:PRO:O	49:DR:87:TYR:N	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:DW:59:VAL:HG12	54:DW:60:ASN:N	2.12	0.64
1:CA:59:A:C5'	1:CA:60:A:H5''	2.27	0.64
9:AI:43:ALA:HB2	9:AI:74:ILE:HD13	1.78	0.64
35:DA:1441:G:O2'	35:DA:1442:G:H5'	1.97	0.64
1:CA:555:C:H2'	1:CA:556:C:H6	1.61	0.64
35:DA:1550:C:H2'	35:DA:1551:C:H6	1.62	0.64
35:DA:1560:G:H2'	35:DA:1561:G:H8	1.61	0.64
1:AA:1428:A:H2'	1:AA:1429:C:C6	2.33	0.64
20:AT:54:LYS:HA	20:AT:57:ARG:CZ	2.27	0.64
1:CA:645:C:C6	1:CA:645:C:H5'	2.26	0.64
1:CA:401:C:OP1	4:CD:73:ARG:NE	2.30	0.64
56:DY:81:LYS:HB3	56:DY:96:ILE:CG2	2.28	0.64
1:CA:1059:C:C6	1:CA:1059:C:O5'	2.47	0.64
40:BF:22:ALA:C	40:BF:24:LEU:H	2.01	0.64
35:DA:2476:A:N3	35:DA:2476:A:H2'	2.12	0.64
28:B3:3:ARG:NH1	28:B3:3:ARG:HB2	2.06	0.64
45:BN:58:ASP:OD1	45:BN:124:ALA:HB1	1.98	0.64
45:DN:58:ASP:OD1	45:DN:124:ALA:HB1	1.98	0.64
36:BB:56:G:H4'	36:BB:57:A:C8	2.32	0.64
41:BG:13:GLU:O	41:BG:14:GLU:HB2	1.95	0.64
4:AD:30:LYS:C	4:AD:32:ALA:H	1.98	0.64
43:BI:102:SER:CB	43:BI:109:ILE:HB	2.27	0.64
57:DZ:158:PRO:HD2	57:DZ:161:VAL:HG21	1.78	0.64
1:CA:1206:G:O2'	1:CA:1207:G:P	2.55	0.64
46:DO:87:ILE:HG21	46:DO:91:LEU:HA	1.79	0.64
12:AL:7:LEU:HD11	12:AL:12:ARG:HE	1.63	0.64
1:CA:764:C:H2'	1:CA:765:G:C8	2.31	0.64
7:AG:49:ILE:HA	7:AG:52:GLU:HG2	1.80	0.64
8:AH:84:ARG:O	8:AH:135:CYS:HB2	1.96	0.64
17:AQ:92:ARG:HG3	17:AQ:95:TYR:HE2	1.63	0.64
57:BZ:149:SER:HB2	57:BZ:173:ALA:HB1	1.78	0.64
42:BH:41:MET:HA	42:BH:41:MET:HE3	1.79	0.64
42:BH:46:GLU:HB2	42:BH:47:GLU:OE2	1.97	0.64
1:CA:644:G:H4'	8:CH:92:ARG:NH2	2.12	0.64
24:AY:93:LYS:CB	24:AY:96:LEU:OXT	2.45	0.64
56:BY:97:ARG:O	56:BY:97:ARG:CZ	2.46	0.64
1:CA:1504:G:H1'	1:CA:1505:G:C5	2.31	0.64
35:BA:1529:G:O6	35:BA:1530:C:N4	2.30	0.64
47:BP:50:ARG:NH2	47:BP:50:ARG:HG2	2.12	0.64
2:CB:101:MET:HA	2:CB:108:ILE:HG21	1.78	0.64
47:DP:7:ARG:O	47:DP:10:PRO:HG3	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:737:A:H2'	1:AA:738:C:H6	1.62	0.64
43:BI:82:ARG:O	43:BI:83:ALA:HB2	1.97	0.64
35:DA:2722:G:H2'	35:DA:2723:C:C6	2.33	0.64
9:AI:27:THR:OG1	9:AI:32:ASP:HA	1.98	0.64
16:CP:73:LEU:HD12	16:CP:73:LEU:N	2.11	0.64
45:BN:13:TRP:O	45:BN:135:PRO:HD2	1.97	0.64
41:BG:95:ARG:HB3	41:BG:96:ARG:HD2	1.80	0.64
54:DW:5:ALA:HB2	54:DW:54:ALA:HB2	1.79	0.64
35:DA:2154:G:H2'	35:DA:2155:G:C8	2.29	0.64
35:DA:1171:G:C8	35:DA:1173:G:H1'	2.32	0.64
1:CA:1026:G:H2'	1:CA:1027:C:H5'	1.80	0.64
17:AQ:7:THR:CG2	17:AQ:58:GLU:HG2	2.27	0.64
40:BF:160:ASN:OD1	40:BF:163:VAL:HG23	1.97	0.64
35:DA:1799:G:H8	38:DD:181:GLU:OE1	1.80	0.64
1:CA:1112:C:H1'	3:CC:179:ARG:HH11	1.63	0.64
1:CA:386:C:H2'	1:CA:387:U:H5'	1.79	0.64
12:AL:21:VAL:HG12	12:AL:21:VAL:O	1.97	0.64
1:AA:1089:G:O2'	1:AA:1090:U:H5'	1.97	0.64
20:AT:24:LEU:HD13	20:AT:24:LEU:C	2.18	0.64
7:CG:132:GLY:O	7:CG:136:LYS:HG2	1.97	0.64
1:CA:1095:U:H5'	1:CA:1109:C:O2	1.96	0.64
56:DY:89:PHE:C	56:DY:90:LEU:HD23	2.18	0.64
13:CM:78:ILE:HG23	13:CM:92:HIS:CE1	2.33	0.64
35:BA:1747(A):G:H2'	35:BA:1748:G:C5'	2.12	0.64
40:DF:22:ALA:C	40:DF:24:LEU:H	2.00	0.64
1:CA:8:A:H5'	5:CE:120:THR:O	1.97	0.64
57:BZ:153:SER:HB2	57:BZ:167:PRO:HB2	1.80	0.64
3:AC:76:VAL:HG23	3:AC:77:ILE:HG13	1.79	0.64
12:CL:87:VAL:O	12:CL:89:ASP:N	2.30	0.64
35:BA:626:U:O2	47:BP:105:LEU:HG	1.98	0.64
4:CD:132:ARG:HH11	4:CD:132:ARG:HG2	1.61	0.64
47:BP:7:ARG:N	47:BP:7:ARG:HD2	2.12	0.64
35:BA:1915:U:H3'	35:BA:1916:A:C5'	2.27	0.64
39:DE:55:ASN:HB2	39:DE:72:VAL:CG1	2.27	0.64
25:B0:36:ILE:HD13	25:B0:58:THR:HG23	1.79	0.64
35:BA:1779:U:C5	35:BA:1784:A:N7	2.61	0.64
1:AA:428:G:H5''	4:AD:7:PRO:HB3	1.79	0.64
27:D2:2:LYS:HA	27:D2:5:GLU:HB3	1.78	0.64
38:BD:242:ARG:NH1	38:BD:242:ARG:HG2	2.11	0.64
9:AI:40:LEU:HD21	9:AI:42:ARG:HB3	1.77	0.64
1:CA:728:A:H2'	1:CA:729:A:H8	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:80:LYS:O	10:CJ:84:GLN:HG3	1.96	0.64
11:CK:29:ILE:HA	11:CK:44:SER:HB3	1.80	0.64
14:AN:26:ARG:HH11	14:AN:47:LEU:HD21	1.63	0.64
7:CG:49:ILE:HA	7:CG:52:GLU:HG2	1.80	0.64
40:BF:65:TRP:CH2	40:BF:73:ALA:O	2.50	0.64
35:BA:185:U:H4'	35:BA:218:A:H4'	1.79	0.64
35:DA:2564:A:OP1	35:DA:2648:C:H4'	1.98	0.64
35:DA:2196:C:O2'	35:DA:2197:U:H5'	1.97	0.64
38:BD:8:PRO:HG3	38:BD:14:ARG:HB2	1.78	0.64
1:AA:1206:G:H4'	3:AC:192:THR:O	1.97	0.64
1:AA:862:C:O2'	1:AA:863:U:H5'	1.98	0.64
35:DA:1001:A:H2'	35:DA:1002:G:O4'	1.98	0.64
3:CC:41:GLY:O	3:CC:45:LYS:HG3	1.98	0.64
6:AF:88:VAL:HG12	6:AF:88:VAL:O	1.98	0.64
35:BA:1146:C:O2'	35:BA:1147:C:H5'	1.97	0.64
35:BA:13:A:H61	35:BA:525:U:H3'	1.61	0.64
22:AV:56:C:H5	22:AV:56:C:OP1	1.81	0.64
52:BU:92:ARG:HG3	52:BU:94:ASN:HB3	1.79	0.64
52:DU:92:ARG:HG3	52:DU:94:ASN:HB3	1.79	0.64
35:DA:1505:C:H6	35:DA:1506:C:H6	1.45	0.64
35:BA:1505:C:H6	35:BA:1506:C:H6	1.45	0.64
41:DG:131:TYR:N	41:DG:159:VAL:HG22	2.13	0.64
1:CA:1126:U:H2'	1:CA:1127:G:O4'	1.97	0.64
11:CK:99:GLN:CG	11:CK:105:VAL:HG11	2.27	0.64
26:D1:62:VAL:HG22	26:D1:63:ALA:N	2.12	0.64
38:BD:133:LEU:HD13	38:BD:173:VAL:HG11	1.80	0.64
35:DA:528:A:H2	35:DA:2043:C:H5'	1.62	0.64
9:CI:40:LEU:HD21	9:CI:42:ARG:HB3	1.79	0.64
24:AY:13:PRO:CD	24:AY:13:PRO:O	2.45	0.64
48:DQ:58:PHE:CD1	48:DQ:58:PHE:O	2.50	0.64
35:BA:330:A:O2'	35:BA:331:A:H8	1.81	0.64
38:DD:30:GLU:HG3	38:DD:63:ARG:NH2	2.12	0.64
35:BA:89:G:H3'	35:BA:90:U:C5'	2.27	0.64
53:BV:98:GLU:OE1	53:BV:100:ARG:HG2	1.97	0.64
35:DA:2668:G:O2'	35:DA:2669:G:H5'	1.97	0.64
19:CS:21:GLU:HG3	19:CS:22:LEU:HD22	1.78	0.64
1:AA:304:U:H2'	1:AA:305:G:C8	2.32	0.64
35:BA:2256:G:H2'	35:BA:2257:U:H6	1.62	0.64
44:DJ:60:UNK:HA	44:DJ:63:UNK:CB	2.27	0.64
42:DH:105:LEU:O	42:DH:107:VAL:HG22	1.97	0.64
38:BD:4:LYS:HE3	38:BD:20:ASP:HA	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:723:U:H5''	1:AA:724:G:OP2	1.98	0.64
24:AY:73:GLY:C	24:AY:75:PHE:HE1	2.01	0.64
35:DA:2473:U:O2	35:DA:2474:C:C6	2.48	0.64
56:BY:81:LYS:HE2	56:BY:97:ARG:HE	1.63	0.64
1:CA:1501:C:H3'	1:CA:1502:A:C5'	2.27	0.64
35:DA:631:A:H2'	35:DA:632:A:C8	2.33	0.64
56:DY:14:LEU:HD12	56:DY:15:VAL:H	1.63	0.64
35:BA:1532:C:H1'	35:BA:1533:G:N2	2.12	0.64
36:BB:29:A:P	50:BS:32:LEU:HG	2.38	0.64
57:BZ:28:MET:HB3	57:BZ:88:PHE:CB	2.28	0.64
1:CA:20:U:O2	1:CA:916:G:C2	2.50	0.64
33:B8:44:LYS:N	33:B8:44:LYS:HD2	2.12	0.64
2:AB:187:LEU:HD13	2:AB:205:ASP:HB3	1.79	0.64
57:BZ:38:TYR:CG	57:BZ:38:TYR:O	2.51	0.64
39:DE:105:THR:O	39:DE:196:VAL:HG23	1.98	0.64
46:BO:107:ARG:HH22	51:BT:35:LYS:HD2	1.63	0.64
30:D5:50:GLY:O	30:D5:51:TYR:HB2	1.95	0.64
1:CA:626:U:H2'	1:CA:627:G:H8	1.61	0.64
26:B1:73:LEU:HD13	26:B1:94:LEU:CD2	2.26	0.64
41:BG:29:TRP:HA	41:BG:29:TRP:HE3	1.62	0.64
41:BG:170:ARG:HH22	41:BG:180:PHE:HD1	1.46	0.64
29:B4:25:TYR:CE1	41:BG:5:VAL:HG22	2.32	0.64
47:BP:13:ASN:ND2	47:BP:13:ASN:C	2.49	0.64
1:CA:1423:G:O2'	1:CA:1424:C:H5'	1.97	0.64
1:CA:1468:A:H2'	1:CA:1469:G:O4'	1.98	0.64
35:DA:922:U:H2'	35:DA:923:C:C6	2.33	0.64
41:BG:69:ALA:O	41:BG:90:LEU:HD12	1.97	0.64
53:BV:2:PHE:HB2	53:BV:42:GLY:N	2.13	0.64
8:CH:91:ARG:HH12	17:CQ:33:GLY:HA3	1.62	0.64
26:B1:8:SER:HB3	26:B1:66:HIS:CD2	2.32	0.64
32:D7:47:ARG:HB2	32:D7:48:LYS:HZ1	1.61	0.64
6:CF:23:LYS:O	6:CF:27:GLN:HG2	1.98	0.64
18:CR:47:THR:O	18:CR:82:THR:HA	1.98	0.64
3:CC:33:LEU:HD11	14:CN:53:LEU:HD23	1.79	0.64
1:AA:227:G:H2'	1:AA:228:A:C8	2.33	0.64
42:DH:30:LYS:HE3	42:DH:81:GLU:HG2	1.80	0.64
1:AA:678:U:H2'	1:AA:679:C:C6	2.32	0.64
35:BA:65:C:H2'	35:BA:66:C:H6	1.61	0.64
8:CH:84:ARG:O	8:CH:135:CYS:HB2	1.97	0.64
1:CA:757:U:H2'	1:CA:758:G:O4'	1.97	0.64
42:DH:46:GLU:HB2	42:DH:47:GLU:OE2	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AY:55:ASP:CG	24:AY:58:ALA:HB3	2.19	0.64
1:CA:1188:A:H5''	14:CN:58:LYS:NZ	2.11	0.64
35:BA:1528(A):A:N7	35:BA:1529:G:C4	2.66	0.64
40:DF:9:ILE:HG13	40:DF:15:SER:CB	2.18	0.64
53:DV:38:LEU:HD22	53:DV:52:VAL:HG11	1.78	0.64
5:CE:101:ILE:CD1	5:CE:119:LEU:HD23	2.24	0.64
2:AB:100:GLY:O	2:AB:104:ASN:N	2.21	0.64
38:BD:16:MET:HB3	38:BD:207:GLY:HA3	1.80	0.64
48:DQ:133:ARG:HG2	48:DQ:134:ARG:N	2.11	0.64
57:DZ:82:ARG:HB2	57:DZ:82:ARG:NH1	2.12	0.64
19:AS:36:ARG:HB2	19:AS:72:GLY:H	1.62	0.64
3:CC:141:VAL:CG1	3:CC:202:ILE:HD12	2.26	0.64
43:DI:82:ARG:C	43:DI:89:TYR:HB2	2.16	0.64
32:D7:8:ASN:HD21	32:D7:11:LYS:H	1.43	0.64
20:CT:10:LEU:HD22	20:CT:12:ALA:CB	2.28	0.64
18:CR:31:LEU:H	18:CR:31:LEU:CD2	2.10	0.64
1:CA:1370:G:H5''	9:CI:12:GLU:HG3	1.80	0.64
12:AL:2:PRO:HB2	12:AL:7:LEU:HD21	1.80	0.64
12:AL:2:PRO:O	12:AL:7:LEU:HD23	1.97	0.64
8:AH:11:THR:HA	8:AH:14:ARG:NH1	2.12	0.64
35:DA:621:A:H2'	35:DA:622:G:H5'	1.80	0.64
56:DY:50:ARG:NE	56:DY:57:GLN:O	2.31	0.64
16:AP:20:VAL:HG22	16:AP:21:VAL:N	2.13	0.64
35:DA:2777:G:H5''	35:DA:2778:A:C5'	2.28	0.64
39:DE:117:MET:HA	39:DE:122:PHE:H	1.63	0.64
19:AS:64:GLU:O	19:AS:66:MET:HG2	1.97	0.64
1:CA:585:G:OP1	17:CQ:37:LYS:HE2	1.98	0.64
1:AA:1262:C:H42	1:AA:1273:G:H1	1.46	0.64
1:AA:1211:U:H5'	1:AA:1212:U:OP1	1.97	0.64
35:DA:816:C:O2'	35:DA:817:C:H5'	1.97	0.64
35:BA:2144:U:O2'	35:BA:2145:C:H2'	1.98	0.64
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.32	0.64
4:CD:3:ARG:HD3	4:CD:118:ARG:HD2	1.78	0.64
10:CJ:49:VAL:O	10:CJ:60:ARG:HB2	1.97	0.64
40:BF:2:LYS:C	40:BF:24:LEU:HG	2.18	0.64
2:CB:196:LEU:CD1	2:CB:197:VAL:HG13	2.27	0.64
50:BS:13:ARG:HG3	50:BS:14:VAL:N	2.05	0.64
2:AB:84:GLU:HB3	2:AB:219:VAL:CG2	2.27	0.64
57:BZ:10:ARG:CD	57:BZ:12:GLY:HA2	2.27	0.64
41:DG:39:ILE:CG1	41:DG:155:MET:HG3	2.28	0.64
39:DE:77:ILE:HG22	39:DE:78:LEU:CD1	2.28	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:52:ARG:HB2	38:DD:53:PHE:CD2	2.33	0.64
35:BA:1405:U:H2'	35:BA:1406:U:H6	1.62	0.64
1:AA:428:G:OP2	4:AD:7:PRO:HG2	1.96	0.64
5:AE:80:ILE:HG22	8:AH:104:ARG:CZ	2.28	0.64
9:AI:40:LEU:CD2	9:AI:42:ARG:HB3	2.28	0.64
1:CA:378:G:H2'	1:CA:379:C:C6	2.32	0.64
4:AD:20:TYR:HA	4:AD:26:CYS:SG	2.38	0.64
40:BF:37:VAL:HG13	40:BF:184:TYR:HD1	1.62	0.64
1:AA:1226:C:N4	13:AM:104:ARG:HB2	2.12	0.64
39:BE:65:GLY:O	39:BE:67:PHE:N	2.31	0.64
1:CA:240:C:H2'	1:CA:241:C:C6	2.33	0.64
35:DA:1146:C:O2'	35:DA:1147:C:H5'	1.98	0.64
42:BH:105:LEU:O	42:BH:107:VAL:HG22	1.97	0.64
1:CA:1225:A:H3'	1:CA:1226:C:H6	1.60	0.64
56:BY:84:ARG:HH12	56:BY:97:ARG:HB3	1.63	0.64
33:D8:27:THR:HA	47:DP:62:LEU:HD11	1.80	0.64
35:BA:941:A:H4'	47:BP:35:HIS:CE1	2.33	0.64
51:DT:117:ASP:O	51:DT:121:ILE:HG13	1.98	0.64
35:BA:2491:U:H4'	35:BA:2570:G:OP1	1.98	0.64
13:CM:54:VAL:O	13:CM:57:ARG:HG2	1.97	0.64
29:D4:35:VAL:HG12	29:D4:36:CYS:N	2.13	0.64
43:BI:61:ARG:O	43:BI:65:ALA:HB3	1.98	0.64
39:BE:51:PHE:CD1	39:BE:52:LEU:N	2.66	0.64
3:CC:20:SER:O	14:CN:54:PRO:HG3	1.97	0.64
55:BX:12:VAL:HG22	55:BX:27:THR:O	1.98	0.64
38:BD:186:HIS:CD2	38:BD:188:GLU:H	2.15	0.64
55:BX:30:VAL:HG21	55:BX:39:ILE:CD1	2.27	0.64
12:AL:83:ARG:NH2	12:AL:96:HIS:ND1	2.45	0.64
2:CB:140:HIS:HA	2:CB:143:GLU:CG	2.28	0.64
12:CL:71:GLY:O	12:CL:99:ARG:NH2	2.31	0.64
1:AA:105:G:H2'	1:AA:106:C:C6	2.33	0.64
13:AM:116:THR:HG22	13:AM:117:VAL:N	2.13	0.64
35:BA:2746:U:H2'	35:BA:2747:G:H5'	1.78	0.64
53:DV:21:ARG:HB3	53:DV:91:TYR:HB2	1.78	0.64
1:AA:545:C:H5''	4:AD:72:GLU:HG2	1.80	0.64
5:AE:10:MET:CB	5:AE:32:VAL:HG22	2.27	0.64
8:CH:7:ALA:HB2	8:CH:85:ARG:HD3	1.80	0.64
42:DH:8:PRO:O	42:DH:9:ILE:HG12	1.97	0.63
1:CA:37:U:N1	1:CA:38:G:C8	2.66	0.63
35:DA:1917:U:O2'	35:DA:1918:A:H5'	1.98	0.63
35:DA:507:A:C5'	35:DA:508:G:C5'	2.66	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1530:C:C2'	35:BA:1531:C:H5'	2.28	0.63
52:BU:92:ARG:HB3	53:BV:11:GLN:NE2	2.13	0.63
40:DF:196:LEU:C	40:DF:198:ALA:H	2.01	0.63
42:DH:98:LEU:N	42:DH:125:VAL:HG11	2.05	0.63
36:BB:49:C:OP1	50:BS:96:GLY:HA3	1.98	0.63
2:CB:54:THR:HG22	2:CB:58:ILE:HD12	1.80	0.63
5:AE:103:GLY:H	5:AE:106:PRO:HG2	1.61	0.63
35:BA:1917:U:O2'	35:BA:1918:A:H5'	1.98	0.63
35:BA:744:G:OP1	39:BE:132:HIS:HB3	1.98	0.63
38:BD:108:PRO:HB3	38:BD:143:HIS:HE1	1.61	0.63
1:AA:1004:A:N6	1:AA:1034:G:H2'	2.09	0.63
35:BA:2722:G:H2'	35:BA:2723:C:C6	2.33	0.63
32:D7:11:LYS:HE2	35:DA:686:G:H5''	1.80	0.63
38:DD:108:PRO:HB3	38:DD:143:HIS:HE1	1.62	0.63
18:CR:63:GLN:OE1	18:CR:66:LEU:HD23	1.98	0.63
35:BA:1019:U:O2'	35:BA:1021:A:H2	1.81	0.63
1:AA:1107:C:C2'	1:AA:1108:G:H5''	2.27	0.63
35:BA:2807:G:C3'	35:BA:2808:U:H5''	2.28	0.63
32:B7:10:ARG:O	32:B7:14:LYS:HG2	1.98	0.63
22:CW:15:G:C6	22:CW:59:A:H1'	2.33	0.63
2:AB:140:HIS:HA	2:AB:143:GLU:CG	2.28	0.63
1:CA:1064:G:N2	1:CA:1190:G:H2'	2.13	0.63
40:DF:65:TRP:CH2	40:DF:75:HIS:HD2	2.16	0.63
1:AA:1338:G:O2'	1:AA:1339:A:H5'	1.98	0.63
35:DA:2256:G:H2'	35:DA:2257:U:H6	1.63	0.63
20:AT:50:GLU:HB2	20:AT:99:LEU:HD13	1.79	0.63
1:CA:1090:U:H2'	1:CA:1091:U:C6	2.32	0.63
20:AT:58:LYS:O	20:AT:62:LEU:HD12	1.98	0.63
35:DA:2292:C:O2'	35:DA:2293:C:H5'	1.98	0.63
35:DA:719:C:O2'	35:DA:720:C:H5'	1.97	0.63
44:BJ:74:UNK:C	44:BJ:76:UNK:H	2.09	0.63
27:B2:63:VAL:HA	27:B2:66:GLU:HG3	1.80	0.63
15:AO:10:LYS:HE2	15:AO:10:LYS:HA	1.78	0.63
45:DN:18:ALA:HB1	45:DN:21:LYS:CB	2.29	0.63
24:AY:42:ARG:HH22	24:AY:96:LEU:HB3	1.63	0.63
10:CJ:49:VAL:HG23	14:CN:41:ARG:HB2	1.79	0.63
47:DP:29:LYS:HB3	47:DP:34:GLY:H	1.62	0.63
52:DU:79:PHE:O	52:DU:83:LEU:HD13	1.98	0.63
35:DA:868:U:N3	35:DA:869:G:C8	2.67	0.63
35:BA:2192:G:C3'	35:BA:2193:G:H5''	2.28	0.63
47:BP:81:GLN:HG2	47:BP:106:LEU:HD12	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D5:52:TYR:CD1	30:D5:53:ALA:N	2.66	0.63
48:BQ:134:ARG:NH1	57:BZ:122:ARG:HD2	2.13	0.63
4:AD:114:ARG:HG3	4:AD:114:ARG:NH1	2.11	0.63
30:B5:20:ARG:NH1	54:BW:15:ARG:NE	2.45	0.63
3:CC:34:LEU:CB	3:CC:38:ARG:HH21	2.10	0.63
29:B4:6:HIS:HB3	41:BG:67:LYS:CE	2.28	0.63
15:AO:55:GLY:HA2	15:AO:58:MET:HE3	1.79	0.63
9:CI:40:LEU:CD2	9:CI:42:ARG:HB3	2.28	0.63
3:CC:7:PRO:O	3:CC:11:ARG:HG2	1.97	0.63
1:AA:254:G:O2'	1:AA:255:G:H5'	1.97	0.63
43:BI:2:LYS:N	43:BI:2:LYS:HZ3	1.96	0.63
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.33	0.63
1:CA:439:A:H2'	1:CA:441:A:H5'	1.80	0.63
26:B1:34:THR:HG22	26:B1:36:GLY:H	1.64	0.63
39:BE:11:MET:HB2	39:BE:23:VAL:O	1.97	0.63
35:DA:1722:A:O2'	35:DA:1739:U:H5''	1.98	0.63
35:DA:272(J):C:H2'	35:DA:363:G:H22	1.62	0.63
8:CH:77:GLU:HG2	8:CH:78:GLN:H	1.63	0.63
16:AP:75:ARG:HG3	16:AP:75:ARG:HH11	1.62	0.63
19:AS:24:ALA:O	19:AS:25:LYS:HB2	1.97	0.63
35:DA:2473:U:H3'	35:DA:2475:C:H41	1.63	0.63
41:BG:83:ARG:HD2	41:BG:84:LYS:HZ1	1.63	0.63
35:DA:941:A:H4'	47:DP:35:HIS:CE1	2.33	0.63
42:DH:127:GLU:HB2	42:DH:128:PRO:HD2	1.80	0.63
57:DZ:150:LEU:H	57:DZ:150:LEU:HD23	1.63	0.63
50:BS:49:VAL:CG1	50:BS:76:LYS:HE3	2.27	0.63
35:BA:252:G:OP2	47:BP:50:ARG:NH1	2.31	0.63
2:CB:187:LEU:HD13	2:CB:205:ASP:HB3	1.79	0.63
35:DA:2476:A:C2'	35:DA:2477:C:H5''	2.22	0.63
35:DA:2302:G:H2'	35:DA:2303:G:H5'	1.78	0.63
35:DA:144:C:H2'	35:DA:145:G:H8	1.63	0.63
1:CA:624:C:H5''	16:CP:10:GLY:O	1.98	0.63
45:DN:13:TRP:O	45:DN:135:PRO:HD2	1.98	0.63
5:AE:135:THR:O	5:AE:138:ALA:HB3	1.98	0.63
1:CA:1486:G:H2'	1:CA:1487:G:O4'	1.99	0.63
42:DH:17:VAL:HG13	42:DH:24:VAL:CG2	2.28	0.63
13:AM:54:VAL:O	13:AM:57:ARG:HG2	1.99	0.63
35:DA:2136:C:N4	35:DA:2155:G:H1	1.97	0.63
39:DE:30:PRO:HA	39:DE:92:THR:HG22	1.81	0.63
1:CA:377:G:OP1	16:CP:3:LYS:HD2	1.98	0.63
8:CH:11:THR:HA	8:CH:14:ARG:NH1	2.13	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:76:C:H42	1:AA:93:G:H1	1.44	0.63
47:DP:100:LEU:H	47:DP:100:LEU:HD22	1.63	0.63
1:CA:1064:G:OP2	1:CA:1386:G:H4'	1.97	0.63
42:DH:30:LYS:HE3	42:DH:81:GLU:CG	2.28	0.63
1:CA:1089:G:O2'	1:CA:1090:U:H5'	1.98	0.63
1:AA:189(K):U:H2'	1:AA:189(L):G:C8	2.33	0.63
20:AT:29:LYS:O	20:AT:33:ILE:HG13	1.98	0.63
38:DD:240:ALA:HB1	38:DD:241:PRO:HD2	1.80	0.63
18:AR:45:SER:H	18:AR:51:LEU:HG	1.63	0.63
2:AB:60:ASP:HB3	2:AB:64:ARG:NH2	2.13	0.63
9:CI:3:GLN:HG2	9:CI:20:ARG:HG2	1.79	0.63
57:BZ:132:ASN:O	57:BZ:134:PRO:HD3	1.99	0.63
4:AD:3:ARG:HD3	4:AD:118:ARG:HD2	1.81	0.63
55:BX:29:TRP:CZ3	55:BX:78:LYS:HB3	2.34	0.63
35:DA:1314:C:H6	35:DA:1314:C:H5'	1.64	0.63
49:DR:13:HIS:CE1	49:DR:15:SER:HB2	2.34	0.63
33:D8:61:LEU:C	33:D8:63:PRO:HD2	2.19	0.63
51:DT:29:ARG:HG2	51:DT:86:ILE:N	2.12	0.63
35:DA:868:U:N3	35:DA:869:G:C5	2.66	0.63
57:BZ:155:LEU:HD23	57:BZ:155:LEU:N	2.13	0.63
35:DA:1503:U:H2'	35:DA:1504:C:H6	1.64	0.63
1:AA:938:A:H4'	7:AG:95:ARG:HH22	1.62	0.63
2:CB:44:LEU:HD22	2:CB:44:LEU:N	2.12	0.63
50:BS:14:VAL:HG12	50:BS:15:ARG:N	2.13	0.63
41:DG:103:LEU:HA	41:DG:106:LEU:HD21	1.81	0.63
35:DA:637:A:H2'	47:DP:117:GLU:OE2	1.98	0.63
39:BE:52:LEU:HD23	39:BE:75:VAL:HB	1.79	0.63
3:CC:131:ARG:NH1	5:CE:50:GLU:HG2	2.14	0.63
35:DA:923:C:H2'	35:DA:924:C:C6	2.34	0.63
1:AA:1053:G:O6	1:AA:1199:U:H2'	1.98	0.63
21:CU:6:ARG:HE	21:CU:15:ARG:HH12	1.46	0.63
48:BQ:58:PHE:CD1	48:BQ:58:PHE:O	2.52	0.63
2:CB:142:LEU:HD21	2:CB:146:GLN:HE21	1.62	0.63
3:CC:179:ARG:O	3:CC:206:GLU:HG3	1.98	0.63
46:DO:114:ILE:HD12	46:DO:114:ILE:H	1.63	0.63
1:CA:1479:C:O2'	1:CA:1480:G:H5'	1.99	0.63
35:BA:1550:C:H2'	35:BA:1551:C:H6	1.63	0.63
19:CS:24:ALA:O	19:CS:25:LYS:HB2	1.98	0.63
46:DO:4:PRO:O	46:DO:5:GLN:HB2	1.97	0.63
22:AW:26:G:N2	22:AW:44:A:H61	1.96	0.63
56:BY:17:SER:HB2	56:BY:71:LYS:HE2	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DB:40:U:H3'	36:DB:41:U:H5''	1.81	0.63
8:CH:95:VAL:HG11	8:CH:133:LEU:HD12	1.81	0.63
24:AY:24:LEU:C	24:AY:25:LYS:HG2	2.18	0.63
35:DA:587:C:H2'	47:DP:33:ARG:NH2	2.14	0.63
56:DY:28:LYS:HB3	56:DY:38:ILE:H	1.63	0.63
47:BP:23:PRO:CB	47:BP:33:ARG:HD2	2.21	0.63
27:D2:38:GLN:HE22	27:D2:44:LEU:HD22	1.63	0.63
50:BS:19:LYS:HB3	50:BS:20:ARG:HH21	1.64	0.63
57:DZ:38:TYR:CG	57:DZ:38:TYR:O	2.51	0.63
1:CA:1221:G:H4'	19:CS:77:THR:CG2	2.24	0.63
47:BP:30:THR:HG22	47:BP:31:ALA:H	1.63	0.63
35:DA:271(P):C:O2'	35:DA:271(Q):G:H5'	1.99	0.63
51:BT:77:PRO:O	51:BT:78:LEU:HB3	1.98	0.63
25:D0:36:ILE:HD12	25:D0:37:LEU:N	2.13	0.63
35:BA:2154:G:H2'	35:BA:2155:G:C8	2.30	0.63
41:BG:61:ALA:HB2	41:BG:68:PRO:HD3	1.78	0.63
1:AA:1118:C:H5'	9:AI:104:ARG:HD3	1.81	0.63
18:AR:31:LEU:H	18:AR:31:LEU:CD2	2.10	0.63
35:BA:1210:A:H8	35:BA:1210:A:H5'	1.64	0.63
1:CA:728:A:H2'	1:CA:729:A:C8	2.33	0.63
25:B0:51:VAL:HG22	25:B0:81:VAL:HG23	1.79	0.63
11:AK:111:ASP:HA	18:AR:84:LYS:HG3	1.81	0.63
35:BA:389:G:H1	47:BP:71:VAL:HG12	1.63	0.63
39:BE:65:GLY:C	39:BE:67:PHE:H	2.02	0.63
35:BA:1625:C:H2'	35:BA:1626:G:O4'	1.98	0.63
35:BA:2292:C:O2'	35:BA:2293:C:H5'	1.97	0.63
35:BA:272(J):C:H2'	35:BA:363:G:H22	1.62	0.63
35:DA:27:G:H22	35:DA:512:G:H2'	1.64	0.63
2:CB:60:ASP:HB3	2:CB:64:ARG:NH2	2.13	0.63
35:DA:2345:G:N3	35:DA:2381:C:H2'	2.13	0.63
35:DA:1169:G:H1	35:DA:1180:C:H42	1.46	0.63
20:CT:24:LEU:C	20:CT:24:LEU:HD13	2.18	0.63
45:DN:10:GLU:OE2	45:DN:11:PRO:HD2	1.99	0.63
35:BA:2345:G:N3	35:BA:2381:C:H2'	2.13	0.63
35:BA:151:C:O2'	35:BA:152:G:H5'	1.98	0.63
42:BH:30:LYS:HE3	42:BH:81:GLU:HG2	1.79	0.63
42:BH:30:LYS:HE3	42:BH:81:GLU:CG	2.28	0.63
47:BP:64:LYS:C	47:BP:66:GLY:N	2.52	0.63
56:DY:38:ILE:HD12	56:DY:66:PRO:HA	1.81	0.63
33:D8:6:THR:CG2	33:D8:63:PRO:HD3	2.29	0.63
50:BS:87:PHE:O	50:BS:88:ASP:HB2	1.96	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BY:28:LYS:O	56:BY:38:ILE:HB	1.98	0.63
56:BY:38:ILE:HD12	56:BY:66:PRO:HA	1.81	0.63
2:CB:181:PHE:O	2:CB:183:PRO:HD3	1.98	0.63
33:D8:44:LYS:HD2	33:D8:44:LYS:N	2.13	0.63
30:D5:3:LYS:HB2	35:DA:747:U:C5	2.33	0.63
2:AB:54:THR:HG22	2:AB:58:ILE:HD12	1.80	0.63
30:B5:3:LYS:HB2	35:BA:747:U:C5	2.33	0.63
19:CS:29:ARG:HB2	19:CS:48:THR:H	1.63	0.63
16:CP:51:VAL:HG12	16:CP:52:ASP:N	2.12	0.63
4:CD:170:VAL:HG21	4:CD:176:LEU:HB2	1.80	0.63
39:DE:6:GLY:HA2	39:DE:51:PHE:HE2	1.61	0.63
39:BE:55:ASN:HB2	39:BE:72:VAL:CG1	2.28	0.63
22:AV:51:C:H2'	22:AV:52:G:C1'	2.29	0.63
57:DZ:166:SER:H	57:DZ:167:PRO:HA	1.64	0.63
35:BA:2769:C:H2'	35:BA:2770:G:H8	1.64	0.63
1:AA:692:U:OP1	11:AK:124:LYS:HE2	1.99	0.63
21:AU:6:ARG:HE	21:AU:15:ARG:HH12	1.47	0.63
57:DZ:126:VAL:HG12	57:DZ:163:LEU:HB3	1.81	0.63
40:DF:160:ASN:OD1	40:DF:163:VAL:HG23	1.98	0.63
31:B6:15:GLU:O	31:B6:15:GLU:HG2	1.99	0.63
35:BA:1799:G:H8	38:BD:181:GLU:OE1	1.81	0.63
45:DN:19:GLU:OE2	45:DN:20:GLY:N	2.30	0.63
1:CA:1163:C:H2'	1:CA:1164:G:H8	1.63	0.63
11:AK:29:ILE:HA	11:AK:44:SER:HB3	1.80	0.63
12:AL:71:GLY:O	12:AL:99:ARG:NH2	2.31	0.63
1:CA:936:C:H2'	1:CA:937:A:H8	1.64	0.63
35:BA:719:C:O2'	35:BA:720:C:H5'	1.99	0.63
16:AP:76:GLN:C	16:AP:78:GLY:H	2.02	0.63
35:BA:674:G:H1'	40:BF:74:ARG:HD3	1.81	0.63
38:BD:28:GLU:CD	38:BD:28:GLU:N	2.52	0.63
17:CQ:87:LYS:HB3	17:CQ:87:LYS:HZ2	1.64	0.63
17:CQ:92:ARG:HG3	17:CQ:95:TYR:HE2	1.62	0.63
22:CV:55:U:O2'	22:CV:56:C:C5	2.50	0.63
35:DA:92:A:H2'	35:DA:92:A:N3	2.13	0.63
22:CV:38:A:H2'	22:CV:39:C:H6	1.64	0.63
35:BA:1505:C:C6	35:BA:1506:C:H6	2.16	0.63
33:D8:34:TRP:HA	35:DA:2420:C:OP1	1.98	0.63
35:BA:1024:G:C3'	35:BA:1025:G:H5''	2.20	0.63
2:CB:171:ALA:HA	2:CB:174:VAL:HG23	1.79	0.63
38:BD:35:LYS:HE3	38:BD:61:LEU:HG	1.81	0.63
35:DA:2302:G:C2'	35:DA:2303:G:H5'	2.29	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:B5:3:LYS:HB2	35:BA:747:U:H5	1.62	0.63
47:DP:81:GLN:HG2	47:DP:106:LEU:HD12	1.79	0.63
47:DP:98:GLU:OE1	47:DP:99:LEU:N	2.32	0.63
1:CA:190:U:H2'	1:CA:191:G:H8	1.62	0.63
1:CA:224:C:H2'	1:CA:225:C:C6	2.33	0.63
35:DA:926:A:H8	35:DA:926:A:H5'	1.63	0.63
35:BA:2136:C:N4	35:BA:2155:G:H1	1.97	0.63
1:AA:1116:C:H2'	1:AA:1117:G:O4'	1.98	0.63
27:B2:43:GLN:HB3	27:B2:44:LEU:HD12	1.80	0.63
5:AE:35:GLY:HA3	5:AE:112:LEU:O	1.99	0.63
19:CS:64:GLU:O	19:CS:66:MET:HG2	1.99	0.63
14:CN:26:ARG:HH11	14:CN:47:LEU:HD21	1.63	0.63
36:BB:52:A:N6	50:BS:33:LYS:HB2	2.14	0.63
57:DZ:121:HIS:HB3	57:DZ:123:ASP:O	1.99	0.63
35:DA:1011:G:H5''	52:DU:77:SER:OG	1.99	0.63
5:CE:145:LYS:O	5:CE:149:GLU:HG2	1.98	0.63
1:CA:1123:A:H5'	10:CJ:36:GLY:HA3	1.79	0.63
48:BQ:21:THR:CG2	48:BQ:101:ARG:HB2	2.29	0.63
35:DA:2023:G:H5'	35:DA:2617:C:H4'	1.79	0.63
41:BG:167:GLU:C	41:BG:169:ALA:H	2.01	0.63
15:CO:79:ARG:HD2	15:CO:79:ARG:O	1.99	0.63
16:CP:75:ARG:HH11	16:CP:75:ARG:HG3	1.62	0.63
40:BF:9:ILE:HG13	40:BF:15:SER:CB	2.18	0.63
51:BT:28:VAL:CG1	51:BT:46:GLU:HA	2.28	0.63
47:DP:47:ASP:HB3	47:DP:48:PRO:HA	1.78	0.63
2:AB:183:PRO:HA	2:AB:198:ASP:OD1	1.99	0.63
12:CL:80:VAL:CG2	12:CL:97:ILE:HG23	2.29	0.63
1:CA:659:U:C2'	1:CA:660:G:H5'	2.29	0.63
50:DS:18:ILE:C	50:DS:20:ARG:H	2.02	0.63
10:CJ:34:VAL:CG1	10:CJ:35:SER:H	2.11	0.63
47:DP:7:ARG:HD2	47:DP:7:ARG:H	1.64	0.63
2:AB:7:VAL:O	2:AB:11:LEU:HG	1.99	0.63
35:BA:962:G:O2'	35:BA:963:U:H5'	1.99	0.63
43:BI:113:ARG:NH1	43:BI:132:PRO:HB3	2.14	0.63
32:D7:7:PRO:HB2	35:DA:1309:G:H4'	1.80	0.63
35:BA:887:A:H1'	35:BA:889:C:N3	2.14	0.63
1:AA:1172:C:H2'	1:AA:1173:G:C8	2.33	0.63
17:CQ:57:VAL:HB	17:CQ:73:VAL:HG13	1.81	0.63
35:DA:2512:C:H4'	39:DE:122:PHE:CE2	2.34	0.63
35:BA:287:C:H2'	35:BA:288:C:C6	2.34	0.63
12:CL:21:VAL:HG12	12:CL:21:VAL:O	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:87:SER:HA	8:CH:93:VAL:HG23	1.79	0.63
20:AT:30:LYS:HE3	20:AT:33:ILE:HD12	1.81	0.63
8:AH:7:ALA:HB2	8:AH:85:ARG:HD3	1.81	0.63
35:DA:2114:A:H1'	35:DA:2167:U:O2'	1.98	0.63
41:BG:131:TYR:HB3	41:BG:159:VAL:CG2	2.29	0.63
1:CA:685:G:O2'	1:CA:686:U:H5'	1.98	0.63
35:DA:2144:U:O2'	35:DA:2145:C:H2'	1.98	0.63
13:CM:106:ASN:O	13:CM:107:ALA:HB3	1.99	0.63
35:DA:2473:U:O2'	35:DA:2474:C:C4'	2.47	0.63
57:BZ:34:ASN:O	57:BZ:35:ARG:NH1	2.32	0.63
57:DZ:28:MET:HG3	57:DZ:37:VAL:HG13	1.81	0.63
19:AS:57:HIS:O	19:AS:59:PRO:HD3	1.99	0.63
41:DG:131:TYR:CB	41:DG:159:VAL:HG22	2.29	0.63
48:DQ:134:ARG:NH1	57:DZ:122:ARG:HD2	2.13	0.63
43:BI:83:ALA:CB	43:BI:88:ILE:HA	2.29	0.63
5:AE:139:LEU:HA	5:AE:142:LEU:CD1	2.29	0.63
12:CL:2:PRO:HB2	12:CL:7:LEU:HD21	1.79	0.63
17:AQ:45:HIS:CD2	17:AQ:47:PRO:HD3	2.34	0.63
35:DA:2580:U:H4'	39:DE:130:GLY:HA3	1.81	0.63
18:AR:47:THR:O	18:AR:82:THR:HA	1.99	0.63
8:CH:44:PHE:HA	8:CH:79:VAL:CG1	2.28	0.63
1:CA:1269:A:OP1	21:CU:24:ARG:HD2	1.98	0.63
35:DA:1453:U:H5'	49:DR:63:ARG:HE	1.63	0.63
34:B9:18:ARG:HE	34:B9:23:VAL:HG22	1.63	0.63
35:BA:2023:G:H5'	35:BA:2617:C:H4'	1.80	0.63
38:DD:4:LYS:HE3	38:DD:20:ASP:HA	1.79	0.63
27:B2:24:LEU:HD11	27:B2:28:LYS:HE2	1.80	0.63
20:CT:30:LYS:HE3	20:CT:33:ILE:HD12	1.81	0.63
52:DU:29:SER:OG	52:DU:30:LYS:HE2	1.99	0.63
35:BA:2882:A:OP1	49:BR:96:ARG:HD3	1.99	0.63
51:BT:14:TYR:H	51:BT:14:TYR:HD1	1.46	0.63
9:AI:41:VAL:O	9:AI:41:VAL:HG12	1.99	0.63
1:CA:233:C:O2'	1:CA:234:C:H5'	1.98	0.63
12:AL:41:THR:HG23	24:AY:7:HIS:CA	2.28	0.62
1:CA:37:U:C5	1:CA:38:G:N7	2.67	0.62
52:BU:92:ARG:HD2	52:BU:95:LEU:HD12	1.81	0.62
23:AX:16:A:O2'	23:AX:17:U:O5'	2.17	0.62
35:DA:2491:U:H5'	35:DA:2570:G:C5'	2.23	0.62
47:BP:48:PRO:O	47:BP:49:ARG:C	2.36	0.62
30:B5:33:CYS:HB3	30:B5:36:CYS:O	1.98	0.62
35:DA:2192:G:C3'	35:DA:2193:G:H5''	2.28	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DP:84:ASN:O	47:DP:88:LEU:HD13	1.98	0.62
35:BA:1347:G:H8	35:BA:1347:G:H5'	1.64	0.62
1:CA:1531:A:C2'	1:CA:1532:U:H5''	2.26	0.62
43:DI:123:LEU:CD2	43:DI:144:VAL:HG13	2.29	0.62
25:B0:36:ILE:HD12	25:B0:37:LEU:N	2.14	0.62
35:DA:2040:C:H2'	35:DA:2041:U:H6	1.64	0.62
38:DD:108:PRO:HG2	38:DD:111:LEU:HB2	1.80	0.62
29:B4:6:HIS:HD2	41:BG:66:GLN:HA	1.64	0.62
41:BG:40:ASN:O	41:BG:155:MET:HB2	1.98	0.62
35:DA:2734:A:H5'	35:DA:2735:G:OP2	1.99	0.62
35:DA:2801(A):A:O4'	35:DA:2802:G:H2'	1.98	0.62
54:BW:65:LEU:O	54:BW:66:GLU:O	2.16	0.62
38:BD:267:SER:C	38:BD:269:PHE:H	2.02	0.62
56:DY:31:LEU:HD22	56:DY:31:LEU:N	2.14	0.62
45:BN:17:ASP:OD2	45:BN:19:GLU:HG3	1.99	0.62
38:DD:147:LEU:HD13	38:DD:155:LEU:HD11	1.81	0.62
8:AH:87:SER:HA	8:AH:93:VAL:HG23	1.80	0.62
1:AA:272:C:O2'	1:AA:273:A:H5'	1.98	0.62
35:BA:2564:A:OP1	35:BA:2648:C:H4'	1.99	0.62
54:BW:78:GLU:OE2	54:BW:99:ARG:HD2	1.99	0.62
9:CI:41:VAL:HG12	9:CI:41:VAL:O	1.97	0.62
56:DY:41:GLY:O	56:DY:64:GLU:HB3	1.99	0.62
1:AA:349:A:O2'	1:AA:350:G:H5'	1.99	0.62
35:DA:673:C:H5''	40:DF:81:PRO:HD2	1.81	0.62
35:DA:507:A:H5''	35:DA:508:G:H5'	1.78	0.62
1:CA:10:A:HO2'	1:CA:11:G:H5'	1.63	0.62
4:CD:205:GLU:OE1	5:CE:100:VAL:HG22	1.99	0.62
31:B6:27:LYS:HE3	35:BA:2285:C:C5	2.33	0.62
16:AP:73:LEU:HD12	16:AP:73:LEU:N	2.07	0.62
29:B4:35:VAL:HG12	29:B4:36:CYS:N	2.14	0.62
35:BA:1718:G:C8	35:BA:1718:G:H5'	2.34	0.62
4:AD:117:ALA:O	4:AD:121:VAL:HG23	1.99	0.62
1:CA:762:C:H2'	1:CA:763:G:C8	2.33	0.62
38:DD:30:GLU:CG	38:DD:63:ARG:NH2	2.62	0.62
38:DD:30:GLU:HG3	38:DD:63:ARG:CZ	2.29	0.62
27:D2:35:LEU:CD1	27:D2:53:LEU:HD12	2.30	0.62
28:D3:50:VAL:O	28:D3:54:VAL:HG23	1.99	0.62
12:CL:30:ARG:HB3	12:CL:82:ILE:CG2	2.29	0.62
35:BA:556:G:H2'	35:BA:557:U:C6	2.34	0.62
28:B3:6:VAL:O	28:B3:34:GLU:HA	2.00	0.62
35:BA:184:C:H2'	35:BA:185:U:C6	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1169:G:H1	35:BA:1180:C:H42	1.47	0.62
18:AR:58:LEU:HB3	18:AR:62:GLU:HB2	1.81	0.62
56:BY:41:GLY:O	56:BY:64:GLU:HB3	1.99	0.62
1:AA:158:G:H2'	1:AA:159:G:H8	1.64	0.62
35:BA:2033:A:H4'	35:BA:2034:U:OP1	1.97	0.62
1:CA:1465:C:C2	1:CA:1466:C:C6	2.87	0.62
5:CE:15:ARG:O	5:CE:17:ALA:N	2.31	0.62
35:DA:303:U:H2'	35:DA:304:G:H8	1.63	0.62
39:DE:186:GLY:O	39:DE:187:ALA:HB3	1.99	0.62
1:CA:1060:C:O2'	10:CJ:56:HIS:HD2	1.81	0.62
1:CA:1505:G:O2'	58:CX:15:A:OP1	2.17	0.62
50:BS:85:VAL:CG2	50:BS:106:ARG:HG3	2.29	0.62
4:CD:86:LYS:HE3	4:CD:86:LYS:N	2.15	0.62
33:B8:56:GLU:HG3	33:B8:56:GLU:O	1.97	0.62
3:CC:142:MET:HA	3:CC:146:ALA:HB3	1.81	0.62
43:BI:82:ARG:C	43:BI:89:TYR:HB2	2.19	0.62
43:DI:83:ALA:CB	43:DI:88:ILE:HA	2.29	0.62
43:DI:82:ARG:O	43:DI:83:ALA:HB2	1.98	0.62
10:AJ:4:ILE:CD1	10:AJ:74:ILE:HB	2.30	0.62
1:CA:1422:G:H2'	1:CA:1423:G:H8	1.63	0.62
1:CA:962:C:H2'	1:CA:963:G:C8	2.35	0.62
50:DS:89:ARG:O	50:DS:92:TYR:HB3	1.99	0.62
35:DA:2807:G:C3'	35:DA:2808:U:H5''	2.28	0.62
1:CA:1492:A:O2'	24:CY:9:TYR:HB2	2.00	0.62
35:BA:322:A:H3'	40:BF:169:ASN:ND2	2.13	0.62
35:BA:2302:G:C2'	35:BA:2303:G:H5'	2.29	0.62
32:B7:10:ARG:HH11	32:B7:14:LYS:HE3	1.62	0.62
12:AL:25:LYS:HD3	12:AL:30:ARG:HH22	1.64	0.62
12:CL:25:LYS:HD3	12:CL:30:ARG:HH22	1.64	0.62
39:DE:12:THR:HG22	39:DE:13:ARG:N	2.14	0.62
1:AA:1452:C:H4'	1:AA:1456:G:C4	2.35	0.62
1:AA:601:C:H2'	1:AA:602:A:H8	1.65	0.62
1:CA:337:C:H2'	1:CA:338:A:H8	1.64	0.62
11:AK:18:ARG:HB3	11:AK:33:THR:OG1	1.98	0.62
35:BA:1001:A:H2'	35:BA:1002:G:O4'	1.98	0.62
1:CA:47:C:N3	1:CA:365:U:O2	2.33	0.62
1:CA:272:C:O2'	1:CA:273:A:H5'	1.99	0.62
1:CA:1211:U:H5'	1:CA:1212:U:OP1	1.98	0.62
18:CR:58:LEU:HB3	18:CR:62:GLU:HB2	1.80	0.62
35:BA:2114:A:H1'	35:BA:2167:U:O2'	1.98	0.62
11:CK:18:ARG:HB3	11:CK:33:THR:OG1	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:58:LYS:O	20:CT:62:LEU:HD12	1.99	0.62
35:BA:2341:G:H2'	35:BA:2342:C:C6	2.35	0.62
26:B1:53:VAL:O	26:B1:53:VAL:HG13	1.98	0.62
1:AA:1442(B):A:N3	1:AA:1442(B):A:H2'	2.13	0.62
47:DP:48:PRO:O	47:DP:50:ARG:N	2.32	0.62
1:CA:6:G:O2'	1:CA:298:A:C4'	2.47	0.62
35:DA:868:U:C4	35:DA:869:G:C5	2.87	0.62
1:CA:17:U:H1'	1:CA:1080:A:H1'	1.82	0.62
3:CC:76:VAL:HG23	3:CC:77:ILE:HG13	1.81	0.62
57:DZ:44:PHE:HE2	57:DZ:86:VAL:HG11	1.64	0.62
2:AB:102:LEU:N	2:AB:102:LEU:HD12	2.14	0.62
13:CM:57:ARG:HH22	29:D4:35:VAL:HG23	1.63	0.62
38:BD:31:LYS:HA	38:BD:31:LYS:CE	2.29	0.62
10:AJ:49:VAL:HG23	14:AN:41:ARG:HB2	1.80	0.62
4:AD:170:VAL:HG12	4:AD:174:LEU:HB2	1.80	0.62
3:AC:20:SER:HB2	3:AC:40:ARG:HH22	1.65	0.62
57:DZ:30:ASN:O	57:DZ:32:HIS:N	2.32	0.62
35:DA:1431:U:O2'	35:DA:1432:C:H5'	1.99	0.62
39:BE:4:ILE:CD1	39:BE:28:ALA:HB1	2.29	0.62
5:CE:10:MET:CB	5:CE:32:VAL:HG22	2.29	0.62
48:BQ:43:THR:HG1	48:BQ:46:GLN:HG3	1.63	0.62
35:DA:528:A:C2	35:DA:2042:A:H2'	2.34	0.62
42:BH:17:VAL:HG13	42:BH:24:VAL:CG2	2.28	0.62
3:CC:187:ALA:C	3:CC:188:LEU:HD22	2.20	0.62
9:CI:111:ARG:CG	9:CI:112:LYS:H	2.12	0.62
1:CA:1000:U:H2'	1:CA:1001:A:C8	2.32	0.62
20:CT:38:LYS:HA	20:CT:41:ILE:HG12	1.81	0.62
40:BF:165:ARG:CB	40:BF:165:ARG:HH11	2.12	0.62
1:CA:814:A:H4'	1:CA:1511:G:H5'	1.80	0.62
1:AA:1112:C:H1'	3:AC:179:ARG:HH11	1.63	0.62
1:CA:428:G:H5''	4:CD:7:PRO:HB3	1.80	0.62
1:AA:1079:G:H2'	1:AA:1080:A:C8	2.34	0.62
20:CT:54:LYS:HA	20:CT:57:ARG:CZ	2.30	0.62
35:DA:1794:U:H2'	35:DA:1795:C:H6	1.64	0.62
35:BA:1907:G:O2'	35:BA:1908:C:H5'	2.00	0.62
1:CA:1258:G:H2'	1:CA:1259:C:C6	2.35	0.62
35:BA:1925:C:O2'	35:BA:1926:U:H5'	1.99	0.62
30:D5:57:VAL:HG23	30:D5:58:LEU:N	2.13	0.62
38:DD:28:GLU:CD	38:DD:28:GLU:N	2.52	0.62
1:AA:390:C:O3'	16:AP:28:ARG:NH2	2.32	0.62
22:CV:49:G:H2'	22:CV:50:U:O4'	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D0:40:GLN:HG3	25:D0:42:GLY:O	2.00	0.62
4:AD:92:VAL:O	4:AD:96:LEU:HD13	1.98	0.62
42:DH:20:ALA:HB3	42:DH:23:ARG:HG3	1.81	0.62
35:DA:2472:G:C5'	35:DA:2473:U:H4'	2.28	0.62
1:CA:1501:C:H3'	1:CA:1502:A:H5''	1.81	0.62
58:CX:16:A:C5	58:CX:17:U:C5	2.86	0.62
40:BF:196:LEU:C	40:BF:198:ALA:H	2.02	0.62
42:DH:86:GLU:HA	42:DH:132:ARG:CB	2.30	0.62
47:DP:50:ARG:HH21	47:DP:50:ARG:HG2	1.65	0.62
2:CB:178:ARG:NH2	8:CH:68:ARG:HH22	1.96	0.62
2:CB:168:THR:HG21	2:CB:192:SER:HA	1.82	0.62
57:DZ:38:TYR:CD1	57:DZ:38:TYR:O	2.52	0.62
10:AJ:51:ARG:H	10:AJ:60:ARG:HB3	1.65	0.62
9:CI:16:ARG:HH21	9:CI:64:THR:HG21	1.65	0.62
43:BI:87:LYS:HA	43:BI:122:GLU:HA	1.80	0.62
35:BA:146:G:O2'	35:BA:147:U:H5'	1.99	0.62
35:BA:2307:G:H3'	35:BA:2307:G:N3	2.15	0.62
47:DP:16:ARG:HD3	47:DP:18:ARG:N	2.15	0.62
1:CA:430:A:OP1	4:CD:9:CYS:HB2	1.99	0.62
1:CA:1428:A:H2'	1:CA:1429:C:C6	2.35	0.62
10:AJ:92:THR:HG23	10:AJ:93:GLY:N	2.13	0.62
1:CA:1051:C:H2'	1:CA:1052:U:C6	2.33	0.62
11:AK:124:LYS:HD2	11:AK:125:PHE:CE1	2.34	0.62
39:BE:30:PRO:HA	39:BE:92:THR:HG22	1.81	0.62
15:CO:54:ARG:HG2	15:CO:58:MET:HE2	1.82	0.62
35:DA:887:A:H1'	35:DA:889:C:N3	2.14	0.62
55:DX:12:VAL:HG22	55:DX:27:THR:O	2.00	0.62
35:BA:389:G:N1	47:BP:71:VAL:HG12	2.14	0.62
35:DA:2341:G:H2'	35:DA:2342:C:C6	2.35	0.62
6:AF:82:ARG:HB2	6:AF:85:VAL:HG23	1.82	0.62
6:AF:82:ARG:HB2	6:AF:85:VAL:CG2	2.29	0.62
35:BA:30:G:H2'	35:BA:31:C:C6	2.35	0.62
22:AV:27:U:H3	22:AV:43:A:H61	1.48	0.62
35:DA:674:G:H1'	40:DF:74:ARG:HD3	1.79	0.62
1:AA:222:U:H2'	1:AA:223:U:H6	1.64	0.62
27:B2:55:ARG:HG2	27:B2:55:ARG:HH21	1.65	0.62
37:DC:43:VAL:HA	37:DC:212:VAL:CB	2.30	0.62
35:BA:1149:G:H2'	35:BA:1150:C:C6	2.34	0.62
51:DT:88:ILE:HG22	51:DT:89:VAL:HG13	1.82	0.62
35:DA:868:U:C2	35:DA:869:G:C8	2.87	0.62
12:CL:80:VAL:HG21	12:CL:97:ILE:HG23	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1503:U:H2'	35:BA:1504:C:H6	1.64	0.62
2:CB:30:ARG:HH21	2:CB:194:PRO:HB2	1.64	0.62
31:B6:11:LEU:HD13	31:B6:12:GLU:N	2.15	0.62
35:DA:2476:A:H2	35:DA:2477:C:C6	2.18	0.62
41:DG:107:LEU:HD13	41:DG:177:GLY:HA3	1.81	0.62
30:B5:2:ALA:HA	35:BA:2015:A:C1'	2.29	0.62
47:DP:84:ASN:ND2	47:DP:115:LEU:HG	2.15	0.62
47:DP:105:LEU:H	47:DP:105:LEU:HD12	1.63	0.62
10:AJ:50:ILE:HA	10:AJ:60:ARG:HB3	1.80	0.62
35:BA:2091:U:C3'	35:BA:2092:U:H5''	2.26	0.62
43:BI:123:LEU:CD2	43:BI:144:VAL:HG13	2.29	0.62
35:BA:661:C:H5''	47:BP:18:ARG:HD3	1.82	0.62
1:AA:1004:A:H5''	1:AA:1025:U:N3	2.13	0.62
29:D4:56:VAL:HG13	29:D4:57:GLU:N	2.13	0.62
25:D0:36:ILE:HG23	35:DA:2354:G:O2'	1.98	0.62
41:BG:63:ILE:CD1	41:BG:144:ILE:HD11	2.27	0.62
20:AT:13:LEU:HD12	20:AT:14:LYS:N	2.14	0.62
29:B4:6:HIS:CG	41:BG:67:LYS:HD2	2.34	0.62
1:CA:639:G:H2'	1:CA:640:A:C8	2.34	0.62
35:DA:1049:C:H2'	35:DA:1050:A:C8	2.30	0.62
1:CA:1250:A:H5'	9:CI:67:GLY:HA2	1.82	0.62
42:BH:137:ASP:HB2	42:BH:140:LYS:HE2	1.81	0.62
42:DH:137:ASP:HB2	42:DH:140:LYS:HE2	1.81	0.62
35:DA:1639:U:H2'	35:DA:1640:C:H5''	1.81	0.62
35:DA:1853:A:H2'	35:DA:1854:A:C8	2.34	0.62
2:AB:114:ARG:HD3	2:AB:114:ARG:O	1.98	0.62
47:DP:75:ILE:HD12	47:DP:75:ILE:H	1.63	0.62
1:AA:1005:A:N6	1:AA:1024:G:H4'	2.14	0.62
55:BX:44:GLU:CG	55:BX:51:VAL:HG23	2.30	0.62
19:AS:22:LEU:HA	19:AS:27:GLU:OE2	2.00	0.62
12:AL:87:VAL:O	12:AL:89:ASP:N	2.32	0.62
35:DA:1188:U:H4'	53:DV:79:VAL:HG22	1.82	0.62
3:AC:41:GLY:O	3:AC:45:LYS:HG3	1.98	0.62
1:CA:303:A:OP1	12:CL:14:LYS:HE3	1.99	0.62
35:DA:2665:A:H2'	35:DA:2666:C:H5'	1.80	0.62
35:BA:1215:G:O2'	35:BA:1216:G:H5'	2.00	0.62
56:BY:10:GLY:CA	56:BY:27:VAL:HG13	2.29	0.62
35:DA:876:C:H2'	35:DA:877:U:O4'	1.99	0.62
33:B8:52:LYS:HE2	35:BA:834:C:H4'	1.81	0.62
47:BP:50:ARG:HG2	47:BP:50:ARG:HH21	1.63	0.62
12:AL:80:VAL:CG2	12:AL:97:ILE:HG23	2.30	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DZ:21:ALA:O	57:DZ:23:LYS:HE2	1.99	0.62
15:AO:37:ASN:HD22	15:AO:37:ASN:N	1.96	0.62
35:BA:2839:G:H5'	49:BR:46:GLY:HA2	1.81	0.62
26:D1:64:ALA:HA	26:D1:67:ILE:HD11	1.82	0.62
35:DA:1718:G:H5'	35:DA:1718:G:C8	2.35	0.62
41:BG:27:ASN:ND2	41:BG:28:VAL:N	2.46	0.62
18:AR:19:LYS:HG3	18:AR:20:ALA:N	2.12	0.62
54:DW:1:MET:HE3	54:DW:2:GLU:H	1.64	0.62
35:BA:2579:C:O2'	39:BE:131:ALA:HB3	1.99	0.62
35:BA:2199:A:H3'	35:BA:2200:C:C6	2.33	0.62
40:DF:162:LEU:HD22	40:DF:162:LEU:H	1.63	0.62
1:CA:1296:C:H5'	1:CA:1297:C:OP2	1.98	0.62
1:AA:378:G:H2'	1:AA:379:C:C6	2.35	0.62
8:AH:44:PHE:HA	8:AH:79:VAL:CG1	2.29	0.62
18:CR:47:THR:HG22	18:CR:85:LEU:N	2.14	0.62
45:BN:96:GLU:H	45:BN:96:GLU:CD	2.01	0.62
40:BF:203:GLN:O	40:BF:206:ILE:HG12	1.98	0.62
40:BF:107:LYS:HD2	40:BF:205:ARG:O	1.99	0.62
1:CA:189(K):U:H2'	1:CA:189(L):G:H8	1.64	0.62
37:BC:46:LYS:NZ	37:BC:46:LYS:HB2	2.15	0.62
13:CM:116:THR:HG22	13:CM:117:VAL:N	2.13	0.62
38:BD:147:LEU:CD1	38:BD:155:LEU:HD11	2.30	0.62
15:CO:70:LEU:HD23	15:CO:70:LEU:O	1.99	0.62
35:BA:2314:C:H5'	41:BG:38:VAL:HG11	1.81	0.62
39:BE:108:SER:HB3	39:BE:165:VAL:HG21	1.82	0.62
18:CR:45:SER:H	18:CR:51:LEU:HG	1.64	0.62
26:B1:52:ARG:HH11	26:B1:57:GLU:N	1.97	0.62
1:AA:1051:C:H2'	1:AA:1052:U:C6	2.35	0.62
22:CV:55:U:H2'	22:CV:56:C:C5	2.34	0.62
1:AA:1502:A:H2	1:AA:1505:G:H1	1.47	0.62
56:DY:97:ARG:HH22	56:DY:98:VAL:HB	1.65	0.62
10:CJ:50:ILE:HA	10:CJ:60:ARG:HB3	1.80	0.62
33:D8:2:PRO:O	33:D8:3:LYS:HB3	2.00	0.62
40:DF:22:ALA:HB1	40:DF:26:ALA:CB	2.29	0.62
2:AB:71:VAL:CG2	2:AB:164:VAL:HG22	2.28	0.62
2:AB:30:ARG:HH21	2:AB:194:PRO:HB2	1.65	0.62
47:DP:81:GLN:HG2	47:DP:106:LEU:HA	1.82	0.62
14:AN:41:ARG:HE	14:AN:42:ILE:HD11	1.63	0.62
4:CD:117:ALA:O	4:CD:121:VAL:HG23	2.00	0.62
1:CA:345:C:OP2	51:DT:41:ARG:HD3	2.00	0.62
9:AI:16:ARG:HH21	9:AI:64:THR:HG21	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1296:C:H5'	1:AA:1297:C:OP2	2.00	0.62
39:BE:51:PHE:H	39:BE:74:PRO:HB2	1.65	0.62
38:BD:27:THR:CG2	38:BD:83:GLU:HB3	2.29	0.62
1:AA:586:C:H1'	1:AA:878:G:O2'	2.00	0.62
1:CA:1005:A:N6	1:CA:1024:G:H4'	2.15	0.62
43:BI:5:LEU:O	43:BI:6:LEU:HD23	2.00	0.62
35:BA:1049:C:H2'	35:BA:1050:A:C8	2.31	0.62
48:DQ:55:VAL:HG12	48:DQ:64:ILE:HD12	1.82	0.62
3:AC:149:ALA:HA	3:AC:201:TYR:O	2.00	0.62
40:DF:37:VAL:HG13	40:DF:184:TYR:HD1	1.64	0.62
35:DA:2758:A:C5	42:DH:67:LEU:HD21	2.34	0.62
12:CL:83:ARG:NH2	12:CL:96:HIS:ND1	2.47	0.62
35:BA:2291:U:H2'	35:BA:2292:C:C6	2.35	0.62
38:BD:28:GLU:H	38:BD:29:PRO:HD2	1.65	0.62
1:AA:601:C:H2'	1:AA:602:A:C8	2.35	0.62
35:DA:2327:A:H2'	35:DA:2328:A:C8	2.35	0.62
35:BA:2665:A:H2'	35:BA:2666:C:H5'	1.81	0.62
20:AT:38:LYS:HA	20:AT:41:ILE:HG12	1.82	0.62
35:DA:2886:G:H2'	35:DA:2887:U:H6	1.64	0.62
56:BY:81:LYS:HZ3	56:BY:97:ARG:HH21	1.48	0.62
56:DY:81:LYS:HE2	56:DY:97:ARG:HE	1.65	0.62
42:BH:127:GLU:HB2	42:BH:128:PRO:HD2	1.80	0.62
40:BF:63:LYS:HZ3	40:BF:67:GLN:HB2	1.63	0.62
47:DP:146:VAL:HG22	47:DP:147:LEU:N	2.09	0.62
35:DA:2320:A:N3	35:DA:2320:A:C2'	2.63	0.62
43:DI:82:ARG:CB	43:DI:145:VAL:N	2.62	0.62
6:AF:67:MET:HB2	6:AF:68:PRO:HD2	1.82	0.62
1:CA:1422:G:H4'	46:DO:49:ARG:NH2	2.15	0.62
38:BD:125:ILE:HD12	38:BD:137:PRO:CD	2.30	0.62
26:D1:64:ALA:HA	26:D1:67:ILE:CG1	2.29	0.62
38:BD:52:ARG:HB2	38:BD:53:PHE:CD2	2.33	0.62
41:BG:25:TYR:CD2	41:BG:31:VAL:HG22	2.35	0.62
35:BA:1019:U:O2'	35:BA:1021:A:C2	2.53	0.62
35:DA:2893:G:H5'	35:DA:2894:G:C5'	2.30	0.62
14:CN:33:VAL:HG12	14:CN:40:CYS:CB	2.30	0.62
5:AE:5:ASP:HA	5:AE:63:ARG:NH1	2.15	0.62
1:CA:421:U:O4	3:CC:127:ARG:HD3	2.00	0.62
50:BS:61:ASN:H	50:BS:65:VAL:CG2	2.13	0.62
12:CL:29:PHE:HE1	12:CL:83:ARG:HG3	1.65	0.62
8:AH:77:GLU:HG2	8:AH:78:GLN:H	1.63	0.62
53:BV:21:ARG:HB3	53:BV:91:TYR:HB2	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:957:U:H2'	1:AA:959:A:OP2	2.00	0.62
45:DN:96:GLU:H	45:DN:96:GLU:CD	2.03	0.62
1:CA:189(E):U:O2'	1:CA:189(F):U:H5'	1.98	0.62
4:CD:142:PRO:HA	4:CD:185:PHE:HD2	1.64	0.62
35:DA:2319:G:N3	35:DA:2319:G:O2'	2.29	0.62
1:AA:1041:A:H2'	1:AA:1042:G:C8	2.35	0.62
42:BH:20:ALA:HB3	42:BH:23:ARG:HG3	1.82	0.62
13:CM:90:LEU:C	13:CM:92:HIS:H	2.02	0.62
6:CF:18:GLN:O	6:CF:21:LEU:HB2	2.00	0.62
33:D8:50:LEU:O	33:D8:51:ALA:HB2	2.00	0.62
36:BB:30:C:OP2	50:BS:32:LEU:HD11	1.99	0.62
51:DT:28:VAL:CG1	51:DT:46:GLU:HA	2.30	0.62
2:CB:183:PRO:HA	2:CB:198:ASP:OD1	1.99	0.62
37:DC:59:ARG:CD	37:DC:59:ARG:H	2.04	0.62
2:CB:102:LEU:HD12	2:CB:102:LEU:N	2.15	0.62
35:BA:2476:A:H2	35:BA:2477:C:C6	2.17	0.62
2:AB:101:MET:HB2	2:AB:102:LEU:HD12	1.82	0.62
35:DA:2305:A:H5''	41:DG:156:ASP:OD1	2.00	0.62
41:DG:105:LYS:CE	41:DG:142:PRO:HG2	2.30	0.62
41:DG:41:GLN:HA	41:DG:155:MET:CB	2.30	0.62
38:DD:34:VAL:O	38:DD:64:ILE:HG22	2.00	0.62
3:AC:142:MET:HA	3:AC:146:ALA:HB3	1.81	0.62
39:DE:52:LEU:HD23	39:DE:75:VAL:HB	1.81	0.62
4:AD:105:VAL:HG21	4:AD:126:ILE:HG12	1.81	0.62
4:AD:121:VAL:HA	4:AD:126:ILE:HD13	1.82	0.62
35:BA:2580:U:H4'	39:BE:130:GLY:HA3	1.80	0.62
38:DD:267:SER:O	38:DD:269:PHE:N	2.33	0.62
4:CD:20:TYR:HA	4:CD:26:CYS:SG	2.40	0.62
32:D7:10:ARG:O	32:D7:14:LYS:HG2	2.00	0.62
35:BA:1709:U:H2'	35:BA:1710:C:C6	2.35	0.62
1:AA:1109:C:O2'	1:AA:1110:A:H5'	2.00	0.62
1:AA:1226:C:H4'	19:AS:80:TYR:CZ	2.35	0.62
35:DA:1478:G:O2'	35:DA:1479:G:H5'	2.00	0.62
1:AA:545:C:O2'	1:AA:546:G:H5'	2.00	0.62
35:BA:2167:U:H2'	35:BA:2168:G:C8	2.35	0.62
15:CO:8:LYS:O	15:CO:12:ILE:HG13	2.00	0.62
39:DE:65:GLY:HA2	39:DE:70:ALA:CB	2.29	0.62
35:DA:1625:C:H2'	35:DA:1626:G:O4'	2.00	0.62
39:DE:108:SER:HB3	39:DE:165:VAL:HG21	1.81	0.62
18:AR:33:ASP:O	18:AR:40:LEU:HD11	2.00	0.62
41:DG:167:GLU:C	41:DG:169:ALA:H	2.02	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DH:12:PRO:CB	42:DH:15:VAL:HG21	2.24	0.61
42:DH:27:LYS:HG2	42:DH:28:GLY:N	2.15	0.61
24:AY:82:GLN:CG	24:AY:83:LEU:N	2.63	0.61
22:CV:52:G:HO2'	22:CV:53:G:H5'	1.65	0.61
56:BY:99:CYS:O	56:BY:100:ALA:HB2	2.00	0.61
7:CG:81:GLY:O	58:CX:13:A:C5'	2.48	0.61
52:DU:86:ALA:HB1	52:DU:88:ILE:HG23	1.82	0.61
52:DU:91:ASP:O	52:DU:92:ARG:HG2	2.00	0.61
5:CE:33:VAL:HG11	5:CE:109:ILE:HA	1.82	0.61
2:AB:70:PHE:O	2:AB:92:TYR:HA	2.00	0.61
38:DD:33:LEU:C	38:DD:33:LEU:HD23	2.20	0.61
4:AD:170:VAL:HG21	4:AD:176:LEU:HB2	1.81	0.61
43:DI:87:LYS:HA	43:DI:122:GLU:HA	1.81	0.61
43:DI:86:THR:O	43:DI:87:LYS:HG3	2.00	0.61
14:AN:25:VAL:HG23	14:AN:38:GLY:O	2.00	0.61
2:CB:7:VAL:O	2:CB:11:LEU:HG	2.00	0.61
38:BD:108:PRO:HG2	38:BD:111:LEU:HB2	1.82	0.61
35:DA:543:C:O2'	35:DA:547:A:H8	1.70	0.61
38:BD:26:LYS:O	38:BD:27:THR:HG22	1.99	0.61
35:DA:1827:C:O2'	35:DA:1828:G:H5'	1.99	0.61
55:BX:80:ILE:O	55:BX:80:ILE:HD13	1.98	0.61
38:DD:267:SER:C	38:DD:269:PHE:H	2.02	0.61
13:AM:70:LEU:O	13:AM:74:VAL:HG23	2.00	0.61
18:AR:47:THR:HG22	18:AR:85:LEU:N	2.14	0.61
4:AD:31:CYS:C	4:AD:33:MET:H	2.02	0.61
25:B0:72:ARG:O	25:B0:75:LEU:N	2.29	0.61
55:DX:44:GLU:CG	55:DX:51:VAL:HG23	2.30	0.61
46:BO:18:LYS:HD2	46:BO:45:GLU:OE1	1.99	0.61
21:CU:2:GLY:C	21:CU:4:GLY:H	2.02	0.61
20:CT:51:GLU:HA	20:CT:54:LYS:HB3	1.82	0.61
35:DA:2143:C:H2'	35:DA:2144:U:C6	2.35	0.61
35:BA:2665:A:C2'	35:BA:2666:C:H5'	2.30	0.61
40:DF:53:THR:HG23	40:DF:56:GLU:OE2	2.00	0.61
22:AV:40:C:H2'	22:AV:41:C:H6	1.64	0.61
35:DA:2033:A:H4'	35:DA:2034:U:OP1	1.99	0.61
4:AD:129:ASN:N	4:AD:129:ASN:HD22	1.98	0.61
24:CY:1:GLY:HA3	35:DA:1914:C:H1'	1.81	0.61
52:BU:83:LEU:HD12	52:BU:83:LEU:H	1.63	0.61
56:BY:28:LYS:HB3	56:BY:38:ILE:H	1.63	0.61
56:BY:8:LYS:HE2	56:BY:72:VAL:HG23	1.82	0.61
2:AB:181:PHE:O	2:AB:183:PRO:HD3	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DU:74:LEU:N	52:DU:74:LEU:HD12	2.13	0.61
2:CB:70:PHE:O	2:CB:92:TYR:HA	2.01	0.61
57:DZ:10:ARG:NH2	57:DZ:26:GLY:H	1.98	0.61
24:AY:64:TYR:CD1	24:AY:92:ILE:CG2	2.83	0.61
2:AB:171:ALA:HA	2:AB:174:VAL:HG23	1.82	0.61
41:DG:131:TYR:HB3	41:DG:159:VAL:CG2	2.30	0.61
35:DA:2334:G:H5'	50:DS:13:ARG:HD3	1.82	0.61
50:DS:19:LYS:HB3	50:DS:20:ARG:HH21	1.65	0.61
6:AF:69:GLU:O	6:AF:72:VAL:HG12	1.99	0.61
48:BQ:27:VAL:HG23	48:BQ:137:TYR:CE1	2.35	0.61
48:BQ:137:TYR:OH	57:BZ:81:ARG:NH2	2.33	0.61
25:B0:23:VAL:HG21	35:BA:857:C:H4'	1.80	0.61
35:BA:923:C:H2'	35:BA:924:C:C6	2.35	0.61
3:CC:30:ARG:O	3:CC:34:LEU:HG	2.00	0.61
35:BA:1114:G:C2'	35:BA:1115:G:H5''	2.29	0.61
51:DT:78:LEU:O	51:DT:79:HIS:ND1	2.34	0.61
1:AA:1306:A:H1'	1:AA:1332:A:C2	2.35	0.61
7:CG:79:ARG:HB2	7:CG:84:ASN:HD21	1.65	0.61
9:AI:97:LYS:HB3	9:AI:98:PRO:HD3	1.82	0.61
26:D1:52:ARG:O	26:D1:56:GLN:O	2.19	0.61
56:BY:50:ARG:NE	56:BY:57:GLN:O	2.33	0.61
35:BA:330:A:HO2'	35:BA:331:A:H8	1.44	0.61
35:BA:1639:U:H2'	35:BA:1640:C:H5''	1.80	0.61
1:AA:639:G:H2'	1:AA:640:A:C8	2.34	0.61
18:AR:83:GLU:N	18:AR:83:GLU:OE1	2.33	0.61
38:BD:30:GLU:CG	38:BD:63:ARG:NH2	2.63	0.61
45:BN:19:GLU:OE2	45:BN:20:GLY:N	2.33	0.61
17:AQ:57:VAL:HB	17:AQ:73:VAL:HG13	1.81	0.61
38:BD:154:LYS:C	38:BD:155:LEU:HD12	2.21	0.61
35:BA:1450(A):C:H2'	35:BA:1451:C:C6	2.36	0.61
1:CA:304:U:H2'	1:CA:305:G:C8	2.35	0.61
35:DA:2746:U:H2'	35:DA:2747:G:H5'	1.82	0.61
35:DA:30:G:H2'	35:DA:31:C:C6	2.35	0.61
56:BY:23:ARG:O	56:BY:24:VAL:O	2.17	0.61
13:AM:106:ASN:O	13:AM:107:ALA:HB3	1.99	0.61
8:CH:96:GLY:O	8:CH:130:GLY:HA3	2.00	0.61
41:DG:70:VAL:HG13	41:DG:70:VAL:O	2.00	0.61
35:DA:1921:G:H2'	35:DA:1922:G:H8	1.64	0.61
33:D8:23:VAL:CG1	33:D8:46:ARG:HB3	2.29	0.61
3:AC:73:PRO:O	3:AC:76:VAL:HG22	2.00	0.61
31:D6:27:LYS:HE3	35:DA:2285:C:C5	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:11:ILE:HD12	5:AE:31:LEU:CD1	2.29	0.61
2:AB:21:ARG:NH2	2:AB:38:GLY:HA3	2.16	0.61
19:CS:11:VAL:HG22	19:CS:12:ASP:N	2.08	0.61
47:DP:105:LEU:HD12	47:DP:105:LEU:N	2.15	0.61
8:CH:29:SER:HB3	8:CH:32:LYS:CG	2.31	0.61
39:BE:111:ARG:HB2	39:BE:160:TYR:O	2.00	0.61
38:BD:45:ASN:CG	38:BD:46:GLN:N	2.53	0.61
40:DF:165:ARG:CB	40:DF:165:ARG:HH11	2.13	0.61
35:DA:17:G:H4'	52:DU:25:TRP:CZ3	2.35	0.61
5:CE:6:PHE:HB3	5:CE:35:GLY:O	2.00	0.61
16:CP:20:VAL:HG21	16:CP:32:TYR:CG	2.34	0.61
6:CF:40:VAL:O	6:CF:40:VAL:HG22	1.99	0.61
51:DT:2:ASN:O	51:DT:4:GLY:N	2.33	0.61
35:DA:363(F):A:H5''	35:DA:364:C:OP1	2.01	0.61
13:AM:78:ILE:HG23	13:AM:92:HIS:CE1	2.34	0.61
19:CS:22:LEU:HA	19:CS:27:GLU:OE2	2.00	0.61
35:DA:2665:A:C2'	35:DA:2666:C:H5'	2.30	0.61
2:CB:107:THR:C	2:CB:109:SER:H	2.04	0.61
26:B1:29:GLY:O	26:B1:31:GLY:N	2.32	0.61
16:AP:13:HIS:C	16:AP:15:PRO:HD3	2.19	0.61
57:DZ:75:ASN:O	57:DZ:84:GLU:HG2	2.00	0.61
40:BF:40:GLN:NE2	40:BF:182:ASN:HB2	2.15	0.61
16:CP:13:HIS:C	16:CP:15:PRO:HD3	2.21	0.61
44:DJ:74:UNK:C	44:DJ:76:UNK:H	2.13	0.61
1:CA:401:C:P	4:CD:73:ARG:HE	2.23	0.61
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.35	0.61
35:BA:1449:A:H5'	35:BA:1450:G:OP2	2.01	0.61
35:BA:1528(A):A:N7	35:BA:1529:G:N9	2.49	0.61
35:DA:833:U:H5''	47:DP:48:PRO:CB	2.29	0.61
56:BY:27:VAL:HG12	56:BY:29:GLU:OE1	2.01	0.61
57:BZ:150:LEU:CG	57:BZ:171:ILE:HD11	2.30	0.61
33:B8:4:MET:CE	33:B8:61:LEU:HD13	2.31	0.61
31:D6:11:LEU:HD13	31:D6:12:GLU:N	2.15	0.61
57:DZ:10:ARG:O	57:DZ:36:LYS:HG3	2.00	0.61
24:AY:64:TYR:CE1	24:AY:92:ILE:CG2	2.83	0.61
35:BA:2476:A:N3	35:BA:2476:A:H2'	2.14	0.61
38:DD:31:LYS:CE	38:DD:31:LYS:HA	2.30	0.61
22:CW:17:C:H5''	22:CW:17(A):U:OP2	2.00	0.61
9:AI:53:VAL:HG23	9:AI:54:ASP:N	2.16	0.61
47:BP:17:LYS:O	47:BP:19:VAL:HG22	1.99	0.61
7:AG:80:VAL:HG12	7:AG:81:GLY:N	2.12	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1130:A:H61	1:AA:1143:G:H21	1.48	0.61
38:BD:125:ILE:HD13	38:BD:136:ILE:HG23	1.82	0.61
29:D4:55:ARG:HD3	29:D4:56:VAL:N	2.15	0.61
35:BA:922:U:H2'	35:BA:923:C:C6	2.34	0.61
14:CN:25:VAL:HG23	14:CN:38:GLY:O	2.00	0.61
5:CE:135:THR:O	5:CE:138:ALA:HB3	2.00	0.61
9:AI:113:LYS:N	9:AI:113:LYS:HD2	2.15	0.61
8:CH:116:LYS:HA	8:CH:116:LYS:HE3	1.81	0.61
1:CA:1208:C:H2'	1:CA:1209:C:C6	2.36	0.61
17:AQ:65:ILE:H	17:AQ:65:ILE:HD12	1.64	0.61
5:CE:5:ASP:HA	5:CE:63:ARG:NH1	2.15	0.61
35:BA:2808:U:O2'	35:BA:2809:A:H5'	1.99	0.61
5:AE:6:PHE:HB3	5:AE:35:GLY:O	2.00	0.61
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.35	0.61
35:BA:2777:G:H5''	35:BA:2778:A:C5'	2.31	0.61
20:AT:43:LEU:HD13	20:AT:51:GLU:HG3	1.81	0.61
39:DE:65:GLY:C	39:DE:67:PHE:H	2.03	0.61
1:CA:518:C:H2'	1:CA:530:G:C8	2.35	0.61
22:AV:38:A:H2'	22:AV:39:C:O4'	2.00	0.61
16:CP:76:GLN:C	16:CP:78:GLY:H	2.03	0.61
45:BN:10:GLU:OE2	45:BN:11:PRO:HD2	2.00	0.61
43:BI:67:ARG:HG2	43:BI:70:GLU:OE2	1.99	0.61
1:CA:1483:A:H1'	35:DA:1948:G:H1'	1.82	0.61
35:DA:1582:C:H2'	35:DA:1583:A:H8	1.65	0.61
44:DJ:118:UNK:O	44:DJ:120:UNK:N	2.33	0.61
34:B9:6:SER:HB2	35:BA:2466:C:H5''	1.82	0.61
1:AA:1504:G:O2'	1:AA:1505:G:OP2	2.17	0.61
7:AG:84:ASN:ND2	22:AW:33:U:H5''	2.15	0.61
40:BF:2:LYS:HB2	40:BF:24:LEU:CD1	2.30	0.61
40:BF:2:LYS:HB2	40:BF:24:LEU:HD11	1.81	0.61
33:D8:50:LEU:HD12	33:D8:54:GLU:OE2	2.01	0.61
56:BY:7:VAL:CB	56:BY:8:LYS:NZ	2.64	0.61
41:DG:117:PHE:CZ	41:DG:179:PRO:HG2	2.34	0.61
41:DG:82:LEU:CG	41:DG:83:ARG:H	2.14	0.61
10:AJ:50:ILE:HG22	10:AJ:60:ARG:HD3	1.80	0.61
19:AS:44:MET:HA	19:AS:47:HIS:HD2	1.65	0.61
49:BR:45:ARG:O	49:BR:48:VAL:HG12	2.00	0.61
32:B7:11:LYS:HE2	35:BA:686:G:H5''	1.83	0.61
35:BA:528:A:H2	35:BA:2043:C:C5'	2.14	0.61
11:CK:99:GLN:HG2	11:CK:105:VAL:CG1	2.30	0.61
26:D1:64:ALA:HA	26:D1:67:ILE:CD1	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1187:G:H4'	9:AI:111:ARG:NH1	2.16	0.61
50:DS:85:VAL:CG2	50:DS:106:ARG:HG3	2.30	0.61
35:DA:1836:C:O2'	35:DA:1837:C:H5'	1.99	0.61
48:DQ:21:THR:CG2	48:DQ:101:ARG:HB2	2.30	0.61
8:AH:91:ARG:CG	8:AH:91:ARG:HH11	2.13	0.61
1:AA:1104:G:H2'	1:AA:1105:A:C8	2.35	0.61
35:BA:607:U:H3	35:BA:621:A:H2	1.46	0.61
35:DA:557:U:H2'	35:DA:558:G:C8	2.33	0.61
38:BD:30:GLU:HG3	38:BD:63:ARG:CZ	2.30	0.61
16:AP:51:VAL:CG1	16:AP:52:ASP:N	2.63	0.61
11:CK:34:ASP:HB2	11:CK:35:PRO:CD	2.30	0.61
1:CA:240:C:H2'	1:CA:241:C:H6	1.64	0.61
35:BA:1188:U:H4'	53:BV:79:VAL:HG22	1.82	0.61
2:AB:195:ASP:O	8:AH:74:PRO:HG3	1.99	0.61
1:CA:723:U:H5''	1:CA:724:G:OP2	2.01	0.61
35:DA:576:U:H2'	35:DA:577:G:C8	2.35	0.61
40:DF:82:ILE:HG13	40:DF:82:ILE:O	2.00	0.61
24:AY:74:SER:O	24:AY:82:GLN:HG3	1.99	0.61
56:DY:99:CYS:O	56:DY:100:ALA:HB2	2.00	0.61
40:BF:22:ALA:HB1	40:BF:26:ALA:CB	2.30	0.61
35:BA:610:G:H2'	35:BA:611:C:C6	2.34	0.61
47:DP:48:PRO:O	47:DP:49:ARG:C	2.38	0.61
36:BB:29:A:H3'	50:BS:32:LEU:HD11	1.81	0.61
40:DF:11:VAL:HG23	40:DF:12:LEU:H	1.65	0.61
40:DF:107:LYS:HD2	40:DF:205:ARG:O	2.00	0.61
35:BA:833:U:H2'	35:BA:834:C:C6	2.35	0.61
2:CB:208:ILE:HA	2:CB:211:ILE:HD12	1.83	0.61
35:DA:1024:G:C3'	35:DA:1025:G:H5''	2.24	0.61
41:DG:40:ASN:C	41:DG:155:MET:HB2	2.21	0.61
2:CB:49:GLU:O	2:CB:52:GLU:HB3	1.99	0.61
10:CJ:4:ILE:HD13	10:CJ:74:ILE:HD12	1.83	0.61
3:CC:141:VAL:HG11	3:CC:202:ILE:CD1	2.28	0.61
4:CD:110:PHE:CD1	4:CD:110:PHE:N	2.64	0.61
38:BD:27:THR:HG23	38:BD:27:THR:O	2.01	0.61
52:DU:98:LEU:HA	52:DU:101:ARG:O	2.00	0.61
1:CA:1499:A:H5'	1:CA:1499:A:C8	2.31	0.61
35:DA:2808:U:O2'	35:DA:2809:A:H5'	2.00	0.61
32:B7:48:LYS:HE2	32:B7:48:LYS:N	2.16	0.61
35:DA:1281:G:O2'	35:DA:1282:U:H5'	2.01	0.61
37:DC:46:LYS:HB2	37:DC:46:LYS:NZ	2.15	0.61
39:BE:12:THR:HG22	39:BE:13:ARG:N	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:145:LYS:O	5:AE:149:GLU:HG2	2.00	0.61
35:DA:13:A:H61	35:DA:525:U:H3'	1.64	0.61
35:BA:1297:C:H2'	35:BA:1298:C:H6	1.66	0.61
15:AO:8:LYS:O	15:AO:12:ILE:HG13	2.01	0.61
44:DJ:40:UNK:O	44:DJ:55:UNK:HA	2.01	0.61
35:DA:65:C:H2'	35:DA:66:C:H6	1.65	0.61
24:AY:73:GLY:CA	24:AY:82:GLN:HE21	2.13	0.61
22:CV:55:U:HO2'	22:CV:56:C:H5	1.47	0.61
1:CA:1403:C:N4	58:CX:18:G:OP2	2.27	0.61
47:BP:23:PRO:HB2	47:BP:33:ARG:NE	2.15	0.61
33:D8:51:ALA:HA	33:D8:54:GLU:OE1	2.00	0.61
50:BS:89:ARG:O	50:BS:92:TYR:HB3	2.01	0.61
40:DF:25:PRO:O	40:DF:27:GLU:N	2.34	0.61
33:D8:39:LYS:HA	33:D8:42:ARG:NH1	2.16	0.61
1:AA:1152:A:H2'	1:AA:1153:C:H6	1.65	0.61
33:B8:39:LYS:HA	33:B8:42:ARG:NH1	2.16	0.61
2:AB:196:LEU:CD1	2:AB:197:VAL:HG13	2.28	0.61
38:BD:31:LYS:HA	38:BD:31:LYS:HE2	1.81	0.61
9:AI:16:ARG:O	9:AI:63:ILE:HG23	2.01	0.61
16:CP:49:LEU:HG	16:CP:49:LEU:O	2.01	0.61
45:BN:134:ARG:O	45:BN:136:GLU:N	2.33	0.61
1:CA:222:U:H2'	1:CA:223:U:H6	1.64	0.61
10:CJ:92:THR:HG23	10:CJ:93:GLY:N	2.14	0.61
38:DD:26:LYS:O	38:DD:27:THR:HG22	2.00	0.61
35:DA:556:G:H2'	35:DA:557:U:C6	2.35	0.61
46:DO:18:LYS:HD2	46:DO:45:GLU:OE1	2.00	0.61
19:CS:18:LYS:O	19:CS:22:LEU:HD23	2.00	0.61
39:BE:12:THR:O	39:BE:23:VAL:HG22	2.01	0.61
35:BA:1441:G:O2'	35:BA:1442:G:H5'	2.01	0.61
45:BN:40:PRO:HB3	52:BU:68:ALA:HB2	1.80	0.61
10:AJ:100:THR:HG22	10:AJ:101:VAL:N	2.14	0.61
8:CH:103:VAL:HG21	8:CH:109:ILE:C	2.21	0.61
35:BA:648:G:O2'	35:BA:649:G:H5'	1.99	0.61
37:BC:43:VAL:HA	37:BC:212:VAL:CB	2.30	0.61
1:AA:417:C:O2'	1:AA:418:C:H5'	2.00	0.61
51:BT:132:LYS:H	51:BT:132:LYS:HD2	1.66	0.61
15:AO:79:ARG:HD2	15:AO:79:ARG:O	2.00	0.61
13:AM:80:ARG:HD3	29:B4:48:ARG:NH1	2.15	0.61
35:DA:852:G:O2'	35:DA:853:G:H5'	2.01	0.61
1:CA:1041:A:H2'	1:CA:1042:G:H8	1.66	0.61
46:DO:25:LEU:HD12	46:DO:38:VAL:HG12	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:27:LYS:HG2	42:BH:28:GLY:N	2.15	0.61
1:AA:1492:A:O2'	24:AY:57:GLN:N	2.34	0.61
1:CA:1188:A:H2'	1:CA:1189:C:O4'	2.01	0.61
1:CA:10:A:H2'	1:CA:11:G:H5'	1.81	0.61
47:BP:23:PRO:HD2	47:BP:33:ARG:NE	2.16	0.61
51:DT:91:ARG:HB3	51:DT:117:ASP:H	1.66	0.61
33:B8:61:LEU:N	33:B8:61:LEU:HD23	2.12	0.61
33:B8:6:THR:CG2	33:B8:63:PRO:HD3	2.31	0.61
15:CO:37:ASN:N	15:CO:37:ASN:HD22	1.97	0.61
41:DG:102:PHE:CD1	41:DG:106:LEU:HD23	2.36	0.61
50:DS:18:ILE:O	50:DS:20:ARG:N	2.32	0.61
47:BP:98:GLU:OE1	47:BP:99:LEU:N	2.33	0.61
35:DA:1174:A:OP2	35:DA:1175:U:H5''	1.99	0.61
35:BA:271(P):C:O2'	35:BA:271(Q):G:H5'	2.00	0.61
32:B7:8:ASN:C	32:B7:8:ASN:ND2	2.53	0.61
1:CA:1410:G:O2'	1:CA:1411:C:H5'	2.01	0.61
3:CC:20:SER:HB2	3:CC:40:ARG:HH22	1.65	0.61
57:DZ:153:SER:HB2	57:DZ:167:PRO:HB2	1.82	0.61
35:DA:1833:U:H2'	35:DA:1834:U:C6	2.34	0.61
8:CH:25:ASP:HA	8:CH:59:LEU:O	2.01	0.61
8:AH:25:ASP:HA	8:AH:59:LEU:O	2.01	0.61
35:BA:623:G:H2'	35:BA:624:C:C6	2.36	0.61
16:CP:20:VAL:HG22	16:CP:21:VAL:N	2.15	0.61
13:AM:90:LEU:C	13:AM:92:HIS:H	2.03	0.61
42:DH:70:THR:HG22	42:DH:74:ASN:HD21	1.65	0.61
22:CW:63:G:H2'	22:CW:64:G:C8	2.36	0.61
39:BE:65:GLY:HA2	39:BE:70:ALA:CB	2.31	0.61
56:BY:17:SER:HA	56:BY:71:LYS:HE2	1.83	0.61
38:DD:28:GLU:CD	38:DD:28:GLU:H	2.04	0.61
46:BO:114:ILE:HD12	46:BO:114:ILE:H	1.64	0.61
1:AA:1468:A:H2'	1:AA:1469:G:O4'	2.01	0.61
25:B0:40:GLN:HG3	25:B0:42:GLY:O	2.01	0.61
35:BA:2318:G:H5'	35:BA:2319:G:OP1	2.01	0.61
49:BR:32:GLY:O	49:BR:115:GLU:HA	2.01	0.61
35:BA:576:U:H2'	35:BA:577:G:C8	2.36	0.61
35:DA:1721:G:H8	35:DA:1741:A:H62	1.48	0.61
1:CA:1388:C:H2'	1:CA:1389:C:C6	2.36	0.61
43:DI:67:ARG:HG2	43:DI:70:GLU:OE2	2.01	0.61
39:BE:186:GLY:O	39:BE:187:ALA:HB3	2.01	0.61
22:CV:52:G:O2'	22:CV:53:G:C5'	2.41	0.61
1:CA:939:G:H1	1:CA:1344:C:H42	1.49	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DP:64:LYS:C	47:DP:66:GLY:N	2.52	0.61
36:BB:7:G:H3'	36:BB:8:U:C5'	2.20	0.61
1:CA:4:U:H5'	4:CD:86:LYS:HE2	1.83	0.61
51:DT:20:PRO:HG2	51:DT:85:LYS:O	2.00	0.61
35:BA:1503:U:H2'	35:BA:1504:C:C6	2.36	0.61
57:DZ:27:VAL:O	57:DZ:87:ASP:HA	2.00	0.61
57:DZ:23:LYS:HB3	57:DZ:38:TYR:CD1	2.36	0.61
19:AS:11:VAL:HG23	19:AS:38:SER:HB2	1.83	0.61
1:CA:1220:G:OP1	19:CS:37:ARG:HD2	2.00	0.61
19:CS:44:MET:HA	19:CS:47:HIS:HD2	1.65	0.61
19:CS:20:LEU:HA	19:CS:23:ASN:HD22	1.65	0.61
48:DQ:26:TYR:HE1	48:DQ:28:ALA:HB2	1.65	0.61
19:AS:29:ARG:HB2	19:AS:48:THR:H	1.66	0.61
22:AV:53:G:C5'	22:AV:53:G:H8	2.13	0.61
40:DF:83:PHE:O	40:DF:84:VAL:CB	2.48	0.61
41:BG:114:ILE:HD12	41:BG:117:PHE:HD2	1.65	0.61
35:DA:661:C:H5''	47:DP:18:ARG:HD3	1.83	0.61
47:DP:17:LYS:O	47:DP:19:VAL:HG22	2.00	0.61
47:BP:16:ARG:HD3	47:BP:18:ARG:N	2.15	0.61
1:AA:1026:G:H2'	1:AA:1027:C:H5'	1.82	0.61
35:BA:2734:A:H5'	35:BA:2735:G:OP2	2.01	0.61
1:CA:1207:G:O2'	1:CA:1208:C:C5'	2.48	0.61
5:CE:139:LEU:HA	5:CE:142:LEU:CD1	2.30	0.61
26:D1:50:ARG:CB	26:D1:50:ARG:HH11	2.14	0.61
49:BR:10:LEU:HD22	49:BR:17:ARG:HD2	1.82	0.61
35:BA:2893:G:H5'	35:BA:2894:G:C5'	2.30	0.61
1:AA:376:G:O2'	1:AA:377:G:H5'	2.01	0.61
51:DT:9:LEU:C	51:DT:11:GLU:N	2.54	0.61
56:BY:31:LEU:HD22	56:BY:31:LEU:N	2.15	0.61
40:DF:65:TRP:CH2	40:DF:73:ALA:O	2.54	0.61
5:AE:10:MET:HB3	5:AE:32:VAL:HG22	1.83	0.61
35:DA:1188:U:O2'	35:DA:1189:A:H5'	2.01	0.61
8:CH:109:ILE:HD11	8:CH:120:THR:CG2	2.31	0.61
35:DA:1149:G:H2'	35:DA:1150:C:C6	2.35	0.61
4:CD:129:ASN:N	4:CD:129:ASN:HD22	1.99	0.61
36:BB:40:U:H3'	36:BB:41:U:H5''	1.81	0.61
54:BW:59:VAL:HG12	54:BW:60:ASN:N	2.16	0.61
57:DZ:112:ARG:CZ	57:DZ:112:ARG:HA	2.30	0.61
1:CA:115:G:H1'	1:CA:116:A:N7	2.15	0.61
1:CA:957:U:H2'	1:CA:959:A:OP2	2.01	0.61
35:DA:8:A:H2'	35:DA:9:U:C6	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AX:23:A:O2'	23:AX:24:A:H8	1.84	0.61
1:CA:645:C:C5'	1:CA:645:C:H6	2.09	0.61
24:AY:89:LYS:CG	24:AY:89:LYS:O	2.48	0.61
53:DV:16:PRO:O	53:DV:96:ILE:O	2.19	0.61
47:DP:23:PRO:CD	47:DP:33:ARG:CZ	2.79	0.61
1:AA:626:U:H2'	1:AA:627:G:H8	1.62	0.61
40:DF:192:LEU:HD21	40:DF:194:MET:HE2	1.83	0.61
40:DF:203:GLN:O	40:DF:206:ILE:HG12	2.01	0.61
1:CA:4:U:H5'	4:CD:86:LYS:CE	2.31	0.61
51:DT:46:GLU:O	51:DT:65:LYS:HB2	2.01	0.61
57:DZ:7:ALA:O	57:DZ:61:LEU:HD23	2.00	0.61
35:DA:2307:G:N3	35:DA:2307:G:H3'	2.16	0.61
48:BQ:26:TYR:HE1	48:BQ:28:ALA:HB2	1.66	0.61
43:DI:95:LYS:C	43:DI:97:ILE:H	2.04	0.61
10:AJ:4:ILE:HD13	10:AJ:74:ILE:HD12	1.82	0.61
42:DH:170:ARG:H	42:DH:170:ARG:HD2	1.66	0.61
10:CJ:44:VAL:HG11	10:CJ:46:ARG:CZ	2.31	0.61
35:DA:886:C:H4'	35:DA:888:C:N4	2.14	0.61
52:BU:98:LEU:HA	52:BU:101:ARG:O	2.01	0.61
20:CT:10:LEU:O	20:CT:13:LEU:HG	2.01	0.61
54:DW:110:LYS:HG3	54:DW:111:HIS:N	2.16	0.61
38:DD:45:ASN:CG	38:DD:46:GLN:N	2.53	0.61
1:CA:390:C:O3'	16:CP:28:ARG:NH2	2.33	0.61
17:CQ:53:LEU:HD23	17:CQ:54:GLY:N	2.16	0.61
1:AA:1064:G:OP2	1:AA:1386:G:H4'	2.01	0.61
1:AA:272:C:H2'	1:AA:273:A:H8	1.64	0.61
56:DY:17:SER:HA	56:DY:71:LYS:HE2	1.82	0.61
13:CM:113:PRO:O	13:CM:115:LYS:HE2	2.01	0.61
14:AN:6:LEU:HD22	14:AN:21:TYR:OH	2.01	0.61
35:BA:1011:G:H5"	52:BU:77:SER:OG	2.00	0.61
4:AD:86:LYS:N	4:AD:86:LYS:HE3	2.16	0.61
15:AO:70:LEU:HD23	15:AO:70:LEU:O	2.00	0.61
5:AE:15:ARG:O	5:AE:17:ALA:N	2.34	0.60
56:BY:81:LYS:HE2	56:BY:97:ARG:HH21	1.66	0.60
35:DA:2821:A:OP2	49:DR:5:LYS:CE	2.49	0.60
35:BA:1449:A:C2	35:BA:1529:G:C1'	2.81	0.60
35:DA:252:G:OP2	47:DP:50:ARG:NH1	2.34	0.60
5:CE:13:ILE:HG22	5:CE:14:ARG:N	2.16	0.60
35:DA:626:U:O2	47:DP:105:LEU:HG	2.01	0.60
48:DQ:137:TYR:OH	57:DZ:81:ARG:NH2	2.34	0.60
43:DI:81:VAL:O	43:DI:82:ARG:O	2.19	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1126:U:H2'	1:AA:1127:G:O4'	2.01	0.60
41:BG:117:PHE:HZ	41:BG:179:PRO:HG2	1.66	0.60
11:AK:99:GLN:HG2	11:AK:105:VAL:CG1	2.29	0.60
1:CA:226:G:O2'	1:CA:227:G:H5'	1.99	0.60
9:CI:113:LYS:HD2	9:CI:113:LYS:N	2.16	0.60
15:AO:40:SER:HB2	35:BA:715:G:H21	1.65	0.60
7:CG:79:ARG:NH2	22:CW:34:C:N4	2.48	0.60
27:D2:55:ARG:HG2	27:D2:55:ARG:NH2	2.16	0.60
35:BA:886:C:H4'	35:BA:888:C:N4	2.16	0.60
46:DO:87:ILE:HG22	46:DO:88:ASN:N	2.16	0.60
2:CB:145:LEU:O	2:CB:149:LEU:HB2	2.01	0.60
1:CA:105:G:H2'	1:CA:106:C:C6	2.35	0.60
1:AA:1000:U:H2'	1:AA:1001:A:C8	2.36	0.60
13:CM:68:GLY:HA2	13:CM:71:ARG:HB2	1.83	0.60
35:BA:2206:G:H21	35:BA:2207:G:H5'	1.65	0.60
1:AA:1208:C:H2'	1:AA:1209:C:C6	2.36	0.60
1:AA:386:C:O2'	1:AA:387:U:H5'	2.00	0.60
20:AT:53:LEU:H	20:AT:53:LEU:CD1	2.14	0.60
40:BF:162:LEU:HD22	40:BF:162:LEU:N	2.16	0.60
35:BA:2758:A:C5	42:BH:67:LEU:HD21	2.36	0.60
35:DA:1434:A:H61	35:DA:1558:A:N6	1.99	0.60
35:BA:1560:G:H2'	35:BA:1561:G:H8	1.66	0.60
35:DA:1570:A:H2'	35:DA:1571:A:C8	2.35	0.60
1:AA:149:A:O2'	1:AA:150:C:H5'	2.01	0.60
35:BA:404:C:H4'	35:BA:405:U:H5'	1.83	0.60
1:CA:981:U:OP1	14:CN:6:LEU:HD21	2.01	0.60
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.36	0.60
1:CA:262:A:H5'	20:CT:74:LYS:HG3	1.82	0.60
24:AY:93:LYS:HA	24:AY:96:LEU:OXT	2.02	0.60
49:DR:13:HIS:HE1	49:DR:15:SER:HB2	1.67	0.60
56:DY:97:ARG:O	56:DY:97:ARG:CZ	2.48	0.60
1:CA:862:C:O2'	1:CA:863:U:H5'	2.01	0.60
30:D5:2:ALA:HA	35:DA:2015:A:C1'	2.31	0.60
19:AS:20:LEU:HA	19:AS:23:ASN:HD22	1.66	0.60
38:DD:35:LYS:HE3	38:DD:61:LEU:HG	1.82	0.60
41:DG:38:VAL:HG22	41:DG:39:ILE:N	2.16	0.60
19:CS:58:VAL:HG21	19:CS:75:ALA:HB1	1.83	0.60
47:BP:7:ARG:HD2	47:BP:7:ARG:H	1.65	0.60
41:BG:110:ALA:C	41:BG:112:PRO:HD2	2.21	0.60
42:BH:170:ARG:H	42:BH:170:ARG:HD2	1.66	0.60
47:BP:16:ARG:CZ	47:BP:18:ARG:CG	2.79	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DO:104:ARG:NH1	46:DO:104:ARG:HB3	2.16	0.60
8:AH:95:VAL:HG11	8:AH:133:LEU:HD12	1.83	0.60
9:AI:10:ARG:NH2	9:AI:108:VAL:HG12	2.16	0.60
35:BA:1278:A:H4'	49:BR:34:ILE:HD12	1.81	0.60
35:DA:2206:G:H21	35:DA:2207:G:H5'	1.64	0.60
35:DA:81:G:H21	56:DY:2:ARG:NH1	1.99	0.60
35:DA:287:C:H2'	35:DA:288:C:C6	2.36	0.60
38:DD:155:LEU:HD23	38:DD:177:LEU:CD2	2.30	0.60
33:B8:2:PRO:O	33:B8:3:LYS:HB3	2.01	0.60
1:AA:959:A:H2'	1:AA:960:U:H4'	1.83	0.60
1:AA:1041:A:H2'	1:AA:1042:G:H8	1.66	0.60
10:CJ:65:LEU:HD12	14:CN:55:GLY:O	2.01	0.60
1:AA:658:G:O2'	1:AA:659:U:H5'	2.00	0.60
2:AB:107:THR:C	2:AB:109:SER:H	2.05	0.60
57:BZ:17:ALA:O	57:BZ:20:ARG:HG2	2.00	0.60
4:AD:142:PRO:HA	4:AD:185:PHE:HD2	1.65	0.60
1:CA:400:C:O5'	1:CA:400:C:H6	1.84	0.60
56:DY:81:LYS:HD3	56:DY:96:ILE:HG21	1.83	0.60
40:BF:1:MET:HB3	40:BF:3:GLU:OE2	2.01	0.60
35:BA:1533:G:H2'	35:BA:1543:C:OP1	2.01	0.60
33:B8:59:LYS:CB	33:B8:59:LYS:HZ3	2.07	0.60
12:AL:80:VAL:HG21	12:AL:97:ILE:HG23	1.83	0.60
3:AC:90:GLU:HA	3:AC:93:LYS:NZ	2.17	0.60
35:DA:1997:G:O2'	35:DA:1998:G:H5'	2.00	0.60
35:BA:1592:C:O2'	35:BA:1593:G:H5''	2.01	0.60
10:AJ:23:ILE:HG22	10:AJ:23:ILE:O	2.01	0.60
57:DZ:95:PRO:HA	57:DZ:128:VAL:O	2.01	0.60
26:D1:5:CYS:HB3	26:D1:10:LYS:H	1.65	0.60
53:BV:82:ARG:HG2	53:BV:82:ARG:HH11	1.66	0.60
41:BG:41:GLN:HG2	41:BG:155:MET:HB2	1.83	0.60
18:CR:19:LYS:HG3	18:CR:20:ALA:N	2.12	0.60
35:DA:1278:A:H4'	49:DR:34:ILE:HD12	1.83	0.60
45:DN:62:VAL:HG22	45:DN:66:LYS:HB2	1.84	0.60
1:AA:729:A:H2'	1:AA:730:G:H8	1.65	0.60
35:BA:363(F):A:H5''	35:BA:364:C:OP1	2.01	0.60
13:CM:70:LEU:O	13:CM:74:VAL:HG23	2.00	0.60
1:AA:256:U:H5'	17:AQ:17:LYS:HZ2	1.65	0.60
35:DA:2653:U:H3'	35:DA:2654:A:C8	2.36	0.60
1:AA:226:G:O2'	1:AA:227:G:H5'	2.00	0.60
24:AY:81:ASN:HD22	24:AY:81:ASN:N	1.99	0.60
8:CH:85:ARG:HG3	8:CH:85:ARG:HH11	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DE:24:THR:HB	39:DE:186:GLY:HA2	1.82	0.60
1:CA:959:A:H2'	1:CA:960:U:H4'	1.83	0.60
1:CA:349:A:O2'	1:CA:350:G:H5'	2.01	0.60
35:BA:642:G:H21	35:BA:646:A:H2	1.48	0.60
11:AK:101:SER:C	11:AK:103:LEU:H	2.04	0.60
35:DA:158:U:H4'	35:DA:171:G:C8	2.36	0.60
35:DA:640:C:H2'	35:DA:641:C:C6	2.37	0.60
35:BA:2327:A:H2'	35:BA:2328:A:C8	2.36	0.60
35:DA:2839:G:H5'	49:DR:46:GLY:HA2	1.83	0.60
28:D3:29:ARG:HG3	28:D3:29:ARG:HH11	1.66	0.60
35:BA:852:G:O2'	35:BA:853:G:H5'	2.01	0.60
1:AA:926:G:N2	1:AA:1505:G:H2'	2.16	0.60
22:CV:36:U:N3	58:CX:16:A:N6	2.45	0.60
19:CS:57:HIS:O	19:CS:59:PRO:HD3	2.00	0.60
12:CL:67:ILE:HG21	12:CL:74:LEU:CD1	2.31	0.60
41:BG:46:ALA:O	41:BG:47:LYS:HG3	2.01	0.60
35:DA:1665:A:O2'	35:DA:1666:G:H5'	2.01	0.60
4:CD:108:LEU:HD23	4:CD:110:PHE:CE1	2.36	0.60
47:DP:16:ARG:CZ	47:DP:18:ARG:CG	2.80	0.60
38:BD:79:VAL:CG2	38:BD:111:LEU:HD11	2.28	0.60
35:BA:2722:G:H2'	35:BA:2723:C:H6	1.64	0.60
35:BA:1826:G:H4'	38:BD:242:ARG:NE	2.15	0.60
17:CQ:35:VAL:O	17:CQ:36:ILE:HG23	2.01	0.60
1:CA:1118:C:H5'	9:CI:104:ARG:HD3	1.82	0.60
55:BX:80:ILE:C	55:BX:80:ILE:HD13	2.21	0.60
1:CA:1492:A:H4'	1:CA:1493:A3P:O4P	2.02	0.60
1:CA:1492:A:O2'	24:CY:9:TYR:CG	2.50	0.60
11:AK:34:ASP:HB2	11:AK:35:PRO:CD	2.31	0.60
36:DB:82:G:O2'	36:DB:83:G:H5'	2.00	0.60
43:BI:2:LYS:HB2	43:BI:39:ALA:HB3	1.82	0.60
20:CT:29:LYS:O	20:CT:33:ILE:HG13	2.01	0.60
1:CA:1041:A:H2'	1:CA:1042:G:C8	2.36	0.60
8:AH:103:VAL:HG21	8:AH:109:ILE:C	2.21	0.60
35:BA:2715:C:O2'	35:BA:2716:U:H5'	2.01	0.60
35:BA:2774:C:H2'	35:BA:2775:A:O4'	2.01	0.60
35:BA:2886:G:H2'	35:BA:2887:U:H6	1.66	0.60
35:BA:1509(A):A:H2'	35:BA:1509(B):A:C8	2.36	0.60
22:AW:9:G:H1'	22:AW:45:G:H2'	1.82	0.60
18:AR:24:ALA:O	18:AR:26:LEU:N	2.35	0.60
26:B1:82:LEU:O	26:B1:83:GLU:HG2	2.01	0.60
56:DY:95:LYS:HE2	56:DY:99:CYS:O	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:123:LEU:HD13	40:BF:192:LEU:HD13	1.82	0.60
40:DF:12:LEU:HD23	40:DF:12:LEU:O	2.01	0.60
40:DF:123:LEU:HD13	40:DF:192:LEU:HD13	1.83	0.60
33:B8:50:LEU:HD12	33:B8:54:GLU:OE2	2.01	0.60
47:BP:48:PRO:O	47:BP:50:ARG:N	2.34	0.60
3:CC:70:VAL:HG12	3:CC:72:LYS:N	2.10	0.60
57:DZ:10:ARG:HD2	57:DZ:36:LYS:HD3	1.84	0.60
47:BP:84:ASN:O	47:BP:88:LEU:HD13	2.00	0.60
41:DG:111:LEU:HD22	41:DG:120:LEU:HD21	1.83	0.60
41:DG:128:ARG:O	41:DG:130:ASN:N	2.28	0.60
2:CB:52:GLU:CG	2:CB:56:ARG:HH12	2.10	0.60
50:DS:14:VAL:HG12	50:DS:15:ARG:N	2.17	0.60
15:AO:82:ILE:HG23	15:AO:83:GLU:N	2.16	0.60
46:BO:24:VAL:HG23	46:BO:33:ALA:HB2	1.82	0.60
3:CC:134:ILE:O	3:CC:138:VAL:HG23	2.02	0.60
43:BI:95:LYS:C	43:BI:97:ILE:H	2.05	0.60
29:B4:56:VAL:HG13	29:B4:57:GLU:N	2.13	0.60
50:DS:89:ARG:HB3	50:DS:92:TYR:CB	2.32	0.60
1:AA:1370:G:H5''	9:AI:12:GLU:HG3	1.84	0.60
35:DA:910:A:C5	48:DQ:13:GLN:HG3	2.37	0.60
1:CA:236:G:H2'	1:CA:237:C:C6	2.37	0.60
35:DA:389:G:N1	47:DP:71:VAL:HG12	2.16	0.60
35:BA:364:C:H2'	35:BA:365:C:C5'	2.31	0.60
10:CJ:23:ILE:HG22	10:CJ:23:ILE:O	2.01	0.60
51:BT:9:LEU:C	51:BT:11:GLU:N	2.55	0.60
55:DX:80:ILE:HD13	55:DX:80:ILE:O	2.01	0.60
35:DA:1709:U:H2'	35:DA:1710:C:C6	2.36	0.60
35:DA:364:C:H2'	35:DA:365:C:C5'	2.32	0.60
42:BH:70:THR:HG22	42:BH:74:ASN:HD21	1.65	0.60
35:DA:1693:U:H1'	38:DD:14:ARG:HH12	1.66	0.60
20:CT:43:LEU:HD13	20:CT:51:GLU:HG3	1.83	0.60
1:CA:1465:C:H2'	1:CA:1466:C:H6	1.65	0.60
16:CP:8:ARG:HH21	16:CP:15:PRO:HG3	1.65	0.60
39:BE:24:THR:HB	39:BE:186:GLY:HA2	1.83	0.60
4:CD:100:ARG:NH1	4:CD:137:SER:HA	2.16	0.60
35:DA:151:C:O2'	35:DA:152:G:H5'	2.02	0.60
47:BP:131:SER:O	47:BP:134:ALA:HB3	2.02	0.60
35:BA:303:U:H2'	35:BA:304:G:H8	1.66	0.60
35:BA:2542:A:H5''	35:BA:2542:A:N3	2.16	0.60
24:AY:28:ILE:CG1	24:AY:29:PRO:CD	2.76	0.60
35:DA:864:G:H2'	35:DA:866:A:H62	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BP:62:LEU:HD22	47:BP:62:LEU:H	1.66	0.60
22:AV:56:C:OP1	22:AV:56:C:C5	2.55	0.60
41:BG:75:LYS:HG2	41:BG:76:SER:H	1.65	0.60
40:BF:11:VAL:HG23	40:BF:12:LEU:H	1.66	0.60
50:BS:87:PHE:HE2	50:BS:92:TYR:HD2	1.50	0.60
1:CA:34:C:C3'	1:CA:35:G:H5'	2.31	0.60
6:AF:18:GLN:O	6:AF:21:LEU:HB2	2.01	0.60
35:BA:2068:U:H3	35:BA:2430:A:H2	0.77	0.60
38:BD:16:MET:HA	38:BD:205:VAL:CG1	2.27	0.60
14:AN:42:ILE:O	14:AN:45:ARG:HB2	2.01	0.60
10:CJ:4:ILE:CD1	10:CJ:74:ILE:HB	2.31	0.60
35:BA:1916:A:H5'	35:BA:1916:A:C8	2.32	0.60
10:AJ:4:ILE:HD12	10:AJ:4:ILE:N	2.16	0.60
29:B4:55:ARG:HD3	29:B4:56:VAL:N	2.15	0.60
51:DT:107:ASP:H	51:DT:110:ILE:CG1	2.14	0.60
5:CE:10:MET:HB3	5:CE:32:VAL:HG22	1.83	0.60
35:BA:1115:G:H2'	35:BA:1116:C:O4'	2.02	0.60
1:CA:253:U:H2'	1:CA:254:G:C8	2.35	0.60
55:BX:12:VAL:HG23	55:BX:17:ALA:HB1	1.84	0.60
16:AP:20:VAL:HG21	16:AP:32:TYR:CG	2.37	0.60
35:DA:1693:U:H1'	38:DD:14:ARG:NH1	2.16	0.60
35:BA:2143:C:H2'	35:BA:2144:U:C6	2.35	0.60
38:BD:147:LEU:HD12	38:BD:155:LEU:HD21	1.83	0.60
14:CN:6:LEU:HD22	14:CN:21:TYR:OH	2.01	0.60
1:AA:1188:A:H2'	1:AA:1189:C:O4'	2.01	0.60
1:CA:599:C:H2'	1:CA:600:C:H6	1.67	0.60
35:DA:1509(A):A:H2'	35:DA:1509(B):A:C8	2.36	0.60
15:CO:68:ARG:O	15:CO:71:GLN:HB3	2.02	0.60
35:BA:1570:A:H2'	35:BA:1571:A:C8	2.36	0.60
51:DT:132:LYS:HD2	51:DT:132:LYS:H	1.67	0.60
36:DB:5:C:O2'	36:DB:6:C:H5'	2.02	0.60
23:AX:22:A:C2'	23:AX:23:A:O5'	2.50	0.60
42:BH:43:VAL:HG11	42:BH:52:VAL:HG22	1.83	0.60
56:BY:97:ARG:HH22	56:BY:98:VAL:HB	1.66	0.60
1:CA:1324:A:H4'	1:CA:1362:C:O3'	2.01	0.60
1:CA:837:G:H2'	1:CA:838:G:H8	1.67	0.60
52:BU:92:ARG:O	52:BU:92:ARG:HG2	2.02	0.60
51:BT:88:ILE:HG22	51:BT:89:VAL:HG13	1.84	0.60
8:CH:51:VAL:HG21	8:CH:60:ARG:HH11	1.67	0.60
42:BH:86:GLU:HA	42:BH:132:ARG:CB	2.30	0.60
57:BZ:28:MET:HA	57:BZ:88:PHE:O	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:939:G:H1	1:AA:1344:C:H42	1.50	0.60
12:AL:72:HIS:CD2	12:AL:74:LEU:HB2	2.33	0.60
24:AY:47:LYS:HG2	24:AY:49:ARG:HB2	1.81	0.60
5:AE:12:LEU:HD13	5:AE:31:LEU:HB3	1.84	0.60
1:CA:591:U:H6	1:CA:591:U:O5'	1.85	0.60
19:CS:11:VAL:HG23	19:CS:38:SER:HB2	1.84	0.60
43:BI:85:GLU:O	43:BI:86:THR:HG23	2.01	0.60
3:AC:34:LEU:CB	3:AC:38:ARG:HH21	2.10	0.60
39:BE:4:ILE:HD13	39:BE:28:ALA:HB1	1.83	0.60
1:AA:1130:A:N6	1:AA:1143:G:H21	2.00	0.60
25:D0:26:TYR:HB2	25:D0:29:GLN:HE21	1.66	0.60
35:DA:1778:U:H2'	35:DA:1784:A:N6	2.16	0.60
1:CA:1306:A:H1'	1:CA:1332:A:C2	2.36	0.60
51:DT:50:ILE:HD11	51:DT:99:LEU:O	2.01	0.60
50:DS:89:ARG:CB	50:DS:92:TYR:HB3	2.32	0.60
53:DV:19:LYS:HG3	53:DV:20:LEU:O	2.02	0.60
5:AE:78:HIS:CE1	5:AE:142:LEU:HA	2.37	0.60
2:CB:118:LEU:C	2:CB:120:ALA:H	2.05	0.60
51:BT:2:ASN:O	51:BT:4:GLY:N	2.35	0.60
35:DA:2742:C:O2'	35:DA:2743:C:H5'	2.01	0.60
18:CR:73:ALA:HB3	18:CR:79:LEU:HD12	1.84	0.60
39:BE:117:MET:HA	39:BE:122:PHE:H	1.66	0.60
20:CT:53:LEU:CD1	20:CT:53:LEU:H	2.15	0.60
9:CI:126:SER:O	9:CI:128:ARG:HD2	2.02	0.60
47:BP:100:LEU:H	47:BP:100:LEU:HD22	1.66	0.60
7:AG:151:TYR:OH	11:AK:54:ARG:HD3	2.02	0.60
38:DD:159:ALA:HB1	38:DD:198:ASN:O	2.01	0.60
42:DH:109:PHE:C	42:DH:111:HIS:H	2.04	0.60
45:BN:78:TYR:H	45:BN:78:TYR:HD1	1.47	0.60
47:BP:58:THR:O	47:BP:61:ARG:NE	2.35	0.60
56:DY:23:ARG:O	56:DY:24:VAL:O	2.19	0.60
35:DA:909:A:H2'	35:DA:912:C:H5	1.67	0.60
1:CA:918:A:H2'	1:CA:919:A:C8	2.37	0.60
47:BP:41:ARG:CA	47:BP:41:ARG:HE	2.15	0.60
5:AE:100:VAL:HG23	5:AE:100:VAL:O	2.01	0.60
41:DG:97:ASP:O	41:DG:101:ILE:HG23	2.02	0.60
6:CF:67:MET:HB2	6:CF:68:PRO:HD2	1.81	0.60
8:AH:6:ILE:CD1	8:AH:6:ILE:H	2.14	0.60
39:DE:51:PHE:H	39:DE:74:PRO:HB2	1.65	0.60
51:DT:57:PHE:O	51:DT:59:THR:N	2.33	0.60
38:DD:134:ARG:HG3	38:DD:135:PHE:CE1	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:184:G:H2'	1:CA:185:A:H8	1.67	0.60
48:BQ:43:THR:HB	48:BQ:45:GLN:NE2	2.16	0.60
38:BD:134:ARG:HG3	38:BD:135:PHE:CE1	2.36	0.60
35:DA:925:C:C2'	35:DA:926:A:C5'	2.76	0.60
50:DS:66:ALA:HA	50:DS:69:VAL:HG12	1.83	0.60
53:BV:19:LYS:HE2	53:BV:19:LYS:HA	1.83	0.60
45:BN:33:LEU:HD23	45:BN:38:HIS:HD2	1.66	0.60
53:DV:22:VAL:O	53:DV:23:GLU:CB	2.49	0.60
1:AA:1305:G:H22	1:AA:1331:G:H1'	1.66	0.60
5:AE:14:ARG:HG3	5:AE:16:THR:HG23	1.84	0.60
21:CU:6:ARG:CZ	21:CU:15:ARG:HH22	2.15	0.60
14:AN:33:VAL:O	14:AN:33:VAL:HG23	2.02	0.60
38:DD:270:ILE:C	38:DD:271:ILE:HG12	2.21	0.60
13:CM:77:ASN:OD1	29:D4:48:ARG:NH2	2.34	0.60
51:BT:11:GLU:OE1	51:BT:11:GLU:HA	2.01	0.60
45:BN:18:ALA:HB1	45:BN:21:LYS:CB	2.32	0.60
4:CD:31:CYS:SG	4:CD:31:CYS:O	2.59	0.60
1:CA:545:C:O2'	1:CA:546:G:H5'	2.00	0.60
51:DT:14:TYR:CD1	51:DT:14:TYR:N	2.70	0.60
35:DA:648:G:O4'	35:DA:2351:G:H5''	2.02	0.60
20:AT:24:LEU:HD13	20:AT:25:ARG:N	2.17	0.60
56:BY:43:ASN:HA	56:BY:64:GLU:HA	1.84	0.60
1:CA:1466:C:H2'	1:CA:1466:C:O2	2.01	0.60
42:BH:109:PHE:C	42:BH:111:HIS:H	2.04	0.60
1:AA:1493:A3P:H3'	24:AY:55:ASP:OD2	2.02	0.60
10:CJ:50:ILE:HG23	10:CJ:60:ARG:NH1	2.16	0.60
33:B8:59:LYS:O	33:B8:61:LEU:HD23	2.02	0.60
47:BP:47:ASP:HB3	47:BP:48:PRO:HA	1.82	0.60
19:CS:31:ILE:HG22	19:CS:48:THR:O	2.02	0.60
16:AP:49:LEU:CD1	16:AP:73:LEU:HB3	2.32	0.60
35:BA:2305:A:C3'	35:BA:2306:C:H5''	2.28	0.60
1:CA:674:G:H2'	1:CA:675:A:C8	2.34	0.60
35:DA:1496:A:C8	35:DA:1577:C:O2'	2.46	0.60
51:DT:77:PRO:O	51:DT:78:LEU:HB3	2.01	0.60
35:BA:1496:A:C8	35:BA:1577:C:O2'	2.46	0.60
43:DI:58:LEU:HG	43:DI:61:ARG:NH2	2.16	0.60
53:BV:99:ILE:N	53:BV:99:ILE:HD13	2.16	0.60
47:DP:71:VAL:CG1	47:DP:72:PRO:HD3	2.32	0.60
1:AA:16:A:N1	1:AA:919:A:H2	2.00	0.60
1:AA:663:A:O3'	18:AR:64:ARG:NH2	2.35	0.60
11:CK:111:ASP:HA	18:CR:84:LYS:HG3	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:40:VAL:O	6:AF:40:VAL:HG22	2.01	0.60
35:BA:2512:C:H4'	39:BE:122:PHE:CE2	2.36	0.60
35:BA:2223:G:C2'	35:BA:2224:G:H5'	2.32	0.60
1:CA:337:C:H2'	1:CA:338:A:C8	2.36	0.60
16:AP:8:ARG:HH21	16:AP:15:PRO:HG3	1.66	0.60
1:CA:601:C:H2'	1:CA:602:A:C8	2.37	0.60
1:AA:452:A:H62	1:AA:480:U:H3	1.49	0.60
35:DA:404:C:H4'	35:DA:405:U:H5'	1.83	0.60
4:AD:150:GLU:O	4:AD:152:SER:N	2.35	0.60
52:DU:106:PHE:O	52:DU:110:VAL:HG23	2.02	0.60
16:CP:6:LEU:HB3	16:CP:17:TYR:HD2	1.67	0.60
1:AA:857:C:H2'	1:AA:858:G:O4'	2.01	0.60
53:BV:34:GLU:O	53:BV:34:GLU:HG3	2.02	0.60
25:D0:19:LYS:HD2	25:D0:19:LYS:N	2.17	0.60
2:CB:212:GLN:HG3	2:CB:235:SER:HB2	1.83	0.60
24:AY:33:LYS:N	24:AY:38:GLY:O	2.35	0.60
47:BP:23:PRO:CD	47:BP:33:ARG:CZ	2.80	0.60
41:DG:52:ILE:CG1	41:DG:53:LEU:H	2.02	0.60
33:D8:39:LYS:HA	33:D8:42:ARG:HH12	1.66	0.60
1:CA:21:G:H1'	1:CA:915:A:N6	2.16	0.60
33:B8:39:LYS:HA	33:B8:42:ARG:HH12	1.67	0.60
47:BP:84:ASN:ND2	47:BP:115:LEU:HG	2.17	0.60
19:AS:58:VAL:HG21	19:AS:75:ALA:HB1	1.83	0.60
47:DP:84:ASN:HD21	47:DP:115:LEU:HG	1.67	0.60
8:AH:19:VAL:HG23	8:AH:21:LYS:HG3	1.82	0.60
12:CL:39:THR:O	24:CY:7:HIS:CE1	2.54	0.60
47:DP:13:ASN:C	47:DP:13:ASN:ND2	2.49	0.60
57:DZ:33:LEU:HG	57:DZ:34:ASN:H	1.66	0.60
26:D1:68:PRO:HG2	26:D1:69:LYS:H	1.65	0.60
51:DT:31:SER:HB3	51:DT:43:GLN:O	2.02	0.60
41:BG:27:ASN:HD22	41:BG:28:VAL:H	1.49	0.60
45:BN:62:VAL:HG22	45:BN:66:LYS:HB2	1.84	0.60
1:CA:1116:C:H2'	1:CA:1117:G:O4'	2.02	0.60
7:AG:15:ASP:HB3	7:AG:19:GLY:H	1.67	0.60
13:AM:93:ARG:HB3	13:AM:94:ARG:HH11	1.67	0.60
1:CA:826:C:H5'	8:CH:12:ARG:HH21	1.67	0.60
13:CM:49:THR:O	13:CM:53:VAL:HG23	2.02	0.60
38:BD:270:ILE:C	38:BD:271:ILE:HG12	2.22	0.60
1:AA:708:C:H2'	1:AA:709:G:H8	1.65	0.60
21:AU:18:TYR:HD2	21:AU:24:ARG:HA	1.66	0.60
19:AS:21:GLU:HG3	19:AS:22:LEU:CD2	2.32	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:30:ARG:O	12:CL:82:ILE:HG22	2.02	0.60
35:BA:1665:A:H4'	46:BO:67:LYS:HB2	1.84	0.60
38:BD:28:GLU:CD	38:BD:28:GLU:H	2.05	0.60
1:CA:272:C:H2'	1:CA:273:A:H8	1.66	0.60
39:DE:9:VAL:HG13	39:DE:25:VAL:O	2.02	0.60
8:CH:53:VAL:O	8:CH:56:LYS:HB2	2.01	0.60
35:DA:2563:U:H4'	46:DO:28:SER:HA	1.83	0.60
6:CF:82:ARG:HB2	6:CF:85:VAL:CG2	2.32	0.60
1:AA:657:G:H4'	15:AO:28:GLN:HG2	1.83	0.60
49:DR:29:LEU:O	49:DR:75:LEU:HD21	2.02	0.60
35:BA:1701:A:H5'	35:BA:1702:G:OP2	2.00	0.60
1:CA:400:C:C3'	1:CA:401:C:H5'	2.28	0.59
56:DY:28:LYS:O	56:DY:38:ILE:HB	2.02	0.59
52:BU:79:PHE:O	52:BU:83:LEU:HD13	2.02	0.59
50:BS:85:VAL:HG23	50:BS:106:ARG:HG3	1.82	0.59
40:DF:1:MET:HB3	40:DF:3:GLU:OE2	2.02	0.59
35:BA:2833:G:C3'	35:BA:2834:G:C5'	2.76	0.59
33:D8:30:ARG:CZ	35:DA:2419:U:O4	2.50	0.59
35:DA:1301:A:O2'	35:DA:1302:A:C2'	2.43	0.59
41:DG:71:THR:HG22	41:DG:89:GLY:C	2.22	0.59
45:BN:57:ALA:N	45:BN:124:ALA:HA	2.10	0.59
16:AP:49:LEU:HG	16:AP:49:LEU:O	2.02	0.59
43:BI:82:ARG:CB	43:BI:145:VAL:N	2.65	0.59
1:AA:35:G:H21	12:AL:115:SER:CB	2.14	0.59
43:DI:85:GLU:O	43:DI:86:THR:HG23	2.02	0.59
1:AA:1241:G:H1	1:AA:1296:C:H42	1.50	0.59
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.36	0.59
36:DB:42:C:H42	41:DG:91:ARG:NH2	2.00	0.59
1:CA:1027:C:H2'	1:CA:1028:C:C5	2.37	0.59
35:DA:2199:A:H5'	35:DA:2200:C:OP2	2.02	0.59
57:DZ:126:VAL:HA	57:DZ:164:ALA:H	1.66	0.59
4:AD:63:LYS:HD2	4:AD:198:VAL:HG12	1.83	0.59
35:DA:389:G:H1	47:DP:71:VAL:HG12	1.67	0.59
40:BF:177:ALA:HB1	40:BF:178:PRO:HD2	1.84	0.59
45:BN:19:GLU:HG2	45:BN:56:ASN:HD22	1.67	0.59
35:BA:1711:C:O2'	35:BA:1712:C:H5'	2.02	0.59
20:CT:39:LYS:O	20:CT:43:LEU:HG	2.02	0.59
56:DY:43:ASN:HA	56:DY:64:GLU:HA	1.83	0.59
35:BA:1188:U:O2'	35:BA:1189:A:H5'	2.01	0.59
35:BA:640:C:H2'	35:BA:641:C:C6	2.36	0.59
26:D1:15:ALA:O	26:D1:40:ARG:HG3	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:118:A:H5'	35:DA:119:A:H8	1.65	0.59
1:CA:1327:C:H2'	1:CA:1328:C:C6	2.37	0.59
42:DH:43:VAL:HG11	42:DH:52:VAL:HG22	1.83	0.59
10:CJ:50:ILE:CG2	10:CJ:60:ARG:HD3	2.32	0.59
7:CG:80:VAL:HG12	7:CG:81:GLY:N	2.11	0.59
35:BA:1531:C:H6	35:BA:1531:C:H3'	1.67	0.59
3:CC:75:VAL:O	3:CC:83:ARG:HG2	2.02	0.59
2:AB:208:ILE:HA	2:AB:211:ILE:HD12	1.84	0.59
41:DG:87:PRO:C	41:DG:88:ILE:HD13	2.22	0.59
1:CA:1280:A:H5''	10:CJ:41:PRO:HD2	1.84	0.59
35:BA:1915:U:C3'	35:BA:1916:A:C5'	2.80	0.59
39:DE:111:ARG:HB2	39:DE:160:TYR:O	2.02	0.59
35:BA:1592:C:H2'	35:BA:1593:G:C5'	2.29	0.59
25:B0:26:TYR:HB2	25:B0:29:GLN:HE21	1.66	0.59
38:BD:144:ALA:HB3	38:BD:192:THR:HG23	1.84	0.59
41:DG:69:ALA:HB3	41:DG:91:ARG:O	2.01	0.59
53:DV:82:ARG:NH1	53:DV:82:ARG:HG2	2.17	0.59
35:DA:2199:A:H3'	35:DA:2200:C:C6	2.34	0.59
3:CC:6:HIS:HD2	3:CC:7:PRO:HD2	1.66	0.59
56:BY:88:LYS:NZ	56:BY:93:GLY:CA	2.64	0.59
35:DA:1448:G:H5'	35:DA:1449:A:OP1	2.02	0.59
1:AA:1097:C:H2'	1:AA:1098:C:C6	2.36	0.59
18:AR:73:ALA:HB3	18:AR:79:LEU:HD12	1.84	0.59
35:BA:2876:G:O5'	51:BT:3:ARG:HA	2.02	0.59
31:D6:15:GLU:O	31:D6:15:GLU:HG2	2.00	0.59
1:CA:687:A:H1'	1:CA:688:G:OP2	2.02	0.59
21:CU:18:TYR:HD2	21:CU:24:ARG:HA	1.66	0.59
28:D3:6:VAL:O	28:D3:34:GLU:HA	2.02	0.59
11:CK:12:ARG:HG2	11:CK:13:GLN:N	2.17	0.59
35:DA:2291:U:H2'	35:DA:2292:C:C6	2.37	0.59
56:BY:17:SER:CA	56:BY:71:LYS:HE2	2.32	0.59
35:DA:2167:U:H2'	35:DA:2168:G:C8	2.36	0.59
1:AA:1188:A:H5''	14:AN:58:LYS:NZ	2.17	0.59
1:AA:1380:U:N3	7:AG:3:ARG:HD3	2.16	0.59
44:DJ:102:UNK:HA	44:DJ:105:UNK:O	2.02	0.59
1:CA:1055:A:O2'	3:CC:161:GLU:HA	2.02	0.59
1:CA:127:G:H2'	1:CA:128:G:H8	1.67	0.59
10:CJ:100:THR:HG22	10:CJ:101:VAL:N	2.16	0.59
39:BE:179:GLU:HB2	39:BE:181:LEU:HD13	1.83	0.59
1:CA:857:C:H2'	1:CA:858:G:O4'	2.02	0.59
35:DA:2322:A:H2'	35:DA:2323:G:O4'	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DP:131:SER:O	47:DP:134:ALA:HB3	2.03	0.59
5:AE:17:ALA:HB2	5:AE:26:PHE:CD2	2.37	0.59
24:AY:31:THR:HG23	24:AY:53:GLU:OE2	2.01	0.59
10:CJ:50:ILE:HD11	14:CN:41:ARG:NH1	2.17	0.59
51:BT:85:LYS:HZ2	51:BT:85:LYS:C	2.05	0.59
56:BY:27:VAL:HA	56:BY:28:LYS:NZ	2.18	0.59
53:DV:46:VAL:HG22	53:DV:47:VAL:O	2.02	0.59
57:BZ:126:VAL:HA	57:BZ:163:LEU:HA	1.84	0.59
27:D2:38:GLN:NE2	27:D2:44:LEU:HD13	2.17	0.59
2:CB:162:ILE:HD12	2:CB:162:ILE:O	2.02	0.59
41:DG:128:ARG:C	41:DG:130:ASN:N	2.55	0.59
3:CC:94:LEU:HG	3:CC:95:THR:H	1.67	0.59
48:DQ:26:TYR:CE1	48:DQ:28:ALA:HB2	2.37	0.59
3:CC:149:ALA:HA	3:CC:201:TYR:O	2.02	0.59
35:BA:1174:A:H3'	35:BA:1174:A:OP2	2.02	0.59
48:BQ:27:VAL:HG23	48:BQ:137:TYR:CD1	2.37	0.59
48:BQ:55:VAL:HG12	48:BQ:64:ILE:HD12	1.85	0.59
39:DE:77:ILE:HG22	39:DE:78:LEU:N	2.14	0.59
11:CK:107:SER:C	11:CK:108:ILE:HD12	2.22	0.59
41:DG:59:GLU:HA	41:DG:62:LEU:HD23	1.83	0.59
1:CA:1516:G:H2'	1:CA:1517:G:C5'	2.28	0.59
18:CR:66:LEU:HG	18:CR:70:ILE:CD1	2.30	0.59
9:AI:86:VAL:HG11	9:AI:96:LEU:HD22	1.83	0.59
5:CE:78:HIS:CE1	5:CE:142:LEU:HA	2.37	0.59
21:AU:20:LYS:C	21:AU:22:ARG:H	2.06	0.59
6:CF:42:GLU:HG2	6:CF:42:GLU:O	2.03	0.59
40:DF:102:PRO:HB2	40:DF:105:VAL:HG23	1.83	0.59
41:DG:161:THR:HG23	41:DG:163:ALA:HB3	1.85	0.59
1:CA:692:U:H2'	1:CA:694:A:OP2	2.01	0.59
38:BD:211:ARG:O	38:BD:215:LEU:HG	2.01	0.59
1:AA:97:G:O2'	1:AA:98:G:H8	1.85	0.59
35:DA:1563:G:O2'	35:DA:1564:C:H5'	2.02	0.59
1:CA:474:G:H2'	1:CA:475:G:H8	1.68	0.59
1:AA:386:C:H2'	1:AA:387:U:H5'	1.84	0.59
56:DY:17:SER:HB2	56:DY:71:LYS:HE2	1.83	0.59
1:CA:262:A:H2'	1:CA:263:A:C8	2.37	0.59
35:DA:2619:C:O2'	35:DA:2620:C:H5'	2.01	0.59
37:BC:47:LEU:HD23	37:BC:47:LEU:H	1.67	0.59
35:DA:605:C:O2	35:DA:657:U:O2'	2.19	0.59
1:AA:685:G:O2'	1:AA:686:U:H5'	2.03	0.59
34:D9:18:ARG:HE	34:D9:23:VAL:HG22	1.66	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:57:THR:HG23	11:CK:60:ALA:HB2	1.84	0.59
35:DA:1915:U:C6	35:DA:1916:A:H8	2.20	0.59
1:CA:1224:G:H4'	13:CM:102:ARG:NE	2.16	0.59
7:AG:79:ARG:HB2	7:AG:84:ASN:HD21	1.68	0.59
57:BZ:163:LEU:HD23	57:BZ:163:LEU:H	1.66	0.59
7:AG:91:VAL:HG12	7:AG:95:ARG:HB3	1.84	0.59
2:CB:21:ARG:NH2	2:CB:38:GLY:HA3	2.18	0.59
57:DZ:69:THR:CG2	57:DZ:90:VAL:HG22	2.33	0.59
2:AB:168:THR:HG21	2:AB:192:SER:HA	1.83	0.59
35:DA:2315:G:H21	41:DG:128:ARG:CZ	2.15	0.59
47:DP:78:PRO:HA	47:DP:110:TYR:CZ	2.38	0.59
38:DD:31:LYS:HA	38:DD:31:LYS:HE2	1.83	0.59
9:CI:16:ARG:O	9:CI:63:ILE:HG23	2.02	0.59
22:CV:9:G:H21	22:CV:45:G:H3'	1.68	0.59
51:DT:36:GLU:O	51:DT:38:ASN:N	2.35	0.59
8:AH:63:LEU:HB2	8:AH:65:TYR:CE1	2.37	0.59
46:BO:104:ARG:HB3	46:BO:104:ARG:NH1	2.18	0.59
50:BS:99:LYS:O	50:BS:101:LEU:N	2.34	0.59
10:CJ:48:THR:HA	10:CJ:62:HIS:CB	2.31	0.59
1:AA:1346:A:H5'	9:AI:120:ARG:HH12	1.68	0.59
53:DV:1:MET:HB2	53:DV:99:ILE:HG13	1.85	0.59
53:DV:1:MET:HA	53:DV:1:MET:HE2	1.84	0.59
7:AG:15:ASP:H	7:AG:20:ASP:H	1.49	0.59
1:CA:1437:C:H2'	1:CA:1438:G:H8	1.68	0.59
1:AA:1165:C:H2'	1:AA:1166:G:H8	1.67	0.59
10:CJ:32:ALA:HB1	10:CJ:75:ILE:CG1	2.33	0.59
1:CA:663:A:O3'	18:CR:64:ARG:NH2	2.35	0.59
40:BF:114:VAL:HG21	40:BF:202:PHE:CZ	2.38	0.59
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.67	0.59
39:DE:65:GLY:O	39:DE:67:PHE:N	2.35	0.59
1:AA:659:U:H2'	1:AA:660:G:C8	2.38	0.59
1:CA:1327:C:H2'	1:CA:1328:C:H6	1.67	0.59
35:BA:2842:G:O2'	35:BA:2843:G:H5'	2.02	0.59
35:DA:796:C:H2'	35:DA:797:C:C6	2.38	0.59
1:CA:341:C:O2'	1:CA:342:C:H5'	2.03	0.59
57:DZ:127:LYS:HB2	57:DZ:162:GLU:HB2	1.85	0.59
1:AA:1478:C:O2'	1:AA:1479:C:H5'	2.02	0.59
44:DJ:20:UNK:CB	44:DJ:89:UNK:HA	2.32	0.59
35:BA:1582:C:H2'	35:BA:1583:A:H8	1.66	0.59
1:CA:930:C:O2'	1:CA:931:C:H5'	2.03	0.59
42:DH:64:LEU:O	42:DH:66:GLY:N	2.30	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1231:G:H2'	35:BA:1232:G:H8	1.67	0.59
38:BD:141:VAL:HG23	38:BD:141:VAL:O	2.03	0.59
35:BA:158:U:H4'	35:BA:171:G:C8	2.37	0.59
1:AA:262:A:H5'	20:AT:74:LYS:HG3	1.85	0.59
35:DA:993:G:OP1	52:DU:50:ARG:NH2	2.35	0.59
15:AO:69:TYR:HD1	15:AO:72:ARG:NH2	2.00	0.59
47:BP:64:LYS:O	47:BP:66:GLY:N	2.35	0.59
56:DY:81:LYS:HE2	56:DY:97:ARG:HH21	1.66	0.59
10:CJ:51:ARG:H	10:CJ:60:ARG:HB3	1.67	0.59
56:DY:8:LYS:HE2	56:DY:72:VAL:HG23	1.84	0.59
40:BF:12:LEU:O	40:BF:12:LEU:HD23	2.03	0.59
40:BF:25:PRO:O	40:BF:27:GLU:N	2.34	0.59
35:BA:1528(A):A:C8	35:BA:1529:G:C4	2.91	0.59
53:DV:39:LEU:HB3	53:DV:47:VAL:CG1	2.32	0.59
35:DA:2285:C:H2'	35:DA:2286:A:H5'	1.84	0.59
1:CA:13:U:O4	1:CA:21:G:C2	2.55	0.59
2:CB:92:TYR:CD2	2:CB:151:GLY:HA3	2.38	0.59
15:CO:82:ILE:HG23	15:CO:83:GLU:N	2.17	0.59
1:CA:1148:U:H2'	1:CA:1149:C:O4'	2.02	0.59
3:AC:141:VAL:CG1	3:AC:202:ILE:HD12	2.29	0.59
53:DV:19:LYS:HZ2	53:DV:20:LEU:H	1.49	0.59
12:CL:7:LEU:HD12	17:CQ:32:TYR:CE2	2.37	0.59
51:BT:107:ASP:H	51:BT:110:ILE:CG1	2.15	0.59
35:BA:2199:A:H5'	35:BA:2200:C:OP2	2.02	0.59
43:DI:5:LEU:O	43:DI:6:LEU:HD23	2.03	0.59
21:CU:20:LYS:C	21:CU:22:ARG:H	2.06	0.59
1:CA:1460:A:H2'	1:CA:1461:G:O4'	2.02	0.59
13:AM:68:GLY:HA2	13:AM:71:ARG:HB2	1.83	0.59
13:CM:68:GLY:O	13:CM:69:GLU:HB2	2.01	0.59
37:DC:73:ARG:HG2	37:DC:92:ASP:OD1	2.02	0.59
4:CD:88:VAL:O	4:CD:92:VAL:HG23	2.03	0.59
38:DD:154:LYS:C	38:DD:155:LEU:HD12	2.22	0.59
19:AS:18:LYS:O	19:AS:22:LEU:HD23	2.02	0.59
11:AK:22:HIS:HB3	11:AK:29:ILE:HG22	1.84	0.59
1:CA:1109:C:O2'	1:CA:1110:A:H5'	2.02	0.59
45:DN:18:ALA:HB1	45:DN:21:LYS:HB2	1.83	0.59
8:AH:85:ARG:HG3	8:AH:85:ARG:HH11	1.68	0.59
1:CA:46:G:H2'	1:CA:366:C:C5	2.37	0.59
8:AH:109:ILE:HD11	8:AH:120:THR:CG2	2.31	0.59
3:CC:82:GLU:O	3:CC:85:ARG:HB3	2.03	0.59
1:AA:67:C:H2'	1:AA:68:G:C8	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:65:LEU:HD12	14:AN:55:GLY:O	2.03	0.59
35:DA:2836:U:H2'	35:DA:2837:G:C8	2.38	0.59
3:AC:71:ALA:HB1	3:AC:109:PRO:HB3	1.85	0.59
1:CA:678:U:H2'	1:CA:679:C:C6	2.37	0.59
57:DZ:48:PHE:HA	57:DZ:51:ALA:HB3	1.83	0.59
24:AY:2:PHE:CD2	24:AY:2:PHE:C	2.73	0.59
28:D3:30:ARG:HH11	28:D3:30:ARG:HG3	1.67	0.59
54:DW:29:LEU:O	54:DW:33:ARG:HG3	2.02	0.59
54:DW:37:ARG:HH11	54:DW:37:ARG:HG2	1.68	0.59
23:AX:23:A:C8	23:AX:23:A:C5'	2.81	0.59
24:AY:24:LEU:HD11	24:AY:43:TRP:HB3	1.84	0.59
10:CJ:49:VAL:CG2	14:CN:41:ARG:HB2	2.32	0.59
14:CN:42:ILE:O	14:CN:45:ARG:HB2	2.02	0.59
7:CG:87:VAL:HG11	7:CG:154:TYR:O	2.03	0.59
33:D8:27:THR:HG22	47:DP:62:LEU:CD1	2.33	0.59
1:AA:613:C:C3'	1:AA:614:A:H5''	2.33	0.59
50:BS:66:ALA:HA	50:BS:69:VAL:HG12	1.83	0.59
35:BA:833:U:H5''	47:BP:48:PRO:CB	2.31	0.59
12:AL:67:ILE:HG21	12:AL:74:LEU:CD1	2.32	0.59
35:DA:2418:A:H2'	35:DA:2419:U:C6	2.37	0.59
47:BP:41:ARG:HA	47:BP:41:ARG:NE	2.16	0.59
3:CC:73:PRO:O	3:CC:76:VAL:HG22	2.03	0.59
2:AB:178:ARG:CG	2:AB:178:ARG:HH11	2.15	0.59
2:AB:84:GLU:CG	2:AB:215:LEU:HB3	2.31	0.59
57:DZ:94:GLU:HB3	57:DZ:95:PRO:HD2	1.83	0.59
1:AA:1003:G:H2'	1:AA:1004:A:C4'	2.33	0.59
35:DA:1779:U:C5	35:DA:1784:A:N7	2.62	0.59
35:DA:1141:U:H2'	45:DN:63:THR:CG2	2.33	0.59
57:DZ:102:LEU:HD21	57:DZ:124:ILE:HG12	1.84	0.59
1:CA:1193:G:O2'	1:CA:1194:U:H5'	2.02	0.59
45:DN:33:LEU:HD23	45:DN:38:HIS:HD2	1.68	0.59
38:BD:186:HIS:HB3	38:BD:189:CYS:SG	2.42	0.59
35:DA:607:U:OP1	40:DF:103:LYS:HG3	2.02	0.59
9:CI:86:VAL:HG11	9:CI:96:LEU:HD22	1.84	0.59
35:DA:2297:C:O2'	35:DA:2298:A:H5'	2.03	0.59
45:DN:19:GLU:HG2	45:DN:56:ASN:HD22	1.67	0.59
51:DT:11:GLU:HA	51:DT:11:GLU:OE1	2.03	0.59
38:BD:65:ILE:HD13	38:BD:65:ILE:O	2.03	0.59
40:DF:137:LYS:HA	40:DF:140:LEU:HD23	1.83	0.59
43:DI:35:LEU:HD23	43:DI:35:LEU:N	2.17	0.59
22:CW:52:G:HO2'	22:CW:53:G:H8	1.49	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:51:GLU:HA	20:AT:54:LYS:HB3	1.84	0.59
40:BF:65:TRP:CZ2	40:BF:75:HIS:HD2	2.19	0.59
35:BA:2716:U:O2'	35:BA:2717:G:H5'	2.02	0.59
35:BA:1509(A):A:H2'	35:BA:1509(B):A:H8	1.68	0.59
7:AG:29:LYS:CB	7:AG:105:VAL:HG21	2.33	0.59
37:BC:73:ARG:HG2	37:BC:92:ASP:OD1	2.02	0.59
42:DH:77:LYS:H	42:DH:77:LYS:HD2	1.67	0.59
24:AY:38:GLY:C	24:AY:39:LYS:HD3	2.18	0.59
56:DY:95:LYS:HZ3	56:DY:99:CYS:H	1.45	0.59
42:DH:83:TYR:HB3	42:DH:135:GLY:N	2.18	0.59
51:BT:20:PRO:HG2	51:BT:85:LYS:O	2.03	0.59
36:BB:30:C:H2'	36:BB:31:C:O4'	2.03	0.59
52:DU:92:ARG:O	52:DU:93:LYS:C	2.41	0.59
5:CE:100:VAL:HG23	5:CE:100:VAL:O	2.03	0.59
42:BH:85:LYS:HB2	42:BH:141:VAL:CG1	2.33	0.59
35:DA:1503:U:H2'	35:DA:1504:C:C6	2.37	0.59
47:BP:40:SER:HB3	47:BP:41:ARG:HH21	1.67	0.59
2:CB:173:ALA:HA	2:CB:176:GLU:CG	2.33	0.59
35:BA:2418:A:H2'	35:BA:2419:U:C6	2.38	0.59
43:BI:114:LEU:C	43:BI:116:LEU:H	2.06	0.59
16:CP:49:LEU:CD1	16:CP:73:LEU:HB3	2.32	0.59
8:AH:6:ILE:N	8:AH:6:ILE:HD12	2.16	0.59
35:DA:1174:A:OP2	35:DA:1174:A:H3'	2.02	0.59
35:BA:1246:A:OP2	47:BP:18:ARG:HG3	2.01	0.59
1:CA:1445:C:N4	1:CA:1458:G:H1	2.00	0.59
53:BV:22:VAL:O	53:BV:23:GLU:CB	2.51	0.59
53:BV:22:VAL:HG23	53:BV:92:THR:HG23	1.84	0.59
43:BI:131:LYS:HB3	43:BI:132:PRO:HA	1.85	0.59
41:DG:17:PRO:HA	41:DG:20:ILE:HD12	1.84	0.59
1:CA:568:G:N7	12:CL:2:PRO:HD3	2.18	0.59
38:DD:242:ARG:HH11	38:DD:242:ARG:HG2	1.67	0.59
38:DD:242:ARG:HG2	38:DD:242:ARG:NH1	2.17	0.59
1:CA:1325:C:H4'	21:CU:17:THR:HG21	1.85	0.59
21:CU:6:ARG:NH2	21:CU:15:ARG:HH22	2.00	0.59
1:AA:1104:G:H2'	1:AA:1105:A:H8	1.67	0.59
18:CR:83:GLU:N	18:CR:83:GLU:OE1	2.35	0.59
43:DI:2:LYS:HB2	43:DI:39:ALA:HB3	1.83	0.59
27:B2:35:LEU:CD1	27:B2:53:LEU:HD12	2.32	0.59
35:BA:1665:A:C2'	35:BA:1666:G:H5'	2.33	0.59
39:DE:184:VAL:O	39:DE:186:GLY:N	2.33	0.59
3:AC:42:LEU:HD12	3:AC:45:LYS:HD2	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AW:47:U:H3'	22:AW:48:C:H5'	1.84	0.59
1:CA:38:G:H22	1:CA:397:A:P	2.16	0.59
39:DE:110:GLY:O	49:DR:5:LYS:CE	2.51	0.59
52:BU:92:ARG:O	52:BU:93:LYS:C	2.39	0.59
57:BZ:56:VAL:HG12	57:BZ:57:ILE:N	2.17	0.59
33:B8:50:LEU:O	33:B8:51:ALA:CB	2.51	0.59
33:B8:30:ARG:CZ	35:BA:2419:U:O4	2.50	0.59
35:DA:2312:U:H4'	41:DG:71:THR:CG2	2.32	0.59
51:DT:41:ARG:HD2	51:DT:41:ARG:O	2.03	0.59
1:CA:1430:C:H2'	1:CA:1431:C:C6	2.38	0.59
41:BG:8:LYS:HG2	41:BG:12:TYR:HE1	1.67	0.59
53:BV:5:VAL:HG21	53:BV:35:LEU:CG	2.32	0.59
1:CA:1004:A:H5''	1:CA:1025:U:N3	2.18	0.59
7:CG:15:ASP:H	7:CG:20:ASP:H	1.51	0.59
12:AL:7:LEU:HD12	17:AQ:32:TYR:CE2	2.38	0.59
26:B1:10:LYS:NZ	35:BA:397:G:OP2	2.18	0.59
9:CI:97:LYS:HB3	9:CI:98:PRO:HD3	1.83	0.59
35:BA:1332:G:H5''	35:BA:1332:G:C8	2.35	0.59
5:AE:36:ASP:OD2	5:AE:40:ARG:HB2	2.02	0.59
35:DA:1332:G:C8	35:DA:1332:G:H5''	2.36	0.59
38:BD:182:LEU:O	38:BD:271:ILE:HG13	2.02	0.59
36:BB:82:G:O2'	36:BB:83:G:H5'	2.01	0.59
1:CA:711:G:O2'	1:CA:712:A:H5'	2.01	0.59
12:AL:29:PHE:HE1	12:AL:83:ARG:HG3	1.68	0.59
50:BS:61:ASN:C	50:BS:65:VAL:HG23	2.23	0.59
1:AA:372:C:N4	1:AA:387:U:H2'	2.17	0.59
35:DA:2222:G:H5'	38:DD:149:PRO:HG3	1.84	0.59
1:AA:474:G:H2'	1:AA:475:G:C8	2.38	0.59
35:DA:184:C:H2'	35:DA:185:U:H6	1.67	0.59
1:AA:277:C:O2'	1:AA:278:G:H5'	2.02	0.59
8:CH:28:ALA:HB3	8:CH:57:PRO:HB2	1.85	0.59
39:BE:119:ARG:HD2	39:BE:120:TRP:NE1	2.17	0.59
1:CA:171:A:H2'	1:CA:172:A:C8	2.37	0.59
40:BF:143:ALA:HB1	40:BF:148:LEU:HB2	1.83	0.59
1:AA:1494:G:N2	35:BA:1912:A:N3	2.50	0.59
1:AA:303:A:OP1	12:AL:14:LYS:HE3	2.03	0.59
57:DZ:118:GLN:O	57:DZ:120:ILE:N	2.35	0.59
14:CN:44:LEU:C	14:CN:44:LEU:HD12	2.22	0.59
28:B3:29:ARG:HG3	28:B3:29:ARG:HH11	1.68	0.59
1:AA:439:A:H2'	1:AA:441:A:H5'	1.84	0.59
5:AE:75:THR:HG22	5:AE:117:ASP:HB2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:53:THR:HG23	40:BF:56:GLU:OE2	2.02	0.59
42:BH:43:VAL:CG1	42:BH:52:VAL:HG22	2.33	0.59
24:AY:57:GLN:CD	35:BA:1913:A:C2	2.76	0.59
33:B8:27:THR:HA	47:BP:62:LEU:HD11	1.83	0.59
35:BA:1490:A:C5'	35:BA:1490:A:H8	2.11	0.59
56:BY:95:LYS:NZ	56:BY:99:CYS:N	2.46	0.59
56:BY:97:ARG:HH11	56:BY:97:ARG:HB2	1.68	0.59
47:DP:23:PRO:HD2	47:DP:33:ARG:NE	2.18	0.59
42:DH:85:LYS:HB2	42:DH:141:VAL:CG1	2.33	0.59
52:BU:86:ALA:HB1	52:BU:88:ILE:HG23	1.85	0.59
35:BA:903:C:O2'	35:BA:904:C:H5''	2.02	0.59
1:CA:35:G:N3	12:CL:115:SER:CA	2.65	0.59
29:B4:52:THR:CG2	29:B4:53:GLU:H	2.06	0.59
38:BD:34:VAL:O	38:BD:64:ILE:HG22	2.02	0.59
10:AJ:50:ILE:HD11	14:AN:41:ARG:NH1	2.17	0.59
1:CA:1152:A:H2'	1:CA:1153:C:C6	2.37	0.59
16:AP:40:ASP:HB3	16:AP:48:TRP:HB3	1.84	0.59
3:AC:134:ILE:CG2	3:AC:168:ALA:HB3	2.32	0.59
3:AC:134:ILE:HG21	3:AC:168:ALA:HB3	1.85	0.59
1:CA:1206:G:HO2'	1:CA:1207:G:P	2.26	0.59
8:AH:12:ARG:HH12	8:AH:26:VAL:HA	1.68	0.59
2:CB:118:LEU:HD11	2:CB:141:GLU:OE2	2.03	0.59
38:BD:267:SER:O	38:BD:269:PHE:N	2.36	0.59
16:AP:21:VAL:HG12	16:AP:34:GLU:O	2.03	0.59
49:BR:84:ALA:HB3	49:BR:85:PRO:HD3	1.85	0.59
35:BA:862:G:H2'	35:BA:863:A:O4'	2.03	0.59
4:CD:96:LEU:HB3	4:CD:139:ARG:HH12	1.67	0.59
35:BA:557:U:H2'	35:BA:558:G:C8	2.37	0.59
1:AA:992:U:H2'	1:AA:1043:C:H42	1.67	0.59
56:DY:17:SER:CA	56:DY:71:LYS:HE2	2.32	0.59
22:AW:9:G:H1'	22:AW:45:G:C2'	2.33	0.59
35:DA:2443:C:O2'	35:DA:2444:G:H5'	2.02	0.59
3:CC:132:ARG:HD3	3:CC:136:GLN:NE2	2.17	0.59
37:DC:34:THR:HG22	37:DC:216:THR:HA	1.85	0.59
52:BU:106:PHE:O	52:BU:110:VAL:HG23	2.02	0.59
35:DA:1713:U:O2'	35:DA:1714:G:H5'	2.03	0.59
25:B0:56:ASP:O	25:B0:57:PHE:HB2	2.03	0.59
35:DA:2133:G:H2'	35:DA:2157:G:N2	2.18	0.59
23:AX:22:A:N3	23:AX:22:A:O4'	2.36	0.59
7:CG:102:ARG:HG2	7:CG:106:GLN:NE2	2.14	0.59
47:DP:34:GLY:O	47:DP:35:HIS:HB2	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:867:C:H42	35:DA:912:C:C2'	2.16	0.59
2:CB:51:LEU:HD23	2:CB:201:ILE:HD13	1.85	0.59
57:DZ:82:ARG:HB2	57:DZ:82:ARG:HH11	1.68	0.59
16:CP:51:VAL:CG1	16:CP:52:ASP:N	2.66	0.59
39:DE:111:ARG:HD3	49:DR:2:ARG:NH2	2.17	0.59
4:AD:108:LEU:HD23	4:AD:110:PHE:CE1	2.38	0.59
6:CF:52:ILE:O	6:CF:53:ALA:HB3	2.03	0.59
11:AK:99:GLN:HG2	11:AK:105:VAL:HG21	1.85	0.59
38:BD:21:PHE:HB3	38:BD:24:ILE:HG12	1.85	0.59
41:BG:91:ARG:HG2	41:BG:92:VAL:N	2.17	0.59
50:DS:85:VAL:HG23	50:DS:106:ARG:HG3	1.84	0.59
35:DA:2645:G:H3'	35:DA:2646:C:C5'	2.30	0.59
35:DA:2769:C:H2'	35:DA:2770:G:C8	2.37	0.59
13:CM:93:ARG:HB3	13:CM:94:ARG:HH11	1.67	0.59
35:BA:2732:G:C2'	35:BA:2733:A:H5'	2.33	0.59
35:DA:2801(A):A:H4'	35:DA:2802:G:H2'	1.85	0.59
35:BA:1141:U:H2'	45:BN:63:THR:CG2	2.33	0.59
40:BF:101:LEU:O	40:BF:106:ARG:NH1	2.35	0.59
39:DE:171:GLU:HB3	39:DE:185:LYS:HG2	1.85	0.59
22:AV:28:C:H2'	22:AV:29:G:C8	2.38	0.59
32:D7:48:LYS:HE2	32:D7:48:LYS:N	2.18	0.59
1:AA:253:U:H2'	1:AA:254:G:H8	1.67	0.59
17:CQ:11:VAL:O	17:CQ:12:SER:HB2	2.02	0.59
16:CP:82:GLN:HG2	16:CP:82:GLN:O	2.03	0.59
12:AL:30:ARG:HB3	12:AL:82:ILE:CG2	2.33	0.59
9:CI:43:ALA:HA	9:CI:74:ILE:HG21	1.84	0.59
1:AA:59:A:H5''	1:AA:60:A:H5''	1.85	0.59
35:BA:1721:G:H8	35:BA:1741:A:H62	1.49	0.59
19:CS:21:GLU:HG3	19:CS:22:LEU:CD2	2.33	0.59
20:AT:54:LYS:HB2	20:AT:54:LYS:NZ	2.18	0.59
1:AA:1410:G:H2'	1:AA:1411:C:C6	2.37	0.59
55:DX:24:GLY:O	55:DX:83:VAL:HG22	2.03	0.59
1:AA:29:G:O2'	1:AA:30:U:H5'	2.03	0.59
18:CR:24:ALA:O	18:CR:26:LEU:N	2.36	0.59
1:CA:829:G:O2'	1:CA:830:G:H5'	2.02	0.59
51:BT:48:ILE:HD12	51:BT:48:ILE:H	1.68	0.59
39:DE:179:GLU:HB2	39:DE:181:LEU:HD13	1.85	0.59
35:DA:1684:C:O2'	35:DA:1685:C:H5'	2.03	0.59
42:DH:43:VAL:CG1	42:DH:52:VAL:HG22	2.33	0.58
1:CA:401:C:C6	1:CA:401:C:C4'	2.86	0.58
35:DA:1915:U:H2'	35:DA:1916:A:O5'	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:82:LEU:HG	41:BG:83:ARG:H	1.68	0.58
56:BY:81:LYS:HD3	56:BY:96:ILE:HG21	1.84	0.58
1:CA:976:G:OP1	14:CN:31:ARG:HB3	2.03	0.58
33:D8:46:ARG:NH1	33:D8:46:ARG:HG2	2.18	0.58
47:DP:61:ARG:C	47:DP:62:LEU:HD13	2.24	0.58
47:DP:64:LYS:O	47:DP:66:GLY:N	2.36	0.58
8:AH:51:VAL:HG21	8:AH:60:ARG:HH11	1.67	0.58
56:DY:28:LYS:CA	56:DY:38:ILE:HG22	2.30	0.58
52:BU:76:TYR:OH	52:BU:93:LYS:HE3	2.02	0.58
33:D8:48:PHE:O	33:D8:49:VAL:HG13	2.03	0.58
33:D8:56:GLU:HG3	33:D8:56:GLU:O	2.03	0.58
1:AA:940:C:H2'	1:AA:941:G:H8	1.68	0.58
8:CH:63:LEU:HB2	8:CH:65:TYR:CE1	2.38	0.58
46:DO:24:VAL:HG21	46:DO:32:TYR:O	2.01	0.58
41:DG:47:LYS:NZ	41:DG:81:LYS:HZ1	2.01	0.58
10:AJ:49:VAL:CG2	14:AN:41:ARG:HB2	2.33	0.58
30:D5:56:LYS:HG3	30:D5:59:GLU:OE1	2.03	0.58
35:DA:1999:C:H5''	35:DA:2723:C:O2'	2.02	0.58
9:AI:16:ARG:HE	9:AI:64:THR:HB	1.67	0.58
10:AJ:96:ILE:H	10:AJ:96:ILE:CD1	2.12	0.58
1:AA:962:C:H2'	1:AA:963:G:H8	1.67	0.58
6:AF:42:GLU:O	6:AF:42:GLU:HG2	2.03	0.58
8:CH:91:ARG:CG	8:CH:91:ARG:HH11	2.15	0.58
27:B2:37:PHE:O	27:B2:41:ILE:HG23	2.03	0.58
3:AC:6:HIS:HD2	3:AC:7:PRO:HD2	1.67	0.58
47:BP:75:ILE:N	47:BP:75:ILE:HD12	2.18	0.58
5:CE:67:VAL:HG13	5:CE:69:VAL:CG2	2.32	0.58
31:B6:45:LYS:HZ2	31:B6:45:LYS:HB3	1.68	0.58
35:DA:2876:G:O5'	51:DT:3:ARG:HA	2.02	0.58
34:B9:7:VAL:HG12	34:B9:34:GLN:NE2	2.17	0.58
2:CB:155:LEU:HD21	2:CB:159:PRO:HG3	1.84	0.58
12:CL:37:VAL:O	12:CL:38:ARG:CG	2.51	0.58
3:AC:82:GLU:O	3:AC:85:ARG:HB3	2.02	0.58
16:AP:6:LEU:HB3	16:AP:17:TYR:HD2	1.67	0.58
35:DA:1450(A):C:H2'	35:DA:1451:C:C6	2.37	0.58
2:CB:42:ILE:HD11	2:CB:202:PRO:HB2	1.84	0.58
22:CV:21:A:N6	22:CV:46:G:H2'	2.18	0.58
11:CK:101:SER:C	11:CK:103:LEU:H	2.05	0.58
3:AC:162:GLN:CA	23:AX:23:A:N6	2.65	0.58
47:BP:66:GLY:O	47:BP:67:MET:CB	2.51	0.58
58:CX:16:A:C2'	58:CX:17:U:H5'	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1533:G:C2'	35:BA:1543:C:OP1	2.50	0.58
52:BU:74:LEU:HD12	52:BU:74:LEU:N	2.14	0.58
53:BV:39:LEU:HD12	53:BV:50:PRO:O	2.03	0.58
40:DF:199:TRP:O	40:DF:203:GLN:HG2	2.02	0.58
51:DT:28:VAL:O	51:DT:29:ARG:NE	2.34	0.58
57:BZ:171:ILE:HG13	57:BZ:172:ALA:H	1.67	0.58
3:AC:103:VAL:HG12	3:AC:103:VAL:O	2.03	0.58
12:AL:67:ILE:HG21	12:AL:74:LEU:HD12	1.84	0.58
38:BD:33:LEU:C	38:BD:33:LEU:HD23	2.23	0.58
9:CI:16:ARG:HH21	9:CI:64:THR:CG2	2.15	0.58
10:CJ:38:ILE:HG23	10:CJ:71:LEU:HB3	1.85	0.58
45:DN:57:ALA:N	45:DN:124:ALA:HA	2.13	0.58
48:BQ:133:ARG:HG2	48:BQ:134:ARG:H	1.67	0.58
9:AI:16:ARG:HH21	9:AI:64:THR:CG2	2.16	0.58
47:DP:13:ASN:O	47:DP:15:ARG:N	2.36	0.58
51:DT:32:TYR:CD2	51:DT:81:PRO:O	2.55	0.58
54:BW:110:LYS:HG3	54:BW:111:HIS:N	2.17	0.58
1:CA:1207:G:O2'	1:CA:1208:C:H5'	2.02	0.58
15:AO:66:LEU:N	15:AO:66:LEU:HD12	2.18	0.58
8:AH:121:ASP:HB2	8:AH:125:ARG:NH1	2.16	0.58
57:DZ:163:LEU:HD23	57:DZ:163:LEU:H	1.67	0.58
35:DA:2177:C:H5'	37:DC:211:SER:CB	2.33	0.58
2:AB:142:LEU:HA	2:AB:145:LEU:HB2	1.85	0.58
35:BA:2297:C:O2'	35:BA:2298:A:H5'	2.04	0.58
57:BZ:11:GLU:HB2	57:BZ:13:GLU:CD	2.24	0.58
13:AM:68:GLY:O	13:AM:69:GLU:HB2	2.03	0.58
16:CP:21:VAL:HG12	16:CP:34:GLU:O	2.03	0.58
35:BA:2302:G:H1'	41:BG:128:ARG:CZ	2.32	0.58
35:BA:1799:G:H5'	35:BA:1819:A:H61	1.65	0.58
26:B1:62:VAL:HG22	26:B1:63:ALA:N	2.16	0.58
50:BS:30:ARG:HH22	50:BS:62:LYS:HD2	1.69	0.58
11:CK:22:HIS:HB3	11:CK:29:ILE:HG22	1.84	0.58
11:AK:12:ARG:HG2	11:AK:13:GLN:N	2.17	0.58
38:DD:147:LEU:HD12	38:DD:155:LEU:HD21	1.85	0.58
35:DA:1771:C:O2'	35:DA:1786:A:H8	1.86	0.58
14:CN:7:ILE:O	14:CN:11:LYS:HB2	2.03	0.58
38:BD:221:VAL:HG23	38:BD:226:MET:HE3	1.83	0.58
35:DA:1882:C:H5'	35:DA:1883:G:OP2	2.02	0.58
2:AB:42:ILE:HD11	2:AB:202:PRO:HB2	1.85	0.58
47:DP:30:THR:HG22	47:DP:31:ALA:H	1.68	0.58
35:BA:832:G:H21	47:BP:53:GLY:HA3	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1991:U:H2'	35:DA:1992:G:H5''	1.85	0.58
48:DQ:108:GLY:HA3	57:DZ:116:VAL:HG11	1.85	0.58
27:D2:47:ASN:HD22	35:DA:94(A):G:H21	1.49	0.58
40:BF:2:LYS:O	40:BF:4:VAL:N	2.35	0.58
33:D8:29:LYS:O	33:D8:30:ARG:HG2	2.04	0.58
1:CA:15:G:H1'	5:CE:19:MET:SD	2.43	0.58
35:BA:2334:G:H5'	50:BS:13:ARG:HD3	1.84	0.58
50:BS:18:ILE:C	50:BS:20:ARG:H	2.06	0.58
2:AB:21:ARG:HH21	2:AB:38:GLY:HA3	1.67	0.58
54:BW:88:ARG:HB2	54:BW:92:ARG:HB2	1.85	0.58
51:DT:53:ARG:HH11	51:DT:53:ARG:CB	2.10	0.58
47:DP:126:VAL:HG22	47:DP:145:PRO:HG3	1.85	0.58
43:BI:123:LEU:CD1	43:BI:144:VAL:HG22	2.33	0.58
16:CP:40:ASP:HB3	16:CP:48:TRP:HB3	1.85	0.58
10:AJ:44:VAL:HG11	10:AJ:46:ARG:CZ	2.34	0.58
39:BE:77:ILE:HG22	39:BE:78:LEU:N	2.16	0.58
50:DS:68:GLN:HA	50:DS:71:ARG:NH1	2.17	0.58
50:DS:87:PHE:HE2	50:DS:92:TYR:HD2	1.49	0.58
35:DA:1278:A:H5''	49:DR:36:THR:HG22	1.86	0.58
6:AF:97:PHE:CD2	18:AR:31:LEU:HD21	2.38	0.58
35:BA:81:G:H21	56:BY:2:ARG:NH1	2.01	0.58
8:CH:12:ARG:HH12	8:CH:26:VAL:HA	1.68	0.58
5:CE:36:ASP:OD2	5:CE:40:ARG:HB2	2.03	0.58
22:AW:41:C:H2'	22:AW:42:G:C8	2.36	0.58
35:DA:2875:C:O2'	51:DT:5:ALA:HB3	2.02	0.58
17:CQ:78:GLU:HG3	17:CQ:78:GLU:O	2.03	0.58
40:BF:137:LYS:HA	40:BF:140:LEU:HD23	1.85	0.58
2:CB:155:LEU:CD2	2:CB:159:PRO:HG3	2.33	0.58
27:B2:3:LEU:HB2	35:BA:98:G:OP1	2.04	0.58
9:AI:43:ALA:HA	9:AI:74:ILE:HG21	1.85	0.58
38:DD:28:GLU:H	38:DD:29:PRO:HD2	1.68	0.58
38:BD:147:LEU:HD13	38:BD:155:LEU:HD11	1.84	0.58
1:AA:660:G:H2'	1:AA:661:G:H8	1.68	0.58
35:DA:1509(A):A:H2'	35:DA:1509(B):A:H8	1.68	0.58
38:BD:80:ALA:O	38:BD:81:ALA:HB2	2.03	0.58
1:AA:1069:C:H41	1:AA:1094:G:H1	1.50	0.58
35:BA:2611:U:H5'	35:BA:2611:U:H6	1.68	0.58
1:CA:1069:C:N4	1:CA:1094:G:H22	2.00	0.58
49:BR:29:LEU:O	49:BR:75:LEU:HD21	2.02	0.58
35:DA:279:C:N4	35:DA:361:G:H1	2.02	0.58
14:AN:4:LYS:O	14:AN:7:ILE:HG12	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:110:ARG:HH11	13:CM:110:ARG:HG2	1.68	0.58
35:BA:1827:C:O2'	35:BA:1828:G:H5'	2.03	0.58
35:BA:1165:U:H2'	35:BA:1166:C:C6	2.38	0.58
22:CV:55:U:O2'	22:CV:56:C:H5	1.86	0.58
22:AW:35:A:H2'	22:AW:36:U:O4'	2.02	0.58
47:DP:58:THR:O	47:DP:61:ARG:NE	2.35	0.58
40:DF:2:LYS:NZ	40:DF:119:ARG:HG3	2.19	0.58
27:D2:38:GLN:NE2	27:D2:44:LEU:HD22	2.17	0.58
1:CA:1078:U:H4'	5:CE:84:PHE:HZ	1.68	0.58
47:DP:40:SER:O	47:DP:41:ARG:NH2	2.35	0.58
2:CB:84:GLU:CG	2:CB:215:LEU:HB3	2.31	0.58
41:DG:39:ILE:HG13	41:DG:155:MET:CG	2.34	0.58
9:CI:53:VAL:HG23	9:CI:54:ASP:N	2.18	0.58
47:BP:8:PRO:C	47:BP:10:PRO:HD3	2.23	0.58
48:DQ:27:VAL:HG23	48:DQ:137:TYR:CE1	2.37	0.58
3:AC:30:ARG:O	3:AC:34:LEU:HG	2.04	0.58
1:AA:1027:C:H2'	1:AA:1028:C:C5	2.37	0.58
35:BA:1997:G:O2'	35:BA:1998:G:H5'	2.04	0.58
20:AT:10:LEU:HD22	20:AT:12:ALA:CB	2.30	0.58
18:CR:66:LEU:CG	18:CR:70:ILE:HD11	2.29	0.58
26:B1:71:TYR:HE1	43:BI:27:ARG:CD	2.15	0.58
53:DV:34:GLU:HG3	53:DV:34:GLU:O	2.03	0.58
20:CT:13:LEU:HD12	20:CT:14:LYS:N	2.19	0.58
1:AA:1305:G:OP2	1:AA:1305:G:H8	1.86	0.58
36:DB:55:U:H2'	36:DB:56:G:H8	1.66	0.58
6:AF:42:GLU:O	6:AF:44:GLY:N	2.36	0.58
43:DI:10:GLU:O	43:DI:11:ASN:HB3	2.03	0.58
17:AQ:35:VAL:O	17:AQ:36:ILE:HG23	2.03	0.58
1:CA:729:A:H2'	1:CA:730:G:H8	1.69	0.58
55:DX:80:ILE:HD13	55:DX:80:ILE:C	2.23	0.58
41:BG:71:THR:HG22	41:BG:89:GLY:HA3	1.85	0.58
17:AQ:11:VAL:O	17:AQ:12:SER:HB2	2.04	0.58
35:DA:272(B):G:H1	35:DA:366:C:H42	1.48	0.58
4:CD:15:GLU:HG3	4:CD:63:LYS:HE2	1.85	0.58
35:BA:2653:U:H3'	35:BA:2654:A:C8	2.38	0.58
47:BP:140:ALA:O	47:BP:141:ALA:HB2	2.03	0.58
13:AM:98:VAL:O	13:AM:99:ARG:HB2	2.04	0.58
16:AP:14:ASN:N	16:AP:15:PRO:HD3	2.18	0.58
15:AO:68:ARG:O	15:AO:71:GLN:HB3	2.03	0.58
35:BA:1789:A:OP1	38:BD:222:ARG:HG3	2.03	0.58
1:CA:1069:C:H41	1:CA:1094:G:H1	1.52	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1193:G:O2'	1:AA:1194:U:H5'	2.04	0.58
1:CA:617:G:H4'	16:CP:44:THR:O	2.04	0.58
43:BI:10:GLU:O	43:BI:11:ASN:HB3	2.03	0.58
1:CA:417:C:O2'	1:CA:418:C:H5'	2.03	0.58
24:AY:82:GLN:C	24:AY:83:LEU:CD2	2.69	0.58
22:AV:54:U:H3'	22:AV:55:U:O4'	2.04	0.58
53:BV:39:LEU:HB3	53:BV:47:VAL:CG1	2.33	0.58
1:AA:1442(A):G:C3'	1:AA:1442(B):A:H5''	2.33	0.58
51:BT:27:THR:O	51:BT:28:VAL:HG23	2.03	0.58
1:AA:8:A:H5'	5:AE:120:THR:O	2.03	0.58
41:BG:52:ILE:HG12	41:BG:53:LEU:N	2.12	0.58
3:CC:90:GLU:HA	3:CC:93:LYS:NZ	2.18	0.58
2:AB:92:TYR:CD2	2:AB:151:GLY:HA3	2.39	0.58
57:BZ:6:LYS:HE2	57:BZ:43:GLU:OE2	2.04	0.58
1:CA:987:G:N2	1:CA:1219:U:H3	2.01	0.58
10:AJ:50:ILE:HG23	10:AJ:60:ARG:NH1	2.19	0.58
51:BT:36:GLU:O	51:BT:38:ASN:N	2.35	0.58
7:CG:29:LYS:CB	7:CG:105:VAL:HG21	2.34	0.58
38:BD:239:ARG:NH2	38:BD:239:ARG:HG2	2.10	0.58
1:CA:1413:A:N6	1:CA:1488:G:N2	2.52	0.58
39:BE:48:GLN:HE22	39:BE:64:LYS:NZ	2.01	0.58
37:BC:82:LYS:NZ	37:BC:86:ALA:HB1	2.18	0.58
1:CA:1305:G:H22	1:CA:1331:G:H1'	1.69	0.58
1:CA:1305:G:OP2	1:CA:1305:G:H8	1.85	0.58
41:BG:41:GLN:HE21	41:BG:60:LEU:HD13	1.69	0.58
1:AA:973:G:C1'	10:AJ:55:LYS:HG2	2.33	0.58
57:DZ:102:LEU:HD11	57:DZ:124:ILE:CG2	2.33	0.58
18:AR:66:LEU:HG	18:AR:70:ILE:CD1	2.32	0.58
1:CA:1373:G:C5'	7:CG:36:LYS:HB2	2.33	0.58
35:BA:2580:U:H5'	39:BE:131:ALA:HB2	1.84	0.58
43:DI:8:PRO:HB3	43:DI:14:ASP:HA	1.86	0.58
13:AM:49:THR:O	13:AM:53:VAL:HG23	2.03	0.58
17:CQ:65:ILE:H	17:CQ:65:ILE:HD12	1.68	0.58
35:DA:1348:G:C2'	35:DA:1349:A:H5''	2.33	0.58
18:CR:81:PHE:O	18:CR:82:THR:HB	2.03	0.58
35:DA:2408:U:H2'	35:DA:2409:G:C8	2.39	0.58
12:CL:40:VAL:CG2	12:CL:52:VAL:HG21	2.33	0.58
26:D1:82:LEU:HD22	26:D1:82:LEU:H	1.68	0.58
35:BA:2222:G:H5'	38:BD:149:PRO:HG3	1.85	0.58
1:AA:189(K):U:H2'	1:AA:189(L):G:H8	1.67	0.58
1:CA:992:U:H5''	1:CA:1043:C:H41	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2742:C:O2'	35:BA:2743:C:H5'	2.02	0.58
5:CE:151:LEU:HD22	8:CH:67:PRO:HD2	1.84	0.58
1:AA:1031:G:H2'	1:AA:1032:G:O4'	2.03	0.58
35:DA:2611:U:H5'	35:DA:2611:U:H6	1.68	0.58
32:D7:19:ARG:HG2	32:D7:19:ARG:HH11	1.68	0.58
35:BA:2728:U:O2'	35:BA:2729:G:H5'	2.03	0.58
1:AA:532:A:H3'	1:AA:533:A:H5''	1.86	0.58
35:DA:587:C:C5	47:DP:33:ARG:HD3	2.39	0.58
40:BF:16:GLY:O	40:BF:17:ARG:HG3	2.03	0.58
33:D8:52:LYS:HE2	35:DA:834:C:H4'	1.86	0.58
40:DF:116:ASP:O	40:DF:120:GLU:HG3	2.03	0.58
40:DF:22:ALA:HB1	40:DF:26:ALA:HB2	1.85	0.58
52:DU:92:ARG:HG2	52:DU:92:ARG:O	2.04	0.58
1:CA:1070:U:H2'	1:CA:1071:C:H6	1.68	0.58
2:CB:101:MET:HB2	2:CB:102:LEU:HD12	1.86	0.58
2:CB:19:HIS:HD2	2:CB:204:ASN:HA	1.68	0.58
8:CH:19:VAL:HG23	8:CH:21:LYS:HG3	1.83	0.58
35:BA:2285:C:H2'	35:BA:2286:A:H5'	1.85	0.58
15:AO:67:LEU:HB3	15:AO:78:TYR:HE1	1.68	0.58
40:BF:83:PHE:O	40:BF:84:VAL:CB	2.51	0.58
7:AG:109:ASN:HA	7:AG:119:ARG:HE	1.69	0.58
3:AC:134:ILE:HG23	3:AC:151:VAL:HB	1.86	0.58
10:AJ:32:ALA:HB1	10:AJ:75:ILE:CG1	2.33	0.58
35:DA:2091:U:C3'	35:DA:2092:U:H5''	2.31	0.58
46:BO:104:ARG:CZ	46:BO:104:ARG:HB3	2.34	0.58
45:BN:15:LEU:HD23	45:BN:16:ILE:N	2.19	0.58
35:DA:764:A:H2	38:DD:219:PRO:HG3	1.69	0.58
53:DV:19:LYS:HE2	53:DV:19:LYS:HA	1.85	0.58
35:BA:2801(A):A:H4'	35:BA:2802:G:H2'	1.85	0.58
1:AA:947:G:H2'	1:AA:948:C:C6	2.38	0.58
35:DA:1799:G:H5'	35:DA:1819:A:H61	1.67	0.58
55:DX:12:VAL:HG23	55:DX:17:ALA:HB1	1.86	0.58
9:AI:126:SER:O	9:AI:128:ARG:HD2	2.04	0.58
1:CA:447:G:C6	1:CA:485:G:H1'	2.39	0.58
35:BA:1692:U:O2'	35:BA:1693:U:H2'	2.03	0.58
42:DH:94:TYR:CD2	42:DH:107:VAL:HB	2.38	0.58
42:BH:94:TYR:CD2	42:BH:107:VAL:HB	2.38	0.58
1:AA:957:U:H3	1:AA:960:U:H5''	1.68	0.58
1:AA:936:C:H2'	1:AA:937:A:H8	1.69	0.58
39:DE:181:LEU:HD21	51:DT:7:ILE:CG2	2.34	0.58
35:BA:1713:U:O2'	35:BA:1714:G:H5'	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:158:G:H2'	1:CA:159:G:H8	1.68	0.58
35:DA:1973:G:H2'	35:DA:1974:C:H6	1.69	0.58
39:DE:119:ARG:CD	39:DE:120:TRP:NE1	2.66	0.58
35:DA:2537:U:H2'	35:DA:2538:C:C6	2.38	0.58
49:DR:32:GLY:O	49:DR:115:GLU:HA	2.04	0.58
1:AA:233:C:O2'	1:AA:234:C:H5'	2.03	0.58
11:CK:17:GLY:H	11:CK:80:VAL:HG12	1.68	0.58
23:AX:21:C:C4'	23:AX:21:C:C6	2.84	0.58
47:BP:62:LEU:N	47:BP:62:LEU:HD13	2.19	0.58
56:DY:27:VAL:HG12	56:DY:29:GLU:OE1	2.03	0.58
35:DA:2821:A:OP2	39:DE:110:GLY:CA	2.51	0.58
7:AG:102:ARG:HG2	7:AG:106:GLN:NE2	2.15	0.58
33:D8:29:LYS:HD3	33:D8:44:LYS:HG2	1.86	0.58
47:BP:112:LEU:C	47:BP:112:LEU:HD23	2.23	0.58
6:CF:69:GLU:H	6:CF:69:GLU:CD	2.07	0.58
8:CH:5:PRO:O	8:CH:8:ASP:HB3	2.04	0.58
43:DI:123:LEU:HD13	43:DI:142:VAL:O	2.03	0.58
41:DG:5:VAL:CG1	41:DG:6:ALA:H	2.16	0.58
35:BA:1266:G:O5'	54:BW:15:ARG:NH2	2.36	0.58
35:DA:2142:C:H42	35:DA:2148:G:H1	1.51	0.58
35:DA:2646:C:OP2	35:DA:2732:G:O2'	2.15	0.58
35:DA:2730:C:O2'	35:DA:2731:G:H5'	2.01	0.58
49:BR:10:LEU:CD2	49:BR:17:ARG:HD2	2.33	0.58
35:DA:1826:G:C4'	38:DD:242:ARG:HE	2.16	0.58
14:AN:33:VAL:HG12	14:AN:40:CYS:CB	2.32	0.58
25:B0:11:ARG:HB2	25:B0:11:ARG:HH11	1.69	0.58
35:BA:272(B):G:H1	35:BA:366:C:H42	1.50	0.58
28:D3:4:LEU:HD12	28:D3:4:LEU:N	2.18	0.58
35:DA:364:C:C2'	35:DA:365:C:H5''	2.34	0.58
1:CA:393:A:O2'	1:CA:394:G:H5'	2.04	0.58
1:AA:764:C:H2'	1:AA:765:G:C8	2.38	0.58
35:BA:2792:G:H1	35:BA:2804:C:N4	2.01	0.58
35:DA:1692:U:H2'	35:DA:1694:C:C5	2.39	0.58
20:AT:54:LYS:HA	20:AT:57:ARG:NH2	2.19	0.58
35:BA:1692:U:H2'	35:BA:1694:C:C5	2.38	0.58
35:DA:510:C:H2'	35:DA:511:U:O4'	2.04	0.58
35:BA:2533:A:C2'	35:BA:2534:A:H5'	2.34	0.58
1:AA:533:A:H1'	1:AA:534:U:OP1	2.02	0.58
40:DF:40:GLN:NE2	40:DF:182:ASN:HB2	2.19	0.58
35:DA:241:A:H5'	35:DA:243:U:C1'	2.33	0.58
35:BA:2322:A:H2'	35:BA:2323:G:O4'	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DQ:51:ARG:HG2	48:DQ:51:ARG:HH11	1.68	0.58
11:AK:17:GLY:H	11:AK:80:VAL:HG12	1.69	0.58
46:BO:25:LEU:HD12	46:BO:38:VAL:HG12	1.85	0.58
35:BA:241:A:H5'	35:BA:243:U:C1'	2.34	0.58
48:BQ:24:GLY:O	48:BQ:102:VAL:HG23	2.04	0.58
24:AY:41:LYS:HB3	24:AY:43:TRP:CH2	2.38	0.58
1:CA:1494:G:H2'	1:CA:1495:U:C6	2.38	0.58
47:BP:33:ARG:O	47:BP:34:GLY:C	2.41	0.58
56:BY:13:VAL:HG23	56:BY:73:ARG:O	2.03	0.58
51:DT:27:THR:O	51:DT:28:VAL:HG23	2.03	0.58
31:D6:35:GLU:HB3	31:D6:51:GLU:CB	2.25	0.58
35:DA:1665:A:H4'	46:DO:67:LYS:HB2	1.84	0.58
2:AB:162:ILE:O	2:AB:162:ILE:HD12	2.04	0.58
3:AC:94:LEU:HG	3:AC:95:THR:H	1.69	0.58
35:BA:747:U:O2	35:BA:2014:A:H1'	2.04	0.58
57:DZ:29:TYR:HB3	57:DZ:34:ASN:ND2	2.13	0.58
7:AG:87:VAL:HG11	7:AG:154:TYR:O	2.03	0.58
37:DC:82:LYS:NZ	37:DC:86:ALA:HB1	2.18	0.58
1:CA:1446:U:O2'	1:CA:1447:A:H2'	2.04	0.58
53:DV:2:PHE:HB2	53:DV:42:GLY:N	2.18	0.58
35:BA:1478:G:O2'	35:BA:1479:G:H5'	2.03	0.58
9:CI:10:ARG:NH2	9:CI:108:VAL:HG12	2.17	0.58
42:BH:137:ASP:HB2	42:BH:140:LYS:CE	2.34	0.58
3:AC:15:THR:HG22	3:AC:16:ARG:N	2.18	0.58
40:DF:162:LEU:N	40:DF:162:LEU:HD22	2.18	0.58
35:BA:2177:C:H5'	37:BC:211:SER:CB	2.34	0.58
41:DG:150:ASP:HB2	41:DG:153:ARG:HH12	1.69	0.58
35:DA:1887:C:H3'	35:DA:1888:G:H5''	1.84	0.58
35:DA:1766:U:H2'	35:DA:1767:C:C6	2.35	0.58
25:D0:51:VAL:CG2	25:D0:81:VAL:HG23	2.34	0.58
5:AE:67:VAL:HG13	5:AE:69:VAL:CG2	2.34	0.58
45:BN:17:ASP:O	45:BN:19:GLU:N	2.37	0.58
50:DS:61:ASN:C	50:DS:65:VAL:HG23	2.24	0.58
16:AP:82:GLN:HG2	16:AP:82:GLN:O	2.04	0.58
39:DE:12:THR:O	39:DE:23:VAL:HG22	2.02	0.58
20:AT:39:LYS:O	20:AT:43:LEU:HG	2.04	0.58
48:BQ:130:LYS:NZ	57:BZ:80:ARG:HD2	2.19	0.58
1:CA:46:G:O2'	1:CA:365:U:H1'	2.04	0.58
16:CP:14:ASN:N	16:CP:15:PRO:HD3	2.17	0.58
39:DE:119:ARG:HD2	39:DE:120:TRP:NE1	2.18	0.58
44:DJ:97:UNK:HA	44:DJ:132:UNK:C	2.34	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:93:ALA:HB3	38:DD:105:ILE:HG23	1.86	0.58
44:BJ:27:UNK:HA	44:BJ:113:UNK:HA	1.84	0.58
35:DA:2086:U:H2'	35:DA:2087:G:C8	2.37	0.58
1:CA:533:A:H1'	1:CA:534:U:OP1	2.03	0.58
6:CF:74:ASP:O	6:CF:77:ARG:HB3	2.04	0.58
11:AK:57:THR:HG23	11:AK:60:ALA:HB2	1.85	0.58
42:BH:77:LYS:HD2	42:BH:77:LYS:H	1.67	0.58
38:DD:54:ARG:HH11	38:DD:54:ARG:CG	2.17	0.58
1:CA:1290:G:N3	1:CA:1290:G:H2'	2.19	0.58
28:B3:30:ARG:HH11	28:B3:30:ARG:HG3	1.68	0.58
8:CH:97:VAL:HG13	8:CH:98:LYS:H	1.68	0.58
1:AA:518:C:H2'	1:AA:530:G:C8	2.39	0.58
1:CA:37:U:H2'	1:CA:38:G:H8	1.67	0.58
1:CA:836:G:C6	1:CA:837:G:N7	2.72	0.58
40:DF:16:GLY:O	40:DF:17:ARG:HG3	2.04	0.58
5:CE:14:ARG:HG3	5:CE:16:THR:HG23	1.84	0.58
47:BP:40:SER:C	47:BP:41:ARG:CZ	2.72	0.58
3:CC:103:VAL:O	3:CC:103:VAL:HG12	2.02	0.58
3:AC:75:VAL:O	3:AC:83:ARG:HG2	2.03	0.58
35:BA:2476:A:C2'	35:BA:2477:C:H5''	2.26	0.58
47:DP:101:VAL:HG12	47:DP:107:LYS:N	2.19	0.58
47:BP:79:ARG:HG3	47:BP:110:TYR:CD2	2.38	0.58
47:BP:108:LYS:O	47:BP:110:TYR:N	2.35	0.58
1:AA:1148:U:H2'	1:AA:1149:C:O4'	2.03	0.58
9:AI:18:PHE:O	9:AI:61:ALA:HA	2.04	0.58
8:AH:29:SER:HB3	8:AH:32:LYS:CG	2.33	0.58
1:CA:1416:G:O2'	1:CA:1417:G:H5'	2.04	0.58
35:BA:528:A:C2	35:BA:2042:A:H2'	2.39	0.58
32:D7:12:ARG:HD3	32:D7:46:VAL:HG21	1.85	0.58
29:B4:6:HIS:CD2	41:BG:66:GLN:HA	2.39	0.58
1:CA:1373:G:H5''	7:CG:36:LYS:CB	2.31	0.58
43:DI:131:LYS:HB3	43:DI:132:PRO:HA	1.84	0.58
11:AK:84:VAL:HG23	11:AK:110:ASP:OD1	2.04	0.58
30:B5:56:LYS:HG3	30:B5:59:GLU:OE1	2.04	0.58
35:BA:1766:U:H2'	35:BA:1767:C:C6	2.38	0.58
1:AA:224:C:H2'	1:AA:225:C:H6	1.68	0.58
1:CA:839:U:C3'	1:CA:839:U:O2	2.52	0.58
36:DB:30:C:H2'	36:DB:31:C:O4'	2.04	0.58
35:DA:1188:U:C2'	35:DA:1189:A:H5'	2.34	0.58
35:DA:154(A):C:H5	35:DA:171:G:H1	1.51	0.58
49:DR:45:ARG:HD3	49:DR:97:VAL:HG11	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2537:U:H2'	35:DA:2538:C:H6	1.69	0.58
13:AM:113:PRO:O	13:AM:115:LYS:HE2	2.04	0.58
42:BH:64:LEU:O	42:BH:66:GLY:N	2.30	0.58
4:CD:155:LEU:HB2	4:CD:158:ILE:HB	1.85	0.58
47:BP:124:LYS:HD3	47:BP:143:GLY:C	2.24	0.58
35:DA:1547:C:O2'	35:DA:1548:C:H5'	2.03	0.58
15:AO:6:GLU:OE1	15:AO:6:GLU:N	2.36	0.58
6:AF:16:GLN:CD	6:AF:16:GLN:H	2.07	0.58
35:BA:1126:A:OP1	35:BA:1126:A:H8	1.86	0.58
57:DZ:103:ARG:HH11	57:DZ:136:PHE:HB3	1.69	0.58
13:CM:26:GLY:O	13:CM:30:ALA:HB2	2.04	0.58
1:AA:1055:A:O2'	3:AC:161:GLU:HA	2.04	0.58
35:DA:862:G:H2'	35:DA:863:A:O4'	2.03	0.58
1:CA:1060:C:H6	3:CC:2:GLY:HA2	1.65	0.58
47:BP:23:PRO:HB2	47:BP:33:ARG:CG	2.34	0.58
35:BA:1448:G:H5'	35:BA:1449:A:OP1	2.04	0.58
50:BS:89:ARG:HB3	50:BS:92:TYR:CB	2.32	0.58
51:DT:28:VAL:HG22	51:DT:47:GLY:N	2.19	0.58
40:BF:68:LYS:C	40:BF:70:THR:H	2.07	0.58
2:AB:22:LYS:HZ3	2:AB:22:LYS:HA	1.67	0.58
19:CS:39:THR:HG22	19:CS:40:ILE:N	2.16	0.58
47:DP:79:ARG:HG3	47:DP:110:TYR:CD2	2.39	0.58
47:DP:7:ARG:HA	47:DP:7:ARG:HH11	1.58	0.58
45:DN:58:ASP:O	45:DN:60:ILE:HG13	2.04	0.58
10:AJ:40:LEU:HB3	10:AJ:41:PRO:CD	2.30	0.58
9:CI:18:PHE:O	9:CI:61:ALA:HA	2.04	0.58
11:AK:107:SER:C	11:AK:108:ILE:HD12	2.24	0.58
37:DC:82:LYS:HZ2	37:DC:94:VAL:HG11	1.69	0.58
39:BE:78:LEU:O	39:BE:79:ARG:HD2	2.03	0.58
3:CC:44:GLU:O	3:CC:48:TYR:HB2	2.03	0.58
35:DA:686:G:N2	35:DA:788:A:H61	2.02	0.58
42:DH:35:VAL:HG21	42:DH:75:ALA:HB2	1.86	0.58
35:DA:926:A:H2'	35:DA:927:G:H8	1.69	0.58
20:AT:10:LEU:O	20:AT:13:LEU:HG	2.04	0.58
29:B4:5:ILE:HD12	41:BG:67:LYS:CE	2.34	0.58
51:DT:78:LEU:HD23	51:DT:79:HIS:HE1	1.67	0.58
35:DA:1266:G:O5'	54:DW:15:ARG:NH2	2.36	0.58
18:AR:66:LEU:CG	18:AR:70:ILE:HD11	2.33	0.58
6:CF:97:PHE:CD2	18:CR:31:LEU:HD21	2.38	0.58
1:CA:1003:G:H2'	1:CA:1004:A:C4'	2.34	0.58
46:BO:87:ILE:HG22	46:BO:88:ASN:N	2.17	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:125:PHE:CD1	11:CK:125:PHE:N	2.71	0.58
25:D0:11:ARG:HB2	25:D0:11:ARG:HH11	1.68	0.58
49:BR:54:LEU:HD23	49:BR:66:VAL:HG23	1.86	0.58
2:AB:145:LEU:O	2:AB:149:LEU:HB2	2.03	0.58
57:BZ:51:ALA:O	57:BZ:52:SER:HB3	2.03	0.58
1:AA:1360:A:H2'	1:AA:1361:G:O4'	2.04	0.58
49:BR:7:GLY:O	49:BR:8:ARG:HB2	2.03	0.58
35:BA:2562:U:H1'	46:BO:23:ARG:HE	1.68	0.58
25:B0:12:ASN:HA	25:B0:14:ARG:NH2	2.19	0.58
35:BA:2577:A:H5''	35:BA:2578:G:H5'	1.86	0.58
15:CO:69:TYR:HD1	15:CO:72:ARG:NH2	2.02	0.58
8:AH:96:GLY:O	8:AH:130:GLY:HA3	2.03	0.58
2:CB:67:THR:HA	2:CB:90:MET:SD	2.44	0.58
37:BC:34:THR:HG22	37:BC:216:THR:HA	1.86	0.58
2:AB:67:THR:HA	2:AB:90:MET:SD	2.44	0.58
1:CA:41:G:H2'	1:CA:42:G:H8	1.69	0.58
35:BA:993:G:OP1	52:BU:50:ARG:NH2	2.36	0.58
35:DA:2774:C:H2'	35:DA:2775:A:O4'	2.03	0.58
35:BA:2347:C:H2'	35:BA:2348:U:C6	2.39	0.58
51:BT:34:VAL:O	51:BT:34:VAL:HG12	2.04	0.58
1:CA:149:A:O2'	1:CA:150:C:H5'	2.04	0.58
1:CA:586:C:H1'	1:CA:878:G:O2'	2.04	0.57
13:CM:91:ARG:HH21	13:CM:96:LEU:HB3	1.69	0.57
1:CA:1504:G:O2'	1:CA:1505:G:OP2	2.22	0.57
47:DP:23:PRO:HB2	47:DP:33:ARG:CG	2.32	0.57
56:DY:37:VAL:O	56:DY:66:PRO:O	2.21	0.57
51:BT:28:VAL:HG22	51:BT:47:GLY:N	2.17	0.57
33:D8:6:THR:HG21	33:D8:63:PRO:HD3	1.86	0.57
52:DU:76:TYR:OH	52:DU:93:LYS:HE3	2.04	0.57
57:BZ:153:SER:CB	57:BZ:167:PRO:HB2	2.34	0.57
33:B8:47:LYS:O	33:B8:48:PHE:HD2	1.87	0.57
1:CA:22:G:O2'	1:CA:913:A:N1	2.34	0.57
15:CO:78:TYR:O	15:CO:82:ILE:HG22	2.04	0.57
2:AB:102:LEU:H	2:AB:102:LEU:HD12	1.70	0.57
47:DP:108:LYS:O	47:DP:110:TYR:N	2.36	0.57
10:AJ:50:ILE:CG2	10:AJ:60:ARG:HD3	2.34	0.57
48:BQ:26:TYR:CE1	48:BQ:28:ALA:HB2	2.39	0.57
1:CA:835:U:H3	1:CA:851:G:H1	1.52	0.57
42:BH:35:VAL:HG21	42:BH:75:ALA:HB2	1.86	0.57
53:BV:19:LYS:HG3	53:BV:20:LEU:O	2.04	0.57
35:BA:2787:C:H1'	39:BE:61:ARG:HB2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1207:G:H2'	1:CA:1208:C:C5	2.38	0.57
49:BR:17:ARG:HH11	49:BR:17:ARG:HG2	1.69	0.57
53:DV:99:ILE:HD13	53:DV:99:ILE:N	2.18	0.57
21:AU:6:ARG:CZ	21:AU:15:ARG:HH22	2.16	0.57
5:CE:5:ASP:HA	5:CE:63:ARG:CZ	2.34	0.57
1:AA:73:G:H1	1:AA:96:U:H3	1.52	0.57
35:BA:1563:G:O2'	35:BA:1564:C:H5'	2.04	0.57
35:BA:1047:G:H2'	35:BA:1110:G:H22	1.68	0.57
35:DA:1692:U:O2'	35:DA:1693:U:H2'	2.03	0.57
35:DA:1793:C:H2'	35:DA:1794:U:H6	1.69	0.57
22:CV:47:U:H2'	22:CV:47:U:O2	2.04	0.57
8:AH:53:VAL:O	8:AH:56:LYS:HB2	2.03	0.57
8:AH:28:ALA:HB3	8:AH:57:PRO:HB2	1.85	0.57
1:CA:165:C:H2'	1:CA:166:G:H8	1.68	0.57
35:BA:2537:U:H2'	35:BA:2538:C:C6	2.38	0.57
35:DA:642:G:H21	35:DA:646:A:H2	1.51	0.57
25:B0:19:LYS:N	25:B0:19:LYS:HD2	2.18	0.57
14:AN:44:LEU:C	14:AN:44:LEU:HD12	2.24	0.57
58:CX:19:G:N3	58:CX:19:G:C3'	2.66	0.57
51:BT:91:ARG:HB3	51:BT:117:ASP:H	1.69	0.57
53:DV:39:LEU:HD12	53:DV:50:PRO:O	2.04	0.57
5:CE:103:GLY:H	5:CE:106:PRO:HG3	1.69	0.57
35:BA:903:C:H2'	35:BA:904:C:C5'	2.34	0.57
54:DW:88:ARG:HB2	54:DW:92:ARG:HB2	1.85	0.57
9:CI:16:ARG:HE	9:CI:64:THR:HB	1.69	0.57
10:CJ:4:ILE:N	10:CJ:4:ILE:HD12	2.16	0.57
16:CP:49:LEU:HD11	16:CP:73:LEU:HB3	1.86	0.57
1:CA:1130:A:N6	1:CA:1143:G:H21	2.01	0.57
6:AF:52:ILE:O	6:AF:53:ALA:HB3	2.04	0.57
35:BA:686:G:N2	35:BA:788:A:H61	2.02	0.57
35:BA:1778:U:H2'	35:BA:1784:A:N6	2.19	0.57
38:DD:174:ILE:HG12	38:DD:184:LYS:HG2	1.86	0.57
1:AA:1012:U:C3'	1:AA:1013:G:H5''	2.33	0.57
41:BG:141:PHE:HB2	41:BG:144:ILE:HD12	1.86	0.57
41:BG:41:GLN:HB3	41:BG:43:LEU:CD1	2.34	0.57
53:BV:19:LYS:CG	53:BV:94:LEU:HB2	2.32	0.57
54:DW:64:MET:O	54:DW:65:LEU:HG	2.04	0.57
38:DD:27:THR:HG23	38:DD:27:THR:O	2.04	0.57
15:AO:66:LEU:N	15:AO:66:LEU:CD1	2.67	0.57
1:AA:1347:G:H22	1:AA:1373:G:H2'	1.69	0.57
21:AU:6:ARG:NH2	21:AU:15:ARG:HH22	2.01	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:172:TYR:HD1	38:DD:185:VAL:O	1.87	0.57
38:BD:185:VAL:HG12	38:BD:186:HIS:H	1.69	0.57
1:CA:407:G:N2	1:CA:436:C:H1'	2.18	0.57
40:BF:132:VAL:HG13	40:BF:138:GLU:OE1	2.03	0.57
16:AP:5:ARG:NE	16:AP:22:THR:HG21	2.19	0.57
1:CA:97:G:O2'	1:CA:98:G:H8	1.86	0.57
39:DE:81:ILE:O	39:DE:81:ILE:HG22	2.04	0.57
35:DA:364:C:H2'	35:DA:365:C:H5''	1.85	0.57
1:CA:1288:A:O2'	1:CA:1289:A:H5'	2.05	0.57
25:D0:72:ARG:O	25:D0:75:LEU:N	2.30	0.57
1:AA:1226:C:H42	13:AM:104:ARG:HD2	1.68	0.57
3:CC:42:LEU:HD12	3:CC:45:LYS:HD2	1.84	0.57
35:BA:2256:G:H2'	35:BA:2257:U:C6	2.39	0.57
4:AD:100:ARG:NH1	4:AD:137:SER:HA	2.19	0.57
14:CN:4:LYS:O	14:CN:7:ILE:HG12	2.04	0.57
6:CF:16:GLN:H	6:CF:16:GLN:CD	2.07	0.57
37:DC:47:LEU:HD23	37:DC:47:LEU:H	1.69	0.57
35:BA:1352:U:O2'	35:BA:1353:A:H5'	2.03	0.57
35:BA:279:C:N4	35:BA:361:G:H1	2.01	0.57
35:BA:673:C:H5''	40:BF:81:PRO:HD2	1.86	0.57
37:BC:22:ILE:HG22	37:BC:24:GLU:H	1.69	0.57
55:BX:11:PRO:HB3	55:BX:92:LEU:HD21	1.86	0.57
1:AA:115:G:H1'	1:AA:116:A:N7	2.18	0.57
25:D0:12:ASN:HA	25:D0:14:ARG:NH2	2.19	0.57
12:CL:33:VAL:H	12:CL:55:VAL:HG13	1.69	0.57
40:DF:143:ALA:HB1	40:DF:148:LEU:HB2	1.85	0.57
46:BO:69:ILE:HD12	46:BO:69:ILE:N	2.19	0.57
3:CC:140:ARG:NH1	3:CC:140:ARG:HB2	2.19	0.57
15:CO:64:ARG:HH11	15:CO:64:ARG:HG3	1.69	0.57
24:AY:26:PRO:HA	24:AY:43:TRP:CD1	2.39	0.57
35:DA:864:G:H2'	35:DA:866:A:N6	2.18	0.57
47:BP:62:LEU:N	47:BP:62:LEU:HD22	2.18	0.57
9:CI:121:ARG:NH2	9:CI:124:GLN:HE22	2.02	0.57
1:CA:1498:U:H2'	58:CX:17:U:OP1	2.05	0.57
47:DP:66:GLY:O	47:DP:67:MET:CB	2.51	0.57
53:BV:40:LEU:HD22	53:BV:46:VAL:HA	1.86	0.57
51:BT:28:VAL:HG13	51:BT:46:GLU:CA	2.35	0.57
51:BT:89:VAL:O	51:BT:91:ARG:N	2.37	0.57
56:BY:14:LEU:HG	56:BY:15:VAL:N	2.20	0.57
56:BY:27:VAL:HA	56:BY:28:LYS:HE3	1.86	0.57
40:DF:2:LYS:H	40:DF:25:PRO:HG3	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1442(B):A:N7	51:DT:118:ARG:CZ	2.67	0.57
38:DD:16:MET:HB3	38:DD:207:GLY:HA3	1.86	0.57
35:DA:1568:G:C5'	38:DD:60:ARG:HA	2.33	0.57
35:DA:2302:G:H1'	41:DG:128:ARG:CZ	2.34	0.57
35:BA:1301:A:HO2'	35:BA:1302:A:H2'	1.69	0.57
43:BI:81:VAL:O	43:BI:82:ARG:O	2.22	0.57
43:DI:88:ILE:HG22	43:DI:122:GLU:N	2.19	0.57
35:DA:2127:G:H1'	35:DA:2173:A:C2	2.40	0.57
47:BP:16:ARG:HD3	47:BP:17:LYS:N	2.19	0.57
1:CA:1429:C:H2'	1:CA:1430:C:H6	1.69	0.57
35:DA:2115:G:H1'	35:DA:2117:A:N7	2.19	0.57
35:BA:1697:G:H3'	35:BA:1698:A:H5''	1.87	0.57
3:CC:6:HIS:CD2	3:CC:8:ILE:HG12	2.39	0.57
38:DD:186:HIS:HB3	38:DD:189:CYS:SG	2.45	0.57
35:DA:623:G:H2'	35:DA:624:C:C6	2.39	0.57
35:DA:330:A:O2'	35:DA:331:A:H8	1.86	0.57
48:DQ:55:VAL:CG2	48:DQ:56:ARG:N	2.67	0.57
1:AA:1107:C:H3'	1:AA:1108:G:H5''	1.86	0.57
35:BA:364:C:H2'	35:BA:365:C:H5''	1.86	0.57
35:DA:1449:A:H5'	35:DA:1450:G:OP2	2.05	0.57
35:BA:2875:C:O2'	51:BT:5:ALA:HB3	2.04	0.57
39:BE:171:GLU:HB3	39:BE:185:LYS:HG2	1.84	0.57
1:CA:708:C:H2'	1:CA:709:G:H8	1.69	0.57
35:BA:2472:G:H3'	35:BA:2475:C:H42	1.69	0.57
35:DA:1711:C:O2'	35:DA:1712:C:H5'	2.04	0.57
8:AH:97:VAL:HG13	8:AH:98:LYS:H	1.70	0.57
35:DA:1047:G:H2'	35:DA:1110:G:H22	1.68	0.57
43:BI:35:LEU:HD23	43:BI:35:LEU:N	2.19	0.57
20:AT:53:LEU:N	20:AT:53:LEU:HD12	2.18	0.57
27:B2:35:LEU:HD12	27:B2:53:LEU:HD12	1.86	0.57
42:DH:68:THR:C	42:DH:70:THR:N	2.58	0.57
41:BG:38:VAL:CG1	41:BG:158:ALA:HB3	2.35	0.57
49:DR:45:ARG:O	49:DR:48:VAL:HG12	2.04	0.57
48:DQ:108:GLY:CA	57:DZ:116:VAL:HG11	2.34	0.57
1:AA:833:U:H2'	1:AA:834:C:C6	2.40	0.57
2:AB:212:GLN:HG3	2:AB:235:SER:HB2	1.85	0.57
1:CA:29:G:O2'	1:CA:30:U:H5'	2.04	0.57
35:BA:2712:U:H5'	35:BA:2712:U:O2	2.04	0.57
48:DQ:84:GLY:O	48:DQ:85:LYS:HB2	2.03	0.57
1:AA:1492:A:H4'	24:AY:34:GLN:HB3	1.86	0.57
1:CA:36:C:C2	1:CA:37:U:C6	2.92	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1225:A:OP1	13:CM:102:ARG:HA	2.03	0.57
13:CM:98:VAL:O	13:CM:99:ARG:HB2	2.03	0.57
52:BU:92:ARG:CG	52:BU:94:ASN:HB3	2.34	0.57
50:BS:66:ALA:C	50:BS:68:GLN:H	2.08	0.57
33:B8:51:ALA:C	33:B8:53:PRO:HD2	2.25	0.57
33:D8:29:LYS:HA	33:D8:32:LEU:HD23	1.86	0.57
57:DZ:39:VAL:HG23	57:DZ:40:ASP:N	2.20	0.57
31:B6:35:GLU:HB3	31:B6:51:GLU:CB	2.28	0.57
1:CA:1151:A:O2'	1:CA:1152:A:H8	1.87	0.57
22:CV:27:U:H3	22:CV:43:A:H61	1.52	0.57
16:CP:38:TYR:CE2	16:CP:50:LYS:HE3	2.39	0.57
35:BA:1917:U:C2'	35:BA:1918:A:H5'	2.35	0.57
9:AI:29:ASN:HD21	9:AI:65:VAL:N	2.02	0.57
36:BB:55:U:H2'	36:BB:56:G:H8	1.67	0.57
1:CA:1425:U:O2'	1:CA:1426:C:H5'	2.04	0.57
1:CA:1475:G:O2'	1:CA:1476:G:H5'	2.03	0.57
35:BA:2147:G:H2'	35:BA:2148:G:C4'	2.32	0.57
41:BG:91:ARG:NH1	41:BG:91:ARG:HG3	2.17	0.57
9:CI:111:ARG:CG	9:CI:112:LYS:N	2.68	0.57
9:CI:113:LYS:H	9:CI:113:LYS:HD2	1.69	0.57
48:DQ:130:LYS:NZ	57:DZ:80:ARG:HD3	2.20	0.57
5:CE:6:PHE:H	5:CE:63:ARG:HH12	1.51	0.57
31:B6:15:GLU:OE1	31:B6:18:ARG:HD2	2.04	0.57
1:AA:920:U:H1'	1:AA:1080:A:C2	2.39	0.57
51:DT:9:LEU:C	51:DT:11:GLU:H	2.08	0.57
9:CI:43:ALA:C	9:CI:45:ALA:H	2.07	0.57
35:DA:2758:A:C4	42:DH:67:LEU:HD21	2.39	0.57
20:CT:54:LYS:NZ	20:CT:54:LYS:HB2	2.19	0.57
35:DA:1794:U:H2'	35:DA:1795:C:C6	2.39	0.57
6:CF:82:ARG:HB2	6:CF:85:VAL:HG23	1.86	0.57
35:BA:2836:U:H2'	35:BA:2837:G:C8	2.39	0.57
1:AA:559:A:H4'	1:AA:560:U:H5''	1.86	0.57
34:D9:6:SER:HB2	35:DA:2466:C:H5''	1.85	0.57
1:CA:1360:A:H2'	1:CA:1361:G:O4'	2.04	0.57
35:BA:2133:G:H2'	35:BA:2157:G:N2	2.19	0.57
45:DN:90:MET:HB3	45:DN:98:VAL:HG22	1.87	0.57
1:CA:139:G:H2'	1:CA:140:A:H8	1.70	0.57
47:BP:61:ARG:C	47:BP:62:LEU:HD13	2.24	0.57
53:BV:46:VAL:HG22	53:BV:47:VAL:O	2.04	0.57
33:D8:62:LEU:N	33:D8:63:PRO:CD	2.67	0.57
56:BY:7:VAL:CB	56:BY:8:LYS:HD2	2.29	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DF:2:LYS:O	40:DF:4:VAL:N	2.38	0.57
42:BH:83:TYR:HB3	42:BH:135:GLY:N	2.18	0.57
35:DA:869:G:O2'	35:DA:870:A:H5'	2.03	0.57
35:BA:873:G:O2'	35:BA:874:G:H5'	2.05	0.57
33:B8:48:PHE:O	33:B8:49:VAL:HG13	2.05	0.57
35:DA:2524:G:C8	35:DA:2524:G:H5'	2.39	0.57
1:AA:1152:A:C5'	10:AJ:70:ARG:HH22	2.07	0.57
2:CB:101:MET:HG2	2:CB:108:ILE:HG21	1.85	0.57
2:CB:187:LEU:HD13	2:CB:205:ASP:CB	2.35	0.57
2:CB:28:PHE:CD1	2:CB:190:THR:HA	2.39	0.57
57:DZ:39:VAL:HG21	57:DZ:44:PHE:CD2	2.39	0.57
47:BP:84:ASN:HD21	47:BP:115:LEU:HG	1.68	0.57
2:AB:28:PHE:CD1	2:AB:190:THR:HA	2.40	0.57
1:AA:976:G:OP1	14:AN:31:ARG:HB3	2.04	0.57
7:CG:109:ASN:HA	7:CG:119:ARG:HE	1.68	0.57
43:BI:123:LEU:HD13	43:BI:142:VAL:O	2.04	0.57
3:AC:36:ASP:HA	3:AC:39:ILE:HD12	1.86	0.57
45:DN:26:LEU:O	45:DN:30:ILE:HG13	2.05	0.57
25:B0:36:ILE:HG23	35:BA:2354:G:O2'	2.04	0.57
1:CA:1053:G:H3'	1:CA:1054:C:H5'	1.85	0.57
1:CA:1301:U:H5''	1:CA:1303:C:H41	1.69	0.57
1:CA:1333:A:H2'	1:CA:1334:G:O4'	2.05	0.57
4:AD:101:LEU:CD2	4:AD:121:VAL:HG13	2.33	0.57
51:DT:78:LEU:C	51:DT:79:HIS:ND1	2.57	0.57
41:BG:25:TYR:HD2	41:BG:31:VAL:HG22	1.68	0.57
35:BA:1496:A:H8	35:BA:1577:C:O2'	1.72	0.57
1:AA:1251:A:H4'	9:AI:12:GLU:OE2	2.05	0.57
35:BA:1434:A:H61	35:BA:1558:A:N6	2.01	0.57
45:DN:36:GLY:O	45:DN:38:HIS:N	2.38	0.57
3:CC:15:THR:HG22	3:CC:16:ARG:N	2.19	0.57
46:DO:88:ASN:ND2	46:DO:90:GLN:HB2	2.18	0.57
3:AC:9:GLY:HA3	14:AN:49:HIS:HA	1.87	0.57
47:BP:132:LYS:HE3	47:BP:132:LYS:CA	2.33	0.57
38:DD:186:HIS:HD2	38:DD:188:GLU:H	1.50	0.57
35:DA:2580:U:H5'	39:DE:131:ALA:HB2	1.87	0.57
7:CG:91:VAL:HG12	7:CG:95:ARG:HB3	1.87	0.57
24:AY:76:ASP:OD2	24:AY:78:LYS:CB	2.52	0.57
11:CK:84:VAL:HG23	11:CK:110:ASP:OD1	2.04	0.57
35:DA:214:G:H1'	35:DA:216:A:O2'	2.04	0.57
57:DZ:179:ASP:O	57:DZ:181:GLU:N	2.36	0.57
42:BH:67:LEU:O	42:BH:71:LEU:HD13	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BP:133:SER:HA	47:BP:136:GLU:CG	2.34	0.57
1:AA:240:C:H2'	1:AA:241:C:H6	1.67	0.57
48:BQ:21:THR:HG23	48:BQ:101:ARG:HB2	1.86	0.57
1:CA:161:A:H2'	1:CA:162:A:C8	2.39	0.57
35:BA:1547:C:O2'	35:BA:1548:C:H5'	2.05	0.57
4:AD:169:LYS:NZ	6:CF:25:ILE:HD11	2.19	0.57
1:AA:930:C:O2'	1:AA:931:C:H5'	2.03	0.57
35:DA:1701:A:H5'	35:DA:1702:G:OP2	2.05	0.57
50:BS:42:ASP:O	50:BS:43:GLU:HB2	2.05	0.57
1:CA:452:A:H62	1:CA:480:U:H3	1.53	0.57
1:CA:300:A:H1'	1:CA:565:U:O2	2.05	0.57
35:DA:2577:A:H5''	35:DA:2578:G:H5'	1.85	0.57
1:AA:757:U:H2'	1:AA:758:G:O4'	2.05	0.57
57:DZ:11:GLU:N	57:DZ:11:GLU:OE2	2.37	0.57
1:AA:1531:A:H8	1:AA:1531:A:OP2	1.86	0.57
38:BD:54:ARG:CG	38:BD:54:ARG:HH11	2.16	0.57
38:DD:199:ALA:C	38:DD:201:HIS:H	2.07	0.57
37:BC:100:ILE:HG22	37:BC:101:GLN:N	2.19	0.57
1:AA:1493:A3P:O4P	24:AY:34:GLN:HB2	2.03	0.57
35:DA:2472:G:C5'	35:DA:2473:U:C4'	2.80	0.57
1:CA:1225:A:C5	1:CA:1226:C:C4	2.91	0.57
56:DY:13:VAL:HG23	56:DY:73:ARG:O	2.04	0.57
40:BF:2:LYS:H	40:BF:25:PRO:HG3	1.69	0.57
52:BU:91:ASP:O	52:BU:92:ARG:HG2	2.04	0.57
51:DT:30:VAL:HG21	51:DT:84:GLN:N	2.18	0.57
33:B8:53:PRO:HA	33:B8:56:GLU:HB3	1.86	0.57
33:B8:29:LYS:HD3	33:B8:44:LYS:HG2	1.86	0.57
35:DA:1301:A:H2'	35:DA:1302:A:H3'	1.86	0.57
4:CD:121:VAL:HA	4:CD:126:ILE:HD13	1.86	0.57
35:BA:1203:G:H4'	47:BP:7:ARG:HG3	1.85	0.57
16:AP:71:ARG:HB2	16:AP:71:ARG:HH11	1.70	0.57
1:CA:624:C:H4'	16:CP:10:GLY:HA2	1.84	0.57
1:AA:1281:U:H4'	1:AA:1282:C:OP2	2.04	0.57
39:BE:111:ARG:HD3	49:BR:2:ARG:NH2	2.20	0.57
35:BA:1431:U:O2'	35:BA:1432:C:H5'	2.04	0.57
35:BA:2115:G:H1'	35:BA:2117:A:N7	2.20	0.57
1:AA:184:G:H2'	1:AA:185:A:H8	1.69	0.57
56:BY:46:LYS:N	56:BY:60:PHE:O	2.35	0.57
43:BI:68:LEU:HD13	43:BI:108:THR:HB	1.87	0.57
49:BR:10:LEU:HB3	49:BR:17:ARG:CZ	2.34	0.57
35:BA:2103:C:H2'	35:BA:2104:G:H5''	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CN:33:VAL:HG23	14:CN:33:VAL:O	2.03	0.57
35:BA:364:C:C2'	35:BA:365:C:H5''	2.35	0.57
1:CA:376:G:O2'	1:CA:377:G:H5'	2.05	0.57
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.39	0.57
4:CD:63:LYS:HD2	4:CD:198:VAL:HG12	1.85	0.57
1:CA:1165:C:H2'	1:CA:1166:G:H8	1.67	0.57
1:AA:1029:C:H1'	1:AA:1033:G:O6	2.04	0.57
42:DH:67:LEU:O	42:DH:71:LEU:HD13	2.05	0.57
1:CA:1262:C:H42	1:CA:1273:G:H1	1.52	0.57
35:DA:1705:G:O2'	35:DA:1706:U:H5'	2.03	0.57
52:BU:29:SER:OG	52:BU:30:LYS:HE2	2.05	0.57
54:BW:29:LEU:HG	54:BW:33:ARG:NH1	2.19	0.57
35:BA:2061:G:H5''	35:BA:2503:A:C2	2.39	0.57
43:DI:50:ARG:O	43:DI:54:GLN:HB2	2.04	0.57
35:DA:2169:A:H2'	35:DA:2169:A:N3	2.20	0.57
6:AF:100:ASN:HD21	18:AR:23:LYS:HG3	1.69	0.57
10:AJ:91:PRO:HB2	10:AJ:94:VAL:HB	1.85	0.57
10:CJ:91:PRO:HB2	10:CJ:94:VAL:HB	1.85	0.57
30:B5:41:PRO:HG2	30:B5:44:THR:OG1	2.04	0.57
24:AY:28:ILE:HG13	24:AY:29:PRO:HD2	1.83	0.57
56:DY:7:VAL:CB	56:DY:8:LYS:NZ	2.67	0.57
40:BF:24:LEU:O	40:BF:115:ALA:HB1	2.04	0.57
53:DV:40:LEU:HD22	53:DV:46:VAL:HA	1.87	0.57
35:BA:873:G:H1	35:BA:904:C:H42	1.53	0.57
47:BP:41:ARG:N	47:BP:41:ARG:NE	2.53	0.57
3:CC:134:ILE:HG23	3:CC:151:VAL:HB	1.85	0.57
3:CC:138:VAL:O	3:CC:142:MET:HB2	2.04	0.57
10:AJ:5:ARG:O	10:AJ:98:ILE:HA	2.03	0.57
6:AF:68:PRO:HG3	6:AF:71:ARG:HH21	1.70	0.57
1:AA:1130:A:H1'	1:AA:1146:A:C2	2.38	0.57
35:DA:2147:G:H2'	35:DA:2148:G:C4'	2.32	0.57
5:AE:78:HIS:HE1	5:AE:142:LEU:HA	1.70	0.57
36:DB:110:G:H2'	36:DB:111:G:H8	1.70	0.57
2:AB:118:LEU:C	2:AB:120:ALA:H	2.06	0.57
2:CB:142:LEU:HA	2:CB:145:LEU:HB2	1.85	0.57
14:CN:33:VAL:HG12	14:CN:40:CYS:CA	2.35	0.57
1:CA:1172:C:H2'	1:CA:1173:G:C8	2.36	0.57
38:BD:182:LEU:H	38:BD:272:ALA:CB	2.18	0.57
56:DY:88:LYS:NZ	56:DY:93:GLY:CA	2.67	0.57
35:DA:271(V):G:H2'	35:DA:271(W):G:O4'	2.04	0.57
31:D6:15:GLU:HB3	31:D6:18:ARG:HG3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DR:22:ARG:O	49:DR:26:LYS:HG3	2.04	0.57
11:AK:32:ILE:HD13	11:AK:72:ALA:HB2	1.87	0.57
6:AF:19:LEU:CD2	6:AF:23:LYS:HE3	2.34	0.57
1:CA:426:G:P	4:CD:36:ARG:HH12	2.27	0.57
1:AA:599:C:H2'	1:AA:600:C:H6	1.70	0.57
46:BO:93:PRO:HD3	46:BO:114:ILE:HD11	1.85	0.57
1:AA:41:G:H2'	1:AA:42:G:H8	1.69	0.57
5:CE:75:THR:HG22	5:CE:117:ASP:HB2	1.84	0.57
35:BA:813:U:H2'	35:BA:814:C:C6	2.39	0.57
36:BB:107:G:O2'	36:BB:108:U:H5'	2.05	0.57
38:BD:159:ALA:HB1	38:BD:198:ASN:O	2.04	0.57
5:CE:64:ARG:HH11	5:CE:64:ARG:HG3	1.70	0.57
1:CA:644:G:C4'	8:CH:92:ARG:HH21	2.14	0.57
22:CV:54:U:C2'	22:CV:55:U:C5'	2.79	0.57
22:AV:55:U:H5'	22:AV:55:U:H6	1.69	0.57
35:DA:611:C:H2'	35:DA:612:C:H6	1.69	0.57
5:CE:11:ILE:HD12	5:CE:31:LEU:CD1	2.33	0.57
57:BZ:72:ARG:HG2	57:BZ:89:PHE:HB2	1.87	0.57
12:CL:67:ILE:HG21	12:CL:74:LEU:HD12	1.87	0.57
33:D8:40:GLU:O	33:D8:43:GLN:N	2.38	0.57
1:CA:1078:U:H1'	5:CE:130:ASN:ND2	2.04	0.57
2:CB:21:ARG:HH21	2:CB:38:GLY:HA3	1.70	0.57
38:DD:16:MET:HA	38:DD:205:VAL:CG1	2.25	0.57
41:DG:108:ASN:HD22	41:DG:108:ASN:N	2.02	0.57
1:CA:1219:U:H2'	1:CA:1220:G:H8	1.69	0.57
47:DP:132:LYS:HE3	47:DP:132:LYS:CA	2.33	0.57
1:AA:976:G:P	14:AN:32:SER:H	2.28	0.57
47:BP:81:GLN:HG2	47:BP:106:LEU:HA	1.86	0.57
8:CH:6:ILE:H	8:CH:6:ILE:CD1	2.14	0.57
57:BZ:81:ARG:O	57:BZ:82:ARG:HB3	2.04	0.57
57:BZ:81:ARG:HG3	57:BZ:82:ARG:H	1.70	0.57
10:AJ:38:ILE:HG23	10:AJ:71:LEU:HB3	1.86	0.57
12:CL:114:ARG:HG2	12:CL:119:THR:HG23	1.87	0.57
1:AA:1028:C:H41	1:AA:1034:G:H21	1.52	0.57
6:CF:42:GLU:O	6:CF:44:GLY:N	2.37	0.57
41:DG:11:TYR:HA	41:DG:15:VAL:HG23	1.86	0.57
35:DA:1210:A:H5'	35:DA:1210:A:H8	1.70	0.57
18:AR:81:PHE:O	18:AR:82:THR:HB	2.03	0.57
50:DS:54:LEU:O	50:DS:57:LYS:HD2	2.04	0.57
35:BA:2472:G:C5'	35:BA:2473:U:H5''	2.33	0.57
4:CD:156:GLU:HG2	4:CD:160:GLN:NE2	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:32:ARG:NH1	7:AG:32:ARG:HG2	2.18	0.57
12:AL:82:ILE:HD12	12:AL:96:HIS:O	2.04	0.57
1:AA:438:G:H2'	1:AA:494:U:O4	2.05	0.57
35:BA:284:U:H2'	35:BA:285:C:C6	2.40	0.57
35:DA:2792:G:H1	35:DA:2804:C:N4	2.01	0.57
14:AN:4:LYS:HZ3	14:AN:4:LYS:HB2	1.69	0.57
1:CA:165:C:H2'	1:CA:166:G:C8	2.39	0.57
50:BS:39:ILE:HG22	50:BS:48:LEU:HD13	1.87	0.57
1:AA:318:G:H2'	1:AA:319:G:H8	1.68	0.57
57:DZ:145:GLU:OE1	57:DZ:145:GLU:HA	2.05	0.57
35:DA:1126:A:H8	35:DA:1126:A:OP1	1.88	0.57
39:BE:141:ILE:O	39:BE:141:ILE:HG13	2.05	0.57
57:BZ:131:ARG:HH11	57:BZ:131:ARG:HG2	1.69	0.57
1:CA:318:G:H2'	1:CA:319:G:H8	1.69	0.57
24:AY:39:LYS:CD	24:AY:39:LYS:N	2.67	0.57
56:BY:81:LYS:CE	56:BY:97:ARG:HH21	2.17	0.57
33:D8:6:THR:OG1	33:D8:8:LYS:HE3	2.05	0.57
35:DA:2833:G:C3'	35:DA:2834:G:C5'	2.76	0.57
40:DF:68:LYS:C	40:DF:70:THR:H	2.07	0.57
57:DZ:35:ARG:HE	57:DZ:36:LYS:H	1.51	0.57
57:DZ:67:LEU:HG	57:DZ:68:PRO:HD2	1.86	0.57
19:AS:12:ASP:HB3	19:AS:14:HIS:CD2	2.40	0.57
2:AB:70:PHE:HB2	2:AB:92:TYR:CB	2.35	0.57
47:DP:112:LEU:C	47:DP:112:LEU:HD23	2.25	0.57
47:BP:126:VAL:HG22	47:BP:145:PRO:HG3	1.87	0.57
42:DH:13:LYS:HG2	42:DH:14:GLY:N	2.20	0.57
3:AC:132:ARG:HD3	3:AC:136:GLN:NE2	2.19	0.57
35:BA:2392:A:H8	47:BP:60:MET:HB2	1.69	0.57
3:AC:44:GLU:O	3:AC:48:TYR:HB2	2.04	0.57
51:BT:31:SER:HB3	51:BT:43:GLN:O	2.04	0.57
35:DA:1114:G:C2'	35:DA:1115:G:H5''	2.34	0.57
39:BE:78:LEU:H	39:BE:78:LEU:HD12	1.69	0.57
1:CA:222:U:H2'	1:CA:223:U:C6	2.40	0.57
41:BG:151:ALA:HB3	41:BG:153:ARG:HH11	1.70	0.57
41:BG:72:ARG:HE	41:BG:86:MET:HB2	1.69	0.57
35:DA:2785:C:H2'	35:DA:2786:U:H6	1.70	0.57
43:BI:52:ARG:HH11	43:BI:53:ALA:HB2	1.69	0.57
1:AA:1053:G:N7	1:AA:1199:U:H3'	2.20	0.57
43:BI:129:THR:HG21	43:BI:135:GLU:HB3	1.86	0.57
1:CA:1499:A:O2'	1:CA:1500:A:H5'	2.05	0.57
9:AI:13:ALA:HA	9:AI:67:GLY:O	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1887:C:H3'	35:BA:1888:G:H5''	1.86	0.57
28:B3:4:LEU:N	28:B3:4:LEU:HD12	2.19	0.57
35:BA:1607:C:H4'	35:BA:1608:A:O5'	2.05	0.57
5:AE:6:PHE:H	5:AE:63:ARG:HH12	1.52	0.57
50:DS:61:ASN:H	50:DS:65:VAL:CG2	2.17	0.57
35:BA:1045:A:H3'	35:BA:1045:A:N3	2.20	0.57
4:CD:13:ARG:HD3	4:CD:36:ARG:HB2	1.87	0.57
39:BE:69:LYS:HZ1	39:BE:89:ASP:HA	1.70	0.57
42:BH:68:THR:C	42:BH:70:THR:N	2.58	0.57
40:DF:65:TRP:CH2	40:DF:75:HIS:CD2	2.93	0.57
4:CD:100:ARG:CZ	4:CD:137:SER:HA	2.35	0.57
57:DZ:103:ARG:O	57:DZ:138:GLU:HA	2.05	0.57
1:CA:167:G:O2'	1:CA:168:G:H5'	2.04	0.57
10:CJ:90:LEU:O	10:CJ:90:LEU:HG	2.04	0.57
35:DA:2712:U:O2	35:DA:2712:U:H5'	2.05	0.57
35:DA:2531:A:H2	35:DA:2658:C:O2	1.87	0.57
7:CG:138:LYS:HE2	7:CG:142:GLU:OE1	2.05	0.57
29:B4:14:ILE:O	29:B4:21:VAL:HA	2.05	0.57
57:DZ:93:ASP:HA	57:DZ:130:PRO:HG2	1.86	0.57
22:AW:73:A:O2'	22:AW:74:C:H5'	2.04	0.57
37:DC:100:ILE:HG22	37:DC:101:GLN:N	2.20	0.57
3:AC:162:GLN:CA	23:AX:23:A:H62	2.17	0.57
3:AC:162:GLN:CB	23:AX:23:A:N6	2.68	0.57
22:CV:53:G:O2'	22:CV:54:U:H5'	2.04	0.57
35:DA:1917:U:C2'	35:DA:1918:A:H5'	2.35	0.57
1:CA:1060:C:P	14:CN:45:ARG:NH2	2.77	0.57
1:CA:1505:G:C2'	58:CX:15:A:OP1	2.53	0.57
40:DF:24:LEU:O	40:DF:115:ALA:HB1	2.05	0.57
51:DT:30:VAL:HG21	51:DT:84:GLN:H	1.70	0.57
33:B8:8:LYS:HD2	33:B8:8:LYS:N	2.19	0.57
57:DZ:5:LEU:HA	57:DZ:6:LYS:HZ1	1.70	0.57
57:BZ:23:LYS:O	57:BZ:25:PRO:HD3	2.05	0.57
1:CA:987:G:H2'	1:CA:988:G:C8	2.40	0.57
38:BD:31:LYS:O	38:BD:33:LEU:N	2.38	0.57
9:CI:29:ASN:HD21	9:CI:65:VAL:N	2.03	0.57
48:DQ:133:ARG:HG2	48:DQ:134:ARG:H	1.68	0.57
10:CJ:24:VAL:O	10:CJ:28:ARG:HB2	2.05	0.57
19:AS:31:ILE:HG22	19:AS:48:THR:O	2.03	0.57
43:DI:93:THR:HG23	43:DI:94:ALA:N	2.20	0.57
57:DZ:29:TYR:HB3	57:DZ:34:ASN:HB2	1.86	0.57
47:BP:16:ARG:HD3	47:BP:16:ARG:C	2.26	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BN:14:VAL:HG12	45:BN:15:LEU:N	2.18	0.57
26:D1:52:ARG:CZ	26:D1:57:GLU:HB2	2.35	0.57
2:AB:142:LEU:HD21	2:AB:146:GLN:NE2	2.20	0.57
1:CA:1029:C:H1'	1:CA:1033:G:O6	2.05	0.57
35:DA:2737:G:H2'	35:DA:2738:A:C8	2.39	0.57
56:BY:31:LEU:HD23	56:BY:36:ALA:O	2.05	0.57
35:BA:1348:G:C2'	35:BA:1349:A:H5''	2.34	0.57
50:DS:30:ARG:HH22	50:DS:62:LYS:HD2	1.68	0.57
1:AA:762:C:H2'	1:AA:763:G:C8	2.39	0.57
38:DD:155:LEU:HD23	38:DD:177:LEU:HD21	1.85	0.57
1:AA:436:C:O2'	1:AA:437:U:H5'	2.05	0.57
16:AP:38:TYR:CE2	16:AP:50:LYS:HE3	2.40	0.57
35:BA:2408:U:H2'	35:BA:2409:G:C8	2.40	0.57
20:CT:53:LEU:N	20:CT:53:LEU:HD12	2.19	0.57
57:BZ:149:SER:HB3	57:BZ:173:ALA:HA	1.87	0.57
1:CA:47:C:H42	1:CA:362:G:H22	1.52	0.57
11:AK:103:LEU:N	11:AK:103:LEU:HD22	2.19	0.57
54:DW:29:LEU:HG	54:DW:33:ARG:NH1	2.20	0.57
35:BA:2531:A:H2	35:BA:2658:C:O2	1.88	0.57
56:BY:79:CYS:O	56:BY:80:GLY:C	2.43	0.57
35:BA:214:G:H1'	35:BA:216:A:O2'	2.05	0.57
35:BA:2169:A:N3	35:BA:2169:A:H2'	2.20	0.57
15:AO:64:ARG:HG3	15:AO:64:ARG:HH11	1.70	0.57
39:BE:81:ILE:O	39:BE:81:ILE:HG22	2.05	0.57
36:DB:2:C:H2'	36:DB:3:C:C6	2.39	0.57
16:AP:1:MET:HG2	16:AP:2:VAL:N	2.18	0.57
35:BA:2730:C:O2'	35:BA:2731:G:H5'	2.04	0.57
47:BP:59:LEU:HG	47:BP:59:LEU:O	2.05	0.56
53:DV:59:ALA:HB2	53:DV:96:ILE:HD13	1.87	0.56
56:BY:37:VAL:O	56:BY:66:PRO:O	2.23	0.56
57:BZ:144:LEU:HD11	57:BZ:150:LEU:HD22	1.87	0.56
1:AA:940:C:H2'	1:AA:941:G:C8	2.40	0.56
2:CB:51:LEU:CD2	2:CB:201:ILE:HD13	2.35	0.56
4:CD:135:LEU:HD13	4:CD:135:LEU:N	2.20	0.56
10:CJ:34:VAL:CG1	10:CJ:35:SER:N	2.68	0.56
43:BI:86:THR:O	43:BI:87:LYS:HG3	2.04	0.56
43:BI:88:ILE:HG22	43:BI:122:GLU:N	2.20	0.56
1:CA:973:G:C1'	10:CJ:55:LYS:HG2	2.35	0.56
51:DT:50:ILE:HD12	51:DT:99:LEU:HB2	1.86	0.56
50:DS:66:ALA:C	50:DS:68:GLN:H	2.08	0.56
48:DQ:43:THR:HB	48:DQ:45:GLN:NE2	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DQ:43:THR:O	48:DQ:46:GLN:HB2	2.05	0.56
43:BI:48:GLU:O	43:BI:52:ARG:HG3	2.05	0.56
39:DE:96:PHE:HA	39:DE:100:GLU:OE1	2.05	0.56
1:AA:1117:G:H22	1:AA:1180:A:H1'	1.70	0.56
1:AA:1373:G:H5''	7:AG:36:LYS:CB	2.35	0.56
1:AA:826:C:H5'	8:AH:12:ARG:HH21	1.69	0.56
56:BY:4:LYS:HD2	56:BY:5:MET:N	2.20	0.56
40:DF:201:VAL:HA	40:DF:204:ASN:ND2	2.20	0.56
2:AB:118:LEU:HD11	2:AB:141:GLU:OE2	2.04	0.56
1:CA:1241:G:H1	1:CA:1296:C:H42	1.53	0.56
17:AQ:78:GLU:O	17:AQ:78:GLU:HG3	2.04	0.56
4:AD:119:GLN:O	4:AD:123:HIS:HD2	1.88	0.56
47:DP:124:LYS:HD3	47:DP:143:GLY:C	2.25	0.56
20:CT:24:LEU:HD13	20:CT:25:ARG:N	2.20	0.56
4:AD:88:VAL:O	4:AD:92:VAL:HG23	2.04	0.56
1:CA:601:C:H2'	1:CA:602:A:H8	1.70	0.56
24:AY:2:PHE:O	24:AY:2:PHE:HD2	1.88	0.56
14:AN:7:ILE:O	14:AN:11:LYS:HB2	2.05	0.56
54:BW:37:ARG:HH11	54:BW:37:ARG:HG2	1.70	0.56
35:DA:2347:C:H2'	35:DA:2348:U:C6	2.40	0.56
35:DA:2689:U:H5''	35:DA:2690:C:H5'	1.87	0.56
1:CA:1263:C:H2'	1:CA:1264:C:C6	2.40	0.56
1:CA:277:C:O2'	1:CA:278:G:H5'	2.05	0.56
57:BZ:77:ASP:O	57:BZ:79:ARG:N	2.38	0.56
36:BB:2:C:H2'	36:BB:3:C:C6	2.39	0.56
36:BB:5:C:O2'	36:BB:6:C:H5'	2.05	0.56
36:BB:87:G:H2'	36:BB:88:C:H5''	1.87	0.56
1:AA:163:C:O2'	1:AA:164:U:H5'	2.05	0.56
1:AA:814:A:N7	1:AA:816:A:C4	2.73	0.56
1:CA:952:U:O2'	1:CA:953:G:H5'	2.05	0.56
56:DY:81:LYS:HZ3	56:DY:97:ARG:HH21	1.51	0.56
50:BS:35:ILE:HG23	50:BS:35:ILE:O	2.06	0.56
51:DT:29:ARG:HD3	51:DT:30:VAL:H	1.70	0.56
57:BZ:104:PHE:HD1	57:BZ:141:VAL:HG21	1.70	0.56
1:CA:34:C:H4'	1:CA:34:C:OP1	2.05	0.56
33:B8:61:LEU:N	33:B8:63:PRO:HD2	2.20	0.56
35:BA:2360:A:O2'	35:BA:2361:A:P	2.62	0.56
2:AB:200:ILE:HD12	2:AB:200:ILE:O	2.05	0.56
35:DA:2315:G:H2'	35:DA:2316:C:C6	2.40	0.56
1:CA:613:C:C3'	1:CA:614:A:H5''	2.34	0.56
2:AB:8:LYS:HD3	2:AB:217:ARG:HH21	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:75:ILE:HG13	10:AJ:76:ASN:N	2.20	0.56
38:DD:125:ILE:HG22	38:DD:125:ILE:O	2.03	0.56
48:BQ:55:VAL:CG2	48:BQ:56:ARG:N	2.67	0.56
3:AC:18:TRP:HE3	3:AC:18:TRP:H	1.53	0.56
8:AH:5:PRO:O	8:AH:8:ASP:HB3	2.05	0.56
35:DA:1246:A:OP2	47:DP:18:ARG:HG3	2.06	0.56
42:BH:156:ALA:O	42:BH:157:TYR:C	2.42	0.56
39:BE:6:GLY:HA2	39:BE:51:PHE:HE2	1.68	0.56
35:BA:921:G:H2'	35:BA:922:U:C6	2.40	0.56
35:DA:2732:G:C2'	35:DA:2733:A:H5'	2.34	0.56
35:DA:2787:C:H1'	39:DE:61:ARG:HB2	1.86	0.56
5:CE:78:HIS:HE1	5:CE:142:LEU:HA	1.69	0.56
22:AW:1:C:H2'	22:AW:2:G:H8	1.70	0.56
35:BA:887:A:C2	35:BA:889:C:H2'	2.37	0.56
11:CK:124:LYS:HD2	11:CK:125:PHE:HE1	1.69	0.56
11:AK:84:VAL:HG22	11:AK:110:ASP:HA	1.87	0.56
8:CH:11:THR:HG22	8:CH:15:ASN:ND2	2.19	0.56
1:AA:19:C:H2'	1:AA:20:U:C6	2.40	0.56
1:AA:663:A:O2'	1:AA:664:G:H5'	2.05	0.56
4:CD:156:GLU:O	4:CD:160:GLN:HG3	2.05	0.56
35:BA:1721:G:C2'	35:BA:1741:A:H61	2.19	0.56
9:AI:43:ALA:C	9:AI:45:ALA:H	2.07	0.56
40:BF:65:TRP:CH2	40:BF:75:HIS:HD2	2.23	0.56
35:BA:2746:U:C2'	35:BA:2747:G:H5'	2.35	0.56
51:BT:14:TYR:CD1	51:BT:14:TYR:N	2.73	0.56
5:CE:17:ALA:HB2	5:CE:26:PHE:CD2	2.40	0.56
38:BD:155:LEU:HD23	38:BD:177:LEU:CD2	2.34	0.56
35:BA:1441:G:H2'	35:BA:1442:G:H8	1.70	0.56
22:CV:46:G:H5''	22:CV:47:U:H5	1.70	0.56
10:AJ:90:LEU:O	10:AJ:90:LEU:HG	2.05	0.56
1:AA:1256:A:OP2	3:AC:26:LYS:NZ	2.37	0.56
16:CP:1:MET:HG2	16:CP:2:VAL:N	2.19	0.56
2:CB:9:GLU:HB2	2:CB:48:MET:SD	2.45	0.56
4:CD:150:GLU:O	4:CD:152:SER:N	2.38	0.56
35:BA:8:A:H2'	35:BA:9:U:C6	2.39	0.56
32:D7:30:VAL:HG22	32:D7:33:ARG:HH12	1.70	0.56
38:BD:199:ALA:C	38:BD:201:HIS:H	2.09	0.56
37:DC:22:ILE:HG22	37:DC:24:GLU:H	1.69	0.56
49:BR:103:ARG:HG2	49:BR:103:ARG:HH11	1.71	0.56
35:DA:492:A:H2'	35:DA:493:G:O4'	2.05	0.56
1:AA:538:G:O2'	1:AA:539:A:H5'	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DH:16:SER:CB	42:DH:27:LYS:HB3	2.22	0.56
1:AA:530:G:H2'	24:AY:29:PRO:HG3	1.85	0.56
24:AY:33:LYS:HB2	24:AY:36:GLY:CA	2.32	0.56
1:AA:1502:A:H2	1:AA:1505:G:N1	2.04	0.56
22:CW:35:A:C6	58:CX:14:A:C2	2.92	0.56
56:DY:27:VAL:HA	56:DY:28:LYS:NZ	2.20	0.56
56:DY:27:VAL:HA	56:DY:28:LYS:HE3	1.87	0.56
56:DY:28:LYS:H	56:DY:28:LYS:HZ1	1.49	0.56
40:BF:7:TYR:HD2	40:BF:16:GLY:H	1.53	0.56
50:BS:68:GLN:HA	50:BS:71:ARG:NH1	2.20	0.56
46:DO:64:ARG:HG2	46:DO:79:PHE:CD1	2.40	0.56
57:BZ:97:GLU:HA	57:BZ:126:VAL:O	2.04	0.56
57:BZ:99:TYR:HA	57:BZ:124:ILE:O	2.05	0.56
41:DG:52:ILE:HD13	41:DG:52:ILE:N	2.13	0.56
40:BF:67:GLN:O	40:BF:68:LYS:HG2	2.05	0.56
2:CB:70:PHE:HB2	2:CB:92:TYR:CB	2.36	0.56
2:CB:218:ALA:C	2:CB:220:ASP:N	2.59	0.56
50:BS:15:ARG:HA	50:BS:17:ARG:HG3	1.86	0.56
33:B8:29:LYS:HA	33:B8:32:LEU:HD23	1.86	0.56
2:AB:187:LEU:HD13	2:AB:205:ASP:CB	2.34	0.56
41:DG:41:GLN:HA	41:DG:155:MET:HB3	1.87	0.56
19:CS:29:ARG:HD3	19:CS:48:THR:OG1	2.05	0.56
50:DS:15:ARG:HA	50:DS:17:ARG:HG3	1.85	0.56
19:CS:12:ASP:HB3	19:CS:14:HIS:CD2	2.40	0.56
47:BP:78:PRO:HA	47:BP:110:TYR:CZ	2.40	0.56
10:CJ:34:VAL:HA	10:CJ:74:ILE:HA	1.86	0.56
1:AA:987:G:H2'	1:AA:988:G:C8	2.40	0.56
3:CC:134:ILE:HG21	3:CC:168:ALA:HB3	1.87	0.56
35:DA:1203:G:H4'	47:DP:7:ARG:HG3	1.86	0.56
43:BI:82:ARG:O	43:BI:88:ILE:HD12	2.05	0.56
1:AA:34:C:H6	1:AA:34:C:C5'	2.10	0.56
1:AA:35:G:N2	12:AL:115:SER:OG	2.37	0.56
3:AC:138:VAL:O	3:AC:142:MET:HB2	2.05	0.56
43:DI:123:LEU:HD13	43:DI:124:GLY:N	2.19	0.56
41:DG:6:ALA:HB3	41:DG:104:GLU:OE2	2.04	0.56
10:AJ:34:VAL:HA	10:AJ:74:ILE:HA	1.88	0.56
45:DN:133:GLN:CG	45:DN:135:PRO:HD3	2.32	0.56
51:BT:32:TYR:CD2	51:BT:81:PRO:O	2.57	0.56
35:BA:925:C:C2'	35:BA:926:A:C5'	2.77	0.56
1:CA:833:U:H2'	1:CA:834:C:C6	2.41	0.56
35:DA:1403:C:H5''	35:DA:1471:A:C1'	2.34	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:92:ARG:HB3	8:AH:94:TYR:CE2	2.41	0.56
35:BA:2769:C:H2'	35:BA:2770:G:C8	2.41	0.56
35:DA:1019:U:O2'	35:DA:1021:A:C2	2.48	0.56
9:AI:10:ARG:HG2	9:AI:105:ASP:N	2.19	0.56
53:BV:1:MET:HB2	53:BV:99:ILE:HG13	1.86	0.56
1:AA:1154:G:O2'	1:AA:1155:G:H5'	2.06	0.56
43:BI:8:PRO:HB3	43:BI:14:ASP:HA	1.87	0.56
42:DH:137:ASP:HB2	42:DH:140:LYS:CE	2.34	0.56
6:AF:97:PHE:HD2	18:AR:31:LEU:HD21	1.70	0.56
1:CA:1325:C:H5''	21:CU:6:ARG:NH2	2.20	0.56
40:DF:177:ALA:HB1	40:DF:178:PRO:HD2	1.86	0.56
41:DG:18:GLU:OE2	41:DG:22:ARG:HB2	2.06	0.56
25:D0:11:ARG:CB	25:D0:11:ARG:HH11	2.19	0.56
35:BA:330:A:O2'	35:BA:331:A:C8	2.56	0.56
1:CA:814:A:N7	1:CA:816:A:C4	2.73	0.56
40:DF:132:VAL:HG13	40:DF:138:GLU:OE1	2.04	0.56
26:B1:8:SER:OG	26:B1:10:LYS:HG3	2.04	0.56
48:DQ:54:MET:HG2	48:DQ:64:ILE:HD13	1.87	0.56
5:CE:6:PHE:HD2	5:CE:36:ASP:HB3	1.70	0.56
1:CA:938:A:H4'	7:CG:95:ARG:HH22	1.68	0.56
5:AE:5:ASP:HA	5:AE:63:ARG:CZ	2.36	0.56
1:AA:505:G:H2'	1:AA:506:G:C8	2.38	0.56
17:CQ:53:LEU:HD21	17:CQ:85:VAL:HG11	1.87	0.56
1:CA:1268:A:H2'	1:CA:1269:A:C8	2.40	0.56
13:AM:91:ARG:HB2	13:AM:98:VAL:HG22	1.87	0.56
35:DA:284:U:H2'	35:DA:285:C:C6	2.39	0.56
14:AN:37:PHE:HE1	14:AN:53:LEU:HD22	1.71	0.56
11:CK:50:TYR:HB3	11:CK:54:ARG:O	2.05	0.56
1:CA:321:A:N6	1:CA:329:A:OP2	2.37	0.56
1:AA:1283:G:O2'	1:AA:1284:C:H5'	2.05	0.56
4:AD:96:LEU:HB3	4:AD:139:ARG:HH12	1.71	0.56
3:AC:42:LEU:HA	3:AC:45:LYS:CD	2.35	0.56
35:BA:2533:A:H2'	35:BA:2534:A:H5'	1.86	0.56
1:AA:659:U:H2'	1:AA:660:G:H8	1.70	0.56
1:AA:933:G:OP2	7:AG:3:ARG:HB2	2.05	0.56
35:DA:1973:G:H2'	35:DA:1974:C:C6	2.41	0.56
35:BA:909:A:H2'	35:BA:912:C:H5	1.70	0.56
46:DO:7:TYR:CZ	46:DO:44:LYS:HG3	2.40	0.56
38:BD:93:ALA:HB3	38:BD:105:ILE:HG23	1.87	0.56
1:CA:1285:A:H5''	21:CU:25:LYS:HD2	1.86	0.56
1:CA:1298:C:H4'	1:CA:1299:A:N3	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BO:16:ALA:HB2	46:BO:52:VAL:HG21	1.87	0.56
26:B1:75:GLU:O	26:B1:78:LYS:HB2	2.06	0.56
3:AC:140:ARG:NH1	3:AC:140:ARG:HB2	2.20	0.56
15:CO:6:GLU:N	15:CO:6:GLU:OE1	2.37	0.56
1:AA:1290:G:N3	1:AA:1290:G:H2'	2.19	0.56
13:AM:110:ARG:HH11	13:AM:110:ARG:HG2	1.70	0.56
35:DA:1856:G:C2'	35:DA:1857:G:H5'	2.35	0.56
35:BA:893:C:H2'	35:BA:894:C:C6	2.40	0.56
6:AF:74:ASP:O	6:AF:77:ARG:HB3	2.05	0.56
13:CM:111:LYS:O	13:CM:112:GLY:O	2.23	0.56
35:BA:1466:G:H5'	35:BA:1467:C:OP1	2.05	0.56
35:BA:198:C:H5'	35:BA:2244:U:OP1	2.06	0.56
41:BG:129:GLY:HA3	41:BG:163:ALA:O	2.05	0.56
46:DO:63:VAL:HG11	46:DO:85:VAL:HG23	1.86	0.56
1:CA:559:A:H4'	1:CA:560:U:H5''	1.88	0.56
51:BT:50:ILE:HG22	51:BT:62:THR:HB	1.87	0.56
35:DA:2427:C:H5''	35:DA:2428:G:OP1	2.06	0.56
35:DA:1744:C:C2'	35:DA:1745:C:H5'	2.36	0.56
35:DA:1292:U:O2'	35:DA:1293:C:H5'	2.05	0.56
1:AA:167:G:O2'	1:AA:168:G:H5'	2.04	0.56
35:BA:2463:C:O2'	35:BA:2464:C:H5'	2.05	0.56
12:AL:38:ARG:NH2	24:AY:6:GLY:HA3	2.18	0.56
1:CA:1324:A:O4'	1:CA:1362:C:H4'	2.05	0.56
35:BA:1747(A):G:C3'	35:BA:1748:G:H5''	2.35	0.56
35:DA:506:G:H5''	35:DA:509:C:H1'	1.86	0.56
1:AA:624:C:H5'	16:AP:11:SER:OG	2.05	0.56
1:AA:632:A:C3'	1:AA:633:G:H5''	2.34	0.56
31:D6:11:LEU:O	31:D6:23:THR:HA	2.06	0.56
31:D6:26:ASN:O	31:D6:27:LYS:HD3	2.05	0.56
30:B5:33:CYS:CB	30:B5:36:CYS:HG	2.18	0.56
50:BS:16:ASN:O	50:BS:18:ILE:N	2.38	0.56
57:DZ:21:ALA:HB3	57:DZ:23:LYS:HG2	1.88	0.56
15:CO:36:ILE:HD12	15:CO:63:ARG:CD	2.36	0.56
41:DG:106:LEU:HD12	41:DG:107:LEU:HG	1.87	0.56
19:CS:41:VAL:HG22	19:CS:42:PRO:HD2	1.88	0.56
15:AO:78:TYR:O	15:AO:82:ILE:HG22	2.05	0.56
9:CI:28:VAL:HG13	9:CI:63:ILE:C	2.26	0.56
10:CJ:5:ARG:O	10:CJ:98:ILE:HA	2.05	0.56
43:DI:82:ARG:O	43:DI:88:ILE:HD12	2.06	0.56
38:BD:125:ILE:O	38:BD:125:ILE:HG22	2.06	0.56
35:DA:921:G:H2'	35:DA:922:U:C6	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DO:71:ARG:HG3	46:DO:71:ARG:NH1	2.20	0.56
1:AA:430:A:OP1	4:AD:9:CYS:HB2	2.05	0.56
1:AA:644:G:C5'	8:AH:92:ARG:HH21	2.18	0.56
53:DV:22:VAL:HG23	53:DV:92:THR:HG23	1.86	0.56
1:AA:1370:G:H2'	1:AA:1371:G:H8	1.71	0.56
9:AI:86:VAL:HG11	9:AI:96:LEU:CD2	2.35	0.56
21:CU:6:ARG:CG	21:CU:15:ARG:HH12	2.19	0.56
27:D2:16:LEU:O	27:D2:67:LYS:NZ	2.39	0.56
1:AA:1288:A:O2'	1:AA:1289:A:H5'	2.06	0.56
35:DA:2876:G:O2'	35:DA:2877:G:H5'	2.06	0.56
13:AM:91:ARG:HH21	13:AM:96:LEU:HB3	1.69	0.56
39:DE:117:MET:CE	39:DE:124:GLY:HA3	2.36	0.56
42:DH:91:GLY:CA	42:DH:160:LYS:HA	2.35	0.56
42:BH:91:GLY:CA	42:BH:160:LYS:HA	2.35	0.56
35:DA:245:G:H2'	35:DA:246:C:H6	1.69	0.56
35:DA:893:C:H2'	35:DA:894:C:C6	2.41	0.56
35:DA:1352:U:O2'	35:DA:1353:A:H5'	2.04	0.56
35:DA:832:G:H21	47:DP:53:GLY:HA3	1.70	0.56
3:CC:71:ALA:HB1	3:CC:109:PRO:HB3	1.86	0.56
35:BA:522:G:H2'	35:BA:523:C:C6	2.41	0.56
1:CA:1224:G:C4'	13:CM:102:ARG:HE	2.16	0.56
56:BY:95:LYS:HE2	56:BY:99:CYS:O	2.05	0.56
47:DP:33:ARG:O	47:DP:34:GLY:C	2.43	0.56
35:BA:1190:G:H5'	47:BP:35:HIS:HA	1.88	0.56
33:D8:47:LYS:O	33:D8:48:PHE:HD2	1.89	0.56
40:DF:114:VAL:HG21	40:DF:202:PHE:CZ	2.40	0.56
53:DV:47:VAL:HB	53:DV:49:THR:O	2.05	0.56
51:DT:28:VAL:HG13	51:DT:45:PHE:C	2.26	0.56
1:AA:632:A:H3'	1:AA:633:G:C5'	2.36	0.56
1:AA:1120:G:H1	1:AA:1153:C:H42	1.52	0.56
8:CH:63:LEU:N	8:CH:63:LEU:HD22	2.20	0.56
45:BN:58:ASP:O	45:BN:60:ILE:HG13	2.04	0.56
48:DQ:27:VAL:HG23	48:DQ:137:TYR:CD1	2.41	0.56
35:BA:1301:A:H2'	35:BA:1302:A:H3'	1.86	0.56
3:CC:134:ILE:CG2	3:CC:168:ALA:HB3	2.34	0.56
22:AV:53:G:H5'	22:AV:53:G:C8	2.39	0.56
43:BI:82:ARG:HG2	43:BI:89:TYR:CD1	2.40	0.56
27:B2:10:LEU:HD13	27:B2:14:ARG:HH12	1.71	0.56
35:DA:528:A:H2	35:DA:2043:C:C5'	2.17	0.56
5:AE:53:LEU:O	5:AE:57:LYS:HG3	2.06	0.56
46:DO:104:ARG:CZ	46:DO:104:ARG:HB3	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:113:LYS:H	9:AI:113:LYS:HD2	1.70	0.56
4:AD:126:ILE:N	4:AD:126:ILE:CD1	2.67	0.56
35:DA:1658:C:OP1	39:DE:132:HIS:ND1	2.38	0.56
27:D2:65:ASN:HB3	27:D2:69:ARG:HH21	1.69	0.56
1:AA:586:C:O2'	1:AA:878:G:H4'	2.04	0.56
39:DE:61:ARG:N	39:DE:62:PRO:CD	2.68	0.56
1:CA:1207:G:C2'	1:CA:1208:C:C6	2.88	0.56
35:BA:1882:C:H5'	35:BA:1883:G:OP2	2.04	0.56
1:AA:1325:C:H5''	21:AU:6:ARG:NH2	2.21	0.56
38:DD:211:ARG:O	38:DD:215:LEU:HG	2.05	0.56
9:CI:86:VAL:HG11	9:CI:96:LEU:CD2	2.35	0.56
50:BS:56:LEU:HD22	50:BS:58:LEU:CD1	2.36	0.56
16:CP:59:TRP:HA	16:CP:62:VAL:HG22	1.87	0.56
1:AA:236:G:H2'	1:AA:237:C:C6	2.41	0.56
6:CF:19:LEU:CD2	6:CF:23:LYS:HE3	2.34	0.56
45:BN:18:ALA:HB1	45:BN:21:LYS:HB2	1.87	0.56
47:DP:136:GLU:OE1	47:DP:136:GLU:N	2.39	0.56
35:BA:184:C:H2'	35:BA:185:U:H6	1.70	0.56
35:DA:2256:G:H2'	35:DA:2257:U:C6	2.41	0.56
26:B1:82:LEU:O	26:B1:84:GLY:N	2.39	0.56
11:CK:69:ALA:HB1	11:CK:103:LEU:CD2	2.36	0.56
1:AA:166:G:H2'	1:AA:167:G:H8	1.70	0.56
48:BQ:51:ARG:HG2	48:BQ:51:ARG:HH11	1.71	0.56
1:CA:805:C:H2'	1:CA:806:C:H6	1.71	0.56
35:DA:898:C:H2'	35:DA:899:A:O4'	2.06	0.56
1:CA:1283:G:O2'	1:CA:1284:C:H5'	2.05	0.56
13:AM:29:ARG:HD3	13:AM:64:TRP:CZ3	2.41	0.56
1:CA:67:C:H2'	1:CA:68:G:C8	2.40	0.56
32:B7:19:ARG:HH11	32:B7:19:ARG:HG2	1.70	0.56
35:BA:2086:U:H2'	35:BA:2087:G:C8	2.41	0.56
1:AA:1081:G:H2'	1:AA:1082:G:H8	1.71	0.56
1:CA:1323:G:H2'	1:CA:1324:A:H8	1.70	0.56
35:DA:632:A:O5'	35:DA:632:A:H8	1.88	0.56
57:DZ:108:PRO:HB2	57:DZ:144:LEU:O	2.05	0.56
56:BY:7:VAL:HG21	56:BY:8:LYS:NZ	2.21	0.56
24:AY:64:TYR:HB3	24:AY:92:ILE:CD1	2.34	0.56
2:AB:21:ARG:HB3	2:AB:39:ILE:HA	1.88	0.56
38:BD:31:LYS:HB3	38:BD:34:VAL:CG2	2.34	0.56
13:CM:4:ILE:HG21	13:CM:22:ILE:HD11	1.86	0.56
1:CA:1107:C:H3'	1:CA:1108:G:H5''	1.87	0.56
51:BT:32:TYR:HB3	51:BT:81:PRO:O	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BN:26:LEU:O	45:BN:30:ILE:HG13	2.06	0.56
35:DA:856:C:C5	35:DA:857:C:H5	2.24	0.56
32:D7:12:ARG:HG3	35:DA:686:G:O6	2.05	0.56
35:DA:2313:C:H5''	41:DG:91:ARG:HG3	1.87	0.56
27:D2:19:VAL:CG1	27:D2:23:LYS:HE2	2.33	0.56
52:DU:104:GLN:H	52:DU:104:GLN:CD	2.07	0.56
6:CF:97:PHE:O	18:CR:31:LEU:HD23	2.04	0.56
1:AA:1176:A:H2'	1:AA:1177:G:C8	2.41	0.56
42:DH:136:ILE:HD12	42:DH:137:ASP:N	2.21	0.56
8:AH:11:THR:HG22	8:AH:15:ASN:ND2	2.21	0.56
40:DF:101:LEU:HD12	40:DF:102:PRO:HD2	1.87	0.56
41:DG:72:ARG:HD3	41:DG:86:MET:CA	2.35	0.56
16:CP:71:ARG:HB2	16:CP:71:ARG:HH11	1.68	0.56
39:BE:36:ARG:HH21	39:BE:88:GLY:HA2	1.71	0.56
47:DP:133:SER:HA	47:DP:136:GLU:CG	2.35	0.56
35:DA:2533:A:C2'	35:DA:2534:A:H5'	2.36	0.56
35:BA:2314:C:O2'	35:BA:2315:G:H5'	2.04	0.56
1:CA:129(A):G:N2	1:CA:189(F):U:H5''	2.21	0.56
1:AA:981:U:OP1	14:AN:6:LEU:HD21	2.06	0.56
35:BA:1231:G:H2'	35:BA:1232:G:C8	2.41	0.56
35:BA:154(A):C:H5	35:BA:171:G:H1	1.52	0.56
35:DA:314:A:O2'	35:DA:315:G:H5'	2.05	0.56
36:DB:87:G:H2'	36:DB:88:C:H5''	1.88	0.56
35:BA:2636:U:H4'	39:BE:80:GLU:CD	2.26	0.56
6:CF:100:ASN:ND2	18:CR:23:LYS:NZ	2.53	0.56
45:BN:90:MET:HB3	45:BN:98:VAL:HG22	1.87	0.56
35:DA:716:A:H3'	35:DA:717:G:H5''	1.87	0.56
53:DV:13:ARG:HH11	53:DV:13:ARG:HG2	1.69	0.56
41:BG:36:LYS:HB3	41:BG:160:VAL:HB	1.88	0.56
42:DH:54:ARG:HG2	42:DH:54:ARG:NH1	2.18	0.56
33:B8:23:VAL:CG1	33:B8:46:ARG:HB3	2.36	0.56
1:AA:1399:C:C2	1:AA:1502:A:N6	2.73	0.56
22:CV:34:C:OP1	22:CV:34:C:H6	1.89	0.56
1:AA:1442(A):G:C2'	1:AA:1442(B):A:H5''	2.35	0.56
1:AA:1442:G:N7	1:AA:1442(B):A:C2	2.74	0.56
35:BA:2360:A:O2'	35:BA:2361:A:C5'	2.54	0.56
30:D5:4:HIS:O	35:DA:2056:G:N2	2.38	0.56
57:DZ:39:VAL:HG21	57:DZ:44:PHE:HD2	1.69	0.56
24:AY:64:TYR:CD1	24:AY:92:ILE:HG21	2.40	0.56
5:AE:33:VAL:HG11	5:AE:109:ILE:HA	1.86	0.56
10:CJ:40:LEU:HB3	10:CJ:41:PRO:CD	2.30	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BZ:81:ARG:NH1	57:BZ:81:ARG:HB3	2.20	0.56
35:BA:2127:G:H1'	35:BA:2173:A:C2	2.40	0.56
47:DP:16:ARG:HD3	47:DP:17:LYS:N	2.21	0.56
10:AJ:46:ARG:HG2	10:AJ:46:ARG:HH11	1.71	0.56
7:AG:12:LEU:HD12	7:AG:21:VAL:O	2.06	0.56
38:DD:144:ALA:HB3	38:DD:192:THR:HG23	1.87	0.56
3:CC:36:ASP:HA	3:CC:39:ILE:HD12	1.86	0.56
31:B6:33:LYS:HD3	31:B6:34:LEU:HG	1.86	0.56
31:D6:33:LYS:HD3	31:D6:34:LEU:HG	1.87	0.56
38:BD:43:ARG:NH1	38:BD:44:ASN:HD21	2.03	0.56
41:BG:152:LEU:N	41:BG:152:LEU:HD12	2.21	0.56
36:BB:38:C:O2	36:BB:48:A:H1'	2.06	0.56
41:BG:11:TYR:HA	41:BG:15:VAL:CG2	2.36	0.56
5:AE:78:HIS:CD2	8:AH:107:LEU:HD12	2.38	0.56
42:BH:136:ILE:HD12	42:BH:137:ASP:N	2.21	0.56
21:AU:6:ARG:CG	21:AU:15:ARG:HH12	2.18	0.56
21:CU:6:ARG:HE	21:CU:15:ARG:NH1	2.04	0.56
38:BD:172:TYR:HD1	38:BD:185:VAL:O	1.88	0.56
35:DA:2469:A:O2'	48:DQ:56:ARG:HD2	2.06	0.56
48:DQ:55:VAL:HG23	48:DQ:56:ARG:N	2.21	0.56
43:DI:37:VAL:HG12	43:DI:38:LEU:N	2.19	0.56
1:CA:1169:A:H2'	1:CA:1170:A:O4'	2.05	0.56
20:AT:47:GLY:O	20:AT:49:ALA:N	2.39	0.56
1:AA:59:A:H5'	1:AA:60:A:H5"	1.87	0.56
35:DA:1441:G:H2'	35:DA:1442:G:H8	1.70	0.56
27:B2:55:ARG:HG2	27:B2:55:ARG:NH2	2.21	0.56
35:DA:1721:G:C2'	35:DA:1741:A:H61	2.19	0.56
11:AK:69:ALA:HB1	11:AK:103:LEU:CD2	2.36	0.56
11:CK:17:GLY:N	11:CK:80:VAL:HG12	2.20	0.56
1:AA:1388:C:H2'	1:AA:1389:C:C6	2.41	0.56
1:CA:538:G:O2'	1:CA:539:A:H5'	2.06	0.56
17:CQ:50:LYS:HE3	17:CQ:51:TYR:CZ	2.41	0.56
35:BA:842:G:O2'	35:BA:843:G:H5'	2.06	0.56
35:BA:1517:G:O2'	35:BA:1518:U:H5'	2.06	0.56
22:CW:35:A:C6	58:CX:14:A:H2	2.24	0.56
56:BY:42:VAL:CG1	56:BY:65:ALA:HB3	2.36	0.56
40:DF:205:ARG:C	40:DF:206:ILE:HD13	2.27	0.56
23:AX:16:A:O2'	23:AX:17:U:C4'	2.54	0.56
24:AY:49:ARG:CA	24:AY:66:ALA:HB2	2.36	0.56
41:BG:52:ILE:HD13	41:BG:52:ILE:N	2.11	0.56
2:AB:74:LYS:HB3	2:AB:169:LYS:HE2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DG:51:ARG:HE	41:DG:51:ARG:HA	1.70	0.56
57:BZ:5:LEU:HD12	57:BZ:47:VAL:HG21	1.88	0.56
19:CS:19:VAL:HG12	19:CS:23:ASN:HD21	1.70	0.56
47:DP:108:LYS:HD2	47:DP:108:LYS:N	2.21	0.56
47:DP:99:LEU:HD23	47:DP:99:LEU:O	2.06	0.56
19:AS:46:GLY:HA2	19:AS:61:TYR:OH	2.06	0.56
47:DP:6:LEU:H	47:DP:6:LEU:HD23	1.70	0.56
42:DH:156:ALA:O	42:DH:157:TYR:C	2.42	0.56
48:BQ:43:THR:O	48:BQ:46:GLN:HB2	2.05	0.56
35:DA:925:C:H2'	35:DA:926:A:H5'	1.88	0.56
41:BG:135:LEU:HD22	41:BG:155:MET:CE	2.36	0.56
39:BE:61:ARG:N	39:BE:62:PRO:CD	2.69	0.56
45:DN:34:LEU:HD11	45:DN:119:ARG:O	2.04	0.56
11:AK:125:PHE:N	11:AK:125:PHE:CD1	2.73	0.56
6:AF:97:PHE:O	18:AR:31:LEU:HD23	2.05	0.56
1:CA:1437:C:H2'	1:CA:1438:G:C8	2.41	0.56
1:CA:1438:G:H2'	1:CA:1439:C:H6	1.71	0.56
47:DP:75:ILE:HD12	47:DP:75:ILE:N	2.20	0.56
38:DD:182:LEU:O	38:DD:271:ILE:HG13	2.06	0.56
40:BF:101:LEU:HD12	40:BF:102:PRO:HD2	1.87	0.56
50:BS:54:LEU:O	50:BS:57:LYS:HD2	2.05	0.56
31:D6:45:LYS:HZ2	31:D6:45:LYS:HB3	1.71	0.56
27:B2:70:GLN:HG2	27:B2:71:ASN:HD22	1.71	0.56
3:CC:42:LEU:HA	3:CC:45:LYS:CD	2.36	0.56
35:BA:2886:G:H2'	35:BA:2887:U:C6	2.41	0.56
3:CC:132:ARG:HG2	3:CC:136:GLN:HB2	1.87	0.56
17:AQ:50:LYS:HE3	17:AQ:51:TYR:CZ	2.40	0.56
9:CI:88:TYR:O	9:CI:89:ASN:HB2	2.05	0.56
35:DA:1231:G:H2'	35:DA:1232:G:H8	1.69	0.56
35:BA:1744:C:C2'	35:BA:1745:C:H5'	2.35	0.56
35:BA:1291:C:H2'	35:BA:1292:U:C6	2.40	0.56
35:DA:1264:G:H3'	35:DA:1265:A:H5''	1.86	0.56
1:CA:1031:G:H2'	1:CA:1032:G:O4'	2.04	0.56
50:DS:39:ILE:HG22	50:DS:48:LEU:HD13	1.87	0.56
27:D2:30:ARG:HH11	27:D2:30:ARG:HG3	1.71	0.56
1:CA:1406:U:O2'	1:CA:1407:C:H5'	2.06	0.56
41:BG:34:LEU:HD23	41:BG:161:THR:HB	1.88	0.56
35:DA:2600:A:H2'	35:DA:2601:C:C6	2.41	0.56
6:CF:45:LEU:O	6:CF:45:LEU:HD23	2.06	0.56
1:CA:586:C:O2'	1:CA:878:G:H4'	2.05	0.56
40:BF:2:LYS:NZ	40:BF:119:ARG:HG3	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BT:46:GLU:O	51:BT:65:LYS:HB2	2.06	0.56
23:AX:16:A:HO2'	23:AX:17:U:C4'	2.19	0.56
31:D6:35:GLU:CB	31:D6:51:GLU:HB3	2.25	0.56
47:DP:41:ARG:NE	47:DP:41:ARG:HA	2.21	0.56
3:CC:70:VAL:O	3:CC:105:GLU:HA	2.06	0.56
1:CA:1234:C:H1'	1:CA:1364:U:O2	2.05	0.56
8:CH:69:ARG:HG3	8:CH:76:PRO:HA	1.86	0.56
31:B6:26:ASN:O	31:B6:27:LYS:HD3	2.06	0.56
33:B8:40:GLU:O	33:B8:43:GLN:N	2.38	0.56
41:BG:46:ALA:HB2	41:BG:53:LEU:HG	1.88	0.56
3:CC:93:LYS:HZ3	3:CC:93:LYS:CB	2.08	0.56
35:DA:2314:C:O2'	35:DA:2315:G:H5'	2.06	0.56
46:BO:2:ILE:HD11	46:BO:82:ASN:ND2	2.08	0.56
2:AB:52:GLU:CG	2:AB:56:ARG:HH12	2.11	0.56
3:AC:141:VAL:HG11	3:AC:202:ILE:CD1	2.31	0.56
6:CF:68:PRO:HG3	6:CF:71:ARG:HH21	1.71	0.56
39:BE:51:PHE:C	39:BE:74:PRO:HB3	2.26	0.56
41:BG:41:GLN:HG2	41:BG:155:MET:HB3	1.88	0.56
30:D5:20:ARG:HH12	54:DW:15:ARG:NE	2.04	0.56
53:DV:19:LYS:CG	53:DV:94:LEU:HB2	2.34	0.56
20:CT:14:LYS:HE2	20:CT:18:GLN:OE1	2.06	0.56
43:DI:102:SER:OG	43:DI:109:ILE:HD12	2.06	0.56
7:CG:15:ASP:HB3	7:CG:19:GLY:H	1.67	0.56
8:CH:121:ASP:HB2	8:CH:125:ARG:NH1	2.18	0.56
41:BG:121:ASN:HD22	41:BG:122:PRO:CD	2.17	0.56
3:CC:206:GLU:HG2	3:CC:207:VAL:N	2.21	0.56
35:BA:271(V):G:H2'	35:BA:271(W):G:O4'	2.05	0.56
51:BT:9:LEU:C	51:BT:11:GLU:H	2.09	0.56
45:DN:17:ASP:O	45:DN:19:GLU:N	2.39	0.56
7:CG:32:ARG:NH1	7:CG:32:ARG:HG2	2.20	0.56
1:AA:763:G:H2'	1:AA:764:C:H6	1.71	0.56
52:DU:112:ARG:CG	52:DU:112:ARG:HH11	2.19	0.56
26:D1:82:LEU:HD22	26:D1:82:LEU:N	2.21	0.56
40:BF:199:TRP:O	40:BF:203:GLN:HG2	2.05	0.56
35:DA:1786:A:C2	35:DA:2606:C:H1'	2.41	0.56
1:AA:137:C:H42	1:AA:226:G:H1	1.52	0.56
42:DH:89:ILE:HD11	42:DH:95:ARG:HA	1.88	0.56
35:BA:648:G:O4'	35:BA:2351:G:H5''	2.06	0.56
1:CA:115:G:O2'	1:CA:116:A:OP2	2.24	0.56
1:CA:1069:C:H41	1:CA:1094:G:N2	2.03	0.56
55:BX:24:GLY:O	55:BX:83:VAL:HG22	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2828:C:O2'	35:DA:2829:C:H5'	2.05	0.56
13:AM:26:GLY:O	13:AM:30:ALA:HB2	2.06	0.56
9:AI:121:ARG:NH2	9:AI:124:GLN:HE22	2.04	0.56
35:DA:2383:G:O2'	35:DA:2384:G:H5'	2.06	0.56
35:DA:814:C:H2'	35:DA:815:C:H6	1.71	0.56
9:CI:122:ALA:HB1	9:CI:123:PRO:HD2	1.88	0.56
35:BA:1221:C:O2'	35:BA:1221(A):C:H5'	2.06	0.56
41:BG:21:ARG:HD3	41:BG:21:ARG:C	2.26	0.56
46:DO:69:ILE:N	46:DO:69:ILE:HD12	2.20	0.56
56:DY:14:LEU:HG	56:DY:15:VAL:N	2.19	0.56
40:BF:22:ALA:HB1	40:BF:26:ALA:HB2	1.86	0.56
1:AA:1442(A):G:H3'	1:AA:1442(B):A:C5'	2.35	0.56
51:BT:28:VAL:O	51:BT:29:ARG:NE	2.37	0.56
33:D8:61:LEU:N	33:D8:63:PRO:HD2	2.21	0.56
35:BA:2376:A:H2'	35:BA:2377:A:O4'	2.06	0.56
50:BS:89:ARG:O	50:BS:90:GLY:O	2.24	0.56
52:DU:88:ILE:O	52:DU:88:ILE:HG13	2.05	0.56
35:DA:909:A:H2'	35:DA:912:C:C5	2.40	0.56
33:B8:62:LEU:N	33:B8:63:PRO:CD	2.69	0.56
1:CA:1081:G:H2'	1:CA:1082:G:H8	1.71	0.56
1:CA:1078:U:C1'	5:CE:130:ASN:HD21	2.06	0.56
46:DO:32:TYR:CD1	46:DO:32:TYR:N	2.72	0.56
47:DP:6:LEU:N	47:DP:6:LEU:HD23	2.21	0.56
43:DI:93:THR:O	43:DI:97:ILE:HG13	2.05	0.56
1:AA:1127:G:H21	1:AA:1147:C:H5	1.53	0.56
39:DE:51:PHE:C	39:DE:74:PRO:HB3	2.27	0.56
1:CA:1129:C:C4'	1:CA:1130:A:H5'	2.33	0.56
4:CD:30:LYS:C	4:CD:32:ALA:N	2.59	0.56
10:AJ:48:THR:HA	10:AJ:62:HIS:CB	2.30	0.56
35:BA:926:A:H2'	35:BA:927:G:H8	1.71	0.56
45:BN:36:GLY:O	45:BN:38:HIS:N	2.39	0.56
35:DA:2855:C:H2'	35:DA:2856:C:H6	1.71	0.56
12:CL:4:ILE:HG23	12:CL:5:ASN:N	2.21	0.56
46:DO:86:ILE:O	46:DO:87:ILE:HD13	2.06	0.56
49:DR:66:VAL:HG11	49:DR:79:LEU:HD12	1.88	0.56
25:B0:11:ARG:CB	25:B0:11:ARG:HH11	2.19	0.56
35:BA:322:A:H5'	35:BA:340:A:H1'	1.88	0.56
26:D1:3:LYS:HG3	26:D1:4:VAL:N	2.20	0.56
10:CJ:75:ILE:HG13	10:CJ:76:ASN:N	2.21	0.56
56:DY:31:LEU:HD23	56:DY:36:ALA:O	2.06	0.56
42:BH:149:ARG:HA	42:BH:162:ILE:HG13	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:688:G:H2'	1:CA:689:C:C6	2.39	0.56
41:DG:36:LYS:HD2	41:DG:160:VAL:HG21	1.88	0.56
1:CA:1463:C:O2'	1:CA:1464:G:H5'	2.05	0.56
35:BA:288:C:O2'	35:BA:289:A:H5'	2.06	0.56
1:CA:839:U:H2'	1:CA:839:U:O2	2.05	0.56
39:BE:9:VAL:HG22	39:BE:25:VAL:HB	1.88	0.56
35:DA:1789:A:H5'	38:DD:221:VAL:HG12	1.87	0.56
1:CA:556:C:O2'	1:CA:557:G:H5'	2.06	0.56
35:BA:1693:U:H1'	38:BD:14:ARG:NH1	2.20	0.56
39:BE:68:ALA:C	39:BE:70:ALA:H	2.09	0.56
35:DA:510:C:H6	35:DA:510:C:O5'	1.89	0.56
35:DA:510:C:OP1	35:DA:512:G:O6	2.23	0.56
42:DH:57:ASP:O	42:DH:62:LYS:HE3	2.05	0.56
42:BH:64:LEU:C	42:BH:66:GLY:N	2.58	0.56
35:BA:2537:U:H2'	35:BA:2538:C:H6	1.71	0.56
54:BW:29:LEU:O	54:BW:33:ARG:HG3	2.05	0.56
35:DA:491:G:O2'	35:DA:492:A:H5'	2.06	0.56
6:CF:100:ASN:HD21	18:CR:23:LYS:HG3	1.70	0.56
27:D2:4:SER:HA	27:D2:7:ARG:HG2	1.87	0.56
35:BA:1316:U:O2'	35:BA:1317:A:H5'	2.06	0.56
8:AH:69:ARG:HG3	8:AH:76:PRO:HA	1.88	0.56
38:DD:122:ASP:CG	38:DD:123:ALA:H	2.09	0.56
1:CA:1256:A:H5'	1:CA:1257:U:OP1	2.05	0.56
35:DA:38:A:H2'	35:DA:39:C:C6	2.41	0.56
50:BS:36:TYR:N	50:BS:36:TYR:CD1	2.74	0.56
35:BA:1839:G:H5'	35:BA:1839:G:H8	1.71	0.56
35:BA:869:G:O2'	35:BA:870:A:H5'	2.05	0.56
52:DU:53:ARG:HH11	52:DU:53:ARG:HG3	1.71	0.56
1:CA:976:G:P	14:CN:32:SER:H	2.30	0.55
22:CV:34:C:C3'	22:CV:35:A:H5''	2.36	0.55
22:CV:36:U:H6	22:CV:36:U:H3'	1.71	0.55
56:BY:7:VAL:HG21	56:BY:8:LYS:HZ1	1.71	0.55
35:BA:943:U:OP2	47:BP:38:GLN:CD	2.44	0.55
2:AB:214:ILE:O	2:AB:215:LEU:HD22	2.06	0.55
1:AA:1221:G:C4'	19:AS:77:THR:HG21	2.26	0.55
1:CA:1152:A:H5''	10:CJ:13:HIS:CE1	2.41	0.55
16:AP:49:LEU:HD11	16:AP:73:LEU:HB3	1.86	0.55
13:AM:4:ILE:HG21	13:AM:22:ILE:HD11	1.88	0.55
45:DN:132:ALA:O	45:DN:133:GLN:HB3	2.06	0.55
54:BW:10:VAL:O	54:BW:11:ARG:HB2	2.07	0.55
26:D1:7:ILE:HD13	26:D1:62:VAL:HB	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2142:C:H42	35:BA:2148:G:H1	1.52	0.55
51:DT:31:SER:HG	51:DT:43:GLN:H	1.52	0.55
51:DT:50:ILE:HG22	51:DT:62:THR:HB	1.88	0.55
35:DA:1657:C:O2'	35:DA:1658:C:H5'	2.06	0.55
41:BG:135:LEU:O	41:BG:154:GLY:HA3	2.06	0.55
1:CA:1292:U:H2'	1:CA:1293:G:H8	1.69	0.55
52:BU:104:GLN:CD	52:BU:104:GLN:H	2.08	0.55
35:BA:1278:A:H5''	49:BR:36:THR:HG22	1.87	0.55
56:DY:2:ARG:N	56:DY:4:LYS:HG3	2.21	0.55
35:DA:484:C:H2'	35:DA:485:C:C6	2.39	0.55
17:CQ:5:VAL:HG22	17:CQ:60:ILE:HA	1.86	0.55
12:CL:40:VAL:HG23	12:CL:52:VAL:CG2	2.37	0.55
39:BE:117:MET:CE	39:BE:124:GLY:HA3	2.37	0.55
36:DB:38:C:O2	36:DB:48:A:H1'	2.06	0.55
27:B2:47:ASN:ND2	35:BA:94(A):G:H21	2.04	0.55
1:CA:59:A:H5''	1:CA:60:A:H5''	1.86	0.55
35:BA:2315:G:H2'	35:BA:2316:C:C6	2.40	0.55
35:DA:2886:G:H2'	35:DA:2887:U:C6	2.40	0.55
1:CA:341:C:H2'	1:CA:342:C:H6	1.70	0.55
1:AA:262:A:H2'	1:AA:263:A:C8	2.40	0.55
18:CR:25:THR:O	18:CR:25:THR:HG22	2.06	0.55
35:DA:1744:C:H2'	35:DA:1745:C:H5'	1.87	0.55
35:BA:2563:U:H4'	46:BO:28:SER:HA	1.88	0.55
38:BD:77:ALA:HB2	38:BD:97:TYR:CD2	2.41	0.55
35:DA:522:G:H2'	35:DA:523:C:C6	2.41	0.55
35:DA:2662:A:H2'	35:DA:2663:G:O4'	2.06	0.55
35:BA:492:A:H2'	35:BA:493:G:O4'	2.06	0.55
13:AM:111:LYS:O	13:AM:112:GLY:O	2.24	0.55
5:AE:64:ARG:HH11	5:AE:64:ARG:HG3	1.70	0.55
35:DA:2882:A:OP1	49:DR:96:ARG:HD3	2.05	0.55
1:AA:259:G:H1	1:AA:267:C:H42	1.54	0.55
42:DH:118:PRO:HG2	42:DH:121:ILE:HG13	1.88	0.55
24:AY:93:LYS:CA	24:AY:96:LEU:OXT	2.55	0.55
42:DH:84:SER:O	42:DH:85:LYS:HB3	2.05	0.55
52:BU:95:LEU:C	52:BU:97:ASP:H	2.08	0.55
33:D8:8:LYS:N	33:D8:8:LYS:HD2	2.20	0.55
47:DP:39:LYS:O	47:DP:40:SER:HB3	2.05	0.55
47:DP:40:SER:C	47:DP:41:ARG:CZ	2.75	0.55
24:AY:64:TYR:CD1	24:AY:92:ILE:HG23	2.41	0.55
19:AS:19:VAL:HG12	19:AS:23:ASN:HD21	1.71	0.55
41:DG:111:LEU:HD21	41:DG:120:LEU:HD21	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:94:LEU:CD2	3:AC:94:LEU:H	2.05	0.55
15:AO:32:LEU:HD13	15:AO:63:ARG:HG3	1.88	0.55
48:DQ:134:ARG:HA	48:DQ:137:TYR:CD2	2.42	0.55
35:BA:1921:G:H2'	35:BA:1922:G:H8	1.71	0.55
57:DZ:128:VAL:HG13	57:DZ:129:SER:O	2.05	0.55
39:DE:52:LEU:O	39:DE:74:PRO:HA	2.06	0.55
1:CA:1485:U:O2'	1:CA:1486:G:H5'	2.05	0.55
1:CA:1409:C:N4	1:CA:1491:G:H1	2.04	0.55
47:BP:13:ASN:O	47:BP:15:ARG:N	2.40	0.55
35:BA:926:A:C8	35:BA:926:A:H5'	2.41	0.55
26:B1:44:PRO:HG2	26:B1:46:LEU:CD1	2.34	0.55
29:B4:6:HIS:HB3	41:BG:67:LYS:HB3	1.88	0.55
4:AD:30:LYS:C	4:AD:32:ALA:N	2.58	0.55
53:DV:24:LYS:N	53:DV:92:THR:HG22	2.22	0.55
5:AE:78:HIS:HD2	8:AH:107:LEU:CD1	2.19	0.55
26:D1:52:ARG:O	26:D1:53:VAL:O	2.23	0.55
4:AD:15:GLU:HG3	4:AD:63:LYS:HE2	1.87	0.55
1:AA:707:C:O2	11:AK:39:PRO:HD3	2.07	0.55
17:AQ:53:LEU:HD23	17:AQ:54:GLY:N	2.21	0.55
42:DH:149:ARG:HA	42:DH:162:ILE:HG13	1.89	0.55
34:B9:11:CYS:SG	34:B9:32:HIS:CE1	2.99	0.55
35:DA:1453:U:OP1	49:DR:77:ARG:HD3	2.06	0.55
35:DA:2223:G:C2'	35:DA:2224:G:H5'	2.36	0.55
22:CV:59:A:C2'	22:CV:60:U:H5'	2.36	0.55
12:CL:66:TYR:HB3	12:CL:96:HIS:CD2	2.41	0.55
11:CK:32:ILE:HD13	11:CK:72:ALA:HB2	1.87	0.55
20:CT:54:LYS:HA	20:CT:57:ARG:NH2	2.22	0.55
2:AB:155:LEU:HD21	2:AB:159:PRO:HG3	1.88	0.55
4:AD:61:LYS:HG3	4:AD:203:VAL:HG13	1.88	0.55
35:DA:510:C:C4	35:DA:511:U:C4	2.94	0.55
41:BG:167:GLU:O	41:BG:169:ALA:N	2.37	0.55
15:CO:8:LYS:HG2	15:CO:12:ILE:HD11	1.86	0.55
1:CA:992:U:H2'	1:CA:1043:C:H42	1.71	0.55
22:CV:21:A:H61	22:CV:46:G:H2'	1.71	0.55
35:BA:2567:G:H2'	35:BA:2568:C:C6	2.41	0.55
35:BA:38:A:H2'	35:BA:39:C:C6	2.41	0.55
35:DA:1678:G:N2	35:DA:1989:G:H22	2.04	0.55
42:BH:88:LEU:HD23	42:BH:130:ARG:HG3	1.88	0.55
35:BA:2443:C:O2'	35:BA:2444:G:H5'	2.06	0.55
35:BA:2889:C:H2'	35:BA:2891:G:O4'	2.05	0.55
11:AK:20:TYR:CZ	11:AK:83:ILE:HD12	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2455:G:H2'	35:BA:2456:C:C6	2.41	0.55
35:BA:245:G:H2'	35:BA:246:C:H6	1.72	0.55
33:B8:46:ARG:NH1	33:B8:46:ARG:HG2	2.22	0.55
22:AV:55:U:C6	22:AV:57:A:OP2	2.59	0.55
35:DA:1747(A):G:C3'	35:DA:1748:G:H5''	2.37	0.55
35:DA:612:C:C3'	35:DA:613:G:H5''	2.37	0.55
50:BS:89:ARG:CB	50:BS:92:TYR:HB3	2.32	0.55
57:BZ:59:LEU:HG	57:BZ:69:THR:OG1	2.07	0.55
47:BP:40:SER:HB3	47:BP:41:ARG:NH2	2.22	0.55
40:BF:67:GLN:CG	40:BF:67:GLN:O	2.37	0.55
2:CB:102:LEU:HD12	2:CB:102:LEU:H	1.71	0.55
2:CB:74:LYS:HB3	2:CB:169:LYS:HE2	1.88	0.55
2:CB:200:ILE:HD12	2:CB:200:ILE:O	2.07	0.55
47:DP:78:PRO:HA	47:DP:110:TYR:CE1	2.41	0.55
47:BP:99:LEU:O	47:BP:99:LEU:HD23	2.06	0.55
4:CD:101:LEU:CD2	4:CD:121:VAL:HG13	2.33	0.55
1:AA:1219:U:H2'	1:AA:1220:G:H8	1.70	0.55
45:DN:58:ASP:O	45:DN:60:ILE:N	2.39	0.55
1:AA:33:A:H2'	1:AA:34:C:C5'	2.37	0.55
35:DA:2681:C:H5	35:DA:2725:A:N6	1.95	0.55
39:DE:78:LEU:O	39:DE:79:ARG:HD2	2.05	0.55
1:AA:1187:G:OP1	9:AI:113:LYS:HE2	2.06	0.55
27:D2:69:ARG:HB3	27:D2:70:GLN:OE1	2.06	0.55
53:DV:5:VAL:HG21	53:DV:35:LEU:CG	2.36	0.55
35:BA:2732:G:H3'	35:BA:2733:A:H5'	1.83	0.55
35:DA:1022:G:N2	35:DA:1142(A):A:C2	2.73	0.55
1:CA:1004:A:N6	1:CA:1034:G:H2'	2.19	0.55
48:DQ:21:THR:HG23	48:DQ:101:ARG:HB2	1.87	0.55
43:DI:68:LEU:HD13	43:DI:108:THR:HB	1.88	0.55
36:BB:110:G:H2'	36:BB:111:G:H8	1.70	0.55
40:DF:101:LEU:O	40:DF:106:ARG:NH1	2.39	0.55
14:AN:33:VAL:HG12	14:AN:40:CYS:CA	2.37	0.55
38:DD:176:ARG:HH11	38:DD:176:ARG:HG2	1.72	0.55
56:DY:4:LYS:HD2	56:DY:5:MET:N	2.21	0.55
38:BD:176:ARG:HG2	38:BD:176:ARG:HH11	1.71	0.55
35:BA:2019:A:H4'	52:BU:34:LYS:HD2	1.88	0.55
17:AQ:53:LEU:HD21	17:AQ:85:VAL:HG11	1.87	0.55
4:CD:61:LYS:HG3	4:CD:203:VAL:HG13	1.88	0.55
49:DR:84:ALA:HB3	49:DR:85:PRO:HD3	1.88	0.55
37:BC:46:LYS:HZ3	37:BC:46:LYS:HB2	1.69	0.55
1:CA:936:C:H2'	1:CA:937:A:C8	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:62:GLN:O	4:AD:66:ARG:HG2	2.06	0.55
18:CR:44:LEU:O	18:CR:45:SER:C	2.43	0.55
22:AV:40:C:O2'	22:AV:41:C:H5'	2.05	0.55
39:BE:181:LEU:HD21	51:BT:7:ILE:CG2	2.35	0.55
35:BA:1789:A:H5'	38:BD:221:VAL:HG12	1.89	0.55
42:BH:57:ASP:O	42:BH:62:LYS:HE3	2.05	0.55
35:BA:814:C:H2'	35:BA:815:C:H6	1.70	0.55
35:DA:1291:C:H2'	35:DA:1292:U:C6	2.41	0.55
57:BZ:22:GLY:O	57:BZ:41:LEU:HB2	2.05	0.55
35:DA:1517:G:O2'	35:DA:1518:U:H5'	2.05	0.55
1:CA:99:U:H2'	1:CA:100:C:C6	2.41	0.55
55:DX:18:TYR:O	55:DX:20:GLY:N	2.40	0.55
8:CH:97:VAL:CG1	8:CH:98:LYS:N	2.69	0.55
24:AY:74:SER:CA	24:AY:75:PHE:CD1	2.87	0.55
58:CX:19:G:H5''	58:CX:19:G:C4	2.34	0.55
22:CV:33:U:O2	22:CV:35:A:H8	1.89	0.55
56:DY:7:VAL:CB	56:DY:8:LYS:HD2	2.33	0.55
1:AA:1442(A):G:H3'	1:AA:1442(B):A:H5''	1.88	0.55
51:BT:91:ARG:HB3	51:BT:116:ALA:CA	2.31	0.55
36:DB:7:G:H3'	36:DB:8:U:C5'	2.20	0.55
52:DU:95:LEU:C	52:DU:97:ASP:H	2.09	0.55
57:BZ:166:SER:OG	57:BZ:168:GLU:N	2.40	0.55
1:CA:1070:U:O2'	1:CA:1071:C:H5'	2.06	0.55
15:CO:67:LEU:HB3	15:CO:78:TYR:HE1	1.72	0.55
47:DP:114:ILE:HD12	47:DP:115:LEU:N	2.21	0.55
7:CG:113:GLU:CG	7:CG:119:ARG:HG2	2.37	0.55
19:AS:33:THR:HG22	19:AS:34:TRP:H	1.70	0.55
43:DI:83:ALA:N	43:DI:89:TYR:HD1	2.04	0.55
41:DG:59:GLU:HG3	41:DG:60:LEU:H	1.70	0.55
41:BG:138:GLN:HE21	41:BG:153:ARG:N	2.05	0.55
49:BR:10:LEU:HB3	49:BR:17:ARG:CD	2.37	0.55
51:DT:98:LYS:HB3	51:DT:100:TYR:CE1	2.41	0.55
51:BT:125:ARG:C	51:BT:127:ALA:H	2.10	0.55
35:DA:330:A:O2'	35:DA:331:A:C8	2.58	0.55
1:AA:1107:C:OP1	3:AC:174:PRO:HG3	2.06	0.55
1:CA:1176:A:H2'	1:CA:1177:G:C8	2.40	0.55
1:AA:918:A:H2'	1:AA:919:A:C8	2.41	0.55
7:AG:54:THR:HG22	7:AG:56:GLN:H	1.71	0.55
4:CD:184:LYS:HB3	4:CD:184:LYS:HZ3	1.69	0.55
19:AS:63:THR:HG22	19:AS:66:MET:SD	2.47	0.55
1:CA:1190:G:OP1	3:CC:4:LYS:HA	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:38:A:C2	22:AV:39:C:H1'	2.41	0.55
27:D2:11:GLU:O	27:D2:15:LYS:HD3	2.06	0.55
35:BA:34:C:H2'	35:BA:35:G:H5'	1.88	0.55
1:AA:828:A:H2'	1:AA:829:G:O4'	2.07	0.55
35:BA:2883:A:H5'	35:BA:2884:U:H5'	1.89	0.55
52:BU:61:TRP:O	52:BU:62:ILE:C	2.45	0.55
1:AA:171:A:H2'	1:AA:172:A:C8	2.42	0.55
12:AL:38:ARG:NH2	24:AY:5:TYR:O	2.33	0.55
22:CV:55:U:C6	22:CV:55:U:H5'	2.36	0.55
1:CA:401:C:OP2	4:CD:73:ARG:NE	2.39	0.55
49:DR:17:ARG:O	49:DR:20:LEU:HB3	2.06	0.55
7:CG:12:LEU:HD12	7:CG:21:VAL:O	2.05	0.55
47:DP:62:LEU:H	47:DP:62:LEU:HD22	1.72	0.55
50:BS:71:ARG:HH11	50:BS:71:ARG:HG3	1.72	0.55
35:DA:873:G:O2'	35:DA:874:G:H5'	2.06	0.55
53:BV:59:ALA:HB2	53:BV:96:ILE:HD13	1.87	0.55
50:BS:18:ILE:O	50:BS:20:ARG:N	2.38	0.55
40:BF:34:TRP:CZ2	47:BP:12:ALA:HB2	2.42	0.55
45:DN:24:GLY:C	45:DN:26:LEU:N	2.59	0.55
47:DP:16:ARG:HD3	47:DP:16:ARG:C	2.27	0.55
4:CD:190:ASP:O	4:CD:194:LEU:HD23	2.06	0.55
1:CA:1446:U:H4'	1:CA:1447:A:C8	2.42	0.55
25:D0:77:ARG:NH2	35:DA:857:C:OP2	2.37	0.55
1:CA:1207:G:C2'	1:CA:1208:C:H6	2.18	0.55
26:D1:75:GLU:O	26:D1:77:ALA:N	2.39	0.55
7:CG:15:ASP:HB3	7:CG:19:GLY:CA	2.36	0.55
21:CU:6:ARG:NH2	21:CU:15:ARG:NH2	2.51	0.55
7:CG:146:GLU:CA	7:CG:149:ARG:HB2	2.36	0.55
3:AC:206:GLU:HG2	3:AC:207:VAL:N	2.22	0.55
8:AH:97:VAL:CG1	8:AH:98:LYS:N	2.69	0.55
34:D9:7:VAL:HG12	34:D9:34:GLN:NE2	2.19	0.55
1:CA:774:G:H2'	1:CA:775:G:H8	1.71	0.55
39:DE:170:LEU:HB3	39:DE:184:VAL:HG12	1.88	0.55
4:AD:100:ARG:CZ	4:AD:137:SER:HA	2.36	0.55
26:B1:52:ARG:O	26:B1:56:GLN:O	2.25	0.55
35:DA:360:G:H2'	35:DA:361:G:C8	2.42	0.55
11:AK:17:GLY:N	11:AK:80:VAL:HG12	2.21	0.55
35:BA:909:A:H2'	35:BA:912:C:C5	2.42	0.55
22:CW:66:C:C2'	22:CW:67:C:H5'	2.36	0.55
43:DI:114:LEU:C	43:DI:116:LEU:H	2.09	0.55
1:AA:1298:C:H4'	1:AA:1299:A:N3	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CR:33:ASP:O	18:CR:40:LEU:HD11	2.05	0.55
35:BA:1856:G:C2'	35:BA:1857:G:H5'	2.36	0.55
57:DZ:109:ALA:HB1	57:DZ:146:ILE:HG13	1.89	0.55
38:DD:168:ARG:O	38:DD:169:GLU:HB2	2.06	0.55
35:BA:796:C:H2'	35:BA:797:C:C6	2.41	0.55
55:DX:11:PRO:HB3	55:DX:92:LEU:HD21	1.87	0.55
35:BA:1678:G:N2	35:BA:1989:G:H22	2.04	0.55
35:DA:958:U:H5''	48:DQ:14:ARG:HD3	1.89	0.55
35:DA:2562:U:H1'	46:DO:23:ARG:HE	1.71	0.55
42:DH:41:MET:HE2	42:DH:54:ARG:HA	1.88	0.55
35:DA:1915:U:H2'	35:DA:1916:A:C5'	2.36	0.55
22:AV:55:U:C5	22:AV:57:A:OP2	2.59	0.55
57:DZ:144:LEU:CG	57:DZ:150:LEU:HD22	2.32	0.55
52:DU:92:ARG:CG	52:DU:94:ASN:HB3	2.37	0.55
33:B8:6:THR:OG1	33:B8:8:LYS:HE3	2.06	0.55
1:AA:1152:A:H2'	1:AA:1153:C:C6	2.42	0.55
57:BZ:39:VAL:HG21	57:BZ:44:PHE:HD2	1.72	0.55
57:BZ:39:VAL:HG23	57:BZ:40:ASP:N	2.22	0.55
1:CA:1120:G:H1	1:CA:1153:C:H42	1.55	0.55
8:CH:29:SER:HB3	8:CH:32:LYS:HG3	1.87	0.55
35:BA:1204:A:N1	35:BA:1241:A:H2	2.04	0.55
47:DP:8:PRO:C	47:DP:10:PRO:HD3	2.27	0.55
3:AC:134:ILE:O	3:AC:138:VAL:HG23	2.07	0.55
29:B4:12:ALA:HB1	29:B4:29:PRO:HA	1.89	0.55
26:B1:73:LEU:CD1	26:B1:94:LEU:HD22	2.30	0.55
11:AK:105:VAL:HB	11:AK:108:ILE:HD11	1.89	0.55
3:CC:44:GLU:OE1	3:CC:52:LEU:HD21	2.06	0.55
20:AT:14:LYS:HE2	20:AT:18:GLN:OE1	2.06	0.55
50:DS:74:ALA:HB1	50:DS:103:GLU:HG2	1.89	0.55
54:DW:17:VAL:O	54:DW:18:ARG:C	2.44	0.55
45:DN:55:VAL:HG22	45:DN:126:PRO:CA	2.35	0.55
57:DZ:139:VAL:HG11	57:DZ:155:LEU:HB3	1.88	0.55
20:CT:12:ALA:O	20:CT:15:ARG:HB2	2.06	0.55
15:CO:66:LEU:N	15:CO:66:LEU:HD12	2.21	0.55
1:AA:692:U:H2'	1:AA:694:A:OP2	2.07	0.55
40:BF:135:LYS:HB3	40:BF:138:GLU:HG3	1.88	0.55
25:B0:51:VAL:CG2	25:B0:81:VAL:HG23	2.36	0.55
38:BD:182:LEU:H	38:BD:272:ALA:HB3	1.72	0.55
47:BP:140:ALA:O	47:BP:141:ALA:CB	2.54	0.55
1:AA:1268:A:H2'	1:AA:1269:A:C8	2.42	0.55
2:AB:34:ALA:O	2:AB:41:ILE:HB	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:860:U:O2	35:DA:860:U:O4'	2.25	0.55
55:DX:29:TRP:CE3	55:DX:78:LYS:HB3	2.42	0.55
1:CA:60:A:H8	1:CA:60:A:P	2.30	0.55
16:AP:28:ARG:NH1	16:AP:29:ASP:OD2	2.39	0.55
1:AA:222:U:H2'	1:AA:223:U:C6	2.42	0.55
26:B1:57:GLU:OE1	26:B1:57:GLU:O	2.25	0.55
35:DA:2746:U:C2'	35:DA:2747:G:H5'	2.37	0.55
18:AR:25:THR:O	18:AR:25:THR:HG22	2.06	0.55
11:CK:103:LEU:N	11:CK:103:LEU:HD22	2.22	0.55
35:BA:832:G:H21	47:BP:53:GLY:CA	2.20	0.55
1:AA:313:A:H2'	1:AA:314:C:C6	2.42	0.55
29:B4:14:ILE:N	29:B4:14:ILE:HD12	2.21	0.55
35:BA:1744:C:H2'	35:BA:1745:C:H5'	1.87	0.55
1:CA:513:C:H2'	1:CA:514:C:C6	2.41	0.55
35:BA:2383:G:O2'	35:BA:2384:G:H5'	2.06	0.55
35:DA:977:G:O2'	35:DA:978:G:H5'	2.06	0.55
4:AD:155:LEU:HB2	4:AD:158:ILE:HB	1.87	0.55
35:DA:2639:A:H2'	35:DA:2640:G:H5'	1.88	0.55
26:B1:26:ARG:HG3	26:B1:26:ARG:HH11	1.72	0.55
35:BA:2619:C:O2'	35:BA:2620:C:H5'	2.06	0.55
35:BA:2161:C:H2'	35:BA:2162:G:O4'	2.06	0.55
12:CL:17:LYS:HD3	12:CL:17:LYS:N	2.21	0.55
1:AA:997:U:H2'	1:AA:998:G:C8	2.42	0.55
36:DB:107:G:O2'	36:DB:108:U:H5'	2.06	0.55
29:D4:14:ILE:O	29:D4:21:VAL:HA	2.07	0.55
35:BA:898:C:H2'	35:BA:899:A:O4'	2.06	0.55
36:DB:17:C:H2'	36:DB:18:G:O4'	2.06	0.55
32:B7:30:VAL:HG22	32:B7:33:ARG:HH12	1.72	0.55
23:AX:23:A:O2'	23:AX:24:A:C8	2.60	0.55
42:BH:15:VAL:HG23	42:BH:16:SER:N	2.22	0.55
42:DH:8:PRO:O	42:DH:9:ILE:CB	2.55	0.55
47:BP:57:THR:HG23	47:BP:59:LEU:HB3	1.89	0.55
22:CV:55:U:C2'	22:CV:56:C:C5	2.89	0.55
13:CM:91:ARG:HB2	13:CM:98:VAL:HG22	1.88	0.55
56:DY:81:LYS:CE	56:DY:97:ARG:HH21	2.19	0.55
14:CN:41:ARG:HE	14:CN:42:ILE:CD1	2.20	0.55
22:AW:34:C:H2'	22:AW:35:A:C8	2.42	0.55
35:BA:587:C:C5	47:BP:33:ARG:HD3	2.42	0.55
52:BU:83:LEU:H	52:BU:83:LEU:CD1	2.19	0.55
52:DU:70:ARG:HA	52:DU:74:LEU:O	2.07	0.55
51:DT:30:VAL:HG13	51:DT:84:GLN:HB2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:B8:48:PHE:O	33:B8:49:VAL:CG2	2.50	0.55
31:D6:12:GLU:N	31:D6:12:GLU:CD	2.60	0.55
1:CA:862:C:C2'	1:CA:863:U:H5'	2.37	0.55
1:CA:660:G:H2'	1:CA:661:G:H8	1.72	0.55
2:AB:12:GLU:OE2	2:AB:44:LEU:HD12	2.07	0.55
41:DG:43:LEU:CD2	41:DG:90:LEU:HD13	2.37	0.55
19:AS:47:HIS:O	19:AS:62:ILE:HG22	2.06	0.55
6:AF:69:GLU:CD	6:AF:69:GLU:H	2.08	0.55
1:AA:356:A:H1'	1:AA:368:U:O2'	2.07	0.55
35:BA:2469:A:O2'	48:BQ:56:ARG:HD2	2.07	0.55
1:CA:501:C:H2'	1:CA:502:G:C8	2.36	0.55
39:DE:52:LEU:HD12	39:DE:53:PRO:HD2	1.89	0.55
39:DE:78:LEU:HD12	39:DE:78:LEU:H	1.70	0.55
45:BN:132:ALA:O	45:BN:133:GLN:HB3	2.05	0.55
37:DC:82:LYS:HZ2	37:DC:86:ALA:HB1	1.70	0.55
10:CJ:46:ARG:HH11	10:CJ:46:ARG:HG2	1.72	0.55
38:DD:79:VAL:CG2	38:DD:111:LEU:HD11	2.31	0.55
1:CA:947:G:H2'	1:CA:948:C:C6	2.41	0.55
35:DA:2376:A:H2'	35:DA:2377:A:O4'	2.07	0.55
50:DS:50:SER:O	50:DS:76:LYS:HE2	2.07	0.55
43:BI:52:ARG:HH11	43:BI:53:ALA:CB	2.20	0.55
1:CA:1187:G:OP1	9:CI:113:LYS:HE2	2.07	0.55
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.07	0.55
6:CF:97:PHE:HD2	18:CR:31:LEU:HD21	1.71	0.55
3:CC:9:GLY:HA3	14:CN:49:HIS:HA	1.88	0.55
51:BT:128:GLU:CD	51:BT:129:ARG:N	2.60	0.55
3:AC:16:ARG:NE	3:AC:54:ARG:HH21	2.00	0.55
38:BD:186:HIS:HD2	38:BD:188:GLU:H	1.55	0.55
35:DA:2889:C:H2'	35:DA:2891:G:O4'	2.07	0.55
35:DA:1766:U:O2'	35:DA:1767:C:H5'	2.06	0.55
1:CA:707:C:O2	11:CK:39:PRO:HD3	2.06	0.55
1:AA:711:G:O2'	1:AA:712:A:H5'	2.06	0.55
4:AD:156:GLU:HG2	4:AD:160:GLN:NE2	2.21	0.55
46:BO:71:ARG:HH12	51:BT:74:ARG:NH2	2.05	0.55
2:AB:155:LEU:CD2	2:AB:159:PRO:HG3	2.37	0.55
35:BA:150:C:H2'	35:BA:151:C:C6	2.42	0.55
35:DA:2533:A:H2'	35:DA:2534:A:H5'	1.88	0.55
6:AF:3:ARG:HB3	6:AF:93:SER:HB2	1.89	0.55
35:BA:2584:U:H2'	35:BA:2585:U:H2'	1.88	0.55
42:BH:118:PRO:HG2	42:BH:121:ILE:HG13	1.88	0.55
6:AF:28:ARG:HH11	6:AF:28:ARG:HG3	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:BX:18:TYR:O	55:BX:20:GLY:N	2.40	0.55
11:AK:96:ARG:HG2	11:AK:96:ARG:HH11	1.71	0.55
39:DE:176:ILE:HG22	39:DE:176:ILE:O	2.07	0.55
35:BA:1762:A:O5'	35:BA:1762:A:H8	1.90	0.55
13:CM:104:ARG:O	13:CM:105:THR:HG23	2.06	0.55
1:CA:977:A:H2'	1:CA:978:A:H5'	1.89	0.55
35:BA:1991:U:H2'	35:BA:1992:G:H5''	1.88	0.55
1:CA:643:C:O2'	1:CA:644:G:H5'	2.07	0.55
8:CH:92:ARG:HB3	8:CH:94:TYR:CE2	2.41	0.55
35:DA:864:G:C2'	35:DA:866:A:H62	2.19	0.55
1:CA:1188:A:H5''	14:CN:58:LYS:HZ1	1.71	0.55
1:CA:926:G:H21	1:CA:1505:G:H2'	1.70	0.55
47:DP:23:PRO:O	47:DP:33:ARG:NH1	2.39	0.55
47:BP:34:GLY:O	47:BP:35:HIS:HB2	2.07	0.55
16:AP:9:PHE:HB2	16:AP:16:HIS:O	2.07	0.55
33:D8:59:LYS:O	33:D8:61:LEU:HD23	2.07	0.55
33:D8:62:LEU:N	33:D8:63:PRO:HD2	2.22	0.55
40:DF:4:VAL:HG12	40:DF:17:ARG:HH11	1.72	0.55
42:BH:84:SER:O	42:BH:85:LYS:HB3	2.05	0.55
51:DT:89:VAL:O	51:DT:91:ARG:N	2.38	0.55
50:BS:97:ARG:HG2	50:BS:97:ARG:NH1	2.22	0.55
2:CB:87:ARG:HE	2:CB:223:ILE:CD1	2.19	0.55
2:CB:178:ARG:NH2	8:CH:68:ARG:NH2	2.54	0.55
35:BA:637:A:H2'	47:BP:117:GLU:OE2	2.07	0.55
5:AE:79:GLU:CD	5:AE:79:GLU:H	2.10	0.55
1:AA:178:C:C3'	1:AA:179:A:H5''	2.37	0.55
1:AA:1323:G:H2'	1:AA:1324:A:H8	1.70	0.55
4:CD:126:ILE:HG22	4:CD:127:THR:H	1.72	0.55
48:BQ:54:MET:HG2	48:BQ:64:ILE:HD13	1.89	0.55
41:BG:117:PHE:CZ	41:BG:179:PRO:HG2	2.41	0.55
35:BA:1786:A:C2	35:BA:2606:C:H1'	2.42	0.55
35:DA:1495:A:N3	35:DA:1495:A:H2'	2.20	0.55
51:DT:32:TYR:HB3	51:DT:81:PRO:O	2.07	0.55
54:DW:10:VAL:O	54:DW:11:ARG:HB2	2.07	0.55
43:BI:52:ARG:HD3	43:BI:53:ALA:H	1.69	0.55
35:DA:2103:C:H2'	35:DA:2104:G:H5''	1.87	0.55
2:CB:142:LEU:HD21	2:CB:146:GLN:NE2	2.22	0.55
35:BA:2876:G:H4'	51:BT:3:ARG:HG2	1.89	0.55
4:AD:156:GLU:O	4:AD:160:GLN:HG3	2.07	0.55
1:AA:129(A):G:N2	1:AA:189(F):U:H5''	2.22	0.55
12:AL:40:VAL:CG2	12:AL:52:VAL:HG21	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AW:57:A:H2'	22:AW:58:A:H5'	1.88	0.55
1:AA:862:C:C2'	1:AA:863:U:H5'	2.37	0.55
18:CR:58:LEU:HD23	18:CR:62:GLU:HB3	1.89	0.55
1:AA:1070:U:O2'	1:AA:1071:C:H5'	2.06	0.55
35:DA:158:U:H4'	35:DA:171:G:C5	2.42	0.55
35:DA:1668:A:H4'	35:DA:1669:A:O5'	2.06	0.55
12:CL:17:LYS:H	12:CL:17:LYS:HD3	1.70	0.55
35:DA:2161:C:H2'	35:DA:2162:G:O4'	2.06	0.55
52:DU:61:TRP:O	52:DU:62:ILE:C	2.43	0.55
35:BA:2662:A:H2'	35:BA:2663:G:O4'	2.05	0.55
32:D7:39:ARG:HD3	35:DA:458:G:O2'	2.07	0.55
57:BZ:93:ASP:HA	57:BZ:130:PRO:HD2	1.89	0.55
35:BA:2600:A:H2'	35:BA:2601:C:C6	2.41	0.55
41:BG:70:VAL:O	41:BG:70:VAL:HG13	2.07	0.55
51:DT:34:VAL:O	51:DT:34:VAL:HG12	2.07	0.55
35:DA:2364:C:H2'	35:DA:2365:G:O4'	2.06	0.55
14:CN:46:GLU:O	14:CN:50:LYS:HG3	2.07	0.55
1:CA:789:U:O2	1:CA:792:A:H8	1.89	0.55
42:BH:54:ARG:NH1	42:BH:54:ARG:HG2	2.19	0.55
41:BG:83:ARG:C	41:BG:84:LYS:HD2	2.28	0.55
35:BA:1490:A:C8	35:BA:1490:A:OP2	2.60	0.55
56:DY:95:LYS:HZ2	56:DY:99:CYS:N	1.99	0.55
1:CA:1501:C:C4	1:CA:1504:G:C6	2.95	0.55
40:BF:116:ASP:O	40:BF:120:GLU:HG3	2.06	0.55
53:BV:47:VAL:HB	53:BV:49:THR:O	2.07	0.55
56:BY:7:VAL:CG2	56:BY:8:LYS:NZ	2.70	0.55
1:CA:865:A:H5'	1:CA:1078:U:O4	2.07	0.55
2:CB:12:GLU:OE2	2:CB:44:LEU:HD12	2.06	0.55
2:CB:178:ARG:HH21	8:CH:74:PRO:CB	2.19	0.55
19:CS:35:SER:O	19:CS:71:LEU:HD12	2.07	0.55
2:AB:46:LYS:HD2	2:AB:46:LYS:H	1.71	0.55
10:AJ:45:ARG:O	10:AJ:64:GLU:HA	2.06	0.55
1:CA:1144:G:H21	1:CA:1146:A:H62	1.52	0.55
35:BA:1114:G:H2'	35:BA:1115:G:H5''	1.87	0.55
35:DA:2732:G:H3'	35:DA:2733:A:H5'	1.85	0.55
8:AH:89:PRO:HA	8:AH:92:ARG:NH1	2.18	0.55
35:DA:1022:G:N7	45:DN:66:LYS:NZ	2.55	0.55
1:CA:1499:A:C1'	1:CA:1520:G:H5'	2.36	0.55
45:DN:119:ARG:CG	45:DN:119:ARG:HH11	2.20	0.55
43:DI:102:SER:HB3	43:DI:108:THR:O	2.07	0.55
22:AW:3:C:H2'	22:AW:4:G:C5'	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:DV:99:ILE:O	53:DV:101:GLY:N	2.39	0.55
56:BY:2:ARG:N	56:BY:4:LYS:HG3	2.21	0.55
21:AU:6:ARG:HE	21:AU:15:ARG:NH1	2.05	0.55
2:AB:112:VAL:C	2:AB:114:ARG:H	2.10	0.55
5:CE:40:ARG:HB3	5:CE:66:MET:HE3	1.88	0.55
16:CP:5:ARG:NE	16:CP:22:THR:HG21	2.21	0.55
38:DD:70:TRP:HZ3	38:DD:146:GLU:CD	2.10	0.55
31:D6:15:GLU:OE1	31:D6:18:ARG:HD2	2.07	0.55
1:CA:259:G:H1	1:CA:267:C:H42	1.52	0.55
35:BA:1453:U:OP1	49:BR:77:ARG:HD3	2.07	0.55
40:BF:65:TRP:CH2	40:BF:72:ARG:HB3	2.41	0.55
35:DA:718:A:H2'	35:DA:719:C:H5'	1.88	0.55
1:AA:189(J):G:O2'	1:AA:189(K):U:H5'	2.07	0.55
26:B1:29:GLY:HA3	35:BA:2396:G:O2'	2.07	0.55
35:BA:1188:U:C2'	35:BA:1189:A:H5'	2.37	0.55
39:BE:184:VAL:O	39:BE:186:GLY:N	2.37	0.55
1:CA:532:A:H3'	1:CA:533:A:H5''	1.89	0.55
35:BA:2347:C:H2'	35:BA:2348:U:H6	1.71	0.55
6:AF:100:ASN:ND2	18:AR:23:LYS:NZ	2.54	0.55
17:CQ:50:LYS:HG3	17:CQ:51:TYR:H	1.72	0.55
35:BA:535:C:O2'	35:BA:536:A:H5'	2.07	0.55
1:AA:841:U:H3'	1:AA:848:C:H5'	1.89	0.55
35:DA:2463:C:O2'	35:DA:2464:C:H5'	2.07	0.55
35:DA:535:C:O2'	35:DA:536:A:H5'	2.06	0.55
1:AA:127:G:H2'	1:AA:128:G:H8	1.72	0.55
35:DA:708:C:H42	35:DA:723:G:H1	1.55	0.55
1:AA:596:C:O2'	1:AA:597:G:H5'	2.06	0.55
10:CJ:6:ILE:HG22	10:CJ:8:LEU:HG	1.88	0.55
35:DA:1388:G:O2'	35:DA:1389:G:H5'	2.07	0.55
41:BG:143:GLU:CD	41:BG:143:GLU:H	2.09	0.55
35:BA:314:A:O2'	35:BA:315:G:H5'	2.07	0.55
35:BA:1336:A:H2'	35:BA:1337:G:C8	2.42	0.55
29:D4:9:LEU:HD12	29:D4:26:SER:HA	1.89	0.55
35:DA:1915:U:C2'	35:DA:1916:A:O5'	2.54	0.55
58:CX:16:A:N1	58:CX:17:U:C6	2.74	0.55
40:BF:22:ALA:O	40:BF:26:ALA:CB	2.52	0.55
40:BF:22:ALA:HB1	40:BF:26:ALA:HA	1.89	0.55
50:BS:106:ARG:O	50:BS:106:ARG:HD2	2.06	0.55
35:BA:904:C:H5'	35:BA:904:C:H6	1.72	0.55
57:BZ:154:ASP:H	57:BZ:155:LEU:HD23	1.72	0.55
5:CE:19:MET:O	5:CE:20:GLN:HB2	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:51:LEU:HD23	2:AB:201:ILE:HD13	1.89	0.55
41:DG:48:GLU:HG3	41:DG:49:ASP:OD1	2.06	0.55
47:BP:146:VAL:HG22	47:BP:147:LEU:N	2.11	0.55
7:CG:29:LYS:HB2	7:CG:105:VAL:HG21	1.89	0.55
13:CM:22:ILE:HG21	13:CM:25:ILE:HD12	1.89	0.55
1:AA:985:C:H2'	1:AA:986:A:C8	2.42	0.55
19:AS:29:ARG:HD3	19:AS:48:THR:OG1	2.07	0.55
19:AS:41:VAL:HG22	29:B4:50:VAL:HG11	1.88	0.55
4:AD:135:LEU:HD13	4:AD:135:LEU:N	2.21	0.55
45:DN:15:LEU:HD23	45:DN:16:ILE:N	2.22	0.55
3:CC:12:LEU:HD13	14:CN:56:VAL:O	2.07	0.55
53:DV:81:TYR:C	53:DV:82:ARG:HD2	2.28	0.55
35:DA:2767:C:H2'	35:DA:2768:C:H6	1.72	0.55
1:CA:783:C:O2'	1:CA:784:C:H5'	2.06	0.55
36:DB:55:U:O2'	36:DB:56:G:H5'	2.07	0.55
26:D1:50:ARG:HG2	26:D1:59:THR:HB	1.89	0.55
39:BE:96:PHE:HA	39:BE:100:GLU:OE1	2.06	0.55
35:BA:105:C:H2'	35:BA:106:C:C6	2.42	0.55
35:BA:1171:G:H3'	35:BA:1173:G:O4'	2.06	0.55
12:AL:4:ILE:HG23	12:AL:5:ASN:N	2.22	0.55
1:CA:1440:C:H2'	1:CA:1441:G:O4'	2.06	0.55
13:AM:50:GLU:O	13:AM:53:VAL:HB	2.07	0.55
14:CN:27:CYS:HB3	14:CN:43:CYS:SG	2.47	0.55
1:AA:1169:A:H2'	1:AA:1170:A:O4'	2.07	0.55
16:AP:59:TRP:HA	16:AP:62:VAL:HG22	1.89	0.55
50:DS:57:LYS:O	50:DS:58:LEU:HD23	2.07	0.55
1:CA:73:G:H1	1:CA:96:U:H3	1.54	0.55
11:CK:84:VAL:HG22	11:CK:110:ASP:HA	1.88	0.55
26:B1:62:VAL:CG2	26:B1:63:ALA:N	2.69	0.55
39:DE:41:LYS:HZ3	39:DE:41:LYS:HB2	1.71	0.55
35:BA:2777:G:C4'	35:BA:2778:A:H5'	2.36	0.55
35:BA:860:U:O4'	35:BA:860:U:O2	2.24	0.55
38:BD:155:LEU:HD23	38:BD:177:LEU:HD21	1.89	0.55
4:CD:129:ASN:HD21	4:CD:144:ASP:HA	1.72	0.55
39:DE:9:VAL:HG22	39:DE:25:VAL:HB	1.88	0.55
52:DU:47:TYR:HA	52:DU:50:ARG:NH2	2.22	0.55
35:DA:1856:G:H2'	35:DA:1857:G:H5'	1.89	0.55
35:DA:1221:C:H2'	35:DA:1221(A):C:H6	1.72	0.55
7:AG:138:LYS:HE2	7:AG:142:GLU:OE1	2.06	0.55
35:DA:1165:U:H2'	35:DA:1166:C:C6	2.42	0.55
35:BA:57:C:H2'	35:BA:58:G:O4'	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1006:C:O2	45:DN:106:MET:HG2	2.06	0.55
51:DT:54:ARG:HG2	51:DT:54:ARG:HH11	1.72	0.55
12:AL:17:LYS:H	12:AL:17:LYS:HD3	1.72	0.55
56:DY:3:VAL:O	56:DY:3:VAL:HG12	2.07	0.55
38:DD:141:VAL:O	38:DD:141:VAL:HG23	2.07	0.55
42:DH:88:LEU:HD23	42:DH:130:ARG:HG3	1.88	0.55
35:DA:2883:A:H5'	35:DA:2884:U:H5'	1.89	0.55
54:DW:28:SER:OG	54:DW:31:GLU:HB2	2.07	0.55
42:BH:8:PRO:C	42:BH:9:ILE:CG2	2.60	0.54
42:BH:8:PRO:O	42:BH:9:ILE:CB	2.55	0.54
42:DH:83:TYR:CB	42:DH:135:GLY:N	2.68	0.54
35:BA:1532:C:H1'	35:BA:1533:G:H21	1.71	0.54
51:BT:16:ARG:NH1	51:BT:19:LEU:HD21	2.22	0.54
51:BT:29:ARG:HD3	51:BT:30:VAL:H	1.71	0.54
50:BS:71:ARG:NH1	50:BS:71:ARG:HG3	2.22	0.54
41:DG:53:LEU:N	41:DG:53:LEU:HD22	2.22	0.54
47:BP:38:GLN:HG3	47:BP:39:LYS:N	2.06	0.54
57:DZ:3:TYR:HB2	57:DZ:56:VAL:O	2.07	0.54
31:B6:11:LEU:O	31:B6:23:THR:HA	2.06	0.54
2:AB:97:TRP:CH2	2:AB:172:ILE:HB	2.41	0.54
57:BZ:38:TYR:O	57:BZ:38:TYR:CD1	2.60	0.54
1:CA:1377:A:HO2'	7:CG:2:ALA:N	2.05	0.54
47:DP:7:ARG:CD	47:DP:7:ARG:H	2.20	0.54
43:BI:93:THR:O	43:BI:97:ILE:HG13	2.08	0.54
35:DA:2392:A:H8	47:DP:60:MET:HB2	1.72	0.54
1:AA:1280:A:H5''	10:AJ:41:PRO:HD2	1.88	0.54
51:BT:53:ARG:HH11	51:BT:53:ARG:CB	2.12	0.54
3:AC:18:TRP:C	3:AC:20:SER:H	2.10	0.54
1:CA:1488:G:C2	1:CA:1489:G:N7	2.75	0.54
1:CA:1426:C:O2'	1:CA:1427:U:H5'	2.07	0.54
35:DA:2118:U:O2'	35:DA:2119:A:H5''	2.08	0.54
35:DA:2040:C:H2'	35:DA:2041:U:C6	2.41	0.54
1:CA:1053:G:N7	1:CA:1199:U:H3'	2.22	0.54
8:CH:30:ARG:CB	8:CH:30:ARG:HH11	2.19	0.54
51:BT:2:ASN:O	51:BT:3:ARG:C	2.45	0.54
35:BA:17:G:H4'	52:BU:25:TRP:CZ3	2.42	0.54
35:DA:2777:G:C4'	35:DA:2778:A:H5'	2.37	0.54
30:B5:52:TYR:O	30:B5:56:LYS:NZ	2.41	0.54
48:DQ:139:GLU:C	48:DQ:141:GLN:H	2.10	0.54
39:DE:36:ARG:HH21	39:DE:88:GLY:HA2	1.70	0.54
40:DF:65:TRP:CH2	40:DF:72:ARG:HB3	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DC:47:LEU:HA	37:DC:207:THR:HA	1.89	0.54
25:D0:56:ASP:O	25:D0:57:PHE:HB2	2.06	0.54
1:CA:677:U:H3	1:CA:714:G:H22	1.53	0.54
35:DA:1896:G:H2'	35:DA:1897:G:H8	1.71	0.54
43:BI:50:ARG:O	43:BI:54:GLN:HB2	2.07	0.54
35:DA:1252:G:N3	52:DU:33:ARG:HD2	2.22	0.54
35:BA:2052:G:H4'	39:BE:143:ASN:O	2.06	0.54
27:B2:30:ARG:HB2	55:BX:5:TYR:CE1	2.43	0.54
1:AA:1314:C:H2'	1:AA:1315:U:C6	2.42	0.54
42:BH:16:SER:CB	42:BH:27:LYS:HB3	2.22	0.54
27:D2:47:ASN:HD22	35:DA:94(A):G:N2	2.04	0.54
57:DZ:151:HIS:CA	57:DZ:171:ILE:HG12	2.24	0.54
52:DU:83:LEU:H	52:DU:83:LEU:HD12	1.72	0.54
42:BH:84:SER:O	42:BH:133:VAL:O	2.25	0.54
35:BA:1902:C:H4'	38:BD:244:ARG:HA	1.87	0.54
2:CB:21:ARG:HB3	2:CB:39:ILE:HA	1.89	0.54
2:CB:80:ILE:HG22	2:CB:80:ILE:O	2.08	0.54
33:B8:29:LYS:O	33:B8:30:ARG:HG2	2.07	0.54
5:AE:101:ILE:HG12	5:AE:118:ILE:O	2.08	0.54
19:AS:58:VAL:O	19:AS:60:VAL:N	2.40	0.54
1:CA:339:C:OP2	46:DO:97:ARG:NH1	2.38	0.54
47:DP:98:GLU:O	47:DP:101:VAL:HG22	2.07	0.54
40:DF:34:TRP:CZ2	47:DP:12:ALA:HB2	2.42	0.54
43:DI:85:GLU:OE2	43:DI:85:GLU:HA	2.06	0.54
3:AC:44:GLU:OE1	3:AC:52:LEU:HD21	2.08	0.54
29:D4:12:ALA:HB1	29:D4:29:PRO:HA	1.88	0.54
11:CK:99:GLN:HG2	11:CK:105:VAL:HG21	1.89	0.54
3:CC:35:GLU:O	3:CC:39:ILE:HG13	2.06	0.54
57:DZ:105:VAL:HG12	57:DZ:139:VAL:O	2.07	0.54
51:BT:107:ASP:H	51:BT:110:ILE:HG12	1.73	0.54
1:CA:390:C:H4'	16:CP:28:ARG:NH2	2.22	0.54
38:DD:102:LYS:C	38:DD:103:ARG:HG2	2.27	0.54
4:CD:10:ARG:HG3	4:CD:40:PRO:HG2	1.88	0.54
1:AA:664:G:H22	1:AA:741:G:H1	1.56	0.54
4:CD:62:GLN:O	4:CD:66:ARG:HG2	2.07	0.54
28:B3:50:VAL:O	28:B3:54:VAL:HG23	2.07	0.54
35:DA:2022:U:O2'	35:DA:2617:C:H5'	2.07	0.54
35:BA:2341:G:H2'	35:BA:2342:C:H6	1.72	0.54
35:DA:2347:C:H2'	35:DA:2348:U:H6	1.73	0.54
51:BT:50:ILE:HD12	51:BT:99:LEU:HB2	1.89	0.54
35:BA:1856:G:H2'	35:BA:1857:G:H5'	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2716:U:O2'	35:DA:2717:G:H5'	2.07	0.54
46:DO:16:ALA:HB2	46:DO:52:VAL:HG21	1.90	0.54
52:BU:28:ARG:HG2	52:BU:38:THR:OG1	2.07	0.54
28:D3:15:TYR:CE1	28:D3:53:LEU:HD21	2.43	0.54
7:CG:65:ALA:HA	7:CG:128:ALA:HA	1.90	0.54
26:B1:40:ARG:NH2	26:B1:42:GLN:HG2	2.23	0.54
14:AN:46:GLU:O	14:AN:50:LYS:HG3	2.08	0.54
35:BA:1684:C:O2'	35:BA:1685:C:H5'	2.07	0.54
1:AA:1327:C:H2'	1:AA:1328:C:H6	1.72	0.54
11:CK:96:ARG:HH11	11:CK:96:ARG:HG2	1.71	0.54
56:BY:3:VAL:HG12	56:BY:3:VAL:O	2.07	0.54
28:B3:15:TYR:CE1	28:B3:53:LEU:HD21	2.43	0.54
1:AA:341:C:O2'	1:AA:342:C:H5'	2.07	0.54
35:DA:2064:C:H2'	35:DA:2065:C:C6	2.42	0.54
42:BH:12:PRO:CB	42:BH:15:VAL:HG21	2.23	0.54
24:AY:24:LEU:HD13	24:AY:25:LYS:H	1.73	0.54
24:AY:91:ASN:ND2	24:AY:91:ASN:O	2.40	0.54
35:DA:1276:A:O2'	49:DR:12:ARG:NH1	2.40	0.54
1:CA:939:G:H2'	1:CA:940:C:C6	2.42	0.54
47:DP:59:LEU:O	47:DP:59:LEU:HG	2.08	0.54
33:D8:48:PHE:C	33:D8:49:VAL:HG13	2.28	0.54
33:D8:53:PRO:HA	33:D8:56:GLU:HB3	1.88	0.54
1:AA:632:A:C3'	1:AA:633:G:C5'	2.85	0.54
1:CA:920:U:H1'	1:CA:1080:A:C2	2.41	0.54
41:BG:52:ILE:H	41:BG:52:ILE:CD1	2.03	0.54
41:DG:101:ILE:O	41:DG:105:LYS:HG3	2.08	0.54
41:DG:105:LYS:O	41:DG:109:VAL:HB	2.06	0.54
47:BP:146:VAL:CG2	47:BP:147:LEU:H	2.09	0.54
19:AS:39:THR:HG22	19:AS:40:ILE:N	2.17	0.54
12:CL:41:THR:CG2	24:CY:7:HIS:CA	2.79	0.54
10:AJ:24:VAL:O	10:AJ:28:ARG:HB2	2.07	0.54
4:AD:126:ILE:HG22	4:AD:127:THR:H	1.70	0.54
35:BA:2768:C:O2'	35:BA:2769:C:H5'	2.08	0.54
35:DA:1021:A:C3'	35:DA:1021:A:C8	2.90	0.54
49:DR:100:LEU:HD13	49:DR:112:ALA:CA	2.37	0.54
1:AA:1373:G:C5'	7:AG:36:LYS:HB2	2.35	0.54
1:AA:718:G:H5'	11:AK:117:ASN:CB	2.37	0.54
41:DG:139:LEU:HA	41:DG:144:ILE:HG22	1.88	0.54
35:BA:621:A:H2'	35:BA:622:G:C5'	2.37	0.54
39:DE:69:LYS:HZ2	39:DE:89:ASP:HA	1.71	0.54
49:BR:22:ARG:O	49:BR:26:LYS:HG3	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BO:71:ARG:NH1	46:BO:71:ARG:HG3	2.21	0.54
42:BH:89:ILE:HD11	42:BH:95:ARG:HA	1.88	0.54
34:B9:17:ILE:HD11	34:B9:19:ARG:HB2	1.89	0.54
30:D5:58:LEU:HD12	30:D5:58:LEU:H	1.72	0.54
49:BR:33:ARG:HG3	49:BR:115:GLU:HG2	1.89	0.54
1:CA:679:C:O2'	1:CA:680:C:H5'	2.07	0.54
29:D4:14:ILE:N	29:D4:14:ILE:HD12	2.21	0.54
35:DA:1935:G:H1'	35:DA:1964:G:N2	2.22	0.54
9:AI:122:ALA:HB1	9:AI:123:PRO:HD2	1.89	0.54
35:BA:118:A:H5'	35:BA:119:A:H8	1.71	0.54
56:DY:47:LYS:HD2	56:DY:47:LYS:H	1.72	0.54
54:DW:95:ILE:HG13	54:DW:95:ILE:O	2.07	0.54
1:CA:596:C:O2'	1:CA:597:G:H5'	2.07	0.54
33:B8:46:ARG:NH2	35:BA:631:A:OP2	2.41	0.54
1:CA:1401:G:P	58:CX:19:G:N2	2.76	0.54
56:DY:97:ARG:HB2	56:DY:97:ARG:HH11	1.72	0.54
47:DP:62:LEU:N	47:DP:62:LEU:HD13	2.22	0.54
51:BT:28:VAL:HG13	51:BT:45:PHE:C	2.27	0.54
5:CE:110:LEU:HD13	5:CE:115:VAL:HG11	1.89	0.54
51:DT:28:VAL:HG21	51:DT:46:GLU:CD	2.28	0.54
57:BZ:146:ILE:HA	57:BZ:174:VAL:HG11	1.89	0.54
31:D6:25:LYS:HE3	35:DA:2285:C:H41	1.73	0.54
5:CE:20:GLN:O	5:CE:23:GLY:O	2.24	0.54
2:CB:15:VAL:HG21	2:CB:209:ARG:CZ	2.38	0.54
57:DZ:10:ARG:HH21	57:DZ:26:GLY:N	2.02	0.54
35:BA:1568:G:C5'	38:BD:60:ARG:HA	2.36	0.54
41:DG:95:ARG:HB3	41:DG:96:ARG:HD2	1.90	0.54
35:BA:2014:A:H4'	54:BW:92:ARG:NH2	2.17	0.54
2:CB:46:LYS:HD2	2:CB:46:LYS:H	1.72	0.54
15:AO:36:ILE:HD12	15:AO:63:ARG:CD	2.38	0.54
57:DZ:81:ARG:NH1	57:DZ:81:ARG:HB3	2.22	0.54
57:DZ:76:LEU:HD22	57:DZ:82:ARG:N	2.22	0.54
19:AS:72:GLY:C	19:AS:74:PHE:H	2.09	0.54
22:AV:61:C:H2'	22:AV:62:C:C6	2.42	0.54
1:CA:626:U:H5''	16:CP:38:TYR:CE2	2.41	0.54
35:BA:2680:C:O2'	35:BA:2681:C:H5'	2.07	0.54
8:AH:29:SER:HB3	8:AH:32:LYS:HG3	1.90	0.54
51:DT:107:ASP:H	51:DT:110:ILE:HG12	1.72	0.54
1:AA:819:A:H4'	1:AA:820:U:OP2	2.07	0.54
35:BA:2485:G:H5''	48:BQ:46:GLN:HE21	1.73	0.54
38:BD:102:LYS:C	38:BD:103:ARG:HG2	2.28	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:52:ARG:HB2	38:BD:53:PHE:CE2	2.43	0.54
53:BV:24:LYS:N	53:BV:92:THR:HG22	2.22	0.54
43:BI:52:ARG:HH11	43:BI:53:ALA:CA	2.20	0.54
43:BI:102:SER:OG	43:BI:109:ILE:HD12	2.08	0.54
57:DZ:157:LEU:HB2	57:DZ:161:VAL:CG1	2.38	0.54
41:DG:20:ILE:O	41:DG:24:GLY:HA2	2.08	0.54
1:CA:1347:G:HO2'	1:CA:1373:G:H1	1.54	0.54
15:CO:66:LEU:N	15:CO:66:LEU:CD1	2.70	0.54
9:CI:10:ARG:HG2	9:CI:105:ASP:N	2.22	0.54
9:CI:13:ALA:HA	9:CI:67:GLY:O	2.07	0.54
26:B1:7:ILE:CG2	26:B1:66:HIS:HB3	2.36	0.54
2:CB:112:VAL:C	2:CB:114:ARG:H	2.10	0.54
1:CA:663:A:O2'	1:CA:664:G:H5'	2.07	0.54
17:AQ:44:ALA:HB2	17:AQ:59:ILE:HD12	1.90	0.54
35:DA:1045:A:H3'	35:DA:1045:A:N3	2.22	0.54
1:CA:933:G:OP2	7:CG:3:ARG:HB2	2.07	0.54
2:AB:152:PHE:CE2	2:AB:155:LEU:HB3	2.42	0.54
18:AR:44:LEU:O	18:AR:45:SER:C	2.44	0.54
35:BA:154(A):C:H41	35:BA:171:G:H1	1.53	0.54
7:AG:29:LYS:HB2	7:AG:105:VAL:HG21	1.90	0.54
49:BR:7:GLY:O	49:BR:8:ARG:CB	2.55	0.54
35:DA:476:G:H4'	35:DA:502:A:N1	2.23	0.54
35:DA:1411:C:H2'	35:DA:1412:A:C8	2.43	0.54
35:BA:1006:C:O2	45:BN:106:MET:HG2	2.08	0.54
11:CK:20:TYR:CZ	11:CK:83:ILE:HD12	2.43	0.54
12:AL:57:LEU:N	12:AL:57:LEU:HD22	2.22	0.54
1:CA:1134:G:H2'	1:CA:1135:U:H5'	1.88	0.54
35:BA:1705:G:O2'	35:BA:1706:U:H5'	2.07	0.54
47:BP:63:PRO:O	47:BP:64:LYS:C	2.45	0.54
1:CA:37:U:O4	1:CA:38:G:C6	2.60	0.54
22:AV:55:U:O4	22:AV:58:A:OP2	2.25	0.54
1:CA:1225:A:N6	1:CA:1226:C:N4	2.56	0.54
56:BY:81:LYS:NZ	56:BY:97:ARG:HH21	2.04	0.54
58:CX:16:A:C2	58:CX:17:U:C1'	2.91	0.54
42:DH:126:PRO:HB2	42:DH:127:GLU:OE1	2.07	0.54
57:DZ:170:THR:HG22	57:DZ:171:ILE:N	2.23	0.54
53:BV:16:PRO:O	53:BV:96:ILE:O	2.25	0.54
5:CE:12:LEU:HD13	5:CE:31:LEU:HB3	1.88	0.54
51:DT:83:ILE:CG1	51:DT:84:GLN:H	2.01	0.54
51:DT:85:LYS:HZ2	51:DT:85:LYS:C	2.09	0.54
1:CA:19:C:H2'	1:CA:20:U:C6	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:53:LEU:N	41:BG:53:LEU:HD22	2.22	0.54
41:DG:121:ASN:ND2	41:DG:122:PRO:HD2	2.12	0.54
41:DG:81:LYS:HB3	41:DG:81:LYS:HZ2	1.72	0.54
30:B5:2:ALA:HB3	35:BA:747:U:N1	2.23	0.54
36:BB:20:C:C3'	36:BB:21:G:H5''	2.37	0.54
47:BP:101:VAL:HG12	47:BP:107:LYS:N	2.21	0.54
36:DB:20:C:C3'	36:DB:21:G:H5''	2.38	0.54
1:AA:987:G:N2	1:AA:1219:U:H3	2.05	0.54
43:BI:85:GLU:OE2	43:BI:85:GLU:HA	2.07	0.54
48:BQ:134:ARG:HA	48:BQ:137:TYR:CD2	2.43	0.54
3:AC:132:ARG:HG2	3:AC:136:GLN:HB2	1.89	0.54
3:AC:20:SER:CB	3:AC:40:ARG:HH22	2.21	0.54
1:AA:1025:U:HO2'	1:AA:1026:G:H8	1.55	0.54
10:CJ:45:ARG:O	10:CJ:64:GLU:HA	2.07	0.54
38:BD:70:TRP:HZ3	38:BD:146:GLU:CD	2.11	0.54
48:DQ:46:GLN:NE2	48:DQ:126:PRO:HD3	2.22	0.54
57:DZ:157:LEU:HB2	57:DZ:161:VAL:HG11	1.87	0.54
1:CA:1347:G:H22	1:CA:1373:G:H2'	1.72	0.54
56:DY:46:LYS:N	56:DY:60:PHE:O	2.38	0.54
11:AK:124:LYS:HD2	11:AK:125:PHE:HE1	1.73	0.54
3:AC:6:HIS:CD2	3:AC:8:ILE:HG12	2.42	0.54
1:CA:763:G:H2'	1:CA:764:C:H6	1.72	0.54
41:DG:138:GLN:HG3	41:DG:139:LEU:N	2.22	0.54
22:CV:6:G:N2	22:CV:68:C:C2	2.75	0.54
11:AK:88:GLY:C	11:AK:90:GLY:N	2.61	0.54
39:DE:33:VAL:HG13	39:DE:69:LYS:CE	2.38	0.54
1:CA:505:G:H2'	1:CA:506:G:C8	2.42	0.54
40:BF:205:ARG:C	40:BF:206:ILE:HD13	2.28	0.54
11:CK:43:SER:HA	11:CK:47:VAL:HG21	1.88	0.54
39:BE:36:ARG:NH1	39:BE:85:ASN:OD1	2.40	0.54
1:CA:327:A:O2'	1:CA:328:C:O4'	2.25	0.54
7:CG:132:GLY:H	7:CG:135:VAL:HB	1.72	0.54
36:DB:40:U:H3'	36:DB:41:U:C5'	2.37	0.54
2:CB:60:ASP:HB3	2:CB:64:ARG:CZ	2.37	0.54
8:AH:93:VAL:O	8:AH:132:GLU:HA	2.08	0.54
15:CO:4:THR:OG1	15:CO:7:GLU:HG3	2.07	0.54
39:DE:68:ALA:C	39:DE:70:ALA:H	2.11	0.54
35:BA:2364:C:H2'	35:BA:2365:G:O4'	2.08	0.54
1:CA:828:A:H2'	1:CA:829:G:O4'	2.08	0.54
3:CC:13:GLY:HA3	14:CN:57:ARG:HD2	1.89	0.54
51:DT:63:VAL:O	51:DT:73:GLU:HA	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:70:G:O2'	1:CA:71:C:H5'	2.08	0.54
1:CA:174:C:H2'	1:CA:175:C:C6	2.43	0.54
42:BH:82:GLY:O	42:BH:138:LYS:HD2	2.08	0.54
1:AA:789:U:O2	1:AA:792:A:H8	1.90	0.54
53:BV:12:TYR:N	53:BV:12:TYR:CD1	2.76	0.54
35:BA:2366:A:H2'	35:BA:2367:G:O4'	2.08	0.54
22:CV:55:U:H2'	22:CV:56:C:C6	2.42	0.54
22:CV:56:C:N3	22:CV:57:A:C6	2.73	0.54
7:CG:28:ASN:O	7:CG:31:MET:HB3	2.08	0.54
56:BY:81:LYS:HB3	56:BY:96:ILE:HG23	1.90	0.54
33:D8:46:ARG:NH2	35:DA:631:A:OP2	2.40	0.54
1:CA:632:A:C3'	1:CA:633:G:C5'	2.85	0.54
51:DT:16:ARG:NH1	51:DT:19:LEU:HD21	2.22	0.54
35:DA:1486:A:H2'	35:DA:1487:G:H8	1.73	0.54
2:CB:178:ARG:HH11	2:CB:178:ARG:CG	2.17	0.54
2:CB:70:PHE:O	2:CB:71:VAL:HG13	2.08	0.54
2:CB:97:TRP:CH2	2:CB:172:ILE:HB	2.41	0.54
57:DZ:40:ASP:OD2	57:DZ:42:VAL:HG12	2.08	0.54
31:B6:25:LYS:HE3	35:BA:2285:C:H41	1.72	0.54
2:AB:100:GLY:O	2:AB:103:THR:N	2.40	0.54
41:DG:81:LYS:O	41:DG:82:LEU:O	2.25	0.54
1:CA:588:G:H2'	1:CA:589:C:C6	2.42	0.54
19:CS:72:GLY:C	19:CS:74:PHE:H	2.11	0.54
16:CP:50:LYS:HD2	16:CP:51:VAL:N	2.23	0.54
6:CF:36:ARG:HH12	6:CF:66:GLU:HB3	1.73	0.54
39:DE:34:VAL:HG22	39:DE:34:VAL:O	2.08	0.54
1:AA:1003:G:C2'	1:AA:1004:A:H4'	2.37	0.54
1:CA:192:U:C4'	20:CT:103:GLY:H	2.18	0.54
35:BA:764:A:H2	38:BD:219:PRO:HG3	1.71	0.54
41:BG:17:PRO:HG2	41:BG:18:GLU:H	1.72	0.54
35:BA:1495:A:H2'	35:BA:1495:A:N3	2.22	0.54
35:BA:2767:C:H2'	35:BA:2768:C:H6	1.72	0.54
35:BA:1826:G:C4'	38:BD:242:ARG:HE	2.19	0.54
35:BA:1478:G:O2'	35:BA:1558:A:C2	2.60	0.54
1:CA:1037:C:H2'	1:CA:1038:C:C5	2.43	0.54
27:B2:43:GLN:CB	27:B2:44:LEU:HD12	2.37	0.54
51:DT:128:GLU:CD	51:DT:129:ARG:N	2.61	0.54
13:CM:50:GLU:O	13:CM:53:VAL:HB	2.08	0.54
2:AB:142:LEU:HD23	2:AB:142:LEU:O	2.07	0.54
4:CD:157:LEU:HD12	4:CD:157:LEU:N	2.23	0.54
50:BS:57:LYS:O	50:BS:58:LEU:HD23	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:B6:15:GLU:HB3	31:B6:18:ARG:HG3	1.89	0.54
5:AE:19:MET:O	5:AE:20:GLN:HB2	2.08	0.54
28:B3:28:LEU:N	28:B3:28:LEU:HD22	2.23	0.54
1:AA:1423:G:H2'	1:AA:1424:C:C6	2.43	0.54
1:CA:1288:A:H1'	1:CA:1352:C:O2'	2.08	0.54
35:DA:288:C:O2'	35:DA:289:A:H5'	2.08	0.54
1:AA:447:G:C6	1:AA:485:G:H1'	2.42	0.54
43:BI:29:TYR:HE1	43:BI:33:ARG:HE	1.51	0.54
12:CL:30:ARG:HB3	12:CL:82:ILE:HG22	1.89	0.54
1:AA:1349:A:OP2	9:AI:118:LYS:NZ	2.40	0.54
1:CA:59:A:H5'	1:CA:60:A:H5''	1.88	0.54
7:CG:135:VAL:O	7:CG:139:GLU:HG3	2.08	0.54
1:CA:47:C:C2	1:CA:365:U:O2	2.56	0.54
35:BA:819:A:C4	35:BA:1189:A:C2	2.96	0.54
36:BB:40:U:H3'	36:BB:41:U:C5'	2.38	0.54
35:DA:639:U:H2'	35:DA:640:C:C6	2.43	0.54
42:DH:77:LYS:HD2	42:DH:77:LYS:N	2.22	0.54
52:BU:110:VAL:O	52:BU:114:LYS:HG2	2.08	0.54
35:DA:1316:U:O2'	35:DA:1317:A:H5'	2.08	0.54
35:BA:1264:G:H3'	35:BA:1265:A:H5''	1.89	0.54
5:CE:72:GLN:O	5:CE:73:ASN:CB	2.56	0.54
1:CA:444:C:H2'	1:CA:445:G:H8	1.72	0.54
1:AA:1134:G:H2'	1:AA:1135:U:H5'	1.90	0.54
35:DA:394:A:O2'	35:DA:395:U:H5'	2.07	0.54
35:DA:2584:U:H2'	35:DA:2585:U:H2'	1.89	0.54
22:AW:53:G:H22	22:AW:62:C:C1'	2.21	0.54
50:DS:36:TYR:N	50:DS:36:TYR:CD1	2.75	0.54
35:BA:977:G:O2'	35:BA:978:G:H5'	2.08	0.54
35:BA:967:C:O2'	35:BA:968:G:H5'	2.07	0.54
1:CA:582:U:H2'	1:CA:583:A:C8	2.43	0.54
26:D1:29:GLY:O	26:D1:30:VAL:HG22	2.08	0.54
5:AE:84:PHE:HE2	5:AE:130:ASN:ND2	2.06	0.54
42:DH:15:VAL:HG23	42:DH:16:SER:N	2.22	0.54
8:CH:89:PRO:HA	8:CH:92:ARG:NH1	2.19	0.54
35:BA:775:G:C4'	35:BA:776:G:OP1	2.56	0.54
47:DP:57:THR:HG23	47:DP:59:LEU:HB3	1.90	0.54
56:DY:28:LYS:HG2	56:DY:39:VAL:HG22	1.88	0.54
1:CA:10:A:O2'	1:CA:11:G:C5'	2.41	0.54
5:CE:103:GLY:C	5:CE:106:PRO:HD2	2.28	0.54
42:BH:126:PRO:HB2	42:BH:127:GLU:OE1	2.07	0.54
51:DT:28:VAL:HG13	51:DT:46:GLU:CA	2.36	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:939:G:H2'	1:AA:940:C:C6	2.42	0.54
47:BP:39:LYS:O	47:BP:40:SER:CB	2.55	0.54
24:AY:51:ILE:HD12	24:AY:92:ILE:CD1	2.38	0.54
41:DG:114:ILE:HG22	41:DG:116:ASP:N	2.10	0.54
41:DG:82:LEU:HD23	41:DG:83:ARG:O	2.05	0.54
4:CD:76:ARG:CB	4:CD:76:ARG:HH11	2.12	0.54
35:DA:1204:A:N1	35:DA:1241:A:H2	2.05	0.54
16:CP:9:PHE:HB2	16:CP:16:HIS:O	2.07	0.54
45:DN:99:LEU:HD12	45:DN:122:VAL:HG21	1.89	0.54
57:BZ:9:TYR:HE2	57:BZ:61:LEU:HD13	1.67	0.54
43:DI:133:HIS:CB	43:DI:134:PRO:CD	2.83	0.54
9:AI:10:ARG:HD2	9:AI:105:ASP:OD2	2.07	0.54
26:D1:53:VAL:HG13	26:D1:53:VAL:O	2.08	0.54
57:BZ:157:LEU:H	57:BZ:157:LEU:CD2	2.17	0.54
3:CC:16:ARG:NE	3:CC:54:ARG:HH21	2.02	0.54
11:CK:125:PHE:HD1	11:CK:125:PHE:N	2.06	0.54
2:AB:120:ALA:O	2:AB:124:SER:HB2	2.08	0.54
5:CE:7:GLU:O	5:CE:112:LEU:HD13	2.08	0.54
35:BA:607:U:OP1	40:BF:103:LYS:HG3	2.08	0.54
27:D2:17:SER:HB3	27:D2:20:GLU:HB2	1.89	0.54
16:CP:28:ARG:NH1	16:CP:29:ASP:OD2	2.40	0.54
38:DD:127:VAL:HA	38:DD:193:VAL:O	2.07	0.54
35:BA:2303:G:O2'	41:BG:132:ASN:HB2	2.08	0.54
51:DT:2:ASN:O	51:DT:3:ARG:C	2.46	0.54
17:CQ:44:ALA:HB2	17:CQ:59:ILE:HD12	1.90	0.54
27:D2:28:LYS:HD2	27:D2:53:LEU:HD21	1.90	0.54
2:CB:152:PHE:CE2	2:CB:155:LEU:HB3	2.42	0.54
1:AA:1015:A:H2'	1:AA:1016:A:H8	1.70	0.54
1:AA:1123:A:C5'	10:AJ:36:GLY:HA3	2.38	0.54
2:CB:34:ALA:O	2:CB:41:ILE:HB	2.07	0.54
11:CK:32:ILE:CD1	11:CK:72:ALA:HB2	2.37	0.54
1:AA:393:A:O2'	1:AA:394:G:H5'	2.08	0.54
35:DA:2182:G:H2'	35:DA:2183:C:C6	2.42	0.54
35:DA:241:A:H5'	35:DA:243:U:O4'	2.07	0.54
40:DF:148:LEU:HD11	40:DF:193:VAL:HG21	1.90	0.54
9:CI:83:ARG:O	9:CI:87:GLN:HB2	2.07	0.54
35:BA:1336:A:H2'	35:BA:1337:G:H8	1.71	0.54
12:AL:17:LYS:HD3	12:AL:17:LYS:N	2.23	0.54
32:B7:39:ARG:HD3	35:BA:458:G:O2'	2.08	0.54
38:DD:80:ALA:O	38:DD:81:ALA:HB2	2.08	0.54
35:BA:1388:G:O2'	35:BA:1389:G:H5'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2040:C:H2'	35:BA:2041:U:H6	1.73	0.54
43:DI:99:GLU:CD	43:DI:100:ALA:H	2.11	0.54
18:CR:88:LYS:HD3	18:CR:88:LYS:C	2.28	0.54
1:AA:524:G:H2'	1:AA:525:C:C6	2.43	0.54
35:BA:1688:U:O2	35:BA:1700:A:H8	1.90	0.54
47:DP:62:LEU:N	47:DP:62:LEU:HD22	2.22	0.54
56:DY:42:VAL:CG1	56:DY:65:ALA:HB3	2.38	0.54
56:BY:13:VAL:HG21	56:BY:72:VAL:HB	1.89	0.54
53:DV:4:ILE:HG22	53:DV:4:ILE:O	2.08	0.54
57:BZ:146:ILE:HA	57:BZ:174:VAL:CG1	2.37	0.54
3:AC:70:VAL:O	3:AC:105:GLU:HA	2.07	0.54
37:DC:59:ARG:HG2	37:DC:62:VAL:CG2	2.37	0.54
2:CB:168:THR:HG23	2:CB:192:SER:OG	2.08	0.54
2:CB:97:TRP:CZ2	2:CB:176:GLU:HG3	2.43	0.54
47:BP:114:ILE:HD12	47:BP:115:LEU:N	2.22	0.54
2:AB:173:ALA:HA	2:AB:176:GLU:CG	2.37	0.54
47:DP:108:LYS:C	47:DP:110:TYR:H	2.11	0.54
1:AA:1324:A:H4'	1:AA:1362:C:O3'	2.08	0.54
10:AJ:50:ILE:N	10:AJ:50:ILE:HD13	2.12	0.54
47:BP:78:PRO:HA	47:BP:110:TYR:CE1	2.43	0.54
22:AV:23:C:H2'	22:AV:24:U:C5	2.41	0.54
12:AL:114:ARG:HG2	12:AL:119:THR:HG23	1.89	0.54
29:B4:9:LEU:HD21	41:BG:101:ILE:HD12	1.89	0.54
39:DE:51:PHE:N	39:DE:74:PRO:HG2	2.23	0.54
38:DD:52:ARG:HB2	38:DD:53:PHE:CE2	2.42	0.54
39:BE:52:LEU:O	39:BE:74:PRO:HA	2.08	0.54
5:CE:53:LEU:O	5:CE:57:LYS:HG3	2.07	0.54
35:BA:2118:U:O2'	35:BA:2119:A:H5''	2.07	0.54
54:DW:10:VAL:O	54:DW:11:ARG:CB	2.55	0.54
1:AA:1305:G:H21	1:AA:1306:A:H62	1.53	0.54
43:DI:129:THR:HA	43:DI:137:PRO:HA	1.90	0.54
6:CF:59:TYR:HD2	6:CF:61:LEU:HD11	1.73	0.54
43:DI:41:GLU:O	43:DI:45:LYS:HG2	2.08	0.54
35:BA:1853:A:H2'	35:BA:1854:A:C8	2.43	0.54
40:DF:135:LYS:HB3	40:DF:138:GLU:HG3	1.89	0.54
25:D0:47:PRO:HB2	25:D0:51:VAL:O	2.08	0.54
1:CA:372:C:N4	1:CA:387:U:H2'	2.23	0.54
39:DE:17:ASP:OD2	39:DE:18:ASP:N	2.35	0.54
1:CA:707:C:H2'	1:CA:708:C:H6	1.71	0.54
38:BD:30:GLU:HG3	38:BD:63:ARG:NE	2.22	0.54
4:AD:26:CYS:HA	4:AD:31:CYS:HB2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CR:74:ARG:HH21	18:CR:81:PHE:HA	1.72	0.54
11:AK:32:ILE:CD1	11:AK:72:ALA:HB2	2.38	0.54
35:BA:1314:C:C6	35:BA:1314:C:H5'	2.42	0.54
4:AD:13:ARG:HD3	4:AD:36:ARG:HB2	1.89	0.54
1:CA:542:G:H5'	4:CD:41:GLY:HA3	1.90	0.54
1:AA:321:A:N6	1:AA:329:A:OP2	2.40	0.54
48:BQ:139:GLU:C	48:BQ:141:GLN:H	2.10	0.54
38:BD:8:PRO:HB3	38:BD:14:ARG:HB3	1.90	0.54
34:B9:19:ARG:HD3	35:BA:2755:C:H2'	1.90	0.54
35:BA:1188:U:H4'	53:BV:79:VAL:CG2	2.38	0.54
39:BE:181:LEU:HD21	51:BT:7:ILE:HG22	1.89	0.54
42:DH:64:LEU:C	42:DH:66:GLY:N	2.59	0.54
35:BA:158:U:H4'	35:BA:171:G:C5	2.43	0.54
34:B9:22:ARG:HB2	34:B9:24:TYR:HE1	1.73	0.54
35:DA:1231:G:H2'	35:DA:1232:G:C8	2.43	0.54
48:DQ:24:GLY:O	48:DQ:102:VAL:HG23	2.07	0.54
45:DN:3:THR:O	45:DN:4:TYR:C	2.45	0.54
35:BA:1836:C:O2'	35:BA:1837:C:H5'	2.08	0.54
13:CM:29:ARG:HD3	13:CM:64:TRP:CZ3	2.43	0.54
13:CM:65:LYS:HB2	13:CM:66:LEU:HD12	1.90	0.54
42:BH:44:VAL:HG12	42:BH:44:VAL:O	2.08	0.54
42:DH:12:PRO:HB3	42:DH:76:VAL:CG1	2.38	0.54
1:CA:878:G:C5'	8:CH:89:PRO:HB2	2.38	0.54
1:AA:1400:C:C1'	23:AX:18:G:O6	2.55	0.54
1:CA:1501:C:C3'	1:CA:1502:A:H5''	2.38	0.54
42:DH:84:SER:O	42:DH:133:VAL:O	2.25	0.54
51:BT:28:VAL:HG21	51:BT:46:GLU:CD	2.27	0.54
56:BY:28:LYS:C	56:BY:38:ILE:HG22	2.28	0.54
50:DS:98:VAL:HG12	50:DS:100:ALA:HB2	1.90	0.54
57:BZ:151:HIS:ND1	57:BZ:152:ALA:N	2.55	0.54
2:CB:213:LEU:HD22	2:CB:214:ILE:HD13	1.90	0.54
57:DZ:61:LEU:HD12	57:DZ:65:GLN:HB2	1.88	0.54
2:AB:9:GLU:HB2	2:AB:48:MET:SD	2.47	0.54
47:BP:108:LYS:N	47:BP:108:LYS:HD2	2.23	0.54
42:BH:13:LYS:HG2	42:BH:14:GLY:N	2.20	0.54
22:CW:55:U:C2'	22:CW:56:C:H5''	2.28	0.54
19:AS:35:SER:O	19:AS:71:LEU:HD12	2.07	0.54
7:AG:113:GLU:CG	7:AG:119:ARG:HG2	2.38	0.54
35:BA:146:G:C2'	35:BA:147:U:H5'	2.38	0.54
35:DA:1998:G:H2'	35:DA:1999:C:H6	1.73	0.54
45:DN:14:VAL:HG12	45:DN:15:LEU:N	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BR:45:ARG:HD3	49:BR:97:VAL:HG11	1.89	0.54
39:DE:79:ARG:HG2	39:DE:79:ARG:HH11	1.72	0.54
45:BN:99:LEU:HD12	45:BN:122:VAL:HG21	1.90	0.54
36:DB:42:C:O3'	41:DG:67:LYS:HE2	2.07	0.54
46:DO:71:ARG:HH12	51:DT:74:ARG:NH2	2.06	0.54
50:DS:89:ARG:O	50:DS:90:GLY:O	2.26	0.54
35:DA:2768:C:O2'	35:DA:2769:C:H5'	2.07	0.54
53:DV:34:GLU:HA	53:DV:58:VAL:HA	1.90	0.54
53:BV:2:PHE:O	53:BV:14:VAL:O	2.25	0.54
5:AE:139:LEU:HD23	5:AE:142:LEU:HD11	1.90	0.54
43:DI:113:ARG:NH1	43:DI:132:PRO:HB3	2.23	0.54
21:CU:20:LYS:HD3	21:CU:21:TYR:CE1	2.43	0.54
13:CM:50:GLU:N	13:CM:50:GLU:OE1	2.40	0.54
41:DG:34:LEU:HD23	41:DG:161:THR:HB	1.88	0.54
2:CB:135:GLN:O	2:CB:139:LYS:HG2	2.08	0.54
35:BA:1833:U:H2'	35:BA:1834:U:C6	2.38	0.54
26:D1:82:LEU:O	26:D1:84:GLY:N	2.40	0.54
40:BF:108:LYS:O	40:BF:112:MET:HG3	2.08	0.54
43:BI:37:VAL:HG12	43:BI:38:LEU:N	2.22	0.54
1:AA:1190:G:OP1	3:AC:4:LYS:HA	2.07	0.54
39:BE:33:VAL:HG13	39:BE:69:LYS:HE3	1.90	0.54
1:CA:1435:G:H2'	1:CA:1436:U:C5	2.42	0.54
1:CA:321:A:H5'	1:CA:1436:U:C2	2.43	0.54
20:CT:47:GLY:O	20:CT:49:ALA:N	2.41	0.54
49:BR:118:GLU:HA	49:BR:118:GLU:OE1	2.08	0.54
1:CA:313:A:H2'	1:CA:314:C:C6	2.43	0.54
53:BV:34:GLU:O	53:BV:36:PRO:N	2.41	0.54
1:AA:1478:C:H2'	1:AA:1479:C:H6	1.73	0.54
42:BH:77:LYS:HD2	42:BH:77:LYS:N	2.22	0.54
10:CJ:16:LEU:CD2	10:CJ:94:VAL:HG13	2.38	0.54
49:BR:103:ARG:HG2	49:BR:103:ARG:NH1	2.23	0.54
35:DA:813:U:H2'	35:DA:814:C:C6	2.43	0.54
1:CA:265:G:H5'	17:CQ:64:PRO:O	2.08	0.54
50:DS:42:ASP:O	50:DS:43:GLU:HB2	2.08	0.54
13:AM:65:LYS:HB2	13:AM:66:LEU:HD12	1.89	0.54
35:DA:1297:C:H2'	35:DA:1298:C:H6	1.73	0.54
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.42	0.54
1:CA:1227:A:C2	19:CS:83:HIS:HB3	2.43	0.54
5:AE:72:GLN:O	5:AE:73:ASN:HB2	2.08	0.54
1:CA:131:C:H2'	1:CA:132:C:C6	2.43	0.54
35:BA:1424:G:H2'	35:BA:1425:G:O4'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1157:A:H61	1:AA:1178:G:H1'	1.72	0.54
1:CA:400:C:H2'	1:CA:401:C:H5'	1.84	0.54
35:DA:1913:A:P	35:DA:1914:C:OP1	2.66	0.54
56:BY:77:PRO:O	56:BY:78:ALA:HB2	2.08	0.54
56:DY:81:LYS:HB3	56:DY:96:ILE:HG23	1.89	0.54
40:BF:4:VAL:HG12	40:BF:17:ARG:HH11	1.73	0.54
35:DA:242:G:N2	35:DA:254:G:H2'	2.23	0.54
56:BY:37:VAL:HG21	56:BY:72:VAL:HG11	1.90	0.54
51:DT:30:VAL:CG1	51:DT:84:GLN:HB2	2.37	0.54
1:CA:34:C:C2'	1:CA:35:G:H5''	2.37	0.54
1:CA:922:G:C2	1:CA:1396:A:C2	2.95	0.54
19:CS:61:TYR:CG	19:CS:62:ILE:N	2.76	0.54
47:DP:113:LYS:O	47:DP:113:LYS:HG2	2.08	0.54
46:BO:2:ILE:HB	46:BO:33:ALA:HB3	1.90	0.54
3:AC:12:LEU:HD13	14:AN:56:VAL:O	2.08	0.54
29:B4:9:LEU:HD21	41:BG:101:ILE:HD13	1.90	0.54
35:DA:2127:G:H1'	35:DA:2173:A:H2	1.72	0.54
35:DA:962:G:C2'	35:DA:963:U:H5'	2.37	0.54
35:DA:1114:G:H2'	35:DA:1115:G:H5''	1.90	0.54
39:BE:79:ARG:HH11	39:BE:79:ARG:HG2	1.73	0.54
3:CC:20:SER:CB	3:CC:40:ARG:HH22	2.21	0.54
54:DW:14:PRO:HB3	54:DW:101:SER:HB3	1.88	0.54
4:AD:7:PRO:O	4:AD:10:ARG:HB3	2.08	0.54
35:DA:2485:G:H5''	48:DQ:46:GLN:HE21	1.72	0.54
1:CA:819:A:H4'	1:CA:820:U:OP2	2.08	0.54
36:DB:54:G:N2	41:DG:29:TRP:HE1	2.01	0.54
53:BV:1:MET:HA	53:BV:1:MET:HE2	1.88	0.54
35:DA:1171:G:H3'	35:DA:1173:G:O4'	2.08	0.54
45:BN:62:VAL:HG13	45:BN:62:VAL:O	2.08	0.54
43:DI:129:THR:HG21	43:DI:135:GLU:HB3	1.89	0.54
45:BN:119:ARG:CG	45:BN:119:ARG:HH11	2.21	0.54
47:DP:71:VAL:HG12	47:DP:72:PRO:HD3	1.90	0.54
31:B6:44:ARG:O	31:B6:45:LYS:HB2	2.08	0.54
7:CG:101:LEU:O	7:CG:104:LEU:HB2	2.08	0.54
20:CT:67:ALA:HA	20:CT:73:HIS:H	1.73	0.54
1:AA:688:G:H2'	1:AA:689:C:C6	2.42	0.54
35:DA:1478:G:O2'	35:DA:1558:A:C2	2.61	0.54
1:AA:721:G:H4'	1:AA:722:A:O4'	2.07	0.54
42:BH:94:TYR:CE1	42:BH:160:LYS:HE3	2.43	0.54
35:DA:720:C:H2'	35:DA:721:C:H6	1.73	0.54
1:AA:1260:C:H4'	1:AA:1284:C:H5'	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:106:ASN:O	13:CM:107:ALA:CB	2.56	0.54
35:DA:303:U:H2'	35:DA:304:G:C8	2.43	0.54
1:AA:992:U:H5''	1:AA:1043:C:H41	1.72	0.54
1:CA:314:C:O2'	1:CA:315:A:H5'	2.07	0.54
44:DJ:102:UNK:C	44:DJ:104:UNK:H	2.21	0.54
35:BA:1794:U:H2'	35:BA:1795:C:H6	1.73	0.54
40:DF:182:ASN:HD22	40:DF:182:ASN:N	2.06	0.54
25:D0:56:ASP:OD2	35:DA:2364:C:H4'	2.08	0.54
9:AI:88:TYR:O	9:AI:89:ASN:HB2	2.06	0.54
39:BE:93:VAL:HG11	39:BE:180:ASN:O	2.08	0.54
35:DA:845:G:OP2	35:DA:845:G:H8	1.91	0.54
1:AA:585:G:H8	1:AA:585:G:O5'	1.91	0.54
31:B6:14:THR:O	31:B6:49:HIS:HA	2.08	0.54
36:BB:50:G:OP1	50:BS:63:THR:HG23	2.08	0.54
22:AW:38:A:H2'	22:AW:39:C:O4'	2.07	0.54
35:DA:1466:G:H5'	35:DA:1467:C:OP1	2.08	0.54
56:DY:79:CYS:O	56:DY:80:GLY:C	2.45	0.54
1:AA:99:U:H2'	1:AA:100:C:C6	2.42	0.54
54:BW:95:ILE:O	54:BW:95:ILE:HG13	2.07	0.54
56:DY:76:CYS:HB3	56:DY:96:ILE:CD1	2.38	0.53
10:CJ:56:HIS:O	10:CJ:58:ASP:N	2.41	0.53
33:D8:46:ARG:HH11	33:D8:46:ARG:HG2	1.74	0.53
1:AA:627:G:O2'	1:AA:628:G:H5'	2.07	0.53
1:CA:19:C:O2'	1:CA:20:U:H5'	2.07	0.53
2:CB:100:GLY:O	2:CB:103:THR:N	2.41	0.53
57:DZ:4:ARG:HG2	57:DZ:58:VAL:CB	2.27	0.53
2:AB:15:VAL:HG21	2:AB:209:ARG:CZ	2.38	0.53
38:DD:32:SER:O	38:DD:36:PRO:CD	2.54	0.53
41:DG:47:LYS:N	41:DG:51:ARG:HG3	2.24	0.53
3:AC:95:THR:HG21	3:AC:97:LYS:HE3	1.88	0.53
1:CA:624:C:H4'	16:CP:10:GLY:C	2.29	0.53
7:AG:28:ASN:O	7:AG:31:MET:HB3	2.08	0.53
3:CC:18:TRP:HE3	3:CC:18:TRP:H	1.53	0.53
38:BD:43:ARG:HH11	38:BD:49:ILE:HB	1.73	0.53
52:BU:107:ALA:O	52:BU:111:GLU:HG2	2.08	0.53
8:CH:38:ILE:HA	8:CH:41:ARG:HB3	1.90	0.53
38:DD:21:PHE:HB3	38:DD:24:ILE:HG12	1.89	0.53
5:AE:13:ILE:HG22	5:AE:14:ARG:N	2.18	0.53
51:DT:125:ARG:C	51:DT:127:ALA:H	2.10	0.53
1:AA:1325:C:H4'	21:AU:17:THR:HG21	1.89	0.53
35:BA:1171:G:N7	35:BA:1173:G:H1'	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BO:88:ASN:ND2	46:BO:90:GLN:HB2	2.19	0.53
35:DA:621:A:H2'	35:DA:622:G:C5'	2.38	0.53
38:DD:176:ARG:HD3	38:DD:182:LEU:HD21	1.90	0.53
16:CP:28:ARG:HH11	16:CP:28:ARG:HG2	1.73	0.53
35:BA:1796:U:H2'	35:BA:1797:C:C6	2.43	0.53
7:AG:101:LEU:O	7:AG:104:LEU:HB2	2.07	0.53
1:AA:194:C:C2'	1:AA:195:A:H5''	2.36	0.53
5:AE:6:PHE:HD2	5:AE:36:ASP:HB3	1.73	0.53
41:BG:71:THR:CG2	41:BG:89:GLY:HA3	2.38	0.53
28:D3:26:LEU:O	28:D3:35:ARG:NE	2.41	0.53
14:CN:37:PHE:HE1	14:CN:53:LEU:HD22	1.72	0.53
22:CV:12:G:H4'	35:DA:1908:C:O2	2.08	0.53
48:BQ:130:LYS:HZ3	57:BZ:80:ARG:HD2	1.73	0.53
15:AO:4:THR:OG1	15:AO:7:GLU:HG3	2.09	0.53
56:DY:17:SER:OG	56:DY:18:GLY:N	2.41	0.53
35:DA:150:C:H2'	35:DA:151:C:C6	2.43	0.53
34:B9:22:ARG:HB2	34:B9:24:TYR:CE1	2.43	0.53
1:CA:139:G:O2'	1:CA:140:A:H5'	2.08	0.53
56:BY:75:ILE:HG22	56:BY:79:CYS:C	2.28	0.53
37:BC:122:ALA:HB2	37:BC:142:ALA:HA	1.90	0.53
1:AA:198:G:H2'	1:AA:199:G:C8	2.43	0.53
10:AJ:6:ILE:HG22	10:AJ:8:LEU:HG	1.89	0.53
26:B1:23:LYS:HD2	26:B1:28:GLY:HA3	1.88	0.53
35:BA:1396:U:H2'	35:BA:1396:U:O2	2.08	0.53
35:BA:1937:A:N7	35:BA:1939:U:H2'	2.23	0.53
1:CA:291:C:O2'	1:CA:292:G:H5'	2.08	0.53
35:BA:1411:C:H2'	35:BA:1412:A:C8	2.42	0.53
1:CA:853:G:H2'	1:CA:854:G:H8	1.73	0.53
1:CA:498:U:H2'	1:CA:498:U:O2	2.07	0.53
12:CL:57:LEU:HD22	12:CL:57:LEU:N	2.23	0.53
46:BO:17:ARG:HG2	46:BO:17:ARG:HH11	1.72	0.53
35:DA:2506:U:H4'	35:DA:2507:C:OP1	2.07	0.53
6:CF:28:ARG:HH11	6:CF:28:ARG:HG3	1.73	0.53
37:DC:51:PRO:HD2	37:DC:55:ASP:HA	1.90	0.53
35:DA:1862:G:O2'	35:DA:1863:G:H5'	2.08	0.53
7:AG:65:ALA:HA	7:AG:128:ALA:HA	1.90	0.53
33:B8:25:MET:HB2	47:BP:62:LEU:HD21	1.89	0.53
10:CJ:50:ILE:HD11	14:CN:41:ARG:HH11	1.73	0.53
47:BP:29:LYS:HB3	47:BP:34:GLY:N	2.23	0.53
33:D8:51:ALA:C	33:D8:53:PRO:HD2	2.27	0.53
50:BS:74:ALA:HB1	50:BS:103:GLU:HG2	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DU:91:ASP:O	52:DU:92:ARG:O	2.26	0.53
52:DU:92:ARG:HH22	53:DV:10:LYS:CA	2.20	0.53
57:BZ:108:PRO:HG3	57:BZ:144:LEU:HB2	1.90	0.53
5:CE:13:ILE:O	5:CE:14:ARG:HB3	2.08	0.53
1:CA:1363(A):A:C4'	1:CA:1364:U:H5''	2.24	0.53
1:CA:588:G:N1	1:CA:589:C:N4	2.56	0.53
46:BO:98:VAL:HG12	46:BO:117:LEU:HD22	1.91	0.53
14:AN:41:ARG:HE	14:AN:42:ILE:CD1	2.21	0.53
46:BO:32:TYR:N	46:BO:32:TYR:CD1	2.76	0.53
19:AS:40:ILE:HD12	19:AS:62:ILE:HD11	1.90	0.53
2:AB:46:LYS:HA	2:AB:49:GLU:OE1	2.08	0.53
43:DI:79:ILE:C	43:DI:81:VAL:H	2.11	0.53
36:BB:55:U:O2'	36:BB:56:G:H5'	2.09	0.53
47:BP:17:LYS:O	47:BP:17:LYS:HG3	2.08	0.53
51:BT:78:LEU:HD23	51:BT:79:HIS:HE1	1.73	0.53
4:CD:35:ARG:O	4:CD:37:PRO:HD3	2.08	0.53
35:DA:744:G:OP1	39:DE:132:HIS:HB3	2.08	0.53
1:AA:192:U:C4'	20:AT:103:GLY:H	2.18	0.53
53:DV:34:GLU:O	53:DV:36:PRO:N	2.41	0.53
1:CA:1116:C:H2'	1:CA:1117:G:H5''	1.88	0.53
1:CA:254:G:O2'	1:CA:255:G:H5'	2.08	0.53
41:DG:138:GLN:HB3	41:DG:153:ARG:O	2.08	0.53
25:B0:47:PRO:HB2	25:B0:51:VAL:O	2.07	0.53
38:DD:270:ILE:O	38:DD:271:ILE:HG23	2.08	0.53
38:DD:30:GLU:HG3	38:DD:63:ARG:NE	2.23	0.53
5:AE:7:GLU:O	5:AE:112:LEU:HD13	2.08	0.53
8:AH:30:ARG:CB	8:AH:30:ARG:HH11	2.21	0.53
7:AG:54:THR:CG2	7:AG:56:GLN:HG2	2.38	0.53
13:AM:104:ARG:O	13:AM:105:THR:HG23	2.09	0.53
38:DD:152:GLY:O	38:DD:154:LYS:HG3	2.09	0.53
39:DE:13:ARG:HA	39:DE:21:VAL:O	2.08	0.53
2:AB:152:PHE:HE2	2:AB:155:LEU:HB3	1.73	0.53
30:B5:58:LEU:HD12	30:B5:58:LEU:H	1.73	0.53
56:BY:17:SER:CB	56:BY:71:LYS:HE2	2.37	0.53
26:B1:80:LEU:O	26:B1:82:LEU:HD22	2.08	0.53
53:BV:34:GLU:HA	53:BV:58:VAL:HA	1.91	0.53
42:BH:77:LYS:H	42:BH:77:LYS:CD	2.20	0.53
4:AD:196:LEU:HA	6:CF:16:GLN:HG3	1.90	0.53
10:AJ:16:LEU:CD2	10:AJ:94:VAL:HG13	2.38	0.53
1:AA:1327:C:H2'	1:AA:1328:C:C6	2.42	0.53
35:BA:1005:C:H2'	35:BA:1006:C:C6	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1227:A:N3	19:CS:83:HIS:HB3	2.24	0.53
3:AC:87:LEU:C	3:AC:89:GLU:H	2.11	0.53
35:BA:1755:A:H2'	35:BA:1756:G:H5'	1.89	0.53
1:AA:135:C:H2'	1:AA:136:C:H5'	1.90	0.53
1:AA:779:C:O2'	1:AA:780:A:H5'	2.09	0.53
35:BA:826:U:H2'	35:BA:828:U:O4'	2.09	0.53
11:AK:78:GLN:N	11:AK:78:GLN:NE2	2.56	0.53
35:DA:2308:G:O6	35:DA:2310:A:H2'	2.08	0.53
7:CG:12:LEU:O	7:CG:14:PRO:HD3	2.09	0.53
1:CA:11:G:C6	1:CA:12:U:C4	2.96	0.53
53:BV:39:LEU:C	53:BV:40:LEU:HD23	2.28	0.53
56:BY:27:VAL:HA	56:BY:28:LYS:CE	2.38	0.53
56:BY:28:LYS:HG2	56:BY:39:VAL:HG22	1.89	0.53
35:DA:903:C:H2'	35:DA:904:C:C5'	2.36	0.53
40:DF:7:TYR:HD2	40:DF:16:GLY:H	1.55	0.53
53:BV:16:PRO:HG2	53:BV:17:GLY:H	1.73	0.53
5:CE:101:ILE:HG12	5:CE:118:ILE:O	2.07	0.53
30:D5:2:ALA:HB3	35:DA:747:U:N1	2.23	0.53
2:AB:168:THR:HG23	2:AB:192:SER:OG	2.09	0.53
29:D4:15:ILE:H	29:D4:31:ILE:CG2	2.21	0.53
38:BD:33:LEU:HD23	38:BD:34:VAL:HG13	1.90	0.53
1:CA:1281:U:H4'	1:CA:1282:C:OP2	2.08	0.53
43:BI:77:LEU:HD21	43:BI:79:ILE:HD13	1.90	0.53
29:B4:16:CYS:SG	29:B4:36:CYS:HB2	2.48	0.53
1:CA:1130:A:H61	1:CA:1143:G:H21	1.55	0.53
38:DD:43:ARG:HH11	38:DD:49:ILE:HB	1.73	0.53
54:BW:10:VAL:O	54:BW:11:ARG:CB	2.54	0.53
26:D1:62:VAL:HG22	26:D1:63:ALA:O	2.08	0.53
43:BI:133:HIS:CB	43:BI:134:PRO:CD	2.84	0.53
1:CA:192:U:H4'	20:CT:103:GLY:N	2.17	0.53
35:DA:1777:U:O2'	35:DA:1778:U:H5'	2.08	0.53
53:BV:81:TYR:C	53:BV:82:ARG:HD2	2.28	0.53
41:DG:55:LYS:HA	41:DG:58:GLN:CG	2.39	0.53
1:AA:1053:G:C6	1:AA:1199:U:H2'	2.43	0.53
43:BI:6:LEU:HA	43:BI:15:VAL:HG23	1.88	0.53
14:AN:27:CYS:SG	14:AN:28:GLY:N	2.82	0.53
2:CB:120:ALA:O	2:CB:124:SER:HB2	2.08	0.53
2:CB:127:ILE:HD11	2:CB:139:LYS:NZ	2.23	0.53
1:AA:253:U:H2'	1:AA:254:G:C8	2.43	0.53
6:CF:39:LYS:O	6:CF:40:VAL:HB	2.08	0.53
11:AK:38:ASN:ND2	11:AK:38:ASN:N	2.56	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:157:LEU:N	4:AD:157:LEU:HD12	2.22	0.53
38:DD:8:PRO:HB3	38:DD:14:ARG:HB3	1.88	0.53
1:AA:1447:A:O2'	1:AA:1452:C:H5'	2.08	0.53
35:BA:30:G:H2'	35:BA:31:C:H6	1.72	0.53
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.74	0.53
35:DA:154(A):C:H41	35:DA:171:G:H1	1.55	0.53
28:D3:29:ARG:HG3	28:D3:29:ARG:NH1	2.24	0.53
37:BC:47:LEU:HA	37:BC:207:THR:HA	1.91	0.53
18:CR:25:THR:O	18:CR:26:LEU:HD23	2.08	0.53
38:BD:198:ASN:ND2	38:BD:198:ASN:C	2.58	0.53
1:CA:277:C:H2'	1:CA:278:G:H8	1.72	0.53
35:DA:828:U:H3'	35:DA:828:U:O2	2.09	0.53
1:CA:1405:G:O2'	1:CA:1406:U:H5'	2.08	0.53
5:CE:72:GLN:O	5:CE:73:ASN:HB2	2.08	0.53
36:BB:65:C:C2'	36:BB:66:A:H5'	2.39	0.53
35:DA:971:C:H2'	35:DA:972:G:H5'	1.90	0.53
35:DA:1424:G:H2'	35:DA:1425:G:O4'	2.08	0.53
2:CB:61:LEU:HD11	2:CB:160:ASP:CB	2.38	0.53
35:BA:1374:G:H2'	35:BA:1375:C:C6	2.43	0.53
1:AA:70:G:O2'	1:AA:71:C:H5'	2.09	0.53
48:DQ:30:GLY:HA2	48:DQ:107:ALA:HB2	1.90	0.53
51:DT:48:ILE:HD12	51:DT:48:ILE:H	1.73	0.53
35:DA:207:A:H2'	35:DA:208:C:O4'	2.07	0.53
1:CA:969:A:O2'	1:CA:970:C:H5'	2.08	0.53
36:BB:98:G:H2'	36:BB:99:G:O4'	2.08	0.53
35:DA:1046:A:C2	44:DJ:8:UNK:N	2.77	0.53
42:BH:12:PRO:HB3	42:BH:76:VAL:CG1	2.38	0.53
1:CA:36:C:C3'	1:CA:37:U:C5'	2.81	0.53
58:CX:19:G:N3	58:CX:19:G:C4'	2.71	0.53
50:BS:66:ALA:CA	50:BS:69:VAL:HG12	2.39	0.53
30:B5:33:CYS:HG	30:B5:46:CYS:HG	1.56	0.53
5:CE:127:ASN:O	5:CE:131:ILE:HG12	2.09	0.53
2:CB:85:ALA:HB1	2:CB:92:TYR:CD2	2.44	0.53
47:BP:113:LYS:HG2	47:BP:113:LYS:O	2.07	0.53
30:B5:4:HIS:O	35:BA:2056:G:N2	2.42	0.53
46:DO:98:VAL:HG12	46:DO:117:LEU:HD22	1.88	0.53
19:CS:46:GLY:HA2	19:CS:61:TYR:OH	2.08	0.53
45:BN:59:LYS:O	45:BN:60:ILE:C	2.47	0.53
57:DZ:76:LEU:HD23	57:DZ:82:ARG:C	2.29	0.53
19:AS:61:TYR:CG	19:AS:62:ILE:N	2.75	0.53
35:DA:1593:G:H5'	35:DA:1593:G:H8	1.71	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BI:123:LEU:HD13	43:BI:124:GLY:N	2.21	0.53
3:AC:35:GLU:O	3:AC:39:ILE:HG13	2.09	0.53
13:AM:22:ILE:HG21	13:AM:25:ILE:HD12	1.91	0.53
57:DZ:128:VAL:HG13	57:DZ:129:SER:N	2.23	0.53
45:BN:24:GLY:C	45:BN:26:LEU:N	2.59	0.53
35:DA:691:C:C1'	38:DD:43:ARG:HH21	2.21	0.53
7:AG:12:LEU:O	7:AG:14:PRO:HD3	2.09	0.53
38:BD:121:PRO:HB3	38:BD:135:PHE:HE2	1.71	0.53
20:AT:14:LYS:HA	20:AT:17:ARG:CZ	2.38	0.53
35:BA:2821:A:OP2	39:BE:110:GLY:CA	2.56	0.53
50:DS:35:ILE:O	50:DS:35:ILE:HG23	2.07	0.53
13:AM:54:VAL:HA	13:AM:57:ARG:HG2	1.91	0.53
8:AH:88:LYS:HB3	8:AH:89:PRO:CD	2.37	0.53
1:CA:638:G:O2'	1:CA:639:G:H5'	2.09	0.53
22:AW:3:C:C2'	22:AW:4:G:H5'	2.35	0.53
27:B2:69:ARG:NH2	35:BA:111:A:H4'	2.24	0.53
35:BA:1281:G:O2'	35:BA:1282:U:H5'	2.08	0.53
39:BE:17:ASP:OD2	39:BE:18:ASP:N	2.35	0.53
10:CJ:32:ALA:HB1	10:CJ:75:ILE:HG13	1.90	0.53
49:DR:63:ARG:HA	49:DR:80:PHE:CZ	2.44	0.53
9:CI:23:ASN:HD22	9:CI:23:ASN:N	2.05	0.53
12:CL:82:ILE:HD12	12:CL:96:HIS:O	2.08	0.53
34:B9:18:ARG:NE	34:B9:23:VAL:HG22	2.22	0.53
1:CA:232:G:H1'	1:CA:262:A:N1	2.22	0.53
35:DA:639:U:H2'	35:DA:640:C:H6	1.74	0.53
52:DU:110:VAL:O	52:DU:114:LYS:HG2	2.09	0.53
42:DH:61:HIS:O	42:DH:64:LEU:HB2	2.08	0.53
42:DH:77:LYS:H	42:DH:77:LYS:CD	2.20	0.53
39:DE:181:LEU:HD21	51:DT:7:ILE:HG22	1.89	0.53
35:BA:2712:U:O2'	35:BA:2712(A):A:P	2.66	0.53
35:DA:2639:A:C2'	35:DA:2640:G:H5'	2.38	0.53
5:AE:72:GLN:O	5:AE:73:ASN:CB	2.56	0.53
13:AM:37:THR:OG1	13:AM:39:ILE:HD13	2.09	0.53
35:BA:2308:G:O6	35:BA:2310:A:H2'	2.08	0.53
2:AB:135:GLN:O	2:AB:139:LYS:HG2	2.09	0.53
51:BT:63:VAL:O	51:BT:73:GLU:HA	2.07	0.53
22:CV:55:U:H6	22:CV:55:U:C5'	2.20	0.53
52:BU:70:ARG:HA	52:BU:74:LEU:O	2.08	0.53
46:BO:64:ARG:HG2	46:BO:79:PHE:CD1	2.44	0.53
51:BT:30:VAL:HG21	51:BT:84:GLN:N	2.22	0.53
2:AB:180:LEU:O	2:AB:181:PHE:HB2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DF:63:LYS:HZ3	40:DF:67:GLN:HB2	1.72	0.53
1:CA:20:U:H1'	1:CA:916:G:N2	2.23	0.53
47:BP:39:LYS:O	47:BP:40:SER:HB3	2.09	0.53
35:DA:747:U:O2	35:DA:2014:A:H1'	2.09	0.53
57:DZ:5:LEU:HD23	57:DZ:6:LYS:N	2.24	0.53
31:B6:11:LEU:CD2	31:B6:51:GLU:HB2	2.32	0.53
24:AY:51:ILE:HD12	24:AY:92:ILE:HD12	1.89	0.53
36:BB:75:G:H2'	36:BB:76:G:O4'	2.09	0.53
2:AB:85:ALA:HB1	2:AB:92:TYR:CD2	2.43	0.53
2:AB:97:TRP:CZ2	2:AB:176:GLU:HG3	2.44	0.53
39:DE:104:VAL:HG12	39:DE:196:VAL:CG2	2.39	0.53
1:AA:1324:A:O4'	1:AA:1362:C:H4'	2.08	0.53
47:BP:98:GLU:O	47:BP:101:VAL:HG22	2.09	0.53
3:CC:95:THR:HG21	3:CC:97:LYS:HE3	1.90	0.53
4:CD:102:ASP:HA	4:CD:121:VAL:HG21	1.90	0.53
1:CA:627:G:O2'	1:CA:628:G:H5'	2.08	0.53
35:BA:1915:U:H3'	35:BA:1916:A:H5''	1.88	0.53
48:BQ:55:VAL:HG23	48:BQ:56:ARG:N	2.22	0.53
13:AM:11:ARG:HA	13:AM:45:VAL:HB	1.91	0.53
35:DA:691:C:H4'	38:DD:43:ARG:HE	1.73	0.53
38:DD:121:PRO:HB3	38:DD:135:PHE:HE2	1.74	0.53
29:B4:15:ILE:H	29:B4:31:ILE:CG2	2.21	0.53
35:BA:1403:C:H5''	35:BA:1471:A:C1'	2.36	0.53
20:CT:14:LYS:HA	20:CT:17:ARG:CZ	2.39	0.53
54:BW:64:MET:O	54:BW:65:LEU:HG	2.08	0.53
7:AG:15:ASP:HB3	7:AG:19:GLY:CA	2.38	0.53
13:AM:50:GLU:N	13:AM:50:GLU:OE1	2.41	0.53
5:CE:69:VAL:HG12	5:CE:71:LEU:HG	1.91	0.53
16:CP:28:ARG:HG2	16:CP:29:ASP:OD2	2.08	0.53
5:AE:20:GLN:O	5:AE:23:GLY:O	2.26	0.53
56:BY:31:LEU:HD23	56:BY:36:ALA:C	2.28	0.53
12:AL:66:TYR:HB3	12:AL:96:HIS:CD2	2.44	0.53
34:B9:9:ARG:NH1	34:B9:14:CYS:O	2.41	0.53
35:DA:289:A:H2'	35:DA:290:G:O4'	2.08	0.53
1:AA:1090:U:H2'	1:AA:1091:U:H6	1.74	0.53
35:BA:484:C:H2'	35:BA:485:C:C6	2.41	0.53
1:CA:1465:C:C2	1:CA:1466:C:C5	2.97	0.53
35:BA:405:U:H3'	35:BA:406:G:H5'	1.90	0.53
38:DD:93:ALA:HB3	38:DD:105:ILE:CG2	2.39	0.53
42:BH:61:HIS:O	42:BH:64:LEU:HB2	2.08	0.53
55:BX:10:ALA:HB1	55:BX:11:PRO:HD2	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2712:U:H1'	35:BA:2712(A):A:C8	2.44	0.53
54:DW:31:GLU:O	54:DW:35:ILE:HG12	2.09	0.53
1:AA:1466:C:O2'	1:AA:1467:G:H5'	2.09	0.53
49:BR:49:ASP:O	49:BR:51:LEU:N	2.41	0.53
35:DA:2366:A:H2'	35:DA:2367:G:O4'	2.08	0.53
26:B1:21:ARG:NH1	35:BA:2079:U:H5''	2.24	0.53
35:BA:845:G:H8	35:BA:845:G:OP2	1.91	0.53
34:D9:16:VAL:HG11	35:DA:1032:A:O3'	2.08	0.53
35:BA:1668:A:H4'	35:BA:1669:A:O5'	2.09	0.53
27:D2:10:LEU:HD11	35:DA:77:C:H5''	1.89	0.53
35:DA:1762:A:H8	35:DA:1762:A:O5'	1.92	0.53
35:DA:198:C:H5'	35:DA:2244:U:OP1	2.08	0.53
8:CH:88:LYS:HB3	8:CH:89:PRO:CD	2.39	0.53
41:BG:85:GLY:C	41:BG:87:PRO:HD3	2.28	0.53
56:BY:86:ARG:NH2	56:BY:95:LYS:HE3	2.24	0.53
1:CA:1061:G:H2'	1:CA:1062:U:O5'	2.08	0.53
22:CV:38:A:H2'	22:CV:39:C:C6	2.43	0.53
53:DV:15:GLU:O	53:DV:96:ILE:HG21	2.08	0.53
35:DA:2821:A:H2'	35:DA:2822:G:C8	2.44	0.53
35:DA:2821:A:OP2	49:DR:5:LYS:HE3	2.07	0.53
35:BA:252:G:P	47:BP:50:ARG:HH11	2.31	0.53
35:DA:1485:G:H1'	35:DA:1505:C:H41	1.73	0.53
1:AA:939:G:H1	1:AA:1344:C:N4	2.06	0.53
5:AE:103:GLY:C	5:AE:105:VAL:H	2.11	0.53
19:CS:58:VAL:O	19:CS:60:VAL:N	2.41	0.53
4:AD:199:ASN:C	4:AD:201:GLN:H	2.11	0.53
1:AA:1144:G:H21	1:AA:1146:A:H62	1.54	0.53
47:BP:13:ASN:HD22	47:BP:14:LYS:N	2.07	0.53
35:BA:1999:C:H5''	35:BA:2723:C:O2'	2.09	0.53
1:CA:1053:G:C6	1:CA:1199:U:H2'	2.43	0.53
50:DS:71:ARG:NH1	50:DS:71:ARG:HG3	2.23	0.53
53:DV:2:PHE:O	53:DV:14:VAL:O	2.26	0.53
35:BA:2645:G:H3'	35:BA:2646:C:C5'	2.30	0.53
54:BW:111:HIS:CG	54:BW:112:GLY:N	2.77	0.53
28:B3:41:PRO:HA	28:B3:44:ARG:HG2	1.91	0.53
1:AA:1118:C:H6	1:AA:1118:C:O5'	1.91	0.53
45:DN:36:GLY:HA3	45:DN:48:MET:HE1	1.90	0.53
6:AF:59:TYR:HD2	6:AF:61:LEU:HD11	1.73	0.53
1:CA:1028:C:N4	1:CA:1034:G:H21	2.07	0.53
1:CA:1116:C:C2'	1:CA:1117:G:H5''	2.38	0.53
22:AW:1:C:H2'	22:AW:2:G:C8	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DR:54:LEU:HD23	49:DR:66:VAL:HG23	1.90	0.53
35:DA:889:C:H1'	35:DA:890:A:O4'	2.08	0.53
38:DD:70:TRP:CD1	38:DD:70:TRP:C	2.81	0.53
1:CA:413:G:H1'	1:CA:428:G:H21	1.74	0.53
17:CQ:12:SER:HB3	17:CQ:20:THR:CB	2.39	0.53
12:AL:30:ARG:HB3	12:AL:82:ILE:HG22	1.91	0.53
4:AD:119:GLN:O	4:AD:123:HIS:CD2	2.61	0.53
1:CA:807:A:H2'	1:CA:808:C:H6	1.74	0.53
4:CD:61:LYS:HA	4:CD:203:VAL:HG22	1.90	0.53
1:CA:585:G:O5'	1:CA:585:G:H8	1.92	0.53
37:DC:46:LYS:HE3	37:DC:172:HIS:HA	1.91	0.53
1:CA:438:G:H2'	1:CA:494:U:O4	2.08	0.53
7:AG:135:VAL:O	7:AG:139:GLU:HG3	2.08	0.53
35:DA:2342:C:O2	35:DA:2374:C:H4'	2.08	0.53
1:CA:1388:C:H2'	1:CA:1389:C:H6	1.73	0.53
52:BU:24:TYR:HB2	52:BU:29:SER:HB3	1.91	0.53
35:DA:2712:U:O2'	35:DA:2712(A):A:P	2.67	0.53
26:D1:29:GLY:O	26:D1:30:VAL:CG2	2.57	0.53
36:BB:17:C:H2'	36:BB:18:G:O4'	2.07	0.53
36:BB:65:C:O2'	36:BB:66:A:H5'	2.08	0.53
3:CC:87:LEU:C	3:CC:89:GLU:H	2.11	0.53
35:BA:534:U:O2'	52:BU:49:HIS:HD2	1.92	0.53
1:CA:356:A:H1'	1:CA:368:U:O2'	2.08	0.53
35:DA:2001:A:H2'	35:DA:2002:G:C8	2.43	0.53
35:DA:460:A:H2'	35:DA:461:C:O4'	2.08	0.53
35:DA:2029:G:H2'	35:DA:2031:A:OP2	2.08	0.53
39:DE:141:ILE:HG13	39:DE:141:ILE:O	2.07	0.53
1:AA:419:C:H42	1:AA:424:G:H1	1.56	0.53
8:CH:4:ASP:HB2	8:CH:89:PRO:CG	2.38	0.53
33:D8:48:PHE:O	33:D8:49:VAL:CG2	2.51	0.53
50:BS:50:SER:O	50:BS:76:LYS:HE2	2.08	0.53
35:DA:873:G:H1	35:DA:904:C:H42	1.55	0.53
40:DF:22:ALA:HB1	40:DF:26:ALA:HA	1.90	0.53
51:DT:23:ARG:O	51:DT:25:GLY:N	2.38	0.53
1:CA:1070:U:OP1	5:CE:25:ARG:HD2	2.09	0.53
10:AJ:13:HIS:CD2	10:AJ:14:LYS:HG2	2.43	0.53
31:B6:12:GLU:N	31:B6:12:GLU:CD	2.61	0.53
2:AB:214:ILE:C	2:AB:215:LEU:HD22	2.29	0.53
19:CS:42:PRO:O	19:CS:43:GLU:CB	2.57	0.53
19:CS:47:HIS:O	19:CS:62:ILE:HG22	2.08	0.53
46:BO:107:ARG:HG3	46:BO:112:MET:SD	2.49	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:42:PRO:CD	29:B4:50:VAL:HG21	2.39	0.53
43:DI:123:LEU:CD1	43:DI:144:VAL:HG22	2.36	0.53
10:AJ:32:ALA:HB1	10:AJ:75:ILE:HG13	1.90	0.53
35:DA:2680:C:O2'	35:DA:2681:C:H5'	2.08	0.53
41:BG:98:ARG:HA	41:BG:101:ILE:CD1	2.36	0.53
51:BT:31:SER:OG	51:BT:43:GLN:N	2.42	0.53
35:BA:271(Q):G:O2'	35:BA:271(R):G:P	2.67	0.53
10:CJ:48:THR:CA	10:CJ:62:HIS:HB3	2.34	0.53
38:DD:44:ASN:HB3	38:DD:48:ARG:O	2.09	0.53
1:AA:1028:C:N4	1:AA:1034:G:H21	2.07	0.53
1:CA:962:C:H2'	1:CA:963:G:H8	1.73	0.53
3:CC:121:ALA:HA	3:CC:189:ALA:HB2	1.91	0.53
1:CA:1306:A:H2'	1:CA:1307:U:C6	2.44	0.53
35:BA:1817:G:OP1	38:BD:88:ARG:NH2	2.38	0.53
50:DS:106:ARG:HD2	50:DS:106:ARG:O	2.09	0.53
45:BN:42:TRP:HE3	45:BN:48:MET:HE1	1.74	0.53
43:DI:61:ARG:HA	43:DI:65:ALA:HB2	1.90	0.53
1:AA:1305:G:N2	1:AA:1331:G:H1'	2.24	0.53
35:DA:2102:U:H2'	35:DA:2103:C:C5	2.43	0.53
35:BA:2855:C:H2'	35:BA:2856:C:H6	1.73	0.53
35:BA:910:A:C5	48:BQ:13:GLN:HG3	2.43	0.53
22:CV:5:G:H2'	22:CV:6:G:O4'	2.09	0.53
36:DB:15:A:H1'	36:DB:110:G:C5	2.44	0.53
4:CD:14:ARG:N	4:CD:40:PRO:HD3	2.24	0.53
4:CD:7:PRO:O	4:CD:10:ARG:HB3	2.09	0.53
51:DT:6:LEU:O	51:DT:10:VAL:HG23	2.09	0.53
35:DA:2876:G:H4'	51:DT:3:ARG:HG2	1.91	0.53
31:D6:44:ARG:O	31:D6:45:LYS:HB2	2.09	0.53
8:AH:97:VAL:CG1	8:AH:98:LYS:H	2.22	0.53
43:BI:33:ARG:HB2	43:BI:35:LEU:HG	1.91	0.53
11:CK:34:ASP:HB2	11:CK:35:PRO:HD2	1.91	0.53
39:DE:36:ARG:NH1	39:DE:85:ASN:OD1	2.41	0.53
2:AB:60:ASP:HB3	2:AB:64:ARG:CZ	2.39	0.53
18:AR:58:LEU:HD23	18:AR:62:GLU:HB3	1.90	0.53
35:DA:604:G:O2'	35:DA:605:C:H5'	2.08	0.53
42:DH:64:LEU:C	42:DH:66:GLY:H	2.12	0.53
38:BD:221:VAL:HG23	38:BD:226:MET:CE	2.38	0.53
42:BH:64:LEU:C	42:BH:66:GLY:H	2.12	0.53
56:DY:75:ILE:HG22	56:DY:80:GLY:N	2.24	0.53
35:BA:1386:C:OP2	35:BA:1396:U:H5	1.92	0.53
35:BA:826:U:OP1	35:BA:2428:G:H3'	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DB:98:G:H2'	36:DB:99:G:O4'	2.09	0.53
35:DA:1937:A:N7	35:DA:1939:U:H2'	2.24	0.53
35:BA:2672:G:C3'	35:BA:2673:G:H5''	2.39	0.53
35:DA:34:C:H2'	35:DA:35:G:H5'	1.91	0.53
45:BN:3:THR:O	45:BN:4:TYR:C	2.47	0.53
55:BX:41:ASN:O	55:BX:45:THR:HG23	2.08	0.53
8:CH:97:VAL:CG1	8:CH:98:LYS:H	2.21	0.53
35:DA:1914:C:C4'	35:DA:1914:C:O2	2.57	0.53
10:CJ:50:ILE:HA	10:CJ:60:ARG:CB	2.39	0.53
1:CA:1505:G:H2'	58:CX:15:A:OP1	2.09	0.53
23:AX:14:A:N1	23:AX:15:A:N3	2.57	0.53
52:BU:95:LEU:HD13	53:BV:4:ILE:HG23	1.91	0.53
36:DB:75:G:H2'	36:DB:76:G:O4'	2.09	0.53
35:DA:1506:C:H2'	35:DA:1506:C:O2	2.09	0.53
57:DZ:40:ASP:O	57:DZ:44:PHE:HB2	2.09	0.53
57:DZ:58:VAL:HA	57:DZ:67:LEU:O	2.08	0.53
15:CO:32:LEU:HD13	15:CO:63:ARG:HG3	1.90	0.53
2:AB:213:LEU:HD22	2:AB:214:ILE:HD13	1.89	0.53
35:DA:2302:G:H21	41:DG:128:ARG:HG3	1.73	0.53
41:DG:47:LYS:H	41:DG:51:ARG:HG3	1.74	0.53
50:DS:13:ARG:O	50:DS:14:VAL:HB	2.08	0.53
50:DS:15:ARG:NH1	50:DS:15:ARG:CB	2.61	0.53
8:AH:63:LEU:N	8:AH:63:LEU:HD22	2.21	0.53
43:BI:88:ILE:HD12	43:BI:89:TYR:H	1.73	0.53
9:AI:17:VAL:HG21	9:AI:81:ILE:N	2.24	0.53
9:AI:50:LEU:HD21	9:AI:81:ILE:HG21	1.91	0.53
35:BA:2127:G:H1'	35:BA:2173:A:H2	1.73	0.53
4:CD:114:ARG:CG	4:CD:114:ARG:HH11	2.14	0.53
1:AA:674:G:H2'	1:AA:675:A:C8	2.34	0.53
35:BA:528:A:C2	35:BA:2043:C:C5'	2.92	0.53
26:D1:7:ILE:HD12	26:D1:7:ILE:N	2.23	0.53
3:CC:18:TRP:C	3:CC:20:SER:H	2.12	0.53
35:DA:2117:A:C2	35:DA:2119:A:H5'	2.44	0.53
31:B6:33:LYS:CA	31:B6:33:LYS:HE2	2.37	0.53
38:BD:43:ARG:CZ	38:BD:44:ASN:HD21	2.21	0.53
4:AD:126:ILE:CG2	4:AD:127:THR:N	2.72	0.53
50:DS:51:ALA:HB3	50:DS:73:LEU:HG	1.91	0.53
35:DA:2787:C:H2'	35:DA:2787:C:O2	2.08	0.53
5:AE:139:LEU:C	5:AE:141:GLN:H	2.12	0.53
6:AF:37:VAL:HG13	6:AF:65:VAL:CG1	2.39	0.53
45:BN:34:LEU:HD11	45:BN:119:ARG:O	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:26:VAL:O	8:CH:27:PRO:C	2.46	0.53
38:DD:206:LEU:HD22	38:DD:211:ARG:HG3	1.91	0.53
38:BD:213:ARG:O	38:BD:216:GLY:N	2.41	0.53
28:D3:28:LEU:N	28:D3:28:LEU:HD22	2.23	0.53
42:BH:148:ILE:HG22	42:BH:162:ILE:HD12	1.91	0.53
25:B0:72:ARG:O	25:B0:74:ARG:N	2.42	0.53
35:DA:1047:G:H2'	35:DA:1110:G:C2	2.44	0.53
12:AL:68:PRO:O	12:AL:99:ARG:NH1	2.42	0.53
28:D3:52:HIS:CG	36:DB:83:G:H4'	2.44	0.53
1:AA:426:G:P	4:AD:36:ARG:HH12	2.31	0.53
35:DA:2593:U:H2'	35:DA:2594:C:C6	2.43	0.53
12:CL:68:PRO:O	12:CL:99:ARG:NH1	2.41	0.53
7:AG:6:ARG:HH11	7:AG:6:ARG:HB2	1.74	0.53
16:AP:28:ARG:HG2	16:AP:29:ASP:OD2	2.09	0.53
35:DA:2533:A:OP1	35:DA:2665:A:H1'	2.09	0.53
35:BA:1433:U:O2	35:BA:1561:G:C2	2.62	0.53
1:AA:660:G:H2'	1:AA:661:G:C8	2.44	0.53
10:CJ:90:LEU:N	10:CJ:91:PRO:CD	2.72	0.53
1:CA:676:A:O2'	1:CA:677:U:H5'	2.08	0.53
39:DE:102:VAL:HB	39:DE:199:ARG:O	2.09	0.53
3:AC:13:GLY:HA3	14:AN:57:ARG:HD2	1.90	0.53
31:D6:14:THR:O	31:D6:49:HIS:HA	2.09	0.53
27:D2:63:VAL:HA	27:D2:66:GLU:OE1	2.09	0.53
35:DA:1607:C:H4'	35:DA:1608:A:O5'	2.08	0.53
35:BA:588:U:H1'	40:BF:90:PHE:HB3	1.91	0.53
35:BA:588:U:H2'	35:BA:589:C:C6	2.44	0.53
6:AF:12:PRO:HG3	6:AF:57:GLN:O	2.08	0.53
35:DA:57:C:H2'	35:DA:58:G:O4'	2.09	0.53
10:CJ:50:ILE:HG23	10:CJ:60:ARG:HH11	1.74	0.53
56:DY:37:VAL:HG21	56:DY:72:VAL:HG11	1.91	0.53
1:CA:632:A:H3'	1:CA:633:G:C5'	2.38	0.53
52:BU:92:ARG:O	52:BU:94:ASN:N	2.42	0.53
37:DC:59:ARG:CG	37:DC:62:VAL:HG22	2.37	0.53
57:DZ:23:LYS:HB3	57:DZ:38:TYR:HE1	1.71	0.53
57:DZ:4:ARG:HA	57:DZ:58:VAL:O	2.08	0.53
38:DD:32:SER:C	38:DD:36:PRO:HD3	2.30	0.53
35:DA:2300:G:H1	35:DA:2316:C:H42	1.57	0.53
38:BD:33:LEU:CD2	38:BD:34:VAL:HG13	2.39	0.53
50:DS:16:ASN:O	50:DS:18:ILE:N	2.41	0.53
37:BC:59:ARG:N	37:BC:59:ARG:HD3	2.08	0.53
37:BC:59:ARG:CG	37:BC:62:VAL:HG22	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:13:HIS:CD2	10:CJ:14:LYS:HG2	2.44	0.53
35:BA:676:A:N1	35:BA:802:A:N1	2.56	0.53
51:BT:41:ARG:O	51:BT:41:ARG:HD2	2.09	0.53
43:BI:79:ILE:HG13	43:BI:92:VAL:HG22	1.91	0.53
43:DI:77:LEU:HD21	43:DI:79:ILE:HD13	1.90	0.53
51:BT:31:SER:HG	51:BT:32:TYR:N	2.06	0.53
22:AV:51:C:C2'	22:AV:52:G:O4'	2.57	0.53
41:BG:39:ILE:HD11	41:BG:155:MET:SD	2.49	0.53
50:DS:28:VAL:HG12	50:DS:89:ARG:HD2	1.91	0.53
35:BA:2646:C:OP2	35:BA:2732:G:O2'	2.21	0.53
35:BA:2580:U:C5'	39:BE:131:ALA:N	2.72	0.53
57:DZ:126:VAL:HG12	57:DZ:163:LEU:CB	2.39	0.53
40:DF:160:ASN:ND2	40:DF:160:ASN:C	2.62	0.53
40:BF:160:ASN:ND2	40:BF:160:ASN:C	2.62	0.53
38:DD:182:LEU:H	38:DD:272:ALA:HB3	1.74	0.53
47:BP:71:VAL:CG1	47:BP:72:PRO:HD3	2.39	0.53
35:DA:1280:G:H2'	35:DA:1281:G:C5'	2.38	0.53
6:AF:39:LYS:O	6:AF:40:VAL:HB	2.08	0.53
18:CR:71:LYS:CA	18:CR:74:ARG:HG3	2.39	0.53
35:BA:1766:U:O2'	35:BA:1767:C:H5'	2.09	0.53
40:BF:137:LYS:O	40:BF:140:LEU:HB2	2.09	0.53
1:CA:1097:C:H2'	1:CA:1098:C:C6	2.41	0.53
38:BD:166:GLN:N	38:BD:166:GLN:HE21	2.07	0.53
38:DD:147:LEU:HD12	38:DD:155:LEU:HD11	1.90	0.53
1:AA:774:G:H2'	1:AA:775:G:H8	1.74	0.53
7:CG:6:ARG:O	7:CG:6:ARG:HG2	2.09	0.53
38:DD:221:VAL:HG23	38:DD:226:MET:HE3	1.91	0.53
1:AA:542:G:H2'	1:AA:543:C:H6	1.74	0.53
17:CQ:87:LYS:HZ3	17:CQ:87:LYS:HA	1.74	0.53
35:BA:241:A:H5'	35:BA:243:U:O4'	2.08	0.53
35:DA:826:U:H2'	35:DA:828:U:O4'	2.09	0.53
1:CA:1256:A:OP2	3:CC:26:LYS:NZ	2.42	0.53
1:AA:198:G:H2'	1:AA:199:G:H8	1.73	0.53
35:BA:554:U:O2'	35:BA:555:U:H5'	2.08	0.53
1:CA:726:C:H2'	1:CA:727:G:H8	1.74	0.53
35:BA:660:G:H5'	40:BF:99:TYR:CE2	2.44	0.53
42:DH:82:GLY:O	42:DH:138:LYS:HD2	2.08	0.53
1:AA:131:C:H2'	1:AA:132:C:C6	2.44	0.53
35:BA:773:U:H4'	38:BD:47:GLY:HA3	1.91	0.53
42:DH:44:VAL:O	42:DH:44:VAL:HG12	2.08	0.53
41:BG:76:SER:OG	41:BG:84:LYS:HG3	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1348:U:H4'	9:CI:120:ARG:HD2	1.91	0.53
35:DA:90:U:O4'	35:DA:92:A:C8	2.61	0.53
1:CA:926:G:N2	1:CA:1505:G:H2'	2.23	0.53
47:DP:63:PRO:O	47:DP:64:LYS:C	2.47	0.53
49:DR:4:LEU:CD1	49:DR:5:LYS:H	2.22	0.53
51:BT:26:ASP:OD2	51:BT:26:ASP:C	2.47	0.53
33:D8:62:LEU:CD1	35:DA:242:G:H5''	2.27	0.53
5:CE:79:GLU:H	5:CE:79:GLU:CD	2.10	0.53
47:DP:39:LYS:O	47:DP:40:SER:CB	2.56	0.53
30:B5:2:ALA:HB3	35:BA:747:U:C1'	2.39	0.53
47:BP:108:LYS:C	47:BP:110:TYR:H	2.11	0.53
30:D5:52:TYR:O	30:D5:56:LYS:NZ	2.42	0.53
48:BQ:134:ARG:HG2	48:BQ:134:ARG:O	2.09	0.53
9:AI:28:VAL:HG13	9:AI:63:ILE:C	2.29	0.53
10:AJ:27:ALA:HB2	10:AJ:85:LEU:HD12	1.91	0.53
45:DN:15:LEU:HD13	45:DN:134:ARG:CZ	2.39	0.53
45:BN:15:LEU:HD13	45:BN:134:ARG:CZ	2.39	0.53
39:BE:52:LEU:HD12	39:BE:53:PRO:HD2	1.89	0.53
1:AA:1129:C:C4'	1:AA:1130:A:H5'	2.35	0.53
35:BA:1654:A:OP1	49:BR:3:HIS:HB2	2.08	0.53
35:BA:2632:A:C2	39:BE:61:ARG:HD2	2.44	0.53
35:BA:2811:G:OP1	39:BE:60:ASN:HB2	2.09	0.53
17:CQ:34:LYS:HG2	17:CQ:35:VAL:O	2.09	0.53
42:BH:136:ILE:HD11	42:BH:140:LYS:NZ	2.24	0.53
35:BA:889:C:H1'	35:BA:890:A:O4'	2.08	0.53
40:BF:201:VAL:HA	40:BF:204:ASN:ND2	2.22	0.53
45:DN:19:GLU:CD	45:DN:20:GLY:N	2.63	0.53
34:D9:22:ARG:HB2	34:D9:24:TYR:CE1	2.44	0.53
13:AM:99:ARG:HB3	13:AM:101:GLN:HE21	1.74	0.53
1:AA:1285:A:H5''	21:AU:25:LYS:HD2	1.91	0.53
1:CA:1480:G:H2'	1:CA:1481:U:O4'	2.09	0.53
11:CK:38:ASN:N	11:CK:38:ASN:ND2	2.57	0.53
46:BO:105:GLU:OE1	46:BO:105:GLU:N	2.41	0.53
34:D9:17:ILE:HD11	34:D9:19:ARG:HB2	1.91	0.53
34:D9:19:ARG:HD3	35:DA:2755:C:H2'	1.91	0.53
11:AK:50:TYR:HB3	11:AK:54:ARG:O	2.09	0.53
35:BA:2712:U:O2'	35:BA:2713:A:H5'	2.09	0.53
11:AK:20:TYR:CE2	11:AK:83:ILE:HD12	2.44	0.53
36:DB:65:C:C2'	36:DB:66:A:H5'	2.40	0.53
35:BA:476:G:H4'	35:BA:502:A:N1	2.24	0.53
41:BG:174:GLU:HA	41:BG:178:PHE:HB2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BC:51:PRO:HD2	37:BC:55:ASP:HA	1.91	0.53
26:B1:74:VAL:O	26:B1:77:ALA:HB3	2.09	0.53
1:CA:768:A:H5'	1:CA:1524:C:H1'	1.91	0.53
56:DY:34:LYS:HB3	56:DY:34:LYS:NZ	2.24	0.53
18:AR:88:LYS:HD3	18:AR:88:LYS:C	2.29	0.53
1:CA:749:C:O2	1:CA:749:C:H2'	2.08	0.53
51:BT:54:ARG:HH11	51:BT:54:ARG:HG2	1.73	0.53
35:DA:588:U:H1'	40:DF:90:PHE:HB3	1.91	0.53
35:DA:1215:G:O2'	35:DA:1216:G:H5'	2.08	0.53
24:AY:21:LEU:CD1	24:AY:22:GLY:N	2.51	0.52
56:DY:7:VAL:CG2	56:DY:8:LYS:NZ	2.72	0.52
33:D8:50:LEU:O	33:D8:51:ALA:CB	2.56	0.52
52:DU:92:ARG:HD3	52:DU:94:ASN:HB3	1.91	0.52
42:BH:122:THR:O	42:BH:133:VAL:HG13	2.09	0.52
57:DZ:3:TYR:O	57:DZ:58:VAL:N	2.41	0.52
1:CA:588:G:C2	1:CA:589:C:C4	2.97	0.52
1:CA:986:A:H2'	1:CA:987:G:O4'	2.09	0.52
48:DQ:132:VAL:HB	48:DQ:137:TYR:OH	2.10	0.52
6:AF:36:ARG:HH12	6:AF:66:GLU:HB3	1.73	0.52
51:BT:78:LEU:C	51:BT:79:HIS:ND1	2.62	0.52
25:B0:66:VAL:CG1	25:B0:67:VAL:N	2.72	0.52
6:AF:87:ARG:HH11	6:AF:87:ARG:HB2	1.74	0.52
38:BD:125:ILE:CD1	38:BD:137:PRO:CD	2.86	0.52
36:DB:42:C:H4'	41:DG:67:LYS:O	2.09	0.52
4:AD:102:ASP:HA	4:AD:121:VAL:HG21	1.91	0.52
35:DA:1654:A:OP1	49:DR:3:HIS:HB2	2.09	0.52
51:DT:78:LEU:HG	51:DT:78:LEU:O	2.09	0.52
8:AH:38:ILE:HA	8:AH:41:ARG:HB3	1.92	0.52
45:DN:42:TRP:HE3	45:DN:48:MET:HE1	1.74	0.52
35:DA:1171:G:N7	35:DA:1173:G:H1'	2.24	0.52
48:BQ:12:GLN:HE21	48:BQ:73:PRO:HD2	1.71	0.52
41:DG:172:LEU:O	41:DG:176:LEU:HD12	2.08	0.52
1:CA:813:U:O2'	1:CA:1511:G:H4'	2.09	0.52
25:B0:51:VAL:HG21	25:B0:79:VAL:O	2.09	0.52
40:BF:178:PRO:HG2	40:BF:179:GLU:OE2	2.09	0.52
18:AR:37:VAL:HG12	18:AR:38:GLU:N	2.24	0.52
7:AG:49:ILE:HA	7:AG:52:GLU:HG3	1.91	0.52
7:CG:49:ILE:HA	7:CG:52:GLU:HG3	1.90	0.52
42:DH:94:TYR:CE1	42:DH:160:LYS:HE3	2.43	0.52
1:AA:390:C:H4'	16:AP:28:ARG:NH2	2.24	0.52
35:DA:605:C:O2'	35:DA:606:U:H5'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2749:A:H1'	42:BH:63:SER:OG	2.09	0.52
10:AJ:90:LEU:N	10:AJ:91:PRO:CD	2.72	0.52
48:BQ:1:MET:O	48:BQ:2:LEU:HB3	2.09	0.52
1:CA:357:G:O2'	1:CA:358:U:H5'	2.09	0.52
23:AX:11:U:C2'	23:AX:11:U:O2	2.57	0.52
1:AA:1406:U:H2'	1:AA:1407:C:O4'	2.09	0.52
45:DN:89:LYS:HB3	45:DN:89:LYS:HZ2	1.74	0.52
42:DH:87:LEU:HB2	42:DH:131:VAL:O	2.09	0.52
11:AK:16:SER:HA	11:AK:79:SER:O	2.09	0.52
3:CC:79:ARG:HG3	3:CC:79:ARG:HH11	1.74	0.52
8:CH:4:ASP:HB2	8:CH:89:PRO:HG3	1.91	0.52
22:CV:55:U:H2'	22:CV:57:A:N7	2.24	0.52
1:CA:397:A:C3'	1:CA:397:A:N3	2.72	0.52
1:CA:1060:C:C4'	10:CJ:52:GLY:HA2	2.37	0.52
1:CA:1061:G:C2'	1:CA:1062:U:O5'	2.57	0.52
1:CA:790:A:N6	1:CA:1498:U:OP2	2.36	0.52
56:DY:27:VAL:HA	56:DY:28:LYS:CE	2.39	0.52
49:DR:4:LEU:HD12	49:DR:5:LYS:N	2.22	0.52
52:BU:92:ARG:HD3	52:BU:94:ASN:HB3	1.91	0.52
1:AA:1442(B):A:OP2	1:AA:1442(B):A:H4'	2.10	0.52
33:B8:48:PHE:C	33:B8:49:VAL:HG13	2.30	0.52
15:CO:32:LEU:O	15:CO:33:THR:C	2.47	0.52
5:AE:103:GLY:H	5:AE:106:PRO:HG3	1.72	0.52
46:BO:96:THR:O	46:BO:97:ARG:HG2	2.09	0.52
1:AA:1324:A:C4'	1:AA:1362:C:H4'	2.39	0.52
38:DD:33:LEU:CD2	38:DD:34:VAL:HG13	2.39	0.52
4:CD:126:ILE:CD1	4:CD:126:ILE:N	2.72	0.52
47:BP:6:LEU:H	47:BP:6:LEU:HD23	1.73	0.52
35:DA:146:G:O2'	35:DA:147:U:H5'	2.08	0.52
1:AA:1220:G:H5'	19:AS:34:TRP:O	2.09	0.52
35:BA:1593:G:H8	35:BA:1593:G:H5'	1.75	0.52
43:DI:82:ARG:HG2	43:DI:89:TYR:CD1	2.44	0.52
45:BN:128:HIS:O	45:BN:128:HIS:CG	2.61	0.52
5:CE:51:VAL:HB	5:CE:52:PRO:CD	2.39	0.52
41:BG:59:GLU:HG3	41:BG:60:LEU:N	2.25	0.52
1:AA:192:U:H4'	20:AT:103:GLY:N	2.19	0.52
1:CA:1187:G:H4'	9:CI:111:ARG:HH11	1.73	0.52
43:BI:5:LEU:HD21	43:BI:19:VAL:HG11	1.91	0.52
8:AH:26:VAL:O	8:AH:27:PRO:C	2.47	0.52
21:CU:12:LYS:HB2	21:CU:22:ARG:HG3	1.91	0.52
17:AQ:65:ILE:N	17:AQ:65:ILE:CD1	2.69	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1639:U:H4'	35:BA:2699:C:H4'	1.90	0.52
56:DY:31:LEU:CB	56:DY:32:PRO:HA	2.40	0.52
39:DE:69:LYS:HZ1	39:DE:89:ASP:HA	1.73	0.52
50:BS:11:LYS:CE	50:BS:11:LYS:N	2.72	0.52
2:CB:152:PHE:HE2	2:CB:155:LEU:HB3	1.73	0.52
35:BA:2593:U:H2'	35:BA:2594:C:C6	2.41	0.52
43:BI:31:LEU:HB2	43:BI:32:PRO:HD3	1.91	0.52
35:BA:27:G:N2	35:BA:512:G:H2'	2.24	0.52
35:BA:556:G:H2'	35:BA:557:U:H6	1.73	0.52
35:BA:65:C:H2'	35:BA:66:C:C6	2.42	0.52
38:BD:152:GLY:O	38:BD:154:LYS:HG3	2.09	0.52
40:BF:182:ASN:N	40:BF:182:ASN:HD22	2.07	0.52
35:DA:332:A:H4'	35:DA:333:G:OP1	2.09	0.52
35:DA:2134:A:H2	35:DA:2135:A:N7	2.07	0.52
48:DQ:51:ARG:HG2	48:DQ:51:ARG:NH1	2.24	0.52
35:BA:2464:C:O2'	35:BA:2465:C:P	2.67	0.52
17:AQ:50:LYS:HG3	17:AQ:51:TYR:H	1.74	0.52
27:D2:7:ARG:O	27:D2:11:GLU:HB2	2.09	0.52
35:BA:1839:G:H5'	35:BA:1839:G:C8	2.44	0.52
46:DO:14:THR:HG22	46:DO:52:VAL:HG13	1.92	0.52
35:DA:2455:G:H2'	35:DA:2456:C:C6	2.44	0.52
25:B0:34:GLY:O	25:B0:35:ASN:C	2.48	0.52
35:BA:580:C:H2'	35:BA:581:C:H6	1.74	0.52
35:DA:2672:G:C3'	35:DA:2673:G:H5''	2.39	0.52
35:BA:2065:C:H2'	35:BA:2066:C:H6	1.74	0.52
55:BX:57:LEU:HD22	55:BX:57:LEU:O	2.09	0.52
1:AA:161:A:H2'	1:AA:162:A:C8	2.44	0.52
6:CF:26:ILE:O	6:CF:29:ALA:HB3	2.09	0.52
56:DY:97:ARG:NH2	56:DY:98:VAL:HB	2.24	0.52
1:CA:1061:G:OP1	10:CJ:59:SER:O	2.26	0.52
1:CA:1324:A:C4'	1:CA:1362:C:H4'	2.38	0.52
22:CV:34:C:H2'	22:CV:35:A:O4'	2.09	0.52
52:BU:91:ASP:O	52:BU:92:ARG:O	2.26	0.52
53:BV:4:ILE:O	53:BV:4:ILE:HG22	2.09	0.52
51:BT:29:ARG:HG2	51:BT:86:ILE:H	1.74	0.52
35:DA:904:C:H5'	35:DA:904:C:H6	1.74	0.52
1:CA:8:A:H62	4:CD:208:SER:HB2	1.75	0.52
42:BH:83:TYR:CB	42:BH:135:GLY:N	2.68	0.52
35:BA:1485:G:H1'	35:BA:1505:C:H41	1.74	0.52
27:D2:43:GLN:HB3	27:D2:44:LEU:HD12	1.91	0.52
1:CA:17:U:H4'	1:CA:1080:A:O4'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1363(A):A:C4'	1:AA:1364:U:H5''	2.29	0.52
13:CM:54:VAL:HA	13:CM:57:ARG:HG2	1.91	0.52
9:CI:65:VAL:O	9:CI:65:VAL:HG13	2.09	0.52
10:CJ:5:ARG:CB	10:CJ:99:LYS:HB2	2.31	0.52
9:AI:65:VAL:O	9:AI:65:VAL:HG13	2.10	0.52
35:BA:1657:C:O2'	35:BA:1658:C:H5'	2.09	0.52
42:BH:158:HIS:O	42:BH:159:GLU:HB2	2.10	0.52
57:DZ:128:VAL:HG21	57:DZ:132:ASN:O	2.10	0.52
39:DE:5:LEU:HD22	39:DE:197:ILE:HG22	1.91	0.52
51:DT:57:PHE:O	51:DT:58:ASN:ND2	2.42	0.52
35:DA:691:C:C4'	38:DD:43:ARG:HE	2.22	0.52
1:CA:1432:G:OP1	51:DT:107:ASP:HB2	2.09	0.52
46:DO:102:VAL:HB	46:DO:106:LEU:CD1	2.39	0.52
51:DT:31:SER:N	51:DT:43:GLN:O	2.42	0.52
22:CW:73:A:O2'	26:D1:23:LYS:HE2	2.10	0.52
41:BG:137:GLU:HG2	41:BG:152:LEU:HD23	1.92	0.52
49:BR:4:LEU:O	49:BR:5:LYS:CB	2.56	0.52
29:B4:15:ILE:H	29:B4:31:ILE:HG22	1.73	0.52
8:AH:4:ASP:HB2	8:AH:89:PRO:CG	2.39	0.52
54:DW:111:HIS:CG	54:DW:112:GLY:N	2.77	0.52
43:DI:6:LEU:HA	43:DI:15:VAL:HG23	1.92	0.52
22:CW:26:G:H3'	22:CW:27:U:H6	1.74	0.52
1:AA:952:U:O2'	1:AA:953:G:H5'	2.09	0.52
5:AE:69:VAL:HG12	5:AE:71:LEU:HG	1.91	0.52
35:DA:2784:C:H1'	39:DE:37:ARG:NH1	2.24	0.52
1:AA:1352:C:H2'	1:AA:1353:G:H8	1.74	0.52
39:DE:87:GLU:O	39:DE:89:ASP:N	2.43	0.52
42:DH:148:ILE:HG22	42:DH:162:ILE:HD12	1.91	0.52
13:AM:91:ARG:HE	13:AM:96:LEU:HB2	1.75	0.52
7:CG:54:THR:HG22	7:CG:56:GLN:H	1.73	0.52
11:CK:22:HIS:HB3	11:CK:29:ILE:HG23	1.91	0.52
1:AA:473:G:H5''	16:AP:81:ARG:NH2	2.23	0.52
1:AA:1262:C:N4	1:AA:1273:G:H1	2.06	0.52
39:BE:13:ARG:HA	39:BE:21:VAL:O	2.09	0.52
35:DA:1793:C:H2'	35:DA:1794:U:C6	2.43	0.52
11:AK:102:GLY:C	11:AK:103:LEU:HD22	2.29	0.52
34:B9:16:VAL:HG11	35:BA:1032:A:O3'	2.10	0.52
48:DQ:42:ILE:O	48:DQ:94:VAL:HA	2.10	0.52
42:BH:87:LEU:HB2	42:BH:131:VAL:O	2.09	0.52
22:AW:51:C:N4	22:AW:63:G:H22	2.06	0.52
57:BZ:100:VAL:HG23	57:BZ:100:VAL:O	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:265:G:H5'	17:AQ:64:PRO:O	2.08	0.52
1:CA:1344:C:C2'	1:CA:1345:U:H5'	2.39	0.52
1:CA:1349:A:OP2	9:CI:118:LYS:NZ	2.43	0.52
13:CM:92:HIS:HB2	13:CM:98:VAL:CG2	2.38	0.52
1:CA:1060:C:C4	3:CC:2:GLY:N	2.74	0.52
35:BA:612:C:C3'	35:BA:613:G:H5''	2.39	0.52
1:AA:630:G:H2'	1:AA:631:G:H5''	1.91	0.52
52:BU:88:ILE:HG13	52:BU:88:ILE:O	2.08	0.52
50:BS:66:ALA:O	50:BS:68:GLN:N	2.42	0.52
1:CA:17:U:O4'	1:CA:1080:A:H1'	2.09	0.52
1:CA:1078:U:C4'	5:CE:84:PHE:HZ	2.22	0.52
2:CB:170:GLU:C	2:CB:172:ILE:HD12	2.29	0.52
2:CB:174:VAL:O	2:CB:178:ARG:HG2	2.09	0.52
35:BA:827:U:O2	35:BA:2246:G:H4'	2.09	0.52
5:AE:103:GLY:C	5:AE:106:PRO:HD2	2.29	0.52
5:AE:107:ARG:O	5:AE:109:ILE:N	2.43	0.52
2:AB:187:LEU:HD13	2:AB:205:ASP:HA	1.91	0.52
41:DG:47:LYS:NZ	41:DG:81:LYS:NZ	2.58	0.52
46:DO:96:THR:O	46:DO:97:ARG:HG2	2.09	0.52
1:CA:738:C:H2'	1:CA:739:C:C6	2.45	0.52
47:BP:6:LEU:N	47:BP:6:LEU:HD23	2.24	0.52
22:CV:9:G:N2	22:CV:45:G:H3'	2.24	0.52
19:AS:41:VAL:HG22	19:AS:42:PRO:HD2	1.90	0.52
45:DN:58:ASP:O	45:DN:59:LYS:HB2	2.10	0.52
6:CF:66:GLU:O	6:CF:67:MET:HB3	2.09	0.52
3:AC:113:ALA:HB1	3:AC:200:ALA:HB3	1.92	0.52
57:DZ:29:TYR:O	57:DZ:89:PHE:HD2	1.92	0.52
4:AD:190:ASP:O	4:AD:194:LEU:HD23	2.09	0.52
25:B0:77:ARG:NH2	35:BA:857:C:OP2	2.38	0.52
3:CC:52:LEU:H	3:CC:52:LEU:CD2	2.16	0.52
35:BA:2117:A:C2	35:BA:2119:A:H5'	2.44	0.52
4:AD:14:ARG:N	4:AD:40:PRO:HD3	2.24	0.52
9:CI:10:ARG:HD2	9:CI:105:ASP:OD2	2.08	0.52
35:BA:2102:U:H2'	35:BA:2103:C:C5	2.45	0.52
42:DH:136:ILE:HD11	42:DH:140:LYS:NZ	2.24	0.52
6:AF:96:PRO:HB3	18:AR:30:ASP:CG	2.30	0.52
38:DD:211:ARG:HH11	38:DD:211:ARG:CG	2.23	0.52
52:DU:28:ARG:HG2	52:DU:38:THR:OG1	2.08	0.52
35:DA:622:G:O2'	35:DA:623:G:H5'	2.09	0.52
1:AA:640:A:O2'	8:AH:116:LYS:NZ	2.43	0.52
35:BA:271(V):G:C2	35:BA:271(W):G:H1'	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2302:G:H1'	41:BG:128:ARG:NH2	2.25	0.52
5:AE:127:ASN:O	5:AE:131:ILE:HG12	2.09	0.52
56:DY:31:LEU:HD23	56:DY:36:ALA:C	2.29	0.52
1:CA:145:G:N3	1:CA:146:G:H1'	2.25	0.52
1:AA:769:G:H4'	1:AA:1513:A:H4'	1.91	0.52
52:BU:112:ARG:CG	52:BU:112:ARG:HH11	2.19	0.52
37:BC:46:LYS:HE3	37:BC:172:HIS:HA	1.90	0.52
1:AA:773:G:O2'	1:AA:774:G:H5'	2.09	0.52
35:BA:1693:U:H1'	38:BD:14:ARG:HH12	1.75	0.52
51:BT:50:ILE:HD11	51:BT:99:LEU:O	2.08	0.52
26:B1:26:ARG:HG2	26:B1:27:GLU:HG3	1.90	0.52
7:AG:138:LYS:O	7:AG:142:GLU:HG3	2.09	0.52
1:CA:1134:G:C2'	1:CA:1135:U:H5'	2.39	0.52
35:DA:2467:C:H4'	48:DQ:123:HIS:CG	2.44	0.52
41:DG:170:ARG:NH1	41:DG:170:ARG:HB2	2.25	0.52
35:DA:2642:G:O2'	35:DA:2643:G:H5'	2.08	0.52
1:AA:1224:G:H4'	13:AM:102:ARG:HE	1.74	0.52
35:DA:2765:A:H2	35:DA:2766:G:O4'	1.92	0.52
4:CD:192:GLU:N	4:CD:192:GLU:OE2	2.42	0.52
42:DH:12:PRO:HB2	42:DH:15:VAL:HG22	1.89	0.52
24:AY:74:SER:N	24:AY:75:PHE:CE1	2.77	0.52
1:CA:1495:U:H2'	1:CA:1496:C:C6	2.45	0.52
1:CA:1060:C:C6	3:CC:2:GLY:CA	2.78	0.52
33:D8:25:MET:HB2	47:DP:62:LEU:HD21	1.92	0.52
50:BS:28:VAL:HG12	50:BS:89:ARG:HD2	1.92	0.52
1:CA:6:G:C5'	1:CA:6:G:N3	2.69	0.52
51:DT:30:VAL:HG22	51:DT:84:GLN:O	2.09	0.52
41:DG:111:LEU:HD22	41:DG:117:PHE:CE2	2.40	0.52
41:DG:111:LEU:O	41:DG:117:PHE:HD2	1.91	0.52
10:AJ:50:ILE:HA	10:AJ:60:ARG:CB	2.39	0.52
37:BC:59:ARG:H	37:BC:59:ARG:CD	2.04	0.52
4:CD:133:VAL:HG13	4:CD:135:LEU:CD2	2.31	0.52
13:CM:7:VAL:O	13:CM:9:ILE:HG13	2.09	0.52
10:AJ:33:GLN:O	10:AJ:75:ILE:HG12	2.09	0.52
42:DH:158:HIS:O	42:DH:159:GLU:HB2	2.10	0.52
57:DZ:132:ASN:O	57:DZ:134:PRO:HD3	2.10	0.52
7:AG:152:ALA:C	7:AG:154:TYR:H	2.13	0.52
39:BE:34:VAL:O	39:BE:34:VAL:HG22	2.09	0.52
39:BE:51:PHE:N	39:BE:74:PRO:HG2	2.24	0.52
39:BE:75:VAL:O	39:BE:77:ILE:N	2.39	0.52
45:BN:55:VAL:HG22	45:BN:126:PRO:CA	2.35	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:12:ALA:O	20:AT:15:ARG:HB2	2.09	0.52
41:BG:100:TRP:C	41:BG:102:PHE:H	2.13	0.52
35:BA:2632:A:N3	39:BE:61:ARG:NH1	2.58	0.52
1:AA:973:G:H1'	10:AJ:55:LYS:CG	2.39	0.52
8:CH:38:ILE:HD12	8:CH:118:VAL:HG12	1.92	0.52
7:AG:18:TYR:HD2	7:AG:59:LEU:HD22	1.74	0.52
29:D4:44:THR:HG22	29:D4:45:GLY:N	2.25	0.52
1:AA:376:G:H5''	16:AP:5:ARG:HB2	1.90	0.52
2:CB:57:PHE:HE2	2:CB:185:ILE:HD11	1.74	0.52
35:DA:2019:A:H4'	52:DU:34:LYS:HD2	1.91	0.52
1:CA:204:U:H4'	1:CA:216:G:N9	2.24	0.52
13:AM:92:HIS:HB2	13:AM:98:VAL:CG2	2.38	0.52
19:AS:22:LEU:CD1	19:AS:27:GLU:HB2	2.39	0.52
39:BE:87:GLU:O	39:BE:89:ASP:N	2.42	0.52
4:AD:61:LYS:HA	4:AD:203:VAL:HG22	1.91	0.52
4:AD:129:ASN:HD21	4:AD:144:ASP:HA	1.73	0.52
35:BA:2329:G:H2'	35:BA:2330:G:C8	2.45	0.52
18:AR:25:THR:O	18:AR:26:LEU:HD23	2.10	0.52
38:DD:198:ASN:ND2	38:DD:198:ASN:C	2.61	0.52
3:AC:71:ALA:CB	3:AC:109:PRO:HB3	2.38	0.52
35:BA:1794:U:H2'	35:BA:1795:C:C6	2.45	0.52
29:B4:21:VAL:O	29:B4:21:VAL:HG12	2.10	0.52
35:DA:2715:C:O2'	35:DA:2716:U:H5'	2.09	0.52
9:AI:83:ARG:O	9:AI:87:GLN:HB2	2.09	0.52
26:B1:23:LYS:CD	26:B1:28:GLY:HA3	2.40	0.52
1:CA:1154:G:O2'	1:CA:1155:G:H5'	2.09	0.52
35:BA:41:C:H2'	35:BA:42:G:O4'	2.09	0.52
1:AA:486:U:H2'	1:AA:487:A:H8	1.74	0.52
35:DA:1755:A:H2'	35:DA:1756:G:H5'	1.90	0.52
54:BW:28:SER:OG	54:BW:31:GLU:HB2	2.09	0.52
52:BU:11:ARG:HH11	52:BU:11:ARG:HG3	1.73	0.52
38:BD:122:ASP:CG	38:BD:123:ALA:H	2.10	0.52
35:DA:864:G:C2'	35:DA:866:A:N6	2.73	0.52
22:AV:56:C:H1'	41:BG:76:SER:CB	2.40	0.52
56:DY:84:ARG:HH12	56:DY:97:ARG:CB	2.23	0.52
7:CG:80:VAL:C	7:CG:82:GLY:H	2.13	0.52
47:DP:29:LYS:HB3	47:DP:34:GLY:N	2.23	0.52
52:DU:95:LEU:HD13	53:DV:4:ILE:HG23	1.92	0.52
51:DT:91:ARG:HB3	51:DT:116:ALA:CA	2.30	0.52
57:BZ:28:MET:CB	57:BZ:88:PHE:HB2	2.38	0.52
35:BA:1506:C:O2	35:BA:1506:C:H2'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:208:ILE:O	2:CB:211:ILE:HB	2.10	0.52
24:AY:64:TYR:CE1	24:AY:92:ILE:HG21	2.44	0.52
35:DA:1301:A:H4'	35:DA:1302:A:OP1	2.10	0.52
2:AB:218:ALA:C	2:AB:220:ASP:N	2.59	0.52
41:DG:111:LEU:O	41:DG:117:PHE:CD2	2.63	0.52
1:CA:1152:A:H5''	10:CJ:13:HIS:HD1	1.72	0.52
38:DD:31:LYS:HB3	38:DD:34:VAL:CG2	2.35	0.52
1:AA:1220:G:OP1	19:AS:37:ARG:HD2	2.09	0.52
1:CA:1106:G:H4'	3:CC:171:GLY:O	2.10	0.52
1:CA:626:U:H5''	16:CP:38:TYR:CG	2.45	0.52
1:AA:735:C:O2'	1:AA:736:C:H5'	2.10	0.52
48:BQ:131:ILE:HG22	48:BQ:132:VAL:N	2.25	0.52
13:AM:7:VAL:O	13:AM:9:ILE:HG13	2.10	0.52
35:BA:2839:G:C5'	49:BR:46:GLY:HA2	2.39	0.52
51:BT:78:LEU:O	51:BT:79:HIS:ND1	2.43	0.52
1:CA:1415:G:O2'	1:CA:1416:G:H5'	2.10	0.52
41:DG:61:ALA:O	41:DG:65:GLY:N	2.41	0.52
38:BD:24:ILE:HD12	38:BD:24:ILE:C	2.30	0.52
43:BI:129:THR:HA	43:BI:137:PRO:HA	1.91	0.52
5:CE:139:LEU:C	5:CE:141:GLN:H	2.11	0.52
7:CG:18:TYR:HD2	7:CG:59:LEU:HD22	1.75	0.52
7:AG:19:GLY:O	7:AG:20:ASP:HB2	2.08	0.52
46:BO:86:ILE:O	46:BO:87:ILE:HD13	2.10	0.52
45:BN:65:LYS:O	45:BN:69:GLN:HB2	2.10	0.52
40:DF:132:VAL:HG13	40:DF:133:ASN:H	1.74	0.52
47:DP:140:ALA:O	47:DP:141:ALA:CB	2.58	0.52
5:AE:41:VAL:HG23	5:AE:67:VAL:CG1	2.40	0.52
5:AE:87:SER:HB3	5:AE:131:ILE:HD13	1.90	0.52
47:BP:111:ARG:NH2	47:BP:111:ARG:HG3	2.24	0.52
37:BC:77:ILE:O	37:BC:77:ILE:HG23	2.10	0.52
7:AG:38:LEU:O	7:AG:42:ILE:HG13	2.09	0.52
57:BZ:158:PRO:CD	57:BZ:161:VAL:HG21	2.40	0.52
18:CR:37:VAL:HG12	18:CR:38:GLU:N	2.24	0.52
22:CW:15:G:H2'	22:CW:59:A:C2	2.45	0.52
19:CS:63:THR:HG22	19:CS:66:MET:SD	2.49	0.52
38:DD:166:GLN:N	38:DD:166:GLN:HE21	2.08	0.52
12:AL:40:VAL:HG23	12:AL:52:VAL:CG2	2.39	0.52
1:AA:80:G:H3'	1:AA:81:U:H5'	1.91	0.52
39:BE:33:VAL:HG13	39:BE:69:LYS:CE	2.39	0.52
1:CA:1191:A:H5''	3:CC:4:LYS:HZ3	1.75	0.52
22:AW:23:C:H2'	22:AW:24:U:H6	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:718:A:H2'	35:BA:719:C:H5'	1.91	0.52
1:CA:1123:A:C5'	10:CJ:36:GLY:HA3	2.40	0.52
35:BA:2881:C:O3'	49:BR:96:ARG:HG3	2.10	0.52
13:CM:116:THR:CG2	13:CM:117:VAL:N	2.72	0.52
35:BA:2300:G:H1	35:BA:2316:C:H42	1.56	0.52
13:AM:106:ASN:O	13:AM:107:ALA:CB	2.57	0.52
35:DA:2839:G:C5'	49:DR:46:GLY:HA2	2.40	0.52
51:DT:132:LYS:HD2	51:DT:132:LYS:N	2.24	0.52
47:DP:25:SER:C	47:DP:30:THR:HG23	2.30	0.52
35:BA:1793:C:H2'	35:BA:1794:U:H6	1.74	0.52
52:BU:47:TYR:HA	52:BU:50:ARG:NH2	2.24	0.52
35:DA:1292:U:H2'	35:DA:1293:C:C6	2.45	0.52
6:CF:12:PRO:HG3	6:CF:57:GLN:O	2.10	0.52
1:CA:358:U:O2'	1:CA:359:U:H5'	2.10	0.52
48:BQ:32:TYR:CZ	48:BQ:111:GLU:HG3	2.45	0.52
35:BA:2785:C:H2'	35:BA:2786:U:H6	1.75	0.52
1:AA:139:G:H2'	1:AA:140:A:H8	1.74	0.52
55:DX:53:LYS:HB3	55:DX:82:GLN:HB3	1.91	0.52
48:DQ:1:MET:O	48:DQ:2:LEU:HB3	2.10	0.52
3:AC:79:ARG:HG3	3:AC:79:ARG:HH11	1.73	0.52
35:DA:773:U:H4'	38:DD:47:GLY:CA	2.40	0.52
13:CM:99:ARG:HB3	13:CM:101:GLN:HE21	1.74	0.52
13:CM:91:ARG:HE	13:CM:96:LEU:HB2	1.74	0.52
51:BT:85:LYS:HZ3	51:BT:85:LYS:CA	2.20	0.52
35:DA:2360:A:O2'	35:DA:2361:A:C5'	2.58	0.52
33:B8:62:LEU:N	33:B8:63:PRO:HD2	2.24	0.52
2:CB:180:LEU:O	2:CB:181:PHE:HB2	2.09	0.52
33:D8:33:ASN:CA	33:D8:36:LYS:HD2	2.40	0.52
40:DF:68:LYS:O	40:DF:70:THR:N	2.42	0.52
3:CC:84:ILE:O	3:CC:88:ARG:HG3	2.10	0.52
2:CB:17:PHE:CB	2:CB:44:LEU:HD11	2.40	0.52
57:DZ:40:ASP:HB3	57:DZ:43:GLU:HB2	1.92	0.52
57:DZ:63:ASP:HB2	57:DZ:65:GLN:NE2	2.24	0.52
5:AE:31:LEU:HD11	5:AE:43:LEU:HD11	1.90	0.52
2:AB:51:LEU:CD2	2:AB:201:ILE:HD13	2.39	0.52
2:AB:87:ARG:HE	2:AB:223:ILE:CD1	2.19	0.52
4:CD:105:VAL:HG12	4:CD:106:TYR:N	2.25	0.52
3:AC:43:LEU:HD13	3:AC:55:VAL:HG11	1.91	0.52
6:AF:66:GLU:O	6:AF:67:MET:HB3	2.08	0.52
41:BG:170:ARG:NH2	41:BG:180:PHE:HD1	2.07	0.52
35:DA:1038:C:H42	35:DA:1117:G:H1	1.56	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:48:THR:CA	10:AJ:62:HIS:HB3	2.33	0.52
26:D1:7:ILE:HG21	26:D1:69:LYS:HG2	1.91	0.52
1:CA:834:C:O2'	1:CA:835:U:H5'	2.10	0.52
5:AE:57:LYS:O	5:AE:60:TYR:HB3	2.10	0.52
50:DS:71:ARG:HH11	50:DS:71:ARG:HG3	1.74	0.52
4:AD:5:ILE:HG22	4:AD:6:GLY:N	2.25	0.52
53:BV:6:LYS:HB3	53:BV:37:VAL:CG1	2.38	0.52
55:BX:8:ILE:CD1	55:BX:42:ALA:HB1	2.39	0.52
22:CV:67:C:H2'	22:CV:67:C:O2	2.09	0.52
18:AR:47:THR:CG2	18:AR:85:LEU:H	2.22	0.52
50:DS:56:LEU:HD22	50:DS:58:LEU:CD1	2.38	0.52
34:D9:22:ARG:HB2	34:D9:24:TYR:HE1	1.75	0.52
1:CA:1015:A:H2'	1:CA:1016:A:H8	1.71	0.52
1:AA:397:A:H5''	1:AA:397:A:N3	2.23	0.52
1:CA:473:G:H5''	16:CP:81:ARG:NH2	2.24	0.52
1:CA:474:G:H2'	1:CA:475:G:C8	2.45	0.52
25:D0:72:ARG:O	25:D0:74:ARG:N	2.42	0.52
7:CG:6:ARG:HH11	7:CG:6:ARG:HB2	1.75	0.52
24:AY:45:GLY:O	24:AY:48:GLY:HA2	2.10	0.52
13:CM:107:ALA:O	13:CM:109:THR:N	2.41	0.52
30:D5:58:LEU:N	30:D5:58:LEU:HD12	2.24	0.52
35:DA:2339:G:H2'	35:DA:2340:G:H8	1.75	0.52
3:AC:42:LEU:HA	3:AC:45:LYS:HD2	1.92	0.52
10:CJ:65:LEU:HA	14:CN:55:GLY:O	2.09	0.52
1:CA:680:C:O2'	1:CA:681:C:H5'	2.10	0.52
1:AA:835:U:H3	1:AA:851:G:H1	1.58	0.52
35:DA:1515:G:H2'	35:DA:1516:C:C6	2.45	0.52
45:DN:2:LYS:O	45:DN:4:TYR:CZ	2.62	0.52
1:AA:585:G:P	17:AQ:37:LYS:HE2	2.49	0.52
35:BA:773:U:H4'	38:BD:47:GLY:CA	2.40	0.52
1:CA:997:U:H2'	1:CA:998:G:C8	2.45	0.52
2:AB:43:ASP:OD2	2:AB:45:GLN:HB3	2.10	0.52
11:CK:16:SER:HA	11:CK:79:SER:O	2.10	0.52
35:BA:70:G:H2'	35:BA:113:G:O2'	2.10	0.52
1:CA:294:U:H2'	1:CA:295:C:H6	1.75	0.52
1:AA:1508:G:H2'	1:AA:1509:C:O4'	2.09	0.52
35:BA:958:U:H5''	48:BQ:14:ARG:HD3	1.90	0.52
46:DO:17:ARG:HG2	46:DO:17:ARG:HH11	1.75	0.52
3:CC:113:ALA:HB1	3:CC:200:ALA:HB3	1.91	0.52
1:AA:174:C:H2'	1:AA:175:C:C6	2.45	0.52
48:BQ:30:GLY:CA	48:BQ:107:ALA:HB2	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AO:74:ASP:OD2	15:AO:76:GLU:HB3	2.10	0.52
1:CA:878:G:H5''	8:CH:89:PRO:HB2	1.91	0.52
56:BY:95:LYS:HZ3	56:BY:99:CYS:H	1.53	0.52
7:CG:152:ALA:C	7:CG:154:TYR:H	2.13	0.52
22:CV:36:U:C6	22:CV:37:A:H5''	2.45	0.52
52:BU:83:LEU:HD12	52:BU:83:LEU:N	2.24	0.52
51:BT:83:ILE:CG1	51:BT:84:GLN:H	2.00	0.52
40:DF:198:ALA:C	40:DF:200:GLU:N	2.62	0.52
51:DT:82:LEU:H	51:DT:82:LEU:CD1	2.22	0.52
30:D5:2:ALA:HB3	35:DA:747:U:C1'	2.40	0.52
2:CB:214:ILE:C	2:CB:215:LEU:HD22	2.29	0.52
2:CB:30:ARG:HG3	2:CB:31:TYR:CD2	2.45	0.52
2:AB:101:MET:HG2	2:AB:108:ILE:HG21	1.91	0.52
38:BD:34:VAL:O	38:BD:64:ILE:CG2	2.58	0.52
37:BC:59:ARG:HG2	37:BC:62:VAL:CG2	2.38	0.52
8:CH:6:ILE:N	8:CH:6:ILE:HD12	2.18	0.52
3:CC:181:ASN:HD21	3:CC:204:LEU:HD12	1.75	0.52
43:BI:83:ALA:HB3	43:BI:144:VAL:CG1	2.40	0.52
35:DA:2724:C:OP1	39:DE:118:LYS:HE3	2.08	0.52
38:DD:125:ILE:HD11	38:DD:136:ILE:HA	1.92	0.52
48:BQ:63:LYS:HA	57:BZ:178:GLU:OE2	2.09	0.52
6:CF:36:ARG:CB	6:CF:36:ARG:HH11	2.16	0.52
57:BZ:103:ARG:HD2	57:BZ:136:PHE:CG	2.45	0.52
29:B4:9:LEU:HD12	29:B4:26:SER:HA	1.92	0.52
47:DP:16:ARG:O	47:DP:16:ARG:NH1	2.41	0.52
45:BN:26:LEU:HD12	45:BN:26:LEU:O	2.10	0.52
4:CD:11:LEU:N	4:CD:11:LEU:HD23	2.25	0.52
38:DD:131:LEU:HD12	38:DD:135:PHE:HB2	1.90	0.52
51:DT:33:LYS:HZ1	51:DT:43:GLN:HE22	1.57	0.52
42:DH:72:ILE:O	42:DH:75:ALA:HB3	2.10	0.52
1:CA:720:C:H5'	18:CR:50:ILE:O	2.09	0.52
50:DS:71:ARG:HG2	50:DS:103:GLU:OE2	2.08	0.52
4:AD:35:ARG:O	4:AD:37:PRO:HD3	2.08	0.52
45:BN:33:LEU:HD23	45:BN:38:HIS:CD2	2.45	0.52
1:AA:878:G:C5'	8:AH:89:PRO:HB2	2.40	0.52
57:DZ:168:GLU:O	57:DZ:169:GLU:C	2.48	0.52
35:DA:2632:A:N3	39:DE:61:ARG:NH1	2.58	0.52
35:DA:1817:G:OP1	38:DD:88:ARG:NH2	2.35	0.52
1:CA:1373:G:H5''	7:CG:36:LYS:CG	2.40	0.52
35:BA:1022:G:N2	35:BA:1142(A):A:C2	2.74	0.52
1:CA:1028:C:H41	1:CA:1034:G:H21	1.58	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1371:G:OP1	9:CI:11:LYS:HG2	2.10	0.52
21:AU:12:LYS:HB2	21:AU:22:ARG:HG3	1.92	0.52
1:AA:562:C:N3	12:AL:13:GLU:HB3	2.25	0.52
14:AN:27:CYS:HB3	14:AN:43:CYS:SG	2.50	0.52
43:BI:41:GLU:O	43:BI:45:LYS:HG2	2.10	0.52
1:AA:1228:C:H2'	1:AA:1229:A:C8	2.38	0.52
7:CG:38:LEU:O	7:CG:42:ILE:HG13	2.10	0.52
17:AQ:5:VAL:HG22	17:AQ:60:ILE:HA	1.91	0.52
35:BA:2737:G:H2'	35:BA:2738:A:C8	2.41	0.52
5:CE:144:THR:H	5:CE:147:ASP:HB2	1.74	0.52
45:BN:93:THR:O	45:BN:94:HIS:HB2	2.09	0.52
43:BI:33:ARG:HG2	43:BI:33:ARG:HH11	1.75	0.52
1:CA:80:G:H3'	1:CA:81:U:H5'	1.91	0.52
52:DU:24:TYR:HB2	52:DU:29:SER:HB3	1.92	0.52
35:DA:7:G:H2'	35:DA:8:A:C8	2.45	0.52
35:DA:171:G:O2'	35:DA:172:C:H5'	2.10	0.52
34:D9:18:ARG:NE	34:D9:23:VAL:HG22	2.24	0.52
35:BA:171:G:O2'	35:BA:172:C:H5'	2.09	0.52
1:AA:115:G:O2'	1:AA:116:A:OP2	2.25	0.52
50:BS:42:ASP:C	50:BS:44:LYS:H	2.13	0.52
35:DA:826:U:OP1	35:DA:2428:G:H3'	2.09	0.52
35:BA:1292:U:O2'	35:BA:1293:C:H5'	2.09	0.52
36:DB:65:C:O2'	36:DB:66:A:H5'	2.09	0.52
35:BA:845:G:HO2'	35:BA:846:C:H5	1.56	0.52
35:BA:534:U:O2'	52:BU:49:HIS:CD2	2.63	0.52
35:BA:580:C:H2'	35:BA:581:C:C6	2.44	0.52
1:AA:269:C:H2'	1:AA:270:A:C8	2.45	0.52
44:BJ:20:UNK:CB	44:BJ:89:UNK:HA	2.40	0.52
35:DA:882:G:H2'	35:DA:883:G:H8	1.75	0.52
35:DA:1688:U:O2	35:DA:1700:A:H8	1.91	0.52
35:DA:256:A:O2'	35:DA:257:A:H5'	2.10	0.52
40:BF:21:ALA:C	40:BF:23:ASP:H	2.12	0.52
19:CS:67:VAL:HG23	19:CS:68:GLY:N	2.25	0.52
1:CA:754:C:H3'	1:CA:754:C:O2	2.10	0.52
35:BA:2098:U:H2'	35:BA:2099:U:C6	2.45	0.52
1:CA:1225:A:N1	1:CA:1226:C:C4	2.77	0.52
35:DA:2821:A:OP2	49:DR:5:LYS:NZ	2.42	0.52
33:D8:4:MET:CE	33:D8:61:LEU:HD13	2.40	0.52
56:BY:28:LYS:O	56:BY:29:GLU:O	2.27	0.52
56:BY:27:VAL:HG12	56:BY:29:GLU:H	1.75	0.52
46:DO:64:ARG:HG2	46:DO:79:PHE:CG	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:DT:20:PRO:O	51:DT:22:PHE:HD2	1.92	0.52
12:AL:80:VAL:HG22	12:AL:81:LEU:N	2.25	0.52
35:BA:1486:A:H2'	35:BA:1487:G:H8	1.75	0.52
1:CA:178:C:C3'	1:CA:179:A:H5''	2.39	0.52
15:CO:82:ILE:C	15:CO:82:ILE:HD13	2.30	0.52
2:AB:100:GLY:O	2:AB:101:MET:C	2.48	0.52
2:AB:80:ILE:O	2:AB:80:ILE:HG22	2.10	0.52
47:DP:96:THR:HG22	47:DP:126:VAL:HG21	1.92	0.52
9:CI:17:VAL:HG21	9:CI:81:ILE:N	2.25	0.52
51:BT:38:ASN:CG	51:BT:39:ARG:N	2.62	0.52
57:DZ:81:ARG:HG3	57:DZ:82:ARG:H	1.75	0.52
1:AA:619:U:C2	4:AD:135:LEU:HD21	2.45	0.52
4:CD:199:ASN:C	4:CD:201:GLN:H	2.13	0.52
57:BZ:137:ILE:HG22	57:BZ:137:ILE:O	2.09	0.52
47:DP:16:ARG:NH1	47:DP:18:ARG:HG2	2.25	0.52
57:DZ:30:ASN:HA	57:DZ:89:PHE:CE2	2.42	0.52
5:CE:57:LYS:O	5:CE:60:TYR:HB3	2.10	0.52
1:CA:191:G:O2'	1:CA:192:U:H5'	2.10	0.52
1:CA:1012:U:C3'	1:CA:1013:G:H5''	2.34	0.52
38:BD:131:LEU:HD12	38:BD:135:PHE:HB2	1.90	0.52
51:DT:31:SER:OG	51:DT:43:GLN:N	2.43	0.52
1:CA:1054:C:C2'	1:CA:1054:C:O2	2.58	0.52
4:AD:10:ARG:HG3	4:AD:40:PRO:HG2	1.92	0.52
3:AC:121:ALA:HA	3:AC:189:ALA:HB2	1.92	0.52
8:AH:38:ILE:HD12	8:AH:118:VAL:HG12	1.91	0.52
7:CG:19:GLY:O	7:CG:20:ASP:HB2	2.10	0.52
35:DA:18:C:H2'	35:DA:19:C:H6	1.74	0.52
8:CH:44:PHE:O	8:CH:64:LYS:HB3	2.09	0.52
5:AE:40:ARG:HB3	5:AE:66:MET:HE3	1.92	0.52
28:D3:4:LEU:HD12	28:D3:4:LEU:H	1.73	0.52
35:BA:18:C:H2'	35:BA:19:C:H6	1.74	0.52
55:DX:90:GLU:O	55:DX:93:GLU:HG2	2.10	0.52
35:DA:1563:G:C5	35:DA:1564:C:C5	2.98	0.52
1:AA:591:U:H2'	1:AA:592:G:C8	2.42	0.52
27:B2:35:LEU:HB3	27:B2:50:ILE:HD11	1.91	0.52
1:AA:327:A:O2'	1:AA:328:C:O4'	2.27	0.52
36:BB:35:U:C2'	36:BB:36:C:H5'	2.40	0.52
20:AT:54:LYS:HB2	20:AT:54:LYS:HZ2	1.72	0.52
35:DA:2648:C:H2'	35:DA:2649:U:C6	2.45	0.52
1:AA:680:C:O2'	1:AA:681:C:H5'	2.10	0.52
19:AS:24:ALA:O	19:AS:25:LYS:CB	2.58	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:310:A:OP1	56:BY:17:SER:O	2.28	0.52
17:CQ:92:ARG:O	17:CQ:92:ARG:HG2	2.09	0.52
41:BG:159:VAL:HG23	41:BG:159:VAL:O	2.10	0.52
35:DA:2533:A:C5'	35:DA:2665:A:H1'	2.40	0.52
51:BT:132:LYS:N	51:BT:132:LYS:HD2	2.24	0.52
1:AA:658:G:O4'	15:AO:22:THR:HB	2.10	0.52
3:CC:71:ALA:CB	3:CC:109:PRO:HB3	2.40	0.52
1:CA:977:A:C2'	1:CA:978:A:H5'	2.39	0.52
35:DA:2310:A:O2'	35:DA:2311:A:H5''	2.09	0.52
48:DQ:30:GLY:CA	48:DQ:107:ALA:HB2	2.40	0.52
35:DA:588:U:H2'	35:DA:589:C:C6	2.45	0.52
35:DA:967:C:O2'	35:DA:968:G:H5'	2.09	0.52
35:DA:2098:U:H2'	35:DA:2099:U:C6	2.45	0.52
35:DA:2567:G:H2'	35:DA:2568:C:C6	2.45	0.52
54:DW:82:LEU:HB2	54:DW:98:LYS:HB2	1.92	0.52
7:CG:69:VAL:O	7:CG:69:VAL:HG12	2.10	0.52
55:BX:53:LYS:HB3	55:BX:82:GLN:HB3	1.92	0.52
24:AY:55:ASP:N	24:AY:60:GLU:O	2.37	0.52
1:AA:1402:C:N4	23:AX:18:G:OP2	2.31	0.52
56:DY:77:PRO:O	56:DY:78:ALA:HB2	2.10	0.52
56:DY:7:VAL:HG21	56:DY:8:LYS:NZ	2.25	0.52
40:BF:117:ARG:HG2	40:BF:192:LEU:HB2	1.92	0.52
35:BA:611:C:H2'	35:BA:612:C:H6	1.75	0.52
42:DH:122:THR:O	42:DH:133:VAL:HG13	2.09	0.52
35:BA:1533:G:H3'	35:BA:1543:C:P	2.45	0.52
52:BU:92:ARG:O	52:BU:92:ARG:CG	2.57	0.52
57:DZ:150:LEU:N	57:DZ:150:LEU:HD23	2.25	0.52
51:BT:82:LEU:N	51:BT:82:LEU:CD1	2.72	0.52
50:BS:71:ARG:HG2	50:BS:103:GLU:OE2	2.10	0.52
50:BS:98:VAL:HG12	50:BS:100:ALA:HB2	1.92	0.52
5:CE:87:SER:HB3	5:CE:131:ILE:HD13	1.91	0.52
51:BT:13:ARG:HH11	51:BT:13:ARG:HA	1.65	0.52
8:CH:23:SER:HA	8:CH:63:LEU:CD2	2.39	0.52
1:AA:1234:C:O2'	1:AA:1235:U:H5'	2.10	0.52
13:CM:83:ASP:CG	13:CM:84:ILE:N	2.63	0.52
2:CB:46:LYS:HA	2:CB:49:GLU:OE1	2.09	0.52
9:CI:15:ALA:HB2	9:CI:65:VAL:HB	1.92	0.52
9:CI:50:LEU:HD21	9:CI:81:ILE:HG21	1.91	0.52
13:CM:11:ARG:HA	13:CM:45:VAL:HB	1.92	0.52
19:AS:49:ILE:HD11	19:AS:71:LEU:HD22	1.92	0.52
57:BZ:103:ARG:HH11	57:BZ:103:ARG:HG3	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:B4:18:CYS:SG	29:B4:36:CYS:HB3	2.49	0.52
46:BO:102:VAL:HB	46:BO:106:LEU:CD1	2.40	0.52
1:AA:1037:C:H2'	1:AA:1038:C:C5	2.45	0.52
1:CA:1428:A:C2	1:CA:1429:C:N3	2.78	0.52
35:BA:691:C:H4'	38:BD:43:ARG:HE	1.76	0.52
41:BG:15:VAL:HG11	41:BG:175:LEU:O	2.09	0.52
52:DU:103:PRO:HD2	52:DU:104:GLN:NE2	2.24	0.52
49:BR:12:ARG:HG3	49:BR:12:ARG:NH1	2.25	0.52
54:BW:75:TYR:CE2	54:BW:104:THR:HB	2.45	0.52
45:BN:68:GLU:O	45:BN:69:GLN:HG3	2.09	0.52
35:BA:1854:A:H62	35:BA:1888:G:H8	1.58	0.52
45:DN:25:ARG:CG	45:DN:25:ARG:HH11	2.17	0.52
35:DA:887:A:C2	35:DA:889:C:H2'	2.38	0.52
47:DP:140:ALA:O	47:DP:141:ALA:HB2	2.10	0.52
50:DS:11:LYS:N	50:DS:11:LYS:CE	2.72	0.52
35:DA:556:G:H2'	35:DA:557:U:H6	1.74	0.52
13:AM:97:PRO:C	13:AM:98:VAL:HA	2.30	0.52
1:CA:542:G:H2'	1:CA:543:C:H6	1.75	0.52
2:CB:34:ALA:C	2:CB:41:ILE:HB	2.30	0.52
1:AA:322:C:H5	1:AA:328:C:H5	1.58	0.52
17:AQ:92:ARG:O	17:AQ:92:ARG:HG2	2.09	0.52
35:BA:2022:U:O2'	35:BA:2617:C:H5'	2.09	0.52
35:DA:30:G:H2'	35:DA:31:C:H6	1.74	0.52
35:DA:154(A):C:O2	35:DA:154(A):C:H5''	2.10	0.52
8:AH:103:VAL:HG21	8:AH:109:ILE:O	2.09	0.52
57:DZ:51:ALA:CB	57:DZ:57:ILE:HD11	2.40	0.52
6:AF:24:GLU:OE2	6:AF:28:ARG:HD2	2.10	0.52
6:CF:24:GLU:OE2	6:CF:28:ARG:HD2	2.10	0.52
2:AB:127:ILE:HD11	2:AB:139:LYS:NZ	2.24	0.52
35:BA:438:G:O2'	35:BA:440:G:H5'	2.10	0.52
35:BA:1270:C:H5''	35:BA:1271:G:O5'	2.11	0.52
30:D5:41:PRO:HG2	30:D5:44:THR:OG1	2.09	0.52
1:CA:547:A:H4'	1:CA:548:G:O5'	2.11	0.52
17:AQ:96:GLU:C	17:AQ:98:LEU:H	2.14	0.52
35:BA:1416:G:H1'	35:BA:1417:C:C5	2.45	0.52
35:BA:1973:G:H2'	35:BA:1974:C:C6	2.45	0.52
11:CK:78:GLN:N	11:CK:78:GLN:NE2	2.57	0.52
1:AA:316:G:OP2	1:AA:351:G:O2'	2.27	0.52
1:AA:864:A:H5'	5:AE:86:ALA:HB2	1.91	0.52
42:BH:29:PRO:HD2	42:BH:79:VAL:O	2.10	0.51
42:DH:52:VAL:C	42:DH:65:HIS:HE1	2.03	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1912:A:N1	35:DA:1919:A:N7	2.58	0.51
23:AX:19:U:O2'	23:AX:20:U:O5'	2.27	0.51
56:DY:81:LYS:NZ	56:DY:97:ARG:HH21	2.08	0.51
1:CA:837:G:O2'	1:CA:838:G:H5'	2.10	0.51
35:BA:1190:G:H5'	47:BP:35:HIS:N	2.26	0.51
50:BS:51:ALA:HB3	50:BS:73:LEU:HG	1.92	0.51
1:CA:866:C:C4'	1:CA:919:A:H5''	2.40	0.51
1:CA:1079:G:H4'	5:CE:129:ILE:HG21	1.91	0.51
33:B8:33:ASN:OD1	33:B8:33:ASN:N	2.43	0.51
24:AY:64:TYR:CE1	24:AY:92:ILE:HG23	2.45	0.51
38:BD:205:VAL:HG12	38:BD:205:VAL:O	2.10	0.51
41:DG:105:LYS:HE3	41:DG:142:PRO:HG2	1.92	0.51
46:BO:24:VAL:HG21	46:BO:32:TYR:O	2.10	0.51
9:CI:15:ALA:CB	9:CI:65:VAL:HB	2.40	0.51
4:CD:133:VAL:CG1	4:CD:135:LEU:HD22	2.30	0.51
45:BN:58:ASP:O	45:BN:60:ILE:N	2.41	0.51
35:DA:146:G:C2'	35:DA:147:U:H5'	2.39	0.51
1:AA:1124:G:H22	1:AA:1280:A:N6	2.08	0.51
36:BB:57:A:C4	41:BG:29:TRP:HB3	2.45	0.51
13:AM:14:ARG:H	13:AM:44:ARG:HH11	1.58	0.51
25:D0:23:VAL:HG12	25:D0:25:ARG:O	2.10	0.51
38:BD:131:LEU:HD12	38:BD:135:PHE:CB	2.40	0.51
53:BV:82:ARG:NH1	53:BV:82:ARG:HG2	2.25	0.51
1:CA:1305:G:H21	1:CA:1306:A:N6	2.07	0.51
35:DA:1187:G:H5''	53:DV:81:TYR:HE2	1.71	0.51
38:BD:25:THR:HG22	38:BD:26:LYS:CD	2.37	0.51
1:AA:973:G:N3	10:AJ:55:LYS:HE2	2.25	0.51
8:CH:34:GLU:CB	8:CH:118:VAL:HG21	2.40	0.51
1:CA:637:G:O2'	1:CA:638:G:H5'	2.10	0.51
35:DA:2855:C:H2'	35:DA:2856:C:C6	2.45	0.51
41:DG:29:TRP:HA	41:DG:29:TRP:HE3	1.75	0.51
51:BT:98:LYS:HB3	51:BT:100:TYR:CE1	2.44	0.51
35:BA:105:C:H2'	35:BA:106:C:H6	1.75	0.51
46:BO:88:ASN:OD1	46:BO:92:GLU:N	2.38	0.51
46:BO:87:ILE:CG2	46:BO:91:LEU:HA	2.38	0.51
38:DD:118:VAL:HG22	38:DD:119:ALA:N	2.24	0.51
17:CQ:65:ILE:CD1	17:CQ:65:ILE:N	2.74	0.51
31:D6:45:LYS:NZ	31:D6:45:LYS:HB3	2.26	0.51
22:CW:59:A:C2'	22:CW:60:U:H5'	2.40	0.51
12:AL:30:ARG:O	12:AL:82:ILE:HG22	2.09	0.51
55:DX:65:ARG:HG2	55:DX:65:ARG:NH1	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:119:GLN:O	4:CD:123:HIS:HD2	1.92	0.51
14:CN:26:ARG:HG3	14:CN:39:LEU:CD2	2.40	0.51
5:AE:144:THR:H	5:AE:147:ASP:HB2	1.75	0.51
11:AK:43:SER:HA	11:AK:47:VAL:HG21	1.91	0.51
7:AG:6:ARG:CB	7:AG:6:ARG:HH11	2.23	0.51
30:B5:58:LEU:HD12	30:B5:58:LEU:N	2.25	0.51
38:DD:221:VAL:HG23	38:DD:226:MET:CE	2.40	0.51
57:BZ:149:SER:HB2	57:BZ:173:ALA:CB	2.40	0.51
40:BF:182:ASN:H	40:BF:182:ASN:HD22	1.57	0.51
16:AP:17:TYR:N	16:AP:17:TYR:CD1	2.78	0.51
40:DF:182:ASN:HD22	40:DF:182:ASN:H	1.58	0.51
35:BA:1515:G:H2'	35:BA:1516:C:C6	2.45	0.51
55:DX:18:TYR:C	55:DX:20:GLY:H	2.14	0.51
1:AA:829:G:O2'	1:AA:830:G:H5'	2.10	0.51
9:AI:4:TYR:CD2	9:AI:88:TYR:HB3	2.45	0.51
35:BA:1973:G:H2'	35:BA:1974:C:H6	1.75	0.51
54:DW:45:TYR:CZ	54:DW:49:LYS:HE3	2.45	0.51
35:DA:237:C:O2'	35:DA:238:C:H5'	2.09	0.51
1:CA:62:U:H5''	1:CA:385:C:O2	2.09	0.51
1:CA:1255:G:H2'	1:CA:1255:G:N3	2.25	0.51
42:BH:41:MET:HE2	42:BH:54:ARG:HA	1.91	0.51
24:AY:74:SER:OG	24:AY:84:LYS:HG3	2.08	0.51
41:BG:82:LEU:CD2	41:BG:87:PRO:HB3	2.40	0.51
57:DZ:141:VAL:O	57:DZ:141:VAL:HG12	2.10	0.51
35:DA:2360:A:O2'	35:DA:2361:A:O4'	2.25	0.51
35:DA:877:U:O2'	35:DA:878:A:H5''	2.11	0.51
1:CA:1442(B):A:N7	51:DT:118:ARG:NE	2.57	0.51
57:BZ:2:GLU:O	57:BZ:3:TYR:HB2	2.09	0.51
1:CA:13:U:C4	1:CA:21:G:N2	2.79	0.51
1:CA:866:C:H4'	1:CA:919:A:H5''	1.91	0.51
24:AY:49:ARG:HH11	24:AY:49:ARG:HG3	1.75	0.51
2:CB:100:GLY:O	2:CB:101:MET:C	2.49	0.51
41:DG:43:LEU:HB3	41:DG:88:ILE:CG2	2.39	0.51
35:DA:1347:G:H5'	35:DA:1347:G:C8	2.42	0.51
45:BN:58:ASP:O	45:BN:59:LYS:HB2	2.10	0.51
43:BI:93:THR:HG23	43:BI:94:ALA:N	2.24	0.51
35:DA:2724:C:P	49:DR:2:ARG:CZ	2.99	0.51
35:BA:2681:C:H5	35:BA:2725:A:N6	1.92	0.51
10:AJ:5:ARG:CB	10:AJ:99:LYS:HB2	2.32	0.51
1:AA:501:C:H2'	1:AA:502:G:C8	2.41	0.51
35:BA:856:C:C5	35:BA:857:C:H5	2.27	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:D8:14:VAL:HG21	33:D8:22:VAL:CG1	2.40	0.51
35:BA:2724:C:P	49:BR:2:ARG:CZ	2.98	0.51
35:BA:925:C:H2'	35:BA:926:A:H5'	1.91	0.51
38:BD:174:ILE:HG12	38:BD:184:LYS:HG2	1.91	0.51
38:BD:70:TRP:CD1	38:BD:70:TRP:C	2.84	0.51
42:BH:72:ILE:O	42:BH:75:ALA:HB3	2.10	0.51
31:D6:33:LYS:CA	31:D6:33:LYS:HE2	2.38	0.51
41:BG:100:TRP:O	41:BG:102:PHE:N	2.43	0.51
45:BN:46:VAL:O	45:BN:46:VAL:HG22	2.10	0.51
5:CE:148:VAL:C	5:CE:150:ARG:H	2.14	0.51
35:DA:2785:C:H2'	35:DA:2786:U:C6	2.45	0.51
5:AE:148:VAL:C	5:AE:150:ARG:H	2.13	0.51
39:BE:128:SER:OG	39:BE:129:HIS:N	2.38	0.51
3:AC:11:ARG:HG2	3:AC:11:ARG:HH11	1.75	0.51
40:DF:165:ARG:CB	40:DF:165:ARG:NH1	2.73	0.51
35:DA:2580:U:H4'	39:DE:130:GLY:HA2	1.93	0.51
35:DA:1639:U:H4'	35:DA:2699:C:H4'	1.92	0.51
3:AC:173:VAL:HG11	3:AC:201:TYR:HB3	1.92	0.51
38:DD:182:LEU:H	38:DD:272:ALA:CB	2.22	0.51
5:CE:41:VAL:HG23	5:CE:67:VAL:CG1	2.40	0.51
10:CJ:27:ALA:HB2	10:CJ:85:LEU:HD12	1.91	0.51
30:B5:52:TYR:HD1	30:B5:53:ALA:N	2.09	0.51
18:CR:47:THR:CG2	18:CR:85:LEU:H	2.20	0.51
17:CQ:9:VAL:HG21	17:CQ:84:LEU:HD13	1.92	0.51
39:BE:116:VAL:HG13	39:BE:122:PHE:HB2	1.92	0.51
36:DB:35:U:C2'	36:DB:36:C:H5'	2.41	0.51
49:DR:45:ARG:HD3	49:DR:97:VAL:CG1	2.40	0.51
1:CA:599:C:H2'	1:CA:600:C:C6	2.45	0.51
49:DR:33:ARG:HG3	49:DR:115:GLU:HG2	1.90	0.51
42:BH:63:SER:C	42:BH:64:LEU:HD22	2.30	0.51
1:AA:123:C:OP1	1:AA:312:C:H5'	2.10	0.51
35:BA:2134:A:H2	35:BA:2135:A:N7	2.07	0.51
35:BA:908:C:O2'	35:BA:909:A:H5'	2.10	0.51
1:AA:252:U:H2'	1:AA:275:G:N2	2.25	0.51
35:DA:2710:C:H2'	35:DA:2711:A:C8	2.45	0.51
34:B9:13:LYS:HG3	34:B9:28:GLU:OE2	2.11	0.51
35:BA:2467:C:H4'	48:BQ:123:HIS:CG	2.45	0.51
35:DA:2027:G:H2'	35:DA:2028:U:O4'	2.09	0.51
4:CD:131:ARG:HG3	4:CD:131:ARG:HH11	1.75	0.51
53:BV:13:ARG:HG2	53:BV:13:ARG:HH11	1.75	0.51
50:DS:25:ARG:HH11	50:DS:25:ARG:CB	2.22	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2320:A:H2'	35:BA:2320:A:N3	2.24	0.51
35:DA:203:C:H3'	35:DA:204:A:H5''	1.92	0.51
17:CQ:96:GLU:C	17:CQ:98:LEU:H	2.13	0.51
42:BH:20:ALA:HB1	42:BH:21:PRO:HD2	1.93	0.51
8:CH:92:ARG:HB3	8:CH:94:TYR:HE2	1.75	0.51
1:AA:1493:A3P:P1	24:AY:55:ASP:OD2	2.69	0.51
24:AY:73:GLY:C	24:AY:75:PHE:CE1	2.82	0.51
41:BG:82:LEU:HD23	41:BG:87:PRO:HB3	1.92	0.51
13:CM:96:LEU:HB3	13:CM:97:PRO:HD2	1.93	0.51
40:BF:192:LEU:HD21	40:BF:194:MET:CE	2.40	0.51
33:D8:61:LEU:CG	33:D8:62:LEU:H	2.23	0.51
52:DU:92:ARG:O	52:DU:92:ARG:CG	2.58	0.51
35:DA:908:C:O2'	35:DA:909:A:H5'	2.10	0.51
35:BA:807:U:O2'	35:BA:808:G:H5'	2.10	0.51
1:CA:1321:C:H6	1:CA:1322:C:H2'	1.75	0.51
3:CC:94:LEU:HD23	3:CC:94:LEU:N	2.09	0.51
9:CI:8:GLY:O	9:CI:76:ALA:HB1	2.10	0.51
19:AS:42:PRO:O	19:AS:43:GLU:CB	2.58	0.51
40:DF:34:TRP:CD1	47:DP:11:GLY:HA2	2.45	0.51
1:CA:630:G:H2'	1:CA:631:G:H5''	1.92	0.51
43:BI:83:ALA:N	43:BI:89:TYR:HD1	2.09	0.51
3:AC:142:MET:HA	3:AC:146:ALA:CB	2.40	0.51
12:CL:117:TYR:O	12:CL:119:THR:N	2.43	0.51
57:DZ:72:ARG:CG	57:DZ:89:PHE:HB2	2.39	0.51
41:BG:32:PRO:HB2	41:BG:172:LEU:CD2	2.39	0.51
11:CK:104:GLN:O	11:CK:106:LYS:N	2.44	0.51
26:D1:23:LYS:HD2	26:D1:28:GLY:N	2.25	0.51
1:CA:1304:G:H3'	1:CA:1305:G:C8	2.46	0.51
50:DS:66:ALA:O	50:DS:68:GLN:N	2.43	0.51
27:D2:70:GLN:C	27:D2:72:ALA:H	2.13	0.51
8:AH:92:ARG:HB3	8:AH:94:TYR:HE2	1.76	0.51
53:DV:28:GLU:HB3	53:DV:29:PRO:HD2	1.92	0.51
45:DN:62:VAL:HG13	45:DN:62:VAL:O	2.10	0.51
35:BA:2103:C:C2'	35:BA:2104:G:H5''	2.41	0.51
38:DD:215:LEU:CD1	38:DD:217:ARG:HH21	2.23	0.51
40:DF:161:GLU:O	40:DF:165:ARG:HG3	2.10	0.51
17:AQ:12:SER:HB3	17:AQ:20:THR:CB	2.38	0.51
49:BR:63:ARG:O	49:BR:67:LEU:HB2	2.09	0.51
28:D3:54:VAL:HG12	28:D3:55:ARG:N	2.25	0.51
55:BX:43:VAL:CG2	55:BX:51:VAL:HG21	2.41	0.51
47:DP:125:VAL:O	47:DP:144:GLU:HB2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:116:THR:CG2	13:AM:117:VAL:N	2.73	0.51
1:AA:542:G:H5'	4:AD:41:GLY:HA3	1.91	0.51
35:BA:720:C:H2'	35:BA:721:C:H6	1.76	0.51
1:CA:1123:A:C4'	10:CJ:36:GLY:HA3	2.41	0.51
13:AM:107:ALA:C	13:AM:109:THR:H	2.14	0.51
8:CH:103:VAL:HB	8:CH:108:GLY:C	2.30	0.51
35:BA:154(A):C:H2'	35:BA:157:U:H5'	1.92	0.51
35:DA:1862:G:H2'	35:DA:1863:G:H8	1.75	0.51
35:BA:716:A:H3'	35:BA:717:G:H5''	1.92	0.51
35:DA:2277:G:H2'	35:DA:2278:A:H5'	1.91	0.51
19:AS:67:VAL:HG23	19:AS:68:GLY:N	2.25	0.51
6:CF:3:ARG:HB3	6:CF:93:SER:HB2	1.91	0.51
1:CA:563:A:N7	1:CA:567:G:H1'	2.25	0.51
43:DI:52:ARG:HH11	43:DI:53:ALA:HA	1.75	0.51
1:AA:1321:C:H6	1:AA:1322:C:H2'	1.76	0.51
56:BY:34:LYS:NZ	56:BY:34:LYS:HB3	2.24	0.51
1:AA:498:U:O2	1:AA:498:U:H2'	2.10	0.51
35:BA:1033:U:OP2	35:BA:1033:U:H4'	2.10	0.51
17:CQ:86:GLU:O	17:CQ:90:ILE:HG12	2.10	0.51
1:CA:562:C:N3	12:CL:13:GLU:HB3	2.25	0.51
1:CA:953:G:H2'	1:CA:954:G:O4'	2.09	0.51
33:D8:25:MET:HB2	47:DP:62:LEU:HD23	1.91	0.51
47:DP:57:THR:CG2	47:DP:59:LEU:HB3	2.41	0.51
1:CA:632:A:C3'	1:CA:633:G:H5''	2.39	0.51
5:CE:79:GLU:HB3	5:CE:92:LYS:HA	1.93	0.51
42:BH:86:GLU:N	42:BH:86:GLU:CD	2.63	0.51
33:B8:6:THR:HG21	33:B8:63:PRO:HD3	1.91	0.51
2:AB:170:GLU:C	2:AB:172:ILE:HD12	2.30	0.51
2:AB:193:ASP:HB2	2:AB:194:PRO:HD2	1.92	0.51
29:D4:15:ILE:H	29:D4:31:ILE:HG22	1.74	0.51
41:DG:82:LEU:HD22	41:DG:87:PRO:CB	2.37	0.51
1:CA:735:C:O2'	1:CA:736:C:H5'	2.10	0.51
1:AA:1060:C:C6	3:AC:2:GLY:CA	2.90	0.51
10:AJ:50:ILE:HD11	14:AN:41:ARG:HH11	1.74	0.51
45:DN:59:LYS:O	45:DN:60:ILE:C	2.47	0.51
2:CB:8:LYS:HD3	2:CB:217:ARG:HH21	1.76	0.51
7:AG:80:VAL:C	7:AG:82:GLY:H	2.13	0.51
25:B0:66:VAL:HG12	25:B0:67:VAL:H	1.74	0.51
39:BE:55:ASN:HD21	39:BE:75:VAL:N	2.07	0.51
4:CD:5:ILE:HG22	4:CD:6:GLY:N	2.25	0.51
38:BD:130:ALA:C	38:BD:131:LEU:HD23	2.30	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:51:VAL:HB	5:AE:52:PRO:CD	2.41	0.51
46:DO:104:ARG:C	46:DO:106:LEU:N	2.64	0.51
35:BA:2155:G:C2'	35:BA:2156:G:H5'	2.39	0.51
46:DO:34:THR:OG1	46:DO:35:VAL:N	2.43	0.51
35:BA:1579:A:H2'	35:BA:1580:A:O4'	2.11	0.51
35:DA:2735:G:H2'	35:DA:2736:G:C8	2.43	0.51
1:CA:782:A:O3'	1:CA:1515:C:H4'	2.11	0.51
53:BV:99:ILE:O	53:BV:101:GLY:N	2.43	0.51
26:D1:50:ARG:NH1	26:D1:57:GLU:OE2	2.44	0.51
35:DA:1826:G:H4'	38:DD:242:ARG:HH21	1.75	0.51
1:CA:1251:A:H4'	9:CI:12:GLU:OE2	2.10	0.51
3:AC:8:ILE:HD12	3:AC:16:ARG:NH1	2.25	0.51
35:DA:1697:G:H3'	35:DA:1698:A:H5''	1.89	0.51
40:DF:130:ALA:C	40:DF:132:VAL:H	2.13	0.51
1:CA:377:G:O2'	1:CA:378:G:H5'	2.10	0.51
16:CP:34:GLU:OE2	16:CP:55:ARG:HD3	2.10	0.51
10:CJ:33:GLN:O	10:CJ:75:ILE:HG12	2.11	0.51
8:AH:30:ARG:CB	8:AH:30:ARG:NH1	2.74	0.51
41:BG:71:THR:N	41:BG:89:GLY:O	2.44	0.51
43:DI:33:ARG:HG2	43:DI:33:ARG:HH11	1.75	0.51
35:BA:289:A:H2'	35:BA:290:G:O4'	2.11	0.51
35:BA:2223:G:O2'	35:BA:2224:G:H5'	2.10	0.51
7:AG:132:GLY:H	7:AG:135:VAL:HB	1.75	0.51
35:DA:1550:C:H2'	35:DA:1551:C:C6	2.45	0.51
13:CM:107:ALA:C	13:CM:109:THR:H	2.13	0.51
41:BG:38:VAL:HG13	41:BG:158:ALA:HB3	1.92	0.51
1:CA:116:A:H61	1:CA:313:A:H1'	1.76	0.51
16:CP:17:TYR:CD1	16:CP:17:TYR:N	2.78	0.51
35:DA:832:G:H21	47:DP:53:GLY:CA	2.24	0.51
35:BA:1316:U:H2'	35:BA:1317:A:H8	1.75	0.51
43:DI:99:GLU:CD	43:DI:100:ALA:N	2.64	0.51
50:DS:42:ASP:C	50:DS:44:LYS:H	2.12	0.51
4:CD:200:GLU:H	4:CD:200:GLU:CD	2.14	0.51
17:AQ:9:VAL:HG21	17:AQ:84:LEU:HD13	1.92	0.51
1:AA:39:G:O2'	1:AA:40:C:H5'	2.11	0.51
40:DF:39:TRP:O	40:DF:43:LYS:HB3	2.10	0.51
37:DC:122:ALA:HB2	37:DC:142:ALA:HA	1.92	0.51
12:AL:33:VAL:H	12:AL:55:VAL:HG13	1.75	0.51
35:DA:105:C:H2'	35:DA:106:C:C6	2.46	0.51
35:BA:1252:G:N3	52:BU:33:ARG:HD2	2.25	0.51
26:B1:41:ARG:HH11	26:B1:43:TYR:HE2	1.56	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BQ:42:ILE:O	48:BQ:94:VAL:HA	2.10	0.51
1:AA:1533:C:H3'	1:AA:1533:C:O2	2.10	0.51
1:AA:754:C:H3'	1:AA:754:C:O2	2.10	0.51
53:DV:12:TYR:N	53:DV:12:TYR:CD1	2.78	0.51
35:BA:136:G:H2'	35:BA:137:C:H6	1.76	0.51
42:BH:15:VAL:CA	42:BH:27:LYS:O	2.59	0.51
24:AY:28:ILE:HG22	24:AY:42:ARG:CD	2.41	0.51
24:AY:55:ASP:CB	24:AY:60:GLU:O	2.59	0.51
33:B8:25:MET:HB2	47:BP:62:LEU:HD23	1.92	0.51
1:CA:37:U:H2'	1:CA:38:G:O4'	2.11	0.51
22:AV:54:U:C5'	22:AV:54:U:H6	2.18	0.51
10:CJ:61:GLU:HB2	14:CN:58:LYS:HE2	1.93	0.51
40:BF:198:ALA:C	40:BF:200:GLU:N	2.61	0.51
50:BS:92:TYR:C	50:BS:94:TYR:H	2.13	0.51
3:AC:70:VAL:HG12	3:AC:72:LYS:N	2.09	0.51
35:DA:1902:C:H4'	38:DD:244:ARG:HA	1.92	0.51
31:B6:23:THR:HG21	35:BA:2419:U:H4'	1.93	0.51
5:AE:107:ARG:C	5:AE:109:ILE:N	2.64	0.51
46:DO:24:VAL:CG2	46:DO:33:ALA:HB2	2.40	0.51
2:AB:39:ILE:HG22	2:AB:40:HIS:N	2.25	0.51
41:DG:41:GLN:HB2	41:DG:43:LEU:HD13	1.92	0.51
10:AJ:51:ARG:H	10:AJ:60:ARG:CB	2.23	0.51
4:CD:126:ILE:CG2	4:CD:127:THR:N	2.74	0.51
47:BP:10:PRO:CD	47:BP:11:GLY:N	2.71	0.51
48:DQ:118:LEU:HD12	48:DQ:131:ILE:HG23	1.92	0.51
57:DZ:81:ARG:HG3	57:DZ:82:ARG:N	2.25	0.51
2:AB:57:PHE:HE2	2:AB:185:ILE:HD11	1.76	0.51
26:B1:91:LYS:HA	26:B1:94:LEU:HD12	1.92	0.51
7:AG:145:ALA:O	7:AG:146:GLU:HB2	2.10	0.51
1:CA:1413:A:C6	1:CA:1488:G:N2	2.79	0.51
48:BQ:45:GLN:H	48:BQ:45:GLN:CD	2.14	0.51
41:DG:91:ARG:HH11	41:DG:91:ARG:CG	2.23	0.51
1:AA:413:G:H1'	1:AA:428:G:H21	1.74	0.51
4:AD:35:ARG:C	4:AD:37:PRO:HD3	2.31	0.51
39:BE:60:ASN:C	39:BE:62:PRO:HD2	2.31	0.51
53:BV:2:PHE:CB	53:BV:42:GLY:N	2.72	0.51
57:DZ:156:LYS:O	57:DZ:158:PRO:HD3	2.10	0.51
1:AA:1305:G:H21	1:AA:1306:A:N6	2.08	0.51
6:CF:97:PHE:HB3	18:CR:32:ARG:HG3	1.93	0.51
48:DQ:35:VAL:HG23	48:DQ:101:ARG:O	2.10	0.51
27:B2:41:ILE:HD11	27:B2:43:GLN:HB2	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DQ:12:GLN:HE21	48:DQ:73:PRO:HD2	1.72	0.51
35:BA:2579:C:H1'	39:BE:134:ILE:HD13	1.93	0.51
49:BR:55:ALA:CB	49:BR:79:LEU:HD13	2.38	0.51
3:AC:150:LYS:HB3	3:AC:201:TYR:HB2	1.91	0.51
37:DC:77:ILE:HG23	37:DC:77:ILE:O	2.10	0.51
5:AE:36:ASP:OD1	5:AE:38:GLN:N	2.36	0.51
16:AP:34:GLU:OE2	16:AP:55:ARG:HD3	2.10	0.51
1:AA:1203:C:H2'	1:AA:1204:A:O4'	2.10	0.51
1:AA:1463:C:O2'	1:AA:1464:G:H5'	2.09	0.51
25:B0:72:ARG:HH11	25:B0:75:LEU:CD1	2.23	0.51
35:BA:2223:G:H2'	35:BA:2224:G:H5'	1.92	0.51
20:AT:62:LEU:HA	20:AT:65:LYS:HB2	1.92	0.51
35:BA:332:A:H4'	35:BA:333:G:OP1	2.10	0.51
56:BY:17:SER:OG	56:BY:18:GLY:N	2.43	0.51
1:CA:1465:C:O2'	1:CA:1466:C:H5'	2.11	0.51
35:BA:1188:U:C5'	53:BV:79:VAL:HG22	2.41	0.51
8:AH:103:VAL:HB	8:AH:108:GLY:C	2.30	0.51
35:BA:360:G:H2'	35:BA:361:G:C8	2.45	0.51
35:BA:521:G:H2'	35:BA:522:G:H8	1.75	0.51
9:AI:121:ARG:HH11	9:AI:121:ARG:HG2	1.76	0.51
35:DA:1223:G:H5'	35:DA:1224:C:OP2	2.09	0.51
35:DA:419:C:H2'	35:DA:420:C:C6	2.45	0.51
55:DX:41:ASN:O	55:DX:45:THR:HG23	2.11	0.51
35:DA:1270:C:H5'	35:DA:1271:G:O5'	2.10	0.51
34:D9:13:LYS:HG3	34:D9:28:GLU:OE2	2.11	0.51
56:BY:47:LYS:HD2	56:BY:47:LYS:H	1.75	0.51
1:AA:1255:G:H2'	1:AA:1255:G:N3	2.24	0.51
35:BA:2682:U:H6	35:BA:2682:U:H5'	1.75	0.51
35:BA:882:G:H2'	35:BA:883:G:H8	1.75	0.51
55:BX:37:THR:O	55:BX:40:LYS:HB3	2.10	0.51
35:BA:419:C:H2'	35:BA:420:C:C6	2.45	0.51
1:CA:644:G:H2'	1:CA:645:C:H5'	1.76	0.51
35:DA:1915:U:C4	35:DA:1916:A:C5	2.99	0.51
56:BY:76:CYS:HB3	56:BY:96:ILE:CD1	2.41	0.51
56:BY:84:ARG:NH1	56:BY:97:ARG:HA	2.26	0.51
56:DY:26:LYS:O	56:DY:27:VAL:O	2.27	0.51
42:DH:85:LYS:HD3	42:DH:133:VAL:CB	2.20	0.51
35:DA:2821:A:P	49:DR:5:LYS:HE3	2.51	0.51
52:BU:92:ARG:HD2	53:BV:11:GLN:HB2	1.92	0.51
40:DF:196:LEU:C	40:DF:198:ALA:N	2.63	0.51
5:CE:31:LEU:HD11	5:CE:43:LEU:HD11	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:DT:91:ARG:CB	51:DT:116:ALA:HA	2.31	0.51
35:BA:877:U:O2'	35:BA:878:A:H5''	2.10	0.51
2:CB:71:VAL:HG12	2:CB:93:VAL:CB	2.39	0.51
8:CH:63:LEU:H	8:CH:63:LEU:CD2	2.22	0.51
50:BS:13:ARG:O	50:BS:14:VAL:HB	2.11	0.51
50:BS:17:ARG:CA	50:BS:20:ARG:HH22	2.24	0.51
41:BG:46:ALA:CB	41:BG:53:LEU:HG	2.41	0.51
38:BD:11:PRO:C	38:BD:13:ARG:N	2.64	0.51
41:DG:103:LEU:O	41:DG:107:LEU:HG	2.11	0.51
10:AJ:50:ILE:HA	10:AJ:60:ARG:CD	2.38	0.51
9:CI:8:GLY:O	9:CI:14:VAL:HA	2.11	0.51
3:CC:142:MET:HA	3:CC:146:ALA:CB	2.40	0.51
1:AA:33:A:H2'	1:AA:34:C:H5''	1.91	0.51
1:CA:502:G:OP1	12:CL:114:ARG:N	2.44	0.51
35:DA:271(R):G:O2'	35:DA:271(S):G:H5'	2.10	0.51
45:BN:133:GLN:CG	45:BN:135:PRO:HD3	2.33	0.51
1:CA:1487:G:H3'	1:CA:1488:G:H8	1.75	0.51
35:DA:1579:A:H2'	35:DA:1580:A:O4'	2.11	0.51
36:DB:42:C:O2	41:DG:92:VAL:HA	2.10	0.51
1:CA:1305:G:H21	1:CA:1306:A:H62	1.58	0.51
46:DO:71:ARG:HH12	51:DT:74:ARG:HH22	1.58	0.51
18:CR:67:ALA:HA	18:CR:70:ILE:HD12	1.93	0.51
41:BG:96:ARG:N	41:BG:96:ARG:HD2	2.25	0.51
35:DA:2811:G:OP1	39:DE:60:ASN:HB2	2.10	0.51
40:BF:164:ARG:HH11	40:BF:164:ARG:HG2	1.76	0.51
35:BA:2735:G:H2'	35:BA:2736:G:C8	2.42	0.51
1:CA:819:A:N7	1:CA:1529:G:C2	2.78	0.51
9:AI:10:ARG:CZ	9:AI:11:LYS:HB2	2.40	0.51
43:DI:6:LEU:HD12	43:DI:34:GLY:O	2.11	0.51
17:AQ:34:LYS:HG2	17:AQ:35:VAL:O	2.10	0.51
55:BX:12:VAL:HG21	55:BX:27:THR:HG23	1.92	0.51
35:BA:2791:C:H5''	35:BA:2893:G:C2	2.46	0.51
35:DA:1281:G:C2'	35:DA:1282:U:H5'	2.41	0.51
45:BN:19:GLU:CD	45:BN:20:GLY:N	2.64	0.51
49:DR:63:ARG:O	49:DR:67:LEU:HB2	2.10	0.51
27:B2:70:GLN:C	27:B2:72:ALA:N	2.62	0.51
1:AA:1064:G:N2	1:AA:1190:G:H2'	2.26	0.51
1:CA:1399:C:H4'	1:CA:1400:C:O5'	2.10	0.51
1:AA:556:C:O2'	1:AA:557:G:H5'	2.11	0.51
19:CS:22:LEU:CD1	19:CS:27:GLU:HB2	2.41	0.51
40:BF:65:TRP:CH2	40:BF:75:HIS:CD2	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:15:ARG:O	5:CE:15:ARG:HG2	2.11	0.51
15:CO:70:LEU:HD21	15:CO:77:ARG:HB2	1.92	0.51
1:AA:1188:A:O3'	14:AN:58:LYS:HE3	2.09	0.51
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.45	0.51
25:B0:56:ASP:OD2	35:BA:2364:C:H4'	2.10	0.51
35:DA:2712:U:H1'	35:DA:2712(A):A:C8	2.45	0.51
35:BA:1221:C:H2'	35:BA:1221(A):C:H6	1.75	0.51
1:CA:100:C:H2'	1:CA:101:A:O4'	2.11	0.51
55:BX:18:TYR:C	55:BX:20:GLY:H	2.14	0.51
35:DA:570:G:H2'	35:DA:2030:A:C5	2.45	0.51
6:AF:45:LEU:O	6:AF:45:LEU:HD23	2.10	0.51
35:BA:2027:G:H2'	35:BA:2028:U:O4'	2.10	0.51
4:AD:23:GLY:HA3	4:AD:112:VAL:HG22	1.93	0.51
15:CO:74:ASP:OD2	15:CO:76:GLU:HB3	2.11	0.51
9:CI:56:LEU:HD23	9:CI:57:GLY:N	2.26	0.51
35:BA:1111:A:O2'	35:BA:1112:G:H4'	2.10	0.51
57:BZ:70:LEU:HD11	57:BZ:98:MET:SD	2.50	0.51
35:BA:71:A:H3'	35:BA:71:A:OP2	2.10	0.51
34:D9:31:LYS:HD2	35:DA:2478:A:H5'	1.93	0.51
35:DA:2227:A:H8	35:DA:2227:A:O5'	1.94	0.51
35:DA:1839:G:H8	35:DA:1839:G:H5'	1.75	0.51
35:BA:2639:A:H2'	35:BA:2640:G:H5'	1.93	0.51
5:AE:15:ARG:O	5:AE:15:ARG:HG2	2.11	0.51
42:BH:7:LEU:O	42:BH:69:ARG:CD	2.59	0.51
42:DH:7:LEU:O	42:DH:69:ARG:CD	2.59	0.51
24:AY:28:ILE:HG22	24:AY:42:ARG:NE	2.25	0.51
35:DA:2474:C:H5'	35:DA:2475:C:C4	2.45	0.51
1:CA:940:C:C2'	1:CA:941:G:H5'	2.36	0.51
9:CI:121:ARG:HH11	9:CI:121:ARG:HG2	1.76	0.51
22:CW:35:A:H2'	22:CW:36:U:C5	2.46	0.51
42:DH:86:GLU:N	42:DH:86:GLU:CD	2.63	0.51
50:DS:97:ARG:NH1	50:DS:97:ARG:HG2	2.25	0.51
33:B8:59:LYS:CB	33:B8:59:LYS:NZ	2.63	0.51
35:DA:2306:C:C5	35:DA:2307:G:H1'	2.45	0.51
41:DG:100:TRP:HA	41:DG:103:LEU:HB2	1.93	0.51
1:CA:588:G:O6	1:CA:753:A:H2'	2.11	0.51
19:CS:49:ILE:HD11	19:CS:71:LEU:HD22	1.92	0.51
35:DA:676:A:N1	35:DA:802:A:N1	2.58	0.51
35:BA:1301:A:O2'	35:BA:1302:A:C2'	2.49	0.51
51:DT:38:ASN:CG	51:DT:39:ARG:N	2.63	0.51
1:AA:738:C:H2'	1:AA:739:C:C6	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:8:GLY:O	9:AI:76:ALA:HB1	2.09	0.51
3:AC:115:LEU:O	3:AC:119:ARG:N	2.44	0.51
36:DB:105:A:H2'	36:DB:106:G:O4'	2.11	0.51
39:DE:55:ASN:HD21	39:DE:75:VAL:N	2.08	0.51
4:AD:192:GLU:N	4:AD:192:GLU:OE2	2.41	0.51
38:DD:130:ALA:C	38:DD:131:LEU:HD23	2.30	0.51
26:D1:62:VAL:CG2	26:D1:63:ALA:N	2.73	0.51
3:CC:43:LEU:HD13	3:CC:55:VAL:HG11	1.91	0.51
41:BG:155:MET:HE3	41:BG:157:ILE:HG13	1.93	0.51
50:DS:92:TYR:C	50:DS:94:TYR:H	2.13	0.51
35:BA:962:G:C2'	35:BA:963:U:H5'	2.41	0.51
8:AH:4:ASP:HB2	8:AH:89:PRO:HG3	1.92	0.51
35:DA:2685:G:C5'	46:DO:68:GLU:OE2	2.56	0.51
1:AA:1116:C:H2'	1:AA:1117:G:H5''	1.92	0.51
5:AE:13:ILE:O	5:AE:14:ARG:HB3	2.11	0.51
1:CA:1003:G:H1'	1:CA:1038:C:O2	2.11	0.51
41:DG:13:GLU:HG3	41:DG:13:GLU:O	2.09	0.51
7:CG:146:GLU:O	7:CG:149:ARG:HB2	2.11	0.51
2:CB:111:ARG:NH2	2:CB:114:ARG:HG2	2.25	0.51
14:CN:29:ARG:HB3	14:CN:33:VAL:CG1	2.41	0.51
25:D0:51:VAL:HG21	25:D0:79:VAL:O	2.10	0.51
1:AA:204:U:H4'	1:AA:216:G:N9	2.25	0.51
1:AA:663:A:H5''	18:AR:61:LYS:HE3	1.92	0.51
1:CA:707:C:H2'	1:CA:708:C:C6	2.45	0.51
47:BP:70:GLN:C	47:BP:72:PRO:HD2	2.31	0.51
18:CR:86:VAL:HG12	18:CR:87:ARG:H	1.76	0.51
16:CP:82:GLN:O	16:CP:83:GLU:HB2	2.11	0.51
49:BR:63:ARG:HA	49:BR:80:PHE:CZ	2.45	0.51
2:AB:34:ALA:C	2:AB:41:ILE:HB	2.31	0.51
36:DB:83:G:O2'	36:DB:84:C:H5'	2.11	0.51
46:BO:71:ARG:HH12	51:BT:74:ARG:HH22	1.57	0.51
43:BI:2:LYS:CB	43:BI:39:ALA:HB3	2.41	0.51
39:DE:184:VAL:C	39:DE:186:GLY:H	2.14	0.51
13:AM:80:ARG:HD3	29:B4:48:ARG:HH11	1.75	0.51
57:DZ:112:ARG:NH2	57:DZ:112:ARG:HA	2.25	0.51
56:DY:17:SER:CB	56:DY:71:LYS:HE2	2.40	0.51
47:BP:131:SER:OG	47:BP:134:ALA:HB2	2.10	0.51
1:AA:936:C:O2'	1:AA:937:A:H5'	2.10	0.51
35:BA:1232:G:H2'	35:BA:1233:C:H6	1.75	0.51
35:DA:2479:G:OP1	35:DA:2537:U:H1'	2.10	0.51
37:BC:24:GLU:O	37:BC:25:ALA:HB2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DH:88:LEU:HD13	42:DH:88:LEU:C	2.31	0.51
35:DA:1316:U:H2'	35:DA:1317:A:H8	1.75	0.51
1:AA:100:C:H2'	1:AA:101:A:O4'	2.10	0.51
35:DA:319:C:O2'	35:DA:320:A:H5'	2.11	0.51
1:AA:1249:C:H5'	1:AA:1249:C:H6	1.76	0.51
44:BJ:52:UNK:CB	44:BJ:87:UNK:HA	2.40	0.51
35:BA:1862:G:O2'	35:BA:1863:G:H5'	2.10	0.51
35:DA:2275:C:H5'	35:DA:2275:C:H6	1.76	0.51
42:BH:41:MET:HE1	42:BH:54:ARG:HB2	1.91	0.51
42:BH:12:PRO:HB3	42:BH:76:VAL:HG11	1.92	0.51
42:DH:20:ALA:HB1	42:DH:21:PRO:HD2	1.93	0.51
7:CG:80:VAL:HG21	7:CG:85:TYR:CD1	2.46	0.51
40:BF:196:LEU:C	40:BF:198:ALA:N	2.64	0.51
40:BF:24:LEU:CB	40:BF:25:PRO:CD	2.88	0.51
33:D8:59:LYS:CB	33:D8:59:LYS:NZ	2.66	0.51
36:BB:28:C:H2'	36:BB:29:A:H8	1.74	0.51
23:AX:16:A:O2'	23:AX:17:U:O4'	2.26	0.51
35:BA:874:G:O2'	35:BA:875:G:H5'	2.10	0.51
57:BZ:59:LEU:HD12	57:BZ:69:THR:HG21	1.92	0.51
47:DP:40:SER:HB3	47:DP:41:ARG:NH2	2.24	0.51
2:AB:193:ASP:OD2	2:AB:196:LEU:HD23	2.11	0.51
48:DQ:131:ILE:HG22	48:DQ:132:VAL:N	2.25	0.51
46:DO:107:ARG:HG3	46:DO:112:MET:SD	2.50	0.51
3:CC:150:LYS:HB3	3:CC:201:TYR:HB2	1.92	0.51
3:CC:173:VAL:HG11	3:CC:201:TYR:HB3	1.93	0.51
9:AI:15:ALA:CB	9:AI:65:VAL:HB	2.41	0.51
38:DD:125:ILE:CD1	38:DD:137:PRO:CD	2.84	0.51
3:AC:116:VAL:O	3:AC:119:ARG:HB3	2.10	0.51
6:AF:36:ARG:CB	6:AF:36:ARG:HH11	2.16	0.51
26:B1:67:ILE:HG22	26:B1:68:PRO:N	2.26	0.51
47:BP:16:ARG:NH1	47:BP:18:ARG:HG2	2.25	0.51
11:CK:105:VAL:HB	11:CK:108:ILE:HD11	1.91	0.51
35:BA:1038:C:H42	35:BA:1117:G:H1	1.59	0.51
38:BD:127:VAL:HA	38:BD:193:VAL:O	2.11	0.51
26:D1:23:LYS:CD	26:D1:28:GLY:HA3	2.37	0.51
4:AD:30:LYS:HG2	4:AD:35:ARG:NH2	2.25	0.51
35:DA:2632:A:C2	39:DE:61:ARG:HD2	2.46	0.51
1:AA:1053:G:H3'	1:AA:1054:C:H5'	1.91	0.51
15:CO:39:LEU:CD1	15:CO:56:LEU:HB2	2.38	0.51
35:BA:1826:G:H4'	38:BD:242:ARG:HH21	1.76	0.51
17:CQ:7:THR:HG22	17:CQ:58:GLU:HA	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BN:62:VAL:CG2	45:BN:66:LYS:HD2	2.40	0.51
43:DI:109:ILE:HG12	43:DI:110:ASP:N	2.25	0.51
41:DG:10:LYS:O	41:DG:15:VAL:HG23	2.11	0.51
32:B7:47:ARG:HB2	32:B7:48:LYS:HZ3	1.76	0.51
54:DW:75:TYR:CE2	54:DW:104:THR:HB	2.46	0.51
47:DP:139:LYS:C	47:DP:141:ALA:H	2.15	0.51
1:CA:194:C:C2'	1:CA:195:A:H5''	2.39	0.51
40:BF:136:THR:HG22	40:BF:140:LEU:CD2	2.41	0.51
11:CK:28:THR:O	11:CK:44:SER:HB2	2.10	0.51
28:B3:54:VAL:HG12	28:B3:55:ARG:N	2.26	0.51
16:AP:76:GLN:C	16:AP:78:GLY:N	2.63	0.51
13:AM:107:ALA:O	13:AM:109:THR:N	2.43	0.51
35:BA:1297:C:H2'	35:BA:1298:C:C6	2.46	0.51
39:BE:170:LEU:HB3	39:BE:184:VAL:HG12	1.92	0.51
45:BN:78:TYR:N	45:BN:78:TYR:CD1	2.59	0.51
1:CA:1069:C:H41	1:CA:1094:G:H22	1.59	0.51
35:DA:280:C:N4	35:DA:360:G:H1	2.09	0.51
35:DA:245:G:H5'	47:DP:69:GLY:HA3	1.93	0.51
56:BY:75:ILE:HG22	56:BY:80:GLY:N	2.25	0.51
35:BA:843:G:O2'	35:BA:844:C:H5'	2.10	0.51
9:CI:4:TYR:CD2	9:CI:88:TYR:HB3	2.45	0.51
1:CA:1525:G:OP1	11:CK:120:ARG:NH2	2.44	0.51
31:D6:22:ALA:HB2	31:D6:39:TYR:CE2	2.46	0.51
39:BE:90:THR:HG22	39:BE:91:VAL:N	2.25	0.51
21:CU:10:ARG:HA	21:CU:13:ILE:HB	1.92	0.51
7:CG:75:VAL:HG21	7:CG:144:MET:HB3	1.93	0.51
4:CD:23:GLY:HA3	4:CD:112:VAL:HG22	1.92	0.51
35:DA:1396:U:H2'	35:DA:1396:U:O2	2.10	0.51
38:DD:106:ILE:HG12	38:DD:106:ILE:O	2.10	0.51
35:BA:1896:G:H2'	35:BA:1897:G:H8	1.75	0.51
10:CJ:50:ILE:HA	10:CJ:60:ARG:CD	2.38	0.51
1:CA:790:A:N1	1:CA:1497:G:H5'	2.25	0.51
42:DH:85:LYS:O	42:DH:132:ARG:HA	2.11	0.51
53:BV:40:LEU:HA	53:BV:45:THR:HB	1.93	0.51
52:DU:74:LEU:HD22	52:DU:79:PHE:HB2	1.92	0.51
1:CA:18:C:P	5:CE:127:ASN:HD21	2.33	0.51
1:AA:1150:U:H2'	1:AA:1151:A:C8	2.46	0.51
2:AB:19:HIS:HD2	2:AB:204:ASN:HA	1.70	0.51
2:AB:30:ARG:HG3	2:AB:31:TYR:CD2	2.46	0.51
19:CS:31:ILE:HG23	19:CS:49:ILE:HA	1.93	0.51
50:DS:13:ARG:CG	50:DS:14:VAL:N	2.71	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:31:LYS:O	38:DD:33:LEU:N	2.43	0.51
47:BP:18:ARG:CB	47:BP:18:ARG:NH1	2.64	0.51
1:CA:430:A:OP2	4:CD:8:VAL:HG22	2.10	0.51
35:DA:542:C:H2'	35:DA:543:C:OP1	2.11	0.51
25:D0:23:VAL:HB	25:D0:26:TYR:HE2	1.76	0.51
22:CW:69:C:H2'	22:CW:70:G:H8	1.76	0.51
53:BV:28:GLU:O	53:BV:61:VAL:HG21	2.11	0.51
41:BG:20:ILE:O	41:BG:24:GLY:HA2	2.11	0.51
57:DZ:158:PRO:CD	57:DZ:161:VAL:HG21	2.40	0.51
1:CA:1438:G:C2	1:CA:1439:C:C5	2.99	0.51
8:AH:11:THR:CG2	8:AH:14:ARG:HH12	2.21	0.51
7:AG:77:SER:OG	22:AW:32:C:H5"	2.10	0.51
9:CI:97:LYS:C	9:CI:99:LEU:H	2.13	0.51
5:CE:71:LEU:HD12	5:CE:71:LEU:H	1.76	0.51
13:AM:69:GLU:HG2	13:AM:72:ALA:HB3	1.93	0.51
38:DD:77:ALA:HB2	38:DD:97:TYR:CD2	2.46	0.51
8:CH:35:ILE:O	8:CH:39:LEU:HD23	2.11	0.51
1:AA:591:U:O2'	1:AA:592:G:H5'	2.11	0.51
11:AK:34:ASP:HB2	11:AK:35:PRO:HD2	1.92	0.51
1:AA:687:A:H1'	1:AA:688:G:OP2	2.10	0.51
35:BA:1047:G:C8	35:BA:1110:G:C6	2.98	0.51
1:AA:1191:A:H5"	3:AC:4:LYS:NZ	2.26	0.51
39:DE:117:MET:O	39:DE:121:ASN:N	2.41	0.51
14:AN:37:PHE:CE1	14:AN:53:LEU:HD22	2.46	0.51
42:BH:106:THR:HG22	42:BH:112:PRO:CB	2.41	0.51
52:BU:48:ALA:O	52:BU:52:ARG:HG3	2.09	0.51
41:BG:164:GLU:OE2	41:BG:165:THR:HG23	2.11	0.51
24:AY:45:GLY:O	24:AY:48:GLY:CA	2.59	0.51
1:CA:557:G:H2'	1:CA:558:G:C8	2.45	0.51
8:CH:93:VAL:O	8:CH:132:GLU:HA	2.10	0.51
57:DZ:121:HIS:C	57:DZ:123:ASP:H	2.13	0.51
35:DA:2340:G:O2'	35:DA:2341:G:H5'	2.11	0.51
35:DA:2329:G:H2'	35:DA:2330:G:C8	2.45	0.51
35:BA:2262:U:O2'	35:BA:2263:C:H5'	2.11	0.51
42:DH:63:SER:C	42:DH:64:LEU:HD22	2.31	0.51
35:BA:1793:C:H2'	35:BA:1794:U:C6	2.46	0.51
1:AA:1030:C:H41	1:AA:1032:G:N2	2.09	0.51
35:BA:2243:U:H2'	35:BA:2244:U:C6	2.46	0.51
35:DA:894:C:O2'	35:DA:895:U:H5'	2.11	0.51
54:BW:31:GLU:O	54:BW:35:ILE:HG12	2.10	0.51
48:BQ:30:GLY:HA2	48:BQ:107:ALA:HB2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:56:HIS:O	10:AJ:58:ASP:N	2.44	0.51
35:DA:2553:G:H3'	35:DA:2554:U:H5''	1.92	0.51
22:AW:49:G:H2'	22:AW:50:U:O4'	2.11	0.51
1:CA:486:U:H2'	1:CA:487:A:H8	1.75	0.51
54:BW:51:LEU:C	54:BW:51:LEU:HD13	2.30	0.51
52:DU:60:LEU:O	52:DU:60:LEU:HD22	2.11	0.51
35:DA:1590:U:H2'	35:DA:1591:G:H8	1.75	0.51
23:AX:19:U:O2'	23:AX:20:U:O4'	2.29	0.51
1:CA:1188:A:O3'	14:CN:58:LYS:HE3	2.11	0.51
1:AA:1442(A):G:C8	51:BT:118:ARG:HD2	2.46	0.51
40:DF:4:VAL:HG22	40:DF:19:GLU:CD	2.32	0.51
52:DU:83:LEU:H	52:DU:83:LEU:CD1	2.24	0.51
1:CA:4:U:H5'	4:CD:86:LYS:CD	2.40	0.51
33:B8:56:GLU:HA	33:B8:59:LYS:HZ1	1.76	0.51
35:DA:2417:C:C4	35:DA:2418:A:N7	2.79	0.51
2:CB:219:VAL:CG1	2:CB:223:ILE:HG13	2.39	0.51
50:BS:15:ARG:CB	50:BS:15:ARG:NH1	2.60	0.51
33:B8:36:LYS:O	33:B8:37:SER:C	2.49	0.51
46:DO:2:ILE:HB	46:DO:33:ALA:HB3	1.92	0.51
13:CM:86:CYS:HB3	19:CS:74:PHE:CE1	2.46	0.51
43:BI:79:ILE:C	43:BI:81:VAL:H	2.13	0.51
35:BA:145:G:O2'	35:BA:146:G:H5''	2.11	0.51
45:DN:128:HIS:CE1	45:DN:134:ARG:HD2	2.46	0.51
1:AA:1141:C:H2'	1:AA:1142:G:H8	1.70	0.51
7:AG:14:PRO:HG3	7:AG:21:VAL:HG13	1.93	0.51
1:CA:1472:U:H2'	1:CA:1473:A:H8	1.76	0.51
51:DT:106:SER:CA	51:DT:110:ILE:HD11	2.40	0.51
25:D0:66:VAL:HG12	25:D0:67:VAL:H	1.75	0.51
41:DG:58:GLN:O	41:DG:61:ALA:HB3	2.11	0.51
22:CV:51:C:C6	22:CV:51:C:H5''	2.31	0.51
52:DU:103:PRO:HD2	52:DU:104:GLN:HE22	1.76	0.51
41:DG:29:TRP:HA	41:DG:29:TRP:CE3	2.46	0.51
45:DN:68:GLU:O	45:DN:69:GLN:HG3	2.11	0.51
45:DN:46:VAL:O	45:DN:46:VAL:HG22	2.11	0.51
27:B2:41:ILE:HG13	27:B2:43:GLN:HB2	1.92	0.51
35:BA:298:G:P	56:BY:85:VAL:HG22	2.51	0.51
55:BX:90:GLU:O	55:BX:93:GLU:HG2	2.11	0.51
1:CA:718:G:H5'	11:CK:117:ASN:CB	2.39	0.51
38:BD:176:ARG:HD3	38:BD:182:LEU:HD21	1.93	0.51
35:DA:1281:G:C8	35:DA:1281:G:H5'	2.42	0.51
4:AD:188:LEU:N	4:AD:188:LEU:HD12	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2758:A:C4	42:BH:67:LEU:HD21	2.46	0.51
1:AA:60:A:H8	1:AA:60:A:P	2.34	0.51
1:AA:679:C:O2'	1:AA:680:C:H5'	2.11	0.51
35:DA:2341:G:H2'	35:DA:2342:C:H6	1.72	0.51
26:B1:52:ARG:HH11	26:B1:56:GLN:C	2.15	0.51
1:CA:113:G:H2'	1:CA:114:U:H6	1.76	0.51
35:DA:154(A):C:H2'	35:DA:157:U:H5'	1.93	0.51
1:CA:1326:C:O2'	1:CA:1327:C:H5'	2.10	0.51
1:AA:936:C:H2'	1:AA:937:A:C8	2.45	0.51
35:DA:244:A:O3'	47:DP:74:GLU:HB3	2.11	0.51
1:CA:565:U:C6	1:CA:566:G:C8	2.99	0.51
42:BH:88:LEU:HD13	42:BH:88:LEU:C	2.32	0.51
57:DZ:109:ALA:O	57:DZ:113:ALA:HB3	2.10	0.51
1:AA:1326:C:O2'	1:AA:1327:C:H5'	2.11	0.51
42:DH:108:GLY:HA3	42:DH:152:ARG:NH2	2.26	0.51
1:AA:1275:A:H2'	1:AA:1276:G:O4'	2.10	0.51
27:D2:50:ILE:O	27:D2:51:ARG:C	2.48	0.51
2:AB:29:ALA:O	2:AB:32:ILE:HG22	2.11	0.51
35:BA:836:G:C5	35:BA:837:C:C4	3.00	0.51
44:BJ:94:UNK:C	44:BJ:96:UNK:N	2.74	0.51
49:DR:49:ASP:OD1	49:DR:95:THR:HB	2.11	0.51
48:DQ:32:TYR:CZ	48:DQ:111:GLU:HG3	2.46	0.51
6:CF:48:LEU:HD22	18:CR:77:GLY:HA3	1.93	0.51
42:DH:15:VAL:CA	42:DH:27:LYS:O	2.59	0.50
42:DH:29:PRO:HD2	42:DH:79:VAL:O	2.10	0.50
1:CA:939:G:H1	1:CA:1344:C:N4	2.09	0.50
23:AX:18:G:H1'	24:AY:89:LYS:CE	2.41	0.50
47:BP:23:PRO:O	47:BP:33:ARG:NH1	2.41	0.50
51:BT:20:PRO:O	51:BT:22:PHE:HD2	1.93	0.50
40:DF:117:ARG:HG2	40:DF:192:LEU:HB2	1.92	0.50
40:DF:123:LEU:HD12	40:DF:124:LEU:H	1.76	0.50
52:DU:92:ARG:O	52:DU:94:ASN:N	2.44	0.50
57:BZ:151:HIS:CA	57:BZ:171:ILE:HG12	2.22	0.50
33:B8:6:THR:HG22	33:B8:63:PRO:HD3	1.93	0.50
35:BA:2524:G:C8	35:BA:2524:G:H5'	2.40	0.50
50:BS:97:ARG:HG2	50:BS:97:ARG:HH11	1.76	0.50
33:D8:28:GLY:O	33:D8:32:LEU:HG	2.11	0.50
5:AE:110:LEU:HD13	5:AE:115:VAL:HG11	1.93	0.50
41:DG:111:LEU:HB3	41:DG:117:PHE:CE2	2.45	0.50
41:DG:96:ARG:O	41:DG:99:MET:N	2.44	0.50
19:CS:16:LEU:C	19:CS:16:LEU:HD23	2.32	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CV:44:A:H2'	22:CV:45:G:O4'	2.11	0.50
4:AD:108:LEU:HD12	4:AD:174:LEU:HD13	1.92	0.50
1:AA:1124:G:C2'	1:AA:1125:U:H5'	2.39	0.50
41:BG:51:ARG:CA	41:BG:51:ARG:HE	2.16	0.50
4:CD:188:LEU:HD12	4:CD:188:LEU:N	2.25	0.50
35:BA:271(R):G:O2'	35:BA:271(S):G:H5'	2.10	0.50
1:CA:1410:G:H2'	1:CA:1411:C:H6	1.76	0.50
39:BE:5:LEU:HB2	39:BE:51:PHE:CD2	2.44	0.50
35:BA:920:G:O2'	35:BA:921:G:H5'	2.11	0.50
3:CC:115:LEU:O	3:CC:119:ARG:N	2.43	0.50
1:CA:973:G:H1'	10:CJ:55:LYS:CG	2.40	0.50
46:BO:34:THR:OG1	46:BO:35:VAL:N	2.43	0.50
1:AA:192:U:H2'	1:AA:193:C:C6	2.46	0.50
39:DE:60:ASN:C	39:DE:62:PRO:HD2	2.32	0.50
43:BI:52:ARG:HH11	43:BI:53:ALA:HA	1.77	0.50
53:DV:18:LEU:N	53:DV:18:LEU:CD1	2.72	0.50
1:CA:782:A:H2'	1:CA:783:C:H5'	1.92	0.50
1:AA:182:U:O4'	1:AA:182:U:O2	2.29	0.50
5:CE:139:LEU:HD23	5:CE:142:LEU:HD11	1.92	0.50
45:DN:33:LEU:HD23	45:DN:38:HIS:CD2	2.45	0.50
35:BA:1021:A:C3'	35:BA:1021:A:C8	2.90	0.50
1:AA:1373:G:H5''	7:AG:36:LYS:CG	2.41	0.50
48:BQ:73:PRO:HG3	48:BQ:93:TYR:HE2	1.77	0.50
35:DA:2579:C:O2'	39:DE:131:ALA:HB3	2.11	0.50
35:DA:2791:C:H5''	35:DA:2893:G:C2	2.46	0.50
2:AB:142:LEU:HD23	2:AB:142:LEU:C	2.31	0.50
1:AA:1422:G:H2'	1:AA:1423:G:H8	1.76	0.50
17:CQ:5:VAL:HG13	17:CQ:59:ILE:O	2.10	0.50
4:CD:15:GLU:HG2	4:CD:63:LYS:HG3	1.93	0.50
1:AA:547:A:H4'	1:AA:548:G:O5'	2.11	0.50
39:DE:33:VAL:HG13	39:DE:69:LYS:HE3	1.93	0.50
4:CD:119:GLN:O	4:CD:123:HIS:CD2	2.64	0.50
1:CA:1170:A:H2'	1:CA:1171:G:O4'	2.12	0.50
1:CA:189(J):G:O2'	1:CA:189(K):U:H5'	2.11	0.50
11:AK:22:HIS:HB3	11:AK:29:ILE:HG23	1.94	0.50
7:CG:6:ARG:HH11	7:CG:6:ARG:CB	2.24	0.50
16:AP:28:ARG:HG2	16:AP:28:ARG:HH11	1.76	0.50
35:BA:1150:C:O2'	35:BA:1151:G:H5'	2.10	0.50
35:DA:310:A:OP1	56:DY:18:GLY:HA2	2.10	0.50
35:BA:639:U:H2'	35:BA:640:C:C6	2.46	0.50
11:CK:57:THR:HG23	11:CK:60:ALA:CB	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:166:G:H2'	1:CA:167:G:H8	1.75	0.50
1:AA:113:G:H2'	1:AA:114:U:H6	1.76	0.50
35:BA:533:G:H5'	52:BU:24:TYR:CE2	2.46	0.50
35:DA:2712:U:O2'	35:DA:2713:A:H5'	2.11	0.50
37:DC:24:GLU:O	37:DC:25:ALA:HB2	2.11	0.50
1:AA:540:G:H2'	1:AA:541:G:O4'	2.11	0.50
35:BA:491:G:H2'	35:BA:492:A:C8	2.46	0.50
56:DY:75:ILE:HG22	56:DY:79:CYS:C	2.31	0.50
43:DI:111:PRO:HG2	43:DI:112:LYS:HG3	1.93	0.50
54:BW:82:LEU:HB2	54:BW:98:LYS:HB2	1.93	0.50
35:BA:830:G:H4'	35:BA:831:G:OP2	2.11	0.50
35:BA:108:U:H2'	35:BA:109:G:H8	1.76	0.50
35:BA:2506:U:H4'	35:BA:2507:C:OP1	2.09	0.50
20:CT:44:ALA:HB3	20:CT:91:LEU:HD12	1.93	0.50
1:AA:229:U:O2'	1:AA:230:G:H5'	2.11	0.50
26:B1:19:GLN:NE2	35:BA:2081:C:OP1	2.44	0.50
1:AA:793:U:O2	1:AA:1516:G:H4'	2.11	0.50
45:BN:39:ARG:C	45:BN:41:ASP:H	2.14	0.50
44:BJ:80:UNK:O	44:BJ:82:UNK:N	2.44	0.50
35:DA:1475:G:N3	35:DA:1475:G:H2'	2.26	0.50
35:DA:1532:C:O2	35:DA:1532:C:C2'	2.59	0.50
35:DA:1111:A:O2'	35:DA:1112:G:H4'	2.10	0.50
42:DH:12:PRO:HB3	42:DH:76:VAL:HG11	1.92	0.50
24:AY:73:GLY:CA	24:AY:82:GLN:NE2	2.73	0.50
35:DA:1920:C:O2'	35:DA:1921:G:H5'	2.10	0.50
13:CM:97:PRO:C	13:CM:98:VAL:HA	2.32	0.50
22:CV:37:A:H3'	22:CV:38:A:H8	1.76	0.50
22:CV:38:A:O2'	22:CV:39:C:H5'	2.12	0.50
56:DY:27:VAL:HG12	56:DY:29:GLU:H	1.76	0.50
53:BV:40:LEU:N	53:BV:40:LEU:CD2	2.74	0.50
50:BS:66:ALA:C	50:BS:68:GLN:N	2.65	0.50
53:DV:39:LEU:HD12	53:DV:47:VAL:CG1	2.38	0.50
35:DA:868:U:C4	35:DA:869:G:C8	2.98	0.50
57:BZ:141:VAL:HA	57:BZ:144:LEU:CD2	2.41	0.50
33:B8:50:LEU:HA	33:B8:53:PRO:CG	2.42	0.50
1:AA:1344:C:C2'	1:AA:1345:U:H5'	2.40	0.50
2:AB:71:VAL:HG12	2:AB:93:VAL:CB	2.40	0.50
41:DG:99:MET:HG3	41:DG:100:TRP:N	2.26	0.50
19:CS:40:ILE:HD12	19:CS:62:ILE:HD11	1.93	0.50
15:AO:82:ILE:HD13	15:AO:82:ILE:C	2.31	0.50
47:BP:96:THR:HG22	47:BP:126:VAL:HG21	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CV:24:U:O2'	35:DA:1923:U:OP1	2.27	0.50
1:CA:1125:U:H4'	1:CA:1126:U:H5	1.76	0.50
47:BP:25:SER:C	47:BP:30:THR:HG23	2.32	0.50
43:BI:88:ILE:HG13	43:BI:89:TYR:N	2.25	0.50
41:BG:111:LEU:N	41:BG:112:PRO:HD2	2.27	0.50
29:B4:35:VAL:HG21	41:BG:113:ARG:CZ	2.41	0.50
47:BP:16:ARG:O	47:BP:16:ARG:NH1	2.41	0.50
1:CA:1409:C:C4	1:CA:1410:G:N7	2.79	0.50
4:CD:11:LEU:HD12	4:CD:21:LEU:HD13	1.92	0.50
22:CW:2:G:H1'	22:CW:72:A:C2	2.46	0.50
31:D6:30:THR:O	31:D6:31:PRO:C	2.50	0.50
38:BD:44:ASN:HB3	38:BD:48:ARG:O	2.11	0.50
38:BD:27:THR:O	38:BD:27:THR:CG2	2.59	0.50
29:B4:5:ILE:H	41:BG:67:LYS:NZ	2.09	0.50
36:BB:45:A:H1'	41:BG:95:ARG:HH21	1.75	0.50
50:DS:66:ALA:CA	50:DS:69:VAL:HG12	2.40	0.50
35:BA:11:G:O2'	35:BA:12:U:H5'	2.11	0.50
43:BI:113:ARG:HH11	43:BI:132:PRO:HB3	1.75	0.50
57:DZ:137:ILE:HG21	57:DZ:155:LEU:HD12	1.92	0.50
9:AI:97:LYS:C	9:AI:99:LEU:H	2.13	0.50
35:BA:1022:G:N7	45:BN:66:LYS:NZ	2.59	0.50
3:CC:11:ARG:HH11	3:CC:11:ARG:HG2	1.76	0.50
57:DZ:163:LEU:N	57:DZ:163:LEU:HD23	2.27	0.50
40:BF:165:ARG:CB	40:BF:165:ARG:NH1	2.73	0.50
55:BX:14:SER:O	55:BX:15:GLU:C	2.50	0.50
35:DA:2580:U:C5'	39:DE:131:ALA:N	2.74	0.50
57:BZ:11:GLU:HB2	57:BZ:13:GLU:OE2	2.12	0.50
1:CA:390:C:H4'	16:CP:28:ARG:HH21	1.76	0.50
49:DR:103:ARG:HB3	49:DR:109:ALA:O	2.10	0.50
8:CH:30:ARG:CB	8:CH:30:ARG:NH1	2.72	0.50
20:AT:67:ALA:HA	20:AT:73:HIS:H	1.75	0.50
1:CA:663:A:H5''	18:CR:61:LYS:HE3	1.93	0.50
35:DA:1047:G:C8	35:DA:1110:G:C6	2.99	0.50
4:CD:119:GLN:HG3	4:CD:123:HIS:HD2	1.74	0.50
14:AN:26:ARG:HG3	14:AN:39:LEU:CD2	2.41	0.50
35:DA:2502:G:H5''	35:DA:2503:A:H5''	1.93	0.50
1:CA:322:C:H5	1:CA:328:C:H5	1.58	0.50
1:AA:600:C:O2'	1:AA:601:C:H5'	2.11	0.50
16:CP:76:GLN:C	16:CP:78:GLY:N	2.64	0.50
15:AO:70:LEU:HD21	15:AO:77:ARG:HB2	1.92	0.50
20:AT:76:ALA:O	20:AT:80:ARG:HG2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DP:24:GLY:O	47:DP:25:SER:CB	2.59	0.50
1:AA:834:C:O2'	1:AA:835:U:H5'	2.11	0.50
1:AA:1256:A:H5'	1:AA:1257:U:OP1	2.11	0.50
35:DA:1839:G:C8	35:DA:1839:G:H5'	2.46	0.50
1:AA:1263:C:H2'	1:AA:1264:C:C6	2.46	0.50
35:BA:1268:A:H2'	35:BA:1269:A:O4'	2.12	0.50
12:AL:24:LEU:C	12:AL:26:GLY:H	2.14	0.50
42:BH:108:GLY:HA3	42:BH:152:ARG:NH2	2.26	0.50
35:DA:1904:G:O2'	35:DA:1905:C:H5'	2.12	0.50
35:DA:1374:G:H2'	35:DA:1375:C:C6	2.45	0.50
35:BA:979:G:H3'	35:BA:980:A:H5''	1.92	0.50
24:AY:73:GLY:HA3	24:AY:82:GLN:NE2	2.21	0.50
1:CA:401:C:P	4:CD:73:ARG:CZ	2.96	0.50
51:BT:30:VAL:HG21	51:BT:84:GLN:H	1.75	0.50
56:BY:26:LYS:O	56:BY:27:VAL:O	2.29	0.50
52:DU:92:ARG:HB3	53:DV:11:GLN:HE22	1.75	0.50
51:DT:46:GLU:OE2	51:DT:88:ILE:HG13	2.12	0.50
35:DA:867:C:C4	35:DA:912:C:O2'	2.64	0.50
33:B8:33:ASN:CA	33:B8:36:LYS:HD2	2.42	0.50
2:AB:20:GLU:HG3	2:AB:191:ASP:OD1	2.12	0.50
38:DD:33:LEU:HD23	38:DD:34:VAL:HG13	1.92	0.50
38:DD:34:VAL:O	38:DD:64:ILE:CG2	2.58	0.50
51:BT:36:GLU:O	51:BT:37:GLY:C	2.49	0.50
8:AH:23:SER:HA	8:AH:63:LEU:CD2	2.41	0.50
43:DI:88:ILE:HD12	43:DI:89:TYR:H	1.76	0.50
35:BA:2678:C:H2'	35:BA:2679:A:O4'	2.11	0.50
9:AI:17:VAL:HG11	9:AI:81:ILE:HA	1.92	0.50
29:B4:35:VAL:HG21	41:BG:113:ARG:NH1	2.27	0.50
4:AD:98:GLU:HG2	4:AD:194:LEU:HD11	1.94	0.50
35:DA:2692:C:H1'	35:DA:2847:U:O2'	2.12	0.50
38:DD:48:ARG:HG3	38:DD:48:ARG:HH11	1.76	0.50
1:CA:1447:A:O2'	1:CA:1452:C:H5'	2.11	0.50
1:CA:429:U:H4'	1:CA:430:A:O5'	2.10	0.50
29:D4:54:GLY:O	29:D4:55:ARG:HB3	2.11	0.50
48:BQ:46:GLN:NE2	48:BQ:126:PRO:HD3	2.26	0.50
1:CA:1332:A:O2'	1:CA:1333:A:H5'	2.11	0.50
35:DA:920:G:O2'	35:DA:921:G:H5'	2.11	0.50
35:DA:926:A:H2'	35:DA:927:G:C8	2.46	0.50
4:AD:105:VAL:HG12	4:AD:106:TYR:N	2.26	0.50
51:DT:61:PHE:CE1	51:DT:76:PHE:HD1	2.29	0.50
3:AC:121:ALA:CB	3:AC:187:ALA:HB1	2.38	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2645:G:C3'	35:BA:2646:C:H5'	2.38	0.50
38:DD:24:ILE:C	38:DD:24:ILE:HD12	2.31	0.50
1:CA:1003:G:C2'	1:CA:1004:A:H4'	2.39	0.50
25:B0:20:ARG:NH1	35:BA:2357:U:OP1	2.43	0.50
9:CI:10:ARG:CZ	9:CI:11:LYS:HB2	2.41	0.50
36:BB:15:A:H1'	36:BB:110:G:C5	2.46	0.50
49:BR:66:VAL:HG11	49:BR:79:LEU:HD12	1.93	0.50
56:DY:52:SER:HB3	56:DY:55:TYR:CE1	2.44	0.50
1:AA:637:G:O2'	1:AA:638:G:H5'	2.10	0.50
31:B6:45:LYS:HB3	31:B6:45:LYS:NZ	2.26	0.50
9:AI:48:GLU:N	9:AI:49:PRO:CD	2.72	0.50
35:BA:865:C:H4'	35:BA:866:A:C8	2.46	0.50
1:AA:1207:G:O2'	1:AA:1208:C:H5'	2.11	0.50
1:AA:1286:A:OP1	21:AU:25:LYS:HE2	2.11	0.50
35:BA:1047:G:H2'	35:BA:1110:G:C2	2.45	0.50
1:CA:1096:C:O2'	1:CA:1097:C:H5'	2.10	0.50
48:DQ:60:ARG:HG3	48:DQ:60:ARG:HH11	1.76	0.50
35:DA:2682:U:H6	35:DA:2682:U:H5'	1.74	0.50
35:BA:2182:G:H2'	35:BA:2183:C:C6	2.43	0.50
55:BX:29:TRP:CE3	55:BX:78:LYS:HB3	2.47	0.50
35:DA:2339:G:H2'	35:DA:2340:G:C8	2.46	0.50
8:AH:42:GLU:HG3	8:AH:109:ILE:HD12	1.92	0.50
1:AA:1188:A:H5''	14:AN:58:LYS:HZ1	1.75	0.50
42:DH:62:LYS:C	42:DH:64:LEU:H	2.14	0.50
35:BA:154(A):C:O2	35:BA:154(A):C:H5''	2.11	0.50
28:D3:30:ARG:HD2	28:D3:30:ARG:H	1.76	0.50
35:BA:280:C:N4	35:BA:360:G:H1	2.09	0.50
1:AA:165:C:H2'	1:AA:166:G:C8	2.46	0.50
35:BA:2310:A:O2'	35:BA:2311:A:H5''	2.12	0.50
1:CA:1157:A:H61	1:CA:1178:G:H1'	1.76	0.50
35:BA:460:A:H2'	35:BA:461:C:O4'	2.11	0.50
17:AQ:86:GLU:O	17:AQ:90:ILE:HG12	2.11	0.50
35:BA:2861:G:O2'	35:BA:2862:G:H5'	2.11	0.50
35:DA:1268:A:H2'	35:DA:1269:A:O4'	2.11	0.50
2:AB:61:LEU:HD11	2:AB:160:ASP:CB	2.40	0.50
54:DW:85:VAL:CG1	54:DW:86:LEU:N	2.74	0.50
48:BQ:84:GLY:O	48:BQ:85:LYS:HB2	2.10	0.50
35:DA:2390:U:O2'	35:DA:2391:G:H5'	2.11	0.50
6:AF:26:ILE:O	6:AF:29:ALA:HB3	2.12	0.50
39:DE:93:VAL:HG11	39:DE:180:ASN:O	2.11	0.50
2:CB:43:ASP:OD2	2:CB:45:GLN:HB3	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DF:155:LEU:HD22	40:DF:186:ILE:HA	1.93	0.50
1:CA:848:C:H2'	1:CA:849:C:C6	2.46	0.50
4:AD:131:ARG:HH11	4:AD:131:ARG:HG3	1.75	0.50
55:BX:66:LEU:C	55:BX:66:LEU:HD13	2.32	0.50
47:BP:123:LEU:HD12	47:BP:123:LEU:C	2.32	0.50
1:CA:1314:C:H2'	1:CA:1315:U:C6	2.46	0.50
40:DF:21:ALA:C	40:DF:23:ASP:H	2.14	0.50
42:BH:15:VAL:HA	42:BH:27:LYS:O	2.12	0.50
1:CA:598:U:HO2'	8:CH:94:TYR:HD1	1.59	0.50
1:AA:1492:A:C2	24:AY:36:GLY:O	2.64	0.50
24:AY:96:LEU:OXT	24:AY:96:LEU:HD13	2.11	0.50
1:CA:1225:A:H5''	1:CA:1226:C:OP2	2.11	0.50
1:AA:1502:A:H5'	1:AA:1504:G:N7	2.26	0.50
56:BY:99:CYS:O	56:BY:100:ALA:CB	2.59	0.50
52:BU:66:ASN:ND2	52:BU:76:TYR:H	2.10	0.50
27:D2:45:SER:O	27:D2:46:GLN:CD	2.50	0.50
35:DA:2418:A:H2'	35:DA:2419:U:H6	1.75	0.50
57:DZ:8:TYR:HB2	57:DZ:38:TYR:CD2	2.47	0.50
35:DA:1665:A:C2'	35:DA:1666:G:H5'	2.41	0.50
13:CM:57:ARG:NH2	29:D4:35:VAL:HG23	2.25	0.50
1:CA:589:C:O5'	1:CA:589:C:H6	1.95	0.50
8:CH:29:SER:HB3	8:CH:32:LYS:CD	2.41	0.50
7:CG:105:VAL:O	7:CG:108:ALA:HB3	2.12	0.50
13:AM:86:CYS:HB3	19:AS:74:PHE:CE1	2.47	0.50
57:BZ:81:ARG:CZ	57:BZ:81:ARG:HB3	2.41	0.50
41:BG:116:ASP:O	41:BG:117:PHE:HB3	2.11	0.50
57:BZ:61:LEU:C	57:BZ:63:ASP:H	2.15	0.50
1:AA:1348:U:H4'	9:AI:120:ARG:HD2	1.93	0.50
35:BA:2724:C:OP1	39:BE:118:LYS:HE3	2.11	0.50
37:BC:82:LYS:C	37:BC:86:ALA:HB3	2.32	0.50
35:BA:729:G:N7	38:BD:209:ALA:HB3	2.26	0.50
35:BA:691:C:C4'	38:BD:43:ARG:HE	2.25	0.50
20:AT:13:LEU:HD13	20:AT:17:ARG:NH1	2.23	0.50
53:DV:28:GLU:O	53:DV:61:VAL:HG21	2.11	0.50
9:AI:79:LEU:HD13	9:AI:101:PHE:O	2.11	0.50
1:AA:182:U:H2'	1:AA:183:G:H5'	1.93	0.50
17:CQ:35:VAL:HG12	17:CQ:36:ILE:N	2.26	0.50
7:AG:57:GLU:C	7:AG:59:LEU:H	2.14	0.50
6:CF:37:VAL:HG13	6:CF:65:VAL:CG1	2.40	0.50
35:DA:2892:A:H2'	35:DA:2893:G:O4'	2.12	0.50
26:B1:66:HIS:CE1	35:BA:372:G:H3'	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:54:ARG:HG2	15:CO:58:MET:CE	2.42	0.50
40:BF:130:ALA:C	40:BF:132:VAL:H	2.14	0.50
47:DP:75:ILE:H	47:DP:75:ILE:CD1	2.18	0.50
34:D9:9:ARG:NH1	34:D9:14:CYS:O	2.44	0.50
1:AA:918:A:O2'	1:AA:919:A:H5'	2.11	0.50
3:AC:126:ARG:C	3:AC:127:ARG:HD2	2.32	0.50
27:B2:70:GLN:O	27:B2:72:ALA:N	2.44	0.50
26:D1:82:LEU:C	26:D1:83:GLU:HG2	2.31	0.50
47:BP:136:GLU:OE1	47:BP:136:GLU:N	2.44	0.50
27:B2:62:THR:O	27:B2:66:GLU:HG3	2.12	0.50
8:CH:103:VAL:HG12	8:CH:108:GLY:HA3	1.93	0.50
35:BA:894:C:O2'	35:BA:895:U:H5'	2.11	0.50
11:CK:20:TYR:CE2	11:CK:83:ILE:HD12	2.46	0.50
51:BT:72:VAL:HG12	51:BT:73:GLU:N	2.26	0.50
49:BR:49:ASP:O	49:BR:52:ILE:N	2.44	0.50
1:AA:423:G:C2'	1:AA:424:G:H5'	2.40	0.50
37:BC:63:SER:O	37:BC:64:LEU:HB2	2.11	0.50
57:BZ:66:SER:C	57:BZ:67:LEU:HD12	2.32	0.50
35:BA:2029:G:H2'	35:BA:2031:A:OP2	2.11	0.50
36:BB:105:A:H2'	36:BB:106:G:O4'	2.12	0.50
38:DD:231:HIS:ND1	38:DD:232:PRO:HD2	2.26	0.50
3:AC:111:LEU:HD21	3:AC:145:GLY:O	2.12	0.50
35:BA:324:A:N6	35:BA:338:G:O2'	2.44	0.50
1:CA:645:C:C2'	1:CA:646:U:O5'	2.59	0.50
1:AA:1492:A:H2	24:AY:36:GLY:O	1.94	0.50
1:CA:1225:A:N3	1:CA:1226:C:C5	2.80	0.50
47:DP:63:PRO:C	47:DP:65:ARG:N	2.63	0.50
1:AA:1442(A):G:H22	51:BT:119:LYS:HB2	1.76	0.50
56:BY:14:LEU:CG	56:BY:15:VAL:N	2.75	0.50
40:DF:152:GLU:OE1	40:DF:191:ARG:HD2	2.11	0.50
52:DU:66:ASN:ND2	52:DU:76:TYR:H	2.08	0.50
53:DV:39:LEU:C	53:DV:40:LEU:HD23	2.31	0.50
12:CL:51:LYS:O	12:CL:67:ILE:HG13	2.12	0.50
35:DA:943:U:OP2	47:DP:38:GLN:CD	2.49	0.50
2:CB:214:ILE:O	2:CB:215:LEU:HD22	2.11	0.50
19:CS:33:THR:HG22	19:CS:34:TRP:H	1.74	0.50
47:DP:101:VAL:HG12	47:DP:107:LYS:H	1.77	0.50
9:CI:5:TYR:HE2	9:CI:16:ARG:HB3	1.76	0.50
47:BP:24:GLY:O	47:BP:25:SER:CB	2.59	0.50
57:BZ:81:ARG:NH1	57:BZ:81:ARG:CB	2.75	0.50
45:DN:26:LEU:HD12	45:DN:26:LEU:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DE:34:VAL:HG12	39:DE:48:GLN:O	2.11	0.50
35:DA:2846:G:H2'	35:DA:2847:U:C6	2.47	0.50
38:DD:173:VAL:HG22	38:DD:174:ILE:H	1.77	0.50
1:CA:190:U:H2'	1:CA:191:G:C8	2.44	0.50
8:CH:34:GLU:HB2	8:CH:118:VAL:HG21	1.92	0.50
1:AA:1250:A:H2'	1:AA:1251:A:C8	2.46	0.50
1:AA:1179:A:O3'	9:AI:103:THR:HG23	2.11	0.50
49:BR:10:LEU:HB3	49:BR:17:ARG:HD2	1.94	0.50
46:BO:86:ILE:H	46:BO:86:ILE:HD12	1.76	0.50
35:BA:1281:G:C2'	35:BA:1282:U:H5'	2.41	0.50
35:BA:2784:C:H1'	39:BE:37:ARG:NH1	2.25	0.50
30:B5:50:GLY:O	30:B5:56:LYS:HD3	2.12	0.50
1:AA:37:U:O2'	1:AA:38:G:H5'	2.12	0.50
40:BF:148:LEU:HD11	40:BF:193:VAL:HG21	1.93	0.50
1:CA:148:G:H2'	1:CA:149:A:C8	2.47	0.50
1:CA:318:G:H2'	1:CA:319:G:C8	2.47	0.50
45:BN:90:MET:CE	45:BN:90:MET:HA	2.41	0.50
1:AA:829:G:H2'	1:AA:830:G:H8	1.76	0.50
29:D4:9:LEU:O	29:D4:10:VAL:HG13	2.11	0.50
1:CA:175:C:H2'	1:CA:176:C:C6	2.45	0.50
1:AA:1134:G:C2'	1:AA:1135:U:H5'	2.42	0.50
48:DQ:70:PRO:HA	48:DQ:94:VAL:O	2.12	0.50
35:BA:143:G:H1'	55:BX:37:THR:HG21	1.92	0.50
44:DJ:27:UNK:HA	44:DJ:113:UNK:HA	1.92	0.50
37:DC:63:SER:O	37:DC:64:LEU:HB2	2.11	0.50
39:BE:102:VAL:HB	39:BE:199:ARG:O	2.12	0.50
35:DA:1844:C:H5'	38:DD:256:GLY:O	2.12	0.50
44:DJ:15:UNK:HA	44:DJ:66:UNK:HA	1.93	0.50
39:DE:44:TYR:HE2	39:DE:80:GLU:OE1	1.95	0.50
35:DA:554:U:O2'	35:DA:555:U:H5'	2.12	0.50
25:D0:34:GLY:O	25:D0:35:ASN:C	2.50	0.50
43:DI:71:ILE:HG13	43:DI:72:LEU:HG	1.94	0.50
7:CG:83:ALA:HB1	22:CW:38:A:H2	1.77	0.50
35:DA:71:A:OP2	35:DA:71:A:H3'	2.11	0.50
4:AD:93:PHE:CE2	4:AD:97:LEU:HD21	2.47	0.50
21:AU:10:ARG:HA	21:AU:13:ILE:HB	1.93	0.50
23:AX:21:C:O2'	23:AX:22:A:O5'	2.29	0.50
42:DH:23:ARG:HD2	42:DH:25:LYS:HZ1	1.77	0.50
22:CV:55:U:O4	22:CV:57:A:O5'	2.25	0.50
35:DA:1921:G:O2'	35:DA:1922:G:H5'	2.11	0.50
14:CN:32:SER:OG	14:CN:41:ARG:HB3	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:836:G:N1	1:CA:837:G:C5	2.80	0.50
35:BA:613:G:H8	35:BA:613:G:C5'	2.20	0.50
52:DU:92:ARG:HD2	53:DV:11:GLN:HB2	1.93	0.50
42:BH:124:GLU:C	42:BH:126:PRO:HD3	2.32	0.50
42:BH:85:LYS:O	42:BH:132:ARG:HA	2.11	0.50
33:B8:4:MET:HE3	33:B8:61:LEU:HD13	1.93	0.50
3:AC:84:ILE:O	3:AC:88:ARG:HG3	2.11	0.50
1:CA:920:U:C1'	1:CA:1080:A:C2	2.95	0.50
3:AC:90:GLU:O	3:AC:93:LYS:HB3	2.11	0.50
57:DZ:12:GLY:HA2	57:DZ:36:LYS:HZ3	1.77	0.50
1:CA:658:G:H2'	1:CA:659:U:H6	1.77	0.50
1:CA:591:U:H2'	1:CA:592:G:C8	2.45	0.50
19:CS:53:ASN:O	19:CS:77:THR:HG22	2.12	0.50
10:AJ:50:ILE:HG23	10:AJ:60:ARG:HH11	1.77	0.50
47:BP:107:LYS:C	47:BP:109:GLY:H	2.15	0.50
4:CD:127:THR:HA	4:CD:132:ARG:HA	1.93	0.50
1:AA:1219:U:H2'	1:AA:1220:G:C8	2.46	0.50
35:BA:1920:C:O2'	35:BA:1921:G:H5'	2.11	0.50
1:AA:619:U:C2	4:AD:135:LEU:HD11	2.46	0.50
12:AL:117:TYR:O	12:AL:119:THR:N	2.45	0.50
51:BT:32:TYR:CD2	51:BT:81:PRO:HB2	2.47	0.50
39:DE:55:ASN:O	39:DE:57:LYS:N	2.45	0.50
35:BA:662:G:P	47:BP:18:ARG:HD2	2.51	0.50
29:B4:54:GLY:O	29:B4:55:ARG:HB3	2.10	0.50
35:DA:729:G:N7	38:DD:209:ALA:HB3	2.26	0.50
4:CD:30:LYS:HG2	4:CD:35:ARG:NH2	2.26	0.50
29:D4:56:VAL:CG1	29:D4:57:GLU:H	2.18	0.50
26:D1:49:VAL:HG11	26:D1:70:VAL:HG21	1.92	0.50
25:D0:66:VAL:CG1	25:D0:67:VAL:N	2.73	0.50
22:CW:74:C:O2'	22:CW:75:C:H5'	2.12	0.50
53:BV:18:LEU:HD13	53:BV:19:LYS:H	1.76	0.50
54:BW:111:HIS:CG	54:BW:112:GLY:H	2.30	0.50
49:BR:17:ARG:O	49:BR:20:LEU:HB3	2.11	0.50
45:BN:67:LEU:O	45:BN:68:GLU:HB3	2.11	0.50
35:BA:1280:G:H2'	35:BA:1281:G:C5'	2.39	0.50
8:AH:114:THR:C	8:AH:116:LYS:N	2.64	0.50
28:B3:4:LEU:HD12	28:B3:4:LEU:H	1.76	0.50
1:AA:1170:A:H2'	1:AA:1171:G:O4'	2.11	0.50
1:AA:920:U:C1'	1:AA:1080:A:C2	2.94	0.50
35:BA:17:G:H2'	35:BA:18:C:H6	1.76	0.50
11:CK:88:GLY:C	11:CK:90:GLY:N	2.61	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:5:VAL:HG13	17:AQ:59:ILE:O	2.11	0.50
56:DY:101:LYS:CG	56:DY:102:CYS:N	2.69	0.50
20:AT:24:LEU:O	20:AT:24:LEU:HD22	2.11	0.50
3:CC:42:LEU:HA	3:CC:45:LYS:HD2	1.92	0.50
35:DA:819:A:C4	35:DA:1189:A:C2	2.99	0.50
1:CA:724:G:O2'	1:CA:725:G:H5'	2.12	0.50
4:CD:129:ASN:H	4:CD:145:GLU:HB2	1.75	0.50
10:AJ:65:LEU:HA	14:AN:55:GLY:O	2.11	0.50
35:DA:241:A:H5'	35:DA:243:U:H1'	1.94	0.50
38:DD:54:ARG:NH1	38:DD:54:ARG:CG	2.74	0.50
1:CA:300:A:H2'	1:CA:301:G:O4'	2.12	0.50
43:DI:54:GLN:HA	43:DI:54:GLN:OE1	2.11	0.50
35:BA:814:C:O2'	35:BA:815:C:H5'	2.12	0.50
1:AA:1081:G:H2'	1:AA:1082:G:C8	2.46	0.50
27:D2:8:LYS:O	27:D2:11:GLU:N	2.45	0.50
26:D1:30:VAL:HG23	26:D1:31:GLY:H	1.77	0.50
37:BC:50:ASP:N	37:BC:51:PRO:HD3	2.27	0.50
1:CA:294:U:H2'	1:CA:295:C:C6	2.46	0.50
48:DQ:124:LYS:C	48:DQ:125:LEU:HD23	2.32	0.50
35:DA:479:A:HO2'	35:DA:481:G:H8	1.56	0.50
35:DA:363(A):A:H3'	35:DA:363(B):G:H8	1.77	0.50
35:BA:203:C:H3'	35:BA:204:A:H5''	1.93	0.50
35:BA:1026:U:H5'	35:BA:1027:A:OP2	2.12	0.50
50:BS:25:ARG:CB	50:BS:25:ARG:HH11	2.24	0.50
35:BA:237:C:O2'	35:BA:238:C:H5'	2.11	0.50
39:BE:176:ILE:HG22	39:BE:176:ILE:O	2.11	0.50
2:AB:239:VAL:O	2:AB:240:GLN:HB3	2.11	0.50
31:B6:22:ALA:HB2	31:B6:39:TYR:CE2	2.46	0.50
42:DH:41:MET:HE1	42:DH:54:ARG:HB2	1.94	0.50
1:CA:1188:A:H4'	14:CN:58:LYS:HD2	1.94	0.50
56:DY:39:VAL:HG12	56:DY:40:GLU:H	1.77	0.50
40:BF:22:ALA:HB1	40:BF:26:ALA:CA	2.42	0.50
40:BF:9:ILE:HG23	40:BF:13:SER:O	2.11	0.50
1:CA:126:G:H4'	1:CA:634:C:H1'	1.92	0.50
57:DZ:170:THR:HG22	57:DZ:171:ILE:H	1.76	0.50
51:BT:30:VAL:HG13	51:BT:84:GLN:HB2	1.92	0.50
51:BT:82:LEU:CD1	51:BT:82:LEU:H	2.20	0.50
51:BT:85:LYS:NZ	51:BT:85:LYS:C	2.65	0.50
35:DA:2360:A:O2'	35:DA:2361:A:P	2.69	0.50
31:D6:23:THR:HG21	35:DA:2419:U:H4'	1.94	0.50
40:DF:67:GLN:O	40:DF:68:LYS:HG2	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:921:U:H2'	1:CA:922:G:O4'	2.12	0.50
35:DA:807:U:O2'	35:DA:808:G:H5'	2.12	0.50
40:BF:68:LYS:O	40:BF:70:THR:N	2.43	0.50
10:AJ:13:HIS:HD2	10:AJ:14:LYS:HG2	1.76	0.50
31:B6:11:LEU:HD21	31:B6:51:GLU:CB	2.30	0.50
2:AB:51:LEU:O	2:AB:55:PHE:HD2	1.95	0.50
2:AB:70:PHE:O	2:AB:71:VAL:HG13	2.11	0.50
41:DG:102:PHE:O	41:DG:106:LEU:HG	2.12	0.50
1:CA:589:C:H2'	1:CA:590:C:C6	2.46	0.50
38:BD:31:LYS:HA	38:BD:31:LYS:NZ	2.26	0.50
35:BA:1301:A:H4'	35:BA:1302:A:OP1	2.12	0.50
51:DT:36:GLU:O	51:DT:37:GLY:C	2.49	0.50
3:CC:181:ASN:ND2	3:CC:204:LEU:HD12	2.27	0.50
7:AG:115:ARG:HB2	7:AG:118:VAL:CG2	2.39	0.50
35:DA:2723:C:H5''	49:DR:2:ARG:HD2	1.94	0.50
3:AC:181:ASN:HD21	3:AC:204:LEU:HD12	1.76	0.50
1:AA:1124:G:N3	10:AJ:38:ILE:HD12	2.26	0.50
12:AL:107:VAL:HG23	12:AL:117:TYR:HB3	1.94	0.50
36:BB:54:G:H21	41:BG:29:TRP:HE1	1.60	0.50
35:BA:2306:C:C5	35:BA:2307:G:H1'	2.46	0.50
45:DN:128:HIS:O	45:DN:128:HIS:CG	2.65	0.50
51:BT:33:LYS:HZ1	51:BT:43:GLN:HE22	1.59	0.50
36:DB:105:A:OP1	57:DZ:72:ARG:CZ	2.60	0.50
39:DE:75:VAL:O	39:DE:77:ILE:N	2.39	0.50
7:AG:146:GLU:CA	7:AG:149:ARG:HB2	2.36	0.50
1:CA:1142:G:H2'	1:CA:1143:G:O4'	2.12	0.50
11:CK:106:LYS:O	11:CK:107:SER:HB2	2.12	0.50
38:BD:118:VAL:HG22	38:BD:119:ALA:N	2.27	0.50
35:DA:2732:G:C3'	35:DA:2733:A:C5'	2.89	0.50
57:DZ:157:LEU:HD23	57:DZ:157:LEU:H	1.76	0.50
1:CA:1206:G:O2'	1:CA:1207:G:OP1	2.30	0.50
3:CC:8:ILE:HD12	3:CC:16:ARG:NH1	2.26	0.50
35:DA:1831:G:H2'	35:DA:1832:C:C6	2.47	0.50
41:DG:14:GLU:O	41:DG:18:GLU:HB2	2.11	0.50
4:AD:64:LEU:HD23	4:AD:64:LEU:C	2.31	0.50
2:CB:115:LEU:HD13	2:CB:145:LEU:CB	2.42	0.50
35:BA:622:G:O2'	35:BA:623:G:H5'	2.11	0.50
55:DX:47:PHE:CD2	55:DX:89:ILE:HG23	2.46	0.50
35:DA:1348:G:H2'	35:DA:1349:A:C5'	2.40	0.50
35:DA:2875:C:H4'	51:DT:5:ALA:HB2	1.92	0.50
4:CD:18:LYS:HD3	4:CD:20:TYR:OH	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2741:A:H2'	35:DA:2742:C:O4'	2.12	0.50
1:CA:1216:G:O2'	1:CA:1217:C:H5'	2.11	0.50
43:DI:37:VAL:CG1	43:DI:38:LEU:N	2.74	0.50
14:CN:51:GLY:C	14:CN:53:LEU:H	2.15	0.50
35:BA:2776:A:H4'	35:BA:2777:G:H5''	1.92	0.50
39:DE:117:MET:HE1	39:DE:124:GLY:HA3	1.92	0.50
52:BU:53:ARG:NH1	52:BU:53:ARG:HG3	2.27	0.50
35:BA:2342:C:O2	35:BA:2374:C:H4'	2.11	0.50
4:AD:129:ASN:H	4:AD:145:GLU:HB2	1.77	0.50
15:AO:8:LYS:HG2	15:AO:12:ILE:HD11	1.93	0.50
29:B4:44:THR:HG22	29:B4:45:GLY:N	2.26	0.50
1:AA:277:C:H2'	1:AA:278:G:H8	1.77	0.50
35:DA:2135:A:C2	35:DA:2157:G:H4'	2.47	0.50
42:BH:62:LYS:C	42:BH:64:LEU:H	2.14	0.50
35:BA:533:G:H5'	52:BU:24:TYR:CD2	2.46	0.50
50:DS:48:LEU:N	50:DS:48:LEU:HD12	2.26	0.50
1:AA:783:C:O2'	1:AA:784:C:H5'	2.12	0.50
54:DW:85:VAL:HG12	54:DW:86:LEU:N	2.27	0.50
9:AI:56:LEU:HD23	9:AI:57:GLY:N	2.26	0.50
1:CA:163:C:O2'	1:CA:164:U:H5'	2.11	0.50
2:CB:239:VAL:O	2:CB:240:GLN:HB3	2.11	0.50
35:DA:1336:A:H2'	35:DA:1337:G:C8	2.47	0.50
34:B9:31:LYS:HD2	35:BA:2478:A:H5'	1.93	0.50
35:DA:755:C:H2'	35:DA:756:C:C6	2.47	0.50
1:CA:109:A:C6	1:CA:326:G:C6	2.99	0.50
1:AA:977:A:O2'	1:AA:978:A:H5'	2.12	0.50
7:CG:22:LEU:HD23	7:CG:22:LEU:O	2.12	0.50
42:DH:163:TYR:CD1	42:DH:163:TYR:N	2.80	0.50
1:AA:513:C:H2'	1:AA:514:C:C6	2.46	0.50
35:DA:1027:A:C2	35:DA:2488:A:H5'	2.46	0.50
35:DA:534:U:O2'	52:DU:49:HIS:CD2	2.65	0.50
1:CA:644:G:C3'	1:CA:645:C:C5'	2.88	0.50
24:AY:57:GLN:CD	35:BA:1913:A:N3	2.65	0.50
9:CI:121:ARG:HD3	9:CI:121:ARG:C	2.32	0.50
40:BF:24:LEU:HD12	40:BF:25:PRO:CD	2.42	0.50
35:BA:1190:G:H5'	47:BP:35:HIS:H	1.77	0.50
35:BA:1531:C:O2'	35:BA:1532:C:OP2	2.30	0.50
40:DF:9:ILE:HG23	40:DF:13:SER:O	2.12	0.50
2:CB:97:TRP:HZ3	2:CB:172:ILE:HD13	1.77	0.50
2:CB:204:ASN:ND2	2:CB:207:ALA:H	2.10	0.50
1:CA:657:G:H2'	1:CA:658:G:H8	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BZ:23:LYS:HG3	57:BZ:38:TYR:HE1	1.76	0.50
57:BZ:43:GLU:O	57:BZ:47:VAL:HG23	2.12	0.50
47:DP:99:LEU:O	47:DP:102:ARG:HB3	2.12	0.50
38:DD:31:LYS:NZ	38:DD:31:LYS:HA	2.27	0.50
51:BT:35:LYS:NZ	51:BT:41:ARG:NH2	2.60	0.50
22:CV:23:C:O2'	22:CV:24:U:H5'	2.11	0.50
1:AA:1216:G:O2'	1:AA:1217:C:H5'	2.11	0.50
3:CC:130:VAL:O	3:CC:134:ILE:HG13	2.11	0.50
35:BA:144:C:H2'	35:BA:145:G:C8	2.44	0.50
1:AA:1126:U:OP2	10:AJ:38:ILE:HD11	2.12	0.50
47:DP:17:LYS:C	47:DP:19:VAL:N	2.65	0.50
1:AA:1142:G:H2'	1:AA:1143:G:O4'	2.11	0.50
1:CA:137:C:H42	1:CA:226:G:H1	1.60	0.50
31:B6:30:THR:O	31:B6:31:PRO:C	2.49	0.50
35:BA:1115:G:H8	35:BA:1115:G:H5'	1.76	0.50
45:BN:126:PRO:O	45:BN:127:ASP:HB2	2.12	0.50
4:AD:127:THR:HA	4:AD:132:ARG:HA	1.94	0.50
49:BR:4:LEU:O	49:BR:5:LYS:HB2	2.11	0.50
53:BV:18:LEU:CD1	53:BV:18:LEU:N	2.73	0.50
52:DU:107:ALA:O	52:DU:111:GLU:HG2	2.12	0.50
35:DA:11:G:O2'	35:DA:12:U:H5'	2.12	0.50
1:CA:1207:G:HO2'	1:CA:1208:C:H6	1.59	0.50
22:CW:6:G:H21	22:CW:68:C:N4	2.04	0.50
46:DO:87:ILE:CG2	46:DO:91:LEU:HA	2.41	0.50
26:B1:7:ILE:HG22	26:B1:8:SER:N	2.26	0.50
7:CG:145:ALA:O	7:CG:146:GLU:HB2	2.12	0.50
45:DN:61:ARG:HA	45:DN:61:ARG:NE	2.26	0.50
2:AB:95:GLN:HG3	2:AB:147:LYS:HG2	1.94	0.50
1:AA:556:C:C2'	1:AA:557:G:H5'	2.42	0.50
1:CA:1191:A:H5''	3:CC:4:LYS:NZ	2.27	0.50
7:AG:6:ARG:O	7:AG:6:ARG:HG2	2.11	0.50
19:CS:24:ALA:O	19:CS:25:LYS:CB	2.59	0.50
35:DA:7:G:H2'	35:DA:8:A:H8	1.77	0.50
8:AH:103:VAL:HG12	8:AH:108:GLY:HA3	1.93	0.50
1:AA:1192:C:C5	1:AA:1193:G:C8	3.00	0.50
32:D7:19:ARG:HG2	32:D7:19:ARG:NH1	2.27	0.50
35:BA:2479:G:OP1	35:BA:2537:U:H1'	2.11	0.50
35:BA:1223:G:H5'	35:BA:1224:C:OP2	2.11	0.50
46:BO:14:THR:HG22	46:BO:52:VAL:HG13	1.92	0.50
41:DG:170:ARG:HH22	41:DG:180:PHE:HD1	1.60	0.50
35:DA:2709:G:O2'	35:DA:2710:C:H5'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:75:VAL:HG21	7:AG:144:MET:HB3	1.93	0.50
35:DA:2753:A:O2'	35:DA:2754:U:H5'	2.12	0.50
11:CK:121:PRO:O	11:CK:122:LYS:O	2.30	0.50
3:CC:111:LEU:HD21	3:CC:145:GLY:O	2.12	0.50
35:BA:2828:C:O2'	35:BA:2829:C:H5'	2.12	0.50
35:BA:706:A:H2'	35:BA:707:G:O4'	2.12	0.50
1:AA:902:G:H2'	1:AA:903:G:H8	1.76	0.50
32:B7:24:THR:HG23	32:B7:27:GLY:H	1.77	0.50
24:AY:28:ILE:HG21	24:AY:30:LYS:HB2	1.94	0.50
47:BP:63:PRO:C	47:BP:65:ARG:N	2.65	0.50
35:DA:90:U:O2'	35:DA:92:A:OP2	2.30	0.50
1:CA:1225:A:C2	1:CA:1226:C:C4	3.00	0.50
13:CM:98:VAL:HG12	13:CM:99:ARG:N	2.27	0.50
53:DV:16:PRO:HG2	53:DV:17:GLY:H	1.76	0.50
40:DF:123:LEU:HD12	40:DF:124:LEU:N	2.27	0.50
1:CA:4:U:P	4:CD:86:LYS:HD3	2.52	0.50
51:DT:27:THR:HB	51:DT:87:ASP:HB3	1.94	0.50
12:CL:98:VAL:O	12:CL:101:VAL:HG23	2.11	0.50
12:CL:80:VAL:HG22	12:CL:81:LEU:N	2.26	0.50
5:CE:84:PHE:HE2	5:CE:130:ASN:ND2	2.09	0.50
2:CB:80:ILE:HD11	2:CB:208:ILE:HG23	1.94	0.50
5:AE:79:GLU:HB3	5:AE:92:LYS:HA	1.94	0.50
38:BD:32:SER:C	38:BD:36:PRO:HD3	2.32	0.50
2:AB:172:ILE:O	2:AB:175:ARG:HB3	2.12	0.50
41:DG:135:LEU:HD22	41:DG:155:MET:HE1	1.92	0.50
57:BZ:24:LEU:C	57:BZ:24:LEU:HD12	2.32	0.50
1:CA:985:C:H2'	1:CA:986:A:C8	2.47	0.50
50:DS:17:ARG:CA	50:DS:20:ARG:HH22	2.25	0.50
15:AO:78:TYR:O	15:AO:80:ALA:N	2.39	0.50
14:AN:32:SER:OG	14:AN:41:ARG:HB3	2.12	0.50
1:CA:1376:U:H2'	1:CA:1377:A:C8	2.47	0.50
35:BA:1204:A:H2	35:BA:1241:A:N1	2.10	0.50
35:DA:144:C:H2'	35:DA:145:G:C8	2.46	0.50
13:CM:14:ARG:HA	13:CM:44:ARG:HA	1.94	0.50
1:AA:986:A:H2'	1:AA:987:G:O4'	2.11	0.50
13:AM:83:ASP:CG	13:AM:84:ILE:N	2.64	0.50
19:AS:33:THR:CG2	19:AS:34:TRP:N	2.74	0.50
43:DI:88:ILE:HG13	43:DI:89:TYR:N	2.25	0.50
47:DP:16:ARG:CZ	47:DP:16:ARG:HB2	2.42	0.50
35:DA:662:G:P	47:DP:18:ARG:HD2	2.50	0.50
10:CJ:96:ILE:H	10:CJ:96:ILE:CD1	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:116:VAL:O	3:CC:119:ARG:HB3	2.12	0.50
24:AY:15:THR:O	24:AY:17:ASN:N	2.45	0.50
50:DS:103:GLU:O	50:DS:105:ALA:N	2.45	0.50
41:BG:33:ARG:HH11	41:BG:33:ARG:HG2	1.77	0.50
35:DA:2767:C:H2'	35:DA:2768:C:C6	2.46	0.50
5:CE:148:VAL:O	5:CE:150:ARG:N	2.45	0.50
54:DW:1:MET:HG3	54:DW:64:MET:CE	2.42	0.50
54:BW:64:MET:CE	54:BW:109:GLU:HG2	2.42	0.50
22:AV:1:C:N4	22:AV:72:A:H61	2.06	0.50
1:CA:1370:G:H2'	1:CA:1371:G:H8	1.76	0.50
41:DG:139:LEU:HD12	41:DG:140:ILE:HG23	1.93	0.50
2:CB:121:LEU:HB3	2:CB:127:ILE:HD11	1.93	0.50
56:BY:87:LYS:O	56:BY:88:LYS:HB2	2.12	0.50
1:AA:1066:C:H3'	1:AA:1067:A:H8	1.75	0.50
31:D6:41:PRO:O	31:D6:45:LYS:HD2	2.12	0.50
8:AH:35:ILE:O	8:AH:39:LEU:HD23	2.11	0.50
1:CA:243:A:H4'	1:CA:244:U:C5'	2.40	0.50
40:DF:136:THR:HG22	40:DF:140:LEU:CD2	2.41	0.50
42:BH:95:ARG:HH12	42:BH:97:ARG:HH11	1.60	0.50
41:BG:37:VAL:HG22	41:BG:159:VAL:HG12	1.94	0.50
35:BA:1262:A:P	54:BW:99:ARG:HH12	2.34	0.50
35:DA:1188:U:C4'	53:DV:79:VAL:HG22	2.42	0.50
47:DP:131:SER:OG	47:DP:134:ALA:HB2	2.12	0.50
28:B3:29:ARG:HG3	28:B3:29:ARG:NH1	2.26	0.50
1:CA:829:G:H2'	1:CA:830:G:H8	1.76	0.50
35:DA:1884:A:C6	35:DA:1885:A:N7	2.80	0.50
50:BS:48:LEU:N	50:BS:48:LEU:HD12	2.26	0.50
35:BA:7:G:H2'	35:BA:8:A:C8	2.46	0.50
49:DR:118:GLU:HA	49:DR:118:GLU:OE1	2.10	0.50
36:DB:17:C:C2'	36:DB:18:G:H5'	2.42	0.50
10:CJ:8:LEU:O	10:CJ:69:ASN:HA	2.12	0.50
35:DA:1252:G:C2	35:DA:1253:A:C2	3.00	0.50
35:DA:971:C:C2'	35:DA:972:G:H5'	2.42	0.50
17:AQ:96:GLU:H	17:AQ:96:GLU:CD	2.15	0.50
35:DA:1386:C:OP2	35:DA:1396:U:H5	1.95	0.50
32:D7:24:THR:HG23	32:D7:27:GLY:H	1.77	0.50
38:BD:168:ARG:O	38:BD:169:GLU:HB2	2.11	0.50
1:AA:1489:G:O2'	1:AA:1490:C:H5'	2.11	0.50
35:BA:116:C:O2'	35:BA:117:G:H5'	2.11	0.50
1:AA:969:A:O2'	1:AA:970:C:H5'	2.11	0.50
38:DD:148:GLU:HB2	38:DD:151:LYS:HD2	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:827:U:O2	35:DA:2246:G:H4'	2.12	0.50
15:AO:48:LYS:HA	15:AO:48:LYS:HE2	1.94	0.50
1:AA:446:G:H1	1:AA:488:C:H42	1.60	0.50
42:DH:15:VAL:HA	42:DH:27:LYS:O	2.12	0.49
22:AV:54:U:O4	22:AV:58:A:C8	2.65	0.49
35:BA:775:G:O2'	35:BA:776:G:OP2	2.30	0.49
56:BY:97:ARG:NH2	56:BY:98:VAL:HB	2.26	0.49
1:CA:1507:A:C2	1:CA:1508:G:C5	3.00	0.49
47:DP:34:GLY:O	47:DP:35:HIS:CB	2.60	0.49
53:BV:15:GLU:O	53:BV:96:ILE:HG21	2.12	0.49
57:BZ:153:SER:O	57:BZ:154:ASP:OD1	2.29	0.49
3:AC:76:VAL:CG2	3:AC:77:ILE:HG13	2.42	0.49
2:CB:74:LYS:HD3	2:CB:165:VAL:HB	1.94	0.49
57:DZ:40:ASP:O	57:DZ:44:PHE:CB	2.60	0.49
41:DG:131:TYR:O	41:DG:159:VAL:N	2.35	0.49
15:AO:32:LEU:O	15:AO:33:THR:C	2.50	0.49
15:AO:36:ILE:HG22	15:AO:37:ASN:HD22	1.77	0.49
47:BP:101:VAL:HG12	47:BP:107:LYS:H	1.77	0.49
7:CG:115:ARG:HB2	7:CG:118:VAL:CG2	2.38	0.49
35:BA:1346:G:C3'	35:BA:1347:G:H5''	2.42	0.49
48:BQ:133:ARG:CG	48:BQ:134:ARG:N	2.69	0.49
1:AA:33:A:C2'	1:AA:34:C:C5'	2.90	0.49
1:AA:502:G:OP1	12:AL:114:ARG:N	2.45	0.49
35:BA:2821:A:H2'	35:BA:2822:G:C8	2.47	0.49
43:BI:102:SER:HB3	43:BI:108:THR:O	2.12	0.49
57:DZ:137:ILE:HG22	57:DZ:137:ILE:O	2.12	0.49
41:DG:28:VAL:C	41:DG:30:GLU:H	2.15	0.49
35:DA:2103:C:C2'	35:DA:2104:G:H5''	2.41	0.49
11:AK:125:PHE:N	11:AK:125:PHE:HD1	2.08	0.49
22:AV:1:C:H42	22:AV:72:A:N6	2.05	0.49
43:DI:129:THR:HG22	43:DI:130:TYR:N	2.23	0.49
1:CA:1118:C:O5'	1:CA:1118:C:H6	1.94	0.49
6:AF:97:PHE:HB3	18:AR:32:ARG:HG3	1.94	0.49
35:DA:652:C:O2	35:DA:652:C:H3'	2.12	0.49
22:CV:5:G:N2	22:CV:69:C:C2	2.80	0.49
40:BF:132:VAL:HG13	40:BF:133:ASN:H	1.77	0.49
9:CI:79:LEU:HD12	9:CI:103:THR:O	2.12	0.49
1:CA:376:G:H5''	16:CP:5:ARG:HB2	1.94	0.49
35:BA:2892:A:H2'	35:BA:2893:G:O4'	2.11	0.49
35:BA:2893:G:H5'	35:BA:2894:G:H5'	1.93	0.49
1:AA:1096:C:O2'	1:AA:1097:C:H5'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:B3:52:HIS:CG	36:BB:83:G:H4'	2.47	0.49
36:BB:83:G:O2'	36:BB:84:C:H5'	2.11	0.49
56:BY:101:LYS:CG	56:BY:102:CYS:N	2.69	0.49
35:DA:363(F):A:HO2'	35:DA:364:C:H5	1.58	0.49
35:DA:2761:G:H2'	35:DA:2762:G:H5''	1.93	0.49
1:AA:709:G:H2'	1:AA:710:G:H8	1.77	0.49
56:BY:31:LEU:CB	56:BY:32:PRO:HA	2.41	0.49
4:AD:119:GLN:HG3	4:AD:123:HIS:HD2	1.76	0.49
38:DD:166:GLN:CA	38:DD:166:GLN:NE2	2.74	0.49
40:DF:137:LYS:CA	40:DF:140:LEU:HD23	2.42	0.49
35:BA:271(G):C:H2'	35:BA:271(H):G:C8	2.47	0.49
35:DA:2106:G:H22	35:DA:2183:C:H1'	1.77	0.49
1:CA:59:A:H5'	1:CA:60:A:C5'	2.42	0.49
35:BA:524:U:H2'	35:BA:525:U:C6	2.47	0.49
17:CQ:87:LYS:HB3	17:CQ:87:LYS:NZ	2.26	0.49
35:BA:2648:C:H2'	35:BA:2649:U:C6	2.47	0.49
16:AP:28:ARG:C	16:AP:30:GLY:H	2.16	0.49
26:B1:83:GLU:HG3	26:B1:84:GLY:H	1.77	0.49
1:AA:232:G:H1'	1:AA:262:A:N1	2.26	0.49
39:BE:119:ARG:CD	39:BE:120:TRP:NE1	2.75	0.49
35:DA:1963:U:C2'	35:DA:1963:U:O2	2.59	0.49
2:AB:121:LEU:HB3	2:AB:127:ILE:HD11	1.93	0.49
1:CA:563:A:HO2'	1:CA:567:G:H8	1.59	0.49
35:BA:419:C:H2'	35:BA:420:C:H6	1.77	0.49
39:DE:47:VAL:O	39:DE:80:GLU:HA	2.12	0.49
35:BA:2201:C:O2'	35:BA:2202:C:H5'	2.12	0.49
27:D2:25:VAL:HG21	27:D2:61:LEU:HD13	1.94	0.49
35:DA:843:G:O2'	35:DA:844:C:H5'	2.11	0.49
1:CA:902:G:H2'	1:CA:903:G:H8	1.77	0.49
35:BA:1475:G:H2'	35:BA:1475:G:N3	2.26	0.49
1:AA:449:C:O2	16:AP:42:ARG:HD2	2.12	0.49
25:D0:5:LYS:HD3	48:DQ:81:VAL:HG12	1.94	0.49
35:BA:1338:G:O2'	35:BA:1339:G:H5'	2.11	0.49
42:BH:23:ARG:HG3	42:BH:25:LYS:HZ2	1.77	0.49
1:CA:644:G:C3'	1:CA:645:C:H5''	2.32	0.49
1:CA:644:G:C5'	8:CH:92:ARG:HH21	2.26	0.49
12:AL:44:LYS:HB3	12:AL:45:PRO:HD3	1.94	0.49
7:CG:14:PRO:HG3	7:CG:21:VAL:HG13	1.95	0.49
7:CG:25:ALA:O	7:CG:28:ASN:HB2	2.11	0.49
10:CJ:50:ILE:CA	10:CJ:60:ARG:HD3	2.40	0.49
35:DA:631:A:O5'	35:DA:631:A:H8	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:118:ALA:HB2	40:BF:123:LEU:HD23	1.93	0.49
42:DH:124:GLU:C	42:DH:126:PRO:HD3	2.32	0.49
35:BA:1531:C:C6	35:BA:1531:C:C3'	2.95	0.49
51:BT:30:VAL:CG1	51:BT:84:GLN:HB2	2.42	0.49
53:DV:38:LEU:C	53:DV:39:LEU:HD13	2.30	0.49
35:DA:1502:C:H2'	35:DA:1503:U:C6	2.48	0.49
47:DP:41:ARG:HD2	47:DP:41:ARG:N	2.28	0.49
1:AA:1151:A:O2'	1:AA:1152:A:H8	1.90	0.49
2:CB:39:ILE:HG22	2:CB:40:HIS:N	2.27	0.49
3:AC:75:VAL:HG12	3:AC:83:ARG:HD3	1.93	0.49
19:AS:16:LEU:HD23	19:AS:16:LEU:C	2.33	0.49
3:CC:75:VAL:HG12	3:CC:83:ARG:HD3	1.92	0.49
3:CC:90:GLU:O	3:CC:93:LYS:HB3	2.12	0.49
2:AB:76:GLN:CD	2:AB:76:GLN:H	2.14	0.49
29:D4:18:CYS:SG	29:D4:36:CYS:HB3	2.53	0.49
29:D4:35:VAL:CG1	29:D4:36:CYS:N	2.76	0.49
41:DG:47:LYS:HZ1	41:DG:81:LYS:NZ	2.09	0.49
8:AH:19:VAL:CG2	8:AH:21:LYS:HG3	2.41	0.49
33:B8:14:VAL:HG21	33:B8:22:VAL:CG1	2.42	0.49
43:BI:61:ARG:CD	43:BI:61:ARG:N	2.74	0.49
1:AA:33:A:O2'	1:AA:34:C:H5''	2.10	0.49
24:CY:6:GLY:CA	24:CY:7:HIS:ND1	2.74	0.49
43:DI:77:LEU:HD22	43:DI:140:LEU:CD2	2.42	0.49
35:DA:2173:A:H2'	35:DA:2174:C:H5'	1.94	0.49
47:DP:17:LYS:HG3	47:DP:17:LYS:O	2.10	0.49
1:AA:1004:A:H61	1:AA:1034:G:C2'	2.16	0.49
1:AA:1128:C:H1'	1:AA:1146:A:N6	2.24	0.49
4:CD:35:ARG:C	4:CD:37:PRO:HD3	2.32	0.49
37:DC:85:GLU:HG2	37:DC:153:ILE:CB	2.43	0.49
41:BG:72:ARG:HG2	41:BG:86:MET:CA	2.42	0.49
35:BA:2767:C:H2'	35:BA:2768:C:C6	2.46	0.49
45:DN:62:VAL:CG2	45:DN:66:LYS:HD2	2.43	0.49
54:DW:64:MET:CE	54:DW:109:GLU:HG2	2.42	0.49
7:CG:77:SER:O	7:CG:78:ARG:HB2	2.12	0.49
1:AA:1057:G:H5''	3:AC:154:SER:HB2	1.93	0.49
28:D3:36:VAL:HG23	28:D3:36:VAL:O	2.12	0.49
32:D7:43:THR:HG23	32:D7:44:PRO:CD	2.40	0.49
35:DA:2761:G:C2'	35:DA:2762:G:H5''	2.42	0.49
35:DA:954:G:O2'	35:DA:955:C:H5'	2.12	0.49
22:CW:41:C:H2'	22:CW:42:G:C8	2.43	0.49
21:CU:24:ARG:NH1	21:CU:24:ARG:HG2	2.25	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:25:LYS:CD	12:AL:30:ARG:HH22	2.25	0.49
27:B2:70:GLN:HG2	27:B2:71:ASN:ND2	2.27	0.49
38:BD:166:GLN:NE2	38:BD:166:GLN:CA	2.74	0.49
16:AP:82:GLN:O	16:AP:83:GLU:HB2	2.10	0.49
55:BX:65:ARG:HG2	55:BX:65:ARG:NH1	2.27	0.49
37:DC:46:LYS:HZ3	37:DC:46:LYS:HB2	1.75	0.49
35:DA:1433:U:O2	35:DA:1561:G:C2	2.65	0.49
20:CT:62:LEU:HA	20:CT:65:LYS:HB2	1.92	0.49
39:BE:184:VAL:C	39:BE:186:GLY:H	2.15	0.49
11:CK:102:GLY:C	11:CK:103:LEU:HD22	2.31	0.49
11:AK:57:THR:HG23	11:AK:60:ALA:CB	2.42	0.49
1:AA:318:G:H2'	1:AA:319:G:C8	2.46	0.49
7:CG:138:LYS:O	7:CG:142:GLU:HG3	2.12	0.49
1:CA:1263:C:H42	1:CA:1272:G:H1	1.60	0.49
35:BA:39:C:H2'	35:BA:40:C:C6	2.47	0.49
35:BA:315:G:H2'	35:BA:316:C:C6	2.48	0.49
35:BA:2040:C:H2'	35:BA:2041:U:C6	2.47	0.49
35:BA:2308:G:C2	35:BA:2309:A:N1	2.80	0.49
35:BA:1862:G:H2'	35:BA:1863:G:H8	1.78	0.49
1:CA:841:U:H3'	1:CA:848:C:H5'	1.93	0.49
35:BA:221:A:N6	35:BA:265:A:H8	2.10	0.49
1:AA:552:U:O2	12:AL:28:PRO:HB3	2.12	0.49
35:DA:1416:G:H1'	35:DA:1417:C:C5	2.47	0.49
32:B7:40:TRP:CZ3	35:BA:459:U:H4'	2.47	0.49
57:DZ:182:LYS:O	57:DZ:184:ALA:N	2.45	0.49
13:CM:37:THR:OG1	13:CM:39:ILE:HD13	2.12	0.49
22:AW:20:U:H5	22:AW:59:A:H61	1.60	0.49
35:DA:221:A:H61	35:DA:265:A:H8	1.58	0.49
6:CF:91:VAL:HG12	6:CF:92:LYS:N	2.27	0.49
57:DZ:106:GLY:HA2	57:DZ:142:SER:OG	2.11	0.49
46:DO:40:VAL:HG12	46:DO:41:ALA:N	2.27	0.49
24:AY:31:THR:O	24:AY:32:PRO:O	2.30	0.49
56:DY:28:LYS:O	56:DY:29:GLU:C	2.50	0.49
35:BA:1533:G:O2'	35:BA:1543:C:H5''	2.12	0.49
56:BY:14:LEU:CD1	56:BY:15:VAL:H	2.23	0.49
35:DA:874:G:O2'	35:DA:875:G:H5'	2.12	0.49
51:DT:28:VAL:O	51:DT:29:ARG:HB2	2.11	0.49
31:D6:11:LEU:HG	31:D6:26:ASN:OD1	2.12	0.49
1:CA:913:A:OP2	12:CL:88:LYS:NZ	2.39	0.49
2:CB:51:LEU:O	2:CB:55:PHE:HD2	1.95	0.49
47:BP:115:LEU:HD23	47:BP:115:LEU:N	2.23	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:208:ILE:O	2:AB:211:ILE:HB	2.12	0.49
4:AD:76:ARG:HH11	4:AD:76:ARG:CB	2.11	0.49
9:CI:16:ARG:HH11	9:CI:16:ARG:HG2	1.78	0.49
47:DP:10:PRO:CD	47:DP:11:GLY:N	2.73	0.49
1:CA:624:C:H4'	16:CP:10:GLY:CA	2.41	0.49
3:AC:155:GLY:HA3	3:AC:164:ARG:O	2.13	0.49
3:AC:181:ASN:ND2	3:AC:204:LEU:HD12	2.27	0.49
39:BE:132:HIS:HD2	39:BE:135:HIS:NE2	2.04	0.49
51:BT:31:SER:OG	51:BT:32:TYR:N	2.45	0.49
45:BN:24:GLY:HA2	45:BN:27:ALA:CB	2.42	0.49
37:DC:82:LYS:C	37:DC:86:ALA:HB3	2.33	0.49
1:CA:1469:G:H2'	1:CA:1470:G:H8	1.78	0.49
55:DX:8:ILE:CD1	55:DX:42:ALA:HB1	2.42	0.49
41:BG:7:LEU:HG	41:BG:104:GLU:HB2	1.93	0.49
1:CA:1004:A:H61	1:CA:1034:G:C2'	2.21	0.49
1:CA:1038:C:H2'	1:CA:1039:C:O4'	2.12	0.49
43:DI:131:LYS:HD3	43:DI:135:GLU:HG3	1.94	0.49
12:AL:2:PRO:HA	12:AL:6:GLN:NE2	2.27	0.49
40:DF:178:PRO:HG2	40:DF:179:GLU:OE2	2.11	0.49
9:CI:99:LEU:C	9:CI:101:PHE:H	2.16	0.49
32:B7:47:ARG:HB2	32:B7:48:LYS:HZ1	1.73	0.49
5:CE:36:ASP:OD1	5:CE:38:GLN:N	2.37	0.49
5:AE:71:LEU:HD12	5:AE:71:LEU:H	1.76	0.49
35:DA:271(V):G:C2	35:DA:271(W):G:H1'	2.46	0.49
4:CD:31:CYS:C	4:CD:33:MET:N	2.64	0.49
17:CQ:76:LEU:HD21	17:CQ:79:SER:HB2	1.93	0.49
16:AP:81:ARG:C	16:AP:83:GLU:H	2.16	0.49
35:BA:287:C:H2'	35:BA:288:C:H6	1.76	0.49
4:CD:67:ILE:HG22	4:CD:68:TYR:N	2.26	0.49
49:BR:96:ARG:NH2	49:BR:118:GLU:H	2.11	0.49
35:DA:405:U:H3'	35:DA:406:G:H5'	1.93	0.49
34:B9:22:ARG:HH12	35:BA:2741:A:H5''	1.77	0.49
35:DA:491:G:H2'	35:DA:492:A:C8	2.46	0.49
26:B1:19:GLN:HE21	35:BA:2081:C:P	2.36	0.49
35:DA:41:C:H2'	35:DA:42:G:O4'	2.12	0.49
35:DA:2473:U:C3'	35:DA:2475:C:N4	2.74	0.49
41:BG:83:ARG:HG3	41:BG:83:ARG:NH1	2.25	0.49
56:DY:84:ARG:NH1	56:DY:97:ARG:HA	2.27	0.49
56:DY:95:LYS:HZ3	56:DY:99:CYS:N	2.07	0.49
56:DY:99:CYS:O	56:DY:100:ALA:CB	2.60	0.49
56:DY:14:LEU:CG	56:DY:15:VAL:N	2.74	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:4:VAL:HG22	40:BF:19:GLU:CD	2.32	0.49
51:BT:28:VAL:O	51:BT:29:ARG:HB2	2.10	0.49
57:BZ:96:VAL:HG22	57:BZ:97:GLU:N	2.27	0.49
27:D2:46:GLN:HA	27:D2:46:GLN:OE1	2.11	0.49
1:CA:914:A:O2'	1:CA:915:A:H5'	2.12	0.49
2:CB:193:ASP:HB2	2:CB:194:PRO:HD2	1.93	0.49
38:BD:11:PRO:O	38:BD:13:ARG:N	2.44	0.49
41:DG:47:LYS:HZ3	41:DG:81:LYS:HZ1	1.61	0.49
51:DT:13:ARG:HH11	51:DT:13:ARG:HA	1.71	0.49
3:CC:62:ASP:HA	3:CC:97:LYS:HE2	1.95	0.49
48:BQ:60:ARG:HH11	48:BQ:60:ARG:HG3	1.77	0.49
39:DE:4:ILE:HG12	39:DE:5:LEU:N	2.28	0.49
35:DA:271(Q):G:O2'	35:DA:271(R):G:P	2.70	0.49
1:CA:673:G:C5'	6:CF:87:ARG:HE	2.25	0.49
35:DA:1039:G:O2'	35:DA:1040:C:H5'	2.12	0.49
26:D1:69:LYS:O	26:D1:73:LEU:HB2	2.12	0.49
38:BD:133:LEU:O	38:BD:135:PHE:N	2.45	0.49
49:BR:100:LEU:HD13	49:BR:112:ALA:CA	2.34	0.49
27:D2:19:VAL:O	27:D2:23:LYS:HG3	2.12	0.49
6:CF:96:PRO:HB3	18:CR:30:ASP:CG	2.33	0.49
1:CA:568:G:O6	12:CL:2:PRO:HG3	2.12	0.49
21:AU:6:ARG:NH2	21:AU:15:ARG:NH2	2.52	0.49
14:AN:29:ARG:HB3	14:AN:33:VAL:CG1	2.42	0.49
22:CV:4:G:O2'	22:CV:5:G:O5'	2.31	0.49
2:AB:111:ARG:NH2	2:AB:114:ARG:HG2	2.27	0.49
5:CE:6:PHE:HB2	5:CE:34:VAL:HG22	1.93	0.49
13:CM:69:GLU:HG2	13:CM:72:ALA:HB3	1.94	0.49
5:AE:9:LYS:CB	5:AE:112:LEU:HD11	2.42	0.49
2:CB:75:LYS:C	2:CB:75:LYS:HD3	2.33	0.49
45:BN:61:ARG:HA	45:BN:61:ARG:NE	2.28	0.49
38:DD:166:GLN:HE21	38:DD:166:GLN:HA	1.76	0.49
43:DI:31:LEU:HB2	43:DI:32:PRO:HD3	1.94	0.49
16:AP:50:LYS:HD2	16:AP:51:VAL:N	2.26	0.49
12:CL:70:GLU:O	12:CL:71:GLY:O	2.30	0.49
1:CA:773:G:O2'	1:CA:774:G:H5'	2.12	0.49
35:BA:303:U:H2'	35:BA:304:G:C8	2.45	0.49
35:BA:241:A:N1	35:BA:255:A:H5''	2.27	0.49
35:BA:2135:A:C2	35:BA:2157:G:H4'	2.48	0.49
35:DA:1988:C:O2'	35:DA:1989:G:H5'	2.12	0.49
35:DA:2310:A:O2'	35:DA:2311:A:C5'	2.61	0.49
1:CA:969:A:H2'	1:CA:970:C:O4'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BN:2:LYS:O	45:BN:4:TYR:CZ	2.65	0.49
35:BA:2064:C:H2'	35:BA:2065:C:C6	2.47	0.49
1:AA:1225:A:OP1	13:AM:102:ARG:HA	2.12	0.49
35:DA:773:U:H4'	38:DD:47:GLY:HA3	1.93	0.49
35:BA:2849:U:OP2	51:BT:95:ARG:NH1	2.45	0.49
35:BA:708:C:H42	35:BA:723:G:H1	1.58	0.49
1:CA:78:G:H2'	1:CA:79:G:H4'	1.94	0.49
1:AA:300:A:H1'	1:AA:565:U:O2	2.12	0.49
1:AA:1113:C:H2'	1:AA:1114:C:H6	1.77	0.49
2:CB:29:ALA:O	2:CB:32:ILE:HG22	2.12	0.49
18:AR:86:VAL:HG12	18:AR:87:ARG:H	1.77	0.49
35:BA:2505:G:O6	35:BA:2576:G:H2'	2.13	0.49
35:BA:207:A:H2'	35:BA:208:C:O4'	2.11	0.49
1:CA:751:U:H2'	1:CA:752:G:O4'	2.12	0.49
35:BA:1963:U:C2'	35:BA:1963:U:O2	2.60	0.49
25:D0:2:ALA:HB2	35:DA:2452:C:OP1	2.11	0.49
20:AT:84:LEU:HD13	20:AT:84:LEU:C	2.33	0.49
35:BA:2720:U:H3'	35:BA:2721:A:H8	1.77	0.49
35:BA:604:G:O2'	35:BA:605:C:H5'	2.12	0.49
35:BA:2553:G:H3'	35:BA:2554:U:H5''	1.94	0.49
42:DH:41:MET:CE	42:DH:54:ARG:HA	2.42	0.49
42:DH:45:VAL:HA	42:DH:50:VAL:HG22	1.95	0.49
8:CH:97:VAL:O	8:CH:100:ILE:HG13	2.13	0.49
33:B8:46:ARG:HH21	35:BA:631:A:P	2.35	0.49
35:DA:2473:U:H5''	35:DA:2475:C:H41	1.61	0.49
1:CA:401:C:OP2	4:CD:73:ARG:NH2	2.43	0.49
1:CA:1507:A:H2'	1:CA:1508:G:C8	2.48	0.49
40:BF:24:LEU:C	40:BF:24:LEU:HD13	2.33	0.49
51:BT:30:VAL:HG21	51:BT:83:ILE:HG13	1.95	0.49
50:BS:103:GLU:O	50:BS:105:ALA:N	2.45	0.49
56:BY:28:LYS:O	56:BY:29:GLU:C	2.51	0.49
23:AX:16:A:HO2'	23:AX:17:U:C5'	2.19	0.49
51:DT:29:ARG:HB2	51:DT:85:LYS:NZ	2.27	0.49
3:CC:88:ARG:O	3:CC:99:VAL:HG11	2.11	0.49
2:CB:193:ASP:O	2:CB:196:LEU:HG	2.13	0.49
10:CJ:13:HIS:HD2	10:CJ:14:LYS:HG2	1.76	0.49
7:CG:111:ARG:HB3	7:CG:113:GLU:HG2	1.94	0.49
19:AS:31:ILE:HG23	19:AS:49:ILE:HA	1.95	0.49
22:AV:61:C:O2'	22:AV:62:C:H5'	2.12	0.49
48:BQ:132:VAL:HB	48:BQ:137:TYR:OH	2.12	0.49
3:AC:147:LYS:HG3	3:AC:204:LEU:HA	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:5:TYR:HE2	9:AI:16:ARG:HB3	1.77	0.49
9:AI:8:GLY:O	9:AI:14:VAL:HA	2.13	0.49
29:B4:9:LEU:O	29:B4:10:VAL:HG13	2.12	0.49
54:BW:10:VAL:HG12	54:BW:12:ILE:HG22	1.94	0.49
1:CA:1429:C:H2'	1:CA:1430:C:C5	2.47	0.49
1:CA:181:G:HO2'	1:CA:182:U:H5'	1.77	0.49
1:CA:182:U:O4'	1:CA:182:U:O2	2.29	0.49
1:CA:224:C:H2'	1:CA:225:C:H6	1.74	0.49
41:BG:138:GLN:HE22	41:BG:153:ARG:HD3	1.77	0.49
46:DO:71:ARG:NE	46:DO:105:GLU:OE2	2.43	0.49
41:BG:39:ILE:CG1	41:BG:155:MET:HG3	2.42	0.49
41:BG:39:ILE:HG23	41:BG:92:VAL:HG13	1.94	0.49
53:BV:19:LYS:HD3	53:BV:22:VAL:HG11	1.94	0.49
53:BV:28:GLU:HB3	53:BV:29:PRO:HD2	1.94	0.49
1:AA:644:G:C4'	8:AH:92:ARG:HH21	2.24	0.49
41:DG:25:TYR:CD2	41:DG:31:VAL:HG22	2.35	0.49
43:BI:109:ILE:HG12	43:BI:110:ASP:N	2.27	0.49
1:AA:1371:G:OP1	9:AI:11:LYS:HG2	2.11	0.49
6:CF:8:ILE:HG22	6:CF:10:LEU:CD1	2.42	0.49
35:DA:2470:G:C6	35:DA:2471:C:C5	3.01	0.49
38:DD:270:ILE:C	38:DD:270:ILE:HD12	2.32	0.49
35:BA:2789:C:N3	35:BA:2894:G:O6	2.46	0.49
35:DA:1796:U:H2'	35:DA:1797:C:C6	2.47	0.49
1:AA:243:A:H4'	1:AA:244:U:C5'	2.39	0.49
11:AK:28:THR:O	11:AK:44:SER:HB2	2.12	0.49
38:BD:28:GLU:N	38:BD:29:PRO:HD2	2.26	0.49
35:DA:65:C:H2'	35:DA:66:C:C6	2.45	0.49
10:AJ:61:GLU:HB2	14:AN:58:LYS:HE2	1.94	0.49
1:AA:684:A:H2'	1:AA:685:G:C8	2.47	0.49
1:AA:67:C:H2'	1:AA:68:G:H8	1.75	0.49
47:DP:24:GLY:O	47:DP:25:SER:HB2	2.13	0.49
57:DZ:136:PHE:C	57:DZ:138:GLU:H	2.16	0.49
48:BQ:1:MET:O	48:BQ:2:LEU:CB	2.60	0.49
36:BB:106:G:H5''	57:BZ:31:ARG:HB3	1.94	0.49
13:CM:35:GLU:HG3	13:CM:36:LYS:N	2.28	0.49
35:DA:221:A:N6	35:DA:265:A:H8	2.10	0.49
35:BA:1910:G:O2'	35:BA:1911:U:H5'	2.12	0.49
1:CA:719:C:O2'	18:CR:49:LYS:HB3	2.12	0.49
35:BA:2709:G:O2'	35:BA:2710:C:H5'	2.13	0.49
22:CV:29:G:C6	22:CV:42:G:C6	3.01	0.49
1:CA:779:C:O2'	1:CA:780:A:H5'	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:163:TYR:CD1	42:BH:163:TYR:N	2.80	0.49
9:CI:47:LEU:N	9:CI:47:LEU:HD12	2.28	0.49
55:DX:66:LEU:C	55:DX:66:LEU:HD13	2.33	0.49
26:D1:60:PHE:CD1	26:D1:91:LYS:HE3	2.47	0.49
47:BP:57:THR:CG2	47:BP:59:LEU:HB3	2.42	0.49
27:D2:48:HIS:ND1	35:DA:95:G:O2'	2.45	0.49
10:CJ:51:ARG:H	10:CJ:60:ARG:CB	2.25	0.49
35:BA:1528:A:O2'	35:BA:1528(A):A:H5'	2.12	0.49
51:BT:23:ARG:O	51:BT:25:GLY:N	2.38	0.49
40:DF:15:SER:O	40:DF:16:GLY:O	2.31	0.49
52:DU:91:ASP:OD1	52:DU:96:ALA:HB2	2.13	0.49
27:D2:43:GLN:O	27:D2:45:SER:N	2.46	0.49
51:BT:12:SER:O	51:BT:13:ARG:NH2	2.46	0.49
50:BS:17:ARG:HA	50:BS:20:ARG:HH22	1.76	0.49
35:BA:2418:A:H2'	35:BA:2419:U:H6	1.78	0.49
2:AB:80:ILE:HD11	2:AB:208:ILE:HG23	1.95	0.49
29:D4:35:VAL:HG21	41:DG:113:ARG:NE	2.27	0.49
41:DG:108:ASN:N	41:DG:108:ASN:ND2	2.60	0.49
41:DG:126:ASP:C	41:DG:128:ARG:H	2.15	0.49
30:B5:2:ALA:CA	35:BA:2015:A:H1'	2.40	0.49
2:CB:53:ARG:HA	2:CB:56:ARG:CG	2.41	0.49
15:AO:36:ILE:HG22	15:AO:37:ASN:N	2.27	0.49
10:CJ:13:HIS:C	10:CJ:13:HIS:CD2	2.86	0.49
13:CM:14:ARG:H	13:CM:44:ARG:HH11	1.60	0.49
3:CC:147:LYS:HG3	3:CC:204:LEU:HA	1.95	0.49
9:AI:15:ALA:HB2	9:AI:65:VAL:HB	1.93	0.49
3:AC:52:LEU:CD2	3:AC:52:LEU:H	2.15	0.49
35:BA:2173:A:H2'	35:BA:2174:C:H5'	1.94	0.49
4:CD:8:VAL:HG11	4:CD:115:ARG:CZ	2.43	0.49
1:AA:1292:U:H2'	1:AA:1293:G:H8	1.76	0.49
9:AI:111:ARG:CG	9:AI:112:LYS:N	2.65	0.49
35:DA:926:A:C8	35:DA:926:A:H5'	2.45	0.49
41:BG:41:GLN:CB	41:BG:43:LEU:HD13	2.43	0.49
53:BV:61:VAL:HG23	53:BV:61:VAL:O	2.11	0.49
30:D5:16:ARG:HG2	30:D5:16:ARG:HH11	1.77	0.49
4:AD:11:LEU:N	4:AD:11:LEU:HD23	2.28	0.49
43:BI:129:THR:HG22	43:BI:130:TYR:N	2.22	0.49
35:DA:1835:G:H2'	35:DA:1836:C:H6	1.77	0.49
51:DT:100:TYR:HD2	51:DT:103:ARG:NH2	2.06	0.49
35:DA:652:C:O2	35:DA:652:C:C3'	2.60	0.49
38:DD:185:VAL:HG12	38:DD:186:HIS:H	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:185:VAL:HG12	38:BD:186:HIS:N	2.26	0.49
2:AB:141:GLU:O	2:AB:145:LEU:HD23	2.12	0.49
38:DD:142:VAL:HA	38:DD:194:GLY:H	1.77	0.49
10:CJ:32:ALA:H	10:CJ:78:ASN:HD21	1.60	0.49
38:BD:271:ILE:O	38:BD:272:ALA:HB2	2.11	0.49
35:DA:272(E):G:C2	35:DA:364:C:N3	2.81	0.49
4:CD:18:LYS:NZ	4:CD:31:CYS:HB3	2.27	0.49
1:AA:1005:A:H62	1:AA:1024:G:H4'	1.78	0.49
4:AD:18:LYS:NZ	4:AD:31:CYS:HB3	2.28	0.49
57:DZ:181:GLU:HG2	57:DZ:181:GLU:O	2.11	0.49
2:CB:144:ARG:HA	2:CB:147:LYS:CB	2.42	0.49
1:CA:555:C:H2'	1:CA:556:C:C6	2.46	0.49
42:DH:94:TYR:CE1	42:DH:160:LYS:HG2	2.48	0.49
53:BV:21:ARG:HG2	53:BV:91:TYR:CD2	2.48	0.49
35:BA:1188:U:C4'	53:BV:79:VAL:HG22	2.42	0.49
42:DH:109:PHE:O	42:DH:111:HIS:N	2.41	0.49
42:BH:109:PHE:O	42:BH:111:HIS:N	2.41	0.49
35:BA:241:A:H5'	35:BA:243:U:H1'	1.93	0.49
6:CF:45:LEU:C	6:CF:45:LEU:HD23	2.32	0.49
35:DA:2308:G:C2	35:DA:2309:A:N1	2.80	0.49
49:DR:49:ASP:O	49:DR:51:LEU:N	2.46	0.49
40:DF:20:LEU:HG	40:DF:23:ASP:OD2	2.13	0.49
35:BA:2030:A:H5''	35:BA:2031:A:OP1	2.12	0.49
6:AF:91:VAL:HG12	6:AF:92:LYS:N	2.28	0.49
4:CD:93:PHE:CE2	4:CD:97:LEU:HD21	2.47	0.49
34:B9:30:PRO:HB2	35:BA:2527:C:C5'	2.42	0.49
35:BA:1652:A:O2'	35:BA:1653:G:H5'	2.13	0.49
39:DE:90:THR:HG22	39:DE:91:VAL:N	2.28	0.49
35:BA:2343:C:O2'	35:BA:2344:U:H5'	2.13	0.49
9:AI:47:LEU:N	9:AI:47:LEU:HD12	2.27	0.49
35:BA:2543:G:H2'	35:BA:2544:G:C8	2.47	0.49
35:DA:306:U:H2'	35:DA:307:G:O4'	2.12	0.49
22:CV:36:U:H2'	22:CV:37:A:H5''	1.92	0.49
1:CA:10:A:C2'	1:CA:11:G:C5'	2.84	0.49
40:BF:152:GLU:OE1	40:BF:191:ARG:HD2	2.12	0.49
35:DA:1543:C:H6	35:DA:1543:C:H3'	1.57	0.49
52:BU:91:ASP:OD2	52:BU:96:ALA:HB2	2.12	0.49
53:DV:40:LEU:N	53:DV:40:LEU:CD2	2.76	0.49
5:CE:12:LEU:HD13	5:CE:12:LEU:N	2.27	0.49
51:DT:30:VAL:HG21	51:DT:83:ILE:HG13	1.94	0.49
57:BZ:166:SER:OG	57:BZ:167:PRO:HA	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DP:40:SER:C	47:DP:41:ARG:NH2	2.66	0.49
15:CO:36:ILE:HD12	15:CO:63:ARG:HD2	1.94	0.49
2:AB:174:VAL:O	2:AB:178:ARG:HG2	2.12	0.49
19:AS:53:ASN:O	19:AS:77:THR:HG22	2.12	0.49
47:DP:101:VAL:CG1	47:DP:106:LEU:HD23	2.41	0.49
35:BA:1175:U:HO2'	35:BA:1177:A:H2	1.61	0.49
3:AC:134:ILE:HD11	3:AC:153:VAL:CG2	2.42	0.49
4:AD:133:VAL:CG1	4:AD:135:LEU:HD22	2.33	0.49
43:DI:76:THR:HA	43:DI:141:LYS:NZ	2.27	0.49
39:BE:203:LYS:CE	39:BE:204:ALA:HB2	2.34	0.49
41:BG:114:ILE:O	41:BG:116:ASP:N	2.46	0.49
1:AA:1038:C:H2'	1:AA:1039:C:O4'	2.13	0.49
35:DA:528:A:C2	35:DA:2043:C:C5'	2.95	0.49
1:CA:979:C:C2'	1:CA:980:C:H5''	2.42	0.49
35:BA:2822:G:H2'	35:BA:2823:A:H5''	1.95	0.49
53:DV:5:VAL:HG21	53:DV:35:LEU:HB3	1.95	0.49
8:CH:114:THR:C	8:CH:116:LYS:N	2.64	0.49
38:DD:24:ILE:O	38:DD:25:THR:O	2.29	0.49
41:DG:27:ASN:HD22	41:DG:28:VAL:H	1.61	0.49
56:DY:44:ILE:HG22	56:DY:45:VAL:N	2.28	0.49
17:CQ:33:GLY:O	17:CQ:34:LYS:C	2.51	0.49
28:B3:36:VAL:HG23	28:B3:36:VAL:O	2.12	0.49
1:CA:106:C:H2'	1:CA:107:G:C8	2.43	0.49
18:AR:74:ARG:HH21	18:AR:81:PHE:HA	1.78	0.49
51:BT:6:LEU:O	51:BT:10:VAL:HG23	2.11	0.49
35:BA:2875:C:H4'	51:BT:5:ALA:HB2	1.94	0.49
4:AD:20:TYR:CD2	4:AD:26:CYS:HB3	2.48	0.49
16:CP:81:ARG:C	16:CP:83:GLU:H	2.16	0.49
2:CB:95:GLN:HG3	2:CB:147:LYS:HG2	1.95	0.49
1:AA:1123:A:C4'	10:AJ:36:GLY:HA3	2.42	0.49
1:CA:439:A:C2'	1:CA:441:A:H5'	2.42	0.49
26:B1:34:THR:CG2	26:B1:36:GLY:H	2.25	0.49
35:DA:28:A:N6	35:DA:512:G:H1'	2.28	0.49
1:CA:1465:C:H2'	1:CA:1466:C:C6	2.47	0.49
8:CH:109:ILE:HD11	8:CH:120:THR:HB	1.95	0.49
35:BA:1582:C:H2'	35:BA:1583:A:C8	2.47	0.49
39:DE:119:ARG:CD	39:DE:120:TRP:CE2	2.96	0.49
35:DA:241:A:N1	35:DA:255:A:H5''	2.28	0.49
15:CO:64:ARG:NH1	15:CO:64:ARG:HG3	2.27	0.49
35:BA:2157:G:O2'	35:BA:2158:A:H5'	2.13	0.49
10:CJ:10:GLY:HA3	10:CJ:16:LEU:HD23	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BQ:51:ARG:NH1	48:BQ:51:ARG:HG2	2.27	0.49
39:BE:47:VAL:O	39:BE:80:GLU:HA	2.12	0.49
35:DA:958:U:OP2	48:DQ:14:ARG:NH1	2.45	0.49
4:AD:153:ARG:HH11	4:AD:181:MET:HE2	1.77	0.49
35:BA:2162:G:O2'	35:BA:2163:C:H5'	2.12	0.49
29:D4:14:ILE:HD13	29:D4:22:ILE:O	2.13	0.49
35:DA:1005:C:H2'	35:DA:1006:C:C6	2.48	0.49
37:DC:50:ASP:N	37:DC:51:PRO:HD3	2.28	0.49
49:BR:49:ASP:OD1	49:BR:95:THR:HB	2.13	0.49
35:DA:2243:U:H2'	35:DA:2244:U:C6	2.46	0.49
17:CQ:96:GLU:H	17:CQ:96:GLU:CD	2.16	0.49
48:BQ:70:PRO:HA	48:BQ:94:VAL:O	2.13	0.49
35:BA:1044:G:O2'	35:BA:1111:A:N6	2.45	0.49
35:DA:2228:G:H2'	35:DA:2229:C:C6	2.47	0.49
35:DA:1798:U:H5'	38:DD:259:THR:OG1	2.13	0.49
20:AT:44:ALA:HB3	20:AT:91:LEU:HD12	1.94	0.49
1:AA:109:A:C6	1:AA:326:G:C6	3.01	0.49
1:AA:582:U:H2'	1:AA:583:A:C8	2.47	0.49
55:DX:70:LEU:C	55:DX:70:LEU:HD23	2.32	0.49
37:BC:192:PHE:HA	37:BC:196:LEU:CB	2.43	0.49
35:DA:580:C:H2'	35:DA:581:C:C6	2.48	0.49
35:DA:1679:U:C2'	35:DA:1680:U:H5'	2.43	0.49
54:DW:36:LEU:HD13	54:DW:48:ALA:HA	1.94	0.49
42:BH:50:VAL:HG12	42:BH:51:ARG:N	2.28	0.49
24:AY:31:THR:CG2	24:AY:42:ARG:HH11	2.26	0.49
35:DA:865:C:C4'	35:DA:866:A:N6	2.70	0.49
49:DR:10:LEU:CD1	49:DR:17:ARG:CB	1.76	0.49
58:CX:16:A:C4	58:CX:17:U:C5	3.00	0.49
56:DY:7:VAL:CG2	56:DY:8:LYS:HZ2	2.26	0.49
40:BF:9:ILE:HG22	40:BF:11:VAL:C	2.33	0.49
51:BT:25:GLY:HA3	51:BT:120:ARG:HH22	1.78	0.49
51:BT:30:VAL:HG21	51:BT:83:ILE:CG1	2.43	0.49
47:DP:49:ARG:NH2	47:DP:50:ARG:HH22	2.10	0.49
56:BY:28:LYS:O	56:BY:38:ILE:N	2.46	0.49
40:DF:157:VAL:O	40:DF:157:VAL:HG22	2.12	0.49
53:DV:39:LEU:CD1	53:DV:51:VAL:HA	2.42	0.49
2:CB:193:ASP:OD2	2:CB:196:LEU:HD23	2.13	0.49
2:CB:213:LEU:O	2:CB:213:LEU:HD23	2.12	0.49
2:CB:76:GLN:H	2:CB:76:GLN:CD	2.15	0.49
2:CB:178:ARG:HH21	8:CH:74:PRO:HG3	1.78	0.49
57:DZ:7:ALA:CB	57:DZ:59:LEU:HB3	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:107:ARG:C	5:AE:109:ILE:H	2.16	0.49
2:AB:17:PHE:CB	2:AB:44:LEU:HD11	2.42	0.49
41:DG:45:GLU:O	41:DG:88:ILE:HG13	2.13	0.49
1:CA:591:U:O2'	1:CA:592:G:H5'	2.12	0.49
51:BT:38:ASN:ND2	51:BT:38:ASN:C	2.66	0.49
35:BA:2692:C:H1'	35:BA:2847:U:O2'	2.13	0.49
35:BA:449:A:OP1	40:BF:84:VAL:O	2.31	0.49
13:AM:83:ASP:OD1	19:AS:74:PHE:HE1	1.95	0.49
35:DA:2392:A:H8	47:DP:60:MET:CB	2.25	0.49
9:AI:16:ARG:HH11	9:AI:16:ARG:HG2	1.78	0.49
3:AC:59:ARG:CD	3:AC:64:VAL:HG22	2.43	0.49
35:DA:774:A:H2	35:DA:787:U:O2'	1.77	0.49
51:BT:78:LEU:O	51:BT:78:LEU:HG	2.12	0.49
27:B2:59:ARG:HD3	35:BA:77:C:OP1	2.11	0.49
1:AA:1003:G:H21	1:AA:1037:C:C2'	2.26	0.49
35:DA:1719:G:C2'	35:DA:1720:U:H5'	2.43	0.49
46:DO:104:ARG:C	46:DO:106:LEU:H	2.14	0.49
29:B4:3:GLU:OE2	36:BB:43:C:H5'	2.11	0.49
53:DV:61:VAL:HG23	53:DV:61:VAL:O	2.12	0.49
35:BA:2732:G:C3'	35:BA:2733:A:C5'	2.87	0.49
45:DN:65:LYS:O	45:DN:69:GLN:HB2	2.13	0.49
56:DY:60:PHE:N	56:DY:62:GLU:OE1	2.45	0.49
36:BB:110:G:H2'	36:BB:111:G:C8	2.48	0.49
40:DF:178:PRO:HB2	40:DF:201:VAL:HG11	1.95	0.49
35:BA:330:A:C2	35:BA:1210:A:H2'	2.38	0.49
35:DA:2893:G:H5'	35:DA:2894:G:H5'	1.94	0.49
40:DF:132:VAL:CG2	40:DF:133:ASN:N	2.71	0.49
38:DD:70:TRP:O	38:DD:73:VAL:HG23	2.12	0.49
38:BD:270:ILE:O	38:BD:271:ILE:HG23	2.13	0.49
47:BP:71:VAL:HG12	47:BP:72:PRO:HD3	1.95	0.49
2:AB:75:LYS:C	2:AB:75:LYS:HD3	2.33	0.49
7:CG:50:ILE:O	7:CG:54:THR:HB	2.12	0.49
14:CN:37:PHE:CE1	14:CN:53:LEU:HD22	2.47	0.49
35:DA:2758:A:H2'	35:DA:2759:G:O4'	2.13	0.49
1:AA:59:A:H5'	1:AA:60:A:C5'	2.41	0.49
1:AA:991:U:C5	1:AA:1212:U:H1'	2.48	0.49
42:BH:94:TYR:HA	42:BH:107:VAL:HG12	1.94	0.49
35:BA:1550:C:H2'	35:BA:1551:C:C6	2.47	0.49
35:BA:2340:G:O2'	35:BA:2341:G:H5'	2.13	0.49
35:DA:2262:U:O2'	35:DA:2263:C:H5'	2.12	0.49
35:BA:2533:A:C5'	35:BA:2665:A:H1'	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:42:GLU:HG3	8:CH:109:ILE:HD12	1.95	0.49
4:AD:150:GLU:C	4:AD:152:SER:H	2.15	0.49
10:CJ:3:LYS:O	10:CJ:100:THR:HA	2.13	0.49
39:DE:119:ARG:HD3	39:DE:120:TRP:CE2	2.48	0.49
1:CA:1263:C:N4	1:CA:1272:G:H1	2.10	0.49
4:CD:150:GLU:C	4:CD:152:SER:H	2.16	0.49
49:DR:96:ARG:NH2	49:DR:118:GLU:H	2.11	0.49
55:DX:10:ALA:HB1	55:DX:11:PRO:HD2	1.94	0.49
35:DA:2162:G:O2'	35:DA:2163:C:H5'	2.12	0.49
42:BH:82:GLY:O	42:BH:138:LYS:CD	2.61	0.49
35:BA:828:U:O2	35:BA:828:U:H3'	2.12	0.49
4:CD:94:LEU:HD11	4:CD:200:GLU:HB3	1.95	0.49
1:AA:967:C:H4'	9:AI:125:TYR:CE2	2.47	0.49
1:AA:189:G:H2'	1:AA:189(A):C:C6	2.48	0.49
1:AA:189(B):C:H2'	1:AA:189(C):C:C6	2.48	0.49
45:DN:39:ARG:C	45:DN:41:ASP:H	2.16	0.49
35:BA:2025:C:H2'	35:BA:2026:C:C6	2.48	0.49
35:DA:108:U:H2'	35:DA:109:G:H8	1.77	0.49
1:CA:1275:A:H2'	1:CA:1276:G:O4'	2.13	0.49
43:BI:60:GLU:O	43:BI:64:GLU:HB2	2.13	0.49
38:BD:106:ILE:O	38:BD:106:ILE:HG12	2.12	0.49
7:AG:22:LEU:HD23	7:AG:22:LEU:O	2.11	0.49
57:BZ:181:GLU:HG2	57:BZ:181:GLU:O	2.12	0.49
35:DA:74:A:H4'	35:DA:75:G:O5'	2.13	0.49
53:BV:72:VAL:HB	53:BV:85:LYS:HB3	1.94	0.49
35:DA:2703:C:O2	35:DA:2703:C:H2'	2.12	0.49
23:AX:24:A:N3	23:AX:24:A:O4'	2.40	0.49
42:DH:10:PRO:HD2	42:DH:50:VAL:O	2.13	0.49
24:AY:43:TRP:C	24:AY:44:THR:O	2.40	0.49
24:AY:55:ASP:HB2	24:AY:60:GLU:O	2.12	0.49
35:DA:1913:A:O3'	35:DA:1913:A:OP1	2.30	0.49
41:BG:76:SER:HA	41:BG:84:LYS:H	1.77	0.49
7:CG:80:VAL:CG1	7:CG:81:GLY:H	2.17	0.49
35:BA:609:A:H2'	35:BA:610:G:O4'	2.13	0.49
35:BA:996:A:O4'	52:BU:92:ARG:NH2	2.45	0.49
40:DF:22:ALA:HB1	40:DF:26:ALA:CA	2.42	0.49
35:BA:904:C:H2'	35:BA:905:U:C6	2.48	0.49
2:CB:178:ARG:HH21	8:CH:74:PRO:HB3	1.78	0.49
57:DZ:10:ARG:NH2	57:DZ:26:GLY:N	2.59	0.49
35:DA:1203:G:H3'	35:DA:1204:A:H5''	1.95	0.49
8:AH:63:LEU:H	8:AH:63:LEU:CD2	2.23	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:661:C:H2'	35:DA:662:G:H8	1.78	0.49
41:BG:32:PRO:CB	41:BG:172:LEU:HD22	2.43	0.49
7:AG:80:VAL:HG21	7:AG:85:TYR:CD1	2.46	0.49
35:DA:691:C:O4'	38:DD:43:ARG:NH2	2.37	0.49
54:BW:17:VAL:O	54:BW:18:ARG:C	2.51	0.49
38:DD:131:LEU:HD12	38:DD:135:PHE:CB	2.43	0.49
3:CC:35:GLU:HG2	3:CC:39:ILE:HD11	1.94	0.49
53:DV:35:LEU:C	53:DV:37:VAL:N	2.67	0.49
28:D3:41:PRO:HA	28:D3:44:ARG:HG2	1.95	0.49
35:DA:1142:U:H5''	35:DA:1142(A):A:C8	2.47	0.49
1:AA:1300:G:H4'	1:AA:1301:U:O5'	2.12	0.49
1:AA:1304:G:H3'	1:AA:1305:G:C8	2.48	0.49
21:AU:2:GLY:C	21:AU:4:GLY:N	2.65	0.49
35:DA:2579:C:H1'	39:DE:134:ILE:HD13	1.94	0.49
32:B7:48:LYS:H	32:B7:48:LYS:HD3	1.78	0.49
28:B3:4:LEU:HD11	28:B3:39:ASP:CA	2.40	0.49
35:BA:969:U:H2'	35:BA:970:C:C6	2.47	0.49
24:AY:77:PRO:O	24:AY:78:LYS:C	2.50	0.49
1:CA:1203:C:H2'	1:CA:1204:A:O4'	2.13	0.49
55:DX:43:VAL:CG2	55:DX:51:VAL:HG21	2.43	0.49
13:AM:96:LEU:HB3	13:AM:97:PRO:HD2	1.95	0.49
52:BU:112:ARG:NH1	52:BU:112:ARG:CG	2.76	0.49
12:CL:25:LYS:CD	12:CL:30:ARG:HH22	2.25	0.49
35:BA:2106:G:H2'	35:BA:2107:C:O4'	2.13	0.49
42:BH:94:TYR:CE1	42:BH:160:LYS:HG2	2.48	0.49
35:BA:2745:C:H2'	35:BA:2746:U:C6	2.48	0.49
1:CA:684:A:H2'	1:CA:685:G:C8	2.48	0.49
1:AA:452:A:O3'	16:AP:72:ARG:HD2	2.13	0.49
16:AP:6:LEU:HB3	16:AP:17:TYR:CD2	2.48	0.49
57:DZ:103:ARG:HH11	57:DZ:103:ARG:HG3	1.78	0.49
32:D7:30:VAL:HA	32:D7:33:ARG:NH1	2.28	0.49
6:CF:100:ASN:HB2	18:CR:27:GLY:O	2.12	0.49
35:BA:1516:C:H2'	35:BA:1517:G:H8	1.77	0.49
1:AA:1329:A:H5''	13:AM:26:GLY:H	1.78	0.49
29:D4:14:ILE:O	29:D4:21:VAL:HG13	2.13	0.49
35:DA:1221:C:O2'	35:DA:1221(A):C:H5'	2.12	0.49
1:CA:174:C:H2'	1:CA:175:C:H6	1.77	0.49
48:DQ:1:MET:O	48:DQ:2:LEU:CB	2.59	0.49
1:AA:977:A:C2'	1:AA:978:A:H5'	2.43	0.49
1:AA:636:U:H5'	17:AQ:2:PRO:HG3	1.95	0.49
4:CD:90:GLY:HA2	4:CD:204:ILE:HD11	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:354:G:H2'	35:BA:355:G:O4'	2.12	0.49
35:DA:1507:A:H2'	35:DA:1508:A:O4'	2.13	0.49
1:AA:44:G:OP2	16:AP:12:LYS:HE3	2.13	0.49
39:DE:128:SER:OG	39:DE:129:HIS:N	2.41	0.49
35:DA:354:G:H2'	35:DA:355:G:O4'	2.12	0.49
35:BA:1507:A:H2'	35:BA:1508:A:O4'	2.13	0.49
36:DB:24:G:H4'	36:DB:25:A:C8	2.48	0.49
22:AV:7:G:H3'	22:AV:8:U:C5'	2.43	0.49
35:DA:660:G:H5'	40:DF:99:TYR:CE2	2.47	0.49
15:CO:48:LYS:HA	15:CO:48:LYS:HE2	1.95	0.49
1:CA:135:C:H2'	1:CA:136:C:H5'	1.94	0.49
46:BO:9:GLU:O	46:BO:83:ALA:HA	2.13	0.49
8:CH:101:PRO:HG2	8:CH:133:LEU:HD11	1.94	0.49
24:AY:31:THR:CG2	24:AY:42:ARG:NH1	2.76	0.49
35:DA:2473:U:O2'	35:DA:2474:C:O4'	2.30	0.49
27:D2:48:HIS:CD2	35:DA:96:G:H4'	2.48	0.49
1:AA:1392:G:N2	1:AA:1502:A:C8	2.80	0.49
1:CA:1506:U:P	58:CX:15:A:OP2	2.71	0.49
58:CX:17:U:O2	58:CX:18:G:C8	2.66	0.49
35:DA:2393:A:H4'	47:DP:61:ARG:O	2.13	0.49
52:BU:92:ARG:HB3	53:BV:11:GLN:HE22	1.78	0.49
35:DA:252:G:P	47:DP:50:ARG:HH11	2.35	0.49
5:CE:103:GLY:C	5:CE:105:VAL:H	2.15	0.49
51:DT:30:VAL:HG21	51:DT:83:ILE:CG1	2.43	0.49
33:B8:61:LEU:CG	33:B8:62:LEU:H	2.24	0.49
3:AC:88:ARG:O	3:AC:99:VAL:HG11	2.13	0.49
31:D6:11:LEU:CD2	31:D6:51:GLU:HB2	2.31	0.49
35:DA:2014:A:H4'	54:DW:92:ARG:NH2	2.22	0.49
2:CB:20:GLU:HG3	2:CB:191:ASP:OD1	2.12	0.49
31:B6:35:GLU:CB	31:B6:51:GLU:HB3	2.28	0.49
5:AE:103:GLY:O	5:AE:105:VAL:N	2.46	0.49
35:DA:2314:C:H2'	35:DA:2315:G:H8	1.77	0.49
19:CS:14:HIS:C	19:CS:15:LEU:HD22	2.32	0.49
47:DP:96:THR:O	47:DP:98:GLU:N	2.46	0.49
4:CD:132:ARG:NH1	4:CD:132:ARG:HG2	2.26	0.49
3:CC:134:ILE:HD11	3:CC:153:VAL:CG2	2.43	0.49
57:BZ:75:ASN:O	57:BZ:83:PRO:HA	2.12	0.49
35:BA:2470:G:C6	35:BA:2471:C:C5	3.01	0.49
11:AK:104:GLN:O	11:AK:106:LYS:N	2.44	0.49
39:BE:55:ASN:O	39:BE:57:LYS:N	2.46	0.49
1:CA:1428:A:N1	1:CA:1473:A:C6	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1784:A:H4'	35:BA:1785:A:O5'	2.13	0.49
3:CC:119:ARG:HG3	3:CC:119:ARG:HH11	1.78	0.49
41:BG:72:ARG:HG2	41:BG:86:MET:C	2.33	0.49
35:BA:2787:C:O2	35:BA:2787:C:H2'	2.13	0.49
38:DD:27:THR:CG2	38:DD:27:THR:O	2.61	0.49
12:CL:2:PRO:HA	12:CL:6:GLN:NE2	2.28	0.49
34:D9:11:CYS:SG	34:D9:32:HIS:CE1	3.06	0.49
56:DY:4:LYS:HZ2	56:DY:5:MET:HG2	1.78	0.49
5:AE:20:GLN:O	5:AE:21:ALA:C	2.51	0.49
39:DE:27:LEU:HD23	51:DT:1:MET:SD	2.53	0.49
1:CA:1287:A:H2'	1:CA:1288:A:H8	1.76	0.49
1:AA:707:C:H2'	1:AA:708:C:C6	2.48	0.49
35:BA:2761:G:H2'	35:BA:2762:G:H5''	1.95	0.49
13:AM:98:VAL:HG12	13:AM:99:ARG:N	2.27	0.49
2:CB:144:ARG:O	2:CB:147:LYS:HB3	2.13	0.49
1:CA:1477:C:O2'	1:CA:1478:C:H5'	2.13	0.49
5:AE:70:PRO:CB	5:AE:144:THR:HG22	2.43	0.49
35:DA:720:C:H2'	35:DA:721:C:C6	2.48	0.49
45:DN:94:HIS:HA	45:DN:96:GLU:OE1	2.13	0.49
35:DA:118:A:OP2	35:DA:119:A:H5''	2.13	0.49
35:BA:2741:A:H2'	35:BA:2742:C:O4'	2.13	0.49
15:AO:64:ARG:HG3	15:AO:64:ARG:NH1	2.27	0.49
1:AA:538:G:OP2	12:AL:112:LYS:CG	2.61	0.49
38:BD:93:ALA:HB3	38:BD:105:ILE:CG2	2.42	0.49
1:AA:165:C:H2'	1:AA:166:G:H8	1.77	0.49
45:DN:3:THR:C	45:DN:4:TYR:CD1	2.87	0.49
27:D2:63:VAL:HG22	27:D2:66:GLU:OE1	2.13	0.49
42:DH:82:GLY:O	42:DH:138:LYS:CD	2.61	0.49
56:DY:34:LYS:HB3	56:DY:34:LYS:HZ3	1.78	0.49
35:DA:2467:C:H4'	48:DQ:123:HIS:CD2	2.48	0.49
47:BP:123:LEU:O	47:BP:123:LEU:HD12	2.13	0.49
36:DB:25:A:H2'	36:DB:26:A:O4'	2.13	0.49
1:CA:1249:C:H6	1:CA:1249:C:H5'	1.77	0.49
35:DA:986:C:O2'	35:DA:987:G:H5'	2.12	0.49
53:DV:72:VAL:HB	53:DV:85:LYS:HB3	1.95	0.49
35:BA:1014:U:H2'	35:BA:1015:G:H8	1.78	0.49
4:AD:200:GLU:H	4:AD:200:GLU:CD	2.16	0.49
39:BE:73:GLU:H	39:BE:73:GLU:CD	2.16	0.49
1:CA:44:G:OP2	16:CP:12:LYS:HE3	2.13	0.49
1:AA:1440:C:H2'	1:AA:1441:G:O4'	2.12	0.49
35:BA:614:U:H3'	35:BA:614(A):U:H6	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:52:VAL:C	42:BH:65:HIS:HE1	2.03	0.48
42:DH:23:ARG:HG3	42:DH:25:LYS:HZ2	1.78	0.48
42:DH:8:PRO:CD	42:DH:69:ARG:HD2	2.41	0.48
8:CH:86:ILE:O	8:CH:88:LYS:HG3	2.13	0.48
35:DA:1915:U:O4	35:DA:1916:A:C5	2.66	0.48
13:CM:91:ARG:HB2	13:CM:98:VAL:CG2	2.43	0.48
1:AA:1392:G:O2'	1:AA:1393:U:H5'	2.13	0.48
23:AX:14:A:N6	23:AX:15:A:N1	2.60	0.48
35:DA:2819:G:H2'	35:DA:2821:A:N7	2.28	0.48
36:DB:75:G:H5'	36:DB:75:G:C8	2.38	0.48
51:DT:82:LEU:CD1	51:DT:82:LEU:N	2.73	0.48
57:BZ:34:ASN:O	57:BZ:35:ARG:HG2	2.12	0.48
1:CA:18:C:N3	1:CA:918:A:C2	2.82	0.48
47:DP:41:ARG:NE	47:DP:41:ARG:N	2.60	0.48
2:CB:169:LYS:O	2:CB:170:GLU:HG3	2.13	0.48
31:B6:11:LEU:HG	31:B6:26:ASN:OD1	2.13	0.48
38:DD:11:PRO:C	38:DD:13:ARG:N	2.66	0.48
41:DG:136:ARG:O	41:DG:154:GLY:HA3	2.12	0.48
41:DG:76:SER:HA	41:DG:83:ARG:HA	1.94	0.48
13:CM:22:ILE:HB	13:CM:25:ILE:HB	1.95	0.48
39:DE:203:LYS:CE	39:DE:204:ALA:HB2	2.34	0.48
26:B1:70:VAL:O	26:B1:73:LEU:HB3	2.12	0.48
45:BN:15:LEU:C	45:BN:15:LEU:HD23	2.34	0.48
1:AA:1026:G:N3	1:AA:1026:G:H2'	2.29	0.48
11:CK:95:ILE:O	11:CK:99:GLN:HG3	2.13	0.48
4:AD:126:ILE:CG2	4:AD:127:THR:H	2.25	0.48
50:DS:66:ALA:C	50:DS:68:GLN:N	2.66	0.48
35:BA:1494:A:H1'	35:BA:1496:A:N1	2.28	0.48
54:DW:5:ALA:CB	54:DW:50:VAL:HG23	2.38	0.48
7:AG:26:PHE:CZ	7:AG:30:ILE:HD11	2.48	0.48
43:DI:60:GLU:O	43:DI:64:GLU:HB2	2.12	0.48
5:AE:148:VAL:O	5:AE:150:ARG:N	2.45	0.48
9:AI:79:LEU:HA	9:AI:101:PHE:O	2.13	0.48
35:BA:1434:A:O2'	35:BA:1435:G:H5'	2.13	0.48
1:CA:1510:U:H2'	1:CA:1511:G:C8	2.47	0.48
41:DG:139:LEU:HD12	41:DG:140:ILE:N	2.27	0.48
2:AB:115:LEU:HD13	2:AB:145:LEU:CB	2.42	0.48
1:AA:1422:G:H2'	1:AA:1423:G:C8	2.48	0.48
3:AC:57:ILE:CG1	3:AC:66:VAL:HG13	2.41	0.48
7:AG:50:ILE:O	7:AG:54:THR:HB	2.13	0.48
46:DO:93:PRO:HD3	46:DO:114:ILE:CD1	2.42	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:82:ILE:HD11	12:AL:95:TYR:HB3	1.95	0.48
2:AB:34:ALA:HB1	2:AB:36:ARG:NH1	2.27	0.48
40:BF:202:PHE:CE1	40:BF:206:ILE:HD11	2.48	0.48
1:AA:557:G:H2'	1:AA:558:G:C8	2.47	0.48
22:CV:14:A:C2	22:CV:15:G:H1'	2.48	0.48
1:CA:542:G:H5'	4:CD:41:GLY:CA	2.43	0.48
20:CT:53:LEU:O	20:CT:56:MET:HB3	2.13	0.48
1:AA:1456:G:H2'	1:AA:1457:G:H5'	1.95	0.48
35:BA:2757:A:N3	35:BA:2757:A:H2'	2.28	0.48
20:AT:30:LYS:HA	20:AT:30:LYS:HE2	1.95	0.48
18:CR:58:LEU:HB3	18:CR:62:GLU:CB	2.42	0.48
45:DN:93:THR:O	45:DN:94:HIS:HB2	2.13	0.48
20:CT:76:ALA:O	20:CT:80:ARG:HG2	2.12	0.48
35:DA:2157:G:O2'	35:DA:2158:A:H5'	2.13	0.48
38:BD:54:ARG:CG	38:BD:54:ARG:NH1	2.73	0.48
35:BA:521:G:H2'	35:BA:522:G:C8	2.48	0.48
36:BB:17:C:C2'	36:BB:18:G:H5'	2.43	0.48
45:DN:89:LYS:HB3	45:DN:89:LYS:NZ	2.28	0.48
35:DA:1044:G:O2'	35:DA:1111:A:N6	2.46	0.48
35:DA:1373:A:H2'	35:DA:1374:G:O4'	2.13	0.48
1:AA:1244:C:OP2	21:AU:9:ARG:HB2	2.13	0.48
35:BA:363(A):A:H3'	35:BA:363(B):G:H8	1.77	0.48
7:AG:148:ASN:N	7:AG:148:ASN:HD22	2.11	0.48
35:BA:319:C:O2'	35:BA:320:A:H5'	2.13	0.48
35:DA:2025:C:H2'	35:DA:2026:C:C6	2.47	0.48
25:D0:41:ARG:HE	35:DA:2387:U:H1'	1.77	0.48
35:BA:2275:C:H5'	35:BA:2275:C:H6	1.78	0.48
57:BZ:145:GLU:OE1	57:BZ:145:GLU:HA	2.13	0.48
1:CA:983:A:N1	1:CA:1222:G:N2	2.61	0.48
1:AA:1493:A3P:N7	24:AY:40:ARG:NH1	2.61	0.48
35:DA:865:C:C4'	35:DA:866:A:H62	2.26	0.48
1:CA:401:C:P	4:CD:73:ARG:NE	2.85	0.48
49:DR:10:LEU:HD21	49:DR:17:ARG:CB	2.43	0.48
23:AX:19:U:O2'	23:AX:20:U:H6	1.86	0.48
52:BU:92:ARG:HH22	53:BV:10:LYS:CA	2.20	0.48
56:BY:14:LEU:CD1	56:BY:22:GLY:HA2	2.34	0.48
3:AC:76:VAL:O	3:AC:84:ILE:HB	2.13	0.48
2:CB:165:VAL:HG23	2:CB:166:ASP:N	2.24	0.48
2:CB:178:ARG:HD2	8:CH:71:GLY:O	2.13	0.48
35:BA:2417:C:C4	35:BA:2418:A:N7	2.81	0.48
3:CC:83:ARG:O	3:CC:86:VAL:HG22	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:21:ARG:HA	2:AB:40:HIS:CE1	2.48	0.48
1:CA:1221:G:C4'	19:CS:77:THR:HG21	2.29	0.48
47:DP:105:LEU:O	47:DP:106:LEU:HB3	2.13	0.48
51:BT:35:LYS:O	51:BT:36:GLU:C	2.52	0.48
57:DZ:119:GLU:OE1	57:DZ:122:ARG:HG2	2.13	0.48
3:CC:147:LYS:O	3:CC:203:PHE:HD2	1.96	0.48
6:AF:69:GLU:HG2	6:AF:70:ASP:N	2.23	0.48
35:DA:449:A:OP1	40:DF:84:VAL:O	2.31	0.48
35:DA:2678:C:H2'	35:DA:2679:A:O4'	2.13	0.48
1:AA:1241:G:H1	1:AA:1296:C:N4	2.11	0.48
46:BO:104:ARG:C	46:BO:106:LEU:N	2.65	0.48
37:BC:78:ALA:HB3	37:BC:82:LYS:HE3	1.95	0.48
1:CA:185:A:H61	1:CA:192:U:H3	1.61	0.48
38:BD:71:ASP:O	38:BD:72:LYS:HD2	2.14	0.48
41:DG:62:LEU:C	41:DG:64:THR:H	2.15	0.48
41:DG:69:ALA:HB3	41:DG:91:ARG:HD2	1.95	0.48
35:DA:1404:C:O2'	35:DA:1405:U:H5'	2.13	0.48
4:AD:132:ARG:HG2	4:AD:132:ARG:NH1	2.25	0.48
35:BA:2820:A:H1'	49:BR:5:LYS:HE3	1.94	0.48
1:AA:429:U:H4'	1:AA:430:A:O5'	2.12	0.48
1:AA:878:G:H5''	8:AH:89:PRO:HB2	1.93	0.48
53:DV:18:LEU:HD22	53:DV:19:LYS:H	1.78	0.48
53:DV:19:LYS:HD3	53:DV:22:VAL:HG11	1.95	0.48
57:DZ:102:LEU:HD22	57:DZ:137:ILE:HB	1.94	0.48
15:AO:53:HIS:NE2	35:BA:715:G:O6	2.37	0.48
32:D7:5:TRP:CZ3	35:DA:464:U:H4'	2.48	0.48
1:AA:1116:C:C2'	1:AA:1117:G:H5''	2.42	0.48
35:BA:1557:C:H2'	35:BA:1558:A:C2	2.48	0.48
22:AV:1:C:H2'	22:AV:2:G:H8	1.78	0.48
7:CG:57:GLU:C	7:CG:59:LEU:H	2.16	0.48
39:BE:82:ARG:HB3	39:BE:83:ASP:H	1.48	0.48
7:AG:77:SER:O	7:AG:78:ARG:HB2	2.13	0.48
55:DX:12:VAL:HG21	55:DX:27:THR:HG23	1.94	0.48
35:BA:2473:U:C2	35:BA:2474:C:C6	3.01	0.48
1:AA:707:C:H2'	1:AA:708:C:H6	1.78	0.48
55:DX:43:VAL:HG23	55:DX:51:VAL:HG21	1.95	0.48
40:BF:137:LYS:CA	40:BF:140:LEU:HD23	2.43	0.48
35:BA:914:C:C2'	35:BA:915:C:H5'	2.42	0.48
55:BX:43:VAL:HG23	55:BX:51:VAL:HG21	1.94	0.48
32:B7:43:THR:HG23	32:B7:44:PRO:CD	2.43	0.48
35:DA:272(J):C:H5	35:DA:274:G:N1	2.11	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:311:A:C6	35:BA:328:U:C4	3.01	0.48
35:BA:1149:G:H2'	35:BA:1150:C:H6	1.78	0.48
8:CH:103:VAL:HG21	8:CH:109:ILE:O	2.13	0.48
1:CA:123:C:OP1	1:CA:312:C:H5'	2.13	0.48
11:CK:57:THR:CG2	11:CK:60:ALA:HB2	2.42	0.48
54:DW:33:ARG:O	54:DW:37:ARG:HG3	2.12	0.48
30:B5:40:LYS:HB2	30:B5:41:PRO:HD2	1.94	0.48
35:BA:491:G:O2'	35:BA:492:A:H5'	2.11	0.48
55:DX:28:PHE:CD1	55:DX:28:PHE:N	2.81	0.48
29:D4:21:VAL:HG12	29:D4:21:VAL:O	2.13	0.48
10:AJ:8:LEU:O	10:AJ:69:ASN:HA	2.12	0.48
13:AM:35:GLU:HG3	13:AM:36:LYS:N	2.28	0.48
35:BA:478:A:N1	35:BA:500:G:H4'	2.28	0.48
23:AX:10:G:O2'	23:AX:11:U:C4	2.67	0.48
1:AA:1223:C:P	1:AA:1224:G:H2'	2.53	0.48
35:DA:319:C:H2'	35:DA:320:A:O4'	2.12	0.48
27:D2:25:VAL:O	27:D2:27:GLU:N	2.46	0.48
35:DA:1894:C:O2'	35:DA:1895:C:H5'	2.13	0.48
35:DA:21:A:O2'	35:DA:22:C:H5'	2.13	0.48
3:CC:22:TRP:HE3	3:CC:23:TYR:O	1.96	0.48
9:CI:114:TYR:N	9:CI:114:TYR:CD2	2.80	0.48
17:AQ:14:LYS:HD2	17:AQ:14:LYS:N	2.29	0.48
46:BO:40:VAL:HG12	46:BO:41:ALA:N	2.29	0.48
24:AY:21:LEU:HD23	24:AY:52:TYR:HH	1.78	0.48
22:AV:19:G:C4	22:AV:57:A:C2	3.00	0.48
1:CA:1374:A:H1'	7:CG:31:MET:HE1	1.94	0.48
35:DA:90:U:O4'	35:DA:92:A:H8	1.95	0.48
1:CA:1062:U:H6	1:CA:1062:U:O5'	1.95	0.48
56:DY:40:GLU:HA	56:DY:40:GLU:OE2	2.13	0.48
53:BV:45:THR:O	53:BV:46:VAL:HG12	2.14	0.48
51:BT:91:ARG:CB	51:BT:116:ALA:HA	2.33	0.48
33:D8:61:LEU:HD12	33:D8:62:LEU:HG	1.95	0.48
56:BY:39:VAL:HG12	56:BY:40:GLU:N	2.28	0.48
57:BZ:109:ALA:HB1	57:BZ:146:ILE:HG12	1.94	0.48
31:D6:11:LEU:HD21	31:D6:51:GLU:CB	2.30	0.48
50:BS:13:ARG:CG	50:BS:14:VAL:N	2.70	0.48
38:DD:5:LYS:HD2	38:DD:17:THR:HG22	1.94	0.48
2:AB:97:TRP:HZ3	2:AB:172:ILE:HD13	1.77	0.48
41:DG:114:ILE:CG2	41:DG:115:ARG:N	2.76	0.48
19:CS:33:THR:CG2	19:CS:34:TRP:N	2.76	0.48
47:BP:105:LEU:O	47:BP:106:LEU:HB3	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1148:U:O4'	9:CI:16:ARG:NH1	2.46	0.48
35:DA:1204:A:H2	35:DA:1241:A:N1	2.11	0.48
22:AV:62:C:H6	22:AV:62:C:O5'	1.96	0.48
48:BQ:133:ARG:O	48:BQ:134:ARG:HB2	2.14	0.48
16:CP:45:THR:O	16:CP:48:TRP:HD1	1.95	0.48
42:DH:156:ALA:C	42:DH:158:HIS:N	2.66	0.48
47:DP:16:ARG:NH1	47:DP:16:ARG:HB2	2.29	0.48
49:BR:45:ARG:HD3	49:BR:97:VAL:CG1	2.43	0.48
47:BP:18:ARG:O	47:BP:20:GLY:N	2.46	0.48
1:CA:1128:C:N4	1:CA:1143:G:H1	2.08	0.48
25:B0:36:ILE:HD12	25:B0:38:VAL:N	2.28	0.48
1:CA:973:G:N3	10:CJ:55:LYS:HE2	2.29	0.48
31:D6:32:ASN:O	31:D6:33:LYS:HB2	2.13	0.48
50:DS:64:GLU:O	50:DS:68:GLN:HG3	2.13	0.48
45:BN:42:TRP:CZ2	45:BN:44:PRO:HA	2.49	0.48
53:DV:6:LYS:HB3	53:DV:37:VAL:CG1	2.38	0.48
8:CH:114:THR:C	8:CH:116:LYS:H	2.15	0.48
1:CA:782:A:C2'	1:CA:783:C:H5'	2.43	0.48
1:AA:728:A:C6	15:AO:54:ARG:HD2	2.48	0.48
54:DW:111:HIS:CG	54:DW:112:GLY:H	2.31	0.48
38:BD:3:VAL:CG1	38:BD:17:THR:HB	2.43	0.48
9:AI:99:LEU:C	9:AI:101:PHE:H	2.16	0.48
1:AA:181:G:HO2'	1:AA:182:U:H5'	1.74	0.48
1:CA:1005:A:C2'	1:CA:1006:C:H5'	2.43	0.48
1:CA:1005:A:H2'	1:CA:1006:C:H5'	1.95	0.48
26:D1:50:ARG:CB	26:D1:50:ARG:NH1	2.76	0.48
51:BT:106:SER:CA	51:BT:110:ILE:HD11	2.43	0.48
45:DN:119:ARG:HG3	45:DN:119:ARG:NH1	2.27	0.48
27:B2:41:ILE:CG1	27:B2:43:GLN:HB2	2.43	0.48
27:B2:45:SER:O	27:B2:46:GLN:NE2	2.46	0.48
2:CB:24:TRP:H	2:CB:24:TRP:HD1	1.61	0.48
39:DE:201:THR:OG1	39:DE:202:LYS:N	2.45	0.48
38:DD:71:ASP:CG	38:DD:103:ARG:HH22	2.16	0.48
38:BD:270:ILE:C	38:BD:270:ILE:HD12	2.32	0.48
1:AA:93:G:C2'	1:AA:96:U:H5'	2.42	0.48
35:BA:1563:G:C5	35:BA:1564:C:C5	3.02	0.48
35:DA:2776:A:H4'	35:DA:2777:G:H5''	1.96	0.48
53:BV:83:ARG:HG2	53:BV:83:ARG:NH1	2.26	0.48
47:BP:139:LYS:C	47:BP:141:ALA:H	2.16	0.48
45:DN:78:TYR:H	45:DN:78:TYR:HD1	1.46	0.48
35:DA:2223:G:H2'	35:DA:2224:G:H5'	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:70:GLU:O	12:AL:71:GLY:O	2.31	0.48
35:DA:1262:A:P	54:DW:99:ARG:HH12	2.37	0.48
36:DB:29:A:H2'	36:DB:30:C:O4'	2.13	0.48
20:CT:30:LYS:HA	20:CT:30:LYS:HE2	1.95	0.48
35:DA:1794:U:C2	35:DA:1795:C:C5	3.01	0.48
16:CP:8:ARG:NH2	16:CP:15:PRO:HG3	2.27	0.48
22:CV:21:A:H2'	22:CV:21:A:N3	2.28	0.48
35:BA:832:G:N3	47:BP:53:GLY:HA2	2.28	0.48
12:CL:33:VAL:N	12:CL:55:VAL:HG13	2.26	0.48
10:AJ:10:GLY:HA3	10:AJ:16:LEU:HD23	1.95	0.48
36:BB:87:G:C2'	36:BB:88:C:H5''	2.42	0.48
35:DA:315:G:H2'	35:DA:316:C:C6	2.47	0.48
36:DB:18:G:H1	36:DB:65:C:H42	1.62	0.48
35:DA:536:A:H2'	35:DA:537:C:C6	2.48	0.48
1:AA:782:A:H2'	1:AA:783:C:H5'	1.94	0.48
22:AW:37:A:H2'	22:AW:38:A:C8	2.48	0.48
48:BQ:111:GLU:O	48:BQ:115:MET:HG2	2.13	0.48
1:CA:1244:C:OP2	21:CU:9:ARG:HB2	2.13	0.48
35:BA:570:G:H2'	35:BA:2030:A:C5	2.48	0.48
17:CQ:31:LEU:HD12	17:CQ:31:LEU:O	2.13	0.48
35:BA:1904:G:O2'	35:BA:1905:C:H5'	2.12	0.48
43:BI:111:PRO:HG2	43:BI:112:LYS:HG3	1.94	0.48
3:CC:25:GLY:C	3:CC:27:LYS:H	2.16	0.48
39:DE:14:ILE:HD12	39:DE:14:ILE:C	2.34	0.48
35:BA:2227:A:H8	35:BA:2227:A:O5'	1.96	0.48
26:D1:26:ARG:HH11	26:D1:26:ARG:HG3	1.78	0.48
1:CA:499:A:H4'	1:CA:500:G:OP1	2.13	0.48
42:BH:25:LYS:HD2	42:BH:25:LYS:N	2.28	0.48
1:AA:1493:A3P:O1P	24:AY:58:ALA:HB2	2.12	0.48
24:AY:25:LYS:HA	24:AY:26:PRO:HD3	1.69	0.48
7:CG:106:GLN:O	7:CG:110:GLN:HG3	2.13	0.48
1:CA:1507:A:H2'	1:CA:1508:G:H8	1.79	0.48
47:DP:23:PRO:C	47:DP:33:ARG:NH1	2.67	0.48
40:BF:157:VAL:O	40:BF:157:VAL:HG22	2.14	0.48
35:DA:2822:G:H2'	35:DA:2823:A:H5''	1.94	0.48
35:BA:1532:C:OP1	35:BA:1532:C:H3'	2.13	0.48
33:D8:56:GLU:HA	33:D8:59:LYS:HZ1	1.78	0.48
5:CE:103:GLY:O	5:CE:106:PRO:HD2	2.13	0.48
8:CH:19:VAL:CG2	8:CH:21:LYS:HG3	2.42	0.48
57:DZ:37:VAL:O	57:DZ:38:TYR:HB3	2.12	0.48
55:BX:50:LYS:CB	55:BX:87:GLN:HE22	2.26	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:37:ASN:N	15:CO:37:ASN:ND2	2.61	0.48
1:AA:8:A:H62	4:AD:208:SER:HB2	1.77	0.48
36:BB:75:G:C8	36:BB:75:G:H5'	2.39	0.48
2:AB:167:PRO:HG2	2:AB:168:THR:H	1.79	0.48
41:DG:117:PHE:C	41:DG:117:PHE:CD1	2.87	0.48
41:DG:119:GLY:HA2	41:DG:179:PRO:O	2.13	0.48
41:DG:126:ASP:O	41:DG:128:ARG:N	2.43	0.48
19:CS:31:ILE:CG2	19:CS:49:ILE:HG22	2.44	0.48
15:AO:37:ASN:N	15:AO:37:ASN:ND2	2.61	0.48
47:BP:146:VAL:HG13	47:BP:147:LEU:N	2.27	0.48
9:CI:17:VAL:HG21	9:CI:80:GLY:C	2.34	0.48
35:DA:1346:G:C3'	35:DA:1347:G:H5''	2.43	0.48
10:CJ:34:VAL:HG13	10:CJ:73:ASP:C	2.33	0.48
8:AH:21:LYS:HB3	8:AH:21:LYS:NZ	2.28	0.48
6:AF:69:GLU:O	6:AF:72:VAL:N	2.45	0.48
43:DI:88:ILE:HD13	43:DI:142:VAL:HG12	1.95	0.48
8:AH:29:SER:HB3	8:AH:32:LYS:CD	2.43	0.48
35:DA:271(O):C:HO2'	35:DA:271(P):C:H6	1.60	0.48
27:B2:10:LEU:HD13	27:B2:14:ARG:NH1	2.28	0.48
30:B5:16:ARG:NH1	30:B5:17:ASP:OD1	2.46	0.48
3:CC:44:GLU:HA	3:CC:52:LEU:HD21	1.96	0.48
41:DG:56:ALA:HA	41:DG:59:GLU:HG2	1.95	0.48
41:DG:64:THR:HG23	41:DG:66:GLN:H	1.79	0.48
54:DW:10:VAL:HG12	54:DW:12:ILE:HG22	1.95	0.48
41:BG:9:ARG:HH11	41:BG:9:ARG:HG2	1.79	0.48
1:AA:644:G:H4'	8:AH:92:ARG:NH2	2.26	0.48
52:BU:102:GLU:N	52:BU:103:PRO:CD	2.77	0.48
53:DV:23:GLU:O	53:DV:24:LYS:O	2.32	0.48
35:DA:11:G:O2'	35:DA:2802:G:H5''	2.12	0.48
1:AA:1332:A:O2'	1:AA:1333:A:H5'	2.13	0.48
5:AE:139:LEU:CA	5:AE:142:LEU:HD12	2.42	0.48
35:BA:2855:C:H2'	35:BA:2856:C:C6	2.47	0.48
13:AM:108:ARG:N	13:AM:108:ARG:HD2	2.28	0.48
1:AA:1106:G:H2'	1:AA:1107:C:H6	1.78	0.48
2:CB:141:GLU:O	2:CB:145:LEU:HD23	2.13	0.48
1:AA:15:G:H2'	1:AA:16:A:H8	1.78	0.48
55:DX:47:PHE:HD2	55:DX:89:ILE:HG23	1.78	0.48
25:D0:72:ARG:HH11	25:D0:75:LEU:CD1	2.26	0.48
35:DA:1478:G:O2'	35:DA:1558:A:H2	1.96	0.48
11:CK:34:ASP:OD2	11:CK:38:ASN:HB2	2.13	0.48
7:CG:51:GLN:O	7:CG:52:GLU:C	2.52	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2106:G:H2'	35:DA:2107:C:O4'	2.13	0.48
42:DH:95:ARG:HH12	42:DH:97:ARG:HH11	1.60	0.48
1:CA:721:G:H4'	1:CA:722:A:O4'	2.12	0.48
10:AJ:3:LYS:O	10:AJ:100:THR:HA	2.12	0.48
42:BH:109:PHE:C	42:BH:111:HIS:N	2.66	0.48
14:CN:4:LYS:HB2	14:CN:4:LYS:HZ3	1.78	0.48
55:BX:28:PHE:N	55:BX:28:PHE:CD1	2.81	0.48
29:B4:14:ILE:O	29:B4:21:VAL:HG13	2.13	0.48
1:CA:1260:C:H4'	1:CA:1284:C:H5'	1.95	0.48
36:DB:87:G:C2'	36:DB:88:C:H5''	2.43	0.48
35:DA:2065:C:H2'	35:DA:2066:C:H6	1.79	0.48
35:BA:1374:G:H2'	35:BA:1375:C:H6	1.77	0.48
1:CA:760:G:O2'	17:CQ:98:LEU:HD23	2.13	0.48
35:BA:1015:G:O2'	35:BA:1016:G:H5'	2.13	0.48
1:CA:423:G:C2'	1:CA:424:G:H5'	2.44	0.48
54:BW:83:LYS:O	54:BW:84:ARG:HD3	2.14	0.48
5:CE:88:LYS:HB3	5:CE:123:LEU:HB2	1.95	0.48
1:CA:909:A:H2'	1:CA:910:C:O4'	2.12	0.48
10:AJ:11:PHE:HE2	10:AJ:67:THR:HG1	1.62	0.48
4:AD:177:ASP:OD1	4:AD:180:GLY:N	2.46	0.48
1:CA:31:G:O2'	1:CA:48:C:N4	2.45	0.48
35:DA:634:C:H2'	35:DA:635:C:C6	2.48	0.48
25:B0:5:LYS:HD3	48:BQ:81:VAL:HG12	1.95	0.48
54:BW:36:LEU:HD13	54:BW:48:ALA:HA	1.96	0.48
35:BA:793:A:OP2	35:BA:2072:G:H5'	2.14	0.48
35:BA:475:U:O5'	35:BA:475:U:H6	1.97	0.48
1:AA:1445:C:O2'	1:AA:1446:U:H5'	2.13	0.48
36:DB:59:A:H2'	36:DB:60:C:C6	2.48	0.48
41:BG:81:LYS:O	41:BG:82:LEU:O	2.31	0.48
35:DA:89:G:C2'	35:DA:90:U:OP1	2.61	0.48
1:AA:1393:U:H5'	1:AA:1502:A:OP1	2.13	0.48
33:D8:50:LEU:HA	33:D8:53:PRO:CG	2.42	0.48
36:BB:7:G:O5'	50:BS:29:PHE:CE1	2.66	0.48
52:DU:95:LEU:CD1	53:DV:11:GLN:HB2	2.43	0.48
57:BZ:163:LEU:H	57:BZ:163:LEU:CD2	2.27	0.48
57:DZ:43:GLU:O	57:DZ:47:VAL:HG23	2.13	0.48
19:AS:14:HIS:CD2	19:AS:15:LEU:HD23	2.49	0.48
2:AB:12:GLU:HB3	2:AB:213:LEU:CD1	2.42	0.48
2:AB:187:LEU:HD22	2:AB:205:ASP:HB3	1.96	0.48
2:AB:219:VAL:CG1	2:AB:223:ILE:HG13	2.40	0.48
29:D4:16:CYS:SG	29:D4:36:CYS:HB2	2.53	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DG:102:PHE:CE1	41:DG:106:LEU:HD23	2.48	0.48
48:DQ:134:ARG:HG2	48:DQ:134:ARG:O	2.12	0.48
7:AG:111:ARG:HB3	7:AG:113:GLU:HG2	1.94	0.48
35:BA:1347:G:C8	35:BA:1347:G:H5'	2.45	0.48
45:BN:14:VAL:CG1	45:BN:15:LEU:N	2.76	0.48
39:BE:34:VAL:CG1	39:BE:48:GLN:HE21	2.27	0.48
35:BA:2724:C:OP1	49:BR:2:ARG:NH2	2.47	0.48
35:BA:926:A:O2'	35:BA:927:G:H5'	2.13	0.48
37:BC:82:LYS:HB3	37:BC:82:LYS:NZ	2.25	0.48
35:DA:857:C:O2	35:DA:857:C:C2'	2.62	0.48
1:CA:199:G:C2	1:CA:219:C:N3	2.82	0.48
1:CA:221:C:O2'	1:CA:222:U:H5'	2.12	0.48
27:D2:36:ARG:NH2	55:DX:8:ILE:O	2.46	0.48
36:BB:42:C:H5''	41:BG:67:LYS:HG3	1.95	0.48
54:DW:8:ARG:O	54:DW:9:TYR:HB2	2.12	0.48
36:DB:57:A:H1'	41:DG:29:TRP:O	2.13	0.48
1:CA:1440:C:H1'	1:CA:1462:G:H22	1.78	0.48
2:CB:142:LEU:HD23	2:CB:142:LEU:O	2.14	0.48
35:BA:363(F):A:HO2'	35:BA:364:C:H5	1.57	0.48
31:B6:41:PRO:O	31:B6:45:LYS:HD2	2.12	0.48
35:DA:969:U:H2'	35:DA:970:C:C6	2.48	0.48
26:D1:3:LYS:O	26:D1:12:PRO:HD3	2.14	0.48
1:CA:386:C:H2'	1:CA:387:U:C5'	2.44	0.48
20:AT:70:SER:HA	20:AT:73:HIS:HD2	1.77	0.48
51:DT:3:ARG:C	51:DT:5:ALA:N	2.65	0.48
1:AA:763:G:H2'	1:AA:764:C:C6	2.47	0.48
1:CA:1463:C:P	51:DT:111:ARG:HH21	2.37	0.48
25:D0:43:THR:HG22	35:DA:2332:U:H5'	1.95	0.48
1:AA:724:G:O2'	1:AA:725:G:H5'	2.13	0.48
39:BE:65:GLY:C	39:BE:67:PHE:N	2.67	0.48
42:DH:109:PHE:C	42:DH:111:HIS:N	2.66	0.48
7:AG:29:LYS:HB3	7:AG:105:VAL:HG21	1.95	0.48
47:BP:125:VAL:O	47:BP:144:GLU:HB2	2.13	0.48
45:DN:90:MET:HA	45:DN:90:MET:CE	2.43	0.48
1:CA:161:A:H2'	1:CA:162:A:H8	1.78	0.48
1:AA:758:G:H5''	1:AA:880:C:H1'	1.95	0.48
1:CA:538:G:H5''	12:CL:111:LYS:HD3	1.96	0.48
1:CA:1277:C:O2'	1:CA:1279:A:H8	1.96	0.48
35:BA:420:C:H2'	35:BA:421:U:C6	2.49	0.48
20:CT:90:GLN:O	20:CT:93:GLU:HB3	2.13	0.48
35:DA:2720:U:H3'	35:DA:2721:A:H8	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:49:A:H5''	35:BA:51:G:O4'	2.13	0.48
35:DA:2861:G:O2'	35:DA:2862:G:H5'	2.14	0.48
7:AG:69:VAL:HG12	7:AG:69:VAL:O	2.13	0.48
28:B3:7:LYS:HE2	28:B3:32:GLN:HA	1.96	0.48
35:BA:247:G:H4'	35:BA:386:G:C5	2.49	0.48
1:CA:229:U:O2'	1:CA:230:G:H5'	2.12	0.48
42:BH:12:PRO:HB2	42:BH:15:VAL:HG22	1.89	0.48
42:BH:45:VAL:HA	42:BH:50:VAL:HG22	1.95	0.48
42:DH:44:VAL:C	42:DH:46:GLU:N	2.67	0.48
56:DY:13:VAL:HG21	56:DY:72:VAL:HB	1.94	0.48
56:DY:14:LEU:CD1	56:DY:15:VAL:H	2.24	0.48
51:BT:30:VAL:HG22	51:BT:84:GLN:O	2.13	0.48
40:DF:205:ARG:O	40:DF:206:ILE:HD13	2.14	0.48
51:DT:19:LEU:HA	51:DT:20:PRO:HD3	1.60	0.48
51:DT:26:ASP:C	51:DT:26:ASP:OD2	2.51	0.48
51:DT:20:PRO:HD3	51:DT:85:LYS:HB3	1.94	0.48
57:BZ:29:TYR:HB3	57:BZ:34:ASN:HD22	1.79	0.48
2:CB:187:LEU:HD13	2:CB:205:ASP:HA	1.94	0.48
2:CB:15:VAL:HG21	2:CB:209:ARG:NH1	2.28	0.48
2:CB:12:GLU:HB3	2:CB:213:LEU:CD1	2.43	0.48
19:AS:9:VAL:O	19:AS:11:VAL:N	2.46	0.48
5:AE:12:LEU:HD13	5:AE:12:LEU:N	2.29	0.48
2:AB:74:LYS:HD3	2:AB:165:VAL:HB	1.96	0.48
2:AB:15:VAL:HG21	2:AB:209:ARG:NH1	2.28	0.48
41:DG:106:LEU:HA	41:DG:110:ALA:CB	2.44	0.48
47:DP:115:LEU:HD23	47:DP:115:LEU:N	2.25	0.48
47:DP:146:VAL:CG2	47:DP:147:LEU:H	2.08	0.48
9:CI:17:VAL:HG11	9:CI:81:ILE:HA	1.95	0.48
35:DA:1593:G:H2'	35:DA:1594:G:C8	2.49	0.48
43:BI:88:ILE:HD13	43:BI:142:VAL:HG12	1.95	0.48
4:AD:133:VAL:HG13	4:AD:135:LEU:CD2	2.35	0.48
47:DP:13:ASN:HD22	47:DP:14:LYS:N	2.10	0.48
47:DP:17:LYS:O	47:DP:18:ARG:C	2.51	0.48
46:BO:104:ARG:C	46:BO:106:LEU:H	2.16	0.48
45:BN:99:LEU:O	45:BN:103:VAL:HG22	2.14	0.48
1:AA:673:G:C5'	6:AF:87:ARG:HE	2.27	0.48
32:B7:12:ARG:CD	32:B7:46:VAL:HG21	2.42	0.48
39:BE:34:VAL:HG11	39:BE:78:LEU:CD2	2.44	0.48
39:BE:5:LEU:HD22	39:BE:197:ILE:HG22	1.95	0.48
11:CK:95:ILE:O	11:CK:98:LEU:HB2	2.13	0.48
38:BD:85:ASP:HB2	38:BD:92:ILE:HD12	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:DS:88:ASP:CG	50:DS:89:ARG:N	2.64	0.48
35:BA:542:C:H2'	35:BA:543:C:OP1	2.13	0.48
43:BI:66:GLU:C	43:BI:68:LEU:H	2.17	0.48
35:DA:2155:G:C2'	35:DA:2156:G:H5'	2.39	0.48
17:AQ:35:VAL:HG12	17:AQ:36:ILE:N	2.28	0.48
1:CA:765:G:H21	1:CA:813:U:H5	1.61	0.48
25:B0:11:ARG:CB	25:B0:11:ARG:NH1	2.74	0.48
1:AA:1106:G:H4'	3:AC:171:GLY:O	2.12	0.48
35:BA:1281:G:C8	35:BA:1281:G:H5'	2.38	0.48
34:D9:27:CYS:HB3	34:D9:32:HIS:HB2	1.96	0.48
28:B3:26:LEU:CB	28:B3:28:LEU:HD23	2.43	0.48
1:CA:664:G:H22	1:CA:741:G:H1	1.61	0.48
56:DY:30:VAL:HG12	56:DY:31:LEU:N	2.27	0.48
28:D3:35:ARG:HB3	28:D3:37:LEU:HD21	1.96	0.48
56:DY:87:LYS:O	56:DY:88:LYS:HB2	2.14	0.48
13:AM:91:ARG:HB2	13:AM:98:VAL:CG2	2.43	0.48
40:DF:137:LYS:O	40:DF:140:LEU:HB2	2.13	0.48
43:DI:29:TYR:C	43:DI:32:PRO:HD2	2.34	0.48
52:DU:112:ARG:CG	52:DU:112:ARG:NH1	2.76	0.48
11:CK:43:SER:O	11:CK:44:SER:HB3	2.13	0.48
27:B2:35:LEU:HB3	27:B2:50:ILE:CD1	2.43	0.48
1:CA:544:G:H2'	1:CA:545:C:C6	2.49	0.48
2:CB:34:ALA:HB1	2:CB:36:ARG:NH1	2.28	0.48
20:AT:30:LYS:CE	20:AT:30:LYS:HA	2.44	0.48
20:CT:26:ASN:OD1	20:CT:71:THR:HA	2.14	0.48
18:AR:58:LEU:HB3	18:AR:62:GLU:CB	2.43	0.48
1:AA:390:C:H4'	16:AP:28:ARG:HH21	1.79	0.48
35:BA:639:U:H2'	35:BA:640:C:H6	1.78	0.48
1:CA:158:G:O2'	1:CA:159:G:H5'	2.13	0.48
37:DC:97:GLU:HA	37:DC:100:ILE:HG12	1.95	0.48
9:AI:121:ARG:HD3	9:AI:121:ARG:C	2.34	0.48
1:AA:1343:G:O2'	9:AI:121:ARG:HA	2.14	0.48
12:AL:24:LEU:C	12:AL:26:GLY:N	2.66	0.48
27:D2:25:VAL:C	27:D2:27:GLU:N	2.65	0.48
55:BX:72:LYS:HD3	55:BX:73:ARG:O	2.13	0.48
1:CA:528:C:O2'	1:CA:529:G:H5'	2.13	0.48
1:AA:363:A:OP1	12:AL:31:ARG:NH1	2.47	0.48
17:AQ:99:SER:C	17:AQ:100:LYS:HG3	2.33	0.48
35:BA:1782:C:O2'	35:BA:2609:U:H5''	2.12	0.48
35:BA:306:U:H2'	35:BA:307:G:O4'	2.12	0.48
13:CM:108:ARG:N	13:CM:108:ARG:HD2	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:19:LEU:HD12	41:BG:19:LEU:H	1.79	0.48
33:B8:46:ARG:HG2	33:B8:46:ARG:HH11	1.78	0.48
53:BV:38:LEU:C	53:BV:39:LEU:HD13	2.34	0.48
33:D8:6:THR:HG22	33:D8:63:PRO:HD3	1.94	0.48
50:BS:88:ASP:CG	50:BS:89:ARG:N	2.64	0.48
40:DF:1:MET:C	40:DF:3:GLU:N	2.67	0.48
40:DF:202:PHE:CE1	40:DF:206:ILE:HD11	2.48	0.48
40:DF:22:ALA:O	40:DF:26:ALA:CB	2.54	0.48
53:DV:45:THR:O	53:DV:46:VAL:HG12	2.13	0.48
2:CB:177:ALA:O	2:CB:180:LEU:HB2	2.14	0.48
30:D5:2:ALA:N	35:DA:747:U:N3	2.62	0.48
2:CB:21:ARG:HA	2:CB:40:HIS:CE1	2.49	0.48
57:DZ:35:ARG:NE	57:DZ:35:ARG:CA	2.74	0.48
33:B8:28:GLY:O	33:B8:32:LEU:HG	2.14	0.48
38:DD:2:ALA:O	38:DD:3:VAL:HB	2.13	0.48
2:AB:213:LEU:HD23	2:AB:213:LEU:O	2.13	0.48
13:CM:57:ARG:NH1	29:D4:34:GLU:HG3	2.29	0.48
41:DG:112:PRO:HG2	41:DG:113:ARG:HA	1.96	0.48
15:AO:36:ILE:HD12	15:AO:63:ARG:HD3	1.96	0.48
35:BA:2092:U:C5	35:BA:2226:C:OP2	2.67	0.48
48:DQ:133:ARG:O	48:DQ:134:ARG:HB2	2.12	0.48
35:BA:1301:A:HO2'	35:BA:1302:A:P	2.36	0.48
3:CC:148:GLY:CA	3:CC:203:PHE:HB3	2.43	0.48
43:BI:88:ILE:HG12	43:BI:92:VAL:HG21	1.95	0.48
57:BZ:137:ILE:O	57:BZ:138:GLU:O	2.31	0.48
13:AM:22:ILE:HB	13:AM:25:ILE:HB	1.95	0.48
47:DP:18:ARG:O	47:DP:20:GLY:N	2.47	0.48
45:BN:16:ILE:CG2	45:BN:54:VAL:HG22	2.44	0.48
6:CF:87:ARG:HB2	6:CF:87:ARG:HH11	1.78	0.48
38:DD:209:ALA:C	38:DD:210:GLY:O	2.51	0.48
25:B0:23:VAL:HG12	25:B0:25:ARG:O	2.14	0.48
38:BD:125:ILE:HD11	38:BD:136:ILE:HA	1.96	0.48
25:D0:36:ILE:HD12	25:D0:38:VAL:N	2.28	0.48
38:BD:70:TRP:O	38:BD:73:VAL:HG23	2.13	0.48
35:DA:2039:C:O2'	35:DA:2040:C:H5'	2.12	0.48
1:CA:1516:G:C2'	1:CA:1517:G:C5'	2.92	0.48
35:BA:1493:C:H4'	35:BA:1494:A:OP2	2.12	0.48
1:AA:430:A:OP2	4:AD:8:VAL:HG22	2.13	0.48
56:BY:44:ILE:HG22	56:BY:45:VAL:N	2.29	0.48
45:DN:67:LEU:O	45:DN:68:GLU:HB3	2.12	0.48
35:DA:1790:C:H5''	35:DA:1791:A:OP1	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DQ:130:LYS:HZ3	57:DZ:80:ARG:HD3	1.76	0.48
22:AV:71:C:H2'	22:AV:72:A:O4'	2.14	0.48
35:BA:1858:G:O2'	35:BA:1884:A:N6	2.47	0.48
7:CG:15:ASP:OD2	7:CG:16:LEU:N	2.47	0.48
35:DA:2178:C:C3'	35:DA:2179:C:H5''	2.41	0.48
1:CA:236:G:H2'	1:CA:237:C:H6	1.78	0.48
8:AH:91:ARG:CG	8:AH:91:ARG:NH1	2.75	0.48
1:CA:1492:A:H2	12:CL:47:SER:HB3	1.79	0.48
38:BD:206:LEU:HD22	38:BD:211:ARG:HG3	1.95	0.48
38:DD:267:SER:O	38:DD:270:ILE:HG13	2.14	0.48
1:AA:640:A:O2'	1:AA:641:U:H5'	2.14	0.48
50:BS:54:LEU:HD13	50:BS:54:LEU:O	2.14	0.48
16:CP:20:VAL:HG21	16:CP:32:TYR:CB	2.44	0.48
35:BA:2195:C:O2'	35:BA:2196:C:H5'	2.14	0.48
3:CC:126:ARG:C	3:CC:127:ARG:HD2	2.33	0.48
1:AA:1287:A:H2'	1:AA:1288:A:H8	1.76	0.48
22:CV:1:C:H2'	22:CV:2:G:H5'	1.95	0.48
4:AD:18:LYS:NZ	4:AD:31:CYS:CB	2.77	0.48
25:B0:43:THR:CG2	35:BA:2332:U:H5'	2.44	0.48
43:DI:33:ARG:HB2	43:DI:35:LEU:HG	1.95	0.48
39:BE:117:MET:O	39:BE:121:ASN:N	2.44	0.48
14:AN:51:GLY:C	14:AN:53:LEU:H	2.16	0.48
42:DH:68:THR:O	42:DH:70:THR:N	2.47	0.48
42:BH:105:LEU:HD23	42:BH:105:LEU:N	2.29	0.48
1:AA:542:G:H5'	4:AD:41:GLY:CA	2.44	0.48
15:CO:11:VAL:O	15:CO:14:GLU:HB3	2.13	0.48
29:B4:46:GLN:O	29:B4:47:GLN:HG2	2.13	0.48
35:DA:1858:G:O2'	35:DA:1884:A:N6	2.46	0.48
1:AA:1030(A):G:H22	1:AA:1032:G:N2	2.11	0.48
11:CK:17:GLY:CA	11:CK:80:VAL:HG12	2.43	0.48
47:BP:125:VAL:CG1	47:BP:138:LEU:HD21	2.43	0.48
10:CJ:16:LEU:HD21	10:CJ:94:VAL:HG13	1.96	0.48
35:BA:1385:G:H4'	35:BA:1386:C:OP1	2.12	0.48
2:CB:61:LEU:HD11	2:CB:160:ASP:HB2	1.95	0.48
35:BA:1373:A:H2'	35:BA:1374:G:O4'	2.14	0.48
1:CA:884:U:H4'	1:CA:885:G:C5'	2.43	0.48
35:DA:2702:U:H4'	35:DA:2703:C:OP1	2.14	0.48
1:AA:44:G:H2'	1:AA:45:U:O4'	2.13	0.48
41:BG:19:LEU:N	41:BG:19:LEU:HD12	2.28	0.48
35:DA:1144:G:H2'	35:DA:1145:C:C6	2.48	0.48
38:BD:148:GLU:HB2	38:BD:151:LYS:HD2	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:25:GLY:C	3:AC:27:LYS:H	2.17	0.48
35:DA:2272:U:H5''	35:DA:2273:A:OP1	2.14	0.48
40:BF:155:LEU:HD22	40:BF:186:ILE:HA	1.95	0.48
1:AA:751:U:H2'	1:AA:752:G:O4'	2.14	0.48
33:B8:55:ALA:C	33:B8:57:ARG:H	2.17	0.48
1:CA:39:G:O2'	1:CA:40:C:H5'	2.14	0.48
35:BA:394:A:O2'	35:BA:395:U:H5'	2.14	0.48
45:BN:89:LYS:HZ2	45:BN:89:LYS:HB3	1.78	0.48
35:DA:475:U:H6	35:DA:475:U:O5'	1.96	0.48
35:BA:1510:G:O2'	35:BA:1511:C:H5'	2.13	0.48
22:CW:20:U:H5'	22:CW:21:A:OP2	2.14	0.48
42:BH:44:VAL:C	42:BH:46:GLU:N	2.67	0.48
35:DA:863:A:O2'	35:DA:864:G:H5'	2.14	0.48
47:BP:57:THR:C	47:BP:59:LEU:H	2.17	0.48
7:CG:11:GLN:NE2	7:CG:12:LEU:H	2.12	0.48
1:CA:1224:G:C4'	13:CM:102:ARG:HH21	2.26	0.48
10:CJ:50:ILE:N	10:CJ:50:ILE:HD13	2.11	0.48
33:D8:23:VAL:HG12	33:D8:46:ARG:HB3	1.95	0.48
56:DY:28:LYS:O	56:DY:29:GLU:O	2.32	0.48
40:BF:1:MET:C	40:BF:3:GLU:N	2.65	0.48
40:DF:192:LEU:HD21	40:DF:194:MET:CE	2.43	0.48
52:DU:91:ASP:OD2	52:DU:96:ALA:HB2	2.14	0.48
53:DV:41:GLY:HA3	53:DV:45:THR:OG1	2.14	0.48
1:CA:1071:C:H5''	5:CE:49:PRO:CD	2.43	0.48
3:CC:76:VAL:O	3:CC:84:ILE:HB	2.14	0.48
3:AC:93:LYS:HB2	3:AC:93:LYS:NZ	2.07	0.48
47:BP:84:ASN:CG	47:BP:117:GLU:HB2	2.34	0.48
2:AB:175:ARG:O	2:AB:176:GLU:C	2.51	0.48
2:AB:76:GLN:HG2	2:AB:206:ASP:O	2.13	0.48
1:CA:588:G:H2'	1:CA:589:C:C5	2.49	0.48
19:CS:36:ARG:HE	19:CS:72:GLY:HA3	1.79	0.48
51:DT:38:ASN:C	51:DT:38:ASN:ND2	2.67	0.48
43:DI:140:LEU:HD23	43:DI:141:LYS:N	2.29	0.48
9:AI:17:VAL:HG21	9:AI:80:GLY:C	2.34	0.48
3:AC:36:ASP:HB3	3:AC:40:ARG:HH12	1.78	0.48
3:AC:53:ALA:O	3:AC:55:VAL:HG23	2.14	0.48
4:CD:114:ARG:NH1	4:CD:114:ARG:CG	2.74	0.48
47:BP:17:LYS:C	47:BP:19:VAL:N	2.67	0.48
51:DT:105:LEU:HB2	51:DT:110:ILE:HD13	1.94	0.48
43:DI:62:LYS:HA	43:DI:133:HIS:CD2	2.48	0.48
35:BA:691:C:C1'	38:BD:43:ARG:HH21	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:48:ARG:HH11	38:BD:48:ARG:HG3	1.78	0.48
41:BG:86:MET:HG3	41:BG:86:MET:O	2.13	0.48
1:CA:1294:G:H2'	1:CA:1295:G:H8	1.79	0.48
54:DW:14:PRO:O	54:DW:15:ARG:C	2.52	0.48
4:AD:11:LEU:HD12	4:AD:21:LEU:HD13	1.95	0.48
48:DQ:45:GLN:H	48:DQ:45:GLN:CD	2.17	0.48
1:AA:720:C:H5'	18:AR:50:ILE:O	2.13	0.48
1:CA:1051:C:H42	1:CA:1207:G:H1	1.61	0.48
35:BA:1142:U:H5''	35:BA:1142(A):A:C8	2.48	0.48
43:DI:9:LEU:HD12	43:DI:10:GLU:H	1.79	0.48
35:DA:2580:U:H5'	39:DE:131:ALA:N	2.27	0.48
35:BA:1210:A:C8	35:BA:1210:A:H5'	2.47	0.48
1:CA:763:G:H2'	1:CA:764:C:C6	2.48	0.48
22:CV:4:G:O2'	22:CV:5:G:C8	2.55	0.48
36:DB:110:G:H2'	36:DB:111:G:C8	2.48	0.48
48:DQ:54:MET:HB3	48:DQ:64:ILE:HD13	1.96	0.48
32:B7:5:TRP:CZ3	35:BA:464:U:H4'	2.49	0.48
13:AM:69:GLU:HA	13:AM:70:LEU:N	2.29	0.48
8:AH:114:THR:C	8:AH:116:LYS:H	2.16	0.48
49:DR:103:ARG:HG2	49:DR:103:ARG:HH11	1.78	0.48
18:AR:71:LYS:CA	18:AR:74:ARG:HG3	2.42	0.48
1:AA:17:U:H2'	1:AA:18:C:H6	1.78	0.48
49:BR:87:TYR:C	49:BR:89:ASP:H	2.13	0.48
55:DX:14:SER:O	55:DX:15:GLU:C	2.51	0.48
50:DS:54:LEU:O	50:DS:54:LEU:HD13	2.14	0.48
17:AQ:59:ILE:HG22	17:AQ:71:PHE:CD1	2.49	0.48
9:CI:48:GLU:N	9:CI:49:PRO:CD	2.75	0.48
21:AU:24:ARG:HG2	21:AU:24:ARG:NH1	2.25	0.48
5:CE:70:PRO:CB	5:CE:144:THR:HG22	2.43	0.48
1:AA:765:G:H21	1:AA:813:U:H5	1.61	0.48
1:AA:436:C:H4'	4:AD:157:LEU:HD11	1.95	0.48
1:AA:328:C:O2	1:AA:328:C:H2'	2.13	0.48
42:DH:94:TYR:HA	42:DH:107:VAL:HG12	1.94	0.48
35:BA:2745:C:H2'	35:BA:2746:U:H6	1.79	0.48
1:AA:599:C:H2'	1:AA:600:C:C6	2.49	0.48
1:CA:724:G:H2'	1:CA:725:G:H8	1.77	0.48
15:AO:11:VAL:O	15:AO:14:GLU:HB3	2.14	0.48
1:CA:116:A:H2'	1:CA:117:G:O4'	2.14	0.48
35:DA:154(A):C:O2	35:DA:154(A):C:O4'	2.29	0.48
52:DU:48:ALA:O	52:DU:52:ARG:HG3	2.13	0.48
32:B7:29:LYS:O	32:B7:33:ARG:HG3	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BI:54:GLN:OE1	43:BI:54:GLN:HA	2.14	0.48
14:AN:46:GLU:CD	14:AN:46:GLU:H	2.17	0.48
1:CA:583:A:O2'	17:CQ:91:ARG:HG3	2.14	0.48
35:DA:1297:C:H2'	35:DA:1298:C:C6	2.49	0.48
36:BB:18:G:H1	36:BB:65:C:H42	1.61	0.48
35:DA:1026:U:H5'	35:DA:1027:A:OP2	2.14	0.48
35:DA:534:U:O2'	52:DU:49:HIS:HD2	1.97	0.48
3:CC:23:TYR:CG	3:CC:24:ALA:N	2.82	0.48
25:B0:41:ARG:HE	35:BA:2387:U:H1'	1.79	0.48
35:BA:634:C:H2'	35:BA:635:C:C6	2.48	0.48
35:DA:1338:G:O2'	35:DA:1339:G:H5'	2.13	0.48
11:CK:59:TYR:O	11:CK:62:GLN:HB3	2.13	0.48
30:D5:6:VAL:HG13	35:DA:2016:U:H1'	1.95	0.48
25:B0:2:ALA:HB2	35:BA:2452:C:OP1	2.14	0.48
20:CT:32:ALA:O	20:CT:36:LEU:HD23	2.14	0.48
9:AI:114:TYR:N	9:AI:114:TYR:CD2	2.82	0.48
37:DC:192:PHE:HA	37:DC:196:LEU:CB	2.44	0.48
1:CA:503:C:H2'	1:CA:504:C:C6	2.48	0.48
46:BO:7:TYR:CZ	46:BO:44:LYS:HG3	2.48	0.48
42:BH:41:MET:CE	42:BH:54:ARG:HA	2.42	0.48
35:BA:775:G:O2'	35:BA:776:G:OP1	2.28	0.48
1:CA:1225:A:P	13:CM:102:ARG:HD3	2.54	0.48
56:BY:81:LYS:HG2	56:BY:97:ARG:HE	1.79	0.48
56:BY:84:ARG:HH12	56:BY:97:ARG:CB	2.25	0.48
1:CA:11:G:C5	1:CA:12:U:C4	3.02	0.48
53:BV:39:LEU:CD1	53:BV:51:VAL:HA	2.43	0.48
57:DZ:150:LEU:CD2	57:DZ:150:LEU:H	2.26	0.48
51:BT:28:VAL:HG13	51:BT:46:GLU:N	2.29	0.48
50:BS:64:GLU:O	50:BS:68:GLN:HG3	2.13	0.48
40:DF:126:VAL:O	40:DF:196:LEU:HG	2.13	0.48
35:DA:996:A:O4'	52:DU:92:ARG:NH2	2.47	0.48
1:CA:4:U:C2'	1:CA:4:U:O2	2.60	0.48
50:BS:97:ARG:C	50:BS:97:ARG:NE	2.67	0.48
50:BS:96:GLY:C	50:BS:98:VAL:H	2.17	0.48
35:BA:1502:C:H2'	35:BA:1503:U:C6	2.48	0.48
1:CA:18:C:O2'	1:CA:19:C:H5'	2.14	0.48
10:AJ:13:HIS:C	10:AJ:13:HIS:CD2	2.86	0.48
2:CB:164:VAL:O	2:CB:186:ALA:HB1	2.14	0.48
2:CB:167:PRO:HG2	2:CB:192:SER:HB2	1.96	0.48
2:CB:204:ASN:C	2:CB:204:ASN:ND2	2.64	0.48
2:CB:80:ILE:HG21	2:CB:211:ILE:HG22	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:DX:50:LYS:CB	55:DX:87:GLN:HE22	2.27	0.48
57:DZ:38:TYR:O	57:DZ:39:VAL:O	2.31	0.48
57:DZ:5:LEU:HD12	57:DZ:47:VAL:CG2	2.38	0.48
2:AB:219:VAL:O	2:AB:219:VAL:HG12	2.14	0.48
35:BA:1204:A:N1	35:BA:1241:A:C2	2.82	0.48
22:AV:53:G:H5'	22:AV:53:G:H8	1.78	0.48
9:AI:7:THR:HG22	9:AI:8:GLY:N	2.29	0.48
10:AJ:34:VAL:HG13	10:AJ:73:ASP:C	2.34	0.48
35:DA:2678:C:C2	35:DA:2679:A:C8	3.02	0.48
57:BZ:103:ARG:HD2	57:BZ:136:PHE:CB	2.44	0.48
41:BG:112:PRO:C	41:BG:114:ILE:N	2.61	0.48
4:CD:108:LEU:HD12	4:CD:174:LEU:HD13	1.95	0.48
3:CC:59:ARG:CD	3:CC:64:VAL:HG22	2.43	0.48
25:D0:26:TYR:H	25:D0:29:GLN:NE2	2.12	0.48
1:CA:197:A:H1'	1:CA:198:G:O4'	2.14	0.48
35:DA:2142:C:N4	35:DA:2148:G:H1	2.12	0.48
7:CG:26:PHE:CZ	7:CG:30:ILE:HD11	2.48	0.48
45:DN:126:PRO:O	45:DN:127:ASP:HB2	2.14	0.48
53:DV:28:GLU:O	53:DV:61:VAL:CG2	2.61	0.48
1:AA:1054:C:O2	1:AA:1054:C:C2'	2.62	0.48
54:BW:5:ALA:CB	54:BW:50:VAL:HG23	2.37	0.48
8:AH:34:GLU:HB2	8:AH:118:VAL:HG21	1.95	0.48
1:CA:1006:C:H2'	1:CA:1007:C:C4	2.49	0.48
3:CC:6:HIS:NE2	3:CC:8:ILE:HG12	2.29	0.48
42:DH:140:LYS:O	42:DH:144:VAL:HG23	2.14	0.48
1:CA:766:A:H61	1:CA:1511:G:H1'	1.79	0.48
35:DA:1765:C:O2'	35:DA:1766:U:H5'	2.14	0.48
35:DA:1767:C:O2'	35:DA:1768:U:H5'	2.14	0.48
3:AC:173:VAL:N	3:AC:174:PRO:HD3	2.29	0.48
4:CD:26:CYS:HA	4:CD:31:CYS:HB2	1.95	0.48
3:CC:57:ILE:CG1	3:CC:66:VAL:HG13	2.41	0.48
43:BI:25:TYR:HE2	43:BI:29:TYR:CD2	2.32	0.48
57:DZ:178:GLU:O	57:DZ:179:ASP:HB3	2.13	0.48
9:CI:24:GLY:O	9:CI:25:LYS:C	2.52	0.48
35:BA:2758:A:H2'	35:BA:2759:G:O4'	2.13	0.48
42:DH:105:LEU:N	42:DH:105:LEU:HD23	2.29	0.48
48:BQ:35:VAL:HG23	48:BQ:101:ARG:O	2.14	0.48
35:BA:2339:G:H2'	35:BA:2340:G:C8	2.49	0.48
41:DG:167:GLU:C	41:DG:169:ALA:N	2.67	0.48
39:BE:170:LEU:N	39:BE:170:LEU:HD22	2.29	0.48
49:BR:72:ASP:HB3	49:BR:75:LEU:HB3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BC:97:GLU:HA	37:BC:100:ILE:HG12	1.96	0.48
35:BA:2888:C:H2'	35:BA:2889:C:H6	1.78	0.48
55:BX:18:TYR:C	55:BX:20:GLY:N	2.67	0.48
41:BG:173:LEU:HB3	41:BG:178:PHE:CG	2.49	0.48
35:BA:2467:C:H4'	48:BQ:123:HIS:CD2	2.49	0.48
35:BA:1027:A:C2	35:BA:2488:A:H5'	2.49	0.48
35:DA:2660:A:C2	35:DA:2661:G:H1'	2.48	0.48
3:AC:60:ALA:O	3:AC:61:ALA:HB2	2.14	0.48
35:BA:74:A:H4'	35:BA:75:G:O5'	2.14	0.48
36:BB:59:A:H2'	36:BB:60:C:C6	2.49	0.48
4:AD:67:ILE:HG22	4:AD:68:TYR:N	2.27	0.48
35:DA:1804:C:O5'	35:DA:1804:C:H6	1.96	0.48
27:B2:5:GLU:O	27:B2:8:LYS:HB2	2.13	0.48
14:CN:17:LYS:HG3	14:CN:18:VAL:N	2.29	0.48
35:DA:1129:A:H2	35:DA:2569:G:N3	2.12	0.48
23:AX:21:C:C2'	23:AX:22:A:C2	2.93	0.48
42:BH:10:PRO:HD2	42:BH:50:VAL:O	2.13	0.48
42:DH:25:LYS:HD2	42:DH:25:LYS:N	2.28	0.48
47:BP:66:GLY:O	47:BP:67:MET:HB3	2.14	0.48
22:CV:53:G:N2	22:CV:62:C:O2	2.47	0.48
35:DA:1912:A:C2	35:DA:1919:A:C5	2.99	0.48
22:AW:33:U:H1'	22:AW:36:U:O4	2.13	0.48
40:BF:126:VAL:O	40:BF:196:LEU:HG	2.14	0.48
40:BF:24:LEU:HD12	40:BF:25:PRO:HD3	1.95	0.48
53:BV:39:LEU:HD12	53:BV:47:VAL:CG1	2.35	0.48
56:BY:15:VAL:HG12	56:BY:15:VAL:O	2.13	0.48
56:BY:39:VAL:HG12	56:BY:40:GLU:H	1.78	0.48
50:DS:97:ARG:C	50:DS:97:ARG:NE	2.67	0.48
57:BZ:109:ALA:O	57:BZ:110:GLY:C	2.50	0.48
35:BA:2360:A:O2'	35:BA:2361:A:O4'	2.25	0.48
33:D8:29:LYS:O	33:D8:30:ARG:CB	2.61	0.48
24:AY:49:ARG:O	24:AY:66:ALA:HB3	2.11	0.48
41:BG:46:ALA:C	41:BG:47:LYS:HG3	2.35	0.48
2:AB:108:ILE:HG22	2:AB:108:ILE:O	2.14	0.48
2:AB:204:ASN:ND2	2:AB:207:ALA:H	2.12	0.48
39:BE:104:VAL:HG12	39:BE:196:VAL:CG2	2.43	0.48
50:DS:17:ARG:HA	50:DS:20:ARG:HH22	1.77	0.48
9:CI:7:THR:HG22	9:CI:8:GLY:N	2.28	0.48
3:CC:173:VAL:N	3:CC:174:PRO:HD3	2.28	0.48
3:CC:148:GLY:N	3:CC:203:PHE:HB3	2.29	0.48
48:BQ:137:TYR:HE1	57:BZ:81:ARG:HH22	1.60	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:358:U:O2'	1:AA:359:U:H5'	2.14	0.48
51:BT:53:ARG:HB2	51:BT:53:ARG:NH1	2.14	0.48
35:BA:2392:A:H8	47:BP:60:MET:CB	2.26	0.48
12:CL:107:VAL:HG23	12:CL:117:TYR:HB3	1.96	0.48
45:DN:24:GLY:HA2	45:DN:27:ALA:CB	2.43	0.48
47:DP:16:ARG:HG3	47:DP:17:LYS:H	1.79	0.48
57:DZ:31:ARG:HG3	57:DZ:32:HIS:H	1.79	0.48
39:DE:34:VAL:HG11	39:DE:78:LEU:CD2	2.44	0.48
39:DE:75:VAL:C	39:DE:77:ILE:N	2.67	0.48
7:AG:146:GLU:O	7:AG:149:ARG:HB2	2.13	0.48
38:DD:210:GLY:C	38:DD:212:SER:N	2.66	0.48
11:AK:106:LYS:O	11:AK:107:SER:HB2	2.13	0.48
13:AM:57:ARG:HH22	29:B4:34:GLU:HB3	1.79	0.48
54:DW:12:ILE:CD1	54:DW:17:VAL:HG22	2.44	0.48
43:BI:131:LYS:HD3	43:BI:135:GLU:HG3	1.96	0.48
1:CA:1206:G:O6	1:CA:1207:G:C6	2.67	0.48
54:DW:64:MET:HE2	54:DW:109:GLU:HG2	1.94	0.48
35:DA:322:A:H5'	35:DA:340:A:H1'	1.95	0.48
43:DI:128:LEU:O	43:DI:137:PRO:HA	2.13	0.48
35:BA:2579:C:H1'	39:BE:134:ILE:CD1	2.44	0.48
45:BN:119:ARG:NH1	45:BN:119:ARG:HG3	2.29	0.48
56:BY:4:LYS:HZ2	56:BY:5:MET:HG2	1.78	0.48
43:DI:11:ASN:O	43:DI:12:LEU:HD23	2.13	0.48
45:BN:68:GLU:O	45:BN:69:GLN:CG	2.62	0.48
35:BA:270:A:O2'	35:BA:271:A:H5'	2.13	0.48
1:CA:1352:C:H2'	1:CA:1353:G:H8	1.79	0.48
17:CQ:78:GLU:OE2	17:CQ:81:ARG:NH1	2.47	0.48
2:AB:144:ARG:O	2:AB:147:LYS:HB3	2.13	0.48
1:AA:726:C:H2'	1:AA:727:G:C8	2.44	0.48
35:DA:1557:C:H2'	35:DA:1558:A:C2	2.49	0.48
42:BH:68:THR:O	42:BH:70:THR:N	2.47	0.48
30:B5:57:VAL:CG2	30:B5:58:LEU:N	2.76	0.48
35:BA:272(J):C:H5	35:BA:274:G:N1	2.12	0.48
12:AL:88:LYS:O	12:AL:89:ASP:HB2	2.14	0.48
14:AN:21:TYR:HE2	14:AN:23:ARG:NH2	2.12	0.48
42:DH:64:LEU:N	42:DH:64:LEU:HD22	2.29	0.48
35:BA:154(A):C:N4	35:BA:171:G:H1	2.11	0.48
43:BI:11:ASN:O	43:BI:12:LEU:HD23	2.13	0.48
35:DA:244:A:C2	35:DA:255:A:C4	3.02	0.48
47:BP:143:GLY:O	47:BP:144:GLU:HB3	2.14	0.48
17:AQ:50:LYS:O	17:AQ:51:TYR:C	2.53	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2601:C:H2'	35:DA:2603:G:C8	2.49	0.48
55:DX:18:TYR:C	55:DX:20:GLY:N	2.67	0.48
36:DB:17:C:O2'	36:DB:18:G:H5'	2.14	0.48
35:BA:614(A):U:H4'	35:BA:614(B):G:H5''	1.96	0.48
1:AA:56:U:H2'	1:AA:57:G:H8	1.79	0.48
8:AH:122:ARG:O	8:AH:126:LYS:HB2	2.14	0.48
35:BA:1844:C:H5'	38:BD:256:GLY:O	2.14	0.48
1:AA:523:A:H61	12:AL:50:ARG:NH1	2.12	0.48
35:BA:1590:U:H2'	35:BA:1591:G:H8	1.79	0.48
1:AA:1522:U:O2'	1:AA:1523:G:H5'	2.13	0.48
52:DU:11:ARG:HH11	52:DU:11:ARG:HG3	1.79	0.48
35:DA:2233:U:H2'	35:DA:2234:G:C8	2.49	0.48
35:DA:939:G:O2'	35:DA:940:G:H5'	2.13	0.48
24:AY:32:PRO:HD3	24:AY:95:TYR:CE1	2.49	0.47
13:CM:99:ARG:HB3	13:CM:101:GLN:NE2	2.29	0.47
1:CA:1189:C:OP1	10:CJ:51:ARG:NH2	2.46	0.47
56:DY:28:LYS:C	56:DY:38:ILE:HG22	2.35	0.47
1:AA:614:A:H8	1:AA:614:A:H5'	1.79	0.47
51:BT:46:GLU:OE2	51:BT:88:ILE:HG13	2.14	0.47
50:BS:106:ARG:HD2	50:BS:106:ARG:C	2.34	0.47
35:DA:904:C:H2'	35:DA:905:U:C6	2.49	0.47
40:DF:116:ASP:OD1	40:DF:119:ARG:NH2	2.47	0.47
40:DF:118:ALA:HB2	40:DF:123:LEU:HD23	1.96	0.47
1:CA:22:G:O2'	1:CA:23:C:H5'	2.14	0.47
2:CB:23:ARG:O	2:CB:23:ARG:HG3	2.14	0.47
15:CO:36:ILE:HG22	15:CO:37:ASN:HD22	1.79	0.47
24:AY:64:TYR:CD2	24:AY:64:TYR:N	2.81	0.47
1:CA:660:G:H2'	1:CA:661:G:C8	2.48	0.47
19:AS:13:ASP:C	19:AS:15:LEU:H	2.17	0.47
5:AE:103:GLY:N	5:AE:106:PRO:HG2	2.29	0.47
41:DG:100:TRP:C	41:DG:102:PHE:N	2.66	0.47
41:DG:80:PHE:C	41:DG:81:LYS:HG2	2.34	0.47
19:CS:11:VAL:HA	19:CS:38:SER:HB2	1.95	0.47
47:BP:101:VAL:HB	47:BP:107:LYS:HA	1.96	0.47
35:BA:2846:G:H2'	35:BA:2847:U:C6	2.48	0.47
22:CV:24:U:O2'	35:DA:1923:U:H5''	2.14	0.47
19:AS:41:VAL:O	19:AS:42:PRO:O	2.32	0.47
3:AC:182:ILE:HD11	3:AC:203:PHE:HD1	1.78	0.47
1:AA:1296:C:H4'	1:AA:1302:U:O4	2.13	0.47
47:DP:18:ARG:HH11	47:DP:18:ARG:CA	2.26	0.47
38:DD:133:LEU:O	38:DD:135:PHE:N	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:35:GLU:HA	3:CC:38:ARG:CD	2.44	0.47
38:BD:173:VAL:HG22	38:BD:174:ILE:H	1.78	0.47
22:CW:72:A:O2'	22:CW:73:A:H5'	2.13	0.47
35:BA:2136:C:N4	35:BA:2155:G:N1	2.61	0.47
38:BD:85:ASP:OD2	38:BD:88:ARG:HG2	2.13	0.47
41:BG:57:ALA:HA	41:BG:90:LEU:HD21	1.96	0.47
53:BV:28:GLU:O	53:BV:61:VAL:CG2	2.62	0.47
35:DA:2786:U:H2'	35:DA:2787:C:H6	1.79	0.47
53:DV:2:PHE:CB	53:DV:42:GLY:N	2.76	0.47
1:CA:1206:G:C5	1:CA:1207:G:C5	3.02	0.47
6:AF:37:VAL:HA	6:AF:65:VAL:HG12	1.96	0.47
1:CA:1250:A:H2'	1:CA:1251:A:C8	2.48	0.47
9:CI:11:LYS:O	9:CI:13:ALA:N	2.47	0.47
17:CQ:67:LYS:C	17:CQ:69:LYS:H	2.15	0.47
1:AA:403:C:O2'	1:AA:404:U:H5'	2.14	0.47
41:DG:22:ARG:NH1	41:DG:175:LEU:HD11	2.30	0.47
1:CA:1511:G:H8	1:CA:1511:G:O5'	1.97	0.47
56:DY:54:LYS:O	56:DY:55:TYR:O	2.32	0.47
49:DR:103:ARG:NH1	49:DR:103:ARG:HG2	2.28	0.47
31:B6:43:CYS:SG	31:B6:43:CYS:O	2.71	0.47
36:BB:80:U:O2'	36:BB:81:G:H5''	2.14	0.47
1:AA:708:C:H2'	1:AA:709:G:C8	2.48	0.47
43:DI:2:LYS:CB	43:DI:39:ALA:HB3	2.43	0.47
2:AB:41:ILE:O	2:AB:41:ILE:HG22	2.13	0.47
43:BI:37:VAL:CG1	43:BI:38:LEU:N	2.77	0.47
17:AQ:87:LYS:NZ	17:AQ:87:LYS:HB3	2.28	0.47
8:CH:85:ARG:CZ	8:CH:87:SER:O	2.63	0.47
18:AR:45:SER:HA	18:AR:51:LEU:HD11	1.96	0.47
18:AR:52:PRO:O	18:AR:56:THR:HG23	2.13	0.47
35:DA:1188:U:C5'	53:DV:79:VAL:HG22	2.44	0.47
18:CR:45:SER:HA	18:CR:51:LEU:HD11	1.95	0.47
39:DE:67:PHE:O	39:DE:70:ALA:HB2	2.14	0.47
35:DA:2745:C:H2'	35:DA:2746:U:H6	1.79	0.47
40:BF:53:THR:O	40:BF:55:GLY:N	2.46	0.47
38:BD:198:ASN:HD22	38:BD:198:ASN:C	2.16	0.47
26:B1:26:ARG:C	26:B1:27:GLU:HG3	2.33	0.47
35:BA:1385:G:HO2'	35:BA:1396:U:H6	1.60	0.47
4:CD:192:GLU:H	4:CD:192:GLU:CD	2.18	0.47
21:CU:9:ARG:HH12	21:CU:23:PRO:HD2	1.79	0.47
35:DA:2343:C:O2'	35:DA:2344:U:H5'	2.14	0.47
35:BA:2765:A:H2	35:BA:2766:G:O4'	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CR:52:PRO:O	18:CR:56:THR:HG23	2.14	0.47
4:AD:109:GLY:O	4:AD:111:ALA:N	2.47	0.47
35:DA:2123:G:H2'	35:DA:2124:G:H8	1.78	0.47
35:DA:830:G:H4'	35:DA:831:G:OP2	2.13	0.47
35:DA:200:U:O2	35:DA:386:G:N2	2.47	0.47
9:AI:24:GLY:O	9:AI:25:LYS:C	2.51	0.47
1:CA:869:G:H4'	1:CA:872:A:C8	2.49	0.47
1:CA:1230:C:O2'	1:CA:1231:G:H5'	2.14	0.47
1:CA:401:C:H6	1:CA:401:C:C4'	2.23	0.47
41:BG:83:ARG:HH11	41:BG:84:LYS:NZ	2.12	0.47
1:AA:1399:C:C4'	1:AA:1400:C:C5'	2.71	0.47
35:BA:300:A:OP1	56:BY:84:ARG:NH2	2.47	0.47
47:DP:57:THR:C	47:DP:59:LEU:H	2.16	0.47
1:CA:837:G:O2'	1:CA:838:G:O4'	2.30	0.47
56:DY:28:LYS:O	56:DY:38:ILE:N	2.47	0.47
40:BF:115:ALA:O	40:BF:116:ASP:C	2.52	0.47
36:BB:29:A:H2'	36:BB:30:C:O4'	2.14	0.47
53:DV:40:LEU:HA	53:DV:45:THR:HB	1.95	0.47
1:CA:17:U:H2'	1:CA:18:C:H6	1.75	0.47
1:CA:22:G:H2'	1:CA:23:C:C6	2.49	0.47
38:DD:245:PRO:O	38:DD:246:PRO:C	2.52	0.47
1:CA:660:G:C4	1:CA:661:G:C8	3.02	0.47
19:AS:11:VAL:HA	19:AS:38:SER:HB2	1.95	0.47
2:AB:100:GLY:O	2:AB:102:LEU:N	2.47	0.47
2:AB:200:ILE:HD12	2:AB:200:ILE:C	2.34	0.47
1:CA:987:G:H2'	1:CA:988:G:H8	1.79	0.47
19:CS:31:ILE:HG21	19:CS:49:ILE:HG22	1.95	0.47
3:AC:148:GLY:N	3:AC:203:PHE:HB3	2.29	0.47
10:AJ:75:ILE:HG13	10:AJ:76:ASN:H	1.79	0.47
13:AM:14:ARG:HB2	13:AM:16:ASP:OD2	2.14	0.47
35:DA:661:C:H2'	35:DA:662:G:C8	2.49	0.47
39:DE:5:LEU:HB2	39:DE:51:PHE:CD2	2.42	0.47
51:BT:77:PRO:O	51:BT:78:LEU:CB	2.62	0.47
38:DD:48:ARG:NH1	38:DD:48:ARG:HG3	2.29	0.47
30:B5:20:ARG:HH12	54:BW:15:ARG:NE	2.10	0.47
1:CA:182:U:H2'	1:CA:183:G:H5'	1.96	0.47
35:DA:2039:C:H2'	35:DA:2040:C:H6	1.79	0.47
51:DT:32:TYR:CD2	51:DT:81:PRO:HB2	2.49	0.47
35:DA:851:U:O2	35:DA:927:G:C2	2.67	0.47
24:AY:17:ASN:O	24:AY:19:LYS:HG3	2.14	0.47
29:B4:4:GLY:O	29:B4:5:ILE:HG23	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BV:5:VAL:CG2	53:BV:35:LEU:HB3	2.45	0.47
35:BA:2732:G:O2'	35:BA:2733:A:H5'	2.14	0.47
15:AO:39:LEU:CD1	15:AO:56:LEU:HB2	2.42	0.47
45:DN:48:MET:O	45:DN:48:MET:HE3	2.14	0.47
12:CL:2:PRO:O	12:CL:3:THR:O	2.32	0.47
51:BT:105:LEU:HB2	51:BT:110:ILE:HD13	1.95	0.47
35:BA:2580:U:H5'	39:BE:131:ALA:CB	2.44	0.47
1:CA:255:G:H5'	17:CQ:16:GLN:O	2.14	0.47
38:DD:267:SER:C	38:DD:269:PHE:N	2.67	0.47
5:CE:39:GLY:HA3	5:CE:71:LEU:HD11	1.95	0.47
35:DA:80:G:C2'	35:DA:81:G:H5'	2.44	0.47
51:BT:3:ARG:C	51:BT:5:ALA:N	2.65	0.47
35:DA:2208:A:H1'	35:DA:2219:G:C4	2.49	0.47
17:CQ:45:HIS:NE2	17:CQ:47:PRO:HD3	2.30	0.47
1:AA:93:G:C6	1:AA:96:U:C4	3.02	0.47
17:AQ:59:ILE:HG23	17:AQ:71:PHE:HB3	1.97	0.47
17:CQ:4:LYS:HD3	17:CQ:5:VAL:N	2.28	0.47
13:AM:99:ARG:HB3	13:AM:101:GLN:NE2	2.29	0.47
11:AK:34:ASP:HB3	11:AK:40:ILE:HD11	1.97	0.47
35:BA:1191:G:O2'	35:BA:1192:G:H5'	2.13	0.47
20:AT:47:GLY:O	20:AT:48:LYS:C	2.52	0.47
39:DE:116:VAL:HG13	39:DE:122:PHE:HB2	1.95	0.47
1:CA:1480:G:O2'	1:CA:1481:U:H5'	2.14	0.47
42:DH:106:THR:HG22	42:DH:112:PRO:CB	2.41	0.47
2:CB:41:ILE:HG22	2:CB:41:ILE:O	2.14	0.47
35:DA:1560:G:C4	35:DA:1561:G:C8	3.02	0.47
1:AA:722:A:H2'	1:AA:724:G:C8	2.49	0.47
20:CT:24:LEU:HD22	20:CT:24:LEU:O	2.12	0.47
39:DE:65:GLY:C	39:DE:67:PHE:N	2.68	0.47
35:DA:2757:A:H2'	35:DA:2757:A:N3	2.29	0.47
35:DA:332:A:O2'	35:DA:334:C:OP2	2.23	0.47
1:AA:148:G:H2'	1:AA:149:A:C8	2.49	0.47
16:AP:6:LEU:HD23	16:AP:17:TYR:CD2	2.49	0.47
1:AA:314:C:O2'	1:AA:315:A:H5'	2.13	0.47
35:DA:491:G:H2'	35:DA:492:A:H8	1.79	0.47
35:BA:1221(A):C:O2'	35:BA:1222:C:H5'	2.15	0.47
35:DA:2277:G:C2'	35:DA:2278:A:H5'	2.44	0.47
39:BE:199:ARG:NH1	39:BE:199:ARG:HB2	2.29	0.47
35:BA:319:C:H2'	35:BA:320:A:O4'	2.14	0.47
1:AA:523:A:H61	12:AL:50:ARG:HH12	1.62	0.47
35:DA:979:G:H3'	35:DA:980:A:H5''	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:573:G:O2'	35:BA:574:C:H3'	2.13	0.47
1:CA:552:U:O2	12:CL:28:PRO:HB3	2.14	0.47
9:AI:95:LYS:HD3	9:AI:95:LYS:C	2.35	0.47
35:BA:1218:C:C2'	35:BA:1219:G:H5'	2.44	0.47
35:BA:971:C:C2'	35:BA:972:G:H5'	2.44	0.47
53:BV:62:LEU:HD21	53:BV:95:LEU:HB2	1.95	0.47
1:AA:66:G:H4'	1:AA:173:U:C4	2.49	0.47
22:CV:55:U:C2	22:CV:57:A:H8	2.25	0.47
22:AV:55:U:N3	22:AV:58:A:OP2	2.48	0.47
58:CX:15:A:HO2'	58:CX:16:A:P	2.38	0.47
47:DP:35:HIS:C	47:DP:36:LYS:HG3	2.33	0.47
56:DY:13:VAL:HG22	56:DY:14:LEU:N	2.29	0.47
53:BV:49:THR:O	53:BV:50:PRO:C	2.52	0.47
35:BA:2376:A:H61	50:BS:92:TYR:HE2	1.62	0.47
57:BZ:146:ILE:O	57:BZ:147:GLY:O	2.33	0.47
35:BA:1506:C:O2	35:BA:1506:C:C2'	2.63	0.47
33:D8:33:ASN:HA	33:D8:36:LYS:CG	2.45	0.47
2:CB:192:SER:OG	2:CB:196:LEU:HD11	2.14	0.47
57:DZ:35:ARG:NE	57:DZ:36:LYS:H	2.11	0.47
5:AE:43:LEU:CD2	5:AE:132:ALA:HB1	2.43	0.47
38:DD:2:ALA:O	38:DD:3:VAL:CB	2.63	0.47
41:DG:117:PHE:CD1	41:DG:118:ARG:N	2.83	0.47
19:CS:31:ILE:HG12	19:CS:32:LYS:N	2.30	0.47
47:DP:101:VAL:HB	47:DP:107:LYS:HA	1.96	0.47
47:DP:79:ARG:HH21	47:DP:109:GLY:HA2	1.80	0.47
47:BP:99:LEU:O	47:BP:102:ARG:HB3	2.14	0.47
35:BA:2693:A:H2'	35:BA:2694:G:C8	2.50	0.47
51:BT:58:ASN:C	51:BT:58:ASN:HD22	2.18	0.47
19:AS:36:ARG:HB2	19:AS:72:GLY:N	2.28	0.47
35:DA:1241:A:O2'	35:DA:1242:A:H5'	2.14	0.47
1:AA:368:U:O4	43:DI:89:TYR:CE2	2.68	0.47
46:BO:104:ARG:HH21	51:BT:33:LYS:HZ2	1.60	0.47
47:BP:16:ARG:CZ	47:BP:16:ARG:HB2	2.44	0.47
45:BN:128:HIS:CE1	45:BN:134:ARG:HD2	2.49	0.47
11:AK:95:ILE:O	11:AK:99:GLN:HG3	2.14	0.47
37:BC:85:GLU:HG2	37:BC:153:ILE:CB	2.44	0.47
22:CW:71:C:H2'	22:CW:72:A:N7	2.29	0.47
1:CA:819:A:N7	1:CA:1529:G:N1	2.62	0.47
57:DZ:135:GLU:O	57:DZ:137:ILE:HD13	2.14	0.47
8:AH:34:GLU:CB	8:AH:118:VAL:HG21	2.43	0.47
1:CA:1208:C:H2'	1:CA:1209:C:H6	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:37:VAL:HG12	6:AF:38:GLU:N	2.29	0.47
1:CA:1312:G:H1	1:CA:1325:C:H42	1.62	0.47
35:DA:330:A:C2	35:DA:1210:A:H2'	2.39	0.47
56:DY:50:ARG:CG	56:DY:56:PRO:O	2.62	0.47
1:CA:1057:G:H5''	3:CC:154:SER:HB2	1.95	0.47
3:CC:179:ARG:HG3	3:CC:206:GLU:HG3	1.96	0.47
13:CM:69:GLU:HA	13:CM:70:LEU:N	2.29	0.47
32:D7:48:LYS:HD3	32:D7:48:LYS:H	1.79	0.47
1:AA:236:G:H2'	1:AA:237:C:H6	1.80	0.47
1:AA:1270:C:H4'	1:AA:1313:U:O2'	2.15	0.47
1:CA:93:G:C2'	1:CA:96:U:H5'	2.44	0.47
12:AL:99:ARG:HG3	12:AL:99:ARG:NH1	2.29	0.47
49:DR:87:TYR:C	49:DR:89:ASP:H	2.13	0.47
35:BA:2106:G:H22	35:BA:2183:C:H1'	1.78	0.47
4:AD:61:LYS:HE2	4:AD:62:GLN:N	2.29	0.47
20:AT:26:ASN:OD1	20:AT:71:THR:HA	2.14	0.47
35:BA:2339:G:H2'	35:BA:2340:G:H8	1.79	0.47
1:CA:340:U:H2'	1:CA:341:C:C6	2.49	0.47
7:AG:105:VAL:O	7:AG:108:ALA:HB3	2.13	0.47
2:CB:188:ALA:O	2:CB:202:PRO:HA	2.14	0.47
1:AA:1069:C:N4	1:AA:1094:G:H22	2.11	0.47
28:B3:30:ARG:HD2	28:B3:30:ARG:H	1.78	0.47
57:DZ:130:PRO:O	57:DZ:133:ILE:HG13	2.14	0.47
35:DA:971:C:H2'	35:DA:972:G:C5'	2.44	0.47
1:AA:175:C:H2'	1:AA:176:C:C6	2.48	0.47
35:BA:1252:G:C2	35:BA:1253:A:C2	3.02	0.47
35:DA:420:C:H2'	35:DA:421:U:C6	2.49	0.47
35:BA:971:C:H2'	35:BA:972:G:H5'	1.95	0.47
35:BA:2801:A:C2	35:BA:2895:U:H5''	2.50	0.47
35:DA:324:A:N6	35:DA:338:G:O2'	2.46	0.47
1:CA:1261:A:N6	1:CA:1274:G:H1'	2.30	0.47
1:CA:636:U:H5'	17:CQ:2:PRO:HG3	1.95	0.47
32:D7:40:TRP:CD2	35:DA:459:U:H5''	2.49	0.47
32:D7:40:TRP:CZ3	35:DA:459:U:H4'	2.50	0.47
42:BH:92:ILE:HG22	42:BH:93:GLY:N	2.28	0.47
1:CA:491:G:O2'	1:CA:492:G:H5'	2.13	0.47
22:AV:4:G:O2'	22:AV:5:G:H8	1.96	0.47
42:DH:8:PRO:C	42:DH:9:ILE:CG2	2.60	0.47
35:DA:865:C:O4'	35:DA:866:A:C5	2.50	0.47
41:BG:85:GLY:O	41:BG:87:PRO:HD3	2.15	0.47
40:BF:8:GLN:HB2	40:BF:124:LEU:HD11	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BP:29:LYS:HB3	47:BP:34:GLY:CA	2.44	0.47
35:BA:1464:C:H2'	35:BA:1465:G:C8	2.50	0.47
53:BV:52:VAL:HG13	53:BV:55:ALA:HB3	1.92	0.47
51:BT:29:ARG:HB2	51:BT:85:LYS:NZ	2.29	0.47
50:BS:106:ARG:NH1	50:BS:108:GLY:HA3	2.29	0.47
40:DF:24:LEU:HD13	40:DF:24:LEU:C	2.35	0.47
35:DA:867:C:C2'	35:DA:867:C:O2	2.59	0.47
1:CA:866:C:H5'	1:CA:919:A:H5''	1.95	0.47
47:DP:40:SER:CB	47:DP:41:ARG:NH2	2.77	0.47
3:CC:76:VAL:CG2	3:CC:77:ILE:HG13	2.44	0.47
2:CB:187:LEU:HD22	2:CB:205:ASP:HB3	1.95	0.47
57:DZ:67:LEU:HD23	57:DZ:90:VAL:CG2	2.44	0.47
15:CO:36:ILE:HG22	15:CO:37:ASN:N	2.29	0.47
35:DA:2305:A:H62	41:DG:42:GLY:CA	2.25	0.47
19:CS:9:VAL:O	19:CS:11:VAL:N	2.47	0.47
47:BP:96:THR:O	47:BP:98:GLU:N	2.47	0.47
47:BP:6:LEU:HG	47:BP:8:PRO:CD	2.44	0.47
43:BI:61:ARG:HA	43:BI:65:ALA:HB2	1.95	0.47
3:AC:148:GLY:CA	3:AC:203:PHE:HB3	2.44	0.47
51:BT:31:SER:N	51:BT:43:GLN:O	2.47	0.47
1:CA:1422:G:H5''	46:DO:48:PRO:HB3	1.96	0.47
3:CC:53:ALA:O	3:CC:55:VAL:HG23	2.13	0.47
31:B6:32:ASN:O	31:B6:33:LYS:HB2	2.14	0.47
41:BG:138:GLN:NE2	41:BG:151:ALA:O	2.48	0.47
38:BD:24:ILE:O	38:BD:25:THR:O	2.32	0.47
35:BA:1493:C:H2'	35:BA:1493:C:O2	2.14	0.47
1:AA:429:U:H1'	1:AA:430:A:H5''	1.95	0.47
4:AD:28:SER:OG	4:AD:30:LYS:HG3	2.14	0.47
35:DA:2768:C:C2'	35:DA:2769:C:H5'	2.44	0.47
35:DA:1021:A:H8	35:DA:1022:G:H5''	1.80	0.47
1:CA:1206:G:C6	1:CA:1207:G:C5	3.02	0.47
54:DW:64:MET:O	54:DW:65:LEU:O	2.32	0.47
15:AO:66:LEU:H	15:AO:66:LEU:HD13	1.76	0.47
1:CA:1372:U:H2'	1:CA:1373:G:O4'	2.15	0.47
1:CA:1117:G:H22	1:CA:1180:A:H1'	1.79	0.47
45:BN:34:LEU:HD13	45:BN:34:LEU:HA	1.56	0.47
27:B2:65:ASN:HB3	27:B2:69:ARG:HH21	1.74	0.47
35:DA:607:U:P	40:DF:103:LYS:HG3	2.55	0.47
14:CN:33:VAL:HG12	14:CN:40:CYS:HA	1.95	0.47
25:D0:45:PHE:HD2	25:D0:79:VAL:CG2	2.27	0.47
13:AM:23:TYR:HE1	13:AM:71:ARG:N	2.11	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2637:U:O2'	35:DA:2638:G:H5'	2.14	0.47
5:AE:6:PHE:HB2	5:AE:34:VAL:HG22	1.96	0.47
39:DE:49:LEU:N	39:DE:49:LEU:CD2	2.76	0.47
35:BA:2019:A:C4'	52:BU:34:LYS:HD2	2.45	0.47
25:D0:43:THR:CG2	35:DA:2332:U:H5'	2.44	0.47
11:AK:29:ILE:HA	11:AK:44:SER:CB	2.44	0.47
1:AA:80:G:OP1	1:AA:83:U:H5''	2.14	0.47
3:CC:46:GLU:H	3:CC:46:GLU:CD	2.17	0.47
42:DH:107:VAL:HG23	42:DH:107:VAL:O	2.14	0.47
35:BA:310:A:OP1	56:BY:18:GLY:HA2	2.14	0.47
35:DA:510:C:C5	35:DA:511:U:C5	3.03	0.47
35:BA:150:C:H2'	35:BA:151:C:H6	1.78	0.47
38:DD:28:GLU:HB2	38:DD:29:PRO:HD3	1.97	0.47
16:CP:6:LEU:HB3	16:CP:17:TYR:CD2	2.48	0.47
35:BA:158:U:H4'	35:BA:171:G:C4	2.49	0.47
1:AA:1376:U:H2'	1:AA:1377:A:H8	1.80	0.47
25:B0:56:ASP:O	25:B0:57:PHE:CB	2.62	0.47
11:AK:57:THR:CG2	11:AK:60:ALA:HB2	2.44	0.47
29:B4:13:ARG:NH1	29:B4:23:GLU:OE2	2.47	0.47
35:DA:2464:C:O2'	35:DA:2465:C:P	2.72	0.47
35:BA:2427:C:H5''	35:BA:2428:G:OP1	2.14	0.47
41:BG:174:GLU:C	41:BG:176:LEU:H	2.17	0.47
35:BA:2065:C:H2'	35:BA:2066:C:C6	2.49	0.47
35:BA:2785:C:H2'	35:BA:2786:U:C6	2.49	0.47
49:DR:49:ASP:O	49:DR:52:ILE:N	2.47	0.47
35:DA:363(B):G:C2	35:DA:363(C):G:C8	3.03	0.47
1:AA:977:A:HO2'	1:AA:978:A:H5'	1.79	0.47
35:DA:136:G:H2'	35:DA:137:C:H6	1.78	0.47
41:BG:78:SER:O	41:BG:79:ASN:C	2.52	0.47
14:AN:8:GLU:O	14:AN:12:ARG:NE	2.48	0.47
50:DS:12:PHE:CD1	50:DS:12:PHE:C	2.88	0.47
35:BA:2277:G:H2'	35:BA:2278:A:H5'	1.95	0.47
22:CV:64:G:H2'	22:CV:65:C:C6	2.50	0.47
42:BH:8:PRO:CD	42:BH:69:ARG:HD2	2.41	0.47
24:AY:44:THR:CA	24:AY:50:LYS:O	2.52	0.47
35:DA:1910:G:C3'	35:DA:1911:U:H5'	2.40	0.47
35:DA:1911:U:HO2'	35:DA:1912:A:C5'	2.23	0.47
35:DA:1913:A:O3'	35:DA:1913:A:P	2.73	0.47
13:CM:90:LEU:C	13:CM:92:HIS:N	2.68	0.47
1:CA:1504:G:O2'	1:CA:1505:G:P	2.73	0.47
19:AS:6:LYS:HD2	19:AS:7:LYS:HE3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DY:7:VAL:HG21	56:DY:8:LYS:HZ1	1.78	0.47
52:BU:74:LEU:HD22	52:BU:79:PHE:HB2	1.95	0.47
40:DF:9:ILE:HG22	40:DF:11:VAL:C	2.35	0.47
23:AX:16:A:C8	23:AX:16:A:O5'	2.56	0.47
53:DV:49:THR:O	53:DV:50:PRO:C	2.53	0.47
5:CE:107:ARG:C	5:CE:109:ILE:N	2.68	0.47
33:D8:33:ASN:HA	33:D8:36:LYS:HD2	1.96	0.47
33:D8:36:LYS:O	33:D8:37:SER:C	2.52	0.47
40:DF:66:PRO:O	40:DF:67:GLN:CB	2.52	0.47
1:CA:1081:G:H2'	1:CA:1082:G:C8	2.47	0.47
5:CE:126:ARG:HH11	5:CE:126:ARG:HG3	1.79	0.47
24:AY:49:ARG:C	24:AY:66:ALA:CB	2.64	0.47
2:CB:219:VAL:HG12	2:CB:219:VAL:O	2.15	0.47
35:BA:827:U:H2'	35:BA:2068:U:C2	2.48	0.47
19:AS:14:HIS:C	19:AS:15:LEU:HD22	2.34	0.47
2:AB:168:THR:OG1	2:AB:191:ASP:HB3	2.14	0.47
2:AB:23:ARG:O	2:AB:23:ARG:HG3	2.15	0.47
19:CS:12:ASP:O	19:CS:16:LEU:HB2	2.14	0.47
50:DS:16:ASN:OD1	50:DS:20:ARG:NH2	2.47	0.47
47:DP:107:LYS:C	47:DP:109:GLY:H	2.18	0.47
9:CI:16:ARG:HD3	9:CI:16:ARG:N	2.30	0.47
51:DT:35:LYS:HZ1	51:DT:41:ARG:NH2	2.13	0.47
35:BA:146:G:H2'	35:BA:147:U:C5'	2.44	0.47
4:AD:173:TRP:O	4:AD:174:LEU:HD23	2.14	0.47
43:DI:126:TYR:CD1	43:DI:126:TYR:N	2.82	0.47
51:BT:32:TYR:CG	51:BT:81:PRO:HB2	2.50	0.47
47:BP:18:ARG:HH11	47:BP:18:ARG:CA	2.27	0.47
47:BP:17:LYS:O	47:BP:19:VAL:CG2	2.62	0.47
11:AK:59:TYR:O	11:AK:62:GLN:HB3	2.15	0.47
25:B0:23:VAL:HB	25:B0:26:TYR:HE2	1.79	0.47
1:AA:1374:A:H1'	7:AG:31:MET:HE1	1.97	0.47
54:BW:12:ILE:CD1	54:BW:17:VAL:HG22	2.44	0.47
35:BA:926:A:H2'	35:BA:927:G:C8	2.48	0.47
26:D1:67:ILE:N	26:D1:68:PRO:CD	2.76	0.47
35:DA:1494:A:H1'	35:DA:1496:A:N1	2.29	0.47
1:AA:1187:G:H4'	9:AI:111:ARG:HH11	1.79	0.47
41:BG:138:GLN:O	41:BG:144:ILE:HD12	2.15	0.47
36:BB:45:A:C4	36:BB:46:A:C8	3.02	0.47
41:BG:72:ARG:HG2	41:BG:86:MET:HA	1.96	0.47
43:BI:131:LYS:HB3	43:BI:132:PRO:CA	2.44	0.47
9:AI:11:LYS:O	9:AI:13:ALA:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D0:20:ARG:NH1	35:DA:2357:U:OP1	2.47	0.47
42:BH:140:LYS:O	42:BH:144:VAL:HG23	2.14	0.47
46:DO:86:ILE:H	46:DO:86:ILE:HD12	1.79	0.47
21:CU:6:ARG:HG2	21:CU:15:ARG:NH1	2.29	0.47
35:BA:2637:U:C2'	35:BA:2638:G:H5'	2.44	0.47
35:DA:2789:C:N3	35:DA:2894:G:O6	2.47	0.47
48:DQ:55:VAL:HG12	48:DQ:64:ILE:CD1	2.43	0.47
1:AA:1057:G:H5''	3:AC:154:SER:CB	2.44	0.47
25:B0:45:PHE:HD2	25:B0:79:VAL:CG2	2.27	0.47
35:BA:364:C:H2'	35:BA:365:C:H5'	1.95	0.47
31:B6:43:CYS:C	31:B6:45:LYS:H	2.18	0.47
28:B3:35:ARG:HB3	28:B3:37:LEU:HD21	1.95	0.47
42:BH:149:ARG:HA	42:BH:162:ILE:CG1	2.44	0.47
35:DA:271(G):C:H2'	35:DA:271(H):G:C8	2.49	0.47
16:AP:80:PHE:CD1	16:AP:80:PHE:N	2.82	0.47
1:CA:775:G:H2'	1:CA:776:G:H8	1.78	0.47
42:BH:107:VAL:O	42:BH:107:VAL:HG23	2.14	0.47
20:CT:30:LYS:HA	20:CT:30:LYS:CE	2.45	0.47
35:BA:2314:C:H2'	35:BA:2315:G:H8	1.80	0.47
35:DA:1582:C:H2'	35:DA:1583:A:C8	2.46	0.47
1:CA:312:C:O2'	1:CA:313:A:H5'	2.14	0.47
20:CT:74:LYS:C	20:CT:76:ALA:H	2.16	0.47
1:CA:600:C:O2'	1:CA:601:C:H5'	2.14	0.47
49:DR:72:ASP:HB3	49:DR:75:LEU:HB3	1.96	0.47
54:BW:33:ARG:O	54:BW:37:ARG:HG3	2.15	0.47
36:BB:87:G:N1	36:BB:91:C:N4	2.62	0.47
27:D2:4:SER:C	27:D2:6:VAL:H	2.18	0.47
35:DA:39:C:H2'	35:DA:40:C:C6	2.49	0.47
1:AA:848:C:H2'	1:AA:849:C:C6	2.48	0.47
40:BF:20:LEU:HG	40:BF:23:ASP:OD2	2.13	0.47
35:BA:221:A:H61	35:BA:265:A:H8	1.58	0.47
35:DA:2124:G:H2'	35:DA:2125:G:O4'	2.15	0.47
39:BE:144:ARG:HB3	39:BE:145:LYS:H	1.50	0.47
22:AV:4:G:O2'	22:AV:5:G:P	2.73	0.47
54:BW:85:VAL:HG12	54:BW:86:LEU:N	2.29	0.47
1:CA:169:C:H2'	1:CA:170:U:H5'	1.97	0.47
35:BA:2123:G:H5'	37:BC:166:ASP:CB	2.44	0.47
35:DA:836:G:H2'	35:DA:837:C:C6	2.50	0.47
42:DH:92:ILE:HG22	42:DH:93:GLY:N	2.29	0.47
1:AA:719:C:O2'	18:AR:49:LYS:HB3	2.14	0.47
35:BA:2280:G:O2'	35:BA:2281:C:H5'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2393:A:H4'	47:BP:61:ARG:O	2.15	0.47
1:CA:1225:A:H3'	1:CA:1226:C:C5	2.49	0.47
56:DY:86:ARG:NH2	56:DY:95:LYS:HE3	2.29	0.47
53:BV:41:GLY:HA3	53:BV:45:THR:OG1	2.15	0.47
57:BZ:171:ILE:CG1	57:BZ:172:ALA:N	2.76	0.47
57:BZ:33:LEU:HD12	57:BZ:34:ASN:H	1.79	0.47
57:BZ:30:ASN:N	57:BZ:33:LEU:O	2.43	0.47
35:DA:1506:C:O2	35:DA:1506:C:C2'	2.62	0.47
40:BF:68:LYS:HB3	40:BF:69:HIS:H	1.29	0.47
2:CB:51:LEU:HD23	2:CB:201:ILE:CD1	2.45	0.47
15:CO:36:ILE:HD12	15:CO:63:ARG:HD3	1.95	0.47
35:BA:2192:G:H2'	35:BA:2193:G:C5'	2.27	0.47
35:BA:1568:G:H5''	38:BD:61:LEU:HD22	1.97	0.47
46:DO:32:TYR:N	46:DO:32:TYR:HD1	2.13	0.47
1:CA:1220:G:H5'	19:CS:34:TRP:O	2.13	0.47
13:CM:86:CYS:HA	19:CS:73:GLU:O	2.14	0.47
36:BB:20:C:H2'	36:BB:21:G:C5'	2.30	0.47
19:CS:14:HIS:CD2	19:CS:15:LEU:HD23	2.49	0.47
35:DA:146:G:H2'	35:DA:147:U:C5'	2.44	0.47
3:CC:182:ILE:HD11	3:CC:203:PHE:HD1	1.79	0.47
48:BQ:137:TYR:CE1	57:BZ:81:ARG:NH2	2.82	0.47
43:DI:79:ILE:HG13	43:DI:92:VAL:HG22	1.96	0.47
47:DP:17:LYS:O	47:DP:19:VAL:CG2	2.63	0.47
39:DE:34:VAL:CG1	39:DE:48:GLN:HE21	2.27	0.47
1:CA:1410:G:H2'	1:CA:1411:C:C6	2.49	0.47
38:DD:133:LEU:C	38:DD:135:PHE:H	2.18	0.47
5:AE:52:PRO:HG2	5:AE:53:LEU:H	1.80	0.47
35:BA:2142:C:N4	35:BA:2148:G:H1	2.12	0.47
46:DO:101:PRO:O	46:DO:102:VAL:HG13	2.14	0.47
49:BR:100:LEU:N	49:BR:100:LEU:HD12	2.30	0.47
35:DA:2376:A:H61	50:DS:92:TYR:HE2	1.60	0.47
56:BY:45:VAL:CG1	56:BY:60:PHE:HB3	2.38	0.47
18:AR:67:ALA:HA	18:AR:70:ILE:HD12	1.94	0.47
1:CA:1206:G:O2'	1:CA:1207:G:O5'	2.32	0.47
54:DW:64:MET:C	54:DW:65:LEU:HD23	2.34	0.47
43:BI:6:LEU:HD12	43:BI:34:GLY:O	2.15	0.47
9:CI:11:LYS:C	9:CI:13:ALA:H	2.17	0.47
7:AG:15:ASP:OD2	7:AG:16:LEU:N	2.47	0.47
21:AU:20:LYS:O	21:AU:22:ARG:N	2.48	0.47
40:DF:160:ASN:ND2	40:DF:162:LEU:H	2.13	0.47
55:BX:47:PHE:CD2	55:BX:89:ILE:HG23	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:CP:3:LYS:O	16:CP:21:VAL:HA	2.14	0.47
16:CP:28:ARG:C	16:CP:30:GLY:H	2.17	0.47
39:BE:103:ASP:CG	39:BE:201:THR:HA	2.35	0.47
1:CA:93:G:C6	1:CA:96:U:C4	3.03	0.47
46:BO:4:PRO:O	46:BO:5:GLN:CB	2.60	0.47
20:CT:70:SER:HA	20:CT:73:HIS:HD2	1.79	0.47
47:DP:111:ARG:HG3	47:DP:111:ARG:NH2	2.26	0.47
35:DA:365:C:H2'	35:DA:366:C:O4'	2.15	0.47
34:D9:22:ARG:HH12	35:DA:2741:A:H5''	1.79	0.47
42:DH:149:ARG:HA	42:DH:162:ILE:CG1	2.44	0.47
35:BA:28:A:N6	35:BA:512:G:H1'	2.29	0.47
35:DA:2574:G:O2'	39:DE:143:ASN:HB3	2.15	0.47
36:DB:81:G:H2'	36:DB:82:G:H5'	1.97	0.47
46:BO:71:ARG:NE	46:BO:105:GLU:OE2	2.48	0.47
1:CA:1380:U:C2	7:CG:3:ARG:HD3	2.50	0.47
42:BH:95:ARG:C	42:BH:95:ARG:HD2	2.35	0.47
35:BA:720:C:H2'	35:BA:721:C:C6	2.50	0.47
34:D9:17:ILE:C	34:D9:17:ILE:HD13	2.35	0.47
26:B1:30:VAL:HG23	26:B1:31:GLY:N	2.29	0.47
20:AT:74:LYS:C	20:AT:76:ALA:H	2.17	0.47
24:AY:2:PHE:C	24:AY:2:PHE:HD2	2.17	0.47
1:AA:439:A:C2'	1:AA:441:A:H5'	2.45	0.47
40:BF:53:THR:C	40:BF:55:GLY:N	2.68	0.47
42:BH:64:LEU:HD22	42:BH:64:LEU:N	2.29	0.47
46:DO:7:TYR:CE1	46:DO:20:MET:HB2	2.49	0.47
35:DA:2310:A:H2'	35:DA:2310:A:N3	2.30	0.47
6:AF:45:LEU:C	6:AF:45:LEU:HD23	2.35	0.47
18:AR:88:LYS:HD3	18:AR:88:LYS:OXT	2.15	0.47
48:DQ:111:GLU:O	48:DQ:115:MET:HG2	2.15	0.47
35:DA:842:G:O2'	35:DA:843:G:H5'	2.15	0.47
53:BV:62:LEU:HD21	53:BV:95:LEU:HD12	1.97	0.47
1:AA:1460:A:H2'	1:AA:1461:G:O4'	2.14	0.47
1:CA:524:G:H2'	1:CA:525:C:C6	2.48	0.47
1:CA:160:A:H1'	1:CA:344:A:C5	2.50	0.47
36:BB:25:A:H2'	36:BB:26:A:O4'	2.14	0.47
1:CA:316:G:OP2	1:CA:351:G:O2'	2.31	0.47
54:BW:45:TYR:CZ	54:BW:49:LYS:HE3	2.50	0.47
35:DA:433:C:H2'	35:DA:434:U:C6	2.49	0.47
35:BA:2138:C:H2'	35:BA:2139:C:C6	2.50	0.47
54:DW:83:LYS:O	54:DW:84:ARG:HD3	2.14	0.47
1:CA:523:A:H61	12:CL:50:ARG:NH1	2.12	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:161:THR:O	38:DD:162:SER:HB3	2.15	0.47
55:BX:23:GLU:C	55:BX:25:LYS:H	2.18	0.47
40:DF:46:ARG:HG3	40:DF:46:ARG:NH1	2.29	0.47
53:DV:97:LYS:HA	53:DV:97:LYS:HD3	1.75	0.47
39:BE:178:GLU:N	39:BE:178:GLU:OE1	2.48	0.47
1:AA:160:A:H1'	1:AA:344:A:C5	2.49	0.47
1:CA:130:A:C8	17:CQ:63:ARG:HG3	2.49	0.47
1:AA:909:A:H2'	1:AA:910:C:O4'	2.13	0.47
42:DH:50:VAL:HG12	42:DH:51:ARG:N	2.28	0.47
22:CV:54:U:C2'	22:CV:55:U:C4'	2.90	0.47
1:CA:1502:A:H5'	1:CA:1504:G:N7	2.30	0.47
58:CX:16:A:C4	58:CX:17:U:H6	2.22	0.47
1:AA:614:A:OP2	4:AD:85:LYS:NZ	2.48	0.47
52:BU:93:LYS:H	52:BU:93:LYS:HD2	1.79	0.47
33:D8:63:PRO:O	33:D8:64:TYR:O	2.32	0.47
50:BS:87:PHE:CG	50:BS:88:ASP:N	2.80	0.47
35:BA:336:C:H4'	56:BY:7:VAL:HG21	1.96	0.47
50:DS:96:GLY:C	50:DS:98:VAL:H	2.17	0.47
53:DV:39:LEU:O	53:DV:40:LEU:CB	2.61	0.47
51:DT:20:PRO:CD	51:DT:85:LYS:HB3	2.45	0.47
1:CA:15:G:OP1	1:CA:1396:A:H2'	2.14	0.47
47:BP:38:GLN:CG	47:BP:39:LYS:N	2.74	0.47
30:D5:3:LYS:HB3	30:D5:4:HIS:H	1.46	0.47
30:D5:2:ALA:CA	35:DA:2015:A:H1'	2.43	0.47
2:CB:175:ARG:O	2:CB:176:GLU:C	2.52	0.47
57:DZ:58:VAL:HG12	57:DZ:66:SER:HB3	1.96	0.47
50:BS:17:ARG:O	50:BS:20:ARG:HB2	2.14	0.47
57:DZ:5:LEU:HD23	57:DZ:6:LYS:HE2	1.97	0.47
5:AE:102:ALA:HA	5:AE:120:THR:OG1	2.15	0.47
5:AE:100:VAL:HG12	5:AE:118:ILE:HG22	1.97	0.47
38:DD:3:VAL:CG1	38:DD:17:THR:HB	2.44	0.47
41:BG:45:GLU:O	41:BG:46:ALA:HB3	2.14	0.47
2:AB:164:VAL:O	2:AB:186:ALA:HB1	2.14	0.47
2:AB:193:ASP:O	2:AB:196:LEU:HG	2.14	0.47
41:DG:111:LEU:N	41:DG:112:PRO:HD2	2.29	0.47
30:B5:2:ALA:N	35:BA:747:U:N3	2.62	0.47
13:CM:83:ASP:OD1	19:CS:74:PHE:HE1	1.96	0.47
4:CD:134:ASP:C	4:CD:135:LEU:HD13	2.35	0.47
30:D5:50:GLY:O	30:D5:56:LYS:HD3	2.14	0.47
19:AS:36:ARG:HE	19:AS:72:GLY:HA3	1.80	0.47
1:CA:1107:C:OP1	3:CC:174:PRO:HG3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:33:THR:CG2	19:AS:34:TRP:H	2.28	0.47
19:AS:41:VAL:HG22	19:AS:42:PRO:CD	2.45	0.47
3:CC:130:VAL:CG1	3:CC:153:VAL:HG21	2.45	0.47
35:DA:1204:A:N1	35:DA:1241:A:C2	2.82	0.47
8:AH:61:VAL:O	8:AH:63:LEU:HD22	2.15	0.47
43:BI:126:TYR:O	43:BI:140:LEU:O	2.33	0.47
43:BI:76:THR:HA	43:BI:141:LYS:NZ	2.29	0.47
35:DA:1998:G:H2'	35:DA:1999:C:C6	2.50	0.47
43:DI:83:ALA:HB3	43:DI:144:VAL:CG1	2.45	0.47
9:AI:53:VAL:CG2	9:AI:54:ASP:N	2.78	0.47
48:BQ:55:VAL:O	48:BQ:56:ARG:C	2.53	0.47
48:BQ:60:ARG:HA	57:BZ:178:GLU:O	2.15	0.47
39:DE:203:LYS:HD2	39:DE:203:LYS:C	2.34	0.47
29:B4:35:VAL:CG1	29:B4:36:CYS:N	2.77	0.47
41:BG:105:LYS:O	41:BG:109:VAL:HB	2.14	0.47
4:AD:192:GLU:CD	4:AD:192:GLU:H	2.17	0.47
37:DC:78:ALA:HB3	37:DC:82:LYS:HE3	1.96	0.47
38:DD:43:ARG:CZ	38:DD:44:ASN:HD21	2.28	0.47
39:BE:64:LYS:C	39:BE:66:HIS:N	2.67	0.47
30:B5:16:ARG:HG2	30:B5:16:ARG:HH11	1.79	0.47
35:BA:1998:G:H2'	35:BA:1999:C:H6	1.79	0.47
35:BA:1777:U:O2'	35:BA:1778:U:H5'	2.14	0.47
35:BA:851:U:O2	35:BA:927:G:C2	2.68	0.47
29:D4:55:ARG:HD3	29:D4:55:ARG:C	2.35	0.47
38:DD:120:GLY:HA2	38:DD:190:TYR:OH	2.14	0.47
1:CA:225:C:H2'	1:CA:226:G:H8	1.80	0.47
35:DA:1784:A:H4'	35:DA:1785:A:O5'	2.15	0.47
1:AA:979:C:C2'	1:AA:980:C:H5''	2.44	0.47
27:D2:36:ARG:NH2	55:DX:9:LEU:HA	2.19	0.47
46:DO:104:ARG:NH2	51:DT:33:LYS:HZ3	2.06	0.47
22:CW:69:C:H2'	22:CW:70:G:C8	2.49	0.47
29:B4:5:ILE:C	41:BG:67:LYS:HZ1	2.17	0.47
53:BV:23:GLU:O	53:BV:24:LYS:O	2.32	0.47
29:B4:31:ILE:CG2	29:B4:33:VAL:HG23	2.40	0.47
4:AD:14:ARG:H	4:AD:40:PRO:HD3	1.78	0.47
4:AD:4:TYR:O	4:AD:5:ILE:HB	2.15	0.47
35:BA:2632:A:H2	39:BE:61:ARG:HD2	1.80	0.47
45:BN:36:GLY:HA3	45:BN:48:MET:HE1	1.96	0.47
53:DV:29:PRO:O	53:DV:61:VAL:HG23	2.14	0.47
35:BA:543:C:O2'	35:BA:547:A:P	2.73	0.47
43:BI:110:ASP:HB3	43:BI:130:TYR:HE1	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:13:LEU:HD13	20:CT:17:ARG:NH1	2.24	0.47
38:BD:2:ALA:O	38:BD:3:VAL:HB	2.14	0.47
38:BD:5:LYS:HD2	38:BD:17:THR:HG22	1.95	0.47
38:DD:25:THR:HG22	38:DD:26:LYS:CD	2.41	0.47
1:CA:740:U:O3'	15:CO:39:LEU:HD23	2.15	0.47
9:AI:79:LEU:HD12	9:AI:103:THR:O	2.15	0.47
45:DN:67:LEU:H	45:DN:67:LEU:CD1	2.24	0.47
35:DA:1170:G:H5''	35:DA:1173:G:H22	1.79	0.47
57:DZ:77:ASP:OD2	57:DZ:79:ARG:O	2.32	0.47
43:DI:131:LYS:HB3	43:DI:132:PRO:CA	2.45	0.47
43:DI:66:GLU:C	43:DI:68:LEU:H	2.17	0.47
9:CI:10:ARG:HA	9:CI:104:ARG:HH12	1.80	0.47
22:AW:5:G:N2	22:AW:69:C:H42	2.12	0.47
17:AQ:7:THR:HG22	17:AQ:58:GLU:HA	1.95	0.47
46:DO:88:ASN:OD1	46:DO:92:GLU:N	2.37	0.47
21:AU:20:LYS:HD3	21:AU:21:TYR:CE1	2.50	0.47
21:CU:6:ARG:HE	21:CU:15:ARG:CZ	2.27	0.47
41:DG:10:LYS:O	41:DG:14:GLU:HB3	2.14	0.47
41:DG:32:PRO:HB3	41:DG:163:ALA:HB2	1.97	0.47
49:DR:55:ALA:CB	49:DR:79:LEU:HD13	2.39	0.47
38:BD:206:LEU:HA	38:BD:211:ARG:NH1	2.30	0.47
1:AA:1105:A:H2'	1:AA:1106:G:H8	1.80	0.47
1:CA:404:U:H2'	1:CA:405:U:C6	2.49	0.47
35:DA:2206:G:H21	35:DA:2207:G:C5'	2.27	0.47
3:AC:179:ARG:HG3	3:AC:206:GLU:HG3	1.97	0.47
29:D4:46:GLN:O	29:D4:47:GLN:HG2	2.15	0.47
39:BE:27:LEU:HD23	51:BT:1:MET:SD	2.55	0.47
51:BT:1:MET:O	51:BT:2:ASN:O	2.32	0.47
16:AP:5:ARG:CZ	16:AP:22:THR:HG21	2.44	0.47
17:AQ:67:LYS:C	17:AQ:69:LYS:H	2.15	0.47
1:CA:421:U:C2'	1:CA:421:U:O2	2.63	0.47
51:DT:5:ALA:O	51:DT:8:LYS:N	2.48	0.47
35:DA:2877:G:O2'	35:DA:2878:U:H5'	2.15	0.47
28:D3:26:LEU:CB	28:D3:28:LEU:HD23	2.44	0.47
18:CR:86:VAL:HG12	18:CR:87:ARG:N	2.29	0.47
17:AQ:76:LEU:HD21	17:AQ:79:SER:HB2	1.97	0.47
17:CQ:59:ILE:HG22	17:CQ:71:PHE:CD1	2.49	0.47
22:CW:59:A:H2'	22:CW:60:U:H5'	1.97	0.47
17:CQ:54:GLY:O	17:CQ:81:ARG:HB2	2.14	0.47
1:CA:473:G:O2'	1:CA:474:G:H5'	2.14	0.47
18:AR:36:ASN:HB3	18:AR:39:VAL:HG21	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:166:GLN:HA	38:DD:166:GLN:NE2	2.29	0.47
35:DA:285:C:H2'	35:DA:286:C:C6	2.49	0.47
1:AA:765:G:N2	1:AA:813:U:H5	2.12	0.47
38:BD:166:GLN:NE2	38:BD:166:GLN:HA	2.30	0.47
1:AA:556:C:O2	1:AA:556:C:H2'	2.15	0.47
20:CT:51:GLU:O	20:CT:54:LYS:HB3	2.14	0.47
47:DP:125:VAL:CG1	47:DP:138:LEU:HD21	2.44	0.47
36:DB:30:C:OP2	50:DS:32:LEU:HD11	2.15	0.47
1:CA:81:U:H2'	1:CA:82:U:C6	2.50	0.47
42:BH:104:GLU:HA	42:BH:113:VAL:O	2.14	0.47
35:BA:2755:C:O2'	35:BA:2756:U:H2'	2.15	0.47
53:DV:21:ARG:HG2	53:DV:91:TYR:CD2	2.49	0.47
35:DA:2257:U:H2'	35:DA:2258:C:C6	2.49	0.47
35:BA:310:A:P	56:BY:18:GLY:HA2	2.55	0.47
40:BF:74:ARG:O	40:BF:74:ARG:HG3	2.15	0.47
38:BD:28:GLU:HB2	38:BD:29:PRO:HD3	1.97	0.47
1:CA:682:G:H2'	1:CA:683:G:H8	1.80	0.47
1:CA:336:C:H2'	1:CA:337:C:C6	2.50	0.47
35:DA:1188:U:H4'	53:DV:79:VAL:CG2	2.44	0.47
25:B0:16:SER:HB2	35:BA:2262:U:H5	1.80	0.47
8:AH:109:ILE:HD11	8:AH:120:THR:HB	1.97	0.47
35:BA:2773:C:O2'	35:BA:2774:C:H5'	2.15	0.47
16:CP:6:LEU:HD23	16:CP:17:TYR:CD2	2.50	0.47
35:BA:640:C:H2'	35:BA:641:C:H6	1.78	0.47
40:BF:53:THR:C	40:BF:55:GLY:H	2.17	0.47
2:AB:188:ALA:O	2:AB:202:PRO:HA	2.15	0.47
1:AA:560:U:O2'	1:AA:561:U:OP2	2.26	0.47
6:AF:100:ASN:ND2	18:AR:23:LYS:HZ2	2.10	0.47
50:BS:41:ASP:CB	50:BS:48:LEU:HD11	2.45	0.47
29:B4:14:ILE:HD13	29:B4:22:ILE:O	2.13	0.47
1:CA:1298:C:H4'	1:CA:1299:A:C4	2.50	0.47
46:BO:16:ALA:HB2	46:BO:52:VAL:CG2	2.45	0.47
46:DO:63:VAL:HG11	46:DO:85:VAL:CG2	2.44	0.47
35:DA:832:G:N3	47:DP:53:GLY:HA2	2.30	0.47
36:DB:87:G:N1	36:DB:91:C:N4	2.63	0.47
1:AA:1298:C:H4'	1:AA:1299:A:C4	2.49	0.47
11:CK:20:TYR:O	11:CK:30:VAL:HA	2.14	0.47
51:DT:72:VAL:HG12	51:DT:73:GLU:N	2.29	0.47
22:AW:53:G:H22	22:AW:62:C:H1'	1.79	0.47
50:DS:42:ASP:C	50:DS:44:LYS:N	2.68	0.47
9:AI:6:GLY:CA	9:AI:83:ARG:HG2	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:778:G:O2'	1:AA:779:C:H5'	2.13	0.47
50:DS:25:ARG:HH11	50:DS:25:ARG:HB3	1.80	0.47
1:CA:1525:G:P	11:CK:120:ARG:HH22	2.37	0.47
7:CG:75:VAL:O	7:CG:75:VAL:HG23	2.15	0.47
35:BA:614:U:O4'	35:BA:614:U:O2	2.32	0.47
1:CA:424:G:O2'	1:CA:425:G:H5'	2.14	0.47
1:CA:908:A:H2'	1:CA:909:A:H8	1.79	0.47
1:AA:1522:U:H2'	1:AA:1523:G:H8	1.80	0.47
36:BB:24:G:H4'	36:BB:25:A:C8	2.50	0.47
46:BO:63:VAL:HG11	46:BO:85:VAL:HG23	1.97	0.47
35:DA:2801:A:C2	35:DA:2895:U:H5''	2.50	0.47
35:BA:21:A:O2'	35:BA:22:C:H5'	2.13	0.47
14:AN:17:LYS:HG3	14:AN:18:VAL:N	2.29	0.47
1:AA:62:U:H5''	1:AA:385:C:O2	2.14	0.47
17:CQ:99:SER:C	17:CQ:100:LYS:HG3	2.34	0.47
1:AA:78:G:H2'	1:AA:79:G:H4'	1.96	0.47
35:BA:755:C:H2'	35:BA:756:C:C6	2.49	0.47
46:DO:9:GLU:O	46:DO:83:ALA:HA	2.14	0.47
1:CA:446:G:H1	1:CA:488:C:H42	1.60	0.47
1:AA:528:C:O2'	1:AA:529:G:H5'	2.13	0.47
35:BA:1344:G:H4'	35:BA:1384:A:C5	2.50	0.47
38:DD:62:TYR:HA	38:DD:87:ASN:HD21	1.80	0.47
35:DA:2201:C:O2'	35:DA:2202:C:H5'	2.15	0.47
7:CG:140:ASP:HA	7:CG:143:ARG:HH11	1.79	0.47
8:AH:1:MET:H3	8:AH:1:MET:HE2	1.80	0.47
50:BS:12:PHE:CD1	50:BS:12:PHE:C	2.88	0.47
22:AV:34:C:H2'	22:AV:34:C:O2	2.14	0.47
6:CF:11:ASN:C	6:CF:13:ASN:H	2.18	0.47
35:DA:2705:A:H2'	35:DA:2706:G:O4'	2.14	0.47
27:D2:48:HIS:HD1	35:DA:95:G:HO2'	1.60	0.47
56:DY:39:VAL:HG12	56:DY:40:GLU:N	2.30	0.47
51:BT:23:ARG:H	51:BT:120:ARG:HH12	1.63	0.47
2:AB:177:ALA:O	2:AB:180:LEU:HB2	2.15	0.47
51:DT:28:VAL:HG13	51:DT:46:GLU:N	2.30	0.47
51:DT:85:LYS:NZ	51:DT:85:LYS:C	2.69	0.47
57:BZ:101:PRO:O	57:BZ:102:LEU:HD23	2.14	0.47
1:CA:35:G:C6	1:CA:550:G:C2	3.02	0.47
1:CA:14:U:H2'	1:CA:16:A:OP2	2.15	0.47
2:CB:100:GLY:O	2:CB:102:LEU:N	2.48	0.47
2:CB:28:PHE:CG	2:CB:28:PHE:O	2.68	0.47
2:CB:28:PHE:CD1	2:CB:28:PHE:O	2.68	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:83:ARG:O	3:AC:86:VAL:HG22	2.14	0.47
3:AC:90:GLU:HA	3:AC:93:LYS:HZ3	1.79	0.47
19:CS:36:ARG:HB2	19:CS:72:GLY:N	2.27	0.47
47:DP:126:VAL:HG13	47:DP:145:PRO:HG2	1.96	0.47
7:CG:118:VAL:O	7:CG:121:ALA:HB3	2.15	0.47
13:CM:3:ARG:NE	13:CM:7:VAL:HG13	2.30	0.47
1:AA:358:U:H5''	43:DI:87:LYS:CD	2.44	0.47
26:B1:67:ILE:N	26:B1:68:PRO:HD2	2.30	0.47
57:DZ:29:TYR:O	57:DZ:30:ASN:HB3	2.14	0.47
4:CD:98:GLU:HG2	4:CD:194:LEU:HD11	1.96	0.47
45:BN:128:HIS:CD2	45:BN:130:HIS:HB2	2.45	0.47
50:DS:87:PHE:CG	50:DS:88:ASP:N	2.82	0.47
8:AH:101:PRO:HG2	8:AH:133:LEU:HD11	1.97	0.47
8:AH:86:ILE:O	8:AH:88:LYS:HG3	2.14	0.47
53:BV:35:LEU:C	53:BV:37:VAL:N	2.66	0.47
7:CG:79:ARG:HB2	7:CG:84:ASN:ND2	2.30	0.47
36:DB:57:A:H4'	41:DG:30:GLU:OE1	2.15	0.47
54:BW:64:MET:O	54:BW:65:LEU:O	2.32	0.47
43:BI:6:LEU:O	43:BI:8:PRO:N	2.48	0.47
7:AG:16:LEU:HD12	9:AI:42:ARG:HA	1.96	0.47
6:CF:37:VAL:HG12	6:CF:38:GLU:N	2.30	0.47
40:BF:161:GLU:O	40:BF:165:ARG:HG3	2.14	0.47
41:DG:173:LEU:O	41:DG:176:LEU:N	2.47	0.47
1:CA:765:G:N2	1:CA:813:U:H5	2.12	0.47
16:CP:4:ILE:N	16:CP:65:GLN:O	2.45	0.47
35:DA:2637:U:C2'	35:DA:2638:G:H5'	2.44	0.47
13:CM:69:GLU:CG	13:CM:72:ALA:HB3	2.45	0.47
35:BA:2880:C:O2'	49:BR:90:ARG:HD3	2.15	0.47
40:DF:36:VAL:HG11	40:DF:183:VAL:HG11	1.96	0.47
7:CG:54:THR:CG2	7:CG:56:GLN:HG2	2.42	0.47
35:BA:271(F):C:O2'	35:BA:271(G):C:H5'	2.15	0.47
40:BF:114:VAL:HG11	40:BF:202:PHE:CE2	2.50	0.47
35:BA:860:U:O2'	35:BA:861:A:H5'	2.15	0.47
9:AI:23:ASN:N	9:AI:23:ASN:HD22	2.05	0.47
24:AY:94:LYS:O	24:AY:94:LYS:CG	2.60	0.47
35:BA:1144:G:H2'	35:BA:1145:C:C6	2.50	0.47
42:DH:89:ILE:HD11	42:DH:94:TYR:O	2.14	0.47
35:DA:26:G:C6	35:DA:27:G:N1	2.82	0.47
1:CA:46:G:H2'	1:CA:366:C:H5	1.79	0.47
1:CA:47:C:H42	1:CA:362:G:N2	2.11	0.47
1:CA:1329:A:H5''	13:CM:26:GLY:H	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:100:ASN:HB2	18:AR:27:GLY:O	2.15	0.47
10:AJ:16:LEU:HD21	10:AJ:94:VAL:HG13	1.96	0.47
35:BA:7:G:H2'	35:BA:8:A:H8	1.78	0.47
1:AA:166:G:H2'	1:AA:167:G:C8	2.49	0.47
1:AA:1329:A:H2'	1:AA:1330:U:O4'	2.15	0.47
1:CA:580:U:H2'	1:CA:581:G:O4'	2.15	0.47
1:AA:969:A:H2'	1:AA:970:C:O4'	2.14	0.47
55:BX:63:LYS:HA	55:BX:72:LYS:HA	1.95	0.47
35:DA:614:U:H3'	35:DA:614(A):U:H6	1.80	0.47
36:BB:32:C:C4	36:BB:51:G:N2	2.82	0.47
27:B2:13:ALA:C	27:B2:15:LYS:N	2.68	0.47
55:BX:34:ALA:HA	55:BX:38:GLU:OE1	2.14	0.47
35:BA:679:C:O2'	35:BA:680:G:H5'	2.15	0.47
35:DA:2128:C:H2'	35:DA:2129:C:H5'	1.97	0.47
35:DA:1029:A:H8	35:DA:1029:A:O5'	1.98	0.47
35:BA:1914:C:H3'	35:BA:1914:C:OP1	2.15	0.47
35:BA:256:A:O2'	35:BA:257:A:H5'	2.15	0.47
35:DA:1912:A:O2'	35:DA:1913:A:OP1	2.30	0.47
56:BY:96:ILE:HG22	56:BY:97:ARG:HG3	1.97	0.47
1:CA:1403:C:N4	58:CX:18:G:P	2.82	0.47
23:AX:13:A:N3	23:AX:13:A:H3'	2.30	0.47
35:BA:1190:G:H5'	47:BP:35:HIS:CA	2.45	0.47
8:CH:51:VAL:HG11	8:CH:60:ARG:CD	2.19	0.47
40:DF:24:LEU:HD12	40:DF:25:PRO:CD	2.44	0.47
35:DA:868:U:O4	35:DA:869:G:N7	2.46	0.47
2:CB:167:PRO:HG2	2:CB:168:THR:H	1.79	0.47
2:CB:172:ILE:O	2:CB:175:ARG:HB3	2.15	0.47
3:CC:86:VAL:O	3:CC:90:GLU:HG2	2.15	0.47
19:CS:13:ASP:C	19:CS:15:LEU:H	2.18	0.47
15:AO:36:ILE:HD12	15:AO:63:ARG:HD2	1.97	0.47
48:DQ:27:VAL:O	48:DQ:29:PHE:N	2.47	0.47
1:AA:735:C:C2	1:AA:736:C:C5	3.03	0.47
43:BI:58:LEU:HG	43:BI:61:ARG:NH2	2.30	0.47
2:CB:11:LEU:HD12	2:CB:217:ARG:CZ	2.45	0.47
45:DN:99:LEU:O	45:DN:103:VAL:HG22	2.15	0.47
51:DT:58:ASN:C	51:DT:58:ASN:HD22	2.19	0.47
4:CD:5:ILE:CG2	4:CD:6:GLY:N	2.78	0.47
54:BW:15:ARG:HA	54:BW:18:ARG:HD2	1.97	0.47
35:BA:1404:C:O2'	35:BA:1405:U:H5'	2.15	0.47
4:AD:5:ILE:CG2	4:AD:6:GLY:N	2.77	0.47
43:BI:110:ASP:CG	43:BI:130:TYR:OH	2.52	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:740:U:O3'	15:AO:39:LEU:HD23	2.15	0.47
1:CA:1050:G:N2	1:CA:1209:C:H1'	2.30	0.47
45:DN:119:ARG:HG3	45:DN:119:ARG:HH11	1.80	0.47
35:BA:2579:C:C1'	39:BE:134:ILE:HD13	2.45	0.47
56:BY:50:ARG:CG	56:BY:56:PRO:O	2.63	0.47
51:DT:129:ARG:HG3	51:DT:129:ARG:O	2.15	0.47
49:BR:66:VAL:HG12	49:BR:70:LEU:HD12	1.96	0.47
1:CA:1202:G:O2'	14:CN:27:CYS:HB2	2.15	0.47
13:AM:69:GLU:CG	13:AM:72:ALA:HB3	2.45	0.47
51:DT:1:MET:O	51:DT:2:ASN:O	2.32	0.47
27:D2:35:LEU:HD12	27:D2:53:LEU:HD12	1.97	0.47
40:BF:33:LEU:HD11	40:BF:112:MET:HB2	1.97	0.47
35:BA:285:C:H2'	35:BA:286:C:C6	2.50	0.47
49:DR:53:HIS:O	49:DR:56:LYS:HB2	2.14	0.47
22:CW:64:G:O2'	22:CW:65:C:H5'	2.15	0.47
43:BI:2:LYS:HA	43:BI:2:LYS:HZ2	1.78	0.47
35:BA:958:U:OP2	48:BQ:14:ARG:NH1	2.48	0.47
50:DS:25:ARG:NH1	50:DS:25:ARG:HB3	2.30	0.47
42:DH:108:GLY:HA3	42:DH:152:ARG:HH21	1.79	0.47
42:BH:108:GLY:HA3	42:BH:152:ARG:HH21	1.79	0.47
43:DI:72:LEU:HD13	43:DI:101:LEU:O	2.15	0.47
21:AU:9:ARG:HH12	21:AU:23:PRO:HD2	1.80	0.47
35:DA:2123:G:H5'	37:DC:166:ASP:CB	2.45	0.47
35:BA:20:C:O2'	35:BA:21:A:H5'	2.14	0.47
3:AC:23:TYR:CG	3:AC:24:ALA:N	2.82	0.47
51:DT:90:GLN:NE2	51:DT:124:ASP:OD2	2.48	0.47
35:BA:527:C:OP2	35:BA:2779:U:H5	1.98	0.47
35:DA:2007:C:H2'	35:DA:2008:C:C6	2.49	0.47
35:BA:93:G:H2'	35:BA:94:C:C6	2.50	0.47
17:CQ:43:LEU:HD12	17:CQ:68:ARG:HB3	1.97	0.47
8:CH:122:ARG:O	8:CH:126:LYS:HB2	2.15	0.47
22:CW:49:G:N3	22:CW:49:G:H2'	2.30	0.47
35:BA:1804:C:H6	35:BA:1804:C:O5'	1.98	0.47
36:DB:32:C:C4	36:DB:51:G:N2	2.82	0.47
35:DA:70:G:H2'	35:DA:113:G:O2'	2.14	0.47
35:BA:986:C:O2'	35:BA:987:G:H5'	2.15	0.47
8:CH:95:VAL:CG1	8:CH:133:LEU:HD12	2.45	0.47
1:CA:941:G:N1	1:CA:1343:G:C6	2.83	0.47
56:DY:76:CYS:CB	56:DY:96:ILE:HD11	2.45	0.47
35:DA:1190:G:H5'	47:DP:35:HIS:HA	1.97	0.47
56:DY:65:ALA:HB1	56:DY:66:PRO:HD2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BU:95:LEU:CD1	53:BV:11:GLN:HB2	2.45	0.47
51:BT:19:LEU:HA	51:BT:20:PRO:HD3	1.57	0.47
50:BS:87:PHE:CE2	50:BS:92:TYR:HD2	2.33	0.47
52:DU:83:LEU:HD12	52:DU:83:LEU:N	2.29	0.47
51:DT:85:LYS:CA	51:DT:85:LYS:HZ3	2.24	0.47
33:D8:33:ASN:HA	33:D8:36:LYS:HG3	1.96	0.47
47:BP:40:SER:O	47:BP:41:ARG:NH2	2.48	0.47
3:AC:93:LYS:CB	3:AC:93:LYS:HZ3	2.07	0.47
33:B8:29:LYS:O	33:B8:30:ARG:CB	2.63	0.47
13:CM:14:ARG:HB2	13:CM:16:ASP:OD2	2.15	0.47
57:DZ:98:MET:O	57:DZ:125:LEU:HD23	2.15	0.47
3:AC:147:LYS:O	3:AC:203:PHE:HD2	1.97	0.47
28:D3:3:ARG:N	28:D3:60:GLU:N	2.63	0.47
12:CL:117:TYR:CD1	12:CL:117:TYR:N	2.82	0.47
35:BA:1247:A:OP2	47:BP:18:ARG:NH2	2.48	0.47
38:DD:209:ALA:O	38:DD:210:GLY:O	2.33	0.47
1:CA:833:U:H2'	1:CA:834:C:H6	1.80	0.47
35:BA:2111:C:O4'	35:BA:2118:U:H4'	2.15	0.47
38:BD:48:ARG:NH1	38:BD:48:ARG:HG3	2.30	0.47
41:BG:16:ARG:N	41:BG:17:PRO:HD2	2.29	0.47
1:AA:185:A:H61	1:AA:192:U:H3	1.63	0.47
56:BY:60:PHE:N	56:BY:62:GLU:OE1	2.48	0.47
35:BA:11:G:O2'	35:BA:2802:G:H5''	2.15	0.47
1:AA:1334:G:H5'	1:AA:1335:C:OP2	2.15	0.47
9:AI:82:ALA:O	9:AI:86:VAL:HG12	2.15	0.47
5:CE:137:GLU:O	5:CE:141:GLN:HG3	2.14	0.47
6:AF:8:ILE:HG22	6:AF:10:LEU:CD1	2.45	0.47
45:BN:62:VAL:HG23	45:BN:66:LYS:HD2	1.97	0.47
17:CQ:35:VAL:HG12	17:CQ:36:ILE:H	1.80	0.47
38:DD:242:ARG:HH11	38:DD:242:ARG:H	1.61	0.47
56:BY:50:ARG:HD3	56:BY:50:ARG:HA	1.79	0.47
1:AA:717:C:H4'	11:AK:117:ASN:OD1	2.15	0.47
35:DA:258:G:H2'	35:DA:259:G:H8	1.80	0.47
5:CE:7:GLU:HG2	5:CE:112:LEU:HD22	1.97	0.47
5:CE:41:VAL:HG13	5:CE:113:ALA:HA	1.97	0.47
35:DA:1107:G:O2'	35:DA:1108:U:H5'	2.15	0.47
16:AP:55:ARG:O	16:AP:58:TYR:HB3	2.15	0.47
34:D9:22:ARG:NH1	35:DA:2741:A:OP1	2.47	0.47
30:B5:54:GLY:O	30:B5:55:ARG:O	2.33	0.47
18:CR:71:LYS:O	18:CR:74:ARG:HG3	2.15	0.47
7:AG:54:THR:C	7:AG:56:GLN:H	2.18	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:53:LEU:CD2	17:CQ:85:VAL:HG21	2.45	0.47
1:CA:9:G:OP2	5:CE:121:LYS:HD2	2.15	0.47
7:CG:54:THR:C	7:CG:56:GLN:H	2.19	0.47
42:DH:104:GLU:HA	42:DH:113:VAL:O	2.14	0.47
35:DA:1314:C:C6	35:DA:1314:C:H5'	2.47	0.47
35:DA:2755:C:O2'	35:DA:2756:U:H2'	2.15	0.47
1:AA:149:A:H2'	1:AA:150:C:C6	2.50	0.47
1:AA:1072:G:H2'	1:AA:1073:U:H6	1.80	0.47
18:CR:26:LEU:HB2	18:CR:29:PHE:HE2	1.80	0.47
14:AN:4:LYS:HB2	14:AN:4:LYS:NZ	2.29	0.47
57:DZ:103:ARG:HD2	57:DZ:136:PHE:CD1	2.50	0.47
38:BD:77:ALA:HB2	38:BD:97:TYR:CG	2.49	0.47
35:BA:2883:A:C5'	35:BA:2884:U:H5'	2.44	0.47
35:DA:2883:A:C5'	35:DA:2884:U:H5'	2.45	0.47
35:BA:1005:C:H2'	35:BA:1006:C:H6	1.79	0.47
35:DA:1316:U:H2'	35:DA:1317:A:C8	2.50	0.47
1:AA:424:G:O2'	1:AA:425:G:H5'	2.15	0.47
39:DE:199:ARG:NH1	39:DE:199:ARG:HB2	2.30	0.47
35:BA:958:U:H6	35:BA:958:U:H3'	1.80	0.47
35:BA:143:G:H1'	55:BX:37:THR:CG2	2.44	0.47
1:AA:109:A:H5'	1:AA:110:C:H5	1.79	0.47
35:BA:2124:G:H2'	35:BA:2125:G:O4'	2.14	0.47
8:AH:1:MET:CE	8:AH:1:MET:H3	2.27	0.47
2:CB:237:ALA:O	2:CB:238:LEU:HB3	2.15	0.47
35:DA:706:A:H2'	35:DA:707:G:O4'	2.15	0.47
35:DA:1662:C:O2'	35:DA:1663:C:H5'	2.15	0.47
1:CA:269:C:H2'	1:CA:270:A:C8	2.50	0.47
1:CA:189(G):G:H4'	1:CA:189(H):G:OP2	2.15	0.47
40:BF:39:TRP:O	40:BF:43:LYS:HB3	2.16	0.47
35:DA:1361:G:O2'	35:DA:1362:C:H5'	2.15	0.47
40:BF:46:ARG:NH1	40:BF:46:ARG:HG3	2.29	0.47
1:AA:749:C:H2'	1:AA:749:C:O2	2.14	0.47
39:BE:14:ILE:HD12	39:BE:14:ILE:C	2.35	0.47
35:DA:1218:C:C2'	35:DA:1219:G:H5'	2.45	0.47
35:DA:1156:A:C8	52:DU:51:LYS:HD2	2.49	0.47
35:BA:433:C:H2'	35:BA:434:U:C6	2.49	0.47
35:DA:1914:C:C3'	35:DA:1915:U:H5'	2.46	0.46
40:BF:117:ARG:HD3	40:BF:117:ARG:HA	1.65	0.46
40:BF:123:LEU:HD12	40:BF:124:LEU:H	1.79	0.46
35:BA:587:C:H2'	47:BP:33:ARG:HH21	1.81	0.46
1:AA:624:C:C5'	16:AP:11:SER:OG	2.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BO:64:ARG:CZ	51:BT:70:VAL:HG21	2.45	0.46
47:DP:48:PRO:C	47:DP:50:ARG:N	2.68	0.46
36:BB:28:C:OP1	50:BS:34:HIS:HB2	2.15	0.46
1:CA:8:A:N7	4:CD:208:SER:HB3	2.30	0.46
35:BA:873:G:H1	35:BA:904:C:N4	2.12	0.46
57:BZ:108:PRO:CG	57:BZ:109:ALA:H	2.26	0.46
35:DA:1504:C:C3'	35:DA:1505:C:H5''	2.44	0.46
33:D8:33:ASN:N	33:D8:36:LYS:HD2	2.30	0.46
2:CB:97:TRP:CH2	2:CB:173:ALA:N	2.83	0.46
3:AC:86:VAL:O	3:AC:90:GLU:HG2	2.15	0.46
57:DZ:61:LEU:C	57:DZ:63:ASP:H	2.17	0.46
24:AY:64:TYR:HB3	24:AY:92:ILE:HD11	1.93	0.46
38:DD:205:VAL:O	38:DD:205:VAL:HG12	2.14	0.46
2:AB:167:PRO:HG2	2:AB:192:SER:HB2	1.96	0.46
2:AB:192:SER:OG	2:AB:196:LEU:HD11	2.15	0.46
2:AB:219:VAL:O	2:AB:222:ILE:HB	2.15	0.46
29:D4:31:ILE:CG2	29:D4:33:VAL:HG23	2.40	0.46
10:AJ:50:ILE:CA	10:AJ:60:ARG:HD3	2.40	0.46
4:CD:126:ILE:CG2	4:CD:127:THR:H	2.27	0.46
35:DA:146:G:H2'	35:DA:147:U:O4'	2.16	0.46
19:AS:31:ILE:HG12	19:AS:32:LYS:N	2.30	0.46
16:AP:45:THR:O	16:AP:48:TRP:HD1	1.98	0.46
16:AP:48:TRP:O	16:AP:49:LEU:C	2.54	0.46
48:BQ:118:LEU:HD12	48:BQ:131:ILE:HG23	1.97	0.46
3:AC:182:ILE:HG23	3:AC:202:ILE:C	2.34	0.46
10:AJ:32:ALA:H	10:AJ:78:ASN:HD21	1.62	0.46
39:BE:203:LYS:C	39:BE:203:LYS:HD2	2.36	0.46
45:DN:16:ILE:CG2	45:DN:54:VAL:HG22	2.45	0.46
33:D8:14:VAL:HG21	33:D8:22:VAL:HG13	1.98	0.46
7:AG:25:ALA:O	7:AG:28:ASN:HB2	2.15	0.46
35:BA:2724:C:P	49:BR:2:ARG:NH2	2.88	0.46
1:CA:1422:G:H2'	1:CA:1423:G:C8	2.48	0.46
3:CC:51:GLY:O	3:CC:115:LEU:HD21	2.15	0.46
35:DA:2038:G:C6	35:DA:2039:C:C4	3.04	0.46
43:BI:49:ALA:O	43:BI:53:ALA:HB3	2.15	0.46
35:DA:1142:U:H5''	35:DA:1142(A):A:H8	1.80	0.46
43:BI:128:LEU:O	43:BI:137:PRO:HA	2.15	0.46
35:DA:2136:C:N4	35:DA:2155:G:N1	2.61	0.46
15:AO:50:HIS:O	15:AO:53:HIS:HB3	2.14	0.46
54:DW:110:LYS:O	54:DW:111:HIS:C	2.54	0.46
38:BD:242:ARG:CG	38:BD:242:ARG:HH11	2.27	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:B2:41:ILE:CD1	27:B2:43:GLN:HB2	2.45	0.46
51:BT:128:GLU:O	51:BT:129:ARG:C	2.53	0.46
9:AI:42:ARG:NH1	9:AI:71:SER:HB3	2.30	0.46
21:AU:6:ARG:HE	21:AU:15:ARG:CZ	2.28	0.46
35:BA:1170:G:H5'	35:BA:1173:G:H22	1.80	0.46
17:AQ:33:GLY:O	17:AQ:34:LYS:C	2.52	0.46
38:DD:206:LEU:CD2	38:DD:211:ARG:HG3	2.45	0.46
35:BA:2179:C:H4'	35:BA:2179:C:OP2	2.15	0.46
55:BX:26:TYR:O	55:BX:81:VAL:HG22	2.14	0.46
55:BX:89:ILE:O	55:BX:93:GLU:OE2	2.33	0.46
35:DA:298:G:P	56:DY:85:VAL:HG22	2.56	0.46
4:AD:15:GLU:HG2	4:AD:63:LYS:HG3	1.96	0.46
38:BD:211:ARG:HH11	38:BD:211:ARG:CG	2.27	0.46
1:CA:717:C:H4'	11:CK:117:ASN:OD1	2.14	0.46
36:DB:70:C:H2'	36:DB:71:C:C6	2.41	0.46
35:DA:1528:A:O2'	35:DA:1528(A):A:H5'	2.15	0.46
31:B6:15:GLU:OE2	31:B6:43:CYS:CB	2.60	0.46
10:CJ:32:ALA:H	10:CJ:78:ASN:ND2	2.13	0.46
5:AE:6:PHE:HZ	5:AE:40:ARG:HH21	1.62	0.46
38:BD:30:GLU:CD	38:BD:63:ARG:HE	2.18	0.46
1:CA:1203:C:OP1	14:CN:3:ARG:HD3	2.15	0.46
16:AP:80:PHE:O	16:AP:81:ARG:C	2.54	0.46
35:BA:1722:A:H2	35:BA:1740:G:H2'	1.79	0.46
40:BF:65:TRP:CZ3	40:BF:73:ALA:O	2.68	0.46
42:DH:95:ARG:N	42:DH:107:VAL:HG12	2.30	0.46
42:BH:89:ILE:HD11	42:BH:94:TYR:O	2.14	0.46
41:BG:124:SER:HB2	41:BG:131:TYR:CE1	2.50	0.46
40:DF:74:ARG:HG3	40:DF:74:ARG:O	2.15	0.46
35:DA:158:U:H4'	35:DA:171:G:C4	2.50	0.46
1:AA:935:A:H61	7:AG:3:ARG:HG2	1.80	0.46
1:CA:859:A:H2'	1:CA:860:A:O4'	2.14	0.46
1:AA:880:C:O2'	1:AA:881:G:H5'	2.15	0.46
35:DA:2713:A:H3'	35:DA:2714:G:H5'	1.97	0.46
35:BA:1466:G:H2'	35:BA:1466:G:N3	2.30	0.46
35:BA:1221:C:H2'	35:BA:1221(A):C:C6	2.50	0.46
13:AM:65:LYS:HA	13:AM:66:LEU:HG	1.96	0.46
35:BA:2310:A:O2'	35:BA:2311:A:C5'	2.63	0.46
41:DG:170:ARG:NH2	41:DG:180:PHE:HD1	2.14	0.46
43:DI:49:ALA:O	43:DI:53:ALA:HB3	2.15	0.46
18:AR:86:VAL:HG12	18:AR:87:ARG:N	2.29	0.46
35:DA:1129:A:C2	35:DA:2569:G:N3	2.82	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:156:G:O2'	1:CA:157:G:H5'	2.15	0.46
54:DW:44:ALA:O	54:DW:47:VAL:HG12	2.15	0.46
5:CE:80:ILE:HG22	8:CH:104:ARG:NH1	2.30	0.46
44:BJ:49:UNK:C	44:BJ:51:UNK:N	2.78	0.46
1:AA:983:A:N1	1:AA:1222:G:N2	2.63	0.46
14:CN:8:GLU:O	14:CN:12:ARG:NE	2.48	0.46
17:CQ:14:LYS:N	17:CQ:14:LYS:HD2	2.30	0.46
11:AK:31:THR:O	11:AK:31:THR:HG23	2.15	0.46
35:DA:2505:G:O6	35:DA:2576:G:H2'	2.15	0.46
35:DA:760:G:H2'	35:DA:761:A:O4'	2.15	0.46
4:CD:109:GLY:O	4:CD:111:ALA:N	2.47	0.46
1:CA:596:C:H2'	1:CA:597:G:H8	1.80	0.46
47:BP:58:THR:O	47:BP:58:THR:HG22	2.15	0.46
35:BA:775:G:H4'	35:BA:776:G:OP1	2.15	0.46
1:CA:1225:A:N3	1:CA:1225:A:C2'	2.77	0.46
1:CA:1270:C:H4'	1:CA:1313:U:O2'	2.15	0.46
47:DP:47:ASP:HB3	47:DP:48:PRO:C	2.36	0.46
50:DS:97:ARG:HH11	50:DS:97:ARG:HG2	1.79	0.46
57:BZ:102:LEU:HD11	57:BZ:124:ILE:HG23	1.97	0.46
57:BZ:59:LEU:HD11	57:BZ:88:PHE:CG	2.51	0.46
57:BZ:94:GLU:C	57:BZ:96:VAL:H	2.19	0.46
35:BA:1485:G:H2'	35:BA:1486:A:C8	2.51	0.46
2:CB:92:TYR:HE1	2:CB:94:ASN:HB2	1.80	0.46
57:DZ:7:ALA:HB2	57:DZ:59:LEU:HB3	1.98	0.46
33:B8:33:ASN:HA	33:B8:36:LYS:HD2	1.98	0.46
33:B8:33:ASN:HA	33:B8:36:LYS:HG3	1.98	0.46
2:AB:104:ASN:O	2:AB:108:ILE:HG12	2.15	0.46
35:DA:636:G:OP1	47:DP:132:LYS:HD2	2.16	0.46
47:DP:146:VAL:HG13	47:DP:147:LEU:N	2.29	0.46
3:CC:150:LYS:HE3	3:CC:167:TRP:HE1	1.80	0.46
24:CY:6:GLY:C	24:CY:7:HIS:ND1	2.69	0.46
8:AH:10:LEU:N	8:AH:10:LEU:HD23	2.30	0.46
45:DN:15:LEU:C	45:DN:15:LEU:HD23	2.36	0.46
49:BR:97:VAL:HA	49:BR:113:LEU:O	2.14	0.46
29:B4:54:GLY:C	29:B4:56:VAL:H	2.19	0.46
32:B7:12:ARG:HG3	35:BA:686:G:O6	2.14	0.46
1:AA:1003:G:H1'	1:AA:1038:C:O2	2.15	0.46
4:CD:11:LEU:HD23	4:CD:11:LEU:H	1.80	0.46
46:DO:104:ARG:HH21	51:DT:33:LYS:HZ2	1.57	0.46
50:DS:106:ARG:NH1	50:DS:108:GLY:HA3	2.30	0.46
53:BV:5:VAL:HG21	53:BV:35:LEU:CB	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:494:G:O2'	54:BW:5:ALA:O	2.32	0.46
5:AE:137:GLU:O	5:AE:141:GLN:HG3	2.15	0.46
38:BD:3:VAL:HG12	38:BD:17:THR:HB	1.96	0.46
38:DD:85:ASP:OD2	38:DD:88:ARG:HG2	2.15	0.46
9:AI:11:LYS:C	9:AI:13:ALA:H	2.18	0.46
45:DN:42:TRP:CZ2	45:DN:44:PRO:HA	2.50	0.46
1:CA:1004:A:H5'	1:CA:1025:U:C2	2.49	0.46
48:DQ:73:PRO:HG3	48:DQ:93:TYR:HE2	1.81	0.46
42:BH:136:ILE:HD11	42:BH:140:LYS:HZ1	1.80	0.46
35:BA:483:A:H4'	56:BY:49:VAL:HG22	1.97	0.46
43:DI:5:LEU:HD21	43:DI:19:VAL:HG11	1.97	0.46
41:DG:32:PRO:O	41:DG:172:LEU:HD13	2.15	0.46
5:CE:34:VAL:HG12	5:CE:62:ALA:HB1	1.97	0.46
56:BY:88:LYS:HZ3	56:BY:93:GLY:CA	2.27	0.46
56:DY:4:LYS:NZ	56:DY:5:MET:HG2	2.31	0.46
16:CP:55:ARG:O	16:CP:58:TYR:HB3	2.16	0.46
16:CP:59:TRP:HA	16:CP:62:VAL:CG2	2.45	0.46
38:DD:75:ILE:O	38:DD:118:VAL:HG23	2.14	0.46
38:DD:30:GLU:CD	38:DD:63:ARG:HE	2.19	0.46
1:AA:256:U:C5'	17:AQ:17:LYS:HZ2	2.28	0.46
1:AA:1078:U:H2'	1:AA:1079:G:O4'	2.15	0.46
28:D3:4:LEU:HD11	28:D3:39:ASP:CA	2.42	0.46
38:DD:58:HIS:CD2	38:DD:59:LYS:N	2.84	0.46
11:CK:109:VAL:HG22	18:CR:86:VAL:HG13	1.97	0.46
8:AH:44:PHE:O	8:AH:64:LYS:HB3	2.15	0.46
4:AD:18:LYS:HD3	4:AD:20:TYR:OH	2.15	0.46
9:CI:45:ALA:O	9:CI:78:LYS:HE3	2.15	0.46
11:CK:29:ILE:HA	11:CK:44:SER:CB	2.44	0.46
35:BA:26:G:C6	35:BA:27:G:N1	2.83	0.46
16:AP:80:PHE:HD1	16:AP:80:PHE:H	1.61	0.46
35:DA:1434:A:O2'	35:DA:1435:G:H5'	2.15	0.46
35:BA:1719:G:C2'	35:BA:1720:U:H5'	2.45	0.46
2:AB:152:PHE:O	2:AB:153:ARG:HB2	2.14	0.46
41:BG:164:GLU:CD	41:BG:164:GLU:H	2.18	0.46
20:AT:26:ASN:O	20:AT:30:LYS:HB2	2.15	0.46
35:DA:27:G:N2	35:DA:512:G:H2'	2.29	0.46
1:AA:1188:A:H4'	14:AN:58:LYS:HD2	1.98	0.46
1:AA:116:A:H61	1:AA:313:A:H1'	1.79	0.46
1:AA:832:C:O2'	1:AA:833:U:H6	1.98	0.46
1:CA:452:A:O3'	16:CP:72:ARG:HD2	2.15	0.46
1:CA:538:G:OP2	12:CL:112:LYS:CG	2.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:245:G:H5'	47:BP:69:GLY:HA3	1.97	0.46
1:AA:340:U:H2'	1:AA:341:C:C6	2.51	0.46
1:AA:199:G:C2	1:AA:219:C:N3	2.84	0.46
36:BB:17:C:O2'	36:BB:18:G:H5'	2.15	0.46
35:BA:2310:A:H2'	35:BA:2310:A:N3	2.29	0.46
1:CA:1243:C:O2'	1:CA:1244:C:H5'	2.15	0.46
1:AA:1243:C:O2'	1:AA:1244:C:H5'	2.15	0.46
34:B9:31:LYS:HD3	35:BA:2528:U:H5'	1.97	0.46
46:BO:22:ILE:HG12	46:BO:41:ALA:HA	1.97	0.46
1:CA:1530:G:OP1	1:CA:1530:G:H4'	2.15	0.46
54:BW:87:PRO:HA	54:BW:93:ALA:HA	1.97	0.46
10:CJ:11:PHE:HE2	10:CJ:67:THR:HG1	1.63	0.46
48:BQ:103:MET:HE1	48:BQ:125:LEU:HD13	1.97	0.46
5:AE:18:ARG:NH1	5:AE:25:ARG:HB3	2.30	0.46
35:DA:1526:G:C6	35:DA:1527:G:C2	3.03	0.46
35:BA:2035:G:H4'	35:BA:2036:C:OP2	2.15	0.46
35:DA:49:A:H5''	35:DA:51:G:O4'	2.14	0.46
55:DX:63:LYS:HA	55:DX:72:LYS:HA	1.97	0.46
4:CD:17:VAL:HG11	4:CD:197:PRO:HB2	1.97	0.46
12:CL:44:LYS:HB3	12:CL:45:PRO:HD3	1.97	0.46
45:DN:131:GLN:OE1	45:DN:131:GLN:HA	2.15	0.46
35:DA:582:G:H2'	35:DA:583:G:C8	2.50	0.46
35:BA:1163:G:O2'	35:BA:1164:G:H5'	2.15	0.46
24:AY:60:GLU:OE1	24:AY:74:SER:CB	2.57	0.46
33:B8:27:THR:HG22	47:BP:62:LEU:HD13	1.96	0.46
1:CA:36:C:C4	1:CA:37:U:C5	3.03	0.46
56:BY:77:PRO:O	56:BY:78:ALA:CB	2.63	0.46
40:BF:123:LEU:HD12	40:BF:124:LEU:N	2.29	0.46
46:BO:64:ARG:HG2	46:BO:79:PHE:CG	2.50	0.46
52:DU:79:PHE:O	52:DU:83:LEU:CD1	2.63	0.46
35:DA:2491:U:C5'	35:DA:2570:G:H5''	2.26	0.46
1:CA:20:U:C2	1:CA:916:G:N1	2.83	0.46
47:BP:41:ARG:HA	47:BP:41:ARG:HE	1.79	0.46
1:CA:1234:C:H2'	1:CA:1235:U:C6	2.51	0.46
2:CB:12:GLU:HB2	2:CB:16:HIS:HB2	1.97	0.46
2:CB:174:VAL:HG13	2:CB:184:VAL:HG11	1.97	0.46
2:CB:207:ALA:O	2:CB:211:ILE:HG13	2.16	0.46
50:BS:16:ASN:OD1	50:BS:20:ARG:NH2	2.48	0.46
5:AE:103:GLY:O	5:AE:106:PRO:HD2	2.14	0.46
19:AS:53:ASN:ND2	19:AS:58:VAL:CG2	2.79	0.46
41:DG:119:GLY:HA3	41:DG:181:ARG:HB3	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BT:35:LYS:NZ	51:BT:41:ARG:HH21	2.13	0.46
35:BA:1239:G:H2'	35:BA:1240:U:O4'	2.15	0.46
1:CA:1124:G:C2'	1:CA:1125:U:H5'	2.44	0.46
24:CY:5:TYR:HB2	24:CY:7:HIS:CE1	2.50	0.46
42:DH:156:ALA:O	42:DH:158:HIS:N	2.49	0.46
41:BG:111:LEU:HA	41:BG:114:ILE:CD1	2.46	0.46
10:CJ:62:HIS:H	10:CJ:62:HIS:CD2	2.33	0.46
1:AA:1004:A:H5''	1:AA:1025:U:C2	2.51	0.46
38:DD:133:LEU:HD13	38:DD:173:VAL:CG1	2.44	0.46
1:AA:1294:G:H2'	1:AA:1295:G:H8	1.80	0.46
35:BA:2111:C:N3	35:BA:2147:G:N2	2.63	0.46
38:BD:209:ALA:C	38:BD:210:GLY:O	2.51	0.46
38:BD:209:ALA:O	38:BD:210:GLY:O	2.34	0.46
4:AD:125:HIS:C	4:AD:126:ILE:HD12	2.34	0.46
41:BG:151:ALA:HB3	41:BG:153:ARG:NH1	2.30	0.46
53:BV:29:PRO:O	53:BV:61:VAL:HG23	2.16	0.46
1:AA:190:U:H2'	1:AA:191:G:C8	2.44	0.46
6:CF:62:TRP:CG	18:CR:35:ARG:NH1	2.83	0.46
1:CA:1519:A:H2'	1:CA:1520:G:H5'	1.97	0.46
45:DN:46:VAL:HG13	45:DN:48:MET:HG2	1.96	0.46
35:DA:322:A:OP2	40:DF:169:ASN:HB2	2.15	0.46
1:CA:1002:G:H2'	1:CA:1003:G:C8	2.50	0.46
46:DO:91:LEU:HD12	46:DO:111:PHE:CE1	2.51	0.46
51:BT:129:ARG:O	51:BT:129:ARG:HG3	2.16	0.46
1:AA:404:U:H2'	1:AA:405:U:C6	2.49	0.46
14:AN:33:VAL:HG12	14:AN:40:CYS:HA	1.97	0.46
2:CB:142:LEU:HD23	2:CB:142:LEU:C	2.35	0.46
35:DA:1528(A):A:N7	35:DA:1529:G:C8	2.83	0.46
39:BE:201:THR:OG1	39:BE:202:LYS:N	2.48	0.46
51:DT:3:ARG:O	51:DT:5:ALA:N	2.48	0.46
35:BA:2761:G:C2'	35:BA:2762:G:H5''	2.45	0.46
20:AT:53:LEU:O	20:AT:56:MET:HB3	2.15	0.46
35:DA:1722:A:H2	35:DA:1740:G:H2'	1.80	0.46
22:AW:26:G:H22	22:AW:44:A:H61	1.61	0.46
1:CA:1123:A:H4'	10:CJ:36:GLY:HA3	1.95	0.46
41:BG:166:ASP:O	41:BG:169:ALA:HB3	2.15	0.46
1:CA:1418:A:C2	1:CA:1483:A:C2	3.04	0.46
14:CN:21:TYR:HE2	14:CN:23:ARG:NH2	2.13	0.46
35:DA:154(A):C:H5	35:DA:171:G:N1	2.14	0.46
1:AA:935:A:H2'	1:AA:936:C:C6	2.51	0.46
1:AA:936:C:O2	1:AA:1382:C:N4	2.47	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1686:C:H5'	35:DA:1687:G:OP2	2.15	0.46
35:BA:244:A:C2	35:BA:255:A:C4	3.04	0.46
1:AA:1278:U:H5''	1:AA:1279:A:O4'	2.15	0.46
35:BA:899:A:H2'	35:BA:899:A:N3	2.31	0.46
35:DA:1221:C:H2'	35:DA:1221(A):C:C6	2.50	0.46
45:BN:3:THR:C	45:BN:4:TYR:CD1	2.89	0.46
35:DA:2672:G:H3'	35:DA:2673:G:H5''	1.97	0.46
35:DA:1385:G:H4'	35:DA:1386:C:OP1	2.14	0.46
48:DQ:110:THR:OG1	48:DQ:111:GLU:N	2.48	0.46
35:BA:2001:A:H2'	35:BA:2002:G:C8	2.51	0.46
1:AA:914:A:O2'	1:AA:915:A:H5'	2.15	0.46
35:DA:1344:G:H4'	35:DA:1384:A:C5	2.50	0.46
35:BA:760:G:H2'	35:BA:761:A:O4'	2.15	0.46
35:BA:769:G:O2'	35:BA:770:G:H5'	2.14	0.46
1:AA:839:U:O2	1:AA:839:U:H2'	2.15	0.46
20:AT:42:GLN:NE2	20:AT:42:GLN:HA	2.30	0.46
12:AL:120:LYS:HB3	12:AL:120:LYS:HE2	1.73	0.46
35:DA:1499:C:O2'	35:DA:1500:G:H5'	2.15	0.46
35:BA:2274:A:C5	35:BA:2276:G:C8	3.03	0.46
35:DA:127:A:H5''	35:DA:128:C:C6	2.51	0.46
44:DJ:57:UNK:O	44:DJ:58:UNK:C	2.63	0.46
42:BH:49:VAL:HG23	42:BH:50:VAL:N	2.30	0.46
40:BF:15:SER:O	40:BF:16:GLY:O	2.32	0.46
42:DH:85:LYS:O	42:DH:133:VAL:N	2.48	0.46
53:BV:39:LEU:O	53:BV:40:LEU:CB	2.61	0.46
51:DT:23:ARG:H	51:DT:120:ARG:HH12	1.63	0.46
33:D8:37:SER:O	33:D8:39:LYS:N	2.47	0.46
1:CA:865:A:H2	1:CA:918:A:C4'	2.24	0.46
1:CA:918:A:O2'	1:CA:919:A:H5'	2.16	0.46
2:CB:44:LEU:HA	2:CB:47:THR:OG1	2.16	0.46
1:AA:8:A:C5'	5:AE:120:THR:O	2.64	0.46
36:BB:74:U:C2'	36:BB:75:G:C5'	2.84	0.46
41:DG:117:PHE:CZ	41:DG:179:PRO:CG	2.98	0.46
41:DG:181:ARG:O	41:DG:182:LYS:C	2.53	0.46
3:AC:94:LEU:N	3:AC:94:LEU:HD23	2.11	0.46
3:CC:182:ILE:HG23	3:CC:202:ILE:C	2.35	0.46
2:AB:11:LEU:HD12	2:AB:217:ARG:CZ	2.46	0.46
48:BQ:55:VAL:HG21	57:BZ:182:LYS:HE3	1.97	0.46
9:CI:26:VAL:HG13	9:CI:61:ALA:O	2.16	0.46
12:AL:117:TYR:CD1	12:AL:117:TYR:N	2.83	0.46
39:DE:203:LYS:HG3	39:DE:204:ALA:N	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DE:51:PHE:C	39:DE:51:PHE:CD1	2.88	0.46
51:DT:57:PHE:CG	51:DT:58:ASN:N	2.83	0.46
6:AF:52:ILE:CD1	6:AF:87:ARG:HH22	2.28	0.46
38:DD:53:PHE:CD1	38:DD:219:PRO:O	2.68	0.46
1:CA:1488:G:N2	1:CA:1489:G:N7	2.63	0.46
43:BI:62:LYS:HA	43:BI:133:HIS:CD2	2.50	0.46
3:CC:36:ASP:HB3	3:CC:40:ARG:HH12	1.80	0.46
25:D0:23:VAL:HB	25:D0:26:TYR:CE2	2.50	0.46
1:CA:180:U:O2'	1:CA:181:G:H5'	2.15	0.46
46:DO:104:ARG:NH1	46:DO:104:ARG:CB	2.79	0.46
41:BG:151:ALA:H	41:BG:153:ARG:HH12	1.62	0.46
1:CA:187:C:O2'	20:CT:89:ARG:HD2	2.15	0.46
53:DV:19:LYS:HZ3	53:DV:20:LEU:H	1.64	0.46
52:DU:101:ARG:O	52:DU:102:GLU:CB	2.64	0.46
38:DD:24:ILE:O	38:DD:25:THR:C	2.53	0.46
38:BD:242:ARG:HA	38:BD:242:ARG:HD3	1.65	0.46
45:BN:62:VAL:CG2	45:BN:66:LYS:HB2	2.44	0.46
11:AK:124:LYS:NZ	11:AK:124:LYS:CB	2.78	0.46
7:CG:15:ASP:O	7:CG:19:GLY:HA2	2.16	0.46
35:BA:298:G:OP1	56:BY:85:VAL:HG22	2.16	0.46
12:AL:2:PRO:O	12:AL:3:THR:O	2.34	0.46
41:DG:32:PRO:HG3	41:DG:168:GLU:HB2	1.96	0.46
38:BD:213:ARG:HD2	38:BD:217:ARG:O	2.16	0.46
9:CI:79:LEU:HD13	9:CI:101:PHE:O	2.16	0.46
50:BS:58:LEU:O	50:BS:59:LYS:O	2.33	0.46
38:DD:102:LYS:O	38:DD:103:ARG:HG2	2.15	0.46
13:CM:69:GLU:OE1	13:CM:69:GLU:HA	2.16	0.46
51:BT:5:ALA:O	51:BT:8:LYS:N	2.47	0.46
1:AA:15:G:H2'	1:AA:16:A:C8	2.51	0.46
1:CA:708:C:H2'	1:CA:709:G:C8	2.51	0.46
1:AA:1288:A:H1'	1:AA:1352:C:O2'	2.15	0.46
17:CQ:59:ILE:HG23	17:CQ:71:PHE:HB3	1.96	0.46
16:CP:71:ARG:HA	16:CP:74:LEU:HD12	1.97	0.46
43:BI:29:TYR:C	43:BI:32:PRO:HD2	2.36	0.46
28:D3:50:VAL:HG23	28:D3:54:VAL:HG21	1.97	0.46
16:AP:51:VAL:CG1	16:AP:52:ASP:H	2.28	0.46
7:AG:51:GLN:O	7:AG:52:GLU:C	2.52	0.46
1:CA:936:C:O2'	1:CA:937:A:H5'	2.16	0.46
9:AI:39:GLY:O	9:AI:41:VAL:HG23	2.15	0.46
35:BA:2262:U:H4'	35:BA:2328:A:C2	2.50	0.46
35:DA:150:C:H2'	35:DA:151:C:H6	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1381:U:H5	1:AA:1382:C:C4	2.33	0.46
35:DA:1547:C:H2'	35:DA:1548:C:C6	2.50	0.46
49:BR:7:GLY:C	49:BR:8:ARG:HE	2.18	0.46
2:CB:9:GLU:OE2	2:CB:10:LEU:N	2.48	0.46
35:BA:2563:U:O2	35:BA:2565:A:H8	1.99	0.46
10:AJ:8:LEU:HD12	10:AJ:20:ALA:HB2	1.98	0.46
40:BF:89:VAL:HG12	40:BF:90:PHE:CD2	2.50	0.46
35:DA:419:C:H2'	35:DA:420:C:H6	1.80	0.46
35:DA:225:A:C2'	35:DA:226:G:H5'	2.45	0.46
36:BB:104:U:O2'	36:BB:105:A:H5'	2.14	0.46
35:DA:1336:A:H2'	35:DA:1337:G:H8	1.79	0.46
35:BA:2123:G:H2'	35:BA:2124:G:H8	1.80	0.46
35:DA:2138:C:H2'	35:DA:2139:C:C6	2.49	0.46
35:BA:1361:G:O2'	35:BA:1362:C:H5'	2.15	0.46
1:AA:490:G:H2'	1:AA:491:G:H8	1.81	0.46
1:CA:57:G:H2'	1:CA:58:C:C6	2.51	0.46
11:AK:121:PRO:O	11:AK:122:LYS:O	2.33	0.46
1:AA:697:U:H2'	1:AA:698:G:H5'	1.97	0.46
5:AE:76:ILE:HB	5:AE:77:PRO:HD2	1.97	0.46
1:AA:261:U:C5	20:AT:79:ARG:CZ	2.98	0.46
1:CA:142:G:H2'	1:CA:143:A:H8	1.80	0.46
23:AX:21:C:HO2'	23:AX:22:A:H5''	1.78	0.46
47:DP:59:LEU:CA	47:DP:61:ARG:NH2	2.77	0.46
35:DA:1190:G:H5'	47:DP:35:HIS:N	2.29	0.46
40:BF:116:ASP:OD1	40:BF:119:ARG:NH2	2.49	0.46
40:BF:125:LEU:HA	40:BF:194:MET:O	2.15	0.46
35:BA:1532:C:OP1	35:BA:1533:G:OP1	2.34	0.46
53:BV:52:VAL:HG13	53:BV:52:VAL:O	2.15	0.46
33:D8:54:GLU:O	33:D8:58:ILE:HG12	2.16	0.46
56:BY:65:ALA:HB1	56:BY:66:PRO:HD2	1.96	0.46
56:BY:8:LYS:N	56:BY:8:LYS:CD	2.75	0.46
2:CB:17:PHE:HB3	2:CB:44:LEU:HD11	1.97	0.46
2:CB:200:ILE:C	2:CB:200:ILE:HD12	2.35	0.46
47:BP:83:VAL:H	47:BP:115:LEU:CD2	2.29	0.46
2:AB:166:ASP:OD2	2:AB:167:PRO:HD2	2.15	0.46
2:AB:15:VAL:C	2:AB:16:HIS:CG	2.88	0.46
2:AB:97:TRP:CH2	2:AB:173:ALA:N	2.83	0.46
2:AB:204:ASN:ND2	2:AB:204:ASN:C	2.65	0.46
2:AB:80:ILE:HG21	2:AB:211:ILE:HG22	1.97	0.46
41:DG:45:GLU:O	41:DG:46:ALA:HB3	2.15	0.46
19:CS:14:HIS:N	19:CS:14:HIS:CD2	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BP:126:VAL:CG1	47:BP:148:LEU:HD11	2.31	0.46
46:BO:2:ILE:CD1	46:BO:82:ASN:ND2	2.69	0.46
51:BT:57:PHE:CG	51:BT:58:ASN:N	2.83	0.46
1:CA:1124:G:H22	1:CA:1280:A:N6	2.14	0.46
29:D4:24:THR:HG23	41:DG:5:VAL:CG1	2.46	0.46
10:AJ:34:VAL:CG1	10:AJ:35:SER:N	2.65	0.46
3:AC:32:LEU:HB3	3:AC:59:ARG:NH2	2.24	0.46
3:AC:44:GLU:HA	3:AC:52:LEU:HD21	1.97	0.46
51:BT:31:SER:HG	51:BT:43:GLN:H	1.62	0.46
6:AF:52:ILE:HD13	6:AF:87:ARG:HH22	1.80	0.46
7:AG:11:GLN:NE2	7:AG:12:LEU:H	2.13	0.46
25:D0:37:LEU:HG	25:D0:60:PHE:HA	1.97	0.46
38:BD:71:ASP:CG	38:BD:103:ARG:HH22	2.18	0.46
22:CW:70:G:O2'	22:CW:71:C:H5'	2.15	0.46
41:BG:96:ARG:HG2	41:BG:97:ASP:N	2.31	0.46
53:DV:5:VAL:HG21	53:DV:35:LEU:CB	2.45	0.46
13:CM:94:ARG:N	13:CM:94:ARG:HD2	2.31	0.46
35:BA:2768:C:C2'	35:BA:2769:C:H5'	2.45	0.46
1:CA:640:A:O2'	8:CH:116:LYS:NZ	2.49	0.46
1:AA:187:C:O2'	20:AT:89:ARG:HD2	2.14	0.46
1:AA:1301:U:H5''	1:AA:1303:C:H41	1.81	0.46
1:CA:1192:C:C5	1:CA:1193:G:C8	3.03	0.46
6:CF:97:PHE:O	18:CR:30:ASP:HA	2.15	0.46
38:DD:83:GLU:HG3	38:DD:92:ILE:HD11	1.97	0.46
9:AI:10:ARG:HA	9:AI:104:ARG:HH12	1.80	0.46
27:B2:45:SER:O	27:B2:46:GLN:CD	2.54	0.46
27:B2:36:ARG:NH2	55:BX:8:ILE:O	2.48	0.46
11:CK:124:LYS:NZ	11:CK:124:LYS:CB	2.78	0.46
49:DR:66:VAL:HG12	49:DR:70:LEU:HD12	1.97	0.46
18:AR:81:PHE:O	18:AR:82:THR:CB	2.63	0.46
1:AA:19:C:O2'	1:AA:20:U:H5'	2.15	0.46
1:AA:15:G:H1'	5:AE:19:MET:SD	2.56	0.46
17:AQ:4:LYS:HD3	17:AQ:5:VAL:N	2.30	0.46
31:D6:43:CYS:C	31:D6:45:LYS:H	2.18	0.46
41:DG:36:LYS:HG2	41:DG:37:VAL:N	2.31	0.46
35:BA:1767:C:O2'	35:BA:1768:U:H5'	2.15	0.46
1:CA:1478:C:H2'	1:CA:1479:C:C6	2.50	0.46
49:DR:82:GLU:OE2	49:DR:82:GLU:N	2.48	0.46
12:CL:30:ARG:HD3	12:CL:59:SER:HB3	1.97	0.46
20:CT:47:GLY:O	20:CT:48:LYS:C	2.53	0.46
39:BE:67:PHE:O	39:BE:70:ALA:HB2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BQ:35:VAL:HG22	48:BQ:36:ALA:N	2.31	0.46
35:DA:1188:U:H2'	35:DA:1189:A:H5'	1.97	0.46
35:DA:2533:A:H5'	35:DA:2665:A:H1'	1.98	0.46
26:B1:56:GLN:NE2	26:B1:85:LEU:HG	2.31	0.46
56:DY:68:HIS:HB3	56:DY:71:LYS:HG2	1.98	0.46
1:AA:1377:A:H2'	7:AG:7:ALA:HB2	1.98	0.46
11:AK:17:GLY:CA	11:AK:80:VAL:HG12	2.45	0.46
1:CA:560:U:H4'	1:CA:561:U:H5''	1.98	0.46
6:CF:100:ASN:HD21	18:CR:23:LYS:CG	2.29	0.46
10:CJ:43:ARG:HG3	10:CJ:43:ARG:HH11	1.81	0.46
1:AA:341:C:H2'	1:AA:342:C:H6	1.79	0.46
1:AA:782:A:C2'	1:AA:783:C:H5'	2.46	0.46
2:AB:127:ILE:HD11	2:AB:139:LYS:HZ1	1.81	0.46
6:AF:45:LEU:HD21	6:AF:57:GLN:OE1	2.16	0.46
1:AA:39:G:C2	1:AA:40:C:C6	3.03	0.46
34:D9:29:ASN:ND2	34:D9:31:LYS:HB2	2.30	0.46
34:D9:31:LYS:HD3	35:DA:2528:U:C5'	2.46	0.46
34:B9:29:ASN:ND2	34:B9:31:LYS:HB2	2.31	0.46
57:BZ:179:ASP:CG	57:BZ:180:VAL:N	2.68	0.46
1:AA:908:A:H2'	1:AA:909:A:H8	1.81	0.46
20:AT:96:GLY:O	20:AT:97:ALA:HB3	2.16	0.46
38:DD:113:VAL:HG12	38:DD:114:GLY:H	1.81	0.46
45:DN:71:ILE:HG21	45:DN:84:LYS:HB3	1.97	0.46
1:CA:189(B):C:H2'	1:CA:189(C):C:C6	2.51	0.46
44:DJ:22:UNK:O	44:DJ:119:UNK:HA	2.16	0.46
12:CL:24:LEU:C	12:CL:26:GLY:H	2.17	0.46
35:BA:1036:G:O2'	35:BA:1037:G:H5'	2.16	0.46
4:CD:191:ARG:HH11	4:CD:191:ARG:HG3	1.81	0.46
1:AA:10:A:O2'	1:AA:11:G:H5'	2.15	0.46
11:CK:126:ARG:O	11:CK:128:ALA:N	2.49	0.46
35:BA:2642:G:O2'	35:BA:2643:G:H5'	2.14	0.46
42:BH:20:ALA:HB3	42:BH:23:ARG:CG	2.46	0.46
42:DH:7:LEU:O	42:DH:69:ARG:HD2	2.15	0.46
47:DP:64:LYS:C	47:DP:64:LYS:HD3	2.36	0.46
1:CA:632:A:H3'	1:CA:633:G:H5'	1.98	0.46
40:DF:3:GLU:HA	40:DF:24:LEU:HB2	1.96	0.46
5:CE:43:LEU:CD2	5:CE:132:ALA:HB1	2.43	0.46
51:DT:91:ARG:HB3	51:DT:117:ASP:N	2.31	0.46
33:B8:54:GLU:O	33:B8:58:ILE:HG12	2.15	0.46
47:BP:49:ARG:NH2	47:BP:50:ARG:HH22	2.13	0.46
12:AL:81:LEU:HD13	12:AL:102:TYR:HE1	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:18:C:C2	1:CA:918:A:C2	3.03	0.46
2:CB:168:THR:OG1	2:CB:191:ASP:HB3	2.14	0.46
57:DZ:3:TYR:O	57:DZ:58:VAL:HG23	2.15	0.46
5:AE:11:ILE:CD1	5:AE:31:LEU:HD12	2.42	0.46
2:AB:20:GLU:O	2:AB:39:ILE:HG23	2.15	0.46
29:D4:30:GLU:C	29:D4:31:ILE:HD12	2.35	0.46
1:CA:1219:U:H2'	1:CA:1220:G:C8	2.48	0.46
1:CA:1377:A:H2'	7:CG:7:ALA:HB2	1.97	0.46
13:CM:8:GLU:N	13:CM:8:GLU:OE1	2.43	0.46
19:AS:40:ILE:HD12	19:AS:62:ILE:CD1	2.46	0.46
4:AD:134:ASP:C	4:AD:135:LEU:HD13	2.36	0.46
35:BA:1593:G:H2'	35:BA:1594:G:C8	2.50	0.46
13:AM:14:ARG:HA	13:AM:44:ARG:HA	1.96	0.46
47:BP:16:ARG:HB2	47:BP:16:ARG:NH1	2.30	0.46
45:BN:30:ILE:HD13	45:BN:54:VAL:HG21	1.98	0.46
30:B5:16:ARG:HD2	30:B5:20:ARG:NH2	2.31	0.46
40:DF:164:ARG:HG2	40:DF:164:ARG:HH11	1.79	0.46
41:DG:60:LEU:HD23	41:DG:60:LEU:C	2.35	0.46
35:BA:1717:G:C3'	35:BA:1718:G:H5''	2.46	0.46
26:B1:44:PRO:O	26:B1:46:LEU:N	2.48	0.46
35:BA:2822:G:O6	49:BR:4:LEU:HD23	2.16	0.46
53:BV:18:LEU:CG	53:BV:19:LYS:H	2.29	0.46
4:AD:8:VAL:HG11	4:AD:115:ARG:CZ	2.45	0.46
13:CM:93:ARG:HG3	35:DA:888:C:OP2	2.15	0.46
53:BV:5:VAL:HG21	53:BV:35:LEU:HB3	1.96	0.46
35:BA:1021:A:H8	35:BA:1022:G:H5''	1.80	0.46
7:CG:16:LEU:HD12	9:CI:42:ARG:HA	1.97	0.46
41:DG:174:GLU:C	41:DG:176:LEU:H	2.19	0.46
22:CW:47:U:H5''	22:CW:48:C:H5'	1.98	0.46
35:DA:483:A:H4'	56:DY:49:VAL:HG22	1.96	0.46
35:BA:2807:G:H2'	35:BA:2808:U:H5''	1.97	0.46
31:B6:15:GLU:OE1	31:B6:18:ARG:CD	2.63	0.46
35:BA:2877:G:O2'	35:BA:2878:U:H5'	2.15	0.46
2:CB:57:PHE:CE2	2:CB:185:ILE:HD11	2.51	0.46
34:D9:22:ARG:NH2	35:DA:2741:A:OP1	2.49	0.46
5:AE:70:PRO:HB2	5:AE:144:THR:HG22	1.96	0.46
9:AI:126:SER:O	9:AI:127:LYS:CB	2.64	0.46
40:BF:65:TRP:HH2	40:BF:73:ALA:O	1.98	0.46
20:CT:26:ASN:O	20:CT:30:LYS:HB2	2.15	0.46
38:DD:28:GLU:N	38:DD:29:PRO:HD2	2.30	0.46
3:AC:46:GLU:H	3:AC:46:GLU:CD	2.19	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2745:C:H2'	35:DA:2746:U:C6	2.50	0.46
27:D2:30:ARG:NH1	27:D2:30:ARG:HG3	2.30	0.46
35:BA:1316:U:H2'	35:BA:1317:A:C8	2.50	0.46
10:CJ:8:LEU:HD12	10:CJ:20:ALA:HB2	1.97	0.46
27:B2:30:ARG:HG2	27:B2:30:ARG:O	2.15	0.46
35:DA:882:G:H2'	35:DA:883:G:C8	2.50	0.46
1:AA:512:U:H2'	1:AA:513:C:C6	2.50	0.46
1:CA:751:U:O2'	1:CA:752:G:H5'	2.15	0.46
35:DA:247:G:H4'	35:DA:386:G:C5	2.50	0.46
35:BA:971:C:H2'	35:BA:972:G:C5'	2.45	0.46
41:BG:78:SER:O	41:BG:80:PHE:N	2.49	0.46
35:DA:230:U:O2'	35:DA:231:C:H5'	2.15	0.46
35:DA:2063:C:O2	35:DA:2450:A:N1	2.49	0.46
35:DA:422:A:C6	35:DA:423:A:C6	3.03	0.46
1:AA:294:U:H2'	1:AA:295:C:H6	1.81	0.46
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.50	0.46
7:AG:140:ASP:HA	7:AG:143:ARG:HH11	1.81	0.46
35:DA:667:U:H2'	35:DA:668:G:O4'	2.16	0.46
35:BA:127:A:H5''	35:BA:128:C:C6	2.51	0.46
20:CT:42:GLN:NE2	20:CT:42:GLN:HA	2.31	0.46
32:D7:3:ARG:HA	32:D7:3:ARG:HD3	1.79	0.46
28:B3:8:LEU:HD22	28:B3:31:LEU:CD2	2.45	0.46
35:DA:1782:C:O2'	35:DA:2609:U:H5''	2.15	0.46
42:BH:20:ALA:HB1	42:BH:21:PRO:CD	2.46	0.46
22:CV:54:U:H2'	22:CV:55:U:C5'	2.43	0.46
1:CA:1060:C:H4'	10:CJ:52:GLY:CA	2.43	0.46
58:CX:17:U:O2	58:CX:17:U:H2'	2.15	0.46
35:DA:336:C:H4'	56:DY:7:VAL:HG21	1.96	0.46
40:BF:196:LEU:O	40:BF:198:ALA:N	2.48	0.46
35:BA:1530:C:O2	35:BA:1530:C:C2'	2.61	0.46
1:AA:625:G:H2'	1:AA:626:U:C6	2.51	0.46
51:DT:28:VAL:HA	51:DT:45:PHE:O	2.15	0.46
57:BZ:141:VAL:HA	57:BZ:144:LEU:HD21	1.98	0.46
57:BZ:151:HIS:CB	57:BZ:170:THR:HG23	2.44	0.46
33:B8:63:PRO:O	33:B8:64:TYR:O	2.33	0.46
12:CL:81:LEU:HD13	12:CL:102:TYR:HE1	1.80	0.46
35:DA:1485:G:H2'	35:DA:1486:A:C8	2.51	0.46
35:BA:1504:C:C3'	35:BA:1505:C:H5''	2.45	0.46
1:CA:865:A:C2	1:CA:918:A:C4'	2.98	0.46
1:CA:865:A:O2'	1:CA:919:A:C4'	2.63	0.46
1:AA:1152:A:H5''	10:AJ:13:HIS:CE1	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DZ:27:VAL:N	57:DZ:86:VAL:O	2.42	0.46
19:AS:12:ASP:O	19:AS:16:LEU:HB2	2.16	0.46
57:BZ:24:LEU:HD11	57:BZ:86:VAL:CG2	2.29	0.46
51:DT:12:SER:O	51:DT:15:VAL:HG13	2.16	0.46
22:CV:26:G:H1	22:CV:45:G:N2	2.14	0.46
43:BI:77:LEU:HD22	43:BI:140:LEU:CD2	2.46	0.46
43:BI:79:ILE:HG22	43:BI:81:VAL:H	1.80	0.46
35:DA:2320:A:H4'	35:DA:2321:G:C5	2.51	0.46
45:DN:54:VAL:HB	45:DN:122:VAL:HG22	1.97	0.46
46:BO:104:ARG:NH2	51:BT:33:LYS:HZ3	2.06	0.46
57:DZ:29:TYR:CB	57:DZ:34:ASN:HB2	2.46	0.46
29:B4:56:VAL:CG1	29:B4:57:GLU:H	2.18	0.46
1:AA:1128:C:N4	1:AA:1143:G:H1	2.09	0.46
54:BW:14:PRO:O	54:BW:15:ARG:C	2.54	0.46
38:BD:43:ARG:HD2	38:BD:44:ASN:CG	2.35	0.46
53:BV:20:LEU:N	53:BV:20:LEU:HD12	2.30	0.46
52:DU:102:GLU:N	52:DU:103:PRO:CD	2.79	0.46
15:AO:54:ARG:HH11	15:AO:58:MET:HE2	1.80	0.46
41:DG:16:ARG:NH2	41:DG:33:ARG:HD3	2.25	0.46
5:CE:139:LEU:CA	5:CE:142:LEU:HD12	2.42	0.46
6:AF:62:TRP:CG	18:AR:35:ARG:NH1	2.84	0.46
38:DD:45:ASN:C	38:DD:46:GLN:OE1	2.54	0.46
42:BH:144:VAL:HA	42:BH:147:ASN:CB	2.42	0.46
1:AA:1312:G:H1	1:AA:1325:C:H42	1.63	0.46
38:DD:215:LEU:HD12	38:DD:217:ARG:HH21	1.81	0.46
35:DA:651:G:N2	35:DA:652:C:N4	2.62	0.46
1:CA:256:U:H5'	17:CQ:17:LYS:HZ1	1.81	0.46
48:DQ:61:GLY:O	57:DZ:177:PRO:HB2	2.15	0.46
55:BX:7:VAL:CG1	55:BX:39:ILE:HD13	2.45	0.46
5:CE:6:PHE:HZ	5:CE:40:ARG:HH21	1.63	0.46
47:DP:71:VAL:HG13	47:DP:72:PRO:HD3	1.98	0.46
7:CG:92:SER:OG	7:CG:93:PRO:HD2	2.16	0.46
35:BA:2876:G:O2'	35:BA:2877:G:H5'	2.16	0.46
11:AK:88:GLY:O	11:AK:90:GLY:N	2.49	0.46
25:B0:43:THR:HG22	35:BA:2332:U:H5'	1.97	0.46
5:CE:70:PRO:HB2	5:CE:144:THR:HG22	1.98	0.46
4:CD:61:LYS:HD3	4:CD:206:PHE:CE2	2.50	0.46
1:CA:1434:A:H62	1:CA:1435:G:N2	2.13	0.46
1:CA:59:A:H1'	1:CA:354:G:N2	2.29	0.46
35:DA:533:G:H5'	52:DU:24:TYR:CE2	2.50	0.46
35:BA:2649:U:H2'	35:BA:2650:U:C6	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:39:GLY:O	9:CI:41:VAL:HG23	2.16	0.46
10:AJ:100:THR:CG2	10:AJ:101:VAL:N	2.78	0.46
15:AO:17:ARG:HH11	15:AO:17:ARG:HG3	1.80	0.46
35:DA:795:C:H2'	35:DA:796:C:H6	1.81	0.46
11:CK:80:VAL:O	11:CK:80:VAL:HG23	2.16	0.46
42:BH:60:ARG:O	42:BH:64:LEU:HD23	2.16	0.46
49:BR:7:GLY:C	49:BR:8:ARG:NE	2.69	0.46
50:DS:41:ASP:CB	50:DS:48:LEU:HD11	2.46	0.46
35:BA:2601:C:H2'	35:BA:2603:G:C8	2.51	0.46
35:DA:535:C:C2'	35:DA:536:A:H5'	2.45	0.46
13:AM:65:LYS:HA	13:AM:66:LEU:N	2.31	0.46
22:AW:38:A:C2'	22:AW:39:C:H5'	2.46	0.46
35:BA:660:G:H5'	40:BF:99:TYR:CD2	2.50	0.46
1:AA:1223:C:O5'	1:AA:1224:G:H5''	2.16	0.46
12:AL:33:VAL:N	12:AL:55:VAL:HG13	2.31	0.46
35:DA:105:C:H2'	35:DA:106:C:H6	1.80	0.46
35:BA:142(A):C:O2'	35:BA:143:G:H5'	2.16	0.46
35:BA:2639:A:C2'	35:BA:2640:G:H5'	2.45	0.46
2:AB:61:LEU:HD11	2:AB:160:ASP:HB2	1.96	0.46
1:AA:967:C:H2'	1:AA:968:A:C8	2.51	0.46
22:AW:21:A:H3'	22:AW:21:A:OP2	2.16	0.46
1:AA:581:G:OP1	15:AO:61:GLY:HA3	2.16	0.46
36:DB:24:G:H5'	36:DB:25:A:N7	2.30	0.46
1:CA:419:C:H42	1:CA:424:G:H1	1.62	0.46
1:AA:751:U:O2'	1:AA:752:G:H5'	2.16	0.46
35:BA:225:A:C2'	35:BA:226:G:H5'	2.46	0.46
1:CA:1316:G:H5''	14:CN:17:LYS:CE	2.45	0.46
35:DA:414:C:H2'	35:DA:415:A:C8	2.51	0.46
1:AA:1471:G:O2'	1:AA:1472:U:H5'	2.16	0.46
35:BA:186:G:O2'	35:BA:187:G:H5'	2.16	0.46
35:DA:1530:C:O2'	35:DA:1531:C:H5''	2.15	0.46
41:DG:4:ASP:HB2	41:DG:8:LYS:HD3	1.98	0.46
1:AA:130:A:C8	17:AQ:63:ARG:HG3	2.51	0.46
11:AK:126:ARG:O	11:AK:128:ALA:N	2.49	0.46
1:AA:1230:C:H2'	1:AA:1231:G:H8	1.80	0.46
26:D1:21:ARG:O	26:D1:32:LYS:HA	2.16	0.46
41:DG:77:ILE:HG22	41:DG:77:ILE:O	2.16	0.46
6:AF:30:LEU:HD23	6:AF:30:LEU:H	1.80	0.46
1:AA:805:C:H2'	1:AA:806:C:H6	1.81	0.46
22:CW:24:U:O2'	22:CW:25:C:H5'	2.16	0.46
1:CA:238:G:O2'	1:CA:239:U:H5'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1526:G:C6	35:BA:1527:G:C2	3.04	0.46
42:DH:49:VAL:HG23	42:DH:50:VAL:N	2.30	0.46
24:AY:23:ASP:O	24:AY:24:LEU:C	2.52	0.46
24:AY:30:LYS:HE3	24:AY:95:TYR:O	2.16	0.46
24:AY:38:GLY:CA	24:AY:39:LYS:CD	2.88	0.46
56:BY:76:CYS:CB	56:BY:96:ILE:HD11	2.46	0.46
56:DY:96:ILE:CG2	56:DY:97:ARG:N	2.77	0.46
56:DY:11:ASP:O	56:DY:28:LYS:HE3	2.15	0.46
47:BP:23:PRO:C	47:BP:33:ARG:NH1	2.70	0.46
35:BA:1449:A:H2	35:BA:1529:G:H1'	1.72	0.46
51:BT:88:ILE:HG22	51:BT:89:VAL:N	2.30	0.46
35:DA:609:A:H2'	35:DA:610:G:O4'	2.16	0.46
35:DA:613:G:H8	35:DA:613:G:C5'	2.23	0.46
50:BS:90:GLY:O	50:BS:92:TYR:N	2.41	0.46
56:BY:11:ASP:O	56:BY:28:LYS:HE3	2.16	0.46
52:DU:86:ALA:HB3	52:DU:88:ILE:HG12	1.97	0.46
1:CA:1442:G:H2'	51:DT:118:ARG:HH12	1.81	0.46
33:D8:33:ASN:OD1	33:D8:33:ASN:N	2.46	0.46
1:CA:572:A:O4'	1:CA:917:G:O4'	2.33	0.46
2:CB:15:VAL:C	2:CB:16:HIS:CG	2.89	0.46
2:CB:219:VAL:O	2:CB:222:ILE:HB	2.16	0.46
8:CH:21:LYS:NZ	8:CH:21:LYS:HB3	2.31	0.46
57:DZ:37:VAL:HG23	57:DZ:38:TYR:N	2.31	0.46
57:DZ:73:GLN:O	57:DZ:87:ASP:HB2	2.15	0.46
2:AB:187:LEU:HD13	2:AB:205:ASP:CA	2.45	0.46
41:DG:116:ASP:O	41:DG:117:PHE:HB3	2.16	0.46
41:DG:83:ARG:O	41:DG:84:LYS:O	2.34	0.46
3:AC:62:ASP:HA	3:AC:97:LYS:HE2	1.97	0.46
19:CS:11:VAL:CG2	19:CS:12:ASP:H	2.11	0.46
9:CI:16:ARG:NE	9:CI:64:THR:HB	2.31	0.46
7:CG:29:LYS:HB3	7:CG:105:VAL:HG21	1.97	0.46
8:AH:20:TYR:HD1	8:AH:65:TYR:CE2	2.33	0.46
43:BI:140:LEU:HD23	43:BI:141:LYS:N	2.30	0.46
35:BA:146:G:H2'	35:BA:147:U:O4'	2.15	0.46
1:AA:357:G:O2'	1:AA:358:U:H5'	2.15	0.46
1:AA:1125:U:H4'	1:AA:1126:U:H5	1.80	0.46
3:AC:35:GLU:HG2	3:AC:39:ILE:HD11	1.96	0.46
13:AM:9:ILE:HG22	13:AM:9:ILE:O	2.16	0.46
47:BP:16:ARG:HG3	47:BP:17:LYS:H	1.80	0.46
25:B0:66:VAL:CG1	25:B0:67:VAL:H	2.29	0.46
4:CD:8:VAL:O	4:CD:11:LEU:HG	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2111:C:O4'	35:DA:2118:U:H4'	2.15	0.46
38:BD:71:ASP:OD2	38:BD:103:ARG:NH2	2.48	0.46
38:BD:133:LEU:C	38:BD:135:PHE:H	2.18	0.46
1:CA:1305:G:N2	1:CA:1331:G:H1'	2.29	0.46
38:BD:43:ARG:HH11	38:BD:44:ASN:ND2	2.13	0.46
35:DA:2732:G:O2'	35:DA:2733:A:H5'	2.16	0.46
7:CG:79:ARG:HG3	7:CG:84:ASN:OD1	2.16	0.46
54:BW:1:MET:HE3	54:BW:2:GLU:N	2.28	0.46
9:CI:10:ARG:CZ	9:CI:105:ASP:HB2	2.46	0.46
22:AW:3:C:H42	22:AW:70:G:H1	1.62	0.46
7:CG:20:ASP:O	7:CG:24:THR:HG23	2.15	0.46
3:CC:6:HIS:CD2	3:CC:7:PRO:HD2	2.49	0.46
51:DT:128:GLU:O	51:DT:129:ARG:C	2.54	0.46
43:DI:8:PRO:HB3	43:DI:15:VAL:N	2.30	0.46
17:AQ:32:TYR:O	17:AQ:34:LYS:N	2.49	0.46
35:DA:2698:U:H2'	35:DA:2699:C:C6	2.51	0.46
15:CO:53:HIS:O	15:CO:57:LEU:HG	2.16	0.46
35:DA:991:C:H2'	35:DA:992:C:H6	1.81	0.46
5:AE:39:GLY:HA3	5:AE:71:LEU:HD11	1.96	0.46
35:BA:2208:A:H1'	35:BA:2219:G:C4	2.49	0.46
1:CA:1228:C:H2'	1:CA:1229:A:C8	2.42	0.46
4:CD:20:TYR:CD2	4:CD:26:CYS:HB3	2.50	0.46
18:CR:74:ARG:NH2	18:CR:81:PHE:HA	2.30	0.46
16:CP:80:PHE:O	16:CP:81:ARG:C	2.53	0.46
35:DA:271(F):C:O2'	35:DA:271(G):C:H5'	2.15	0.46
35:BA:863:A:O2'	35:BA:864:G:H5'	2.15	0.46
33:B8:2:PRO:O	33:B8:3:LYS:CB	2.64	0.46
18:CR:36:ASN:HB3	18:CR:39:VAL:HG21	1.98	0.46
36:DB:45:A:C4	36:DB:46:A:C8	3.04	0.46
35:BA:512:G:C2'	35:BA:513:A:OP2	2.64	0.46
35:DA:860:U:C5	35:DA:917:A:N7	2.79	0.46
1:AA:59:A:H1'	1:AA:354:G:N2	2.31	0.46
1:CA:1381:U:H5	1:CA:1382:C:C4	2.34	0.46
1:CA:556:C:C2'	1:CA:557:G:H5'	2.45	0.46
35:DA:2649:U:H2'	35:DA:2650:U:C6	2.51	0.46
42:DH:95:ARG:HD2	42:DH:95:ARG:C	2.35	0.46
42:BH:95:ARG:N	42:BH:107:VAL:HG12	2.30	0.46
41:BG:125:PHE:CZ	41:BG:131:TYR:CD1	3.04	0.46
1:AA:272:C:C2	1:AA:273:A:C8	3.04	0.46
1:AA:221:C:O2'	1:AA:222:U:H5'	2.16	0.46
1:CA:375:U:H4'	16:CP:17:TYR:CE2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CN:4:LYS:NZ	14:CN:4:LYS:HB2	2.30	0.46
48:DQ:50:ALA:O	48:DQ:51:ARG:C	2.54	0.46
11:AK:80:VAL:HG23	11:AK:80:VAL:O	2.16	0.46
35:BA:244:A:O3'	47:BP:74:GLU:HB3	2.14	0.46
35:DA:2773:C:O2'	35:DA:2774:C:H5'	2.15	0.46
1:AA:312:C:O2'	1:AA:313:A:H5'	2.16	0.46
46:BO:69:ILE:HD12	46:BO:69:ILE:H	1.80	0.46
35:BA:2158:A:C4'	35:BA:2159:G:H5'	2.46	0.46
4:AD:169:LYS:HZ2	6:CF:25:ILE:HD11	1.80	0.46
35:BA:520:G:O2'	35:BA:521:G:H5'	2.16	0.46
35:DA:716:A:C3'	35:DA:717:G:H5''	2.46	0.46
48:DQ:41:TRP:HB3	48:DQ:94:VAL:HB	1.98	0.46
35:BA:1270:C:H5''	35:BA:1271:G:C5'	2.45	0.46
35:DA:1223:G:C5'	35:DA:1224:C:OP2	2.64	0.46
1:AA:676:A:O2'	1:AA:677:U:H5'	2.16	0.46
54:BW:85:VAL:CG1	54:BW:86:LEU:N	2.78	0.46
35:BA:2124:G:C2'	35:BA:2125:G:H5'	2.45	0.46
35:BA:92:A:H2'	35:BA:93:G:O4'	2.16	0.46
35:BA:1809:A:H2'	35:BA:1810:A:C8	2.50	0.46
57:BZ:128:VAL:HG22	57:BZ:129:SER:H	1.80	0.46
43:BI:99:GLU:CD	43:BI:100:ALA:H	2.19	0.46
53:DV:75:PHE:CD1	53:DV:75:PHE:C	2.89	0.46
47:DP:29:LYS:HB3	47:DP:34:GLY:CA	2.45	0.46
1:AA:630:G:H3'	1:AA:631:G:H5'	1.98	0.46
50:BS:28:VAL:HG12	50:BS:29:PHE:N	2.30	0.46
51:DT:88:ILE:HG22	51:DT:89:VAL:N	2.30	0.46
57:BZ:29:TYR:HB3	57:BZ:34:ASN:HA	1.97	0.46
12:AL:51:LYS:O	12:AL:67:ILE:HG13	2.15	0.46
2:CB:76:GLN:HG2	2:CB:206:ASP:O	2.16	0.46
8:CH:61:VAL:O	8:CH:63:LEU:HD22	2.15	0.46
1:AA:6:G:N7	5:AE:119:LEU:HD11	2.31	0.46
38:BD:32:SER:O	38:BD:36:PRO:CD	2.63	0.46
3:CC:90:GLU:HA	3:CC:93:LYS:HZ3	1.79	0.46
19:CS:41:VAL:O	19:CS:42:PRO:O	2.34	0.46
47:BP:79:ARG:HH21	47:BP:109:GLY:HA2	1.80	0.46
35:BA:2846:G:H2'	35:BA:2847:U:O4'	2.15	0.46
51:DT:35:LYS:O	51:DT:36:GLU:C	2.54	0.46
19:AS:31:ILE:HG21	19:AS:49:ILE:HG22	1.98	0.46
47:DP:7:ARG:CD	47:DP:7:ARG:N	2.73	0.46
43:DI:120:ILE:O	43:DI:121:LYS:C	2.55	0.46
43:DI:77:LEU:HB3	43:DI:140:LEU:HA	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:76:ASN:O	10:AJ:78:ASN:N	2.42	0.46
45:DN:128:HIS:CD2	45:DN:130:HIS:HB2	2.44	0.46
41:BG:48:GLU:O	41:BG:51:ARG:HG2	2.16	0.46
29:B4:55:ARG:C	29:B4:55:ARG:HD3	2.36	0.46
35:DA:2693:A:H2'	35:DA:2694:G:C8	2.50	0.46
10:CJ:44:VAL:HG11	10:CJ:46:ARG:NH2	2.31	0.46
51:DT:31:SER:OG	51:DT:32:TYR:N	2.48	0.46
1:CA:1334:G:H5'	1:CA:1335:C:OP2	2.15	0.46
38:BD:83:GLU:HG3	38:BD:92:ILE:HD11	1.98	0.46
41:BG:17:PRO:HG2	41:BG:18:GLU:N	2.31	0.46
37:DC:74:VAL:C	37:DC:76:ALA:H	2.18	0.46
53:DV:34:GLU:O	53:DV:36:PRO:CD	2.64	0.46
1:AA:1198:G:H2'	1:AA:1199:U:C6	2.51	0.46
1:CA:783:C:H2'	1:CA:784:C:H6	1.80	0.46
8:AH:104:ARG:O	8:AH:105:ARG:HB3	2.16	0.46
54:BW:64:MET:C	54:BW:65:LEU:HD23	2.36	0.46
7:CG:57:GLU:N	7:CG:57:GLU:OE1	2.49	0.46
7:AG:20:ASP:O	7:AG:24:THR:HG23	2.15	0.46
38:DD:213:ARG:HD2	38:DD:217:ARG:O	2.16	0.46
1:AA:402:G:O2'	1:AA:403:C:H5'	2.16	0.46
40:DF:132:VAL:HG22	40:DF:133:ASN:ND2	2.31	0.46
3:AC:150:LYS:HE3	3:AC:167:TRP:HE1	1.80	0.46
4:CD:157:LEU:HD12	4:CD:157:LEU:H	1.81	0.46
31:B6:15:GLU:OE2	31:B6:43:CYS:SG	2.74	0.46
5:AE:41:VAL:HG13	5:AE:113:ALA:HA	1.97	0.46
17:CQ:4:LYS:HD3	17:CQ:5:VAL:H	1.81	0.46
4:CD:64:LEU:HD12	4:CD:198:VAL:HG21	1.98	0.46
16:CP:80:PHE:N	16:CP:80:PHE:CD1	2.83	0.46
40:BF:110:LEU:O	40:BF:114:VAL:HG23	2.15	0.46
27:B2:49:LYS:O	27:B2:53:LEU:HB2	2.16	0.46
11:CK:54:ARG:NH1	22:CW:40:C:H5'	2.30	0.46
1:AA:678:U:O2'	1:AA:679:C:H5'	2.16	0.46
34:B9:17:ILE:HD13	34:B9:17:ILE:C	2.36	0.46
1:CA:1090:U:H2'	1:CA:1091:U:H6	1.79	0.46
20:CT:30:LYS:HE2	20:CT:30:LYS:CA	2.46	0.46
15:CO:8:LYS:HG3	15:CO:31:LEU:HD21	1.98	0.46
44:DJ:74:UNK:C	44:DJ:76:UNK:N	2.77	0.46
44:DJ:131:UNK:O	44:DJ:132:UNK:CB	2.62	0.46
37:DC:47:LEU:HB3	37:DC:207:THR:CB	2.46	0.46
3:CC:140:ARG:CB	3:CC:140:ARG:HH11	2.29	0.46
35:DA:2051:A:H5'	35:DA:2578:G:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BU:21:ALA:HA	52:BU:24:TYR:CE1	2.51	0.46
37:DC:80:GLY:HA2	37:DC:96:GLY:CA	2.46	0.46
35:DA:1232:G:H2'	35:DA:1233:C:H6	1.79	0.46
35:DA:1516:C:H2'	35:DA:1517:G:H8	1.81	0.46
35:BA:1988:C:O2'	35:BA:1989:G:H5'	2.16	0.46
35:BA:118:A:C8	35:BA:119:A:C8	3.04	0.46
35:DA:1412:A:O2'	35:DA:1413:G:H5'	2.15	0.46
35:DA:588:U:H1'	40:DF:90:PHE:CG	2.51	0.46
3:CC:78:GLY:O	3:CC:79:ARG:HB3	2.15	0.46
35:BA:71:A:H5''	35:BA:73:A:C8	2.50	0.46
35:DA:2636:U:H4'	39:DE:80:GLU:CD	2.36	0.46
35:DA:580:C:H2'	35:DA:581:C:H6	1.80	0.46
33:B8:55:ALA:O	33:B8:57:ARG:N	2.49	0.46
1:AA:56:U:H2'	1:AA:57:G:C8	2.51	0.46
35:DA:614(A):U:H4'	35:DA:614(B):G:H5''	1.97	0.46
35:DA:2007:C:H2'	35:DA:2008:C:H6	1.80	0.46
40:BF:46:ARG:HH11	40:BF:46:ARG:HG3	1.81	0.46
20:AT:32:ALA:O	20:AT:36:LEU:HD23	2.15	0.46
49:DR:94:TYR:C	49:DR:117:VAL:HG23	2.36	0.46
37:BC:68:LEU:HB3	37:BC:69:GLY:H	1.55	0.46
35:BA:1573:G:H2'	35:BA:1574:C:H5'	1.98	0.46
35:DA:2848:G:H8	51:DT:97:ALA:HB2	1.81	0.46
1:CA:967:C:H4'	9:CI:125:TYR:CE2	2.50	0.46
35:DA:669:G:HO2'	35:DA:669:G:H8	1.61	0.46
42:DH:167:GLU:N	42:DH:167:GLU:CD	2.70	0.46
55:DX:57:LEU:HD22	55:DX:57:LEU:O	2.16	0.46
10:AJ:86:MET:HG3	10:AJ:86:MET:O	2.16	0.46
47:DP:123:LEU:C	47:DP:123:LEU:HD12	2.36	0.46
35:DA:1763:G:H2'	35:DA:1764:G:C5'	2.46	0.46
20:CT:84:LEU:HD13	20:CT:84:LEU:C	2.36	0.46
35:DA:2472:G:H5'	35:DA:2473:U:H5'	1.89	0.46
35:DA:2474:C:H5'	35:DA:2475:C:C5	2.51	0.46
1:CA:1346:A:H5'	9:CI:120:ARG:HH12	1.80	0.46
58:CX:16:A:N3	58:CX:16:A:H2'	2.30	0.46
35:DA:941:A:H2'	35:DA:942:G:C8	2.51	0.46
35:DA:1190:G:H5'	47:DP:35:HIS:H	1.81	0.46
40:BF:25:PRO:C	40:BF:27:GLU:N	2.62	0.46
52:BU:79:PHE:O	52:BU:83:LEU:CD1	2.63	0.46
51:BT:85:LYS:NZ	51:BT:85:LYS:CA	2.79	0.46
56:BY:40:GLU:HA	56:BY:40:GLU:OE2	2.15	0.46
56:BY:7:VAL:CG2	56:BY:8:LYS:HZ2	2.29	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:6:G:C8	5:CE:119:LEU:HD11	2.51	0.46
35:DA:2285:C:C2'	35:DA:2286:A:H5'	2.45	0.46
47:DP:39:LYS:C	47:DP:41:ARG:HD2	2.36	0.46
2:AB:9:GLU:OE2	2:AB:10:LEU:N	2.49	0.46
35:DA:2305:A:H3'	35:DA:2306:C:C5'	2.35	0.46
41:DG:39:ILE:HA	41:DG:156:ASP:O	2.16	0.46
1:CA:1321:C:H5''	1:CA:1322:C:H2'	1.97	0.46
47:DP:88:LEU:O	47:DP:90:ARG:N	2.49	0.46
50:DS:15:ARG:C	50:DS:17:ARG:N	2.68	0.46
6:CF:69:GLU:O	6:CF:72:VAL:N	2.45	0.46
1:CA:1152:A:C5'	10:CJ:70:ARG:HH22	2.16	0.46
35:DA:676:A:H2	35:DA:802:A:N6	2.05	0.46
22:CW:17(A):U:H2'	22:CW:18:G:C5'	2.38	0.46
13:CM:9:ILE:HG22	13:CM:9:ILE:O	2.16	0.46
35:DA:1239:G:H2'	35:DA:1240:U:O4'	2.15	0.46
22:AV:62:C:H2'	22:AV:63:G:C8	2.51	0.46
7:AG:118:VAL:O	7:AG:121:ALA:HB3	2.15	0.46
43:BI:76:THR:HG22	43:BI:141:LYS:HE2	1.98	0.46
9:AI:16:ARG:NH1	9:AI:16:ARG:HG2	2.31	0.46
9:AI:16:ARG:NE	9:AI:64:THR:HB	2.30	0.46
1:AA:537:G:H5''	12:AL:110:ARG:NH1	2.31	0.46
1:AA:1296:C:H3'	1:AA:1297:C:C6	2.51	0.46
8:AH:5:PRO:HG2	8:AH:6:ILE:CD1	2.36	0.46
4:AD:114:ARG:NH1	4:AD:114:ARG:CG	2.76	0.46
35:BA:2723:C:H5''	49:BR:2:ARG:HD2	1.97	0.46
1:CA:1424:C:O2'	1:CA:1425:U:H5'	2.16	0.46
1:CA:1470:G:O2'	1:CA:1471:G:H5'	2.16	0.46
41:BG:100:TRP:C	41:BG:102:PHE:N	2.69	0.46
41:BG:95:ARG:HH11	41:BG:95:ARG:HG2	1.80	0.46
1:CA:1294:G:H2'	1:CA:1295:G:C8	2.51	0.46
35:BA:1494:A:H1'	35:BA:1496:A:C2	2.51	0.46
4:AD:9:CYS:HB3	4:AD:32:ALA:HB3	1.98	0.46
53:DV:18:LEU:HD13	53:DV:19:LYS:H	1.77	0.46
54:DW:110:LYS:O	54:DW:112:GLY:N	2.49	0.46
45:DN:68:GLU:O	45:DN:69:GLN:CG	2.63	0.46
51:BT:100:TYR:HD2	51:BT:103:ARG:NH2	2.06	0.46
40:DF:162:LEU:CD2	40:DF:162:LEU:H	2.29	0.46
1:AA:405:U:H5''	1:AA:406:G:O4'	2.16	0.46
35:DA:2468:G:H22	35:DA:2481:G:C2'	2.23	0.46
1:AA:1106:G:H2'	1:AA:1107:C:C6	2.50	0.46
2:CB:118:LEU:C	2:CB:120:ALA:N	2.69	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:50:HIS:O	15:CO:53:HIS:HB3	2.16	0.46
9:CI:79:LEU:HA	9:CI:101:PHE:O	2.15	0.46
38:DD:71:ASP:OD2	38:DD:103:ARG:NH2	2.49	0.46
10:CJ:75:ILE:HG13	10:CJ:76:ASN:H	1.80	0.46
35:BA:2206:G:H21	35:BA:2207:G:C5'	2.29	0.46
39:BE:103:ASP:OD2	39:BE:202:LYS:HD2	2.15	0.46
31:D6:15:GLU:O	31:D6:18:ARG:CZ	2.64	0.46
56:BY:30:VAL:HG12	56:BY:31:LEU:N	2.31	0.46
22:CW:28:C:O2'	22:CW:42:G:N1	2.42	0.46
35:BA:2654:A:H62	35:BA:2667:C:N4	2.14	0.46
40:BF:37:VAL:CG1	40:BF:184:TYR:HD1	2.27	0.46
1:AA:473:G:O2'	1:AA:474:G:H5'	2.15	0.46
4:AD:157:LEU:HD12	4:AD:157:LEU:H	1.81	0.46
57:BZ:52:SER:OG	57:BZ:53:ILE:N	2.49	0.46
9:AI:43:ALA:O	9:AI:45:ALA:N	2.48	0.46
35:DA:272(J):C:H5	35:DA:274:G:C6	2.34	0.46
41:BG:167:GLU:C	41:BG:169:ALA:N	2.68	0.46
39:DE:170:LEU:HD22	39:DE:170:LEU:N	2.31	0.46
1:CA:336:C:O2'	1:CA:337:C:H5'	2.15	0.46
16:AP:8:ARG:NH2	16:AP:15:PRO:HG3	2.29	0.46
1:CA:114:U:H2'	1:CA:115:G:C8	2.51	0.46
11:AK:73:MET:CE	11:AK:102:GLY:HA3	2.45	0.46
35:DA:154(A):C:N4	35:DA:171:G:H1	2.13	0.46
1:AA:1377:A:HO2'	7:AG:2:ALA:N	2.13	0.46
35:DA:2158:A:C4'	35:DA:2159:G:H5'	2.46	0.46
35:DA:899:A:H2'	35:DA:899:A:N3	2.30	0.46
35:BA:491:G:H2'	35:BA:492:A:H8	1.80	0.46
35:BA:605:C:O2'	35:BA:606:U:H5'	2.16	0.46
35:DA:1360:A:H5'	35:DA:1361:G:OP2	2.16	0.46
38:DD:115:GLN:HG2	38:DD:116:GLN:N	2.31	0.46
35:BA:1355:G:O2'	35:BA:1356:G:H5'	2.16	0.46
57:DZ:172:ALA:O	57:DZ:173:ALA:HB2	2.16	0.46
35:DA:628:G:H2'	35:DA:629:G:H8	1.81	0.46
35:BA:2870:C:H2'	35:BA:2871:C:O4'	2.16	0.46
35:DA:1637:A:H2'	35:DA:1638:C:C6	2.52	0.46
35:BA:2705:A:H2'	35:BA:2706:G:O4'	2.15	0.46
38:DD:218:ARG:HG3	38:DD:218:ARG:HH11	1.81	0.46
35:BA:2063:C:O2	35:BA:2450:A:N1	2.49	0.46
1:CA:38:G:N2	1:CA:397:A:P	2.85	0.45
27:D2:47:ASN:N	27:D2:47:ASN:OD1	2.49	0.45
35:DA:94:C:O2	35:DA:94:C:H2'	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:10:PRO:C	40:BF:128:ALA:HB2	2.37	0.45
1:AA:623:C:C4	1:AA:624:C:C5	3.04	0.45
1:AA:1442(B):A:C6	51:BT:118:ARG:NH2	2.84	0.45
40:DF:24:LEU:HD12	40:DF:25:PRO:HD3	1.98	0.45
53:DV:52:VAL:O	53:DV:52:VAL:HG13	2.16	0.45
51:DT:16:ARG:HH22	51:DT:82:LEU:H	1.64	0.45
35:BA:878:A:H2'	35:BA:879:G:O4'	2.16	0.45
12:CL:51:LYS:HB3	12:CL:67:ILE:CD1	2.45	0.45
12:CL:79:VAL:HB	12:CL:103:ASP:OD2	2.16	0.45
5:CE:20:GLN:O	5:CE:21:ALA:C	2.54	0.45
2:CB:20:GLU:O	2:CB:39:ILE:HG23	2.16	0.45
35:BA:2068:U:C2	35:BA:2430:A:H2	2.31	0.45
47:DP:96:THR:HG22	47:DP:126:VAL:CG2	2.45	0.45
47:BP:126:VAL:HG13	47:BP:145:PRO:HG2	1.98	0.45
48:DQ:29:PHE:HB2	48:DQ:105:GLU:OE2	2.16	0.45
46:DO:107:ARG:CZ	51:DT:35:LYS:HB2	2.46	0.45
43:BI:114:LEU:O	43:BI:116:LEU:N	2.47	0.45
43:DI:126:TYR:O	43:DI:140:LEU:O	2.33	0.45
43:DI:79:ILE:HG22	43:DI:81:VAL:H	1.80	0.45
9:AI:16:ARG:HH21	9:AI:64:THR:CB	2.29	0.45
35:BA:2468:G:H22	35:BA:2481:G:C2'	2.25	0.45
48:BQ:64:ILE:N	57:BZ:178:GLU:OE2	2.40	0.45
3:AC:35:GLU:HA	3:AC:38:ARG:CD	2.45	0.45
8:AH:29:SER:O	8:AH:32:LYS:N	2.49	0.45
25:B0:26:TYR:H	25:B0:29:GLN:NE2	2.14	0.45
25:B0:36:ILE:HD12	25:B0:36:ILE:C	2.36	0.45
37:BC:85:GLU:HB3	37:BC:151:GLU:CB	2.46	0.45
35:DA:2111:C:N3	35:DA:2147:G:N2	2.64	0.45
38:BD:142:VAL:HA	38:BD:194:GLY:H	1.80	0.45
5:AE:57:LYS:O	5:AE:61:TYR:CD2	2.69	0.45
35:BA:1187:G:H5''	53:BV:81:TYR:HE2	1.74	0.45
36:DB:42:C:H2'	36:DB:43:C:C6	2.51	0.45
41:DG:91:ARG:HG2	41:DG:91:ARG:HH11	1.80	0.45
50:DS:87:PHE:CE2	50:DS:92:TYR:HD2	2.32	0.45
53:BV:18:LEU:HD22	53:BV:19:LYS:H	1.80	0.45
29:B4:30:GLU:C	29:B4:31:ILE:HD12	2.37	0.45
35:BA:1884:A:C6	35:BA:1885:A:N7	2.84	0.45
45:BN:69:GLN:HE21	45:BN:69:GLN:HB3	1.50	0.45
9:CI:82:ALA:O	9:CI:86:VAL:HG12	2.16	0.45
35:BA:365:C:H2'	35:BA:366:C:O4'	2.16	0.45
1:CA:105:G:H2'	1:CA:106:C:H6	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:20:VAL:HG21	16:AP:32:TYR:CB	2.45	0.45
31:D6:15:GLU:OE1	31:D6:18:ARG:CD	2.64	0.45
9:CI:43:ALA:O	9:CI:45:ALA:N	2.49	0.45
35:BA:2593:U:C2	35:BA:2594:C:C5	3.04	0.45
1:AA:129(A):G:C2	1:AA:189(F):U:H5''	2.51	0.45
39:DE:116:VAL:HG21	39:DE:122:PHE:CE2	2.51	0.45
1:CA:758:G:C5'	1:CA:880:C:H1'	2.46	0.45
39:BE:68:ALA:O	39:BE:70:ALA:N	2.47	0.45
20:AT:30:LYS:CA	20:AT:30:LYS:HE2	2.46	0.45
35:DA:530:G:C5	35:DA:2022:U:H5''	2.50	0.45
35:DA:2166:G:C2'	35:DA:2167:U:H5'	2.47	0.45
15:CO:65:ARG:O	15:CO:68:ARG:N	2.49	0.45
35:BA:154(A):C:O4'	35:BA:154(A):C:O2	2.30	0.45
1:CA:1262:C:N4	1:CA:1273:G:H1	2.11	0.45
14:CN:46:GLU:H	14:CN:46:GLU:CD	2.19	0.45
26:D1:25:LYS:HG3	26:D1:31:GLY:HA2	1.98	0.45
18:CR:88:LYS:OXT	18:CR:88:LYS:HD3	2.15	0.45
1:CA:841:U:H5'	1:CA:848:C:C6	2.51	0.45
35:BA:606:U:H4'	35:BA:658:C:H4'	1.98	0.45
1:CA:490:G:H2'	1:CA:491:G:H8	1.80	0.45
6:AF:30:LEU:N	6:AF:30:LEU:HD23	2.31	0.45
45:BN:71:ILE:HG21	45:BN:84:LYS:HB3	1.97	0.45
55:DX:34:ALA:HA	55:DX:38:GLU:OE1	2.16	0.45
1:CA:995:C:H2'	1:CA:996:A:H8	1.80	0.45
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.51	0.45
35:DA:1015:G:O2'	35:DA:1016:G:H5'	2.15	0.45
1:CA:1184:G:O2'	1:CA:1185:G:H5'	2.17	0.45
1:CA:189:G:H2'	1:CA:189(A):C:C6	2.50	0.45
44:BJ:77:UNK:C	44:BJ:79:UNK:N	2.79	0.45
35:DA:2035:G:H4'	35:DA:2036:C:OP2	2.15	0.45
35:BA:196:A:H2'	35:BA:196:A:N3	2.30	0.45
9:CI:95:LYS:HD3	9:CI:95:LYS:C	2.36	0.45
35:BA:1894:C:O2'	35:BA:1895:C:H5'	2.16	0.45
12:AL:41:THR:CG2	24:AY:7:HIS:CA	2.88	0.45
47:BP:59:LEU:CA	47:BP:61:ARG:NH2	2.77	0.45
1:CA:37:U:C2	1:CA:38:G:N9	2.83	0.45
1:CA:400:C:H2'	1:CA:401:C:O4'	2.17	0.45
1:CA:1398:A:H5'	1:CA:1401:G:H4'	1.98	0.45
1:CA:11:G:H2'	1:CA:12:U:O5'	2.15	0.45
35:BA:1528(A):A:N6	35:BA:1529:G:C8	2.84	0.45
56:BY:28:LYS:CB	56:BY:37:VAL:HB	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:873:G:H1	35:DA:904:C:N4	2.13	0.45
33:D8:37:SER:C	33:D8:39:LYS:N	2.69	0.45
1:CA:1078:U:H2'	1:CA:1079:G:O4'	2.16	0.45
1:CA:866:C:H5'	1:CA:919:A:C5'	2.46	0.45
2:CB:175:ARG:HA	2:CB:178:ARG:HB2	1.97	0.45
2:CB:87:ARG:O	2:CB:223:ILE:HD11	2.17	0.45
35:BA:195:A:C8	35:BA:197:A:OP1	2.69	0.45
1:CA:658:G:C2'	1:CA:659:U:H5'	2.46	0.45
19:CS:41:VAL:HG22	19:CS:42:PRO:CD	2.44	0.45
50:DS:17:ARG:O	50:DS:20:ARG:HB2	2.15	0.45
1:AA:1060:C:H4'	10:AJ:52:GLY:CA	2.43	0.45
3:CC:150:LYS:HG3	3:CC:169:ALA:CB	2.43	0.45
42:DH:157:TYR:CE1	42:DH:171:LEU:N	2.84	0.45
35:DA:2092:U:C5	35:DA:2226:C:OP2	2.70	0.45
29:B4:36:CYS:SG	29:B4:37:SER:N	2.89	0.45
42:BH:156:ALA:O	42:BH:158:HIS:N	2.49	0.45
1:AA:1025:U:O2'	1:AA:1026:G:H8	1.98	0.45
10:AJ:62:HIS:H	10:AJ:62:HIS:CD2	2.35	0.45
1:AA:1294:G:H2'	1:AA:1295:G:C8	2.50	0.45
35:DA:1577:C:H2'	35:DA:1578:U:C1'	2.46	0.45
41:BG:11:TYR:OH	41:BG:33:ARG:HB3	2.16	0.45
12:AL:123:LYS:CE	12:AL:125:ALA:HB2	2.39	0.45
5:AE:148:VAL:CG2	8:AH:107:LEU:HD13	2.45	0.45
54:BW:110:LYS:O	54:BW:111:HIS:C	2.53	0.45
5:CE:139:LEU:C	5:CE:141:GLN:N	2.69	0.45
49:BR:10:LEU:HD13	49:BR:17:ARG:NH1	2.31	0.45
56:BY:4:LYS:NZ	56:BY:5:MET:HG2	2.30	0.45
6:CF:37:VAL:HA	6:CF:65:VAL:HG12	1.98	0.45
25:D0:11:ARG:NH1	25:D0:11:ARG:CB	2.74	0.45
40:BF:132:VAL:HG22	40:BF:133:ASN:ND2	2.31	0.45
39:DE:103:ASP:CG	39:DE:201:THR:HA	2.36	0.45
29:D4:45:GLY:O	29:D4:46:GLN:HB3	2.16	0.45
56:DY:31:LEU:CB	56:DY:32:PRO:CA	2.94	0.45
1:CA:392:G:H2'	1:CA:393:A:C8	2.45	0.45
1:AA:1208:C:H2'	1:AA:1209:C:H6	1.78	0.45
2:CB:152:PHE:O	2:CB:153:ARG:HB2	2.15	0.45
11:AK:34:ASP:OD2	11:AK:38:ASN:HB2	2.15	0.45
35:DA:287:C:H2'	35:DA:288:C:H6	1.78	0.45
39:BE:116:VAL:HG21	39:BE:122:PHE:CE2	2.51	0.45
27:D2:64:LEU:CD2	27:D2:68:ARG:NH1	2.79	0.45
35:DA:2667:C:H2'	35:DA:2668:G:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1064:G:H21	1:CA:1190:G:H2'	1.80	0.45
47:DP:143:GLY:O	47:DP:144:GLU:HB3	2.17	0.45
52:DU:26:GLY:O	52:DU:30:LYS:HG2	2.17	0.45
35:DA:154:G:H1	35:DA:172:C:H42	1.64	0.45
1:AA:932:C:H5''	7:AG:3:ARG:HB3	1.99	0.45
57:DZ:48:PHE:CE2	57:DZ:71:VAL:HG21	2.52	0.45
35:DA:814:C:C5	47:DP:27:HIS:CE1	3.05	0.45
29:D4:13:ARG:NH1	29:D4:23:GLU:OE2	2.49	0.45
1:CA:581:G:O2'	1:CA:582:U:H6	1.99	0.45
9:AI:84:ALA:O	9:AI:87:GLN:HB3	2.17	0.45
26:B1:21:ARG:HH12	35:BA:2079:U:H5''	1.81	0.45
1:AA:139:G:O2'	1:AA:140:A:H5'	2.16	0.45
35:BA:882:G:H2'	35:BA:883:G:C8	2.51	0.45
35:DA:1825:A:OP1	38:DD:249:PRO:HD3	2.15	0.45
35:DA:660:G:H5'	40:DF:99:TYR:CD2	2.52	0.45
35:BA:363(B):G:C2	35:BA:363(C):G:C8	3.04	0.45
45:BN:89:LYS:NZ	45:BN:89:LYS:HB3	2.30	0.45
35:DA:614:U:O2	35:DA:614:U:O4'	2.35	0.45
30:B5:6:VAL:HG13	35:BA:2016:U:H1'	1.98	0.45
48:BQ:116:GLU:OE1	48:BQ:116:GLU:HA	2.16	0.45
57:DZ:115:GLY:C	57:DZ:174:VAL:HG13	2.37	0.45
35:DA:711:G:O2'	35:DA:712:G:H5'	2.15	0.45
43:BI:72:LEU:HD13	43:BI:101:LEU:O	2.16	0.45
35:BA:1488:G:N3	35:BA:1488:G:H2'	2.32	0.45
3:CC:60:ALA:O	3:CC:61:ALA:HB2	2.16	0.45
42:BH:44:VAL:C	42:BH:46:GLU:H	2.20	0.45
42:BH:7:LEU:O	42:BH:69:ARG:HD2	2.15	0.45
24:AY:25:LYS:O	24:AY:44:THR:O	2.34	0.45
35:DA:2474:C:C4	35:DA:2475:C:O2	2.69	0.45
35:DA:1913:A:OP2	35:DA:1914:C:OP1	2.35	0.45
41:BG:83:ARG:O	41:BG:84:LYS:HD2	2.17	0.45
1:CA:1349:A:OP1	9:CI:120:ARG:HB2	2.17	0.45
56:DY:96:ILE:HG22	56:DY:97:ARG:HG3	1.99	0.45
35:BA:1531:C:C6	35:BA:1531:C:H3'	2.48	0.45
52:BU:90:VAL:CG2	53:BV:39:LEU:HG	2.46	0.45
51:DT:29:ARG:HG2	51:DT:86:ILE:H	1.77	0.45
46:DO:64:ARG:CZ	51:DT:70:VAL:HG21	2.46	0.45
57:BZ:166:SER:CB	57:BZ:168:GLU:N	2.77	0.45
33:B8:21:LYS:HD3	33:B8:48:PHE:CZ	2.52	0.45
12:AL:79:VAL:HB	12:AL:103:ASP:OD2	2.17	0.45
12:AL:98:VAL:O	12:AL:101:VAL:HG23	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:69:LEU:HD12	2:CB:92:TYR:HA	1.99	0.45
3:AC:90:GLU:HA	3:AC:93:LYS:HZ1	1.82	0.45
57:DZ:6:LYS:H	57:DZ:6:LYS:NZ	2.13	0.45
33:B8:33:ASN:HA	33:B8:36:LYS:CG	2.46	0.45
1:AA:5:U:H3'	1:AA:6:G:N2	2.31	0.45
2:AB:178:ARG:CG	2:AB:178:ARG:NH1	2.75	0.45
35:BA:1203:G:H3'	35:BA:1204:A:H5''	1.97	0.45
40:BF:34:TRP:CD1	47:BP:11:GLY:HA2	2.51	0.45
47:BP:7:ARG:CD	47:BP:7:ARG:H	2.21	0.45
3:CC:155:GLY:HA3	3:CC:164:ARG:O	2.17	0.45
48:BQ:31:ASP:O	48:BQ:133:ARG:O	2.35	0.45
1:CA:1531:A:H8	1:CA:1531:A:OP2	2.00	0.45
35:DA:2724:C:P	49:DR:2:ARG:NH2	2.90	0.45
3:AC:130:VAL:O	3:AC:134:ILE:HG13	2.16	0.45
3:AC:119:ARG:HG3	3:AC:119:ARG:HH11	1.81	0.45
46:BO:104:ARG:NH1	46:BO:104:ARG:CB	2.79	0.45
42:BH:157:TYR:CE1	42:BH:171:LEU:N	2.84	0.45
36:DB:104:U:O2'	36:DB:105:A:H5'	2.16	0.45
54:BW:14:PRO:HB3	54:BW:101:SER:HB3	1.97	0.45
35:DA:1717:G:C3'	35:DA:1718:G:H5''	2.46	0.45
1:CA:1300:G:H4'	1:CA:1301:U:O5'	2.16	0.45
1:CA:1300:G:O2'	1:CA:1301:U:P	2.74	0.45
35:BA:2819:G:H2'	35:BA:2821:A:N7	2.30	0.45
52:BU:103:PRO:HD2	52:BU:104:GLN:NE2	2.31	0.45
45:DN:32:THR:CG2	45:DN:37:LYS:HB2	2.41	0.45
1:CA:1005:A:H62	1:CA:1024:G:H4'	1.80	0.45
43:DI:110:ASP:CG	43:DI:130:TYR:OH	2.55	0.45
55:BX:8:ILE:HD12	55:BX:8:ILE:N	2.31	0.45
22:AW:2:G:H2'	22:AW:3:C:C6	2.51	0.45
35:BA:2580:U:H4'	39:BE:130:GLY:HA2	1.96	0.45
38:DD:213:ARG:O	38:DD:216:GLY:N	2.49	0.45
55:BX:47:PHE:HD2	55:BX:89:ILE:HG23	1.82	0.45
41:DG:138:GLN:HE22	41:DG:153:ARG:NE	2.13	0.45
38:DD:70:TRP:CZ3	38:DD:150:LYS:HA	2.50	0.45
38:DD:70:TRP:HZ3	38:DD:146:GLU:OE2	1.99	0.45
13:CM:23:TYR:HE1	13:CM:71:ARG:N	2.13	0.45
4:CD:14:ARG:H	4:CD:40:PRO:HD3	1.80	0.45
17:AQ:3:LYS:O	17:AQ:4:LYS:C	2.54	0.45
45:DN:45:ASN:HD22	45:DN:45:ASN:N	2.09	0.45
1:AA:1005:A:H2'	1:AA:1006:C:H5'	1.99	0.45
18:CR:81:PHE:O	18:CR:82:THR:CB	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:381:C:H2'	1:CA:382:A:O4'	2.17	0.45
1:CA:1168:A:H2'	1:CA:1169:A:O4'	2.16	0.45
35:BA:271(H):G:O2'	35:BA:271(I):G:P	2.74	0.45
38:BD:166:GLN:HA	38:BD:166:GLN:HE21	1.79	0.45
2:CB:144:ARG:HB2	2:CB:148:TYR:CE2	2.51	0.45
3:CC:42:LEU:HA	3:CC:45:LYS:HE3	1.98	0.45
42:BH:91:GLY:HA3	42:BH:160:LYS:HA	1.98	0.45
1:CA:272:C:H2'	1:CA:273:A:C8	2.48	0.45
35:DA:674:G:H1'	40:DF:74:ARG:CD	2.46	0.45
35:DA:310:A:OP1	56:DY:17:SER:O	2.34	0.45
35:DA:2346:A:H5'	35:DA:2383:G:C1'	2.47	0.45
35:DA:2030:A:H5''	35:DA:2031:A:OP1	2.16	0.45
51:BT:54:ARG:HG2	51:BT:54:ARG:NH1	2.31	0.45
3:AC:78:GLY:O	3:AC:79:ARG:HB3	2.17	0.45
48:BQ:41:TRP:HB3	48:BQ:94:VAL:HG11	1.98	0.45
48:DQ:103:MET:HE1	48:DQ:125:LEU:HD13	1.99	0.45
46:BO:7:TYR:CE1	46:BO:20:MET:HB2	2.51	0.45
1:CA:1316:G:H2'	1:CA:1317:C:H5''	1.99	0.45
35:DA:2123:G:H2'	35:DA:2124:G:C8	2.51	0.45
35:DA:836:G:C5	35:DA:837:C:C4	3.05	0.45
40:DF:46:ARG:HG3	40:DF:46:ARG:HH11	1.82	0.45
12:CL:24:LEU:C	12:CL:26:GLY:N	2.69	0.45
35:BA:181:A:H2'	35:BA:182:A:C8	2.51	0.45
35:DA:2543:G:H5'	35:DA:2543:G:H8	1.80	0.45
47:DP:32:THR:HG21	47:DP:37:GLY:HA2	1.99	0.45
35:BA:1459:G:H5''	35:BA:1460:A:OP2	2.16	0.45
2:AB:237:ALA:O	2:AB:238:LEU:HB3	2.16	0.45
35:DA:271(K):U:H5'	35:DA:271(L):U:C5	2.51	0.45
51:BT:61:PHE:CE1	51:BT:76:PHE:HD1	2.35	0.45
35:BA:2702:U:H4'	35:BA:2703:C:OP1	2.17	0.45
10:AJ:43:ARG:HH11	10:AJ:43:ARG:HG3	1.81	0.45
24:CY:13:PRO:HD2	24:CY:13:PRO:O	2.17	0.45
38:BD:115:GLN:HG2	38:BD:116:GLN:N	2.31	0.45
35:BA:781:A:H2	35:BA:1776:G:N3	2.14	0.45
1:CA:1397:C:H5'	1:CA:1398:A:C8	2.51	0.45
47:DP:56:SER:O	47:DP:57:THR:CG2	2.65	0.45
42:DH:122:THR:C	42:DH:133:VAL:HG13	2.37	0.45
51:BT:27:THR:HB	51:BT:87:ASP:HB3	1.98	0.45
40:DF:2:LYS:HG3	40:DF:25:PRO:HG3	1.99	0.45
40:DF:8:GLN:O	40:DF:9:ILE:C	2.55	0.45
51:DT:117:ASP:O	51:DT:118:ARG:C	2.54	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2523:G:H2'	35:BA:2524:G:C5'	2.28	0.45
33:D8:30:ARG:O	33:D8:31:HIS:ND1	2.48	0.45
2:CB:74:LYS:HG2	2:CB:165:VAL:HG21	1.98	0.45
38:DD:13:ARG:HD2	38:DD:16:MET:SD	2.57	0.45
2:AB:12:GLU:HA	2:AB:16:HIS:ND1	2.31	0.45
2:AB:12:GLU:HB2	2:AB:16:HIS:HB2	1.97	0.45
2:AB:44:LEU:HA	2:AB:47:THR:OG1	2.17	0.45
41:DG:135:LEU:N	41:DG:135:LEU:HD12	2.32	0.45
41:DG:75:LYS:HG2	41:DG:76:SER:N	2.27	0.45
1:CA:735:C:C2	1:CA:736:C:C5	3.04	0.45
28:B3:3:ARG:N	28:B3:60:GLU:N	2.64	0.45
35:BA:2695:C:H2'	35:BA:2696:U:C6	2.52	0.45
48:DQ:133:ARG:CG	48:DQ:134:ARG:N	2.71	0.45
3:CC:134:ILE:CG2	3:CC:151:VAL:HB	2.46	0.45
16:AP:49:LEU:HD13	16:AP:73:LEU:HD23	1.98	0.45
1:CA:626:U:H4'	16:CP:38:TYR:CZ	2.52	0.45
43:BI:77:LEU:HB3	43:BI:140:LEU:HA	1.98	0.45
9:AI:16:ARG:N	9:AI:16:ARG:HD3	2.31	0.45
35:BA:1982:C:H5'	35:BA:1983:C:OP2	2.17	0.45
45:BN:54:VAL:HB	45:BN:122:VAL:HG22	1.99	0.45
35:DA:1115:G:H8	35:DA:1115:G:H5'	1.80	0.45
26:D1:5:CYS:HG	26:D1:8:SER:HG	1.51	0.45
5:CE:50:GLU:CB	5:CE:53:LEU:HD12	2.44	0.45
25:D0:66:VAL:CG1	25:D0:67:VAL:H	2.30	0.45
41:DG:55:LYS:O	41:DG:59:GLU:HB3	2.17	0.45
4:AD:50:ARG:C	4:AD:50:ARG:HD2	2.35	0.45
53:BV:19:LYS:HD3	53:BV:22:VAL:CG1	2.47	0.45
1:AA:185:A:O2'	1:AA:186:C:H5'	2.16	0.45
3:AC:187:ALA:HB3	3:AC:198:VAL:CB	2.43	0.45
37:BC:74:VAL:C	37:BC:76:ALA:H	2.19	0.45
53:DV:20:LEU:N	53:DV:20:LEU:HD12	2.31	0.45
1:CA:640:A:O2'	1:CA:641:U:H5'	2.16	0.45
12:CL:4:ILE:HD11	17:CQ:32:TYR:O	2.17	0.45
3:AC:6:HIS:NE2	3:AC:8:ILE:HG12	2.31	0.45
35:DA:2179:C:H4'	35:DA:2179:C:OP2	2.15	0.45
1:CA:1440:C:N4	1:CA:1441:G:C2	2.85	0.45
35:BA:887:A:H1'	35:BA:889:C:C4	2.52	0.45
17:CQ:16:GLN:O	17:CQ:17:LYS:HB2	2.16	0.45
40:BF:178:PRO:HB2	40:BF:201:VAL:HG11	1.98	0.45
35:BA:270:A:N1	35:BA:366:C:O2'	2.47	0.45
31:B6:15:GLU:O	31:B6:18:ARG:CZ	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1608:A:H1'	35:BA:1610:A:OP2	2.17	0.45
8:CH:64:LYS:CG	8:CH:79:VAL:HG21	2.42	0.45
31:D6:43:CYS:O	31:D6:43:CYS:SG	2.74	0.45
4:CD:64:LEU:C	4:CD:64:LEU:HD23	2.36	0.45
1:AA:227:G:O2'	1:AA:228:A:H5'	2.17	0.45
35:DA:2593:U:C2	35:DA:2594:C:C5	3.04	0.45
1:AA:321:A:O2'	1:AA:322:C:H5'	2.16	0.45
46:BO:105:GLU:O	46:BO:109:LYS:HB2	2.17	0.45
1:CA:932:C:H5''	7:CG:3:ARG:HB3	1.98	0.45
47:DP:95:VAL:CG1	47:DP:125:VAL:HG23	2.46	0.45
35:DA:914:C:C2'	35:DA:915:C:H5'	2.44	0.45
36:DB:28:C:H2'	36:DB:29:A:H8	1.75	0.45
42:DH:91:GLY:HA3	42:DH:160:LYS:HA	1.97	0.45
1:AA:1411:C:H2'	1:AA:1412:C:C6	2.51	0.45
35:BA:2166:G:C2'	35:BA:2167:U:H5'	2.45	0.45
35:DA:1150:C:O2'	35:DA:1151:G:H5'	2.16	0.45
18:AR:26:LEU:HB2	18:AR:29:PHE:HE2	1.82	0.45
2:CB:42:ILE:HG23	2:CB:42:ILE:O	2.17	0.45
11:CK:73:MET:CE	11:CK:102:GLY:HA3	2.46	0.45
50:BS:42:ASP:C	50:BS:44:LYS:N	2.69	0.45
1:AA:163:C:H2'	1:AA:164:U:H6	1.82	0.45
30:D5:11:THR:HG23	35:DA:1264:G:H5'	1.98	0.45
35:DA:2346:A:H5'	35:DA:2383:G:H1'	1.99	0.45
35:BA:1835:G:H2'	35:BA:1836:C:H6	1.80	0.45
35:DA:2643:G:O2'	35:DA:2644:G:H5'	2.17	0.45
35:BA:836:G:H2'	35:BA:837:C:C6	2.51	0.45
35:DA:1374:G:H2'	35:DA:1375:C:H6	1.80	0.45
6:AF:4:TYR:HD1	6:AF:92:LYS:HA	1.81	0.45
8:CH:104:ARG:O	8:CH:105:ARG:HB3	2.16	0.45
55:DX:72:LYS:HD3	55:DX:73:ARG:O	2.17	0.45
38:DD:113:VAL:C	38:DD:115:GLN:H	2.20	0.45
1:AA:294:U:H2'	1:AA:295:C:C6	2.52	0.45
41:DG:4:ASP:CB	41:DG:8:LYS:HD3	2.47	0.45
35:BA:711:G:O2'	35:BA:712:G:H5'	2.16	0.45
48:DQ:39:PRO:HB3	48:DQ:99:PRO:HD3	1.97	0.45
1:AA:650:G:O2'	1:AA:651:C:H5'	2.16	0.45
35:BA:2513:G:H2'	35:BA:2514:U:C6	2.52	0.45
41:DG:152:LEU:N	41:DG:152:LEU:HD12	2.31	0.45
54:DW:51:LEU:C	54:DW:51:LEU:HD13	2.37	0.45
1:AA:1261:A:N6	1:AA:1274:G:H1'	2.32	0.45
35:DA:679:C:O2'	35:DA:680:G:H5'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:10:VAL:HG13	17:CQ:19:VAL:HB	1.98	0.45
1:AA:530:G:C2'	24:AY:29:PRO:HG3	2.47	0.45
22:AV:54:U:O3'	22:AV:55:U:H4'	2.17	0.45
1:CA:939:G:C5'	7:CG:102:ARG:HH22	2.08	0.45
23:AX:12:A:O4'	23:AX:12:A:OP1	2.34	0.45
33:D8:27:THR:HG22	47:DP:62:LEU:HD13	1.99	0.45
35:DA:2415:G:H4'	47:DP:67:MET:N	2.31	0.45
40:BF:4:VAL:HG22	40:BF:19:GLU:OE1	2.17	0.45
51:BT:117:ASP:CG	51:BT:120:ARG:HG3	2.37	0.45
40:DF:117:ARG:HD3	40:DF:117:ARG:HA	1.67	0.45
5:CE:110:LEU:HB3	5:CE:115:VAL:HB	1.98	0.45
7:AG:106:GLN:O	7:AG:110:GLN:HG3	2.16	0.45
35:BA:2014:A:H2'	35:BA:2015:A:C8	2.52	0.45
19:CS:53:ASN:ND2	19:CS:58:VAL:CG2	2.80	0.45
57:DZ:91:LEU:HD23	57:DZ:96:VAL:HG11	1.97	0.45
43:BI:120:ILE:O	43:BI:121:LYS:C	2.54	0.45
6:CF:68:PRO:HG3	6:CF:71:ARG:NH2	2.32	0.45
4:CD:176:LEU:HD12	4:CD:182:LYS:O	2.16	0.45
42:BH:156:ALA:C	42:BH:158:HIS:N	2.66	0.45
39:DE:73:GLU:CD	39:DE:73:GLU:H	2.20	0.45
47:BP:17:LYS:O	47:BP:18:ARG:C	2.53	0.45
35:BA:1847:A:H3'	35:BA:1848:A:C5'	2.47	0.45
6:CF:52:ILE:CD1	6:CF:87:ARG:HH22	2.30	0.45
1:CA:185:A:O2'	1:CA:186:C:H5'	2.16	0.45
1:CA:832:C:O2'	1:CA:833:U:H6	2.00	0.45
53:DV:35:LEU:HA	53:DV:36:PRO:HD2	1.74	0.45
53:DV:5:VAL:CG2	53:DV:35:LEU:HB3	2.47	0.45
35:BA:2733:A:H2'	35:BA:2734:A:O4'	2.16	0.45
35:BA:2735:G:N2	35:BA:2770:G:H1'	2.31	0.45
6:CF:5:GLU:CB	6:CF:62:TRP:HE1	2.24	0.45
1:AA:187:C:N3	20:AT:105:SER:HB3	2.31	0.45
54:BW:110:LYS:O	54:BW:112:GLY:N	2.50	0.45
38:DD:85:ASP:HB2	38:DD:92:ILE:HD12	1.99	0.45
41:DG:16:ARG:O	41:DG:20:ILE:HG13	2.16	0.45
35:BA:495:G:O2'	54:BW:62:HIS:HE1	2.00	0.45
6:AF:44:GLY:HA2	6:AF:59:TYR:CE1	2.51	0.45
35:BA:1142:U:H5''	35:BA:1142(A):A:H8	1.82	0.45
49:BR:9:LYS:O	49:BR:10:LEU:HG	2.16	0.45
57:DZ:79:ARG:O	57:DZ:80:ARG:CB	2.61	0.45
56:BY:52:SER:HB3	56:BY:55:TYR:CE1	2.43	0.45
40:DF:131:GLY:O	40:DF:132:VAL:C	2.55	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:24:TRP:CG	2:AB:25:ASN:N	2.83	0.45
56:DY:54:LYS:HE3	56:DY:55:TYR:CE2	2.51	0.45
56:DY:50:ARG:HG3	56:DY:56:PRO:O	2.17	0.45
5:CE:36:ASP:O	5:CE:37:ARG:HB2	2.15	0.45
13:AM:69:GLU:OE2	13:AM:73:GLU:HB2	2.17	0.45
28:B3:40:THR:CG2	28:B3:43:ILE:HD13	2.47	0.45
28:B3:40:THR:HG23	28:B3:43:ILE:HD13	1.99	0.45
16:CP:5:ARG:CZ	16:CP:22:THR:HG21	2.46	0.45
38:DD:72:LYS:HG2	38:DD:97:TYR:CE2	2.52	0.45
1:AA:254:G:OP1	17:AQ:67:LYS:O	2.35	0.45
55:DX:12:VAL:HG23	55:DX:17:ALA:CB	2.47	0.45
35:BA:1562:A:C2	35:BA:1563:G:C4	3.05	0.45
39:DE:49:LEU:HD23	39:DE:49:LEU:H	1.77	0.45
4:CD:18:LYS:HZ3	4:CD:31:CYS:HB3	1.82	0.45
40:DF:37:VAL:CG1	40:DF:184:TYR:HD1	2.28	0.45
40:DF:184:TYR:CE2	40:DF:188:ARG:HD2	2.51	0.45
35:BA:1053:C:H1'	44:BJ:33:UNK:CA	2.45	0.45
35:BA:954:G:O2'	35:BA:955:C:H5'	2.16	0.45
13:AM:90:LEU:C	13:AM:92:HIS:N	2.69	0.45
45:BN:93:THR:O	45:BN:94:HIS:CB	2.64	0.45
45:BN:96:GLU:O	45:BN:100:GLU:HB2	2.17	0.45
27:B2:71:ASN:HD22	27:B2:71:ASN:N	2.14	0.45
4:CD:61:LYS:HE2	4:CD:62:GLN:N	2.32	0.45
15:AO:18:PHE:CE1	15:AO:21:ASP:HB2	2.51	0.45
1:AA:323:U:H2'	1:AA:324:G:O4'	2.15	0.45
20:CT:56:MET:O	20:CT:59:ALA:HB3	2.16	0.45
9:CI:128:ARG:H	9:CI:128:ARG:HD2	1.82	0.45
25:D0:16:SER:HB2	35:DA:2262:U:H5	1.81	0.45
5:AE:143:ARG:NH1	8:AH:77:GLU:OE1	2.50	0.45
35:DA:2033:A:O2'	35:DA:2034:U:P	2.74	0.45
35:DA:1721:G:H8	35:DA:1741:A:N6	2.15	0.45
1:AA:935:A:H2'	1:AA:936:C:H6	1.80	0.45
57:DZ:133:ILE:O	57:DZ:133:ILE:HG22	2.16	0.45
1:AA:841:U:H5'	1:AA:848:C:C6	2.51	0.45
45:BN:1:MET:C	45:BN:2:LYS:HD2	2.37	0.45
44:BJ:89:UNK:O	44:BJ:90:UNK:CB	2.65	0.45
48:DQ:110:THR:HG23	48:DQ:113:GLN:HB2	1.98	0.45
34:B9:31:LYS:HD3	35:BA:2528:U:C5'	2.46	0.45
35:BA:2543:G:H8	35:BA:2543:G:H5'	1.82	0.45
1:AA:1316:G:H2'	1:AA:1317:C:H5''	1.97	0.45
41:DG:4:ASP:HA	41:DG:8:LYS:HD3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:43:LEU:HD12	17:AQ:68:ARG:HB3	1.97	0.45
1:AA:156:G:O2'	1:AA:157:G:H5'	2.17	0.45
35:BA:2390:U:O2'	35:BA:2391:G:H5'	2.17	0.45
26:B1:15:ALA:HA	35:BA:380:U:O2'	2.16	0.45
35:DA:2558:C:H2'	35:DA:2559:C:H6	1.82	0.45
1:CA:1121:U:O2'	1:CA:1122:U:H5'	2.17	0.45
7:CG:148:ASN:N	7:CG:148:ASN:HD22	2.13	0.45
12:CL:120:LYS:HB3	12:CL:120:LYS:HE2	1.71	0.45
52:BU:65:ILE:O	52:BU:67:ALA:N	2.50	0.45
28:D3:8:LEU:HD22	28:D3:31:LEU:CD2	2.47	0.45
23:AX:22:A:C4'	23:AX:22:A:C4	2.97	0.45
42:BH:7:LEU:HB3	42:BH:65:HIS:NE2	2.31	0.45
8:CH:88:LYS:O	8:CH:92:ARG:NH1	2.49	0.45
13:CM:91:ARG:CB	13:CM:98:VAL:HG22	2.47	0.45
35:DA:1192:G:C2'	35:DA:1193:G:H5'	2.46	0.45
56:DY:27:VAL:CA	56:DY:28:LYS:HZ1	2.25	0.45
40:BF:22:ALA:C	40:BF:24:LEU:N	2.69	0.45
35:DA:2818:G:O2'	35:DA:2819:G:H5'	2.15	0.45
35:BA:941:A:H2'	35:BA:942:G:C8	2.51	0.45
35:BA:996:A:H4'	52:BU:92:ARG:CZ	2.46	0.45
33:D8:53:PRO:HG2	33:D8:54:GLU:H	1.82	0.45
56:BY:13:VAL:HG22	56:BY:14:LEU:N	2.31	0.45
52:DU:90:VAL:O	52:DU:91:ASP:C	2.55	0.45
51:DT:25:GLY:HA3	51:DT:120:ARG:HH22	1.80	0.45
35:DA:2491:U:O2'	35:DA:2492:U:H5'	2.17	0.45
5:CE:18:ARG:NH1	5:CE:25:ARG:HB3	2.32	0.45
1:CA:572:A:N3	1:CA:917:G:H1'	2.31	0.45
3:CC:73:PRO:HB3	3:CC:103:VAL:CG1	2.47	0.45
2:CB:108:ILE:O	2:CB:108:ILE:HG22	2.17	0.45
2:CB:71:VAL:HG12	2:CB:93:VAL:CG2	2.47	0.45
15:CO:82:ILE:HA	15:CO:87:ILE:HD11	1.97	0.45
46:DO:1:MET:HG3	46:DO:67:LYS:HG2	1.99	0.45
2:AB:28:PHE:O	2:AB:28:PHE:CD1	2.69	0.45
2:AB:92:TYR:HE1	2:AB:94:ASN:HB2	1.81	0.45
35:DA:2302:G:C1'	41:DG:128:ARG:HH21	2.26	0.45
41:DG:39:ILE:HD11	41:DG:155:MET:SD	2.57	0.45
41:DG:96:ARG:O	41:DG:97:ASP:C	2.54	0.45
2:CB:46:LYS:HD2	2:CB:46:LYS:N	2.31	0.45
35:DA:271(M):G:H5"	43:DI:57:ARG:NH1	2.12	0.45
47:BP:96:THR:HG22	47:BP:126:VAL:CG2	2.45	0.45
4:CD:125:HIS:C	4:CD:126:ILE:HD12	2.37	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:812:C:H5'	47:BP:25:SER:HB2	1.97	0.45
35:BA:1918:A:O2'	35:BA:1920:C:N4	2.50	0.45
43:BI:88:ILE:CG1	43:BI:92:VAL:HG23	2.42	0.45
39:DE:111:ARG:HG3	49:DR:2:ARG:CD	2.47	0.45
35:DA:2724:C:OP1	49:DR:2:ARG:NH2	2.49	0.45
29:D4:24:THR:CG2	29:D4:25:TYR:H	2.08	0.45
41:BG:117:PHE:CE1	41:BG:119:GLY:CA	3.00	0.45
41:BG:5:VAL:CG1	41:BG:6:ALA:H	2.29	0.45
47:BP:16:ARG:CG	47:BP:17:LYS:N	2.80	0.45
25:B0:37:LEU:HG	25:B0:60:PHE:HA	1.98	0.45
5:CE:48:ALA:O	5:CE:50:GLU:N	2.50	0.45
42:BH:17:VAL:HG13	42:BH:24:VAL:HG21	1.99	0.45
29:B4:3:GLU:HA	29:B4:6:HIS:CE1	2.52	0.45
57:DZ:166:SER:N	57:DZ:167:PRO:HA	2.31	0.45
53:DV:34:GLU:O	53:DV:36:PRO:HD3	2.17	0.45
53:DV:5:VAL:CG2	53:DV:6:LYS:N	2.80	0.45
52:BU:104:GLN:O	52:BU:107:ALA:HB3	2.17	0.45
53:DV:19:LYS:HD3	53:DV:22:VAL:CG1	2.47	0.45
1:AA:963:G:N3	10:AJ:55:LYS:NZ	2.64	0.45
45:DN:62:VAL:CG2	45:DN:66:LYS:HB2	2.46	0.45
57:DZ:124:ILE:HD13	57:DZ:155:LEU:HD11	1.98	0.45
47:BP:45:LEU:N	47:BP:45:LEU:HD12	2.22	0.45
54:DW:62:HIS:O	54:DW:64:MET:HG3	2.16	0.45
6:AF:10:LEU:HD12	6:AF:10:LEU:N	2.32	0.45
18:AR:32:ARG:HG2	18:AR:65:ILE:CG2	2.47	0.45
13:AM:94:ARG:HD2	13:AM:94:ARG:N	2.32	0.45
35:BA:2685:G:C5'	46:BO:68:GLU:OE2	2.62	0.45
38:DD:181:GLU:HA	38:DD:272:ALA:HB1	1.98	0.45
1:CA:1057:G:H5''	3:CC:154:SER:CB	2.47	0.45
38:DD:71:ASP:O	38:DD:72:LYS:HD2	2.16	0.45
31:B6:16:CYS:O	31:B6:18:ARG:NH1	2.49	0.45
17:AQ:67:LYS:HA	17:AQ:70:ARG:NH1	2.26	0.45
55:DX:89:ILE:O	55:DX:93:GLU:OE2	2.34	0.45
21:CU:18:TYR:CD2	21:CU:24:ARG:HA	2.49	0.45
17:AQ:54:GLY:O	17:AQ:81:ARG:HB2	2.16	0.45
1:AA:381:C:H2'	1:AA:382:A:O4'	2.16	0.45
22:CV:15:G:H2'	22:CV:59:A:C2	2.51	0.45
1:CA:321:A:H4'	1:CA:1436:U:O4'	2.17	0.45
1:CA:323:U:H2'	1:CA:324:G:O4'	2.16	0.45
22:AW:23:C:H2'	22:AW:24:U:C6	2.51	0.45
35:BA:1151:G:H5''	52:BU:81:HIS:CE1	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2328:A:H2'	35:DA:2329:G:O4'	2.17	0.45
42:DH:58:GLU:O	42:DH:60:ARG:N	2.50	0.45
42:DH:60:ARG:O	42:DH:64:LEU:HD23	2.16	0.45
1:AA:1375:A:H4'	7:AG:29:LYS:NZ	2.32	0.45
2:AB:42:ILE:O	2:AB:42:ILE:HG23	2.17	0.45
35:DA:812:C:H5'	47:DP:25:SER:HB2	1.99	0.45
1:CA:1069:C:N4	1:CA:1094:G:N2	2.62	0.45
1:AA:113:G:H2'	1:AA:114:U:C6	2.51	0.45
9:CI:6:GLY:CA	9:CI:83:ARG:HG2	2.46	0.45
46:DO:69:ILE:HD12	46:DO:69:ILE:H	1.82	0.45
51:DT:54:ARG:HG2	51:DT:54:ARG:NH1	2.31	0.45
35:BA:1265:A:H8	35:BA:1265:A:OP1	2.00	0.45
35:BA:2038:G:C6	35:BA:2039:C:C4	3.05	0.45
45:DN:3:THR:O	45:DN:5:VAL:N	2.49	0.45
45:BN:3:THR:O	45:BN:5:VAL:N	2.50	0.45
1:AA:1225:A:N3	1:AA:1225:A:H2'	2.32	0.45
35:BA:108:U:H2'	35:BA:109:G:C8	2.52	0.45
45:BN:39:ARG:O	45:BN:41:ASP:N	2.49	0.45
27:D2:25:VAL:O	27:D2:26:ARG:C	2.54	0.45
22:CV:29:G:H2'	22:CV:30:G:O4'	2.17	0.45
22:CV:29:G:O2'	22:CV:30:G:H5'	2.16	0.45
17:CQ:29:HIS:O	17:CQ:31:LEU:N	2.50	0.45
35:BA:510:C:H2'	35:BA:511:U:O4'	2.16	0.45
1:AA:57:G:H2'	1:AA:58:C:C6	2.51	0.45
35:BA:94:C:O2	35:BA:94:C:H2'	2.16	0.45
48:BQ:57:HIS:NE2	48:BQ:116:GLU:HB3	2.32	0.45
38:BD:231:HIS:ND1	38:BD:232:PRO:HD2	2.31	0.45
35:DA:709:U:H2'	35:DA:710:G:C8	2.52	0.45
35:BA:1763:G:H2'	35:BA:1764:G:C5'	2.47	0.45
35:BA:829:A:N7	35:BA:2248:C:H5'	2.32	0.45
1:CA:574:A:HO2'	1:CA:882:C:HO2'	1.62	0.45
35:DA:1488:G:H2'	35:DA:1488:G:N3	2.32	0.45
35:DA:1300:U:O2	35:DA:1300:U:H3'	2.17	0.45
35:DA:1956:U:H2'	35:DA:1957:C:H5'	1.98	0.45
42:DH:44:VAL:C	42:DH:46:GLU:H	2.20	0.45
33:B8:23:VAL:HG12	33:B8:46:ARG:HB3	1.98	0.45
24:AY:4:ASP:C	24:AY:5:TYR:CD2	2.90	0.45
1:CA:1350:A:OP1	9:CI:121:ARG:HG3	2.16	0.45
56:DY:81:LYS:HG2	56:DY:97:ARG:HE	1.82	0.45
40:BF:8:GLN:O	40:BF:9:ILE:C	2.55	0.45
1:CA:633:G:H2'	1:CA:634:C:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2822:G:O5'	35:DA:2822:G:H8	2.00	0.45
52:BU:90:VAL:O	52:BU:91:ASP:C	2.55	0.45
51:BT:27:THR:O	51:BT:28:VAL:CG2	2.65	0.45
33:D8:2:PRO:O	33:D8:3:LYS:CB	2.65	0.45
40:DF:125:LEU:HA	40:DF:194:MET:O	2.16	0.45
40:DF:196:LEU:O	40:DF:198:ALA:N	2.50	0.45
40:DF:4:VAL:HG22	40:DF:19:GLU:OE1	2.17	0.45
35:DA:996:A:H4'	52:DU:92:ARG:CZ	2.47	0.45
5:CE:107:ARG:O	5:CE:109:ILE:N	2.49	0.45
1:CA:8:A:C5'	5:CE:120:THR:O	2.64	0.45
42:BH:122:THR:C	42:BH:133:VAL:HG13	2.37	0.45
51:DT:27:THR:O	51:DT:47:GLY:O	2.34	0.45
51:DT:65:LYS:HG3	51:DT:66:VAL:N	2.31	0.45
3:CC:73:PRO:HB3	3:CC:103:VAL:HG12	1.99	0.45
2:CB:17:PHE:HB2	2:CB:44:LEU:HD11	1.99	0.45
2:CB:55:PHE:CZ	2:CB:218:ALA:HA	2.52	0.45
15:CO:78:TYR:O	15:CO:80:ALA:N	2.43	0.45
19:AS:14:HIS:N	19:AS:14:HIS:CD2	2.84	0.45
2:AB:186:ALA:H	2:AB:200:ILE:HG22	1.81	0.45
2:AB:44:LEU:CD2	2:AB:44:LEU:N	2.79	0.45
1:AA:1060:C:H5''	10:AJ:51:ARG:HB3	1.99	0.45
51:DT:12:SER:O	51:DT:13:ARG:NH2	2.49	0.45
9:AI:17:VAL:HA	9:AI:63:ILE:HG12	1.99	0.45
1:CA:501:C:O2'	1:CA:502:G:H5'	2.16	0.45
41:BG:5:VAL:CG1	41:BG:6:ALA:N	2.78	0.45
47:DP:16:ARG:CG	47:DP:17:LYS:N	2.79	0.45
57:DZ:33:LEU:HG	57:DZ:34:ASN:N	2.31	0.45
35:BA:661:C:H2'	35:BA:662:G:C8	2.52	0.45
35:BA:528:A:C2	35:BA:2043:C:H4'	2.52	0.45
4:CD:28:SER:OG	4:CD:30:LYS:HG3	2.16	0.45
39:BE:111:ARG:HG3	49:BR:2:ARG:CD	2.45	0.45
10:CJ:96:ILE:HG12	10:CJ:96:ILE:O	2.17	0.45
35:DA:2040:C:C2	35:DA:2041:U:C6	3.05	0.45
36:BB:44:G:C2	36:BB:48:A:C2	3.04	0.45
29:B4:6:HIS:HB3	41:BG:67:LYS:CD	2.46	0.45
1:AA:1306:A:H2'	1:AA:1307:U:C6	2.52	0.45
5:AE:80:ILE:HG22	8:AH:104:ARG:HH12	1.76	0.45
6:AF:5:GLU:CB	6:AF:62:TRP:HE1	2.24	0.45
3:CC:6:HIS:NE2	3:CC:184:TYR:CD2	2.85	0.45
56:BY:50:ARG:HG3	56:BY:56:PRO:O	2.17	0.45
6:AF:97:PHE:O	18:AR:30:ASP:HA	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:82:MET:CG	13:AM:82:MET:O	2.65	0.45
21:CU:12:LYS:HB3	21:CU:17:THR:O	2.16	0.45
6:CF:10:LEU:HD12	6:CF:10:LEU:N	2.31	0.45
38:DD:211:ARG:HA	38:DD:214:TRP:CE3	2.52	0.45
55:BX:14:SER:O	55:BX:17:ALA:HB3	2.16	0.45
1:AA:1057:G:H5''	3:AC:154:SER:OG	2.16	0.45
1:CA:1179:A:O3'	9:CI:103:THR:HG23	2.16	0.45
38:DD:72:LYS:HE2	38:DD:75:ILE:HD12	1.98	0.45
35:BA:2807:G:C2'	35:BA:2808:U:H5''	2.46	0.45
16:AP:32:TYR:CE2	16:AP:35:LYS:HB2	2.52	0.45
16:AP:59:TRP:HA	16:AP:62:VAL:CG2	2.47	0.45
55:DX:55:ASN:O	55:DX:79:ALA:HA	2.16	0.45
31:D6:16:CYS:O	31:D6:17:LYS:HB3	2.17	0.45
4:AD:18:LYS:HZ3	4:AD:31:CYS:CB	2.30	0.45
17:CQ:54:GLY:HA3	17:CQ:82:MET:SD	2.57	0.45
13:AM:91:ARG:CB	13:AM:98:VAL:HG22	2.46	0.45
9:CI:78:LYS:HB2	9:CI:78:LYS:NZ	2.32	0.45
45:BN:94:HIS:HA	45:BN:96:GLU:OE1	2.16	0.45
27:D2:64:LEU:CD2	27:D2:68:ARG:HH11	2.25	0.45
2:CB:36:ARG:O	2:CB:37:ASN:HB3	2.17	0.45
35:BA:2747:G:O6	35:BA:2755:C:H5''	2.17	0.45
35:DA:2256:G:O2'	35:DA:2257:U:H5'	2.16	0.45
57:DZ:116:VAL:HG12	57:DZ:117:LEU:N	2.32	0.45
35:DA:2773:C:OP1	39:DE:164:ARG:NE	2.50	0.45
8:AH:54:ASP:O	8:AH:56:LYS:HG3	2.17	0.45
1:CA:300:A:H2'	1:CA:301:G:C5'	2.47	0.45
1:AA:1387:G:C6	1:AA:1388:C:N4	2.85	0.45
35:DA:2065:C:H2'	35:DA:2066:C:C6	2.51	0.45
3:AC:79:ARG:HG3	3:AC:79:ARG:NH1	2.32	0.45
35:DA:1532:C:O2	35:DA:1532:C:H2'	2.16	0.45
1:AA:488:C:O2'	1:AA:489:C:H5'	2.17	0.45
46:DO:22:ILE:HG12	46:DO:41:ALA:HA	1.99	0.45
1:AA:44:G:C2	1:AA:45:U:H1'	2.52	0.45
1:AA:677:U:H3	1:AA:714:G:H22	1.64	0.45
36:BB:24:G:H5'	36:BB:25:A:N7	2.32	0.45
35:BA:1810:A:H2'	35:BA:1811:G:O4'	2.17	0.45
38:BD:113:VAL:C	38:BD:115:GLN:H	2.20	0.45
35:BA:271(K):U:H5'	35:BA:271(L):U:C5	2.52	0.45
7:CG:107:ALA:CB	7:CG:134:ALA:HB2	2.47	0.45
35:DA:2280:G:O2'	35:DA:2281:C:H5'	2.16	0.45
35:BA:1935:G:H1'	35:BA:1964:G:N2	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2230:G:H2'	35:BA:2231:C:H6	1.81	0.45
1:AA:142:G:H2'	1:AA:143:A:H8	1.82	0.45
35:DA:1643:G:H2'	35:DA:1644:C:O5'	2.16	0.45
1:AA:509:A:H5'	4:AD:54:TYR:HD2	1.80	0.45
42:BH:167:GLU:CD	42:BH:167:GLU:N	2.70	0.45
2:CB:82:ARG:HG2	2:CB:82:ARG:HH11	1.81	0.45
22:AV:76:A:O2'	35:BA:2451:A:N3	2.49	0.45
35:DA:2248:C:C2'	35:DA:2249:U:H5'	2.47	0.45
23:AX:21:C:C2'	23:AX:22:A:H5'	2.38	0.45
42:BH:54:ARG:HG2	42:BH:65:HIS:CG	2.51	0.45
42:DH:54:ARG:HG2	42:DH:65:HIS:CG	2.51	0.45
35:DA:1915:U:H3'	35:DA:1915:U:H6	1.82	0.45
42:DH:116:GLU:OE1	42:DH:117:PRO:HD2	2.16	0.45
51:BT:65:LYS:HG3	51:BT:66:VAL:N	2.32	0.45
5:CE:107:ARG:C	5:CE:109:ILE:H	2.19	0.45
1:CA:1442(B):A:OP1	1:CA:1442(B):A:H3'	2.17	0.45
30:D5:3:LYS:HG3	35:DA:747:U:OP1	2.16	0.45
2:CB:12:GLU:HA	2:CB:16:HIS:ND1	2.31	0.45
57:DZ:67:LEU:HD23	57:DZ:90:VAL:CG1	2.47	0.45
46:DO:8:LEU:CD1	46:DO:82:ASN:HB3	2.47	0.45
2:AB:28:PHE:O	2:AB:28:PHE:CG	2.70	0.45
2:AB:55:PHE:CZ	2:AB:218:ALA:HA	2.52	0.45
2:AB:87:ARG:O	2:AB:223:ILE:HD11	2.16	0.45
30:B5:3:LYS:HB3	30:B5:4:HIS:H	1.43	0.45
8:CH:9:MET:SD	8:CH:32:LYS:HB3	2.57	0.45
9:CI:16:ARG:HH21	9:CI:64:THR:CB	2.29	0.45
35:BA:1204:A:C2	35:BA:1241:A:N1	2.84	0.45
19:AS:31:ILE:CG2	19:AS:49:ILE:HG22	2.47	0.45
1:CA:625:G:H2'	1:CA:626:U:C6	2.51	0.45
6:AF:68:PRO:HG3	6:AF:71:ARG:NH2	2.31	0.45
41:BG:117:PHE:C	41:BG:117:PHE:CD1	2.90	0.45
35:BA:1658:C:OP1	39:BE:132:HIS:ND1	2.48	0.45
45:DN:14:VAL:CG1	45:DN:15:LEU:N	2.80	0.45
11:AK:95:ILE:O	11:AK:98:LEU:HB2	2.17	0.45
39:BE:51:PHE:CD1	39:BE:51:PHE:C	2.91	0.45
4:CD:4:TYR:O	4:CD:5:ILE:HB	2.16	0.45
1:CA:1422:G:H4'	46:DO:49:ARG:HH21	1.82	0.45
31:B6:30:THR:HB	31:B6:31:PRO:CD	2.45	0.45
38:BD:53:PHE:CD1	38:BD:219:PRO:O	2.70	0.45
35:DA:2645:G:C3'	35:DA:2646:C:H5'	2.39	0.45
52:BU:101:ARG:O	52:BU:102:GLU:CB	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DU:104:GLN:O	52:DU:107:ALA:HB3	2.17	0.45
54:BW:1:MET:HG3	54:BW:64:MET:CE	2.47	0.45
17:CQ:32:TYR:O	17:CQ:34:LYS:N	2.50	0.45
43:DI:110:ASP:HB3	43:DI:130:TYR:HE1	1.80	0.45
8:CH:121:ASP:CB	8:CH:125:ARG:HH12	2.26	0.45
55:BX:55:ASN:O	55:BX:79:ALA:HA	2.17	0.45
1:AA:1202:G:O2'	14:AN:27:CYS:HB2	2.17	0.45
45:BN:25:ARG:CG	45:BN:25:ARG:HH11	2.20	0.45
1:CA:310:G:OP2	16:CP:27:LYS:HD3	2.17	0.45
10:CJ:76:ASN:O	10:CJ:78:ASN:N	2.42	0.45
1:AA:255:G:O6	1:AA:266:G:O6	2.35	0.45
36:BB:70:C:H2'	36:BB:71:C:C6	2.42	0.45
17:AQ:53:LEU:CD2	17:AQ:85:VAL:HG21	2.46	0.45
1:CA:1338:G:C2'	1:CA:1339:A:H5'	2.46	0.45
12:CL:20:LYS:O	12:CL:21:VAL:HG23	2.17	0.45
11:CK:34:ASP:HB3	11:CK:40:ILE:HD11	1.98	0.45
9:AI:128:ARG:H	9:AI:128:ARG:HD2	1.82	0.45
30:B5:57:VAL:HG23	30:B5:58:LEU:H	1.81	0.45
9:AI:78:LYS:NZ	9:AI:78:LYS:HB2	2.32	0.45
4:CD:68:TYR:HD1	4:CD:68:TYR:H	1.65	0.45
1:AA:1338:G:C2'	1:AA:1339:A:H5'	2.47	0.45
22:AW:24:U:H2'	22:AW:25:C:C6	2.51	0.45
35:BA:309:G:N3	35:BA:329:G:O2'	2.49	0.45
38:BD:28:GLU:HB2	38:BD:29:PRO:CD	2.47	0.45
38:DD:28:GLU:HB2	38:DD:29:PRO:CD	2.46	0.45
38:BD:155:LEU:N	38:BD:155:LEU:HD12	2.32	0.45
4:CD:129:ASN:ND2	4:CD:145:GLU:N	2.65	0.45
37:BC:47:LEU:HB3	37:BC:207:THR:CB	2.47	0.45
35:DA:2749:A:H1'	42:DH:63:SER:OG	2.16	0.45
49:BR:72:ASP:HB3	49:BR:75:LEU:CB	2.47	0.45
42:BH:58:GLU:O	42:BH:60:ARG:N	2.50	0.45
1:CA:300:A:C2	1:CA:566:G:O6	2.70	0.45
57:DZ:92:SER:O	57:DZ:93:ASP:HB3	2.17	0.45
41:BG:129:GLY:CA	41:BG:163:ALA:O	2.64	0.45
35:BA:1221:C:H5'	35:BA:1221:C:H6	1.81	0.45
35:BA:535:C:C2'	35:BA:536:A:H5'	2.46	0.45
35:DA:478:A:C6	35:DA:480:A:C6	3.04	0.45
35:DA:1466:G:H2'	35:DA:1466:G:N3	2.31	0.45
42:DH:87:LEU:HD23	42:DH:164:TYR:HD2	1.82	0.45
35:BA:582:G:H2'	35:BA:583:G:C8	2.51	0.45
35:DA:1475:G:H5'	35:DA:1476:C:OP2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:512:U:H2'	1:AA:513:C:H6	1.82	0.45
7:AG:75:VAL:HG23	7:AG:75:VAL:O	2.16	0.45
6:CF:91:VAL:CG1	6:CF:92:LYS:N	2.80	0.45
11:AK:109:VAL:HG22	18:AR:86:VAL:HG13	1.98	0.45
12:CL:61:TYR:H	12:CL:61:TYR:HD1	1.65	0.45
38:BD:232:PRO:HD2	38:BD:249:PRO:HA	1.99	0.45
35:DA:1956:U:C2'	35:DA:1957:C:H5'	2.47	0.45
35:DA:1810:A:H2'	35:DA:1811:G:O4'	2.17	0.45
35:DA:186:G:O2'	35:DA:187:G:H5'	2.17	0.45
35:DA:375:C:H2'	35:DA:376:C:C6	2.52	0.45
1:AA:1416:G:O2'	1:AA:1417:G:H5'	2.16	0.45
35:BA:230:U:O2'	35:BA:231:C:H5'	2.16	0.45
35:DA:269:U:O2	35:DA:269:U:H2'	2.17	0.45
49:BR:111:LEU:HD23	49:BR:111:LEU:HA	1.72	0.45
1:AA:22:G:O2'	1:AA:23:C:H5'	2.17	0.45
35:DA:956:G:N2	35:DA:959:A:H3'	2.32	0.45
48:BQ:39:PRO:HB3	48:BQ:99:PRO:HD3	1.99	0.45
42:DH:20:ALA:HB1	42:DH:21:PRO:CD	2.46	0.45
1:CA:877:C:O3'	8:CH:89:PRO:HD2	2.17	0.45
35:BA:774:A:O2'	35:BA:775:G:P	2.74	0.45
56:BY:81:LYS:HE2	56:BY:97:ARG:NE	2.31	0.45
47:DP:66:GLY:O	47:DP:67:MET:HB3	2.15	0.45
47:BP:34:GLY:O	47:BP:35:HIS:CB	2.65	0.45
1:AA:613:C:H42	1:AA:627:G:H1	1.65	0.45
57:DZ:150:LEU:O	57:DZ:151:HIS:HB3	2.17	0.45
35:BA:2377:A:H4'	50:BS:107:GLU:HG2	1.98	0.45
56:BY:13:VAL:HG22	56:BY:14:LEU:O	2.17	0.45
57:BZ:111:VAL:O	57:BZ:113:ALA:N	2.47	0.45
57:BZ:2:GLU:HA	57:BZ:2:GLU:OE1	2.17	0.45
7:AG:92:SER:OG	7:AG:93:PRO:HD2	2.16	0.45
1:CA:572:A:C5'	1:CA:917:G:H4'	2.46	0.45
1:CA:1078:U:O2	5:CE:130:ASN:OD1	2.33	0.45
1:AA:1152:A:P	10:AJ:13:HIS:HD1	2.39	0.45
51:BT:12:SER:O	51:BT:15:VAL:HG13	2.16	0.45
2:CB:204:ASN:HD21	2:CB:207:ALA:H	1.65	0.45
35:BA:2285:C:C2'	35:BA:2286:A:H5'	2.46	0.45
2:AB:174:VAL:HG13	2:AB:184:VAL:HG11	1.99	0.45
2:AB:87:ARG:HH21	2:AB:223:ILE:HD12	1.81	0.45
41:DG:107:LEU:C	41:DG:108:ASN:HD22	2.19	0.45
41:DG:132:ASN:HA	41:DG:158:ALA:HA	1.98	0.45
15:AO:82:ILE:CG2	15:AO:83:GLU:H	2.28	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:28:VAL:HG21	9:CI:63:ILE:HB	1.98	0.45
47:DP:6:LEU:HG	47:DP:8:PRO:CD	2.45	0.45
8:AH:19:VAL:O	8:AH:20:TYR:HB2	2.17	0.45
43:DI:88:ILE:CG1	43:DI:92:VAL:HG23	2.44	0.45
3:AC:18:TRP:C	3:AC:20:SER:N	2.70	0.45
1:CA:537:G:H5''	12:CL:110:ARG:NH1	2.32	0.45
1:AA:1297:C:OP2	13:AM:44:ARG:NH2	2.36	0.45
13:AM:3:ARG:NE	13:AM:7:VAL:HG13	2.32	0.45
39:DE:31:CYS:HA	39:DE:32:PRO:HD2	1.87	0.45
39:DE:4:ILE:CG1	39:DE:5:LEU:N	2.80	0.45
35:BA:857:C:O2	35:BA:857:C:C2'	2.64	0.45
38:DD:44:ASN:CB	38:DD:48:ARG:O	2.65	0.45
35:DA:543:C:O2'	35:DA:547:A:P	2.75	0.45
25:D0:36:ILE:C	25:D0:36:ILE:HD12	2.37	0.45
42:BH:24:VAL:HG11	42:BH:72:ILE:CD1	2.47	0.45
5:AE:57:LYS:O	5:AE:61:TYR:HD2	1.99	0.45
1:CA:973:G:H1'	10:CJ:55:LYS:CD	2.47	0.45
50:DS:106:ARG:HD2	50:DS:106:ARG:C	2.37	0.45
35:BA:1577:C:H2'	35:BA:1578:U:C1'	2.47	0.45
35:DA:2786:U:H2'	35:DA:2787:C:C6	2.52	0.45
1:AA:973:G:H1'	10:AJ:55:LYS:CD	2.46	0.45
35:DA:2801(A):A:H4'	35:DA:2802:G:C5'	2.40	0.45
56:BY:54:LYS:O	56:BY:55:TYR:O	2.34	0.45
35:DA:1831:G:H2'	35:DA:1832:C:H6	1.82	0.45
7:AG:18:TYR:CD2	7:AG:59:LEU:HD13	2.52	0.45
3:AC:9:GLY:CA	14:AN:49:HIS:HA	2.47	0.45
35:DA:17:G:H2'	35:DA:18:C:H6	1.77	0.45
14:CN:27:CYS:SG	14:CN:28:GLY:N	2.90	0.45
35:DA:887:A:H1'	35:DA:889:C:C4	2.51	0.45
16:CP:4:ILE:HA	16:CP:20:VAL:O	2.17	0.45
35:DA:1464:C:H2'	35:DA:1465:G:C8	2.52	0.45
18:AR:71:LYS:O	18:AR:74:ARG:HG3	2.17	0.45
5:AE:36:ASP:O	5:AE:37:ARG:HB2	2.16	0.45
36:BB:81:G:H2'	36:BB:82:G:H5'	1.98	0.45
1:AA:1203:C:OP1	14:AN:3:ARG:HD3	2.16	0.45
31:D6:16:CYS:O	31:D6:18:ARG:NH1	2.49	0.45
53:DV:83:ARG:HG2	53:DV:83:ARG:NH1	2.27	0.45
35:BA:1348:G:H2'	35:BA:1349:A:C5'	2.45	0.45
35:DA:1045:A:H5''	35:DA:1047:G:N3	2.32	0.45
35:DA:286:C:H2'	35:DA:287:C:H6	1.82	0.45
1:AA:105:G:H2'	1:AA:106:C:H6	1.78	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:61:LYS:HD3	4:AD:206:PHE:CE2	2.52	0.45
57:BZ:51:ALA:HA	57:BZ:55:HIS:CD2	2.52	0.45
1:AA:158:G:H2'	1:AA:159:G:C8	2.47	0.45
1:CA:271:C:H2'	1:CA:272:C:H6	1.82	0.45
38:BD:147:LEU:HD12	38:BD:155:LEU:HD11	1.98	0.45
15:CO:17:ARG:HG3	15:CO:17:ARG:HH11	1.81	0.45
35:BA:2533:A:OP1	35:BA:2665:A:H1'	2.16	0.45
35:DA:1151:G:H5''	52:DU:81:HIS:CE1	2.52	0.45
4:CD:129:ASN:ND2	4:CD:145:GLU:H	2.15	0.45
35:BA:1560:G:C4	35:BA:1561:G:C8	3.05	0.45
8:CH:54:ASP:O	8:CH:56:LYS:HG3	2.17	0.45
35:DA:118:A:C8	35:DA:119:A:C8	3.05	0.45
1:AA:1375:A:H2'	1:AA:1376:U:C6	2.52	0.45
1:AA:1069:C:H41	1:AA:1094:G:N2	2.14	0.45
35:DA:2772:C:H2'	35:DA:2773:C:C6	2.52	0.45
35:BA:814:C:C5	47:BP:27:HIS:CE1	3.05	0.45
36:BB:4:C:H2'	36:BB:5:C:C6	2.52	0.45
53:DV:13:ARG:HG2	53:DV:13:ARG:NH1	2.31	0.45
9:CI:84:ALA:O	9:CI:87:GLN:HB3	2.16	0.45
22:CW:66:C:H2'	22:CW:67:C:H5'	1.97	0.45
1:CA:511:C:HO2'	1:CA:512:U:H6	1.64	0.45
25:D0:56:ASP:O	25:D0:57:PHE:CB	2.65	0.45
1:AA:174:C:H2'	1:AA:175:C:H6	1.82	0.45
32:B7:40:TRP:CD2	35:BA:459:U:C5'	3.00	0.45
35:DA:108:U:H2'	35:DA:109:G:C8	2.52	0.45
32:D7:40:TRP:CD2	35:DA:459:U:C5'	3.00	0.45
35:BA:2007:C:H2'	35:BA:2008:C:C6	2.52	0.45
1:AA:154:C:O2'	1:AA:155:C:H5'	2.17	0.45
35:BA:2753:A:O2'	35:BA:2754:U:H5'	2.17	0.45
48:BQ:61:GLY:O	57:BZ:177:PRO:HB2	2.17	0.45
46:BO:26:LYS:HD2	46:BO:37:ASP:OD2	2.17	0.45
35:DA:1510:G:H2'	35:DA:1511:C:C6	2.51	0.45
35:DA:1510:G:O2'	35:DA:1511:C:H5'	2.16	0.45
54:DW:87:PRO:HA	54:DW:93:ALA:HA	1.99	0.45
1:AA:310:G:OP2	16:AP:27:LYS:HD3	2.17	0.45
22:CW:3:C:O5'	22:CW:3:C:H6	1.99	0.45
43:DI:7:GLU:H	43:DI:7:GLU:CD	2.19	0.45
38:BD:110:GLY:O	38:BD:112:GLN:HG3	2.15	0.45
4:CD:24:GLU:O	4:CD:27:TYR:HB2	2.17	0.45
8:CH:95:VAL:HG22	8:CH:131:GLY:O	2.16	0.45
35:DA:1918:A:O2'	35:DA:1920:C:N4	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AX:13:A:H5''	23:AX:14:A:O4'	2.16	0.45
56:DY:28:LYS:CB	56:DY:37:VAL:HB	2.45	0.45
35:BA:664:C:H4'	35:BA:941:A:OP1	2.16	0.45
52:BU:92:ARG:CD	52:BU:94:ASN:HB3	2.46	0.45
52:BU:91:ASP:OD1	52:BU:96:ALA:HB2	2.17	0.45
56:BY:26:LYS:HG2	56:BY:27:VAL:N	2.28	0.45
52:DU:92:ARG:HD2	52:DU:95:LEU:CD1	2.45	0.45
53:DV:46:VAL:HG22	53:DV:47:VAL:N	2.32	0.45
42:BH:85:LYS:HD3	42:BH:133:VAL:CB	2.20	0.45
51:DT:27:THR:O	51:DT:28:VAL:CG2	2.64	0.45
1:CA:572:A:H4'	1:CA:917:G:C5'	2.44	0.45
2:CB:187:LEU:HD13	2:CB:205:ASP:CA	2.47	0.45
2:AB:10:LEU:HA	2:AB:13:ALA:CB	2.47	0.45
29:D4:35:VAL:HG12	29:D4:36:CYS:H	1.82	0.45
41:DG:123:ASN:O	41:DG:126:ASP:OD1	2.34	0.45
41:DG:155:MET:HG2	41:DG:156:ASP:N	2.32	0.45
39:DE:104:VAL:HG13	39:DE:198:VAL:HG22	1.98	0.45
47:DP:85:LEU:HD23	47:DP:88:LEU:HD22	1.99	0.45
13:CM:13:LYS:O	13:CM:14:ARG:C	2.55	0.45
13:CM:3:ARG:HE	13:CM:7:VAL:HG13	1.82	0.45
16:CP:51:VAL:CG1	16:CP:52:ASP:H	2.30	0.45
8:AH:65:TYR:N	8:AH:65:TYR:CD1	2.85	0.45
48:BQ:27:VAL:O	48:BQ:29:PHE:N	2.49	0.45
9:AI:27:THR:CG2	9:AI:28:VAL:N	2.80	0.45
10:AJ:34:VAL:HG13	10:AJ:73:ASP:O	2.17	0.45
9:AI:26:VAL:HG13	9:AI:61:ALA:O	2.17	0.45
35:DA:2680:C:H5'	39:DE:189:PRO:HA	1.99	0.45
48:BQ:55:VAL:HG12	48:BQ:64:ILE:CD1	2.46	0.45
16:CP:49:LEU:HD13	16:CP:73:LEU:HD23	1.99	0.45
49:BR:98:LEU:O	49:BR:113:LEU:HD23	2.17	0.45
35:DA:2846:G:H2'	35:DA:2847:U:O4'	2.17	0.45
37:DC:82:LYS:O	37:DC:86:ALA:HB3	2.17	0.45
39:BE:4:ILE:CG1	39:BE:5:LEU:N	2.80	0.45
39:BE:4:ILE:HG12	39:BE:5:LEU:O	2.16	0.45
22:AW:29:G:O2'	22:AW:30:G:H5'	2.16	0.45
31:D6:30:THR:HB	31:D6:31:PRO:CD	2.44	0.45
4:AD:4:TYR:CE2	4:AD:11:LEU:HD21	2.52	0.45
35:BA:2811:G:C4'	39:BE:61:ARG:HH21	2.29	0.45
53:DV:6:LYS:HE2	53:DV:37:VAL:CG1	2.40	0.45
35:DA:2811:G:O2'	35:DA:2812:G:H5'	2.17	0.45
20:CT:10:LEU:CD2	20:CT:12:ALA:HB2	2.40	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1206:G:O6	1:CA:1207:G:N1	2.50	0.45
35:DA:1826:G:H4'	38:DD:242:ARG:NH2	2.32	0.45
35:DA:1827:C:C2'	35:DA:1828:G:H5'	2.47	0.45
21:AU:17:THR:O	21:AU:22:ARG:NH1	2.50	0.45
38:DD:206:LEU:HA	38:DD:211:ARG:NH1	2.32	0.45
35:DA:2807:G:H2'	35:DA:2808:U:H5''	1.99	0.45
22:CV:4:G:C6	22:CV:70:G:C6	3.05	0.45
35:BA:2698:U:H2'	35:BA:2699:C:C6	2.52	0.45
1:CA:1492:A:H3'	1:CA:1493:A3P:H5'1	1.99	0.45
47:DP:70:GLN:C	47:DP:72:PRO:HD2	2.37	0.45
16:CP:32:TYR:CE2	16:CP:35:LYS:HB2	2.52	0.45
31:B6:16:CYS:O	31:B6:17:LYS:HB3	2.17	0.45
1:AA:377:G:O2'	1:AA:378:G:H5'	2.16	0.45
35:BA:2474:C:H2'	35:BA:2474:C:O2	2.17	0.45
35:DA:364:C:H2'	35:DA:365:C:H5'	1.98	0.45
17:CQ:3:LYS:O	17:CQ:4:LYS:C	2.55	0.45
1:AA:444:C:H2'	1:AA:445:G:C8	2.48	0.45
1:AA:189(I):G:O2'	1:AA:189(J):G:H5'	2.16	0.45
42:BH:30:LYS:HE3	42:BH:81:GLU:HG3	1.98	0.45
39:DE:68:ALA:O	39:DE:70:ALA:N	2.49	0.45
35:BA:615:G:OP2	40:BF:40:GLN:HG2	2.17	0.45
16:CP:8:ARG:HG2	16:CP:8:ARG:HH11	1.82	0.45
35:DA:2563:U:O2	35:DA:2565:A:H8	1.99	0.45
13:CM:110:ARG:NH1	13:CM:110:ARG:HG2	2.30	0.45
49:DR:33:ARG:HD2	49:DR:33:ARG:N	2.31	0.45
39:BE:44:TYR:HE2	39:BE:80:GLU:OE1	2.00	0.45
17:CQ:50:LYS:O	17:CQ:51:TYR:C	2.54	0.45
35:DA:2881:C:O3'	49:DR:96:ARG:HG3	2.16	0.45
35:BA:1686:C:H5'	35:BA:1687:G:OP2	2.17	0.45
13:CM:65:LYS:HA	13:CM:66:LEU:HG	1.98	0.45
35:BA:1412:A:O2'	35:BA:1413:G:H5'	2.17	0.45
35:DA:1270:C:H5''	35:DA:1271:G:C5'	2.46	0.45
34:D9:31:LYS:HD3	35:DA:2528:U:H5'	1.99	0.45
38:DD:232:PRO:HD2	38:DD:249:PRO:HA	1.99	0.45
48:DQ:124:LYS:O	48:DQ:125:LEU:HD23	2.17	0.45
35:BA:680:G:H2'	35:BA:681:G:C8	2.52	0.45
35:BA:2703:C:O2	35:BA:2703:C:H2'	2.16	0.45
35:DA:784:A:H5''	38:DD:227:ASN:ND2	2.31	0.45
35:DA:142(A):C:O2'	35:DA:143:G:H5'	2.17	0.45
35:DA:527:C:OP2	35:DA:2779:U:H5	2.00	0.45
53:DV:69:LYS:HA	53:DV:88:ARG:HG2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:667:U:H2'	35:BA:668:G:O4'	2.16	0.45
48:DQ:116:GLU:OE1	48:DQ:116:GLU:HA	2.16	0.45
35:DA:32:C:O2'	35:DA:33:U:H5'	2.17	0.45
6:CF:22:GLU:HA	6:CF:22:GLU:OE2	2.17	0.45
38:BD:62:TYR:HA	38:BD:87:ASN:HD21	1.82	0.45
1:AA:1437:C:O2'	1:AA:1438:G:H5'	2.17	0.45
47:BP:32:THR:HG21	47:BP:37:GLY:HA2	1.98	0.45
54:BW:71:VAL:HA	54:BW:107:LEU:HD12	2.00	0.45
35:DA:2513:G:H2'	35:DA:2514:U:C6	2.52	0.45
35:DA:1120:G:H2'	35:DA:1121:C:C6	2.52	0.45
57:DZ:147:GLY:O	57:DZ:148:ASP:C	2.55	0.45
42:BH:18:GLU:HA	42:BH:45:VAL:HG21	1.98	0.44
42:DH:20:ALA:HB3	42:DH:23:ARG:CG	2.46	0.44
42:DH:15:VAL:HG12	42:DH:79:VAL:HG23	1.99	0.44
24:AY:28:ILE:HG22	24:AY:42:ARG:HD2	1.99	0.44
35:DA:2475:C:H6	35:DA:2475:C:H3'	1.81	0.44
35:DA:1910:G:O2'	35:DA:1911:U:H5''	2.12	0.44
23:AX:19:U:H5'	23:AX:20:U:OP2	2.17	0.44
56:DY:77:PRO:O	56:DY:78:ALA:CB	2.63	0.44
56:DY:96:ILE:HB	56:DY:99:CYS:CB	2.21	0.44
22:CW:76:A:O2'	35:DA:2394:C:N3	2.27	0.44
35:DA:664:C:H4'	35:DA:941:A:OP1	2.17	0.44
42:DH:85:LYS:O	42:DH:132:ARG:CA	2.65	0.44
40:DF:125:LEU:HD21	40:DF:199:TRP:CD1	2.52	0.44
42:BH:124:GLU:O	42:BH:126:PRO:HD3	2.17	0.44
33:B8:62:LEU:HD22	35:BA:242:G:C5'	2.48	0.44
35:BA:251:A:H5''	47:BP:51:PHE:HE2	1.82	0.44
35:DA:1485:G:H2'	35:DA:1486:A:H8	1.82	0.44
2:CB:101:MET:HA	2:CB:108:ILE:CG2	2.46	0.44
2:CB:186:ALA:H	2:CB:200:ILE:HG22	1.82	0.44
50:BS:15:ARG:C	50:BS:17:ARG:N	2.69	0.44
57:DZ:8:TYR:H	57:DZ:8:TYR:HD1	1.65	0.44
35:BA:194:G:H2'	35:BA:195:A:O4'	2.17	0.44
19:AS:11:VAL:CG2	19:AS:12:ASP:H	2.12	0.44
38:BD:35:LYS:H	38:BD:36:PRO:CD	2.18	0.44
2:AB:71:VAL:HG12	2:AB:93:VAL:CG2	2.47	0.44
1:AA:1234:C:H2'	1:AA:1235:U:C6	2.52	0.44
41:DG:38:VAL:CG2	41:DG:39:ILE:N	2.80	0.44
57:BZ:42:VAL:HG13	57:BZ:43:GLU:N	2.33	0.44
46:DO:107:ARG:NH1	51:DT:35:LYS:HB2	2.32	0.44
1:AA:987:G:H2'	1:AA:988:G:H8	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:40:ASP:HB3	16:AP:48:TRP:CB	2.47	0.44
10:AJ:32:ALA:H	10:AJ:78:ASN:ND2	2.15	0.44
29:B4:10:VAL:HG23	29:B4:27:THR:O	2.18	0.44
36:DB:43:C:OP1	41:DG:67:LYS:NZ	2.44	0.44
35:BA:1114:G:H3'	35:BA:1115:G:C5'	2.42	0.44
38:BD:24:ILE:O	38:BD:25:THR:C	2.54	0.44
36:BB:42:C:H2'	36:BB:43:C:C6	2.52	0.44
41:BG:104:GLU:O	41:BG:106:LEU:N	2.50	0.44
41:BG:42:GLY:O	41:BG:43:LEU:HB2	2.16	0.44
50:DS:28:VAL:HG12	50:DS:89:ARG:CD	2.47	0.44
30:D5:16:ARG:NH1	30:D5:17:ASP:OD1	2.49	0.44
41:BG:8:LYS:O	41:BG:11:TYR:HB3	2.16	0.44
27:D2:69:ARG:NH1	27:D2:69:ARG:HG3	2.29	0.44
18:AR:63:GLN:OE1	18:AR:63:GLN:HA	2.17	0.44
10:AJ:29:ARG:O	10:AJ:29:ARG:HD2	2.17	0.44
5:CE:137:GLU:OE2	5:CE:140:ARG:HD2	2.17	0.44
1:CA:1115:C:O2'	1:CA:1116:C:H5'	2.17	0.44
22:AW:67:C:H2'	22:AW:68:C:C6	2.52	0.44
1:CA:1461:G:O2'	1:CA:1462:G:H5'	2.18	0.44
1:CA:256:U:H2'	1:CA:257:G:C8	2.52	0.44
40:BF:160:ASN:HD22	40:BF:161:GLU:N	2.15	0.44
1:CA:1511:G:H2'	1:CA:1512:U:O4'	2.18	0.44
35:DA:2893:G:H4'	35:DA:2894:G:H8	1.82	0.44
49:DR:50:HIS:O	49:DR:54:LEU:HB2	2.17	0.44
49:BR:50:HIS:O	49:BR:54:LEU:HB2	2.16	0.44
38:DD:70:TRP:CZ3	38:DD:146:GLU:OE2	2.70	0.44
1:AA:1353:G:O2'	1:AA:1354:C:H5'	2.17	0.44
1:AA:336:C:H2'	1:AA:337:C:C6	2.52	0.44
24:AY:77:PRO:O	24:AY:78:LYS:O	2.35	0.44
40:DF:33:LEU:HD11	40:DF:112:MET:HB2	1.99	0.44
31:D6:36:LEU:HD23	31:D6:36:LEU:N	2.30	0.44
35:BA:950:G:O2'	35:BA:951:C:H5'	2.18	0.44
12:AL:25:LYS:HD3	12:AL:30:ARG:NH2	2.32	0.44
48:DQ:60:ARG:HA	57:DZ:178:GLU:O	2.16	0.44
22:AW:8:U:O2'	22:AW:46:G:H1'	2.17	0.44
49:DR:85:PRO:O	49:DR:88:ARG:HB2	2.17	0.44
1:CA:1379:G:O2'	1:CA:1380:U:H5'	2.16	0.44
22:AW:55:U:H1'	22:AW:57:A:N7	2.32	0.44
1:CA:556:C:O2	1:CA:556:C:H2'	2.17	0.44
35:BA:328:U:H4'	56:BY:68:HIS:CE1	2.52	0.44
1:CA:113:G:H2'	1:CA:114:U:C6	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:73:ALA:O	42:BH:77:LYS:HD3	2.18	0.44
35:BA:2838:G:OP1	49:BR:8:ARG:NH1	2.48	0.44
35:BA:2713:A:H3'	35:BA:2714:G:H5'	1.99	0.44
1:CA:977:A:O2'	1:CA:978:A:H5'	2.17	0.44
35:BA:2052:G:O4'	39:BE:142:GLY:HA3	2.17	0.44
11:CK:21:ILE:CD1	11:CK:30:VAL:HG12	2.47	0.44
1:AA:1157:A:N6	1:AA:1178:G:H1'	2.32	0.44
35:BA:2672:G:H3'	35:BA:2673:G:H5''	1.99	0.44
35:BA:500:G:N2	35:BA:502:A:H3'	2.32	0.44
35:BA:412:A:N7	35:BA:2411:A:H2	2.15	0.44
44:DJ:27:UNK:N	44:DJ:84:UNK:CB	2.80	0.44
4:AD:94:LEU:HD11	4:AD:200:GLU:HB3	1.98	0.44
35:DA:2124:G:C2'	35:DA:2125:G:H5'	2.46	0.44
26:D1:34:THR:HG22	26:D1:36:GLY:H	1.82	0.44
35:BA:784:A:H5''	38:BD:227:ASN:ND2	2.32	0.44
28:D3:7:LYS:HE2	28:D3:32:GLN:HA	1.98	0.44
35:BA:1544:A:H2	35:BA:1545:A:C2	2.34	0.44
5:CE:76:ILE:HB	5:CE:77:PRO:HD2	1.99	0.44
35:BA:2128:C:H2'	35:BA:2129:C:H5'	1.98	0.44
1:CA:119:A:O2'	1:CA:120:A:OP2	2.27	0.44
1:AA:1132:C:O2'	1:AA:1133:G:H5'	2.17	0.44
35:DA:1641:A:H2'	35:DA:1642:G:O4'	2.17	0.44
8:CH:10:LEU:HD23	8:CH:10:LEU:N	2.31	0.44
48:BQ:89:ASN:HD22	48:BQ:89:ASN:HA	1.55	0.44
2:AB:82:ARG:HG2	2:AB:82:ARG:HH11	1.82	0.44
44:DJ:67:UNK:C	44:DJ:69:UNK:H	2.30	0.44
22:AV:56:C:H1'	41:BG:76:SER:HB3	1.98	0.44
35:BA:300:A:P	56:BY:84:ARG:HH21	2.39	0.44
33:D8:46:ARG:HH21	35:DA:631:A:P	2.40	0.44
40:BF:118:ALA:HB2	40:BF:123:LEU:CD2	2.47	0.44
35:DA:875:G:H2'	35:DA:876:C:O4'	2.18	0.44
5:CE:11:ILE:HB	5:CE:12:LEU:HD13	2.00	0.44
42:BH:85:LYS:O	42:BH:132:ARG:CA	2.65	0.44
42:BH:85:LYS:O	42:BH:133:VAL:N	2.48	0.44
33:B8:61:LEU:C	33:B8:63:PRO:CD	2.85	0.44
31:D6:52:VAL:CG1	31:D6:53:LYS:N	2.77	0.44
2:CB:178:ARG:NH1	2:CB:178:ARG:CG	2.77	0.44
2:CB:204:ASN:ND2	2:CB:206:ASP:H	2.16	0.44
2:CB:87:ARG:NH2	2:CB:223:ILE:HD12	2.33	0.44
33:B8:33:ASN:N	33:B8:36:LYS:HD2	2.32	0.44
13:CM:54:VAL:HA	13:CM:57:ARG:CD	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:637:A:OP2	47:DP:115:LEU:HB2	2.17	0.44
1:CA:1152:A:OP1	10:CJ:68:HIS:CD2	2.70	0.44
35:BA:2845:G:OP1	51:BT:56:GLY:N	2.48	0.44
1:CA:1376:U:H2'	1:CA:1377:A:H8	1.81	0.44
16:CP:68:ASP:C	16:CP:70:ALA:H	2.21	0.44
1:AA:501:C:O2'	1:AA:502:G:H5'	2.17	0.44
57:DZ:31:ARG:NH1	57:DZ:94:GLU:OE2	2.50	0.44
1:CA:197:A:N6	1:CA:221:C:H4'	2.32	0.44
41:BG:102:PHE:O	41:BG:103:LEU:C	2.56	0.44
50:DS:64:GLU:HA	50:DS:67:ARG:HB3	1.99	0.44
50:DS:88:ASP:OD2	50:DS:89:ARG:N	2.50	0.44
41:BG:10:LYS:O	41:BG:14:GLU:HB3	2.18	0.44
35:DA:2733:A:H2'	35:DA:2734:A:O4'	2.18	0.44
3:AC:188:LEU:HD22	3:AC:188:LEU:N	2.32	0.44
35:DA:2810:A:H2'	39:DE:61:ARG:CZ	2.47	0.44
1:AA:1300:G:O2'	1:AA:1301:U:P	2.75	0.44
54:BW:110:LYS:CG	54:BW:111:HIS:H	2.23	0.44
38:DD:92:ILE:HA	38:DD:107:ALA:H	1.83	0.44
9:AI:10:ARG:CZ	9:AI:105:ASP:HB2	2.47	0.44
8:CH:91:ARG:CG	8:CH:91:ARG:NH1	2.77	0.44
43:DI:102:SER:HB3	43:DI:109:ILE:CB	2.44	0.44
35:DA:2199:A:OP2	35:DA:2200:C:H5	2.00	0.44
2:AB:118:LEU:C	2:AB:120:ALA:N	2.70	0.44
49:BR:14:SER:O	49:BR:15:SER:C	2.56	0.44
16:CP:20:VAL:HG22	16:CP:21:VAL:H	1.82	0.44
5:AE:126:ARG:HG3	5:AE:126:ARG:HH11	1.82	0.44
45:BN:22:THR:HA	45:BN:61:ARG:HB2	1.98	0.44
30:B5:51:TYR:HB3	30:B5:52:TYR:H	1.61	0.44
12:AL:19:SER:C	12:AL:21:VAL:H	2.20	0.44
1:AA:1016:A:H2'	1:AA:1017:G:O4'	2.17	0.44
35:BA:27:G:H22	35:BA:512:G:C2'	2.25	0.44
1:AA:145:G:N3	1:AA:146:G:H1'	2.32	0.44
1:AA:81:U:H2'	1:AA:82:U:C6	2.52	0.44
1:CA:936:C:O2	1:CA:1382:C:N4	2.50	0.44
22:CW:14:A:N3	22:CW:14:A:H2'	2.32	0.44
7:AG:136:LYS:HB3	7:AG:136:LYS:NZ	2.32	0.44
35:DA:1257:C:OP1	40:DF:72:ARG:NH2	2.50	0.44
35:BA:218:A:C2	35:BA:235:U:H4'	2.52	0.44
35:BA:2256:G:O2'	35:BA:2257:U:H5'	2.17	0.44
5:AE:10:MET:HA	5:AE:32:VAL:HA	1.99	0.44
39:DE:65:GLY:HA2	39:DE:70:ALA:HB1	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:486:C:H4'	54:BW:60:ASN:HD21	1.81	0.44
38:DD:198:ASN:HD22	38:DD:198:ASN:C	2.20	0.44
1:AA:682:G:H2'	1:AA:683:G:H8	1.81	0.44
16:AP:6:LEU:HD12	16:AP:6:LEU:N	2.32	0.44
35:DA:1858:G:N2	35:DA:1883:G:H2'	2.32	0.44
35:DA:243:U:O2'	35:DA:244:A:H5'	2.17	0.44
37:BC:80:GLY:HA2	37:BC:96:GLY:CA	2.47	0.44
1:AA:814:A:C8	1:AA:816:A:C8	3.05	0.44
6:CF:100:ASN:HD22	18:CR:23:LYS:NZ	2.16	0.44
35:DA:814:C:O2'	35:DA:815:C:H5'	2.18	0.44
1:CA:1278:U:H5''	1:CA:1279:A:O4'	2.17	0.44
57:DZ:109:ALA:CB	57:DZ:146:ILE:HG13	2.46	0.44
35:BA:845:G:O2'	35:BA:846:C:H5	2.00	0.44
2:AB:61:LEU:CD1	2:AB:66:GLY:HA3	2.47	0.44
44:DJ:15:UNK:CB	44:DJ:66:UNK:HA	2.47	0.44
1:AA:579:G:H2'	1:AA:580:U:H6	1.83	0.44
35:DA:1679:U:O2'	35:DA:1680:U:H5'	2.17	0.44
35:DA:20:C:O2'	35:DA:21:A:H5'	2.17	0.44
35:BA:2124:G:HO2'	37:BC:40:THR:HG1	1.62	0.44
35:BA:1363:C:H2'	35:BA:1364:G:H8	1.81	0.44
35:BA:2335:A:O2'	35:BA:2336:A:H5''	2.17	0.44
35:DA:192:C:H2'	35:DA:193:U:H5'	1.99	0.44
39:DE:115:GLY:HA2	39:DE:157:ALA:CB	2.47	0.44
6:AF:48:LEU:HD22	18:AR:77:GLY:HA3	1.98	0.44
35:BA:1409:C:O2'	35:BA:1410:G:H5'	2.18	0.44
39:DE:178:GLU:OE1	39:DE:178:GLU:N	2.49	0.44
57:BZ:76:LEU:HA	57:BZ:76:LEU:HD23	1.82	0.44
1:CA:1395:C:H6	1:CA:1395:C:O5'	1.99	0.44
35:BA:422:A:C6	35:BA:423:A:C6	3.05	0.44
10:AJ:22:LYS:O	10:AJ:26:ALA:HB3	2.18	0.44
42:BH:15:VAL:HG12	42:BH:79:VAL:HG23	1.99	0.44
35:DA:1913:A:OP1	35:DA:1914:C:OP1	2.34	0.44
1:CA:1408:A:O2'	35:DA:1916:A:N6	2.50	0.44
13:CM:96:LEU:HD12	13:CM:96:LEU:N	2.32	0.44
56:BY:95:LYS:HZ2	56:BY:99:CYS:N	2.02	0.44
35:DA:300:A:OP1	56:DY:84:ARG:NH2	2.50	0.44
35:DA:508:G:O2'	35:DA:509:C:P	2.75	0.44
56:DY:15:VAL:HG12	56:DY:15:VAL:O	2.16	0.44
56:DY:26:LYS:O	56:DY:27:VAL:C	2.55	0.44
35:BA:1528(A):A:C6	35:BA:1529:G:C8	3.05	0.44
51:BT:23:ARG:HH21	51:BT:120:ARG:CD	2.29	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DF:3:GLU:O	40:DF:19:GLU:HA	2.17	0.44
52:DU:92:ARG:CD	52:DU:94:ASN:HB3	2.47	0.44
42:BH:116:GLU:OE1	42:BH:117:PRO:HD2	2.16	0.44
51:DT:20:PRO:HD2	51:DT:85:LYS:HD3	2.00	0.44
35:BA:242:G:N2	35:BA:254:G:H2'	2.32	0.44
40:DF:68:LYS:HA	40:DF:68:LYS:HD3	1.75	0.44
57:DZ:28:MET:SD	57:DZ:28:MET:O	2.75	0.44
2:AB:17:PHE:HB3	2:AB:44:LEU:HD11	1.99	0.44
47:BP:147:LEU:C	47:BP:149:GLU:H	2.21	0.44
1:CA:1148:U:H4'	9:CI:16:ARG:HD2	1.99	0.44
35:BA:1241:A:O2'	35:BA:1242:A:H5'	2.17	0.44
51:DT:38:ASN:ND2	51:DT:39:ARG:N	2.66	0.44
16:AP:70:ALA:HA	16:AP:73:LEU:HD13	1.99	0.44
1:CA:624:C:C5'	16:CP:10:GLY:O	2.64	0.44
43:DI:123:LEU:HD21	43:DI:144:VAL:HG13	1.99	0.44
35:DA:1176:G:O2'	35:DA:1177:A:H5'	2.18	0.44
4:CD:170:VAL:CG1	4:CD:174:LEU:HB2	2.47	0.44
39:DE:77:ILE:CG2	39:DE:78:LEU:H	2.13	0.44
4:CD:98:GLU:O	4:CD:103:ASN:ND2	2.51	0.44
35:BA:661:C:H2'	35:BA:662:G:H8	1.83	0.44
25:B0:23:VAL:HB	25:B0:26:TYR:CE2	2.52	0.44
1:AA:1130:A:N6	1:AA:1143:G:N2	2.66	0.44
1:CA:1431:C:H2'	1:CA:1432:G:O4'	2.17	0.44
37:BC:82:LYS:O	37:BC:86:ALA:HB3	2.17	0.44
38:BD:70:TRP:CZ3	38:BD:150:LYS:HA	2.52	0.44
41:BG:63:ILE:HD13	41:BG:144:ILE:CD1	2.39	0.44
41:BG:96:ARG:CG	41:BG:97:ASP:H	2.30	0.44
53:BV:19:LYS:HZ2	53:BV:20:LEU:H	1.63	0.44
1:AA:184:G:H2'	1:AA:185:A:C8	2.51	0.44
1:AA:948:C:O2'	1:AA:949:A:H5'	2.18	0.44
18:CR:32:ARG:HG2	18:CR:65:ILE:CG2	2.48	0.44
43:BI:15:VAL:HG22	43:BI:16:GLY:N	2.32	0.44
56:BY:54:LYS:HE3	56:BY:55:TYR:CE2	2.53	0.44
42:DH:137:ASP:HB3	42:DH:140:LYS:HB2	1.99	0.44
21:AU:6:ARG:NE	21:AU:15:ARG:HH12	2.15	0.44
3:AC:6:HIS:CD2	3:AC:7:PRO:HD2	2.50	0.44
41:DG:171:ALA:O	41:DG:173:LEU:N	2.50	0.44
2:AB:24:TRP:HD1	2:AB:24:TRP:H	1.64	0.44
15:CO:54:ARG:O	15:CO:57:LEU:HB2	2.17	0.44
5:CE:6:PHE:HB2	5:CE:34:VAL:CG2	2.48	0.44
1:AA:1168:A:H2'	1:AA:1169:A:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:69:GLU:OE2	13:CM:73:GLU:HB2	2.17	0.44
1:AA:15:G:C4	1:AA:16:A:C8	3.06	0.44
49:BR:82:GLU:OE2	49:BR:82:GLU:N	2.50	0.44
55:DX:25:LYS:HG2	55:DX:80:ILE:HD11	1.99	0.44
28:B3:26:LEU:O	28:B3:35:ARG:NE	2.48	0.44
51:DT:3:ARG:C	51:DT:5:ALA:H	2.20	0.44
4:CD:22:LYS:O	4:CD:113:SER:HB3	2.17	0.44
35:DA:2019:A:C4'	52:DU:34:LYS:HD2	2.46	0.44
4:AD:17:VAL:HG11	4:AD:197:PRO:HB2	1.99	0.44
53:BV:98:GLU:OE1	53:BV:100:ARG:NH1	2.50	0.44
1:AA:397:A:N7	1:AA:548:G:C8	2.86	0.44
13:AM:96:LEU:HD12	13:AM:96:LEU:N	2.33	0.44
1:AA:1163:C:H2'	1:AA:1164:G:C8	2.46	0.44
40:BF:37:VAL:HG13	40:BF:184:TYR:CD1	2.49	0.44
38:DD:155:LEU:N	38:DD:155:LEU:HD12	2.33	0.44
35:BA:285:C:O2'	35:BA:286:C:H5'	2.17	0.44
4:AD:36:ARG:HH11	4:AD:36:ARG:HG2	1.82	0.44
47:DP:100:LEU:H	47:DP:100:LEU:CD2	2.29	0.44
35:DA:2682:U:O4	35:DA:2728:U:H1'	2.17	0.44
20:AT:16:HIS:O	20:AT:19:SER:HB3	2.17	0.44
40:DF:64:ILE:HG23	40:DF:65:TRP:N	2.32	0.44
28:B3:6:VAL:HB	28:B3:54:VAL:HG11	1.99	0.44
20:AT:51:GLU:O	20:AT:54:LYS:HB3	2.17	0.44
3:CC:45:LYS:HB2	3:CC:46:GLU:OE2	2.16	0.44
35:BA:2257:U:O2'	35:BA:2258:C:H5'	2.17	0.44
1:AA:678:U:H2'	1:AA:679:C:H6	1.79	0.44
17:CQ:92:ARG:HG3	17:CQ:95:TYR:CE2	2.48	0.44
29:B4:47:GLN:O	29:B4:48:ARG:CB	2.65	0.44
1:CA:957:U:H4'	19:CS:79:THR:HB	1.99	0.44
39:BE:119:ARG:CD	39:BE:120:TRP:CE2	3.01	0.44
1:CA:1329:A:H2'	1:CA:1330:U:O4'	2.17	0.44
1:CA:67:C:H2'	1:CA:68:G:H8	1.83	0.44
1:AA:859:A:H2'	1:AA:860:A:O4'	2.18	0.44
55:DX:11:PRO:HB3	55:DX:92:LEU:CD2	2.47	0.44
45:DN:5:VAL:O	45:DN:5:VAL:HG13	2.17	0.44
13:CM:65:LYS:HA	13:CM:66:LEU:N	2.31	0.44
3:CC:87:LEU:C	3:CC:89:GLU:N	2.70	0.44
35:BA:588:U:H1'	40:BF:90:PHE:CG	2.52	0.44
35:DA:772:C:O2'	35:DA:773:U:H5'	2.18	0.44
1:AA:580:U:H2'	1:AA:581:G:O4'	2.17	0.44
3:AC:22:TRP:HE3	3:AC:23:TYR:O	2.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:56:U:H2'	1:CA:57:G:H8	1.82	0.44
57:BZ:128:VAL:HG22	57:BZ:129:SER:N	2.33	0.44
37:BC:68:LEU:HD12	37:BC:162:GLU:O	2.17	0.44
38:BD:113:VAL:HG12	38:BD:114:GLY:H	1.81	0.44
35:BA:709:U:H2'	35:BA:710:G:C8	2.53	0.44
17:AQ:31:LEU:O	17:AQ:31:LEU:HD12	2.17	0.44
35:DA:413:C:H4'	35:DA:1880:C:O2'	2.18	0.44
35:DA:2410:G:N2	35:DA:2411:A:H1'	2.32	0.44
48:DQ:38:GLU:HG3	48:DQ:127:ILE:HG22	1.99	0.44
35:DA:438:G:O2'	35:DA:440:G:H5'	2.17	0.44
1:AA:1049:U:O2'	1:AA:1050:G:OP2	2.31	0.44
27:B2:56:GLN:O	27:B2:60:LEU:HG	2.17	0.44
1:CA:1113:C:H2'	1:CA:1114:C:H6	1.81	0.44
52:BU:60:LEU:HD22	52:BU:60:LEU:O	2.17	0.44
5:AE:123:LEU:O	5:AE:124:GLY:C	2.56	0.44
42:BH:7:LEU:HA	42:BH:7:LEU:HD12	1.41	0.44
1:AA:1493:A3P:O3P	1:AA:1493:A3P:O2'	2.31	0.44
24:AY:31:THR:HG21	24:AY:53:GLU:OE1	2.17	0.44
35:DA:1913:A:P	35:DA:1913:A:C3'	3.06	0.44
35:DA:90:U:HO2'	35:DA:92:A:P	2.40	0.44
35:DA:93:G:H2'	35:DA:94:C:C6	2.52	0.44
56:DY:81:LYS:HE2	56:DY:97:ARG:NH2	2.32	0.44
56:DY:38:ILE:CG2	56:DY:39:VAL:N	2.80	0.44
56:DY:7:VAL:HB	56:DY:8:LYS:HZ2	1.82	0.44
40:BF:2:LYS:HG3	40:BF:25:PRO:HG3	1.99	0.44
42:DH:83:TYR:O	42:DH:84:SER:CB	2.65	0.44
47:BP:35:HIS:C	47:BP:36:LYS:HG3	2.38	0.44
35:DA:610:G:H2'	35:DA:611:C:H6	1.79	0.44
35:DA:833:U:H2'	35:DA:834:C:H6	1.79	0.44
40:DF:8:GLN:HB2	40:DF:124:LEU:HD11	1.98	0.44
52:DU:69:CYS:SG	52:DU:79:PHE:CB	3.06	0.44
1:CA:572:A:C4'	1:CA:917:G:C4'	2.96	0.44
5:CE:126:ARG:NH1	5:CE:126:ARG:HG3	2.32	0.44
47:BP:39:LYS:C	47:BP:41:ARG:HD2	2.37	0.44
2:CB:44:LEU:CD2	2:CB:44:LEU:N	2.79	0.44
8:CH:20:TYR:HD1	8:CH:65:TYR:CE2	2.35	0.44
2:CB:178:ARG:HH21	8:CH:74:PRO:CG	2.31	0.44
50:BS:17:ARG:HA	50:BS:20:ARG:NH2	2.32	0.44
38:DD:11:PRO:O	38:DD:13:ARG:N	2.48	0.44
46:BO:97:ARG:HA	46:BO:117:LEU:CD2	2.47	0.44
43:BI:97:ILE:HG12	43:BI:140:LEU:HD11	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:182:ILE:HG23	3:AC:202:ILE:N	2.33	0.44
43:DI:81:VAL:HB	43:DI:89:TYR:O	2.18	0.44
35:BA:2126:A:O2'	35:BA:2127:G:OP2	2.28	0.44
50:BS:99:LYS:HD2	50:BS:99:LYS:N	2.18	0.44
11:AK:99:GLN:HA	11:AK:105:VAL:HG13	1.99	0.44
1:CA:1413:A:H61	1:CA:1488:G:N2	2.16	0.44
39:BE:75:VAL:C	39:BE:77:ILE:N	2.68	0.44
35:BA:517:C:O2'	54:BW:18:ARG:NH2	2.51	0.44
35:DA:542:C:C2'	35:DA:543:C:OP1	2.66	0.44
29:D4:54:GLY:C	29:D4:56:VAL:H	2.20	0.44
26:D1:64:ALA:O	26:D1:66:HIS:N	2.50	0.44
35:DA:857:C:N3	35:DA:858:U:C5	2.86	0.44
35:DA:847:U:H2'	35:DA:848:G:H5''	1.99	0.44
24:AY:15:THR:HG22	24:AY:16:GLU:HA	1.99	0.44
29:B4:7:PRO:HG2	41:BG:65:GLY:C	2.38	0.44
41:BG:43:LEU:HB3	41:BG:88:ILE:HG22	1.98	0.44
54:DW:15:ARG:HA	54:DW:18:ARG:HD2	1.99	0.44
35:BA:2810:A:H2'	39:BE:61:ARG:CZ	2.47	0.44
54:DW:46:PHE:O	54:DW:50:VAL:HG12	2.18	0.44
35:DA:1835:G:H2'	35:DA:1836:C:C6	2.53	0.44
38:BD:2:ALA:O	38:BD:3:VAL:CB	2.65	0.44
22:AV:1:C:O2'	25:B0:6:GLY:O	2.36	0.44
48:DQ:12:GLN:NE2	48:DQ:73:PRO:HD3	2.24	0.44
43:DI:6:LEU:O	43:DI:8:PRO:N	2.51	0.44
6:CF:8:ILE:HG22	6:CF:10:LEU:HD11	2.00	0.44
3:AC:6:HIS:NE2	3:AC:184:TYR:CD2	2.86	0.44
43:BI:40:THR:O	43:BI:41:GLU:C	2.56	0.44
41:DG:63:ILE:HD12	41:DG:141:PHE:CE1	2.52	0.44
2:CB:105:PHE:HZ	2:CB:156:LYS:HA	1.81	0.44
1:AA:1097:C:O2'	1:AA:1098:C:H5'	2.18	0.44
1:AA:256:U:H2'	1:AA:257:G:C8	2.52	0.44
1:AA:18:C:P	5:AE:127:ASN:HD21	2.41	0.44
8:AH:97:VAL:O	8:AH:100:ILE:HG13	2.18	0.44
40:DF:108:LYS:O	40:DF:112:MET:HG3	2.16	0.44
30:B5:55:ARG:HG3	30:B5:56:LYS:N	2.32	0.44
56:BY:31:LEU:CB	56:BY:32:PRO:CA	2.95	0.44
12:AL:30:ARG:HD3	12:AL:59:SER:HB3	1.99	0.44
1:CA:1170:A:H2'	1:CA:1171:G:H5'	1.99	0.44
2:AB:144:ARG:HA	2:AB:147:LYS:CB	2.43	0.44
35:BA:2182:G:O2'	35:BA:2183:C:H5'	2.17	0.44
20:CT:56:MET:SD	20:CT:85:MET:HB3	2.57	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BP:100:LEU:CD2	47:BP:100:LEU:H	2.31	0.44
1:CA:881:G:P	12:CL:9:ARG:HH22	2.40	0.44
1:CA:683:G:H2'	1:CA:684:A:H8	1.83	0.44
38:BD:147:LEU:HD12	38:BD:155:LEU:CD2	2.48	0.44
35:BA:2300:G:H1	35:BA:2316:C:N4	2.16	0.44
1:AA:1379:G:O2'	1:AA:1380:U:H5'	2.16	0.44
35:BA:154(A):C:H5	35:BA:171:G:N1	2.14	0.44
42:DH:73:ALA:O	42:DH:77:LYS:HD3	2.17	0.44
35:DA:360:G:H2'	35:DA:361:G:H8	1.81	0.44
1:AA:758:G:C5'	1:AA:880:C:H1'	2.47	0.44
1:AA:538:G:H5''	12:AL:111:LYS:HD3	1.98	0.44
1:CA:540:G:H2'	1:CA:541:G:O4'	2.16	0.44
36:DB:65:C:H2'	36:DB:66:A:H5'	2.00	0.44
2:CB:61:LEU:CD1	2:CB:66:GLY:HA3	2.48	0.44
35:DA:1844:C:O2'	35:DA:1845:G:H5'	2.17	0.44
17:CQ:29:HIS:C	17:CQ:31:LEU:H	2.20	0.44
1:AA:491:G:O2'	1:AA:492:G:H5'	2.17	0.44
57:DZ:149:SER:HB2	57:DZ:173:ALA:CB	2.47	0.44
43:BI:71:ILE:HG13	43:BI:72:LEU:HG	1.98	0.44
20:CT:96:GLY:O	20:CT:97:ALA:HB3	2.17	0.44
22:CV:71:C:O2'	22:CV:72:A:H5'	2.17	0.44
35:DA:2274:A:C5	35:DA:2276:G:C8	3.05	0.44
35:BA:45:C:OP2	35:BA:215:G:H2'	2.17	0.44
18:AR:76:LEU:C	18:AR:78:LEU:H	2.20	0.44
1:CA:460:G:O6	1:CA:470:C:H5''	2.18	0.44
1:AA:1121:U:O2'	1:AA:1122:U:H5'	2.18	0.44
18:CR:22:VAL:HG23	18:CR:55:ARG:O	2.16	0.44
17:AQ:10:VAL:HG13	17:AQ:19:VAL:HB	2.00	0.44
37:DC:68:LEU:HD12	37:DC:162:GLU:O	2.17	0.44
43:DI:105:HIS:HB3	43:DI:106:GLY:H	1.62	0.44
38:BD:218:ARG:HG3	38:BD:218:ARG:HH11	1.83	0.44
35:BA:1029:A:O5'	35:BA:1029:A:H8	2.00	0.44
1:CA:697:U:H2'	1:CA:698:G:H5'	1.98	0.44
35:DA:1036:G:O2'	35:DA:1037:G:H5'	2.17	0.44
42:BH:23:ARG:HD2	42:BH:25:LYS:HZ1	1.83	0.44
24:AY:35:ASN:HD22	24:AY:35:ASN:HA	1.60	0.44
27:D2:47:ASN:O	27:D2:48:HIS:C	2.55	0.44
7:AG:84:ASN:HB2	22:AW:33:U:H4'	1.99	0.44
35:BA:1464:C:H1'	35:BA:1528(A):A:N3	2.33	0.44
35:DA:2832:U:H4'	35:DA:2833:G:H5''	1.98	0.44
57:BZ:96:VAL:HG22	57:BZ:97:GLU:H	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DG:53:LEU:CD2	41:DG:53:LEU:N	2.80	0.44
2:CB:172:ILE:O	2:CB:176:GLU:HG2	2.16	0.44
2:AB:87:ARG:NH2	2:AB:223:ILE:HD12	2.32	0.44
29:D4:35:VAL:HG21	41:DG:113:ARG:NH1	2.32	0.44
3:AC:95:THR:HG22	3:AC:97:LYS:HG3	1.99	0.44
35:BA:2693:A:H2'	35:BA:2694:G:H8	1.81	0.44
51:BT:55:ASN:H	51:BT:59:THR:HB	1.83	0.44
10:CJ:28:ARG:CA	10:CJ:34:VAL:HG23	2.44	0.44
13:AM:86:CYS:HA	19:AS:73:GLU:O	2.17	0.44
2:AB:46:LYS:HD2	2:AB:46:LYS:N	2.31	0.44
43:BI:120:ILE:HG22	43:BI:122:GLU:H	1.82	0.44
39:BE:203:LYS:HG3	39:BE:204:ALA:N	2.32	0.44
10:AJ:44:VAL:HG11	10:AJ:46:ARG:NH2	2.32	0.44
38:DD:43:ARG:NH1	38:DD:44:ASN:HD21	2.11	0.44
1:CA:1415:G:C5	1:CA:1486:G:N1	2.85	0.44
5:CE:10:MET:HA	5:CE:32:VAL:HA	1.98	0.44
35:DA:1494:A:H1'	35:DA:1496:A:C2	2.52	0.44
51:DT:80:SER:CB	51:DT:81:PRO:CD	2.94	0.44
42:DH:24:VAL:HG11	42:DH:72:ILE:CD1	2.47	0.44
38:BD:44:ASN:HB3	38:BD:49:ILE:CA	2.40	0.44
38:BD:92:ILE:HA	38:BD:107:ALA:H	1.82	0.44
50:DS:28:VAL:HG12	50:DS:29:PHE:N	2.33	0.44
41:BG:33:ARG:HG2	41:BG:33:ARG:NH1	2.33	0.44
1:AA:411:A:H62	1:AA:413:G:H21	1.65	0.44
53:DV:35:LEU:HB2	53:DV:57:VAL:HG13	1.98	0.44
35:DA:2632:A:H2	39:DE:61:ARG:HD2	1.81	0.44
53:DV:2:PHE:HB3	53:DV:3:ALA:H	1.49	0.44
1:AA:1303:C:OP1	1:AA:1304:G:OP2	2.36	0.44
9:CI:107:ARG:H	9:CI:107:ARG:HD3	1.82	0.44
54:BW:62:HIS:O	54:BW:64:MET:HG3	2.17	0.44
56:DY:45:VAL:CG1	56:DY:60:PHE:HB3	2.40	0.44
43:DI:130:TYR:O	43:DI:131:LYS:HG2	2.17	0.44
27:B2:37:PHE:HZ	55:BX:8:ILE:HG21	1.83	0.44
55:BX:12:VAL:HG23	55:BX:17:ALA:CB	2.47	0.44
1:CA:403:C:O2'	1:CA:404:U:H5'	2.18	0.44
38:DD:271:ILE:O	38:DD:272:ALA:HB2	2.17	0.44
35:BA:322:A:OP2	40:BF:169:ASN:HB2	2.18	0.44
35:BA:1563:G:H2'	35:BA:1564:C:C6	2.44	0.44
6:CF:46:ARG:NH2	18:CR:37:VAL:HG23	2.32	0.44
4:AD:18:LYS:HZ3	4:AD:31:CYS:HB3	1.82	0.44
1:AA:1286:A:N6	21:AU:18:TYR:OH	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:32:ILE:O	11:AK:40:ILE:HG12	2.17	0.44
1:CA:935:A:H2'	1:CA:936:C:C6	2.53	0.44
35:DA:218:A:C2	35:DA:235:U:H4'	2.52	0.44
35:DA:1441:G:H2'	35:DA:1442:G:C8	2.52	0.44
35:BA:272(J):C:H5	35:BA:274:G:C6	2.35	0.44
17:CQ:87:LYS:CB	17:CQ:87:LYS:NZ	2.80	0.44
8:AH:85:ARG:CZ	8:AH:87:SER:O	2.66	0.44
35:BA:530:G:C5	35:BA:2022:U:H5''	2.52	0.44
35:DA:533:G:H5'	52:DU:24:TYR:CD2	2.53	0.44
30:D5:57:VAL:HG23	30:D5:58:LEU:H	1.82	0.44
35:DA:2262:U:H4'	35:DA:2328:A:C2	2.53	0.44
1:AA:658:G:C5	1:AA:659:U:C5	3.05	0.44
10:CJ:100:THR:CG2	10:CJ:101:VAL:N	2.80	0.44
37:BC:47:LEU:HD23	37:BC:47:LEU:N	2.32	0.44
35:DA:606:U:H4'	35:DA:658:C:H4'	2.00	0.44
11:CK:57:THR:O	11:CK:60:ALA:HB3	2.17	0.44
22:CV:47:U:H3'	22:CV:48:C:H5'	2.00	0.44
57:BZ:77:ASP:O	57:BZ:78:LYS:C	2.56	0.44
35:BA:912:C:H2'	35:BA:913:U:C6	2.52	0.44
1:AA:218:C:O2'	1:AA:219:C:H5'	2.18	0.44
36:BB:65:C:H2'	36:BB:66:A:H5'	1.99	0.44
35:BA:2672:G:H2'	35:BA:2673:G:H5''	1.99	0.44
48:BQ:109:VAL:O	48:BQ:110:THR:O	2.35	0.44
1:AA:1263:C:N4	1:AA:1272:G:H1	2.15	0.44
12:AL:61:TYR:H	12:AL:61:TYR:HD1	1.65	0.44
35:BA:614:U:H3'	35:BA:614(A):U:C6	2.52	0.44
35:BA:1904:G:C2'	35:BA:1905:C:H5'	2.46	0.44
35:BA:1510:G:H2'	35:BA:1511:C:C6	2.53	0.44
35:BA:2277:G:C2'	35:BA:2278:A:H5'	2.48	0.44
4:CD:109:GLY:C	4:CD:111:ALA:H	2.20	0.44
4:CD:191:ARG:NH1	4:CD:191:ARG:HG3	2.32	0.44
35:DA:2870:C:H2'	35:DA:2871:C:O4'	2.17	0.44
53:DV:62:LEU:HD21	53:DV:95:LEU:HB2	1.99	0.44
54:DW:71:VAL:HA	54:DW:107:LEU:HD12	1.98	0.44
1:CA:449:C:O2	16:CP:42:ARG:HD2	2.17	0.44
3:CC:177:THR:HB	3:CC:180:ALA:HB2	1.99	0.44
1:CA:669:U:O2'	1:CA:670:G:H5'	2.17	0.44
49:DR:111:LEU:HD23	49:DR:111:LEU:HA	1.76	0.44
24:CY:14:LYS:HE3	24:CY:14:LYS:HB2	1.58	0.44
35:DA:196:A:H2'	35:DA:196:A:N3	2.32	0.44
35:BA:999:U:H5''	35:BA:1154:G:O6	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1265:G:C2	1:AA:1266:G:H1'	2.52	0.44
42:DH:7:LEU:HB3	42:DH:65:HIS:NE2	2.31	0.44
1:CA:37:U:C4	1:CA:38:G:C6	3.04	0.44
35:DA:1911:U:C2'	35:DA:1912:A:O5'	2.65	0.44
13:CM:97:PRO:HB2	13:CM:101:GLN:NE2	2.32	0.44
10:CJ:49:VAL:HG22	10:CJ:50:ILE:N	2.33	0.44
23:AX:14:A:N6	23:AX:15:A:C5	2.86	0.44
56:DY:26:LYS:CG	56:DY:27:VAL:H	2.23	0.44
56:DY:28:LYS:CA	56:DY:28:LYS:HZ2	2.27	0.44
1:CA:10:A:H2'	1:CA:11:G:H8	1.81	0.44
40:BF:122:LYS:HD2	40:BF:191:ARG:HG2	2.00	0.44
51:BT:28:VAL:O	51:BT:29:ARG:CB	2.66	0.44
57:BZ:54:HIS:CG	57:BZ:101:PRO:HG3	2.52	0.44
27:D2:43:GLN:O	27:D2:44:LEU:C	2.56	0.44
1:CA:15:G:N1	1:CA:921:U:C2	2.86	0.44
38:DD:3:VAL:HG12	38:DD:17:THR:HB	2.00	0.44
41:DG:75:LYS:O	41:DG:84:LYS:HG3	2.17	0.44
2:CB:50:GLU:C	2:CB:52:GLU:N	2.71	0.44
47:DP:85:LEU:HD23	47:DP:88:LEU:CD2	2.47	0.44
50:DS:18:ILE:C	50:DS:20:ARG:N	2.70	0.44
47:BP:101:VAL:CG1	47:BP:106:LEU:HD23	2.42	0.44
9:CI:53:VAL:CG2	9:CI:54:ASP:N	2.81	0.44
51:DT:41:ARG:C	51:DT:41:ARG:HD2	2.38	0.44
19:AS:41:VAL:O	19:AS:44:MET:SD	2.76	0.44
1:CA:624:C:H5'	16:CP:11:SER:OG	2.18	0.44
35:BA:1176:G:O2'	35:BA:1177:A:H5'	2.18	0.44
3:AC:164:ARG:NH2	3:AC:166:GLU:OE1	2.50	0.44
48:BQ:54:MET:HB3	48:BQ:64:ILE:HD13	1.99	0.44
35:BA:1771:C:H1'	35:BA:1786:A:C8	2.53	0.44
57:BZ:63:ASP:O	57:BZ:65:GLN:HG3	2.18	0.44
39:BE:34:VAL:HG12	39:BE:48:GLN:O	2.18	0.44
39:BE:63:LEU:O	39:BE:64:LYS:C	2.56	0.44
38:BD:75:ILE:O	38:BD:118:VAL:HG23	2.17	0.44
35:DA:2377:A:H4'	50:DS:107:GLU:HG2	1.99	0.44
45:BN:46:VAL:HG13	45:BN:48:MET:HG2	1.98	0.44
5:AE:137:GLU:OE2	5:AE:140:ARG:HD2	2.18	0.44
5:AE:139:LEU:C	5:AE:141:GLN:N	2.70	0.44
1:CA:1206:G:C6	1:CA:1207:G:C4	3.06	0.44
45:DN:69:GLN:HB3	45:DN:69:GLN:HE21	1.50	0.44
7:AG:57:GLU:OE1	7:AG:57:GLU:N	2.50	0.44
35:BA:80:G:C2'	35:BA:81:G:H5'	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AU:12:LYS:HB3	21:AU:17:THR:O	2.18	0.44
21:CU:6:ARG:NE	21:CU:15:ARG:HH12	2.14	0.44
35:DA:259:G:N2	35:DA:621:A:H8	2.12	0.44
1:CA:814:A:C8	1:CA:816:A:C8	3.06	0.44
41:DG:138:GLN:HE22	41:DG:153:ARG:CZ	2.30	0.44
35:DA:1854:A:H62	35:DA:1888:G:H8	1.65	0.44
38:BD:215:LEU:CD1	38:BD:217:ARG:HH21	2.30	0.44
40:BF:131:GLY:O	40:BF:132:VAL:O	2.36	0.44
56:DY:50:ARG:C	56:DY:52:SER:H	2.20	0.44
35:BA:1796:U:H2'	35:BA:1797:C:H6	1.82	0.44
35:BA:2789:C:O2'	35:BA:2790:A:H1'	2.17	0.44
8:CH:30:ARG:CZ	8:CH:30:ARG:HB3	2.48	0.44
1:AA:1097:C:O4'	1:AA:1170:A:H4'	2.18	0.44
38:BD:181:GLU:HA	38:BD:272:ALA:HB1	1.97	0.44
55:DX:23:GLU:C	55:DX:25:LYS:H	2.20	0.44
28:B3:28:LEU:N	28:B3:28:LEU:CD2	2.80	0.44
51:DT:9:LEU:O	51:DT:11:GLU:N	2.50	0.44
53:BV:100:ARG:O	53:BV:100:ARG:CD	2.63	0.44
35:BA:2667:C:H2'	35:BA:2668:G:O4'	2.18	0.44
21:AU:18:TYR:CD2	21:AU:24:ARG:HA	2.49	0.44
2:AB:36:ARG:O	2:AB:37:ASN:HB3	2.17	0.44
36:BB:35:U:H2'	36:BB:36:C:O4'	2.17	0.44
7:CG:49:ILE:CA	7:CG:52:GLU:HG2	2.48	0.44
1:CA:1434:A:N6	1:CA:1435:G:N2	2.66	0.44
9:AI:45:ALA:O	9:AI:78:LYS:HE3	2.18	0.44
39:DE:186:GLY:O	39:DE:187:ALA:CB	2.63	0.44
1:CA:129(A):G:C2	1:CA:189(F):U:H5"	2.53	0.44
40:DF:52:LYS:HB3	40:DF:56:GLU:HB2	2.00	0.44
15:AO:17:ARG:NH1	15:AO:77:ARG:NH1	2.65	0.44
35:DA:640:C:H2'	35:DA:641:C:H6	1.79	0.44
36:DB:5:C:C2	36:DB:117:G:N2	2.85	0.44
36:DB:4:C:H2'	36:DB:5:C:C6	2.52	0.44
35:BA:1230:C:O2'	35:BA:1231:G:H5'	2.17	0.44
55:BX:11:PRO:HB3	55:BX:92:LEU:CD2	2.47	0.44
35:DA:478:A:N1	35:DA:500:G:H4'	2.31	0.44
17:CQ:88:TYR:HA	17:CQ:91:ARG:HH12	1.83	0.44
45:DN:1:MET:C	45:DN:2:LYS:HD2	2.37	0.44
3:CC:79:ARG:HG3	3:CC:79:ARG:NH1	2.33	0.44
48:BQ:110:THR:HG23	48:BQ:113:GLN:HB2	2.00	0.44
1:CA:997:U:O5'	1:CA:997:U:H6	2.01	0.44
26:B1:41:ARG:NH1	26:B1:43:TYR:HE2	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1244:C:H2'	1:CA:1245:A:C8	2.53	0.44
1:AA:1515:C:H2'	1:AA:1516:G:H8	1.81	0.44
35:DA:1904:G:C2'	35:DA:1905:C:H5'	2.47	0.44
35:DA:71:A:C8	35:DA:71:A:H5'	2.53	0.44
55:BX:23:GLU:O	55:BX:25:LYS:N	2.49	0.44
5:AE:76:ILE:CB	5:AE:77:PRO:HD2	2.48	0.44
35:BA:2514:U:O2'	35:BA:2515:C:H5'	2.17	0.44
35:DA:1643:G:C2'	35:DA:1644:C:O5'	2.64	0.44
1:AA:509:A:H5'	4:AD:54:TYR:CD2	2.53	0.44
48:BQ:37:LEU:O	48:BQ:99:PRO:HB3	2.18	0.44
35:DA:1138:G:H2'	35:DA:1139:G:O4'	2.17	0.44
35:DA:2849:U:OP2	51:DT:95:ARG:NH1	2.51	0.44
57:BZ:4:ARG:NH1	57:BZ:60:GLU:OE2	2.50	0.44
49:BR:30:THR:HG22	49:BR:30:THR:O	2.18	0.44
36:BB:89:G:C6	36:BB:90:A:N6	2.86	0.44
24:AY:32:PRO:CD	24:AY:95:TYR:CE1	3.00	0.44
47:BP:64:LYS:C	47:BP:64:LYS:HD3	2.38	0.44
22:CV:55:U:O4	22:CV:57:A:C5'	2.66	0.44
22:CV:56:C:C4	22:CV:57:A:C5	3.04	0.44
58:CX:13:A:H2'	58:CX:14:A:H4'	1.99	0.44
42:DH:124:GLU:O	42:DH:126:PRO:HD3	2.17	0.44
52:BU:92:ARG:HD2	53:BV:11:GLN:HE21	1.81	0.44
53:BV:4:ILE:HB	53:BV:39:LEU:O	2.18	0.44
33:D8:21:LYS:HD3	33:D8:48:PHE:CZ	2.52	0.44
40:DF:10:PRO:C	40:DF:128:ALA:HB2	2.38	0.44
40:DF:2:LYS:O	40:DF:24:LEU:HG	2.17	0.44
5:CE:105:VAL:H	5:CE:106:PRO:CD	2.25	0.44
51:DT:117:ASP:CG	51:DT:120:ARG:HG3	2.38	0.44
51:DT:16:ARG:HD2	51:DT:18:ASP:OD1	2.18	0.44
51:DT:66:VAL:HA	51:DT:71:GLY:HA2	1.99	0.44
51:DT:70:VAL:HG12	51:DT:71:GLY:H	1.83	0.44
57:BZ:165:VAL:HG12	57:BZ:166:SER:OG	2.18	0.44
12:AL:80:VAL:CG2	12:AL:81:LEU:N	2.81	0.44
33:D8:29:LYS:O	33:D8:30:ARG:HB2	2.18	0.44
35:BA:2491:U:O2'	35:BA:2492:U:H5'	2.18	0.44
2:AB:74:LYS:HG2	2:AB:165:VAL:HG21	1.99	0.44
41:DG:100:TRP:O	41:DG:102:PHE:N	2.50	0.44
19:CS:33:THR:CG2	19:CS:34:TRP:H	2.31	0.44
38:BD:94:LEU:CD2	38:BD:94:LEU:C	2.86	0.44
9:CI:16:ARG:NH1	9:CI:16:ARG:HG2	2.31	0.44
46:BO:107:ARG:CZ	51:BT:35:LYS:HB2	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BT:39:ARG:HB3	51:BT:40:THR:H	1.60	0.44
16:AP:68:ASP:C	16:AP:70:ALA:H	2.21	0.44
1:CA:630:G:H3'	1:CA:631:G:H5'	2.00	0.44
3:AC:130:VAL:CG1	3:AC:153:VAL:HG21	2.48	0.44
35:DA:596:G:H2'	35:DA:597:U:O4'	2.18	0.44
13:AM:11:ARG:C	13:AM:13:LYS:H	2.20	0.44
13:AM:8:GLU:OE1	13:AM:8:GLU:N	2.42	0.44
39:DE:34:VAL:CG1	39:DE:48:GLN:HG2	2.48	0.44
7:AG:145:ALA:O	7:AG:146:GLU:CB	2.66	0.44
38:BD:102:LYS:O	38:BD:103:ARG:HG2	2.18	0.44
51:DT:32:TYR:CG	51:DT:81:PRO:HB2	2.53	0.44
41:BG:135:LEU:N	41:BG:135:LEU:CD1	2.81	0.44
41:BG:43:LEU:HB3	41:BG:88:ILE:CG2	2.48	0.44
13:AM:54:VAL:HA	13:AM:57:ARG:CD	2.47	0.44
45:BN:48:MET:O	45:BN:48:MET:HE3	2.18	0.44
13:CM:82:MET:HE2	35:DA:888:C:H1'	1.99	0.44
57:DZ:161:VAL:O	57:DZ:161:VAL:HG12	2.17	0.44
43:DI:102:SER:OG	43:DI:109:ILE:HB	2.18	0.44
22:AW:69:C:O2'	22:AW:70:G:H5'	2.17	0.44
35:DA:2579:C:H1'	39:DE:134:ILE:CD1	2.48	0.44
1:AA:638:G:O2'	1:AA:639:G:H5'	2.17	0.44
10:CJ:78:ASN:HB2	10:CJ:81:THR:HB	2.00	0.44
16:AP:3:LYS:O	16:AP:21:VAL:HA	2.17	0.44
1:CA:96:U:O2'	1:CA:97:G:H8	2.01	0.44
35:BA:2312:U:H4'	41:BG:71:THR:HG23	2.00	0.44
4:CD:18:LYS:NZ	4:CD:31:CYS:CB	2.80	0.44
38:BD:58:HIS:CD2	38:BD:59:LYS:N	2.85	0.44
43:DI:31:LEU:HD21	43:DI:38:LEU:HG	1.98	0.44
1:CA:1096:C:H2'	1:CA:1097:C:C6	2.53	0.44
35:DA:2654:A:H62	35:DA:2667:C:N4	2.16	0.44
28:D3:6:VAL:HB	28:D3:54:VAL:CG1	2.48	0.44
11:AK:43:SER:O	11:AK:44:SER:HB3	2.18	0.44
4:AD:13:ARG:O	4:AD:16:GLY:N	2.45	0.44
1:CA:935:A:H2'	1:CA:936:C:H6	1.83	0.44
1:CA:328:C:H2'	1:CA:328:C:O2	2.16	0.44
3:AC:42:LEU:HA	3:AC:45:LYS:HE3	1.98	0.44
26:B1:51:VAL:O	26:B1:57:GLU:HG2	2.17	0.44
16:AP:8:ARG:HG2	16:AP:8:ARG:HH11	1.83	0.44
35:DA:524:U:H2'	35:DA:525:U:C6	2.53	0.44
29:B4:45:GLY:O	29:B4:46:GLN:HB3	2.16	0.44
26:B1:83:GLU:CG	26:B1:84:GLY:H	2.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BU:114:LYS:HG2	52:BU:114:LYS:H	1.62	0.44
1:AA:375:U:H4'	16:AP:17:TYR:CE2	2.53	0.44
35:BA:2740:A:H2'	35:BA:2741:A:C8	2.53	0.44
44:DJ:96:UNK:C	44:DJ:98:UNK:N	2.81	0.44
47:BP:130:PHE:CE1	47:BP:144:GLU:HG3	2.53	0.44
55:BX:28:PHE:CE2	55:BX:92:LEU:HD11	2.53	0.44
10:CJ:90:LEU:H	10:CJ:91:PRO:HD3	1.82	0.44
35:DA:2713:A:H3'	35:DA:2714:G:C5'	2.48	0.44
36:BB:5:C:C2	36:BB:117:G:N2	2.86	0.44
36:BB:87:G:H1	36:BB:91:C:N4	2.16	0.44
46:BO:10:VAL:HG21	46:BO:16:ALA:O	2.16	0.44
32:B7:19:ARG:NH1	32:B7:19:ARG:HG2	2.31	0.44
35:DA:521:G:H2'	35:DA:522:G:H8	1.82	0.44
35:BA:118:A:OP2	35:BA:119:A:H5''	2.18	0.44
45:BN:5:VAL:HG13	45:BN:5:VAL:O	2.18	0.44
50:BS:25:ARG:NH1	50:BS:25:ARG:HB3	2.32	0.44
1:AA:10:A:H2'	1:AA:11:G:H8	1.82	0.44
30:D5:26:THR:HG22	30:D5:27:PRO:O	2.18	0.44
38:DD:12:SER:HB2	38:DD:208:LYS:HB3	2.00	0.44
35:BA:192:C:H2'	35:BA:193:U:H5'	2.00	0.44
35:BA:1831:G:H2'	35:BA:1832:C:C6	2.52	0.44
8:CH:1:MET:CE	8:CH:1:MET:H3	2.31	0.44
35:BA:1499:C:O2'	35:BA:1500:G:H5'	2.18	0.44
1:AA:503:C:OP2	12:AL:113:SER:OG	2.32	0.44
35:BA:1138:G:H2'	35:BA:1139:G:O4'	2.17	0.44
19:AS:8:GLY:C	19:AS:10:PHE:H	2.21	0.44
38:BD:12:SER:HB2	38:BD:208:LYS:HB3	2.00	0.44
35:DA:1914:C:O2'	35:DA:1915:U:C5'	2.56	0.44
35:DA:90:U:O2	35:DA:90:U:H5'	2.17	0.44
35:DA:507:A:C5'	35:DA:508:G:H5'	2.44	0.44
1:AA:1442(A):G:H3'	1:AA:1442(A):G:OP2	2.18	0.44
35:BA:875:G:H2'	35:BA:876:C:O4'	2.18	0.44
35:BA:1902:C:H5'	38:BD:246:PRO:HD3	1.99	0.44
1:CA:15:G:C5	1:CA:1396:A:C2	3.05	0.44
2:CB:178:ARG:HD2	8:CH:71:GLY:C	2.38	0.44
2:AB:193:ASP:OD1	2:AB:196:LEU:HG	2.18	0.44
2:AB:207:ALA:O	2:AB:211:ILE:HG13	2.18	0.44
2:AB:214:ILE:O	2:AB:214:ILE:HG22	2.17	0.44
46:DO:97:ARG:HA	46:DO:117:LEU:CD2	2.48	0.44
1:CA:736:C:C2	1:CA:737:A:N7	2.86	0.44
9:CI:28:VAL:HG11	9:CI:65:VAL:HG12	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DQ:137:TYR:OH	57:DZ:81:ARG:CZ	2.66	0.44
51:DT:35:LYS:NZ	51:DT:41:ARG:NH2	2.66	0.44
35:DA:1204:A:C2	35:DA:1241:A:N1	2.85	0.44
1:CA:629:G:H2'	1:CA:630:G:O4'	2.18	0.44
1:AA:33:A:H2'	1:AA:34:C:H5'	1.99	0.44
4:AD:171:GLY:HA2	4:AD:172:PRO:HD3	1.89	0.44
43:DI:77:LEU:HD22	43:DI:140:LEU:HD23	2.00	0.44
1:AA:1147:C:C2	9:AI:16:ARG:NH1	2.85	0.44
35:DA:2126:A:O2'	35:DA:2127:G:OP2	2.28	0.44
45:DN:15:LEU:HD12	45:DN:134:ARG:HD2	2.00	0.44
38:DD:239:ARG:HH21	38:DD:239:ARG:CG	2.16	0.44
1:CA:1141:C:H2'	1:CA:1142:G:H8	1.72	0.44
1:AA:1348:U:H4'	9:AI:120:ARG:NH1	2.33	0.44
4:CD:4:TYR:CE2	4:CD:11:LEU:HD21	2.53	0.44
26:D1:73:LEU:CD1	26:D1:94:LEU:HD13	2.47	0.44
37:DC:85:GLU:HB3	37:DC:151:GLU:CB	2.47	0.44
38:BD:70:TRP:HZ3	38:BD:146:GLU:OE2	2.00	0.44
42:DH:17:VAL:HG13	42:DH:24:VAL:HG21	1.99	0.44
41:DG:61:ALA:HB2	41:DG:68:PRO:CD	2.47	0.44
46:DO:105:GLU:N	46:DO:105:GLU:OE1	2.48	0.44
38:BD:24:ILE:CG2	38:BD:91:ARG:HD2	2.48	0.44
35:BA:2631:G:N2	39:BE:61:ARG:NH1	2.66	0.44
35:BA:2801(A):A:H4'	35:BA:2802:G:C5'	2.39	0.44
1:CA:782:A:H4'	1:CA:1514:C:O2'	2.17	0.44
1:AA:1250:A:C4'	9:AI:68:GLY:H	2.25	0.44
38:BD:242:ARG:HH11	38:BD:242:ARG:H	1.64	0.44
43:BI:3:VAL:HG22	43:BI:19:VAL:O	2.17	0.44
55:BX:26:TYR:CD1	55:BX:89:ILE:HD13	2.53	0.44
35:DA:2580:U:H5'	39:DE:131:ALA:CB	2.48	0.44
41:DG:63:ILE:HB	41:DG:141:PHE:CD1	2.52	0.44
3:AC:195:VAL:HG12	3:AC:196:LEU:N	2.33	0.44
40:BF:131:GLY:O	40:BF:132:VAL:C	2.55	0.44
35:BA:271:A:N6	35:BA:271(X):G:H1'	2.32	0.44
7:CG:41:ARG:HG2	7:CG:42:ILE:N	2.33	0.44
26:D1:3:LYS:CG	26:D1:4:VAL:H	2.18	0.44
28:B3:52:HIS:CD2	36:BB:83:G:C5'	3.01	0.44
35:DA:1596:A:O2'	35:DA:1597:A:H5'	2.18	0.44
43:BI:31:LEU:HD21	43:BI:38:LEU:HG	1.99	0.44
35:BA:860:U:C5	35:BA:917:A:N7	2.79	0.44
15:CO:18:PHE:CE1	15:CO:21:ASP:HB2	2.52	0.44
40:DF:65:TRP:CZ3	40:DF:73:ALA:O	2.71	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:42:LEU:HA	3:CC:45:LYS:CE	2.48	0.44
35:BA:2755:C:HO2'	35:BA:2756:U:H6	1.64	0.44
3:AC:45:LYS:HB2	3:AC:46:GLU:OE2	2.17	0.44
39:BE:186:GLY:O	39:BE:187:ALA:CB	2.65	0.44
57:DZ:48:PHE:HE2	57:DZ:71:VAL:HG21	1.83	0.44
22:CV:46:G:H4'	22:CV:47:U:C5	2.52	0.44
43:BI:9:LEU:HD12	43:BI:10:GLU:H	1.83	0.44
49:BR:7:GLY:HA3	49:BR:8:ARG:HH21	1.83	0.44
57:DZ:11:GLU:N	57:DZ:11:GLU:CD	2.71	0.44
1:CA:539:A:H2'	1:CA:540:G:C8	2.53	0.44
4:AD:162:LEU:HD13	4:AD:181:MET:HG2	2.00	0.44
40:BF:99:TYR:CD1	40:BF:99:TYR:N	2.86	0.44
42:BH:87:LEU:HD23	42:BH:164:TYR:HD2	1.82	0.44
1:CA:562:C:C2	12:CL:13:GLU:HB3	2.53	0.44
1:AA:1244:C:H2'	1:AA:1245:A:C8	2.52	0.44
1:AA:902:G:H2'	1:AA:903:G:C8	2.53	0.44
4:AD:109:GLY:C	4:AD:111:ALA:H	2.21	0.44
35:BA:2123:G:H2'	35:BA:2124:G:C8	2.53	0.44
53:DV:62:LEU:HD21	53:DV:95:LEU:HD12	1.99	0.44
37:DC:39:GLU:HG2	37:DC:181:PRO:CB	2.47	0.44
35:BA:266:G:H2'	35:BA:267:C:H5''	2.00	0.44
35:BA:375:C:H2'	35:BA:376:C:C6	2.52	0.44
1:CA:811:C:H4'	1:CA:900:A:N6	2.32	0.44
1:AA:499:A:H4'	1:AA:500:G:OP1	2.18	0.44
43:BI:69:LYS:NZ	43:BI:73:GLU:OE1	2.49	0.44
35:BA:1324:G:H4'	35:BA:1616:A:C2	2.53	0.44
4:CD:177:ASP:OD1	4:CD:180:GLY:N	2.51	0.44
1:AA:353:A:H8	1:AA:353:A:H5'	1.83	0.44
43:BI:7:GLU:CD	43:BI:7:GLU:H	2.20	0.44
6:AF:22:GLU:HA	6:AF:22:GLU:OE2	2.17	0.44
44:DJ:54:UNK:HA	44:DJ:85:UNK:CB	2.48	0.44
42:DH:18:GLU:HA	42:DH:45:VAL:HG21	1.98	0.44
35:BA:632:A:O2'	35:BA:633:A:H5'	2.18	0.44
22:AV:54:U:C5'	22:AV:55:U:C5'	2.86	0.44
1:AA:605:U:H2'	1:AA:606:G:C8	2.53	0.44
51:BT:20:PRO:HD3	51:BT:85:LYS:HB3	2.00	0.44
52:DU:93:LYS:CD	52:DU:93:LYS:H	2.30	0.44
52:DU:91:ASP:OD1	52:DU:96:ALA:CA	2.65	0.44
53:DV:45:THR:O	53:DV:46:VAL:CG1	2.66	0.44
57:BZ:150:LEU:C	57:BZ:150:LEU:HD23	2.38	0.44
33:B8:61:LEU:HD12	33:B8:62:LEU:HG	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:23:C:H4'	1:CA:913:A:N6	2.33	0.44
2:AB:51:LEU:HD23	2:AB:201:ILE:CD1	2.48	0.44
2:AB:40:HIS:CG	2:AB:190:THR:HG21	2.53	0.44
2:AB:69:LEU:HD12	2:AB:92:TYR:HA	1.99	0.44
1:AA:976:G:OP1	14:AN:32:SER:N	2.51	0.44
51:BT:57:PHE:O	51:BT:58:ASN:ND2	2.51	0.44
57:DZ:81:ARG:O	57:DZ:82:ARG:O	2.36	0.44
1:AA:1320:C:N4	19:AS:36:ARG:HG3	2.33	0.44
1:CA:1106:G:H2'	1:CA:1107:C:H6	1.82	0.44
16:AP:49:LEU:HD13	16:AP:73:LEU:HB3	2.00	0.44
47:BP:24:GLY:O	47:BP:25:SER:HB2	2.17	0.44
2:AB:96:ARG:CD	2:AB:96:ARG:H	2.17	0.44
10:AJ:81:THR:HA	10:AJ:84:GLN:NE2	2.33	0.44
3:AC:18:TRP:HE1	14:AN:56:VAL:H	1.66	0.44
8:AH:9:MET:SD	8:AH:32:LYS:HB3	2.58	0.44
39:DE:48:GLN:NE2	39:DE:64:LYS:NZ	2.63	0.44
10:AJ:96:ILE:O	10:AJ:96:ILE:HG12	2.17	0.44
1:AA:1002:G:H2'	1:AA:1003:G:C8	2.53	0.44
24:AY:15:THR:C	24:AY:17:ASN:N	2.68	0.44
1:AA:1053:G:O6	1:AA:1200:C:H5''	2.18	0.44
1:AA:1300:G:O2'	1:AA:1301:U:OP2	2.31	0.44
54:BW:111:HIS:C	54:BW:113:LYS:H	2.22	0.44
43:BI:8:PRO:HB3	43:BI:15:VAL:N	2.33	0.44
45:DN:119:ARG:CG	45:DN:119:ARG:NH1	2.81	0.44
55:BX:12:VAL:CG2	55:BX:17:ALA:HB1	2.48	0.44
35:DA:2789:C:O2'	35:DA:2790:A:H1'	2.17	0.44
25:B0:45:PHE:HE2	25:B0:69:PHE:CE2	2.36	0.44
1:AA:639:G:O2'	1:AA:640:A:H5'	2.17	0.44
35:DA:1464:C:H1'	35:DA:1528(A):A:N3	2.33	0.44
51:BT:3:ARG:C	51:BT:5:ALA:H	2.21	0.44
16:AP:20:VAL:HG22	16:AP:21:VAL:H	1.81	0.44
35:DA:1562:A:C2	35:DA:1563:G:C4	3.05	0.44
1:CA:266:G:O2'	1:CA:267:C:OP2	2.30	0.44
1:AA:1513:A:H2'	1:AA:1514:C:H6	1.76	0.44
12:AL:20:LYS:O	12:AL:21:VAL:HG23	2.18	0.44
34:B9:27:CYS:HB3	34:B9:32:HIS:HB2	1.99	0.44
43:DI:25:TYR:HE2	43:DI:29:TYR:CD2	2.36	0.44
35:BA:2759:G:H2'	35:BA:2759:G:N3	2.33	0.44
22:CW:13:C:O2'	22:CW:14:A:H5'	2.18	0.44
22:CW:63:G:C4'	37:DC:53:ARG:HB3	2.48	0.44
20:CT:53:LEU:HA	20:CT:56:MET:HB3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:222:ARG:HB2	38:DD:222:ARG:NH1	2.33	0.44
47:BP:100:LEU:CD2	47:BP:100:LEU:N	2.81	0.44
35:BA:1441:G:H2'	35:BA:1442:G:C8	2.52	0.44
57:DZ:111:VAL:HG22	57:DZ:112:ARG:N	2.33	0.44
35:BA:2328:A:H2'	35:BA:2329:G:O4'	2.17	0.44
11:CK:101:SER:C	11:CK:103:LEU:N	2.71	0.44
1:AA:1277:C:O2'	1:AA:1279:A:H8	2.01	0.44
2:CB:10:LEU:HA	2:CB:13:ALA:CB	2.48	0.44
35:BA:2464:C:HO2'	35:BA:2465:C:P	2.41	0.44
9:CI:4:TYR:HB3	9:CI:84:ALA:O	2.18	0.44
26:B1:26:ARG:HG3	26:B1:26:ARG:NH1	2.32	0.44
29:D4:10:VAL:HG23	29:D4:27:THR:O	2.18	0.44
35:DA:1221(A):C:O2'	35:DA:1222:C:H5'	2.17	0.44
35:BA:2259:G:H1'	35:BA:2427:C:C2	2.53	0.44
1:AA:579:G:H2'	1:AA:580:U:C6	2.53	0.44
35:BA:2138:C:H2'	35:BA:2139:C:H6	1.83	0.44
35:DA:143:G:H1'	55:DX:37:THR:HG21	1.98	0.44
5:CE:76:ILE:CB	5:CE:77:PRO:HD2	2.48	0.44
27:D2:3:LEU:HB2	35:DA:98:G:OP1	2.17	0.44
38:DD:110:GLY:O	38:DD:112:GLN:HG3	2.18	0.44
36:DB:94:C:O2'	36:DB:95:C:H5'	2.18	0.44
26:B1:17:SER:HB3	26:B1:38:SER:OG	2.17	0.44
35:BA:1643:G:C2'	35:BA:1644:C:O5'	2.66	0.44
35:BA:1197:G:H2'	35:BA:1198:U:H6	1.82	0.44
35:DA:2590:A:OP2	38:DD:238:GLY:HA2	2.18	0.44
27:B2:64:LEU:HD22	27:B2:68:ARG:HH11	1.82	0.44
35:DA:769:G:O2'	35:DA:770:G:H5'	2.18	0.44
24:AY:83:LEU:N	24:AY:83:LEU:CD2	2.73	0.43
22:AV:55:U:C4	22:AV:58:A:OP2	2.71	0.43
27:D2:47:ASN:O	27:D2:49:LYS:N	2.51	0.43
57:DZ:151:HIS:ND1	57:DZ:152:ALA:N	2.66	0.43
33:D8:58:ILE:HG22	47:DP:49:ARG:HD2	2.00	0.43
50:BS:72:ALA:O	50:BS:76:LYS:HG3	2.18	0.43
35:DA:878:A:H2'	35:DA:879:G:O4'	2.17	0.43
52:DU:93:LYS:HD2	52:DU:93:LYS:H	1.84	0.43
5:CE:103:GLY:N	5:CE:106:PRO:HG2	2.29	0.43
57:BZ:56:VAL:HG12	57:BZ:57:ILE:H	1.83	0.43
33:B8:59:LYS:C	33:B8:61:LEU:HD23	2.38	0.43
7:AG:92:SER:O	7:AG:96:GLN:HG3	2.18	0.43
1:AA:1152:A:H5''	10:AJ:13:HIS:HD1	1.79	0.43
5:AE:31:LEU:CD1	5:AE:43:LEU:HD11	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:165:VAL:HG23	2:AB:166:ASP:N	2.24	0.43
38:BD:13:ARG:HD2	38:BD:16:MET:SD	2.58	0.43
46:BO:97:ARG:HH11	46:BO:97:ARG:HG3	1.83	0.43
13:CM:11:ARG:C	13:CM:13:LYS:H	2.21	0.43
47:DP:6:LEU:N	47:DP:6:LEU:CD2	2.81	0.43
47:DP:6:LEU:O	47:DP:10:PRO:CB	2.65	0.43
16:CP:9:PHE:HB3	16:CP:10:GLY:H	1.49	0.43
43:BI:126:TYR:N	43:BI:126:TYR:CD1	2.85	0.43
43:BI:76:THR:CG2	43:BI:141:LYS:HE2	2.47	0.43
48:BQ:26:TYR:HA	48:BQ:137:TYR:HD1	1.81	0.43
1:AA:1147:C:O2	9:AI:16:ARG:NH1	2.51	0.43
16:CP:40:ASP:HB3	16:CP:48:TRP:CB	2.47	0.43
3:AC:43:LEU:O	3:AC:47:LEU:HB3	2.18	0.43
35:DA:2126:A:H4'	35:DA:2127:G:O5'	2.18	0.43
47:DP:18:ARG:CB	47:DP:18:ARG:NH1	2.64	0.43
42:BH:154:PRO:HA	42:BH:161:GLY:HA3	2.00	0.43
1:CA:429:U:H1'	1:CA:430:A:H5''	1.99	0.43
1:CA:184:G:H2'	1:CA:185:A:C8	2.51	0.43
38:BD:129:ASN:O	38:BD:193:VAL:HG12	2.18	0.43
41:BG:58:GLN:CD	41:BG:59:GLU:N	2.71	0.43
13:CM:82:MET:CG	13:CM:82:MET:O	2.66	0.43
53:DV:18:LEU:CG	53:DV:19:LYS:H	2.29	0.43
1:AA:974:A:H8	1:AA:974:A:OP1	2.01	0.43
6:CF:62:TRP:CB	18:CR:35:ARG:NH1	2.81	0.43
1:AA:729:A:H2'	1:AA:730:G:C8	2.49	0.43
45:DN:46:VAL:O	45:DN:47:ALA:HB3	2.18	0.43
49:BR:12:ARG:HD3	49:BR:16:HIS:CG	2.53	0.43
54:BW:8:ARG:O	54:BW:9:TYR:HB2	2.17	0.43
1:CA:1116:C:O2'	9:CI:108:VAL:HG21	2.17	0.43
7:AG:15:ASP:O	7:AG:19:GLY:HA2	2.18	0.43
43:DI:15:VAL:HG22	43:DI:16:GLY:N	2.32	0.43
21:CU:17:THR:O	21:CU:22:ARG:NH1	2.51	0.43
4:AD:64:LEU:HD12	4:AD:198:VAL:HG21	1.99	0.43
22:CV:5:G:H1	22:CV:68:C:H42	1.67	0.43
35:BA:2699:C:H2'	35:BA:2700:C:O4'	2.18	0.43
1:AA:953:G:C6	1:AA:1229:A:C6	3.06	0.43
38:DD:77:ALA:HB2	38:DD:97:TYR:CG	2.52	0.43
35:BA:1332:G:H21	35:BA:1610:A:H8	1.65	0.43
35:DA:2738:A:C2	35:DA:2739:U:C6	3.06	0.43
49:BR:85:PRO:O	49:BR:88:ARG:HB2	2.18	0.43
17:AQ:39:SER:O	17:AQ:40:LYS:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2472:G:H3'	35:BA:2475:C:N4	2.32	0.43
45:DN:22:THR:HA	45:DN:61:ARG:HB2	2.00	0.43
2:AB:75:LYS:CA	2:AB:78:GLN:HE21	2.28	0.43
11:CK:88:GLY:O	11:CK:90:GLY:N	2.50	0.43
56:DY:88:LYS:HZ3	56:DY:93:GLY:CA	2.29	0.43
4:AD:31:CYS:C	4:AD:33:MET:N	2.71	0.43
16:CP:80:PHE:H	16:CP:80:PHE:HD1	1.63	0.43
6:CF:88:VAL:CG1	6:CF:88:VAL:O	2.65	0.43
4:CD:62:GLN:HE22	4:CD:65:ARG:HH21	1.66	0.43
35:DA:2223:G:O2'	35:DA:2224:G:H5'	2.18	0.43
16:AP:74:LEU:HB2	16:AP:80:PHE:HE1	1.82	0.43
14:AN:47:LEU:HB3	14:AN:53:LEU:HG	2.00	0.43
1:AA:59:A:N3	1:AA:59:A:H2'	2.33	0.43
31:B6:20:ASN:C	31:B6:21:TYR:CD1	2.91	0.43
35:DA:27:G:H22	35:DA:512:G:C2'	2.28	0.43
20:AT:38:LYS:HE2	20:AT:38:LYS:HB3	1.77	0.43
53:BV:21:ARG:CZ	53:BV:21:ARG:HB2	2.48	0.43
15:AO:8:LYS:HG3	15:AO:31:LEU:HD21	2.00	0.43
8:CH:109:ILE:HG12	8:CH:110:ALA:N	2.33	0.43
1:CA:957:U:H3	1:CA:960:U:H5''	1.83	0.43
8:AH:109:ILE:HG12	8:AH:110:ALA:N	2.33	0.43
35:DA:2563:U:H4'	46:DO:28:SER:CA	2.48	0.43
35:BA:154:G:H1	35:BA:172:C:H42	1.66	0.43
35:DA:2134:A:N6	35:DA:2158:A:C4	2.86	0.43
35:DA:1685:C:H2'	35:DA:1686:C:H6	1.83	0.43
1:AA:860:A:H2'	1:AA:861:G:O4'	2.18	0.43
4:AD:68:TYR:H	4:AD:68:TYR:HD1	1.66	0.43
20:CT:84:LEU:O	20:CT:88:VAL:HG23	2.18	0.43
35:DA:1511:C:H2'	35:DA:1512:U:O4'	2.18	0.43
1:AA:1184:G:O2'	1:AA:1185:G:H5'	2.18	0.43
22:AW:17(A):U:O2'	22:AW:18:G:OP2	2.32	0.43
35:DA:573:G:O2'	35:DA:574:C:H3'	2.18	0.43
35:BA:821:A:H2'	35:BA:946:G:H5''	2.00	0.43
1:CA:355:C:H5'	1:CA:389:A:OP2	2.18	0.43
19:CS:8:GLY:C	19:CS:10:PHE:H	2.22	0.43
10:CJ:86:MET:O	10:CJ:86:MET:HG3	2.18	0.43
45:BN:131:GLN:OE1	45:BN:131:GLN:HA	2.18	0.43
36:DB:50:G:OP1	50:DS:63:THR:HG23	2.18	0.43
42:DH:119:GLU:HG2	42:DH:120:GLY:N	2.33	0.43
24:AY:38:GLY:O	24:AY:39:LYS:HD2	2.14	0.43
7:AG:79:ARG:HG3	7:AG:84:ASN:OD1	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DY:26:LYS:HG2	56:DY:27:VAL:N	2.29	0.43
40:BF:9:ILE:CG1	40:BF:15:SER:HB3	2.23	0.43
26:B1:3:LYS:HD2	26:B1:4:VAL:HG12	2.00	0.43
35:BA:1448:G:N3	35:BA:1528(A):A:H2	2.16	0.43
51:BT:29:ARG:HG2	51:BT:85:LYS:CA	2.48	0.43
40:DF:22:ALA:C	40:DF:24:LEU:N	2.69	0.43
1:AA:633:G:O2'	1:AA:634:C:H5'	2.17	0.43
3:AC:73:PRO:HB3	3:AC:103:VAL:HG12	2.00	0.43
1:CA:1234:C:O2'	1:CA:1235:U:H5'	2.18	0.43
2:CB:102:LEU:HB2	2:CB:176:GLU:HB3	2.00	0.43
2:CB:104:ASN:O	2:CB:108:ILE:HG12	2.17	0.43
2:CB:214:ILE:O	2:CB:214:ILE:HG22	2.17	0.43
8:CH:19:VAL:O	8:CH:20:TYR:HB2	2.18	0.43
33:B8:43:GLN:O	33:B8:44:LYS:HD2	2.16	0.43
38:DD:61:LEU:HD13	38:DD:61:LEU:HA	1.77	0.43
19:AS:53:ASN:HD22	19:AS:58:VAL:CG2	2.30	0.43
41:DG:111:LEU:O	41:DG:114:ILE:HB	2.19	0.43
35:DA:2304:G:O2'	41:DG:156:ASP:HB3	2.18	0.43
19:CS:41:VAL:O	19:CS:44:MET:SD	2.76	0.43
30:D5:55:ARG:HG3	30:D5:56:LYS:N	2.33	0.43
2:AB:50:GLU:C	2:AB:52:GLU:N	2.70	0.43
35:DA:1242:A:H2'	35:DA:1243:G:H5'	2.00	0.43
43:BI:88:ILE:CG1	43:BI:89:TYR:N	2.81	0.43
57:BZ:82:ARG:HA	57:BZ:83:PRO:HD2	1.90	0.43
1:AA:35:G:H21	12:AL:115:SER:HB2	1.82	0.43
35:BA:2126:A:H4'	35:BA:2127:G:O5'	2.18	0.43
41:BG:119:GLY:HA3	41:BG:180:PHE:O	2.18	0.43
42:BH:158:HIS:NE2	42:BH:170:ARG:CA	2.71	0.43
39:DE:52:LEU:O	39:DE:74:PRO:CA	2.65	0.43
35:DA:2692:C:O2'	35:DA:2693:A:H5'	2.18	0.43
35:DA:2694:G:O2'	35:DA:2695:C:H5'	2.17	0.43
7:AG:12:LEU:HD11	7:AG:25:ALA:HB2	2.01	0.43
4:CD:9:CYS:HB3	4:CD:32:ALA:HB3	2.00	0.43
35:BA:598:G:H5'	47:BP:15:ARG:HB2	1.99	0.43
35:BA:1998:G:H2'	35:BA:1999:C:C6	2.53	0.43
1:CA:1432:G:N2	1:CA:1469:G:C6	2.86	0.43
38:DD:131:LEU:HA	38:DD:190:TYR:CE2	2.54	0.43
1:CA:1072:G:H2'	1:CA:1073:U:H6	1.82	0.43
3:CC:119:ARG:C	3:CC:119:ARG:HD3	2.38	0.43
38:BD:70:TRP:CZ3	38:BD:146:GLU:OE2	2.71	0.43
18:CR:63:GLN:OE1	18:CR:63:GLN:HA	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2822:G:O5'	35:BA:2822:G:H8	2.00	0.43
35:DA:2735:G:N2	35:DA:2770:G:H1'	2.32	0.43
15:AO:54:ARG:O	15:AO:57:LEU:HB2	2.18	0.43
1:CA:1006:C:H2'	1:CA:1007:C:C2	2.53	0.43
1:AA:1432:G:OP1	51:BT:107:ASP:HB2	2.18	0.43
35:BA:1860:G:H1	35:BA:1882:C:H42	1.66	0.43
1:CA:252:U:H2'	1:CA:275:G:N2	2.33	0.43
39:DE:92:THR:O	39:DE:94:GLU:N	2.51	0.43
35:DA:2405:G:HO2'	35:DA:2406:U:P	2.41	0.43
35:BA:272(B):G:HO2'	35:BA:272(C):G:H8	1.66	0.43
55:DX:54:VAL:C	55:DX:55:ASN:HD22	2.21	0.43
50:DS:58:LEU:O	50:DS:59:LYS:O	2.37	0.43
1:CA:709:G:H2'	1:CA:710:G:H8	1.83	0.43
1:AA:1353:G:H2'	1:AA:1354:C:C6	2.53	0.43
40:DF:37:VAL:HG13	40:DF:184:TYR:CD1	2.50	0.43
1:AA:590:C:H2'	1:AA:591:U:C6	2.54	0.43
35:BA:1765:C:O2'	35:BA:1766:U:H5'	2.18	0.43
22:CW:52:G:O2'	22:CW:53:G:H8	2.01	0.43
1:CA:1097:C:O4'	1:CA:1170:A:H4'	2.17	0.43
16:AP:74:LEU:HB2	16:AP:80:PHE:CE1	2.53	0.43
35:DA:1982:C:H5'	35:DA:1983:C:OP2	2.18	0.43
35:DA:2605:U:H2'	35:DA:2606:C:C6	2.53	0.43
1:AA:1123:A:H4'	10:AJ:36:GLY:HA3	1.99	0.43
35:DA:2682:U:C5	39:DE:11:MET:HE1	2.54	0.43
35:BA:558:G:OP1	45:BN:111:PRO:HD2	2.18	0.43
28:B3:6:VAL:HB	28:B3:54:VAL:CG1	2.48	0.43
42:BH:97:ARG:NH1	42:BH:104:GLU:OE1	2.51	0.43
1:AA:546:G:P	4:AD:72:GLU:HB3	2.58	0.43
39:BE:23:VAL:HG12	39:BE:173:VAL:HG21	2.00	0.43
1:AA:271:C:H2'	1:AA:272:C:H6	1.82	0.43
1:CA:272:C:C2	1:CA:273:A:C8	3.07	0.43
41:BG:38:VAL:HG12	41:BG:158:ALA:HB3	2.00	0.43
1:AA:1071:C:H5''	5:AE:49:PRO:HG2	2.00	0.43
53:BV:34:GLU:O	53:BV:36:PRO:CD	2.66	0.43
53:BV:34:GLU:O	53:BV:36:PRO:HD3	2.18	0.43
1:AA:1380:U:C2	7:AG:3:ARG:HD3	2.53	0.43
44:DJ:20:UNK:O	44:DJ:21:UNK:CB	2.66	0.43
39:BE:119:ARG:HD2	39:BE:120:TRP:CD1	2.53	0.43
1:CA:1278:U:H5''	1:CA:1279:A:C1'	2.48	0.43
1:AA:827:U:O2'	1:AA:859:A:N1	2.42	0.43
35:BA:2346:A:H5'	35:BA:2383:G:C1'	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:898:C:O2'	35:BA:899:A:H5'	2.19	0.43
37:BC:121:GLY:O	37:BC:142:ALA:HA	2.18	0.43
3:AC:87:LEU:C	3:AC:89:GLU:N	2.70	0.43
48:BQ:110:THR:OG1	48:BQ:111:GLU:N	2.51	0.43
19:AS:67:VAL:HG23	19:AS:68:GLY:H	1.83	0.43
45:BN:39:ARG:HE	45:BN:41:ASP:CB	2.32	0.43
35:BA:1475:G:H5'	35:BA:1476:C:OP2	2.18	0.43
1:AA:581:G:O2'	1:AA:582:U:H6	2.01	0.43
22:AV:7:G:H3'	22:AV:8:U:H5'	2.00	0.43
48:BQ:124:LYS:C	48:BQ:125:LEU:HD23	2.38	0.43
1:CA:142:G:H2'	1:CA:143:A:C8	2.53	0.43
43:BI:99:GLU:CD	43:BI:100:ALA:N	2.71	0.43
53:DV:95:LEU:HD23	53:DV:95:LEU:C	2.39	0.43
12:CL:90:LEU:HB3	12:CL:93:VAL:HG21	1.99	0.43
36:DB:89:G:C6	36:DB:90:A:N6	2.86	0.43
39:BE:115:GLY:HA2	39:BE:157:ALA:CB	2.48	0.43
6:AF:11:ASN:C	6:AF:13:ASN:H	2.22	0.43
15:AO:34:LEU:O	15:AO:35:ARG:C	2.56	0.43
35:DA:1652:A:O2'	35:DA:1653:G:H5'	2.17	0.43
49:BR:94:TYR:C	49:BR:117:VAL:HG23	2.38	0.43
15:AO:9:GLN:O	15:AO:13:GLN:N	2.46	0.43
26:D1:41:ARG:HD3	26:D1:43:TYR:CE2	2.53	0.43
18:AR:22:VAL:HG23	18:AR:55:ARG:O	2.17	0.43
35:BA:2848:G:H8	51:BT:97:ALA:HB2	1.83	0.43
24:AY:10:HIS:CD2	24:AY:59:GLY:HA2	2.53	0.43
20:AT:90:GLN:O	20:AT:93:GLU:HB3	2.18	0.43
1:CA:645:C:H2'	1:CA:646:U:O5'	2.18	0.43
35:DA:864:G:O2'	35:DA:866:A:N6	2.50	0.43
35:DA:2474:C:N3	35:DA:2475:C:O2	2.51	0.43
22:CV:36:U:C6	22:CV:36:U:H3'	2.53	0.43
40:BF:126:VAL:HG23	40:BF:127:GLU:N	2.33	0.43
33:D8:3:LYS:HE2	35:DA:242:G:O5'	2.18	0.43
56:BY:26:LYS:O	56:BY:27:VAL:C	2.56	0.43
57:BZ:30:ASN:HB3	57:BZ:90:VAL:O	2.17	0.43
47:BP:48:PRO:C	47:BP:50:ARG:N	2.70	0.43
1:CA:15:G:H2'	1:CA:16:A:H8	1.82	0.43
1:CA:15:G:H2'	1:CA:16:A:C8	2.53	0.43
1:CA:19:C:H1'	1:CA:917:G:N2	2.33	0.43
12:CL:88:LYS:O	12:CL:89:ASP:HB2	2.17	0.43
2:CB:51:LEU:HD22	2:CB:55:PHE:HE2	1.83	0.43
35:DA:1899:G:O2'	35:DA:1900:A:H5''	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:B8:30:ARG:O	33:B8:31:HIS:ND1	2.49	0.43
33:B8:40:GLU:O	33:B8:42:ARG:N	2.51	0.43
2:AB:233:SER:HB2	2:AB:234:PRO:HD2	2.00	0.43
41:DG:110:ALA:C	41:DG:112:PRO:HD2	2.38	0.43
19:CS:53:ASN:HD22	19:CS:58:VAL:CG2	2.31	0.43
47:DP:83:VAL:O	47:DP:115:LEU:HD23	2.18	0.43
35:DA:2684:U:OP2	51:DT:53:ARG:NE	2.51	0.43
6:CF:69:GLU:CD	6:CF:69:GLU:N	2.72	0.43
10:AJ:49:VAL:HG22	10:AJ:50:ILE:N	2.32	0.43
10:AJ:50:ILE:HD11	14:AN:41:ARG:HD3	2.00	0.43
1:CA:1126:U:OP2	10:CJ:38:ILE:HD11	2.18	0.43
1:CA:623:C:C4	1:CA:624:C:C5	3.06	0.43
1:AA:736:C:C2	1:AA:737:A:N7	2.86	0.43
43:BI:125:GLU:OE1	43:BI:125:GLU:HA	2.18	0.43
48:BQ:137:TYR:CZ	57:BZ:81:ARG:NH2	2.87	0.43
29:D4:25:TYR:N	29:D4:25:TYR:CD1	2.86	0.43
41:DG:6:ALA:HB3	41:DG:104:GLU:CD	2.39	0.43
38:DD:125:ILE:C	38:DD:126:GLN:HG3	2.38	0.43
35:DA:1847:A:H3'	35:DA:1848:A:C5'	2.47	0.43
4:CD:147:ALA:HB2	4:CD:182:LYS:HG2	1.99	0.43
39:BE:31:CYS:HA	39:BE:32:PRO:HD2	1.86	0.43
1:CA:1432:G:H1'	1:CA:1469:G:H22	1.84	0.43
35:BA:1040:C:O2'	35:BA:1041:C:P	2.76	0.43
41:BG:96:ARG:N	41:BG:99:MET:HE2	2.34	0.43
8:AH:86:ILE:HG21	8:AH:133:LEU:HD22	2.00	0.43
8:AH:88:LYS:O	8:AH:92:ARG:NH1	2.50	0.43
45:DN:62:VAL:HG23	45:DN:66:LYS:HD2	2.00	0.43
35:DA:2801(A):A:H4'	35:DA:2802:G:C2'	2.48	0.43
1:AA:1177:G:OP2	9:AI:97:LYS:NZ	2.48	0.43
43:DI:115:ALA:HB3	43:DI:129:THR:H	1.83	0.43
39:BE:1:MET:HA	39:BE:200:GLU:OE1	2.17	0.43
41:DG:32:PRO:C	41:DG:172:LEU:HD22	2.39	0.43
40:DF:131:GLY:O	40:DF:132:VAL:O	2.36	0.43
24:CY:9:TYR:CD1	24:CY:10:HIS:O	2.71	0.43
1:CA:406:G:H2'	1:CA:407:G:H8	1.83	0.43
7:CG:92:SER:O	7:CG:96:GLN:HG3	2.18	0.43
35:BA:2303:G:H1'	41:BG:132:ASN:HD22	1.83	0.43
28:D3:39:ASP:O	28:D3:40:THR:C	2.57	0.43
49:BR:84:ALA:N	49:BR:85:PRO:CD	2.81	0.43
11:CK:61:ALA:O	11:CK:64:ALA:HB3	2.19	0.43
7:AG:40:ALA:O	7:AG:41:ARG:C	2.57	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DF:184:TYR:O	40:DF:188:ARG:HG2	2.17	0.43
1:AA:1006:C:H2'	1:AA:1007:C:C4	2.54	0.43
35:DA:213:A:C2'	35:DA:214:G:H5'	2.48	0.43
1:CA:1097:C:O2'	1:CA:1098:C:H5'	2.18	0.43
25:D0:43:THR:CG2	25:D0:43:THR:O	2.63	0.43
40:BF:110:LEU:HD23	40:BF:110:LEU:HA	1.87	0.43
20:AT:56:MET:O	20:AT:59:ALA:HB3	2.18	0.43
18:CR:36:ASN:HB3	18:CR:39:VAL:HG23	2.01	0.43
2:AB:144:ARG:HB2	2:AB:148:TYR:CE2	2.53	0.43
39:DE:12:THR:CG2	39:DE:13:ARG:N	2.81	0.43
1:CA:1384:C:H2'	1:CA:1385:G:H8	1.84	0.43
12:CL:69:GLY:HA3	12:CL:99:ARG:HH12	1.83	0.43
35:DA:1695:G:N7	38:DD:14:ARG:NH2	2.67	0.43
42:DH:97:ARG:NH1	42:DH:104:GLU:OE1	2.51	0.43
1:CA:758:G:H5''	1:CA:880:C:H1'	1.99	0.43
45:DN:10:GLU:CD	45:DN:11:PRO:HD2	2.38	0.43
3:AC:42:LEU:HA	3:AC:45:LYS:CE	2.48	0.43
16:CP:14:ASN:N	16:CP:15:PRO:CD	2.80	0.43
35:DA:656:G:C2'	35:DA:657:U:O5'	2.66	0.43
47:BP:95:VAL:CG1	47:BP:125:VAL:HG23	2.49	0.43
13:AM:110:ARG:NH1	13:AM:110:ARG:HG2	2.33	0.43
35:DA:521:G:H2'	35:DA:522:G:C8	2.53	0.43
35:BA:2040:C:H2'	35:BA:2041:U:O4'	2.18	0.43
13:AM:65:LYS:CB	13:AM:66:LEU:HD12	2.48	0.43
35:DA:1608:A:H1'	35:DA:1610:A:OP2	2.19	0.43
48:DQ:42:ILE:HG13	48:DQ:97:VAL:HG21	2.00	0.43
21:CU:9:ARG:O	21:CU:13:ILE:HG13	2.18	0.43
48:DQ:109:VAL:O	48:DQ:110:THR:O	2.35	0.43
38:DD:231:HIS:ND1	38:DD:232:PRO:CD	2.81	0.43
21:AU:9:ARG:O	21:AU:13:ILE:HG13	2.18	0.43
22:AW:20:U:H5'	22:AW:21:A:OP1	2.18	0.43
1:AA:300:A:H2'	1:AA:301:G:C5'	2.48	0.43
1:AA:300:A:H2'	1:AA:301:G:H5'	1.99	0.43
6:AF:91:VAL:CG1	6:AF:92:LYS:N	2.81	0.43
35:DA:69:C:H2'	35:DA:70:G:C8	2.54	0.43
35:DA:1499:C:H2'	35:DA:1500:G:C8	2.53	0.43
35:DA:412:A:N7	35:DA:2411:A:H2	2.15	0.43
35:BA:1046:A:OP2	44:BJ:10:UNK:HA	2.17	0.43
11:CK:91:ARG:O	11:CK:94:ALA:HB3	2.17	0.43
35:BA:2074:U:H2'	35:BA:2075:U:C6	2.54	0.43
35:DA:999:U:H5''	35:DA:1154:G:O6	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:D4:4:GLY:O	29:D4:5:ILE:HG23	2.18	0.43
35:BA:2233:U:H2'	35:BA:2234:G:C8	2.53	0.43
13:AM:60:VAL:HG23	13:AM:61:GLU:N	2.34	0.43
35:DA:2687:U:O2'	35:DA:2688:U:H5'	2.18	0.43
4:AD:191:ARG:HH11	4:AD:191:ARG:HG3	1.83	0.43
50:DS:77:ALA:O	50:DS:79:ALA:N	2.52	0.43
35:BA:1520:G:H2'	35:BA:1523:U:O4'	2.18	0.43
1:CA:971:G:C8	1:CA:1365:G:H4'	2.52	0.43
46:DO:26:LYS:O	46:DO:27:GLY:O	2.36	0.43
24:AY:31:THR:CG2	24:AY:53:GLU:OE1	2.67	0.43
22:CV:54:U:O5'	22:CV:54:U:H6	2.02	0.43
1:CA:1494:G:H4'	35:DA:1913:A:H5"	2.01	0.43
13:CM:90:LEU:O	13:CM:91:ARG:HB2	2.19	0.43
35:DA:2403:C:N3	35:DA:2415:G:C2	2.86	0.43
52:BU:69:CYS:SG	52:BU:79:PHE:CB	3.06	0.43
53:BV:4:ILE:HD12	53:BV:40:LEU:HG	2.01	0.43
33:D8:51:ALA:N	33:D8:53:PRO:CD	2.62	0.43
47:DP:49:ARG:HH21	47:DP:50:ARG:HH22	1.66	0.43
40:DF:157:VAL:HA	40:DF:176:LEU:O	2.18	0.43
52:DU:92:ARG:HD2	53:DV:11:GLN:HE21	1.83	0.43
57:BZ:163:LEU:HG	57:BZ:163:LEU:O	2.19	0.43
1:CA:34:C:C3'	1:CA:35:G:C5'	2.96	0.43
33:B8:51:ALA:H	33:B8:53:PRO:CG	2.31	0.43
47:BP:47:ASP:HB3	47:BP:48:PRO:C	2.38	0.43
47:BP:40:SER:CB	47:BP:41:ARG:NH2	2.81	0.43
47:DP:40:SER:N	47:DP:41:ARG:HD2	2.33	0.43
2:CB:40:HIS:CG	2:CB:190:THR:HG21	2.54	0.43
47:BP:85:LEU:HD23	47:BP:88:LEU:CD2	2.48	0.43
1:CA:658:G:H2'	1:CA:659:U:O5'	2.19	0.43
19:CS:29:ARG:HD2	19:CS:29:ARG:N	2.33	0.43
47:DP:84:ASN:CG	47:DP:117:GLU:HB2	2.38	0.43
50:DS:17:ARG:HA	50:DS:20:ARG:NH2	2.33	0.43
47:DP:105:LEU:O	47:DP:106:LEU:CB	2.66	0.43
1:AA:1060:C:H2'	1:AA:1061:G:H8	1.83	0.43
8:CH:5:PRO:HG2	8:CH:6:ILE:CD1	2.32	0.43
3:CC:95:THR:HG22	3:CC:97:LYS:HG3	1.99	0.43
57:DZ:82:ARG:CB	57:DZ:82:ARG:CZ	2.96	0.43
30:D5:52:TYR:HD1	30:D5:53:ALA:N	2.16	0.43
47:DP:7:ARG:O	47:DP:10:PRO:CG	2.65	0.43
7:AG:119:ARG:C	7:AG:121:ALA:N	2.71	0.43
29:B4:25:TYR:N	29:B4:25:TYR:CD1	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BT:80:SER:CB	51:BT:81:PRO:CD	2.94	0.43
1:CA:1428:A:C6	1:CA:1429:C:N4	2.86	0.43
38:DD:130:ALA:HB2	38:DD:192:THR:HA	2.00	0.43
35:DA:1577:C:H2'	35:DA:1578:U:O4'	2.19	0.43
49:BR:4:LEU:O	49:BR:5:LYS:HG3	2.19	0.43
53:BV:23:GLU:O	53:BV:24:LYS:C	2.57	0.43
53:DV:23:GLU:O	53:DV:24:LYS:C	2.56	0.43
1:CA:1347:G:H21	1:CA:1373:G:H2'	1.79	0.43
57:DZ:126:VAL:CA	57:DZ:163:LEU:HA	2.43	0.43
38:DD:211:ARG:HG3	38:DD:211:ARG:HH11	1.83	0.43
1:CA:1439:C:O5'	20:CT:38:LYS:NZ	2.50	0.43
39:BE:1:MET:HE2	39:BE:83:ASP:O	2.19	0.43
38:DD:185:VAL:HG12	38:DD:186:HIS:N	2.32	0.43
1:CA:577:G:C4	1:CA:816:A:C2	3.06	0.43
1:AA:1057:G:C4'	3:AC:196:LEU:O	2.62	0.43
13:AM:69:GLU:HA	13:AM:69:GLU:OE1	2.17	0.43
28:D3:40:THR:HG23	28:D3:43:ILE:HD13	2.00	0.43
18:AR:38:GLU:HG3	18:AR:42:ARG:NE	2.34	0.43
55:DX:12:VAL:CG2	55:DX:17:ALA:HB1	2.47	0.43
35:DA:1563:G:H2'	35:DA:1564:C:C6	2.44	0.43
4:CD:31:CYS:O	4:CD:33:MET:N	2.49	0.43
35:DA:2743:C:C2	35:DA:2762:G:C2	3.06	0.43
1:AA:1005:A:C2'	1:AA:1006:C:H5'	2.49	0.43
16:CP:74:LEU:HB2	16:CP:80:PHE:HE1	1.83	0.43
1:AA:1384:C:H2'	1:AA:1385:G:H8	1.83	0.43
1:AA:225:C:H2'	1:AA:226:G:H8	1.83	0.43
22:CV:12:G:H2'	22:CV:13:C:O5'	2.18	0.43
42:DH:70:THR:CG2	42:DH:74:ASN:HD21	2.31	0.43
42:BH:70:THR:CG2	42:BH:74:ASN:HD21	2.31	0.43
1:AA:544:G:H2'	1:AA:545:C:C6	2.53	0.43
8:CH:77:GLU:CG	8:CH:78:GLN:H	2.30	0.43
1:AA:272:C:H2'	1:AA:273:A:C8	2.49	0.43
41:DG:167:GLU:N	41:DG:167:GLU:CD	2.71	0.43
26:B1:82:LEU:C	26:B1:83:GLU:HG2	2.38	0.43
11:CK:77:MET:CG	11:CK:80:VAL:HG11	2.48	0.43
4:CD:162:LEU:HD13	4:CD:181:MET:HG2	2.00	0.43
35:BA:2837:G:H2'	35:BA:2838:G:H8	1.83	0.43
45:DN:91:LEU:HG	45:DN:98:VAL:HG21	2.01	0.43
1:AA:539:A:H2'	1:AA:540:G:C8	2.54	0.43
6:CF:100:ASN:HD22	18:CR:23:LYS:HZ1	1.67	0.43
6:CF:45:LEU:HD21	6:CF:57:GLN:OE1	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2163:C:H5''	35:BA:2172:U:OP2	2.19	0.43
1:CA:977:A:HO2'	1:CA:978:A:H5'	1.84	0.43
39:BE:143:ASN:HD22	39:BE:147:PRO:HD3	1.84	0.43
45:DN:3:THR:O	45:DN:4:TYR:CD1	2.72	0.43
1:AA:423:G:H2'	1:AA:424:G:H5'	2.01	0.43
1:AA:1248:A:H2'	1:AA:1249:C:H5'	2.00	0.43
6:CF:4:TYR:HD1	6:CF:92:LYS:HA	1.83	0.43
35:BA:1511:C:H2'	35:BA:1512:U:O4'	2.19	0.43
12:CL:24:LEU:HG	12:CL:61:TYR:CE1	2.54	0.43
1:AA:1511:G:H2'	1:AA:1512:U:O4'	2.18	0.43
35:DA:222:A:N6	35:DA:224:G:C2	2.86	0.43
1:AA:889:A:H5'	1:AA:891:U:H1'	2.01	0.43
35:BA:2660:A:C2	35:BA:2661:G:H1'	2.53	0.43
3:AC:177:THR:HB	3:AC:180:ALA:HB2	2.01	0.43
37:DC:18:LYS:HD2	37:DC:20:TYR:O	2.17	0.43
55:BX:70:LEU:C	55:BX:70:LEU:HD23	2.39	0.43
1:CA:1223:C:OP2	19:CS:78:ARG:NH2	2.51	0.43
40:DF:167:ALA:HA	40:DF:170:LEU:HD23	2.00	0.43
42:BH:19:VAL:HG12	42:BH:20:ALA:N	2.34	0.43
35:DA:1191:G:O2'	35:DA:1192:G:H5'	2.17	0.43
19:CS:6:LYS:HD2	19:CS:7:LYS:HE3	1.99	0.43
35:BA:2359:C:C2'	35:BA:2360:A:H5'	2.49	0.43
12:CL:80:VAL:HG21	12:CL:97:ILE:CG2	2.49	0.43
3:AC:73:PRO:HB3	3:AC:103:VAL:CG1	2.49	0.43
2:CB:167:PRO:O	2:CB:171:ALA:N	2.52	0.43
8:CH:36:LEU:O	8:CH:45:ILE:HD11	2.18	0.43
19:AS:13:ASP:C	19:AS:15:LEU:N	2.71	0.43
35:DA:2314:C:H2'	35:DA:2315:G:C8	2.54	0.43
41:DG:103:LEU:HA	41:DG:106:LEU:CD2	2.48	0.43
19:CS:36:ARG:NE	19:CS:72:GLY:HA3	2.33	0.43
6:CF:70:ASP:C	6:CF:72:VAL:H	2.22	0.43
1:AA:1060:C:H2'	1:AA:1061:G:C8	2.54	0.43
19:AS:28:LYS:HB3	19:AS:29:ARG:H	1.60	0.43
3:CC:134:ILE:HD12	3:CC:166:GLU:HG2	2.00	0.43
35:DA:1240:U:O2'	35:DA:1241:A:H5'	2.18	0.43
10:AJ:38:ILE:O	10:AJ:38:ILE:HG23	2.18	0.43
16:CP:70:ALA:HA	16:CP:73:LEU:HD13	2.00	0.43
35:DA:598:G:H5'	47:DP:15:ARG:HB2	2.01	0.43
35:DA:2844:G:H3'	35:DA:2845:G:H8	1.84	0.43
6:AF:52:ILE:O	6:AF:52:ILE:HG22	2.18	0.43
35:DA:1040:C:O2'	35:DA:1041:C:P	2.76	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1456:G:O4'	1:CA:1456:G:OP1	2.37	0.43
18:AR:53:ARG:NH2	18:AR:60:ALA:N	2.66	0.43
1:CA:1423:G:H2'	1:CA:1424:C:H6	1.82	0.43
51:DT:105:LEU:HB2	51:DT:110:ILE:CD1	2.48	0.43
5:AE:50:GLU:CB	5:AE:53:LEU:HD12	2.43	0.43
35:BA:2111:C:H1'	35:BA:2118:U:H5'	2.00	0.43
3:CC:121:ALA:CB	3:CC:187:ALA:HB1	2.37	0.43
22:CW:74:C:C5'	26:D1:23:LYS:HB2	2.48	0.43
22:AW:30:G:H2'	22:AW:31:G:H8	1.84	0.43
1:CA:187:C:N3	20:CT:105:SER:HB3	2.34	0.43
41:BG:97:ASP:HA	41:BG:100:TRP:HD1	1.82	0.43
35:BA:847:U:H2'	35:BA:848:G:H5''	1.99	0.43
8:AH:95:VAL:HG22	8:AH:131:GLY:O	2.18	0.43
35:DA:494:G:O2'	54:DW:5:ALA:O	2.33	0.43
35:DA:2811:G:C4'	39:DE:61:ARG:HH21	2.30	0.43
43:BI:115:ALA:HB3	43:BI:129:THR:H	1.84	0.43
35:DA:2854:G:O2'	35:DA:2855:C:H5'	2.18	0.43
57:DZ:155:LEU:HD23	57:DZ:155:LEU:N	2.33	0.43
15:AO:54:ARG:NH1	15:AO:58:MET:HE2	2.32	0.43
6:AF:62:TRP:CB	18:AR:35:ARG:NH1	2.82	0.43
10:CJ:29:ARG:HD2	10:CJ:29:ARG:O	2.18	0.43
48:DQ:21:THR:C	48:DQ:23:GLY:H	2.21	0.43
56:BY:50:ARG:C	56:BY:52:SER:H	2.20	0.43
48:BQ:12:GLN:NE2	48:BQ:73:PRO:HD3	2.26	0.43
48:BQ:72:LYS:HA	48:BQ:73:PRO:HD3	1.87	0.43
46:BO:90:GLN:CD	46:BO:90:GLN:N	2.72	0.43
45:BN:68:GLU:HB2	45:BN:88:GLU:OE1	2.18	0.43
41:DG:10:LYS:HE3	41:DG:176:LEU:HA	2.00	0.43
1:CA:1492:A:C2	12:CL:47:SER:HB3	2.54	0.43
38:BD:206:LEU:CD2	38:BD:211:ARG:HG3	2.49	0.43
47:DP:75:ILE:CD1	47:DP:77:ARG:HH12	2.28	0.43
9:CI:86:VAL:HG21	9:CI:96:LEU:CD2	2.44	0.43
5:CE:9:LYS:CB	5:CE:112:LEU:HD11	2.43	0.43
45:BN:25:ARG:NH1	45:BN:25:ARG:HG3	2.27	0.43
38:DD:68:LYS:O	38:DD:69:ARG:HB2	2.17	0.43
51:BT:3:ARG:O	51:BT:5:ALA:N	2.52	0.43
51:BT:9:LEU:O	51:BT:11:GLU:N	2.51	0.43
1:AA:96:U:HO2'	1:AA:97:G:P	2.42	0.43
41:BG:71:THR:O	41:BG:89:GLY:HA3	2.18	0.43
1:CA:1353:G:O2'	1:CA:1354:C:H5'	2.19	0.43
4:AD:17:VAL:HG12	4:AD:18:LYS:N	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:78:GLU:OE2	17:AQ:81:ARG:NH1	2.50	0.43
11:CK:22:HIS:HA	11:CK:85:ARG:O	2.19	0.43
20:AT:53:LEU:HA	20:AT:56:MET:HB3	2.01	0.43
1:AA:1191:A:H5''	3:AC:4:LYS:HZ3	1.82	0.43
39:DE:117:MET:HA	39:DE:122:PHE:N	2.31	0.43
36:DB:44:G:C2	36:DB:48:A:C2	3.06	0.43
27:B2:47:ASN:O	27:B2:48:HIS:C	2.56	0.43
35:BA:674:G:H1'	40:BF:74:ARG:CD	2.47	0.43
35:DA:328:U:O2'	56:DY:71:LYS:HD3	2.18	0.43
44:DJ:96:UNK:O	44:DJ:132:UNK:O	2.36	0.43
11:AK:20:TYR:O	11:AK:30:VAL:HA	2.18	0.43
35:BA:2574:G:O2'	39:BE:143:ASN:HB3	2.17	0.43
13:CM:38:GLY:C	13:CM:39:ILE:HD12	2.39	0.43
5:CE:88:LYS:HD3	5:CE:123:LEU:HD12	1.99	0.43
1:CA:967:C:H4'	9:CI:125:TYR:OH	2.18	0.43
5:AE:88:LYS:HB3	5:AE:123:LEU:HB2	2.00	0.43
35:BA:222:A:N6	35:BA:224:G:C2	2.86	0.43
35:DA:1446:C:O2'	35:DA:1447:G:H5'	2.18	0.43
35:DA:1573:G:H2'	35:DA:1574:C:H5'	2.01	0.43
38:BD:171:ASP:O	38:BD:187:GLY:N	2.50	0.43
37:BC:39:GLU:HG2	37:BC:181:PRO:CB	2.48	0.43
1:AA:869:G:H4'	1:AA:872:A:C8	2.53	0.43
54:BW:22:ASP:HA	54:BW:25:ARG:NH1	2.33	0.43
35:DA:1459:G:H5''	35:DA:1460:A:OP2	2.17	0.43
35:DA:370:G:H4'	35:DA:371:A:OP2	2.19	0.43
34:D9:30:PRO:HB2	35:DA:2527:C:C5'	2.48	0.43
35:BA:2084:C:O5'	35:BA:2084:C:H6	2.02	0.43
14:CN:34:TYR:H	14:CN:34:TYR:HD1	1.63	0.43
17:AQ:6:LEU:HD12	17:AQ:6:LEU:N	2.34	0.43
14:AN:34:TYR:HD1	14:AN:34:TYR:H	1.64	0.43
35:DA:821:A:H2'	35:DA:946:G:H5''	2.00	0.43
35:DA:1587:A:H3'	35:DA:1588:C:H6	1.82	0.43
3:CC:114:PRO:O	3:CC:118:GLN:HG3	2.19	0.43
13:CM:60:VAL:HG23	13:CM:61:GLU:N	2.34	0.43
42:DH:10:PRO:O	42:DH:10:PRO:CD	2.67	0.43
42:DH:7:LEU:HA	42:DH:7:LEU:HD12	1.41	0.43
1:CA:1226:C:O5'	13:CM:96:LEU:CD2	2.66	0.43
56:DY:76:CYS:HB3	56:DY:96:ILE:HD12	1.99	0.43
35:BA:1530:C:O2'	35:BA:1531:C:P	2.76	0.43
51:BT:66:VAL:HA	51:BT:71:GLY:HA2	2.00	0.43
33:D8:62:LEU:HD13	35:DA:242:G:C5'	2.29	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BS:68:GLN:C	50:BS:70:GLY:N	2.72	0.43
1:CA:5:U:H3'	1:CA:6:G:N2	2.33	0.43
1:CA:1442(A):G:H2'	51:DT:118:ARG:HH11	1.84	0.43
57:BZ:56:VAL:HG13	57:BZ:69:THR:O	2.19	0.43
8:CH:33:GLU:O	8:CH:36:LEU:N	2.52	0.43
57:DZ:5:LEU:O	57:DZ:59:LEU:HA	2.19	0.43
57:DZ:63:ASP:HB2	57:DZ:65:GLN:HE21	1.83	0.43
2:AB:102:LEU:HB2	2:AB:176:GLU:HB3	2.00	0.43
2:AB:219:VAL:HA	2:AB:222:ILE:CG1	2.48	0.43
41:DG:100:TRP:C	41:DG:102:PHE:H	2.21	0.43
41:DG:38:VAL:HG22	41:DG:39:ILE:H	1.83	0.43
9:CI:17:VAL:HA	9:CI:63:ILE:HG12	2.00	0.43
57:DZ:82:ARG:CB	57:DZ:82:ARG:NH1	2.79	0.43
1:CA:1280:A:H5''	10:CJ:41:PRO:CD	2.47	0.43
13:AM:81:LEU:C	13:AM:83:ASP:H	2.22	0.43
43:BI:114:LEU:C	43:BI:116:LEU:N	2.72	0.43
48:BQ:29:PHE:HB3	48:BQ:65:PHE:CE2	2.53	0.43
1:AA:1280:A:H5''	10:AJ:41:PRO:CD	2.49	0.43
4:CD:110:PHE:CE2	4:CD:148:VAL:HG23	2.53	0.43
4:AD:98:GLU:O	4:AD:103:ASN:ND2	2.52	0.43
3:CC:32:LEU:HB3	3:CC:59:ARG:NH2	2.24	0.43
1:AA:191:G:O2'	1:AA:192:U:H5'	2.18	0.43
35:DA:2631:G:N2	39:DE:61:ARG:NH1	2.67	0.43
53:BV:2:PHE:HB2	53:BV:42:GLY:CA	2.48	0.43
43:BI:113:ARG:HE	43:BI:131:LYS:HB2	1.84	0.43
57:DZ:102:LEU:CD2	57:DZ:137:ILE:HB	2.48	0.43
56:DY:62:GLU:OE1	56:DY:62:GLU:N	2.49	0.43
51:BT:106:SER:O	51:BT:107:ASP:HB3	2.18	0.43
38:DD:242:ARG:HA	38:DD:242:ARG:HD3	1.65	0.43
42:BH:137:ASP:HB3	42:BH:140:LYS:HB2	1.99	0.43
1:AA:1347:G:C8	9:AI:107:ARG:HB2	2.54	0.43
9:AI:107:ARG:H	9:AI:107:ARG:HD3	1.84	0.43
21:AU:6:ARG:HG2	21:AU:15:ARG:NH1	2.30	0.43
46:BO:86:ILE:N	46:BO:86:ILE:HD12	2.34	0.43
39:BE:82:ARG:O	39:BE:84:PHE:N	2.44	0.43
35:DA:258:G:O2'	35:DA:259:G:H5'	2.19	0.43
41:DG:10:LYS:HE3	41:DG:176:LEU:HD23	1.99	0.43
2:CB:137:ARG:NH1	2:CB:141:GLU:HB2	2.33	0.43
5:CE:41:VAL:O	5:CE:66:MET:HA	2.19	0.43
39:DE:101:ARG:HB2	39:DE:201:THR:HG21	2.01	0.43
35:BA:2893:G:H4'	35:BA:2894:G:H8	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:D4:47:GLN:O	29:D4:48:ARG:CB	2.66	0.43
35:DA:2776:A:C6	35:DA:2778:A:C6	3.06	0.43
1:CA:1016:A:H2'	1:CA:1017:G:H5'	2.01	0.43
53:DV:98:GLU:OE1	53:DV:100:ARG:NH1	2.52	0.43
35:DA:2052:G:O4'	39:DE:142:GLY:HA3	2.18	0.43
11:AK:22:HIS:HA	11:AK:85:ARG:O	2.19	0.43
1:CA:542:G:O2'	1:CA:543:C:H5'	2.18	0.43
1:AA:106:C:H2'	1:AA:107:G:C8	2.46	0.43
1:CA:935:A:H61	7:CG:3:ARG:HG2	1.83	0.43
1:CA:47:C:O2	1:CA:49:U:O4	2.36	0.43
16:AP:14:ASN:N	16:AP:15:PRO:CD	2.81	0.43
35:DA:1149:G:H2'	35:DA:1150:C:H6	1.79	0.43
35:BA:405:U:H3'	35:BA:406:G:C5'	2.48	0.43
2:AB:107:THR:C	2:AB:109:SER:N	2.71	0.43
1:CA:341:C:H2'	1:CA:342:C:C6	2.51	0.43
40:DF:182:ASN:N	40:DF:182:ASN:ND2	2.67	0.43
1:AA:1360:A:O2'	1:AA:1361:G:H5'	2.18	0.43
35:DA:1705:G:C6	35:DA:1706:U:C4	3.06	0.43
6:AF:100:ASN:HD21	18:AR:23:LYS:CG	2.31	0.43
3:AC:140:ARG:HH11	3:AC:140:ARG:CB	2.31	0.43
35:BA:1317:A:H2'	35:BA:1318:C:C6	2.53	0.43
35:DA:958:U:H6	35:DA:958:U:H3'	1.84	0.43
35:DA:34:C:HO2'	35:DA:35:G:P	2.41	0.43
35:DA:2672:G:H2'	35:DA:2673:G:H5''	1.99	0.43
7:AG:147:ALA:C	7:AG:148:ASN:HD22	2.22	0.43
1:AA:66:G:H4'	1:AA:173:U:C5	2.53	0.43
1:AA:1316:G:H5''	14:AN:17:LYS:CE	2.49	0.43
35:BA:768:G:C6	35:BA:769:G:C5	3.07	0.43
1:CA:189(B):C:O2'	1:CA:189(C):C:H5'	2.19	0.43
1:CA:967:C:H2'	1:CA:968:A:C8	2.54	0.43
35:DA:680:G:H2'	35:DA:681:G:C8	2.54	0.43
48:BQ:17:LEU:CD1	48:BQ:39:PRO:HB2	2.48	0.43
35:DA:1931:U:H2'	35:DA:1932:A:H8	1.84	0.43
35:BA:32:C:O2'	35:BA:33:U:H5'	2.18	0.43
38:DD:262:ARG:C	38:DD:264:LYS:H	2.20	0.43
37:BC:18:LYS:HD2	37:BC:20:TYR:O	2.19	0.43
10:CJ:22:LYS:O	10:CJ:26:ALA:HB3	2.18	0.43
54:BW:44:ALA:O	54:BW:47:VAL:HG12	2.19	0.43
35:DA:1163:G:O2'	35:DA:1164:G:H5'	2.18	0.43
57:BZ:114:GLY:O	57:BZ:115:GLY:O	2.36	0.43
57:BZ:118:GLN:O	57:BZ:120:ILE:N	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2689:U:H5''	35:BA:2690:C:H5'	1.98	0.43
47:DP:103:ALA:O	47:DP:104:GLY:O	2.37	0.43
39:BE:188:VAL:HG23	39:BE:189:PRO:HD2	2.01	0.43
35:BA:121:G:H4'	35:BA:149:A:H5'	2.01	0.43
28:D3:18:ASP:O	28:D3:21:ALA:HB3	2.18	0.43
40:DF:173:VAL:HG12	40:DF:174:VAL:N	2.33	0.43
33:B8:27:THR:HG22	47:BP:62:LEU:HD11	1.98	0.43
41:BG:73:ALA:HB3	41:BG:87:PRO:HG3	2.00	0.43
1:CA:1397:C:OP2	5:CE:24:ARG:NH2	2.51	0.43
7:CG:12:LEU:HD11	7:CG:25:ALA:HB2	2.01	0.43
56:BY:96:ILE:CG2	56:BY:97:ARG:N	2.78	0.43
1:CA:1188:A:H5''	14:CN:58:LYS:HZ2	1.81	0.43
52:BU:92:ARG:HH12	53:BV:10:LYS:HB3	1.83	0.43
56:BY:42:VAL:HG12	56:BY:65:ALA:HB3	2.00	0.43
5:CE:102:ALA:HA	5:CE:120:THR:OG1	2.19	0.43
27:D2:45:SER:C	27:D2:46:GLN:NE2	2.72	0.43
35:DA:2192:G:H2'	35:DA:2193:G:C5'	2.26	0.43
24:AY:49:ARG:NH1	24:AY:49:ARG:HG3	2.34	0.43
35:BA:1023:U:H2'	35:BA:1024:G:H5'	2.00	0.43
2:CB:164:VAL:HG12	2:CB:165:VAL:N	2.34	0.43
2:CB:219:VAL:HA	2:CB:222:ILE:CG1	2.49	0.43
2:CB:87:ARG:HH21	2:CB:223:ILE:HD12	1.83	0.43
57:DZ:42:VAL:HG13	57:DZ:43:GLU:N	2.34	0.43
2:AB:21:ARG:HA	2:AB:40:HIS:ND1	2.33	0.43
35:DA:2300:G:H1	35:DA:2316:C:N4	2.16	0.43
41:DG:106:LEU:HA	41:DG:110:ALA:HB3	2.01	0.43
41:DG:88:ILE:N	41:DG:88:ILE:HD13	2.34	0.43
19:CS:13:ASP:C	19:CS:15:LEU:N	2.72	0.43
47:BP:147:LEU:O	47:BP:148:LEU:HB2	2.19	0.43
46:BO:24:VAL:CG2	46:BO:33:ALA:HB2	2.47	0.43
9:CI:27:THR:CG2	9:CI:28:VAL:N	2.81	0.43
9:CI:7:THR:HG22	9:CI:8:GLY:H	1.83	0.43
47:BP:7:ARG:O	47:BP:10:PRO:HD3	2.18	0.43
30:D5:33:CYS:CB	30:D5:36:CYS:HG	2.26	0.43
30:D5:49:CYS:SG	30:D5:50:GLY:N	2.92	0.43
19:AS:29:ARG:HD2	19:AS:29:ARG:N	2.33	0.43
19:AS:62:ILE:HG23	19:AS:62:ILE:O	2.18	0.43
43:DI:83:ALA:HA	43:DI:89:TYR:CD1	2.53	0.43
29:B4:24:THR:CG2	29:B4:25:TYR:N	2.75	0.43
39:DE:64:LYS:C	39:DE:66:HIS:N	2.68	0.43
29:B4:55:ARG:HH21	29:B4:55:ARG:HG2	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:149:ARG:HB3	11:AK:59:TYR:CE2	2.54	0.43
11:CK:99:GLN:HA	11:CK:105:VAL:HG13	2.01	0.43
1:CA:1431:C:O2'	1:CA:1432:G:H5'	2.19	0.43
1:CA:1475:G:C2	1:CA:1476:G:C4	3.06	0.43
1:CA:182:U:O4	1:CA:223:U:H1'	2.18	0.43
35:DA:1718:G:O2'	35:DA:1719:G:H5'	2.18	0.43
41:BG:9:ARG:O	41:BG:11:TYR:N	2.52	0.43
53:BV:2:PHE:HB3	53:BV:3:ALA:H	1.48	0.43
1:AA:973:G:H1'	10:AJ:55:LYS:HE2	2.00	0.43
45:DN:66:LYS:O	45:DN:70:LYS:HB3	2.18	0.43
18:AR:67:ALA:O	18:AR:68:LYS:C	2.57	0.43
15:AO:50:HIS:O	15:AO:53:HIS:CB	2.67	0.43
1:AA:1155:G:H2'	1:AA:1156:G:O4'	2.19	0.43
17:CQ:33:GLY:O	17:CQ:34:LYS:O	2.36	0.43
51:BT:105:LEU:HB2	51:BT:110:ILE:CD1	2.48	0.43
3:CC:6:HIS:HB3	14:CN:49:HIS:CD2	2.54	0.43
8:CH:12:ARG:HH11	8:CH:26:VAL:HA	1.81	0.43
20:CT:38:LYS:HE2	20:CT:38:LYS:HB3	1.76	0.43
35:BA:636:G:OP1	47:BP:132:LYS:HD2	2.19	0.43
40:DF:160:ASN:HD22	40:DF:161:GLU:N	2.16	0.43
2:CB:118:LEU:O	2:CB:120:ALA:N	2.51	0.43
1:CA:1177:G:OP2	9:CI:97:LYS:NZ	2.50	0.43
35:BA:258:G:O2'	35:BA:259:G:H5'	2.19	0.43
1:AA:1096:C:H2'	1:AA:1097:C:C6	2.53	0.43
47:BP:111:ARG:CG	47:BP:111:ARG:NH2	2.81	0.43
8:AH:30:ARG:CZ	8:AH:30:ARG:HB3	2.49	0.43
35:BA:1045:A:H5''	35:BA:1047:G:N3	2.34	0.43
14:CN:47:LEU:HB3	14:CN:53:LEU:HG	1.99	0.43
38:DD:155:LEU:HD23	38:DD:177:LEU:HD22	2.01	0.43
40:BF:162:LEU:H	40:BF:162:LEU:CD2	2.26	0.43
55:BX:43:VAL:HG23	55:BX:51:VAL:CG2	2.49	0.43
35:DA:2759:G:H2'	35:DA:2759:G:N3	2.33	0.43
49:DR:56:LYS:HA	49:DR:84:ALA:HB1	2.01	0.43
2:CB:37:ASN:OD1	2:CB:37:ASN:O	2.37	0.43
35:BA:2803:C:H2'	35:BA:2804:C:C6	2.54	0.43
1:CA:1391:U:H2'	1:CA:1392:G:H8	1.81	0.43
7:CG:49:ILE:O	7:CG:52:GLU:HB2	2.19	0.43
20:CT:16:HIS:O	20:CT:19:SER:HB3	2.19	0.43
17:AQ:92:ARG:HG3	17:AQ:95:TYR:CE2	2.49	0.43
40:BF:182:ASN:ND2	40:BF:182:ASN:H	2.17	0.43
26:B1:83:GLU:HG3	26:B1:84:GLY:N	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DR:72:ASP:HB3	49:DR:75:LEU:CB	2.48	0.43
1:AA:833:U:H2'	1:AA:834:C:H6	1.82	0.43
10:AJ:16:LEU:CD2	10:AJ:94:VAL:HG22	2.49	0.43
10:AJ:90:LEU:H	10:AJ:91:PRO:HD3	1.83	0.43
35:DA:1265:A:OP1	35:DA:1265:A:H8	2.01	0.43
29:D4:22:ILE:HG22	29:D4:23:GLU:N	2.33	0.43
35:BA:1685:C:H2'	35:BA:1686:C:H6	1.83	0.43
49:BR:49:ASP:C	49:BR:51:LEU:N	2.71	0.43
35:DA:2031:A:C6	35:DA:2498:C:H1'	2.53	0.43
48:BQ:2:LEU:CD1	48:BQ:69:PHE:HE1	2.31	0.43
37:DC:121:GLY:O	37:DC:142:ALA:HA	2.19	0.43
44:DJ:66:UNK:C	44:DJ:68:UNK:N	2.81	0.43
55:DX:63:LYS:O	55:DX:63:LYS:HG3	2.18	0.43
35:DA:2138:C:H2'	35:DA:2139:C:H6	1.83	0.43
1:AA:746:A:O2'	1:AA:747:C:H5'	2.18	0.43
35:BA:321:G:H5'	40:BF:134:GLY:O	2.19	0.43
3:AC:143:GLU:HA	3:AC:143:GLU:OE1	2.18	0.43
11:AK:114:VAL:HG13	11:AK:114:VAL:O	2.18	0.43
3:AC:101:LEU:C	3:AC:101:LEU:HD23	2.38	0.43
5:AE:74:GLY:HA3	5:AE:116:THR:OG1	2.19	0.43
1:CA:1132:C:O2'	1:CA:1133:G:H5'	2.18	0.43
35:DA:300:A:P	56:DY:84:ARG:HH21	2.42	0.43
56:DY:81:LYS:CD	56:DY:96:ILE:HG21	2.49	0.43
35:DA:1191:G:OP1	47:DP:35:HIS:CE1	2.72	0.43
42:DH:85:LYS:CE	42:DH:133:VAL:HB	2.49	0.43
53:BV:46:VAL:HG22	53:BV:47:VAL:N	2.34	0.43
51:BT:20:PRO:CD	51:BT:85:LYS:HB3	2.48	0.43
51:BT:20:PRO:HD2	51:BT:85:LYS:HD3	2.01	0.43
46:BO:80:ASP:OD2	51:BT:71:GLY:HA3	2.18	0.43
33:D8:59:LYS:C	33:D8:61:LEU:HD23	2.39	0.43
33:D8:61:LEU:HG	33:D8:62:LEU:N	2.26	0.43
33:B8:53:PRO:HG2	33:B8:54:GLU:H	1.84	0.43
40:DF:67:GLN:O	40:DF:67:GLN:CG	2.37	0.43
1:CA:866:C:C5'	1:CA:919:A:H5''	2.49	0.43
5:CE:84:PHE:CE2	5:CE:133:TYR:HB2	2.53	0.43
2:CB:21:ARG:HA	2:CB:40:HIS:ND1	2.34	0.43
2:CB:92:TYR:CE2	2:CB:151:GLY:HA3	2.54	0.43
57:BZ:24:LEU:HG	57:BZ:24:LEU:O	2.19	0.43
46:DO:97:ARG:HG3	46:DO:97:ARG:HH11	1.83	0.43
47:DP:83:VAL:H	47:DP:115:LEU:CD2	2.32	0.43
47:BP:105:LEU:O	47:BP:106:LEU:CB	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:29:SER:HB3	8:CH:32:LYS:HD2	2.00	0.43
35:BA:1175:U:C4'	35:BA:1176:G:H5'	2.34	0.43
43:BI:81:VAL:HB	43:BI:89:TYR:O	2.19	0.43
48:BQ:29:PHE:HB2	48:BQ:105:GLU:OE2	2.19	0.43
4:AD:176:LEU:HD12	4:AD:182:LYS:O	2.19	0.43
16:CP:48:TRP:O	16:CP:49:LEU:C	2.57	0.43
3:AC:51:GLY:O	3:AC:115:LEU:HD21	2.19	0.43
46:BO:102:VAL:CG2	46:BO:121:VAL:HG22	2.49	0.43
4:CD:103:ASN:OD1	4:CD:114:ARG:NE	2.52	0.43
4:CD:98:GLU:HA	4:CD:103:ASN:ND2	2.33	0.43
57:BZ:63:ASP:O	57:BZ:65:GLN:N	2.43	0.43
39:BE:52:LEU:HA	39:BE:53:PRO:HD3	1.93	0.43
1:AA:1003:G:H21	1:AA:1037:C:H2'	1.83	0.43
5:AE:50:GLU:HG3	5:AE:52:PRO:CD	2.39	0.43
35:BA:2141:G:O2'	35:BA:2142:C:H5'	2.19	0.43
46:DO:100:GLY:O	46:DO:101:PRO:O	2.36	0.43
41:BG:106:LEU:C	41:BG:106:LEU:HD12	2.39	0.43
50:DS:72:ALA:O	50:DS:76:LYS:HG3	2.18	0.43
41:BG:28:VAL:HA	41:BG:31:VAL:HG23	2.00	0.43
35:BA:2810:A:H2'	39:BE:61:ARG:HH21	1.78	0.43
57:DZ:165:VAL:CG1	57:DZ:166:SER:H	2.12	0.43
1:AA:1053:G:C4'	1:AA:1054:C:H5'	2.48	0.43
38:DD:24:ILE:HD12	38:DD:25:THR:CA	2.47	0.43
1:AA:1115:C:O2'	1:AA:1116:C:H5'	2.19	0.43
35:BA:1478:G:C2	35:BA:1479:G:C8	3.07	0.43
3:AC:6:HIS:HB3	14:AN:49:HIS:CD2	2.54	0.43
39:BE:92:THR:O	39:BE:94:GLU:N	2.52	0.43
43:DI:40:THR:O	43:DI:41:GLU:C	2.57	0.43
49:BR:104:ARG:CD	49:BR:109:ALA:HB3	2.42	0.43
35:DA:2809:A:N1	35:DA:2892:A:H1'	2.34	0.43
40:BF:132:VAL:HG13	40:BF:138:GLU:CD	2.39	0.43
35:DA:1465:G:H5'	35:DA:1528:A:H1'	2.01	0.43
38:DD:118:VAL:N	38:DD:129:ASN:OD1	2.48	0.43
8:CH:11:THR:CG2	8:CH:14:ARG:HH12	2.23	0.43
17:AQ:16:GLN:O	17:AQ:17:LYS:HB2	2.19	0.43
18:CR:38:GLU:HG3	18:CR:42:ARG:NE	2.34	0.43
17:AQ:4:LYS:HD3	17:AQ:5:VAL:H	1.84	0.43
2:CB:91:PRO:HB3	2:CB:155:LEU:HB2	2.01	0.43
4:CD:96:LEU:HB3	4:CD:139:ARG:NH1	2.32	0.43
1:AA:706:A:O4'	11:AK:29:ILE:HD13	2.18	0.43
56:BY:68:HIS:HB3	56:BY:71:LYS:HG2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:335:C:H2'	1:CA:336:C:C6	2.53	0.43
35:BA:1002:G:H2'	35:BA:1003:G:O4'	2.19	0.43
35:BA:746:A:HO2'	35:BA:2611:U:HO2'	1.67	0.43
11:AK:21:ILE:CD1	11:AK:30:VAL:HG12	2.49	0.43
35:DA:1963:U:O2	35:DA:1963:U:H2'	2.18	0.43
1:CA:965:A:C2	1:CA:969:A:C2	3.07	0.43
48:BQ:32:TYR:CE2	48:BQ:111:GLU:HG3	2.53	0.43
48:BQ:109:VAL:HG23	48:BQ:113:GLN:OE1	2.18	0.43
35:BA:440:G:H2'	35:BA:441:U:H6	1.84	0.43
10:AJ:58:ASP:O	10:AJ:59:SER:C	2.56	0.43
55:BX:63:LYS:O	55:BX:63:LYS:HG3	2.18	0.43
35:BA:1360:A:H5'	35:BA:1361:G:OP2	2.18	0.43
1:AA:245:C:O2	1:AA:283:C:N3	2.52	0.43
4:AD:24:GLU:O	4:AD:27:TYR:HB2	2.18	0.43
12:AL:108:LYS:O	12:AL:109:ASP:HB2	2.18	0.43
1:AA:1227:A:N3	19:AS:83:HIS:HB3	2.33	0.43
23:AX:23:A:C4'	23:AX:23:A:C8	3.02	0.43
22:AV:56:C:H1'	41:BG:76:SER:HB2	2.01	0.43
35:BA:774:A:H2	35:BA:787:U:O2'	1.80	0.43
1:CA:1308:U:H5''	13:CM:98:VAL:N	2.34	0.43
56:BY:76:CYS:HB3	56:BY:96:ILE:HD12	1.99	0.43
47:DP:35:HIS:O	47:DP:36:LYS:CB	2.67	0.43
52:BU:86:ALA:HB3	52:BU:88:ILE:HG12	2.01	0.43
57:DZ:141:VAL:HA	57:DZ:144:LEU:HD23	2.01	0.43
2:CB:233:SER:HB2	2:CB:234:PRO:HD2	2.01	0.43
31:B6:25:LYS:HE3	35:BA:2285:C:N4	2.34	0.43
1:CA:590:C:O2'	1:CA:591:U:H5'	2.18	0.43
47:DP:147:LEU:C	47:DP:149:GLU:H	2.22	0.43
46:BO:8:LEU:CD1	46:BO:82:ASN:HB3	2.49	0.43
51:BT:57:PHE:CD2	51:BT:58:ASN:N	2.77	0.43
26:B1:47:GLN:NE2	35:BA:2090:G:N2	2.67	0.43
3:CC:130:VAL:O	3:CC:130:VAL:HG12	2.18	0.43
3:CC:182:ILE:HG23	3:CC:202:ILE:N	2.33	0.43
6:AF:70:ASP:C	6:AF:72:VAL:H	2.21	0.43
43:BI:83:ALA:HB3	43:BI:144:VAL:HG13	1.99	0.43
1:AA:1149:C:OP1	9:AI:14:VAL:HG21	2.19	0.43
57:BZ:135:GLU:HB3	57:BZ:136:PHE:H	1.66	0.43
3:AC:119:ARG:HD3	3:AC:119:ARG:C	2.39	0.43
13:AM:16:ASP:OD2	13:AM:17:VAL:HG23	2.19	0.43
42:BH:157:TYR:CD1	42:BH:170:ARG:O	2.72	0.43
7:AG:150:ALA:HA	11:AK:59:TYR:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:58:PRO:HG2	11:AK:59:TYR:H	1.83	0.43
10:CJ:62:HIS:N	10:CJ:62:HIS:CD2	2.86	0.43
39:BE:111:ARG:HA	49:BR:2:ARG:HB3	2.01	0.43
38:BD:125:ILE:C	38:BD:126:GLN:HG3	2.39	0.43
1:CA:974:A:H8	1:CA:974:A:OP1	2.01	0.43
1:CA:947:G:H4'	1:CA:1332:A:C2	2.45	0.43
35:BA:2136:C:H2'	35:BA:2137:C:H5'	2.01	0.43
7:CG:26:PHE:HZ	7:CG:120:ILE:HG23	1.82	0.43
41:BG:60:LEU:O	41:BG:64:THR:HG22	2.18	0.43
50:DS:29:PHE:O	50:DS:35:ILE:HA	2.18	0.43
50:DS:90:GLY:C	50:DS:92:TYR:H	2.22	0.43
29:B4:15:ILE:O	29:B4:15:ILE:HG22	2.19	0.43
41:BG:16:ARG:HH21	41:BG:31:VAL:CB	2.24	0.43
8:AH:104:ARG:C	8:AH:106:GLY:H	2.22	0.43
1:AA:1370:G:O2'	1:AA:1371:G:H5'	2.19	0.43
22:CW:6:G:N2	22:CW:68:C:H41	2.05	0.43
35:DA:1826:G:H2'	35:DA:1827:C:H6	1.84	0.43
27:B2:44:LEU:N	27:B2:44:LEU:HD12	2.32	0.43
35:DA:2199:A:N3	35:DA:2199:A:H2'	2.33	0.43
45:BN:119:ARG:HH11	45:BN:119:ARG:HG3	1.84	0.43
35:BA:2199:A:N3	35:BA:2199:A:H2'	2.34	0.43
6:CF:10:LEU:HD13	6:CF:61:LEU:HD13	2.01	0.43
35:BA:2637:U:O2'	35:BA:2638:G:H5'	2.19	0.43
55:BX:55:ASN:HB2	55:BX:80:ILE:HG23	2.01	0.43
7:CG:77:SER:OG	22:CW:32:C:H5''	2.18	0.43
2:AB:118:LEU:O	2:AB:120:ALA:N	2.52	0.43
45:BN:25:ARG:CG	45:BN:25:ARG:NH1	2.80	0.43
46:BO:47:ILE:CG1	46:BO:48:PRO:HD2	2.45	0.43
35:BA:2809:A:N1	35:BA:2892:A:H1'	2.34	0.43
5:AE:126:ARG:NH1	5:AE:126:ARG:HG3	2.34	0.43
1:CA:662:G:H2'	1:CA:663:A:C8	2.53	0.43
1:AA:1423:G:H2'	1:AA:1424:C:H6	1.83	0.43
4:CD:18:LYS:HZ3	4:CD:31:CYS:CB	2.32	0.43
35:DA:953:A:C2'	35:DA:954:G:H5'	2.49	0.43
17:CQ:81:ARG:HD2	17:CQ:81:ARG:HA	1.87	0.43
35:BA:1491:G:O4'	38:BD:99:ASP:HB3	2.19	0.43
49:DR:85:PRO:O	49:DR:86:ARG:C	2.57	0.43
22:CV:8:U:C2	22:CV:15:G:C6	3.07	0.43
9:AI:128:ARG:HG2	9:AI:128:ARG:OXT	2.19	0.43
1:AA:542:G:O2'	1:AA:543:C:H5'	2.19	0.43
1:CA:129(A):G:H21	1:CA:189(F):U:H5''	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:310:A:P	56:DY:18:GLY:HA2	2.59	0.43
35:BA:2773:C:OP1	39:BE:164:ARG:NE	2.51	0.43
24:AY:2:PHE:O	24:AY:2:PHE:CD2	2.69	0.43
39:DE:119:ARG:HD2	39:DE:120:TRP:CD1	2.53	0.43
40:DF:182:ASN:ND2	40:DF:182:ASN:H	2.16	0.43
44:DJ:94:UNK:C	44:DJ:96:UNK:N	2.79	0.43
11:AK:57:THR:O	11:AK:60:ALA:HB3	2.19	0.43
57:DZ:103:ARG:HD2	57:DZ:136:PHE:CG	2.53	0.43
36:DB:87:G:H1	36:DB:91:C:N4	2.17	0.43
1:CA:1256:A:H2	1:CA:1277:C:C6	2.37	0.43
5:AE:64:ARG:NH1	5:AE:64:ARG:HG3	2.34	0.43
1:AA:596:C:H2'	1:AA:597:G:O4'	2.18	0.43
46:DO:10:VAL:HG21	46:DO:16:ALA:O	2.19	0.43
1:AA:1466:C:H2'	1:AA:1467:G:O4'	2.19	0.43
19:CS:67:VAL:HG23	19:CS:68:GLY:H	1.82	0.43
1:AA:1321:C:H5''	1:AA:1322:C:H2'	2.01	0.43
7:CG:83:ALA:HB1	22:CW:38:A:C2	2.54	0.43
1:AA:967:C:H4'	9:AI:125:TYR:OH	2.19	0.43
1:CA:902:G:H2'	1:CA:903:G:C8	2.54	0.43
57:DZ:107:THR:H	57:DZ:142:SER:HA	1.84	0.43
35:DA:579:G:H2'	35:DA:580:C:C6	2.53	0.43
35:DA:2543:G:H2'	35:DA:2544:G:C8	2.54	0.43
48:DQ:17:LEU:CD1	48:DQ:39:PRO:HB2	2.48	0.43
35:DA:1572:A:H2'	35:DA:1573:G:O4'	2.19	0.43
40:BF:183:VAL:O	40:BF:187:VAL:HG23	2.19	0.43
35:BA:735:A:C8	35:BA:736:C:C5	3.07	0.43
56:BY:91:GLU:HB3	56:BY:92:ASN:H	1.63	0.43
3:AC:67:THR:HG22	3:AC:69:HIS:CD2	2.54	0.43
11:CK:114:VAL:O	11:CK:114:VAL:HG13	2.19	0.43
35:DA:1788:C:O5'	35:DA:1788:C:H6	2.02	0.43
1:AA:355:C:H5'	1:AA:389:A:OP2	2.19	0.43
35:DA:781:A:H2	35:DA:1776:G:N3	2.17	0.43
35:BA:2415:G:H4'	47:BP:67:MET:N	2.33	0.43
1:CA:37:U:H2'	1:CA:38:G:C4'	2.46	0.43
1:CA:1397:C:H3'	1:CA:1397:C:H6	1.84	0.43
1:CA:1348:U:H4'	9:CI:120:ARG:NH1	2.33	0.43
9:CI:121:ARG:HH22	9:CI:124:GLN:HE22	1.67	0.43
10:CJ:58:ASP:O	10:CJ:59:SER:C	2.57	0.43
7:CG:85:TYR:HD1	7:CG:154:TYR:HE1	1.67	0.43
40:BF:3:GLU:O	40:BF:19:GLU:HA	2.19	0.43
40:BF:3:GLU:HA	40:BF:24:LEU:HB2	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2822:G:O6	49:DR:4:LEU:HD23	2.19	0.43
35:BA:663:G:C6	35:BA:664:C:C4	3.07	0.43
52:BU:95:LEU:C	52:BU:97:ASP:N	2.72	0.43
57:DZ:144:LEU:HG	57:DZ:150:LEU:CD2	2.40	0.43
35:DA:2360:A:O2'	35:DA:2361:A:H5''	2.19	0.43
35:DA:996:A:O2'	35:DA:997:G:H5'	2.19	0.43
52:DU:92:ARG:HH12	53:DV:10:LYS:HB3	1.83	0.43
57:BZ:124:ILE:CD1	57:BZ:155:LEU:HD11	2.48	0.43
57:BZ:97:GLU:HB3	57:BZ:125:LEU:CD2	2.45	0.43
35:BA:2359:C:O2'	35:BA:2360:A:H5'	2.19	0.43
50:BS:96:GLY:O	50:BS:98:VAL:N	2.52	0.43
31:D6:25:LYS:HE3	35:DA:2285:C:N4	2.34	0.43
47:DP:38:GLN:CG	47:DP:39:LYS:N	2.73	0.43
35:BA:1025:G:C4	35:BA:1135:C:H1'	2.54	0.43
33:B8:33:ASN:HB2	35:BA:2420:C:OP2	2.19	0.43
35:DA:1023:U:H2'	35:DA:1024:G:H5'	2.00	0.43
19:AS:13:ASP:O	19:AS:15:LEU:N	2.52	0.43
3:CC:93:LYS:NZ	3:CC:93:LYS:HB2	2.07	0.43
29:D4:15:ILE:HG22	29:D4:15:ILE:O	2.18	0.43
1:CA:1375:A:H4'	7:CG:29:LYS:NZ	2.34	0.43
48:DQ:26:TYR:HA	48:DQ:137:TYR:HD1	1.83	0.43
13:CM:15:VAL:HG22	13:CM:43:THR:O	2.19	0.43
19:AS:36:ARG:NE	19:AS:72:GLY:HA3	2.34	0.43
13:AM:17:VAL:C	13:AM:19:LEU:H	2.22	0.43
4:CD:173:TRP:O	4:CD:174:LEU:HD23	2.19	0.43
47:DP:17:LYS:C	47:DP:19:VAL:H	2.21	0.43
7:AG:85:TYR:HD1	7:AG:154:TYR:HE1	1.66	0.43
35:DA:64:A:H5'	55:DX:64:LYS:CE	2.38	0.43
39:BE:51:PHE:H	39:BE:74:PRO:CB	2.31	0.43
35:DA:2141:G:O2'	35:DA:2142:C:H5'	2.19	0.43
1:CA:1054:C:O2	1:CA:1054:C:H2'	2.18	0.43
29:D4:3:GLU:HA	29:D4:6:HIS:CE1	2.53	0.43
1:CA:979:C:H2'	1:CA:980:C:H5''	2.01	0.43
29:B4:3:GLU:HA	29:B4:6:HIS:HE1	1.84	0.43
35:DA:2767:C:C2	35:DA:2768:C:C5	3.07	0.43
7:AG:26:PHE:HZ	7:AG:120:ILE:HG23	1.84	0.43
52:BU:103:PRO:HD2	52:BU:104:GLN:HE22	1.83	0.43
1:AA:947:G:H2'	1:AA:948:C:H6	1.82	0.43
41:DG:12:TYR:HD2	41:DG:16:ARG:HD2	1.84	0.43
1:AA:1251:A:H5'	9:AI:12:GLU:HB3	1.99	0.43
1:AA:1116:C:O2'	9:AI:108:VAL:HG21	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:12:ARG:HH11	8:AH:26:VAL:HA	1.80	0.43
17:AQ:65:ILE:H	17:AQ:65:ILE:CD1	2.28	0.43
35:DA:620:G:H8	35:DA:622:G:O6	2.02	0.43
41:DG:161:THR:C	41:DG:163:ALA:H	2.22	0.43
5:CE:41:VAL:HG23	5:CE:67:VAL:HG11	2.01	0.43
2:CB:24:TRP:CG	2:CB:25:ASN:N	2.85	0.43
27:D2:16:LEU:HD22	27:D2:20:GLU:HB3	2.00	0.43
35:BA:272(E):G:C2	35:BA:364:C:N3	2.86	0.43
35:BA:1833:U:C2	35:BA:1834:U:C6	3.07	0.43
28:B3:39:ASP:O	28:B3:40:THR:C	2.55	0.43
18:AR:74:ARG:HA	18:AR:79:LEU:O	2.19	0.43
10:CJ:27:ALA:HA	10:CJ:30:SER:HB2	2.00	0.43
5:AE:111:GLU:C	5:AE:113:ALA:H	2.23	0.43
1:AA:662:G:H2'	1:AA:663:A:C8	2.54	0.43
35:DA:140:G:N3	35:DA:142:A:N1	2.67	0.43
35:DA:272(B):G:H1	35:DA:366:C:N4	2.16	0.43
1:AA:1006:C:H2'	1:AA:1007:C:C2	2.54	0.43
1:AA:386:C:H2'	1:AA:387:U:C5'	2.47	0.43
35:DA:2332:U:O5'	35:DA:2332:U:H6	2.01	0.43
40:BF:107:LYS:O	40:BF:108:LYS:C	2.57	0.43
40:BF:205:ARG:O	40:BF:206:ILE:HD13	2.18	0.43
1:AA:555:C:H2'	1:AA:556:C:C6	2.46	0.43
36:DB:35:U:H2'	36:DB:36:C:O4'	2.19	0.43
1:AA:324:G:N2	1:AA:327:A:C8	2.87	0.43
4:AD:184:LYS:HB3	4:AD:184:LYS:HZ3	1.82	0.43
35:DA:1926:U:H2'	35:DA:1928:A:OP2	2.18	0.43
8:AH:82:HIS:CE1	8:AH:84:ARG:HB2	2.54	0.43
35:BA:2257:U:H2'	35:BA:2258:C:C6	2.53	0.43
35:BA:2756:U:H4'	35:BA:2757:A:OP1	2.19	0.43
4:AD:96:LEU:HB3	4:AD:139:ARG:NH1	2.34	0.43
2:CB:107:THR:C	2:CB:109:SER:N	2.70	0.43
14:AN:21:TYR:CE2	14:AN:23:ARG:NH2	2.87	0.43
35:DA:171:G:H2'	35:DA:172:C:C6	2.53	0.43
15:AO:65:ARG:O	15:AO:68:ARG:N	2.52	0.43
5:AE:96:PRO:HA	5:AE:117:ASP:OD2	2.19	0.43
35:DA:812:C:H3'	47:DP:25:SER:OG	2.19	0.43
34:B9:22:ARG:NH1	35:BA:2741:A:H5''	2.34	0.43
1:AA:560:U:H4'	1:AA:561:U:H5''	1.99	0.43
35:BA:1547:C:H2'	35:BA:1548:C:C6	2.54	0.43
1:CA:300:A:H2	1:CA:566:G:O6	2.02	0.43
1:CA:300:A:H2'	1:CA:301:G:H5'	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1223:G:C5'	35:BA:1224:C:OP2	2.67	0.43
6:CF:100:ASN:ND2	18:CR:23:LYS:HZ2	2.16	0.43
35:BA:1514:U:H2'	35:BA:1515:G:C8	2.54	0.43
35:DA:2163:C:H5''	35:DA:2172:U:OP2	2.18	0.43
1:CA:1135:U:H4'	1:CA:1136:U:H5	1.83	0.43
35:DA:961:C:N4	35:DA:2031:A:H1'	2.33	0.43
38:BD:122:ASP:O	38:BD:123:ALA:O	2.37	0.43
1:CA:295:C:H2'	1:CA:296:U:C6	2.54	0.43
1:AA:1515:C:H2'	1:AA:1516:G:C8	2.53	0.43
32:B7:40:TRP:CD2	35:BA:459:U:H5''	2.53	0.43
35:DA:1144:G:H2'	35:DA:1145:C:H6	1.83	0.43
1:AA:915:A:H2'	1:AA:916:G:O4'	2.19	0.43
35:DA:2514:U:H2'	35:DA:2515:C:C6	2.53	0.43
1:CA:697:U:C2'	1:CA:698:G:H5'	2.49	0.43
35:DA:1588:C:H2'	35:DA:1589:C:H6	1.84	0.43
17:AQ:26:GLN:O	17:AQ:27:PHE:HB3	2.19	0.43
35:DA:321:G:H5'	40:DF:134:GLY:O	2.18	0.43
34:B9:15:LYS:HZ3	34:B9:26:ILE:HD11	1.83	0.43
1:CA:261:U:C5	20:CT:79:ARG:CZ	3.02	0.43
1:AA:594:G:H2'	1:AA:595:G:O4'	2.19	0.43
20:AT:72:LEU:CD1	20:AT:77:ALA:HA	2.49	0.43
1:AA:882:C:O2'	1:AA:883:C:H5'	2.19	0.43
49:DR:101:ALA:O	49:DR:102:GLU:HB2	2.18	0.43
48:DQ:89:ASN:HD22	48:DQ:89:ASN:HA	1.53	0.43
35:BA:2558:C:H2'	35:BA:2559:C:H6	1.84	0.43
13:CM:90:LEU:O	13:CM:98:VAL:HG21	2.19	0.42
56:DY:76:CYS:HB3	56:DY:96:ILE:HD11	2.01	0.42
22:CV:32:C:H2'	22:CV:33:U:H6	1.84	0.42
7:AG:79:ARG:HB2	7:AG:84:ASN:ND2	2.32	0.42
47:DP:35:HIS:O	47:DP:36:LYS:HB2	2.19	0.42
40:BF:198:ALA:C	40:BF:200:GLU:H	2.22	0.42
1:CA:633:G:O2'	1:CA:634:C:H5'	2.18	0.42
1:CA:1313:U:OP2	19:CS:6:LYS:HE2	2.19	0.42
35:DA:2360:A:O2'	35:DA:2361:A:H8	2.02	0.42
56:BY:38:ILE:CG2	56:BY:39:VAL:N	2.82	0.42
40:DF:118:ALA:HB2	40:DF:123:LEU:CD2	2.48	0.42
53:DV:48:GLY:O	53:DV:49:THR:HG23	2.19	0.42
57:BZ:125:LEU:O	57:BZ:165:VAL:HG23	2.19	0.42
57:BZ:171:ILE:CG1	57:BZ:172:ALA:H	2.32	0.42
57:BZ:2:GLU:O	57:BZ:56:VAL:O	2.37	0.42
33:B8:62:LEU:CD1	35:BA:242:G:H5''	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1485:G:N2	35:BA:1505:C:C6	2.82	0.42
1:CA:863:U:H2'	1:CA:865:A:OP2	2.19	0.42
10:AJ:70:ARG:HG2	10:AJ:70:ARG:HH11	1.83	0.42
2:CB:74:LYS:O	2:CB:76:GLN:N	2.52	0.42
15:CO:82:ILE:CG2	15:CO:83:GLU:H	2.29	0.42
47:BP:88:LEU:O	47:BP:90:ARG:N	2.52	0.42
41:DG:106:LEU:CD1	41:DG:107:LEU:HG	2.47	0.42
19:CS:62:ILE:O	19:CS:62:ILE:HG23	2.19	0.42
47:BP:94:GLU:HG2	47:BP:96:THR:HG23	2.01	0.42
8:CH:29:SER:O	8:CH:32:LYS:N	2.52	0.42
35:BA:2692:C:O2'	35:BA:2693:A:H5'	2.19	0.42
47:BP:7:ARG:O	47:BP:10:PRO:CG	2.66	0.42
2:AB:57:PHE:CE2	2:AB:185:ILE:HD11	2.53	0.42
1:CA:613:C:H2'	1:CA:614:A:C5'	2.36	0.42
43:BI:94:ALA:HB2	43:BI:116:LEU:HD23	2.01	0.42
43:BI:92:VAL:CG1	43:BI:120:ILE:HD12	2.49	0.42
4:AD:170:VAL:HG12	4:AD:171:GLY:N	2.34	0.42
3:AC:134:ILE:CG2	3:AC:151:VAL:HB	2.48	0.42
10:AJ:27:ALA:HA	10:AJ:30:SER:HB2	2.01	0.42
3:AC:32:LEU:O	3:AC:35:GLU:HB3	2.19	0.42
3:AC:59:ARG:HG2	3:AC:64:VAL:HA	2.01	0.42
12:CL:117:TYR:C	12:CL:119:THR:H	2.22	0.42
13:AM:13:LYS:O	13:AM:14:ARG:C	2.57	0.42
46:BO:101:PRO:O	46:BO:102:VAL:HG13	2.19	0.42
1:CA:1128:C:H1'	1:CA:1146:A:N6	2.25	0.42
35:DA:2845:G:O2'	35:DA:2846:G:H5'	2.18	0.42
1:CA:227:G:O2'	1:CA:228:A:H5'	2.19	0.42
1:CA:832:C:N4	1:CA:855:G:O6	2.52	0.42
31:B6:30:THR:O	31:B6:32:ASN:N	2.52	0.42
36:DB:42:C:N4	41:DG:91:ARG:NH2	2.66	0.42
41:BG:4:ASP:HA	41:BG:8:LYS:HD3	2.01	0.42
35:DA:2810:A:H2'	39:DE:61:ARG:HH21	1.79	0.42
54:DW:111:HIS:C	54:DW:113:LYS:H	2.22	0.42
45:DN:34:LEU:HD13	45:DN:34:LEU:HA	1.58	0.42
3:CC:9:GLY:CA	14:CN:49:HIS:HA	2.48	0.42
46:DO:90:GLN:N	46:DO:90:GLN:CD	2.73	0.42
2:AB:137:ARG:NH1	2:AB:141:GLU:HB2	2.34	0.42
9:CI:98:PRO:O	9:CI:99:LEU:HD22	2.19	0.42
3:CC:195:VAL:HG12	3:CC:196:LEU:N	2.33	0.42
1:CA:1241:G:H1	1:CA:1296:C:N4	2.17	0.42
26:D1:3:LYS:HD2	26:D1:3:LYS:HA	1.81	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:235:C:H2'	1:AA:236:G:C8	2.48	0.42
35:BA:2406:U:N3	47:BP:72:PRO:HG2	2.34	0.42
1:CA:96:U:HO2'	1:CA:97:G:P	2.42	0.42
34:B9:34:GLN:O	34:B9:35:ARG:HB2	2.19	0.42
22:CW:42:G:O2'	22:CW:43:A:H5'	2.19	0.42
9:CI:37:PHE:CE1	9:CI:74:ILE:HG12	2.54	0.42
4:CD:36:ARG:HH11	4:CD:36:ARG:HG2	1.83	0.42
22:CV:59:A:H2'	22:CV:60:U:C5'	2.47	0.42
1:AA:775:G:H2'	1:AA:776:G:H8	1.84	0.42
35:DA:2803:C:H2'	35:DA:2804:C:C6	2.54	0.42
35:DA:486:C:H4'	54:DW:60:ASN:HD21	1.83	0.42
7:CG:136:LYS:HB3	7:CG:136:LYS:NZ	2.33	0.42
35:BA:235:U:H2'	35:BA:236:C:C6	2.54	0.42
39:BE:65:GLY:HA2	39:BE:70:ALA:HB1	2.00	0.42
44:BJ:72:UNK:C	44:BJ:74:UNK:N	2.82	0.42
4:CD:137:SER:O	4:CD:138:TYR:C	2.57	0.42
35:DA:405:U:H3'	35:DA:406:G:C5'	2.50	0.42
4:AD:150:GLU:C	4:AD:152:SER:N	2.73	0.42
35:DA:2748:A:C6	35:DA:2749:A:C5	3.07	0.42
5:AE:75:THR:HG21	5:AE:94:ALA:O	2.19	0.42
35:BA:1790:C:H5''	35:BA:1791:A:OP1	2.19	0.42
44:DJ:97:UNK:HA	44:DJ:133:UNK:N	2.34	0.42
35:BA:2578:G:H4'	35:BA:2578:G:OP2	2.19	0.42
35:DA:1820:U:O2	38:DD:201:HIS:HB3	2.19	0.42
1:AA:1256:A:H2	1:AA:1277:C:C6	2.37	0.42
35:DA:826:U:H4'	47:DP:55:ARG:CB	2.49	0.42
35:DA:1688:U:H5'	35:DA:1689:A:OP1	2.19	0.42
40:BF:20:LEU:O	40:BF:21:ALA:O	2.37	0.42
35:BA:1270:C:H5''	35:BA:1271:G:H5'	2.00	0.42
35:BA:2410:G:N2	35:BA:2411:A:H1'	2.34	0.42
35:DA:71:A:H5''	35:DA:73:A:C8	2.54	0.42
1:AA:977:A:H2'	1:AA:978:A:H5'	1.99	0.42
1:AA:968:A:H4'	1:AA:969:A:OP2	2.18	0.42
35:BA:221:A:N6	35:BA:265:A:C8	2.84	0.42
35:DA:264:C:O2'	35:DA:265:A:H2'	2.19	0.42
9:CI:114:TYR:HD2	9:CI:114:TYR:N	2.17	0.42
35:BA:21:A:H2'	35:BA:22:C:C6	2.54	0.42
35:DA:84:A:H2	35:DA:98:G:N3	2.17	0.42
5:AE:153:LYS:O	5:AE:155:GLU:N	2.52	0.42
1:AA:853:G:O2'	1:AA:854:G:H5'	2.19	0.42
35:DA:357:A:H2'	35:DA:358:U:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1544:A:H2	35:DA:1545:A:C2	2.37	0.42
3:AC:108:ASN:OD1	3:AC:110:ASN:HB2	2.19	0.42
35:DA:1368:G:H2'	35:DA:1369:G:H8	1.83	0.42
35:DA:2582:G:O2'	35:DA:2583:G:H5'	2.19	0.42
35:BA:1129:A:C2	35:BA:2569:G:N3	2.87	0.42
6:CF:30:LEU:H	6:CF:30:LEU:HD23	1.83	0.42
53:BV:69:LYS:HA	53:BV:88:ARG:HG2	2.01	0.42
48:BQ:38:GLU:HG3	48:BQ:127:ILE:HG22	1.99	0.42
1:AA:1492:A:N6	12:AL:43:LYS:O	2.52	0.42
33:B8:25:MET:SD	47:BP:64:LYS:HD2	2.59	0.42
22:CV:52:G:C2'	22:CV:53:G:H5'	2.47	0.42
35:DA:1276:A:O2'	49:DR:16:HIS:HE1	2.03	0.42
58:CX:15:A:O2'	58:CX:16:A:P	2.76	0.42
35:DA:2822:G:OP2	49:DR:5:LYS:NZ	2.51	0.42
35:BA:1533:G:O2'	35:BA:1543:C:OP1	2.37	0.42
35:BA:996:A:H4'	52:BU:92:ARG:NE	2.34	0.42
52:BU:93:LYS:H	52:BU:93:LYS:CD	2.32	0.42
33:D8:61:LEU:C	33:D8:63:PRO:CD	2.86	0.42
50:BS:29:PHE:O	50:BS:35:ILE:HA	2.18	0.42
40:DF:122:LYS:HD2	40:DF:191:ARG:HG2	2.02	0.42
53:DV:52:VAL:HG13	53:DV:55:ALA:HB3	1.96	0.42
57:BZ:29:TYR:HA	57:BZ:33:LEU:O	2.18	0.42
12:CL:80:VAL:CG2	12:CL:81:LEU:N	2.82	0.42
35:DA:2014:A:H2'	35:DA:2015:A:C8	2.53	0.42
50:BS:14:VAL:O	50:BS:16:ASN:N	2.52	0.42
5:AE:106:PRO:O	5:AE:110:LEU:HG	2.19	0.42
2:AB:104:ASN:OD1	2:AB:104:ASN:O	2.37	0.42
2:AB:51:LEU:HD22	2:AB:55:PHE:HE2	1.84	0.42
41:DG:41:GLN:HB2	41:DG:43:LEU:CD1	2.49	0.42
9:CI:50:LEU:HD21	9:CI:81:ILE:CG2	2.49	0.42
9:CI:77:ILE:O	9:CI:81:ILE:HG13	2.19	0.42
35:BA:2844:G:H3'	35:BA:2845:G:H8	1.84	0.42
47:BP:7:ARG:HB2	47:BP:8:PRO:CD	2.50	0.42
10:CJ:34:VAL:HG13	10:CJ:73:ASP:O	2.18	0.42
25:B0:67:VAL:HG12	25:B0:68:GLU:N	2.33	0.42
35:BA:857:C:N3	35:BA:858:U:C5	2.87	0.42
39:BE:4:ILE:HG12	39:BE:5:LEU:N	2.33	0.42
1:CA:1445:C:N4	1:CA:1458:G:N1	2.65	0.42
39:BE:111:ARG:NE	49:BR:2:ARG:CZ	2.82	0.42
3:CC:53:ALA:HB2	3:CC:115:LEU:HG	2.01	0.42
29:D4:6:HIS:HB2	29:D4:7:PRO:CD	2.41	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:52:ARG:HG2	38:BD:52:ARG:H	1.40	0.42
18:CR:67:ALA:O	18:CR:68:LYS:C	2.56	0.42
30:D5:16:ARG:HD2	30:D5:20:ARG:NH2	2.34	0.42
35:BA:1578:U:H2'	35:BA:1579:A:C5'	2.49	0.42
35:BA:2811:G:O2'	35:BA:2812:G:H5'	2.18	0.42
35:BA:542:C:C2'	35:BA:543:C:OP1	2.67	0.42
35:BA:2801(A):A:H4'	35:BA:2802:G:C2'	2.48	0.42
1:AA:1054:C:OP1	1:AA:1198:G:OP2	2.37	0.42
40:BF:164:ARG:HG2	40:BF:164:ARG:NH1	2.34	0.42
35:DA:2136:C:H2'	35:DA:2137:C:H5'	2.01	0.42
1:AA:1116:C:H2'	1:AA:1117:G:C4'	2.49	0.42
9:AI:10:ARG:HA	9:AI:104:ARG:NH1	2.34	0.42
53:BV:1:MET:CB	53:BV:99:ILE:HG13	2.49	0.42
6:AF:10:LEU:HD13	6:AF:61:LEU:HD13	2.01	0.42
3:CC:15:THR:CG2	3:CC:16:ARG:N	2.82	0.42
46:DO:86:ILE:CG2	46:DO:94:ARG:HD3	2.49	0.42
17:AQ:45:HIS:NE2	17:AQ:47:PRO:HD3	2.34	0.42
35:DA:621:A:C2'	35:DA:622:G:H5'	2.49	0.42
40:DF:132:VAL:HG13	40:DF:138:GLU:CD	2.40	0.42
47:BP:75:ILE:CD1	47:BP:75:ILE:H	2.17	0.42
1:CA:1057:G:H5''	3:CC:154:SER:OG	2.19	0.42
38:DD:129:ASN:O	38:DD:193:VAL:HG12	2.19	0.42
5:AE:7:GLU:HG2	5:AE:112:LEU:HD22	2.01	0.42
35:BA:782:A:O2'	35:BA:1788:C:H4'	2.19	0.42
28:D3:40:THR:CG2	28:D3:43:ILE:HD13	2.49	0.42
49:BR:85:PRO:O	49:BR:86:ARG:C	2.57	0.42
39:BE:101:ARG:HB2	39:BE:201:THR:HG21	2.00	0.42
20:CT:67:ALA:HB2	20:CT:77:ALA:CB	2.50	0.42
31:D6:15:GLU:OE2	31:D6:43:CYS:CB	2.64	0.42
1:AA:421:U:C2'	1:AA:421:U:O2	2.62	0.42
16:CP:74:LEU:HB2	16:CP:80:PHE:CE1	2.54	0.42
27:D2:35:LEU:HD11	27:D2:53:LEU:HD12	2.00	0.42
13:AM:97:PRO:O	13:AM:98:VAL:HA	2.18	0.42
3:CC:33:LEU:HD11	14:CN:53:LEU:CD2	2.49	0.42
28:D3:6:VAL:HG12	28:D3:56:VAL:CG1	2.45	0.42
3:AC:33:LEU:HD11	14:AN:53:LEU:CD2	2.46	0.42
49:DR:82:GLU:O	49:DR:86:ARG:HG3	2.19	0.42
42:DH:30:LYS:HE3	42:DH:81:GLU:HG3	1.98	0.42
1:CA:575:G:H4'	1:CA:576:G:C5'	2.49	0.42
35:BA:2166:G:H2'	35:BA:2167:U:H5'	2.01	0.42
11:AK:101:SER:OG	11:AK:103:LEU:HD23	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2262:U:H4'	35:BA:2328:A:H2	1.84	0.42
26:D1:40:ARG:HB2	26:D1:40:ARG:HE	1.54	0.42
35:DA:1858:G:H2'	35:DA:1883:G:H22	1.85	0.42
35:BA:1790:C:C5	35:BA:1828:G:C2	3.06	0.42
11:AK:77:MET:CG	11:AK:80:VAL:HG11	2.50	0.42
4:CD:158:ILE:HG23	4:CD:162:LEU:HD11	2.02	0.42
1:CA:166:G:H2'	1:CA:167:G:C8	2.54	0.42
35:BA:360:G:H2'	35:BA:361:G:H8	1.83	0.42
35:BA:2134:A:N6	35:BA:2158:A:C4	2.87	0.42
35:BA:2502:G:H5''	35:BA:2503:A:H5''	2.00	0.42
29:B4:22:ILE:HG22	29:B4:23:GLU:N	2.34	0.42
35:DA:520:G:O2'	35:DA:521:G:H5'	2.19	0.42
35:DA:1514:U:H2'	35:DA:1515:G:C8	2.55	0.42
1:CA:131:C:H2'	1:CA:132:C:H6	1.84	0.42
3:CC:78:GLY:O	3:CC:79:ARG:CB	2.66	0.42
35:BA:69:C:O2'	35:BA:70:G:H5'	2.19	0.42
30:D5:40:LYS:HB2	30:D5:41:PRO:HD2	2.00	0.42
35:DA:225:A:H2'	35:DA:226:G:H5'	2.01	0.42
42:DH:163:TYR:N	42:DH:163:TYR:HD1	2.17	0.42
35:BA:1963:U:H2'	35:BA:1963:U:O2	2.19	0.42
35:BA:475:U:H4'	35:BA:510:C:H5'	2.01	0.42
14:CN:17:LYS:O	14:CN:19:ARG:N	2.53	0.42
35:DA:2123:G:O2'	35:DA:2124:G:H5'	2.20	0.42
35:BA:527:C:C5	35:BA:2779:U:H2'	2.53	0.42
35:DA:1362:C:O2'	35:DA:1363:C:H5'	2.19	0.42
24:CY:12:ALA:HA	24:CY:13:PRO:HD3	1.81	0.42
48:DQ:57:HIS:NE2	48:DQ:116:GLU:HB3	2.34	0.42
10:AJ:22:LYS:HB3	10:AJ:22:LYS:HE3	1.87	0.42
26:D1:85:LEU:O	26:D1:86:SER:HB3	2.18	0.42
35:BA:2850:A:H2'	35:BA:2851:A:C8	2.54	0.42
35:DA:1520:G:H2'	35:DA:1523:U:O4'	2.19	0.42
35:DA:251:A:H5''	47:DP:51:PHE:HE2	1.84	0.42
35:DA:643:A:C2	35:DA:644:A:C4	3.07	0.42
51:BT:114:LEU:O	51:BT:115:ARG:O	2.38	0.42
8:AH:102:ARG:N	8:AH:102:ARG:HD3	2.33	0.42
54:DW:22:ASP:HA	54:DW:25:ARG:NH1	2.34	0.42
47:BP:62:LEU:HA	47:BP:63:PRO:HD3	1.73	0.42
22:CV:55:U:C4	22:CV:57:A:C5'	2.99	0.42
35:DA:1917:U:H2'	35:DA:1918:A:H5'	2.01	0.42
1:CA:1401:G:C2	1:CA:1402:C:H1'	2.55	0.42
56:BY:81:LYS:HE2	56:BY:97:ARG:NH2	2.31	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1505:G:O3'	58:CX:15:A:OP2	2.38	0.42
42:DH:83:TYR:CD1	42:DH:134:SER:HA	2.54	0.42
53:BV:45:THR:O	53:BV:46:VAL:CG1	2.67	0.42
35:DA:2360:A:HO2'	35:DA:2361:A:H8	1.68	0.42
50:BS:28:VAL:HG12	50:BS:89:ARG:CD	2.49	0.42
40:DF:3:GLU:N	40:DF:24:LEU:HG	2.35	0.42
40:DF:3:GLU:HA	40:DF:24:LEU:CB	2.50	0.42
50:DS:96:GLY:O	50:DS:98:VAL:N	2.52	0.42
5:CE:103:GLY:O	5:CE:105:VAL:N	2.52	0.42
1:AA:939:G:C6	1:AA:940:C:N4	2.87	0.42
1:CA:865:A:O2'	1:CA:919:A:H4'	2.19	0.42
2:CB:166:ASP:OD2	2:CB:167:PRO:HD2	2.17	0.42
33:B8:30:ARG:HA	33:B8:30:ARG:HD3	1.54	0.42
19:CS:60:VAL:HG13	19:CS:60:VAL:O	2.18	0.42
6:CF:69:GLU:HG2	6:CF:70:ASP:N	2.23	0.42
46:BO:24:VAL:HG13	46:BO:24:VAL:O	2.19	0.42
51:DT:36:GLU:O	51:DT:38:ASN:ND2	2.53	0.42
1:CA:1280:A:C8	10:CJ:41:PRO:HD3	2.54	0.42
35:DA:1593:G:O2'	35:DA:1594:G:H5'	2.19	0.42
4:AD:147:ALA:HB2	4:AD:182:LYS:HG2	2.01	0.42
43:DI:120:ILE:HG22	43:DI:122:GLU:H	1.84	0.42
9:AI:28:VAL:HG11	9:AI:65:VAL:HG12	2.01	0.42
29:B4:35:VAL:HG12	29:B4:36:CYS:H	1.83	0.42
39:DE:34:VAL:HG13	39:DE:48:GLN:HE21	1.85	0.42
57:BZ:9:TYR:CZ	57:BZ:61:LEU:HD13	2.54	0.42
1:CA:1130:A:N6	1:CA:1143:G:N2	2.67	0.42
39:BE:64:LYS:C	39:BE:66:HIS:H	2.15	0.42
25:D0:67:VAL:HG12	25:D0:68:GLU:N	2.33	0.42
20:AT:13:LEU:CD1	20:AT:17:ARG:HH12	2.26	0.42
41:BG:155:MET:CE	41:BG:157:ILE:HG13	2.49	0.42
41:BG:68:PRO:HA	41:BG:92:VAL:HB	2.01	0.42
50:DS:92:TYR:O	50:DS:94:TYR:N	2.52	0.42
35:DA:1020:A:N1	35:DA:1141:U:H1'	2.34	0.42
27:B2:43:GLN:HB3	27:B2:44:LEU:H	1.39	0.42
43:DI:8:PRO:HB3	43:DI:15:VAL:H	1.84	0.42
21:CU:20:LYS:C	21:CU:22:ARG:N	2.73	0.42
1:CA:1437:C:H6	1:CA:1438:G:N7	2.17	0.42
46:BO:87:ILE:CG2	46:BO:88:ASN:N	2.83	0.42
35:DA:2579:C:C1'	39:DE:134:ILE:HD13	2.49	0.42
35:DA:2807:G:C2'	35:DA:2808:U:H5''	2.48	0.42
35:BA:620:G:H8	35:BA:622:G:O6	2.03	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:CP:28:ARG:NH1	16:CP:28:ARG:HG2	2.34	0.42
18:AR:83:GLU:O	18:AR:84:LYS:O	2.37	0.42
16:AP:4:ILE:N	16:AP:65:GLN:O	2.46	0.42
55:DX:55:ASN:HB2	55:DX:80:ILE:HG23	2.01	0.42
28:D3:28:LEU:N	28:D3:28:LEU:CD2	2.83	0.42
18:CR:74:ARG:HA	18:CR:79:LEU:O	2.19	0.42
35:BA:1107:G:O2'	35:BA:1108:U:H5'	2.19	0.42
35:DA:950:G:O2'	35:DA:951:C:H5'	2.18	0.42
1:CA:1421:G:C4	1:CA:1480:G:N2	2.87	0.42
22:AW:19:G:H1	35:BA:2112:G:C1'	2.33	0.42
35:DA:235:U:H2'	35:DA:236:C:C6	2.54	0.42
1:CA:324:G:N2	1:CA:327:A:C8	2.87	0.42
1:AA:543:C:C2	1:AA:544:G:C8	3.07	0.42
16:AP:75:ARG:HG3	16:AP:75:ARG:NH1	2.32	0.42
35:DA:1169:G:H1	35:DA:1180:C:N4	2.16	0.42
16:CP:75:ARG:NH1	16:CP:75:ARG:HG3	2.32	0.42
35:DA:2328:A:H2'	35:DA:2329:G:C8	2.55	0.42
8:AH:77:GLU:CG	8:AH:78:GLN:H	2.31	0.42
35:DA:2747:G:O6	35:DA:2755:C:H5''	2.19	0.42
15:AO:12:ILE:O	15:AO:14:GLU:N	2.47	0.42
35:DA:639:U:C2	35:DA:640:C:C5	3.07	0.42
5:CE:75:THR:HG21	5:CE:94:ALA:O	2.18	0.42
35:BA:814:C:H5	47:BP:27:HIS:CG	2.37	0.42
51:BT:50:ILE:CG2	51:BT:62:THR:HB	2.48	0.42
35:BA:1835:G:H2'	35:BA:1836:C:C6	2.55	0.42
35:BA:412:A:H2'	35:BA:413:C:H5'	2.00	0.42
35:BA:1512:U:H2'	35:BA:1513:C:C6	2.54	0.42
7:CG:107:ALA:HB2	7:CG:134:ALA:HB2	2.00	0.42
35:DA:1809:A:H2'	35:DA:1810:A:C8	2.55	0.42
35:DA:412:A:H2'	35:DA:413:C:H5'	2.01	0.42
1:AA:853:G:H2'	1:AA:854:G:H8	1.83	0.42
35:BA:1446:C:O2'	35:BA:1447:G:H5'	2.19	0.42
42:BH:119:GLU:HG2	42:BH:120:GLY:N	2.33	0.42
1:CA:746:A:O2'	1:CA:747:C:H5'	2.20	0.42
44:DJ:49:UNK:C	44:DJ:51:UNK:N	2.83	0.42
35:BA:1596:A:O2'	35:BA:1597:A:H5'	2.18	0.42
35:BA:2438:U:O3'	35:BA:2439:A:H3'	2.19	0.42
4:AD:90:GLY:HA2	4:AD:204:ILE:HD11	2.01	0.42
32:B7:3:ARG:HD3	32:B7:3:ARG:HA	1.81	0.42
35:BA:2272:U:H5''	35:BA:2273:A:OP1	2.19	0.42
52:BU:87:GLY:C	52:BU:89:GLU:H	2.21	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:509:A:H5'	4:CD:54:TYR:HD2	1.83	0.42
1:CA:414:A:C2	1:CA:415:A:H1'	2.54	0.42
24:AY:38:GLY:HA2	24:AY:39:LYS:CD	2.42	0.42
24:AY:39:LYS:O	24:AY:40:ARG:C	2.58	0.42
24:AY:83:LEU:O	24:AY:84:LYS:HD2	2.14	0.42
35:DA:1915:U:H5	35:DA:1916:A:N7	2.04	0.42
1:CA:1374:A:H1'	7:CG:31:MET:CE	2.49	0.42
56:BY:81:LYS:CE	56:BY:97:ARG:HE	2.29	0.42
56:DY:81:LYS:HD3	56:DY:96:ILE:CG2	2.48	0.42
56:DY:95:LYS:CE	56:DY:99:CYS:O	2.67	0.42
42:DH:117:PRO:HB3	42:DH:123:PHE:HE1	1.84	0.42
56:BY:29:GLU:OE2	56:BY:38:ILE:HG21	2.19	0.42
52:DU:95:LEU:C	52:DU:97:ASP:N	2.72	0.42
53:DV:49:THR:CB	53:DV:50:PRO:CD	2.89	0.42
5:CE:11:ILE:CG2	5:CE:105:VAL:HG22	2.44	0.42
42:BH:83:TYR:CD1	42:BH:134:SER:HA	2.54	0.42
38:BD:245:PRO:O	38:BD:246:PRO:C	2.57	0.42
1:AA:632:A:H3'	1:AA:633:G:H5'	2.02	0.42
35:BA:1485:G:H2'	35:BA:1486:A:H8	1.83	0.42
12:CL:87:VAL:O	12:CL:87:VAL:HG12	2.19	0.42
2:CB:213:LEU:C	2:CB:213:LEU:HD23	2.39	0.42
57:DZ:37:VAL:O	57:DZ:38:TYR:CB	2.67	0.42
57:DZ:5:LEU:CD1	57:DZ:44:PHE:HA	2.49	0.42
2:AB:213:LEU:C	2:AB:213:LEU:HD23	2.39	0.42
19:AS:60:VAL:O	19:AS:60:VAL:HG13	2.19	0.42
19:CS:40:ILE:HD12	19:CS:62:ILE:CD1	2.48	0.42
35:DA:195:A:C8	35:DA:197:A:OP1	2.73	0.42
1:CA:738:C:H2'	1:CA:739:C:H6	1.84	0.42
35:BA:2694:G:O2'	35:BA:2695:C:H5'	2.20	0.42
19:AS:72:GLY:C	19:AS:74:PHE:N	2.73	0.42
10:AJ:78:ASN:HB2	10:AJ:81:THR:HB	2.01	0.42
35:DA:2679:A:C2	35:DA:2680:C:C2	3.08	0.42
37:BC:36:LYS:O	37:BC:37:PHE:HB2	2.19	0.42
39:DE:5:LEU:HD12	39:DE:51:PHE:HB2	2.00	0.42
39:DE:63:LEU:O	39:DE:64:LYS:C	2.57	0.42
47:BP:17:LYS:C	47:BP:19:VAL:H	2.22	0.42
1:CA:1142:G:C2'	1:CA:1143:G:H5'	2.50	0.42
1:CA:1445:C:H2'	1:CA:1446:U:O4'	2.18	0.42
1:AA:1130:A:H61	1:AA:1143:G:N2	2.17	0.42
35:BA:596:G:H2'	35:BA:597:U:O4'	2.18	0.42
46:DO:47:ILE:CG1	46:DO:48:PRO:HD2	2.43	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D1:8:SER:HB3	26:D1:66:HIS:CD2	2.54	0.42
35:DA:857:C:O2'	35:DA:858:U:H5'	2.19	0.42
38:BD:118:VAL:N	38:BD:129:ASN:OD1	2.49	0.42
49:BR:100:LEU:N	49:BR:100:LEU:CD1	2.83	0.42
41:BG:99:MET:HG3	41:BG:100:TRP:N	2.34	0.42
35:DA:2376:A:N6	50:DS:92:TYR:HE2	2.17	0.42
45:BN:46:VAL:O	45:BN:47:ALA:HB3	2.19	0.42
57:DZ:166:SER:OG	57:DZ:168:GLU:N	2.52	0.42
52:DU:72:HIS:HE1	52:DU:107:ALA:HB2	1.85	0.42
1:AA:1305:G:H22	1:AA:1331:G:C1'	2.29	0.42
15:AO:53:HIS:O	15:AO:56:LEU:HB3	2.20	0.42
54:DW:62:HIS:O	54:DW:63:ASP:C	2.57	0.42
36:DB:55:U:HO2'	36:DB:56:G:H5'	1.84	0.42
45:BN:66:LYS:O	45:BN:70:LYS:HB3	2.18	0.42
48:DQ:35:VAL:HG22	48:DQ:36:ALA:N	2.34	0.42
39:DE:1:MET:HE2	39:DE:83:ASP:O	2.19	0.42
45:BN:119:ARG:CG	45:BN:119:ARG:NH1	2.81	0.42
46:DO:86:ILE:HG22	46:DO:87:ILE:N	2.34	0.42
21:CU:20:LYS:O	21:CU:22:ARG:N	2.50	0.42
6:CF:8:ILE:HG22	6:CF:9:VAL:N	2.33	0.42
1:CA:254:G:OP1	17:CQ:67:LYS:O	2.38	0.42
35:DA:659:C:O4'	40:DF:102:PRO:HD3	2.19	0.42
22:CW:26:G:H3'	22:CW:27:U:C6	2.53	0.42
5:CE:36:ASP:OD1	5:CE:38:GLN:HB2	2.20	0.42
35:BA:140:G:N3	35:BA:142:A:N1	2.67	0.42
35:BA:271(A):A:N7	35:BA:271(W):G:N2	2.67	0.42
7:CG:40:ALA:O	7:CG:41:ARG:C	2.58	0.42
35:DA:1448:G:N3	35:DA:1528(A):A:H2	2.16	0.42
39:DE:103:ASP:OD2	39:DE:202:LYS:HD2	2.19	0.42
1:AA:1165:C:H42	1:AA:1171:G:H22	1.66	0.42
6:AF:46:ARG:NH2	18:AR:37:VAL:HG23	2.35	0.42
35:DA:2740:A:H2'	35:DA:2741:A:C8	2.54	0.42
9:CI:70:LYS:O	9:CI:74:ILE:HG13	2.19	0.42
1:AA:971:G:C8	1:AA:1365:G:H4'	2.55	0.42
39:BE:41:LYS:HZ3	39:BE:41:LYS:HB2	1.82	0.42
38:DD:147:LEU:HD12	38:DD:155:LEU:CD2	2.49	0.42
12:CL:19:SER:C	12:CL:21:VAL:H	2.21	0.42
22:CV:12:G:C6	22:CV:13:C:C5	3.07	0.42
35:BA:1721:G:H8	35:BA:1741:A:N6	2.16	0.42
7:CG:132:GLY:H	7:CG:135:VAL:CB	2.33	0.42
53:DV:21:ARG:HB2	53:DV:21:ARG:CZ	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AW:25:C:H2'	22:AW:26:G:H8	1.84	0.42
35:DA:2533:A:H2'	35:DA:2534:A:C5'	2.48	0.42
41:BG:38:VAL:O	41:BG:38:VAL:HG13	2.20	0.42
14:CN:21:TYR:CE2	14:CN:23:ARG:NH2	2.87	0.42
49:DR:45:ARG:O	49:DR:46:GLY:C	2.56	0.42
35:BA:2772:C:H2'	35:BA:2773:C:C6	2.55	0.42
35:DA:605:C:H1'	35:DA:657:U:O2'	2.19	0.42
35:DA:243:U:C2'	35:DA:244:A:H5'	2.49	0.42
36:DB:2:C:H2'	36:DB:3:C:H6	1.84	0.42
35:BA:1688:U:O2	35:BA:1700:A:C8	2.72	0.42
1:AA:300:A:H2'	1:AA:301:G:O4'	2.19	0.42
1:AA:189(C):C:H2'	1:AA:189(D):C:C6	2.54	0.42
35:DA:229:A:H3'	35:DA:230:U:H5'	2.00	0.42
47:DP:123:LEU:HD12	47:DP:123:LEU:O	2.19	0.42
35:DA:574:C:N3	39:DE:145:LYS:HE3	2.35	0.42
40:BF:36:VAL:HG11	40:BF:183:VAL:HG11	2.00	0.42
35:DA:82:G:N1	35:DA:103:A:OP2	2.51	0.42
35:BA:1469:A:H2'	35:BA:1470:G:H8	1.84	0.42
30:B5:26:THR:HG22	30:B5:27:PRO:O	2.19	0.42
5:CE:153:LYS:O	5:CE:155:GLU:N	2.52	0.42
35:BA:414:C:H2'	35:BA:415:A:C8	2.54	0.42
18:AR:34:TYR:HD1	18:AR:34:TYR:O	2.02	0.42
57:DZ:100:VAL:O	57:DZ:100:VAL:HG23	2.19	0.42
7:AG:60:LYS:HD2	7:AG:63:LYS:HB3	2.00	0.42
23:AX:22:A:C3'	23:AX:22:A:C4	3.02	0.42
35:DA:866:A:N3	35:DA:866:A:C2'	2.81	0.42
22:CV:19:G:H4'	22:CV:20:U:OP1	2.20	0.42
9:CI:118:LYS:CB	9:CI:118:LYS:NZ	2.82	0.42
23:AX:12:A:C2'	23:AX:13:A:OP2	2.67	0.42
35:BA:1530:C:O2'	35:BA:1531:C:OP2	2.30	0.42
1:AA:628:G:H2'	1:AA:629:G:O4'	2.18	0.42
51:BT:27:THR:O	51:BT:47:GLY:O	2.38	0.42
33:D8:7:HIS:HB2	33:D8:59:LYS:HB3	2.02	0.42
50:BS:88:ASP:OD2	50:BS:89:ARG:N	2.52	0.42
56:BY:7:VAL:CB	56:BY:8:LYS:HZ1	2.32	0.42
40:DF:114:VAL:HG11	40:DF:202:PHE:CE2	2.54	0.42
40:DF:3:GLU:O	40:DF:19:GLU:HB3	2.19	0.42
52:DU:90:VAL:CG2	53:DV:39:LEU:HG	2.49	0.42
1:CA:4:U:OP2	4:CD:86:LYS:CG	2.67	0.42
5:CE:100:VAL:HG12	5:CE:118:ILE:HG22	2.02	0.42
5:CE:31:LEU:CD1	5:CE:43:LEU:HD11	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:117:PRO:HB3	42:BH:123:PHE:HE1	1.84	0.42
35:DA:867:C:N4	35:DA:912:C:C2'	2.78	0.42
1:CA:33:A:HO2'	1:CA:34:C:P	2.31	0.42
33:D8:33:ASN:HB2	35:DA:2420:C:OP2	2.19	0.42
40:DF:68:LYS:HB3	40:DF:69:HIS:H	1.26	0.42
1:CA:572:A:HO2'	1:CA:916:G:HO2'	1.60	0.42
8:CH:23:SER:HA	8:CH:61:VAL:O	2.20	0.42
1:AA:178:C:H2'	1:AA:179:A:C4'	2.49	0.42
38:DD:17:THR:HG1	38:DD:205:VAL:H	1.63	0.42
41:BG:53:LEU:N	41:BG:53:LEU:CD2	2.83	0.42
2:AB:167:PRO:O	2:AB:171:ALA:N	2.53	0.42
2:AB:172:ILE:O	2:AB:176:GLU:HG2	2.18	0.42
2:AB:219:VAL:HA	2:AB:222:ILE:HG13	2.01	0.42
41:DG:115:ARG:NH2	41:DG:136:ARG:HB2	2.34	0.42
41:DG:154:GLY:O	41:DG:155:MET:HB3	2.20	0.42
47:DP:116:GLY:O	47:DP:117:GLU:CB	2.68	0.42
10:CJ:70:ARG:HH11	10:CJ:70:ARG:HG2	1.83	0.42
48:DQ:31:ASP:O	48:DQ:133:ARG:O	2.37	0.42
51:DT:38:ASN:C	51:DT:38:ASN:HD22	2.21	0.42
35:DA:1592:C:C2'	35:DA:1593:G:C5'	2.83	0.42
16:AP:49:LEU:CG	16:AP:49:LEU:O	2.68	0.42
3:AC:130:VAL:O	3:AC:130:VAL:HG12	2.18	0.42
12:AL:117:TYR:C	12:AL:119:THR:H	2.23	0.42
35:DA:1175:U:HO2'	35:DA:1177:A:H2	1.68	0.42
7:AG:80:VAL:CG1	7:AG:81:GLY:H	2.18	0.42
38:DD:239:ARG:NH2	38:DD:239:ARG:HG2	2.15	0.42
4:AD:192:GLU:O	4:AD:194:LEU:N	2.52	0.42
35:BA:857:C:O2'	35:BA:858:U:H5'	2.20	0.42
39:BE:34:VAL:CG1	39:BE:48:GLN:HG2	2.49	0.42
39:BE:76:ARG:O	39:BE:77:ILE:O	2.37	0.42
5:CE:57:LYS:O	5:CE:61:TYR:CD2	2.73	0.42
3:CC:32:LEU:O	3:CC:35:GLU:HB3	2.20	0.42
10:CJ:92:THR:CG2	10:CJ:93:GLY:N	2.81	0.42
38:BD:210:GLY:C	38:BD:212:SER:N	2.68	0.42
46:DO:103:ALA:HB1	46:DO:105:GLU:OE1	2.19	0.42
46:DO:105:GLU:O	46:DO:109:LYS:HB2	2.19	0.42
41:BG:12:TYR:O	41:BG:16:ARG:HB3	2.19	0.42
53:DV:2:PHE:HB2	53:DV:42:GLY:CA	2.49	0.42
20:CT:13:LEU:CD1	20:CT:17:ARG:HH12	2.26	0.42
15:AO:53:HIS:O	15:AO:57:LEU:HG	2.19	0.42
49:BR:12:ARG:HD3	49:BR:16:HIS:ND1	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:DV:1:MET:CB	53:DV:99:ILE:HG13	2.48	0.42
48:BQ:73:PRO:HG3	48:BQ:93:TYR:CE2	2.53	0.42
35:DA:1832:C:C4	35:DA:1833:U:C5	3.07	0.42
17:AQ:35:VAL:HG12	17:AQ:36:ILE:H	1.83	0.42
6:CF:44:GLY:HA2	6:CF:59:TYR:CE1	2.54	0.42
40:DF:163:VAL:O	40:DF:166:ALA:HB3	2.18	0.42
35:DA:2888:C:H2'	35:DA:2889:C:H6	1.84	0.42
49:DR:69:ASP:C	49:DR:70:LEU:O	2.56	0.42
2:AB:105:PHE:HZ	2:AB:156:LYS:HA	1.84	0.42
2:AB:105:PHE:O	2:AB:106:LYS:C	2.58	0.42
2:CB:112:VAL:HG11	2:CB:156:LYS:HE2	2.01	0.42
35:BA:271(A):A:H1'	35:BA:365:C:O4'	2.20	0.42
49:BR:13:HIS:O	49:BR:14:SER:C	2.57	0.42
16:CP:20:VAL:CG2	16:CP:21:VAL:N	2.81	0.42
35:DA:1053:C:O2	35:DA:1106:A:C2	2.73	0.42
16:AP:20:VAL:CG2	16:AP:21:VAL:N	2.79	0.42
1:AA:18:C:O2'	1:AA:19:C:H5'	2.20	0.42
1:AA:1354:C:H2'	1:AA:1355:G:C8	2.55	0.42
35:DA:271:A:N6	35:DA:271(X):G:H1'	2.34	0.42
17:CQ:5:VAL:HA	17:CQ:59:ILE:O	2.19	0.42
1:CA:1353:G:H2'	1:CA:1354:C:C6	2.54	0.42
13:AM:97:PRO:HB2	13:AM:101:GLN:NE2	2.33	0.42
1:AA:1269:A:H5'	21:AU:18:TYR:O	2.19	0.42
1:AA:951:G:O4'	1:AA:971:G:H5'	2.20	0.42
20:AT:56:MET:SD	20:AT:85:MET:HB3	2.60	0.42
49:DR:56:LYS:NZ	49:DR:88:ARG:N	2.67	0.42
35:DA:1907:G:H2'	35:DA:1908:C:C6	2.55	0.42
1:AA:807:A:H2'	1:AA:808:C:H6	1.81	0.42
1:AA:392:G:H2'	1:AA:393:A:C8	2.45	0.42
35:DA:218:A:H2	35:DA:235:U:H4'	1.84	0.42
35:DA:2182:G:O2'	35:DA:2183:C:H5'	2.19	0.42
9:CI:128:ARG:HG2	9:CI:128:ARG:OXT	2.19	0.42
1:AA:1429:C:H2'	1:AA:1430:C:C6	2.54	0.42
1:AA:158:G:O2'	1:AA:159:G:H5'	2.19	0.42
4:AD:137:SER:O	4:AD:138:TYR:C	2.57	0.42
1:CA:724:G:C2	1:CA:725:G:C8	3.08	0.42
35:DA:852:G:C2'	35:DA:853:G:H5'	2.50	0.42
34:B9:22:ARG:NH2	35:BA:2741:A:OP1	2.52	0.42
50:BS:36:TYR:HD1	50:BS:36:TYR:N	2.16	0.42
22:CW:66:C:O2'	22:CW:67:C:H5'	2.20	0.42
35:DA:724:U:H2'	35:DA:725:G:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:581:G:OP1	15:CO:61:GLY:HA3	2.20	0.42
9:AI:4:TYR:HB3	9:AI:84:ALA:O	2.19	0.42
26:B1:23:LYS:HD3	26:B1:28:GLY:H	1.84	0.42
55:DX:52:VAL:HG12	55:DX:82:GLN:O	2.19	0.42
35:BA:440:G:H2'	35:BA:441:U:C6	2.55	0.42
40:DF:99:TYR:N	40:DF:99:TYR:CD1	2.86	0.42
35:DA:2704:C:H2'	35:DA:2705:A:O4'	2.19	0.42
35:DA:829:A:N7	35:DA:2248:C:H5'	2.35	0.42
35:BA:1643:G:H2'	35:BA:1644:C:O5'	2.19	0.42
35:DA:1368:G:O2'	35:DA:1369:G:H5'	2.19	0.42
52:DU:65:ILE:O	52:DU:67:ALA:N	2.52	0.42
5:CE:74:GLY:HA3	5:CE:116:THR:OG1	2.19	0.42
1:CA:650:G:O2'	1:CA:651:C:H5'	2.18	0.42
35:DA:181:A:H2'	35:DA:182:A:C8	2.55	0.42
46:BO:120:GLU:HB2	51:BT:68:TYR:HE2	1.84	0.42
40:BF:32:LEU:O	40:BF:32:LEU:HD23	2.19	0.42
35:BA:1953:A:H2	35:BA:2549:G:N3	2.18	0.42
44:BJ:99:UNK:C	44:BJ:133:UNK:HA	2.50	0.42
35:BA:348:G:O2'	35:BA:349:G:H5'	2.20	0.42
42:DH:19:VAL:HG12	42:DH:20:ALA:N	2.34	0.42
42:DH:54:ARG:NH1	42:DH:54:ARG:CG	2.83	0.42
35:DA:1914:C:O4'	35:DA:1914:C:O2	2.38	0.42
49:DR:14:SER:O	49:DR:15:SER:C	2.58	0.42
56:DY:95:LYS:HD2	56:DY:96:ILE:O	2.20	0.42
1:CA:1060:C:C3'	1:CA:1060:C:C6	3.03	0.42
1:CA:1504:G:O2'	1:CA:1505:G:C8	2.69	0.42
19:AS:6:LYS:CD	19:AS:7:LYS:HE3	2.49	0.42
40:BF:18:ARG:C	40:BF:19:GLU:HG2	2.40	0.42
35:BA:587:C:H2'	47:BP:33:ARG:CZ	2.50	0.42
40:DF:2:LYS:C	40:DF:4:VAL:H	2.23	0.42
5:CE:91:LEU:HA	5:CE:91:LEU:HD13	1.89	0.42
42:BH:83:TYR:O	42:BH:84:SER:CB	2.65	0.42
51:DT:29:ARG:HG2	51:DT:85:LYS:CA	2.50	0.42
35:BA:2832:U:H4'	35:BA:2833:G:H5''	2.01	0.42
1:CA:20:U:C2	1:CA:916:G:C2	3.08	0.42
40:BF:68:LYS:HD3	40:BF:68:LYS:HA	1.72	0.42
1:AA:1152:A:OP1	10:AJ:68:HIS:CD2	2.72	0.42
2:CB:175:ARG:O	2:CB:178:ARG:N	2.52	0.42
8:CH:36:LEU:CD2	8:CH:61:VAL:HG22	2.50	0.42
31:B6:12:GLU:OE1	31:B6:52:VAL:O	2.36	0.42
33:B8:29:LYS:O	33:B8:30:ARG:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:67:LEU:HD21	15:CO:87:ILE:HD12	2.00	0.42
47:BP:83:VAL:O	47:BP:115:LEU:HD23	2.19	0.42
41:BG:45:GLU:H	41:BG:45:GLU:CD	2.22	0.42
2:AB:174:VAL:HG13	2:AB:184:VAL:HG21	2.01	0.42
47:DP:112:LEU:HD23	47:DP:114:ILE:N	2.35	0.42
19:CS:9:VAL:HG12	19:CS:9:VAL:O	2.19	0.42
35:DA:197:A:N6	35:DA:2430:A:H2'	2.35	0.42
13:CM:12:ASN:O	13:CM:44:ARG:HD2	2.20	0.42
1:AA:1320:C:H1'	19:AS:73:GLU:HB2	2.00	0.42
8:AH:36:LEU:O	8:AH:45:ILE:HD11	2.20	0.42
6:AF:69:GLU:CD	6:AF:69:GLU:N	2.72	0.42
43:BI:77:LEU:HD23	43:BI:78:THR:C	2.40	0.42
57:BZ:81:ARG:O	57:BZ:82:ARG:CB	2.67	0.42
43:DI:88:ILE:HG12	43:DI:92:VAL:HG21	1.98	0.42
35:BA:2678:C:O2'	35:BA:2679:A:H5'	2.20	0.42
3:AC:53:ALA:HB2	3:AC:115:LEU:HG	2.02	0.42
42:DH:157:TYR:CD1	42:DH:170:ARG:O	2.72	0.42
13:AM:15:VAL:HG22	13:AM:43:THR:O	2.20	0.42
13:AM:9:ILE:HG22	13:AM:11:ARG:HG3	2.02	0.42
51:DT:55:ASN:H	51:DT:59:THR:HB	1.85	0.42
37:DC:82:LYS:NZ	37:DC:82:LYS:HB3	2.26	0.42
35:DA:1040:C:N4	35:DA:1115:G:H1	2.14	0.42
43:DI:62:LYS:HA	43:DI:133:HIS:NE2	2.35	0.42
37:DC:85:GLU:HG2	37:DC:85:GLU:O	2.19	0.42
49:DR:113:LEU:H	49:DR:113:LEU:HD23	1.85	0.42
29:D4:6:HIS:CB	41:DG:67:LYS:HD2	2.42	0.42
41:BG:107:LEU:HD22	41:BG:177:GLY:O	2.18	0.42
35:DA:1471:A:C2	35:DA:1472:A:C4	3.08	0.42
53:BV:22:VAL:HG21	53:BV:94:LEU:HG	2.01	0.42
43:BI:51:ILE:HG22	43:BI:52:ARG:N	2.35	0.42
53:BV:5:VAL:CG2	53:BV:6:LYS:N	2.83	0.42
10:AJ:29:ARG:CZ	10:AJ:29:ARG:HB3	2.49	0.42
7:CG:18:TYR:CD2	7:CG:59:LEU:HD13	2.54	0.42
57:BZ:157:LEU:HD23	57:BZ:157:LEU:N	2.25	0.42
35:DA:1697:G:C6	35:DA:1698:A:N1	2.87	0.42
41:DG:137:GLU:HB3	41:DG:138:GLN:H	1.62	0.42
14:CN:27:CYS:SG	14:CN:40:CYS:SG	3.11	0.42
35:DA:889:C:O2	35:DA:889:C:O4'	2.38	0.42
10:CJ:31:GLY:HA3	10:CJ:78:ASN:CG	2.40	0.42
16:AP:4:ILE:HA	16:AP:20:VAL:O	2.20	0.42
36:BB:13:A:C2	36:BB:70:C:O4'	2.73	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:65:ILE:CD1	17:CQ:65:ILE:H	2.32	0.42
18:CR:37:VAL:CG1	18:CR:41:LYS:HD2	2.50	0.42
45:BN:21:LYS:C	45:BN:61:ARG:HB2	2.39	0.42
1:AA:710:G:H2'	1:AA:711:G:H8	1.84	0.42
44:DJ:25:UNK:N	44:DJ:86:UNK:CB	2.79	0.42
35:DA:2841:C:O2'	35:DA:2842:G:H5'	2.20	0.42
35:BA:1971:A:N3	38:BD:240:ALA:HA	2.35	0.42
4:CD:68:TYR:O	4:CD:69:GLY:O	2.37	0.42
4:CD:3:ARG:NH1	4:CD:69:GLY:O	2.52	0.42
35:BA:2291:U:H2'	35:BA:2292:C:H6	1.83	0.42
35:BA:1232:G:H2'	35:BA:1233:C:C6	2.53	0.42
15:AO:68:ARG:O	15:AO:72:ARG:HG3	2.19	0.42
48:DQ:108:GLY:HA2	57:DZ:116:VAL:HG11	2.01	0.42
35:BA:1827:C:C2'	35:BA:1828:G:H5'	2.50	0.42
5:CE:64:ARG:NH1	5:CE:64:ARG:HG3	2.33	0.42
1:AA:1278:U:H5''	1:AA:1279:A:C1'	2.49	0.42
16:CP:1:MET:HG2	16:CP:2:VAL:O	2.20	0.42
13:AM:29:ARG:HD3	13:AM:64:TRP:CE3	2.54	0.42
52:DU:52:ARG:O	52:DU:53:ARG:C	2.58	0.42
35:DA:1270:C:H5''	35:DA:1271:G:H5'	2.01	0.42
48:DQ:109:VAL:HG23	48:DQ:113:GLN:OE1	2.20	0.42
1:AA:511:C:HO2'	1:AA:512:U:H6	1.64	0.42
45:DN:39:ARG:O	45:DN:41:ASP:N	2.53	0.42
1:CA:1248:A:H2'	1:CA:1249:C:H5'	2.02	0.42
1:CA:523:A:H61	12:CL:50:ARG:HH12	1.67	0.42
35:BA:1914:C:O2	35:BA:1914:C:O4'	2.37	0.42
1:AA:839:U:O2	1:AA:839:U:C2'	2.68	0.42
1:AA:142:G:H2'	1:AA:143:A:C8	2.54	0.42
54:BW:22:ASP:HA	54:BW:25:ARG:HH12	1.85	0.42
3:CC:114:PRO:HA	3:CC:185:GLY:HA3	2.02	0.42
26:D1:6:GLU:HG3	26:D1:61:ARG:O	2.19	0.42
36:DB:78:A:C2	36:DB:100:A:C4	3.07	0.42
54:DW:40:ASN:O	54:DW:41:LYS:HG2	2.19	0.42
45:DN:108:PRO:O	45:DN:113:GLY:HA3	2.19	0.42
1:CA:1174:G:O2'	1:CA:1175:G:H5'	2.18	0.42
1:AA:760:G:H21	17:AQ:94:ASN:HB3	1.85	0.42
38:BD:262:ARG:C	38:BD:264:LYS:H	2.22	0.42
22:AV:44:A:H2'	22:AV:45:G:C8	2.54	0.42
35:DA:1181:C:H2'	35:DA:1182:A:C8	2.54	0.42
49:BR:78:LYS:O	49:BR:83:ILE:HG12	2.20	0.42
18:CR:76:LEU:C	18:CR:78:LEU:H	2.23	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DJ:124:UNK:O	44:DJ:125:UNK:O	2.37	0.42
42:BH:54:ARG:CG	42:BH:65:HIS:CD2	3.01	0.42
1:CA:644:G:H5''	8:CH:92:ARG:HH21	1.83	0.42
24:AY:22:GLY:O	24:AY:23:ASP:C	2.58	0.42
24:AY:31:THR:HG23	24:AY:42:ARG:HH11	1.85	0.42
24:AY:5:TYR:N	24:AY:5:TYR:CD2	2.88	0.42
1:CA:37:U:C2'	1:CA:38:G:H8	2.32	0.42
1:CA:954:G:H2'	1:CA:955:U:C6	2.55	0.42
22:CV:36:U:C3'	22:CV:36:U:C6	3.03	0.42
51:BT:28:VAL:HA	51:BT:45:PHE:O	2.20	0.42
51:BT:91:ARG:HB3	51:BT:117:ASP:N	2.35	0.42
40:DF:18:ARG:C	40:DF:19:GLU:HG2	2.40	0.42
51:DT:23:ARG:HH21	51:DT:120:ARG:CD	2.27	0.42
57:BZ:69:THR:HG22	57:BZ:90:VAL:HG22	2.01	0.42
35:DA:2419:U:H2'	35:DA:2420:C:C6	2.55	0.42
2:CB:84:GLU:CD	2:CB:216:SER:HA	2.40	0.42
57:DZ:12:GLY:HA2	57:DZ:36:LYS:NZ	2.33	0.42
33:B8:37:SER:O	33:B8:39:LYS:N	2.53	0.42
50:DS:14:VAL:O	50:DS:16:ASN:N	2.52	0.42
13:CM:21:TYR:C	13:CM:22:ILE:HG13	2.40	0.42
47:DP:7:ARG:O	47:DP:10:PRO:HD3	2.20	0.42
8:AH:20:TYR:HD1	8:AH:65:TYR:CD2	2.37	0.42
43:BI:82:ARG:O	43:BI:83:ALA:CB	2.63	0.42
1:AA:35:G:H1'	12:AL:115:SER:O	2.19	0.42
43:DI:91:SER:O	43:DI:92:VAL:O	2.38	0.42
35:BA:2678:C:C2	35:BA:2679:A:C8	3.07	0.42
49:BR:45:ARG:O	49:BR:46:GLY:C	2.58	0.42
45:BN:15:LEU:HD12	45:BN:134:ARG:HD2	2.01	0.42
50:BS:99:LYS:HB3	50:BS:99:LYS:HE2	1.90	0.42
35:BA:271(P):C:H5''	43:BI:46:ALA:HB2	2.01	0.42
35:DA:2845:G:OP1	51:DT:56:GLY:N	2.48	0.42
25:B0:27:GLU:HB3	35:BA:856:C:H1'	2.01	0.42
26:D1:66:HIS:C	26:D1:68:PRO:HD2	2.39	0.42
10:CJ:63:PHE:HB3	14:CN:56:VAL:HG13	2.02	0.42
38:BD:133:LEU:C	38:BD:135:PHE:N	2.73	0.42
46:DO:102:VAL:CG2	46:DO:121:VAL:HG22	2.49	0.42
49:DR:98:LEU:O	49:DR:113:LEU:HD23	2.19	0.42
35:BA:1114:G:C3'	35:BA:1115:G:C5'	2.90	0.42
41:BG:151:ALA:H	41:BG:153:ARG:NH1	2.18	0.42
49:BR:3:HIS:O	49:BR:4:LEU:HB3	2.20	0.42
50:DS:90:GLY:O	50:DS:92:TYR:N	2.42	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BV:61:VAL:HG12	53:BV:94:LEU:CD2	2.50	0.42
35:BA:1576:U:O2'	35:BA:1577:C:H5'	2.19	0.42
35:BA:1577:C:H2'	35:BA:1578:U:O4'	2.20	0.42
1:AA:429:U:C1'	1:AA:430:A:H5''	2.49	0.42
4:AD:30:LYS:O	4:AD:32:ALA:N	2.53	0.42
32:D7:5:TRP:CD1	32:D7:7:PRO:HG3	2.55	0.42
1:AA:180:U:O2'	1:AA:181:G:H5'	2.19	0.42
45:DN:67:LEU:HD12	45:DN:67:LEU:N	2.24	0.42
35:BA:1276:A:O2'	49:BR:16:HIS:HE1	2.02	0.42
35:BA:2199:A:C5'	35:BA:2200:C:OP2	2.66	0.42
55:BX:54:VAL:C	55:BX:55:ASN:HD22	2.23	0.42
55:DX:7:VAL:CG1	55:DX:39:ILE:HD13	2.49	0.42
1:AA:1228:C:P	13:AM:108:ARG:HH22	2.43	0.42
31:B6:15:GLU:OE1	31:B6:43:CYS:SG	2.75	0.42
37:DC:75:LEU:HD23	37:DC:95:GLY:H	1.84	0.42
37:BC:75:LEU:HD23	37:BC:95:GLY:H	1.84	0.42
18:AR:37:VAL:CG1	18:AR:41:LYS:HD2	2.49	0.42
3:AC:126:ARG:O	3:AC:127:ARG:HB2	2.19	0.42
35:DA:1563:G:C4	35:DA:1564:C:C5	3.08	0.42
51:DT:3:ARG:O	51:DT:6:LEU:N	2.53	0.42
51:DT:114:LEU:O	51:DT:115:ARG:O	2.37	0.42
40:BF:184:TYR:O	40:BF:188:ARG:HG2	2.20	0.42
15:AO:15:PHE:O	15:AO:16:ALA:C	2.58	0.42
39:DE:35:GLN:HG2	39:DE:36:ARG:N	2.35	0.42
35:DA:817:C:H2'	35:DA:818:G:O4'	2.20	0.42
46:DO:4:PRO:O	46:DO:5:GLN:CB	2.66	0.42
48:BQ:21:THR:C	48:BQ:23:GLY:H	2.22	0.42
11:AK:46:GLY:HA2	11:AK:50:TYR:O	2.20	0.42
1:AA:276:G:C6	1:AA:277:C:C4	3.07	0.42
1:CA:1360:A:O2'	1:CA:1361:G:H5'	2.20	0.42
54:BW:32:ALA:O	54:BW:33:ARG:C	2.58	0.42
1:AA:538:G:OP2	12:AL:112:LYS:HG3	2.19	0.42
35:BA:2086:U:H2'	35:BA:2087:G:H8	1.84	0.42
35:DA:814:C:H5	47:DP:27:HIS:CG	2.37	0.42
35:BA:2346:A:H5'	35:BA:2383:G:H1'	2.02	0.42
1:AA:781:A:H2'	1:AA:782:A:H5'	2.00	0.42
35:DA:845:G:O2'	35:DA:846:C:H5	2.02	0.42
27:D2:10:LEU:HD13	27:D2:14:ARG:NH1	2.35	0.42
55:BX:57:LEU:N	55:BX:57:LEU:HD13	2.34	0.42
1:AA:1223:C:OP2	1:AA:1224:G:H2'	2.19	0.42
35:BA:658:C:H2'	35:BA:659:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:17:LYS:O	14:AN:19:ARG:N	2.53	0.42
35:DA:1218:C:H2'	35:DA:1219:G:H5'	2.01	0.42
7:CG:147:ALA:C	7:CG:148:ASN:HD22	2.23	0.42
35:BA:271(J):C:C3'	35:BA:271(K):U:H5''	2.49	0.42
35:BA:1934:C:O2'	35:BA:1935:G:H5'	2.20	0.42
35:DA:143:G:H1'	55:DX:37:THR:CG2	2.50	0.42
35:DA:1930:G:N2	35:DA:1968:G:H2'	2.34	0.42
1:AA:593:G:H1	1:AA:646:U:H3	1.67	0.42
57:BZ:48:PHE:C	57:BZ:50:GLN:H	2.23	0.42
1:CA:667:G:H4'	15:CO:51:HIS:CE1	2.54	0.42
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.55	0.42
35:DA:2816:C:O2'	35:DA:2817:G:H5'	2.19	0.42
49:BR:37:THR:HG23	49:BR:40:LYS:HE2	2.02	0.42
35:DA:1355:G:O2'	35:DA:1356:G:H5'	2.20	0.42
44:BJ:25:UNK:HA	44:BJ:116:UNK:CB	2.49	0.42
35:BA:1120:G:H2'	35:BA:1121:C:C6	2.55	0.42
35:BA:2175:C:H1'	37:BC:215:THR:HA	2.02	0.42
29:D4:49:PHE:HA	29:D4:49:PHE:HD2	1.67	0.42
12:CL:108:LYS:O	12:CL:109:ASP:HB2	2.20	0.42
1:AA:169:C:H2'	1:AA:170:U:H5'	2.02	0.42
4:AD:99:SER:O	4:AD:140:VAL:HG23	2.20	0.42
47:BP:59:LEU:CA	47:BP:61:ARG:HH21	2.32	0.42
41:BG:83:ARG:NH1	41:BG:84:LYS:NZ	2.66	0.42
35:DA:507:A:C4'	35:DA:508:G:H5'	2.49	0.42
35:DA:2823:A:OP1	39:DE:113:PHE:HB2	2.19	0.42
53:BV:40:LEU:C	53:BV:45:THR:HB	2.40	0.42
33:B8:53:PRO:HG2	33:B8:54:GLU:OE2	2.19	0.42
8:CH:65:TYR:N	8:CH:65:TYR:CD1	2.87	0.42
33:B8:37:SER:C	33:B8:39:LYS:N	2.72	0.42
5:AE:110:LEU:HB3	5:AE:115:VAL:HB	2.02	0.42
51:BT:35:LYS:HZ3	51:BT:41:ARG:HH21	1.68	0.42
51:BT:38:ASN:ND2	51:BT:39:ARG:N	2.66	0.42
30:D5:55:ARG:HD3	30:D5:56:LYS:H	1.84	0.42
43:DI:77:LEU:HD23	43:DI:78:THR:C	2.39	0.42
38:DD:126:GLN:HE21	38:DD:126:GLN:HB2	1.63	0.42
13:AM:7:VAL:HG12	13:AM:7:VAL:O	2.20	0.42
35:BA:662:G:OP1	47:BP:18:ARG:HD2	2.20	0.42
11:AK:59:TYR:CZ	11:AK:63:LEU:HD11	2.54	0.42
10:AJ:96:ILE:HD13	10:AJ:96:ILE:N	2.19	0.42
26:D1:67:ILE:O	26:D1:68:PRO:C	2.58	0.42
18:CR:53:ARG:NH2	18:CR:60:ALA:N	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:D7:12:ARG:CD	32:D7:46:VAL:HG21	2.49	0.42
51:DT:74:ARG:HB3	51:DT:76:PHE:CZ	2.55	0.42
50:DS:92:TYR:C	50:DS:94:TYR:N	2.73	0.42
9:AI:79:LEU:HD13	9:AI:101:PHE:C	2.40	0.42
54:BW:62:HIS:O	54:BW:63:ASP:C	2.57	0.42
15:CO:66:LEU:H	15:CO:66:LEU:HD13	1.80	0.42
41:DG:22:ARG:HH11	41:DG:175:LEU:HD11	1.85	0.42
1:AA:953:G:H2'	1:AA:954:G:O4'	2.19	0.42
1:CA:405:U:H5''	1:CA:406:G:O4'	2.20	0.42
5:AE:34:VAL:HG12	5:AE:62:ALA:HB1	2.02	0.42
16:AP:5:ARG:HE	16:AP:22:THR:HG21	1.83	0.42
56:DY:31:LEU:CD2	56:DY:31:LEU:N	2.80	0.42
35:DA:270:A:O2'	35:DA:271:A:H5'	2.20	0.42
35:DA:364:C:O2'	35:DA:365:C:H5''	2.20	0.42
1:CA:393:A:C2'	1:CA:394:G:H5'	2.50	0.42
13:AM:90:LEU:O	13:AM:98:VAL:HG21	2.20	0.42
2:CB:155:LEU:HG	2:CB:159:PRO:HG3	2.01	0.42
1:AA:1525:G:O2'	1:AA:1526:G:H5'	2.19	0.42
28:D3:6:VAL:HB	28:D3:54:VAL:HG11	2.00	0.42
1:CA:321:A:O2'	1:CA:322:C:H5'	2.20	0.42
20:AT:99:LEU:C	20:AT:99:LEU:HD23	2.40	0.42
35:DA:1971:A:N3	38:DD:240:ALA:HA	2.35	0.42
56:BY:16:ALA:O	56:BY:17:SER:O	2.37	0.42
15:CO:7:GLU:O	15:CO:11:VAL:HG23	2.20	0.42
56:BY:23:ARG:O	56:BY:24:VAL:C	2.58	0.42
35:BA:852:G:C2'	35:BA:853:G:H5'	2.49	0.42
35:DA:118:A:OP2	35:DA:119:A:H2'	2.20	0.42
1:CA:1055:A:HO2'	3:CC:161:GLU:HA	1.85	0.42
6:CF:99:ALA:HB3	18:CR:29:PHE:CE1	2.54	0.42
35:DA:615:G:OP2	40:DF:40:GLN:HG2	2.20	0.42
1:AA:575:G:H4'	1:AA:576:G:C5'	2.50	0.42
57:BZ:131:ARG:NH1	57:BZ:131:ARG:HG2	2.33	0.42
55:DX:28:PHE:CE2	55:DX:92:LEU:HD11	2.55	0.42
35:BA:2039:C:O2'	35:BA:2040:C:H5'	2.19	0.42
53:BV:13:ARG:NH1	53:BV:13:ARG:HG2	2.35	0.42
35:BA:1862:G:H1	35:BA:1880:C:H42	1.68	0.42
39:BE:90:THR:CG2	39:BE:91:VAL:N	2.82	0.42
35:BA:2553:G:H2'	35:BA:2554:U:C4'	2.49	0.42
35:BA:1652:A:C2'	35:BA:1653:G:H5'	2.50	0.42
35:DA:2228:G:H2'	35:DA:2229:C:H6	1.85	0.42
35:BA:1014:U:H2'	35:BA:1015:G:C8	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:178:GLU:N	39:BE:178:GLU:CD	2.73	0.42
35:DA:271(J):C:C3'	35:DA:271(K):U:H5''	2.50	0.42
35:BA:229:A:H3'	35:BA:230:U:H5'	2.01	0.42
24:AY:10:HIS:N	24:AY:56:SER:O	2.31	0.42
4:AD:191:ARG:NH1	4:AD:191:ARG:HG3	2.35	0.42
6:CF:30:LEU:N	6:CF:30:LEU:HD23	2.34	0.42
1:CA:509:A:H5'	4:CD:54:TYR:CD2	2.55	0.42
35:BA:1168:G:C2	35:BA:1182:A:C2	3.08	0.42
52:DU:87:GLY:C	52:DU:89:GLU:H	2.21	0.42
38:BD:161:THR:O	38:BD:162:SER:HB3	2.20	0.42
35:DA:1838:C:N4	35:DA:1898:U:H2'	2.34	0.42
1:AA:431:A:H2'	1:AA:432:A:O4'	2.20	0.42
27:B2:29:LYS:HE3	27:B2:57:ILE:HG21	2.02	0.42
42:BH:8:PRO:HD3	42:BH:69:ARG:HG2	2.00	0.42
24:AY:83:LEU:C	24:AY:84:LYS:HG2	2.40	0.42
24:AY:83:LEU:O	24:AY:84:LYS:CG	2.67	0.42
35:BA:775:G:C2'	35:BA:776:G:OP1	2.66	0.42
33:D8:46:ARG:CG	33:D8:46:ARG:HH11	2.33	0.42
1:CA:11:G:C2'	1:CA:12:U:O5'	2.68	0.42
35:BA:663:G:C5	35:BA:664:C:C4	3.08	0.42
35:BA:1464:C:H2'	35:BA:1465:G:H8	1.84	0.42
56:BY:20:TYR:CZ	56:BY:42:VAL:HA	2.55	0.42
40:DF:198:ALA:C	40:DF:200:GLU:H	2.23	0.42
40:DF:22:ALA:CB	40:DF:26:ALA:HB2	2.50	0.42
5:CE:106:PRO:O	5:CE:110:LEU:HG	2.20	0.42
51:DT:27:THR:C	51:DT:28:VAL:HG23	2.40	0.42
12:AL:79:VAL:HG12	12:AL:80:VAL:N	2.35	0.42
40:BF:63:LYS:HE2	40:BF:67:GLN:HB3	2.01	0.42
40:BF:67:GLN:O	40:BF:68:LYS:CG	2.68	0.42
50:BS:18:ILE:C	50:BS:20:ARG:N	2.73	0.42
57:DZ:44:PHE:O	57:DZ:45:ASP:C	2.58	0.42
5:AE:91:LEU:HD11	5:AE:110:LEU:HD11	2.01	0.42
2:AB:17:PHE:HB2	2:AB:44:LEU:HD11	2.02	0.42
57:BZ:5:LEU:HD21	57:BZ:39:VAL:HB	2.02	0.42
50:DS:15:ARG:HH11	50:DS:15:ARG:HB2	1.77	0.42
51:BT:38:ASN:C	51:BT:38:ASN:HD22	2.22	0.42
30:D5:54:GLY:O	30:D5:55:ARG:O	2.38	0.42
13:CM:16:ASP:OD2	13:CM:17:VAL:HG23	2.20	0.42
13:CM:7:VAL:HG12	13:CM:7:VAL:O	2.20	0.42
19:AS:44:MET:O	19:AS:46:GLY:N	2.52	0.42
1:AA:1124:G:H1'	10:AJ:38:ILE:HD12	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DH:154:PRO:HA	42:DH:161:GLY:HA3	2.00	0.42
29:B4:25:TYR:O	29:B4:26:SER:HB3	2.20	0.42
35:BA:1983:C:H4'	35:BA:2606:C:H4'	2.02	0.42
35:DA:774:A:C2	35:DA:787:U:O2'	2.60	0.42
35:BA:6:A:O2'	45:BN:130:HIS:HD2	2.03	0.42
35:DA:2695:C:H2'	35:DA:2696:U:C6	2.55	0.42
35:DA:1576:U:O2'	35:DA:1577:C:H5'	2.20	0.42
3:CC:187:ALA:HB3	3:CC:198:VAL:CB	2.44	0.42
38:BD:43:ARG:HG3	38:BD:43:ARG:H	1.75	0.42
50:DS:68:GLN:C	50:DS:70:GLY:N	2.72	0.42
8:AH:95:VAL:CG1	8:AH:133:LEU:HD12	2.47	0.42
1:CA:1529:G:P	1:CA:1529:G:H3'	2.59	0.42
9:AI:99:LEU:O	9:AI:101:PHE:N	2.53	0.42
35:BA:1826:G:H4'	38:BD:242:ARG:NH2	2.35	0.42
45:DN:68:GLU:HB2	45:DN:88:GLU:OE1	2.19	0.42
43:DI:3:VAL:HG22	43:DI:19:VAL:O	2.20	0.42
1:CA:1311:G:N2	1:CA:1312:G:H1'	2.35	0.42
3:AC:6:HIS:HB3	14:AN:49:HIS:HD2	1.85	0.42
40:DF:132:VAL:HG13	40:DF:133:ASN:N	2.35	0.42
9:CI:99:LEU:O	9:CI:101:PHE:N	2.52	0.42
35:DA:1107:G:H2'	35:DA:1108:U:C5'	2.50	0.42
10:CJ:81:THR:HA	10:CJ:84:GLN:NE2	2.34	0.42
51:BT:8:LYS:C	51:BT:11:GLU:HB2	2.41	0.42
39:DE:49:LEU:HD21	39:DE:81:ILE:HG12	2.02	0.42
11:CK:84:VAL:CG2	11:CK:110:ASP:HA	2.50	0.42
11:CK:109:VAL:HG12	11:CK:110:ASP:N	2.35	0.42
16:CP:80:PHE:O	16:CP:82:GLN:N	2.53	0.42
5:CE:68:GLU:O	5:CE:70:PRO:CD	2.65	0.42
2:AB:37:ASN:O	2:AB:37:ASN:OD1	2.37	0.42
1:CA:189(I):G:O2'	1:CA:189(J):G:H5'	2.20	0.42
49:DR:56:LYS:C	49:DR:58:GLY:H	2.23	0.42
1:AA:556:C:H2'	1:AA:557:G:H5'	2.02	0.42
52:BU:52:ARG:O	52:BU:53:ARG:C	2.58	0.42
1:CA:321:A:C2	1:CA:333:G:C2	3.07	0.42
57:DZ:121:HIS:C	57:DZ:123:ASP:N	2.73	0.42
26:B1:52:ARG:HE	26:B1:52:ARG:HA	1.84	0.42
45:BN:10:GLU:CD	45:BN:11:PRO:HD2	2.40	0.42
35:DA:795:C:H2'	35:DA:796:C:C6	2.55	0.42
1:CA:828:A:C8	1:CA:859:A:C4	3.07	0.42
4:CD:158:ILE:O	4:CD:162:LEU:HG	2.20	0.42
1:AA:113:G:C4	1:AA:114:U:C5	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:115:G:H4'	1:AA:116:A:O5'	2.20	0.42
36:BB:2:C:H2'	36:BB:3:C:H6	1.84	0.42
1:AA:1256:A:C2	1:AA:1277:C:C6	3.08	0.42
6:CF:100:ASN:O	18:CR:28:GLU:HG2	2.20	0.42
35:DA:1516:C:O2'	35:DA:1517:G:H5'	2.20	0.42
43:DI:114:LEU:O	43:DI:116:LEU:N	2.49	0.42
4:AD:158:ILE:HG23	4:AD:162:LEU:HD11	2.01	0.42
1:AA:997:U:O5'	1:AA:997:U:H6	2.03	0.42
6:AF:3:ARG:HH11	6:AF:3:ARG:HG3	1.85	0.42
13:CM:65:LYS:CB	13:CM:66:LEU:HD12	2.50	0.42
35:BA:498:G:H21	56:BY:47:LYS:NZ	2.18	0.42
35:BA:208:C:H2'	35:BA:209:C:C6	2.55	0.42
42:BH:163:TYR:HD1	42:BH:163:TYR:N	2.17	0.42
55:DX:70:LEU:HD23	55:DX:71:GLY:N	2.35	0.42
35:BA:353:G:O2'	35:BA:354:G:H5'	2.20	0.42
1:CA:552:U:O2'	1:CA:553:A:H5'	2.19	0.42
35:BA:1218:C:H2'	35:BA:1219:G:H5'	2.01	0.42
37:BC:68:LEU:N	37:BC:179:SER:O	2.53	0.42
17:CQ:18:THR:HG22	17:CQ:19:VAL:N	2.35	0.42
35:BA:1798:U:H5'	38:BD:259:THR:HG1	1.85	0.42
1:AA:790:A:N1	1:AA:1497:G:H5''	2.35	0.42
35:BA:508:G:O2'	35:BA:509:C:H5''	2.19	0.42
3:CC:101:LEU:HD23	3:CC:101:LEU:C	2.40	0.42
55:BX:48:LYS:HE3	55:BX:48:LYS:HA	2.02	0.42
1:CA:993:G:H2'	1:CA:993:G:N3	2.34	0.42
1:AA:90:U:H3'	1:AA:90:U:H6	1.85	0.42
49:DR:78:LYS:O	49:DR:83:ILE:HG12	2.19	0.42
7:AG:107:ALA:CB	7:AG:134:ALA:HB2	2.49	0.42
24:AY:24:LEU:HD13	24:AY:24:LEU:HA	1.82	0.42
24:AY:74:SER:O	24:AY:82:GLN:CG	2.66	0.42
1:CA:1225:A:OP1	13:CM:103:THR:N	2.52	0.42
13:CM:97:PRO:O	13:CM:98:VAL:HA	2.20	0.42
7:CG:80:VAL:C	7:CG:82:GLY:N	2.73	0.42
47:DP:59:LEU:CA	47:DP:61:ARG:HH21	2.33	0.42
40:BF:157:VAL:HA	40:BF:176:LEU:O	2.20	0.42
52:BU:69:CYS:SG	52:BU:79:PHE:CG	3.13	0.42
50:BS:66:ALA:HA	50:BS:69:VAL:CG1	2.49	0.42
52:DU:86:ALA:CB	52:DU:88:ILE:HG23	2.49	0.42
57:BZ:109:ALA:CA	57:BZ:113:ALA:HB3	2.50	0.42
57:BZ:72:ARG:NH2	57:BZ:97:GLU:O	2.53	0.42
35:DA:1485:G:N3	35:DA:1505:C:C5	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1502:C:H2'	35:BA:1503:U:H6	1.85	0.42
33:D8:43:GLN:O	33:D8:44:LYS:HD2	2.20	0.42
35:DA:2397:G:N2	35:DA:2420:C:H1'	2.35	0.42
1:CA:22:G:N2	1:CA:914:A:C8	2.88	0.42
1:CA:886:G:H4'	1:CA:915:A:H1'	2.02	0.42
47:BP:40:SER:C	47:BP:41:ARG:NH2	2.73	0.42
3:CC:103:VAL:O	3:CC:105:GLU:N	2.52	0.42
2:CB:219:VAL:HA	2:CB:222:ILE:HG13	2.02	0.42
15:CO:82:ILE:CG1	15:CO:87:ILE:HG13	2.29	0.42
1:AA:8:A:N7	4:AD:208:SER:HB3	2.35	0.42
2:AB:92:TYR:CE2	2:AB:151:GLY:HA3	2.55	0.42
13:CM:57:ARG:HH12	29:D4:34:GLU:HG3	1.84	0.42
19:CS:44:MET:O	19:CS:46:GLY:N	2.53	0.42
22:AV:22:G:O2'	22:AV:23:C:H5'	2.20	0.42
7:CG:119:ARG:C	7:CG:121:ALA:N	2.73	0.42
1:CA:1124:G:N3	10:CJ:38:ILE:HD12	2.35	0.42
2:AB:53:ARG:HA	2:AB:56:ARG:CG	2.44	0.42
8:AH:33:GLU:O	8:AH:36:LEU:N	2.53	0.42
28:D3:3:ARG:H	28:D3:60:GLU:N	2.18	0.42
43:DI:77:LEU:O	43:DI:78:THR:HB	2.20	0.42
1:AA:1125:U:O2'	1:AA:1126:U:H5''	2.18	0.42
9:AI:15:ALA:HB2	9:AI:65:VAL:CG2	2.50	0.42
9:AI:7:THR:HG22	9:AI:8:GLY:H	1.84	0.42
41:BG:112:PRO:HG2	41:BG:113:ARG:CA	2.37	0.42
41:BG:116:ASP:O	41:BG:117:PHE:CB	2.68	0.42
4:CD:108:LEU:HD23	4:CD:110:PHE:HE1	1.84	0.42
35:DA:1247:A:OP2	47:DP:18:ARG:NH2	2.52	0.42
35:DA:662:G:OP1	47:DP:18:ARG:HD2	2.20	0.42
10:CJ:64:GLU:O	14:CN:56:VAL:HA	2.20	0.42
3:CC:18:TRP:HD1	14:CN:54:PRO:HA	1.82	0.42
3:CC:18:TRP:HE1	14:CN:56:VAL:H	1.67	0.42
38:BD:72:LYS:HE2	38:BD:75:ILE:HD12	2.00	0.42
1:CA:1303:C:H2'	1:CA:1304:G:O4'	2.19	0.42
31:D6:30:THR:O	31:D6:32:ASN:N	2.53	0.42
38:BD:44:ASN:CB	38:BD:48:ARG:O	2.68	0.42
43:DI:58:LEU:C	43:DI:60:GLU:H	2.23	0.42
27:D2:5:GLU:O	27:D2:9:GLN:HG3	2.20	0.42
41:DG:16:ARG:CZ	41:DG:28:VAL:CG1	2.98	0.42
25:B0:20:ARG:CD	25:B0:20:ARG:N	2.77	0.42
39:DE:1:MET:HA	39:DE:200:GLU:OE1	2.20	0.42
9:CI:10:ARG:HA	9:CI:104:ARG:NH1	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AW:68:C:O2'	22:AW:69:C:H5'	2.19	0.42
49:BR:34:ILE:HA	49:BR:34:ILE:HD13	1.92	0.42
3:AC:54:ARG:NH1	3:AC:54:ARG:HG3	2.35	0.42
35:BA:1887:C:H2'	35:BA:1888:G:C5'	2.46	0.42
1:CA:251:G:H4'	1:CA:252:U:O5'	2.19	0.42
35:BA:1281:G:H2'	35:BA:1282:U:C5'	2.50	0.42
15:CO:50:HIS:O	15:CO:53:HIS:CB	2.68	0.42
35:BA:271(A):A:H62	35:BA:271(W):G:H21	1.67	0.42
2:CB:75:LYS:CA	2:CB:78:GLN:HE21	2.29	0.42
4:AD:31:CYS:O	4:AD:31:CYS:SG	2.78	0.42
1:CA:1463:C:H5'	51:DT:115:ARG:HH22	1.85	0.42
49:DR:84:ALA:N	49:DR:85:PRO:CD	2.83	0.42
15:AO:18:PHE:HD1	15:AO:19:PRO:O	2.03	0.42
35:BA:2223:G:H2'	35:BA:2224:G:C5'	2.50	0.42
1:CA:333:G:H4'	20:CT:16:HIS:NE2	2.35	0.42
9:AI:43:ALA:C	9:AI:45:ALA:N	2.72	0.42
35:BA:218:A:H2	35:BA:235:U:H4'	1.84	0.42
35:DA:2021:C:H4'	35:DA:2022:U:OP2	2.20	0.42
35:BA:2533:A:H2'	35:BA:2534:A:C5'	2.48	0.42
40:BF:182:ASN:ND2	40:BF:182:ASN:N	2.68	0.42
1:CA:1387:G:C6	1:CA:1388:C:N4	2.88	0.42
35:DA:311:A:C6	35:DA:328:U:C4	3.08	0.42
6:CF:81:ILE:O	6:CF:82:ARG:C	2.58	0.42
37:DC:34:THR:HG23	37:DC:34:THR:O	2.20	0.42
35:DA:2578:G:H4'	35:DA:2578:G:OP2	2.19	0.42
35:BA:814:C:H4'	35:BA:1224:C:O2	2.19	0.42
35:BA:2464:C:O2'	35:BA:2465:C:O5'	2.38	0.42
35:DA:845:G:HO2'	35:DA:846:C:H5	1.67	0.42
35:DA:1467:C:O2'	35:DA:1468:C:H5'	2.20	0.42
1:CA:486:U:O2'	1:CA:487:A:H5'	2.19	0.42
1:CA:163:C:H2'	1:CA:164:U:H6	1.85	0.42
6:CF:91:VAL:HG12	6:CF:92:LYS:O	2.20	0.42
1:CA:872:A:C5	1:CA:874:G:C8	3.08	0.42
53:DV:95:LEU:C	53:DV:95:LEU:CD2	2.88	0.42
35:BA:15:G:O2'	35:BA:16:G:H5'	2.20	0.42
35:DA:960:A:C4'	35:DA:2457:U:H4'	2.50	0.42
1:AA:921:U:H2'	1:AA:922:G:O4'	2.20	0.42
35:BA:2676:C:O2'	35:BA:2677:G:H5'	2.20	0.42
17:AQ:88:TYR:HA	17:AQ:91:ARG:HH12	1.85	0.42
35:DA:266:G:H2'	35:DA:267:C:H5"	2.01	0.42
52:BU:36:ARG:O	52:BU:37:GLU:C	2.57	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BS:77:ALA:O	50:BS:79:ALA:N	2.52	0.42
1:AA:1056:U:H5'	3:AC:163:ALA:HB3	2.01	0.42
35:BA:1327:C:H2'	35:BA:1328:G:O4'	2.19	0.42
35:DA:2439:A:C8	35:DA:2439:A:H5'	2.55	0.42
35:BA:269:U:O2	35:BA:269:U:H2'	2.19	0.42
42:BH:46:GLU:H	42:BH:46:GLU:CD	2.24	0.41
49:DR:13:HIS:O	49:DR:17:ARG:N	2.52	0.41
56:DY:81:LYS:CE	56:DY:97:ARG:HE	2.32	0.41
1:CA:1060:C:O2	1:CA:1198:G:N2	2.51	0.41
56:DY:13:VAL:HG22	56:DY:14:LEU:O	2.20	0.41
40:BF:2:LYS:O	40:BF:24:LEU:HG	2.19	0.41
52:BU:91:ASP:OD1	52:BU:96:ALA:CA	2.69	0.41
52:BU:95:LEU:HD12	53:BV:11:GLN:HB2	2.02	0.41
51:BT:29:ARG:CG	51:BT:85:LYS:HA	2.50	0.41
56:BY:26:LYS:CG	56:BY:27:VAL:H	2.23	0.41
1:CA:1442(A):G:H22	51:DT:119:LYS:HB2	1.85	0.41
51:DT:25:GLY:O	51:DT:26:ASP:HB2	2.20	0.41
51:DT:70:VAL:HG12	51:DT:71:GLY:N	2.35	0.41
35:DA:1485:G:N2	35:DA:1505:C:C6	2.81	0.41
35:BA:1024:G:H3'	35:BA:1025:G:C5'	2.23	0.41
19:AS:11:VAL:HG13	19:AS:12:ASP:N	2.35	0.41
5:AE:103:GLY:C	5:AE:105:VAL:N	2.73	0.41
41:DG:116:ASP:O	41:DG:117:PHE:CB	2.67	0.41
35:DA:2303:G:C1'	41:DG:132:ASN:HD22	2.30	0.41
41:DG:159:VAL:HG23	41:DG:159:VAL:O	2.19	0.41
41:DG:96:ARG:HD2	41:DG:96:ARG:N	2.34	0.41
13:CM:81:LEU:C	13:CM:83:ASP:H	2.23	0.41
47:DP:126:VAL:CG1	47:DP:148:LEU:HD11	2.32	0.41
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.53	0.41
1:CA:1150:U:H2'	1:CA:1151:A:C8	2.55	0.41
46:BO:32:TYR:N	46:BO:32:TYR:HD1	2.17	0.41
35:BA:1240:U:O2'	35:BA:1241:A:H5'	2.19	0.41
22:CV:25:C:H2'	22:CV:26:G:C8	2.55	0.41
3:CC:170:GLN:HG2	3:CC:171:GLY:N	2.35	0.41
43:BI:91:SER:O	43:BI:92:VAL:O	2.38	0.41
43:BI:58:LEU:HG	43:BI:61:ARG:HH21	1.85	0.41
43:DI:76:THR:HG22	43:DI:141:LYS:HE2	2.02	0.41
10:AJ:31:GLY:HA3	10:AJ:78:ASN:CG	2.41	0.41
3:AC:35:GLU:OE2	3:AC:59:ARG:NH1	2.53	0.41
26:B1:91:LYS:O	26:B1:92:LYS:C	2.58	0.41
13:AM:21:TYR:C	13:AM:22:ILE:HG13	2.40	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DN:128:HIS:O	45:DN:130:HIS:N	2.49	0.41
39:DE:73:GLU:HA	39:DE:74:PRO:HD3	1.86	0.41
6:CF:52:ILE:HD13	6:CF:87:ARG:HH22	1.84	0.41
35:DA:2693:A:H2'	35:DA:2694:G:H8	1.85	0.41
51:DT:57:PHE:CD2	51:DT:58:ASN:N	2.77	0.41
39:BE:4:ILE:HD11	39:BE:28:ALA:O	2.19	0.41
39:BE:52:LEU:O	39:BE:74:PRO:CA	2.67	0.41
1:AA:1129:C:H4'	1:AA:1130:A:H8	1.85	0.41
10:AJ:62:HIS:N	10:AJ:62:HIS:CD2	2.86	0.41
1:CA:1426:C:O2	1:CA:1475:G:C2	2.72	0.41
3:CC:18:TRP:C	3:CC:20:SER:N	2.72	0.41
25:D0:27:GLU:HB3	35:DA:856:C:H1'	2.01	0.41
1:CA:947:G:H2'	1:CA:948:C:H6	1.83	0.41
51:DT:62:THR:HA	51:DT:74:ARG:O	2.20	0.41
35:BA:2823:A:OP1	39:BE:113:PHE:HB2	2.20	0.41
41:BG:95:ARG:O	41:BG:96:ARG:C	2.58	0.41
41:BG:72:ARG:CD	41:BG:86:MET:HB2	2.49	0.41
4:AD:6:GLY:O	4:AD:8:VAL:HG13	2.20	0.41
35:DA:2785:C:H2'	35:DA:2786:U:O4'	2.20	0.41
53:BV:6:LYS:HE2	53:BV:6:LYS:HB3	1.93	0.41
8:CH:38:ILE:O	8:CH:38:ILE:HG22	2.20	0.41
6:CF:62:TRP:HB2	18:CR:35:ARG:NH1	2.35	0.41
35:BA:1471:A:C2	35:BA:1472:A:C4	3.08	0.41
35:DA:141:A:H1'	35:DA:1408:C:O2'	2.20	0.41
5:AE:148:VAL:C	5:AE:150:ARG:N	2.74	0.41
15:AO:56:LEU:HD21	35:BA:715:G:C2	2.55	0.41
41:DG:16:ARG:HD3	41:DG:28:VAL:HG11	2.02	0.41
43:DI:128:LEU:HB3	43:DI:129:THR:H	1.73	0.41
35:BA:2580:U:H5'	39:BE:131:ALA:N	2.27	0.41
35:DA:1833:U:C2	35:DA:1834:U:C6	3.07	0.41
43:DI:10:GLU:CD	43:DI:11:ASN:N	2.74	0.41
1:CA:1325:C:H5''	21:CU:6:ARG:HH21	1.84	0.41
41:DG:141:PHE:HB2	41:DG:144:ILE:HD12	2.01	0.41
35:DA:2789:C:H4'	35:DA:2789:C:OP1	2.20	0.41
48:DQ:55:VAL:O	48:DQ:56:ARG:C	2.58	0.41
40:BF:132:VAL:CG2	40:BF:133:ASN:N	2.72	0.41
35:BA:621:A:C2'	35:BA:622:G:H5'	2.48	0.41
31:B6:40:CYS:SG	31:B6:45:LYS:NZ	2.90	0.41
49:BR:56:LYS:HZ2	49:BR:88:ARG:N	2.18	0.41
1:CA:712:A:O2'	1:CA:713:G:H5'	2.20	0.41
20:CT:72:LEU:CD1	20:CT:77:ALA:HA	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2312:U:H4'	41:BG:71:THR:CG2	2.50	0.41
51:DT:8:LYS:C	51:DT:11:GLU:HB2	2.40	0.41
35:DA:270:A:N1	35:DA:366:C:O2'	2.49	0.41
35:DA:271(A):A:H62	35:DA:271(W):G:H21	1.67	0.41
34:D9:22:ARG:NH1	35:DA:2741:A:H5''	2.34	0.41
40:DF:36:VAL:HG11	40:DF:183:VAL:CG1	2.50	0.41
1:AA:712:A:O2'	1:AA:713:G:H5'	2.19	0.41
13:AM:78:ILE:H	13:AM:78:ILE:HG13	1.50	0.41
1:AA:1208:C:H2'	1:AA:1209:C:O4'	2.20	0.41
43:DI:29:TYR:HE1	43:DI:33:ARG:HE	1.59	0.41
35:DA:285:C:O2'	35:DA:286:C:H5'	2.20	0.41
35:DA:286:C:C2	35:DA:287:C:C5	3.08	0.41
16:AP:80:PHE:O	16:AP:82:GLN:N	2.53	0.41
48:DQ:139:GLU:C	48:DQ:141:GLN:N	2.74	0.41
7:AG:49:ILE:CA	7:AG:52:GLU:HG2	2.48	0.41
38:DD:8:PRO:CG	38:DD:14:ARG:HB2	2.49	0.41
35:BA:1721:G:C2	35:BA:1739:U:OP2	2.73	0.41
40:DF:64:ILE:CG2	40:DF:65:TRP:N	2.83	0.41
20:CT:99:LEU:C	20:CT:99:LEU:HD23	2.39	0.41
34:B9:19:ARG:O	34:B9:20:HIS:HB2	2.20	0.41
35:BA:1549:C:O2'	35:BA:1550:C:H5'	2.20	0.41
35:BA:309:G:O3'	56:BY:18:GLY:HA2	2.20	0.41
35:DA:28:A:H61	35:DA:512:G:H1'	1.85	0.41
35:BA:1907:G:H2'	35:BA:1908:C:C6	2.55	0.41
6:AF:81:ILE:O	6:AF:82:ARG:C	2.57	0.41
35:BA:2533:A:H5'	35:BA:2665:A:H1'	2.00	0.41
45:DN:93:THR:O	45:DN:94:HIS:CB	2.68	0.41
40:DF:53:THR:C	40:DF:55:GLY:H	2.24	0.41
34:D9:19:ARG:O	34:D9:20:HIS:HB2	2.20	0.41
15:AO:7:GLU:O	15:AO:11:VAL:HG23	2.20	0.41
1:CA:959:A:H2'	1:CA:960:U:C4'	2.50	0.41
35:BA:405:U:O4'	35:BA:405:U:O2	2.38	0.41
11:AK:101:SER:C	11:AK:103:LEU:N	2.70	0.41
16:CP:6:LEU:HD12	16:CP:6:LEU:N	2.35	0.41
1:AA:41:G:H2'	1:AA:42:G:C8	2.52	0.41
1:CA:512:U:H2'	1:CA:513:C:C6	2.55	0.41
35:DA:2585:U:O4'	35:DA:2585:U:O2	2.36	0.41
22:AW:53:G:N2	22:AW:62:C:H1'	2.35	0.41
26:D1:30:VAL:HG23	26:D1:31:GLY:N	2.34	0.41
5:AE:84:PHE:CE2	5:AE:133:TYR:HB2	2.55	0.41
41:DG:178:PHE:HB3	41:DG:180:PHE:HE2	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:78:GLY:O	3:AC:79:ARG:CB	2.67	0.41
35:BA:1587:A:H3'	35:BA:1588:C:H6	1.85	0.41
43:DI:51:ILE:HG22	43:DI:52:ARG:N	2.34	0.41
35:BA:143:G:C1'	55:BX:37:THR:HG21	2.50	0.41
35:DA:1590:U:H2'	35:DA:1591:G:C8	2.54	0.41
1:AA:1263:C:H2'	1:AA:1264:C:H6	1.85	0.41
1:AA:1263:C:H42	1:AA:1272:G:H1	1.67	0.41
12:AL:24:LEU:HG	12:AL:61:TYR:CE1	2.55	0.41
1:CA:778:G:O2'	1:CA:779:C:H5'	2.20	0.41
35:BA:1914:C:O2	35:BA:1914:C:O5'	2.38	0.41
1:AA:21:G:H2'	1:AA:22:G:C8	2.55	0.41
35:BA:2007:C:H2'	35:BA:2008:C:H6	1.84	0.41
35:DA:1480:G:N1	35:DA:1512:U:O2	2.53	0.41
57:BZ:120:ILE:H	57:BZ:120:ILE:HG12	1.73	0.41
47:BP:103:ALA:O	47:BP:104:GLY:O	2.37	0.41
56:DY:91:GLU:HB3	56:DY:92:ASN:H	1.66	0.41
35:DA:45:C:OP2	35:DA:215:G:H2'	2.20	0.41
28:B3:46:ASN:HA	28:B3:46:ASN:HD22	1.63	0.41
35:BA:1300:U:O2	35:BA:1300:U:H3'	2.20	0.41
16:CP:25:ARG:O	16:CP:26:ARG:C	2.57	0.41
35:BA:1439:A:H2'	35:BA:1440:G:O4'	2.19	0.41
42:BH:41:MET:HE1	42:BH:54:ARG:CB	2.50	0.41
42:DH:8:PRO:C	42:DH:9:ILE:HG12	2.40	0.41
1:AA:1493:A3P:H3'	24:AY:55:ASP:CG	2.40	0.41
1:CA:37:U:H2'	1:CA:38:G:C8	2.51	0.41
22:AV:55:U:O2'	22:AV:56:C:OP1	2.30	0.41
1:AA:926:G:H2'	1:AA:1505:G:N3	2.36	0.41
23:AX:13:A:H5''	23:AX:14:A:C4'	2.50	0.41
42:DH:124:GLU:CD	42:DH:132:ARG:HG3	2.40	0.41
35:DA:2821:A:P	39:DE:110:GLY:H	2.43	0.41
1:AA:629:G:H2'	1:AA:630:G:O4'	2.19	0.41
52:DU:69:CYS:SG	52:DU:79:PHE:CG	3.13	0.41
51:DT:23:ARG:C	51:DT:25:GLY:H	2.22	0.41
35:BA:1485:G:N3	35:BA:1505:C:C5	2.88	0.41
2:AB:164:VAL:HG12	2:AB:165:VAL:N	2.34	0.41
29:D4:52:THR:O	29:D4:53:GLU:HB2	2.20	0.41
41:DG:111:LEU:HD13	41:DG:179:PRO:CG	2.50	0.41
47:BP:81:GLN:HG2	47:BP:106:LEU:CD1	2.48	0.41
4:CD:102:ASP:HB3	4:CD:136:PRO:HB3	2.01	0.41
48:DQ:134:ARG:C	48:DQ:137:TYR:HD2	2.24	0.41
3:CC:164:ARG:NH2	3:CC:166:GLU:OE1	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1242:A:C2'	35:DA:1243:G:H5'	2.51	0.41
57:BZ:81:ARG:HH11	57:BZ:81:ARG:CB	2.33	0.41
43:DI:88:ILE:CG1	43:DI:89:TYR:N	2.83	0.41
38:DD:125:ILE:CD1	38:DD:136:ILE:HA	2.49	0.41
16:CP:49:LEU:HD13	16:CP:73:LEU:HB3	2.00	0.41
3:AC:113:ALA:O	3:AC:115:LEU:N	2.53	0.41
10:AJ:46:ARG:NH1	10:AJ:46:ARG:HG2	2.34	0.41
50:DS:99:LYS:HE2	50:DS:99:LYS:HB3	1.90	0.41
39:BE:5:LEU:HD12	39:BE:51:PHE:HB2	2.02	0.41
3:CC:43:LEU:O	3:CC:47:LEU:HB3	2.21	0.41
35:DA:2111:C:H1'	35:DA:2118:U:H5'	2.01	0.41
1:AA:979:C:H2'	1:AA:980:C:H5''	2.02	0.41
35:DA:528:A:C2	35:DA:2043:C:H4'	2.55	0.41
5:AE:48:ALA:O	5:AE:50:GLU:N	2.53	0.41
5:AE:55:VAL:O	5:AE:58:ALA:HB3	2.20	0.41
51:DT:31:SER:CB	51:DT:43:GLN:O	2.68	0.41
4:AD:8:VAL:O	4:AD:11:LEU:HG	2.20	0.41
43:DI:64:GLU:HA	43:DI:64:GLU:OE2	2.21	0.41
43:BI:102:SER:HB3	43:BI:109:ILE:CB	2.46	0.41
35:DA:1171:G:H1	35:DA:1178:C:H42	1.68	0.41
35:DA:1790:C:C5	35:DA:1828:G:C2	3.07	0.41
39:DE:1:MET:C	39:DE:84:PHE:HB2	2.41	0.41
39:DE:101:ARG:HH11	39:DE:171:GLU:CA	2.33	0.41
38:DD:70:TRP:C	38:DD:72:LYS:H	2.24	0.41
35:BA:2789:C:OP1	35:BA:2789:C:H4'	2.19	0.41
38:BD:267:SER:O	38:BD:270:ILE:HG13	2.19	0.41
16:AP:5:ARG:NE	16:AP:22:THR:CG2	2.83	0.41
1:AA:1077:G:H2'	1:AA:1079:G:OP2	2.20	0.41
49:BR:56:LYS:C	49:BR:58:GLY:H	2.23	0.41
39:BE:103:ASP:OD2	39:BE:201:THR:HA	2.20	0.41
55:DX:14:SER:O	55:DX:17:ALA:HB3	2.20	0.41
8:AH:64:LYS:CG	8:AH:79:VAL:HG21	2.47	0.41
4:CD:15:GLU:HG3	4:CD:63:LYS:CE	2.50	0.41
46:DO:114:ILE:HD12	46:DO:114:ILE:N	2.33	0.41
35:DA:271(D):G:O2'	35:DA:271(E):U:H5'	2.20	0.41
34:D9:34:GLN:O	34:D9:35:ARG:HB2	2.20	0.41
53:DV:100:ARG:CD	53:DV:100:ARG:O	2.65	0.41
35:DA:2222:G:C5'	38:DD:149:PRO:HG3	2.49	0.41
35:BA:286:C:H2'	35:BA:287:C:H6	1.84	0.41
36:DB:80:U:O2'	36:DB:81:G:H5''	2.20	0.41
17:AQ:87:LYS:CB	17:AQ:87:LYS:NZ	2.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:543:C:C2	1:CA:544:G:C8	3.08	0.41
1:CA:1378:C:C5	1:CA:1379:G:C8	3.09	0.41
2:AB:91:PRO:HB3	2:AB:155:LEU:HB2	2.01	0.41
48:BQ:140:ALA:O	48:BQ:141:GLN:CB	2.68	0.41
11:AK:33:THR:HB	11:AK:37:GLY:C	2.40	0.41
26:B1:85:LEU:HD23	26:B1:85:LEU:O	2.20	0.41
1:AA:1042:G:O2'	1:AA:1043:C:H5'	2.20	0.41
35:BA:486:C:H4'	54:BW:60:ASN:ND2	2.35	0.41
56:DY:16:ALA:O	56:DY:17:SER:O	2.38	0.41
35:BA:1582:C:O2'	35:BA:1586:A:C8	2.69	0.41
42:DH:62:LYS:C	42:DH:64:LEU:N	2.74	0.41
54:DW:29:LEU:HD12	54:DW:29:LEU:O	2.20	0.41
35:DA:1669:A:H2'	35:DA:1670:C:H5'	2.02	0.41
1:CA:617:G:O2'	16:CP:44:THR:HB	2.20	0.41
35:DA:1815:A:P	38:DD:54:ARG:HH22	2.43	0.41
42:BH:62:LYS:C	42:BH:64:LEU:N	2.74	0.41
1:AA:757:U:OP1	1:AA:822:C:O2'	2.36	0.41
17:CQ:50:LYS:HG3	17:CQ:51:TYR:N	2.35	0.41
39:BE:143:ASN:HD22	39:BE:147:PRO:CD	2.33	0.41
1:AA:198:G:H1	1:AA:219:C:H42	1.68	0.41
35:BA:1588:C:H2'	35:BA:1589:C:H6	1.85	0.41
1:AA:552:U:O2'	1:AA:553:A:H5'	2.20	0.41
53:BV:95:LEU:HD23	53:BV:95:LEU:C	2.40	0.41
35:DA:614:U:H3'	35:DA:614(A):U:C6	2.55	0.41
44:BJ:77:UNK:O	44:BJ:79:UNK:N	2.53	0.41
35:DA:375:C:H2'	35:DA:376:C:H6	1.85	0.41
48:BQ:37:LEU:HD12	48:BQ:128:LYS:HB3	2.01	0.41
35:DA:1512:U:H2'	35:DA:1513:C:C6	2.54	0.41
38:BD:227:ASN:HB3	38:BD:228:PRO:HD2	2.02	0.41
1:CA:822:C:O2'	1:CA:823:G:H5'	2.19	0.41
11:AK:24:SER:O	11:AK:26:ASN:N	2.53	0.41
35:DA:614(C):A:C4	40:DF:180:GLY:HA2	2.55	0.41
6:AF:89:MET:CE	18:AR:75:ILE:HD12	2.51	0.41
37:BC:48:GLY:HA3	37:BC:204:ALA:HB1	2.01	0.41
40:BF:41:LEU:HA	40:BF:41:LEU:HD23	1.87	0.41
3:CC:143:GLU:OE1	3:CC:143:GLU:HA	2.18	0.41
17:CQ:6:LEU:N	17:CQ:6:LEU:HD12	2.34	0.41
36:DB:52:A:H62	50:DS:33:LYS:HB2	1.85	0.41
22:CV:56:C:O5'	22:CV:56:C:C6	2.53	0.41
1:CA:38:G:N2	1:CA:397:A:C5'	2.84	0.41
58:CX:19:G:C4	58:CX:19:G:C5'	3.00	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:94:C:H5'	35:DA:94(A):G:OP2	2.20	0.41
1:CA:1323:G:H2'	1:CA:1324:A:C8	2.51	0.41
40:BF:3:GLU:HA	40:BF:24:LEU:CB	2.50	0.41
35:DA:611:C:H2'	35:DA:612:C:C6	2.53	0.41
56:BY:27:VAL:CA	56:BY:28:LYS:HZ1	2.27	0.41
40:DF:110:LEU:O	40:DF:114:VAL:HG23	2.20	0.41
52:DU:92:ARG:HD2	53:DV:11:GLN:NE2	2.36	0.41
42:BH:124:GLU:CD	42:BH:132:ARG:HG3	2.40	0.41
51:DT:83:ILE:CG1	51:DT:84:GLN:N	2.67	0.41
47:BP:50:ARG:HG3	47:BP:51:PHE:CD2	2.55	0.41
33:D8:40:GLU:O	33:D8:42:ARG:N	2.52	0.41
1:CA:918:A:H2'	1:CA:919:A:H8	1.84	0.41
1:AA:1152:A:C5'	10:AJ:70:ARG:NH2	2.75	0.41
57:DZ:28:MET:HG3	57:DZ:37:VAL:CG1	2.49	0.41
5:AE:11:ILE:CG2	5:AE:105:VAL:HG22	2.44	0.41
5:AE:11:ILE:HD11	5:AE:33:VAL:CG2	2.50	0.41
38:DD:15:PHE:O	38:DD:205:VAL:CG1	2.60	0.41
46:DO:24:VAL:O	46:DO:24:VAL:HG13	2.20	0.41
47:DP:97:PRO:C	47:DP:98:GLU:HG3	2.41	0.41
38:DD:94:LEU:C	38:DD:94:LEU:CD2	2.89	0.41
19:AS:42:PRO:O	19:AS:43:GLU:HB3	2.20	0.41
3:CC:148:GLY:HA3	3:CC:203:PHE:HB3	2.02	0.41
33:B8:14:VAL:HG21	33:B8:22:VAL:HG13	2.02	0.41
29:D4:42:PHE:CD1	29:D4:43:TYR:N	2.77	0.41
39:DE:111:ARG:CD	49:DR:2:ARG:NH2	2.82	0.41
35:BA:2469:A:H3'	35:BA:2470:G:O4'	2.21	0.41
12:CL:116:LYS:O	12:CL:117:TYR:HB2	2.20	0.41
8:AH:6:ILE:O	8:AH:10:LEU:HG	2.20	0.41
42:BH:158:HIS:CE1	42:BH:169:VAL:O	2.74	0.41
36:DB:104:U:HO2'	57:DZ:29:TYR:HE1	1.69	0.41
4:AD:98:GLU:HA	4:AD:103:ASN:ND2	2.35	0.41
1:CA:1415:G:C4	1:CA:1486:G:C2	3.07	0.41
1:AA:1374:A:C1'	7:AG:31:MET:HE1	2.51	0.41
51:DT:106:SER:O	51:DT:107:ASP:HB3	2.19	0.41
10:AJ:92:THR:CG2	10:AJ:93:GLY:H	2.14	0.41
1:CA:1053:G:O6	1:CA:1200:C:H5''	2.20	0.41
9:AI:110:GLU:O	9:AI:111:ARG:O	2.38	0.41
41:DG:92:VAL:HG13	41:DG:92:VAL:O	2.20	0.41
1:CA:979:C:C3'	1:CA:980:C:C5'	2.88	0.41
41:BG:43:LEU:O	41:BG:88:ILE:HG21	2.20	0.41
1:CA:818:G:HO2'	1:CA:820:U:H5	1.65	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:784:C:H4'	35:DA:1837:C:OP1	2.21	0.41
26:D1:56:GLN:HG3	26:D1:87:PRO:HD3	2.01	0.41
6:AF:8:ILE:HG22	6:AF:10:LEU:HD11	2.02	0.41
43:BI:8:PRO:HB3	43:BI:15:VAL:H	1.85	0.41
43:DI:110:ASP:CB	43:DI:130:TYR:OH	2.68	0.41
52:DU:25:TRP:O	52:DU:28:ARG:HB2	2.20	0.41
49:BR:69:ASP:C	49:BR:70:LEU:O	2.57	0.41
35:BA:464:U:H2'	35:BA:465:G:O4'	2.21	0.41
3:AC:170:GLN:HG2	3:AC:171:GLY:N	2.34	0.41
9:CI:86:VAL:CG2	9:CI:96:LEU:HD22	2.46	0.41
56:DY:50:ARG:HA	56:DY:50:ARG:HD3	1.80	0.41
57:BZ:11:GLU:H	57:BZ:11:GLU:CD	2.23	0.41
22:AV:29:G:C2	22:AV:30:G:C8	3.08	0.41
35:BA:1332:G:N2	35:BA:1609:A:C2'	2.84	0.41
13:CM:71:ARG:O	13:CM:74:VAL:N	2.53	0.41
11:AK:110:ASP:O	18:AR:84:LYS:CB	2.62	0.41
35:DA:1332:G:N2	35:DA:1609:A:C2'	2.84	0.41
16:AP:55:ARG:O	16:AP:56:ALA:C	2.58	0.41
22:AW:41:C:O5'	22:AW:41:C:H6	2.03	0.41
46:DO:18:LYS:HB2	46:DO:45:GLU:CG	2.46	0.41
35:DA:1491:G:O4'	38:DD:99:ASP:HB3	2.20	0.41
45:BN:17:ASP:O	45:BN:18:ALA:C	2.58	0.41
30:B5:55:ARG:HD3	30:B5:56:LYS:H	1.85	0.41
38:DD:67:PHE:CE1	38:DD:157:ARG:CZ	3.04	0.41
1:CA:1266:G:H2'	1:CA:1268:A:OP2	2.21	0.41
39:BE:117:MET:HE3	39:BE:124:GLY:HA3	2.02	0.41
35:BA:271(D):G:O2'	35:BA:271(E):U:H5'	2.21	0.41
4:CD:13:ARG:NH1	4:CD:36:ARG:HD3	2.34	0.41
4:CD:57:ARG:H	4:CD:57:ARG:HD2	1.85	0.41
1:CA:1381:U:C5	1:CA:1382:C:C4	3.09	0.41
22:CW:63:G:O2'	37:DC:53:ARG:HD3	2.21	0.41
31:D6:20:ASN:C	31:D6:21:TYR:CD1	2.94	0.41
1:CA:353:A:H2'	1:CA:354:G:OP2	2.20	0.41
45:DN:18:ALA:HB1	45:DN:21:LYS:HB3	2.01	0.41
48:BQ:35:VAL:CG1	48:BQ:130:LYS:HE2	2.51	0.41
35:DA:530:G:N3	35:DA:530:G:O4'	2.51	0.41
35:BA:2033:A:O2'	35:BA:2034:U:P	2.78	0.41
35:DA:2033:A:HO2'	35:DA:2034:U:P	2.43	0.41
34:D9:19:ARG:HA	35:DA:2757:A:OP1	2.20	0.41
35:DA:639:U:O2'	35:DA:640:C:H5'	2.19	0.41
35:BA:2328:A:H2'	35:BA:2329:G:C8	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:127:G:H2'	1:CA:128:G:C8	2.51	0.41
34:B9:22:ARG:NH1	35:BA:2741:A:OP1	2.53	0.41
1:AA:1360:A:H8	1:AA:1360:A:OP2	2.02	0.41
37:BC:80:GLY:HA3	37:BC:97:GLU:HG3	2.02	0.41
35:BA:1467:C:O2'	35:BA:1468:C:H5'	2.20	0.41
35:DA:1963:U:H4'	35:DA:1964:G:OP1	2.20	0.41
35:BA:581:C:H2'	35:BA:582:G:C8	2.56	0.41
48:DQ:2:LEU:CD1	48:DQ:69:PHE:HE1	2.34	0.41
50:BS:25:ARG:HH11	50:BS:25:ARG:HB3	1.84	0.41
12:AL:39:THR:HA	12:AL:50:ARG:O	2.19	0.41
35:DA:2124:G:H2'	35:DA:2125:G:H5'	2.02	0.41
9:AI:93:ARG:C	9:AI:95:LYS:H	2.24	0.41
35:BA:2124:G:H2'	35:BA:2125:G:H5'	2.01	0.41
46:BO:26:LYS:O	46:BO:27:GLY:O	2.38	0.41
1:CA:823:G:H21	8:CH:1:MET:HE3	1.85	0.41
27:B2:22:GLU:CG	27:B2:64:LEU:HD11	2.50	0.41
4:AD:191:ARG:HA	4:AD:191:ARG:HD2	1.86	0.41
35:BA:2850:A:OP2	35:BA:2866:U:H5	2.04	0.41
44:DJ:124:UNK:O	44:DJ:125:UNK:C	2.68	0.41
51:BT:90:GLN:NE2	51:BT:124:ASP:OD2	2.48	0.41
44:BJ:121:UNK:O	44:BJ:122:UNK:CB	2.69	0.41
42:BH:7:LEU:N	42:BH:7:LEU:HD12	2.11	0.41
42:BH:8:PRO:C	42:BH:9:ILE:CG1	2.87	0.41
8:CH:86:ILE:CB	8:CH:133:LEU:HD22	2.51	0.41
56:BY:81:LYS:HD3	56:BY:96:ILE:CG2	2.50	0.41
1:CA:1060:C:C2'	1:CA:1061:G:H5'	2.49	0.41
35:DA:632:A:N3	35:DA:2403:C:O2'	2.38	0.41
1:CA:838:G:H8	1:CA:838:G:O5'	2.02	0.41
56:DY:27:VAL:CA	56:DY:28:LYS:HE3	2.51	0.41
40:BF:3:GLU:O	40:BF:19:GLU:HB3	2.20	0.41
42:DH:83:TYR:HB3	42:DH:135:GLY:C	2.41	0.41
1:AA:606:G:N2	1:AA:631:G:H2'	2.35	0.41
52:BU:83:LEU:HA	52:BU:88:ILE:HG12	2.02	0.41
33:D8:53:PRO:HG2	33:D8:54:GLU:OE2	2.20	0.41
56:BY:28:LYS:HZ2	56:BY:28:LYS:CA	2.27	0.41
52:DU:95:LEU:HD13	53:DV:4:ILE:CG2	2.51	0.41
1:CA:8:A:N7	4:CD:208:SER:CB	2.83	0.41
5:CE:100:VAL:O	5:CE:107:ARG:NH2	2.50	0.41
5:CE:91:LEU:HD11	5:CE:110:LEU:HD11	2.01	0.41
5:CE:79:GLU:HA	5:CE:91:LEU:O	2.19	0.41
57:BZ:54:HIS:CD2	57:BZ:101:PRO:HG3	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BZ:30:ASN:HA	57:BZ:89:PHE:HE2	1.86	0.41
57:BZ:94:GLU:HA	57:BZ:94:GLU:OE1	2.20	0.41
1:CA:1081:G:OP1	5:CE:16:THR:O	2.38	0.41
1:CA:178:C:H2'	1:CA:179:A:C4'	2.49	0.41
2:CB:101:MET:CA	2:CB:108:ILE:HG21	2.49	0.41
2:CB:97:TRP:CZ3	2:CB:172:ILE:HD13	2.54	0.41
57:DZ:86:VAL:HG12	57:DZ:87:ASP:N	2.36	0.41
15:CO:86:GLY:O	15:CO:87:ILE:HG23	2.20	0.41
35:BA:637:A:H4'	35:BA:638:G:O5'	2.21	0.41
5:AE:92:LYS:O	5:AE:118:ILE:HD12	2.21	0.41
38:DD:2:ALA:O	38:DD:3:VAL:HG23	2.21	0.41
2:AB:169:LYS:O	2:AB:170:GLU:HG3	2.19	0.41
2:AB:97:TRP:CZ3	2:AB:172:ILE:HD13	2.54	0.41
2:AB:204:ASN:ND2	2:AB:206:ASP:H	2.18	0.41
2:AB:74:LYS:O	2:AB:76:GLN:N	2.53	0.41
41:DG:123:ASN:C	41:DG:125:PHE:H	2.24	0.41
41:DG:41:GLN:CA	41:DG:155:MET:HB3	2.50	0.41
19:CS:42:PRO:O	19:CS:43:GLU:HB3	2.20	0.41
35:DA:636:G:H4'	35:DA:638:G:O3'	2.21	0.41
1:CA:1014:A:H4'	19:CS:14:HIS:ND1	2.34	0.41
51:BT:36:GLU:O	51:BT:38:ASN:ND2	2.53	0.41
35:BA:2845:G:O2'	35:BA:2846:G:H5'	2.20	0.41
30:D5:46:CYS:HG	30:D5:49:CYS:HG	1.62	0.41
1:AA:1216:G:OP1	14:AN:2:ALA:HA	2.20	0.41
1:CA:1105:A:H2'	1:CA:1106:G:H8	1.85	0.41
3:CC:134:ILE:HG23	3:CC:151:VAL:CG1	2.51	0.41
43:BI:123:LEU:HD21	43:BI:144:VAL:HG13	2.00	0.41
43:BI:78:THR:HA	43:BI:141:LYS:HB2	2.03	0.41
42:DH:158:HIS:CE1	42:DH:169:VAL:O	2.74	0.41
1:CA:1487:G:H2'	1:CA:1488:G:O4'	2.20	0.41
1:CA:1469:G:H2'	1:CA:1470:G:C8	2.54	0.41
38:BD:125:ILE:CD1	38:BD:136:ILE:HA	2.51	0.41
5:CE:57:LYS:O	5:CE:61:TYR:HD2	2.02	0.41
55:DX:8:ILE:N	55:DX:8:ILE:HD12	2.35	0.41
3:CC:186:PHE:CE2	3:CC:188:LEU:HD21	2.55	0.41
26:D1:27:GLU:O	26:D1:28:GLY:C	2.59	0.41
41:DG:61:ALA:HB2	41:DG:68:PRO:HD3	2.02	0.41
1:CA:948:C:O2'	1:CA:949:A:H5'	2.20	0.41
8:AH:86:ILE:CB	8:AH:133:LEU:HD22	2.50	0.41
53:DV:34:GLU:CG	53:DV:34:GLU:O	2.68	0.41
54:DW:1:MET:HE3	54:DW:2:GLU:N	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D1:51:VAL:HG22	26:D1:52:ARG:H	1.86	0.41
1:AA:562:C:C2	12:AL:13:GLU:HB3	2.55	0.41
35:DA:2699:C:H2'	35:DA:2700:C:O4'	2.21	0.41
35:BA:1888:G:H5'	35:BA:1888:G:N3	2.36	0.41
13:AM:71:ARG:O	13:AM:74:VAL:N	2.53	0.41
35:BA:364:C:C2'	35:BA:365:C:C5'	2.96	0.41
11:AK:84:VAL:CG2	11:AK:110:ASP:HA	2.49	0.41
1:CA:411:A:H62	1:CA:413:G:H21	1.68	0.41
5:AE:36:ASP:OD1	5:AE:38:GLN:HB2	2.20	0.41
5:AE:6:PHE:N	5:AE:63:ARG:HH12	2.18	0.41
5:AE:41:VAL:HG23	5:AE:67:VAL:HG11	2.01	0.41
17:AQ:69:LYS:O	17:AQ:70:ARG:HD2	2.21	0.41
49:BR:56:LYS:HA	49:BR:84:ALA:HB1	2.01	0.41
55:DX:26:TYR:CD1	55:DX:89:ILE:HD13	2.56	0.41
55:DX:26:TYR:O	55:DX:81:VAL:HG22	2.21	0.41
35:BA:2406:U:C4	47:BP:72:PRO:HG2	2.55	0.41
17:AQ:3:LYS:O	17:AQ:5:VAL:HG23	2.20	0.41
35:DA:271(A):A:H1'	35:DA:365:C:O4'	2.21	0.41
35:BA:863:A:OP2	48:BQ:22:LYS:HD2	2.20	0.41
13:AM:90:LEU:O	13:AM:91:ARG:HB2	2.20	0.41
11:AK:34:ASP:CB	11:AK:35:PRO:CD	2.97	0.41
5:CE:70:PRO:HB3	5:CE:144:THR:CG2	2.50	0.41
4:CD:13:ARG:O	4:CD:16:GLY:N	2.48	0.41
35:BA:616:G:H5'	40:BF:107:LYS:NZ	2.35	0.41
11:CK:23:ALA:HA	11:CK:28:THR:HA	2.02	0.41
1:CA:1421:G:C6	1:CA:1480:G:N1	2.88	0.41
1:AA:107:G:H2'	1:AA:108:G:H5'	2.02	0.41
1:CA:1380:U:C4	7:CG:3:ARG:HD3	2.55	0.41
1:CA:82:U:H2'	1:CA:83:U:C5	2.54	0.41
42:DH:94:TYR:CD1	42:DH:160:LYS:HG2	2.56	0.41
8:CH:82:HIS:CE1	8:CH:84:ARG:HB2	2.56	0.41
43:BI:2:LYS:HB3	43:BI:39:ALA:CB	2.50	0.41
1:AA:1258:G:H2'	1:AA:1259:C:C5	2.55	0.41
35:DA:304:G:H2'	35:DA:305:U:C6	2.55	0.41
13:CM:117:VAL:O	13:CM:117:VAL:HG22	2.20	0.41
36:DB:6:C:C2	36:DB:116:G:N2	2.88	0.41
35:BA:639:U:C2	35:BA:640:C:C5	3.08	0.41
35:BA:639:U:O2'	35:BA:640:C:H5'	2.20	0.41
35:DA:1860:G:H1	35:DA:1882:C:H42	1.68	0.41
1:CA:560:U:O2'	1:CA:561:U:OP2	2.29	0.41
35:BA:522:G:H2'	35:BA:523:C:H6	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1076:C:N3	1:AA:1082:G:C2	2.88	0.41
8:AH:68:ARG:HG2	8:AH:69:ARG:N	2.35	0.41
1:CA:1278:U:H5'	1:CA:1279:A:C8	2.55	0.41
39:BE:93:VAL:HG11	39:BE:180:ASN:CA	2.50	0.41
3:AC:13:GLY:HA3	14:AN:57:ARG:CD	2.50	0.41
35:BA:1417:C:H4'	35:BA:1588:C:O2	2.20	0.41
35:BA:1861:G:O2'	35:BA:1862:G:H5'	2.20	0.41
49:DR:49:ASP:C	49:DR:51:LEU:N	2.74	0.41
39:DE:93:VAL:HG11	39:DE:180:ASN:CA	2.50	0.41
1:AA:967:C:H4'	9:AI:125:TYR:HE2	1.83	0.41
35:BA:1844:C:O2'	35:BA:1845:G:H5'	2.20	0.41
1:AA:9:G:H2'	1:AA:10:A:H8	1.85	0.41
35:DA:768:G:C6	35:DA:769:G:C5	3.07	0.41
40:BF:36:VAL:HG11	40:BF:183:VAL:CG1	2.51	0.41
35:DA:2627:G:N3	35:DA:2781:A:H2	2.18	0.41
1:AA:667:G:H4'	15:AO:51:HIS:CE1	2.56	0.41
49:BR:101:ALA:O	49:BR:102:GLU:HB2	2.20	0.41
35:BA:2627:G:N3	35:BA:2781:A:H2	2.18	0.41
35:BA:585:G:H2'	35:BA:1251:C:H42	1.86	0.41
35:BA:956:G:N2	35:BA:959:A:H3'	2.35	0.41
24:AY:3:LYS:HE3	24:AY:3:LYS:HB2	1.80	0.41
35:DA:2149:G:H2'	35:DA:2150:U:O4'	2.20	0.41
1:CA:1077:G:H1	5:CE:47:LYS:HZ3	1.68	0.41
36:DB:68:C:H2'	36:DB:69:G:H8	1.85	0.41
1:CA:1343:G:O2'	9:CI:121:ARG:HA	2.19	0.41
1:CA:1060:C:H2'	1:CA:1061:G:H5'	2.01	0.41
1:CA:11:G:O2'	1:CA:12:U:C5'	2.55	0.41
33:D8:47:LYS:HG3	33:D8:47:LYS:H	1.81	0.41
40:DF:120:GLU:C	40:DF:122:LYS:H	2.24	0.41
40:DF:25:PRO:C	40:DF:27:GLU:N	2.62	0.41
22:AV:37:A:C2	23:AX:16:A:C6	3.09	0.41
46:DO:80:ASP:OD2	51:DT:71:GLY:HA3	2.20	0.41
3:AC:103:VAL:O	3:AC:105:GLU:N	2.53	0.41
1:CA:19:C:O2	1:CA:917:G:C2	2.74	0.41
1:CA:862:C:H2'	1:CA:863:U:H5'	2.01	0.41
51:BT:13:ARG:CA	51:BT:13:ARG:CZ	2.96	0.41
2:CB:197:VAL:HG11	2:CB:200:ILE:HG21	2.03	0.41
57:DZ:59:LEU:HG	57:DZ:69:THR:OG1	2.21	0.41
1:AA:1014:A:H4'	19:AS:14:HIS:CE1	2.56	0.41
5:AE:79:GLU:HA	5:AE:91:LEU:O	2.21	0.41
38:BD:61:LEU:HA	38:BD:61:LEU:HD13	1.79	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:D4:52:THR:CG2	29:D4:53:GLU:H	2.05	0.41
41:DG:121:ASN:HB3	41:DG:124:SER:OG	2.19	0.41
35:DA:637:A:H4'	35:DA:638:G:O5'	2.21	0.41
19:CS:13:ASP:O	19:CS:15:LEU:N	2.53	0.41
47:DP:81:GLN:HG2	47:DP:106:LEU:CD1	2.47	0.41
13:CM:9:ILE:HG22	13:CM:11:ARG:HG3	2.02	0.41
43:DI:125:GLU:OE1	43:DI:125:GLU:HA	2.20	0.41
1:AA:1280:A:C8	10:AJ:41:PRO:HD3	2.55	0.41
3:AC:47:LEU:CD2	3:AC:68:VAL:HG11	2.51	0.41
13:AM:12:ASN:O	13:AM:44:ARG:HD2	2.21	0.41
8:AH:29:SER:C	8:AH:31:PHE:N	2.73	0.41
45:DN:30:ILE:HD13	45:DN:54:VAL:HG21	2.02	0.41
57:DZ:31:ARG:HG3	57:DZ:32:HIS:N	2.35	0.41
35:DA:1114:G:H3'	35:DA:1115:G:C5'	2.46	0.41
1:CA:1409:C:N3	1:CA:1410:G:N7	2.68	0.41
1:CA:1487:G:H3'	1:CA:1488:G:C8	2.54	0.41
39:BE:28:ALA:O	39:BE:29:GLY:O	2.38	0.41
43:BI:62:LYS:HA	43:BI:133:HIS:NE2	2.35	0.41
37:BC:85:GLU:O	37:BC:85:GLU:HG2	2.20	0.41
38:BD:120:GLY:HA2	38:BD:190:TYR:OH	2.21	0.41
22:AV:51:C:C2	22:AV:52:G:C8	3.09	0.41
51:DT:31:SER:HG	51:DT:32:TYR:N	2.18	0.41
35:DA:1471:A:H2'	35:DA:1471:A:N3	2.36	0.41
51:DT:78:LEU:HD23	51:DT:79:HIS:CE1	2.52	0.41
4:AD:11:LEU:HD23	4:AD:11:LEU:H	1.84	0.41
57:DZ:155:LEU:O	57:DZ:157:LEU:N	2.54	0.41
57:DZ:158:PRO:O	57:DZ:161:VAL:HG23	2.19	0.41
9:AI:98:PRO:O	9:AI:99:LEU:HD22	2.18	0.41
10:CJ:29:ARG:HB3	10:CJ:29:ARG:CZ	2.49	0.41
46:DO:86:ILE:HD12	46:DO:86:ILE:N	2.35	0.41
57:DZ:126:VAL:HG12	57:DZ:163:LEU:HA	2.03	0.41
3:AC:15:THR:HG22	3:AC:16:ARG:H	1.84	0.41
45:BN:32:THR:CG2	45:BN:37:LYS:HB2	2.43	0.41
28:B3:43:ILE:CD1	28:B3:43:ILE:N	2.83	0.41
1:CA:107:G:C2'	1:CA:108:G:H5'	2.51	0.41
1:CA:376:G:O4'	16:CP:28:ARG:HD3	2.20	0.41
38:DD:99:ASP:N	38:DD:99:ASP:OD2	2.52	0.41
1:CA:715:A:O2'	1:CA:716:A:H5'	2.20	0.41
56:BY:31:LEU:CD2	56:BY:31:LEU:N	2.82	0.41
35:BA:953:A:C2'	35:BA:954:G:H5'	2.50	0.41
1:CA:1165:C:H42	1:CA:1171:G:H22	1.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BZ:116:VAL:HG12	57:BZ:117:LEU:N	2.35	0.41
35:DA:1771:C:H1'	35:DA:1786:A:C8	2.55	0.41
12:CL:82:ILE:HD11	12:CL:95:TYR:HB3	2.01	0.41
1:AA:321:A:C2	1:AA:333:G:C2	3.09	0.41
1:CA:937:A:C2	1:CA:1379:G:C6	3.08	0.41
1:AA:1457:G:O2'	1:AA:1458:G:H5'	2.20	0.41
35:BA:1145:C:O2'	35:BA:1146:C:H5'	2.20	0.41
4:AD:129:ASN:N	4:AD:129:ASN:ND2	2.68	0.41
35:BA:1188:U:H2'	35:BA:1189:A:H5'	2.01	0.41
1:AA:1378:C:C5	1:AA:1379:G:C8	3.09	0.41
42:DH:77:LYS:CD	42:DH:77:LYS:N	2.84	0.41
1:CA:828:A:H5''	1:CA:859:A:C2	2.56	0.41
35:BA:1815:A:P	38:BD:54:ARG:HH22	2.44	0.41
35:BA:2567:G:H2'	35:BA:2568:C:H6	1.85	0.41
35:BA:1385:G:O2'	35:BA:1396:U:H6	2.04	0.41
35:DA:1861:G:O2'	35:DA:1862:G:H5'	2.21	0.41
45:BN:3:THR:O	45:BN:4:TYR:CD1	2.74	0.41
13:AM:102:ARG:HG3	13:AM:102:ARG:HH11	1.85	0.41
1:AA:274:A:H4'	1:AA:275:G:OP1	2.19	0.41
35:DA:318:C:O2'	35:DA:319:C:H5'	2.20	0.41
45:BN:39:ARG:C	45:BN:41:ASP:N	2.74	0.41
13:CM:37:THR:O	13:CM:55:ARG:NE	2.53	0.41
5:CE:123:LEU:O	5:CE:124:GLY:C	2.58	0.41
1:CA:31:G:C8	1:CA:48:C:C4	3.09	0.41
1:CA:1528:U:O2	1:CA:1530:G:H5'	2.21	0.41
11:CK:126:ARG:C	11:CK:128:ALA:N	2.74	0.41
28:B3:8:LEU:HB3	28:B3:31:LEU:HA	2.03	0.41
49:DR:116:LEU:O	49:DR:117:VAL:C	2.59	0.41
9:CI:92:TYR:HB3	9:CI:95:LYS:HD2	2.03	0.41
38:BD:39:LYS:HB2	38:BD:62:TYR:HB2	2.01	0.41
35:BA:1544:A:C2	35:BA:1545:A:C2	3.07	0.41
35:DA:84:A:O5'	56:DY:9:LYS:HE3	2.19	0.41
27:B2:22:GLU:HG2	27:B2:64:LEU:HD11	2.03	0.41
35:BA:1129:A:H2	35:BA:2569:G:N3	2.18	0.41
35:DA:2525:G:O2'	35:DA:2526:G:H5'	2.20	0.41
1:AA:296:U:H2'	1:AA:297:G:C8	2.56	0.41
34:D9:15:LYS:HZ3	34:D9:26:ILE:HD11	1.84	0.41
35:DA:2236:C:C2'	35:DA:2237:G:H5'	2.50	0.41
1:AA:811:C:H4'	1:AA:900:A:N6	2.35	0.41
24:AY:55:ASP:CG	24:AY:58:ALA:CB	2.88	0.41
22:AV:56:C:C6	22:AV:56:C:P	3.13	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1399:C:C3'	1:AA:1400:C:H5'	2.46	0.41
14:CN:41:ARG:NE	14:CN:42:ILE:HD11	2.34	0.41
40:BF:2:LYS:C	40:BF:4:VAL:H	2.23	0.41
53:BV:52:VAL:O	53:BV:53:GLU:C	2.58	0.41
47:DP:47:ASP:OD1	47:DP:49:ARG:HB2	2.20	0.41
50:BS:92:TYR:O	50:BS:94:TYR:N	2.53	0.41
53:DV:51:VAL:HG12	53:DV:52:VAL:O	2.20	0.41
51:DT:29:ARG:CG	51:DT:85:LYS:HA	2.51	0.41
33:B8:7:HIS:HB2	33:B8:59:LYS:HB3	2.02	0.41
33:D8:30:ARG:HD3	33:D8:30:ARG:HA	1.54	0.41
1:CA:1081:G:O2'	1:CA:1082:G:H5'	2.20	0.41
57:DZ:8:TYR:CD1	57:DZ:8:TYR:N	2.89	0.41
35:DA:1025:G:C4	35:DA:1135:C:H1'	2.56	0.41
35:BA:1567:A:O4'	35:BA:1568:G:C2	2.74	0.41
3:CC:90:GLU:HA	3:CC:93:LYS:HZ1	1.85	0.41
29:D4:35:VAL:HG21	41:DG:113:ARG:HD2	2.01	0.41
41:DG:117:PHE:CE1	41:DG:119:GLY:N	2.89	0.41
19:CS:29:ARG:HD2	19:CS:30:LEU:N	2.35	0.41
47:DP:147:LEU:O	47:DP:148:LEU:HB2	2.21	0.41
1:CA:1149:C:OP1	9:CI:14:VAL:HG21	2.21	0.41
30:D5:45:VAL:HA	30:D5:51:TYR:CD1	2.56	0.41
1:CA:622:A:C8	1:CA:623:C:C6	3.08	0.41
8:AH:63:LEU:CB	8:AH:65:TYR:CE1	3.02	0.41
43:BI:125:GLU:OE2	43:BI:141:LYS:HG2	2.21	0.41
43:BI:79:ILE:HG13	43:BI:92:VAL:CG2	2.50	0.41
43:BI:93:THR:CG2	43:BI:95:LYS:H	2.34	0.41
3:AC:134:ILE:HD12	3:AC:166:GLU:HG2	2.03	0.41
9:AI:50:LEU:O	9:AI:53:VAL:HG22	2.20	0.41
9:AI:50:LEU:HD21	9:AI:81:ILE:CG2	2.50	0.41
12:AL:114:ARG:HG3	12:AL:114:ARG:HH11	1.85	0.41
35:DA:1247:A:OP1	40:DF:95:ARG:NH2	2.50	0.41
38:BD:79:VAL:HG11	38:BD:111:LEU:CD1	2.51	0.41
39:DE:79:ARG:N	39:DE:79:ARG:HD2	2.35	0.41
1:AA:1374:A:H1'	7:AG:31:MET:CE	2.51	0.41
4:CD:25:ARG:NH1	4:CD:35:ARG:HH12	2.02	0.41
1:CA:1473:A:C2'	1:CA:1474:G:H5'	2.49	0.41
5:CE:55:VAL:O	5:CE:58:ALA:HB3	2.21	0.41
35:DA:1578:U:H2'	35:DA:1579:A:C5'	2.51	0.41
35:DA:2040:C:H2'	35:DA:2041:U:O4'	2.20	0.41
38:BD:24:ILE:HD12	38:BD:25:THR:CA	2.50	0.41
1:AA:429:U:OP1	4:AD:32:ALA:HB1	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BI:110:ASP:CB	43:BI:130:TYR:OH	2.69	0.41
35:DA:1428:C:O2'	35:DA:1569:A:OP2	2.29	0.41
9:AI:103:THR:O	9:AI:104:ARG:C	2.59	0.41
9:AI:96:LEU:O	9:AI:99:LEU:O	2.38	0.41
38:BD:45:ASN:C	38:BD:46:GLN:OE1	2.59	0.41
1:CA:1347:G:C8	9:CI:107:ARG:HB2	2.55	0.41
45:BN:70:LYS:O	45:BN:86:PRO:HA	2.20	0.41
49:BR:11:ASN:O	49:BR:12:ARG:CG	2.61	0.41
1:AA:1372:U:H2'	1:AA:1373:G:O4'	2.19	0.41
1:AA:1347:G:H21	1:AA:1373:G:H2'	1.79	0.41
45:BN:68:GLU:O	45:BN:69:GLN:CB	2.69	0.41
17:CQ:67:LYS:HA	17:CQ:70:ARG:NH1	2.25	0.41
35:DA:2808:U:H5'	35:DA:2891:G:O6	2.20	0.41
7:CG:145:ALA:O	7:CG:146:GLU:CB	2.67	0.41
35:DA:2206:G:C3'	35:DA:2206:G:N3	2.83	0.41
1:CA:1057:G:C4'	3:CC:196:LEU:O	2.64	0.41
35:BA:1331:A:O2'	35:BA:1332:G:H5''	2.20	0.41
13:CM:69:GLU:OE1	13:CM:70:LEU:N	2.54	0.41
5:AE:41:VAL:O	5:AE:66:MET:HA	2.20	0.41
52:BU:25:TRP:C	52:BU:25:TRP:CD1	2.94	0.41
49:BR:82:GLU:O	49:BR:86:ARG:HG3	2.20	0.41
1:CA:710:G:O2'	1:CA:711:G:H5'	2.21	0.41
11:CK:37:GLY:O	11:CK:39:PRO:HD3	2.21	0.41
28:B3:28:LEU:HA	28:B3:33:GLN:OE1	2.21	0.41
31:D6:15:GLU:OE1	31:D6:43:CYS:SG	2.77	0.41
1:CA:1269:A:H5'	21:CU:18:TYR:O	2.21	0.41
17:AQ:54:GLY:HA3	17:AQ:82:MET:SD	2.61	0.41
35:DA:271(E):U:H2'	35:DA:271(F):C:H6	1.83	0.41
21:CU:2:GLY:C	21:CU:4:GLY:N	2.68	0.41
35:DA:1982:C:C5'	35:DA:1983:C:OP2	2.69	0.41
1:AA:226:G:C2	1:AA:227:G:C8	3.09	0.41
39:BE:69:LYS:HZ2	39:BE:89:ASP:HA	1.82	0.41
31:D6:19:ARG:HD3	35:DA:2400:G:O3'	2.21	0.41
31:D6:19:ARG:HB2	31:D6:20:ASN:H	1.71	0.41
1:CA:880:C:O2'	1:CA:881:G:H5'	2.19	0.41
13:AM:117:VAL:O	13:AM:117:VAL:HG22	2.21	0.41
1:CA:683:G:H2'	1:CA:684:A:C8	2.56	0.41
15:CO:17:ARG:NH1	15:CO:77:ARG:NH1	2.68	0.41
1:CA:1042:G:O2'	1:CA:1043:C:H5'	2.20	0.41
35:BA:304:G:H2'	35:BA:305:U:C6	2.55	0.41
1:AA:683:G:H2'	1:AA:684:A:H8	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1069:C:N4	1:AA:1094:G:N2	2.69	0.41
37:BC:34:THR:O	37:BC:34:THR:HG23	2.21	0.41
29:B4:14:ILE:N	29:B4:14:ILE:CD1	2.83	0.41
37:DC:80:GLY:HA3	37:DC:97:GLU:HG3	2.03	0.41
35:BA:536:A:H2'	35:BA:537:C:C6	2.55	0.41
41:DG:170:ARG:CZ	41:DG:170:ARG:HB2	2.51	0.41
1:CA:562:C:N4	1:CA:884:U:C6	2.88	0.41
48:BQ:41:TRP:HB3	48:BQ:94:VAL:HB	2.01	0.41
11:CK:120:ARG:HD3	11:CK:120:ARG:HH11	1.76	0.41
43:BI:98:ALA:CB	43:BI:111:PRO:HA	2.50	0.41
27:B2:13:ALA:C	27:B2:15:LYS:H	2.22	0.41
1:AA:143:A:H2	1:AA:220:G:H1	1.68	0.41
1:CA:668:G:O2'	1:CA:669:U:H5'	2.20	0.41
19:AS:8:GLY:O	19:AS:10:PHE:HD1	2.03	0.41
1:CA:971:G:OP1	1:CA:972:C:H5''	2.20	0.41
40:DF:180:GLY:O	40:DF:181:LEU:C	2.58	0.41
37:DC:48:GLY:HA3	37:DC:204:ALA:HB1	2.01	0.41
35:BA:1641:A:H2'	35:BA:1642:G:O4'	2.21	0.41
35:DA:15:G:O2'	35:DA:16:G:H5'	2.19	0.41
26:B1:25:LYS:HB2	35:BA:388:G:H5'	2.02	0.41
35:DA:352:G:H4'	35:DA:353:G:N7	2.36	0.41
54:BW:20:VAL:O	54:BW:23:LEU:HB2	2.19	0.41
35:BA:1679:U:C2'	35:BA:1680:U:H5'	2.50	0.41
40:BF:167:ALA:HA	40:BF:170:LEU:HD23	2.02	0.41
45:BN:108:PRO:O	45:BN:113:GLY:HA3	2.20	0.41
27:D2:40:SER:C	27:D2:42:GLY:H	2.23	0.41
35:DA:1034:G:H2'	35:DA:1035:U:O4'	2.21	0.41
11:AK:91:ARG:O	11:AK:94:ALA:HB3	2.21	0.41
35:BA:1259:G:H2'	35:BA:1260:G:C8	2.55	0.41
42:DH:46:GLU:H	42:DH:46:GLU:CD	2.24	0.41
47:BP:59:LEU:O	47:BP:59:LEU:CG	2.68	0.41
1:CA:1494:G:H2'	1:CA:1495:U:H6	1.83	0.41
13:CM:78:ILE:HG13	13:CM:78:ILE:H	1.50	0.41
7:CG:80:VAL:HA	58:CX:12:A:N6	2.36	0.41
58:CX:16:A:N1	58:CX:17:U:C5	2.89	0.41
52:BU:92:ARG:HD2	52:BU:95:LEU:CD1	2.50	0.41
50:BS:64:GLU:HA	50:BS:67:ARG:HB3	2.02	0.41
53:DV:45:THR:C	53:DV:46:VAL:HG12	2.41	0.41
1:CA:33:A:C2'	1:CA:34:C:OP1	2.69	0.41
35:DA:1502:C:H2'	35:DA:1503:U:H6	1.84	0.41
1:CA:1076:C:N3	1:CA:1082:G:C2	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:193:ASP:OD1	2:CB:196:LEU:HG	2.20	0.41
2:CB:21:ARG:C	2:CB:23:ARG:H	2.24	0.41
33:B8:34:TRP:CA	35:BA:2420:C:OP1	2.66	0.41
47:BP:83:VAL:N	47:BP:115:LEU:CD2	2.83	0.41
19:AS:9:VAL:HG12	19:AS:9:VAL:O	2.20	0.41
2:AB:101:MET:HA	2:AB:108:ILE:CG2	2.47	0.41
2:AB:175:ARG:HA	2:AB:178:ARG:HB2	2.01	0.41
46:DO:98:VAL:HG13	46:DO:118:ALA:HA	2.02	0.41
15:AO:82:ILE:HA	15:AO:87:ILE:HD11	2.03	0.41
1:CA:1148:U:C4'	9:CI:16:ARG:HD2	2.50	0.41
9:CI:50:LEU:O	9:CI:53:VAL:HG22	2.21	0.41
10:CJ:35:SER:N	10:CJ:73:ASP:O	2.54	0.41
3:CC:172:ARG:O	3:CC:173:VAL:CG2	2.68	0.41
35:BA:1921:G:O2'	35:BA:1922:G:H5'	2.21	0.41
35:BA:1593:G:H2'	35:BA:1594:G:O4'	2.20	0.41
43:DI:93:THR:CG2	43:DI:95:LYS:H	2.34	0.41
10:AJ:28:ARG:CA	10:AJ:34:VAL:HG23	2.46	0.41
35:DA:6:A:O2'	45:DN:130:HIS:HD2	2.04	0.41
39:DE:28:ALA:O	39:DE:29:GLY:O	2.38	0.41
57:BZ:64:GLY:O	57:BZ:65:GLN:C	2.59	0.41
5:CE:56:GLN:O	5:CE:57:LYS:C	2.58	0.41
1:AA:979:C:C3'	1:AA:980:C:C5'	2.89	0.41
1:CA:973:G:H1'	10:CJ:55:LYS:HE2	2.01	0.41
9:AI:113:LYS:H	9:AI:119:ALA:HA	1.86	0.41
41:BG:55:LYS:O	41:BG:58:GLN:NE2	2.52	0.41
41:BG:17:PRO:HA	41:BG:20:ILE:HD12	2.01	0.41
3:AC:186:PHE:O	3:AC:187:ALA:HB2	2.20	0.41
53:DV:19:LYS:HG3	53:DV:20:LEU:H	1.84	0.41
1:AA:1053:G:N7	1:AA:1200:C:H5''	2.36	0.41
26:D1:74:VAL:O	26:D1:77:ALA:HB3	2.21	0.41
48:DQ:35:VAL:CG1	48:DQ:130:LYS:HE2	2.51	0.41
35:BA:2854:G:O2'	35:BA:2855:C:H5'	2.21	0.41
3:CC:15:THR:HG22	3:CC:16:ARG:H	1.86	0.41
39:BE:129:HIS:O	39:BE:130:GLY:O	2.38	0.41
27:B2:69:ARG:NH1	35:BA:111:A:H5''	2.35	0.41
45:BN:67:LEU:H	45:BN:67:LEU:CD1	2.27	0.41
41:DG:173:LEU:O	41:DG:176:LEU:HB2	2.20	0.41
38:BD:211:ARG:HA	38:BD:214:TRP:CE3	2.56	0.41
3:AC:195:VAL:O	3:AC:196:LEU:HD22	2.21	0.41
9:CI:97:LYS:HD2	9:CI:97:LYS:HA	1.85	0.41
25:D0:45:PHE:HE2	25:D0:69:PHE:CE2	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:195:VAL:O	3:CC:196:LEU:HD22	2.20	0.41
1:AA:640:A:C2'	1:AA:641:U:H5'	2.51	0.41
13:AM:118:ALA:HB3	22:AV:29:G:C5'	2.51	0.41
1:AA:255:G:H5'	17:AQ:16:GLN:O	2.21	0.41
3:CC:126:ARG:O	3:CC:127:ARG:HB2	2.20	0.41
20:AT:69:GLY:O	20:AT:73:HIS:CD2	2.73	0.41
8:AH:44:PHE:CD1	8:AH:79:VAL:HG12	2.56	0.41
55:DX:43:VAL:HG23	55:DX:51:VAL:CG2	2.51	0.41
18:CR:47:THR:C	18:CR:83:GLU:OE1	2.59	0.41
17:CQ:84:LEU:O	17:CQ:85:VAL:C	2.59	0.41
18:AR:36:ASN:HB3	18:AR:39:VAL:HG23	1.99	0.41
12:AL:25:LYS:HB2	12:AL:30:ARG:HH12	1.86	0.41
35:DA:285:C:H2'	35:DA:286:C:H6	1.86	0.41
4:AD:188:LEU:CD1	4:AD:188:LEU:H	2.32	0.41
35:DA:2880:C:O2'	49:DR:90:ARG:HD3	2.21	0.41
12:CL:25:LYS:HD3	12:CL:30:ARG:NH2	2.32	0.41
35:DA:648:G:H1'	35:DA:2351:G:OP1	2.20	0.41
48:BQ:139:GLU:C	48:BQ:141:GLN:N	2.74	0.41
38:BD:152:GLY:O	38:BD:154:LYS:CG	2.68	0.41
1:AA:1071:C:O2'	1:AA:1072:G:H5'	2.21	0.41
35:DA:405:U:O4'	35:DA:405:U:O2	2.38	0.41
52:DU:114:LYS:HG2	52:DU:114:LYS:H	1.62	0.41
35:BA:171:G:H2'	35:BA:172:C:C6	2.54	0.41
1:CA:66:G:H4'	1:CA:173:U:C5	2.55	0.41
1:AA:375:U:OP1	16:AP:69:THR:HB	2.21	0.41
35:BA:745:G:H2'	35:BA:746:A:H5'	2.02	0.41
44:DJ:96:UNK:O	44:DJ:98:UNK:N	2.54	0.41
35:DA:1820:U:C2	38:DD:202:LYS:HB3	2.56	0.41
6:AF:100:ASN:HD22	18:AR:23:LYS:NZ	2.17	0.41
4:CD:150:GLU:C	4:CD:152:SER:N	2.74	0.41
32:D7:29:LYS:O	32:D7:33:ARG:HG3	2.21	0.41
35:DA:2464:C:O2'	35:DA:2465:C:H6	2.03	0.41
26:D1:29:GLY:O	26:D1:31:GLY:N	2.53	0.41
13:CM:29:ARG:HD3	13:CM:64:TRP:CE3	2.56	0.41
1:AA:585:G:OP1	17:AQ:37:LYS:HE2	2.21	0.41
1:AA:131:C:H2'	1:AA:132:C:H6	1.84	0.41
35:BA:2785:C:H2'	35:BA:2786:U:O4'	2.20	0.41
35:BA:113:G:H5'	35:BA:114:U:OP1	2.21	0.41
35:BA:1476:C:H2'	35:BA:1477:A:H8	1.86	0.41
39:DE:90:THR:CG2	39:DE:91:VAL:N	2.83	0.41
1:CA:871:U:O2'	1:CA:872:A:C5'	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:869:G:H4'	1:CA:872:A:N9	2.35	0.41
1:CA:56:U:O2'	1:CA:57:G:H5'	2.21	0.41
35:BA:1572:A:H2'	35:BA:1573:G:O4'	2.20	0.41
35:DA:1763:G:H2'	35:DA:1764:G:H5'	2.02	0.41
35:DA:1636:C:H2'	35:DA:1637:A:H8	1.86	0.41
35:DA:1014:U:H2'	35:DA:1015:G:H8	1.84	0.41
37:DC:68:LEU:N	37:DC:179:SER:O	2.52	0.41
27:B2:64:LEU:HD23	27:B2:68:ARG:HD3	2.02	0.41
1:CA:261:U:C5	20:CT:79:ARG:NE	2.88	0.41
35:BA:1387:C:H5'	35:BA:1469:A:H4'	2.03	0.41
35:BA:1357:U:H2'	35:BA:1358:G:O4'	2.21	0.41
40:DF:158:THR:HB	40:DF:195:ASP:OD2	2.21	0.41
1:AA:291:C:O2'	1:AA:292:G:H5'	2.20	0.41
38:DD:171:ASP:O	38:DD:187:GLY:N	2.53	0.41
35:DA:443:A:H1'	35:DA:1201:C:O4'	2.21	0.41
35:BA:1034:G:H2'	35:BA:1035:U:O4'	2.20	0.41
49:BR:65:LEU:HD12	49:BR:65:LEU:HA	1.63	0.41
3:CC:67:THR:HG22	3:CC:69:HIS:CD2	2.55	0.41
35:DA:2473:U:HO2'	35:DA:2474:C:C4'	2.29	0.41
22:AV:36:U:H1'	24:AY:89:LYS:HD2	2.03	0.41
53:BV:40:LEU:HA	53:BV:46:VAL:H	1.86	0.41
51:BT:16:ARG:HH22	51:BT:82:LEU:H	1.68	0.41
56:BY:7:VAL:CG2	56:BY:8:LYS:HZ1	2.32	0.41
35:DA:875:G:H2'	35:DA:876:C:C6	2.56	0.41
2:AB:177:ALA:HB1	2:AB:182:ILE:CB	2.27	0.41
57:BZ:144:LEU:N	57:BZ:144:LEU:HD22	2.36	0.41
47:BP:41:ARG:N	47:BP:41:ARG:HD2	2.35	0.41
1:CA:1234:C:H2'	1:CA:1235:U:H6	1.83	0.41
2:CB:104:ASN:OD1	2:CB:104:ASN:O	2.38	0.41
31:B6:52:VAL:CG1	31:B6:53:LYS:N	2.78	0.41
47:BP:112:LEU:HD23	47:BP:114:ILE:N	2.35	0.41
1:CA:660:G:C5	1:CA:661:G:N7	2.89	0.41
29:B4:52:THR:CG2	29:B4:53:GLU:N	2.75	0.41
29:B4:52:THR:O	29:B4:53:GLU:HB2	2.19	0.41
2:AB:173:ALA:C	2:AB:175:ARG:N	2.73	0.41
41:DG:121:ASN:HD22	41:DG:122:PRO:N	2.19	0.41
41:DG:124:SER:HB2	41:DG:131:TYR:CD1	2.53	0.41
57:BZ:44:PHE:C	57:BZ:44:PHE:CD1	2.93	0.41
51:DT:53:ARG:HB2	51:DT:53:ARG:NH1	2.12	0.41
10:CJ:12:ASP:OD2	10:CJ:14:LYS:HG3	2.21	0.41
47:BP:6:LEU:N	47:BP:6:LEU:CD2	2.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1301:A:HO2'	35:BA:1302:A:C2'	2.31	0.41
16:AP:68:ASP:O	16:AP:71:ARG:HG2	2.20	0.41
6:AF:69:GLU:O	6:AF:70:ASP:C	2.58	0.41
39:DE:111:ARG:HA	49:DR:2:ARG:HB3	2.01	0.41
1:AA:359:U:H2'	1:AA:360:A:C8	2.56	0.41
13:AM:3:ARG:HE	13:AM:7:VAL:HG13	1.84	0.41
37:DC:36:LYS:O	37:DC:37:PHE:HB2	2.20	0.41
39:DE:5:LEU:O	39:DE:51:PHE:HE2	2.04	0.41
39:DE:76:ARG:O	39:DE:77:ILE:O	2.38	0.41
41:BG:162:THR:HG22	41:BG:162:THR:O	2.20	0.41
38:DD:43:ARG:HD2	38:DD:44:ASN:CG	2.41	0.41
39:BE:48:GLN:HE22	39:BE:64:LYS:HZ3	1.68	0.41
1:CA:1433:A:C5	1:CA:1468:A:C6	3.09	0.41
1:CA:183:G:H2'	1:CA:184:G:C8	2.56	0.41
31:B6:33:LYS:HA	31:B6:33:LYS:CE	2.45	0.41
41:DG:67:LYS:H	41:DG:67:LYS:HD3	1.86	0.41
26:B1:46:LEU:HD23	26:B1:61:ARG:NE	2.36	0.41
51:DT:99:LEU:HD12	51:DT:99:LEU:N	2.36	0.41
50:DS:93:LYS:O	50:DS:94:TYR:C	2.58	0.41
53:BV:25:LEU:HG	53:BV:92:THR:HG21	2.02	0.41
45:BN:47:ALA:HB2	45:BN:112:LEU:CD1	2.42	0.41
35:BA:2767:C:C2	35:BA:2768:C:C5	3.09	0.41
45:DN:67:LEU:HA	45:DN:87:LEU:HB3	2.03	0.41
54:BW:64:MET:HE2	54:BW:109:GLU:HG2	2.03	0.41
49:BR:17:ARG:CG	49:BR:17:ARG:HH11	2.32	0.41
35:BA:1858:G:N2	35:BA:1883:G:H2'	2.35	0.41
3:CC:10:PHE:HD2	3:CC:11:ARG:NH1	2.19	0.41
3:CC:6:HIS:HB3	14:CN:49:HIS:HD2	1.85	0.41
35:BA:1428:C:O2'	35:BA:1569:A:OP2	2.27	0.41
43:DI:12:LEU:O	43:DI:13:GLY:O	2.38	0.41
35:DA:607:U:O2	35:DA:621:A:N1	2.54	0.41
3:AC:150:LYS:HG3	3:AC:169:ALA:CB	2.42	0.41
2:CB:120:ALA:C	2:CB:121:LEU:HD12	2.40	0.41
14:CN:24:CYS:HB2	14:CN:33:VAL:CG1	2.51	0.41
9:CI:96:LEU:O	9:CI:99:LEU:O	2.39	0.41
5:CE:6:PHE:CD2	5:CE:36:ASP:HB3	2.54	0.41
35:BA:607:U:P	40:BF:103:LYS:HG3	2.60	0.41
1:CA:106:C:O2	1:CA:379:C:H4'	2.20	0.41
7:AG:41:ARG:HG2	7:AG:42:ILE:N	2.35	0.41
35:DA:1349:A:N6	35:DA:1598:C:N4	2.69	0.41
1:AA:716:A:H1'	11:AK:118:GLY:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:272(B):G:O2'	35:DA:272(C):G:O4'	2.39	0.41
40:DF:183:VAL:O	40:DF:187:VAL:HG23	2.19	0.41
25:B0:43:THR:HG22	35:BA:2331:G:O2'	2.21	0.41
25:B0:72:ARG:O	25:B0:73:GLY:C	2.59	0.41
35:BA:1107:G:H2'	35:BA:1108:U:C5'	2.51	0.41
1:AA:397:A:N6	1:AA:548:G:C5	2.89	0.41
35:BA:27:G:N2	35:BA:512:G:C2'	2.84	0.41
55:DX:29:TRP:HA	55:DX:29:TRP:CE3	2.56	0.41
1:AA:1452:C:O4'	1:AA:1456:G:C2	2.74	0.41
42:DH:94:TYR:CA	42:DH:107:VAL:HG12	2.51	0.41
1:AA:665:A:H2'	1:AA:725:G:N2	2.34	0.41
4:AD:3:ARG:CZ	4:AD:69:GLY:HA3	2.51	0.41
35:DA:512:G:C2'	35:DA:513:A:OP2	2.69	0.41
39:DE:26:ILE:HD11	39:DE:184:VAL:HG21	2.01	0.41
4:AD:138:TYR:CE2	4:AD:139:ARG:O	2.74	0.41
40:DF:53:THR:O	40:DF:55:GLY:N	2.54	0.41
11:AK:101:SER:O	11:AK:103:LEU:N	2.53	0.41
35:DA:152:G:H2'	35:DA:153:C:C6	2.55	0.41
53:BV:34:GLU:CG	53:BV:34:GLU:O	2.67	0.41
35:DA:2563:U:O2	35:DA:2565:A:C8	2.74	0.41
42:DH:64:LEU:CD2	42:DH:64:LEU:N	2.84	0.41
37:DC:47:LEU:N	37:DC:47:LEU:HD23	2.34	0.41
35:BA:1292:U:H2'	35:BA:1293:C:C6	2.55	0.41
1:CA:1256:A:C2	1:CA:1277:C:C6	3.09	0.41
52:DU:52:ARG:O	52:DU:54:LYS:N	2.54	0.41
4:AD:158:ILE:O	4:AD:162:LEU:HG	2.21	0.41
35:DA:1688:U:O2	35:DA:1700:A:C8	2.73	0.41
35:DA:1385:G:O2'	35:DA:1396:U:C6	2.72	0.41
1:AA:79:G:H1'	1:AA:91:C:H42	1.86	0.41
35:DA:1614:A:N7	54:DW:93:ALA:HB2	2.35	0.41
17:AQ:29:HIS:C	17:AQ:31:LEU:H	2.23	0.41
49:BR:116:LEU:O	49:BR:117:VAL:C	2.58	0.41
35:DA:1587:A:H3'	35:DA:1588:C:C6	2.55	0.41
35:DA:1227:G:O2'	35:DA:1228:G:H5'	2.20	0.41
35:DA:2074:U:H2'	35:DA:2075:U:C6	2.56	0.41
1:CA:431:A:H2'	1:CA:432:A:O4'	2.21	0.41
35:BA:1368:G:H2'	35:BA:1369:G:H8	1.86	0.41
26:D1:90:ILE:O	26:D1:93:GLU:HB2	2.21	0.41
7:CG:60:LYS:HD2	7:CG:63:LYS:HB3	2.02	0.41
35:DA:348:G:O2'	35:DA:349:G:H5'	2.21	0.41
35:BA:1930:G:N2	35:BA:1968:G:H2'	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DO:120:GLU:HB2	51:DT:68:TYR:HE2	1.85	0.41
49:DR:37:THR:HG23	49:DR:40:LYS:HE2	2.02	0.41
44:BJ:124:UNK:O	44:BJ:125:UNK:C	2.68	0.41
35:BA:428:A:H8	35:BA:428:A:OP2	2.04	0.41
41:DG:21:ARG:HD3	41:DG:21:ARG:C	2.41	0.41
35:BA:1909:C:H5''	35:BA:1909:C:H6	1.85	0.41
19:AS:45:VAL:O	19:AS:45:VAL:HG23	2.20	0.41
11:CK:31:THR:HG23	11:CK:31:THR:O	2.21	0.41
42:BH:10:PRO:CD	42:BH:10:PRO:O	2.67	0.41
42:BH:23:ARG:HD2	42:BH:25:LYS:NZ	2.35	0.41
42:BH:44:VAL:O	42:BH:46:GLU:N	2.54	0.41
12:AL:43:LYS:HB3	12:AL:44:LYS:H	1.57	0.41
24:AY:31:THR:OG1	24:AY:53:GLU:OE1	2.25	0.41
24:AY:82:GLN:CG	24:AY:83:LEU:H	2.29	0.41
33:B8:13:ARG:CD	47:BP:61:ARG:HD3	2.46	0.41
35:BA:631:A:O2'	35:BA:632:A:H5'	2.21	0.41
22:CV:55:U:C3'	22:CV:55:U:C6	3.03	0.41
22:CV:18:G:C6	22:CV:57:A:N6	2.89	0.41
22:CV:19:G:C2	22:CV:57:A:C2	3.09	0.41
41:BG:85:GLY:O	41:BG:87:PRO:CD	2.69	0.41
13:CM:102:ARG:HH11	13:CM:102:ARG:HG3	1.84	0.41
14:CN:58:LYS:HD3	14:CN:58:LYS:C	2.41	0.41
10:CJ:50:ILE:HD11	14:CN:41:ARG:HD3	2.02	0.41
22:CW:33:U:H2'	22:CW:35:A:OP1	2.21	0.41
7:CG:150:ALA:C	7:CG:152:ALA:H	2.24	0.41
47:DP:63:PRO:C	47:DP:65:ARG:H	2.24	0.41
35:DA:587:C:H2'	47:DP:33:ARG:CZ	2.50	0.41
56:DY:22:GLY:O	56:DY:23:ARG:HG2	2.21	0.41
56:DY:42:VAL:HG12	56:DY:65:ALA:HB3	2.02	0.41
1:CA:634:C:H2'	1:CA:635:G:H8	1.86	0.41
35:BA:1465:G:H5'	35:BA:1528:A:H1'	2.02	0.41
19:CS:6:LYS:CD	19:CS:7:LYS:HE3	2.51	0.41
52:BU:92:ARG:HD2	53:BV:11:GLN:NE2	2.35	0.41
53:BV:38:LEU:C	53:BV:38:LEU:HD23	2.40	0.41
57:DZ:151:HIS:CB	57:DZ:170:THR:HA	2.26	0.41
51:BT:27:THR:C	51:BT:28:VAL:HG23	2.41	0.41
51:BT:70:VAL:HG12	51:BT:71:GLY:N	2.36	0.41
35:DA:2359:C:O2'	35:DA:2360:A:H5'	2.20	0.41
50:BS:28:VAL:CG1	50:BS:29:PHE:N	2.84	0.41
35:BA:84:A:O5'	56:BY:9:LYS:HE3	2.21	0.41
40:DF:9:ILE:HG12	40:DF:13:SER:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DF:8:GLN:CG	40:DF:126:VAL:HG12	2.51	0.41
42:DH:98:LEU:HD12	42:DH:102:ALA:O	2.21	0.41
52:DU:83:LEU:HA	52:DU:88:ILE:HG12	2.02	0.41
35:DA:867:C:O2	35:DA:868:U:O4'	2.38	0.41
42:BH:123:PHE:CA	42:BH:133:VAL:HG22	2.45	0.41
51:DT:85:LYS:CA	51:DT:85:LYS:NZ	2.83	0.41
35:BA:875:G:H2'	35:BA:876:C:C6	2.56	0.41
38:BD:245:PRO:O	38:BD:245:PRO:HG2	2.20	0.41
57:BZ:109:ALA:C	57:BZ:113:ALA:HB3	2.41	0.41
31:D6:12:GLU:OE1	31:D6:52:VAL:O	2.39	0.41
12:CL:86:ARG:HG3	12:CL:87:VAL:N	2.36	0.41
1:CA:16:A:C2'	1:CA:17:U:H5'	2.51	0.41
1:CA:21:G:H2'	1:CA:22:G:C8	2.56	0.41
8:CH:68:ARG:HG2	8:CH:69:ARG:N	2.36	0.41
47:BP:115:LEU:CD2	47:BP:115:LEU:N	2.83	0.41
1:CA:660:G:H2'	1:CA:661:G:O4'	2.21	0.41
19:AS:11:VAL:CG2	19:AS:38:SER:HB2	2.50	0.41
5:AE:11:ILE:HB	5:AE:12:LEU:HD13	2.02	0.41
3:CC:83:ARG:HA	3:CC:86:VAL:HG22	2.02	0.41
46:DO:31:LYS:C	46:DO:32:TYR:CD1	2.95	0.41
2:AB:196:LEU:C	2:AB:196:LEU:HD12	2.41	0.41
2:AB:12:GLU:HB3	2:AB:213:LEU:HD13	2.02	0.41
41:DG:88:ILE:HG22	41:DG:89:GLY:H	1.85	0.41
57:BZ:6:LYS:HB3	57:BZ:8:TYR:HE1	1.86	0.41
19:CS:36:ARG:HH12	19:CS:77:THR:CG2	2.34	0.41
19:CS:11:VAL:HG13	19:CS:12:ASP:N	2.36	0.41
1:AA:1060:C:H6	3:AC:2:GLY:HA2	1.80	0.41
47:BP:96:THR:HA	47:BP:97:PRO:HD3	1.97	0.41
8:CH:29:SER:C	8:CH:31:PHE:N	2.74	0.41
35:BA:676:A:H2	35:BA:802:A:N6	2.08	0.41
9:CI:14:VAL:O	9:CI:65:VAL:HA	2.21	0.41
46:BO:107:ARG:NH1	51:BT:35:LYS:HB2	2.36	0.41
47:BP:10:PRO:HD2	47:BP:11:GLY:N	2.35	0.41
57:DZ:76:LEU:HD22	57:DZ:81:ARG:C	2.41	0.41
35:DA:146:G:H2'	35:DA:147:U:H5'	2.02	0.41
46:DO:112:MET:O	46:DO:113:LYS:C	2.58	0.41
10:CJ:38:ILE:O	10:CJ:38:ILE:HG23	2.20	0.41
19:AS:39:THR:CG2	19:AS:40:ILE:N	2.83	0.41
1:AA:987:G:H22	1:AA:1218:C:N4	2.19	0.41
13:AM:86:CYS:O	13:AM:89:GLY:N	2.53	0.41
57:DZ:97:GLU:O	57:DZ:98:MET:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:614:A:C2	1:CA:627:G:C2	3.09	0.41
8:AH:36:LEU:CD2	8:AH:61:VAL:HG22	2.51	0.41
8:AH:61:VAL:HG12	8:AH:63:LEU:HD13	2.03	0.41
43:BI:83:ALA:HB3	43:BI:144:VAL:HG12	2.02	0.41
43:BI:95:LYS:C	43:BI:97:ILE:N	2.73	0.41
1:AA:34:C:O2'	1:AA:35:G:H5'	2.20	0.41
4:AD:108:LEU:CD2	4:AD:183:GLY:HA3	2.44	0.41
3:AC:182:ILE:HD11	3:AC:203:PHE:CD1	2.55	0.41
35:DA:2320:A:H1'	35:DA:2321:G:C5	2.53	0.41
43:DI:97:ILE:HD13	43:DI:140:LEU:CD1	2.51	0.41
43:DI:76:THR:CG2	43:DI:141:LYS:HE2	2.50	0.41
43:DI:87:LYS:O	43:DI:88:ILE:O	2.39	0.41
35:BA:2679:A:O2'	35:BA:2680:C:H5'	2.21	0.41
10:AJ:80:LYS:C	10:AJ:84:GLN:HE21	2.24	0.41
10:AJ:64:GLU:O	14:AN:56:VAL:HA	2.20	0.41
10:AJ:63:PHE:HB3	14:AN:56:VAL:HG13	2.02	0.41
41:BG:114:ILE:HG22	41:BG:116:ASP:H	1.85	0.41
29:B4:10:VAL:HB	29:B4:11:PRO:HD2	2.03	0.41
4:CD:110:PHE:HE2	4:CD:148:VAL:HG23	1.86	0.41
4:CD:170:VAL:HG12	4:CD:171:GLY:N	2.35	0.41
47:BP:16:ARG:HH11	47:BP:16:ARG:CA	2.33	0.41
57:BZ:61:LEU:O	57:BZ:63:ASP:N	2.54	0.41
4:CD:6:GLY:O	4:CD:8:VAL:HG13	2.21	0.41
39:BE:111:ARG:CD	49:BR:2:ARG:NH2	2.84	0.41
5:CE:48:ALA:C	5:CE:50:GLU:H	2.23	0.41
1:CA:198:G:H1	1:CA:219:C:H42	1.69	0.41
48:BQ:43:THR:CB	48:BQ:45:GLN:NE2	2.84	0.41
38:BD:133:LEU:HD13	38:BD:173:VAL:CG1	2.49	0.41
38:BD:130:ALA:HB2	38:BD:192:THR:HA	2.02	0.41
35:DA:2041:U:H2'	35:DA:2042:A:C8	2.56	0.41
41:DG:59:GLU:O	41:DG:62:LEU:HB2	2.21	0.41
29:D4:3:GLU:HA	29:D4:6:HIS:HE1	1.85	0.41
35:BA:1040:C:N4	35:BA:1115:G:H1	2.14	0.41
24:AY:19:LYS:HB2	24:AY:19:LYS:HE2	1.72	0.41
51:DT:99:LEU:CD1	51:DT:99:LEU:N	2.83	0.41
53:BV:61:VAL:CG2	53:BV:61:VAL:O	2.69	0.41
37:DC:74:VAL:CB	37:DC:91:ALA:HB2	2.45	0.41
1:AA:598:U:HO2'	8:AH:94:TYR:HD1	1.64	0.41
1:AA:877:C:O3'	8:AH:89:PRO:HD2	2.20	0.41
5:CE:148:VAL:CG2	8:CH:107:LEU:HD13	2.41	0.41
56:BY:62:GLU:OE1	56:BY:62:GLU:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:DV:25:LEU:HG	53:DV:92:THR:HG21	2.03	0.41
35:BA:541:C:H2'	35:BA:542:C:H6	1.86	0.41
1:AA:1054:C:H6	1:AA:1196:U:O2	2.04	0.41
35:BA:1471:A:N3	35:BA:1471:A:H2'	2.34	0.41
1:AA:1305:G:H5'	21:AU:4:GLY:HA3	2.03	0.41
9:CI:113:LYS:H	9:CI:119:ALA:HA	1.86	0.41
49:DR:100:LEU:HD12	49:DR:100:LEU:N	2.36	0.41
46:DO:86:ILE:HG22	46:DO:94:ARG:HD3	2.02	0.41
46:DO:87:ILE:CG2	46:DO:88:ASN:N	2.81	0.41
21:AU:20:LYS:C	21:AU:22:ARG:N	2.72	0.41
1:AA:1311:G:N2	1:AA:1312:G:HI'	2.35	0.41
38:DD:206:LEU:HD23	38:DD:206:LEU:HA	1.89	0.41
38:DD:211:ARG:NH1	38:DD:211:ARG:CG	2.82	0.41
35:BA:889:C:O4'	35:BA:889:C:O2	2.38	0.41
45:BN:67:LEU:N	45:BN:67:LEU:HD12	2.27	0.41
35:DA:298:G:OP1	56:DY:85:VAL:HG22	2.21	0.41
14:AN:24:CYS:CB	14:AN:27:CYS:SG	3.08	0.41
35:BA:991:C:O2'	35:BA:992:C:H5'	2.21	0.41
49:DR:66:VAL:HG12	49:DR:66:VAL:O	2.20	0.41
22:CV:4:G:C5	22:CV:70:G:C2	3.08	0.41
35:DA:1888:G:N3	35:DA:1888:G:H5'	2.35	0.41
1:AA:1104:G:O5'	2:AB:111:ARG:HD2	2.21	0.41
5:CE:111:GLU:C	5:CE:113:ALA:H	2.23	0.41
51:DT:24:PRO:HA	51:DT:49:VAL:CG1	2.44	0.41
8:AH:116:LYS:O	8:AH:119:LEU:HD21	2.21	0.41
16:CP:5:ARG:N	16:CP:20:VAL:O	2.49	0.41
1:CA:107:G:H2'	1:CA:108:G:H5'	2.02	0.41
38:DD:71:ASP:OD1	38:DD:103:ARG:NH2	2.54	0.41
35:BA:323:G:H2'	40:BF:169:ASN:OD1	2.21	0.41
1:AA:1170:A:H2'	1:AA:1171:G:H5'	2.03	0.41
18:AR:47:THR:C	18:AR:83:GLU:OE1	2.59	0.41
16:AP:58:TYR:CD1	16:AP:59:TRP:N	2.89	0.41
28:D3:43:ILE:CD1	28:D3:43:ILE:N	2.83	0.41
49:BR:87:TYR:HD1	49:BR:90:ARG:HE	1.69	0.41
55:DX:23:GLU:O	55:DX:25:LYS:N	2.51	0.41
17:CQ:39:SER:O	17:CQ:40:LYS:HB2	2.21	0.41
35:DA:142:A:N6	35:DA:1596:A:H5'	2.36	0.41
1:AA:400:C:O2'	1:AA:401:C:H5'	2.20	0.41
35:DA:1281:G:H2'	35:DA:1282:U:C5'	2.51	0.41
1:AA:335:C:H2'	1:AA:336:C:C6	2.56	0.41
35:DA:272(E):G:N2	35:DA:364:C:C2	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:3:LYS:O	17:CQ:5:VAL:HG23	2.20	0.41
30:B5:45:VAL:HA	30:B5:51:TYR:CE1	2.56	0.41
22:AW:11:A:H2'	22:AW:12:G:C8	2.45	0.41
35:DA:1047:G:H4'	35:DA:1047:G:OP2	2.20	0.41
27:D2:32:LEU:O	27:D2:35:LEU:HB2	2.21	0.41
9:CI:43:ALA:C	9:CI:45:ALA:N	2.73	0.41
39:DE:143:ASN:HD22	39:DE:147:PRO:HD3	1.86	0.41
35:DA:1983:C:H4'	35:DA:2606:C:H4'	2.02	0.41
49:DR:87:TYR:HD1	49:DR:90:ARG:HE	1.68	0.41
22:CV:14:A:C5	22:CV:22:G:C6	3.09	0.41
12:CL:25:LYS:HD2	12:CL:30:ARG:HH12	1.86	0.41
11:CK:32:ILE:O	11:CK:40:ILE:HG12	2.20	0.41
4:AD:184:LYS:HZ2	4:AD:184:LYS:HB3	1.86	0.41
37:BC:46:LYS:CE	37:BC:172:HIS:HA	2.50	0.41
35:DA:1695:G:H3'	35:DA:1695:G:N3	2.36	0.41
44:DJ:14:UNK:O	44:DJ:65:UNK:O	2.39	0.41
2:AB:155:LEU:HG	2:AB:159:PRO:HG3	2.03	0.41
9:CI:126:SER:O	9:CI:127:LYS:CB	2.66	0.41
9:AI:70:LYS:O	9:AI:74:ILE:HG13	2.21	0.41
1:AA:1457:G:H2'	1:AA:1458:G:H8	1.86	0.41
4:CD:3:ARG:CZ	4:CD:69:GLY:HA3	2.51	0.41
39:BE:12:THR:CG2	39:BE:13:ARG:N	2.82	0.41
35:BA:2021:C:H4'	35:BA:2022:U:OP2	2.21	0.41
35:DA:674:G:C1'	40:DF:74:ARG:HD3	2.50	0.41
35:BA:2314:C:H2'	35:BA:2315:G:C8	2.56	0.41
4:CD:185:PHE:O	4:CD:186:LEU:C	2.58	0.41
1:AA:959:A:C2'	1:AA:960:U:H4'	2.50	0.41
1:CA:665:A:H2'	1:CA:725:G:N2	2.36	0.41
8:CH:109:ILE:HD11	8:CH:120:THR:CB	2.51	0.41
14:AN:6:LEU:HD23	14:AN:6:LEU:HA	1.88	0.41
1:AA:1381:U:C5	1:AA:1382:C:C4	3.09	0.41
35:DA:2837:G:H2'	35:DA:2838:G:H8	1.86	0.41
1:CA:172:A:O2'	1:CA:173:U:H5''	2.20	0.41
43:BI:10:GLU:CD	43:BI:11:ASN:N	2.74	0.41
35:DA:245:G:N3	35:DA:246:C:C6	2.89	0.41
57:DZ:103:ARG:HB2	57:DZ:138:GLU:HB3	2.02	0.41
42:BH:64:LEU:N	42:BH:64:LEU:CD2	2.84	0.41
12:CL:33:VAL:H	12:CL:55:VAL:CG1	2.32	0.41
1:CA:299:G:H2'	1:CA:300:A:C8	2.56	0.41
1:AA:1530:G:H2'	1:AA:1531:A:C8	2.55	0.41
10:CJ:16:LEU:CD2	10:CJ:94:VAL:HG22	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BO:10:VAL:CG2	46:BO:16:ALA:O	2.69	0.41
35:DA:898:C:O2'	35:DA:899:A:H5'	2.21	0.41
1:AA:828:A:H5''	1:AA:859:A:C2	2.56	0.41
35:BA:1991:U:H2'	35:BA:1992:G:C5'	2.51	0.41
35:DA:1934:C:O2'	35:DA:1935:G:H5'	2.20	0.41
3:CC:13:GLY:HA3	14:CN:57:ARG:CD	2.50	0.41
35:DA:2764:A:N6	35:DA:2766:G:C2	2.89	0.41
57:BZ:70:LEU:HD11	57:BZ:98:MET:HE3	2.02	0.41
35:DA:2553:G:H2'	35:DA:2554:U:C4'	2.50	0.41
2:AB:32:ILE:O	2:AB:32:ILE:HG23	2.21	0.41
48:DQ:109:VAL:HG22	48:DQ:110:THR:N	2.36	0.41
35:DA:1111:A:O2'	35:DA:1112:G:C4'	2.69	0.41
40:DF:20:LEU:O	40:DF:21:ALA:O	2.39	0.41
35:DA:1417:C:H2'	35:DA:1418:G:H5'	2.03	0.41
35:DA:1952:A:C5	46:DO:22:ILE:HD12	2.55	0.41
35:BA:2710:C:H2'	35:BA:2711:A:C8	2.55	0.41
9:AI:47:LEU:CD1	9:AI:47:LEU:N	2.84	0.41
1:CA:39:G:C2	1:CA:40:C:C6	3.08	0.41
53:BV:95:LEU:C	53:BV:95:LEU:CD2	2.89	0.41
35:BA:574:C:N3	39:BE:145:LYS:HE3	2.36	0.41
35:BA:755:C:H2'	35:BA:756:C:H6	1.86	0.41
35:BA:2704:C:H2'	35:BA:2705:A:O4'	2.21	0.41
35:BA:2515:C:O2'	35:BA:2516:G:H5'	2.21	0.41
35:BA:1763:G:H2'	35:BA:1764:G:H5'	2.03	0.41
46:BO:26:LYS:HB2	46:BO:30:ALA:HB2	2.02	0.41
1:AA:1438:G:C6	1:AA:1439:C:C4	3.08	0.41
35:BA:999:U:O2'	35:BA:1000:A:H5'	2.21	0.41
35:DA:2870:C:O2'	35:DA:2871:C:H5'	2.21	0.41
1:AA:872:A:C5	1:AA:874:G:C8	3.09	0.41
35:DA:2582:G:C2	35:DA:2583:G:C8	3.09	0.41
44:BJ:116:UNK:O	44:BJ:117:UNK:C	2.68	0.41
44:BJ:124:UNK:O	44:BJ:125:UNK:O	2.39	0.41
44:BJ:123:UNK:O	44:BJ:124:UNK:O	2.38	0.41
35:DA:1501:C:O4'	38:DD:100:GLY:HA2	2.21	0.41
1:CA:594:G:H2'	1:CA:595:G:O4'	2.21	0.41
34:D9:2:LYS:HB3	34:D9:3:VAL:H	1.60	0.41
3:CC:108:ASN:OD1	3:CC:110:ASN:HB2	2.21	0.41
1:AA:189(G):G:H4'	1:AA:189(H):G:OP2	2.21	0.41
1:CA:893:C:H2'	1:CA:894:G:H8	1.85	0.41
37:DC:213:TYR:CB	37:DC:219:GLY:H	2.34	0.41
35:DA:1357:U:H2'	35:DA:1358:G:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:286:G:O2'	1:CA:287:U:H5'	2.20	0.41
10:AJ:9:ARG:HB2	10:AJ:95:GLU:HB3	2.01	0.41
22:AV:64:G:H2'	22:AV:65:C:O4'	2.21	0.41
7:CG:23:VAL:HG12	7:CG:23:VAL:O	2.21	0.41
43:BI:75:LEU:HA	43:BI:75:LEU:HD12	1.75	0.41
8:CH:100:ILE:HA	8:CH:101:PRO:HD3	1.89	0.41
24:AY:84:LYS:HA	24:AY:84:LYS:HD2	1.94	0.41
35:DA:1914:C:C3'	35:DA:1915:U:C5'	2.98	0.41
13:CM:91:ARG:C	13:CM:98:VAL:HG22	2.41	0.41
33:D8:25:MET:SD	47:DP:64:LYS:HD2	2.61	0.41
35:DA:587:C:H2'	47:DP:33:ARG:HH21	1.83	0.41
52:BU:88:ILE:HD12	52:BU:109:LEU:HD22	2.01	0.41
51:BT:25:GLY:O	51:BT:26:ASP:HB2	2.21	0.41
51:BT:28:VAL:CB	51:BT:46:GLU:HA	2.51	0.41
50:BS:34:HIS:HB3	50:BS:35:ILE:H	1.66	0.41
42:BH:85:LYS:CE	42:BH:133:VAL:HB	2.49	0.41
35:DA:912:C:H2'	35:DA:913:U:C6	2.56	0.41
35:BA:1899:G:O2'	35:BA:1900:A:H5''	2.21	0.41
12:CL:79:VAL:HG12	12:CL:80:VAL:N	2.35	0.41
1:AA:634:C:H2'	1:AA:635:G:H8	1.85	0.41
27:D2:43:GLN:HB3	27:D2:44:LEU:H	1.59	0.41
2:CB:167:PRO:O	2:CB:169:LYS:N	2.52	0.41
1:AA:5:U:H2'	1:AA:6:G:C2	2.55	0.41
2:AB:214:ILE:C	2:AB:218:ALA:HB2	2.42	0.41
41:DG:131:TYR:O	41:DG:158:ALA:HA	2.21	0.41
1:CA:590:C:H2'	1:CA:591:U:H6	1.76	0.41
47:DP:112:LEU:C	47:DP:112:LEU:CD2	2.89	0.41
47:DP:126:VAL:HG22	47:DP:145:PRO:CG	2.51	0.41
35:DA:194:G:H2'	35:DA:195:A:O4'	2.20	0.41
6:CF:69:GLU:O	6:CF:70:ASP:C	2.59	0.41
13:CM:17:VAL:C	13:CM:19:LEU:H	2.23	0.41
10:CJ:5:ARG:HB3	10:CJ:99:LYS:CB	2.35	0.41
2:AB:53:ARG:NE	2:AB:199:TYR:CE2	2.89	0.41
47:DP:10:PRO:HD2	47:DP:11:GLY:N	2.36	0.41
45:DN:57:ALA:HB2	45:DN:123:TYR:O	2.21	0.41
43:DI:125:GLU:OE2	43:DI:141:LYS:HG2	2.21	0.41
40:DF:83:PHE:O	40:DF:85:GLY:N	2.54	0.41
57:BZ:178:GLU:N	57:BZ:178:GLU:OE1	2.54	0.41
12:AL:107:VAL:CG2	12:AL:117:TYR:HB3	2.51	0.41
8:AH:29:SER:HB3	8:AH:32:LYS:HD2	2.02	0.41
8:AH:5:PRO:HB2	8:AH:32:LYS:CE	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:109:VAL:O	41:BG:113:ARG:N	2.54	0.41
1:CA:801:U:C2	1:CA:802:A:C8	3.09	0.41
1:CA:1411:C:O2'	1:CA:1412:C:H5'	2.21	0.41
4:CD:30:LYS:O	4:CD:32:ALA:N	2.53	0.41
5:CE:52:PRO:HG2	5:CE:53:LEU:H	1.85	0.41
1:CA:184:G:C4'	1:CA:224:C:H4'	2.51	0.41
32:D7:45:ALA:O	32:D7:46:VAL:HG23	2.20	0.41
38:BD:70:TRP:C	38:BD:72:LYS:H	2.24	0.41
35:DA:848:G:H2'	35:DA:849:A:H8	1.75	0.41
41:BG:139:LEU:HA	41:BG:144:ILE:CG2	2.51	0.41
20:AT:10:LEU:CD2	20:AT:12:ALA:HB2	2.41	0.41
49:BR:4:LEU:O	49:BR:5:LYS:CG	2.69	0.41
41:BG:35:GLU:C	41:BG:99:MET:HE1	2.41	0.41
41:BG:4:ASP:CB	41:BG:8:LYS:HE2	2.50	0.41
4:AD:8:VAL:C	4:AD:10:ARG:H	2.24	0.41
53:BV:6:LYS:HE2	53:BV:37:VAL:CG1	2.41	0.41
8:CH:112:LEU:HA	8:CH:134:ILE:CG1	2.42	0.41
15:AO:50:HIS:O	15:AO:53:HIS:N	2.51	0.41
57:BZ:185:GLU:HG3	57:BZ:186:GLU:N	2.24	0.41
35:BA:1858:G:H2'	35:BA:1883:G:H22	1.85	0.41
56:BY:4:LYS:NZ	56:BY:5:MET:CG	2.84	0.41
35:BA:2178:C:C3'	35:BA:2179:C:H5''	2.40	0.41
40:DF:130:ALA:C	40:DF:132:VAL:N	2.74	0.41
1:CA:728:A:C6	15:CO:54:ARG:HD2	2.55	0.41
27:D2:16:LEU:HA	27:D2:16:LEU:HD23	1.86	0.41
35:BA:1833:U:C2	35:BA:1834:U:C5	3.09	0.41
16:CP:27:LYS:HG3	16:CP:30:GLY:HA3	2.02	0.41
16:CP:58:TYR:CD1	16:CP:59:TRP:N	2.88	0.41
5:AE:6:PHE:HB2	5:AE:34:VAL:CG2	2.51	0.41
35:BA:782:A:H5'	35:BA:783:A:C2	2.56	0.41
1:AA:16:A:C2'	1:AA:17:U:H5'	2.51	0.41
35:BA:89:G:O6	35:BA:90:U:H5	2.04	0.41
39:DE:37:ARG:HA	39:DE:42:ASP:OD2	2.21	0.41
35:DA:364:C:C2'	35:DA:365:C:C5'	2.96	0.41
1:CA:1016:A:C2'	1:CA:1017:G:H5'	2.50	0.41
1:CA:1066:C:H3'	1:CA:1067:A:H8	1.79	0.41
1:CA:9:G:H5'	5:CE:122:GLU:CD	2.41	0.41
46:DO:93:PRO:C	46:DO:95:GLY:H	2.25	0.41
11:AK:34:ASP:OD1	11:AK:36:ASP:N	2.48	0.41
35:BA:2776:A:C6	35:BA:2778:A:C6	3.09	0.41
36:BB:52:A:O2'	36:BB:53:A:C8	2.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:70:PRO:HB3	5:AE:144:THR:CG2	2.50	0.41
35:DA:860:U:O2'	35:DA:861:A:H5'	2.21	0.41
39:BE:35:GLN:HG2	39:BE:36:ARG:N	2.36	0.41
1:CA:364:A:N6	12:CL:25:LYS:HE2	2.36	0.41
1:CA:546:G:P	4:CD:72:GLU:HB3	2.61	0.41
39:DE:12:THR:HG22	39:DE:13:ARG:H	1.84	0.41
9:AI:37:PHE:CE1	9:AI:74:ILE:HG12	2.56	0.41
40:BF:64:ILE:HG23	40:BF:65:TRP:N	2.36	0.41
1:AA:1206:G:O4'	3:AC:194:GLY:HA2	2.21	0.41
35:BA:328:U:O2'	56:BY:71:LYS:HD3	2.20	0.41
18:AR:24:ALA:C	18:AR:26:LEU:H	2.24	0.41
6:AF:99:ALA:HB3	18:AR:29:PHE:CE1	2.55	0.41
1:CA:66:G:H4'	1:CA:173:U:C4	2.56	0.41
1:CA:828:A:C2	1:CA:829:G:H1'	2.56	0.41
35:BA:2713:A:H3'	35:BA:2714:G:C5'	2.51	0.41
38:BD:54:ARG:HG3	38:BD:54:ARG:HH11	1.85	0.41
36:BB:87:G:N2	36:BB:91:C:N3	2.68	0.41
1:CA:1279:A:C2	10:CJ:43:ARG:NH1	2.87	0.41
35:BA:2563:U:O2	35:BA:2565:A:C8	2.74	0.41
35:DA:500:G:N2	35:DA:502:A:H3'	2.35	0.41
1:AA:176:C:O2'	1:AA:177:C:H5'	2.21	0.41
48:BQ:42:ILE:HG13	48:BQ:97:VAL:HG21	2.03	0.41
35:BA:1111:A:O2'	35:BA:1112:G:C4'	2.69	0.41
48:DQ:32:TYR:CE2	48:DQ:111:GLU:HG3	2.56	0.41
39:BE:199:ARG:HB2	39:BE:199:ARG:HH11	1.86	0.41
35:DA:221:A:N6	35:DA:265:A:C8	2.84	0.41
26:D1:58:ILE:HD11	26:D1:60:PHE:CE2	2.56	0.41
35:DA:1636:C:H2'	35:DA:1637:A:C8	2.55	0.41
35:BA:2514:U:H2'	35:BA:2515:C:C6	2.55	0.41
28:D3:8:LEU:HD13	28:D3:31:LEU:HD23	2.03	0.41
19:CS:8:GLY:O	19:CS:10:PHE:HD1	2.04	0.41
1:AA:409:G:OP1	4:AD:24:GLU:HB3	2.21	0.41
54:DW:22:ASP:HA	54:DW:25:ARG:HH12	1.86	0.41
26:B1:25:LYS:HG3	35:BA:388:G:OP1	2.21	0.41
1:CA:893:C:H2'	1:CA:894:G:C8	2.56	0.41
1:CA:605:U:H2'	1:CA:606:G:C8	2.56	0.41
1:CA:154:C:O2'	1:CA:155:C:H5'	2.21	0.41
44:DJ:100:UNK:HA	44:DJ:103:UNK:CB	2.51	0.41
1:CA:453:A:O2'	1:CA:454:C:H5'	2.21	0.41
35:BA:479:A:HO2'	35:BA:481:G:H8	1.64	0.41
49:BR:60:LEU:O	49:BR:61:HIS:C	2.58	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:B1:14:VAL:HG11	26:B1:39:LYS:HE2	2.03	0.41
1:CA:352:C:H6	1:CA:352:C:OP2	2.04	0.41
54:DW:61:ASN:HA	54:DW:61:ASN:HD22	1.63	0.41
35:DA:2607:G:H2'	35:DA:2608:G:O4'	2.21	0.41
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.56	0.41
42:DH:44:VAL:O	42:DH:46:GLU:N	2.54	0.40
24:AY:29:PRO:HG2	24:AY:29:PRO:O	2.21	0.40
24:AY:31:THR:HA	24:AY:32:PRO:HD3	1.85	0.40
24:AY:43:TRP:O	24:AY:52:TYR:HD2	2.04	0.40
24:AY:83:LEU:HD23	24:AY:83:LEU:HA	1.55	0.40
1:CA:1374:A:C1'	7:CG:31:MET:HE1	2.50	0.40
56:BY:97:ARG:HH12	56:BY:98:VAL:HB	1.86	0.40
1:CA:976:G:H22	1:CA:1362:C:H2'	1.81	0.40
40:BF:120:GLU:C	40:BF:122:LYS:H	2.24	0.40
40:BF:1:MET:O	40:BF:3:GLU:N	2.52	0.40
51:BT:117:ASP:O	51:BT:118:ARG:C	2.59	0.40
51:BT:70:VAL:HG12	51:BT:71:GLY:H	1.86	0.40
50:BS:92:TYR:C	50:BS:94:TYR:N	2.74	0.40
56:BY:28:LYS:N	56:BY:28:LYS:CE	2.84	0.40
40:DF:1:MET:O	40:DF:3:GLU:N	2.54	0.40
5:CE:118:ILE:HG13	5:CE:119:LEU:N	2.36	0.40
31:D6:11:LEU:HD22	31:D6:12:GLU:N	2.32	0.40
2:CB:209:ARG:C	2:CB:211:ILE:H	2.24	0.40
8:CH:69:ARG:NE	8:CH:75:ARG:O	2.54	0.40
35:DA:1902:C:H5'	38:DD:246:PRO:HD3	2.02	0.40
1:CA:660:G:H1	1:CA:745:C:H42	1.68	0.40
2:AB:84:GLU:CD	2:AB:216:SER:HA	2.41	0.40
29:D4:35:VAL:CG1	29:D4:36:CYS:H	2.34	0.40
41:DG:124:SER:HB2	41:DG:131:TYR:HE1	1.70	0.40
30:B5:3:LYS:HG3	35:BA:747:U:OP1	2.20	0.40
19:CS:53:ASN:HB2	19:CS:77:THR:HG22	2.02	0.40
35:DA:2684:U:O5'	35:DA:2684:U:H6	2.03	0.40
9:CI:31:GLN:OE1	9:CI:32:ASP:N	2.47	0.40
51:BT:35:LYS:HG3	51:BT:36:GLU:H	1.86	0.40
1:CA:1375:A:H2'	1:CA:1376:U:C6	2.56	0.40
4:CD:125:HIS:HB2	4:CD:126:ILE:HD12	2.02	0.40
30:D5:45:VAL:HA	30:D5:51:TYR:CE1	2.56	0.40
19:AS:29:ARG:HD2	19:AS:30:LEU:N	2.35	0.40
35:DA:2320:A:H4'	35:DA:2321:G:N7	2.37	0.40
43:DI:93:THR:O	43:DI:94:ALA:C	2.59	0.40
43:DI:95:LYS:C	43:DI:97:ILE:N	2.72	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:7:VAL:N	13:AM:8:GLU:OE1	2.52	0.40
47:DP:16:ARG:HG3	47:DP:17:LYS:N	2.34	0.40
35:DA:662:G:OP1	47:DP:18:ARG:NH1	2.54	0.40
47:DP:18:ARG:O	47:DP:18:ARG:NH1	2.54	0.40
39:DE:52:LEU:O	39:DE:53:PRO:O	2.40	0.40
7:AG:150:ALA:C	7:AG:152:ALA:H	2.24	0.40
45:BN:128:HIS:O	45:BN:130:HIS:N	2.49	0.40
3:CC:47:LEU:CD2	3:CC:68:VAL:HG11	2.51	0.40
1:AA:1293:G:O2'	1:AA:1294:G:O5'	2.39	0.40
1:CA:226:G:C2	1:CA:227:G:C8	3.09	0.40
27:D2:33:MET:HE3	55:DX:8:ILE:HG21	2.03	0.40
38:BD:131:LEU:HA	38:BD:190:TYR:CE2	2.56	0.40
1:CA:963:G:N3	10:CJ:55:LYS:NZ	2.66	0.40
1:AA:427:U:C4	1:AA:428:G:C6	3.09	0.40
35:DA:2785:C:O2'	35:DA:2786:U:H5'	2.21	0.40
8:CH:112:LEU:HD12	8:CH:114:THR:HG23	2.03	0.40
41:DG:12:TYR:CD2	41:DG:16:ARG:HD2	2.55	0.40
26:D1:77:ALA:O	26:D1:80:LEU:HG	2.21	0.40
49:BR:16:HIS:O	49:BR:17:ARG:C	2.60	0.40
43:DI:66:GLU:C	43:DI:68:LEU:N	2.73	0.40
27:B2:43:GLN:O	27:B2:45:SER:N	2.53	0.40
3:AC:54:ARG:HH11	3:AC:54:ARG:HG3	1.86	0.40
39:BE:2:LYS:HD2	39:BE:95:ILE:HG22	2.03	0.40
41:DG:15:VAL:HG11	41:DG:175:LEU:O	2.21	0.40
41:DG:34:LEU:CD2	41:DG:161:THR:HB	2.49	0.40
41:DG:139:LEU:C	41:DG:141:PHE:H	2.24	0.40
35:BA:991:C:H2'	35:BA:992:C:H6	1.87	0.40
35:DA:2469:A:H3'	35:DA:2470:G:O4'	2.20	0.40
1:CA:402:G:O2'	1:CA:403:C:H5'	2.21	0.40
35:BA:258:G:H2'	35:BA:259:G:H8	1.86	0.40
3:CC:196:LEU:HB3	3:CC:197:GLY:H	1.63	0.40
16:CP:22:THR:CA	16:CP:33:ILE:HG12	2.47	0.40
35:DA:991:C:H2'	35:DA:992:C:C6	2.55	0.40
18:AR:74:ARG:NH2	18:AR:81:PHE:HA	2.35	0.40
47:DP:122:PRO:CG	47:DP:141:ALA:HB1	2.46	0.40
37:DC:75:LEU:O	37:DC:77:ILE:N	2.54	0.40
35:DA:1332:G:H4'	35:DA:1333:C:OP2	2.21	0.40
17:AQ:11:VAL:O	17:AQ:12:SER:CB	2.69	0.40
17:AQ:5:VAL:HA	17:AQ:59:ILE:O	2.21	0.40
40:DF:183:VAL:O	40:DF:184:TYR:C	2.58	0.40
30:B5:45:VAL:HA	30:B5:51:TYR:CD1	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1053:C:O2	35:BA:1106:A:C2	2.74	0.40
22:CV:15:G:N3	22:CV:59:A:C2	2.89	0.40
1:AA:333:G:H4'	20:AT:16:HIS:NE2	2.36	0.40
1:AA:1429:C:H2'	1:AA:1430:C:H6	1.85	0.40
56:DY:90:LEU:HD23	56:DY:90:LEU:N	2.35	0.40
1:AA:1259:C:H1'	1:AA:1283:G:H21	1.85	0.40
35:DA:510:C:O2'	35:DA:511:U:H5'	2.21	0.40
9:AI:38:GLN:HG2	9:AI:39:GLY:N	2.37	0.40
35:BA:2033:A:HO2'	35:BA:2034:U:P	2.43	0.40
1:CA:722:A:H2'	1:CA:724:G:C8	2.56	0.40
56:DY:68:HIS:ND1	56:DY:70:SER:HB3	2.35	0.40
1:AA:937:A:C2	1:AA:1379:G:C6	3.08	0.40
2:CB:10:LEU:HA	2:CB:13:ALA:HB2	2.03	0.40
48:BQ:50:ALA:O	48:BQ:51:ARG:C	2.58	0.40
43:DI:114:LEU:C	43:DI:116:LEU:N	2.74	0.40
35:DA:723:G:H2'	35:DA:724:U:C6	2.56	0.40
1:AA:784:C:H4'	35:BA:1837:C:OP1	2.20	0.40
13:AM:38:GLY:C	13:AM:39:ILE:HD12	2.41	0.40
40:BF:89:VAL:O	40:BF:90:PHE:C	2.57	0.40
35:DA:1215:G:C2'	35:DA:1216:G:H5'	2.51	0.40
35:DA:1417:C:C2'	35:DA:1418:G:H5'	2.51	0.40
13:CM:35:GLU:O	13:CM:37:THR:N	2.55	0.40
9:AI:92:TYR:HB3	9:AI:95:LYS:HD2	2.03	0.40
35:BA:971:C:O2'	35:BA:972:G:H5'	2.20	0.40
35:DA:1363:C:H2'	35:DA:1364:G:H8	1.86	0.40
12:AL:120:LYS:H	12:AL:120:LYS:HG2	1.60	0.40
1:AA:697:U:C2'	1:AA:698:G:H5'	2.50	0.40
1:AA:261:U:C5	20:AT:79:ARG:NE	2.89	0.40
35:DA:1750:G:O2'	35:DA:1751:C:H5'	2.22	0.40
8:AH:137:VAL:HG12	8:AH:138:TRP:N	2.36	0.40
35:BA:292:C:O2'	35:BA:293:U:H5'	2.21	0.40
35:DA:2572:A:C8	39:DE:144:ARG:HB3	2.56	0.40
35:BA:1956:U:H2'	35:BA:1957:C:H5'	2.03	0.40
45:BN:7:LYS:HD2	45:BN:7:LYS:N	2.37	0.40
4:CD:107:ARG:HA	4:CD:107:ARG:HD2	1.92	0.40
45:DN:7:LYS:N	45:DN:7:LYS:HD2	2.36	0.40
42:DH:7:LEU:HD12	42:DH:7:LEU:N	2.11	0.40
24:AY:91:ASN:HB2	24:AY:93:LYS:HE2	2.02	0.40
35:BA:2415:G:C6	35:BA:2416:C:C4	3.09	0.40
1:CA:1225:A:OP2	13:CM:102:ARG:HD3	2.21	0.40
1:CA:1059:C:O3'	14:CN:45:ARG:NH2	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DY:28:LYS:N	56:DY:28:LYS:CE	2.83	0.40
42:BH:98:LEU:HD12	42:BH:102:ALA:O	2.21	0.40
1:AA:624:C:C4'	16:AP:11:SER:OG	2.70	0.40
52:BU:95:LEU:HD13	53:BV:4:ILE:CG2	2.51	0.40
8:CH:51:VAL:CG2	8:CH:60:ARG:HH11	2.32	0.40
42:BH:83:TYR:HB3	42:BH:135:GLY:C	2.41	0.40
1:AA:633:G:H2'	1:AA:634:C:O4'	2.21	0.40
1:CA:886:G:C4'	1:CA:915:A:H1'	2.51	0.40
1:CA:19:C:H5''	5:CE:86:ALA:CB	2.52	0.40
2:CB:170:GLU:C	2:CB:172:ILE:H	2.25	0.40
2:CB:214:ILE:C	2:CB:218:ALA:HB2	2.42	0.40
2:AB:175:ARG:O	2:AB:178:ARG:N	2.54	0.40
2:AB:59:GLU:OE2	2:AB:221:LEU:HB3	2.21	0.40
2:AB:21:ARG:C	2:AB:23:ARG:H	2.25	0.40
1:CA:1221:G:OP1	1:CA:1321:C:N3	2.55	0.40
19:CS:31:ILE:CG2	19:CS:49:ILE:HA	2.51	0.40
19:CS:49:ILE:HG13	19:CS:49:ILE:O	2.22	0.40
47:DP:116:GLY:O	47:DP:117:GLU:HG2	2.21	0.40
15:AO:67:LEU:HD21	15:AO:87:ILE:HD12	2.02	0.40
1:AA:976:G:H22	1:AA:1362:C:H2'	1.85	0.40
8:CH:9:MET:O	8:CH:13:ILE:HG12	2.21	0.40
51:BT:41:ARG:C	51:BT:41:ARG:HD2	2.42	0.40
45:BN:57:ALA:HB2	45:BN:123:TYR:O	2.21	0.40
13:CM:19:LEU:C	13:CM:21:TYR:N	2.73	0.40
13:CM:7:VAL:N	13:CM:8:GLU:OE1	2.52	0.40
3:CC:134:ILE:HG23	3:CC:151:VAL:CB	2.51	0.40
3:CC:142:MET:HG2	3:CC:149:ALA:HB3	2.03	0.40
1:AA:738:C:H2'	1:AA:739:C:H6	1.83	0.40
43:BI:77:LEU:HD22	43:BI:140:LEU:HD23	2.04	0.40
43:DI:78:THR:HA	43:DI:141:LYS:HB2	2.03	0.40
43:DI:97:ILE:HG12	43:DI:140:LEU:HD11	2.03	0.40
41:DG:5:VAL:CG1	41:DG:6:ALA:N	2.70	0.40
1:AA:1281:U:HO2'	1:AA:1282:C:P	2.45	0.40
10:AJ:74:ILE:HG22	10:AJ:75:ILE:N	2.35	0.40
3:AC:43:LEU:CD1	3:AC:55:VAL:HG11	2.52	0.40
4:CD:171:GLY:HA2	4:CD:172:PRO:HD3	1.89	0.40
49:BR:113:LEU:HD23	49:BR:113:LEU:H	1.87	0.40
4:CD:188:LEU:O	4:CD:189:PRO:C	2.60	0.40
35:DA:271(P):C:H5''	43:DI:46:ALA:HB2	2.02	0.40
35:BA:271(Q):G:O2'	35:BA:271(R):G:H8	2.05	0.40
50:DS:99:LYS:HD2	50:DS:99:LYS:N	2.19	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:34:VAL:HG11	39:BE:78:LEU:HD22	2.03	0.40
29:D4:55:ARG:HH21	29:D4:55:ARG:HG2	1.86	0.40
35:BA:920:G:H2'	35:BA:921:G:C8	2.56	0.40
38:DD:133:LEU:C	38:DD:135:PHE:N	2.74	0.40
5:CE:32:VAL:HB	5:CE:58:ALA:HB1	2.04	0.40
3:CC:119:ARG:O	3:CC:119:ARG:HD3	2.21	0.40
36:DB:42:C:H42	41:DG:91:ARG:CZ	2.34	0.40
41:BG:139:LEU:HA	41:BG:144:ILE:HG21	2.03	0.40
36:BB:43:C:C5	36:BB:45:A:N6	2.89	0.40
41:BG:39:ILE:HD11	41:BG:155:MET:HG3	2.03	0.40
50:DS:103:GLU:OE1	50:DS:103:GLU:N	2.54	0.40
53:BV:19:LYS:C	53:BV:20:LEU:HD12	2.42	0.40
35:BA:2631:G:N3	35:BA:2810:A:H2	2.20	0.40
5:CE:148:VAL:C	5:CE:150:ARG:N	2.75	0.40
53:DV:22:VAL:HG21	53:DV:94:LEU:HG	2.03	0.40
43:BI:66:GLU:C	43:BI:68:LEU:N	2.74	0.40
8:AH:37:ARG:HH21	8:AH:38:ILE:CD1	2.34	0.40
6:AF:62:TRP:C	6:AF:63:TYR:HD2	2.25	0.40
1:CA:1370:G:O2'	1:CA:1371:G:H5'	2.21	0.40
21:AU:12:LYS:HB3	21:AU:22:ARG:NH1	2.37	0.40
12:AL:4:ILE:HD11	17:AQ:32:TYR:HB3	2.03	0.40
17:AQ:33:GLY:O	17:AQ:34:LYS:O	2.40	0.40
1:CA:235:C:H2'	1:CA:236:G:C8	2.47	0.40
2:AB:130:ARG:HH21	2:AB:138:LEU:HD11	1.86	0.40
5:CE:6:PHE:N	5:CE:63:ARG:HH12	2.17	0.40
35:BA:272(B):G:H1	35:BA:366:C:N4	2.17	0.40
35:BA:364:C:O2'	35:BA:365:C:H5''	2.20	0.40
37:DC:73:ARG:O	37:DC:75:LEU:N	2.55	0.40
56:DY:30:VAL:CG1	56:DY:31:LEU:N	2.84	0.40
40:DF:108:LYS:HE3	40:DF:112:MET:HE2	2.03	0.40
1:CA:1351:U:H2'	1:CA:1352:C:H6	1.86	0.40
42:DH:162:ILE:O	42:DH:162:ILE:HG13	2.21	0.40
31:D6:46:HIS:CD2	31:D6:47:THR:OG1	2.74	0.40
1:CA:426:G:OP1	4:CD:36:ARG:NH1	2.54	0.40
48:DQ:60:ARG:CA	57:DZ:178:GLU:O	2.69	0.40
15:CO:15:PHE:O	15:CO:16:ALA:C	2.58	0.40
46:BO:71:ARG:NH1	51:BT:74:ARG:HH22	2.19	0.40
56:BY:90:LEU:N	56:BY:90:LEU:HD23	2.36	0.40
42:BH:94:TYR:CA	42:BH:107:VAL:HG12	2.51	0.40
42:BH:94:TYR:CD1	42:BH:160:LYS:HG2	2.56	0.40
18:AR:51:LEU:CD2	18:AR:52:PRO:HD2	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:BX:29:TRP:HA	55:BX:29:TRP:CE3	2.56	0.40
35:DA:2166:G:H2'	35:DA:2167:U:H5'	2.02	0.40
1:AA:600:C:H4'	8:AH:128:GLY:O	2.21	0.40
26:B1:52:ARG:HE	26:B1:57:GLU:HB2	1.86	0.40
35:DA:2261:C:O2'	35:DA:2262:U:H5'	2.21	0.40
35:BA:1188:U:C4'	53:BV:79:VAL:CG2	2.99	0.40
1:AA:1478:C:H2'	1:AA:1479:C:C6	2.55	0.40
28:D3:30:ARG:NH1	28:D3:30:ARG:HG3	2.35	0.40
1:AA:1375:A:C2	1:AA:1376:U:C2	3.09	0.40
35:DA:2086:U:H2'	35:DA:2087:G:H8	1.80	0.40
52:BU:26:GLY:O	52:BU:30:LYS:HG2	2.21	0.40
9:CI:4:TYR:CE2	9:CI:88:TYR:O	2.74	0.40
35:BA:1856:G:H2'	35:BA:1857:G:C5'	2.51	0.40
42:BH:118:PRO:O	42:BH:121:ILE:HB	2.22	0.40
35:BA:118:A:OP2	35:BA:119:A:H2'	2.21	0.40
13:AM:35:GLU:O	13:AM:37:THR:N	2.54	0.40
35:BA:1587:A:H3'	35:BA:1588:C:C6	2.56	0.40
43:DI:52:ARG:HE	43:DI:53:ALA:N	2.19	0.40
48:DQ:109:VAL:HG22	48:DQ:113:GLN:HB2	2.04	0.40
2:AB:239:VAL:O	2:AB:240:GLN:CB	2.70	0.40
34:B9:30:PRO:HB2	35:BA:2527:C:H5'	2.03	0.40
35:BA:754:C:H2'	35:BA:755:C:C6	2.56	0.40
35:DA:229:A:H3'	35:DA:230:U:C5'	2.52	0.40
22:CW:23:C:H2'	22:CW:24:U:C5	2.57	0.40
35:BA:1825:A:OP1	38:BD:249:PRO:HD3	2.20	0.40
35:BA:1935:G:O2'	35:BA:1936:A:H5''	2.21	0.40
35:BA:2230:G:H2'	35:BA:2231:C:C6	2.56	0.40
2:CB:82:ARG:HG2	2:CB:82:ARG:NH1	2.36	0.40
1:CA:409:G:OP1	4:CD:24:GLU:HB3	2.22	0.40
35:DA:572:A:H5''	35:DA:573:G:OP2	2.20	0.40
37:BC:146:GLY:O	37:BC:147:PHE:C	2.60	0.40
35:BA:1851:U:O2'	35:BA:1852:C:H5'	2.22	0.40
36:BB:68:C:H2'	36:BB:69:G:H8	1.84	0.40
40:BF:195:ASP:OD1	40:BF:195:ASP:C	2.59	0.40
35:BA:733:G:H8	35:BA:733:G:O5'	2.03	0.40
57:BZ:119:GLU:HG3	57:BZ:119:GLU:O	2.20	0.40
19:CS:45:VAL:HG23	19:CS:45:VAL:O	2.21	0.40
35:DA:121:G:H4'	35:DA:149:A:H5'	2.03	0.40
24:AY:43:TRP:O	24:AY:44:THR:C	2.58	0.40
22:AV:56:C:H6	22:AV:56:C:P	2.43	0.40
56:DY:96:ILE:HD12	56:DY:99:CYS:CB	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DY:28:LYS:N	56:DY:29:GLU:OE1	2.55	0.40
40:BF:22:ALA:CB	40:BF:26:ALA:HB2	2.51	0.40
47:BP:35:HIS:O	47:BP:36:LYS:HB2	2.22	0.40
51:BT:89:VAL:O	51:BT:89:VAL:HG23	2.22	0.40
33:D8:7:HIS:CD2	47:DP:50:ARG:HD3	2.57	0.40
50:BS:103:GLU:OE1	50:BS:103:GLU:N	2.53	0.40
50:BS:90:GLY:C	50:BS:92:TYR:H	2.20	0.40
56:BY:28:LYS:O	56:BY:38:ILE:CB	2.66	0.40
56:BY:9:LYS:O	56:BY:28:LYS:NZ	2.34	0.40
52:DU:95:LEU:HD12	53:DV:11:GLN:HB2	2.02	0.40
53:DV:40:LEU:C	53:DV:45:THR:HB	2.41	0.40
5:CE:11:ILE:HD11	5:CE:33:VAL:CG2	2.51	0.40
5:CE:11:ILE:CD1	5:CE:31:LEU:HD12	2.46	0.40
57:BZ:56:VAL:CG1	57:BZ:57:ILE:N	2.82	0.40
35:DA:943:U:O2'	35:DA:944:G:H5'	2.21	0.40
2:CB:208:ILE:HG13	2:CB:208:ILE:H	1.70	0.40
3:AC:83:ARG:HA	3:AC:86:VAL:HG22	2.04	0.40
35:BA:197:A:N6	35:BA:2430:A:H2'	2.36	0.40
2:AB:12:GLU:OE1	2:AB:13:ALA:N	2.54	0.40
2:AB:209:ARG:C	2:AB:211:ILE:H	2.25	0.40
41:DG:132:ASN:OD1	41:DG:158:ALA:CB	2.70	0.40
39:DE:196:VAL:O	39:DE:196:VAL:HG13	2.21	0.40
19:CS:72:GLY:C	19:CS:74:PHE:N	2.74	0.40
15:AO:86:GLY:O	15:AO:87:ILE:HG23	2.21	0.40
47:BP:97:PRO:HD3	47:BP:126:VAL:HB	2.04	0.40
48:DQ:28:ALA:C	48:DQ:29:PHE:CD1	2.95	0.40
22:CV:23:C:C2	22:CV:24:U:C5	3.09	0.40
3:CC:172:ARG:C	3:CC:173:VAL:HG23	2.42	0.40
1:CA:628:G:H2'	1:CA:629:G:O4'	2.20	0.40
1:AA:35:G:H2'	1:AA:36:C:C6	2.57	0.40
39:DE:52:LEU:O	39:DE:74:PRO:HB3	2.20	0.40
45:BN:132:ALA:O	45:BN:133:GLN:CB	2.68	0.40
4:AD:103:ASN:OD1	4:AD:114:ARG:NE	2.55	0.40
3:CC:47:LEU:HD21	3:CC:68:VAL:HG11	2.03	0.40
3:CC:59:ARG:HG2	3:CC:64:VAL:HA	2.03	0.40
35:DA:1579:A:H2'	35:DA:1580:A:C8	2.56	0.40
20:AT:13:LEU:HD12	20:AT:14:LYS:H	1.85	0.40
29:B4:33:VAL:CG1	29:B4:34:GLU:N	2.83	0.40
41:BG:9:ARG:C	41:BG:11:TYR:N	2.75	0.40
35:DA:2731:G:C6	35:DA:2732:G:O6	2.74	0.40
43:BI:128:LEU:HB3	43:BI:129:THR:H	1.71	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:110:GLU:O	9:CI:111:ARG:O	2.39	0.40
1:CA:1003:G:H21	1:CA:1037:C:C2'	2.34	0.40
54:BW:9:TYR:N	54:BW:102:HIS:HD2	2.06	0.40
3:CC:8:ILE:HD11	3:CC:184:TYR:HB3	2.02	0.40
46:BO:86:ILE:HG22	46:BO:94:ARG:HD3	2.03	0.40
14:AN:24:CYS:HB2	14:AN:33:VAL:CG1	2.51	0.40
48:DQ:58:PHE:CD1	48:DQ:61:GLY:HA3	2.57	0.40
48:DQ:54:MET:CG	48:DQ:64:ILE:HD13	2.51	0.40
2:AB:112:VAL:HG11	2:AB:156:LYS:HE2	2.04	0.40
35:DA:2738:A:C2	35:DA:2739:U:N1	2.90	0.40
42:DH:148:ILE:C	42:DH:150:ALA:N	2.74	0.40
20:CT:51:GLU:CA	20:CT:54:LYS:HB3	2.51	0.40
1:CA:321:A:N7	1:CA:328:C:C6	2.89	0.40
9:AI:118:LYS:NZ	9:AI:118:LYS:CB	2.84	0.40
1:CA:353:A:C2'	1:CA:354:G:OP2	2.70	0.40
35:DA:1549:C:O2'	35:DA:1550:C:H5'	2.22	0.40
1:AA:1457:G:P	20:AT:39:LYS:HZ2	2.44	0.40
35:BA:1257:C:OP1	40:BF:72:ARG:NH2	2.54	0.40
1:CA:682:G:H2'	1:CA:683:G:C8	2.56	0.40
39:DE:24:THR:HG23	39:DE:24:THR:O	2.21	0.40
35:BA:1926:U:H2'	35:BA:1928:A:OP2	2.21	0.40
35:DA:2885:C:H2'	35:DA:2886:G:O5'	2.21	0.40
49:BR:33:ARG:HD2	49:BR:33:ARG:N	2.35	0.40
35:BA:1792:G:H2'	35:BA:1793:C:H6	1.87	0.40
49:BR:6:SER:OG	49:BR:7:GLY:N	2.53	0.40
1:CA:149:A:H2'	1:CA:150:C:C6	2.56	0.40
35:BA:1444:G:N2	35:BA:1548:C:C2	2.89	0.40
50:BS:42:ASP:O	50:BS:43:GLU:CB	2.69	0.40
38:DD:160:GLY:HA2	38:DD:199:ALA:HB2	2.02	0.40
46:BO:14:THR:O	46:BO:51:ALA:HB3	2.22	0.40
35:BA:2585:U:O4'	35:BA:2585:U:O2	2.39	0.40
35:BA:1705:G:C6	35:BA:1706:U:C4	3.08	0.40
50:DS:36:TYR:HD1	50:DS:36:TYR:N	2.17	0.40
1:CA:1155:G:H2'	1:CA:1156:G:O4'	2.21	0.40
1:AA:793:U:O2'	1:AA:1516:G:H1'	2.22	0.40
35:BA:264:C:O2'	35:BA:265:A:H2'	2.21	0.40
1:CA:79:G:H1'	1:CA:91:C:H42	1.87	0.40
35:BA:2024:G:O2'	35:BA:2025:C:H5'	2.22	0.40
57:BZ:179:ASP:OD2	57:BZ:181:GLU:HB2	2.22	0.40
35:BA:225:A:H2'	35:BA:226:G:H5'	2.02	0.40
24:CY:13:PRO:CD	24:CY:13:PRO:O	2.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2870:C:C2'	35:DA:2871:C:H5'	2.51	0.40
12:CL:90:LEU:HB3	12:CL:93:VAL:CG2	2.51	0.40
22:CW:57:A:H2'	22:CW:58:A:H5'	2.03	0.40
35:BA:2582:G:O2'	35:BA:2583:G:H5'	2.21	0.40
35:DA:1439:A:H2'	35:DA:1440:G:O4'	2.22	0.40
46:DO:73:ASP:CG	46:DO:75:SER:HG	2.25	0.40
36:BB:78:A:C2	36:BB:100:A:C4	3.09	0.40
1:CA:1020:U:H2'	1:CA:1021:G:C8	2.56	0.40
27:D2:21:LEU:HA	27:D2:21:LEU:HD23	1.84	0.40
15:CO:5:LYS:H	15:CO:5:LYS:HG3	1.64	0.40
53:BV:97:LYS:HA	53:BV:97:LYS:HD3	1.75	0.40
47:BP:68:GLN:N	47:BP:68:GLN:HE21	2.20	0.40
52:BU:18:LEU:HD23	52:BU:18:LEU:HA	1.88	0.40
35:DA:1936:A:C8	35:DA:1940:U:O2	2.74	0.40
1:CA:596:C:H2'	1:CA:597:G:O4'	2.21	0.40
33:B8:25:MET:HG3	47:BP:64:LYS:CG	2.51	0.40
35:DA:1915:U:C6	35:DA:1915:U:C3'	3.05	0.40
22:AV:54:U:C5	22:AV:55:U:C6	3.09	0.40
1:CA:939:G:H2'	1:CA:940:C:H6	1.86	0.40
1:CA:1225:A:C2	1:CA:1226:C:C5	3.09	0.40
56:BY:81:LYS:CD	56:BY:97:ARG:HE	2.34	0.40
56:BY:95:LYS:HZ3	56:BY:99:CYS:N	2.14	0.40
58:CX:16:A:H2	58:CX:17:U:H1'	1.85	0.40
1:CA:838:G:O5'	1:CA:838:G:C8	2.75	0.40
52:BU:88:ILE:HD12	52:BU:109:LEU:CD2	2.51	0.40
57:DZ:108:PRO:CB	57:DZ:144:LEU:H	2.30	0.40
19:CS:50:ALA:HB1	19:CS:57:HIS:CB	2.26	0.40
35:BA:906:G:H8	35:BA:906:G:H5'	1.87	0.40
33:B8:7:HIS:CD2	47:BP:50:ARG:HD3	2.56	0.40
35:BA:2360:A:O2'	35:BA:2361:A:H5''	2.19	0.40
47:BP:47:ASP:OD1	47:BP:49:ARG:HB2	2.20	0.40
1:AA:938:A:C6	1:AA:939:G:C5	3.10	0.40
1:AA:939:G:H2'	1:AA:940:C:H6	1.86	0.40
2:CB:72:GLY:O	2:CB:94:ASN:O	2.39	0.40
8:CH:61:VAL:HG12	8:CH:63:LEU:HD13	2.04	0.40
29:D4:33:VAL:CG1	29:D4:34:GLU:N	2.84	0.40
41:DG:122:PRO:HD3	41:DG:181:ARG:HE	1.86	0.40
38:BD:31:LYS:HZ3	38:BD:31:LYS:HA	1.87	0.40
22:CW:54:U:H2'	22:CW:55:U:C6	2.57	0.40
51:BT:38:ASN:CG	51:BT:39:ARG:H	2.25	0.40
51:BT:56:GLY:C	51:BT:57:PHE:O	2.59	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:121:VAL:O	4:CD:134:ASP:HA	2.21	0.40
22:CV:26:G:H2'	22:CV:27:U:C6	2.57	0.40
3:CC:182:ILE:HD11	3:CC:203:PHE:CD1	2.56	0.40
35:BA:146:G:H2'	35:BA:147:U:H5'	2.03	0.40
24:CY:3:LYS:HB3	24:CY:5:TYR:CE1	2.56	0.40
3:AC:134:ILE:HG22	3:AC:168:ALA:HB3	2.03	0.40
1:AA:1148:U:O4'	9:AI:16:ARG:NH1	2.55	0.40
3:AC:47:LEU:HD21	3:AC:68:VAL:HG11	2.03	0.40
41:BG:170:ARG:NH2	41:BG:180:PHE:CD1	2.88	0.40
45:DN:132:ALA:O	45:DN:133:GLN:CB	2.68	0.40
39:DE:63:LEU:O	39:DE:73:GLU:OE1	2.40	0.40
57:BZ:63:ASP:C	57:BZ:65:GLN:H	2.23	0.40
5:CE:51:VAL:HB	5:CE:52:PRO:HD3	2.03	0.40
1:CA:835:U:P	18:CR:60:ALA:HB3	2.62	0.40
38:BD:146:GLU:OE1	38:BD:190:TYR:HB2	2.22	0.40
5:AE:56:GLN:O	5:AE:57:LYS:C	2.58	0.40
38:DD:79:VAL:HG11	38:DD:111:LEU:CD1	2.52	0.40
1:CA:1303:C:OP1	1:CA:1304:G:OP2	2.40	0.40
38:BD:21:PHE:HB3	38:BD:24:ILE:CG1	2.50	0.40
53:DV:61:VAL:HG12	53:DV:94:LEU:CD2	2.51	0.40
35:BA:141:A:H1'	35:BA:1408:C:O2'	2.22	0.40
35:DA:1817:G:H2'	35:DA:1818:U:H5'	2.02	0.40
35:DA:1791:A:H3'	35:DA:1792:G:H8	1.86	0.40
1:AA:562:C:H1'	12:AL:12:ARG:HB3	2.03	0.40
1:CA:765:G:H5''	1:CA:766:A:OP1	2.21	0.40
1:CA:729:A:H2'	1:CA:730:G:C8	2.52	0.40
15:CO:50:HIS:O	15:CO:53:HIS:N	2.48	0.40
1:CA:1351:U:H2'	1:CA:1352:C:C6	2.56	0.40
38:BD:67:PHE:CE1	38:BD:157:ARG:CZ	3.04	0.40
40:DF:136:THR:O	40:DF:137:LYS:C	2.59	0.40
1:CA:1164:G:O2'	1:CA:1165:C:H5'	2.22	0.40
50:BS:61:ASN:H	50:BS:65:VAL:HG23	1.86	0.40
35:BA:1192:G:C2'	35:BA:1193:G:H5'	2.52	0.40
1:CA:585:G:O2'	1:CA:879:C:OP1	2.40	0.40
2:CB:36:ARG:N	2:CB:36:ARG:HD2	2.37	0.40
2:CB:41:ILE:N	2:CB:41:ILE:HD12	2.36	0.40
1:AA:323:U:H4'	20:AT:22:ARG:HB2	2.02	0.40
1:CA:932:C:OP1	7:CG:3:ARG:O	2.40	0.40
47:DP:135:LEU:O	47:DP:136:GLU:C	2.59	0.40
47:DP:135:LEU:O	47:DP:138:LEU:N	2.55	0.40
40:DF:65:TRP:HH2	40:DF:73:ALA:O	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:222:ARG:HB2	38:DD:222:ARG:HH11	1.86	0.40
22:AW:25:C:H2'	22:AW:26:G:C8	2.56	0.40
35:DA:2023:G:H4'	35:DA:2617:C:O3'	2.22	0.40
15:CO:12:ILE:C	15:CO:14:GLU:H	2.25	0.40
28:B3:45:GLY:HA3	35:BA:852:G:H5'	2.04	0.40
1:AA:1378:C:H5	1:AA:1379:G:C8	2.39	0.40
1:AA:278:G:OP2	17:AQ:41:LYS:HE2	2.22	0.40
1:CA:158:G:H2'	1:CA:159:G:C8	2.53	0.40
9:AI:121:ARG:NH1	9:AI:121:ARG:HG2	2.36	0.40
27:D2:6:VAL:C	27:D2:8:LYS:N	2.73	0.40
30:B5:19:ARG:NH2	35:BA:1264:G:OP1	2.46	0.40
1:AA:1135:U:H4'	1:AA:1136:U:C5	2.56	0.40
1:CA:579:G:H2'	1:CA:580:U:C6	2.56	0.40
35:BA:579:G:H2'	35:BA:580:C:C6	2.57	0.40
35:BA:413:C:H4'	35:BA:1880:C:O2'	2.21	0.40
35:DA:2701:C:H2'	35:DA:2702:U:H2'	2.03	0.40
11:CK:59:TYR:CZ	11:CK:63:LEU:HD11	2.56	0.40
36:BB:59:A:H2'	36:BB:60:C:H6	1.86	0.40
35:DA:1653:G:O5'	35:DA:1653:G:H8	2.05	0.40
35:BA:357:A:H2'	35:BA:358:U:C6	2.56	0.40
35:DA:416:C:H2'	35:DA:417:C:H6	1.86	0.40
28:D3:57:GLU:HG2	28:D3:58:VAL:N	2.36	0.40
1:CA:1092:A:H4'	7:CG:4:ARG:NH2	2.37	0.40
35:DA:2825:C:H2'	35:DA:2826:A:O4'	2.21	0.40
35:BA:1283:G:N2	35:BA:1285:G:H3'	2.37	0.40
1:CA:1484:C:H4'	35:DA:1960:A:O2'	2.22	0.40
35:BA:1156:A:C8	52:BU:51:LYS:HD2	2.57	0.40
8:CH:102:ARG:N	8:CH:102:ARG:HD3	2.35	0.40
35:DA:2612:C:H2'	35:DA:2613:U:H5'	2.03	0.40
1:AA:1492:A:H5'	24:AY:34:GLN:O	2.21	0.40
49:DR:16:HIS:O	49:DR:17:ARG:C	2.59	0.40
1:CA:925:G:H4'	1:CA:1502:A:N1	2.36	0.40
52:BU:74:LEU:N	52:BU:74:LEU:CD1	2.84	0.40
53:BV:38:LEU:HD12	53:BV:57:VAL:HG12	2.02	0.40
53:BV:39:LEU:HA	53:BV:47:VAL:HG12	2.03	0.40
53:BV:39:LEU:HD22	53:BV:39:LEU:N	2.37	0.40
33:D8:62:LEU:HD22	35:DA:242:G:C5'	2.52	0.40
56:BY:13:VAL:CG2	56:BY:72:VAL:HB	2.50	0.40
40:DF:115:ALA:O	40:DF:116:ASP:C	2.59	0.40
42:BH:85:LYS:HG3	42:BH:145:ALA:HB2	2.04	0.40
57:BZ:151:HIS:HE1	57:BZ:168:GLU:OE2	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D6:24:GLU:HB3	31:D6:25:LYS:H	1.56	0.40
1:CA:915:A:H2'	1:CA:916:G:O4'	2.20	0.40
8:CH:63:LEU:CB	8:CH:65:TYR:CE1	3.04	0.40
31:B6:24:GLU:HB3	31:B6:25:LYS:H	1.57	0.40
15:CO:33:THR:O	15:CO:34:LEU:C	2.60	0.40
35:BA:637:A:OP2	47:BP:115:LEU:HB2	2.21	0.40
47:BP:83:VAL:O	47:BP:114:ILE:HA	2.21	0.40
2:AB:17:PHE:C	2:AB:17:PHE:CD2	2.93	0.40
35:DA:1567:A:O4'	35:DA:1568:G:C2	2.74	0.40
35:DA:1568:G:H5''	38:DD:61:LEU:HD22	2.03	0.40
39:DE:7:VAL:HA	39:DE:196:VAL:HG12	2.03	0.40
35:DA:2068:U:C2	35:DA:2430:A:H2	2.33	0.40
7:CG:108:ALA:O	7:CG:119:ARG:HD2	2.21	0.40
46:DO:107:ARG:NH2	51:DT:35:LYS:HD2	2.30	0.40
1:AA:1218:C:O2'	1:AA:1219:U:H5'	2.21	0.40
3:AC:132:ARG:O	3:AC:134:ILE:N	2.54	0.40
9:AI:16:ARG:HH21	9:AI:64:THR:HB	1.86	0.40
3:AC:59:ARG:CG	3:AC:64:VAL:HG13	2.52	0.40
13:AM:19:LEU:C	13:AM:21:TYR:N	2.75	0.40
39:DE:34:VAL:HG11	39:DE:78:LEU:HD22	2.03	0.40
7:AG:80:VAL:C	7:AG:82:GLY:N	2.74	0.40
35:DA:729:G:O2'	35:DA:763:G:H4'	2.21	0.40
6:AF:53:ALA:HB3	6:AF:86:ARG:NH1	2.36	0.40
38:BD:68:LYS:O	38:BD:69:ARG:HB2	2.20	0.40
41:BG:63:ILE:HG12	41:BG:63:ILE:H	1.51	0.40
41:BG:39:ILE:HG23	41:BG:92:VAL:CG1	2.52	0.40
41:BG:4:ASP:HB2	41:BG:8:LYS:CE	2.51	0.40
7:AG:30:ILE:HD12	7:AG:120:ILE:CD1	2.46	0.40
20:CT:11:SER:HA	20:CT:13:LEU:CD1	2.52	0.40
1:AA:1118:C:H42	1:AA:1156:G:N2	2.20	0.40
9:AI:10:ARG:NH2	9:AI:11:LYS:HB2	2.36	0.40
54:BW:64:MET:HE3	54:BW:109:GLU:HG2	2.03	0.40
35:BA:1020:A:N1	35:BA:1141:U:H1'	2.36	0.40
12:CL:6:GLN:O	12:CL:10:LYS:HB2	2.22	0.40
22:AW:4:G:OP2	35:BA:1885:A:H5''	2.21	0.40
9:CI:42:ARG:NH1	9:CI:71:SER:HB3	2.36	0.40
1:AA:1325:C:H5''	21:AU:6:ARG:HH21	1.84	0.40
21:CU:12:LYS:CB	21:CU:22:ARG:HG3	2.51	0.40
39:BE:1:MET:C	39:BE:84:PHE:HB2	2.42	0.40
41:DG:34:LEU:HD23	41:DG:172:LEU:HD21	2.02	0.40
25:B0:11:ARG:HB2	25:B0:11:ARG:CZ	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:114:ARG:HH11	2:CB:118:LEU:HD21	1.87	0.40
1:CA:730:G:C5	1:CA:731:G:H1'	2.57	0.40
34:D9:27:CYS:SG	34:D9:32:HIS:ND1	2.83	0.40
38:DD:69:ARG:HG3	38:DD:69:ARG:NH1	2.37	0.40
38:DD:71:ASP:CG	38:DD:103:ARG:NH2	2.74	0.40
35:BA:1331:A:O2'	35:BA:1332:G:H8	2.04	0.40
5:AE:71:LEU:HD23	5:AE:114:GLY:O	2.21	0.40
38:BD:164:GLN:OE1	38:BD:176:ARG:NH2	2.55	0.40
28:D3:39:ASP:CG	28:D3:39:ASP:O	2.60	0.40
37:BC:75:LEU:O	37:BC:77:ILE:N	2.54	0.40
35:BA:18:C:C2	35:BA:19:C:C6	3.10	0.40
1:AA:96:U:O2'	1:AA:97:G:H8	2.04	0.40
39:BE:101:ARG:NH1	39:BE:171:GLU:N	2.67	0.40
1:AA:1066:C:C3'	1:AA:1067:A:C8	3.00	0.40
42:BH:162:ILE:O	42:BH:162:ILE:HG13	2.21	0.40
1:AA:766:A:H2	1:AA:1525:G:N3	2.19	0.40
1:AA:765:G:H5''	1:AA:766:A:OP1	2.21	0.40
35:BA:859:G:O3'	35:BA:860:U:O2	2.39	0.40
9:CI:23:ASN:HD21	9:CI:25:LYS:HG2	1.87	0.40
27:B2:35:LEU:HD11	27:B2:53:LEU:HD12	2.03	0.40
35:DA:1478:G:C2	35:DA:1479:G:C8	3.10	0.40
35:DA:1478:G:C2'	35:DA:1479:G:H5'	2.51	0.40
1:AA:321:A:N7	1:AA:328:C:C6	2.90	0.40
1:AA:107:G:C2'	1:AA:108:G:H5'	2.52	0.40
35:DA:2195:C:O2'	35:DA:2196:C:H5'	2.22	0.40
1:AA:862:C:C4	1:AA:863:U:C5	3.10	0.40
35:BA:2657:A:O2'	42:BH:160:LYS:HE2	2.22	0.40
35:DA:2257:U:O2'	35:DA:2258:C:H5'	2.22	0.40
43:BI:2:LYS:NZ	43:BI:2:LYS:N	2.67	0.40
52:DU:27:LEU:C	52:DU:29:SER:N	2.74	0.40
1:CA:129(A):G:N2	1:CA:189(E):U:H1'	2.36	0.40
35:DA:244:A:H2'	35:DA:245:G:O4'	2.21	0.40
1:AA:114:U:H2'	1:AA:115:G:C8	2.56	0.40
52:BU:27:LEU:C	52:BU:29:SER:N	2.74	0.40
10:CJ:90:LEU:H	10:CJ:91:PRO:CD	2.34	0.40
51:BT:99:LEU:N	51:BT:99:LEU:CD1	2.84	0.40
35:DA:1290:C:H2'	35:DA:1291:C:H6	1.86	0.40
1:CA:512:U:H2'	1:CA:513:C:H6	1.86	0.40
46:DO:14:THR:O	46:DO:51:ALA:HB3	2.21	0.40
35:DA:995:C:O2	45:DN:4:TYR:OH	2.35	0.40
13:AM:35:GLU:C	13:AM:37:THR:H	2.25	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:589:C:H2'	35:DA:590:A:C8	2.56	0.40
35:BA:716:A:C3'	35:BA:717:G:H5''	2.50	0.40
49:DR:95:THR:O	49:DR:95:THR:HG23	2.22	0.40
43:BI:64:GLU:HA	43:BI:64:GLU:OE2	2.21	0.40
35:BA:1480:G:N1	35:BA:1512:U:O2	2.55	0.40
46:BO:20:MET:HG2	46:BO:21:CYS:O	2.22	0.40
35:DA:2801:A:O2'	35:DA:2895:U:H5'	2.22	0.40
55:DX:57:LEU:HD13	55:DX:57:LEU:N	2.36	0.40
35:BA:1824:G:O2'	35:BA:1825:A:H5'	2.21	0.40
43:BI:69:LYS:O	43:BI:73:GLU:HB3	2.21	0.40
1:AA:460:G:O6	1:AA:470:C:H5''	2.21	0.40
26:D1:85:LEU:C	26:D1:85:LEU:HD23	2.42	0.40
1:CA:651:C:O2'	1:CA:652:U:H5'	2.20	0.40
35:BA:1956:U:C2'	35:BA:1957:C:H5'	2.52	0.40
35:BA:1636:C:H2'	35:BA:1637:A:C8	2.57	0.40
1:CA:1056:U:H5'	3:CC:163:ALA:HB3	2.03	0.40
7:CG:74:GLU:OE1	7:CG:76:ARG:HD2	2.21	0.40
38:DD:140:THR:O	38:DD:165:ILE:HG13	2.22	0.40
27:B2:31:GLU:O	27:B2:34:GLU:HB3	2.22	0.40
35:BA:2447:G:N7	35:BA:2501:C:O4'	2.54	0.40
35:BA:1945:G:C6	35:BA:1946:U:C4	3.10	0.40
37:BC:66:HIS:HB3	37:BC:180:PHE:CB	2.52	0.40
1:CA:927:G:H1	1:CA:1390:U:H3	1.70	0.40
35:DA:566:U:H2'	35:DA:567:A:O4'	2.21	0.40
43:BI:18:VAL:HG23	43:BI:18:VAL:O	2.20	0.40
1:CA:90:U:H6	1:CA:90:U:H3'	1.87	0.40
10:CJ:57:LYS:HG3	10:CJ:57:LYS:O	2.21	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1411:C:O3'	36:DB:53:A:O2'[1_655]	2.19	0.01

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

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

of similar resolution.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	AB	233/256 (91%)	133 (57%)	67 (29%)	33 (14%)	0	1
2	CB	233/256 (91%)	133 (57%)	68 (29%)	32 (14%)	0	1
3	AC	205/239 (86%)	130 (63%)	50 (24%)	25 (12%)	0	2
3	CC	205/239 (86%)	128 (62%)	52 (25%)	25 (12%)	0	2
4	AD	206/209 (99%)	139 (68%)	45 (22%)	22 (11%)	0	3
4	CD	206/209 (99%)	138 (67%)	46 (22%)	22 (11%)	0	3
5	AE	149/162 (92%)	101 (68%)	33 (22%)	15 (10%)	1	4
5	CE	149/162 (92%)	101 (68%)	33 (22%)	15 (10%)	1	4
6	AF	99/101 (98%)	74 (75%)	13 (13%)	12 (12%)	0	2
6	CF	99/101 (98%)	74 (75%)	13 (13%)	12 (12%)	0	2
7	AG	153/156 (98%)	107 (70%)	35 (23%)	11 (7%)	1	10
7	CG	153/156 (98%)	107 (70%)	35 (23%)	11 (7%)	1	10
8	AH	136/138 (99%)	99 (73%)	31 (23%)	6 (4%)	3	24
8	CH	136/138 (99%)	99 (73%)	30 (22%)	7 (5%)	2	20
9	AI	121/128 (94%)	75 (62%)	31 (26%)	15 (12%)	0	2
9	CI	121/128 (94%)	74 (61%)	33 (27%)	14 (12%)	0	3
10	AJ	97/105 (92%)	64 (66%)	28 (29%)	5 (5%)	2	19
10	CJ	97/105 (92%)	64 (66%)	28 (29%)	5 (5%)	2	19
11	AK	117/129 (91%)	76 (65%)	28 (24%)	13 (11%)	0	3
11	CK	117/129 (91%)	76 (65%)	28 (24%)	13 (11%)	0	3
12	AL	123/135 (91%)	89 (72%)	21 (17%)	13 (11%)	0	3
12	CL	123/135 (91%)	87 (71%)	22 (18%)	14 (11%)	0	3
13	AM	110/126 (87%)	62 (56%)	27 (24%)	21 (19%)	0	0
13	CM	110/126 (87%)	63 (57%)	26 (24%)	21 (19%)	0	0
14	AN	58/61 (95%)	37 (64%)	14 (24%)	7 (12%)	0	2
14	CN	58/61 (95%)	36 (62%)	16 (28%)	6 (10%)	1	4
15	AO	86/89 (97%)	54 (63%)	25 (29%)	7 (8%)	1	7
15	CO	86/89 (97%)	55 (64%)	24 (28%)	7 (8%)	1	7
16	AP	82/88 (93%)	55 (67%)	18 (22%)	9 (11%)	0	3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
16	CP	82/88 (93%)	55 (67%)	18 (22%)	9 (11%)	0	3
17	AQ	98/105 (93%)	65 (66%)	21 (21%)	12 (12%)	0	2
17	CQ	98/105 (93%)	66 (67%)	20 (20%)	12 (12%)	0	2
18	AR	68/88 (77%)	36 (53%)	22 (32%)	10 (15%)	0	1
18	CR	68/88 (77%)	35 (52%)	23 (34%)	10 (15%)	0	1
19	AS	83/93 (89%)	48 (58%)	18 (22%)	17 (20%)	0	0
19	CS	83/93 (89%)	48 (58%)	18 (22%)	17 (20%)	0	0
20	AT	97/106 (92%)	62 (64%)	25 (26%)	10 (10%)	1	4
20	CT	97/106 (92%)	62 (64%)	25 (26%)	10 (10%)	1	4
21	AU	23/27 (85%)	11 (48%)	10 (44%)	2 (9%)	1	5
21	CU	23/27 (85%)	11 (48%)	10 (44%)	2 (9%)	1	5
24	AY	95/97 (98%)	81 (85%)	10 (10%)	4 (4%)	3	26
24	CY	14/97 (14%)	8 (57%)	4 (29%)	2 (14%)	0	1
25	B0	82/85 (96%)	67 (82%)	10 (12%)	5 (6%)	2	15
25	D0	82/85 (96%)	66 (80%)	10 (12%)	6 (7%)	1	9
26	B1	92/98 (94%)	70 (76%)	16 (17%)	6 (6%)	1	13
26	D1	92/98 (94%)	74 (80%)	9 (10%)	9 (10%)	1	4
27	B2	69/72 (96%)	51 (74%)	13 (19%)	5 (7%)	1	10
27	D2	69/72 (96%)	47 (68%)	18 (26%)	4 (6%)	2	17
28	B3	58/60 (97%)	49 (84%)	8 (14%)	1 (2%)	11	52
28	D3	58/60 (97%)	50 (86%)	7 (12%)	1 (2%)	11	52
29	B4	54/71 (76%)	28 (52%)	12 (22%)	14 (26%)	0	0
29	D4	54/71 (76%)	28 (52%)	12 (22%)	14 (26%)	0	0
30	B5	57/60 (95%)	42 (74%)	9 (16%)	6 (10%)	1	4
30	D5	57/60 (95%)	41 (72%)	10 (18%)	6 (10%)	1	4
31	B6	41/54 (76%)	17 (42%)	15 (37%)	9 (22%)	0	0
31	D6	41/54 (76%)	16 (39%)	16 (39%)	9 (22%)	0	0
32	B7	47/49 (96%)	45 (96%)	1 (2%)	1 (2%)	9	46
32	D7	47/49 (96%)	45 (96%)	1 (2%)	1 (2%)	9	46
33	B8	62/65 (95%)	35 (56%)	15 (24%)	12 (19%)	0	0
33	D8	62/65 (95%)	34 (55%)	15 (24%)	13 (21%)	0	0

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
34	B9	34/37 (92%)	24 (71%)	8 (24%)	2 (6%)	2	16
34	D9	34/37 (92%)	24 (71%)	8 (24%)	2 (6%)	2	16
37	BC	183/229 (80%)	75 (41%)	67 (37%)	41 (22%)	0	0
37	DC	183/229 (80%)	76 (42%)	65 (36%)	42 (23%)	0	0
38	BD	270/276 (98%)	199 (74%)	48 (18%)	23 (8%)	1	6
38	DD	270/276 (98%)	198 (73%)	47 (17%)	25 (9%)	1	5
39	BE	203/206 (98%)	142 (70%)	37 (18%)	24 (12%)	0	3
39	DE	203/206 (98%)	143 (70%)	36 (18%)	24 (12%)	0	3
40	BF	206/210 (98%)	137 (66%)	40 (19%)	29 (14%)	0	1
40	DF	206/210 (98%)	137 (66%)	41 (20%)	28 (14%)	0	1
41	BG	177/182 (97%)	109 (62%)	44 (25%)	24 (14%)	0	1
41	DG	177/182 (97%)	107 (60%)	43 (24%)	27 (15%)	0	1
42	BH	163/180 (91%)	90 (55%)	42 (26%)	31 (19%)	0	0
42	DH	163/180 (91%)	90 (55%)	42 (26%)	31 (19%)	0	0
43	BI	143/148 (97%)	80 (56%)	36 (25%)	27 (19%)	0	0
43	DI	143/148 (97%)	80 (56%)	36 (25%)	27 (19%)	0	0
45	BN	137/140 (98%)	97 (71%)	20 (15%)	20 (15%)	0	1
45	DN	137/140 (98%)	96 (70%)	21 (15%)	20 (15%)	0	1
46	BO	120/122 (98%)	99 (82%)	15 (12%)	6 (5%)	3	21
46	DO	120/122 (98%)	99 (82%)	15 (12%)	6 (5%)	3	21
47	BP	144/150 (96%)	70 (49%)	34 (24%)	40 (28%)	0	0
47	DP	144/150 (96%)	70 (49%)	34 (24%)	40 (28%)	0	0
48	BQ	139/141 (99%)	108 (78%)	18 (13%)	13 (9%)	1	5
48	DQ	139/141 (99%)	108 (78%)	18 (13%)	13 (9%)	1	5
49	BR	115/118 (98%)	80 (70%)	20 (17%)	15 (13%)	0	2
49	DR	115/118 (98%)	82 (71%)	20 (17%)	13 (11%)	0	3
50	BS	97/112 (87%)	46 (47%)	20 (21%)	31 (32%)	0	0
50	DS	97/112 (87%)	46 (47%)	20 (21%)	31 (32%)	0	0
51	BT	136/146 (93%)	79 (58%)	33 (24%)	24 (18%)	0	0
51	DT	136/146 (93%)	80 (59%)	31 (23%)	25 (18%)	0	0
52	BU	115/118 (98%)	87 (76%)	18 (16%)	10 (9%)	1	5

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
52	DU	115/118 (98%)	88 (76%)	17 (15%)	10 (9%)	1	5
53	BV	99/101 (98%)	72 (73%)	12 (12%)	15 (15%)	0	1
53	DV	99/101 (98%)	72 (73%)	12 (12%)	15 (15%)	0	1
54	BW	111/113 (98%)	84 (76%)	17 (15%)	10 (9%)	1	5
54	DW	111/113 (98%)	85 (77%)	16 (14%)	10 (9%)	1	5
55	BX	91/96 (95%)	73 (80%)	15 (16%)	3 (3%)	5	32
55	DX	91/96 (95%)	72 (79%)	16 (18%)	3 (3%)	5	32
56	BY	99/110 (90%)	50 (50%)	23 (23%)	26 (26%)	0	0
56	DY	99/110 (90%)	50 (50%)	23 (23%)	26 (26%)	0	0
57	BZ	185/206 (90%)	123 (66%)	38 (20%)	24 (13%)	0	2
57	DZ	185/206 (90%)	101 (55%)	49 (26%)	35 (19%)	0	0
All	All	11855/12786 (93%)	7751 (65%)	2556 (22%)	1548 (13%)	0	2

All (1548) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	75	LYS
2	AB	83	MET
2	AB	101	MET
2	AB	150	SER
2	AB	238	LEU
3	AC	53	ALA
3	AC	79	ARG
3	AC	104	GLN
3	AC	156	ARG
3	AC	206	GLU
3	AC	207	VAL
4	AD	5	ILE
4	AD	40	PRO
4	AD	48	ALA
4	AD	151	LYS
5	AE	16	THR
5	AE	73	ASN
6	AF	40	VAL
6	AF	43	LEU
6	AF	69	GLU
6	AF	70	ASP
6	AF	87	ARG

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Mol	Chain	Res	Type
7	AG	77	SER
8	AH	97	VAL
9	AI	25	LYS
9	AI	29	ASN
9	AI	111	ARG
10	AJ	57	LYS
11	AK	122	LYS
12	AL	3	THR
12	AL	88	LYS
12	AL	89	ASP
12	AL	112	LYS
13	AM	4	ILE
13	AM	36	LYS
13	AM	59	TYR
13	AM	83	ASP
13	AM	99	ARG
13	AM	106	ASN
13	AM	108	ARG
14	AN	22	THR
16	AP	49	LEU
16	AP	81	ARG
17	AQ	34	LYS
17	AQ	68	ARG
18	AR	25	THR
18	AR	37	VAL
18	AR	45	SER
18	AR	82	THR
19	AS	10	PHE
19	AS	40	ILE
19	AS	45	VAL
19	AS	65	ASN
19	AS	70	LYS
20	AT	10	LEU
20	AT	48	LYS
21	AU	3	LYS
24	AY	29	PRO
24	AY	47	LYS
25	B0	73	GLY
26	B1	24	ALA
26	B1	53	VAL
26	B1	83	GLU
27	B2	44	LEU

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Mol	Chain	Res	Type
27	B2	47	ASN
27	B2	48	HIS
29	B4	26	SER
29	B4	35	VAL
29	B4	47	GLN
29	B4	48	ARG
29	B4	50	VAL
30	B5	4	HIS
30	B5	38	ALA
30	B5	55	ARG
30	B5	57	VAL
31	B6	23	THR
31	B6	31	PRO
31	B6	49	HIS
33	B8	30	ARG
33	B8	31	HIS
33	B8	34	TRP
33	B8	35	GLN
33	B8	49	VAL
33	B8	64	TYR
37	BC	25	ALA
37	BC	37	PHE
37	BC	55	ASP
37	BC	68	LEU
37	BC	100	ILE
37	BC	133	PRO
37	BC	140	PRO
37	BC	171	ILE
37	BC	174	PRO
37	BC	182	PRO
37	BC	201	PRO
37	BC	216	THR
38	BD	3	VAL
38	BD	25	THR
38	BD	32	SER
38	BD	36	PRO
38	BD	123	ALA
38	BD	127	VAL
38	BD	169	GLU
38	BD	271	ILE
39	BE	53	PRO
39	BE	54	GLN

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Mol	Chain	Res	Type
39	BE	66	HIS
39	BE	83	ASP
39	BE	88	GLY
39	BE	117	MET
39	BE	185	LYS
40	BF	3	GLU
40	BF	11	VAL
40	BF	16	GLY
40	BF	21	ALA
40	BF	26	ALA
40	BF	66	PRO
40	BF	132	VAL
40	BF	133	ASN
41	BG	14	GLU
41	BG	77	ILE
41	BG	82	LEU
41	BG	84	LYS
41	BG	96	ARG
42	BH	8	PRO
42	BH	10	PRO
42	BH	16	SER
42	BH	24	VAL
42	BH	92	ILE
42	BH	138	LYS
42	BH	154	PRO
42	BH	155	SER
42	BH	156	ALA
42	BH	159	GLU
42	BH	165	ALA
42	BH	170	ARG
43	BI	15	VAL
43	BI	30	LEU
43	BI	82	ARG
43	BI	87	LYS
43	BI	88	ILE
43	BI	92	VAL
43	BI	111	PRO
43	BI	113	ARG
43	BI	133	HIS
45	BN	18	ALA
45	BN	37	LYS
45	BN	42	TRP

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Mol	Chain	Res	Type
45	BN	57	ALA
45	BN	58	ASP
45	BN	60	ILE
45	BN	63	THR
45	BN	126	PRO
45	BN	134	ARG
46	BO	26	LYS
46	BO	101	PRO
47	BP	10	PRO
47	BP	14	LYS
47	BP	18	ARG
47	BP	19	VAL
47	BP	25	SER
47	BP	35	HIS
47	BP	40	SER
47	BP	47	ASP
47	BP	57	THR
47	BP	64	LYS
47	BP	67	MET
47	BP	90	ARG
47	BP	98	GLU
47	BP	104	GLY
47	BP	107	LYS
47	BP	117	GLU
47	BP	141	ALA
48	BQ	18	LYS
48	BQ	20	ALA
48	BQ	110	THR
48	BQ	134	ARG
49	BR	5	LYS
49	BR	8	ARG
49	BR	12	ARG
49	BR	45	ARG
49	BR	58	GLY
49	BR	86	ARG
49	BR	88	ARG
50	BS	13	ARG
50	BS	17	ARG
50	BS	19	LYS
50	BS	35	ILE
50	BS	59	LYS
50	BS	62	LYS

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Mol	Chain	Res	Type
50	BS	88	ASP
50	BS	97	ARG
50	BS	101	LEU
50	BS	103	GLU
51	BT	2	ASN
51	BT	3	ARG
51	BT	30	VAL
51	BT	32	TYR
51	BT	35	LYS
51	BT	37	GLY
51	BT	40	THR
51	BT	41	ARG
51	BT	58	ASN
51	BT	80	SER
51	BT	88	ILE
51	BT	107	ASP
51	BT	115	ARG
52	BU	91	ASP
53	BV	18	LEU
53	BV	23	GLU
53	BV	24	LYS
53	BV	36	PRO
53	BV	46	VAL
53	BV	50	PRO
53	BV	53	GLU
53	BV	100	ARG
54	BW	11	ARG
54	BW	65	LEU
54	BW	66	GLU
54	BW	67	ASP
54	BW	111	HIS
56	BY	17	SER
56	BY	24	VAL
56	BY	27	VAL
56	BY	50	ARG
56	BY	56	PRO
56	BY	62	GLU
56	BY	77	PRO
56	BY	78	ALA
56	BY	82	PRO
56	BY	90	LEU
56	BY	99	CYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
56	BY	100	ALA
57	BZ	65	GLN
57	BZ	78	LYS
57	BZ	138	GLU
57	BZ	147	GLY
57	BZ	150	LEU
57	BZ	152	ALA
2	CB	75	LYS
2	CB	83	MET
2	CB	101	MET
2	CB	150	SER
2	CB	238	LEU
3	CC	53	ALA
3	CC	79	ARG
3	CC	104	GLN
3	CC	156	ARG
3	CC	206	GLU
3	CC	207	VAL
4	CD	5	ILE
4	CD	40	PRO
4	CD	48	ALA
4	CD	151	LYS
5	CE	16	THR
5	CE	73	ASN
6	CF	40	VAL
6	CF	43	LEU
6	CF	69	GLU
6	CF	70	ASP
6	CF	87	ARG
7	CG	77	SER
8	CH	68	ARG
9	CI	25	LYS
9	CI	29	ASN
9	CI	32	ASP
9	CI	111	ARG
10	CJ	57	LYS
11	CK	122	LYS
12	CL	3	THR
12	CL	88	LYS
12	CL	89	ASP
12	CL	112	LYS
13	CM	4	ILE

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Mol	Chain	Res	Type
13	CM	36	LYS
13	CM	59	TYR
13	CM	83	ASP
13	CM	99	ARG
13	CM	106	ASN
13	CM	108	ARG
16	CP	49	LEU
16	CP	81	ARG
17	CQ	34	LYS
17	CQ	68	ARG
18	CR	25	THR
18	CR	37	VAL
18	CR	45	SER
18	CR	82	THR
19	CS	10	PHE
19	CS	40	ILE
19	CS	45	VAL
19	CS	65	ASN
19	CS	70	LYS
20	CT	10	LEU
20	CT	48	LYS
21	CU	3	LYS
24	CY	11	PRO
25	D0	73	GLY
26	D1	53	VAL
26	D1	76	ARG
26	D1	83	GLU
26	D1	86	SER
27	D2	43	GLN
27	D2	47	ASN
29	D4	26	SER
29	D4	35	VAL
29	D4	47	GLN
29	D4	48	ARG
29	D4	50	VAL
30	D5	4	HIS
30	D5	38	ALA
30	D5	55	ARG
30	D5	57	VAL
31	D6	23	THR
31	D6	31	PRO
31	D6	49	HIS

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Mol	Chain	Res	Type
33	D8	30	ARG
33	D8	31	HIS
33	D8	34	TRP
33	D8	35	GLN
33	D8	49	VAL
33	D8	64	TYR
37	DC	25	ALA
37	DC	37	PHE
37	DC	55	ASP
37	DC	68	LEU
37	DC	100	ILE
37	DC	133	PRO
37	DC	140	PRO
37	DC	171	ILE
37	DC	174	PRO
37	DC	182	PRO
37	DC	201	PRO
37	DC	216	THR
38	DD	3	VAL
38	DD	25	THR
38	DD	32	SER
38	DD	36	PRO
38	DD	122	ASP
38	DD	123	ALA
38	DD	127	VAL
38	DD	169	GLU
38	DD	268	ARG
38	DD	271	ILE
39	DE	53	PRO
39	DE	54	GLN
39	DE	66	HIS
39	DE	83	ASP
39	DE	88	GLY
39	DE	117	MET
39	DE	185	LYS
39	DE	186	GLY
40	DF	3	GLU
40	DF	11	VAL
40	DF	16	GLY
40	DF	21	ALA
40	DF	26	ALA
40	DF	66	PRO

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Mol	Chain	Res	Type
40	DF	132	VAL
41	DG	14	GLU
41	DG	82	LEU
41	DG	84	LYS
41	DG	96	ARG
41	DG	97	ASP
41	DG	126	ASP
41	DG	142	PRO
42	DH	8	PRO
42	DH	10	PRO
42	DH	16	SER
42	DH	24	VAL
42	DH	92	ILE
42	DH	138	LYS
42	DH	154	PRO
42	DH	155	SER
42	DH	156	ALA
42	DH	159	GLU
42	DH	165	ALA
42	DH	170	ARG
43	DI	30	LEU
43	DI	82	ARG
43	DI	87	LYS
43	DI	88	ILE
43	DI	111	PRO
43	DI	113	ARG
43	DI	133	HIS
45	DN	18	ALA
45	DN	37	LYS
45	DN	42	TRP
45	DN	57	ALA
45	DN	58	ASP
45	DN	60	ILE
45	DN	63	THR
45	DN	126	PRO
45	DN	134	ARG
46	DO	26	LYS
46	DO	101	PRO
47	DP	10	PRO
47	DP	14	LYS
47	DP	18	ARG
47	DP	19	VAL

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Mol	Chain	Res	Type
47	DP	25	SER
47	DP	35	HIS
47	DP	40	SER
47	DP	47	ASP
47	DP	57	THR
47	DP	64	LYS
47	DP	67	MET
47	DP	90	ARG
47	DP	98	GLU
47	DP	104	GLY
47	DP	107	LYS
47	DP	117	GLU
47	DP	141	ALA
48	DQ	18	LYS
48	DQ	20	ALA
48	DQ	110	THR
48	DQ	134	ARG
49	DR	5	LYS
49	DR	45	ARG
49	DR	58	GLY
49	DR	86	ARG
50	DS	13	ARG
50	DS	17	ARG
50	DS	19	LYS
50	DS	35	ILE
50	DS	59	LYS
50	DS	62	LYS
50	DS	88	ASP
50	DS	97	ARG
50	DS	101	LEU
50	DS	103	GLU
51	DT	2	ASN
51	DT	3	ARG
51	DT	30	VAL
51	DT	32	TYR
51	DT	35	LYS
51	DT	37	GLY
51	DT	40	THR
51	DT	41	ARG
51	DT	58	ASN
51	DT	80	SER
51	DT	88	ILE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
51	DT	107	ASP
51	DT	115	ARG
52	DU	91	ASP
53	DV	18	LEU
53	DV	23	GLU
53	DV	24	LYS
53	DV	36	PRO
53	DV	46	VAL
53	DV	50	PRO
53	DV	100	ARG
54	DW	11	ARG
54	DW	65	LEU
54	DW	66	GLU
54	DW	67	ASP
54	DW	111	HIS
56	DY	17	SER
56	DY	24	VAL
56	DY	27	VAL
56	DY	50	ARG
56	DY	56	PRO
56	DY	62	GLU
56	DY	77	PRO
56	DY	78	ALA
56	DY	90	LEU
56	DY	99	CYS
56	DY	100	ALA
57	DZ	31	ARG
57	DZ	38	TYR
57	DZ	39	VAL
57	DZ	65	GLN
57	DZ	93	ASP
57	DZ	96	VAL
57	DZ	113	ALA
57	DZ	119	GLU
57	DZ	138	GLU
57	DZ	151	HIS
57	DZ	152	ALA
2	AB	19	HIS
2	AB	153	ARG
2	AB	169	LYS
2	AB	204	ASN
2	AB	227	GLY

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Mol	Chain	Res	Type
2	AB	235	SER
3	AC	12	LEU
3	AC	26	LYS
3	AC	45	LYS
3	AC	61	ALA
3	AC	74	GLY
3	AC	133	ALA
3	AC	145	GLY
4	AD	3	ARG
4	AD	22	LYS
4	AD	51	PRO
4	AD	69	GLY
4	AD	110	PHE
4	AD	193	ASP
5	AE	20	GLN
5	AE	104	ALA
5	AE	124	GLY
5	AE	149	GLU
5	AE	154	GLY
6	AF	89	MET
7	AG	19	GLY
7	AG	37	ASN
7	AG	39	ALA
7	AG	52	GLU
7	AG	78	ARG
8	AH	2	LEU
8	AH	68	ARG
9	AI	12	GLU
9	AI	30	GLY
9	AI	32	ASP
9	AI	40	LEU
9	AI	44	VAL
9	AI	95	LYS
10	AJ	59	SER
11	AK	39	PRO
11	AK	45	GLY
11	AK	105	VAL
11	AK	106	LYS
11	AK	127	LYS
12	AL	71	GLY
12	AL	86	ARG
12	AL	118	GLY

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Mol	Chain	Res	Type
13	AM	5	ALA
13	AM	32	GLU
13	AM	53	VAL
13	AM	100	GLY
13	AM	112	GLY
13	AM	117	VAL
14	AN	34	TYR
15	AO	73	GLU
15	AO	80	ALA
15	AO	85	LEU
15	AO	86	GLY
16	AP	78	GLY
17	AQ	12	SER
17	AQ	33	GLY
17	AQ	80	GLY
17	AQ	99	SER
18	AR	84	LYS
18	AR	87	ARG
19	AS	11	VAL
19	AS	28	LYS
19	AS	29	ARG
19	AS	30	LEU
19	AS	42	PRO
20	AT	71	THR
20	AT	73	HIS
20	AT	96	GLY
21	AU	21	TYR
24	AY	78	LYS
25	B0	9	SER
26	B1	30	VAL
29	B4	43	TYR
29	B4	45	GLY
29	B4	52	THR
29	B4	54	GLY
31	B6	20	ASN
31	B6	22	ALA
31	B6	33	LYS
32	B7	48	LYS
33	B8	51	ALA
33	B8	56	GLU
34	B9	11	CYS
37	BC	60	GLY

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Mol	Chain	Res	Type
37	BC	76	ALA
37	BC	135	GLY
37	BC	146	GLY
37	BC	147	PHE
37	BC	168	THR
37	BC	175	VAL
37	BC	205	LYS
37	BC	209	LEU
38	BD	27	THR
38	BD	79	VAL
38	BD	122	ASP
38	BD	236	GLY
38	BD	263	ARG
38	BD	268	ARG
39	BE	29	GLY
39	BE	57	LYS
39	BE	69	LYS
39	BE	77	ILE
39	BE	98	PRO
39	BE	130	GLY
39	BE	131	ALA
39	BE	186	GLY
39	BE	187	ALA
40	BF	5	ALA
40	BF	69	HIS
40	BF	167	ALA
40	BF	200	GLU
41	BG	63	ILE
41	BG	64	THR
41	BG	87	PRO
41	BG	101	ILE
41	BG	115	ARG
41	BG	124	SER
41	BG	126	ASP
41	BG	142	PRO
41	BG	168	GLU
41	BG	181	ARG
42	BH	9	ILE
42	BH	15	VAL
42	BH	59	ARG
42	BH	81	GLU
42	BH	84	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
42	BH	91	GLY
42	BH	160	LYS
43	BI	13	GLY
43	BI	54	GLN
43	BI	69	LYS
43	BI	86	THR
43	BI	123	LEU
45	BN	4	TYR
45	BN	64	GLY
45	BN	69	GLN
45	BN	135	PRO
46	BO	27	GLY
46	BO	48	PRO
46	BO	115	VAL
47	BP	12	ALA
47	BP	33	ARG
47	BP	34	GLY
47	BP	39	LYS
47	BP	49	ARG
47	BP	56	SER
47	BP	65	ARG
47	BP	89	ALA
47	BP	103	ALA
47	BP	109	GLY
47	BP	147	LEU
48	BQ	28	ALA
48	BQ	30	GLY
48	BQ	62	GLY
48	BQ	88	GLY
49	BR	14	SER
49	BR	50	HIS
49	BR	59	ASP
49	BR	117	VAL
50	BS	42	ASP
50	BS	63	THR
50	BS	78	LEU
50	BS	90	GLY
50	BS	98	VAL
50	BS	100	ALA
50	BS	104	GLY
50	BS	105	ALA
51	BT	57	PHE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
51	BT	83	ILE
51	BT	90	GLN
52	BU	9	VAL
53	BV	2	PHE
53	BV	31	ALA
53	BV	79	VAL
54	BW	59	VAL
54	BW	63	ASP
55	BX	19	ALA
56	BY	7	VAL
56	BY	22	GLY
56	BY	29	GLU
56	BY	55	TYR
56	BY	80	GLY
57	BZ	39	VAL
57	BZ	47	VAL
57	BZ	93	ASP
57	BZ	108	PRO
57	BZ	115	GLY
57	BZ	119	GLU
57	BZ	151	HIS
57	BZ	156	LYS
57	BZ	179	ASP
2	CB	19	HIS
2	CB	119	GLU
2	CB	153	ARG
2	CB	169	LYS
2	CB	204	ASN
2	CB	227	GLY
2	CB	235	SER
3	CC	12	LEU
3	CC	26	LYS
3	CC	45	LYS
3	CC	61	ALA
3	CC	145	GLY
4	CD	3	ARG
4	CD	22	LYS
4	CD	51	PRO
4	CD	67	ILE
4	CD	69	GLY
4	CD	110	PHE
4	CD	193	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
5	CE	20	GLN
5	CE	104	ALA
5	CE	124	GLY
5	CE	149	GLU
5	CE	154	GLY
6	CF	89	MET
7	CG	19	GLY
7	CG	37	ASN
7	CG	39	ALA
7	CG	52	GLU
7	CG	78	ARG
8	CH	2	LEU
8	CH	97	VAL
9	CI	12	GLU
9	CI	30	GLY
9	CI	40	LEU
9	CI	44	VAL
9	CI	95	LYS
10	CJ	59	SER
11	CK	45	GLY
11	CK	105	VAL
11	CK	106	LYS
11	CK	127	LYS
12	CL	71	GLY
12	CL	86	ARG
12	CL	118	GLY
13	CM	5	ALA
13	CM	32	GLU
13	CM	53	VAL
13	CM	100	GLY
13	CM	112	GLY
13	CM	117	VAL
14	CN	22	THR
14	CN	34	TYR
15	CO	73	GLU
15	CO	80	ALA
15	CO	85	LEU
15	CO	86	GLY
16	CP	28	ARG
16	CP	78	GLY
17	CQ	12	SER
17	CQ	33	GLY

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Mol	Chain	Res	Type
17	CQ	80	GLY
17	CQ	99	SER
18	CR	84	LYS
18	CR	87	ARG
19	CS	11	VAL
19	CS	28	LYS
19	CS	29	ARG
19	CS	30	LEU
19	CS	42	PRO
20	CT	71	THR
20	CT	96	GLY
21	CU	21	TYR
24	CY	13	PRO
25	D0	9	SER
26	D1	75	GLU
27	D2	44	LEU
27	D2	70	GLN
29	D4	43	TYR
29	D4	45	GLY
29	D4	52	THR
29	D4	54	GLY
31	D6	20	ASN
31	D6	22	ALA
31	D6	33	LYS
32	D7	48	LYS
33	D8	51	ALA
34	D9	11	CYS
37	DC	60	GLY
37	DC	76	ALA
37	DC	135	GLY
37	DC	146	GLY
37	DC	147	PHE
37	DC	168	THR
37	DC	175	VAL
37	DC	205	LYS
37	DC	209	LEU
38	DD	27	THR
38	DD	236	GLY
38	DD	263	ARG
39	DE	29	GLY
39	DE	57	LYS
39	DE	69	LYS

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Mol	Chain	Res	Type
39	DE	77	ILE
39	DE	93	VAL
39	DE	98	PRO
39	DE	130	GLY
39	DE	131	ALA
39	DE	187	ALA
39	DE	201	THR
40	DF	5	ALA
40	DF	69	HIS
40	DF	133	ASN
40	DF	167	ALA
40	DF	200	GLU
41	DG	52	ILE
41	DG	87	PRO
41	DG	137	GLU
41	DG	172	LEU
41	DG	180	PHE
41	DG	181	ARG
42	DH	9	ILE
42	DH	15	VAL
42	DH	59	ARG
42	DH	81	GLU
42	DH	84	SER
42	DH	91	GLY
42	DH	160	LYS
43	DI	13	GLY
43	DI	15	VAL
43	DI	69	LYS
43	DI	83	ALA
43	DI	86	THR
43	DI	92	VAL
43	DI	96	ASP
43	DI	123	LEU
45	DN	4	TYR
45	DN	64	GLY
45	DN	69	GLN
45	DN	135	PRO
46	DO	27	GLY
46	DO	48	PRO
46	DO	115	VAL
47	DP	12	ALA
47	DP	33	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
47	DP	34	GLY
47	DP	39	LYS
47	DP	49	ARG
47	DP	56	SER
47	DP	65	ARG
47	DP	66	GLY
47	DP	89	ALA
47	DP	103	ALA
47	DP	109	GLY
47	DP	147	LEU
48	DQ	28	ALA
48	DQ	30	GLY
48	DQ	62	GLY
48	DQ	88	GLY
48	DQ	135	ASP
49	DR	8	ARG
49	DR	50	HIS
49	DR	59	ASP
49	DR	88	ARG
49	DR	117	VAL
50	DS	42	ASP
50	DS	63	THR
50	DS	78	LEU
50	DS	90	GLY
50	DS	98	VAL
50	DS	100	ALA
50	DS	104	GLY
50	DS	105	ALA
51	DT	57	PHE
51	DT	83	ILE
51	DT	90	GLN
52	DU	9	VAL
52	DU	62	ILE
53	DV	2	PHE
53	DV	31	ALA
53	DV	53	GLU
53	DV	79	VAL
54	DW	59	VAL
54	DW	63	ASP
54	DW	93	ALA
55	DX	19	ALA
56	DY	7	VAL

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Mol	Chain	Res	Type
56	DY	22	GLY
56	DY	29	GLU
56	DY	55	TYR
56	DY	80	GLY
56	DY	82	PRO
57	DZ	80	ARG
57	DZ	108	PRO
57	DZ	128	VAL
57	DZ	180	VAL
2	AB	14	GLY
2	AB	95	GLN
2	AB	119	GLU
3	AC	4	LYS
3	AC	22	TRP
3	AC	60	ALA
3	AC	75	VAL
3	AC	81	GLY
3	AC	99	VAL
3	AC	181	ASN
4	AD	67	ILE
4	AD	150	GLU
4	AD	200	GLU
5	AE	14	ARG
5	AE	21	ALA
5	AE	49	PRO
5	AE	105	VAL
5	AE	108	ALA
7	AG	14	PRO
7	AG	153	HIS
9	AI	34	ASN
9	AI	89	ASN
9	AI	100	GLY
11	AK	62	GLN
11	AK	89	ALA
13	AM	14	ARG
15	AO	34	LEU
16	AP	9	PHE
16	AP	28	ARG
17	AQ	4	LYS
18	AR	60	ALA
19	AS	25	LYS
19	AS	43	GLU

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Mol	Chain	Res	Type
20	AT	97	ALA
20	AT	99	LEU
26	B1	45	ASN
26	B1	69	LYS
27	B2	69	ARG
27	B2	71	ASN
29	B4	56	VAL
30	B5	51	TYR
31	B6	19	ARG
33	B8	17	THR
33	B8	40	GLU
37	BC	46	LYS
37	BC	63	SER
37	BC	89	ALA
37	BC	142	ALA
37	BC	169	GLY
37	BC	181	PRO
37	BC	202	GLU
37	BC	221	SER
38	BD	134	ARG
38	BD	246	PRO
39	BE	56	PRO
39	BE	76	ARG
39	BE	93	VAL
39	BE	201	THR
40	BF	2	LYS
40	BF	24	LEU
40	BF	25	PRO
40	BF	68	LYS
40	BF	86	GLY
40	BF	127	GLU
40	BF	197	ASP
41	BG	79	ASN
41	BG	105	LYS
41	BG	167	GLU
42	BH	12	PRO
42	BH	21	PRO
42	BH	126	PRO
42	BH	157	TYR
43	BI	83	ALA
43	BI	96	ASP
47	BP	31	ALA

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Mol	Chain	Res	Type
47	BP	66	GLY
47	BP	106	LEU
48	BQ	2	LEU
48	BQ	19	GLY
48	BQ	21	THR
48	BQ	135	ASP
49	BR	85	PRO
49	BR	106	GLY
50	BS	53	SER
50	BS	67	ARG
50	BS	72	ALA
50	BS	74	ALA
50	BS	107	GLU
51	BT	26	ASP
51	BT	36	GLU
51	BT	106	SER
51	BT	129	ARG
52	BU	62	ILE
52	BU	66	ASN
52	BU	92	ARG
52	BU	93	LYS
53	BV	3	ALA
54	BW	93	ALA
56	BY	26	LYS
56	BY	54	LYS
57	BZ	166	SER
2	CB	14	GLY
2	CB	108	ILE
3	CC	22	TRP
3	CC	60	ALA
3	CC	74	GLY
3	CC	75	VAL
3	CC	81	GLY
3	CC	99	VAL
3	CC	133	ALA
3	CC	181	ASN
4	CD	150	GLU
4	CD	192	GLU
4	CD	200	GLU
5	CE	14	ARG
5	CE	21	ALA
5	CE	49	PRO

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
7	CG	14	PRO
7	CG	153	HIS
8	CH	27	PRO
9	CI	34	ASN
9	CI	89	ASN
9	CI	100	GLY
11	CK	39	PRO
11	CK	62	GLN
11	CK	89	ALA
12	CL	98	VAL
13	CM	14	ARG
15	CO	34	LEU
17	CQ	4	LYS
17	CQ	40	LYS
18	CR	60	ALA
19	CS	25	LYS
19	CS	43	GLU
20	CT	73	HIS
20	CT	99	LEU
26	D1	28	GLY
26	D1	65	SER
29	D4	56	VAL
30	D5	51	TYR
31	D6	19	ARG
33	D8	17	THR
33	D8	40	GLU
33	D8	56	GLU
37	DC	46	LYS
37	DC	63	SER
37	DC	89	ALA
37	DC	142	ALA
37	DC	169	GLY
37	DC	181	PRO
37	DC	202	GLU
37	DC	221	SER
38	DD	134	ARG
38	DD	162	SER
38	DD	198	ASN
38	DD	239	ARG
38	DD	246	PRO
39	DE	56	PRO
39	DE	76	ARG

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Mol	Chain	Res	Type
40	DF	2	LYS
40	DF	24	LEU
40	DF	25	PRO
40	DF	115	ALA
40	DF	127	GLU
40	DF	197	ASP
41	DG	124	SER
41	DG	150	ASP
41	DG	155	MET
42	DH	12	PRO
42	DH	21	PRO
42	DH	126	PRO
42	DH	157	TYR
43	DI	54	GLN
47	DP	31	ALA
47	DP	106	LEU
48	DQ	2	LEU
48	DQ	19	GLY
48	DQ	21	THR
49	DR	14	SER
49	DR	85	PRO
49	DR	106	GLY
50	DS	53	SER
50	DS	67	ARG
50	DS	72	ALA
50	DS	74	ALA
50	DS	85	VAL
50	DS	107	GLU
51	DT	36	GLU
51	DT	106	SER
51	DT	129	ARG
52	DU	66	ASN
52	DU	92	ARG
56	DY	54	LYS
56	DY	81	LYS
57	DZ	3	TYR
57	DZ	6	LYS
57	DZ	30	ASN
57	DZ	82	ARG
57	DZ	148	ASP
57	DZ	165	VAL
2	AB	108	ILE

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Mol	Chain	Res	Type
2	AB	131	PRO
2	AB	220	ASP
2	AB	230	VAL
3	AC	103	VAL
3	AC	154	SER
4	AD	7	PRO
4	AD	192	GLU
5	AE	132	ALA
5	AE	140	ARG
5	AE	148	VAL
6	AF	82	ARG
7	AG	20	ASP
8	AH	27	PRO
9	AI	56	LEU
11	AK	25	TYR
11	AK	107	SER
12	AL	98	VAL
12	AL	123	LYS
13	AM	7	VAL
14	AN	18	VAL
14	AN	52	GLN
15	AO	24	SER
16	AP	29	ASP
17	AQ	40	LYS
17	AQ	66	SER
17	AQ	97	SER
19	AS	59	PRO
19	AS	64	GLU
19	AS	86	GLU
20	AT	28	ALA
25	B0	57	PHE
29	B4	5	ILE
29	B4	30	GLU
29	B4	41	PRO
31	B6	43	CYS
33	B8	41	ILE
34	B9	35	ARG
37	BC	67	GLY
37	BC	69	GLY
37	BC	77	ILE
37	BC	152	ILE
37	BC	167	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
37	BC	183	GLU
38	BD	26	LYS
38	BD	162	SER
38	BD	198	ASN
38	BD	245	PRO
39	BE	45	THR
40	BF	9	ILE
40	BF	54	ARG
40	BF	115	ALA
40	BF	122	LYS
40	BF	181	LEU
41	BG	10	LYS
41	BG	97	ASP
41	BG	117	PHE
41	BG	139	LEU
43	BI	78	THR
43	BI	115	ALA
43	BI	121	LYS
45	BN	133	GLN
47	BP	36	LYS
47	BP	108	LYS
47	BP	132	LYS
47	BP	140	ALA
49	BR	6	SER
49	BR	102	GLU
50	BS	14	VAL
50	BS	15	ARG
50	BS	85	VAL
51	BT	55	ASN
53	BV	16	PRO
55	BX	40	LYS
56	BY	31	LEU
56	BY	39	VAL
56	BY	81	LYS
57	BZ	62	PRO
57	BZ	82	ARG
2	CB	95	GLN
2	CB	113	HIS
2	CB	131	PRO
2	CB	220	ASP
2	CB	230	VAL
3	CC	4	LYS

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Mol	Chain	Res	Type
3	CC	103	VAL
4	CD	7	PRO
4	CD	186	LEU
5	CE	105	VAL
5	CE	108	ALA
5	CE	132	ALA
5	CE	140	ARG
5	CE	148	VAL
7	CG	20	ASP
8	CH	134	ILE
9	CI	56	LEU
11	CK	25	TYR
11	CK	64	ALA
11	CK	107	SER
12	CL	43	LYS
12	CL	102	TYR
12	CL	123	LYS
13	CM	7	VAL
13	CM	55	ARG
14	CN	18	VAL
14	CN	48	ALA
14	CN	52	GLN
15	CO	24	SER
16	CP	9	PHE
16	CP	29	ASP
17	CQ	30	PRO
17	CQ	66	SER
17	CQ	97	SER
18	CR	61	LYS
19	CS	59	PRO
19	CS	86	GLU
20	CT	28	ALA
20	CT	97	ALA
25	D0	57	PHE
25	D0	83	PRO
29	D4	5	ILE
29	D4	30	GLU
29	D4	41	PRO
31	D6	43	CYS
33	D8	41	ILE
34	D9	35	ARG
37	DC	67	GLY

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
37	DC	69	GLY
37	DC	77	ILE
37	DC	152	ILE
37	DC	167	LYS
37	DC	183	GLU
38	DD	12	SER
38	DD	26	LYS
38	DD	79	VAL
38	DD	210	GLY
38	DD	245	PRO
39	DE	45	THR
40	DF	9	ILE
40	DF	68	LYS
40	DF	181	LEU
41	DG	29	TRP
41	DG	117	PHE
41	DG	140	ILE
43	DI	115	ALA
43	DI	121	LYS
45	DN	133	GLN
47	DP	17	LYS
47	DP	36	LYS
47	DP	108	LYS
47	DP	132	LYS
47	DP	140	ALA
49	DR	102	GLU
50	DS	14	VAL
50	DS	15	ARG
50	DS	93	LYS
51	DT	26	ASP
51	DT	55	ASN
52	DU	93	LYS
53	DV	3	ALA
53	DV	16	PRO
54	DW	58	ALA
55	DX	40	LYS
56	DY	26	LYS
56	DY	31	LEU
56	DY	39	VAL
57	DZ	37	VAL
57	DZ	112	ARG
57	DZ	130	PRO

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Mol	Chain	Res	Type
57	DZ	136	PHE
57	DZ	156	LYS
57	DZ	184	ALA
2	AB	8	LYS
2	AB	26	PRO
2	AB	106	LYS
2	AB	113	HIS
2	AB	159	PRO
2	AB	226	ARG
2	AB	228	GLY
2	AB	240	GLN
3	AC	111	LEU
4	AD	58	LEU
4	AD	73	ARG
4	AD	178	VAL
4	AD	186	LEU
6	AF	12	PRO
6	AF	71	ARG
8	AH	134	ILE
10	AJ	92	THR
11	AK	64	ALA
11	AK	100	ALA
12	AL	43	LYS
13	AM	11	ARG
13	AM	12	ASN
13	AM	55	ARG
16	AP	26	ARG
16	AP	82	GLN
17	AQ	30	PRO
17	AQ	77	VAL
19	AS	14	HIS
19	AS	62	ILE
20	AT	52	ALA
24	AY	28	ILE
25	B0	35	ASN
25	B0	83	PRO
29	B4	7	PRO
30	B5	37	LYS
31	B6	28	ARG
37	BC	90	GLY
37	BC	154	ARG
38	BD	210	GLY

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
38	BD	244	ARG
38	BD	272	ALA
39	BE	61	ARG
39	BE	72	VAL
40	BF	17	ARG
41	BG	52	ILE
42	BH	66	GLY
42	BH	69	ARG
42	BH	158	HIS
43	BI	106	GLY
47	BP	17	LYS
47	BP	38	GLN
47	BP	97	PRO
48	BQ	22	LYS
50	BS	24	LEU
50	BS	32	LEU
50	BS	93	LYS
51	BT	38	ASN
51	BT	126	ALA
52	BU	102	GLU
53	BV	35	LEU
54	BW	6	ILE
54	BW	58	ALA
55	BX	91	ALA
56	BY	42	VAL
57	BZ	31	ARG
57	BZ	81	ARG
2	CB	8	LYS
2	CB	26	PRO
2	CB	159	PRO
2	CB	171	ALA
2	CB	226	ARG
2	CB	228	GLY
2	CB	240	GLN
3	CC	111	LEU
3	CC	154	SER
4	CD	58	LEU
4	CD	73	ARG
4	CD	102	ASP
4	CD	167	GLY
4	CD	178	VAL
6	CF	12	PRO

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Mol	Chain	Res	Type
6	CF	71	ARG
6	CF	82	ARG
8	CH	50	ARG
12	CL	49	LEU
13	CM	12	ASN
16	CP	26	ARG
16	CP	82	GLN
17	CQ	77	VAL
19	CS	14	HIS
19	CS	62	ILE
19	CS	64	GLU
20	CT	52	ALA
25	D0	35	ASN
26	D1	82	LEU
29	D4	7	PRO
30	D5	37	LYS
31	D6	28	ARG
37	DC	90	GLY
37	DC	154	ARG
38	DD	244	ARG
38	DD	272	ALA
39	DE	61	ARG
39	DE	72	VAL
40	DF	17	ARG
40	DF	54	ARG
40	DF	86	GLY
40	DF	122	LYS
41	DG	143	GLU
41	DG	148	MET
42	DH	66	GLY
42	DH	69	ARG
42	DH	158	HIS
43	DI	78	THR
43	DI	106	GLY
45	DN	78	TYR
46	DO	49	ARG
47	DP	38	GLN
47	DP	97	PRO
48	DQ	22	LYS
50	DS	24	LEU
50	DS	32	LEU
51	DT	38	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
51	DT	126	ALA
52	DU	90	VAL
52	DU	102	GLU
53	DV	35	LEU
54	DW	6	ILE
55	DX	91	ALA
56	DY	42	VAL
57	DZ	52	SER
57	DZ	131	ARG
2	AB	171	ALA
2	AB	183	PRO
2	AB	189	ASP
3	AC	174	PRO
4	AD	102	ASP
4	AD	167	GLY
7	AG	41	ARG
11	AK	49	GLY
12	AL	20	LYS
12	AL	102	TYR
13	AM	15	VAL
14	AN	14	PRO
14	AN	29	ARG
14	AN	48	ALA
18	AR	61	LYS
18	AR	64	ARG
42	BH	47	GLU
42	BH	93	GLY
43	BI	7	GLU
45	BN	9	VAL
45	BN	78	TYR
46	BO	49	ARG
47	BP	32	THR
50	BS	108	GLY
51	BT	24	PRO
52	BU	90	VAL
57	BZ	52	SER
2	CB	106	LYS
2	CB	183	PRO
2	CB	189	ASP
3	CC	174	PRO
7	CG	41	ARG
10	CJ	92	THR

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Mol	Chain	Res	Type
11	CK	49	GLY
11	CK	100	ALA
13	CM	11	ARG
13	CM	15	VAL
14	CN	14	PRO
18	CR	64	ARG
37	DC	164	ARG
41	DG	10	LYS
41	DG	77	ILE
41	DG	110	ALA
41	DG	114	ILE
41	DG	171	ALA
42	DH	47	GLU
42	DH	93	GLY
43	DI	7	GLU
43	DI	51	ILE
45	DN	9	VAL
45	DN	125	GLY
47	DP	42	SER
50	DS	108	GLY
51	DT	24	PRO
57	DZ	101	PRO
57	DZ	137	ILE
2	AB	130	ARG
6	AF	81	ILE
7	AG	17	VAL
10	AJ	90	LEU
37	BC	149	ILE
37	BC	150	GLY
42	BH	45	VAL
42	BH	49	VAL
43	BI	127	VAL
45	BN	40	PRO
45	BN	94	HIS
50	BS	65	VAL
52	BU	65	ILE
56	BY	49	VAL
56	BY	98	VAL
57	BZ	96	VAL
2	CB	130	ARG
7	CG	17	VAL
10	CJ	90	LEU

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Mol	Chain	Res	Type
12	CL	87	VAL
20	CT	33	ILE
37	DC	64	LEU
37	DC	149	ILE
37	DC	150	GLY
42	DH	45	VAL
42	DH	49	VAL
43	DI	127	VAL
50	DS	65	VAL
56	DY	49	VAL
56	DY	98	VAL
57	DZ	94	GLU
57	DZ	158	PRO
57	DZ	166	SER
2	AB	167	PRO
6	AF	67	MET
12	AL	87	VAL
13	AM	85	GLY
15	AO	87	ILE
20	AT	33	ILE
33	B8	63	PRO
37	BC	64	LEU
37	BC	74	VAL
39	BE	196	VAL
40	BF	84	VAL
40	BF	126	VAL
41	BG	17	PRO
43	BI	51	ILE
45	BN	46	VAL
45	BN	125	GLY
52	BU	88	ILE
3	CC	157	ILE
6	CF	67	MET
13	CM	85	GLY
15	CO	87	ILE
33	D8	38	GLY
37	DC	74	VAL
39	DE	196	VAL
40	DF	126	VAL
43	DI	80	PRO
52	DU	88	ILE
57	DZ	146	ILE

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Mol	Chain	Res	Type
2	AB	66	GLY
3	AC	157	ILE
8	AH	103	VAL
9	AI	90	PRO
10	AJ	37	PRO
16	AP	53	VAL
28	B3	59	VAL
40	BF	4	VAL
40	BF	64	ILE
43	BI	21	VAL
43	BI	80	PRO
43	BI	107	VAL
47	BP	71	VAL
57	BZ	165	VAL
2	CB	167	PRO
6	CF	81	ILE
6	CF	96	PRO
8	CH	103	VAL
9	CI	90	PRO
10	CJ	37	PRO
12	CL	92	GLY
18	CR	50	ILE
28	D3	59	VAL
40	DF	4	VAL
40	DF	84	VAL
41	DG	127	GLY
43	DI	21	VAL
43	DI	107	VAL
45	DN	46	VAL
47	DP	71	VAL
51	DT	42	ILE
52	DU	65	ILE
2	AB	165	VAL
4	AD	109	GLY
6	AF	96	PRO
13	AM	60	VAL
42	BH	117	PRO
53	BV	29	PRO
56	BY	38	ILE
57	BZ	158	PRO
2	CB	165	VAL
4	CD	109	GLY

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Mol	Chain	Res	Type
13	CM	60	VAL
16	CP	53	VAL
26	D1	30	VAL
33	D8	63	PRO
42	DH	117	PRO
53	DV	29	PRO
56	DY	38	ILE
9	AI	41	VAL
18	AR	77	GLY
25	D0	66	VAL
45	DN	62	VAL
45	DN	94	HIS
43	BI	132	PRO
43	DI	132	PRO

### 5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles		
2	AB	202/220 (92%)	185 (92%)	17 (8%)	14	48	
2	CB	202/220 (92%)	185 (92%)	17 (8%)	14	48	
3	AC	160/188 (85%)	151 (94%)	9 (6%)	26	68	
3	CC	160/188 (85%)	151 (94%)	9 (6%)	26	68	
4	AD	179/181 (99%)	165 (92%)	14 (8%)	16	53	
4	CD	179/181 (99%)	164 (92%)	15 (8%)	14	48	
5	AE	115/123 (94%)	105 (91%)	10 (9%)	13	45	
5	CE	115/123 (94%)	105 (91%)	10 (9%)	13	45	
6	AF	90/90 (100%)	87 (97%)	3 (3%)	45	81	
6	CF	90/90 (100%)	87 (97%)	3 (3%)	45	81	
7	AG	126/127 (99%)	124 (98%)	2 (2%)	70	91	
7	CG	126/127 (99%)	124 (98%)	2 (2%)	70	91	
8	AH	119/119 (100%)	110 (92%)	9 (8%)	16	55	

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
8	CH	119/119 (100%)	110 (92%)	9 (8%)	16	55
9	AI	98/99 (99%)	88 (90%)	10 (10%)	9	36
9	CI	98/99 (99%)	88 (90%)	10 (10%)	9	36
10	AJ	88/92 (96%)	78 (89%)	10 (11%)	7	31
10	CJ	88/92 (96%)	78 (89%)	10 (11%)	7	31
11	AK	90/99 (91%)	85 (94%)	5 (6%)	26	68
11	CK	90/99 (91%)	85 (94%)	5 (6%)	26	68
12	AL	104/111 (94%)	95 (91%)	9 (9%)	13	45
12	CL	104/111 (94%)	95 (91%)	9 (9%)	13	45
13	AM	94/101 (93%)	86 (92%)	8 (8%)	13	47
13	CM	94/101 (93%)	86 (92%)	8 (8%)	13	47
14	AN	49/50 (98%)	45 (92%)	4 (8%)	14	50
14	CN	49/50 (98%)	45 (92%)	4 (8%)	14	50
15	AO	79/80 (99%)	74 (94%)	5 (6%)	22	63
15	CO	79/80 (99%)	74 (94%)	5 (6%)	22	63
16	AP	72/74 (97%)	67 (93%)	5 (7%)	19	59
16	CP	72/74 (97%)	66 (92%)	6 (8%)	14	49
17	AQ	94/97 (97%)	91 (97%)	3 (3%)	46	81
17	CQ	94/97 (97%)	92 (98%)	2 (2%)	61	88
18	AR	61/77 (79%)	59 (97%)	2 (3%)	45	81
18	CR	61/77 (79%)	59 (97%)	2 (3%)	45	81
19	AS	72/80 (90%)	62 (86%)	10 (14%)	4	20
19	CS	72/80 (90%)	62 (86%)	10 (14%)	4	20
20	AT	76/82 (93%)	67 (88%)	9 (12%)	6	29
20	CT	76/82 (93%)	67 (88%)	9 (12%)	6	29
21	AU	19/22 (86%)	17 (90%)	2 (10%)	8	35
21	CU	19/22 (86%)	18 (95%)	1 (5%)	28	69
24	AY	78/78 (100%)	42 (54%)	36 (46%)	0	0
24	CY	12/78 (15%)	8 (67%)	4 (33%)	0	0
25	B0	66/67 (98%)	58 (88%)	8 (12%)	6	28
25	D0	66/67 (98%)	58 (88%)	8 (12%)	6	28

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
26	B1	78/83 (94%)	67 (86%)	11 (14%)	4	20
26	D1	78/83 (94%)	67 (86%)	11 (14%)	4	20
27	B2	66/67 (98%)	59 (89%)	7 (11%)	8	34
27	D2	66/67 (98%)	56 (85%)	10 (15%)	3	17
28	B3	51/52 (98%)	41 (80%)	10 (20%)	1	9
28	D3	51/52 (98%)	41 (80%)	10 (20%)	1	9
29	B4	49/63 (78%)	40 (82%)	9 (18%)	2	10
29	D4	49/63 (78%)	42 (86%)	7 (14%)	4	19
30	B5	51/52 (98%)	47 (92%)	4 (8%)	16	53
30	D5	51/52 (98%)	47 (92%)	4 (8%)	16	53
31	B6	43/52 (83%)	39 (91%)	4 (9%)	11	41
31	D6	43/52 (83%)	38 (88%)	5 (12%)	7	30
32	B7	41/42 (98%)	36 (88%)	5 (12%)	6	27
32	D7	41/42 (98%)	36 (88%)	5 (12%)	6	27
33	B8	53/55 (96%)	45 (85%)	8 (15%)	3	17
33	D8	53/55 (96%)	45 (85%)	8 (15%)	3	17
34	B9	33/34 (97%)	32 (97%)	1 (3%)	48	82
34	D9	33/34 (97%)	32 (97%)	1 (3%)	48	82
37	BC	61/181 (34%)	57 (93%)	4 (7%)	21	61
37	DC	61/181 (34%)	57 (93%)	4 (7%)	21	61
38	BD	213/218 (98%)	176 (83%)	37 (17%)	2	12
38	DD	213/218 (98%)	176 (83%)	37 (17%)	2	12
39	BE	165/166 (99%)	142 (86%)	23 (14%)	4	20
39	DE	165/166 (99%)	142 (86%)	23 (14%)	4	20
40	BF	165/166 (99%)	143 (87%)	22 (13%)	5	23
40	DF	165/166 (99%)	143 (87%)	22 (13%)	5	23
41	BG	155/156 (99%)	133 (86%)	22 (14%)	4	19
41	DG	155/156 (99%)	135 (87%)	20 (13%)	5	24
42	BH	137/148 (93%)	122 (89%)	15 (11%)	8	33
42	DH	137/148 (93%)	122 (89%)	15 (11%)	8	33
43	BI	121/124 (98%)	104 (86%)	17 (14%)	4	20

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
43	DI	121/124 (98%)	103 (85%)	18 (15%)	4	17
45	BN	117/119 (98%)	97 (83%)	20 (17%)	2	12
45	DN	117/119 (98%)	96 (82%)	21 (18%)	2	11
46	BO	100/100 (100%)	95 (95%)	5 (5%)	30	71
46	DO	100/100 (100%)	94 (94%)	6 (6%)	24	65
47	BP	112/116 (97%)	80 (71%)	32 (29%)	0	1
47	DP	112/116 (97%)	81 (72%)	31 (28%)	0	1
48	BQ	111/111 (100%)	104 (94%)	7 (6%)	22	63
48	DQ	111/111 (100%)	104 (94%)	7 (6%)	22	63
49	BR	100/101 (99%)	86 (86%)	14 (14%)	4	20
49	DR	100/101 (99%)	84 (84%)	16 (16%)	3	14
50	BS	77/88 (88%)	64 (83%)	13 (17%)	2	13
50	DS	77/88 (88%)	64 (83%)	13 (17%)	2	13
51	BT	120/127 (94%)	99 (82%)	21 (18%)	2	12
51	DT	120/127 (94%)	100 (83%)	20 (17%)	3	13
52	BU	92/94 (98%)	80 (87%)	12 (13%)	5	24
52	DU	92/94 (98%)	81 (88%)	11 (12%)	6	28
53	BV	82/82 (100%)	68 (83%)	14 (17%)	2	12
53	DV	82/82 (100%)	68 (83%)	14 (17%)	2	12
54	BW	91/92 (99%)	81 (89%)	10 (11%)	8	33
54	DW	91/92 (99%)	81 (89%)	10 (11%)	8	33
55	BX	74/78 (95%)	62 (84%)	12 (16%)	3	14
55	DX	74/78 (95%)	62 (84%)	12 (16%)	3	14
56	BY	84/91 (92%)	70 (83%)	14 (17%)	3	13
56	DY	84/91 (92%)	70 (83%)	14 (17%)	3	13
57	BZ	163/179 (91%)	147 (90%)	16 (10%)	10	38
57	DZ	163/179 (91%)	143 (88%)	20 (12%)	6	27
All	All	9806/10588 (93%)	8674 (88%)	1132 (12%)	7	30

All (1132) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	12	GLU

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Mol	Chain	Res	Type
2	AB	17	PHE
2	AB	22	LYS
2	AB	56	ARG
2	AB	96	ARG
2	AB	111	ARG
2	AB	137	ARG
2	AB	169	LYS
2	AB	178	ARG
2	AB	179	LYS
2	AB	185	ILE
2	AB	187	LEU
2	AB	191	ASP
2	AB	204	ASN
2	AB	206	ASP
2	AB	212	GLN
2	AB	217	ARG
3	AC	3	ASN
3	AC	5	ILE
3	AC	29	TYR
3	AC	82	GLU
3	AC	93	LYS
3	AC	94	LEU
3	AC	119	ARG
3	AC	127	ARG
3	AC	156	ARG
4	AD	11	LEU
4	AD	50	ARG
4	AD	51	PRO
4	AD	58	LEU
4	AD	66	ARG
4	AD	76	ARG
4	AD	86	LYS
4	AD	110	PHE
4	AD	129	ASN
4	AD	132	ARG
4	AD	135	LEU
4	AD	168	ARG
4	AD	193	ASP
4	AD	200	GLU
5	AE	10	MET
5	AE	12	LEU
5	AE	20	GLN

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Mol	Chain	Res	Type
5	AE	41	VAL
5	AE	56	GLN
5	AE	71	LEU
5	AE	76	ILE
5	AE	79	GLU
5	AE	130	ASN
5	AE	143	ARG
6	AF	30	LEU
6	AF	69	GLU
6	AF	87	ARG
7	AG	57	GLU
7	AG	136	LYS
8	AH	1	MET
8	AH	27	PRO
8	AH	39	LEU
8	AH	52	ASP
8	AH	60	ARG
8	AH	65	TYR
8	AH	102	ARG
8	AH	116	LYS
8	AH	121	ASP
9	AI	4	TYR
9	AI	10	ARG
9	AI	16	ARG
9	AI	23	ASN
9	AI	95	LYS
9	AI	107	ARG
9	AI	114	TYR
9	AI	121	ARG
9	AI	124	GLN
9	AI	128	ARG
10	AJ	4	ILE
10	AJ	13	HIS
10	AJ	16	LEU
10	AJ	22	LYS
10	AJ	29	ARG
10	AJ	50	ILE
10	AJ	58	ASP
10	AJ	62	HIS
10	AJ	96	ILE
10	AJ	97	GLU
11	AK	38	ASN

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Mol	Chain	Res	Type
11	AK	78	GLN
11	AK	116	HIS
11	AK	117	ASN
11	AK	125	PHE
12	AL	3	THR
12	AL	7	LEU
12	AL	17	LYS
12	AL	18	LYS
12	AL	49	LEU
12	AL	52	VAL
12	AL	67	ILE
12	AL	99	ARG
12	AL	124	GLU
13	AM	47	ASP
13	AM	50	GLU
13	AM	56	LEU
13	AM	64	TRP
13	AM	82	MET
13	AM	93	ARG
13	AM	108	ARG
13	AM	115	LYS
14	AN	4	LYS
14	AN	29	ARG
14	AN	41	ARG
14	AN	44	LEU
15	AO	10	LYS
15	AO	26	GLU
15	AO	31	LEU
15	AO	82	ILE
15	AO	88	ARG
16	AP	1	MET
16	AP	50	LYS
16	AP	67	THR
16	AP	71	ARG
16	AP	81	ARG
17	AQ	6	LEU
17	AQ	38	ARG
17	AQ	82	MET
18	AR	31	LEU
18	AR	83	GLU
19	AS	5	LEU
19	AS	6	LYS

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Mol	Chain	Res	Type
19	AS	7	LYS
19	AS	14	HIS
19	AS	29	ARG
19	AS	41	VAL
19	AS	44	MET
19	AS	70	LYS
19	AS	80	TYR
19	AS	85	LYS
20	AT	13	LEU
20	AT	24	LEU
20	AT	30	LYS
20	AT	45	GLN
20	AT	57	ARG
20	AT	62	LEU
20	AT	75	ASN
20	AT	86	ARG
20	AT	93	GLU
21	AU	22	ARG
21	AU	23	PRO
24	AY	2	PHE
24	AY	3	LYS
24	AY	7	HIS
24	AY	8	ASP
24	AY	14	LYS
24	AY	16	GLU
24	AY	19	LYS
24	AY	21	LEU
24	AY	23	ASP
24	AY	24	LEU
24	AY	25	LYS
24	AY	28	ILE
24	AY	31	THR
24	AY	33	LYS
24	AY	35	ASN
24	AY	39	LYS
24	AY	40	ARG
24	AY	44	THR
24	AY	47	LYS
24	AY	56	SER
24	AY	61	LEU
24	AY	62	GLU
24	AY	67	SER

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Mol	Chain	Res	Type
24	AY	68	ASP
24	AY	72	LEU
24	AY	74	SER
24	AY	75	PHE
24	AY	77	PRO
24	AY	78	LYS
24	AY	79	THR
24	AY	81	ASN
24	AY	86	PRO
24	AY	91	ASN
24	AY	93	LYS
24	AY	94	LYS
24	AY	96	LEU
25	B0	14	ARG
25	B0	19	LYS
25	B0	20	ARG
25	B0	36	ILE
25	B0	64	ASP
25	B0	70	GLN
25	B0	75	LEU
25	B0	84	LEU
26	B1	7	ILE
26	B1	27	GLU
26	B1	41	ARG
26	B1	45	ASN
26	B1	52	ARG
26	B1	57	GLU
26	B1	67	ILE
26	B1	70	VAL
26	B1	72	GLU
26	B1	73	LEU
26	B1	75	GLU
27	B2	3	LEU
27	B2	14	ARG
27	B2	44	LEU
27	B2	53	LEU
27	B2	55	ARG
27	B2	64	LEU
27	B2	68	ARG
28	B3	3	ARG
28	B3	4	LEU
28	B3	8	LEU

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Mol	Chain	Res	Type
28	B3	16	PRO
28	B3	30	ARG
28	B3	37	LEU
28	B3	40	THR
28	B3	43	ILE
28	B3	46	ASN
28	B3	56	VAL
29	B4	8	LYS
29	B4	25	TYR
29	B4	32	TYR
29	B4	41	PRO
29	B4	42	PHE
29	B4	49	PHE
29	B4	51	ASP
29	B4	53	GLU
29	B4	55	ARG
30	B5	4	HIS
30	B5	6	VAL
30	B5	40	LYS
30	B5	51	TYR
31	B6	31	PRO
31	B6	33	LYS
31	B6	42	TRP
31	B6	43	CYS
32	B7	1	MET
32	B7	4	THR
32	B7	8	ASN
32	B7	36	GLN
32	B7	48	LYS
33	B8	8	LYS
33	B8	14	VAL
33	B8	33	ASN
33	B8	34	TRP
33	B8	44	LYS
33	B8	46	ARG
33	B8	47	LYS
33	B8	61	LEU
34	B9	17	ILE
37	BC	37	PHE
37	BC	46	LYS
37	BC	47	LEU
37	BC	59	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
38	BD	26	LYS
38	BD	27	THR
38	BD	31	LYS
38	BD	33	LEU
38	BD	34	VAL
38	BD	37	LEU
38	BD	44	ASN
38	BD	46	GLN
38	BD	49	ILE
38	BD	52	ARG
38	BD	54	ARG
38	BD	64	ILE
38	BD	65	ILE
38	BD	72	LYS
38	BD	76	PRO
38	BD	92	ILE
38	BD	94	LEU
38	BD	101	GLU
38	BD	104	TYR
38	BD	106	ILE
38	BD	111	LEU
38	BD	122	ASP
38	BD	126	GLN
38	BD	131	LEU
38	BD	147	LEU
38	BD	157	ARG
38	BD	166	GLN
38	BD	192	THR
38	BD	198	ASN
38	BD	200	ASP
38	BD	205	VAL
38	BD	211	ARG
38	BD	212	SER
38	BD	239	ARG
38	BD	242	ARG
38	BD	257	LEU
38	BD	271	ILE
39	BE	4	ILE
39	BE	7	VAL
39	BE	9	VAL
39	BE	33	VAL
39	BE	41	LYS

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Mol	Chain	Res	Type
39	BE	49	LEU
39	BE	78	LEU
39	BE	79	ARG
39	BE	82	ARG
39	BE	84	PHE
39	BE	113	PHE
39	BE	116	VAL
39	BE	119	ARG
39	BE	141	ILE
39	BE	144	ARG
39	BE	147	PRO
39	BE	174	ASP
39	BE	175	VAL
39	BE	178	GLU
39	BE	184	VAL
39	BE	195	LEU
39	BE	202	LYS
39	BE	203	LYS
40	BF	11	VAL
40	BF	23	ASP
40	BF	43	LYS
40	BF	50	SER
40	BF	65	TRP
40	BF	66	PRO
40	BF	83	PHE
40	BF	84	VAL
40	BF	88	VAL
40	BF	100	THR
40	BF	106	ARG
40	BF	110	LEU
40	BF	157	VAL
40	BF	158	THR
40	BF	160	ASN
40	BF	164	ARG
40	BF	175	THR
40	BF	182	ASN
40	BF	183	VAL
40	BF	192	LEU
40	BF	200	GLU
40	BF	201	VAL
41	BG	3	LEU
41	BG	16	ARG

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Mol	Chain	Res	Type
41	BG	18	GLU
41	BG	21	ARG
41	BG	29	TRP
41	BG	35	GLU
41	BG	45	GLU
41	BG	52	ILE
41	BG	63	ILE
41	BG	67	LYS
41	BG	80	PHE
41	BG	81	LYS
41	BG	84	LYS
41	BG	91	ARG
41	BG	96	ARG
41	BG	135	LEU
41	BG	148	MET
41	BG	153	ARG
41	BG	155	MET
41	BG	164	GLU
41	BG	165	THR
41	BG	176	LEU
42	BH	7	LEU
42	BH	9	ILE
42	BH	10	PRO
42	BH	41	MET
42	BH	47	GLU
42	BH	54	ARG
42	BH	77	LYS
42	BH	86	GLU
42	BH	89	ILE
42	BH	97	ARG
42	BH	139	GLN
42	BH	153	LYS
42	BH	160	LYS
42	BH	163	TYR
42	BH	170	ARG
43	BI	2	LYS
43	BI	22	LYS
43	BI	52	ARG
43	BI	54	GLN
43	BI	58	LEU
43	BI	61	ARG
43	BI	82	ARG

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Mol	Chain	Res	Type
43	BI	86	THR
43	BI	89	TYR
43	BI	93	THR
43	BI	105	HIS
43	BI	110	ASP
43	BI	123	LEU
43	BI	129	THR
43	BI	132	PRO
43	BI	133	HIS
43	BI	144	VAL
45	BN	4	TYR
45	BN	12	ARG
45	BN	19	GLU
45	BN	25	ARG
45	BN	32	THR
45	BN	34	LEU
45	BN	38	HIS
45	BN	45	ASN
45	BN	48	MET
45	BN	55	VAL
45	BN	58	ASP
45	BN	63	THR
45	BN	69	GLN
45	BN	78	TYR
45	BN	87	LEU
45	BN	103	VAL
45	BN	119	ARG
45	BN	120	LEU
45	BN	121	LYS
45	BN	131	GLN
46	BO	32	TYR
46	BO	73	ASP
46	BO	98	VAL
46	BO	109	LYS
46	BO	117	LEU
47	BP	7	ARG
47	BP	10	PRO
47	BP	13	ASN
47	BP	16	ARG
47	BP	18	ARG
47	BP	29	LYS
47	BP	30	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
47	BP	36	LYS
47	BP	39	LYS
47	BP	41	ARG
47	BP	42	SER
47	BP	45	LEU
47	BP	47	ASP
47	BP	48	PRO
47	BP	59	LEU
47	BP	61	ARG
47	BP	62	LEU
47	BP	64	LYS
47	BP	68	GLN
47	BP	75	ILE
47	BP	81	GLN
47	BP	83	VAL
47	BP	91	PHE
47	BP	98	GLU
47	BP	105	LEU
47	BP	108	LYS
47	BP	110	TYR
47	BP	114	ILE
47	BP	115	LEU
47	BP	132	LYS
47	BP	136	GLU
47	BP	144	GLU
48	BQ	1	MET
48	BQ	18	LYS
48	BQ	75	THR
48	BQ	79	LEU
48	BQ	89	ASN
48	BQ	106	VAL
48	BQ	133	ARG
49	BR	8	ARG
49	BR	17	ARG
49	BR	28	LEU
49	BR	29	LEU
49	BR	33	ARG
49	BR	65	LEU
49	BR	71	GLN
49	BR	74	LYS
49	BR	75	LEU
49	BR	76	VAL

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Mol	Chain	Res	Type
49	BR	79	LEU
49	BR	94	TYR
49	BR	103	ARG
49	BR	118	GLU
50	BS	11	LYS
50	BS	15	ARG
50	BS	20	ARG
50	BS	24	LEU
50	BS	36	TYR
50	BS	54	LEU
50	BS	64	GLU
50	BS	89	ARG
50	BS	92	TYR
50	BS	97	ARG
50	BS	99	LYS
50	BS	101	LEU
50	BS	103	GLU
51	BT	11	GLU
51	BT	13	ARG
51	BT	14	TYR
51	BT	27	THR
51	BT	29	ARG
51	BT	32	TYR
51	BT	38	ASN
51	BT	41	ARG
51	BT	49	VAL
51	BT	51	ARG
51	BT	53	ARG
51	BT	58	ASN
51	BT	59	THR
51	BT	70	VAL
51	BT	77	PRO
51	BT	82	LEU
51	BT	85	LYS
51	BT	93	ARG
51	BT	96	ARG
51	BT	128	GLU
51	BT	132	LYS
52	BU	20	LEU
52	BU	31	SER
52	BU	34	LYS
52	BU	53	ARG

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Mol	Chain	Res	Type
52	BU	60	LEU
52	BU	66	ASN
52	BU	70	ARG
52	BU	74	LEU
52	BU	92	ARG
52	BU	104	GLN
52	BU	108	GLU
52	BU	112	ARG
53	BV	1	MET
53	BV	5	VAL
53	BV	12	TYR
53	BV	18	LEU
53	BV	19	LYS
53	BV	39	LEU
53	BV	40	LEU
53	BV	50	PRO
53	BV	57	VAL
53	BV	82	ARG
53	BV	85	LYS
53	BV	92	THR
53	BV	99	ILE
53	BV	100	ARG
54	BW	11	ARG
54	BW	47	VAL
54	BW	50	VAL
54	BW	51	LEU
54	BW	61	ASN
54	BW	65	LEU
54	BW	67	ASP
54	BW	70	TYR
54	BW	100	THR
54	BW	107	LEU
55	BX	15	GLU
55	BX	27	THR
55	BX	28	PHE
55	BX	30	VAL
55	BX	35	THR
55	BX	48	LYS
55	BX	51	VAL
55	BX	57	LEU
55	BX	72	LYS
55	BX	75	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
55	BX	80	ILE
55	BX	83	VAL
56	BY	4	LYS
56	BY	6	HIS
56	BY	7	VAL
56	BY	28	LYS
56	BY	29	GLU
56	BY	32	PRO
56	BY	50	ARG
56	BY	55	TYR
56	BY	62	GLU
56	BY	64	GLU
56	BY	77	PRO
56	BY	83	THR
56	BY	90	LEU
56	BY	97	ARG
57	BZ	24	LEU
57	BZ	28	MET
57	BZ	35	ARG
57	BZ	38	TYR
57	BZ	40	ASP
57	BZ	73	GLN
57	BZ	101	PRO
57	BZ	125	LEU
57	BZ	131	ARG
57	BZ	135	GLU
57	BZ	148	ASP
57	BZ	150	LEU
57	BZ	155	LEU
57	BZ	157	LEU
57	BZ	167	PRO
57	BZ	177	PRO
2	CB	12	GLU
2	CB	17	PHE
2	CB	22	LYS
2	CB	56	ARG
2	CB	96	ARG
2	CB	111	ARG
2	CB	137	ARG
2	CB	169	LYS
2	CB	178	ARG
2	CB	179	LYS

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Mol	Chain	Res	Type
2	CB	185	ILE
2	CB	187	LEU
2	CB	191	ASP
2	CB	204	ASN
2	CB	206	ASP
2	CB	212	GLN
2	CB	217	ARG
3	CC	3	ASN
3	CC	5	ILE
3	CC	29	TYR
3	CC	82	GLU
3	CC	93	LYS
3	CC	94	LEU
3	CC	119	ARG
3	CC	127	ARG
3	CC	156	ARG
4	CD	11	LEU
4	CD	50	ARG
4	CD	51	PRO
4	CD	58	LEU
4	CD	66	ARG
4	CD	76	ARG
4	CD	86	LYS
4	CD	110	PHE
4	CD	129	ASN
4	CD	132	ARG
4	CD	135	LEU
4	CD	144	ASP
4	CD	168	ARG
4	CD	193	ASP
4	CD	200	GLU
5	CE	10	MET
5	CE	12	LEU
5	CE	20	GLN
5	CE	41	VAL
5	CE	56	GLN
5	CE	71	LEU
5	CE	76	ILE
5	CE	79	GLU
5	CE	130	ASN
5	CE	143	ARG
6	CF	30	LEU

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Mol	Chain	Res	Type
6	CF	69	GLU
6	CF	87	ARG
7	CG	57	GLU
7	CG	136	LYS
8	CH	1	MET
8	CH	27	PRO
8	CH	39	LEU
8	CH	52	ASP
8	CH	60	ARG
8	CH	65	TYR
8	CH	102	ARG
8	CH	116	LYS
8	CH	121	ASP
9	CI	4	TYR
9	CI	10	ARG
9	CI	16	ARG
9	CI	23	ASN
9	CI	95	LYS
9	CI	107	ARG
9	CI	114	TYR
9	CI	121	ARG
9	CI	124	GLN
9	CI	128	ARG
10	CJ	4	ILE
10	CJ	13	HIS
10	CJ	16	LEU
10	CJ	22	LYS
10	CJ	29	ARG
10	CJ	50	ILE
10	CJ	58	ASP
10	CJ	62	HIS
10	CJ	96	ILE
10	CJ	97	GLU
11	CK	38	ASN
11	CK	78	GLN
11	CK	116	HIS
11	CK	117	ASN
11	CK	125	PHE
12	CL	3	THR
12	CL	7	LEU
12	CL	17	LYS
12	CL	18	LYS

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Mol	Chain	Res	Type
12	CL	49	LEU
12	CL	52	VAL
12	CL	67	ILE
12	CL	99	ARG
12	CL	124	GLU
13	CM	47	ASP
13	CM	50	GLU
13	CM	56	LEU
13	CM	64	TRP
13	CM	82	MET
13	CM	93	ARG
13	CM	108	ARG
13	CM	115	LYS
14	CN	4	LYS
14	CN	29	ARG
14	CN	41	ARG
14	CN	44	LEU
15	CO	10	LYS
15	CO	26	GLU
15	CO	31	LEU
15	CO	82	ILE
15	CO	88	ARG
16	CP	1	MET
16	CP	50	LYS
16	CP	55	ARG
16	CP	67	THR
16	CP	71	ARG
16	CP	81	ARG
17	CQ	6	LEU
17	CQ	38	ARG
18	CR	31	LEU
18	CR	83	GLU
19	CS	5	LEU
19	CS	6	LYS
19	CS	7	LYS
19	CS	14	HIS
19	CS	29	ARG
19	CS	41	VAL
19	CS	44	MET
19	CS	70	LYS
19	CS	80	TYR
19	CS	85	LYS

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Mol	Chain	Res	Type
20	CT	13	LEU
20	CT	24	LEU
20	CT	30	LYS
20	CT	45	GLN
20	CT	57	ARG
20	CT	62	LEU
20	CT	75	ASN
20	CT	86	ARG
20	CT	93	GLU
21	CU	22	ARG
24	CY	2	PHE
24	CY	5	TYR
24	CY	7	HIS
24	CY	9	TYR
25	D0	14	ARG
25	D0	19	LYS
25	D0	20	ARG
25	D0	36	ILE
25	D0	64	ASP
25	D0	70	GLN
25	D0	75	LEU
25	D0	84	LEU
26	D1	6	GLU
26	D1	21	ARG
26	D1	39	LYS
26	D1	40	ARG
26	D1	45	ASN
26	D1	46	LEU
26	D1	52	ARG
26	D1	57	GLU
26	D1	59	THR
26	D1	72	GLU
26	D1	75	GLU
27	D2	12	GLU
27	D2	20	GLU
27	D2	32	LEU
27	D2	47	ASN
27	D2	53	LEU
27	D2	55	ARG
27	D2	61	LEU
27	D2	64	LEU
27	D2	65	ASN

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Mol	Chain	Res	Type
27	D2	68	ARG
28	D3	3	ARG
28	D3	4	LEU
28	D3	8	LEU
28	D3	16	PRO
28	D3	30	ARG
28	D3	37	LEU
28	D3	40	THR
28	D3	43	ILE
28	D3	46	ASN
28	D3	56	VAL
29	D4	8	LYS
29	D4	32	TYR
29	D4	42	PHE
29	D4	49	PHE
29	D4	51	ASP
29	D4	53	GLU
29	D4	55	ARG
30	D5	4	HIS
30	D5	40	LYS
30	D5	51	TYR
30	D5	58	LEU
31	D6	31	PRO
31	D6	33	LYS
31	D6	42	TRP
31	D6	43	CYS
31	D6	46	HIS
32	D7	1	MET
32	D7	4	THR
32	D7	8	ASN
32	D7	36	GLN
32	D7	48	LYS
33	D8	8	LYS
33	D8	14	VAL
33	D8	33	ASN
33	D8	34	TRP
33	D8	44	LYS
33	D8	46	ARG
33	D8	47	LYS
33	D8	61	LEU
34	D9	17	ILE
37	DC	37	PHE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
37	DC	46	LYS
37	DC	47	LEU
37	DC	59	ARG
38	DD	9	TYR
38	DD	26	LYS
38	DD	27	THR
38	DD	31	LYS
38	DD	33	LEU
38	DD	34	VAL
38	DD	37	LEU
38	DD	44	ASN
38	DD	46	GLN
38	DD	49	ILE
38	DD	52	ARG
38	DD	54	ARG
38	DD	64	ILE
38	DD	65	ILE
38	DD	72	LYS
38	DD	92	ILE
38	DD	94	LEU
38	DD	101	GLU
38	DD	103	ARG
38	DD	104	TYR
38	DD	106	ILE
38	DD	111	LEU
38	DD	122	ASP
38	DD	126	GLN
38	DD	131	LEU
38	DD	147	LEU
38	DD	157	ARG
38	DD	166	GLN
38	DD	192	THR
38	DD	198	ASN
38	DD	200	ASP
38	DD	211	ARG
38	DD	212	SER
38	DD	239	ARG
38	DD	242	ARG
38	DD	257	LEU
38	DD	271	ILE
39	DE	4	ILE
39	DE	7	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
39	DE	9	VAL
39	DE	33	VAL
39	DE	41	LYS
39	DE	49	LEU
39	DE	78	LEU
39	DE	79	ARG
39	DE	82	ARG
39	DE	84	PHE
39	DE	113	PHE
39	DE	116	VAL
39	DE	119	ARG
39	DE	141	ILE
39	DE	144	ARG
39	DE	147	PRO
39	DE	174	ASP
39	DE	175	VAL
39	DE	178	GLU
39	DE	184	VAL
39	DE	195	LEU
39	DE	202	LYS
39	DE	203	LYS
40	DF	11	VAL
40	DF	23	ASP
40	DF	43	LYS
40	DF	50	SER
40	DF	65	TRP
40	DF	66	PRO
40	DF	83	PHE
40	DF	84	VAL
40	DF	88	VAL
40	DF	100	THR
40	DF	102	PRO
40	DF	110	LEU
40	DF	157	VAL
40	DF	158	THR
40	DF	160	ASN
40	DF	164	ARG
40	DF	175	THR
40	DF	182	ASN
40	DF	183	VAL
40	DF	192	LEU
40	DF	200	GLU

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Mol	Chain	Res	Type
40	DF	201	VAL
41	DG	3	LEU
41	DG	15	VAL
41	DG	21	ARG
41	DG	27	ASN
41	DG	29	TRP
41	DG	39	ILE
41	DG	52	ILE
41	DG	67	LYS
41	DG	71	THR
41	DG	80	PHE
41	DG	81	LYS
41	DG	82	LEU
41	DG	84	LYS
41	DG	90	LEU
41	DG	91	ARG
41	DG	96	ARG
41	DG	126	ASP
41	DG	139	LEU
41	DG	153	ARG
41	DG	155	MET
42	DH	7	LEU
42	DH	9	ILE
42	DH	10	PRO
42	DH	41	MET
42	DH	47	GLU
42	DH	54	ARG
42	DH	77	LYS
42	DH	86	GLU
42	DH	89	ILE
42	DH	97	ARG
42	DH	139	GLN
42	DH	153	LYS
42	DH	160	LYS
42	DH	163	TYR
42	DH	170	ARG
43	DI	2	LYS
43	DI	22	LYS
43	DI	52	ARG
43	DI	54	GLN
43	DI	58	LEU
43	DI	61	ARG

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Mol	Chain	Res	Type
43	DI	82	ARG
43	DI	86	THR
43	DI	89	TYR
43	DI	93	THR
43	DI	105	HIS
43	DI	110	ASP
43	DI	111	PRO
43	DI	123	LEU
43	DI	129	THR
43	DI	132	PRO
43	DI	133	HIS
43	DI	144	VAL
45	DN	4	TYR
45	DN	12	ARG
45	DN	19	GLU
45	DN	25	ARG
45	DN	32	THR
45	DN	34	LEU
45	DN	38	HIS
45	DN	45	ASN
45	DN	48	MET
45	DN	55	VAL
45	DN	58	ASP
45	DN	63	THR
45	DN	67	LEU
45	DN	69	GLN
45	DN	78	TYR
45	DN	87	LEU
45	DN	103	VAL
45	DN	119	ARG
45	DN	120	LEU
45	DN	121	LYS
45	DN	131	GLN
46	DO	32	TYR
46	DO	73	ASP
46	DO	98	VAL
46	DO	104	ARG
46	DO	109	LYS
46	DO	117	LEU
47	DP	7	ARG
47	DP	10	PRO
47	DP	13	ASN

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Mol	Chain	Res	Type
47	DP	16	ARG
47	DP	18	ARG
47	DP	29	LYS
47	DP	30	THR
47	DP	39	LYS
47	DP	41	ARG
47	DP	42	SER
47	DP	45	LEU
47	DP	47	ASP
47	DP	48	PRO
47	DP	59	LEU
47	DP	61	ARG
47	DP	62	LEU
47	DP	64	LYS
47	DP	68	GLN
47	DP	75	ILE
47	DP	81	GLN
47	DP	83	VAL
47	DP	91	PHE
47	DP	98	GLU
47	DP	105	LEU
47	DP	108	LYS
47	DP	110	TYR
47	DP	114	ILE
47	DP	115	LEU
47	DP	132	LYS
47	DP	136	GLU
47	DP	144	GLU
48	DQ	1	MET
48	DQ	18	LYS
48	DQ	75	THR
48	DQ	79	LEU
48	DQ	89	ASN
48	DQ	106	VAL
48	DQ	133	ARG
49	DR	11	ASN
49	DR	12	ARG
49	DR	13	HIS
49	DR	17	ARG
49	DR	28	LEU
49	DR	29	LEU
49	DR	33	ARG

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Mol	Chain	Res	Type
49	DR	65	LEU
49	DR	71	GLN
49	DR	74	LYS
49	DR	75	LEU
49	DR	76	VAL
49	DR	79	LEU
49	DR	94	TYR
49	DR	103	ARG
49	DR	118	GLU
50	DS	11	LYS
50	DS	15	ARG
50	DS	20	ARG
50	DS	24	LEU
50	DS	36	TYR
50	DS	54	LEU
50	DS	64	GLU
50	DS	89	ARG
50	DS	92	TYR
50	DS	97	ARG
50	DS	99	LYS
50	DS	101	LEU
50	DS	103	GLU
51	DT	11	GLU
51	DT	13	ARG
51	DT	14	TYR
51	DT	27	THR
51	DT	29	ARG
51	DT	32	TYR
51	DT	38	ASN
51	DT	41	ARG
51	DT	49	VAL
51	DT	51	ARG
51	DT	53	ARG
51	DT	58	ASN
51	DT	59	THR
51	DT	70	VAL
51	DT	82	LEU
51	DT	85	LYS
51	DT	93	ARG
51	DT	96	ARG
51	DT	128	GLU
51	DT	132	LYS

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Mol	Chain	Res	Type
52	DU	20	LEU
52	DU	31	SER
52	DU	34	LYS
52	DU	60	LEU
52	DU	66	ASN
52	DU	70	ARG
52	DU	74	LEU
52	DU	92	ARG
52	DU	104	GLN
52	DU	108	GLU
52	DU	112	ARG
53	DV	1	MET
53	DV	5	VAL
53	DV	12	TYR
53	DV	18	LEU
53	DV	19	LYS
53	DV	39	LEU
53	DV	40	LEU
53	DV	50	PRO
53	DV	57	VAL
53	DV	82	ARG
53	DV	85	LYS
53	DV	92	THR
53	DV	99	ILE
53	DV	100	ARG
54	DW	11	ARG
54	DW	47	VAL
54	DW	50	VAL
54	DW	51	LEU
54	DW	61	ASN
54	DW	65	LEU
54	DW	67	ASP
54	DW	70	TYR
54	DW	100	THR
54	DW	107	LEU
55	DX	15	GLU
55	DX	27	THR
55	DX	28	PHE
55	DX	30	VAL
55	DX	35	THR
55	DX	48	LYS
55	DX	51	VAL

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Mol	Chain	Res	Type
55	DX	57	LEU
55	DX	72	LYS
55	DX	75	ASP
55	DX	80	ILE
55	DX	83	VAL
56	DY	4	LYS
56	DY	6	HIS
56	DY	7	VAL
56	DY	28	LYS
56	DY	29	GLU
56	DY	32	PRO
56	DY	50	ARG
56	DY	55	TYR
56	DY	62	GLU
56	DY	64	GLU
56	DY	77	PRO
56	DY	83	THR
56	DY	90	LEU
56	DY	97	ARG
57	DZ	8	TYR
57	DZ	28	MET
57	DZ	34	ASN
57	DZ	35	ARG
57	DZ	38	TYR
57	DZ	53	ILE
57	DZ	77	ASP
57	DZ	89	PHE
57	DZ	92	SER
57	DZ	112	ARG
57	DZ	125	LEU
57	DZ	128	VAL
57	DZ	131	ARG
57	DZ	145	GLU
57	DZ	148	ASP
57	DZ	155	LEU
57	DZ	163	LEU
57	DZ	167	PRO
57	DZ	175	VAL
57	DZ	178	GLU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (302) such sidechains are listed below:



Mol	Chain	Res	Type
2	AB	40	HIS
2	AB	76	GLN
2	AB	78	GLN
2	AB	104	ASN
2	AB	146	GLN
2	AB	204	ASN
3	AC	31	HIS
3	AC	37	GLN
3	AC	69	HIS
3	AC	107	GLN
3	AC	123	GLN
3	AC	136	GLN
3	AC	162	GLN
3	AC	170	GLN
3	AC	181	ASN
4	AD	62	GLN
4	AD	77	ASN
4	AD	129	ASN
4	AD	160	GLN
4	AD	161	ASN
4	AD	199	ASN
5	AE	20	GLN
5	AE	72	GLN
5	AE	73	ASN
5	AE	130	ASN
5	AE	141	GLN
6	AF	18	GLN
6	AF	32	ASN
6	AF	100	ASN
7	AG	11	GLN
7	AG	13	GLN
7	AG	28	ASN
7	AG	68	ASN
7	AG	84	ASN
7	AG	86	GLN
7	AG	106	GLN
7	AG	148	ASN
8	AH	82	HIS
9	AI	23	ASN
9	AI	29	ASN
9	AI	124	GLN
10	AJ	56	HIS
11	AK	38	ASN

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Mol	Chain	Res	Type
11	AK	78	GLN
11	AK	117	ASN
12	AL	5	ASN
12	AL	6	GLN
12	AL	46	ASN
12	AL	72	HIS
13	AM	40	ASN
13	AM	77	ASN
13	AM	101	GLN
15	AO	28	GLN
15	AO	37	ASN
15	AO	46	HIS
16	AP	65	GLN
17	AQ	16	GLN
18	AR	36	ASN
19	AS	23	ASN
20	AT	42	GLN
24	AY	10	HIS
24	AY	81	ASN
24	AY	82	GLN
24	AY	91	ASN
25	B0	12	ASN
25	B0	29	GLN
26	B1	45	ASN
26	B1	56	GLN
27	B2	38	GLN
27	B2	47	ASN
27	B2	56	GLN
27	B2	71	ASN
28	B3	19	GLN
28	B3	46	ASN
28	B3	52	HIS
29	B4	46	GLN
30	B5	4	HIS
30	B5	23	HIS
30	B5	43	HIS
32	B7	8	ASN
34	B9	34	GLN
38	BD	58	HIS
38	BD	87	ASN
38	BD	166	GLN
38	BD	186	HIS

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Mol	Chain	Res	Type
38	BD	198	ASN
38	BD	227	ASN
39	BE	48	GLN
39	BE	54	GLN
39	BE	55	ASN
39	BE	129	HIS
39	BE	132	HIS
39	BE	143	ASN
39	BE	192	ASN
40	BF	40	GLN
40	BF	69	HIS
40	BF	75	HIS
40	BF	133	ASN
40	BF	160	ASN
40	BF	169	ASN
40	BF	182	ASN
40	BF	204	ASN
41	BG	27	ASN
41	BG	40	ASN
41	BG	41	GLN
41	BG	66	GLN
41	BG	108	ASN
41	BG	121	ASN
41	BG	132	ASN
41	BG	138	GLN
42	BH	65	HIS
42	BH	74	ASN
42	BH	139	GLN
42	BH	147	ASN
43	BI	43	ASN
43	BI	74	ASN
45	BN	45	ASN
45	BN	69	GLN
45	BN	128	HIS
45	BN	130	HIS
46	BO	5	GLN
46	BO	82	ASN
47	BP	13	ASN
47	BP	35	HIS
47	BP	68	GLN
47	BP	84	ASN
48	BQ	12	GLN

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Mol	Chain	Res	Type
48	BQ	45	GLN
48	BQ	89	ASN
49	BR	13	HIS
49	BR	16	HIS
49	BR	23	ASN
49	BR	24	GLN
49	BR	61	HIS
49	BR	71	GLN
50	BS	61	ASN
50	BS	95	HIS
51	BT	38	ASN
51	BT	58	ASN
51	BT	84	GLN
52	BU	49	HIS
52	BU	66	ASN
52	BU	71	GLN
52	BU	104	GLN
53	BV	11	GLN
54	BW	34	ASN
54	BW	57	ASN
54	BW	62	HIS
54	BW	102	HIS
55	BX	41	ASN
55	BX	55	ASN
55	BX	87	GLN
57	BZ	32	HIS
57	BZ	34	ASN
57	BZ	55	HIS
57	BZ	65	GLN
57	BZ	118	GLN
57	BZ	121	HIS
2	CB	40	HIS
2	CB	78	GLN
2	CB	104	ASN
2	CB	146	GLN
2	CB	204	ASN
3	CC	3	ASN
3	CC	31	HIS
3	CC	37	GLN
3	CC	69	HIS
3	CC	107	GLN
3	CC	123	GLN

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Mol	Chain	Res	Type
3	CC	136	GLN
3	CC	170	GLN
3	CC	181	ASN
4	CD	62	GLN
4	CD	77	ASN
4	CD	129	ASN
4	CD	160	GLN
4	CD	161	ASN
5	CE	20	GLN
5	CE	72	GLN
5	CE	73	ASN
5	CE	130	ASN
5	CE	141	GLN
6	CF	32	ASN
6	CF	100	ASN
7	CG	11	GLN
7	CG	13	GLN
7	CG	28	ASN
7	CG	68	ASN
7	CG	86	GLN
7	CG	106	GLN
7	CG	148	ASN
8	CH	82	HIS
9	CI	23	ASN
9	CI	29	ASN
9	CI	124	GLN
10	CJ	56	HIS
11	CK	38	ASN
11	CK	78	GLN
11	CK	117	ASN
12	CL	5	ASN
12	CL	6	GLN
12	CL	46	ASN
12	CL	72	HIS
13	CM	40	ASN
13	CM	101	GLN
15	CO	28	GLN
15	CO	37	ASN
15	CO	46	HIS
16	CP	65	GLN
17	CQ	16	GLN
18	CR	36	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
19	CS	23	ASN
20	CT	42	GLN
25	D0	12	ASN
25	D0	29	GLN
26	D1	45	ASN
27	D2	38	GLN
27	D2	65	ASN
27	D2	71	ASN
28	D3	19	GLN
28	D3	46	ASN
28	D3	52	HIS
29	D4	46	GLN
30	D5	4	HIS
30	D5	23	HIS
30	D5	43	HIS
31	D6	46	HIS
32	D7	8	ASN
34	D9	34	GLN
38	DD	58	HIS
38	DD	87	ASN
38	DD	166	GLN
38	DD	186	HIS
38	DD	198	ASN
38	DD	227	ASN
39	DE	48	GLN
39	DE	54	GLN
39	DE	55	ASN
39	DE	129	HIS
39	DE	132	HIS
39	DE	143	ASN
39	DE	192	ASN
40	DF	40	GLN
40	DF	75	HIS
40	DF	133	ASN
40	DF	160	ASN
40	DF	169	ASN
40	DF	182	ASN
40	DF	204	ASN
41	DG	27	ASN
41	DG	40	ASN
41	DG	66	GLN
41	DG	108	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
41	DG	121	ASN
41	DG	138	GLN
42	DH	65	HIS
42	DH	74	ASN
42	DH	139	GLN
42	DH	147	ASN
43	DI	43	ASN
43	DI	74	ASN
45	DN	45	ASN
45	DN	69	GLN
45	DN	128	HIS
45	DN	130	HIS
46	DO	5	GLN
46	DO	29	ASN
46	DO	82	ASN
47	DP	13	ASN
47	DP	35	HIS
47	DP	68	GLN
47	DP	84	ASN
48	DQ	12	GLN
48	DQ	45	GLN
48	DQ	89	ASN
49	DR	16	HIS
49	DR	23	ASN
49	DR	24	GLN
49	DR	61	HIS
49	DR	71	GLN
50	DS	61	ASN
50	DS	95	HIS
51	DT	38	ASN
51	DT	58	ASN
52	DU	49	HIS
52	DU	66	ASN
52	DU	71	GLN
52	DU	104	GLN
53	DV	11	GLN
54	DW	34	ASN
54	DW	57	ASN
54	DW	62	HIS
54	DW	102	HIS
55	DX	41	ASN
55	DX	55	ASN

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Mol	Chain	Res	Type
55	DX	87	GLN
57	DZ	32	HIS
57	DZ	34	ASN
57	DZ	55	HIS
57	DZ	65	GLN
57	DZ	73	GLN
57	DZ	118	GLN

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1505/1522 (98%)	206 (13%)	21 (1%)
1	CA	1505/1522 (98%)	235 (15%)	24 (1%)
22	AV	76/77 (98%)	18 (23%)	1 (1%)
22	AW	76/77 (98%)	14 (18%)	1 (1%)
22	CV	76/77 (98%)	20 (26%)	1 (1%)
22	CW	76/77 (98%)	8 (10%)	0
23	AX	15/25 (60%)	14 (93%)	10 (66%)
35	BA	2805/2848 (98%)	485 (17%)	58 (2%)
35	DA	2804/2848 (98%)	487 (17%)	58 (2%)
36	BB	118/122 (96%)	20 (16%)	1 (0%)
36	DB	118/122 (96%)	20 (16%)	1 (0%)
58	CX	8/25 (32%)	7 (87%)	5 (62%)
All	All	9182/9342 (98%)	1534 (16%)	181 (1%)

All (1534) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	4	U
1	AA	5	U
1	AA	6	G
1	AA	9	G
1	AA	31	G
1	AA	32	A
1	AA	34	C
1	AA	39	G
1	AA	48	C
1	AA	50	A
1	AA	51	A
1	AA	61	G
1	AA	77	G

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Mol	Chain	Res	Type
1	AA	79	G
1	AA	80	G
1	AA	81	U
1	AA	83	U
1	AA	88	A
1	AA	90	U
1	AA	97	G
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	131	C
1	AA	144	G
1	AA	146	G
1	AA	173	U
1	AA	179	A
1	AA	182	U
1	AA	189(F)	U
1	AA	195	A
1	AA	197	A
1	AA	203	U
1	AA	216	G
1	AA	247	G
1	AA	251	G
1	AA	266	G
1	AA	267	C
1	AA	289	G
1	AA	328	C
1	AA	329	A
1	AA	332	G
1	AA	345	C
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	367	U
1	AA	372	C
1	AA	373	A
1	AA	397	A
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	422	C
1	AA	423	G

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Mol	Chain	Res	Type
1	AA	429	U
1	AA	430	A
1	AA	435	C
1	AA	439	A
1	AA	452	A
1	AA	470	C
1	AA	485	G
1	AA	496	A
1	AA	498	U
1	AA	511	C
1	AA	512	U
1	AA	518	C
1	AA	527	G
1	AA	532	A
1	AA	533	A
1	AA	534	U
1	AA	547	A
1	AA	559	A
1	AA	561	U
1	AA	562	C
1	AA	572	A
1	AA	573	A
1	AA	575	G
1	AA	576	G
1	AA	577	G
1	AA	588	G
1	AA	596	C
1	AA	614	A
1	AA	630	G
1	AA	631	G
1	AA	632	A
1	AA	633	G
1	AA	653	A
1	AA	665	A
1	AA	687	A
1	AA	688	G
1	AA	724	G
1	AA	749	C
1	AA	755	G
1	AA	777	A
1	AA	793	U
1	AA	794	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	821	G
1	AA	828	A
1	AA	833	U
1	AA	839	U
1	AA	840	C
1	AA	841	U
1	AA	859	A
1	AA	873	A
1	AA	902	G
1	AA	914	A
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	960	U
1	AA	966	G
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	978	A
1	AA	980	C
1	AA	991	U
1	AA	992	U
1	AA	993	G
1	AA	1005	A
1	AA	1011	G
1	AA	1013	G
1	AA	1021	G
1	AA	1023	G
1	AA	1026	G
1	AA	1030	C
1	AA	1040	U
1	AA	1050	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	AA	1054	C
1	AA	1067	A
1	AA	1068	G
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1108	G
1	AA	1117	G
1	AA	1124	G
1	AA	1125	U
1	AA	1126	U
1	AA	1131	G
1	AA	1136	U
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1152	A
1	AA	1159	U
1	AA	1181	G
1	AA	1182	G
1	AA	1196	U
1	AA	1197	G
1	AA	1212	U
1	AA	1213	A
1	AA	1238	A
1	AA	1249	C
1	AA	1257	U
1	AA	1278	U
1	AA	1280	A
1	AA	1281	U
1	AA	1282	C
1	AA	1286	A
1	AA	1287	A
1	AA	1294	G
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1305	G
1	AA	1317	C
1	AA	1331	G
1	AA	1347	G
1	AA	1363	C

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Mol	Chain	Res	Type
1	AA	1364	U
1	AA	1397	C
1	AA	1400	C
1	AA	1401	G
1	AA	1419	G
1	AA	1442	G
1	AA	1442(A)	G
1	AA	1442(B)	A
1	AA	1443	G
1	AA	1456	G
1	AA	1487	G
1	AA	1492	A
1	AA	1498	U
1	AA	1499	A
1	AA	1503	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1517	G
1	AA	1519	A
1	AA	1520	G
1	AA	1529	G
1	AA	1530	G
1	AA	1531	A
1	AA	1533	C
22	AV	5	G
22	AV	7	G
22	AV	8	U
22	AV	19	G
22	AV	20	U
22	AV	21	A
22	AV	47	U
22	AV	48	C
22	AV	52	G
22	AV	53	G
22	AV	54	U
22	AV	55	U
22	AV	61	C
22	AV	63	G
22	AV	67	C
22	AV	73	A
22	AV	74	C

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Mol	Chain	Res	Type
22	AV	76	A
22	AW	4	G
22	AW	5	G
22	AW	8	U
22	AW	16	C
22	AW	17	C
22	AW	18	G
22	AW	19	G
22	AW	20	U
22	AW	46	G
22	AW	47	U
22	AW	48	C
22	AW	51	C
22	AW	61	C
22	AW	65	C
23	AX	11	U
23	AX	12	A
23	AX	13	A
23	AX	14	A
23	AX	15	A
23	AX	16	A
23	AX	17	U
23	AX	19	U
23	AX	20	U
23	AX	21	C
23	AX	22	A
23	AX	23	A
23	AX	24	A
23	AX	25	A
35	BA	9	U
35	BA	10	G
35	BA	34	C
35	BA	35	G
35	BA	45	C
35	BA	49	A
35	BA	50	U
35	BA	71	A
35	BA	72	U
35	BA	75	G
35	BA	88	G
35	BA	90	U
35	BA	94	C

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Mol	Chain	Res	Type
35	BA	100	G
35	BA	102	G
35	BA	118	A
35	BA	119	A
35	BA	120	U
35	BA	129	C
35	BA	139(A)	G
35	BA	141	A
35	BA	146	G
35	BA	154	G
35	BA	154(A)	C
35	BA	157	U
35	BA	158	U
35	BA	171	G
35	BA	175	G
35	BA	196	A
35	BA	197	A
35	BA	204	A
35	BA	205	G
35	BA	215	G
35	BA	216	A
35	BA	221	A
35	BA	222	A
35	BA	229	A
35	BA	230	U
35	BA	233	A
35	BA	248	G
35	BA	252	G
35	BA	267	C
35	BA	271(I)	G
35	BA	271(J)	C
35	BA	271(K)	U
35	BA	271(L)	U
35	BA	271(M)	G
35	BA	271(N)	U
35	BA	271(O)	C
35	BA	271(P)	C
35	BA	271(R)	G
35	BA	271(Y)	U
35	BA	272	G
35	BA	272(B)	G
35	BA	272(H)	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	BA	272(I)	U
35	BA	272(J)	C
35	BA	274	G
35	BA	275	G
35	BA	299	A
35	BA	311	A
35	BA	312	G
35	BA	324	A
35	BA	329	G
35	BA	330	A
35	BA	331	A
35	BA	332	A
35	BA	333	G
35	BA	352	G
35	BA	353	G
35	BA	358	U
35	BA	362	U
35	BA	363(B)	G
35	BA	364	C
35	BA	365	C
35	BA	386	G
35	BA	387	U
35	BA	388	G
35	BA	396	G
35	BA	405	U
35	BA	411	G
35	BA	412	A
35	BA	415	A
35	BA	428	A
35	BA	444	C
35	BA	448	U
35	BA	451	C
35	BA	456	C
35	BA	457	A
35	BA	470	A
35	BA	475	U
35	BA	481	G
35	BA	494	G
35	BA	505	A
35	BA	508	G
35	BA	509	C
35	BA	513	A

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Mol	Chain	Res	Type
35	BA	528	A
35	BA	531	C
35	BA	532	A
35	BA	533	G
35	BA	543	C
35	BA	547	A
35	BA	548	A
35	BA	563	G
35	BA	573	G
35	BA	575	A
35	BA	586	A
35	BA	588	U
35	BA	604	G
35	BA	607	U
35	BA	613	G
35	BA	614(B)	G
35	BA	615	G
35	BA	620	G
35	BA	622	G
35	BA	624	C
35	BA	627	A
35	BA	637	A
35	BA	645	C
35	BA	646	A
35	BA	652	C
35	BA	656	G
35	BA	669	G
35	BA	670	A
35	BA	686	G
35	BA	708	C
35	BA	717	G
35	BA	722	A
35	BA	730	C
35	BA	753	C
35	BA	775	G
35	BA	776	G
35	BA	777	A
35	BA	782	A
35	BA	784	A
35	BA	785	G
35	BA	790	C
35	BA	791	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	BA	792	G
35	BA	805	G
35	BA	812	C
35	BA	819	A
35	BA	827	U
35	BA	828	U
35	BA	830	G
35	BA	848	G
35	BA	856	C
35	BA	859	G
35	BA	878	A
35	BA	890	A
35	BA	896	A
35	BA	897	C
35	BA	904	C
35	BA	906	G
35	BA	910	A
35	BA	917	A
35	BA	926	A
35	BA	932	G
35	BA	941	A
35	BA	946	G
35	BA	958	U
35	BA	959	A
35	BA	961	C
35	BA	965	C
35	BA	974	G
35	BA	975	C
35	BA	983	A
35	BA	991	C
35	BA	996	A
35	BA	1005	C
35	BA	1012	U
35	BA	1013	C
35	BA	1022	G
35	BA	1023	U
35	BA	1025	G
35	BA	1026	U
35	BA	1033	U
35	BA	1039	G
35	BA	1041	C
35	BA	1045	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	BA	1046	A
35	BA	1047	G
35	BA	1049	C
35	BA	1052	C
35	BA	1053	C
35	BA	1106	A
35	BA	1110	G
35	BA	1112	G
35	BA	1113	U
35	BA	1114	G
35	BA	1115	G
35	BA	1118	C
35	BA	1130	U
35	BA	1135	C
35	BA	1136	G
35	BA	1155	A
35	BA	1174	A
35	BA	1175	U
35	BA	1176	G
35	BA	1178	C
35	BA	1195	G
35	BA	1205	U
35	BA	1210	A
35	BA	1211	U
35	BA	1221	C
35	BA	1250	G
35	BA	1253	A
35	BA	1256	G
35	BA	1265	A
35	BA	1271	G
35	BA	1272	A
35	BA	1273	U
35	BA	1281	G
35	BA	1289	C
35	BA	1300	U
35	BA	1301	A
35	BA	1302	A
35	BA	1314	C
35	BA	1332	G
35	BA	1347	G
35	BA	1349	A
35	BA	1359	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	BA	1365	A
35	BA	1368	G
35	BA	1379	A
35	BA	1380	G
35	BA	1384	A
35	BA	1385	G
35	BA	1386	C
35	BA	1407	C
35	BA	1416	G
35	BA	1417	C
35	BA	1419	A
35	BA	1420	U
35	BA	1421	G
35	BA	1427	A
35	BA	1428	C
35	BA	1437	C
35	BA	1445	A
35	BA	1449	A
35	BA	1450	G
35	BA	1451	C
35	BA	1455	G
35	BA	1460	A
35	BA	1461	G
35	BA	1467	C
35	BA	1471	A
35	BA	1475	G
35	BA	1478	G
35	BA	1481	U
35	BA	1482	G
35	BA	1484	G
35	BA	1485	G
35	BA	1488	G
35	BA	1490	A
35	BA	1491	G
35	BA	1493	C
35	BA	1494	A
35	BA	1495	A
35	BA	1496	A
35	BA	1497	U
35	BA	1505	C
35	BA	1509	C
35	BA	1509(A)	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	BA	1520	G
35	BA	1530	C
35	BA	1531	C
35	BA	1532	C
35	BA	1533	G
35	BA	1544	A
35	BA	1545	A
35	BA	1554	A
35	BA	1558	A
35	BA	1559	G
35	BA	1569	A
35	BA	1578	U
35	BA	1579	A
35	BA	1584	C
35	BA	1586	A
35	BA	1588	C
35	BA	1593	G
35	BA	1598	C
35	BA	1608	A
35	BA	1609	A
35	BA	1610	A
35	BA	1616	A
35	BA	1617	C
35	BA	1618	A
35	BA	1640	C
35	BA	1648	C
35	BA	1653	G
35	BA	1654	A
35	BA	1667	G
35	BA	1674	G
35	BA	1694	C
35	BA	1695	G
35	BA	1696	G
35	BA	1698	A
35	BA	1718	G
35	BA	1722	A
35	BA	1739	U
35	BA	1742	G
35	BA	1746	G
35	BA	1748	G
35	BA	1754	C
35	BA	1763	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	BA	1764	G
35	BA	1773	A
35	BA	1780	A
35	BA	1791	A
35	BA	1799	G
35	BA	1800	C
35	BA	1816	G
35	BA	1820	U
35	BA	1821	A
35	BA	1829	A
35	BA	1847	A
35	BA	1848	A
35	BA	1858	G
35	BA	1864	U
35	BA	1877	A
35	BA	1878	G
35	BA	1881	C
35	BA	1882	C
35	BA	1888	G
35	BA	1889	A
35	BA	1900	A
35	BA	1906	G
35	BA	1912	A
35	BA	1913	A
35	BA	1916	A
35	BA	1929	G
35	BA	1930	G
35	BA	1936	A
35	BA	1938	A
35	BA	1939	U
35	BA	1955	U
35	BA	1962	C
35	BA	1963	U
35	BA	1967	C
35	BA	1969	A
35	BA	1971	A
35	BA	1972	A
35	BA	1982	C
35	BA	1987	G
35	BA	1993	U
35	BA	1996	C
35	BA	1997	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	BA	2023	G
35	BA	2031	A
35	BA	2033	A
35	BA	2034	U
35	BA	2043	C
35	BA	2055	C
35	BA	2056	G
35	BA	2060	A
35	BA	2061	G
35	BA	2062	A
35	BA	2069	G
35	BA	2092	U
35	BA	2093	G
35	BA	2099	U
35	BA	2103	C
35	BA	2104	G
35	BA	2111	C
35	BA	2116	G
35	BA	2120	G
35	BA	2127	G
35	BA	2131	G
35	BA	2133	G
35	BA	2134	A
35	BA	2148	G
35	BA	2159	G
35	BA	2179	C
35	BA	2186	G
35	BA	2189	U
35	BA	2193	G
35	BA	2198	A
35	BA	2199	A
35	BA	2200	C
35	BA	2203	U
35	BA	2206	G
35	BA	2207	G
35	BA	2208	A
35	BA	2219	G
35	BA	2225	A
35	BA	2226	C
35	BA	2238	G
35	BA	2239	G
35	BA	2275	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	BA	2283	C
35	BA	2287	A
35	BA	2288	A
35	BA	2289	G
35	BA	2305	A
35	BA	2306	C
35	BA	2307	G
35	BA	2316	C
35	BA	2318	G
35	BA	2319	G
35	BA	2320	A
35	BA	2334	G
35	BA	2336	A
35	BA	2345	G
35	BA	2347	C
35	BA	2350	C
35	BA	2361	A
35	BA	2372	G
35	BA	2383	G
35	BA	2385	C
35	BA	2400	G
35	BA	2402	C
35	BA	2406	U
35	BA	2423	U
35	BA	2425	A
35	BA	2429	G
35	BA	2430	A
35	BA	2439	A
35	BA	2441	C
35	BA	2448	A
35	BA	2465	C
35	BA	2469	A
35	BA	2470	G
35	BA	2476	A
35	BA	2477	C
35	BA	2478	A
35	BA	2482	G
35	BA	2502	G
35	BA	2505	G
35	BA	2518	A
35	BA	2520	C
35	BA	2524	G

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Mol	Chain	Res	Type
35	BA	2529	G
35	BA	2542	A
35	BA	2543	G
35	BA	2554	U
35	BA	2566	A
35	BA	2567	G
35	BA	2573	C
35	BA	2582	G
35	BA	2602	A
35	BA	2609	U
35	BA	2611	U
35	BA	2612	C
35	BA	2615	U
35	BA	2630	G
35	BA	2636	U
35	BA	2654	A
35	BA	2673	G
35	BA	2682	U
35	BA	2690	C
35	BA	2691	C
35	BA	2702	U
35	BA	2712	U
35	BA	2712(A)	A
35	BA	2713	A
35	BA	2720	U
35	BA	2726	U
35	BA	2733	A
35	BA	2752	C
35	BA	2757	A
35	BA	2758	A
35	BA	2762	G
35	BA	2765	A
35	BA	2778	A
35	BA	2787	C
35	BA	2789	C
35	BA	2790	A
35	BA	2791	C
35	BA	2794	C
35	BA	2801(A)	A
35	BA	2802	G
35	BA	2803	C
35	BA	2808	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	BA	2818	G
35	BA	2820	A
35	BA	2821	A
35	BA	2823	A
35	BA	2833	G
35	BA	2834	G
35	BA	2835	A
35	BA	2849	U
35	BA	2872	G
35	BA	2894	G
36	BB	3	C
36	BB	8	U
36	BB	15	A
36	BB	16	G
36	BB	22	U
36	BB	25	A
36	BB	27	C
36	BB	40	U
36	BB	41	U
36	BB	42	C
36	BB	45	A
36	BB	47	C
36	BB	53	A
36	BB	67	G
36	BB	73	A
36	BB	75	G
36	BB	81	G
36	BB	88	C
36	BB	109	C
36	BB	110	G
1	CA	4	U
1	CA	5	U
1	CA	9	G
1	CA	11	G
1	CA	12	U
1	CA	13	U
1	CA	31	G
1	CA	32	A
1	CA	34	C
1	CA	35	G
1	CA	36	C
1	CA	37	U

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Mol	Chain	Res	Type
1	CA	38	G
1	CA	39	G
1	CA	46	G
1	CA	47	C
1	CA	48	C
1	CA	49	U
1	CA	50	A
1	CA	51	A
1	CA	61	G
1	CA	79	G
1	CA	80	G
1	CA	81	U
1	CA	83	U
1	CA	88	A
1	CA	90	U
1	CA	97	G
1	CA	116	A
1	CA	120	A
1	CA	121	C
1	CA	131	C
1	CA	144	G
1	CA	146	G
1	CA	173	U
1	CA	179	A
1	CA	182	U
1	CA	189(F)	U
1	CA	195	A
1	CA	197	A
1	CA	203	U
1	CA	216	G
1	CA	247	G
1	CA	251	G
1	CA	266	G
1	CA	267	C
1	CA	281	G
1	CA	289	G
1	CA	328	C
1	CA	329	A
1	CA	332	G
1	CA	345	C
1	CA	352	C
1	CA	353	A

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Mol	Chain	Res	Type
1	CA	354	G
1	CA	367	U
1	CA	372	C
1	CA	373	A
1	CA	397	A
1	CA	398	C
1	CA	399	G
1	CA	401	C
1	CA	412	A
1	CA	413	G
1	CA	414	A
1	CA	422	C
1	CA	423	G
1	CA	429	U
1	CA	430	A
1	CA	435	C
1	CA	439	A
1	CA	452	A
1	CA	470	C
1	CA	485	G
1	CA	496	A
1	CA	498	U
1	CA	511	C
1	CA	512	U
1	CA	518	C
1	CA	527	G
1	CA	532	A
1	CA	533	A
1	CA	534	U
1	CA	547	A
1	CA	559	A
1	CA	561	U
1	CA	562	C
1	CA	572	A
1	CA	573	A
1	CA	575	G
1	CA	576	G
1	CA	577	G
1	CA	588	G
1	CA	596	C
1	CA	614	A
1	CA	630	G

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Mol	Chain	Res	Type
1	CA	631	G
1	CA	632	A
1	CA	633	G
1	CA	645	C
1	CA	646	U
1	CA	653	A
1	CA	658	G
1	CA	660	G
1	CA	665	A
1	CA	687	A
1	CA	688	G
1	CA	724	G
1	CA	749	C
1	CA	755	G
1	CA	777	A
1	CA	793	U
1	CA	794	A
1	CA	815	A
1	CA	816	A
1	CA	817	C
1	CA	818	G
1	CA	821	G
1	CA	828	A
1	CA	833	U
1	CA	837	G
1	CA	839	U
1	CA	840	C
1	CA	841	U
1	CA	859	A
1	CA	873	A
1	CA	902	G
1	CA	913	A
1	CA	914	A
1	CA	922	G
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	935	A
1	CA	941	G
1	CA	943	U
1	CA	960	U
1	CA	966	G

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Mol	Chain	Res	Type
1	CA	968	A
1	CA	969	A
1	CA	971	G
1	CA	972	C
1	CA	974	A
1	CA	975	A
1	CA	976	G
1	CA	977	A
1	CA	978	A
1	CA	980	C
1	CA	991	U
1	CA	992	U
1	CA	993	G
1	CA	1005	A
1	CA	1011	G
1	CA	1013	G
1	CA	1021	G
1	CA	1023	G
1	CA	1026	G
1	CA	1030	C
1	CA	1050	G
1	CA	1054	C
1	CA	1060	C
1	CA	1061	G
1	CA	1062	U
1	CA	1067	A
1	CA	1068	G
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
1	CA	1108	G
1	CA	1117	G
1	CA	1124	G
1	CA	1125	U
1	CA	1126	U
1	CA	1131	G
1	CA	1136	U
1	CA	1137	C
1	CA	1138	G
1	CA	1139	G
1	CA	1152	A
1	CA	1159	U

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Mol	Chain	Res	Type
1	CA	1181	G
1	CA	1182	G
1	CA	1196	U
1	CA	1197	G
1	CA	1207	G
1	CA	1212	U
1	CA	1213	A
1	CA	1214	C
1	CA	1225	A
1	CA	1226	C
1	CA	1227	A
1	CA	1238	A
1	CA	1249	C
1	CA	1257	U
1	CA	1280	A
1	CA	1281	U
1	CA	1282	C
1	CA	1286	A
1	CA	1287	A
1	CA	1294	G
1	CA	1300	G
1	CA	1301	U
1	CA	1302	U
1	CA	1305	G
1	CA	1317	C
1	CA	1331	G
1	CA	1347	G
1	CA	1363	C
1	CA	1364	U
1	CA	1397	C
1	CA	1398	A
1	CA	1401	G
1	CA	1419	G
1	CA	1439	C
1	CA	1440	C
1	CA	1442	G
1	CA	1442(B)	A
1	CA	1447	A
1	CA	1456	G
1	CA	1492	A
1	CA	1495	U
1	CA	1497	G

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Mol	Chain	Res	Type
1	CA	1498	U
1	CA	1499	A
1	CA	1502	A
1	CA	1503	A
1	CA	1504	G
1	CA	1505	G
1	CA	1506	U
1	CA	1517	G
1	CA	1520	G
1	CA	1529	G
1	CA	1530	G
1	CA	1531	A
1	CA	1532	U
22	CV	3	C
22	CV	5	G
22	CV	6	G
22	CV	8	U
22	CV	17	C
22	CV	17(A)	U
22	CV	18	G
22	CV	19	G
22	CV	20	U
22	CV	21	A
22	CV	34	C
22	CV	35	A
22	CV	37	A
22	CV	47	U
22	CV	48	C
22	CV	49	G
22	CV	55	U
22	CV	59	A
22	CV	67	C
22	CV	76	A
22	CW	7	G
22	CW	16	C
22	CW	17(A)	U
22	CW	18	G
22	CW	19	G
22	CW	47	U
22	CW	48	C
22	CW	56	C
58	CX	13	A

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Mol	Chain	Res	Type
58	CX	14	A
58	CX	15	A
58	CX	16	A
58	CX	17	U
58	CX	18	G
58	CX	19	G
35	DA	9	U
35	DA	10	G
35	DA	34	C
35	DA	35	G
35	DA	45	C
35	DA	49	A
35	DA	50	U
35	DA	71	A
35	DA	72	U
35	DA	75	G
35	DA	88	G
35	DA	89	G
35	DA	90	U
35	DA	94	C
35	DA	100	G
35	DA	102	G
35	DA	118	A
35	DA	119	A
35	DA	120	U
35	DA	129	C
35	DA	139(A)	G
35	DA	141	A
35	DA	146	G
35	DA	154	G
35	DA	154(A)	C
35	DA	157	U
35	DA	158	U
35	DA	171	G
35	DA	175	G
35	DA	196	A
35	DA	197	A
35	DA	204	A
35	DA	205	G
35	DA	215	G
35	DA	216	A
35	DA	221	A

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Mol	Chain	Res	Type
35	DA	222	A
35	DA	229	A
35	DA	230	U
35	DA	233	A
35	DA	248	G
35	DA	252	G
35	DA	267	C
35	DA	271(I)	G
35	DA	271(J)	C
35	DA	271(K)	U
35	DA	271(L)	U
35	DA	271(M)	G
35	DA	271(N)	U
35	DA	271(O)	C
35	DA	271(P)	C
35	DA	271(R)	G
35	DA	271(Y)	U
35	DA	272	G
35	DA	272(B)	G
35	DA	272(H)	C
35	DA	272(I)	U
35	DA	272(J)	C
35	DA	274	G
35	DA	275	G
35	DA	299	A
35	DA	311	A
35	DA	324	A
35	DA	329	G
35	DA	330	A
35	DA	331	A
35	DA	332	A
35	DA	333	G
35	DA	352	G
35	DA	353	G
35	DA	358	U
35	DA	362	U
35	DA	363(B)	G
35	DA	364	C
35	DA	365	C
35	DA	386	G
35	DA	387	U
35	DA	388	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	DA	396	G
35	DA	405	U
35	DA	411	G
35	DA	412	A
35	DA	415	A
35	DA	428	A
35	DA	444	C
35	DA	448	U
35	DA	451	C
35	DA	456	C
35	DA	457	A
35	DA	470	A
35	DA	475	U
35	DA	481	G
35	DA	494	G
35	DA	505	A
35	DA	508	G
35	DA	509	C
35	DA	510	C
35	DA	513	A
35	DA	528	A
35	DA	530	G
35	DA	531	C
35	DA	532	A
35	DA	533	G
35	DA	543	C
35	DA	547	A
35	DA	548	A
35	DA	563	G
35	DA	573	G
35	DA	575	A
35	DA	586	A
35	DA	588	U
35	DA	604	G
35	DA	607	U
35	DA	613	G
35	DA	614(B)	G
35	DA	615	G
35	DA	620	G
35	DA	622	G
35	DA	627	A
35	DA	637	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	DA	645	C
35	DA	646	A
35	DA	652	C
35	DA	669	G
35	DA	670	A
35	DA	686	G
35	DA	708	C
35	DA	717	G
35	DA	722	A
35	DA	730	C
35	DA	753	C
35	DA	776	G
35	DA	782	A
35	DA	784	A
35	DA	785	G
35	DA	790	C
35	DA	791	C
35	DA	792	G
35	DA	805	G
35	DA	812	C
35	DA	819	A
35	DA	827	U
35	DA	828	U
35	DA	830	G
35	DA	848	G
35	DA	856	C
35	DA	859	G
35	DA	867	C
35	DA	868	U
35	DA	878	A
35	DA	890	A
35	DA	896	A
35	DA	897	C
35	DA	904	C
35	DA	906	G
35	DA	910	A
35	DA	917	A
35	DA	926	A
35	DA	932	G
35	DA	941	A
35	DA	946	G
35	DA	958	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	DA	959	A
35	DA	961	C
35	DA	965	C
35	DA	974	G
35	DA	975	C
35	DA	983	A
35	DA	991	C
35	DA	996	A
35	DA	1005	C
35	DA	1012	U
35	DA	1013	C
35	DA	1022	G
35	DA	1023	U
35	DA	1025	G
35	DA	1026	U
35	DA	1039	G
35	DA	1041	C
35	DA	1045	A
35	DA	1046	A
35	DA	1047	G
35	DA	1049	C
35	DA	1052	C
35	DA	1053	C
35	DA	1106	A
35	DA	1110	G
35	DA	1112	G
35	DA	1113	U
35	DA	1114	G
35	DA	1115	G
35	DA	1118	C
35	DA	1130	U
35	DA	1135	C
35	DA	1136	G
35	DA	1155	A
35	DA	1174	A
35	DA	1175	U
35	DA	1176	G
35	DA	1178	C
35	DA	1205	U
35	DA	1210	A
35	DA	1211	U
35	DA	1221	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	DA	1250	G
35	DA	1253	A
35	DA	1256	G
35	DA	1265	A
35	DA	1271	G
35	DA	1272	A
35	DA	1273	U
35	DA	1281	G
35	DA	1289	C
35	DA	1300	U
35	DA	1301	A
35	DA	1302	A
35	DA	1314	C
35	DA	1332	G
35	DA	1345	C
35	DA	1347	G
35	DA	1349	A
35	DA	1359	A
35	DA	1365	A
35	DA	1368	G
35	DA	1379	A
35	DA	1380	G
35	DA	1384	A
35	DA	1385	G
35	DA	1386	C
35	DA	1407	C
35	DA	1416	G
35	DA	1417	C
35	DA	1419	A
35	DA	1420	U
35	DA	1421	G
35	DA	1427	A
35	DA	1428	C
35	DA	1437	C
35	DA	1445	A
35	DA	1449	A
35	DA	1450	G
35	DA	1451	C
35	DA	1455	G
35	DA	1460	A
35	DA	1461	G
35	DA	1467	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	DA	1471	A
35	DA	1475	G
35	DA	1478	G
35	DA	1481	U
35	DA	1482	G
35	DA	1484	G
35	DA	1485	G
35	DA	1488	G
35	DA	1490	A
35	DA	1493	C
35	DA	1494	A
35	DA	1495	A
35	DA	1496	A
35	DA	1497	U
35	DA	1505	C
35	DA	1509	C
35	DA	1509(A)	A
35	DA	1520	G
35	DA	1531	C
35	DA	1532	C
35	DA	1533	G
35	DA	1544	A
35	DA	1545	A
35	DA	1554	A
35	DA	1558	A
35	DA	1559	G
35	DA	1569	A
35	DA	1578	U
35	DA	1579	A
35	DA	1584	C
35	DA	1586	A
35	DA	1588	C
35	DA	1593	G
35	DA	1598	C
35	DA	1608	A
35	DA	1609	A
35	DA	1610	A
35	DA	1616	A
35	DA	1617	C
35	DA	1618	A
35	DA	1640	C
35	DA	1648	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	DA	1653	G
35	DA	1654	A
35	DA	1667	G
35	DA	1674	G
35	DA	1694	C
35	DA	1695	G
35	DA	1696	G
35	DA	1698	A
35	DA	1718	G
35	DA	1722	A
35	DA	1739	U
35	DA	1742	G
35	DA	1746	G
35	DA	1748	G
35	DA	1754	C
35	DA	1763	G
35	DA	1764	G
35	DA	1773	A
35	DA	1780	A
35	DA	1791	A
35	DA	1799	G
35	DA	1800	C
35	DA	1816	G
35	DA	1820	U
35	DA	1821	A
35	DA	1829	A
35	DA	1847	A
35	DA	1848	A
35	DA	1858	G
35	DA	1864	U
35	DA	1877	A
35	DA	1878	G
35	DA	1881	C
35	DA	1882	C
35	DA	1888	G
35	DA	1889	A
35	DA	1900	A
35	DA	1906	G
35	DA	1911	U
35	DA	1912	A
35	DA	1913	A
35	DA	1914	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	DA	1915	U
35	DA	1916	A
35	DA	1929	G
35	DA	1930	G
35	DA	1936	A
35	DA	1938	A
35	DA	1939	U
35	DA	1955	U
35	DA	1962	C
35	DA	1963	U
35	DA	1967	C
35	DA	1969	A
35	DA	1971	A
35	DA	1972	A
35	DA	1982	C
35	DA	1987	G
35	DA	1993	U
35	DA	1996	C
35	DA	1997	G
35	DA	2023	G
35	DA	2031	A
35	DA	2033	A
35	DA	2034	U
35	DA	2043	C
35	DA	2055	C
35	DA	2056	G
35	DA	2060	A
35	DA	2061	G
35	DA	2062	A
35	DA	2069	G
35	DA	2092	U
35	DA	2093	G
35	DA	2099	U
35	DA	2103	C
35	DA	2104	G
35	DA	2111	C
35	DA	2116	G
35	DA	2120	G
35	DA	2127	G
35	DA	2131	G
35	DA	2133	G
35	DA	2134	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	DA	2159	G
35	DA	2179	C
35	DA	2186	G
35	DA	2189	U
35	DA	2193	G
35	DA	2198	A
35	DA	2199	A
35	DA	2200	C
35	DA	2203	U
35	DA	2206	G
35	DA	2207	G
35	DA	2208	A
35	DA	2218	U
35	DA	2219	G
35	DA	2225	A
35	DA	2226	C
35	DA	2238	G
35	DA	2239	G
35	DA	2275	C
35	DA	2283	C
35	DA	2287	A
35	DA	2288	A
35	DA	2289	G
35	DA	2305	A
35	DA	2306	C
35	DA	2307	G
35	DA	2316	C
35	DA	2318	G
35	DA	2319	G
35	DA	2321	G
35	DA	2334	G
35	DA	2336	A
35	DA	2345	G
35	DA	2347	C
35	DA	2350	C
35	DA	2361	A
35	DA	2372	G
35	DA	2383	G
35	DA	2385	C
35	DA	2400	G
35	DA	2402	C
35	DA	2406	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	DA	2423	U
35	DA	2425	A
35	DA	2429	G
35	DA	2430	A
35	DA	2439	A
35	DA	2441	C
35	DA	2448	A
35	DA	2465	C
35	DA	2469	A
35	DA	2470	G
35	DA	2473	U
35	DA	2474	C
35	DA	2475	C
35	DA	2476	A
35	DA	2477	C
35	DA	2478	A
35	DA	2482	G
35	DA	2502	G
35	DA	2505	G
35	DA	2518	A
35	DA	2520	C
35	DA	2524	G
35	DA	2529	G
35	DA	2542	A
35	DA	2543	G
35	DA	2554	U
35	DA	2566	A
35	DA	2567	G
35	DA	2573	C
35	DA	2582	G
35	DA	2602	A
35	DA	2609	U
35	DA	2611	U
35	DA	2612	C
35	DA	2615	U
35	DA	2630	G
35	DA	2636	U
35	DA	2654	A
35	DA	2673	G
35	DA	2690	C
35	DA	2691	C
35	DA	2702	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	DA	2712	U
35	DA	2712(A)	A
35	DA	2713	A
35	DA	2720	U
35	DA	2726	U
35	DA	2733	A
35	DA	2752	C
35	DA	2757	A
35	DA	2758	A
35	DA	2762	G
35	DA	2765	A
35	DA	2778	A
35	DA	2787	C
35	DA	2789	C
35	DA	2790	A
35	DA	2791	C
35	DA	2794	C
35	DA	2801(A)	A
35	DA	2802	G
35	DA	2803	C
35	DA	2808	U
35	DA	2818	G
35	DA	2820	A
35	DA	2821	A
35	DA	2823	A
35	DA	2833	G
35	DA	2834	G
35	DA	2835	A
35	DA	2849	U
35	DA	2872	G
35	DA	2894	G
36	DB	3	C
36	DB	8	U
36	DB	15	A
36	DB	16	G
36	DB	22	U
36	DB	25	A
36	DB	27	C
36	DB	40	U
36	DB	41	U
36	DB	42	C
36	DB	45	A

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Mol	Chain	Res	Type
36	DB	47	C
36	DB	53	A
36	DB	67	G
36	DB	73	A
36	DB	75	G
36	DB	81	G
36	DB	88	C
36	DB	109	C
36	DB	110	G

All (181) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	60	A
1	AA	115	G
1	AA	119	A
1	AA	250	A
1	AA	266	G
1	AA	328	C
1	AA	428	G
1	AA	429	U
1	AA	484	G
1	AA	533	A
1	AA	560	U
1	AA	575	G
1	AA	687	A
1	AA	748	C
1	AA	913	A
1	AA	1049	U
1	AA	1067	A
1	AA	1281	U
1	AA	1300	G
1	AA	1498	U
1	AA	1504	G
22	AV	53	G
22	AW	17(A)	U
23	AX	11	U
23	AX	12	A
23	AX	14	A
23	AX	15	A
23	AX	16	A
23	AX	19	U

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Mol	Chain	Res	Type
23	AX	21	C
23	AX	22	A
23	AX	23	A
23	AX	24	A
35	BA	49	A
35	BA	71	A
35	BA	74	A
35	BA	100	G
35	BA	128	C
35	BA	146	G
35	BA	221	A
35	BA	272	G
35	BA	331	A
35	BA	332	A
35	BA	363(F)	A
35	BA	387	U
35	BA	474	G
35	BA	512	G
35	BA	542	C
35	BA	587	C
35	BA	603	A
35	BA	613	G
35	BA	614(C)	A
35	BA	669	G
35	BA	746	A
35	BA	752	A
35	BA	775	G
35	BA	776	G
35	BA	790	C
35	BA	848	G
35	BA	1022	G
35	BA	1210	A
35	BA	1300	U
35	BA	1301	A
35	BA	1378	A
35	BA	1396	U
35	BA	1427	A
35	BA	1484	G
35	BA	1490	A
35	BA	1558	A
35	BA	1608	A
35	BA	1609	A

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Mol	Chain	Res	Type
35	BA	1617	C
35	BA	1653	G
35	BA	1694	C
35	BA	1799	G
35	BA	1819	A
35	BA	1820	U
35	BA	1962	C
35	BA	1970	A
35	BA	1992	G
35	BA	2033	A
35	BA	2126	A
35	BA	2225	A
35	BA	2282	G
35	BA	2422	A
35	BA	2439	A
35	BA	2481	G
35	BA	2611	U
35	BA	2689	U
35	BA	2756	U
35	BA	2796	U
36	BB	66	A
1	CA	4	U
1	CA	33	A
1	CA	60	A
1	CA	115	G
1	CA	119	A
1	CA	250	A
1	CA	266	G
1	CA	328	C
1	CA	401	C
1	CA	428	G
1	CA	429	U
1	CA	484	G
1	CA	533	A
1	CA	560	U
1	CA	575	G
1	CA	687	A
1	CA	748	C
1	CA	913	A
1	CA	1049	U
1	CA	1067	A
1	CA	1206	G

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Mol	Chain	Res	Type
1	CA	1281	U
1	CA	1300	G
1	CA	1504	G
22	CV	16	C
58	CX	12	A
58	CX	13	A
58	CX	14	A
58	CX	15	A
58	CX	17	U
35	DA	49	A
35	DA	71	A
35	DA	74	A
35	DA	100	G
35	DA	128	C
35	DA	146	G
35	DA	221	A
35	DA	272	G
35	DA	331	A
35	DA	332	A
35	DA	363(F)	A
35	DA	387	U
35	DA	474	G
35	DA	508	G
35	DA	512	G
35	DA	542	C
35	DA	587	C
35	DA	603	A
35	DA	613	G
35	DA	614(C)	A
35	DA	669	G
35	DA	746	A
35	DA	752	A
35	DA	790	C
35	DA	926	A
35	DA	1022	G
35	DA	1210	A
35	DA	1300	U
35	DA	1301	A
35	DA	1378	A
35	DA	1396	U
35	DA	1427	A
35	DA	1484	G

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Mol	Chain	Res	Type
35	DA	1558	A
35	DA	1608	A
35	DA	1609	A
35	DA	1617	C
35	DA	1653	G
35	DA	1694	C
35	DA	1799	G
35	DA	1819	A
35	DA	1820	U
35	DA	1911	U
35	DA	1962	C
35	DA	1970	A
35	DA	1992	G
35	DA	2033	A
35	DA	2126	A
35	DA	2225	A
35	DA	2282	G
35	DA	2320	A
35	DA	2422	A
35	DA	2439	A
35	DA	2481	G
35	DA	2611	U
35	DA	2689	U
35	DA	2756	U
35	DA	2796	U
36	DB	66	A

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

2 non-standard protein/DNA/RNA residues are modelled in this entry.

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	$\# Z  > 2$
1	A3P	AA	1493	1	19,28,29	0.83	0	22,42,45	2.02	3 (13%)
1	A3P	CA	1493	1	19,28,29	0.76	0	22,42,45	0.92	2 (9%)

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
1	A3P	AA	1493	1	-	0/8/30/31	0/3/3/3
1	A3P	CA	1493	1	-	0/8/30/31	0/3/3/3

There are no bond length outliers.

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1493	A3P	P1-O3'-C3'	-4.71	110.27	121.56
1	CA	1493	A3P	C2'-C1'-N9	2.15	117.58	114.29
1	AA	1493	A3P	O2P-P1-O1P	2.64	119.09	110.58
1	CA	1493	A3P	O2P-P1-O1P	2.66	119.13	110.58
1	AA	1493	A3P	O3'-P1-O1P	7.27	125.27	107.11

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

2 monomers are involved in 12 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	AA	1493	A3P	10	0
1	CA	1493	A3P	2	0

## 5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 5.6 Ligand geometry [i](#)

Of 2338 ligands modelled in this entry, 2338 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

## 5.7 Other polymers

There are no such residues in this entry.

## 5.8 Polymer linkage issues

The following chains have linkage breaks:

Mol	Chain	Number of breaks
13	CM	3
13	AM	3
9	AI	2
9	CI	2
41	DG	1
41	BG	1
31	D6	1
31	B6	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	B6	46:HIS	C	47:THR	N	7.76
1	D6	46:HIS	C	47:THR	N	7.76
1	BG	112:PRO	C	113:ARG	N	4.73
1	DG	112:PRO	C	113:ARG	N	4.47
1	AM	69:GLU	C	70:LEU	N	4.25
1	CM	69:GLU	C	70:LEU	N	4.25
1	CM	97:PRO	C	98:VAL	N	4.10
1	AM	97:PRO	C	98:VAL	N	4.09
1	CI	53:VAL	C	54:ASP	N	3.92
1	AI	53:VAL	C	54:ASP	N	3.90
1	AI	104:ARG	C	105:ASP	N	3.42
1	CI	104:ARG	C	105:ASP	N	3.41
1	CM	65:LYS	C	66:LEU	N	2.85
1	AM	65:LYS	C	66:LEU	N	2.83

## 6 Fit of model and data ⓘ

### 6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
1	AA	1507/1522 (99%)	0.13	41 (2%) 58 44	54, 107, 196, 201	0
1	CA	1507/1522 (99%)	0.88	195 (12%) 5 3	60, 169, 201, 201	0
2	AB	235/256 (91%)	0.44	18 (7%) 16 9	77, 152, 197, 201	0
2	CB	235/256 (91%)	1.04	45 (19%) 2 1	90, 173, 201, 201	0
3	AC	207/239 (86%)	0.55	20 (9%) 10 6	83, 149, 188, 201	0
3	CC	207/239 (86%)	1.44	52 (25%) 1 1	106, 175, 201, 201	0
4	AD	208/209 (99%)	0.01	2 (0%) 84 75	65, 105, 149, 180	0
4	CD	208/209 (99%)	1.48	58 (27%) 1 0	85, 173, 201, 201	0
5	AE	151/162 (93%)	0.18	4 (2%) 59 45	70, 107, 155, 198	0
5	CE	151/162 (93%)	1.19	39 (25%) 1 0	89, 155, 197, 201	0
6	AF	101/101 (100%)	0.18	3 (2%) 54 39	70, 125, 163, 190	0
6	CF	101/101 (100%)	-0.00	1 (0%) 84 75	65, 110, 155, 184	0
7	AG	155/156 (99%)	0.46	14 (9%) 12 6	85, 141, 184, 201	0
7	CG	155/156 (99%)	1.04	38 (24%) 1 1	86, 164, 200, 201	0
8	AH	138/138 (100%)	0.13	2 (1%) 78 65	66, 108, 151, 171	0
8	CH	138/138 (100%)	0.95	25 (18%) 2 1	79, 157, 189, 201	0
9	AI	127/128 (99%)	1.17	30 (23%) 1 1	94, 164, 200, 201	0
9	CI	127/128 (99%)	2.34	63 (49%) 0 0	115, 177, 201, 201	0
10	AJ	99/105 (94%)	1.71	36 (36%) 0 0	105, 169, 201, 201	0
10	CJ	99/105 (94%)	3.20	59 (59%) 0 0	125, 181, 201, 201	0
11	AK	119/129 (92%)	0.42	10 (8%) 14 7	60, 113, 168, 197	0
11	CK	119/129 (92%)	0.65	11 (9%) 11 6	78, 139, 188, 200	0
12	AL	125/135 (92%)	0.22	2 (1%) 74 62	59, 90, 144, 201	0
12	CL	125/135 (92%)	1.26	34 (27%) 1 0	63, 139, 187, 201	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
13	AM	118/126 (93%)	0.83	20 (16%) 2 1	96, 152, 189, 201	0
13	CM	118/126 (93%)	1.28	28 (23%) 1 1	102, 165, 201, 201	0
14	AN	60/61 (98%)	0.99	10 (16%) 2 1	99, 153, 198, 201	0
14	CN	60/61 (98%)	1.49	15 (25%) 1 1	118, 171, 200, 201	0
15	AO	88/89 (98%)	0.13	1 (1%) 82 72	69, 102, 149, 171	0
15	CO	88/89 (98%)	0.44	5 (5%) 27 15	75, 123, 163, 176	0
16	AP	84/88 (95%)	0.07	1 (1%) 81 69	60, 92, 143, 195	0
16	CP	84/88 (95%)	2.04	40 (47%) 0 0	112, 172, 198, 201	0
17	AQ	100/105 (95%)	-0.05	1 (1%) 84 75	63, 97, 134, 156	0
17	CQ	100/105 (95%)	0.70	14 (14%) 4 2	102, 142, 181, 195	0
18	AR	70/88 (79%)	0.51	6 (8%) 13 7	78, 116, 165, 178	0
18	CR	70/88 (79%)	0.59	5 (7%) 19 10	79, 120, 180, 196	0
19	AS	85/93 (91%)	1.15	18 (21%) 1 1	101, 164, 198, 201	0
19	CS	85/93 (91%)	1.88	32 (37%) 0 0	118, 176, 199, 201	0
20	AT	99/106 (93%)	0.24	4 (4%) 42 27	60, 104, 163, 191	0
20	CT	99/106 (93%)	1.02	16 (16%) 3 2	113, 169, 198, 201	0
21	AU	25/27 (92%)	2.43	13 (52%) 0 0	91, 151, 184, 201	0
21	CU	25/27 (92%)	4.29	20 (80%) 0 0	84, 159, 199, 201	0
22	AV	77/77 (100%)	-0.08	1 (1%) 79 67	55, 106, 161, 194	0
22	AW	77/77 (100%)	2.95	56 (72%) 0 0	125, 201, 201, 201	0
22	CV	77/77 (100%)	0.14	2 (2%) 59 45	50, 131, 175, 182	0
22	CW	77/77 (100%)	3.14	57 (74%) 0 0	146, 201, 201, 201	0
23	AX	16/25 (64%)	2.50	10 (62%) 0 0	84, 199, 201, 201	0
24	AY	97/97 (100%)	1.33	28 (28%) 1 0	99, 149, 192, 201	1 (1%)
24	CY	16/97 (16%)	2.40	9 (56%) 0 0	130, 157, 201, 201	0
25	B0	84/85 (98%)	0.67	8 (9%) 10 6	51, 90, 164, 196	0
25	D0	84/85 (98%)	0.92	12 (14%) 4 2	70, 105, 166, 191	0
26	B1	94/98 (95%)	0.08	3 (3%) 51 36	44, 76, 145, 161	0
26	D1	94/98 (95%)	-0.02	0 100 100	41, 74, 139, 159	0
27	B2	71/72 (98%)	0.16	0 100 100	65, 103, 150, 169	0
27	D2	71/72 (98%)	-0.20	3 (4%) 40 26	42, 71, 129, 195	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2		OWAB(Å <sup>2</sup> )	Q<0.9
28	B3	60/60 (100%)	0.42	4 (6%)	21 12	42, 88, 148, 201	0
28	D3	60/60 (100%)	0.38	4 (6%)	21 12	50, 87, 142, 200	0
29	B4	56/71 (78%)	0.23	5 (8%)	12 6	96, 160, 187, 197	0
29	D4	56/71 (78%)	0.93	11 (19%)	1 1	122, 176, 201, 201	0
30	B5	59/60 (98%)	0.29	5 (8%)	13 7	37, 70, 174, 181	0
30	D5	59/60 (98%)	0.50	5 (8%)	13 7	27, 75, 177, 201	0
31	B6	45/54 (83%)	2.92	31 (68%)	0 0	97, 141, 184, 187	0
31	D6	45/54 (83%)	2.27	26 (57%)	0 0	103, 161, 195, 199	0
32	B7	49/49 (100%)	-0.15	0	100 100	38, 55, 112, 194	0
32	D7	49/49 (100%)	-0.13	0	100 100	21, 40, 108, 159	0
33	B8	64/65 (98%)	0.01	0	100 100	32, 72, 132, 200	0
33	D8	64/65 (98%)	0.27	2 (3%)	52 38	41, 83, 148, 201	0
34	B9	36/37 (97%)	2.01	18 (50%)	0 0	83, 123, 168, 201	0
34	D9	36/37 (97%)	1.98	15 (41%)	0 0	91, 128, 167, 197	0
35	BA	2807/2848 (98%)	0.09	108 (3%)	44 29	32, 74, 188, 201	0
35	DA	2807/2848 (98%)	0.14	92 (3%)	50 35	29, 77, 189, 201	0
36	BB	119/122 (97%)	0.06	2 (1%)	73 60	76, 130, 181, 201	0
36	DB	119/122 (97%)	0.30	4 (3%)	49 34	87, 151, 189, 200	0
37	BC	191/229 (83%)	4.26	156 (81%)	0 0	160, 198, 201, 201	0
37	DC	191/229 (83%)	4.12	149 (78%)	0 0	154, 197, 201, 201	0
38	BD	272/276 (98%)	-0.15	1 (0%)	93 90	38, 71, 107, 184	0
38	DD	272/276 (98%)	-0.04	2 (0%)	89 83	32, 68, 111, 185	0
39	BE	205/206 (99%)	0.01	4 (1%)	68 54	36, 83, 157, 201	0
39	DE	205/206 (99%)	0.18	7 (3%)	49 34	25, 91, 157, 201	0
40	BF	208/210 (99%)	-0.20	1 (0%)	91 87	30, 73, 156, 186	0
40	DF	208/210 (99%)	-0.10	5 (2%)	62 47	24, 78, 165, 196	0
41	BG	181/182 (99%)	0.57	17 (9%)	11 6	79, 142, 188, 201	0
41	DG	181/182 (99%)	0.69	20 (11%)	7 4	92, 155, 193, 201	0
42	BH	165/180 (91%)	1.49	54 (32%)	1 0	90, 157, 193, 201	0
42	DH	165/180 (91%)	0.30	11 (6%)	21 12	55, 112, 158, 182	0
43	BI	145/148 (97%)	2.54	55 (37%)	0 0	60, 161, 201, 201	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
43	DI	145/148 (97%)	0.93	23 (15%) 3 2	70, 130, 200, 201	0
44	BJ	0/131	-	-	-	-
44	DJ	0/131	-	-	-	-
45	BN	139/140 (99%)	-0.03	2 (1%) 78 65	52, 88, 145, 201	0
45	DN	139/140 (99%)	-0.14	0 100 100	44, 79, 140, 189	0
46	BO	122/122 (100%)	-0.34	0 100 100	42, 72, 101, 178	0
46	DO	122/122 (100%)	0.31	1 (0%) 87 80	59, 104, 154, 201	0
47	BP	146/150 (97%)	0.22	3 (2%) 67 52	26, 92, 150, 197	0
47	DP	146/150 (97%)	0.44	8 (5%) 29 16	35, 96, 170, 198	0
48	BQ	141/141 (100%)	0.04	2 (1%) 78 65	48, 89, 132, 201	0
48	DQ	141/141 (100%)	0.37	7 (4%) 32 19	53, 106, 159, 191	0
49	BR	117/118 (99%)	-0.15	0 100 100	39, 76, 125, 150	0
49	DR	117/118 (99%)	0.28	1 (0%) 85 78	53, 90, 147, 162	0
50	BS	99/112 (88%)	0.70	15 (15%) 3 2	75, 133, 182, 189	0
50	DS	99/112 (88%)	1.09	23 (23%) 1 1	95, 145, 196, 201	0
51	BT	138/146 (94%)	0.02	5 (3%) 46 31	51, 87, 182, 201	0
51	DT	138/146 (94%)	0.63	13 (9%) 11 6	68, 131, 194, 201	0
52	BU	117/118 (99%)	-0.09	1 (0%) 85 78	37, 73, 137, 201	0
52	DU	117/118 (99%)	-0.27	0 100 100	25, 62, 114, 174	0
53	BV	101/101 (100%)	0.16	6 (5%) 26 14	35, 103, 143, 201	0
53	DV	101/101 (100%)	-0.14	0 100 100	33, 80, 126, 180	0
54	BW	113/113 (100%)	-0.18	1 (0%) 85 78	43, 70, 133, 201	0
54	DW	113/113 (100%)	-0.25	0 100 100	37, 60, 118, 187	0
55	BX	93/96 (96%)	-0.07	1 (1%) 82 72	43, 89, 125, 140	0
55	DX	93/96 (96%)	-0.20	1 (1%) 82 72	43, 65, 114, 153	0
56	BY	101/110 (91%)	0.98	17 (16%) 2 1	63, 109, 182, 201	0
56	DY	101/110 (91%)	0.49	8 (7%) 15 9	54, 99, 176, 201	0
57	BZ	187/206 (90%)	0.33	11 (5%) 26 14	74, 121, 171, 201	0
57	DZ	187/206 (90%)	0.26	9 (4%) 34 21	76, 133, 187, 201	0
58	CX	8/25 (32%)	1.24	2 (25%) 1 1	106, 165, 200, 201	0
All	All	21297/22390 (95%)	0.51	2214 (10%) 8 5	21, 111, 198, 201	1 (0%)

All (2214) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
43	BI	111	PRO	29.5
3	CC	169	ALA	20.0
10	CJ	72	VAL	18.0
37	DC	176	GLY	17.6
10	CJ	35	SER	16.9
3	CC	149	ALA	16.1
41	BG	2	PRO	15.9
37	DC	173	ALA	15.6
30	D5	60	VAL	15.0
43	BI	120	ILE	15.0
43	BI	119	PRO	14.6
10	CJ	73	ASP	14.5
30	D5	59	GLU	14.2
35	BA	2115	G	14.0
9	CI	8	GLY	13.8
37	BC	133	PRO	13.7
35	DA	2112	G	13.5
37	BC	56	GLN	13.2
21	CU	17	THR	13.2
43	BI	117	GLU	13.1
43	BI	86	THR	12.4
21	CU	18	TYR	12.3
37	DC	37	PHE	11.6
37	DC	38	ASP	11.6
43	DI	108	THR	11.6
37	BC	57	ASN	11.6
39	DE	205	ALA	11.5
10	CJ	6	ILE	11.3
37	BC	107	TRP	11.2
43	DI	90	GLY	11.2
37	BC	140	PRO	11.1
37	DC	139	ASN	11.0
22	CW	34	C	10.7
42	BH	12	PRO	10.4
37	BC	173	ALA	10.1
35	DA	2115	G	10.1
1	CA	89	C	10.1
56	BY	51	VAL	10.1
9	CI	15	ALA	10.0
43	BI	128	LEU	9.9
12	CL	126	ALA	9.8
37	BC	69	GLY	9.7
19	CS	86	GLU	9.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
43	BI	84	GLY	9.6
43	BI	118	LYS	9.6
22	AW	35	A	9.6
19	CS	87	ALA	9.5
35	BA	2113	U	9.5
22	CW	35	A	9.5
1	AA	81	U	9.5
30	D5	58	LEU	9.4
22	CW	33	U	9.2
43	DI	63	ALA	9.2
37	BC	219	GLY	9.2
43	DI	88	ILE	9.2
37	BC	83	ILE	9.2
43	BI	71	ILE	9.1
37	DC	69	GLY	9.1
1	AA	83	U	9.1
37	DC	49	ILE	9.0
35	DA	2113	U	9.0
43	BI	109	ILE	9.0
37	DC	174	PRO	9.0
8	CH	129	VAL	9.0
37	DC	172	HIS	8.9
35	BA	2116	G	8.9
56	DY	51	VAL	8.9
9	CI	82	ALA	8.8
35	BA	2169	A	8.9
28	B3	1	MET	8.8
14	CN	5	ALA	8.7
3	CC	168	ALA	8.6
9	CI	62	TYR	8.6
19	CS	88	LYS	8.5
37	BC	187	ASP	8.5
39	DE	54	GLN	8.5
37	DC	222	VAL	8.5
37	DC	50	ASP	8.5
13	CM	84	ILE	8.4
19	CS	4	SER	8.4
10	CJ	61	GLU	8.4
37	BC	103	ILE	8.4
37	BC	68	LEU	8.2
1	CA	88	A	8.2
21	AU	26	LYS	8.2

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Mol	Chain	Res	Type	RSRZ
12	CL	42	PRO	8.2
37	BC	96	GLY	8.2
37	DC	85	GLU	8.1
37	DC	122	ALA	8.1
37	DC	40	THR	8.0
37	DC	175	VAL	8.0
35	BA	2131	G	8.0
43	BI	72	LEU	8.0
37	DC	86	ALA	8.0
9	CI	126	SER	8.0
37	BC	37	PHE	8.0
34	D9	37	GLY	7.9
1	AA	82	U	7.9
9	CI	30	GLY	7.9
10	CJ	38	ILE	7.9
4	CD	125	HIS	7.9
7	CG	156	TRP	7.8
25	B0	3	HIS	7.8
10	CJ	71	LEU	7.8
37	DC	132	GLY	7.7
37	DC	148	ASN	7.7
30	B5	60	VAL	7.7
37	DC	140	PRO	7.7
37	BC	193	ILE	7.7
37	BC	108	MET	7.6
10	CJ	74	ILE	7.6
37	DC	214	VAL	7.6
43	BI	91	SER	7.6
37	BC	97	GLU	7.6
37	BC	80	GLY	7.6
37	BC	221	SER	7.6
35	BA	2160	G	7.6
37	BC	58	VAL	7.5
37	BC	70	LYS	7.5
37	DC	121	GLY	7.4
37	BC	211	SER	7.4
22	AW	36	U	7.4
10	AJ	27	ALA	7.4
35	DA	2108	C	7.4
35	DA	2109	U	7.4
31	B6	16	CYS	7.4
10	CJ	25	GLU	7.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
56	BY	59	GLY	7.3
37	DC	63	SER	7.3
33	D8	65	GLU	7.3
35	DA	2111	C	7.3
37	DC	163	PHE	7.3
37	BC	43	VAL	7.3
14	AN	2	ALA	7.2
37	BC	212	VAL	7.2
4	CD	37	PRO	7.2
37	DC	52	ARG	7.2
37	BC	186	ALA	7.2
3	CC	153	VAL	7.1
1	CA	65	U	7.1
37	DC	215	THR	7.1
37	BC	136	LEU	7.1
37	BC	188	ASN	7.1
35	BA	2117	A	7.1
9	CI	43	ALA	7.0
2	CB	132	LYS	7.0
35	DA	2117	A	7.0
1	AA	1030(B)	C	7.0
31	D6	13	CYS	7.0
37	BC	156	ILE	7.0
21	CU	16	GLY	7.0
37	BC	148	ASN	7.0
35	BA	2170	A	6.9
37	DC	158	ALA	6.9
37	DC	216	THR	6.9
10	CJ	4	ILE	6.9
35	DA	2168	G	6.9
43	BI	138	ILE	6.9
10	CJ	8	LEU	6.9
37	DC	204	ALA	6.9
10	CJ	5	ARG	6.9
41	BG	86	MET	6.9
11	CK	129	SER	6.8
37	BC	178	ALA	6.8
16	CP	13	HIS	6.8
37	BC	24	GLU	6.8
37	BC	23	ASP	6.8
57	BZ	187	ALA	6.7
43	BI	112	LYS	6.7

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Mol	Chain	Res	Type	RSRZ
37	BC	106	GLY	6.7
24	CY	7	HIS	6.6
37	DC	90	GLY	6.6
31	B6	42	TRP	6.6
24	AY	4	ASP	6.6
21	AU	24	ARG	6.6
24	AY	65	ARG	6.6
37	DC	171	ILE	6.6
4	CD	38	TYR	6.6
21	CU	23	PRO	6.6
35	BA	2112	G	6.6
35	BA	2799	C	6.6
37	BC	218	MET	6.5
35	BA	2136	C	6.5
37	BC	99	ILE	6.5
16	CP	35	LYS	6.5
25	D0	2	ALA	6.5
50	BS	60	GLY	6.4
3	CC	101	LEU	6.4
35	DA	2175	C	6.4
37	DC	217	THR	6.4
37	BC	52	ARG	6.4
9	CI	3	GLN	6.4
20	CT	106	ALA	6.3
37	DC	51	PRO	6.3
2	CB	135	GLN	6.3
43	DI	105	HIS	6.3
14	CN	2	ALA	6.3
37	BC	185	LEU	6.3
37	DC	183	GLU	6.3
25	D0	3	HIS	6.3
37	BC	132	GLY	6.3
35	BA	2120	G	6.3
37	BC	86	ALA	6.2
42	BH	43	VAL	6.2
35	BA	2802	G	6.2
30	B5	2	ALA	6.2
37	DC	67	GLY	6.2
35	DA	2144	U	6.2
24	AY	23	ASP	6.2
37	DC	144	THR	6.2
24	AY	58	ALA	6.2

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Mol	Chain	Res	Type	RSRZ
37	BC	158	ALA	6.2
37	DC	21	THR	6.2
57	BZ	188	ALA	6.2
31	D6	17	LYS	6.2
37	BC	19	VAL	6.2
35	DA	2132	U	6.2
35	DA	2116	G	6.2
37	DC	48	GLY	6.2
2	CB	188	ALA	6.1
37	DC	164	ARG	6.1
11	AK	129	SER	6.1
3	CC	200	ALA	6.1
25	B0	4	LYS	6.1
50	DS	30	ARG	6.1
37	BC	20	TYR	6.1
4	CD	132	ARG	6.1
8	CH	130	GLY	6.1
56	DY	52	SER	6.1
43	BI	100	ALA	6.0
22	AW	52	G	6.0
35	BA	2894	G	6.0
37	DC	23	ASP	6.0
35	BA	2114	A	6.0
37	BC	100	ILE	6.0
50	DS	37	ALA	6.0
23	AX	25	A	6.0
3	CC	191	THR	6.0
2	CB	235	SER	6.0
37	DC	178	ALA	6.0
35	BA	2161	C	6.0
35	DA	2129	C	6.0
9	CI	106	ALA	6.0
35	BA	2108	C	6.0
25	D0	4	LYS	6.0
35	DA	2802	G	6.0
25	B0	2	ALA	6.0
37	BC	65	PRO	6.0
37	BC	102	LYS	6.0
43	BI	132	PRO	6.0
37	DC	157	LYS	5.9
37	DC	20	TYR	5.9
37	BC	84	LYS	5.9

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Mol	Chain	Res	Type	RSRZ
35	DA	2894	G	5.9
12	CL	65	ALA	5.9
5	CE	85	GLY	5.9
16	CP	42	ARG	5.9
35	BA	2147	G	5.9
35	BA	652	C	5.9
37	DC	39	GLU	5.9
37	DC	136	LEU	5.9
4	CD	108	LEU	5.9
35	DA	2167	U	5.9
3	CC	102	ASN	5.8
35	DA	2114	A	5.8
37	BC	223	ARG	5.8
37	DC	160	ARG	5.8
37	BC	174	PRO	5.8
37	BC	194	ARG	5.8
37	BC	18	LYS	5.8
43	BI	129	THR	5.8
4	CD	152	SER	5.8
10	AJ	74	ILE	5.8
22	CW	36	U	5.8
10	AJ	24	VAL	5.8
35	DA	2174	C	5.8
7	AG	156	TRP	5.7
9	CI	56	LEU	5.7
1	CA	3	G	5.7
9	CI	87	GLN	5.7
10	CJ	33	GLN	5.7
31	B6	26	ASN	5.7
35	DA	2169	A	5.7
7	CG	4	ARG	5.7
9	AI	126	SER	5.7
37	BC	222	VAL	5.7
37	BC	39	GLU	5.7
13	CM	95	GLY	5.7
2	CB	29	ALA	5.7
37	DC	45	ALA	5.7
3	AC	189	ALA	5.7
34	B9	10	ILE	5.7
31	B6	47	THR	5.7
19	CS	81	ARG	5.6
22	CW	26	G	5.6

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Mol	Chain	Res	Type	RSRZ
1	AA	89	C	5.6
19	CS	71	LEU	5.6
42	BH	61	HIS	5.6
1	AA	1026	G	5.6
13	CM	16	ASP	5.6
35	DA	2120	G	5.6
7	CG	82	GLY	5.6
37	BC	191	ALA	5.6
37	DC	22	ILE	5.6
22	AW	72	A	5.6
4	CD	181	MET	5.6
30	D5	2	ALA	5.6
1	CA	1033	G	5.5
23	AX	10	G	5.5
42	BH	68	THR	5.5
7	AG	81	GLY	5.5
35	BA	2146	C	5.5
16	CP	47	ASP	5.5
24	CY	6	GLY	5.5
37	DC	151	GLU	5.5
10	CJ	96	ILE	5.5
37	BC	175	VAL	5.5
37	DC	169	GLY	5.5
1	AA	88	A	5.5
37	DC	70	LYS	5.5
35	BA	2109	U	5.5
31	B6	41	PRO	5.5
37	BC	78	ALA	5.5
37	BC	210	ARG	5.5
35	BA	2173	A	5.4
37	BC	104	LEU	5.4
3	CC	193	TYR	5.4
37	BC	209	LEU	5.4
35	DA	2105	C	5.4
37	BC	157	LYS	5.4
35	BA	2795	G	5.4
21	CU	5	ASP	5.4
1	AA	1002	G	5.4
51	BT	136	GLN	5.4
3	CC	150	LYS	5.4
2	CB	68	ILE	5.4
29	B4	48	ARG	5.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
10	CJ	99	LYS	5.4
42	BH	18	GLU	5.3
10	AJ	75	ILE	5.3
19	AS	87	ALA	5.3
21	CU	24	ARG	5.3
35	BA	2801(A)	A	5.3
1	CA	994	A	5.3
21	CU	12	LYS	5.3
37	DC	68	LEU	5.3
43	BI	121	LYS	5.3
35	BA	2793	G	5.3
43	BI	66	GLU	5.3
47	BP	150	ALA	5.3
33	D8	64	TYR	5.3
14	CN	32	SER	5.3
3	CC	160	ALA	5.3
35	BA	896	A	5.3
35	DA	2136	C	5.3
37	BC	213	TYR	5.3
10	AJ	28	ARG	5.2
43	BI	68	LEU	5.2
37	BC	151	GLU	5.2
3	AC	155	GLY	5.2
22	AW	48	C	5.2
37	DC	131	LEU	5.2
10	CJ	21	GLN	5.2
37	BC	166	ASP	5.2
37	DC	35	ALA	5.2
37	DC	80	GLY	5.2
3	CC	192	THR	5.2
4	CD	144	ASP	5.2
56	BY	58	GLY	5.2
13	AM	15	VAL	5.2
56	BY	86	ARG	5.1
43	BI	87	LYS	5.1
43	BI	122	GLU	5.1
7	CG	8	GLU	5.1
19	AS	52	TYR	5.1
37	DC	159	GLY	5.1
23	AX	24	A	5.1
9	CI	7	THR	5.1
37	DC	91	ALA	5.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	AA	3	G	5.1
42	BH	32	GLU	5.1
21	AU	21	TYR	5.1
31	B6	40	CYS	5.1
50	DS	36	TYR	5.1
35	BA	2125	G	5.0
22	CW	47	U	5.0
37	DC	150	GLY	5.0
3	CC	159	GLY	5.0
35	BA	2133	G	5.0
31	D6	36	LEU	5.0
37	DC	221	SER	5.0
7	CG	81	GLY	5.0
43	DI	83	ALA	5.0
30	B5	59	GLU	5.0
19	CS	26	GLY	5.0
43	BI	127	VAL	5.0
1	CA	353	A	5.0
41	BG	21	ARG	5.0
21	AU	23	PRO	5.0
37	BC	85	GLU	5.0
22	AW	17	C	5.0
56	DY	59	GLY	5.0
2	AB	96	ARG	5.0
4	CD	45	GLN	5.0
37	BC	44	HIS	5.0
37	BC	146	GLY	5.0
19	AS	36	ARG	5.0
31	D6	24	GLU	5.0
37	BC	53	ARG	5.0
1	CA	1001(A)	G	5.0
34	B9	12	ASP	5.0
35	BA	2155	G	5.0
43	BI	61	ARG	5.0
5	CE	78	HIS	5.0
35	DA	2178	C	5.0
37	DC	77	ILE	5.0
43	DI	101	LEU	5.0
37	DC	168	THR	5.0
2	AB	7	VAL	4.9
1	CA	1042	G	4.9
9	CI	13	ALA	4.9

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Mol	Chain	Res	Type	RSRZ
37	DC	92	ASP	4.9
9	CI	55	ALA	4.9
37	BC	192	PHE	4.9
2	AB	132	LYS	4.9
37	DC	152	ILE	4.9
37	BC	198	ALA	4.9
42	BH	10	PRO	4.9
35	DA	2125	G	4.9
5	CE	10	MET	4.9
37	DC	161	ILE	4.9
37	BC	21	THR	4.9
51	DT	1	MET	4.9
10	AJ	34	VAL	4.9
21	CU	4	GLY	4.9
5	CE	122	GLU	4.9
37	DC	71	GLN	4.8
13	CM	98	VAL	4.8
37	DC	149	ILE	4.8
37	BC	119	VAL	4.8
10	AJ	38	ILE	4.8
37	DC	224	ILE	4.8
12	CL	125	ALA	4.8
35	BA	2145	C	4.8
2	CB	122	PHE	4.8
24	CY	10	HIS	4.8
35	DA	2801	A	4.8
10	CJ	55	LYS	4.8
22	AW	5	G	4.8
37	BC	220	PRO	4.8
22	CW	73	A	4.8
31	D6	39	TYR	4.8
7	CG	33	ASP	4.8
37	DC	18	LYS	4.8
35	BA	2140	C	4.8
5	CE	77	PRO	4.8
24	AY	9	TYR	4.8
34	D9	6	SER	4.7
37	DC	84	LYS	4.7
37	DC	177	LYS	4.7
12	AL	126	ALA	4.7
21	AU	25	LYS	4.7
22	AW	2	G	4.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
35	BA	2148	G	4.7
42	BH	81	GLU	4.7
35	BA	2132	U	4.7
35	BA	2174	C	4.7
31	D6	37	ARG	4.7
42	BH	25	LYS	4.7
37	DC	133	PRO	4.7
43	DI	89	TYR	4.7
48	DQ	141	GLN	4.7
37	BC	141	LYS	4.7
37	BC	153	ILE	4.7
35	DA	2801(A)	A	4.7
7	AG	8	GLU	4.7
12	CL	27	ALA	4.7
37	DC	81	GLU	4.7
34	B9	9	ARG	4.7
37	BC	73	ARG	4.7
31	B6	31	PRO	4.7
37	BC	105	ASP	4.7
10	AJ	33	GLN	4.6
10	CJ	39	PRO	4.6
16	CP	84	ALA	4.6
3	CC	152	ILE	4.6
12	CL	25	LYS	4.6
16	CP	34	GLU	4.6
1	AA	1030(A)	G	4.6
43	BI	83	ALA	4.6
1	AA	1028	C	4.6
51	DT	136	GLN	4.6
1	CA	90	U	4.6
1	CA	975	A	4.6
29	D4	25	TYR	4.6
1	CA	380	G	4.6
21	CU	14	TRP	4.6
24	AY	7	HIS	4.6
22	AW	4	G	4.6
22	AW	6	G	4.6
10	CJ	34	VAL	4.6
19	CS	41	VAL	4.6
37	DC	95	GLY	4.6
31	B6	30	THR	4.6
21	CU	7	ARG	4.6

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Mol	Chain	Res	Type	RSRZ
34	D9	9	ARG	4.6
43	BI	135	GLU	4.6
22	CW	50	U	4.6
34	D9	36	GLN	4.6
35	DA	2796	U	4.6
35	BA	2796	U	4.6
14	AN	10	ALA	4.6
4	CD	182	LYS	4.6
22	AW	37	A	4.6
31	B6	14	THR	4.6
42	BH	45	VAL	4.6
35	BA	2794	C	4.5
1	AA	1001	A	4.5
10	CJ	20	ALA	4.5
22	CW	74	C	4.5
35	BA	2803	C	4.5
22	CW	57	A	4.5
3	CC	170	GLN	4.5
35	BA	888	C	4.5
2	AB	35	GLU	4.5
47	DP	105	LEU	4.5
37	DC	100	ILE	4.5
50	DS	107	GLU	4.5
37	BC	71	GLN	4.5
29	D4	53	GLU	4.5
41	DG	85	GLY	4.5
35	BA	2159	G	4.5
51	DT	134	GLU	4.5
37	BC	190	ARG	4.5
43	DI	56	LYS	4.5
37	DC	78	ALA	4.5
22	CW	17	C	4.5
19	CS	25	LYS	4.5
56	BY	88	LYS	4.5
37	BC	204	ALA	4.5
10	CJ	17	ASP	4.5
29	D4	24	THR	4.5
37	DC	34	THR	4.5
42	BH	33	LEU	4.5
37	DC	125	SER	4.5
2	AB	40	HIS	4.5
20	CT	49	ALA	4.5

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Mol	Chain	Res	Type	RSRZ
31	D6	20	ASN	4.5
43	BI	74	ASN	4.5
3	CC	25	GLY	4.5
22	CW	13	C	4.4
28	D3	1	MET	4.5
1	CA	66	G	4.4
1	CA	200	G	4.4
37	BC	154	ARG	4.4
35	BA	2141	G	4.4
35	BA	2189	U	4.4
22	AW	23	C	4.4
9	CI	40	LEU	4.4
10	CJ	37	PRO	4.4
10	CJ	54	PHE	4.4
16	CP	36	ILE	4.4
37	DC	119	VAL	4.4
37	DC	56	GLN	4.4
37	BC	77	ILE	4.4
37	BC	93	TYR	4.4
22	CW	17(A)	U	4.4
10	CJ	23	ILE	4.4
37	BC	163	PHE	4.4
13	AM	19	LEU	4.4
43	BI	94	ALA	4.4
10	AJ	43	ARG	4.4
10	AJ	54	PHE	4.4
35	BA	2154	G	4.4
4	CD	157	LEU	4.4
1	CA	990	C	4.4
22	CW	23	C	4.4
35	BA	2801	A	4.4
37	BC	75	LEU	4.4
42	BH	102	ALA	4.4
35	DA	2151	G	4.3
29	D4	57	GLU	4.3
42	BH	17	VAL	4.3
19	CS	72	GLY	4.3
35	DA	2145	C	4.3
34	B9	37	GLY	4.3
21	CU	25	LYS	4.3
37	BC	109	ASP	4.3
42	BH	26	VAL	4.3

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Mol	Chain	Res	Type	RSRZ
11	CK	128	ALA	4.3
16	CP	31	LYS	4.3
43	BI	69	LYS	4.3
9	CI	10	ARG	4.3
42	BH	58	GLU	4.3
56	BY	45	VAL	4.3
35	BA	2121	G	4.3
31	B6	13	CYS	4.3
7	AG	61	VAL	4.3
1	AA	80	G	4.3
5	CE	43	LEU	4.3
22	AW	73	A	4.3
7	AG	80	VAL	4.3
37	DC	61	THR	4.3
6	AF	101	ALA	4.3
21	CU	26	LYS	4.3
1	AA	1214	C	4.3
20	CT	60	GLU	4.2
22	AW	17(A)	U	4.2
31	D6	16	CYS	4.2
37	BC	147	PHE	4.2
31	B6	44	ARG	4.2
35	DA	2160	G	4.2
43	BI	113	ARG	4.2
14	CN	49	HIS	4.2
50	DS	28	VAL	4.2
3	CC	199	LYS	4.2
1	CA	1158	C	4.2
37	DC	195	ALA	4.2
3	CC	3	ASN	4.2
22	AW	47	U	4.2
3	AC	13	GLY	4.2
35	BA	2110	G	4.2
37	DC	154	ARG	4.2
2	CB	26	PRO	4.2
37	BC	139	ASN	4.2
35	DA	2104	G	4.2
35	DA	2166	G	4.2
37	BC	38	ASP	4.2
37	BC	224	ILE	4.2
35	BA	2111	C	4.2
43	BI	88	ILE	4.2

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Mol	Chain	Res	Type	RSRZ
37	BC	92	ASP	4.2
37	BC	98	GLU	4.2
13	CM	31	LYS	4.2
1	AA	1036	G	4.2
1	CA	1036	G	4.2
22	CW	70	G	4.2
41	BG	26	GLN	4.2
37	DC	88	GLU	4.2
8	CH	25	ASP	4.2
37	DC	89	ALA	4.2
37	BC	22	ILE	4.2
20	CT	64	ASP	4.2
1	CA	91	C	4.2
13	CM	91	ARG	4.2
37	BC	41	VAL	4.1
1	AA	1286	A	4.1
35	BA	2119	A	4.1
52	BU	118	GLY	4.1
2	CB	131	PRO	4.1
22	AW	7	G	4.1
31	D6	42	TRP	4.1
56	BY	91	GLU	4.1
18	CR	54	ARG	4.1
43	BI	85	GLU	4.1
22	CW	71	C	4.1
13	CM	17	VAL	4.1
47	BP	149	GLU	4.1
9	CI	105	ASP	4.1
8	CH	49	GLU	4.1
10	AJ	7	LYS	4.1
37	DC	182	PRO	4.1
7	AG	5	ARG	4.1
7	CG	112	PRO	4.1
9	AI	90	PRO	4.1
10	CJ	69	ASN	4.1
1	CA	501	C	4.1
37	BC	101	GLN	4.1
1	CA	1049	U	4.1
10	CJ	98	ILE	4.1
35	DA	2795	G	4.1
35	BA	2142	C	4.1
50	DS	27	SER	4.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
3	CC	207	VAL	4.1
22	CW	55	U	4.1
37	BC	51	PRO	4.1
1	CA	1030(A)	G	4.1
20	CT	9	ASN	4.1
37	BC	87	GLU	4.1
5	CE	91	LEU	4.1
9	CI	42	ARG	4.1
35	DA	2137	C	4.1
43	DI	80	PRO	4.0
22	CW	19	G	4.0
17	CQ	70	ARG	4.0
22	AW	51	C	4.0
22	CW	76	A	4.0
37	DC	101	GLN	4.0
35	DA	2121	G	4.0
43	BI	134	PRO	4.0
4	CD	135	LEU	4.0
16	AP	84	ALA	4.0
21	AU	2	GLY	4.0
22	AW	34	C	4.0
35	DA	888	C	4.0
13	CM	94	ARG	4.0
37	DC	179	SER	4.0
39	DE	69	LYS	4.0
3	CC	151	VAL	4.0
4	CD	151	LYS	4.0
22	CW	62	C	4.0
43	DI	107	VAL	4.0
5	CE	118	ILE	4.0
43	BI	67	ARG	4.0
1	CA	103	C	4.0
4	CD	147	ALA	4.0
3	CC	206	GLU	4.0
24	AY	62	GLU	4.0
43	DI	11	ASN	4.0
14	CN	57	ARG	4.0
1	AA	1027	C	4.0
9	CI	45	ALA	4.0
43	DI	92	VAL	4.0
5	CE	136	MET	4.0
5	CE	86	ALA	4.0

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Mol	Chain	Res	Type	RSRZ
26	B1	83	GLU	4.0
35	BA	2175	C	4.0
10	CJ	97	GLU	4.0
4	CD	89	THR	4.0
16	CP	45	THR	4.0
21	CU	8	THR	4.0
35	BA	2144	U	4.0
1	CA	407	G	4.0
1	CA	1030(C)	G	4.0
22	CW	46	G	4.0
35	DA	2143	C	4.0
35	BA	2158	A	4.0
37	BC	120	MET	4.0
10	AJ	39	PRO	3.9
42	DH	145	ALA	3.9
1	CA	64	G	3.9
35	BA	2123	G	3.9
43	BI	95	LYS	3.9
35	BA	1174	A	3.9
9	AI	65	VAL	3.9
10	AJ	59	SER	3.9
11	AK	11	LYS	3.9
25	D0	6	GLY	3.9
41	BG	48	GLU	3.9
8	CH	52	ASP	3.9
41	DG	49	ASP	3.9
50	DS	54	LEU	3.9
31	B6	49	HIS	3.9
41	DG	86	MET	3.9
30	B5	58	LEU	3.9
43	BI	58	LEU	3.9
31	D6	35	GLU	3.9
37	DC	162	GLU	3.9
9	AI	13	ALA	3.9
37	BC	45	ALA	3.9
50	DS	35	ILE	3.9
9	CI	123	PRO	3.9
37	BC	124	GLY	3.9
3	AC	103	VAL	3.9
9	AI	14	VAL	3.9
24	AY	5	TYR	3.9
1	CA	1030(B)	C	3.9

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Mol	Chain	Res	Type	RSRZ
10	CJ	48	THR	3.9
57	DZ	187	ALA	3.9
8	CH	80	ILE	3.9
1	CA	412	A	3.9
10	CJ	7	LYS	3.9
9	CI	128	ARG	3.9
2	AB	121	LEU	3.9
10	AJ	85	LEU	3.9
16	CP	1	MET	3.9
37	BC	208	PHE	3.9
22	AW	56	C	3.9
35	BA	2138	C	3.9
42	BH	80	SER	3.9
31	B6	23	THR	3.8
37	DC	167	LYS	3.8
35	BA	2168	G	3.8
37	DC	156	ILE	3.8
37	DC	190	ARG	3.8
13	CM	96	LEU	3.8
35	BA	2134	A	3.8
37	BC	195	ALA	3.8
37	DC	53	ARG	3.8
35	DA	2110	G	3.8
37	DC	170	ALA	3.8
56	DY	86	ARG	3.8
37	BC	165	ASN	3.8
42	BH	27	LYS	3.8
31	D6	11	LEU	3.8
5	CE	19	MET	3.8
35	BA	2166	G	3.8
56	DY	53	PRO	3.8
4	CD	42	GLN	3.8
31	B6	38	LYS	3.8
4	CD	128	VAL	3.8
5	CE	90	VAL	3.8
1	CA	31	G	3.8
1	CA	152	A	3.8
31	B6	35	GLU	3.8
13	CM	10	PRO	3.8
1	CA	1030	C	3.8
10	AJ	76	ASN	3.8
5	CE	121	LYS	3.8

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Mol	Chain	Res	Type	RSRZ
7	CG	58	PRO	3.8
1	AA	1005	A	3.8
1	CA	1139	G	3.8
5	CE	21	ALA	3.8
16	CP	41	PRO	3.8
57	DZ	32	HIS	3.7
37	BC	159	GLY	3.7
41	DG	50	ALA	3.7
4	CD	46	LYS	3.7
4	CD	136	PRO	3.7
9	CI	38	GLN	3.7
22	AW	49	G	3.7
35	DA	2147	G	3.7
7	CG	113	GLU	3.7
43	BI	143	SER	3.7
22	AW	74	C	3.7
37	DC	155	GLU	3.7
3	CC	104	GLN	3.7
10	AJ	4	ILE	3.7
9	CI	67	GLY	3.7
16	CP	46	PRO	3.7
16	CP	66	PRO	3.7
37	BC	90	GLY	3.7
37	DC	201	PRO	3.7
9	CI	107	ARG	3.7
4	CD	27	TYR	3.7
7	CG	120	ILE	3.7
13	AM	25	ILE	3.7
22	AW	62	C	3.7
25	D0	74	ARG	3.7
7	CG	103	TRP	3.7
31	B6	17	LYS	3.7
1	CA	489	C	3.7
2	CB	123	ALA	3.7
35	DA	2177	C	3.7
31	B6	46	HIS	3.7
37	BC	155	GLU	3.7
51	DT	133	GLU	3.7
5	CE	109	ILE	3.7
35	BA	2310	A	3.7
4	CD	156	GLU	3.7
1	CA	1031	G	3.7

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Mol	Chain	Res	Type	RSRZ
9	AI	95	LYS	3.7
22	AW	30	G	3.7
3	CC	47	LEU	3.7
34	B9	30	PRO	3.7
50	DS	43	GLU	3.7
1	CA	1005	A	3.7
9	AI	36	TYR	3.7
16	CP	70	ALA	3.7
2	CB	96	ARG	3.7
1	CA	84	U	3.7
3	AC	67	THR	3.7
31	D6	44	ARG	3.7
56	BY	43	ASN	3.7
10	AJ	10	GLY	3.6
25	D0	5	LYS	3.6
10	AJ	5	ARG	3.6
8	AH	53	VAL	3.6
9	CI	39	GLY	3.6
10	CJ	85	LEU	3.6
13	CM	27	LYS	3.6
1	CA	1124	G	3.6
35	BA	2181	G	3.6
9	CI	14	VAL	3.6
42	DH	114	VAL	3.6
2	CB	126	GLU	3.6
19	CS	17	GLU	3.6
41	BG	90	LEU	3.6
1	CA	428	G	3.6
9	CI	119	ALA	3.6
23	AX	23	A	3.6
58	CX	12	A	3.6
24	AY	52	TYR	3.6
56	BY	60	PHE	3.6
1	CA	82	U	3.6
3	CC	205	GLY	3.6
7	CG	130	GLY	3.6
3	AC	151	VAL	3.6
37	BC	40	THR	3.6
9	AI	76	ALA	3.6
12	CL	53	ALA	3.6
17	CQ	68	ARG	3.6
21	AU	22	ARG	3.6

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Mol	Chain	Res	Type	RSRZ
22	CW	2	G	3.6
35	DA	2128	C	3.6
4	CD	43	HIS	3.6
9	CI	86	VAL	3.6
37	DC	123	VAL	3.6
1	CA	1129	C	3.6
10	CJ	19	SER	3.6
22	CW	54	U	3.6
13	CM	6	GLY	3.6
13	CM	26	GLY	3.6
1	CA	488	C	3.6
9	CI	124	GLN	3.6
13	CM	5	ALA	3.6
22	AW	22	G	3.6
35	BA	2104	G	3.6
34	B9	28	GLU	3.6
20	CT	70	SER	3.6
37	BC	91	ALA	3.6
51	DT	131	ALA	3.6
5	CE	76	ILE	3.6
5	CE	75	THR	3.6
35	BA	2791	C	3.6
10	CJ	44	VAL	3.6
37	DC	105	ASP	3.6
9	AI	127	LYS	3.6
37	BC	66	HIS	3.6
50	BS	34	HIS	3.6
3	AC	2	GLY	3.5
1	CA	1286	A	3.5
12	AL	25	LYS	3.5
9	CI	49	PRO	3.5
37	BC	110	PHE	3.5
22	CW	18	G	3.5
37	BC	81	GLU	3.5
4	CD	207	TYR	3.5
35	DA	2122	U	3.5
1	CA	1038	C	3.5
22	AW	16	C	3.5
35	BA	2178	C	3.5
43	BI	110	ASP	3.5
35	BA	2126	A	3.5
37	BC	189	ILE	3.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
7	CG	7	ALA	3.5
3	CC	201	TYR	3.5
35	DA	2173	A	3.5
10	AJ	89	ASP	3.5
22	AW	12	G	3.5
25	D0	76	GLY	3.5
35	DA	2130	U	3.5
4	CD	17	VAL	3.5
3	CC	127	ARG	3.5
35	DA	2138	C	3.5
11	CK	89	ALA	3.5
31	D6	38	LYS	3.5
37	DC	153	ILE	3.5
51	DT	135	ALA	3.5
37	BC	150	GLY	3.5
42	BH	101	ARG	3.5
37	DC	130	ILE	3.5
54	BW	113	LYS	3.5
23	AX	14	A	3.5
4	CD	137	SER	3.5
1	AA	1131	G	3.5
22	AW	29	G	3.5
4	CD	133	VAL	3.5
42	BH	44	VAL	3.5
42	BH	111	HIS	3.5
37	BC	197	GLU	3.5
11	CK	12	ARG	3.5
19	AS	35	SER	3.5
43	BI	50	ARG	3.5
37	BC	206	GLY	3.5
1	CA	1363	C	3.5
4	CD	179	GLU	3.5
31	D6	19	ARG	3.5
37	BC	64	LEU	3.5
22	AW	14	A	3.5
13	AM	63	THR	3.5
21	CU	22	ARG	3.5
24	AY	2	PHE	3.5
37	BC	59	ARG	3.5
9	CI	50	LEU	3.5
21	CU	21	TYR	3.5
2	CB	54	THR	3.4

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Mol	Chain	Res	Type	RSRZ
37	DC	184	LYS	3.4
16	CP	2	VAL	3.4
1	CA	973	G	3.4
4	CD	7	PRO	3.4
4	CD	123	HIS	3.4
24	CY	11	PRO	3.4
41	BG	49	ASP	3.4
14	AN	20	ALA	3.4
7	CG	124	LEU	3.4
25	D0	7	LEU	3.4
4	CD	70	ILE	3.4
53	BV	48	GLY	3.4
41	BG	23	PHE	3.4
20	AT	99	LEU	3.4
12	CL	68	PRO	3.4
24	AY	91	ASN	3.4
22	CW	56	C	3.4
20	CT	65	LYS	3.4
37	DC	76	ALA	3.4
14	AN	13	THR	3.4
35	DA	2176	A	3.4
37	BC	134	ARG	3.4
22	AW	53	G	3.4
35	BA	2157	G	3.4
50	DS	52	SER	3.4
5	CE	45	PHE	3.4
20	AT	98	PRO	3.4
42	DH	116	GLU	3.4
12	CL	26	GLY	3.4
16	CP	30	GLY	3.4
56	BY	87	LYS	3.4
35	BA	2135	A	3.4
22	AW	15	G	3.4
37	DC	42	GLU	3.4
22	AW	50	U	3.4
11	AK	13	GLN	3.4
35	BA	2105	C	3.4
31	B6	39	TYR	3.4
7	CG	5	ARG	3.4
29	B4	9	LEU	3.4
41	DG	136	ARG	3.4
1	CA	1043	C	3.4

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Mol	Chain	Res	Type	RSRZ
34	D9	5	ALA	3.4
7	CG	110	GLN	3.4
48	DQ	33	GLY	3.4
9	AI	125	TYR	3.4
10	AJ	67	THR	3.4
35	BA	2895	U	3.4
43	BI	93	THR	3.4
22	CW	15	G	3.4
25	B0	5	LYS	3.4
2	CB	234	PRO	3.4
24	AY	10	HIS	3.4
10	AJ	6	ILE	3.4
21	CU	13	ILE	3.4
37	DC	55	ASP	3.4
37	DC	143	GLY	3.4
12	CL	29	PHE	3.4
1	CA	406	G	3.3
1	CA	479	C	3.3
1	CA	172	A	3.3
1	CA	991	U	3.3
7	CG	31	MET	3.3
8	CH	131	GLY	3.3
7	CG	117	ALA	3.3
21	AU	9	ARG	3.3
56	BY	2	ARG	3.3
13	AM	60	VAL	3.3
10	CJ	47	PHE	3.3
37	DC	180	PHE	3.3
35	DA	2804	C	3.3
37	DC	134	ARG	3.3
22	CW	45	G	3.3
37	DC	62	VAL	3.3
1	CA	1502	A	3.3
29	D4	58	ARG	3.3
18	CR	88	LYS	3.3
37	BC	152	ILE	3.3
7	CG	66	VAL	3.3
37	DC	165	ASN	3.3
1	AA	1124	G	3.3
1	CA	81	U	3.3
9	CI	104	ARG	3.3
17	CQ	2	PRO	3.3

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Mol	Chain	Res	Type	RSRZ
28	B3	2	PRO	3.3
22	AW	63	G	3.3
36	DB	119	G	3.3
47	DP	150	ALA	3.3
37	BC	128	GLY	3.3
9	AI	9	ARG	3.3
19	CS	66	MET	3.3
31	D6	26	ASN	3.3
37	DC	223	ARG	3.3
5	CE	80	ILE	3.3
56	BY	44	ILE	3.3
16	CP	3	LYS	3.3
3	CC	185	GLY	3.3
31	B6	45	LYS	3.3
35	DA	2139	C	3.3
37	BC	145	VAL	3.3
8	CH	62	TYR	3.3
41	DG	2	PRO	3.3
4	CD	183	GLY	3.3
7	CG	63	LYS	3.3
42	BH	78	GLY	3.3
22	CW	67	C	3.3
37	DC	54	SER	3.3
3	CC	198	VAL	3.3
4	CD	8	VAL	3.3
13	CM	97	PRO	3.3
56	BY	47	LYS	3.3
29	B4	53	GLU	3.3
31	B6	24	GLU	3.3
1	CA	1185	G	3.2
7	CG	155	ARG	3.2
13	AM	6	GLY	3.2
37	DC	82	LYS	3.2
35	DA	2181	G	3.2
56	BY	3	VAL	3.2
19	AS	30	LEU	3.2
9	AI	128	ARG	3.2
51	DT	39	ARG	3.2
14	CN	36	PHE	3.2
17	CQ	71	PHE	3.2
25	D0	73	GLY	3.2
8	CH	46	LYS	3.2

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Mol	Chain	Res	Type	RSRZ
22	CW	37	A	3.2
1	CA	181	G	3.2
10	AJ	97	GLU	3.2
10	CJ	49	VAL	3.2
13	CM	18	ALA	3.2
42	BH	34	GLU	3.2
12	CL	16	ARG	3.2
1	CA	4	U	3.2
1	CA	1136	U	3.2
1	CA	1039	C	3.2
1	CA	1243	C	3.2
9	CI	46	ALA	3.2
22	CW	31	G	3.2
34	B9	4	ARG	3.2
35	BA	2151	G	3.2
41	BG	22	ARG	3.2
37	DC	87	GLU	3.2
41	DG	67	LYS	3.2
22	AW	32	C	3.2
22	CW	14	A	3.2
1	CA	1002	G	3.2
22	CW	22	G	3.2
10	CJ	60	ARG	3.2
4	CD	158	ILE	3.2
42	DH	113	VAL	3.2
31	D6	10	LEU	3.2
1	CA	366	C	3.2
22	CW	51	C	3.2
2	CB	130	ARG	3.2
34	D9	23	VAL	3.2
26	B1	85	LEU	3.2
37	BC	169	GLY	3.2
7	CG	153	HIS	3.2
27	D2	72	ALA	3.2
37	DC	93	TYR	3.2
49	DR	98	LEU	3.2
1	CA	1140	C	3.2
2	AB	154	LEU	3.2
40	DF	24	LEU	3.2
3	CC	165	THR	3.2
37	BC	61	THR	3.2
43	BI	108	THR	3.2

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Mol	Chain	Res	Type	RSRZ
8	CH	51	VAL	3.2
2	CB	179	LYS	3.2
20	AT	104	LEU	3.2
35	BA	2190	G	3.2
2	CB	59	GLU	3.1
35	BA	2107	C	3.1
35	DA	2896	C	3.1
35	DA	2135	A	3.1
41	DG	48	GLU	3.1
23	AX	20	U	3.1
9	CI	88	TYR	3.1
31	D6	21	TYR	3.1
35	DA	1176	G	3.1
19	CS	82	GLY	3.1
37	BC	94	VAL	3.1
37	DC	72	VAL	3.1
50	BS	39	ILE	3.1
35	BA	157	U	3.1
1	CA	46	G	3.1
19	AS	34	TRP	3.1
22	AW	46	G	3.1
10	AJ	26	ALA	3.1
22	CW	3	C	3.1
22	CW	12	G	3.1
31	D6	49	HIS	3.1
10	CJ	53	PRO	3.1
4	CD	93	PHE	3.1
37	BC	60	GLY	3.1
43	DI	106	GLY	3.1
37	DC	107	TRP	3.1
1	CA	1244	C	3.1
13	CM	110	ARG	3.1
35	DA	2308	G	3.1
5	CE	34	VAL	3.1
10	AJ	23	ILE	3.1
20	CT	72	LEU	3.1
13	AM	64	TRP	3.1
16	CP	12	LYS	3.1
37	DC	200	LYS	3.1
10	CJ	43	ARG	3.1
12	CL	124	GLU	3.1
12	CL	45	PRO	3.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
21	CU	15	ARG	3.1
42	BH	170	ARG	3.1
35	DA	1509	C	3.1
22	CW	49	G	3.1
35	DA	2133	G	3.1
29	B4	44	THR	3.1
45	BN	3	THR	3.1
24	CY	13	PRO	3.1
2	CB	228	GLY	3.1
43	DI	55	ALA	3.1
2	CB	148	TYR	3.1
3	CC	204	LEU	3.1
11	CK	123	LYS	3.1
41	DG	34	LEU	3.1
36	BB	1	U	3.1
41	BG	50	ALA	3.1
1	CA	1156	G	3.1
6	CF	46	ARG	3.1
14	CN	7	ILE	3.1
3	CC	71	ALA	3.1
42	BH	87	LEU	3.1
1	CA	1028	C	3.1
14	CN	3	ARG	3.1
10	CJ	67	THR	3.1
1	CA	1023	G	3.1
37	BC	62	VAL	3.1
9	AI	19	LEU	3.0
9	CI	9	ARG	3.0
42	BH	110	SER	3.0
13	AM	117	VAL	3.0
31	B6	11	LEU	3.0
10	CJ	62	HIS	3.0
35	BA	2150	U	3.0
37	BC	95	GLY	3.0
9	CI	120	ARG	3.0
18	AR	43	PHE	3.0
2	CB	224	GLN	3.0
2	CB	104	ASN	3.0
1	CA	80	G	3.0
1	CA	1367	C	3.0
35	DA	2146	C	3.0
43	BI	54	GLN	3.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
5	CE	24	ARG	3.0
1	CA	961	U	3.0
19	CS	44	MET	3.0
31	B6	29	ASN	3.0
5	CE	120	THR	3.0
57	DZ	27	VAL	3.0
57	DZ	163	LEU	3.0
56	BY	61	ILE	3.0
1	AA	1030(C)	G	3.0
35	BA	2792	G	3.0
4	CD	105	VAL	3.0
10	CJ	24	VAL	3.0
42	BH	50	VAL	3.0
1	CA	1183	A	3.0
37	BC	207	THR	3.0
34	B9	36	GLN	3.0
34	D9	4	ARG	3.0
1	CA	27	G	3.0
22	CW	48	C	3.0
37	DC	218	MET	3.0
3	CC	108	ASN	3.0
24	CY	4	ASP	3.0
24	CY	8	ASP	3.0
37	DC	43	VAL	3.0
5	CE	89	ILE	3.0
7	AG	115	ARG	3.0
22	CW	24	U	3.0
35	DA	1174	A	3.0
37	DC	108	MET	3.0
1	CA	218	C	3.0
35	BA	279	C	3.0
35	DA	2895	U	3.0
35	DA	2148	G	3.0
19	CS	40	ILE	3.0
16	CP	38	TYR	3.0
10	CJ	88	LEU	3.0
35	DA	2118	U	3.0
37	DC	142	ALA	3.0
37	DC	102	LYS	3.0
1	CA	1026	G	3.0
39	DE	76	ARG	3.0
35	BA	2130	U	3.0

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Mol	Chain	Res	Type	RSRZ
9	CI	92	TYR	2.9
17	CQ	63	ARG	2.9
4	CD	102	ASP	2.9
1	CA	500	G	2.9
1	CA	506	G	2.9
2	CB	95	GLN	2.9
3	AC	157	ILE	2.9
9	CI	115	GLY	2.9
36	DB	52	A	2.9
37	BC	89	ALA	2.9
50	BS	95	HIS	2.9
2	CB	154	LEU	2.9
10	CJ	80	LYS	2.9
42	BH	67	LEU	2.9
16	CP	19	ILE	2.9
51	DT	94	ALA	2.9
1	CA	1310	G	2.9
10	CJ	79	ARG	2.9
10	CJ	63	PHE	2.9
22	AW	21	A	2.9
24	AY	64	TYR	2.9
24	CY	5	TYR	2.9
4	CD	139	ARG	2.9
25	D0	85	ALA	2.9
34	D9	22	ARG	2.9
7	CG	16	LEU	2.9
42	BH	16	SER	2.9
7	CG	34	GLY	2.9
43	DI	98	ALA	2.9
4	CD	154	ASN	2.9
13	AM	7	VAL	2.9
22	AW	20	U	2.9
37	BC	135	GLY	2.9
1	AA	1138	G	2.9
16	CP	14	ASN	2.9
1	CA	433	C	2.9
35	BA	2177	C	2.9
8	CH	61	VAL	2.9
17	CQ	49	GLU	2.9
48	DQ	60	ARG	2.9
43	DI	16	GLY	2.9
10	CJ	28	ARG	2.9

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Mol	Chain	Res	Type	RSRZ
1	CA	962	C	2.9
22	AW	65	C	2.9
22	CW	65	C	2.9
29	D4	47	GLN	2.9
57	BZ	25	PRO	2.9
42	BH	114	VAL	2.9
37	BC	181	PRO	2.9
1	CA	972	C	2.9
9	AI	61	ALA	2.9
19	CS	24	ALA	2.9
37	DC	25	ALA	2.9
42	BH	72	ILE	2.9
22	AW	19	G	2.9
35	DA	884	C	2.9
9	AI	91	ASP	2.9
19	CS	5	LEU	2.9
43	BI	60	GLU	2.9
40	DF	25	PRO	2.9
1	CA	51	A	2.9
2	CB	105	PHE	2.9
2	CB	158	LEU	2.9
22	CW	58	A	2.9
3	CC	154	SER	2.9
35	BA	2143	C	2.9
35	BA	2896	C	2.9
35	BA	2149	G	2.9
1	AA	84	U	2.9
14	AN	55	GLY	2.9
19	CS	8	GLY	2.9
5	AE	19	MET	2.9
10	CJ	57	LYS	2.9
18	CR	52	PRO	2.9
4	CD	134	ASP	2.9
35	DA	2134	A	2.9
24	AY	63	GLY	2.9
14	CN	11	LYS	2.8
1	AA	1257	U	2.8
1	CA	1117	G	2.8
13	CM	30	ALA	2.8
19	CS	27	GLU	2.8
2	CB	14	GLY	2.8
34	D9	12	ASP	2.8

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Mol	Chain	Res	Type	RSRZ
10	AJ	98	ILE	2.8
23	AX	13	A	2.8
22	CW	27	U	2.8
3	CC	59	ARG	2.8
10	AJ	99	LYS	2.8
11	AK	127	LYS	2.8
16	CP	18	ARG	2.8
47	DP	95	VAL	2.8
55	BX	69	TYR	2.8
39	BE	88	GLY	2.8
2	CB	134	GLU	2.8
12	CL	122	PRO	2.8
19	AS	53	ASN	2.8
1	CA	1065	U	2.8
31	B6	48	VAL	2.8
1	CA	1032	G	2.8
57	DZ	104	PHE	2.8
14	CN	8	GLU	2.8
51	DT	115	ARG	2.8
29	D4	52	THR	2.8
37	DC	83	ILE	2.8
31	B6	52	VAL	2.8
1	CA	1034	G	2.8
35	BA	275	G	2.8
35	BA	2124	G	2.8
50	BS	35	ILE	2.8
1	CA	1001	A	2.8
1	CA	1322	C	2.8
9	AI	37	PHE	2.8
16	CP	40	ASP	2.8
42	BH	65	HIS	2.8
11	CK	42	TRP	2.8
30	D5	54	GLY	2.8
43	BI	137	PRO	2.8
8	CH	58	TYR	2.8
10	CJ	75	ILE	2.8
41	DG	115	ARG	2.8
57	DZ	31	ARG	2.8
1	CA	113	G	2.8
5	CE	135	THR	2.8
1	CA	989	C	2.8
1	CA	1096	C	2.8

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Mol	Chain	Res	Type	RSRZ
3	CC	103	VAL	2.8
37	BC	200	LYS	2.8
37	DC	106	GLY	2.8
37	DC	219	GLY	2.8
43	BI	140	LEU	2.8
57	BZ	155	LEU	2.8
8	CH	132	GLU	2.8
37	DC	24	GLU	2.8
1	CA	571	U	2.8
10	CJ	100	THR	2.8
18	CR	22	VAL	2.8
1	CA	1237	C	2.8
1	CA	1395	C	2.8
48	DQ	63	LYS	2.8
3	CC	77	ILE	2.8
37	DC	120	MET	2.8
11	AK	12	ARG	2.8
14	CN	26	ARG	2.8
9	CI	5	TYR	2.8
12	CL	95	TYR	2.8
24	AY	61	LEU	2.8
37	DC	196	LEU	2.8
23	AX	12	A	2.8
31	B6	32	ASN	2.8
37	BC	76	ALA	2.8
50	DS	51	ALA	2.8
18	AR	88	LYS	2.8
2	CB	121	LEU	2.8
4	CD	153	ARG	2.8
9	AI	122	ALA	2.8
11	CK	126	ARG	2.8
12	CL	99	ARG	2.8
37	BC	27	ARG	2.8
24	AY	22	GLY	2.7
37	DC	203	GLY	2.7
3	CC	17	ASP	2.7
14	AN	34	TYR	2.7
37	DC	202	GLU	2.7
1	CA	619	U	2.7
6	AF	6	VAL	2.7
25	B0	79	VAL	2.7
29	D4	48	ARG	2.7

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Mol	Chain	Res	Type	RSRZ
35	BA	1529	G	2.7
1	CA	1212	U	2.7
13	CM	2	ALA	2.7
9	CI	29	ASN	2.7
3	CC	87	LEU	2.7
37	BC	176	GLY	2.7
43	BI	79	ILE	2.7
37	DC	194	ARG	2.7
10	CJ	58	ASP	2.7
20	CT	71	THR	2.7
22	CW	52	G	2.7
2	CB	133	LYS	2.7
19	CS	43	GLU	2.7
20	CT	63	ILE	2.7
20	CT	104	LEU	2.7
47	DP	91	PHE	2.7
56	DY	58	GLY	2.7
41	DG	27	ASN	2.7
42	BH	60	ARG	2.7
1	CA	569	C	2.7
1	CA	1270	C	2.7
35	BA	2137	C	2.7
37	BC	205	LYS	2.7
37	DC	205	LYS	2.7
9	CI	22	GLY	2.7
1	CA	1446	U	2.7
2	AB	116	GLU	2.7
31	B6	12	GLU	2.7
50	DS	61	ASN	2.7
2	AB	139	LYS	2.7
22	CW	75	C	2.7
30	B5	54	GLY	2.7
42	BH	64	LEU	2.7
10	CJ	56	HIS	2.7
1	CA	98	G	2.7
16	CP	24	ALA	2.7
41	DG	73	ALA	2.7
2	AB	131	PRO	2.7
13	AM	34	LEU	2.7
20	CT	103	GLY	2.7
46	DO	114	ILE	2.7
22	AW	13	C	2.7

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Mol	Chain	Res	Type	RSRZ
7	CG	121	ALA	2.7
13	AM	30	ALA	2.7
34	B9	11	CYS	2.7
9	CI	48	GLU	2.7
28	B3	57	GLU	2.7
37	BC	196	LEU	2.7
40	DF	208	GLY	2.7
8	CH	24	THR	2.7
1	CA	413	G	2.7
50	BS	52	SER	2.7
18	AR	87	ARG	2.7
42	DH	115	VAL	2.7
1	CA	221	C	2.7
1	AA	1157	A	2.7
1	CA	968	A	2.7
5	CE	49	PRO	2.7
23	AX	22	A	2.7
4	CD	209	ARG	2.7
19	AS	79	THR	2.7
9	CI	26	VAL	2.7
19	CS	78	ARG	2.7
24	AY	57	GLN	2.7
2	AB	33	TYR	2.7
1	CA	333	G	2.7
35	DA	2131	G	2.7
37	BC	55	ASP	2.7
1	CA	872	A	2.7
8	CH	47	GLY	2.7
13	AM	26	GLY	2.7
19	CS	15	LEU	2.7
48	DQ	140	ALA	2.7
51	DT	132	LYS	2.7
37	DC	188	ASN	2.7
2	CB	160	ASP	2.7
7	CG	80	VAL	2.7
22	CW	20	U	2.7
37	BC	72	VAL	2.7
9	CI	127	LYS	2.6
14	AN	29	ARG	2.6
7	CG	138	LYS	2.6
37	BC	184	LYS	2.6
1	CA	63	C	2.6

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Mol	Chain	Res	Type	RSRZ
22	CW	6	G	2.6
34	B9	6	SER	2.6
1	CA	374	A	2.6
35	DA	2170	A	2.6
9	CI	66	ARG	2.6
37	BC	88	GLU	2.6
37	BC	183	GLU	2.6
4	CD	146	ILE	2.6
9	CI	63	ILE	2.6
35	DA	2803	C	2.6
37	DC	199	HIS	2.6
35	BA	2805	G	2.6
1	CA	26	A	2.6
16	CP	76	GLN	2.6
17	CQ	75	ARG	2.6
21	AU	18	TYR	2.6
57	DZ	96	VAL	2.6
5	CE	25	ARG	2.6
42	BH	123	PHE	2.6
9	AI	75	ASP	2.6
16	CP	64	ALA	2.6
17	CQ	8	GLY	2.6
42	BH	75	ALA	2.6
43	BI	131	LYS	2.6
43	BI	92	VAL	2.6
35	DA	2164	C	2.6
42	DH	103	LEU	2.6
4	CD	16	GLY	2.6
3	AC	56	ASP	2.6
5	CE	96	PRO	2.6
9	CI	25	LYS	2.6
11	CK	11	LYS	2.6
16	CP	33	ILE	2.6
39	DE	14	ILE	2.6
42	BH	9	ILE	2.6
1	CA	1274	G	2.6
10	CJ	66	ARG	2.6
22	CW	29	G	2.6
22	CW	72	A	2.6
43	BI	107	VAL	2.6
1	CA	135	C	2.6
7	CG	134	ALA	2.6

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Mol	Chain	Res	Type	RSRZ
35	BA	1546	C	2.6
56	BY	92	ASN	2.6
8	CH	4	ASP	2.6
8	CH	116	LYS	2.6
24	AY	93	LYS	2.6
1	AA	1001(A)	G	2.6
15	CO	20	GLY	2.6
16	CP	11	SER	2.6
20	CT	96	GLY	2.6
22	AW	76	A	2.6
37	BC	34	THR	2.6
37	BC	63	SER	2.6
37	BC	217	THR	2.6
37	DC	207	THR	2.6
27	D2	71	ASN	2.6
19	AS	5	LEU	2.6
28	D3	53	LEU	2.6
42	DH	123	PHE	2.6
9	AI	20	ARG	2.6
11	AK	128	ALA	2.6
1	CA	70	G	2.6
1	CA	1024	G	2.6
9	CI	98	PRO	2.6
14	CN	61	TRP	2.6
22	CW	7	G	2.6
42	BH	24	VAL	2.6
3	AC	188	LEU	2.6
1	CA	67	C	2.6
1	CA	403	C	2.6
7	AG	116	ALA	2.6
12	CL	41	THR	2.6
42	BH	129	THR	2.6
27	D2	44	LEU	2.6
1	CA	1048	G	2.6
9	AI	83	ARG	2.6
22	AW	26	G	2.6
1	CA	1533	C	2.6
4	CD	169	LYS	2.6
13	CM	103	THR	2.6
14	AN	33	VAL	2.6
2	AB	130	ARG	2.5
7	CG	32	ARG	2.5

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Mol	Chain	Res	Type	RSRZ
50	BS	109	GLY	2.5
29	B4	47	GLN	2.5
1	CA	933	G	2.5
12	CL	119	THR	2.5
10	AJ	71	LEU	2.5
16	CP	73	LEU	2.5
1	CA	572	A	2.5
11	CK	50	TYR	2.5
2	CB	10	LEU	2.5
16	CP	50	LYS	2.5
19	AS	55	LYS	2.5
34	B9	13	LYS	2.5
35	BA	2804	C	2.5
35	DA	2141	G	2.5
1	CA	636	U	2.5
16	CP	68	ASP	2.5
3	AC	201	TYR	2.5
34	D9	3	VAL	2.5
2	AB	118	LEU	2.5
9	CI	33	PHE	2.5
14	AN	11	LYS	2.5
34	D9	17	ILE	2.5
43	DI	52	ARG	2.5
1	CA	1224	G	2.5
1	CA	1347	G	2.5
42	BH	113	VAL	2.5
53	BV	20	LEU	2.5
3	AC	154	SER	2.5
3	CC	202	ILE	2.5
13	AM	102	ARG	2.5
22	AW	43	A	2.5
1	CA	1163	C	2.5
4	CD	120	LEU	2.5
19	CS	10	PHE	2.5
37	DC	64	LEU	2.5
41	DG	79	ASN	2.5
50	BS	56	LEU	2.5
3	CC	80	GLY	2.5
50	DS	96	GLY	2.5
9	AI	15	ALA	2.5
9	CI	65	VAL	2.5
10	CJ	95	GLU	2.5

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Mol	Chain	Res	Type	RSRZ
8	CH	2	LEU	2.5
8	CH	36	LEU	2.5
13	AM	101	GLN	2.5
1	CA	999	C	2.5
1	CA	1366	C	2.5
7	AG	78	ARG	2.5
31	D6	40	CYS	2.5
35	DA	886	C	2.5
35	DA	2142	C	2.5
9	CI	11	LYS	2.5
1	CA	69	G	2.5
19	AS	10	PHE	2.5
35	DA	2792	G	2.5
10	AJ	58	ASP	2.5
19	CS	13	ASP	2.5
37	DC	73	ARG	2.5
12	CL	11	GLY	2.5
37	DC	141	LYS	2.5
9	AI	123	PRO	2.5
51	DT	11	GLU	2.5
2	CB	233	SER	2.5
9	CI	20	ARG	2.5
13	CM	114	ARG	2.5
34	B9	34	GLN	2.5
35	DA	2152	G	2.5
1	CA	1348	U	2.5
47	DP	94	GLU	2.5
4	CD	122	ARG	2.5
9	CI	79	LEU	2.5
13	CM	66	LEU	2.5
41	DG	107	LEU	2.5
9	AI	7	THR	2.5
31	B6	21	TYR	2.5
35	BA	2103	C	2.5
41	BG	145	THR	2.5
10	AJ	73	ASP	2.5
24	AY	36	GLY	2.5
39	BE	1	MET	2.5
5	CE	128	PRO	2.5
19	AS	29	ARG	2.5
43	BI	65	ALA	2.5
21	AU	14	TRP	2.5

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Mol	Chain	Res	Type	RSRZ
1	CA	136	C	2.5
1	CA	1242	C	2.5
4	CD	208	SER	2.5
6	AF	8	ILE	2.5
22	CW	32	C	2.5
24	AY	3	LYS	2.5
41	DG	90	LEU	2.5
19	CS	42	PRO	2.4
1	CA	293	G	2.4
1	CA	354	G	2.4
35	BA	1176	G	2.4
1	AA	1035	A	2.4
1	CA	977	A	2.4
13	CM	93	ARG	2.4
34	B9	16	VAL	2.4
37	DC	79	LYS	2.4
19	CS	75	ALA	2.4
1	CA	170	U	2.4
16	CP	69	THR	2.4
19	CS	79	THR	2.4
55	DX	3	THR	2.4
1	CA	1392	G	2.4
1	AA	1123	A	2.4
37	BC	25	ALA	2.4
12	CL	114	ARG	2.4
34	B9	26	ILE	2.4
42	DH	167	GLU	2.4
8	CH	81	HIS	2.4
9	CI	53	VAL	2.4
18	AR	22	VAL	2.4
57	DZ	88	PHE	2.4
1	AA	993	G	2.4
1	AA	994	A	2.4
1	CA	97	G	2.4
35	BA	272(B)	G	2.4
35	BA	1045	A	2.4
35	DA	275	G	2.4
35	DA	2310	A	2.4
37	DC	146	GLY	2.4
2	CB	152	PHE	2.4
4	CD	104	VAL	2.4
11	CK	77	MET	2.4

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Mol	Chain	Res	Type	RSRZ
37	DC	66	HIS	2.4
29	D4	27	THR	2.4
10	CJ	70	ARG	2.4
51	BT	137	LYS	2.4
13	CM	4	ILE	2.4
1	CA	632	A	2.4
22	AW	3	C	2.4
22	CW	44	A	2.4
35	DA	1052	C	2.4
37	DC	44	HIS	2.4
34	D9	18	ARG	2.4
24	CY	12	ALA	2.4
56	DY	91	GLU	2.4
40	DF	2	LYS	2.4
1	AA	412	A	2.4
1	CA	1037	C	2.4
1	CA	1223	C	2.4
35	DA	2799	C	2.4
5	CE	5	ASP	2.4
16	CP	37	GLY	2.4
20	CT	69	GLY	2.4
1	CA	405	U	2.4
22	AW	54	U	2.4
31	D6	14	THR	2.4
8	CH	59	LEU	2.4
9	CI	47	LEU	2.4
31	D6	31	PRO	2.4
31	D6	48	VAL	2.4
50	DS	33	LYS	2.4
24	AY	73	GLY	2.4
1	AA	1029	C	2.4
1	AA	1030	C	2.4
1	CA	477	A	2.4
5	CE	28	PHE	2.4
7	CG	62	PHE	2.4
21	CU	3	LYS	2.4
41	DG	133	LEU	2.4
50	DS	29	PHE	2.4
50	DS	87	PHE	2.4
2	CB	101	MET	2.4
35	BA	2152	G	2.4
36	DB	18	G	2.4

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Mol	Chain	Res	Type	RSRZ
12	CL	69	GLY	2.4
7	CG	22	LEU	2.4
37	BC	74	VAL	2.4
43	DI	144	VAL	2.4
50	BS	73	LEU	2.4
1	CA	934	C	2.4
1	CA	1532	U	2.4
35	BA	229	A	2.4
35	DA	1046	A	2.4
42	BH	29	PRO	2.4
1	CA	1184	G	2.4
1	CA	1216	G	2.4
1	CA	1442(A)	G	2.4
24	AY	53	GLU	2.4
35	DA	2159	G	2.4
37	DC	124	GLY	2.4
43	BI	64	GLU	2.4
39	BE	76	ARG	2.4
48	DQ	8	LYS	2.4
50	DS	89	ARG	2.4
2	AB	163	PHE	2.4
12	CL	52	VAL	2.4
41	DG	66	GLN	2.4
5	CE	52	PRO	2.4
3	AC	105	GLU	2.4
5	CE	18	ARG	2.4
12	CL	110	ARG	2.4
21	AU	20	LYS	2.4
35	BA	2808	U	2.4
25	B0	73	GLY	2.4
35	DA	878	A	2.4
35	DA	887	A	2.4
25	B0	7	LEU	2.4
22	CW	5	G	2.3
7	AG	57	GLU	2.3
35	BA	2122	U	2.3
35	BA	2167	U	2.3
48	BQ	24	GLY	2.3
3	CC	195	VAL	2.3
12	CL	90	LEU	2.3
36	DB	88	C	2.3
41	BG	3	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
13	CM	111	LYS	2.3
10	CJ	59	SER	2.3
1	CA	1174	G	2.3
2	CB	38	GLY	2.3
2	CB	163	PHE	2.3
3	CC	129	ALA	2.3
3	CC	197	GLY	2.3
21	CU	2	GLY	2.3
2	AB	41	ILE	2.3
35	DA	2154	G	2.3
51	DT	130	ALA	2.3
4	CD	20	TYR	2.3
4	CD	107	ARG	2.3
5	CE	88	LYS	2.3
22	AW	67	C	2.3
9	AI	64	THR	2.3
10	AJ	40	LEU	2.3
50	DS	26	LEU	2.3
34	D9	8	LYS	2.3
1	CA	384	G	2.3
1	CA	1000	U	2.3
4	CD	47	ARG	2.3
17	CQ	101	ARG	2.3
22	CW	53	G	2.3
1	CA	43	C	2.3
2	AB	38	GLY	2.3
22	AW	25	C	2.3
10	CJ	22	LYS	2.3
11	AK	80	VAL	2.3
37	BC	160	ARG	2.3
57	BZ	39	VAL	2.3
3	AC	167	TRP	2.3
3	CC	107	GLN	2.3
37	DC	98	GLU	2.3
25	D0	8	GLY	2.3
1	CA	331	G	2.3
15	CO	15	PHE	2.3
22	CW	9	G	2.3
35	BA	2100	G	2.3
37	BC	131	LEU	2.3
37	DC	145	VAL	2.3
42	BH	76	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
1	CA	1110	A	2.3
42	DH	147	ASN	2.3
37	BC	123	VAL	2.3
37	BC	182	PRO	2.3
1	CA	102	G	2.3
1	CA	1323	G	2.3
7	CG	84	ASN	2.3
1	CA	315	A	2.3
1	CA	1492	A	2.3
37	BC	46	LYS	2.3
5	CE	139	LEU	2.3
42	BH	11	VAL	2.3
13	AM	46	LYS	2.3
16	CP	17	TYR	2.3
43	DI	70	GLU	2.3
1	CA	1113	C	2.3
2	AB	36	ARG	2.3
22	AW	68	C	2.3
35	DA	645	C	2.3
56	DY	2	ARG	2.3
3	AC	91	LEU	2.3
37	DC	104	LEU	2.3
7	CG	9	VAL	2.3
39	DE	204	ALA	2.3
14	AN	17	LYS	2.3
34	B9	15	LYS	2.3
11	AK	25	TYR	2.3
7	CG	59	LEU	2.3
14	CN	28	GLY	2.3
31	D6	9	LEU	2.3
50	BS	54	LEU	2.3
22	CW	66	C	2.3
16	CP	23	ASP	2.3
22	AW	45	G	2.3
7	AG	85	TYR	2.3
24	AY	96	LEU	2.3
29	D4	9	LEU	2.3
37	BC	167	LYS	2.3
37	DC	41	VAL	2.3
1	AA	1037	C	2.3
41	DG	68	PRO	2.3
37	DC	192	PHE	2.3

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Mol	Chain	Res	Type	RSRZ
1	CA	7	G	2.3
1	CA	1190	G	2.3
35	BA	2156	G	2.3
19	AS	45	VAL	2.3
2	CB	88	ALA	2.2
3	CC	166	GLU	2.2
22	CW	25	C	2.2
43	BI	16	GLY	2.2
2	AB	123	ALA	2.2
37	BC	125	SER	2.2
1	AA	1024	G	2.2
1	CA	6	G	2.2
22	AW	58	A	2.2
22	CV	53	G	2.2
58	CX	19	G	2.2
41	BG	182	LYS	2.2
4	CD	204	ILE	2.2
24	AY	92	ILE	2.2
1	CA	47	C	2.2
1	CA	1027	C	2.2
43	BI	57	ARG	2.2
10	AJ	20	ALA	2.2
43	BI	115	ALA	2.2
50	BS	37	ALA	2.2
9	CI	57	GLY	2.2
13	AM	85	GLY	2.2
41	BG	25	TYR	2.2
1	CA	1273	G	2.2
7	AG	4	ARG	2.2
21	CU	6	ARG	2.2
35	BA	1888	G	2.2
47	DP	125	VAL	2.2
3	AC	187	ALA	2.2
7	AG	7	ALA	2.2
16	CP	16	HIS	2.2
42	DH	104	GLU	2.2
1	CA	72	C	2.2
9	CI	64	THR	2.2
31	D6	23	THR	2.2
50	BS	53	SER	2.2
2	CB	57	PHE	2.2
9	CI	102	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
19	CS	46	GLY	2.2
1	CA	574	A	2.2
2	CB	91	PRO	2.2
1	CA	1312	G	2.2
11	CK	127	LYS	2.2
20	CT	48	LYS	2.2
37	BC	170	ALA	2.2
35	DA	2157	G	2.2
14	CN	37	PHE	2.2
28	D3	28	LEU	2.2
37	BC	48	GLY	2.2
50	DS	106	ARG	2.2
37	BC	79	LYS	2.2
51	BT	135	ALA	2.2
1	CA	965	A	2.2
1	CA	1123	A	2.2
4	AD	209	ARG	2.2
9	AI	120	ARG	2.2
13	AM	108	ARG	2.2
35	BA	1046	A	2.2
2	CB	221	LEU	2.2
16	CP	74	LEU	2.2
1	CA	216	G	2.2
1	CA	616	G	2.2
1	CA	12	U	2.2
8	CH	35	ILE	2.2
34	D9	30	PRO	2.2
4	CD	10	ARG	2.2
39	DE	68	ALA	2.2
5	CE	42	GLY	2.2
42	BH	28	GLY	2.2
42	BH	31	GLY	2.2
29	D4	28	LYS	2.2
41	BG	20	ILE	2.2
57	BZ	146	ILE	2.2
43	BI	1	MET	2.2
1	CA	104	G	2.2
2	CB	161	ALA	2.2
7	AG	46	ALA	2.2
10	CJ	46	ARG	2.2
25	D0	39	ARG	2.2
31	D6	50	ARG	2.2

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Mol	Chain	Res	Type	RSRZ
35	DA	2101	G	2.2
41	BG	85	GLY	2.2
57	BZ	6	LYS	2.2
7	CG	91	VAL	2.2
8	CH	48	TYR	2.2
1	CA	1396	A	2.2
16	CP	72	ARG	2.2
26	B1	81	ARG	2.2
31	B6	37	ARG	2.2
40	BF	1	MET	2.2
57	BZ	97	GLU	2.2
57	BZ	185	GLU	2.2
1	CA	45	U	2.2
1	CA	73	G	2.2
19	CS	34	TRP	2.2
22	AW	10	G	2.2
42	BH	99	VAL	2.2
3	CC	4	LYS	2.2
5	CE	54	ALA	2.2
17	CQ	69	LYS	2.2
37	BC	82	LYS	2.2
57	DZ	164	ALA	2.2
1	CA	1201	A	2.2
18	AR	85	LEU	2.2
38	DD	36	PRO	2.2
5	AE	117	ASP	2.2
22	AV	54	U	2.2
1	CA	28	G	2.2
1	CA	1222	G	2.2
5	CE	9	LYS	2.2
10	AJ	55	LYS	2.2
13	AM	18	ALA	2.2
19	AS	38	SER	2.2
20	CT	66	ALA	2.2
22	AW	18	G	2.2
22	CV	46	G	2.2
15	AO	89	GLY	2.2
53	BV	45	THR	2.2
4	CD	131	ARG	2.2
1	CA	547	A	2.1
9	AI	63	ILE	2.2
19	CS	18	LYS	2.1

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Mol	Chain	Res	Type	RSRZ
35	DA	1053	C	2.1
35	DA	2140	C	2.1
7	CG	88	PRO	2.1
1	AA	1033	G	2.1
1	CA	928	G	2.1
9	CI	17	VAL	2.1
12	CL	67	ILE	2.1
22	CW	4	G	2.1
31	B6	20	ASN	2.1
34	B9	7	VAL	2.1
37	DC	97	GLU	2.1
34	D9	33	LYS	2.1
42	BH	137	ASP	2.1
2	CB	17	PHE	2.1
35	DA	2158	A	2.1
5	CE	95	ALA	2.1
1	AA	1039	C	2.1
1	CA	1066	C	2.1
12	CL	80	VAL	2.1
17	CQ	17	LYS	2.1
50	BS	36	TYR	2.1
1	CA	421	U	2.1
10	AJ	70	ARG	2.1
10	CJ	11	PHE	2.1
24	AY	83	LEU	2.1
35	DA	892	G	2.1
1	AA	1275	A	2.1
5	CE	74	GLY	2.1
24	AY	59	GLY	2.1
10	AJ	22	LYS	2.1
12	CL	108	LYS	2.1
9	AI	21	PRO	2.1
12	CL	115	SER	2.1
28	B3	59	VAL	2.1
53	BV	22	VAL	2.1
42	BH	106	THR	2.1
3	CC	54	ARG	2.1
8	CH	60	ARG	2.1
13	CM	80	ARG	2.1
13	CM	108	ARG	2.1
47	BP	87	ASP	2.1
1	CA	404	U	2.1

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Mol	Chain	Res	Type	RSRZ
4	CD	201	GLN	2.1
45	BN	18	ALA	2.1
5	AE	74	GLY	2.1
47	DP	104	GLY	2.1
13	CM	15	VAL	2.1
50	DS	82	ILE	2.1
53	BV	46	VAL	2.1
1	AA	1030(D)	A	2.1
18	CR	31	LEU	2.1
1	CA	48	C	2.1
1	CA	71	C	2.1
1	CA	1162	C	2.1
43	DI	62	LYS	2.1
51	BT	1	MET	2.1
3	CC	96	GLY	2.1
9	AI	106	ALA	2.1
10	CJ	26	ALA	2.1
50	BS	68	GLN	2.1
56	BY	99	CYS	2.1
19	CS	45	VAL	2.1
19	AS	42	PRO	2.1
8	CH	113	SER	2.1
18	AR	29	PHE	2.1
19	AS	71	LEU	2.1
35	BA	1044	G	2.1
1	AA	972	C	2.1
1	CA	169	C	2.1
1	CA	984	C	2.1
3	AC	153	VAL	2.1
22	AW	1	C	2.1
23	AX	21	C	2.1
3	CC	16	ARG	2.1
7	CG	119	ARG	2.1
9	CI	96	LEU	2.1
17	AQ	100	LYS	2.1
40	DF	12	LEU	2.1
31	D6	22	ALA	2.1
19	AS	9	VAL	2.1
41	DG	168	GLU	2.1
42	BH	51	ARG	2.1
3	AC	196	LEU	2.1
15	CO	81	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
31	B6	34	LEU	2.1
51	DT	12	SER	2.1
4	CD	148	VAL	2.1
4	CD	161	ASN	2.1
4	CD	168	ARG	2.1
9	CI	16	ARG	2.1
10	AJ	29	ARG	2.1
12	CL	30	ARG	2.1
13	AM	17	VAL	2.1
15	CO	36	ILE	2.1
1	CA	1138	G	2.1
15	CO	31	LEU	2.1
1	CA	556	C	2.1
7	CG	71	PRO	2.1
9	CI	4	TYR	2.1
35	BA	2153	G	2.1
4	AD	10	ARG	2.1
21	AU	10	ARG	2.1
50	DS	66	ALA	2.1
9	CI	121	ARG	2.1
24	AY	95	TYR	2.1
25	B0	74	ARG	2.1
43	DI	82	ARG	2.1
2	CB	136	VAL	2.1
10	AJ	72	VAL	2.1
42	BH	107	VAL	2.1
35	DA	885	C	2.1
12	CL	46	ASN	2.1
34	B9	29	ASN	2.1
11	AK	77	MET	2.1
17	CQ	58	GLU	2.1
24	AY	60	GLU	2.1
41	BG	69	ALA	2.1
42	BH	8	PRO	2.1
42	BH	21	PRO	2.1
51	BT	133	GLU	2.1
22	AW	57	A	2.0
35	BA	1177	A	2.0
35	DA	2119	A	2.0
36	BB	52	A	2.0
14	CN	41	ARG	2.0
35	BA	2164	C	2.0

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Mol	Chain	Res	Type	RSRZ
35	BA	2188	C	2.0
35	DA	2188	C	2.0
38	DD	27	THR	2.0
48	DQ	138	ASP	2.0
57	BZ	112	ARG	2.0
1	CA	1003	G	2.0
22	AW	64	G	2.0
9	AI	30	GLY	2.0
10	CJ	18	ALA	2.0
12	CL	111	LYS	2.0
35	BA	2180	U	2.0
35	DA	6	A	2.0
35	DA	403	U	2.0
50	DS	41	ASP	2.0
1	CA	532	A	2.0
5	AE	75	THR	2.0
1	CA	979	C	2.0
19	CS	73	GLU	2.0
12	CL	107	VAL	2.0
17	CQ	32	TYR	2.0
21	AU	16	GLY	2.0
35	BA	280	C	2.0
35	BA	1052	C	2.0
1	AA	945	G	2.0
2	CB	42	ILE	2.0
12	CL	28	PRO	2.0
22	CW	63	G	2.0
43	DI	67	ARG	2.0
12	CL	81	LEU	2.0
19	AS	28	LYS	2.0
42	BH	85	LYS	2.0
16	CP	59	TRP	2.0
9	AI	5	TYR	2.0
50	DS	49	VAL	2.0
8	AH	35	ILE	2.0
11	AK	108	ILE	2.0
38	BD	36	PRO	2.0
39	BE	54	GLN	2.0
1	CA	1272	G	2.0
17	CQ	61	GLU	2.0
3	AC	98	ASN	2.0
3	AC	198	VAL	2.0

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Mol	Chain	Res	Type	RSRZ
1	CA	1148	U	2.0
1	CA	1159	U	2.0
3	CC	48	TYR	2.0
3	CC	184	TYR	2.0
22	AW	60	U	2.0
31	B6	50	ARG	2.0
48	BQ	140	ALA	2.0
2	CB	138	LEU	2.0
37	DC	75	LEU	2.0
42	DH	112	PRO	2.0
35	BA	2176	A	2.0
53	BV	38	LEU	2.0
1	CA	417	C	2.0
42	BH	40	GLU	2.0
16	CP	39	TYR	2.0
28	D3	54	VAL	2.0
42	BH	49	VAL	2.0
47	DP	124	LYS	2.0
50	BS	57	LYS	2.0
1	CA	587	G	2.0
1	CA	874	G	2.0
1	CA	1202	G	2.0
3	CC	189	ALA	2.0
13	AM	116	THR	2.0
20	AT	100	ILE	2.0
34	B9	17	ILE	2.0
41	DG	99	MET	2.0
22	AW	24	U	2.0
57	BZ	144	LEU	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95<sup>th</sup> percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
1	A3P	CA	1493	26/27	0.63	0.44	-	191,200,203,203	0
1	A3P	AA	1493	26/27	0.90	0.20	-	151,182,188,189	0

## 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, 95<sup>th</sup> percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
59	MG	BA	3204	1/1	0.92	0.89	127.77	71,71,71,71	0
59	MG	DA	3140	1/1	0.92	0.66	114.26	77,77,77,77	0
59	MG	DA	3349	1/1	0.44	1.17	83.04	141,141,141,141	0
59	MG	DA	3406	1/1	0.84	1.62	78.72	38,38,38,38	1
59	MG	BA	3055	1/1	0.97	0.74	78.42	92,92,92,92	0
59	MG	DA	3522	1/1	0.83	0.53	73.02	56,56,56,56	0
59	MG	DA	3169	1/1	0.85	1.38	71.66	67,67,67,67	0
59	MG	BA	3040	1/1	0.87	0.65	68.76	79,79,79,79	0
59	MG	BA	3428	1/1	0.89	1.06	67.66	72,72,72,72	0
59	MG	DA	2935	1/1	0.90	1.25	67.21	12,12,12,12	1
59	MG	BA	3053	1/1	0.94	1.01	66.93	62,62,62,62	0
59	MG	BA	3463	1/1	0.93	0.68	58.17	66,66,66,66	0
59	MG	DA	3019	1/1	0.96	0.67	54.28	92,92,92,92	0
59	MG	BA	3527	1/1	0.96	0.63	53.06	86,86,86,86	0
59	MG	BA	3039	1/1	0.64	0.76	49.92	81,81,81,81	0
59	MG	DA	3217	1/1	0.97	0.63	48.03	69,69,69,69	0
59	MG	DA	3271	1/1	0.22	0.69	45.48	96,96,96,96	0
59	MG	DA	3339	1/1	0.99	0.47	44.39	37,37,37,37	0
59	MG	BA	3221	1/1	0.95	0.59	43.54	42,42,42,42	0
59	MG	BA	3037	1/1	0.62	0.68	43.00	64,64,64,64	0
59	MG	DA	3589	1/1	0.96	0.71	42.54	47,47,47,47	0
59	MG	CA	1680	1/1	0.79	0.99	41.13	102,102,102,102	0
59	MG	DA	3401	1/1	0.86	0.80	40.89	65,65,65,65	0
59	MG	DA	2930	1/1	0.87	1.30	40.50	1,1,1,1	1
59	MG	BA	3010	1/1	0.91	0.65	40.46	95,95,95,95	0
59	MG	BA	2993	1/1	0.77	0.87	40.01	86,86,86,86	0
59	MG	AV	102	1/1	0.91	0.79	38.97	106,106,106,106	0
59	MG	DA	3257	1/1	0.95	0.70	38.89	29,29,29,29	0
59	MG	BA	3162	1/1	0.91	0.68	38.55	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	BA	3337	1/1	0.95	0.75	37.84	37,37,37,37	0
59	MG	DA	3335	1/1	0.85	0.50	37.56	48,48,48,48	0
59	MG	BA	3257	1/1	0.97	0.74	37.24	42,42,42,42	0
59	MG	DA	3381	1/1	0.95	0.67	36.27	43,43,43,43	0
59	MG	DA	3366	1/1	0.72	0.75	35.95	9,9,9,9	1
59	MG	DA	3345	1/1	0.04	1.22	34.29	25,25,25,25	1
59	MG	BA	3066	1/1	0.94	0.66	34.04	57,57,57,57	0
59	MG	D7	103	1/1	0.83	1.99	33.97	69,69,69,69	0
59	MG	BA	3273	1/1	0.97	0.56	33.51	31,31,31,31	0
59	MG	DA	3462	1/1	0.82	0.87	33.19	78,78,78,78	0
59	MG	BA	3019	1/1	0.68	0.95	32.70	66,66,66,66	0
59	MG	DA	3696	1/1	0.90	0.53	32.51	80,80,80,80	0
59	MG	BA	2985	1/1	0.92	0.74	32.02	84,84,84,84	0
59	MG	BA	2953	1/1	0.65	0.58	31.97	84,84,84,84	0
59	MG	AA	1938	1/1	0.66	1.01	31.92	124,124,124,124	0
59	MG	DA	3625	1/1	0.98	0.43	31.64	29,29,29,29	0
59	MG	DA	3635	1/1	0.98	0.44	31.12	31,31,31,31	0
59	MG	DA	3553	1/1	0.75	0.70	31.06	68,68,68,68	0
59	MG	BA	3488	1/1	0.81	0.53	30.60	66,66,66,66	1
59	MG	BA	3012	1/1	0.95	0.46	29.27	34,34,34,34	0
59	MG	BA	3271	1/1	0.99	0.47	28.82	29,29,29,29	0
59	MG	DA	3468	1/1	0.77	0.47	28.70	76,76,76,76	0
59	MG	DA	3364	1/1	0.93	0.34	28.50	59,59,59,59	0
59	MG	BA	3081	1/1	0.96	0.58	28.45	64,64,64,64	0
59	MG	DA	3122	1/1	0.99	0.69	28.25	38,38,38,38	0
59	MG	DA	3459	1/1	0.60	0.55	27.82	92,92,92,92	0
59	MG	BA	3249	1/1	0.82	0.92	27.76	79,79,79,79	0
59	MG	AA	1790	1/1	0.84	0.41	27.67	96,96,96,96	0
59	MG	DA	3060	1/1	0.80	0.59	26.48	77,77,77,77	0
59	MG	BA	3510	1/1	0.93	0.71	26.45	41,41,41,41	0
59	MG	BA	3413	1/1	0.92	0.70	26.38	73,73,73,73	0
59	MG	BA	3583	1/1	0.62	0.56	26.04	81,81,81,81	1
59	MG	DA	3305	1/1	0.93	0.56	26.04	52,52,52,52	0
59	MG	DA	3022	1/1	0.70	0.47	25.97	71,71,71,71	0
59	MG	BA	2975	1/1	0.92	0.58	25.78	57,57,57,57	0
59	MG	AA	1697	1/1	0.95	0.83	25.75	76,76,76,76	0
59	MG	DA	3397	1/1	0.90	0.56	25.27	72,72,72,72	0
59	MG	DA	2964	1/1	0.95	0.44	24.86	54,54,54,54	0
59	MG	DA	3771	1/1	0.96	0.68	24.81	71,71,71,71	0
59	MG	DA	3763	1/1	0.79	0.51	24.66	62,62,62,62	1
59	MG	BA	2974	1/1	0.97	0.54	24.42	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DA	3390	1/1	0.79	0.55	23.62	60,60,60,60	1
59	MG	AA	1905	1/1	0.67	0.68	23.35	71,71,71,71	1
59	MG	BA	3052	1/1	0.71	0.44	23.10	64,64,64,64	0
59	MG	BA	3456	1/1	0.93	0.58	22.97	33,33,33,33	0
59	MG	AA	1862	1/1	0.90	0.37	22.92	65,65,65,65	0
59	MG	DA	3641	1/1	0.97	0.70	22.66	68,68,68,68	0
59	MG	DA	3247	1/1	0.96	0.58	22.43	41,41,41,41	0
59	MG	BA	3214	1/1	0.93	0.56	22.27	85,85,85,85	0
59	MG	BA	3068	1/1	0.92	0.63	22.09	59,59,59,59	0
59	MG	BA	3031	1/1	0.95	0.44	22.08	58,58,58,58	0
59	MG	DA	2904	1/1	0.88	1.08	21.58	66,66,66,66	0
59	MG	BA	3460	1/1	0.77	0.55	21.51	40,40,40,40	0
59	MG	BA	3410	1/1	0.91	0.47	21.32	42,42,42,42	0
59	MG	DA	3277	1/1	0.94	0.40	21.15	42,42,42,42	0
59	MG	DA	3219	1/1	0.85	0.47	21.02	62,62,62,62	0
59	MG	DA	3489	1/1	0.52	0.55	20.97	59,59,59,59	1
59	MG	DA	3398	1/1	0.97	0.47	20.93	31,31,31,31	1
59	MG	BA	3490	1/1	0.98	0.60	20.63	19,19,19,19	0
59	MG	DA	3012	1/1	0.99	0.60	20.40	30,30,30,30	0
59	MG	DA	2942	1/1	0.79	0.79	20.30	27,27,27,27	1
59	MG	DA	3412	1/1	0.83	0.48	20.22	42,42,42,42	0
59	MG	BA	3035	1/1	0.95	0.68	20.05	42,42,42,42	0
59	MG	BA	3191	1/1	0.92	0.75	19.96	78,78,78,78	0
59	MG	DA	2908	1/1	0.71	1.43	19.92	97,97,97,97	0
59	MG	BA	3323	1/1	0.97	0.53	19.73	36,36,36,36	0
59	MG	DA	3341	1/1	0.76	0.57	19.61	62,62,62,62	0
59	MG	AA	1915	1/1	0.76	0.48	19.50	75,75,75,75	0
59	MG	BA	2925	1/1	0.96	0.45	19.45	33,33,33,33	0
59	MG	BA	3032	1/1	0.79	0.36	19.39	88,88,88,88	0
59	MG	DA	3343	1/1	0.82	0.43	19.31	69,69,69,69	0
59	MG	BA	3445	1/1	0.77	0.51	19.11	111,111,111,111	0
59	MG	DA	3187	1/1	0.99	0.56	19.01	44,44,44,44	0
59	MG	DA	2953	1/1	0.68	0.65	18.79	99,99,99,99	0
59	MG	DA	3356	1/1	0.98	0.55	18.78	32,32,32,32	0
59	MG	DA	3416	1/1	0.98	0.35	18.51	35,35,35,35	0
59	MG	BU	201	1/1	0.90	0.51	18.46	46,46,46,46	0
59	MG	BA	3465	1/1	0.88	0.55	17.86	37,37,37,37	0
59	MG	DA	3176	1/1	0.99	0.47	17.74	37,37,37,37	0
59	MG	BA	3582	1/1	0.81	0.46	17.73	63,63,63,63	0
59	MG	DA	3042	1/1	0.35	0.42	17.50	60,60,60,60	0
59	MG	BA	3450	1/1	0.94	0.61	17.48	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
59	MG	DA	3292	1/1	0.94	0.47	17.38	106,106,106,106	0
59	MG	AA	1872	1/1	0.72	0.67	17.37	77,77,77,77	0
59	MG	BA	2940	1/1	0.86	0.42	17.23	63,63,63,63	0
59	MG	BA	3509	1/1	0.83	0.52	17.06	58,58,58,58	0
59	MG	DA	3426	1/1	0.96	0.38	17.02	28,28,28,28	0
59	MG	DA	3759	1/1	0.91	0.58	16.65	49,49,49,49	0
59	MG	BA	3414	1/1	0.78	0.36	16.33	67,67,67,67	0
59	MG	BA	2979	1/1	0.80	0.41	16.15	66,66,66,66	0
59	MG	BA	3210	1/1	0.60	0.51	15.88	106,106,106,106	0
59	MG	BA	3330	1/1	0.90	0.39	15.83	88,88,88,88	0
59	MG	DA	3350	1/1	0.98	0.49	15.82	34,34,34,34	0
59	MG	BA	3521	1/1	0.88	0.33	15.67	119,119,119,119	0
59	MG	DA	3458	1/1	0.92	0.51	15.64	59,59,59,59	0
59	MG	BA	3329	1/1	0.88	0.46	15.32	1,1,1,1	1
59	MG	DA	3333	1/1	0.98	0.35	15.26	55,55,55,55	0
59	MG	DA	3281	1/1	0.94	0.45	15.12	31,31,31,31	0
59	MG	BA	3155	1/1	0.97	0.48	14.92	29,29,29,29	0
59	MG	BA	3395	1/1	0.63	0.64	14.83	84,84,84,84	0
59	MG	BA	2980	1/1	0.92	0.32	14.78	47,47,47,47	0
59	MG	BA	3265	1/1	0.70	0.32	14.59	66,66,66,66	0
59	MG	DA	3649	1/1	0.69	0.47	14.49	66,66,66,66	0
59	MG	DA	3017	1/1	0.47	0.42	14.39	70,70,70,70	0
59	MG	BA	3405	1/1	0.96	0.46	14.36	44,44,44,44	0
59	MG	AA	1691	1/1	0.89	0.59	14.16	90,90,90,90	0
59	MG	DA	3031	1/1	0.99	0.38	14.05	51,51,51,51	0
59	MG	DA	2959	1/1	0.80	0.38	13.92	61,61,61,61	0
59	MG	DA	3500	1/1	0.83	0.47	13.80	84,84,84,84	0
59	MG	DA	3454	1/1	0.96	0.48	13.76	35,35,35,35	0
59	MG	BA	3256	1/1	0.88	0.32	13.64	122,122,122,122	0
59	MG	BA	3327	1/1	0.68	0.55	13.57	59,59,59,59	0
59	MG	DA	3244	1/1	0.85	0.30	13.25	29,29,29,29	0
59	MG	AA	1737	1/1	0.93	0.54	13.12	69,69,69,69	0
59	MG	BA	3305	1/1	0.98	0.41	13.09	28,28,28,28	0
59	MG	DU	202	1/1	0.94	0.31	13.06	8,8,8,8	1
59	MG	BA	3168	1/1	0.96	0.32	12.93	24,24,24,24	0
59	MG	BA	3187	1/1	0.89	0.57	12.76	37,37,37,37	0
59	MG	BA	3402	1/1	0.96	0.46	12.66	37,37,37,37	0
59	MG	DA	2927	1/1	0.84	0.35	12.54	1,1,1,1	1
59	MG	BA	3094	1/1	0.95	0.41	12.38	32,32,32,32	0
59	MG	DA	3477	1/1	0.90	0.62	12.32	76,76,76,76	0
59	MG	CA	1700	1/1	0.36	0.43	11.75	104,104,104,104	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DA	3037	1/1	0.88	0.54	11.71	58,58,58,58	0
59	MG	BA	3448	1/1	0.97	0.40	11.67	40,40,40,40	0
59	MG	BA	3452	1/1	0.96	0.45	11.59	45,45,45,45	0
59	MG	BA	3003	1/1	0.82	0.33	11.53	75,75,75,75	0
59	MG	AA	1829	1/1	0.69	0.55	11.39	91,91,91,91	0
59	MG	DA	3068	1/1	0.74	0.34	11.29	51,51,51,51	0
59	MG	BA	3184	1/1	0.93	0.34	11.01	38,38,38,38	0
59	MG	DA	3028	1/1	0.83	0.40	10.93	79,79,79,79	0
59	MG	DA	3032	1/1	0.97	0.37	10.88	34,34,34,34	0
59	MG	BA	3064	1/1	0.86	0.41	10.80	45,45,45,45	0
59	MG	DA	3604	1/1	0.96	0.49	10.78	39,39,39,39	0
59	MG	BA	3167	1/1	0.97	0.28	10.58	36,36,36,36	0
59	MG	DA	3488	1/1	0.91	0.28	10.43	28,28,28,28	0
59	MG	DA	3705	1/1	0.97	0.55	10.40	58,58,58,58	0
59	MG	DA	3444	1/1	0.94	0.42	10.33	31,31,31,31	0
59	MG	DA	2946	1/1	0.94	0.35	10.30	96,96,96,96	0
59	MG	AA	1616	1/1	0.94	0.53	10.25	61,61,61,61	0
59	MG	BA	3462	1/1	0.95	0.46	10.22	28,28,28,28	0
59	MG	DA	2939	1/1	0.93	0.81	10.14	1,1,1,1	1
59	MG	DA	3224	1/1	0.84	0.39	10.14	85,85,85,85	0
59	MG	DA	3669	1/1	0.92	0.40	10.07	39,39,39,39	0
59	MG	BR	203	1/1	0.94	0.45	10.07	83,83,83,83	0
59	MG	DA	3677	1/1	0.94	0.31	9.99	45,45,45,45	0
59	MG	DA	3087	1/1	0.94	0.33	9.96	33,33,33,33	0
59	MG	DA	3282	1/1	0.96	0.38	9.93	31,31,31,31	0
59	MG	BA	3171	1/1	0.87	0.30	9.89	29,29,29,29	0
59	MG	DA	3452	1/1	0.98	0.45	9.89	30,30,30,30	0
59	MG	DA	2997	1/1	0.94	0.53	9.86	43,43,43,43	0
59	MG	DA	3611	1/1	0.95	0.46	9.84	31,31,31,31	0
59	MG	DA	3502	1/1	0.88	0.28	9.75	74,74,74,74	0
59	MG	BA	3074	1/1	0.84	0.48	9.74	36,36,36,36	0
59	MG	DA	3215	1/1	0.93	0.48	9.69	69,69,69,69	0
59	MG	BA	3496	1/1	0.94	0.32	9.58	44,44,44,44	0
59	MG	BE	304	1/1	0.73	0.44	9.49	46,46,46,46	1
59	MG	DA	3268	1/1	0.86	0.30	9.47	35,35,35,35	0
59	MG	DA	3535	1/1	0.95	0.52	9.47	52,52,52,52	0
59	MG	BA	3213	1/1	0.67	0.63	9.46	135,135,135,135	0
59	MG	DA	3473	1/1	0.98	0.53	9.36	38,38,38,38	0
59	MG	AA	1899	1/1	0.94	0.37	9.33	63,63,63,63	0
59	MG	DA	3050	1/1	0.93	0.54	9.26	40,40,40,40	0
59	MG	DA	3284	1/1	0.97	0.39	9.25	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DA	2990	1/1	0.71	0.45	9.17	43,43,43,43	1
59	MG	DA	3236	1/1	0.81	0.37	9.05	63,63,63,63	0
59	MG	DA	3600	1/1	0.97	0.30	8.96	30,30,30,30	0
59	MG	AA	1948	1/1	0.76	0.60	8.88	114,114,114,114	0
59	MG	BA	3043	1/1	0.77	0.38	8.83	80,80,80,80	0
59	MG	DA	3232	1/1	0.97	0.32	8.81	59,59,59,59	0
59	MG	AA	1968	1/1	0.76	0.51	8.63	95,95,95,95	0
59	MG	DA	3494	1/1	0.94	0.38	8.48	41,41,41,41	0
59	MG	BA	3248	1/1	0.63	0.35	8.35	101,101,101,101	0
59	MG	BA	3594	1/1	0.78	0.23	8.25	83,83,83,83	0
59	MG	BA	3169	1/1	0.99	0.36	8.24	24,24,24,24	0
59	MG	BA	3028	1/1	0.95	0.33	8.20	58,58,58,58	0
59	MG	DA	3344	1/1	0.84	0.27	8.13	75,75,75,75	0
59	MG	BA	3468	1/1	0.98	0.44	7.98	36,36,36,36	0
59	MG	BA	3558	1/1	0.89	0.40	7.92	78,78,78,78	0
59	MG	BA	3368	1/1	0.95	0.37	7.89	62,62,62,62	0
59	MG	DA	3084	1/1	0.97	0.39	7.88	57,57,57,57	0
59	MG	DA	3126	1/1	0.86	0.28	7.81	60,60,60,60	0
59	MG	BA	3517	1/1	0.94	0.25	7.78	98,98,98,98	0
59	MG	DA	2913	1/1	0.91	0.37	7.75	15,15,15,15	1
59	MG	BA	3351	1/1	0.97	0.29	7.75	26,26,26,26	0
59	MG	BA	3512	1/1	0.75	0.28	7.75	51,51,51,51	0
59	MG	DA	3795	1/1	0.95	0.44	7.72	25,25,25,25	0
59	MG	DA	3255	1/1	0.93	0.41	7.69	51,51,51,51	0
59	MG	AA	1812	1/1	0.97	1.00	7.62	70,70,70,70	0
59	MG	DA	3788	1/1	0.88	0.25	7.61	124,124,124,124	0
59	MG	DA	3365	1/1	0.89	0.48	7.56	92,92,92,92	0
59	MG	DA	3608	1/1	0.96	0.35	7.55	61,61,61,61	0
59	MG	DA	3638	1/1	0.96	0.33	7.50	21,21,21,21	0
59	MG	DA	3141	1/1	0.98	0.36	7.49	99,99,99,99	0
59	MG	BA	2927	1/1	0.78	0.33	7.38	83,83,83,83	1
59	MG	BA	3397	1/1	0.98	0.34	7.33	75,75,75,75	0
59	MG	BA	3177	1/1	0.97	0.36	7.23	45,45,45,45	0
59	MG	BA	3063	1/1	0.91	0.34	7.17	59,59,59,59	0
59	MG	DA	3402	1/1	0.95	0.29	7.14	16,16,16,16	0
59	MG	DA	3026	1/1	0.96	0.34	7.06	60,60,60,60	0
59	MG	BA	2989	1/1	0.85	0.26	7.03	82,82,82,82	0
59	MG	BA	3119	1/1	0.97	0.34	6.92	30,30,30,30	0
59	MG	DP	202	1/1	0.60	0.59	6.82	49,49,49,49	1
59	MG	BA	3243	1/1	0.97	0.46	6.72	25,25,25,25	0
59	MG	DA	3290	1/1	0.97	0.36	6.66	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	BA	3099	1/1	0.97	0.37	6.66	30,30,30,30	0
59	MG	BA	3246	1/1	0.87	0.24	6.65	68,68,68,68	0
59	MG	BA	3206	1/1	0.97	0.51	6.63	59,59,59,59	0
59	MG	BA	2920	1/1	0.92	0.28	6.58	42,42,42,42	0
59	MG	DA	3624	1/1	0.91	0.43	6.57	71,71,71,71	0
59	MG	DA	3178	1/1	0.97	0.35	6.42	29,29,29,29	0
59	MG	BA	3484	1/1	0.96	0.31	6.42	94,94,94,94	0
59	MG	DA	3579	1/1	0.91	0.34	6.31	110,110,110,110	0
59	MG	DA	3180	1/1	0.91	0.34	6.31	115,115,115,115	0
59	MG	D6	102	1/1	0.53	0.92	6.23	97,97,97,97	0
59	MG	DA	3276	1/1	0.93	0.30	6.21	58,58,58,58	0
59	MG	DA	3363	1/1	0.79	0.39	6.20	69,69,69,69	0
59	MG	BA	3312	1/1	0.82	0.28	6.19	53,53,53,53	0
59	MG	DA	2901	1/1	0.85	0.33	6.12	51,51,51,51	0
59	MG	DA	2967	1/1	0.84	0.33	6.09	35,35,35,35	1
59	MG	DA	3199	1/1	0.97	0.41	6.06	30,30,30,30	0
59	MG	DA	2919	1/1	0.75	0.23	6.04	57,57,57,57	0
59	MG	DA	2918	1/1	0.80	0.49	6.01	91,91,91,91	0
59	MG	BA	3197	1/1	0.96	0.31	5.99	54,54,54,54	0
59	MG	AA	1845	1/1	0.97	0.28	5.98	53,53,53,53	0
59	MG	BA	2947	1/1	0.96	0.31	5.93	45,45,45,45	0
59	MG	BA	3286	1/1	0.69	0.27	5.84	57,57,57,57	0
59	MG	DA	3003	1/1	0.95	0.30	5.82	36,36,36,36	0
59	MG	AA	1692	1/1	0.85	0.32	5.76	89,89,89,89	0
59	MG	BA	3514	1/1	0.68	0.39	5.74	76,76,76,76	0
59	MG	CA	1626	1/1	0.69	0.53	5.60	112,112,112,112	0
59	MG	DA	3717	1/1	0.13	0.31	5.59	155,155,155,155	0
59	MG	BA	3419	1/1	0.97	0.23	5.49	49,49,49,49	0
59	MG	BN	201	1/1	0.60	0.43	5.46	64,64,64,64	0
59	MG	DA	3631	1/1	0.88	0.41	5.44	41,41,41,41	0
59	MG	DA	3266	1/1	0.84	0.37	5.44	57,57,57,57	0
59	MG	BU	202	1/1	0.95	0.37	5.43	39,39,39,39	0
59	MG	DA	3298	1/1	0.58	0.34	5.40	65,65,65,65	0
59	MG	BA	3381	1/1	0.97	0.29	5.40	42,42,42,42	0
59	MG	DP	203	1/1	0.95	0.37	5.39	53,53,53,53	0
59	MG	BA	3446	1/1	0.90	0.30	5.39	99,99,99,99	0
59	MG	BA	3172	1/1	0.90	0.43	5.34	80,80,80,80	0
59	MG	BA	3161	1/1	0.97	0.27	5.31	39,39,39,39	0
59	MG	CA	1752	1/1	0.74	0.58	5.31	113,113,113,113	0
59	MG	BA	3574	1/1	0.89	0.30	5.28	53,53,53,53	0
59	MG	DA	3015	1/1	0.79	0.37	5.28	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
59	MG	DA	3264	1/1	0.99	0.30	5.20	47,47,47,47	1
59	MG	DA	3503	1/1	0.82	0.30	5.17	59,59,59,59	0
59	MG	BF	301	1/1	0.93	0.37	5.07	60,60,60,60	0
59	MG	BA	2954	1/1	0.87	0.28	5.03	59,59,59,59	0
59	MG	CA	1765	1/1	0.79	1.08	4.99	94,94,94,94	0
59	MG	BA	2997	1/1	0.94	0.37	4.97	82,82,82,82	0
59	MG	DA	3543	1/1	0.95	0.32	4.93	71,71,71,71	0
59	MG	AA	1726	1/1	0.82	0.32	4.93	70,70,70,70	1
59	MG	DA	3396	1/1	0.87	0.30	4.85	62,62,62,62	0
59	MG	AA	1858	1/1	0.96	0.28	4.79	60,60,60,60	0
59	MG	AA	1729	1/1	0.88	0.23	4.78	50,50,50,50	0
59	MG	DA	3301	1/1	0.86	0.20	4.77	32,32,32,32	0
59	MG	BA	3439	1/1	0.98	0.25	4.74	37,37,37,37	0
59	MG	DA	3662	1/1	0.94	0.28	4.70	59,59,59,59	0
59	MG	BA	2969	1/1	0.97	0.26	4.69	41,41,41,41	0
59	MG	AA	1893	1/1	0.97	0.27	4.69	56,56,56,56	0
59	MG	BA	3292	1/1	0.95	0.26	4.63	29,29,29,29	0
59	MG	DA	3262	1/1	0.96	0.29	4.63	59,59,59,59	1
59	MG	D7	102	1/1	0.90	0.30	4.62	75,75,75,75	0
59	MG	BA	3584	1/1	0.88	0.26	4.61	65,65,65,65	0
59	MG	DD	303	1/1	0.71	0.38	4.58	64,64,64,64	0
59	MG	DA	3300	1/1	0.92	0.32	4.51	67,67,67,67	0
59	MG	DP	205	1/1	0.84	0.42	4.49	63,63,63,63	0
59	MG	DA	3303	1/1	0.97	0.28	4.49	54,54,54,54	0
59	MG	BA	3211	1/1	0.55	0.20	4.48	67,67,67,67	0
59	MG	DU	203	1/1	0.98	0.47	4.47	36,36,36,36	0
59	MG	DA	3251	1/1	0.96	0.23	4.40	53,53,53,53	0
59	MG	CA	1611	1/1	0.74	0.42	4.40	86,86,86,86	0
59	MG	DA	3394	1/1	0.92	0.30	4.40	63,63,63,63	0
59	MG	CH	201	1/1	0.83	0.63	4.36	37,37,37,37	1
59	MG	BD	301	1/1	0.98	0.37	4.31	25,25,25,25	0
59	MG	BA	3352	1/1	0.83	0.24	4.23	72,72,72,72	0
59	MG	DA	3013	1/1	0.91	0.45	4.09	68,68,68,68	0
59	MG	AA	1760	1/1	0.92	0.37	4.08	45,45,45,45	0
59	MG	AA	1650	1/1	0.96	0.33	4.05	73,73,73,73	0
59	MG	DA	3346	1/1	0.69	0.35	3.88	59,59,59,59	0
59	MG	BA	2937	1/1	0.96	0.34	3.88	40,40,40,40	0
59	MG	BA	3261	1/1	0.98	0.28	3.75	41,41,41,41	0
59	MG	AA	1630	1/1	0.77	0.31	3.71	57,57,57,57	0
59	MG	DA	2924	1/1	0.93	0.30	3.62	65,65,65,65	0
59	MG	CA	1631	1/1	0.81	0.35	3.58	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DA	3782	1/1	0.89	0.27	3.58	51,51,51,51	0
59	MG	AA	1932	1/1	0.69	0.30	3.58	82,82,82,82	0
59	MG	DA	3722	1/1	0.94	0.56	3.57	86,86,86,86	0
59	MG	BA	3309	1/1	0.82	0.25	3.53	58,58,58,58	0
59	MG	AA	1669	1/1	0.94	0.28	3.50	50,50,50,50	0
59	MG	DA	3072	1/1	0.65	0.44	3.44	81,81,81,81	0
59	MG	DA	3536	1/1	0.92	0.26	3.44	37,37,37,37	1
59	MG	AA	1820	1/1	0.71	0.31	3.40	97,97,97,97	0
59	MG	AA	1848	1/1	0.89	0.29	3.35	117,117,117,117	0
59	MG	BA	3137	1/1	0.98	0.22	3.27	43,43,43,43	0
59	MG	DA	3342	1/1	0.97	0.29	3.26	58,58,58,58	0
59	MG	DA	3071	1/1	0.95	0.25	3.25	71,71,71,71	0
59	MG	BA	2992	1/1	0.75	0.29	3.24	50,50,50,50	1
59	MG	BA	3176	1/1	0.80	0.25	3.18	50,50,50,50	0
59	MG	BA	3603	1/1	0.87	0.25	3.10	74,74,74,74	0
59	MG	DA	3408	1/1	0.90	0.30	3.07	41,41,41,41	0
59	MG	DA	3157	1/1	0.93	0.23	3.06	52,52,52,52	0
59	MG	BA	3255	1/1	0.96	0.24	3.06	55,55,55,55	0
59	MG	BA	3438	1/1	0.99	0.23	3.01	29,29,29,29	0
59	MG	DA	3025	1/1	0.93	0.24	2.97	108,108,108,108	0
59	MG	DE	301	1/1	0.58	0.36	2.91	67,67,67,67	0
59	MG	BA	3412	1/1	0.84	0.36	2.84	95,95,95,95	0
59	MG	DA	3741	1/1	0.96	0.26	2.84	43,43,43,43	0
59	MG	DA	3679	1/1	0.82	0.29	2.77	51,51,51,51	0
59	MG	BA	3247	1/1	0.97	0.21	2.62	62,62,62,62	1
59	MG	DA	3278	1/1	0.95	0.25	2.61	57,57,57,57	0
59	MG	BD	302	1/1	0.86	0.32	2.58	52,52,52,52	0
59	MG	BA	3373	1/1	0.92	0.21	2.57	56,56,56,56	0
59	MG	CA	1668	1/1	0.87	0.31	2.53	94,94,94,94	0
59	MG	DA	3372	1/1	0.84	0.24	2.47	82,82,82,82	0
59	MG	DA	3211	1/1	0.86	0.23	2.43	65,65,65,65	0
59	MG	DA	3729	1/1	0.95	0.23	2.42	96,96,96,96	0
59	MG	DA	3086	1/1	0.81	0.26	2.40	60,60,60,60	0
59	MG	AA	1662	1/1	0.92	0.43	2.28	68,68,68,68	0
59	MG	BA	3525	1/1	0.97	0.26	2.27	44,44,44,44	0
59	MG	DA	3090	1/1	0.97	0.24	2.25	35,35,35,35	0
59	MG	AA	1888	1/1	0.98	0.22	2.24	58,58,58,58	0
59	MG	DA	3080	1/1	0.88	0.19	2.17	56,56,56,56	0
59	MG	BA	3559	1/1	0.96	0.22	2.14	45,45,45,45	0
59	MG	BA	3058	1/1	0.91	0.26	2.09	74,74,74,74	0
59	MG	AA	1694	1/1	0.88	0.24	2.05	56,56,56,56	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
59	MG	DA	3197	1/1	0.81	0.21	2.03	67,67,67,67	0
59	MG	DA	3137	1/1	0.68	0.27	2.02	70,70,70,70	0
59	MG	AA	1857	1/1	0.68	0.18	2.01	57,57,57,57	0
59	MG	AA	1887	1/1	0.93	0.24	1.96	72,72,72,72	0
59	MG	BA	3298	1/1	0.96	0.25	1.92	67,67,67,67	0
59	MG	AL	205	1/1	0.91	0.28	1.87	47,47,47,47	1
59	MG	DA	3010	1/1	0.99	0.23	1.84	49,49,49,49	0
59	MG	DA	3063	1/1	0.86	0.23	1.75	50,50,50,50	0
59	MG	DU	204	1/1	0.98	0.29	1.70	19,19,19,19	0
59	MG	BP	203	1/1	0.98	0.23	1.68	88,88,88,88	0
59	MG	DA	3280	1/1	0.90	0.21	1.65	58,58,58,58	0
59	MG	BA	3250	1/1	0.91	0.25	1.65	51,51,51,51	0
59	MG	CA	1720	1/1	0.42	0.31	1.64	106,106,106,106	0
59	MG	AA	1908	1/1	0.62	0.30	1.57	65,65,65,65	0
59	MG	BA	3151	1/1	0.90	0.20	1.42	65,65,65,65	0
59	MG	AA	1622	1/1	0.93	0.30	1.40	70,70,70,70	0
59	MG	BA	3259	1/1	0.82	0.23	1.39	59,59,59,59	0
59	MG	DA	3580	1/1	0.90	0.26	1.37	34,34,34,34	0
59	MG	AA	1864	1/1	0.89	0.20	1.30	67,67,67,67	0
59	MG	BA	3404	1/1	0.96	0.31	1.30	34,34,34,34	0
59	MG	BD	303	1/1	0.96	0.23	1.19	35,35,35,35	0
59	MG	BA	3225	1/1	0.73	0.20	1.18	62,62,62,62	0
59	MG	DA	3308	1/1	0.92	0.23	1.18	103,103,103,103	0
59	MG	CA	1601	1/1	0.70	0.27	1.14	96,96,96,96	0
59	MG	BA	3142	1/1	0.79	0.17	1.11	67,67,67,67	0
59	MG	BP	204	1/1	0.96	0.27	1.09	24,24,24,24	1
59	MG	B5	102	1/1	0.91	0.21	0.98	32,32,32,32	1
59	MG	DA	3425	1/1	0.97	0.21	0.98	56,56,56,56	0
59	MG	BA	3049	1/1	0.86	0.19	0.98	66,66,66,66	0
59	MG	DA	3735	1/1	0.85	0.16	0.91	90,90,90,90	0
59	MG	DA	3749	1/1	0.97	0.22	0.87	80,80,80,80	1
59	MG	BQ	201	1/1	0.89	0.27	0.86	72,72,72,72	0
59	MG	DA	3029	1/1	0.98	0.19	0.85	30,30,30,30	0
59	MG	AA	1762	1/1	0.68	0.19	0.81	74,74,74,74	0
59	MG	DA	3272	1/1	0.90	0.22	0.78	79,79,79,79	1
59	MG	DA	3191	1/1	0.80	0.21	0.74	83,83,83,83	0
59	MG	DA	3064	1/1	0.94	0.22	0.69	51,51,51,51	0
59	MG	BA	2926	1/1	0.97	0.22	0.68	20,20,20,20	0
59	MG	BA	3590	1/1	0.79	0.17	0.64	90,90,90,90	0
59	MG	BA	3436	1/1	0.89	0.16	0.59	62,62,62,62	0
59	MG	DA	3599	1/1	1.00	0.22	0.59	39,39,39,39	0
59	MG	BA	3067	1/1	0.90	0.21	0.51	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DA	3175	1/1	0.92	0.20	0.47	28,28,28,28	0
59	MG	BA	3201	1/1	0.86	0.23	0.45	50,50,50,50	0
59	MG	DA	3057	1/1	0.94	0.22	0.41	32,32,32,32	0
59	MG	DA	3207	1/1	0.93	0.19	0.39	84,84,84,84	0
59	MG	BA	3469	1/1	0.99	0.17	0.36	102,102,102,102	0
59	MG	DA	3385	1/1	0.88	0.23	0.35	43,43,43,43	0
59	MG	D0	102	1/1	0.74	0.40	0.31	75,75,75,75	0
59	MG	DA	3794	1/1	0.89	0.17	0.30	79,79,79,79	0
59	MG	AA	1960	1/1	0.90	0.18	0.30	72,72,72,72	0
59	MG	DE	303	1/1	0.91	0.23	0.30	42,42,42,42	0
59	MG	AA	1721	1/1	0.95	0.14	0.29	111,111,111,111	0
59	MG	AA	1859	1/1	0.93	0.20	0.26	44,44,44,44	0
59	MG	BA	3491	1/1	0.70	0.17	0.26	70,70,70,70	0
59	MG	BA	2908	1/1	0.74	0.16	0.26	84,84,84,84	0
59	MG	AA	1643	1/1	0.84	0.17	0.25	92,92,92,92	0
59	MG	DA	3577	1/1	0.78	0.16	0.25	92,92,92,92	0
59	MG	DA	3713	1/1	0.92	0.18	0.24	67,67,67,67	0
59	MG	BA	3235	1/1	0.98	0.20	0.19	40,40,40,40	0
59	MG	DA	3698	1/1	0.86	0.18	0.19	25,25,25,25	0
59	MG	BA	3183	1/1	0.89	0.17	0.18	54,54,54,54	0
59	MG	BA	3130	1/1	0.84	0.17	0.15	62,62,62,62	0
59	MG	DA	3715	1/1	0.97	0.20	0.13	64,64,64,64	0
59	MG	AA	1937	1/1	0.86	0.18	0.12	58,58,58,58	0
59	MG	DA	3314	1/1	0.85	0.15	0.10	71,71,71,71	0
59	MG	AA	1660	1/1	0.70	0.21	0.10	82,82,82,82	0
59	MG	AA	1910	1/1	0.79	0.17	0.03	120,120,120,120	0
59	MG	BA	3451	1/1	0.94	0.17	0.02	55,55,55,55	0
59	MG	CA	1686	1/1	0.74	0.28	0.01	74,74,74,74	0
59	MG	BA	3076	1/1	0.96	0.23	-0.02	30,30,30,30	0
59	MG	DA	3288	1/1	0.76	0.13	-0.03	60,60,60,60	0
59	MG	DA	3116	1/1	0.81	0.16	-0.05	78,78,78,78	0
59	MG	BA	3303	1/1	0.78	0.14	-0.11	88,88,88,88	0
59	MG	BY	201	1/1	0.88	0.23	-0.11	50,50,50,50	0
59	MG	BA	2984	1/1	0.68	0.33	-0.12	92,92,92,92	0
59	MG	AA	1695	1/1	0.88	0.19	-0.13	65,65,65,65	0
59	MG	DA	3523	1/1	0.98	0.18	-0.14	34,34,34,34	0
59	MG	DA	2934	1/1	0.93	0.19	-0.18	48,48,48,48	1
59	MG	BA	3266	1/1	0.85	0.17	-0.19	65,65,65,65	0
59	MG	BA	2931	1/1	0.95	0.19	-0.19	44,44,44,44	0
59	MG	DA	3703	1/1	0.88	0.19	-0.21	41,41,41,41	0
59	MG	DA	3082	1/1	0.97	0.17	-0.24	82,82,82,82	0
59	MG	BA	3535	1/1	0.95	0.18	-0.25	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DD	302	1/1	0.95	0.20	-0.29	53,53,53,53	0
59	MG	BA	3170	1/1	0.81	0.15	-0.33	56,56,56,56	0
59	MG	CA	1713	1/1	0.91	0.26	-0.34	65,65,65,65	1
59	MG	BH	204	1/1	0.41	0.21	-0.35	57,57,57,57	1
59	MG	CD	302	1/1	0.88	0.25	-0.38	68,68,68,68	0
59	MG	AA	1641	1/1	0.86	0.15	-0.38	68,68,68,68	1
59	MG	DA	2980	1/1	0.97	0.20	-0.41	69,69,69,69	0
59	MG	BA	3051	1/1	0.91	0.17	-0.45	68,68,68,68	0
59	MG	AA	1703	1/1	0.79	0.15	-0.46	44,44,44,44	1
59	MG	DA	3202	1/1	0.86	0.17	-0.46	70,70,70,70	0
59	MG	B6	101	1/1	0.56	0.42	-0.48	111,111,111,111	0
59	MG	CA	1728	1/1	0.96	0.18	-0.50	88,88,88,88	0
59	MG	AA	1926	1/1	0.92	0.16	-0.50	59,59,59,59	0
59	MG	AA	1911	1/1	0.95	0.14	-0.50	55,55,55,55	0
59	MG	AA	1652	1/1	0.75	0.18	-0.50	95,95,95,95	0
59	MG	DA	2958	1/1	0.68	0.20	-0.53	59,59,59,59	1
59	MG	BA	2988	1/1	0.93	0.14	-0.63	35,35,35,35	0
59	MG	AI	201	1/1	0.90	0.29	-0.65	163,163,163,163	0
59	MG	BA	3233	1/1	0.87	0.15	-0.69	73,73,73,73	0
59	MG	AA	1795	1/1	0.67	0.12	-0.70	96,96,96,96	0
60	ZN	AD	305	1/1	1.00	0.22	-0.74	88,88,88,88	0
59	MG	CA	1732	1/1	0.73	0.19	-0.79	70,70,70,70	0
60	ZN	AD	301	1/1	1.00	0.23	-0.84	106,106,106,106	0
59	MG	DA	3186	1/1	0.90	0.18	-0.87	42,42,42,42	0
59	MG	DA	3560	1/1	0.97	0.19	-0.90	58,58,58,58	0
59	MG	DA	3687	1/1	0.97	0.16	-0.90	43,43,43,43	0
59	MG	DA	3701	1/1	0.98	0.11	-0.91	55,55,55,55	0
59	MG	BA	3492	1/1	0.79	0.15	-0.91	31,31,31,31	1
59	MG	CM	202	1/1	0.96	0.20	-0.92	151,151,151,151	0
59	MG	AA	1882	1/1	0.95	0.20	-0.94	57,57,57,57	0
59	MG	DB	208	1/1	0.95	0.17	-0.97	86,86,86,86	0
59	MG	D5	103	1/1	0.96	0.11	-0.98	88,88,88,88	0
59	MG	AA	1878	1/1	0.91	0.16	-0.99	76,76,76,76	0
59	MG	BA	3018	1/1	0.91	0.15	-1.04	38,38,38,38	0
59	MG	DA	3533	1/1	0.96	0.19	-1.08	100,100,100,100	0
60	ZN	CD	301	1/1	0.86	0.24	-1.14	151,151,151,151	0
59	MG	BA	3287	1/1	0.85	0.14	-1.16	104,104,104,104	0
59	MG	CS	101	1/1	0.81	0.15	-1.18	97,97,97,97	1
60	ZN	AN	101	1/1	0.96	0.14	-1.22	153,153,153,153	0
59	MG	BP	202	1/1	0.99	0.14	-1.22	69,69,69,69	1
59	MG	AN	103	1/1	0.98	0.25	-1.23	147,147,147,147	0
59	MG	DA	3603	1/1	0.96	0.18	-1.23	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	BA	3269	1/1	0.94	0.15	-1.25	63,63,63,63	0
59	MG	DA	2971	1/1	0.98	0.19	-1.25	20,20,20,20	0
59	MG	AD	304	1/1	0.94	0.19	-1.26	135,135,135,135	0
59	MG	AA	1913	1/1	0.97	0.10	-1.27	72,72,72,72	0
59	MG	AC	302	1/1	0.89	0.12	-1.28	163,163,163,163	0
59	MG	CQ	201	1/1	0.90	0.08	-1.33	98,98,98,98	1
59	MG	CA	1706	1/1	0.91	0.09	-1.35	47,47,47,47	0
59	MG	DP	201	1/1	0.93	0.11	-1.41	36,36,36,36	1
59	MG	AA	1647	1/1	0.94	0.15	-1.42	35,35,35,35	0
59	MG	DA	3318	1/1	0.94	0.12	-1.43	59,59,59,59	0
59	MG	AI	203	1/1	0.83	0.27	-1.46	138,138,138,138	0
59	MG	AD	302	1/1	0.87	0.07	-1.47	96,96,96,96	0
59	MG	DA	3085	1/1	0.81	0.14	-1.51	68,68,68,68	0
59	MG	BE	302	1/1	0.96	0.14	-1.59	30,30,30,30	0
59	MG	AA	1778	1/1	0.97	0.12	-1.60	84,84,84,84	0
59	MG	CA	1745	1/1	0.69	0.28	-1.66	112,112,112,112	0
59	MG	CA	1768	1/1	0.85	0.15	-1.78	71,71,71,71	0
59	MG	BA	3334	1/1	0.96	0.17	-1.79	60,60,60,60	0
59	MG	BA	2961	1/1	0.86	0.13	-1.82	79,79,79,79	0
59	MG	BA	3252	1/1	0.99	0.15	-1.82	75,75,75,75	0
59	MG	BA	3134	1/1	0.74	0.10	-1.84	65,65,65,65	0
59	MG	AA	1612	1/1	0.96	0.09	-1.87	55,55,55,55	0
59	MG	DA	3755	1/1	0.88	0.15	-1.92	128,128,128,128	0
59	MG	DA	3306	1/1	0.76	0.11	-1.93	56,56,56,56	0
59	MG	BA	3038	1/1	0.96	0.18	-1.94	17,17,17,17	0
59	MG	DA	3319	1/1	0.93	0.13	-1.96	47,47,47,47	0
59	MG	CM	201	1/1	0.72	0.12	-1.99	131,131,131,131	0
59	MG	CM	203	1/1	0.97	0.12	-1.99	123,123,123,123	0
59	MG	DA	3733	1/1	0.81	0.13	-2.11	43,43,43,43	0
59	MG	DA	3069	1/1	0.97	0.18	-2.12	50,50,50,50	0
59	MG	D5	102	1/1	0.99	0.07	-2.17	63,63,63,63	0
59	MG	AP	101	1/1	0.99	0.16	-2.17	93,93,93,93	0
59	MG	CA	1731	1/1	0.67	0.21	-2.19	76,76,76,76	0
59	MG	BA	3114	1/1	0.95	0.10	-2.28	80,80,80,80	0
59	MG	BA	3441	1/1	0.99	0.15	-2.34	40,40,40,40	0
59	MG	DA	3274	1/1	0.83	0.08	-2.40	73,73,73,73	0
59	MG	CA	1734	1/1	0.98	0.14	-2.40	56,56,56,56	0
59	MG	AA	1930	1/1	0.90	0.17	-2.48	64,64,64,64	0
59	MG	BA	3449	1/1	0.95	0.14	-2.50	69,69,69,69	0
59	MG	DA	3652	1/1	0.90	0.13	-2.55	74,74,74,74	0
59	MG	DD	306	1/1	0.96	0.09	-2.59	60,60,60,60	0
59	MG	CA	1678	1/1	0.93	0.14	-2.59	45,45,45,45	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DA	3691	1/1	0.88	0.10	-2.66	59,59,59,59	0
59	MG	BA	3188	1/1	0.90	0.09	-2.71	58,58,58,58	0
59	MG	CA	1704	1/1	0.92	0.11	-2.79	71,71,71,71	0
59	MG	CA	1742	1/1	0.98	0.09	-2.92	81,81,81,81	0
59	MG	DA	3382	1/1	0.87	0.11	-2.93	101,101,101,101	0
59	MG	CA	1666	1/1	0.97	0.08	-2.99	63,63,63,63	0
59	MG	BD	305	1/1	0.93	0.14	-3.15	168,168,168,168	0
59	MG	BB	204	1/1	0.55	0.15	-3.16	109,109,109,109	0
59	MG	BA	3453	1/1	0.94	0.07	-3.18	120,120,120,120	0
59	MG	BA	3090	1/1	0.98	0.14	-3.19	27,27,27,27	0
59	MG	AN	102	1/1	0.66	0.12	-3.20	141,141,141,141	0
59	MG	AA	1925	1/1	0.94	0.13	-3.27	72,72,72,72	0
59	MG	BA	3538	1/1	0.96	0.09	-3.30	37,37,37,37	0
59	MG	DA	3557	1/1	0.95	0.14	-3.40	64,64,64,64	0
59	MG	DA	3283	1/1	0.95	0.12	-3.41	65,65,65,65	0
59	MG	DA	3490	1/1	0.95	0.13	-3.43	29,29,29,29	1
59	MG	AA	1920	1/1	0.88	0.14	-3.47	73,73,73,73	0
59	MG	CA	1645	1/1	0.97	0.12	-3.62	50,50,50,50	0
59	MG	BA	3200	1/1	0.84	0.12	-4.39	31,31,31,31	0
59	MG	DA	3258	1/1	0.95	0.18	-4.44	48,48,48,48	0
59	MG	DA	3045	1/1	0.98	0.16	-4.76	47,47,47,47	0
59	MG	DA	3033	1/1	0.97	0.14	-4.79	50,50,50,50	0
59	MG	DA	3405	1/1	0.96	0.11	-5.32	63,63,63,63	0
59	MG	CA	1781	1/1	0.94	0.16	-5.58	74,74,74,74	0
59	MG	BA	3022	1/1	0.95	0.08	-5.65	43,43,43,43	0
59	MG	AA	1693	1/1	0.91	0.10	-6.04	56,56,56,56	1
59	MG	BA	3593	1/1	0.96	0.09	-6.92	41,41,41,41	0
59	MG	DA	3681	1/1	0.95	0.10	-7.32	28,28,28,28	0
59	MG	BA	3106	1/1	0.96	0.11	-8.51	35,35,35,35	0
59	MG	BA	3489	1/1	0.94	0.10	-8.56	22,22,22,22	0
59	MG	AA	1973	1/1	0.94	0.22	-	69,69,69,69	0
59	MG	BA	3093	1/1	0.92	0.21	-	52,52,52,52	0
59	MG	AA	1842	1/1	0.83	0.12	-	58,58,58,58	0
59	MG	BA	2977	1/1	0.83	1.03	-	93,93,93,93	0
59	MG	CA	1604	1/1	0.94	0.20	-	63,63,63,63	0
59	MG	AA	1603	1/1	0.90	0.20	-	74,74,74,74	0
59	MG	DA	3131	1/1	0.14	0.50	-	154,154,154,154	0
59	MG	DA	3518	1/1	0.81	0.36	-	62,62,62,62	1
59	MG	BA	3196	1/1	0.76	0.48	-	64,64,64,64	0
59	MG	BE	301	1/1	0.81	0.46	-	88,88,88,88	0
59	MG	BA	3262	1/1	0.92	0.27	-	50,50,50,50	0
59	MG	DA	3136	1/1	0.80	0.47	-	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DA	2985	1/1	0.96	0.46	-	39,39,39,39	0
59	MG	DA	3230	1/1	0.82	0.31	-	94,94,94,94	0
59	MG	DD	304	1/1	0.60	0.40	-	97,97,97,97	0
59	MG	BA	3354	1/1	0.47	0.59	-	76,76,76,76	0
59	MG	CA	1675	1/1	0.92	0.59	-	93,93,93,93	0
59	MG	DA	3228	1/1	0.81	0.31	-	79,79,79,79	0
59	MG	DA	3295	1/1	0.87	0.78	-	99,99,99,99	0
59	MG	CV	110	1/1	0.24	0.46	-	105,105,105,105	0
59	MG	DA	2903	1/1	0.93	0.48	-	43,43,43,43	0
59	MG	DA	3449	1/1	0.52	0.46	-	71,71,71,71	0
59	MG	BA	3338	1/1	0.69	0.43	-	97,97,97,97	0
59	MG	AA	1752	1/1	0.81	0.38	-	51,51,51,51	1
59	MG	DA	3464	1/1	0.77	0.67	-	62,62,62,62	1
59	MG	DA	3471	1/1	0.92	0.56	-	63,63,63,63	0
59	MG	CA	1684	1/1	0.74	0.47	-	64,64,64,64	0
59	MG	BA	3218	1/1	0.73	0.34	-	111,111,111,111	0
59	MG	DA	3410	1/1	0.99	0.41	-	25,25,25,25	0
59	MG	DA	3226	1/1	0.95	0.70	-	54,54,54,54	0
59	MG	BA	3295	1/1	0.95	0.59	-	51,51,51,51	0
59	MG	BA	3586	1/1	0.95	0.91	-	86,86,86,86	0
59	MG	DA	3693	1/1	0.74	0.42	-	33,33,33,33	1
59	MG	DA	3443	1/1	0.69	0.41	-	133,133,133,133	0
59	MG	BB	203	1/1	0.72	0.36	-	59,59,59,59	0
59	MG	BA	3289	1/1	0.97	0.33	-	39,39,39,39	0
59	MG	BA	3411	1/1	0.94	0.50	-	76,76,76,76	0
59	MG	BA	3091	1/1	0.97	0.30	-	62,62,62,62	0
59	MG	BA	3555	1/1	0.85	0.69	-	60,60,60,60	0
59	MG	AQ	203	1/1	0.89	1.00	-	130,130,130,130	0
59	MG	DA	3145	1/1	0.58	1.01	-	120,120,120,120	0
59	MG	BA	3545	1/1	0.94	0.42	-	79,79,79,79	0
59	MG	DA	3144	1/1	0.82	0.50	-	131,131,131,131	0
59	MG	BA	2965	1/1	0.73	0.77	-	84,84,84,84	0
59	MG	DA	3702	1/1	0.80	0.43	-	80,80,80,80	0
59	MG	DA	3103	1/1	0.98	0.35	-	60,60,60,60	0
59	MG	BA	3430	1/1	0.78	0.36	-	68,68,68,68	0
59	MG	DA	3460	1/1	0.94	0.17	-	73,73,73,73	0
59	MG	CA	1775	1/1	0.82	0.12	-	70,70,70,70	1
59	MG	AA	1743	1/1	0.81	0.21	-	87,87,87,87	0
59	MG	BE	303	1/1	0.97	0.34	-	22,22,22,22	0
59	MG	DA	3467	1/1	0.80	0.36	-	109,109,109,109	0
59	MG	BA	3382	1/1	0.82	0.12	-	77,77,77,77	0
59	MG	DA	3354	1/1	0.78	0.27	-	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DA	3450	1/1	0.96	0.17	-	100,100,100,100	0
59	MG	BA	3435	1/1	0.89	0.61	-	70,70,70,70	0
59	MG	DA	2943	1/1	0.96	0.07	-	71,71,71,71	1
59	MG	DF	303	1/1	0.90	0.21	-	22,22,22,22	1
59	MG	BA	3131	1/1	0.99	0.35	-	43,43,43,43	0
59	MG	BA	2949	1/1	0.56	0.52	-	102,102,102,102	0
59	MG	AL	204	1/1	0.96	0.05	-	90,90,90,90	0
59	MG	BA	3075	1/1	0.85	0.44	-	87,87,87,87	0
59	MG	AA	1671	1/1	0.80	1.37	-	107,107,107,107	0
59	MG	AA	1757	1/1	0.49	1.54	-	111,111,111,111	0
59	MG	DA	3248	1/1	0.85	0.26	-	62,62,62,62	0
59	MG	DA	2933	1/1	0.93	0.25	-	51,51,51,51	0
59	MG	DA	3172	1/1	0.73	1.02	-	102,102,102,102	0
59	MG	DA	3243	1/1	0.97	0.81	-	64,64,64,64	0
59	MG	AA	1825	1/1	0.83	0.72	-	71,71,71,71	0
59	MG	AA	1814	1/1	0.74	1.04	-	77,77,77,77	0
59	MG	AA	1771	1/1	0.88	0.59	-	95,95,95,95	0
59	MG	DA	3155	1/1	0.70	0.88	-	78,78,78,78	0
59	MG	AO	102	1/1	0.76	1.05	-	77,77,77,77	0
59	MG	AA	1822	1/1	0.95	0.33	-	60,60,60,60	0
59	MG	DA	3478	1/1	0.93	1.02	-	112,112,112,112	0
59	MG	DA	3112	1/1	0.79	0.10	-	87,87,87,87	0
59	MG	AA	1847	1/1	0.90	0.37	-	76,76,76,76	0
59	MG	BA	3472	1/1	0.88	0.97	-	100,100,100,100	0
59	MG	AA	1811	1/1	0.92	0.25	-	49,49,49,49	0
59	MG	DA	3665	1/1	0.67	0.57	-	96,96,96,96	0
59	MG	AA	1724	1/1	0.95	0.16	-	86,86,86,86	1
59	MG	BA	3136	1/1	0.98	0.19	-	34,34,34,34	0
59	MG	BA	3503	1/1	0.85	0.37	-	65,65,65,65	1
59	MG	DA	3697	1/1	0.99	0.30	-	32,32,32,32	0
59	MG	BA	2982	1/1	0.92	0.13	-	58,58,58,58	1
59	MG	DN	203	1/1	0.73	0.83	-	64,64,64,64	1
59	MG	DA	3158	1/1	0.77	0.55	-	130,130,130,130	0
59	MG	DA	3761	1/1	0.46	0.59	-	96,96,96,96	0
59	MG	DA	3322	1/1	0.93	0.56	-	89,89,89,89	0
59	MG	CA	1726	1/1	0.57	1.02	-	107,107,107,107	0
59	MG	BA	3245	1/1	0.51	0.21	-	116,116,116,116	0
59	MG	DA	3789	1/1	0.77	0.40	-	68,68,68,68	0
59	MG	AA	1611	1/1	0.86	0.39	-	66,66,66,66	0
59	MG	BA	3166	1/1	0.98	0.47	-	89,89,89,89	0
59	MG	DA	3059	1/1	0.90	0.59	-	77,77,77,77	0
59	MG	BA	3340	1/1	0.63	0.94	-	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	BA	2957	1/1	0.91	0.46	-	81,81,81,81	0
59	MG	DA	3507	1/1	0.90	0.32	-	5,5,5,5	1
59	MG	DA	3463	1/1	0.89	0.56	-	83,83,83,83	0
59	MG	AA	1681	1/1	0.88	0.24	-	106,106,106,106	0
59	MG	DA	3592	1/1	0.94	0.49	-	58,58,58,58	0
59	MG	AA	1604	1/1	0.50	0.30	-	118,118,118,118	0
59	MG	DA	2960	1/1	0.88	0.91	-	57,57,57,57	1
59	MG	DA	3753	1/1	0.88	0.80	-	83,83,83,83	0
59	MG	DA	3245	1/1	0.89	0.31	-	78,78,78,78	0
59	MG	DA	3590	1/1	0.36	0.46	-	67,67,67,67	0
59	MG	AA	1917	1/1	0.87	0.31	-	78,78,78,78	0
59	MG	CA	1603	1/1	0.91	0.32	-	112,112,112,112	0
59	MG	CA	1763	1/1	-0.10	0.59	-	105,105,105,105	0
59	MG	DA	3475	1/1	0.66	0.39	-	115,115,115,115	0
59	MG	DA	3653	1/1	0.95	0.55	-	82,82,82,82	0
59	MG	AA	1824	1/1	0.95	0.15	-	83,83,83,83	0
59	MG	AA	1741	1/1	0.96	0.17	-	54,54,54,54	0
59	MG	DA	3511	1/1	0.67	1.33	-	83,83,83,83	0
59	MG	DA	3630	1/1	0.85	0.40	-	99,99,99,99	0
59	MG	AA	1950	1/1	0.62	0.36	-	81,81,81,81	0
59	MG	BA	3504	1/1	0.92	0.23	-	59,59,59,59	0
59	MG	AY	101	1/1	0.94	1.20	-	6,6,6,6	1
59	MG	CA	1693	1/1	0.82	0.70	-	73,73,73,73	0
59	MG	AA	1747	1/1	0.81	0.77	-	119,119,119,119	0
59	MG	CA	1703	1/1	0.81	1.03	-	82,82,82,82	0
59	MG	BA	3347	1/1	0.98	0.50	-	30,30,30,30	0
59	MG	DA	3152	1/1	0.95	0.42	-	108,108,108,108	0
59	MG	BA	3422	1/1	0.90	0.16	-	68,68,68,68	0
59	MG	AA	1955	1/1	0.84	0.30	-	64,64,64,64	1
59	MG	DA	3361	1/1	0.97	0.37	-	42,42,42,42	0
59	MG	B0	102	1/1	0.71	0.27	-	91,91,91,91	0
59	MG	CA	1683	1/1	0.71	0.36	-	60,60,60,60	0
59	MG	DA	3746	1/1	0.94	0.69	-	71,71,71,71	0
59	MG	DA	3567	1/1	0.84	1.22	-	98,98,98,98	0
59	MG	BA	3542	1/1	0.87	0.35	-	102,102,102,102	0
59	MG	CA	1746	1/1	0.77	0.53	-	85,85,85,85	0
59	MG	DA	3778	1/1	0.86	0.22	-	115,115,115,115	0
59	MG	BA	3158	1/1	0.90	0.22	-	33,33,33,33	0
59	MG	DA	3214	1/1	0.56	0.53	-	102,102,102,102	0
59	MG	DA	3171	1/1	0.95	0.27	-	71,71,71,71	0
59	MG	CA	1662	1/1	0.76	0.12	-	79,79,79,79	0
59	MG	DA	3009	1/1	0.68	1.71	-	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DA	3070	1/1	0.84	0.12	-	59,59,59,59	0
59	MG	DA	3660	1/1	0.94	0.66	-	78,78,78,78	0
59	MG	BA	3346	1/1	0.79	0.52	-	71,71,71,71	0
59	MG	DA	3683	1/1	0.94	0.69	-	46,46,46,46	0
59	MG	AA	1863	1/1	0.91	0.30	-	80,80,80,80	0
59	MG	BA	2946	1/1	0.94	0.42	-	49,49,49,49	0
59	MG	AA	1754	1/1	0.78	0.13	-	124,124,124,124	0
59	MG	DA	3263	1/1	0.84	0.33	-	125,125,125,125	0
59	MG	DA	3008	1/1	0.95	0.28	-	70,70,70,70	0
59	MG	BA	3386	1/1	0.92	0.34	-	72,72,72,72	0
59	MG	CA	1762	1/1	0.69	0.20	-	95,95,95,95	0
59	MG	DA	3770	1/1	0.69	0.31	-	85,85,85,85	1
59	MG	DA	3546	1/1	0.73	0.85	-	11,11,11,11	1
59	MG	AT	201	1/1	0.92	0.23	-	76,76,76,76	1
59	MG	BA	3495	1/1	0.90	0.20	-	69,69,69,69	0
59	MG	AA	1625	1/1	0.77	0.48	-	73,73,73,73	1
59	MG	AA	1655	1/1	0.98	0.05	-	101,101,101,101	0
59	MG	BA	2960	1/1	0.98	0.58	-	84,84,84,84	0
59	MG	DA	3650	1/1	0.84	0.36	-	106,106,106,106	0
59	MG	BA	3180	1/1	0.89	0.29	-	42,42,42,42	0
59	MG	DA	3651	1/1	0.87	0.34	-	93,93,93,93	0
59	MG	DA	3707	1/1	0.95	0.38	-	55,55,55,55	1
59	MG	BA	2907	1/1	0.63	0.32	-	108,108,108,108	0
59	MG	DA	3188	1/1	0.96	0.31	-	31,31,31,31	0
59	MG	DA	3747	1/1	0.68	0.54	-	38,38,38,38	1
59	MG	DA	3694	1/1	0.96	0.25	-	107,107,107,107	0
59	MG	DA	3479	1/1	0.88	0.59	-	127,127,127,127	0
59	MG	BA	3157	1/1	0.80	0.56	-	60,60,60,60	0
59	MG	CV	111	1/1	0.95	0.13	-	71,71,71,71	0
59	MG	AA	1952	1/1	0.92	0.88	-	97,97,97,97	0
59	MG	DA	3710	1/1	0.76	0.61	-	92,92,92,92	0
59	MG	DA	3328	1/1	0.95	0.28	-	34,34,34,34	0
59	MG	AA	1678	1/1	0.81	0.37	-	76,76,76,76	0
59	MG	DA	3777	1/1	0.76	0.27	-	70,70,70,70	0
59	MG	CA	1606	1/1	0.94	0.10	-	60,60,60,60	0
59	MG	CA	1782	1/1	0.97	0.24	-	52,52,52,52	0
59	MG	BA	3378	1/1	0.80	0.40	-	79,79,79,79	0
59	MG	AA	1723	1/1	0.83	0.16	-	91,91,91,91	0
59	MG	BA	3364	1/1	0.89	0.91	-	66,66,66,66	1
59	MG	DA	3016	1/1	0.92	0.28	-	51,51,51,51	0
59	MG	AA	1766	1/1	0.67	0.71	-	74,74,74,74	0
59	MG	CA	1730	1/1	0.66	0.18	-	106,106,106,106	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	BA	3258	1/1	0.87	0.52	-	69,69,69,69	0
59	MG	AA	1606	1/1	0.94	0.24	-	77,77,77,77	0
59	MG	BA	3129	1/1	0.94	0.41	-	42,42,42,42	0
59	MG	CA	1738	1/1	0.81	0.18	-	80,80,80,80	0
59	MG	DA	3636	1/1	0.91	0.15	-	50,50,50,50	0
59	MG	BA	3375	1/1	0.76	1.10	-	74,74,74,74	0
59	MG	DA	3108	1/1	0.91	0.24	-	81,81,81,81	0
59	MG	DA	2972	1/1	0.42	1.11	-	97,97,97,97	0
59	MG	BA	2981	1/1	0.92	0.20	-	80,80,80,80	0
59	MG	BA	3104	1/1	0.79	0.51	-	78,78,78,78	0
59	MG	BA	3548	1/1	0.70	0.36	-	92,92,92,92	0
59	MG	AA	1831	1/1	0.89	0.84	-	89,89,89,89	0
59	MG	DA	3034	1/1	0.88	0.45	-	98,98,98,98	0
59	MG	DA	3368	1/1	0.80	0.52	-	104,104,104,104	0
59	MG	DA	3721	1/1	0.92	0.19	-	171,171,171,171	0
59	MG	CA	1677	1/1	0.80	0.97	-	88,88,88,88	1
59	MG	CA	1708	1/1	0.90	0.20	-	64,64,64,64	1
59	MG	BA	3357	1/1	0.56	0.28	-	78,78,78,78	1
59	MG	BA	3501	1/1	0.76	0.25	-	112,112,112,112	0
59	MG	CA	1610	1/1	0.74	2.00	-	143,143,143,143	0
59	MG	AA	1642	1/1	0.53	0.16	-	108,108,108,108	0
59	MG	BA	3467	1/1	0.98	0.15	-	93,93,93,93	0
59	MG	CA	1691	1/1	0.42	0.08	-	103,103,103,103	0
59	MG	DA	3565	1/1	0.95	0.16	-	54,54,54,54	0
59	MG	DA	3357	1/1	0.76	0.33	-	64,64,64,64	0
59	MG	DA	2965	1/1	0.94	0.65	-	52,52,52,52	0
59	MG	BA	3279	1/1	0.93	0.35	-	59,59,59,59	0
59	MG	DA	3537	1/1	0.79	0.49	-	56,56,56,56	0
59	MG	BA	3571	1/1	0.74	0.45	-	77,77,77,77	0
59	MG	BA	3341	1/1	0.94	0.41	-	33,33,33,33	0
59	MG	CA	1705	1/1	0.85	0.45	-	62,62,62,62	0
59	MG	BA	3149	1/1	0.86	0.32	-	86,86,86,86	0
59	MG	AA	1710	1/1	0.54	0.23	-	77,77,77,77	0
59	MG	BA	3526	1/1	0.83	1.19	-	76,76,76,76	0
59	MG	AA	1865	1/1	0.80	0.37	-	96,96,96,96	0
59	MG	AA	1839	1/1	0.83	0.36	-	74,74,74,74	0
59	MG	BA	2936	1/1	0.96	0.30	-	43,43,43,43	0
59	MG	AD	303	1/1	0.68	0.47	-	134,134,134,134	0
59	MG	DA	3675	1/1	0.96	0.42	-	39,39,39,39	0
59	MG	BA	3348	1/1	0.88	0.26	-	61,61,61,61	0
59	MG	DA	3330	1/1	0.81	0.34	-	1,1,1,1	1
59	MG	DA	3238	1/1	0.66	0.28	-	134,134,134,134	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	AA	1819	1/1	0.88	0.08	-	75,75,75,75	0
59	MG	AA	1717	1/1	0.86	0.32	-	120,120,120,120	0
59	MG	BA	3291	1/1	0.96	0.54	-	41,41,41,41	0
59	MG	BA	3483	1/1	0.88	0.53	-	60,60,60,60	0
59	MG	DA	3061	1/1	0.97	0.30	-	67,67,67,67	0
59	MG	AA	1807	1/1	0.88	0.42	-	61,61,61,61	0
59	MG	DA	2998	1/1	0.97	0.28	-	49,49,49,49	0
59	MG	BA	3054	1/1	0.93	0.27	-	100,100,100,100	0
59	MG	DA	2989	1/1	0.59	0.26	-	83,83,83,83	0
59	MG	BA	3361	1/1	0.76	1.62	-	105,105,105,105	0
59	MG	DA	3617	1/1	0.67	0.42	-	111,111,111,111	0
59	MG	DA	3040	1/1	0.82	0.58	-	81,81,81,81	0
59	MG	AA	1866	1/1	0.74	0.34	-	74,74,74,74	0
59	MG	AA	1733	1/1	0.90	0.14	-	71,71,71,71	0
59	MG	BA	3585	1/1	0.52	1.84	-	143,143,143,143	0
59	MG	BA	3046	1/1	0.88	0.12	-	90,90,90,90	0
59	MG	DA	3640	1/1	0.59	0.46	-	81,81,81,81	1
59	MG	BA	2924	1/1	0.94	0.52	-	73,73,73,73	0
59	MG	AA	1644	1/1	0.79	0.32	-	84,84,84,84	0
59	MG	DA	3734	1/1	0.95	0.17	-	74,74,74,74	0
59	MG	DA	3758	1/1	0.80	0.89	-	95,95,95,95	0
59	MG	AA	1923	1/1	0.89	0.43	-	55,55,55,55	0
59	MG	BA	3089	1/1	0.93	0.33	-	33,33,33,33	0
59	MG	DA	3682	1/1	0.87	0.18	-	103,103,103,103	0
59	MG	DA	3221	1/1	0.90	0.73	-	77,77,77,77	0
59	MG	DA	3089	1/1	0.94	0.19	-	81,81,81,81	0
59	MG	BA	3124	1/1	0.86	0.45	-	62,62,62,62	0
59	MG	CA	1737	1/1	0.78	0.12	-	120,120,120,120	0
59	MG	BA	3029	1/1	0.83	0.31	-	92,92,92,92	0
59	MG	BA	3112	1/1	0.67	0.41	-	101,101,101,101	0
59	MG	BA	3285	1/1	0.88	0.18	-	96,96,96,96	0
59	MG	BA	3519	1/1	0.93	0.82	-	88,88,88,88	0
59	MG	DA	3109	1/1	0.71	0.44	-	90,90,90,90	0
59	MG	BA	3367	1/1	0.69	1.57	-	96,96,96,96	0
59	MG	BA	3036	1/1	0.87	0.34	-	98,98,98,98	0
59	MG	AY	103	1/1	0.68	0.63	-	108,108,108,108	0
59	MG	DA	3483	1/1	0.96	0.57	-	55,55,55,55	0
59	MG	AA	1667	1/1	0.70	0.25	-	49,49,49,49	0
59	MG	DA	3628	1/1	0.77	1.26	-	93,93,93,93	0
59	MG	AA	1947	1/1	0.84	0.66	-	79,79,79,79	0
59	MG	BA	3534	1/1	0.88	0.56	-	56,56,56,56	0
59	MG	BA	3193	1/1	0.62	0.71	-	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	BA	3599	1/1	0.97	0.07	-	83,83,83,83	0
59	MG	BA	3111	1/1	0.45	0.53	-	79,79,79,79	0
59	MG	BA	3296	1/1	0.99	0.55	-	27,27,27,27	0
59	MG	DA	3732	1/1	0.74	0.30	-	67,67,67,67	0
59	MG	AA	1796	1/1	0.94	0.14	-	61,61,61,61	0
59	MG	DA	2936	1/1	0.69	0.67	-	81,81,81,81	0
59	MG	BA	2958	1/1	0.87	0.28	-	46,46,46,46	0
59	MG	CA	1751	1/1	0.78	0.26	-	69,69,69,69	1
59	MG	BA	3322	1/1	0.99	0.68	-	24,24,24,24	0
59	MG	DA	3404	1/1	0.68	0.43	-	87,87,87,87	0
59	MG	AA	1828	1/1	0.56	0.25	-	86,86,86,86	0
59	MG	DA	3077	1/1	0.96	0.77	-	68,68,68,68	0
59	MG	AA	1813	1/1	0.88	0.40	-	134,134,134,134	0
59	MG	BA	2943	1/1	0.84	0.17	-	92,92,92,92	1
59	MG	AA	1834	1/1	0.89	0.35	-	94,94,94,94	0
59	MG	AA	1794	1/1	0.78	0.48	-	106,106,106,106	0
59	MG	DA	3304	1/1	0.87	0.48	-	84,84,84,84	0
59	MG	DN	201	1/1	0.78	0.23	-	19,19,19,19	1
59	MG	BA	2990	1/1	0.87	0.21	-	77,77,77,77	0
59	MG	DA	3551	1/1	0.95	0.55	-	53,53,53,53	0
59	MG	BA	3272	1/1	0.67	1.25	-	126,126,126,126	0
59	MG	AA	1750	1/1	0.94	0.20	-	54,54,54,54	1
59	MG	BA	3437	1/1	0.89	0.31	-	60,60,60,60	0
59	MG	CA	1764	1/1	0.82	0.19	-	82,82,82,82	0
59	MG	DA	3239	1/1	0.84	0.14	-	96,96,96,96	0
59	MG	BR	201	1/1	0.71	0.46	-	47,47,47,47	1
59	MG	CA	1711	1/1	0.82	0.11	-	65,65,65,65	1
59	MG	BA	3551	1/1	0.84	0.95	-	82,82,82,82	0
59	MG	DA	3780	1/1	0.68	0.46	-	77,77,77,77	0
59	MG	DA	3620	1/1	0.91	0.13	-	70,70,70,70	0
59	MG	DA	3594	1/1	0.85	0.23	-	63,63,63,63	1
59	MG	AA	1683	1/1	0.83	0.57	-	47,47,47,47	1
59	MG	DA	3760	1/1	0.97	0.32	-	52,52,52,52	0
59	MG	DA	3525	1/1	0.71	0.99	-	63,63,63,63	0
59	MG	DA	3286	1/1	0.82	0.42	-	112,112,112,112	0
59	MG	AA	1716	1/1	0.90	0.23	-	82,82,82,82	0
59	MG	DA	3521	1/1	0.87	0.22	-	99,99,99,99	0
59	MG	DA	3558	1/1	0.95	0.42	-	88,88,88,88	0
59	MG	AA	1631	1/1	0.82	1.13	-	85,85,85,85	0
59	MG	AA	1624	1/1	0.76	0.73	-	98,98,98,98	0
59	MG	DA	2977	1/1	0.97	0.41	-	60,60,60,60	0
59	MG	BO	201	1/1	0.83	0.25	-	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DA	3499	1/1	0.90	0.35	-	90,90,90,90	0
59	MG	BA	3236	1/1	0.94	0.88	-	86,86,86,86	0
59	MG	AA	1746	1/1	0.93	0.31	-	66,66,66,66	0
59	MG	DA	3586	1/1	0.94	0.54	-	34,34,34,34	0
59	MG	BA	2901	1/1	0.68	1.43	-	113,113,113,113	0
59	MG	DA	3194	1/1	0.94	0.23	-	92,92,92,92	0
59	MG	BA	2968	1/1	0.93	0.59	-	72,72,72,72	0
59	MG	DF	301	1/1	0.89	0.35	-	17,17,17,17	1
59	MG	BA	3418	1/1	0.96	1.27	-	69,69,69,69	0
59	MG	BA	3121	1/1	0.66	1.00	-	125,125,125,125	0
59	MG	BA	3350	1/1	0.69	0.98	-	118,118,118,118	0
59	MG	DA	3399	1/1	0.96	0.22	-	62,62,62,62	0
59	MG	DA	3596	1/1	0.95	0.42	-	54,54,54,54	1
59	MG	BA	2996	1/1	0.89	0.28	-	68,68,68,68	0
59	MG	DA	3520	1/1	0.92	0.41	-	103,103,103,103	0
59	MG	BA	2928	1/1	0.85	0.80	-	116,116,116,116	0
59	MG	DA	3371	1/1	0.89	0.14	-	59,59,59,59	1
59	MG	BA	3485	1/1	0.88	0.64	-	103,103,103,103	0
59	MG	DA	3205	1/1	0.84	0.47	-	130,130,130,130	0
59	MG	AV	106	1/1	0.69	0.24	-	87,87,87,87	1
59	MG	DA	3439	1/1	0.56	0.28	-	54,54,54,54	1
59	MG	DA	3293	1/1	0.82	0.70	-	70,70,70,70	0
59	MG	BA	3128	1/1	0.90	0.53	-	92,92,92,92	0
59	MG	AA	1884	1/1	0.95	0.08	-	89,89,89,89	0
59	MG	DA	3783	1/1	0.88	1.06	-	90,90,90,90	0
59	MG	DA	3325	1/1	0.94	0.33	-	109,109,109,109	0
59	MG	BA	3315	1/1	0.93	0.67	-	74,74,74,74	0
59	MG	AA	1763	1/1	0.96	0.24	-	88,88,88,88	0
59	MG	BA	3116	1/1	0.73	0.53	-	81,81,81,81	0
59	MG	CA	1697	1/1	0.48	0.58	-	83,83,83,83	0
59	MG	CA	1602	1/1	0.93	0.15	-	76,76,76,76	0
59	MG	CA	1722	1/1	0.68	0.32	-	73,73,73,73	0
59	MG	AA	1734	1/1	0.81	0.21	-	9,9,9,9	1
59	MG	CA	1627	1/1	0.76	0.17	-	71,71,71,71	0
59	MG	AA	1800	1/1	0.80	0.95	-	114,114,114,114	0
59	MG	DA	3542	1/1	0.94	0.18	-	74,74,74,74	0
59	MG	DA	3391	1/1	0.62	0.44	-	73,73,73,73	0
59	MG	DA	3744	1/1	0.92	0.27	-	93,93,93,93	1
59	MG	BA	3228	1/1	0.89	0.62	-	99,99,99,99	0
59	MG	DA	3052	1/1	0.95	0.30	-	68,68,68,68	0
59	MG	AA	1684	1/1	0.95	0.19	-	87,87,87,87	0
59	MG	CA	1614	1/1	0.85	0.42	-	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	BA	3071	1/1	0.71	0.72	-	110,110,110,110	0
59	MG	BA	3332	1/1	0.99	0.46	-	19,19,19,19	0
59	MG	DA	3078	1/1	0.82	0.65	-	73,73,73,73	0
59	MG	DA	3648	1/1	0.87	0.63	-	100,100,100,100	0
59	MG	AA	1713	1/1	0.85	0.12	-	70,70,70,70	0
59	MG	DA	2975	1/1	0.98	0.32	-	56,56,56,56	0
59	MG	AA	1702	1/1	0.71	0.28	-	64,64,64,64	0
59	MG	AI	202	1/1	0.92	0.17	-	117,117,117,117	0
59	MG	DA	3058	1/1	0.96	0.28	-	32,32,32,32	0
59	MG	BA	3523	1/1	0.84	1.10	-	122,122,122,122	0
59	MG	DA	3776	1/1	0.88	0.45	-	58,58,58,58	0
59	MG	DA	3731	1/1	0.93	0.26	-	45,45,45,45	1
59	MG	DA	3054	1/1	0.93	0.08	-	69,69,69,69	0
59	MG	BA	2902	1/1	0.88	0.32	-	79,79,79,79	0
59	MG	BA	3109	1/1	0.92	0.31	-	35,35,35,35	0
59	MG	BA	3431	1/1	0.92	0.58	-	79,79,79,79	0
59	MG	BA	3267	1/1	0.87	1.17	-	94,94,94,94	0
59	MG	DA	3465	1/1	0.96	0.43	-	26,26,26,26	0
59	MG	BA	3417	1/1	0.63	0.48	-	68,68,68,68	0
59	MG	BA	3458	1/1	0.54	1.16	-	104,104,104,104	0
59	MG	AA	1687	1/1	0.93	0.11	-	101,101,101,101	0
59	MG	CA	1661	1/1	0.90	0.19	-	65,65,65,65	0
59	MG	CA	1712	1/1	0.49	0.52	-	88,88,88,88	1
59	MG	CA	1648	1/1	0.93	0.80	-	90,90,90,90	0
59	MG	DA	3485	1/1	0.48	1.83	-	8,8,8,8	1
59	MG	BA	3240	1/1	0.91	0.60	-	55,55,55,55	0
59	MG	BA	3487	1/1	0.72	0.29	-	64,64,64,64	0
59	MG	CA	1621	1/1	0.84	0.38	-	89,89,89,89	0
59	MG	BA	3083	1/1	0.82	0.27	-	80,80,80,80	0
59	MG	DA	3714	1/1	0.81	1.07	-	109,109,109,109	0
59	MG	AA	1605	1/1	0.48	0.33	-	152,152,152,152	0
59	MG	DA	3627	1/1	0.86	0.31	-	70,70,70,70	0
59	MG	DA	3568	1/1	0.90	0.64	-	73,73,73,73	0
59	MG	AA	1698	1/1	0.20	0.64	-	103,103,103,103	0
59	MG	BA	3160	1/1	0.98	0.33	-	49,49,49,49	0
59	MG	DA	2928	1/1	0.63	0.33	-	61,61,61,61	1
59	MG	AA	1775	1/1	0.76	0.26	-	92,92,92,92	0
59	MG	CA	1632	1/1	0.86	0.47	-	94,94,94,94	0
59	MG	DA	2970	1/1	0.93	0.36	-	41,41,41,41	1
59	MG	DA	3227	1/1	0.80	0.44	-	73,73,73,73	0
59	MG	AA	1770	1/1	0.78	0.38	-	76,76,76,76	0
59	MG	BA	3536	1/1	0.75	0.84	-	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	AA	1767	1/1	0.93	0.35	-	77,77,77,77	0
59	MG	DA	3389	1/1	0.67	1.20	-	145,145,145,145	0
59	MG	DA	3311	1/1	0.92	0.92	-	96,96,96,96	0
59	MG	BA	3016	1/1	0.70	0.36	-	66,66,66,66	0
59	MG	BA	2915	1/1	0.88	0.37	-	70,70,70,70	0
59	MG	DA	3098	1/1	0.84	0.87	-	86,86,86,86	0
59	MG	DA	3575	1/1	0.81	0.72	-	89,89,89,89	0
59	MG	CA	1769	1/1	0.93	0.23	-	68,68,68,68	0
59	MG	D9	101	1/1	0.77	0.34	-	92,92,92,92	1
59	MG	BA	3073	1/1	0.94	0.49	-	52,52,52,52	0
59	MG	AA	1700	1/1	0.82	0.62	-	90,90,90,90	0
59	MG	DA	3544	1/1	0.77	0.14	-	62,62,62,62	0
59	MG	DA	2931	1/1	0.24	0.73	-	151,151,151,151	1
59	MG	DA	3774	1/1	0.93	0.64	-	84,84,84,84	0
59	MG	CA	1640	1/1	0.63	0.41	-	76,76,76,76	0
59	MG	AA	1614	1/1	0.49	0.33	-	113,113,113,113	0
59	MG	BA	3475	1/1	0.94	0.19	-	59,59,59,59	0
59	MG	DA	3762	1/1	0.93	0.13	-	99,99,99,99	0
59	MG	DA	3181	1/1	0.85	0.36	-	49,49,49,49	0
59	MG	DA	3204	1/1	0.92	0.22	-	70,70,70,70	0
59	MG	AA	1904	1/1	0.77	0.44	-	81,81,81,81	0
59	MG	AA	1918	1/1	0.89	0.29	-	64,64,64,64	0
59	MG	DA	2902	1/1	0.90	0.41	-	42,42,42,42	0
59	MG	DA	3772	1/1	0.94	0.17	-	69,69,69,69	0
59	MG	BA	3006	1/1	0.52	0.95	-	68,68,68,68	0
59	MG	DA	3142	1/1	0.62	0.29	-	90,90,90,90	0
59	MG	AA	1958	1/1	0.88	0.12	-	106,106,106,106	0
59	MG	AA	1783	1/1	0.95	0.55	-	73,73,73,73	0
59	MG	DA	3750	1/1	0.82	0.85	-	84,84,84,84	0
59	MG	BA	3369	1/1	0.96	0.25	-	65,65,65,65	0
59	MG	CV	101	1/1	0.75	0.31	-	93,93,93,93	1
59	MG	DA	3556	1/1	0.74	0.56	-	97,97,97,97	0
59	MG	DA	3726	1/1	0.95	0.22	-	65,65,65,65	0
59	MG	CA	1748	1/1	0.97	0.08	-	102,102,102,102	0
59	MG	B5	103	1/1	0.97	0.33	-	36,36,36,36	0
59	MG	BA	3563	1/1	0.80	0.49	-	80,80,80,80	0
59	MG	DA	3480	1/1	0.86	0.27	-	87,87,87,87	0
59	MG	DA	2981	1/1	0.88	0.37	-	127,127,127,127	0
59	MG	AA	1696	1/1	0.96	0.21	-	90,90,90,90	0
59	MG	DA	3049	1/1	0.89	1.46	-	96,96,96,96	0
59	MG	B1	101	1/1	0.95	0.14	-	50,50,50,50	1
59	MG	BA	3401	1/1	0.90	0.09	-	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	AA	1601	1/1	0.89	0.17	-	74,74,74,74	0
59	MG	BA	3567	1/1	0.74	0.29	-	76,76,76,76	0
59	MG	DA	3362	1/1	0.97	0.42	-	39,39,39,39	0
59	MG	AA	1666	1/1	0.52	2.56	-	127,127,127,127	0
59	MG	DA	3530	1/1	0.93	0.29	-	122,122,122,122	0
59	MG	CA	1641	1/1	0.51	0.34	-	84,84,84,84	0
59	MG	BA	3304	1/1	0.73	1.24	-	90,90,90,90	0
59	MG	DA	3481	1/1	0.84	0.52	-	73,73,73,73	0
59	MG	AA	1943	1/1	0.52	1.38	-	60,60,60,60	1
59	MG	BA	3084	1/1	0.45	0.29	-	88,88,88,88	0
59	MG	AV	105	1/1	0.89	0.15	-	80,80,80,80	0
59	MG	DA	3213	1/1	0.89	0.65	-	67,67,67,67	0
59	MG	AA	1772	1/1	0.72	0.50	-	85,85,85,85	0
59	MG	BA	3360	1/1	0.93	0.39	-	80,80,80,80	0
59	MG	DA	3796	1/1	0.89	0.28	-	95,95,95,95	1
59	MG	DY	201	1/1	-0.34	3.38	-	168,168,168,168	0
59	MG	CA	1637	1/1	0.78	0.14	-	114,114,114,114	0
59	MG	B5	101	1/1	0.70	0.57	-	83,83,83,83	0
59	MG	DA	3403	1/1	0.76	0.23	-	109,109,109,109	0
59	MG	CA	1747	1/1	0.62	0.17	-	79,79,79,79	0
59	MG	DA	3209	1/1	0.93	0.49	-	50,50,50,50	0
59	MG	B0	101	1/1	0.96	0.89	-	73,73,73,73	0
59	MG	DA	3195	1/1	0.63	0.55	-	96,96,96,96	0
59	MG	AA	1727	1/1	0.93	0.13	-	84,84,84,84	1
59	MG	DA	3021	1/1	0.49	1.34	-	87,87,87,87	0
59	MG	DA	3622	1/1	0.94	0.06	-	58,58,58,58	0
59	MG	AA	1801	1/1	0.89	0.22	-	130,130,130,130	0
59	MG	BA	3195	1/1	0.89	0.35	-	85,85,85,85	0
59	MG	BA	3470	1/1	0.98	0.42	-	35,35,35,35	0
59	MG	BA	2966	1/1	0.93	0.55	-	64,64,64,64	0
59	MG	BA	2933	1/1	0.96	0.25	-	36,36,36,36	0
59	MG	BA	3113	1/1	0.66	0.13	-	95,95,95,95	0
59	MG	DA	3581	1/1	0.84	0.26	-	88,88,88,88	1
59	MG	DA	3585	1/1	0.88	0.35	-	78,78,78,78	0
59	MG	DA	3414	1/1	0.67	0.88	-	121,121,121,121	0
59	MG	BA	3409	1/1	0.89	0.55	-	104,104,104,104	0
59	MG	BA	3013	1/1	0.84	0.44	-	60,60,60,60	0
59	MG	DA	3020	1/1	0.96	0.28	-	52,52,52,52	0
59	MG	DA	3127	1/1	0.38	0.32	-	93,93,93,93	0
59	MG	CA	1654	1/1	0.77	0.57	-	77,77,77,77	0
59	MG	DA	3629	1/1	0.81	0.32	-	45,45,45,45	0
59	MG	AA	1636	1/1	0.97	0.22	-	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	D8	101	1/1	0.86	0.19	-	74,74,74,74	0
59	MG	DA	3684	1/1	0.90	0.29	-	82,82,82,82	0
59	MG	CA	1667	1/1	0.98	0.07	-	66,66,66,66	0
59	MG	DA	3668	1/1	0.92	0.29	-	93,93,93,93	0
59	MG	BA	2912	1/1	0.93	0.48	-	57,57,57,57	0
59	MG	DA	2941	1/1	0.95	0.08	-	27,27,27,27	1
59	MG	DA	3340	1/1	0.79	0.28	-	96,96,96,96	0
59	MG	DA	2994	1/1	0.97	0.63	-	60,60,60,60	0
59	MG	AA	1789	1/1	0.51	0.33	-	108,108,108,108	0
59	MG	BA	2944	1/1	0.94	0.29	-	43,43,43,43	0
59	MG	CV	112	1/1	0.79	0.20	-	69,69,69,69	0
59	MG	DA	3506	1/1	0.81	1.06	-	73,73,73,73	1
59	MG	AA	1679	1/1	0.89	0.32	-	53,53,53,53	1
59	MG	BA	2995	1/1	0.94	0.35	-	84,84,84,84	0
59	MG	DA	3757	1/1	0.89	0.65	-	86,86,86,86	0
59	MG	CA	1729	1/1	0.95	0.24	-	88,88,88,88	0
59	MG	DA	2982	1/1	0.85	0.33	-	97,97,97,97	0
59	MG	AA	1916	1/1	0.93	0.09	-	70,70,70,70	0
59	MG	DA	3027	1/1	0.76	0.44	-	69,69,69,69	0
59	MG	DA	3514	1/1	0.80	0.40	-	82,82,82,82	0
59	MG	BA	3280	1/1	0.98	0.43	-	38,38,38,38	0
59	MG	CA	1671	1/1	0.60	0.43	-	99,99,99,99	0
59	MG	DA	3633	1/1	0.93	0.65	-	75,75,75,75	0
59	MG	CA	1628	1/1	0.76	0.19	-	88,88,88,88	0
59	MG	DA	2923	1/1	0.88	0.16	-	94,94,94,94	0
59	MG	DA	3690	1/1	0.88	0.30	-	62,62,62,62	0
59	MG	DA	3067	1/1	0.88	0.29	-	106,106,106,106	0
59	MG	BA	3163	1/1	0.98	0.42	-	35,35,35,35	0
59	MG	DA	3562	1/1	0.98	0.13	-	25,25,25,25	1
59	MG	AA	1782	1/1	0.86	0.36	-	103,103,103,103	0
59	MG	CA	1754	1/1	0.37	0.31	-	78,78,78,78	1
59	MG	DA	3374	1/1	0.70	0.36	-	91,91,91,91	0
59	MG	CA	1740	1/1	0.95	0.88	-	85,85,85,85	0
59	MG	BA	3524	1/1	0.83	0.42	-	103,103,103,103	0
59	MG	BA	3270	1/1	0.84	0.27	-	60,60,60,60	0
59	MG	BA	3281	1/1	0.78	0.47	-	94,94,94,94	0
59	MG	DA	3001	1/1	0.87	0.07	-	79,79,79,79	0
59	MG	BA	3045	1/1	0.85	0.16	-	75,75,75,75	0
59	MG	DA	3752	1/1	0.90	0.38	-	96,96,96,96	0
59	MG	BA	3374	1/1	0.73	0.73	-	74,74,74,74	0
59	MG	BB	206	1/1	0.74	0.63	-	90,90,90,90	1
59	MG	CA	1759	1/1	0.91	0.78	-	98,98,98,98	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	BA	3459	1/1	0.96	0.33	-	44,44,44,44	0
59	MG	BA	3299	1/1	0.95	0.40	-	66,66,66,66	0
59	MG	BA	3442	1/1	0.98	0.25	-	65,65,65,65	0
59	MG	DA	3113	1/1	0.67	1.30	-	109,109,109,109	0
59	MG	AA	1810	1/1	0.89	0.24	-	71,71,71,71	0
59	MG	DA	3048	1/1	0.84	0.71	-	63,63,63,63	0
59	MG	BH	202	1/1	0.83	0.13	-	95,95,95,95	0
59	MG	AA	1876	1/1	0.91	0.27	-	92,92,92,92	1
59	MG	BA	3173	1/1	0.78	0.30	-	102,102,102,102	1
59	MG	DA	3440	1/1	0.96	0.16	-	50,50,50,50	1
59	MG	AA	1761	1/1	0.90	1.23	-	83,83,83,83	0
59	MG	DA	3419	1/1	0.73	0.89	-	122,122,122,122	0
59	MG	DB	204	1/1	0.33	0.20	-	110,110,110,110	0
59	MG	DA	3719	1/1	0.95	0.45	-	73,73,73,73	0
59	MG	CA	1685	1/1	0.78	0.37	-	92,92,92,92	0
59	MG	DA	3745	1/1	0.90	0.51	-	56,56,56,56	0
59	MG	CV	108	1/1	0.89	0.25	-	101,101,101,101	0
59	MG	DA	3754	1/1	0.89	0.79	-	34,34,34,34	1
59	MG	BA	3420	1/1	0.99	0.35	-	71,71,71,71	0
59	MG	DA	3143	1/1	0.42	0.71	-	113,113,113,113	0
59	MG	BA	3057	1/1	0.97	0.44	-	68,68,68,68	0
59	MG	DA	3100	1/1	0.90	0.55	-	67,67,67,67	0
59	MG	DA	3011	1/1	0.92	0.27	-	40,40,40,40	0
59	MG	AA	1875	1/1	0.89	0.23	-	62,62,62,62	0
59	MG	CA	1647	1/1	0.74	0.42	-	77,77,77,77	0
59	MG	BA	3263	1/1	0.88	0.99	-	76,76,76,76	0
59	MG	DA	3413	1/1	0.89	1.26	-	84,84,84,84	0
59	MG	DA	3515	1/1	0.64	1.29	-	108,108,108,108	0
59	MG	BA	3216	1/1	0.84	0.38	-	73,73,73,73	0
59	MG	BA	3400	1/1	0.72	0.10	-	87,87,87,87	0
59	MG	AA	1798	1/1	0.67	0.40	-	114,114,114,114	0
59	MG	BA	3608	1/1	0.98	0.42	-	31,31,31,31	0
59	MG	DA	2993	1/1	0.81	0.79	-	96,96,96,96	0
59	MG	DW	201	1/1	0.94	0.30	-	36,36,36,36	1
59	MG	BA	3203	1/1	0.92	0.40	-	75,75,75,75	0
59	MG	AA	1672	1/1	0.97	0.16	-	77,77,77,77	0
59	MG	DA	3723	1/1	0.93	0.48	-	101,101,101,101	0
59	MG	BA	3100	1/1	0.95	0.23	-	47,47,47,47	0
59	MG	AA	1953	1/1	0.62	0.49	-	120,120,120,120	0
59	MG	BA	3336	1/1	0.66	0.24	-	99,99,99,99	0
59	MG	CA	1659	1/1	0.69	1.53	-	100,100,100,100	0
59	MG	DA	3107	1/1	0.78	0.61	-	103,103,103,103	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	BA	3102	1/1	0.76	0.67	-	64,64,64,64	0
59	MG	BA	3198	1/1	0.88	0.35	-	102,102,102,102	0
59	MG	BA	3041	1/1	0.96	0.42	-	37,37,37,37	0
59	MG	BA	3217	1/1	0.71	0.17	-	72,72,72,72	0
59	MG	AA	1788	1/1	0.74	0.33	-	80,80,80,80	0
59	MG	DA	2956	1/1	0.95	0.26	-	38,38,38,38	0
59	MG	BA	3324	1/1	0.80	0.41	-	63,63,63,63	0
59	MG	DA	3073	1/1	0.93	0.42	-	64,64,64,64	0
59	MG	DA	2955	1/1	0.86	0.33	-	34,34,34,34	1
59	MG	DA	3447	1/1	0.94	0.77	-	70,70,70,70	0
59	MG	BA	2903	1/1	0.96	0.42	-	37,37,37,37	0
59	MG	DA	3125	1/1	0.86	0.46	-	118,118,118,118	0
59	MG	DA	3716	1/1	0.91	0.50	-	103,103,103,103	0
59	MG	AA	1966	1/1	0.83	0.27	-	99,99,99,99	0
59	MG	DA	3574	1/1	0.82	0.68	-	70,70,70,70	1
59	MG	CJ	202	1/1	0.74	0.09	-	130,130,130,130	0
59	MG	AA	1921	1/1	0.94	0.47	-	86,86,86,86	0
59	MG	DA	3606	1/1	0.97	0.11	-	88,88,88,88	1
59	MG	DA	3689	1/1	0.66	0.15	-	123,123,123,123	0
59	MG	DA	2969	1/1	0.85	1.03	-	98,98,98,98	0
59	MG	DA	3678	1/1	0.86	0.47	-	100,100,100,100	0
59	MG	BA	3190	1/1	0.28	1.46	-	117,117,117,117	0
59	MG	DA	3569	1/1	0.92	0.61	-	102,102,102,102	0
59	MG	DA	3400	1/1	0.54	0.64	-	63,63,63,63	1
59	MG	CA	1624	1/1	0.88	0.35	-	86,86,86,86	0
59	MG	DA	3791	1/1	0.83	0.62	-	76,76,76,76	0
59	MG	D6	101	1/1	0.72	0.60	-	95,95,95,95	0
59	MG	BA	2935	1/1	0.77	0.43	-	102,102,102,102	0
59	MG	DA	3006	1/1	0.90	0.38	-	107,107,107,107	0
59	MG	AX	101	1/1	0.82	0.44	-	113,113,113,113	0
59	MG	DA	2973	1/1	0.99	0.41	-	21,21,21,21	0
59	MG	DA	2976	1/1	0.56	0.65	-	1,1,1,1	1
59	MG	BA	2913	1/1	0.96	0.72	-	51,51,51,51	0
59	MG	DA	3654	1/1	0.86	0.36	-	78,78,78,78	0
59	MG	CV	103	1/1	0.90	0.16	-	67,67,67,67	0
59	MG	AA	1935	1/1	0.65	0.25	-	96,96,96,96	0
59	MG	DA	3047	1/1	0.86	0.75	-	88,88,88,88	0
59	MG	AA	1677	1/1	0.89	0.28	-	76,76,76,76	1
59	MG	AA	1823	1/1	0.97	0.29	-	68,68,68,68	0
59	MG	DA	3309	1/1	0.92	0.59	-	76,76,76,76	0
59	MG	DA	3004	1/1	0.68	0.91	-	122,122,122,122	0
59	MG	AA	1797	1/1	0.86	0.27	-	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DA	3587	1/1	0.82	0.75	-	74,74,74,74	0
59	MG	DA	3246	1/1	0.99	0.30	-	32,32,32,32	0
59	MG	DA	3161	1/1	0.80	0.64	-	61,61,61,61	0
59	MG	DA	3738	1/1	0.94	0.21	-	89,89,89,89	0
59	MG	DA	3094	1/1	0.63	0.53	-	87,87,87,87	0
59	MG	BA	2991	1/1	0.71	0.98	-	60,60,60,60	1
59	MG	DA	3493	1/1	0.79	0.39	-	90,90,90,90	0
59	MG	BA	3011	1/1	0.85	0.92	-	107,107,107,107	0
59	MG	BA	3145	1/1	0.86	0.35	-	89,89,89,89	0
59	MG	BA	3508	1/1	0.94	0.51	-	39,39,39,39	0
59	MG	DA	3769	1/1	0.45	0.17	-	142,142,142,142	0
59	MG	AA	1919	1/1	0.83	0.16	-	78,78,78,78	0
59	MG	BA	2932	1/1	0.96	0.49	-	63,63,63,63	0
59	MG	AA	1818	1/1	0.71	0.13	-	60,60,60,60	0
59	MG	BA	3429	1/1	0.89	1.00	-	67,67,67,67	0
59	MG	DA	3742	1/1	0.98	0.58	-	51,51,51,51	0
59	MG	DA	3673	1/1	0.78	0.81	-	116,116,116,116	0
59	MG	BA	3606	1/1	0.94	0.55	-	65,65,65,65	0
59	MG	AA	1646	1/1	0.81	0.61	-	106,106,106,106	0
59	MG	BA	3034	1/1	0.85	0.23	-	51,51,51,51	0
59	MG	BA	3107	1/1	0.86	0.63	-	87,87,87,87	0
59	MG	DA	3433	1/1	0.89	0.66	-	1,1,1,1	1
59	MG	BA	3572	1/1	0.88	0.90	-	68,68,68,68	0
59	MG	CA	1660	1/1	0.88	0.35	-	99,99,99,99	0
59	MG	BA	3282	1/1	0.89	0.38	-	47,47,47,47	0
59	MG	DD	305	1/1	0.71	0.28	-	1,1,1,1	1
59	MG	CC	301	1/1	0.75	0.86	-	117,117,117,117	0
59	MG	AA	1663	1/1	0.82	0.50	-	95,95,95,95	0
59	MG	D0	103	1/1	0.93	0.35	-	74,74,74,74	0
59	MG	AA	1869	1/1	0.78	0.59	-	75,75,75,75	0
59	MG	AA	1675	1/1	0.79	0.35	-	52,52,52,52	1
59	MG	BA	3343	1/1	0.99	0.50	-	32,32,32,32	0
59	MG	BA	3007	1/1	0.89	0.34	-	93,93,93,93	0
59	MG	DA	3018	1/1	0.99	0.13	-	76,76,76,76	0
59	MG	DA	3380	1/1	0.89	0.31	-	43,43,43,43	0
59	MG	BA	3321	1/1	0.90	0.34	-	58,58,58,58	0
59	MG	BA	2948	1/1	0.86	0.21	-	64,64,64,64	0
59	MG	DA	3552	1/1	0.64	0.42	-	120,120,120,120	0
59	MG	BA	3001	1/1	0.89	0.28	-	117,117,117,117	0
59	MG	BA	3607	1/1	0.96	0.71	-	95,95,95,95	0
59	MG	CA	1625	1/1	0.86	0.16	-	62,62,62,62	0
59	MG	BA	3042	1/1	0.75	0.35	-	103,103,103,103	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
59	MG	BA	3502	1/1	0.83	1.81	-	132,132,132,132	0
59	MG	DA	2954	1/1	0.91	0.51	-	47,47,47,47	1
59	MG	CA	1776	1/1	0.68	0.83	-	83,83,83,83	0
59	MG	BA	3497	1/1	0.81	1.27	-	85,85,85,85	0
59	MG	DA	3162	1/1	0.94	0.36	-	122,122,122,122	0
59	MG	CA	1736	1/1	0.98	0.14	-	60,60,60,60	0
59	MG	DA	2995	1/1	0.95	0.13	-	44,44,44,44	0
59	MG	DA	3496	1/1	0.75	0.26	-	83,83,83,83	0
59	MG	CA	1755	1/1	0.73	0.29	-	100,100,100,100	0
59	MG	DA	3254	1/1	0.96	0.08	-	59,59,59,59	0
59	MG	DA	3347	1/1	0.94	0.21	-	71,71,71,71	0
59	MG	BA	3152	1/1	0.99	0.33	-	34,34,34,34	0
59	MG	AA	1827	1/1	0.84	0.20	-	85,85,85,85	0
59	MG	DA	3655	1/1	0.93	0.78	-	91,91,91,91	0
59	MG	AA	1883	1/1	0.58	0.85	-	58,58,58,58	0
59	MG	DA	2992	1/1	0.96	0.77	-	103,103,103,103	0
59	MG	AA	1804	1/1	0.93	0.47	-	90,90,90,90	0
59	MG	BA	3156	1/1	0.98	0.34	-	27,27,27,27	0
59	MG	AA	1833	1/1	0.86	0.28	-	87,87,87,87	0
59	MG	AA	1832	1/1	0.89	0.51	-	140,140,140,140	0
59	MG	BA	3024	1/1	0.98	0.35	-	79,79,79,79	0
59	MG	AA	1777	1/1	0.77	0.38	-	115,115,115,115	0
59	MG	BA	2918	1/1	0.97	0.56	-	76,76,76,76	1
59	MG	BA	3530	1/1	0.99	0.22	-	33,33,33,33	0
59	MG	DA	3377	1/1	0.97	0.26	-	16,16,16,16	0
59	MG	AA	1837	1/1	0.82	0.26	-	75,75,75,75	0
59	MG	DA	3430	1/1	0.95	0.23	-	25,25,25,25	0
59	MG	AA	1787	1/1	0.79	0.20	-	109,109,109,109	0
59	MG	DA	3097	1/1	0.95	0.32	-	69,69,69,69	0
59	MG	CV	104	1/1	0.76	0.18	-	86,86,86,86	0
59	MG	AA	1856	1/1	0.83	0.47	-	80,80,80,80	0
59	MG	DA	2951	1/1	0.78	0.46	-	102,102,102,102	0
59	MG	AA	1885	1/1	0.93	0.37	-	57,57,57,57	0
59	MG	DA	3338	1/1	0.79	0.21	-	68,68,68,68	0
59	MG	DA	2983	1/1	0.69	0.57	-	79,79,79,79	1
59	MG	BA	3110	1/1	0.88	0.23	-	55,55,55,55	0
59	MG	AX	104	1/1	0.94	0.45	-	43,43,43,43	0
59	MG	DA	3659	1/1	0.88	0.45	-	88,88,88,88	0
59	MG	BA	3597	1/1	0.85	0.72	-	53,53,53,53	1
59	MG	AA	1892	1/1	0.94	0.19	-	75,75,75,75	0
59	MG	BA	3479	1/1	0.79	0.52	-	133,133,133,133	0
59	MG	DA	3206	1/1	0.89	0.32	-	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	BA	3391	1/1	0.76	1.34	-	91,91,91,91	1
59	MG	DA	3256	1/1	0.95	0.58	-	42,42,42,42	0
59	MG	BA	3148	1/1	0.90	0.76	-	106,106,106,106	0
59	MG	DA	3081	1/1	0.84	0.26	-	75,75,75,75	0
59	MG	BA	3561	1/1	0.92	1.31	-	122,122,122,122	0
59	MG	DA	3639	1/1	0.95	0.32	-	37,37,37,37	0
59	MG	CA	1715	1/1	0.81	0.16	-	80,80,80,80	0
59	MG	AA	1971	1/1	0.80	0.66	-	125,125,125,125	0
59	MG	CA	1644	1/1	0.81	0.36	-	92,92,92,92	0
59	MG	CA	1620	1/1	0.96	0.70	-	87,87,87,87	0
59	MG	BA	3140	1/1	0.48	0.76	-	113,113,113,113	0
59	MG	CV	106	1/1	0.74	0.38	-	101,101,101,101	0
59	MG	BA	3605	1/1	0.95	0.83	-	79,79,79,79	0
59	MG	AA	1809	1/1	0.88	1.31	-	92,92,92,92	0
59	MG	DA	3711	1/1	0.78	0.36	-	55,55,55,55	1
59	MG	BA	2909	1/1	0.94	0.20	-	50,50,50,50	0
59	MG	AA	1740	1/1	0.86	0.39	-	94,94,94,94	0
59	MG	CA	1753	1/1	0.91	0.09	-	103,103,103,103	0
59	MG	DA	3779	1/1	0.73	0.75	-	122,122,122,122	0
59	MG	BA	3533	1/1	0.95	0.44	-	83,83,83,83	0
59	MG	BA	3026	1/1	0.93	0.43	-	105,105,105,105	0
59	MG	BA	3539	1/1	0.82	0.30	-	97,97,97,97	1
59	MG	DA	3563	1/1	0.57	0.52	-	68,68,68,68	1
59	MG	BA	3587	1/1	0.74	0.54	-	47,47,47,47	0
59	MG	CA	1784	1/1	0.95	0.65	-	76,76,76,76	0
59	MG	DA	3539	1/1	0.64	0.58	-	70,70,70,70	0
59	MG	BA	2999	1/1	0.69	0.12	-	86,86,86,86	0
59	MG	DO	201	1/1	0.72	0.18	-	117,117,117,117	0
59	MG	CA	1778	1/1	0.93	0.35	-	88,88,88,88	0
59	MG	AA	1711	1/1	0.69	0.25	-	90,90,90,90	0
59	MG	AA	1936	1/1	0.85	0.20	-	135,135,135,135	0
59	MG	BA	3208	1/1	0.89	0.37	-	27,27,27,27	0
59	MG	BA	3595	1/1	0.86	0.63	-	65,65,65,65	0
59	MG	AA	1758	1/1	0.71	0.43	-	98,98,98,98	0
59	MG	DA	3270	1/1	0.83	0.17	-	55,55,55,55	0
59	MG	AA	1656	1/1	0.87	0.30	-	98,98,98,98	1
59	MG	DA	3720	1/1	0.97	0.14	-	66,66,66,66	0
59	MG	AA	1774	1/1	0.88	0.52	-	120,120,120,120	0
59	MG	DA	3066	1/1	0.82	0.18	-	113,113,113,113	0
59	MG	BA	3537	1/1	0.91	0.30	-	28,28,28,28	0
59	MG	BA	3389	1/1	0.96	0.45	-	56,56,56,56	0
59	MG	AA	1707	1/1	0.91	0.26	-	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DA	3466	1/1	0.90	0.56	-	40,40,40,40	0
59	MG	BH	203	1/1	0.86	0.46	-	75,75,75,75	0
59	MG	BA	3560	1/1	0.63	0.99	-	83,83,83,83	0
59	MG	DA	3088	1/1	0.97	0.10	-	65,65,65,65	0
59	MG	BA	3174	1/1	0.90	0.25	-	83,83,83,83	0
59	MG	DA	3706	1/1	0.84	0.74	-	66,66,66,66	0
59	MG	AA	1731	1/1	0.86	0.34	-	81,81,81,81	0
59	MG	DA	3044	1/1	0.92	0.23	-	78,78,78,78	0
59	MG	DA	3307	1/1	0.77	0.32	-	77,77,77,77	0
59	MG	BA	3358	1/1	0.83	0.11	-	100,100,100,100	0
59	MG	BA	3494	1/1	0.96	0.57	-	77,77,77,77	0
59	MG	DA	3267	1/1	0.88	0.36	-	62,62,62,62	0
59	MG	DA	3614	1/1	0.89	0.26	-	100,100,100,100	0
59	MG	CC	302	1/1	0.95	0.68	-	114,114,114,114	0
59	MG	DB	211	1/1	0.74	0.34	-	80,80,80,80	0
59	MG	BA	3477	1/1	0.84	1.31	-	128,128,128,128	0
59	MG	AA	1941	1/1	0.90	0.56	-	63,63,63,63	0
59	MG	DA	3549	1/1	0.54	0.55	-	97,97,97,97	0
59	MG	BA	3277	1/1	0.95	0.48	-	44,44,44,44	0
59	MG	DA	3578	1/1	0.81	0.65	-	105,105,105,105	0
59	MG	AV	101	1/1	0.92	0.74	-	52,52,52,52	1
59	MG	AA	1649	1/1	0.97	0.17	-	63,63,63,63	0
59	MG	DA	2948	1/1	0.98	0.34	-	75,75,75,75	0
59	MG	BA	3147	1/1	0.94	0.50	-	72,72,72,72	0
59	MG	CA	1780	1/1	0.83	0.68	-	47,47,47,47	1
59	MG	CA	1710	1/1	0.95	0.21	-	51,51,51,51	0
59	MG	DA	2968	1/1	0.97	0.13	-	1,1,1,1	1
59	MG	AA	1877	1/1	0.96	0.40	-	61,61,61,61	0
59	MG	DA	2957	1/1	0.92	0.41	-	47,47,47,47	0
59	MG	BA	3317	1/1	0.68	0.88	-	64,64,64,64	1
59	MG	CA	1643	1/1	0.83	0.12	-	80,80,80,80	0
59	MG	DA	3091	1/1	0.85	0.39	-	119,119,119,119	0
59	MG	DA	3571	1/1	0.61	0.58	-	96,96,96,96	0
59	MG	DA	3456	1/1	0.97	0.73	-	56,56,56,56	0
59	MG	DA	3183	1/1	0.93	0.28	-	94,94,94,94	0
59	MG	DA	3646	1/1	0.97	0.81	-	57,57,57,57	0
59	MG	DA	3420	1/1	0.78	0.63	-	100,100,100,100	0
59	MG	BA	3078	1/1	0.99	0.20	-	18,18,18,18	0
59	MG	BA	3575	1/1	0.87	0.36	-	92,92,92,92	0
59	MG	DA	3461	1/1	0.94	0.54	-	77,77,77,77	0
59	MG	DA	3316	1/1	0.69	0.45	-	59,59,59,59	1
59	MG	AA	1851	1/1	0.66	0.48	-	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	AA	1712	1/1	0.85	0.77	-	188,188,188,188	0
59	MG	DA	3105	1/1	0.80	0.89	-	92,92,92,92	0
59	MG	BA	3406	1/1	0.96	0.47	-	52,52,52,52	0
59	MG	DA	3208	1/1	0.76	0.43	-	91,91,91,91	0
59	MG	BA	3566	1/1	0.67	0.39	-	66,66,66,66	1
59	MG	AA	1633	1/1	0.88	1.30	-	72,72,72,72	1
59	MG	AA	1954	1/1	0.97	1.03	-	67,67,67,67	0
59	MG	AA	1961	1/1	0.94	0.24	-	87,87,87,87	0
59	MG	DB	209	1/1	0.73	0.24	-	95,95,95,95	0
59	MG	DA	3708	1/1	0.88	1.27	-	100,100,100,100	0
59	MG	DA	3438	1/1	0.85	0.23	-	76,76,76,76	0
59	MG	DA	3014	1/1	0.78	0.47	-	108,108,108,108	0
59	MG	BP	201	1/1	0.87	0.31	-	24,24,24,24	0
59	MG	CA	1771	1/1	0.81	0.82	-	96,96,96,96	0
59	MG	DA	3513	1/1	0.94	0.13	-	95,95,95,95	0
59	MG	DA	3337	1/1	0.74	0.25	-	90,90,90,90	0
59	MG	CA	1658	1/1	0.62	0.52	-	97,97,97,97	0
59	MG	DA	2921	1/1	0.81	1.66	-	114,114,114,114	0
59	MG	BA	3050	1/1	0.89	0.12	-	73,73,73,73	0
59	MG	AA	1706	1/1	0.97	0.06	-	44,44,44,44	1
59	MG	AA	1689	1/1	0.72	0.16	-	82,82,82,82	1
59	MG	AV	103	1/1	0.87	0.12	-	72,72,72,72	0
59	MG	DA	3431	1/1	0.95	0.33	-	38,38,38,38	0
59	MG	DA	3312	1/1	0.90	0.29	-	48,48,48,48	0
59	MG	AA	1843	1/1	0.89	0.71	-	99,99,99,99	0
59	MG	CA	1699	1/1	0.92	0.21	-	64,64,64,64	0
59	MG	AC	301	1/1	0.91	0.14	-	173,173,173,173	0
59	MG	AA	1894	1/1	0.86	0.21	-	90,90,90,90	0
59	MG	BA	3072	1/1	0.92	0.33	-	101,101,101,101	0
59	MG	DA	3273	1/1	0.90	0.58	-	54,54,54,54	0
59	MG	DA	3764	1/1	0.94	0.24	-	75,75,75,75	0
59	MG	BA	3146	1/1	0.79	1.09	-	113,113,113,113	0
59	MG	BA	3547	1/1	0.79	0.26	-	78,78,78,78	0
59	MG	BA	3318	1/1	0.96	0.48	-	63,63,63,63	0
59	MG	AA	1610	1/1	0.83	0.49	-	77,77,77,77	0
59	MG	DA	3415	1/1	0.90	0.53	-	41,41,41,41	0
59	MG	BA	3238	1/1	0.98	0.52	-	110,110,110,110	0
59	MG	BA	2910	1/1	0.92	0.23	-	83,83,83,83	1
59	MG	AA	1674	1/1	0.85	0.26	-	48,48,48,48	0
59	MG	AA	1849	1/1	0.84	0.20	-	80,80,80,80	0
59	MG	DA	3527	1/1	0.95	0.06	-	46,46,46,46	0
59	MG	DA	3484	1/1	0.92	0.86	-	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	BA	3254	1/1	0.98	0.28	-	93,93,93,93	0
59	MG	CA	1735	1/1	0.45	0.63	-	127,127,127,127	0
59	MG	BA	3005	1/1	0.84	1.23	-	105,105,105,105	0
59	MG	DA	3423	1/1	0.73	0.45	-	51,51,51,51	1
59	MG	AA	1931	1/1	0.88	0.25	-	87,87,87,87	0
59	MG	CA	1707	1/1	0.97	0.10	-	79,79,79,79	0
59	MG	DA	3036	1/1	0.87	0.47	-	76,76,76,76	0
59	MG	DA	3531	1/1	0.94	0.32	-	82,82,82,82	0
59	MG	DA	3613	1/1	0.97	0.13	-	56,56,56,56	1
59	MG	BA	3407	1/1	0.92	0.30	-	64,64,64,64	0
59	MG	AA	1755	1/1	0.88	0.25	-	34,34,34,34	1
59	MG	DA	3351	1/1	0.97	0.17	-	77,77,77,77	0
59	MG	BA	3308	1/1	0.88	0.27	-	53,53,53,53	1
59	MG	DA	3046	1/1	0.83	0.36	-	95,95,95,95	0
59	MG	DA	3023	1/1	0.82	0.38	-	41,41,41,41	0
59	MG	AA	1738	1/1	0.75	0.83	-	59,59,59,59	0
59	MG	BA	3466	1/1	0.95	0.26	-	38,38,38,38	0
59	MG	AA	1764	1/1	0.80	1.02	-	65,65,65,65	0
59	MG	BA	3455	1/1	0.93	0.79	-	65,65,65,65	0
59	MG	CA	1669	1/1	0.97	0.15	-	57,57,57,57	0
59	MG	AA	1725	1/1	0.65	0.50	-	70,70,70,70	1
59	MG	CA	1701	1/1	0.85	0.27	-	83,83,83,83	0
59	MG	BA	3363	1/1	0.81	0.50	-	92,92,92,92	0
59	MG	AA	1962	1/1	0.74	0.79	-	65,65,65,65	0
59	MG	BA	3394	1/1	0.88	0.32	-	85,85,85,85	0
59	MG	AA	1688	1/1	0.98	0.07	-	22,22,22,22	1
59	MG	DB	203	1/1	0.84	0.17	-	30,30,30,30	1
59	MG	AA	1658	1/1	0.99	0.17	-	106,106,106,106	0
59	MG	CA	1608	1/1	0.67	0.72	-	124,124,124,124	0
59	MG	DA	3538	1/1	0.67	0.59	-	118,118,118,118	0
59	MG	BA	3306	1/1	0.92	0.25	-	57,57,57,57	0
59	MG	BA	3511	1/1	0.90	0.33	-	73,73,73,73	0
59	MG	BA	3288	1/1	0.97	0.45	-	38,38,38,38	0
59	MG	BA	3294	1/1	0.97	0.30	-	73,73,73,73	0
59	MG	DA	3643	1/1	0.68	0.35	-	113,113,113,113	0
59	MG	BA	3059	1/1	0.91	0.23	-	98,98,98,98	0
59	MG	AQ	201	1/1	0.90	0.09	-	97,97,97,97	1
59	MG	DA	3051	1/1	0.96	0.34	-	36,36,36,36	0
59	MG	AA	1860	1/1	0.96	0.38	-	61,61,61,61	0
59	MG	BA	3601	1/1	0.69	0.41	-	79,79,79,79	0
59	MG	D3	101	1/1	0.80	1.94	-	1,1,1,1	1
59	MG	DA	3474	1/1	0.82	2.41	-	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	D7	101	1/1	0.92	0.55	-	89,89,89,89	0
59	MG	DA	3111	1/1	0.62	0.34	-	83,83,83,83	0
59	MG	BA	3353	1/1	0.84	0.65	-	107,107,107,107	0
59	MG	DA	3092	1/1	0.83	0.68	-	106,106,106,106	0
59	MG	DA	3730	1/1	0.78	0.50	-	91,91,91,91	0
59	MG	DA	3632	1/1	0.86	0.49	-	56,56,56,56	0
59	MG	BA	3284	1/1	0.64	0.55	-	97,97,97,97	0
59	MG	DA	3285	1/1	0.96	0.31	-	37,37,37,37	0
59	MG	DA	3766	1/1	0.93	0.79	-	100,100,100,100	0
59	MG	BA	3528	1/1	0.79	0.46	-	73,73,73,73	0
59	MG	BA	2967	1/1	0.65	0.28	-	95,95,95,95	0
59	MG	DA	3360	1/1	0.89	0.22	-	99,99,99,99	0
59	MG	DA	3332	1/1	0.97	0.31	-	26,26,26,26	0
59	MG	CA	1757	1/1	0.93	0.14	-	83,83,83,83	0
59	MG	DA	3573	1/1	0.84	0.35	-	86,86,86,86	0
59	MG	DA	2937	1/1	0.85	0.33	-	63,63,63,63	1
59	MG	BA	3127	1/1	0.81	0.41	-	71,71,71,71	0
59	MG	AA	1665	1/1	0.83	0.67	-	60,60,60,60	0
59	MG	DA	3656	1/1	0.98	0.17	-	75,75,75,75	0
59	MG	BA	3328	1/1	0.85	0.66	-	76,76,76,76	0
59	MG	AA	1806	1/1	0.82	0.17	-	81,81,81,81	0
59	MG	CA	1773	1/1	0.68	0.42	-	106,106,106,106	0
59	MG	DA	3359	1/1	0.87	0.33	-	64,64,64,64	0
59	MG	BA	3117	1/1	0.92	0.77	-	98,98,98,98	0
59	MG	DA	3595	1/1	0.83	0.79	-	75,75,75,75	0
59	MG	BB	201	1/1	0.94	0.38	-	46,46,46,46	0
59	MG	CA	1709	1/1	0.69	0.15	-	85,85,85,85	1
59	MG	BA	3600	1/1	0.74	0.54	-	63,63,63,63	0
59	MG	DA	3455	1/1	0.90	0.47	-	71,71,71,71	0
59	MG	AA	1963	1/1	0.89	0.76	-	74,74,74,74	0
59	MG	BA	3212	1/1	0.89	0.57	-	52,52,52,52	0
59	MG	AA	1889	1/1	0.68	0.42	-	115,115,115,115	0
59	MG	DA	3797	1/1	0.88	0.36	-	56,56,56,56	0
59	MG	CA	1716	1/1	0.78	0.53	-	110,110,110,110	0
59	MG	DA	3123	1/1	0.67	1.02	-	91,91,91,91	0
59	MG	DA	3160	1/1	0.95	0.32	-	68,68,68,68	0
59	MG	BA	3550	1/1	0.94	0.42	-	103,103,103,103	0
59	MG	AA	1949	1/1	0.85	0.48	-	42,42,42,42	1
59	MG	DA	3369	1/1	0.72	0.26	-	95,95,95,95	0
59	MG	DA	3326	1/1	0.73	0.54	-	63,63,63,63	0
59	MG	DA	3114	1/1	0.96	0.52	-	55,55,55,55	0
59	MG	DA	3584	1/1	0.63	0.64	-	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
59	MG	DA	3299	1/1	0.87	0.47	-	75,75,75,75	0
59	MG	DA	3559	1/1	0.74	0.32	-	74,74,74,74	0
59	MG	AA	1602	1/1	0.85	0.18	-	71,71,71,71	0
59	MG	DA	3661	1/1	0.56	0.35	-	100,100,100,100	0
59	MG	DA	3790	1/1	0.95	1.41	-	29,29,29,29	1
59	MG	BR	204	1/1	0.97	0.21	-	26,26,26,26	0
59	MG	DA	2999	1/1	0.98	0.05	-	91,91,91,91	0
59	MG	BA	3461	1/1	0.95	0.51	-	41,41,41,41	0
59	MG	DA	3132	1/1	0.88	0.59	-	49,49,49,49	0
59	MG	BA	3579	1/1	0.91	0.71	-	71,71,71,71	0
59	MG	CA	1618	1/1	0.87	0.31	-	79,79,79,79	0
59	MG	DA	3442	1/1	0.88	0.45	-	71,71,71,71	0
59	MG	BA	3480	1/1	0.80	0.35	-	55,55,55,55	0
59	MG	DA	3422	1/1	0.96	0.74	-	63,63,63,63	0
59	MG	CA	1664	1/1	0.81	0.24	-	91,91,91,91	0
59	MG	AA	1867	1/1	0.81	0.36	-	65,65,65,65	0
59	MG	DA	2961	1/1	0.76	0.52	-	126,126,126,126	0
59	MG	CA	1670	1/1	0.82	0.28	-	66,66,66,66	0
59	MG	BA	3415	1/1	0.85	0.43	-	69,69,69,69	1
59	MG	BA	2951	1/1	0.48	1.42	-	142,142,142,142	0
59	MG	DA	3056	1/1	0.83	0.71	-	65,65,65,65	0
59	MG	CA	1656	1/1	0.89	0.50	-	73,73,73,73	0
59	MG	DA	3634	1/1	0.70	0.34	-	83,83,83,83	0
59	MG	AV	107	1/1	0.91	0.25	-	58,58,58,58	0
59	MG	D5	101	1/1	0.98	0.30	-	48,48,48,48	0
59	MG	DA	3220	1/1	0.79	0.91	-	117,117,117,117	0
59	MG	AA	1722	1/1	0.67	0.76	-	116,116,116,116	0
59	MG	CV	107	1/1	0.76	0.29	-	115,115,115,115	0
59	MG	DA	3130	1/1	0.82	1.23	-	108,108,108,108	0
59	MG	BA	3080	1/1	0.87	0.60	-	83,83,83,83	0
59	MG	CA	1613	1/1	0.86	0.37	-	73,73,73,73	0
59	MG	DA	3554	1/1	0.92	0.08	-	95,95,95,95	0
59	MG	BA	3087	1/1	0.68	0.44	-	87,87,87,87	0
59	MG	D1	102	1/1	0.91	0.27	-	80,80,80,80	0
59	MG	AO	101	1/1	0.64	0.39	-	111,111,111,111	0
59	MG	DA	2949	1/1	0.85	0.33	-	98,98,98,98	1
59	MG	BA	3562	1/1	0.89	0.52	-	71,71,71,71	0
59	MG	AA	1799	1/1	0.93	0.13	-	80,80,80,80	0
59	MG	BA	3349	1/1	0.93	0.33	-	68,68,68,68	0
59	MG	BA	3219	1/1	0.93	0.43	-	57,57,57,57	0
59	MG	DA	3564	1/1	0.97	0.32	-	42,42,42,42	0
59	MG	AA	1946	1/1	0.92	0.40	-	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
59	MG	BA	3564	1/1	0.86	0.67	-	113,113,113,113	0
59	MG	DA	3074	1/1	0.49	0.55	-	129,129,129,129	0
59	MG	BA	3432	1/1	0.86	0.45	-	59,59,59,59	0
59	MG	BA	3062	1/1	0.97	0.21	-	61,61,61,61	0
59	MG	BA	3570	1/1	0.67	0.54	-	115,115,115,115	0
59	MG	DA	3566	1/1	0.62	0.15	-	106,106,106,106	0
59	MG	D7	104	1/1	0.82	0.22	-	82,82,82,82	1
59	MG	DA	3547	1/1	0.80	0.72	-	89,89,89,89	0
59	MG	DA	2944	1/1	0.33	2.47	-	109,109,109,109	1
59	MG	AA	1942	1/1	0.84	0.22	-	98,98,98,98	0
59	MG	DA	3582	1/1	0.72	0.58	-	47,47,47,47	1
59	MG	BA	3532	1/1	0.70	1.45	-	88,88,88,88	0
59	MG	BA	2964	1/1	0.97	0.17	-	96,96,96,96	0
59	MG	DA	3756	1/1	0.80	0.44	-	106,106,106,106	0
59	MG	BA	3133	1/1	0.85	0.21	-	57,57,57,57	0
59	MG	AA	1619	1/1	0.62	0.50	-	111,111,111,111	0
59	MG	AA	1709	1/1	0.92	0.27	-	85,85,85,85	1
59	MG	BA	2976	1/1	0.82	0.13	-	97,97,97,97	0
59	MG	AA	1728	1/1	0.70	0.30	-	78,78,78,78	0
59	MG	AA	1830	1/1	0.96	0.36	-	86,86,86,86	0
59	MG	AA	1972	1/1	0.47	1.62	-	98,98,98,98	1
59	MG	DA	3663	1/1	0.98	0.60	-	55,55,55,55	0
59	MG	AA	1874	1/1	0.42	0.26	-	111,111,111,111	0
59	MG	AA	1634	1/1	0.92	0.47	-	70,70,70,70	1
59	MG	BA	3085	1/1	0.79	0.45	-	68,68,68,68	0
59	MG	DA	3642	1/1	0.81	0.56	-	88,88,88,88	0
59	MG	BA	3194	1/1	0.86	0.12	-	67,67,67,67	0
59	MG	DA	2910	1/1	0.84	0.80	-	68,68,68,68	0
59	MG	AA	1840	1/1	0.92	0.34	-	76,76,76,76	0
59	MG	DA	3189	1/1	0.90	0.26	-	80,80,80,80	0
59	MG	BA	2986	1/1	0.74	0.36	-	52,52,52,52	0
59	MG	DA	3516	1/1	0.91	0.85	-	97,97,97,97	0
59	MG	BA	3359	1/1	0.59	0.82	-	101,101,101,101	0
59	MG	DA	3736	1/1	0.71	0.18	-	77,77,77,77	1
59	MG	DA	3792	1/1	0.84	0.44	-	77,77,77,77	0
59	MG	BA	3393	1/1	0.88	0.20	-	104,104,104,104	0
59	MG	CA	1609	1/1	0.71	1.04	-	93,93,93,93	0
59	MG	BA	2983	1/1	0.84	0.19	-	63,63,63,63	0
59	MG	BA	3103	1/1	0.95	0.30	-	69,69,69,69	0
59	MG	AA	1792	1/1	0.71	0.17	-	102,102,102,102	0
59	MG	DA	3441	1/1	0.97	0.64	-	55,55,55,55	0
59	MG	BA	3474	1/1	0.92	0.56	-	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	BA	3061	1/1	0.92	0.32	-	63,63,63,63	0
59	MG	AA	1951	1/1	0.92	0.33	-	82,82,82,82	0
59	MG	CA	1657	1/1	0.58	0.52	-	85,85,85,85	0
59	MG	BA	3440	1/1	0.89	0.42	-	72,72,72,72	0
59	MG	BA	3159	1/1	0.94	0.45	-	72,72,72,72	0
59	MG	DA	3055	1/1	0.96	0.49	-	51,51,51,51	0
59	MG	BA	3234	1/1	0.59	0.59	-	90,90,90,90	0
59	MG	AL	201	1/1	0.98	0.11	-	87,87,87,87	0
59	MG	AA	1871	1/1	0.94	0.22	-	144,144,144,144	0
59	MG	BA	3175	1/1	0.97	0.35	-	25,25,25,25	0
59	MG	DA	3748	1/1	0.85	0.67	-	125,125,125,125	0
59	MG	AA	1886	1/1	0.96	0.64	-	84,84,84,84	0
59	MG	DA	3528	1/1	0.90	0.28	-	80,80,80,80	0
59	MG	CA	1651	1/1	0.90	0.17	-	84,84,84,84	0
59	MG	CA	1663	1/1	0.72	0.20	-	97,97,97,97	0
59	MG	AA	1928	1/1	0.93	0.34	-	42,42,42,42	0
59	MG	BA	3376	1/1	0.89	0.24	-	68,68,68,68	1
59	MG	DA	3348	1/1	0.96	0.58	-	43,43,43,43	0
59	MG	AA	1735	1/1	0.68	0.77	-	85,85,85,85	0
59	MG	BA	3226	1/1	0.95	0.48	-	78,78,78,78	0
59	MG	DA	3216	1/1	0.98	0.36	-	36,36,36,36	0
59	MG	DA	3043	1/1	0.81	0.37	-	80,80,80,80	0
59	MG	DA	3434	1/1	0.95	0.55	-	44,44,44,44	0
59	MG	DA	3168	1/1	0.71	1.16	-	100,100,100,100	0
59	MG	DA	3154	1/1	0.84	0.34	-	58,58,58,58	0
59	MG	AA	1940	1/1	0.87	0.25	-	86,86,86,86	0
59	MG	AA	1608	1/1	0.87	0.41	-	58,58,58,58	0
59	MG	AL	202	1/1	0.59	0.12	-	73,73,73,73	0
59	MG	DA	3110	1/1	0.98	0.72	-	200,200,200,200	0
59	MG	AA	1670	1/1	0.93	0.21	-	28,28,28,28	1
59	MG	DA	3260	1/1	0.89	0.69	-	33,33,33,33	0
59	MG	DA	3784	1/1	0.91	0.34	-	123,123,123,123	0
59	MG	DA	3615	1/1	0.86	0.79	-	86,86,86,86	0
59	MG	DA	3504	1/1	0.97	0.27	-	60,60,60,60	0
59	MG	BA	3143	1/1	0.98	0.37	-	149,149,149,149	0
59	MG	DA	3190	1/1	0.85	0.35	-	97,97,97,97	0
59	MG	BA	3486	1/1	0.67	0.26	-	54,54,54,54	0
59	MG	D1	101	1/1	0.72	0.23	-	75,75,75,75	0
59	MG	BA	3515	1/1	0.94	0.15	-	47,47,47,47	1
59	MG	BA	3385	1/1	0.80	0.35	-	63,63,63,63	1
59	MG	BA	3505	1/1	0.71	0.47	-	95,95,95,95	0
59	MG	BA	2987	1/1	0.74	0.24	-	104,104,104,104	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
59	MG	BA	3141	1/1	0.79	0.60	-	104,104,104,104	0
59	MG	CA	1665	1/1	0.92	0.13	-	79,79,79,79	0
59	MG	BA	3454	1/1	0.98	0.56	-	64,64,64,64	0
59	MG	BA	3447	1/1	0.97	0.10	-	90,90,90,90	0
59	MG	BA	3297	1/1	0.94	0.22	-	34,34,34,34	0
59	MG	DA	3147	1/1	0.85	0.17	-	90,90,90,90	0
59	MG	DA	3096	1/1	0.68	0.44	-	80,80,80,80	0
59	MG	CA	1717	1/1	0.95	0.14	-	78,78,78,78	0
59	MG	DA	3317	1/1	0.94	0.50	-	62,62,62,62	0
59	MG	AA	1836	1/1	0.94	0.34	-	114,114,114,114	0
59	MG	DA	2987	1/1	0.90	0.28	-	68,68,68,68	0
59	MG	CA	1766	1/1	0.65	0.30	-	118,118,118,118	0
59	MG	BA	3082	1/1	0.68	0.29	-	90,90,90,90	0
59	MG	DA	3666	1/1	0.58	1.13	-	66,66,66,66	0
59	MG	DA	3593	1/1	0.81	0.32	-	61,61,61,61	0
59	MG	BA	2921	1/1	0.88	0.12	-	51,51,51,51	0
59	MG	DB	210	1/1	0.90	0.36	-	56,56,56,56	0
59	MG	DA	3718	1/1	0.71	0.77	-	92,92,92,92	0
59	MG	DA	3395	1/1	0.89	0.41	-	83,83,83,83	0
59	MG	AA	1959	1/1	0.69	0.83	-	146,146,146,146	0
59	MG	BA	2919	1/1	0.92	0.44	-	44,44,44,44	1
59	MG	DA	3421	1/1	0.78	0.18	-	71,71,71,71	0
59	MG	DA	3601	1/1	0.90	0.25	-	39,39,39,39	0
59	MG	BA	3396	1/1	0.94	0.66	-	86,86,86,86	0
59	MG	DA	3775	1/1	0.94	0.66	-	86,86,86,86	0
59	MG	BA	3433	1/1	0.95	0.22	-	61,61,61,61	0
59	MG	BA	3573	1/1	0.90	0.70	-	75,75,75,75	0
59	MG	DA	3148	1/1	0.84	1.15	-	120,120,120,120	0
59	MG	DB	202	1/1	0.80	0.46	-	55,55,55,55	0
59	MG	BA	3105	1/1	0.83	1.08	-	79,79,79,79	0
59	MG	BA	3387	1/1	0.69	0.42	-	87,87,87,87	0
59	MG	AA	1637	1/1	0.95	0.15	-	78,78,78,78	1
59	MG	DA	3083	1/1	0.81	0.45	-	104,104,104,104	0
59	MG	DA	3501	1/1	0.90	0.49	-	59,59,59,59	0
59	MG	DA	3002	1/1	0.91	0.07	-	78,78,78,78	0
59	MG	DA	2912	1/1	0.95	0.30	-	68,68,68,68	0
59	MG	BA	3345	1/1	0.94	0.59	-	37,37,37,37	0
59	MG	AA	1780	1/1	0.82	0.44	-	154,154,154,154	0
59	MG	AA	1784	1/1	0.89	0.30	-	92,92,92,92	0
59	MG	BA	3179	1/1	0.85	0.26	-	66,66,66,66	0
59	MG	BA	2963	1/1	0.85	1.12	-	113,113,113,113	0
59	MG	BR	202	1/1	0.96	0.18	-	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DA	3378	1/1	0.90	0.45	-	96,96,96,96	0
59	MG	AA	1924	1/1	0.96	1.03	-	84,84,84,84	0
59	MG	DA	3476	1/1	0.77	0.41	-	120,120,120,120	0
59	MG	BA	3516	1/1	0.97	0.80	-	64,64,64,64	0
59	MG	BA	3023	1/1	0.92	0.28	-	64,64,64,64	0
59	MG	AA	1779	1/1	0.84	0.22	-	114,114,114,114	0
59	MG	DA	3296	1/1	0.82	0.28	-	46,46,46,46	1
59	MG	AA	1639	1/1	0.88	1.32	-	79,79,79,79	0
59	MG	DA	3323	1/1	0.94	0.75	-	58,58,58,58	0
59	MG	CA	1760	1/1	0.83	0.24	-	52,52,52,52	1
59	MG	BA	3434	1/1	0.96	0.38	-	68,68,68,68	0
59	MG	AA	1659	1/1	0.86	0.20	-	107,107,107,107	0
59	MG	AA	1618	1/1	0.81	0.54	-	78,78,78,78	0
59	MG	AA	1657	1/1	0.98	0.14	-	77,77,77,77	0
59	MG	DA	3165	1/1	0.76	0.51	-	121,121,121,121	0
59	MG	BA	3540	1/1	0.87	0.86	-	66,66,66,66	1
59	MG	DA	3781	1/1	0.37	0.77	-	143,143,143,143	0
59	MG	DA	3315	1/1	0.94	0.46	-	77,77,77,77	0
59	MG	CA	1721	1/1	0.81	0.71	-	111,111,111,111	0
59	MG	BA	3565	1/1	0.85	0.38	-	79,79,79,79	0
59	MG	AX	103	1/1	0.61	0.62	-	112,112,112,112	0
59	MG	BA	2923	1/1	0.64	1.07	-	96,96,96,96	0
59	MG	CA	1696	1/1	0.80	1.10	-	79,79,79,79	0
59	MG	DA	3407	1/1	0.83	0.52	-	77,77,77,77	1
59	MG	DA	3253	1/1	0.67	0.45	-	52,52,52,52	0
59	MG	DA	3786	1/1	0.60	0.38	-	144,144,144,144	0
59	MG	AA	1668	1/1	0.89	0.66	-	78,78,78,78	0
59	MG	DA	3336	1/1	0.96	0.56	-	31,31,31,31	0
59	MG	BA	2914	1/1	0.67	1.75	-	106,106,106,106	0
59	MG	BA	3481	1/1	0.95	0.44	-	59,59,59,59	0
59	MG	BA	3220	1/1	0.96	0.64	-	54,54,54,54	0
59	MG	CA	1783	1/1	0.96	0.10	-	83,83,83,83	0
59	MG	DA	3618	1/1	0.96	0.66	-	72,72,72,72	0
59	MG	CA	1774	1/1	0.86	1.64	-	111,111,111,111	1
59	MG	DA	3291	1/1	0.87	0.37	-	88,88,88,88	0
59	MG	BA	3568	1/1	0.70	0.46	-	58,58,58,58	0
59	MG	AA	1682	1/1	0.74	1.09	-	104,104,104,104	0
59	MG	BA	3108	1/1	0.96	0.67	-	56,56,56,56	0
59	MG	AA	1748	1/1	0.88	0.47	-	23,23,23,23	1
59	MG	CA	1739	1/1	0.68	0.53	-	104,104,104,104	0
59	MG	DA	2938	1/1	0.80	0.17	-	17,17,17,17	1
59	MG	DA	3193	1/1	0.83	0.17	-	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DA	3727	1/1	0.58	0.44	-	70,70,70,70	1
59	MG	BA	3153	1/1	0.96	0.12	-	93,93,93,93	0
59	MG	CA	1634	1/1	0.77	0.12	-	97,97,97,97	0
59	MG	BA	3223	1/1	0.92	0.22	-	80,80,80,80	0
59	MG	CA	1629	1/1	0.89	0.29	-	98,98,98,98	0
59	MG	AA	1903	1/1	0.86	0.39	-	79,79,79,79	0
59	MG	BA	2939	1/1	0.86	0.32	-	80,80,80,80	0
59	MG	D0	101	1/1	0.89	0.16	-	16,16,16,16	1
59	MG	BA	3030	1/1	0.72	0.54	-	79,79,79,79	0
59	MG	DA	2940	1/1	0.82	0.45	-	106,106,106,106	0
59	MG	AA	1690	1/1	0.76	0.22	-	81,81,81,81	1
59	MG	CV	102	1/1	0.91	0.08	-	92,92,92,92	0
59	MG	BA	3192	1/1	0.87	0.70	-	90,90,90,90	0
59	MG	BA	2930	1/1	0.90	0.20	-	85,85,85,85	0
59	MG	BA	3522	1/1	0.82	0.20	-	74,74,74,74	0
59	MG	AA	1705	1/1	0.89	1.06	-	105,105,105,105	0
59	MG	B7	101	1/1	0.94	0.89	-	93,93,93,93	0
59	MG	BA	3580	1/1	0.51	0.23	-	135,135,135,135	0
59	MG	DA	3540	1/1	0.77	0.32	-	152,152,152,152	0
59	MG	DA	3093	1/1	0.85	0.36	-	67,67,67,67	0
59	MG	DA	3115	1/1	0.94	0.47	-	39,39,39,39	0
59	MG	DA	3725	1/1	0.97	0.36	-	71,71,71,71	0
59	MG	BA	2950	1/1	0.89	0.29	-	55,55,55,55	1
59	MG	DA	3030	1/1	0.94	0.74	-	59,59,59,59	0
59	MG	AA	1965	1/1	0.95	1.21	-	97,97,97,97	0
59	MG	BA	3578	1/1	0.82	0.18	-	76,76,76,76	0
59	MG	AA	1835	1/1	0.69	1.83	-	102,102,102,102	0
59	MG	BA	3015	1/1	0.88	0.07	-	105,105,105,105	0
59	MG	CA	1694	1/1	0.90	0.20	-	93,93,93,93	0
59	MG	BA	3476	1/1	0.94	0.27	-	58,58,58,58	0
59	MG	DA	3457	1/1	0.83	0.74	-	68,68,68,68	0
59	MG	DA	3075	1/1	0.73	0.15	-	98,98,98,98	0
59	MG	BA	3421	1/1	0.78	0.33	-	68,68,68,68	0
59	MG	BB	202	1/1	0.89	0.50	-	62,62,62,62	0
59	MG	DA	3185	1/1	0.88	0.23	-	79,79,79,79	0
59	MG	DA	3409	1/1	0.70	0.18	-	53,53,53,53	1
59	MG	DA	3451	1/1	0.85	0.15	-	80,80,80,80	1
59	MG	DA	3250	1/1	0.87	0.28	-	69,69,69,69	0
59	MG	DA	3200	1/1	0.78	0.57	-	62,62,62,62	0
59	MG	DA	3297	1/1	0.93	0.65	-	53,53,53,53	0
59	MG	BA	2952	1/1	0.92	0.46	-	96,96,96,96	0
59	MG	BA	3135	1/1	0.91	0.24	-	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	BA	3000	1/1	0.90	0.10	-	80,80,80,80	0
59	MG	BA	3370	1/1	0.86	0.52	-	105,105,105,105	0
59	MG	DA	3218	1/1	0.90	0.38	-	130,130,130,130	0
59	MG	CA	1655	1/1	0.43	0.26	-	84,84,84,84	0
59	MG	DA	3607	1/1	0.79	0.29	-	104,104,104,104	0
59	MG	DA	3388	1/1	0.83	0.66	-	78,78,78,78	0
59	MG	AA	1898	1/1	0.93	0.27	-	65,65,65,65	0
59	MG	BA	3207	1/1	0.94	0.43	-	43,43,43,43	0
59	MG	AA	1933	1/1	0.97	0.21	-	67,67,67,67	0
59	MG	BR	205	1/1	0.95	0.16	-	76,76,76,76	0
59	MG	DR	202	1/1	0.67	0.38	-	65,65,65,65	1
59	MG	DA	3541	1/1	0.90	0.21	-	96,96,96,96	0
59	MG	AA	1640	1/1	0.70	1.74	-	127,127,127,127	0
59	MG	DA	3375	1/1	0.92	0.43	-	57,57,57,57	0
59	MG	CA	1679	1/1	0.82	0.15	-	65,65,65,65	1
59	MG	AA	1805	1/1	0.90	0.19	-	102,102,102,102	0
59	MG	BA	3065	1/1	0.95	0.38	-	50,50,50,50	0
59	MG	AA	1654	1/1	0.94	0.13	-	58,58,58,58	1
59	MG	AA	1873	1/1	0.92	0.43	-	117,117,117,117	0
59	MG	BA	3253	1/1	0.88	0.37	-	52,52,52,52	1
59	MG	AA	1749	1/1	0.60	0.28	-	74,74,74,74	1
59	MG	AY	102	1/1	0.91	0.74	-	104,104,104,104	1
59	MG	BA	3592	1/1	0.84	0.25	-	100,100,100,100	0
59	MG	AA	1808	1/1	0.97	0.48	-	57,57,57,57	0
59	MG	BA	3520	1/1	0.91	0.23	-	80,80,80,80	0
59	MG	DA	2925	1/1	0.68	1.06	-	108,108,108,108	0
59	MG	CA	1615	1/1	0.64	1.21	-	104,104,104,104	0
59	MG	AA	1821	1/1	0.90	0.40	-	65,65,65,65	0
59	MG	DA	3310	1/1	0.96	0.39	-	90,90,90,90	1
59	MG	DA	3437	1/1	0.98	0.18	-	12,12,12,12	1
59	MG	AA	1632	1/1	0.95	0.24	-	97,97,97,97	0
59	MG	DA	2988	1/1	0.66	0.54	-	40,40,40,40	1
59	MG	DA	2962	1/1	0.85	0.69	-	84,84,84,84	0
59	MG	DA	3664	1/1	0.95	0.14	-	85,85,85,85	0
59	MG	DB	205	1/1	0.88	0.49	-	82,82,82,82	0
59	MG	CA	1642	1/1	0.80	0.25	-	85,85,85,85	0
59	MG	BA	2905	1/1	0.94	0.34	-	52,52,52,52	0
59	MG	DA	3201	1/1	0.87	0.35	-	62,62,62,62	0
59	MG	DA	3508	1/1	0.84	0.29	-	88,88,88,88	0
59	MG	AA	1736	1/1	0.79	1.18	-	101,101,101,101	0
59	MG	DA	3000	1/1	0.92	0.06	-	105,105,105,105	0
59	MG	DA	3124	1/1	0.63	0.53	-	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DA	3519	1/1	0.81	0.33	-	77,77,77,77	0
59	MG	D2	101	1/1	0.85	0.36	-	62,62,62,62	0
59	MG	BA	2962	1/1	0.91	0.63	-	70,70,70,70	0
59	MG	DA	2945	1/1	0.87	0.73	-	102,102,102,102	0
59	MG	AA	1901	1/1	0.94	0.69	-	65,65,65,65	0
59	MG	DA	3149	1/1	0.94	0.31	-	26,26,26,26	0
59	MG	BA	3268	1/1	0.83	0.18	-	88,88,88,88	1
59	MG	BA	3120	1/1	0.69	0.13	-	101,101,101,101	0
59	MG	BA	2971	1/1	0.72	1.10	-	92,92,92,92	0
59	MG	DA	3370	1/1	0.95	0.54	-	68,68,68,68	0
59	MG	DA	2947	1/1	0.97	0.15	-	86,86,86,86	0
59	MG	BA	3301	1/1	0.60	0.63	-	67,67,67,67	0
59	MG	DA	3561	1/1	0.76	0.46	-	81,81,81,81	1
59	MG	BA	3025	1/1	0.78	0.22	-	83,83,83,83	0
59	MG	DA	2905	1/1	0.80	0.08	-	80,80,80,80	0
59	MG	BA	2941	1/1	0.90	0.27	-	62,62,62,62	0
59	MG	AA	1957	1/1	0.81	0.80	-	75,75,75,75	0
59	MG	DA	3203	1/1	0.71	0.75	-	112,112,112,112	0
59	MG	BA	2916	1/1	0.58	0.35	-	78,78,78,78	0
59	MG	BA	3138	1/1	0.85	0.13	-	60,60,60,60	0
59	MG	BA	3344	1/1	0.98	0.51	-	45,45,45,45	0
59	MG	DA	3053	1/1	0.94	0.38	-	33,33,33,33	0
59	MG	BA	3237	1/1	0.95	0.20	-	58,58,58,58	0
59	MG	DA	3242	1/1	0.94	0.34	-	31,31,31,31	0
59	MG	DA	2917	1/1	0.83	0.99	-	89,89,89,89	0
59	MG	DA	3453	1/1	0.85	0.22	-	84,84,84,84	0
59	MG	DA	3550	1/1	0.92	0.46	-	86,86,86,86	0
59	MG	AA	1793	1/1	0.73	0.17	-	75,75,75,75	0
59	MG	BA	3596	1/1	0.77	1.24	-	107,107,107,107	0
59	MG	CA	1623	1/1	0.88	0.08	-	81,81,81,81	0
59	MG	DA	3129	1/1	0.98	0.41	-	72,72,72,72	0
59	MG	DA	3612	1/1	0.82	0.50	-	77,77,77,77	0
59	MG	DA	3616	1/1	0.93	0.36	-	51,51,51,51	0
59	MG	AA	1765	1/1	0.92	0.09	-	107,107,107,107	1
59	MG	AA	1922	1/1	0.67	0.27	-	82,82,82,82	0
59	MG	DA	3671	1/1	0.79	0.90	-	103,103,103,103	0
59	MG	BA	3320	1/1	0.70	0.32	-	92,92,92,92	0
59	MG	BA	3531	1/1	0.93	0.54	-	53,53,53,53	0
59	MG	BA	2998	1/1	0.95	0.23	-	54,54,54,54	0
59	MG	DA	3102	1/1	0.82	0.40	-	86,86,86,86	0
59	MG	DA	3510	1/1	0.89	0.10	-	59,59,59,59	0
59	MG	BA	3086	1/1	0.86	0.18	-	123,123,123,123	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DA	3352	1/1	0.93	0.31	-	58,58,58,58	0
59	MG	BA	3215	1/1	0.71	0.57	-	4,4,4,4	1
59	MG	DA	3038	1/1	0.96	0.35	-	32,32,32,32	0
59	MG	BA	2959	1/1	0.94	0.26	-	65,65,65,65	0
59	MG	DA	3491	1/1	0.72	1.06	-	107,107,107,107	0
59	MG	BA	3518	1/1	0.92	0.30	-	64,64,64,64	0
59	MG	AA	1907	1/1	0.82	0.52	-	96,96,96,96	0
59	MG	DA	3174	1/1	0.95	0.38	-	93,93,93,93	0
59	MG	CA	1724	1/1	0.94	0.52	-	102,102,102,102	0
59	MG	DA	3355	1/1	0.93	0.15	-	80,80,80,80	0
59	MG	DA	2963	1/1	0.86	0.33	-	39,39,39,39	1
59	MG	BA	3185	1/1	0.76	0.34	-	75,75,75,75	0
59	MG	AA	1680	1/1	0.91	0.27	-	75,75,75,75	0
59	MG	DA	3234	1/1	0.96	0.42	-	118,118,118,118	0
59	MG	DA	3225	1/1	0.96	0.44	-	32,32,32,32	0
59	MG	BA	3060	1/1	0.87	1.10	-	98,98,98,98	0
59	MG	CA	1743	1/1	0.69	1.95	-	81,81,81,81	0
59	MG	BA	3314	1/1	0.96	0.52	-	29,29,29,29	0
59	MG	BA	3088	1/1	0.97	0.86	-	62,62,62,62	0
59	MG	DA	3133	1/1	0.69	0.90	-	120,120,120,120	0
59	MG	BA	3457	1/1	0.92	0.53	-	72,72,72,72	0
59	MG	BA	3426	1/1	0.91	0.76	-	77,77,77,77	0
59	MG	DA	3686	1/1	0.79	0.34	-	107,107,107,107	0
59	MG	DA	3383	1/1	0.82	0.63	-	135,135,135,135	0
59	MG	CA	1688	1/1	0.95	0.11	-	79,79,79,79	0
59	MG	AA	1880	1/1	0.77	0.51	-	102,102,102,102	0
59	MG	BA	3311	1/1	0.77	0.36	-	80,80,80,80	0
59	MG	BA	3004	1/1	0.78	1.52	-	84,84,84,84	0
59	MG	BA	3189	1/1	0.86	0.36	-	62,62,62,62	0
59	MG	DA	3572	1/1	0.88	0.52	-	56,56,56,56	1
59	MG	DA	3231	1/1	0.69	0.42	-	98,98,98,98	0
59	MG	DA	3192	1/1	0.72	1.03	-	70,70,70,70	0
59	MG	BA	3182	1/1	0.98	0.25	-	60,60,60,60	0
59	MG	CA	1725	1/1	0.82	0.47	-	76,76,76,76	1
59	MG	CA	1695	1/1	0.72	0.51	-	110,110,110,110	0
59	MG	BA	3319	1/1	0.91	0.52	-	33,33,33,33	0
59	MG	AA	1776	1/1	0.71	0.69	-	119,119,119,119	0
59	MG	BA	3355	1/1	0.86	0.24	-	26,26,26,26	0
59	MG	BA	3425	1/1	0.84	0.44	-	48,48,48,48	0
59	MG	CA	1674	1/1	0.95	0.18	-	90,90,90,90	0
59	MG	CA	1607	1/1	0.77	0.11	-	94,94,94,94	0
59	MG	DA	3104	1/1	0.99	0.11	-	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DA	3210	1/1	0.71	0.29	-	71,71,71,71	0
59	MG	DA	3555	1/1	0.90	1.20	-	105,105,105,105	0
59	MG	BA	2934	1/1	0.97	0.36	-	57,57,57,57	0
59	MG	CA	1653	1/1	0.99	0.35	-	39,39,39,39	0
59	MG	DA	3327	1/1	0.92	0.12	-	39,39,39,39	1
59	MG	AA	1906	1/1	0.87	0.36	-	65,65,65,65	1
59	MG	AA	1617	1/1	0.80	0.16	-	109,109,109,109	0
59	MG	CA	1692	1/1	0.77	0.23	-	140,140,140,140	0
59	MG	BA	3115	1/1	0.78	0.41	-	93,93,93,93	0
59	MG	DA	2929	1/1	0.96	0.20	-	10,10,10,10	1
59	MG	DA	3688	1/1	0.80	0.34	-	107,107,107,107	1
59	MG	BA	3499	1/1	0.93	0.36	-	43,43,43,43	0
59	MG	DA	3379	1/1	0.85	0.46	-	72,72,72,72	0
59	MG	DA	3179	1/1	0.96	0.53	-	66,66,66,66	0
59	MG	BA	3278	1/1	0.86	0.43	-	71,71,71,71	0
59	MG	DA	3373	1/1	0.88	0.69	-	75,75,75,75	0
59	MG	DA	3163	1/1	0.88	0.33	-	49,49,49,49	0
59	MG	CA	1617	1/1	0.96	0.06	-	66,66,66,66	0
59	MG	CA	1714	1/1	0.93	0.61	-	83,83,83,83	0
59	MG	CA	1689	1/1	0.86	0.13	-	96,96,96,96	1
59	MG	BA	3002	1/1	0.83	1.67	-	83,83,83,83	0
59	MG	AA	1732	1/1	0.73	0.11	-	52,52,52,52	0
59	MG	BA	3372	1/1	0.90	0.37	-	70,70,70,70	0
59	MG	DA	2926	1/1	0.85	0.44	-	45,45,45,45	1
59	MG	AA	1676	1/1	0.88	0.29	-	68,68,68,68	0
59	MG	DA	3728	1/1	0.88	0.42	-	46,46,46,46	1
59	MG	BA	3181	1/1	0.87	0.51	-	42,42,42,42	0
59	MG	AA	1815	1/1	0.96	0.21	-	76,76,76,76	0
59	MG	DA	3482	1/1	0.86	0.34	-	37,37,37,37	1
59	MG	DA	3647	1/1	0.95	0.50	-	36,36,36,36	0
59	MG	AA	1661	1/1	0.84	0.44	-	34,34,34,34	1
59	MG	BA	3097	1/1	0.65	0.45	-	89,89,89,89	0
59	MG	AA	1879	1/1	0.81	0.48	-	74,74,74,74	0
59	MG	CA	1687	1/1	0.92	0.08	-	63,63,63,63	0
59	MG	AA	1855	1/1	0.86	0.31	-	69,69,69,69	0
59	MG	DA	2952	1/1	0.86	0.49	-	44,44,44,44	0
59	MG	BA	3044	1/1	0.81	0.65	-	64,64,64,64	0
59	MG	BA	3609	1/1	0.97	0.20	-	56,56,56,56	0
59	MG	DA	3177	1/1	0.83	0.22	-	71,71,71,71	0
59	MG	BA	3209	1/1	0.80	0.31	-	61,61,61,61	0
59	MG	DA	3134	1/1	0.69	0.33	-	74,74,74,74	0
59	MG	DA	3486	1/1	0.94	0.62	-	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	BA	3283	1/1	0.92	0.29	-	58,58,58,58	0
59	MG	DF	302	1/1	0.53	1.29	-	98,98,98,98	0
59	MG	DA	3570	1/1	0.93	0.38	-	62,62,62,62	0
59	MG	DA	3324	1/1	0.64	0.33	-	66,66,66,66	1
59	MG	DA	3787	1/1	0.95	0.53	-	95,95,95,95	0
59	MG	DA	3041	1/1	0.94	0.22	-	78,78,78,78	0
59	MG	DA	3740	1/1	0.93	0.21	-	50,50,50,50	0
59	MG	DA	2991	1/1	0.88	0.35	-	44,44,44,44	1
59	MG	BA	3423	1/1	0.86	0.40	-	67,67,67,67	1
59	MG	DA	3261	1/1	0.91	0.76	-	34,34,34,34	1
59	MG	AA	1704	1/1	0.83	0.29	-	84,84,84,84	0
59	MG	AA	1648	1/1	0.64	0.78	-	108,108,108,108	0
59	MG	AA	1673	1/1	0.42	0.94	-	90,90,90,90	0
59	MG	DA	3367	1/1	0.86	0.57	-	28,28,28,28	1
59	MG	BA	3362	1/1	0.93	0.51	-	43,43,43,43	0
59	MG	BA	3557	1/1	0.90	1.00	-	37,37,37,37	1
59	MG	BA	3552	1/1	0.92	0.17	-	54,54,54,54	1
59	MG	BA	3333	1/1	0.81	0.36	-	72,72,72,72	0
59	MG	CA	1744	1/1	0.89	0.22	-	57,57,57,57	0
59	MG	DA	3685	1/1	0.92	0.15	-	69,69,69,69	0
59	MG	DA	2966	1/1	0.92	0.96	-	51,51,51,51	1
59	MG	AA	1615	1/1	0.88	1.12	-	67,67,67,67	0
59	MG	BA	3017	1/1	0.78	0.95	-	93,93,93,93	0
59	MG	BA	3339	1/1	0.82	0.80	-	63,63,63,63	1
59	MG	DA	3233	1/1	0.94	0.20	-	152,152,152,152	0
59	MG	DA	3159	1/1	0.83	0.41	-	85,85,85,85	0
59	MG	DA	3150	1/1	0.69	0.16	-	98,98,98,98	0
59	MG	AA	1626	1/1	0.97	0.64	-	89,89,89,89	0
59	MG	BA	2972	1/1	0.89	0.49	-	63,63,63,63	1
59	MG	DB	207	1/1	0.77	0.41	-	53,53,53,53	1
59	MG	AA	1902	1/1	0.87	0.10	-	90,90,90,90	0
59	MG	BA	3165	1/1	0.84	0.71	-	77,77,77,77	0
59	MG	DA	3252	1/1	0.86	0.19	-	87,87,87,87	0
59	MG	DA	3334	1/1	0.93	0.19	-	56,56,56,56	0
59	MG	AA	1781	1/1	0.80	0.32	-	111,111,111,111	0
59	MG	AV	104	1/1	0.36	0.29	-	133,133,133,133	0
59	MG	BA	3506	1/1	0.97	0.16	-	42,42,42,42	0
59	MG	DA	3626	1/1	0.96	0.33	-	34,34,34,34	0
59	MG	BA	2978	1/1	0.98	0.48	-	75,75,75,75	0
59	MG	BA	3302	1/1	0.97	1.20	-	69,69,69,69	0
59	MG	BA	3101	1/1	0.81	0.42	-	79,79,79,79	0
59	MG	CP	101	1/1	0.93	0.06	-	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DA	2950	1/1	0.61	0.21	-	80,80,80,80	1
59	MG	DA	3302	1/1	0.81	0.64	-	57,57,57,57	0
59	MG	CA	1756	1/1	0.56	0.66	-	87,87,87,87	0
59	MG	CA	1758	1/1	0.78	0.56	-	126,126,126,126	0
59	MG	DA	3235	1/1	0.78	0.47	-	110,110,110,110	0
59	MG	DA	3275	1/1	0.96	0.28	-	63,63,63,63	0
59	MG	DA	2932	1/1	0.93	0.21	-	1,1,1,1	1
59	MG	AA	1719	1/1	0.85	0.84	-	76,76,76,76	1
59	MG	AA	1701	1/1	0.92	0.34	-	77,77,77,77	0
59	MG	AA	1929	1/1	0.88	0.26	-	69,69,69,69	0
59	MG	DA	3135	1/1	0.88	0.29	-	51,51,51,51	0
59	MG	BA	3478	1/1	0.95	0.44	-	28,28,28,28	0
59	MG	AA	1964	1/1	0.74	1.22	-	106,106,106,106	0
59	MG	DA	3576	1/1	0.74	0.35	-	87,87,87,87	0
59	MG	BA	3388	1/1	0.93	0.59	-	100,100,100,100	0
59	MG	BA	3274	1/1	0.82	0.46	-	83,83,83,83	0
59	MG	DA	3497	1/1	0.72	0.28	-	103,103,103,103	0
59	MG	CV	109	1/1	0.81	0.13	-	95,95,95,95	0
59	MG	BA	3598	1/1	0.83	0.49	-	110,110,110,110	0
59	MG	AA	1969	1/1	0.83	0.71	-	83,83,83,83	0
59	MG	BA	3588	1/1	0.77	1.38	-	90,90,90,90	0
59	MG	DA	3605	1/1	0.95	0.32	-	63,63,63,63	0
59	MG	DA	2911	1/1	0.75	0.65	-	91,91,91,91	0
59	MG	DA	3767	1/1	0.90	0.64	-	67,67,67,67	0
59	MG	BA	3325	1/1	0.75	0.38	-	84,84,84,84	0
59	MG	BA	2945	1/1	0.93	0.34	-	113,113,113,113	0
59	MG	BA	3408	1/1	0.87	0.39	-	73,73,73,73	0
59	MG	BA	3356	1/1	0.97	0.25	-	45,45,45,45	0
59	MG	DA	3739	1/1	0.84	0.27	-	95,95,95,95	0
59	MG	DA	3446	1/1	0.88	0.37	-	52,52,52,52	0
59	MG	BA	3202	1/1	0.97	0.28	-	24,24,24,24	0
59	MG	BA	2973	1/1	0.61	0.91	-	85,85,85,85	0
59	MG	AA	1745	1/1	0.65	0.54	-	50,50,50,50	1
59	MG	DB	206	1/1	0.94	0.09	-	65,65,65,65	1
59	MG	AA	1914	1/1	0.97	0.24	-	56,56,56,56	0
59	MG	DA	3384	1/1	0.60	0.85	-	120,120,120,120	0
59	MG	CA	1733	1/1	0.77	0.17	-	76,76,76,76	0
59	MG	BA	3069	1/1	0.93	0.57	-	100,100,100,100	0
59	MG	DA	3164	1/1	0.82	0.26	-	55,55,55,55	0
59	MG	DA	3393	1/1	0.94	0.28	-	6,6,6,6	1
59	MG	DA	3329	1/1	0.74	0.41	-	110,110,110,110	0
59	MG	DA	3166	1/1	0.96	0.29	-	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	CA	1681	1/1	0.64	0.42	-	95,95,95,95	0
59	MG	BA	3399	1/1	0.97	0.58	-	146,146,146,146	0
59	MG	DD	301	1/1	0.89	0.38	-	57,57,57,57	0
59	MG	DA	3035	1/1	0.81	0.27	-	84,84,84,84	0
59	MG	CA	1749	1/1	0.76	0.52	-	16,16,16,16	1
59	MG	AA	1816	1/1	0.96	0.28	-	64,64,64,64	0
59	MG	AA	1742	1/1	0.86	0.27	-	63,63,63,63	1
59	MG	DA	3548	1/1	0.81	0.38	-	50,50,50,50	1
59	MG	DA	3591	1/1	0.84	0.65	-	19,19,19,19	1
59	MG	DA	3121	1/1	0.84	0.35	-	69,69,69,69	0
59	MG	DA	3417	1/1	0.64	0.57	-	48,48,48,48	1
59	MG	BT	201	1/1	0.08	0.38	-	117,117,117,117	0
59	MG	AA	1844	1/1	0.92	0.21	-	107,107,107,107	0
59	MG	AA	1653	1/1	0.98	0.07	-	68,68,68,68	1
59	MG	BA	3365	1/1	0.85	1.28	-	112,112,112,112	0
59	MG	AA	1718	1/1	0.99	0.17	-	98,98,98,98	0
59	MG	DA	3249	1/1	0.94	0.26	-	68,68,68,68	0
59	MG	BA	3604	1/1	0.68	0.66	-	82,82,82,82	0
59	MG	BA	3331	1/1	0.71	1.51	-	92,92,92,92	0
59	MG	DA	3700	1/1	0.95	0.32	-	59,59,59,59	0
59	MG	BA	3070	1/1	0.83	0.47	-	108,108,108,108	0
59	MG	DE	302	1/1	0.92	0.24	-	39,39,39,39	1
59	MG	DA	3709	1/1	0.90	0.22	-	61,61,61,61	0
59	MG	DA	3692	1/1	0.95	0.87	-	61,61,61,61	0
59	MG	AA	1868	1/1	0.89	0.25	-	100,100,100,100	0
59	MG	DT	201	1/1	0.84	0.78	-	5,5,5,5	1
59	MG	DA	3785	1/1	0.75	1.05	-	35,35,35,35	1
59	MG	BA	3602	1/1	0.62	1.44	-	122,122,122,122	1
59	MG	DE	304	1/1	0.98	0.35	-	22,22,22,22	0
59	MG	CA	1652	1/1	0.95	0.48	-	78,78,78,78	0
59	MG	DA	3623	1/1	0.94	0.16	-	28,28,28,28	0
59	MG	DA	3436	1/1	0.86	0.33	-	104,104,104,104	0
59	MG	AA	1854	1/1	0.84	0.20	-	71,71,71,71	0
59	MG	CA	1698	1/1	0.44	0.61	-	73,73,73,73	1
59	MG	DA	3139	1/1	0.86	0.27	-	89,89,89,89	0
59	MG	BA	3543	1/1	0.90	0.69	-	71,71,71,71	0
59	MG	DA	3099	1/1	0.96	0.31	-	67,67,67,67	0
59	MG	BA	3205	1/1	0.48	0.57	-	78,78,78,78	0
59	MG	BA	3444	1/1	0.84	0.76	-	69,69,69,69	0
59	MG	AA	1699	1/1	0.87	0.19	-	71,71,71,71	0
59	MG	AA	1730	1/1	0.81	0.27	-	77,77,77,77	1
59	MG	AA	1607	1/1	0.80	0.26	-	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	CA	1639	1/1	0.96	0.18	-	95,95,95,95	0
59	MG	CA	1636	1/1	0.86	0.53	-	77,77,77,77	0
59	MG	DA	2909	1/1	0.74	0.49	-	83,83,83,83	0
59	MG	BA	3383	1/1	0.67	0.11	-	126,126,126,126	0
59	MG	DA	3429	1/1	0.83	0.66	-	23,23,23,23	1
59	MG	AA	1970	1/1	0.80	0.33	-	107,107,107,107	0
59	MG	BA	3384	1/1	0.76	0.82	-	95,95,95,95	0
59	MG	AA	1768	1/1	0.67	0.89	-	107,107,107,107	0
59	MG	DA	3294	1/1	0.97	0.09	-	80,80,80,80	1
59	MG	DR	201	1/1	0.81	0.22	-	108,108,108,108	0
59	MG	AQ	202	1/1	0.60	0.47	-	97,97,97,97	0
59	MG	BA	3229	1/1	0.84	1.19	-	88,88,88,88	0
59	MG	AL	206	1/1	0.92	0.19	-	53,53,53,53	1
59	MG	CA	1633	1/1	0.93	0.09	-	70,70,70,70	0
59	MG	AA	1685	1/1	0.77	0.39	-	30,30,30,30	1
59	MG	AA	1967	1/1	0.98	0.28	-	67,67,67,67	0
59	MG	DA	3376	1/1	0.81	0.80	-	93,93,93,93	0
59	MG	BA	2994	1/1	0.83	0.48	-	80,80,80,80	0
59	MG	BD	304	1/1	0.89	0.32	-	49,49,49,49	0
59	MG	AA	1817	1/1	0.90	0.14	-	71,71,71,71	0
59	MG	DA	3602	1/1	0.90	0.29	-	76,76,76,76	0
59	MG	BA	3033	1/1	0.91	0.33	-	69,69,69,69	0
59	MG	BA	3150	1/1	0.84	0.40	-	145,145,145,145	0
59	MG	DA	3428	1/1	0.92	0.33	-	65,65,65,65	0
59	MG	DA	3358	1/1	0.81	0.26	-	93,93,93,93	0
59	MG	BA	3443	1/1	0.80	0.14	-	76,76,76,76	0
59	MG	DA	3609	1/1	0.91	0.53	-	63,63,63,63	0
59	MG	AA	1628	1/1	0.96	0.10	-	84,84,84,84	0
59	MG	DA	3712	1/1	0.81	0.95	-	108,108,108,108	0
59	MG	CA	1750	1/1	0.73	1.38	-	102,102,102,102	0
59	MG	CA	1622	1/1	0.78	0.75	-	99,99,99,99	0
59	MG	DA	3167	1/1	0.87	0.32	-	40,40,40,40	0
59	MG	AA	1838	1/1	0.73	0.74	-	80,80,80,80	0
59	MG	BA	3290	1/1	0.78	0.38	-	86,86,86,86	0
59	MG	DA	3495	1/1	0.68	0.62	-	75,75,75,75	0
59	MG	AA	1715	1/1	0.82	0.99	-	126,126,126,126	0
59	MG	DA	3424	1/1	0.91	1.01	-	84,84,84,84	0
59	MG	DA	3392	1/1	0.77	0.36	-	81,81,81,81	0
59	MG	BA	3500	1/1	0.92	0.35	-	79,79,79,79	0
59	MG	BA	3098	1/1	0.86	0.41	-	62,62,62,62	0
59	MG	AA	1896	1/1	0.94	0.20	-	78,78,78,78	0
59	MG	DA	3065	1/1	0.39	0.71	-	128,128,128,128	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	CA	1779	1/1	0.66	0.51	-	102,102,102,102	0
59	MG	BA	3392	1/1	0.94	0.85	-	87,87,87,87	0
59	MG	DA	3418	1/1	0.73	0.14	-	88,88,88,88	0
59	MG	BA	3126	1/1	0.98	0.12	-	36,36,36,36	0
59	MG	BA	2938	1/1	0.91	0.19	-	64,64,64,64	1
59	MG	DA	3793	1/1	0.59	0.33	-	130,130,130,130	0
59	MG	CV	105	1/1	0.84	0.17	-	82,82,82,82	0
59	MG	DA	3289	1/1	0.62	0.56	-	78,78,78,78	0
59	MG	AA	1756	1/1	0.87	0.19	-	91,91,91,91	0
59	MG	BA	3251	1/1	0.76	0.67	-	100,100,100,100	0
59	MG	BB	205	1/1	0.91	0.12	-	69,69,69,69	1
59	MG	CC	303	1/1	0.88	0.12	-	113,113,113,113	0
59	MG	DA	3313	1/1	0.98	0.29	-	101,101,101,101	0
59	MG	CA	1770	1/1	0.72	0.67	-	54,54,54,54	1
59	MG	BA	3056	1/1	0.94	0.24	-	156,156,156,156	0
59	MG	AA	1786	1/1	0.93	0.14	-	123,123,123,123	0
59	MG	AA	1744	1/1	0.96	0.08	-	80,80,80,80	0
59	MG	BA	3342	1/1	0.72	0.58	-	127,127,127,127	0
59	MG	DA	3524	1/1	0.72	0.58	-	61,61,61,61	0
59	MG	AA	1939	1/1	0.86	0.29	-	74,74,74,74	1
59	MG	BA	3427	1/1	0.91	0.61	-	63,63,63,63	0
59	MG	CA	1649	1/1	0.68	1.08	-	92,92,92,92	0
59	MG	BA	3507	1/1	0.86	0.42	-	55,55,55,55	0
59	MG	AA	1664	1/1	0.94	0.15	-	17,17,17,17	1
59	MG	AA	1623	1/1	0.96	1.02	-	66,66,66,66	0
59	MG	BA	3541	1/1	0.83	0.93	-	82,82,82,82	0
59	MG	DA	3583	1/1	0.83	0.48	-	64,64,64,64	0
59	MG	BA	3178	1/1	0.94	0.96	-	79,79,79,79	0
59	MG	BA	3482	1/1	0.98	0.49	-	144,144,144,144	0
59	MG	D0	104	1/1	0.29	0.68	-	98,98,98,98	0
59	MG	DA	3621	1/1	0.90	0.35	-	76,76,76,76	1
59	MG	DA	3448	1/1	0.97	0.20	-	55,55,55,55	0
59	MG	DA	3509	1/1	0.89	0.47	-	39,39,39,39	0
59	MG	AA	1934	1/1	0.93	0.23	-	68,68,68,68	0
59	MG	BA	3132	1/1	0.35	0.42	-	81,81,81,81	0
59	MG	DA	3196	1/1	0.97	0.19	-	100,100,100,100	0
59	MG	BA	3186	1/1	0.67	0.11	-	81,81,81,81	0
59	MG	DA	3529	1/1	0.86	0.10	-	42,42,42,42	0
59	MG	BA	3239	1/1	0.84	0.29	-	77,77,77,77	0
59	MG	BA	2970	1/1	0.49	1.54	-	101,101,101,101	0
59	MG	BA	3307	1/1	0.97	0.44	-	75,75,75,75	0
59	MG	AA	1651	1/1	0.69	0.20	-	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	AA	1720	1/1	0.93	0.55	-	37,37,37,37	1
59	MG	DA	2978	1/1	0.93	0.34	-	33,33,33,33	0
59	MG	DA	2907	1/1	0.87	0.41	-	83,83,83,83	0
59	MG	CA	1619	1/1	0.76	0.21	-	116,116,116,116	0
59	MG	DA	3156	1/1	0.89	0.56	-	73,73,73,73	0
59	MG	DA	3472	1/1	0.90	0.35	-	79,79,79,79	1
59	MG	BH	201	1/1	0.76	0.29	-	71,71,71,71	1
59	MG	DA	3645	1/1	0.95	0.24	-	78,78,78,78	0
59	MG	BA	3230	1/1	0.87	0.52	-	85,85,85,85	0
59	MG	AA	1897	1/1	0.95	0.23	-	68,68,68,68	0
59	MG	BA	3335	1/1	0.35	1.65	-	113,113,113,113	0
59	MG	BA	3380	1/1	0.79	1.22	-	133,133,133,133	0
59	MG	CA	1723	1/1	0.72	0.49	-	82,82,82,82	0
59	MG	AA	1841	1/1	0.94	0.39	-	42,42,42,42	0
59	MG	BA	3231	1/1	0.95	0.39	-	28,28,28,28	0
59	MG	DA	3432	1/1	0.50	0.58	-	86,86,86,86	1
59	MG	DA	3287	1/1	0.93	0.14	-	66,66,66,66	0
59	MG	BA	3553	1/1	0.83	0.32	-	106,106,106,106	0
59	MG	BA	3513	1/1	0.90	0.38	-	77,77,77,77	0
59	MG	DA	2920	1/1	0.47	0.23	-	15,15,15,15	1
59	MG	BA	3569	1/1	0.72	1.14	-	113,113,113,113	0
59	MG	DA	3598	1/1	0.88	0.62	-	83,83,83,83	0
59	MG	DA	3765	1/1	0.93	0.56	-	69,69,69,69	0
59	MG	BA	3498	1/1	0.86	1.06	-	85,85,85,85	1
59	MG	AA	1609	1/1	0.82	0.56	-	59,59,59,59	0
59	MG	BA	3096	1/1	0.81	0.91	-	102,102,102,102	0
59	MG	DA	3680	1/1	0.70	0.76	-	98,98,98,98	0
59	MG	BA	3549	1/1	0.94	0.63	-	84,84,84,84	0
59	MG	AA	1826	1/1	0.94	0.15	-	83,83,83,83	0
59	MG	AA	1900	1/1	0.54	0.22	-	128,128,128,128	0
59	MG	DA	3435	1/1	0.81	0.29	-	47,47,47,47	0
59	MG	BA	3260	1/1	0.83	0.40	-	77,77,77,77	0
59	MG	BA	3199	1/1	0.66	1.87	-	110,110,110,110	0
59	MG	CA	1672	1/1	0.95	0.16	-	92,92,92,92	0
59	MG	AA	1802	1/1	0.80	0.28	-	119,119,119,119	0
59	MG	CA	1673	1/1	0.95	0.28	-	62,62,62,62	0
59	MG	DA	3241	1/1	0.65	0.49	-	34,34,34,34	1
59	MG	DA	3751	1/1	0.80	0.59	-	82,82,82,82	0
59	MG	DA	3173	1/1	0.94	0.46	-	48,48,48,48	0
59	MG	AA	1751	1/1	0.96	0.07	-	104,104,104,104	0
59	MG	BA	3264	1/1	0.95	0.37	-	42,42,42,42	0
59	MG	DA	3117	1/1	0.91	0.43	-	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DA	3427	1/1	0.87	0.39	-	78,78,78,78	0
59	MG	CA	1727	1/1	0.95	0.14	-	74,74,74,74	0
59	MG	DA	3095	1/1	0.93	0.56	-	42,42,42,42	0
59	MG	AA	1686	1/1	0.87	0.17	-	81,81,81,81	0
59	MG	DA	3237	1/1	0.90	0.33	-	37,37,37,37	0
59	MG	BA	3144	1/1	0.87	0.32	-	73,73,73,73	0
59	MG	DA	2996	1/1	0.89	0.51	-	71,71,71,71	1
59	MG	DA	3637	1/1	0.46	1.11	-	88,88,88,88	0
59	MG	DA	3079	1/1	0.87	0.68	-	127,127,127,127	0
59	MG	DA	3387	1/1	0.87	0.42	-	77,77,77,77	0
59	MG	CA	1650	1/1	0.67	0.89	-	79,79,79,79	0
59	MG	DA	2979	1/1	0.84	0.37	-	42,42,42,42	0
59	MG	BA	3241	1/1	0.72	0.26	-	44,44,44,44	0
59	MG	AA	1629	1/1	0.92	0.31	-	80,80,80,80	0
59	MG	DA	2984	1/1	0.58	0.42	-	66,66,66,66	1
59	MG	BA	3316	1/1	0.45	0.62	-	98,98,98,98	0
59	MG	BA	3390	1/1	0.83	0.14	-	65,65,65,65	0
59	MG	AA	1769	1/1	0.82	0.48	-	101,101,101,101	0
59	MG	DA	3118	1/1	0.96	0.15	-	63,63,63,63	0
59	MG	AA	1870	1/1	0.70	0.38	-	73,73,73,73	0
59	MG	BA	2906	1/1	0.92	0.36	-	92,92,92,92	0
59	MG	BA	3222	1/1	0.68	0.91	-	108,108,108,108	0
59	MG	CA	1682	1/1	0.92	0.33	-	53,53,53,53	0
59	MG	DA	3138	1/1	0.62	0.83	-	139,139,139,139	0
59	MG	BA	3581	1/1	0.73	1.48	-	95,95,95,95	0
59	MG	BA	3544	1/1	0.84	0.33	-	62,62,62,62	0
59	MG	BA	3326	1/1	0.78	0.61	-	77,77,77,77	0
59	MG	DA	3128	1/1	0.88	0.30	-	86,86,86,86	0
59	MG	DA	3670	1/1	0.76	0.47	-	88,88,88,88	0
59	MG	DA	3269	1/1	0.83	0.47	-	44,44,44,44	0
59	MG	DA	3039	1/1	0.96	0.36	-	88,88,88,88	0
59	MG	DA	3532	1/1	0.87	0.27	-	79,79,79,79	0
59	MG	BA	3577	1/1	0.99	0.44	-	38,38,38,38	0
59	MG	DA	3672	1/1	0.94	0.23	-	74,74,74,74	0
59	MG	BA	2955	1/1	0.95	0.69	-	84,84,84,84	0
59	MG	AH	201	1/1	0.81	0.89	-	102,102,102,102	0
59	MG	BA	3276	1/1	0.61	1.19	-	125,125,125,125	0
59	MG	BA	3154	1/1	0.83	0.34	-	54,54,54,54	0
59	MG	DA	3151	1/1	0.85	0.92	-	73,73,73,73	0
59	MG	CA	1761	1/1	0.81	0.26	-	87,87,87,87	0
59	MG	DA	3619	1/1	0.85	0.27	-	69,69,69,69	0
59	MG	DA	3259	1/1	0.97	0.52	-	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DA	3411	1/1	0.87	0.18	-	67,67,67,67	1
59	MG	BA	3227	1/1	0.94	0.23	-	78,78,78,78	0
59	MG	DA	3676	1/1	0.67	0.61	-	96,96,96,96	0
59	MG	DA	3470	1/1	0.69	0.59	-	75,75,75,75	0
59	MG	BA	3048	1/1	0.90	0.19	-	90,90,90,90	0
59	MG	BA	3122	1/1	0.73	0.91	-	106,106,106,106	0
59	MG	DA	3320	1/1	0.90	0.13	-	78,78,78,78	0
59	MG	DA	2916	1/1	0.90	0.15	-	57,57,57,57	0
59	MG	CA	1630	1/1	0.74	0.18	-	68,68,68,68	0
59	MG	BA	3139	1/1	0.99	0.33	-	27,27,27,27	0
59	MG	AA	1645	1/1	0.84	1.01	-	56,56,56,56	1
59	MG	BA	2911	1/1	0.93	0.30	-	94,94,94,94	0
59	MG	AA	1891	1/1	0.66	0.37	-	54,54,54,54	1
59	MG	CA	1702	1/1	0.93	0.17	-	104,104,104,104	0
59	MG	BA	3403	1/1	0.93	0.16	-	69,69,69,69	0
59	MG	DA	3534	1/1	0.92	0.47	-	73,73,73,73	1
59	MG	BA	3464	1/1	0.99	0.54	-	43,43,43,43	0
59	MG	DA	2986	1/1	0.98	0.21	-	142,142,142,142	0
59	MG	DA	3768	1/1	0.89	0.06	-	58,58,58,58	1
59	MG	DA	3773	1/1	0.83	0.28	-	90,90,90,90	0
59	MG	DA	2974	1/1	0.88	0.69	-	47,47,47,47	1
59	MG	DA	2922	1/1	0.86	0.33	-	65,65,65,65	0
59	MG	CA	1646	1/1	0.71	0.78	-	102,102,102,102	0
59	MG	DA	3153	1/1	0.89	0.56	-	68,68,68,68	0
59	MG	DA	3007	1/1	0.80	0.28	-	57,57,57,57	0
59	MG	AA	1846	1/1	0.95	0.46	-	45,45,45,45	0
59	MG	CA	1638	1/1	0.89	0.29	-	61,61,61,61	0
59	MG	DA	3667	1/1	0.86	0.43	-	46,46,46,46	1
59	MG	CA	1772	1/1	0.96	0.21	-	79,79,79,79	0
59	MG	CA	1777	1/1	-0.11	0.16	-	125,125,125,125	0
59	MG	AA	1714	1/1	0.93	0.21	-	66,66,66,66	0
59	MG	BA	2917	1/1	0.85	0.25	-	84,84,84,84	0
59	MG	DA	3222	1/1	0.78	0.30	-	79,79,79,79	0
59	MG	DB	201	1/1	0.91	0.15	-	59,59,59,59	0
59	MG	AA	1945	1/1	0.73	1.00	-	94,94,94,94	1
59	MG	CA	1612	1/1	0.94	0.24	-	58,58,58,58	0
59	MG	DA	3120	1/1	0.97	0.24	-	106,106,106,106	0
59	MG	CJ	201	1/1	0.67	0.41	-	115,115,115,115	0
59	MG	BA	3589	1/1	0.97	0.10	-	41,41,41,41	0
59	MG	DA	3695	1/1	0.79	0.42	-	81,81,81,81	0
59	MG	DA	3119	1/1	0.94	0.14	-	66,66,66,66	0
59	MG	BA	3244	1/1	0.88	0.48	-	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	AA	1708	1/1	0.69	0.37	-	65,65,65,65	1
59	MG	BA	3310	1/1	0.93	0.64	-	68,68,68,68	0
59	MG	BA	2942	1/1	0.94	0.62	-	110,110,110,110	0
59	MG	BA	3014	1/1	0.89	0.35	-	79,79,79,79	0
59	MG	CY	101	1/1	0.81	0.41	-	143,143,143,143	0
59	MG	BA	3398	1/1	0.92	0.69	-	53,53,53,53	0
59	MG	AA	1861	1/1	0.74	0.62	-	77,77,77,77	0
59	MG	BA	3546	1/1	0.82	0.75	-	83,83,83,83	0
59	MG	AA	1852	1/1	0.92	0.37	-	56,56,56,56	0
59	MG	AA	1759	1/1	0.80	0.38	-	51,51,51,51	0
59	MG	DA	3588	1/1	0.93	0.40	-	83,83,83,83	0
59	MG	BA	3493	1/1	0.74	0.47	-	101,101,101,101	0
59	MG	DA	3737	1/1	0.73	0.80	-	74,74,74,74	0
59	MG	DA	3487	1/1	0.95	0.67	-	42,42,42,42	1
59	MG	DA	3146	1/1	0.70	0.59	-	85,85,85,85	0
59	MG	BA	3377	1/1	0.91	0.28	-	59,59,59,59	0
59	MG	DA	3743	1/1	0.93	0.26	-	50,50,50,50	1
59	MG	CA	1718	1/1	0.85	0.25	-	87,87,87,87	0
59	MG	DA	3657	1/1	0.92	0.32	-	59,59,59,59	0
59	MG	AA	1620	1/1	0.76	0.63	-	71,71,71,71	0
59	MG	DA	3024	1/1	0.97	0.23	-	92,92,92,92	0
59	MG	DA	2906	1/1	0.86	0.34	-	93,93,93,93	1
59	MG	BA	3027	1/1	0.80	0.32	-	74,74,74,74	0
59	MG	BA	3021	1/1	0.93	0.57	-	78,78,78,78	0
59	MG	AA	1956	1/1	0.70	0.56	-	58,58,58,58	0
59	MG	BA	3232	1/1	0.84	0.31	-	64,64,64,64	0
59	MG	DA	3469	1/1	0.95	0.47	-	65,65,65,65	0
59	MG	BA	3554	1/1	0.39	0.26	-	109,109,109,109	0
59	MG	BA	2922	1/1	0.88	1.25	-	95,95,95,95	0
59	MG	DA	3279	1/1	0.95	0.59	-	70,70,70,70	0
59	MG	AA	1890	1/1	0.80	0.49	-	78,78,78,78	0
59	MG	BA	3366	1/1	0.93	0.54	-	71,71,71,71	0
59	MG	BA	3077	1/1	0.89	0.46	-	71,71,71,71	0
59	MG	DA	3106	1/1	0.88	0.24	-	77,77,77,77	0
59	MG	DA	3724	1/1	0.93	0.28	-	73,73,73,73	0
59	MG	BA	3529	1/1	0.36	0.70	-	70,70,70,70	0
59	MG	DA	3005	1/1	0.78	0.11	-	69,69,69,69	0
59	MG	DA	3229	1/1	0.98	0.08	-	51,51,51,51	0
59	MG	BA	3591	1/1	0.91	0.83	-	93,93,93,93	0
59	MG	DA	2915	1/1	0.91	0.35	-	48,48,48,48	0
59	MG	DP	206	1/1	0.72	1.12	-	82,82,82,82	0
59	MG	BA	3008	1/1	0.89	0.34	-	123,123,123,123	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DA	3704	1/1	0.81	0.22	-	74,74,74,74	0
59	MG	AA	1753	1/1	0.97	0.06	-	110,110,110,110	0
59	MG	DA	2914	1/1	0.68	0.59	-	83,83,83,83	0
59	MG	BA	3242	1/1	0.91	0.38	-	60,60,60,60	0
59	MG	DA	3184	1/1	0.91	0.27	-	63,63,63,63	0
59	MG	DA	3101	1/1	0.84	1.26	-	97,97,97,97	0
59	MG	DA	3545	1/1	0.91	0.11	-	58,58,58,58	0
59	MG	AA	1773	1/1	0.95	0.14	-	50,50,50,50	0
59	MG	DA	3699	1/1	0.98	0.19	-	62,62,62,62	0
59	MG	CA	1767	1/1	0.80	0.44	-	73,73,73,73	0
59	MG	DA	3498	1/1	0.85	0.42	-	82,82,82,82	0
59	MG	CA	1690	1/1	0.92	0.42	-	60,60,60,60	0
59	MG	DU	201	1/1	0.92	0.21	-	68,68,68,68	0
59	MG	BA	3416	1/1	0.94	0.72	-	58,58,58,58	0
59	MG	DN	202	1/1	0.47	0.61	-	78,78,78,78	0
59	MG	BA	3125	1/1	0.90	0.23	-	70,70,70,70	0
59	MG	AA	1613	1/1	0.86	0.93	-	74,74,74,74	0
59	MG	DA	3321	1/1	0.70	0.32	-	88,88,88,88	0
59	MG	AA	1638	1/1	0.95	0.36	-	119,119,119,119	0
59	MG	AA	1895	1/1	0.94	0.22	-	72,72,72,72	0
59	MG	AA	1853	1/1	0.95	0.29	-	74,74,74,74	0
59	MG	BA	2956	1/1	0.94	0.27	-	37,37,37,37	1
59	MG	CA	1635	1/1	0.90	0.22	-	93,93,93,93	0
59	MG	DA	3492	1/1	0.85	0.88	-	62,62,62,62	0
59	MG	AA	1927	1/1	0.92	0.13	-	113,113,113,113	0
59	MG	BA	2929	1/1	0.63	0.26	-	90,90,90,90	0
59	MG	BA	3275	1/1	0.88	0.19	-	38,38,38,38	0
59	MG	DA	3512	1/1	0.84	0.37	-	104,104,104,104	0
59	MG	DA	3331	1/1	0.97	0.16	-	45,45,45,45	1
59	MG	DA	3644	1/1	0.96	0.66	-	54,54,54,54	0
59	MG	CA	1605	1/1	0.85	0.85	-	49,49,49,49	1
59	MG	CA	1741	1/1	0.72	1.70	-	106,106,106,106	0
59	MG	BA	3424	1/1	0.95	0.36	-	64,64,64,64	0
59	MG	BA	3300	1/1	0.84	0.48	-	71,71,71,71	0
59	MG	CA	1719	1/1	0.84	0.28	-	95,95,95,95	0
59	MG	BA	3576	1/1	0.69	0.18	-	97,97,97,97	0
59	MG	BA	3224	1/1	0.97	0.36	-	79,79,79,79	0
59	MG	BA	3164	1/1	0.93	0.83	-	44,44,44,44	0
59	MG	BA	3020	1/1	0.85	0.50	-	103,103,103,103	0
59	MG	AA	1850	1/1	0.84	0.82	-	89,89,89,89	0
59	MG	DA	3610	1/1	0.96	0.20	-	112,112,112,112	0
59	MG	DA	3182	1/1	0.93	0.21	-	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	AA	1621	1/1	0.80	1.25	-	98,98,98,98	0
59	MG	DP	204	1/1	0.96	0.28	-	15,15,15,15	0
59	MG	BA	3118	1/1	0.87	0.07	-	59,59,59,59	0
59	MG	CA	1616	1/1	0.93	0.15	-	62,62,62,62	0
59	MG	AA	1627	1/1	0.53	1.17	-	142,142,142,142	0
59	MG	DA	3223	1/1	0.86	0.38	-	37,37,37,37	0
59	MG	BA	3313	1/1	0.69	0.15	-	70,70,70,70	0
59	MG	DA	3505	1/1	0.26	1.03	-	125,125,125,125	0
59	MG	BA	3095	1/1	0.73	0.39	-	95,95,95,95	0
59	MG	AA	1912	1/1	0.78	0.32	-	57,57,57,57	1
59	MG	DA	3170	1/1	0.85	0.47	-	98,98,98,98	0
59	MG	CA	1676	1/1	0.57	0.30	-	88,88,88,88	0
59	MG	AA	1909	1/1	0.93	0.11	-	87,87,87,87	1
59	MG	BA	3473	1/1	0.87	0.91	-	87,87,87,87	0
59	MG	DA	3445	1/1	0.94	0.25	-	55,55,55,55	0
59	MG	DA	3674	1/1	0.94	0.70	-	55,55,55,55	0
59	MG	BA	3079	1/1	0.94	0.16	-	37,37,37,37	0
59	MG	DA	3517	1/1	0.29	0.39	-	107,107,107,107	0
59	MG	AA	1944	1/1	0.68	0.33	-	76,76,76,76	0
59	MG	CS	102	1/1	0.66	0.11	-	102,102,102,102	0
59	MG	DA	3240	1/1	0.60	0.08	-	128,128,128,128	0
59	MG	BA	3371	1/1	0.89	0.15	-	63,63,63,63	0
59	MG	DA	3386	1/1	0.86	0.40	-	99,99,99,99	0
59	MG	DA	3353	1/1	0.89	0.12	-	84,84,84,84	0
59	MG	BA	2904	1/1	0.73	1.74	-	104,104,104,104	0
59	MG	DA	3212	1/1	0.85	0.43	-	105,105,105,105	0
59	MG	DA	3658	1/1	0.96	0.27	-	53,53,53,53	0
59	MG	DA	3062	1/1	0.91	0.41	-	88,88,88,88	0
59	MG	AX	102	1/1	0.91	0.12	-	87,87,87,87	0
59	MG	BA	3379	1/1	0.69	1.75	-	114,114,114,114	0
59	MG	BA	3009	1/1	0.94	0.42	-	80,80,80,80	0
59	MG	BA	3556	1/1	0.81	1.12	-	116,116,116,116	0
59	MG	BA	3293	1/1	0.92	0.17	-	82,82,82,82	0
59	MG	AA	1785	1/1	0.98	0.03	-	108,108,108,108	0
59	MG	BA	3471	1/1	0.81	0.61	-	96,96,96,96	0
59	MG	BA	3047	1/1	0.88	0.69	-	89,89,89,89	0
59	MG	DA	3198	1/1	0.91	0.54	-	31,31,31,31	0
59	MG	AA	1803	1/1	0.74	0.53	-	98,98,98,98	0
59	MG	AA	1739	1/1	0.82	0.91	-	73,73,73,73	1
59	MG	AA	1791	1/1	0.88	0.30	-	93,93,93,93	0
59	MG	DA	3076	1/1	0.85	0.27	-	75,75,75,75	0
59	MG	DA	3597	1/1	0.74	0.28	-	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MG	DA	3526	1/1	0.85	0.10	-	11,11,11,11	1
59	MG	BA	3123	1/1	0.90	0.41	-	105,105,105,105	0
59	MG	AL	203	1/1	0.95	0.25	-	81,81,81,81	0
59	MG	AA	1881	1/1	0.84	0.52	-	98,98,98,98	0
59	MG	DA	3265	1/1	0.85	0.79	-	82,82,82,82	0
59	MG	BA	3092	1/1	0.82	0.22	-	101,101,101,101	0
59	MG	AA	1635	1/1	0.57	0.70	-	108,108,108,108	0

## 6.5 Other polymers [i](#)

There are no such residues in this entry.