



wwPDB EM Map/Model Validation Report ⓘ

Apr 10, 2016 – 02:52 PM BST

PDB ID : 4V4W
EMDB ID: : EMD-1143
Title : Structure of a SecM-stalled E. coli ribosome complex obtained by fitting atomic models for RNA and protein components into cryo-EM map EMD-1143
Authors : Mitra, K.; Frank, J.
Deposited on : 2006-05-09
Resolution : 15.00 Å(reported)

This is a wwPDB EM Map/Model Validation Report for a publicly released PDB/EMDB entry. For rigid body fitted models, validation errors reported here could stem from errors in the original structure(s) used in the fitting. We welcome your comments at validation@mail.wwpdb.org. A user guide is available at <http://wwpdb.org/validation/2016/EMValidationReportHelp>

MolProbity : 4.02b-467
Mogul : unknown
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : trunk27241

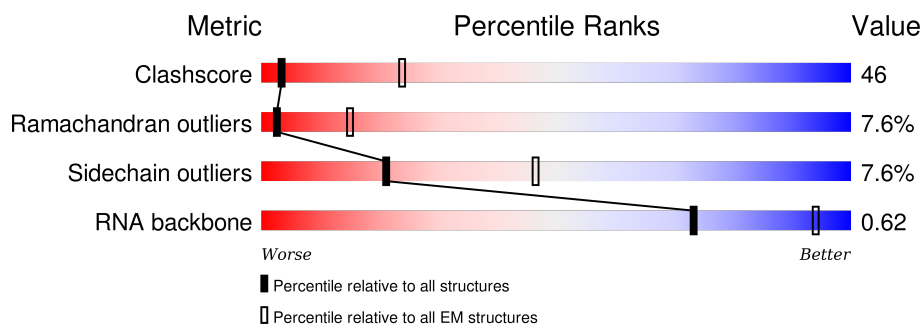
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 15.00 Å.

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



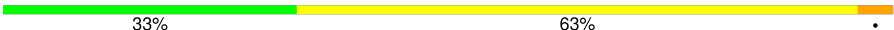


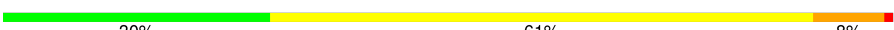
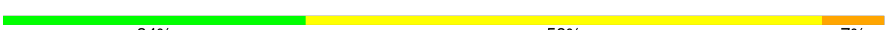
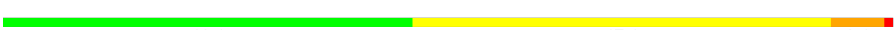




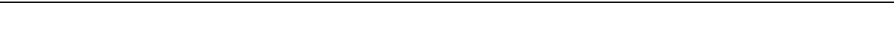

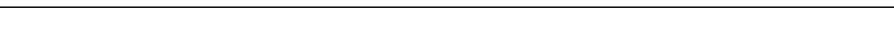
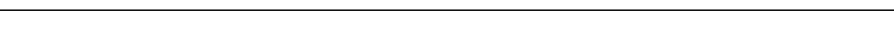


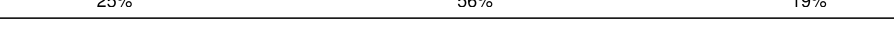






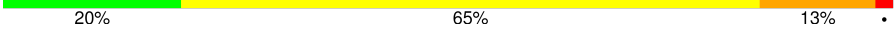
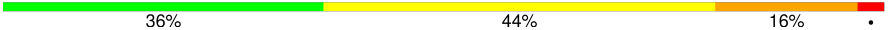
Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	114402	924
Ramachandran outliers	111179	726
Sidechain outliers	111093	686
RNA backbone	3027	244

The table below summarises the geometric issues observed across the polymeric chains. The red, orange, yellow and green segments on the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$.

Mol	Chain	Length	Quality of chain
1	AA	1488	<div> <div>28%</div> <div>53%</div> <div>18%</div> <div>.</div> </div>
2	AU	76	<div> <div>28%</div> <div>58%</div> <div>14%</div> </div>
2	AV	76	<div> <div>30%</div> <div>58%</div> <div>12%</div> </div>
2	AW	76	<div> <div>26%</div> <div>59%</div> <div>14%</div> </div>
3	AB	236	<div> <div>44%</div> <div>51%</div> <div>.</div> </div>
4	AC	206	<div> <div>40%</div> <div>54%</div> <div>5%</div> </div>
5	AD	204	<div> <div>41%</div> <div>57%</div> <div>.</div> </div>
6	AE	148	<div> <div>40%</div> <div>57%</div> <div>.</div> </div>



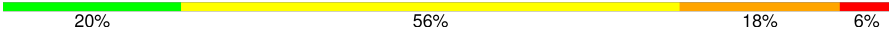

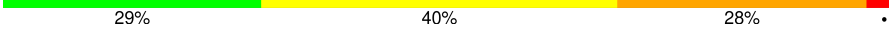





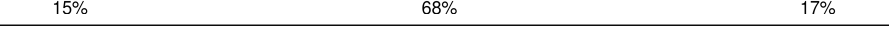
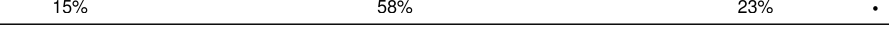


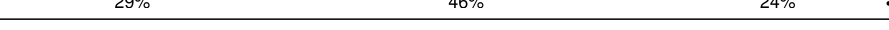




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Mol	Chain	Length	Quality of chain
7	AF	95	
8	AG	137	
9	AH	127	
10	AI	126	
11	AJ	96	
12	AK	116	
13	AL	101	
14	AM	115	
15	AN	61	
16	AO	86	
17	AP	78	
18	AQ	79	
19	AR	69	
20	AS	87	
21	AT	83	
22	B0	2740	
23	B9	108	
24	B2	222	
25	B3	119	
25	B5	119	
26	BA	227	
27	BB	209	
28	BC	198	
29	BD	177	
30	BE	167	

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Mol	Chain	Length	Quality of chain
31	BF	149	
32	BG	139	
33	BH	142	
34	BI	122	
35	BJ	140	
36	BK	131	
37	BL	114	
38	BM	113	
39	BN	114	
40	BO	115	
41	BQ	106	
42	BR	92	
43	BS	99	
44	BT	94	
45	BU	84	
46	BW	60	
47	BX	56	
48	BZ	29	
49	B1	52	

2 Entry composition

There are 49 unique types of molecules in this entry. The entry contains 141668 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

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

Mol	Chain	Residues	Atoms					AltConf	Trace
1	AA	1488	Total	C	N	O	P	0	0
			31924	14238	5854	10345	1487		

- Molecule 2 is a RNA chain called tRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	AU	76	Total	C	N	O	P	0	0
			1622	725	293	529	75		
2	AV	76	Total	C	N	O	P	0	0
			1622	725	293	529	75		
2	AW	76	Total	C	N	O	P	0	0
			1622	725	293	529	75		

- Molecule 3 is a protein called 30S ribosomal subunit protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	AB	236	Total	C	N	O	S	0	0
			1847	1165	328	346	8		

- Molecule 4 is a protein called 30S ribosomal subunit protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	AC	206	Total	C	N	O	S	0	0
			1625	1028	305	289	3		

- Molecule 5 is a protein called 30S ribosomal subunit protein S4.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	AD	204	Total	C	N	O	S	0	0
			1638	1023	314	297	4		

- Molecule 6 is a protein called 30S ribosomal subunit protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	AE	148	Total	C	N	O	S	0	0
			1093	679	208	200	6		

- Molecule 7 is a protein called 30S ribosomal subunit protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	AF	95	Total	C	N	O	S	0	0
			784	495	143	140	6		

- Molecule 8 is a protein called 30S ribosomal subunit protein S7.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	AG	137	Total	C	N	O	S	0	0
			1079	671	204	200	4		

- Molecule 9 is a protein called 30S ribosomal subunit protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	AH	127	Total	C	N	O	S	0	0
			968	610	171	181	6		

- Molecule 10 is a protein called 30S ribosomal subunit protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	AI	126	Total	C	N	O	S	0	0
			1014	630	204	177	3		

- Molecule 11 is a protein called 30S ribosomal subunit protein S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	AJ	96	Total	C	N	O	S	0	0
			773	484	148	140	1		

- Molecule 12 is a protein called 30S ribosomal subunit protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	AK	116	Total	C	N	O	S	0	0
			870	535	173	159	3		

- Molecule 13 is a protein called 30S ribosomal subunit protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	AL	101	Total	C	N	O	S	0	0
			787	486	159	138	4		

- Molecule 14 is a protein called 30S ribosomal subunit protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	AM	115	Total	C	N	O	S	0	0
			892	552	179	158	3		

- Molecule 15 is a protein called 30S ribosomal subunit protein S14.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	AN	61	Total	C	N	O	S	0	0
			500	310	108	80	2		

- Molecule 16 is a protein called 30S ribosomal subunit protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	AO	86	Total	C	N	O	S	0	0
			697	430	139	127	1		

- Molecule 17 is a protein called 30S ribosomal subunit protein S16.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	AP	78	Total	C	N	O	S	0	0
			622	390	122	109	1		

- Molecule 18 is a protein called 30S ribosomal subunit protein S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	AQ	79	Total	C	N	O	S	0	0
			640	405	119	113	3		

- Molecule 19 is a protein called 30S ribosomal subunit protein S18.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	AR	69	Total	C	N	O	S	0	0
			576	362	112	101	1		

- Molecule 20 is a protein called 30S ribosomal subunit protein S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	AS	87	Total	C	N	O	S	0	0
			695	443	132	118	2		

- Molecule 21 is a protein called 30S ribosomal subunit protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	AT	83	Total	C	N	O	S	0	0
			649	401	134	111	3		

- Molecule 22 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	B0	2740	Total	C	N	O	P	0	0
			58824	26239	10826	19019	2740		

- Molecule 23 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	B9	108	Total	C	N	O	P	0	0
			2310	1030	423	750	107		

- Molecule 24 is a protein called 50S ribosomal protein L1.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	B2	222	Total	C	N	O	S	0	0
			1652	1031	301	314	6		

- Molecule 25 is a protein called 50S ribosomal protein L7/L12.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	B3	119	Total	C	N	O	S	0	0
			845	531	137	174	3		
25	B5	119	Total	C	N	O	S	0	0
			845	531	137	174	3		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
26	BA	227	Total	C	N	O	S	0	0
			1733	1064	352	311	6		

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

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

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

Mol	Chain	Residues	Atoms					AltConf	Trace
28	BC	198	Total	C	N	O	S	0	0
			1531	960	280	287	4		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
29	BD	177	Total	C	N	O	S	0	0
			1415	902	250	257	6		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
30	BE	167	Total	C	N	O	S	0	0
			1253	789	228	234	2		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
31	BF	149	Total	C	N	O	S	0	0
			1111	699	197	214	1		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
32	BG	139	Total	C	N	O	S	0	0
			1019	644	177	192	6		

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

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

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

Mol	Chain	Residues	Atoms					AltConf	Trace
34	BI	122	Total	C	N	O	S	0	0
			939	588	180	166	5		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
35	BJ	140	Total	C	N	O	S	0	0
			1017	632	200	184	1		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
36	BK	131	Total	C	N	O	S	0	0
			1036	661	200	171	4		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
37	BL	114	Total	C	N	O	S	0	0
			908	564	184	156	4		

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

Mol	Chain	Residues	Atoms				AltConf	Trace
38	BM	113	Total	C	N	O	0	0
			864	534	174	156		

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

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

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

Mol	Chain	Residues	Atoms				AltConf	Trace
40	BO	115	Total	C	N	O	0	0
			937	598	190	149		

- Molecule 41 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	BQ	106	Total	C	N	O	S	0	0
			825	512	162	149	2		

- Molecule 42 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	BR	92	Total	C	N	O	S	0	0
			717	455	132	129	1		

- Molecule 43 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	BS	99	Total	C	N	O	S	0	0
			762	480	143	139			

- Molecule 44 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	BT	94	Total	C	N	O	S	0	0
			753	479	137	134	3		

- Molecule 45 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	BU	84	Total	C	N	O	S	0	0
			634	391	129	113	1		

- Molecule 46 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	BW	60	Total	C	N	O	S	0	0
			495	305	96	92	2		

- Molecule 47 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	BX	56	Total	C	N	O	S	0	0
			435	272	84	77	2		

- Molecule 48 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms				AltConf	Trace
48	BZ	29	Total	C	N	O	0	0
			234	145	47	42		

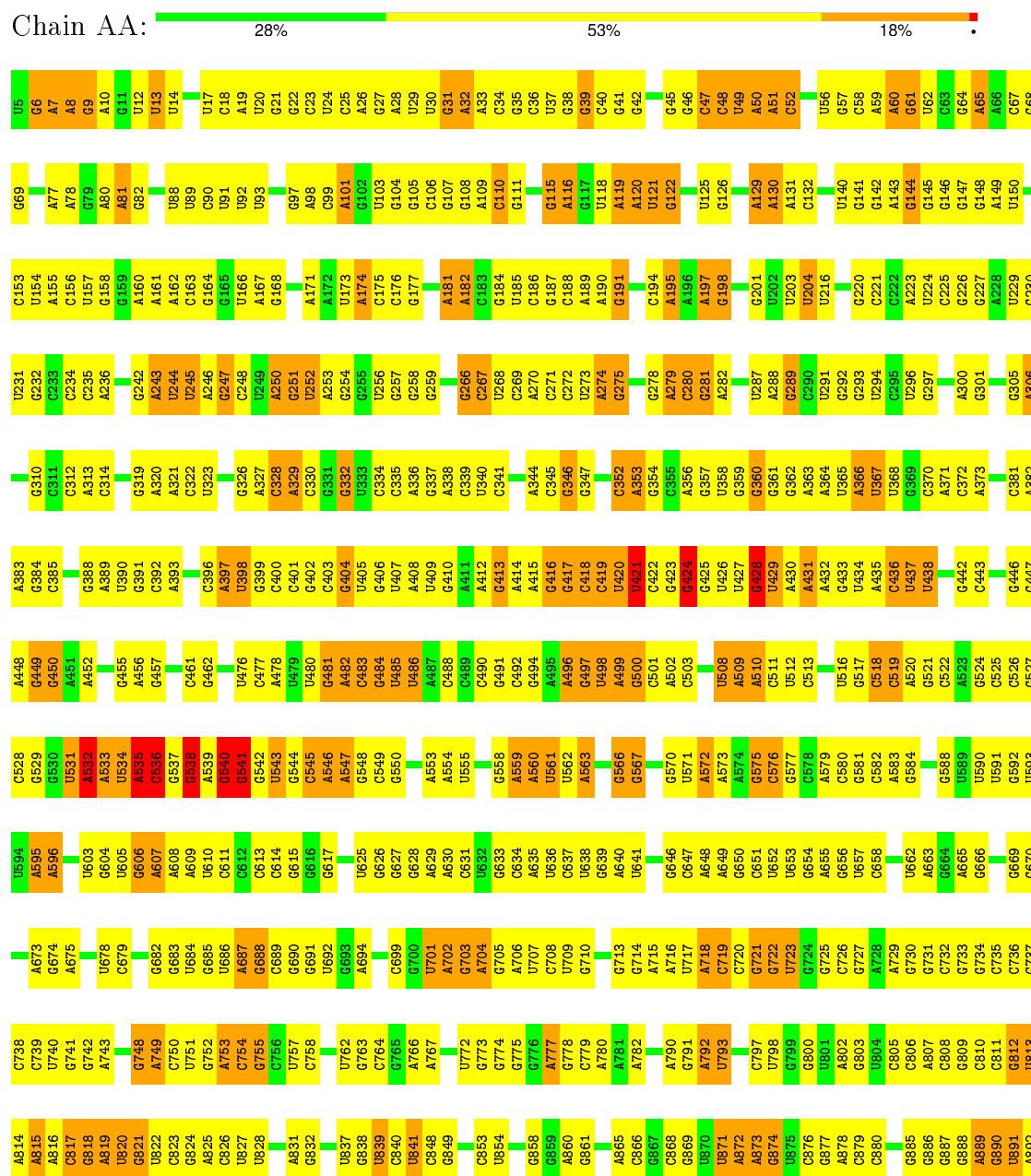
- Molecule 49 is a protein called 50S ribosomal protein L33.

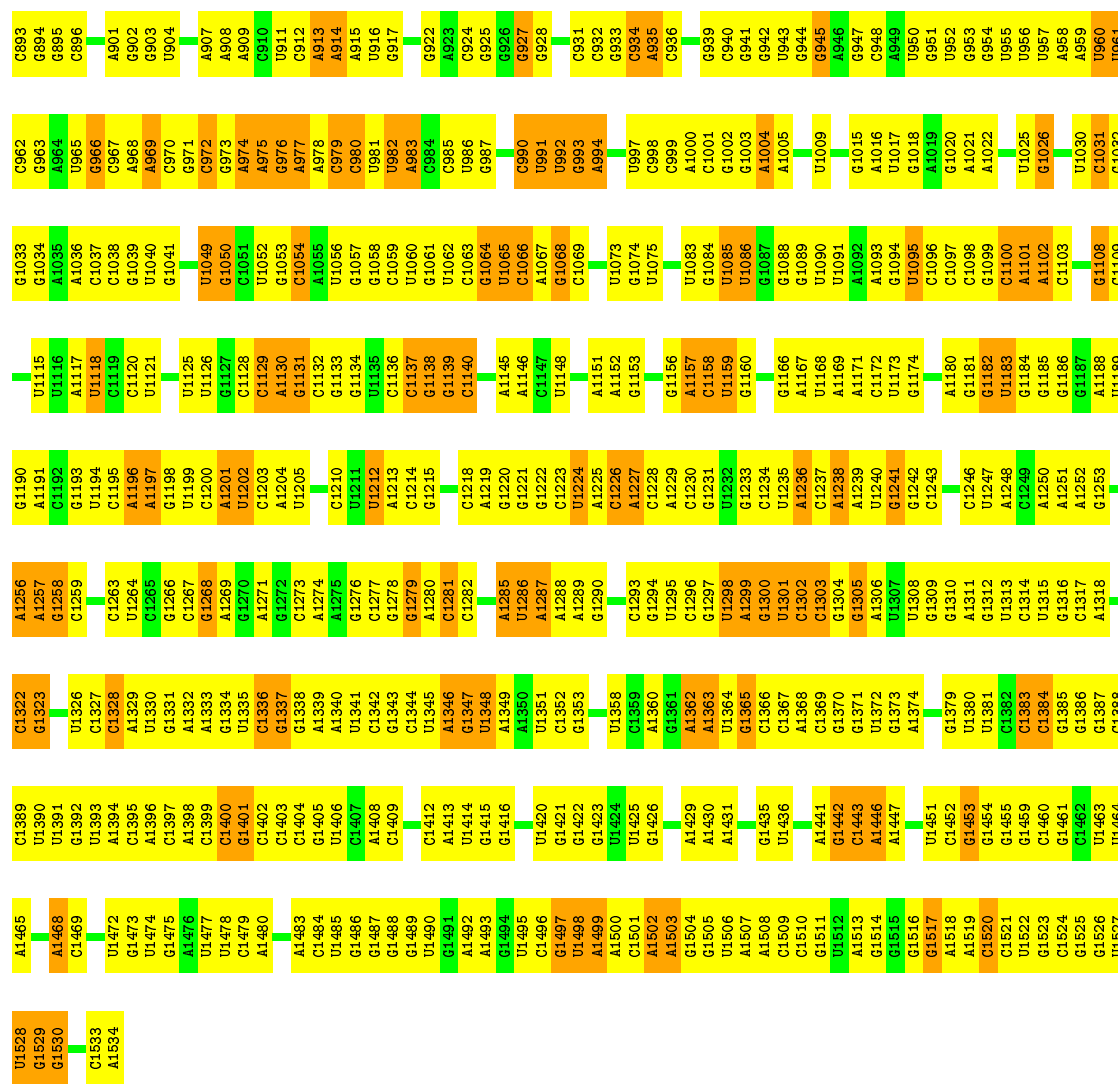
Mol	Chain	Residues	Atoms				AltConf	Trace
49	B1	52	Total	C	N	O	0	0
			424	272	78	74		

3 Residue-property plots

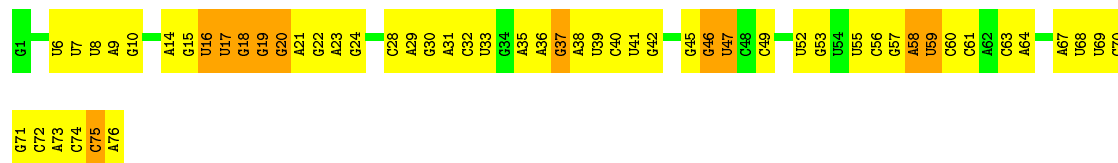
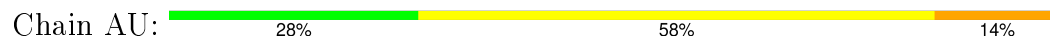
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. Residues are color-coded according to the number of geometric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

• Molecule 1: 16S ribosomal RNA

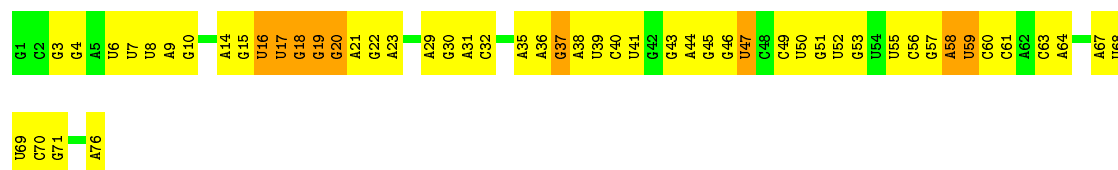




• Molecule 2: tRNA

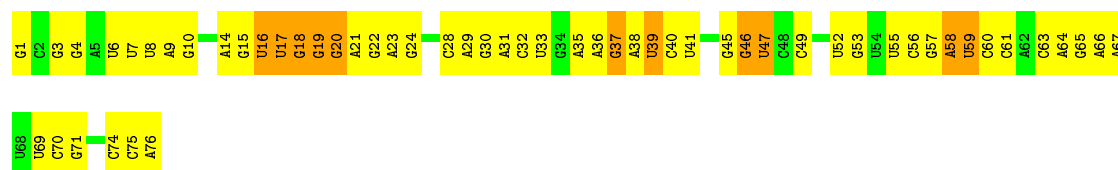


• Molecule 2: tRNA



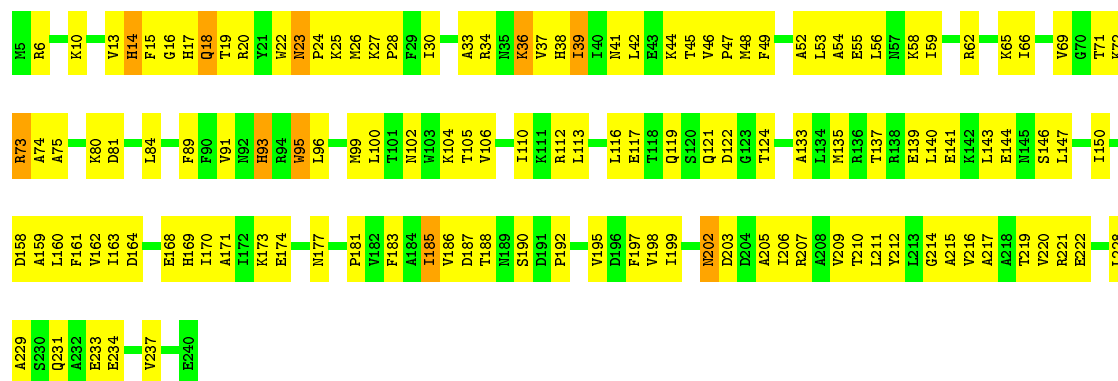
- Molecule 2: tRNA

Chain AW: 



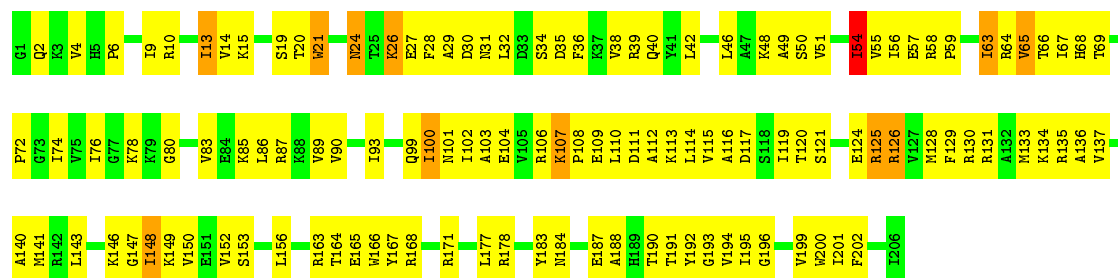
- Molecule 3: 30S ribosomal subunit protein S2

Chain AB: 



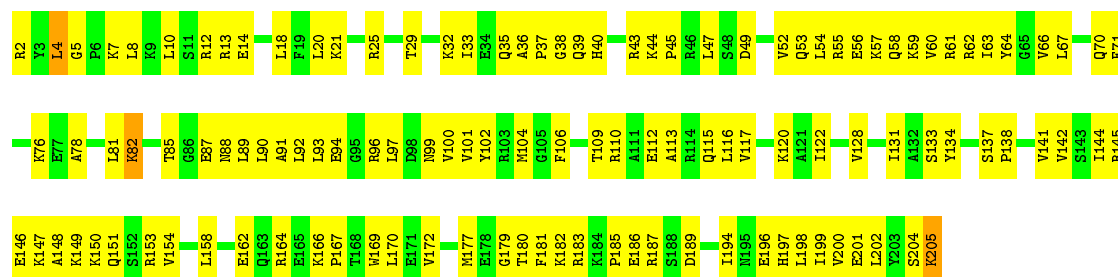
- Molecule 4: 30S ribosomal subunit protein S3

Chain AC: 



- Molecule 5: 30S ribosomal subunit protein S4

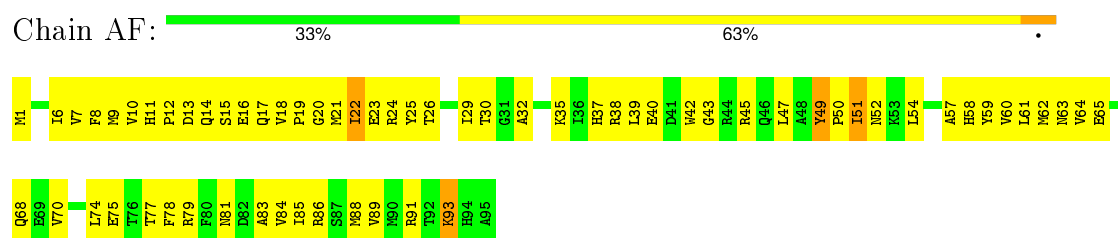
Chain AD: 



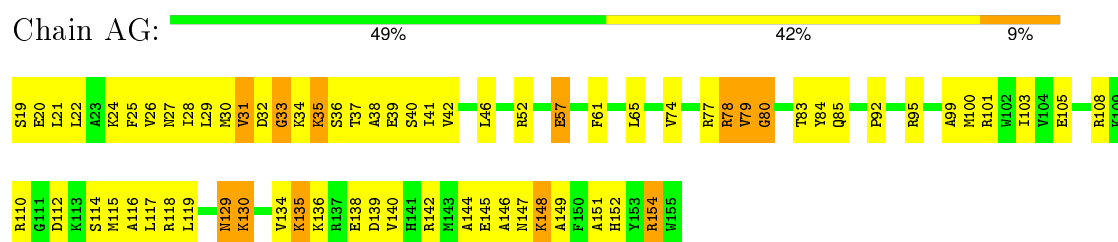
- Molecule 6: 30S ribosomal subunit protein S5



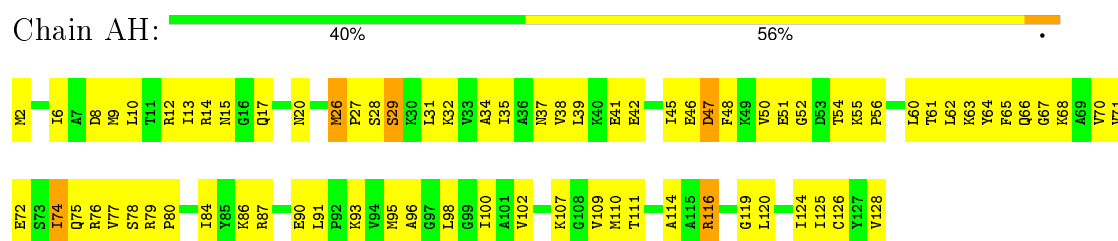
- Molecule 7: 30S ribosomal subunit protein S6



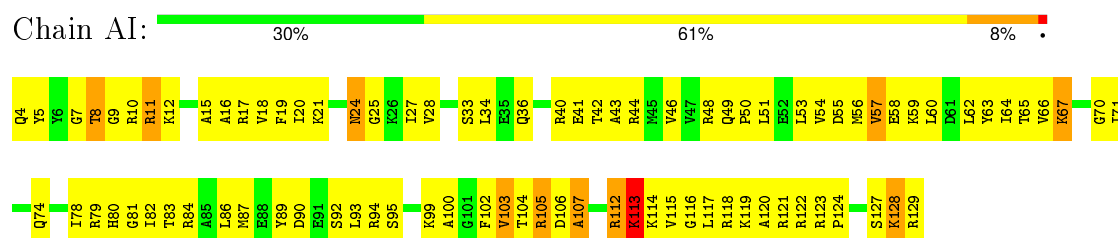
- Molecule 8: 30S ribosomal subunit protein S7



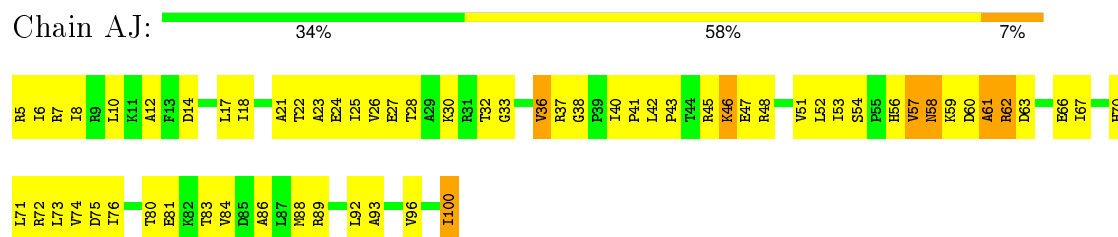
- Molecule 9: 30S ribosomal subunit protein S8



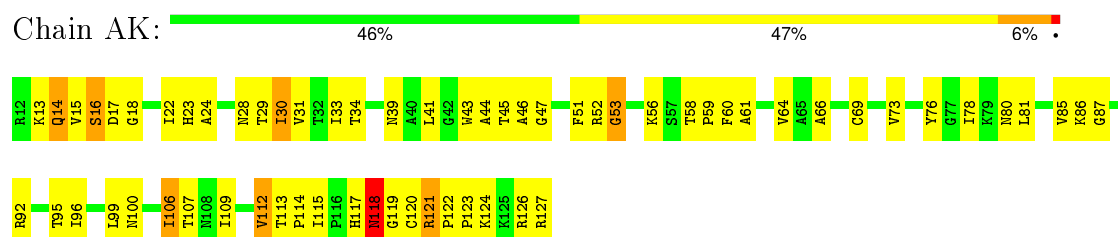
- Molecule 10: 30S ribosomal subunit protein S9



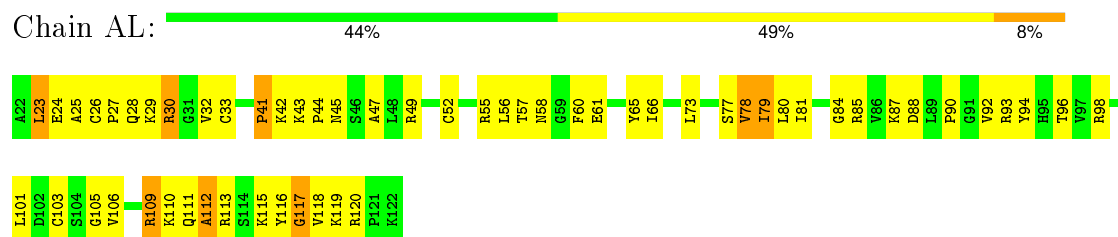
- Molecule 11: 30S ribosomal subunit protein S10



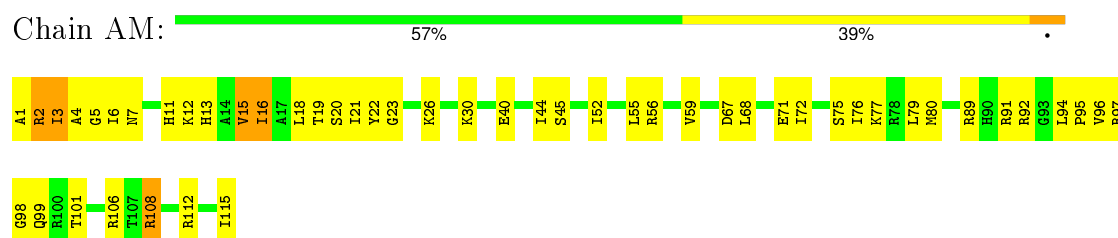
- Molecule 12: 30S ribosomal subunit protein S11



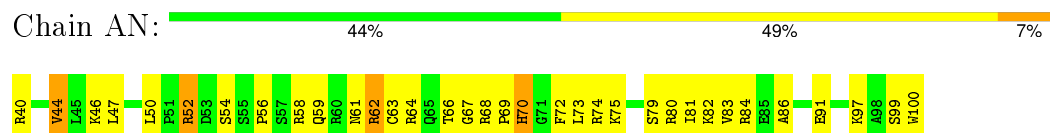
- Molecule 13: 30S ribosomal subunit protein S12



- Molecule 14: 30S ribosomal subunit protein S13

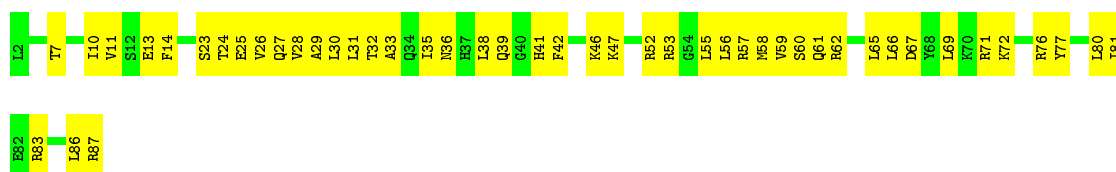


- Molecule 15: 30S ribosomal subunit protein S14



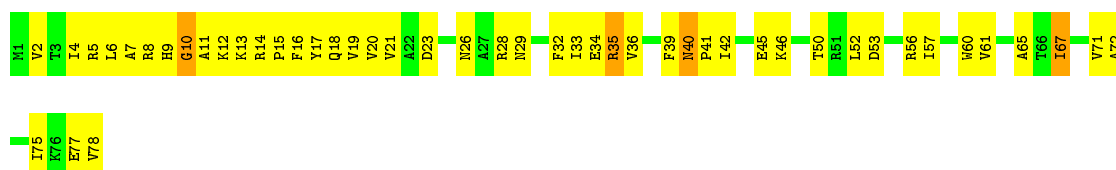
- Molecule 16: 30S ribosomal subunit protein S15





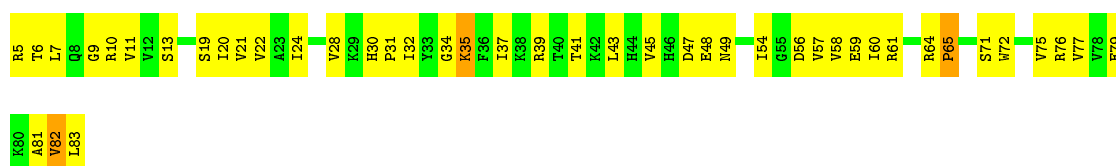
- Molecule 17: 30S ribosomal subunit protein S16

Chain AP: 38% 56% 5%



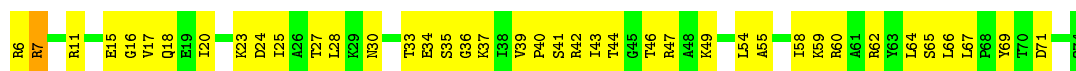
- Molecule 18: 30S ribosomal subunit protein S17

Chain AQ: 44% 52% .



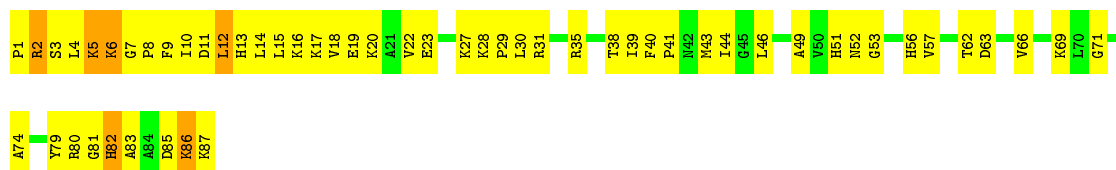
- Molecule 19: 30S ribosomal subunit protein S18

Chain AR: 42% 57% .



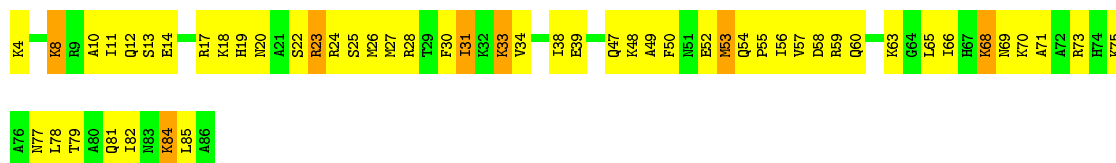
- Molecule 20: 30S ribosomal subunit protein S19

Chain AS: 37% 56% 7%



- Molecule 21: 30S ribosomal subunit protein S20

Chain AT: 36% 55% 8%



● Molecule 22: 23S ribosomal RNA

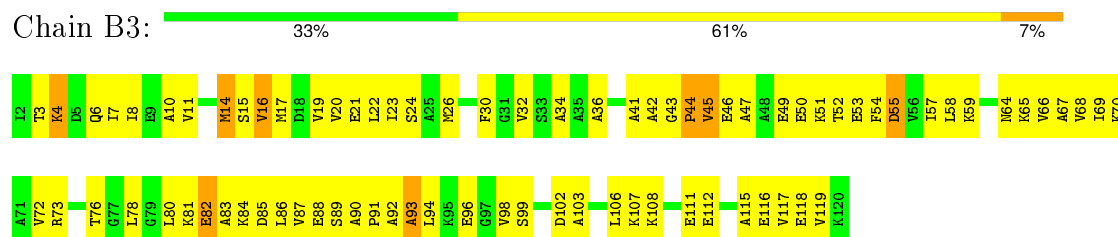
Chain B0:  25% 56% 19%

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G93	A94	A95	C96	G97	G98	U99	U100	U102	G108	C109	G110	A111	U112	U113	U114	C115	G116	C117	A118	A119	U120	G121	G122	G123	G124	A125	A126	C128	C129	C130	C140	C61	A141	A63	U150	A151	A152	U153	U154	A161	U162	A163	C163	C164	A165	A172	A173	G177	A181	A182	C183	G184	G185	G188	G189	A190	A191																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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G273	C274	C275	U276	A278	A279	U280	C281	A282	G283	U284	U285	U286	G287	U290	G291	U292	U293	G295	U296	A300	G301	C302	G303	U304	U306	G307	G308	A309	A310	A311	A312	A313	G312	A314	G315	G317	C318	G319	A320	U321	A322	C323	U324	G325	G326	U328	G329	A330	C331	A332	G333	C334	C335	C336	C337	G338	U339																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
A340	C341	A342	C343	A344	A345	U346	A347	A348	U349	G350	C351	A352	A353	A354	U355	U358	G359	U360	A362	G363	C364	G365	C366	A368	U369	G370	A371	G372	U373	G376	G377	C383	C385	G386	U387	G388	G389	U390	A391	C393	C394	U395	G396	U397	G400	A401	A402	U403	A404	U405	G406	G407	G408	G409	G410	G411	A412																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
C414	A415	U416	C417	C418	U419	U420	C421	A422	A423	A424	C426	U427	A428	U431	A432	C433	U434	C435	A439	U440	U441	G442	A443	C444	C445	U446	A447	U448	U449	G450	U451	A452	A453	A454	C455	U456	A457	U458	U459	U460	A461	A462	A463	A464	A465	A466	A467	U468	A469	A470	A471	A472	A473	U474	U475	U476	U477	A478	U479	A480	G481	A482																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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A621	G622	C623	C624	G625	A626	A627	G628	U629	G630	A631	A632	A633	C634	C635	A637	U638	U639	C640	U641	C645	G647	A655	G656	U657	U658	G659	A660	A661	U662	G663	U664	A665	A666	U667	A668	G669	A670	C671	C672	U673	A674	A675	A676	C677	C678	C679	C680	G681	G684	A685	U686	C687	U688	A689	G690																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
C691	C692	A693	U694	G695	G696	G697	C698	A699	G700	G701	U702	U703	G704	A705	U709	U710	G711	G712	G713	U714	A715	A716	C717	A718	C719	U720	A721	A722	G723	U724	G725	G726	A727	G728	G729	A730	C731	U732	G733	U734	A735	U736	G737	G738	A739	C740	U741	C742	A743	U746	U747	G748	U749	A750	U751	A752	U753	A754																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
U754	U755	G756	G757	U758	G759	G760	A761	U762	G763	A764	G765	U766	U767	G768	U769	G770	G774	G775	G776	G777	G778	U779	G780	A781	A782	U783	G784	G785	G786	C787	U788	A789	U790	C791	A792	A793	U794	C795	G796	U797	G798	U799	A800	G801	A802	U803	A804	G805	C806	U807	G808	U809	U810	U811	C812	U813	C814	C815																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
C816	C817	G818	A819	G820	A821	G822	G823	U824	A825	U826	U827	U828	A829	G830	G831	U832	A833	G834	G835	G836	C837	U838	A839	C840	G841	U842	A843	A844	A845	U846	C847	U848	U849	A850	U851	U852	C853	C854	G855	G856	U857	G858	U859	A860	A861	G862	A863	C864	C865	A866	C867	U868	G869	U870	U871	U872	C873	G874	U875	U876	U877	U878	U879	U880	U881	U882	U883	U884	U885	U886	U887	U888	U889	U890	U891	U892	U893	U894	U895	U896	U897	U898	U899	U900	U901	U902	U903	U904	U905	U906	U907	U908	U909	U910	U911	U912	U913	U914	U915	U916	U917	U918	U919	U920	U921	U922	U923	U924	U925	U926	U927	U928	U929	U930	U931	U932	U933	U934	U935	U936	U937	U938	U939	U940	U941	U942	U943	U944	U945	U946	U947	U948	U949	U950	U951	U952	U953	U954	U955	U956	U957	U958	U959	U960	U961	U962	U963	U964	U965	U966	U967	U968	U969	U970	U971	U972	U973	U974	U975	U976	U977	U978	U979	U980	U981	U982	U983	U984	U985	U986	U987	U988	U989	U990	U991	U992	U993	U994	U995	U996	U997	U998	U999	U1000	U1001	U1002	U1003	U1004	U1005	U1006	U1007	U1008	U1009	U1010	U1011	U1012	U1013	U1014	U1015	U1016	U1017	U1018	U1019	U1020	U1021	U1022	U1023	U1024	U1025	U1026	U1027	U1028	U1029	U1030	U1031	U1032	U1033	U1034	U1035	U1036	U1037	U1038	U1039	U1040	U1041	U1042	U1043	U1044	U1045	U1046	U1047	U1048	U1049	U1050	U1051	U1052	U1053	U1054	U1055	U1056	U1057	U1058	U1059	U1060	U1061	U1062	U1063	U1064	U1065	U1066	U1067	U1068	U1069	U1070	U1071	U1072	U1073	U1074	U1075	U1076	U1077	U1078	U1079	U1080	U1081	U1082	U1083	U1084	U1085	U1086	U1087	U1088	U1089	U1090	U1091	U1092	U1093	U1094	U1095	U1096	U1097	U1098	U1099	U1100	U1101	U1102	U1103	U1104	U1105	U1106	U1107	U1108	U1109	U1110	U1111	U1112	U1113	U1114	U1115	U1116	U1117	U1118	U1119	U1120	U1121	U1122	U1123	U1124	U1125	U1126	U1127	U1128	U1129	U1130	U1131	U1132	U1133	U1134	U1135	U1136	U1137	U1138	U1139	U1140	U1141	U1142	U1143	U1144	U1145	U1146	U1147	U1148	U1149	U1150	U1151	U1152	U1153	U1154	U1155	U1156	U1157	U1158	U1159	U1160	U1161	U1162	U1163	U1164	U1165	U1166	U1167	U1168	U1169	U1170	U1171	U1172	U1173	U1174	U1175	U1176	U1177	U1178	U1179	U1180	U1181	U1182	U1183	U1184	U1185	U1186	U1187	U1188	U1189	U1190	U1191	U1192	U1193	U1194	U1195	U1196	U1197	U1198	U1199	U1200	U1201	U1202	U1203	U1204	U1205	U1206	U1207	U1208	U1209	U1210	U1211	U1212	U1213	U1214	U1215	U1216	U1217	U1218	U1219	U1220	U1221	U1222	U1223	U1224	U1225	U1226	U1227	U1228	U1229	U1230	U1231	U1232	U1233	U1234	U1235	U1236	U1237	U1238	U1239	U1240	U1241	U1242	U1243	U1244	U1245	U1246	U1247	U1248	U1249	U1250	U1251	U1252	U1253	U1254	U1255	U1256	U1257	U1258	U1259	U1260	U1261	U1262	U1263	U1264	U1265	U1266	U1267	U1268	U1269	U1270	U1271	U1272	U1273	U1274	U1275	U1276	U1277	U1278	U1279	U1280	U1281	U1282	U1283	U1284	U1285	U1286	U1287	U1288	U1289	U1290	U1291	U1292	U1293	U1294	U1295	U1296	U1297	U1298	U1299	U1300	U1301	U1302	U1303	U1304	U1305	U1306	U1307	U1308	U1309	U1310	U1311	U1312	U1313	U1314	U1315	U1316	U1317	U1318	U1319	U1320	U1321	U1322	U1323	U1324	U1325	U1326	U1327	U1328	U1329	U1330	U1331	U1332	U1333	U1334	U1335	U1336	U1337	U1338	U1339	U1340	U1341	U1342	U1343	U1344	U1345	U1346	U1347	U1348	U1349	U1350	U1351	U1352	U1353	U1354	U1355	U1356	U1357	U1358	U1359	U1360	U1361	U1362	U1363	U1364	U1365	U1366	U1367	U1368	U1369	U1370	U1371	U1372	U1373	U1374	U1375	U1376	U1377	U1378	U1379	U1380	U1381	U1382	U1383	U1384	U1385	U1386	U1387	U1388	U1389	U1390	U1391	U1392	U1393	U1394	U1395	U1396	U1397	U1398	U1399	U1400	U1401	U1402	U1403	U1404	U1405	U1406	U1407	U1408	U1409	U1410	U1411	U1412	U1413	U1414	U1415	U1416	U1417	U1418	U1419	U1420	U1421	U1422	U1423	U1424	U1425	U1426	U1427	U1428	U1429	U1430	U1431	U1432	U1433	U1434	U1435	U1436	U1437	U1438	U1439	U1440	U1441	U1442	U1443	U1444	U1445	U1446	U1447	U1448	U1449	U1450	U1451	U1452	U1453	U1454	U1455	U1456	U1457	U1458	U1459	U1460	U1461	U1462	U1463	U1464	U1465	U1466	U1467	U1468	U1469	U1470	U1471	U1472	U1473	U1474	U1475	U1476	U1477	U1478	U1479	U1480	U1481	U1482	U1483	U1484	U1485	U1486	U1487	U1488	U1489	U1490	U1491	U1492	U1493	U1494	U1495	U1496	U1497	U1498	U1499	U1500	U1501	U1502	U1503	U1504	U1505	U1506	U1507	U1508	U1509	U1510	U1511	U1512	U1513	U1514	U1515	U1516	U1517	U1518	U1519	U1520	U1521	U1522	U1523	U1524	U1525	U1526	U15

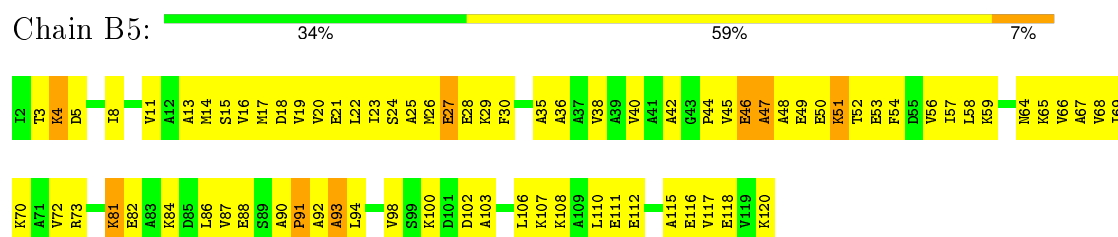
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G2225	C2148	U2016	G1949	C1790	A1699	A1634	G1567	A1491	G1425	G1358	C1290	G1227	G1157
G2226	U2149	G1945	A1872	A1791	A1700	A1635	G1568	A1492	G1426	A1359	C1291	G1228	U1158
A2227	C2150	A2020	A1953	A1794	A1701	A1636	A1569	A1493	A1427	G1360	G1292	G1229	U1159
G2228	U2151	C2021	G1954	A1795	G1702	A1637	A1570	A1494	C1428	C1361	C1293	A1230	G1160
G2229	G2152	U2022	U1955	C1796	G1703	A1638	A1571	A1495	G1429	G1364	U1294	U1231	C1161
G2230	C2153	C2023	U1956	C1798	G1704	A1639	A1572	A1496	G1430	A1365	C1295	G1232	
G2231	A2154	G2024	U1957	A1796	C1705	A1640	G1573	A1497	A1431	A1366	G1296	U1234	A1164
G2232	U2155	C2025	C1958	G1797	A1706	A1641	G1574	A1498	G1432	A1367	C1297	U1235	A1165
G2233	A2096	G2025	C1958	U1798	C1706	G1642	U1575	A1499	A1433	A1367	C1298	G1235	G1166
G2234	G2156	A2030	G1959	G1799	G1707	G1643	U1576	A1500	A1434	A1368	G1299	G1236	C1167
G2235	G2157	A2031	A1960	C1800	C1708	G1644	U1577	C1501	G1435	G1369	G1300	A1237	G1168
G2236	A2158	A2032	C1961	A1801	U1709	G1645	C1577	C1502	G1436	C1370	A1301	G1238	A1169
U2236	G2159	G2033	C1962	A1802	G1710	C1646	U1578	C1503	C1437	G1371	A1302	G1239	C1170
G2237	C2160	A2033	C1963	A1803	A1711	U1647	A1579	G1508	U1438	G1375	U1240	U1241	G1171
G2238	C2161	U2034	G1964	A1804	U1712	G1648	A1580	A1439	U1439	C1376	A1241	U1242	A1175
G2239	G2162	G2035	C1965	C1805	U1716	A1650	C1582	C1582	U1440	G1377	U1243	U1244	U1176
U2240	C2163	C2036	A1966	A1806	C1732	A1651	G1583	G1583	U1441	C1306	C1245	A1244	C1178
A2241	C2164	A2037	G1967	G1811	U1732	A1652	U1584	G1511	U1442	G1310	G1246	A1247	U1181
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U2243	U2166	U2039	A1969	G1813	G1743	A1654	A1588	U1514	U1444	G1312	A1248	U1249	U1183
U2244	U2167	G2040	A1970	G1814	G1743	A1655	A1589	C1590	U1445	G1313	A1249	U1250	U1184
U2245	G2168	U2041	A1971	A1815	A1746	A1656	A1591	C1591	A1449	G1314	U1251	G1252	G1185
G2246	A2169	A2042	G1972	G1816	U1747	A1657	A1592	G1592		G1315	G1252	A1253	G1186
A2247	A2170	C2043	G1973	G1817	C1748	G1658	C1593	C1593		G1316	G1253	A1254	G1187
C2248	A2171	C2044	G1974	U1818	A1749	G1659	U1594	C1594		G1317	U1254	U1255	G1190
U2249	U2172	G2045	G1975	U1819	G1750	G1660	U1595	U1531	C1452	G1318	G1255	G1256	G1193
G2250	C2175	G2046	U1976	U1820	A1755	G1661	C1596	U1532	U1453	G1319	G1256	G1257	A1194
G2251	A2176	C2047	A1977	A1821	G1756	U1662	C1597	C1533	U1454	G1320	A1257	G1258	G1195
G2252	C2177	G2048	G1980	C1822	A1757	G1663	U1602	U1536	U1462	A1321	U1258	A1260	C1196
G2255	C2178	G2049	U1917	G1823	U1758	A1664	A1603	G1537	G1463	A1322	G1259	G1261	G1197
G2256	C2179	A2051	A1918	G1824	A1759	A1665	C1604	G1538	U1464	A1323	C1261	A1262	U1198
U2257	U2180	A2052	A1919	U1825	C1760	G1666	C1605	U1539	U1465	G1324	U1329	U1263	U1199
C2258	U2181	G2053	C1985	G1826	G1761	G1667	C1606	A1540	U1466	U1325	U1329	A1264	C1200
U2182	U2182	A2054	G1986	U1827	G1762	A1668	C1607	A1541	G1467	U1326	U1329	A1265	U1201
G2260	C2175	G2055	G1986	G1828	A1762	A1669	A1608	G1542		U1327	G1332	G1266	G1202
G2261	U2185	G2056	C1990	U1829	G1763	A1670	A1609	C1542	U1470	A1328	G1333	U1267	U1203
U2262	G2186	G2057	U1991	C1830	C1764	A1671	A1610	G1543	C1471	U1329	G1334	A1268	A1204
C2263	U2187	A2058	G1992	G1831	U1765	A1672	C1611	A1544	G1472	G1401	G1338	A1269	U1209
G2266	U2192	G2060	C1994	C1832	G1766	A1673	G1613	A1545	U1473	U1402	G1339	G1270	U1210
A2267	G2193	A2061	U1995	U1834	C1768	G1674	A1614	A1548	U1474	U1403	U1340	A1271	C1211
A2268	U2194	G2062	C1996	G1835	U1769	G1675	C1615	A1549	U1475	U1404	U1341	A1272	G1212
G2269	U2195	C2063	A1997	C1836	G1770	A1676	A1616	A1550	A1477	U1405	G1342	A1273	A1213
A2270	C2196	C2064	A1998	U1931	A1771	A1677	A1617	A1551	G1478	G1407	A1343	A1274	
G2271	U2197	C2065	C1999	G1838	A1772	A1678	G1618	A1552	U1479	U1408	U1344	A1275	U1217
U2272	A2198	C2066	C2000	G1839	A1773	U1680	A1619	A1553	G1480	U1409	U1345	A1276	U1218
A2273	A2199	G2067	C2001	U1841	U1775	G1681	G1619	G1555	C1481	G1416	G1346	G1277	U1219
A2274	C2200	U2068	G2002	U1842	G1776	G1682	A1616	G1556	U1477	U1417	A1347	U1282	U1219
A2275	C2207	G2069	A1936	C1844	U1779	G1683	A1617	U1559	G1478	G1483	A1377	G1283	G1220
G2276	C2208	A2070	A1937	G1845	A1780	U1684	A1618	C1561	U1479	U1484	A1378	A1284	G1221
G2277	C2209	A2071	A1938	G1846	U1781	G1685	A1619	G1562	U1480	U1485	U1352	A1285	U1222
G2278	A2211	C2072	U1939	A1847	U1782	G1686	G1619	U1563	C1481	G1415	G1345	G1277	C1211
A2279	A2212	C2073	U1940	A1848	U1783	A1690	A1626	G1564	G1482	U1416	A1346	G1277	U1218
U2280	U2213	U2074	C1941	G1849	A1783	C1691	G1627	U1569	U1483	G1483	A1347	U1282	U1219
A2281	C2214	U2075	C1942	U1850	A1784	U1692	G1628	C1561	U1484	A1419	A1377	G1283	G1220
G2282	C2215	U2076	U1943	A1785	A1785	U1629	G1628	U1562	U1485	U1485	U1352	A1284	G1221
C2283	G2216	A2077	U1944	A1853	A1786	G1695	A1630	U1563	U1487	G1421	A1377	A1286	G1223



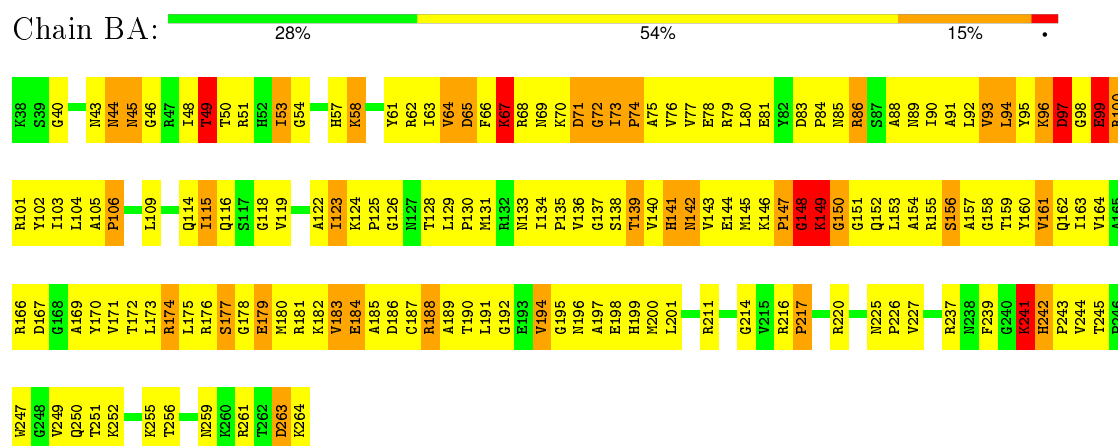
- Molecule 25: 50S ribosomal protein L7/L12



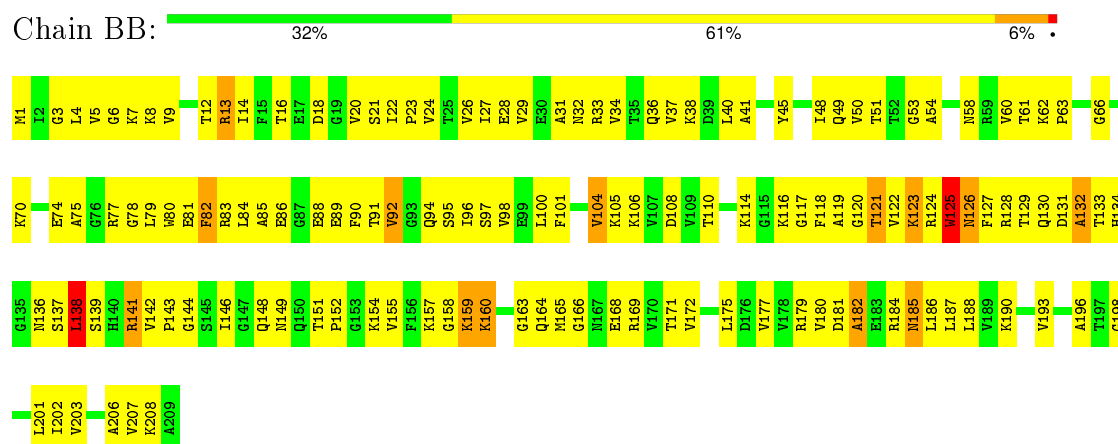
- Molecule 25: 50S ribosomal protein L7/L12



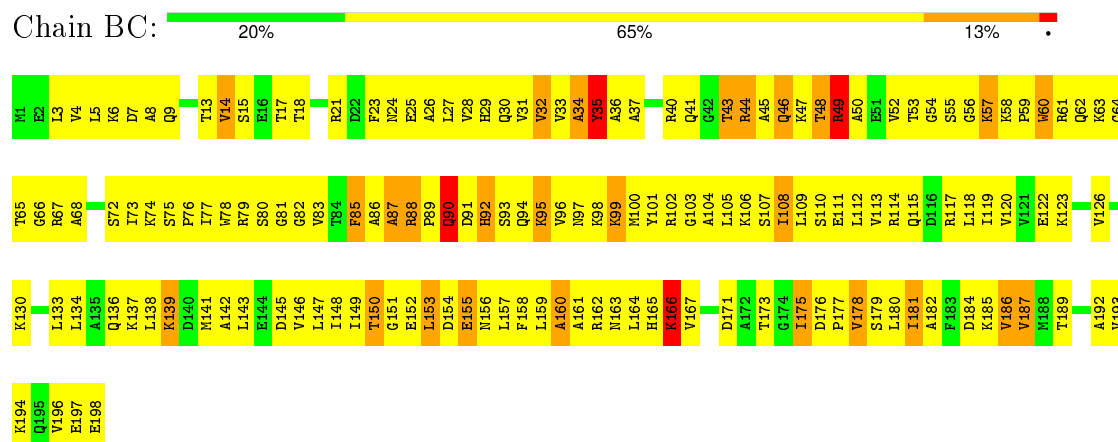
- Molecule 26: 50S ribosomal protein L2



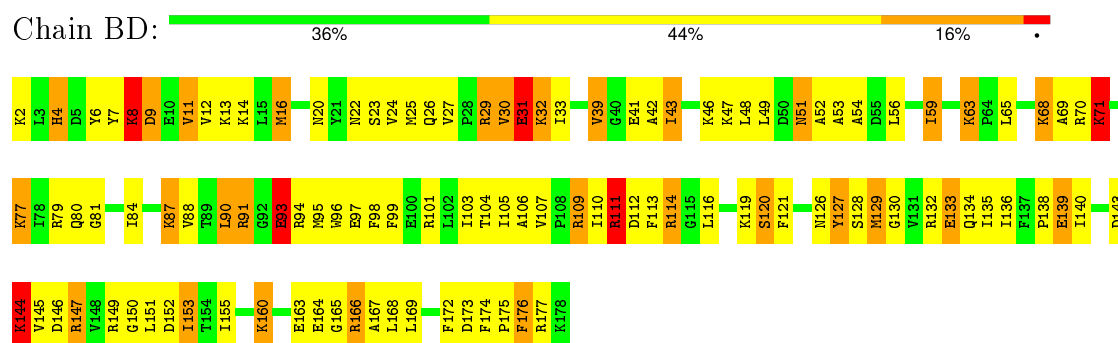
- Molecule 27: 50S ribosomal protein L3



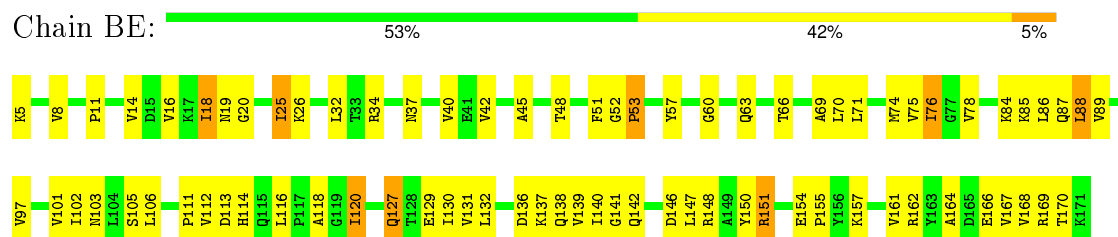
- Molecule 28: 50S ribosomal protein L4



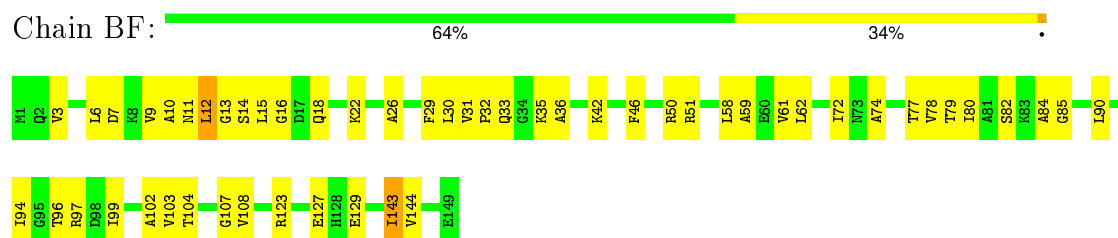
- Molecule 29: 50S ribosomal protein L5



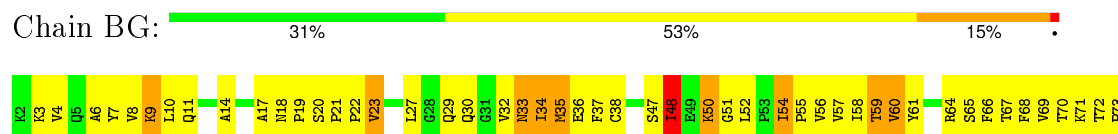
- Molecule 30: 50S ribosomal protein L6



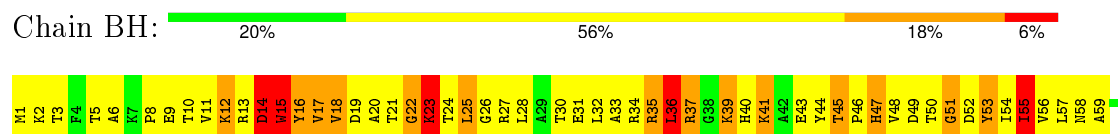
- Molecule 31: 50S ribosomal protein L9



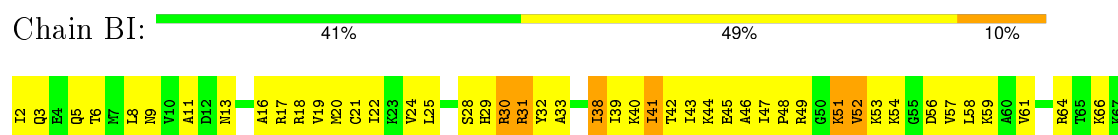
- Molecule 32: 50S ribosomal protein L11



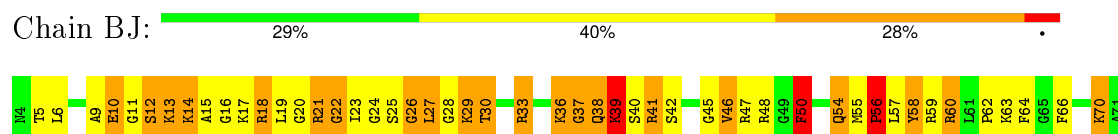
• Molecule 33: 50S ribosomal protein L13



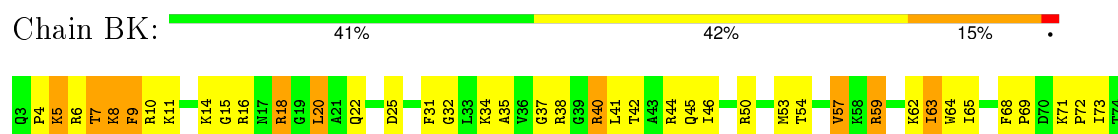
• Molecule 34: 50S ribosomal protein L14



• Molecule 35: 50S ribosomal protein L15



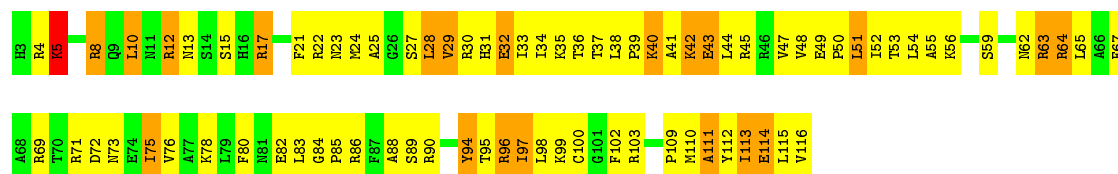
• Molecule 36: 50S ribosomal protein L16





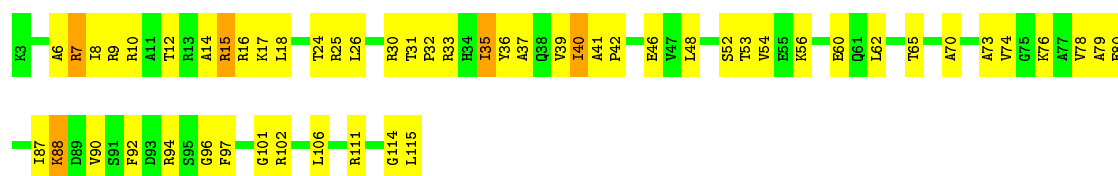
• Molecule 37: 50S ribosomal protein L17

Chain BL: 29% 53% 18%



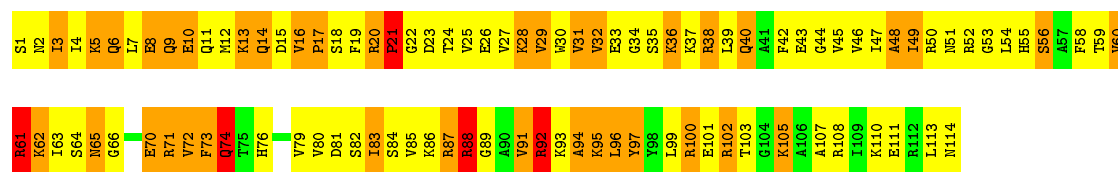
• Molecule 38: 50S ribosomal protein L18

Chain BM: 52% 43%



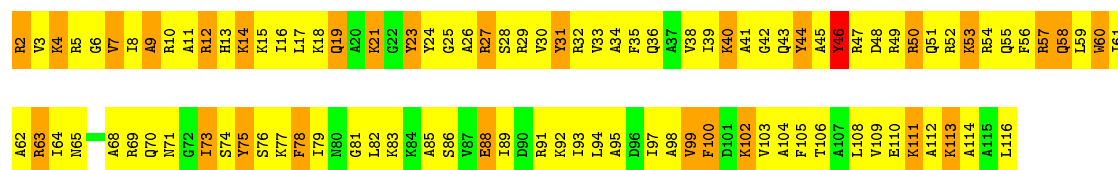
• Molecule 39: 50S ribosomal protein L19

Chain BN: 12% 50% 33%



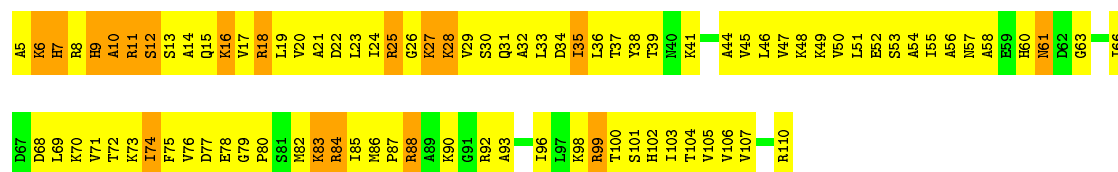
• Molecule 40: 50S ribosomal protein L20

Chain BO: 12% 63% 24%

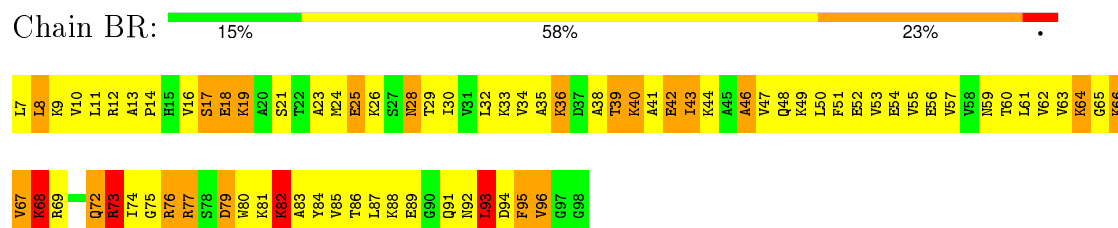


• Molecule 41: 50S ribosomal protein L22

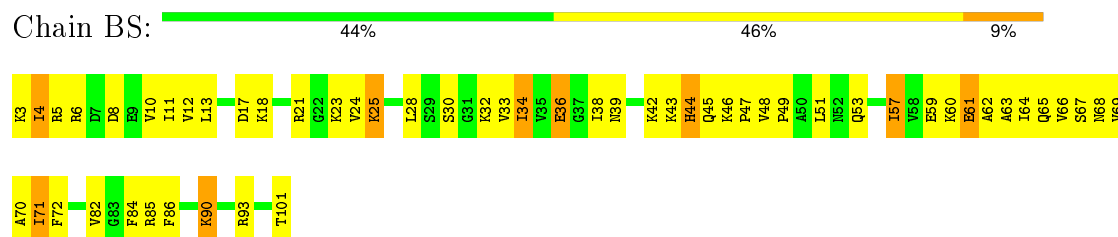
Chain BQ: 15% 68% 17%



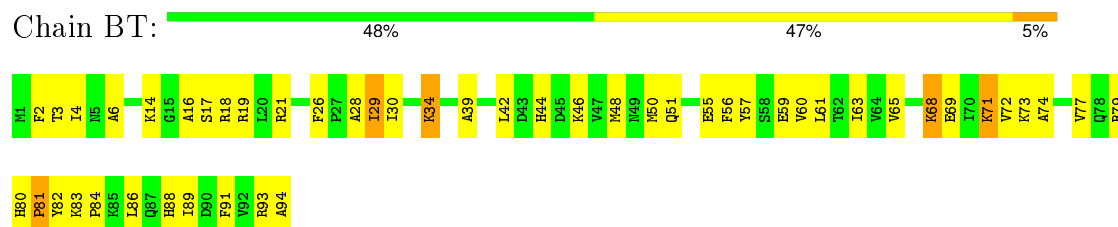
- Molecule 42: 50S ribosomal protein L23



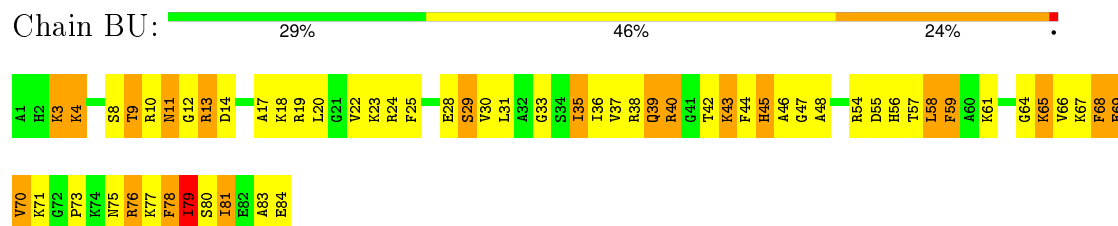
- Molecule 43: 50S ribosomal protein L24



- Molecule 44: 50S ribosomal protein L25



- Molecule 45: 50S ribosomal protein L27

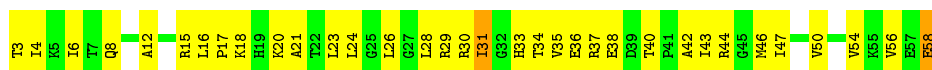


- Molecule 46: 50S ribosomal protein L29

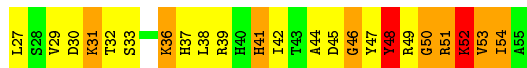
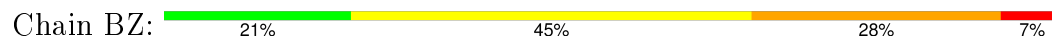


- Molecule 47: 50S ribosomal protein L30





- Molecule 48: 50S ribosomal protein L32



- Molecule 49: 50S ribosomal protein L33



4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of images	Not provided	Depositor
Resolution determination method	Not provided	Depositor
CTF correction method	CTF correction of 3D-maps by Wiener filtration	Depositor
Microscope	FEI TECNAI F30	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	1100	Depositor
Minimum defocus (nm)	1.5	Depositor
Maximum defocus (nm)	4.3	Depositor
Magnification	39000	Depositor
Image detector	KODAK SO163 film	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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 > 2$	RMSZ	# $ Z > 2$
1	AA	0.67	96/35745 (0.3%)	0.93	170/55764 (0.3%)
10	AI	0.24	0/1026	0.44	0/1364
11	AJ	0.23	0/783	0.46	0/1058
12	AK	0.24	0/886	0.44	0/1195
13	AL	0.22	0/799	0.44	0/1070
14	AM	0.21	0/900	0.43	0/1201
15	AN	0.25	0/510	0.39	0/679
16	AO	0.23	0/705	0.42	0/942
17	AP	0.26	0/632	0.44	0/848
18	AQ	0.24	0/649	0.45	0/870
19	AR	0.25	0/585	0.39	0/782
2	AU	0.17	0/1814	0.65	0/2827
2	AV	0.17	0/1814	0.64	0/2827
2	AW	0.18	0/1814	0.63	0/2827
20	AS	0.25	0/712	0.46	0/955
21	AT	0.24	0/655	0.38	0/866
22	B0	0.40	23/65882 (0.0%)	0.67	20/102783 (0.0%)
23	B9	0.20	0/2583	0.64	0/4028
24	B2	0.22	0/1665	0.44	0/2240
25	B3	0.22	0/842	0.43	0/1123
25	B5	0.22	0/844	0.46	0/1129
26	BA	0.72	4/1758 (0.2%)	0.65	2/2353 (0.1%)
27	BB	0.56	1/1582 (0.1%)	0.61	1/2122 (0.0%)
28	BC	0.25	0/1549	0.52	0/2082
29	BD	0.26	0/1438	0.46	0/1927
3	AB	0.25	0/1877	0.40	0/2523
30	BE	0.23	0/1273	0.43	0/1725
31	BF	0.24	0/1120	0.43	0/1509
32	BG	0.25	0/1032	0.54	0/1388
33	BH	0.27	0/1152	0.62	1/1551 (0.1%)
34	BI	0.23	0/948	0.45	0/1269
35	BJ	0.25	0/1025	0.56	0/1363
36	BK	0.27	0/1055	0.48	0/1409
37	BL	0.26	0/920	0.61	0/1229

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >2	RMSZ	# Z >2
38	BM	0.22	0/873	0.40	0/1170
39	BN	0.25	0/929	0.51	0/1242
4	AC	0.23	0/1652	0.42	0/2225
40	BO	1.30	6/949 (0.6%)	3.57	8/1261 (0.6%)
41	BQ	0.23	0/832	0.58	0/1113
42	BR	0.24	0/720	0.54	0/956
43	BS	0.25	0/769	0.42	0/1023
44	BT	0.25	0/766	0.41	0/1025
45	BU	0.27	0/642	0.50	0/848
46	BW	0.24	0/496	0.50	0/658
47	BX	0.23	0/439	0.45	0/587
48	BZ	0.24	0/238	0.45	0/316
49	B1	0.27	0/431	0.46	0/572
5	AD	0.22	0/1660	0.40	0/2220
6	AE	0.23	0/1106	0.42	0/1488
7	AF	0.24	0/802	0.45	0/1081
8	AG	0.23	0/1093	0.42	0/1467
9	AH	0.23	0/978	0.43	0/1311
All	All	0.46	130/153949 (0.1%)	0.75	202/230391 (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	3
22	B0	5	4
All	All	6	7

All (130) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	B0	1996	C	N1-C2	33.93	1.74	1.40
22	B0	1579	A	N1-C2	27.63	1.59	1.34
22	B0	1421	G	N1-C2	25.25	1.57	1.37
1	AA	545	C	O3'-P	24.31	1.90	1.61
1	AA	536	C	N1-C6	24.27	1.51	1.37
22	B0	1579	A	C5-C6	23.23	1.61	1.41
1	AA	419	C	N1-C6	23.03	1.50	1.37
22	B0	1579	A	C2-N3	23.00	1.54	1.33
22	B0	1996	C	C2-N3	22.89	1.54	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	418	C	N1-C6	22.81	1.50	1.37
1	AA	545	C	N1-C6	22.56	1.50	1.37
26	BA	67	LYS	CA-CB	22.41	2.03	1.53
22	B0	1421	G	C6-N1	21.95	1.54	1.39
1	AA	424	G	O3'-P	21.39	1.86	1.61
22	B0	1579	A	C6-N1	20.44	1.49	1.35
22	B0	1996	C	C4-C5	20.35	1.59	1.43
1	AA	539	A	N3-C4	20.26	1.47	1.34
22	B0	1996	C	N3-C4	20.05	1.48	1.33
40	BO	100	PHE	CD1-CE1	19.78	1.78	1.39
40	BO	100	PHE	CD2-CE2	19.77	1.78	1.39
1	AA	422	C	N1-C6	19.57	1.48	1.37
22	B0	1996	C	C5-C6	19.46	1.50	1.34
27	BB	138	LEU	CA-CB	19.41	1.98	1.53
1	AA	422	C	C2-N3	17.01	1.49	1.35
22	B0	1996	C	N1-C6	16.98	1.47	1.37
40	BO	100	PHE	CE2-CZ	-16.63	1.05	1.37
40	BO	100	PHE	CE1-CZ	-16.61	1.05	1.37
22	B0	1579	A	N3-C4	16.60	1.44	1.34
22	B0	1421	G	C5-C6	16.53	1.58	1.42
22	B0	1579	A	C5-C4	15.46	1.49	1.38
22	B0	1421	G	C2-N3	14.95	1.44	1.32
1	AA	543	U	N1-C6	14.59	1.51	1.38
22	B0	1421	G	N3-C4	14.55	1.45	1.35
26	BA	149	LYS	N-CA	14.36	1.75	1.46
1	AA	421	U	N1-C6	14.16	1.50	1.38
1	AA	418	C	C2-N3	14.02	1.47	1.35
1	AA	417	G	N3-C4	13.90	1.45	1.35
1	AA	542	G	C5-C6	13.73	1.56	1.42
1	AA	420	U	N1-C6	13.70	1.50	1.38
1	AA	535	A	O3'-P	-13.68	1.44	1.61
1	AA	542	G	C8-N7	13.55	1.39	1.30
1	AA	423	G	C5-C6	13.55	1.55	1.42
1	AA	423	G	N3-C4	13.54	1.45	1.35
1	AA	545	C	C2-N3	13.38	1.46	1.35
1	AA	417	G	C5-C6	13.35	1.55	1.42
1	AA	536	C	C2-N3	13.25	1.46	1.35
1	AA	421	U	C4-C5	13.02	1.55	1.43
1	AA	537	G	N3-C4	13.02	1.44	1.35
1	AA	424	G	N3-C4	13.02	1.44	1.35
1	AA	537	G	C5-C6	13.01	1.55	1.42
1	AA	540	G	N3-C4	12.95	1.44	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	544	G	C5-C6	12.91	1.55	1.42
1	AA	419	C	C2-N3	12.88	1.46	1.35
1	AA	541	G	C5-C6	12.87	1.55	1.42
1	AA	544	G	C8-N7	12.86	1.38	1.30
1	AA	538	G	C5-C6	12.85	1.55	1.42
1	AA	538	G	C8-N7	12.80	1.38	1.30
1	AA	420	U	C4-C5	12.75	1.55	1.43
1	AA	538	G	N3-C4	12.72	1.44	1.35
1	AA	541	G	C8-N7	12.57	1.38	1.30
1	AA	540	G	C5-C6	12.57	1.54	1.42
1	AA	423	G	C8-N7	12.56	1.38	1.30
1	AA	544	G	N3-C4	12.51	1.44	1.35
1	AA	541	G	N3-C4	12.32	1.44	1.35
1	AA	424	G	C5-C6	12.27	1.54	1.42
1	AA	537	G	C8-N7	12.25	1.38	1.30
1	AA	417	G	C8-N7	12.19	1.38	1.30
1	AA	424	G	C8-N7	12.18	1.38	1.30
1	AA	542	G	N3-C4	11.70	1.43	1.35
1	AA	543	U	C4-C5	11.49	1.53	1.43
1	AA	540	G	C8-N7	11.30	1.37	1.30
1	AA	539	A	C5-C4	11.02	1.46	1.38
1	AA	539	A	C8-N7	10.51	1.39	1.31
40	BO	100	PHE	CG-CD1	10.19	1.54	1.38
1	AA	423	G	N1-C2	10.17	1.45	1.37
22	B0	1421	G	C5-C4	10.15	1.45	1.38
40	BO	100	PHE	CG-CD2	10.12	1.53	1.38
1	AA	544	G	N1-C2	10.05	1.45	1.37
1	AA	537	G	N1-C2	9.79	1.45	1.37
1	AA	541	G	N1-C2	9.79	1.45	1.37
1	AA	424	G	N1-C2	9.73	1.45	1.37
1	AA	540	G	N1-C2	9.51	1.45	1.37
1	AA	542	G	N1-C2	9.21	1.45	1.37
1	AA	538	G	N1-C2	9.17	1.45	1.37
1	AA	416	G	O3'-P	9.15	1.72	1.61
22	B0	2451	A	O3'-P	8.71	1.71	1.61
1	AA	423	G	C5-C4	8.39	1.44	1.38
1	AA	422	C	C4-N4	8.34	1.41	1.33
1	AA	417	G	N1-C2	8.33	1.44	1.37
1	AA	542	G	C5-C4	8.24	1.44	1.38
1	AA	540	G	C5-C4	8.14	1.44	1.38
1	AA	422	C	C4-C5	-8.00	1.36	1.43
1	AA	418	C	C4-N4	7.82	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	537	G	C5-C4	7.74	1.43	1.38
1	AA	545	C	C4-N4	7.72	1.40	1.33
1	AA	536	C	C4-C5	-7.64	1.36	1.43
1	AA	418	C	C4-C5	-7.61	1.36	1.43
1	AA	536	C	C4-N4	7.48	1.40	1.33
1	AA	419	C	C4-C5	-7.42	1.37	1.43
1	AA	419	C	C4-N4	7.42	1.40	1.33
1	AA	545	C	C4-C5	-7.26	1.37	1.43
1	AA	424	G	C5-C4	7.21	1.43	1.38
1	AA	417	G	C5-C4	7.20	1.43	1.38
1	AA	538	G	C5-C4	7.07	1.43	1.38
1	AA	541	G	C5-C4	7.03	1.43	1.38
1	AA	544	G	C5-C4	7.01	1.43	1.38
1	AA	536	C	N3-C4	-6.77	1.29	1.33
1	AA	545	C	N3-C4	-6.68	1.29	1.33
1	AA	419	C	N3-C4	-6.29	1.29	1.33
26	BA	67	LYS	CB-CG	6.26	1.69	1.52
1	AA	418	C	N3-C4	-6.21	1.29	1.33
1	AA	532	A	O3'-P	5.67	1.68	1.61
26	BA	148	GLY	C-N	5.64	1.47	1.34
1	AA	424	G	C2-N3	-5.60	1.28	1.32
1	AA	541	G	C2-N3	-5.57	1.28	1.32
22	B0	2091	C	O3'-P	5.56	1.67	1.61
1	AA	417	G	C6-N1	-5.56	1.35	1.39
1	AA	540	G	C6-N1	-5.47	1.35	1.39
1	AA	538	G	C2-N3	-5.44	1.28	1.32
1	AA	423	G	C6-N1	-5.42	1.35	1.39
1	AA	542	G	C2-N3	-5.38	1.28	1.32
1	AA	539	A	C6-N1	-5.37	1.31	1.35
1	AA	538	G	C6-N1	-5.36	1.35	1.39
22	B0	2674	G	O3'-P	5.36	1.67	1.61
22	B0	810	U	O3'-P	5.33	1.67	1.61
1	AA	537	G	C2-N3	-5.15	1.28	1.32
1	AA	542	G	C6-N1	-5.15	1.35	1.39
1	AA	360	G	O3'-P	-5.11	1.55	1.61
22	B0	1965	C	O3'-P	5.05	1.67	1.61
1	AA	540	G	C2-N3	-5.01	1.28	1.32

All (202) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BO	100	PHE	CZ-CE2-CD2	-69.61	36.57	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BO	100	PHE	CD1-CE1-CZ	-69.56	36.62	120.10
40	BO	100	PHE	CE1-CZ-CE2	-53.35	23.98	120.00
40	BO	100	PHE	CG-CD1-CE1	-32.88	84.64	120.80
40	BO	100	PHE	CG-CD2-CE2	-32.87	84.64	120.80
1	AA	423	G	C2-N3-C4	23.45	123.62	111.90
1	AA	423	G	N3-C4-C5	-22.57	117.32	128.60
1	AA	542	G	C2-N3-C4	22.24	123.02	111.90
1	AA	544	G	C2-N3-C4	22.12	122.96	111.90
1	AA	541	G	C2-N3-C4	22.02	122.91	111.90
1	AA	417	G	C2-N3-C4	21.81	122.81	111.90
1	AA	537	G	C2-N3-C4	21.57	122.68	111.90
1	AA	538	G	C2-N3-C4	21.29	122.55	111.90
1	AA	540	G	C2-N3-C4	21.16	122.48	111.90
1	AA	424	G	C2-N3-C4	21.10	122.45	111.90
1	AA	417	G	N3-C4-C5	-20.91	118.14	128.60
1	AA	542	G	N3-C4-C5	-20.80	118.20	128.60
1	AA	540	G	N3-C4-C5	-20.48	118.36	128.60
1	AA	537	G	N3-C4-C5	-20.16	118.52	128.60
1	AA	544	G	N3-C4-C5	-19.84	118.68	128.60
1	AA	541	G	N3-C4-C5	-19.49	118.86	128.60
1	AA	538	G	N3-C4-C5	-19.35	118.92	128.60
1	AA	424	G	N3-C4-C5	-19.29	118.96	128.60
1	AA	423	G	N7-C8-N9	19.11	122.66	113.10
1	AA	423	G	C8-N9-C4	-19.10	98.76	106.40
40	BO	100	PHE	CD1-CG-CD2	-19.04	93.55	118.30
1	AA	540	G	C8-N9-C4	-18.41	99.04	106.40
1	AA	542	G	C8-N9-C4	-18.32	99.07	106.40
1	AA	540	G	N7-C8-N9	18.17	122.18	113.10
1	AA	537	G	C8-N9-C4	-18.09	99.16	106.40
1	AA	537	G	N7-C8-N9	17.69	121.95	113.10
40	BO	100	PHE	CB-CG-CD1	17.49	133.04	120.80
1	AA	542	G	N7-C8-N9	17.31	121.76	113.10
1	AA	541	G	C8-N9-C4	-17.31	99.47	106.40
40	BO	100	PHE	CB-CG-CD2	17.30	132.91	120.80
27	BB	138	LEU	CA-CB-CG	17.13	154.70	115.30
1	AA	417	G	C8-N9-C4	-16.76	99.69	106.40
1	AA	541	G	N7-C8-N9	16.67	121.44	113.10
1	AA	417	G	N7-C8-N9	16.67	121.43	113.10
1	AA	538	G	C8-N9-C4	-16.56	99.78	106.40
1	AA	424	G	N7-C8-N9	16.52	121.36	113.10
1	AA	544	G	N7-C8-N9	16.50	121.35	113.10
1	AA	539	A	N7-C8-N9	16.31	121.95	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	538	G	N7-C8-N9	16.24	121.22	113.10
1	AA	544	G	C8-N9-C4	-16.07	99.97	106.40
1	AA	424	G	C8-N9-C4	-15.92	100.03	106.40
1	AA	539	A	C8-N9-C4	-15.77	99.49	105.80
1	AA	540	G	C5-N7-C8	-15.55	96.53	104.30
1	AA	424	G	C5-N7-C8	-15.54	96.53	104.30
1	AA	544	G	C5-N7-C8	-15.35	96.62	104.30
1	AA	423	G	C5-N7-C8	-15.25	96.67	104.30
1	AA	417	G	C5-N7-C8	-15.22	96.69	104.30
1	AA	538	G	C5-N7-C8	-15.19	96.70	104.30
1	AA	537	G	C5-N7-C8	-15.15	96.72	104.30
1	AA	541	G	C5-N7-C8	-15.05	96.78	104.30
1	AA	542	G	C5-N7-C8	-14.75	96.93	104.30
1	AA	535	A	P-O3'-C3'	14.39	136.97	119.70
1	AA	423	G	N3-C4-N9	14.05	134.43	126.00
1	AA	545	C	O3'-P-O5'	-13.88	77.62	104.00
1	AA	539	A	C5-N7-C8	-13.37	97.21	103.90
1	AA	416	G	O3'-P-O5'	12.98	128.66	104.00
22	B0	1593	G	N9-C1'-C2'	12.71	130.52	114.00
1	AA	539	A	N3-C4-C5	-12.59	117.98	126.80
1	AA	416	G	P-O3'-C3'	-12.46	104.75	119.70
1	AA	417	G	N3-C4-N9	12.37	133.42	126.00
1	AA	424	G	O3'-P-O5'	-12.33	80.58	104.00
22	B0	1653	G	N9-C1'-C2'	11.52	128.97	114.00
1	AA	544	G	N3-C4-N9	11.32	132.79	126.00
1	AA	537	G	N3-C4-N9	11.12	132.68	126.00
1	AA	540	G	N3-C4-N9	10.91	132.55	126.00
1	AA	542	G	N3-C4-N9	10.90	132.54	126.00
1	AA	424	G	N3-C4-N9	10.88	132.53	126.00
1	AA	420	U	N1-C2-N3	10.77	121.36	114.90
22	B0	1579	A	N1-C2-N3	-10.62	123.99	129.30
1	AA	538	G	N3-C4-N9	10.41	132.25	126.00
1	AA	421	U	N1-C2-N3	10.18	121.01	114.90
1	AA	541	G	N3-C4-N9	9.98	131.99	126.00
1	AA	422	C	C4-C5-C6	9.89	122.35	117.40
1	AA	536	C	C6-N1-C2	-9.82	116.37	120.30
1	AA	424	G	OP2-P-O3'	9.80	126.76	105.20
22	B0	2143	C	N1-C1'-C2'	9.74	126.66	114.00
1	AA	539	A	C2-N3-C4	9.71	115.45	110.60
26	BA	67	LYS	CA-CB-CG	9.66	134.65	113.40
1	AA	542	G	N9-C4-C5	9.59	109.24	105.40
22	B0	2655	G	N9-C1'-C2'	9.59	126.46	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	541	G	N9-C4-C5	9.34	109.14	105.40
22	B0	2250	G	N9-C1'-C2'	8.96	125.64	114.00
1	AA	421	U	N3-C2-O2	-8.86	116.00	122.20
1	AA	538	G	N9-C4-C5	8.56	108.82	105.40
1	AA	537	G	N9-C4-C5	8.49	108.80	105.40
1	AA	543	U	N1-C2-N3	8.45	119.97	114.90
1	AA	418	C	C6-N1-C2	-8.42	116.93	120.30
1	AA	545	C	OP2-P-O3'	8.36	123.58	105.20
1	AA	417	G	C5-C6-N1	8.28	115.64	111.50
26	BA	148	GLY	C-N-CA	8.14	142.04	121.70
1	AA	424	G	C5-C6-O6	-8.10	123.74	128.60
1	AA	543	U	C5-C4-O4	-8.08	121.05	125.90
22	B0	1653	G	O4'-C1'-N9	8.03	114.62	108.20
1	AA	420	U	N3-C2-O2	-8.02	116.59	122.20
22	B0	1593	G	O4'-C1'-N9	7.94	114.55	108.20
1	AA	544	G	N9-C4-C5	7.79	108.52	105.40
1	AA	419	C	C6-N1-C2	-7.74	117.20	120.30
1	AA	423	G	C5-C6-N1	7.71	115.36	111.50
1	AA	423	G	C5-C6-O6	-7.71	123.98	128.60
1	AA	424	G	N9-C4-C5	7.67	108.47	105.40
1	AA	539	A	N3-C4-N9	7.64	133.51	127.40
22	B0	2163	G	N9-C1'-C2'	7.60	123.88	114.00
1	AA	424	G	P-O3'-C3'	-7.59	110.59	119.70
1	AA	417	G	N9-C4-C5	7.58	108.43	105.40
1	AA	540	G	N9-C4-C5	7.50	108.40	105.40
1	AA	545	C	C6-N1-C2	-7.43	117.33	120.30
1	AA	544	G	C5-C6-O6	-7.39	124.17	128.60
1	AA	423	G	OP1-P-OP2	-7.36	108.56	119.60
22	B0	1996	C	N1-C2-N3	-7.29	114.09	119.20
1	AA	545	C	C4-C5-C6	7.29	121.04	117.40
1	AA	538	G	C5-C6-N1	7.28	115.14	111.50
1	AA	543	U	N3-C2-O2	-7.26	117.12	122.20
1	AA	537	G	C5-C6-N1	7.22	115.11	111.50
1	AA	542	G	C5-C6-N1	7.17	115.08	111.50
1	AA	423	G	N9-C4-C5	7.14	108.26	105.40
1	AA	544	G	C5-C6-N1	7.13	115.07	111.50
1	AA	423	G	C4-C5-N7	7.12	113.65	110.80
1	AA	545	C	OP1-P-OP2	-7.09	108.97	119.60
22	B0	493	G	N9-C1'-C2'	7.07	123.19	114.00
1	AA	424	G	C4-C5-N7	7.02	113.61	110.80
1	AA	536	C	C4-C5-C6	7.01	120.91	117.40
1	AA	428	G	N9-C1'-C2'	7.00	123.10	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	540	G	C4-C5-N7	6.98	113.59	110.80
1	AA	424	G	C5-C6-N1	6.97	114.99	111.50
1	AA	419	C	C4-C5-C6	6.90	120.85	117.40
1	AA	424	G	OP1-P-OP2	-6.89	109.27	119.60
1	AA	417	G	C5-C6-O6	-6.78	124.53	128.60
1	AA	417	G	OP1-P-OP2	-6.76	109.45	119.60
1	AA	417	G	C4-C5-N7	6.76	113.50	110.80
1	AA	539	A	N9-C4-C5	6.76	108.50	105.80
1	AA	541	G	C5-C6-N1	6.74	114.87	111.50
1	AA	418	C	C4-C5-C6	6.71	120.75	117.40
1	AA	540	G	C5-C6-O6	-6.68	124.59	128.60
22	B0	1421	G	C2-N3-C4	6.68	115.24	111.90
1	AA	540	G	C5-C6-N1	6.68	114.84	111.50
1	AA	418	C	OP1-P-OP2	-6.67	109.60	119.60
1	AA	540	G	OP1-P-OP2	-6.52	109.81	119.60
1	AA	544	G	OP1-P-OP2	-6.51	109.84	119.60
1	AA	544	G	C4-C5-N7	6.50	113.40	110.80
1	AA	541	G	C5-C6-O6	-6.48	124.71	128.60
1	AA	419	C	OP1-P-OP2	-6.44	109.94	119.60
22	B0	2143	C	O4'-C1'-N1	6.41	113.33	108.20
1	AA	422	C	OP1-P-OP2	-6.40	110.00	119.60
1	AA	538	G	C4-C5-N7	6.38	113.35	110.80
1	AA	543	U	OP1-P-OP2	-6.35	110.08	119.60
22	B0	1579	A	C2-N3-C4	6.28	113.74	110.60
1	AA	537	G	OP1-P-OP2	-6.27	110.19	119.60
1	AA	421	U	OP1-P-OP2	-6.25	110.22	119.60
1	AA	541	G	OP1-P-OP2	-6.24	110.24	119.60
22	B0	1421	G	N1-C2-N3	-6.16	120.20	123.90
1	AA	543	U	C5-C6-N1	-6.15	119.62	122.70
1	AA	420	U	OP1-P-OP2	-6.09	110.47	119.60
1	AA	538	G	C5-C6-O6	-6.07	124.96	128.60
1	AA	536	C	OP1-P-OP2	-6.06	110.51	119.60
1	AA	421	U	C5-C6-N1	-6.06	119.67	122.70
1	AA	541	G	N1-C2-N2	6.04	121.63	116.20
1	AA	540	G	C6-C5-N7	-6.03	126.78	130.40
22	B0	2655	G	O4'-C1'-N9	6.01	113.01	108.20
1	AA	537	G	C4-C5-N7	5.97	113.19	110.80
1	AA	539	A	OP1-P-OP2	-5.96	110.66	119.60
1	AA	542	G	C5-C6-O6	-5.94	125.04	128.60
1	AA	541	G	C8-N9-C1'	5.93	134.71	127.00
1	AA	418	C	C2-N3-C4	5.92	122.86	119.90
1	AA	541	G	C4-C5-N7	5.84	113.14	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	420	U	O4'-C1'-N1	5.84	112.87	108.20
1	AA	538	G	OP1-P-OP2	-5.81	110.88	119.60
1	AA	545	C	O4'-C1'-N1	5.78	112.83	108.20
1	AA	537	G	C5-C6-O6	-5.78	125.13	128.60
1	AA	545	C	C2-N3-C4	5.76	122.78	119.90
1	AA	419	C	C2-N3-C4	5.75	122.78	119.90
1	AA	538	G	C8-N9-C1'	5.75	134.47	127.00
1	AA	420	U	C5-C6-N1	-5.72	119.84	122.70
22	B0	2250	G	O4'-C1'-N9	5.72	112.77	108.20
1	AA	545	C	P-O3'-C3'	-5.63	112.94	119.70
1	AA	423	G	C6-C5-N7	-5.57	127.06	130.40
1	AA	542	G	OP1-P-OP2	-5.56	111.27	119.60
1	AA	416	G	OP1-P-O3'	-5.54	93.01	105.20
1	AA	421	U	C5-C4-O4	-5.53	122.58	125.90
1	AA	542	G	C4-C5-N7	5.49	113.00	110.80
1	AA	536	C	C2-N3-C4	5.46	122.63	119.90
1	AA	538	G	N1-C2-N2	5.40	121.06	116.20
1	AA	541	G	N1-C2-N3	-5.40	120.66	123.90
22	B0	960	A	C5'-C4'-C3'	5.40	124.64	116.00
22	B0	1494	A	N9-C1'-C2'	-5.40	106.06	112.00
1	AA	419	C	O4'-C1'-N1	5.37	112.50	108.20
22	B0	2165	C	O4'-C1'-N1	5.26	112.41	108.20
1	AA	417	G	O4'-C1'-N9	5.21	112.37	108.20
1	AA	420	U	C5-C4-O4	-5.21	122.78	125.90
1	AA	544	G	N1-C2-N3	-5.21	120.78	123.90
33	BH	112	GLY	C-N-CD	-5.21	109.15	120.60
1	AA	422	C	O4'-C1'-N1	5.18	112.34	108.20
1	AA	422	C	C6-N1-C2	-5.18	118.23	120.30
1	AA	537	G	N1-C2-N2	5.17	120.85	116.20
1	AA	542	G	C8-N9-C1'	5.11	133.64	127.00
1	AA	543	U	N3-C4-C5	5.03	117.62	114.60
1	AA	538	G	N1-C2-N3	-5.02	120.89	123.90
1	AA	703	G	OP1-P-O3'	5.00	116.21	105.20

All (6) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	AA	428	G	C1'
22	B0	1593	G	C1'
22	B0	1653	G	C1'
22	B0	2143	C	C1'
22	B0	2250	G	C1'

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Mol	Chain	Res	Type	Atom
22	B0	2655	G	C1'

All (7) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	538	G	Sidechain
1	AA	540	G	Sidechain
1	AA	541	G	Sidechain
22	B0	1418	G	Sidechain
22	B0	1579	A	Sidechain
22	B0	2137	U	Sidechain
22	B0	2165	C	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	31924	0	16066	1600	0
2	AU	1622	0	821	102	0
2	AV	1622	0	821	75	0
2	AW	1622	0	821	80	0
3	AB	1847	0	1855	120	0
4	AC	1625	0	1699	164	0
5	AD	1638	0	1702	185	0
6	AE	1093	0	1132	117	0
7	AF	784	0	776	100	0
8	AG	1079	0	1108	91	0
9	AH	968	0	1021	96	0
10	AI	1014	0	1064	153	0
11	AJ	773	0	812	71	0
12	AK	870	0	878	98	0
13	AL	787	0	825	81	0
14	AM	892	0	954	65	0
15	AN	500	0	526	51	0
16	AO	697	0	716	72	0
17	AP	622	0	637	77	0
18	AQ	640	0	678	49	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	AR	576	0	599	55	0
20	AS	695	0	725	118	0
21	AT	649	0	697	67	0
22	B0	58824	0	29589	3943	0
23	B9	2310	0	1173	79	0
24	B2	1652	0	1730	181	0
25	B3	845	0	876	139	0
25	B5	845	0	878	133	0
26	BA	1733	0	1764	643	0
27	BB	1565	0	1612	264	0
28	BC	1531	0	1593	499	0
29	BD	1415	0	1451	166	0
30	BE	1253	0	1289	87	0
31	BF	1111	0	1146	48	0
32	BG	1019	0	1076	134	0
33	BH	1129	0	1162	273	0
34	BI	939	0	1011	95	0
35	BJ	1017	0	1086	283	0
36	BK	1036	0	1109	154	0
37	BL	908	0	946	174	0
38	BM	864	0	902	60	0
39	BN	917	0	965	236	0
40	BO	937	0	1008	249	0
41	BQ	825	0	886	220	0
42	BR	717	0	770	187	0
43	BS	762	0	809	72	0
44	BT	753	0	780	45	0
45	BU	634	0	656	172	0
46	BW	495	0	530	76	0
47	BX	435	0	470	41	0
48	BZ	234	0	235	43	0
49	B1	424	0	461	68	0
All	All	141668	0	94896	10859	0

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 46.

All (10859) 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)
22:B0:1579:A:C2	26:BA:67:LYS:CA	1.76	1.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1996:C:C2	27:BB:138:LEU:CA	1.77	1.62
22:B0:1579:A:C4	26:BA:67:LYS:CA	1.86	1.52
22:B0:1579:A:C4	26:BA:67:LYS:HA	1.38	1.52
22:B0:1421:G:N1	26:BA:149:LYS:CA	1.71	1.51
26:BA:149:LYS:CA	26:BA:149:LYS:N	1.75	1.50
22:B0:1579:A:N3	26:BA:67:LYS:HA	1.27	1.47
1:AA:418:C:C6	1:AA:541:G:OP1	1.73	1.39
27:BB:138:LEU:CB	27:BB:138:LEU:CA	1.98	1.38
22:B0:1421:G:C6	26:BA:149:LYS:CA	2.04	1.37
22:B0:1421:G:C6	26:BA:149:LYS:HA	1.59	1.36
1:AA:545:C:H4'	1:AA:549:C:C4'	1.56	1.35
22:B0:1579:A:N3	26:BA:67:LYS:CA	1.80	1.35
22:B0:1996:C:N3	27:BB:138:LEU:CA	1.86	1.35
26:BA:67:LYS:CA	26:BA:67:LYS:CB	2.03	1.35
22:B0:1996:C:N3	27:BB:138:LEU:HA	1.41	1.34
1:AA:424:G:N2	5:AD:39:GLN:OE1	1.61	1.31
1:AA:419:C:O3'	1:AA:540:G:N2	1.64	1.31
1:AA:418:C:O3'	1:AA:541:G:H8	1.08	1.30
22:B0:1579:A:C5	26:BA:67:LYS:CA	2.13	1.30
22:B0:1996:C:C4	27:BB:138:LEU:CA	2.15	1.27
22:B0:1421:G:C2	26:BA:149:LYS:CA	2.17	1.26
22:B0:1579:A:C6	26:BA:67:LYS:CA	2.19	1.25
22:B0:1579:A:N1	26:BA:67:LYS:CA	2.00	1.25
1:AA:424:G:N2	5:AD:39:GLN:CD	1.89	1.25
22:B0:1579:A:C2	26:BA:67:LYS:C	2.07	1.24
1:AA:418:C:O3'	1:AA:541:G:C8	1.89	1.24
1:AA:545:C:C4'	1:AA:549:C:H4'	1.68	1.23
22:B0:1996:C:N1	27:BB:138:LEU:CA	1.99	1.23
22:B0:1579:A:C5	26:BA:67:LYS:N	2.07	1.22
1:AA:419:C:H5''	1:AA:540:G:C2	1.77	1.20
22:B0:2894:U:H5'	33:BH:6:ALA:HB3	1.27	1.16
1:AA:244:U:H1'	1:AA:894:G:H1'	1.25	1.15
25:B3:93:ALA:HA	25:B5:8:ILE:HD11	1.28	1.15
28:BC:34:ALA:HB3	35:BJ:19:LEU:H	1.11	1.15
22:B0:494:G:H1'	41:BQ:6:LYS:HB2	1.21	1.15
26:BA:64:VAL:HG12	26:BA:65:ASP:H	1.08	1.14
28:BC:92:HIS:H	35:BJ:29:LYS:HG3	1.01	1.14
22:B0:2121:G:H4'	22:B0:2122:U:H5'	1.24	1.14
22:B0:1996:C:C6	27:BB:138:LEU:CA	2.30	1.13
1:AA:1286:U:H3'	1:AA:1287:A:H5''	1.15	1.13
1:AA:419:C:H1'	5:AD:39:GLN:HB2	1.21	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:2124:G:H2'	22:B0:2125:G:H5''	1.31	1.12
1:AA:1385:G:H21	10:AI:128:LYS:HG3	1.15	1.12
22:B0:1996:C:C5	27:BB:138:LEU:N	2.19	1.11
22:B0:2677:G:H4'	27:BB:160:LYS:HB2	1.32	1.10
2:AW:76:A:H1'	22:B0:2430:A:H5''	1.26	1.10
22:B0:480:A:H3'	22:B0:481:G:H5''	1.14	1.10
26:BA:67:LYS:HD3	26:BA:186:ASP:HB3	1.30	1.10
22:B0:958:U:H3'	36:BK:80:VAL:HG23	1.25	1.10
28:BC:35:TYR:H	35:BJ:18:ARG:HB3	1.13	1.10
22:B0:2162:G:H3'	22:B0:2163:G:C5'	1.81	1.10
26:BA:140:VAL:HG23	26:BA:161:VAL:HG13	1.34	1.10
22:B0:493:G:H8	41:BQ:10:ALA:N	1.49	1.10
22:B0:800:A:H3'	28:BC:57:LYS:HB3	1.26	1.09
22:B0:492:A:H3'	41:BQ:9:HIS:HA	1.33	1.09
22:B0:658:U:H2'	28:BC:98:LYS:HG2	1.27	1.09
22:B0:588:U:H3	28:BC:74:LYS:HG3	1.17	1.08
1:AA:421:U:O4	5:AD:43:ARG:HB2	1.51	1.08
29:BD:110:ILE:HG22	29:BD:111:ARG:HE	0.98	1.08
22:B0:1496:A:N3	26:BA:142:ASN:HB2	1.68	1.07
22:B0:1965:C:H3'	22:B0:1966:A:H5''	1.35	1.07
22:B0:776:G:H4'	22:B0:777:G:H5''	1.29	1.07
26:BA:175:LEU:HD12	26:BA:176:ARG:H	1.19	1.07
37:BL:64:ARG:HH22	37:BL:67:PHE:HB3	1.16	1.07
6:AE:155:LYS:HE2	9:AH:67:GLY:HA3	1.31	1.07
33:BH:10:THR:HA	33:BH:13:ARG:HE	1.16	1.06
42:BR:10:VAL:HG11	42:BR:38:ALA:HB2	1.38	1.06
2:AU:58:A:H4'	2:AU:59:U:OP1	1.55	1.06
27:BB:130:GLN:HB3	27:BB:134:HIS:HB3	1.37	1.05
22:B0:992:C:H5''	40:BO:47:ARG:HB3	1.32	1.05
22:B0:2678:C:H5''	27:BB:124:ARG:HB3	1.36	1.05
22:B0:958:U:H4'	36:BK:76:LYS:HB3	1.11	1.05
22:B0:1008:A:H4'	22:B0:1009:A:H5'	1.32	1.05
1:AA:173:U:H5'	1:AA:197:A:H1'	1.36	1.05
22:B0:1578:U:H6	26:BA:101:ARG:HD3	1.15	1.05
45:BU:45:HIS:HB3	45:BU:79:ILE:HG21	1.38	1.05
4:AC:184:ASN:HD21	4:AC:199:VAL:HB	1.17	1.04
43:BS:25:LYS:HB3	43:BS:34:ILE:HG23	1.39	1.04
22:B0:1996:C:C5	27:BB:138:LEU:CA	2.39	1.04
1:AA:1317:C:H41	20:AS:6:LYS:HA	1.18	1.04
2:AU:46:G:H4'	2:AU:47:U:OP1	1.57	1.04
22:B0:1996:C:C4	27:BB:138:LEU:N	2.26	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AV:58:A:H4'	2:AV:59:U:OP1	1.55	1.03
1:AA:718:A:O4'	12:AK:117:HIS:HA	1.55	1.03
22:B0:1583:G:H22	26:BA:75:ALA:HA	1.18	1.03
28:BC:153:LEU:HD13	28:BC:158:PHE:HB2	1.37	1.03
26:BA:163:ILE:HA	26:BA:173:LEU:HG	1.41	1.03
2:AW:46:G:H4'	2:AW:47:U:OP1	1.57	1.02
22:B0:1495:A:H3'	26:BA:190:THR:HA	1.37	1.02
39:BN:10:GLU:HG2	39:BN:11:GLN:H	1.23	1.02
1:AA:420:U:P	1:AA:540:G:H21	1.81	1.02
22:B0:2162:G:C3'	22:B0:2163:G:H5''	1.88	1.02
35:BJ:39:LYS:HG2	35:BJ:41:ARG:H	1.20	1.02
2:AW:58:A:H4'	2:AW:59:U:OP1	1.56	1.02
22:B0:2501:C:H5''	22:B0:2503:A:H5'	1.41	1.02
22:B0:2243:U:H1'	22:B0:2245:U:O4	1.59	1.02
22:B0:1828:G:H4'	22:B0:1829:A:H5'	1.42	1.02
28:BC:35:TYR:N	35:BJ:18:ARG:HB3	1.75	1.02
22:B0:2137:U:H4'	22:B0:2138:G:OP1	1.53	1.02
41:BQ:27:LYS:HD3	41:BQ:27:LYS:H	1.21	1.02
1:AA:1301:U:H5''	14:AM:12:LYS:HE2	1.43	1.01
22:B0:1426:G:H3'	22:B0:1428:C:H42	1.26	1.01
22:B0:774:G:H1'	22:B0:777:G:H21	1.24	1.01
22:B0:2712:C:H1'	37:BL:15:SER:HB2	1.37	1.01
22:B0:2176:A:O5'	24:B2:167:ASN:N	1.92	1.01
22:B0:1422:G:H2'	22:B0:1423:A:H5''	1.43	1.01
22:B0:1579:A:C6	26:BA:67:LYS:N	2.28	1.01
39:BN:86:LYS:HG3	39:BN:87:ARG:HD3	1.43	1.01
22:B0:2296:U:H4'	22:B0:2297:A:H5'	1.42	1.01
22:B0:2127:G:O3'	22:B0:2165:C:H2'	1.60	1.00
38:BM:25:ARG:HH21	38:BM:40:ILE:HD12	1.24	1.00
22:B0:2136:G:H2'	22:B0:2137:U:H5'	1.43	1.00
2:AV:36:A:H2'	2:AV:37:G:H5''	1.42	1.00
42:BR:25:GLU:HG3	42:BR:26:LYS:H	1.26	1.00
22:B0:662:G:H5''	28:BC:88:ARG:HG2	1.39	1.00
1:AA:1409:C:H4'	22:B0:1913:A:H4'	1.39	1.00
20:AS:83:ALA:HA	22:B0:891:G:N7	1.76	1.00
1:AA:418:C:C6	1:AA:541:G:P	2.53	1.00
1:AA:424:G:H1	5:AD:39:GLN:HE22	1.01	0.99
1:AA:1322:C:H4'	1:AA:1323:G:H5'	1.43	0.99
1:AA:420:U:P	1:AA:540:G:N2	2.36	0.99
40:BO:27:ARG:HE	40:BO:33:VAL:HB	1.26	0.99
1:AA:419:C:H2'	5:AD:39:GLN:HG2	1.45	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BC:186:VAL:HG22	28:BC:187:VAL:H	1.25	0.99
27:BB:160:LYS:H	27:BB:160:LYS:HD2	1.27	0.99
22:B0:961:C:H2'	22:B0:2497:A:O2'	1.60	0.99
26:BA:97:ASP:CG	26:BA:98:GLY:H	1.66	0.99
28:BC:83:VAL:HG11	35:BJ:30:THR:HG23	1.45	0.99
1:AA:1286:U:C3'	1:AA:1287:A:H5''	1.93	0.98
22:B0:479:A:H4'	43:BS:59:GLU:HG2	1.42	0.98
2:AW:36:A:H2'	2:AW:37:G:H5''	1.40	0.98
1:AA:1139:G:H4'	1:AA:1140:C:H5'	1.44	0.98
25:B5:59:LYS:HE2	25:B5:118:GLU:HB3	1.44	0.98
33:BH:16:TYR:O	33:BH:17:VAL:HG13	1.63	0.98
22:B0:2680:U:H2'	22:B0:2681:C:H5''	1.42	0.98
22:B0:1491:A:H8	26:BA:175:LEU:HB2	1.29	0.98
22:B0:959:A:C8	36:BK:80:VAL:HG12	1.99	0.98
22:B0:1496:A:N1	26:BA:155:ARG:HA	1.78	0.97
42:BR:8:LEU:HB3	46:BW:29:ARG:HD2	1.44	0.97
26:BA:158:GLY:H	26:BA:194:VAL:HB	1.28	0.97
5:AD:120:LYS:HG2	5:AD:128:VAL:HG11	1.46	0.97
1:AA:419:C:O4'	1:AA:541:G:C4'	2.11	0.97
42:BR:67:VAL:HG12	42:BR:68:LYS:H	1.27	0.97
22:B0:628:G:H21	22:B0:638:G:H4'	1.27	0.97
49:B1:42:VAL:HG22	49:B1:43:ARG:H	1.29	0.97
22:B0:2164:C:C4'	22:B0:2165:C:H1'	1.96	0.96
22:B0:2678:C:H42	22:B0:2729:G:H22	1.03	0.96
1:AA:1235:U:H2'	1:AA:1236:A:H5''	1.43	0.96
32:BG:6:ALA:HB3	32:BG:60:VAL:HG21	1.48	0.96
2:AU:36:A:H2'	2:AU:37:G:H5''	1.44	0.96
22:B0:799:G:H3'	28:BC:57:LYS:HB2	1.42	0.96
37:BL:38:LEU:HB2	37:BL:39:PRO:HD3	1.47	0.96
22:B0:1010:A:H5'	40:BO:62:ALA:HB1	1.46	0.96
13:AL:120:ARG:HB3	13:AL:120:ARG:HH11	1.29	0.96
29:BD:12:VAL:HG23	29:BD:13:LYS:HD2	1.46	0.96
22:B0:1992:G:H1	27:BB:138:LEU:HD11	1.30	0.96
22:B0:476:G:H22	22:B0:478:A:H3'	1.30	0.96
22:B0:1322:A:H61	22:B0:1333:G:H21	1.11	0.95
29:BD:111:ARG:HH22	29:BD:134:GLN:HG3	1.30	0.95
1:AA:1065:U:H5''	1:AA:1190:G:H21	1.28	0.95
1:AA:417:G:N2	1:AA:427:U:H1'	1.81	0.95
24:B2:208:ILE:H	24:B2:208:ILE:HD13	1.30	0.95
45:BU:30:VAL:HG22	45:BU:31:LEU:HD23	1.48	0.95
22:B0:493:G:H5''	41:BQ:9:HIS:H	1.30	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:2680:U:H5"	27:BB:114:LYS:HE2	1.44	0.95
1:AA:979:C:H5"	20:AS:5:LYS:HD2	1.48	0.95
33:BH:33:ALA:HB2	33:BH:105:VAL:HG23	1.48	0.95
22:B0:2128:G:H4'	22:B0:2165:C:H3'	1.43	0.95
22:B0:1996:C:C2	27:BB:138:LEU:HA	1.69	0.95
28:BC:91:ASP:HA	35:BJ:29:LYS:HB3	1.48	0.95
35:BJ:118:THR:HG23	35:BJ:119:PRO:HA	1.48	0.95
21:AT:23:ARG:HB3	21:AT:60:GLN:HE21	1.32	0.95
22:B0:2676:C:H41	27:BB:128:ARG:HG3	1.32	0.95
42:BR:33:LYS:HA	42:BR:82:LYS:HB3	1.46	0.95
22:B0:1578:U:OP2	26:BA:101:ARG:HD2	1.65	0.95
1:AA:979:C:H5"	20:AS:5:LYS:CD	1.96	0.95
39:BN:50:ARG:HE	39:BN:100:ARG:HH21	1.05	0.95
22:B0:1488:G:O6	26:BA:156:SER:HB2	1.67	0.94
28:BC:178:VAL:HG13	28:BC:179:SER:H	1.29	0.94
22:B0:2169:A:H5"	22:B0:2170:A:OP2	1.66	0.94
39:BN:72:VAL:HG22	39:BN:73:PHE:H	1.32	0.94
22:B0:1758:U:H3	22:B0:2695:U:H4'	1.29	0.94
33:BH:112:GLY:HA2	33:BH:113:PRO:O	1.68	0.94
22:B0:2164:C:H4'	22:B0:2165:C:H1'	1.46	0.94
39:BN:85:VAL:HG22	39:BN:86:LYS:H	1.32	0.94
22:B0:1043:C:H2'	22:B0:1044:C:H5"	1.47	0.94
22:B0:2143:C:O2'	22:B0:2144:G:H4'	1.68	0.94
11:AJ:57:VAL:HG12	11:AJ:58:ASN:H	1.29	0.94
24:B2:41:VAL:HG22	24:B2:215:THR:HG22	1.49	0.94
22:B0:1578:U:H5"	26:BA:101:ARG:HD2	1.49	0.94
1:AA:1300:G:H4'	1:AA:1301:U:H5	1.33	0.94
1:AA:107:G:H3'	1:AA:108:G:H21	1.32	0.94
1:AA:419:C:C3'	1:AA:540:G:H21	1.81	0.93
1:AA:419:C:C2'	5:AD:39:GLN:HG2	1.98	0.93
42:BR:30:ILE:HG12	42:BR:87:LEU:HD11	1.47	0.93
22:B0:800:A:H2	28:BC:60:TRP:H	1.05	0.93
28:BC:34:ALA:H	35:BJ:18:ARG:HG3	1.30	0.93
1:AA:1186:G:H4'	10:AI:121:ARG:HA	1.48	0.93
1:AA:1519:A:H2'	1:AA:1520:C:H5'	1.49	0.93
42:BR:16:VAL:HG12	42:BR:17:SER:H	1.30	0.93
22:B0:2861:U:HO2'	22:B0:2862:G:H8	1.07	0.93
22:B0:534:U:H3	22:B0:559:G:H22	1.17	0.93
22:B0:662:G:H5"	28:BC:88:ARG:CG	1.99	0.93
28:BC:35:TYR:H	35:BJ:18:ARG:CB	1.82	0.93
1:AA:1385:G:C2	10:AI:128:LYS:HE3	2.02	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BB:74:GLU:HG2	27:BB:75:ALA:H	1.34	0.93
35:BJ:79:LEU:HB3	35:BJ:111:ILE:HG12	1.48	0.93
22:B0:2776:A:H5'	22:B0:2777:G:OP1	1.69	0.93
22:B0:799:G:OP2	28:BC:57:LYS:HG3	1.69	0.93
43:BS:61:GLU:HG2	43:BS:63:ALA:H	1.33	0.93
22:B0:411:G:H5''	22:B0:412:A:OP1	1.69	0.93
6:AE:54:GLU:HG3	6:AE:56:PRO:HD2	1.51	0.93
22:B0:121:G:H4'	22:B0:149:A:H5'	1.51	0.93
1:AA:1286:U:H3'	1:AA:1287:A:C5'	1.99	0.93
1:AA:1385:G:N2	10:AI:128:LYS:HG3	1.82	0.93
33:BH:114:LEU:HD13	33:BH:114:LEU:H	1.34	0.93
25:B5:81:LYS:H	25:B5:81:LYS:HD3	1.32	0.93
37:BL:97:ILE:HD12	37:BL:111:ALA:HB1	1.49	0.93
22:B0:1201:U:H3	22:B0:1245:G:H22	1.15	0.92
5:AD:33:ILE:HD11	5:AD:35:GLN:HE21	1.34	0.92
22:B0:1491:A:C8	26:BA:175:LEU:HB2	2.05	0.92
23:B9:84:G:H2'	23:B9:85:G:H5''	1.49	0.92
22:B0:864:G:H2'	22:B0:865:C:O4'	1.69	0.92
22:B0:2894:U:OP1	33:BH:11:VAL:HG22	1.69	0.92
22:B0:1250:G:H4'	40:BO:8:ILE:HD12	1.49	0.92
39:BN:29:VAL:HG22	39:BN:30:TRP:H	1.32	0.92
22:B0:480:A:H3'	22:B0:481:G:C5'	1.99	0.92
22:B0:1582:C:H2'	26:BA:96:LYS:HB2	1.51	0.92
22:B0:1244:A:H4'	28:BC:33:VAL:HG12	1.51	0.92
45:BU:66:VAL:HG22	45:BU:67:LYS:H	1.32	0.92
22:B0:699:A:H4'	22:B0:1634:A:N6	1.85	0.92
37:BL:75:ILE:HD13	37:BL:75:ILE:H	1.33	0.92
11:AJ:100:ILE:H	11:AJ:100:ILE:HD13	1.34	0.92
22:B0:960:A:H8	22:B0:2496:C:P	1.92	0.92
22:B0:1828:G:H5''	22:B0:1829:A:OP1	1.67	0.92
1:AA:545:C:H4'	1:AA:549:C:H4'	0.93	0.92
22:B0:1046:A:H3'	25:B5:29:LYS:HD2	1.51	0.92
22:B0:1832:C:H3'	22:B0:1833:C:H5''	1.50	0.92
3:AB:36:LYS:HG3	3:AB:37:VAL:H	1.35	0.92
10:AI:57:VAL:HG23	10:AI:58:GLU:H	1.35	0.92
26:BA:93:VAL:HG11	26:BA:103:ILE:HD12	1.52	0.92
29:BD:110:ILE:HG22	29:BD:111:ARG:NE	1.82	0.92
1:AA:1264:U:H3	1:AA:1271:A:N6	1.68	0.91
7:AF:81:ASN:HD21	7:AF:83:ALA:HB3	1.35	0.91
1:AA:1528:U:H5''	1:AA:1529:G:OP1	1.70	0.91
1:AA:566:G:H5''	1:AA:567:G:OP1	1.68	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1996:C:C2	27:BB:138:LEU:C	2.42	0.91
1:AA:979:C:H6	20:AS:5:LYS:HB2	1.34	0.91
22:B0:1664:A:H61	22:B0:1996:C:H42	1.10	0.91
1:AA:1128:C:H1'	1:AA:1146:A:H61	1.33	0.91
37:BL:99:LYS:HA	37:BL:111:ALA:HB2	1.51	0.91
22:B0:1421:G:N1	26:BA:149:LYS:C	2.23	0.91
33:BH:17:VAL:HG12	33:BH:55:ILE:N	1.86	0.91
29:BD:68:LYS:HD3	29:BD:68:LYS:H	1.35	0.91
10:AI:83:THR:HG21	10:AI:102:PHE:HB3	1.49	0.91
22:B0:918:A:H4'	23:B9:81:G:H4'	1.52	0.91
27:BB:28:GLU:HA	27:BB:186:LEU:HD22	1.50	0.91
22:B0:1930:G:H4'	22:B0:1931:U:C5	2.06	0.91
28:BC:182:ALA:HA	35:BJ:16:GLY:HA2	1.53	0.91
22:B0:321:U:H5''	22:B0:322:A:OP2	1.71	0.90
28:BC:34:ALA:HB3	35:BJ:19:LEU:N	1.86	0.90
1:AA:483:C:H4'	1:AA:484:G:OP2	1.70	0.90
1:AA:418:C:H6	1:AA:541:G:OP1	1.36	0.90
28:BC:92:HIS:N	35:BJ:29:LYS:HG3	1.84	0.90
45:BU:23:LYS:HZ3	45:BU:23:LYS:HB3	1.34	0.90
1:AA:1099:G:H2'	1:AA:1100:C:O4'	1.71	0.90
37:BL:64:ARG:CZ	37:BL:64:ARG:HA	2.02	0.90
1:AA:125:U:H3	1:AA:236:A:H61	1.18	0.90
26:BA:67:LYS:HZ2	26:BA:188:ARG:HH22	1.17	0.90
42:BR:29:THR:HA	42:BR:86:THR:HA	1.51	0.90
32:BG:79:LEU:HD11	32:BG:128:ILE:HD11	1.53	0.90
22:B0:1421:G:C5	26:BA:149:LYS:CA	2.55	0.90
22:B0:2678:C:C5'	27:BB:124:ARG:HB3	2.01	0.90
33:BH:122:LEU:H	33:BH:122:LEU:HD13	1.36	0.90
22:B0:2144:G:H2'	22:B0:2145:C:H5''	1.54	0.90
33:BH:100:VAL:HG13	33:BH:101:ILE:H	1.35	0.90
25:B3:57:ILE:HG12	25:B3:92:ALA:HB1	1.52	0.90
28:BC:49:ARG:HG3	28:BC:50:ALA:H	1.35	0.90
9:AH:116:ARG:HH11	9:AH:116:ARG:HB2	1.35	0.90
28:BC:32:VAL:HB	35:BJ:17:LYS:HD3	1.54	0.90
8:AG:78:ARG:HG3	8:AG:83:THR:HG22	1.53	0.90
22:B0:600:G:C4	28:BC:99:LYS:HG2	2.06	0.90
22:B0:2122:U:H4'	22:B0:2123:G:O5'	1.72	0.90
2:AU:74:C:H2'	22:B0:2557:G:H4'	1.51	0.90
22:B0:2263:C:H5''	45:BU:11:ASN:HA	1.52	0.90
22:B0:1131:G:H1'	33:BH:81:ILE:HD11	1.51	0.90
26:BA:175:LEU:HD12	26:BA:176:ARG:N	1.86	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BQ:35:ILE:HD13	41:BQ:36:LEU:N	1.87	0.89
22:B0:2128:G:OP2	22:B0:2166:U:H4'	1.71	0.89
1:AA:538:G:OP2	13:AL:111:GLN:CD	2.10	0.89
22:B0:807:U:C4'	22:B0:2445:G:H4'	2.02	0.89
48:BZ:52:LYS:H	48:BZ:52:LYS:HE3	1.35	0.89
25:B3:51:LYS:HB3	25:B5:46:GLU:HB2	1.52	0.89
33:BH:16:TYR:HB3	33:BH:54:ILE:HG22	1.55	0.89
26:BA:137:GLY:H	26:BA:163:ILE:HB	1.34	0.89
39:BN:96:LEU:HD13	39:BN:96:LEU:H	1.37	0.89
42:BR:11:LEU:HA	42:BR:34:VAL:HA	1.52	0.89
22:B0:1322:A:N6	22:B0:1333:G:H21	1.70	0.89
22:B0:493:G:N2	41:BQ:7:HIS:HA	1.87	0.89
22:B0:2162:G:H3'	22:B0:2163:G:H5''	0.93	0.89
17:AP:67:ILE:HD13	17:AP:67:ILE:H	1.38	0.89
22:B0:2897:U:C4	33:BH:14:ASP:HB2	2.08	0.89
22:B0:1201:U:H3	22:B0:1245:G:N2	1.69	0.89
22:B0:2678:C:N4	22:B0:2729:G:H22	1.70	0.89
39:BN:20:ARG:HG2	39:BN:25:VAL:HG21	1.55	0.89
22:B0:733:G:H5''	22:B0:761:A:N6	1.88	0.89
1:AA:588:G:H1	1:AA:651:C:H42	1.18	0.89
22:B0:2333:A:H5''	22:B0:2334:U:OP1	1.72	0.89
26:BA:123:ILE:HD13	26:BA:123:ILE:H	1.35	0.89
22:B0:959:A:H2'	22:B0:2496:C:O5'	1.73	0.89
22:B0:1579:A:C4	26:BA:67:LYS:CG	2.41	0.89
22:B0:1996:C:N1	27:BB:138:LEU:C	2.27	0.89
33:BH:96:ARG:HD3	33:BH:99:ARG:H	1.36	0.89
42:BR:65:GLY:H	42:BR:77:ARG:NH2	1.69	0.89
40:BO:11:ALA:HA	40:BO:14:LYS:HE2	1.55	0.88
22:B0:2175:C:O3'	24:B2:167:ASN:HB3	1.72	0.88
28:BC:181:ILE:HA	28:BC:186:VAL:HB	1.55	0.88
22:B0:2543:G:H21	22:B0:2646:C:H4'	1.37	0.88
22:B0:2240:U:H2'	22:B0:2241:A:H8	1.39	0.88
22:B0:658:U:H3	28:BC:99:LYS:HE2	1.37	0.88
22:B0:2121:G:H1	22:B0:2178:C:H41	1.18	0.88
22:B0:1495:A:H62	26:BA:142:ASN:ND2	1.70	0.88
33:BH:111:LYS:HA	33:BH:111:LYS:NZ	1.89	0.88
22:B0:495:G:C5	41:BQ:6:LYS:HD3	2.08	0.88
48:BZ:31:LYS:HD3	48:BZ:31:LYS:H	1.38	0.88
22:B0:960:A:C8	22:B0:2496:C:H5'	2.08	0.88
22:B0:590:A:C8	28:BC:47:LYS:HA	2.08	0.88
25:B3:59:LYS:HE2	25:B3:118:GLU:HB3	1.55	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BW:39:GLN:HA	46:BW:39:GLN:HE21	1.39	0.88
22:B0:528:A:H61	22:B0:2043:C:H5''	1.39	0.88
28:BC:36:ALA:H	35:BJ:18:ARG:HD3	1.39	0.88
21:AT:68:LYS:H	21:AT:68:LYS:HD3	1.37	0.88
26:BA:158:GLY:N	26:BA:194:VAL:HB	1.88	0.87
27:BB:157:LYS:HD2	27:BB:157:LYS:H	1.38	0.87
1:AA:6:G:H1	6:AE:102:THR:HG23	1.40	0.87
22:B0:2142:A:H2'	22:B0:2143:C:H5'	1.56	0.87
32:BG:48:ILE:H	32:BG:48:ILE:HD13	1.39	0.87
16:AO:28:VAL:HG11	16:AO:80:LEU:HD11	1.55	0.87
33:BH:136:GLN:H	33:BH:137:PRO:HD3	1.37	0.87
22:B0:1047:G:OP1	25:B5:29:LYS:HD3	1.73	0.87
1:AA:727:G:H5''	1:AA:741:G:H22	1.39	0.87
22:B0:859:G:H5''	22:B0:860:U:OP1	1.73	0.87
35:BJ:46:VAL:HG23	35:BJ:47:ARG:H	1.40	0.87
22:B0:1578:U:C6	26:BA:101:ARG:HD3	2.08	0.87
1:AA:419:C:H1'	5:AD:39:GLN:CB	2.03	0.87
28:BC:118:LEU:HD23	28:BC:118:LEU:H	1.39	0.87
22:B0:2164:C:H4'	22:B0:2165:C:C1'	2.03	0.87
22:B0:2756:U:O2'	22:B0:2757:A:H5''	1.73	0.87
42:BR:36:LYS:H	42:BR:36:LYS:HD3	1.39	0.87
1:AA:1381:U:H2'	8:AG:78:ARG:NE	1.90	0.87
34:BI:3:GLN:HB2	34:BI:31:ARG:HB3	1.57	0.87
22:B0:1495:A:C2	26:BA:188:ARG:HB2	2.10	0.87
39:BN:88:ARG:H	39:BN:88:ARG:HH11	1.19	0.87
33:BH:84:ILE:HD13	33:BH:84:ILE:H	1.37	0.87
1:AA:1194:U:H5''	6:AE:25:LYS:HD2	1.55	0.87
41:BQ:76:VAL:HA	41:BQ:102:HIS:O	1.75	0.87
22:B0:2490:G:H5''	22:B0:2491:U:OP1	1.75	0.87
22:B0:961:C:H4'	22:B0:2498:C:C5	2.10	0.87
13:AL:55:ARG:HG2	13:AL:61:GLU:HG3	1.54	0.87
7:AF:50:PRO:O	7:AF:51:ILE:HG13	1.75	0.86
31:BF:61:VAL:HG23	31:BF:62:LEU:HD12	1.55	0.86
1:AA:566:G:H4'	1:AA:567:G:H5'	1.57	0.86
22:B0:215:G:H4'	22:B0:216:A:H4'	1.55	0.86
22:B0:1500:A:H61	26:BA:156:SER:HA	1.40	0.86
22:B0:1609:A:H1'	22:B0:1616:A:H1'	1.55	0.86
22:B0:803:U:H3	28:BC:61:ARG:NH1	1.73	0.86
22:B0:2498:C:O2	22:B0:2498:C:H2'	1.73	0.86
13:AL:79:ILE:HD13	13:AL:80:LEU:N	1.90	0.86
22:B0:800:A:OP2	28:BC:53:THR:HB	1.73	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:958:U:H3'	36:BK:80:VAL:CG2	2.05	0.86
1:AA:1066:C:H2'	1:AA:1067:A:O4'	1.75	0.86
1:AA:450:G:H1'	17:AP:13:LYS:HA	1.56	0.86
22:B0:2328:A:O2'	45:BU:9:THR:HA	1.75	0.86
22:B0:285:G:H22	22:B0:355:U:H3	1.23	0.86
22:B0:2227:A:H2'	22:B0:2228:G:H5'	1.55	0.86
22:B0:1426:G:H3'	22:B0:1428:C:N4	1.88	0.86
28:BC:49:ARG:HH11	28:BC:49:ARG:HB3	1.38	0.86
22:B0:1060:U:H1'	22:B0:1062:G:H5'	1.57	0.86
9:AH:102:VAL:HG13	9:AH:125:ILE:HB	1.55	0.86
4:AC:112:ALA:HB1	4:AC:184:ASN:HD22	1.39	0.86
24:B2:202:GLN:H	24:B2:202:GLN:NE2	1.73	0.86
1:AA:1385:G:N3	10:AI:128:LYS:HE3	1.90	0.86
22:B0:480:A:C3'	22:B0:481:G:H5''	2.03	0.86
22:B0:1252:G:H1'	40:BO:32:ARG:NE	1.91	0.86
22:B0:493:G:H3'	41:BQ:8:ARG:HA	1.56	0.86
22:B0:574:A:HO2'	22:B0:2055:C:H5	0.91	0.86
41:BQ:12:SER:HB3	41:BQ:17:VAL:HG21	1.57	0.86
10:AI:114:LYS:HB2	10:AI:120:ALA:HA	1.58	0.86
22:B0:2072:C:H42	22:B0:2437:G:H1	1.22	0.86
4:AC:56:ILE:HG23	4:AC:63:ILE:HD11	1.58	0.86
32:BG:133:ARG:HE	32:BG:133:ARG:HA	1.39	0.85
22:B0:493:G:C5'	41:BQ:9:HIS:H	1.89	0.85
22:B0:958:U:H4'	36:BK:76:LYS:CB	2.03	0.85
27:BB:114:LYS:HD3	27:BB:196:ALA:HB2	1.58	0.85
17:AP:6:LEU:HB3	17:AP:17:TYR:HB3	1.57	0.85
29:BD:47:LYS:HG2	29:BD:48:LEU:H	1.38	0.85
4:AC:42:LEU:HA	4:AC:46:LEU:HD23	1.58	0.85
26:BA:80:LEU:HD21	26:BA:89:ASN:HB2	1.59	0.85
22:B0:1314:C:H42	22:B0:1338:G:H1	1.20	0.85
1:AA:979:C:OP2	20:AS:5:LYS:HG3	1.75	0.85
22:B0:2176:A:H3'	24:B2:166:LYS:HA	1.56	0.85
3:AB:185:ILE:H	3:AB:185:ILE:HD13	1.40	0.85
6:AE:33:THR:HG22	6:AE:51:LYS:HG3	1.56	0.85
2:AW:76:A:O2'	22:B0:2429:G:H2'	1.75	0.85
10:AI:27:ILE:H	10:AI:34:LEU:HD11	1.40	0.85
26:BA:64:VAL:HG12	26:BA:65:ASP:N	1.90	0.85
4:AC:130:ARG:HE	6:AE:53:ARG:CD	1.88	0.85
2:AV:16:U:H5''	2:AV:17:U:OP1	1.75	0.85
1:AA:1221:G:H2'	20:AS:1:PRO:H2	1.39	0.85
33:BH:68:LYS:NZ	33:BH:68:LYS:HA	1.92	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BB:37:VAL:HA	27:BB:78:GLY:HA3	1.58	0.85
22:B0:1201:U:H2'	35:BJ:14:LYS:HG2	1.58	0.85
37:BL:44:LEU:O	37:BL:47:VAL:HG22	1.75	0.85
22:B0:1770:G:H1	22:B0:1982:U:H3	1.21	0.85
22:B0:1494:A:H4'	26:BA:140:VAL:HG21	1.59	0.85
1:AA:421:U:O4	5:AD:43:ARG:CB	2.25	0.85
2:AV:18:G:H4'	2:AV:19:G:OP1	1.74	0.85
22:B0:838:C:H42	22:B0:940:G:H1	1.22	0.85
22:B0:2176:A:H5'	24:B2:165:ASP:C	1.97	0.85
43:BS:4:ILE:H	43:BS:4:ILE:HD13	1.40	0.85
22:B0:750:A:H4'	22:B0:751:A:OP1	1.75	0.85
28:BC:176:ASP:HB2	28:BC:178:VAL:HG12	1.58	0.85
40:BO:40:LYS:HA	40:BO:40:LYS:HE3	1.58	0.85
22:B0:2678:C:H5''	27:BB:125:TRP:H	1.42	0.85
1:AA:1302:C:H5'	14:AM:16:ILE:HG13	1.57	0.85
8:AG:149:ALA:HB2	12:AK:60:PHE:HB2	1.58	0.85
22:B0:1490:C:H4'	26:BA:161:VAL:HA	1.59	0.85
22:B0:776:G:C4'	22:B0:777:G:H5''	2.07	0.85
22:B0:2644:G:H1	22:B0:2676:C:H1'	1.41	0.85
1:AA:531:U:H5''	1:AA:532:A:OP1	1.76	0.85
19:AR:33:THR:HG22	19:AR:34:GLU:H	1.41	0.85
30:BE:34:ARG:HE	30:BE:70:LEU:HD13	1.40	0.85
1:AA:418:C:H6	1:AA:541:G:P	1.96	0.84
22:B0:960:A:C1'	22:B0:2496:C:H5''	2.07	0.84
29:BD:79:ARG:HG2	29:BD:80:GLN:H	1.42	0.84
1:AA:417:G:H22	1:AA:427:U:H1'	1.38	0.84
22:B0:2780:G:H4'	33:BH:116:ARG:HE	1.40	0.84
41:BQ:88:ARG:HH12	41:BQ:92:ARG:HB3	1.43	0.84
1:AA:971:G:H5''	1:AA:972:C:H5'	1.59	0.84
22:B0:1693:U:H5''	22:B0:1694:C:OP2	1.77	0.84
39:BN:105:LYS:HA	39:BN:105:LYS:NZ	1.91	0.84
42:BR:63:VAL:HG12	42:BR:81:LYS:HB2	1.59	0.84
26:BA:141:HIS:O	26:BA:189:ALA:HB1	1.78	0.84
22:B0:784:G:H5'	22:B0:785:G:OP1	1.77	0.84
45:BU:71:LYS:HD2	45:BU:71:LYS:H	1.41	0.84
4:AC:13:ILE:HD13	4:AC:177:LEU:HD23	1.56	0.84
10:AI:56:MET:HB3	10:AI:60:LEU:HD13	1.59	0.84
22:B0:532:A:H5'	22:B0:561:G:H21	1.42	0.84
1:AA:424:G:C2	5:AD:39:GLN:OE1	2.30	0.84
5:AD:204:SER:HB2	6:AE:111:ARG:NH2	1.91	0.84
28:BC:108:ILE:HD12	28:BC:180:LEU:HD12	1.59	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:586:A:H4'	28:BC:78:TRP:HA	1.57	0.84
2:AU:74:C:H2'	22:B0:2557:G:C4'	2.07	0.84
22:B0:590:A:H3'	28:BC:47:LYS:NZ	1.91	0.84
22:B0:658:U:C2	28:BC:98:LYS:HD3	2.12	0.84
22:B0:2504:U:H1'	22:B0:2572:A:H2	1.43	0.84
22:B0:1992:G:H1'	22:B0:1994:C:H5	1.42	0.84
22:B0:2127:G:H3'	22:B0:2166:U:C5'	2.07	0.84
2:AW:76:A:C1'	22:B0:2430:A:H5''	2.08	0.84
22:B0:2175:C:N3	24:B2:171:HIS:ND1	2.25	0.84
16:AO:28:VAL:HG23	16:AO:62:ARG:HG3	1.59	0.84
43:BS:51:LEU:HB2	43:BS:53:GLN:HE22	1.43	0.84
22:B0:1492:G:OP2	26:BA:175:LEU:HD13	1.77	0.84
26:BA:62:ARG:NH2	26:BA:149:LYS:HZ3	1.75	0.84
26:BA:184:GLU:HG2	26:BA:185:ALA:H	1.42	0.84
28:BC:93:SER:OG	35:BJ:23:ILE:HG23	1.78	0.84
22:B0:2542:A:H4'	22:B0:2543:G:H5'	1.59	0.84
39:BN:9:GLN:NE2	39:BN:9:GLN:H	1.75	0.84
13:AL:32:VAL:HG22	13:AL:78:VAL:HG22	1.60	0.84
41:BQ:92:ARG:HG3	41:BQ:93:ALA:H	1.43	0.84
41:BQ:74:ILE:HG22	41:BQ:105:VAL:HA	1.60	0.84
1:AA:1300:G:H4'	1:AA:1301:U:C5	2.13	0.84
1:AA:1264:U:H3	1:AA:1271:A:H61	0.90	0.84
1:AA:424:G:H1	5:AD:39:GLN:NE2	1.76	0.83
2:AU:16:U:H5''	2:AU:17:U:OP1	1.77	0.83
27:BB:79:LEU:HD22	27:BB:79:LEU:H	1.43	0.83
2:AW:18:G:H4'	2:AW:19:G:OP1	1.77	0.83
36:BK:78:LEU:HG	36:BK:79:ALA:H	1.41	0.83
22:B0:1496:A:N7	26:BA:194:VAL:HG13	1.92	0.83
33:BH:11:VAL:HG23	33:BH:12:LYS:HG2	1.60	0.83
33:BH:54:ILE:HG12	33:BH:122:LEU:HB3	1.58	0.83
41:BQ:83:LYS:HB3	41:BQ:83:LYS:HZ2	1.42	0.83
30:BE:88:LEU:H	30:BE:88:LEU:HD13	1.43	0.83
1:AA:517:G:H4'	1:AA:519:C:C2	2.13	0.83
22:B0:749:A:H2'	22:B0:750:A:H5'	1.60	0.83
22:B0:2120:G:H4'	22:B0:2121:G:O5'	1.76	0.83
42:BR:10:VAL:HG13	42:BR:35:ALA:HB3	1.61	0.83
22:B0:2685:G:H1	22:B0:2724:U:H3	1.25	0.83
22:B0:1449:A:H1'	22:B0:1527:G:H22	1.42	0.83
1:AA:419:C:C5'	1:AA:540:G:C2	2.60	0.83
1:AA:1369:C:OP2	10:AI:112:ARG:HB3	1.79	0.83
22:B0:408:G:H1	22:B0:419:U:H3	1.24	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1579:A:P	26:BA:66:PHE:H	2.01	0.83
22:B0:1965:C:H3'	22:B0:1966:A:C5'	2.08	0.83
37:BL:34:ILE:HB	37:BL:113:ILE:HD13	1.59	0.83
20:AS:28:LYS:HB3	20:AS:29:PRO:HD2	1.61	0.83
1:AA:418:C:N1	1:AA:541:G:OP1	2.03	0.83
28:BC:92:HIS:H	35:BJ:29:LYS:CG	1.88	0.83
39:BN:91:VAL:HG12	39:BN:92:ARG:H	1.43	0.83
42:BR:77:ARG:NH2	42:BR:79:ASP:H	1.77	0.83
22:B0:2263:C:H4'	45:BU:9:THR:HB	1.61	0.83
28:BC:134:LEU:HD13	28:BC:137:LYS:HZ1	1.42	0.83
1:AA:1317:C:N4	20:AS:6:LYS:HA	1.92	0.83
5:AD:148:ALA:HB1	5:AD:151:GLN:HE21	1.43	0.83
22:B0:1606:C:H4'	22:B0:1607:C:C6	2.13	0.83
38:BM:7:ARG:H	38:BM:7:ARG:HD3	1.44	0.83
1:AA:1322:C:H5''	1:AA:1323:G:OP1	1.78	0.83
22:B0:48:G:O3'	22:B0:51:G:H5'	1.79	0.83
4:AC:76:ILE:HA	4:AC:83:VAL:HG13	1.61	0.83
1:AA:792:A:H5''	1:AA:793:U:OP1	1.77	0.83
40:BO:2:ARG:HG2	40:BO:3:VAL:H	1.43	0.83
41:BQ:25:ARG:H	41:BQ:25:ARG:NE	1.76	0.83
22:B0:2162:G:N7	22:B0:2164:C:H3'	1.93	0.83
36:BK:80:VAL:O	36:BK:81:ARG:HB2	1.79	0.83
5:AD:131:ILE:HG23	5:AD:134:TYR:HB2	1.60	0.83
22:B0:1408:G:H22	22:B0:1594:U:H3	1.26	0.83
41:BQ:51:LEU:HA	41:BQ:105:VAL:HG11	1.59	0.82
10:AI:34:LEU:H	10:AI:34:LEU:HD12	1.44	0.82
5:AD:94:GLU:HG2	5:AD:185:PRO:HG3	1.61	0.82
22:B0:2547:A:H62	22:B0:2566:A:H62	1.25	0.82
13:AL:120:ARG:HB3	13:AL:120:ARG:NH1	1.93	0.82
43:BS:34:ILE:HB	43:BS:61:GLU:HG3	1.60	0.82
22:B0:493:G:C8	41:BQ:10:ALA:N	2.42	0.82
22:B0:956:G:H2'	36:BK:80:VAL:HG22	1.60	0.82
17:AP:7:ALA:HB3	17:AP:18:GLN:HB3	1.61	0.82
22:B0:2225:A:H4'	22:B0:2226:C:H5'	1.61	0.82
22:B0:668:A:H3'	22:B0:670:A:H61	1.45	0.82
22:B0:301:G:H4'	22:B0:302:C:OP1	1.78	0.82
39:BN:26:GLU:H	39:BN:88:ARG:HG3	1.43	0.82
24:B2:200:PRO:HG2	24:B2:203:ALA:HB2	1.59	0.82
3:AB:19:THR:HG23	3:AB:20:ARG:H	1.43	0.82
1:AA:1484:C:H4'	22:B0:1959:G:H21	1.44	0.82
22:B0:1582:C:H41	26:BA:73:ILE:HG21	1.42	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AU:18:G:H4'	2:AU:19:G:OP1	1.77	0.82
22:B0:1542:C:H2'	22:B0:1543:G:H5'	1.61	0.82
1:AA:545:C:O2'	1:AA:549:C:O4'	1.97	0.82
2:AU:74:C:H4'	22:B0:2556:C:H2'	1.59	0.82
49:B1:12:SER:HA	49:B1:50:GLU:HA	1.60	0.82
26:BA:142:ASN:O	26:BA:189:ALA:HA	1.78	0.82
33:BH:96:ARG:HB2	33:BH:97:PRO:HA	1.59	0.82
22:B0:2153:C:O3'	22:B0:2154:A:H3'	1.80	0.82
22:B0:1830:C:H42	22:B0:1975:G:H22	1.25	0.82
22:B0:1668:A:H61	22:B0:1676:A:H61	1.25	0.82
2:AV:20:G:H21	2:AV:22:G:H5'	1.45	0.82
49:B1:32:LYS:HZ3	49:B1:32:LYS:HA	1.45	0.82
1:AA:40:C:H2'	1:AA:41:G:H8	1.43	0.82
1:AA:499:A:H4'	1:AA:500:G:OP1	1.78	0.82
28:BC:37:ALA:HB1	28:BC:40:ARG:HD2	1.62	0.82
24:B2:10:ILE:HD11	24:B2:32:LEU:HA	1.62	0.82
22:B0:959:A:N9	36:BK:80:VAL:HG12	1.94	0.82
27:BB:36:GLN:HG2	27:BB:54:ALA:HA	1.62	0.82
2:AU:64:A:H4'	22:B0:2482:A:H4'	1.61	0.82
22:B0:781:A:H1'	22:B0:1789:A:H4'	1.61	0.82
22:B0:278:A:OP1	22:B0:363:G:H1'	1.79	0.82
17:AP:14:ARG:NH1	17:AP:14:ARG:HB2	1.95	0.82
22:B0:588:U:N3	28:BC:74:LYS:HG3	1.95	0.82
22:B0:2772:C:H4'	27:BB:168:GLU:HG3	1.61	0.82
26:BA:175:LEU:CG	26:BA:178:GLY:H	1.92	0.81
1:AA:419:C:O4'	1:AA:541:G:H4'	1.80	0.81
33:BH:123:LYS:HA	33:BH:123:LYS:NZ	1.94	0.81
33:BH:102:GLU:HB2	33:BH:124:VAL:HG11	1.62	0.81
25:B3:96:GLU:HB3	25:B5:8:ILE:HG23	1.61	0.81
22:B0:2439:A:H5''	22:B0:2440:C:OP1	1.78	0.81
22:B0:1090:A:H61	22:B0:1101:U:H3	1.25	0.81
1:AA:538:G:OP2	13:AL:111:GLN:NE2	2.13	0.81
22:B0:1061:U:H5''	22:B0:1062:G:OP2	1.80	0.81
30:BE:25:ILE:HD12	30:BE:78:VAL:HG21	1.61	0.81
27:BB:33:ARG:HB2	27:BB:81:GLU:HB2	1.62	0.81
16:AO:11:VAL:HG22	16:AO:30:LEU:HD11	1.61	0.81
22:B0:1496:A:H62	26:BA:194:VAL:CG2	1.93	0.81
26:BA:143:VAL:HG12	26:BA:189:ALA:HB1	1.61	0.81
1:AA:545:C:H4'	1:AA:549:C:C5'	2.10	0.81
28:BC:147:LEU:HB3	28:BC:165:HIS:HB2	1.61	0.81
28:BC:74:LYS:HZ2	28:BC:74:LYS:HB2	1.45	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AI:114:LYS:H	10:AI:120:ALA:HB2	1.45	0.81
37:BL:63:ARG:NH1	37:BL:64:ARG:HE	1.79	0.81
39:BN:83:ILE:HD13	39:BN:84:SER:H	1.44	0.81
22:B0:70:G:H4'	22:B0:73:A:O4'	1.80	0.81
37:BL:97:ILE:HD13	37:BL:98:LEU:H	1.44	0.81
1:AA:1101:A:H4'	1:AA:1102:A:O5'	1.79	0.81
9:AH:116:ARG:NH1	9:AH:116:ARG:HB2	1.96	0.81
3:AB:59:ILE:HD12	3:AB:66:ILE:HD11	1.60	0.81
8:AG:34:LYS:HE2	8:AG:37:THR:HB	1.59	0.81
40:BO:73:ILE:HD12	40:BO:77:LYS:HB3	1.61	0.81
35:BJ:105:ILE:HG13	35:BJ:106:GLU:H	1.45	0.81
1:AA:545:C:O3'	1:AA:548:G:O2'	1.97	0.81
40:BO:16:ILE:HG23	40:BO:17:LEU:HG	1.62	0.81
22:B0:958:U:C3'	36:BK:80:VAL:HG23	2.09	0.81
46:BW:42:LEU:HA	46:BW:45:GLN:HB2	1.62	0.81
22:B0:1045:C:H4'	25:B5:29:LYS:HE3	1.61	0.81
22:B0:1299:G:H22	22:B0:1639:C:H5	1.24	0.81
22:B0:2050:C:H2'	22:B0:2051:A:O4'	1.81	0.81
1:AA:173:U:C5'	1:AA:197:A:H1'	2.09	0.81
24:B2:25:ALA:HB1	24:B2:213:ILE:HG21	1.61	0.81
3:AB:25:LYS:HE2	3:AB:25:LYS:HA	1.63	0.81
14:AM:89:ARG:HD2	14:AM:92:ARG:HH21	1.43	0.81
22:B0:2835:A:H5''	22:B0:2836:U:OP1	1.80	0.81
22:B0:1416:G:N1	26:BA:94:LEU:HA	1.96	0.81
22:B0:658:U:H3'	28:BC:98:LYS:HE2	1.61	0.81
28:BC:90:GLN:CG	35:BJ:27:LEU:HB2	2.10	0.81
22:B0:2161:C:C4'	22:B0:2162:G:H4'	2.11	0.81
22:B0:2161:C:H5'	24:B2:5:LYS:HA	1.62	0.81
42:BR:8:LEU:HD22	42:BR:11:LEU:HD21	1.61	0.81
1:AA:595:A:H5''	1:AA:596:A:OP1	1.81	0.81
22:B0:2788:C:H2'	22:B0:2891:A:C6	2.15	0.81
22:B0:2680:U:C2'	22:B0:2681:C:H5''	2.11	0.81
22:B0:1943:U:O4'	22:B0:1945:G:H5'	1.80	0.81
1:AA:419:C:O2'	5:AD:39:GLN:HB3	1.79	0.81
22:B0:1083:U:O2'	25:B3:81:LYS:HE2	1.80	0.81
46:BW:44:LYS:O	46:BW:48:ARG:HD3	1.79	0.81
44:BT:72:VAL:HG12	44:BT:93:ARG:HA	1.63	0.81
22:B0:165:A:H5'	22:B0:172:A:OP1	1.81	0.81
22:B0:1417:U:H3'	26:BA:99:GLU:O	1.81	0.80
22:B0:2789:C:OP1	22:B0:2809:A:H1'	1.81	0.80
1:AA:1443:C:H5''	1:AA:1446:A:H5'	1.62	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:B3:4:LYS:HA	25:B3:4:LYS:HE3	1.63	0.80
28:BC:130:LYS:HB2	28:BC:133:LEU:HD13	1.60	0.80
28:BC:24:ASN:HB3	28:BC:27:LEU:HD23	1.61	0.80
22:B0:493:G:C2	41:BQ:7:HIS:HA	2.16	0.80
22:B0:2458:G:H5''	22:B0:2459:A:OP1	1.80	0.80
1:AA:391:G:H21	1:AA:483:C:H1'	1.46	0.80
37:BL:78:LYS:HA	37:BL:78:LYS:HE2	1.63	0.80
29:BD:87:LYS:HB2	29:BD:87:LYS:HZ3	1.46	0.80
22:B0:2360:G:H1'	35:BJ:60:ARG:HH22	1.46	0.80
22:B0:447:A:H4'	22:B0:449:A:N7	1.94	0.80
1:AA:752:G:HO2'	1:AA:754:C:H5	1.29	0.80
22:B0:2161:C:H1'	22:B0:2162:G:C1'	2.12	0.80
14:AM:4:ALA:H	14:AM:7:ASN:HD21	1.30	0.80
14:AM:80:MET:HG2	14:AM:91:ARG:HH21	1.46	0.80
47:BX:8:GLN:HA	47:BX:54:VAL:HG12	1.63	0.80
22:B0:1931:U:H2'	22:B0:1932:A:H5''	1.64	0.80
22:B0:1930:G:H4'	22:B0:1931:U:H5	1.44	0.80
22:B0:2286:G:H1	49:B1:35:LEU:HD11	1.46	0.80
1:AA:827:U:H5'	9:AH:15:ASN:HD21	1.44	0.80
26:BA:175:LEU:HG	26:BA:178:GLY:H	1.45	0.80
22:B0:1664:A:H61	22:B0:1996:C:N4	1.79	0.80
25:B3:86:LEU:HD12	25:B3:91:PRO:HB2	1.64	0.80
22:B0:1046:A:O2'	25:B5:26:MET:HA	1.81	0.80
33:BH:10:THR:HA	33:BH:13:ARG:NE	1.96	0.80
22:B0:712:G:H2'	22:B0:713:G:H8	1.46	0.80
19:AR:6:ARG:HH21	19:AR:42:ARG:HE	1.29	0.80
22:B0:1416:G:H1	26:BA:95:TYR:N	1.80	0.80
28:BC:88:ARG:H	28:BC:89:PRO:CD	1.94	0.80
41:BQ:25:ARG:HB2	41:BQ:74:ILE:HD11	1.64	0.80
22:B0:2678:C:H5''	27:BB:125:TRP:N	1.97	0.80
22:B0:2249:U:H1'	22:B0:2275:C:N4	1.96	0.80
40:BO:94:LEU:HD13	40:BO:95:ALA:N	1.96	0.80
22:B0:1491:A:O2'	22:B0:1493:A:H5'	1.80	0.80
1:AA:419:C:P	1:AA:541:G:C8	2.74	0.80
22:B0:531:C:H42	22:B0:563:G:H5''	1.47	0.80
48:BZ:54:ILE:H	48:BZ:54:ILE:HD13	1.47	0.80
22:B0:192:C:O2	28:BC:55:SER:HB2	1.80	0.80
1:AA:545:C:O2'	1:AA:548:G:O2'	1.98	0.80
33:BH:16:TYR:O	33:BH:54:ILE:HA	1.81	0.80
22:B0:749:A:C2'	22:B0:750:A:H5'	2.12	0.80
38:BM:15:ARG:HG3	38:BM:18:LEU:HD22	1.62	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1322:C:H4'	1:AA:1323:G:C5'	2.12	0.80
45:BU:38:ARG:CZ	45:BU:38:ARG:HA	2.12	0.80
22:B0:840:C:H2'	22:B0:841:G:H8	1.47	0.79
32:BG:121:ILE:H	32:BG:121:ILE:HD13	1.47	0.79
29:BD:16:MET:HA	29:BD:20:ASN:HD22	1.46	0.79
22:B0:2121:G:C4'	22:B0:2122:U:H5'	2.08	0.79
22:B0:960:A:C8	22:B0:2496:C:C5'	2.66	0.79
36:BK:5:LYS:H	36:BK:5:LYS:HD3	1.45	0.79
17:AP:35:ARG:HD2	17:AP:35:ARG:H	1.45	0.79
2:AW:66:A:H4'	49:B1:4:ILE:HD13	1.64	0.79
1:AA:181:A:O2'	1:AA:182:A:H5'	1.81	0.79
13:AL:84:GLY:H	13:AL:94:TYR:HA	1.46	0.79
41:BQ:78:GLU:HG3	41:BQ:79:GLY:H	1.47	0.79
22:B0:500:G:H4'	22:B0:503:A:H62	1.47	0.79
42:BR:36:LYS:HB3	42:BR:80:TRP:HA	1.62	0.79
1:AA:979:C:C6	20:AS:5:LYS:HB2	2.16	0.79
45:BU:20:LEU:HD23	45:BU:20:LEU:H	1.47	0.79
22:B0:1416:G:H8	26:BA:100:ARG:HH11	1.31	0.79
22:B0:1495:A:C2	26:BA:65:ASP:HB2	2.18	0.79
22:B0:1578:U:O2'	26:BA:65:ASP:C	2.21	0.79
26:BA:62:ARG:HH21	26:BA:151:GLY:N	1.80	0.79
25:B5:4:LYS:HA	25:B5:4:LYS:HE3	1.64	0.79
22:B0:669:G:N3	28:BC:66:GLY:HA2	1.97	0.79
44:BT:44:HIS:HE1	44:BT:86:LEU:H	1.28	0.79
13:AL:42:LYS:HG3	13:AL:44:PRO:HD2	1.63	0.79
22:B0:2319:G:H4'	22:B0:2320:U:O5'	1.82	0.79
22:B0:1418:G:H2'	22:B0:1578:U:O4	1.81	0.79
22:B0:1500:A:H61	26:BA:156:SER:CA	1.95	0.79
41:BQ:7:HIS:CD2	41:BQ:103:ILE:HB	2.17	0.79
10:AI:112:ARG:HH12	10:AI:113:LYS:HE3	1.45	0.79
22:B0:163:C:H5'	22:B0:164:C:H5'	1.65	0.79
22:B0:1815:A:H4'	22:B0:1816:C:H5''	1.64	0.79
22:B0:476:G:N2	22:B0:478:A:H3'	1.96	0.79
37:BL:50:PRO:O	37:BL:51:LEU:HB2	1.83	0.79
23:B9:89:U:H2'	23:B9:90:C:H5'	1.65	0.79
19:AR:7:ARG:H	19:AR:7:ARG:HD3	1.47	0.79
49:B1:9:LYS:H	49:B1:9:LYS:HD2	1.46	0.79
11:AJ:14:ASP:HB3	11:AJ:17:LEU:HG	1.63	0.79
22:B0:1582:C:H2'	26:BA:96:LYS:CB	2.12	0.79
33:BH:17:VAL:HG12	33:BH:55:ILE:H	1.44	0.79
22:B0:2161:C:H4'	22:B0:2162:G:H4'	1.62	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BD:107:VAL:HG12	29:BD:110:ILE:HD11	1.65	0.79
22:B0:2296:U:O4	22:B0:2334:U:H4'	1.83	0.79
22:B0:2547:A:H62	22:B0:2566:A:N6	1.81	0.79
16:AO:13:GLU:HG3	16:AO:14:PHE:HD1	1.47	0.79
22:B0:1495:A:H5''	26:BA:191:LEU:HB2	1.63	0.79
33:BH:17:VAL:HG11	33:BH:55:ILE:HG22	1.65	0.79
8:AG:28:ILE:HD13	8:AG:100:MET:HB3	1.62	0.79
22:B0:2354:C:H4'	45:BU:20:LEU:HD13	1.65	0.79
49:B1:5:ARG:HA	49:B1:5:ARG:CZ	2.13	0.79
6:AE:65:LYS:HE2	6:AE:65:LYS:HA	1.65	0.79
20:AS:86:LYS:H	20:AS:86:LYS:HD3	1.48	0.79
22:B0:1646:C:H5''	22:B0:1647:U:OP1	1.82	0.79
22:B0:1580:A:O4'	26:BA:68:ARG:HB3	1.82	0.79
1:AA:417:G:H2'	1:AA:541:G:OP1	1.83	0.79
22:B0:663:G:H5''	28:BC:87:ALA:HB3	1.64	0.79
36:BK:71:LYS:O	36:BK:93:VAL:HG12	1.83	0.79
1:AA:450:G:H4'	17:AP:15:PRO:HG3	1.64	0.79
1:AA:21:G:H1'	1:AA:914:A:H61	1.48	0.79
22:B0:2320:U:H5'	22:B0:2321:U:C5	2.17	0.79
32:BG:3:LYS:HE2	32:BG:3:LYS:HA	1.65	0.79
20:AS:18:VAL:HG21	20:AS:43:MET:HG2	1.65	0.79
22:B0:1494:A:OP1	26:BA:143:VAL:HG11	1.82	0.78
22:B0:1578:U:H5''	26:BA:101:ARG:CD	2.13	0.78
1:AA:419:C:O4'	1:AA:541:G:O2'	2.01	0.78
36:BK:14:LYS:HG3	36:BK:15:GLY:H	1.45	0.78
22:B0:590:A:H3'	28:BC:47:LYS:HZ1	1.46	0.78
6:AE:155:LYS:HE2	9:AH:67:GLY:CA	2.11	0.78
24:B2:64:LEU:HB3	24:B2:65:PRO:HD2	1.63	0.78
10:AI:18:VAL:HG22	10:AI:64:ILE:HD12	1.65	0.78
1:AA:1222:G:O4'	20:AS:1:PRO:HA	1.83	0.78
32:BG:91:LYS:HD3	32:BG:91:LYS:H	1.48	0.78
22:B0:596:U:H2'	22:B0:597:G:H8	1.47	0.78
39:BN:87:ARG:HD3	39:BN:87:ARG:H	1.48	0.78
1:AA:109:A:H1'	1:AA:327:A:H1'	1.64	0.78
29:BD:77:LYS:HA	29:BD:77:LYS:HE3	1.65	0.78
3:AB:110:ILE:HD13	3:AB:147:LEU:HD13	1.63	0.78
22:B0:1579:A:C2	26:BA:68:ARG:N	2.52	0.78
22:B0:809:G:H22	28:BC:77:ILE:HD13	1.49	0.78
28:BC:159:LEU:HD12	28:BC:162:ARG:HD3	1.63	0.78
1:AA:979:C:H5''	20:AS:5:LYS:CG	2.13	0.78
37:BL:113:ILE:HD12	37:BL:113:ILE:H	1.45	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:2327:A:H2'	45:BU:10:ARG:CZ	2.14	0.78
1:AA:702:A:H62	22:B0:1847:A:H3'	1.47	0.78
33:BH:36:LEU:HD12	33:BH:51:GLY:HA2	1.64	0.78
39:BN:88:ARG:N	39:BN:88:ARG:HH11	1.81	0.78
32:BG:108:ILE:HD13	32:BG:108:ILE:H	1.47	0.78
4:AC:63:ILE:HD12	4:AC:65:VAL:HG23	1.63	0.78
4:AC:99:GLN:HG3	4:AC:100:ILE:H	1.49	0.78
42:BR:62:VAL:HA	42:BR:81:LYS:HB3	1.63	0.78
27:BB:53:GLY:HA2	27:BB:60:VAL:HG21	1.63	0.78
9:AH:17:GLN:HE22	9:AH:71:VAL:HB	1.49	0.78
26:BA:149:LYS:HG3	26:BA:150:GLY:H	1.47	0.78
22:B0:495:G:N7	41:BQ:6:LYS:HD3	1.99	0.78
1:AA:1235:U:C2'	1:AA:1236:A:H5''	2.14	0.78
22:B0:668:A:H3'	22:B0:670:A:N6	1.98	0.78
28:BC:36:ALA:N	35:BJ:18:ARG:HD3	1.99	0.78
36:BK:73:ILE:HG13	36:BK:90:GLU:HB3	1.64	0.78
22:B0:942:G:H2'	22:B0:943:A:H5'	1.63	0.78
22:B0:2263:C:H6	45:BU:11:ASN:N	1.82	0.78
22:B0:1061:U:H1'	22:B0:1070:A:H1'	1.65	0.78
22:B0:276:U:O2	22:B0:362:A:H3'	1.84	0.78
37:BL:90:ARG:HA	37:BL:90:ARG:HH11	1.47	0.78
3:AB:23:ASN:HD22	3:AB:24:PRO:HD2	1.49	0.78
28:BC:5:LEU:HD22	28:BC:15:SER:HB2	1.65	0.78
22:B0:1992:G:N1	27:BB:138:LEU:HD11	1.99	0.78
22:B0:1246:A:H5''	35:BJ:25:SER:C	2.04	0.78
28:BC:118:LEU:HD13	28:BC:186:VAL:HG13	1.65	0.78
22:B0:2266:A:H1'	22:B0:2272:U:H3	1.47	0.78
14:AM:94:LEU:HB3	14:AM:95:PRO:HD2	1.66	0.78
1:AA:150:U:H3	1:AA:171:A:H62	1.32	0.78
22:B0:1607:C:O2	22:B0:1607:C:H2'	1.84	0.78
22:B0:493:G:H8	41:BQ:10:ALA:H	1.31	0.78
19:AR:58:ILE:HG22	19:AR:62:ARG:HH11	1.49	0.78
5:AD:120:LYS:HE2	5:AD:128:VAL:HG21	1.64	0.78
1:AA:1064:G:H5''	1:AA:1065:U:OP1	1.83	0.78
41:BQ:84:ARG:HB3	41:BQ:96:ILE:HB	1.63	0.78
8:AG:26:VAL:O	8:AG:30:MET:HB2	1.82	0.78
27:BB:34:VAL:HG21	27:BB:85:ALA:HB3	1.66	0.78
1:AA:1053:G:O6	1:AA:1199:U:H2'	1.84	0.78
29:BD:116:LEU:H	29:BD:116:LEU:HD23	1.46	0.78
35:BJ:92:LEU:HD13	35:BJ:92:LEU:H	1.47	0.78
22:B0:1494:A:OP2	26:BA:143:VAL:HB	1.84	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BH:36:LEU:H	33:BH:36:LEU:HD22	1.48	0.78
22:B0:659:G:O4'	28:BC:98:LYS:HG3	1.83	0.78
22:B0:2136:G:N3	22:B0:2136:G:H3'	1.99	0.78
22:B0:1828:G:H4'	22:B0:1829:A:C5'	2.13	0.78
22:B0:58:G:OP1	42:BR:77:ARG:HA	1.83	0.78
24:B2:22:ILE:HG23	24:B2:188:LEU:HD23	1.66	0.78
26:BA:77:VAL:HG13	26:BA:92:LEU:H	1.48	0.78
10:AI:105:ARG:HG2	10:AI:106:ASP:H	1.49	0.78
1:AA:817:C:H1'	1:AA:819:A:OP2	1.82	0.78
22:B0:1197:G:C2	22:B0:1250:G:H1'	2.19	0.77
22:B0:481:G:H4'	22:B0:506:G:H21	1.48	0.77
39:BN:50:ARG:HE	39:BN:100:ARG:NH2	1.80	0.77
6:AE:87:VAL:HG12	6:AE:92:ARG:HG3	1.66	0.77
28:BC:90:GLN:HG2	35:BJ:27:LEU:HB2	1.66	0.77
22:B0:481:G:H21	22:B0:506:G:H4'	1.48	0.77
22:B0:960:A:O4'	22:B0:2496:C:H5''	1.82	0.77
22:B0:1698:A:H5''	22:B0:1699:G:OP1	1.83	0.77
49:B1:32:LYS:NZ	49:B1:32:LYS:HA	1.98	0.77
22:B0:2049:G:H2'	22:B0:2050:C:C6	2.19	0.77
22:B0:855:G:H1	22:B0:922:C:H42	1.30	0.77
1:AA:1422:G:H5'	34:BI:48:PRO:HG2	1.67	0.77
24:B2:76:VAL:HG11	24:B2:86:ALA:HB1	1.66	0.77
1:AA:1339:A:C2	2:AV:31:A:H4'	2.20	0.77
34:BI:38:ILE:H	34:BI:38:ILE:HD13	1.47	0.77
27:BB:137:SER:O	27:BB:139:SER:N	2.17	0.77
33:BH:54:ILE:HG12	33:BH:122:LEU:CB	2.14	0.77
41:BQ:25:ARG:CZ	41:BQ:26:GLY:H	1.97	0.77
27:BB:13:ARG:HD3	39:BN:10:GLU:HG3	1.66	0.77
25:B5:57:ILE:HG12	25:B5:120:LYS:HZ3	1.48	0.77
22:B0:1779:U:H5''	22:B0:1780:A:H5'	1.65	0.77
22:B0:2357:G:H5''	22:B0:2358:A:OP1	1.84	0.77
22:B0:802:A:OP2	28:BC:62:GLN:HB2	1.83	0.77
22:B0:2553:G:H3'	22:B0:2554:U:H5''	1.66	0.77
8:AG:29:LEU:HD23	8:AG:42:VAL:HG22	1.65	0.77
22:B0:2609:U:H2'	22:B0:2610:C:H5'	1.64	0.77
22:B0:1583:G:C5	26:BA:96:LYS:HE2	2.20	0.77
33:BH:111:LYS:HA	33:BH:111:LYS:HZ3	1.48	0.77
4:AC:130:ARG:HE	6:AE:53:ARG:HD3	1.48	0.77
35:BJ:41:ARG:HA	35:BJ:41:ARG:CZ	2.14	0.77
1:AA:1222:G:C1'	20:AS:1:PRO:HA	2.14	0.77
22:B0:1083:U:C2'	25:B3:81:LYS:HE2	2.15	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BH:72:LYS:NZ	33:BH:72:LYS:HA	1.98	0.77
22:B0:150:U:H4'	22:B0:1359:A:H4'	1.66	0.77
26:BA:149:LYS:CG	26:BA:150:GLY:H	1.98	0.77
22:B0:800:A:H5''	22:B0:801:G:OP1	1.85	0.77
35:BJ:55:MET:H	35:BJ:56:PRO:HA	1.48	0.77
22:B0:269:C:H42	22:B0:370:G:H1	1.31	0.77
39:BN:36:LYS:HD3	39:BN:37:LYS:HG3	1.67	0.77
1:AA:975:A:H4'	1:AA:976:G:H5''	1.66	0.77
22:B0:2478:A:H2'	22:B0:2529:G:N7	2.00	0.77
21:AT:8:LYS:HG3	21:AT:12:GLN:HE21	1.48	0.77
26:BA:63:ILE:H	26:BA:63:ILE:HD12	1.49	0.77
22:B0:311:A:O2'	22:B0:331:C:H3'	1.85	0.77
39:BN:62:LYS:NZ	39:BN:62:LYS:HA	1.99	0.77
39:BN:88:ARG:N	39:BN:88:ARG:HD3	2.00	0.77
27:BB:81:GLU:O	27:BB:82:PHE:HB2	1.83	0.77
22:B0:1646:C:H4'	22:B0:1647:U:O5'	1.83	0.77
22:B0:828:U:H2'	22:B0:828:U:O2	1.82	0.77
41:BQ:87:PRO:HA	41:BQ:88:ARG:HH21	1.49	0.77
1:AA:933:G:C2	10:AI:128:LYS:HB2	2.20	0.77
22:B0:2240:U:H2'	22:B0:2241:A:C8	2.19	0.77
1:AA:1237:C:H2'	1:AA:1334:G:H1'	1.65	0.77
22:B0:1047:G:H2'	22:B0:1110:G:H22	1.47	0.77
25:B3:42:ALA:O	25:B3:45:VAL:HG13	1.85	0.77
22:B0:123:G:H4'	22:B0:1376:C:H5'	1.66	0.77
22:B0:532:A:H5'	22:B0:561:G:N2	1.99	0.77
22:B0:1815:A:H4'	22:B0:1816:C:C5'	2.14	0.77
22:B0:791:C:O2'	22:B0:792:A:H5''	1.85	0.77
22:B0:2179:C:C3'	22:B0:2180:U:H3'	2.15	0.77
22:B0:2728:U:H2'	22:B0:2729:G:H8	1.49	0.77
35:BJ:39:LYS:N	35:BJ:39:LYS:HE3	1.99	0.77
35:BJ:77:ILE:HG23	35:BJ:111:ILE:HD11	1.66	0.77
7:AF:18:VAL:HB	7:AF:19:PRO:HD3	1.65	0.77
1:AA:481:G:H4'	1:AA:482:A:OP1	1.83	0.77
22:B0:1495:A:H3'	26:BA:190:THR:CA	2.16	0.77
22:B0:1972:G:H2'	22:B0:1973:G:H8	1.50	0.77
49:B1:36:LYS:HE3	49:B1:36:LYS:H	1.50	0.77
1:AA:1452:C:H4'	1:AA:1453:G:H5''	1.67	0.77
22:B0:629:G:H4'	22:B0:638:G:H21	1.50	0.76
26:BA:115:ILE:HD13	26:BA:115:ILE:H	1.50	0.76
22:B0:535:G:H1'	40:BO:52:ARG:HG3	1.66	0.76
2:AW:36:A:C2'	2:AW:37:G:H5''	2.14	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:532:A:H5''	22:B0:533:G:OP2	1.85	0.76
7:AF:39:LEU:HD23	7:AF:62:MET:HG2	1.66	0.76
22:B0:1996:C:C4	27:BB:138:LEU:CG	2.54	0.76
2:AU:16:U:H4'	2:AU:18:G:OP2	1.85	0.76
17:AP:20:VAL:HG11	17:AP:32:PHE:HB2	1.67	0.76
22:B0:2816:G:H4'	48:BZ:51:ARG:HH21	1.48	0.76
22:B0:1421:G:C2	26:BA:149:LYS:HG2	2.21	0.76
22:B0:959:A:N3	36:BK:79:ALA:HB1	2.00	0.76
27:BB:24:VAL:HG11	27:BB:188:LEU:HB3	1.65	0.76
39:BN:10:GLU:CG	39:BN:11:GLN:H	1.99	0.76
39:BN:47:ILE:HG22	39:BN:48:ALA:H	1.50	0.76
43:BS:90:LYS:HA	43:BS:90:LYS:HE3	1.65	0.76
37:BL:10:LEU:O	37:BL:10:LEU:HD22	1.85	0.76
37:BL:83:LEU:H	37:BL:86:ARG:HD3	1.48	0.76
22:B0:475:C:H4'	22:B0:510:C:H5'	1.68	0.76
33:BH:36:LEU:HD12	33:BH:52:ASP:H	1.51	0.76
22:B0:993:G:H5''	40:BO:49:ARG:NH1	2.00	0.76
22:B0:2124:G:C2'	22:B0:2125:G:H5''	2.13	0.76
39:BN:63:ILE:HD11	39:BN:74:GLN:HE21	1.50	0.76
29:BD:43:ILE:H	29:BD:43:ILE:HD12	1.49	0.76
31:BF:26:ALA:HA	31:BF:30:LEU:HD13	1.66	0.76
1:AA:274:A:H4'	1:AA:275:G:O5'	1.85	0.76
22:B0:1416:G:N2	26:BA:94:LEU:HD13	2.00	0.76
41:BQ:45:VAL:HA	41:BQ:48:LYS:HG2	1.66	0.76
2:AW:20:G:H21	2:AW:22:G:H5'	1.50	0.76
22:B0:960:A:N6	22:B0:2250:G:O2'	2.17	0.76
39:BN:10:GLU:HG2	39:BN:11:GLN:N	2.00	0.76
40:BO:54:ARG:H	40:BO:57:ARG:HG3	1.49	0.76
22:B0:2515:C:N4	27:BB:152:PRO:HB2	2.01	0.76
1:AA:189:A:H2'	1:AA:190:A:O4'	1.84	0.76
22:B0:800:A:O2'	22:B0:801:G:H5''	1.85	0.76
28:BC:88:ARG:NE	35:BJ:29:LYS:O	2.18	0.76
22:B0:2128:G:P	22:B0:2165:C:H2'	2.25	0.76
22:B0:2677:G:N3	27:BB:125:TRP:HE3	1.84	0.76
2:AV:36:A:C2'	2:AV:37:G:H5''	2.16	0.76
22:B0:119:A:H4'	22:B0:120:U:H3'	1.68	0.76
9:AH:9:MET:HG3	9:AH:26:MET:HG3	1.67	0.76
22:B0:1388:G:H4'	22:B0:1524:C:O2'	1.86	0.76
13:AL:79:ILE:HD13	13:AL:80:LEU:H	1.49	0.76
22:B0:2137:U:O2	22:B0:2137:U:H2'	1.84	0.76
22:B0:2678:C:H5'	27:BB:124:ARG:NE	2.01	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BJ:39:LYS:HZ2	35:BJ:41:ARG:HG2	1.51	0.76
24:B2:170:ILE:HD13	24:B2:171:HIS:N	2.01	0.76
1:AA:176:C:H2'	1:AA:177:G:H8	1.50	0.76
22:B0:2472:G:H2'	22:B0:2475:C:N4	2.01	0.76
2:AW:16:U:H5''	2:AW:17:U:OP1	1.85	0.76
22:B0:2076:U:H5''	22:B0:2238:G:H1	1.50	0.76
22:B0:2382:G:H5''	22:B0:2383:G:C5'	2.16	0.76
22:B0:1491:A:H5''	26:BA:153:LEU:HD21	1.68	0.76
22:B0:1668:A:N6	22:B0:1676:A:H61	1.84	0.76
33:BH:55:ILE:HD13	33:BH:56:VAL:H	1.49	0.76
22:B0:588:U:C2	28:BC:74:LYS:HA	2.20	0.76
22:B0:960:A:C3'	22:B0:2496:C:H5''	2.16	0.76
22:B0:960:A:H8	22:B0:2496:C:OP2	1.68	0.76
22:B0:2450:A:H5''	22:B0:2497:A:H62	1.51	0.76
22:B0:65:U:H5''	42:BR:74:ILE:HG12	1.67	0.76
40:BO:53:LYS:HA	40:BO:53:LYS:HE3	1.65	0.76
17:AP:9:HIS:CE1	17:AP:18:GLN:HB2	2.21	0.76
22:B0:1128:G:N3	22:B0:2517:C:H4'	2.00	0.76
1:AA:345:C:H4'	1:AA:346:G:H5''	1.67	0.76
21:AT:17:ARG:HA	21:AT:20:ASN:HD21	1.51	0.76
26:BA:144:GLU:HG2	26:BA:151:GLY:N	2.01	0.75
22:B0:2391:G:H1'	22:B0:2429:G:N2	2.01	0.75
22:B0:301:G:H1'	22:B0:302:C:H5'	1.67	0.75
39:BN:92:ARG:CZ	39:BN:92:ARG:HA	2.15	0.75
1:AA:1064:G:H4'	1:AA:1065:U:H4'	1.66	0.75
22:B0:860:U:H2'	22:B0:861:A:H8	1.49	0.75
46:BW:31:GLN:HG2	46:BW:38:GLN:CD	2.07	0.75
22:B0:1512:C:H2'	22:B0:1513:C:H5''	1.65	0.75
22:B0:2243:U:H5'	22:B0:2244:U:OP1	1.86	0.75
32:BG:9:LYS:HA	32:BG:9:LYS:HE3	1.69	0.75
22:B0:1609:A:H1'	22:B0:1616:A:C1'	2.16	0.75
22:B0:658:U:H2'	28:BC:98:LYS:CG	2.15	0.75
28:BC:92:HIS:N	35:BJ:29:LYS:H	1.84	0.75
22:B0:2543:G:N2	22:B0:2646:C:H4'	2.01	0.75
22:B0:27:G:N2	22:B0:512:G:H2'	2.01	0.75
35:BJ:38:GLN:O	35:BJ:39:LYS:HB3	1.84	0.75
39:BN:20:ARG:HB3	39:BN:25:VAL:HG11	1.68	0.75
32:BG:133:ARG:NE	32:BG:133:ARG:HA	2.00	0.75
5:AD:53:GLN:HB3	5:AD:202:LEU:HB2	1.67	0.75
22:B0:2123:G:H4'	22:B0:2124:G:O4'	1.86	0.75
1:AA:1344:C:H4'	10:AI:119:LYS:NZ	2.01	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BN:50:ARG:NE	39:BN:100:ARG:HH21	1.82	0.75
39:BN:30:TRP:HE1	39:BN:82:SER:HA	1.51	0.75
37:BL:97:ILE:HD13	37:BL:98:LEU:N	2.02	0.75
1:AA:1368:A:OP2	10:AI:115:VAL:HG13	1.87	0.75
22:B0:1582:C:H1'	26:BA:97:ASP:HB3	1.67	0.75
4:AC:188:ALA:HB3	4:AC:195:ILE:HG23	1.69	0.75
27:BB:13:ARG:HE	27:BB:13:ARG:C	1.90	0.75
22:B0:627:A:H4'	22:B0:628:G:OP1	1.84	0.75
11:AJ:8:ILE:HG12	11:AJ:100:ILE:HG22	1.69	0.75
4:AC:63:ILE:HD13	4:AC:64:ARG:N	2.01	0.75
22:B0:1408:G:N2	22:B0:1594:U:H3	1.84	0.75
23:B9:56:G:H4'	23:B9:57:A:H8	1.51	0.75
22:B0:226:A:H61	22:B0:409:G:H21	1.32	0.75
1:AA:419:C:O4'	1:AA:541:G:O4'	1.87	0.75
22:B0:1607:C:O2'	22:B0:1608:A:H5''	1.86	0.75
1:AA:1344:C:H5''	10:AI:119:LYS:HE2	1.67	0.75
22:B0:603:A:H4'	22:B0:604:G:O4'	1.87	0.75
22:B0:617:G:H3'	22:B0:617:G:N3	2.02	0.75
30:BE:118:ALA:HB3	30:BE:139:VAL:HG11	1.69	0.75
22:B0:1578:U:H2'	26:BA:66:PHE:HB2	1.69	0.75
1:AA:404:G:H3'	1:AA:546:A:O2'	1.87	0.75
41:BQ:47:VAL:HG23	41:BQ:103:ILE:HG21	1.68	0.75
2:AU:20:G:H21	2:AU:22:G:H5'	1.51	0.75
1:AA:1317:C:C2	20:AS:8:PRO:HG3	2.20	0.75
22:B0:978:G:O2'	22:B0:1002:G:H4'	1.87	0.75
22:B0:1931:U:H2'	22:B0:1931:U:O2	1.86	0.75
8:AG:149:ALA:HB2	12:AK:60:PHE:CB	2.15	0.75
5:AD:7:LYS:HB3	5:AD:20:LEU:HG	1.69	0.75
1:AA:80:A:H3'	1:AA:81:A:H5''	1.69	0.75
26:BA:152:GLN:HA	26:BA:155:ARG:HE	1.52	0.75
22:B0:661:A:O2'	28:BC:95:LYS:HA	1.86	0.75
22:B0:1002:G:H1	22:B0:1153:C:H42	1.35	0.75
22:B0:2263:C:C4'	45:BU:9:THR:HB	2.16	0.75
17:AP:9:HIS:HE1	17:AP:18:GLN:HB2	1.52	0.75
32:BG:133:ARG:HG3	32:BG:137:LEU:HB3	1.68	0.75
22:B0:19:A:OP1	40:BO:29:ARG:HG2	1.87	0.75
1:AA:605:U:H2'	1:AA:606:G:O4'	1.87	0.75
28:BC:105:LEU:O	28:BC:109:LEU:HD13	1.87	0.75
1:AA:1499:A:H1'	1:AA:1520:C:H4'	1.68	0.75
17:AP:4:ILE:HG12	17:AP:21:VAL:HG22	1.67	0.75
1:AA:1196:A:OP1	1:AA:1197:A:H5'	1.87	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1300:G:H4'	22:B0:1301:A:O5'	1.86	0.75
9:AH:76:ARG:HB2	9:AH:79:ARG:HE	1.52	0.75
26:BA:97:ASP:CG	26:BA:98:GLY:N	2.37	0.74
28:BC:149:ILE:HG22	28:BC:150:THR:HG22	1.69	0.74
1:AA:888:G:H5''	1:AA:1488:G:O2'	1.87	0.74
22:B0:1580:A:O5'	26:BA:68:ARG:HB2	1.87	0.74
33:BH:41:LYS:HD3	33:BH:43:GLU:H	1.51	0.74
28:BC:36:ALA:HA	35:BJ:18:ARG:CZ	2.17	0.74
22:B0:2678:C:H5''	27:BB:124:ARG:CB	2.15	0.74
37:BL:28:LEU:HD13	37:BL:45:ARG:HH22	1.51	0.74
25:B3:46:GLU:HG3	25:B5:18:ASP:OD2	1.87	0.74
1:AA:60:A:N6	1:AA:108:G:H4'	2.02	0.74
10:AI:54:VAL:HG23	10:AI:56:MET:HG2	1.68	0.74
1:AA:968:A:H5''	1:AA:969:A:OP2	1.86	0.74
25:B5:3:THR:HG22	25:B5:5:ASP:H	1.51	0.74
22:B0:1313:U:H2'	22:B0:1313:U:O2	1.86	0.74
22:B0:669:G:N2	28:BC:74:LYS:HB3	2.02	0.74
3:AB:16:GLY:HA3	3:AB:39:ILE:HA	1.69	0.74
1:AA:887:G:O2'	1:AA:1489:G:H4'	1.88	0.74
24:B2:36:LYS:HE2	24:B2:36:LYS:HA	1.67	0.74
16:AO:47:LYS:HA	16:AO:47:LYS:HE2	1.68	0.74
1:AA:104:G:H3'	21:AT:4:LYS:NZ	2.02	0.74
22:B0:1322:A:H61	22:B0:1333:G:N2	1.84	0.74
22:B0:479:A:H2'	22:B0:480:A:C4'	2.18	0.74
22:B0:2591:C:H2'	22:B0:2592:G:C8	2.23	0.74
37:BL:96:ARG:NE	37:BL:96:ARG:H	1.84	0.74
42:BR:93:LEU:HD21	42:BR:96:VAL:HB	1.68	0.74
30:BE:120:ILE:HD13	30:BE:120:ILE:H	1.51	0.74
26:BA:142:ASN:HB3	26:BA:190:THR:OG1	1.88	0.74
27:BB:12:THR:HB	39:BN:7:LEU:HG	1.70	0.74
39:BN:96:LEU:O	39:BN:97:TYR:HB3	1.87	0.74
5:AD:33:ILE:HD11	5:AD:35:GLN:NE2	2.03	0.74
14:AM:92:ARG:HH11	14:AM:96:VAL:HG12	1.51	0.74
29:BD:63:LYS:H	29:BD:63:LYS:HD3	1.49	0.74
22:B0:2614:A:H5''	22:B0:2615:U:OP1	1.87	0.74
22:B0:751:A:H5''	22:B0:752:A:OP1	1.88	0.74
22:B0:800:A:H3'	28:BC:57:LYS:CB	2.12	0.74
40:BO:15:LYS:HA	40:BO:15:LYS:HZ2	1.53	0.74
41:BQ:18:ARG:HG2	41:BQ:19:LEU:N	2.02	0.74
22:B0:121:G:H4'	22:B0:149:A:C5'	2.18	0.74
1:AA:1222:G:OP2	20:AS:2:ARG:HB2	1.85	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:B3:73:ARG:HE	25:B3:80:LEU:HA	1.51	0.74
22:B0:1568:G:H5''	22:B0:1569:A:O5'	1.87	0.74
26:BA:171:VAL:HG22	26:BA:172:THR:H	1.52	0.74
22:B0:2678:C:C5'	27:BB:125:TRP:H	2.00	0.74
22:B0:1828:G:C4'	22:B0:1829:A:H5'	2.18	0.74
1:AA:687:A:H4'	1:AA:688:G:O5'	1.88	0.74
1:AA:1117:A:N6	1:AA:1156:G:H22	1.85	0.74
26:BA:65:ASP:OD1	26:BA:128:THR:HB	1.88	0.74
22:B0:527:C:H5''	22:B0:528:A:OP1	1.88	0.74
22:B0:600:G:N3	28:BC:99:LYS:HG2	2.02	0.74
22:B0:2108:A:H2'	22:B0:2109:U:O4'	1.87	0.74
1:AA:1346:A:O2'	1:AA:1347:G:OP2	2.04	0.74
1:AA:978:A:H3'	20:AS:5:LYS:HA	1.70	0.74
42:BR:50:LEU:HD13	46:BW:26:PHE:CE2	2.23	0.74
42:BR:68:LYS:HA	42:BR:68:LYS:NZ	2.03	0.74
22:B0:617:G:H5''	22:B0:618:G:N7	2.02	0.74
22:B0:738:G:H2'	22:B0:739:A:O4'	1.87	0.74
22:B0:1493:A:N3	26:BA:171:VAL:HG12	2.02	0.74
22:B0:581:C:H5''	40:BO:31:TYR:HE2	1.52	0.74
22:B0:960:A:C8	22:B0:2496:C:P	2.79	0.74
42:BR:49:LYS:HD2	42:BR:50:LEU:HD12	1.70	0.74
2:AU:36:A:C2'	2:AU:37:G:H5''	2.15	0.74
21:AT:54:GLN:HB3	21:AT:55:PRO:HD3	1.70	0.74
25:B3:46:GLU:O	25:B5:15:SER:HB3	1.88	0.74
25:B5:22:LEU:O	25:B5:26:MET:HG2	1.88	0.74
1:AA:1405:G:H1'	1:AA:1518:A:O2'	1.87	0.74
1:AA:1194:U:H5''	6:AE:25:LYS:CD	2.17	0.74
4:AC:66:THR:HG22	4:AC:101:ASN:HD22	1.52	0.74
33:BH:68:LYS:HZ2	33:BH:68:LYS:HA	1.50	0.74
1:AA:1413:A:H2	1:AA:1487:G:H22	1.35	0.74
1:AA:780:A:H5''	12:AK:124:LYS:HE2	1.70	0.74
29:BD:16:MET:HA	29:BD:20:ASN:ND2	2.01	0.74
22:B0:1423:A:H2'	22:B0:1424:G:C8	2.23	0.73
22:B0:1421:G:C5	26:BA:149:LYS:HA	2.19	0.73
22:B0:2788:C:H2'	22:B0:2891:A:N6	2.03	0.73
22:B0:960:A:H5'	22:B0:2495:G:H2'	1.70	0.73
22:B0:1939:U:H4'	22:B0:2592:G:H5'	1.70	0.73
22:B0:1456:G:H1	22:B0:2703:C:N4	1.86	0.73
4:AC:149:LYS:HD3	4:AC:168:ARG:HD2	1.68	0.73
40:BO:59:LEU:HG	40:BO:63:ARG:HB2	1.69	0.73
1:AA:1221:G:H2'	20:AS:1:PRO:N	2.02	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:188:C:C2	1:AA:189:A:H1'	2.23	0.73
22:B0:685:A:H1'	22:B0:687:C:H41	1.53	0.73
26:BA:158:GLY:H	26:BA:194:VAL:CB	2.01	0.73
26:BA:154:ALA:HB1	26:BA:159:THR:CG2	2.18	0.73
22:B0:2892:G:H5'	33:BH:6:ALA:HA	1.69	0.73
28:BC:112:LEU:HA	28:BC:118:LEU:HD21	1.69	0.73
22:B0:699:A:H4'	22:B0:1634:A:H61	1.53	0.73
6:AE:92:ARG:HB3	6:AE:127:TYR:HB2	1.70	0.73
42:BR:92:ASN:C	42:BR:93:LEU:HD13	2.07	0.73
22:B0:990:A:OP1	22:B0:1157:G:H4'	1.87	0.73
22:B0:749:A:H4'	22:B0:1615:C:H42	1.53	0.73
22:B0:2075:U:OP2	22:B0:2238:G:H2'	1.88	0.73
41:BQ:27:LYS:N	41:BQ:27:LYS:HD3	2.02	0.73
35:BJ:118:THR:HG23	35:BJ:119:PRO:CA	2.18	0.73
1:AA:344:A:H5''	1:AA:345:C:H5	1.52	0.73
27:BB:172:VAL:HG13	27:BB:175:LEU:HD11	1.70	0.73
28:BC:146:VAL:HA	28:BC:149:ILE:HD13	1.69	0.73
22:B0:2072:C:N4	22:B0:2437:G:H1	1.86	0.73
42:BR:25:GLU:HG3	42:BR:26:LYS:N	2.03	0.73
40:BO:63:ARG:HB3	40:BO:63:ARG:NH1	2.02	0.73
32:BG:77:VAL:HG23	32:BG:78:LEU:HD23	1.69	0.73
1:AA:912:C:C2'	1:AA:913:A:H5'	2.18	0.73
22:B0:2382:G:H5''	22:B0:2383:G:H5'	1.70	0.73
22:B0:1019:U:H3	22:B0:1142:A:N6	1.86	0.73
22:B0:1580:A:OP2	26:BA:68:ARG:HD3	1.88	0.73
27:BB:137:SER:C	27:BB:139:SER:H	1.91	0.73
1:AA:279:A:H5'	1:AA:281:G:O4'	1.87	0.73
22:B0:589:U:OP1	28:BC:44:ARG:N	2.22	0.73
40:BO:43:GLN:C	40:BO:45:ALA:H	1.90	0.73
10:AI:114:LYS:H	10:AI:120:ALA:CB	2.01	0.73
22:B0:215:G:C4'	22:B0:216:A:H4'	2.18	0.73
22:B0:2319:G:H5''	22:B0:2320:U:OP1	1.88	0.73
37:BL:90:ARG:HA	37:BL:90:ARG:NH1	2.03	0.73
1:AA:1157:A:H4'	1:AA:1158:C:O5'	1.87	0.73
9:AH:86:LYS:HD2	9:AH:91:LEU:HA	1.69	0.73
1:AA:763:G:H1'	16:AO:53:ARG:HD3	1.70	0.73
22:B0:756:A:H4'	22:B0:1660:G:OP1	1.88	0.73
1:AA:1371:G:H2'	1:AA:1372:U:C6	2.24	0.73
22:B0:2725:A:OP1	27:BB:141:ARG:HD2	1.89	0.73
22:B0:508:A:H4'	22:B0:509:C:O5'	1.89	0.73
22:B0:1937:A:O2'	22:B0:1938:A:OP1	2.07	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:2365:G:H5''	45:BU:38:ARG:HH21	1.53	0.73
1:AA:481:G:O2'	1:AA:482:A:O5'	2.07	0.73
1:AA:1201:A:O2'	1:AA:1202:U:H5''	1.89	0.73
22:B0:588:U:C4	28:BC:82:GLY:HA2	2.24	0.73
22:B0:799:G:H3'	28:BC:57:LYS:CB	2.17	0.73
41:BQ:35:ILE:O	41:BQ:36:LEU:HB3	1.86	0.73
22:B0:2597:G:H2'	22:B0:2598:A:C8	2.23	0.73
22:B0:2176:A:O3'	24:B2:167:ASN:N	2.21	0.73
45:BU:40:ARG:HB2	45:BU:40:ARG:NH1	2.03	0.73
9:AH:102:VAL:HG22	9:AH:125:ILE:HD12	1.69	0.73
21:AT:84:LYS:HE3	21:AT:84:LYS:HA	1.70	0.73
41:BQ:33:LEU:HD12	41:BQ:34:ASP:N	2.04	0.73
26:BA:62:ARG:HH22	26:BA:149:LYS:HZ3	1.35	0.73
26:BA:154:ALA:HB1	26:BA:159:THR:HG21	1.68	0.73
1:AA:419:C:C1'	5:AD:39:GLN:HB2	2.11	0.73
28:BC:44:ARG:HA	28:BC:89:PRO:C	2.09	0.73
40:BO:51:GLN:HE21	40:BO:55:GLN:HB2	1.52	0.73
22:B0:2116:G:OP2	22:B0:2117:A:H5'	1.89	0.73
22:B0:2163:G:N2	22:B0:2164:C:H2'	2.04	0.73
46:BW:28:LEU:O	46:BW:30:MET:HG3	1.89	0.73
22:B0:1043:C:C2'	22:B0:1044:C:H5''	2.18	0.73
25:B3:51:LYS:HA	25:B3:52:THR:HA	1.69	0.73
22:B0:1929:G:H5''	22:B0:1930:G:OP1	1.88	0.73
22:B0:1060:U:H4'	22:B0:1061:U:O5'	1.87	0.73
22:B0:610:C:H2'	22:B0:611:C:C5	2.24	0.73
1:AA:1501:C:H2'	1:AA:1504:G:O6	1.88	0.73
30:BE:5:LYS:HG2	30:BE:52:GLY:HA3	1.70	0.73
1:AA:666:G:H4'	1:AA:731:G:N2	2.04	0.73
22:B0:2897:U:H2'	33:BH:15:TRP:O	1.88	0.73
33:BH:22:GLY:O	33:BH:23:LYS:HB3	1.89	0.73
22:B0:799:G:P	28:BC:57:LYS:HG3	2.29	0.73
22:B0:310:A:H2'	22:B0:312:G:OP2	1.89	0.73
27:BB:27:ILE:HG21	27:BB:201:LEU:HD11	1.70	0.73
22:B0:1655:A:H2'	22:B0:1656:C:O4'	1.87	0.73
22:B0:2320:U:H2'	22:B0:2320:U:O2	1.86	0.73
22:B0:571:U:H4'	22:B0:572:A:OP1	1.88	0.73
12:AK:66:ALA:HB2	12:AK:95:THR:HG23	1.71	0.73
22:B0:1996:C:O2'	22:B0:1997:C:O5'	2.07	0.73
22:B0:478:A:H5'	43:BS:30:SER:HB3	1.70	0.73
22:B0:639:U:H2'	22:B0:640:C:C6	2.24	0.73
36:BK:7:THR:HG23	36:BK:8:LYS:H	1.54	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AF:12:PRO:HD3	7:AF:57:ALA:HA	1.70	0.73
22:B0:2756:U:H5''	22:B0:2757:A:OP1	1.88	0.73
47:BX:12:ALA:HA	47:BX:15:ARG:NE	2.03	0.73
25:B3:16:VAL:HG23	25:B5:13:ALA:HA	1.69	0.73
28:BC:176:ASP:O	28:BC:180:LEU:HD23	1.89	0.72
22:B0:2138:G:H22	22:B0:2158:A:H62	1.34	0.72
6:AE:155:LYS:HB3	9:AH:68:LYS:NZ	2.04	0.72
14:AM:16:ILE:O	14:AM:16:ILE:HD13	1.89	0.72
1:AA:449:G:O2'	1:AA:450:G:O5'	2.02	0.72
1:AA:1381:U:O2	8:AG:77:ARG:HA	1.89	0.72
22:B0:2328:A:H2'	22:B0:2329:U:C6	2.23	0.72
24:B2:114:ILE:HD13	24:B2:143:THR:HG23	1.71	0.72
40:BO:97:ILE:HD12	40:BO:98:ALA:N	2.04	0.72
40:BO:15:LYS:HA	40:BO:18:LYS:HE3	1.71	0.72
4:AC:184:ASN:ND2	4:AC:199:VAL:HB	1.98	0.72
1:AA:716:A:O2'	12:AK:119:GLY:HA2	1.89	0.72
36:BK:7:THR:HG23	36:BK:8:LYS:N	2.04	0.72
1:AA:531:U:H4'	1:AA:532:A:H5''	1.71	0.72
22:B0:834:G:H21	22:B0:2358:A:N6	1.86	0.72
40:BO:102:LYS:N	40:BO:102:LYS:HE3	2.04	0.72
26:BA:53:ILE:HD13	26:BA:54:GLY:N	2.03	0.72
40:BO:27:ARG:NE	40:BO:33:VAL:HB	2.01	0.72
22:B0:2127:G:H3'	22:B0:2166:U:H5'	1.70	0.72
22:B0:2128:G:C4'	22:B0:2165:C:H3'	2.18	0.72
22:B0:960:A:H3'	22:B0:2496:C:H3'	1.69	0.72
27:BB:193:VAL:HG11	27:BB:201:LEU:HD22	1.72	0.72
22:B0:2472:G:H2'	22:B0:2475:C:H42	1.51	0.72
9:AH:13:ILE:HD12	9:AH:60:LEU:HD23	1.72	0.72
22:B0:1568:G:H4'	22:B0:1569:A:OP2	1.87	0.72
1:AA:251:G:H4'	1:AA:252:U:O5'	1.90	0.72
28:BC:110:SER:O	28:BC:113:VAL:HG22	1.89	0.72
26:BA:64:VAL:CG1	26:BA:65:ASP:H	1.93	0.72
22:B0:1580:A:H4'	26:BA:70:LYS:C	2.10	0.72
13:AL:28:GLN:HB3	13:AL:80:LEU:HD11	1.70	0.72
22:B0:1970:A:H5'	22:B0:1972:G:O4'	1.89	0.72
1:AA:1158:C:H2'	1:AA:1158:C:O2	1.87	0.72
31:BF:31:VAL:HB	31:BF:32:PRO:HD3	1.70	0.72
43:BS:11:ILE:HD12	43:BS:21:ARG:HG2	1.71	0.72
36:BK:79:ALA:O	36:BK:80:VAL:HB	1.89	0.72
1:AA:720:C:H4'	19:AR:69:TYR:CE1	2.23	0.72
39:BN:30:TRP:NE1	39:BN:82:SER:HA	2.04	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BN:91:VAL:HG12	39:BN:92:ARG:N	2.04	0.72
7:AF:52:ASN:OD1	7:AF:85:ILE:HD13	1.90	0.72
27:BB:62:LYS:HB3	27:BB:63:PRO:HD3	1.71	0.72
47:BX:6:ILE:HG13	47:BX:56:VAL:HG12	1.70	0.72
22:B0:2478:A:H2'	22:B0:2529:G:C8	2.23	0.72
22:B0:1488:G:C6	26:BA:156:SER:HB2	2.25	0.72
22:B0:1581:A:H61	26:BA:99:GLU:HG3	1.53	0.72
26:BA:72:GLY:O	26:BA:73:ILE:HG13	1.89	0.72
42:BR:30:ILE:HB	42:BR:85:VAL:HG13	1.69	0.72
42:BR:66:LYS:HA	42:BR:66:LYS:HE2	1.72	0.72
22:B0:1046:A:H3'	25:B5:29:LYS:CD	2.18	0.72
25:B5:29:LYS:HE2	25:B5:30:PHE:CZ	2.23	0.72
22:B0:1083:U:H2'	25:B3:81:LYS:HE2	1.71	0.72
33:BH:37:ARG:H	33:BH:37:ARG:HD3	1.54	0.72
26:BA:166:ARG:HA	26:BA:171:VAL:HG23	1.72	0.72
22:B0:1314:C:N4	22:B0:1338:G:H1	1.87	0.72
22:B0:807:U:H1'	22:B0:2445:G:OP1	1.89	0.72
22:B0:2179:C:H3'	22:B0:2180:U:H3'	1.72	0.72
22:B0:65:U:OP1	42:BR:74:ILE:HB	1.90	0.72
22:B0:2256:G:N2	22:B0:2257:U:H1'	2.05	0.72
12:AK:44:ALA:HB3	12:AK:69:CYS:HB2	1.72	0.72
11:AJ:89:ARG:NH1	11:AJ:89:ARG:HB3	2.05	0.72
22:B0:1200:C:H2'	22:B0:1201:U:C6	2.25	0.72
28:BC:32:VAL:HB	35:BJ:17:LYS:CD	2.20	0.72
22:B0:2391:G:H22	22:B0:2427:C:H4'	1.55	0.72
22:B0:1831:G:N2	22:B0:1975:G:H1'	2.04	0.72
35:BJ:39:LYS:NZ	35:BJ:41:ARG:HG2	2.05	0.72
4:AC:50:SER:HB3	4:AC:114:LEU:HD22	1.70	0.72
21:AT:33:LYS:HA	21:AT:33:LYS:HE3	1.70	0.72
9:AH:74:ILE:HG13	9:AH:128:VAL:HG12	1.70	0.72
22:B0:1490:C:H5''	26:BA:160:TYR:O	1.89	0.72
22:B0:2891:A:C6	22:B0:2892:G:H1'	2.25	0.72
22:B0:589:U:P	28:BC:44:ARG:H	2.13	0.72
22:B0:992:C:C5'	40:BO:47:ARG:HB3	2.16	0.72
37:BL:100:CYS:HB3	37:BL:110:MET:O	1.90	0.72
32:BG:52:LEU:HD21	32:BG:73:PRO:HB3	1.71	0.72
22:B0:2286:G:H4'	22:B0:2287:A:O4'	1.90	0.72
44:BT:30:ILE:HG13	44:BT:91:PHE:HB2	1.71	0.72
22:B0:1815:A:H5''	22:B0:1816:C:OP1	1.90	0.72
1:AA:1278:G:H5''	1:AA:1279:G:H5'	1.72	0.72
22:B0:1583:G:N2	26:BA:75:ALA:HA	1.99	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:430:A:H1'	1:AA:431:A:C4	2.25	0.72
22:B0:973:A:H4'	22:B0:1186:G:H22	1.55	0.72
22:B0:1222:U:H3	22:B0:1227:G:H1	1.35	0.72
42:BR:34:VAL:HG11	42:BR:43:ILE:HD12	1.71	0.72
10:AI:46:VAL:HA	10:AI:49:GLN:HG2	1.71	0.72
12:AK:33:ILE:HD12	12:AK:81:LEU:HD13	1.72	0.72
22:B0:2089:C:N4	22:B0:2090:A:H62	1.87	0.72
3:AB:10:LYS:HE2	3:AB:211:LEU:HD21	1.71	0.72
22:B0:2895:C:H2'	22:B0:2896:U:C6	2.25	0.71
22:B0:800:A:H2	28:BC:60:TRP:N	1.84	0.71
22:B0:2137:U:O2'	22:B0:2138:G:H5'	1.90	0.71
27:BB:4:LEU:HB2	27:BB:100:LEU:HD23	1.72	0.71
25:B3:78:LEU:HB3	25:B3:82:GLU:CB	2.19	0.71
33:BH:24:THR:HG22	33:BH:26:GLY:H	1.53	0.71
22:B0:587:C:H4'	28:BC:81:GLY:H	1.54	0.71
1:AA:889:A:H5''	1:AA:890:G:OP1	1.89	0.71
22:B0:1494:A:N3	22:B0:1494:A:H2'	2.04	0.71
41:BQ:87:PRO:HA	41:BQ:88:ARG:NH2	2.05	0.71
22:B0:1830:C:N4	22:B0:1975:G:H22	1.87	0.71
1:AA:827:U:H5'	9:AH:15:ASN:ND2	2.05	0.71
36:BK:108:VAL:HG22	36:BK:109:PRO:HD2	1.73	0.71
33:BH:89:PHE:HB3	33:BH:92:MET:HB2	1.72	0.71
24:B2:33:ALA:HB3	24:B2:177:VAL:HG21	1.73	0.71
22:B0:1490:C:C2'	26:BA:174:ARG:HB2	2.20	0.71
28:BC:178:VAL:HA	35:BJ:17:LYS:H	1.55	0.71
22:B0:2226:C:C4	22:B0:2227:A:H1'	2.25	0.71
1:AA:1485:U:H5'	22:B0:1960:A:H4'	1.70	0.71
22:B0:781:A:O2'	22:B0:1789:A:H5'	1.90	0.71
47:BX:4:ILE:HG12	47:BX:58:GLU:HB3	1.71	0.71
11:AJ:10:LEU:HD11	11:AJ:25:ILE:HD12	1.71	0.71
22:B0:884:U:H2'	22:B0:885:C:C5	2.25	0.71
1:AA:419:C:O5'	1:AA:540:G:N3	2.21	0.71
1:AA:419:C:H5''	1:AA:540:G:N2	2.04	0.71
22:B0:1201:U:H2'	35:BJ:14:LYS:HE3	1.73	0.71
28:BC:153:LEU:CD1	28:BC:158:PHE:HB2	2.18	0.71
27:BB:123:LYS:HB2	27:BB:141:ARG:HE	1.54	0.71
23:B9:56:G:H5''	23:B9:57:A:OP1	1.90	0.71
9:AH:29:SER:HB3	9:AH:32:LYS:HG2	1.71	0.71
18:AQ:83:LEU:HD13	18:AQ:83:LEU:OXT	1.90	0.71
1:AA:1188:A:H5''	11:AJ:60:ASP:HB3	1.71	0.71
26:BA:149:LYS:HZ2	26:BA:152:GLN:HG2	1.55	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:28:A:N6	22:B0:512:G:H1'	2.05	0.71
22:B0:1114:C:H2'	22:B0:1115:G:C8	2.24	0.71
22:B0:1141:U:O2'	22:B0:1142:A:OP2	2.07	0.71
40:BO:116:LEU:HD23	40:BO:116:LEU:H	1.55	0.71
22:B0:1314:C:OP1	22:B0:1332:G:H5'	1.90	0.71
28:BC:112:LEU:HG	28:BC:118:LEU:HD11	1.72	0.71
28:BC:72:SER:HB2	28:BC:78:TRP:CD1	2.25	0.71
40:BO:14:LYS:HG3	40:BO:15:LYS:HG2	1.71	0.71
22:B0:2160:C:H5''	22:B0:2162:G:P	2.30	0.71
27:BB:160:LYS:H	27:BB:160:LYS:CD	2.02	0.71
22:B0:27:G:H22	22:B0:512:G:H2'	1.56	0.71
22:B0:2494:G:C4	22:B0:2495:G:H1'	2.25	0.71
22:B0:960:A:C8	22:B0:2496:C:OP2	2.44	0.71
22:B0:2643:G:H5''	27:BB:157:LYS:HB3	1.71	0.71
25:B3:69:ILE:HG23	25:B3:83:ALA:HB3	1.72	0.71
35:BJ:60:ARG:NH1	35:BJ:60:ARG:HB3	2.06	0.71
1:AA:991:U:O2'	1:AA:992:U:H5'	1.91	0.71
11:AJ:40:ILE:HG13	11:AJ:42:LEU:HD21	1.73	0.71
1:AA:40:C:H2'	1:AA:41:G:C8	2.26	0.71
22:B0:807:U:H4'	22:B0:2445:G:H4'	1.70	0.71
22:B0:2176:A:C5'	24:B2:167:ASN:H	2.02	0.71
46:BW:39:GLN:O	46:BW:43:LEU:HG	1.91	0.71
37:BL:22:ARG:CZ	37:BL:69:ARG:HB3	2.21	0.71
22:B0:715:A:H2'	22:B0:716:A:O4'	1.90	0.71
22:B0:1491:A:H3'	26:BA:175:LEU:HA	1.73	0.71
26:BA:71:ASP:HB2	26:BA:119:VAL:H	1.56	0.71
22:B0:2154:A:H4'	22:B0:2155:U:OP1	1.89	0.71
1:AA:1139:G:C4'	1:AA:1140:C:H5'	2.20	0.71
42:BR:67:VAL:HG22	42:BR:76:ARG:HA	1.73	0.71
21:AT:38:ILE:HG22	21:AT:85:LEU:HB2	1.73	0.71
22:B0:386:G:H22	22:B0:411:G:H22	1.37	0.71
1:AA:483:C:C5'	1:AA:484:G:H4'	2.21	0.71
1:AA:6:G:N2	6:AE:105:ILE:HG13	2.04	0.71
22:B0:1943:U:H5''	22:B0:1944:U:OP1	1.89	0.71
9:AH:45:ILE:HD12	9:AH:60:LEU:HD11	1.72	0.71
26:BA:181:ARG:HA	26:BA:181:ARG:HE	1.56	0.71
1:AA:522:C:H41	13:AL:45:ASN:HD21	1.36	0.71
22:B0:1427:A:N6	26:BA:58:LYS:HG3	2.06	0.71
22:B0:1579:A:C4	26:BA:67:LYS:HG3	2.25	0.71
26:BA:141:HIS:N	26:BA:141:HIS:CD2	2.58	0.71
22:B0:1493:A:N1	26:BA:185:ALA:HA	2.06	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:528:A:H61	22:B0:2043:C:C5'	2.03	0.71
28:BC:92:HIS:HB3	35:BJ:29:LYS:HE3	1.72	0.71
22:B0:581:C:H5''	40:BO:31:TYR:CE2	2.26	0.71
22:B0:493:G:H21	41:BQ:7:HIS:HA	1.53	0.71
43:BS:23:LYS:HB3	43:BS:36:GLU:OE1	1.91	0.71
22:B0:865:C:HO2'	22:B0:866:A:H8	1.38	0.71
22:B0:2478:A:H2'	22:B0:2529:G:C5	2.26	0.71
12:AK:80:ASN:HD21	12:AK:107:THR:HB	1.56	0.71
22:B0:1383:A:OP1	22:B0:1573:G:H1'	1.91	0.71
22:B0:524:G:H4'	22:B0:555:U:H4'	1.73	0.71
26:BA:143:VAL:HG12	26:BA:189:ALA:CB	2.21	0.70
22:B0:1206:G:H22	22:B0:1240:U:H3	1.38	0.70
22:B0:789:A:H5''	22:B0:790:U:OP2	1.91	0.70
28:BC:27:LEU:O	28:BC:31:VAL:HG23	1.91	0.70
28:BC:43:THR:HG23	28:BC:43:THR:O	1.89	0.70
41:BQ:88:ARG:CZ	41:BQ:88:ARG:H	2.03	0.70
22:B0:494:G:C1'	41:BQ:6:LYS:HB2	2.13	0.70
41:BQ:74:ILE:HD13	41:BQ:74:ILE:N	2.06	0.70
35:BJ:39:LYS:HG2	35:BJ:41:ARG:N	2.01	0.70
11:AJ:57:VAL:HG12	11:AJ:58:ASN:N	2.04	0.70
22:B0:922:C:H1'	45:BU:19:ARG:HE	1.56	0.70
12:AK:22:ILE:HD11	12:AK:99:LEU:HD11	1.73	0.70
22:B0:2470:G:H2'	22:B0:2471:A:H8	1.55	0.70
34:BI:99:ILE:HD13	34:BI:100:PHE:N	2.06	0.70
22:B0:1996:C:O2'	22:B0:1997:C:O4'	2.08	0.70
33:BH:12:LYS:HE3	33:BH:12:LYS:HA	1.73	0.70
28:BC:88:ARG:H	28:BC:89:PRO:HD3	1.56	0.70
22:B0:494:G:H1'	41:BQ:7:HIS:H	1.55	0.70
1:AA:197:A:N6	1:AA:221:C:H4'	2.06	0.70
22:B0:838:C:N4	22:B0:940:G:H1	1.89	0.70
22:B0:2296:U:H4'	22:B0:2297:A:C5'	2.20	0.70
42:BR:77:ARG:HH22	42:BR:79:ASP:CG	1.94	0.70
37:BL:43:GLU:OE1	37:BL:44:LEU:HG	1.91	0.70
1:AA:1220:G:H2'	1:AA:1221:G:C8	2.26	0.70
22:B0:1799:G:H5''	22:B0:1800:C:OP1	1.91	0.70
22:B0:74:A:H5'	22:B0:75:G:O5'	1.91	0.70
32:BG:96:LYS:HD2	32:BG:96:LYS:H	1.55	0.70
42:BR:39:THR:HG23	42:BR:41:ALA:H	1.56	0.70
26:BA:172:THR:C	26:BA:173:LEU:HD12	2.12	0.70
22:B0:569:U:H1'	22:B0:971:G:H21	1.57	0.70
9:AH:63:LYS:HG3	9:AH:70:VAL:HG21	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:910:A:N6	36:BK:10:ARG:HG2	2.07	0.70
5:AD:167:PRO:HG2	5:AD:170:LEU:HB2	1.72	0.70
22:B0:1421:G:C4	26:BA:149:LYS:CA	2.74	0.70
1:AA:418:C:OP1	1:AA:540:G:OP1	2.07	0.70
25:B3:57:ILE:HD12	25:B5:5:ASP:HB2	1.74	0.70
22:B0:2679:A:OP1	27:BB:165:MET:HB3	1.91	0.70
20:AS:6:LYS:NZ	20:AS:6:LYS:HB3	2.06	0.70
22:B0:2437:G:H2'	22:B0:2438:U:O4'	1.91	0.70
39:BN:20:ARG:CG	39:BN:25:VAL:HG21	2.21	0.70
37:BL:49:GLU:HB2	37:BL:52:ILE:HG12	1.73	0.70
6:AE:12:GLU:HG3	6:AE:38:VAL:HG12	1.73	0.70
13:AL:56:LEU:H	13:AL:56:LEU:HD22	1.56	0.70
22:B0:1265:A:O2'	22:B0:1266:G:H4'	1.91	0.70
1:AA:753:A:H5''	1:AA:754:C:OP1	1.91	0.70
22:B0:1779:U:H4'	22:B0:1780:A:OP2	1.91	0.70
1:AA:975:A:H4'	1:AA:976:G:C5'	2.22	0.70
1:AA:1455:G:H2'	1:AA:1459:G:H8	1.56	0.70
32:BG:11:GLN:HG3	32:BG:55:PRO:HB3	1.72	0.70
22:B0:1657:U:H2'	22:B0:1658:C:C6	2.25	0.70
22:B0:1760:C:H6	22:B0:1760:C:OP2	1.74	0.70
22:B0:970:U:H4'	22:B0:984:A:H1'	1.72	0.70
26:BA:140:VAL:HG22	26:BA:161:VAL:O	1.89	0.70
42:BR:48:GLN:HG3	42:BR:54:GLU:HA	1.73	0.70
22:B0:977:G:H4'	22:B0:1001:A:C2	2.27	0.70
1:AA:22:G:H1'	1:AA:913:A:N1	2.06	0.70
32:BG:92:PRO:O	32:BG:93:ASN:HB3	1.91	0.70
6:AE:15:ILE:HD12	6:AE:35:LEU:HB3	1.72	0.70
22:B0:323:C:C2	28:BC:163:ASN:HB2	2.27	0.70
40:BO:15:LYS:CA	40:BO:15:LYS:HZ2	2.04	0.70
42:BR:8:LEU:HB2	46:BW:26:PHE:HA	1.71	0.70
37:BL:37:THR:O	37:BL:40:LYS:HB3	1.92	0.70
40:BO:63:ARG:O	40:BO:63:ARG:HD2	1.91	0.70
3:AB:37:VAL:HG22	3:AB:39:ILE:H	1.55	0.70
7:AF:81:ASN:ND2	7:AF:83:ALA:HB3	2.05	0.70
1:AA:911:U:H2'	1:AA:912:C:C6	2.26	0.70
32:BG:33:ASN:HD22	32:BG:34:ILE:H	1.39	0.70
1:AA:1305:G:H22	1:AA:1331:G:H2'	1.55	0.70
22:B0:1580:A:O4'	26:BA:69:ASN:N	2.25	0.70
5:AD:56:GLU:HG2	5:AD:198:LEU:HB2	1.74	0.70
33:BH:14:ASP:HB3	33:BH:15:TRP:CE3	2.27	0.70
22:B0:589:U:OP2	28:BC:44:ARG:HB2	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:778:G:H2'	22:B0:779:U:O4'	1.90	0.70
40:BO:32:ARG:NE	40:BO:32:ARG:HA	2.07	0.70
22:B0:2428:G:H4'	22:B0:2429:G:C4	2.26	0.70
4:AC:152:VAL:HG13	4:AC:195:ILE:HD11	1.73	0.70
42:BR:8:LEU:HD12	46:BW:26:PHE:O	1.92	0.70
42:BR:68:LYS:HD3	42:BR:69:ARG:H	1.56	0.70
7:AF:24:ARG:NH2	7:AF:81:ASN:HB2	2.07	0.70
22:B0:2529:G:OP2	22:B0:2530:A:H5''	1.91	0.70
32:BG:10:LEU:HG	32:BG:11:GLN:H	1.55	0.70
22:B0:1019:U:H3	22:B0:1142:A:H62	1.39	0.70
6:AE:148:SER:HB3	6:AE:149:PRO:HD2	1.72	0.70
29:BD:91:ARG:HB2	29:BD:91:ARG:NH1	2.07	0.70
24:B2:147:ASN:HD22	24:B2:150:GLU:HB2	1.56	0.70
49:B1:26:LYS:HG2	49:B1:28:THR:HG22	1.72	0.70
26:BA:81:GLU:HB2	26:BA:90:ILE:HD11	1.72	0.70
22:B0:2898:G:OP2	33:BH:140:LEU:HB2	1.91	0.70
22:B0:2677:G:H4'	27:BB:160:LYS:CB	2.18	0.70
36:BK:8:LYS:O	36:BK:10:ARG:HG3	1.91	0.70
1:AA:559:A:O2'	1:AA:560:A:OP2	2.10	0.70
2:AU:75:C:C4'	22:B0:2557:G:H5''	2.22	0.70
1:AA:572:A:H4'	1:AA:917:G:H4'	1.74	0.70
9:AH:6:ILE:HB	9:AH:76:ARG:NH1	2.06	0.70
22:B0:1087:G:C5	22:B0:1089:A:H1'	2.26	0.70
12:AK:106:ILE:HD11	12:AK:109:ILE:HG13	1.74	0.70
22:B0:1312:U:H5''	22:B0:1313:U:OP1	1.92	0.70
41:BQ:25:ARG:H	41:BQ:25:ARG:HE	1.37	0.70
45:BU:45:HIS:HB3	45:BU:79:ILE:CG2	2.20	0.70
22:B0:2513:A:N1	22:B0:2575:C:H1'	2.07	0.70
1:AA:1157:A:H1'	1:AA:1181:G:N2	2.07	0.70
15:AN:54:SER:HB2	15:AN:58:ARG:HD2	1.72	0.70
26:BA:211:ARG:HA	26:BA:211:ARG:HE	1.55	0.70
22:B0:1626:A:H4'	22:B0:1627:G:H5''	1.74	0.70
1:AA:36:C:H5''	13:AL:119:LYS:HA	1.73	0.70
1:AA:426:U:H2'	1:AA:427:U:C6	2.27	0.70
33:BH:35:ARG:HA	33:BH:39:LYS:HD3	1.73	0.70
25:B3:57:ILE:CD1	25:B5:5:ASP:HB2	2.22	0.70
22:B0:1204:A:H5''	28:BC:148:ILE:HG23	1.73	0.70
41:BQ:50:VAL:C	41:BQ:52:GLU:H	1.94	0.70
22:B0:2116:G:OP1	22:B0:2116:G:H4'	1.91	0.70
22:B0:960:A:O4'	22:B0:2496:C:OP2	2.09	0.70
1:AA:1322:C:C4'	1:AA:1323:G:H5'	2.22	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BR:8:LEU:CD2	42:BR:11:LEU:HD21	2.21	0.70
46:BW:39:GLN:HE21	46:BW:39:GLN:CA	2.03	0.70
42:BR:75:GLY:O	42:BR:77:ARG:HG3	1.92	0.70
1:AA:483:C:H5''	1:AA:484:G:H4'	1.73	0.70
1:AA:1196:A:H4'	1:AA:1197:A:OP2	1.91	0.70
4:AC:100:ILE:HD13	4:AC:101:ASN:N	2.07	0.70
22:B0:1819:A:H4'	22:B0:1821:A:OP2	1.91	0.70
30:BE:151:ARG:HE	30:BE:151:ARG:HA	1.57	0.70
1:AA:1038:C:H2'	1:AA:1039:G:C8	2.27	0.70
22:B0:1418:G:N3	26:BA:99:GLU:OE1	2.24	0.69
22:B0:529:A:N7	22:B0:2042:A:H2	1.89	0.69
33:BH:105:VAL:HA	33:BH:108:MET:HE3	1.73	0.69
22:B0:774:G:H1'	22:B0:777:G:N2	2.05	0.69
28:BC:91:ASP:N	35:BJ:27:LEU:O	2.24	0.69
22:B0:1758:U:H2'	22:B0:1758:U:O2	1.91	0.69
7:AF:40:GLU:HB2	7:AF:61:LEU:HB2	1.74	0.69
22:B0:2345:G:O2'	22:B0:2381:A:H1'	1.91	0.69
22:B0:265:A:H4'	22:B0:266:G:OP1	1.90	0.69
22:B0:1500:A:H61	26:BA:156:SER:N	1.89	0.69
22:B0:1580:A:H2'	22:B0:1581:A:O4'	1.91	0.69
1:AA:417:G:H22	1:AA:427:U:C1'	2.05	0.69
22:B0:1204:A:H61	22:B0:1241:A:H61	1.38	0.69
22:B0:2179:C:O3'	22:B0:2180:U:H3'	1.91	0.69
1:AA:1186:G:H5''	10:AI:121:ARG:O	1.92	0.69
41:BQ:28:LYS:H	41:BQ:70:LYS:HD2	1.57	0.69
1:AA:1518:A:H2'	1:AA:1519:A:C8	2.27	0.69
22:B0:1835:G:H1'	22:B0:1931:U:H3	1.57	0.69
22:B0:840:C:H2'	22:B0:841:G:C8	2.27	0.69
32:BG:81:LYS:HA	32:BG:81:LYS:HE2	1.74	0.69
22:B0:1669:A:H2'	22:B0:1669:A:N3	2.06	0.69
13:AL:113:ARG:NH1	13:AL:120:ARG:HG3	2.07	0.69
28:BC:164:LEU:HB2	28:BC:167:VAL:HG21	1.75	0.69
22:B0:2728:U:H2'	22:B0:2729:G:C8	2.27	0.69
22:B0:960:A:H3'	22:B0:2496:C:C3'	2.21	0.69
42:BR:42:GLU:HG2	42:BR:43:ILE:HG12	1.72	0.69
1:AA:1067:A:N6	1:AA:1109:C:H5'	2.07	0.69
23:B9:84:G:C2'	23:B9:85:G:H5''	2.22	0.69
22:B0:1837:C:O2'	22:B0:1838:C:H5'	1.91	0.69
1:AA:701:U:O2'	1:AA:702:A:OP2	2.07	0.69
32:BG:56:VAL:HG12	32:BG:70:THR:HA	1.73	0.69
29:BD:151:LEU:HD13	29:BD:152:ASP:N	2.07	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:35:G:O4'	22:B0:454:A:H1'	1.91	0.69
22:B0:672:C:OP1	28:BC:65:THR:HG22	1.91	0.69
22:B0:2164:C:H5''	22:B0:2165:C:OP1	1.91	0.69
21:AT:60:GLN:HA	21:AT:65:LEU:HD12	1.73	0.69
24:B2:29:LEU:HD21	24:B2:41:VAL:HG11	1.75	0.69
35:BJ:111:ILE:HD13	35:BJ:111:ILE:H	1.57	0.69
22:B0:372:G:O6	31:BF:22:LYS:HG2	1.91	0.69
1:AA:21:G:H1'	1:AA:914:A:N6	2.06	0.69
16:AO:13:GLU:HG3	16:AO:14:PHE:CD1	2.28	0.69
22:B0:2345:G:H4'	22:B0:2346:A:O5'	1.91	0.69
22:B0:1141:U:H4'	22:B0:1142:A:O4'	1.93	0.69
9:AH:77:VAL:HG13	9:AH:84:ILE:HD11	1.74	0.69
40:BO:102:LYS:H	40:BO:102:LYS:HE3	1.56	0.69
9:AH:107:LYS:HG2	9:AH:120:LEU:HD22	1.74	0.69
3:AB:216:VAL:O	3:AB:220:VAL:HG23	1.93	0.69
26:BA:100:ARG:O	26:BA:101:ARG:HG3	1.91	0.69
22:B0:1490:C:H2'	26:BA:174:ARG:HB2	1.73	0.69
1:AA:419:C:H5''	1:AA:540:G:N3	2.07	0.69
22:B0:600:G:H1'	28:BC:99:LYS:HB3	1.74	0.69
22:B0:493:G:C8	41:BQ:9:HIS:HB2	2.27	0.69
1:AA:980:C:C6	20:AS:5:LYS:HD3	2.28	0.69
1:AA:144:G:H2'	1:AA:145:G:H8	1.57	0.69
24:B2:29:LEU:HD22	24:B2:213:ILE:HD11	1.75	0.69
1:AA:560:A:O2'	1:AA:561:U:OP2	2.06	0.69
1:AA:1088:G:H2'	1:AA:1089:G:H8	1.56	0.69
22:B0:2811:G:H1	22:B0:2889:C:H42	1.41	0.69
33:BH:45:THR:HB	33:BH:46:PRO:CA	2.23	0.69
45:BU:43:LYS:H	45:BU:43:LYS:CE	2.04	0.69
40:BO:63:ARG:HH11	40:BO:63:ARG:HB3	1.57	0.69
2:AU:75:C:O4'	22:B0:2557:G:H3'	1.92	0.69
1:AA:992:U:H4'	1:AA:993:G:O5'	1.92	0.69
26:BA:241:LYS:O	26:BA:243:PRO:HD2	1.90	0.69
22:B0:1275:A:H4'	22:B0:1276:A:O5'	1.93	0.69
22:B0:1427:A:N6	26:BA:58:LYS:HE3	2.07	0.69
28:BC:145:ASP:O	28:BC:148:ILE:HB	1.93	0.69
2:AV:16:U:H4'	2:AV:18:G:OP2	1.92	0.69
39:BN:28:LYS:H	39:BN:28:LYS:HD3	1.56	0.69
46:BW:40:SER:HA	46:BW:43:LEU:HG	1.74	0.69
34:BI:52:VAL:HG22	34:BI:56:ASP:OD1	1.92	0.69
25:B3:78:LEU:HB3	25:B3:82:GLU:HB3	1.74	0.69
22:B0:2472:G:N2	22:B0:2478:A:H62	1.90	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:50:A:O2'	1:AA:51:A:OP2	2.08	0.69
22:B0:1487:G:O2'	26:BA:198:GLU:HG3	1.93	0.69
1:AA:545:C:C2'	1:AA:548:G:HO2'	2.06	0.69
40:BO:42:GLY:O	40:BO:46:TYR:HA	1.92	0.69
40:BO:5:ARG:HG3	40:BO:8:ILE:O	1.93	0.69
1:AA:1349:A:H1'	1:AA:1374:A:N6	2.07	0.69
4:AC:4:VAL:HG11	4:AC:9:ILE:HD12	1.75	0.69
34:BI:24:VAL:HA	34:BI:39:ILE:HG22	1.73	0.69
29:BD:87:LYS:HD3	29:BD:87:LYS:O	1.93	0.69
22:B0:873:C:H4'	36:BK:64:TRP:HZ3	1.58	0.69
29:BD:160:LYS:H	29:BD:160:LYS:HD2	1.58	0.69
35:BJ:63:LYS:N	35:BJ:63:LYS:HD2	2.08	0.69
40:BO:21:LYS:N	40:BO:21:LYS:HD2	2.08	0.69
38:BM:79:ALA:HB1	38:BM:115:LEU:HD23	1.74	0.69
3:AB:186:VAL:HG22	3:AB:187:ASP:H	1.57	0.69
10:AI:8:THR:HB	10:AI:84:ARG:NH1	2.08	0.69
24:B2:14:VAL:HG22	24:B2:28:LEU:HD21	1.75	0.69
35:BJ:36:LYS:HG2	35:BJ:38:GLN:HG2	1.74	0.69
22:B0:124:G:H21	22:B0:126:A:H5'	1.57	0.69
10:AI:43:ALA:O	10:AI:46:VAL:HG12	1.92	0.69
22:B0:2899:A:H61	33:BH:137:PRO:N	1.90	0.69
1:AA:1221:G:C2	20:AS:1:PRO:HB2	2.28	0.69
22:B0:1480:G:H1	22:B0:1511:G:H1	1.39	0.69
27:BB:58:ASN:HA	27:BB:61:THR:HG22	1.74	0.69
15:AN:40:ARG:HD2	20:AS:17:LYS:HE2	1.75	0.69
22:B0:1996:C:C4	27:BB:138:LEU:HG	2.28	0.69
40:BO:2:ARG:NH1	40:BO:3:VAL:HG12	2.07	0.69
10:AI:117:LEU:HA	10:AI:124:PRO:HD3	1.74	0.69
27:BB:120:GLY:O	27:BB:124:ARG:HG3	1.93	0.69
42:BR:34:VAL:HG22	42:BR:82:LYS:HA	1.74	0.69
22:B0:2142:A:C2'	22:B0:2143:C:H5'	2.23	0.69
22:B0:2227:A:C2'	22:B0:2228:G:H5'	2.23	0.69
13:AL:30:ARG:NH1	13:AL:30:ARG:HB2	2.08	0.69
1:AA:1157:A:H5'	1:AA:1158:C:C6	2.28	0.69
24:B2:49:ILE:H	24:B2:49:ILE:HD13	1.56	0.69
22:B0:1494:A:C5	26:BA:131:MET:HA	2.27	0.68
22:B0:1581:A:H61	26:BA:99:GLU:CG	2.06	0.68
1:AA:419:C:H6	1:AA:540:G:HO2'	1.40	0.68
25:B3:96:GLU:CA	25:B5:8:ILE:HG23	2.23	0.68
40:BO:16:ILE:C	40:BO:18:LYS:H	1.96	0.68
22:B0:2163:G:H21	22:B0:2164:C:H2'	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:312:G:H4'	22:B0:331:C:C4	2.28	0.68
2:AU:16:U:O2'	2:AU:17:U:H5''	1.91	0.68
39:BN:86:LYS:HG3	39:BN:87:ARG:H	1.56	0.68
42:BR:9:LYS:HE3	46:BW:25:GLN:NE2	2.08	0.68
1:AA:1065:U:H1'	1:AA:1066:C:H5	1.56	0.68
22:B0:2321:U:O2	22:B0:2321:U:H2'	1.92	0.68
22:B0:2478:A:H4'	22:B0:2528:U:H5''	1.75	0.68
23:B9:72:G:H1	23:B9:104:A:H2	1.40	0.68
23:B9:76:G:N2	23:B9:100:G:H22	1.90	0.68
22:B0:1492:G:P	26:BA:175:LEU:HD13	2.33	0.68
33:BH:25:LEU:HD13	33:BH:25:LEU:H	1.56	0.68
1:AA:244:U:H1'	1:AA:894:G:C1'	2.15	0.68
28:BC:114:ARG:HB3	28:BC:117:ARG:HG3	1.73	0.68
40:BO:14:LYS:C	40:BO:16:ILE:H	1.96	0.68
22:B0:58:G:N2	22:B0:70:G:H1'	2.08	0.68
22:B0:2145:C:H2'	22:B0:2146:C:H5''	1.74	0.68
38:BM:35:ILE:HD13	38:BM:36:TYR:N	2.08	0.68
22:B0:1582:C:H3'	26:BA:96:LYS:HD2	1.75	0.68
1:AA:419:C:O2'	5:AD:39:GLN:CB	2.41	0.68
25:B3:96:GLU:CB	25:B5:8:ILE:HG23	2.23	0.68
22:B0:657:U:H2'	22:B0:658:U:C6	2.28	0.68
22:B0:2127:G:O2'	22:B0:2165:C:O2'	2.01	0.68
22:B0:960:A:O3'	22:B0:2496:C:C6	2.46	0.68
27:BB:13:ARG:CD	39:BN:10:GLU:HG3	2.22	0.68
22:B0:1758:U:N3	22:B0:2695:U:H4'	2.04	0.68
22:B0:2266:A:H1'	22:B0:2272:U:N3	2.08	0.68
22:B0:574:A:O2'	22:B0:2055:C:H5	1.71	0.68
1:AA:912:C:H2'	1:AA:913:A:H5'	1.75	0.68
22:B0:2360:G:H1'	35:BJ:60:ARG:NH2	2.08	0.68
1:AA:1157:A:H5''	1:AA:1158:C:OP1	1.93	0.68
1:AA:50:A:N6	1:AA:361:G:H4'	2.08	0.68
36:BK:112:LEU:H	36:BK:112:LEU:HD13	1.58	0.68
17:AP:2:VAL:HG13	17:AP:65:ALA:HA	1.74	0.68
9:AH:34:ALA:HB1	9:AH:109:VAL:HG11	1.74	0.68
23:B9:13:G:H4'	23:B9:15:A:H62	1.56	0.68
22:B0:1419:A:H62	22:B0:1579:A:H61	1.41	0.68
25:B3:107:LYS:HD2	25:B3:119:VAL:HG23	1.75	0.68
22:B0:1196:C:H2'	22:B0:1197:G:H8	1.58	0.68
1:AA:1285:A:O2'	1:AA:1286:U:H5''	1.94	0.68
29:BD:111:ARG:HH22	29:BD:134:GLN:CG	2.06	0.68
1:AA:563:A:H1'	1:AA:566:G:O2'	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:2262:U:H1'	45:BU:10:ARG:NH1	2.07	0.68
1:AA:617:G:H4'	17:AP:14:ARG:NH2	2.08	0.68
19:AR:7:ARG:HB2	19:AR:7:ARG:NH1	2.08	0.68
1:AA:817:C:H5''	1:AA:818:G:OP1	1.94	0.68
22:B0:827:U:H5'	22:B0:828:U:C5	2.27	0.68
33:BH:44:TYR:CE2	33:BH:46:PRO:HB3	2.27	0.68
26:BA:62:ARG:HE	26:BA:150:GLY:C	1.97	0.68
22:B0:487:C:H4'	41:BQ:53:SER:HB2	1.74	0.68
24:B2:7:MET:O	24:B2:11:ARG:HG2	1.93	0.68
39:BN:24:THR:HA	39:BN:49:ILE:HG12	1.75	0.68
39:BN:71:ARG:O	39:BN:72:VAL:HB	1.94	0.68
22:B0:405:U:H5''	22:B0:406:G:OP2	1.93	0.68
23:B9:56:G:H4'	23:B9:57:A:C8	2.28	0.68
1:AA:1117:A:H2'	1:AA:1118:U:H5'	1.76	0.68
31:BF:15:LEU:HB3	31:BF:51:ARG:HH22	1.57	0.68
22:B0:1495:A:N6	26:BA:142:ASN:ND2	2.42	0.68
26:BA:163:ILE:HG13	26:BA:173:LEU:HD21	1.76	0.68
5:AD:60:VAL:HG13	5:AD:194:ILE:HD13	1.76	0.68
33:BH:55:ILE:CD1	33:BH:56:VAL:H	2.07	0.68
22:B0:1321:A:H61	22:B0:1334:G:H1'	1.58	0.68
28:BC:143:LEU:HB3	28:BC:146:VAL:CG2	2.24	0.68
28:BC:143:LEU:HB3	28:BC:146:VAL:HG23	1.76	0.68
28:BC:78:TRP:CD1	28:BC:79:ARG:HG3	2.29	0.68
41:BQ:88:ARG:H	41:BQ:88:ARG:NE	1.91	0.68
22:B0:2136:G:H2'	22:B0:2137:U:C5'	2.20	0.68
22:B0:2161:C:H1'	22:B0:2162:G:C4'	2.24	0.68
39:BN:59:THR:HG23	39:BN:76:HIS:HA	1.75	0.68
22:B0:1039:A:H2'	22:B0:1040:A:H8	1.58	0.68
22:B0:611:C:N4	22:B0:618:G:N2	2.41	0.68
23:B9:78:A:H61	23:B9:98:G:C2'	2.05	0.68
30:BE:148:ARG:NH2	30:BE:168:VAL:HG12	2.08	0.68
26:BA:198:GLU:HG2	26:BA:201:LEU:HD12	1.76	0.68
28:BC:44:ARG:HA	28:BC:89:PRO:O	1.93	0.68
41:BQ:35:ILE:HD13	41:BQ:36:LEU:H	1.56	0.68
22:B0:2165:C:N4	22:B0:2172:U:O2'	2.27	0.68
37:BL:36:THR:OG1	37:BL:40:LYS:HB2	1.94	0.68
21:AT:55:PRO:O	21:AT:59:ARG:HG3	1.92	0.68
8:AG:149:ALA:CB	12:AK:60:PHE:HB2	2.24	0.68
39:BN:105:LYS:HA	39:BN:105:LYS:HZ1	1.58	0.68
5:AD:166:LYS:HG2	5:AD:172:VAL:HG22	1.75	0.68
1:AA:814:A:H4'	1:AA:1511:G:H4'	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:854:C:H2'	22:B0:855:G:H8	1.59	0.68
32:BG:33:ASN:ND2	32:BG:34:ILE:H	1.91	0.68
22:B0:904:G:H2'	22:B0:905:A:H8	1.57	0.68
32:BG:71:LYS:HG3	32:BG:72:THR:H	1.58	0.68
1:AA:1479:C:H2'	1:AA:1480:A:H8	1.58	0.68
1:AA:419:C:C5'	1:AA:540:G:N3	2.56	0.68
22:B0:528:A:N6	22:B0:2042:A:H2'	2.09	0.68
35:BJ:21:ARG:HD2	35:BJ:22:GLY:H	1.59	0.68
41:BQ:18:ARG:C	41:BQ:20:VAL:H	1.97	0.68
22:B0:2123:G:H4'	22:B0:2124:G:C4'	2.24	0.68
29:BD:109:ARG:HA	29:BD:109:ARG:HE	1.59	0.68
41:BQ:69:LEU:O	41:BQ:69:LEU:HD12	1.94	0.68
22:B0:2261:C:H2'	22:B0:2262:U:C6	2.27	0.68
22:B0:2262:U:O2'	45:BU:10:ARG:HB3	1.94	0.68
22:B0:2345:G:H1'	22:B0:2381:A:N3	2.09	0.68
36:BK:86:LYS:HE2	36:BK:86:LYS:HA	1.75	0.68
12:AK:113:THR:HG22	12:AK:115:ILE:HG13	1.75	0.68
5:AD:13:ARG:HH21	5:AD:37:PRO:HG2	1.58	0.68
13:AL:98:ARG:HB2	13:AL:116:TYR:HA	1.75	0.68
33:BH:55:ILE:HG12	33:BH:123:LYS:HB3	1.76	0.68
22:B0:655:A:H4'	22:B0:656:G:H5'	1.76	0.68
22:B0:2123:G:N3	22:B0:2123:G:H2'	2.09	0.68
22:B0:2161:C:H1'	22:B0:2162:G:O4'	1.94	0.68
22:B0:2136:G:O6	22:B0:2163:G:O4'	2.11	0.68
39:BN:64:SER:HA	39:BN:71:ARG:HG2	1.76	0.68
5:AD:151:GLN:HG3	5:AD:154:VAL:HG22	1.75	0.68
35:BJ:111:ILE:N	35:BJ:111:ILE:HD13	2.09	0.68
22:B0:918:A:H62	22:B0:2268:A:H8	1.42	0.68
45:BU:40:ARG:HB2	45:BU:40:ARG:HH11	1.59	0.68
1:AA:31:G:C5	1:AA:48:C:H5''	2.29	0.68
1:AA:610:U:H2'	1:AA:611:C:C6	2.27	0.68
22:B0:1014:A:H61	22:B0:1148:U:H3	1.41	0.68
26:BA:175:LEU:HD22	26:BA:179:GLU:HB3	1.76	0.68
22:B0:801:G:O2'	22:B0:802:A:OP1	2.12	0.68
22:B0:2120:G:O5'	22:B0:2121:G:OP1	2.11	0.68
37:BL:99:LYS:HB3	37:BL:99:LYS:HZ3	1.59	0.68
22:B0:2582:G:H2'	22:B0:2582:G:N3	2.08	0.68
22:B0:1060:U:H5''	22:B0:1061:U:OP1	1.94	0.68
34:BI:42:THR:HB	34:BI:57:VAL:HG12	1.75	0.68
22:B0:482:A:H1'	22:B0:498:G:N2	2.09	0.68
49:B1:10:LEU:HD12	49:B1:51:ALA:HA	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1497:U:H4'	26:BA:83:ASP:CG	2.15	0.67
26:BA:152:GLN:HG3	26:BA:152:GLN:O	1.94	0.67
22:B0:750:A:O2'	22:B0:751:A:C5'	2.41	0.67
22:B0:2154:A:N3	22:B0:2154:A:H2'	2.07	0.67
4:AC:148:ILE:HD13	4:AC:149:LYS:N	2.08	0.67
22:B0:1153:C:H2'	22:B0:1154:G:O4'	1.94	0.67
3:AB:23:ASN:HD22	3:AB:24:PRO:CD	2.06	0.67
22:B0:2345:G:H5''	22:B0:2346:A:OP1	1.94	0.67
49:B1:29:LYS:H	49:B1:29:LYS:HD2	1.59	0.67
22:B0:1772:A:O4'	22:B0:1786:A:H4'	1.94	0.67
22:B0:2871:U:H2'	22:B0:2872:A:H8	1.59	0.67
22:B0:1579:A:C8	26:BA:65:ASP:O	2.47	0.67
22:B0:1996:C:C5	27:BB:137:SER:C	2.66	0.67
33:BH:109:LEU:HB2	33:BH:110:PRO:C	2.14	0.67
22:B0:959:A:C8	36:BK:80:VAL:CG1	2.76	0.67
22:B0:962:G:H1'	22:B0:2497:A:OP2	1.94	0.67
45:BU:79:ILE:HD13	45:BU:80:SER:H	1.59	0.67
1:AA:1519:A:C2'	1:AA:1520:C:H5'	2.22	0.67
45:BU:36:ILE:HG23	45:BU:68:PHE:HB3	1.75	0.67
7:AF:51:ILE:HD13	7:AF:85:ILE:HG12	1.75	0.67
26:BA:123:ILE:H	26:BA:123:ILE:CD1	2.07	0.67
40:BO:21:LYS:H	40:BO:21:LYS:HD2	1.57	0.67
33:BH:96:ARG:HB3	33:BH:98:GLU:N	2.08	0.67
22:B0:2153:C:H5''	22:B0:2154:A:OP1	1.94	0.67
22:B0:479:A:H2'	22:B0:480:A:H4'	1.76	0.67
22:B0:120:U:H4'	22:B0:121:G:O5'	1.94	0.67
22:B0:1840:G:H1	22:B0:1903:G:H1'	1.59	0.67
3:AB:185:ILE:HG22	3:AB:199:ILE:HB	1.76	0.67
27:BB:142:VAL:HG12	27:BB:144:GLY:H	1.57	0.67
22:B0:223:A:H4'	22:B0:420:C:O2'	1.94	0.67
22:B0:2024:G:H1	22:B0:2039:U:H3	1.40	0.67
22:B0:1992:G:H22	27:BB:138:LEU:HD11	1.59	0.67
2:AV:18:G:C2'	2:AV:57:G:H22	2.05	0.67
2:AV:20:G:H2'	2:AV:21:A:H5''	1.75	0.67
34:BI:43:ILE:CD1	34:BI:53:LYS:HG3	2.24	0.67
1:AA:703:G:H5''	1:AA:704:A:OP1	1.94	0.67
6:AE:132:PRO:HG2	6:AE:133:ILE:HD12	1.75	0.67
22:B0:249:C:OP2	22:B0:2394:C:H4'	1.93	0.67
26:BA:130:PRO:HB2	26:BA:133:ASN:OD1	1.95	0.67
22:B0:1996:C:C2	27:BB:138:LEU:O	2.47	0.67
33:BH:139:VAL:C	33:BH:140:LEU:HD22	2.15	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BC:97:ASN:HB2	28:BC:100:MET:HB2	1.77	0.67
22:B0:307:G:H21	22:B0:330:A:N6	1.93	0.67
22:B0:2333:A:H4'	22:B0:2334:U:C5'	2.23	0.67
22:B0:856:G:H4'	45:BU:54:ARG:CD	2.24	0.67
16:AO:56:LEU:HB3	16:AO:57:ARG:NH1	2.09	0.67
22:B0:1128:G:H1'	22:B0:2517:C:H5'	1.77	0.67
24:B2:30:LYS:HA	24:B2:177:VAL:HG23	1.75	0.67
49:B1:26:LYS:CG	49:B1:28:THR:HG22	2.24	0.67
22:B0:1495:A:C5'	26:BA:191:LEU:HB2	2.24	0.67
1:AA:430:A:H1'	1:AA:431:A:C5	2.29	0.67
1:AA:419:C:C4'	1:AA:541:G:O2'	2.43	0.67
22:B0:1199:U:H3	22:B0:1246:A:H2	1.40	0.67
22:B0:589:U:P	28:BC:44:ARG:N	2.68	0.67
22:B0:490:C:O2'	22:B0:491:G:OP1	2.12	0.67
22:B0:2498:C:H2'	22:B0:2499:C:H5'	1.76	0.67
4:AC:110:LEU:HG	4:AC:143:LEU:HD23	1.76	0.67
34:BI:22:ILE:HD11	34:BI:42:THR:HG22	1.77	0.67
1:AA:702:A:N6	22:B0:1847:A:H3'	2.09	0.67
1:AA:150:U:H3	1:AA:171:A:N6	1.91	0.67
1:AA:992:U:O2'	1:AA:993:G:OP2	2.12	0.67
30:BE:40:VAL:HB	30:BE:53:PRO:HG3	1.77	0.67
22:B0:1582:C:C2	26:BA:96:LYS:HB2	2.30	0.67
28:BC:96:VAL:HG22	28:BC:97:ASN:HD21	1.59	0.67
22:B0:2678:C:O4'	27:BB:125:TRP:CD1	2.47	0.67
26:BA:241:LYS:HG2	26:BA:242:HIS:H	1.59	0.67
22:B0:1580:A:C1'	26:BA:69:ASN:H	2.08	0.67
22:B0:1580:A:C4	26:BA:68:ARG:HA	2.30	0.67
22:B0:2780:G:H5''	22:B0:2781:A:OP2	1.94	0.67
33:BH:14:ASP:HB3	33:BH:15:TRP:HE3	1.58	0.67
25:B3:86:LEU:HD11	25:B3:93:ALA:O	1.94	0.67
28:BC:134:LEU:HD13	28:BC:137:LYS:NZ	2.09	0.67
22:B0:2161:C:O5'	22:B0:2162:G:OP1	2.11	0.67
10:AI:117:LEU:HD22	10:AI:123:ARG:HA	1.76	0.67
22:B0:503:A:O5'	22:B0:504:A:OP2	2.12	0.67
4:AC:106:ARG:HG2	4:AC:107:LYS:HD3	1.75	0.67
1:AA:449:G:H4'	1:AA:450:G:OP1	1.94	0.67
22:B0:829:A:H5'	22:B0:831:G:N7	2.10	0.67
9:AH:6:ILE:HB	9:AH:76:ARG:HH11	1.60	0.67
22:B0:589:U:H5''	28:BC:44:ARG:HD2	1.76	0.67
24:B2:104:LYS:NZ	24:B2:126:LEU:HD22	2.09	0.67
22:B0:2677:G:H2'	27:BB:125:TRP:CB	2.23	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:B2:45:VAL:HG12	24:B2:211:VAL:HG13	1.75	0.67
22:B0:72:U:O2'	46:BW:48:ARG:NH1	2.27	0.67
22:B0:2609:U:C2'	22:B0:2610:C:H5'	2.24	0.67
1:AA:189:A:H2'	1:AA:190:A:C4'	2.24	0.67
22:B0:2634:A:H61	22:B0:2784:U:H3	1.43	0.67
19:AR:41:SER:HA	19:AR:44:THR:HG22	1.75	0.67
22:B0:2484:G:H4'	36:BK:44:ARG:HD3	1.77	0.67
22:B0:1499:U:H1'	26:BA:155:ARG:HH11	1.59	0.67
26:BA:144:GLU:OE1	26:BA:188:ARG:HD2	1.95	0.67
22:B0:1310:G:H2'	22:B0:1311:G:H5'	1.77	0.67
22:B0:659:G:H21	28:BC:97:ASN:HB3	1.60	0.67
22:B0:776:G:N2	22:B0:793:A:H62	1.92	0.67
28:BC:31:VAL:HG12	35:BJ:17:LYS:HB3	1.75	0.67
28:BC:48:THR:HG23	28:BC:49:ARG:N	2.09	0.67
40:BO:4:LYS:HE2	40:BO:5:ARG:H	1.60	0.67
41:BQ:88:ARG:NH1	41:BQ:92:ARG:HB3	2.09	0.67
45:BU:43:LYS:NZ	45:BU:43:LYS:H	1.91	0.67
25:B5:46:GLU:C	25:B5:50:GLU:HG2	2.14	0.67
22:B0:857:G:H4'	45:BU:71:LYS:NZ	2.10	0.67
29:BD:69:ALA:HB2	29:BD:84:ILE:HD11	1.76	0.67
22:B0:1496:A:C2	22:B0:1498:C:N4	2.62	0.66
22:B0:1579:A:C4	26:BA:67:LYS:N	2.48	0.66
22:B0:776:G:O2'	22:B0:777:G:H5'	1.95	0.66
28:BC:186:VAL:HG22	28:BC:187:VAL:N	2.07	0.66
1:AA:107:G:H3'	1:AA:108:G:N2	2.06	0.66
22:B0:1803:A:N6	22:B0:1814:G:N2	2.43	0.66
22:B0:2787:C:O2'	22:B0:2811:G:H1'	1.94	0.66
30:BE:154:GLU:HB2	30:BE:155:PRO:HD3	1.77	0.66
1:AA:757:U:H2'	1:AA:758:C:O4'	1.95	0.66
35:BJ:78:ARG:NH1	35:BJ:78:ARG:HB3	2.09	0.66
22:B0:1584:U:O2	26:BA:76:VAL:HG21	1.95	0.66
26:BA:67:LYS:HZ2	26:BA:188:ARG:NH2	1.91	0.66
40:BO:2:ARG:N	40:BO:2:ARG:NE	2.44	0.66
22:B0:492:A:H3'	41:BQ:9:HIS:CA	2.17	0.66
22:B0:2167:U:O4	22:B0:2170:A:N7	2.27	0.66
22:B0:958:U:H5	36:BK:82:MET:N	1.92	0.66
46:BW:44:LYS:CE	46:BW:48:ARG:HH21	2.08	0.66
37:BL:42:LYS:HD3	37:BL:43:GLU:N	2.11	0.66
22:B0:2144:G:C2'	22:B0:2145:C:H5''	2.23	0.66
38:BM:37:ALA:HB3	38:BM:78:VAL:HG21	1.77	0.66
1:AA:292:G:H1'	1:AA:608:A:H61	1.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AN:81:ILE:HD12	15:AN:82:LYS:HG2	1.77	0.66
1:AA:420:U:OP1	1:AA:512:U:H1'	1.94	0.66
1:AA:512:U:H2'	1:AA:513:C:C6	2.29	0.66
22:B0:2897:U:O2'	33:BH:16:TYR:HA	1.95	0.66
22:B0:2542:A:H5''	22:B0:2543:G:OP1	1.95	0.66
22:B0:958:U:H2'	36:BK:79:ALA:C	2.15	0.66
1:AA:1099:G:C2	1:AA:1100:C:H1'	2.30	0.66
22:B0:2478:A:H4'	22:B0:2528:U:H4'	1.76	0.66
30:BE:97:VAL:HA	30:BE:102:ILE:HG22	1.77	0.66
22:B0:1444:A:H3'	22:B0:1445:U:C5'	2.24	0.66
22:B0:731:C:H2'	22:B0:732:C:H6	1.61	0.66
26:BA:63:ILE:N	26:BA:63:ILE:HD12	2.10	0.66
1:AA:407:U:OP1	5:AD:5:GLY:HA2	1.95	0.66
33:BH:35:ARG:CZ	33:BH:39:LYS:HE2	2.26	0.66
22:B0:1201:U:H2'	35:BJ:14:LYS:CE	2.25	0.66
22:B0:1322:A:H5''	41:BQ:82:MET:SD	2.36	0.66
22:B0:2121:G:H1'	22:B0:2122:U:C5	2.29	0.66
1:AA:1385:G:H2'	10:AI:128:LYS:NZ	2.09	0.66
2:AU:18:G:C2'	2:AU:57:G:H22	2.08	0.66
14:AM:16:ILE:HG12	14:AM:19:THR:HB	1.76	0.66
1:AA:1336:C:H5'	1:AA:1337:G:OP1	1.95	0.66
40:BO:57:ARG:HH21	40:BO:91:ARG:HH22	1.42	0.66
42:BR:16:VAL:HG12	42:BR:17:SER:N	2.09	0.66
4:AC:54:ILE:N	4:AC:54:ILE:HD13	2.11	0.66
1:AA:889:A:N1	1:AA:907:A:H5''	2.10	0.66
38:BM:8:ILE:H	38:BM:8:ILE:HD12	1.61	0.66
3:AB:46:VAL:HB	3:AB:47:PRO:HD3	1.76	0.66
22:B0:1496:A:O5'	26:BA:190:THR:HG23	1.95	0.66
1:AA:429:U:C5	1:AA:431:A:OP2	2.49	0.66
28:BC:32:VAL:CB	35:BJ:17:LYS:HD3	2.25	0.66
22:B0:2124:G:H2'	22:B0:2125:G:C5'	2.20	0.66
22:B0:2391:G:N2	22:B0:2427:C:H4'	2.11	0.66
39:BN:30:TRP:HZ3	39:BN:85:VAL:HB	1.61	0.66
39:BN:88:ARG:H	39:BN:88:ARG:NH1	1.93	0.66
22:B0:2296:U:H5''	22:B0:2297:A:OP1	1.95	0.66
16:AO:56:LEU:HD23	22:B0:715:A:N7	2.10	0.66
1:AA:383:A:H5''	1:AA:455:G:OP1	1.96	0.66
22:B0:2192:U:H2'	22:B0:2193:G:H8	1.59	0.66
42:BR:72:GLN:HA	42:BR:72:GLN:HE21	1.59	0.66
22:B0:1580:A:O2'	22:B0:1581:A:H5'	1.95	0.66
22:B0:1578:U:H5''	26:BA:101:ARG:CZ	2.25	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BH:16:TYR:O	33:BH:17:VAL:CG1	2.41	0.66
22:B0:959:A:O2'	22:B0:2495:G:O2'	2.13	0.66
22:B0:1455:U:H2'	37:BL:63:ARG:HD3	1.78	0.66
1:AA:1302:C:C5'	14:AM:16:ILE:HG13	2.25	0.66
1:AA:1130:A:H5''	10:AI:17:ARG:NH1	2.11	0.66
6:AE:25:LYS:HA	6:AE:25:LYS:HE3	1.77	0.66
8:AG:148:LYS:HG2	12:AK:60:PHE:HE1	1.59	0.66
30:BE:25:ILE:HD13	30:BE:26:LYS:N	2.09	0.66
22:B0:2286:G:H1	49:B1:35:LEU:CD1	2.09	0.66
22:B0:2096:C:H2'	22:B0:2097:A:H8	1.61	0.66
36:BK:126:ILE:HD13	36:BK:127:LYS:N	2.09	0.66
22:B0:1499:U:H3	22:B0:1500:A:N6	1.93	0.66
22:B0:1578:U:HO2'	26:BA:65:ASP:C	1.99	0.66
22:B0:529:A:H5''	22:B0:530:G:OP1	1.95	0.66
22:B0:2895:C:H41	33:BH:13:ARG:NH1	1.94	0.66
28:BC:63:LYS:HB2	28:BC:63:LYS:NZ	2.11	0.66
22:B0:2128:G:O5'	22:B0:2165:C:H3'	1.94	0.66
22:B0:304:U:H3	22:B0:313:G:H1	1.43	0.66
1:AA:1360:A:N1	20:AS:6:LYS:HE3	2.11	0.66
42:BR:12:ARG:HB2	42:BR:33:LYS:HB2	1.78	0.66
22:B0:1040:A:H2	22:B0:1115:G:H1	1.44	0.66
32:BG:133:ARG:CG	32:BG:137:LEU:HB3	2.24	0.66
1:AA:274:A:H5''	1:AA:275:G:OP1	1.96	0.66
22:B0:523:C:O2'	22:B0:555:U:H5'	1.95	0.66
22:B0:204:A:O2'	22:B0:205:G:H1'	1.96	0.66
24:B2:28:LEU:O	24:B2:32:LEU:HG	1.96	0.66
7:AF:47:LEU:HD11	7:AF:57:ALA:HB2	1.77	0.66
34:BI:19:VAL:HG22	34:BI:43:ILE:HG22	1.76	0.66
7:AF:22:ILE:O	7:AF:22:ILE:HD13	1.96	0.66
19:AR:11:ARG:HD3	19:AR:46:THR:HG22	1.78	0.66
32:BG:50:LYS:HD2	32:BG:51:GLY:N	2.11	0.66
44:BT:88:HIS:C	44:BT:89:ILE:HD12	2.16	0.66
29:BD:25:MET:HG2	29:BD:26:GLN:HG3	1.77	0.66
1:AA:952:U:H2'	1:AA:953:G:H8	1.60	0.66
1:AA:406:G:H2'	1:AA:407:U:C6	2.31	0.66
1:AA:418:C:C3'	1:AA:541:G:H8	2.09	0.66
33:BH:17:VAL:HG23	33:BH:18:VAL:N	2.10	0.66
4:AC:112:ALA:HB1	4:AC:184:ASN:ND2	2.10	0.66
22:B0:891:G:N3	22:B0:891:G:H3'	2.11	0.66
22:B0:65:U:H5''	42:BR:74:ILE:CG1	2.25	0.66
36:BK:6:ARG:H	36:BK:71:LYS:HG3	1.61	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1698:A:H4'	22:B0:1699:G:O5'	1.95	0.66
27:BB:110:THR:HG22	27:BB:202:ILE:HD11	1.78	0.66
22:B0:846:U:O2'	22:B0:848:C:O4'	2.14	0.66
43:BS:5:ARG:HB2	43:BS:8:ASP:OD2	1.94	0.66
24:B2:59:ARG:CZ	24:B2:163:ARG:HD2	2.26	0.66
2:AV:47:U:N3	2:AV:50:U:H5''	2.11	0.66
22:B0:1668:A:H61	22:B0:1676:A:N6	1.94	0.66
1:AA:405:U:H3'	1:AA:406:G:H5'	1.78	0.66
1:AA:419:C:C2'	5:AD:39:GLN:CG	2.74	0.66
1:AA:547:A:H4'	1:AA:548:G:O4'	1.96	0.66
22:B0:586:A:H5''	28:BC:79:ARG:H	1.61	0.66
22:B0:1246:A:H5''	35:BJ:26:GLY:N	2.11	0.66
40:BO:43:GLN:O	40:BO:45:ALA:N	2.28	0.66
41:BQ:11:ARG:N	41:BQ:11:ARG:NE	2.43	0.66
1:AA:1347:G:O4'	1:AA:1347:G:OP2	2.14	0.66
4:AC:137:VAL:HA	4:AC:148:ILE:HD12	1.78	0.66
46:BW:42:LEU:H	46:BW:42:LEU:HD13	1.59	0.66
2:AU:74:C:H3'	22:B0:2557:G:O4'	1.96	0.66
27:BB:5:VAL:HG22	27:BB:202:ILE:HG22	1.78	0.66
16:AO:56:LEU:HD12	16:AO:57:ARG:HD3	1.78	0.66
22:B0:712:G:H2'	22:B0:713:G:C8	2.30	0.66
34:BI:17:ARG:HE	34:BI:17:ARG:HA	1.61	0.66
1:AA:410:G:H2'	1:AA:410:G:N3	2.11	0.66
13:AL:41:PRO:HD2	13:AL:47:ALA:H	1.59	0.66
29:BD:174:PHE:HB3	29:BD:175:PRO:HA	1.78	0.66
22:B0:1990:C:H2'	22:B0:1991:U:C6	2.31	0.65
22:B0:807:U:H2'	22:B0:808:G:C8	2.31	0.65
40:BO:30:VAL:HB	40:BO:33:VAL:HG22	1.77	0.65
22:B0:494:G:O4'	41:BQ:7:HIS:O	2.14	0.65
2:AW:18:G:H5''	2:AW:60:C:C2	2.31	0.65
39:BN:62:LYS:HZ3	39:BN:62:LYS:HA	1.58	0.65
37:BL:113:ILE:O	37:BL:114:GLU:HG2	1.96	0.65
1:AA:1404:C:O2'	1:AA:1519:A:H4'	1.96	0.65
1:AA:1169:A:H2'	1:AA:1171:A:O4'	1.95	0.65
1:AA:266:G:H5'	1:AA:267:C:OP1	1.94	0.65
22:B0:764:A:O2'	22:B0:765:C:OP1	2.14	0.65
41:BQ:5:ALA:N	41:BQ:54:ALA:HA	2.11	0.65
45:BU:28:GLU:OE2	45:BU:61:LYS:HE2	1.96	0.65
5:AD:141:VAL:HG12	5:AD:180:THR:HG22	1.78	0.65
28:BC:178:VAL:HG13	28:BC:179:SER:N	2.08	0.65
22:B0:800:A:C8	28:BC:56:GLY:N	2.65	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AV:20:G:H3'	2:AV:21:A:C5'	2.26	0.65
42:BR:12:ARG:NH1	42:BR:12:ARG:HB3	2.11	0.65
22:B0:120:U:O2'	22:B0:121:G:OP2	2.11	0.65
22:B0:51:G:H1'	22:B0:118:A:H62	1.61	0.65
33:BH:114:LEU:CD1	33:BH:114:LEU:H	2.08	0.65
1:AA:370:C:O2'	1:AA:484:G:H5''	1.96	0.65
31:BF:29:PHE:O	31:BF:33:GLN:HG2	1.96	0.65
27:BB:177:VAL:HG13	27:BB:187:LEU:HD11	1.78	0.65
22:B0:196:A:N3	22:B0:196:A:H2'	2.11	0.65
22:B0:1495:A:N1	26:BA:64:VAL:HG13	2.11	0.65
1:AA:432:A:H2'	1:AA:433:G:O4'	1.96	0.65
28:BC:79:ARG:O	28:BC:79:ARG:HD2	1.96	0.65
41:BQ:11:ARG:H	41:BQ:11:ARG:NE	1.93	0.65
22:B0:2438:U:C5'	22:B0:2600:A:H4'	2.26	0.65
1:AA:1237:C:C2'	1:AA:1334:G:H1'	2.27	0.65
34:BI:41:ILE:H	34:BI:41:ILE:HD13	1.59	0.65
1:AA:1239:A:H5'	1:AA:1240:U:OP1	1.96	0.65
22:B0:1300:G:O2'	22:B0:1301:A:OP2	2.12	0.65
22:B0:841:G:N1	22:B0:938:G:N2	2.44	0.65
22:B0:596:U:H2'	22:B0:597:G:C8	2.31	0.65
22:B0:2885:G:H2'	22:B0:2886:A:O4'	1.96	0.65
22:B0:1143:A:H5''	22:B0:1144:A:OP2	1.97	0.65
37:BL:17:ARG:C	37:BL:17:ARG:HE	2.00	0.65
1:AA:407:U:H4'	5:AD:4:LEU:HD11	1.78	0.65
13:AL:106:VAL:HG23	13:AL:116:TYR:HB3	1.77	0.65
22:B0:204:A:H5''	22:B0:205:G:OP1	1.95	0.65
28:BC:74:LYS:NZ	28:BC:74:LYS:HB2	2.11	0.65
40:BO:27:ARG:HE	40:BO:33:VAL:CB	2.05	0.65
22:B0:2161:C:H1'	22:B0:2162:G:H1'	1.78	0.65
22:B0:961:C:H3'	22:B0:2497:A:H4'	1.78	0.65
46:BW:1:MET:HE1	46:BW:21:LEU:HD21	1.78	0.65
24:B2:41:VAL:HA	24:B2:215:THR:HA	1.78	0.65
22:B0:858:G:N3	22:B0:2268:A:H2'	2.10	0.65
10:AI:50:PRO:HB3	10:AI:83:THR:HG22	1.78	0.65
41:BQ:18:ARG:HG2	41:BQ:19:LEU:H	1.62	0.65
22:B0:27:G:H1'	22:B0:513:A:N6	2.11	0.65
42:BR:67:VAL:HG12	42:BR:68:LYS:N	2.08	0.65
22:B0:1046:A:H1'	25:B5:25:ALA:C	2.16	0.65
41:BQ:83:LYS:NZ	41:BQ:83:LYS:HB3	2.12	0.65
44:BT:29:ILE:HD13	44:BT:30:ILE:N	2.12	0.65
22:B0:2478:A:H4'	22:B0:2528:U:C5'	2.27	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1660:G:H2'	22:B0:1661:G:C8	2.31	0.65
12:AK:15:VAL:HB	12:AK:78:ILE:HG12	1.79	0.65
23:B9:97:C:H2'	23:B9:98:G:O4'	1.96	0.65
22:B0:2062:A:H2'	22:B0:2062:A:N3	2.11	0.65
16:AO:24:THR:HG21	16:AO:69:LEU:HB2	1.79	0.65
30:BE:18:ILE:HD13	30:BE:19:ASN:N	2.12	0.65
22:B0:1494:A:O5'	26:BA:173:LEU:HD22	1.96	0.65
22:B0:1495:A:H2	26:BA:65:ASP:HB2	1.58	0.65
22:B0:1583:G:C4	26:BA:96:LYS:HG2	2.31	0.65
22:B0:602:A:H1'	22:B0:656:G:N2	2.10	0.65
22:B0:589:U:H2'	28:BC:48:THR:HB	1.77	0.65
22:B0:2160:C:H5"	22:B0:2162:G:OP1	1.96	0.65
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.32	0.65
22:B0:478:A:H5'	43:BS:30:SER:CB	2.27	0.65
6:AE:155:LYS:HB3	9:AH:68:LYS:HZ2	1.61	0.65
4:AC:137:VAL:HG13	4:AC:148:ILE:HG23	1.76	0.65
22:B0:822:G:N2	22:B0:2357:G:H22	1.95	0.65
22:B0:1140:C:H4'	22:B0:1143:A:C5	2.31	0.65
28:BC:3:LEU:HD21	28:BC:113:VAL:HG12	1.78	0.65
33:BH:37:ARG:HD3	33:BH:37:ARG:N	2.12	0.65
6:AE:140:ILE:HD12	6:AE:141:ASP:N	2.12	0.65
14:AM:97:ARG:HH21	14:AM:108:ARG:HG3	1.62	0.65
22:B0:241:A:O3'	22:B0:242:G:H4'	1.97	0.65
22:B0:1500:A:N6	26:BA:156:SER:HA	2.11	0.65
26:BA:99:GLU:O	26:BA:100:ARG:HB3	1.96	0.65
28:BC:32:VAL:HB	35:BJ:17:LYS:NZ	2.11	0.65
28:BC:34:ALA:HB3	35:BJ:18:ARG:HB2	1.79	0.65
10:AI:113:LYS:HA	10:AI:120:ALA:HB2	1.77	0.65
1:AA:1139:G:H5'	1:AA:1140:C:OP1	1.97	0.65
22:B0:72:U:O4	22:B0:112:U:H1'	1.96	0.65
37:BL:42:LYS:HD3	37:BL:43:GLU:HG3	1.79	0.65
25:B3:46:GLU:HA	25:B3:47:ALA:HA	1.78	0.65
1:AA:960:U:O2'	1:AA:961:U:OP2	2.13	0.65
22:B0:848:C:H2'	22:B0:849:A:O4'	1.96	0.65
22:B0:1819:A:H1'	22:B0:1821:A:C5	2.30	0.65
26:BA:241:LYS:HG2	26:BA:242:HIS:N	2.11	0.65
45:BU:46:ALA:HB1	45:BU:76:ARG:H	1.59	0.65
22:B0:1532:U:H2'	22:B0:1533:C:C5	2.32	0.65
22:B0:1413:U:H2'	22:B0:1414:G:O4'	1.97	0.65
22:B0:1579:A:H8	26:BA:188:ARG:HD3	1.60	0.65
33:BH:96:ARG:CB	33:BH:97:PRO:HA	2.26	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BC:171:ASP:O	28:BC:175:ILE:HG23	1.96	0.65
22:B0:1047:G:H4'	25:B5:30:PHE:HE2	1.62	0.65
22:B0:2855:C:H2'	22:B0:2856:A:H5''	1.79	0.65
22:B0:2364:C:H2'	22:B0:2365:G:C8	2.30	0.65
1:AA:1305:G:N2	1:AA:1331:G:H2'	2.12	0.65
24:B2:54:SER:HA	24:B2:57:ASN:ND2	2.11	0.65
4:AC:27:GLU:HG3	4:AC:31:ASN:OD1	1.97	0.65
22:B0:1423:A:H2'	22:B0:1424:G:H8	1.62	0.65
22:B0:1490:C:H4'	26:BA:162:GLN:N	2.11	0.65
26:BA:171:VAL:HG22	26:BA:172:THR:N	2.10	0.65
33:BH:93:ILE:HD11	33:BH:96:ARG:HE	1.62	0.65
25:B3:90:ALA:N	25:B3:91:PRO:HD3	2.11	0.65
22:B0:2128:G:C5'	22:B0:2165:C:H3'	2.27	0.65
1:AA:979:C:H5'	20:AS:5:LYS:NZ	2.11	0.65
2:AV:16:U:O2'	2:AV:17:U:H5''	1.97	0.65
25:B5:57:ILE:HG12	25:B5:120:LYS:NZ	2.10	0.65
42:BR:74:ILE:HD12	42:BR:76:ARG:NH2	2.12	0.65
36:BK:6:ARG:HB3	36:BK:10:ARG:HH22	1.62	0.65
45:BU:66:VAL:HG22	45:BU:67:LYS:N	2.10	0.65
7:AF:10:VAL:HG11	7:AF:21:MET:SD	2.36	0.65
1:AA:1052:U:H2'	1:AA:1200:C:N4	2.12	0.65
1:AA:1148:U:P	10:AI:10:ARG:HH21	2.19	0.65
22:B0:2884:U:C6	48:BZ:51:ARG:HD3	2.32	0.65
1:AA:509:A:N3	1:AA:543:U:O2'	2.27	0.65
16:AO:46:LYS:HD2	16:AO:46:LYS:H	1.61	0.65
30:BE:157:LYS:HE2	30:BE:162:ARG:HG3	1.79	0.65
22:B0:663:G:H5''	28:BC:87:ALA:CB	2.27	0.65
28:BC:88:ARG:CZ	35:BJ:30:THR:HA	2.26	0.65
28:BC:90:GLN:HG2	35:BJ:27:LEU:HD12	1.77	0.65
41:BQ:102:HIS:HE2	41:BQ:104:THR:HG1	1.45	0.65
22:B0:836:G:O6	22:B0:943:A:H1'	1.96	0.65
37:BL:25:ALA:HA	37:BL:28:LEU:HD21	1.78	0.65
23:B9:32:U:H5''	29:BD:8:LYS:NZ	2.12	0.65
36:BK:40:ARG:HB3	36:BK:93:VAL:HG21	1.79	0.65
45:BU:39:GLN:HG2	45:BU:68:PHE:HA	1.78	0.65
1:AA:483:C:H5''	1:AA:484:G:O3'	1.97	0.65
41:BQ:12:SER:HB3	41:BQ:17:VAL:CG2	2.27	0.65
19:AR:7:ARG:H	19:AR:7:ARG:HH11	1.44	0.65
47:BX:21:ALA:HA	47:BX:24:LEU:HD12	1.77	0.65
22:B0:2058:A:O2'	22:B0:2059:A:OP1	2.15	0.65
22:B0:100:U:H5''	22:B0:102:U:OP2	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:545:C:C4'	1:AA:549:C:C4'	2.47	0.64
22:B0:675:A:H1'	22:B0:2443:C:O2'	1.96	0.64
28:BC:193:VAL:O	28:BC:197:GLU:HG3	1.97	0.64
22:B0:670:A:H1'	28:BC:74:LYS:HG2	1.78	0.64
22:B0:488:G:H1'	22:B0:493:G:O6	1.97	0.64
22:B0:2138:G:H4'	22:B0:2139:U:O5'	1.97	0.64
22:B0:2150:C:H5''	22:B0:2151:U:OP1	1.97	0.64
22:B0:2450:A:C5'	22:B0:2497:A:H62	2.10	0.64
22:B0:603:A:H4'	22:B0:604:G:C4'	2.27	0.64
8:AG:108:ARG:HA	8:AG:118:ARG:CZ	2.27	0.64
24:B2:26:ILE:HG23	24:B2:184:LEU:HD12	1.77	0.64
48:BZ:31:LYS:CD	48:BZ:31:LYS:H	2.08	0.64
1:AA:888:G:H1'	1:AA:909:A:H61	1.61	0.64
16:AO:59:VAL:HG11	22:B0:715:A:H5'	1.80	0.64
12:AK:78:ILE:HG21	12:AK:81:LEU:HD21	1.79	0.64
9:AH:10:LEU:HD21	9:AH:74:ILE:O	1.98	0.64
35:BJ:78:ARG:HD3	35:BJ:126:ARG:HH12	1.62	0.64
33:BH:27:ARG:HA	33:BH:27:ARG:NE	2.13	0.64
38:BM:56:LYS:HE2	38:BM:73:ALA:HB1	1.80	0.64
1:AA:553:A:H1'	13:AL:27:PRO:HG3	1.77	0.64
1:AA:119:A:H4'	1:AA:120:A:O4'	1.97	0.64
26:BA:93:VAL:HG12	26:BA:115:ILE:HD11	1.78	0.64
22:B0:529:A:H4'	22:B0:530:G:H5'	1.79	0.64
22:B0:478:A:H1'	43:BS:32:LYS:NZ	2.12	0.64
1:AA:1302:C:H5'	14:AM:16:ILE:CG1	2.26	0.64
22:B0:2866:U:H1'	22:B0:2868:A:H1'	1.79	0.64
39:BN:87:ARG:C	39:BN:88:ARG:HD3	2.17	0.64
25:B5:81:LYS:H	25:B5:81:LYS:CD	2.09	0.64
5:AD:169:TRP:CD1	5:AD:170:LEU:HG	2.32	0.64
11:AJ:40:ILE:HG13	11:AJ:42:LEU:CD2	2.27	0.64
20:AS:16:LYS:O	20:AS:20:LYS:HG3	1.95	0.64
26:BA:74:PRO:HA	26:BA:116:GLN:HG2	1.80	0.64
22:B0:1763:G:H2'	22:B0:1764:C:H4'	1.79	0.64
22:B0:589:U:H2'	28:BC:47:LYS:O	1.98	0.64
22:B0:669:G:H5''	22:B0:670:A:N1	2.13	0.64
28:BC:35:TYR:CE2	35:BJ:18:ARG:HA	2.32	0.64
28:BC:88:ARG:HB2	35:BJ:30:THR:HB	1.80	0.64
40:BO:16:ILE:HD12	40:BO:19:GLN:HE22	1.62	0.64
40:BO:49:ARG:HG3	40:BO:49:ARG:HH11	1.62	0.64
22:B0:2163:G:H2'	22:B0:2164:C:C6	2.32	0.64
27:BB:165:MET:CE	27:BB:166:GLY:H	2.11	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BR:68:LYS:HD3	42:BR:69:ARG:N	2.12	0.64
42:BR:74:ILE:HG23	42:BR:76:ARG:CZ	2.27	0.64
45:BU:54:ARG:NH1	45:BU:55:ASP:H	1.94	0.64
32:BG:108:ILE:N	32:BG:108:ILE:HD13	2.11	0.64
2:AU:75:C:C5'	22:B0:2557:G:H8	2.10	0.64
22:B0:2054:A:OP1	22:B0:2055:C:H4'	1.97	0.64
39:BN:107:ALA:O	39:BN:111:GLU:HG2	1.96	0.64
1:AA:129:A:H2	1:AA:232:G:H1	1.46	0.64
17:AP:45:GLU:HG3	17:AP:46:LYS:N	2.12	0.64
22:B0:1493:A:N6	26:BA:187:CYS:H	1.95	0.64
22:B0:2164:C:C1'	22:B0:2165:C:H1'	2.27	0.64
22:B0:476:G:H4'	22:B0:501:A:N6	2.13	0.64
22:B0:2511:U:H2'	22:B0:2578:G:N2	2.11	0.64
49:B1:34:GLU:H	49:B1:34:GLU:CD	2.01	0.64
22:B0:2529:G:OP2	22:B0:2530:A:H8	1.80	0.64
42:BR:95:PHE:CD2	42:BR:96:VAL:HG23	2.32	0.64
5:AD:100:VAL:O	5:AD:104:MET:HG3	1.97	0.64
6:AE:114:LEU:HD13	6:AE:122:VAL:HG11	1.79	0.64
22:B0:2624:G:OP1	22:B0:2826:A:H4'	1.98	0.64
22:B0:2734:A:H2'	22:B0:2735:G:O4'	1.97	0.64
14:AM:11:HIS:H	14:AM:44:ILE:HD11	1.63	0.64
22:B0:1421:G:H1'	26:BA:146:LYS:HB3	1.80	0.64
22:B0:1491:A:C8	26:BA:175:LEU:CB	2.77	0.64
22:B0:1493:A:OP1	26:BA:143:VAL:HG21	1.97	0.64
26:BA:175:LEU:HD23	26:BA:178:GLY:C	2.17	0.64
22:B0:1579:A:O5'	26:BA:65:ASP:HA	1.97	0.64
1:AA:500:G:H2'	1:AA:501:C:C6	2.33	0.64
28:BC:149:ILE:HG22	28:BC:150:THR:N	2.13	0.64
28:BC:45:ALA:O	28:BC:46:GLN:HB2	1.97	0.64
40:BO:43:GLN:HA	40:BO:46:TYR:HB3	1.77	0.64
39:BN:47:ILE:HD12	39:BN:63:ILE:HD12	1.78	0.64
37:BL:96:ARG:HH22	37:BL:114:GLU:HG3	1.62	0.64
22:B0:1654:A:H2'	22:B0:1655:A:H8	1.62	0.64
22:B0:2381:A:H2'	22:B0:2382:G:H5'	1.78	0.64
1:AA:1038:C:H2'	1:AA:1039:G:H8	1.63	0.64
22:B0:1887:C:H3'	22:B0:1888:G:H21	1.62	0.64
32:BG:57:VAL:C	32:BG:58:ILE:HD12	2.18	0.64
22:B0:293:U:H2'	22:B0:295:G:C8	2.33	0.64
22:B0:1716:U:H3	22:B0:1743:G:H1	1.45	0.64
22:B0:1249:U:H2'	22:B0:1250:G:C8	2.33	0.64
22:B0:1008:A:C4'	22:B0:1009:A:H5'	2.18	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AC:130:ARG:NE	6:AE:53:ARG:HD3	2.13	0.64
1:AA:981:U:C4	20:AS:5:LYS:HE3	2.32	0.64
2:AV:18:G:O2'	2:AV:57:G:N2	2.30	0.64
22:B0:1602:U:H5''	22:B0:1603:A:OP2	1.98	0.64
32:BG:60:VAL:HG12	32:BG:61:TYR:HD1	1.62	0.64
37:BL:98:LEU:HB3	48:BZ:52:LYS:HG2	1.80	0.64
22:B0:2853:C:H2'	22:B0:2854:G:C8	2.33	0.64
45:BU:42:THR:HG22	45:BU:75:ASN:HA	1.77	0.64
45:BU:13:ARG:C	45:BU:13:ARG:HE	2.01	0.64
33:BH:136:GLN:N	33:BH:137:PRO:HD3	2.12	0.64
22:B0:1060:U:C1'	22:B0:1062:G:H5'	2.27	0.64
1:AA:817:C:H4'	1:AA:818:G:O5'	1.95	0.64
1:AA:1394:A:N6	1:AA:1501:C:H5'	2.13	0.64
25:B3:23:ILE:HD12	25:B3:24:SER:N	2.13	0.64
35:BJ:99:ASN:HB2	35:BJ:101:ILE:HG22	1.80	0.64
32:BG:18:ASN:ND2	32:BG:19:PRO:HA	2.13	0.64
9:AH:46:GLU:HB3	9:AH:61:THR:HG23	1.80	0.64
37:BL:64:ARG:NH2	37:BL:67:PHE:HB3	2.01	0.64
2:AV:20:G:N2	2:AV:22:G:H5'	2.11	0.64
22:B0:2176:A:H5'	24:B2:166:LYS:N	2.12	0.64
49:B1:42:VAL:HG22	49:B1:43:ARG:N	2.09	0.64
22:B0:2756:U:H4'	22:B0:2757:A:O5'	1.96	0.64
4:AC:6:PRO:O	4:AC:10:ARG:HG2	1.98	0.64
22:B0:165:A:H4'	22:B0:172:A:C8	2.32	0.64
1:AA:47:C:H4'	1:AA:48:C:OP1	1.98	0.64
21:AT:31:ILE:O	21:AT:31:ILE:HD13	1.97	0.64
28:BC:6:LYS:HE3	28:BC:119:ILE:HG12	1.79	0.64
3:AB:119:GLN:HG3	3:AB:124:THR:HG23	1.80	0.64
22:B0:1579:A:H5''	26:BA:66:PHE:O	1.98	0.64
26:BA:91:ALA:HB2	26:BA:105:ALA:HB2	1.80	0.64
26:BA:76:VAL:O	26:BA:94:LEU:HB2	1.98	0.64
1:AA:496:A:H4'	1:AA:497:G:O5'	1.95	0.64
5:AD:59:LYS:O	5:AD:63:ILE:HG13	1.97	0.64
33:BH:36:LEU:HD12	33:BH:52:ASP:N	2.11	0.64
22:B0:590:A:N7	28:BC:47:LYS:HA	2.11	0.64
22:B0:1201:U:C2'	35:BJ:14:LYS:HG2	2.27	0.64
28:BC:36:ALA:HB2	35:BJ:18:ARG:HH11	1.63	0.64
28:BC:90:GLN:CB	35:BJ:27:LEU:HB2	2.28	0.64
22:B0:2157:G:O2'	22:B0:2158:A:O5'	2.08	0.64
22:B0:960:A:H3'	22:B0:2496:C:C4'	2.28	0.64
19:AR:28:LEU:HB3	19:AR:67:LEU:HD11	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:2177:C:OP2	24:B2:167:ASN:HA	1.98	0.64
10:AI:49:GLN:N	10:AI:50:PRO:HD2	2.13	0.64
39:BN:105:LYS:HD3	39:BN:110:LYS:HE2	1.78	0.64
22:B0:2520:C:O2	22:B0:2565:A:H4'	1.98	0.64
22:B0:855:G:H1	22:B0:922:C:N4	1.96	0.64
22:B0:1357:C:H2'	22:B0:1358:G:C8	2.33	0.64
15:AN:63:CYS:HB3	15:AN:67:GLY:H	1.62	0.64
16:AO:61:GLN:O	16:AO:65:LEU:HG	1.98	0.64
2:AW:3:G:H5''	22:B0:1880:U:H5''	1.79	0.64
12:AK:24:ALA:HA	12:AK:29:THR:HG22	1.78	0.64
29:BD:168:LEU:HD12	29:BD:169:LEU:N	2.13	0.64
1:AA:1009:U:H3	1:AA:1020:G:H22	1.45	0.64
22:B0:1495:A:OP1	26:BA:190:THR:O	2.15	0.64
1:AA:34:C:H2'	1:AA:35:G:H8	1.63	0.64
1:AA:406:G:H2'	1:AA:407:U:H6	1.61	0.64
28:BC:89:PRO:O	28:BC:90:GLN:HG3	1.98	0.64
22:B0:503:A:H4'	22:B0:504:A:OP1	1.97	0.64
43:BS:34:ILE:HB	43:BS:61:GLU:CG	2.28	0.64
2:AU:19:G:H5''	2:AU:20:G:OP2	1.98	0.64
22:B0:2262:U:O2	45:BU:10:ARG:HG2	1.98	0.64
1:AA:888:G:H1'	1:AA:909:A:N6	2.12	0.64
1:AA:320:A:H2'	1:AA:321:A:C8	2.33	0.64
22:B0:854:C:H2'	22:B0:855:G:C8	2.32	0.64
31:BF:30:LEU:H	31:BF:30:LEU:HD12	1.62	0.64
9:AH:9:MET:O	9:AH:13:ILE:HG12	1.97	0.64
29:BD:91:ARG:HB2	29:BD:91:ARG:HH11	1.62	0.64
1:AA:837:U:H2'	1:AA:838:G:H8	1.62	0.64
22:B0:2873:A:H2'	22:B0:2873:A:N3	2.13	0.64
22:B0:1105:U:H2'	22:B0:1106:G:H8	1.62	0.64
22:B0:2678:C:O5'	27:BB:125:TRP:HD1	1.80	0.64
29:BD:109:ARG:NE	29:BD:109:ARG:HA	2.13	0.64
20:AS:40:PHE:HA	20:AS:66:VAL:HG13	1.80	0.64
22:B0:2296:U:C4'	22:B0:2297:A:H5'	2.25	0.64
25:B5:57:ILE:HG23	25:B5:92:ALA:HB1	1.80	0.64
46:BW:44:LYS:HE2	46:BW:48:ARG:HH21	1.63	0.64
22:B0:2364:C:H2'	22:B0:2365:G:H8	1.61	0.64
1:AA:482:A:O2'	1:AA:483:C:OP1	2.15	0.64
1:AA:1221:G:N3	20:AS:1:PRO:HB2	2.12	0.64
16:AO:56:LEU:HD23	22:B0:715:A:C5	2.32	0.64
22:B0:1655:A:H2	22:B0:2049:G:H5''	1.61	0.64
25:B3:58:LEU:HD21	25:B3:87:VAL:HG13	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:80:A:H3'	1:AA:81:A:C5'	2.28	0.64
1:AA:1182:G:H4'	1:AA:1183:U:H5''	1.79	0.64
1:AA:666:G:H4'	1:AA:731:G:H22	1.63	0.64
20:AS:11:ASP:HB2	20:AS:14:LEU:HG	1.80	0.64
6:AE:133:ILE:O	6:AE:137:ARG:HD3	1.98	0.64
28:BC:157:LEU:H	28:BC:157:LEU:HD23	1.62	0.64
18:AQ:20:ILE:HD13	18:AQ:47:ASP:HB3	1.80	0.64
18:AQ:64:ARG:HD2	18:AQ:65:PRO:HD2	1.80	0.64
33:BH:99:ARG:HA	33:BH:99:ARG:CZ	2.28	0.63
28:BC:117:ARG:HA	28:BC:185:LYS:HZ2	1.63	0.63
22:B0:331:C:H5''	22:B0:332:A:OP2	1.98	0.63
40:BO:56:PHE:C	40:BO:58:GLN:H	2.02	0.63
22:B0:1899:A:H2	22:B0:1902:C:H41	1.45	0.63
7:AF:8:PHE:HB3	7:AF:60:VAL:CG2	2.28	0.63
6:AE:102:THR:HB	6:AE:121:ASN:HB3	1.78	0.63
4:AC:63:ILE:HD13	4:AC:64:ARG:H	1.61	0.63
45:BU:58:LEU:O	45:BU:59:PHE:HB3	1.98	0.63
24:B2:138:ASN:OD1	24:B2:140:LYS:HG2	1.97	0.63
15:AN:40:ARG:NH1	20:AS:17:LYS:HB3	2.12	0.63
1:AA:508:U:H5''	1:AA:509:A:OP1	1.97	0.63
34:BI:95:ILE:O	34:BI:95:ILE:HD13	1.97	0.63
22:B0:2198:A:O2'	22:B0:2199:A:H5'	1.97	0.63
24:B2:69:GLY:O	24:B2:156:LYS:HD2	1.98	0.63
22:B0:1493:A:H61	26:BA:186:ASP:H	1.45	0.63
22:B0:1668:A:H5''	22:B0:1669:A:OP1	1.98	0.63
22:B0:1320:C:H41	22:B0:1329:U:H5''	1.63	0.63
22:B0:1458:C:C2'	22:B0:1459:U:H5'	2.28	0.63
1:AA:1334:G:H4'	1:AA:1337:G:H21	1.63	0.63
37:BL:96:ARG:HE	37:BL:96:ARG:H	1.46	0.63
22:B0:860:U:H1'	22:B0:2268:A:H5'	1.80	0.63
45:BU:13:ARG:H	45:BU:13:ARG:NE	1.95	0.63
22:B0:1061:U:C1'	22:B0:1070:A:H1'	2.28	0.63
1:AA:762:U:H2'	1:AA:763:G:C8	2.33	0.63
6:AE:136:VAL:HG23	6:AE:137:ARG:HD2	1.80	0.63
1:AA:692:U:H5'	1:AA:797:C:H5''	1.80	0.63
1:AA:977:A:H2'	1:AA:977:A:N3	2.11	0.63
31:BF:84:ALA:HB2	31:BF:90:LEU:HG	1.79	0.63
1:AA:115:G:HO2'	1:AA:116:A:H8	1.44	0.63
1:AA:33:A:H2'	1:AA:34:C:C6	2.33	0.63
1:AA:419:C:C3'	1:AA:540:G:N2	2.50	0.63
22:B0:790:U:O2	22:B0:795:C:H5'	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BC:180:LEU:O	28:BC:181:ILE:HG23	1.98	0.63
28:BC:43:THR:HG22	28:BC:91:ASP:HB3	1.79	0.63
40:BO:12:ARG:NH1	40:BO:12:ARG:HB3	2.13	0.63
2:AV:19:G:H5''	2:AV:20:G:OP2	1.98	0.63
41:BQ:28:LYS:HA	41:BQ:70:LYS:HD2	1.78	0.63
22:B0:641:U:O2'	22:B0:2350:C:H5''	1.97	0.63
25:B5:46:GLU:O	25:B5:50:GLU:HG2	1.98	0.63
1:AA:448:A:N6	1:AA:482:A:H62	1.96	0.63
17:AP:4:ILE:O	17:AP:71:VAL:HG11	1.98	0.63
32:BG:133:ARG:CD	32:BG:137:LEU:HB3	2.28	0.63
3:AB:185:ILE:HD13	3:AB:185:ILE:N	2.13	0.63
22:B0:402:A:H2'	22:B0:403:U:O4'	1.98	0.63
5:AD:137:SER:HB3	5:AD:138:PRO:HD2	1.79	0.63
34:BI:22:ILE:HB	34:BI:40:LYS:O	1.98	0.63
22:B0:165:A:H2'	22:B0:165:A:N3	2.13	0.63
26:BA:244:VAL:HG22	26:BA:256:THR:O	1.98	0.63
6:AE:131:ASN:HB3	6:AE:134:ASN:HD22	1.63	0.63
22:B0:1398:C:OP2	22:B0:1398:C:H3'	1.97	0.63
26:BA:67:LYS:NZ	26:BA:188:ARG:HH22	1.93	0.63
22:B0:2789:C:C2	22:B0:2893:G:H1'	2.33	0.63
33:BH:96:ARG:CB	33:BH:97:PRO:CA	2.77	0.63
1:AA:1287:A:H2'	1:AA:1288:A:C8	2.34	0.63
1:AA:421:U:O4	5:AD:43:ARG:NE	2.31	0.63
14:AM:67:ASP:OD1	29:BD:132:ARG:HD3	1.99	0.63
25:B5:49:GLU:HG2	25:B5:52:THR:HB	1.80	0.63
7:AF:47:LEU:HD23	7:AF:59:TYR:OH	1.98	0.63
22:B0:1059:G:H2'	22:B0:1060:U:C5	2.33	0.63
29:BD:79:ARG:HB3	29:BD:79:ARG:NH1	2.13	0.63
16:AO:56:LEU:HD22	22:B0:715:A:OP1	1.98	0.63
22:B0:1944:U:H5''	22:B0:1945:G:OP2	1.99	0.63
22:B0:2373:G:H2'	22:B0:2374:C:C6	2.34	0.63
22:B0:2382:G:OP1	22:B0:2383:G:H5''	1.99	0.63
25:B3:20:VAL:HA	25:B3:23:ILE:HG13	1.81	0.63
22:B0:1579:A:C8	26:BA:188:ARG:HD3	2.33	0.63
22:B0:1495:A:H3'	26:BA:191:LEU:H	1.64	0.63
1:AA:545:C:C3'	1:AA:546:A:H5'	2.13	0.63
22:B0:1206:G:N2	22:B0:1240:U:H3	1.95	0.63
28:BC:36:ALA:HB2	35:BJ:18:ARG:NH1	2.13	0.63
28:BC:34:ALA:HB1	35:BJ:19:LEU:HB3	1.81	0.63
22:B0:2677:G:C4'	27:BB:160:LYS:HD3	2.28	0.63
43:BS:65:GLN:O	43:BS:69:VAL:HG13	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BD:105:ILE:HD13	29:BD:138:PRO:HG3	1.81	0.63
2:AU:18:G:O2'	2:AU:57:G:N2	2.31	0.63
39:BN:55:HIS:CG	39:BN:56:SER:H	2.15	0.63
22:B0:2599:G:O2'	22:B0:2600:A:H5'	1.98	0.63
39:BN:83:ILE:CD1	39:BN:84:SER:H	2.10	0.63
42:BR:50:LEU:HB2	46:BW:26:PHE:CZ	2.34	0.63
22:B0:2352:A:H2	22:B0:2365:G:H22	1.47	0.63
45:BU:35:ILE:HG21	45:BU:70:VAL:HG21	1.80	0.63
46:BW:35:GLY:HA3	46:BW:38:GLN:HE22	1.63	0.63
22:B0:1772:A:H2'	22:B0:1773:A:H4'	1.80	0.63
4:AC:24:ASN:HD22	4:AC:27:GLU:HB3	1.64	0.63
22:B0:84:A:H61	22:B0:102:U:H1'	1.63	0.63
22:B0:2094:A:H61	22:B0:2195:U:H3	1.46	0.63
22:B0:2236:U:H2'	22:B0:2237:G:O4'	1.99	0.63
9:AH:35:ILE:O	9:AH:38:VAL:HG12	1.97	0.63
29:BD:71:LYS:HE2	29:BD:71:LYS:N	2.14	0.63
6:AE:81:GLN:OE1	6:AE:146:MET:HB3	1.98	0.63
47:BX:3:THR:HG22	47:BX:38:GLU:HA	1.80	0.63
26:BA:136:VAL:HG13	26:BA:163:ILE:HG22	1.81	0.63
13:AL:120:ARG:CB	13:AL:120:ARG:HH11	2.08	0.63
22:B0:1328:A:H2'	22:B0:1330:C:C5	2.34	0.63
22:B0:2123:G:H4'	22:B0:2124:G:O5'	1.99	0.63
22:B0:784:G:O6	22:B0:2073:C:H5'	1.99	0.63
24:B2:172:THR:HG21	24:B2:191:LEU:HD21	1.80	0.63
39:BN:25:VAL:HG13	39:BN:88:ARG:NE	2.13	0.63
38:BM:15:ARG:NE	38:BM:15:ARG:H	1.97	0.63
42:BR:73:ARG:HD2	42:BR:74:ILE:N	2.13	0.63
40:BO:63:ARG:C	40:BO:63:ARG:HH11	2.02	0.63
45:BU:35:ILE:HG23	45:BU:36:ILE:HG22	1.81	0.63
7:AF:8:PHE:O	7:AF:60:VAL:HG22	1.98	0.63
22:B0:2507:C:H42	22:B0:2582:G:H22	1.47	0.63
34:BI:8:LEU:HD23	34:BI:8:LEU:H	1.63	0.63
22:B0:1845:G:H2'	22:B0:1846:G:C8	2.33	0.63
36:BK:108:VAL:CG2	36:BK:109:PRO:HD2	2.27	0.63
22:B0:1421:G:N2	26:BA:149:LYS:HG2	2.14	0.63
22:B0:1992:G:H1'	22:B0:1994:C:C5	2.30	0.63
1:AA:538:G:OP2	13:AL:111:GLN:OE1	2.17	0.63
1:AA:424:G:N1	5:AD:39:GLN:NE2	2.42	0.63
22:B0:1244:A:H2'	22:B0:1245:G:C8	2.33	0.63
28:BC:153:LEU:HD11	28:BC:156:ASN:O	1.98	0.63
22:B0:2116:G:P	22:B0:2117:A:H5'	2.38	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1347:G:H1'	1:AA:1348:U:H5	1.62	0.63
39:BN:47:ILE:HG23	39:BN:63:ILE:HA	1.81	0.63
25:B5:17:MET:HG2	25:B5:21:GLU:OE2	1.99	0.63
6:AE:10:LEU:HD21	6:AE:38:VAL:HB	1.80	0.63
45:BU:65:LYS:H	45:BU:65:LYS:HD3	1.63	0.63
1:AA:727:G:H5''	1:AA:741:G:N2	2.13	0.63
22:B0:363:G:H2'	22:B0:364:C:O4'	1.99	0.63
22:B0:934:U:H2'	22:B0:935:C:O4'	1.99	0.63
35:BJ:92:LEU:HD22	35:BJ:94:THR:HG22	1.81	0.63
39:BN:37:LYS:HD3	39:BN:39:LEU:HD12	1.81	0.63
33:BH:89:PHE:CE2	33:BH:91:GLU:HB2	2.33	0.63
16:AO:69:LEU:HD11	16:AO:76:ARG:HD2	1.79	0.63
8:AG:99:ALA:O	8:AG:103:ILE:HG12	1.98	0.63
25:B5:42:ALA:O	25:B5:45:VAL:HG13	1.99	0.63
22:B0:2185:U:H2'	22:B0:2186:G:C8	2.34	0.63
30:BE:140:ILE:HD12	30:BE:141:GLY:N	2.13	0.63
27:BB:22:ILE:HD12	27:BB:23:PRO:HD2	1.80	0.63
26:BA:74:PRO:CA	26:BA:116:GLN:HG2	2.29	0.63
22:B0:1493:A:O2'	26:BA:173:LEU:HD13	1.99	0.63
26:BA:175:LEU:HG	26:BA:177:SER:N	2.14	0.63
22:B0:668:A:C3'	22:B0:670:A:H61	2.11	0.63
22:B0:492:A:H5''	41:BQ:9:HIS:CD2	2.34	0.63
22:B0:2678:C:H5'	27:BB:124:ARG:CZ	2.29	0.63
22:B0:2451:A:P	22:B0:2497:A:H61	2.21	0.63
22:B0:2074:U:C2'	22:B0:2075:U:H5''	2.29	0.63
24:B2:211:VAL:HG21	24:B2:225:GLN:HB3	1.81	0.63
22:B0:1111:A:O2'	22:B0:1112:G:H1'	1.99	0.63
7:AF:77:THR:HG23	7:AF:78:PHE:HD1	1.64	0.63
22:B0:1083:U:O2'	25:B3:81:LYS:HG2	1.98	0.63
1:AA:873:A:H5''	1:AA:874:G:OP2	1.98	0.63
27:BB:22:ILE:HG21	27:BB:190:LYS:HZ2	1.64	0.63
22:B0:1911:U:H2'	22:B0:1912:A:O4'	1.99	0.63
22:B0:1421:G:C2	26:BA:149:LYS:CB	2.82	0.63
22:B0:801:G:OP1	28:BC:57:LYS:HD3	1.99	0.63
28:BC:105:LEU:O	28:BC:105:LEU:HD13	1.98	0.63
28:BC:178:VAL:HA	35:BJ:17:LYS:N	2.14	0.63
22:B0:658:U:N3	28:BC:98:LYS:HD3	2.14	0.63
45:BU:23:LYS:NZ	45:BU:23:LYS:HB3	2.11	0.63
4:AC:112:ALA:CB	4:AC:184:ASN:HD22	2.12	0.63
22:B0:112:U:H2'	22:B0:113:U:O4'	1.98	0.63
37:BL:44:LEU:HA	37:BL:47:VAL:HG13	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:790:A:H2'	1:AA:791:G:C8	2.33	0.63
45:BU:36:ILE:CG2	45:BU:68:PHE:HB3	2.29	0.63
22:B0:2262:U:H2'	45:BU:10:ARG:C	2.18	0.63
1:AA:827:U:H3	1:AA:872:A:N6	1.97	0.63
13:AL:85:ARG:HA	13:AL:93:ARG:HA	1.80	0.63
22:B0:1814:G:H22	22:B0:1815:A:H62	1.44	0.63
35:BJ:78:ARG:HG2	35:BJ:101:ILE:HG13	1.80	0.63
22:B0:1210:G:H1'	22:B0:1212:G:N3	2.14	0.63
22:B0:1580:A:N9	26:BA:68:ARG:HB3	2.14	0.62
22:B0:1496:A:H62	26:BA:194:VAL:HG21	1.62	0.62
28:BC:150:THR:HA	28:BC:166:LYS:O	1.98	0.62
41:BQ:25:ARG:CB	41:BQ:74:ILE:HD11	2.29	0.62
22:B0:2428:G:H4'	22:B0:2429:G:N3	2.14	0.62
22:B0:1008:A:H1'	22:B0:1009:A:N7	2.14	0.62
1:AA:978:A:C3'	20:AS:5:LYS:H	2.12	0.62
1:AA:1516:G:H2'	1:AA:1518:A:OP2	1.98	0.62
1:AA:1094:G:H5''	1:AA:1095:U:C5	2.33	0.62
1:AA:1381:U:H2'	8:AG:78:ARG:CZ	2.28	0.62
48:BZ:31:LYS:HG2	48:BZ:32:THR:H	1.63	0.62
32:BG:129:GLU:HA	32:BG:132:ALA:HB2	1.81	0.62
22:B0:1655:A:C2	22:B0:1656:C:H1'	2.34	0.62
1:AA:109:A:H1'	1:AA:327:A:C1'	2.29	0.62
25:B3:16:VAL:O	25:B3:20:VAL:HG23	1.99	0.62
22:B0:1275:A:H5''	22:B0:1276:A:OP1	1.98	0.62
22:B0:1538:G:H2'	22:B0:1539:A:C8	2.33	0.62
22:B0:1381:G:H2'	22:B0:1382:G:O4'	1.99	0.62
22:B0:1578:U:H6	26:BA:101:ARG:CD	2.01	0.62
5:AD:57:LYS:HD3	5:AD:202:LEU:HD23	1.81	0.62
22:B0:2898:G:H5''	33:BH:141:ASP:HA	1.81	0.62
28:BC:150:THR:HB	28:BC:182:ALA:HB3	1.81	0.62
2:AU:53:G:H1	2:AU:61:C:H42	1.48	0.62
39:BN:25:VAL:HG13	39:BN:88:ARG:CD	2.28	0.62
22:B0:1039:A:H2'	22:B0:1040:A:C8	2.34	0.62
22:B0:935:C:H2'	22:B0:936:A:C8	2.34	0.62
22:B0:1814:G:N2	22:B0:1815:A:H62	1.97	0.62
1:AA:1266:G:N3	1:AA:1268:G:H8	1.97	0.62
35:BJ:76:GLU:N	35:BJ:109:LYS:HE3	2.14	0.62
17:AP:39:PHE:HA	17:AP:50:THR:HG22	1.81	0.62
39:BN:13:LYS:H	39:BN:13:LYS:HD3	1.63	0.62
22:B0:1324:G:H5''	22:B0:1325:U:OP2	1.98	0.62
1:AA:933:G:N3	10:AI:128:LYS:HB2	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AC:109:GLU:HB2	4:AC:143:LEU:HD22	1.79	0.62
39:BN:23:ASP:HB3	39:BN:96:LEU:HD12	1.80	0.62
10:AI:79:ARG:O	10:AI:83:THR:HG23	1.99	0.62
22:B0:1835:G:H1'	22:B0:1931:U:N3	2.13	0.62
22:B0:2262:U:OP1	45:BU:13:ARG:HD3	1.99	0.62
17:AP:36:VAL:HG23	17:AP:56:ARG:HB3	1.80	0.62
22:B0:1694:C:H4'	22:B0:1695:G:H5''	1.81	0.62
27:BB:1:MET:SD	27:BB:100:LEU:HD13	2.39	0.62
22:B0:1083:U:HO2'	25:B3:81:LYS:HE2	1.65	0.62
22:B0:929:U:H2'	22:B0:930:G:O4'	1.98	0.62
34:BI:18:ARG:HG2	34:BI:45:GLU:HB3	1.81	0.62
21:AT:17:ARG:HA	21:AT:20:ASN:ND2	2.14	0.62
1:AA:1502:A:N6	1:AA:1504:G:N2	2.47	0.62
1:AA:29:U:H3	1:AA:554:A:H2	1.47	0.62
30:BE:76:ILE:HD13	30:BE:76:ILE:O	2.00	0.62
21:AT:48:LYS:HB2	21:AT:48:LYS:NZ	2.14	0.62
22:B0:1490:C:O2'	26:BA:174:ARG:HB2	1.99	0.62
1:AA:428:G:O2'	1:AA:429:U:P	2.56	0.62
13:AL:109:ARG:HB2	13:AL:118:VAL:HG21	1.81	0.62
10:AI:113:LYS:HD2	10:AI:113:LYS:O	2.00	0.62
45:BU:23:LYS:HZ2	45:BU:56:HIS:HB3	1.64	0.62
39:BN:4:ILE:HD11	39:BN:5:LYS:HD2	1.80	0.62
22:B0:2071:A:H2'	22:B0:2072:C:C6	2.34	0.62
22:B0:1832:C:C3'	22:B0:1833:C:H5''	2.28	0.62
1:AA:1097:C:H2'	1:AA:1098:C:C6	2.34	0.62
34:BI:38:ILE:HG22	34:BI:61:VAL:HG22	1.81	0.62
17:AP:12:LYS:HD2	17:AP:12:LYS:H	1.62	0.62
22:B0:287:G:H5''	22:B0:352:A:N7	2.14	0.62
22:B0:1495:A:O5'	26:BA:190:THR:C	2.38	0.62
26:BA:141:HIS:ND1	26:BA:194:VAL:HG22	2.15	0.62
5:AD:56:GLU:O	5:AD:60:VAL:HG23	2.00	0.62
28:BC:44:ARG:HD3	28:BC:47:LYS:HG3	1.81	0.62
28:BC:49:ARG:NH1	28:BC:49:ARG:HB3	2.11	0.62
2:AW:19:G:H5''	2:AW:20:G:OP2	2.00	0.62
22:B0:2678:C:O5'	27:BB:125:TRP:CD1	2.52	0.62
20:AS:10:ILE:N	20:AS:10:ILE:HD12	2.14	0.62
22:B0:2333:A:H4'	22:B0:2334:U:H5''	1.79	0.62
7:AF:14:GLN:HE21	7:AF:17:GLN:HB2	1.64	0.62
1:AA:484:G:N3	1:AA:484:G:H2'	2.14	0.62
22:B0:2262:U:H1'	45:BU:10:ARG:HH12	1.65	0.62
22:B0:2899:A:N1	33:BH:136:GLN:HA	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AQ:30:HIS:HB3	18:AQ:34:GLY:H	1.64	0.62
40:BO:111:LYS:HE2	40:BO:111:LYS:O	1.99	0.62
26:BA:154:ALA:HA	26:BA:176:ARG:HH11	1.64	0.62
26:BA:184:GLU:HG2	26:BA:185:ALA:N	2.14	0.62
26:BA:71:ASP:HB2	26:BA:118:GLY:HA3	1.80	0.62
22:B0:1247:A:H62	28:BC:92:HIS:HE1	1.47	0.62
28:BC:123:LYS:O	28:BC:126:VAL:HG22	1.99	0.62
28:BC:147:LEU:HD22	28:BC:164:LEU:HB3	1.81	0.62
22:B0:2118:U:O2	22:B0:2125:G:H4'	1.99	0.62
7:AF:24:ARG:HH22	7:AF:81:ASN:HB2	1.65	0.62
1:AA:1242:G:H2'	1:AA:1243:C:C6	2.35	0.62
34:BI:48:PRO:HG3	34:BI:54:LYS:HE2	1.81	0.62
25:B3:16:VAL:O	25:B3:19:VAL:HG12	1.99	0.62
1:AA:1328:C:H2'	1:AA:1329:A:C8	2.35	0.62
36:BK:124:LEU:HD23	36:BK:124:LEU:H	1.65	0.62
35:BJ:81:ASP:C	35:BJ:83:ALA:H	2.01	0.62
4:AC:90:VAL:HA	4:AC:93:ILE:HD13	1.81	0.62
1:AA:404:G:C8	1:AA:547:A:H5''	2.35	0.62
13:AL:98:ARG:NH1	13:AL:106:VAL:HG22	2.14	0.62
22:B0:976:G:O2'	22:B0:1155:A:H1'	1.99	0.62
28:BC:118:LEU:HB2	28:BC:187:VAL:HA	1.80	0.62
28:BC:34:ALA:N	35:BJ:18:ARG:HG3	2.08	0.62
22:B0:959:A:C2	36:BK:79:ALA:HB1	2.35	0.62
20:AS:10:ILE:HG21	20:AS:15:LEU:HD13	1.81	0.62
22:B0:69:C:H2'	22:B0:70:G:O4'	2.00	0.62
22:B0:120:U:H5'	22:B0:122:G:OP2	1.99	0.62
34:BI:3:GLN:CB	34:BI:31:ARG:HB3	2.28	0.62
1:AA:104:G:H3'	21:AT:4:LYS:HZ1	1.64	0.62
45:BU:77:LYS:HB3	45:BU:77:LYS:NZ	2.14	0.62
7:AF:74:LEU:O	7:AF:74:LEU:HD13	1.99	0.62
24:B2:120:MET:HE2	24:B2:120:MET:HA	1.80	0.62
19:AR:35:SER:HA	19:AR:71:ASP:HB2	1.81	0.62
22:B0:1439:A:H4'	22:B0:1467:G:OP1	1.99	0.62
34:BI:2:ILE:HD11	34:BI:82:ASN:CG	2.20	0.62
22:B0:2789:C:O2	22:B0:2893:G:H1'	2.00	0.62
22:B0:799:G:C3'	28:BC:57:LYS:HB2	2.24	0.62
22:B0:2156:G:H4'	22:B0:2156:G:OP1	1.99	0.62
1:AA:1347:G:H1'	1:AA:1348:U:C5	2.34	0.62
39:BN:20:ARG:HA	39:BN:21:PRO:O	1.99	0.62
42:BR:24:MET:HG2	42:BR:29:THR:O	1.99	0.62
42:BR:28:ASN:HB3	42:BR:87:LEU:HB2	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BR:24:MET:HG2	42:BR:30:ILE:HA	1.81	0.62
46:BW:39:GLN:NE2	46:BW:40:SER:H	1.98	0.62
21:AT:73:ARG:HG2	21:AT:77:ASN:ND2	2.15	0.62
38:BM:16:ARG:HH21	45:BU:75:ASN:CB	2.12	0.62
27:BB:9:VAL:CG2	27:BB:28:GLU:HG3	2.29	0.62
1:AA:516:U:H2'	1:AA:517:G:O4'	2.00	0.62
49:B1:34:GLU:C	49:B1:35:LEU:HD22	2.20	0.62
22:B0:1796:U:H3	22:B0:1823:G:H1	1.47	0.62
1:AA:49:U:H5'	1:AA:50:A:OP2	2.00	0.62
22:B0:904:G:H2'	22:B0:905:A:C8	2.34	0.62
22:B0:317:G:O6	35:BJ:5:THR:HG21	2.00	0.62
25:B5:65:LYS:O	25:B5:69:ILE:HG12	1.99	0.62
36:BK:20:LEU:HD12	36:BK:20:LEU:H	1.64	0.62
3:AB:116:LEU:HB2	3:AB:140:LEU:HD21	1.82	0.62
33:BH:16:TYR:CZ	33:BH:35:ARG:HD3	2.35	0.62
22:B0:2118:U:H1'	22:B0:2125:G:O2'	2.00	0.62
22:B0:2164:C:O4'	22:B0:2165:C:H1'	2.00	0.62
38:BM:15:ARG:NH1	38:BM:25:ARG:NH1	2.48	0.62
2:AU:75:C:O5'	22:B0:2557:G:C5'	2.48	0.62
8:AG:28:ILE:HG13	8:AG:29:LEU:N	2.15	0.62
29:BD:87:LYS:HB2	29:BD:87:LYS:NZ	2.14	0.62
1:AA:872:A:H3'	1:AA:872:A:OP1	2.00	0.62
29:BD:153:ILE:N	29:BD:153:ILE:HD13	2.14	0.62
38:BM:8:ILE:HD12	38:BM:8:ILE:N	2.15	0.62
15:AN:56:PRO:O	15:AN:59:GLN:HG2	2.00	0.62
22:B0:952:G:H2'	22:B0:953:G:O4'	1.98	0.62
48:BZ:36:LYS:HA	48:BZ:42:ILE:HD11	1.80	0.62
47:BX:26:LEU:HD12	47:BX:37:ARG:HG3	1.82	0.62
22:B0:1490:C:C4'	26:BA:161:VAL:HA	2.30	0.62
26:BA:143:VAL:HG22	26:BA:153:LEU:HB3	1.82	0.62
1:AA:413:G:N3	1:AA:428:G:N2	2.47	0.62
33:BH:54:ILE:H	33:BH:122:LEU:HA	1.65	0.62
22:B0:2161:C:C1'	22:B0:2162:G:H4'	2.30	0.62
45:BU:43:LYS:HE2	45:BU:44:PHE:N	2.15	0.62
1:AA:1205:U:H4'	4:AC:194:VAL:HG21	1.81	0.62
42:BR:59:ASN:O	42:BR:83:ALA:HB1	1.99	0.62
1:AA:1335:U:H5''	1:AA:1336:C:O5'	1.99	0.62
6:AE:59:ILE:HG22	6:AE:63:MET:HE2	1.81	0.62
45:BU:54:ARG:HH11	45:BU:55:ASP:H	1.47	0.62
22:B0:2563:U:OP1	34:BI:25:LEU:HD12	2.00	0.62
49:B1:36:LYS:HE3	49:B1:36:LYS:N	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1240:U:C6	8:AG:32:ASP:HB3	2.35	0.62
22:B0:82:U:H4'	22:B0:295:G:H4'	1.82	0.62
36:BK:20:LEU:HB3	36:BK:22:GLN:HE21	1.65	0.62
30:BE:127:GLN:HE21	30:BE:129:GLU:HB2	1.65	0.62
22:B0:1933:G:H3'	22:B0:1934:C:C6	2.35	0.62
22:B0:1495:A:H3'	26:BA:191:LEU:N	2.15	0.61
1:AA:424:G:H2'	1:AA:425:G:O4'	2.00	0.61
22:B0:529:A:H4'	22:B0:530:G:C5'	2.30	0.61
22:B0:1193:G:H2'	22:B0:1194:A:H8	1.65	0.61
22:B0:588:U:C5	28:BC:45:ALA:HA	2.35	0.61
28:BC:36:ALA:CB	35:BJ:18:ARG:NH1	2.63	0.61
40:BO:41:ALA:C	40:BO:43:GLN:H	2.02	0.61
2:AW:20:G:N2	2:AW:22:G:H5'	2.15	0.61
22:B0:2127:G:OP2	22:B0:2128:G:P	2.57	0.61
22:B0:2127:G:C3'	22:B0:2166:U:H5'	2.30	0.61
1:AA:718:A:H2'	1:AA:718:A:N3	2.15	0.61
48:BZ:52:LYS:HE3	48:BZ:52:LYS:N	2.11	0.61
22:B0:977:G:H2'	22:B0:978:G:C8	2.35	0.61
25:B5:27:GLU:HA	25:B5:35:ALA:CB	2.30	0.61
1:AA:1314:C:H2'	1:AA:1315:U:C6	2.34	0.61
22:B0:2226:C:H2'	22:B0:2227:A:H4'	1.82	0.61
1:AA:1016:A:H2'	1:AA:1017:U:O4'	2.00	0.61
1:AA:959:A:H2'	1:AA:960:U:H5''	1.80	0.61
19:AR:33:THR:HG22	19:AR:34:GLU:N	2.14	0.61
36:BK:14:LYS:HG3	36:BK:15:GLY:N	2.14	0.61
22:B0:1513:C:H2'	22:B0:1514:U:O4'	2.00	0.61
44:BT:26:PHE:CE2	44:BT:89:ILE:HD13	2.35	0.61
1:AA:352:C:H4'	1:AA:354:G:OP1	2.00	0.61
3:AB:27:LYS:N	3:AB:28:PRO:HD2	2.14	0.61
22:B0:1495:A:C3'	26:BA:191:LEU:H	2.13	0.61
22:B0:495:G:H4'	41:BQ:104:THR:HG23	1.82	0.61
22:B0:826:U:H4'	35:BJ:55:MET:O	2.00	0.61
22:B0:1964:G:O5'	22:B0:1965:C:OP2	2.17	0.61
22:B0:1190:G:H5''	35:BJ:41:ARG:HD2	1.81	0.61
22:B0:1869:G:H22	22:B0:1872:A:P	2.23	0.61
2:AU:75:C:O2	2:AU:75:C:H2'	2.00	0.61
22:B0:2287:A:H3'	22:B0:2287:A:N3	2.15	0.61
35:BJ:106:GLU:HG2	35:BJ:107:PHE:HD1	1.65	0.61
22:B0:231:A:H2'	22:B0:232:G:O4'	2.00	0.61
15:AN:40:ARG:HG3	20:AS:13:HIS:O	1.99	0.61
35:BJ:124:GLY:O	35:BJ:125:LEU:HB2	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BN:101:GLU:C	39:BN:103:THR:H	2.03	0.61
7:AF:7:VAL:HG22	7:AF:88:MET:O	2.00	0.61
9:AH:95:MET:O	9:AH:98:LEU:HG	2.00	0.61
22:B0:2035:G:O2'	22:B0:2036:C:OP1	2.16	0.61
22:B0:2779:U:HO2'	22:B0:2780:G:P	2.23	0.61
2:AW:46:G:O2'	2:AW:47:U:H5'	2.00	0.61
22:B0:2164:C:H1'	22:B0:2165:C:N1	2.15	0.61
43:BS:25:LYS:NZ	43:BS:25:LYS:HB2	2.14	0.61
43:BS:64:ILE:N	43:BS:64:ILE:HD12	2.15	0.61
41:BQ:70:LYS:HB2	41:BQ:110:ARG:HG3	1.82	0.61
22:B0:2323:G:H21	22:B0:2337:G:H5'	1.65	0.61
22:B0:2854:G:H2'	22:B0:2855:C:C6	2.35	0.61
6:AE:100:GLU:HA	6:AE:121:ASN:ND2	2.15	0.61
22:B0:2472:G:H21	22:B0:2529:G:N2	1.99	0.61
22:B0:1024:G:H5'	22:B0:1025:G:O4'	2.00	0.61
1:AA:1403:C:H1'	1:AA:1500:A:N1	2.15	0.61
9:AH:38:VAL:HG13	9:AH:39:LEU:HD22	1.82	0.61
19:AR:18:GLN:HB3	19:AR:20:ILE:HG22	1.81	0.61
22:B0:337:C:H2'	22:B0:338:G:O4'	2.00	0.61
22:B0:1258:U:H2'	22:B0:1259:G:C8	2.36	0.61
26:BA:75:ALA:O	26:BA:115:ILE:HD13	2.00	0.61
22:B0:1668:A:HO2'	22:B0:1670:C:H5	1.48	0.61
5:AD:54:LEU:HD22	5:AD:55:ARG:HD2	1.82	0.61
13:AL:26:CYS:HB2	13:AL:29:LYS:HE2	1.82	0.61
33:BH:36:LEU:CD1	33:BH:52:ASP:H	2.11	0.61
33:BH:99:ARG:HH22	33:BH:102:GLU:CG	2.13	0.61
22:B0:2162:G:N7	22:B0:2164:C:C3'	2.63	0.61
22:B0:2165:C:OP1	22:B0:2165:C:H4'	2.00	0.61
35:BJ:54:GLN:NE2	35:BJ:57:LEU:H	1.98	0.61
22:B0:310:A:O2'	22:B0:311:A:H3'	2.00	0.61
22:B0:959:A:O2'	22:B0:2495:G:O3'	2.19	0.61
22:B0:2501:C:H4'	22:B0:2503:A:O4'	1.99	0.61
20:AS:10:ILE:HG22	20:AS:15:LEU:HB2	1.82	0.61
2:AV:20:G:C3'	2:AV:21:A:H5''	2.30	0.61
22:B0:780:G:H1'	22:B0:783:A:H61	1.65	0.61
41:BQ:28:LYS:N	41:BQ:70:LYS:HD2	2.14	0.61
1:AA:1302:C:O2'	1:AA:1303:C:OP1	2.18	0.61
39:BN:25:VAL:HG13	39:BN:88:ARG:HE	1.64	0.61
40:BO:59:LEU:C	40:BO:61:ILE:H	2.03	0.61
29:BD:7:TYR:O	29:BD:8:LYS:HB2	1.99	0.61
1:AA:1520:C:H2'	1:AA:1521:C:C6	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:520:A:C2	1:AA:536:C:H1'	2.35	0.61
25:B3:65:LYS:O	25:B3:69:ILE:HG12	2.00	0.61
39:BN:36:LYS:HE3	39:BN:37:LYS:HZ2	1.65	0.61
1:AA:1401:G:O2'	1:AA:1402:C:H5'	2.00	0.61
29:BD:84:ILE:HD12	29:BD:84:ILE:O	2.00	0.61
22:B0:1540:A:O5'	22:B0:1540:A:H8	1.83	0.61
1:AA:1256:A:H4'	1:AA:1257:A:H5'	1.81	0.61
32:BG:109:ALA:HA	32:BG:112:LYS:HE3	1.80	0.61
1:AA:496:A:O2'	1:AA:497:G:H3'	1.99	0.61
1:AA:424:G:C2	5:AD:39:GLN:CD	2.71	0.61
33:BH:109:LEU:N	33:BH:110:PRO:HA	2.15	0.61
33:BH:139:VAL:O	33:BH:140:LEU:HD22	2.00	0.61
1:AA:279:A:H4'	1:AA:280:C:OP2	1.99	0.61
22:B0:656:G:H2'	22:B0:657:U:C6	2.35	0.61
22:B0:2138:G:N2	22:B0:2158:A:H62	1.96	0.61
2:AU:58:A:HO2'	2:AU:60:C:H5	1.49	0.61
4:AC:120:THR:O	4:AC:124:GLU:HG3	2.00	0.61
2:AV:35:A:H2'	2:AV:36:A:C8	2.36	0.61
25:B5:23:ILE:HA	25:B5:26:MET:HB2	1.82	0.61
22:B0:2145:C:C2'	22:B0:2146:C:H5''	2.31	0.61
41:BQ:17:VAL:HG21	41:BQ:101:SER:HB3	1.83	0.61
27:BB:201:LEU:HD12	27:BB:201:LEU:O	2.01	0.61
5:AD:2:ARG:HE	5:AD:66:VAL:HA	1.66	0.61
22:B0:1121:C:H2'	22:B0:1122:G:C8	2.36	0.61
3:AB:75:ALA:HB2	3:AB:209:VAL:HG21	1.83	0.61
22:B0:655:A:H4'	22:B0:656:G:OP1	1.99	0.61
22:B0:800:A:C8	28:BC:55:SER:HA	2.36	0.61
28:BC:88:ARG:HD3	35:BJ:30:THR:HB	1.81	0.61
1:AA:718:A:C1'	12:AK:117:HIS:HA	2.30	0.61
22:B0:946:C:H2'	22:B0:947:A:C8	2.35	0.61
22:B0:2337:G:H3'	22:B0:2337:G:OP2	2.01	0.61
22:B0:1110:G:H1'	22:B0:1111:A:N7	2.15	0.61
22:B0:121:G:C4	22:B0:140:C:H1'	2.36	0.61
2:AU:73:A:H2'	2:AU:74:C:N1	2.15	0.61
22:B0:2271:G:OP1	45:BU:14:ASP:HB2	2.01	0.61
1:AA:1222:G:O4'	20:AS:1:PRO:CA	2.48	0.61
25:B3:69:ILE:O	25:B3:73:ARG:HG3	2.01	0.61
1:AA:320:A:H2'	1:AA:321:A:H8	1.65	0.61
1:AA:188:C:H2'	1:AA:189:A:C4'	2.30	0.61
1:AA:610:U:H2'	1:AA:611:C:H6	1.64	0.61
15:AN:97:LYS:NZ	15:AN:97:LYS:HB3	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:999:C:H2'	1:AA:1000:A:C8	2.35	0.61
5:AD:85:THR:O	5:AD:89:LEU:HG	1.99	0.61
10:AI:41:GLU:O	10:AI:44:ARG:HG2	2.00	0.61
22:B0:1491:A:OP2	26:BA:176:ARG:HA	1.99	0.61
22:B0:1583:G:O4'	26:BA:96:LYS:HB3	1.99	0.61
1:AA:428:G:O2'	1:AA:429:U:OP2	2.17	0.61
25:B3:107:LYS:HD2	25:B3:119:VAL:CG2	2.29	0.61
22:B0:595:C:N3	22:B0:662:G:N2	2.47	0.61
41:BQ:49:LYS:HA	41:BQ:49:LYS:NZ	2.15	0.61
22:B0:27:G:H1'	22:B0:513:A:H62	1.65	0.61
22:B0:311:A:H1'	22:B0:332:A:OP2	1.99	0.61
22:B0:959:A:H62	22:B0:2250:G:H1'	1.64	0.61
19:AR:62:ARG:HB3	19:AR:69:TYR:CE1	2.35	0.61
22:B0:1340:U:H1'	22:B0:1603:A:H5'	1.83	0.61
42:BR:24:MET:HG2	42:BR:30:ILE:HD13	1.82	0.61
42:BR:49:LYS:HD2	42:BR:50:LEU:CD1	2.30	0.61
37:BL:95:THR:HG21	37:BL:115:LEU:HG	1.81	0.61
24:B2:22:ILE:HD12	24:B2:22:ILE:H	1.66	0.61
22:B0:865:C:H2'	22:B0:865:C:O2	2.01	0.61
33:BH:84:ILE:CD1	33:BH:84:ILE:H	2.13	0.61
39:BN:36:LYS:HB2	39:BN:36:LYS:NZ	2.16	0.61
1:AA:1504:G:H5''	1:AA:1505:G:O4'	2.01	0.61
1:AA:251:G:H5'	1:AA:252:U:OP1	2.00	0.61
22:B0:84:A:H4'	22:B0:85:G:O4'	2.01	0.61
6:AE:75:LEU:HD11	6:AE:117:ALA:O	2.00	0.61
46:BW:53:VAL:O	46:BW:57:LEU:HG	1.99	0.61
22:B0:2101:A:H2'	22:B0:2102:G:H8	1.65	0.61
22:B0:1680:U:H2'	22:B0:1681:G:O4'	2.01	0.61
22:B0:535:G:H5'	40:BO:49:ARG:HB2	1.82	0.61
35:BJ:12:SER:OG	35:BJ:13:LYS:HD3	1.99	0.61
45:BU:79:ILE:HD13	45:BU:80:SER:N	2.15	0.61
37:BL:27:SER:HA	37:BL:30:ARG:HG2	1.82	0.61
22:B0:1153:C:O3'	40:BO:58:GLN:HA	2.01	0.61
25:B5:51:LYS:HG3	25:B5:52:THR:HG22	1.82	0.61
34:BI:41:ILE:N	34:BI:41:ILE:HD13	2.15	0.61
1:AA:1239:A:H4'	1:AA:1241:G:C5	2.36	0.61
19:AR:7:ARG:N	19:AR:7:ARG:HH11	1.98	0.61
22:B0:618:G:O2'	22:B0:619:G:H5'	2.01	0.61
1:AA:51:A:H5'	1:AA:52:C:OP1	2.01	0.61
39:BN:13:LYS:HD3	39:BN:13:LYS:N	2.16	0.61
40:BO:85:ALA:HB3	40:BO:111:LYS:NZ	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AE:37:VAL:HG12	6:AE:116:VAL:HG21	1.81	0.61
22:B0:877:A:H2'	22:B0:878:A:H8	1.65	0.61
11:AJ:26:VAL:O	11:AJ:30:LYS:HG2	2.00	0.61
22:B0:2696:U:H2'	22:B0:2697:G:H8	1.66	0.61
22:B0:1416:G:N2	26:BA:95:TYR:O	2.33	0.61
1:AA:401:C:H2'	1:AA:402:G:C8	2.36	0.61
1:AA:419:C:O4'	1:AA:541:G:C2'	2.35	0.61
35:BJ:23:ILE:HG22	35:BJ:25:SER:O	2.00	0.61
40:BO:12:ARG:HH12	40:BO:35:PHE:HZ	1.49	0.61
22:B0:2122:U:O5'	22:B0:2123:G:OP1	2.19	0.61
10:AI:119:LYS:C	10:AI:121:ARG:H	2.05	0.61
22:B0:958:U:OP1	22:B0:958:U:H6	1.84	0.61
36:BK:77:PRO:O	36:BK:78:LEU:HB2	2.01	0.61
1:AA:717:U:H4'	12:AK:118:ASN:HB3	1.83	0.61
19:AR:59:LYS:HD3	19:AR:62:ARG:HH22	1.66	0.61
22:B0:910:A:H62	36:BK:10:ARG:HD3	1.66	0.61
22:B0:859:G:H5'	22:B0:2268:A:O2'	2.01	0.61
22:B0:2899:A:H8	22:B0:2899:A:O5'	1.84	0.61
22:B0:1085:A:N7	25:B3:81:LYS:HD2	2.15	0.61
1:AA:753:A:H4'	1:AA:754:C:H5''	1.83	0.61
22:B0:1803:A:H62	22:B0:1814:G:N2	1.98	0.61
1:AA:1363:A:N3	1:AA:1363:A:H2'	2.16	0.61
22:B0:1493:A:OP2	26:BA:143:VAL:HG23	2.01	0.61
22:B0:670:A:N3	28:BC:74:LYS:HD2	2.16	0.61
20:AS:3:SER:C	20:AS:4:LEU:HD12	2.20	0.61
39:BN:2:ASN:HB3	39:BN:5:LYS:HZ3	1.66	0.61
39:BN:27:VAL:HG13	39:BN:88:ARG:HD2	1.83	0.61
22:B0:2554:U:H2'	22:B0:2555:U:C5	2.35	0.61
8:AG:28:ILE:CD1	8:AG:100:MET:HB3	2.31	0.61
1:AA:1240:U:OP2	8:AG:34:LYS:HD2	2.01	0.61
45:BU:58:LEU:HD12	45:BU:58:LEU:O	2.01	0.61
27:BB:89:GLU:HG3	27:BB:90:PHE:N	2.16	0.61
30:BE:60:GLY:HA2	30:BE:63:GLN:HE21	1.66	0.61
1:AA:634:C:H2'	1:AA:635:A:H8	1.66	0.61
23:B9:34:A:N6	23:B9:44:G:H2'	2.16	0.61
26:BA:141:HIS:N	26:BA:190:THR:O	2.31	0.60
28:BC:118:LEU:HB3	28:BC:186:VAL:O	2.01	0.60
1:AA:934:C:H5'	1:AA:935:A:OP1	2.01	0.60
22:B0:2647:U:H2'	22:B0:2648:G:C8	2.36	0.60
22:B0:2064:C:H2'	22:B0:2065:C:C6	2.36	0.60
42:BR:67:VAL:CG1	42:BR:68:LYS:H	2.09	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BL:28:LEU:HA	37:BL:34:ILE:HD11	1.83	0.60
22:B0:2560:A:H2'	22:B0:2561:U:C6	2.37	0.60
4:AC:63:ILE:HD12	4:AC:65:VAL:CG2	2.30	0.60
34:BI:38:ILE:CD1	34:BI:38:ILE:H	2.14	0.60
22:B0:1142:A:H4'	22:B0:1143:A:OP1	1.99	0.60
22:B0:1934:C:O2'	22:B0:1935:G:H5'	2.01	0.60
22:B0:1390:U:H5''	22:B0:1540:A:OP1	2.01	0.60
25:B3:30:PHE:HB3	25:B3:34:ALA:HB3	1.81	0.60
32:BG:85:ILE:O	32:BG:85:ILE:HD13	2.01	0.60
30:BE:101:VAL:HG13	30:BE:113:ASP:HB3	1.81	0.60
29:BD:59:ILE:H	29:BD:59:ILE:HD13	1.66	0.60
22:B0:1283:G:N2	22:B0:1285:A:H3'	2.15	0.60
33:BH:35:ARG:NH2	33:BH:39:LYS:HE2	2.16	0.60
2:AW:18:G:O2'	2:AW:57:G:N2	2.34	0.60
2:AW:58:A:HO2'	2:AW:60:C:H5	1.47	0.60
22:B0:2543:G:H21	22:B0:2646:C:C4'	2.12	0.60
27:BB:123:LYS:HB2	27:BB:141:ARG:NE	2.15	0.60
22:B0:958:U:H2'	36:BK:79:ALA:O	2.00	0.60
1:AA:197:A:H62	1:AA:221:C:H4'	1.65	0.60
22:B0:2438:U:H5''	22:B0:2600:A:H4'	1.81	0.60
22:B0:2692:G:H4'	22:B0:2847:U:O2'	2.01	0.60
22:B0:1152:C:H2'	22:B0:1153:C:C6	2.36	0.60
22:B0:1114:C:H2'	22:B0:1115:G:H8	1.66	0.60
22:B0:2853:C:H2'	22:B0:2854:G:H8	1.65	0.60
1:AA:1084:G:H5''	1:AA:1085:U:OP2	2.01	0.60
22:B0:2262:U:H2'	45:BU:10:ARG:O	2.00	0.60
17:AP:20:VAL:HG22	17:AP:35:ARG:HA	1.83	0.60
22:B0:694:U:H5''	22:B0:1569:A:C6	2.36	0.60
22:B0:2732:G:H2'	22:B0:2734:A:C8	2.36	0.60
22:B0:667:U:OP2	35:BJ:48:ARG:HD2	2.00	0.60
22:B0:2467:C:H2'	22:B0:2468:A:O4'	2.00	0.60
30:BE:136:ASP:OD1	30:BE:138:GLN:HG2	2.01	0.60
22:B0:1490:C:H4'	26:BA:161:VAL:CA	2.30	0.60
22:B0:1582:C:O2	26:BA:97:ASP:OD1	2.19	0.60
26:BA:99:GLU:O	26:BA:100:ARG:CB	2.48	0.60
33:BH:39:LYS:HG3	33:BH:40:HIS:N	2.16	0.60
22:B0:1197:G:N1	22:B0:1250:G:H1'	2.16	0.60
22:B0:809:G:N2	28:BC:77:ILE:HD13	2.16	0.60
28:BC:117:ARG:HA	28:BC:185:LYS:NZ	2.15	0.60
41:BQ:8:ARG:HG2	41:BQ:9:HIS:HD2	1.66	0.60
22:B0:960:A:O5'	22:B0:2496:C:O4'	2.19	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BD:111:ARG:HD3	29:BD:132:ARG:NH2	2.16	0.60
24:B2:45:VAL:O	24:B2:169:ILE:HB	2.02	0.60
39:BN:72:VAL:HG22	39:BN:73:PHE:N	2.12	0.60
25:B5:20:VAL:HA	25:B5:23:ILE:HG12	1.84	0.60
22:B0:2271:G:P	45:BU:14:ASP:HB2	2.41	0.60
13:AL:85:ARG:HH12	13:AL:87:LYS:HA	1.66	0.60
1:AA:975:A:H61	11:AJ:59:LYS:NZ	2.00	0.60
22:B0:1140:C:H1'	22:B0:1143:A:H2'	1.82	0.60
1:AA:1394:A:H62	1:AA:1501:C:H5'	1.66	0.60
1:AA:1328:C:H2'	1:AA:1329:A:H8	1.67	0.60
49:B1:26:LYS:CE	49:B1:26:LYS:H	2.14	0.60
15:AN:40:ARG:HA	20:AS:13:HIS:HA	1.84	0.60
22:B0:2734:A:H62	22:B0:2770:G:H21	1.49	0.60
35:BJ:70:LYS:HD3	35:BJ:70:LYS:H	1.65	0.60
3:AB:162:VAL:HG12	3:AB:164:ASP:H	1.65	0.60
31:BF:58:LEU:HD12	31:BF:59:ALA:N	2.17	0.60
34:BI:108:ARG:HD2	34:BI:116:ILE:HG13	1.83	0.60
22:B0:1422:G:O4'	26:BA:149:LYS:HE2	2.01	0.60
1:AA:548:G:H2'	1:AA:549:C:C6	2.36	0.60
25:B3:54:PHE:HB2	25:B3:119:VAL:HG13	1.82	0.60
22:B0:581:C:H2'	22:B0:582:A:C8	2.36	0.60
22:B0:658:U:C3'	28:BC:98:LYS:HE2	2.28	0.60
1:AA:1342:C:H2'	1:AA:1343:G:C8	2.36	0.60
22:B0:2677:G:N7	27:BB:127:PHE:HA	2.16	0.60
22:B0:2238:G:H1'	22:B0:2240:U:H5	1.66	0.60
35:BJ:89:VAL:HA	35:BJ:120:VAL:HG23	1.82	0.60
48:BZ:29:VAL:HB	48:BZ:33:SER:HA	1.83	0.60
22:B0:1700:A:H2'	22:B0:1701:A:H5'	1.82	0.60
1:AA:912:C:O2'	1:AA:913:A:H5'	2.01	0.60
22:B0:923:G:O2'	45:BU:22:VAL:HG13	2.01	0.60
22:B0:571:U:C4'	22:B0:572:A:OP1	2.49	0.60
22:B0:347:A:H2'	22:B0:348:A:C8	2.37	0.60
1:AA:7:A:O2'	1:AA:8:A:OP1	2.16	0.60
47:BX:31:ILE:HD13	47:BX:31:ILE:H	1.66	0.60
1:AA:434:U:H2'	1:AA:435:A:C8	2.36	0.60
26:BA:76:VAL:HG22	26:BA:94:LEU:HB3	1.81	0.60
25:B3:55:ASP:OD2	25:B5:8:ILE:HB	2.00	0.60
28:BC:93:SER:HB2	35:BJ:28:GLY:N	2.16	0.60
2:AU:18:G:H5'	2:AU:60:C:C2	2.37	0.60
2:AU:46:G:O2'	2:AU:47:U:H5'	2.01	0.60
22:B0:2866:U:H1'	22:B0:2868:A:C1'	2.32	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BR:8:LEU:HB3	46:BW:29:ARG:CD	2.26	0.60
1:AA:1218:C:H2'	1:AA:1219:A:C8	2.36	0.60
35:BJ:92:LEU:CD1	35:BJ:92:LEU:H	2.14	0.60
22:B0:1142:A:OP2	22:B0:1142:A:C8	2.55	0.60
22:B0:2811:G:H2'	22:B0:2812:G:C8	2.37	0.60
14:AM:77:LYS:O	14:AM:77:LYS:HD3	2.00	0.60
22:B0:1650:A:H2'	22:B0:1651:G:H8	1.66	0.60
22:B0:1491:A:H2	26:BA:172:THR:HB	1.65	0.60
22:B0:2894:U:H3'	33:BH:9:GLU:HG3	1.84	0.60
22:B0:1609:A:C1'	22:B0:1616:A:H1'	2.30	0.60
22:B0:606:U:H2'	22:B0:607:U:O4'	2.02	0.60
22:B0:800:A:H1'	22:B0:802:A:OP2	2.01	0.60
22:B0:960:A:C4'	22:B0:2496:C:H5''	2.31	0.60
4:AC:129:PHE:O	4:AC:133:MET:HG2	2.02	0.60
45:BU:30:VAL:HG22	45:BU:31:LEU:H	1.66	0.60
22:B0:2200:C:H1'	22:B0:2227:A:N1	2.15	0.60
49:B1:34:GLU:HB3	49:B1:50:GLU:H	1.67	0.60
17:AP:14:ARG:HG3	17:AP:16:PHE:CE2	2.37	0.60
47:BX:47:ILE:HG23	47:BX:56:VAL:HG11	1.84	0.60
22:B0:926:G:H2'	22:B0:928:A:C8	2.36	0.60
35:BJ:63:LYS:HD2	35:BJ:63:LYS:H	1.67	0.60
2:AW:4:G:H5'	22:B0:1881:C:OP1	2.01	0.60
22:B0:2185:U:H2'	22:B0:2186:G:H8	1.64	0.60
48:BZ:36:LYS:HA	48:BZ:42:ILE:CD1	2.32	0.60
40:BO:83:LYS:NZ	40:BO:83:LYS:HB2	2.16	0.60
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.37	0.60
33:BH:127:GLY:HA3	33:BH:131:ASN:ND2	2.16	0.60
22:B0:1418:G:C4	26:BA:99:GLU:HA	2.36	0.60
22:B0:1579:A:OP2	26:BA:66:PHE:HB3	2.01	0.60
26:BA:173:LEU:O	26:BA:174:ARG:O	2.19	0.60
1:AA:242:G:O2'	1:AA:243:A:H5'	2.00	0.60
22:B0:1606:C:H4'	22:B0:1607:C:H6	1.66	0.60
22:B0:535:G:H1'	40:BO:52:ARG:CG	2.30	0.60
22:B0:493:G:N3	41:BQ:7:HIS:HA	2.16	0.60
41:BQ:10:ALA:HB1	41:BQ:11:ARG:HH21	1.66	0.60
22:B0:2490:G:H4'	22:B0:2491:U:H5'	1.84	0.60
39:BN:85:VAL:HG22	39:BN:86:LYS:N	2.10	0.60
42:BR:86:THR:C	42:BR:87:LEU:HD12	2.22	0.60
35:BJ:91:ASP:OD2	35:BJ:120:VAL:HG21	2.01	0.60
25:B5:18:ASP:O	25:B5:22:LEU:N	2.32	0.60
22:B0:269:C:N4	22:B0:370:G:H1	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:323:U:H4'	21:AT:13:SER:HB3	1.82	0.60
22:B0:2884:U:H2'	22:B0:2885:G:O4'	2.02	0.60
22:B0:618:G:N2	22:B0:619:G:H1'	2.16	0.60
3:AB:14:HIS:CE1	3:AB:211:LEU:HD23	2.37	0.60
40:BO:82:LEU:HD13	40:BO:88:GLU:HG2	1.82	0.60
1:AA:1267:C:C5	1:AA:1328:C:OP2	2.54	0.60
22:B0:1026:G:H2'	22:B0:1027:A:O4'	2.00	0.60
26:BA:152:GLN:HA	26:BA:155:ARG:NE	2.15	0.60
26:BA:163:ILE:HD12	26:BA:163:ILE:N	2.16	0.60
26:BA:157:ALA:HA	26:BA:194:VAL:HG11	1.83	0.60
22:B0:675:A:OP2	28:BC:61:ARG:HB3	2.01	0.60
41:BQ:50:VAL:O	41:BQ:51:LEU:HB3	2.02	0.60
22:B0:2644:G:N1	22:B0:2676:C:H1'	2.13	0.60
22:B0:2678:C:N4	27:BB:126:ASN:HD21	1.99	0.60
22:B0:2176:A:P	24:B2:167:ASN:HB3	2.42	0.60
37:BL:28:LEU:HB3	37:BL:113:ILE:HG21	1.82	0.60
1:AA:1065:U:H5''	1:AA:1190:G:N2	2.10	0.60
1:AA:1221:G:C8	20:AS:2:ARG:HA	2.37	0.60
25:B3:73:ARG:HE	25:B3:80:LEU:CA	2.14	0.60
32:BG:121:ILE:H	32:BG:121:ILE:CD1	2.15	0.60
1:AA:1451:U:H5''	1:AA:1452:C:H5	1.66	0.60
30:BE:105:SER:HB2	30:BE:151:ARG:NH2	2.16	0.60
1:AA:1002:G:H2'	1:AA:1003:G:C8	2.37	0.60
9:AH:119:GLY:C	9:AH:120:LEU:HD12	2.22	0.60
35:BJ:76:GLU:O	35:BJ:108:ALA:HB1	2.02	0.60
22:B0:2057:G:H2'	22:B0:2058:A:O4'	2.02	0.60
1:AA:1137:C:H4'	1:AA:1138:G:C2	2.37	0.60
22:B0:2233:U:H2'	22:B0:2234:G:C8	2.37	0.60
36:BK:96:ILE:HD13	36:BK:102:LEU:HD21	1.84	0.60
40:BO:112:ALA:C	40:BO:114:ALA:H	2.03	0.60
22:B0:735:A:C5	22:B0:736:C:H1'	2.37	0.60
22:B0:1495:A:OP1	26:BA:190:THR:N	2.34	0.60
1:AA:41:G:N2	1:AA:42:G:C5	2.70	0.60
33:BH:100:VAL:HG13	33:BH:101:ILE:N	2.11	0.60
33:BH:122:LEU:H	33:BH:122:LEU:CD1	2.12	0.60
33:BH:55:ILE:HG23	33:BH:56:VAL:N	2.16	0.60
22:B0:1608:A:O2'	22:B0:1609:A:OP2	2.16	0.60
22:B0:671:C:H1'	28:BC:76:PRO:HB2	1.84	0.60
28:BC:35:TYR:N	35:BJ:18:ARG:CB	2.51	0.60
41:BQ:21:ALA:HA	41:BQ:24:ILE:HD11	1.84	0.60
41:BQ:48:LYS:HG3	41:BQ:49:LYS:HZ3	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BI:78:ARG:H	39:BN:72:VAL:HG11	1.67	0.60
7:AF:10:VAL:HG22	7:AF:11:HIS:N	2.16	0.60
1:AA:1239:A:H4'	1:AA:1241:G:C6	2.37	0.60
11:AJ:52:LEU:H	11:AJ:52:LEU:HD12	1.67	0.60
33:BH:46:PRO:O	33:BH:47:HIS:CB	2.50	0.60
36:BK:25:ASP:HB2	36:BK:64:TRP:CZ2	2.37	0.60
23:B9:14:U:H5''	23:B9:15:A:OP2	2.02	0.60
22:B0:300:A:H1'	22:B0:334:C:O2'	2.02	0.60
36:BK:34:LYS:NZ	36:BK:34:LYS:HB3	2.17	0.60
10:AI:33:SER:HB3	10:AI:36:GLN:HG3	1.84	0.60
38:BM:92:PHE:HE2	38:BM:111:ARG:HH21	1.48	0.60
1:AA:1230:C:H2'	1:AA:1231:G:H8	1.67	0.60
22:B0:1578:U:H5''	26:BA:101:ARG:NE	2.17	0.60
26:BA:141:HIS:HD1	26:BA:194:VAL:HG22	1.66	0.60
22:B0:1492:G:H2'	26:BA:152:GLN:HG3	1.84	0.60
1:AA:431:A:OP2	1:AA:432:A:OP2	2.20	0.60
22:B0:796:C:H2'	22:B0:797:G:C8	2.37	0.60
35:BJ:29:LYS:HD2	35:BJ:29:LYS:C	2.22	0.60
25:B5:59:LYS:HD2	25:B5:116:GLU:HG2	1.84	0.60
22:B0:1341:G:H1'	42:BR:84:TYR:OH	2.01	0.60
46:BW:28:LEU:CD1	46:BW:43:LEU:HD23	2.32	0.60
21:AT:38:ILE:HG13	21:AT:82:ILE:HG22	1.84	0.60
22:B0:1759:A:H2'	22:B0:1759:A:N3	2.17	0.60
22:B0:1972:G:H2'	22:B0:1973:G:C8	2.36	0.60
22:B0:2507:C:H5''	22:B0:2573:C:N4	2.16	0.60
26:BA:123:ILE:HG22	26:BA:134:ILE:HD13	1.82	0.60
21:AT:68:LYS:H	21:AT:68:LYS:CD	2.12	0.60
22:B0:2899:A:H61	33:BH:137:PRO:CD	2.15	0.60
22:B0:1775:U:OP1	22:B0:1980:G:H4'	2.01	0.60
22:B0:448:U:H5''	22:B0:449:A:OP2	2.02	0.60
47:BX:43:ILE:HA	47:BX:46:MET:HE2	1.83	0.60
25:B3:22:LEU:O	25:B3:26:MET:HG2	2.01	0.60
22:B0:2197:U:HO2'	22:B0:2198:A:H8	1.50	0.60
33:BH:127:GLY:HA3	33:BH:131:ASN:CG	2.22	0.60
23:B9:18:G:H22	23:B9:65:U:H3	1.48	0.60
8:AG:19:SER:HB3	8:AG:22:LEU:HD13	1.82	0.60
22:B0:1491:A:C5	26:BA:174:ARG:HA	2.36	0.59
1:AA:1285:A:O2'	1:AA:1286:U:OP2	2.15	0.59
1:AA:1344:C:O2'	1:AA:1345:U:H5'	2.02	0.59
2:AV:20:G:C2'	2:AV:21:A:H5''	2.32	0.59
22:B0:2598:A:H2'	22:B0:2599:G:O4'	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BL:41:ALA:HB1	37:BL:44:LEU:HB2	1.83	0.59
22:B0:1869:G:H2'	22:B0:1871:A:P	2.42	0.59
5:AD:94:GLU:HA	5:AD:99:ASN:ND2	2.17	0.59
14:AM:4:ALA:H	14:AM:7:ASN:ND2	1.98	0.59
7:AF:1:MET:HA	7:AF:68:GLN:OE1	2.02	0.59
22:B0:1659:G:H2'	22:B0:1660:G:H5'	1.84	0.59
30:BE:102:ILE:HD12	30:BE:102:ILE:O	2.02	0.59
1:AA:435:A:O2'	1:AA:436:C:H5'	2.01	0.59
27:BB:92:VAL:HG23	27:BB:94:GLN:H	1.66	0.59
44:BT:6:ALA:HB2	44:BT:42:LEU:HD23	1.84	0.59
26:BA:149:LYS:NZ	26:BA:152:GLN:HG2	2.16	0.59
22:B0:1495:A:O4'	26:BA:189:ALA:O	2.19	0.59
22:B0:1487:G:HO2'	26:BA:198:GLU:N	2.00	0.59
22:B0:1204:A:H61	22:B0:1241:A:N6	2.00	0.59
28:BC:31:VAL:C	28:BC:33:VAL:H	2.05	0.59
1:AA:1185:G:O2'	1:AA:1186:G:H5'	2.02	0.59
6:AE:156:ARG:O	9:AH:65:PHE:HB2	2.01	0.59
1:AA:978:A:H3'	20:AS:5:LYS:CA	2.33	0.59
22:B0:637:A:OP2	35:BJ:129:LYS:HG2	2.01	0.59
37:BL:38:LEU:HG	37:BL:109:PRO:HG2	1.83	0.59
37:BL:75:ILE:HD13	37:BL:75:ILE:N	2.12	0.59
1:AA:1064:G:H4'	1:AA:1065:U:O5'	2.01	0.59
6:AE:60:GLN:HA	6:AE:63:MET:HE3	1.84	0.59
14:AM:89:ARG:HD2	14:AM:92:ARG:NH2	2.14	0.59
1:AA:1182:G:O2'	1:AA:1183:U:OP2	2.13	0.59
24:B2:72:VAL:HB	24:B2:156:LYS:HE2	1.83	0.59
22:B0:899:A:H2'	22:B0:900:A:H8	1.66	0.59
23:B9:44:G:N2	23:B9:48:U:H1'	2.18	0.59
39:BN:102:ARG:O	39:BN:102:ARG:HD3	2.03	0.59
1:AA:615:G:H1	1:AA:625:U:H3	1.50	0.59
37:BL:80:PHE:C	37:BL:82:GLU:H	2.06	0.59
22:B0:1080:A:H5'	32:BG:130:GLY:HA3	1.83	0.59
31:BF:94:ILE:HG22	31:BF:99:ILE:HD12	1.84	0.59
31:BF:104:THR:HA	31:BF:108:VAL:O	2.01	0.59
1:AA:300:A:H2'	1:AA:301:G:O4'	2.02	0.59
22:B0:1492:G:H1'	26:BA:152:GLN:HE21	1.68	0.59
26:BA:63:ILE:H	26:BA:63:ILE:CD1	2.15	0.59
33:BH:90:GLU:O	33:BH:93:ILE:HG22	2.03	0.59
22:B0:2894:U:C5	33:BH:9:GLU:HB2	2.37	0.59
25:B3:96:GLU:HA	25:B5:8:ILE:HG23	1.83	0.59
28:BC:192:ALA:O	28:BC:196:VAL:HG23	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:493:G:O4'	41:BQ:9:HIS:C	2.40	0.59
22:B0:2139:U:H5''	22:B0:2140:G:OP1	2.02	0.59
22:B0:307:G:N2	22:B0:309:A:H3'	2.17	0.59
22:B0:635:C:H1'	22:B0:639:U:OP1	2.02	0.59
37:BL:48:VAL:O	37:BL:49:GLU:HB3	2.01	0.59
21:AT:73:ARG:HG2	21:AT:77:ASN:HD21	1.67	0.59
22:B0:2855:C:H2'	22:B0:2856:A:C5'	2.31	0.59
6:AE:10:LEU:HD23	6:AE:11:GLN:N	2.17	0.59
22:B0:910:A:C6	36:BK:10:ARG:HG2	2.38	0.59
17:AP:32:PHE:HE2	17:AP:35:ARG:HE	1.50	0.59
22:B0:215:G:H4'	22:B0:216:A:C4'	2.28	0.59
22:B0:1594:U:O2'	22:B0:1595:C:H5'	2.02	0.59
1:AA:871:U:H5''	1:AA:872:A:OP2	2.02	0.59
49:B1:9:LYS:H	49:B1:9:LYS:CD	2.14	0.59
34:BI:38:ILE:N	34:BI:38:ILE:HD13	2.17	0.59
37:BL:10:LEU:H	37:BL:10:LEU:CD1	2.15	0.59
1:AA:967:C:OP1	1:AA:969:A:H5'	2.02	0.59
3:AB:186:VAL:HG22	3:AB:187:ASP:N	2.17	0.59
1:AA:508:U:H4'	1:AA:509:A:H8	1.65	0.59
34:BI:105:ARG:HG3	34:BI:108:ARG:HH21	1.68	0.59
22:B0:78:U:H3	22:B0:108:G:H1	1.48	0.59
14:AM:106:ARG:NH2	14:AM:112:ARG:HA	2.18	0.59
44:BT:34:LYS:HD3	44:BT:34:LYS:H	1.66	0.59
1:AA:12:U:H2'	1:AA:13:U:H5''	1.84	0.59
22:B0:1599:U:OP1	42:BR:61:LEU:HD13	2.01	0.59
22:B0:2898:G:O4'	33:BH:17:VAL:HG22	2.03	0.59
33:BH:118:MET:O	33:BH:122:LEU:HD11	2.02	0.59
28:BC:88:ARG:NE	35:BJ:30:THR:HA	2.18	0.59
22:B0:2677:G:C3'	27:BB:125:TRP:HB2	2.32	0.59
45:BU:44:PHE:CD2	45:BU:78:PHE:HA	2.38	0.59
42:BR:11:LEU:HD12	42:BR:11:LEU:O	2.02	0.59
22:B0:70:G:O2'	22:B0:73:A:N3	2.35	0.59
46:BW:48:ARG:O	46:BW:52:ARG:HG3	2.01	0.59
40:BO:60:TRP:HA	40:BO:95:ALA:O	2.03	0.59
22:B0:2055:C:O2	22:B0:2055:C:H2'	2.01	0.59
1:AA:892:A:H2'	1:AA:893:C:C6	2.37	0.59
22:B0:1479:G:H5''	22:B0:1559:U:H4'	1.85	0.59
22:B0:2785:C:H2'	22:B0:2786:U:C6	2.38	0.59
35:BJ:101:ILE:O	35:BJ:101:ILE:HG23	2.02	0.59
17:AP:8:ARG:HB3	17:AP:28:ARG:HH22	1.67	0.59
22:B0:2765:A:N3	22:B0:2765:A:H3'	2.18	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AD:186:GLU:HG2	5:AD:189:ASP:OD2	2.03	0.59
22:B0:1493:A:OP1	26:BA:143:VAL:CG2	2.51	0.59
13:AL:113:ARG:HH12	13:AL:120:ARG:HG3	1.67	0.59
28:BC:31:VAL:HG21	28:BC:104:ALA:HB1	1.85	0.59
22:B0:492:A:H5'	22:B0:493:G:OP2	2.03	0.59
6:AE:156:ARG:HG3	9:AH:68:LYS:NZ	2.18	0.59
35:BJ:36:LYS:HG2	35:BJ:38:GLN:CG	2.33	0.59
22:B0:2436:G:H21	22:B0:2597:G:H22	1.50	0.59
22:B0:2335:A:O2'	22:B0:2336:A:H8	1.85	0.59
5:AD:101:VAL:HG21	5:AD:122:ILE:HD13	1.84	0.59
37:BL:28:LEU:O	37:BL:115:LEU:HD21	2.02	0.59
37:BL:96:ARG:N	37:BL:96:ARG:NE	2.50	0.59
45:BU:70:VAL:HG23	45:BU:71:LYS:H	1.66	0.59
1:AA:1171:A:H2'	1:AA:1172:C:C6	2.38	0.59
8:AG:148:LYS:HG2	12:AK:60:PHE:CE1	2.37	0.59
22:B0:2546:U:H5''	22:B0:2547:A:H5'	1.83	0.59
1:AA:189:A:N3	1:AA:190:A:H1'	2.17	0.59
22:B0:2089:C:H42	22:B0:2090:A:H62	1.49	0.59
29:BD:129:MET:HG3	29:BD:152:ASP:HB3	1.82	0.59
33:BH:27:ARG:HA	33:BH:27:ARG:CZ	2.33	0.59
9:AH:47:ASP:CG	9:AH:48:PHE:H	2.06	0.59
46:BW:14:LEU:HD22	46:BW:53:VAL:HG23	1.84	0.59
32:BG:36:GLU:C	32:BG:38:CYS:H	2.06	0.59
11:AJ:21:ALA:HB2	11:AJ:93:ALA:HB2	1.83	0.59
18:AQ:10:ARG:HG2	18:AQ:57:VAL:HG22	1.84	0.59
22:B0:2750:A:H2'	22:B0:2752:C:H41	1.67	0.59
37:BL:12:ARG:HA	37:BL:12:ARG:HE	1.68	0.59
26:BA:101:ARG:NH1	26:BA:101:ARG:HB2	2.18	0.59
22:B0:1496:A:N6	26:BA:194:VAL:CG2	2.66	0.59
22:B0:1664:A:N6	22:B0:1996:C:H42	1.91	0.59
1:AA:430:A:H1'	1:AA:431:A:C2	2.37	0.59
33:BH:34:ARG:HG3	33:BH:35:ARG:NH2	2.17	0.59
22:B0:803:U:H3	28:BC:61:ARG:CZ	2.14	0.59
22:B0:589:U:H3	28:BC:74:LYS:NZ	2.00	0.59
22:B0:495:G:H22	41:BQ:57:ASN:ND2	2.01	0.59
22:B0:2123:G:H5''	22:B0:2124:G:O5'	2.02	0.59
37:BL:36:THR:N	37:BL:110:MET:HG2	2.17	0.59
40:BO:63:ARG:HH22	40:BO:95:ALA:C	2.05	0.59
22:B0:870:U:O4'	36:BK:8:LYS:NZ	2.34	0.59
22:B0:2351:G:H22	22:B0:2366:A:H2	1.50	0.59
22:B0:2262:U:C6	45:BU:12:GLY:HA2	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:123:ILE:N	26:BA:123:ILE:HD13	2.14	0.59
6:AE:20:VAL:HB	6:AE:31:SER:O	2.03	0.59
1:AA:21:G:H2'	1:AA:22:G:C8	2.38	0.59
27:BB:5:VAL:HG13	27:BB:201:LEU:O	2.03	0.59
25:B3:58:LEU:HD11	25:B3:115:ALA:HB1	1.83	0.59
9:AH:17:GLN:HA	9:AH:64:TYR:OH	2.02	0.59
1:AA:80:A:C3'	1:AA:81:A:H5''	2.32	0.59
22:B0:18:U:H2'	22:B0:19:A:C8	2.37	0.59
22:B0:759:G:H2'	22:B0:760:G:C8	2.37	0.59
22:B0:903:C:H2'	22:B0:904:G:C8	2.38	0.59
19:AR:39:VAL:HB	19:AR:43:ILE:CG2	2.32	0.59
22:B0:1210:G:H4'	22:B0:1212:G:O4'	2.03	0.59
1:AA:1001:C:H1'	1:AA:1041:G:N2	2.17	0.59
37:BL:65:LEU:O	37:BL:65:LEU:HD23	2.01	0.59
22:B0:851:C:H2'	22:B0:851:C:O2	2.03	0.59
22:B0:2774:C:H2'	22:B0:2775:G:O4'	2.02	0.59
26:BA:149:LYS:CG	26:BA:150:GLY:N	2.66	0.59
22:B0:1492:G:N7	26:BA:153:LEU:HA	2.17	0.59
33:BH:111:LYS:HZ2	33:BH:111:LYS:HA	1.66	0.59
25:B3:57:ILE:CG1	25:B3:92:ALA:HB1	2.30	0.59
22:B0:591:U:H2'	22:B0:592:A:H8	1.68	0.59
22:B0:800:A:C2'	22:B0:801:G:H5''	2.32	0.59
41:BQ:55:ILE:O	41:BQ:58:ALA:HB3	2.03	0.59
22:B0:479:A:H4'	43:BS:59:GLU:CG	2.26	0.59
22:B0:2450:A:OP2	22:B0:2501:C:N4	2.34	0.59
36:BK:77:PRO:O	36:BK:78:LEU:CB	2.51	0.59
2:AV:58:A:HO2'	2:AV:60:C:H5	1.48	0.59
22:B0:996:A:H5''	40:BO:92:LYS:CE	2.33	0.59
36:BK:16:ARG:HH12	36:BK:69:PRO:HG2	1.68	0.59
10:AI:51:LEU:HD11	10:AI:62:LEU:HD11	1.84	0.59
9:AH:116:ARG:CB	9:AH:116:ARG:HH11	2.12	0.59
22:B0:2554:U:H2'	22:B0:2555:U:C6	2.38	0.59
22:B0:574:A:O2'	22:B0:2055:C:C5	2.52	0.59
4:AC:87:ARG:HH21	4:AC:100:ILE:HG22	1.68	0.59
22:B0:531:C:H5'	22:B0:532:A:OP1	2.02	0.59
22:B0:2382:G:H5''	22:B0:2383:G:H5''	1.84	0.59
17:AP:45:GLU:HG3	17:AP:46:LYS:H	1.67	0.59
41:BQ:56:ALA:C	41:BQ:58:ALA:H	2.05	0.59
22:B0:959:A:O5'	36:BK:80:VAL:HB	2.02	0.59
4:AC:150:VAL:HG13	4:AC:199:VAL:HG22	1.85	0.59
1:AA:145:G:H1	1:AA:177:G:H1	1.51	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1044:C:C2'	22:B0:1045:C:H5''	2.32	0.59
25:B3:50:GLU:O	25:B5:47:ALA:HB3	2.03	0.59
1:AA:1196:A:H5''	1:AA:1197:A:O5'	2.02	0.59
22:B0:1695:G:N3	22:B0:1695:G:H3'	2.18	0.59
1:AA:1485:U:C5'	22:B0:1960:A:H4'	2.33	0.59
1:AA:889:A:O2'	1:AA:890:G:H1'	2.03	0.59
1:AA:1002:G:H2'	1:AA:1003:G:H8	1.67	0.59
26:BA:242:HIS:HB3	26:BA:243:PRO:CD	2.33	0.59
1:AA:50:A:O2'	1:AA:51:A:P	2.60	0.59
30:BE:112:VAL:HG11	30:BE:150:TYR:HB3	1.85	0.59
1:AA:950:U:H3	1:AA:1231:G:H1	1.51	0.59
2:AW:1:G:H5''	49:B1:2:LYS:HD2	1.83	0.59
22:B0:1496:A:N3	26:BA:142:ASN:CB	2.57	0.59
22:B0:1992:G:H5''	22:B0:1993:U:OP1	2.02	0.59
22:B0:1196:C:O2'	22:B0:1227:G:H4'	2.03	0.59
28:BC:108:ILE:C	28:BC:108:ILE:HD13	2.23	0.59
40:BO:30:VAL:HB	40:BO:33:VAL:CG2	2.31	0.59
22:B0:2677:G:H2'	27:BB:125:TRP:CG	2.37	0.59
39:BN:45:VAL:HG23	39:BN:65:ASN:OD1	2.03	0.59
5:AD:120:LYS:HD3	5:AD:120:LYS:O	2.02	0.59
27:BB:74:GLU:HG2	27:BB:75:ALA:N	2.13	0.59
22:B0:870:U:H1'	36:BK:8:LYS:HD2	1.84	0.59
17:AP:67:ILE:CD1	17:AP:67:ILE:H	2.14	0.59
30:BE:88:LEU:HD22	30:BE:88:LEU:O	2.02	0.59
34:BI:52:VAL:O	34:BI:52:VAL:HG13	2.03	0.59
22:B0:937:C:H2'	22:B0:938:G:C8	2.37	0.59
20:AS:17:LYS:HA	20:AS:20:LYS:HD3	1.84	0.59
30:BE:161:VAL:HG13	30:BE:162:ARG:HG2	1.83	0.59
22:B0:82:U:H5''	22:B0:295:G:O2'	2.02	0.59
24:B2:69:GLY:HA2	24:B2:156:LYS:HB3	1.85	0.59
1:AA:950:U:H2'	1:AA:951:G:C8	2.38	0.59
1:AA:14:U:O5'	1:AA:14:U:H6	1.85	0.59
22:B0:1492:G:C2	26:BA:152:GLN:HB2	2.37	0.59
22:B0:1578:U:H2'	26:BA:66:PHE:CA	2.33	0.59
22:B0:1418:G:N9	26:BA:99:GLU:HA	2.17	0.59
1:AA:278:G:O3'	1:AA:281:G:H5'	2.03	0.59
22:B0:775:G:H5'	22:B0:776:G:OP1	2.02	0.59
28:BC:151:GLY:HA2	28:BC:187:VAL:CG1	2.33	0.59
28:BC:59:PRO:O	28:BC:60:TRP:HB2	2.02	0.59
22:B0:662:G:OP2	28:BC:88:ARG:HG2	2.02	0.59
22:B0:1246:A:H5''	35:BJ:25:SER:CA	2.33	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:493:G:N3	41:BQ:7:HIS:ND1	2.51	0.59
2:AW:19:G:H4'	2:AW:20:G:OP1	2.01	0.59
43:BS:34:ILE:C	43:BS:34:ILE:HD13	2.24	0.59
28:BC:85:PHE:HD1	35:BJ:38:GLN:NE2	2.01	0.59
20:AS:83:ALA:CA	22:B0:891:G:N7	2.61	0.59
25:B5:57:ILE:HD12	25:B5:57:ILE:N	2.17	0.59
22:B0:63:A:H4'	22:B0:64:A:N7	2.18	0.59
37:BL:38:LEU:HB2	37:BL:39:PRO:CD	2.28	0.59
24:B2:56:GLN:HE22	24:B2:202:GLN:HB2	1.68	0.59
32:BG:133:ARG:HD2	32:BG:137:LEU:HB3	1.84	0.59
29:BD:49:LEU:O	29:BD:49:LEU:HD23	2.03	0.59
16:AO:55:LEU:O	16:AO:55:LEU:HD23	2.03	0.59
14:AM:3:ILE:HB	14:AM:7:ASN:HD21	1.68	0.59
40:BO:102:LYS:H	40:BO:102:LYS:CE	2.16	0.59
18:AQ:22:VAL:HG11	18:AQ:60:ILE:HD11	1.84	0.59
1:AA:879:C:H2'	1:AA:880:C:C6	2.37	0.59
29:BD:146:ASP:OD1	29:BD:147:ARG:HG2	2.03	0.59
12:AK:122:PRO:HB2	12:AK:126:ARG:HB2	1.84	0.59
40:BO:69:ARG:HG2	40:BO:69:ARG:O	2.03	0.59
20:AS:52:ASN:ND2	20:AS:74:ALA:HB1	2.17	0.59
1:AA:1030:U:H4'	1:AA:1031:C:C5	2.38	0.59
44:BT:4:ILE:HD12	44:BT:4:ILE:N	2.18	0.59
26:BA:128:THR:C	26:BA:129:LEU:HD22	2.23	0.58
26:BA:140:VAL:HG23	26:BA:161:VAL:CG1	2.22	0.58
22:B0:1578:U:H2'	26:BA:66:PHE:CB	2.33	0.58
1:AA:497:G:H5''	1:AA:498:U:OP1	2.02	0.58
33:BH:31:GLU:C	33:BH:33:ALA:H	2.06	0.58
22:B0:677:A:H62	22:B0:800:A:N6	2.01	0.58
27:BB:117:GLY:HA2	27:BB:164:GLN:HE22	1.66	0.58
1:AA:1360:A:N6	20:AS:6:LYS:HE3	2.18	0.58
1:AA:978:A:H3'	20:AS:5:LYS:H	1.66	0.58
39:BN:92:ARG:NH1	39:BN:92:ARG:HA	2.18	0.58
2:AW:37:G:H2'	2:AW:38:A:O4'	2.03	0.58
46:BW:28:LEU:HD13	46:BW:43:LEU:HD23	1.84	0.58
45:BU:35:ILE:HG23	45:BU:36:ILE:H	1.67	0.58
41:BQ:83:LYS:HD2	41:BQ:84:ARG:N	2.18	0.58
28:BC:5:LEU:HB2	28:BC:14:VAL:HB	1.85	0.58
1:AA:1148:U:OP1	10:AI:10:ARG:NE	2.36	0.58
9:AH:45:ILE:CD1	9:AH:60:LEU:HD11	2.33	0.58
12:AK:13:LYS:NZ	12:AK:15:VAL:HG22	2.18	0.58
22:B0:1480:G:H2'	22:B0:1481:C:H4'	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1438:U:H5''	22:B0:1517:G:H5'	1.85	0.58
25:B5:69:ILE:HD13	25:B5:87:VAL:HG21	1.85	0.58
22:B0:2101:A:H2'	22:B0:2102:G:C8	2.37	0.58
11:AJ:30:LYS:NZ	11:AJ:30:LYS:HB3	2.17	0.58
5:AD:87:GLU:OE2	5:AD:186:GLU:HA	2.03	0.58
34:BI:66:LYS:NZ	34:BI:81:GLY:HA2	2.17	0.58
13:AL:105:GLY:HA3	13:AL:117:GLY:O	2.01	0.58
22:B0:1761:C:H2'	22:B0:1762:A:C5'	2.32	0.58
4:AC:78:LYS:NZ	4:AC:78:LYS:HB3	2.17	0.58
1:AA:808:C:H2'	1:AA:809:G:H8	1.68	0.58
22:B0:1580:A:C8	26:BA:68:ARG:HB3	2.38	0.58
33:BH:106:LYS:HD2	33:BH:116:ARG:HH12	1.68	0.58
22:B0:1199:U:N3	22:B0:1246:A:H2	2.01	0.58
22:B0:588:U:H5'	28:BC:43:THR:OG1	2.02	0.58
22:B0:600:G:C2	28:BC:99:LYS:HG2	2.38	0.58
28:BC:43:THR:CG2	28:BC:43:THR:O	2.50	0.58
22:B0:589:U:O4	28:BC:74:LYS:HE3	2.03	0.58
1:AA:978:A:H3'	20:AS:5:LYS:N	2.18	0.58
42:BR:60:THR:HA	42:BR:83:ALA:HB1	1.85	0.58
46:BW:21:LEU:O	46:BW:25:GLN:HG3	2.03	0.58
42:BR:68:LYS:HA	42:BR:68:LYS:HZ2	1.68	0.58
22:B0:2276:G:H2'	22:B0:2277:G:C8	2.37	0.58
48:BZ:31:LYS:N	48:BZ:31:LYS:HD3	2.13	0.58
22:B0:400:G:O2'	22:B0:401:A:H5''	2.03	0.58
22:B0:369:U:P	22:B0:404:A:H62	2.26	0.58
10:AI:105:ARG:HG2	10:AI:106:ASP:N	2.17	0.58
45:BU:58:LEU:HB2	45:BU:81:ILE:HD13	1.85	0.58
1:AA:965:U:O2'	1:AA:966:G:H5''	2.04	0.58
12:AK:53:GLY:O	12:AK:56:LYS:HG2	2.02	0.58
40:BO:82:LEU:HD23	40:BO:108:LEU:HD21	1.85	0.58
1:AA:1039:G:H2'	1:AA:1040:U:C6	2.38	0.58
1:AA:52:C:H42	1:AA:359:G:H1	1.51	0.58
21:AT:31:ILE:HG12	21:AT:78:LEU:HG	1.83	0.58
15:AN:46:LYS:NZ	15:AN:59:GLN:HB2	2.19	0.58
22:B0:1761:C:H2'	22:B0:1762:A:O4'	2.02	0.58
11:AJ:7:ARG:NH1	11:AJ:7:ARG:HB2	2.17	0.58
1:AA:653:U:H2'	1:AA:653:U:O2	2.01	0.58
1:AA:426:U:H4'	5:AD:38:GLY:N	2.18	0.58
33:BH:25:LEU:CD1	33:BH:25:LEU:H	2.16	0.58
25:B3:86:LEU:HA	25:B3:91:PRO:HG2	1.85	0.58
28:BC:108:ILE:O	28:BC:108:ILE:HD13	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BC:33:VAL:O	28:BC:33:VAL:HG23	2.02	0.58
22:B0:2156:G:H8	22:B0:2157:G:H3'	1.68	0.58
10:AI:119:LYS:HD3	10:AI:122:ARG:HB3	1.86	0.58
42:BR:36:LYS:CD	42:BR:36:LYS:H	2.13	0.58
20:AS:40:PHE:HB3	20:AS:41:PRO:HD2	1.85	0.58
22:B0:627:A:C4'	22:B0:628:G:OP1	2.51	0.58
11:AJ:100:ILE:H	11:AJ:100:ILE:CD1	2.10	0.58
32:BG:105:LEU:O	32:BG:105:LEU:HD13	2.03	0.58
8:AG:46:LEU:HB3	8:AG:57:GLU:HB2	1.85	0.58
10:AI:11:ARG:HE	10:AI:12:LYS:HE3	1.68	0.58
1:AA:51:A:H1'	1:AA:353:A:N7	2.18	0.58
30:BE:148:ARG:HH21	30:BE:168:VAL:HG12	1.67	0.58
22:B0:1578:U:C5'	26:BA:101:ARG:HD2	2.29	0.58
40:BO:36:GLN:O	40:BO:39:ILE:HG22	2.03	0.58
2:AW:53:G:H1	2:AW:61:C:H42	1.49	0.58
22:B0:2116:G:H5'	22:B0:2117:A:OP1	2.04	0.58
29:BD:105:ILE:C	29:BD:107:VAL:H	2.06	0.58
39:BN:50:ARG:HH21	39:BN:100:ARG:HE	1.50	0.58
39:BN:27:VAL:CG1	39:BN:88:ARG:HD2	2.33	0.58
39:BN:29:VAL:HG12	39:BN:45:VAL:CG1	2.33	0.58
37:BL:38:LEU:O	37:BL:40:LYS:HG2	2.03	0.58
22:B0:1111:A:H4'	22:B0:1112:G:OP1	2.03	0.58
45:BU:69:GLU:HA	45:BU:73:PRO:HB3	1.85	0.58
7:AF:10:VAL:HG12	7:AF:58:HIS:HB3	1.84	0.58
2:AU:75:C:H4'	22:B0:2557:G:H5''	1.85	0.58
39:BN:107:ALA:H	39:BN:110:LYS:HB2	1.69	0.58
47:BX:6:ILE:HD12	47:BX:6:ILE:N	2.17	0.58
13:AL:43:LYS:HB3	13:AL:43:LYS:NZ	2.17	0.58
19:AR:7:ARG:HD3	19:AR:7:ARG:N	2.18	0.58
1:AA:819:A:H5''	1:AA:820:U:OP2	2.03	0.58
1:AA:187:G:H22	1:AA:191:G:H1'	1.68	0.58
1:AA:1009:U:H3	1:AA:1020:G:N2	2.02	0.58
22:B0:1933:G:H2'	22:B0:1934:C:O4'	2.03	0.58
44:BT:80:HIS:CG	44:BT:81:PRO:HD2	2.39	0.58
1:AA:17:U:H2'	1:AA:18:C:C6	2.38	0.58
44:BT:16:ALA:HA	44:BT:19:ARG:CZ	2.34	0.58
22:B0:2654:A:O2'	22:B0:2655:G:H4'	2.03	0.58
3:AB:214:GLY:HA3	3:AB:231:GLN:NE2	2.18	0.58
22:B0:1578:U:OP2	26:BA:101:ARG:CD	2.47	0.58
22:B0:1420:U:C2	26:BA:148:GLY:HA2	2.39	0.58
27:BB:130:GLN:HB3	27:BB:134:HIS:CB	2.23	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1262:A:H2'	22:B0:1263:U:C6	2.38	0.58
22:B0:518:G:H2'	22:B0:519:U:C6	2.38	0.58
22:B0:2249:U:H4'	22:B0:2250:G:OP1	2.04	0.58
28:BC:85:PHE:CD1	35:BJ:38:GLN:HA	2.38	0.58
22:B0:2176:A:H5'	24:B2:165:ASP:O	2.02	0.58
37:BL:97:ILE:HG13	37:BL:112:TYR:C	2.24	0.58
22:B0:2583:G:H2'	22:B0:2584:U:H6	1.68	0.58
4:AC:55:VAL:HB	4:AC:66:THR:OG1	2.04	0.58
22:B0:1541:G:H2'	22:B0:1542:C:C6	2.38	0.58
25:B3:84:LYS:O	25:B3:88:GLU:HG3	2.04	0.58
22:B0:2784:U:H2'	22:B0:2785:C:C6	2.38	0.58
26:BA:243:PRO:HB3	26:BA:259:ASN:HD21	1.68	0.58
23:B9:15:A:H5''	23:B9:16:G:OP2	2.03	0.58
22:B0:457:A:O2'	22:B0:458:G:H4'	2.04	0.58
21:AT:28:ARG:HA	21:AT:31:ILE:HG22	1.85	0.58
1:AA:691:G:H2'	1:AA:692:U:C6	2.39	0.58
26:BA:220:ARG:HH22	26:BA:237:ARG:NH1	2.01	0.58
22:B0:2637:U:H2'	22:B0:2638:G:O4'	2.04	0.58
6:AE:88:HIS:ND1	6:AE:89:THR:HG22	2.18	0.58
22:B0:2123:G:C5'	22:B0:2124:G:H4'	2.33	0.58
39:BN:88:ARG:HG2	39:BN:89:GLY:N	2.19	0.58
45:BU:68:PHE:CD2	45:BU:69:GLU:HG3	2.38	0.58
2:AU:73:A:H2'	2:AU:74:C:C6	2.38	0.58
45:BU:13:ARG:HG2	45:BU:14:ASP:N	2.17	0.58
27:BB:157:LYS:CD	27:BB:157:LYS:H	2.14	0.58
24:B2:50:ASP:HB3	24:B2:56:GLN:HG3	1.85	0.58
22:B0:703:U:H2'	22:B0:704:G:O4'	2.02	0.58
1:AA:528:C:H4'	1:AA:535:A:N6	2.19	0.58
49:B1:24:LYS:N	49:B1:24:LYS:HE3	2.18	0.58
41:BQ:78:GLU:HG3	41:BQ:79:GLY:N	2.15	0.58
33:BH:72:LYS:HA	33:BH:72:LYS:HZ1	1.66	0.58
22:B0:1359:A:H2'	22:B0:1360:G:C8	2.39	0.58
3:AB:221:ARG:NH1	3:AB:229:ALA:HB3	2.18	0.58
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.39	0.58
8:AG:74:VAL:HG11	8:AG:85:GLN:HB3	1.85	0.58
29:BD:93:GLU:HG2	29:BD:94:ARG:NH1	2.19	0.58
29:BD:163:GLU:C	29:BD:165:GLY:H	2.04	0.58
22:B0:1495:A:P	26:BA:189:ALA:C	2.82	0.58
22:B0:1496:A:O2'	26:BA:63:ILE:HB	2.04	0.58
33:BH:99:ARG:HH22	33:BH:102:GLU:HG2	1.68	0.58
22:B0:669:G:H22	28:BC:74:LYS:CB	2.17	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BC:34:ALA:H	35:BJ:18:ARG:CG	2.09	0.58
22:B0:2165:C:C4	22:B0:2172:U:O2'	2.57	0.58
27:BB:120:GLY:C	27:BB:124:ARG:HG3	2.24	0.58
39:BN:29:VAL:HG22	39:BN:30:TRP:N	2.12	0.58
22:B0:635:C:O2'	22:B0:636:G:H5'	2.04	0.58
21:AT:54:GLN:O	21:AT:57:VAL:HG12	2.03	0.58
25:B3:50:GLU:HB3	25:B5:15:SER:C	2.24	0.58
16:AO:31:LEU:O	16:AO:35:ILE:HG13	2.04	0.58
35:BJ:105:ILE:HG23	35:BJ:106:GLU:N	2.18	0.58
22:B0:1943:U:H4'	22:B0:1944:U:O5'	2.03	0.58
12:AK:69:CYS:O	12:AK:73:VAL:HG23	2.02	0.58
33:BH:45:THR:HB	33:BH:46:PRO:HA	1.86	0.58
15:AN:68:ARG:HE	15:AN:70:HIS:HB3	1.67	0.58
1:AA:64:G:H5''	1:AA:65:A:OP1	2.03	0.58
22:B0:85:G:H2'	22:B0:86:G:H8	1.69	0.58
23:B9:42:C:O4'	29:BD:65:LEU:HD22	2.04	0.58
1:AA:452:A:H62	1:AA:480:U:H3	1.51	0.58
11:AJ:36:VAL:HG22	11:AJ:76:ILE:HG12	1.86	0.58
25:B3:10:ALA:O	25:B3:14:MET:HG2	2.04	0.58
22:B0:1849:G:H2'	22:B0:1850:G:H8	1.69	0.58
22:B0:1578:U:P	26:BA:63:ILE:HA	2.43	0.58
33:BH:96:ARG:HB2	33:BH:97:PRO:CA	2.33	0.58
22:B0:322:A:O4'	22:B0:340:A:H1'	2.04	0.58
22:B0:582:A:O3'	40:BO:10:ARG:HD2	2.03	0.58
22:B0:669:G:O4'	28:BC:52:VAL:HA	2.04	0.58
22:B0:2167:U:OP2	22:B0:2167:U:H4'	2.03	0.58
22:B0:311:A:H5''	22:B0:312:G:OP1	2.04	0.58
22:B0:1456:G:H1	22:B0:2703:C:H42	1.51	0.58
39:BN:10:GLU:H	39:BN:10:GLU:CD	2.07	0.58
22:B0:2176:A:O5'	24:B2:168:GLY:N	2.35	0.58
38:BM:15:ARG:NE	38:BM:15:ARG:N	2.52	0.58
1:AA:791:G:N1	1:AA:1498:U:OP1	2.37	0.58
32:BG:108:ILE:CD1	32:BG:108:ILE:H	2.15	0.58
1:AA:579:A:H2'	1:AA:580:C:O4'	2.03	0.58
22:B0:846:U:O2'	22:B0:848:C:P	2.61	0.58
22:B0:2472:G:N3	22:B0:2529:G:N2	2.50	0.58
25:B3:17:MET:O	25:B3:21:GLU:HG3	2.03	0.58
26:BA:242:HIS:HB3	26:BA:243:PRO:HD3	1.86	0.58
22:B0:1652:A:H2'	22:B0:1653:G:H5''	1.84	0.58
22:B0:1011:G:O2'	22:B0:1012:U:OP1	2.22	0.58
33:BH:15:TRP:N	33:BH:15:TRP:HE3	2.01	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:794:A:H2'	22:B0:795:C:C6	2.39	0.58
28:BC:108:ILE:HG13	28:BC:180:LEU:HB3	1.85	0.58
22:B0:486:C:N3	41:BQ:6:LYS:HE2	2.18	0.58
22:B0:2644:G:O2'	22:B0:2645:G:P	2.62	0.58
22:B0:942:G:H5''	35:BJ:42:SER:HB3	1.86	0.58
22:B0:2176:A:P	24:B2:167:ASN:N	2.77	0.58
24:B2:171:HIS:CG	24:B2:172:THR:N	2.72	0.58
39:BN:71:ARG:H	39:BN:71:ARG:HE	1.52	0.58
22:B0:2336:A:HO2'	22:B0:2337:G:P	2.27	0.58
46:BW:18:LEU:O	46:BW:22:LEU:HB2	2.04	0.58
42:BR:8:LEU:CB	46:BW:29:ARG:HD2	2.28	0.58
37:BL:55:ALA:HA	37:BL:62:ASN:HB3	1.85	0.58
1:AA:144:G:H2'	1:AA:145:G:C8	2.39	0.58
1:AA:563:A:N3	1:AA:563:A:H2'	2.19	0.58
1:AA:531:U:H4'	1:AA:532:A:C5'	2.32	0.58
22:B0:531:C:H4'	22:B0:532:A:O5'	2.04	0.58
27:BB:60:VAL:C	27:BB:63:PRO:HD2	2.24	0.58
22:B0:2291:U:H3	22:B0:2341:G:H1	1.50	0.58
25:B3:17:MET:HB3	25:B3:53:GLU:CG	2.34	0.58
35:BJ:76:GLU:HB3	35:BJ:108:ALA:CB	2.34	0.58
1:AA:808:C:H2'	1:AA:809:G:C8	2.39	0.58
19:AR:27:THR:HA	19:AR:30:ASN:ND2	2.18	0.58
22:B0:1361:G:H1	22:B0:1370:C:N4	2.01	0.58
22:B0:1488:G:C1'	26:BA:198:GLU:HA	2.33	0.58
22:B0:1996:C:C6	27:BB:138:LEU:N	2.62	0.58
1:AA:419:C:O2'	5:AD:39:GLN:HG2	2.04	0.58
1:AA:424:G:N2	5:AD:39:GLN:NE2	2.51	0.58
33:BH:28:LEU:O	33:BH:28:LEU:HD13	2.04	0.58
33:BH:99:ARG:HA	33:BH:99:ARG:NH1	2.19	0.58
28:BC:137:LYS:HB3	28:BC:137:LYS:NZ	2.19	0.58
28:BC:25:GLU:HA	28:BC:28:VAL:HG22	1.84	0.58
40:BO:14:LYS:C	40:BO:16:ILE:N	2.57	0.58
22:B0:493:G:O4'	41:BQ:9:HIS:N	2.37	0.58
22:B0:2160:C:C6	22:B0:2161:C:O3'	2.57	0.58
24:B2:29:LEU:HD21	24:B2:41:VAL:HG21	1.85	0.58
7:AF:16:GLU:O	7:AF:19:PRO:HD2	2.04	0.58
22:B0:1131:G:N7	22:B0:2025:C:H4'	2.19	0.58
17:AP:19:VAL:O	17:AP:36:VAL:HG12	2.03	0.58
13:AL:56:LEU:HD11	13:AL:81:ILE:HG13	1.85	0.58
35:BJ:105:ILE:HG13	35:BJ:106:GLU:N	2.16	0.58
12:AK:33:ILE:HG12	12:AK:69:CYS:SG	2.44	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BT:77:VAL:HG13	44:BT:89:ILE:HG13	1.83	0.58
1:AA:950:U:H2'	1:AA:951:G:H8	1.68	0.58
9:AH:8:ASP:O	9:AH:12:ARG:HG3	2.03	0.58
1:AA:1429:A:H2'	1:AA:1430:A:C8	2.39	0.58
22:B0:1578:U:H5''	26:BA:101:ARG:NH1	2.19	0.57
22:B0:1992:G:N2	27:BB:138:LEU:HD11	2.18	0.57
22:B0:2780:G:H4'	33:BH:116:ARG:NE	2.15	0.57
41:BQ:92:ARG:HG3	41:BQ:93:ALA:N	2.17	0.57
22:B0:518:G:H4'	41:BQ:18:ARG:HG3	1.85	0.57
2:AW:18:G:H1	2:AW:55:U:H6	1.52	0.57
22:B0:2128:G:H4'	22:B0:2165:C:C3'	2.27	0.57
27:BB:124:ARG:NH1	27:BB:163:GLY:N	2.52	0.57
4:AC:150:VAL:HG22	4:AC:199:VAL:HG13	1.85	0.57
1:AA:979:C:H4'	20:AS:3:SER:HB2	1.85	0.57
22:B0:2075:U:P	22:B0:2238:G:H2'	2.44	0.57
42:BR:11:LEU:HB3	42:BR:34:VAL:HG12	1.86	0.57
22:B0:636:G:H4'	22:B0:638:G:OP1	2.04	0.57
22:B0:865:C:C2'	22:B0:866:A:H8	2.16	0.57
27:BB:28:GLU:CA	27:BB:186:LEU:HD22	2.31	0.57
1:AA:370:C:HO2'	1:AA:484:G:H5''	1.69	0.57
1:AA:483:C:OP2	1:AA:484:G:O3'	2.22	0.57
1:AA:1240:U:H3'	1:AA:1241:G:C8	2.38	0.57
22:B0:2321:U:H2'	22:B0:2322:A:H5'	1.86	0.57
22:B0:553:G:H2'	22:B0:554:U:O4'	2.04	0.57
1:AA:1306:A:N6	1:AA:1331:G:H1'	2.19	0.57
19:AR:39:VAL:HB	19:AR:43:ILE:HG23	1.86	0.57
46:BW:3:ALA:O	46:BW:7:ARG:HG3	2.04	0.57
1:AA:591:U:H2'	1:AA:592:G:C8	2.39	0.57
21:AT:49:ALA:O	21:AT:52:GLU:HG2	2.04	0.57
22:B0:1422:G:C1'	26:BA:149:LYS:HE2	2.34	0.57
22:B0:749:A:H1'	22:B0:1617:C:O2	2.04	0.57
22:B0:749:A:H4'	22:B0:1615:C:N4	2.17	0.57
22:B0:799:G:H2'	28:BC:56:GLY:HA3	1.86	0.57
28:BC:159:LEU:CD1	28:BC:162:ARG:HD3	2.31	0.57
22:B0:2154:A:C4'	22:B0:2155:U:OP1	2.52	0.57
29:BD:135:ILE:N	29:BD:135:ILE:HD12	2.19	0.57
45:BU:45:HIS:HD2	45:BU:79:ILE:HG13	1.69	0.57
1:AA:982:U:H4'	1:AA:983:A:C5'	2.33	0.57
39:BN:100:ARG:HA	39:BN:100:ARG:NE	2.19	0.57
39:BN:71:ARG:N	39:BN:71:ARG:HE	2.02	0.57
42:BR:7:LEU:CD2	46:BW:23:ARG:HA	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BL:44:LEU:O	37:BL:48:VAL:HG12	2.04	0.57
25:B5:46:GLU:HB3	25:B5:50:GLU:CD	2.24	0.57
22:B0:2405:G:H1	22:B0:2412:A:H61	1.52	0.57
22:B0:868:U:H6	22:B0:868:U:O5'	1.86	0.57
36:BK:7:THR:H	36:BK:10:ARG:NH2	2.01	0.57
45:BU:65:LYS:N	45:BU:65:LYS:HD3	2.19	0.57
2:AU:75:C:O2	2:AU:75:C:C2'	2.52	0.57
1:AA:1193:G:O2'	1:AA:1194:U:H5'	2.03	0.57
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.39	0.57
22:B0:1654:A:H2'	22:B0:1655:A:C8	2.39	0.57
1:AA:974:A:H5'	1:AA:975:A:OP1	2.02	0.57
48:BZ:51:ARG:HH11	48:BZ:51:ARG:HG3	1.69	0.57
22:B0:1388:G:H2'	22:B0:1389:G:H8	1.69	0.57
36:BK:42:THR:O	36:BK:46:ILE:HG13	2.04	0.57
34:BI:116:ILE:O	34:BI:116:ILE:HD13	2.03	0.57
39:BN:102:ARG:HG3	39:BN:102:ARG:HH11	1.69	0.57
43:BS:71:ILE:O	43:BS:82:VAL:HG21	2.03	0.57
31:BF:18:GLN:CD	31:BF:18:GLN:H	2.07	0.57
18:AQ:35:LYS:NZ	18:AQ:37:ILE:HG22	2.18	0.57
1:AA:678:U:H2'	1:AA:679:C:C6	2.39	0.57
22:B0:1579:A:H3'	26:BA:66:PHE:O	2.03	0.57
22:B0:1495:A:N6	26:BA:151:GLY:HA3	2.18	0.57
22:B0:2897:U:H1'	33:BH:16:TYR:CD1	2.38	0.57
25:B3:57:ILE:O	25:B3:117:VAL:HG13	2.04	0.57
28:BC:34:ALA:HB2	35:BJ:20:GLY:O	2.04	0.57
1:AA:933:G:N2	10:AI:128:LYS:HB2	2.19	0.57
43:BS:61:GLU:HG2	43:BS:63:ALA:N	2.12	0.57
45:BU:23:LYS:HZ2	45:BU:45:HIS:HB2	1.69	0.57
37:BL:32:GLU:HA	37:BL:115:LEU:HD13	1.86	0.57
27:BB:79:LEU:H	27:BB:79:LEU:CD2	2.14	0.57
34:BI:46:ALA:O	34:BI:48:PRO:HD3	2.04	0.57
22:B0:2812:G:H2'	22:B0:2813:A:C8	2.39	0.57
23:B9:37:C:H41	23:B9:44:G:H1	1.53	0.57
34:BI:66:LYS:HG2	34:BI:80:ASP:O	2.04	0.57
6:AE:89:THR:HG23	6:AE:90:GLY:N	2.19	0.57
29:BD:93:GLU:HG2	29:BD:94:ARG:HH12	1.68	0.57
24:B2:193:VAL:HG13	24:B2:196:LYS:HE2	1.87	0.57
1:AA:603:U:H2'	1:AA:604:G:H8	1.69	0.57
1:AA:397:A:N3	1:AA:397:A:H3'	2.19	0.57
22:B0:2012:G:H4'	41:BQ:86:MET:HG2	1.86	0.57
43:BS:43:LYS:C	43:BS:45:GLN:H	2.07	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BK:62:LYS:HB3	36:BK:106:ASP:HB2	1.86	0.57
22:B0:1195:G:H2'	22:B0:1196:C:C6	2.39	0.57
22:B0:960:A:N3	22:B0:2497:A:O4'	2.38	0.57
1:AA:1317:C:C4	20:AS:8:PRO:HD3	2.38	0.57
42:BR:77:ARG:NH2	42:BR:79:ASP:N	2.50	0.57
45:BU:37:VAL:HG22	45:BU:38:ARG:N	2.20	0.57
45:BU:42:THR:OG1	45:BU:65:LYS:HA	2.04	0.57
17:AP:32:PHE:HZ	17:AP:35:ARG:HH21	1.53	0.57
22:B0:215:G:H4'	22:B0:216:A:C5'	2.35	0.57
4:AC:64:ARG:HA	4:AC:99:GLN:HB3	1.85	0.57
1:AA:827:U:H3	1:AA:872:A:H61	1.50	0.57
1:AA:1401:G:N1	1:AA:1504:G:N2	2.53	0.57
1:AA:1266:G:N3	1:AA:1268:G:C8	2.72	0.57
15:AN:40:ARG:HG2	20:AS:13:HIS:HB2	1.86	0.57
23:B9:100:G:H2'	23:B9:101:A:C8	2.39	0.57
3:AB:46:VAL:HA	3:AB:49:PHE:HD2	1.70	0.57
6:AE:80:LEU:N	6:AE:80:LEU:HD22	2.19	0.57
1:AA:962:C:H2'	1:AA:963:G:H8	1.68	0.57
24:B2:89:ALA:HB1	24:B2:152:VAL:HG11	1.87	0.57
4:AC:29:ALA:HB2	15:AN:99:SER:HB3	1.86	0.57
1:AA:1340:A:H4'	2:AV:32:C:H5''	1.85	0.57
22:B0:1923:U:H2'	22:B0:1924:C:C6	2.39	0.57
22:B0:1488:G:H1'	26:BA:198:GLU:HA	1.86	0.57
22:B0:1579:A:O2'	26:BA:130:PRO:HG3	2.04	0.57
22:B0:1487:G:H22	26:BA:199:HIS:HB2	1.69	0.57
26:BA:75:ALA:O	26:BA:114:GLN:HA	2.03	0.57
22:B0:1666:G:H2'	22:B0:1667:G:O4'	2.03	0.57
22:B0:2639:A:C6	22:B0:2640:G:H1'	2.40	0.57
33:BH:96:ARG:CD	33:BH:99:ARG:H	2.13	0.57
22:B0:776:G:O2'	22:B0:777:G:OP2	2.21	0.57
28:BC:184:ASP:H	35:BJ:17:LYS:HE2	1.70	0.57
22:B0:1201:U:H2'	35:BJ:14:LYS:CG	2.32	0.57
22:B0:2450:A:H5''	22:B0:2497:A:N6	2.19	0.57
1:AA:1317:C:H2'	1:AA:1318:A:H5'	1.86	0.57
22:B0:1046:A:C6	25:B5:28:GLU:HB3	2.39	0.57
22:B0:2147:A:H2'	22:B0:2148:G:H4'	1.86	0.57
45:BU:38:ARG:NH1	45:BU:38:ARG:HA	2.19	0.57
22:B0:2262:U:P	45:BU:13:ARG:HD3	2.44	0.57
16:AO:27:GLN:O	16:AO:31:LEU:HD13	2.05	0.57
26:BA:211:ARG:HA	26:BA:211:ARG:NE	2.19	0.57
45:BU:48:ALA:HB2	45:BU:76:ARG:HE	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BG:18:ASN:CG	32:BG:19:PRO:HA	2.25	0.57
25:B5:73:ARG:HB3	25:B5:73:ARG:NH1	2.19	0.57
1:AA:614:C:H2'	1:AA:615:G:C8	2.38	0.57
1:AA:452:A:N6	1:AA:480:U:H3	2.02	0.57
1:AA:593:U:H3	1:AA:646:G:H1	1.51	0.57
44:BT:61:LEU:O	44:BT:71:LYS:HA	2.05	0.57
25:B3:108:LYS:O	25:B3:112:GLU:HG3	2.04	0.57
1:AA:244:U:C1'	1:AA:894:G:H1'	2.16	0.57
28:BC:44:ARG:HG2	28:BC:90:GLN:HG3	1.86	0.57
41:BQ:7:HIS:NE2	41:BQ:103:ILE:HB	2.19	0.57
41:BQ:7:HIS:CD2	41:BQ:50:VAL:HG11	2.39	0.57
1:AA:1344:C:H4'	10:AI:119:LYS:HZ1	1.69	0.57
4:AC:110:LEU:HG	4:AC:143:LEU:CD2	2.34	0.57
20:AS:8:PRO:HB2	20:AS:10:ILE:HD11	1.87	0.57
2:AU:35:A:H2'	2:AU:36:A:C8	2.39	0.57
37:BL:34:ILE:N	37:BL:34:ILE:HD12	2.19	0.57
37:BL:28:LEU:HD13	37:BL:45:ARG:NH2	2.18	0.57
22:B0:122:G:N1	22:B0:130:C:N3	2.53	0.57
22:B0:1375:U:H2'	22:B0:1376:C:C6	2.39	0.57
7:AF:8:PHE:CE1	7:AF:10:VAL:HB	2.40	0.57
1:AA:908:A:H2'	1:AA:909:A:H8	1.68	0.57
11:AJ:14:ASP:HB3	11:AJ:17:LEU:CG	2.34	0.57
1:AA:1306:A:H62	1:AA:1331:G:H1'	1.70	0.57
1:AA:381:C:H2'	1:AA:382:A:O4'	2.04	0.57
22:B0:538:A:H2'	22:B0:539:G:H5''	1.86	0.57
22:B0:1499:U:H2'	22:B0:1500:A:C8	2.39	0.57
26:BA:143:VAL:O	26:BA:152:GLN:N	2.29	0.57
26:BA:146:LYS:HG3	26:BA:147:PRO:HD2	1.86	0.57
1:AA:426:U:H2'	1:AA:427:U:H6	1.66	0.57
13:AL:109:ARG:NH1	13:AL:111:GLN:HB2	2.19	0.57
33:BH:20:ALA:HA	33:BH:23:LYS:NZ	2.19	0.57
45:BU:23:LYS:HD3	45:BU:56:HIS:CG	2.40	0.57
4:AC:106:ARG:HG2	4:AC:107:LYS:CD	2.35	0.57
37:BL:41:ALA:O	37:BL:45:ARG:HG2	2.04	0.57
37:BL:53:THR:HG22	37:BL:54:LEU:HD22	1.86	0.57
24:B2:22:ILE:HD12	24:B2:22:ILE:N	2.18	0.57
1:AA:60:A:O2'	1:AA:61:G:P	2.62	0.57
22:B0:912:C:H2'	22:B0:913:U:C6	2.39	0.57
26:BA:123:ILE:O	26:BA:123:ILE:HG12	2.05	0.57
1:AA:1487:G:O2'	1:AA:1488:G:H5'	2.04	0.57
1:AA:655:A:H1'	1:AA:755:G:H4'	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:618:G:OP2	28:BC:198:GLU:HB3	2.05	0.57
22:B0:1771:C:H2'	22:B0:1772:A:C8	2.39	0.57
34:BI:17:ARG:HA	34:BI:17:ARG:NE	2.19	0.57
22:B0:84:A:H4'	22:B0:85:G:C4'	2.34	0.57
22:B0:343:C:H2'	22:B0:347:A:C8	2.40	0.57
12:AK:122:PRO:HG2	12:AK:127:ARG:HG2	1.87	0.57
1:AA:18:C:H2'	1:AA:19:A:H8	1.69	0.57
39:BN:3:ILE:O	39:BN:3:ILE:HG22	2.04	0.57
22:B0:931:U:H5''	22:B0:932:U:O5'	2.04	0.57
22:B0:2778:A:O2'	22:B0:2779:U:OP1	2.20	0.57
33:BH:16:TYR:HD2	33:BH:17:VAL:H	1.53	0.57
22:B0:776:G:O2'	22:B0:777:G:C5'	2.52	0.57
22:B0:809:G:H4'	22:B0:1254:A:C1'	2.35	0.57
22:B0:960:A:N9	22:B0:2496:C:H5''	2.19	0.57
2:AU:20:G:N2	2:AU:22:G:H5'	2.19	0.57
1:AA:1360:A:C6	20:AS:6:LYS:HE3	2.40	0.57
41:BQ:28:LYS:CA	41:BQ:70:LYS:HD2	2.34	0.57
24:B2:208:ILE:N	24:B2:208:ILE:HD13	2.11	0.57
39:BN:91:VAL:CG1	39:BN:92:ARG:H	2.16	0.57
39:BN:95:LYS:HG3	39:BN:97:TYR:HE1	1.70	0.57
25:B3:50:GLU:OE2	25:B5:11:VAL:O	2.23	0.57
25:B5:14:MET:HB3	25:B5:18:ASP:CB	2.34	0.57
25:B5:46:GLU:O	25:B5:49:GLU:N	2.34	0.57
1:AA:566:G:C5'	1:AA:567:G:OP1	2.49	0.57
2:AU:74:C:O3'	22:B0:2556:C:H3'	2.05	0.57
1:AA:1197:A:OP1	1:AA:1197:A:H3'	2.04	0.57
32:BG:133:ARG:HG3	32:BG:137:LEU:CB	2.35	0.57
32:BG:83:ALA:CB	32:BG:137:LEU:HB2	2.35	0.57
1:AA:1222:G:H1'	20:AS:1:PRO:HA	1.86	0.57
1:AA:518:C:H4'	1:AA:519:C:H5''	1.86	0.57
35:BJ:60:ARG:HB3	35:BJ:60:ARG:HH11	1.70	0.57
1:AA:1453:G:N3	1:AA:1453:G:H3'	2.19	0.57
12:AK:30:ILE:HD13	12:AK:30:ILE:C	2.25	0.57
40:BO:108:LEU:HD13	40:BO:108:LEU:O	2.05	0.57
33:BH:45:THR:HB	33:BH:46:PRO:C	2.24	0.57
15:AN:81:ILE:CD1	15:AN:82:LYS:HG2	2.35	0.57
18:AQ:11:VAL:HG23	18:AQ:56:ASP:O	2.04	0.57
1:AA:201:G:C6	1:AA:203:U:H1'	2.40	0.57
22:B0:1416:G:H4'	22:B0:1587:A:C2	2.40	0.57
22:B0:1491:A:C8	26:BA:175:LEU:N	2.73	0.57
1:AA:33:A:H4'	1:AA:364:A:H1'	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:499:A:C4'	1:AA:500:G:OP1	2.53	0.57
1:AA:246:A:O2'	1:AA:247:G:H4'	2.03	0.57
22:B0:786:C:H2'	22:B0:787:C:C6	2.39	0.57
40:BO:2:ARG:HG2	40:BO:3:VAL:N	2.18	0.57
40:BO:40:LYS:HE2	40:BO:44:TYR:HB3	1.87	0.57
22:B0:959:A:O4'	36:BK:80:VAL:HB	2.04	0.57
22:B0:1454:A:H3'	22:B0:1455:U:C5'	2.34	0.57
1:AA:1297:G:H1	8:AG:41:ILE:HD11	1.70	0.57
33:BH:114:LEU:HD13	33:BH:114:LEU:N	2.14	0.57
22:B0:2225:A:O2'	22:B0:2226:C:OP2	2.15	0.57
29:BD:47:LYS:HG2	29:BD:48:LEU:N	2.16	0.57
41:BQ:96:ILE:HG22	41:BQ:98:LYS:H	1.69	0.57
22:B0:1960:A:H2'	22:B0:1961:C:C6	2.40	0.57
22:B0:2478:A:H4'	22:B0:2528:U:C4'	2.34	0.57
22:B0:611:C:H42	22:B0:618:G:N2	2.00	0.57
26:BA:54:GLY:H	26:BA:216:ARG:NH2	2.03	0.57
36:BK:63:ILE:HD13	36:BK:64:TRP:N	2.20	0.57
22:B0:762:U:H1'	22:B0:763:G:C8	2.39	0.57
18:AQ:60:ILE:HD12	18:AQ:60:ILE:N	2.20	0.57
23:B9:48:U:H2'	23:B9:49:C:C6	2.40	0.57
19:AR:47:ARG:HE	19:AR:49:LYS:HB2	1.69	0.57
22:B0:1494:A:N6	26:BA:188:ARG:HG3	2.20	0.57
22:B0:1992:G:H22	27:BB:138:LEU:CD1	2.17	0.57
1:AA:34:C:H2'	1:AA:35:G:C8	2.40	0.57
33:BH:123:LYS:HA	33:BH:123:LYS:HZ2	1.68	0.57
28:BC:114:ARG:HB3	28:BC:117:ARG:CG	2.34	0.57
22:B0:669:G:O6	28:BC:68:ALA:HB2	2.05	0.57
28:BC:88:ARG:N	28:BC:89:PRO:CD	2.64	0.57
22:B0:959:A:O2'	22:B0:2495:G:C2'	2.52	0.57
22:B0:2500:U:H2'	22:B0:2501:C:H5'	1.87	0.57
29:BD:106:ALA:HB2	29:BD:138:PRO:HD3	1.87	0.57
24:B2:62:THR:HG23	24:B2:64:LEU:HG	1.87	0.57
2:AV:35:A:H2'	2:AV:36:A:H8	1.70	0.57
32:BG:67:THR:HG22	32:BG:68:PHE:N	2.20	0.57
37:BL:28:LEU:H	37:BL:28:LEU:HD23	1.69	0.57
40:BO:63:ARG:HE	40:BO:99:VAL:HB	1.70	0.57
22:B0:2227:A:H2'	22:B0:2228:G:C5'	2.31	0.57
1:AA:960:U:HO2'	1:AA:961:U:P	2.28	0.57
22:B0:2565:A:H2'	22:B0:2566:A:C1'	2.35	0.57
22:B0:2547:A:N6	34:BI:28:SER:HB3	2.20	0.57
1:AA:892:A:O2'	1:AA:1415:G:H4'	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BO:73:ILE:CD1	40:BO:77:LYS:HB3	2.34	0.57
40:BO:116:LEU:CD2	40:BO:116:LEU:H	2.17	0.57
49:B1:26:LYS:H	49:B1:26:LYS:HE3	1.70	0.57
22:B0:1439:A:OP1	22:B0:1517:G:H5''	2.05	0.57
48:BZ:41:HIS:O	48:BZ:42:ILE:HD13	2.05	0.57
22:B0:300:A:H2'	22:B0:335:C:H5''	1.85	0.57
5:AD:2:ARG:NE	5:AD:66:VAL:HA	2.19	0.57
35:BJ:70:LYS:HD3	35:BJ:70:LYS:N	2.20	0.57
1:AA:652:U:H2'	1:AA:653:U:H5''	1.87	0.57
18:AQ:5:ARG:O	18:AQ:61:ARG:HA	2.04	0.57
4:AC:48:LYS:O	4:AC:74:ILE:HD13	2.05	0.57
22:B0:1422:G:C2'	22:B0:1423:A:H5''	2.29	0.56
22:B0:1498:C:H42	26:BA:155:ARG:HG2	1.70	0.56
1:AA:405:U:H5''	1:AA:406:G:O4'	2.04	0.56
33:BH:110:PRO:O	33:BH:111:LYS:HG2	2.05	0.56
22:B0:2896:U:O2	33:BH:39:LYS:HG2	2.05	0.56
22:B0:1248:G:O2'	22:B0:1249:U:OP1	2.19	0.56
22:B0:589:U:O2	28:BC:73:ILE:HD12	2.05	0.56
22:B0:807:U:H2'	22:B0:808:G:H8	1.69	0.56
28:BC:118:LEU:CD2	28:BC:118:LEU:H	2.16	0.56
22:B0:1246:A:H4'	28:BC:37:ALA:O	2.05	0.56
28:BC:44:ARG:HA	28:BC:90:GLN:HA	1.85	0.56
22:B0:2282:G:OP1	22:B0:2283:C:H1'	2.05	0.56
19:AR:55:ALA:O	19:AR:59:LYS:HG2	2.05	0.56
42:BR:60:THR:HA	42:BR:83:ALA:CB	2.35	0.56
22:B0:977:G:H4'	22:B0:1001:A:H2	1.69	0.56
22:B0:2514:U:H2'	22:B0:2515:C:C6	2.40	0.56
45:BU:9:THR:HG22	45:BU:10:ARG:H	1.70	0.56
8:AG:30:MET:SD	8:AG:33:GLY:HA2	2.44	0.56
32:BG:92:PRO:O	32:BG:93:ASN:CB	2.52	0.56
29:BD:32:LYS:HD2	29:BD:32:LYS:O	2.05	0.56
12:AK:106:ILE:C	12:AK:106:ILE:HD13	2.24	0.56
35:BJ:78:ARG:HD3	35:BJ:126:ARG:NH1	2.20	0.56
47:BX:20:LYS:O	47:BX:24:LEU:HG	2.05	0.56
25:B5:84:LYS:HB3	25:B5:84:LYS:NZ	2.20	0.56
1:AA:434:U:H2'	1:AA:435:A:H8	1.68	0.56
5:AD:147:LYS:N	5:AD:147:LYS:HD2	2.20	0.56
32:BG:99:LYS:O	32:BG:99:LYS:HD2	2.04	0.56
26:BA:101:ARG:HB3	26:BA:101:ARG:HH11	1.70	0.56
26:BA:141:HIS:HD2	26:BA:141:HIS:N	2.02	0.56
22:B0:1673:G:H2'	22:B0:1674:G:H5''	1.85	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:419:C:C1'	5:AD:39:GLN:CB	2.78	0.56
1:AA:430:A:H1'	1:AA:431:A:C6	2.39	0.56
13:AL:29:LYS:HG3	13:AL:58:ASN:HD21	1.69	0.56
41:BQ:23:LEU:C	41:BQ:25:ARG:HE	2.08	0.56
22:B0:2108:A:C2	22:B0:2109:U:H1'	2.39	0.56
22:B0:2180:U:OP2	22:B0:2181:U:C6	2.58	0.56
27:BB:122:VAL:C	27:BB:124:ARG:H	2.08	0.56
27:BB:122:VAL:HB	27:BB:141:ARG:HG2	1.86	0.56
4:AC:130:ARG:HE	6:AE:53:ARG:HD2	1.65	0.56
2:AV:37:G:H2'	2:AV:38:A:O4'	2.05	0.56
37:BL:28:LEU:N	37:BL:28:LEU:HD23	2.20	0.56
22:B0:1002:G:H2'	22:B0:1003:G:C8	2.41	0.56
22:B0:1046:A:O2'	25:B5:25:ALA:O	2.20	0.56
22:B0:1872:A:C2	22:B0:2412:A:H5'	2.40	0.56
22:B0:2515:C:C5	27:BB:154:LYS:HB2	2.39	0.56
48:BZ:29:VAL:HG11	48:BZ:32:THR:HG23	1.87	0.56
48:BZ:29:VAL:HG13	48:BZ:47:TYR:CZ	2.40	0.56
1:AA:6:G:H22	6:AE:105:ILE:HG13	1.67	0.56
27:BB:37:VAL:HA	27:BB:78:GLY:CA	2.33	0.56
34:BI:51:LYS:O	34:BI:51:LYS:HD3	2.05	0.56
1:AA:1053:G:H5'	1:AA:1054:C:H5'	1.87	0.56
22:B0:482:A:H1'	22:B0:498:G:H21	1.68	0.56
2:AW:3:G:H5'	22:B0:1880:U:OP1	2.04	0.56
15:AN:46:LYS:O	15:AN:46:LYS:HD3	2.04	0.56
22:B0:109:C:H2'	22:B0:110:G:H8	1.70	0.56
16:AO:81:ILE:HG21	16:AO:87:ARG:HE	1.70	0.56
25:B5:108:LYS:O	25:B5:112:GLU:HG3	2.06	0.56
22:B0:2052:A:H61	22:B0:2617:U:H3	1.52	0.56
3:AB:202:ASN:HD22	3:AB:203:ASP:N	2.03	0.56
22:B0:2407:A:H2'	22:B0:2408:U:C6	2.40	0.56
44:BT:55:GLU:O	44:BT:59:GLU:HG3	2.05	0.56
22:B0:1416:G:C2	26:BA:94:LEU:HD22	2.40	0.56
26:BA:142:ASN:CB	26:BA:190:THR:OG1	2.54	0.56
26:BA:64:VAL:HG11	26:BA:150:GLY:HA2	1.87	0.56
26:BA:175:LEU:C	26:BA:177:SER:H	2.09	0.56
22:B0:1426:G:H1'	22:B0:1572:A:N6	2.20	0.56
1:AA:33:A:H4'	1:AA:364:A:C1'	2.35	0.56
33:BH:123:LYS:HZ1	33:BH:123:LYS:HA	1.68	0.56
22:B0:1324:G:H4'	22:B0:1616:A:N6	2.20	0.56
22:B0:659:G:H2'	22:B0:660:C:C6	2.39	0.56
28:BC:91:ASP:HA	35:BJ:29:LYS:CB	2.28	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BC:92:HIS:N	35:BJ:29:LYS:N	2.53	0.56
28:BC:24:ASN:HB2	28:BC:27:LEU:HB2	1.88	0.56
22:B0:493:G:H21	41:BQ:7:HIS:CG	2.23	0.56
2:AW:18:G:C2'	2:AW:57:G:H22	2.18	0.56
1:AA:1385:G:H2'	10:AI:128:LYS:HZ2	1.69	0.56
22:B0:2677:G:H4'	27:BB:160:LYS:HD3	1.88	0.56
22:B0:960:A:H3'	22:B0:2496:C:H5''	1.87	0.56
12:AK:117:HIS:O	12:AK:118:ASN:HB2	2.05	0.56
24:B2:64:LEU:HD12	24:B2:160:VAL:HG11	1.87	0.56
42:BR:13:ALA:HB2	46:BW:32:ALA:HB1	1.88	0.56
37:BL:22:ARG:O	37:BL:23:ASN:HB2	2.05	0.56
37:BL:36:THR:HG1	37:BL:40:LYS:HB2	1.69	0.56
22:B0:1872:A:O2'	22:B0:1877:A:H5'	2.05	0.56
45:BU:17:ALA:HB1	45:BU:35:ILE:HA	1.87	0.56
22:B0:1833:C:H2'	22:B0:1834:U:N1	2.19	0.56
32:BG:74:PRO:O	32:BG:75:ALA:CB	2.52	0.56
2:AU:75:C:N4	22:B0:2558:C:C5	2.73	0.56
35:BJ:46:VAL:HG23	35:BJ:47:ARG:N	2.15	0.56
22:B0:368:A:H2'	22:B0:369:U:O4'	2.05	0.56
5:AD:169:TRP:CD2	5:AD:185:PRO:HB3	2.40	0.56
16:AO:56:LEU:HD12	16:AO:57:ARG:CZ	2.35	0.56
16:AO:7:THR:O	16:AO:11:VAL:HG23	2.05	0.56
1:AA:655:A:O5'	1:AA:655:A:H8	1.87	0.56
32:BG:91:LYS:N	32:BG:91:LYS:HD3	2.17	0.56
1:AA:689:C:H2'	1:AA:690:G:C8	2.41	0.56
1:AA:570:G:H5'	1:AA:820:U:O4'	2.05	0.56
39:BN:37:LYS:HD2	39:BN:37:LYS:O	2.03	0.56
1:AA:31:G:O2'	1:AA:46:G:H4'	2.05	0.56
22:B0:874:G:H5'	36:BK:25:ASP:HB3	1.88	0.56
1:AA:129:A:H4'	1:AA:130:A:OP1	2.05	0.56
22:B0:2093:G:H2'	22:B0:2094:A:H8	1.70	0.56
22:B0:351:C:C2	22:B0:352:A:H1'	2.40	0.56
18:AQ:28:VAL:O	18:AQ:37:ILE:HG12	2.05	0.56
43:BS:57:ILE:HD13	43:BS:57:ILE:C	2.26	0.56
1:AA:335:C:H2'	1:AA:336:A:H8	1.70	0.56
5:AD:115:GLN:HE22	5:AD:153:ARG:HH12	1.53	0.56
22:B0:1629:U:H2'	22:B0:1630:A:C8	2.40	0.56
26:BA:140:VAL:O	26:BA:161:VAL:N	2.38	0.56
22:B0:1313:U:C2'	22:B0:1313:U:O2	2.53	0.56
22:B0:599:A:H2'	22:B0:600:G:H8	1.69	0.56
22:B0:677:A:N6	22:B0:800:A:N6	2.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BQ:18:ARG:O	41:BQ:19:LEU:HB3	2.05	0.56
24:B2:7:MET:O	24:B2:10:ILE:HG22	2.06	0.56
10:AI:114:LYS:N	10:AI:120:ALA:HB2	2.19	0.56
22:B0:2542:A:H4'	22:B0:2543:G:H8	1.68	0.56
27:BB:125:TRP:O	27:BB:126:ASN:ND2	2.38	0.56
2:AV:19:G:H4'	2:AV:20:G:OP1	2.05	0.56
42:BR:65:GLY:H	42:BR:77:ARG:HH21	1.49	0.56
7:AF:12:PRO:HD2	7:AF:54:LEU:HD23	1.88	0.56
22:B0:2553:G:H2'	22:B0:2554:U:H4'	1.87	0.56
22:B0:2563:U:H4'	34:BI:28:SER:OG	2.05	0.56
1:AA:1484:C:H2'	1:AA:1485:U:O4'	2.05	0.56
1:AA:892:A:H4'	1:AA:1415:G:H4'	1.87	0.56
22:B0:1822:C:H2'	22:B0:1823:G:C8	2.40	0.56
26:BA:48:ILE:O	26:BA:49:THR:HG23	2.04	0.56
1:AA:684:U:H2'	1:AA:685:G:O4'	2.06	0.56
9:AH:29:SER:HB3	9:AH:32:LYS:CG	2.34	0.56
6:AE:15:ILE:HB	6:AE:35:LEU:HB2	1.86	0.56
22:B0:1343:G:H5'	22:B0:1598:A:OP2	2.06	0.56
36:BK:18:ARG:NH1	36:BK:50:ARG:HG3	2.20	0.56
30:BE:85:LYS:HG3	30:BE:169:ARG:HH21	1.69	0.56
7:AF:89:VAL:O	7:AF:89:VAL:HG23	2.05	0.56
34:BI:11:ALA:HB3	34:BI:85:VAL:HG22	1.88	0.56
46:BW:33:ALA:O	46:BW:34:SER:HB2	2.06	0.56
5:AD:76:LYS:HB3	5:AD:76:LYS:NZ	2.19	0.56
1:AA:640:A:H2'	1:AA:641:U:O4'	2.05	0.56
22:B0:2001:C:H2'	22:B0:2002:G:C8	2.40	0.56
22:B0:1495:A:OP1	26:BA:140:VAL:HB	2.05	0.56
22:B0:1581:A:OP1	26:BA:73:ILE:HB	2.05	0.56
22:B0:2895:C:N4	33:BH:13:ARG:NH1	2.53	0.56
22:B0:2897:U:C5	33:BH:14:ASP:HB2	2.41	0.56
22:B0:443:A:C6	28:BC:40:ARG:HG2	2.40	0.56
22:B0:793:A:O2'	22:B0:794:A:H5'	2.06	0.56
28:BC:104:ALA:HA	28:BC:107:SER:OG	2.06	0.56
28:BC:47:LYS:HB3	28:BC:47:LYS:NZ	2.21	0.56
1:AA:1385:G:N3	10:AI:128:LYS:CE	2.66	0.56
27:BB:14:ILE:HG13	27:BB:188:LEU:HD13	1.86	0.56
42:BR:42:GLU:CD	42:BR:42:GLU:H	2.09	0.56
42:BR:8:LEU:HD13	46:BW:29:ARG:HB2	1.87	0.56
37:BL:99:LYS:O	48:BZ:52:LYS:HB2	2.05	0.56
24:B2:25:ALA:HB2	24:B2:223:VAL:HG11	1.87	0.56
22:B0:918:A:O2'	23:B9:81:G:O3'	2.23	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1267:U:H3	22:B0:2014:A:N6	2.04	0.56
17:AP:14:ARG:HH11	17:AP:14:ARG:HB2	1.67	0.56
1:AA:188:C:H2'	1:AA:189:A:O4'	2.05	0.56
1:AA:965:U:H1'	1:AA:969:A:C4	2.41	0.56
1:AA:1003:G:C6	1:AA:1004:A:H1'	2.41	0.56
20:AS:12:LEU:HD12	20:AS:13:HIS:N	2.20	0.56
1:AA:610:U:O2'	1:AA:611:C:H5'	2.06	0.56
6:AE:80:LEU:HG	6:AE:95:MET:SD	2.45	0.56
22:B0:2099:U:H2'	22:B0:2100:G:H8	1.70	0.56
22:B0:1488:G:O2'	26:BA:201:LEU:HG	2.05	0.56
22:B0:971:G:C2'	22:B0:972:A:H5'	2.36	0.56
22:B0:588:U:H5'	28:BC:43:THR:CB	2.36	0.56
22:B0:961:C:C2	22:B0:2497:A:O2'	2.57	0.56
27:BB:13:ARG:HD3	39:BN:10:GLU:CG	2.34	0.56
39:BN:65:ASN:HD22	39:BN:66:GLY:N	2.04	0.56
25:B5:57:ILE:O	25:B5:117:VAL:HG13	2.05	0.56
37:BL:53:THR:O	37:BL:54:LEU:HB2	2.06	0.56
22:B0:978:G:H2'	22:B0:979:A:C8	2.41	0.56
25:B5:27:GLU:HA	25:B5:35:ALA:HB2	1.87	0.56
45:BU:67:LYS:N	45:BU:67:LYS:HD3	2.21	0.56
1:AA:1099:G:N3	1:AA:1100:C:H1'	2.21	0.56
22:B0:2263:C:N4	22:B0:2277:G:N1	2.53	0.56
39:BN:105:LYS:HA	39:BN:105:LYS:HZ2	1.68	0.56
30:BE:88:LEU:H	30:BE:88:LEU:CD1	2.17	0.56
1:AA:820:U:OP1	1:AA:821:G:OP2	2.23	0.56
1:AA:927:G:H2'	1:AA:928:G:H8	1.70	0.56
1:AA:1278:G:H5'	1:AA:1279:G:C5'	2.35	0.56
22:B0:2696:U:H2'	22:B0:2697:G:C8	2.41	0.56
47:BX:31:ILE:HD13	47:BX:31:ILE:N	2.20	0.56
24:B2:193:VAL:HA	24:B2:196:LYS:HE2	1.88	0.56
3:AB:170:ILE:N	3:AB:170:ILE:HD12	2.18	0.56
8:AG:154:ARG:H	8:AG:154:ARG:HD3	1.69	0.56
22:B0:94:A:H2'	22:B0:95:A:O4'	2.06	0.56
2:AW:74:C:H2'	2:AW:75:C:O4'	2.06	0.56
22:B0:239:C:H2'	22:B0:240:C:C6	2.40	0.56
22:B0:1494:A:N3	22:B0:1494:A:C2'	2.69	0.56
33:BH:109:LEU:N	33:BH:109:LEU:HD22	2.21	0.56
33:BH:39:LYS:HZ2	33:BH:40:HIS:HB2	1.71	0.56
22:B0:800:A:O2'	22:B0:801:G:C5'	2.52	0.56
22:B0:982:C:O2'	22:B0:983:A:OP1	2.16	0.56
22:B0:2156:G:C8	22:B0:2157:G:H3'	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:960:A:N6	22:B0:2250:G:HO2'	2.02	0.56
42:BR:25:GLU:C	42:BR:26:LYS:HD2	2.26	0.56
42:BR:74:ILE:HD12	42:BR:76:ARG:HH22	1.69	0.56
29:BD:7:TYR:HD1	29:BD:11:VAL:HG13	1.70	0.56
1:AA:562:U:H5''	1:AA:563:A:O5'	2.06	0.56
10:AI:50:PRO:CB	10:AI:83:THR:HG22	2.36	0.56
1:AA:580:C:H2'	1:AA:581:G:C8	2.41	0.56
22:B0:2289:G:H22	22:B0:2344:U:H1'	1.69	0.56
22:B0:1128:G:H1'	22:B0:2517:C:C5'	2.36	0.56
22:B0:2811:G:H2'	22:B0:2812:G:H8	1.70	0.56
3:AB:44:LYS:O	3:AB:48:MET:HG2	2.05	0.56
1:AA:954:G:H1	1:AA:1226:C:H42	1.53	0.56
1:AA:120:A:H2'	1:AA:122:G:N7	2.20	0.56
1:AA:119:A:O2'	1:AA:120:A:OP2	2.24	0.56
14:AM:1:ALA:HA	14:AM:2:ARG:NH2	2.20	0.56
4:AC:119:ILE:HD11	4:AC:136:ALA:HB2	1.88	0.56
40:BO:65:ASN:HA	40:BO:74:SER:HB2	1.87	0.56
33:BH:76:HIS:O	33:BH:77:HIS:HB3	2.05	0.56
44:BT:46:LYS:O	44:BT:50:MET:HG3	2.06	0.56
36:BK:53:MET:HA	36:BK:116:ALA:HB1	1.88	0.56
22:B0:1426:G:H1'	22:B0:1572:A:H61	1.69	0.56
22:B0:1426:G:C3'	22:B0:1428:C:H42	2.11	0.56
22:B0:1581:A:P	26:BA:73:ILE:HB	2.46	0.56
22:B0:1580:A:OP2	26:BA:68:ARG:CD	2.53	0.56
26:BA:80:LEU:HD22	26:BA:90:ILE:O	2.06	0.56
28:BC:76:PRO:HG3	28:BC:82:GLY:O	2.05	0.56
28:BC:43:THR:C	28:BC:90:GLN:HA	2.26	0.56
2:AW:18:G:C4'	2:AW:19:G:OP1	2.52	0.56
1:AA:1384:C:H2'	1:AA:1385:G:O4'	2.06	0.56
22:B0:307:G:H21	22:B0:330:A:H62	1.53	0.56
1:AA:979:C:H5''	20:AS:5:LYS:HG3	1.85	0.56
21:AT:54:GLN:HG3	21:AT:75:LYS:HE3	1.87	0.56
22:B0:921:C:H4'	22:B0:2269:G:C2	2.40	0.56
24:B2:202:GLN:H	24:B2:202:GLN:HE21	1.48	0.56
22:B0:2565:A:H2'	22:B0:2566:A:O4'	2.06	0.56
22:B0:1142:A:H5''	22:B0:1143:A:OP1	2.06	0.56
3:AB:53:LEU:HD12	3:AB:56:LEU:HD23	1.88	0.56
13:AL:88:ASP:O	13:AL:90:PRO:HD3	2.06	0.56
22:B0:2568:U:H2'	22:B0:2569:G:H8	1.71	0.56
22:B0:2879:A:HO2'	22:B0:2881:U:H5	1.52	0.56
22:B0:1427:A:H62	26:BA:58:LYS:CD	2.19	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BH:36:LEU:HD22	33:BH:36:LEU:N	2.18	0.56
33:BH:39:LYS:NZ	33:BH:40:HIS:HB2	2.20	0.56
33:BH:55:ILE:HA	33:BH:123:LYS:O	2.06	0.56
22:B0:588:U:C5	28:BC:82:GLY:HA2	2.41	0.56
40:BO:10:ARG:N	40:BO:10:ARG:NE	2.54	0.56
22:B0:490:C:N3	22:B0:492:A:N6	2.46	0.56
41:BQ:10:ALA:HB1	41:BQ:11:ARG:NH2	2.21	0.56
22:B0:301:G:H4'	22:B0:302:C:C5'	2.36	0.56
4:AC:150:VAL:HG22	4:AC:199:VAL:HG22	1.86	0.56
42:BR:47:VAL:O	42:BR:48:GLN:HB3	2.06	0.56
22:B0:60:G:O6	22:B0:63:A:H2'	2.05	0.56
22:B0:1002:G:H1	22:B0:1153:C:N4	2.04	0.56
10:AI:57:VAL:HG23	10:AI:58:GLU:N	2.14	0.56
22:B0:1844:C:H2'	22:B0:1845:G:C8	2.41	0.56
22:B0:2381:A:C2'	22:B0:2382:G:H5'	2.35	0.56
1:AA:1117:A:H61	1:AA:1156:G:H22	1.54	0.56
1:AA:252:U:H2'	1:AA:253:A:H8	1.71	0.56
22:B0:555:U:H2'	22:B0:556:A:C8	2.41	0.56
29:BD:129:MET:HG3	29:BD:153:ILE:H	1.71	0.56
27:BB:106:LYS:N	27:BB:106:LYS:HD2	2.19	0.56
1:AA:446:G:H2'	1:AA:447:G:O4'	2.06	0.56
22:B0:1492:G:C2'	26:BA:152:GLN:HE21	2.18	0.56
26:BA:163:ILE:HA	26:BA:173:LEU:CG	2.27	0.56
5:AD:18:LEU:HD22	5:AD:63:ILE:HG12	1.88	0.56
22:B0:1197:G:H21	40:BO:8:ILE:HD13	1.70	0.56
22:B0:661:A:H1'	28:BC:96:VAL:O	2.05	0.56
28:BC:89:PRO:O	28:BC:90:GLN:CG	2.54	0.56
1:AA:1385:G:C2	10:AI:128:LYS:HG3	2.41	0.56
22:B0:2680:U:H2'	22:B0:2681:C:C5'	2.27	0.56
22:B0:2504:U:H1'	22:B0:2572:A:C2	2.33	0.56
45:BU:43:LYS:HE2	45:BU:43:LYS:H	1.71	0.56
39:BN:29:VAL:HG12	39:BN:45:VAL:HG12	1.87	0.56
42:BR:55:VAL:HA	42:BR:56:GLU:N	2.20	0.56
22:B0:1110:G:H5''	22:B0:1111:A:OP1	2.05	0.56
22:B0:1869:G:H1'	22:B0:1872:A:N6	2.21	0.56
45:BU:35:ILE:HG23	45:BU:36:ILE:N	2.21	0.56
1:AA:449:G:O2'	1:AA:450:G:H3'	2.05	0.56
22:B0:2555:U:H2'	22:B0:2556:C:C6	2.41	0.56
22:B0:704:G:H1'	22:B0:727:A:N6	2.21	0.56
1:AA:889:A:C2	1:AA:907:A:H5''	2.41	0.56
45:BU:58:LEU:HB2	45:BU:81:ILE:HA	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:346:G:H3'	1:AA:346:G:N3	2.21	0.56
9:AH:6:ILE:HG22	9:AH:76:ARG:HD2	1.88	0.56
22:B0:459:U:O2'	22:B0:460:A:H5'	2.05	0.56
22:B0:1080:A:O2'	22:B0:1081:U:H5'	2.06	0.56
35:BJ:33:ARG:NE	35:BJ:33:ARG:N	2.54	0.56
1:AA:194:C:H2'	1:AA:195:A:H5''	1.86	0.56
1:AA:38:G:O2'	1:AA:39:G:H5''	2.06	0.55
1:AA:546:A:H5'	1:AA:548:G:HO2'	1.70	0.55
33:BH:33:ALA:CB	33:BH:105:VAL:HG23	2.31	0.55
22:B0:320:A:H4'	22:B0:322:A:N7	2.20	0.55
22:B0:669:G:H3'	22:B0:670:A:C2	2.42	0.55
40:BO:16:ILE:HD12	40:BO:19:GLN:NE2	2.22	0.55
40:BO:33:VAL:HA	40:BO:36:GLN:OE1	2.06	0.55
22:B0:493:G:H21	41:BQ:7:HIS:CA	2.19	0.55
41:BQ:29:VAL:HG21	41:BQ:55:ILE:HG21	1.88	0.55
41:BQ:53:SER:O	41:BQ:56:ALA:HB3	2.06	0.55
1:AA:940:C:H2'	1:AA:941:G:C8	2.41	0.55
2:AU:18:G:C4'	2:AU:19:G:OP1	2.51	0.55
1:AA:197:A:N6	1:AA:221:C:C4'	2.70	0.55
1:AA:718:A:O4'	12:AK:117:HIS:CA	2.43	0.55
22:B0:784:G:O2'	22:B0:785:G:H5''	2.06	0.55
39:BN:26:GLU:N	39:BN:88:ARG:HG3	2.17	0.55
42:BR:47:VAL:C	42:BR:49:LYS:H	2.09	0.55
1:AA:176:C:H2'	1:AA:177:G:C8	2.36	0.55
22:B0:2855:C:C2'	22:B0:2856:A:H5''	2.35	0.55
27:BB:28:GLU:HG2	27:BB:186:LEU:HD22	1.88	0.55
22:B0:2379:G:H2'	22:B0:2380:C:C6	2.42	0.55
22:B0:99:U:H4'	22:B0:100:U:OP2	2.06	0.55
14:AM:2:ARG:NE	14:AM:2:ARG:N	2.53	0.55
22:B0:1339:G:OP1	42:BR:19:LYS:HE2	2.06	0.55
1:AA:721:G:H4'	1:AA:722:G:H5''	1.88	0.55
22:B0:1579:A:H8	26:BA:65:ASP:HB3	1.71	0.55
22:B0:1491:A:O5'	26:BA:174:ARG:O	2.25	0.55
22:B0:1204:A:N6	22:B0:1241:A:H61	2.04	0.55
22:B0:669:G:H2'	28:BC:66:GLY:HA2	1.89	0.55
22:B0:990:A:O2'	22:B0:991:C:OP1	2.22	0.55
28:BC:90:GLN:HB3	35:BJ:27:LEU:O	2.06	0.55
2:AW:19:G:H5'	2:AW:60:C:H42	1.72	0.55
24:B2:208:ILE:O	24:B2:208:ILE:HG12	2.06	0.55
22:B0:2336:A:O2'	22:B0:2337:G:OP1	2.21	0.55
5:AD:148:ALA:O	5:AD:151:GLN:HG2	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BB:40:LEU:HB2	27:BB:74:GLU:HB3	1.88	0.55
10:AI:70:GLY:O	10:AI:74:GLN:HG3	2.06	0.55
1:AA:1100:C:H2'	1:AA:1101:A:OP1	2.06	0.55
1:AA:1015:G:O2'	1:AA:1218:C:H4'	2.05	0.55
5:AD:197:HIS:O	5:AD:201:GLU:HG3	2.06	0.55
34:BI:22:ILE:HG12	34:BI:41:ILE:HA	1.88	0.55
8:AG:24:LYS:HA	8:AG:27:ASN:HD22	1.70	0.55
8:AG:25:PHE:CD1	8:AG:28:ILE:HD11	2.40	0.55
22:B0:2292:U:H2'	22:B0:2293:G:C8	2.40	0.55
32:BG:54:ILE:HD13	32:BG:54:ILE:C	2.26	0.55
1:AA:1004:A:H2'	1:AA:1005:A:H5'	1.87	0.55
22:B0:2690:U:H1'	22:B0:2873:A:N6	2.21	0.55
3:AB:219:THR:HA	3:AB:222:GLU:HG2	1.87	0.55
11:AJ:37:ARG:HB3	11:AJ:37:ARG:NH1	2.21	0.55
44:BT:68:LYS:HD2	44:BT:68:LYS:O	2.07	0.55
22:B0:1181:U:H2'	22:B0:1182:G:H8	1.71	0.55
31:BF:143:ILE:C	31:BF:143:ILE:HD13	2.26	0.55
22:B0:1489:U:C6	26:BA:200:MET:SD	2.99	0.55
26:BA:101:ARG:CB	26:BA:101:ARG:HH11	2.19	0.55
26:BA:138:SER:O	26:BA:140:VAL:HG13	2.06	0.55
27:BB:131:ASP:O	27:BB:134:HIS:HB2	2.06	0.55
22:B0:516:C:H4'	22:B0:1262:A:C4'	2.37	0.55
22:B0:2679:A:H2'	22:B0:2680:U:O4'	2.06	0.55
22:B0:961:C:OP2	22:B0:2496:C:H3'	2.06	0.55
37:BL:64:ARG:HA	37:BL:64:ARG:NE	2.21	0.55
37:BL:21:PHE:O	37:BL:25:ALA:HB2	2.06	0.55
7:AF:42:TRP:HB2	7:AF:59:TYR:HB2	1.86	0.55
32:BG:78:LEU:O	32:BG:82:ALA:HB2	2.05	0.55
32:BG:77:VAL:C	32:BG:79:LEU:H	2.09	0.55
17:AP:20:VAL:HG13	17:AP:34:GLU:O	2.06	0.55
34:BI:21:CYS:HA	34:BI:41:ILE:HG22	1.89	0.55
25:B3:69:ILE:HG22	25:B3:73:ARG:HD2	1.88	0.55
22:B0:1817:G:O2'	22:B0:1818:U:H5'	2.06	0.55
1:AA:571:U:H4'	1:AA:819:A:N6	2.22	0.55
12:AK:123:PRO:HD2	12:AK:126:ARG:HD2	1.89	0.55
20:AS:35:ARG:HD3	20:AS:71:GLY:HA3	1.88	0.55
29:BD:94:ARG:HA	29:BD:94:ARG:NE	2.21	0.55
29:BD:165:GLY:C	29:BD:167:ALA:H	2.09	0.55
5:AD:58:GLN:O	5:AD:62:ARG:HG3	2.06	0.55
3:AB:72:LYS:HG2	3:AB:74:ALA:H	1.71	0.55
1:AA:404:G:H5'	1:AA:546:A:O3'	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BC:178:VAL:HG23	35:BJ:18:ARG:NH2	2.21	0.55
27:BB:121:THR:HG21	27:BB:143:PRO:HD3	1.89	0.55
22:B0:2498:C:O2	22:B0:2498:C:C2'	2.48	0.55
19:AR:58:ILE:O	19:AR:62:ARG:HG3	2.06	0.55
5:AD:148:ALA:HB1	5:AD:151:GLN:NE2	2.16	0.55
25:B5:14:MET:HB3	25:B5:18:ASP:HB2	1.89	0.55
22:B0:859:G:O4'	22:B0:2268:A:H1'	2.06	0.55
7:AF:47:LEU:HD21	7:AF:57:ALA:HB3	1.87	0.55
22:B0:1131:G:H1'	33:BH:81:ILE:CD1	2.31	0.55
22:B0:2899:A:N1	33:BH:137:PRO:HD2	2.22	0.55
43:BS:4:ILE:H	43:BS:4:ILE:CD1	2.16	0.55
22:B0:2013:A:OP1	41:BQ:96:ILE:HG23	2.07	0.55
6:AE:92:ARG:HD2	6:AE:127:TYR:HB2	1.89	0.55
21:AT:8:LYS:HG3	21:AT:12:GLN:NE2	2.18	0.55
22:B0:2378:A:H2'	22:B0:2379:G:H5'	1.87	0.55
1:AA:344:A:H5''	1:AA:345:C:C5	2.40	0.55
9:AH:79:ARG:HB3	9:AH:80:PRO:HD2	1.88	0.55
1:AA:1279:G:H1'	1:AA:1282:C:N4	2.21	0.55
22:B0:238:C:H2'	22:B0:239:C:C6	2.42	0.55
11:AJ:6:ILE:N	11:AJ:6:ILE:HD12	2.21	0.55
22:B0:1217:U:H2'	22:B0:1218:G:C8	2.42	0.55
26:BA:143:VAL:O	26:BA:151:GLY:HA2	2.07	0.55
33:BH:14:ASP:O	33:BH:15:TRP:HB3	2.07	0.55
22:B0:1198:U:H2'	22:B0:1199:U:C6	2.42	0.55
22:B0:534:U:H3	22:B0:559:G:N2	1.96	0.55
22:B0:787:C:H5''	22:B0:788:A:H5'	1.89	0.55
22:B0:801:G:H22	28:BC:72:SER:HB3	1.70	0.55
28:BC:111:GLU:O	28:BC:117:ARG:HG3	2.06	0.55
28:BC:152:GLU:OE2	28:BC:186:VAL:HG21	2.06	0.55
22:B0:493:G:O5'	41:BQ:9:HIS:O	2.23	0.55
22:B0:2110:G:N7	22:B0:2182:U:H1'	2.22	0.55
24:B2:5:LYS:O	24:B2:8:ARG:HB3	2.06	0.55
22:B0:962:G:O4'	22:B0:2497:A:H5'	2.07	0.55
2:AV:18:G:H1	2:AV:55:U:H6	1.54	0.55
41:BQ:69:LEU:O	41:BQ:70:LYS:HD3	2.06	0.55
34:BI:77:ILE:HD12	39:BN:72:VAL:CG1	2.37	0.55
39:BN:96:LEU:HD13	39:BN:96:LEU:N	2.15	0.55
25:B5:107:LYS:O	25:B5:111:GLU:HG3	2.07	0.55
37:BL:99:LYS:CA	37:BL:111:ALA:HB2	2.32	0.55
1:AA:1405:G:H21	1:AA:1518:A:H1'	1.71	0.55
36:BK:5:LYS:HA	36:BK:71:LYS:HE2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AB:26:MET:SD	3:AB:192:PRO:HD3	2.47	0.55
22:B0:1129:A:N3	22:B0:2516:A:O2'	2.40	0.55
30:BE:16:VAL:HG12	30:BE:25:ILE:HG12	1.88	0.55
1:AA:517:G:H4'	1:AA:519:C:N1	2.20	0.55
5:AD:166:LYS:HD3	5:AD:166:LYS:N	2.21	0.55
1:AA:1182:G:O2'	1:AA:1183:U:H5'	2.05	0.55
12:AK:53:GLY:HA2	12:AK:56:LYS:HD3	1.88	0.55
45:BU:29:SER:OG	45:BU:61:LYS:HG3	2.07	0.55
28:BC:4:VAL:CG2	28:BC:13:THR:HA	2.35	0.55
22:B0:2232:C:H2'	22:B0:2233:U:C6	2.42	0.55
3:AB:170:ILE:H	3:AB:170:ILE:HD12	1.71	0.55
22:B0:1553:A:H2'	22:B0:1555:G:H5'	1.88	0.55
22:B0:1579:A:H5'	22:B0:1580:A:OP2	2.06	0.55
22:B0:2898:G:OP2	33:BH:15:TRP:CZ3	2.59	0.55
22:B0:1310:G:C2'	22:B0:1311:G:H5'	2.37	0.55
22:B0:807:U:C5'	22:B0:2445:G:H4'	2.36	0.55
28:BC:88:ARG:HB3	35:BJ:29:LYS:C	2.27	0.55
41:BQ:74:ILE:HD13	41:BQ:74:ILE:H	1.70	0.55
22:B0:961:C:C5	22:B0:2497:A:N3	2.75	0.55
39:BN:2:ASN:CB	39:BN:5:LYS:HZ3	2.19	0.55
42:BR:66:LYS:HG3	42:BR:67:VAL:H	1.71	0.55
22:B0:1010:A:H5'	40:BO:62:ALA:CB	2.30	0.55
2:AU:75:C:P	22:B0:2556:C:H3'	2.47	0.55
22:B0:2228:G:H2'	22:B0:2229:U:O4'	2.06	0.55
1:AA:109:A:H5'	1:AA:110:C:OP2	2.07	0.55
22:B0:610:C:C2	22:B0:611:C:N4	2.74	0.55
1:AA:1276:G:H2'	1:AA:1277:C:C6	2.42	0.55
26:BA:241:LYS:HE2	26:BA:255:LYS:NZ	2.22	0.55
1:AA:840:C:H5''	1:AA:841:U:OP1	2.07	0.55
22:B0:2195:U:H2'	22:B0:2196:C:C6	2.42	0.55
30:BE:101:VAL:HG22	30:BE:113:ASP:HB3	1.88	0.55
22:B0:666:A:P	35:BJ:48:ARG:HD3	2.46	0.55
13:AL:52:CYS:SG	13:AL:66:ILE:HD11	2.45	0.55
31:BF:123:ARG:NH1	31:BF:123:ARG:HB3	2.22	0.55
1:AA:1152:A:H2'	1:AA:1153:G:C8	2.41	0.55
26:BA:115:ILE:HD13	26:BA:115:ILE:N	2.20	0.55
26:BA:191:LEU:C	26:BA:191:LEU:HD23	2.27	0.55
22:B0:1578:U:OP1	26:BA:63:ILE:HA	2.06	0.55
25:B3:107:LYS:O	25:B3:111:GLU:HG3	2.07	0.55
22:B0:675:A:H62	28:BC:61:ARG:CZ	2.20	0.55
2:AV:18:G:C4'	2:AV:19:G:OP1	2.49	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BN:9:GLN:HE21	39:BN:9:GLN:H	1.52	0.55
39:BN:23:ASP:OD1	39:BN:91:VAL:HG13	2.06	0.55
1:AA:1133:G:H2'	1:AA:1134:G:H8	1.71	0.55
5:AD:145:ARG:O	5:AD:149:LYS:HG2	2.07	0.55
22:B0:627:A:O2'	22:B0:628:G:O4'	2.23	0.55
25:B5:26:MET:HE3	25:B5:38:VAL:HG11	1.89	0.55
22:B0:2266:A:H5'	22:B0:2267:A:C8	2.41	0.55
22:B0:1406:U:H2'	22:B0:1407:G:C8	2.42	0.55
22:B0:1590:C:H2'	22:B0:1591:A:C8	2.42	0.55
44:BT:30:ILE:HD12	44:BT:30:ILE:N	2.22	0.55
1:AA:1447:A:H2	1:AA:1459:G:H22	1.48	0.55
36:BK:63:ILE:C	36:BK:63:ILE:HD13	2.27	0.55
20:AS:20:LYS:O	20:AS:23:GLU:HG3	2.07	0.55
1:AA:722:G:H1	1:AA:733:G:H1	1.54	0.55
23:B9:58:A:N3	23:B9:58:A:H3'	2.22	0.55
18:AQ:48:GLU:HG3	18:AQ:49:ASN:ND2	2.22	0.55
22:B0:433:C:H2'	22:B0:434:U:O4'	2.07	0.55
24:B2:77:PHE:HZ	24:B2:103:ILE:HD11	1.71	0.55
26:BA:101:ARG:CB	26:BA:101:ARG:NH1	2.70	0.55
22:B0:1492:G:C1'	26:BA:152:GLN:HE21	2.19	0.55
26:BA:167:ASP:HB3	26:BA:170:TYR:O	2.07	0.55
1:AA:38:G:C8	1:AA:547:A:N6	2.75	0.55
22:B0:1606:C:H4'	22:B0:1607:C:C5	2.42	0.55
28:BC:109:LEU:HD21	28:BC:196:VAL:HG12	1.88	0.55
28:BC:98:LYS:HB3	28:BC:99:LYS:HD2	1.88	0.55
40:BO:30:VAL:HG12	40:BO:31:TYR:N	2.21	0.55
22:B0:2137:U:O2	22:B0:2137:U:C2'	2.55	0.55
24:B2:8:ARG:HA	24:B2:11:ARG:HD3	1.89	0.55
1:AA:1385:G:H2'	10:AI:128:LYS:HD2	1.88	0.55
22:B0:2677:G:N3	27:BB:125:TRP:CE3	2.72	0.55
35:BJ:54:GLN:HG2	35:BJ:55:MET:H	1.71	0.55
22:B0:1008:A:H5''	22:B0:1009:A:OP1	2.07	0.55
1:AA:979:C:H5'	20:AS:5:LYS:HZ3	1.70	0.55
25:B5:90:ALA:N	25:B5:91:PRO:HD3	2.22	0.55
42:BR:11:LEU:HB2	42:BR:32:LEU:HD22	1.89	0.55
1:AA:1298:U:H4'	1:AA:1299:A:C2	2.42	0.55
45:BU:65:LYS:HB2	45:BU:65:LYS:HZ3	1.71	0.55
7:AF:14:GLN:HB3	7:AF:18:VAL:HG22	1.87	0.55
22:B0:2508:G:N1	22:B0:2582:G:N1	2.54	0.55
1:AA:752:G:O2'	1:AA:754:C:H5	1.90	0.55
22:B0:2289:G:N2	22:B0:2344:U:H1'	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:554:U:H2'	22:B0:555:U:C6	2.42	0.55
35:BJ:125:LEU:HA	35:BJ:143:GLU:OE2	2.07	0.55
22:B0:2096:C:H2'	22:B0:2097:A:C8	2.40	0.55
30:BE:162:ARG:HA	30:BE:162:ARG:HE	1.71	0.55
29:BD:140:ILE:HD11	29:BD:145:VAL:HG21	1.89	0.55
1:AA:1060:U:H2'	1:AA:1061:G:H8	1.72	0.55
22:B0:1249:U:H2'	22:B0:1250:G:H8	1.71	0.55
28:BC:35:TYR:CD1	35:BJ:19:LEU:HB2	2.42	0.55
41:BQ:10:ALA:CB	41:BQ:11:ARG:HH21	2.19	0.55
41:BQ:18:ARG:CG	41:BQ:19:LEU:N	2.69	0.55
41:BQ:22:ASP:C	41:BQ:24:ILE:H	2.11	0.55
1:AA:1344:C:O3'	10:AI:119:LYS:HE3	2.06	0.55
39:BN:25:VAL:CG1	39:BN:88:ARG:HE	2.20	0.55
42:BR:67:VAL:HG13	42:BR:76:ARG:N	2.21	0.55
25:B5:51:LYS:HD2	25:B5:51:LYS:N	2.22	0.55
1:AA:1498:U:O2'	1:AA:1499:A:C8	2.58	0.55
22:B0:856:G:H2'	22:B0:857:G:C8	2.42	0.55
1:AA:1085:U:O2'	1:AA:1086:U:OP1	2.22	0.55
2:AU:75:C:OP1	22:B0:2556:C:H3'	2.07	0.55
22:B0:1060:U:H1'	22:B0:1062:G:C5'	2.34	0.55
35:BJ:106:GLU:HG2	35:BJ:107:PHE:CD1	2.42	0.55
49:B1:29:LYS:N	49:B1:29:LYS:HD2	2.21	0.55
1:AA:292:G:H1'	1:AA:608:A:N6	2.20	0.55
22:B0:2192:U:H2'	22:B0:2193:G:C8	2.39	0.55
2:AW:3:G:H2'	2:AW:4:G:H8	1.71	0.55
22:B0:898:C:H2'	22:B0:899:A:C8	2.41	0.55
1:AA:962:C:H2'	1:AA:963:G:C8	2.42	0.55
3:AB:65:LYS:HB2	3:AB:89:PHE:HE1	1.72	0.55
22:B0:1368:G:OP2	22:B0:1368:G:H8	1.89	0.55
29:BD:120:SER:HB3	29:BD:128:SER:HB2	1.89	0.55
32:BG:122:GLU:O	32:BG:126:ARG:HG2	2.07	0.55
22:B0:1426:G:H2'	22:B0:1427:A:H5''	1.89	0.55
26:BA:175:LEU:CD1	26:BA:176:ARG:N	2.67	0.55
1:AA:430:A:O2'	1:AA:431:A:H3'	2.07	0.55
22:B0:802:A:N6	28:BC:61:ARG:HH11	2.04	0.55
40:BO:43:GLN:C	40:BO:45:ALA:N	2.60	0.55
2:AW:52:U:H2'	2:AW:53:G:H8	1.72	0.55
22:B0:500:G:C2'	22:B0:501:A:H5''	2.37	0.55
43:BS:33:VAL:O	43:BS:64:ILE:HB	2.07	0.55
39:BN:2:ASN:O	39:BN:6:GLN:HB2	2.07	0.55
35:BJ:41:ARG:HA	35:BJ:41:ARG:NE	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BL:33:ILE:C	37:BL:34:ILE:HD12	2.27	0.55
37:BL:48:VAL:O	37:BL:48:VAL:HG13	2.05	0.55
3:AB:33:ALA:HA	3:AB:38:HIS:HA	1.89	0.55
10:AI:78:ILE:O	10:AI:82:ILE:HG13	2.06	0.55
7:AF:60:VAL:C	7:AF:61:LEU:HD12	2.27	0.55
22:B0:2575:C:H2'	22:B0:2578:G:O6	2.07	0.55
25:B3:59:LYS:HD2	25:B3:116:GLU:HG2	1.88	0.55
22:B0:1655:A:C2	22:B0:2049:G:H5''	2.41	0.55
47:BX:6:ILE:O	47:BX:34:THR:HA	2.07	0.55
26:BA:48:ILE:O	26:BA:48:ILE:HD12	2.07	0.55
1:AA:1148:U:H5''	10:AI:10:ARG:HE	1.71	0.55
14:AM:44:ILE:HD12	14:AM:45:SER:N	2.22	0.55
39:BN:15:ASP:O	39:BN:16:VAL:C	2.46	0.55
12:AK:122:PRO:O	12:AK:127:ARG:HG3	2.07	0.55
19:AR:27:THR:HA	19:AR:30:ASN:HD22	1.72	0.55
22:B0:1229:C:H2'	22:B0:1230:A:H8	1.70	0.55
29:BD:52:ALA:C	29:BD:54:ALA:H	2.09	0.55
22:B0:1487:G:N2	26:BA:199:HIS:HB2	2.23	0.54
22:B0:586:A:H4'	28:BC:78:TRP:CA	2.33	0.54
28:BC:49:ARG:HG3	28:BC:50:ALA:N	2.13	0.54
22:B0:2108:A:N3	22:B0:2109:U:H1'	2.21	0.54
22:B0:2647:U:H2'	22:B0:2648:G:H8	1.72	0.54
22:B0:1939:U:H5''	22:B0:1940:U:OP2	2.06	0.54
2:AU:19:G:H4'	2:AU:20:G:OP1	2.07	0.54
1:AA:1360:A:H61	20:AS:6:LYS:HE3	1.71	0.54
39:BN:7:LEU:HD22	39:BN:7:LEU:N	2.22	0.54
35:BJ:39:LYS:HD2	35:BJ:41:ARG:HE	1.72	0.54
39:BN:65:ASN:HD22	39:BN:66:GLY:H	1.55	0.54
29:BD:11:VAL:HA	29:BD:14:LYS:HE2	1.89	0.54
45:BU:65:LYS:NZ	45:BU:65:LYS:HB2	2.22	0.54
1:AA:449:G:HO2'	1:AA:450:G:P	2.27	0.54
17:AP:21:VAL:O	17:AP:33:ILE:HB	2.06	0.54
30:BE:32:LEU:HD23	30:BE:74:MET:HG2	1.88	0.54
22:B0:1299:G:N2	22:B0:1639:C:H41	2.04	0.54
1:AA:872:A:H5''	1:AA:873:A:OP1	2.08	0.54
22:B0:828:U:H4'	22:B0:831:G:C6	2.42	0.54
22:B0:1139:G:O2'	22:B0:1140:C:H5'	2.06	0.54
28:BC:3:LEU:HD13	28:BC:18:THR:HB	1.89	0.54
49:B1:6:GLU:HB3	49:B1:26:LYS:HB2	1.90	0.54
22:B0:2231:U:H2'	22:B0:2232:C:C6	2.42	0.54
16:AO:81:ILE:N	16:AO:81:ILE:HD12	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BJ:100:ILE:O	35:BJ:100:ILE:HG22	2.07	0.54
22:B0:852:U:H6	22:B0:852:U:O5'	1.90	0.54
20:AS:51:HIS:CD2	20:AS:53:GLY:H	2.24	0.54
1:AA:496:A:HO2'	1:AA:497:G:H3'	1.71	0.54
13:AL:110:LYS:HA	13:AL:113:ARG:HH21	1.71	0.54
1:AA:247:G:H2'	1:AA:248:C:C6	2.41	0.54
22:B0:811:U:O2'	22:B0:812:C:OP1	2.21	0.54
28:BC:155:GLU:HG3	28:BC:156:ASN:H	1.71	0.54
28:BC:96:VAL:HG11	35:BJ:23:ILE:HD11	1.89	0.54
22:B0:2122:U:O2	22:B0:2122:U:H2'	2.07	0.54
1:AA:1115:U:H3	1:AA:1185:G:H22	1.55	0.54
2:AU:56:C:H2'	2:AU:57:G:C8	2.43	0.54
1:AA:1318:A:H5''	20:AS:41:PRO:CD	2.36	0.54
27:BB:13:ARG:HH11	39:BN:10:GLU:HB3	1.72	0.54
22:B0:2848:G:H1'	22:B0:2868:A:N6	2.22	0.54
1:AA:1145:A:O2'	1:AA:1146:A:H8	1.91	0.54
1:AA:1065:U:H1'	1:AA:1066:C:C5	2.41	0.54
25:B3:50:GLU:HB3	25:B5:15:SER:CA	2.38	0.54
24:B2:175:GLY:C	24:B2:176:LYS:HD2	2.27	0.54
21:AT:68:LYS:HD3	21:AT:68:LYS:N	2.16	0.54
27:BB:202:ILE:C	27:BB:202:ILE:HD12	2.28	0.54
16:AO:39:GLN:HA	16:AO:42:PHE:HD2	1.72	0.54
22:B0:839:U:H2'	22:B0:840:C:C6	2.42	0.54
29:BD:43:ILE:CD1	29:BD:43:ILE:H	2.20	0.54
32:BG:33:ASN:ND2	32:BG:34:ILE:N	2.55	0.54
6:AE:143:LEU:HA	6:AE:146:MET:SD	2.47	0.54
3:AB:80:LYS:O	3:AB:84:LEU:HG	2.07	0.54
33:BH:69:ARG:NH1	33:BH:69:ARG:HB3	2.22	0.54
43:BS:6:ARG:HD2	43:BS:6:ARG:O	2.07	0.54
33:BH:85:LYS:N	33:BH:85:LYS:HD3	2.22	0.54
22:B0:1732:C:OP2	22:B0:1741:C:H5''	2.07	0.54
22:B0:1498:C:H6	22:B0:1498:C:O5'	1.89	0.54
22:B0:661:A:OP2	35:BJ:27:LEU:HB3	2.08	0.54
2:AU:52:U:H2'	2:AU:53:G:H8	1.73	0.54
39:BN:28:LYS:NZ	39:BN:86:LYS:HB3	2.21	0.54
42:BR:48:GLN:HB2	42:BR:55:VAL:HG22	1.90	0.54
46:BW:40:SER:HA	46:BW:43:LEU:CG	2.36	0.54
22:B0:1042:G:H2'	22:B0:1043:C:C6	2.42	0.54
25:B5:46:GLU:HG2	25:B5:53:GLU:CG	2.36	0.54
1:AA:790:A:H2'	1:AA:791:G:H8	1.71	0.54
4:AC:35:ASP:O	4:AC:39:ARG:HG3	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:2013:A:OP1	41:BQ:96:ILE:HD12	2.07	0.54
22:B0:265:A:O2'	22:B0:266:G:O5'	2.23	0.54
43:BS:8:ASP:OD1	43:BS:84:PHE:HA	2.06	0.54
18:AQ:59:GLU:C	18:AQ:60:ILE:HD12	2.27	0.54
12:AK:122:PRO:HG2	12:AK:127:ARG:CG	2.37	0.54
22:B0:1921:G:H2'	22:B0:1922:G:C8	2.42	0.54
29:BD:2:LYS:HD3	29:BD:2:LYS:N	2.22	0.54
9:AH:111:THR:HG23	9:AH:114:ALA:H	1.72	0.54
1:AA:392:C:H2'	1:AA:393:A:H8	1.72	0.54
26:BA:146:LYS:CG	26:BA:147:PRO:HD2	2.38	0.54
22:B0:1493:A:C8	26:BA:183:VAL:HG13	2.42	0.54
22:B0:1203:U:OP2	35:BJ:11:GLY:N	2.40	0.54
22:B0:495:G:N2	41:BQ:57:ASN:HD22	2.06	0.54
22:B0:2121:G:O3'	22:B0:2122:U:H3'	2.07	0.54
1:AA:1344:C:OP1	10:AI:118:ARG:HD2	2.08	0.54
22:B0:961:C:OP1	22:B0:2496:C:C2	2.60	0.54
35:BJ:36:LYS:N	35:BJ:36:LYS:HD2	2.22	0.54
37:BL:30:ARG:HH12	37:BL:75:ILE:HD12	1.71	0.54
21:AT:23:ARG:HB3	21:AT:60:GLN:NE2	2.14	0.54
1:AA:483:C:H5''	1:AA:484:G:C4'	2.38	0.54
22:B0:2558:C:O2	22:B0:2558:C:H2'	2.08	0.54
6:AE:51:LYS:HD2	6:AE:51:LYS:N	2.23	0.54
22:B0:1698:A:H1'	22:B0:1700:A:OP2	2.07	0.54
42:BR:63:VAL:HG22	42:BR:64:LYS:N	2.23	0.54
27:BB:83:ARG:HG3	27:BB:83:ARG:HH11	1.73	0.54
16:AO:56:LEU:CD1	16:AO:57:ARG:HD3	2.36	0.54
25:B3:58:LEU:CD1	25:B3:115:ALA:HB1	2.38	0.54
22:B0:1803:A:N6	22:B0:1814:G:H21	2.06	0.54
22:B0:827:U:H5'	22:B0:828:U:C6	2.42	0.54
22:B0:1388:G:H2'	22:B0:1389:G:C8	2.42	0.54
22:B0:18:U:H5''	40:BO:25:GLY:O	2.07	0.54
12:AK:45:THR:HG22	12:AK:46:ALA:N	2.23	0.54
1:AA:1306:A:H1'	1:AA:1332:A:N1	2.22	0.54
1:AA:1479:C:H2'	1:AA:1480:A:C8	2.41	0.54
29:BD:127:TYR:HH	29:BD:176:PHE:HE2	1.55	0.54
22:B0:1532:U:H2'	22:B0:1533:C:C6	2.43	0.54
1:AA:115:G:O2'	1:AA:116:A:C8	2.58	0.54
22:B0:1761:C:C5	22:B0:1762:A:C4	2.96	0.54
22:B0:1125:G:H5''	22:B0:1126:A:OP2	2.07	0.54
22:B0:2819:G:O2'	22:B0:2820:A:OP1	2.25	0.54
10:AI:67:LYS:HD3	10:AI:67:LYS:N	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AC:36:PHE:O	4:AC:40:GLN:HG3	2.08	0.54
26:BA:163:ILE:H	26:BA:163:ILE:HD12	1.72	0.54
26:BA:175:LEU:CD2	26:BA:179:GLU:HB3	2.37	0.54
1:AA:429:U:P	1:AA:430:A:H5''	2.48	0.54
22:B0:527:C:N4	22:B0:2781:A:N6	2.56	0.54
22:B0:1157:G:N3	22:B0:1157:G:H2'	2.22	0.54
22:B0:800:A:C2	28:BC:59:PRO:HA	2.42	0.54
22:B0:493:G:C8	41:BQ:10:ALA:HB2	2.42	0.54
2:AW:60:C:H5''	2:AW:61:C:OP2	2.08	0.54
22:B0:826:U:H1'	35:BJ:55:MET:HE3	1.88	0.54
35:BJ:55:MET:N	35:BJ:56:PRO:HA	2.15	0.54
22:B0:479:A:H2'	22:B0:480:A:C5'	2.38	0.54
4:AC:126:ARG:NH1	4:AC:126:ARG:HB3	2.23	0.54
24:B2:46:ASN:HA	24:B2:169:ILE:CG2	2.37	0.54
24:B2:208:ILE:CD1	24:B2:208:ILE:H	2.11	0.54
38:BM:15:ARG:HG2	38:BM:18:LEU:HB2	1.89	0.54
37:BL:30:ARG:HG3	37:BL:31:HIS:ND1	2.22	0.54
22:B0:129:C:C4	22:B0:130:C:N4	2.75	0.54
45:BU:68:PHE:O	45:BU:73:PRO:HB3	2.07	0.54
22:B0:1969:A:O2'	22:B0:1972:G:H1'	2.08	0.54
1:AA:1528:U:O3'	1:AA:1530:G:OP2	2.26	0.54
1:AA:450:G:H4'	17:AP:15:PRO:CG	2.35	0.54
2:AU:73:A:H4'	2:AV:76:A:H5''	1.88	0.54
22:B0:2508:G:O2'	22:B0:2555:U:H4'	2.08	0.54
22:B0:2327:A:H2'	45:BU:10:ARG:NE	2.23	0.54
22:B0:1265:A:O2'	22:B0:1266:G:C4'	2.56	0.54
1:AA:1486:G:H2'	1:AA:1487:G:C8	2.41	0.54
16:AO:23:SER:HB2	16:AO:26:VAL:HG23	1.90	0.54
49:B1:4:ILE:O	49:B1:4:ILE:HG23	2.06	0.54
1:AA:975:A:C4'	1:AA:976:G:H5''	2.37	0.54
37:BL:84:GLY:HA2	37:BL:86:ARG:H	1.72	0.54
25:B3:17:MET:HB3	25:B3:53:GLU:HG2	1.89	0.54
29:BD:33:ILE:HG13	29:BD:91:ARG:HH21	1.71	0.54
22:B0:2040:G:H2'	22:B0:2041:U:O4'	2.07	0.54
42:BR:72:GLN:HA	42:BR:72:GLN:NE2	2.23	0.54
18:AQ:19:SER:C	18:AQ:20:ILE:HD12	2.27	0.54
22:B0:1452:C:H2'	22:B0:1453:U:O4'	2.07	0.54
22:B0:1272:A:O2'	22:B0:1273:U:H5''	2.06	0.54
22:B0:1495:A:H1'	26:BA:128:THR:HG22	1.90	0.54
26:BA:86:ARG:NH2	26:BA:88:ALA:HB3	2.23	0.54
1:AA:404:G:C8	1:AA:546:A:O2'	2.56	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:279:A:H5''	1:AA:280:C:O5'	2.08	0.54
22:B0:535:G:C1'	40:BO:52:ARG:HG3	2.35	0.54
22:B0:750:A:O2'	22:B0:751:A:H5'	2.08	0.54
40:BO:9:ALA:O	40:BO:10:ARG:HB2	2.08	0.54
24:B2:104:LYS:HZ1	24:B2:126:LEU:HD22	1.71	0.54
27:BB:122:VAL:CG2	27:BB:141:ARG:HA	2.37	0.54
2:AU:9:A:O2'	2:AU:45:G:H2'	2.08	0.54
4:AC:134:LYS:HA	4:AC:167:TYR:CE2	2.42	0.54
41:BQ:27:LYS:HG2	41:BQ:28:LYS:HG2	1.88	0.54
22:B0:2335:A:O2'	22:B0:2336:A:C8	2.59	0.54
1:AA:1322:C:C5'	1:AA:1323:G:OP1	2.53	0.54
37:BL:34:ILE:O	37:BL:112:TYR:HA	2.07	0.54
22:B0:1113:U:H2'	22:B0:1114:C:C6	2.42	0.54
6:AE:55:VAL:O	6:AE:59:ILE:HG12	2.08	0.54
3:AB:185:ILE:O	3:AB:185:ILE:HG12	2.07	0.54
13:AL:56:LEU:N	13:AL:56:LEU:HD22	2.21	0.54
22:B0:1960:A:H2'	22:B0:1961:C:H6	1.73	0.54
1:AA:1455:G:H2'	1:AA:1459:G:C8	2.40	0.54
9:AH:86:LYS:HE3	9:AH:91:LEU:HG	1.90	0.54
17:AP:12:LYS:HD2	17:AP:12:LYS:N	2.22	0.54
11:AJ:46:LYS:O	11:AJ:46:LYS:HD2	2.07	0.54
22:B0:154:U:H2'	22:B0:161:A:O4'	2.08	0.54
1:AA:749:A:N3	1:AA:749:A:H2'	2.22	0.54
22:B0:2106:U:H2'	22:B0:2107:G:H8	1.73	0.54
2:AV:70:C:H2'	2:AV:71:G:H8	1.72	0.54
22:B0:1464:G:H2'	22:B0:1465:U:H5'	1.89	0.54
27:BB:137:SER:C	27:BB:139:SER:N	2.60	0.54
1:AA:419:C:C1'	1:AA:541:G:HO2'	2.20	0.54
22:B0:329:G:O6	43:BS:65:GLN:HB3	2.06	0.54
22:B0:956:G:C2'	36:BK:80:VAL:HG22	2.33	0.54
2:AV:9:A:O2'	2:AV:45:G:H2'	2.08	0.54
22:B0:2175:C:O2	24:B2:171:HIS:HB3	2.07	0.54
24:B2:172:THR:HG21	24:B2:191:LEU:CD2	2.38	0.54
42:BR:87:LEU:N	42:BR:87:LEU:HD12	2.23	0.54
4:AC:131:ARG:O	4:AC:135:ARG:HG2	2.08	0.54
22:B0:863:A:H2'	22:B0:864:G:C8	2.43	0.54
22:B0:698:C:H4'	22:B0:734:A:N1	2.22	0.54
1:AA:913:A:H4'	1:AA:914:A:O5'	2.07	0.54
22:B0:2287:A:O2'	22:B0:2288:A:O5'	2.26	0.54
8:AG:31:VAL:O	8:AG:32:ASP:HB2	2.08	0.54
22:B0:2478:A:H1'	22:B0:2529:G:P	2.48	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1118:U:H4'	10:AI:104:THR:HG23	1.89	0.54
22:B0:1024:G:H5'	22:B0:1025:G:C4'	2.37	0.54
26:BA:243:PRO:HB3	26:BA:259:ASN:ND2	2.23	0.54
6:AE:133:ILE:N	6:AE:133:ILE:HD12	2.23	0.54
35:BJ:108:ALA:O	35:BJ:126:ARG:HG2	2.07	0.54
30:BE:102:ILE:HD11	30:BE:112:VAL:HB	1.90	0.54
6:AE:81:GLN:O	9:AH:96:ALA:HB2	2.08	0.54
27:BB:22:ILE:HG21	27:BB:190:LYS:NZ	2.23	0.54
6:AE:71:ILE:HD13	6:AE:73:VAL:HG13	1.90	0.54
1:AA:436:C:O2'	1:AA:437:U:P	2.66	0.54
13:AL:115:LYS:NZ	13:AL:115:LYS:HB3	2.23	0.54
1:AA:721:G:H4'	1:AA:722:G:C5'	2.37	0.54
46:BW:51:ALA:O	46:BW:55:THR:HG23	2.08	0.54
22:B0:2747:G:H5''	30:BE:69:ALA:HB1	1.89	0.54
22:B0:1421:G:H1	26:BA:149:LYS:C	2.07	0.54
1:AA:36:C:O5'	1:AA:36:C:H6	1.91	0.54
5:AD:49:ASP:O	5:AD:52:VAL:HG12	2.08	0.54
33:BH:109:LEU:HD11	33:BH:116:ARG:NH2	2.22	0.54
22:B0:801:G:N1	28:BC:72:SER:OG	2.41	0.54
22:B0:990:A:N6	22:B0:1186:G:H1'	2.23	0.54
28:BC:92:HIS:CE1	35:BJ:25:SER:HB3	2.42	0.54
40:BO:46:TYR:O	40:BO:47:ARG:HG2	2.08	0.54
22:B0:494:G:N3	41:BQ:6:LYS:HG3	2.23	0.54
22:B0:500:G:H5'	22:B0:505:A:N6	2.23	0.54
2:AU:18:G:H1'	2:AU:57:G:N2	2.22	0.54
39:BN:22:GLY:O	39:BN:25:VAL:HB	2.08	0.54
8:AG:112:ASP:OD1	8:AG:118:ARG:HG2	2.07	0.54
25:B3:51:LYS:HA	25:B3:52:THR:CA	2.38	0.54
25:B5:17:MET:O	25:B5:21:GLU:HG3	2.08	0.54
22:B0:910:A:N6	36:BK:10:ARG:CG	2.71	0.54
45:BU:39:GLN:CG	45:BU:68:PHE:HA	2.38	0.54
10:AI:83:THR:CG2	10:AI:102:PHE:HB3	2.31	0.54
1:AA:1380:U:H4'	1:AA:1381:U:C6	2.42	0.54
29:BD:48:LEU:HA	29:BD:51:ASN:HD21	1.73	0.54
39:BN:107:ALA:HB3	39:BN:110:LYS:HG2	1.88	0.54
25:B3:68:VAL:HG22	25:B3:115:ALA:HB2	1.90	0.54
1:AA:1053:G:O6	1:AA:1200:C:H5'	2.07	0.54
29:BD:63:LYS:N	29:BD:63:LYS:HD3	2.20	0.54
9:AH:86:LYS:HB2	9:AH:90:GLU:HB3	1.89	0.54
6:AE:140:ILE:O	6:AE:144:GLU:HG3	2.08	0.54
22:B0:877:A:H2'	22:B0:878:A:C8	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:229:U:H2'	1:AA:230:G:C8	2.43	0.54
27:BB:148:GLN:CD	27:BB:148:GLN:H	2.11	0.54
22:B0:1421:G:C2	26:BA:149:LYS:CG	2.90	0.54
22:B0:1495:A:C3'	26:BA:190:THR:HA	2.25	0.54
22:B0:1496:A:OP2	26:BA:191:LEU:O	2.25	0.54
1:AA:419:C:H4'	1:AA:541:G:O2'	2.08	0.54
1:AA:427:U:N3	1:AA:428:G:N7	2.56	0.54
33:BH:105:VAL:HA	33:BH:108:MET:CE	2.36	0.54
22:B0:2895:C:H4'	33:BH:43:GLU:HG3	1.90	0.54
28:BC:83:VAL:HG11	35:BJ:30:THR:CG2	2.27	0.54
28:BC:177:PRO:O	35:BJ:17:LYS:HB2	2.08	0.54
40:BO:26:ALA:HB3	40:BO:27:ARG:CZ	2.38	0.54
40:BO:4:LYS:HE2	40:BO:5:ARG:N	2.22	0.54
22:B0:2677:G:O4'	27:BB:160:LYS:HD3	2.08	0.54
4:AC:130:ARG:HG3	4:AC:133:MET:HE2	1.89	0.54
39:BN:94:ALA:O	39:BN:95:LYS:HB2	2.07	0.54
22:B0:63:A:H4'	22:B0:64:A:C8	2.43	0.54
1:AA:1336:C:H41	8:AG:108:ARG:NH2	2.06	0.54
37:BL:102:PHE:HA	37:BL:109:PRO:HA	1.89	0.54
37:BL:23:ASN:C	37:BL:25:ALA:H	2.10	0.54
1:AA:177:G:H5''	21:AT:59:ARG:HH22	1.73	0.54
7:AF:42:TRP:CZ2	7:AF:61:LEU:HD21	2.42	0.54
1:AA:1379:G:H2'	1:AA:1380:U:O4'	2.08	0.54
17:AP:57:ILE:CD1	17:AP:75:ILE:HD13	2.38	0.54
49:B1:14:ALA:HA	49:B1:47:ILE:O	2.08	0.54
22:B0:163:C:H4'	22:B0:164:C:C6	2.43	0.54
7:AF:26:THR:HA	7:AF:29:ILE:HG22	1.89	0.54
11:AJ:42:LEU:HB3	11:AJ:43:PRO:HD2	1.89	0.54
22:B0:524:G:C4'	22:B0:555:U:H4'	2.38	0.54
49:B1:6:GLU:O	49:B1:26:LYS:HA	2.08	0.54
25:B5:69:ILE:HD12	25:B5:84:LYS:HA	1.90	0.54
34:BI:105:ARG:HG3	34:BI:108:ARG:NH2	2.23	0.54
3:AB:222:GLU:OE1	3:AB:228:LEU:HD21	2.08	0.54
5:AD:196:GLU:CD	5:AD:196:GLU:H	2.11	0.54
35:BJ:135:ILE:HG13	35:BJ:142:ILE:HD11	1.90	0.54
22:B0:1421:G:C4	26:BA:149:LYS:HB3	2.42	0.54
22:B0:1578:U:H4'	26:BA:64:VAL:C	2.28	0.54
1:AA:417:G:N1	1:AA:427:U:C2	2.76	0.54
22:B0:2900:C:H5	33:BH:139:VAL:HG22	1.73	0.54
25:B3:96:GLU:HB3	25:B5:8:ILE:CG2	2.36	0.54
22:B0:1322:A:H2	22:B0:1334:G:H5'	1.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:800:A:N7	28:BC:56:GLY:N	2.47	0.54
28:BC:35:TYR:CD2	35:BJ:18:ARG:HA	2.42	0.54
22:B0:1203:U:OP2	35:BJ:10:GLU:HB3	2.08	0.54
22:B0:520:G:OP1	41:BQ:25:ARG:HD2	2.08	0.54
10:AI:119:LYS:HD2	10:AI:119:LYS:N	2.23	0.54
1:AA:1386:G:H2'	1:AA:1387:G:H8	1.73	0.54
22:B0:2503:A:H5''	22:B0:2504:U:OP1	2.08	0.54
22:B0:1454:A:H3'	22:B0:1455:U:H4'	1.90	0.54
40:BO:91:ARG:O	40:BO:92:LYS:HD2	2.07	0.54
22:B0:699:A:H2'	22:B0:700:G:O4'	2.08	0.54
22:B0:1903:G:H2'	22:B0:1904:G:C8	2.43	0.54
2:AU:74:C:C3'	22:B0:2557:G:O4'	2.55	0.54
4:AC:99:GLN:HG3	4:AC:100:ILE:N	2.19	0.54
22:B0:1695:G:C2'	22:B0:1696:G:H5'	2.38	0.54
22:B0:447:A:H5''	22:B0:448:U:OP1	2.07	0.54
1:AA:815:A:N7	1:AA:1510:C:H4'	2.23	0.54
22:B0:151:C:H5'	22:B0:1360:G:OP1	2.08	0.54
22:B0:738:G:C2	22:B0:739:A:H1'	2.42	0.54
40:BO:109:VAL:HG23	40:BO:110:GLU:N	2.23	0.54
1:AA:1268:G:H1'	1:AA:1326:U:O2'	2.07	0.54
14:AM:21:ILE:HG22	14:AM:23:GLY:H	1.73	0.54
22:B0:34:U:H5'	22:B0:35:G:OP2	2.07	0.54
25:B5:69:ILE:O	25:B5:73:ARG:HG3	2.08	0.54
12:AK:112:VAL:HG22	12:AK:112:VAL:O	2.08	0.54
8:AG:52:ARG:HD3	8:AG:52:ARG:O	2.08	0.54
26:BA:137:GLY:N	26:BA:163:ILE:HB	2.14	0.53
1:AA:426:U:H4'	5:AD:38:GLY:H	1.73	0.53
22:B0:1201:U:C2	35:BJ:14:LYS:HE3	2.43	0.53
22:B0:1201:U:N3	22:B0:1245:G:N2	2.49	0.53
22:B0:588:U:N3	28:BC:74:LYS:HA	2.22	0.53
28:BC:33:VAL:HB	35:BJ:22:GLY:HA2	1.90	0.53
41:BQ:19:LEU:O	41:BQ:19:LEU:HD23	2.08	0.53
35:BJ:56:PRO:CB	35:BJ:59:ARG:HB3	2.37	0.53
45:BU:23:LYS:HZ2	45:BU:56:HIS:CB	2.21	0.53
2:AV:18:G:H5''	2:AV:60:C:C2	2.43	0.53
1:AA:1108:G:H2'	1:AA:1109:C:C6	2.42	0.53
24:B2:22:ILE:HG22	24:B2:185:LYS:HB2	1.91	0.53
10:AI:82:ILE:O	10:AI:86:LEU:HG	2.08	0.53
22:B0:2555:U:C4	22:B0:2556:C:N4	2.76	0.53
32:BG:136:GLY:O	32:BG:137:LEU:O	2.26	0.53
22:B0:2722:G:H2'	22:B0:2723:C:C6	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1800:C:O2'	22:B0:1801:A:OP2	2.23	0.53
45:BU:58:LEU:CB	45:BU:81:ILE:HA	2.38	0.53
21:AT:8:LYS:NZ	21:AT:8:LYS:HB2	2.23	0.53
29:BD:41:GLU:O	29:BD:42:ALA:HB3	2.07	0.53
16:AO:47:LYS:HA	16:AO:47:LYS:CE	2.36	0.53
40:BO:82:LEU:HD13	40:BO:82:LEU:O	2.08	0.53
20:AS:12:LEU:O	20:AS:16:LYS:HG3	2.08	0.53
15:AN:63:CYS:HB3	15:AN:67:GLY:N	2.23	0.53
22:B0:1651:G:H1	22:B0:2006:C:N4	2.06	0.53
22:B0:1030:C:H6	22:B0:1030:C:O5'	1.90	0.53
46:BW:13:GLU:HA	46:BW:16:THR:HG22	1.91	0.53
22:B0:1985:C:H2'	22:B0:1986:C:C6	2.43	0.53
1:AA:737:C:H2'	1:AA:738:C:C6	2.42	0.53
22:B0:1992:G:O2'	22:B0:1993:U:H3'	2.07	0.53
22:B0:1992:G:C2	27:BB:138:LEU:HD11	2.43	0.53
1:AA:32:A:H2'	1:AA:33:A:O4'	2.08	0.53
22:B0:529:A:H4'	22:B0:530:G:O5'	2.08	0.53
22:B0:2898:G:N7	33:BH:15:TRP:CG	2.76	0.53
33:BH:32:LEU:HB3	33:BH:54:ILE:HD12	1.90	0.53
22:B0:190:A:H5''	22:B0:204:A:C2	2.44	0.53
22:B0:2445:G:H2'	22:B0:2446:G:H8	1.72	0.53
22:B0:672:C:H2'	22:B0:673:C:C6	2.43	0.53
22:B0:675:A:H62	28:BC:61:ARG:NH1	2.06	0.53
22:B0:589:U:H3	28:BC:74:LYS:HE3	1.74	0.53
22:B0:494:G:C4	41:BQ:6:LYS:HD2	2.42	0.53
1:AA:1349:A:N6	1:AA:1373:G:H1'	2.23	0.53
2:AU:18:G:H1	2:AU:55:U:H6	1.56	0.53
39:BN:30:TRP:CZ3	39:BN:85:VAL:HB	2.43	0.53
42:BR:66:LYS:CE	42:BR:66:LYS:HA	2.38	0.53
22:B0:2351:G:H2'	22:B0:2352:A:C8	2.42	0.53
10:AI:27:ILE:HB	10:AI:34:LEU:HG	1.90	0.53
22:B0:955:U:O2'	22:B0:2276:G:H4'	2.09	0.53
17:AP:56:ARG:NE	17:AP:56:ARG:HA	2.23	0.53
17:AP:6:LEU:HD12	17:AP:6:LEU:N	2.24	0.53
25:B3:73:ARG:NH1	25:B3:73:ARG:HB3	2.23	0.53
1:AA:321:A:H2	1:AA:332:G:H22	1.56	0.53
1:AA:817:C:C1'	1:AA:819:A:H5'	2.39	0.53
22:B0:226:A:H61	22:B0:409:G:N2	2.03	0.53
6:AE:110:MET:O	6:AE:114:LEU:HG	2.09	0.53
6:AE:80:LEU:HG	6:AE:146:MET:HE1	1.91	0.53
33:BH:58:ASN:HB3	33:BH:127:GLY:O	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1578:U:O3'	26:BA:65:ASP:HA	2.07	0.53
26:BA:86:ARG:HD2	26:BA:195:GLY:HA3	1.89	0.53
22:B0:1306:C:N4	22:B0:1606:C:H2'	2.24	0.53
22:B0:580:U:O2'	22:B0:581:C:H5'	2.07	0.53
28:BC:134:LEU:HB3	28:BC:164:LEU:HD11	1.90	0.53
28:BC:66:GLY:O	28:BC:72:SER:HA	2.08	0.53
22:B0:960:A:C2	22:B0:2497:A:H5''	2.44	0.53
22:B0:2447:G:N7	22:B0:2501:C:OP2	2.41	0.53
4:AC:111:ASP:O	4:AC:115:VAL:HG23	2.09	0.53
1:AA:979:C:C5'	20:AS:5:LYS:NZ	2.71	0.53
22:B0:1828:G:C5'	22:B0:1829:A:OP1	2.49	0.53
1:AA:1300:G:O2'	1:AA:1303:C:N4	2.41	0.53
38:BM:15:ARG:HB2	38:BM:18:LEU:HD13	1.89	0.53
42:BR:68:LYS:O	42:BR:69:ARG:HB3	2.08	0.53
37:BL:40:LYS:HG3	37:BL:41:ALA:N	2.23	0.53
37:BL:98:LEU:HD12	37:BL:98:LEU:N	2.23	0.53
25:B5:26:MET:O	25:B5:35:ALA:HB1	2.08	0.53
1:AA:1195:C:H3'	1:AA:1196:A:C5'	2.38	0.53
35:BJ:76:GLU:HB3	35:BJ:108:ALA:HB2	1.90	0.53
48:BZ:36:LYS:HE2	48:BZ:38:LEU:HD12	1.88	0.53
1:AA:1230:C:H2'	1:AA:1231:G:C8	2.43	0.53
27:BB:108:ASP:OD2	27:BB:206:ALA:HA	2.08	0.53
3:AB:169:HIS:HE1	3:AB:173:LYS:HD3	1.73	0.53
22:B0:620:G:O2'	22:B0:621:A:OP2	2.18	0.53
1:AA:1308:U:H2'	1:AA:1309:G:H8	1.73	0.53
22:B0:1490:C:H5'	26:BA:160:TYR:CE1	2.44	0.53
26:BA:64:VAL:CG1	26:BA:150:GLY:HA2	2.38	0.53
22:B0:1578:U:O2'	26:BA:65:ASP:N	2.41	0.53
1:AA:430:A:O2'	1:AA:431:A:C4	2.61	0.53
5:AD:8:LEU:HD11	5:AD:29:THR:H	1.72	0.53
28:BC:43:THR:CG2	28:BC:91:ASP:HB3	2.38	0.53
22:B0:600:G:C1'	28:BC:99:LYS:HB3	2.38	0.53
40:BO:45:ALA:O	40:BO:47:ARG:N	2.42	0.53
41:BQ:88:ARG:HH22	41:BQ:92:ARG:C	2.12	0.53
22:B0:2726:A:OP2	27:BB:129:THR:HG21	2.08	0.53
22:B0:826:U:O4'	35:BJ:55:MET:HB3	2.08	0.53
22:B0:480:A:H2'	22:B0:506:G:N2	2.23	0.53
22:B0:956:G:H2'	36:BK:80:VAL:CG2	2.36	0.53
22:B0:2242:G:H1	22:B0:2435:A:H62	1.57	0.53
24:B2:47:LEU:HA	24:B2:207:TYR:O	2.09	0.53
32:BG:60:VAL:HG12	32:BG:61:TYR:CD1	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:B5:47:ALA:C	25:B5:49:GLU:H	2.11	0.53
22:B0:857:G:H4'	45:BU:71:LYS:HZ2	1.72	0.53
1:AA:1381:U:C2	8:AG:78:ARG:NH1	2.77	0.53
1:AA:762:U:H2'	1:AA:763:G:H8	1.73	0.53
22:B0:876:C:H2'	22:B0:877:A:C8	2.42	0.53
1:AA:18:C:H2'	1:AA:19:A:C8	2.44	0.53
4:AC:119:ILE:HD11	4:AC:136:ALA:CB	2.38	0.53
2:AU:70:C:H2'	2:AU:71:G:H8	1.73	0.53
16:AO:32:THR:HG22	16:AO:36:ASN:HD21	1.73	0.53
1:AA:802:A:H2'	1:AA:803:G:O4'	2.08	0.53
14:AM:5:GLY:HA2	29:BD:133:GLU:CD	2.29	0.53
22:B0:2280:G:O2'	22:B0:2281:A:H5'	2.08	0.53
22:B0:1580:A:C8	26:BA:68:ARG:HG2	2.43	0.53
26:BA:122:ALA:O	26:BA:129:LEU:HD21	2.08	0.53
26:BA:143:VAL:HG22	26:BA:153:LEU:CB	2.37	0.53
22:B0:1421:G:N3	26:BA:149:LYS:CA	2.69	0.53
26:BA:86:ARG:CZ	26:BA:88:ALA:HB3	2.38	0.53
1:AA:419:C:C5'	1:AA:540:G:N2	2.70	0.53
22:B0:1240:U:H2'	22:B0:1241:A:C8	2.43	0.53
28:BC:43:THR:HG22	28:BC:90:GLN:O	2.08	0.53
28:BC:77:ILE:O	28:BC:77:ILE:HG22	2.08	0.53
22:B0:1202:G:O4'	35:BJ:14:LYS:HG3	2.09	0.53
41:BQ:51:LEU:O	41:BQ:51:LEU:HD13	2.09	0.53
1:AA:143:A:H2	1:AA:220:G:H22	1.56	0.53
4:AC:148:ILE:HD13	4:AC:148:ILE:C	2.29	0.53
1:AA:979:C:C5'	20:AS:5:LYS:HD2	2.32	0.53
22:B0:942:G:H5''	35:BJ:42:SER:CB	2.37	0.53
1:AA:1300:G:H5'	1:AA:1301:U:OP1	2.08	0.53
39:BN:64:SER:HA	39:BN:71:ARG:CG	2.37	0.53
2:AU:37:G:H2'	2:AU:38:A:O4'	2.09	0.53
37:BL:114:GLU:C	37:BL:115:LEU:HD12	2.29	0.53
40:BO:54:ARG:H	40:BO:57:ARG:CG	2.19	0.53
25:B3:51:LYS:HG2	25:B5:50:GLU:HG3	1.90	0.53
22:B0:121:G:O6	22:B0:130:C:C4	2.61	0.53
38:BM:9:ARG:HH21	38:BM:16:ARG:HB2	1.74	0.53
22:B0:700:G:N2	22:B0:733:G:H1'	2.23	0.53
22:B0:2550:G:N2	22:B0:2558:C:N4	2.56	0.53
2:AU:75:C:OP1	22:B0:2556:C:C6	2.61	0.53
34:BI:43:ILE:HD11	34:BI:53:LYS:HG3	1.90	0.53
1:AA:1238:A:C2	1:AA:1242:G:H1'	2.43	0.53
22:B0:165:A:H4'	22:B0:172:A:H8	1.71	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AJ:17:LEU:HD12	11:AJ:18:ILE:N	2.23	0.53
1:AA:817:C:O4'	1:AA:819:A:H5'	2.08	0.53
1:AA:976:G:N2	1:AA:1362:A:H3'	2.22	0.53
22:B0:2528:U:H3'	22:B0:2530:A:C8	2.43	0.53
1:AA:837:U:H2'	1:AA:838:G:C8	2.42	0.53
18:AQ:7:LEU:N	18:AQ:7:LEU:HD12	2.24	0.53
48:BZ:36:LYS:C	48:BZ:36:LYS:HD3	2.29	0.53
48:BZ:38:LEU:HD12	48:BZ:38:LEU:N	2.24	0.53
22:B0:1650:A:H2'	22:B0:1651:G:C8	2.43	0.53
34:BI:80:ASP:OD1	39:BN:70:GLU:HG3	2.07	0.53
1:AA:809:G:O2'	1:AA:810:C:H5'	2.07	0.53
1:AA:603:U:H2'	1:AA:604:G:C8	2.43	0.53
22:B0:87:U:H3	22:B0:95:A:H2	1.53	0.53
1:AA:1151:A:H2'	1:AA:1152:A:C8	2.43	0.53
35:BJ:134:ALA:HB3	35:BJ:135:ILE:HD13	1.89	0.53
1:AA:69:G:H1	1:AA:99:C:H42	1.56	0.53
29:BD:90:LEU:N	29:BD:90:LEU:HD13	2.24	0.53
25:B5:36:ALA:O	25:B5:40:VAL:HG12	2.09	0.53
7:AF:75:GLU:HB3	7:AF:79:ARG:HH12	1.74	0.53
22:B0:2279:G:H5''	45:BU:4:LYS:HE3	1.91	0.53
22:B0:817:C:H2'	22:B0:818:G:O4'	2.08	0.53
47:BX:28:LEU:HD12	47:BX:28:LEU:N	2.24	0.53
22:B0:1501:C:HO2'	26:BA:199:HIS:HE2	1.53	0.53
22:B0:1581:A:H62	26:BA:68:ARG:HH12	1.57	0.53
26:BA:129:LEU:HD22	26:BA:129:LEU:N	2.24	0.53
22:B0:1495:A:N7	26:BA:142:ASN:HB3	2.24	0.53
22:B0:1996:C:C6	27:BB:137:SER:C	2.82	0.53
13:AL:23:LEU:HG	13:AL:58:ASN:HB3	1.91	0.53
22:B0:2898:G:C2	33:BH:132:HIS:CE1	2.96	0.53
33:BH:123:LYS:HG3	33:BH:124:VAL:N	2.24	0.53
22:B0:1155:A:C6	22:B0:1157:G:H1'	2.43	0.53
22:B0:662:G:H4'	28:BC:95:LYS:HE3	1.90	0.53
28:BC:186:VAL:CG2	28:BC:187:VAL:H	2.06	0.53
28:BC:91:ASP:O	35:BJ:27:LEU:O	2.26	0.53
40:BO:15:LYS:N	40:BO:15:LYS:HZ2	2.06	0.53
22:B0:2127:G:C2'	22:B0:2166:U:H5'	2.39	0.53
22:B0:501:A:HO2'	22:B0:502:A:P	2.31	0.53
22:B0:2591:C:H2'	22:B0:2592:G:H8	1.72	0.53
4:AC:149:LYS:HG3	4:AC:168:ARG:HB3	1.90	0.53
22:B0:2175:C:C6	22:B0:2175:C:H3'	2.43	0.53
38:BM:7:ARG:HA	38:BM:10:ARG:NE	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1340:U:H1'	22:B0:1603:A:C5'	2.39	0.53
46:BW:47:ARG:HG3	46:BW:48:ARG:HD2	1.91	0.53
22:B0:1044:C:O2'	22:B0:1045:C:H5''	2.07	0.53
22:B0:1929:G:H4'	22:B0:1930:G:O5'	2.09	0.53
1:AA:448:A:H2'	1:AA:449:G:O4'	2.09	0.53
1:AA:1090:U:H2'	1:AA:1091:U:C6	2.43	0.53
22:B0:2266:A:H5''	22:B0:2267:A:O5'	2.09	0.53
1:AA:22:G:H2'	1:AA:23:C:C6	2.43	0.53
25:B3:58:LEU:HD23	25:B3:87:VAL:HA	1.91	0.53
14:AM:95:PRO:HB3	14:AM:101:THR:CG2	2.39	0.53
1:AA:1454:G:H2'	1:AA:1455:G:H8	1.72	0.53
23:B9:76:G:N2	23:B9:100:G:N2	2.56	0.53
1:AA:291:U:O2'	1:AA:292:G:H5'	2.08	0.53
22:B0:2005:A:H3'	22:B0:2006:C:C5	2.43	0.53
44:BT:34:LYS:HD3	44:BT:34:LYS:N	2.24	0.53
44:BT:80:HIS:HD2	44:BT:83:LYS:HG2	1.73	0.53
22:B0:1035:U:H2'	22:B0:1036:G:C8	2.43	0.53
22:B0:1416:G:C2	22:B0:1417:U:C4	2.97	0.53
26:BA:149:LYS:HG3	26:BA:150:GLY:N	2.21	0.53
22:B0:1577:C:H5''	26:BA:61:TYR:CD1	2.43	0.53
26:BA:62:ARG:NH2	26:BA:149:LYS:HG3	2.24	0.53
25:B3:93:ALA:HB2	25:B5:4:LYS:HD3	1.90	0.53
22:B0:321:U:C5'	22:B0:322:A:OP2	2.50	0.53
22:B0:493:G:C3'	41:BQ:8:ARG:HA	2.34	0.53
22:B0:2127:G:H2'	22:B0:2166:U:P	2.49	0.53
1:AA:1344:C:H4'	10:AI:119:LYS:HZ3	1.74	0.53
43:BS:28:LEU:C	43:BS:30:SER:H	2.12	0.53
22:B0:1830:C:H42	22:B0:1975:G:N2	2.00	0.53
22:B0:2411:A:H2'	22:B0:2412:A:C8	2.44	0.53
1:AA:482:A:O2'	1:AA:483:C:P	2.66	0.53
1:AA:1088:G:H2'	1:AA:1089:G:C8	2.41	0.53
5:AD:170:LEU:HD21	5:AD:181:PHE:HD1	1.74	0.53
16:AO:56:LEU:HD12	16:AO:57:ARG:CD	2.39	0.53
1:AA:1239:A:C6	1:AA:1296:C:H1'	2.43	0.53
28:BC:5:LEU:HD13	28:BC:15:SER:C	2.29	0.53
1:AA:1367:C:H3'	10:AI:115:VAL:HG11	1.91	0.53
36:BK:108:VAL:O	36:BK:110:GLU:N	2.42	0.53
29:BD:160:LYS:N	29:BD:160:LYS:HD2	2.21	0.53
24:B2:49:ILE:N	24:B2:49:ILE:HD13	2.23	0.53
49:B1:29:LYS:CD	49:B1:29:LYS:H	2.22	0.53
3:AB:42:LEU:O	3:AB:46:VAL:HG23	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AD:2:ARG:HD3	5:AD:67:LEU:HD22	1.91	0.53
27:BB:31:ALA:HB1	27:BB:94:GLN:NE2	2.23	0.53
2:AV:70:C:H2'	2:AV:71:G:C8	2.44	0.53
31:BF:6:LEU:HA	31:BF:13:GLY:O	2.09	0.53
39:BN:43:GLU:HG3	39:BN:44:GLY:H	1.73	0.53
3:AB:102:ASN:O	3:AB:106:VAL:HG23	2.08	0.53
22:B0:1498:C:H5'	26:BA:61:TYR:O	2.09	0.53
22:B0:1580:A:O4'	26:BA:68:ARG:CB	2.53	0.53
22:B0:1996:C:N3	27:BB:138:LEU:CD2	2.71	0.53
1:AA:400:C:H2'	1:AA:401:C:C6	2.44	0.53
33:BH:103:ILE:O	33:BH:106:LYS:HB3	2.09	0.53
33:BH:112:GLY:HA2	33:BH:113:PRO:C	2.28	0.53
22:B0:1242:U:H2'	22:B0:1243:C:C6	2.44	0.53
28:BC:108:ILE:HG23	28:BC:109:LEU:N	2.24	0.53
22:B0:2132:U:OP1	24:B2:7:MET:SD	2.67	0.53
22:B0:2164:C:O2'	22:B0:2165:C:C2	2.57	0.53
22:B0:71:A:H62	22:B0:114:U:H3	1.56	0.53
25:B5:50:GLU:HA	25:B5:54:PHE:HA	1.91	0.53
22:B0:2406:A:H2'	22:B0:2406:A:N3	2.24	0.53
22:B0:121:G:H8	22:B0:121:G:O5'	1.92	0.53
45:BU:65:LYS:CD	45:BU:65:LYS:H	2.21	0.53
22:B0:1900:A:H4'	22:B0:1971:U:OP1	2.09	0.53
1:AA:482:A:N7	1:AA:486:U:N3	2.55	0.53
2:AU:75:C:P	22:B0:2557:G:O4'	2.67	0.53
16:AO:57:ARG:HG2	16:AO:57:ARG:HH11	1.74	0.53
22:B0:1800:C:O2'	22:B0:1801:A:P	2.66	0.53
21:AT:53:MET:CE	21:AT:78:LEU:HD12	2.39	0.53
22:B0:2092:U:H5'	22:B0:2093:G:OP1	2.09	0.53
22:B0:2102:G:H1	22:B0:2187:U:H3	1.55	0.53
2:AW:69:U:H2'	2:AW:70:C:C6	2.44	0.53
10:AI:90:ASP:OD1	10:AI:92:SER:HB2	2.09	0.53
22:B0:1417:U:C4	26:BA:98:GLY:O	2.62	0.53
22:B0:1491:A:H5'	26:BA:161:VAL:HB	1.89	0.53
22:B0:1679:A:H2'	22:B0:1680:U:C6	2.43	0.53
13:AL:98:ARG:HA	13:AL:103:CYS:SG	2.48	0.53
22:B0:2898:G:N7	33:BH:15:TRP:C	2.62	0.53
22:B0:971:G:H5'	22:B0:983:A:N3	2.24	0.53
22:B0:661:A:OP1	35:BJ:27:LEU:HA	2.09	0.53
22:B0:493:G:H5''	41:BQ:9:HIS:N	2.13	0.53
2:AW:56:C:H41	22:B0:2122:U:H3	1.56	0.53
22:B0:2158:A:O2'	22:B0:2159:G:H4'	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1386:G:O2'	10:AI:129:ARG:HD2	2.09	0.53
22:B0:2439:A:C5'	22:B0:2440:C:OP1	2.55	0.53
1:AA:1131:G:H2'	1:AA:1132:C:C6	2.44	0.53
7:AF:42:TRP:HE3	7:AF:59:TYR:HB3	1.74	0.53
32:BG:77:VAL:O	32:BG:78:LEU:HB2	2.09	0.53
2:AU:75:C:O5'	22:B0:2557:G:O4'	2.26	0.53
32:BG:48:ILE:H	32:BG:48:ILE:CD1	2.16	0.53
8:AG:149:ALA:C	8:AG:151:ALA:H	2.11	0.53
49:B1:47:ILE:HG22	49:B1:48:TYR:N	2.23	0.53
22:B0:20:C:H2'	22:B0:21:A:H8	1.74	0.53
22:B0:685:A:H1'	22:B0:687:C:N4	2.23	0.53
22:B0:1658:C:C4	22:B0:1659:G:N7	2.77	0.53
1:AA:231:U:H2'	1:AA:232:G:H8	1.74	0.53
5:AD:78:ALA:HB3	5:AD:89:LEU:HD23	1.90	0.53
6:AE:37:VAL:HG11	6:AE:113:VAL:HA	1.91	0.53
2:AV:3:G:H2'	2:AV:4:G:H8	1.72	0.53
1:AA:707:U:H2'	1:AA:708:C:C6	2.43	0.53
35:BJ:6:LEU:H	35:BJ:6:LEU:HD23	1.73	0.53
22:B0:1418:G:H1'	26:BA:99:GLU:OE1	2.08	0.53
22:B0:535:G:H5'	40:BO:49:ARG:CB	2.39	0.53
28:BC:90:GLN:O	35:BJ:29:LYS:HB3	2.09	0.53
41:BQ:16:LYS:HD2	41:BQ:16:LYS:N	2.23	0.53
41:BQ:36:LEU:HD11	41:BQ:44:ALA:O	2.09	0.53
22:B0:2160:C:H5"	22:B0:2162:G:OP2	2.09	0.53
1:AA:1383:C:O2'	1:AA:1384:C:OP1	2.26	0.53
22:B0:2030:A:H4'	22:B0:2031:A:N7	2.24	0.53
22:B0:956:G:H1'	22:B0:2250:G:N1	2.24	0.53
22:B0:1458:C:H2'	22:B0:1459:U:H5'	1.91	0.53
22:B0:947:A:H2'	22:B0:948:C:C6	2.44	0.53
37:BL:38:LEU:HD11	37:BL:109:PRO:HD2	1.90	0.53
37:BL:75:ILE:CD1	37:BL:75:ILE:H	2.13	0.53
40:BO:91:ARG:HG3	40:BO:94:LEU:HD12	1.91	0.53
21:AT:23:ARG:HG2	21:AT:65:LEU:HD13	1.90	0.53
25:B5:81:LYS:HE3	25:B5:82:GLU:OE1	2.09	0.53
22:B0:1900:A:H5"	22:B0:1901:A:OP1	2.08	0.53
7:AF:51:ILE:O	7:AF:51:ILE:HD12	2.10	0.53
1:AA:481:G:O2'	1:AA:482:A:O4'	2.27	0.53
22:B0:2263:C:H5"	45:BU:11:ASN:CA	2.33	0.53
48:BZ:31:LYS:HG2	48:BZ:32:THR:N	2.23	0.53
1:AA:1241:G:H2'	1:AA:1241:G:N3	2.24	0.53
22:B0:1083:U:O2'	25:B3:81:LYS:CE	2.54	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AH:10:LEU:HG	9:AH:74:ILE:HG12	1.90	0.53
1:AA:47:C:O4'	1:AA:365:U:C2	2.62	0.53
1:AA:608:A:H3'	1:AA:609:A:C8	2.43	0.53
3:AB:45:THR:HG22	3:AB:49:PHE:CE2	2.44	0.53
22:B0:1105:U:H2'	22:B0:1106:G:C8	2.42	0.53
1:AA:1138:G:N3	1:AA:1138:G:H3'	2.23	0.53
27:BB:31:ALA:HB1	27:BB:94:GLN:HE22	1.74	0.53
2:AU:69:U:H2'	2:AU:70:C:C6	2.44	0.53
1:AA:1049:U:HO2'	1:AA:1050:G:P	2.31	0.53
1:AA:1365:G:H2'	1:AA:1366:C:O4'	2.09	0.53
1:AA:337:G:H2'	1:AA:338:A:C8	2.44	0.53
22:B0:1495:A:N9	26:BA:189:ALA:O	2.42	0.52
1:AA:548:G:H2'	1:AA:549:C:O4'	2.09	0.52
28:BC:97:ASN:O	28:BC:101:TYR:HB3	2.09	0.52
22:B0:518:G:H5''	41:BQ:18:ARG:CZ	2.39	0.52
41:BQ:19:LEU:O	41:BQ:22:ASP:HB3	2.08	0.52
22:B0:2109:U:O2'	22:B0:2110:G:OP1	2.28	0.52
22:B0:2164:C:H1'	22:B0:2165:C:C2	2.44	0.52
24:B2:10:ILE:HG13	24:B2:32:LEU:HD22	1.91	0.52
10:AI:127:SER:O	10:AI:128:LYS:C	2.46	0.52
22:B0:311:A:N6	22:B0:329:G:H5''	2.23	0.52
22:B0:960:A:C3'	22:B0:2496:C:H3'	2.37	0.52
22:B0:959:A:OP2	36:BK:80:VAL:HG21	2.08	0.52
46:BW:41:HIS:CE1	46:BW:45:GLN:HG3	2.44	0.52
46:BW:52:ARG:O	46:BW:56:LEU:HD13	2.08	0.52
36:BK:5:LYS:CD	36:BK:5:LYS:H	2.19	0.52
1:AA:915:A:H2'	1:AA:916:U:H5'	1.89	0.52
49:B1:48:TYR:O	49:B1:49:LYS:HB2	2.08	0.52
2:AU:63:C:H2'	2:AU:64:A:C8	2.44	0.52
22:B0:1086:A:N3	22:B0:1086:A:H3'	2.24	0.52
22:B0:846:U:O2'	22:B0:848:C:O5'	2.28	0.52
2:AW:66:A:O3'	49:B1:4:ILE:HB	2.09	0.52
22:B0:163:C:H5'	22:B0:164:C:C5'	2.38	0.52
1:AA:1508:A:H2'	1:AA:1509:C:C6	2.43	0.52
22:B0:2472:G:N2	22:B0:2529:G:H22	2.06	0.52
42:BR:93:LEU:HD22	42:BR:95:PHE:H	1.73	0.52
1:AA:1399:C:H5''	1:AA:1400:C:OP1	2.09	0.52
1:AA:1257:A:O2'	1:AA:1258:G:OP2	2.23	0.52
31:BF:127:GLU:HG2	31:BF:143:ILE:HD11	1.91	0.52
16:AO:33:ALA:HA	16:AO:36:ASN:HD22	1.74	0.52
22:B0:2312:U:O5'	22:B0:2312:U:H6	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1502:C:H2'	22:B0:1503:G:H8	1.73	0.52
22:B0:2086:U:H2'	22:B0:2087:G:C8	2.44	0.52
22:B0:2688:G:O6	22:B0:2720:U:OP2	2.27	0.52
22:B0:1494:A:N1	26:BA:129:LEU:O	2.43	0.52
22:B0:1491:A:C2	26:BA:172:THR:HB	2.43	0.52
26:BA:91:ALA:CB	26:BA:105:ALA:HB2	2.39	0.52
22:B0:1996:C:C1'	27:BB:138:LEU:C	2.77	0.52
22:B0:2898:G:N2	33:BH:55:ILE:HG21	2.24	0.52
22:B0:1607:C:O2	22:B0:1607:C:C2'	2.54	0.52
28:BC:117:ARG:HB3	28:BC:118:LEU:HD23	1.91	0.52
22:B0:501:A:O2'	22:B0:502:A:P	2.67	0.52
5:AD:40:HIS:HB3	5:AD:43:ARG:HD3	1.90	0.52
2:AV:20:G:C2	2:AV:21:A:H4'	2.45	0.52
1:AA:734:G:H8	1:AA:734:G:O5'	1.92	0.52
39:BN:60:VAL:C	39:BN:61:ARG:HD3	2.30	0.52
42:BR:30:ILE:CG1	42:BR:87:LEU:HD11	2.31	0.52
37:BL:53:THR:HG22	37:BL:54:LEU:CD2	2.39	0.52
37:BL:98:LEU:HB3	48:BZ:52:LYS:HB3	1.90	0.52
40:BO:63:ARG:CB	40:BO:63:ARG:HH11	2.23	0.52
22:B0:1038:G:H2'	22:B0:1039:A:C8	2.44	0.52
25:B3:44:PRO:HA	25:B3:47:ALA:HB2	1.91	0.52
24:B2:26:ILE:HG21	24:B2:181:ALA:HA	1.92	0.52
22:B0:1591:A:H2'	22:B0:1592:U:C6	2.44	0.52
3:AB:19:THR:HG23	3:AB:20:ARG:N	2.21	0.52
49:B1:8:ILE:HG22	49:B1:25:ASN:O	2.10	0.52
22:B0:1084:A:H61	25:B3:85:ASP:HB2	1.73	0.52
44:BT:29:ILE:C	44:BT:29:ILE:HD13	2.30	0.52
34:BI:18:ARG:HG3	34:BI:44:LYS:HB3	1.91	0.52
22:B0:2377:A:H2'	22:B0:2378:A:C8	2.45	0.52
22:B0:1512:C:C2'	22:B0:1513:C:H5''	2.36	0.52
38:BM:35:ILE:HG22	38:BM:53:THR:HB	1.92	0.52
30:BE:18:ILE:HD13	30:BE:18:ILE:C	2.30	0.52
22:B0:415:A:N6	22:B0:2408:U:N3	2.56	0.52
22:B0:2002:G:H2'	22:B0:2003:A:C8	2.44	0.52
33:BH:74:TYR:HB2	33:BH:76:HIS:CE1	2.45	0.52
27:BB:80:TRP:CE3	27:BB:84:LEU:HB3	2.44	0.52
26:BA:119:VAL:HG12	26:BA:133:ASN:HD21	1.74	0.52
1:AA:430:A:O2'	1:AA:431:A:N9	2.42	0.52
1:AA:546:A:H5'	1:AA:548:G:O2'	2.10	0.52
1:AA:243:A:O2'	1:AA:244:U:H5'	2.09	0.52
22:B0:1203:U:H2'	22:B0:1204:A:C8	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:589:U:C5	28:BC:47:LYS:N	2.77	0.52
28:BC:99:LYS:O	28:BC:103:GLY:HA3	2.09	0.52
22:B0:586:A:C4'	28:BC:78:TRP:HA	2.33	0.52
41:BQ:15:GLN:O	41:BQ:18:ARG:HD2	2.09	0.52
41:BQ:76:VAL:O	41:BQ:76:VAL:HG23	2.09	0.52
22:B0:2138:G:N2	22:B0:2158:A:N6	2.57	0.52
1:AA:1385:G:C2'	10:AI:128:LYS:HD2	2.39	0.52
45:BU:45:HIS:ND1	45:BU:56:HIS:HB2	2.24	0.52
19:AR:54:LEU:O	19:AR:58:ILE:HG13	2.08	0.52
42:BR:9:LYS:HE3	46:BW:25:GLN:HE22	1.74	0.52
22:B0:123:G:H4'	22:B0:1376:C:C5'	2.38	0.52
22:B0:700:G:O2'	22:B0:701:G:H5'	2.09	0.52
1:AA:372:C:H4'	1:AA:373:A:C8	2.44	0.52
33:BH:136:GLN:H	33:BH:137:PRO:CD	2.16	0.52
39:BN:107:ALA:HB3	39:BN:110:LYS:CG	2.39	0.52
22:B0:2562:U:H2'	22:B0:2563:U:O4'	2.08	0.52
27:BB:27:ILE:HD12	27:BB:201:LEU:HD21	1.91	0.52
27:BB:32:ASN:OD1	27:BB:83:ARG:HB2	2.09	0.52
22:B0:1943:U:OP1	22:B0:1943:U:H6	1.92	0.52
41:BQ:77:ASP:O	41:BQ:78:GLU:HB2	2.09	0.52
1:AA:1454:G:H2'	1:AA:1455:G:C8	2.45	0.52
12:AK:28:ASN:HB2	12:AK:56:LYS:HG3	1.91	0.52
35:BJ:81:ASP:C	35:BJ:83:ALA:N	2.62	0.52
22:B0:1890:A:H2	22:B0:2234:G:N2	2.07	0.52
18:AQ:61:ARG:HG3	18:AQ:75:VAL:HG21	1.92	0.52
5:AD:90:LEU:HD21	5:AD:187:ARG:HH11	1.75	0.52
8:AG:101:ARG:HG2	8:AG:105:GLU:OE2	2.09	0.52
1:AA:629:A:H2'	1:AA:630:A:H8	1.74	0.52
22:B0:1496:A:N6	26:BA:194:VAL:HG21	2.24	0.52
26:BA:62:ARG:HH22	26:BA:149:LYS:NZ	2.07	0.52
1:AA:41:G:H1'	1:AA:402:G:H22	1.73	0.52
25:B3:96:GLU:HB3	25:B5:8:ILE:HA	1.90	0.52
22:B0:588:U:C2	28:BC:74:LYS:CA	2.91	0.52
22:B0:973:A:H5''	22:B0:974:G:OP1	2.09	0.52
41:BQ:8:ARG:O	41:BQ:9:HIS:HB2	2.10	0.52
1:AA:940:C:H2'	1:AA:941:G:H8	1.75	0.52
22:B0:2677:G:H22	22:B0:2731:G:H1'	1.73	0.52
2:AV:56:C:H2'	2:AV:57:G:C8	2.45	0.52
1:AA:715:A:H2'	1:AA:716:A:C8	2.44	0.52
22:B0:2245:U:O5'	22:B0:2245:U:H6	1.92	0.52
39:BN:23:ASP:HA	39:BN:49:ILE:HG23	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BR:43:ILE:HB	42:BR:60:THR:CG2	2.39	0.52
42:BR:68:LYS:HA	42:BR:68:LYS:HZ3	1.73	0.52
29:BD:11:VAL:O	29:BD:11:VAL:HG22	2.09	0.52
45:BU:70:VAL:HB	45:BU:71:LYS:HD2	1.91	0.52
10:AI:59:LYS:C	10:AI:60:LEU:HD12	2.29	0.52
22:B0:371:A:H5'	22:B0:372:G:OP1	2.08	0.52
22:B0:401:A:H2'	22:B0:402:A:C8	2.45	0.52
34:BI:57:VAL:C	34:BI:58:LEU:HD12	2.30	0.52
1:AA:858:G:O6	1:AA:869:G:H3'	2.10	0.52
22:B0:2378:A:O2'	38:BM:17:LYS:HD3	2.09	0.52
49:B1:26:LYS:CD	49:B1:26:LYS:H	2.22	0.52
1:AA:365:U:C2'	1:AA:365:U:O2	2.58	0.52
22:B0:1397:U:O2'	22:B0:1398:C:OP1	2.26	0.52
6:AE:45:VAL:HB	6:AE:71:ILE:HD11	1.91	0.52
23:B9:68:C:H2'	23:B9:69:G:H8	1.73	0.52
1:AA:994:A:N3	1:AA:994:A:H2'	2.24	0.52
10:AI:4:GLN:OE1	10:AI:21:LYS:HE3	2.09	0.52
27:BB:146:ILE:O	27:BB:155:VAL:HG23	2.08	0.52
40:BO:64:ILE:HD12	40:BO:78:PHE:CE1	2.44	0.52
21:AT:30:PHE:O	21:AT:34:VAL:HG23	2.10	0.52
26:BA:104:LEU:HD13	26:BA:105:ALA:N	2.23	0.52
26:BA:157:ALA:HA	26:BA:194:VAL:CG1	2.40	0.52
5:AD:52:VAL:HG13	5:AD:53:GLN:NE2	2.25	0.52
25:B3:107:LYS:HG2	25:B3:111:GLU:OE2	2.10	0.52
22:B0:801:G:N3	28:BC:65:THR:OG1	2.35	0.52
28:BC:146:VAL:O	28:BC:149:ILE:HB	2.09	0.52
28:BC:108:ILE:HG12	28:BC:181:ILE:HD13	1.90	0.52
28:BC:180:LEU:O	28:BC:186:VAL:HG11	2.08	0.52
2:AW:9:A:O2'	2:AW:45:G:H2'	2.08	0.52
22:B0:2391:G:H1'	22:B0:2429:G:H21	1.73	0.52
22:B0:2491:U:H2'	22:B0:2492:U:H5'	1.89	0.52
4:AC:109:GLU:HB2	4:AC:143:LEU:CD2	2.39	0.52
1:AA:734:G:H2'	1:AA:735:C:O4'	2.09	0.52
39:BN:49:ILE:HD13	39:BN:99:LEU:HD13	1.90	0.52
42:BR:28:ASN:HB3	42:BR:87:LEU:C	2.30	0.52
46:BW:40:SER:HA	46:BW:43:LEU:CD1	2.39	0.52
37:BL:23:ASN:C	37:BL:25:ALA:N	2.61	0.52
25:B3:44:PRO:C	25:B3:46:GLU:H	2.12	0.52
22:B0:858:G:C2	22:B0:2268:A:H2'	2.44	0.52
7:AF:81:ASN:HB3	7:AF:84:VAL:HG12	1.92	0.52
1:AA:391:G:H21	1:AA:483:C:C1'	2.20	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:B1:34:GLU:HG2	49:B1:49:LYS:HA	1.91	0.52
27:BB:81:GLU:O	27:BB:82:PHE:CB	2.53	0.52
1:AA:1240:U:H3'	1:AA:1241:G:H8	1.73	0.52
48:BZ:54:ILE:N	48:BZ:54:ILE:HD13	2.20	0.52
20:AS:39:ILE:HA	20:AS:43:MET:HE3	1.92	0.52
14:AM:94:LEU:N	14:AM:94:LEU:HD22	2.24	0.52
9:AH:10:LEU:C	9:AH:10:LEU:HD23	2.30	0.52
12:AK:106:ILE:HG23	12:AK:106:ILE:O	2.09	0.52
16:AO:46:LYS:HD2	16:AO:46:LYS:N	2.23	0.52
1:AA:98:A:H2'	1:AA:99:C:C6	2.43	0.52
1:AA:533:A:O2'	1:AA:534:U:OP1	2.27	0.52
2:AU:76:A:H1'	22:B0:2549:G:N7	2.24	0.52
22:B0:2662:A:H2'	22:B0:2663:G:O4'	2.09	0.52
26:BA:198:GLU:CG	26:BA:201:LEU:HD12	2.39	0.52
22:B0:1424:G:P	26:BA:58:LYS:HA	2.49	0.52
22:B0:1579:A:P	26:BA:65:ASP:HA	2.48	0.52
22:B0:1669:A:H61	22:B0:1993:U:H3	1.58	0.52
33:BH:36:LEU:H	33:BH:36:LEU:CD2	2.20	0.52
1:AA:894:G:H2'	1:AA:895:G:C8	2.44	0.52
22:B0:1251:C:O2'	22:B0:1252:G:H5''	2.10	0.52
28:BC:189:THR:O	28:BC:193:VAL:HG23	2.09	0.52
28:BC:97:ASN:HD22	28:BC:100:MET:CE	2.23	0.52
28:BC:181:ILE:HG13	35:BJ:17:LYS:CG	2.40	0.52
22:B0:1197:G:O2'	40:BO:7:VAL:HG23	2.09	0.52
22:B0:2542:A:H4'	22:B0:2543:G:C8	2.43	0.52
22:B0:2065:C:H2'	22:B0:2066:C:C6	2.45	0.52
4:AC:187:GLU:HG3	4:AC:188:ALA:H	1.75	0.52
1:AA:713:G:H2'	1:AA:714:G:C8	2.44	0.52
39:BN:2:ASN:ND2	39:BN:4:ILE:HG23	2.24	0.52
22:B0:2439:A:H3'	22:B0:2600:A:OP1	2.10	0.52
22:B0:2175:C:C6	22:B0:2175:C:C3'	2.93	0.52
24:B2:64:LEU:CD1	24:B2:160:VAL:HG11	2.40	0.52
42:BR:30:ILE:HG12	42:BR:87:LEU:CD1	2.31	0.52
17:AP:71:VAL:O	17:AP:75:ILE:HG13	2.09	0.52
1:AA:1195:C:H3'	1:AA:1196:A:H5'	1.92	0.52
1:AA:886:G:C4'	1:AA:915:A:H1'	2.39	0.52
1:AA:655:A:H2'	1:AA:656:G:O4'	2.10	0.52
22:B0:873:C:H4'	36:BK:64:TRP:CZ3	2.43	0.52
22:B0:2484:G:H2'	22:B0:2485:G:H8	1.73	0.52
1:AA:841:U:H5'	1:AA:848:C:O4'	2.09	0.52
22:B0:1218:G:H1	22:B0:1231:U:H3	1.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AB:73:ARG:N	3:AB:73:ARG:HD3	2.25	0.52
27:BB:104:VAL:HG12	27:BB:104:VAL:O	2.10	0.52
11:AJ:92:LEU:HD12	11:AJ:92:LEU:N	2.25	0.52
25:B3:98:VAL:HB	25:B3:102:ASP:CB	2.39	0.52
1:AA:674:G:H2'	1:AA:675:A:C8	2.44	0.52
14:AM:75:SER:O	14:AM:79:LEU:HD22	2.09	0.52
22:B0:1421:G:C4	26:BA:148:GLY:CA	2.93	0.52
26:BA:76:VAL:CG2	26:BA:94:LEU:HB3	2.39	0.52
22:B0:1668:A:O2'	22:B0:1670:C:H5	1.92	0.52
22:B0:1199:U:H2'	22:B0:1200:C:C6	2.44	0.52
22:B0:2443:C:H2'	22:B0:2444:G:H8	1.74	0.52
22:B0:558:G:H2'	22:B0:559:G:C8	2.45	0.52
22:B0:590:A:H2'	22:B0:591:U:O4'	2.09	0.52
22:B0:586:A:O2'	28:BC:77:ILE:HA	2.09	0.52
41:BQ:49:LYS:HZ3	41:BQ:49:LYS:N	2.07	0.52
1:AA:1288:A:H2'	1:AA:1289:A:O4'	2.09	0.52
27:BB:123:LYS:HA	27:BB:141:ARG:HH21	1.75	0.52
22:B0:2064:C:H1'	22:B0:2450:A:N1	2.25	0.52
14:AM:19:THR:O	14:AM:19:THR:HG22	2.10	0.52
5:AD:154:VAL:O	5:AD:158:LEU:HD23	2.10	0.52
22:B0:58:G:OP2	22:B0:58:G:H8	1.93	0.52
22:B0:629:G:C4'	22:B0:638:G:H21	2.20	0.52
22:B0:2856:A:H2'	22:B0:2862:G:H1	1.75	0.52
22:B0:2558:C:O2	22:B0:2558:C:C2'	2.57	0.52
48:BZ:31:LYS:HE2	48:BZ:47:TYR:CG	2.45	0.52
29:BD:79:ARG:HG2	29:BD:80:GLN:N	2.19	0.52
1:AA:1238:A:H1'	1:AA:1241:G:N2	2.25	0.52
20:AS:86:LYS:CD	20:AS:86:LYS:H	2.18	0.52
27:BB:172:VAL:CG1	27:BB:175:LEU:HD11	2.40	0.52
40:BO:116:LEU:HD23	40:BO:116:LEU:N	2.22	0.52
22:B0:2484:G:C4'	36:BK:44:ARG:HD3	2.38	0.52
22:B0:2770:G:H5'	27:BB:45:TYR:HB3	1.92	0.52
2:AW:3:G:C5'	22:B0:1880:U:H5''	2.40	0.52
23:B9:37:C:N4	23:B9:44:G:H1	2.08	0.52
22:B0:2655:G:O2'	22:B0:2656:U:H5	1.92	0.52
1:AA:1429:A:H2'	1:AA:1430:A:H8	1.74	0.52
22:B0:2568:U:H2'	22:B0:2569:G:C8	2.45	0.52
1:AA:1388:C:H2'	1:AA:1389:C:C6	2.44	0.52
26:BA:143:VAL:C	26:BA:151:GLY:HA2	2.30	0.52
22:B0:1490:C:H5'	26:BA:160:TYR:CD1	2.44	0.52
1:AA:405:U:O4	1:AA:545:C:N3	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:990:A:H2	40:BO:46:TYR:HH	1.57	0.52
41:BQ:88:ARG:N	41:BQ:88:ARG:NE	2.57	0.52
1:AA:1246:C:H2'	1:AA:1247:U:C6	2.45	0.52
27:BB:118:PHE:HA	27:BB:163:GLY:O	2.10	0.52
37:BL:63:ARG:NH1	37:BL:64:ARG:NE	2.54	0.52
4:AC:107:LYS:HB3	4:AC:143:LEU:HD21	1.91	0.52
2:AW:35:A:H2'	2:AW:36:A:C8	2.45	0.52
42:BR:12:ARG:HA	42:BR:12:ARG:HH11	1.73	0.52
22:B0:979:A:O5'	22:B0:980:A:H5''	2.10	0.52
25:B5:26:MET:HB3	25:B5:38:VAL:HG11	1.91	0.52
22:B0:860:U:H2'	22:B0:861:A:C8	2.39	0.52
22:B0:1901:A:H2'	22:B0:1902:C:C6	2.45	0.52
3:AB:26:MET:O	3:AB:30:ILE:HG13	2.10	0.52
13:AL:56:LEU:H	13:AL:56:LEU:CD2	2.20	0.52
22:B0:845:A:H2'	22:B0:846:U:C6	2.44	0.52
1:AA:1148:U:P	10:AI:10:ARG:NH2	2.82	0.52
1:AA:269:C:H2'	1:AA:270:A:C8	2.44	0.52
22:B0:2786:U:H2'	22:B0:2787:C:C6	2.45	0.52
6:AE:132:PRO:HG2	6:AE:133:ILE:CD1	2.39	0.52
48:BZ:27:LEU:HA	48:BZ:36:LYS:CG	2.39	0.52
48:BZ:27:LEU:HA	48:BZ:36:LYS:HG3	1.92	0.52
1:AA:1257:A:O2'	1:AA:1258:G:P	2.68	0.52
29:BD:59:ILE:N	29:BD:59:ILE:HD13	2.25	0.52
2:AW:70:C:H2'	2:AW:71:G:H8	1.75	0.52
2:AV:7:U:H5''	2:AV:8:U:OP1	2.10	0.52
27:BB:66:GLY:O	27:BB:70:LYS:HG2	2.09	0.52
22:B0:1434:A:H2'	22:B0:1435:G:O4'	2.09	0.52
8:AG:129:ASN:O	8:AG:130:LYS:HB3	2.10	0.52
1:AA:777:A:H2'	1:AA:778:G:O4'	2.09	0.52
23:B9:82:U:H2'	23:B9:83:G:C8	2.45	0.52
22:B0:1421:G:O5'	22:B0:1421:G:H8	1.93	0.52
27:BB:131:ASP:O	27:BB:132:ALA:HB3	2.10	0.52
1:AA:402:G:H8	1:AA:402:G:O5'	1.93	0.52
1:AA:545:C:C5'	1:AA:549:C:H4'	2.36	0.52
5:AD:12:ARG:HH21	5:AD:37:PRO:HB3	1.75	0.52
22:B0:1223:G:N2	22:B0:1225:G:H3'	2.25	0.52
28:BC:175:ILE:HB	28:BC:180:LEU:CD2	2.38	0.52
40:BO:39:ILE:O	40:BO:43:GLN:HG2	2.10	0.52
41:BQ:50:VAL:C	41:BQ:52:GLU:N	2.63	0.52
22:B0:2136:G:N3	22:B0:2136:G:C3'	2.71	0.52
1:AA:935:A:H2'	1:AA:936:C:C6	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:958:U:C5	36:BK:81:ARG:N	2.78	0.52
29:BD:136:ILE:N	29:BD:136:ILE:HD12	2.24	0.52
22:B0:2175:C:H4'	24:B2:167:ASN:HD22	1.74	0.52
25:B5:57:ILE:HB	25:B5:118:GLU:HG2	1.92	0.52
21:AT:77:ASN:O	21:AT:81:GLN:HG3	2.10	0.52
22:B0:870:U:H2'	22:B0:871:U:O4'	2.09	0.52
11:AJ:51:VAL:O	11:AJ:62:ARG:HA	2.09	0.52
1:AA:975:A:H61	11:AJ:59:LYS:CE	2.22	0.52
21:AT:8:LYS:HD3	21:AT:11:ILE:HD11	1.91	0.52
22:B0:571:U:H5''	22:B0:572:A:OP1	2.10	0.52
40:BO:106:THR:HA	40:BO:109:VAL:HG22	1.92	0.52
1:AA:1266:G:N2	1:AA:1269:A:OP2	2.43	0.52
22:B0:220:G:H4'	22:B0:234:U:H4'	1.92	0.52
29:BD:149:ARG:HD2	29:BD:149:ARG:C	2.30	0.52
15:AN:72:PHE:HA	15:AN:79:SER:HA	1.91	0.52
22:B0:877:A:N1	22:B0:900:A:N1	2.58	0.52
24:B2:189:GLU:O	24:B2:193:VAL:HG23	2.09	0.52
3:AB:17:HIS:CD2	3:AB:18:GLN:HE21	2.28	0.52
23:B9:11:C:H2'	23:B9:12:C:H5'	1.92	0.52
22:B0:1497:U:H2'	26:BA:61:TYR:HB3	1.90	0.52
1:AA:420:U:N1	5:AD:39:GLN:NE2	2.58	0.52
33:BH:53:TYR:HB3	33:BH:121:LYS:O	2.10	0.52
22:B0:973:A:H4'	22:B0:1186:G:N2	2.24	0.52
28:BC:177:PRO:O	28:BC:180:LEU:HB2	2.10	0.52
22:B0:2157:G:H4'	22:B0:2158:A:H4'	1.91	0.52
22:B0:307:G:N2	22:B0:330:A:N6	2.58	0.52
1:AA:979:C:H3'	20:AS:5:LYS:HD2	1.92	0.52
5:AD:144:ILE:HD11	5:AD:158:LEU:HD21	1.92	0.52
22:B0:635:C:H2'	22:B0:636:G:O4'	2.10	0.52
37:BL:40:LYS:HG3	37:BL:41:ALA:H	1.74	0.52
22:B0:1001:A:H2'	22:B0:1002:G:O4'	2.10	0.52
7:AF:15:SER:O	7:AF:18:VAL:HG23	2.10	0.52
1:AA:1102:A:H2'	1:AA:1103:C:C6	2.45	0.52
25:B3:59:LYS:HD3	25:B3:116:GLU:OE2	2.10	0.52
4:AC:34:SER:O	4:AC:38:VAL:HG13	2.09	0.52
22:B0:368:A:O2'	22:B0:369:U:H5'	2.09	0.52
1:AA:188:C:H2'	1:AA:189:A:H4'	1.90	0.52
22:B0:2469:A:H2'	22:B0:2470:G:O4'	2.10	0.52
22:B0:1771:C:H2'	22:B0:1772:A:H8	1.75	0.52
6:AE:137:ARG:O	6:AE:140:ILE:HG13	2.10	0.52
14:AM:97:ARG:HB3	14:AM:98:GLY:N	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BU:46:ALA:CB	45:BU:76:ARG:H	2.22	0.52
8:AG:21:LEU:HD12	8:AG:61:PHE:CE2	2.45	0.52
3:AB:96:LEU:HD21	3:AB:146:SER:OG	2.10	0.52
24:B2:110:PHE:HE1	24:B2:135:LEU:HD13	1.75	0.52
22:B0:1755:A:H2'	22:B0:1756:G:H5'	1.91	0.52
22:B0:1416:G:C6	26:BA:94:LEU:HA	2.45	0.51
22:B0:1582:C:H41	26:BA:73:ILE:CG2	2.17	0.51
33:BH:99:ARG:HH22	33:BH:102:GLU:CB	2.22	0.51
1:AA:279:A:P	1:AA:281:G:H5'	2.50	0.51
22:B0:799:G:H3'	28:BC:57:LYS:CA	2.41	0.51
28:BC:53:THR:CG2	28:BC:67:ARG:HD3	2.40	0.51
28:BC:90:GLN:HB3	35:BJ:27:LEU:HB2	1.91	0.51
41:BQ:52:GLU:O	41:BQ:55:ILE:HG12	2.09	0.51
22:B0:476:G:N2	22:B0:479:A:C8	2.78	0.51
2:AV:16:U:C5'	2:AV:17:U:OP1	2.54	0.51
12:AK:119:GLY:C	12:AK:121:ARG:H	2.11	0.51
39:BN:1:SER:OG	39:BN:5:LYS:HE2	2.10	0.51
22:B0:2437:G:H1'	22:B0:2598:A:N1	2.24	0.51
42:BR:69:ARG:NH1	42:BR:69:ARG:HB3	2.24	0.51
40:BO:57:ARG:HH11	40:BO:57:ARG:HG2	1.75	0.51
22:B0:2511:U:H2'	22:B0:2578:G:H22	1.74	0.51
24:B2:50:ASP:OD2	24:B2:53:LYS:HG3	2.10	0.51
32:BG:137:LEU:HD12	32:BG:138:VAL:H	1.75	0.51
1:AA:1221:G:C2'	20:AS:1:PRO:H2	2.16	0.51
43:BS:51:LEU:HB2	43:BS:53:GLN:NE2	2.19	0.51
16:AO:59:VAL:HG11	22:B0:715:A:O4'	2.10	0.51
1:AA:924:C:H1'	1:AA:1399:C:N4	2.25	0.51
42:BR:39:THR:HG23	42:BR:40:LYS:N	2.24	0.51
22:B0:872:U:H2'	22:B0:873:C:C6	2.45	0.51
12:AK:92:ARG:O	12:AK:96:ILE:HG13	2.10	0.51
22:B0:1526:G:H21	22:B0:1545:A:H62	1.56	0.51
24:B2:73:ARG:HA	24:B2:92:GLU:OE2	2.10	0.51
22:B0:540:G:H2'	22:B0:541:C:C6	2.45	0.51
22:B0:1495:A:H2'	22:B0:1496:A:O5'	2.10	0.51
26:BA:141:HIS:NE2	26:BA:192:GLY:O	2.43	0.51
26:BA:141:HIS:HE1	26:BA:194:VAL:HA	1.73	0.51
22:B0:1580:A:C1'	26:BA:68:ARG:HB3	2.39	0.51
1:AA:404:G:H5'	1:AA:546:A:C2'	2.40	0.51
22:B0:527:C:H4'	22:B0:528:A:C5'	2.40	0.51
22:B0:589:U:C4	28:BC:74:LYS:HE3	2.46	0.51
22:B0:589:U:H3	28:BC:74:LYS:CE	2.23	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:663:G:OP2	28:BC:88:ARG:HD2	2.10	0.51
22:B0:797:G:H2'	22:B0:798:G:C8	2.45	0.51
40:BO:26:ALA:HB3	40:BO:27:ARG:NH2	2.25	0.51
22:B0:495:G:O2'	41:BQ:106:VAL:HG22	2.10	0.51
22:B0:2646:C:H2'	22:B0:2647:U:C6	2.45	0.51
22:B0:2678:C:C5'	27:BB:125:TRP:N	2.67	0.51
22:B0:2490:G:H4'	22:B0:2491:U:C5'	2.41	0.51
2:AV:20:G:C3'	2:AV:21:A:C5'	2.87	0.51
19:AR:62:ARG:HG2	19:AR:67:LEU:HB2	1.92	0.51
22:B0:2176:A:P	24:B2:165:ASP:HB2	2.50	0.51
39:BN:64:SER:CA	39:BN:71:ARG:HG2	2.41	0.51
42:BR:26:LYS:HD2	42:BR:26:LYS:N	2.24	0.51
25:B5:57:ILE:HB	25:B5:118:GLU:CG	2.39	0.51
29:BD:6:TYR:O	29:BD:11:VAL:HG12	2.11	0.51
21:AT:58:ASP:OD1	21:AT:75:LYS:HD2	2.11	0.51
11:AJ:54:SER:OG	11:AJ:58:ASN:HB3	2.10	0.51
1:AA:559:A:H4'	1:AA:560:A:C5'	2.40	0.51
1:AA:588:G:H1	1:AA:651:C:N4	1.98	0.51
22:B0:1060:U:H1'	22:B0:1062:G:OP2	2.10	0.51
1:AA:915:A:C2'	1:AA:916:U:H5'	2.39	0.51
17:AP:11:ALA:HB3	17:AP:14:ARG:HB3	1.91	0.51
16:AO:59:VAL:HG11	22:B0:715:A:C5'	2.40	0.51
3:AB:23:ASN:ND2	3:AB:24:PRO:HD2	2.23	0.51
1:AA:812:G:O2'	1:AA:813:U:H6	1.91	0.51
39:BN:36:LYS:CD	39:BN:37:LYS:HG3	2.39	0.51
1:AA:345:C:H5'	1:AA:346:G:C4	2.45	0.51
22:B0:687:C:H2'	22:B0:688:U:O4'	2.10	0.51
1:AA:763:G:H2'	1:AA:764:C:C6	2.46	0.51
1:AA:250:A:O2'	1:AA:251:G:P	2.67	0.51
1:AA:1329:A:O2'	1:AA:1330:U:H5'	2.10	0.51
22:B0:233:A:O2'	22:B0:234:U:H5'	2.11	0.51
15:AN:40:ARG:HG3	15:AN:40:ARG:HH11	1.75	0.51
35:BJ:108:ALA:HB3	35:BJ:126:ARG:CZ	2.41	0.51
35:BJ:99:ASN:HD22	35:BJ:99:ASN:N	2.07	0.51
22:B0:1532:U:H6	22:B0:1532:U:O5'	1.92	0.51
22:B0:99:U:H5'	22:B0:102:U:OP2	2.11	0.51
22:B0:2825:G:H2'	22:B0:2826:A:O4'	2.10	0.51
22:B0:2235:G:H2'	22:B0:2236:U:C6	2.46	0.51
32:BG:109:ALA:C	32:BG:111:THR:H	2.14	0.51
22:B0:1599:U:OP1	42:BR:61:LEU:HA	2.10	0.51
29:BD:4:HIS:HB2	29:BD:96:TRP:CD1	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BF:10:ALA:O	31:BF:11:ASN:HB2	2.09	0.51
2:AW:7:U:H5''	2:AW:8:U:OP1	2.10	0.51
25:B5:98:VAL:HB	25:B5:102:ASP:HB2	1.93	0.51
27:BB:16:THR:HG23	27:BB:18:ASP:O	2.10	0.51
10:AI:5:TYR:CE2	10:AI:89:TYR:HA	2.45	0.51
22:B0:1579:A:N3	22:B0:1579:A:H2'	2.24	0.51
22:B0:1491:A:OP2	26:BA:176:ARG:CA	2.57	0.51
13:AL:109:ARG:NH1	13:AL:112:ALA:H	2.08	0.51
13:AL:109:ARG:CZ	13:AL:112:ALA:HB3	2.41	0.51
22:B0:2043:C:H5'	22:B0:2779:U:O4	2.10	0.51
25:B3:96:GLU:HA	25:B5:8:ILE:CG2	2.40	0.51
28:BC:44:ARG:N	28:BC:90:GLN:HA	2.25	0.51
43:BS:64:ILE:HG22	43:BS:65:GLN:N	2.25	0.51
22:B0:2700:A:H3'	22:B0:2702:G:H5''	1.91	0.51
35:BJ:37:GLY:O	35:BJ:39:LYS:HD3	2.10	0.51
39:BN:71:ARG:O	39:BN:72:VAL:CB	2.58	0.51
46:BW:42:LEU:O	46:BW:46:VAL:HG23	2.10	0.51
22:B0:636:G:H5''	22:B0:637:A:OP1	2.10	0.51
2:AU:35:A:H2'	2:AU:36:A:H8	1.74	0.51
25:B5:51:LYS:HA	25:B5:52:THR:HG22	1.93	0.51
22:B0:2855:C:C3'	22:B0:2856:A:H5''	2.40	0.51
10:AI:27:ILE:HG12	10:AI:62:LEU:HB2	1.92	0.51
22:B0:2032:G:H5'	22:B0:2033:A:OP1	2.10	0.51
22:B0:2558:C:C2'	22:B0:2559:C:H5'	2.40	0.51
6:AE:17:VAL:HG23	6:AE:33:THR:O	2.09	0.51
1:AA:957:U:H2'	1:AA:959:A:OP2	2.10	0.51
34:BI:8:LEU:N	34:BI:8:LEU:HD23	2.25	0.51
44:BT:29:ILE:C	44:BT:30:ILE:HD12	2.31	0.51
22:B0:739:A:H4'	22:B0:1981:A:N1	2.25	0.51
22:B0:738:G:H1'	22:B0:759:G:N2	2.25	0.51
1:AA:1188:A:H2'	1:AA:1189:U:O4'	2.10	0.51
32:BG:92:PRO:HB3	32:BG:135:MET:HA	1.93	0.51
3:AB:44:LYS:C	3:AB:47:PRO:HD2	2.30	0.51
1:AA:509:A:O2'	1:AA:510:A:OP1	2.28	0.51
5:AD:96:ARG:O	5:AD:100:VAL:HG23	2.10	0.51
5:AD:67:LEU:HD22	5:AD:67:LEU:H	1.75	0.51
3:AB:221:ARG:HH12	3:AB:229:ALA:HB3	1.74	0.51
22:B0:1217:U:H3	22:B0:1232:G:H1	1.58	0.51
1:AA:1049:U:O2'	1:AA:1050:G:OP2	2.27	0.51
25:B3:98:VAL:HG11	25:B3:106:LEU:HD11	1.92	0.51
1:AA:782:A:H62	1:AA:800:G:H21	1.58	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AH:62:LEU:HD12	9:AH:62:LEU:N	2.26	0.51
22:B0:882:G:H2'	22:B0:883:G:C8	2.45	0.51
31:BF:7:ASP:HB2	31:BF:35:LYS:HG3	1.92	0.51
22:B0:1412:G:H2'	22:B0:1413:U:C6	2.45	0.51
22:B0:1425:G:H21	22:B0:1574:C:N4	2.08	0.51
22:B0:1485:C:H2'	22:B0:1486:G:H8	1.74	0.51
22:B0:1500:A:H8	22:B0:1500:A:O5'	1.94	0.51
22:B0:1416:G:H22	26:BA:94:LEU:HD13	1.75	0.51
22:B0:2778:A:O2'	22:B0:2779:U:H5''	2.10	0.51
22:B0:599:A:H2'	22:B0:600:G:C8	2.45	0.51
40:BO:31:TYR:HB2	40:BO:32:ARG:HH12	1.76	0.51
41:BQ:11:ARG:H	41:BQ:11:ARG:CZ	2.23	0.51
41:BQ:45:VAL:O	41:BQ:46:LEU:HB3	2.11	0.51
41:BQ:75:PHE:H	41:BQ:104:THR:HB	1.76	0.51
1:AA:421:U:C5	5:AD:43:ARG:HB3	2.46	0.51
39:BN:72:VAL:HG13	39:BN:73:PHE:N	2.25	0.51
22:B0:2335:A:HO2'	22:B0:2336:A:H8	1.54	0.51
42:BR:65:GLY:N	42:BR:77:ARG:NH2	2.50	0.51
37:BL:49:GLU:HB2	37:BL:52:ILE:CG1	2.40	0.51
11:AJ:57:VAL:CG1	11:AJ:58:ASN:H	2.11	0.51
22:B0:918:A:H2'	22:B0:919:U:O4'	2.10	0.51
22:B0:2263:C:OP2	45:BU:12:GLY:N	2.44	0.51
1:AA:914:A:O2'	1:AA:915:A:H5'	2.11	0.51
8:AG:35:LYS:HA	8:AG:38:ALA:HB3	1.92	0.51
37:BL:78:LYS:HE2	37:BL:78:LYS:CA	2.39	0.51
22:B0:1801:A:N6	22:B0:2223:G:O2'	2.44	0.51
1:AA:975:A:C5'	1:AA:976:G:H5''	2.41	0.51
22:B0:19:A:H2'	22:B0:20:C:C6	2.45	0.51
40:BO:106:THR:O	40:BO:110:GLU:HG2	2.10	0.51
1:AA:1266:G:H2'	1:AA:1268:G:OP2	2.10	0.51
1:AA:952:U:H2'	1:AA:953:G:C8	2.43	0.51
30:BE:162:ARG:HA	30:BE:162:ARG:NE	2.25	0.51
18:AQ:11:VAL:HG13	18:AQ:20:ILE:HG23	1.93	0.51
18:AQ:58:VAL:HG12	18:AQ:77:VAL:HA	1.91	0.51
29:BD:147:ARG:HA	29:BD:147:ARG:NE	2.25	0.51
1:AA:234:C:H2'	1:AA:235:C:H6	1.74	0.51
5:AD:146:GLU:H	5:AD:146:GLU:CD	2.14	0.51
1:AA:24:U:H2'	1:AA:25:C:C6	2.46	0.51
48:BZ:37:HIS:CD2	48:BZ:39:ARG:HB2	2.46	0.51
22:B0:2832:U:O2'	22:B0:2833:U:P	2.68	0.51
14:AM:72:ILE:O	14:AM:76:ILE:HG13	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BN:18:SER:O	39:BN:19:PHE:C	2.49	0.51
22:B0:1577:C:H2'	22:B0:1578:U:O4'	2.11	0.51
22:B0:1579:A:P	26:BA:66:PHE:N	2.80	0.51
22:B0:1417:U:H5''	26:BA:100:ARG:HB2	1.93	0.51
22:B0:320:A:OP2	28:BC:130:LYS:HE3	2.10	0.51
22:B0:807:U:H5'	22:B0:2445:G:H4'	1.93	0.51
28:BC:27:LEU:O	28:BC:30:GLN:HB3	2.11	0.51
22:B0:2169:A:C5'	22:B0:2170:A:OP2	2.50	0.51
22:B0:2180:U:H5''	22:B0:2181:U:OP2	2.11	0.51
22:B0:2458:G:C5'	22:B0:2459:A:OP1	2.55	0.51
45:BU:45:HIS:CB	45:BU:79:ILE:HG21	2.27	0.51
2:AV:16:U:H1'	2:AV:18:G:OP1	2.10	0.51
22:B0:2074:U:O2'	22:B0:2075:U:H5''	2.10	0.51
22:B0:2076:U:C5'	22:B0:2238:G:H1	2.21	0.51
22:B0:2238:G:H5'	22:B0:2239:G:OP1	2.11	0.51
39:BN:25:VAL:HG13	39:BN:88:ARG:HD2	1.93	0.51
42:BR:12:ARG:HH11	42:BR:12:ARG:CA	2.24	0.51
42:BR:12:ARG:HH11	42:BR:12:ARG:CB	2.23	0.51
22:B0:604:G:H2'	22:B0:605:G:C8	2.46	0.51
37:BL:38:LEU:HD12	37:BL:38:LEU:N	2.25	0.51
10:AI:16:ALA:HB1	10:AI:78:ILE:HG12	1.93	0.51
29:BD:68:LYS:H	29:BD:68:LYS:CD	2.16	0.51
22:B0:1931:U:C2'	22:B0:1931:U:O2	2.56	0.51
22:B0:2263:C:C6	45:BU:11:ASN:HB2	2.45	0.51
4:AC:66:THR:HG22	4:AC:101:ASN:ND2	2.22	0.51
22:B0:1600:C:OP1	42:BR:62:VAL:HB	2.11	0.51
22:B0:1816:C:C2	26:BA:51:ARG:HG2	2.45	0.51
1:AA:812:G:O2'	1:AA:813:U:C6	2.64	0.51
22:B0:2472:G:H21	22:B0:2478:A:H62	1.54	0.51
22:B0:686:U:H5'	22:B0:687:C:OP2	2.10	0.51
22:B0:905:A:H2'	22:B0:906:U:H5'	1.91	0.51
35:BJ:101:ILE:HD13	35:BJ:101:ILE:C	2.30	0.51
22:B0:2194:U:H2'	22:B0:2195:U:C6	2.46	0.51
22:B0:2198:A:O2'	22:B0:2199:A:C5'	2.59	0.51
4:AC:93:ILE:HD12	4:AC:93:ILE:N	2.26	0.51
22:B0:1464:G:C2'	22:B0:1465:U:H5'	2.41	0.51
1:AA:68:G:H1	1:AA:101:A:H61	1.58	0.51
1:AA:629:A:H2'	1:AA:630:A:C8	2.46	0.51
3:AB:117:GLU:O	3:AB:121:GLN:HG3	2.10	0.51
29:BD:114:ARG:HG3	29:BD:114:ARG:HH11	1.75	0.51
22:B0:981:A:O2'	22:B0:2037:A:H5'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AK:14:GLN:HA	12:AK:76:TYR:O	2.10	0.51
22:B0:1644:C:O2'	22:B0:1645:G:H5'	2.11	0.51
22:B0:1430:G:H1	22:B0:1563:U:H3	1.58	0.51
22:B0:1485:C:H2'	22:B0:1486:G:C8	2.46	0.51
33:BH:113:PRO:O	33:BH:115:GLY:N	2.41	0.51
22:B0:1186:G:N2	22:B0:1187:G:H1'	2.25	0.51
22:B0:1202:G:O4'	35:BJ:14:LYS:NZ	2.40	0.51
22:B0:2067:G:H5''	22:B0:2068:U:OP2	2.11	0.51
22:B0:798:G:N1	22:B0:799:G:O6	2.44	0.51
28:BC:154:ASP:CG	28:BC:155:GLU:H	2.14	0.51
22:B0:1247:A:OP2	28:BC:91:ASP:OD2	2.28	0.51
28:BC:96:VAL:HG22	28:BC:97:ASN:ND2	2.25	0.51
41:BQ:51:LEU:CA	41:BQ:105:VAL:HG11	2.36	0.51
41:BQ:57:ASN:HA	41:BQ:60:HIS:CE1	2.45	0.51
22:B0:664:G:H4'	22:B0:940:G:O3'	2.11	0.51
35:BJ:36:LYS:O	35:BJ:37:GLY:C	2.49	0.51
22:B0:2598:A:C5	22:B0:2599:G:H1'	2.46	0.51
22:B0:1791:A:N6	22:B0:1828:G:O2'	2.43	0.51
39:BN:23:ASP:C	39:BN:49:ILE:HG12	2.31	0.51
22:B0:2296:U:H4'	22:B0:2297:A:OP1	2.11	0.51
22:B0:2323:G:N2	22:B0:2337:G:H5'	2.25	0.51
22:B0:977:G:N2	22:B0:986:C:N3	2.59	0.51
22:B0:1869:G:H2'	22:B0:1871:A:OP1	2.11	0.51
22:B0:2386:A:H2'	22:B0:2387:U:C6	2.46	0.51
17:AP:36:VAL:HG21	17:AP:57:ILE:HB	1.93	0.51
22:B0:2899:A:H61	33:BH:137:PRO:CA	2.22	0.51
1:AA:663:A:H61	1:AA:742:G:H1	1.57	0.51
4:AC:35:ASP:OD1	4:AC:56:ILE:HG21	2.10	0.51
29:BD:47:LYS:HB2	29:BD:47:LYS:NZ	2.26	0.51
29:BD:48:LEU:HA	29:BD:51:ASN:OD1	2.10	0.51
30:BE:66:THR:O	30:BE:70:LEU:HG	2.10	0.51
35:BJ:72:ALA:O	35:BJ:105:ILE:HG12	2.09	0.51
23:B9:55:U:H4'	29:BD:24:VAL:HG11	1.91	0.51
22:B0:610:C:O5'	22:B0:610:C:H6	1.94	0.51
1:AA:1399:C:H1'	1:AA:1401:G:C4	2.45	0.51
33:BH:46:PRO:O	33:BH:47:HIS:HB2	2.11	0.51
22:B0:1296:G:H2'	22:B0:1297:C:C6	2.45	0.51
22:B0:1275:A:N6	22:B0:1296:G:H4'	2.25	0.51
1:AA:48:C:O2'	1:AA:49:U:OP1	2.27	0.51
22:B0:457:A:H1'	22:B0:459:U:C6	2.46	0.51
21:AT:28:ARG:HA	21:AT:31:ILE:CG2	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:2092:U:OP1	22:B0:2198:A:H2	1.94	0.51
22:B0:1258:U:H2'	22:B0:1259:G:H8	1.73	0.51
22:B0:878:A:N1	22:B0:899:A:N1	2.59	0.51
22:B0:666:A:O2'	22:B0:667:U:H5'	2.10	0.51
31:BF:82:SER:OG	31:BF:94:ILE:HD11	2.09	0.51
29:BD:53:ALA:H	29:BD:56:LEU:HD23	1.76	0.51
27:BB:146:ILE:HG13	27:BB:155:VAL:HB	1.91	0.51
36:BK:115:GLU:O	36:BK:119:LEU:HG	2.11	0.51
7:AF:86:ARG:NH1	7:AF:86:ARG:HB3	2.25	0.51
36:BK:59:ARG:NH1	36:BK:59:ARG:HB3	2.25	0.51
22:B0:1631:G:H2'	22:B0:1633:G:OP2	2.10	0.51
27:BB:180:VAL:O	27:BB:180:VAL:HG23	2.11	0.51
2:AV:29:A:H2'	2:AV:30:G:H8	1.76	0.51
22:B0:1494:A:O3'	26:BA:140:VAL:HG11	2.11	0.51
22:B0:1582:C:H5	26:BA:73:ILE:HD13	1.76	0.51
26:BA:144:GLU:HG2	26:BA:151:GLY:H	1.71	0.51
22:B0:2779:U:O4'	22:B0:2781:A:H8	1.94	0.51
33:BH:34:ARG:HG3	33:BH:35:ARG:HH21	1.73	0.51
22:B0:589:U:C6	28:BC:47:LYS:HB2	2.45	0.51
41:BQ:48:LYS:HG3	41:BQ:49:LYS:NZ	2.25	0.51
41:BQ:74:ILE:CD1	41:BQ:74:ILE:N	2.74	0.51
22:B0:2127:G:O3'	22:B0:2165:C:C2'	2.45	0.51
10:AI:112:ARG:C	10:AI:112:ARG:HD3	2.31	0.51
22:B0:2648:G:H1'	22:B0:2673:G:N2	2.26	0.51
22:B0:2677:G:H3'	27:BB:125:TRP:HB2	1.91	0.51
24:B2:46:ASN:OD1	24:B2:209:LYS:HD2	2.11	0.51
39:BN:24:THR:HA	39:BN:49:ILE:CG1	2.40	0.51
39:BN:50:ARG:O	39:BN:61:ARG:HB2	2.10	0.51
40:BO:59:LEU:HD23	40:BO:60:TRP:CZ3	2.45	0.51
1:AA:1065:U:O2'	1:AA:1066:C:H6	1.93	0.51
24:B2:29:LEU:HD11	24:B2:215:THR:HG23	1.93	0.51
6:AE:10:LEU:HD11	6:AE:38:VAL:HB	1.92	0.51
22:B0:918:A:C4'	23:B9:81:G:H4'	2.33	0.51
3:AB:36:LYS:CG	3:AB:37:VAL:H	2.17	0.51
4:AC:63:ILE:HG23	4:AC:65:VAL:HG23	1.93	0.51
29:BD:47:LYS:C	29:BD:49:LEU:H	2.13	0.51
22:B0:705:A:C2	22:B0:727:A:H1'	2.46	0.51
34:BI:19:VAL:HG11	34:BI:41:ILE:HG13	1.93	0.51
34:BI:51:LYS:HD2	34:BI:53:LYS:HD3	1.92	0.51
22:B0:163:C:C5'	22:B0:164:C:H5'	2.39	0.51
22:B0:163:C:H4'	22:B0:164:C:H6	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:B1:9:LYS:HD2	49:B1:9:LYS:N	2.23	0.51
11:AJ:17:LEU:HD12	11:AJ:18:ILE:HG13	1.92	0.51
9:AH:20:ASN:HA	9:AH:64:TYR:CZ	2.46	0.51
32:BG:10:LEU:HG	32:BG:11:GLN:N	2.25	0.51
22:B0:20:C:H2'	22:B0:21:A:C8	2.46	0.51
1:AA:1266:G:N2	1:AA:1268:G:H3'	2.25	0.51
22:B0:221:A:O2'	22:B0:222:A:P	2.69	0.51
32:BG:81:LYS:HG3	32:BG:81:LYS:O	2.10	0.51
36:BK:35:ALA:HB1	36:BK:126:ILE:HD12	1.93	0.51
25:B5:69:ILE:HG22	25:B5:73:ARG:HD2	1.91	0.51
22:B0:79:C:H2'	22:B0:80:G:C8	2.46	0.51
29:BD:94:ARG:HA	29:BD:94:ARG:CZ	2.41	0.51
1:AA:97:G:H2'	1:AA:98:A:O4'	2.11	0.51
1:AA:1228:C:H2'	1:AA:1229:A:H8	1.75	0.51
1:AA:146:G:H2'	1:AA:147:G:C8	2.46	0.51
34:BI:49:ARG:HG3	34:BI:49:ARG:HH11	1.76	0.51
1:AA:901:A:H2'	1:AA:902:G:O4'	2.10	0.51
38:BM:88:LYS:HD2	38:BM:88:LYS:N	2.25	0.51
1:AA:945:G:H5''	1:AA:1338:G:O6	2.11	0.51
22:B0:1352:U:H4'	22:B0:1571:A:O2'	2.10	0.51
22:B0:1497:U:H4'	26:BA:83:ASP:OD2	2.11	0.51
22:B0:1588:A:H2'	22:B0:1589:A:O4'	2.11	0.51
26:BA:159:THR:O	26:BA:194:VAL:HG23	2.11	0.51
33:BH:116:ARG:HD3	33:BH:116:ARG:O	2.11	0.51
28:BC:102:ARG:O	28:BC:106:LYS:HD3	2.11	0.51
28:BC:112:LEU:HG	28:BC:118:LEU:HD21	1.91	0.51
28:BC:186:VAL:HG13	28:BC:187:VAL:N	2.25	0.51
22:B0:2154:A:O5'	22:B0:2155:U:OP1	2.29	0.51
22:B0:960:A:C3'	22:B0:2496:C:C6	2.94	0.51
22:B0:958:U:C5	36:BK:82:MET:N	2.78	0.51
4:AC:121:SER:O	4:AC:125:ARG:HG3	2.11	0.51
4:AC:129:PHE:HE2	4:AC:165:GLU:HB3	1.75	0.51
37:BL:32:GLU:O	37:BL:114:GLU:HA	2.10	0.51
1:AA:177:G:C5'	21:AT:59:ARG:HH22	2.24	0.51
22:B0:1044:C:H2'	22:B0:1045:C:H5''	1.92	0.51
3:AB:36:LYS:HG3	3:AB:37:VAL:N	2.14	0.51
17:AP:18:GLN:O	17:AP:20:VAL:HG23	2.10	0.51
42:BR:62:VAL:CA	42:BR:81:LYS:HB3	2.37	0.51
5:AD:204:SER:HB2	6:AE:111:ARG:CZ	2.41	0.51
47:BX:12:ALA:O	47:BX:15:ARG:HG2	2.11	0.51
22:B0:1524:C:O2'	22:B0:1525:G:H5'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1478:G:O2'	22:B0:1479:G:H5'	2.11	0.51
30:BE:116:LEU:HD21	30:BE:120:ILE:HD13	1.92	0.51
1:AA:250:A:H1'	1:AA:252:U:C5	2.45	0.51
40:BO:109:VAL:O	40:BO:113:LYS:HD3	2.11	0.51
29:BD:149:ARG:HD2	29:BD:150:GLY:N	2.26	0.51
6:AE:131:ASN:CB	6:AE:134:ASN:HD22	2.23	0.51
44:BT:89:ILE:N	44:BT:89:ILE:HD12	2.26	0.51
4:AC:24:ASN:O	4:AC:28:PHE:HB2	2.11	0.51
18:AQ:32:ILE:HD12	18:AQ:32:ILE:N	2.26	0.51
34:BI:116:ILE:C	34:BI:116:ILE:HD13	2.31	0.51
7:AF:75:GLU:HB3	7:AF:79:ARG:NH1	2.26	0.51
1:AA:146:G:H2'	1:AA:147:G:H8	1.75	0.51
6:AE:14:LEU:N	6:AE:14:LEU:HD12	2.25	0.51
22:B0:92:U:H2'	22:B0:93:G:C8	2.46	0.51
3:AB:54:ALA:O	3:AB:58:LYS:HG2	2.10	0.51
22:B0:1470:A:H2'	22:B0:1471:C:C6	2.46	0.51
22:B0:387:U:O2'	22:B0:388:G:P	2.69	0.51
22:B0:1417:U:H1'	22:B0:1587:A:O2'	2.10	0.51
26:BA:98:GLY:O	26:BA:99:GLU:CB	2.58	0.51
1:AA:432:A:O2'	1:AA:433:G:H5'	2.11	0.51
1:AA:405:U:H4'	1:AA:499:A:C6	2.45	0.51
1:AA:419:C:C2'	5:AD:39:GLN:CB	2.89	0.51
40:BO:38:VAL:O	40:BO:41:ALA:HB3	2.11	0.51
22:B0:494:G:N9	41:BQ:6:LYS:HD2	2.26	0.51
22:B0:2155:U:H3'	22:B0:2156:G:H5''	1.93	0.51
35:BJ:56:PRO:HB2	35:BJ:59:ARG:HB3	1.92	0.51
22:B0:2595:G:N3	22:B0:2597:G:N7	2.59	0.51
24:B2:62:THR:HG21	24:B2:191:LEU:HD23	1.93	0.51
22:B0:70:G:H5''	22:B0:71:A:OP1	2.11	0.51
22:B0:58:G:OP1	42:BR:76:ARG:O	2.28	0.51
22:B0:636:G:O2'	22:B0:638:G:H5'	2.11	0.51
37:BL:36:THR:N	37:BL:110:MET:SD	2.81	0.51
25:B3:49:GLU:HA	25:B3:51:LYS:NZ	2.25	0.51
22:B0:120:U:H1'	22:B0:149:A:C5	2.45	0.51
36:BK:7:THR:O	36:BK:72:PRO:HG2	2.10	0.51
22:B0:920:A:H2'	22:B0:921:C:O4'	2.10	0.51
10:AI:64:ILE:HG21	10:AI:78:ILE:HG12	1.92	0.51
32:BG:75:ALA:O	32:BG:76:ALA:HB3	2.11	0.51
22:B0:2553:G:H1'	22:B0:2583:G:H5'	1.93	0.51
2:AU:74:C:C2'	22:B0:2557:G:O5'	2.59	0.51
17:AP:71:VAL:HG22	17:AP:75:ILE:HD11	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BS:51:LEU:N	43:BS:51:LEU:HD12	2.26	0.51
22:B0:711:G:H2'	22:B0:712:G:C8	2.46	0.51
8:AG:29:LEU:C	8:AG:31:VAL:H	2.13	0.51
22:B0:1815:A:H4'	22:B0:1816:C:O5'	2.09	0.51
24:B2:76:VAL:HA	24:B2:114:ILE:O	2.11	0.51
11:AJ:52:LEU:HA	11:AJ:62:ARG:H	1.75	0.51
22:B0:828:U:H4'	22:B0:831:G:N1	2.25	0.51
7:AF:68:GLN:OE1	7:AF:68:GLN:N	2.44	0.51
31:BF:30:LEU:H	31:BF:30:LEU:CD1	2.23	0.51
1:AA:266:G:O2'	1:AA:268:U:OP2	2.29	0.51
12:AK:23:HIS:HB3	12:AK:30:ILE:CG2	2.40	0.51
22:B0:2233:U:H2'	22:B0:2234:G:H8	1.76	0.51
23:B9:66:A:O4'	23:B9:108:A:N6	2.44	0.51
1:AA:1429:A:O2'	22:B0:1704:C:H5'	2.11	0.51
22:B0:1463:G:H2'	22:B0:1464:G:C8	2.46	0.51
14:AM:52:ILE:O	14:AM:56:ARG:HG3	2.11	0.51
17:AP:23:ASP:HB3	17:AP:26:ASN:ND2	2.26	0.51
1:AA:162:A:H2'	1:AA:163:C:O4'	2.09	0.51
1:AA:366:A:O2'	1:AA:367:U:P	2.69	0.51
22:B0:1436:G:H2'	22:B0:1437:C:O4'	2.10	0.51
22:B0:38:A:H2'	22:B0:39:G:C8	2.46	0.51
1:AA:419:C:O2'	5:AD:39:GLN:CG	2.59	0.51
1:AA:420:U:O4'	5:AD:39:GLN:HG2	2.11	0.51
22:B0:2898:G:N7	33:BH:15:TRP:HB2	2.26	0.51
22:B0:488:G:N2	41:BQ:9:HIS:CE1	2.79	0.51
41:BQ:60:HIS:O	41:BQ:61:ASN:HB3	2.11	0.51
22:B0:2139:U:H3'	22:B0:2139:U:OP2	2.10	0.51
22:B0:2243:U:C5	22:B0:2437:G:N7	2.79	0.51
1:AA:1302:C:H5'	14:AM:16:ILE:HB	1.93	0.51
38:BM:6:ALA:O	38:BM:10:ARG:HG3	2.11	0.51
8:AG:110:ARG:HD3	8:AG:118:ARG:HA	1.93	0.51
5:AD:33:ILE:HG13	5:AD:35:GLN:HG2	1.93	0.51
23:B9:90:C:H2'	23:B9:91:C:O4'	2.11	0.51
22:B0:862:G:H2'	22:B0:863:A:O4'	2.11	0.51
27:BB:182:ALA:HB3	27:BB:186:LEU:HG	1.92	0.51
22:B0:2328:A:HO2'	45:BU:9:THR:HA	1.72	0.51
33:BH:136:GLN:N	33:BH:137:PRO:CD	2.74	0.51
32:BG:132:ALA:O	32:BG:133:ARG:HG2	2.10	0.51
30:BE:25:ILE:HD13	30:BE:25:ILE:C	2.31	0.51
30:BE:14:VAL:HG13	30:BE:25:ILE:HD11	1.92	0.51
22:B0:2546:U:OP1	22:B0:2547:A:H5''	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:B1:8:ILE:O	49:B1:24:LYS:HA	2.11	0.51
37:BL:84:GLY:HA2	37:BL:86:ARG:N	2.25	0.51
1:AA:1310:G:H1	1:AA:1327:C:H42	1.58	0.51
23:B9:13:G:H4'	23:B9:15:A:N6	2.25	0.51
22:B0:2059:A:HO2'	22:B0:2060:A:P	2.33	0.51
29:BD:71:LYS:NZ	29:BD:81:GLY:H	2.09	0.51
22:B0:2005:A:H3'	22:B0:2006:C:H5	1.76	0.51
1:AA:591:U:H2'	1:AA:592:G:H8	1.74	0.51
22:B0:2002:G:H2'	22:B0:2003:A:H8	1.76	0.51
40:BO:75:TYR:CG	40:BO:76:SER:N	2.78	0.51
22:B0:2106:U:H2'	22:B0:2107:G:C8	2.46	0.51
22:B0:1632:A:N3	22:B0:1632:A:H2'	2.25	0.51
5:AD:47:LEU:O	5:AD:47:LEU:HD12	2.09	0.51
28:BC:9:GLN:HG2	28:BC:9:GLN:O	2.10	0.51
45:BU:3:LYS:HD3	45:BU:3:LYS:H	1.74	0.51
26:BA:67:LYS:NZ	26:BA:188:ARG:NH2	2.55	0.50
1:AA:545:C:O2'	1:AA:548:G:C2'	2.58	0.50
33:BH:100:VAL:HG13	33:BH:101:ILE:HG13	1.93	0.50
33:BH:110:PRO:HD2	33:BH:113:PRO:HB2	1.93	0.50
22:B0:1202:G:H8	35:BJ:14:LYS:HZ3	1.58	0.50
22:B0:1324:G:H1	22:B0:1330:C:H42	1.59	0.50
22:B0:320:A:H4'	22:B0:322:A:C8	2.46	0.50
22:B0:599:A:H2	28:BC:99:LYS:HD3	1.76	0.50
22:B0:655:A:C4'	22:B0:656:G:OP1	2.59	0.50
28:BC:108:ILE:CD1	28:BC:180:LEU:HB3	2.41	0.50
28:BC:87:ALA:O	28:BC:88:ARG:CB	2.58	0.50
22:B0:2162:G:O5'	22:B0:2163:G:OP2	2.29	0.50
22:B0:959:A:O4'	36:BK:80:VAL:CG1	2.59	0.50
22:B0:1001:A:H61	22:B0:1154:G:H1'	1.76	0.50
21:AT:38:ILE:HG21	21:AT:82:ILE:HA	1.92	0.50
22:B0:1116:G:H2'	22:B0:1117:C:C6	2.46	0.50
25:B5:54:PHE:O	25:B5:103:ALA:HB2	2.10	0.50
22:B0:1900:A:H5'	22:B0:1970:A:OP1	2.11	0.50
10:AI:34:LEU:H	10:AI:34:LEU:CD1	2.19	0.50
32:BG:108:ILE:CG1	32:BG:128:ILE:HD13	2.41	0.50
22:B0:2556:C:O5'	22:B0:2556:C:H6	1.93	0.50
30:BE:70:LEU:O	30:BE:74:MET:HG3	2.11	0.50
22:B0:1697:G:N1	22:B0:1698:A:N6	2.59	0.50
1:AA:792:A:H4'	1:AA:793:U:C5'	2.42	0.50
32:BG:121:ILE:N	32:BG:121:ILE:HD13	2.20	0.50
1:AA:105:G:N7	21:AT:4:LYS:HD3	2.25	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1020:A:H4'	22:B0:1021:A:O4'	2.11	0.50
1:AA:1157:A:H1'	1:AA:1181:G:C2	2.45	0.50
1:AA:848:C:H2'	1:AA:849:G:C8	2.47	0.50
1:AA:115:G:O2'	1:AA:116:A:H8	1.92	0.50
29:BD:59:ILE:CD1	29:BD:59:ILE:H	2.24	0.50
22:B0:1923:U:H2'	22:B0:1924:C:H6	1.75	0.50
22:B0:1118:C:H2'	22:B0:1119:U:C6	2.47	0.50
22:B0:181:A:H2'	22:B0:182:A:C8	2.46	0.50
22:B0:2877:G:H2'	22:B0:2878:U:O4'	2.11	0.50
22:B0:1423:A:C2	22:B0:1576:U:H1'	2.47	0.50
22:B0:1587:A:H2'	22:B0:1588:A:C8	2.45	0.50
1:AA:247:G:H2'	1:AA:248:C:H6	1.75	0.50
22:B0:655:A:H5''	22:B0:656:G:OP1	2.11	0.50
22:B0:982:C:O2'	22:B0:983:A:H5''	2.11	0.50
2:AW:18:G:H1'	2:AW:57:G:N2	2.27	0.50
22:B0:2123:G:C4'	22:B0:2124:G:O5'	2.60	0.50
22:B0:2180:U:H2'	22:B0:2180:U:O2	2.11	0.50
22:B0:2680:U:C5'	27:BB:114:LYS:HE2	2.29	0.50
22:B0:479:A:H3'	22:B0:480:A:H5''	1.93	0.50
4:AC:152:VAL:HG13	4:AC:195:ILE:CD1	2.41	0.50
20:AS:6:LYS:HZ2	20:AS:6:LYS:HB3	1.77	0.50
24:B2:160:VAL:HG13	24:B2:160:VAL:O	2.11	0.50
39:BN:47:ILE:HA	39:BN:63:ILE:O	2.12	0.50
22:B0:629:G:H21	22:B0:639:U:H5''	1.76	0.50
1:AA:1234:C:H2'	1:AA:1235:U:H6	1.76	0.50
22:B0:1154:G:O5'	22:B0:1154:G:H8	1.93	0.50
22:B0:977:G:H1	22:B0:986:C:H42	1.59	0.50
25:B3:51:LYS:HG3	25:B3:52:THR:N	2.27	0.50
22:B0:1872:A:H2	22:B0:2412:A:H5'	1.76	0.50
22:B0:390:U:H1'	22:B0:411:G:O2'	2.12	0.50
23:B9:91:C:H6	23:B9:91:C:O5'	1.95	0.50
22:B0:866:A:N3	22:B0:912:C:H1'	2.26	0.50
2:AU:75:C:H5'	22:B0:2557:G:OP2	2.11	0.50
17:AP:57:ILE:HG12	17:AP:61:VAL:HG23	1.93	0.50
16:AO:42:PHE:CZ	16:AO:52:ARG:HA	2.45	0.50
8:AG:35:LYS:HE2	10:AI:42:THR:H	1.75	0.50
11:AJ:52:LEU:N	11:AJ:52:LEU:HD12	2.26	0.50
22:B0:2816:G:H4'	48:BZ:51:ARG:NH2	2.23	0.50
22:B0:2291:U:H2'	22:B0:2292:U:C6	2.46	0.50
22:B0:2292:U:H2'	22:B0:2293:G:H8	1.76	0.50
22:B0:610:C:H2'	22:B0:611:C:C6	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:967:C:N3	1:AA:968:A:N6	2.59	0.50
42:BR:95:PHE:O	42:BR:96:VAL:C	2.49	0.50
1:AA:766:A:H2'	1:AA:767:A:O4'	2.11	0.50
15:AN:66:THR:HB	15:AN:82:LYS:CE	2.42	0.50
22:B0:455:C:H2'	22:B0:472:A:C2	2.46	0.50
6:AE:139:THR:O	6:AE:143:LEU:HG	2.11	0.50
29:BD:65:LEU:H	29:BD:88:VAL:CG2	2.24	0.50
30:BE:131:VAL:C	30:BE:132:LEU:HD12	2.31	0.50
22:B0:2099:U:H2'	22:B0:2100:G:C8	2.46	0.50
22:B0:377:G:H1	22:B0:397:U:H3	1.58	0.50
3:AB:100:LEU:HD12	3:AB:100:LEU:N	2.27	0.50
21:AT:63:LYS:N	21:AT:63:LYS:HD2	2.25	0.50
22:B0:696:G:H1	22:B0:766:U:H3	1.58	0.50
1:AA:153:C:H42	1:AA:168:G:H1	1.60	0.50
22:B0:2208:C:H2'	22:B0:2209:G:H8	1.75	0.50
22:B0:549:G:H5''	22:B0:550:C:C5	2.45	0.50
10:AI:7:GLY:HA3	10:AI:81:GLY:O	2.11	0.50
1:AA:772:U:H2'	1:AA:773:G:C8	2.46	0.50
22:B0:1416:G:O2'	22:B0:1587:A:N3	2.41	0.50
22:B0:1488:G:C6	26:BA:159:THR:HB	2.47	0.50
26:BA:188:ARG:O	26:BA:189:ALA:HB2	2.11	0.50
1:AA:545:C:H4'	1:AA:549:C:H5'	1.92	0.50
22:B0:1204:A:N1	22:B0:1241:A:N1	2.60	0.50
22:B0:588:U:H5'	28:BC:43:THR:HG23	1.93	0.50
28:BC:74:LYS:C	28:BC:82:GLY:H	2.14	0.50
22:B0:1248:G:H1'	40:BO:2:ARG:HD2	1.94	0.50
1:AA:220:G:O2'	1:AA:221:C:H5'	2.11	0.50
4:AC:107:LYS:HB3	4:AC:143:LEU:CD2	2.41	0.50
22:B0:664:G:O2'	22:B0:665:U:H5'	2.11	0.50
39:BN:65:ASN:N	39:BN:71:ARG:HG2	2.26	0.50
22:B0:1601:G:H2'	22:B0:1602:U:O4'	2.11	0.50
42:BR:50:LEU:HD13	46:BW:26:PHE:CD2	2.46	0.50
1:AA:1493:A:C2	2:AU:37:G:H4'	2.47	0.50
37:BL:53:THR:C	37:BL:55:ALA:H	2.15	0.50
35:BJ:90:VAL:O	35:BJ:90:VAL:HG13	2.11	0.50
22:B0:2143:C:O2'	22:B0:2144:G:P	2.69	0.50
45:BU:71:LYS:HD2	45:BU:71:LYS:N	2.17	0.50
22:B0:2756:U:C2'	22:B0:2757:A:H5''	2.41	0.50
34:BI:58:LEU:N	34:BI:58:LEU:HD12	2.27	0.50
35:BJ:103:ILE:HD12	35:BJ:105:ILE:CG2	2.41	0.50
1:AA:654:G:N1	1:AA:753:A:H1'	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BX:50:VAL:O	47:BX:54:VAL:HG22	2.11	0.50
1:AA:328:C:O2'	1:AA:329:A:P	2.69	0.50
1:AA:688:G:O2'	1:AA:689:C:H5'	2.11	0.50
22:B0:1783:A:N1	22:B0:2587:A:H2'	2.26	0.50
1:AA:976:G:H22	1:AA:1362:A:H5''	1.75	0.50
26:BA:241:LYS:C	26:BA:243:PRO:HD2	2.30	0.50
22:B0:1275:A:H61	22:B0:1296:G:H4'	1.76	0.50
19:AR:41:SER:HA	19:AR:44:THR:CG2	2.40	0.50
5:AD:89:LEU:O	5:AD:93:LEU:HD13	2.11	0.50
31:BF:94:ILE:HG22	31:BF:99:ILE:CD1	2.41	0.50
1:AA:1468:A:H3'	1:AA:1469:C:C6	2.46	0.50
7:AF:6:ILE:HD12	7:AF:89:VAL:HG12	1.92	0.50
38:BM:97:PHE:HE2	38:BM:101:GLY:HA3	1.76	0.50
1:AA:424:G:C2	5:AD:39:GLN:NE2	2.79	0.50
1:AA:404:G:H5''	1:AA:547:A:OP2	2.11	0.50
22:B0:2898:G:N7	33:BH:15:TRP:CB	2.74	0.50
1:AA:242:G:C2'	1:AA:243:A:H5'	2.41	0.50
28:BC:178:VAL:CG1	28:BC:179:SER:H	2.11	0.50
22:B0:1202:G:H5''	35:BJ:10:GLU:HG3	1.94	0.50
22:B0:960:A:C2	22:B0:2497:A:O4'	2.63	0.50
29:BD:135:ILE:C	29:BD:136:ILE:HD12	2.31	0.50
22:B0:1455:U:H2'	37:BL:63:ARG:NH1	2.27	0.50
6:AE:156:ARG:HG2	9:AH:70:VAL:HA	1.91	0.50
4:AC:107:LYS:HD2	4:AC:107:LYS:N	2.26	0.50
39:BN:9:GLN:HA	39:BN:14:GLN:HE22	1.76	0.50
22:B0:2176:A:H5'	24:B2:166:LYS:CA	2.41	0.50
39:BN:63:ILE:HG12	39:BN:74:GLN:HG2	1.93	0.50
25:B5:57:ILE:HG23	25:B5:92:ALA:CB	2.42	0.50
2:AU:36:A:C3'	2:AU:37:G:H5''	2.41	0.50
37:BL:41:ALA:CB	37:BL:44:LEU:HB2	2.41	0.50
37:BL:53:THR:C	37:BL:55:ALA:N	2.64	0.50
22:B0:2857:G:O2'	22:B0:2859:A:N7	2.40	0.50
4:AC:128:MET:HB2	4:AC:131:ARG:HD3	1.93	0.50
36:BK:7:THR:OG1	36:BK:8:LYS:HD3	2.11	0.50
36:BK:92:TRP:N	36:BK:92:TRP:CE3	2.80	0.50
1:AA:1263:C:H2'	1:AA:1264:U:C6	2.45	0.50
22:B0:2506:U:N3	22:B0:2583:G:N2	2.59	0.50
2:AU:75:C:OP2	22:B0:2557:G:C8	2.65	0.50
22:B0:1299:G:H5'	22:B0:1301:A:H1'	1.94	0.50
3:AB:147:LEU:HA	3:AB:150:ILE:HG22	1.92	0.50
37:BL:89:SER:O	37:BL:90:ARG:HD2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BJ:96:LYS:N	35:BJ:96:LYS:HD3	2.27	0.50
33:BH:72:LYS:HZ2	33:BH:72:LYS:HA	1.76	0.50
1:AA:927:G:H2'	1:AA:928:G:C8	2.47	0.50
11:AJ:89:ARG:HH11	11:AJ:89:ARG:HB3	1.72	0.50
40:BO:82:LEU:HD21	40:BO:89:ILE:HG22	1.93	0.50
22:B0:2470:G:H2'	22:B0:2471:A:C8	2.42	0.50
49:B1:26:LYS:N	49:B1:26:LYS:HD2	2.27	0.50
10:AI:84:ARG:HA	10:AI:87:MET:SD	2.50	0.50
1:AA:508:U:H4'	1:AA:509:A:C8	2.45	0.50
22:B0:347:A:H8	22:B0:347:A:O5'	1.95	0.50
28:BC:157:LEU:H	28:BC:157:LEU:CD2	2.25	0.50
3:AB:116:LEU:CB	3:AB:140:LEU:HD21	2.42	0.50
22:B0:1921:G:H2'	22:B0:1922:G:H8	1.77	0.50
30:BE:86:LEU:HD22	30:BE:147:LEU:HD23	1.92	0.50
2:AV:69:U:H2'	2:AV:70:C:C6	2.46	0.50
31:BF:6:LEU:HD22	31:BF:14:SER:HA	1.92	0.50
31:BF:7:ASP:OD1	31:BF:35:LYS:HA	2.11	0.50
27:BB:207:VAL:HG23	27:BB:208:LYS:HG2	1.92	0.50
22:B0:1942:C:H6	22:B0:1942:C:O5'	1.94	0.50
15:AN:80:ARG:O	15:AN:84:ARG:HG2	2.12	0.50
1:AA:185:U:H2'	1:AA:186:C:C6	2.47	0.50
25:B5:66:VAL:O	25:B5:70:LYS:HG3	2.11	0.50
2:AU:7:U:H5''	2:AU:8:U:OP1	2.11	0.50
33:BH:15:TRP:CE3	33:BH:15:TRP:N	2.80	0.50
22:B0:2894:U:C6	33:BH:9:GLU:HB2	2.46	0.50
22:B0:801:G:H1	28:BC:72:SER:CB	2.25	0.50
40:BO:12:ARG:HH11	40:BO:12:ARG:HB3	1.75	0.50
1:AA:1248:A:C2	1:AA:1289:A:N6	2.79	0.50
1:AA:1302:C:O4'	14:AM:26:LYS:NZ	2.44	0.50
1:AA:1408:A:H2'	1:AA:1409:C:C6	2.46	0.50
1:AA:1404:C:H2'	1:AA:1405:G:C8	2.46	0.50
45:BU:33:GLY:HA3	45:BU:67:LYS:HD2	1.93	0.50
7:AF:42:TRP:HB3	7:AF:45:ARG:HD2	1.94	0.50
42:BR:63:VAL:HG22	42:BR:64:LYS:H	1.76	0.50
22:B0:404:A:H1'	22:B0:406:G:C5	2.46	0.50
1:AA:891:U:O2'	1:AA:892:A:H5'	2.11	0.50
16:AO:59:VAL:HG13	16:AO:60:SER:N	2.27	0.50
1:AA:1241:G:C2	1:AA:1242:G:O4'	2.64	0.50
8:AG:35:LYS:HE2	10:AI:42:THR:N	2.26	0.50
22:B0:1801:A:N6	22:B0:2223:G:H1'	2.26	0.50
22:B0:924:G:H5'	45:BU:22:VAL:HG11	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:976:G:N2	1:AA:1362:A:H5''	2.27	0.50
33:BH:37:ARG:HA	33:BH:50:THR:HG21	1.94	0.50
1:AA:1268:G:N3	1:AA:1326:U:O2'	2.39	0.50
23:B9:101:A:H2'	23:B9:102:G:C8	2.47	0.50
36:BK:112:LEU:C	36:BK:112:LEU:HD22	2.31	0.50
22:B0:85:G:O2'	22:B0:86:G:H5'	2.12	0.50
2:AW:3:G:H2'	2:AW:4:G:C8	2.46	0.50
22:B0:1213:A:N1	22:B0:1237:A:H1'	2.27	0.50
22:B0:1235:G:H2'	22:B0:1236:G:O4'	2.12	0.50
18:AQ:37:ILE:HD12	18:AQ:39:ARG:NH1	2.27	0.50
29:BD:166:ARG:HA	29:BD:166:ARG:HE	1.77	0.50
22:B0:1550:C:H2'	22:B0:1551:A:C8	2.46	0.50
43:BS:42:LYS:HD2	43:BS:48:VAL:HB	1.94	0.50
22:B0:1493:A:C4	26:BA:131:MET:HE1	2.46	0.50
22:B0:1497:U:H1'	26:BA:83:ASP:HB2	1.92	0.50
27:BB:131:ASP:OD1	27:BB:132:ALA:N	2.45	0.50
5:AD:57:LYS:HB3	5:AD:199:ILE:HG13	1.93	0.50
33:BH:16:TYR:HB2	33:BH:52:ASP:OD2	2.11	0.50
33:BH:99:ARG:HH22	33:BH:102:GLU:HB3	1.77	0.50
22:B0:669:G:N2	28:BC:74:LYS:CB	2.69	0.50
40:BO:34:ALA:C	40:BO:36:GLN:H	2.15	0.50
22:B0:2160:C:H6	22:B0:2161:C:O3'	1.94	0.50
2:AU:16:U:C5'	2:AU:17:U:OP1	2.56	0.50
2:AU:58:A:C4'	2:AU:59:U:OP1	2.44	0.50
1:AA:718:A:C8	12:AK:117:HIS:HA	2.46	0.50
12:AK:120:CYS:O	12:AK:121:ARG:C	2.49	0.50
22:B0:2296:U:C4'	22:B0:2297:A:OP1	2.60	0.50
42:BR:75:GLY:O	42:BR:76:ARG:C	2.50	0.50
7:AF:14:GLN:NE2	7:AF:17:GLN:HB2	2.27	0.50
22:B0:2745:C:H2'	22:B0:2746:U:C6	2.46	0.50
22:B0:1059:G:H2'	22:B0:1060:U:C6	2.47	0.50
22:B0:1405:U:H2'	22:B0:1406:U:C6	2.47	0.50
22:B0:2287:A:O2'	22:B0:2288:A:P	2.69	0.50
27:BB:5:VAL:CG2	27:BB:202:ILE:HG22	2.41	0.50
40:BO:70:GLN:C	40:BO:71:ASN:HD22	2.15	0.50
42:BR:95:PHE:CD1	42:BR:95:PHE:N	2.79	0.50
49:B1:10:LEU:N	49:B1:10:LEU:HD23	2.26	0.50
22:B0:2198:A:O2'	22:B0:2199:A:P	2.69	0.50
17:AP:12:LYS:H	17:AP:12:LYS:CD	2.23	0.50
22:B0:1011:G:O2'	22:B0:1012:U:P	2.70	0.50
2:AW:70:C:H2'	2:AW:71:G:C8	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BT:73:LYS:NZ	44:BT:94:ALA:HB2	2.27	0.50
47:BX:16:LEU:HD22	47:BX:16:LEU:N	2.26	0.50
1:AA:340:U:OP1	34:BI:97:THR:HG21	2.11	0.50
1:AA:1441:A:H4'	1:AA:1442:G:C5	2.46	0.50
22:B0:40:U:H2'	22:B0:41:C:C6	2.46	0.50
22:B0:1416:G:O6	26:BA:93:VAL:HG23	2.11	0.50
22:B0:1496:A:H62	26:BA:194:VAL:CG1	2.24	0.50
22:B0:1421:G:O4'	26:BA:146:LYS:HD3	2.12	0.50
26:BA:152:GLN:HB3	26:BA:155:ARG:NH2	2.27	0.50
22:B0:1490:C:H4'	26:BA:162:GLN:H	1.77	0.50
13:AL:98:ARG:HG2	13:AL:103:CYS:SG	2.51	0.50
33:BH:105:VAL:O	33:BH:105:VAL:HG22	2.11	0.50
22:B0:673:C:OP2	28:BC:65:THR:HG21	2.12	0.50
28:BC:159:LEU:O	28:BC:161:ALA:N	2.45	0.50
40:BO:49:ARG:HG3	40:BO:50:ARG:H	1.76	0.50
2:AW:55:U:O2	2:AW:55:U:C2'	2.59	0.50
1:AA:1383:C:H2'	1:AA:1384:C:C6	2.47	0.50
22:B0:301:G:H4'	22:B0:302:C:H5''	1.94	0.50
22:B0:958:U:H3'	36:BK:80:VAL:CB	2.41	0.50
22:B0:958:U:OP1	36:BK:82:MET:C	2.50	0.50
4:AC:129:PHE:CE2	4:AC:152:VAL:HB	2.46	0.50
42:BR:43:ILE:HG21	42:BR:83:ALA:HB3	1.93	0.50
21:AT:56:ILE:O	21:AT:60:GLN:HG3	2.12	0.50
1:AA:1101:A:O2'	1:AA:1102:A:O4'	2.24	0.50
16:AO:38:LEU:HD12	16:AO:58:MET:SD	2.52	0.50
1:AA:346:G:C2'	1:AA:347:G:H5'	2.42	0.50
46:BW:31:GLN:HG2	46:BW:38:GLN:CG	2.40	0.50
22:B0:18:U:H2'	22:B0:19:A:H8	1.77	0.50
22:B0:731:C:H2'	22:B0:732:C:C6	2.43	0.50
27:BB:22:ILE:HG12	27:BB:190:LYS:HZ2	1.75	0.50
11:AJ:22:THR:O	11:AJ:26:VAL:HG23	2.12	0.50
22:B0:2004:G:H2'	22:B0:2005:A:C8	2.47	0.50
30:BE:85:LYS:HD3	30:BE:131:VAL:HG12	1.94	0.50
32:BG:123:ALA:HA	32:BG:126:ARG:HG2	1.93	0.50
3:AB:96:LEU:HD22	3:AB:96:LEU:N	2.26	0.50
36:BK:59:ARG:HH11	36:BK:59:ARG:HB3	1.77	0.50
30:BE:57:TYR:HD1	30:BE:57:TYR:H	1.59	0.50
22:B0:358:U:H2'	22:B0:359:G:C8	2.46	0.50
26:BA:40:GLY:HA2	26:BA:45:ASN:HD22	1.77	0.50
22:B0:1344:U:H5''	22:B0:1345:C:OP2	2.12	0.50
22:B0:2698:U:H2'	22:B0:2699:C:C6	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1500:A:H61	26:BA:155:ARG:C	2.14	0.50
22:B0:1417:U:O2	26:BA:97:ASP:O	2.30	0.50
33:BH:16:TYR:CE1	33:BH:35:ARG:HB3	2.47	0.50
33:BH:54:ILE:HG12	33:BH:122:LEU:HB2	1.93	0.50
22:B0:2121:G:H5''	22:B0:2122:U:OP1	2.11	0.50
22:B0:2129:C:H5'	22:B0:2130:U:OP2	2.12	0.50
1:AA:1289:A:H2'	1:AA:1290:G:O4'	2.12	0.50
1:AA:1346:A:O2'	1:AA:1347:G:P	2.70	0.50
10:AI:119:LYS:C	10:AI:121:ARG:N	2.64	0.50
22:B0:825:A:C4'	35:BJ:57:LEU:HD21	2.42	0.50
22:B0:28:A:H62	22:B0:512:G:H1'	1.75	0.50
6:AE:156:ARG:HG3	9:AH:68:LYS:HZ1	1.77	0.50
2:AU:60:C:H5''	2:AU:61:C:OP2	2.11	0.50
42:BR:7:LEU:N	42:BR:7:LEU:HD12	2.27	0.50
22:B0:978:G:H4'	22:B0:1002:G:O2'	2.12	0.50
29:BD:7:TYR:HA	29:BD:11:VAL:HG12	1.94	0.50
1:AA:177:G:H5''	21:AT:59:ARG:NH2	2.26	0.50
22:B0:119:A:H5'	22:B0:120:U:OP1	2.12	0.50
22:B0:120:U:H4'	22:B0:121:G:C5'	2.42	0.50
22:B0:48:G:O2'	22:B0:49:A:H5''	2.12	0.50
36:BK:95:LEU:N	36:BK:95:LEU:HD12	2.27	0.50
10:AI:27:ILE:N	10:AI:34:LEU:HD11	2.17	0.50
10:AI:34:LEU:HD12	10:AI:34:LEU:N	2.21	0.50
1:AA:1313:U:H2'	1:AA:1314:C:O4'	2.11	0.50
27:BB:184:ARG:O	27:BB:186:LEU:HG	2.11	0.50
27:BB:9:VAL:HG22	27:BB:28:GLU:HG3	1.93	0.50
22:B0:1931:U:H2'	22:B0:1932:A:C5'	2.38	0.50
1:AA:1089:G:N2	1:AA:1167:A:N6	2.59	0.50
22:B0:2643:G:O3'	27:BB:158:GLY:HA2	2.12	0.50
4:AC:100:ILE:HD13	4:AC:100:ILE:C	2.32	0.50
8:AG:147:ASN:C	8:AG:149:ALA:H	2.15	0.50
1:AA:572:A:H1'	1:AA:917:G:H1'	1.93	0.50
22:B0:2772:C:OP1	27:BB:169:ARG:HB3	2.12	0.50
1:AA:580:C:O2'	16:AO:57:ARG:NE	2.44	0.50
1:AA:813:U:H2'	1:AA:814:A:H8	1.76	0.50
22:B0:2886:A:H2'	22:B0:2887:A:C8	2.46	0.50
32:BG:11:GLN:HE21	32:BG:55:PRO:HB3	1.75	0.50
1:AA:1330:U:OP1	14:AM:21:ILE:O	2.29	0.50
14:AM:97:ARG:HD3	14:AM:99:GLN:OE1	2.12	0.50
1:AA:1009:U:H5''	15:AN:64:ARG:NH1	2.27	0.50
22:B0:1342:A:O2'	22:B0:1343:G:P	2.69	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BK:20:LEU:H	36:BK:20:LEU:CD1	2.25	0.50
32:BG:85:ILE:C	32:BG:85:ILE:HD13	2.32	0.50
22:B0:2879:A:O2'	22:B0:2881:U:H5	1.94	0.50
39:BN:43:GLU:HG3	39:BN:44:GLY:N	2.27	0.50
22:B0:383:C:O2	22:B0:391:A:N1	2.45	0.50
22:B0:1219:U:H2'	22:B0:1220:G:H8	1.77	0.50
22:B0:1996:C:OP1	27:BB:139:SER:HB2	2.12	0.50
1:AA:417:G:C2	1:AA:427:U:O2	2.65	0.50
5:AD:12:ARG:NH2	5:AD:37:PRO:HB3	2.26	0.50
22:B0:582:A:H2'	22:B0:583:G:C8	2.47	0.50
22:B0:800:A:C8	22:B0:802:A:O4'	2.64	0.50
22:B0:1202:G:H5''	35:BJ:10:GLU:CG	2.42	0.50
40:BO:3:VAL:O	40:BO:3:VAL:HG13	2.12	0.50
41:BQ:76:VAL:HG12	41:BQ:102:HIS:O	2.12	0.50
22:B0:2125:G:OP1	22:B0:2172:U:H5	1.94	0.50
22:B0:2161:C:C4	24:B2:6:ARG:HB3	2.46	0.50
43:BS:13:LEU:HD11	43:BS:70:ALA:HB2	1.92	0.50
22:B0:2463:C:H2'	22:B0:2464:G:H8	1.77	0.50
22:B0:960:A:C5'	22:B0:2496:C:H6	2.25	0.50
22:B0:960:A:H3'	22:B0:2496:C:C5'	2.42	0.50
4:AC:110:LEU:O	4:AC:201:ILE:HG21	2.12	0.50
20:AS:41:PRO:O	20:AS:44:ILE:HG22	2.11	0.50
22:B0:2848:G:OP2	39:BN:95:LYS:HD2	2.12	0.50
1:AA:1129:C:H5''	1:AA:1139:G:O6	2.12	0.50
37:BL:99:LYS:HB3	48:BZ:52:LYS:HD2	1.94	0.50
22:B0:1001:A:H61	22:B0:1154:G:C2'	2.25	0.50
22:B0:987:C:H2'	22:B0:988:A:O4'	2.12	0.50
40:BO:53:LYS:O	40:BO:54:ARG:HB2	2.11	0.50
22:B0:126:A:H4'	22:B0:128:C:C5	2.46	0.50
22:B0:919:U:H2'	22:B0:920:A:C8	2.47	0.50
45:BU:70:VAL:HG23	45:BU:71:LYS:N	2.27	0.50
34:BI:42:THR:O	34:BI:42:THR:HG23	2.11	0.50
1:AA:1242:G:O2'	1:AA:1243:C:H5'	2.12	0.50
13:AL:85:ARG:NH1	13:AL:87:LYS:HA	2.27	0.50
1:AA:705:G:H2'	1:AA:706:A:C8	2.47	0.50
10:AI:11:ARG:NH1	10:AI:106:ASP:HB3	2.27	0.50
22:B0:2344:U:H5''	22:B0:2373:G:H4'	1.94	0.50
49:B1:6:GLU:C	49:B1:26:LYS:HA	2.32	0.50
18:AQ:6:THR:C	18:AQ:7:LEU:HD12	2.32	0.50
22:B0:1395:A:H4'	22:B0:1397:U:C5	2.47	0.50
22:B0:1703:G:H2'	22:B0:1704:C:C6	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BE:86:LEU:HD13	30:BE:132:LEU:HD13	1.93	0.50
46:BW:55:THR:O	46:BW:59:GLU:HG3	2.12	0.50
35:BJ:85:VAL:O	35:BJ:85:VAL:HG22	2.12	0.50
1:AA:9:G:H2'	1:AA:10:A:C8	2.47	0.50
1:AA:1420:U:H2'	1:AA:1421:G:H8	1.76	0.50
21:AT:10:ALA:O	21:AT:14:GLU:HG2	2.12	0.50
11:AJ:80:THR:HG22	11:AJ:81:GLU:N	2.27	0.50
22:B0:431:U:H2'	22:B0:432:A:H5'	1.93	0.50
22:B0:2214:C:H2'	22:B0:2215:C:H5'	1.92	0.50
1:AA:860:A:H2'	1:AA:861:G:O4'	2.11	0.50
22:B0:1678:A:H2'	22:B0:1679:A:C8	2.46	0.49
22:B0:527:C:N4	22:B0:2781:A:C6	2.80	0.49
22:B0:1221:C:H2'	22:B0:1222:U:C6	2.46	0.49
22:B0:1314:C:O5'	22:B0:1314:C:H6	1.94	0.49
22:B0:808:G:O2'	22:B0:809:G:H5'	2.11	0.49
28:BC:45:ALA:HB3	28:BC:89:PRO:HB3	1.93	0.49
35:BJ:9:ALA:O	35:BJ:10:GLU:HB2	2.12	0.49
22:B0:489:G:H2'	22:B0:490:C:C6	2.47	0.49
1:AA:1372:U:H2'	1:AA:1373:G:O4'	2.12	0.49
22:B0:2677:G:H2'	27:BB:125:TRP:HB3	1.93	0.49
2:AV:55:U:H3'	2:AV:55:U:O2	2.11	0.49
22:B0:2596:U:H2'	22:B0:2597:G:H5'	1.94	0.49
25:B5:90:ALA:C	25:B5:92:ALA:H	2.16	0.49
5:AD:97:LEU:O	5:AD:101:VAL:HG23	2.12	0.49
40:BO:99:VAL:HG13	40:BO:100:PHE:HD1	1.76	0.49
40:BO:54:ARG:N	40:BO:57:ARG:HG3	2.23	0.49
22:B0:871:U:H4'	36:BK:16:ARG:HE	1.77	0.49
22:B0:856:G:H4'	45:BU:54:ARG:NE	2.26	0.49
22:B0:1837:C:H1'	22:B0:1904:G:N2	2.27	0.49
45:BU:9:THR:HG22	45:BU:10:ARG:N	2.27	0.49
35:BJ:45:GLY:O	35:BJ:46:VAL:C	2.51	0.49
22:B0:1407:G:H2'	22:B0:1408:G:C8	2.46	0.49
22:B0:926:G:O2'	22:B0:928:A:OP1	2.19	0.49
29:BD:16:MET:HG2	29:BD:16:MET:O	2.11	0.49
35:BJ:94:THR:N	35:BJ:96:LYS:HE2	2.27	0.49
7:AF:37:HIS:HB2	7:AF:63:ASN:OD1	2.12	0.49
7:AF:39:LEU:C	7:AF:39:LEU:HD13	2.33	0.49
35:BJ:124:GLY:O	35:BJ:125:LEU:CB	2.60	0.49
22:B0:336:C:H2'	22:B0:337:C:C6	2.47	0.49
36:BK:65:ILE:HD12	36:BK:102:LEU:O	2.12	0.49
1:AA:722:G:O2'	1:AA:723:U:H5'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BJ:134:ALA:O	35:BJ:136:GLU:N	2.45	0.49
35:BJ:134:ALA:C	35:BJ:135:ILE:HD13	2.32	0.49
1:AA:340:U:H2'	1:AA:341:C:C6	2.47	0.49
28:BC:137:LYS:O	28:BC:141:MET:HB2	2.12	0.49
28:BC:53:THR:HG21	28:BC:67:ARG:HD3	1.94	0.49
28:BC:44:ARG:HA	28:BC:90:GLN:CA	2.42	0.49
40:BO:11:ALA:HA	40:BO:14:LYS:CE	2.36	0.49
22:B0:2152:G:OP1	22:B0:2153:C:N3	2.45	0.49
1:AA:1343:G:O2'	1:AA:1344:C:H5'	2.11	0.49
1:AA:939:G:H2'	1:AA:940:C:C6	2.47	0.49
29:BD:111:ARG:HD2	29:BD:112:ASP:H	1.77	0.49
29:BD:106:ALA:HB1	29:BD:136:ILE:O	2.11	0.49
2:AV:60:C:H5''	2:AV:61:C:OP2	2.12	0.49
5:AD:144:ILE:HD12	5:AD:177:MET:HE2	1.93	0.49
37:BL:52:ILE:O	37:BL:53:THR:HB	2.12	0.49
22:B0:1116:G:H2'	22:B0:1117:C:H6	1.76	0.49
22:B0:2143:C:O2'	22:B0:2144:G:O5'	2.29	0.49
22:B0:857:G:H4'	45:BU:71:LYS:HZ1	1.77	0.49
45:BU:54:ARG:HG3	45:BU:55:ASP:N	2.27	0.49
22:B0:1838:C:H5''	22:B0:1839:G:OP1	2.13	0.49
10:AI:18:VAL:HG11	10:AI:82:ILE:HA	1.94	0.49
1:AA:560:A:C4	1:AA:566:G:H1'	2.47	0.49
1:AA:1097:C:H1'	1:AA:1167:A:C2	2.47	0.49
22:B0:2559:C:O2'	22:B0:2560:A:H5'	2.12	0.49
47:BX:40:THR:O	47:BX:44:ARG:HG3	2.12	0.49
39:BN:34:GLY:C	39:BN:36:LYS:H	2.15	0.49
37:BL:10:LEU:HD12	37:BL:10:LEU:H	1.77	0.49
22:B0:474:G:O2'	22:B0:475:C:P	2.70	0.49
22:B0:759:G:H2'	22:B0:760:G:H8	1.75	0.49
25:B3:20:VAL:HA	25:B3:23:ILE:CG1	2.42	0.49
12:AK:16:SER:HA	12:AK:78:ILE:HA	1.94	0.49
1:AA:1268:G:H22	1:AA:1311:A:H2	1.58	0.49
28:BC:157:LEU:N	28:BC:157:LEU:HD23	2.27	0.49
30:BE:76:ILE:C	30:BE:76:ILE:HD13	2.33	0.49
18:AQ:35:LYS:O	18:AQ:35:LYS:HD2	2.12	0.49
46:BW:33:ALA:O	46:BW:34:SER:CB	2.61	0.49
13:AL:49:ARG:HB3	13:AL:65:TYR:HE1	1.77	0.49
22:B0:1302:A:O2'	22:B0:1303:G:OP1	2.18	0.49
22:B0:1820:U:O4	26:BA:227:VAL:HG21	2.12	0.49
11:AJ:67:ILE:O	11:AJ:67:ILE:HG23	2.13	0.49
3:AB:133:ALA:O	3:AB:137:THR:HG23	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:293:G:C2	1:AA:305:G:H1'	2.47	0.49
22:B0:1580:A:H2'	22:B0:1581:A:C5'	2.42	0.49
26:BA:122:ALA:N	26:BA:129:LEU:HD11	2.28	0.49
33:BH:25:LEU:HD22	33:BH:26:GLY:N	2.26	0.49
22:B0:662:G:H3'	28:BC:88:ARG:HG3	1.93	0.49
41:BQ:47:VAL:HB	41:BQ:103:ILE:HD13	1.94	0.49
22:B0:2542:A:C4'	22:B0:2543:G:H5'	2.36	0.49
22:B0:478:A:H1'	43:BS:32:LYS:HZ1	1.77	0.49
24:B2:43:VAL:O	24:B2:171:HIS:HA	2.12	0.49
8:AG:112:ASP:CG	8:AG:118:ARG:HG2	2.33	0.49
22:B0:996:A:H5''	40:BO:92:LYS:HD3	1.94	0.49
23:B9:32:U:H5''	29:BD:8:LYS:HZ1	1.75	0.49
22:B0:858:G:H1'	22:B0:2269:G:H4'	1.94	0.49
22:B0:857:G:H5'	45:BU:71:LYS:HG3	1.94	0.49
7:AF:9:MET:HB2	7:AF:85:ILE:HG23	1.94	0.49
27:BB:29:VAL:HG23	27:BB:29:VAL:O	2.12	0.49
27:BB:36:GLN:HB2	27:BB:79:LEU:HD23	1.94	0.49
1:AA:893:C:H5''	1:AA:1416:G:OP1	2.12	0.49
1:AA:913:A:O2'	1:AA:914:A:P	2.71	0.49
22:B0:844:A:H2'	22:B0:845:A:O4'	2.12	0.49
22:B0:848:C:H1'	22:B0:934:U:H1'	1.94	0.49
22:B0:684:G:H2'	22:B0:685:A:H5''	1.95	0.49
22:B0:1022:G:O5'	22:B0:1023:U:OP1	2.30	0.49
12:AK:73:VAL:CG1	12:AK:78:ILE:HD12	2.43	0.49
36:BK:65:ILE:HG23	36:BK:68:PHE:CZ	2.47	0.49
1:AA:665:A:O4'	1:AA:733:G:H1'	2.12	0.49
22:B0:326:G:H2'	22:B0:327:G:H8	1.77	0.49
29:BD:97:GLU:C	29:BD:99:PHE:H	2.14	0.49
23:B9:25:U:H4'	23:B9:26:C:H5	1.77	0.49
22:B0:1419:A:H62	22:B0:1579:A:N6	2.06	0.49
22:B0:1493:A:C2	26:BA:131:MET:HE1	2.47	0.49
22:B0:1996:C:N4	27:BB:136:ASN:O	2.46	0.49
1:AA:402:G:H1	1:AA:403:C:H41	1.60	0.49
1:AA:501:C:H2'	1:AA:502:A:C8	2.48	0.49
33:BH:32:LEU:HB3	33:BH:54:ILE:CD1	2.42	0.49
22:B0:1319:C:O2'	22:B0:1320:C:H5'	2.11	0.49
22:B0:800:A:H5'	28:BC:53:THR:HB	1.93	0.49
22:B0:807:U:H4'	22:B0:2445:G:C4'	2.40	0.49
22:B0:1203:U:H5	35:BJ:10:GLU:HG2	1.77	0.49
40:BO:48:ASP:HA	40:BO:50:ARG:NH1	2.26	0.49
41:BQ:88:ARG:HH12	41:BQ:92:ARG:CB	2.21	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:492:A:C8	41:BQ:9:HIS:HB3	2.47	0.49
22:B0:2127:G:OP2	22:B0:2128:G:OP2	2.30	0.49
22:B0:960:A:C2'	22:B0:2496:C:H5''	2.42	0.49
42:BR:36:LYS:N	42:BR:36:LYS:HD3	2.17	0.49
25:B5:107:LYS:HG3	25:B5:117:VAL:HB	1.94	0.49
40:BO:56:PHE:C	40:BO:58:GLN:N	2.66	0.49
1:AA:1405:G:O2'	1:AA:1518:A:H4'	2.12	0.49
22:B0:918:A:N6	22:B0:2268:A:H8	2.09	0.49
10:AI:56:MET:O	10:AI:58:GLU:N	2.44	0.49
32:BG:74:PRO:O	32:BG:75:ALA:HB3	2.12	0.49
17:AP:19:VAL:O	17:AP:19:VAL:HG13	2.12	0.49
29:BD:48:LEU:HA	29:BD:51:ASN:ND2	2.27	0.49
27:BB:79:LEU:HD22	27:BB:79:LEU:N	2.20	0.49
22:B0:269:C:H2'	22:B0:271:G:OP1	2.11	0.49
22:B0:1593:G:O2'	22:B0:1594:U:P	2.70	0.49
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.76	0.49
27:BB:26:VAL:O	27:BB:27:ILE:HD13	2.12	0.49
16:AO:55:LEU:O	16:AO:59:VAL:HG12	2.12	0.49
8:AG:30:MET:O	8:AG:32:ASP:N	2.46	0.49
1:AA:689:C:H1'	1:AA:704:A:H2	1.75	0.49
22:B0:2586:U:O2'	22:B0:2587:A:H5'	2.13	0.49
1:AA:976:G:N2	1:AA:1363:A:OP1	2.46	0.49
1:AA:1401:G:C2	1:AA:1504:G:N2	2.80	0.49
12:AK:43:TRP:HZ3	12:AK:45:THR:HG1	1.59	0.49
26:BA:244:VAL:HG23	26:BA:244:VAL:O	2.13	0.49
15:AN:40:ARG:O	15:AN:44:VAL:HG23	2.13	0.49
22:B0:1347:A:P	22:B0:1382:G:H22	2.35	0.49
22:B0:300:A:H2'	22:B0:335:C:C5'	2.43	0.49
3:AB:162:VAL:HG12	3:AB:163:ILE:N	2.27	0.49
1:AA:1442:G:H3'	1:AA:1442:G:N3	2.26	0.49
34:BI:5:GLN:HG2	34:BI:5:GLN:O	2.13	0.49
22:B0:1048:A:H2'	22:B0:1049:C:C6	2.47	0.49
1:AA:1473:G:H2'	1:AA:1474:U:C6	2.48	0.49
1:AA:389:A:H2'	1:AA:390:U:H5'	1.95	0.49
4:AC:190:THR:HG22	4:AC:191:THR:N	2.27	0.49
22:B0:467:G:O2'	22:B0:468:G:H5'	2.13	0.49
22:B0:1416:G:H1	26:BA:94:LEU:C	2.16	0.49
22:B0:1487:G:H3'	26:BA:197:ALA:O	2.12	0.49
26:BA:71:ASP:CB	26:BA:118:GLY:HA3	2.42	0.49
1:AA:35:G:N2	1:AA:550:G:N2	2.60	0.49
22:B0:1227:G:H2'	22:B0:1228:G:C8	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:191:A:H2'	22:B0:192:C:C6	2.48	0.49
22:B0:2067:G:H1'	22:B0:2444:G:H1	1.77	0.49
22:B0:2445:G:H2'	22:B0:2446:G:C8	2.47	0.49
22:B0:2176:A:OP2	24:B2:165:ASP:HB2	2.13	0.49
1:AA:1145:A:O2'	1:AA:1146:A:C8	2.63	0.49
42:BR:57:VAL:O	42:BR:57:VAL:HG23	2.12	0.49
37:BL:49:GLU:HB2	37:BL:52:ILE:CD1	2.42	0.49
11:AJ:56:HIS:CD2	11:AJ:57:VAL:HG23	2.48	0.49
36:BK:92:TRP:HE3	36:BK:92:TRP:N	2.10	0.49
1:AA:1167:A:H2'	1:AA:1167:A:N3	2.27	0.49
22:B0:2263:C:C5'	45:BU:11:ASN:H	2.26	0.49
17:AP:34:GLU:OE2	17:AP:56:ARG:HD3	2.12	0.49
17:AP:67:ILE:N	17:AP:67:ILE:HD13	2.19	0.49
17:AP:14:ARG:CZ	17:AP:14:ARG:HB2	2.42	0.49
29:BD:16:MET:HE1	29:BD:24:VAL:HA	1.93	0.49
20:AS:46:LEU:HD12	20:AS:46:LEU:N	2.27	0.49
22:B0:834:G:H21	22:B0:2358:A:H61	1.59	0.49
22:B0:2346:A:H5''	22:B0:2347:C:OP2	2.13	0.49
22:B0:1478:G:C2'	22:B0:1479:G:H5'	2.43	0.49
30:BE:120:ILE:N	30:BE:120:ILE:HD13	2.24	0.49
22:B0:1142:A:C4'	22:B0:1143:A:OP1	2.60	0.49
40:BO:113:LYS:HD2	40:BO:113:LYS:N	2.28	0.49
22:B0:2479:U:H2'	22:B0:2480:C:H5'	1.93	0.49
22:B0:873:C:H2'	22:B0:874:G:C8	2.47	0.49
22:B0:453:A:H4'	22:B0:457:A:C6	2.47	0.49
5:AD:96:ARG:NH1	5:AD:133:SER:HA	2.27	0.49
1:AA:226:G:O2'	1:AA:227:G:H5'	2.12	0.49
33:BH:70:THR:HG22	33:BH:70:THR:O	2.12	0.49
1:AA:1464:U:H2'	1:AA:1465:A:C8	2.48	0.49
22:B0:1054:A:C1'	25:B3:89:SER:HG	2.25	0.49
44:BT:17:SER:O	44:BT:21:ARG:HG3	2.13	0.49
49:B1:13:SER:HA	49:B1:19:PHE:CD1	2.47	0.49
1:AA:576:C:H5''	1:AA:577:G:OP2	2.12	0.49
1:AA:1120:C:H2'	1:AA:1121:U:C6	2.48	0.49
3:AB:71:THR:HG23	3:AB:93:HIS:O	2.12	0.49
22:B0:1582:C:C2'	26:BA:96:LYS:HB2	2.32	0.49
27:BB:133:THR:HA	27:BB:136:ASN:HD22	1.76	0.49
1:AA:427:U:P	5:AD:12:ARG:HH22	2.35	0.49
33:BH:108:MET:SD	33:BH:108:MET:N	2.84	0.49
22:B0:1607:C:N3	22:B0:1611:C:C4	2.81	0.49
22:B0:2449:U:H2'	22:B0:2449:U:O2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BC:32:VAL:HG22	28:BC:32:VAL:O	2.12	0.49
22:B0:799:G:C4	28:BC:56:GLY:HA3	2.46	0.49
27:BB:125:TRP:O	27:BB:126:ASN:CB	2.60	0.49
1:AA:197:A:O2'	1:AA:198:G:O5'	2.29	0.49
45:BU:78:PHE:O	45:BU:79:ILE:HB	2.12	0.49
22:B0:2075:U:H3'	22:B0:2238:G:C6	2.47	0.49
38:BM:14:ALA:HA	38:BM:15:ARG:NH1	2.27	0.49
38:BM:40:ILE:HD13	38:BM:40:ILE:C	2.32	0.49
42:BR:48:GLN:NE2	42:BR:55:VAL:HG22	2.27	0.49
37:BL:96:ARG:NH2	37:BL:114:GLU:HG3	2.28	0.49
37:BL:38:LEU:C	37:BL:40:LYS:N	2.66	0.49
22:B0:999:U:H2'	22:B0:1000:A:H8	1.77	0.49
6:AE:12:GLU:OE1	6:AE:12:GLU:N	2.46	0.49
25:B5:81:LYS:HG2	25:B5:82:GLU:OE2	2.12	0.49
7:AF:61:LEU:HD12	7:AF:61:LEU:N	2.28	0.49
22:B0:955:U:H4'	22:B0:2276:G:O2'	2.13	0.49
41:BQ:83:LYS:HD2	41:BQ:83:LYS:C	2.33	0.49
1:AA:888:G:H5'	1:AA:1489:G:H4'	1.94	0.49
1:AA:915:A:H2'	1:AA:916:U:O4'	2.13	0.49
16:AO:38:LEU:O	16:AO:41:HIS:HB3	2.13	0.49
22:B0:1300:G:H4'	22:B0:1301:A:C5'	2.42	0.49
10:AI:105:ARG:CG	10:AI:106:ASP:H	2.17	0.49
1:AA:818:G:H3'	1:AA:819:A:C5'	2.42	0.49
1:AA:1117:A:C1'	10:AI:107:ALA:HB2	2.42	0.49
28:BC:3:LEU:HD13	28:BC:17:THR:O	2.12	0.49
22:B0:2782:G:O2'	22:B0:2783:U:H5'	2.12	0.49
16:AO:69:LEU:CD1	16:AO:76:ARG:HD2	2.42	0.49
22:B0:2690:U:H5	22:B0:2719:G:H21	1.61	0.49
22:B0:1286:A:O2'	22:B0:1288:G:OP2	2.31	0.49
22:B0:414:C:H2'	22:B0:415:A:C8	2.47	0.49
20:AS:49:ALA:HB1	20:AS:56:HIS:HB3	1.93	0.49
2:AV:3:G:H2'	2:AV:4:G:C8	2.48	0.49
22:B0:2433:A:O2'	22:B0:2434:A:P	2.70	0.49
3:AB:91:VAL:HG11	3:AB:95:TRP:HD1	1.77	0.49
22:B0:1069:A:N1	22:B0:2474:U:O2'	2.46	0.49
22:B0:1171:G:H1	22:B0:1178:C:N4	2.11	0.49
1:AA:118:U:O4	1:AA:289:G:H4'	2.12	0.49
22:B0:2863:C:H2'	22:B0:2864:G:H8	1.78	0.49
22:B0:1486:G:OP2	26:BA:196:ASN:ND2	2.46	0.49
22:B0:1490:C:O2	22:B0:1490:C:H2'	2.11	0.49
26:BA:62:ARG:HH21	26:BA:150:GLY:C	2.15	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1495:A:C8	26:BA:190:THR:HA	2.48	0.49
5:AD:54:LEU:HA	5:AD:202:LEU:HD22	1.95	0.49
5:AD:56:GLU:O	5:AD:59:LYS:HG2	2.12	0.49
33:BH:36:LEU:HG	33:BH:118:MET:HG3	1.95	0.49
22:B0:1194:A:O2'	22:B0:1195:G:H5'	2.12	0.49
22:B0:591:U:H2'	22:B0:592:A:C8	2.46	0.49
22:B0:680:C:C2	22:B0:798:G:N2	2.81	0.49
41:BQ:49:LYS:HA	41:BQ:49:LYS:HZ2	1.76	0.49
22:B0:2127:G:C3'	22:B0:2166:U:C5'	2.86	0.49
1:AA:1290:G:H2'	1:AA:1290:G:N3	2.28	0.49
10:AI:118:ARG:HH12	10:AI:124:PRO:HB3	1.77	0.49
22:B0:956:G:H1'	22:B0:2250:G:C6	2.48	0.49
22:B0:2238:G:H4'	22:B0:2239:G:O5'	2.11	0.49
39:BN:63:ILE:HD11	39:BN:74:GLN:NE2	2.22	0.49
39:BN:91:VAL:O	39:BN:92:ARG:HG2	2.12	0.49
46:BW:42:LEU:HB2	46:BW:46:VAL:HG23	1.94	0.49
46:BW:44:LYS:HE3	46:BW:48:ARG:HH21	1.75	0.49
22:B0:625:G:O2'	22:B0:626:A:H5'	2.12	0.49
22:B0:996:A:OP2	40:BO:53:LYS:HD3	2.11	0.49
40:BO:91:ARG:HG2	40:BO:91:ARG:HH11	1.77	0.49
22:B0:1869:G:H2'	22:B0:1871:A:OP2	2.12	0.49
22:B0:1832:C:H2'	22:B0:1833:C:H4'	1.95	0.49
10:AI:18:VAL:HG11	10:AI:82:ILE:HG12	1.94	0.49
7:AF:77:THR:HG23	7:AF:78:PHE:CD1	2.44	0.49
22:B0:2260:C:H2'	22:B0:2261:C:C6	2.47	0.49
30:BE:71:LEU:O	30:BE:75:VAL:HG23	2.12	0.49
22:B0:1600:C:H4'	42:BR:64:LYS:NZ	2.28	0.49
22:B0:2723:C:H2'	22:B0:2724:U:O4'	2.12	0.49
22:B0:2347:C:N3	22:B0:2371:G:N2	2.61	0.49
1:AA:731:G:OP1	1:AA:766:A:H1'	2.13	0.49
1:AA:50:A:O2'	1:AA:52:C:C6	2.66	0.49
22:B0:2039:U:H2'	22:B0:2040:G:C8	2.47	0.49
4:AC:26:LYS:HD2	4:AC:26:LYS:C	2.33	0.49
1:AA:29:U:O2'	1:AA:30:U:H5'	2.13	0.49
44:BT:3:THR:C	44:BT:4:ILE:HD12	2.33	0.49
22:B0:1273:U:O2'	22:B0:1274:A:OP1	2.25	0.49
39:BN:52:ARG:HG2	39:BN:53:GLY:N	2.28	0.49
41:BQ:39:THR:O	41:BQ:41:LYS:HG3	2.13	0.49
22:B0:804:A:H2'	22:B0:806:C:C5	2.47	0.49
1:AA:831:A:H2'	1:AA:832:G:H8	1.76	0.49
1:AA:922:G:N2	1:AA:1396:A:H1'	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BQ:72:THR:HG23	41:BQ:73:LYS:N	2.27	0.49
10:AI:95:SER:O	10:AI:99:LYS:HE2	2.13	0.49
26:BA:142:ASN:HB3	26:BA:190:THR:HG1	1.76	0.49
26:BA:175:LEU:HG	26:BA:178:GLY:N	2.22	0.49
13:AL:79:ILE:CG1	13:AL:103:CYS:HB2	2.43	0.49
22:B0:807:U:O4'	22:B0:2445:G:H4'	2.13	0.49
22:B0:340:A:H2'	22:B0:341:C:H5'	1.93	0.49
22:B0:587:C:O2'	28:BC:83:VAL:HG22	2.11	0.49
22:B0:662:G:H5''	28:BC:88:ARG:CD	2.43	0.49
22:B0:802:A:P	28:BC:62:GLN:HB2	2.52	0.49
28:BC:49:ARG:CB	28:BC:49:ARG:HH11	2.19	0.49
22:B0:1263:U:H2'	22:B0:1264:A:O4'	2.12	0.49
41:BQ:16:LYS:NZ	41:BQ:18:ARG:NH1	2.61	0.49
22:B0:493:G:N2	41:BQ:6:LYS:O	2.45	0.49
22:B0:2127:G:H2'	22:B0:2165:C:O3'	2.13	0.49
22:B0:2133:G:OP1	24:B2:11:ARG:HB3	2.12	0.49
1:AA:1369:C:C6	10:AI:112:ARG:HB2	2.48	0.49
1:AA:1370:G:O2'	1:AA:1371:G:H5'	2.13	0.49
22:B0:2462:C:H1'	22:B0:2491:U:O4	2.12	0.49
2:AV:52:U:H2'	2:AV:53:G:H8	1.78	0.49
1:AA:718:A:C8	12:AK:117:HIS:CG	3.01	0.49
39:BN:6:GLN:HB3	39:BN:7:LEU:HD22	1.94	0.49
22:B0:2438:U:H4'	22:B0:2600:A:H5'	1.94	0.49
39:BN:47:ILE:HD12	39:BN:63:ILE:CD1	2.43	0.49
39:BN:95:LYS:HG3	39:BN:97:TYR:CE1	2.47	0.49
37:BL:22:ARG:HA	37:BL:22:ARG:NE	2.28	0.49
22:B0:1046:A:O2'	25:B5:26:MET:CA	2.59	0.49
22:B0:1111:A:O2'	22:B0:1112:G:C1'	2.60	0.49
45:BU:67:LYS:HE3	45:BU:71:LYS:HD3	1.95	0.49
10:AI:71:ILE:HD13	10:AI:74:GLN:OE1	2.12	0.49
22:B0:407:G:H2'	22:B0:408:G:H8	1.78	0.49
22:B0:2546:U:H5''	22:B0:2547:A:C5'	2.43	0.49
8:AG:30:MET:O	8:AG:31:VAL:C	2.50	0.49
22:B0:1799:G:H4'	22:B0:1800:C:O5'	2.13	0.49
45:BU:24:ARG:O	45:BU:58:LEU:HD11	2.13	0.49
22:B0:1021:A:H2'	22:B0:1023:U:O4'	2.13	0.49
22:B0:1142:A:O2'	22:B0:1144:A:OP2	2.25	0.49
12:AK:15:VAL:HB	12:AK:78:ILE:CG1	2.42	0.49
22:B0:1760:C:C6	22:B0:1760:C:OP2	2.62	0.49
29:BD:33:ILE:HB	29:BD:95:MET:HE2	1.94	0.49
3:AB:56:LEU:HD22	3:AB:216:VAL:HG23	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:50:A:H62	1:AA:361:G:H4'	1.77	0.49
22:B0:1211:C:H4'	22:B0:1212:G:OP2	2.12	0.49
5:AD:67:LEU:HD22	5:AD:67:LEU:N	2.27	0.49
6:AE:71:ILE:HD12	6:AE:71:ILE:O	2.12	0.49
47:BX:31:ILE:CD1	47:BX:31:ILE:H	2.25	0.49
20:AS:31:ARG:HD2	20:AS:56:HIS:CD2	2.47	0.49
22:B0:1402:U:H2'	22:B0:1403:A:H8	1.77	0.49
22:B0:1579:A:N3	26:BA:68:ARG:N	2.61	0.49
33:BH:25:LEU:HD13	33:BH:25:LEU:N	2.27	0.49
22:B0:1615:C:HO2'	22:B0:1616:A:P	2.36	0.49
22:B0:672:C:C5	28:BC:77:ILE:HD12	2.47	0.49
22:B0:799:G:N3	28:BC:56:GLY:HA3	2.28	0.49
41:BQ:18:ARG:CB	41:BQ:76:VAL:HG21	2.43	0.49
1:AA:1347:G:O2'	1:AA:1348:U:H6	1.96	0.49
10:AI:112:ARG:HH11	10:AI:112:ARG:HG2	1.77	0.49
1:AA:1386:G:H2'	1:AA:1387:G:C8	2.48	0.49
22:B0:1458:C:H2'	22:B0:1459:U:O4'	2.13	0.49
14:AM:16:ILE:HA	14:AM:19:THR:OG1	2.13	0.49
24:B2:169:ILE:HG13	24:B2:170:ILE:N	2.28	0.49
5:AD:144:ILE:O	5:AD:149:LYS:HE3	2.13	0.49
22:B0:72:U:H5''	22:B0:73:A:OP2	2.13	0.49
42:BR:66:LYS:NZ	42:BR:67:VAL:HG23	2.27	0.49
45:BU:30:VAL:HG22	45:BU:31:LEU:N	2.28	0.49
6:AE:10:LEU:HD11	6:AE:67:ARG:HG2	1.95	0.49
23:B9:92:C:H2'	23:B9:93:C:C6	2.48	0.49
1:AA:126:G:H5'	1:AA:633:G:N2	2.27	0.49
41:BQ:17:VAL:HG11	41:BQ:101:SER:CB	2.42	0.49
1:AA:960:U:O2'	1:AA:961:U:P	2.69	0.49
1:AA:1221:G:H2'	20:AS:1:PRO:CD	2.42	0.49
22:B0:371:A:H4'	22:B0:372:G:O5'	2.13	0.49
1:AA:1242:G:H2'	1:AA:1243:C:H6	1.78	0.49
8:AG:29:LEU:HD21	8:AG:119:LEU:HD22	1.94	0.49
7:AF:29:ILE:HD11	7:AF:64:VAL:HG21	1.94	0.49
30:BE:102:ILE:HG13	30:BE:112:VAL:O	2.13	0.49
22:B0:457:A:O3'	22:B0:458:G:H4'	2.12	0.49
47:BX:26:LEU:HA	47:BX:37:ARG:NH2	2.27	0.49
1:AA:1256:A:O2'	1:AA:1257:A:P	2.70	0.49
5:AD:66:VAL:HB	5:AD:70:GLN:NE2	2.28	0.49
22:B0:1924:C:H2'	22:B0:1925:C:H6	1.78	0.49
22:B0:91:A:H5'	22:B0:92:U:OP2	2.13	0.49
22:B0:385:C:H2'	22:B0:387:U:OP2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BT:60:VAL:HG13	44:BT:60:VAL:O	2.13	0.49
1:AA:1460:C:H2'	1:AA:1461:G:O4'	2.12	0.49
22:B0:1492:G:H8	22:B0:1492:G:O5'	1.95	0.49
22:B0:1425:G:N2	22:B0:1574:C:H42	2.11	0.49
26:BA:61:TYR:OH	26:BA:102:TYR:N	2.46	0.49
26:BA:81:GLU:C	26:BA:90:ILE:HG12	2.32	0.49
22:B0:1155:A:OP2	40:BO:55:GLN:HA	2.13	0.49
22:B0:1196:C:H2'	22:B0:1197:G:C8	2.42	0.49
22:B0:1252:G:H1'	40:BO:32:ARG:HE	1.74	0.49
22:B0:989:G:O2'	22:B0:990:A:P	2.70	0.49
22:B0:494:G:OP1	41:BQ:102:HIS:HB2	2.13	0.49
41:BQ:74:ILE:O	41:BQ:74:ILE:HG12	2.12	0.49
22:B0:2132:U:OP2	24:B2:7:MET:HE3	2.13	0.49
22:B0:1965:C:H5	22:B0:1967:C:OP2	1.95	0.49
22:B0:1457:G:H2'	22:B0:1458:C:O4'	2.13	0.49
45:BU:23:LYS:NZ	45:BU:45:HIS:HB2	2.27	0.49
4:AC:116:ALA:HB2	4:AC:184:ASN:OD1	2.13	0.49
22:B0:2332:C:O2'	22:B0:2335:A:H1'	2.13	0.49
46:BW:29:ARG:HH11	46:BW:29:ARG:HG3	1.78	0.49
37:BL:49:GLU:N	37:BL:50:PRO:O	2.45	0.49
22:B0:918:A:N7	22:B0:2268:A:N7	2.61	0.49
1:AA:1168:U:H2'	1:AA:1169:A:C8	2.48	0.49
32:BG:82:ALA:HB1	32:BG:100:ILE:HD11	1.95	0.49
17:AP:4:ILE:HB	17:AP:67:ILE:HG22	1.94	0.49
22:B0:285:G:H2'	22:B0:286:U:O4'	2.12	0.49
22:B0:1699:G:H5''	22:B0:1700:A:OP2	2.13	0.49
34:BI:8:LEU:HD23	34:BI:19:VAL:O	2.12	0.49
3:AB:160:LEU:HD12	3:AB:160:LEU:N	2.27	0.49
1:AA:1240:U:H1'	8:AG:33:GLY:O	2.13	0.49
39:BN:36:LYS:HD3	39:BN:37:LYS:N	2.27	0.49
1:AA:1459:G:H4'	21:AT:18:LYS:HD3	1.95	0.49
1:AA:189:A:O2'	1:AA:190:A:H4'	2.13	0.49
22:B0:1657:U:H2'	22:B0:1658:C:O4'	2.12	0.49
1:AA:924:C:H2'	1:AA:925:G:C8	2.48	0.49
22:B0:970:U:C4'	22:B0:984:A:H1'	2.40	0.49
4:AC:26:LYS:HD2	4:AC:27:GLU:N	2.28	0.49
39:BN:101:GLU:O	39:BN:103:THR:N	2.43	0.49
36:BK:102:LEU:N	36:BK:102:LEU:HD12	2.28	0.49
19:AR:47:ARG:NE	19:AR:49:LYS:HB2	2.27	0.49
1:AA:446:G:H1	1:AA:488:C:H42	1.61	0.49
36:BK:59:ARG:CZ	36:BK:59:ARG:HA	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AJ:32:THR:CG2	11:AJ:83:THR:HA	2.43	0.49
39:BN:54:LEU:HD22	39:BN:54:LEU:N	2.28	0.49
9:AH:54:THR:HG23	9:AH:55:LYS:HG3	1.94	0.49
1:AA:1293:C:H2'	1:AA:1294:G:C8	2.48	0.49
11:AJ:53:ILE:HG12	11:AJ:63:ASP:HB2	1.94	0.49
22:B0:1417:U:N3	26:BA:98:GLY:O	2.46	0.48
22:B0:1422:G:H1'	26:BA:149:LYS:HB2	1.95	0.48
22:B0:1581:A:O5'	22:B0:1581:A:H8	1.96	0.48
26:BA:104:LEU:HB3	26:BA:126:GLY:O	2.12	0.48
26:BA:140:VAL:C	26:BA:141:HIS:CD2	2.87	0.48
22:B0:1491:A:N6	26:BA:180:MET:SD	2.86	0.48
22:B0:527:C:H4'	22:B0:528:A:O5'	2.13	0.48
22:B0:590:A:OP2	28:BC:47:LYS:HB3	2.13	0.48
22:B0:658:U:C4	28:BC:98:LYS:HD3	2.48	0.48
28:BC:130:LYS:CB	28:BC:133:LEU:HD13	2.39	0.48
22:B0:2162:G:N7	22:B0:2164:C:H2'	2.28	0.48
1:AA:1347:G:O2'	1:AA:1348:U:P	2.71	0.48
43:BS:28:LEU:HD22	43:BS:28:LEU:N	2.28	0.48
1:AA:979:C:O5'	20:AS:4:LEU:N	2.46	0.48
41:BQ:71:VAL:HG22	41:BQ:107:VAL:HG12	1.95	0.48
24:B2:47:LEU:HD11	24:B2:170:ILE:HG21	1.93	0.48
22:B0:64:A:O2'	22:B0:65:U:H5'	2.12	0.48
37:BL:99:LYS:NZ	37:BL:99:LYS:HB3	2.28	0.48
22:B0:2405:G:H1	22:B0:2412:A:N6	2.11	0.48
22:B0:868:U:C4	22:B0:869:G:C6	3.01	0.48
10:AI:56:MET:HE2	10:AI:60:LEU:HD21	1.95	0.48
22:B0:2583:G:H2'	22:B0:2584:U:C6	2.46	0.48
22:B0:215:G:H4'	22:B0:216:A:O5'	2.11	0.48
1:AA:916:U:H2'	1:AA:917:G:H8	1.78	0.48
40:BO:68:ALA:HB1	40:BO:73:ILE:O	2.12	0.48
22:B0:2834:G:O2'	22:B0:2835:A:H5'	2.13	0.48
45:BU:20:LEU:CD2	45:BU:20:LEU:H	2.21	0.48
22:B0:1816:C:N3	26:BA:50:THR:OG1	2.46	0.48
1:AA:973:G:H3'	1:AA:974:A:H5'	1.95	0.48
22:B0:2345:G:H4'	22:B0:2346:A:C5'	2.42	0.48
22:B0:226:A:C2'	22:B0:227:A:OP2	2.60	0.48
12:AK:18:GLY:HA3	12:AK:34:THR:O	2.12	0.48
32:BG:34:ILE:HD13	32:BG:34:ILE:O	2.13	0.48
15:AN:79:SER:O	15:AN:83:VAL:HG13	2.13	0.48
1:AA:998:C:H2'	1:AA:999:C:C6	2.48	0.48
5:AD:71:PHE:HE1	5:AD:93:LEU:HD21	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BR:61:LEU:N	42:BR:61:LEU:HD22	2.28	0.48
13:AL:65:TYR:HB2	13:AL:92:VAL:HG11	1.94	0.48
9:AH:100:ILE:C	9:AH:100:ILE:HD12	2.33	0.48
38:BM:31:THR:HG23	38:BM:32:PRO:HD2	1.95	0.48
27:BB:3:GLY:HA3	27:BB:203:VAL:O	2.13	0.48
1:AA:1173:U:H2'	1:AA:1174:G:H8	1.78	0.48
29:BD:143:ASP:O	29:BD:144:LYS:HB3	2.12	0.48
22:B0:813:U:H2'	22:B0:814:C:C6	2.48	0.48
1:AA:1036:A:H2'	1:AA:1037:C:C6	2.47	0.48
22:B0:1421:G:C4	26:BA:148:GLY:HA3	2.48	0.48
22:B0:1579:A:O5'	26:BA:66:PHE:N	2.41	0.48
26:BA:141:HIS:CG	26:BA:190:THR:HB	2.48	0.48
26:BA:157:ALA:HB1	26:BA:196:ASN:O	2.13	0.48
1:AA:41:G:N2	1:AA:401:C:N3	2.62	0.48
22:B0:527:C:H1'	22:B0:528:A:N7	2.28	0.48
33:BH:106:LYS:NZ	33:BH:116:ARG:NH1	2.62	0.48
22:B0:669:G:H21	28:BC:74:LYS:HB3	1.75	0.48
40:BO:16:ILE:C	40:BO:18:LYS:N	2.65	0.48
40:BO:49:ARG:NH1	40:BO:49:ARG:HG3	2.26	0.48
22:B0:2126:A:H4'	22:B0:2171:A:H2'	1.94	0.48
22:B0:2126:A:O2'	22:B0:2171:A:N3	2.45	0.48
22:B0:2727:A:H2'	22:B0:2728:U:C6	2.48	0.48
39:BN:21:PRO:HG3	39:BN:61:ARG:NE	2.27	0.48
45:BU:42:THR:HG23	45:BU:75:ASN:OD1	2.13	0.48
32:BG:108:ILE:HG13	32:BG:128:ILE:HD13	1.95	0.48
22:B0:2514:U:N3	22:B0:2574:G:N2	2.60	0.48
22:B0:2550:G:N2	22:B0:2558:C:H42	2.10	0.48
32:BG:48:ILE:HD13	32:BG:48:ILE:N	2.19	0.48
22:B0:1695:G:H2'	22:B0:1696:G:H5'	1.95	0.48
17:AP:14:ARG:CB	17:AP:14:ARG:HH11	2.26	0.48
1:AA:1239:A:N6	1:AA:1296:C:O2'	2.46	0.48
22:B0:2047:C:H2'	22:B0:2048:G:H8	1.78	0.48
1:AA:321:A:N7	1:AA:328:C:O2	2.46	0.48
1:AA:323:U:H3	1:AA:327:A:H62	1.61	0.48
45:BU:59:PHE:O	45:BU:59:PHE:CG	2.66	0.48
1:AA:975:A:H1'	1:AA:1358:U:O2'	2.13	0.48
24:B2:36:LYS:HE2	24:B2:36:LYS:CA	2.39	0.48
1:AA:1158:C:O2	1:AA:1159:U:H4'	2.12	0.48
40:BO:93:ILE:O	40:BO:97:ILE:HG23	2.13	0.48
36:BK:25:ASP:HB2	36:BK:64:TRP:CH2	2.48	0.48
19:AR:39:VAL:HG23	19:AR:44:THR:HB	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:241:A:H1'	22:B0:243:U:C5	2.47	0.48
32:BG:109:ALA:HA	32:BG:112:LYS:CE	2.43	0.48
32:BG:111:THR:HG22	32:BG:111:THR:O	2.13	0.48
36:BK:18:ARG:HH21	36:BK:68:PHE:HE2	1.60	0.48
22:B0:79:C:H2'	22:B0:80:G:H8	1.77	0.48
6:AE:89:THR:HG23	6:AE:90:GLY:H	1.77	0.48
13:AL:49:ARG:HH12	13:AL:88:ASP:CG	2.16	0.48
5:AD:58:GLN:HG3	5:AD:62:ARG:NE	2.28	0.48
23:B9:11:C:C2'	23:B9:12:C:H5'	2.43	0.48
25:B5:102:ASP:O	25:B5:106:LEU:HG	2.13	0.48
22:B0:1054:A:H1'	25:B3:89:SER:OG	2.13	0.48
5:AD:109:THR:HG23	5:AD:112:GLU:H	1.78	0.48
7:AF:93:LYS:O	7:AF:93:LYS:HD2	2.14	0.48
1:AA:27:G:H2'	1:AA:28:A:H8	1.77	0.48
19:AR:15:GLU:O	19:AR:17:VAL:HG23	2.14	0.48
22:B0:1417:U:O5'	22:B0:1588:A:H1'	2.13	0.48
26:BA:104:LEU:HD12	26:BA:126:GLY:HA2	1.94	0.48
26:BA:76:VAL:HG12	26:BA:114:GLN:HB3	1.95	0.48
5:AD:63:ILE:HD12	5:AD:194:ILE:HD11	1.93	0.48
22:B0:2043:C:OP2	22:B0:2779:U:H5	1.96	0.48
33:BH:15:TRP:HH2	33:BH:140:LEU:N	2.11	0.48
22:B0:588:U:O3'	28:BC:43:THR:HA	2.13	0.48
22:B0:2157:G:H4'	22:B0:2158:A:OP1	2.12	0.48
35:BJ:54:GLN:HB3	35:BJ:56:PRO:HB3	1.95	0.48
22:B0:960:A:O4'	22:B0:2496:C:C5'	2.55	0.48
37:BL:63:ARG:HH11	37:BL:64:ARG:HE	1.57	0.48
4:AC:166:TRP:CZ2	4:AC:168:ARG:HD3	2.48	0.48
46:BW:18:LEU:HD13	46:BW:18:LEU:O	2.13	0.48
46:BW:39:GLN:OE1	46:BW:41:HIS:HB2	2.14	0.48
1:AA:1065:U:C2'	1:AA:1066:C:OP2	2.60	0.48
22:B0:124:G:H2'	22:B0:125:A:H5''	1.94	0.48
1:AA:561:U:H5''	1:AA:563:A:N7	2.27	0.48
41:BQ:14:ALA:HB2	41:BQ:100:THR:O	2.13	0.48
16:AO:56:LEU:HD12	16:AO:57:ARG:NE	2.28	0.48
22:B0:711:G:H1	22:B0:720:U:H3	1.61	0.48
22:B0:848:C:O2'	22:B0:849:A:H5'	2.13	0.48
38:BM:8:ILE:H	38:BM:8:ILE:CD1	2.26	0.48
1:AA:1226:C:O2'	1:AA:1227:A:OP1	2.24	0.48
43:BS:8:ASP:O	43:BS:24:VAL:HG23	2.12	0.48
22:B0:241:A:C2	22:B0:255:A:H5''	2.48	0.48
22:B0:85:G:H2'	22:B0:86:G:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:116:A:H61	1:AA:313:A:C2'	2.26	0.48
36:BK:20:LEU:N	36:BK:20:LEU:HD12	2.27	0.48
32:BG:36:GLU:O	32:BG:38:CYS:N	2.45	0.48
22:B0:1035:U:H2'	22:B0:1036:G:H8	1.78	0.48
22:B0:1170:C:H2'	22:B0:1171:G:C8	2.48	0.48
5:AD:150:LYS:N	5:AD:150:LYS:HD2	2.29	0.48
33:BH:142:ILE:HG13	33:BH:142:ILE:OXT	2.14	0.48
1:AA:204:U:H4'	1:AA:216:U:C6	2.48	0.48
11:AJ:28:THR:OG1	11:AJ:86:ALA:HB1	2.13	0.48
22:B0:1493:A:OP1	26:BA:153:LEU:HD22	2.14	0.48
22:B0:1579:A:C3'	26:BA:66:PHE:O	2.62	0.48
26:BA:145:MET:H	26:BA:149:LYS:HD3	1.78	0.48
26:BA:80:LEU:HD13	26:BA:81:GLU:N	2.29	0.48
33:BH:51:GLY:HA3	33:BH:121:LYS:HG3	1.95	0.48
22:B0:1318:U:H3	22:B0:1334:G:H1	1.61	0.48
28:BC:26:ALA:O	28:BC:30:GLN:HB2	2.12	0.48
22:B0:671:C:H2'	28:BC:77:ILE:HG13	1.95	0.48
22:B0:582:A:H5''	40:BO:10:ARG:HD2	1.96	0.48
40:BO:27:ARG:HA	40:BO:33:VAL:CG2	2.44	0.48
22:B0:516:C:O3'	22:B0:1262:A:H4'	2.14	0.48
22:B0:494:G:C1'	41:BQ:7:HIS:H	2.26	0.48
22:B0:2678:C:N4	27:BB:126:ASN:ND2	2.61	0.48
22:B0:2679:A:H5'	27:BB:116:LYS:HD2	1.94	0.48
27:BB:114:LYS:CD	27:BB:196:ALA:HB2	2.39	0.48
22:B0:2282:G:O6	22:B0:2427:C:N3	2.47	0.48
36:BK:73:ILE:CG1	36:BK:90:GLU:HB3	2.39	0.48
22:B0:2238:G:O2'	22:B0:2239:G:H3'	2.14	0.48
39:BN:20:ARG:HA	39:BN:21:PRO:C	2.34	0.48
38:BM:7:ARG:H	38:BM:7:ARG:CD	2.18	0.48
42:BR:73:ARG:HD2	42:BR:73:ARG:C	2.34	0.48
29:BD:12:VAL:HG23	29:BD:13:LYS:CD	2.32	0.48
21:AT:75:LYS:O	21:AT:79:THR:HG22	2.12	0.48
21:AT:85:LEU:N	21:AT:85:LEU:HD12	2.28	0.48
25:B3:45:VAL:O	25:B3:46:GLU:C	2.52	0.48
25:B3:50:GLU:HA	25:B5:16:VAL:N	2.28	0.48
22:B0:2262:U:C6	45:BU:11:ASN:O	2.66	0.48
16:AO:59:VAL:HG21	22:B0:715:A:H5'	1.96	0.48
1:AA:753:A:H4'	1:AA:754:C:C5'	2.43	0.48
1:AA:872:A:H4'	1:AA:873:A:OP1	2.13	0.48
22:B0:937:C:H2'	22:B0:938:G:H8	1.78	0.48
22:B0:1801:A:H5''	22:B0:1802:A:OP2	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:924:G:H5'	45:BU:22:VAL:CG1	2.42	0.48
1:AA:1454:G:O3'	21:AT:26:MET:HE3	2.13	0.48
22:B0:1022:G:O2'	22:B0:1024:G:N7	2.47	0.48
1:AA:927:G:H4'	1:AA:1503:A:N7	2.28	0.48
9:AH:74:ILE:HG23	9:AH:74:ILE:O	2.14	0.48
1:AA:1330:U:H5'	14:AM:22:TYR:HA	1.96	0.48
22:B0:2023:C:H2'	22:B0:2024:G:H8	1.78	0.48
22:B0:2059:A:O2'	22:B0:2060:A:P	2.71	0.48
1:AA:839:U:H5'	1:AA:840:C:H5	1.78	0.48
18:AQ:20:ILE:N	18:AQ:20:ILE:HD12	2.28	0.48
22:B0:1209:U:O3'	22:B0:1212:G:H5'	2.13	0.48
25:B5:84:LYS:O	25:B5:88:GLU:HG3	2.14	0.48
22:B0:898:C:H2'	22:B0:899:A:H8	1.77	0.48
32:BG:36:GLU:O	32:BG:37:PHE:HB3	2.14	0.48
22:B0:1170:C:H2'	22:B0:1171:G:H8	1.79	0.48
22:B0:2576:G:N3	22:B0:2576:G:H3'	2.29	0.48
3:AB:174:GLU:HA	3:AB:177:ASN:OD1	2.13	0.48
22:B0:2299:U:H2'	22:B0:2300:C:C6	2.49	0.48
22:B0:1996:C:H5'	27:BB:139:SER:HB2	1.96	0.48
13:AL:23:LEU:C	13:AL:25:ALA:H	2.17	0.48
1:AA:895:G:H1	1:AA:904:U:H3	1.60	0.48
22:B0:669:G:O5'	28:BC:52:VAL:HB	2.12	0.48
40:BO:9:ALA:C	40:BO:11:ALA:H	2.17	0.48
41:BQ:8:ARG:O	41:BQ:9:HIS:CB	2.61	0.48
22:B0:2151:U:H5''	22:B0:2152:G:OP1	2.14	0.48
22:B0:2179:C:O3'	22:B0:2181:U:O5'	2.32	0.48
1:AA:1347:G:O2'	1:AA:1348:U:O5'	2.31	0.48
1:AA:1383:C:O2'	1:AA:1384:C:P	2.71	0.48
2:AW:76:A:H2'	22:B0:2392:A:N6	2.28	0.48
22:B0:2065:C:H2'	22:B0:2066:C:H6	1.78	0.48
22:B0:2490:G:C5'	22:B0:2491:U:OP1	2.53	0.48
22:B0:960:A:N9	22:B0:2496:C:C5'	2.76	0.48
45:BU:23:LYS:NZ	45:BU:56:HIS:HB3	2.28	0.48
1:AA:718:A:H8	12:AK:117:HIS:CA	2.27	0.48
39:BN:28:LYS:H	39:BN:28:LYS:CD	2.25	0.48
39:BN:28:LYS:HD3	39:BN:28:LYS:N	2.27	0.48
39:BN:64:SER:C	39:BN:71:ARG:HG2	2.34	0.48
2:AV:39:U:H1'	2:AW:36:A:O2'	2.13	0.48
35:BJ:118:THR:CG2	35:BJ:119:PRO:HA	2.32	0.48
35:BJ:120:VAL:HG22	35:BJ:121:THR:N	2.28	0.48
27:BB:40:LEU:N	27:BB:40:LEU:HD22	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B9:90:C:H2'	23:B9:91:C:C6	2.49	0.48
22:B0:910:A:N7	36:BK:10:ARG:NE	2.61	0.48
36:BK:91:TYR:CG	36:BK:92:TRP:N	2.82	0.48
22:B0:2351:G:H2'	22:B0:2352:A:H8	1.78	0.48
10:AI:27:ILE:HG23	10:AI:62:LEU:HB2	1.95	0.48
1:AA:1083:U:H2'	1:AA:1084:G:O4'	2.12	0.48
22:B0:2746:U:H5''	30:BE:137:LYS:HE2	1.95	0.48
24:B2:56:GLN:NE2	24:B2:202:GLN:HB2	2.28	0.48
8:AG:144:ALA:C	8:AG:146:ALA:H	2.15	0.48
3:AB:110:ILE:HD11	3:AB:147:LEU:HD22	1.95	0.48
22:B0:740:C:N4	22:B0:757:G:N1	2.62	0.48
1:AA:1306:A:H1'	1:AA:1332:A:C2	2.49	0.48
26:BA:241:LYS:O	26:BA:242:HIS:CB	2.61	0.48
38:BM:35:ILE:HD13	38:BM:35:ILE:C	2.33	0.48
22:B0:223:A:O4'	22:B0:421:C:H4'	2.13	0.48
22:B0:732:C:H41	22:B0:762:U:P	2.36	0.48
18:AQ:11:VAL:HG12	18:AQ:54:ILE:HA	1.95	0.48
18:AQ:6:THR:HA	18:AQ:60:ILE:O	2.12	0.48
48:BZ:38:LEU:HD12	48:BZ:38:LEU:H	1.78	0.48
46:BW:6:LEU:O	46:BW:14:LEU:HD21	2.13	0.48
19:AR:64:LEU:CB	19:AR:66:LEU:HD13	2.43	0.48
22:B0:1494:A:P	26:BA:143:VAL:HG11	2.54	0.48
26:BA:175:LEU:CD2	26:BA:178:GLY:H	2.25	0.48
26:BA:187:CYS:HA	26:BA:188:ARG:CZ	2.43	0.48
26:BA:139:THR:HG23	26:BA:192:GLY:HA2	1.95	0.48
1:AA:404:G:H8	1:AA:546:A:HO2'	1.54	0.48
13:AL:109:ARG:HH11	13:AL:111:GLN:HB2	1.78	0.48
22:B0:2779:U:O2	33:BH:111:LYS:HB3	2.14	0.48
22:B0:2781:A:OP1	22:B0:2781:A:H3'	2.14	0.48
22:B0:1227:G:H2'	22:B0:1228:G:H8	1.79	0.48
22:B0:776:G:C3'	22:B0:777:G:H5''	2.44	0.48
28:BC:56:GLY:O	28:BC:57:LYS:HB3	2.14	0.48
28:BC:87:ALA:O	28:BC:88:ARG:HG3	2.14	0.48
2:AW:52:U:H2'	2:AW:53:G:C8	2.48	0.48
22:B0:2161:C:C6	24:B2:5:LYS:HB3	2.49	0.48
1:AA:1342:C:H2'	1:AA:1343:G:H8	1.76	0.48
22:B0:501:A:O2'	22:B0:502:A:OP1	2.29	0.48
36:BK:75:GLU:HB2	36:BK:90:GLU:OE1	2.14	0.48
22:B0:2243:U:C5'	22:B0:2244:U:OP1	2.59	0.48
22:B0:784:G:H4'	22:B0:785:G:O5'	2.14	0.48
41:BQ:66:ILE:HA	41:BQ:69:LEU:CD2	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:B1:42:VAL:HG22	49:B1:43:ARG:HD2	1.95	0.48
22:B0:977:G:H2'	22:B0:978:G:H8	1.78	0.48
29:BD:7:TYR:HA	29:BD:11:VAL:CG1	2.43	0.48
22:B0:386:G:N2	22:B0:411:G:H22	2.08	0.48
22:B0:863:A:H2	22:B0:915:C:H42	1.61	0.48
22:B0:918:A:N6	22:B0:2268:A:C8	2.69	0.48
1:AA:1381:U:O2	8:AG:78:ARG:HD3	2.13	0.48
4:AC:6:PRO:O	4:AC:9:ILE:HG22	2.13	0.48
22:B0:531:C:H1'	22:B0:532:A:N1	2.28	0.48
13:AL:56:LEU:HD11	13:AL:81:ILE:CG1	2.44	0.48
22:B0:1084:A:N7	25:B3:82:GLU:HA	2.28	0.48
22:B0:853:C:O2	22:B0:925:A:N1	2.47	0.48
22:B0:1565:C:O2	22:B0:1568:G:N2	2.47	0.48
1:AA:925:G:N3	1:AA:1502:A:H1'	2.28	0.48
22:B0:2088:A:H2'	22:B0:2089:C:C6	2.49	0.48
1:AA:1267:C:C6	1:AA:1327:C:H5''	2.49	0.48
22:B0:195:A:P	22:B0:196:A:H4'	2.54	0.48
45:BU:48:ALA:HB1	45:BU:76:ARG:HH21	1.78	0.48
22:B0:1653:G:O6	37:BL:8:ARG:NH1	2.47	0.48
22:B0:1056:G:H5''	22:B0:1057:A:O4'	2.13	0.48
18:AQ:58:VAL:HG12	18:AQ:77:VAL:HG22	1.95	0.48
18:AQ:81:ALA:O	18:AQ:82:VAL:HG13	2.14	0.48
22:B0:1229:C:H2'	22:B0:1230:A:C8	2.47	0.48
1:AA:1308:U:H2'	1:AA:1309:G:C8	2.48	0.48
10:AI:90:ASP:HB3	10:AI:93:LEU:HG	1.96	0.48
22:B0:2832:U:O2'	22:B0:2833:U:OP2	2.29	0.48
22:B0:1530:C:H2'	22:B0:1531:U:C6	2.47	0.48
25:B5:64:ASN:HB3	25:B5:67:ALA:HB3	1.95	0.48
22:B0:1292:G:H2'	22:B0:1293:C:C6	2.49	0.48
22:B0:1494:A:N6	26:BA:188:ARG:CG	2.77	0.48
22:B0:1496:A:C5'	26:BA:190:THR:HG23	2.44	0.48
26:BA:195:GLY:O	26:BA:196:ASN:HB3	2.13	0.48
13:AL:23:LEU:HD11	13:AL:60:PHE:CE1	2.49	0.48
22:B0:750:A:OP2	22:B0:750:A:H8	1.97	0.48
22:B0:800:A:H4'	22:B0:801:G:O5'	2.12	0.48
22:B0:802:A:H2'	22:B0:803:U:C6	2.49	0.48
28:BC:32:VAL:HB	35:BJ:17:LYS:CE	2.43	0.48
35:BJ:17:LYS:C	35:BJ:18:ARG:NE	2.67	0.48
35:BJ:26:GLY:O	35:BJ:27:LEU:C	2.50	0.48
22:B0:2164:C:H1'	22:B0:2165:C:H1'	1.95	0.48
27:BB:123:LYS:CA	27:BB:141:ARG:HH21	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BS:11:ILE:CD1	43:BS:21:ARG:HG2	2.43	0.48
22:B0:961:C:C2'	22:B0:2497:A:O2'	2.49	0.48
42:BR:10:VAL:HG13	42:BR:35:ALA:CB	2.39	0.48
2:AU:52:U:H2'	2:AU:53:G:C8	2.49	0.48
1:AA:1316:G:H2'	1:AA:1318:A:OP2	2.13	0.48
19:AR:58:ILE:HG22	19:AR:62:ARG:NH1	2.23	0.48
39:BN:6:GLN:C	39:BN:9:GLN:HE22	2.17	0.48
22:B0:2077:A:N6	22:B0:2241:A:N1	2.61	0.48
39:BN:76:HIS:O	39:BN:79:VAL:HB	2.13	0.48
25:B5:107:LYS:HG2	25:B5:111:GLU:OE2	2.13	0.48
32:BG:59:THR:HG23	32:BG:60:VAL:N	2.28	0.48
40:BO:99:VAL:HG13	40:BO:100:PHE:CD1	2.48	0.48
24:B2:176:LYS:HB2	24:B2:179:PHE:CE1	2.48	0.48
22:B0:1969:A:OP1	22:B0:1971:U:H5	1.97	0.48
10:AI:46:VAL:HA	10:AI:49:GLN:CG	2.42	0.48
1:AA:371:A:H61	1:AA:388:G:H1'	1.79	0.48
22:B0:2515:C:C4	27:BB:152:PRO:HB2	2.48	0.48
5:AD:138:PRO:HA	5:AD:181:PHE:O	2.14	0.48
1:AA:872:A:O2'	1:AA:874:G:OP2	2.26	0.48
22:B0:822:G:H22	22:B0:2357:G:H22	1.60	0.48
37:BL:83:LEU:HD12	37:BL:83:LEU:N	2.28	0.48
25:B3:16:VAL:HB	25:B3:53:GLU:N	2.29	0.48
22:B0:2783:U:H2'	22:B0:2784:U:C6	2.49	0.48
6:AE:131:ASN:O	6:AE:135:VAL:HG13	2.13	0.48
1:AA:607:A:OP1	1:AA:608:A:OP2	2.32	0.48
22:B0:2873:A:H1'	37:BL:5:LYS:HD3	1.95	0.48
22:B0:1398:C:H6	22:B0:1398:C:O5'	1.95	0.48
18:AQ:77:VAL:HG12	18:AQ:79:GLU:O	2.14	0.48
8:AG:74:VAL:CG1	8:AG:85:GLN:HB3	2.43	0.48
9:AH:100:ILE:HB	9:AH:111:THR:OG1	2.13	0.48
19:AR:64:LEU:HB2	19:AR:66:LEU:HD13	1.94	0.48
3:AB:161:PHE:HA	3:AB:183:PHE:O	2.13	0.48
1:AA:56:U:H2'	1:AA:57:G:C8	2.49	0.48
22:B0:1954:G:H2'	22:B0:1956:U:C5	2.49	0.48
1:AA:88:U:H2'	1:AA:89:U:O4'	2.13	0.48
22:B0:1582:C:H2'	26:BA:97:ASP:H	1.79	0.48
22:B0:1578:U:O3'	26:BA:65:ASP:CA	2.61	0.48
33:BH:109:LEU:N	33:BH:110:PRO:CA	2.77	0.48
33:BH:14:ASP:HA	33:BH:138:GLN:NE2	2.29	0.48
22:B0:2640:G:O5'	33:BH:78:THR:HG23	2.14	0.48
22:B0:1186:G:H21	22:B0:1187:G:H1'	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BC:150:THR:HG22	28:BC:186:VAL:HA	1.96	0.48
22:B0:669:G:H22	28:BC:74:LYS:HB2	1.78	0.48
40:BO:31:TYR:HB2	40:BO:32:ARG:NH1	2.28	0.48
22:B0:493:G:H5'	22:B0:494:G:OP2	2.14	0.48
1:AA:718:A:H8	12:AK:117:HIS:N	2.12	0.48
1:AA:717:U:O2'	12:AK:117:HIS:HB3	2.14	0.48
39:BN:96:LEU:H	39:BN:96:LEU:CD1	2.17	0.48
42:BR:82:LYS:HE2	42:BR:84:TYR:CE1	2.49	0.48
42:BR:11:LEU:CD1	46:BW:29:ARG:HD3	2.44	0.48
22:B0:634:C:H2'	22:B0:635:C:H6	1.79	0.48
37:BL:43:GLU:OE1	37:BL:44:LEU:N	2.46	0.48
22:B0:1002:G:C6	22:B0:1154:G:N2	2.82	0.48
40:BO:56:PHE:O	40:BO:58:GLN:HG3	2.13	0.48
40:BO:59:LEU:O	40:BO:61:ILE:HG12	2.14	0.48
7:AF:8:PHE:HB3	7:AF:60:VAL:HG21	1.96	0.48
1:AA:1528:U:C5'	1:AA:1529:G:OP1	2.52	0.48
1:AA:908:A:H2'	1:AA:909:A:C8	2.47	0.48
16:AO:56:LEU:HB3	16:AO:57:ARG:HH11	1.79	0.48
22:B0:1655:A:H3'	22:B0:1656:C:H6	1.77	0.48
25:B3:73:ARG:NE	25:B3:80:LEU:HA	2.24	0.48
22:B0:2320:U:H5''	22:B0:2321:U:OP1	2.14	0.48
1:AA:820:U:H5''	1:AA:821:G:OP2	2.14	0.48
22:B0:855:G:N2	22:B0:922:C:N3	2.60	0.48
29:BD:32:LYS:HA	29:BD:91:ARG:HG2	1.95	0.48
22:B0:1288:G:H8	22:B0:1288:G:O5'	1.97	0.48
23:B9:66:A:C2'	23:B9:67:G:OP2	2.61	0.48
30:BE:86:LEU:HD12	30:BE:86:LEU:N	2.28	0.48
22:B0:95:A:H2'	22:B0:96:C:C6	2.49	0.48
1:AA:736:C:H2'	1:AA:737:C:C6	2.49	0.48
35:BJ:80:SER:HB3	35:BJ:112:LEU:HD23	1.96	0.48
22:B0:1423:A:H2	22:B0:1576:U:H1'	1.79	0.48
26:BA:171:VAL:CG2	26:BA:172:THR:H	2.25	0.48
26:BA:140:VAL:HA	26:BA:190:THR:O	2.14	0.48
22:B0:586:A:C5'	28:BC:78:TRP:HA	2.44	0.48
22:B0:2115:G:O4'	22:B0:2168:G:H1'	2.13	0.48
27:BB:123:LYS:H	27:BB:141:ARG:HE	1.60	0.48
22:B0:956:G:O2'	36:BK:81:ARG:HA	2.13	0.48
1:AA:982:U:H4'	1:AA:983:A:O4'	2.14	0.48
1:AA:1302:C:H5	14:AM:13:HIS:HB2	1.78	0.48
39:BN:47:ILE:HG21	39:BN:61:ARG:CZ	2.44	0.48
37:BL:30:ARG:HB3	37:BL:30:ARG:NH1	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AT:66:ILE:HD11	21:AT:70:LYS:HG2	1.94	0.48
25:B5:54:PHE:CE2	25:B5:100:LYS:HD3	2.49	0.48
22:B0:1376:C:H2'	22:B0:1377:G:C8	2.49	0.48
22:B0:2269:G:H2'	22:B0:2270:A:O4'	2.13	0.48
45:BU:39:GLN:HB2	45:BU:68:PHE:HD1	1.79	0.48
1:AA:1089:G:N2	1:AA:1090:U:H1'	2.28	0.48
22:B0:2513:A:H2'	22:B0:2514:U:C6	2.49	0.48
17:AP:56:ARG:NH1	17:AP:60:TRP:HE1	2.12	0.48
13:AL:30:ARG:HH22	13:AL:78:VAL:CG1	2.26	0.48
22:B0:2685:G:H2'	22:B0:2686:G:H8	1.79	0.48
25:B3:64:ASN:HB3	25:B3:67:ALA:HB3	1.94	0.48
25:B3:58:LEU:CD2	25:B3:87:VAL:HG13	2.43	0.48
22:B0:1799:G:C8	22:B0:1819:A:N6	2.82	0.48
22:B0:2884:U:N3	48:BZ:51:ARG:NH1	2.62	0.48
22:B0:226:A:O2'	22:B0:227:A:P	2.72	0.48
22:B0:608:A:H2'	22:B0:609:A:H8	1.77	0.48
9:AH:6:ILE:HD13	9:AH:32:LYS:CE	2.43	0.48
30:BE:5:LYS:HA	30:BE:51:PHE:O	2.14	0.48
22:B0:1213:A:H61	22:B0:1236:G:H4'	1.78	0.48
22:B0:1890:A:H2	22:B0:2234:G:H21	1.61	0.48
5:AD:90:LEU:N	5:AD:90:LEU:HD12	2.29	0.48
1:AA:9:G:H2'	1:AA:10:A:H8	1.79	0.48
22:B0:2212:A:H2'	22:B0:2213:U:O4'	2.14	0.48
5:AD:102:TYR:CE1	5:AD:109:THR:HA	2.48	0.48
19:AR:23:LYS:NZ	19:AR:64:LEU:HD13	2.28	0.48
32:BG:4:VAL:O	32:BG:4:VAL:HG23	2.14	0.48
8:AG:135:LYS:HD2	8:AG:135:LYS:O	2.13	0.48
1:AA:525:C:H2'	1:AA:526:C:C6	2.48	0.48
22:B0:690:G:H2'	22:B0:691:C:C6	2.49	0.48
24:B2:113:VAL:O	24:B2:137:PRO:HG3	2.13	0.48
27:BB:96:ILE:HB	27:BB:98:VAL:HG22	1.95	0.48
1:AA:1533:C:O2'	1:AA:1534:A:H5'	2.14	0.48
22:B0:2588:G:H2'	22:B0:2589:A:O4'	2.14	0.48
29:BD:103:ILE:HG21	29:BD:173:ASP:HA	1.95	0.48
2:AW:30:G:H2'	2:AW:31:A:H8	1.79	0.48
22:B0:1668:A:H4'	22:B0:1669:A:O5'	2.13	0.48
1:AA:549:C:C4	1:AA:550:G:N7	2.82	0.48
33:BH:20:ALA:CB	33:BH:56:VAL:HG13	2.44	0.48
22:B0:1204:A:H2'	22:B0:1206:G:O4'	2.14	0.48
22:B0:662:G:C2	22:B0:663:G:N7	2.82	0.48
35:BJ:21:ARG:O	35:BJ:23:ILE:N	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:992:C:H4'	40:BO:47:ARG:HD3	1.96	0.48
41:BQ:50:VAL:HA	41:BQ:53:SER:OG	2.14	0.48
22:B0:2109:U:O2'	22:B0:2110:G:P	2.72	0.48
22:B0:2116:G:OP1	22:B0:2117:A:H4'	2.14	0.48
22:B0:2677:G:C2	27:BB:125:TRP:HE3	2.31	0.48
43:BS:11:ILE:HB	43:BS:70:ALA:HB3	1.95	0.48
24:B2:46:ASN:HB3	24:B2:209:LYS:HB2	1.96	0.48
42:BR:23:ALA:C	42:BR:25:GLU:H	2.18	0.48
42:BR:49:LYS:HB3	42:BR:50:LEU:HD12	1.95	0.48
42:BR:48:GLN:HA	42:BR:53:VAL:O	2.14	0.48
32:BG:67:THR:HG22	32:BG:68:PHE:H	1.79	0.48
24:B2:213:ILE:O	24:B2:213:ILE:HG23	2.14	0.48
45:BU:69:GLU:HA	45:BU:73:PRO:CB	2.43	0.48
11:AJ:100:ILE:OXT	11:AJ:100:ILE:HG12	2.14	0.48
27:BB:181:ASP:O	27:BB:182:ALA:HB2	2.14	0.48
1:AA:1095:U:H2'	1:AA:1096:C:C6	2.49	0.48
1:AA:1222:G:O2'	1:AA:1223:C:H5'	2.14	0.48
1:AA:960:U:O2	1:AA:1223:C:H4'	2.14	0.48
8:AG:148:LYS:CG	12:AK:60:PHE:HE1	2.25	0.48
4:AC:6:PRO:HA	4:AC:9:ILE:HG22	1.96	0.48
22:B0:1822:C:H2'	22:B0:1823:G:H8	1.77	0.48
1:AA:1053:G:H1'	1:AA:1056:U:H5	1.79	0.48
22:B0:496:G:H2'	22:B0:497:A:O4'	2.13	0.48
19:AR:11:ARG:HG2	19:AR:44:THR:O	2.14	0.48
20:AS:35:ARG:NH2	20:AS:52:ASN:HA	2.28	0.48
42:BR:18:GLU:O	42:BR:19:LYS:HB2	2.14	0.48
7:AF:75:GLU:CB	7:AF:79:ARG:HH12	2.27	0.48
22:B0:395:U:H2'	22:B0:396:G:C8	2.49	0.48
29:BD:144:LYS:HD2	29:BD:144:LYS:C	2.33	0.48
18:AQ:13:SER:HB3	18:AQ:21:VAL:HG22	1.96	0.48
22:B0:2618:G:H2'	22:B0:2619:C:C6	2.49	0.48
22:B0:2355:G:H5''	45:BU:18:LYS:HE2	1.95	0.48
1:AA:399:G:H2'	1:AA:400:C:C6	2.49	0.47
5:AD:64:TYR:HA	5:AD:110:ARG:CD	2.43	0.47
22:B0:2042:A:H3'	22:B0:2779:U:O4	2.14	0.47
28:BC:158:PHE:CZ	28:BC:160:ALA:HB3	2.49	0.47
22:B0:1246:A:H5''	35:BJ:25:SER:HA	1.96	0.47
22:B0:481:G:C5	22:B0:507:A:H1'	2.49	0.47
22:B0:508:A:C4'	22:B0:509:C:O5'	2.60	0.47
5:AD:43:ARG:O	5:AD:45:PRO:HD3	2.13	0.47
1:AA:1302:C:O2'	1:AA:1303:C:H5'	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1303:C:OP2	1:AA:1304:G:N7	2.46	0.47
22:B0:2176:A:OP1	24:B2:166:LYS:N	2.46	0.47
39:BN:48:ALA:O	39:BN:61:ARG:NH1	2.47	0.47
22:B0:1341:G:H5''	22:B0:1602:U:O4	2.14	0.47
21:AT:19:HIS:O	21:AT:23:ARG:HD3	2.14	0.47
22:B0:1046:A:O2'	22:B0:1047:G:OP2	2.32	0.47
24:B2:26:ILE:CG2	24:B2:181:ALA:HA	2.43	0.47
22:B0:2856:A:O5'	22:B0:2857:G:OP2	2.32	0.47
8:AG:78:ARG:HD3	8:AG:78:ARG:H	1.78	0.47
22:B0:1085:A:H62	25:B3:81:LYS:HB2	1.78	0.47
22:B0:2321:U:O2	22:B0:2321:U:C2'	2.62	0.47
36:BK:14:LYS:CG	36:BK:15:GLY:H	2.21	0.47
22:B0:2472:G:H21	22:B0:2529:G:H22	1.60	0.47
22:B0:617:G:C3'	22:B0:617:G:N3	2.75	0.47
9:AH:76:ARG:HG2	9:AH:126:CYS:HB3	1.96	0.47
25:B3:17:MET:HA	25:B3:20:VAL:HB	1.96	0.47
25:B3:23:ILE:HD12	25:B3:23:ILE:C	2.35	0.47
22:B0:1087:G:N7	22:B0:1089:A:H1'	2.29	0.47
29:BD:25:MET:C	29:BD:27:VAL:H	2.17	0.47
22:B0:2732:G:H3'	22:B0:2732:G:N3	2.28	0.47
30:BE:127:GLN:HG3	30:BE:129:GLU:H	1.79	0.47
17:AP:28:ARG:C	17:AP:29:ASN:HD22	2.17	0.47
16:AO:66:LEU:HB3	16:AO:77:TYR:HE1	1.78	0.47
2:AU:70:C:H2'	2:AU:71:G:C8	2.49	0.47
4:AC:190:THR:HG21	4:AC:192:TYR:CE2	2.49	0.47
23:B9:112:G:H2'	23:B9:113:C:C6	2.49	0.47
22:B0:2537:U:H2'	22:B0:2538:C:C6	2.49	0.47
25:B3:66:VAL:O	25:B3:70:LYS:HG3	2.14	0.47
9:AH:28:SER:HB2	9:AH:56:PRO:HB2	1.94	0.47
24:B2:224:ASP:OD2	24:B2:226:ALA:HB3	2.14	0.47
27:BB:50:VAL:HG12	27:BB:51:THR:HG23	1.95	0.47
22:B0:1578:U:C2'	26:BA:66:PHE:N	2.77	0.47
26:BA:183:VAL:O	26:BA:184:GLU:O	2.32	0.47
22:B0:1495:A:O5'	26:BA:191:LEU:N	2.47	0.47
1:AA:545:C:C2'	1:AA:546:A:H5'	2.44	0.47
1:AA:547:A:O2'	1:AA:548:G:C8	2.66	0.47
22:B0:1193:G:H2'	22:B0:1194:A:C8	2.48	0.47
22:B0:323:C:N3	28:BC:163:ASN:HB2	2.27	0.47
22:B0:680:C:H2'	22:B0:681:G:C8	2.49	0.47
28:BC:155:GLU:HG3	28:BC:156:ASN:N	2.29	0.47
28:BC:151:GLY:HA2	28:BC:187:VAL:HG13	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BC:23:PHE:CE1	28:BC:28:VAL:HG11	2.50	0.47
28:BC:46:GLN:O	28:BC:47:LYS:HD2	2.14	0.47
28:BC:73:ILE:HA	28:BC:80:SER:O	2.14	0.47
22:B0:1201:U:N1	35:BJ:14:LYS:HE3	2.29	0.47
22:B0:2126:A:OP2	22:B0:2172:U:C6	2.66	0.47
43:BS:10:VAL:CG1	43:BS:69:VAL:HB	2.44	0.47
2:AV:16:U:P	2:AV:16:U:H6	2.37	0.47
22:B0:2075:U:H6	22:B0:2075:U:H5'	1.79	0.47
22:B0:2438:U:H4'	22:B0:2600:A:C5'	2.44	0.47
39:BN:24:THR:HG22	39:BN:49:ILE:HD11	1.96	0.47
1:AA:1408:A:O2'	1:AA:1409:C:H5'	2.14	0.47
42:BR:73:ARG:HD2	42:BR:75:GLY:N	2.29	0.47
22:B0:626:A:H3'	22:B0:627:A:C5'	2.43	0.47
1:AA:175:C:H2'	1:AA:176:C:C6	2.49	0.47
22:B0:121:G:C6	22:B0:140:C:O2	2.67	0.47
36:BK:8:LYS:O	36:BK:9:PHE:HB3	2.14	0.47
22:B0:2327:A:N3	45:BU:10:ARG:NH1	2.61	0.47
22:B0:1062:G:H2'	22:B0:1063:G:C8	2.49	0.47
22:B0:720:U:H2'	22:B0:721:A:C8	2.49	0.47
25:B3:7:ILE:O	25:B3:11:VAL:HG23	2.13	0.47
1:AA:655:A:H2	1:AA:754:C:N3	2.12	0.47
40:BO:106:THR:C	40:BO:108:LEU:H	2.18	0.47
22:B0:2787:C:H4'	22:B0:2811:G:O4'	2.14	0.47
23:B9:99:A:H2'	23:B9:100:G:C5'	2.45	0.47
47:BX:24:LEU:CD2	47:BX:29:ARG:HG2	2.44	0.47
22:B0:84:A:H5''	22:B0:85:G:OP1	2.14	0.47
18:AQ:43:LEU:HD22	18:AQ:72:TRP:CZ3	2.49	0.47
1:AA:115:G:O2'	1:AA:116:A:P	2.72	0.47
34:BI:2:ILE:HB	34:BI:33:ALA:O	2.13	0.47
1:AA:8:A:H1'	6:AE:107:GLY:HA2	1.94	0.47
23:B9:108:A:O2'	23:B9:109:A:OP2	2.32	0.47
13:AL:115:LYS:C	13:AL:117:GLY:H	2.18	0.47
11:AJ:5:ARG:C	11:AJ:6:ILE:HD12	2.34	0.47
32:BG:126:ARG:HG3	32:BG:126:ARG:O	2.14	0.47
22:B0:1502:C:H2'	22:B0:1503:G:C8	2.48	0.47
22:B0:2086:U:H2'	22:B0:2087:G:H8	1.78	0.47
22:B0:2418:A:H2'	22:B0:2419:U:C6	2.49	0.47
38:BM:48:LEU:HD12	38:BM:48:LEU:N	2.29	0.47
33:BH:21:THR:HB	33:BH:57:LEU:HD23	1.96	0.47
22:B0:1165:A:H61	22:B0:1184:U:H1'	1.79	0.47
22:B0:1016:G:H2'	22:B0:1017:G:H8	1.77	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1493:A:P	26:BA:143:VAL:HG23	2.55	0.47
22:B0:1418:G:O6	26:BA:101:ARG:NE	2.47	0.47
22:B0:1495:A:O2'	26:BA:128:THR:HG22	2.14	0.47
22:B0:1580:A:OP2	26:BA:68:ARG:NE	2.47	0.47
40:BO:18:LYS:HD2	40:BO:18:LYS:O	2.14	0.47
41:BQ:16:LYS:HZ1	41:BQ:18:ARG:HH12	1.60	0.47
22:B0:2164:C:H4'	22:B0:2165:C:C4'	2.44	0.47
22:B0:2180:U:OP2	22:B0:2181:U:H5''	2.14	0.47
22:B0:960:A:N6	22:B0:2251:G:H5'	2.29	0.47
22:B0:1456:G:OP1	37:BL:63:ARG:NE	2.47	0.47
22:B0:2296:U:C5'	22:B0:2297:A:OP1	2.60	0.47
46:BW:28:LEU:O	46:BW:29:ARG:C	2.51	0.47
37:BL:38:LEU:C	37:BL:40:LYS:H	2.16	0.47
45:BU:30:VAL:HG22	45:BU:31:LEU:CD2	2.33	0.47
22:B0:1040:A:H2	22:B0:1115:G:N1	2.12	0.47
24:B2:38:VAL:HG13	24:B2:38:VAL:O	2.14	0.47
22:B0:129:C:N3	22:B0:130:C:N4	2.61	0.47
5:AD:170:LEU:HD23	5:AD:181:PHE:HA	1.95	0.47
8:AG:20:GLU:O	8:AG:24:LYS:HG3	2.13	0.47
35:BJ:60:ARG:CB	35:BJ:60:ARG:HH11	2.27	0.47
47:BX:40:THR:HB	47:BX:43:ILE:HG13	1.97	0.47
28:BC:5:LEU:HG	28:BC:120:VAL:CG1	2.45	0.47
22:B0:1358:G:H2'	22:B0:1359:A:H8	1.78	0.47
1:AA:48:C:O2'	1:AA:49:U:P	2.72	0.47
35:BJ:134:ALA:O	35:BJ:135:ILE:C	2.53	0.47
38:BM:97:PHE:CE2	38:BM:101:GLY:HA3	2.49	0.47
1:AA:225:C:H2'	1:AA:226:G:H8	1.79	0.47
1:AA:57:G:H2'	1:AA:58:C:C6	2.49	0.47
38:BM:102:ARG:N	38:BM:102:ARG:HD2	2.28	0.47
1:AA:1524:C:H2'	1:AA:1525:G:C8	2.49	0.47
34:BI:47:ILE:HG23	34:BI:47:ILE:O	2.15	0.47
1:AA:294:U:O5'	1:AA:294:U:H6	1.97	0.47
22:B0:1006:C:H42	22:B0:1137:G:H1	1.61	0.47
9:AH:87:ARG:HB2	9:AH:87:ARG:HH11	1.79	0.47
1:AA:166:U:H2'	1:AA:167:A:H8	1.80	0.47
22:B0:1710:G:H2'	22:B0:1711:A:C8	2.49	0.47
38:BM:24:THR:HG23	38:BM:90:VAL:HG23	1.96	0.47
22:B0:2741:A:H2'	22:B0:2742:G:O4'	2.14	0.47
22:B0:2113:U:H5'	22:B0:2114:A:OP2	2.13	0.47
22:B0:742:A:H2'	22:B0:743:A:C8	2.49	0.47
22:B0:1427:A:H61	26:BA:58:LYS:HG3	1.76	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1494:A:C6	26:BA:131:MET:HA	2.49	0.47
22:B0:1496:A:N7	26:BA:141:HIS:ND1	2.62	0.47
13:AL:109:ARG:CB	13:AL:118:VAL:HG21	2.44	0.47
22:B0:1611:C:N4	22:B0:1612:C:N4	2.63	0.47
28:BC:23:PHE:HE1	28:BC:28:VAL:HG11	1.78	0.47
22:B0:2121:G:H1	22:B0:2178:C:N4	2.00	0.47
22:B0:2679:A:O3'	27:BB:116:LYS:HE2	2.14	0.47
22:B0:2592:G:H2'	22:B0:2593:U:C6	2.49	0.47
22:B0:2074:U:H2'	22:B0:2075:U:H5''	1.97	0.47
24:B2:191:LEU:HD13	24:B2:191:LEU:C	2.35	0.47
24:B2:46:ASN:O	24:B2:208:ILE:HA	2.14	0.47
22:B0:2323:G:H21	22:B0:2337:G:C5'	2.27	0.47
37:BL:100:CYS:HB3	37:BL:111:ALA:HA	1.97	0.47
1:AA:60:A:O2'	1:AA:61:G:OP2	2.33	0.47
6:AE:55:VAL:N	6:AE:56:PRO:HD2	2.29	0.47
22:B0:2363:G:H2'	22:B0:2364:C:C6	2.49	0.47
7:AF:10:VAL:HG22	7:AF:11:HIS:H	1.79	0.47
1:AA:1380:U:C2'	1:AA:1381:U:OP2	2.62	0.47
1:AA:726:C:O2'	1:AA:727:G:H5'	2.13	0.47
33:BH:84:ILE:HD13	33:BH:84:ILE:N	2.18	0.47
49:B1:35:LEU:HB3	49:B1:36:LYS:CE	2.44	0.47
27:BB:8:LYS:HA	27:BB:27:ILE:CD1	2.45	0.47
22:B0:2049:G:O2'	22:B0:2050:C:P	2.72	0.47
1:AA:812:G:O2'	1:AA:813:U:P	2.72	0.47
22:B0:2887:A:O2'	22:B0:2888:C:H5'	2.14	0.47
9:AH:26:MET:HE1	9:AH:27:PRO:HG2	1.95	0.47
46:BW:35:GLY:CA	46:BW:38:GLN:HE22	2.27	0.47
22:B0:1567:G:H4'	22:B0:1568:G:N3	2.30	0.47
22:B0:1005:C:C5	22:B0:1143:A:H1'	2.49	0.47
40:BO:102:LYS:H	40:BO:102:LYS:CD	2.27	0.47
3:AB:212:TYR:O	3:AB:216:VAL:HG12	2.15	0.47
10:AI:87:MET:HE2	10:AI:94:ARG:NE	2.29	0.47
22:B0:347:A:H2'	22:B0:348:A:H8	1.77	0.47
6:AE:45:VAL:HG12	6:AE:46:GLY:N	2.29	0.47
1:AA:1352:C:H2'	1:AA:1353:G:H8	1.80	0.47
23:B9:68:C:H2'	23:B9:69:G:C8	2.49	0.47
1:AA:1513:A:H2'	1:AA:1514:G:C8	2.49	0.47
36:BK:37:GLY:H	36:BK:98:PRO:HA	1.78	0.47
24:B2:97:GLU:OE1	24:B2:122:VAL:HG11	2.14	0.47
1:AA:477:C:H2'	1:AA:478:A:H8	1.78	0.47
2:AU:40:C:H2'	2:AU:41:U:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:2779:U:O2'	22:B0:2780:G:P	2.70	0.47
33:BH:30:THR:O	33:BH:31:GLU:HB2	2.15	0.47
22:B0:750:A:O2'	22:B0:751:A:O5'	2.31	0.47
28:BC:141:MET:O	28:BC:143:LEU:HD23	2.14	0.47
22:B0:1246:A:C5'	35:BJ:26:GLY:N	2.76	0.47
40:BO:16:ILE:O	40:BO:17:LEU:HB2	2.13	0.47
41:BQ:85:ILE:O	41:BQ:87:PRO:HD3	2.14	0.47
22:B0:493:G:C5'	41:BQ:9:HIS:N	2.68	0.47
22:B0:2150:C:O3'	22:B0:2151:U:O4'	2.32	0.47
22:B0:479:A:C3'	22:B0:480:A:H5''	2.44	0.47
22:B0:481:G:H4'	22:B0:506:G:N2	2.22	0.47
22:B0:329:G:N1	43:BS:65:GLN:OE1	2.47	0.47
22:B0:959:A:OP2	36:BK:80:VAL:CG2	2.62	0.47
29:BD:134:GLN:C	29:BD:135:ILE:HD12	2.35	0.47
2:AV:53:G:H1	2:AV:61:C:H42	1.61	0.47
22:B0:2073:C:N3	22:B0:2437:G:N2	2.63	0.47
41:BQ:110:ARG:HA	41:BQ:110:ARG:CZ	2.44	0.47
2:AW:35:A:H2'	2:AW:36:A:H8	1.79	0.47
42:BR:67:VAL:HG13	42:BR:76:ARG:H	1.80	0.47
1:AA:558:G:H2'	1:AA:559:A:C2	2.49	0.47
2:AU:75:C:H2'	22:B0:2559:C:N4	2.30	0.47
17:AP:35:ARG:CD	17:AP:35:ARG:H	2.23	0.47
22:B0:271:G:O6	22:B0:366:C:N3	2.48	0.47
16:AO:42:PHE:HZ	16:AO:52:ARG:HA	1.79	0.47
16:AO:56:LEU:C	16:AO:56:LEU:HD13	2.35	0.47
8:AG:38:ALA:O	8:AG:42:VAL:HG23	2.14	0.47
22:B0:1299:G:H1'	22:B0:1301:A:C2	2.49	0.47
22:B0:165:A:C5'	22:B0:172:A:OP1	2.59	0.47
14:AM:80:MET:HG3	14:AM:91:ARG:HE	1.78	0.47
1:AA:1198:G:H2'	1:AA:1199:U:C6	2.49	0.47
39:BN:37:LYS:HD2	39:BN:39:LEU:HB2	1.96	0.47
26:BA:181:ARG:HA	26:BA:181:ARG:NE	2.25	0.47
22:B0:221:A:HO2'	22:B0:222:A:P	2.38	0.47
23:B9:102:G:H2'	23:B9:103:U:C6	2.49	0.47
18:AQ:43:LEU:HD22	18:AQ:72:TRP:CH2	2.50	0.47
19:AR:35:SER:HB2	19:AR:37:LYS:HZ3	1.79	0.47
3:AB:140:LEU:O	3:AB:144:GLU:HG3	2.15	0.47
36:BK:31:PHE:CD2	36:BK:106:ASP:HA	2.49	0.47
4:AC:29:ALA:CB	15:AN:99:SER:HB3	2.44	0.47
30:BE:132:LEU:N	30:BE:132:LEU:HD12	2.29	0.47
3:AB:113:LEU:O	3:AB:117:GLU:HG3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1484:U:OP1	26:BA:84:PRO:HB3	2.14	0.47
22:B0:1948:G:O2'	22:B0:1949:G:H5'	2.14	0.47
14:AM:115:ILE:HG13	14:AM:115:ILE:OXT	2.14	0.47
2:AW:32:C:H2'	2:AW:33:U:C6	2.48	0.47
1:AA:545:C:HO2'	1:AA:549:C:C4'	2.25	0.47
33:BH:31:GLU:HA	33:BH:34:ARG:HG2	1.95	0.47
22:B0:1225:G:O2'	22:B0:1226:A:P	2.72	0.47
22:B0:535:G:H2'	22:B0:536:G:H8	1.80	0.47
40:BO:47:ARG:HA	40:BO:47:ARG:NE	2.30	0.47
22:B0:2180:U:OP2	22:B0:2181:U:H6	1.96	0.47
22:B0:2131:U:H3'	24:B2:7:MET:HE1	1.97	0.47
22:B0:2678:C:P	27:BB:125:TRP:HB2	2.54	0.47
22:B0:959:A:O5'	36:BK:79:ALA:O	2.32	0.47
22:B0:958:U:O5'	36:BK:80:VAL:HG23	2.14	0.47
1:AA:421:U:C4	5:AD:43:ARG:CB	2.98	0.47
22:B0:1940:U:O2'	22:B0:1941:C:H6	1.98	0.47
22:B0:837:C:C4	22:B0:941:A:N6	2.83	0.47
22:B0:837:C:N4	22:B0:941:A:N6	2.63	0.47
39:BN:27:VAL:HG23	39:BN:27:VAL:O	2.15	0.47
42:BR:9:LYS:O	46:BW:29:ARG:NH2	2.48	0.47
40:BO:54:ARG:HG3	40:BO:54:ARG:HH11	1.80	0.47
25:B3:41:ALA:C	25:B3:44:PRO:HD2	2.34	0.47
22:B0:50:U:H4'	22:B0:51:G:OP2	2.14	0.47
1:AA:1413:A:H2'	1:AA:1414:U:C6	2.50	0.47
22:B0:1076:C:O2'	32:BG:91:LYS:HB2	2.14	0.47
40:BO:103:VAL:C	40:BO:105:PHE:H	2.18	0.47
3:AB:186:VAL:HG21	3:AB:190:SER:HB3	1.95	0.47
36:BK:86:LYS:HE2	36:BK:86:LYS:CA	2.44	0.47
43:BS:3:LYS:HB2	43:BS:5:ARG:HH12	1.79	0.47
4:AC:86:LEU:O	4:AC:90:VAL:HG23	2.14	0.47
22:B0:2654:A:H1'	22:B0:2656:U:C2	2.49	0.47
5:AD:10:LEU:HD22	5:AD:62:ARG:NH1	2.29	0.47
8:AG:130:LYS:N	8:AG:134:VAL:HG21	2.29	0.47
12:AK:41:LEU:HD22	12:AK:41:LEU:N	2.30	0.47
22:B0:1549:A:H2'	22:B0:1550:C:C6	2.49	0.47
3:AB:34:ARG:HB3	3:AB:34:ARG:NH1	2.29	0.47
22:B0:281:C:H2'	22:B0:282:A:C8	2.50	0.47
22:B0:1491:A:C6	26:BA:180:MET:HA	2.49	0.47
26:BA:170:TYR:HA	26:BA:184:GLU:O	2.15	0.47
22:B0:1421:G:C2	26:BA:148:GLY:N	2.81	0.47
22:B0:1421:G:C4	26:BA:149:LYS:CB	2.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1577:C:H4'	26:BA:62:ARG:H	1.79	0.47
26:BA:73:ILE:HD13	26:BA:96:LYS:HE3	1.97	0.47
22:B0:1583:G:N2	26:BA:94:LEU:O	2.41	0.47
27:BB:130:GLN:HB2	27:BB:139:SER:O	2.15	0.47
22:B0:1311:G:H4'	22:B0:1313:U:H5	1.80	0.47
22:B0:192:C:H2'	22:B0:193:U:H5'	1.97	0.47
22:B0:750:A:O2'	22:B0:751:A:O4'	2.33	0.47
22:B0:589:U:N3	28:BC:74:LYS:HE3	2.29	0.47
35:BJ:13:LYS:N	35:BJ:13:LYS:HD3	2.29	0.47
22:B0:1201:U:C2'	35:BJ:14:LYS:HE3	2.44	0.47
22:B0:494:G:O6	41:BQ:8:ARG:CZ	2.63	0.47
22:B0:797:G:H2'	22:B0:798:G:H8	1.79	0.47
28:BC:36:ALA:CA	35:BJ:18:ARG:CZ	2.92	0.47
28:BC:88:ARG:HB3	35:BJ:29:LYS:O	2.14	0.47
22:B0:1250:G:H5''	40:BO:5:ARG:NH1	2.30	0.47
41:BQ:32:ALA:HB1	41:BQ:51:LEU:HD11	1.97	0.47
22:B0:2167:U:O4	22:B0:2170:A:N6	2.44	0.47
27:BB:122:VAL:HG23	27:BB:141:ARG:HA	1.96	0.47
22:B0:958:U:C6	36:BK:80:VAL:HA	2.50	0.47
1:AA:197:A:HO2'	1:AA:198:G:P	2.38	0.47
4:AC:129:PHE:HB3	4:AC:156:LEU:HD11	1.97	0.47
41:BQ:70:LYS:O	41:BQ:107:VAL:HA	2.15	0.47
39:BN:20:ARG:HA	39:BN:20:ARG:HE	1.79	0.47
39:BN:29:VAL:HG13	39:BN:30:TRP:N	2.29	0.47
39:BN:48:ALA:HB3	39:BN:64:SER:OG	2.14	0.47
39:BN:65:ASN:ND2	39:BN:66:GLY:N	2.63	0.47
22:B0:2333:A:O2'	22:B0:2334:U:H5'	2.14	0.47
42:BR:25:GLU:CG	42:BR:26:LYS:H	2.11	0.47
1:AA:1409:C:C4'	22:B0:1913:A:H4'	2.27	0.47
42:BR:85:VAL:O	42:BR:85:VAL:HG13	2.14	0.47
42:BR:7:LEU:HD13	46:BW:22:LEU:CD2	2.44	0.47
22:B0:631:A:H1'	35:BJ:66:PHE:HZ	1.80	0.47
8:AG:108:ARG:HA	8:AG:118:ARG:NH2	2.30	0.47
21:AT:66:ILE:HG23	21:AT:71:ALA:HB2	1.95	0.47
22:B0:1758:U:P	22:B0:1759:A:OP2	2.73	0.47
24:B2:26:ILE:N	24:B2:26:ILE:HD12	2.29	0.47
45:BU:67:LYS:O	45:BU:68:PHE:HB2	2.14	0.47
10:AI:74:GLN:O	10:AI:78:ILE:HG13	2.14	0.47
10:AI:27:ILE:HB	10:AI:34:LEU:CG	2.45	0.47
1:AA:559:A:H4'	1:AA:560:A:H5''	1.96	0.47
27:BB:185:ASN:C	27:BB:186:LEU:HD23	2.35	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:2553:G:H2'	22:B0:2554:U:C4'	2.45	0.47
3:AB:52:ALA:CB	3:AB:199:ILE:HD11	2.44	0.47
13:AL:30:ARG:HG3	13:AL:57:THR:HG23	1.96	0.47
22:B0:367:G:H2'	22:B0:368:A:C8	2.50	0.47
22:B0:1406:U:H2'	22:B0:1407:G:H8	1.79	0.47
34:BI:43:ILE:HD13	34:BI:53:LYS:NZ	2.29	0.47
27:BB:4:LEU:HG	27:BB:5:VAL:H	1.79	0.47
22:B0:2837:A:H2'	22:B0:2838:G:H8	1.78	0.47
47:BX:12:ALA:HA	47:BX:15:ARG:CZ	2.44	0.47
22:B0:843:G:N2	22:B0:937:C:N3	2.63	0.47
1:AA:701:U:H5''	1:AA:703:G:C1'	2.45	0.47
22:B0:151:C:OP1	22:B0:1360:G:H5'	2.15	0.47
11:AJ:52:LEU:H	11:AJ:52:LEU:CD1	2.27	0.47
7:AF:38:ARG:HG3	7:AF:39:LEU:N	2.29	0.47
22:B0:694:U:H3	22:B0:768:G:H1	1.62	0.47
1:AA:269:C:H2'	1:AA:270:A:H8	1.80	0.47
32:BG:92:PRO:CB	32:BG:135:MET:HA	2.45	0.47
1:AA:1269:A:H2	1:AA:1312:G:H21	1.63	0.47
23:B9:99:A:H2'	23:B9:100:G:H5'	1.97	0.47
36:BK:112:LEU:HD13	36:BK:112:LEU:N	2.27	0.47
15:AN:68:ARG:HB3	15:AN:79:SER:OG	2.14	0.47
1:AA:509:A:O2'	1:AA:510:A:P	2.73	0.47
22:B0:295:G:O2'	22:B0:296:U:H5'	2.15	0.47
22:B0:2690:U:H5	22:B0:2719:G:N2	2.13	0.47
31:BF:90:LEU:HD12	31:BF:90:LEU:N	2.29	0.47
44:BT:34:LYS:CD	44:BT:34:LYS:H	2.28	0.47
20:AS:49:ALA:HA	20:AS:57:VAL:O	2.14	0.47
1:AA:392:C:H2'	1:AA:393:A:C8	2.48	0.47
5:AD:90:LEU:HD12	5:AD:90:LEU:H	1.79	0.47
22:B0:1985:C:H2'	22:B0:1986:C:H6	1.78	0.47
22:B0:387:U:H2'	22:B0:391:A:C8	2.50	0.47
22:B0:2207:C:H2'	22:B0:2208:C:C6	2.50	0.47
1:AA:140:U:H2'	1:AA:141:G:H8	1.80	0.47
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.49	0.47
22:B0:1794:A:H2'	22:B0:1795:C:C6	2.50	0.47
1:AA:456:A:H2'	1:AA:457:G:H8	1.80	0.47
22:B0:1705:A:H2'	22:B0:1706:C:O4'	2.14	0.47
27:BB:20:VAL:HG22	27:BB:21:SER:N	2.30	0.47
24:B2:52:ARG:HH11	24:B2:52:ARG:HG3	1.80	0.47
37:BL:71:ARG:HB3	37:BL:71:ARG:NH1	2.28	0.47
32:BG:64:ARG:HH11	32:BG:64:ARG:HG3	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:627:G:O2'	1:AA:628:G:H5'	2.15	0.47
1:AA:1425:U:H2'	1:AA:1426:G:C8	2.49	0.47
22:B0:1418:G:C6	26:BA:101:ARG:NE	2.83	0.47
22:B0:1496:A:H62	26:BA:194:VAL:HG22	1.75	0.47
22:B0:1497:U:C1'	26:BA:83:ASP:HB2	2.45	0.47
27:BB:136:ASN:C	27:BB:138:LEU:H	2.18	0.47
1:AA:427:U:C4	1:AA:428:G:N7	2.83	0.47
22:B0:2776:A:C5'	22:B0:2777:G:OP1	2.52	0.47
22:B0:2897:U:H1'	33:BH:16:TYR:CG	2.50	0.47
22:B0:1201:U:O2	28:BC:40:ARG:NH1	2.48	0.47
22:B0:590:A:O2'	22:B0:591:U:H5'	2.15	0.47
22:B0:669:G:H1	28:BC:73:ILE:HG13	1.79	0.47
22:B0:669:G:N3	22:B0:670:A:H2	2.13	0.47
28:BC:130:LYS:O	28:BC:160:ALA:HB1	2.13	0.47
28:BC:134:LEU:O	28:BC:138:LEU:HG	2.14	0.47
28:BC:63:LYS:HZ3	28:BC:63:LYS:HB2	1.79	0.47
28:BC:31:VAL:CG1	35:BJ:17:LYS:HB3	2.43	0.47
40:BO:14:LYS:HB3	40:BO:14:LYS:NZ	2.30	0.47
40:BO:46:TYR:CD1	40:BO:46:TYR:N	2.83	0.47
22:B0:1284:A:H2'	22:B0:1284:A:N3	2.30	0.47
41:BQ:25:ARG:N	41:BQ:25:ARG:NE	2.54	0.47
1:AA:1285:A:O2'	1:AA:1286:U:C5'	2.61	0.47
43:BS:38:ILE:HD12	43:BS:64:ILE:HG12	1.96	0.47
2:AV:59:U:H2'	2:AV:60:C:H5'	1.97	0.47
39:BN:55:HIS:CD2	39:BN:56:SER:H	2.33	0.47
41:BQ:110:ARG:HA	41:BQ:110:ARG:NE	2.29	0.47
1:AA:1132:C:H2'	1:AA:1133:G:H8	1.80	0.47
46:BW:39:GLN:NE2	46:BW:39:GLN:CA	2.75	0.47
37:BL:41:ALA:CA	37:BL:44:LEU:HB2	2.45	0.47
21:AT:79:THR:HA	21:AT:82:ILE:HG12	1.96	0.47
25:B5:28:GLU:O	25:B5:29:LYS:C	2.52	0.47
3:AB:16:GLY:CA	3:AB:39:ILE:HA	2.43	0.47
32:BG:73:PRO:HA	32:BG:77:VAL:HG22	1.96	0.47
1:AA:1015:G:H5'	20:AS:9:PHE:HE2	1.80	0.47
1:AA:1219:A:H2'	1:AA:1220:G:C8	2.49	0.47
8:AG:145:GLU:HA	8:AG:148:LYS:HB3	1.96	0.47
8:AG:149:ALA:HB2	12:AK:60:PHE:CA	2.43	0.47
13:AL:30:ARG:HB2	13:AL:30:ARG:HH11	1.76	0.47
22:B0:2565:A:H2'	22:B0:2566:A:H1'	1.96	0.47
27:BB:4:LEU:HG	27:BB:5:VAL:N	2.30	0.47
22:B0:1944:U:H4'	22:B0:1955:U:O2'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BG:91:LYS:O	32:BG:91:LYS:HG2	2.15	0.47
7:AF:30:THR:C	7:AF:32:ALA:H	2.18	0.47
1:AA:1394:A:H5''	1:AA:1395:C:OP2	2.14	0.47
40:BO:106:THR:O	40:BO:109:VAL:HG22	2.15	0.47
40:BO:113:LYS:O	40:BO:116:LEU:HD22	2.15	0.47
22:B0:2632:A:H61	22:B0:2785:C:N4	2.12	0.47
22:B0:906:U:H2'	22:B0:907:G:O4'	2.15	0.47
15:AN:68:ARG:NE	15:AN:70:HIS:HB3	2.30	0.47
30:BE:84:LYS:HE3	30:BE:141:GLY:HA2	1.97	0.47
24:B2:117:PRO:HA	24:B2:120:MET:HG2	1.97	0.47
1:AA:997:U:H2'	1:AA:998:C:C6	2.49	0.47
1:AA:19:A:H2'	1:AA:20:U:H6	1.80	0.47
31:BF:123:ARG:CA	31:BF:123:ARG:HH11	2.27	0.47
11:AJ:81:GLU:O	11:AJ:84:VAL:HG22	2.15	0.47
20:AS:69:LYS:N	20:AS:69:LYS:HD2	2.29	0.47
37:BL:73:ASN:O	37:BL:76:VAL:HG12	2.15	0.47
41:BQ:99:ARG:HG3	41:BQ:99:ARG:HH11	1.79	0.47
22:B0:2822:G:H2'	22:B0:2823:A:H5''	1.97	0.47
1:AA:384:G:H2'	1:AA:385:C:C6	2.50	0.47
22:B0:2841:C:H2'	22:B0:2842:G:C8	2.49	0.47
22:B0:1488:G:O6	26:BA:157:ALA:N	2.48	0.47
22:B0:1496:A:O4'	26:BA:190:THR:CG2	2.63	0.47
1:AA:39:G:H2'	1:AA:40:C:C6	2.50	0.47
1:AA:418:C:C6	1:AA:540:G:O3'	2.66	0.47
22:B0:1200:C:H2'	22:B0:1201:U:N1	2.29	0.47
22:B0:2067:G:H1	22:B0:2442:C:H42	1.63	0.47
22:B0:802:A:N6	28:BC:61:ARG:HD3	2.30	0.47
28:BC:63:LYS:O	28:BC:65:THR:HG23	2.14	0.47
40:BO:17:LEU:HD11	40:BO:31:TYR:HD1	1.80	0.47
22:B0:486:C:O2'	41:BQ:57:ASN:HB2	2.15	0.47
22:B0:517:C:H2'	22:B0:518:G:C8	2.50	0.47
22:B0:495:G:N2	41:BQ:57:ASN:ND2	2.62	0.47
22:B0:2116:G:OP1	22:B0:2117:A:C4'	2.63	0.47
22:B0:2138:G:C4'	22:B0:2139:U:O5'	2.63	0.47
22:B0:2132:U:OP2	24:B2:7:MET:CE	2.62	0.47
1:AA:939:G:N2	1:AA:1344:C:N3	2.63	0.47
22:B0:2458:G:H2'	22:B0:2490:G:H22	1.80	0.47
22:B0:2700:A:H3'	22:B0:2702:G:C5'	2.45	0.47
22:B0:2176:A:C3'	24:B2:166:LYS:HA	2.37	0.47
22:B0:2323:G:H21	22:B0:2337:G:C4'	2.28	0.47
22:B0:2333:A:C5'	22:B0:2334:U:OP1	2.55	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:B5:59:LYS:HD3	25:B5:116:GLU:OE2	2.14	0.47
42:BR:9:LYS:HA	46:BW:29:ARG:CZ	2.45	0.47
22:B0:604:G:H2'	22:B0:605:G:H8	1.80	0.47
22:B0:629:G:H4'	22:B0:638:G:N2	2.24	0.47
37:BL:34:ILE:HD13	37:BL:113:ILE:HB	1.96	0.47
22:B0:1833:C:H2'	22:B0:1834:U:C6	2.50	0.47
10:AI:20:ILE:HG12	10:AI:62:LEU:CD2	2.45	0.47
10:AI:79:ARG:HD2	10:AI:102:PHE:CD1	2.49	0.47
22:B0:2550:G:H22	22:B0:2558:C:N4	2.12	0.47
22:B0:215:G:H5''	22:B0:216:A:OP1	2.15	0.47
22:B0:1696:G:H2'	22:B0:1697:G:O4'	2.14	0.47
22:B0:2520:C:H2'	22:B0:2520:C:O2	2.14	0.47
22:B0:1085:A:O2'	22:B0:1104:C:H1'	2.14	0.47
22:B0:1846:G:H2'	22:B0:1847:A:C8	2.50	0.47
1:AA:103:U:H2'	1:AA:104:G:H8	1.80	0.47
21:AT:84:LYS:CA	21:AT:84:LYS:HE3	2.42	0.47
34:BI:99:ILE:C	34:BI:99:ILE:HD13	2.34	0.47
1:AA:1310:G:H1	1:AA:1327:C:N4	2.13	0.47
49:B1:6:GLU:HB3	49:B1:26:LYS:CB	2.45	0.47
21:AT:50:PHE:CD1	21:AT:78:LEU:HD22	2.50	0.47
22:B0:2718:G:H2'	22:B0:2719:G:C8	2.50	0.47
7:AF:88:MET:N	7:AF:88:MET:SD	2.88	0.47
6:AE:82:HIS:CD2	9:AH:95:MET:HG3	2.50	0.47
6:AE:45:VAL:HG11	6:AE:113:VAL:HG13	1.95	0.47
22:B0:899:A:H2'	22:B0:900:A:C8	2.48	0.47
32:BG:35:MET:CE	32:BG:36:GLU:HG2	2.45	0.47
4:AC:69:THR:O	4:AC:104:GLU:HA	2.15	0.47
4:AC:51:VAL:O	4:AC:51:VAL:HG13	2.14	0.47
9:AH:51:GLU:HG3	9:AH:52:GLY:N	2.30	0.47
1:AA:1477:U:H2'	1:AA:1478:U:C6	2.49	0.47
22:B0:2668:G:H2'	22:B0:2669:G:C8	2.50	0.47
22:B0:2705:A:H2'	22:B0:2707:U:O4'	2.15	0.47
1:AA:492:C:H2'	1:AA:494:G:O4'	2.15	0.47
22:B0:1418:G:O6	26:BA:101:ARG:HB2	2.15	0.47
22:B0:1488:G:N7	26:BA:158:GLY:HA3	2.29	0.47
26:BA:100:ARG:O	26:BA:101:ARG:CG	2.62	0.47
1:AA:415:A:N6	1:AA:416:G:C6	2.83	0.47
1:AA:418:C:H6	1:AA:540:G:O3'	1.96	0.47
33:BH:117:ALA:O	33:BH:121:LYS:HG2	2.14	0.47
1:AA:247:G:O2'	1:AA:248:C:H5'	2.15	0.47
22:B0:535:G:H1'	40:BO:52:ARG:HD2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BC:34:ALA:CB	35:BJ:19:LEU:H	2.03	0.47
22:B0:516:C:H2'	22:B0:517:C:C6	2.50	0.47
41:BQ:10:ALA:HA	41:BQ:11:ARG:HE	1.79	0.47
22:B0:2127:G:C8	22:B0:2166:U:H5'	2.49	0.47
22:B0:2164:C:O2'	22:B0:2165:C:O2	2.23	0.47
24:B2:8:ARG:O	24:B2:12:GLU:HG3	2.15	0.47
22:B0:1939:U:C4'	22:B0:2592:G:H5'	2.42	0.47
12:AK:121:ARG:HG3	12:AK:121:ARG:HH11	1.80	0.47
14:AM:16:ILE:O	14:AM:19:THR:N	2.49	0.47
39:BN:50:ARG:HD3	39:BN:62:LYS:HB2	1.97	0.47
42:BR:24:MET:CG	42:BR:30:ILE:HD13	2.45	0.47
22:B0:987:C:H1'	22:B0:1001:A:H4'	1.97	0.47
25:B3:49:GLU:HA	25:B3:51:LYS:CE	2.45	0.47
22:B0:1046:A:C2	25:B5:24:SER:O	2.67	0.47
1:AA:61:G:H2'	1:AA:62:U:O4'	2.14	0.47
7:AF:50:PRO:O	7:AF:51:ILE:O	2.33	0.47
8:AG:78:ARG:HG3	8:AG:83:THR:CG2	2.35	0.47
4:AC:46:LEU:N	4:AC:46:LEU:HD22	2.30	0.47
34:BI:22:ILE:HD11	34:BI:42:THR:CG2	2.43	0.47
22:B0:362:A:H4'	22:B0:363:G:OP1	2.14	0.47
27:BB:83:ARG:HG3	27:BB:83:ARG:NH1	2.29	0.47
22:B0:710:U:H2'	22:B0:711:G:C8	2.50	0.47
35:BJ:105:ILE:HG13	35:BJ:106:GLU:OE2	2.14	0.47
1:AA:751:U:H3	1:AA:754:C:H42	1.62	0.47
1:AA:827:U:C5'	9:AH:15:ASN:HD21	2.21	0.47
22:B0:926:G:HO2'	22:B0:928:A:P	2.36	0.47
49:B1:7:LYS:N	49:B1:7:LYS:HD3	2.30	0.47
1:AA:687:A:O2'	1:AA:688:G:P	2.73	0.47
22:B0:226:A:N6	22:B0:410:G:H1'	2.30	0.47
22:B0:1022:G:O5'	22:B0:1023:U:O5'	2.32	0.47
29:BD:129:MET:CG	29:BD:152:ASP:HB3	2.44	0.47
1:AA:554:A:H2'	1:AA:555:U:C6	2.50	0.47
22:B0:2093:G:N2	22:B0:2197:U:H1'	2.29	0.47
30:BE:140:ILE:HD12	30:BE:140:ILE:C	2.35	0.47
36:BK:18:ARG:HH11	36:BK:50:ARG:HG3	1.79	0.47
12:AK:122:PRO:HA	12:AK:123:PRO:HD3	1.79	0.47
1:AA:810:C:O2'	1:AA:811:C:H5'	2.15	0.47
44:BT:2:PHE:HB3	44:BT:50:MET:HE1	1.96	0.47
1:AA:673:A:H2'	1:AA:674:G:C8	2.49	0.47
12:AK:85:VAL:HG11	12:AK:92:ARG:HD2	1.96	0.47
3:AB:135:MET:O	3:AB:139:GLU:HG3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B9:24:G:H2'	23:B9:26:C:C4	2.49	0.47
1:AA:140:U:H2'	1:AA:141:G:C8	2.49	0.47
36:BK:32:GLY:HA2	36:BK:104:GLU:HA	1.96	0.47
31:BF:42:LYS:HD2	31:BF:42:LYS:N	2.29	0.47
14:AM:68:LEU:O	14:AM:68:LEU:HD23	2.15	0.47
31:BF:72:ILE:C	31:BF:74:ALA:H	2.19	0.47
22:B0:2660:A:H2'	22:B0:2661:G:O4'	2.15	0.47
1:AA:156:C:H2'	1:AA:157:U:C6	2.50	0.47
30:BE:8:VAL:C	30:BE:48:THR:HG23	2.35	0.47
26:BA:109:LEU:N	26:BA:109:LEU:HD22	2.30	0.47
1:AA:1215:G:OP2	1:AA:1215:G:H8	1.97	0.47
22:B0:1417:U:C5	26:BA:100:ARG:N	2.83	0.46
22:B0:1996:C:O2'	22:B0:1997:C:P	2.73	0.46
22:B0:2894:U:H5'	33:BH:6:ALA:CB	2.20	0.46
22:B0:1328:A:H4'	22:B0:1329:U:H5	1.80	0.46
22:B0:535:G:H2'	22:B0:536:G:C8	2.50	0.46
22:B0:811:U:C2	22:B0:1251:C:H1'	2.50	0.46
28:BC:28:VAL:O	28:BC:31:VAL:HB	2.14	0.46
22:B0:582:A:H5''	40:BO:10:ARG:CD	2.45	0.46
40:BO:46:TYR:O	40:BO:47:ARG:NH1	2.48	0.46
24:B2:5:LYS:C	24:B2:7:MET:H	2.17	0.46
37:BL:64:ARG:HH22	37:BL:67:PHE:CB	2.06	0.46
1:AA:714:G:H2'	1:AA:715:A:C8	2.50	0.46
27:BB:13:ARG:HG2	27:BB:14:ILE:N	2.30	0.46
22:B0:942:G:H5''	35:BJ:42:SER:OG	2.15	0.46
5:AD:128:VAL:HG22	5:AD:145:ARG:HD3	1.96	0.46
22:B0:636:G:O3'	22:B0:637:A:H4'	2.14	0.46
21:AT:24:ARG:O	21:AT:27:MET:HB3	2.15	0.46
22:B0:2855:C:H3'	22:B0:2856:A:H5''	1.96	0.46
6:AE:10:LEU:HD21	6:AE:38:VAL:CB	2.45	0.46
22:B0:1899:A:H4'	22:B0:1901:A:OP2	2.14	0.46
17:AP:35:ARG:HD2	17:AP:35:ARG:N	2.23	0.46
22:B0:1698:A:C1'	22:B0:1700:A:H5''	2.45	0.46
49:B1:35:LEU:HD23	49:B1:50:GLU:OE2	2.15	0.46
22:B0:278:A:O4'	22:B0:362:A:N3	2.48	0.46
8:AG:57:GLU:CD	8:AG:57:GLU:H	2.19	0.46
22:B0:2320:U:O2	22:B0:2320:U:C2'	2.58	0.46
22:B0:1816:C:H1'	26:BA:49:THR:OG1	2.14	0.46
3:AB:150:ILE:HG13	3:AB:150:ILE:O	2.15	0.46
1:AA:817:C:O2'	1:AA:818:G:H5''	2.14	0.46
34:BI:87:LEU:C	34:BI:87:LEU:HD12	2.35	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1447:A:H2'	1:AA:1447:A:N3	2.30	0.46
1:AA:1451:U:H5''	1:AA:1452:C:C5	2.48	0.46
1:AA:187:G:N2	1:AA:191:G:H1'	2.29	0.46
42:BR:93:LEU:O	42:BR:94:ASP:HB3	2.15	0.46
22:B0:1565:C:O2	22:B0:1567:G:O4'	2.33	0.46
1:AA:1117:A:O4'	10:AI:107:ALA:HB2	2.14	0.46
9:AH:86:LYS:CE	9:AH:91:LEU:HG	2.44	0.46
22:B0:571:U:C5'	22:B0:572:A:OP1	2.63	0.46
40:BO:102:LYS:NZ	40:BO:103:VAL:HG13	2.30	0.46
42:BR:39:THR:C	42:BR:40:LYS:HE3	2.36	0.46
32:BG:58:ILE:HD12	32:BG:58:ILE:N	2.31	0.46
6:AE:39:GLY:HA3	6:AE:116:VAL:HB	1.97	0.46
36:BK:50:ARG:C	36:BK:50:ARG:HD2	2.35	0.46
43:BS:57:ILE:O	43:BS:57:ILE:HG23	2.15	0.46
42:BR:18:GLU:HA	42:BR:21:SER:OG	2.15	0.46
1:AA:163:C:H2'	1:AA:164:G:H8	1.80	0.46
44:BT:73:LYS:HZ3	44:BT:94:ALA:HB2	1.80	0.46
32:BG:102:ARG:HB3	32:BG:102:ARG:NH1	2.30	0.46
22:B0:185:G:H4'	22:B0:218:A:C4'	2.44	0.46
24:B2:99:LEU:HD12	24:B2:99:LEU:N	2.30	0.46
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.50	0.46
22:B0:1424:G:H2'	22:B0:1425:G:O4'	2.15	0.46
22:B0:1488:G:O4'	26:BA:198:GLU:HA	2.14	0.46
26:BA:71:ASP:HB2	26:BA:119:VAL:N	2.27	0.46
1:AA:424:G:C6	1:AA:425:G:C5	3.03	0.46
5:AD:54:LEU:C	5:AD:54:LEU:HD23	2.35	0.46
28:BC:182:ALA:HA	35:BJ:16:GLY:CA	2.36	0.46
28:BC:44:ARG:HA	28:BC:90:GLN:N	2.29	0.46
41:BQ:16:LYS:NZ	41:BQ:18:ARG:HH12	2.12	0.46
22:B0:2109:U:O2'	22:B0:2110:G:C5'	2.63	0.46
22:B0:2129:C:OP1	22:B0:2165:C:O2	2.34	0.46
22:B0:2644:G:H1'	22:B0:2645:G:O4'	2.15	0.46
22:B0:960:A:C2	22:B0:2497:A:C5'	2.99	0.46
2:AU:56:C:H2'	2:AU:57:G:H8	1.79	0.46
45:BU:78:PHE:CG	45:BU:79:ILE:N	2.83	0.46
1:AA:1301:U:H4'	14:AM:12:LYS:HG2	1.97	0.46
39:BN:24:THR:N	39:BN:49:ILE:HG12	2.30	0.46
39:BN:47:ILE:HG22	39:BN:48:ALA:N	2.26	0.46
39:BN:63:ILE:CD1	39:BN:74:GLN:HG2	2.45	0.46
39:BN:28:LYS:HE2	39:BN:86:LYS:HB3	1.97	0.46
39:BN:96:LEU:O	39:BN:97:TYR:CB	2.60	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BL:22:ARG:N	37:BL:22:ARG:HD2	2.30	0.46
37:BL:23:ASN:O	37:BL:24:MET:HB2	2.15	0.46
37:BL:40:LYS:CG	37:BL:41:ALA:H	2.27	0.46
22:B0:977:G:O2'	22:B0:1001:A:N3	2.44	0.46
21:AT:81:GLN:O	21:AT:85:LEU:HD13	2.16	0.46
22:B0:1109:C:N4	22:B0:1110:G:N2	2.63	0.46
6:AE:10:LEU:C	6:AE:10:LEU:HD23	2.35	0.46
22:B0:856:G:H4'	45:BU:54:ARG:HD2	1.96	0.46
45:BU:17:ALA:CB	45:BU:35:ILE:HA	2.45	0.46
22:B0:1834:U:O2	22:B0:1969:A:H2	1.97	0.46
7:AF:45:ARG:HB2	7:AF:59:TYR:CE1	2.50	0.46
2:AU:63:C:H2'	2:AU:64:A:H8	1.80	0.46
22:B0:781:A:H1'	22:B0:1789:A:C4'	2.40	0.46
16:AO:56:LEU:HD23	22:B0:715:A:C8	2.49	0.46
1:AA:826:C:O3'	9:AH:15:ASN:ND2	2.48	0.46
7:AF:39:LEU:CD2	7:AF:62:MET:HG2	2.40	0.46
22:B0:1138:G:H2'	22:B0:1139:G:O4'	2.15	0.46
1:AA:1182:G:H4'	1:AA:1183:U:C5'	2.45	0.46
32:BG:81:LYS:CA	32:BG:81:LYS:HE2	2.44	0.46
1:AA:358:U:H2'	1:AA:359:G:C8	2.50	0.46
1:AA:47:C:H1'	1:AA:365:U:H3	1.79	0.46
23:B9:16:G:H2'	23:B9:17:C:C5'	2.45	0.46
31:BF:15:LEU:N	31:BF:15:LEU:HD22	2.30	0.46
1:AA:614:C:H2'	1:AA:615:G:H8	1.78	0.46
18:AQ:58:VAL:HG12	18:AQ:77:VAL:HG13	1.97	0.46
3:AB:231:GLN:HG2	3:AB:233:GLU:H	1.80	0.46
18:AQ:61:ARG:CG	18:AQ:75:VAL:HG21	2.45	0.46
16:AO:81:ILE:H	16:AO:81:ILE:HD12	1.80	0.46
5:AD:10:LEU:O	5:AD:14:GLU:HG2	2.14	0.46
22:B0:2819:G:O2'	22:B0:2820:A:P	2.73	0.46
1:AA:68:G:H1	1:AA:101:A:N6	2.13	0.46
1:AA:163:C:O2'	1:AA:164:G:H5'	2.15	0.46
22:B0:2864:G:H2'	22:B0:2865:U:C6	2.51	0.46
22:B0:1385:A:H2	22:B0:1402:U:H3	1.62	0.46
13:AL:33:CYS:SG	13:AL:77:SER:HB2	2.55	0.46
2:AV:63:C:H2'	2:AV:64:A:C8	2.50	0.46
37:BL:94:TYR:CD1	37:BL:94:TYR:N	2.83	0.46
24:B2:93:LEU:N	24:B2:93:LEU:HD12	2.30	0.46
22:B0:1579:A:C8	26:BA:65:ASP:C	2.88	0.46
22:B0:1489:U:H5'	26:BA:200:MET:SD	2.56	0.46
22:B0:1422:G:P	26:BA:57:HIS:HB3	2.54	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AD:52:VAL:O	5:AD:56:GLU:HB2	2.14	0.46
22:B0:2788:C:H2'	22:B0:2891:A:C5	2.50	0.46
22:B0:529:A:N7	22:B0:2042:A:C2	2.78	0.46
33:BH:138:GLN:NE2	33:BH:138:GLN:H	2.14	0.46
28:BC:60:TRP:HD1	28:BC:62:GLN:HG3	1.80	0.46
28:BC:88:ARG:HB2	35:BJ:30:THR:CB	2.42	0.46
40:BO:6:GLY:C	40:BO:8:ILE:H	2.18	0.46
41:BQ:8:ARG:HG2	41:BQ:9:HIS:CD2	2.48	0.46
2:AW:16:U:H4'	2:AW:17:U:O5'	2.16	0.46
22:B0:2161:C:H6	24:B2:5:LYS:HB3	1.80	0.46
1:AA:934:C:C5'	1:AA:935:A:OP1	2.62	0.46
22:B0:826:U:H1'	35:BJ:55:MET:CE	2.45	0.46
22:B0:664:G:H2'	22:B0:665:U:C6	2.51	0.46
22:B0:2848:G:H1'	22:B0:2868:A:H61	1.80	0.46
39:BN:79:VAL:HG22	39:BN:80:VAL:N	2.29	0.46
42:BR:11:LEU:HB2	42:BR:32:LEU:CD2	2.45	0.46
42:BR:77:ARG:HH11	42:BR:77:ARG:HG2	1.81	0.46
22:B0:633:A:H2'	22:B0:634:C:H5'	1.96	0.46
22:B0:978:G:O2'	22:B0:979:A:H5'	2.16	0.46
22:B0:1758:U:O2	22:B0:1758:U:C2'	2.62	0.46
22:B0:1107:G:H2'	22:B0:1108:U:C6	2.51	0.46
22:B0:2142:A:N3	22:B0:2142:A:H2'	2.29	0.46
1:AA:61:G:O2'	1:AA:62:U:H5'	2.15	0.46
22:B0:49:A:N6	22:B0:177:G:C2	2.84	0.46
45:BU:66:VAL:CG2	45:BU:67:LYS:H	2.15	0.46
22:B0:2262:U:O5'	22:B0:2262:U:H6	1.98	0.46
5:AD:166:LYS:HB3	5:AD:167:PRO:HD2	1.96	0.46
22:B0:2288:A:OP1	22:B0:2288:A:H8	1.98	0.46
8:AG:27:ASN:O	8:AG:30:MET:HB3	2.16	0.46
11:AJ:71:LEU:N	11:AJ:71:LEU:HD12	2.30	0.46
1:AA:149:A:H2'	1:AA:150:U:C6	2.51	0.46
6:AE:87:VAL:O	6:AE:87:VAL:HG23	2.14	0.46
22:B0:609:A:H3'	22:B0:610:C:C6	2.50	0.46
1:AA:1402:C:O2'	1:AA:1403:C:H5'	2.15	0.46
30:BE:114:HIS:HB2	30:BE:150:TYR:CE2	2.50	0.46
22:B0:460:A:H5''	42:BR:72:GLN:HB2	1.97	0.46
36:BK:126:ILE:C	36:BK:126:ILE:HD13	2.35	0.46
1:AA:313:A:H2'	1:AA:314:C:C6	2.50	0.46
22:B0:1540:A:C8	22:B0:1540:A:O5'	2.66	0.46
29:BD:65:LEU:H	29:BD:88:VAL:HG21	1.80	0.46
22:B0:1181:U:H2'	22:B0:1182:G:C8	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BF:123:ARG:HA	31:BF:123:ARG:HH11	1.79	0.46
22:B0:2688:G:H21	22:B0:2721:A:H62	1.62	0.46
31:BF:11:ASN:O	31:BF:12:LEU:HD22	2.15	0.46
1:AA:902:G:O2'	1:AA:903:G:H5'	2.15	0.46
1:AA:945:G:H5'	1:AA:945:G:H8	1.80	0.46
22:B0:1344:U:O2'	22:B0:1384:A:H2'	2.14	0.46
11:AJ:80:THR:H	11:AJ:83:THR:HB	1.80	0.46
22:B0:2215:C:H2'	22:B0:2216:G:H8	1.80	0.46
22:B0:1171:G:N1	22:B0:1178:C:N4	2.63	0.46
38:BM:62:LEU:C	38:BM:62:LEU:HD23	2.35	0.46
28:BC:136:GLN:HE21	28:BC:136:GLN:HA	1.80	0.46
22:B0:1410:G:O2'	22:B0:1411:U:P	2.73	0.46
5:AD:88:ASN:O	5:AD:92:LEU:HD13	2.16	0.46
26:BA:140:VAL:C	26:BA:141:HIS:HD2	2.18	0.46
26:BA:141:HIS:O	26:BA:142:ASN:C	2.53	0.46
22:B0:1495:A:OP1	26:BA:189:ALA:CB	2.62	0.46
26:BA:62:ARG:O	26:BA:64:VAL:HG23	2.14	0.46
22:B0:2789:C:C5'	22:B0:2892:G:H21	2.28	0.46
22:B0:2900:C:H41	33:BH:138:GLN:C	2.19	0.46
33:BH:101:ILE:HD11	33:BH:124:VAL:HB	1.96	0.46
22:B0:589:U:OP2	28:BC:44:ARG:CB	2.63	0.46
22:B0:588:U:C6	28:BC:81:GLY:O	2.68	0.46
41:BQ:36:LEU:HD21	41:BQ:48:LYS:HA	1.96	0.46
22:B0:2119:A:C2'	22:B0:2121:G:H5'	2.45	0.46
24:B2:5:LYS:C	24:B2:7:MET:N	2.68	0.46
27:BB:119:ALA:HB1	27:BB:123:LYS:HE2	1.98	0.46
22:B0:961:C:C2	22:B0:2499:C:H5	2.33	0.46
22:B0:1974:C:H2'	22:B0:1975:G:O4'	2.15	0.46
1:AA:142:G:O2'	1:AA:143:A:H5'	2.16	0.46
1:AA:979:C:C5'	20:AS:5:LYS:HZ2	2.28	0.46
22:B0:664:G:H2'	22:B0:665:U:H6	1.80	0.46
22:B0:2176:A:H5'	24:B2:166:LYS:HA	1.98	0.46
38:BM:15:ARG:CZ	38:BM:15:ARG:H	2.28	0.46
42:BR:7:LEU:HB3	46:BW:26:PHE:HD2	1.79	0.46
46:BW:44:LYS:O	46:BW:47:ARG:HG2	2.15	0.46
8:AG:41:ILE:N	8:AG:41:ILE:HD12	2.31	0.46
37:BL:113:ILE:HD12	37:BL:113:ILE:N	2.22	0.46
22:B0:1047:G:H2'	22:B0:1110:G:N2	2.22	0.46
22:B0:1110:G:C5'	22:B0:1111:A:OP1	2.64	0.46
22:B0:1112:G:H2'	22:B0:1113:U:C6	2.51	0.46
25:B5:19:VAL:HG13	25:B5:20:VAL:N	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BU:38:ARG:O	45:BU:39:GLN:HB2	2.16	0.46
32:BG:52:LEU:HD11	32:BG:73:PRO:HB2	1.96	0.46
2:AU:75:C:O5'	22:B0:2557:G:H5''	2.15	0.46
1:AA:518:C:H4'	1:AA:519:C:H6	1.80	0.46
22:B0:2685:G:H2'	22:B0:2686:G:C8	2.50	0.46
1:AA:572:A:H4'	1:AA:917:G:C4'	2.43	0.46
49:B1:46:VAL:HG12	49:B1:47:ILE:N	2.31	0.46
16:AO:59:VAL:HG11	22:B0:715:A:C4'	2.46	0.46
22:B0:2836:U:H2'	22:B0:2837:A:C8	2.51	0.46
25:B3:4:LYS:HE3	25:B3:7:ILE:HD12	1.98	0.46
1:AA:817:C:H1'	1:AA:819:A:H5'	1.97	0.46
1:AA:1422:G:H2'	1:AA:1423:G:H8	1.81	0.46
22:B0:1024:G:H5'	22:B0:1025:G:C1'	2.44	0.46
15:AN:40:ARG:NH1	20:AS:14:LEU:HA	2.31	0.46
21:AT:53:MET:HE2	21:AT:78:LEU:HD12	1.97	0.46
7:AF:7:VAL:CG2	7:AF:88:MET:H	2.28	0.46
32:BG:109:ALA:O	32:BG:110:GLN:HB2	2.14	0.46
15:AN:97:LYS:HZ2	15:AN:97:LYS:HB3	1.80	0.46
8:AG:22:LEU:N	8:AG:22:LEU:HD12	2.30	0.46
20:AS:52:ASN:HD22	20:AS:52:ASN:N	2.14	0.46
5:AD:10:LEU:HD22	5:AD:62:ARG:CZ	2.45	0.46
22:B0:153:U:H2'	22:B0:154:U:C6	2.50	0.46
47:BX:28:LEU:HD11	47:BX:35:VAL:CG1	2.45	0.46
1:AA:234:C:H2'	1:AA:235:C:C6	2.51	0.46
27:BB:179:ARG:HG2	27:BB:180:VAL:N	2.30	0.46
43:BS:44:HIS:HE2	43:BS:46:LYS:HD2	1.81	0.46
24:B2:127:GLY:HA3	24:B2:136:MET:CE	2.45	0.46
33:BH:1:MET:HG3	33:BH:2:LYS:HG3	1.96	0.46
8:AG:136:LYS:O	8:AG:140:VAL:HG23	2.15	0.46
22:B0:1580:A:O5'	26:BA:68:ARG:CB	2.61	0.46
26:BA:149:LYS:NZ	26:BA:152:GLN:CG	2.79	0.46
22:B0:1580:A:N7	26:BA:68:ARG:HG2	2.31	0.46
22:B0:1669:A:H2'	22:B0:1670:C:H5'	1.96	0.46
22:B0:1996:C:C6	27:BB:137:SER:O	2.69	0.46
1:AA:35:G:H2'	1:AA:36:C:C6	2.50	0.46
22:B0:802:A:C6	28:BC:61:ARG:NH1	2.81	0.46
28:BC:36:ALA:HB2	35:BJ:18:ARG:CD	2.46	0.46
28:BC:92:HIS:CD2	35:BJ:25:SER:OG	2.68	0.46
40:BO:41:ALA:C	40:BO:43:GLN:N	2.69	0.46
40:BO:8:ILE:O	40:BO:9:ALA:HB3	2.15	0.46
22:B0:1264:A:C2	22:B0:2016:U:O4	2.68	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:301:G:C4'	22:B0:302:C:OP1	2.59	0.46
22:B0:504:A:OP2	22:B0:504:A:H4'	2.15	0.46
22:B0:2065:C:O2'	22:B0:2066:C:H5'	2.16	0.46
1:AA:1317:C:C2'	1:AA:1318:A:H5'	2.45	0.46
22:B0:593:U:H3	22:B0:664:G:H22	1.63	0.46
22:B0:821:A:H2'	22:B0:946:C:H5''	1.96	0.46
22:B0:837:C:N3	22:B0:942:G:C6	2.84	0.46
25:B5:56:VAL:HG13	25:B5:117:VAL:HG11	1.97	0.46
37:BL:50:PRO:O	37:BL:51:LEU:CB	2.58	0.46
40:BO:60:TRP:HB3	40:BO:91:ARG:HH12	1.80	0.46
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.51	0.46
17:AP:36:VAL:HG22	17:AP:52:LEU:O	2.16	0.46
29:BD:79:ARG:HH11	29:BD:79:ARG:CB	2.29	0.46
22:B0:705:A:N6	22:B0:726:G:O2'	2.49	0.46
1:AA:792:A:H4'	1:AA:793:U:H5'	1.95	0.46
13:AL:42:LYS:HE3	13:AL:44:PRO:HG3	1.97	0.46
10:AI:11:ARG:NE	10:AI:12:LYS:HE3	2.30	0.46
22:B0:150:U:H2'	22:B0:151:C:C6	2.49	0.46
32:BG:27:LEU:HD12	32:BG:27:LEU:N	2.30	0.46
22:B0:1143:A:H4'	22:B0:1144:A:OP1	2.14	0.46
12:AK:95:THR:O	12:AK:99:LEU:HG	2.16	0.46
12:AK:18:GLY:H	12:AK:81:LEU:HD23	1.80	0.46
40:BO:82:LEU:HD11	40:BO:89:ILE:O	2.16	0.46
24:B2:149:ALA:O	24:B2:153:LYS:HG3	2.15	0.46
15:AN:63:CYS:HB3	15:AN:68:ARG:H	1.80	0.46
1:AA:848:C:H2'	1:AA:849:G:H8	1.79	0.46
34:BI:95:ILE:C	34:BI:95:ILE:HD13	2.35	0.46
1:AA:335:C:H2'	1:AA:336:A:C8	2.49	0.46
3:AB:99:MET:HA	3:AB:106:VAL:HG21	1.96	0.46
22:B0:1633:G:H1	22:B0:1635:A:H1'	1.80	0.46
11:AJ:32:THR:HG21	11:AJ:83:THR:HA	1.97	0.46
1:AA:831:A:H2'	1:AA:832:G:C8	2.50	0.46
29:BD:103:ILE:HG13	29:BD:173:ASP:OD2	2.16	0.46
2:AW:40:C:H2'	2:AW:41:U:C6	2.51	0.46
17:AP:77:GLU:O	17:AP:78:VAL:HG22	2.15	0.46
22:B0:188:G:H2'	22:B0:189:G:O4'	2.16	0.46
34:BI:114:LYS:O	34:BI:118:LEU:HD23	2.16	0.46
26:BA:74:PRO:HA	26:BA:116:GLN:HA	1.98	0.46
1:AA:33:A:H4'	1:AA:364:A:O4'	2.15	0.46
1:AA:37:U:H5''	13:AL:120:ARG:NH1	2.30	0.46
1:AA:417:G:C2	1:AA:427:U:C2	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BH:25:LEU:C	33:BH:25:LEU:HD22	2.35	0.46
1:AA:894:G:H2'	1:AA:895:G:H8	1.78	0.46
22:B0:323:C:N4	28:BC:159:LEU:O	2.49	0.46
22:B0:803:U:N3	28:BC:61:ARG:CZ	2.77	0.46
28:BC:74:LYS:O	28:BC:76:PRO:HD3	2.15	0.46
22:B0:516:C:H4'	22:B0:1262:A:H4'	1.97	0.46
22:B0:2181:U:H2'	22:B0:2182:U:O4'	2.16	0.46
22:B0:2678:C:OP2	27:BB:124:ARG:CB	2.64	0.46
27:BB:123:LYS:N	27:BB:141:ARG:HE	2.13	0.46
35:BJ:55:MET:N	35:BJ:56:PRO:CA	2.78	0.46
22:B0:26:G:H2'	22:B0:27:G:O4'	2.15	0.46
43:BS:66:VAL:O	43:BS:69:VAL:HG22	2.16	0.46
1:AA:1128:C:H2'	1:AA:1139:G:O6	2.15	0.46
42:BR:50:LEU:C	42:BR:52:GLU:H	2.18	0.46
1:AA:1233:G:H2'	1:AA:1234:C:C6	2.50	0.46
37:BL:97:ILE:HG12	37:BL:114:GLU:HG2	1.98	0.46
29:BD:8:LYS:HA	29:BD:12:VAL:HG11	1.96	0.46
22:B0:1045:C:C4'	25:B5:29:LYS:HE3	2.39	0.46
22:B0:411:G:C5'	22:B0:412:A:OP1	2.54	0.46
22:B0:858:G:HO2'	22:B0:859:G:P	2.39	0.46
1:AA:1073:U:H2'	1:AA:1074:G:H8	1.80	0.46
1:AA:1101:A:H5'	1:AA:1102:A:OP1	2.15	0.46
1:AA:958:A:H2'	1:AA:959:A:O4'	2.16	0.46
22:B0:1691:C:N4	22:B0:1697:G:N2	2.64	0.46
22:B0:2545:G:H1'	22:B0:2565:A:N1	2.30	0.46
27:BB:1:MET:HA	27:BB:86:GLU:HB3	1.97	0.46
27:BB:86:GLU:C	27:BB:88:GLU:H	2.18	0.46
3:AB:66:ILE:HD12	3:AB:159:ALA:HB3	1.97	0.46
14:AM:80:MET:CG	14:AM:91:ARG:HE	2.28	0.46
22:B0:843:G:C2	22:B0:936:A:N1	2.83	0.46
22:B0:1802:A:N6	22:B0:1817:G:N2	2.64	0.46
39:BN:34:GLY:O	39:BN:35:SER:HB2	2.16	0.46
5:AD:20:LEU:HD22	5:AD:20:LEU:N	2.30	0.46
30:BE:116:LEU:C	30:BE:116:LEU:HD23	2.36	0.46
1:AA:268:U:H2'	1:AA:269:C:C6	2.50	0.46
32:BG:33:ASN:HD22	32:BG:34:ILE:N	2.07	0.46
6:AE:140:ILE:HD12	6:AE:140:ILE:C	2.35	0.46
22:B0:762:U:C2'	22:B0:763:G:OP2	2.63	0.46
22:B0:243:U:H2'	22:B0:244:A:H8	1.80	0.46
1:AA:119:A:H1'	1:AA:120:A:C5	2.51	0.46
22:B0:2006:C:O5'	22:B0:2006:C:H6	1.99	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BL:8:ARG:C	37:BL:8:ARG:HE	2.19	0.46
22:B0:1761:C:H2'	22:B0:1762:A:H5'	1.95	0.46
26:BA:45:ASN:OD1	26:BA:46:GLY:N	2.49	0.46
5:AD:88:ASN:O	5:AD:91:ALA:HB3	2.16	0.46
44:BT:79:ARG:HH11	44:BT:79:ARG:HG2	1.80	0.46
22:B0:850:U:O5'	22:B0:850:U:H6	1.98	0.46
35:BJ:82:LEU:N	35:BJ:82:LEU:HD22	2.31	0.46
29:BD:119:LYS:HD2	29:BD:121:PHE:O	2.15	0.46
2:AU:14:A:H2'	2:AU:15:G:O4'	2.16	0.46
26:BA:153:LEU:O	26:BA:154:ALA:C	2.54	0.46
22:B0:1418:G:N2	26:BA:66:PHE:CD2	2.83	0.46
22:B0:1418:G:C6	26:BA:99:GLU:HB3	2.51	0.46
1:AA:413:G:N7	5:AD:32:LYS:HD3	2.31	0.46
22:B0:2895:C:H41	33:BH:13:ARG:HH11	1.63	0.46
22:B0:1201:U:H6	22:B0:1201:U:O5'	1.98	0.46
22:B0:203:A:N1	22:B0:204:A:N6	2.64	0.46
22:B0:807:U:H5'	22:B0:2445:G:O2'	2.15	0.46
22:B0:992:C:H2'	22:B0:993:G:C8	2.51	0.46
28:BC:94:GLN:HG2	35:BJ:21:ARG:HG3	1.96	0.46
41:BQ:51:LEU:O	41:BQ:55:ILE:HG23	2.16	0.46
22:B0:2157:G:HO2'	22:B0:2158:A:P	2.35	0.46
22:B0:2677:G:H2'	27:BB:125:TRP:CD2	2.51	0.46
22:B0:310:A:OP1	43:BS:67:SER:HB3	2.15	0.46
1:AA:717:U:C4	1:AA:734:G:N7	2.83	0.46
1:AA:1302:C:H5'	14:AM:16:ILE:CB	2.45	0.46
40:BO:60:TRP:O	40:BO:95:ALA:HB1	2.15	0.46
25:B5:14:MET:N	25:B5:14:MET:HE2	2.31	0.46
22:B0:2852:G:H2'	22:B0:2853:C:C6	2.50	0.46
22:B0:49:A:P	22:B0:51:G:H5'	2.55	0.46
45:BU:47:GLY:O	45:BU:54:ARG:HB3	2.15	0.46
1:AA:560:A:H4'	1:AA:561:U:O5'	2.15	0.46
22:B0:2570:G:O6	27:BB:152:PRO:HB3	2.16	0.46
49:B1:12:SER:OG	49:B1:50:GLU:HG3	2.15	0.46
35:BJ:74:THR:HG22	35:BJ:107:PHE:CB	2.46	0.46
22:B0:1085:A:O2'	22:B0:1086:A:H5'	2.16	0.46
47:BX:8:GLN:NE2	47:BX:15:ARG:NH2	2.64	0.46
22:B0:1816:C:H5''	22:B0:1817:G:OP2	2.16	0.46
22:B0:2527:C:H2'	22:B0:2528:U:O4'	2.16	0.46
22:B0:2089:C:H42	22:B0:2090:A:N6	2.14	0.46
38:BM:115:LEU:HD22	38:BM:115:LEU:N	2.30	0.46
36:BK:35:ALA:HB2	36:BK:128:THR:HG22	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BS:72:PHE:HB2	43:BS:84:PHE:HZ	1.80	0.46
22:B0:98:G:H2'	22:B0:99:U:H5	1.80	0.46
22:B0:2732:G:H2'	22:B0:2734:A:O4'	2.15	0.46
14:AM:44:ILE:C	14:AM:44:ILE:HD12	2.36	0.46
9:AH:46:GLU:O	9:AH:47:ASP:HB2	2.15	0.46
6:AE:71:ILE:HD12	6:AE:71:ILE:C	2.36	0.46
1:AA:1137:C:H4'	1:AA:1138:G:N1	2.30	0.46
40:BO:112:ALA:C	40:BO:114:ALA:N	2.68	0.46
23:B9:65:U:H2'	23:B9:66:A:H5'	1.98	0.46
37:BL:80:PHE:C	37:BL:82:GLU:N	2.69	0.46
22:B0:1924:C:H2'	22:B0:1925:C:C6	2.51	0.46
11:AJ:24:GLU:O	11:AJ:28:THR:HG22	2.15	0.46
22:B0:2010:G:O2'	22:B0:2011:U:H5'	2.16	0.46
24:B2:131:GLY:N	24:B2:132:PRO:HD2	2.31	0.46
14:AM:15:VAL:CG2	14:AM:40:GLU:HB2	2.46	0.46
26:BA:124:LYS:O	26:BA:126:GLY:N	2.49	0.46
22:B0:1421:G:N3	26:BA:149:LYS:CB	2.79	0.46
22:B0:1668:A:N6	22:B0:1674:G:N3	2.64	0.46
22:B0:774:G:O2'	22:B0:777:G:N3	2.47	0.46
28:BC:108:ILE:HG13	28:BC:181:ILE:HG12	1.98	0.46
28:BC:87:ALA:O	28:BC:88:ARG:CG	2.63	0.46
41:BQ:25:ARG:H	41:BQ:25:ARG:CD	2.29	0.46
2:AW:17:U:H2'	2:AW:19:G:OP2	2.15	0.46
2:AW:22:G:O2'	2:AW:23:A:H5'	2.16	0.46
22:B0:2128:G:O5'	22:B0:2165:C:C3'	2.61	0.46
27:BB:123:LYS:CB	27:BB:141:ARG:HE	2.25	0.46
1:AA:718:A:H2	1:AA:719:C:O4'	1.99	0.46
22:B0:819:A:O2'	22:B0:820:A:H5'	2.15	0.46
22:B0:783:A:C4	22:B0:785:G:H1'	2.51	0.46
39:BN:31:VAL:HG22	39:BN:32:VAL:N	2.30	0.46
22:B0:1045:C:OP1	25:B5:29:LYS:HG3	2.15	0.46
27:BB:40:LEU:HD13	27:BB:49:GLN:HA	1.97	0.46
22:B0:121:G:C4'	22:B0:149:A:H5'	2.35	0.46
36:BK:40:ARG:N	36:BK:40:ARG:HD3	2.31	0.46
45:BU:35:ILE:CG2	45:BU:70:VAL:HG21	2.44	0.46
7:AF:8:PHE:HE1	7:AF:10:VAL:HB	1.80	0.46
1:AA:890:G:C2'	1:AA:891:U:OP2	2.63	0.46
22:B0:1844:C:H2'	22:B0:1845:G:H8	1.80	0.46
1:AA:812:G:O2'	1:AA:813:U:O5'	2.34	0.46
34:BI:87:LEU:HD12	34:BI:87:LEU:O	2.16	0.46
22:B0:2345:G:H1	22:B0:2380:C:N4	2.13	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BG:9:LYS:HE2	32:BG:10:LEU:H	1.80	0.46
22:B0:2825:G:H3'	22:B0:2825:G:N3	2.30	0.46
18:AQ:20:ILE:O	18:AQ:45:VAL:HG22	2.15	0.46
1:AA:977:A:N3	1:AA:977:A:C2'	2.77	0.46
22:B0:1439:A:H2'	22:B0:1440:U:O4'	2.15	0.46
15:AN:46:LYS:C	15:AN:46:LYS:HD3	2.35	0.46
23:B9:36:C:H2'	23:B9:37:C:C6	2.51	0.46
37:BL:12:ARG:HA	37:BL:12:ARG:NE	2.31	0.46
1:AA:1030:U:H4'	1:AA:1031:C:H5	1.80	0.46
29:BD:56:LEU:HD22	29:BD:56:LEU:N	2.30	0.46
35:BJ:134:ALA:CB	35:BJ:135:ILE:HD13	2.46	0.46
25:B3:98:VAL:HB	25:B3:102:ASP:HB3	1.96	0.46
25:B5:68:VAL:O	25:B5:72:VAL:HG23	2.16	0.46
30:BE:42:VAL:O	30:BE:42:VAL:HG23	2.15	0.46
36:BK:11:LYS:NZ	36:BK:11:LYS:HB2	2.31	0.46
29:BD:39:VAL:HG23	29:BD:39:VAL:O	2.16	0.46
22:B0:1787:A:H5'	22:B0:2590:A:H5'	1.97	0.46
9:AH:37:ASN:O	9:AH:41:GLU:HG2	2.15	0.46
22:B0:1167:C:H2'	22:B0:1168:G:C8	2.51	0.46
22:B0:564:C:H2'	22:B0:565:C:C6	2.51	0.46
22:B0:1497:U:H5''	22:B0:1498:C:OP1	2.15	0.46
22:B0:1666:G:C2'	22:B0:1667:G:H5'	2.46	0.46
22:B0:1670:C:H2'	22:B0:1671:U:H5'	1.97	0.46
27:BB:133:THR:O	27:BB:137:SER:N	2.49	0.46
1:AA:407:U:H2'	1:AA:408:A:C8	2.51	0.46
1:AA:420:U:OP1	1:AA:512:U:C1'	2.61	0.46
22:B0:2898:G:N3	33:BH:132:HIS:CE1	2.84	0.46
33:BH:35:ARG:O	33:BH:39:LYS:HB2	2.16	0.46
22:B0:589:U:OP1	28:BC:43:THR:CA	2.63	0.46
22:B0:749:A:C3'	22:B0:750:A:H5'	2.46	0.46
28:BC:161:ALA:O	28:BC:167:VAL:HG11	2.15	0.46
28:BC:25:GLU:HA	28:BC:28:VAL:CG2	2.46	0.46
41:BQ:25:ARG:CZ	41:BQ:26:GLY:N	2.75	0.46
27:BB:123:LYS:O	27:BB:123:LYS:HG2	2.15	0.46
22:B0:481:G:N2	22:B0:509:C:H1'	2.31	0.46
43:BS:32:LYS:HD2	43:BS:63:ALA:HB1	1.97	0.46
2:AU:16:U:H6	2:AU:16:U:P	2.39	0.46
22:B0:821:A:H2'	22:B0:946:C:OP2	2.16	0.46
22:B0:1790:C:OP2	22:B0:1828:G:N1	2.49	0.46
46:BW:47:ARG:HG3	46:BW:48:ARG:CD	2.45	0.46
1:AA:1297:G:N3	8:AG:115:MET:HG3	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BL:24:MET:O	37:BL:44:LEU:HD13	2.16	0.46
22:B0:1153:C:H5''	40:BO:61:ILE:CD1	2.45	0.46
22:B0:994:C:H2'	22:B0:996:A:C8	2.51	0.46
22:B0:1037:G:H2'	22:B0:1038:G:C8	2.51	0.46
22:B0:2146:C:H2'	22:B0:2147:A:H5''	1.97	0.46
1:AA:448:A:H62	1:AA:486:U:H3	1.64	0.46
2:AU:74:C:H2'	22:B0:2557:G:C5'	2.46	0.46
2:AU:75:C:H5''	22:B0:2557:G:H8	1.78	0.46
22:B0:2573:C:OP1	22:B0:2574:G:H5''	2.16	0.46
22:B0:2581:G:O2'	22:B0:2582:G:P	2.74	0.46
34:BI:6:THR:O	34:BI:20:MET:HA	2.15	0.46
22:B0:354:A:H2'	22:B0:355:U:O4'	2.16	0.46
1:AA:888:G:H2'	1:AA:889:A:C8	2.51	0.46
1:AA:1238:A:H2	1:AA:1242:G:H1'	1.80	0.46
34:BI:16:ALA:HA	34:BI:46:ALA:HB2	1.98	0.46
22:B0:2343:U:O2'	22:B0:2344:U:H5'	2.16	0.46
32:BG:9:LYS:NZ	32:BG:27:LEU:HD22	2.31	0.46
1:AA:925:G:H1	1:AA:1391:U:H3	1.63	0.46
3:AB:14:HIS:HE1	3:AB:211:LEU:HD23	1.77	0.46
36:BK:121:ALA:HA	36:BK:124:LEU:HD21	1.96	0.46
18:AQ:11:VAL:HG13	18:AQ:20:ILE:CG2	2.46	0.46
22:B0:2004:G:O2'	22:B0:2005:A:H5'	2.16	0.46
22:B0:1922:G:O2'	22:B0:1923:U:P	2.73	0.46
30:BE:85:LYS:CD	30:BE:131:VAL:HG12	2.46	0.46
1:AA:99:C:N4	1:AA:101:A:H62	2.14	0.46
2:AW:63:C:H2'	2:AW:64:A:C8	2.50	0.46
20:AS:22:VAL:HG12	20:AS:22:VAL:O	2.16	0.46
15:AN:73:LEU:CD1	15:AN:75:LYS:HB2	2.45	0.46
1:AA:356:A:H2'	1:AA:357:G:O4'	2.16	0.46
26:BA:249:VAL:HB	26:BA:250:GLN:OE1	2.15	0.46
22:B0:24:G:H2'	22:B0:25:U:C6	2.51	0.46
22:B0:1917:U:H2'	22:B0:1918:A:C8	2.51	0.46
22:B0:1748:C:H2'	22:B0:1749:A:C8	2.51	0.46
22:B0:2045:C:O2'	22:B0:2046:G:H5'	2.16	0.46
22:B0:1494:A:O3'	26:BA:140:VAL:CG1	2.64	0.46
26:BA:57:HIS:CD2	26:BA:58:LYS:HZ3	2.34	0.46
22:B0:1996:C:O2	27:BB:138:LEU:O	2.34	0.46
1:AA:429:U:OP1	1:AA:430:A:H5''	2.16	0.46
13:AL:79:ILE:HG13	13:AL:103:CYS:HB2	1.98	0.46
33:BH:25:LEU:HD12	33:BH:64:VAL:HA	1.98	0.46
22:B0:809:G:H4'	22:B0:1254:A:H1'	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:791:C:H1'	22:B0:793:A:H4'	1.97	0.46
22:B0:799:G:C8	28:BC:57:LYS:N	2.78	0.46
28:BC:118:LEU:CB	28:BC:187:VAL:HA	2.45	0.46
28:BC:21:ARG:HG2	28:BC:106:LYS:HB3	1.97	0.46
28:BC:43:THR:HG22	28:BC:90:GLN:C	2.36	0.46
40:BO:26:ALA:C	40:BO:28:SER:H	2.20	0.46
22:B0:518:G:H5''	41:BQ:18:ARG:NE	2.31	0.46
22:B0:2110:G:HO2'	22:B0:2111:U:C1'	2.29	0.46
36:BK:84:LYS:HD3	36:BK:84:LYS:C	2.36	0.46
22:B0:948:C:H2'	22:B0:949:G:C8	2.51	0.46
22:B0:2176:A:C4'	24:B2:167:ASN:H	2.28	0.46
39:BN:63:ILE:HD11	39:BN:74:GLN:HG2	1.98	0.46
42:BR:11:LEU:CB	42:BR:34:VAL:HG12	2.46	0.46
22:B0:71:A:H5''	22:B0:72:U:O5'	2.15	0.46
1:AA:1235:U:C3'	1:AA:1236:A:H5''	2.45	0.46
2:AU:74:C:O3'	22:B0:2556:C:C3'	2.64	0.46
22:B0:2271:G:H2'	22:B0:2272:U:C6	2.51	0.46
17:AP:71:VAL:HG22	17:AP:75:ILE:CD1	2.46	0.46
1:AA:1222:G:OP2	20:AS:2:ARG:NE	2.49	0.46
30:BE:11:PRO:HB2	30:BE:14:VAL:HG23	1.97	0.46
1:AA:519:C:H2'	1:AA:520:A:O4'	2.16	0.46
1:AA:792:A:H4'	1:AA:793:U:O5'	2.14	0.46
27:BB:5:VAL:O	27:BB:83:ARG:HD3	2.16	0.46
22:B0:2049:G:H2'	22:B0:2050:C:C5	2.50	0.46
22:B0:447:A:N6	22:B0:473:G:N3	2.64	0.46
22:B0:849:A:H61	22:B0:928:A:N6	2.13	0.46
22:B0:1892:C:H2'	22:B0:1893:C:H6	1.80	0.46
10:AI:10:ARG:O	10:AI:11:ARG:HB2	2.16	0.46
7:AF:26:THR:O	7:AF:30:THR:HG23	2.16	0.46
42:BR:93:LEU:HD21	42:BR:96:VAL:CB	2.41	0.46
22:B0:2614:A:H8	22:B0:2614:A:OP1	1.99	0.46
36:BK:42:THR:HG22	36:BK:45:GLN:HE21	1.81	0.46
25:B3:98:VAL:HB	25:B3:102:ASP:HB2	1.98	0.46
22:B0:1631:G:C4	22:B0:1633:G:OP2	2.69	0.46
22:B0:387:U:O2'	22:B0:388:G:OP2	2.32	0.46
5:AD:25:ARG:HD2	5:AD:25:ARG:N	2.30	0.46
23:B9:30:C:H2'	23:B9:31:C:O4'	2.16	0.46
22:B0:1577:C:O2'	26:BA:64:VAL:HG23	2.16	0.45
22:B0:1493:A:P	26:BA:143:VAL:CG2	3.04	0.45
5:AD:54:LEU:HA	5:AD:202:LEU:CD2	2.45	0.45
22:B0:2897:U:N3	33:BH:14:ASP:HB2	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BH:96:ARG:HH11	33:BH:96:ARG:HG2	1.81	0.45
22:B0:1324:G:H4'	22:B0:1616:A:H62	1.80	0.45
22:B0:587:C:O2'	28:BC:82:GLY:O	2.35	0.45
40:BO:35:PHE:H	40:BO:38:VAL:HG22	1.81	0.45
41:BQ:56:ALA:C	41:BQ:58:ALA:N	2.69	0.45
22:B0:2108:A:H2'	22:B0:2109:U:C4'	2.46	0.45
22:B0:2161:C:H5	24:B2:7:MET:HG2	1.82	0.45
1:AA:1384:C:H2'	1:AA:1385:G:C8	2.51	0.45
1:AA:1386:G:N9	10:AI:128:LYS:HE2	2.31	0.45
22:B0:825:A:OP1	22:B0:2428:G:N1	2.49	0.45
22:B0:311:A:H61	22:B0:329:G:H5''	1.81	0.45
43:BS:10:VAL:HG12	43:BS:11:ILE:N	2.30	0.45
22:B0:959:A:C5	36:BK:80:VAL:O	2.69	0.45
2:AU:53:G:H1	2:AU:61:C:N4	2.11	0.45
2:AU:59:U:H2'	2:AU:60:C:H5'	1.98	0.45
2:AV:9:A:H4'	2:AV:46:G:O4'	2.16	0.45
27:BB:13:ARG:NE	27:BB:13:ARG:C	2.64	0.45
22:B0:2176:A:OP1	24:B2:166:LYS:C	2.55	0.45
42:BR:42:GLU:O	42:BR:44:LYS:HG2	2.15	0.45
5:AD:117:VAL:HG22	5:AD:122:ILE:HD12	1.97	0.45
22:B0:57:C:H5''	42:BR:76:ARG:HB2	1.98	0.45
22:B0:58:G:N2	22:B0:73:A:H1'	2.31	0.45
22:B0:632:A:H2'	22:B0:633:A:C8	2.51	0.45
37:BL:29:VAL:HG13	37:BL:75:ILE:HB	1.97	0.45
45:BU:33:GLY:CA	45:BU:67:LYS:HD2	2.46	0.45
1:AA:481:G:O2'	1:AA:482:A:C4'	2.65	0.45
35:BJ:47:ARG:NH1	35:BJ:47:ARG:HB3	2.31	0.45
34:BI:3:GLN:H	34:BI:6:THR:HG21	1.81	0.45
1:AA:1015:G:H1'	1:AA:1218:C:O2'	2.15	0.45
1:AA:890:G:O2'	1:AA:891:U:C6	2.70	0.45
1:AA:572:A:C4'	1:AA:917:G:H4'	2.46	0.45
47:BX:4:ILE:HG21	47:BX:56:VAL:HB	1.97	0.45
1:AA:1182:G:O2'	1:AA:1183:U:C5'	2.64	0.45
22:B0:1657:U:O2'	22:B0:1658:C:H5'	2.16	0.45
1:AA:1502:A:H2	1:AA:1505:G:N2	2.13	0.45
22:B0:2786:U:H6	22:B0:2786:U:O5'	1.99	0.45
15:AN:81:ILE:HD12	15:AN:82:LYS:N	2.31	0.45
30:BE:102:ILE:HD12	30:BE:102:ILE:C	2.37	0.45
9:AH:35:ILE:O	9:AH:39:LEU:HD23	2.16	0.45
19:AR:35:SER:HB2	19:AR:37:LYS:NZ	2.30	0.45
35:BJ:70:LYS:CD	35:BJ:70:LYS:H	2.27	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BD:163:GLU:C	29:BD:165:GLY:N	2.68	0.45
22:B0:2098:U:H2'	22:B0:2099:U:C6	2.52	0.45
5:AD:62:ARG:HG2	5:AD:62:ARG:HH11	1.81	0.45
22:B0:393:C:H2'	22:B0:394:C:C6	2.50	0.45
30:BE:45:ALA:HB3	30:BE:48:THR:O	2.16	0.45
36:BK:11:LYS:HZ2	36:BK:11:LYS:HB2	1.82	0.45
39:BN:42:PHE:H	39:BN:42:PHE:HD1	1.65	0.45
23:B9:20:G:H2'	23:B9:21:G:C8	2.51	0.45
1:AA:77:A:H2'	1:AA:78:A:H8	1.81	0.45
22:B0:1498:C:OP2	26:BA:61:TYR:O	2.34	0.45
1:AA:408:A:H2'	1:AA:409:U:C6	2.51	0.45
1:AA:501:C:H2'	1:AA:502:A:H8	1.81	0.45
5:AD:36:ALA:HB1	5:AD:37:PRO:HD2	1.98	0.45
1:AA:420:U:C1'	5:AD:39:GLN:NE2	2.79	0.45
33:BH:18:VAL:HG22	33:BH:32:LEU:HD21	1.97	0.45
25:B3:91:PRO:O	25:B3:92:ALA:HB3	2.16	0.45
28:BC:150:THR:CG2	28:BC:186:VAL:HA	2.47	0.45
35:BJ:54:GLN:HG2	35:BJ:55:MET:N	2.31	0.45
22:B0:310:A:H1'	22:B0:330:A:N7	2.31	0.45
4:AC:133:MET:HG3	4:AC:134:LYS:N	2.31	0.45
1:AA:982:U:H4'	1:AA:983:A:H5''	1.98	0.45
39:BN:55:HIS:CG	39:BN:56:SER:N	2.81	0.45
22:B0:2076:U:H6	22:B0:2076:U:OP1	2.00	0.45
5:AD:113:ALA:O	5:AD:117:VAL:HG23	2.15	0.45
45:BU:31:LEU:H	45:BU:31:LEU:HD23	1.81	0.45
22:B0:2144:G:C3'	22:B0:2145:C:H5''	2.46	0.45
24:B2:176:LYS:O	24:B2:184:LEU:HD21	2.14	0.45
24:B2:22:ILE:CD1	24:B2:22:ILE:H	2.29	0.45
22:B0:120:U:HO2'	22:B0:121:G:P	2.37	0.45
36:BK:4:PRO:O	36:BK:6:ARG:HG3	2.16	0.45
22:B0:2262:U:N1	45:BU:11:ASN:O	2.49	0.45
17:AP:4:ILE:HG12	17:AP:21:VAL:HG13	1.97	0.45
22:B0:1061:U:H1'	22:B0:1070:A:C1'	2.41	0.45
1:AA:1015:G:H2'	1:AA:1016:A:O4'	2.16	0.45
22:B0:1944:U:O4'	22:B0:1955:U:H1'	2.15	0.45
25:B3:4:LYS:O	25:B3:8:ILE:HG12	2.16	0.45
22:B0:445:C:H2'	22:B0:446:G:O4'	2.16	0.45
22:B0:447:A:H1'	22:B0:449:A:N6	2.31	0.45
25:B3:17:MET:O	25:B3:20:VAL:HB	2.16	0.45
1:AA:252:U:H2'	1:AA:253:A:C8	2.50	0.45
12:AK:17:ASP:HA	12:AK:80:ASN:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AK:81:LEU:O	12:AK:107:THR:HG22	2.16	0.45
1:AA:365:U:H2'	1:AA:365:U:O2	2.15	0.45
22:B0:1786:A:H62	22:B0:2606:C:H1'	1.81	0.45
22:B0:2484:G:H5''	36:BK:44:ARG:HD3	1.99	0.45
44:BT:77:VAL:HG13	44:BT:89:ILE:CG1	2.46	0.45
1:AA:129:A:O2'	1:AA:130:A:P	2.74	0.45
22:B0:1234:U:H2'	22:B0:1235:G:O4'	2.17	0.45
1:AA:8:A:H2	5:AD:205:LYS:HB3	1.82	0.45
11:AJ:36:VAL:HG12	11:AJ:38:GLY:H	1.80	0.45
22:B0:931:U:O3'	22:B0:932:U:O4'	2.34	0.45
22:B0:1462:U:H2'	22:B0:1463:G:C8	2.51	0.45
1:AA:229:U:H2'	1:AA:230:G:H8	1.81	0.45
43:BS:44:HIS:NE2	43:BS:46:LYS:HD2	2.31	0.45
8:AG:135:LYS:HD2	8:AG:135:LYS:C	2.37	0.45
18:AQ:13:SER:HB3	18:AQ:21:VAL:CG2	2.45	0.45
22:B0:1016:G:H2'	22:B0:1017:G:C8	2.52	0.45
22:B0:115:C:H2'	22:B0:116:C:C6	2.51	0.45
22:B0:2258:C:N4	22:B0:2426:A:H4'	2.31	0.45
5:AD:44:LYS:O	5:AD:44:LYS:HG3	2.16	0.45
22:B0:1811:G:O2'	22:B0:1812:U:H5'	2.17	0.45
22:B0:2849:U:C2'	22:B0:2850:A:OP2	2.64	0.45
22:B0:1417:U:H6	26:BA:100:ARG:HB2	1.81	0.45
33:BH:24:THR:HG22	33:BH:26:GLY:N	2.27	0.45
33:BH:33:ALA:O	33:BH:36:LEU:HD23	2.16	0.45
22:B0:311:A:HO2'	22:B0:331:C:H3'	1.81	0.45
22:B0:2455:G:H2'	22:B0:2456:C:H6	1.81	0.45
6:AE:155:LYS:HB3	9:AH:68:LYS:HZ3	1.77	0.45
1:AA:981:U:C5	20:AS:5:LYS:HE3	2.51	0.45
2:AV:55:U:O2	2:AV:57:G:OP2	2.33	0.45
24:B2:64:LEU:HB3	24:B2:65:PRO:CD	2.42	0.45
39:BN:21:PRO:HG3	39:BN:61:ARG:HE	1.82	0.45
25:B5:86:LEU:HD12	25:B5:91:PRO:HB2	1.98	0.45
42:BR:87:LEU:HA	42:BR:88:LYS:N	2.32	0.45
5:AD:131:ILE:HG23	5:AD:131:ILE:O	2.17	0.45
42:BR:66:LYS:HG3	42:BR:67:VAL:N	2.30	0.45
22:B0:604:G:O2'	22:B0:605:G:H5'	2.16	0.45
1:AA:145:G:N2	1:AA:177:G:N2	2.64	0.45
25:B5:26:MET:HE2	25:B5:38:VAL:HG21	1.98	0.45
22:B0:2145:C:C3'	22:B0:2146:C:H5''	2.47	0.45
45:BU:40:ARG:HA	45:BU:65:LYS:HB3	1.97	0.45
1:AA:1098:C:H2'	1:AA:1099:G:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1100:C:C2'	1:AA:1101:A:OP1	2.64	0.45
1:AA:1171:A:H2'	1:AA:1172:C:H6	1.81	0.45
19:AR:7:ARG:HB2	19:AR:7:ARG:HH11	1.80	0.45
24:B2:138:ASN:H	24:B2:143:THR:HB	1.82	0.45
34:BI:61:VAL:HG23	34:BI:87:LEU:HD23	1.98	0.45
21:AT:8:LYS:O	21:AT:12:GLN:HG3	2.17	0.45
22:B0:608:A:H2'	22:B0:609:A:C8	2.52	0.45
9:AH:6:ILE:CD1	9:AH:31:LEU:HD12	2.46	0.45
22:B0:692:C:H2'	22:B0:693:A:H8	1.81	0.45
1:AA:1158:C:C2'	1:AA:1158:C:O2	2.57	0.45
22:B0:1658:C:O5'	22:B0:1658:C:H6	2.00	0.45
1:AA:1504:G:H4'	1:AA:1505:G:C4	2.50	0.45
1:AA:1278:G:H5''	1:AA:1279:G:OP1	2.16	0.45
22:B0:1276:A:H2'	22:B0:1277:G:H8	1.82	0.45
32:BG:57:VAL:HG13	32:BG:69:VAL:HB	1.99	0.45
37:BL:8:ARG:H	37:BL:8:ARG:HD3	1.81	0.45
1:AA:1431:A:H61	1:AA:1469:C:H42	1.65	0.45
22:B0:1125:G:N7	22:B0:1126:A:N7	2.64	0.45
1:AA:772:U:H2'	1:AA:773:G:H8	1.81	0.45
5:AD:82:LYS:HD2	5:AD:82:LYS:C	2.37	0.45
22:B0:1094:U:H1'	22:B0:1097:U:H5	1.80	0.45
26:BA:43:ASN:O	26:BA:44:ASN:O	2.35	0.45
23:B9:38:C:H2'	23:B9:39:A:C8	2.52	0.45
1:AA:1496:C:H2'	1:AA:1497:G:O4'	2.15	0.45
47:BX:30:ARG:HB2	47:BX:33:HIS:CE1	2.52	0.45
26:BA:187:CYS:HA	26:BA:188:ARG:NE	2.31	0.45
13:AL:26:CYS:CB	13:AL:29:LYS:HE2	2.47	0.45
25:B3:107:LYS:HE3	25:B3:117:VAL:O	2.17	0.45
22:B0:752:A:N6	22:B0:1781:U:HO2'	2.14	0.45
22:B0:776:G:N3	22:B0:776:G:H2'	2.32	0.45
22:B0:972:A:H2'	22:B0:973:A:C8	2.52	0.45
22:B0:587:C:H1'	28:BC:76:PRO:HA	1.99	0.45
22:B0:1261:C:H2'	22:B0:1262:A:H8	1.82	0.45
22:B0:2136:G:N3	22:B0:2137:U:O5'	2.49	0.45
1:AA:932:C:H42	1:AA:1385:G:H22	1.64	0.45
1:AA:933:G:C6	1:AA:1385:G:N2	2.84	0.45
2:AW:76:A:OP2	22:B0:2424:C:O2'	2.34	0.45
22:B0:501:A:N6	22:B0:503:A:C4	2.85	0.45
22:B0:481:G:C6	22:B0:507:A:H1'	2.51	0.45
23:B9:85:G:O6	23:B9:91:C:N3	2.49	0.45
45:BU:66:VAL:HG11	45:BU:73:PRO:HA	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1972:G:C2'	22:B0:1973:G:H8	2.24	0.45
17:AP:20:VAL:HG11	17:AP:32:PHE:CD2	2.52	0.45
17:AP:18:GLN:HG2	17:AP:20:VAL:HG23	1.98	0.45
1:AA:6:G:N1	6:AE:102:THR:HG23	2.20	0.45
1:AA:531:U:C5'	1:AA:532:A:OP1	2.58	0.45
19:AR:33:THR:CG2	19:AR:34:GLU:H	2.23	0.45
22:B0:532:A:C5'	22:B0:533:G:OP2	2.61	0.45
1:AA:518:C:H1'	1:AA:529:G:C2	2.52	0.45
1:AA:913:A:O2'	1:AA:914:A:OP2	2.32	0.45
40:BO:77:LYS:O	40:BO:77:LYS:HG2	2.16	0.45
47:BX:12:ALA:HA	47:BX:15:ARG:HE	1.80	0.45
1:AA:969:A:H4'	1:AA:969:A:OP1	2.16	0.45
30:BE:167:VAL:HG12	30:BE:168:VAL:N	2.31	0.45
22:B0:460:A:H5'	42:BR:72:GLN:HG2	1.98	0.45
22:B0:1213:A:H62	22:B0:1236:G:C1'	2.29	0.45
2:AW:1:G:C5'	49:B1:2:LYS:HD2	2.46	0.45
1:AA:647:C:H2'	1:AA:648:A:C8	2.50	0.45
22:B0:1922:G:H2'	22:B0:1923:U:C6	2.52	0.45
5:AD:115:GLN:NE2	5:AD:153:ARG:HH12	2.14	0.45
40:BO:64:ILE:HB	40:BO:78:PHE:CZ	2.51	0.45
1:AA:366:A:O2'	1:AA:367:U:OP1	2.32	0.45
25:B5:64:ASN:O	25:B5:68:VAL:HG23	2.16	0.45
37:BL:72:ASP:O	37:BL:76:VAL:HB	2.16	0.45
22:B0:2842:G:H2'	22:B0:2843:G:H8	1.82	0.45
26:BA:106:PRO:HD2	26:BA:109:LEU:HD23	1.98	0.45
22:B0:1482:G:H2'	22:B0:1483:A:C8	2.52	0.45
25:B3:32:VAL:O	25:B3:36:ALA:HB2	2.17	0.45
1:AA:729:A:H2'	1:AA:730:G:H8	1.82	0.45
8:AG:114:SER:HB3	8:AG:117:LEU:HB3	1.98	0.45
22:B0:439:A:H2'	22:B0:440:C:C6	2.52	0.45
31:BF:80:ILE:HD11	31:BF:102:ALA:HB1	1.98	0.45
22:B0:1416:G:N1	26:BA:94:LEU:CA	2.75	0.45
26:BA:140:VAL:CA	26:BA:190:THR:O	2.64	0.45
22:B0:1580:A:H1'	26:BA:69:ASN:H	1.80	0.45
33:BH:12:LYS:HE3	33:BH:12:LYS:CA	2.45	0.45
33:BH:17:VAL:CG2	33:BH:18:VAL:N	2.75	0.45
22:B0:1201:U:O3'	35:BJ:13:LYS:HE2	2.16	0.45
22:B0:658:U:N1	28:BC:98:LYS:HD3	2.32	0.45
35:BJ:21:ARG:HD2	35:BJ:22:GLY:N	2.29	0.45
40:BO:15:LYS:H	40:BO:15:LYS:NZ	2.15	0.45
22:B0:518:G:O3'	41:BQ:18:ARG:HG3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AW:53:G:H1	2:AW:61:C:N4	2.13	0.45
22:B0:2543:G:C2	22:B0:2646:C:H4'	2.50	0.45
22:B0:2678:C:H5''	27:BB:124:ARG:CA	2.46	0.45
27:BB:121:THR:O	27:BB:124:ARG:HB2	2.16	0.45
27:BB:122:VAL:HG11	27:BB:129:THR:HB	1.98	0.45
43:BS:10:VAL:HG13	43:BS:69:VAL:HB	1.99	0.45
29:BD:101:ARG:HG2	29:BD:101:ARG:O	2.16	0.45
22:B0:1939:U:OP1	22:B0:1940:U:OP2	2.34	0.45
22:B0:1965:C:C5	22:B0:1967:C:OP2	2.70	0.45
1:AA:1318:A:OP1	20:AS:41:PRO:HG2	2.16	0.45
39:BN:20:ARG:HG3	39:BN:22:GLY:HA3	1.99	0.45
35:BJ:129:LYS:HD2	35:BJ:129:LYS:C	2.36	0.45
37:BL:112:TYR:O	37:BL:114:GLU:N	2.49	0.45
1:AA:1108:G:H2'	1:AA:1109:C:H6	1.82	0.45
25:B5:16:VAL:O	25:B5:20:VAL:HG23	2.16	0.45
22:B0:909:A:OP1	36:BK:5:LYS:HB3	2.17	0.45
22:B0:2365:G:H5'	45:BU:37:VAL:CG2	2.46	0.45
22:B0:2366:A:H5'	45:BU:65:LYS:HE3	1.98	0.45
27:BB:28:GLU:HG2	27:BB:186:LEU:CD2	2.46	0.45
29:BD:47:LYS:O	29:BD:48:LEU:HB2	2.16	0.45
13:AL:30:ARG:HH11	13:AL:30:ARG:CB	2.30	0.45
3:AB:66:ILE:CD1	3:AB:159:ALA:HB3	2.46	0.45
22:B0:2048:G:O2'	22:B0:2049:G:H5'	2.17	0.45
26:BA:78:GLU:HB3	26:BA:92:LEU:HD22	1.99	0.45
9:AH:6:ILE:HD11	9:AH:31:LEU:HD12	1.98	0.45
28:BC:3:LEU:HB2	28:BC:17:THR:O	2.16	0.45
12:AK:61:ALA:HA	12:AK:64:VAL:HG22	1.99	0.45
11:AJ:89:ARG:HH11	11:AJ:89:ARG:CB	2.28	0.45
4:AC:108:PRO:HB3	4:AC:114:LEU:HD13	1.97	0.45
20:AS:13:HIS:CG	20:AS:14:LEU:N	2.85	0.45
35:BJ:108:ALA:HB3	35:BJ:126:ARG:NH1	2.31	0.45
30:BE:97:VAL:HG13	30:BE:97:VAL:O	2.16	0.45
22:B0:729:G:N3	22:B0:729:G:H3'	2.32	0.45
16:AO:46:LYS:CD	16:AO:46:LYS:H	2.26	0.45
1:AA:119:A:O2'	1:AA:120:A:P	2.74	0.45
22:B0:347:A:N1	22:B0:348:A:N6	2.64	0.45
30:BE:101:VAL:HG12	30:BE:111:PRO:HB2	1.99	0.45
18:AQ:9:GLY:O	18:AQ:57:VAL:HG13	2.15	0.45
14:AM:2:ARG:HG3	29:BD:147:ARG:NH2	2.30	0.45
22:B0:1369:G:H2'	22:B0:1370:C:C5	2.52	0.45
34:BI:88:ASN:OD1	34:BI:90:ASN:HB2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BF:3:VAL:HG22	31:BF:36:ALA:HB1	1.98	0.45
1:AA:823:C:H2'	1:AA:824:G:C8	2.52	0.45
22:B0:1164:C:C2	22:B0:1185:G:N2	2.85	0.45
8:AG:138:GLU:O	8:AG:142:ARG:HG3	2.17	0.45
26:BA:140:VAL:O	26:BA:160:TYR:HA	2.16	0.45
22:B0:1993:U:O2'	22:B0:1994:C:H5'	2.16	0.45
33:BH:31:GLU:O	33:BH:32:LEU:HB2	2.17	0.45
22:B0:1243:C:C4	22:B0:1244:A:N7	2.85	0.45
22:B0:340:A:C2'	22:B0:341:C:H5'	2.47	0.45
22:B0:971:G:H2'	22:B0:972:A:H5'	1.98	0.45
28:BC:35:TYR:O	28:BC:36:ALA:C	2.54	0.45
41:BQ:22:ASP:OD1	41:BQ:23:LEU:N	2.50	0.45
41:BQ:49:LYS:HZ3	41:BQ:49:LYS:CA	2.30	0.45
36:BK:75:GLU:HG3	36:BK:76:LYS:N	2.31	0.45
22:B0:2176:A:C3'	24:B2:167:ASN:H	2.29	0.45
1:AA:1133:G:H2'	1:AA:1134:G:C8	2.51	0.45
37:BL:49:GLU:O	37:BL:49:GLU:HG3	2.17	0.45
24:B2:176:LYS:HD2	24:B2:176:LYS:N	2.32	0.45
10:AI:27:ILE:HD12	10:AI:34:LEU:HD21	1.98	0.45
1:AA:1313:U:O2'	1:AA:1314:C:H5'	2.16	0.45
7:AF:11:HIS:CE1	7:AF:13:ASP:HB2	2.51	0.45
1:AA:1085:U:O2'	1:AA:1086:U:P	2.75	0.45
1:AA:725:G:H2'	1:AA:726:C:H6	1.82	0.45
22:B0:1775:U:H2'	22:B0:1776:G:O4'	2.16	0.45
22:B0:1086:A:H4'	22:B0:1103:A:C2	2.52	0.45
2:AW:65:G:H2'	2:AW:66:A:H8	1.82	0.45
11:AJ:12:ALA:HB3	11:AJ:18:ILE:HD11	1.99	0.45
1:AA:689:C:H5'	1:AA:705:G:H21	1.82	0.45
29:BD:116:LEU:H	29:BD:116:LEU:CD2	2.22	0.45
1:AA:1510:C:H2'	1:AA:1511:G:C8	2.52	0.45
9:AH:9:MET:HB2	9:AH:26:MET:HE3	1.98	0.45
32:BG:27:LEU:O	32:BG:32:VAL:HG13	2.16	0.45
1:AA:268:U:H2'	1:AA:269:C:H6	1.82	0.45
32:BG:135:MET:SD	32:BG:135:MET:O	2.75	0.45
49:B1:26:LYS:N	49:B1:26:LYS:CD	2.79	0.45
1:AA:50:A:H2'	1:AA:360:G:H22	1.82	0.45
4:AC:28:PHE:CE2	4:AC:32:LEU:HD11	2.51	0.45
22:B0:2058:A:HO2'	22:B0:2059:A:P	2.39	0.45
3:AB:112:ARG:O	3:AB:116:LEU:HG	2.15	0.45
48:BZ:36:LYS:HE2	48:BZ:38:LEU:CD1	2.45	0.45
29:BD:59:ILE:HG22	29:BD:139:GLU:OE1	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BF:99:ILE:O	31:BF:103:VAL:HG23	2.17	0.45
31:BF:99:ILE:N	31:BF:99:ILE:HD12	2.32	0.45
1:AA:147:G:H2'	1:AA:148:G:C8	2.51	0.45
1:AA:1213:A:N6	1:AA:1215:G:H1'	2.32	0.45
22:B0:1097:U:H2'	22:B0:1098:A:H5'	1.99	0.45
1:AA:131:A:H2'	1:AA:132:C:C6	2.50	0.45
39:BN:33:GLU:OE2	39:BN:81:ASP:HB3	2.16	0.45
28:BC:139:LYS:HD2	28:BC:139:LYS:C	2.37	0.45
13:AL:24:GLU:O	13:AL:24:GLU:HG2	2.16	0.45
24:B2:161:ARG:HD3	24:B2:161:ARG:N	2.31	0.45
3:AB:6:ARG:HH11	3:AB:6:ARG:HG2	1.81	0.45
22:B0:1618:A:H5'	22:B0:1619:G:OP2	2.17	0.45
22:B0:2579:C:O2'	22:B0:2580:U:H5'	2.17	0.45
26:BA:143:VAL:HA	26:BA:189:ALA:HB2	1.98	0.45
22:B0:1421:G:C1'	26:BA:146:LYS:HB3	2.45	0.45
22:B0:1491:A:OP2	26:BA:175:LEU:C	2.55	0.45
26:BA:90:ILE:O	26:BA:90:ILE:HG13	2.16	0.45
26:BA:98:GLY:O	26:BA:99:GLU:HB2	2.17	0.45
33:BH:109:LEU:H	33:BH:110:PRO:HA	1.79	0.45
22:B0:672:C:O5'	22:B0:672:C:H6	1.99	0.45
22:B0:659:G:H1'	28:BC:98:LYS:N	2.32	0.45
40:BO:43:GLN:HA	40:BO:46:TYR:CB	2.45	0.45
22:B0:493:G:H2'	41:BQ:7:HIS:ND1	2.32	0.45
22:B0:2115:G:N3	22:B0:2168:G:O4'	2.50	0.45
22:B0:2678:C:O2'	27:BB:165:MET:SD	2.75	0.45
22:B0:2249:U:O2'	22:B0:2250:G:P	2.75	0.45
1:AA:978:A:C3'	20:AS:5:LYS:N	2.79	0.45
1:AA:719:C:OP2	1:AA:720:C:H5	2.00	0.45
19:AR:59:LYS:CD	19:AR:62:ARG:HH22	2.29	0.45
22:B0:2855:C:O5'	22:B0:2855:C:H6	1.99	0.45
22:B0:2553:G:C3'	22:B0:2554:U:H5''	2.42	0.45
1:AA:520:A:N1	1:AA:536:C:H1'	2.32	0.45
1:AA:890:G:H2'	1:AA:891:U:OP2	2.16	0.45
22:B0:1802:A:H62	22:B0:1815:A:H62	1.65	0.45
32:BG:3:LYS:CA	32:BG:3:LYS:HE2	2.43	0.45
14:AM:95:PRO:HB3	14:AM:101:THR:HG21	1.99	0.45
1:AA:187:G:H2'	1:AA:188:C:C6	2.52	0.45
32:BG:9:LYS:HG2	32:BG:56:VAL:O	2.17	0.45
1:AA:967:C:P	1:AA:969:A:H5'	2.56	0.45
9:AH:86:LYS:HE2	9:AH:124:ILE:HG12	1.98	0.45
41:BQ:30:SER:O	41:BQ:33:LEU:HG	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:31:G:C4	1:AA:48:C:H5'	2.51	0.45
22:B0:2484:G:H2'	22:B0:2485:G:C8	2.51	0.45
22:B0:242:G:C2'	22:B0:243:U:OP2	2.65	0.45
22:B0:2690:U:H2'	22:B0:2691:C:H5'	1.98	0.45
22:B0:1210:G:H1'	22:B0:1212:G:C2	2.52	0.45
39:BN:16:VAL:O	39:BN:16:VAL:HG23	2.17	0.45
25:B5:84:LYS:HB3	25:B5:84:LYS:HZ3	1.81	0.45
5:AD:205:LYS:HE2	5:AD:205:LYS:C	2.37	0.45
36:BK:38:ARG:HG3	36:BK:96:ILE:O	2.17	0.45
1:AA:590:U:H2'	1:AA:591:U:C6	2.52	0.45
1:AA:649:A:H2'	1:AA:650:G:C8	2.52	0.45
22:B0:1463:G:H2'	22:B0:1464:G:H8	1.82	0.45
11:AJ:80:THR:H	11:AJ:83:THR:CB	2.29	0.45
3:AB:137:THR:O	3:AB:141:GLU:HG3	2.17	0.45
41:BQ:72:THR:HG23	41:BQ:73:LYS:H	1.82	0.45
38:BM:31:THR:C	38:BM:33:ARG:H	2.19	0.45
38:BM:39:VAL:O	38:BM:48:LEU:HD13	2.16	0.45
14:AM:68:LEU:C	14:AM:68:LEU:HD23	2.37	0.45
28:BC:7:ASP:CG	28:BC:8:ALA:H	2.19	0.45
16:AO:83:ARG:HG2	16:AO:83:ARG:HH11	1.81	0.45
8:AG:36:SER:HA	10:AI:40:ARG:CD	2.46	0.45
1:AA:1068:G:O2'	1:AA:1069:C:H5'	2.16	0.45
1:AA:1032:G:H2'	1:AA:1033:G:C4'	2.47	0.45
26:BA:67:LYS:CD	26:BA:186:ASP:HB3	2.22	0.45
26:BA:76:VAL:O	26:BA:94:LEU:N	2.50	0.45
22:B0:2441:U:O2'	22:B0:2442:C:H5'	2.17	0.45
28:BC:181:ILE:HG13	35:BJ:17:LYS:HG2	1.99	0.45
2:AW:56:C:H2'	2:AW:57:G:C8	2.52	0.45
22:B0:960:A:OP2	22:B0:2496:C:C1'	2.65	0.45
22:B0:960:A:P	22:B0:2496:C:C6	3.10	0.45
22:B0:57:C:H3'	42:BR:76:ARG:HD2	1.98	0.45
1:AA:947:G:H2'	1:AA:948:C:O4'	2.16	0.45
22:B0:1110:G:C4'	22:B0:1111:A:OP1	2.65	0.45
25:B5:14:MET:HB3	25:B5:18:ASP:HB3	1.98	0.45
22:B0:858:G:O2'	22:B0:859:G:OP1	2.32	0.45
7:AF:18:VAL:HG13	7:AF:21:MET:HE3	1.98	0.45
1:AA:26:A:N6	1:AA:558:G:H21	2.15	0.45
22:B0:2506:U:O2'	22:B0:2507:C:H5'	2.17	0.45
22:B0:2263:C:N4	22:B0:2277:G:H1	2.15	0.45
49:B1:14:ALA:HB2	49:B1:40:PRO:HG2	1.98	0.45
8:AG:46:LEU:HB3	8:AG:57:GLU:CB	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1655:A:H3'	22:B0:1656:C:C6	2.51	0.45
47:BX:46:MET:O	47:BX:50:VAL:HG22	2.17	0.45
47:BX:8:GLN:HE21	47:BX:15:ARG:HH22	1.64	0.45
11:AJ:70:HIS:C	11:AJ:71:LEU:HD12	2.37	0.45
22:B0:2378:A:C2'	22:B0:2379:G:H5'	2.46	0.45
1:AA:1399:C:H1'	1:AA:1401:G:N9	2.32	0.45
1:AA:990:C:O2'	1:AA:991:U:P	2.73	0.45
22:B0:1445:U:H3'	22:B0:1445:U:OP1	2.17	0.45
1:AA:119:A:C2'	1:AA:120:A:OP2	2.65	0.45
24:B2:117:PRO:HA	24:B2:120:MET:CG	2.47	0.45
37:BL:12:ARG:HB3	37:BL:13:ASN:H	1.57	0.45
22:B0:1922:G:HO2'	22:B0:1923:U:P	2.40	0.45
2:AU:71:G:O2'	2:AU:72:C:H5'	2.17	0.45
43:BS:48:VAL:HG13	43:BS:60:LYS:HE3	1.99	0.45
1:AA:224:U:H2'	1:AA:225:C:C6	2.52	0.45
19:AR:15:GLU:HG2	19:AR:16:GLY:N	2.31	0.45
8:AG:65:LEU:N	8:AG:65:LEU:HD22	2.32	0.45
22:B0:1784:A:H4'	22:B0:1785:A:H5''	1.99	0.45
22:B0:645:C:H2'	22:B0:647:G:O4'	2.16	0.45
26:BA:225:ASN:HB3	26:BA:226:PRO:HD2	1.99	0.45
44:BT:51:GLN:HA	44:BT:56:PHE:CD2	2.52	0.45
22:B0:1579:A:N7	26:BA:188:ARG:NH1	2.64	0.45
26:BA:64:VAL:HG21	26:BA:150:GLY:CA	2.47	0.45
1:AA:424:G:C5	1:AA:425:G:N7	2.85	0.45
5:AD:56:GLU:OE2	5:AD:198:LEU:HD12	2.16	0.45
22:B0:993:G:H1	22:B0:1161:C:H42	1.65	0.45
28:BC:35:TYR:C	28:BC:35:TYR:CD2	2.91	0.45
40:BO:30:VAL:HG12	40:BO:31:TYR:H	1.82	0.45
22:B0:515:A:H2'	22:B0:516:C:H5'	1.98	0.45
41:BQ:20:VAL:CG2	41:BQ:36:LEU:HD13	2.47	0.45
22:B0:2500:U:C2'	22:B0:2501:C:H5'	2.47	0.45
29:BD:107:VAL:CG1	29:BD:110:ILE:HD11	2.42	0.45
2:AV:56:C:H2'	2:AV:57:G:H8	1.82	0.45
39:BN:59:THR:HG22	39:BN:60:VAL:N	2.31	0.45
5:AD:101:VAL:CG1	5:AD:106:PHE:HB2	2.46	0.45
22:B0:1159:U:H2'	22:B0:1160:G:C8	2.51	0.45
22:B0:1837:C:H1'	22:B0:1904:G:H22	1.82	0.45
10:AI:20:ILE:CG2	10:AI:60:LEU:HD23	2.47	0.45
7:AF:43:GLY:HA2	7:AF:58:HIS:CE1	2.52	0.45
1:AA:1098:C:N4	1:AA:1099:G:O6	2.50	0.45
32:BG:52:LEU:CD2	32:BG:73:PRO:HB3	2.42	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AG:144:ALA:O	8:AG:145:GLU:HB2	2.16	0.45
22:B0:704:G:N2	22:B0:726:G:H2'	2.31	0.45
13:AL:30:ARG:HH22	13:AL:78:VAL:HG13	1.82	0.45
35:BJ:106:GLU:O	35:BJ:107:PHE:HB2	2.16	0.45
22:B0:1083:U:O2'	25:B3:81:LYS:CG	2.64	0.45
25:B3:81:LYS:O	25:B3:84:LYS:HB3	2.17	0.45
26:BA:48:ILE:HD12	26:BA:48:ILE:C	2.37	0.45
49:B1:5:ARG:HB3	49:B1:7:LYS:NZ	2.32	0.45
24:B2:76:VAL:HG21	24:B2:148:VAL:HG21	1.98	0.45
42:BR:92:ASN:O	42:BR:93:LEU:HD13	2.17	0.45
22:B0:1022:G:O5'	22:B0:1023:U:P	2.75	0.45
1:AA:251:G:N2	1:AA:254:G:O6	2.48	0.45
12:AK:28:ASN:OD1	12:AK:46:ALA:HB2	2.17	0.45
12:AK:33:ILE:CB	12:AK:73:VAL:HG21	2.47	0.45
31:BF:15:LEU:HB3	31:BF:51:ARG:NH2	2.30	0.45
3:AB:41:ASN:HB3	3:AB:44:LYS:HD3	1.99	0.45
22:B0:458:G:C2'	22:B0:459:U:OP2	2.63	0.45
32:BG:50:LYS:C	32:BG:50:LYS:HD2	2.37	0.45
47:BX:20:LYS:HE3	47:BX:24:LEU:HD21	1.99	0.45
22:B0:342:A:H2'	22:B0:343:C:C6	2.52	0.45
22:B0:2093:G:C8	22:B0:2198:A:N6	2.85	0.45
22:B0:2194:U:H2'	22:B0:2195:U:H6	1.81	0.45
30:BE:103:ASN:ND2	30:BE:111:PRO:HB3	2.32	0.45
22:B0:1761:C:C4	22:B0:1762:A:N3	2.85	0.45
22:B0:1630:A:N6	22:B0:1637:A:N6	2.64	0.45
1:AA:1152:A:H2'	1:AA:1153:G:H8	1.81	0.45
35:BJ:6:LEU:H	35:BJ:6:LEU:CD2	2.30	0.45
3:AB:139:GLU:O	3:AB:143:LEU:HG	2.16	0.45
38:BM:87:ILE:C	38:BM:88:LYS:HD2	2.38	0.45
49:B1:19:PHE:O	49:B1:20:TYR:HB3	2.16	0.45
2:AU:41:U:H2'	2:AU:42:G:H8	1.81	0.45
22:B0:280:U:H2'	22:B0:281:C:C6	2.52	0.45
5:AD:183:ARG:HG3	5:AD:183:ARG:HH11	1.82	0.45
26:BA:115:ILE:HG12	26:BA:115:ILE:O	2.16	0.45
26:BA:176:ARG:HG2	26:BA:176:ARG:O	2.16	0.45
22:B0:1996:C:N3	27:BB:138:LEU:HD23	2.30	0.45
1:AA:406:G:O2'	1:AA:407:U:H5'	2.16	0.45
13:AL:111:GLN:O	13:AL:113:ARG:HG3	2.17	0.45
1:AA:243:A:C2'	1:AA:244:U:OP2	2.64	0.45
22:B0:801:G:H21	28:BC:65:THR:HB	1.82	0.45
28:BC:149:ILE:N	28:BC:149:ILE:HD12	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BC:78:TRP:O	28:BC:79:ARG:C	2.55	0.45
22:B0:658:U:C2'	28:BC:98:LYS:HG2	2.21	0.45
28:BC:178:VAL:CA	35:BJ:17:LYS:H	2.28	0.45
40:BO:5:ARG:HD2	40:BO:9:ALA:HB3	1.98	0.45
27:BB:164:GLN:HA	27:BB:164:GLN:HE21	1.82	0.45
27:BB:13:ARG:HD2	39:BN:10:GLU:HG3	1.98	0.45
22:B0:2074:U:H4'	22:B0:2597:G:O2'	2.16	0.45
38:BM:40:ILE:HA	38:BM:46:GLU:O	2.17	0.45
38:BM:40:ILE:HD13	38:BM:41:ALA:N	2.32	0.45
5:AD:149:LYS:HD2	5:AD:177:MET:SD	2.57	0.45
42:BR:66:LYS:HZ2	42:BR:67:VAL:HG23	1.81	0.45
42:BR:77:ARG:HH22	42:BR:79:ASP:H	1.57	0.45
22:B0:996:A:H5''	40:BO:92:LYS:HE2	1.99	0.45
25:B5:21:GLU:HA	25:B5:24:SER:OG	2.17	0.45
6:AE:12:GLU:HG2	6:AE:63:MET:SD	2.56	0.45
23:B9:90:C:H6	23:B9:90:C:O5'	1.98	0.45
10:AI:20:ILE:HG12	10:AI:62:LEU:HD22	1.99	0.45
7:AF:11:HIS:CE1	7:AF:54:LEU:HD22	2.52	0.45
22:B0:2508:G:O2'	22:B0:2509:G:H5'	2.16	0.45
22:B0:2553:G:C2	22:B0:2554:U:H1'	2.52	0.45
22:B0:1700:A:C2'	22:B0:1701:A:H5'	2.46	0.45
49:B1:5:ARG:HA	49:B1:5:ARG:NH1	2.31	0.45
22:B0:2341:G:H2'	22:B0:2342:C:C6	2.52	0.45
32:BG:54:ILE:HD13	32:BG:55:PRO:N	2.32	0.45
32:BG:70:THR:O	32:BG:70:THR:HG23	2.17	0.45
12:AK:28:ASN:HD21	12:AK:45:THR:CG2	2.30	0.45
32:BG:92:PRO:O	32:BG:93:ASN:ND2	2.48	0.45
22:B0:1772:A:H2'	22:B0:1773:A:C4'	2.44	0.45
32:BG:18:ASN:HA	32:BG:19:PRO:O	2.17	0.45
22:B0:1438:U:H2'	22:B0:1439:A:C4	2.52	0.45
39:BN:101:GLU:C	39:BN:103:THR:N	2.69	0.45
9:AH:95:MET:HG2	9:AH:98:LEU:HD12	1.99	0.45
18:AQ:57:VAL:HB	18:AQ:79:GLU:HG2	1.99	0.45
12:AK:122:PRO:HB2	12:AK:126:ARG:CB	2.45	0.45
44:BT:16:ALA:HA	44:BT:19:ARG:NH1	2.33	0.45
22:B0:1011:G:N2	22:B0:1150:C:O2	2.50	0.45
1:AA:722:G:C2'	1:AA:723:U:H5''	2.46	0.45
22:B0:1217:U:H2'	22:B0:1218:G:H8	1.80	0.45
5:AD:90:LEU:H	5:AD:90:LEU:CD1	2.30	0.45
22:B0:1017:G:O2'	22:B0:1018:U:H5'	2.17	0.45
29:BD:177:ARG:HG3	29:BD:177:ARG:HH11	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AE:123:LEU:C	6:AE:123:LEU:HD13	2.38	0.45
6:AE:83:PRO:HG3	6:AE:97:PRO:HD2	1.97	0.45
10:AI:28:VAL:HB	10:AI:63:TYR:HD1	1.82	0.45
30:BE:142:GLN:HG3	30:BE:146:ASP:OD2	2.17	0.45
2:AV:43:G:H2'	2:AV:44:A:C8	2.52	0.45
22:B0:1420:U:H6	22:B0:1420:U:O5'	1.99	0.44
22:B0:1499:U:H3	22:B0:1500:A:H62	1.65	0.44
26:BA:141:HIS:CE1	26:BA:194:VAL:HA	2.51	0.44
22:B0:1421:G:N2	26:BA:144:GLU:CD	2.70	0.44
22:B0:1498:C:N4	26:BA:155:ARG:HB3	2.32	0.44
22:B0:1666:G:H1	22:B0:1994:C:H42	1.65	0.44
1:AA:39:G:O2'	1:AA:40:C:H5'	2.17	0.44
1:AA:500:G:H2'	1:AA:501:C:H6	1.80	0.44
33:BH:104:ALA:O	33:BH:105:VAL:C	2.54	0.44
33:BH:96:ARG:HB3	33:BH:97:PRO:C	2.37	0.44
22:B0:1199:U:N3	22:B0:1246:A:C2	2.80	0.44
22:B0:991:C:O2'	22:B0:992:C:H5'	2.17	0.44
28:BC:143:LEU:HB3	28:BC:146:VAL:HG21	1.98	0.44
22:B0:1202:G:C4'	35:BJ:14:LYS:HG3	2.47	0.44
2:AW:55:U:O2	2:AW:57:G:OP2	2.35	0.44
22:B0:2153:C:O2'	22:B0:2154:A:H3'	2.17	0.44
22:B0:2126:A:O2'	22:B0:2171:A:C4	2.70	0.44
22:B0:825:A:H61	22:B0:944:C:H42	1.65	0.44
22:B0:960:A:H3'	22:B0:2496:C:O4'	2.17	0.44
2:AU:58:A:O2'	2:AU:60:C:H5	2.01	0.44
4:AC:120:THR:OG1	4:AC:188:ALA:HB2	2.17	0.44
19:AR:25:ILE:HG13	19:AR:67:LEU:HD21	1.99	0.44
38:BM:25:ARG:NH2	38:BM:40:ILE:HD12	2.09	0.44
20:AS:81:GLY:O	20:AS:82:HIS:C	2.54	0.44
5:AD:106:PHE:CD1	5:AD:158:LEU:HD11	2.52	0.44
22:B0:627:A:H4'	22:B0:628:G:H5'	1.98	0.44
49:B1:43:ARG:NE	49:B1:43:ARG:N	2.65	0.44
22:B0:1153:C:H5"	40:BO:61:ILE:HD12	1.98	0.44
35:BJ:89:VAL:HG23	35:BJ:90:VAL:HG12	1.99	0.44
21:AT:60:GLN:O	21:AT:65:LEU:HB2	2.17	0.44
21:AT:57:VAL:HA	21:AT:60:GLN:OE1	2.17	0.44
22:B0:1045:C:H4'	25:B5:29:LYS:CE	2.39	0.44
22:B0:1898:U:H2'	22:B0:1899:A:H5'	1.99	0.44
17:AP:20:VAL:HG11	17:AP:32:PHE:CB	2.44	0.44
1:AA:740:U:H2'	1:AA:741:G:H8	1.82	0.44
33:BH:68:LYS:HZ2	33:BH:68:LYS:CA	2.25	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1408:G:H2'	22:B0:1409:U:C6	2.52	0.44
24:B2:200:PRO:HG2	24:B2:203:ALA:CB	2.37	0.44
16:AO:26:VAL:O	16:AO:29:ALA:HB3	2.17	0.44
1:AA:873:A:H4'	1:AA:874:G:OP1	2.17	0.44
22:B0:1779:U:O2	22:B0:1783:A:N6	2.50	0.44
31:BF:30:LEU:N	31:BF:30:LEU:HD12	2.30	0.44
22:B0:2256:G:N3	22:B0:2256:G:H2'	2.32	0.44
12:AK:13:LYS:HZ1	12:AK:15:VAL:HG22	1.81	0.44
12:AK:46:ALA:CB	12:AK:56:LYS:HB2	2.47	0.44
22:B0:1786:A:N6	22:B0:2606:C:H1'	2.32	0.44
35:BJ:123:ARG:HG3	35:BJ:143:GLU:HG2	1.99	0.44
22:B0:84:A:H4'	22:B0:85:G:O5'	2.17	0.44
22:B0:2195:U:H2'	22:B0:2196:C:H6	1.82	0.44
31:BF:84:ALA:HA	31:BF:90:LEU:HA	1.98	0.44
24:B2:117:PRO:HG3	24:B2:144:VAL:HG12	1.99	0.44
40:BO:83:LYS:HZ2	40:BO:83:LYS:HB2	1.80	0.44
23:B9:18:G:N2	23:B9:65:U:H3	2.13	0.44
29:BD:163:GLU:O	29:BD:164:GLU:HB3	2.17	0.44
22:B0:1630:A:H61	22:B0:1637:A:N6	2.15	0.44
22:B0:95:A:H2'	22:B0:96:C:H6	1.82	0.44
9:AH:110:MET:HB3	9:AH:114:ALA:HB3	1.99	0.44
1:AA:1389:C:H2'	1:AA:1390:U:C6	2.52	0.44
1:AA:147:G:H2'	1:AA:148:G:H8	1.82	0.44
4:AC:190:THR:HG21	4:AC:192:TYR:CZ	2.52	0.44
22:B0:1054:A:C1'	25:B3:89:SER:OG	2.65	0.44
28:BC:136:GLN:NE2	28:BC:136:GLN:HA	2.32	0.44
22:B0:2849:U:H2'	22:B0:2850:A:OP2	2.17	0.44
14:AM:30:LYS:N	14:AM:30:LYS:HD2	2.32	0.44
22:B0:769:U:H2'	22:B0:770:G:H8	1.81	0.44
22:B0:964:C:O2'	22:B0:2273:A:N3	2.47	0.44
1:AA:1273:C:H2'	1:AA:1274:A:O4'	2.16	0.44
3:AB:158:ASP:O	3:AB:181:PRO:HD2	2.18	0.44
22:B0:274:C:O2'	22:B0:275:C:H5'	2.17	0.44
26:BA:182:LYS:C	26:BA:183:VAL:HG12	2.37	0.44
22:B0:1669:A:C2	22:B0:1994:C:H1'	2.52	0.44
22:B0:2898:G:O4'	33:BH:17:VAL:CG2	2.64	0.44
33:BH:110:PRO:HD2	33:BH:113:PRO:CB	2.46	0.44
22:B0:658:U:O2	28:BC:98:LYS:HB3	2.17	0.44
28:BC:93:SER:N	35:BJ:28:GLY:HA2	2.31	0.44
22:B0:659:G:N2	28:BC:97:ASN:HB3	2.29	0.44
40:BO:14:LYS:CG	40:BO:15:LYS:HG2	2.43	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BO:34:ALA:C	40:BO:36:GLN:N	2.70	0.44
22:B0:2158:A:C2'	22:B0:2159:G:H4'	2.47	0.44
1:AA:1347:G:C2'	1:AA:1348:U:OP2	2.66	0.44
22:B0:501:A:H2'	22:B0:501:A:N3	2.33	0.44
1:AA:979:C:N3	20:AS:7:GLY:HA3	2.31	0.44
12:AK:118:ASN:C	12:AK:120:CYS:H	2.19	0.44
39:BN:4:ILE:CD1	39:BN:5:LYS:HD2	2.48	0.44
39:BN:9:GLN:N	39:BN:9:GLN:HE21	2.14	0.44
14:AM:16:ILE:C	14:AM:16:ILE:HD13	2.38	0.44
24:B2:45:VAL:HG21	24:B2:195:LEU:CD2	2.47	0.44
46:BW:44:LYS:HG2	46:BW:48:ARG:HE	1.82	0.44
49:B1:42:VAL:HG13	49:B1:43:ARG:N	2.32	0.44
8:AG:41:ILE:HG23	8:AG:116:ALA:HA	1.99	0.44
22:B0:1046:A:H1'	25:B5:25:ALA:CA	2.47	0.44
1:AA:1097:C:H1'	1:AA:1167:A:C4	2.52	0.44
4:AC:54:ILE:HG12	4:AC:54:ILE:O	2.17	0.44
22:B0:401:A:H2'	22:B0:402:A:O4'	2.17	0.44
22:B0:369:U:P	22:B0:404:A:N6	2.91	0.44
14:AM:92:ARG:NH1	14:AM:96:VAL:HG12	2.27	0.44
1:AA:872:A:C4'	1:AA:873:A:OP1	2.65	0.44
1:AA:321:A:O2'	1:AA:322:C:H5'	2.17	0.44
22:B0:1479:G:C5'	22:B0:1559:U:H4'	2.46	0.44
1:AA:969:A:O2'	1:AA:970:C:H5'	2.17	0.44
1:AA:105:G:H2'	1:AA:106:C:C6	2.51	0.44
12:AK:15:VAL:HG12	12:AK:17:ASP:O	2.17	0.44
3:AB:53:LEU:O	3:AB:56:LEU:HB3	2.18	0.44
22:B0:2023:C:H2'	22:B0:2024:G:C8	2.52	0.44
44:BT:26:PHE:HE2	44:BT:89:ILE:HD13	1.80	0.44
22:B0:1650:A:H2	22:B0:2007:U:H3	1.64	0.44
34:BI:66:LYS:HZ3	34:BI:81:GLY:HA2	1.79	0.44
22:B0:1630:A:N6	22:B0:1637:A:C6	2.86	0.44
32:BG:126:ARG:HH11	32:BG:126:ARG:HG3	1.81	0.44
3:AB:113:LEU:HD12	3:AB:143:LEU:HB3	1.98	0.44
22:B0:1550:C:H2'	22:B0:1551:A:H8	1.81	0.44
22:B0:1401:G:H2'	22:B0:1402:U:C6	2.51	0.44
22:B0:2298:A:H3'	22:B0:2299:U:C6	2.53	0.44
19:AR:64:LEU:O	19:AR:65:SER:HB3	2.16	0.44
22:B0:1948:G:H1	22:B0:1958:C:H42	1.65	0.44
8:AG:139:ASP:HA	8:AG:142:ARG:HE	1.82	0.44
23:B9:70:C:H2'	23:B9:71:C:C6	2.52	0.44
15:AN:61:ASN:O	15:AN:62:ARG:HB2	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:349:U:H6	22:B0:349:U:O5'	2.00	0.44
22:B0:1582:C:H2'	26:BA:96:LYS:HB3	1.98	0.44
22:B0:1496:A:O4'	26:BA:190:THR:OG1	2.35	0.44
1:AA:37:U:O2'	1:AA:500:G:H1'	2.17	0.44
33:BH:31:GLU:O	33:BH:33:ALA:N	2.48	0.44
33:BH:56:VAL:HG11	33:BH:59:ALA:HB2	1.98	0.44
22:B0:674:G:N2	22:B0:2444:G:O2'	2.51	0.44
28:BC:141:MET:O	28:BC:142:ALA:HB3	2.17	0.44
40:BO:40:LYS:O	40:BO:44:TYR:HD2	2.00	0.44
40:BO:43:GLN:HA	40:BO:46:TYR:CA	2.46	0.44
22:B0:1264:A:H2	22:B0:2016:U:O4	2.01	0.44
22:B0:517:C:H2'	22:B0:518:G:H8	1.82	0.44
22:B0:2162:G:C8	22:B0:2163:G:N2	2.85	0.44
22:B0:2165:C:N4	22:B0:2172:U:O3'	2.50	0.44
22:B0:2179:C:OP2	22:B0:2180:U:O3'	2.34	0.44
10:AI:129:ARG:HH11	10:AI:129:ARG:HG3	1.83	0.44
22:B0:2729:G:O6	27:BB:126:ASN:OD1	2.35	0.44
27:BB:165:MET:HG3	27:BB:166:GLY:N	2.33	0.44
1:AA:173:U:H5''	1:AA:174:A:P	2.57	0.44
45:BU:43:LYS:HE2	45:BU:44:PHE:H	1.82	0.44
4:AC:166:TRP:O	4:AC:167:TYR:HB3	2.18	0.44
24:B2:47:LEU:HD22	24:B2:207:TYR:CZ	2.52	0.44
39:BN:24:THR:CA	39:BN:49:ILE:HG12	2.43	0.44
39:BN:99:LEU:HD23	39:BN:100:ARG:O	2.17	0.44
42:BR:12:ARG:N	42:BR:33:LYS:O	2.47	0.44
46:BW:39:GLN:NE2	46:BW:40:SER:N	2.63	0.44
37:BL:44:LEU:HD23	37:BL:47:VAL:HG11	2.00	0.44
37:BL:59:SER:OG	37:BL:62:ASN:ND2	2.48	0.44
40:BO:59:LEU:C	40:BO:61:ILE:N	2.69	0.44
1:AA:107:G:C3'	1:AA:108:G:H21	2.17	0.44
45:BU:69:GLU:O	45:BU:69:GLU:CD	2.56	0.44
6:AE:25:LYS:CA	6:AE:25:LYS:HE3	2.46	0.44
32:BG:138:VAL:HG22	32:BG:139:VAL:N	2.33	0.44
29:BD:48:LEU:HD12	29:BD:48:LEU:N	2.33	0.44
33:BH:68:LYS:HA	33:BH:68:LYS:HZ3	1.76	0.44
22:B0:407:G:H2'	22:B0:408:G:C8	2.53	0.44
22:B0:2286:G:N7	49:B1:24:LYS:NZ	2.64	0.44
22:B0:716:A:H2'	22:B0:717:C:O4'	2.17	0.44
25:B3:64:ASN:O	25:B3:68:VAL:HG23	2.17	0.44
13:AL:42:LYS:HG3	13:AL:44:PRO:CD	2.41	0.44
22:B0:1821:A:H2'	22:B0:1822:C:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:976:G:H21	1:AA:1362:A:H3'	1.82	0.44
1:AA:1453:G:N2	1:AA:1454:G:N7	2.65	0.44
1:AA:266:G:C5'	1:AA:267:C:OP1	2.62	0.44
1:AA:1330:U:H2'	1:AA:1331:G:O4'	2.17	0.44
3:AB:202:ASN:HD22	3:AB:202:ASN:C	2.21	0.44
30:BE:85:LYS:C	30:BE:86:LEU:HD12	2.38	0.44
22:B0:1231:U:H2'	22:B0:1232:G:C8	2.52	0.44
10:AI:15:ALA:O	10:AI:66:VAL:HA	2.18	0.44
22:B0:1632:A:O3'	22:B0:1633:G:H8	2.01	0.44
22:B0:466:A:H2'	22:B0:467:G:H5'	1.99	0.44
22:B0:1293:C:H2'	22:B0:1294:U:C6	2.52	0.44
15:AN:62:ARG:HD3	15:AN:69:PRO:HB3	1.99	0.44
22:B0:1132:U:O2'	22:B0:1133:A:H5'	2.18	0.44
8:AG:152:HIS:HD1	8:AG:152:HIS:H	1.65	0.44
25:B5:94:LEU:C	25:B5:94:LEU:HD13	2.38	0.44
39:BN:113:LEU:C	39:BN:113:LEU:HD13	2.37	0.44
2:AV:14:A:H2'	2:AV:15:G:O4'	2.17	0.44
31:BF:96:THR:HG23	31:BF:97:ARG:N	2.32	0.44
32:BG:20:SER:OG	32:BG:21:PRO:HD3	2.18	0.44
22:B0:1495:A:OP1	26:BA:189:ALA:HB3	2.17	0.44
26:BA:164:VAL:HG23	26:BA:173:LEU:HA	1.98	0.44
22:B0:1497:U:H3'	26:BA:63:ILE:CD1	2.47	0.44
26:BA:79:ARG:HH11	26:BA:79:ARG:HG3	1.83	0.44
26:BA:81:GLU:O	26:BA:90:ILE:HG12	2.17	0.44
22:B0:1316:U:H2'	22:B0:1317:G:C8	2.53	0.44
22:B0:204:A:O3'	22:B0:205:G:C4'	2.66	0.44
28:BC:108:ILE:CG1	28:BC:180:LEU:HB3	2.47	0.44
28:BC:49:ARG:CG	28:BC:50:ALA:H	2.11	0.44
22:B0:493:G:C8	41:BQ:8:ARG:O	2.71	0.44
22:B0:2493:U:H2'	22:B0:2494:G:C8	2.52	0.44
6:AE:156:ARG:O	9:AH:65:PHE:CB	2.65	0.44
4:AC:133:MET:HG3	4:AC:134:LYS:H	1.82	0.44
19:AR:25:ILE:HG13	19:AR:67:LEU:CD2	2.48	0.44
22:B0:820:A:H2'	22:B0:821:A:O4'	2.18	0.44
39:BN:29:VAL:CG2	39:BN:30:TRP:H	2.13	0.44
38:BM:7:ARG:N	38:BM:7:ARG:HD3	2.22	0.44
25:B5:86:LEU:O	25:B5:91:PRO:HD2	2.17	0.44
5:AD:144:ILE:HG22	5:AD:145:ARG:N	2.32	0.44
22:B0:120:U:H1'	22:B0:149:A:N7	2.33	0.44
45:BU:65:LYS:C	45:BU:65:LYS:HZ2	2.20	0.44
1:AA:1102:A:H2'	1:AA:1103:C:H6	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BZ:29:VAL:HB	48:BZ:32:THR:O	2.16	0.44
32:BG:129:GLU:CA	32:BG:132:ALA:HB2	2.47	0.44
4:AC:76:ILE:HG22	4:AC:80:GLY:HA2	2.00	0.44
22:B0:2771:C:H2'	22:B0:2772:C:C6	2.52	0.44
25:B3:78:LEU:HB3	25:B3:82:GLU:CG	2.47	0.44
22:B0:926:G:H2'	22:B0:928:A:H8	1.83	0.44
13:AL:42:LYS:NZ	13:AL:87:LYS:HE3	2.33	0.44
7:AF:64:VAL:HG22	7:AF:65:GLU:N	2.32	0.44
9:AH:77:VAL:HG22	9:AH:84:ILE:HD13	1.98	0.44
1:AA:1279:G:O2'	1:AA:1282:C:N4	2.50	0.44
22:B0:2471:A:H2	22:B0:2479:U:O4	1.99	0.44
22:B0:2786:U:H2'	22:B0:2787:C:H6	1.83	0.44
15:AN:40:ARG:N	20:AS:16:LYS:HB2	2.32	0.44
35:BJ:109:LYS:C	35:BJ:126:ARG:HH21	2.20	0.44
35:BJ:124:GLY:C	35:BJ:126:ARG:HD3	2.37	0.44
22:B0:457:A:O2'	22:B0:458:G:C4'	2.65	0.44
47:BX:20:LYS:HD3	47:BX:20:LYS:C	2.37	0.44
17:AP:40:ASN:OD1	17:AP:45:GLU:HG2	2.18	0.44
46:BW:6:LEU:HD22	46:BW:6:LEU:N	2.33	0.44
1:AA:648:A:H2'	1:AA:649:A:C8	2.53	0.44
1:AA:389:A:C2'	1:AA:390:U:H5'	2.47	0.44
9:AH:50:VAL:O	9:AH:50:VAL:HG13	2.17	0.44
1:AA:636:U:H2'	1:AA:637:C:C6	2.53	0.44
22:B0:1064:C:H2'	22:B0:1065:U:O4'	2.17	0.44
3:AB:55:GLU:HG2	3:AB:197:PHE:CE2	2.53	0.44
14:AM:18:LEU:C	14:AM:20:SER:H	2.20	0.44
22:B0:2670:A:H2'	22:B0:2671:G:H8	1.82	0.44
22:B0:1499:U:O5'	22:B0:1499:U:H6	2.00	0.44
26:BA:158:GLY:H	26:BA:194:VAL:CG2	2.29	0.44
22:B0:1495:A:N3	26:BA:65:ASP:HB2	2.32	0.44
22:B0:1497:U:O2'	26:BA:83:ASP:OD1	2.30	0.44
1:AA:502:A:H2'	1:AA:503:C:O4'	2.18	0.44
5:AD:53:GLN:HE21	5:AD:198:LEU:HD22	1.82	0.44
33:BH:138:GLN:CD	33:BH:138:GLN:H	2.20	0.44
1:AA:280:C:H5''	1:AA:281:G:OP2	2.17	0.44
22:B0:1202:G:O6	22:B0:1243:C:N3	2.51	0.44
22:B0:1324:G:N2	22:B0:1330:C:N3	2.60	0.44
22:B0:672:C:H2'	22:B0:673:C:H6	1.81	0.44
22:B0:807:U:H4'	22:B0:2445:G:O3'	2.18	0.44
40:BO:4:LYS:NZ	40:BO:5:ARG:HB3	2.32	0.44
40:BO:49:ARG:HG3	40:BO:50:ARG:N	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:490:C:O2'	22:B0:491:G:P	2.76	0.44
1:AA:1290:G:H4'	1:AA:1372:U:H4'	1.99	0.44
27:BB:124:ARG:O	27:BB:126:ASN:N	2.50	0.44
22:B0:2493:U:O5'	22:B0:2493:U:H6	2.01	0.44
2:AU:22:G:O2'	2:AU:23:A:H5'	2.17	0.44
4:AC:195:ILE:HD12	4:AC:196:GLY:N	2.32	0.44
4:AC:115:VAL:HG11	4:AC:199:VAL:HG11	1.99	0.44
12:AK:118:ASN:CG	12:AK:119:GLY:H	2.20	0.44
22:B0:948:C:H2'	22:B0:949:G:H8	1.82	0.44
39:BN:49:ILE:CD1	39:BN:99:LEU:HD13	2.47	0.44
39:BN:50:ARG:HG2	39:BN:99:LEU:O	2.17	0.44
22:B0:2332:C:HO2'	22:B0:2335:A:H1'	1.82	0.44
20:AS:81:GLY:O	20:AS:83:ALA:N	2.50	0.44
20:AS:83:ALA:C	20:AS:85:ASP:H	2.20	0.44
22:B0:71:A:H4'	22:B0:73:A:OP2	2.18	0.44
22:B0:629:G:N3	22:B0:639:U:H4'	2.33	0.44
1:AA:1299:A:H3'	1:AA:1299:A:N3	2.33	0.44
37:BL:49:GLU:CB	37:BL:52:ILE:HG12	2.44	0.44
22:B0:2856:A:H3'	22:B0:2857:G:C8	2.52	0.44
45:BU:68:PHE:CG	45:BU:69:GLU:N	2.86	0.44
7:AF:12:PRO:HD2	7:AF:54:LEU:CD2	2.47	0.44
1:AA:371:A:O2'	1:AA:372:C:H5'	2.17	0.44
1:AA:372:C:H4'	1:AA:373:A:H8	1.81	0.44
1:AA:372:C:H2'	1:AA:373:A:OP2	2.18	0.44
2:AU:75:C:H5'	22:B0:2557:G:C8	2.51	0.44
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.52	0.44
22:B0:284:U:H2'	22:B0:285:G:C8	2.52	0.44
22:B0:372:G:O2'	22:B0:373:U:C5	2.69	0.44
8:AG:37:THR:O	8:AG:40:SER:HB2	2.17	0.44
47:BX:6:ILE:HG23	47:BX:54:VAL:HG21	1.98	0.44
22:B0:1803:A:H2	22:B0:1823:G:H1'	1.83	0.44
1:AA:686:U:H2'	1:AA:687:A:O4'	2.17	0.44
45:BU:59:PHE:N	45:BU:81:ILE:HD13	2.33	0.44
32:BG:9:LYS:CE	32:BG:10:LEU:H	2.30	0.44
1:AA:1117:A:C2'	1:AA:1118:U:H5'	2.45	0.44
28:BC:4:VAL:O	28:BC:119:ILE:HD11	2.17	0.44
22:B0:2094:A:N6	22:B0:2195:U:H3	2.14	0.44
17:AP:39:PHE:CE2	17:AP:41:PRO:HG3	2.52	0.44
30:BE:85:LYS:HB2	30:BE:170:THR:HG22	2.00	0.44
3:AB:215:ALA:O	3:AB:219:THR:HG23	2.17	0.44
22:B0:434:U:O2'	22:B0:435:C:C6	2.71	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AI:66:VAL:HG22	10:AI:67:LYS:N	2.32	0.44
22:B0:152:A:H2'	22:B0:153:U:C6	2.53	0.44
1:AA:1049:U:O2'	1:AA:1050:G:P	2.76	0.44
22:B0:38:A:H2'	22:B0:39:G:H8	1.82	0.44
11:AJ:32:THR:HG23	11:AJ:33:GLY:N	2.32	0.44
22:B0:814:C:H2'	22:B0:815:C:C6	2.52	0.44
1:AA:58:C:O2'	1:AA:59:A:H5'	2.16	0.44
37:BL:73:ASN:HA	37:BL:76:VAL:CG1	2.47	0.44
22:B0:1326:U:H4'	22:B0:2011:U:H4'	1.99	0.44
34:BI:90:ASN:O	34:BI:91:SER:C	2.55	0.44
43:BS:85:ARG:HG3	43:BS:85:ARG:HH11	1.82	0.44
6:AE:79:THR:HG21	6:AE:98:ALA:O	2.18	0.44
27:BB:7:LYS:HD2	27:BB:198:GLY:O	2.18	0.44
22:B0:1496:A:C8	26:BA:190:THR:HG21	2.53	0.44
33:BH:41:LYS:CD	33:BH:43:GLU:H	2.24	0.44
1:AA:281:G:O2'	1:AA:282:A:C8	2.70	0.44
25:B3:90:ALA:N	25:B3:91:PRO:CD	2.79	0.44
22:B0:655:A:O2'	22:B0:656:G:C8	2.70	0.44
22:B0:658:U:O5'	22:B0:658:U:H6	2.00	0.44
28:BC:31:VAL:HB	35:BJ:17:LYS:HD2	2.00	0.44
28:BC:93:SER:CB	35:BJ:28:GLY:N	2.80	0.44
22:B0:490:C:O5'	22:B0:490:C:H6	2.00	0.44
22:B0:2155:U:H3'	22:B0:2156:G:C5'	2.47	0.44
22:B0:2165:C:O4'	22:B0:2165:C:O2	2.35	0.44
10:AI:119:LYS:O	10:AI:120:ALA:HB3	2.18	0.44
22:B0:2644:G:O2'	22:B0:2645:G:OP2	2.35	0.44
22:B0:481:G:N1	22:B0:507:A:O2'	2.43	0.44
5:AD:101:VAL:HG13	5:AD:106:PHE:HB2	1.99	0.44
22:B0:1111:A:HO2'	22:B0:1112:G:C1'	2.31	0.44
22:B0:2143:C:HO2'	22:B0:2144:G:P	2.41	0.44
24:B2:26:ILE:HG12	24:B2:185:LYS:N	2.32	0.44
22:B0:1838:C:O4'	22:B0:1899:A:N6	2.51	0.44
22:B0:2263:C:C5	45:BU:11:ASN:HB2	2.52	0.44
22:B0:371:A:C5'	22:B0:372:G:OP1	2.65	0.44
22:B0:1083:U:O2'	25:B3:81:LYS:CD	2.65	0.44
1:AA:826:C:H2'	1:AA:827:U:C6	2.52	0.44
11:AJ:10:LEU:HB2	11:AJ:72:ARG:HB2	1.99	0.44
29:BD:32:LYS:HA	29:BD:91:ARG:NE	2.32	0.44
22:B0:2783:U:OP1	33:BH:120:ARG:HD2	2.17	0.44
1:AA:47:C:C4'	1:AA:48:C:OP1	2.66	0.44
22:B0:2718:G:H2'	22:B0:2719:G:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AF:7:VAL:HG23	7:AF:88:MET:H	1.83	0.44
44:BT:83:LYS:HG3	44:BT:83:LYS:O	2.17	0.44
27:BB:84:LEU:HD12	27:BB:84:LEU:C	2.38	0.44
3:AB:113:LEU:C	3:AB:113:LEU:HD23	2.38	0.44
22:B0:182:A:O2'	22:B0:183:C:H5'	2.17	0.44
26:BA:40:GLY:CA	26:BA:45:ASN:HD22	2.30	0.44
1:AA:1173:U:H2'	1:AA:1174:G:C8	2.53	0.44
22:B0:2298:A:H3'	22:B0:2299:U:H6	1.83	0.44
35:BJ:128:THR:O	35:BJ:131:ALA:HB3	2.18	0.44
8:AG:79:VAL:HB	8:AG:84:TYR:CD2	2.53	0.44
1:AA:986:U:H2'	1:AA:987:G:C8	2.53	0.44
23:B9:51:G:H2'	23:B9:52:A:O4'	2.18	0.44
22:B0:1417:U:H4'	22:B0:1588:A:C1'	2.47	0.44
22:B0:1570:A:H2'	22:B0:1571:A:C8	2.53	0.44
22:B0:1578:U:H2'	26:BA:66:PHE:N	2.33	0.44
26:BA:196:ASN:O	26:BA:197:ALA:C	2.55	0.44
22:B0:1579:A:N1	26:BA:67:LYS:C	2.51	0.44
1:AA:398:U:H2'	1:AA:399:G:C8	2.52	0.44
33:BH:115:GLY:O	33:BH:118:MET:HB3	2.18	0.44
1:AA:243:A:H4'	1:AA:244:U:C5'	2.47	0.44
22:B0:1324:G:C4'	22:B0:1616:A:N6	2.81	0.44
22:B0:588:U:C2	22:B0:589:U:C4	3.06	0.44
22:B0:800:A:H4'	22:B0:801:G:C5'	2.47	0.44
28:BC:154:ASP:O	28:BC:155:GLU:C	2.54	0.44
22:B0:801:G:H1	28:BC:72:SER:CA	2.31	0.44
22:B0:1261:C:H2'	22:B0:1262:A:C8	2.53	0.44
1:AA:1289:A:C2	1:AA:1290:G:H1'	2.53	0.44
10:AI:122:ARG:HG2	10:AI:122:ARG:HH11	1.82	0.44
22:B0:824:U:H2'	22:B0:825:A:C8	2.53	0.44
22:B0:508:A:H4'	22:B0:509:C:C5'	2.47	0.44
22:B0:961:C:C2	22:B0:2499:C:C5	3.05	0.44
6:AE:152:VAL:HA	9:AH:68:LYS:NZ	2.33	0.44
27:BB:13:ARG:HD3	39:BN:10:GLU:CD	2.38	0.44
1:AA:1132:C:H2'	1:AA:1133:G:C8	2.53	0.44
22:B0:994:C:P	40:BO:53:LYS:HG3	2.58	0.44
25:B3:49:GLU:O	25:B5:16:VAL:HG23	2.18	0.44
1:AA:1406:U:H1'	1:AA:1517:G:O2'	2.18	0.44
22:B0:120:U:H1'	22:B0:149:A:C8	2.52	0.44
7:AF:10:VAL:HG11	7:AF:21:MET:CE	2.47	0.44
1:AA:370:C:H2'	1:AA:371:A:C8	2.52	0.44
1:AA:482:A:H5''	1:AA:485:U:H1'	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:2032:G:O6	22:B0:2571:U:C4'	2.66	0.44
22:B0:1060:U:H4'	22:B0:1061:U:C5'	2.48	0.44
34:BI:24:VAL:HG22	34:BI:25:LEU:N	2.32	0.44
20:AS:18:VAL:HG23	20:AS:46:LEU:HD22	2.00	0.44
1:AA:1052:U:H2'	1:AA:1200:C:H41	1.80	0.44
26:BA:77:VAL:HG12	26:BA:78:GLU:N	2.33	0.44
32:BG:54:ILE:O	32:BG:54:ILE:HG23	2.18	0.44
25:B5:58:LEU:HD21	25:B5:87:VAL:HG13	1.99	0.44
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.53	0.44
1:AA:436:C:O2'	1:AA:437:U:OP1	2.34	0.44
1:AA:878:A:H2'	1:AA:879:C:C6	2.52	0.44
30:BE:86:LEU:CD2	30:BE:147:LEU:HD23	2.47	0.44
43:BS:46:LYS:O	43:BS:48:VAL:N	2.50	0.44
44:BT:60:VAL:HG22	44:BT:60:VAL:O	2.18	0.44
24:B2:141:VAL:O	24:B2:141:VAL:HG12	2.18	0.44
24:B2:192:LEU:HD13	24:B2:192:LEU:C	2.38	0.44
22:B0:2533:U:H2'	22:B0:2534:A:O4'	2.18	0.44
41:BQ:37:THR:HG23	41:BQ:38:TYR:CD2	2.53	0.44
1:AA:669:G:H2'	1:AA:670:G:C8	2.53	0.44
29:BD:22:ASN:OD1	29:BD:23:SER:N	2.48	0.44
22:B0:1494:A:N6	26:BA:188:ARG:CB	2.81	0.44
26:BA:171:VAL:CG2	26:BA:172:THR:N	2.80	0.44
1:AA:496:A:H1'	1:AA:497:G:C8	2.53	0.44
5:AD:12:ARG:HH11	5:AD:29:THR:HG21	1.83	0.44
5:AD:12:ARG:HD3	5:AD:29:THR:HG22	1.99	0.44
22:B0:2891:A:N6	22:B0:2892:G:N3	2.66	0.44
33:BH:54:ILE:HG13	33:BH:55:ILE:N	2.33	0.44
22:B0:534:U:H2'	22:B0:535:G:C8	2.53	0.44
22:B0:588:U:OP2	28:BC:43:THR:HG23	2.17	0.44
22:B0:992:C:N4	22:B0:993:G:O6	2.51	0.44
28:BC:98:LYS:CB	28:BC:99:LYS:HD2	2.48	0.44
1:AA:1386:G:O2'	1:AA:1387:G:H5'	2.18	0.44
22:B0:2677:G:N2	22:B0:2731:G:H1'	2.33	0.44
22:B0:2462:C:H2'	22:B0:2463:C:C6	2.52	0.44
29:BD:105:ILE:HD12	29:BD:105:ILE:O	2.17	0.44
4:AC:130:ARG:HA	4:AC:133:MET:SD	2.58	0.44
4:AC:194:VAL:HG12	4:AC:195:ILE:N	2.33	0.44
27:BB:13:ARG:HG2	27:BB:14:ILE:H	1.83	0.44
39:BN:8:GLU:HA	39:BN:10:GLU:OE2	2.18	0.44
39:BN:64:SER:HA	39:BN:71:ARG:CD	2.48	0.44
42:BR:68:LYS:CA	42:BR:73:ARG:HH21	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BL:39:PRO:O	37:BL:42:LYS:HD2	2.17	0.44
40:BO:60:TRP:N	40:BO:60:TRP:CE3	2.86	0.44
22:B0:857:G:H21	22:B0:2269:G:H1'	1.83	0.44
10:AI:60:LEU:HD12	10:AI:60:LEU:N	2.33	0.44
7:AF:10:VAL:HG23	7:AF:83:ALA:C	2.37	0.44
22:B0:1129:A:O2'	22:B0:2516:A:H4'	2.17	0.44
4:AC:10:ARG:O	4:AC:15:LYS:HB3	2.17	0.44
22:B0:928:A:H2'	22:B0:929:U:O5'	2.17	0.44
2:AW:66:A:O2'	2:AW:67:A:H5'	2.18	0.44
46:BW:38:GLN:O	46:BW:38:GLN:HG2	2.17	0.44
1:AA:1117:A:H1'	10:AI:107:ALA:HB2	2.00	0.44
12:AK:15:VAL:C	12:AK:17:ASP:H	2.20	0.44
1:AA:521:G:O2'	1:AA:522:C:H5'	2.17	0.44
12:AK:100:ASN:ND2	12:AK:106:ILE:HG21	2.33	0.44
19:AR:44:THR:HG23	19:AR:46:THR:H	1.83	0.44
29:BD:175:PRO:O	29:BD:176:PHE:HB2	2.17	0.44
22:B0:2825:G:C2'	22:B0:2826:A:H5'	2.47	0.44
43:BS:6:ARG:C	43:BS:6:ARG:HD2	2.38	0.44
1:AA:533:A:O2'	1:AA:534:U:P	2.75	0.44
13:AL:73:LEU:HD22	13:AL:77:SER:HB3	2.00	0.44
22:B0:1185:G:P	22:B0:1185:G:H8	2.41	0.44
1:AA:985:C:H2'	1:AA:986:U:C6	2.53	0.44
23:B9:73:A:H2'	23:B9:74:U:C6	2.53	0.44
34:BI:106:GLU:CD	34:BI:106:GLU:H	2.22	0.44
4:AC:146:LYS:HB2	4:AC:202:PHE:CD2	2.53	0.44
38:BM:52:SER:OG	38:BM:54:VAL:HG12	2.17	0.44
30:BE:87:GLN:C	30:BE:166:GLU:HG3	2.38	0.44
48:BZ:48:TYR:HD1	48:BZ:50:GLY:H	1.65	0.44
2:AU:30:G:H2'	2:AU:31:A:H8	1.83	0.44
22:B0:2020:A:H2'	22:B0:2021:C:O4'	2.17	0.44
32:BG:22:PRO:HG2	32:BG:23:VAL:H	1.82	0.44
26:BA:144:GLU:OE1	26:BA:188:ARG:NH1	2.50	0.44
22:B0:1327:A:H2'	22:B0:1328:A:O4'	2.17	0.44
28:BC:126:VAL:HG21	28:BC:155:GLU:OE1	2.18	0.44
28:BC:166:LYS:HZ3	35:BJ:9:ALA:HB3	1.83	0.44
22:B0:492:A:C2	41:BQ:11:ARG:HD3	2.53	0.44
22:B0:2136:G:O6	22:B0:2163:G:O5'	2.36	0.44
22:B0:1938:A:H2'	22:B0:1939:U:H5'	1.99	0.44
2:AU:23:A:H2'	2:AU:24:G:H8	1.83	0.44
4:AC:133:MET:O	4:AC:137:VAL:HG23	2.17	0.44
4:AC:187:GLU:HG3	4:AC:188:ALA:N	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AS:6:LYS:HZ3	20:AS:6:LYS:HB3	1.78	0.44
38:BM:15:ARG:CD	38:BM:15:ARG:N	2.81	0.44
1:AA:1224:U:C2	1:AA:1322:C:N4	2.86	0.44
37:BL:34:ILE:HG22	37:BL:35:LYS:N	2.32	0.44
1:AA:1064:G:O2'	1:AA:1065:U:H5''	2.18	0.44
22:B0:859:G:C5'	22:B0:860:U:OP1	2.58	0.44
17:AP:20:VAL:HG12	17:AP:21:VAL:N	2.33	0.44
17:AP:5:ARG:O	17:AP:19:VAL:HA	2.18	0.44
1:AA:1196:A:H5''	1:AA:1197:A:C5'	2.48	0.44
32:BG:105:LEU:HD21	32:BG:129:GLU:OE1	2.17	0.44
42:BR:64:LYS:N	42:BR:64:LYS:HD3	2.32	0.44
43:BS:53:GLN:N	43:BS:53:GLN:OE1	2.51	0.44
22:B0:370:G:H5''	22:B0:371:A:OP2	2.18	0.44
22:B0:2772:C:H2'	22:B0:2773:C:C6	2.53	0.44
16:AO:38:LEU:HD22	16:AO:42:PHE:CE2	2.53	0.44
22:B0:2835:A:H4'	22:B0:2836:U:C6	2.53	0.44
22:B0:2887:A:H2'	22:B0:2888:C:O4'	2.17	0.44
9:AH:84:ILE:HD11	9:AH:124:ILE:HB	2.00	0.44
15:AN:40:ARG:HA	20:AS:13:HIS:HB2	2.00	0.44
20:AS:11:ASP:HB3	20:AS:13:HIS:ND1	2.31	0.44
22:B0:2606:C:H2'	22:B0:2607:G:C8	2.53	0.44
1:AA:582:C:N4	1:AA:758:C:H2'	2.33	0.44
35:BJ:99:ASN:ND2	35:BJ:99:ASN:N	2.66	0.44
9:AH:38:VAL:O	9:AH:42:GLU:HG2	2.17	0.44
22:B0:2004:G:H2'	22:B0:2005:A:O4'	2.17	0.44
38:BM:26:LEU:HD23	38:BM:92:PHE:HD1	1.83	0.44
1:AA:646:G:H2'	1:AA:647:C:C6	2.53	0.44
36:BK:54:THR:HA	36:BK:57:VAL:HG22	1.99	0.44
12:AK:86:LYS:HG2	12:AK:112:VAL:HG13	2.00	0.44
8:AG:21:LEU:HD12	8:AG:61:PHE:HE2	1.83	0.44
1:AA:184:G:H2'	1:AA:185:U:C6	2.53	0.44
22:B0:1344:U:H4'	22:B0:1384:A:C5	2.53	0.44
22:B0:2619:C:H2'	22:B0:2620:C:C6	2.53	0.44
1:AA:166:U:H2'	1:AA:167:A:C8	2.53	0.44
31:BF:79:THR:O	31:BF:80:ILE:HD13	2.18	0.44
22:B0:2670:A:H2'	22:B0:2671:G:C8	2.53	0.44
24:B2:192:LEU:HD13	24:B2:192:LEU:O	2.18	0.44
26:BA:261:ARG:HH11	26:BA:261:ARG:HG2	1.82	0.44
22:B0:1825:U:H2'	22:B0:1826:G:H8	1.83	0.44
1:AA:865:A:H2'	1:AA:866:C:C6	2.52	0.44
26:BA:138:SER:H	26:BA:163:ILE:HD13	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:404:G:H5'	1:AA:546:A:O2'	2.18	0.43
22:B0:598:U:H2'	22:B0:599:A:C8	2.53	0.43
28:BC:28:VAL:HG23	28:BC:29:HIS:N	2.31	0.43
28:BC:35:TYR:C	28:BC:35:TYR:HD2	2.21	0.43
22:B0:588:U:O4'	28:BC:80:SER:C	2.56	0.43
40:BO:15:LYS:H	40:BO:15:LYS:HZ2	1.66	0.43
41:BQ:56:ALA:O	41:BQ:57:ASN:HB3	2.18	0.43
22:B0:2119:A:H2'	22:B0:2121:G:H5'	2.00	0.43
24:B2:32:LEU:HD13	24:B2:219:ALA:HB3	2.00	0.43
22:B0:503:A:H2'	22:B0:505:A:C1'	2.48	0.43
22:B0:961:C:H4'	22:B0:2498:C:C4	2.51	0.43
22:B0:1937:A:O2'	22:B0:1938:A:P	2.75	0.43
19:AR:36:GLY:HA3	19:AR:69:TYR:C	2.37	0.43
39:BN:10:GLU:OE2	39:BN:11:GLN:HG2	2.17	0.43
39:BN:88:ARG:CD	39:BN:88:ARG:N	2.78	0.43
42:BR:7:LEU:CA	42:BR:46:ALA:HA	2.48	0.43
1:AA:1297:G:H5''	1:AA:1298:U:OP1	2.18	0.43
1:AA:60:A:O2'	1:AA:61:G:O5'	2.36	0.43
22:B0:867:C:C5	22:B0:909:A:C2	3.06	0.43
36:BK:6:ARG:HH11	36:BK:6:ARG:HG2	1.83	0.43
1:AA:741:G:N2	1:AA:742:G:H1'	2.33	0.43
4:AC:35:ASP:HB3	4:AC:39:ARG:HH12	1.83	0.43
27:BB:8:LYS:HA	27:BB:27:ILE:HD12	2.00	0.43
22:B0:717:C:C4	22:B0:718:A:H1'	2.53	0.43
1:AA:656:G:O2'	1:AA:657:U:H5'	2.18	0.43
1:AA:750:C:H2'	1:AA:751:U:C6	2.53	0.43
19:AR:6:ARG:HH21	19:AR:42:ARG:NE	2.07	0.43
22:B0:844:A:H1'	22:B0:936:A:C2	2.53	0.43
22:B0:846:U:O2'	22:B0:848:C:OP2	2.36	0.43
22:B0:2342:C:H2'	22:B0:2343:U:O4'	2.18	0.43
12:AK:30:ILE:HG12	12:AK:45:THR:OG1	2.18	0.43
12:AK:46:ALA:HA	12:AK:61:ALA:HB1	1.99	0.43
28:BC:6:LYS:CE	28:BC:119:ILE:HG12	2.46	0.43
1:AA:1495:U:H4'	22:B0:1911:U:O2'	2.18	0.43
3:AB:27:LYS:N	3:AB:28:PRO:CD	2.79	0.43
22:B0:666:A:OP2	35:BJ:48:ARG:HD3	2.18	0.43
22:B0:78:U:H2'	22:B0:79:C:C6	2.52	0.43
1:AA:942:G:H2'	1:AA:943:U:C6	2.53	0.43
22:B0:238:C:H2'	22:B0:239:C:H6	1.83	0.43
31:BF:143:ILE:HD13	31:BF:144:VAL:N	2.33	0.43
10:AI:15:ALA:HB3	10:AI:67:LYS:HE3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:748:G:O2'	1:AA:749:A:O5'	2.35	0.43
22:B0:394:C:H2'	22:B0:395:U:C6	2.53	0.43
1:AA:1472:U:H2'	1:AA:1473:G:C8	2.53	0.43
9:AH:87:ARG:NH1	9:AH:87:ARG:HB2	2.32	0.43
1:AA:477:C:H2'	1:AA:478:A:C8	2.52	0.43
22:B0:290:U:H2'	22:B0:291:G:C8	2.53	0.43
43:BS:85:ARG:HG2	43:BS:86:PHE:N	2.33	0.43
27:BB:151:THR:HG23	27:BB:151:THR:O	2.17	0.43
4:AC:153:SER:HA	4:AC:163:ARG:O	2.17	0.43
22:B0:2829:A:H2'	22:B0:2830:C:C6	2.53	0.43
9:AH:14:ARG:NH2	9:AH:75:GLN:HG2	2.33	0.43
1:AA:1059:C:P	4:AC:2:GLN:OE1	2.76	0.43
22:B0:1495:A:N6	26:BA:150:GLY:O	2.51	0.43
22:B0:1497:U:H3	26:BA:102:TYR:CB	2.31	0.43
22:B0:1490:C:O3'	26:BA:161:VAL:HA	2.18	0.43
22:B0:1579:A:C8	26:BA:65:ASP:HB3	2.52	0.43
26:BA:80:LEU:HD13	26:BA:80:LEU:C	2.38	0.43
1:AA:246:A:H1'	1:AA:282:A:H61	1.83	0.43
22:B0:205:G:C2'	22:B0:206:U:OP2	2.66	0.43
22:B0:787:C:H3'	22:B0:791:C:H42	1.83	0.43
28:BC:134:LEU:HD11	28:BC:158:PHE:CE2	2.53	0.43
28:BC:87:ALA:O	28:BC:88:ARG:HB2	2.18	0.43
22:B0:1202:G:O2'	35:BJ:15:ALA:HA	2.18	0.43
40:BO:27:ARG:HA	40:BO:33:VAL:HG23	1.99	0.43
41:BQ:24:ILE:N	41:BQ:25:ARG:HE	2.16	0.43
2:AW:59:U:H2'	2:AW:60:C:H5'	1.99	0.43
24:B2:7:MET:HA	24:B2:10:ILE:HG22	1.99	0.43
10:AI:113:LYS:CA	10:AI:120:ALA:HB2	2.48	0.43
22:B0:304:U:H2'	22:B0:305:C:C6	2.53	0.43
22:B0:2455:G:H2'	22:B0:2456:C:C6	2.53	0.43
22:B0:1939:U:H4'	22:B0:2592:G:C5'	2.46	0.43
22:B0:2071:A:O2'	22:B0:2072:C:H5'	2.18	0.43
39:BN:30:TRP:O	39:BN:31:VAL:HB	2.18	0.43
1:AA:1139:G:C5'	1:AA:1140:C:H5'	2.48	0.43
25:B5:92:ALA:O	25:B5:93:ALA:C	2.57	0.43
22:B0:1340:U:C1'	22:B0:1603:A:H5'	2.48	0.43
42:BR:14:PRO:O	42:BR:32:LEU:HA	2.18	0.43
1:AA:145:G:N2	1:AA:177:G:C2	2.86	0.43
22:B0:1040:A:H2	22:B0:1115:G:H22	1.66	0.43
25:B5:19:VAL:O	25:B5:23:ILE:HG23	2.17	0.43
35:BJ:111:ILE:O	35:BJ:111:ILE:HG12	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:121:G:H4'	22:B0:149:A:O4'	2.18	0.43
1:AA:560:A:HO2'	1:AA:561:U:P	2.32	0.43
1:AA:1094:G:H5''	1:AA:1095:U:H5	1.80	0.43
22:B0:2552:U:O2	22:B0:2554:U:H5'	2.19	0.43
41:BQ:14:ALA:H	41:BQ:17:VAL:CG2	2.31	0.43
30:BE:74:MET:O	30:BE:78:VAL:HG23	2.18	0.43
22:B0:360:U:H3'	22:B0:362:A:H8	1.83	0.43
22:B0:362:A:O2'	22:B0:363:G:O5'	2.32	0.43
22:B0:1847:A:C2	22:B0:1893:C:N4	2.87	0.43
1:AA:189:A:C2'	1:AA:190:A:H4'	2.48	0.43
22:B0:2340:A:H4'	23:B9:41:G:C6	2.54	0.43
9:AH:31:LEU:HD13	9:AH:31:LEU:O	2.18	0.43
12:AK:23:HIS:HB3	12:AK:30:ILE:HG23	1.98	0.43
1:AA:1310:G:H2'	1:AA:1311:A:H8	1.83	0.43
1:AA:47:C:O4'	1:AA:365:U:N3	2.52	0.43
22:B0:2039:U:H2'	22:B0:2040:G:H8	1.82	0.43
1:AA:1226:C:O2'	1:AA:1227:A:P	2.76	0.43
29:BD:169:LEU:O	29:BD:169:LEU:HD23	2.18	0.43
4:AC:48:LYS:N	4:AC:48:LYS:HD2	2.33	0.43
22:B0:2215:C:H2'	22:B0:2216:G:C8	2.53	0.43
11:AJ:47:GLU:HB3	11:AJ:67:ILE:CG2	2.48	0.43
22:B0:2419:U:H2'	22:B0:2420:C:C6	2.53	0.43
22:B0:2650:U:H2'	22:B0:2651:C:C6	2.52	0.43
22:B0:1495:A:C3'	26:BA:191:LEU:N	2.78	0.43
22:B0:1571:A:H2'	22:B0:1572:A:C8	2.53	0.43
22:B0:1580:A:H4'	26:BA:70:LYS:N	2.33	0.43
1:AA:431:A:N3	1:AA:431:A:H2'	2.33	0.43
33:BH:18:VAL:HG13	33:BH:32:LEU:HD21	2.00	0.43
22:B0:1195:G:O2'	22:B0:1226:A:N3	2.51	0.43
22:B0:776:G:N2	22:B0:793:A:N6	2.64	0.43
22:B0:588:U:C4	28:BC:45:ALA:HA	2.53	0.43
40:BO:13:HIS:NE2	40:BO:14:LYS:NZ	2.66	0.43
41:BQ:18:ARG:HB3	41:BQ:76:VAL:HG21	2.00	0.43
1:AA:1287:A:OP1	1:AA:1288:A:OP2	2.37	0.43
35:BJ:55:MET:H	35:BJ:56:PRO:CA	2.25	0.43
22:B0:2447:G:O2'	22:B0:2448:A:O5'	2.37	0.43
22:B0:2498:C:C2'	22:B0:2499:C:H5'	2.44	0.43
2:AU:55:U:O2	2:AU:57:G:OP2	2.35	0.43
20:AS:40:PHE:HB3	20:AS:41:PRO:CD	2.47	0.43
39:BN:14:GLN:H	39:BN:14:GLN:CD	2.21	0.43
39:BN:6:GLN:O	39:BN:6:GLN:OE1	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BN:60:VAL:HG13	39:BN:61:ARG:HE	1.83	0.43
39:BN:79:VAL:HG12	39:BN:82:SER:HB2	2.00	0.43
22:B0:999:U:C5	22:B0:1154:G:O6	2.71	0.43
1:AA:1404:C:H1'	1:AA:1519:A:O2'	2.19	0.43
22:B0:2861:U:O2	22:B0:2862:G:N7	2.51	0.43
9:AH:93:LYS:HE2	9:AH:116:ARG:NH2	2.32	0.43
1:AA:1380:U:H2'	1:AA:1381:U:OP2	2.19	0.43
2:AU:74:C:H6	2:AU:74:C:O5'	2.01	0.43
22:B0:2570:G:O2'	22:B0:2571:U:H5'	2.18	0.43
22:B0:2581:G:H1'	22:B0:2582:G:C5	2.54	0.43
32:BG:129:GLU:HA	32:BG:129:GLU:OE1	2.18	0.43
6:AE:33:THR:HB	6:AE:49:TYR:CE1	2.53	0.43
1:AA:889:A:OP1	1:AA:891:U:H1'	2.19	0.43
8:AG:42:VAL:O	8:AG:46:LEU:HD13	2.18	0.43
22:B0:172:A:H2'	22:B0:173:A:H8	1.83	0.43
22:B0:1814:G:H1	22:B0:1815:A:N6	2.16	0.43
22:B0:924:G:H2'	22:B0:925:A:H8	1.82	0.43
1:AA:1422:G:H2'	1:AA:1423:G:C8	2.53	0.43
1:AA:944:G:C2'	1:AA:1339:A:H61	2.32	0.43
1:AA:975:A:H4'	1:AA:976:G:OP2	2.17	0.43
1:AA:877:G:H5'	9:AH:79:ARG:HH12	1.82	0.43
12:AK:16:SER:CA	12:AK:78:ILE:HA	2.48	0.43
35:BJ:78:ARG:HB3	35:BJ:78:ARG:CZ	2.49	0.43
15:AN:66:THR:HB	15:AN:82:LYS:HE3	2.00	0.43
22:B0:762:U:O2'	22:B0:763:G:O4'	2.35	0.43
22:B0:241:A:H1'	22:B0:243:U:C4	2.53	0.43
22:B0:2198:A:O2'	22:B0:2199:A:OP1	2.33	0.43
22:B0:1122:G:O2'	22:B0:1123:C:H5'	2.18	0.43
6:AE:45:VAL:HG22	6:AE:117:ALA:HA	1.99	0.43
30:BE:60:GLY:HA2	30:BE:63:GLN:NE2	2.30	0.43
33:BH:58:ASN:HA	33:BH:126:ALA:HA	2.01	0.43
22:B0:2751:G:H5'	22:B0:2752:C:OP2	2.18	0.43
1:AA:334:C:H2'	1:AA:335:C:C6	2.53	0.43
27:BB:148:GLN:NE2	27:BB:148:GLN:H	2.17	0.43
1:AA:99:C:C4	1:AA:101:A:N7	2.86	0.43
22:B0:395:U:H2'	22:B0:396:G:H8	1.83	0.43
26:BA:250:GLN:N	26:BA:250:GLN:OE1	2.45	0.43
22:B0:1491:A:C2	26:BA:173:LEU:N	2.87	0.43
26:BA:164:VAL:HB	26:BA:172:THR:O	2.19	0.43
22:B0:1491:A:C4	26:BA:174:ARG:HA	2.53	0.43
1:AA:420:U:O4'	5:AD:39:GLN:CG	2.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:2776:A:H4'	22:B0:2777:G:O5'	2.18	0.43
22:B0:588:U:N3	22:B0:589:U:O4	2.51	0.43
28:BC:181:ILE:HG13	35:BJ:17:LYS:HG3	2.00	0.43
40:BO:16:ILE:HG12	40:BO:35:PHE:CZ	2.53	0.43
22:B0:495:G:C8	41:BQ:6:LYS:HD3	2.52	0.43
24:B2:6:ARG:O	24:B2:9:VAL:HG12	2.19	0.43
1:AA:1341:U:H2'	1:AA:1342:C:C6	2.54	0.43
10:AI:116:GLY:O	10:AI:117:LEU:HD23	2.18	0.43
22:B0:329:G:O2'	22:B0:477:A:H5'	2.18	0.43
22:B0:2464:G:O2'	22:B0:2465:C:H5'	2.19	0.43
2:AV:58:A:O2'	2:AV:60:C:H5	2.01	0.43
39:BN:28:LYS:HZ1	39:BN:86:LYS:HB3	1.83	0.43
37:BL:115:LEU:HD12	37:BL:115:LEU:N	2.34	0.43
37:BL:25:ALA:O	37:BL:28:LEU:HG	2.17	0.43
25:B3:46:GLU:C	25:B5:15:SER:HB3	2.37	0.43
1:AA:1498:U:H1'	1:AA:1499:A:C8	2.54	0.43
36:BK:7:THR:CG2	36:BK:8:LYS:N	2.72	0.43
4:AC:13:ILE:HG13	4:AC:14:VAL:N	2.33	0.43
25:B3:65:LYS:HD2	25:B3:88:GLU:HG2	2.00	0.43
25:B3:85:ASP:C	25:B3:87:VAL:H	2.21	0.43
1:AA:688:G:H2'	1:AA:689:C:C6	2.53	0.43
34:BI:48:PRO:HG3	34:BI:54:LYS:CE	2.48	0.43
34:BI:59:LYS:HB2	34:BI:87:LEU:HD11	2.00	0.43
7:AF:37:HIS:CE1	7:AF:65:GLU:HB2	2.54	0.43
22:B0:226:A:C6	22:B0:410:G:H1'	2.54	0.43
25:B3:16:VAL:HB	25:B3:53:GLU:O	2.17	0.43
11:AJ:40:ILE:HD11	11:AJ:73:LEU:CD2	2.48	0.43
22:B0:873:C:H2'	22:B0:874:G:H8	1.83	0.43
23:B9:78:A:N6	23:B9:98:G:C2'	2.78	0.43
15:AN:81:ILE:HD12	15:AN:81:ILE:C	2.38	0.43
22:B0:1444:A:C3'	22:B0:1445:U:C5'	2.95	0.43
16:AO:25:GLU:OE2	16:AO:76:ARG:HD3	2.17	0.43
14:AM:77:LYS:HD3	14:AM:77:LYS:C	2.38	0.43
22:B0:1649:G:H2'	22:B0:1650:A:H8	1.84	0.43
1:AA:1001:C:H1'	1:AA:1041:G:H22	1.80	0.43
16:AO:86:LEU:HG	16:AO:87:ARG:N	2.34	0.43
22:B0:413:C:H2'	22:B0:414:C:C6	2.53	0.43
47:BX:35:VAL:HG22	47:BX:36:GLU:N	2.33	0.43
22:B0:1436:G:H4'	22:B0:1477:A:H1'	2.00	0.43
1:AA:27:G:H2'	1:AA:28:A:C8	2.52	0.43
22:B0:281:C:H2'	22:B0:282:A:H8	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:143:VAL:HG11	26:BA:153:LEU:HD23	2.01	0.43
22:B0:1579:A:O4'	26:BA:65:ASP:CG	2.56	0.43
22:B0:582:A:OP1	40:BO:10:ARG:NH1	2.52	0.43
28:BC:112:LEU:HA	28:BC:118:LEU:CD2	2.46	0.43
28:BC:175:ILE:HB	28:BC:180:LEU:HD21	1.99	0.43
41:BQ:15:GLN:HA	41:BQ:15:GLN:HE21	1.84	0.43
22:B0:494:G:N3	41:BQ:7:HIS:N	2.67	0.43
22:B0:2154:A:O2'	22:B0:2155:U:O4'	2.30	0.43
22:B0:2678:C:O4'	27:BB:125:TRP:HD1	1.96	0.43
22:B0:312:G:H2'	22:B0:313:G:C8	2.53	0.43
43:BS:66:VAL:O	43:BS:66:VAL:HG12	2.19	0.43
29:BD:132:ARG:O	29:BD:135:ILE:HD11	2.19	0.43
39:BN:32:VAL:O	39:BN:32:VAL:HG22	2.18	0.43
42:BR:77:ARG:C	42:BR:77:ARG:NE	2.71	0.43
22:B0:637:A:O2'	22:B0:638:G:H5'	2.18	0.43
1:AA:1236:A:H2'	1:AA:1237:C:C6	2.54	0.43
22:B0:1869:G:H1'	22:B0:1872:A:H62	1.83	0.43
22:B0:865:C:O2'	22:B0:866:A:H8	1.96	0.43
22:B0:869:G:H8	22:B0:869:G:O5'	2.00	0.43
36:BK:69:PRO:HB2	36:BK:92:TRP:CB	2.49	0.43
7:AF:10:VAL:CG2	7:AF:11:HIS:N	2.82	0.43
7:AF:9:MET:HA	7:AF:58:HIS:O	2.19	0.43
27:BB:6:GLY:HA3	27:BB:29:VAL:HG12	2.01	0.43
2:AU:74:C:H5''	22:B0:2556:C:N3	2.33	0.43
22:B0:531:C:N4	22:B0:563:G:H5''	2.25	0.43
22:B0:1266:G:N2	22:B0:2013:A:OP2	2.48	0.43
5:AD:94:GLU:CD	5:AD:99:ASN:HD21	2.21	0.43
1:AA:869:G:O2'	1:AA:872:A:N7	2.41	0.43
1:AA:181:A:C2'	1:AA:182:A:OP2	2.66	0.43
22:B0:1814:G:C2	22:B0:1815:A:N7	2.87	0.43
3:AB:22:TRP:HB2	3:AB:188:THR:HB	1.99	0.43
7:AF:29:ILE:HD11	7:AF:64:VAL:CG2	2.48	0.43
1:AA:274:A:O2'	1:AA:275:G:C8	2.71	0.43
22:B0:1019:U:O2	22:B0:1021:A:N1	2.51	0.43
12:AK:22:ILE:HD12	12:AK:95:THR:HG21	2.00	0.43
25:B3:19:VAL:O	25:B3:22:LEU:HB3	2.18	0.43
12:AK:13:LYS:HZ2	12:AK:15:VAL:HG22	1.83	0.43
22:B0:2631:G:N2	22:B0:2787:C:C2	2.86	0.43
30:BE:18:ILE:HD11	30:BE:20:GLY:O	2.18	0.43
22:B0:351:C:H2'	22:B0:352:A:H4'	1.99	0.43
22:B0:1120:G:H2'	22:B0:1121:C:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1468:A:H3'	1:AA:1469:C:H6	1.84	0.43
3:AB:89:PHE:CD1	3:AB:89:PHE:N	2.86	0.43
32:BG:119:ALA:O	32:BG:123:ALA:HB3	2.19	0.43
29:BD:52:ALA:O	29:BD:53:ALA:HB3	2.17	0.43
25:B5:106:LEU:O	25:B5:110:LEU:HG	2.18	0.43
35:BJ:84:LYS:C	35:BJ:86:GLU:H	2.22	0.43
33:BH:21:THR:HG23	33:BH:21:THR:O	2.18	0.43
22:B0:116:C:H2'	22:B0:117:G:O4'	2.19	0.43
1:AA:729:A:H2'	1:AA:730:G:C8	2.54	0.43
1:AA:637:C:H2'	1:AA:638:U:C6	2.53	0.43
16:AO:72:LYS:HD3	16:AO:72:LYS:C	2.38	0.43
22:B0:1493:A:C2	26:BA:183:VAL:O	2.71	0.43
22:B0:1578:U:OP2	26:BA:101:ARG:HB3	2.19	0.43
22:B0:1992:G:H4'	22:B0:1993:U:OP1	2.18	0.43
33:BH:109:LEU:O	33:BH:115:GLY:HA3	2.19	0.43
33:BH:118:MET:HG2	33:BH:118:MET:O	2.18	0.43
1:AA:243:A:O2'	1:AA:244:U:P	2.77	0.43
22:B0:557:U:H2'	22:B0:558:G:C8	2.52	0.43
22:B0:661:A:H5'	35:BJ:28:GLY:H	1.84	0.43
2:AW:61:C:H6	2:AW:61:C:O5'	2.02	0.43
24:B2:7:MET:O	24:B2:11:ARG:N	2.48	0.43
27:BB:122:VAL:HG21	27:BB:141:ARG:HA	2.00	0.43
27:BB:165:MET:CG	27:BB:166:GLY:N	2.82	0.43
22:B0:504:A:H5'	22:B0:512:G:OP2	2.17	0.43
22:B0:2491:U:H2'	22:B0:2492:U:C5'	2.48	0.43
22:B0:961:C:OP1	22:B0:2496:C:C4	2.71	0.43
22:B0:959:A:O4'	36:BK:80:VAL:HG12	2.19	0.43
39:BN:2:ASN:HD22	39:BN:4:ILE:CG1	2.32	0.43
22:B0:2596:U:C2'	22:B0:2597:G:H5'	2.48	0.43
22:B0:2334:U:H5	38:BM:10:ARG:NH1	2.16	0.43
1:AA:1125:U:OP2	1:AA:1145:A:N6	2.52	0.43
22:B0:638:G:H2'	22:B0:639:U:O4'	2.17	0.43
37:BL:22:ARG:NH2	37:BL:69:ARG:HB3	2.34	0.43
22:B0:994:C:O2	22:B0:1160:G:N2	2.47	0.43
22:B0:1047:G:C2'	22:B0:1110:G:N2	2.82	0.43
1:AA:1405:G:H2'	1:AA:1406:U:H6	1.83	0.43
22:B0:121:G:H4'	22:B0:149:A:C4'	2.49	0.43
25:B5:81:LYS:HG2	25:B5:82:GLU:CD	2.39	0.43
36:BK:6:ARG:O	36:BK:71:LYS:HA	2.18	0.43
22:B0:856:G:H2'	22:B0:857:G:H8	1.83	0.43
7:AF:78:PHE:O	7:AF:84:VAL:HG11	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:562:U:H5'	1:AA:563:A:C5	2.54	0.43
22:B0:2581:G:C2'	22:B0:2582:G:OP2	2.67	0.43
48:BZ:31:LYS:HE2	48:BZ:47:TYR:HB3	2.00	0.43
22:B0:2226:C:C5	22:B0:2227:A:H1'	2.54	0.43
29:BD:79:ARG:HB3	29:BD:79:ARG:HH11	1.81	0.43
22:B0:269:C:C2'	22:B0:271:G:OP1	2.66	0.43
22:B0:404:A:H1'	22:B0:406:G:C4	2.53	0.43
22:B0:709:U:H2'	22:B0:710:U:C6	2.53	0.43
22:B0:1639:C:H2'	22:B0:1640:A:H5'	1.99	0.43
21:AT:8:LYS:HB2	21:AT:8:LYS:HZ3	1.84	0.43
25:B3:17:MET:HB2	25:B3:53:GLU:O	2.19	0.43
23:B9:78:A:H61	23:B9:98:G:C1'	2.31	0.43
22:B0:763:G:H2'	22:B0:763:G:N3	2.33	0.43
22:B0:458:G:H2'	22:B0:459:U:OP2	2.19	0.43
17:AP:40:ASN:HD21	17:AP:42:ILE:HG22	1.83	0.43
22:B0:293:U:N3	22:B0:347:A:C2	2.86	0.43
22:B0:1920:C:H2'	22:B0:1921:G:C8	2.53	0.43
5:AD:90:LEU:HD11	5:AD:196:GLU:HG3	2.00	0.43
40:BO:78:PHE:CD1	40:BO:79:ILE:N	2.87	0.43
22:B0:2213:U:H2'	22:B0:2214:C:C6	2.54	0.43
1:AA:157:U:H2'	1:AA:158:G:H8	1.82	0.43
22:B0:769:U:H2'	22:B0:770:G:C8	2.53	0.43
6:AE:52:ALA:HB3	6:AE:58:ALA:HB2	2.01	0.43
38:BM:106:LEU:HD13	38:BM:106:LEU:O	2.18	0.43
29:BD:113:PHE:H	29:BD:113:PHE:HD1	1.67	0.43
6:AE:19:ARG:HH11	6:AE:19:ARG:HG3	1.82	0.43
4:AC:67:ILE:HG23	4:AC:67:ILE:O	2.18	0.43
4:AC:147:GLY:HA3	4:AC:171:ARG:O	2.19	0.43
26:BA:263:ASP:OD1	26:BA:264:LYS:HG3	2.19	0.43
32:BG:124:MET:CE	32:BG:124:MET:HA	2.48	0.43
27:BB:41:ALA:HB3	27:BB:48:ILE:HG23	1.99	0.43
22:B0:1427:A:N6	26:BA:58:LYS:CE	2.80	0.43
22:B0:1425:G:N2	22:B0:1574:C:N4	2.66	0.43
26:BA:128:THR:O	26:BA:129:LEU:HD13	2.18	0.43
22:B0:1493:A:N3	26:BA:131:MET:HE1	2.34	0.43
26:BA:159:THR:O	26:BA:160:TYR:HB3	2.18	0.43
26:BA:98:GLY:O	26:BA:99:GLU:HG2	2.19	0.43
22:B0:1764:C:H2'	22:B0:1765:U:C6	2.53	0.43
1:AA:409:U:O4	1:AA:429:U:H4'	2.19	0.43
5:AD:12:ARG:HD3	5:AD:29:THR:CG2	2.49	0.43
33:BH:138:GLN:CD	33:BH:138:GLN:N	2.72	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BH:93:ILE:CD1	33:BH:96:ARG:HE	2.28	0.43
22:B0:1243:C:H6	22:B0:1243:C:O5'	2.01	0.43
22:B0:1250:G:H4'	40:BO:8:ILE:CD1	2.36	0.43
28:BC:45:ALA:HB3	28:BC:89:PRO:CB	2.48	0.43
40:BO:32:ARG:NE	40:BO:32:ARG:CA	2.79	0.43
22:B0:1325:U:H1'	41:BQ:87:PRO:HD2	2.00	0.43
2:AW:55:U:O2	2:AW:55:U:H3'	2.19	0.43
24:B2:218:GLY:O	24:B2:219:ALA:C	2.56	0.43
1:AA:1385:G:HO2'	10:AI:128:LYS:HD2	1.82	0.43
22:B0:503:A:H2'	22:B0:505:A:O4'	2.19	0.43
43:BS:25:LYS:NZ	43:BS:36:GLU:HG2	2.34	0.43
43:BS:17:ASP:OD2	43:BS:38:ILE:HG23	2.18	0.43
22:B0:958:U:O5'	36:BK:80:VAL:CG2	2.66	0.43
29:BD:107:VAL:HG23	29:BD:107:VAL:O	2.19	0.43
45:BU:45:HIS:CG	45:BU:56:HIS:HB2	2.53	0.43
39:BN:28:LYS:CE	39:BN:86:LYS:HB3	2.49	0.43
22:B0:2296:U:O2'	22:B0:2297:A:O4'	2.35	0.43
42:BR:33:LYS:HA	42:BR:82:LYS:CB	2.33	0.43
6:AE:63:MET:O	6:AE:67:ARG:HG3	2.19	0.43
10:AI:64:ILE:HG22	10:AI:65:THR:N	2.34	0.43
1:AA:482:A:N3	1:AA:482:A:H2'	2.34	0.43
1:AA:1075:U:H4'	1:AA:1101:A:N6	2.33	0.43
22:B0:2899:A:N1	33:BH:136:GLN:CA	2.79	0.43
30:BE:71:LEU:HA	30:BE:74:MET:HE3	2.01	0.43
22:B0:1346:G:N2	22:B0:1600:C:O2	2.51	0.43
27:BB:36:GLN:HA	27:BB:53:GLY:O	2.19	0.43
4:AC:72:PRO:O	4:AC:76:ILE:HG13	2.17	0.43
1:AA:892:A:H2'	1:AA:893:C:H6	1.83	0.43
1:AA:886:G:H4'	1:AA:915:A:H1'	2.00	0.43
22:B0:276:U:H2'	22:B0:362:A:N3	2.33	0.43
22:B0:276:U:O2'	22:B0:278:A:P	2.76	0.43
25:B3:16:VAL:O	25:B3:20:VAL:N	2.50	0.43
12:AK:33:ILE:HB	12:AK:73:VAL:HG21	2.00	0.43
11:AJ:41:PRO:O	11:AJ:42:LEU:HB2	2.18	0.43
42:BR:39:THR:HG23	42:BR:40:LYS:H	1.82	0.43
22:B0:970:U:H1'	22:B0:984:A:N3	2.33	0.43
1:AA:310:G:H1'	1:AA:607:A:H61	1.84	0.43
9:AH:61:THR:O	9:AH:61:THR:HG23	2.18	0.43
28:BC:4:VAL:HG23	28:BC:13:THR:HA	2.01	0.43
5:AD:2:ARG:HG2	5:AD:2:ARG:HH11	1.84	0.43
22:B0:876:C:H2'	22:B0:877:A:H8	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:B9:66:A:H2'	23:B9:67:G:OP2	2.17	0.43
43:BS:43:LYS:O	43:BS:45:GLN:N	2.49	0.43
36:BK:62:LYS:N	36:BK:62:LYS:HD2	2.33	0.43
24:B2:77:PHE:CZ	24:B2:103:ILE:HD11	2.52	0.43
1:AA:738:C:H2'	1:AA:739:C:C6	2.53	0.43
22:B0:678:C:H2'	22:B0:679:C:H6	1.83	0.43
28:BC:115:GLN:H	28:BC:115:GLN:CD	2.21	0.43
3:AB:62:ARG:HG2	3:AB:62:ARG:O	2.18	0.43
31:BF:46:PHE:HE1	31:BF:50:ARG:HH21	1.67	0.43
22:B0:1488:G:H21	26:BA:200:MET:HE2	1.84	0.43
22:B0:1494:A:C4	22:B0:1494:A:H3'	2.53	0.43
22:B0:1677:A:H2'	22:B0:1678:A:O4'	2.19	0.43
1:AA:34:C:H5'	1:AA:363:A:O2'	2.19	0.43
13:AL:29:LYS:C	13:AL:80:LEU:HD12	2.38	0.43
33:BH:5:THR:HB	33:BH:6:ALA:H	1.67	0.43
22:B0:1329:U:H5''	22:B0:1330:C:OP2	2.19	0.43
22:B0:752:A:N6	22:B0:1781:U:O2'	2.52	0.43
22:B0:776:G:O2'	22:B0:777:G:P	2.77	0.43
22:B0:799:G:OP2	28:BC:57:LYS:CG	2.55	0.43
28:BC:58:LYS:HA	28:BC:59:PRO:HD3	1.87	0.43
22:B0:2136:G:O6	22:B0:2137:U:C4	2.72	0.43
22:B0:2676:C:H2'	22:B0:2677:G:H8	1.84	0.43
22:B0:477:A:H2'	22:B0:478:A:C8	2.54	0.43
22:B0:2456:C:H42	22:B0:2495:G:H1	1.66	0.43
22:B0:2494:G:H2'	22:B0:2495:G:C4'	2.49	0.43
22:B0:2498:C:H2'	22:B0:2499:C:C5'	2.45	0.43
22:B0:958:U:OP1	36:BK:83:GLY:N	2.51	0.43
42:BR:36:LYS:HD2	42:BR:80:TRP:HB3	2.01	0.43
4:AC:117:ASP:HA	4:AC:120:THR:HG22	2.00	0.43
2:AV:21:A:HO2'	2:AV:22:G:H8	1.58	0.43
1:AA:1237:C:O2'	1:AA:1334:G:H1'	2.19	0.43
8:AG:112:ASP:OD2	8:AG:118:ARG:HG2	2.18	0.43
22:B0:1047:G:C2'	22:B0:1110:G:H22	2.24	0.43
25:B5:46:GLU:HB3	25:B5:50:GLU:CG	2.48	0.43
22:B0:49:A:H4'	22:B0:51:G:O4'	2.19	0.43
45:BU:70:VAL:CG2	45:BU:71:LYS:H	2.28	0.43
41:BQ:13:SER:O	41:BQ:14:ALA:HB3	2.19	0.43
22:B0:704:G:H2'	22:B0:726:G:H21	1.84	0.43
22:B0:1542:C:C2'	22:B0:1543:G:H5'	2.39	0.43
1:AA:657:U:H2'	1:AA:658:C:H6	1.84	0.43
7:AF:22:ILE:C	7:AF:22:ILE:HD13	2.38	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1141:U:O2'	22:B0:1142:A:P	2.77	0.43
1:AA:47:C:O5'	1:AA:48:C:OP1	2.36	0.43
10:AI:8:THR:HG22	10:AI:9:GLY:N	2.34	0.43
17:AP:2:VAL:O	17:AP:2:VAL:HG13	2.18	0.43
22:B0:729:G:H4'	22:B0:763:G:H5'	2.01	0.43
43:BS:84:PHE:CG	43:BS:101:THR:HG21	2.54	0.43
22:B0:1397:U:O2'	22:B0:1398:C:P	2.76	0.43
40:BO:85:ALA:HB3	40:BO:111:LYS:HZ2	1.83	0.43
48:BZ:41:HIS:HB2	48:BZ:46:GLY:HA2	2.00	0.43
32:BG:36:GLU:C	32:BG:38:CYS:N	2.72	0.43
22:B0:416:U:O4	22:B0:2407:A:H2	2.01	0.43
22:B0:1629:U:H2'	22:B0:1630:A:H8	1.83	0.43
31:BF:143:ILE:O	31:BF:143:ILE:HG23	2.19	0.43
29:BD:52:ALA:C	29:BD:54:ALA:N	2.72	0.43
1:AA:630:A:H2'	1:AA:631:C:H5'	2.01	0.43
1:AA:1474:U:H2'	1:AA:1475:G:C8	2.54	0.43
22:B0:1709:U:H2'	22:B0:1710:G:C8	2.54	0.43
1:AA:1062:U:N3	1:AA:1063:C:N4	2.67	0.43
9:AH:2:MET:N	9:AH:2:MET:SD	2.91	0.43
38:BM:94:ARG:HG2	38:BM:94:ARG:HH11	1.83	0.43
24:B2:20:TYR:HD1	24:B2:20:TYR:H	1.65	0.43
38:BM:70:ALA:O	38:BM:74:VAL:HG23	2.19	0.43
30:BE:89:VAL:O	30:BE:164:ALA:HA	2.19	0.43
1:AA:682:G:O2'	1:AA:683:G:H5'	2.18	0.43
3:AB:206:ILE:HG23	3:AB:207:ARG:N	2.33	0.43
22:B0:1605:C:H4'	22:B0:1610:A:N6	2.34	0.43
22:B0:1615:C:O2'	22:B0:1616:A:OP1	2.31	0.43
28:BC:153:LEU:HA	28:BC:189:THR:HG23	2.01	0.43
28:BC:90:GLN:HB2	35:BJ:28:GLY:O	2.19	0.43
22:B0:2121:G:H1'	22:B0:2122:U:C4	2.54	0.43
22:B0:2391:G:O2'	22:B0:2429:G:N2	2.52	0.43
22:B0:311:A:C6	22:B0:330:A:OP2	2.72	0.43
22:B0:2249:U:C1'	22:B0:2275:C:N4	2.75	0.43
22:B0:1966:A:N3	22:B0:1966:A:H2'	2.33	0.43
4:AC:184:ASN:HD21	4:AC:199:VAL:CB	2.06	0.43
38:BM:18:LEU:HD12	38:BM:18:LEU:N	2.34	0.43
2:AU:37:G:H2'	2:AU:38:A:C8	2.54	0.43
37:BL:31:HIS:C	37:BL:33:ILE:H	2.23	0.43
37:BL:37:THR:C	37:BL:40:LYS:HB3	2.39	0.43
25:B3:50:GLU:HB3	25:B5:15:SER:HA	1.99	0.43
22:B0:912:C:H2'	22:B0:913:U:H6	1.79	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AF:9:MET:HB2	7:AF:85:ILE:CG2	2.49	0.43
1:AA:1528:U:O2'	1:AA:1529:G:H3'	2.19	0.43
17:AP:18:GLN:HG2	17:AP:20:VAL:CG2	2.49	0.43
22:B0:2899:A:C2	33:BH:136:GLN:HA	2.54	0.43
4:AC:57:GLU:OE1	4:AC:64:ARG:HD2	2.18	0.43
11:AJ:18:ILE:CD1	11:AJ:70:HIS:HB2	2.49	0.43
7:AF:38:ARG:HB3	7:AF:63:ASN:HD21	1.84	0.43
22:B0:1022:G:H4'	22:B0:1023:U:O5'	2.19	0.43
1:AA:1392:G:H2'	1:AA:1393:U:C6	2.54	0.43
1:AA:1281:C:H2'	1:AA:1282:C:OP1	2.19	0.43
10:AI:80:HIS:O	10:AI:84:ARG:HG2	2.17	0.43
15:AN:40:ARG:HA	20:AS:13:HIS:CA	2.48	0.43
15:AN:44:VAL:HG12	15:AN:44:VAL:O	2.19	0.43
38:BM:53:THR:OG1	38:BM:65:THR:HB	2.19	0.43
22:B0:903:C:H2'	22:B0:904:G:H8	1.82	0.43
5:AD:104:MET:CE	5:AD:142:VAL:HB	2.49	0.43
1:AA:692:U:H5'	1:AA:797:C:C5'	2.48	0.43
30:BE:127:GLN:NE2	30:BE:129:GLU:HB2	2.33	0.43
22:B0:667:U:H5	35:BJ:48:ARG:HH12	1.67	0.43
22:B0:376:G:H2'	22:B0:377:G:H8	1.84	0.43
2:AU:6:U:O2'	2:AU:7:U:H5'	2.19	0.43
1:AA:1474:U:H2'	1:AA:1475:G:H8	1.84	0.43
1:AA:1396:A:O2'	1:AA:1398:A:H1'	2.18	0.43
38:BM:31:THR:CG2	38:BM:32:PRO:HD2	2.49	0.43
22:B0:24:G:H2'	22:B0:25:U:H6	1.84	0.43
34:BI:9:ASN:O	34:BI:83:ALA:HA	2.19	0.43
10:AI:103:VAL:O	10:AI:103:VAL:HG12	2.19	0.43
23:B9:95:U:H2'	23:B9:96:G:H8	1.84	0.43
2:AU:32:C:H2'	2:AU:33:U:C6	2.54	0.43
20:AS:62:THR:HG22	20:AS:63:ASP:N	2.34	0.43
22:B0:1289:C:H2'	22:B0:1290:C:C6	2.54	0.43
22:B0:1497:U:C6	26:BA:63:ILE:HD11	2.54	0.43
22:B0:1614:A:H61	41:BQ:92:ARG:HD2	1.83	0.43
28:BC:159:LEU:HA	28:BC:162:ARG:CD	2.49	0.43
28:BC:90:GLN:HB3	28:BC:91:ASP:H	1.72	0.43
35:BJ:21:ARG:CD	35:BJ:22:GLY:H	2.27	0.43
40:BO:26:ALA:C	40:BO:28:SER:N	2.72	0.43
40:BO:36:GLN:C	40:BO:39:ILE:HG22	2.38	0.43
40:BO:48:ASP:HA	40:BO:50:ARG:CZ	2.48	0.43
22:B0:2119:A:N3	22:B0:2119:A:H2'	2.33	0.43
22:B0:2127:G:H3'	22:B0:2166:U:C4'	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:2676:C:H3'	27:BB:127:PHE:CD1	2.54	0.43
22:B0:2676:C:O5'	27:BB:127:PHE:HE1	2.02	0.43
43:BS:10:VAL:O	43:BS:11:ILE:HD13	2.18	0.43
22:B0:1939:U:O4	22:B0:1974:C:OP1	2.37	0.43
4:AC:126:ARG:CZ	4:AC:126:ARG:HB3	2.49	0.43
20:AS:15:LEU:O	20:AS:19:GLU:HG2	2.19	0.43
40:BO:91:ARG:HG2	40:BO:91:ARG:NH1	2.34	0.43
25:B3:50:GLU:H	25:B3:51:LYS:N	2.17	0.43
25:B5:46:GLU:HB3	25:B5:50:GLU:OE2	2.18	0.43
22:B0:2328:A:O4'	45:BU:10:ARG:NE	2.52	0.43
17:AP:4:ILE:CG1	17:AP:21:VAL:HG22	2.43	0.43
33:BH:68:LYS:HD3	33:BH:71:ASP:OD2	2.18	0.43
34:BI:19:VAL:CG1	34:BI:41:ILE:HG13	2.48	0.43
16:AO:35:ILE:O	16:AO:39:GLN:HG3	2.18	0.43
14:AM:92:ARG:O	14:AM:92:ARG:HD3	2.19	0.43
16:AO:10:ILE:HA	16:AO:13:GLU:OE2	2.19	0.43
1:AA:815:A:H4'	1:AA:817:C:C4	2.53	0.43
22:B0:828:U:C2'	22:B0:828:U:O2	2.55	0.43
1:AA:1502:A:N3	1:AA:1502:A:H2'	2.34	0.43
15:AN:72:PHE:CE2	15:AN:74:ARG:HG2	2.54	0.43
18:AQ:45:VAL:HG11	18:AQ:60:ILE:CG1	2.49	0.43
29:BD:71:LYS:CA	29:BD:71:LYS:HE2	2.48	0.43
18:AQ:35:LYS:HZ2	18:AQ:37:ILE:HG22	1.81	0.43
19:AR:47:ARG:HG3	19:AR:49:LYS:H	1.84	0.43
7:AF:6:ILE:CD1	7:AF:89:VAL:HG12	2.48	0.43
35:BJ:135:ILE:N	35:BJ:135:ILE:HD13	2.34	0.43
1:AA:337:G:H2'	1:AA:338:A:H8	1.82	0.43
1:AA:153:C:N4	1:AA:168:G:H1	2.16	0.43
26:BA:250:GLN:C	26:BA:252:LYS:H	2.22	0.43
22:B0:1784:A:H5''	22:B0:1785:A:OP1	2.19	0.43
4:AC:68:HIS:ND1	4:AC:103:ALA:HB3	2.33	0.43
22:B0:1270:C:H6	22:B0:1270:C:O5'	2.02	0.43
24:B2:74:VAL:HG22	24:B2:112:VAL:CG1	2.49	0.43
22:B0:1415:G:H5'	22:B0:1416:G:OP1	2.19	0.42
22:B0:1419:A:H3'	22:B0:1420:U:C6	2.54	0.42
22:B0:1495:A:H62	26:BA:142:ASN:CG	2.18	0.42
22:B0:1581:A:N7	22:B0:1582:C:C4	2.87	0.42
26:BA:136:VAL:HA	26:BA:163:ILE:HB	2.01	0.42
26:BA:141:HIS:NE2	26:BA:190:THR:HG22	2.35	0.42
26:BA:81:GLU:HB2	26:BA:90:ILE:CD1	2.47	0.42
27:BB:134:HIS:CE1	34:BI:30:ARG:HB2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:363:A:OP1	13:AL:80:LEU:HD13	2.19	0.42
22:B0:2895:C:O2'	33:BH:41:LYS:HG2	2.19	0.42
33:BH:14:ASP:O	33:BH:15:TRP:CB	2.67	0.42
22:B0:809:G:H4'	22:B0:1254:A:O4'	2.19	0.42
1:AA:1351:U:H3	1:AA:1371:G:H1	1.66	0.42
1:AA:1349:A:H1'	1:AA:1374:A:C6	2.54	0.42
22:B0:2678:C:N4	22:B0:2729:G:N2	2.52	0.42
22:B0:956:G:OP2	36:BK:84:LYS:HG2	2.19	0.42
29:BD:105:ILE:C	29:BD:107:VAL:N	2.72	0.42
2:AV:21:A:O2'	2:AV:22:G:H8	2.01	0.42
39:BN:25:VAL:HG22	39:BN:88:ARG:NE	2.34	0.42
39:BN:61:ARG:HH11	39:BN:61:ARG:HG3	1.83	0.42
42:BR:66:LYS:O	42:BR:77:ARG:HD2	2.19	0.42
22:B0:631:A:H2'	22:B0:632:A:O4'	2.18	0.42
29:BD:13:LYS:HD2	29:BD:13:LYS:N	2.34	0.42
1:AA:1064:G:H4'	1:AA:1065:U:C5'	2.49	0.42
1:AA:1405:G:H2'	1:AA:1406:U:C6	2.54	0.42
1:AA:1498:U:O2'	1:AA:1499:A:O5'	2.35	0.42
22:B0:868:U:C4	22:B0:909:A:C2	3.06	0.42
38:BM:16:ARG:HH21	45:BU:75:ASN:HB2	1.83	0.42
17:AP:53:ASP:OD1	17:AP:56:ARG:HB2	2.19	0.42
5:AD:201:GLU:O	5:AD:204:SER:HB3	2.19	0.42
34:BI:43:ILE:HD11	34:BI:53:LYS:O	2.19	0.42
22:B0:1775:U:O4	22:B0:1789:A:H2	2.02	0.42
22:B0:720:U:H2'	22:B0:721:A:H8	1.83	0.42
40:BO:68:ALA:C	40:BO:70:GLN:N	2.72	0.42
25:B3:68:VAL:O	25:B3:72:VAL:HG23	2.19	0.42
25:B3:3:THR:O	25:B3:7:ILE:HG13	2.19	0.42
1:AA:189:A:H2'	1:AA:190:A:H4'	2.00	0.42
22:B0:2294:G:H2'	22:B0:2295:C:O4'	2.19	0.42
22:B0:2340:A:H2'	22:B0:2341:G:C8	2.54	0.42
1:AA:1159:U:O2'	1:AA:1160:G:C8	2.71	0.42
15:AN:44:VAL:HG12	15:AN:47:LEU:HG	2.00	0.42
15:AN:66:THR:HB	15:AN:82:LYS:HE2	2.00	0.42
22:B0:460:A:H5''	42:BR:72:GLN:CB	2.49	0.42
39:BN:13:LYS:O	39:BN:15:ASP:N	2.52	0.42
25:B5:73:ARG:CB	25:B5:73:ARG:HH11	2.32	0.42
22:B0:300:A:C6	22:B0:336:C:OP2	2.72	0.42
22:B0:2408:U:H2'	22:B0:2409:G:C8	2.53	0.42
22:B0:42:A:H2'	22:B0:44:A:O4'	2.19	0.42
22:B0:1167:C:H2'	22:B0:1168:G:H8	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BF:80:ILE:CD1	31:BF:102:ALA:HB1	2.49	0.42
3:AB:206:ILE:O	3:AB:210:THR:HG23	2.18	0.42
1:AA:1021:A:H2'	1:AA:1022:A:C8	2.54	0.42
22:B0:1493:A:C2	26:BA:131:MET:SD	3.12	0.42
22:B0:1491:A:C2	26:BA:174:ARG:N	2.87	0.42
22:B0:1578:U:H4'	26:BA:64:VAL:CA	2.48	0.42
22:B0:1497:U:N3	26:BA:90:ILE:HB	2.34	0.42
25:B3:96:GLU:HB3	25:B5:8:ILE:CA	2.48	0.42
22:B0:2443:C:H2'	22:B0:2444:G:C8	2.52	0.42
22:B0:675:A:H62	28:BC:61:ARG:NH2	2.16	0.42
28:BC:166:LYS:HE2	35:BJ:10:GLU:N	2.34	0.42
28:BC:181:ILE:O	35:BJ:17:LYS:HG2	2.19	0.42
40:BO:18:LYS:O	40:BO:19:GLN:HB3	2.19	0.42
2:AW:56:C:N4	22:B0:2122:U:N3	2.67	0.42
22:B0:2116:G:O3'	22:B0:2117:A:O4'	2.36	0.42
22:B0:2179:C:H5''	22:B0:2181:U:P	2.58	0.42
22:B0:508:A:O2'	22:B0:509:C:OP2	2.37	0.42
22:B0:2454:G:N1	22:B0:2499:C:N4	2.67	0.42
22:B0:2501:C:H5''	22:B0:2503:A:C5'	2.29	0.42
22:B0:1456:G:H2'	22:B0:1457:G:O4'	2.19	0.42
22:B0:1458:C:H2'	22:B0:1459:U:C5'	2.49	0.42
2:AV:20:G:H2'	2:AV:20:G:N3	2.34	0.42
2:AV:38:A:C4	2:AV:39:U:O2	2.73	0.42
22:B0:57:C:P	42:BR:76:ARG:HD3	2.59	0.42
25:B5:47:ALA:C	25:B5:49:GLU:N	2.73	0.42
10:AI:27:ILE:HA	10:AI:62:LEU:O	2.19	0.42
1:AA:566:G:H4'	1:AA:567:G:C5'	2.38	0.42
22:B0:2227:A:C3'	22:B0:2228:G:H5'	2.49	0.42
22:B0:2229:U:H2'	22:B0:2230:G:C8	2.53	0.42
4:AC:87:ARG:HH21	4:AC:100:ILE:CG2	2.30	0.42
1:AA:1221:G:P	20:AS:2:ARG:HG3	2.59	0.42
22:B0:1267:U:H2'	22:B0:1268:A:H8	1.84	0.42
22:B0:400:G:C2'	22:B0:401:A:H5''	2.50	0.42
22:B0:279:A:C6	22:B0:363:G:OP1	2.72	0.42
22:B0:721:A:H2'	22:B0:722:A:C8	2.53	0.42
8:AG:37:THR:HA	8:AG:40:SER:OG	2.19	0.42
35:BJ:74:THR:HA	35:BJ:107:PHE:HB2	2.00	0.42
45:BU:20:LEU:HD23	45:BU:20:LEU:N	2.25	0.42
1:AA:812:G:C2'	1:AA:813:U:OP2	2.67	0.42
45:BU:57:THR:OG1	45:BU:58:LEU:N	2.53	0.42
22:B0:2357:G:C5'	22:B0:2358:A:OP1	2.62	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AJ:59:LYS:O	11:AJ:62:ARG:NH1	2.53	0.42
7:AF:22:ILE:O	7:AF:25:TYR:HB3	2.19	0.42
22:B0:2293:G:H2'	22:B0:2294:G:C8	2.54	0.42
22:B0:2344:U:H4'	22:B0:2373:G:O2'	2.18	0.42
22:B0:617:G:H8	28:BC:173:THR:HG22	1.84	0.42
1:AA:1159:U:O4'	1:AA:1182:G:N2	2.52	0.42
1:AA:258:G:H1	1:AA:268:U:H3	1.67	0.42
33:BH:37:ARG:H	33:BH:37:ARG:CD	2.27	0.42
1:AA:50:A:N6	1:AA:361:G:C4'	2.81	0.42
10:AI:9:GLY:HA2	10:AI:80:HIS:CD2	2.53	0.42
30:BE:148:ARG:NH2	30:BE:167:VAL:HG13	2.34	0.42
22:B0:2606:C:H2'	22:B0:2607:G:H8	1.83	0.42
1:AA:64:G:H4'	1:AA:65:A:H5''	2.01	0.42
22:B0:292:U:C6	22:B0:292:U:O5'	2.72	0.42
1:AA:1009:U:H5''	15:AN:64:ARG:HH12	1.83	0.42
1:AA:838:G:H2'	1:AA:839:U:H5''	2.01	0.42
21:AT:48:LYS:HZ2	21:AT:48:LYS:HB2	1.85	0.42
23:B9:108:A:O3'	23:B9:109:A:H4'	2.19	0.42
1:AA:613:C:H2'	1:AA:614:C:C6	2.54	0.42
1:AA:665:A:H2'	1:AA:732:C:O2	2.18	0.42
29:BD:90:LEU:HD22	29:BD:90:LEU:O	2.20	0.42
25:B3:99:SER:H	25:B3:102:ASP:HB2	1.84	0.42
2:AV:29:A:H2'	2:AV:30:G:C8	2.55	0.42
19:AR:60:ARG:O	19:AR:64:LEU:HG	2.19	0.42
39:BN:40:GLN:N	39:BN:40:GLN:OE1	2.51	0.42
27:BB:171:THR:HG23	27:BB:171:THR:O	2.19	0.42
22:B0:1707:G:H2'	22:B0:1708:C:O4'	2.18	0.42
3:AB:195:VAL:HB	3:AB:198:VAL:HB	2.00	0.42
26:BA:104:LEU:CD1	26:BA:126:GLY:HA2	2.49	0.42
26:BA:163:ILE:HG13	26:BA:173:LEU:CD2	2.44	0.42
1:AA:496:A:H5'	1:AA:497:G:OP1	2.18	0.42
22:B0:2043:C:H5	22:B0:2777:G:O4'	2.02	0.42
22:B0:1606:C:H5''	22:B0:1607:C:H5'	2.01	0.42
22:B0:800:A:C5'	22:B0:801:G:OP1	2.62	0.42
28:BC:178:VAL:HG22	28:BC:179:SER:N	2.34	0.42
22:B0:589:U:H3'	28:BC:47:LYS:HB2	2.02	0.42
22:B0:663:G:OP2	28:BC:88:ARG:CD	2.67	0.42
28:BC:91:ASP:O	35:BJ:26:GLY:O	2.37	0.42
40:BO:26:ALA:O	40:BO:28:SER:N	2.53	0.42
40:BO:24:TYR:HD2	40:BO:27:ARG:HB2	1.85	0.42
1:AA:1349:A:H61	1:AA:1373:G:H1'	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:2282:G:H2'	22:B0:2283:C:OP2	2.19	0.42
22:B0:959:A:O4'	36:BK:80:VAL:CB	2.68	0.42
4:AC:148:ILE:HG12	4:AC:201:ILE:HD13	2.01	0.42
22:B0:2595:G:N3	22:B0:2597:G:C8	2.87	0.42
1:AA:1304:G:H1'	1:AA:1333:A:H61	1.83	0.42
39:BN:88:ARG:NH1	39:BN:89:GLY:O	2.52	0.42
37:BL:42:LYS:NZ	37:BL:43:GLU:HB3	2.33	0.42
21:AT:85:LEU:HD12	21:AT:85:LEU:H	1.82	0.42
35:BJ:111:ILE:N	35:BJ:111:ILE:CD1	2.79	0.42
6:AE:36:THR:HG21	6:AE:63:MET:HA	2.00	0.42
22:B0:1832:C:H3'	22:B0:1833:C:C5'	2.34	0.42
1:AA:1084:G:H1'	1:AA:1102:A:N7	2.34	0.42
1:AA:1166:G:N2	1:AA:1168:U:H3'	2.34	0.42
45:BU:13:ARG:CG	45:BU:14:ASP:N	2.80	0.42
22:B0:2228:G:C2'	22:B0:2229:U:H5'	2.49	0.42
22:B0:574:A:H5''	22:B0:575:A:H5''	2.02	0.42
49:B1:24:LYS:HE3	49:B1:24:LYS:O	2.19	0.42
49:B1:35:LEU:HD22	49:B1:35:LEU:N	2.34	0.42
22:B0:1300:G:HO2'	22:B0:1301:A:P	2.41	0.42
22:B0:1943:U:H4'	22:B0:1945:G:OP2	2.19	0.42
22:B0:446:G:H4'	22:B0:449:A:H1'	2.02	0.42
22:B0:1802:A:H8	22:B0:1802:A:P	2.42	0.42
22:B0:474:G:O2'	22:B0:475:C:OP1	2.30	0.42
22:B0:693:A:O2'	22:B0:694:U:H5'	2.20	0.42
22:B0:1141:U:H4'	22:B0:1142:A:H5'	1.99	0.42
1:AA:1501:C:H2'	1:AA:1504:G:C6	2.54	0.42
24:B2:150:GLU:HA	24:B2:153:LYS:HE2	2.01	0.42
22:B0:2825:G:O2'	22:B0:2826:A:H5'	2.19	0.42
22:B0:292:U:C2	22:B0:348:A:N1	2.87	0.42
29:BD:169:LEU:C	29:BD:169:LEU:HD23	2.39	0.42
1:AA:115:G:C2'	1:AA:116:A:OP2	2.66	0.42
22:B0:317:G:O2'	22:B0:318:C:H5'	2.19	0.42
44:BT:82:TYR:CE1	44:BT:83:LYS:HG2	2.54	0.42
16:AO:66:LEU:HD11	16:AO:86:LEU:HD23	2.02	0.42
35:BJ:33:ARG:CD	35:BJ:33:ARG:H	2.32	0.42
22:B0:816:C:H2'	22:B0:817:C:C6	2.54	0.42
22:B0:2214:C:H2'	22:B0:2215:C:O4'	2.19	0.42
23:B9:111:U:H2'	23:B9:112:G:C8	2.54	0.42
22:B0:274:C:H2'	22:B0:275:C:O4'	2.19	0.42
22:B0:273:G:H2'	22:B0:274:C:O4'	2.20	0.42
39:BN:113:LEU:HD13	39:BN:114:ASN:OXT	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1825:U:H2'	22:B0:1826:G:C8	2.54	0.42
32:BG:66:PHE:CD1	32:BG:66:PHE:N	2.86	0.42
33:BH:3:THR:O	33:BH:3:THR:HG23	2.19	0.42
20:AS:80:ARG:HG2	20:AS:80:ARG:HH11	1.84	0.42
22:B0:1441:G:H2'	22:B0:1442:U:O4'	2.20	0.42
22:B0:2063:C:O4'	22:B0:2585:U:H1'	2.18	0.42
2:AV:40:C:H2'	2:AV:41:U:C6	2.53	0.42
22:B0:1426:G:O5'	22:B0:1428:C:N4	2.52	0.42
26:BA:131:MET:C	26:BA:133:ASN:H	2.23	0.42
26:BA:141:HIS:O	26:BA:190:THR:N	2.30	0.42
26:BA:147:PRO:HG3	26:BA:184:GLU:OE2	2.20	0.42
26:BA:184:GLU:CG	26:BA:185:ALA:N	2.79	0.42
26:BA:96:LYS:O	26:BA:97:ASP:C	2.57	0.42
22:B0:1679:A:H2	22:B0:1764:C:C6	2.37	0.42
1:AA:549:C:O5'	1:AA:549:C:H6	2.02	0.42
22:B0:776:G:C2'	22:B0:777:G:OP2	2.68	0.42
22:B0:1204:A:OP1	28:BC:148:ILE:HA	2.19	0.42
28:BC:27:LEU:HA	28:BC:30:GLN:HB3	2.01	0.42
28:BC:49:ARG:CG	28:BC:50:ALA:N	2.79	0.42
28:BC:72:SER:HB2	28:BC:78:TRP:NE1	2.34	0.42
28:BC:44:ARG:CA	28:BC:90:GLN:HA	2.49	0.42
35:BJ:17:LYS:O	35:BJ:18:ARG:NH2	2.52	0.42
22:B0:489:G:H4'	22:B0:1284:A:N3	2.34	0.42
22:B0:2161:C:C6	24:B2:6:ARG:N	2.84	0.42
22:B0:2282:G:C2'	22:B0:2283:C:OP2	2.67	0.42
2:AU:55:U:O2	2:AU:55:U:H3'	2.18	0.42
39:BN:4:ILE:HG13	39:BN:5:LYS:HD3	2.01	0.42
22:B0:784:G:C5'	22:B0:785:G:OP1	2.59	0.42
39:BN:93:LYS:O	39:BN:94:ALA:HB2	2.20	0.42
38:BM:15:ARG:NH1	38:BM:25:ARG:HH11	2.18	0.42
1:AA:1408:A:H2'	1:AA:1409:C:H6	1.85	0.42
42:BR:43:ILE:HB	42:BR:60:THR:HG22	2.01	0.42
46:BW:39:GLN:CD	46:BW:41:HIS:H	2.22	0.42
46:BW:39:GLN:HG3	46:BW:41:HIS:H	1.85	0.42
22:B0:978:G:H2'	22:B0:979:A:O4'	2.19	0.42
1:AA:1499:A:O2'	1:AA:1520:C:H5''	2.19	0.42
22:B0:49:A:C4'	22:B0:51:G:O4'	2.68	0.42
1:AA:1271:A:O5'	1:AA:1314:C:H4'	2.18	0.42
48:BZ:29:VAL:HG11	48:BZ:32:THR:CG2	2.50	0.42
22:B0:214:G:O2'	22:B0:215:G:H5'	2.19	0.42
4:AC:35:ASP:O	4:AC:38:VAL:HG22	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1017:U:H2'	1:AA:1018:G:C8	2.54	0.42
6:AE:111:ARG:O	6:AE:115:GLU:HG3	2.19	0.42
22:B0:1407:G:H2'	22:B0:1408:G:H8	1.84	0.42
1:AA:892:A:H4'	1:AA:1415:G:C4'	2.48	0.42
16:AO:23:SER:O	16:AO:27:GLN:HG3	2.20	0.42
22:B0:2357:G:O2'	22:B0:2358:A:C8	2.72	0.42
1:AA:1157:A:H5'	1:AA:1158:C:C5	2.54	0.42
22:B0:1659:G:C2'	22:B0:1660:G:H5'	2.49	0.42
29:BD:91:ARG:NH1	29:BD:95:MET:HB2	2.35	0.42
22:B0:265:A:H62	22:B0:428:A:C1'	2.33	0.42
22:B0:2812:G:N2	22:B0:2889:C:C4	2.87	0.42
35:BJ:126:ARG:N	35:BJ:126:ARG:HD3	2.34	0.42
22:B0:2058:A:O2'	22:B0:2059:A:P	2.77	0.42
5:AD:205:LYS:HE2	5:AD:205:LYS:CA	2.50	0.42
14:AM:112:ARG:HG3	14:AM:112:ARG:HH11	1.84	0.42
13:AL:66:ILE:HA	13:AL:96:THR:CG2	2.49	0.42
1:AA:722:G:O6	1:AA:733:G:N2	2.50	0.42
22:B0:2214:C:C2'	22:B0:2215:C:H5'	2.50	0.42
1:AA:225:C:H2'	1:AA:226:G:C8	2.55	0.42
1:AA:1463:U:H2'	1:AA:1464:U:C6	2.54	0.42
1:AA:1294:G:O2'	1:AA:1295:U:H5'	2.19	0.42
22:B0:1709:U:H2'	22:B0:1710:G:H8	1.84	0.42
1:AA:1250:A:H2'	1:AA:1251:A:C8	2.54	0.42
1:AA:1425:U:H2'	1:AA:1426:G:H8	1.85	0.42
1:AA:824:G:H2'	1:AA:825:A:C8	2.54	0.42
22:B0:291:G:C2	22:B0:349:U:C2	3.08	0.42
6:AE:40:ASP:OD2	6:AE:44:ARG:HB2	2.18	0.42
22:B0:2304:G:OP1	22:B0:2304:G:O4'	2.37	0.42
4:AC:102:ILE:HD12	4:AC:102:ILE:O	2.20	0.42
38:BM:30:ARG:HG2	38:BM:30:ARG:HH11	1.84	0.42
22:B0:1175:A:H2'	22:B0:1177:G:C8	2.55	0.42
3:AB:234:GLU:HA	3:AB:237:VAL:HG23	2.01	0.42
12:AK:58:THR:OG1	12:AK:59:PRO:HD2	2.19	0.42
1:AA:853:C:H2'	1:AA:854:U:H6	1.84	0.42
29:BD:30:VAL:HG12	29:BD:31:GLU:N	2.35	0.42
22:B0:1418:G:O6	26:BA:101:ARG:HG3	2.19	0.42
26:BA:170:TYR:HD1	26:BA:171:VAL:N	2.17	0.42
26:BA:196:ASN:O	26:BA:196:ASN:OD1	2.38	0.42
1:AA:416:G:H1	1:AA:427:U:H3	1.67	0.42
22:B0:2808:G:O4'	22:B0:2892:G:N2	2.53	0.42
33:BH:104:ALA:C	33:BH:106:LYS:N	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:243:A:H4'	1:AA:245:U:OP1	2.18	0.42
1:AA:243:A:H4'	1:AA:244:U:H5''	2.01	0.42
25:B3:92:ALA:O	25:B3:94:LEU:N	2.53	0.42
41:BQ:18:ARG:C	41:BQ:20:VAL:N	2.65	0.42
41:BQ:35:ILE:O	41:BQ:36:LEU:CB	2.59	0.42
22:B0:2178:C:OP1	22:B0:2180:U:O2	2.37	0.42
22:B0:311:A:O4'	22:B0:332:A:C8	2.72	0.42
22:B0:960:A:OP2	22:B0:2496:C:C6	2.73	0.42
2:AU:55:U:O2	2:AU:55:U:C2'	2.66	0.42
4:AC:183:TYR:CG	4:AC:184:ASN:N	2.87	0.42
22:B0:2071:A:H2'	22:B0:2072:C:H6	1.84	0.42
46:BW:18:LEU:HD13	46:BW:18:LEU:C	2.40	0.42
5:AD:144:ILE:HB	5:AD:149:LYS:CE	2.49	0.42
1:AA:1098:C:O5'	1:AA:1098:C:H6	2.01	0.42
1:AA:1218:C:H2'	1:AA:1219:A:H8	1.82	0.42
22:B0:373:U:O2'	22:B0:423:A:H1'	2.19	0.42
4:AC:76:ILE:HA	4:AC:83:VAL:CG1	2.39	0.42
22:B0:2286:G:H1'	22:B0:2287:A:C5	2.55	0.42
49:B1:35:LEU:HB2	49:B1:50:GLU:OE2	2.19	0.42
17:AP:14:ARG:NH1	17:AP:14:ARG:CB	2.76	0.42
25:B3:73:ARG:HH11	25:B3:73:ARG:CB	2.33	0.42
22:B0:928:A:O4'	47:BX:42:ALA:HB3	2.20	0.42
1:AA:702:A:H62	22:B0:1847:A:C3'	2.24	0.42
48:BZ:51:ARG:HB2	48:BZ:51:ARG:CZ	2.49	0.42
37:BL:84:GLY:N	37:BL:86:ARG:HB2	2.35	0.42
42:BR:92:ASN:O	42:BR:94:ASP:N	2.53	0.42
41:BQ:31:GLN:HA	41:BQ:34:ASP:OD1	2.19	0.42
1:AA:250:A:O2'	1:AA:251:G:O5'	2.35	0.42
31:BF:29:PHE:C	31:BF:32:PRO:HD2	2.40	0.42
29:BD:129:MET:N	29:BD:129:MET:SD	2.92	0.42
4:AC:24:ASN:O	4:AC:28:PHE:N	2.51	0.42
22:B0:1213:A:H62	22:B0:1236:G:H1'	1.84	0.42
22:B0:1391:U:OP1	22:B0:1539:A:H4'	2.19	0.42
27:BB:89:GLU:CG	27:BB:90:PHE:N	2.82	0.42
22:B0:108:G:H2'	22:B0:109:C:C6	2.54	0.42
11:AJ:7:ARG:CB	11:AJ:7:ARG:HH11	2.33	0.42
22:B0:538:A:H2'	22:B0:539:G:C5'	2.48	0.42
46:BW:9:LYS:HB3	46:BW:13:GLU:HB2	2.01	0.42
22:B0:1768:C:H2'	22:B0:1769:U:H6	1.84	0.42
31:BF:129:GLU:O	31:BF:129:GLU:HG3	2.20	0.42
18:AQ:76:ARG:HH11	18:AQ:76:ARG:HG2	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:442:G:H2'	1:AA:443:C:C6	2.54	0.42
22:B0:1473:C:H3'	22:B0:1474:U:H5'	2.02	0.42
22:B0:1495:A:P	26:BA:189:ALA:HB3	2.60	0.42
1:AA:32:A:O2'	1:AA:33:A:H5'	2.18	0.42
5:AD:63:ILE:O	5:AD:110:ARG:HD2	2.19	0.42
33:BH:23:LYS:HE3	33:BH:28:LEU:HD23	2.00	0.42
33:BH:31:GLU:C	33:BH:33:ALA:N	2.72	0.42
22:B0:661:A:P	35:BJ:27:LEU:HD22	2.60	0.42
22:B0:606:U:H5''	28:BC:102:ARG:HH22	1.84	0.42
28:BC:176:ASP:O	28:BC:178:VAL:N	2.53	0.42
28:BC:194:LYS:HA	28:BC:197:GLU:OE1	2.19	0.42
40:BO:14:LYS:HG3	40:BO:15:LYS:N	2.34	0.42
40:BO:48:ASP:HB3	40:BO:50:ARG:NH2	2.35	0.42
41:BQ:22:ASP:O	41:BQ:23:LEU:HB2	2.19	0.42
2:AW:16:U:P	2:AW:16:U:H6	2.42	0.42
43:BS:65:GLN:HB2	43:BS:68:ASN:OD1	2.20	0.42
14:AM:67:ASP:O	14:AM:71:GLU:HG3	2.20	0.42
12:AK:118:ASN:ND2	12:AK:119:GLY:H	2.18	0.42
1:AA:1129:C:H1'	1:AA:1132:C:H5	1.85	0.42
42:BR:42:GLU:C	42:BR:44:LYS:H	2.23	0.42
22:B0:639:U:H2'	22:B0:640:C:C5	2.54	0.42
22:B0:996:A:H5''	40:BO:92:LYS:CD	2.48	0.42
22:B0:921:C:H6	22:B0:921:C:O5'	2.02	0.42
45:BU:36:ILE:HG23	45:BU:68:PHE:CB	2.46	0.42
10:AI:34:LEU:CD2	10:AI:48:ARG:HD3	2.49	0.42
1:AA:1102:A:O2'	1:AA:1103:C:H5'	2.20	0.42
1:AA:125:U:H2'	1:AA:126:G:C8	2.55	0.42
16:AO:80:LEU:HD23	16:AO:80:LEU:C	2.39	0.42
22:B0:1062:G:H2'	22:B0:1063:G:H8	1.83	0.42
22:B0:2566:A:H61	34:BI:28:SER:HB3	1.85	0.42
49:B1:24:LYS:HE3	49:B1:24:LYS:H	1.83	0.42
22:B0:1944:U:H1'	22:B0:1955:U:O4'	2.18	0.42
1:AA:685:G:H2'	1:AA:686:U:C6	2.54	0.42
45:BU:24:ARG:C	45:BU:58:LEU:HD11	2.40	0.42
7:AF:22:ILE:HD13	7:AF:26:THR:HG23	2.02	0.42
15:AN:40:ARG:HA	20:AS:13:HIS:CB	2.49	0.42
35:BJ:99:ASN:C	35:BJ:101:ILE:H	2.23	0.42
29:BD:25:MET:N	29:BD:25:MET:SD	2.88	0.42
4:AC:24:ASN:ND2	4:AC:27:GLU:C	2.72	0.42
22:B0:99:U:H5'	22:B0:102:U:O4'	2.19	0.42
22:B0:666:A:OP2	35:BJ:48:ARG:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AM:1:ALA:HA	14:AM:2:ARG:CZ	2.49	0.42
22:B0:2105:U:H2'	22:B0:2106:U:C6	2.54	0.42
2:AV:6:U:O2'	2:AV:7:U:H5'	2.18	0.42
4:AC:190:THR:HB	4:AC:193:GLY:O	2.20	0.42
1:AA:1212:U:O2'	1:AA:1213:A:O4'	2.36	0.42
1:AA:638:U:H2'	1:AA:639:G:H8	1.83	0.42
22:B0:966:G:H2'	22:B0:967:U:C6	2.55	0.42
22:B0:1797:G:H2'	22:B0:1798:U:C6	2.55	0.42
21:AT:22:SER:O	21:AT:25:SER:HB3	2.19	0.42
33:BH:48:VAL:HG12	33:BH:49:ASP:N	2.35	0.42
1:AA:1025:U:H2'	1:AA:1026:G:C8	2.54	0.42
22:B0:1578:U:OP1	26:BA:61:TYR:CE2	2.72	0.42
1:AA:498:U:H2'	1:AA:499:A:O5'	2.20	0.42
33:BH:18:VAL:HG23	33:BH:19:ASP:N	2.35	0.42
33:BH:20:ALA:HA	33:BH:23:LYS:HZ1	1.84	0.42
1:AA:243:A:N6	1:AA:281:G:N3	2.68	0.42
22:B0:192:C:H5	22:B0:203:A:H2	1.66	0.42
22:B0:800:A:OP2	28:BC:53:THR:O	2.38	0.42
40:BO:50:ARG:O	40:BO:50:ARG:HG2	2.19	0.42
22:B0:535:G:H1'	40:BO:52:ARG:CD	2.49	0.42
22:B0:493:G:N3	41:BQ:8:ARG:N	2.67	0.42
22:B0:2153:C:O2	22:B0:2153:C:C2'	2.67	0.42
10:AI:118:ARG:HH12	10:AI:124:PRO:CB	2.32	0.42
22:B0:2645:G:O2'	22:B0:2646:C:H5'	2.18	0.42
22:B0:2676:C:H4'	27:BB:159:LYS:HE3	2.01	0.42
29:BD:101:ARG:O	29:BD:105:ILE:HD11	2.19	0.42
29:BD:111:ARG:HD2	29:BD:112:ASP:N	2.33	0.42
22:B0:1455:U:N3	37:BL:64:ARG:NH2	2.67	0.42
37:BL:67:PHE:HD1	37:BL:67:PHE:O	2.02	0.42
39:BN:9:GLN:NE2	39:BN:9:GLN:N	2.55	0.42
22:B0:832:U:OP1	22:B0:942:G:OP1	2.37	0.42
22:B0:2438:U:H5'	22:B0:2600:A:H4'	1.99	0.42
37:BL:30:ARG:NH1	37:BL:75:ILE:HD12	2.35	0.42
21:AT:60:GLN:C	21:AT:66:ILE:HG22	2.39	0.42
22:B0:2146:C:C2'	22:B0:2147:A:H5''	2.50	0.42
1:AA:1085:U:H1'	1:AA:1094:G:C6	2.55	0.42
1:AA:1099:G:C4	1:AA:1100:C:H1'	2.54	0.42
22:B0:2328:A:N6	22:B0:2386:A:N6	2.68	0.42
17:AP:6:LEU:CD1	17:AP:71:VAL:HB	2.50	0.42
1:AA:6:G:H3'	1:AA:6:G:N3	2.34	0.42
1:AA:742:G:O2'	1:AA:743:A:H5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AC:64:ARG:HG3	4:AC:64:ARG:HH11	1.85	0.42
1:AA:893:C:OP1	1:AA:1416:G:H5'	2.20	0.42
49:B1:32:LYS:NZ	49:B1:32:LYS:CA	2.77	0.42
27:BB:82:PHE:O	27:BB:83:ARG:HG3	2.20	0.42
16:AO:23:SER:HB2	16:AO:26:VAL:CG2	2.50	0.42
16:AO:57:ARG:NH1	16:AO:57:ARG:HG2	2.34	0.42
11:AJ:17:LEU:HD13	11:AJ:96:VAL:CG2	2.50	0.42
1:AA:687:A:O2'	1:AA:688:G:OP2	2.38	0.42
39:BN:37:LYS:CD	39:BN:39:LEU:HB2	2.50	0.42
1:AA:1158:C:H2'	1:AA:1159:U:H4'	2.01	0.42
29:BD:32:LYS:C	29:BD:32:LYS:HD2	2.40	0.42
19:AR:40:PRO:O	19:AR:44:THR:HG22	2.19	0.42
15:AN:63:CYS:HB2	15:AN:79:SER:OG	2.20	0.42
22:B0:1880:U:O2'	22:B0:1881:C:H5'	2.20	0.42
22:B0:1342:A:O2'	22:B0:1343:G:OP1	2.38	0.42
36:BK:34:LYS:HZ3	36:BK:34:LYS:HB3	1.82	0.42
19:AR:24:ASP:OD2	19:AR:27:THR:HG22	2.20	0.42
3:AB:170:ILE:H	3:AB:170:ILE:CD1	2.32	0.42
22:B0:2104:C:H2'	22:B0:2105:U:C6	2.54	0.42
12:AK:39:ASN:O	12:AK:41:LEU:HD22	2.20	0.42
22:B0:1643:G:O2'	22:B0:1644:C:H5'	2.20	0.42
1:AA:305:G:H4'	1:AA:306:A:C8	2.54	0.42
22:B0:1956:U:H6	22:B0:1956:U:O5'	2.03	0.42
35:BJ:80:SER:HB2	35:BJ:84:LYS:HE3	2.01	0.42
22:B0:1165:A:H2'	22:B0:1166:G:H8	1.85	0.42
2:AU:67:A:H2'	2:AU:68:U:C6	2.55	0.42
47:BX:17:PRO:O	47:BX:18:LYS:HB2	2.19	0.42
22:B0:1495:A:H61	26:BA:150:GLY:C	2.23	0.42
22:B0:1416:G:C8	26:BA:100:ARG:HD3	2.55	0.42
22:B0:1498:C:P	26:BA:85:ASN:HD21	2.43	0.42
5:AD:12:ARG:NH1	5:AD:29:THR:HG21	2.34	0.42
22:B0:205:G:H2'	22:B0:206:U:OP2	2.19	0.42
22:B0:675:A:C1'	22:B0:2443:C:O2'	2.65	0.42
22:B0:989:G:HO2'	22:B0:990:A:P	2.40	0.42
28:BC:108:ILE:HD11	28:BC:181:ILE:HG23	2.02	0.42
28:BC:93:SER:OG	35:BJ:23:ILE:HD12	2.18	0.42
40:BO:47:ARG:HA	40:BO:47:ARG:CZ	2.49	0.42
2:AW:23:A:H2'	2:AW:24:G:H8	1.83	0.42
22:B0:2180:U:O5'	22:B0:2180:U:C6	2.72	0.42
27:BB:164:GLN:HA	27:BB:164:GLN:NE2	2.35	0.42
22:B0:28:A:N6	22:B0:512:G:C1'	2.79	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:959:A:N6	22:B0:2250:G:H3'	2.35	0.42
2:AV:20:G:H3'	2:AV:21:A:H5''	1.91	0.42
27:BB:13:ARG:O	39:BN:7:LEU:HD12	2.20	0.42
21:AT:27:MET:CE	21:AT:57:VAL:HG23	2.50	0.42
45:BU:47:GLY:C	45:BU:54:ARG:HB3	2.40	0.42
1:AA:1193:G:C2'	1:AA:1194:U:H5'	2.50	0.42
22:B0:283:G:O2'	22:B0:284:U:H5'	2.20	0.42
22:B0:284:U:H2'	22:B0:285:G:H8	1.85	0.42
22:B0:705:A:C5'	22:B0:1695:G:H4'	2.49	0.42
34:BI:57:VAL:O	34:BI:57:VAL:HG23	2.20	0.42
49:B1:34:GLU:HB2	49:B1:35:LEU:H	1.62	0.42
19:AR:7:ARG:CB	19:AR:7:ARG:HH11	2.33	0.42
22:B0:2345:G:O6	22:B0:2373:G:O6	2.38	0.42
22:B0:1140:C:O2'	22:B0:1143:A:H3'	2.19	0.42
1:AA:1392:G:H21	1:AA:1502:A:C1'	2.32	0.42
1:AA:1395:C:O5'	1:AA:1395:C:H6	2.03	0.42
27:BB:58:ASN:HA	27:BB:61:THR:CG2	2.46	0.42
14:AM:97:ARG:NH2	14:AM:108:ARG:HG3	2.32	0.42
22:B0:293:U:H2'	22:B0:295:G:H8	1.81	0.42
6:AE:80:LEU:CG	6:AE:146:MET:HE1	2.49	0.42
18:AQ:30:HIS:HE1	18:AQ:32:ILE:HD13	1.85	0.42
4:AC:86:LEU:HA	4:AC:89:VAL:HG22	2.02	0.42
22:B0:1369:G:H2'	22:B0:1370:C:C6	2.54	0.42
22:B0:2879:A:H5'	22:B0:2880:C:OP1	2.20	0.42
1:AA:722:G:H3'	1:AA:722:G:N3	2.34	0.42
2:AW:6:U:O2'	2:AW:7:U:H5'	2.18	0.42
3:AB:95:TRP:CH2	3:AB:171:ALA:HA	2.55	0.42
39:BN:52:ARG:HH11	39:BN:52:ARG:HG2	1.84	0.42
30:BE:142:GLN:HA	30:BE:142:GLN:HE21	1.83	0.42
37:BL:116:VAL:OXT	37:BL:116:VAL:HG22	2.19	0.42
11:AJ:45:ARG:HH11	11:AJ:45:ARG:HG2	1.85	0.42
22:B0:1351:C:H2'	22:B0:1352:U:C6	2.55	0.42
22:B0:1496:A:N6	26:BA:194:VAL:HG22	2.33	0.42
22:B0:1681:G:O5'	22:B0:1681:G:H8	2.03	0.42
22:B0:320:A:N3	22:B0:323:C:C5	2.88	0.42
22:B0:586:A:H5''	28:BC:78:TRP:HA	2.01	0.42
28:BC:108:ILE:HG12	28:BC:181:ILE:CD1	2.48	0.42
28:BC:97:ASN:HD22	28:BC:100:MET:HE3	1.83	0.42
10:AI:128:LYS:O	10:AI:129:ARG:OXT	2.38	0.42
45:BU:45:HIS:CE1	45:BU:56:HIS:H	2.38	0.42
4:AC:125:ARG:O	4:AC:126:ARG:HB3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:716:A:C2'	12:AK:119:GLY:HA2	2.49	0.42
22:B0:2847:U:H2'	22:B0:2848:G:O4'	2.19	0.42
39:BN:73:PHE:O	39:BN:74:GLN:HB2	2.20	0.42
39:BN:91:VAL:O	39:BN:92:ARG:NE	2.52	0.42
20:AS:79:TYR:CE2	20:AS:81:GLY:HA2	2.53	0.42
42:BR:29:THR:O	42:BR:30:ILE:HD13	2.20	0.42
35:BJ:118:THR:OG1	35:BJ:120:VAL:HG12	2.19	0.42
25:B5:15:SER:O	25:B5:19:VAL:HG12	2.20	0.42
23:B9:91:C:O2'	23:B9:92:C:H5'	2.19	0.42
36:BK:5:LYS:HG3	36:BK:95:LEU:HD21	2.02	0.42
22:B0:1832:C:H2'	22:B0:1833:C:C4'	2.49	0.42
3:AB:33:ALA:HA	3:AB:37:VAL:O	2.19	0.42
1:AA:372:C:C2'	1:AA:373:A:OP2	2.68	0.42
1:AA:485:U:O2'	1:AA:486:U:C6	2.73	0.42
1:AA:1073:U:H3	1:AA:1102:A:H61	1.66	0.42
22:B0:2033:A:HO2'	22:B0:2034:U:P	2.43	0.42
22:B0:2510:C:H2'	22:B0:2511:U:C6	2.55	0.42
30:BE:16:VAL:CG1	30:BE:25:ILE:HG12	2.50	0.42
22:B0:1592:U:H2'	22:B0:1594:U:OP1	2.19	0.42
34:BI:51:LYS:O	34:BI:52:VAL:C	2.58	0.42
22:B0:928:A:HO2'	22:B0:929:U:P	2.43	0.42
41:BQ:78:GLU:CG	41:BQ:79:GLY:H	2.24	0.42
1:AA:687:A:C4'	1:AA:688:G:O5'	2.64	0.42
22:B0:924:G:H4'	45:BU:24:ARG:HD3	2.02	0.42
29:BD:43:ILE:N	29:BD:43:ILE:HD12	2.24	0.42
32:BG:27:LEU:HA	32:BG:30:GLN:OE1	2.20	0.42
1:AA:877:G:H5'	9:AH:79:ARG:NH1	2.35	0.42
25:B3:17:MET:HB3	25:B3:53:GLU:OE1	2.19	0.42
12:AK:43:TRP:HA	12:AK:69:CYS:SG	2.59	0.42
6:AE:136:VAL:HG23	6:AE:137:ARG:CD	2.48	0.42
18:AQ:60:ILE:CG2	18:AQ:72:TRP:HB3	2.49	0.42
18:AQ:65:PRO:HA	18:AQ:71:SER:HA	2.02	0.42
5:AD:61:ARG:HG3	5:AD:66:VAL:HG23	2.02	0.42
22:B0:877:A:H61	22:B0:900:A:H61	1.67	0.42
1:AA:652:U:O2'	1:AA:653:U:C6	2.68	0.42
30:BE:86:LEU:O	30:BE:130:ILE:HG12	2.19	0.42
5:AD:10:LEU:HD13	5:AD:62:ARG:HH11	1.84	0.42
14:AM:79:LEU:H	14:AM:79:LEU:HD23	1.84	0.42
22:B0:2863:C:H2'	22:B0:2864:G:C8	2.54	0.42
3:AB:104:LYS:HD3	3:AB:104:LYS:C	2.39	0.42
22:B0:1999:C:O2'	22:B0:2000:C:H5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AK:47:GLY:HA2	12:AK:51:PHE:O	2.19	0.42
22:B0:1418:G:O6	26:BA:101:ARG:CG	2.68	0.42
22:B0:1490:C:H4'	26:BA:161:VAL:C	2.40	0.42
22:B0:1579:A:C5	26:BA:66:PHE:C	2.87	0.42
22:B0:1680:U:H3'	22:B0:1681:G:C8	2.54	0.42
33:BH:139:VAL:O	33:BH:140:LEU:HD13	2.19	0.42
22:B0:1250:G:H5''	40:BO:5:ARG:HH12	1.84	0.42
22:B0:751:A:N6	22:B0:789:A:N7	2.67	0.42
28:BC:79:ARG:HD2	28:BC:79:ARG:C	2.40	0.42
22:B0:1252:G:H22	40:BO:36:GLN:NE2	2.17	0.42
40:BO:52:ARG:NE	40:BO:52:ARG:HA	2.34	0.42
22:B0:493:G:H21	41:BQ:7:HIS:CD2	2.36	0.42
22:B0:2158:A:O3'	22:B0:2159:G:H4'	2.20	0.42
1:AA:1386:G:C4	10:AI:128:LYS:HE2	2.55	0.42
22:B0:961:C:P	22:B0:2496:C:C6	3.13	0.42
2:AV:22:G:O2'	2:AV:23:A:H5'	2.20	0.42
2:AV:18:G:H5''	2:AV:60:C:O2	2.20	0.42
39:BN:8:GLU:HB2	39:BN:56:SER:HB2	2.02	0.42
1:AA:1322:C:C4'	1:AA:1323:G:OP1	2.67	0.42
22:B0:603:A:C6	22:B0:626:A:H4'	2.55	0.42
37:BL:41:ALA:HA	37:BL:44:LEU:HB2	2.02	0.42
22:B0:1112:G:H2'	22:B0:1113:U:H6	1.84	0.42
24:B2:184:LEU:HA	24:B2:187:ASN:ND2	2.35	0.42
22:B0:128:C:N3	22:B0:129:C:N4	2.68	0.42
38:BM:16:ARG:HH11	38:BM:16:ARG:HG2	1.85	0.42
1:AA:559:A:H4'	1:AA:560:A:O5'	2.20	0.42
22:B0:2262:U:C5	45:BU:12:GLY:HA2	2.55	0.42
17:AP:57:ILE:O	17:AP:61:VAL:HG23	2.20	0.42
4:AC:58:ARG:HG2	4:AC:63:ILE:HG12	2.01	0.42
6:AE:20:VAL:HG21	6:AE:33:THR:HG23	2.01	0.42
22:B0:2562:U:OP1	34:BI:40:LYS:HD3	2.20	0.42
1:AA:617:G:H4'	17:AP:14:ARG:CZ	2.50	0.42
27:BB:4:LEU:HB3	27:BB:101:PHE:HE2	1.85	0.42
1:AA:327:A:H3'	1:AA:328:C:H5''	2.02	0.42
1:AA:1367:C:O5'	10:AI:115:VAL:HG11	2.19	0.42
29:BD:149:ARG:HH11	29:BD:151:LEU:H	1.68	0.42
26:BA:243:PRO:HA	26:BA:256:THR:HG23	2.02	0.42
6:AE:132:PRO:HA	6:AE:135:VAL:HG22	2.02	0.42
1:AA:508:U:H4'	1:AA:509:A:O5'	2.20	0.42
22:B0:2059:A:O2'	22:B0:2060:A:OP1	2.33	0.42
6:AE:74:ALA:O	6:AE:81:GLN:NE2	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1212:G:N2	22:B0:1236:G:H2'	2.35	0.42
18:AQ:31:PRO:C	18:AQ:32:ILE:HD12	2.40	0.42
35:BJ:81:ASP:O	35:BJ:83:ALA:N	2.53	0.42
22:B0:667:U:H5	35:BJ:48:ARG:NH1	2.18	0.42
36:BK:50:ARG:HD2	36:BK:50:ARG:O	2.19	0.42
22:B0:1761:C:N4	22:B0:1762:A:N3	2.68	0.42
20:AS:51:HIS:HB2	20:AS:56:HIS:CE1	2.55	0.42
1:AA:709:U:H2'	1:AA:710:G:H8	1.85	0.42
27:BB:80:TRP:CZ3	27:BB:84:LEU:HB3	2.55	0.42
22:B0:1402:U:H2'	22:B0:1403:A:C8	2.55	0.42
2:AW:63:C:H2'	2:AW:64:A:H8	1.85	0.42
22:B0:2044:C:H2'	22:B0:2045:C:C6	2.55	0.42
8:AG:79:VAL:HB	8:AG:84:TYR:HD2	1.85	0.42
4:AC:153:SER:CB	4:AC:164:THR:HG22	2.50	0.42
23:B9:95:U:H2'	23:B9:96:G:C8	2.55	0.42
29:BD:70:ARG:NH1	29:BD:70:ARG:HB3	2.34	0.42
22:B0:426:C:H2'	22:B0:427:U:C6	2.55	0.42
22:B0:1896:G:H2'	22:B0:1897:G:H8	1.84	0.42
26:BA:159:THR:OG1	26:BA:160:TYR:N	2.53	0.41
22:B0:1677:A:H2	22:B0:1991:U:H1'	1.84	0.41
22:B0:1995:U:O2	27:BB:137:SER:HA	2.19	0.41
1:AA:243:A:O2'	1:AA:244:U:C5'	2.68	0.41
22:B0:1201:U:H2'	35:BJ:14:LYS:CD	2.50	0.41
22:B0:1322:A:C2	22:B0:1334:G:H5'	2.54	0.41
22:B0:323:C:O5'	22:B0:324:A:OP1	2.38	0.41
22:B0:1202:G:OP1	35:BJ:12:SER:HB3	2.19	0.41
28:BC:29:HIS:HA	35:BJ:17:LYS:NZ	2.35	0.41
2:AW:60:C:C5'	2:AW:61:C:OP2	2.68	0.41
22:B0:2110:G:O2'	22:B0:2111:U:O4'	2.38	0.41
22:B0:2117:A:H2'	22:B0:2118:U:C2	2.55	0.41
1:AA:939:G:N2	1:AA:1343:G:N1	2.68	0.41
27:BB:122:VAL:C	27:BB:124:ARG:N	2.72	0.41
22:B0:2678:C:O2'	27:BB:165:MET:HG2	2.20	0.41
22:B0:301:G:O6	22:B0:310:A:O3'	2.37	0.41
43:BS:64:ILE:CD1	43:BS:64:ILE:N	2.83	0.41
1:AA:979:C:C5'	20:AS:3:SER:HB2	2.49	0.41
24:B2:45:VAL:CG1	24:B2:211:VAL:HG13	2.46	0.41
22:B0:891:G:N3	22:B0:891:G:C3'	2.79	0.41
42:BR:42:GLU:C	42:BR:44:LYS:N	2.70	0.41
46:BW:28:LEU:HD13	46:BW:43:LEU:CD2	2.49	0.41
2:AU:38:A:C5	2:AU:39:U:O2	2.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BL:112:TYR:O	37:BL:113:ILE:C	2.59	0.41
40:BO:58:GLN:OE1	40:BO:59:LEU:N	2.53	0.41
29:BD:8:LYS:HD2	29:BD:8:LYS:O	2.20	0.41
6:AE:60:GLN:NE2	6:AE:63:MET:HE1	2.35	0.41
36:BK:40:ARG:HB3	36:BK:93:VAL:CG2	2.47	0.41
45:BU:37:VAL:CG2	45:BU:38:ARG:N	2.83	0.41
10:AI:17:ARG:HH21	10:AI:65:THR:HG21	1.84	0.41
7:AF:18:VAL:C	7:AF:20:GLY:H	2.24	0.41
32:BG:75:ALA:C	32:BG:77:VAL:H	2.23	0.41
22:B0:2581:G:HO2'	22:B0:2582:G:P	2.43	0.41
22:B0:2329:U:H2'	22:B0:2330:G:C8	2.55	0.41
48:BZ:32:THR:OG1	48:BZ:33:SER:N	2.53	0.41
1:AA:6:G:N3	1:AA:6:G:C2'	2.83	0.41
1:AA:1221:G:H3'	20:AS:2:ARG:N	2.35	0.41
1:AA:535:A:H5''	1:AA:536:C:OP2	2.20	0.41
22:B0:371:A:O2'	22:B0:372:G:H5''	2.19	0.41
22:B0:406:G:O2'	22:B0:407:G:H5'	2.20	0.41
47:BX:40:THR:HB	47:BX:43:ILE:CG1	2.50	0.41
23:B9:55:U:H2'	23:B9:56:G:O4'	2.20	0.41
22:B0:2353:G:H2'	22:B0:2354:C:C6	2.55	0.41
11:AJ:17:LEU:HD13	11:AJ:96:VAL:HG22	2.02	0.41
1:AA:815:A:N7	1:AA:1510:C:C4'	2.83	0.41
22:B0:1356:G:H2'	22:B0:1357:C:C6	2.55	0.41
1:AA:1452:C:H5'	1:AA:1453:G:C4	2.55	0.41
1:AA:966:G:H2'	1:AA:967:C:C6	2.55	0.41
1:AA:1502:A:OP2	1:AA:1503:A:OP2	2.38	0.41
12:AK:46:ALA:HB3	12:AK:56:LYS:HB2	2.01	0.41
1:AA:1277:C:O2'	1:AA:1278:G:H5'	2.20	0.41
40:BO:82:LEU:HD13	40:BO:82:LEU:C	2.41	0.41
20:AS:14:LEU:HD12	20:AS:14:LEU:C	2.40	0.41
22:B0:2040:G:O2'	22:B0:2041:U:H5'	2.19	0.41
35:BJ:108:ALA:H	35:BJ:126:ARG:HG2	1.84	0.41
36:BK:35:ALA:CB	36:BK:128:THR:HG22	2.50	0.41
1:AA:797:C:H2'	1:AA:798:U:C6	2.55	0.41
22:B0:1381:G:C2'	22:B0:1382:G:H5'	2.50	0.41
39:BN:13:LYS:H	39:BN:13:LYS:CD	2.31	0.41
40:BO:85:ALA:HB3	40:BO:111:LYS:HZ1	1.85	0.41
1:AA:1256:A:O2'	1:AA:1257:A:O5'	2.38	0.41
22:B0:1529:G:H2'	22:B0:1530:C:C6	2.55	0.41
22:B0:1410:G:H4'	22:B0:1411:U:OP1	2.19	0.41
22:B0:1707:G:O2'	22:B0:1708:C:H5'	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:746:U:OP1	41:BQ:90:LYS:HE3	2.20	0.41
1:AA:154:U:H2'	1:AA:155:A:C8	2.55	0.41
22:B0:1416:G:N1	22:B0:1417:U:O4	2.53	0.41
22:B0:1571:A:H2'	22:B0:1572:A:H8	1.84	0.41
26:BA:104:LEU:HD13	26:BA:104:LEU:C	2.40	0.41
33:BH:32:LEU:H	33:BH:35:ARG:HD2	1.85	0.41
33:BH:93:ILE:HG12	33:BH:93:ILE:O	2.20	0.41
22:B0:777:G:H2'	22:B0:778:G:O4'	2.20	0.41
22:B0:787:C:H3'	22:B0:791:C:N4	2.35	0.41
28:BC:176:ASP:C	28:BC:178:VAL:N	2.73	0.41
22:B0:799:G:C4	28:BC:56:GLY:CA	3.03	0.41
28:BC:88:ARG:HB2	35:BJ:30:THR:CG2	2.50	0.41
41:BQ:18:ARG:HB2	41:BQ:76:VAL:HG21	2.03	0.41
22:B0:2127:G:H3'	22:B0:2166:U:O5'	2.19	0.41
22:B0:2031:A:N6	22:B0:2455:G:O2'	2.53	0.41
22:B0:2497:A:C2'	22:B0:2498:C:OP2	2.68	0.41
22:B0:821:A:O5'	22:B0:836:G:N2	2.53	0.41
22:B0:947:A:H2'	22:B0:948:C:H6	1.83	0.41
22:B0:2075:U:O4	22:B0:2242:G:O6	2.38	0.41
34:BI:68:GLY:HA2	34:BI:77:ILE:O	2.21	0.41
39:BN:88:ARG:HG2	39:BN:89:GLY:H	1.83	0.41
42:BR:14:PRO:HA	42:BR:32:LEU:HG	2.01	0.41
22:B0:634:C:H2'	22:B0:635:C:C6	2.55	0.41
24:B2:26:ILE:O	24:B2:29:LEU:HB3	2.19	0.41
22:B0:2366:A:C5'	45:BU:65:LYS:HE3	2.50	0.41
7:AF:14:GLN:HB3	7:AF:18:VAL:CG2	2.51	0.41
7:AF:20:GLY:O	7:AF:23:GLU:HB3	2.20	0.41
10:AI:49:GLN:N	10:AI:50:PRO:CD	2.82	0.41
17:AP:21:VAL:HG11	17:AP:60:TRP:CE3	2.56	0.41
1:AA:725:G:H2'	1:AA:726:C:C6	2.54	0.41
49:B1:48:TYR:N	49:B1:48:TYR:CD1	2.88	0.41
1:AA:872:A:C5'	1:AA:873:A:OP1	2.68	0.41
22:B0:1802:A:O2'	22:B0:1803:A:H5'	2.20	0.41
1:AA:699:C:O2'	1:AA:704:A:H1'	2.20	0.41
1:AA:944:G:H2'	1:AA:1339:A:H61	1.84	0.41
40:BO:110:GLU:H	40:BO:110:GLU:HG2	1.69	0.41
32:BG:96:LYS:HD2	32:BG:96:LYS:N	2.30	0.41
1:AA:1306:A:N6	1:AA:1331:G:O2'	2.53	0.41
24:B2:147:ASN:ND2	24:B2:150:GLU:HB2	2.30	0.41
22:B0:221:A:N1	22:B0:265:A:O2'	2.53	0.41
22:B0:2812:G:H2'	22:B0:2813:A:H8	1.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AB:41:ASN:CB	3:AB:44:LYS:HD3	2.49	0.41
36:BK:124:LEU:H	36:BK:124:LEU:CD2	2.29	0.41
36:BK:125:PRO:O	36:BK:126:ILE:HB	2.20	0.41
4:AC:28:PHE:O	4:AC:32:LEU:HG	2.20	0.41
1:AA:838:G:C2'	1:AA:839:U:H5''	2.49	0.41
17:AP:8:ARG:HH11	17:AP:8:ARG:HG3	1.85	0.41
22:B0:2752:C:H2'	22:B0:2753:A:O4'	2.20	0.41
20:AS:35:ARG:HH22	20:AS:52:ASN:HA	1.85	0.41
3:AB:102:ASN:OD1	3:AB:105:THR:HB	2.20	0.41
22:B0:431:U:H2'	22:B0:432:A:C5'	2.50	0.41
1:AA:1464:U:H2'	1:AA:1465:A:H8	1.84	0.41
22:B0:2433:A:O2'	22:B0:2434:A:OP1	2.33	0.41
27:BB:96:ILE:HG22	27:BB:97:SER:N	2.36	0.41
31:BF:97:ARG:HG3	31:BF:97:ARG:HH11	1.84	0.41
22:B0:211:C:H2'	22:B0:212:G:H8	1.85	0.41
26:BA:101:ARG:CZ	26:BA:101:ARG:HB2	2.50	0.41
22:B0:1992:G:C4'	22:B0:1993:U:OP1	2.68	0.41
33:BH:112:GLY:CA	33:BH:113:PRO:O	2.55	0.41
33:BH:9:GLU:O	33:BH:13:ARG:CZ	2.68	0.41
33:BH:41:LYS:HD3	33:BH:43:GLU:N	2.27	0.41
22:B0:2894:U:C1'	33:BH:5:THR:HG1	2.33	0.41
1:AA:895:G:H2'	1:AA:896:C:C6	2.56	0.41
22:B0:1332:G:H21	22:B0:1610:A:H8	1.65	0.41
22:B0:586:A:H5''	28:BC:79:ARG:N	2.31	0.41
22:B0:803:U:OP2	28:BC:64:GLY:N	2.53	0.41
28:BC:159:LEU:C	28:BC:161:ALA:H	2.23	0.41
22:B0:659:G:C1'	28:BC:98:LYS:HG3	2.49	0.41
35:BJ:25:SER:O	35:BJ:26:GLY:O	2.38	0.41
40:BO:15:LYS:HA	40:BO:18:LYS:CE	2.47	0.41
40:BO:2:ARG:HH12	40:BO:3:VAL:HG12	1.83	0.41
40:BO:43:GLN:O	40:BO:44:TYR:CD2	2.73	0.41
22:B0:1197:G:N2	40:BO:8:ILE:HD13	2.35	0.41
2:AW:58:A:O2'	2:AW:60:C:H5	2.00	0.41
22:B0:2123:G:C5'	22:B0:2124:G:O5'	2.68	0.41
22:B0:2178:C:OP1	22:B0:2180:U:C2	2.73	0.41
24:B2:104:LYS:HZ3	24:B2:126:LEU:HD22	1.84	0.41
1:AA:1253:G:N1	1:AA:1285:A:N6	2.68	0.41
22:B0:476:G:C4	22:B0:478:A:OP2	2.73	0.41
22:B0:959:A:N7	22:B0:2250:G:H1'	2.35	0.41
4:AC:137:VAL:HG22	4:AC:150:VAL:HG23	2.02	0.41
22:B0:942:G:H5'	35:BJ:40:SER:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:71:A:N6	22:B0:114:U:H3	2.18	0.41
22:B0:628:G:H2'	22:B0:629:G:C8	2.55	0.41
37:BL:25:ALA:CA	37:BL:28:LEU:HD21	2.46	0.41
22:B0:978:G:H1	22:B0:985:C:H42	1.67	0.41
25:B5:27:GLU:HG2	25:B5:28:GLU:N	2.35	0.41
10:AI:56:MET:HE3	10:AI:60:LEU:HD11	2.02	0.41
1:AA:1271:A:H4'	1:AA:1314:C:H5'	2.03	0.41
7:AF:18:VAL:HG13	7:AF:21:MET:CE	2.50	0.41
2:AU:74:C:C5'	22:B0:2556:C:C2	3.03	0.41
4:AC:39:ARG:HG2	4:AC:54:ILE:HG13	2.02	0.41
3:AB:185:ILE:CD1	3:AB:185:ILE:N	2.81	0.41
20:AS:27:LYS:HG2	20:AS:28:LYS:N	2.35	0.41
22:B0:2520:C:C2	22:B0:2565:A:O2'	2.69	0.41
22:B0:2544:G:H2'	22:B0:2545:G:C8	2.56	0.41
16:AO:11:VAL:HG13	16:AO:26:VAL:CG1	2.51	0.41
35:BJ:103:ILE:HG12	35:BJ:103:ILE:H	1.69	0.41
22:B0:446:G:H2'	22:B0:447:A:OP2	2.20	0.41
49:B1:7:LYS:HD3	49:B1:7:LYS:H	1.84	0.41
1:AA:701:U:H5''	1:AA:703:G:H1'	2.02	0.41
1:AA:818:G:H3'	1:AA:819:A:H5'	2.02	0.41
1:AA:820:U:H6	1:AA:820:U:O5'	2.04	0.41
1:AA:575:G:C6	1:AA:821:G:N7	2.88	0.41
45:BU:58:LEU:HB2	45:BU:81:ILE:CD1	2.49	0.41
22:B0:740:C:H42	22:B0:758:C:H1'	1.84	0.41
22:B0:1005:C:C4	22:B0:1143:A:H1'	2.54	0.41
1:AA:272:C:H2'	1:AA:273:U:C6	2.55	0.41
12:AK:30:ILE:HD13	12:AK:31:VAL:N	2.35	0.41
3:AB:216:VAL:HG13	3:AB:217:ALA:N	2.35	0.41
23:B9:16:G:H2'	23:B9:17:C:O5'	2.20	0.41
22:B0:255:A:H2'	22:B0:256:A:O4'	2.21	0.41
5:AD:104:MET:CE	5:AD:179:GLY:HA3	2.51	0.41
1:AA:692:U:H2'	1:AA:694:A:OP2	2.20	0.41
35:BJ:81:ASP:OD2	35:BJ:116:VAL:HG12	2.20	0.41
5:AD:71:PHE:CE1	5:AD:93:LEU:HD21	2.54	0.41
22:B0:878:A:H61	22:B0:899:A:H61	1.68	0.41
29:BD:94:ARG:O	29:BD:96:TRP:N	2.53	0.41
1:AA:942:G:H2'	1:AA:943:U:H6	1.85	0.41
16:AO:81:ILE:H	16:AO:81:ILE:CD1	2.33	0.41
10:AI:19:PHE:HB3	10:AI:21:LYS:NZ	2.36	0.41
1:AA:223:A:H2'	1:AA:224:U:C6	2.55	0.41
1:AA:91:U:H2'	1:AA:92:U:C6	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AV:67:A:H2'	2:AV:68:U:C6	2.55	0.41
5:AD:81:LEU:HD22	5:AD:81:LEU:N	2.36	0.41
37:BL:103:ARG:HG2	37:BL:103:ARG:HH11	1.85	0.41
22:B0:997:G:H2'	22:B0:998:C:C6	2.55	0.41
10:AI:53:LEU:N	10:AI:53:LEU:HD12	2.35	0.41
23:B9:28:C:H1'	23:B9:59:A:N1	2.34	0.41
43:BS:39:ASN:OD1	43:BS:49:PRO:HB3	2.20	0.41
22:B0:1496:A:P	26:BA:191:LEU:H	2.43	0.41
22:B0:1578:U:OP1	26:BA:63:ILE:HG13	2.21	0.41
1:AA:419:C:C4'	1:AA:540:G:N2	2.83	0.41
33:BH:109:LEU:HB2	33:BH:111:LYS:N	2.36	0.41
33:BH:122:LEU:N	33:BH:122:LEU:HD13	2.18	0.41
22:B0:2896:U:H1'	33:BH:39:LYS:HG2	2.02	0.41
22:B0:2640:G:O3'	33:BH:79:GLY:HA2	2.20	0.41
28:BC:112:LEU:HD12	28:BC:112:LEU:N	2.35	0.41
28:BC:73:ILE:C	28:BC:75:SER:H	2.24	0.41
40:BO:13:HIS:O	40:BO:16:ILE:HG22	2.20	0.41
40:BO:16:ILE:O	40:BO:18:LYS:N	2.51	0.41
40:BO:9:ALA:O	40:BO:10:ARG:CB	2.68	0.41
22:B0:488:G:H22	41:BQ:9:HIS:CE1	2.38	0.41
41:BQ:51:LEU:C	41:BQ:51:LEU:HD13	2.39	0.41
2:AW:19:G:C1'	2:AW:57:G:H21	2.33	0.41
22:B0:2136:G:O6	22:B0:2137:U:C5	2.73	0.41
22:B0:2138:G:O5'	22:B0:2139:U:OP1	2.38	0.41
22:B0:2152:G:P	22:B0:2153:C:N3	2.94	0.41
22:B0:2678:C:OP2	27:BB:124:ARG:HB2	2.20	0.41
27:BB:122:VAL:HG12	27:BB:141:ARG:NH2	2.35	0.41
22:B0:312:G:H4'	22:B0:331:C:N4	2.35	0.41
22:B0:504:A:O5'	22:B0:511:U:H5''	2.21	0.41
42:BR:36:LYS:C	42:BR:38:ALA:H	2.23	0.41
2:AV:55:U:O2	2:AV:55:U:C2'	2.69	0.41
2:AV:18:G:H1'	2:AV:57:G:N2	2.36	0.41
22:B0:2244:U:C4	22:B0:2245:U:O4	2.73	0.41
41:BQ:27:LYS:HA	41:BQ:70:LYS:HB3	2.01	0.41
39:BN:28:LYS:HG2	39:BN:28:LYS:O	2.20	0.41
39:BN:49:ILE:HG22	39:BN:50:ARG:N	2.35	0.41
39:BN:65:ASN:H	39:BN:71:ARG:CB	2.33	0.41
22:B0:640:C:H2'	22:B0:641:U:O4'	2.19	0.41
40:BO:58:GLN:O	40:BO:62:ALA:HB3	2.20	0.41
1:AA:1064:G:N2	1:AA:1191:A:N7	2.68	0.41
45:BU:13:ARG:NE	45:BU:13:ARG:N	2.66	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:2899:A:H61	33:BH:137:PRO:HD2	1.85	0.41
4:AC:20:THR:O	4:AC:20:THR:HG23	2.20	0.41
32:BG:132:ALA:O	32:BG:133:ARG:NE	2.53	0.41
22:B0:1690:A:H2'	22:B0:1691:C:O4'	2.19	0.41
22:B0:366:C:H2'	22:B0:367:G:C8	2.56	0.41
16:AO:56:LEU:O	16:AO:56:LEU:HD13	2.20	0.41
1:AA:1238:A:N6	1:AA:1239:A:C2	2.89	0.41
25:B3:3:THR:HB	25:B3:6:GLN:HG2	2.01	0.41
1:AA:1453:G:C2'	1:AA:1454:G:H5'	2.50	0.41
1:AA:779:C:H2'	1:AA:780:A:O4'	2.19	0.41
1:AA:1401:G:C2'	1:AA:1402:C:H5'	2.49	0.41
1:AA:271:C:H2'	1:AA:272:C:C6	2.55	0.41
42:BR:39:THR:OG1	42:BR:40:LYS:N	2.54	0.41
24:B2:150:GLU:HA	24:B2:153:LYS:CE	2.50	0.41
22:B0:2782:G:H2'	22:B0:2783:U:C6	2.56	0.41
1:AA:382:A:O2'	1:AA:383:A:H5'	2.21	0.41
45:BU:77:LYS:HB3	45:BU:77:LYS:HZ3	1.83	0.41
5:AD:61:ARG:HH11	5:AD:61:ARG:HG2	1.86	0.41
30:BE:101:VAL:CG1	30:BE:113:ASP:HB3	2.48	0.41
22:B0:1282:U:H2'	22:B0:1283:G:C8	2.55	0.41
22:B0:666:A:OP1	35:BJ:50:PHE:O	2.38	0.41
22:B0:1649:G:H2'	22:B0:1650:A:C8	2.55	0.41
3:AB:81:ASP:HB2	3:AB:233:GLU:HG2	2.02	0.41
22:B0:1231:U:H2'	22:B0:1232:G:H8	1.85	0.41
22:B0:540:G:O2'	22:B0:541:C:H5'	2.20	0.41
12:AK:41:LEU:HB3	12:AK:76:TYR:CE2	2.55	0.41
39:BN:54:LEU:O	39:BN:58:PHE:HB3	2.20	0.41
10:AI:53:LEU:HD21	10:AI:100:ALA:HB2	2.03	0.41
27:BB:38:LYS:HB3	27:BB:77:ARG:O	2.20	0.41
22:B0:2247:A:O2'	22:B0:2248:C:H5'	2.21	0.41
7:AF:70:VAL:O	7:AF:70:VAL:HG22	2.20	0.41
1:AA:256:U:H2'	1:AA:257:G:C8	2.55	0.41
44:BT:57:TYR:HA	44:BT:74:ALA:HB3	2.02	0.41
22:B0:1432:G:H2'	22:B0:1433:A:O4'	2.20	0.41
1:AA:45:G:H1	1:AA:396:C:H42	1.68	0.41
1:AA:490:C:H2'	1:AA:491:G:H8	1.85	0.41
2:AW:28:C:H2'	2:AW:29:A:H8	1.85	0.41
22:B0:1421:G:N3	26:BA:148:GLY:CA	2.77	0.41
22:B0:1582:C:H5	26:BA:73:ILE:CD1	2.34	0.41
26:BA:154:ALA:HB1	26:BA:159:THR:HG23	1.99	0.41
26:BA:80:LEU:HD11	26:BA:89:ASN:CB	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1582:C:C6	26:BA:96:LYS:HD2	2.56	0.41
22:B0:1991:U:H2'	22:B0:1992:G:H5'	2.02	0.41
1:AA:418:C:H5''	1:AA:540:G:H3'	1.81	0.41
1:AA:419:C:P	1:AA:541:G:O4'	2.72	0.41
5:AD:13:ARG:HG3	5:AD:55:ARG:HH21	1.85	0.41
33:BH:39:LYS:O	33:BH:40:HIS:CD2	2.74	0.41
22:B0:1313:U:O2'	22:B0:1332:G:H4'	2.20	0.41
22:B0:799:G:H3'	28:BC:57:LYS:N	2.35	0.41
22:B0:800:A:C4'	22:B0:801:G:H5''	2.51	0.41
22:B0:589:U:C2'	28:BC:48:THR:HB	2.47	0.41
28:BC:36:ALA:HB2	35:BJ:18:ARG:HD3	2.02	0.41
22:B0:2127:G:N9	22:B0:2166:U:H5'	2.35	0.41
35:BJ:54:GLN:NE2	35:BJ:58:TYR:H	2.19	0.41
22:B0:2447:G:O2'	22:B0:2448:A:H3'	2.19	0.41
36:BK:80:VAL:CG1	36:BK:80:VAL:O	2.67	0.41
4:AC:152:VAL:HG13	4:AC:195:ILE:CG1	2.50	0.41
12:AK:120:CYS:O	12:AK:121:ARG:O	2.37	0.41
22:B0:2075:U:H2'	22:B0:2076:U:O5'	2.20	0.41
39:BN:60:VAL:O	39:BN:61:ARG:HD3	2.20	0.41
1:AA:1126:U:O4	1:AA:1145:A:N1	2.54	0.41
22:B0:623:C:H2'	22:B0:624:C:C6	2.55	0.41
37:BL:113:ILE:H	37:BL:113:ILE:CD1	2.23	0.41
37:BL:53:THR:HA	37:BL:56:LYS:HB2	2.03	0.41
25:B3:43:GLY:C	25:B3:45:VAL:H	2.24	0.41
22:B0:733:G:H5''	22:B0:761:A:H62	1.75	0.41
10:AI:20:ILE:HD13	10:AI:86:LEU:HD23	2.02	0.41
1:AA:1096:C:O2'	1:AA:1168:U:H1'	2.21	0.41
22:B0:2899:A:H61	33:BH:137:PRO:CB	2.33	0.41
1:AA:955:U:H2'	1:AA:956:U:O4'	2.20	0.41
22:B0:2544:G:H2'	22:B0:2545:G:H8	1.84	0.41
34:BI:41:ILE:CD1	34:BI:41:ILE:N	2.81	0.41
22:B0:2836:U:H2'	22:B0:2837:A:H8	1.85	0.41
25:B3:76:THR:C	25:B3:78:LEU:H	2.24	0.41
1:AA:821:G:H2'	1:AA:822:U:C6	2.55	0.41
29:BD:42:ALA:O	29:BD:43:ILE:C	2.59	0.41
1:AA:250:A:H1'	1:AA:252:U:C4	2.55	0.41
31:BF:29:PHE:O	31:BF:32:PRO:HD2	2.21	0.41
22:B0:2480:C:C2'	22:B0:2481:G:H5'	2.51	0.41
22:B0:233:A:H61	22:B0:428:A:H61	1.69	0.41
22:B0:497:A:H2'	22:B0:498:G:C8	2.55	0.41
19:AR:11:ARG:HD3	19:AR:46:THR:CG2	2.48	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AC:24:ASN:HD22	4:AC:27:GLU:C	2.24	0.41
5:AD:100:VAL:HG12	5:AD:104:MET:SD	2.61	0.41
22:B0:292:U:C4	22:B0:348:A:N6	2.84	0.41
1:AA:840:C:H6	1:AA:840:C:O5'	2.02	0.41
4:AC:93:ILE:H	4:AC:93:ILE:HD12	1.86	0.41
1:AA:807:A:H2'	1:AA:808:C:C6	2.55	0.41
32:BG:99:LYS:C	32:BG:99:LYS:HD2	2.41	0.41
22:B0:1126:A:N3	22:B0:1126:A:H2'	2.36	0.41
22:B0:620:G:O2'	22:B0:621:A:P	2.78	0.41
22:B0:2832:U:HO2'	22:B0:2833:U:P	2.42	0.41
1:AA:163:C:H2'	1:AA:164:G:C8	2.55	0.41
26:BA:250:GLN:O	26:BA:251:THR:HB	2.20	0.41
28:BC:7:ASP:CG	28:BC:8:ALA:N	2.74	0.41
32:BG:116:MET:HB3	32:BG:124:MET:HE1	2.03	0.41
29:BD:29:ARG:HG2	29:BD:30:VAL:N	2.34	0.41
43:BS:93:ARG:HG3	43:BS:93:ARG:HH11	1.85	0.41
9:AH:72:GLU:N	9:AH:72:GLU:OE1	2.43	0.41
42:BR:91:GLN:HE21	42:BR:91:GLN:HA	1.85	0.41
1:AA:287:U:H2'	1:AA:288:A:C8	2.56	0.41
22:B0:1365:A:H2'	22:B0:1366:A:C8	2.56	0.41
34:BI:112:PHE:CG	34:BI:115:ILE:HD12	2.55	0.41
1:AA:1210:C:H4'	1:AA:1214:C:H42	1.86	0.41
22:B0:1412:G:H2'	22:B0:1413:U:H6	1.85	0.41
22:B0:1578:U:P	26:BA:101:ARG:HD2	2.58	0.41
26:BA:57:HIS:CE1	26:BA:58:LYS:HZ3	2.38	0.41
22:B0:1579:A:N7	26:BA:65:ASP:O	2.53	0.41
26:BA:71:ASP:CG	26:BA:72:GLY:N	2.73	0.41
22:B0:2894:U:H2'	33:BH:9:GLU:OE2	2.21	0.41
33:BH:104:ALA:O	33:BH:106:LYS:N	2.53	0.41
22:B0:1605:C:H2'	22:B0:1606:C:O4'	2.19	0.41
22:B0:658:U:C2'	28:BC:98:LYS:HE2	2.51	0.41
40:BO:40:LYS:HE2	40:BO:44:TYR:CB	2.50	0.41
22:B0:2123:G:N3	22:B0:2123:G:C2'	2.83	0.41
22:B0:2126:A:N3	22:B0:2167:U:H5'	2.36	0.41
22:B0:2115:G:N2	22:B0:2168:G:OP1	2.49	0.41
22:B0:481:G:O2'	22:B0:506:G:N3	2.45	0.41
29:BD:105:ILE:CD1	29:BD:138:PRO:HG3	2.49	0.41
22:B0:1966:A:N3	22:B0:2593:U:H4'	2.34	0.41
2:AU:18:G:H1'	2:AU:57:G:H22	1.84	0.41
4:AC:130:ARG:CD	6:AE:53:ARG:HD3	2.50	0.41
22:B0:2243:U:C4'	22:B0:2244:U:OP1	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BN:46:VAL:O	39:BN:47:ILE:HD13	2.21	0.41
5:AD:122:ILE:O	5:AD:128:VAL:HG13	2.21	0.41
5:AD:97:LEU:HB2	5:AD:134:TYR:HB3	2.02	0.41
1:AA:1298:U:O2'	1:AA:1335:U:C2	2.73	0.41
8:AG:108:ARG:HG2	8:AG:118:ARG:NH2	2.36	0.41
37:BL:102:PHE:CA	37:BL:109:PRO:HA	2.50	0.41
40:BO:92:LYS:HA	40:BO:92:LYS:HE3	2.02	0.41
23:B9:89:U:O5'	23:B9:89:U:H6	2.03	0.41
22:B0:870:U:C1'	36:BK:8:LYS:NZ	2.84	0.41
45:BU:67:LYS:H	45:BU:67:LYS:HD3	1.86	0.41
7:AF:51:ILE:HD12	7:AF:52:ASN:HB2	2.02	0.41
48:BZ:29:VAL:HA	48:BZ:47:TYR:OH	2.20	0.41
4:AC:19:SER:OG	4:AC:56:ILE:HB	2.20	0.41
22:B0:1266:G:C2'	22:B0:1267:U:OP2	2.68	0.41
20:AS:28:LYS:HB3	20:AS:29:PRO:CD	2.41	0.41
1:AA:1414:U:H2'	1:AA:1415:G:H8	1.85	0.41
22:B0:2837:A:H2'	22:B0:2838:G:C8	2.55	0.41
22:B0:2360:G:H2'	22:B0:2361:G:C8	2.55	0.41
47:BX:47:ILE:CG2	47:BX:56:VAL:HG11	2.49	0.41
1:AA:1509:C:O2'	1:AA:1510:C:H5'	2.21	0.41
22:B0:2478:A:O2'	22:B0:2528:U:O3'	2.38	0.41
4:AC:108:PRO:HB3	4:AC:114:LEU:CD1	2.50	0.41
1:AA:992:U:H4'	1:AA:993:G:C5'	2.51	0.41
32:BG:96:LYS:H	32:BG:96:LYS:CD	2.30	0.41
22:B0:969:G:O3'	22:B0:984:A:O2'	2.39	0.41
22:B0:906:U:H2'	22:B0:907:G:C4'	2.50	0.41
22:B0:1342:A:C4	22:B0:1397:U:O4'	2.74	0.41
22:B0:833:A:H4'	35:BJ:50:PHE:CZ	2.56	0.41
1:AA:625:U:H2'	1:AA:626:G:C8	2.56	0.41
22:B0:110:G:O2'	22:B0:111:A:H5'	2.20	0.41
5:AD:58:GLN:HA	5:AD:58:GLN:NE2	2.36	0.41
22:B0:44:A:H61	22:B0:433:C:H42	1.68	0.41
22:B0:396:G:H2'	22:B0:397:U:C6	2.55	0.41
44:BT:73:LYS:HG3	44:BT:94:ALA:HB2	2.03	0.41
24:B2:95:GLY:HA3	24:B2:99:LEU:CD2	2.51	0.41
2:AV:63:C:H2'	2:AV:64:A:H8	1.85	0.41
37:BL:94:TYR:H	37:BL:94:TYR:HD1	1.68	0.41
22:B0:1747:U:H2'	22:B0:1748:C:C6	2.55	0.41
1:AA:1033:G:H2'	1:AA:1034:G:O4'	2.21	0.41
46:BW:20:ASN:O	46:BW:24:GLU:HB2	2.20	0.41
1:AA:583:A:H2'	1:AA:584:G:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:2134:A:N7	22:B0:2135:A:O2'	2.54	0.41
22:B0:1578:U:O2'	26:BA:65:ASP:O	2.26	0.41
26:BA:154:ALA:HB2	26:BA:176:ARG:HD3	2.02	0.41
26:BA:64:VAL:CG2	26:BA:150:GLY:HA2	2.51	0.41
22:B0:1662:U:O4	22:B0:1992:G:H3'	2.21	0.41
22:B0:2894:U:OP2	33:BH:10:THR:N	2.54	0.41
33:BH:109:LEU:HD22	33:BH:109:LEU:H	1.86	0.41
33:BH:26:GLY:C	33:BH:28:LEU:H	2.24	0.41
33:BH:96:ARG:HB3	33:BH:97:PRO:CA	2.51	0.41
25:B3:86:LEU:C	25:B3:91:PRO:HD2	2.40	0.41
22:B0:1197:G:N2	22:B0:1198:U:H1'	2.35	0.41
22:B0:588:U:H5'	28:BC:43:THR:CG2	2.50	0.41
22:B0:655:A:H4'	22:B0:656:G:C5'	2.49	0.41
28:BC:117:ARG:HH11	28:BC:185:LYS:HD2	1.85	0.41
22:B0:802:A:H4'	28:BC:54:GLY:O	2.20	0.41
22:B0:801:G:P	28:BC:57:LYS:HD3	2.61	0.41
40:BO:4:LYS:HZ3	40:BO:5:ARG:HB3	1.85	0.41
41:BQ:45:VAL:O	41:BQ:47:VAL:N	2.47	0.41
22:B0:2153:C:O2	22:B0:2153:C:H2'	2.21	0.41
22:B0:2730:C:N3	27:BB:126:ASN:ND2	2.69	0.41
27:BB:164:GLN:HG3	27:BB:165:MET:N	2.36	0.41
2:AU:23:A:H2'	2:AU:24:G:C8	2.55	0.41
4:AC:120:THR:HG23	4:AC:121:SER:N	2.36	0.41
4:AC:140:ALA:HB3	4:AC:148:ILE:HG13	2.01	0.41
22:B0:2595:G:H1'	22:B0:2597:G:N7	2.35	0.41
24:B2:45:VAL:HG21	24:B2:195:LEU:HD21	2.02	0.41
38:BM:25:ARG:NH2	38:BM:40:ILE:HG21	2.35	0.41
25:B5:107:LYS:HE3	25:B5:117:VAL:O	2.21	0.41
40:BO:53:LYS:HE3	40:BO:53:LYS:CA	2.43	0.41
1:AA:1065:U:H2'	1:AA:1066:C:OP2	2.21	0.41
24:B2:174:ILE:HD11	24:B2:184:LEU:O	2.21	0.41
24:B2:22:ILE:O	24:B2:26:ILE:HD13	2.21	0.41
22:B0:2558:C:H2'	22:B0:2559:C:H5'	2.02	0.41
17:AP:56:ARG:NH1	17:AP:60:TRP:NE1	2.69	0.41
22:B0:2757:A:N3	22:B0:2757:A:H2'	2.35	0.41
22:B0:2055:C:O2	22:B0:2055:C:C2'	2.66	0.41
1:AA:362:G:H5''	13:AL:30:ARG:HD3	2.02	0.41
22:B0:402:A:O2'	22:B0:403:U:H5'	2.20	0.41
22:B0:1775:U:H2'	22:B0:1776:G:H5'	2.03	0.41
3:AB:159:ALA:C	3:AB:160:LEU:HD12	2.41	0.41
47:BX:8:GLN:NE2	47:BX:23:LEU:HD13	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:329:A:N3	1:AA:329:A:H2'	2.36	0.41
26:BA:77:VAL:HA	26:BA:92:LEU:O	2.21	0.41
10:AI:105:ARG:O	10:AI:106:ASP:HB2	2.21	0.41
22:B0:1355:G:H2'	22:B0:1356:G:H8	1.86	0.41
40:BO:97:ILE:C	40:BO:97:ILE:HD12	2.40	0.41
12:AK:28:ASN:HD21	12:AK:45:THR:HG22	1.84	0.41
11:AJ:40:ILE:HD11	11:AJ:73:LEU:HD22	2.02	0.41
15:AN:58:ARG:HG2	15:AN:58:ARG:HH11	1.85	0.41
21:AT:47:GLN:O	21:AT:50:PHE:HB3	2.21	0.41
1:AA:19:A:H2'	1:AA:20:U:C6	2.55	0.41
1:AA:647:C:H5''	18:AQ:82:VAL:HG11	2.03	0.41
20:AS:30:LEU:HG	20:AS:31:ARG:N	2.35	0.41
29:BD:90:LEU:HD22	29:BD:90:LEU:C	2.41	0.41
1:AA:708:C:H2'	1:AA:709:U:C6	2.55	0.41
39:BN:17:PRO:O	39:BN:18:SER:C	2.58	0.41
2:AV:29:A:O2'	2:AV:30:G:H5'	2.20	0.41
49:B1:13:SER:HA	49:B1:19:PHE:HD1	1.86	0.41
25:B3:66:VAL:HG22	25:B3:70:LYS:HE3	2.03	0.41
1:AA:1483:A:O2'	22:B0:1948:G:H1'	2.19	0.41
22:B0:1410:G:H2'	22:B0:1411:U:C5	2.55	0.41
34:BI:118:LEU:HD22	34:BI:118:LEU:N	2.35	0.41
22:B0:1917:U:H2'	22:B0:1918:A:H8	1.86	0.41
44:BT:63:ILE:O	44:BT:69:GLU:HA	2.20	0.41
32:BG:29:GLN:NE2	32:BG:29:GLN:HA	2.36	0.41
22:B0:224:U:O2'	22:B0:225:C:H5'	2.21	0.41
1:AA:1526:G:H2'	1:AA:1527:U:C6	2.56	0.41
5:AD:162:GLU:C	5:AD:164:ARG:H	2.23	0.41
32:BG:113:ALA:C	32:BG:115:ASP:H	2.24	0.41
8:AG:92:PRO:HA	8:AG:95:ARG:HG2	2.01	0.41
22:B0:1491:A:N3	26:BA:173:LEU:N	2.68	0.41
22:B0:1491:A:OP2	26:BA:176:ARG:N	2.54	0.41
22:B0:2639:A:C2	22:B0:2778:A:H1'	2.56	0.41
28:BC:32:VAL:HA	35:BJ:18:ARG:HG2	2.02	0.41
35:BJ:54:GLN:NE2	35:BJ:57:LEU:N	2.67	0.41
43:BS:62:ALA:HB3	43:BS:64:ILE:HD11	2.03	0.41
5:AD:40:HIS:HB3	5:AD:43:ARG:CD	2.50	0.41
2:AV:16:U:C4'	2:AV:18:G:OP2	2.66	0.41
12:AK:121:ARG:HG3	12:AK:121:ARG:NH1	2.36	0.41
22:B0:2436:G:H21	22:B0:2597:G:N2	2.17	0.41
42:BR:13:ALA:HA	42:BR:14:PRO:HD3	1.96	0.41
22:B0:605:G:H1	22:B0:623:C:H42	1.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1234:C:H2'	1:AA:1235:U:C6	2.55	0.41
48:BZ:52:LYS:O	48:BZ:53:VAL:HB	2.20	0.41
1:AA:1064:G:C4'	1:AA:1065:U:H4'	2.43	0.41
36:BK:41:LEU:C	36:BK:93:VAL:HG23	2.40	0.41
1:AA:915:A:H2'	1:AA:916:U:C5'	2.51	0.41
1:AA:754:C:H2'	1:AA:754:C:O2	2.21	0.41
2:AW:66:A:H2'	2:AW:67:A:H8	1.84	0.41
22:B0:1816:C:H4'	22:B0:1817:G:OP2	2.21	0.41
22:B0:2357:G:H4'	22:B0:2358:A:O5'	2.20	0.41
22:B0:19:A:P	40:BO:29:ARG:HG2	2.60	0.41
1:AA:1201:A:H2'	1:AA:1202:U:OP2	2.21	0.41
12:AK:15:VAL:O	12:AK:17:ASP:N	2.53	0.41
22:B0:2471:A:N6	22:B0:2476:A:O2'	2.54	0.41
19:AR:39:VAL:HB	19:AR:43:ILE:HG21	2.01	0.41
5:AD:104:MET:HE1	5:AD:179:GLY:HA3	2.03	0.41
22:B0:897:C:H2'	22:B0:898:C:C6	2.56	0.41
23:B9:66:A:O2'	23:B9:67:G:C8	2.72	0.41
23:B9:42:C:C1'	29:BD:65:LEU:HD22	2.51	0.41
32:BG:123:ALA:HA	32:BG:126:ARG:CG	2.51	0.41
7:AF:93:LYS:C	7:AF:93:LYS:HD2	2.41	0.41
25:B5:68:VAL:HG22	25:B5:115:ALA:HB2	2.02	0.41
1:AA:89:U:H2'	1:AA:90:C:O4'	2.21	0.41
38:BM:106:LEU:HD13	38:BM:106:LEU:C	2.41	0.41
44:BT:65:VAL:HG13	44:BT:65:VAL:O	2.21	0.41
15:AN:50:LEU:N	15:AN:50:LEU:HD12	2.36	0.41
1:AA:160:A:H2'	1:AA:161:A:O4'	2.21	0.41
2:AU:28:C:H2'	2:AU:29:A:H8	1.86	0.41
44:BT:28:ALA:O	44:BT:39:ALA:HA	2.20	0.41
22:B0:1579:A:C4	26:BA:66:PHE:C	2.93	0.41
22:B0:1417:U:H4'	22:B0:1588:A:O4'	2.20	0.41
22:B0:1492:G:C5	26:BA:153:LEU:HA	2.55	0.41
22:B0:1491:A:C5'	26:BA:153:LEU:HD21	2.45	0.41
22:B0:1489:U:C5'	26:BA:200:MET:SD	3.09	0.41
22:B0:1991:U:C2'	22:B0:1992:G:H5'	2.50	0.41
22:B0:1669:A:C2'	22:B0:1669:A:N3	2.79	0.41
22:B0:1996:C:P	27:BB:139:SER:HB2	2.61	0.41
1:AA:34:C:N4	1:AA:35:G:O6	2.54	0.41
1:AA:417:G:N2	1:AA:427:U:C2	2.89	0.41
22:B0:2776:A:H4'	22:B0:2777:G:C5'	2.51	0.41
33:BH:55:ILE:HD13	33:BH:124:VAL:HA	2.03	0.41
22:B0:1317:G:H2'	22:B0:1318:U:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:974:G:O2'	22:B0:975:A:O4'	2.38	0.41
28:BC:155:GLU:CG	28:BC:156:ASN:H	2.29	0.41
40:BO:14:LYS:O	40:BO:16:ILE:N	2.53	0.41
40:BO:27:ARG:HH21	40:BO:33:VAL:HG11	1.86	0.41
40:BO:44:TYR:C	40:BO:44:TYR:CD1	2.94	0.41
22:B0:600:G:C6	28:BC:99:LYS:HE3	2.55	0.41
28:BC:176:ASP:HB2	28:BC:178:VAL:CG1	2.42	0.41
22:B0:2115:G:O2'	22:B0:2171:A:N6	2.45	0.41
22:B0:2167:U:H6	22:B0:2168:G:H5''	1.86	0.41
1:AA:1371:G:H2'	1:AA:1372:U:C5	2.53	0.41
1:AA:1341:U:H2'	1:AA:1342:C:H6	1.86	0.41
1:AA:931:C:H1'	1:AA:1387:G:N2	2.36	0.41
22:B0:2428:G:H4'	22:B0:2429:G:C2	2.55	0.41
43:BS:13:LEU:HA	43:BS:18:LYS:HG3	2.02	0.41
22:B0:2251:G:H2'	22:B0:2252:G:O4'	2.20	0.41
22:B0:1456:G:H2'	22:B0:1457:G:H8	1.86	0.41
37:BL:63:ARG:HB3	37:BL:63:ARG:HE	1.60	0.41
6:AE:154:ALA:O	9:AH:65:PHE:CE2	2.74	0.41
1:AA:1317:C:N4	20:AS:5:LYS:O	2.53	0.41
27:BB:13:ARG:NH1	39:BN:10:GLU:HB3	2.34	0.41
22:B0:838:C:H42	22:B0:940:G:H22	1.68	0.41
22:B0:2241:A:H2	22:B0:2242:G:C5	2.39	0.41
41:BQ:107:VAL:O	41:BQ:107:VAL:HG23	2.21	0.41
39:BN:47:ILE:CD1	39:BN:63:ILE:HG23	2.51	0.41
39:BN:49:ILE:HG21	39:BN:99:LEU:HD13	2.03	0.41
39:BN:99:LEU:HD23	39:BN:99:LEU:O	2.21	0.41
39:BN:63:ILE:CG1	39:BN:74:GLN:HG2	2.51	0.41
42:BR:43:ILE:HB	42:BR:60:THR:HG21	2.03	0.41
22:B0:73:A:H3'	22:B0:73:A:OP1	2.21	0.41
22:B0:71:A:H1'	22:B0:73:A:C6	2.56	0.41
22:B0:629:G:H2'	22:B0:630:G:C8	2.56	0.41
32:BG:59:THR:HG22	32:BG:67:THR:HB	2.02	0.41
37:BL:112:TYR:CD1	37:BL:112:TYR:N	2.89	0.41
40:BO:94:LEU:HD22	40:BO:95:ALA:H	1.86	0.41
22:B0:1108:U:H2'	22:B0:1109:C:H6	1.86	0.41
22:B0:412:A:OP2	22:B0:2406:A:OP2	2.38	0.41
23:B9:84:G:C3'	23:B9:85:G:H5''	2.50	0.41
45:BU:70:VAL:CG2	45:BU:71:LYS:HD2	2.51	0.41
22:B0:1833:C:O2	22:B0:1973:G:N1	2.53	0.41
27:BB:29:VAL:H	27:BB:186:LEU:HA	1.86	0.41
1:AA:1096:C:H1'	1:AA:1168:U:O2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AG:78:ARG:O	8:AG:80:GLY:N	2.54	0.41
2:AU:75:C:O5'	22:B0:2557:G:O5'	2.39	0.41
22:B0:2516:A:H8	27:BB:154:LYS:HZ3	1.68	0.41
8:AG:149:ALA:C	8:AG:151:ALA:N	2.74	0.41
4:AC:14:VAL:O	4:AC:15:LYS:HB2	2.20	0.41
22:B0:403:U:H4'	22:B0:406:G:O4'	2.20	0.41
22:B0:722:A:H2'	22:B0:723:C:C6	2.55	0.41
22:B0:1083:U:O2	25:B3:81:LYS:NZ	2.43	0.41
44:BT:30:ILE:HG21	44:BT:72:VAL:HG11	2.03	0.41
47:BX:8:GLN:NE2	47:BX:15:ARG:HH22	2.18	0.41
13:AL:43:LYS:N	13:AL:44:PRO:HD2	2.36	0.41
22:B0:2217:G:O2'	22:B0:2223:G:H5'	2.21	0.41
22:B0:1817:G:H2'	22:B0:1818:U:O4'	2.21	0.41
11:AJ:14:ASP:O	11:AJ:18:ILE:HG13	2.21	0.41
1:AA:319:G:O2'	1:AA:320:A:H5'	2.21	0.41
1:AA:689:C:O2'	1:AA:690:G:H5'	2.21	0.41
3:AB:22:TRP:CZ3	3:AB:24:PRO:HA	2.56	0.41
1:AA:1057:G:H2'	1:AA:1058:G:O4'	2.21	0.41
22:B0:924:G:H4'	45:BU:25:PHE:HE2	1.86	0.41
34:BI:45:GLU:HA	34:BI:54:LYS:NZ	2.36	0.41
22:B0:2478:A:C2'	22:B0:2529:G:C8	3.01	0.41
7:AF:35:LYS:C	7:AF:64:VAL:HG23	2.41	0.41
48:BZ:51:ARG:HH11	48:BZ:51:ARG:CG	2.33	0.41
22:B0:1479:G:H4'	22:B0:1559:U:H4'	2.03	0.41
9:AH:79:ARG:HG3	9:AH:79:ARG:HH11	1.86	0.41
22:B0:758:C:H2'	22:B0:759:G:C8	2.56	0.41
1:AA:1180:A:C2'	1:AA:1181:G:H5'	2.51	0.41
9:AH:109:VAL:HG13	9:AH:109:VAL:O	2.21	0.41
22:B0:2605:U:H2'	22:B0:2606:C:C6	2.56	0.41
22:B0:223:A:H4'	22:B0:420:C:HO2'	1.83	0.41
15:AN:66:THR:HG23	15:AN:68:ARG:H	1.85	0.41
3:AB:46:VAL:HA	3:AB:49:PHE:CD2	2.53	0.41
22:B0:99:U:H5'	22:B0:100:U:O5'	2.21	0.41
22:B0:2623:G:H2'	22:B0:2624:G:H8	1.86	0.41
22:B0:295:G:H22	22:B0:343:C:H1'	1.86	0.41
4:AC:85:LYS:O	4:AC:89:VAL:HG22	2.21	0.41
1:AA:1256:A:C2'	1:AA:1257:A:OP2	2.68	0.41
6:AE:73:VAL:HG23	6:AE:73:VAL:O	2.21	0.41
31:BF:99:ILE:H	31:BF:99:ILE:HD12	1.84	0.41
22:B0:1057:A:H61	22:B0:1081:U:H3	1.68	0.41
22:B0:851:C:O2	22:B0:851:C:C2'	2.66	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1430:A:H2'	1:AA:1431:A:H8	1.86	0.41
1:AA:592:G:H2'	1:AA:593:U:C6	2.55	0.41
1:AA:649:A:H2'	1:AA:650:G:H8	1.86	0.41
22:B0:931:U:H4'	22:B0:932:U:O4'	2.20	0.41
13:AL:65:TYR:O	13:AL:96:THR:HG22	2.20	0.41
5:AD:58:GLN:HG3	5:AD:62:ARG:HE	1.85	0.41
25:B3:98:VAL:HG23	25:B3:103:ALA:HB2	2.03	0.41
14:AM:76:ILE:HG22	14:AM:76:ILE:O	2.21	0.41
1:AA:1293:C:H2'	1:AA:1294:G:H8	1.84	0.41
22:B0:1165:A:H2'	22:B0:1166:G:C8	2.56	0.41
1:AA:476:U:H2'	1:AA:477:C:C6	2.56	0.41
2:AW:40:C:H2'	2:AW:41:U:H6	1.86	0.41
24:B2:161:ARG:CD	24:B2:161:ARG:N	2.84	0.41
8:AG:36:SER:HA	10:AI:40:ARG:HD2	2.03	0.41
44:BT:48:MET:O	44:BT:51:GLN:HG3	2.21	0.41
6:AE:123:LEU:HD13	6:AE:124:ALA:N	2.35	0.41
30:BE:106:LEU:HD21	30:BE:164:ALA:HB3	2.02	0.41
22:B0:1528:A:H8	22:B0:1528:A:O5'	2.04	0.41
26:BA:245:THR:HG22	26:BA:247:TRP:H	1.84	0.41
22:B0:1683:U:H2'	22:B0:1684:G:C8	2.55	0.41
22:B0:2395:C:H2'	22:B0:2396:G:C8	2.56	0.41
6:AE:91:SER:N	6:AE:129:SER:HB3	2.35	0.41
44:BT:14:LYS:O	44:BT:18:ARG:HG3	2.21	0.41
1:AA:1203:C:H2'	1:AA:1204:A:H8	1.86	0.41
26:BA:145:MET:O	26:BA:183:VAL:HG21	2.22	0.41
26:BA:73:ILE:HA	26:BA:74:PRO:HD3	1.68	0.41
1:AA:400:C:O5'	1:AA:400:C:H6	2.04	0.41
1:AA:545:C:HO2'	1:AA:548:G:C2'	2.33	0.41
28:BC:102:ARG:O	28:BC:105:LEU:N	2.53	0.41
22:B0:493:G:C8	41:BQ:10:ALA:CB	3.04	0.41
22:B0:2162:G:N7	22:B0:2164:C:C2'	2.84	0.41
22:B0:2161:C:C5'	22:B0:2162:G:OP1	2.68	0.41
1:AA:935:A:H2'	1:AA:936:C:H6	1.85	0.41
22:B0:2644:G:O2'	22:B0:2645:G:O5'	2.39	0.41
27:BB:124:ARG:O	27:BB:125:TRP:C	2.59	0.41
22:B0:481:G:N2	22:B0:506:G:H4'	2.24	0.41
29:BD:106:ALA:C	29:BD:109:ARG:HB3	2.41	0.41
4:AC:126:ARG:NH1	4:AC:126:ARG:CB	2.84	0.41
1:AA:982:U:H5''	1:AA:983:A:OP1	2.21	0.41
2:AV:20:G:H3'	2:AV:21:A:H5'	2.02	0.41
35:BJ:41:ARG:NH1	35:BJ:42:SER:N	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BN:60:VAL:HG12	39:BN:61:ARG:N	2.36	0.41
39:BN:87:ARG:N	39:BN:87:ARG:HD3	2.26	0.41
42:BR:56:GLU:HG2	42:BR:86:THR:OG1	2.20	0.41
22:B0:1152:C:H2'	22:B0:1153:C:H6	1.82	0.41
11:AJ:58:ASN:CG	11:AJ:61:ALA:HB2	2.42	0.41
24:B2:179:PHE:HB2	24:B2:184:LEU:HD21	2.02	0.41
22:B0:908:C:H2'	22:B0:909:A:C8	2.56	0.41
22:B0:866:A:H2'	22:B0:909:A:N1	2.35	0.41
3:AB:30:ILE:CG2	3:AB:38:HIS:HB3	2.51	0.41
10:AI:18:VAL:HG21	10:AI:82:ILE:N	2.36	0.41
1:AA:1271:A:H4'	1:AA:1314:C:C5'	2.51	0.41
1:AA:563:A:N3	1:AA:563:A:C2'	2.84	0.41
22:B0:1931:U:C2'	22:B0:1932:A:H5''	2.43	0.41
22:B0:2558:C:O2'	22:B0:2559:C:H5'	2.21	0.41
34:BI:29:HIS:O	34:BI:31:ARG:N	2.54	0.41
1:AA:956:U:H2'	1:AA:957:U:C6	2.56	0.41
22:B0:371:A:H3'	22:B0:371:A:OP1	2.20	0.41
41:BQ:79:GLY:HA3	41:BQ:80:PRO:HA	1.95	0.41
1:AA:321:A:H2'	1:AA:322:C:C6	2.56	0.41
26:BA:78:GLU:N	26:BA:92:LEU:O	2.54	0.41
34:BI:59:LYS:HB2	34:BI:87:LEU:CD1	2.51	0.41
39:BN:36:LYS:HZ2	39:BN:36:LYS:HB2	1.84	0.41
7:AF:1:MET:SD	7:AF:65:GLU:HG2	2.61	0.41
37:BL:83:LEU:H	37:BL:86:ARG:CD	2.25	0.41
1:AA:876:C:H2'	1:AA:877:G:C8	2.55	0.41
1:AA:1401:G:N2	1:AA:1402:C:H1'	2.36	0.41
1:AA:1402:C:H2'	1:AA:1403:C:O4'	2.21	0.41
1:AA:253:A:H2'	1:AA:254:G:H8	1.85	0.41
1:AA:270:A:H2'	1:AA:271:C:C6	2.56	0.41
22:B0:2786:U:C4	22:B0:2787:C:N4	2.89	0.41
10:AI:9:GLY:HA2	10:AI:80:HIS:HD2	1.86	0.41
19:AR:11:ARG:HH11	19:AR:11:ARG:HG3	1.86	0.41
1:AA:553:A:H2'	1:AA:554:A:C8	2.56	0.41
18:AQ:31:PRO:HG2	18:AQ:32:ILE:CD1	2.51	0.41
1:AA:1257:A:H4'	1:AA:1258:G:C5'	2.50	0.41
11:AJ:30:LYS:HZ2	11:AJ:30:LYS:HB3	1.84	0.41
22:B0:1922:G:H2'	22:B0:1923:U:H6	1.85	0.41
22:B0:1922:G:O2'	22:B0:1923:U:OP1	2.37	0.41
36:BK:53:MET:O	36:BK:57:VAL:HG22	2.21	0.41
2:AV:3:G:H4'	22:B0:2255:G:O2'	2.21	0.41
22:B0:1400:U:H2'	22:B0:1401:G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AD:112:GLU:O	5:AD:116:LEU:HG	2.21	0.41
22:B0:2300:C:H2'	22:B0:2301:C:C6	2.56	0.41
22:B0:185:G:H4'	22:B0:218:A:H4'	2.02	0.41
22:B0:964:C:H4'	22:B0:2273:A:H1'	2.03	0.41
1:AA:154:U:H2'	1:AA:155:A:H8	1.86	0.41
1:AA:92:U:H2'	1:AA:93:U:C6	2.56	0.41
10:AI:53:LEU:HD12	10:AI:53:LEU:H	1.86	0.41
22:B0:441:U:O2'	22:B0:442:G:H5'	2.20	0.41
1:AA:774:G:O2'	1:AA:775:G:H5'	2.21	0.41
22:B0:753:A:O2'	22:B0:754:U:H5'	2.21	0.41
22:B0:1491:A:O5'	26:BA:175:LEU:HA	2.21	0.40
26:BA:104:LEU:HD12	26:BA:126:GLY:CA	2.50	0.40
26:BA:140:VAL:CG2	26:BA:161:VAL:HG22	2.51	0.40
26:BA:170:TYR:CD1	26:BA:171:VAL:N	2.89	0.40
26:BA:83:ASP:OD2	26:BA:86:ARG:HB3	2.21	0.40
33:BH:106:LYS:CD	33:BH:116:ARG:HH12	2.34	0.40
22:B0:204:A:H4'	22:B0:205:G:H4'	2.02	0.40
22:B0:669:G:P	28:BC:52:VAL:HB	2.61	0.40
22:B0:795:C:H2'	22:B0:796:C:C6	2.56	0.40
22:B0:800:A:C3'	22:B0:801:G:H5''	2.51	0.40
28:BC:94:GLN:O	28:BC:96:VAL:HG12	2.21	0.40
22:B0:659:G:C4	28:BC:98:LYS:HD2	2.55	0.40
28:BC:32:VAL:CA	35:BJ:17:LYS:HD3	2.51	0.40
22:B0:486:C:O2'	22:B0:487:C:H5'	2.21	0.40
22:B0:2137:U:O2'	22:B0:2138:G:C5'	2.65	0.40
1:AA:1285:A:O2'	1:AA:1286:U:P	2.79	0.40
1:AA:1347:G:H2'	1:AA:1373:G:O6	2.21	0.40
22:B0:2463:C:H2'	22:B0:2464:G:C8	2.56	0.40
22:B0:1008:A:C5'	22:B0:1009:A:OP1	2.69	0.40
4:AC:148:ILE:HA	4:AC:200:TRP:O	2.21	0.40
1:AA:1317:C:C2	20:AS:8:PRO:CG	2.98	0.40
39:BN:4:ILE:HD12	39:BN:4:ILE:C	2.41	0.40
22:B0:838:C:N4	22:B0:941:A:C6	2.89	0.40
39:BN:30:TRP:CG	39:BN:83:ILE:HG22	2.57	0.40
22:B0:2333:A:H5'	22:B0:2335:A:O4'	2.22	0.40
2:AW:38:A:C4	2:AW:39:U:O2	2.74	0.40
42:BR:56:GLU:HG2	42:BR:57:VAL:HG22	2.04	0.40
37:BL:45:ARG:HA	37:BL:45:ARG:NE	2.36	0.40
37:BL:96:ARG:CD	37:BL:96:ARG:H	2.34	0.40
1:AA:1065:U:O2'	1:AA:1066:C:C6	2.66	0.40
6:AE:36:THR:HG21	6:AE:63:MET:N	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1377:G:H8	22:B0:1377:G:O5'	2.05	0.40
36:BK:69:PRO:HB2	36:BK:92:TRP:HB3	2.03	0.40
22:B0:1832:C:C3'	22:B0:1833:C:C5'	2.98	0.40
7:AF:42:TRP:CE3	7:AF:61:LEU:HD11	2.56	0.40
17:AP:71:VAL:HG13	17:AP:72:ALA:N	2.36	0.40
1:AA:1241:G:OP2	1:AA:1242:G:N7	2.54	0.40
1:AA:654:G:C2	1:AA:753:A:H1'	2.56	0.40
1:AA:109:A:N6	1:AA:326:G:O6	2.53	0.40
1:AA:346:G:H2'	1:AA:347:G:H5'	2.03	0.40
1:AA:1201:A:C2'	1:AA:1202:U:OP2	2.69	0.40
25:B3:15:SER:HA	25:B5:13:ALA:HB2	2.01	0.40
1:AA:291:U:H2'	1:AA:292:G:O4'	2.20	0.40
16:AO:69:LEU:HD11	16:AO:76:ARG:HB3	2.01	0.40
4:AC:27:GLU:OE2	4:AC:30:ASP:HB2	2.21	0.40
1:AA:509:A:HO2'	1:AA:510:A:P	2.44	0.40
13:AL:66:ILE:HA	13:AL:96:THR:HG22	2.03	0.40
22:B0:1710:G:H2'	22:B0:1711:A:H8	1.86	0.40
22:B0:2842:G:H2'	22:B0:2843:G:C8	2.56	0.40
22:B0:1749:A:H2'	22:B0:1750:G:H8	1.86	0.40
30:BE:142:GLN:HA	30:BE:142:GLN:NE2	2.35	0.40
26:BA:214:GLY:C	26:BA:217:PRO:HD3	2.41	0.40
26:BA:239:PHE:N	26:BA:239:PHE:CD1	2.89	0.40
1:AA:805:C:H2'	1:AA:806:C:H6	1.85	0.40
22:B0:1804:C:H2'	22:B0:1805:A:H8	1.86	0.40
22:B0:1496:A:O3'	26:BA:104:LEU:HD23	2.21	0.40
22:B0:1496:A:P	26:BA:190:THR:HG23	2.61	0.40
22:B0:1494:A:OP1	26:BA:161:VAL:HG11	2.21	0.40
26:BA:75:ALA:O	26:BA:115:ILE:N	2.47	0.40
26:BA:80:LEU:HD11	26:BA:89:ASN:HB2	2.03	0.40
5:AD:13:ARG:HG3	5:AD:55:ARG:NH2	2.36	0.40
13:AL:79:ILE:HA	13:AL:101:LEU:HD12	2.03	0.40
13:AL:23:LEU:N	13:AL:23:LEU:HD22	2.36	0.40
22:B0:1197:G:H5'	22:B0:1227:G:O3'	2.20	0.40
22:B0:1244:A:H2'	22:B0:1245:G:O4'	2.21	0.40
22:B0:1312:U:H4'	22:B0:1313:U:H5''	2.02	0.40
22:B0:1332:G:H5''	22:B0:1333:G:OP2	2.22	0.40
28:BC:93:SER:OG	28:BC:94:GLN:N	2.54	0.40
40:BO:4:LYS:O	40:BO:5:ARG:C	2.59	0.40
41:BQ:15:GLN:HA	41:BQ:15:GLN:NE2	2.36	0.40
2:AW:16:U:C4'	2:AW:18:G:OP2	2.69	0.40
22:B0:2115:G:H5''	22:B0:2168:G:O2'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BS:12:VAL:HG12	43:BS:13:LEU:N	2.35	0.40
36:BK:76:LYS:N	36:BK:76:LYS:HD3	2.37	0.40
22:B0:959:A:C1'	36:BK:80:VAL:HG12	2.51	0.40
22:B0:1454:A:H3'	22:B0:1455:U:C4'	2.50	0.40
4:AC:130:ARG:HD2	6:AE:53:ARG:HD3	2.03	0.40
20:AS:38:THR:HB	20:AS:40:PHE:CE1	2.57	0.40
24:B2:225:GLN:CD	24:B2:225:GLN:H	2.24	0.40
22:B0:2866:U:H1'	22:B0:2868:A:O4'	2.21	0.40
35:BJ:118:THR:OG1	35:BJ:120:VAL:N	2.46	0.40
22:B0:2145:C:H4'	22:B0:2145:C:OP1	2.21	0.40
42:BR:16:VAL:CG1	42:BR:17:SER:H	2.12	0.40
45:BU:68:PHE:O	45:BU:70:VAL:N	2.52	0.40
7:AF:49:TYR:HA	7:AF:50:PRO:HD3	1.96	0.40
22:B0:2329:U:H2'	22:B0:2330:G:H8	1.85	0.40
1:AA:662:U:H2'	1:AA:663:A:C8	2.56	0.40
4:AC:20:THR:HG23	4:AC:57:GLU:HG2	2.02	0.40
22:B0:1593:G:O2'	22:B0:1594:U:OP1	2.39	0.40
1:AA:1489:G:H2'	1:AA:1490:U:C6	2.57	0.40
1:AA:888:G:OP2	1:AA:890:G:OP2	2.39	0.40
49:B1:36:LYS:O	49:B1:38:PHE:HD1	2.03	0.40
1:AA:1238:A:H1'	1:AA:1241:G:H22	1.85	0.40
8:AG:30:MET:O	8:AG:30:MET:HG2	2.21	0.40
22:B0:1084:A:O2'	22:B0:1085:A:H5'	2.21	0.40
14:AM:91:ARG:HH22	20:AS:87:LYS:HB3	1.87	0.40
35:BJ:92:LEU:C	35:BJ:92:LEU:HD22	2.42	0.40
35:BJ:95:LEU:C	35:BJ:96:LYS:HD3	2.41	0.40
1:AA:780:A:H5''	12:AK:124:LYS:CE	2.46	0.40
42:BR:40:LYS:HD2	42:BR:40:LYS:N	2.36	0.40
22:B0:1276:A:O2'	22:B0:1277:G:H5'	2.22	0.40
29:BD:84:ILE:HD12	29:BD:84:ILE:C	2.42	0.40
36:BK:45:GLN:OE1	36:BK:125:PRO:HD3	2.21	0.40
1:AA:953:G:H2'	1:AA:954:G:O4'	2.21	0.40
24:B2:59:ARG:HG3	24:B2:163:ARG:HG2	2.03	0.40
1:AA:121:U:H4'	1:AA:122:G:N7	2.36	0.40
1:AA:437:U:OP2	1:AA:438:U:OP2	2.39	0.40
15:AN:99:SER:OG	15:AN:100:TRP:N	2.55	0.40
40:BO:74:SER:O	40:BO:75:TYR:C	2.60	0.40
33:BH:77:HIS:C	33:BH:77:HIS:ND1	2.74	0.40
1:AA:67:C:H2'	1:AA:68:G:C8	2.56	0.40
27:BB:155:VAL:HG13	27:BB:155:VAL:O	2.21	0.40
40:BO:78:PHE:CE1	40:BO:79:ILE:HB	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1017:G:H2'	22:B0:1018:U:C6	2.57	0.40
32:BG:29:GLN:HA	32:BG:29:GLN:HE21	1.85	0.40
4:AC:141:MET:HE3	4:AC:141:MET:O	2.21	0.40
1:AA:1522:U:H2'	1:AA:1523:G:H8	1.86	0.40
46:BW:27:ASN:N	46:BW:27:ASN:HD22	2.18	0.40
24:B2:129:VAL:HG23	24:B2:130:LEU:HG	2.03	0.40
15:AN:86:ALA:O	15:AN:91:GLU:HG2	2.21	0.40
1:AA:339:C:OP1	34:BI:13:ASN:CB	2.69	0.40
34:BI:64:ARG:HD2	34:BI:79:PHE:CD2	2.56	0.40
22:B0:1497:U:H2'	26:BA:61:TYR:CD2	2.57	0.40
22:B0:1499:U:N3	26:BA:155:ARG:HB3	2.37	0.40
22:B0:1579:A:C5'	26:BA:66:PHE:H	2.34	0.40
5:AD:57:LYS:CB	5:AD:199:ILE:HG13	2.51	0.40
5:AD:53:GLN:HG3	5:AD:198:LEU:O	2.22	0.40
33:BH:36:LEU:HD12	33:BH:51:GLY:CA	2.41	0.40
22:B0:1221:C:H2'	22:B0:1222:U:H6	1.86	0.40
28:BC:122:GLU:HG3	28:BC:123:LYS:N	2.36	0.40
28:BC:67:ARG:HG3	28:BC:67:ARG:HH11	1.85	0.40
22:B0:493:G:N7	41:BQ:9:HIS:HB2	2.36	0.40
22:B0:2164:C:C4'	22:B0:2165:C:C1'	2.76	0.40
22:B0:2167:U:H5	22:B0:2168:G:H3'	1.86	0.40
22:B0:2124:G:OP1	24:B2:104:LYS:HD2	2.21	0.40
22:B0:2648:G:H2'	22:B0:2649:C:C6	2.57	0.40
22:B0:2678:C:C6	27:BB:125:TRP:HA	2.56	0.40
22:B0:2678:C:P	27:BB:124:ARG:HB3	2.61	0.40
22:B0:301:G:O5'	22:B0:302:C:OP1	2.38	0.40
22:B0:308:G:O6	22:B0:501:A:H1'	2.21	0.40
22:B0:962:G:C1'	22:B0:2497:A:OP2	2.67	0.40
36:BK:75:GLU:C	36:BK:76:LYS:HD3	2.42	0.40
29:BD:111:ARG:NH2	29:BD:134:GLN:HG3	2.14	0.40
4:AC:113:LYS:HD2	4:AC:184:ASN:HA	2.03	0.40
1:AA:981:U:C4	1:AA:982:U:C4	3.10	0.40
2:AV:52:U:H2'	2:AV:53:G:C8	2.55	0.40
1:AA:716:A:N3	12:AK:119:GLY:HA3	2.36	0.40
1:AA:1224:U:N3	1:AA:1322:C:N4	2.68	0.40
42:BR:8:LEU:HG	46:BW:26:PHE:CD2	2.56	0.40
5:AD:106:PHE:CE1	5:AD:158:LEU:HD11	2.56	0.40
37:BL:99:LYS:NZ	37:BL:99:LYS:CB	2.85	0.40
40:BO:91:ARG:HH11	40:BO:95:ALA:HB3	1.86	0.40
35:BJ:118:THR:HG23	35:BJ:119:PRO:C	2.41	0.40
24:B2:26:ILE:HD12	24:B2:26:ILE:H	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:B2:38:VAL:CG2	24:B2:176:LYS:HB3	2.52	0.40
7:AF:10:VAL:HG11	7:AF:21:MET:HE1	2.03	0.40
1:AA:483:C:H5''	1:AA:484:G:C3'	2.51	0.40
2:AU:75:C:C5'	22:B0:2557:G:OP2	2.69	0.40
22:B0:2582:G:C2'	22:B0:2582:G:N3	2.80	0.40
41:BQ:12:SER:CB	41:BQ:17:VAL:HG21	2.38	0.40
5:AD:200:VAL:HG23	5:AD:201:GLU:N	2.37	0.40
1:AA:1413:A:H2'	1:AA:1414:U:H6	1.86	0.40
1:AA:22:G:O2'	1:AA:23:C:H5'	2.21	0.40
8:AG:35:LYS:O	8:AG:39:GLU:HG2	2.22	0.40
14:AM:92:ARG:NE	14:AM:92:ARG:HA	2.36	0.40
1:AA:868:C:H2'	1:AA:869:G:O4'	2.22	0.40
10:AI:11:ARG:NE	10:AI:12:LYS:HG3	2.37	0.40
1:AA:1504:G:H5''	1:AA:1505:G:H5'	2.04	0.40
1:AA:258:G:H2'	1:AA:259:G:H8	1.86	0.40
1:AA:1003:G:C6	1:AA:1039:G:N2	2.89	0.40
22:B0:874:G:H2'	22:B0:875:G:C8	2.56	0.40
23:B9:16:G:H2'	23:B9:17:C:H5'	2.03	0.40
22:B0:902:C:H2'	22:B0:903:C:C6	2.57	0.40
22:B0:482:A:N3	22:B0:498:G:N2	2.65	0.40
2:AV:50:U:H2'	2:AV:51:G:C8	2.56	0.40
22:B0:2690:U:C1'	22:B0:2873:A:N6	2.85	0.40
1:AA:312:C:H2'	1:AA:313:A:C8	2.57	0.40
22:B0:1080:A:C5'	32:BG:130:GLY:HA3	2.50	0.40
29:BD:165:GLY:C	29:BD:167:ALA:N	2.73	0.40
22:B0:1766:G:N2	22:B0:1986:C:O2	2.51	0.40
22:B0:1953:A:H2	22:B0:2549:G:N2	2.19	0.40
22:B0:2215:C:O2'	22:B0:2216:G:H5'	2.20	0.40
36:BK:32:GLY:HA3	36:BK:101:VAL:CG2	2.51	0.40
1:AA:824:G:H2'	1:AA:825:A:H8	1.84	0.40
24:B2:20:TYR:N	24:B2:20:TYR:CD1	2.89	0.40
32:BG:7:TYR:N	32:BG:7:TYR:CD1	2.89	0.40
22:B0:1238:G:O2'	22:B0:1239:G:H5'	2.20	0.40
18:AQ:24:ILE:HG12	18:AQ:41:THR:O	2.22	0.40
3:AB:69:VAL:HG12	3:AB:168:GLU:HG2	2.02	0.40
16:AO:67:ASP:O	16:AO:71:ARG:HB2	2.22	0.40
38:BM:76:LYS:O	38:BM:80:GLU:HB2	2.20	0.40
1:AA:296:U:H2'	1:AA:297:G:C8	2.57	0.40
11:AJ:48:ARG:NE	11:AJ:66:GLU:OE1	2.54	0.40
22:B0:1580:A:C2'	22:B0:1581:A:C5'	2.99	0.40
26:BA:67:LYS:HZ2	26:BA:147:PRO:HB2	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:1422:G:H1'	26:BA:149:LYS:HE2	2.02	0.40
26:BA:167:ASP:OD2	26:BA:169:ALA:HB3	2.21	0.40
1:AA:502:A:H2'	1:AA:503:C:C6	2.56	0.40
33:BH:56:VAL:HG21	33:BH:101:ILE:HD13	2.03	0.40
28:BC:29:HIS:O	28:BC:32:VAL:HG12	2.21	0.40
22:B0:587:C:O2'	28:BC:82:GLY:C	2.60	0.40
2:AW:23:A:H2'	2:AW:24:G:C8	2.56	0.40
22:B0:2117:A:O3'	22:B0:2118:U:O4'	2.39	0.40
1:AA:1386:G:O2'	10:AI:129:ARG:CD	2.69	0.40
43:BS:34:ILE:HG23	43:BS:34:ILE:O	2.21	0.40
22:B0:1966:A:O2'	22:B0:2593:U:H5''	2.22	0.40
2:AU:16:U:C4'	2:AU:18:G:OP2	2.62	0.40
2:AU:18:G:C1'	2:AU:57:G:H22	2.33	0.40
4:AC:195:ILE:HD12	4:AC:196:GLY:H	1.87	0.40
22:B0:2439:A:H2'	22:B0:2439:A:N3	2.36	0.40
5:AD:120:LYS:O	5:AD:145:ARG:HG3	2.22	0.40
40:BO:57:ARG:NH1	40:BO:57:ARG:HG2	2.35	0.40
22:B0:1043:C:C3'	22:B0:1044:C:H5''	2.51	0.40
1:AA:60:A:O2'	1:AA:61:G:O4'	2.24	0.40
22:B0:118:A:H8	22:B0:119:A:C8	2.39	0.40
23:B9:88:C:H2'	23:B9:89:U:C6	2.57	0.40
36:BK:5:LYS:N	36:BK:5:LYS:HD3	2.23	0.40
7:AF:51:ILE:C	7:AF:51:ILE:HD12	2.41	0.40
1:AA:1093:A:H61	1:AA:1171:A:H4'	1.86	0.40
22:B0:2032:G:O6	22:B0:2571:U:H4'	2.21	0.40
17:AP:9:HIS:O	17:AP:10:GLY:C	2.59	0.40
34:BI:31:ARG:O	34:BI:32:TYR:HB2	2.21	0.40
22:B0:1693:U:C5'	22:B0:1694:C:OP2	2.59	0.40
13:AL:30:ARG:O	13:AL:56:LEU:HA	2.22	0.40
22:B0:276:U:H4'	22:B0:278:A:OP1	2.20	0.40
27:BB:88:GLU:CD	27:BB:95:SER:HB3	2.42	0.40
22:B0:719:C:H2'	22:B0:720:U:C6	2.57	0.40
22:B0:723:C:H2'	22:B0:724:U:C6	2.56	0.40
22:B0:2354:C:C4'	45:BU:20:LEU:HD13	2.44	0.40
1:AA:701:U:H5''	1:AA:703:G:O4'	2.21	0.40
22:B0:1358:G:H2'	22:B0:1359:A:C8	2.56	0.40
11:AJ:52:LEU:HA	11:AJ:62:ARG:HA	2.03	0.40
1:AA:187:G:H2'	1:AA:188:C:O4'	2.21	0.40
22:B0:618:G:C2'	22:B0:619:G:H5'	2.51	0.40
9:AH:78:SER:HB2	9:AH:84:ILE:HG12	2.03	0.40
40:BO:103:VAL:O	40:BO:104:ALA:HB3	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AH:10:LEU:CG	9:AH:74:ILE:HG12	2.52	0.40
1:AA:359:G:O2'	1:AA:360:G:H5'	2.22	0.40
3:AB:186:VAL:HG21	3:AB:190:SER:CB	2.51	0.40
22:B0:906:U:C2	22:B0:907:G:H1'	2.56	0.40
36:BK:124:LEU:HG	36:BK:126:ILE:HG22	2.03	0.40
22:B0:764:A:O2'	22:B0:765:C:P	2.79	0.40
27:BB:105:LYS:O	27:BB:177:VAL:HG23	2.22	0.40
22:B0:242:G:H2'	22:B0:243:U:OP2	2.21	0.40
18:AQ:22:VAL:HG11	18:AQ:60:ILE:CD1	2.51	0.40
13:AL:49:ARG:HG3	13:AL:49:ARG:HH11	1.86	0.40
3:AB:169:HIS:CE1	3:AB:173:LYS:HD3	2.55	0.40
22:B0:1562:U:H2'	22:B0:1563:U:C6	2.56	0.40
9:AH:51:GLU:HG3	9:AH:52:GLY:H	1.86	0.40
24:B2:127:GLY:HA3	24:B2:136:MET:HE1	2.02	0.40
14:AM:55:LEU:O	14:AM:59:VAL:HG23	2.22	0.40
4:AC:21:TRP:CD1	4:AC:21:TRP:N	2.90	0.40
29:BD:155:ILE:HG23	29:BD:155:ILE:O	2.22	0.40
6:AE:29:ILE:HG23	6:AE:29:ILE:O	2.22	0.40
22:B0:2711:A:H2'	22:B0:2714:G:H4'	2.03	0.40
22:B0:2738:A:H61	22:B0:2766:A:H61	1.68	0.40
2:AW:14:A:H2'	2:AW:15:G:O4'	2.21	0.40
22:B0:1424:G:H2'	22:B0:1425:G:H5'	2.04	0.40
26:BA:79:ARG:HG2	26:BA:80:LEU:N	2.36	0.40
33:BH:39:LYS:CG	33:BH:40:HIS:N	2.82	0.40
25:B3:54:PHE:HD2	25:B3:119:VAL:HG12	1.87	0.40
22:B0:2446:G:N2	22:B0:2449:U:C4	2.89	0.40
22:B0:606:U:H4'	22:B0:658:U:O2'	2.22	0.40
22:B0:793:A:H2'	22:B0:794:A:OP2	2.21	0.40
28:BC:31:VAL:C	28:BC:33:VAL:N	2.72	0.40
28:BC:56:GLY:O	28:BC:57:LYS:CB	2.70	0.40
35:BJ:17:LYS:C	35:BJ:18:ARG:HE	2.24	0.40
40:BO:5:ARG:CG	40:BO:9:ALA:HB3	2.51	0.40
41:BQ:49:LYS:NZ	41:BQ:49:LYS:CA	2.82	0.40
22:B0:2123:G:C4'	22:B0:2124:G:C4'	2.98	0.40
1:AA:1247:U:O2	1:AA:1290:G:O6	2.40	0.40
10:AI:128:LYS:O	10:AI:129:ARG:C	2.60	0.40
22:B0:2031:A:N6	22:B0:2455:G:H4'	2.35	0.40
22:B0:962:G:O2'	22:B0:963:U:H5'	2.22	0.40
29:BD:111:ARG:HH11	29:BD:111:ARG:HG3	1.86	0.40
39:BN:10:GLU:CG	39:BN:11:GLN:N	2.67	0.40
42:BR:74:ILE:HD12	42:BR:76:ARG:CZ	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:B0:603:A:H2	22:B0:625:G:HO2'	1.64	0.40
4:AC:128:MET:CE	6:AE:54:GLU:HG2	2.52	0.40
22:B0:2365:G:H5'	45:BU:37:VAL:HG23	2.02	0.40
7:AF:10:VAL:CG1	7:AF:58:HIS:HB3	2.49	0.40
7:AF:9:MET:O	7:AF:84:VAL:HG23	2.21	0.40
1:AA:1381:U:N3	8:AG:78:ARG:NH1	2.70	0.40
22:B0:2899:A:N6	33:BH:137:PRO:HD2	2.36	0.40
4:AC:54:ILE:HD13	4:AC:54:ILE:H	1.82	0.40
34:BI:24:VAL:CA	34:BI:39:ILE:HG22	2.48	0.40
1:AA:886:G:H2'	1:AA:887:G:O4'	2.21	0.40
16:AO:39:GLN:HA	16:AO:42:PHE:CD2	2.53	0.40
16:AO:52:ARG:NH1	22:B0:716:A:O2'	2.54	0.40
32:BG:121:ILE:O	32:BG:125:THR:HG23	2.21	0.40
29:BD:16:MET:CE	29:BD:24:VAL:HA	2.51	0.40
1:AA:110:C:H2'	1:AA:111:G:O4'	2.22	0.40
6:AE:92:ARG:HD2	6:AE:127:TYR:CB	2.50	0.40
24:B2:76:VAL:CG1	24:B2:94:VAL:HG22	2.51	0.40
7:AF:38:ARG:HH11	7:AF:38:ARG:HG2	1.87	0.40
22:B0:2343:U:H2'	22:B0:2344:U:O4'	2.20	0.40
22:B0:1627:G:H2'	22:B0:1627:G:N3	2.37	0.40
22:B0:265:A:C4'	22:B0:266:G:OP1	2.63	0.40
29:BD:153:ILE:O	29:BD:153:ILE:HG12	2.21	0.40
3:AB:56:LEU:CD2	3:AB:216:VAL:HG23	2.51	0.40
22:B0:2092:U:OP1	22:B0:2198:A:C2	2.74	0.40
22:B0:2102:G:H2'	22:B0:2103:C:C6	2.56	0.40
1:AA:434:U:C2	1:AA:435:A:N7	2.89	0.40
37:BL:80:PHE:N	37:BL:80:PHE:CD1	2.89	0.40
22:B0:109:C:H2'	22:B0:110:G:C8	2.52	0.40
4:AC:78:LYS:HZ3	4:AC:78:LYS:HB3	1.85	0.40
22:B0:1011:G:HO2'	22:B0:1012:U:P	2.40	0.40
3:AB:17:HIS:O	3:AB:18:GLN:HB2	2.21	0.40
34:BI:49:ARG:NH1	34:BI:49:ARG:HG3	2.36	0.40
22:B0:2841:C:H2'	22:B0:2842:G:H8	1.86	0.40
11:AJ:23:ALA:O	11:AJ:27:GLU:HG3	2.21	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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	
3	AB	230/236 (98%)	193 (84%)	28 (12%)	9 (4%)	4	36
4	AC	204/206 (99%)	160 (78%)	34 (17%)	10 (5%)	3	31
5	AD	202/204 (99%)	177 (88%)	22 (11%)	3 (2%)	13	57
6	AE	146/148 (99%)	135 (92%)	10 (7%)	1 (1%)	26	71
7	AF	93/95 (98%)	81 (87%)	10 (11%)	2 (2%)	8	49
8	AG	135/137 (98%)	114 (84%)	13 (10%)	8 (6%)	2	27
9	AH	125/127 (98%)	113 (90%)	9 (7%)	3 (2%)	7	47
10	AI	124/126 (98%)	93 (75%)	20 (16%)	11 (9%)	1	17
11	AJ	94/96 (98%)	73 (78%)	15 (16%)	6 (6%)	2	25
12	AK	114/116 (98%)	91 (80%)	14 (12%)	9 (8%)	1	19
13	AL	99/101 (98%)	75 (76%)	19 (19%)	5 (5%)	2	30
14	AM	111/115 (96%)	90 (81%)	18 (16%)	3 (3%)	6	45
15	AN	59/61 (97%)	50 (85%)	5 (8%)	4 (7%)	1	23
16	AO	84/86 (98%)	76 (90%)	8 (10%)	0	100	100
17	AP	76/78 (97%)	62 (82%)	13 (17%)	1 (1%)	15	60
18	AQ	77/79 (98%)	65 (84%)	10 (13%)	2 (3%)	7	45
19	AR	67/69 (97%)	62 (92%)	5 (8%)	0	100	100
20	AS	85/87 (98%)	69 (81%)	12 (14%)	4 (5%)	3	32
21	AT	81/83 (98%)	68 (84%)	11 (14%)	2 (2%)	7	46
24	B2	216/222 (97%)	183 (85%)	27 (12%)	6 (3%)	6	44
25	B3	108/119 (91%)	84 (78%)	18 (17%)	6 (6%)	2	28
25	B5	112/119 (94%)	89 (80%)	16 (14%)	7 (6%)	2	25
26	BA	215/227 (95%)	128 (60%)	56 (26%)	31 (14%)	0	6
27	BB	199/209 (95%)	148 (74%)	37 (19%)	14 (7%)	1	22
28	BC	194/198 (98%)	124 (64%)	45 (23%)	25 (13%)	0	7

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
29	BD	173/177 (98%)	96 (56%)	54 (31%)	23 (13%)	0	7
30	BE	165/167 (99%)	141 (86%)	22 (13%)	2 (1%)	16	61
31	BF	143/149 (96%)	121 (85%)	16 (11%)	6 (4%)	3	34
32	BG	135/139 (97%)	85 (63%)	33 (24%)	17 (13%)	0	8
33	BH	140/142 (99%)	77 (55%)	41 (29%)	22 (16%)	0	5
34	BI	120/122 (98%)	93 (78%)	20 (17%)	7 (6%)	2	27
35	BJ	136/140 (97%)	69 (51%)	37 (27%)	30 (22%)	0	2
36	BK	129/131 (98%)	93 (72%)	24 (19%)	12 (9%)	1	16
37	BL	110/114 (96%)	67 (61%)	32 (29%)	11 (10%)	1	14
38	BM	111/113 (98%)	90 (81%)	16 (14%)	5 (4%)	3	33
39	BN	112/114 (98%)	50 (45%)	35 (31%)	27 (24%)	0	2
40	BO	111/115 (96%)	59 (53%)	39 (35%)	13 (12%)	0	9
41	BQ	104/106 (98%)	68 (65%)	29 (28%)	7 (7%)	1	24
42	BR	83/92 (90%)	39 (47%)	25 (30%)	19 (23%)	0	2
43	BS	95/99 (96%)	69 (73%)	21 (22%)	5 (5%)	2	29
44	BT	92/94 (98%)	76 (83%)	13 (14%)	3 (3%)	5	40
45	BU	82/84 (98%)	43 (52%)	23 (28%)	16 (20%)	0	3
46	BW	58/60 (97%)	49 (84%)	5 (9%)	4 (7%)	1	23
47	BX	54/56 (96%)	51 (94%)	3 (6%)	0	100	100
48	BZ	27/29 (93%)	11 (41%)	6 (22%)	10 (37%)	0	0
49	B1	50/52 (96%)	27 (54%)	19 (38%)	4 (8%)	1	19
All	All	5480/5639 (97%)	4077 (74%)	988 (18%)	415 (8%)	2	20

All (415) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	AB	14	HIS
3	AB	93	HIS
4	AC	126	ARG
4	AC	178	ARG
8	AG	31	VAL
8	AG	33	GLY
8	AG	79	VAL
10	AI	8	THR
10	AI	57	VAL

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Mol	Chain	Res	Type
11	AJ	36	VAL
11	AJ	57	VAL
12	AK	118	ASN
15	AN	70	HIS
20	AS	82	HIS
21	AT	68	LYS
24	B2	37	PHE
24	B2	169	ILE
24	B2	219	ALA
25	B3	93	ALA
25	B5	46	GLU
26	BA	44	ASN
26	BA	71	ASP
26	BA	97	ASP
26	BA	99	GLU
26	BA	100	ARG
26	BA	106	PRO
26	BA	149	LYS
26	BA	156	SER
26	BA	174	ARG
26	BA	184	GLU
26	BA	242	HIS
27	BB	82	PHE
27	BB	126	ASN
27	BB	138	LEU
27	BB	149	ASN
28	BC	44	ARG
28	BC	46	GLN
28	BC	49	ARG
28	BC	86	ALA
28	BC	88	ARG
28	BC	92	HIS
28	BC	155	GLU
28	BC	160	ALA
28	BC	178	VAL
28	BC	186	VAL
29	BD	8	LYS
29	BD	16	MET
29	BD	127	TYR
29	BD	144	LYS
31	BF	77	THR
32	BG	47	SER

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Mol	Chain	Res	Type
32	BG	65	SER
32	BG	75	ALA
32	BG	137	LEU
33	BH	15	TRP
33	BH	17	VAL
33	BH	36	LEU
33	BH	39	LYS
33	BH	96	ARG
33	BH	113	PRO
33	BH	128	ASN
33	BH	137	PRO
34	BI	52	VAL
35	BJ	39	LYS
35	BJ	46	VAL
35	BJ	60	ARG
35	BJ	90	VAL
35	BJ	94	THR
35	BJ	112	LEU
36	BK	78	LEU
36	BK	79	ALA
36	BK	80	VAL
36	BK	81	ARG
36	BK	109	PRO
37	BL	40	LYS
37	BL	88	ALA
37	BL	113	ILE
39	BN	21	PRO
39	BN	32	VAL
39	BN	56	SER
39	BN	60	VAL
39	BN	70	GLU
39	BN	72	VAL
39	BN	73	PHE
39	BN	91	VAL
39	BN	94	ALA
39	BN	95	LYS
39	BN	100	ARG
40	BO	19	GLN
40	BO	23	TYR
40	BO	46	TYR
40	BO	75	TYR
41	BQ	9	HIS

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Mol	Chain	Res	Type
41	BQ	12	SER
42	BR	19	LYS
42	BR	67	VAL
42	BR	96	VAL
45	BU	8	SER
45	BU	11	ASN
45	BU	58	LEU
45	BU	59	PHE
45	BU	78	PHE
45	BU	81	ILE
46	BW	28	LEU
46	BW	29	ARG
46	BW	34	SER
48	BZ	30	ASP
48	BZ	49	ARG
49	B1	34	GLU
49	B1	42	VAL
3	AB	15	PHE
3	AB	39	ILE
4	AC	49	ALA
4	AC	59	PRO
4	AC	125	ARG
6	AE	20	VAL
7	AF	51	ILE
8	AG	130	LYS
9	AH	47	ASP
9	AH	74	ILE
10	AI	11	ARG
11	AJ	61	ALA
12	AK	52	ARG
13	AL	112	ALA
14	AM	6	ILE
15	AN	52	ARG
17	AP	10	GLY
18	AQ	82	VAL
21	AT	69	ASN
24	B2	51	ALA
24	B2	167	ASN
25	B3	14	MET
25	B3	16	VAL
25	B3	45	VAL
25	B5	93	ALA

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Mol	Chain	Res	Type
26	BA	72	GLY
26	BA	93	VAL
26	BA	96	LYS
26	BA	177	SER
26	BA	194	VAL
26	BA	241	LYS
27	BB	91	THR
28	BC	32	VAL
28	BC	57	LYS
28	BC	60	TRP
28	BC	90	GLN
28	BC	95	LYS
28	BC	181	ILE
29	BD	31	GLU
29	BD	71	LYS
29	BD	93	GLU
29	BD	109	ARG
29	BD	120	SER
29	BD	176	PHE
32	BG	84	GLY
32	BG	93	ASN
33	BH	18	VAL
33	BH	23	LYS
33	BH	47	HIS
33	BH	51	GLY
33	BH	112	GLY
33	BH	114	LEU
34	BI	80	ASP
34	BI	91	SER
35	BJ	12	SER
35	BJ	22	GLY
35	BJ	37	GLY
35	BJ	38	GLN
35	BJ	93	ASN
35	BJ	105	ILE
35	BJ	120	VAL
36	BK	84	LYS
37	BL	51	LEU
37	BL	114	GLU
38	BM	60	GLU
38	BM	96	GLY
39	BN	29	VAL

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Mol	Chain	Res	Type
39	BN	38	ARG
39	BN	49	ILE
39	BN	88	ARG
39	BN	97	TYR
39	BN	108	ARG
41	BQ	10	ALA
41	BQ	28	LYS
41	BQ	63	GLY
42	BR	8	LEU
42	BR	17	SER
42	BR	28	ASN
42	BR	46	ALA
42	BR	82	LYS
42	BR	93	LEU
44	BT	81	PRO
45	BU	29	SER
45	BU	35	ILE
45	BU	70	VAL
45	BU	79	ILE
48	BZ	45	ASP
48	BZ	48	TYR
48	BZ	51	ARG
3	AB	205	ALA
4	AC	24	ASN
8	AG	35	LYS
8	AG	129	ASN
10	AI	113	LYS
10	AI	128	LYS
11	AJ	62	ARG
11	AJ	75	ASP
12	AK	53	GLY
13	AL	23	LEU
14	AM	15	VAL
15	AN	62	ARG
20	AS	5	LYS
25	B5	27	GLU
26	BA	45	ASN
26	BA	86	ARG
26	BA	125	PRO
26	BA	142	ASN
27	BB	104	VAL
27	BB	125	TRP

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Mol	Chain	Res	Type
27	BB	182	ALA
28	BC	14	VAL
28	BC	87	ALA
28	BC	150	THR
28	BC	153	LEU
29	BD	4	HIS
29	BD	9	ASP
29	BD	46	LYS
29	BD	111	ARG
29	BD	172	PHE
32	BG	14	ALA
32	BG	59	THR
33	BH	136	GLN
34	BI	30	ARG
34	BI	31	ARG
34	BI	109	SER
35	BJ	14	LYS
35	BJ	50	PHE
35	BJ	54	GLN
35	BJ	64	PHE
35	BJ	123	ARG
36	BK	20	LEU
36	BK	126	ILE
37	BL	32	GLU
37	BL	111	ALA
39	BN	14	GLN
39	BN	48	ALA
40	BO	9	ALA
41	BQ	6	LYS
42	BR	25	GLU
42	BR	72	GLN
42	BR	73	ARG
43	BS	44	HIS
43	BS	47	PRO
43	BS	61	GLU
45	BU	9	THR
45	BU	68	PHE
45	BU	83	ALA
48	BZ	44	ALA
48	BZ	46	GLY
48	BZ	50	GLY
48	BZ	52	LYS

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Mol	Chain	Res	Type
49	B1	26	LYS
49	B1	45	HIS
3	AB	18	GLN
4	AC	13	ILE
5	AD	4	LEU
10	AI	24	ASN
10	AI	55	ASP
10	AI	105	ARG
10	AI	107	ALA
12	AK	14	GLN
13	AL	117	GLY
18	AQ	65	PRO
20	AS	12	LEU
25	B5	47	ALA
25	B5	48	ALA
26	BA	49	THR
26	BA	64	VAL
26	BA	135	PRO
26	BA	150	GLY
26	BA	179	GLU
26	BA	217	PRO
26	BA	263	ASP
27	BB	159	LYS
27	BB	185	ASN
28	BC	35	TYR
29	BD	43	ILE
32	BG	8	VAL
32	BG	35	MET
32	BG	112	LYS
33	BH	8	PRO
33	BH	14	ASP
33	BH	22	GLY
34	BI	90	ASN
35	BJ	10	GLU
35	BJ	62	PRO
35	BJ	108	ALA
36	BK	82	MET
36	BK	111	GLU
37	BL	5	LYS
37	BL	85	PRO
38	BM	42	PRO
39	BN	3	ILE

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Mol	Chain	Res	Type
39	BN	16	VAL
39	BN	31	VAL
39	BN	61	ARG
39	BN	74	GLN
39	BN	92	ARG
40	BO	81	GLY
40	BO	86	SER
40	BO	88	GLU
42	BR	18	GLU
42	BR	39	THR
42	BR	68	LYS
42	BR	79	ASP
42	BR	89	GLU
43	BS	36	GLU
44	BT	84	PRO
45	BU	39	GLN
45	BU	64	GLY
45	BU	76	ARG
3	AB	13	VAL
3	AB	122	ASP
5	AD	182	LYS
7	AF	91	ARG
10	AI	25	GLY
13	AL	41	PRO
24	B2	109	ASN
25	B3	82	GLU
27	BB	121	THR
27	BB	123	LYS
27	BB	132	ALA
28	BC	34	ALA
28	BC	41	GLN
28	BC	166	LYS
29	BD	30	VAL
29	BD	104	THR
29	BD	114	ARG
29	BD	147	ARG
30	BE	127	GLN
31	BF	9	VAL
32	BG	17	ALA
32	BG	60	VAL
32	BG	127	SER
33	BH	77	HIS

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Mol	Chain	Res	Type
35	BJ	21	ARG
35	BJ	100	ILE
35	BJ	118	THR
36	BK	7	THR
38	BM	12	THR
39	BN	51	ASN
40	BO	7	VAL
40	BO	27	ARG
41	BQ	61	ASN
44	BT	71	LYS
48	BZ	53	VAL
3	AB	36	LYS
4	AC	65	VAL
4	AC	107	LYS
5	AD	21	LYS
8	AG	148	LYS
9	AH	29	SER
10	AI	103	VAL
12	AK	16	SER
12	AK	87	GLY
13	AL	78	VAL
14	AM	3	ILE
15	AN	44	VAL
20	AS	2	ARG
26	BA	74	PRO
29	BD	130	GLY
30	BE	53	PRO
31	BF	78	VAL
31	BF	85	GLY
32	BG	120	ASP
35	BJ	89	VAL
37	BL	94	TYR
40	BO	57	ARG
40	BO	73	ILE
40	BO	99	VAL
42	BR	76	ARG
46	BW	26	PHE
11	AJ	74	VAL
25	B3	44	PRO
26	BA	148	GLY
29	BD	11	VAL
31	BF	16	GLY

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Mol	Chain	Res	Type
33	BH	62	VAL
35	BJ	24	GLY
36	BK	57	VAL
42	BR	43	ILE
32	BG	23	VAL
33	BH	55	ILE
35	BJ	26	GLY
38	BM	114	GLY
8	AG	80	GLY
25	B5	91	PRO
26	BA	147	PRO
27	BB	92	VAL
28	BC	187	VAL
31	BF	107	GLY
35	BJ	102	GLY
4	AC	54	ILE
12	AK	112	VAL
12	AK	121	ARG
32	BG	48	ILE
33	BH	45	THR
35	BJ	135	ILE
37	BL	29	VAL
39	BN	17	PRO
43	BS	71	ILE
12	AK	114	PRO
25	B5	44	PRO
29	BD	39	VAL
35	BJ	56	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 PDB entries followed by that with respect to all EM entries.

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	
3	AB	195/195 (100%)	190 (97%)	5 (3%)	54	80
4	AC	170/170 (100%)	164 (96%)	6 (4%)	43	74
5	AD	172/172 (100%)	170 (99%)	2 (1%)	78	90

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
6	AE	112/112 (100%)	108 (96%)	4 (4%)	42	74
7	AF	83/83 (100%)	80 (96%)	3 (4%)	42	74
8	AG	112/112 (100%)	108 (96%)	4 (4%)	42	74
9	AH	103/103 (100%)	100 (97%)	3 (3%)	50	78
10	AI	104/104 (100%)	100 (96%)	4 (4%)	40	73
11	AJ	84/84 (100%)	80 (95%)	4 (5%)	31	67
12	AK	89/89 (100%)	86 (97%)	3 (3%)	44	75
13	AL	85/85 (100%)	82 (96%)	3 (4%)	43	74
14	AM	93/93 (100%)	90 (97%)	3 (3%)	46	76
15	AN	52/52 (100%)	51 (98%)	1 (2%)	65	86
16	AO	74/74 (100%)	74 (100%)	0	100	100
17	AP	63/63 (100%)	60 (95%)	3 (5%)	31	67
18	AQ	73/73 (100%)	72 (99%)	1 (1%)	74	89
19	AR	60/60 (100%)	59 (98%)	1 (2%)	68	87
20	AS	75/75 (100%)	73 (97%)	2 (3%)	52	79
21	AT	63/63 (100%)	56 (89%)	7 (11%)	8	34
24	B2	172/172 (100%)	166 (96%)	6 (4%)	43	74
25	B3	83/83 (100%)	81 (98%)	2 (2%)	57	82
25	B5	83/83 (100%)	80 (96%)	3 (4%)	42	74
26	BA	176/176 (100%)	159 (90%)	17 (10%)	10	40
27	BB	164/164 (100%)	160 (98%)	4 (2%)	57	82
28	BC	163/163 (100%)	152 (93%)	11 (7%)	20	57
29	BD	149/149 (100%)	124 (83%)	25 (17%)	2	19
30	BE	130/130 (100%)	123 (95%)	7 (5%)	27	64
31	BF	114/114 (100%)	112 (98%)	2 (2%)	66	87
32	BG	108/108 (100%)	91 (84%)	17 (16%)	3	21
33	BH	116/116 (100%)	94 (81%)	22 (19%)	2	13
34	BI	103/103 (100%)	97 (94%)	6 (6%)	25	61
35	BJ	99/99 (100%)	74 (75%)	25 (25%)	1	6
36	BK	104/104 (100%)	90 (86%)	14 (14%)	5	27
37	BL	94/94 (100%)	80 (85%)	14 (15%)	4	23

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
38	BM	83/83 (100%)	78 (94%)	5 (6%)	24	60
39	BN	99/99 (100%)	74 (75%)	25 (25%)	1	6
40	BO	89/89 (100%)	70 (79%)	19 (21%)	1	9
41	BQ	89/89 (100%)	76 (85%)	13 (15%)	4	24
42	BR	77/77 (100%)	65 (84%)	12 (16%)	3	21
43	BS	82/82 (100%)	77 (94%)	5 (6%)	23	60
44	BT	78/78 (100%)	75 (96%)	3 (4%)	40	73
45	BU	62/62 (100%)	52 (84%)	10 (16%)	3	20
46	BW	55/55 (100%)	50 (91%)	5 (9%)	12	43
47	BX	47/47 (100%)	45 (96%)	2 (4%)	35	70
48	BZ	24/24 (100%)	18 (75%)	6 (25%)	1	6
49	B1	46/46 (100%)	37 (80%)	9 (20%)	1	12
All	All	4551/4551 (100%)	4203 (92%)	348 (8%)	21	53

All (348) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	AB	23	ASN
3	AB	73	ARG
3	AB	95	TRP
3	AB	185	ILE
3	AB	202	ASN
4	AC	21	TRP
4	AC	26	LYS
4	AC	54	ILE
4	AC	63	ILE
4	AC	100	ILE
4	AC	148	ILE
5	AD	82	LYS
5	AD	205	LYS
6	AE	9	GLU
6	AE	19	ARG
6	AE	25	LYS
6	AE	137	ARG
7	AF	22	ILE
7	AF	49	TYR
7	AF	93	LYS
8	AG	57	GLU

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Mol	Chain	Res	Type
8	AG	78	ARG
8	AG	135	LYS
8	AG	154	ARG
9	AH	26	MET
9	AH	66	GLN
9	AH	116	ARG
10	AI	24	ASN
10	AI	67	LYS
10	AI	112	ARG
10	AI	113	LYS
11	AJ	46	LYS
11	AJ	58	ASN
11	AJ	88	MET
11	AJ	100	ILE
12	AK	30	ILE
12	AK	106	ILE
12	AK	118	ASN
13	AL	30	ARG
13	AL	79	ILE
13	AL	109	ARG
14	AM	2	ARG
14	AM	16	ILE
14	AM	108	ARG
15	AN	52	ARG
17	AP	35	ARG
17	AP	40	ASN
17	AP	67	ILE
18	AQ	35	LYS
19	AR	7	ARG
20	AS	6	LYS
20	AS	86	LYS
21	AT	8	LYS
21	AT	23	ARG
21	AT	31	ILE
21	AT	33	LYS
21	AT	39	GLU
21	AT	53	MET
21	AT	84	LYS
24	B2	49	ILE
24	B2	161	ARG
24	B2	170	ILE
24	B2	171	HIS

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Mol	Chain	Res	Type
24	B2	202	GLN
24	B2	208	ILE
25	B3	4	LYS
25	B3	55	ASP
25	B5	4	LYS
25	B5	51	LYS
25	B5	81	LYS
26	BA	49	THR
26	BA	53	ILE
26	BA	58	LYS
26	BA	65	ASP
26	BA	67	LYS
26	BA	73	ILE
26	BA	94	LEU
26	BA	97	ASP
26	BA	99	GLU
26	BA	115	ILE
26	BA	123	ILE
26	BA	139	THR
26	BA	141	HIS
26	BA	161	VAL
26	BA	183	VAL
26	BA	188	ARG
26	BA	241	LYS
27	BB	13	ARG
27	BB	125	TRP
27	BB	141	ARG
27	BB	160	LYS
28	BC	35	TYR
28	BC	43	THR
28	BC	48	THR
28	BC	49	ARG
28	BC	85	PHE
28	BC	90	GLN
28	BC	99	LYS
28	BC	108	ILE
28	BC	139	LYS
28	BC	166	LYS
28	BC	175	ILE
29	BD	8	LYS
29	BD	9	ASP
29	BD	29	ARG

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Mol	Chain	Res	Type
29	BD	31	GLU
29	BD	32	LYS
29	BD	51	ASN
29	BD	59	ILE
29	BD	63	LYS
29	BD	68	LYS
29	BD	71	LYS
29	BD	77	LYS
29	BD	87	LYS
29	BD	90	LEU
29	BD	91	ARG
29	BD	93	GLU
29	BD	98	PHE
29	BD	111	ARG
29	BD	126	ASN
29	BD	129	MET
29	BD	133	GLU
29	BD	139	GLU
29	BD	144	LYS
29	BD	153	ILE
29	BD	160	LYS
29	BD	166	ARG
30	BE	18	ILE
30	BE	25	ILE
30	BE	37	ASN
30	BE	76	ILE
30	BE	88	LEU
30	BE	120	ILE
30	BE	151	ARG
31	BF	12	LEU
31	BF	143	ILE
32	BG	9	LYS
32	BG	33	ASN
32	BG	34	ILE
32	BG	48	ILE
32	BG	50	LYS
32	BG	54	ILE
32	BG	81	LYS
32	BG	85	ILE
32	BG	91	LYS
32	BG	96	LYS
32	BG	99	LYS

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Mol	Chain	Res	Type
32	BG	104	GLN
32	BG	108	ILE
32	BG	112	LYS
32	BG	121	ILE
32	BG	124	MET
32	BG	135	MET
33	BH	12	LYS
33	BH	14	ASP
33	BH	15	TRP
33	BH	16	TYR
33	BH	23	LYS
33	BH	25	LEU
33	BH	35	ARG
33	BH	36	LEU
33	BH	37	ARG
33	BH	41	LYS
33	BH	53	TYR
33	BH	55	ILE
33	BH	68	LYS
33	BH	72	LYS
33	BH	84	ILE
33	BH	85	LYS
33	BH	108	MET
33	BH	111	LYS
33	BH	113	PRO
33	BH	114	LEU
33	BH	122	LEU
33	BH	123	LYS
34	BI	38	ILE
34	BI	41	ILE
34	BI	51	LYS
34	BI	95	ILE
34	BI	99	ILE
34	BI	116	ILE
35	BJ	13	LYS
35	BJ	18	ARG
35	BJ	27	LEU
35	BJ	29	LYS
35	BJ	30	THR
35	BJ	33	ARG
35	BJ	36	LYS
35	BJ	39	LYS

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Mol	Chain	Res	Type
35	BJ	41	ARG
35	BJ	50	PHE
35	BJ	56	PRO
35	BJ	58	TYR
35	BJ	70	LYS
35	BJ	79	LEU
35	BJ	92	LEU
35	BJ	96	LYS
35	BJ	101	ILE
35	BJ	106	GLU
35	BJ	109	LYS
35	BJ	111	ILE
35	BJ	115	GLU
35	BJ	118	THR
35	BJ	126	ARG
35	BJ	129	LYS
35	BJ	135	ILE
36	BK	5	LYS
36	BK	8	LYS
36	BK	9	PHE
36	BK	18	ARG
36	BK	40	ARG
36	BK	59	ARG
36	BK	63	ILE
36	BK	76	LYS
36	BK	80	VAL
36	BK	92	TRP
36	BK	109	PRO
36	BK	111	GLU
36	BK	112	LEU
36	BK	126	ILE
37	BL	4	ARG
37	BL	5	LYS
37	BL	8	ARG
37	BL	10	LEU
37	BL	12	ARG
37	BL	17	ARG
37	BL	28	LEU
37	BL	42	LYS
37	BL	43	GLU
37	BL	63	ARG
37	BL	64	ARG

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Mol	Chain	Res	Type
37	BL	75	ILE
37	BL	96	ARG
37	BL	97	ILE
38	BM	7	ARG
38	BM	15	ARG
38	BM	35	ILE
38	BM	40	ILE
38	BM	88	LYS
39	BN	5	LYS
39	BN	6	GLN
39	BN	8	GLU
39	BN	9	GLN
39	BN	10	GLU
39	BN	12	MET
39	BN	13	LYS
39	BN	20	ARG
39	BN	21	PRO
39	BN	28	LYS
39	BN	36	LYS
39	BN	38	ARG
39	BN	40	GLN
39	BN	61	ARG
39	BN	62	LYS
39	BN	65	ASN
39	BN	71	ARG
39	BN	74	GLN
39	BN	83	ILE
39	BN	87	ARG
39	BN	88	ARG
39	BN	92	ARG
39	BN	96	LEU
39	BN	102	ARG
39	BN	105	LYS
40	BO	2	ARG
40	BO	4	LYS
40	BO	12	ARG
40	BO	14	LYS
40	BO	21	LYS
40	BO	23	TYR
40	BO	31	TYR
40	BO	40	LYS
40	BO	44	TYR

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Mol	Chain	Res	Type
40	BO	46	TYR
40	BO	50	ARG
40	BO	53	LYS
40	BO	58	GLN
40	BO	60	TRP
40	BO	63	ARG
40	BO	78	PHE
40	BO	102	LYS
40	BO	111	LYS
40	BO	113	LYS
41	BQ	7	HIS
41	BQ	11	ARG
41	BQ	16	LYS
41	BQ	18	ARG
41	BQ	25	ARG
41	BQ	27	LYS
41	BQ	35	ILE
41	BQ	68	ASP
41	BQ	74	ILE
41	BQ	83	LYS
41	BQ	84	ARG
41	BQ	88	ARG
41	BQ	99	ARG
42	BR	36	LYS
42	BR	40	LYS
42	BR	42	GLU
42	BR	51	PHE
42	BR	64	LYS
42	BR	66	LYS
42	BR	68	LYS
42	BR	73	ARG
42	BR	77	ARG
42	BR	82	LYS
42	BR	93	LEU
42	BR	95	PHE
43	BS	4	ILE
43	BS	25	LYS
43	BS	34	ILE
43	BS	57	ILE
43	BS	90	LYS
44	BT	29	ILE
44	BT	34	LYS

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Mol	Chain	Res	Type
44	BT	68	LYS
45	BU	3	LYS
45	BU	4	LYS
45	BU	13	ARG
45	BU	40	ARG
45	BU	43	LYS
45	BU	45	HIS
45	BU	65	LYS
45	BU	69	GLU
45	BU	79	ILE
45	BU	84	GLU
46	BW	37	LEU
46	BW	38	GLN
46	BW	39	GLN
46	BW	42	LEU
46	BW	48	ARG
47	BX	31	ILE
47	BX	58	GLU
48	BZ	31	LYS
48	BZ	36	LYS
48	BZ	41	HIS
48	BZ	48	TYR
48	BZ	52	LYS
48	BZ	54	ILE
49	B1	7	LYS
49	B1	9	LYS
49	B1	24	LYS
49	B1	26	LYS
49	B1	31	GLU
49	B1	32	LYS
49	B1	36	LYS
49	B1	43	ARG
49	B1	50	GLU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (139) such sidechains are listed below:

Mol	Chain	Res	Type
3	AB	14	HIS
3	AB	18	GLN
3	AB	23	ASN
3	AB	88	GLN
3	AB	145	ASN

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Mol	Chain	Res	Type
3	AB	176	ASN
3	AB	202	ASN
4	AC	7	ASN
4	AC	24	ASN
4	AC	40	GLN
4	AC	68	HIS
4	AC	101	ASN
4	AC	139	ASN
4	AC	184	ASN
5	AD	39	GLN
5	AD	53	GLN
5	AD	70	GLN
5	AD	88	ASN
5	AD	99	ASN
5	AD	115	GLN
5	AD	151	GLN
6	AE	60	GLN
6	AE	77	ASN
6	AE	134	ASN
7	AF	14	GLN
7	AF	46	GLN
7	AF	58	HIS
7	AF	81	ASN
8	AG	27	ASN
8	AG	67	ASN
8	AG	121	ASN
9	AH	15	ASN
9	AH	17	GLN
9	AH	20	ASN
9	AH	37	ASN
9	AH	66	GLN
10	AI	24	ASN
10	AI	80	HIS
11	AJ	20	GLN
11	AJ	35	GLN
11	AJ	56	HIS
11	AJ	58	ASN
12	AK	28	ASN
12	AK	118	ASN
13	AL	45	ASN
14	AM	7	ASN
14	AM	13	HIS

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Mol	Chain	Res	Type
16	AO	19	ASN
16	AO	34	GLN
16	AO	36	ASN
17	AP	26	ASN
17	AP	29	ASN
17	AP	40	ASN
18	AQ	49	ASN
19	AR	30	ASN
19	AR	53	GLN
20	AS	51	HIS
20	AS	52	ASN
20	AS	56	HIS
21	AT	12	GLN
21	AT	47	GLN
21	AT	51	ASN
21	AT	54	GLN
21	AT	77	ASN
24	B2	56	GLN
24	B2	57	ASN
24	B2	154	ASN
24	B2	167	ASN
24	B2	202	GLN
26	BA	44	ASN
26	BA	52	HIS
26	BA	127	ASN
26	BA	142	ASN
26	BA	196	ASN
26	BA	231	HIS
26	BA	242	HIS
27	BB	32	ASN
27	BB	36	GLN
27	BB	126	ASN
27	BB	136	ASN
27	BB	149	ASN
27	BB	164	GLN
27	BB	185	ASN
28	BC	9	GLN
28	BC	90	GLN
28	BC	92	HIS
28	BC	97	ASN
28	BC	136	GLN
29	BD	62	GLN

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Mol	Chain	Res	Type
29	BD	126	ASN
30	BE	37	ASN
30	BE	63	GLN
30	BE	127	GLN
30	BE	142	GLN
31	BF	33	GLN
31	BF	73	ASN
32	BG	5	GLN
32	BG	29	GLN
32	BG	33	ASN
32	BG	106	GLN
33	BH	131	ASN
33	BH	138	GLN
35	BJ	38	GLN
35	BJ	54	GLN
35	BJ	99	ASN
35	BJ	104	GLN
36	BK	22	GLN
37	BL	9	GLN
37	BL	23	ASN
38	BM	19	GLN
39	BN	2	ASN
39	BN	9	GLN
39	BN	11	GLN
39	BN	65	ASN
40	BO	19	GLN
40	BO	36	GLN
40	BO	51	GLN
40	BO	71	ASN
40	BO	80	ASN
41	BQ	9	HIS
41	BQ	15	GLN
41	BQ	57	ASN
42	BR	28	ASN
42	BR	48	GLN
42	BR	72	GLN
42	BR	91	GLN
42	BR	92	ASN
44	BT	24	ASN
44	BT	44	HIS
45	BU	45	HIS
46	BW	15	ASN

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Mol	Chain	Res	Type
46	BW	27	ASN
46	BW	36	GLN
46	BW	38	GLN
46	BW	39	GLN
46	BW	58	ASN
47	BX	19	HIS
47	BX	33	HIS
48	BZ	37	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1487/1488 (99%)	248 (16%)	71 (4%)
2	AU	75/76 (98%)	13 (17%)	5 (6%)
2	AV	75/76 (98%)	10 (13%)	4 (5%)
2	AW	75/76 (98%)	13 (17%)	5 (6%)
22	B0	2739/2740 (99%)	541 (19%)	131 (4%)
23	B9	107/108 (99%)	20 (18%)	2 (1%)
All	All	4558/4564 (99%)	845 (18%)	218 (4%)

All (845) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	6	G
1	AA	8	A
1	AA	9	G
1	AA	13	U
1	AA	31	G
1	AA	32	A
1	AA	39	G
1	AA	47	C
1	AA	48	C
1	AA	49	U
1	AA	51	A
1	AA	52	C
1	AA	61	G
1	AA	65	A
1	AA	81	A
1	AA	82	G
1	AA	101	A
1	AA	110	C

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Mol	Chain	Res	Type
1	AA	116	A
1	AA	120	A
1	AA	121	U
1	AA	122	G
1	AA	130	A
1	AA	144	G
1	AA	174	A
1	AA	182	A
1	AA	191	G
1	AA	195	A
1	AA	197	A
1	AA	198	G
1	AA	204	U
1	AA	244	U
1	AA	245	U
1	AA	247	G
1	AA	251	G
1	AA	252	U
1	AA	266	G
1	AA	267	C
1	AA	275	G
1	AA	280	C
1	AA	281	G
1	AA	289	G
1	AA	306	A
1	AA	328	C
1	AA	329	A
1	AA	330	C
1	AA	332	G
1	AA	346	G
1	AA	352	C
1	AA	353	A
1	AA	367	U
1	AA	368	U
1	AA	397	A
1	AA	398	U
1	AA	404	G
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	421	U
1	AA	424	G

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Mol	Chain	Res	Type
1	AA	428	G
1	AA	429	U
1	AA	431	A
1	AA	437	U
1	AA	438	U
1	AA	449	G
1	AA	450	G
1	AA	461	C
1	AA	462	G
1	AA	482	A
1	AA	483	C
1	AA	484	G
1	AA	485	U
1	AA	486	U
1	AA	497	G
1	AA	498	U
1	AA	499	A
1	AA	500	G
1	AA	508	U
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	518	C
1	AA	519	C
1	AA	524	G
1	AA	527	G
1	AA	532	A
1	AA	533	A
1	AA	534	U
1	AA	536	C
1	AA	546	A
1	AA	547	A
1	AA	559	A
1	AA	560	A
1	AA	561	U
1	AA	563	A
1	AA	566	G
1	AA	567	G
1	AA	572	A
1	AA	573	A
1	AA	575	G
1	AA	576	C

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Mol	Chain	Res	Type
1	AA	596	A
1	AA	606	G
1	AA	607	A
1	AA	688	G
1	AA	701	U
1	AA	702	A
1	AA	704	A
1	AA	718	A
1	AA	719	C
1	AA	721	G
1	AA	722	G
1	AA	723	U
1	AA	749	A
1	AA	753	A
1	AA	754	C
1	AA	755	G
1	AA	777	A
1	AA	793	U
1	AA	813	U
1	AA	815	A
1	AA	816	A
1	AA	817	C
1	AA	818	G
1	AA	819	A
1	AA	820	U
1	AA	821	G
1	AA	828	U
1	AA	839	U
1	AA	841	U
1	AA	871	U
1	AA	872	A
1	AA	873	A
1	AA	874	G
1	AA	885	G
1	AA	889	A
1	AA	890	G
1	AA	891	U
1	AA	914	A
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	945	G

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Mol	Chain	Res	Type
1	AA	960	U
1	AA	961	U
1	AA	966	G
1	AA	969	A
1	AA	972	C
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	979	C
1	AA	980	C
1	AA	982	U
1	AA	983	A
1	AA	991	U
1	AA	992	U
1	AA	993	G
1	AA	994	A
1	AA	1004	A
1	AA	1026	G
1	AA	1031	C
1	AA	1050	G
1	AA	1054	C
1	AA	1064	G
1	AA	1065	U
1	AA	1066	C
1	AA	1068	G
1	AA	1085	U
1	AA	1086	U
1	AA	1095	U
1	AA	1101	A
1	AA	1102	A
1	AA	1108	G
1	AA	1118	U
1	AA	1129	C
1	AA	1130	A
1	AA	1131	G
1	AA	1136	C
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1140	C
1	AA	1158	C

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Mol	Chain	Res	Type
1	AA	1159	U
1	AA	1183	U
1	AA	1184	G
1	AA	1196	A
1	AA	1197	A
1	AA	1201	A
1	AA	1202	U
1	AA	1212	U
1	AA	1224	U
1	AA	1225	A
1	AA	1227	A
1	AA	1236	A
1	AA	1238	A
1	AA	1241	G
1	AA	1256	A
1	AA	1257	A
1	AA	1258	G
1	AA	1268	G
1	AA	1279	G
1	AA	1280	A
1	AA	1281	C
1	AA	1285	A
1	AA	1286	U
1	AA	1287	A
1	AA	1298	U
1	AA	1299	A
1	AA	1300	G
1	AA	1301	U
1	AA	1302	C
1	AA	1303	C
1	AA	1305	G
1	AA	1322	C
1	AA	1323	G
1	AA	1328	C
1	AA	1336	C
1	AA	1337	G
1	AA	1347	G
1	AA	1348	U
1	AA	1362	A
1	AA	1363	A
1	AA	1364	U
1	AA	1365	G

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Mol	Chain	Res	Type
1	AA	1384	C
1	AA	1397	C
1	AA	1400	C
1	AA	1401	G
1	AA	1442	G
1	AA	1443	C
1	AA	1446	A
1	AA	1453	G
1	AA	1468	A
1	AA	1492	A
1	AA	1497	G
1	AA	1499	A
1	AA	1502	A
1	AA	1503	A
1	AA	1506	U
1	AA	1507	A
1	AA	1517	G
1	AA	1520	C
1	AA	1529	G
1	AA	1530	G
2	AU	10	G
2	AU	16	U
2	AU	17	U
2	AU	18	G
2	AU	19	G
2	AU	20	G
2	AU	21	A
2	AU	37	G
2	AU	46	G
2	AU	47	U
2	AU	49	C
2	AU	59	U
2	AU	75	C
2	AV	10	G
2	AV	16	U
2	AV	17	U
2	AV	18	G
2	AV	19	G
2	AV	20	G
2	AV	37	G
2	AV	47	U
2	AV	49	C

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Mol	Chain	Res	Type
2	AV	59	U
2	AW	10	G
2	AW	16	U
2	AW	17	U
2	AW	18	G
2	AW	19	G
2	AW	20	G
2	AW	21	A
2	AW	37	G
2	AW	39	U
2	AW	46	G
2	AW	47	U
2	AW	49	C
2	AW	59	U
22	B0	34	U
22	B0	49	A
22	B0	50	U
22	B0	51	G
22	B0	61	C
22	B0	64	A
22	B0	72	U
22	B0	74	A
22	B0	75	G
22	B0	85	G
22	B0	90	U
22	B0	91	A
22	B0	99	U
22	B0	100	U
22	B0	102	U
22	B0	119	A
22	B0	120	U
22	B0	121	G
22	B0	125	A
22	B0	128	C
22	B0	130	C
22	B0	140	C
22	B0	141	G
22	B0	162	U
22	B0	163	C
22	B0	164	C
22	B0	165	A
22	B0	172	A

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Mol	Chain	Res	Type
22	B0	181	A
22	B0	196	A
22	B0	197	A
22	B0	199	A
22	B0	204	A
22	B0	205	G
22	B0	216	A
22	B0	222	A
22	B0	223	A
22	B0	227	A
22	B0	228	C
22	B0	229	C
22	B0	241	A
22	B0	242	G
22	B0	248	G
22	B0	250	G
22	B0	265	A
22	B0	266	G
22	B0	271	G
22	B0	278	A
22	B0	279	A
22	B0	301	G
22	B0	302	C
22	B0	311	A
22	B0	312	G
22	B0	322	A
22	B0	323	C
22	B0	324	A
22	B0	329	G
22	B0	330	A
22	B0	331	C
22	B0	332	A
22	B0	334	C
22	B0	352	A
22	B0	362	A
22	B0	363	G
22	B0	371	A
22	B0	372	G
22	B0	388	G
22	B0	390	U
22	B0	401	A
22	B0	405	U

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Mol	Chain	Res	Type
22	B0	406	G
22	B0	411	G
22	B0	412	A
22	B0	417	C
22	B0	431	U
22	B0	432	A
22	B0	443	A
22	B0	447	A
22	B0	448	U
22	B0	449	A
22	B0	451	U
22	B0	455	C
22	B0	456	C
22	B0	458	G
22	B0	475	C
22	B0	476	G
22	B0	480	A
22	B0	481	G
22	B0	491	G
22	B0	492	A
22	B0	493	G
22	B0	494	G
22	B0	501	A
22	B0	502	A
22	B0	503	A
22	B0	504	A
22	B0	505	A
22	B0	509	C
22	B0	528	A
22	B0	530	G
22	B0	531	C
22	B0	532	A
22	B0	533	G
22	B0	539	G
22	B0	545	U
22	B0	547	A
22	B0	549	G
22	B0	550	C
22	B0	563	G
22	B0	572	A
22	B0	574	A
22	B0	575	A

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Mol	Chain	Res	Type
22	B0	587	C
22	B0	589	U
22	B0	603	A
22	B0	611	C
22	B0	618	G
22	B0	621	A
22	B0	627	A
22	B0	628	G
22	B0	637	A
22	B0	656	G
22	B0	668	A
22	B0	669	G
22	B0	671	C
22	B0	685	A
22	B0	686	U
22	B0	718	A
22	B0	729	G
22	B0	730	A
22	B0	747	U
22	B0	748	G
22	B0	749	A
22	B0	750	A
22	B0	751	A
22	B0	752	A
22	B0	762	U
22	B0	763	G
22	B0	764	A
22	B0	765	C
22	B0	775	G
22	B0	776	G
22	B0	777	G
22	B0	783	A
22	B0	784	G
22	B0	785	G
22	B0	789	A
22	B0	790	U
22	B0	792	A
22	B0	794	A
22	B0	800	A
22	B0	801	G
22	B0	802	A
22	B0	805	G

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Mol	Chain	Res	Type
22	B0	811	U
22	B0	812	C
22	B0	819	A
22	B0	821	A
22	B0	828	U
22	B0	848	C
22	B0	851	C
22	B0	859	G
22	B0	860	U
22	B0	884	U
22	B0	885	C
22	B0	910	A
22	B0	928	A
22	B0	929	U
22	B0	946	C
22	B0	960	A
22	B0	961	C
22	B0	962	G
22	B0	970	U
22	B0	971	G
22	B0	973	A
22	B0	974	G
22	B0	975	A
22	B0	983	A
22	B0	985	C
22	B0	990	A
22	B0	991	C
22	B0	1008	A
22	B0	1009	A
22	B0	1011	G
22	B0	1012	U
22	B0	1013	C
22	B0	1022	G
22	B0	1023	U
22	B0	1024	G
22	B0	1025	G
22	B0	1026	G
22	B0	1044	C
22	B0	1045	C
22	B0	1046	A
22	B0	1047	G
22	B0	1060	U

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Mol	Chain	Res	Type
22	B0	1061	U
22	B0	1062	G
22	B0	1070	A
22	B0	1071	G
22	B0	1083	U
22	B0	1088	A
22	B0	1090	A
22	B0	1110	G
22	B0	1111	A
22	B0	1112	G
22	B0	1126	A
22	B0	1127	A
22	B0	1129	A
22	B0	1131	G
22	B0	1136	G
22	B0	1142	A
22	B0	1143	A
22	B0	1144	A
22	B0	1156	A
22	B0	1157	G
22	B0	1176	U
22	B0	1184	U
22	B0	1186	G
22	B0	1210	G
22	B0	1211	C
22	B0	1212	G
22	B0	1226	A
22	B0	1249	U
22	B0	1252	G
22	B0	1254	A
22	B0	1255	U
22	B0	1256	G
22	B0	1265	A
22	B0	1266	G
22	B0	1272	A
22	B0	1273	U
22	B0	1274	A
22	B0	1276	A
22	B0	1287	A
22	B0	1301	A
22	B0	1303	G
22	B0	1313	U

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Mol	Chain	Res	Type
22	B0	1314	C
22	B0	1321	A
22	B0	1325	U
22	B0	1326	U
22	B0	1329	U
22	B0	1333	G
22	B0	1341	G
22	B0	1343	G
22	B0	1364	G
22	B0	1371	G
22	B0	1380	G
22	B0	1381	G
22	B0	1383	A
22	B0	1385	A
22	B0	1397	U
22	B0	1398	C
22	B0	1411	U
22	B0	1416	G
22	B0	1418	G
22	B0	1423	A
22	B0	1427	A
22	B0	1429	G
22	B0	1445	U
22	B0	1455	U
22	B0	1456	G
22	B0	1466	U
22	B0	1474	U
22	B0	1489	U
22	B0	1492	G
22	B0	1493	A
22	B0	1496	A
22	B0	1498	C
22	B0	1508	C
22	B0	1513	C
22	B0	1536	C
22	B0	1548	A
22	B0	1553	A
22	B0	1566	A
22	B0	1569	A
22	B0	1579	A
22	B0	1593	G
22	B0	1594	U

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Mol	Chain	Res	Type
22	B0	1607	C
22	B0	1609	A
22	B0	1611	C
22	B0	1616	A
22	B0	1618	A
22	B0	1627	G
22	B0	1630	A
22	B0	1635	A
22	B0	1646	C
22	B0	1647	U
22	B0	1648	U
22	B0	1654	A
22	B0	1669	A
22	B0	1682	G
22	B0	1694	C
22	B0	1695	G
22	B0	1698	A
22	B0	1699	G
22	B0	1700	A
22	B0	1732	C
22	B0	1758	U
22	B0	1759	A
22	B0	1760	C
22	B0	1761	C
22	B0	1762	A
22	B0	1763	G
22	B0	1764	C
22	B0	1773	A
22	B0	1780	A
22	B0	1781	U
22	B0	1800	C
22	B0	1801	A
22	B0	1802	A
22	B0	1815	A
22	B0	1816	C
22	B0	1817	G
22	B0	1820	U
22	B0	1821	A
22	B0	1829	A
22	B0	1833	C
22	B0	1839	G
22	B0	1841	U

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Mol	Chain	Res	Type
22	B0	1853	A
22	B0	1870	C
22	B0	1872	A
22	B0	1889	A
22	B0	1901	A
22	B0	1903	G
22	B0	1923	U
22	B0	1927	A
22	B0	1930	G
22	B0	1932	A
22	B0	1937	A
22	B0	1938	A
22	B0	1939	U
22	B0	1940	U
22	B0	1943	U
22	B0	1944	U
22	B0	1955	U
22	B0	1956	U
22	B0	1963	U
22	B0	1964	G
22	B0	1965	C
22	B0	1966	A
22	B0	1967	C
22	B0	1971	U
22	B0	1972	G
22	B0	1977	A
22	B0	1981	A
22	B0	1993	U
22	B0	1996	C
22	B0	1997	C
22	B0	2006	C
22	B0	2031	A
22	B0	2032	G
22	B0	2033	A
22	B0	2034	U
22	B0	2036	C
22	B0	2050	C
22	B0	2055	C
22	B0	2059	A
22	B0	2060	A
22	B0	2068	U
22	B0	2069	G

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Mol	Chain	Res	Type
22	B0	2075	U
22	B0	2076	U
22	B0	2092	U
22	B0	2093	G
22	B0	2110	G
22	B0	2111	U
22	B0	2115	G
22	B0	2116	G
22	B0	2117	A
22	B0	2118	U
22	B0	2120	G
22	B0	2121	G
22	B0	2122	U
22	B0	2123	G
22	B0	2124	G
22	B0	2125	G
22	B0	2126	A
22	B0	2127	G
22	B0	2128	G
22	B0	2130	U
22	B0	2131	U
22	B0	2132	U
22	B0	2134	A
22	B0	2135	A
22	B0	2136	G
22	B0	2138	G
22	B0	2139	U
22	B0	2140	G
22	B0	2144	G
22	B0	2145	C
22	B0	2146	C
22	B0	2147	A
22	B0	2148	G
22	B0	2150	C
22	B0	2151	U
22	B0	2152	G
22	B0	2153	C
22	B0	2154	A
22	B0	2155	U
22	B0	2156	G
22	B0	2157	G
22	B0	2158	A

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Mol	Chain	Res	Type
22	B0	2159	G
22	B0	2161	C
22	B0	2162	G
22	B0	2163	G
22	B0	2164	C
22	B0	2165	C
22	B0	2166	U
22	B0	2167	U
22	B0	2168	G
22	B0	2170	A
22	B0	2171	A
22	B0	2176	A
22	B0	2177	C
22	B0	2178	C
22	B0	2179	C
22	B0	2180	U
22	B0	2181	U
22	B0	2198	A
22	B0	2199	A
22	B0	2226	C
22	B0	2227	A
22	B0	2228	G
22	B0	2238	G
22	B0	2239	G
22	B0	2243	U
22	B0	2244	U
22	B0	2245	U
22	B0	2250	G
22	B0	2258	C
22	B0	2266	A
22	B0	2267	A
22	B0	2282	G
22	B0	2283	C
22	B0	2288	A
22	B0	2297	A
22	B0	2304	G
22	B0	2310	C
22	B0	2311	A
22	B0	2320	U
22	B0	2321	U
22	B0	2328	A
22	B0	2334	U

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Mol	Chain	Res	Type
22	B0	2335	A
22	B0	2337	G
22	B0	2345	G
22	B0	2346	A
22	B0	2347	C
22	B0	2356	U
22	B0	2357	G
22	B0	2358	A
22	B0	2359	C
22	B0	2385	C
22	B0	2400	G
22	B0	2405	G
22	B0	2406	A
22	B0	2425	A
22	B0	2428	G
22	B0	2433	A
22	B0	2434	A
22	B0	2439	A
22	B0	2440	C
22	B0	2441	U
22	B0	2447	G
22	B0	2448	A
22	B0	2450	A
22	B0	2459	A
22	B0	2476	A
22	B0	2478	A
22	B0	2479	U
22	B0	2491	U
22	B0	2492	U
22	B0	2495	G
22	B0	2497	A
22	B0	2498	C
22	B0	2502	G
22	B0	2503	A
22	B0	2504	U
22	B0	2505	G
22	B0	2506	U
22	B0	2518	A
22	B0	2519	U
22	B0	2543	G
22	B0	2547	A
22	B0	2554	U

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Mol	Chain	Res	Type
22	B0	2557	G
22	B0	2566	A
22	B0	2567	G
22	B0	2578	G
22	B0	2582	G
22	B0	2586	U
22	B0	2602	A
22	B0	2603	G
22	B0	2613	U
22	B0	2614	A
22	B0	2615	U
22	B0	2627	G
22	B0	2631	G
22	B0	2639	A
22	B0	2645	G
22	B0	2654	A
22	B0	2655	G
22	B0	2667	C
22	B0	2678	C
22	B0	2681	C
22	B0	2682	A
22	B0	2688	G
22	B0	2712	C
22	B0	2713	U
22	B0	2732	G
22	B0	2750	A
22	B0	2751	G
22	B0	2756	U
22	B0	2757	A
22	B0	2765	A
22	B0	2766	A
22	B0	2776	A
22	B0	2777	G
22	B0	2779	U
22	B0	2780	G
22	B0	2781	A
22	B0	2808	G
22	B0	2809	A
22	B0	2810	A
22	B0	2811	G
22	B0	2820	A
22	B0	2823	A

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Mol	Chain	Res	Type
22	B0	2833	U
22	B0	2836	U
22	B0	2850	A
22	B0	2856	A
22	B0	2866	U
22	B0	2867	G
22	B0	2868	A
22	B0	2873	A
22	B0	2880	C
23	B9	13	G
23	B9	14	U
23	B9	15	A
23	B9	16	G
23	B9	17	C
23	B9	25	U
23	B9	26	C
23	B9	29	A
23	B9	30	C
23	B9	35	C
23	B9	42	C
23	B9	44	G
23	B9	57	A
23	B9	58	A
23	B9	67	G
23	B9	77	U
23	B9	85	G
23	B9	90	C
23	B9	100	G
23	B9	109	A

All (218) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	7	A
1	AA	47	C
1	AA	48	C
1	AA	50	A
1	AA	60	A
1	AA	115	G
1	AA	119	A
1	AA	129	A
1	AA	181	A

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Mol	Chain	Res	Type
1	AA	197	A
1	AA	243	A
1	AA	250	A
1	AA	251	G
1	AA	266	G
1	AA	274	A
1	AA	279	A
1	AA	328	C
1	AA	366	A
1	AA	428	G
1	AA	436	C
1	AA	449	G
1	AA	481	G
1	AA	482	A
1	AA	483	C
1	AA	496	A
1	AA	499	A
1	AA	508	U
1	AA	509	A
1	AA	531	U
1	AA	533	A
1	AA	535	A
1	AA	559	A
1	AA	560	A
1	AA	566	G
1	AA	575	G
1	AA	595	A
1	AA	606	G
1	AA	687	A
1	AA	701	U
1	AA	748	G
1	AA	792	A
1	AA	812	G
1	AA	817	C
1	AA	872	A
1	AA	873	A
1	AA	890	G
1	AA	913	A
1	AA	960	U
1	AA	975	A
1	AA	990	C
1	AA	992	U

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Mol	Chain	Res	Type
1	AA	1049	U
1	AA	1064	G
1	AA	1065	U
1	AA	1085	U
1	AA	1100	C
1	AA	1101	A
1	AA	1157	A
1	AA	1182	G
1	AA	1196	A
1	AA	1226	C
1	AA	1256	A
1	AA	1257	A
1	AA	1285	A
1	AA	1302	C
1	AA	1322	C
1	AA	1346	A
1	AA	1347	G
1	AA	1383	C
1	AA	1498	U
1	AA	1528	U
2	AU	16	U
2	AU	18	G
2	AU	19	G
2	AU	46	G
2	AU	58	A
2	AV	16	U
2	AV	18	G
2	AV	19	G
2	AV	58	A
2	AW	16	U
2	AW	18	G
2	AW	19	G
2	AW	46	G
2	AW	58	A
22	B0	50	U
22	B0	99	U
22	B0	120	U
22	B0	165	A
22	B0	215	G
22	B0	221	A
22	B0	226	A
22	B0	265	A

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Mol	Chain	Res	Type
22	B0	276	U
22	B0	301	G
22	B0	321	U
22	B0	362	A
22	B0	371	A
22	B0	387	U
22	B0	474	G
22	B0	490	C
22	B0	501	A
22	B0	503	A
22	B0	508	A
22	B0	527	C
22	B0	529	A
22	B0	531	C
22	B0	571	U
22	B0	620	G
22	B0	627	A
22	B0	655	A
22	B0	750	A
22	B0	762	U
22	B0	764	A
22	B0	776	G
22	B0	784	G
22	B0	800	A
22	B0	801	G
22	B0	811	U
22	B0	846	U
22	B0	858	G
22	B0	859	G
22	B0	926	G
22	B0	928	A
22	B0	974	G
22	B0	982	C
22	B0	989	G
22	B0	990	A
22	B0	1011	G
22	B0	1060	U
22	B0	1061	U
22	B0	1110	G
22	B0	1111	A
22	B0	1141	U
22	B0	1142	A

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Mol	Chain	Res	Type
22	B0	1143	A
22	B0	1211	C
22	B0	1225	G
22	B0	1248	G
22	B0	1273	U
22	B0	1275	A
22	B0	1286	A
22	B0	1300	G
22	B0	1302	A
22	B0	1342	A
22	B0	1397	U
22	B0	1410	G
22	B0	1568	G
22	B0	1593	G
22	B0	1608	A
22	B0	1615	C
22	B0	1646	C
22	B0	1653	G
22	B0	1668	A
22	B0	1693	U
22	B0	1698	A
22	B0	1779	U
22	B0	1799	G
22	B0	1800	C
22	B0	1815	A
22	B0	1828	G
22	B0	1922	G
22	B0	1929	G
22	B0	1937	A
22	B0	1943	U
22	B0	1964	G
22	B0	1992	G
22	B0	1996	C
22	B0	2033	A
22	B0	2035	G
22	B0	2049	G
22	B0	2058	A
22	B0	2059	A
22	B0	2075	U
22	B0	2109	U
22	B0	2120	G
22	B0	2122	U

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Mol	Chain	Res	Type
22	B0	2123	G
22	B0	2137	U
22	B0	2138	G
22	B0	2143	C
22	B0	2154	A
22	B0	2157	G
22	B0	2161	C
22	B0	2164	C
22	B0	2198	A
22	B0	2225	A
22	B0	2238	G
22	B0	2243	U
22	B0	2249	U
22	B0	2250	G
22	B0	2282	G
22	B0	2287	A
22	B0	2296	U
22	B0	2319	G
22	B0	2333	A
22	B0	2336	A
22	B0	2345	G
22	B0	2357	G
22	B0	2433	A
22	B0	2447	G
22	B0	2458	G
22	B0	2490	G
22	B0	2517	C
22	B0	2581	G
22	B0	2614	A
22	B0	2644	G
22	B0	2655	G
22	B0	2756	U
22	B0	2776	A
22	B0	2778	A
22	B0	2779	U
22	B0	2819	G
22	B0	2832	U
22	B0	2835	A
22	B0	2849	U
23	B9	16	G
23	B9	66	A

5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

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

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
25	B3	6
26	BA	5
25	B5	4
27	BB	4
42	BR	4
3	AB	2
31	BF	2
24	B2	2
40	BO	1
37	BL	1
29	BD	1
43	BS	1
35	BJ	1
32	BG	1
28	BC	1
14	AM	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	B5	52:THR	C	53:GLU	N	10.02

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BA	60:ALA	C	61:TYR	N	9.99
1	B5	50:GLU	C	51:LYS	N	9.70
1	BB	167:ASN	C	168:GLU	N	8.31
1	BC	96:VAL	C	97:ASN	N	7.51
1	B3	48:ALA	C	49:GLU	N	7.47
1	BB	114:LYS	C	115:GLY	N	7.07
1	B3	52:THR	C	53:GLU	N	6.65
1	BA	197:ALA	C	198:GLU	N	6.65
1	B3	53:GLU	C	54:PHE	N	6.20
1	B5	51:LYS	C	52:THR	N	5.90
1	B3	46:GLU	C	47:ALA	N	5.72
1	BA	121:ALA	C	122:ALA	N	5.27
1	BD	28:PRO	C	29:ARG	N	4.93
1	B2	65:PRO	C	66:HIS	N	4.89
1	BB	101:PHE	C	102:ALA	N	4.84
1	B3	51:LYS	C	52:THR	N	4.52
1	AB	156:LEU	C	157:PRO	N	4.46
1	B3	50:GLU	C	51:LYS	N	4.37
1	AM	97:ARG	C	98:GLY	N	4.33
1	BF	40:THR	C	41:LYS	N	4.33
1	BS	84:PHE	C	85:ARG	N	4.25
1	B5	53:GLU	C	54:PHE	N	4.22
1	BG	72:THR	C	73:PRO	N	4.19
1	B2	158:GLY	C	159:GLN	N	4.17
1	BL	17:ARG	C	18:GLN	N	4.13
1	BA	203:VAL	C	204:LEU	N	4.06
1	BA	218:THR	C	219:VAL	N	3.93
1	BB	30:GLU	C	31:ALA	N	3.89
1	AB	95:TRP	C	96:LEU	N	3.79
1	BR	55:VAL	C	56:GLU	N	3.58
1	BR	87:LEU	C	88:LYS	N	3.48
1	BO	48:ASP	C	49:ARG	N	3.44
1	BR	56:GLU	C	57:VAL	N	3.39
1	BJ	73:ILE	C	74:THR	N	2.98
1	BR	80:TRP	C	81:LYS	N	2.91
1	BF	58:LEU	C	59:ALA	N	2.86