



Full wwPDB X-ray Structure Validation Report ⓘ

Apr 14, 2025 – 04:53 PM JST

PDB ID : 8KAK / pdb_00008kak
Title : Crystal structure of SpyCas9 in complex with sgRNA and 18nt target DNA
Authors : Chen, Y.; Chen, J.; Liu, L.
Deposited on : 2023-08-03
Resolution : 3.60 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix) : 2.0rc1
EDS : 3.0
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4 : 9.0.006 (Gargrove)
Density-Fitness : 1.0.12
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.42

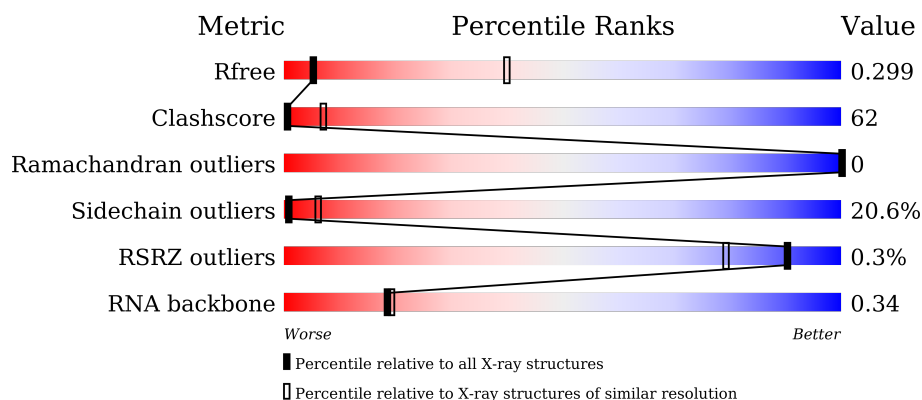
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

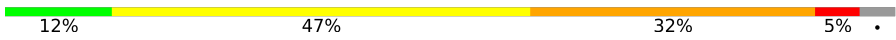



The reported resolution of this entry is 3.60 Å.

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



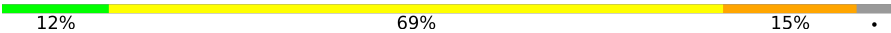
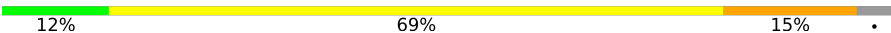


Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	164625	1563 (3.70-3.50)
Clashscore	180529	1665 (3.70-3.50)
Ramachandran outliers	177936	1641 (3.70-3.50)
Sidechain outliers	177891	1640 (3.70-3.50)
RSRZ outliers	164620	1562 (3.70-3.50)
RNA backbone	3690	1108 (4.20-3.00)

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

Mol	Chain	Length	Quality of chain
1	A	98	
1	E	98	
2	B	1368	
2	F	1368	

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Mol	Chain	Length	Quality of chain
3	C	26	 12% 69% 15% .
3	G	26	 12% 69% 15% .
4	D	11	 18% 73% 9%
4	H	11	 18% 73% 9%

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
5	SO4	B	1401	-	-	X	-

2 Entry composition

There are 6 unique types of molecules in this entry. The entry contains 27148 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a RNA chain called RNA (98-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	94	Total	C	N	O	P	0	0	0
			2009	899	362	654	94			
1	E	94	Total	C	N	O	P	0	0	0
			2009	899	362	654	94			

- Molecule 2 is a protein called CRISPR-associated endonuclease Cas9/Csn1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	1326	Total	C	N	O	S	0	0	0
			10827	6897	1879	2029	22			
2	F	1326	Total	C	N	O	S	0	0	0
			10827	6897	1879	2029	22			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	10	ALA	ASP	engineered mutation	UNP Q99ZW2
B	840	ALA	HIS	engineered mutation	UNP Q99ZW2
F	10	ALA	ASP	engineered mutation	UNP Q99ZW2
F	840	ALA	HIS	engineered mutation	UNP Q99ZW2

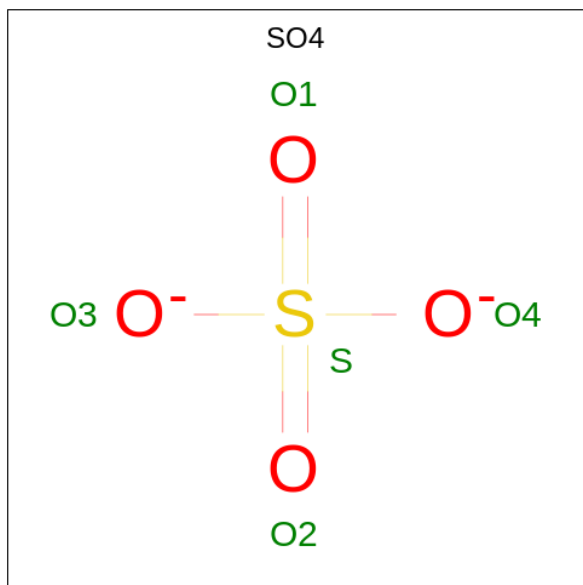
- Molecule 3 is a DNA chain called DNA (26-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	25	Total	C	N	O	P	0	0	0
			505	243	93	145	24			
3	G	25	Total	C	N	O	P	0	0	0
			505	243	93	145	24			

- Molecule 4 is a DNA chain called DNA (5'-D(*TP*TP*TP*AP*GP*GP*TP*AP*TP*TP*G)-3').

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	11	Total	C	N	O	P	0	0	0
			225	110	37	68	10			
4	H	11	Total	C	N	O	P	0	0	0
			225	110	37	68	10			

- Molecule 5 is SULFATE ION (CCD ID: SO4) (formula: O₄S).

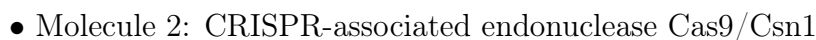


Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
5	B	1	Total	O	S	0	0
			5	4	1		
5	F	1	Total	O	S	0	0
			5	4	1		

- Molecule 6 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
6	A	1	Total	O	0	0
			1	1		
6	B	1	Total	O	0	0
			1	1		
6	F	4	Total	O	0	0
			4	4		

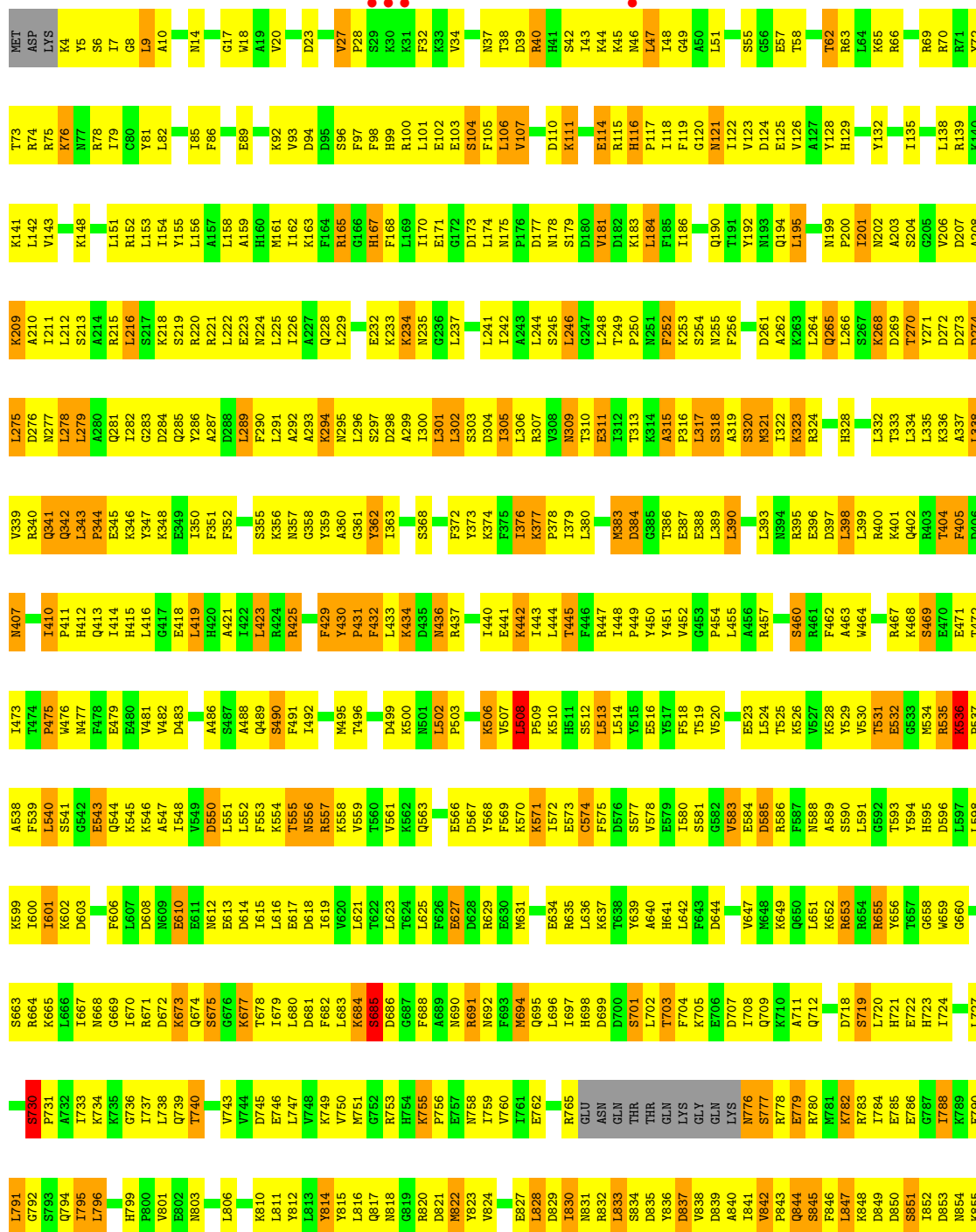
- Molecule 1: RNA (98-MER)

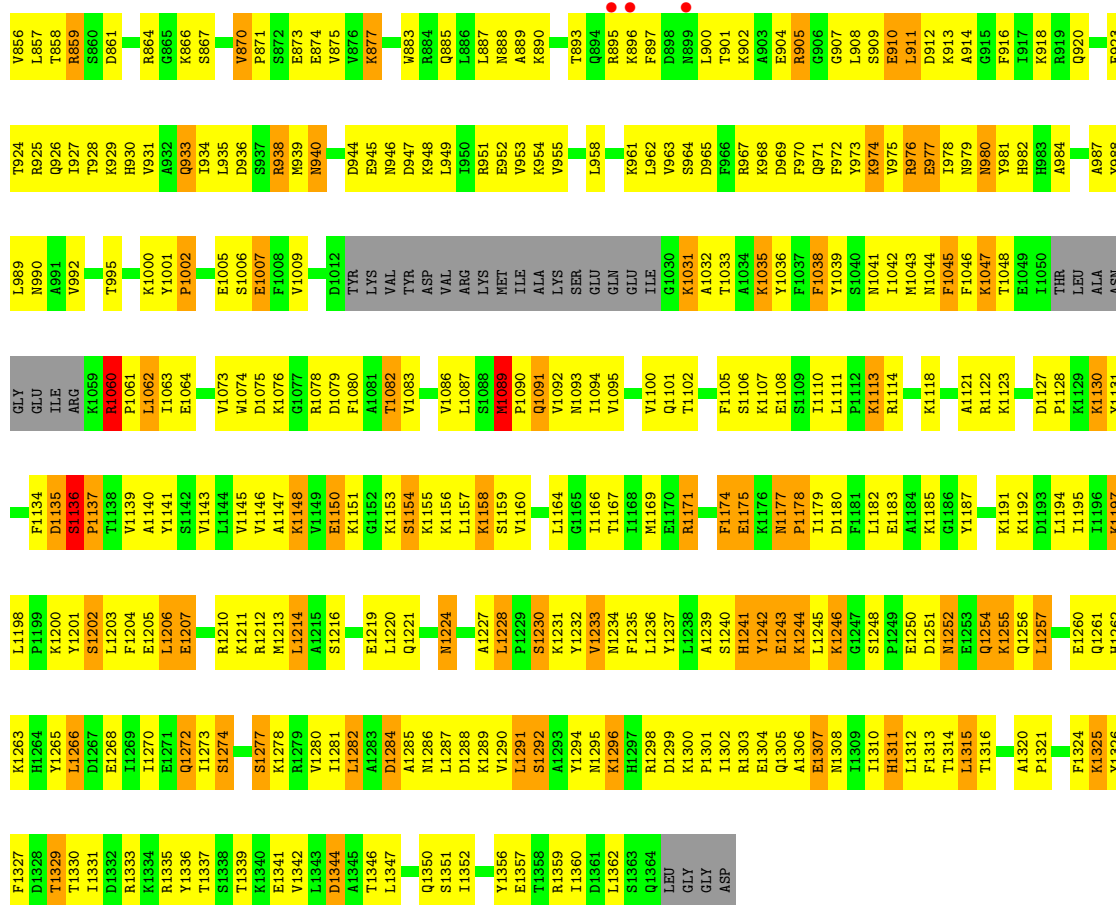






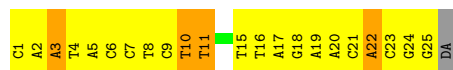
● Molecule 2: CRISPR-associated endonuclease Cas9/Csn1





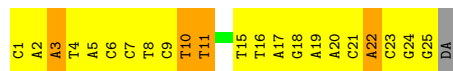
• Molecule 3: DNA (26-MER)

Chain C: 12% 69% 15% .



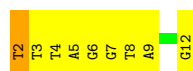
• Molecule 3: DNA (26-MER)

Chain G: 12% 69% 15% .

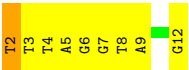
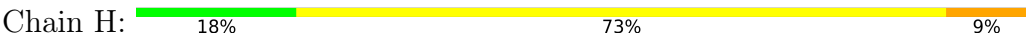


• Molecule 4: DNA (5'-D(*TP*TP*TP*AP*GP*GP*TP*AP*TP*TP*G)-3')

Chain D: 18% 73% 9%



• Molecule 4: DNA (5'-D(*TP*TP*TP*AP*GP*GP*TP*AP*TP*TP*G)-3')



4 Data and refinement statistics

Property	Value	Source
Space group	P 1	Depositor
Cell constants a, b, c, α , β , γ	70.74Å 104.97Å 184.31Å 75.82° 78.67° 72.63°	Depositor
Resolution (Å)	24.97 – 3.60 24.97 – 3.60	Depositor EDS
% Data completeness (in resolution range)	73.7 (24.97-3.60) 73.9 (24.97-3.60)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.46 (at 3.57Å)	Xtriage
Refinement program	PHENIX 1.17.1_3660	Depositor
R, R_{free}	0.265 , 0.297 0.264 , 0.299	Depositor DCC
R_{free} test set	2067 reflections (4.96%)	wwPDB-VP
Wilson B-factor (Å ²)	30.0	Xtriage
Anisotropy	0.942	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.27 , 19.7	EDS
L-test for twinning ²	$\langle L \rangle = 0.42$, $\langle L^2 \rangle = 0.24$	Xtriage
Estimated twinning fraction	0.107 for h,h-k,h-l	Xtriage
F_o, F_c correlation	0.89	EDS
Total number of atoms	27148	wwPDB-VP
Average B, all atoms (Å ²)	37.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.28% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: SO4

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A	0.87	1/2249 (0.0%)	1.58	39/3503 (1.1%)
1	E	0.87	1/2249 (0.0%)	1.58	41/3503 (1.2%)
2	B	0.61	11/11019 (0.1%)	0.74	31/14807 (0.2%)
2	F	0.61	10/11019 (0.1%)	0.74	32/14807 (0.2%)
3	C	1.25	2/566 (0.4%)	1.24	6/870 (0.7%)
3	G	1.25	2/566 (0.4%)	1.24	6/870 (0.7%)
4	D	1.40	2/251 (0.8%)	1.28	0/387
4	H	1.40	2/251 (0.8%)	1.27	0/387
All	All	0.72	31/28170 (0.1%)	0.98	155/39134 (0.4%)

All (31) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	D	3	DT	N1-C2	5.79	1.42	1.38
4	H	3	DT	N1-C2	5.78	1.42	1.38
2	F	27	VAL	CA-C	5.60	1.67	1.52
2	B	27	VAL	CA-C	5.57	1.67	1.52
3	G	8	DT	C3'-O3'	5.53	1.51	1.44
3	C	8	DT	C3'-O3'	5.50	1.51	1.44
3	C	15	DT	C1'-N1	-5.38	1.39	1.47
3	G	15	DT	C1'-N1	-5.34	1.39	1.47
2	F	1002	PRO	N-CD	5.33	1.55	1.47
2	B	431	PRO	N-CD	5.32	1.55	1.47
2	F	344	PRO	N-CD	5.30	1.55	1.47
2	F	431	PRO	N-CD	5.29	1.55	1.47
2	B	1002	PRO	N-CD	5.28	1.55	1.47
1	E	46	A	N9-C4	5.24	1.41	1.37
2	B	344	PRO	N-CD	5.20	1.55	1.47
2	B	1301	PRO	N-CD	5.18	1.55	1.47
1	A	46	A	N9-C4	5.18	1.41	1.37
2	F	475	PRO	N-CD	5.18	1.55	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	475	PRO	N-CD	5.12	1.55	1.47
2	F	1301	PRO	N-CD	5.11	1.55	1.47
2	B	316	PRO	N-CD	5.10	1.54	1.47
2	F	1137	PRO	N-CD	5.10	1.54	1.47
2	F	1061	PRO	N-CD	5.10	1.54	1.47
2	B	1061	PRO	N-CD	5.08	1.54	1.47
2	F	316	PRO	N-CD	5.07	1.54	1.47
2	B	1137	PRO	N-CD	5.04	1.54	1.47
2	F	1178	PRO	N-CD	5.04	1.54	1.47
2	B	871	PRO	N-CD	5.04	1.54	1.47
2	B	1178	PRO	N-CD	5.02	1.54	1.47
4	D	2	DT	N1-C2	5.02	1.42	1.38
4	H	2	DT	N1-C2	5.00	1.42	1.38

All (155) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	685	SER	N-CA-C	12.54	144.85	111.00
2	F	684	LYS	N-CA-C	-9.21	86.15	111.00
2	B	684	LYS	N-CA-C	-9.20	86.15	111.00
1	E	15	U	N3-C4-C5	8.90	119.94	114.60
1	A	15	U	N3-C4-C5	8.88	119.93	114.60
1	A	60	C	C6-N1-C2	-8.88	116.75	120.30
1	E	52	A	N1-C6-N6	-8.77	113.34	118.60
1	A	52	A	N1-C6-N6	-8.76	113.34	118.60
1	E	60	C	C6-N1-C2	-8.75	116.80	120.30
1	A	15	U	C6-N1-C2	8.23	125.94	121.00
1	E	15	U	C6-N1-C2	8.12	125.87	121.00
1	A	50	U	C2-N1-C1'	-8.10	107.98	117.70
1	E	50	U	C2-N1-C1'	-8.09	108.00	117.70
1	E	60	C	C2-N1-C1'	8.01	127.61	118.80
1	A	60	C	C2-N1-C1'	7.99	127.58	118.80
1	A	46	A	C8-N9-C4	-7.83	102.67	105.80
1	E	46	A	C8-N9-C4	-7.76	102.70	105.80
3	G	3	DA	O5'-P-OP2	-7.45	98.99	105.70
3	C	3	DA	O5'-P-OP2	-7.41	99.03	105.70
1	A	66	U	N3-C4-O4	7.27	124.49	119.40
1	E	66	U	N3-C4-O4	7.24	124.47	119.40
1	E	52	A	N9-C4-C5	7.11	108.64	105.80
1	E	52	A	C5-C6-N6	7.11	129.38	123.70
1	A	52	A	C5-C6-N6	7.08	129.37	123.70
1	A	52	A	N9-C4-C5	7.05	108.62	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	64	U	N3-C2-O2	-6.79	117.44	122.20
1	A	15	U	C5-C4-O4	-6.78	121.83	125.90
1	E	64	U	N3-C2-O2	-6.76	117.47	122.20
1	E	15	U	C5-C4-O4	-6.70	121.88	125.90
1	E	38	A	C8-N9-C4	6.57	108.43	105.80
2	F	200	PRO	CB-CA-C	6.57	128.42	112.00
1	E	52	A	C4-C5-N7	-6.51	107.44	110.70
1	A	52	A	C4-C5-N7	-6.50	107.45	110.70
1	A	60	C	C5-C6-N1	6.47	124.24	121.00
2	B	199	ASN	C-N-CD	6.40	141.84	128.40
2	F	199	ASN	C-N-CD	6.38	141.81	128.40
1	A	38	A	C8-N9-C4	6.38	108.35	105.80
1	E	60	C	C5-C6-N1	6.27	124.13	121.00
2	B	175	ASN	C-N-CD	6.24	141.51	128.40
2	F	799	HIS	C-N-CD	6.23	141.49	128.40
2	F	175	ASN	C-N-CD	6.23	141.49	128.40
2	B	799	HIS	C-N-CD	6.22	141.47	128.40
1	E	83	C	C6-N1-C2	-6.20	117.82	120.30
1	A	83	C	C6-N1-C2	-6.18	117.83	120.30
2	B	200	PRO	CB-CA-C	6.17	127.41	112.00
1	A	21	G	N3-C4-C5	6.14	131.67	128.60
1	E	21	G	N3-C4-C5	6.12	131.66	128.60
1	E	35	A	N1-C6-N6	6.09	122.25	118.60
2	B	116	HIS	C-N-CD	6.07	141.15	128.40
2	F	116	HIS	C-N-CD	6.07	141.15	128.40
2	F	1198	LEU	C-N-CD	6.05	141.11	128.40
2	B	1198	LEU	C-N-CD	6.05	141.11	128.40
1	A	35	A	N1-C6-N6	6.05	122.23	118.60
1	E	19	A	N1-C6-N6	6.03	122.22	118.60
2	F	201	ILE	N-CA-C	-6.00	94.80	111.00
2	F	536	LYS	C-N-CD	6.00	141.00	128.40
1	A	19	A	N1-C6-N6	5.99	122.20	118.60
2	B	755	LYS	C-N-CD	5.99	140.98	128.40
1	E	48	A	C8-N9-C4	-5.99	103.41	105.80
2	F	755	LYS	C-N-CD	5.98	140.97	128.40
2	B	536	LYS	C-N-CD	5.98	140.96	128.40
1	A	26	A	N1-C6-N6	5.96	122.17	118.60
1	A	48	A	C8-N9-C4	-5.94	103.42	105.80
1	E	26	A	N1-C6-N6	5.92	122.15	118.60
1	E	58	G	C8-N9-C4	-5.92	104.03	106.40
2	F	410	ILE	C-N-CD	5.88	140.74	128.40
2	F	377	LYS	C-N-CD	5.88	140.74	128.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	377	LYS	C-N-CD	5.86	140.71	128.40
1	E	68	A	C8-N9-C4	-5.86	103.46	105.80
2	B	410	ILE	C-N-CD	5.86	140.69	128.40
1	A	68	A	C8-N9-C4	-5.84	103.46	105.80
2	F	1089	MET	C-N-CD	5.84	140.66	128.40
2	F	1228	LEU	C-N-CD	5.83	140.64	128.40
2	B	1177	ASN	C-N-CD	5.82	140.63	128.40
2	B	1228	LEU	C-N-CD	5.82	140.62	128.40
2	F	842	VAL	C-N-CD	5.82	140.62	128.40
2	B	1089	MET	C-N-CD	5.82	140.61	128.40
2	B	842	VAL	C-N-CD	5.81	140.60	128.40
2	F	1177	ASN	C-N-CD	5.81	140.60	128.40
1	A	58	G	C8-N9-C4	-5.80	104.08	106.40
1	A	50	U	C6-N1-C1'	5.80	129.31	121.20
1	E	50	U	C6-N1-C1'	5.79	129.31	121.20
2	F	870	VAL	C-N-CD	5.79	140.55	128.40
2	F	508	LEU	C-N-CD	5.78	140.54	128.40
2	F	730	SER	C-N-CD	5.78	140.54	128.40
1	E	15	U	C2-N3-C4	-5.77	123.54	127.00
2	B	730	SER	C-N-CD	5.77	140.51	128.40
2	B	870	VAL	C-N-CD	5.76	140.50	128.40
1	A	15	U	C2-N3-C4	-5.75	123.55	127.00
1	A	65	A	N3-C4-C5	-5.75	122.78	126.80
2	B	315	ALA	C-N-CD	5.74	140.45	128.40
2	B	684	LYS	CB-CA-C	-5.73	98.93	110.40
2	B	508	LEU	C-N-CD	5.73	140.44	128.40
1	E	65	A	N3-C4-C5	-5.73	122.79	126.80
2	F	315	ALA	C-N-CD	5.72	140.41	128.40
2	F	684	LYS	CB-CA-C	-5.72	98.96	110.40
1	E	64	U	N1-C2-N3	5.72	118.33	114.90
1	A	64	U	N1-C2-N3	5.71	118.33	114.90
2	B	1136	SER	C-N-CD	5.70	140.38	128.40
2	F	1300	LYS	C-N-CD	5.69	140.35	128.40
2	B	343	LEU	C-N-CD	5.69	140.35	128.40
2	B	201	ILE	N-CA-C	-5.69	95.65	111.00
2	F	343	LEU	C-N-CD	5.68	140.33	128.40
2	B	1300	LYS	C-N-CD	5.68	140.33	128.40
2	F	1136	SER	C-N-CD	5.67	140.31	128.40
2	F	430	TYR	C-N-CD	5.67	140.30	128.40
1	E	60	C	N3-C4-C5	-5.65	119.64	121.90
2	B	430	TYR	C-N-CD	5.64	140.24	128.40
2	F	1060	ARG	C-N-CD	5.64	140.24	128.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	66	U	C5-C4-O4	-5.63	122.52	125.90
1	E	66	U	C5-C4-O4	-5.63	122.52	125.90
2	B	1060	ARG	C-N-CD	5.62	140.21	128.40
2	F	685	SER	N-CA-CB	-5.62	102.07	110.50
1	A	64	U	C6-N1-C2	-5.55	117.67	121.00
1	A	65	A	C2-N3-C4	5.55	113.37	110.60
2	B	1001	TYR	C-N-CD	5.55	140.06	128.40
1	E	64	U	C6-N1-C2	-5.54	117.68	121.00
1	E	65	A	C2-N3-C4	5.54	113.37	110.60
2	F	1001	TYR	C-N-CD	5.53	140.02	128.40
1	A	60	C	N3-C4-C5	-5.50	119.70	121.90
1	E	87	G	C8-N9-C4	-5.45	104.22	106.40
1	A	89	G	C8-N9-C4	5.42	108.57	106.40
1	A	87	G	C8-N9-C4	-5.41	104.24	106.40
1	E	60	C	N3-C4-N4	5.39	121.77	118.00
1	A	60	C	N3-C4-N4	5.38	121.77	118.00
1	E	89	G	C8-N9-C4	5.38	108.55	106.40
3	G	10	DT	N3-C4-O4	5.33	123.10	119.90
2	B	246	LEU	N-CA-C	-5.33	96.61	111.00
3	G	21	DC	C1'-O4'-C4'	-5.32	104.78	110.10
3	C	21	DC	C1'-O4'-C4'	-5.29	104.81	110.10
3	C	10	DT	N3-C4-O4	5.28	123.07	119.90
1	A	14	A	N1-C6-N6	5.24	121.74	118.60
1	E	94	U	C6-N1-C2	-5.20	117.88	121.00
2	B	200	PRO	CA-N-CD	-5.19	104.24	111.50
2	B	947	ASP	CB-CG-OD2	5.18	122.96	118.30
2	F	947	ASP	CB-CG-OD2	5.17	122.95	118.30
3	G	10	DT	C5-C4-O4	-5.16	121.29	124.90
3	C	10	DT	C5-C4-O4	-5.15	121.30	124.90
1	A	94	U	C6-N1-C2	-5.15	117.91	121.00
2	F	200	PRO	CA-N-CD	-5.14	104.30	111.50
3	C	22	DA	O4'-C1'-N9	5.14	111.60	108.00
1	A	9	U	N3-C2-O2	-5.13	118.61	122.20
2	F	1111	LEU	CA-CB-CG	5.09	127.01	115.30
2	B	1111	LEU	CA-CB-CG	5.09	127.01	115.30
3	G	22	DA	O4'-C1'-N9	5.08	111.56	108.00
1	E	48	A	N7-C8-N9	5.08	116.34	113.80
1	E	9	U	N3-C2-O2	-5.07	118.65	122.20
1	E	14	A	N1-C6-N6	5.07	121.64	118.60
1	A	48	A	N7-C8-N9	5.06	116.33	113.80
3	C	11	DT	O4'-C4'-C3'	-5.05	102.48	104.50
1	E	89	G	O4'-C1'-N9	-5.04	104.17	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	65	A	C4-C5-C6	5.03	119.52	117.00
1	E	38	A	N7-C8-N9	-5.02	111.29	113.80
1	A	89	G	O4'-C1'-N9	-5.02	104.18	108.20
3	G	11	DT	O4'-C4'-C3'	-5.02	102.49	104.50

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	2009	0	1009	109	0
1	E	2009	0	1009	111	0
2	B	10827	0	10973	1508	0
2	F	10827	0	10972	1554	0
3	C	505	0	283	31	0
3	G	505	0	283	31	0
4	D	225	0	129	18	0
4	H	225	0	129	19	0
5	B	5	0	0	3	0
5	F	5	0	0	1	0
6	A	1	0	0	0	0
6	B	1	0	0	0	0
6	F	4	0	0	0	0
All	All	27148	0	24787	3189	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 62.

All (3189) 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)
2:F:181:VAL:HG11	2:F:300:ILE:CD1	1.14	1.57
2:B:181:VAL:HG11	2:B:300:ILE:CD1	1.14	1.57
2:F:342:GLN:HG3	2:F:383:MET:CE	1.09	1.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:1270:ILE:HD12	2:F:1294:TYR:CE2	1.37	1.54
2:B:181:VAL:CG1	2:B:300:ILE:CD1	1.83	1.53
2:F:181:VAL:CG1	2:F:300:ILE:CD1	1.83	1.53
2:B:1270:ILE:HD12	2:B:1294:TYR:CE2	1.37	1.53
2:B:1270:ILE:CD1	2:B:1294:TYR:CE2	1.91	1.52
2:F:1270:ILE:CD1	2:F:1294:TYR:CE2	1.91	1.51
2:F:1294:TYR:HE1	2:F:1305:GLN:NE2	1.14	1.44
2:B:1294:TYR:HE1	2:B:1305:GLN:NE2	1.14	1.43
2:F:179:SER:CB	2:F:310:THR:CB	1.93	1.43
2:B:179:SER:CB	2:B:310:THR:CB	1.93	1.42
2:F:181:VAL:CG1	2:F:300:ILE:HD11	1.40	1.42
2:B:181:VAL:CG1	2:B:300:ILE:HD11	1.40	1.42
2:B:981:TYR:CZ	2:B:1092:VAL:HG12	1.54	1.41
2:F:981:TYR:CZ	2:F:1092:VAL:HG12	1.54	1.41
2:B:1000:LYS:NZ	2:B:1045:PHE:HD2	1.18	1.41
2:F:1000:LYS:NZ	2:F:1045:PHE:HD2	1.19	1.40
2:F:297:SER:OG	2:F:301:LEU:CD1	1.68	1.39
2:B:297:SER:OG	2:B:301:LEU:CD1	1.68	1.39
2:B:1270:ILE:CD1	2:B:1294:TYR:CD2	2.04	1.39
2:F:1270:ILE:CD1	2:F:1294:TYR:CD2	2.04	1.38
2:B:665:LYS:CA	2:B:669:GLY:HA3	1.53	1.37
2:F:665:LYS:CA	2:F:669:GLY:HA3	1.52	1.37
2:B:1000:LYS:HE3	2:B:1073:VAL:CG2	1.53	1.36
2:F:342:GLN:CG	2:F:383:MET:CE	2.01	1.36
2:F:1000:LYS:HE3	2:F:1073:VAL:CG2	1.53	1.36
2:F:324:ARG:HD3	2:F:400:ARG:CG	1.55	1.34
2:F:1000:LYS:CE	2:F:1073:VAL:CG2	2.07	1.33
2:B:1000:LYS:CE	2:B:1073:VAL:CG2	2.07	1.33
2:F:1000:LYS:CE	2:F:1073:VAL:HG21	1.56	1.33
2:F:324:ARG:NH2	2:F:400:ARG:NH1	1.77	1.32
2:F:530:VAL:CG2	2:F:537:PRO:HB3	1.57	1.32
2:B:1000:LYS:CE	2:B:1073:VAL:HG21	1.56	1.32
2:F:179:SER:HB2	2:F:310:THR:CB	1.51	1.32
2:B:179:SER:HB2	2:B:310:THR:CB	1.51	1.32
2:B:530:VAL:CG2	2:B:537:PRO:HB3	1.57	1.31
2:F:1000:LYS:NZ	2:F:1045:PHE:CD2	1.96	1.31
2:B:1000:LYS:NZ	2:B:1045:PHE:CD2	1.95	1.30
2:B:178:ASN:O	2:B:299:ALA:CB	1.80	1.28
2:F:178:ASN:O	2:F:299:ALA:CB	1.80	1.28
2:F:1294:TYR:CE1	2:F:1305:GLN:NE2	2.00	1.28
2:B:557:ARG:HH22	2:B:599:LYS:NZ	1.28	1.28

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:324:ARG:CZ	2:F:400:ARG:HH11	1.45	1.28
2:B:1060:ARG:NH1	2:B:1064:GLU:OE2	1.66	1.27
2:B:1294:TYR:CE1	2:B:1305:GLN:NE2	2.00	1.27
2:F:324:ARG:CD	2:F:400:ARG:HG2	1.64	1.27
2:F:557:ARG:HH22	2:F:599:LYS:NZ	1.28	1.27
2:F:1060:ARG:NH1	2:F:1064:GLU:OE2	1.66	1.26
2:F:178:ASN:O	2:F:299:ALA:HB1	1.14	1.26
2:B:178:ASN:O	2:B:299:ALA:HB1	1.14	1.26
2:B:178:ASN:HB3	2:B:299:ALA:CB	1.65	1.26
2:F:181:VAL:CG2	2:F:209:LYS:CG	2.12	1.25
2:B:181:VAL:CG2	2:B:209:LYS:CG	2.12	1.25
2:F:178:ASN:HB3	2:F:299:ALA:CB	1.65	1.25
2:F:195:LEU:HD21	2:F:286:TYR:CD2	1.72	1.24
2:B:195:LEU:HD21	2:B:286:TYR:CD2	1.71	1.24
2:B:178:ASN:CB	2:B:299:ALA:HB2	1.69	1.22
2:F:178:ASN:CB	2:F:299:ALA:HB2	1.69	1.22
2:F:207:ASP:HB3	2:F:210:ALA:CB	1.69	1.22
2:B:780:ARG:NH1	2:B:812:TYR:CD2	2.08	1.22
2:B:207:ASP:HB3	2:B:210:ALA:CB	1.69	1.22
2:F:780:ARG:NH1	2:F:812:TYR:CD2	2.08	1.22
2:F:324:ARG:NH2	2:F:400:ARG:HH11	1.30	1.21
2:F:665:LYS:HA	2:F:669:GLY:CA	1.70	1.21
2:B:665:LYS:HA	2:B:669:GLY:CA	1.70	1.21
2:F:979:ASN:ND2	2:F:981:TYR:CD1	2.09	1.20
2:F:672:ASP:OD1	2:F:703:THR:HG22	1.02	1.19
2:F:1251:ASP:HA	2:F:1254:GLN:NE2	1.57	1.19
2:B:672:ASP:OD1	2:B:703:THR:HG22	1.02	1.18
2:B:1251:ASP:HA	2:B:1254:GLN:NE2	1.57	1.18
2:B:1146:VAL:HG11	2:B:1194:LEU:CD1	1.73	1.18
2:B:870:VAL:HG23	2:B:908:LEU:HG	1.26	1.18
2:F:297:SER:OG	2:F:301:LEU:HD11	1.43	1.18
2:F:870:VAL:HG23	2:F:908:LEU:HG	1.26	1.18
2:F:1146:VAL:HG11	2:F:1194:LEU:CD1	1.73	1.18
2:B:297:SER:OG	2:B:301:LEU:HD11	1.43	1.17
2:F:926:GLN:HA	2:F:929:LYS:HG3	1.22	1.16
2:F:755:LYS:NZ	2:F:939:MET:O	1.78	1.16
2:B:755:LYS:NZ	2:B:939:MET:O	1.78	1.16
2:B:926:GLN:HA	2:B:929:LYS:HG3	1.21	1.16
2:B:195:LEU:CD2	2:B:286:TYR:CD2	2.27	1.16
2:F:195:LEU:CD2	2:F:286:TYR:CD2	2.27	1.16
2:F:905:ARG:NH1	3:G:24:DG:OP1	1.78	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:905:ARG:NH1	3:C:24:DG:OP1	1.78	1.15
2:F:207:ASP:CB	2:F:210:ALA:HB3	1.74	1.15
2:B:207:ASP:CB	2:B:210:ALA:HB3	1.74	1.14
2:B:981:TYR:CE2	2:B:1092:VAL:CG1	2.30	1.14
2:F:362:TYR:HD1	2:F:372:PHE:CD2	1.65	1.14
2:F:981:TYR:CE2	2:F:1092:VAL:CG1	2.30	1.14
2:F:178:ASN:ND2	2:F:298:ASP:HB2	1.62	1.14
2:F:297:SER:OG	2:F:301:LEU:HD12	1.42	1.13
2:B:178:ASN:ND2	2:B:298:ASP:HB2	1.62	1.13
2:F:342:GLN:HG3	2:F:383:MET:HE2	1.28	1.12
2:B:297:SER:OG	2:B:301:LEU:HD12	1.42	1.12
2:B:1251:ASP:HA	2:B:1254:GLN:CD	1.69	1.12
2:F:362:TYR:CD1	2:F:372:PHE:CD2	2.38	1.12
2:F:1251:ASP:HA	2:F:1254:GLN:CD	1.69	1.12
2:F:178:ASN:ND2	2:F:298:ASP:CB	2.12	1.12
2:F:1270:ILE:HD12	2:F:1294:TYR:CD2	1.78	1.12
2:B:178:ASN:ND2	2:B:298:ASP:CB	2.12	1.12
2:B:278:LEU:HD11	2:B:282:ILE:HD11	1.28	1.12
2:F:1062:LEU:O	2:F:1076:LYS:HG3	1.45	1.12
2:B:1270:ILE:HD12	2:B:1294:TYR:CD2	1.78	1.11
2:B:672:ASP:OD1	2:B:703:THR:CG2	1.97	1.11
2:F:181:VAL:CG2	2:F:209:LYS:HG3	1.79	1.11
2:B:181:VAL:CG2	2:B:209:LYS:HG3	1.79	1.11
2:F:278:LEU:HD11	2:F:282:ILE:HD11	1.28	1.11
2:F:672:ASP:OD1	2:F:703:THR:CG2	1.97	1.11
2:B:1062:LEU:O	2:B:1076:LYS:HG3	1.46	1.11
2:F:181:VAL:CG1	2:F:300:ILE:HD13	1.60	1.11
2:F:179:SER:HB3	2:F:310:THR:CB	1.71	1.10
2:F:1205:GLU:O	2:F:1346:THR:OG1	1.69	1.10
2:B:1205:GLU:O	2:B:1346:THR:OG1	1.69	1.10
2:F:324:ARG:CD	2:F:400:ARG:CG	2.24	1.10
2:B:974:LYS:NZ	2:B:976:ARG:HH12	1.49	1.10
2:F:810:LYS:O	2:F:833:LEU:CD1	1.99	1.10
2:B:58:THR:HG22	2:B:731:PRO:HG3	1.30	1.10
2:B:181:VAL:CG1	2:B:300:ILE:HD13	1.60	1.10
2:F:58:THR:HG22	2:F:731:PRO:HG3	1.30	1.10
2:B:378:PRO:HG2	2:B:379:ILE:HD12	1.15	1.09
2:B:121:ASN:HD21	2:B:124:ASP:HB2	1.15	1.09
2:B:179:SER:HB3	2:B:310:THR:CB	1.71	1.09
2:B:810:LYS:O	2:B:833:LEU:CD1	1.99	1.09
2:F:107:VAL:HG22	2:F:1131:TYR:OH	1.51	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:195:LEU:CD2	2:F:286:TYR:CE2	2.36	1.09
2:F:324:ARG:HD3	2:F:400:ARG:HG3	1.11	1.09
2:F:378:PRO:HG2	2:F:379:ILE:HD12	1.15	1.09
2:B:195:LEU:CD2	2:B:286:TYR:CE2	2.36	1.09
2:B:107:VAL:HG22	2:B:1131:TYR:OH	1.51	1.08
2:B:530:VAL:HG22	2:B:537:PRO:HB3	1.23	1.08
2:F:121:ASN:HD21	2:F:124:ASP:HB2	1.15	1.08
2:B:557:ARG:NH2	2:B:599:LYS:NZ	2.00	1.08
2:F:704:PHE:O	2:F:708:ILE:HG12	1.51	1.08
2:F:914:ALA:HB1	2:F:1035:LYS:HD3	1.29	1.08
2:F:1146:VAL:CG1	2:F:1194:LEU:HD12	1.84	1.08
1:A:63:U:O2'	2:B:62:THR:HG23	1.54	1.08
2:B:704:PHE:O	2:B:708:ILE:HG12	1.51	1.08
2:B:981:TYR:CZ	2:B:1092:VAL:CG1	2.36	1.08
2:B:1146:VAL:CG1	2:B:1194:LEU:HD12	1.84	1.08
2:F:557:ARG:NH2	2:F:599:LYS:NZ	2.00	1.08
2:F:981:TYR:CZ	2:F:1092:VAL:CG1	2.36	1.08
1:E:63:U:O2'	2:F:62:THR:HG23	1.54	1.08
2:F:335:LEU:O	2:F:339:VAL:HG23	1.53	1.08
2:F:530:VAL:HG22	2:F:537:PRO:HB3	1.23	1.08
2:F:1062:LEU:HA	2:F:1076:LYS:HD2	1.36	1.08
2:B:914:ALA:HB1	2:B:1035:LYS:HD3	1.29	1.07
2:B:1062:LEU:HA	2:B:1076:LYS:HD2	1.36	1.07
2:B:1326:TYR:CE2	2:B:1327:PHE:CE2	2.41	1.07
2:F:1270:ILE:HD13	2:F:1294:TYR:CD2	1.80	1.07
2:F:1326:TYR:CE2	2:F:1327:PHE:CE2	2.41	1.07
2:B:335:LEU:O	2:B:339:VAL:HG23	1.53	1.07
2:B:551:LEU:O	2:B:555:THR:OG1	1.71	1.07
2:B:832:ARG:NH1	2:B:835:ASP:OD2	1.88	1.07
2:F:832:ARG:NH1	2:F:835:ASP:OD2	1.88	1.07
2:F:551:LEU:O	2:F:555:THR:OG1	1.71	1.07
2:B:1270:ILE:HD13	2:B:1294:TYR:CD2	1.80	1.06
2:B:14:ASN:OD1	2:B:55:SER:OG	1.71	1.06
2:B:1270:ILE:HD11	2:B:1294:TYR:CE2	1.87	1.06
2:F:668:ASN:OD1	2:F:678:THR:OG1	1.74	1.06
2:B:278:LEU:CD1	2:B:282:ILE:HD11	1.86	1.06
2:B:668:ASN:OD1	2:B:678:THR:OG1	1.74	1.06
2:F:1000:LYS:HE3	2:F:1073:VAL:HG23	1.38	1.06
2:B:215:ARG:NE	2:B:215:ARG:O	1.88	1.05
2:F:278:LEU:CD1	2:F:282:ILE:HD11	1.86	1.05
2:F:14:ASN:OD1	2:F:55:SER:OG	1.71	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:215:ARG:O	2:F:215:ARG:NE	1.88	1.05
2:F:665:LYS:O	2:F:669:GLY:CA	2.04	1.05
1:A:19:A:H4'	2:B:407:ASN:O	1.57	1.05
2:B:665:LYS:O	2:B:669:GLY:CA	2.04	1.05
2:F:273:ASP:O	2:F:277:ASN:N	1.88	1.05
2:F:324:ARG:NE	2:F:400:ARG:HG2	1.70	1.05
2:F:806:LEU:HD22	2:F:811:LEU:HD12	1.32	1.05
2:B:273:ASP:O	2:B:277:ASN:N	1.88	1.05
2:B:1292:SER:OG	2:B:1296:LYS:NZ	1.88	1.05
1:E:19:A:H4'	2:F:407:ASN:O	1.57	1.05
2:B:1000:LYS:HE3	2:B:1073:VAL:HG23	1.38	1.05
2:F:1270:ILE:HD11	2:F:1294:TYR:CE2	1.87	1.05
2:B:530:VAL:HG22	2:B:537:PRO:CB	1.86	1.04
2:B:596:ASP:OD2	2:B:656:TYR:OH	1.75	1.04
2:B:806:LEU:HD22	2:B:811:LEU:HD12	1.32	1.04
2:F:596:ASP:OD2	2:F:656:TYR:OH	1.75	1.04
2:B:981:TYR:CE2	2:B:1092:VAL:HG12	1.92	1.04
2:F:342:GLN:HG3	2:F:383:MET:HE1	1.36	1.04
2:F:530:VAL:HG22	2:F:537:PRO:CB	1.86	1.04
2:F:1292:SER:OG	2:F:1296:LYS:NZ	1.88	1.04
2:B:665:LYS:HA	2:B:669:GLY:HA3	1.09	1.04
2:F:393:LEU:HD12	2:F:398:LEU:HD12	1.08	1.04
2:B:704:PHE:O	2:B:708:ILE:CG1	2.05	1.04
2:F:704:PHE:O	2:F:708:ILE:CG1	2.05	1.04
2:B:275:LEU:HD12	2:B:279:LEU:HB2	1.40	1.03
2:F:665:LYS:HA	2:F:669:GLY:HA3	1.08	1.03
2:B:393:LEU:HD12	2:B:398:LEU:HD12	1.08	1.03
2:B:846:PHE:O	2:B:916:PHE:HB3	1.57	1.03
2:F:275:LEU:HD12	2:F:279:LEU:HB2	1.40	1.03
2:F:665:LYS:C	2:F:669:GLY:HA3	1.77	1.03
2:B:181:VAL:HG11	2:B:300:ILE:HD13	1.20	1.02
2:B:665:LYS:C	2:B:669:GLY:HA3	1.77	1.02
2:B:672:ASP:HA	2:B:703:THR:CG2	1.89	1.02
2:F:846:PHE:O	2:F:916:PHE:HB3	1.57	1.02
2:B:1326:TYR:CE2	2:B:1327:PHE:HE2	1.76	1.02
2:F:672:ASP:HA	2:F:703:THR:CG2	1.89	1.02
2:F:978:ILE:HG12	2:F:1313:PHE:CE2	1.93	1.02
2:F:70:ARG:NH2	2:F:462:PHE:HD2	1.56	1.02
2:F:1326:TYR:CE2	2:F:1327:PHE:HE2	1.76	1.02
2:B:1143:VAL:CG1	2:B:1195:ILE:CG2	2.38	1.02
2:F:1143:VAL:CG1	2:F:1195:ILE:CG2	2.38	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:70:ARG:NH2	2:B:462:PHE:HD2	1.56	1.01
2:F:342:GLN:CG	2:F:383:MET:HE2	1.83	1.01
2:F:1000:LYS:HE2	2:F:1073:VAL:CG2	1.87	1.01
2:B:1000:LYS:HE2	2:B:1073:VAL:CG2	1.87	1.01
2:F:641:HIS:CD2	2:F:642:LEU:HG	1.95	1.01
1:A:59:U:OP1	2:B:467:ARG:NH2	1.93	1.01
2:B:525:THR:HG23	2:B:690:ASN:HD22	1.22	1.01
2:B:641:HIS:CD2	2:B:642:LEU:HG	1.95	1.01
1:E:59:U:OP1	2:F:467:ARG:NH2	1.93	1.01
2:F:181:VAL:HG11	2:F:300:ILE:HD13	1.20	1.01
2:F:378:PRO:HG2	2:F:379:ILE:CD1	1.91	1.01
2:B:378:PRO:HG2	2:B:379:ILE:CD1	1.91	1.00
2:B:1239:ALA:HB1	2:B:1306:ALA:HB1	1.40	1.00
2:F:1239:ALA:HB1	2:F:1306:ALA:HB1	1.40	1.00
2:B:376:ILE:HD12	2:B:376:ILE:H	1.27	1.00
2:F:195:LEU:HD23	2:F:286:TYR:CE2	1.97	1.00
2:F:376:ILE:H	2:F:376:ILE:HD12	1.27	1.00
2:B:114:GLU:OE2	2:B:120:GLY:O	1.77	1.00
2:B:195:LEU:HD23	2:B:286:TYR:CE2	1.97	1.00
2:B:979:ASN:ND2	2:B:981:TYR:CD1	2.26	1.00
2:F:114:GLU:OE2	2:F:120:GLY:O	1.77	1.00
2:F:780:ARG:NH1	2:F:812:TYR:HD2	1.53	1.00
2:F:530:VAL:HG21	2:F:537:PRO:HB3	1.42	0.99
2:B:178:ASN:HB3	2:B:299:ALA:HB2	1.03	0.99
2:B:1305:GLN:HA	2:B:1327:PHE:CZ	1.97	0.99
2:F:178:ASN:HB3	2:F:299:ALA:HB2	1.03	0.99
2:F:528:LYS:HB2	2:F:581:SER:OG	1.63	0.99
2:F:1305:GLN:HA	2:F:1327:PHE:CZ	1.97	0.99
2:B:530:VAL:HG21	2:B:537:PRO:HB3	1.42	0.99
2:B:393:LEU:CD1	2:B:398:LEU:HD12	1.91	0.99
2:F:393:LEU:CD1	2:F:398:LEU:HD12	1.91	0.99
2:F:696:LEU:CD1	2:F:702:LEU:CD1	2.40	0.99
2:B:393:LEU:HD12	2:B:398:LEU:CD1	1.93	0.99
2:B:528:LYS:HB2	2:B:581:SER:OG	1.63	0.99
2:B:696:LEU:CD1	2:B:702:LEU:CD1	2.40	0.99
2:F:340:ARG:O	2:F:344:PRO:HG3	1.61	0.99
2:F:1305:GLN:HA	2:F:1327:PHE:HZ	1.26	0.99
2:B:340:ARG:O	2:B:344:PRO:HG3	1.61	0.99
2:F:1230:SER:HA	2:F:1233:VAL:HG23	1.45	0.99
2:B:249:THR:HG22	2:B:265:GLN:NE2	1.78	0.99
2:F:359:TYR:HE1	2:F:399:LEU:HD23	1.26	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:393:LEU:HD12	2:F:398:LEU:CD1	1.93	0.99
2:F:70:ARG:NH2	2:F:462:PHE:CD2	2.31	0.98
2:B:1230:SER:HA	2:B:1233:VAL:HG23	1.45	0.98
2:B:1305:GLN:HA	2:B:1327:PHE:HZ	1.26	0.98
2:B:70:ARG:NH2	2:B:462:PHE:CD2	2.31	0.98
2:F:945:GLU:OE1	2:F:945:GLU:N	1.94	0.98
2:B:945:GLU:N	2:B:945:GLU:OE1	1.94	0.98
2:B:849:ASP:HB3	2:B:854:ASN:HD22	1.29	0.98
2:F:981:TYR:CE2	2:F:1092:VAL:HG12	1.92	0.98
2:F:849:ASP:HB3	2:F:854:ASN:HD22	1.29	0.98
2:B:277:ASN:HD22	2:B:653:ARG:HD3	1.27	0.98
2:B:780:ARG:NH1	2:B:812:TYR:HD2	1.53	0.98
2:F:704:PHE:O	2:F:708:ILE:CD1	2.12	0.98
2:B:704:PHE:O	2:B:708:ILE:CD1	2.12	0.98
2:F:181:VAL:HG21	2:F:209:LYS:CG	1.93	0.97
2:F:525:THR:HG22	2:F:690:ASN:HB3	1.43	0.97
2:F:1062:LEU:CD2	2:F:1063:ILE:HG13	1.93	0.97
2:B:1146:VAL:HG11	2:B:1194:LEU:HD12	0.98	0.97
2:F:195:LEU:HD21	2:F:286:TYR:CE2	1.99	0.97
2:B:311:GLU:OE1	2:B:311:GLU:N	1.97	0.97
2:F:311:GLU:OE1	2:F:311:GLU:N	1.97	0.97
2:F:1146:VAL:HG11	2:F:1194:LEU:HD12	0.98	0.97
2:B:195:LEU:HD21	2:B:286:TYR:CE2	1.99	0.97
2:B:207:ASP:HB3	2:B:210:ALA:HB3	0.98	0.97
2:B:1210:ARG:HH22	2:B:1341:GLU:CD	1.66	0.97
2:F:207:ASP:HB3	2:F:210:ALA:HB3	0.98	0.97
2:F:277:ASN:HD22	2:F:653:ARG:HD3	1.26	0.97
2:F:1270:ILE:HD12	2:F:1294:TYR:HE2	1.25	0.97
2:B:181:VAL:HG21	2:B:209:LYS:CG	1.93	0.97
2:B:1000:LYS:HE3	2:B:1073:VAL:HG21	1.19	0.97
2:B:1062:LEU:CD2	2:B:1063:ILE:HG13	1.93	0.97
2:B:181:VAL:HG21	2:B:209:LYS:HG2	1.44	0.97
2:B:372:PHE:O	2:B:376:ILE:HD11	1.65	0.97
2:F:372:PHE:O	2:F:376:ILE:HD11	1.65	0.97
2:F:343:LEU:HD21	2:F:346:LYS:HB2	1.44	0.97
2:B:343:LEU:HD21	2:B:346:LYS:HB2	1.44	0.97
2:B:1143:VAL:HG11	2:B:1195:ILE:CG2	1.95	0.97
2:B:1270:ILE:HD12	2:B:1294:TYR:HE2	1.25	0.97
2:F:1143:VAL:HG11	2:F:1195:ILE:CG2	1.95	0.97
2:F:1224:ASN:CG	2:F:1280:VAL:HG11	1.85	0.97
2:B:178:ASN:HB3	2:B:299:ALA:CA	1.95	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1224:ASN:CG	2:B:1280:VAL:HG11	1.85	0.96
2:F:1210:ARG:HH22	2:F:1341:GLU:CD	1.66	0.96
2:B:279:LEU:HD11	2:B:287:ALA:HA	1.47	0.96
2:F:279:LEU:HD11	2:F:287:ALA:HA	1.47	0.96
2:B:686:ASP:OD2	2:B:691:ARG:N	1.96	0.96
2:F:178:ASN:HB3	2:F:299:ALA:CA	1.95	0.96
2:F:181:VAL:CG2	2:F:209:LYS:HG2	1.95	0.96
2:F:279:LEU:HD11	2:F:287:ALA:CA	1.95	0.96
2:F:181:VAL:HG21	2:F:209:LYS:HG2	1.43	0.96
2:F:181:VAL:HG12	2:F:300:ILE:CD1	1.94	0.96
2:F:279:LEU:HD11	2:F:287:ALA:CB	1.95	0.96
2:F:979:ASN:HD21	2:F:981:TYR:HD1	1.10	0.96
3:C:24:DG:H2''	3:C:25:DG:H5'	1.47	0.96
2:F:1326:TYR:HE2	2:F:1327:PHE:CE2	1.80	0.96
2:B:279:LEU:HD11	2:B:287:ALA:CA	1.95	0.96
2:F:340:ARG:O	2:F:344:PRO:CG	2.14	0.96
2:B:279:LEU:HD11	2:B:287:ALA:CB	1.95	0.96
2:B:340:ARG:O	2:B:344:PRO:CG	2.14	0.96
2:B:432:PHE:O	2:B:436:ASN:ND2	1.99	0.96
2:B:181:VAL:CG2	2:B:209:LYS:HG2	1.95	0.95
2:B:1326:TYR:HE2	2:B:1327:PHE:CE2	1.80	0.95
2:F:432:PHE:O	2:F:436:ASN:ND2	1.99	0.95
3:G:24:DG:H2''	3:G:25:DG:H5'	1.46	0.95
2:B:681:ASP:O	2:B:684:LYS:O	1.83	0.95
2:F:184:LEU:HD12	2:F:296:LEU:HA	1.47	0.95
2:F:359:TYR:CE1	2:F:399:LEU:HD23	2.01	0.95
2:F:681:ASP:O	2:F:684:LYS:O	1.83	0.95
2:F:1000:LYS:HE3	2:F:1073:VAL:HG21	1.18	0.95
2:B:181:VAL:HG12	2:B:300:ILE:CD1	1.93	0.95
2:B:278:LEU:HD11	2:B:282:ILE:CD1	1.96	0.95
2:F:318:SER:OG	2:F:418:GLU:OE2	1.82	0.95
2:B:184:LEU:HD12	2:B:296:LEU:HA	1.47	0.95
2:F:278:LEU:HD11	2:F:282:ILE:CD1	1.96	0.95
2:B:70:ARG:HH22	2:B:462:PHE:HB2	1.32	0.95
2:B:244:LEU:HG	2:B:266:LEU:CD1	1.96	0.95
2:B:870:VAL:CG2	2:B:908:LEU:HG	1.96	0.95
2:F:70:ARG:HH22	2:F:462:PHE:HB2	1.32	0.95
2:F:244:LEU:HG	2:F:266:LEU:CD1	1.96	0.95
3:G:23:DC:H2''	3:G:24:DG:H5'	1.44	0.95
2:F:870:VAL:CG2	2:F:908:LEU:HG	1.96	0.95
2:B:1148:LYS:HB3	2:B:1158:LYS:O	1.65	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:1148:LYS:HB3	2:F:1158:LYS:O	1.65	0.94
2:F:1313:PHE:O	2:F:1316:THR:OG1	1.85	0.94
2:B:1313:PHE:O	2:B:1316:THR:OG1	1.85	0.94
3:C:23:DC:H2''	3:C:24:DG:H5'	1.44	0.94
2:B:342:GLN:OE1	2:B:384:ASP:O	1.86	0.94
2:F:844:GLN:HE21	2:F:848:LYS:HG2	1.32	0.94
2:F:248:LEU:HD13	2:F:249:THR:H	1.29	0.94
2:F:784:ILE:HG22	2:F:788:ILE:HD11	1.50	0.94
2:B:1204:PHE:CE2	2:B:1214:LEU:HD12	2.03	0.94
2:F:696:LEU:HD13	2:F:702:LEU:CD1	1.97	0.94
2:F:1135:ASP:OD1	2:F:1136:SER:OG	1.85	0.94
1:A:89:G:N1	2:B:1272:GLN:OE1	2.01	0.94
2:B:784:ILE:HG22	2:B:788:ILE:HD11	1.50	0.94
2:B:844:GLN:HE21	2:B:848:LYS:HG2	1.32	0.94
2:B:1171:ARG:HG2	2:B:1171:ARG:HH11	1.33	0.94
1:E:89:G:N1	2:F:1272:GLN:OE1	2.01	0.94
2:F:1204:PHE:CE2	2:F:1214:LEU:HD12	2.03	0.94
2:B:181:VAL:HG22	2:B:209:LYS:HG3	1.47	0.94
2:B:696:LEU:HD13	2:B:702:LEU:CD1	1.97	0.94
2:B:1135:ASP:OD1	2:B:1136:SER:OG	1.85	0.94
2:B:525:THR:HG22	2:B:690:ASN:HB3	1.49	0.94
2:F:275:LEU:O	2:F:279:LEU:N	2.01	0.94
2:F:1171:ARG:HG2	2:F:1171:ARG:HH11	1.33	0.94
2:B:275:LEU:O	2:B:279:LEU:N	2.01	0.93
2:F:703:THR:OG1	2:F:707:ASP:OD2	1.85	0.93
2:B:359:TYR:HE1	2:B:399:LEU:HD23	1.30	0.93
2:F:181:VAL:HG22	2:F:209:LYS:HG3	1.47	0.93
1:A:32:A:N6	1:A:37:U:O4	2.01	0.93
2:B:703:THR:OG1	2:B:707:ASP:OD2	1.85	0.93
2:F:1314:THR:HG21	2:F:1324:PHE:CB	1.98	0.93
2:B:1273:ILE:O	2:B:1277:SER:OG	1.85	0.93
1:E:32:A:N6	1:E:37:U:O4	2.01	0.93
2:B:1224:ASN:OD1	2:B:1280:VAL:HG11	1.68	0.93
2:B:1314:THR:HG21	2:B:1324:PHE:CB	1.98	0.93
2:F:342:GLN:HG3	2:F:383:MET:HE3	0.95	0.93
2:F:806:LEU:CD2	2:F:811:LEU:HD12	1.97	0.93
1:A:57:A:H5'	2:B:457:ARG:NH2	1.83	0.93
2:B:806:LEU:CD2	2:B:811:LEU:HD12	1.97	0.93
2:F:1273:ILE:O	2:F:1277:SER:OG	1.85	0.93
1:E:57:A:H5'	2:F:457:ARG:NH2	1.83	0.93
2:F:1224:ASN:OD1	2:F:1280:VAL:HG11	1.69	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1105:PHE:CD2	2:B:1169:MET:HG3	2.04	0.93
2:F:1105:PHE:CD2	2:F:1169:MET:HG3	2.04	0.93
2:F:1326:TYR:HE2	2:F:1327:PHE:HE2	0.98	0.92
1:A:63:U:H2'	2:B:62:THR:CG2	1.99	0.92
1:E:63:U:H2'	2:F:62:THR:CG2	1.99	0.92
1:A:24:U:O2	2:B:105:PHE:CD1	2.23	0.92
2:F:248:LEU:HD13	2:F:249:THR:N	1.84	0.92
2:B:1045:PHE:CZ	2:B:1046:PHE:CE2	2.57	0.92
2:F:1045:PHE:CZ	2:F:1046:PHE:CE2	2.57	0.92
2:B:299:ALA:O	2:B:302:LEU:CD2	2.18	0.92
2:B:181:VAL:HG21	2:B:209:LYS:HA	1.52	0.92
2:B:691:ARG:NH1	2:B:699:ASP:OD2	2.03	0.92
2:F:691:ARG:NH1	2:F:699:ASP:OD2	2.03	0.92
1:E:24:U:O2	2:F:105:PHE:CD1	2.23	0.91
2:F:181:VAL:HG21	2:F:209:LYS:HA	1.52	0.91
2:F:299:ALA:O	2:F:302:LEU:CD2	2.18	0.91
2:F:305:ILE:HD13	2:F:306:LEU:N	1.84	0.91
2:B:285:GLN:OE1	2:B:285:GLN:N	2.03	0.91
2:F:181:VAL:HG12	2:F:300:ILE:HD11	1.52	0.91
2:F:297:SER:HG	2:F:301:LEU:HD11	1.33	0.91
2:F:1260:GLU:HA	2:F:1263:LYS:HB2	1.51	0.91
2:F:195:LEU:HD23	2:F:286:TYR:HE2	1.29	0.91
2:F:285:GLN:OE1	2:F:285:GLN:N	2.03	0.91
2:B:195:LEU:CD2	2:B:286:TYR:HD2	1.81	0.91
2:B:195:LEU:HD23	2:B:286:TYR:HE2	1.29	0.91
2:B:305:ILE:HD13	2:B:306:LEU:N	1.84	0.91
2:F:209:LYS:O	2:F:213:SER:CB	2.19	0.91
2:F:970:PHE:HE1	2:F:1080:PHE:HZ	1.18	0.91
2:B:178:ASN:CA	2:B:299:ALA:HB2	2.01	0.91
2:B:1000:LYS:NZ	2:B:1064:GLU:HG3	1.85	0.91
2:B:1260:GLU:HA	2:B:1263:LYS:HB2	1.51	0.91
2:F:178:ASN:CA	2:F:299:ALA:HB2	2.01	0.91
2:B:209:LYS:O	2:B:213:SER:CB	2.19	0.91
2:B:1210:ARG:NH2	2:B:1341:GLU:CD	2.24	0.91
2:B:1294:TYR:HE1	2:B:1305:GLN:HE22	1.14	0.91
2:B:181:VAL:HG12	2:B:300:ILE:HD11	1.52	0.91
2:B:569:PHE:O	2:B:574:CYS:N	2.04	0.91
2:B:665:LYS:O	2:B:669:GLY:HA3	1.68	0.91
2:B:1270:ILE:HD11	2:B:1294:TYR:CZ	2.06	0.91
2:F:1210:ARG:NH2	2:F:1341:GLU:CD	2.24	0.91
3:G:23:DC:C2'	3:G:24:DG:H5'	2.01	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:849:ASP:OD1	2:B:851:SER:OG	1.88	0.90
1:E:63:U:C2'	2:F:62:THR:CG2	2.49	0.90
2:F:665:LYS:O	2:F:669:GLY:HA3	1.68	0.90
2:F:849:ASP:OD1	2:F:851:SER:OG	1.88	0.90
2:F:1000:LYS:NZ	2:F:1064:GLU:HG3	1.85	0.90
2:F:1230:SER:HA	2:F:1233:VAL:CG2	2.01	0.90
2:B:926:GLN:CA	2:B:929:LYS:HG3	2.02	0.90
2:B:970:PHE:HE1	2:B:1080:PHE:HZ	1.18	0.90
3:C:23:DC:C2'	3:C:24:DG:H5'	2.01	0.90
2:F:569:PHE:O	2:F:574:CYS:N	2.04	0.90
2:F:1270:ILE:HD11	2:F:1294:TYR:CZ	2.06	0.90
1:A:63:U:C2'	2:B:62:THR:CG2	2.49	0.90
2:F:305:ILE:HD13	2:F:306:LEU:H	1.36	0.90
2:B:557:ARG:HH11	2:B:557:ARG:HG3	1.34	0.90
2:F:342:GLN:HE22	2:F:384:ASP:HB2	1.37	0.90
2:B:1230:SER:HA	2:B:1233:VAL:CG2	2.01	0.90
2:F:926:GLN:CA	2:F:929:LYS:HG3	2.02	0.90
2:B:1000:LYS:CG	2:B:1073:VAL:HG21	2.02	0.90
2:F:1294:TYR:HE1	2:F:1305:GLN:HE22	1.13	0.90
2:B:755:LYS:HD3	2:B:939:MET:CE	2.02	0.90
2:F:1000:LYS:CG	2:F:1073:VAL:HG21	2.02	0.90
2:F:1091:GLN:O	2:F:1091:GLN:NE2	2.05	0.90
2:B:305:ILE:HD13	2:B:306:LEU:H	1.35	0.89
2:B:1091:GLN:NE2	2:B:1091:GLN:O	2.05	0.89
2:B:1243:GLU:O	2:B:1244:LYS:NZ	2.05	0.89
1:E:63:U:C2'	2:F:62:THR:HG23	2.02	0.89
2:F:178:ASN:HD22	2:F:298:ASP:CB	1.86	0.89
2:F:195:LEU:CD2	2:F:286:TYR:HD2	1.81	0.89
2:F:755:LYS:HD3	2:F:939:MET:CE	2.02	0.89
2:F:1243:GLU:O	2:F:1244:LYS:NZ	2.05	0.89
2:B:1114:ARG:NH1	4:D:9:DA:OP1	2.04	0.89
2:B:1221:GLN:NE2	4:D:6:DG:OP2	2.05	0.89
2:B:1326:TYR:HE2	2:B:1327:PHE:HE2	0.98	0.89
2:F:318:SER:OG	2:F:418:GLU:CD	2.09	0.89
2:B:178:ASN:HD22	2:B:298:ASP:CB	1.86	0.89
2:F:178:ASN:ND2	2:F:298:ASP:HB3	1.87	0.89
1:A:63:U:C2'	2:B:62:THR:HG23	2.02	0.89
2:B:143:VAL:HG11	2:B:315:ALA:HB2	1.55	0.89
2:F:557:ARG:HH11	2:F:557:ARG:HG3	1.34	0.89
2:F:914:ALA:HB1	2:F:1035:LYS:CD	2.02	0.89
2:F:1114:ARG:NH1	4:H:9:DA:OP1	2.04	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:143:VAL:HG11	2:F:315:ALA:HB2	1.55	0.89
2:F:249:THR:CG2	2:F:265:GLN:NE2	2.34	0.89
2:F:1221:GLN:NE2	4:H:6:DG:OP2	2.05	0.89
2:B:634:GLU:HA	2:B:637:LYS:HE2	1.55	0.89
2:B:914:ALA:HB1	2:B:1035:LYS:CD	2.03	0.89
2:F:634:GLU:HA	2:F:637:LYS:HE2	1.55	0.89
2:B:178:ASN:ND2	2:B:298:ASP:HB3	1.87	0.88
2:B:531:THR:HG22	2:B:534:MET:SD	2.13	0.88
2:F:531:THR:HG22	2:F:534:MET:SD	2.13	0.88
2:B:905:ARG:HG2	2:B:905:ARG:HH11	1.39	0.88
2:F:905:ARG:HG2	2:F:905:ARG:HH11	1.39	0.88
2:B:600:ILE:O	2:B:647:VAL:HG13	1.74	0.88
2:B:981:TYR:CE2	2:B:1092:VAL:HB	2.08	0.88
2:F:981:TYR:CE2	2:F:1092:VAL:HB	2.08	0.88
2:F:600:ILE:O	2:F:647:VAL:HG13	1.74	0.88
2:F:107:VAL:HG22	2:F:1131:TYR:CZ	2.08	0.88
2:F:342:GLN:CG	2:F:383:MET:HE3	1.83	0.88
2:B:244:LEU:HD12	2:B:250:PRO:CD	2.04	0.88
2:B:369:GLN:OE1	2:B:400:ARG:NH1	2.07	0.88
2:F:244:LEU:HD12	2:F:250:PRO:CD	2.04	0.88
2:B:78:ARG:NH1	2:B:162:ILE:O	2.06	0.87
2:B:107:VAL:HG22	2:B:1131:TYR:CZ	2.08	0.87
2:B:641:HIS:HD2	2:B:642:LEU:HG	1.30	0.87
1:E:24:U:O2	2:F:105:PHE:HD1	1.57	0.87
2:F:78:ARG:NH1	2:F:162:ILE:O	2.06	0.87
2:B:1326:TYR:CD2	2:B:1327:PHE:CD2	2.63	0.87
2:F:1326:TYR:CD2	2:F:1327:PHE:CD2	2.63	0.87
2:B:665:LYS:CA	2:B:669:GLY:CA	2.41	0.87
2:B:974:LYS:NZ	2:B:976:ARG:NH1	2.23	0.87
2:F:324:ARG:CZ	2:F:400:ARG:NH1	2.27	0.87
2:B:1062:LEU:HD23	2:B:1063:ILE:H	1.36	0.87
1:A:24:U:C2	2:B:105:PHE:CE1	2.63	0.87
2:B:226:ILE:HD11	2:F:574:CYS:SG	2.15	0.87
2:B:557:ARG:NH2	2:B:599:LYS:HZ2	1.67	0.87
1:E:24:U:C2	2:F:105:PHE:CE1	2.63	0.87
2:F:641:HIS:HD2	2:F:642:LEU:HG	1.30	0.87
1:A:24:U:O2	2:B:105:PHE:HD1	1.56	0.87
2:B:544:GLN:O	2:B:548:ILE:HG13	1.74	0.87
2:F:665:LYS:CA	2:F:669:GLY:CA	2.40	0.87
2:B:372:PHE:O	2:B:376:ILE:CD1	2.22	0.86
2:F:220:ARG:HG3	2:F:220:ARG:HH11	1.40	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:220:ARG:HH11	2:B:220:ARG:HG3	1.40	0.86
2:F:372:PHE:O	2:F:376:ILE:CD1	2.22	0.86
2:F:699:ASP:OD1	2:F:701:SER:OG	1.93	0.86
2:B:699:ASP:OD1	2:B:701:SER:OG	1.93	0.86
2:B:974:LYS:HZ2	2:B:976:ARG:HH12	0.92	0.86
2:F:544:GLN:O	2:F:548:ILE:HG13	1.74	0.86
2:F:1062:LEU:HD23	2:F:1063:ILE:H	1.36	0.86
2:B:195:LEU:HD22	2:B:289:LEU:CD1	2.05	0.86
2:B:1357:GLU:OE1	2:B:1359:ARG:NH1	2.09	0.86
2:B:181:VAL:CG2	2:B:209:LYS:CB	2.53	0.86
2:B:1204:PHE:HE2	2:B:1214:LEU:HD12	1.37	0.86
2:F:1357:GLU:OE1	2:F:1359:ARG:NH1	2.09	0.86
2:B:525:THR:CG2	2:B:690:ASN:HD22	1.87	0.86
2:F:181:VAL:CG2	2:F:209:LYS:CB	2.53	0.86
2:F:195:LEU:HD22	2:F:289:LEU:CD1	2.05	0.86
2:F:679:ILE:HD11	2:F:704:PHE:CD1	2.11	0.86
2:F:1204:PHE:HE2	2:F:1214:LEU:HD12	1.37	0.86
2:B:70:ARG:O	2:B:74:ARG:HD2	1.75	0.86
2:B:679:ILE:HD11	2:B:704:PHE:CD1	2.11	0.86
2:B:909:SER:N	2:B:912:ASP:OD2	2.08	0.86
2:B:1314:THR:HG21	2:B:1324:PHE:HB3	1.58	0.86
2:F:1314:THR:HG21	2:F:1324:PHE:HB3	1.58	0.86
2:F:931:VAL:O	2:F:935:LEU:HD13	1.75	0.85
2:F:70:ARG:O	2:F:74:ARG:HD2	1.75	0.85
2:F:557:ARG:NH2	2:F:599:LYS:HZ2	1.67	0.85
2:F:909:SER:N	2:F:912:ASP:OD2	2.08	0.85
2:B:557:ARG:NH2	2:B:599:LYS:HZ3	1.64	0.85
2:B:981:TYR:CE2	2:B:1092:VAL:CB	2.59	0.85
2:F:981:TYR:CE2	2:F:1092:VAL:CB	2.59	0.85
2:B:1062:LEU:HD23	2:B:1063:ILE:N	1.90	0.85
2:F:121:ASN:HD21	2:F:124:ASP:CB	1.89	0.85
2:F:178:ASN:CB	2:F:299:ALA:CA	2.54	0.85
2:B:931:VAL:O	2:B:935:LEU:HD13	1.75	0.85
2:F:1062:LEU:HD23	2:F:1063:ILE:N	1.90	0.85
2:B:279:LEU:CD1	2:B:287:ALA:HB2	2.06	0.85
2:F:1290:VAL:HG22	2:F:1331:ILE:HD13	1.57	0.85
2:F:557:ARG:NH2	2:F:599:LYS:HZ3	1.64	0.85
2:B:121:ASN:HD21	2:B:124:ASP:CB	1.89	0.85
2:B:178:ASN:CB	2:B:299:ALA:CA	2.54	0.85
2:B:317:LEU:HD12	2:B:317:LEU:O	1.76	0.85
2:F:279:LEU:CD1	2:F:287:ALA:HB2	2.06	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:977:GLU:HG3	2:F:1310:ILE:CG2	2.06	0.85
2:B:671:ARG:HG3	2:B:678:THR:HG22	1.58	0.85
2:F:27:VAL:CG1	2:F:1086:VAL:HG13	2.06	0.85
2:F:671:ARG:HG3	2:F:678:THR:HG22	1.58	0.85
2:F:806:LEU:HD22	2:F:811:LEU:CD1	2.07	0.85
2:B:1105:PHE:CG	2:B:1169:MET:HG3	2.11	0.84
2:B:1290:VAL:HG22	2:B:1331:ILE:HD13	1.57	0.84
2:F:317:LEU:HD12	2:F:317:LEU:O	1.76	0.84
2:F:1105:PHE:CG	2:F:1169:MET:HG3	2.11	0.84
2:B:181:VAL:HG23	2:B:209:LYS:CB	2.06	0.84
2:F:563:GLN:O	2:F:567:ASP:HB2	1.77	0.84
2:B:27:VAL:CG1	2:B:1086:VAL:HG13	2.06	0.84
2:B:806:LEU:HD22	2:B:811:LEU:CD1	2.07	0.84
1:E:17:G:OP2	2:F:74:ARG:NH1	2.10	0.84
2:F:362:TYR:CE2	2:F:401:LYS:HE3	2.12	0.84
2:B:563:GLN:O	2:B:567:ASP:HB2	1.77	0.84
2:B:672:ASP:HA	2:B:703:THR:HG21	1.59	0.84
2:F:1305:GLN:CA	2:F:1327:PHE:HZ	1.89	0.84
1:A:17:G:OP2	2:B:74:ARG:NH1	2.10	0.84
2:F:181:VAL:HG23	2:F:209:LYS:CB	2.06	0.84
2:F:181:VAL:HG23	2:F:209:LYS:CG	2.07	0.84
2:B:530:VAL:CG2	2:B:537:PRO:CB	2.46	0.84
2:B:1305:GLN:CA	2:B:1327:PHE:HZ	1.89	0.84
2:F:691:ARG:HB3	2:F:696:LEU:HD22	1.60	0.84
2:B:961:LYS:NZ	2:B:965:ASP:OD2	2.10	0.84
2:F:961:LYS:NZ	2:F:965:ASP:OD2	2.10	0.84
2:B:569:PHE:HD1	2:B:575:PHE:CD2	1.96	0.84
2:B:691:ARG:HB3	2:B:696:LEU:HD22	1.60	0.84
2:F:569:PHE:HD1	2:F:575:PHE:CD2	1.96	0.84
2:F:672:ASP:HA	2:F:703:THR:HG21	1.59	0.84
2:B:557:ARG:HH22	2:B:599:LYS:HZ3	0.86	0.83
2:B:810:LYS:O	2:B:833:LEU:HD13	1.76	0.83
2:B:181:VAL:HG23	2:B:209:LYS:CG	2.07	0.83
2:B:229:LEU:HD13	2:B:232:GLU:H	1.42	0.83
2:B:696:LEU:HD12	2:B:702:LEU:HD13	1.60	0.83
2:F:436:ASN:O	2:F:440:ILE:HD12	1.78	0.83
2:B:436:ASN:O	2:B:440:ILE:HD12	1.78	0.83
3:C:19:DA:H8	3:C:19:DA:H5''	1.42	0.83
2:F:1000:LYS:CD	2:F:1073:VAL:HG21	2.08	0.83
2:B:1302:ILE:O	2:B:1306:ALA:CB	2.27	0.83
2:F:557:ARG:HH22	2:F:599:LYS:HZ3	0.86	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:696:LEU:HD12	2:F:702:LEU:HD13	1.60	0.83
2:B:704:PHE:O	2:B:708:ILE:HD11	1.77	0.83
2:F:530:VAL:CG2	2:F:537:PRO:CB	2.46	0.83
2:F:810:LYS:O	2:F:833:LEU:HD13	1.76	0.83
2:B:1232:TYR:OH	2:B:1268:GLU:HG2	1.77	0.83
2:F:229:LEU:HD13	2:F:232:GLU:H	1.42	0.83
2:F:1302:ILE:O	2:F:1306:ALA:CB	2.27	0.83
2:B:359:TYR:CE1	2:B:399:LEU:HD23	2.12	0.83
2:B:1244:LYS:N	2:B:1244:LYS:HD3	1.94	0.83
2:F:979:ASN:ND2	2:F:981:TYR:HD1	1.69	0.83
2:F:1000:LYS:HE2	2:F:1073:VAL:HG22	1.59	0.83
2:B:870:VAL:HG12	2:B:871:PRO:CD	2.08	0.83
2:B:1000:LYS:CD	2:B:1073:VAL:HG21	2.09	0.83
2:F:1203:LEU:CD1	2:F:1213:MET:HG3	2.08	0.83
2:F:1244:LYS:HD3	2:F:1244:LYS:N	1.94	0.83
3:G:19:DA:H5"	3:G:19:DA:H8	1.42	0.83
2:B:1000:LYS:HE2	2:B:1073:VAL:HG22	1.59	0.83
2:B:1203:LEU:CD1	2:B:1213:MET:HG3	2.08	0.83
2:F:704:PHE:O	2:F:708:ILE:HD11	1.77	0.83
2:F:870:VAL:HG12	2:F:871:PRO:CD	2.08	0.82
2:B:395:ARG:O	2:B:396:GLU:HB2	1.79	0.82
2:F:209:LYS:O	2:F:213:SER:HB2	1.78	0.82
2:F:1230:SER:CA	2:F:1233:VAL:HG23	2.09	0.82
2:B:209:LYS:O	2:B:213:SER:HB2	1.78	0.82
2:B:1143:VAL:CG1	2:B:1195:ILE:HG23	2.09	0.82
2:F:121:ASN:ND2	2:F:124:ASP:HB2	1.93	0.82
2:F:1143:VAL:CG1	2:F:1195:ILE:HG23	2.09	0.82
2:B:1230:SER:CA	2:B:1233:VAL:HG23	2.09	0.82
2:F:324:ARG:HH21	2:F:400:ARG:NH1	1.72	0.82
2:F:395:ARG:O	2:F:396:GLU:HB2	1.79	0.82
2:B:121:ASN:ND2	2:B:124:ASP:HB2	1.93	0.82
2:B:569:PHE:HD1	2:B:575:PHE:HD2	1.26	0.82
2:F:70:ARG:HH21	2:F:462:PHE:HD2	1.26	0.82
2:B:733:ILE:O	2:B:737:ILE:HG13	1.80	0.82
2:B:1062:LEU:HD21	2:B:1063:ILE:HG13	1.61	0.82
2:F:569:PHE:HD1	2:F:575:PHE:HD2	1.26	0.82
2:F:733:ILE:O	2:F:737:ILE:HG13	1.80	0.82
2:B:181:VAL:HG13	2:B:300:ILE:HD13	1.61	0.82
2:F:1062:LEU:HD21	2:F:1063:ILE:HG13	1.61	0.82
2:B:181:VAL:HG11	2:B:300:ILE:HD11	0.83	0.82
2:B:279:LEU:HD11	2:B:287:ALA:HB2	1.62	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:279:LEU:HD11	2:F:287:ALA:HB2	1.62	0.82
2:B:679:ILE:HG12	2:B:704:PHE:CE1	2.14	0.81
2:F:181:VAL:HG11	2:F:300:ILE:HD11	0.83	0.81
2:F:679:ILE:HG12	2:F:704:PHE:CE1	2.14	0.81
2:B:70:ARG:HH21	2:B:462:PHE:HD2	1.26	0.81
2:B:241:LEU:HD21	2:B:290:PHE:HE2	1.45	0.81
2:B:244:LEU:HG	2:B:266:LEU:HD12	1.62	0.81
2:B:398:LEU:O	2:B:399:LEU:HD12	1.80	0.81
2:B:1107:LYS:NZ	3:C:7:DC:O2	2.13	0.81
2:B:1314:THR:CG2	2:B:1324:PHE:CG	2.62	0.81
2:F:241:LEU:HD21	2:F:290:PHE:HE2	1.45	0.81
2:F:1314:THR:CG2	2:F:1324:PHE:CG	2.62	0.81
2:F:181:VAL:HG13	2:F:300:ILE:HD13	1.61	0.81
2:F:244:LEU:HG	2:F:266:LEU:HD12	1.62	0.81
2:B:101:LEU:O	2:B:104:SER:OG	1.97	0.81
2:B:926:GLN:HA	2:B:929:LYS:CG	2.06	0.81
2:B:1127:ASP:HB3	2:B:1130:LYS:HB2	1.62	0.81
2:F:398:LEU:O	2:F:399:LEU:HD12	1.80	0.81
2:F:1107:LYS:NZ	3:G:7:DC:O2	2.13	0.81
2:F:101:LEU:O	2:F:104:SER:OG	1.97	0.81
1:A:62:G:C8	2:B:69:ARG:NH1	2.49	0.81
2:B:277:ASN:ND2	2:B:653:ARG:HD3	1.94	0.81
2:F:99:HIS:O	2:F:103:GLU:HG2	1.80	0.81
2:F:277:ASN:ND2	2:F:653:ARG:HD3	1.94	0.81
4:H:6:DG:H2''	4:H:7:DG:H5'	1.61	0.81
2:B:955:VAL:O	2:B:1009:VAL:HG13	1.81	0.81
2:F:926:GLN:HA	2:F:929:LYS:CG	2.06	0.81
2:B:513:LEU:HD11	2:B:616:LEU:CB	2.10	0.81
2:B:852:ILE:HG13	5:B:1401:SO4:O1	1.81	0.81
4:D:6:DG:H2''	4:D:7:DG:H5'	1.61	0.81
1:E:62:G:C8	2:F:69:ARG:NH1	2.49	0.81
2:F:324:ARG:NH2	2:F:400:ARG:HH12	1.77	0.81
2:F:955:VAL:O	2:F:1009:VAL:HG13	1.81	0.81
2:B:99:HIS:O	2:B:103:GLU:HG2	1.80	0.80
2:B:745:ASP:OD2	2:B:938:ARG:NH2	2.14	0.80
2:F:107:VAL:CG2	2:F:1131:TYR:OH	2.28	0.80
2:F:745:ASP:OD2	2:F:938:ARG:NH2	2.14	0.80
2:B:1251:ASP:HA	2:B:1254:GLN:OE1	1.81	0.80
2:F:513:LEU:HD11	2:F:616:LEU:CB	2.10	0.80
2:B:249:THR:CG2	2:B:265:GLN:NE2	2.44	0.80
2:B:974:LYS:HZ2	2:B:976:ARG:NH1	1.77	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:107:VAL:CG2	2:B:1131:TYR:OH	2.28	0.80
2:F:1045:PHE:CZ	2:F:1046:PHE:HE2	1.95	0.80
2:B:207:ASP:O	2:B:211:ILE:N	2.14	0.80
2:B:665:LYS:O	2:B:669:GLY:N	2.13	0.80
2:B:842:VAL:HG12	2:B:854:ASN:OD1	1.82	0.80
2:B:1312:LEU:HD11	2:B:1326:TYR:CD1	2.16	0.80
2:B:970:PHE:HE1	2:B:1080:PHE:CZ	2.00	0.80
2:B:1302:ILE:O	2:B:1306:ALA:N	2.15	0.80
2:F:318:SER:HG	2:F:418:GLU:CD	1.82	0.80
2:F:528:LYS:HB2	2:F:581:SER:HG	1.47	0.80
2:F:665:LYS:O	2:F:669:GLY:N	2.13	0.80
2:F:842:VAL:HG12	2:F:854:ASN:OD1	1.82	0.80
2:F:1251:ASP:HA	2:F:1254:GLN:OE1	1.81	0.80
2:B:1045:PHE:CZ	2:B:1046:PHE:HE2	1.95	0.80
2:B:1207:GLU:OE2	2:B:1210:ARG:HD3	1.82	0.80
2:F:637:LYS:HA	2:F:640:ALA:HB2	1.63	0.80
2:F:970:PHE:HE1	2:F:1080:PHE:CZ	2.00	0.80
2:F:1207:GLU:OE2	2:F:1210:ARG:HD3	1.82	0.80
2:F:979:ASN:OD1	2:F:980:ASN:N	2.15	0.80
2:F:1302:ILE:O	2:F:1306:ALA:N	2.15	0.80
2:F:207:ASP:O	2:F:211:ILE:N	2.14	0.80
2:F:518:PHE:CD1	2:F:667:ILE:HG23	2.17	0.80
2:F:1312:LEU:HD11	2:F:1326:TYR:CD1	2.16	0.80
2:B:637:LYS:HA	2:B:640:ALA:HB2	1.63	0.80
2:F:297:SER:C	2:F:301:LEU:HD12	2.01	0.80
2:F:1236:LEU:HD22	2:F:1310:ILE:HG13	1.64	0.80
1:A:59:U:OP2	2:B:472:THR:HG23	1.81	0.79
2:B:297:SER:C	2:B:301:LEU:HD12	2.01	0.79
2:B:518:PHE:CD1	2:B:667:ILE:HG23	2.17	0.79
2:B:788:ILE:O	2:B:792:GLY:N	2.15	0.79
2:B:1179:ILE:O	2:B:1183:GLU:HG3	1.82	0.79
2:B:1236:LEU:HD22	2:B:1310:ILE:HG13	1.64	0.79
2:F:1179:ILE:O	2:F:1183:GLU:HG3	1.82	0.79
2:B:1062:LEU:O	2:B:1076:LYS:CG	2.27	0.79
2:F:89:GLU:O	2:F:93:VAL:HG23	1.81	0.79
2:F:343:LEU:CD2	2:F:346:LYS:HB2	2.12	0.79
2:F:788:ILE:O	2:F:792:GLY:N	2.15	0.79
2:B:343:LEU:CD2	2:B:346:LYS:HB2	2.12	0.79
1:E:59:U:OP2	2:F:472:THR:HG23	1.81	0.79
1:A:56:U:O2	1:A:58:G:N2	2.15	0.79
2:B:89:GLU:O	2:B:93:VAL:HG23	1.81	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:100:ARG:NE	2:B:117:PRO:O	2.16	0.79
2:F:539:PHE:CE1	2:F:690:ASN:HB2	2.17	0.79
2:F:874:GLU:O	2:F:877:LYS:HG3	1.82	0.79
2:F:1062:LEU:O	2:F:1076:LYS:CG	2.27	0.79
1:E:56:U:O2	1:E:58:G:N2	2.15	0.79
1:E:19:A:O2'	2:F:405:PHE:O	2.00	0.79
2:F:100:ARG:NE	2:F:117:PRO:O	2.16	0.79
1:A:19:A:O2'	2:B:405:PHE:O	2.00	0.79
2:B:874:GLU:O	2:B:877:LYS:HG3	1.82	0.79
2:B:1303:ARG:O	2:B:1307:GLU:HG3	1.82	0.79
2:B:1242:TYR:HD1	2:B:1242:TYR:H	1.32	0.78
2:F:1251:ASP:CA	2:F:1254:GLN:NE2	2.39	0.78
2:B:1045:PHE:CE1	2:B:1046:PHE:CE2	2.71	0.78
2:B:512:SER:OG	2:B:617:GLU:OE1	2.02	0.78
2:B:1000:LYS:HZ1	2:B:1064:GLU:HG3	1.49	0.78
2:F:1045:PHE:CE1	2:F:1046:PHE:CE2	2.71	0.78
2:F:1242:TYR:HD1	2:F:1242:TYR:H	1.32	0.78
2:F:1303:ARG:O	2:F:1307:GLU:HG3	1.82	0.78
1:A:41:A:H2'	1:A:42:A:H5''	1.65	0.78
2:B:45:LYS:HE3	2:B:1093:ASN:OD1	1.83	0.78
2:B:755:LYS:HD3	2:B:939:MET:HE1	1.64	0.78
2:B:1326:TYR:HD2	2:B:1327:PHE:HD2	1.31	0.78
2:F:512:SER:OG	2:F:617:GLU:OE1	2.02	0.78
1:E:41:A:H2'	1:E:42:A:H5''	1.65	0.78
2:F:8:GLY:O	2:F:987:ALA:HB1	1.83	0.78
2:F:114:GLU:HG2	2:F:120:GLY:HA2	1.63	0.78
2:F:249:THR:HG22	2:F:265:GLN:HB2	1.66	0.78
2:F:1143:VAL:HG13	2:F:1195:ILE:HG22	1.65	0.78
2:B:870:VAL:HG12	2:B:871:PRO:HD2	1.66	0.78
2:F:1326:TYR:HD2	2:F:1327:PHE:HD2	1.31	0.78
1:A:24:U:H1'	2:B:105:PHE:CE1	2.18	0.78
2:B:219:SER:O	2:B:222:LEU:HG	1.84	0.78
2:B:1041:ASN:HB3	2:B:1044:ASN:OD1	1.82	0.78
2:B:1143:VAL:HG13	2:B:1195:ILE:HG22	1.65	0.78
1:E:24:U:H1'	2:F:105:PHE:CE1	2.18	0.78
2:F:219:SER:O	2:F:222:LEU:HG	1.84	0.78
2:B:8:GLY:O	2:B:987:ALA:HB1	1.83	0.78
2:B:212:LEU:HD21	2:B:225:LEU:HD12	1.65	0.78
2:F:45:LYS:HE3	2:F:1093:ASN:OD1	1.83	0.78
2:F:342:GLN:CD	2:F:383:MET:HE2	2.03	0.78
2:F:362:TYR:CE1	2:F:372:PHE:CD2	2.72	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:1000:LYS:HZ1	2:F:1064:GLU:HG3	1.49	0.78
2:B:278:LEU:CD1	2:B:282:ILE:CD1	2.59	0.78
2:F:870:VAL:HG12	2:F:871:PRO:HD2	1.66	0.78
2:F:1041:ASN:HB3	2:F:1044:ASN:OD1	1.82	0.78
2:F:777:SER:HG	4:H:2:DT:HO5'	1.25	0.77
2:B:114:GLU:HG2	2:B:120:GLY:HA2	1.63	0.77
2:B:1256:GLN:NE2	2:B:1260:GLU:OE2	2.17	0.77
2:F:672:ASP:CG	2:F:703:THR:HG22	2.02	0.77
2:B:914:ALA:CB	2:B:1035:LYS:HD3	2.13	0.77
2:B:1000:LYS:HE2	2:B:1064:GLU:HB3	1.64	0.77
2:F:212:LEU:HD21	2:F:225:LEU:HD12	1.65	0.77
2:F:1000:LYS:HE2	2:F:1064:GLU:HB3	1.65	0.77
2:B:672:ASP:CG	2:B:703:THR:HG22	2.02	0.77
2:F:278:LEU:CD1	2:F:282:ILE:CD1	2.59	0.77
2:F:755:LYS:HD3	2:F:939:MET:HE3	1.64	0.77
2:F:939:MET:HE2	2:F:953:VAL:HG21	1.67	0.77
2:F:1256:GLN:NE2	2:F:1260:GLU:OE2	2.17	0.77
2:F:362:TYR:HD1	2:F:372:PHE:CG	2.03	0.77
2:F:914:ALA:CB	2:F:1035:LYS:HD3	2.13	0.77
2:B:847:LEU:HD21	2:B:849:ASP:HB2	1.66	0.77
2:F:78:ARG:NE	2:F:165:ARG:HH11	1.83	0.77
2:F:321:MET:HA	2:F:321:MET:CE	2.15	0.77
2:F:847:LEU:HD21	2:F:849:ASP:HB2	1.66	0.77
2:F:1143:VAL:CG1	2:F:1195:ILE:HG22	2.13	0.77
2:B:279:LEU:CD1	2:B:287:ALA:CB	2.61	0.77
2:B:1243:GLU:C	2:B:1244:LYS:HD3	2.04	0.77
2:B:1287:LEU:HD12	2:B:1287:LEU:O	1.84	0.77
2:F:165:ARG:HH21	2:F:168:PHE:HZ	1.29	0.77
2:F:178:ASN:CB	2:F:299:ALA:CB	2.41	0.77
2:F:812:TYR:CE1	2:F:816:LEU:HD21	2.19	0.77
2:B:78:ARG:NE	2:B:165:ARG:HH11	1.83	0.77
2:B:977:GLU:HG3	2:B:1310:ILE:CG2	2.14	0.77
2:B:114:GLU:HG2	2:B:120:GLY:CA	2.15	0.77
2:F:1243:GLU:C	2:F:1244:LYS:HD3	2.04	0.77
2:F:1287:LEU:HD12	2:F:1287:LEU:O	1.84	0.77
2:B:45:LYS:CE	2:B:1093:ASN:OD1	2.33	0.77
2:B:508:LEU:HD12	2:B:663:SER:C	2.04	0.77
2:F:114:GLU:HG2	2:F:120:GLY:CA	2.15	0.77
2:B:812:TYR:CE1	2:B:816:LEU:HD21	2.19	0.76
2:B:1086:VAL:O	2:B:1089:MET:HE1	1.85	0.76
2:F:279:LEU:CD1	2:F:287:ALA:CB	2.61	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:45:LYS:CE	2:F:1093:ASN:OD1	2.33	0.76
2:F:98:PHE:O	2:F:102:GLU:HG3	1.85	0.76
2:F:508:LEU:HD12	2:F:663:SER:C	2.04	0.76
2:F:1303:ARG:O	2:F:1307:GLU:CG	2.34	0.76
2:B:1206:LEU:O	2:B:1207:GLU:HG3	1.84	0.76
2:B:1303:ARG:O	2:B:1307:GLU:CG	2.34	0.76
2:F:621:LEU:O	2:F:625:LEU:HB2	1.85	0.76
2:F:1206:LEU:O	2:F:1207:GLU:HG3	1.84	0.76
2:F:1290:VAL:HG22	2:F:1331:ILE:CD1	2.15	0.76
2:B:178:ASN:CB	2:B:299:ALA:CB	2.41	0.76
2:B:483:ASP:OD1	2:B:486:ALA:HB3	1.86	0.76
2:B:842:VAL:CG1	2:B:854:ASN:HD21	1.99	0.76
2:B:1143:VAL:CG1	2:B:1195:ILE:HG22	2.13	0.76
2:B:1290:VAL:HG22	2:B:1331:ILE:CD1	2.15	0.76
2:F:483:ASP:OD1	2:F:486:ALA:HB3	1.86	0.76
2:F:842:VAL:CG1	2:F:854:ASN:HD21	1.99	0.76
2:B:106:LEU:O	2:B:111:LYS:HE3	1.84	0.76
2:F:106:LEU:O	2:F:111:LYS:HE3	1.84	0.76
2:B:98:PHE:O	2:B:102:GLU:HG3	1.85	0.76
2:B:275:LEU:CD1	2:B:279:LEU:HB2	2.16	0.76
2:B:621:LEU:O	2:B:625:LEU:HB2	1.85	0.76
2:F:275:LEU:CD1	2:F:279:LEU:HB2	2.16	0.76
2:B:165:ARG:HH21	2:B:168:PHE:HZ	1.29	0.76
2:F:386:THR:O	2:F:389:LEU:HB2	1.86	0.76
2:B:545:LYS:HZ1	2:B:690:ASN:ND2	1.84	0.76
2:B:839:ASP:OD1	2:B:864:ARG:NH1	2.18	0.76
2:B:970:PHE:CE1	2:B:1080:PHE:CZ	2.73	0.76
2:F:970:PHE:CE1	2:F:1080:PHE:CZ	2.73	0.76
2:B:181:VAL:HG23	2:B:209:LYS:HB2	1.68	0.76
1:E:15:U:H2'	1:E:16:U:H6	1.50	0.76
2:F:839:ASP:OD1	2:F:864:ARG:NH1	2.18	0.76
2:F:181:VAL:HG23	2:F:209:LYS:HB2	1.67	0.75
2:F:784:ILE:CG2	2:F:788:ILE:HD11	2.16	0.75
2:F:818:ASN:O	2:F:818:ASN:ND2	2.19	0.75
2:F:1082:THR:O	2:F:1086:VAL:HG23	1.85	0.75
2:B:818:ASN:ND2	2:B:818:ASN:O	2.19	0.75
2:B:970:PHE:CE1	2:B:1080:PHE:HZ	2.04	0.75
2:B:1274:SER:O	2:B:1278:LYS:HG3	1.84	0.75
1:E:24:U:C2	2:F:105:PHE:HE1	2.01	0.75
2:F:307:ARG:NH1	2:F:323:LYS:NZ	2.34	0.75
2:F:518:PHE:HD1	2:F:667:ILE:HG23	1.51	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:1274:SER:O	2:F:1278:LYS:HG3	1.84	0.75
2:F:321:MET:HA	2:F:321:MET:HE3	1.68	0.75
1:A:15:U:H2'	1:A:16:U:H6	1.50	0.75
2:F:1206:LEU:C	2:F:1207:GLU:HG3	2.07	0.75
1:A:24:U:C2	2:B:105:PHE:CD1	2.75	0.75
2:B:518:PHE:HD1	2:B:667:ILE:HG23	1.51	0.75
2:B:784:ILE:CG2	2:B:788:ILE:HD11	2.16	0.75
2:B:1082:THR:O	2:B:1086:VAL:HG23	1.85	0.75
2:B:1206:LEU:C	2:B:1207:GLU:HG3	2.06	0.75
1:E:24:U:C2	2:F:105:PHE:CD1	2.75	0.75
2:F:234:LYS:HD3	2:F:235:ASN:ND2	2.02	0.75
2:F:341:GLN:HG3	2:F:342:GLN:HG2	1.69	0.75
2:F:970:PHE:CE1	2:F:1080:PHE:HZ	2.04	0.75
2:F:1246:LYS:HZ2	2:F:1246:LYS:HB2	1.52	0.75
2:B:178:ASN:HD22	2:B:298:ASP:HB3	1.46	0.75
2:B:234:LYS:HD3	2:B:235:ASN:ND2	2.02	0.75
2:B:341:GLN:HG3	2:B:342:GLN:HG2	1.69	0.75
2:B:1224:ASN:CG	2:B:1280:VAL:CG1	2.55	0.75
2:F:398:LEU:HD22	2:F:399:LEU:HD13	1.67	0.75
2:B:1314:THR:HG21	2:B:1324:PHE:CG	2.22	0.74
2:F:1105:PHE:CD2	2:F:1169:MET:CG	2.70	0.74
2:F:1314:THR:HG21	2:F:1324:PHE:CG	2.22	0.74
1:A:24:U:C2	2:B:105:PHE:HE1	2.01	0.74
2:B:299:ALA:O	2:B:302:LEU:HD22	1.84	0.74
2:B:398:LEU:HD22	2:B:399:LEU:HD13	1.67	0.74
2:B:679:ILE:HD11	2:B:704:PHE:CE1	2.22	0.74
2:F:178:ASN:HD22	2:F:298:ASP:HB3	1.46	0.74
2:F:299:ALA:O	2:F:302:LEU:HD22	1.84	0.74
2:F:981:TYR:CD2	2:F:1092:VAL:HG11	2.22	0.74
2:F:1224:ASN:CG	2:F:1280:VAL:CG1	2.55	0.74
2:B:114:GLU:CG	2:B:120:GLY:HA2	2.17	0.74
2:B:981:TYR:CD2	2:B:1092:VAL:HG11	2.22	0.74
2:F:100:ARG:NH2	2:F:117:PRO:O	2.19	0.74
2:B:1105:PHE:CD2	2:B:1169:MET:CG	2.70	0.74
2:F:679:ILE:HD11	2:F:704:PHE:CE1	2.22	0.74
2:F:1086:VAL:O	2:F:1089:MET:HE1	1.88	0.74
2:B:100:ARG:NH2	2:B:117:PRO:O	2.19	0.74
2:F:78:ARG:NE	2:F:165:ARG:NH1	2.35	0.74
2:B:234:LYS:HB2	2:F:572:ILE:O	1.87	0.74
2:F:297:SER:O	2:F:301:LEU:HD12	1.88	0.74
2:B:297:SER:HG	2:B:301:LEU:CD1	1.97	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:967:ARG:NH1	2:B:974:LYS:HB2	2.01	0.74
2:F:963:VAL:HG21	2:F:990:ASN:ND2	2.02	0.74
2:B:78:ARG:NE	2:B:165:ARG:NH1	2.35	0.74
2:B:297:SER:O	2:B:301:LEU:HD12	1.88	0.74
2:B:940:ASN:OD1	2:B:951:ARG:HA	1.88	0.74
2:F:114:GLU:CG	2:F:120:GLY:HA2	2.17	0.74
2:F:940:ASN:OD1	2:F:951:ARG:HA	1.88	0.74
2:F:967:ARG:NH1	2:F:974:LYS:HB2	2.01	0.74
2:B:244:LEU:CD1	2:B:250:PRO:CD	2.66	0.74
3:C:19:DA:H5''	3:C:19:DA:C8	2.22	0.74
2:F:340:ARG:C	2:F:344:PRO:HG3	2.08	0.74
2:F:696:LEU:HD12	2:F:702:LEU:CD1	2.15	0.74
2:F:874:GLU:HA	2:F:877:LYS:HD2	1.68	0.74
2:B:963:VAL:HG21	2:B:990:ASN:ND2	2.02	0.73
2:F:244:LEU:CD1	2:F:250:PRO:CD	2.66	0.73
2:B:340:ARG:C	2:B:344:PRO:HG3	2.08	0.73
2:B:618:ASP:OD2	2:B:639:TYR:OH	2.03	0.73
2:B:979:ASN:OD1	2:B:981:TYR:HD1	1.72	0.73
2:F:842:VAL:HG12	2:F:854:ASN:ND2	2.03	0.73
2:B:830:ILE:N	2:B:830:ILE:HD12	2.04	0.73
2:B:842:VAL:HG12	2:B:854:ASN:ND2	2.03	0.73
2:F:278:LEU:HD12	2:F:278:LEU:O	1.88	0.73
2:F:830:ILE:HD12	2:F:830:ILE:N	2.03	0.73
3:G:19:DA:H5''	3:G:19:DA:C8	2.22	0.73
2:B:340:ARG:NH2	2:B:347:TYR:CE1	2.57	0.73
2:F:618:ASP:OD2	2:F:639:TYR:OH	2.03	0.73
2:F:1304:GLU:HB3	2:F:1327:PHE:HE1	1.52	0.73
2:B:278:LEU:HD12	2:B:278:LEU:O	1.88	0.73
2:B:545:LYS:NZ	2:B:690:ASN:HD21	1.86	0.73
2:B:961:LYS:HG2	2:B:965:ASP:OD2	1.88	0.73
2:B:1221:GLN:NE2	2:B:1320:ALA:HB2	2.03	0.73
2:F:340:ARG:NH2	2:F:347:TYR:CE1	2.57	0.73
2:F:1221:GLN:NE2	2:F:1320:ALA:HB2	2.03	0.73
2:B:27:VAL:HG12	2:B:1086:VAL:HG13	1.70	0.73
2:B:696:LEU:HD12	2:B:702:LEU:CD1	2.15	0.73
2:B:780:ARG:HD2	2:B:812:TYR:CE2	2.23	0.73
2:B:874:GLU:HA	2:B:877:LYS:HD2	1.68	0.73
1:E:45:U:H5'	2:F:402:GLN:HG2	1.68	0.73
2:F:27:VAL:HG12	2:F:1086:VAL:HG13	1.70	0.73
2:F:244:LEU:HG	2:F:266:LEU:HD11	1.70	0.73
2:B:244:LEU:HG	2:B:266:LEU:HD11	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:545:LYS:NZ	2:B:690:ASN:ND2	2.36	0.73
2:B:686:ASP:OD2	2:B:691:ARG:HB2	1.88	0.73
2:F:178:ASN:HB3	2:F:299:ALA:N	2.04	0.73
2:F:362:TYR:CE1	2:F:372:PHE:HD2	2.07	0.73
2:F:780:ARG:HD2	2:F:812:TYR:CE2	2.23	0.73
2:B:178:ASN:HB3	2:B:299:ALA:N	2.04	0.73
2:B:870:VAL:CG2	2:B:908:LEU:CG	2.67	0.73
2:F:979:ASN:OD1	2:F:981:TYR:N	2.20	0.73
1:A:45:U:H5'	2:B:402:GLN:HG2	1.68	0.73
2:F:870:VAL:CG2	2:F:908:LEU:CG	2.67	0.73
2:B:34:VAL:HG21	2:B:43:ILE:HG13	1.71	0.73
2:B:27:VAL:HG11	2:B:1086:VAL:HG13	1.70	0.72
2:B:1304:GLU:HB3	2:B:1327:PHE:HE1	1.52	0.72
1:E:63:U:H2'	2:F:62:THR:HG22	1.69	0.72
2:F:284:ASP:N	2:F:285:GLN:OE1	2.22	0.72
2:F:302:LEU:HD23	2:F:303:SER:N	2.03	0.72
2:F:961:LYS:HG2	2:F:965:ASP:OD2	1.88	0.72
2:B:284:ASP:N	2:B:285:GLN:OE1	2.22	0.72
2:F:34:VAL:HG21	2:F:43:ILE:HG13	1.71	0.72
2:F:1246:LYS:HB2	2:F:1246:LYS:NZ	2.04	0.72
2:B:22:THR:HG22	2:B:23:ASP:H	1.54	0.72
2:B:241:LEU:HD21	2:B:290:PHE:CE2	2.24	0.72
2:B:1246:LYS:HB2	2:B:1246:LYS:NZ	2.04	0.72
2:F:841:ILE:HD13	2:F:900:LEU:HD23	1.71	0.72
1:A:63:U:H2'	2:B:62:THR:HG22	1.69	0.72
2:B:302:LEU:HD23	2:B:303:SER:N	2.03	0.72
2:F:842:VAL:HG12	2:F:854:ASN:CG	2.10	0.72
2:B:841:ILE:HD13	2:B:900:LEU:HD23	1.71	0.72
2:B:1135:ASP:OD1	2:B:1136:SER:N	2.22	0.72
2:B:1171:ARG:HG2	2:B:1171:ARG:NH1	2.01	0.72
2:B:1203:LEU:HD12	2:B:1213:MET:HG3	1.71	0.72
2:F:241:LEU:HD21	2:F:290:PHE:CE2	2.24	0.72
2:F:273:ASP:OD1	2:F:274:ASP:N	2.22	0.72
2:F:635:ARG:HG3	2:F:635:ARG:NH1	2.04	0.72
2:B:273:ASP:OD1	2:B:274:ASP:N	2.22	0.72
2:B:449:PRO:HD2	2:B:452:VAL:HG21	1.71	0.72
2:B:842:VAL:HG12	2:B:854:ASN:CG	2.10	0.72
2:B:1272:GLN:C	2:B:1272:GLN:HE21	1.93	0.72
2:F:1135:ASP:OD1	2:F:1136:SER:N	2.22	0.72
2:F:1272:GLN:HE21	2:F:1272:GLN:C	1.93	0.72
2:B:244:LEU:HD12	2:B:250:PRO:HD3	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:324:ARG:HD3	2:B:400:ARG:HB3	1.70	0.72
2:F:70:ARG:NH1	2:F:454:PRO:HG3	2.04	0.72
2:F:249:THR:HG23	2:F:265:GLN:NE2	2.04	0.72
2:F:1203:LEU:HD12	2:F:1213:MET:HG3	1.71	0.72
2:B:70:ARG:NH1	2:B:454:PRO:HG3	2.04	0.72
2:B:178:ASN:HD21	2:B:298:ASP:HB2	1.51	0.72
2:B:216:LEU:HD23	2:B:216:LEU:N	2.03	0.72
2:B:635:ARG:HG3	2:B:635:ARG:NH1	2.04	0.72
2:B:1224:ASN:OD1	2:B:1280:VAL:CG1	2.37	0.72
2:F:27:VAL:HG11	2:F:1086:VAL:HG13	1.70	0.72
2:F:449:PRO:HD2	2:F:452:VAL:HG21	1.71	0.72
2:F:1171:ARG:HG2	2:F:1171:ARG:NH1	2.01	0.72
2:F:216:LEU:N	2:F:216:LEU:HD23	2.03	0.72
2:F:844:GLN:NE2	2:F:848:LYS:HG2	2.04	0.72
2:B:746:GLU:O	2:B:750:VAL:HG23	1.90	0.72
2:B:1000:LYS:HZ3	2:B:1045:PHE:HD2	0.74	0.72
2:F:178:ASN:HB2	2:F:299:ALA:HA	1.72	0.72
2:F:178:ASN:HD21	2:F:298:ASP:HB2	1.51	0.72
2:F:746:GLU:O	2:F:750:VAL:HG23	1.90	0.72
2:B:178:ASN:HD21	2:B:298:ASP:CB	2.00	0.71
2:B:178:ASN:HB2	2:B:299:ALA:HA	1.72	0.71
2:B:379:ILE:HD12	2:B:379:ILE:H	1.55	0.71
2:B:844:GLN:NE2	2:B:848:LYS:HG2	2.04	0.71
2:F:1224:ASN:OD1	2:F:1280:VAL:CG1	2.37	0.71
2:B:181:VAL:HG21	2:B:209:LYS:CA	2.20	0.71
2:B:1127:ASP:O	2:B:1131:TYR:N	2.22	0.71
2:F:181:VAL:HG21	2:F:209:LYS:CA	2.20	0.71
2:F:373:TYR:HA	2:F:376:ILE:HD11	1.71	0.71
2:F:244:LEU:HD12	2:F:250:PRO:HD3	1.71	0.71
2:F:513:LEU:HD11	2:F:616:LEU:HB3	1.71	0.71
2:F:557:ARG:HH12	2:F:599:LYS:NZ	1.88	0.71
2:B:373:TYR:HA	2:B:376:ILE:HD11	1.71	0.71
2:B:981:TYR:CE1	2:B:1092:VAL:HG12	2.24	0.71
2:B:70:ARG:HH22	2:B:462:PHE:CB	2.04	0.71
2:B:557:ARG:HH12	2:B:599:LYS:NZ	1.89	0.71
2:B:974:LYS:HD3	2:B:976:ARG:NH1	2.05	0.71
2:F:70:ARG:HH22	2:F:462:PHE:CB	2.04	0.71
2:F:379:ILE:HD12	2:F:379:ILE:H	1.54	0.71
2:F:407:ASN:H	2:F:407:ASN:ND2	1.86	0.71
2:B:513:LEU:HD11	2:B:616:LEU:HB3	1.71	0.71
1:E:45:U:H5"	2:F:402:GLN:HB2	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:1000:LYS:HZ3	2:F:1045:PHE:HD2	0.74	0.71
2:B:841:ILE:HD13	2:B:900:LEU:CD2	2.20	0.71
2:B:1308:ASN:O	2:B:1311:HIS:HB2	1.89	0.71
2:F:340:ARG:O	2:F:344:PRO:HG2	1.91	0.71
2:F:981:TYR:CE1	2:F:1092:VAL:HG12	2.24	0.71
1:A:24:U:N1	2:B:105:PHE:HE1	1.88	0.71
1:A:45:U:H5"	2:B:402:GLN:HB2	1.72	0.71
2:B:407:ASN:ND2	2:B:407:ASN:H	1.86	0.71
2:B:780:ARG:HD3	5:B:1401:SO4:O3	1.90	0.71
1:E:24:U:N1	2:F:105:PHE:HE1	1.88	0.71
2:F:178:ASN:HD21	2:F:298:ASP:CB	2.00	0.71
2:F:1031:LYS:H	2:F:1031:LYS:HD2	1.56	0.71
2:F:1127:ASP:O	2:F:1131:TYR:N	2.22	0.71
2:F:1308:ASN:O	2:F:1311:HIS:HB2	1.89	0.71
2:F:1326:TYR:CD2	2:F:1327:PHE:HD2	2.06	0.71
2:B:209:LYS:O	2:B:213:SER:HB3	1.89	0.71
2:B:340:ARG:O	2:B:344:PRO:HG2	1.91	0.71
2:B:967:ARG:HA	2:B:972:PHE:HB2	1.73	0.71
2:B:978:ILE:HG12	2:B:1313:PHE:CE2	2.25	0.71
2:B:1246:LYS:HB2	2:B:1246:LYS:HZ2	1.56	0.71
2:F:981:TYR:CE2	2:F:1092:VAL:HG11	2.24	0.71
2:B:379:ILE:HD12	2:B:379:ILE:N	2.05	0.71
2:B:489:GLN:HG3	2:B:625:LEU:HD21	1.73	0.71
2:F:870:VAL:HG21	2:F:908:LEU:CD2	2.21	0.70
2:F:967:ARG:HA	2:F:972:PHE:HB2	1.73	0.70
2:B:870:VAL:HG21	2:B:908:LEU:CD2	2.21	0.70
2:F:209:LYS:O	2:F:213:SER:HB3	1.89	0.70
2:F:1252:ASN:N	2:F:1252:ASN:HD22	1.89	0.70
2:B:1000:LYS:HZ1	2:B:1064:GLU:CB	2.05	0.70
2:B:1252:ASN:HD22	2:B:1252:ASN:N	1.89	0.70
1:E:61:C:OP1	2:F:70:ARG:NH2	2.24	0.70
2:F:181:VAL:HG23	2:F:209:LYS:HG3	1.67	0.70
2:F:379:ILE:HD12	2:F:379:ILE:N	2.05	0.70
2:F:489:GLN:HG3	2:F:625:LEU:HD21	1.73	0.70
2:F:841:ILE:HD13	2:F:900:LEU:CD2	2.20	0.70
2:F:1000:LYS:HZ1	2:F:1064:GLU:CB	2.05	0.70
2:B:195:LEU:HD22	2:B:289:LEU:HD13	1.73	0.70
2:F:178:ASN:O	2:F:299:ALA:HB2	1.87	0.70
2:F:350:ILE:HG22	2:F:351:PHE:CD2	2.26	0.70
2:F:1000:LYS:HZ3	2:F:1064:GLU:HG3	1.56	0.70
1:A:61:C:OP1	2:B:70:ARG:NH2	2.24	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:181:VAL:HG23	2:B:209:LYS:HG3	1.67	0.70
2:B:350:ILE:HG22	2:B:351:PHE:CD2	2.26	0.70
2:B:1000:LYS:HZ3	2:B:1064:GLU:HG3	1.56	0.70
2:F:249:THR:CG2	2:F:265:GLN:HE21	2.04	0.70
2:F:265:GLN:HB3	2:F:268:LYS:HB2	1.73	0.70
2:F:1143:VAL:HG13	2:F:1195:ILE:CG2	2.17	0.70
2:F:195:LEU:HD22	2:F:289:LEU:HD13	1.73	0.70
2:F:1344:ASP:OD2	2:F:1344:ASP:N	2.24	0.70
2:B:265:GLN:HB3	2:B:268:LYS:HB2	1.73	0.70
2:B:842:VAL:CG1	2:B:854:ASN:ND2	2.54	0.70
2:B:1000:LYS:HZ1	2:B:1064:GLU:CG	2.05	0.70
2:F:780:ARG:HH12	2:F:812:TYR:HD2	1.37	0.70
2:F:842:VAL:CG1	2:F:854:ASN:ND2	2.54	0.70
2:B:178:ASN:O	2:B:299:ALA:HB2	1.87	0.70
2:B:1243:GLU:HA	2:B:1243:GLU:OE1	1.92	0.70
2:B:1326:TYR:CD2	2:B:1327:PHE:HD2	2.06	0.70
2:B:1344:ASP:OD2	2:B:1344:ASP:N	2.25	0.70
2:F:1243:GLU:OE1	2:F:1243:GLU:HA	1.92	0.70
2:B:679:ILE:CG1	2:B:704:PHE:CE1	2.75	0.70
2:B:810:LYS:C	2:B:833:LEU:HD12	2.11	0.70
2:B:1315:LEU:HD12	2:B:1315:LEU:O	1.92	0.70
2:B:679:ILE:CD1	2:B:704:PHE:CE1	2.75	0.69
2:B:1232:TYR:OH	2:B:1268:GLU:CG	2.40	0.69
2:F:317:LEU:HB2	2:F:414:ILE:HD12	1.73	0.69
2:F:679:ILE:CD1	2:F:704:PHE:CE1	2.75	0.69
2:F:810:LYS:C	2:F:833:LEU:HD12	2.11	0.69
2:F:1000:LYS:HZ1	2:F:1064:GLU:CG	2.05	0.69
2:F:1302:ILE:O	2:F:1306:ALA:HB3	1.91	0.69
2:F:1315:LEU:HD12	2:F:1315:LEU:O	1.92	0.69
2:B:317:LEU:HB2	2:B:414:ILE:HD12	1.73	0.69
2:B:780:ARG:HH12	2:B:812:TYR:HD2	1.37	0.69
2:F:167:HIS:ND1	2:F:411:PRO:HA	2.07	0.69
2:B:148:LYS:HE3	2:B:429:PHE:HB3	1.72	0.69
2:B:181:VAL:HG22	2:B:209:LYS:CG	2.05	0.69
2:B:275:LEU:HD12	2:B:275:LEU:O	1.92	0.69
2:B:1302:ILE:O	2:B:1306:ALA:HB3	1.91	0.69
2:F:557:ARG:CZ	2:F:599:LYS:NZ	2.55	0.69
2:F:679:ILE:CG1	2:F:704:PHE:CE1	2.75	0.69
2:F:979:ASN:ND2	2:F:981:TYR:CG	2.60	0.69
2:B:167:HIS:ND1	2:B:411:PRO:HA	2.07	0.69
2:B:444:LEU:O	2:B:444:LEU:HD23	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:557:ARG:CZ	2:B:599:LYS:NZ	2.55	0.69
2:B:1219:GLU:HG3	2:B:1336:TYR:O	1.91	0.69
2:B:539:PHE:CD1	2:B:690:ASN:HB2	2.28	0.69
2:B:696:LEU:HD13	2:B:702:LEU:HD12	1.74	0.69
2:F:275:LEU:HD12	2:F:275:LEU:O	1.92	0.69
2:F:784:ILE:O	2:F:788:ILE:HG12	1.93	0.69
2:B:343:LEU:O	2:B:343:LEU:HD23	1.93	0.69
2:B:696:LEU:HD13	2:B:702:LEU:HD11	1.75	0.69
2:B:1143:VAL:HG13	2:B:1195:ILE:CG2	2.17	0.69
2:F:343:LEU:HD23	2:F:343:LEU:O	1.93	0.69
1:A:35:A:H2'	1:A:36:A:C8	2.28	0.69
2:B:208:ALA:O	2:B:212:LEU:HB2	1.92	0.69
2:B:784:ILE:O	2:B:788:ILE:HG12	1.93	0.69
2:B:940:ASN:HD22	2:B:940:ASN:N	1.90	0.69
2:B:1204:PHE:CE1	2:B:1347:LEU:HG	2.28	0.69
1:E:35:A:H2'	1:E:36:A:C8	2.28	0.69
2:F:148:LYS:HE3	2:F:429:PHE:HB3	1.72	0.69
2:F:208:ALA:O	2:F:212:LEU:HB2	1.92	0.69
2:F:359:TYR:CE1	2:F:399:LEU:CD2	2.75	0.69
2:F:444:LEU:HD23	2:F:444:LEU:O	1.92	0.69
2:F:696:LEU:HD13	2:F:702:LEU:HD11	1.75	0.69
2:F:696:LEU:HD13	2:F:702:LEU:HD12	1.74	0.69
2:F:730:SER:O	2:F:733:ILE:HG22	1.93	0.69
2:F:1219:GLU:HG3	2:F:1336:TYR:O	1.91	0.69
2:B:285:GLN:H	2:B:285:GLN:CD	1.97	0.69
2:B:507:VAL:HG11	2:B:660:GLY:O	1.93	0.69
2:F:285:GLN:H	2:F:285:GLN:CD	1.97	0.69
2:B:117:PRO:HD2	2:B:125:GLU:OE2	1.93	0.69
2:B:373:TYR:CE1	2:B:398:LEU:HB3	2.28	0.69
2:B:730:SER:O	2:B:733:ILE:HG22	1.93	0.69
2:F:117:PRO:HD2	2:F:125:GLU:OE2	1.93	0.69
2:B:223:GLU:OE1	2:F:574:CYS:HB3	1.92	0.68
2:F:373:TYR:CE1	2:F:398:LEU:HB3	2.28	0.68
2:F:507:VAL:HG11	2:F:660:GLY:O	1.93	0.68
2:F:940:ASN:N	2:F:940:ASN:HD22	1.91	0.68
2:F:1204:PHE:CE1	2:F:1347:LEU:HG	2.28	0.68
2:F:755:LYS:HD3	2:F:939:MET:HE1	1.76	0.68
2:B:500:LYS:O	2:B:712:GLN:NE2	2.27	0.68
2:F:324:ARG:NH1	2:F:400:ARG:HD2	2.08	0.68
2:F:806:LEU:CD2	2:F:811:LEU:CD1	2.69	0.68
2:B:51:LEU:HD13	2:B:1352:ILE:HG13	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:178:ASN:C	2:B:299:ALA:CB	2.61	0.68
2:B:806:LEU:CD2	2:B:811:LEU:CD1	2.69	0.68
2:F:51:LEU:HD13	2:F:1352:ILE:HG13	1.75	0.68
2:F:500:LYS:O	2:F:712:GLN:NE2	2.27	0.68
2:F:106:LEU:HD23	2:F:110:ASP:HB3	1.75	0.68
2:F:107:VAL:HG23	2:F:110:ASP:HB2	1.75	0.68
2:B:1257:LEU:H	2:B:1257:LEU:HD12	1.58	0.68
2:F:699:ASP:HB3	2:F:702:LEU:HB2	1.75	0.68
2:B:376:ILE:HD12	2:B:376:ILE:N	2.03	0.68
2:B:1272:GLN:O	2:B:1272:GLN:NE2	2.26	0.68
2:F:178:ASN:C	2:F:299:ALA:CB	2.61	0.68
2:F:1257:LEU:H	2:F:1257:LEU:HD12	1.59	0.68
2:B:699:ASP:HB3	2:B:702:LEU:HB2	1.75	0.68
2:F:433:LEU:O	2:F:437:ARG:N	2.27	0.68
2:F:1272:GLN:NE2	2:F:1272:GLN:O	2.26	0.68
2:B:106:LEU:HD23	2:B:110:ASP:CG	2.14	0.68
2:B:433:LEU:O	2:B:437:ARG:N	2.27	0.68
2:B:483:ASP:OD1	2:B:486:ALA:CB	2.42	0.68
2:B:1326:TYR:CE2	2:B:1327:PHE:CD2	2.81	0.68
2:F:1236:LEU:HD22	2:F:1310:ILE:CG1	2.23	0.68
2:F:1326:TYR:CE2	2:F:1327:PHE:CD2	2.81	0.68
2:B:963:VAL:HG21	2:B:990:ASN:CG	2.15	0.68
2:F:181:VAL:HG22	2:F:209:LYS:CG	2.05	0.68
2:B:513:LEU:HD11	2:B:616:LEU:HB2	1.75	0.67
2:B:1260:GLU:HA	2:B:1263:LYS:CB	2.24	0.67
2:F:376:ILE:HD12	2:F:376:ILE:N	2.03	0.67
2:F:483:ASP:OD1	2:F:486:ALA:CB	2.41	0.67
2:F:817:GLN:OE1	2:F:856:VAL:HG13	1.94	0.67
2:F:963:VAL:HG21	2:F:990:ASN:CG	2.15	0.67
2:F:1260:GLU:HA	2:F:1263:LYS:CB	2.24	0.67
2:B:845:SER:O	2:B:920:GLN:NE2	2.27	0.67
2:B:1236:LEU:HD22	2:B:1310:ILE:CG1	2.23	0.67
2:F:569:PHE:CD1	2:F:575:PHE:CD2	2.81	0.67
2:B:1045:PHE:H	2:B:1045:PHE:HD1	1.41	0.67
2:F:1062:LEU:CG	2:F:1063:ILE:HG13	2.23	0.67
2:B:275:LEU:HD12	2:B:275:LEU:C	2.15	0.67
2:B:817:GLN:OE1	2:B:856:VAL:HG13	1.94	0.67
2:B:901:THR:O	2:B:904:GLU:HG2	1.95	0.67
2:B:1062:LEU:CG	2:B:1063:ILE:HG13	2.24	0.67
2:F:275:LEU:HD12	2:F:275:LEU:C	2.15	0.67
2:F:362:TYR:HE2	2:F:401:LYS:HE3	1.58	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:901:THR:O	2:F:904:GLU:HG2	1.95	0.67
2:F:1045:PHE:HD1	2:F:1045:PHE:H	1.41	0.67
2:B:143:VAL:HG22	2:B:421:ALA:HB3	1.77	0.67
2:B:569:PHE:CD1	2:B:575:PHE:CD2	2.81	0.67
2:B:939:MET:HE2	2:B:953:VAL:HG21	1.76	0.67
2:F:513:LEU:HD11	2:F:616:LEU:HB2	1.75	0.67
2:F:845:SER:O	2:F:920:GLN:NE2	2.27	0.67
2:B:212:LEU:HD12	2:B:246:LEU:HD11	1.75	0.67
2:B:530:VAL:HG22	2:B:537:PRO:CA	2.25	0.67
2:B:755:LYS:HD3	2:B:939:MET:HE3	1.76	0.67
2:F:442:LYS:HE2	2:F:476:TRP:HA	1.75	0.67
2:B:1000:LYS:NZ	2:B:1045:PHE:CE2	2.51	0.67
2:B:1060:ARG:HH12	2:B:1064:GLU:CD	1.98	0.67
2:F:143:VAL:HG22	2:F:421:ALA:HB3	1.77	0.67
2:F:530:VAL:HG22	2:F:537:PRO:CA	2.25	0.67
2:F:1060:ARG:HH12	2:F:1064:GLU:CD	1.98	0.67
2:B:247:GLY:O	2:B:248:LEU:HD22	1.95	0.67
2:B:350:ILE:HG22	2:B:351:PHE:CE2	2.30	0.67
2:B:393:LEU:HD23	2:B:393:LEU:C	2.14	0.67
2:B:442:LYS:HE2	2:B:476:TRP:HA	1.75	0.67
2:F:279:LEU:HD13	2:F:287:ALA:HB2	1.76	0.67
2:F:283:GLY:C	2:F:285:GLN:OE1	2.33	0.67
2:F:350:ILE:HG22	2:F:351:PHE:CE2	2.30	0.67
2:B:278:LEU:HD12	2:B:278:LEU:C	2.16	0.67
2:B:283:GLY:C	2:B:285:GLN:OE1	2.33	0.67
2:B:317:LEU:HD12	2:B:317:LEU:C	2.16	0.67
2:F:393:LEU:C	2:F:393:LEU:HD23	2.14	0.67
2:B:93:VAL:HG21	2:B:151:LEU:HD23	1.76	0.67
2:B:918:LYS:HG3	2:B:1039:TYR:CE2	2.30	0.67
2:F:317:LEU:HD12	2:F:317:LEU:C	2.16	0.67
2:B:279:LEU:HD13	2:B:287:ALA:HB2	1.76	0.66
2:F:495:MET:O	3:G:17:DA:H2"	1.94	0.66
2:F:552:LEU:O	2:F:556:ASN:ND2	2.28	0.66
2:F:1063:ILE:HG23	2:F:1074:TRP:O	1.94	0.66
2:B:141:LYS:HG2	2:B:142:LEU:HD23	1.77	0.66
2:B:539:PHE:CE1	2:B:690:ASN:HB2	2.31	0.66
2:B:552:LEU:O	2:B:556:ASN:ND2	2.28	0.66
2:F:141:LYS:HG2	2:F:142:LEU:HD23	1.77	0.66
2:F:278:LEU:HD12	2:F:278:LEU:C	2.16	0.66
2:F:635:ARG:HG3	2:F:635:ARG:HH11	1.60	0.66
2:F:918:LYS:HG3	2:F:1039:TYR:CE2	2.30	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:58:THR:HG22	2:B:731:PRO:CG	2.17	0.66
2:B:256:PHE:CD2	2:B:282:ILE:HD13	2.30	0.66
2:B:495:MET:O	3:C:17:DA:H2"	1.94	0.66
2:B:557:ARG:NH1	2:B:599:LYS:NZ	2.43	0.66
2:B:1045:PHE:CE1	2:B:1046:PHE:HE2	2.12	0.66
2:B:1063:ILE:HG23	2:B:1074:TRP:O	1.94	0.66
2:B:1312:LEU:HD11	2:B:1326:TYR:CE1	2.31	0.66
2:F:256:PHE:CD2	2:F:282:ILE:HD13	2.31	0.66
2:F:1000:LYS:HG3	2:F:1073:VAL:HG21	1.77	0.66
2:F:1325:LYS:HB2	2:F:1329:THR:O	1.95	0.66
2:B:1062:LEU:CA	2:B:1076:LYS:HD2	2.22	0.66
2:B:1281:ILE:HG21	2:B:1315:LEU:HD11	1.77	0.66
2:F:317:LEU:HD23	2:F:414:ILE:HG13	1.77	0.66
2:F:318:SER:OG	2:F:418:GLU:OE1	2.14	0.66
2:F:362:TYR:CD2	2:F:401:LYS:HE3	2.31	0.66
2:F:407:ASN:H	2:F:407:ASN:HD22	1.44	0.66
2:F:557:ARG:NH1	2:F:599:LYS:NZ	2.43	0.66
2:F:1062:LEU:CA	2:F:1076:LYS:HD2	2.22	0.66
2:F:1281:ILE:HG21	2:F:1315:LEU:HD11	1.77	0.66
2:B:635:ARG:HG3	2:B:635:ARG:HH11	1.61	0.66
2:B:1325:LYS:HB2	2:B:1329:THR:O	1.95	0.66
2:F:93:VAL:HG21	2:F:151:LEU:HD23	1.76	0.66
2:F:307:ARG:HH11	2:F:323:LYS:NZ	1.93	0.66
2:F:692:ASN:HB3	2:F:695:GLN:HG3	1.76	0.66
2:F:1045:PHE:CE1	2:F:1046:PHE:HE2	2.12	0.66
2:B:407:ASN:H	2:B:407:ASN:HD22	1.44	0.66
2:B:1044:ASN:O	2:B:1047:LYS:HG3	1.95	0.66
2:F:830:ILE:CD1	2:F:831:ASN:H	2.09	0.66
2:F:1000:LYS:NZ	2:F:1045:PHE:CE2	2.51	0.66
2:B:229:LEU:CD1	2:B:232:GLU:H	2.09	0.66
2:B:296:LEU:HD23	2:B:296:LEU:C	2.15	0.66
2:B:317:LEU:HD23	2:B:414:ILE:HG13	1.77	0.66
2:B:386:THR:O	2:B:389:LEU:HB2	1.95	0.66
2:B:1256:GLN:NE2	2:B:1260:GLU:CD	2.49	0.66
2:F:229:LEU:CD1	2:F:232:GLU:H	2.09	0.66
2:F:844:GLN:HE21	2:F:848:LYS:CG	2.08	0.66
2:F:873:GLU:HG2	2:F:874:GLU:N	2.09	0.66
2:F:1122:ARG:HD3	2:F:1134:PHE:CE2	2.31	0.66
2:F:1239:ALA:HB1	2:F:1306:ALA:CB	2.21	0.66
2:F:1248:SER:O	2:F:1252:ASN:ND2	2.29	0.66
2:F:1256:GLN:NE2	2:F:1260:GLU:CD	2.49	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:1307:GLU:O	2:F:1310:ILE:HB	1.95	0.66
2:B:830:ILE:CD1	2:B:831:ASN:H	2.09	0.66
2:B:1000:LYS:NZ	2:B:1064:GLU:CG	2.58	0.66
2:B:1122:ARG:HD3	2:B:1134:PHE:CE2	2.31	0.66
2:B:1248:SER:O	2:B:1252:ASN:ND2	2.29	0.66
2:B:1307:GLU:O	2:B:1310:ILE:HB	1.95	0.66
2:F:1000:LYS:NZ	2:F:1064:GLU:CG	2.58	0.66
2:F:1312:LEU:HD11	2:F:1326:TYR:CE1	2.31	0.66
2:B:902:LYS:O	2:B:905:ARG:N	2.27	0.66
2:F:58:THR:HG22	2:F:731:PRO:CG	2.17	0.66
2:F:944:ASP:OD1	2:F:946:ASN:O	2.13	0.66
2:F:981:TYR:CD2	2:F:1092:VAL:CG1	2.78	0.66
2:F:1044:ASN:O	2:F:1047:LYS:HG3	1.95	0.66
1:A:78:A:H2'	1:A:79:G:H8	1.60	0.66
2:B:692:ASN:HB3	2:B:695:GLN:HG3	1.76	0.66
2:B:873:GLU:HG2	2:B:874:GLU:N	2.09	0.66
2:B:981:TYR:CD2	2:B:1092:VAL:CG1	2.78	0.66
2:F:296:LEU:HD23	2:F:296:LEU:C	2.15	0.66
2:F:302:LEU:HD23	2:F:302:LEU:C	2.16	0.66
2:F:810:LYS:C	2:F:833:LEU:CD1	2.63	0.66
2:B:107:VAL:HG22	2:B:1131:TYR:CE1	2.31	0.65
2:B:844:GLN:HE21	2:B:848:LYS:CG	2.08	0.65
2:B:944:ASP:OD1	2:B:946:ASN:O	2.13	0.65
2:F:107:VAL:HG22	2:F:1131:TYR:CE1	2.31	0.65
2:F:821:ASP:OD1	2:F:858:THR:OG1	2.13	0.65
2:F:1060:ARG:NH1	2:F:1064:GLU:CD	2.48	0.65
2:B:302:LEU:HD23	2:B:302:LEU:C	2.16	0.65
2:F:252:PHE:CZ	2:F:264:LEU:HD13	2.31	0.65
2:F:275:LEU:HD11	2:F:279:LEU:CG	2.26	0.65
2:F:307:ARG:HH11	2:F:323:LYS:HZ3	1.43	0.65
2:F:1230:SER:O	2:F:1233:VAL:HG23	1.96	0.65
1:A:59:U:OP1	2:B:473:ILE:HG13	1.96	0.65
2:B:1230:SER:O	2:B:1233:VAL:HG23	1.96	0.65
2:B:1239:ALA:HB1	2:B:1306:ALA:CB	2.21	0.65
2:F:665:LYS:HA	2:F:669:GLY:HA2	1.76	0.65
2:F:902:LYS:O	2:F:905:ARG:N	2.27	0.65
1:A:57:A:H5'	2:B:457:ARG:HH21	1.60	0.65
2:B:275:LEU:HD11	2:B:279:LEU:CG	2.26	0.65
2:B:870:VAL:HG21	2:B:908:LEU:HD21	1.78	0.65
2:B:958:LEU:HD22	2:B:962:LEU:HD12	1.78	0.65
2:B:1257:LEU:HD12	2:B:1257:LEU:N	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:78:A:H2'	1:E:79:G:H8	1.60	0.65
2:F:275:LEU:O	2:F:279:LEU:HB2	1.96	0.65
2:B:794:GLN:H	2:B:794:GLN:CD	2.00	0.65
2:B:821:ASP:OD1	2:B:858:THR:OG1	2.13	0.65
1:E:15:U:H2'	1:E:16:U:C6	2.31	0.65
2:F:958:LEU:HD22	2:F:962:LEU:HD12	1.78	0.65
2:F:1230:SER:C	2:F:1233:VAL:HG23	2.17	0.65
2:F:1257:LEU:H	2:F:1257:LEU:CD1	2.10	0.65
1:A:15:U:H2'	1:A:16:U:C6	2.31	0.65
2:B:100:ARG:CZ	2:B:117:PRO:O	2.45	0.65
2:B:252:PHE:CZ	2:B:264:LEU:HD13	2.32	0.65
2:B:810:LYS:C	2:B:833:LEU:CD1	2.64	0.65
2:B:1060:ARG:NH1	2:B:1064:GLU:CD	2.48	0.65
2:B:1230:SER:C	2:B:1233:VAL:HG23	2.17	0.65
2:B:1257:LEU:H	2:B:1257:LEU:CD1	2.10	0.65
1:E:59:U:OP1	2:F:473:ILE:HG13	1.97	0.65
2:F:794:GLN:CD	2:F:794:GLN:H	2.00	0.65
2:F:870:VAL:HG21	2:F:908:LEU:HD21	1.78	0.65
2:B:970:PHE:HD1	2:B:1080:PHE:CE1	2.15	0.65
3:C:24:DG:H2''	3:C:25:DG:C5'	2.26	0.65
1:E:57:A:H5'	2:F:457:ARG:HH21	1.60	0.65
2:B:665:LYS:HA	2:B:669:GLY:HA2	1.76	0.65
2:F:100:ARG:CZ	2:F:117:PRO:O	2.45	0.65
2:F:569:PHE:CD1	2:F:575:PHE:HD2	2.13	0.65
2:F:970:PHE:CD1	2:F:1080:PHE:CE1	2.84	0.65
2:F:970:PHE:HD1	2:F:1080:PHE:CE1	2.15	0.65
2:F:1062:LEU:HA	2:F:1076:LYS:CD	2.21	0.65
2:B:275:LEU:O	2:B:279:LEU:HB2	1.96	0.65
2:B:569:PHE:CD1	2:B:575:PHE:HD2	2.13	0.65
2:B:1220:LEU:HD11	2:B:1339:THR:HA	1.79	0.65
2:B:1251:ASP:CA	2:B:1254:GLN:NE2	2.39	0.65
2:F:1257:LEU:HD12	2:F:1257:LEU:N	2.11	0.65
3:G:19:DA:H2''	3:G:20:DA:O4'	1.97	0.65
3:G:24:DG:H2''	3:G:25:DG:C5'	2.26	0.65
2:B:970:PHE:CD1	2:B:1080:PHE:CE1	2.84	0.65
2:F:615:ILE:O	2:F:619:ILE:N	2.28	0.65
2:F:1220:LEU:HD11	2:F:1339:THR:HA	1.79	0.65
2:B:615:ILE:O	2:B:619:ILE:N	2.28	0.64
2:B:672:ASP:OD2	2:B:675:SER:OG	2.13	0.64
2:B:1062:LEU:HA	2:B:1076:LYS:CD	2.21	0.64
2:B:1143:VAL:HG11	2:B:1195:ILE:HG21	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:19:DA:H2''	3:C:20:DA:O4'	1.97	0.64
2:F:121:ASN:OD1	2:F:124:ASP:N	2.25	0.64
2:F:696:LEU:CD1	2:F:702:LEU:HD11	2.24	0.64
2:F:737:ILE:HG23	2:F:931:VAL:HG13	1.79	0.64
2:F:1143:VAL:HG11	2:F:1195:ILE:HG21	1.79	0.64
2:B:264:LEU:HD11	2:B:278:LEU:HD23	1.79	0.64
2:B:627:GLU:OE1	2:B:627:GLU:N	2.30	0.64
2:B:737:ILE:HG23	2:B:931:VAL:HG13	1.79	0.64
2:B:1045:PHE:CE1	2:B:1046:PHE:CD2	2.85	0.64
2:F:398:LEU:HD22	2:F:399:LEU:CD1	2.27	0.64
2:F:539:PHE:CD1	2:F:690:ASN:HB2	2.32	0.64
2:F:672:ASP:OD2	2:F:675:SER:OG	2.13	0.64
2:F:1045:PHE:CE1	2:F:1046:PHE:CD2	2.84	0.64
2:B:696:LEU:CD1	2:B:702:LEU:HD11	2.24	0.64
2:B:972:PHE:CE1	2:B:1083:VAL:HG12	2.33	0.64
2:F:46:ASN:ND2	2:F:1089:MET:SD	2.71	0.64
2:F:192:TYR:HE1	2:F:237:LEU:HD23	1.62	0.64
2:F:264:LEU:HD11	2:F:278:LEU:HD23	1.80	0.64
2:B:398:LEU:HD22	2:B:399:LEU:CD1	2.27	0.64
2:F:627:GLU:N	2:F:627:GLU:OE1	2.30	0.64
2:F:930:HIS:O	2:F:934:ILE:HG13	1.98	0.64
2:F:972:PHE:CE1	2:F:1083:VAL:HG12	2.33	0.64
2:F:1108:GLU:N	3:G:9:DC:OP1	2.30	0.64
2:B:46:ASN:ND2	2:B:1089:MET:SD	2.71	0.64
2:B:192:TYR:HE1	2:B:237:LEU:HD23	1.62	0.64
2:B:930:HIS:O	2:B:934:ILE:HG13	1.97	0.64
2:B:1108:GLU:N	3:C:9:DC:OP1	2.30	0.64
2:B:1326:TYR:HD2	2:B:1327:PHE:CD2	2.08	0.64
2:F:317:LEU:HD22	2:F:414:ILE:HD11	1.80	0.64
2:F:1305:GLN:CA	2:F:1327:PHE:CZ	2.73	0.64
2:B:317:LEU:HD22	2:B:414:ILE:HD11	1.80	0.64
2:B:557:ARG:HH12	2:B:599:LYS:HZ1	1.46	0.64
2:B:873:GLU:O	2:B:877:LYS:HG2	1.98	0.64
2:F:841:ILE:CD1	2:F:900:LEU:CD2	2.76	0.64
2:F:1210:ARG:NH2	2:F:1341:GLU:OE1	2.17	0.64
1:A:28:A:OP2	2:B:126:VAL:HG13	1.97	0.64
2:B:121:ASN:OD1	2:B:124:ASP:N	2.25	0.64
2:B:841:ILE:CD1	2:B:900:LEU:CD2	2.76	0.64
2:B:1243:GLU:C	2:B:1244:LYS:HZ2	2.00	0.64
2:F:557:ARG:HH12	2:F:599:LYS:HZ1	1.45	0.64
2:B:1210:ARG:NH2	2:B:1341:GLU:OE1	2.17	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:554:LYS:HD3	2:F:594:TYR:CZ	2.33	0.64
2:F:873:GLU:O	2:F:877:LYS:HG2	1.98	0.64
2:B:252:PHE:CE1	2:B:264:LEU:HD13	2.34	0.63
2:B:554:LYS:HD3	2:B:594:TYR:CZ	2.33	0.63
2:F:559:VAL:HA	2:F:563:GLN:OE1	1.98	0.63
2:F:1216:SER:HB2	4:H:6:DG:H3'	1.80	0.63
1:A:26:A:OP1	2:B:115:ARG:NH1	2.31	0.63
2:B:341:GLN:HE21	2:B:342:GLN:HG2	1.63	0.63
2:B:356:LYS:O	2:B:357:ASN:HB2	1.98	0.63
2:B:1216:SER:HB2	4:D:6:DG:H3'	1.80	0.63
2:B:1305:GLN:CA	2:B:1327:PHE:CZ	2.73	0.63
2:F:342:GLN:OE1	2:F:384:ASP:O	2.15	0.63
2:F:379:ILE:O	2:F:383:MET:HB2	1.98	0.63
2:B:97:PHE:CE1	2:B:152:ARG:HB3	2.33	0.63
2:B:184:LEU:CD1	2:B:296:LEU:HA	2.26	0.63
2:B:244:LEU:CG	2:B:266:LEU:HD11	2.28	0.63
2:B:559:VAL:HA	2:B:563:GLN:OE1	1.99	0.63
1:E:28:A:OP2	2:F:126:VAL:HG13	1.97	0.63
2:F:252:PHE:CE1	2:F:264:LEU:HD13	2.34	0.63
2:F:341:GLN:HE21	2:F:342:GLN:HG2	1.63	0.63
2:F:1326:TYR:HD2	2:F:1327:PHE:CD2	2.08	0.63
2:B:429:PHE:HB2	2:B:430:TYR:CD1	2.34	0.63
2:B:441:GLU:O	2:B:445:THR:OG1	2.16	0.63
2:B:614:ASP:OD1	2:B:664:ARG:NH2	2.31	0.63
2:F:429:PHE:HB2	2:F:430:TYR:CD1	2.34	0.63
2:F:441:GLU:O	2:F:445:THR:OG1	2.16	0.63
2:F:1243:GLU:C	2:F:1244:LYS:HZ2	2.00	0.63
2:B:234:LYS:HE2	2:B:234:LYS:O	1.97	0.63
2:B:525:THR:HG23	2:B:690:ASN:ND2	2.05	0.63
1:E:26:A:OP1	2:F:115:ARG:NH1	2.31	0.63
2:F:97:PHE:CE1	2:F:152:ARG:HB3	2.33	0.63
2:F:184:LEU:CD1	2:F:296:LEU:HA	2.26	0.63
2:F:244:LEU:CG	2:F:266:LEU:HD11	2.28	0.63
2:F:614:ASP:OD1	2:F:664:ARG:NH2	2.31	0.63
2:F:1039:TYR:O	2:F:1042:ILE:HG22	1.98	0.63
2:B:545:LYS:HZ2	2:B:690:ASN:HD21	1.46	0.63
2:B:1079:ASP:HA	2:B:1082:THR:OG1	1.99	0.63
2:F:830:ILE:HD12	2:F:830:ILE:H	1.63	0.63
2:F:1079:ASP:HA	2:F:1082:THR:OG1	1.99	0.63
2:B:687:GLY:HA3	2:B:688:PHE:C	2.17	0.63
2:B:1039:TYR:O	2:B:1042:ILE:HG22	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:1200:LYS:NZ	4:H:6:DG:OP1	2.31	0.63
3:G:10:DT:H2'	3:G:11:DT:C6	2.34	0.63
2:B:557:ARG:CZ	2:B:599:LYS:HZ2	2.12	0.63
2:B:680:LEU:O	2:B:684:LYS:HG3	1.97	0.63
2:B:1007:GLU:N	2:B:1007:GLU:OE2	2.31	0.63
2:B:1200:LYS:NZ	4:D:6:DG:OP1	2.31	0.63
3:C:24:DG:C2'	3:C:25:DG:H5'	2.25	0.63
3:C:10:DT:H2'	3:C:11:DT:C6	2.34	0.63
2:F:234:LYS:HE2	2:F:234:LYS:O	1.97	0.63
2:F:342:GLN:CG	2:F:383:MET:HE1	2.09	0.63
2:F:1000:LYS:HD2	2:F:1045:PHE:CE2	2.34	0.63
2:F:1127:ASP:HB3	2:F:1130:LYS:HB2	1.81	0.63
2:B:334:LEU:O	2:B:338:LEU:HB2	1.98	0.62
2:B:830:ILE:HD12	2:B:830:ILE:H	1.64	0.62
2:B:1000:LYS:HD2	2:B:1045:PHE:CE2	2.34	0.62
2:F:680:LEU:O	2:F:684:LYS:HG3	1.97	0.62
2:F:1145:VAL:HG11	2:F:1182:LEU:HD13	1.81	0.62
3:G:24:DG:C2'	3:G:25:DG:H5'	2.25	0.62
2:B:341:GLN:NE2	2:B:342:GLN:HG2	2.13	0.62
2:F:334:LEU:O	2:F:338:LEU:HB2	1.98	0.62
2:B:171:GLU:OE1	2:B:269:ASP:HB3	1.98	0.62
2:B:1145:VAL:HG11	2:B:1182:LEU:HD13	1.81	0.62
2:B:1150:GLU:HG2	2:B:1157:LEU:HD21	1.81	0.62
2:F:195:LEU:HD22	2:F:286:TYR:HD2	1.63	0.62
2:F:979:ASN:CG	2:F:981:TYR:H	2.01	0.62
2:F:1007:GLU:N	2:F:1007:GLU:OE2	2.31	0.62
2:B:889:ALA:O	2:B:890:LYS:HB2	1.98	0.62
2:B:1000:LYS:HG3	2:B:1073:VAL:HG21	1.77	0.62
2:F:275:LEU:HD11	2:F:279:LEU:HG	1.80	0.62
2:F:828:LEU:HD13	2:F:836:TYR:CE2	2.34	0.62
2:F:1062:LEU:HG	2:F:1063:ILE:HG13	1.80	0.62
2:F:1150:GLU:HG2	2:F:1157:LEU:HD21	1.81	0.62
1:A:17:G:O2'	2:B:168:PHE:CD1	2.53	0.62
2:B:275:LEU:HD11	2:B:279:LEU:HG	1.80	0.62
2:B:828:LEU:HD13	2:B:836:TYR:CE2	2.34	0.62
2:F:171:GLU:OE1	2:F:269:ASP:HB3	1.98	0.62
2:F:1315:LEU:HB2	2:F:1324:PHE:CZ	2.34	0.62
2:B:158:LEU:O	2:B:162:ILE:HG13	1.99	0.62
2:B:1325:LYS:CB	2:B:1330:THR:HA	2.29	0.62
1:E:17:G:O2'	2:F:168:PHE:CD1	2.53	0.62
2:F:341:GLN:NE2	2:F:342:GLN:HG2	2.13	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:378:PRO:O	2:B:382:LYS:HG2	2.00	0.62
2:B:1270:ILE:HD13	2:B:1294:TYR:CG	2.35	0.62
2:B:1315:LEU:HB2	2:B:1324:PHE:CZ	2.34	0.62
2:F:70:ARG:NH1	2:F:454:PRO:CG	2.63	0.62
2:F:423:LEU:N	2:F:423:LEU:HD23	2.13	0.62
2:F:889:ALA:O	2:F:890:LYS:HB2	1.98	0.62
2:F:977:GLU:HG3	2:F:1310:ILE:HG21	1.79	0.62
2:F:1325:LYS:CB	2:F:1330:THR:HA	2.29	0.62
2:B:61:ALA:O	2:B:65:LYS:HG2	1.99	0.62
2:B:244:LEU:CD2	2:B:266:LEU:HD11	2.30	0.62
2:F:158:LEU:O	2:F:162:ILE:HG13	1.99	0.62
2:F:1292:SER:O	2:F:1296:LYS:HE3	2.00	0.62
2:B:195:LEU:HD22	2:B:286:TYR:HD2	1.63	0.62
2:B:665:LYS:O	2:B:670:ILE:N	2.33	0.62
2:B:1062:LEU:HG	2:B:1063:ILE:HG13	1.80	0.62
2:F:244:LEU:CD2	2:F:266:LEU:HD11	2.30	0.62
2:F:244:LEU:O	2:F:266:LEU:HD13	1.99	0.62
2:F:842:VAL:HG13	2:F:854:ASN:HD21	1.64	0.62
2:B:70:ARG:NH1	2:B:454:PRO:CG	2.63	0.62
2:B:1292:SER:O	2:B:1296:LYS:HE3	2.00	0.62
2:B:842:VAL:HG13	2:B:854:ASN:HD21	1.64	0.61
2:B:945:GLU:CD	2:B:946:ASN:H	2.04	0.61
2:F:324:ARG:CG	2:F:400:ARG:HG2	2.29	0.61
2:F:665:LYS:O	2:F:670:ILE:N	2.33	0.61
2:F:1270:ILE:HD13	2:F:1294:TYR:CG	2.35	0.61
2:B:178:ASN:C	2:B:299:ALA:HB2	2.20	0.61
2:B:318:SER:OG	2:B:418:GLU:OE2	2.16	0.61
2:B:423:LEU:N	2:B:423:LEU:HD23	2.13	0.61
2:F:945:GLU:CD	2:F:946:ASN:H	2.04	0.61
2:B:1164:LEU:HD22	2:B:1187:TYR:HE2	1.65	0.61
2:F:972:PHE:CE1	2:F:1083:VAL:CG1	2.83	0.61
2:B:665:LYS:C	2:B:669:GLY:CA	2.52	0.61
2:F:178:ASN:C	2:F:299:ALA:HB2	2.20	0.61
2:F:1164:LEU:HD22	2:F:1187:TYR:HE2	1.65	0.61
2:B:229:LEU:HD22	2:B:232:GLU:HB2	1.82	0.61
2:B:244:LEU:O	2:B:266:LEU:HD13	1.99	0.61
2:B:981:TYR:OH	2:B:1092:VAL:HG12	2.00	0.61
2:B:1302:ILE:CG2	2:B:1306:ALA:HB2	2.30	0.61
2:F:1079:ASP:O	2:F:1082:THR:OG1	2.15	0.61
2:F:1292:SER:O	2:F:1296:LYS:HD2	2.00	0.61
2:B:972:PHE:CE1	2:B:1083:VAL:CG1	2.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1079:ASP:O	2:B:1082:THR:OG1	2.16	0.61
2:F:167:HIS:CE1	2:F:411:PRO:HA	2.35	0.61
2:F:229:LEU:HD22	2:F:232:GLU:HB2	1.82	0.61
2:F:291:LEU:HD23	2:F:291:LEU:C	2.21	0.61
2:F:1302:ILE:CG2	2:F:1306:ALA:HB2	2.30	0.61
1:A:8:G:H2'	1:A:9:U:C6	2.36	0.61
2:B:167:HIS:CE1	2:B:411:PRO:HA	2.35	0.61
2:B:870:VAL:CG2	2:B:908:LEU:CD2	2.78	0.61
2:B:1292:SER:O	2:B:1296:LYS:HD2	2.00	0.61
1:E:8:G:H2'	1:E:9:U:C6	2.36	0.61
2:F:342:GLN:NE2	2:F:384:ASP:HB2	2.13	0.61
2:B:655:ARG:HH11	2:B:655:ARG:CG	2.13	0.61
2:B:979:ASN:CG	2:B:981:TYR:HD1	2.04	0.61
2:F:460:SER:OG	2:F:463:ALA:N	2.32	0.61
2:F:870:VAL:CG2	2:F:908:LEU:CD2	2.78	0.61
2:F:935:LEU:O	2:F:939:MET:HG2	2.00	0.61
2:F:1239:ALA:CB	2:F:1306:ALA:HB1	2.25	0.61
2:F:1282:LEU:O	2:F:1282:LEU:HD22	2.00	0.61
2:B:269:ASP:N	2:B:269:ASP:OD1	2.33	0.61
2:B:979:ASN:OD1	2:B:980:ASN:N	2.34	0.61
2:B:1042:ILE:O	2:B:1042:ILE:HD12	2.01	0.61
2:B:1245:LEU:HD12	2:B:1245:LEU:O	2.01	0.61
2:F:269:ASP:OD1	2:F:269:ASP:N	2.33	0.61
2:B:106:LEU:O	2:B:111:LYS:CE	2.49	0.60
2:B:244:LEU:CD1	2:B:250:PRO:HD2	2.29	0.60
2:B:291:LEU:HD23	2:B:291:LEU:C	2.21	0.60
2:F:244:LEU:CD1	2:F:250:PRO:HD2	2.29	0.60
2:F:1042:ILE:HD12	2:F:1042:ILE:O	2.01	0.60
2:F:324:ARG:HH21	2:F:400:ARG:HH12	1.39	0.60
2:F:655:ARG:CG	2:F:655:ARG:HH11	2.13	0.60
2:F:791:LEU:HD13	2:F:889:ALA:HB2	1.83	0.60
2:B:460:SER:OG	2:B:463:ALA:N	2.32	0.60
2:B:721:HIS:ND1	2:B:738:LEU:HD11	2.16	0.60
2:B:935:LEU:O	2:B:939:MET:HG2	2.00	0.60
2:B:1147:ALA:O	2:B:1160:VAL:HG22	2.01	0.60
2:B:1239:ALA:CB	2:B:1306:ALA:HB1	2.25	0.60
2:B:1282:LEU:O	2:B:1282:LEU:HD22	2.00	0.60
2:B:1304:GLU:HB3	2:B:1327:PHE:CE1	2.35	0.60
2:F:10:ALA:N	2:F:17:GLY:O	2.28	0.60
2:F:324:ARG:HG2	2:F:400:ARG:HB3	1.83	0.60
1:E:70:C:H2'	1:E:71:U:C6	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:106:LEU:O	2:F:111:LYS:CE	2.49	0.60
2:F:307:ARG:NH1	2:F:323:LYS:HZ1	1.97	0.60
2:F:340:ARG:NH2	2:F:347:TYR:CZ	2.63	0.60
2:F:379:ILE:CD1	2:F:379:ILE:H	2.15	0.60
2:F:720:LEU:O	2:F:724:ILE:HG13	2.01	0.60
2:F:1147:ALA:O	2:F:1160:VAL:HG22	2.01	0.60
2:B:340:ARG:NH2	2:B:347:TYR:CZ	2.63	0.60
2:B:526:LYS:NZ	2:B:695:GLN:OE1	2.28	0.60
2:B:791:LEU:HD13	2:B:889:ALA:HB2	1.83	0.60
2:F:663:SER:OG	2:F:664:ARG:N	2.35	0.60
2:F:721:HIS:ND1	2:F:738:LEU:HD11	2.16	0.60
2:F:1245:LEU:O	2:F:1245:LEU:HD12	2.01	0.60
2:F:1304:GLU:HB3	2:F:1327:PHE:CE1	2.34	0.60
2:B:720:LEU:O	2:B:724:ILE:HG13	2.01	0.60
2:B:1075:ASP:OD1	2:B:1078:ARG:N	2.27	0.60
2:B:1166:ILE:HG13	2:B:1174:PHE:CE2	2.37	0.60
2:F:526:LYS:NZ	2:F:695:GLN:OE1	2.28	0.60
2:F:1166:ILE:HG13	2:F:1174:PHE:CE2	2.37	0.60
1:A:70:C:H2'	1:A:71:U:C6	2.36	0.60
2:B:10:ALA:N	2:B:17:GLY:O	2.28	0.60
2:B:379:ILE:CD1	2:B:379:ILE:H	2.15	0.60
2:B:1256:GLN:HE22	2:B:1260:GLU:CD	2.05	0.60
2:B:275:LEU:CD1	2:B:279:LEU:HG	2.32	0.60
2:B:379:ILE:O	2:B:383:MET:CG	2.49	0.60
2:B:557:ARG:O	2:B:590:SER:HB2	2.01	0.60
2:B:663:SER:OG	2:B:664:ARG:N	2.35	0.60
2:F:170:ILE:O	2:F:413:GLN:NE2	2.35	0.60
2:F:812:TYR:HE1	2:F:816:LEU:HD21	1.64	0.60
2:F:923:GLU:OE2	2:F:925:ARG:NE	2.32	0.60
2:F:1150:GLU:HG2	2:F:1157:LEU:CD2	2.32	0.60
2:F:1256:GLN:HE22	2:F:1260:GLU:CD	2.05	0.60
2:B:170:ILE:O	2:B:413:GLN:NE2	2.35	0.60
2:B:491:PHE:CZ	3:C:16:DT:H1'	2.37	0.60
2:B:830:ILE:HD12	2:B:831:ASN:H	1.67	0.60
2:B:830:ILE:HD13	2:B:831:ASN:OD1	2.01	0.60
2:B:1150:GLU:HG2	2:B:1157:LEU:CD2	2.32	0.60
2:B:1312:LEU:HD11	2:B:1326:TYR:HD1	1.65	0.60
2:F:275:LEU:CD1	2:F:279:LEU:HG	2.32	0.60
2:F:557:ARG:O	2:F:590:SER:HB2	2.01	0.60
2:F:830:ILE:HD13	2:F:831:ASN:OD1	2.01	0.60
2:F:557:ARG:CZ	2:F:599:LYS:HZ2	2.12	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:665:LYS:C	2:F:669:GLY:CA	2.52	0.60
2:F:1075:ASP:OD1	2:F:1078:ARG:N	2.27	0.60
2:B:508:LEU:HD11	2:B:664:ARG:HB2	1.84	0.59
2:B:727:LEU:O	2:B:734:LYS:HE2	2.01	0.59
2:B:812:TYR:HE1	2:B:816:LEU:HD21	1.64	0.59
2:B:1254:GLN:HB2	2:B:1255:LYS:HE3	1.84	0.59
2:F:491:PHE:CZ	3:G:16:DT:H1'	2.37	0.59
2:F:830:ILE:HD12	2:F:831:ASN:H	1.67	0.59
2:B:118:ILE:CG2	2:B:119:PHE:CE2	2.86	0.59
2:B:1266:LEU:O	2:B:1270:ILE:HG13	2.01	0.59
2:F:516:GLU:HA	2:F:519:THR:HG22	1.85	0.59
2:F:665:LYS:CB	2:F:669:GLY:HA3	2.30	0.59
2:F:727:LEU:O	2:F:734:LYS:HE2	2.01	0.59
2:B:115:ARG:HG3	2:B:116:HIS:ND1	2.16	0.59
1:E:5:C:H42	3:G:24:DG:H1	1.49	0.59
1:E:24:U:C1'	2:F:105:PHE:CE1	2.85	0.59
2:F:115:ARG:HG3	2:F:116:HIS:ND1	2.16	0.59
2:F:118:ILE:CG2	2:F:119:PHE:CE2	2.86	0.59
2:F:252:PHE:HZ	2:F:264:LEU:HD22	1.66	0.59
2:F:297:SER:CB	2:F:301:LEU:HD12	2.30	0.59
2:F:508:LEU:HD11	2:F:664:ARG:HB2	1.84	0.59
2:F:1203:LEU:CD1	2:F:1213:MET:CG	2.80	0.59
2:B:252:PHE:HZ	2:B:264:LEU:HD22	1.66	0.59
2:B:516:GLU:HA	2:B:519:THR:HG22	1.85	0.59
2:B:923:GLU:OE2	2:B:925:ARG:NE	2.32	0.59
2:F:1254:GLN:HB2	2:F:1255:LYS:HE3	1.84	0.59
2:F:1266:LEU:O	2:F:1270:ILE:HG13	2.02	0.59
1:A:5:C:H42	3:C:24:DG:H1	1.49	0.59
2:B:665:LYS:CB	2:B:669:GLY:HA3	2.30	0.59
2:B:675:SER:O	2:B:677:LYS:HG3	2.03	0.59
2:B:981:TYR:CE2	2:B:1092:VAL:HG11	2.24	0.59
2:B:256:PHE:HD2	2:B:282:ILE:HD13	1.66	0.59
2:B:524:LEU:CD2	2:B:540:LEU:HD23	2.32	0.59
2:B:672:ASP:CA	2:B:703:THR:CG2	2.74	0.59
1:E:83:C:H2'	1:E:84:A:H8	1.68	0.59
2:F:524:LEU:CD2	2:F:540:LEU:HD23	2.32	0.59
2:F:675:SER:O	2:F:677:LYS:HG3	2.03	0.59
2:F:1177:ASN:ND2	2:F:1180:ASP:OD2	2.33	0.59
2:F:1312:LEU:HD11	2:F:1326:TYR:HD1	1.65	0.59
2:B:143:VAL:CG1	2:B:315:ALA:HB2	2.31	0.59
2:B:297:SER:CB	2:B:301:LEU:HD12	2.30	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:936:ASP:OD2	2:B:951:ARG:NE	2.36	0.59
2:B:1177:ASN:ND2	2:B:1180:ASP:OD2	2.33	0.59
2:B:1241:HIS:CD2	2:B:1303:ARG:NH1	2.71	0.59
2:F:454:PRO:HB2	2:F:463:ALA:HB2	1.84	0.59
2:F:936:ASP:OD2	2:F:951:ARG:NE	2.36	0.59
1:A:83:C:H2'	1:A:84:A:H8	1.68	0.59
2:B:841:ILE:O	2:B:864:ARG:NH2	2.34	0.59
2:F:270:THR:OG1	2:F:274:ASP:OD1	2.21	0.59
2:F:297:SER:O	2:F:301:LEU:HB2	2.03	0.59
2:F:1241:HIS:CD2	2:F:1303:ARG:NH1	2.71	0.59
2:B:106:LEU:CD2	2:B:110:ASP:CG	2.71	0.59
2:B:297:SER:O	2:B:301:LEU:HB2	2.03	0.59
2:B:454:PRO:HB2	2:B:463:ALA:HB2	1.84	0.59
2:B:979:ASN:CG	2:B:981:TYR:CD1	2.76	0.59
2:F:143:VAL:CG1	2:F:315:ALA:HB2	2.31	0.59
2:F:841:ILE:O	2:F:864:ARG:NH2	2.34	0.59
2:F:324:ARG:NE	2:F:400:ARG:CG	2.55	0.59
2:F:981:TYR:HE2	2:F:1092:VAL:HB	1.64	0.59
2:B:93:VAL:HG21	2:B:151:LEU:CD2	2.33	0.58
2:B:114:GLU:OE1	2:B:115:ARG:N	2.35	0.58
2:B:270:THR:OG1	2:B:274:ASP:OD1	2.21	0.58
2:B:810:LYS:O	2:B:833:LEU:HD11	1.97	0.58
2:F:359:TYR:CZ	2:F:363:ILE:HD11	2.38	0.58
2:F:1064:GLU:HB2	2:F:1074:TRP:HB3	1.85	0.58
2:F:93:VAL:HG21	2:F:151:LEU:CD2	2.33	0.58
1:A:89:G:C6	2:B:1272:GLN:OE1	2.55	0.58
2:B:178:ASN:CB	2:B:299:ALA:N	2.64	0.58
2:B:328:HIS:CD2	2:B:399:LEU:HG	2.38	0.58
2:B:1064:GLU:HB2	2:B:1074:TRP:HB3	1.85	0.58
1:E:85:C:H2'	1:E:86:C:H6	1.68	0.58
2:F:114:GLU:OE1	2:F:115:ARG:N	2.35	0.58
2:F:342:GLN:CD	2:F:383:MET:CE	2.63	0.58
2:F:978:ILE:HG21	2:F:1228:LEU:HD23	1.85	0.58
2:F:1000:LYS:NZ	2:F:1064:GLU:CB	2.66	0.58
1:A:24:U:C1'	2:B:105:PHE:CE1	2.85	0.58
1:A:85:C:H2'	1:A:86:C:H6	1.68	0.58
2:B:1000:LYS:NZ	2:B:1064:GLU:CB	2.66	0.58
2:B:1095:VAL:HG22	2:B:1350:GLN:OE1	2.03	0.58
2:B:1255:LYS:HE2	2:B:1255:LYS:CA	2.33	0.58
1:E:89:G:C6	2:F:1272:GLN:OE1	2.55	0.58
2:F:319:ALA:HA	2:F:322:ILE:HD12	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:1095:VAL:HG22	2:F:1350:GLN:OE1	2.03	0.58
2:B:167:HIS:HD1	2:B:411:PRO:HA	1.69	0.58
2:B:1344:ASP:HA	2:B:1362:LEU:O	2.04	0.58
1:E:5:C:N4	3:G:24:DG:H1	2.01	0.58
2:F:499:ASP:O	2:F:502:LEU:O	2.22	0.58
2:F:672:ASP:CA	2:F:703:THR:CG2	2.74	0.58
2:F:1255:LYS:HE2	2:F:1255:LYS:CA	2.33	0.58
1:A:88:A:C2	2:B:1090:PRO:HD2	2.38	0.58
2:B:78:ARG:CD	2:B:165:ARG:NH1	2.67	0.58
2:B:457:ARG:HB2	2:B:467:ARG:HH12	1.68	0.58
2:B:846:PHE:HB3	2:B:916:PHE:CD2	2.39	0.58
1:E:88:A:C2	2:F:1090:PRO:HD2	2.38	0.58
2:F:167:HIS:HD1	2:F:411:PRO:HA	1.69	0.58
2:F:256:PHE:HD2	2:F:282:ILE:HD13	1.66	0.58
2:F:328:HIS:CD2	2:F:399:LEU:HG	2.39	0.58
2:F:674:GLN:OE1	2:F:674:GLN:HA	2.02	0.58
2:F:1344:ASP:HA	2:F:1362:LEU:O	2.04	0.58
1:A:5:C:N4	3:C:24:DG:H1	2.01	0.58
2:B:499:ASP:O	2:B:502:LEU:O	2.22	0.58
2:B:674:GLN:OE1	2:B:674:GLN:HA	2.02	0.58
2:F:78:ARG:CD	2:F:165:ARG:NH1	2.67	0.58
2:F:846:PHE:HB3	2:F:916:PHE:CD2	2.39	0.58
2:B:359:TYR:CE1	2:B:399:LEU:CD2	2.85	0.58
2:F:178:ASN:CB	2:F:299:ALA:N	2.64	0.58
2:F:356:LYS:O	2:F:357:ASN:HB2	2.02	0.58
2:F:1216:SER:HB2	4:H:6:DG:C3'	2.34	0.58
2:B:48:ILE:HG12	2:B:49:GLY:N	2.17	0.58
2:B:286:TYR:O	2:B:289:LEU:N	2.37	0.58
2:B:1135:ASP:OD2	4:D:8:DT:C5'	2.52	0.58
2:B:1232:TYR:CZ	2:B:1268:GLU:HB3	2.39	0.58
2:F:457:ARG:HB2	2:F:467:ARG:HH12	1.68	0.58
2:F:1135:ASP:OD2	4:H:8:DT:C5'	2.52	0.58
2:B:277:ASN:HB3	2:B:653:ARG:CZ	2.34	0.58
2:B:672:ASP:HA	2:B:703:THR:HG23	1.82	0.58
2:B:1203:LEU:HD12	2:B:1213:MET:CG	2.33	0.58
1:E:14:A:H5''	2:F:66:ARG:HH12	1.68	0.58
1:E:22:U:O2	2:F:1110:ILE:HD12	2.04	0.58
2:F:277:ASN:HB3	2:F:653:ARG:CZ	2.34	0.58
2:F:810:LYS:O	2:F:833:LEU:HD11	1.97	0.58
2:F:1000:LYS:CE	2:F:1064:GLU:HB3	2.34	0.58
1:A:14:A:H5''	2:B:66:ARG:HH12	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:981:TYR:HE2	2:B:1092:VAL:HB	1.64	0.57
2:B:1000:LYS:CE	2:B:1064:GLU:HB3	2.34	0.57
2:B:1216:SER:HB2	4:D:6:DG:C3'	2.34	0.57
2:F:48:ILE:HG12	2:F:49:GLY:N	2.17	0.57
2:F:181:VAL:HG21	2:F:209:LYS:CB	2.26	0.57
2:F:286:TYR:O	2:F:289:LEU:N	2.37	0.57
1:A:22:U:O2	2:B:1110:ILE:HD12	2.04	0.57
2:B:66:ARG:NH2	2:B:462:PHE:CE2	2.61	0.57
2:B:336:LYS:HD3	2:B:347:TYR:OH	2.03	0.57
2:B:350:ILE:CG2	2:B:351:PHE:CE2	2.88	0.57
2:B:843:PRO:HD2	2:B:846:PHE:HD2	1.69	0.57
2:F:673:LYS:H	2:F:703:THR:HG21	1.69	0.57
2:F:843:PRO:HD2	2:F:846:PHE:HD2	1.69	0.57
2:F:1148:LYS:HE2	2:F:1159:SER:OG	2.03	0.57
1:A:85:C:H2'	1:A:86:C:C6	2.38	0.57
2:B:503:PRO:HD3	2:B:711:ALA:HB1	1.86	0.57
2:B:524:LEU:HD23	2:B:540:LEU:HD23	1.85	0.57
1:E:85:C:H2'	1:E:86:C:C6	2.38	0.57
2:F:503:PRO:HD3	2:F:711:ALA:HB1	1.86	0.57
2:F:777:SER:OG	4:H:2:DT:O5'	2.01	0.57
2:F:1203:LEU:HD12	2:F:1213:MET:CG	2.33	0.57
2:B:244:LEU:HD13	2:B:250:PRO:HG2	1.87	0.57
2:B:601:ILE:CD1	2:B:603:ASP:HB3	2.33	0.57
2:B:673:LYS:H	2:B:703:THR:HG21	1.69	0.57
2:B:1148:LYS:HE2	2:B:1159:SER:OG	2.03	0.57
2:F:341:GLN:HE21	2:F:342:GLN:CG	2.16	0.57
2:F:350:ILE:CG2	2:F:351:PHE:CE2	2.88	0.57
2:F:601:ILE:CD1	2:F:603:ASP:HB3	2.33	0.57
2:F:244:LEU:HD13	2:F:250:PRO:HG2	1.87	0.57
2:F:273:ASP:HA	2:F:276:ASP:HB3	1.86	0.57
2:F:430:TYR:CD1	2:F:430:TYR:N	2.73	0.57
2:F:601:ILE:HD11	2:F:603:ASP:HB3	1.87	0.57
2:F:694:MET:O	2:F:697:ILE:HG22	2.04	0.57
2:F:852:ILE:HG13	5:F:1401:SO4:O4	2.05	0.57
2:F:978:ILE:HG12	2:F:1313:PHE:CZ	2.38	0.57
2:B:339:VAL:O	2:B:342:GLN:O	2.22	0.57
2:B:430:TYR:CD1	2:B:430:TYR:N	2.73	0.57
2:B:694:MET:O	2:B:697:ILE:HG22	2.04	0.57
2:B:905:ARG:NH1	2:B:905:ARG:HG2	2.13	0.57
2:F:38:THR:HG22	2:F:39:ASP:N	2.20	0.57
2:F:336:LYS:HD3	2:F:347:TYR:OH	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:339:VAL:O	2:F:342:GLN:O	2.22	0.57
2:F:524:LEU:HD23	2:F:540:LEU:HD23	1.85	0.57
2:F:790:GLU:OE2	2:F:888:ASN:O	2.23	0.57
2:F:829:ASP:OD1	2:F:832:ARG:N	2.32	0.57
2:F:905:ARG:NH1	2:F:905:ARG:HG2	2.13	0.57
2:F:973:TYR:HD2	2:F:1234:ASN:OD1	1.88	0.57
2:B:273:ASP:HA	2:B:276:ASP:HB3	1.86	0.57
2:B:341:GLN:HE21	2:B:342:GLN:CG	2.16	0.57
2:B:601:ILE:HD11	2:B:603:ASP:HB3	1.87	0.57
2:F:672:ASP:HA	2:F:703:THR:HG23	1.82	0.57
2:F:755:LYS:CD	2:F:939:MET:HE3	2.35	0.57
2:F:979:ASN:CG	2:F:981:TYR:HD1	2.07	0.57
2:B:790:GLU:OE2	2:B:888:ASN:O	2.23	0.57
2:B:1212:ARG:CZ	2:B:1336:TYR:HE2	2.18	0.57
2:F:979:ASN:ND2	2:F:981:TYR:HB2	2.19	0.57
2:B:38:THR:HG22	2:B:39:ASP:N	2.20	0.57
2:B:973:TYR:HD2	2:B:1234:ASN:OD1	1.88	0.57
1:E:6:G:H2'	1:E:7:U:O4'	2.05	0.57
2:F:1045:PHE:N	2:F:1045:PHE:CD1	2.73	0.57
1:A:6:G:H2'	1:A:7:U:O4'	2.05	0.57
2:B:181:VAL:HG21	2:B:209:LYS:CB	2.26	0.57
2:F:249:THR:HG22	2:F:265:GLN:NE2	2.18	0.57
2:F:1212:ARG:CZ	2:F:1336:TYR:HE2	2.18	0.57
2:F:1230:SER:HA	2:F:1233:VAL:HG21	1.86	0.56
1:A:89:G:N2	2:B:1227:ALA:O	2.39	0.56
2:B:275:LEU:HD11	2:B:279:LEU:HD12	1.88	0.56
2:B:822:MET:HG3	2:B:883:TRP:HE1	1.69	0.56
2:B:824:VAL:O	2:B:824:VAL:HG12	2.05	0.56
2:B:829:ASP:OD1	2:B:832:ARG:N	2.32	0.56
2:B:1230:SER:HA	2:B:1233:VAL:HG21	1.86	0.56
1:E:89:G:N2	2:F:1227:ALA:O	2.39	0.56
2:F:128:TYR:HD1	2:F:132:TYR:HD2	1.53	0.56
2:F:275:LEU:HD11	2:F:279:LEU:HD12	1.88	0.56
2:B:1202:SER:O	2:B:1213:MET:HA	2.05	0.56
2:F:1204:PHE:CZ	2:F:1214:LEU:HD12	2.40	0.56
2:F:1202:SER:O	2:F:1213:MET:HA	2.05	0.56
2:B:128:TYR:HD1	2:B:132:TYR:HD2	1.53	0.56
2:B:350:ILE:O	2:B:359:TYR:N	2.39	0.56
2:B:557:ARG:HG3	2:B:557:ARG:NH1	2.09	0.56
2:B:1204:PHE:CZ	2:B:1214:LEU:HD12	2.40	0.56
2:F:207:ASP:HB3	2:F:210:ALA:HB2	1.79	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:824:VAL:O	2:F:824:VAL:HG12	2.05	0.56
2:F:972:PHE:CZ	2:F:1083:VAL:HG11	2.41	0.56
1:A:27:G:H5'	1:A:28:A:H5''	1.87	0.56
2:B:186:ILE:HD11	2:B:203:ALA:HB1	1.88	0.56
2:B:341:GLN:HE21	2:B:342:GLN:CB	2.18	0.56
2:B:566:GLU:O	2:B:571:LYS:HD2	2.06	0.56
2:B:837:ASP:OD2	2:B:859:ARG:O	2.23	0.56
2:B:972:PHE:CZ	2:B:1083:VAL:HG11	2.41	0.56
2:B:1303:ARG:O	2:B:1307:GLU:HG2	2.06	0.56
1:E:8:G:H2'	1:E:9:U:H6	1.70	0.56
1:E:17:G:O2'	2:F:168:PHE:HD1	1.89	0.56
1:E:27:G:H5'	1:E:28:A:H5''	1.88	0.56
2:F:822:MET:HG3	2:F:883:TRP:HE1	1.69	0.56
2:F:1237:TYR:O	2:F:1242:TYR:HE1	1.88	0.56
2:B:297:SER:HG	2:B:301:LEU:HD11	1.61	0.56
2:F:362:TYR:CD1	2:F:372:PHE:CG	2.87	0.56
2:F:691:ARG:HB3	2:F:696:LEU:CD2	2.35	0.56
1:A:17:G:O2'	2:B:168:PHE:HD1	1.89	0.56
2:B:9:LEU:HA	2:B:17:GLY:O	2.06	0.56
2:B:18:TRP:CZ3	2:B:747:LEU:HD21	2.41	0.56
2:B:691:ARG:HB3	2:B:696:LEU:CD2	2.35	0.56
2:B:1101:GLN:HB2	2:B:1140:ALA:HA	1.88	0.56
2:B:1203:LEU:CD1	2:B:1213:MET:CG	2.80	0.56
2:F:186:ILE:HD11	2:F:203:ALA:HB1	1.88	0.56
2:F:837:ASP:OD2	2:F:859:ARG:O	2.23	0.56
2:F:1101:GLN:HB2	2:F:1140:ALA:HA	1.88	0.56
2:F:1303:ARG:O	2:F:1307:GLU:HG2	2.06	0.56
1:A:8:G:H2'	1:A:9:U:H6	1.70	0.56
2:B:207:ASP:HB3	2:B:210:ALA:HB2	1.80	0.56
2:B:244:LEU:HD23	2:B:266:LEU:HD11	1.86	0.56
2:B:393:LEU:HB2	2:B:398:LEU:HD12	1.88	0.56
2:B:1241:HIS:CD2	2:B:1303:ARG:HH11	2.22	0.56
2:F:9:LEU:HA	2:F:17:GLY:O	2.06	0.56
2:F:18:TRP:CZ3	2:F:747:LEU:HD21	2.41	0.56
2:F:244:LEU:HD23	2:F:266:LEU:HD11	1.86	0.56
2:F:324:ARG:CZ	2:F:400:ARG:HD2	2.35	0.56
2:F:341:GLN:HE21	2:F:342:GLN:CB	2.18	0.56
2:F:393:LEU:HB2	2:F:398:LEU:HD12	1.88	0.56
2:F:566:GLU:O	2:F:571:LYS:HD2	2.06	0.56
2:F:655:ARG:HG3	2:F:655:ARG:NH1	2.21	0.56
2:F:679:ILE:O	2:F:683:LEU:N	2.34	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:79:ILE:HD12	2:B:159:ALA:HB1	1.87	0.55
2:B:489:GLN:HG3	2:B:625:LEU:CD2	2.36	0.55
2:B:1210:ARG:NH2	2:B:1341:GLU:OE2	2.39	0.55
2:B:1237:TYR:O	2:B:1242:TYR:HE1	1.88	0.55
2:B:1302:ILE:HG23	2:B:1306:ALA:HB2	1.88	0.55
2:F:489:GLN:HG3	2:F:625:LEU:CD2	2.36	0.55
2:F:686:ASP:OD2	2:F:691:ARG:HB2	2.05	0.55
2:F:1241:HIS:CD2	2:F:1303:ARG:HH11	2.22	0.55
2:F:1284:ASP:O	2:F:1285:ALA:C	2.43	0.55
2:F:1302:ILE:HG23	2:F:1306:ALA:HB2	1.88	0.55
2:B:148:LYS:CD	2:B:429:PHE:CD1	2.72	0.55
2:B:309:ASN:N	2:B:309:ASN:OD1	2.36	0.55
2:B:679:ILE:O	2:B:683:LEU:N	2.34	0.55
2:B:1284:ASP:O	2:B:1285:ALA:C	2.43	0.55
2:F:758:ASN:HD22	2:F:995:THR:HG22	1.71	0.55
2:F:1294:TYR:CD1	2:F:1305:GLN:NE2	2.68	0.55
2:B:655:ARG:HG3	2:B:655:ARG:NH1	2.21	0.55
2:B:758:ASN:HD22	2:B:995:THR:HG22	1.71	0.55
2:F:79:ILE:HD12	2:F:159:ALA:HB1	1.87	0.55
2:F:229:LEU:HD13	2:F:232:GLU:N	2.18	0.55
2:F:694:MET:SD	2:F:698:HIS:CD2	2.99	0.55
2:B:694:MET:SD	2:B:698:HIS:CD2	3.00	0.55
2:B:810:LYS:O	2:B:833:LEU:HD12	1.96	0.55
2:B:823:TYR:CD1	2:B:875:VAL:HG11	2.42	0.55
2:B:940:ASN:OD1	2:B:952:GLU:N	2.40	0.55
2:B:1325:LYS:HB2	2:B:1330:THR:HA	1.87	0.55
3:C:23:DC:C2'	3:C:24:DG:C5'	2.82	0.55
2:F:161:MET:SD	2:F:419:LEU:HD12	2.46	0.55
2:F:557:ARG:HG3	2:F:557:ARG:NH1	2.09	0.55
2:F:1210:ARG:NH2	2:F:1341:GLU:OE2	2.39	0.55
2:B:161:MET:SD	2:B:419:LEU:HD12	2.46	0.55
2:B:229:LEU:HD13	2:B:232:GLU:N	2.18	0.55
2:B:1272:GLN:HE21	2:B:1272:GLN:CA	2.18	0.55
2:F:457:ARG:O	2:F:457:ARG:HG2	2.07	0.55
2:F:823:TYR:CD1	2:F:875:VAL:HG11	2.42	0.55
2:F:940:ASN:OD1	2:F:952:GLU:N	2.40	0.55
1:A:19:A:C4'	2:B:407:ASN:O	2.45	0.55
2:B:376:ILE:HA	2:B:379:ILE:HD13	1.87	0.55
2:B:457:ARG:HG2	2:B:457:ARG:O	2.07	0.55
2:F:842:VAL:HG12	2:F:854:ASN:HD21	1.66	0.55
3:G:23:DC:C2'	3:G:24:DG:C5'	2.82	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:51:LEU:CD1	2:B:1352:ILE:HG13	2.35	0.55
2:B:207:ASP:O	2:B:210:ALA:N	2.40	0.55
2:B:380:LEU:O	2:B:386:THR:HG21	2.07	0.55
2:F:309:ASN:N	2:F:309:ASN:OD1	2.36	0.55
2:F:681:ASP:HA	2:F:684:LYS:HE2	1.89	0.55
2:F:1272:GLN:HE21	2:F:1272:GLN:CA	2.18	0.55
2:B:681:ASP:HA	2:B:684:LYS:HE2	1.89	0.55
2:B:1294:TYR:CD1	2:B:1305:GLN:NE2	2.68	0.55
2:F:988:TYR:CZ	2:F:1086:VAL:HG21	2.42	0.55
2:F:1325:LYS:HB2	2:F:1330:THR:HA	1.88	0.55
2:B:567:ASP:O	2:B:571:LYS:HB2	2.06	0.55
2:F:207:ASP:O	2:F:210:ALA:N	2.40	0.55
2:F:376:ILE:HA	2:F:379:ILE:HD13	1.88	0.55
2:F:523:GLU:OE2	2:F:588:ASN:N	2.35	0.55
2:F:843:PRO:HD2	2:F:846:PHE:CD2	2.42	0.55
2:F:1230:SER:O	2:F:1233:VAL:N	2.40	0.55
2:F:1304:GLU:CB	2:F:1327:PHE:HE1	2.17	0.55
2:B:842:VAL:HG12	2:B:854:ASN:HD21	1.66	0.55
2:B:843:PRO:HD2	2:B:846:PHE:CD2	2.42	0.55
2:B:1230:SER:O	2:B:1233:VAL:N	2.40	0.55
2:B:988:TYR:CZ	2:B:1086:VAL:HG21	2.42	0.54
2:B:1270:ILE:CD1	2:B:1294:TYR:CG	2.84	0.54
2:F:51:LEU:CD1	2:F:1352:ILE:HG13	2.35	0.54
2:B:233:LYS:CG	2:F:543:GLU:OE1	2.56	0.54
2:B:1277:SER:HB2	2:B:1287:LEU:HD22	1.88	0.54
2:F:212:LEU:HD12	2:F:246:LEU:HD11	1.87	0.54
2:F:567:ASP:O	2:F:571:LYS:HB2	2.06	0.54
2:F:905:ARG:HH11	2:F:905:ARG:CG	2.14	0.54
2:B:167:HIS:HE1	2:B:411:PRO:HG3	1.72	0.54
2:B:244:LEU:CD1	2:B:250:PRO:CG	2.85	0.54
2:F:148:LYS:CD	2:F:429:PHE:CD1	2.72	0.54
2:F:1277:SER:HB2	2:F:1287:LEU:HD22	1.88	0.54
2:B:195:LEU:HD22	2:B:289:LEU:HD12	1.87	0.54
2:B:261:ASP:OD1	2:B:261:ASP:N	2.38	0.54
2:B:1146:VAL:O	2:B:1146:VAL:HG13	2.07	0.54
2:B:1304:GLU:CB	2:B:1327:PHE:HE1	2.17	0.54
2:F:114:GLU:HG2	2:F:120:GLY:O	2.08	0.54
2:F:307:ARG:NH1	2:F:323:LYS:HZ3	2.02	0.54
2:F:495:MET:HB3	3:G:17:DA:H1'	1.89	0.54
2:B:114:GLU:HG2	2:B:120:GLY:O	2.08	0.54
2:B:495:MET:HB3	3:C:17:DA:H1'	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:91:C:H2'	2:F:44:LYS:O	2.07	0.54
2:F:167:HIS:HE1	2:F:411:PRO:HG3	1.71	0.54
2:F:1314:THR:HG23	2:F:1324:PHE:CG	2.43	0.54
1:A:91:C:H2'	2:B:44:LYS:O	2.07	0.54
2:B:233:LYS:HD2	2:F:543:GLU:CD	2.28	0.54
2:B:606:PHE:HE2	2:B:612:ASN:CG	2.10	0.54
2:B:1220:LEU:HD21	2:B:1342:VAL:HG21	1.89	0.54
1:E:19:A:C4'	2:F:407:ASN:O	2.45	0.54
1:E:81:G:N1	2:F:1356:TYR:HB3	2.23	0.54
2:F:1146:VAL:HG13	2:F:1146:VAL:O	2.07	0.54
2:B:181:VAL:CG2	2:B:209:LYS:CA	2.84	0.54
2:B:317:LEU:HD22	2:B:414:ILE:CD1	2.38	0.54
2:B:864:ARG:HA	2:B:875:VAL:HG21	1.88	0.54
2:B:905:ARG:HH11	2:B:905:ARG:CG	2.14	0.54
2:B:1314:THR:HG23	2:B:1324:PHE:CG	2.43	0.54
2:F:195:LEU:HD22	2:F:289:LEU:HD12	1.87	0.54
2:F:606:PHE:HE2	2:F:612:ASN:CG	2.10	0.54
2:F:1220:LEU:HD21	2:F:1342:VAL:HG21	1.89	0.54
1:A:81:G:N1	2:B:1356:TYR:HB3	2.23	0.54
2:F:244:LEU:CD1	2:F:250:PRO:CG	2.85	0.54
2:F:277:ASN:HB3	2:F:653:ARG:NE	2.23	0.54
2:F:317:LEU:HD22	2:F:414:ILE:CD1	2.38	0.54
2:F:596:ASP:CG	2:F:656:TYR:HH	1.98	0.54
2:F:979:ASN:CG	2:F:981:TYR:HB2	2.27	0.54
2:B:1200:LYS:O	2:B:1201:TYR:HB2	2.08	0.54
2:F:220:ARG:HG3	2:F:220:ARG:NH1	2.14	0.54
2:F:1270:ILE:CD1	2:F:1294:TYR:CG	2.84	0.54
2:B:823:TYR:OH	2:B:839:ASP:OD2	2.19	0.54
2:F:261:ASP:N	2:F:261:ASP:OD1	2.38	0.54
1:A:24:U:N1	2:B:105:PHE:CE1	2.74	0.53
2:F:696:LEU:CD1	2:F:702:LEU:HD13	2.20	0.53
2:F:864:ARG:HA	2:F:875:VAL:HG21	1.88	0.53
2:F:1048:THR:HA	2:F:1076:LYS:HZ2	1.73	0.53
2:F:1200:LYS:O	2:F:1201:TYR:HB2	2.08	0.53
3:G:17:DA:H2'	3:G:18:DG:C8	2.43	0.53
2:B:69:ARG:O	2:B:73:THR:HG23	2.09	0.53
2:B:277:ASN:HB3	2:B:653:ARG:NE	2.23	0.53
2:B:360:ALA:O	2:B:364:ASP:HB2	2.08	0.53
2:B:432:PHE:CD1	2:B:433:LEU:N	2.77	0.53
2:B:437:ARG:O	2:B:441:GLU:HG3	2.08	0.53
2:B:927:ILE:O	2:B:931:VAL:HG23	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1000:LYS:HE2	2:B:1073:VAL:HG21	1.62	0.53
3:C:17:DA:H2'	3:C:18:DG:C8	2.43	0.53
2:F:69:ARG:O	2:F:73:THR:HG23	2.09	0.53
2:F:181:VAL:CG2	2:F:209:LYS:CA	2.84	0.53
2:F:437:ARG:O	2:F:441:GLU:HG3	2.08	0.53
2:B:275:LEU:HD11	2:B:279:LEU:CD1	2.38	0.53
2:B:870:VAL:CG1	2:B:871:PRO:CD	2.85	0.53
2:B:963:VAL:HG21	2:B:990:ASN:OD1	2.08	0.53
2:B:1325:LYS:HG3	2:B:1326:TYR:O	2.08	0.53
1:A:19:A:H4'	2:B:407:ASN:C	2.27	0.53
2:B:736:GLY:O	2:B:740:THR:HG22	2.09	0.53
2:F:432:PHE:CD1	2:F:433:LEU:N	2.77	0.53
2:F:530:VAL:HG22	2:F:537:PRO:HA	1.90	0.53
2:F:736:GLY:O	2:F:740:THR:HG22	2.09	0.53
2:F:927:ILE:O	2:F:931:VAL:HG23	2.08	0.53
1:E:24:U:N1	2:F:105:PHE:CE1	2.74	0.53
2:F:762:GLU:OE1	2:F:990:ASN:ND2	2.41	0.53
2:B:1038:PHE:HD1	2:B:1038:PHE:O	1.92	0.53
1:E:42:A:O2'	1:E:43:G:OP1	2.23	0.53
2:F:207:ASP:HB2	2:F:210:ALA:HB3	1.84	0.53
2:F:270:THR:OG1	2:F:629:ARG:NH1	2.41	0.53
2:F:1038:PHE:O	2:F:1038:PHE:HD1	1.92	0.53
2:F:1135:ASP:OD2	4:H:8:DT:H5''	2.09	0.53
2:F:1325:LYS:HG3	2:F:1326:TYR:O	2.08	0.53
2:B:7:ILE:O	2:B:759:ILE:HA	2.08	0.53
2:B:212:LEU:CD1	2:B:246:LEU:HD11	2.38	0.53
2:B:270:THR:OG1	2:B:629:ARG:NH1	2.41	0.53
2:B:508:LEU:CD1	2:B:663:SER:C	2.75	0.53
2:B:530:VAL:HG22	2:B:537:PRO:HA	1.90	0.53
2:B:1284:ASP:OD1	2:B:1284:ASP:N	2.35	0.53
2:F:508:LEU:CD1	2:F:663:SER:C	2.75	0.53
2:B:275:LEU:CD1	2:B:279:LEU:CG	2.86	0.53
1:E:19:A:H4'	2:F:407:ASN:C	2.27	0.53
2:F:128:TYR:CD1	2:F:132:TYR:HD2	2.27	0.53
2:F:275:LEU:HD11	2:F:279:LEU:CD1	2.38	0.53
2:F:569:PHE:CD1	2:F:575:PHE:CE2	2.97	0.53
2:F:570:LYS:HA	2:F:574:CYS:HA	1.91	0.53
2:F:870:VAL:CG1	2:F:871:PRO:CD	2.85	0.53
2:F:963:VAL:HG21	2:F:990:ASN:OD1	2.08	0.53
2:F:1284:ASP:OD1	2:F:1284:ASP:N	2.35	0.53
2:B:128:TYR:CD1	2:B:132:TYR:HD2	2.27	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:220:ARG:HG3	2:B:220:ARG:NH1	2.14	0.53
2:B:569:PHE:CD1	2:B:575:PHE:CE2	2.97	0.53
2:B:1135:ASP:OD2	4:D:8:DT:H5''	2.09	0.53
2:F:66:ARG:CZ	2:F:462:PHE:CZ	2.78	0.53
2:F:275:LEU:CD1	2:F:279:LEU:CG	2.86	0.53
2:B:570:LYS:HA	2:B:574:CYS:HA	1.91	0.53
2:B:762:GLU:OE1	2:B:990:ASN:ND2	2.41	0.53
2:B:911:LEU:HA	2:B:1032:ALA:CB	2.39	0.53
2:F:7:ILE:O	2:F:759:ILE:HA	2.08	0.53
2:F:386:THR:OG1	2:F:389:LEU:HD12	2.09	0.53
2:F:911:LEU:HA	2:F:1032:ALA:CB	2.39	0.53
1:A:42:A:O2'	1:A:43:G:OP1	2.23	0.52
2:B:249:THR:HG22	2:B:265:GLN:HE21	1.70	0.52
2:B:553:PHE:CD1	2:B:559:VAL:HG21	2.44	0.52
2:F:277:ASN:O	2:F:281:GLN:NE2	2.42	0.52
2:F:553:PHE:CD1	2:F:559:VAL:HG21	2.44	0.52
2:F:1210:ARG:HA	2:F:1280:VAL:HG13	1.90	0.52
2:F:1315:LEU:HD12	2:F:1315:LEU:C	2.29	0.52
2:B:594:TYR:OH	2:B:608:ASP:OD1	2.20	0.52
2:B:1045:PHE:HD1	2:B:1045:PHE:N	2.06	0.52
2:F:37:ASN:OD1	2:F:37:ASN:N	2.39	0.52
2:B:561:VAL:CG2	2:B:584:GLU:O	2.57	0.52
2:B:1210:ARG:HA	2:B:1280:VAL:HG13	1.90	0.52
2:B:1262:HIS:O	2:B:1265:TYR:HB2	2.10	0.52
2:F:1262:HIS:O	2:F:1265:TYR:HB2	2.10	0.52
2:B:81:TYR:O	2:B:85:ILE:HG13	2.09	0.52
2:B:277:ASN:O	2:B:281:GLN:NE2	2.42	0.52
2:B:830:ILE:CD1	2:B:831:ASN:N	2.73	0.52
2:F:40:ARG:NE	2:F:43:ILE:CD1	2.73	0.52
2:F:244:LEU:HD13	2:F:250:PRO:CG	2.40	0.52
2:F:561:VAL:CG2	2:F:584:GLU:O	2.57	0.52
2:F:830:ILE:CD1	2:F:831:ASN:N	2.73	0.52
2:F:1284:ASP:O	2:F:1287:LEU:N	2.43	0.52
3:G:24:DG:C2'	3:G:25:DG:C5'	2.85	0.52
2:B:696:LEU:CD1	2:B:702:LEU:HD13	2.19	0.52
2:B:1284:ASP:O	2:B:1287:LEU:N	2.43	0.52
2:F:167:HIS:ND1	2:F:167:HIS:O	2.41	0.52
2:F:635:ARG:HH11	2:F:635:ARG:CG	2.20	0.52
2:F:694:MET:SD	2:F:698:HIS:NE2	2.82	0.52
2:F:1045:PHE:HD1	2:F:1045:PHE:N	2.06	0.52
2:B:37:ASN:OD1	2:B:37:ASN:N	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:40:ARG:NE	2:B:43:ILE:CD1	2.73	0.52
2:B:244:LEU:HD13	2:B:250:PRO:CG	2.40	0.52
2:B:647:VAL:O	2:B:651:LEU:N	2.43	0.52
2:B:1216:SER:CB	4:D:6:DG:H3'	2.38	0.52
2:F:58:THR:CG2	2:F:731:PRO:HG3	2.21	0.52
2:B:207:ASP:HB2	2:B:210:ALA:HB3	1.84	0.52
2:B:738:LEU:HD23	2:B:738:LEU:C	2.30	0.52
2:B:963:VAL:CG2	2:B:990:ASN:OD1	2.57	0.52
2:B:1315:LEU:HD12	2:B:1315:LEU:C	2.29	0.52
2:F:165:ARG:O	2:F:415:HIS:ND1	2.42	0.52
2:F:212:LEU:O	2:F:221:ARG:NH1	2.40	0.52
2:F:393:LEU:HD23	2:F:393:LEU:O	2.10	0.52
2:F:594:TYR:OH	2:F:608:ASP:OD1	2.20	0.52
2:F:811:LEU:C	2:F:811:LEU:HD13	2.29	0.52
2:F:1203:LEU:HD21	2:F:1211:LYS:CD	2.40	0.52
2:F:1216:SER:CB	4:H:6:DG:H3'	2.38	0.52
2:B:393:LEU:HD23	2:B:393:LEU:O	2.10	0.52
2:B:523:GLU:OE1	2:B:588:ASN:HB2	2.09	0.52
2:B:694:MET:SD	2:B:698:HIS:NE2	2.82	0.52
2:B:811:LEU:HD13	2:B:811:LEU:C	2.29	0.52
2:F:81:TYR:O	2:F:85:ILE:HG13	2.09	0.52
2:F:400:ARG:HD3	2:F:401:LYS:H	1.74	0.52
2:F:492:ILE:CD1	2:F:625:LEU:O	2.58	0.52
2:F:1272:GLN:NE2	2:F:1272:GLN:CA	2.73	0.52
2:B:58:THR:CG2	2:B:731:PRO:HG3	2.22	0.52
2:B:212:LEU:O	2:B:221:ARG:NH1	2.39	0.52
2:B:340:ARG:CA	2:B:344:PRO:HG3	2.40	0.52
2:B:523:GLU:OE2	2:B:588:ASN:N	2.35	0.52
2:B:635:ARG:HH11	2:B:635:ARG:CG	2.20	0.52
2:B:1045:PHE:N	2:B:1045:PHE:CD1	2.73	0.52
2:F:531:THR:CG2	2:F:534:MET:SD	2.94	0.52
2:F:963:VAL:CG2	2:F:990:ASN:OD1	2.57	0.52
2:B:27:VAL:HG11	2:B:1089:MET:HE3	1.91	0.52
2:B:165:ARG:O	2:B:415:HIS:ND1	2.42	0.52
2:B:167:HIS:ND1	2:B:167:HIS:O	2.41	0.52
2:B:226:ILE:HA	2:B:229:LEU:HG	1.92	0.52
2:B:275:LEU:CD1	2:B:279:LEU:CB	2.87	0.52
2:B:429:PHE:N	2:B:429:PHE:HD2	2.08	0.52
2:B:981:TYR:CE1	2:B:1092:VAL:CG1	2.88	0.52
2:B:1203:LEU:HD21	2:B:1211:LYS:CD	2.40	0.52
3:C:24:DG:C2'	3:C:25:DG:C5'	2.86	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:275:LEU:CD1	2:F:279:LEU:CB	2.87	0.52
2:F:429:PHE:HD2	2:F:429:PHE:N	2.08	0.52
2:F:647:VAL:O	2:F:651:LEU:N	2.43	0.52
2:B:66:ARG:CZ	2:B:462:PHE:CZ	2.78	0.51
2:B:123:VAL:HG13	2:B:124:ASP:N	2.25	0.51
2:B:274:ASP:O	2:B:278:LEU:HB3	2.10	0.51
2:B:318:SER:OG	2:B:418:GLU:CD	2.48	0.51
2:B:492:ILE:CD1	2:B:625:LEU:O	2.58	0.51
2:B:1272:GLN:NE2	2:B:1272:GLN:CA	2.73	0.51
2:F:246:LEU:CD1	2:F:246:LEU:N	2.73	0.51
2:F:738:LEU:C	2:F:738:LEU:HD23	2.30	0.51
2:B:1250:GLU:O	2:B:1254:GLN:OE1	2.28	0.51
2:F:123:VAL:HG13	2:F:124:ASP:N	2.25	0.51
2:F:245:SER:HB3	2:F:296:LEU:HD22	1.91	0.51
2:F:340:ARG:CA	2:F:344:PRO:HG3	2.40	0.51
2:F:523:GLU:OE1	2:F:588:ASN:HB2	2.09	0.51
2:F:979:ASN:CG	2:F:981:TYR:CD1	2.81	0.51
2:F:981:TYR:OH	2:F:1092:VAL:HG12	2.00	0.51
2:F:1216:SER:HB2	4:H:6:DG:H5"	1.90	0.51
2:F:40:ARG:NE	2:F:43:ILE:HD11	2.25	0.51
2:F:226:ILE:HA	2:F:229:LEU:HG	1.92	0.51
2:F:275:LEU:HD12	2:F:279:LEU:CB	2.26	0.51
2:F:341:GLN:NE2	2:F:342:GLN:CG	2.73	0.51
2:F:759:ILE:HG21	2:F:935:LEU:HD23	1.92	0.51
2:B:520:VAL:HG21	2:B:591:LEU:CD2	2.40	0.51
2:B:759:ILE:HG21	2:B:935:LEU:HD23	1.92	0.51
2:B:788:ILE:HG13	2:B:796:LEU:HG	1.93	0.51
2:B:1048:THR:HA	2:B:1076:LYS:HZ2	1.75	0.51
2:B:1351:SER:OG	2:B:1356:TYR:HB2	2.10	0.51
2:F:274:ASP:O	2:F:278:LEU:HB3	2.11	0.51
2:F:801:VAL:HG11	2:F:815:TYR:CE2	2.46	0.51
2:F:1250:GLU:O	2:F:1254:GLN:OE1	2.28	0.51
2:B:341:GLN:NE2	2:B:342:GLN:CG	2.73	0.51
2:B:531:THR:CG2	2:B:534:MET:SD	2.94	0.51
2:B:655:ARG:HH11	2:B:655:ARG:HG3	1.76	0.51
2:B:801:VAL:HG11	2:B:815:TYR:CE2	2.46	0.51
2:B:1216:SER:HB2	4:D:6:DG:H5"	1.90	0.51
2:F:788:ILE:HG13	2:F:796:LEU:HG	1.93	0.51
2:F:1351:SER:OG	2:F:1356:TYR:HB2	2.10	0.51
2:B:40:ARG:NE	2:B:43:ILE:HD11	2.25	0.51
2:B:302:LEU:O	2:B:305:ILE:HD12	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:827:GLU:O	2:B:828:LEU:HD23	2.10	0.51
2:B:1048:THR:HA	2:B:1076:LYS:NZ	2.25	0.51
2:B:1145:VAL:CG1	2:B:1182:LEU:CD1	2.89	0.51
2:B:1204:PHE:CD1	2:B:1347:LEU:HG	2.45	0.51
2:F:296:LEU:HD23	2:F:296:LEU:O	2.11	0.51
2:F:373:TYR:HA	2:F:376:ILE:CD1	2.40	0.51
2:F:520:VAL:HG21	2:F:591:LEU:CD2	2.40	0.51
2:F:1145:VAL:CG1	2:F:1182:LEU:CD1	2.89	0.51
1:A:14:A:H5''	2:B:66:ARG:NH1	2.26	0.51
2:B:1314:THR:HG23	2:B:1324:PHE:CD1	2.46	0.51
2:F:655:ARG:HH11	2:F:655:ARG:HG3	1.76	0.51
2:F:708:ILE:HD13	2:F:708:ILE:N	2.25	0.51
2:F:870:VAL:CG2	2:F:908:LEU:HD21	2.40	0.51
2:F:1314:THR:HG23	2:F:1324:PHE:CD1	2.46	0.51
1:A:97:U:H2'	1:A:98:C:O4'	2.11	0.51
2:B:558:LYS:HD2	2:B:586:ARG:HD2	1.93	0.51
2:B:708:ILE:HD13	2:B:708:ILE:N	2.25	0.51
2:F:429:PHE:HB2	2:F:430:TYR:CE1	2.46	0.51
2:F:827:GLU:O	2:F:828:LEU:HD23	2.10	0.51
2:F:974:LYS:HZ3	2:F:976:ARG:HH11	1.59	0.51
1:A:91:C:H6	2:B:44:LYS:O	1.94	0.51
2:B:296:LEU:HD23	2:B:296:LEU:O	2.11	0.51
2:B:429:PHE:HB2	2:B:430:TYR:CE1	2.46	0.51
2:B:975:VAL:HG23	2:B:1233:VAL:HG12	1.92	0.51
1:E:97:U:H2'	1:E:98:C:O4'	2.11	0.51
2:F:905:ARG:NH1	2:F:905:ARG:CG	2.73	0.51
2:F:981:TYR:CE1	2:F:1092:VAL:CG1	2.88	0.51
2:F:1255:LYS:N	2:F:1255:LYS:CE	2.73	0.51
2:B:78:ARG:CZ	2:B:165:ARG:HH11	2.24	0.51
2:B:110:ASP:O	2:B:110:ASP:OD1	2.29	0.51
2:B:244:LEU:CG	2:B:266:LEU:CD1	2.78	0.51
1:E:14:A:H5''	2:F:66:ARG:NH1	2.26	0.51
2:F:78:ARG:CZ	2:F:165:ARG:HH11	2.24	0.51
2:F:302:LEU:O	2:F:305:ILE:HD12	2.11	0.51
2:F:359:TYR:CD1	2:F:399:LEU:CD2	2.94	0.51
2:F:558:LYS:HD2	2:F:586:ARG:HD2	1.93	0.51
2:F:910:GLU:HG2	2:F:1033:THR:HG22	1.91	0.51
2:F:1204:PHE:CD1	2:F:1347:LEU:HG	2.45	0.51
3:G:1:DC:H42	4:H:12:DG:H1	1.57	0.51
2:B:186:ILE:CD1	2:B:203:ALA:HB1	2.42	0.50
2:B:275:LEU:HD12	2:B:279:LEU:CB	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:321:MET:HE3	2:B:321:MET:HA	1.93	0.50
2:B:429:PHE:N	2:B:429:PHE:CD2	2.78	0.50
2:B:553:PHE:CD1	2:B:559:VAL:CG2	2.94	0.50
2:B:625:LEU:HD13	2:B:659:TRP:CZ2	2.46	0.50
2:B:830:ILE:HD13	2:B:831:ASN:CG	2.32	0.50
2:B:1203:LEU:HD21	2:B:1211:LYS:HD2	1.92	0.50
1:E:91:C:H6	2:F:44:LYS:O	1.94	0.50
2:F:1203:LEU:HD21	2:F:1211:LYS:HD2	1.93	0.50
2:B:153:LEU:HD23	2:B:156:LEU:HD12	1.93	0.50
2:B:398:LEU:O	2:B:398:LEU:HD23	2.11	0.50
2:B:905:ARG:NH1	2:B:905:ARG:CG	2.73	0.50
3:C:1:DC:H42	4:D:12:DG:H1	1.57	0.50
2:F:244:LEU:CG	2:F:266:LEU:CD1	2.78	0.50
2:F:398:LEU:O	2:F:398:LEU:HD23	2.11	0.50
2:F:625:LEU:HD13	2:F:659:TRP:CZ2	2.46	0.50
2:F:830:ILE:HD13	2:F:831:ASN:CG	2.32	0.50
2:F:844:GLN:HA	2:F:847:LEU:O	2.11	0.50
2:F:1048:THR:HA	2:F:1076:LYS:NZ	2.25	0.50
1:A:83:C:H2'	1:A:84:A:C8	2.46	0.50
2:B:981:TYR:CG	2:B:1092:VAL:HG11	2.46	0.50
2:B:1255:LYS:N	2:B:1255:LYS:CE	2.73	0.50
2:F:153:LEU:HD23	2:F:156:LEU:HD12	1.93	0.50
2:F:186:ILE:CD1	2:F:203:ALA:HB1	2.42	0.50
2:F:359:TYR:O	2:F:362:TYR:HB3	2.11	0.50
2:F:429:PHE:N	2:F:429:PHE:CD2	2.78	0.50
2:F:492:ILE:HD12	2:F:625:LEU:O	2.11	0.50
2:F:553:PHE:CD1	2:F:559:VAL:CG2	2.94	0.50
2:B:114:GLU:CG	2:B:120:GLY:O	2.60	0.50
2:B:844:GLN:HA	2:B:847:LEU:O	2.11	0.50
1:E:59:U:O4	2:F:475:PRO:HG3	2.12	0.50
2:F:114:GLU:CG	2:F:120:GLY:O	2.60	0.50
2:F:313:THR:HG23	2:F:313:THR:O	2.10	0.50
2:F:969:ASP:C	2:F:970:PHE:CD2	2.85	0.50
1:A:59:U:O4	2:B:475:PRO:HG3	2.12	0.50
2:B:97:PHE:HD2	2:B:98:PHE:CD1	2.30	0.50
2:B:220:ARG:NH1	2:B:220:ARG:CG	2.73	0.50
2:B:492:ILE:HD12	2:B:625:LEU:O	2.11	0.50
1:E:83:C:H2'	1:E:84:A:C8	2.46	0.50
2:F:27:VAL:HG11	2:F:1089:MET:HE3	1.93	0.50
2:F:723:HIS:CD2	2:F:727:LEU:HD21	2.47	0.50
2:F:1033:THR:O	2:F:1036:TYR:HB3	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:606:PHE:CE2	2:B:612:ASN:CG	2.85	0.50
2:B:723:HIS:CD2	2:B:727:LEU:HD21	2.46	0.50
2:B:910:GLU:HG2	2:B:1033:THR:HG22	1.91	0.50
2:B:969:ASP:C	2:B:970:PHE:CD2	2.85	0.50
2:F:97:PHE:HD2	2:F:98:PHE:CD1	2.30	0.50
2:F:738:LEU:HD23	2:F:738:LEU:O	2.12	0.50
2:B:870:VAL:CG2	2:B:908:LEU:HD21	2.40	0.50
2:B:1033:THR:O	2:B:1036:TYR:HB3	2.12	0.50
2:B:1038:PHE:CD1	2:B:1038:PHE:C	2.85	0.50
2:B:1145:VAL:CG1	2:B:1182:LEU:HD13	2.42	0.50
2:F:1038:PHE:CD1	2:F:1038:PHE:C	2.85	0.50
2:B:114:GLU:HG3	2:B:120:GLY:HA2	1.92	0.50
2:B:313:THR:O	2:B:313:THR:HG23	2.10	0.50
2:B:738:LEU:HD23	2:B:738:LEU:O	2.12	0.50
2:B:926:GLN:HA	2:B:929:LYS:HE3	1.93	0.50
1:E:39:G:H5'	1:E:40:C:OP2	2.12	0.50
2:F:606:PHE:CE2	2:F:612:ASN:CG	2.85	0.50
2:F:926:GLN:HA	2:F:929:LYS:HE3	1.93	0.50
2:F:981:TYR:CG	2:F:1092:VAL:HG11	2.46	0.50
2:F:1145:VAL:CG1	2:F:1182:LEU:HD13	2.42	0.50
1:A:74:A:H3'	1:A:75:A:C8	2.47	0.50
2:B:568:TYR:O	2:B:572:ILE:HB	2.12	0.50
1:E:44:U:N3	2:F:328:HIS:HB3	2.27	0.50
1:E:74:A:H3'	1:E:75:A:C8	2.47	0.50
2:F:568:TYR:O	2:F:572:ILE:HB	2.12	0.50
2:F:644:ASP:HB3	2:F:647:VAL:HG23	1.94	0.50
1:A:44:U:N3	2:B:328:HIS:HB3	2.27	0.49
2:B:644:ASP:HB3	2:B:647:VAL:HG23	1.94	0.49
2:B:790:GLU:OE2	2:B:888:ASN:C	2.50	0.49
2:F:220:ARG:NH1	2:F:220:ARG:CG	2.73	0.49
2:F:362:TYR:HE1	2:F:372:PHE:HD2	1.54	0.49
2:F:655:ARG:CG	2:F:655:ARG:NH1	2.73	0.49
2:F:814:TYR:CD1	2:F:814:TYR:C	2.85	0.49
2:F:897:PHE:CZ	2:F:901:THR:HG21	2.46	0.49
1:A:39:G:H5'	1:A:40:C:OP2	2.12	0.49
2:B:338:LEU:HD22	2:B:341:GLN:HG2	1.95	0.49
2:B:841:ILE:HD11	2:B:900:LEU:HD21	1.95	0.49
2:F:338:LEU:HD22	2:F:341:GLN:HG2	1.95	0.49
2:B:379:ILE:O	2:B:383:MET:HG2	2.12	0.49
2:B:897:PHE:CZ	2:B:901:THR:HG21	2.46	0.49
2:F:62:THR:O	2:F:65:LYS:HB2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:841:ILE:HD11	2:F:900:LEU:HD21	1.95	0.49
2:B:178:ASN:CB	2:B:299:ALA:HA	2.30	0.49
2:B:708:ILE:O	2:B:711:ALA:N	2.44	0.49
2:B:814:TYR:C	2:B:814:TYR:CD1	2.85	0.49
2:B:1241:HIS:CE1	2:B:1244:LYS:C	2.85	0.49
2:F:790:GLU:OE2	2:F:888:ASN:C	2.50	0.49
2:B:379:ILE:O	2:B:383:MET:HG3	2.13	0.49
2:B:1031:LYS:O	2:B:1031:LYS:HD3	2.13	0.49
2:F:114:GLU:HG3	2:F:120:GLY:HA2	1.92	0.49
2:F:508:LEU:CD1	2:F:663:SER:O	2.61	0.49
2:F:849:ASP:CB	2:F:854:ASN:HD22	2.13	0.49
2:F:1141:TYR:OH	2:F:1175:GLU:OE2	2.21	0.49
2:B:373:TYR:CA	2:B:376:ILE:HD11	2.40	0.49
2:B:410:ILE:HD12	2:B:410:ILE:N	2.27	0.49
2:B:508:LEU:CD1	2:B:663:SER:O	2.61	0.49
2:B:655:ARG:CG	2:B:655:ARG:NH1	2.73	0.49
2:B:844:GLN:NE2	2:B:848:LYS:CD	2.76	0.49
2:B:974:LYS:HZ3	2:B:976:ARG:NH1	2.06	0.49
2:F:201:ILE:HG22	2:F:202:ASN:N	2.28	0.49
2:F:974:LYS:NZ	2:F:976:ARG:HH11	2.09	0.49
2:F:1235:PHE:C	2:F:1235:PHE:CD2	2.86	0.49
1:A:16:U:O2	2:B:447:ARG:NH2	2.45	0.49
2:B:910:GLU:CG	2:B:1033:THR:HG22	2.43	0.49
2:B:1121:ALA:HB2	2:B:1128:PRO:HD3	1.95	0.49
2:F:321:MET:CE	2:F:324:ARG:HD2	2.43	0.49
2:F:410:ILE:N	2:F:410:ILE:HD12	2.27	0.49
2:F:414:ILE:O	2:F:418:GLU:N	2.40	0.49
2:F:583:VAL:HG13	2:F:584:GLU:O	2.13	0.49
2:F:708:ILE:O	2:F:711:ALA:N	2.44	0.49
2:F:844:GLN:NE2	2:F:848:LYS:CD	2.76	0.49
2:F:1121:ALA:HB2	2:F:1128:PRO:HD3	1.95	0.49
2:B:201:ILE:HG22	2:B:202:ASN:N	2.28	0.49
2:B:414:ILE:O	2:B:418:GLU:N	2.40	0.49
2:B:746:GLU:O	2:B:750:VAL:N	2.33	0.49
2:B:840:ALA:O	2:B:864:ARG:NH1	2.45	0.49
2:B:933:GLN:OE1	2:B:934:ILE:N	2.46	0.49
2:B:971:GLN:HA	2:B:973:TYR:CE2	2.47	0.49
2:B:1286:ASN:O	2:B:1289:LYS:HB3	2.12	0.49
2:F:432:PHE:CE1	2:F:433:LEU:HG	2.48	0.49
2:F:910:GLU:CG	2:F:1033:THR:HG22	2.43	0.49
2:F:933:GLN:OE1	2:F:934:ILE:N	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:971:GLN:HA	2:F:973:TYR:CE2	2.47	0.49
2:F:1241:HIS:CE1	2:F:1244:LYS:C	2.86	0.49
2:F:1286:ASN:O	2:F:1289:LYS:HB3	2.12	0.49
2:B:106:LEU:HD23	2:B:110:ASP:CB	2.41	0.49
2:B:583:VAL:HG13	2:B:584:GLU:O	2.13	0.49
2:B:1235:PHE:C	2:B:1235:PHE:CD2	2.86	0.49
2:B:1237:TYR:C	2:B:1237:TYR:CD1	2.85	0.49
1:E:16:U:O2	2:F:447:ARG:NH2	2.45	0.49
2:F:373:TYR:CA	2:F:376:ILE:HD11	2.40	0.49
2:F:358:GLY:O	2:F:361:GLY:N	2.45	0.49
2:F:1224:ASN:N	2:F:1224:ASN:ND2	2.60	0.49
2:B:432:PHE:CE1	2:B:433:LEU:HG	2.48	0.48
2:B:440:ILE:HA	2:B:443:ILE:HD12	1.94	0.48
2:B:665:LYS:O	2:B:669:GLY:C	2.51	0.48
2:F:341:GLN:CG	2:F:342:GLN:HG2	2.41	0.48
2:F:840:ALA:O	2:F:864:ARG:NH1	2.45	0.48
2:F:1237:TYR:CD1	2:F:1237:TYR:C	2.86	0.48
2:B:340:ARG:HA	2:B:344:PRO:HG3	1.95	0.48
2:B:583:VAL:HG22	2:B:584:GLU:H	1.77	0.48
2:B:776:ASN:N	2:B:776:ASN:ND2	2.60	0.48
2:B:1224:ASN:N	2:B:1224:ASN:ND2	2.60	0.48
2:F:106:LEU:HD23	2:F:110:ASP:CB	2.41	0.48
2:F:299:ALA:O	2:F:302:LEU:HD21	2.12	0.48
2:F:340:ARG:HA	2:F:344:PRO:HG3	1.95	0.48
2:F:440:ILE:HA	2:F:443:ILE:HD12	1.94	0.48
2:F:776:ASN:N	2:F:776:ASN:ND2	2.60	0.48
1:A:26:A:H2'	1:A:27:G:H8	1.78	0.48
2:B:94:ASP:HB2	2:B:152:ARG:HD3	1.95	0.48
2:B:226:ILE:CD1	2:F:574:CYS:SG	2.95	0.48
1:E:26:A:H2'	1:E:27:G:H8	1.78	0.48
2:F:181:VAL:HG12	2:F:300:ILE:CG1	2.43	0.48
2:B:299:ALA:O	2:B:302:LEU:HD21	2.12	0.48
2:B:341:GLN:CG	2:B:342:GLN:HG2	2.41	0.48
2:B:419:LEU:HD21	2:B:440:ILE:HG22	1.94	0.48
2:B:758:ASN:ND2	2:B:995:THR:HG22	2.29	0.48
2:B:975:VAL:HB	2:B:978:ILE:HD12	1.95	0.48
2:F:94:ASP:HB2	2:F:152:ARG:HD3	1.94	0.48
2:F:143:VAL:HG13	2:F:421:ALA:CB	2.44	0.48
2:B:114:GLU:HG2	2:B:120:GLY:C	2.34	0.48
2:B:419:LEU:HD13	2:B:444:LEU:HD12	1.95	0.48
2:B:779:GLU:O	2:B:783:ARG:HG3	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:849:ASP:CB	2:B:854:ASN:HD22	2.13	0.48
2:F:5:TYR:HD2	2:F:20:VAL:HG13	1.77	0.48
2:F:324:ARG:CG	2:F:400:ARG:CG	2.89	0.48
2:F:419:LEU:HD13	2:F:444:LEU:HD12	1.95	0.48
2:F:665:LYS:O	2:F:669:GLY:C	2.51	0.48
2:F:665:LYS:C	2:F:669:GLY:H	2.17	0.48
2:F:758:ASN:ND2	2:F:995:THR:HG22	2.29	0.48
2:F:977:GLU:HG3	2:F:1310:ILE:HG23	1.94	0.48
2:F:978:ILE:HG12	2:F:1313:PHE:CD2	2.44	0.48
2:B:78:ARG:HD3	2:B:165:ARG:NH1	2.27	0.48
2:B:143:VAL:HG13	2:B:421:ALA:CB	2.44	0.48
2:B:181:VAL:HG12	2:B:300:ILE:CG1	2.43	0.48
2:B:243:ALA:O	2:B:248:LEU:HB2	2.13	0.48
2:B:410:ILE:N	2:B:410:ILE:CD1	2.77	0.48
2:B:448:ILE:HG22	2:B:452:VAL:HB	1.96	0.48
2:F:28:PRO:HB2	2:F:47:LEU:HG	1.96	0.48
2:F:118:ILE:HB	2:F:119:PHE:CD2	2.48	0.48
2:F:178:ASN:CB	2:F:299:ALA:HA	2.30	0.48
2:F:321:MET:CE	2:F:321:MET:CA	2.86	0.48
2:F:404:THR:O	2:F:407:ASN:ND2	2.43	0.48
2:F:448:ILE:HG22	2:F:452:VAL:HB	1.96	0.48
2:F:705:LYS:HE2	2:F:705:LYS:HB3	1.60	0.48
2:F:779:GLU:O	2:F:783:ARG:HG3	2.13	0.48
2:F:821:ASP:CB	2:F:824:VAL:HB	2.43	0.48
2:B:5:TYR:HD2	2:B:20:VAL:HG13	1.77	0.48
2:B:28:PRO:HB2	2:B:47:LEU:HG	1.96	0.48
2:B:665:LYS:C	2:B:669:GLY:H	2.17	0.48
2:B:692:ASN:H	2:B:695:GLN:HB2	1.78	0.48
2:B:699:ASP:HB3	2:B:702:LEU:CB	2.44	0.48
2:B:1302:ILE:HG22	2:B:1306:ALA:HB2	1.96	0.48
2:B:1304:GLU:C	2:B:1327:PHE:CE1	2.87	0.48
2:F:114:GLU:HG2	2:F:120:GLY:C	2.34	0.48
2:F:410:ILE:N	2:F:410:ILE:CD1	2.77	0.48
2:F:419:LEU:HD21	2:F:440:ILE:HG22	1.94	0.48
2:F:699:ASP:HB3	2:F:702:LEU:CB	2.44	0.48
2:F:1302:ILE:HG22	2:F:1306:ALA:HB2	1.96	0.48
1:A:68:A:C4	2:B:1350:GLN:O	2.67	0.48
2:B:225:LEU:HD13	2:B:242:ILE:HG21	1.95	0.48
3:C:1:DC:N4	3:C:2:DA:N1	2.60	0.48
2:F:78:ARG:HD3	2:F:165:ARG:NH1	2.27	0.48
2:F:225:LEU:HD13	2:F:242:ILE:HG21	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:432:PHE:HD1	2:F:433:LEU:N	2.12	0.48
2:F:583:VAL:HG22	2:F:584:GLU:H	1.77	0.48
2:F:1304:GLU:C	2:F:1327:PHE:CE1	2.87	0.48
3:G:1:DC:N4	3:G:2:DA:N1	2.61	0.48
1:A:13:A:H2'	1:A:14:A:H8	1.78	0.48
2:B:432:PHE:HD1	2:B:433:LEU:N	2.11	0.48
2:B:821:ASP:CB	2:B:824:VAL:HB	2.43	0.48
2:B:988:TYR:OH	2:B:1086:VAL:HG21	2.14	0.48
2:F:351:PHE:CD2	2:F:351:PHE:N	2.82	0.48
2:F:842:VAL:CG1	2:F:847:LEU:HD22	2.44	0.48
2:F:1242:TYR:CD1	2:F:1242:TYR:N	2.72	0.48
2:F:1287:LEU:HD12	2:F:1287:LEU:C	2.32	0.48
2:B:27:VAL:HG11	2:B:1086:VAL:CG1	2.43	0.48
2:B:38:THR:HG22	2:B:39:ASP:H	1.79	0.48
2:B:1242:TYR:CD1	2:B:1242:TYR:N	2.72	0.48
2:F:321:MET:HE1	2:F:324:ARG:HD2	1.95	0.48
2:F:972:PHE:CE1	2:F:1083:VAL:HG11	2.48	0.48
2:B:118:ILE:HB	2:B:119:PHE:CD2	2.48	0.47
2:B:151:LEU:O	2:B:154:ILE:N	2.47	0.47
2:B:358:GLY:O	2:B:361:GLY:N	2.47	0.47
2:B:705:LYS:HB3	2:B:705:LYS:HE2	1.60	0.47
2:B:821:ASP:HB3	2:B:824:VAL:HB	1.95	0.47
1:E:13:A:H2'	1:E:14:A:H8	1.78	0.47
1:E:68:A:C4	2:F:1350:GLN:O	2.67	0.47
2:F:838:VAL:HG11	2:F:855:LYS:HE3	1.95	0.47
2:F:1219:GLU:CG	2:F:1220:LEU:N	2.77	0.47
2:B:336:LYS:HG2	2:B:347:TYR:HE2	1.79	0.47
2:B:351:PHE:CD2	2:B:351:PHE:N	2.82	0.47
2:B:972:PHE:CE1	2:B:1083:VAL:HG11	2.48	0.47
2:B:1251:ASP:O	2:B:1254:GLN:HB2	2.14	0.47
2:B:1287:LEU:HD12	2:B:1287:LEU:C	2.32	0.47
2:F:151:LEU:O	2:F:154:ILE:N	2.47	0.47
2:F:336:LYS:HG2	2:F:347:TYR:HE2	1.79	0.47
2:F:386:THR:OG1	2:F:389:LEU:CD1	2.62	0.47
2:F:821:ASP:HB3	2:F:824:VAL:HB	1.95	0.47
2:F:988:TYR:OH	2:F:1086:VAL:HG21	2.14	0.47
1:A:58:G:H5''	1:A:59:U:OP2	2.14	0.47
1:A:77:A:OP1	2:B:721:HIS:NE2	2.47	0.47
2:B:75:ARG:HA	2:B:78:ARG:NH2	2.29	0.47
2:B:404:THR:O	2:B:407:ASN:ND2	2.43	0.47
2:B:842:VAL:CG1	2:B:847:LEU:HD22	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1219:GLU:CG	2:B:1220:LEU:N	2.77	0.47
2:F:297:SER:CA	2:F:301:LEU:HD12	2.44	0.47
2:F:692:ASN:H	2:F:695:GLN:HB2	1.78	0.47
2:F:978:ILE:CG1	2:F:1313:PHE:CE2	2.83	0.47
2:F:1000:LYS:HZ1	2:F:1064:GLU:HB2	1.79	0.47
2:B:79:ILE:HG13	2:B:163:LYS:HG3	1.96	0.47
2:B:297:SER:CA	2:B:301:LEU:HD12	2.44	0.47
2:B:830:ILE:HD13	2:B:831:ASN:H	1.79	0.47
2:B:849:ASP:OD2	2:B:854:ASN:HB2	2.15	0.47
2:F:181:VAL:CG2	2:F:209:LYS:HA	2.33	0.47
2:F:1251:ASP:O	2:F:1254:GLN:HB2	2.14	0.47
2:B:250:PRO:HD2	2:B:264:LEU:O	2.15	0.47
2:B:529:TYR:CD1	2:B:538:ALA:O	2.68	0.47
2:B:838:VAL:HG11	2:B:855:LYS:HE3	1.95	0.47
2:B:844:GLN:NE2	2:B:848:LYS:CG	2.73	0.47
2:B:979:ASN:ND2	2:B:981:TYR:CG	2.81	0.47
2:B:1076:LYS:O	2:B:1080:PHE:HD2	1.97	0.47
2:F:27:VAL:HG11	2:F:1086:VAL:CG1	2.43	0.47
2:F:45:LYS:HE2	2:F:1093:ASN:OD1	2.13	0.47
2:F:75:ARG:HA	2:F:78:ARG:NH2	2.29	0.47
2:F:178:ASN:HB2	2:F:299:ALA:CA	2.29	0.47
2:B:412:HIS:CD2	2:B:413:GLN:HE21	2.33	0.47
2:B:516:GLU:OE1	2:B:593:THR:N	2.33	0.47
1:E:58:G:H5"	1:E:59:U:OP2	2.14	0.47
1:E:77:A:OP1	2:F:721:HIS:NE2	2.47	0.47
2:F:362:TYR:HE2	2:F:401:LYS:CE	2.27	0.47
2:F:529:TYR:CD1	2:F:538:ALA:O	2.68	0.47
2:F:765:ARG:HH22	2:F:848:LYS:HE3	1.79	0.47
2:F:849:ASP:OD2	2:F:854:ASN:HB2	2.14	0.47
2:F:1347:LEU:HB3	2:F:1360:ILE:HB	1.96	0.47
1:A:49:A:OP2	2:B:76:LYS:HE2	2.15	0.47
2:B:6:SER:HB3	2:B:758:ASN:HB2	1.96	0.47
2:B:45:LYS:HE2	2:B:1093:ASN:OD1	2.13	0.47
2:B:167:HIS:CE1	2:B:411:PRO:CA	2.98	0.47
2:B:212:LEU:HD21	2:B:225:LEU:CD1	2.41	0.47
2:B:509:PRO:HG2	2:B:621:LEU:HA	1.97	0.47
2:B:746:GLU:HA	2:B:749:LYS:HB3	1.96	0.47
2:B:796:LEU:HD23	2:B:796:LEU:HA	1.80	0.47
2:B:840:ALA:HA	2:B:854:ASN:O	2.15	0.47
2:B:1000:LYS:HZ1	2:B:1064:GLU:HB2	1.79	0.47
2:B:1206:LEU:HD11	2:B:1210:ARG:CZ	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1232:TYR:CE1	2:B:1268:GLU:HB3	2.49	0.47
1:E:51:A:C6	2:F:1105:PHE:CZ	3.02	0.47
2:F:6:SER:HB3	2:F:758:ASN:HB2	1.96	0.47
2:F:79:ILE:HG13	2:F:163:LYS:HG3	1.96	0.47
2:F:212:LEU:HD21	2:F:225:LEU:CD1	2.41	0.47
2:F:250:PRO:HD2	2:F:264:LEU:O	2.15	0.47
2:F:297:SER:O	2:F:301:LEU:CB	2.63	0.47
2:F:324:ARG:HG2	2:F:400:ARG:CB	2.44	0.47
2:F:412:HIS:CD2	2:F:413:GLN:HE21	2.33	0.47
2:F:516:GLU:OE1	2:F:593:THR:N	2.33	0.47
2:F:557:ARG:NH1	2:F:557:ARG:CG	2.73	0.47
2:F:830:ILE:HD13	2:F:831:ASN:H	1.79	0.47
2:F:1076:LYS:O	2:F:1080:PHE:HD2	1.97	0.47
2:B:297:SER:O	2:B:301:LEU:CB	2.63	0.47
2:B:963:VAL:HG13	2:B:989:LEU:HB2	1.97	0.47
2:B:1206:LEU:HD11	2:B:1210:ARG:NE	2.30	0.47
1:E:49:A:OP2	2:F:76:LYS:HE2	2.15	0.47
2:F:746:GLU:HA	2:F:749:LYS:HB3	1.96	0.47
2:F:795:ILE:HG23	2:F:796:LEU:N	2.30	0.47
2:F:838:VAL:CG2	2:F:857:LEU:HD12	2.45	0.47
2:F:840:ALA:HA	2:F:854:ASN:O	2.15	0.47
2:F:963:VAL:HG13	2:F:989:LEU:HB2	1.97	0.47
1:A:51:A:C6	2:B:1105:PHE:CZ	3.02	0.47
2:B:491:PHE:CE2	3:C:16:DT:H1'	2.50	0.47
2:B:765:ARG:HH22	2:B:848:LYS:HE3	1.79	0.47
2:B:838:VAL:CG2	2:B:857:LEU:HD12	2.45	0.47
2:B:1302:ILE:O	2:B:1306:ALA:HB2	2.12	0.47
2:F:167:HIS:CE1	2:F:411:PRO:CA	2.98	0.47
2:F:350:ILE:O	2:F:359:TYR:N	2.48	0.47
2:F:416:LEU:HD13	2:F:444:LEU:HD13	1.97	0.47
2:F:509:PRO:HG2	2:F:621:LEU:HA	1.97	0.47
2:F:655:ARG:HH11	2:F:655:ARG:CB	2.27	0.47
2:B:143:VAL:HG13	2:B:421:ALA:HB1	1.97	0.47
2:B:207:ASP:O	2:B:211:ILE:HG13	2.15	0.47
2:B:373:TYR:HA	2:B:376:ILE:CD1	2.40	0.47
2:B:795:ILE:HG23	2:B:796:LEU:N	2.30	0.47
2:B:1108:GLU:HB2	3:C:9:DC:H5''	1.96	0.47
2:B:1347:LEU:HB3	2:B:1360:ILE:HB	1.96	0.47
2:F:38:THR:HG22	2:F:39:ASP:H	1.79	0.47
2:F:143:VAL:HG13	2:F:421:ALA:HB1	1.97	0.47
2:F:207:ASP:O	2:F:211:ILE:HG13	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:270:THR:O	2:F:274:ASP:HB2	2.15	0.47
2:F:1108:GLU:HB2	3:G:9:DC:H5''	1.96	0.47
2:F:1179:ILE:HD11	2:F:1192:LYS:HD3	1.97	0.47
2:F:1204:PHE:CG	2:F:1342:VAL:HG13	2.50	0.47
2:F:1206:LEU:HD11	2:F:1210:ARG:CZ	2.44	0.47
1:A:63:U:H3'	2:B:62:THR:HG21	1.97	0.46
2:B:165:ARG:NH2	2:B:168:PHE:HZ	2.06	0.46
2:B:181:VAL:CG2	2:B:209:LYS:HA	2.33	0.46
2:B:416:LEU:HD13	2:B:444:LEU:HD13	1.97	0.46
2:B:557:ARG:NH1	2:B:557:ARG:CG	2.73	0.46
2:B:655:ARG:HH11	2:B:655:ARG:CB	2.27	0.46
2:B:897:PHE:CE2	2:B:901:THR:HG21	2.50	0.46
2:B:980:ASN:HB2	2:B:1225:GLU:OE2	2.15	0.46
2:B:1204:PHE:CG	2:B:1342:VAL:HG13	2.50	0.46
2:F:190:GLN:O	2:F:194:GLN:HG2	2.16	0.46
2:F:491:PHE:CE2	3:G:16:DT:H1'	2.50	0.46
2:F:897:PHE:CE2	2:F:901:THR:HG21	2.50	0.46
2:F:940:ASN:N	2:F:940:ASN:ND2	2.60	0.46
2:F:1206:LEU:HD11	2:F:1210:ARG:NE	2.30	0.46
2:B:270:THR:O	2:B:274:ASP:HB2	2.15	0.46
2:B:665:LYS:C	2:B:669:GLY:N	2.66	0.46
2:B:1042:ILE:HG23	2:B:1043:MET:SD	2.55	0.46
2:B:1145:VAL:HG23	2:B:1145:VAL:O	2.15	0.46
2:B:1179:ILE:HD11	2:B:1192:LYS:HD3	1.97	0.46
2:B:1312:LEU:HD21	2:B:1326:TYR:HD1	1.80	0.46
1:E:63:U:H3'	2:F:62:THR:HG21	1.97	0.46
1:A:59:U:P	2:B:467:ARG:HH22	2.37	0.46
2:B:190:GLN:O	2:B:194:GLN:HG2	2.16	0.46
2:B:253:LYS:HD2	2:B:261:ASP:HA	1.98	0.46
2:B:737:ILE:O	2:B:740:THR:HG23	2.15	0.46
2:B:755:LYS:CD	2:B:939:MET:HE3	2.44	0.46
2:B:1236:LEU:HD13	2:B:1310:ILE:HG12	1.97	0.46
1:E:43:G:H22	2:F:360:ALA:CB	2.28	0.46
1:E:59:U:P	2:F:467:ARG:HH22	2.37	0.46
1:E:87:G:H1	1:E:91:C:H42	1.63	0.46
2:F:148:LYS:HD2	2:F:429:PHE:CD1	2.48	0.46
2:F:229:LEU:CD2	2:F:232:GLU:HB2	2.43	0.46
2:F:253:LYS:HD2	2:F:261:ASP:HA	1.98	0.46
2:F:342:GLN:OE1	2:F:384:ASP:N	2.47	0.46
2:F:970:PHE:CD1	2:F:1080:PHE:CZ	3.02	0.46
2:F:1031:LYS:H	2:F:1031:LYS:CD	2.22	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:1042:ILE:HG23	2:F:1043:MET:SD	2.55	0.46
2:F:1312:LEU:HD21	2:F:1326:TYR:HD1	1.80	0.46
2:B:719:SER:O	2:B:722:GLU:HB2	2.15	0.46
2:F:114:GLU:CD	2:F:120:GLY:O	2.50	0.46
2:F:719:SER:O	2:F:722:GLU:HB2	2.15	0.46
2:F:1236:LEU:HD13	2:F:1310:ILE:HG12	1.97	0.46
1:A:27:G:H5'	1:A:28:A:C5'	2.45	0.46
2:B:27:VAL:CG1	2:B:1086:VAL:CG1	2.88	0.46
2:B:62:THR:O	2:B:66:ARG:HG3	2.15	0.46
2:B:148:LYS:HD2	2:B:429:PHE:CD1	2.48	0.46
2:B:178:ASN:HB2	2:B:299:ALA:CA	2.29	0.46
2:B:970:PHE:CD1	2:B:1080:PHE:CZ	3.02	0.46
2:B:1204:PHE:CZ	2:B:1214:LEU:CD1	2.99	0.46
2:B:1336:TYR:N	2:B:1336:TYR:CD1	2.83	0.46
1:E:27:G:H5'	1:E:28:A:C5'	2.45	0.46
1:E:78:A:H2'	1:E:79:G:C8	2.47	0.46
2:F:62:THR:O	2:F:66:ARG:HG3	2.15	0.46
2:F:665:LYS:C	2:F:669:GLY:N	2.67	0.46
2:F:737:ILE:O	2:F:740:THR:HG23	2.15	0.46
2:F:963:VAL:HG21	2:F:990:ASN:HD21	1.76	0.46
2:F:1145:VAL:O	2:F:1145:VAL:HG23	2.15	0.46
2:F:1204:PHE:CZ	2:F:1214:LEU:CD1	2.99	0.46
1:A:87:G:H1	1:A:91:C:H42	1.63	0.46
2:B:121:ASN:HD21	2:B:124:ASP:CG	2.19	0.46
2:B:637:LYS:O	2:B:640:ALA:HB3	2.15	0.46
2:F:121:ASN:HD21	2:F:124:ASP:CG	2.19	0.46
2:F:321:MET:HA	2:F:321:MET:HE2	1.94	0.46
2:F:362:TYR:CD2	2:F:362:TYR:C	2.89	0.46
2:F:1302:ILE:O	2:F:1306:ALA:HB2	2.12	0.46
2:B:107:VAL:HG23	2:B:110:ASP:HB3	1.98	0.46
2:B:244:LEU:HD12	2:B:250:PRO:CG	2.45	0.46
2:B:573:GLU:C	2:B:574:CYS:SG	2.94	0.46
2:B:940:ASN:N	2:B:940:ASN:ND2	2.60	0.46
2:B:1092:VAL:HG13	2:B:1094:ILE:HG12	1.96	0.46
2:F:359:TYR:C	2:F:359:TYR:CD2	2.88	0.46
2:F:469:SER:HB3	2:F:471:GLU:HG2	1.96	0.46
2:F:573:GLU:C	2:F:574:CYS:SG	2.94	0.46
2:F:1298:ARG:HH11	2:F:1298:ARG:HG3	1.81	0.46
1:A:78:A:H2'	1:A:79:G:C8	2.47	0.46
2:B:229:LEU:CD2	2:B:232:GLU:HB2	2.43	0.46
2:B:992:VAL:HA	2:B:995:THR:OG1	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1252:ASN:HD22	2:B:1252:ASN:H	1.61	0.46
2:B:1298:ARG:HG3	2:B:1298:ARG:HH11	1.81	0.46
1:E:27:G:N2	1:E:44:U:OP2	2.49	0.46
2:F:32:PHE:O	2:F:42:SER:HB2	2.15	0.46
2:F:324:ARG:CZ	2:F:400:ARG:HG2	2.40	0.46
2:F:477:ASN:ND2	2:F:481:VAL:HG21	2.30	0.46
2:F:679:ILE:HG12	2:F:704:PHE:HE1	1.71	0.46
2:F:844:GLN:NE2	2:F:848:LYS:CG	2.73	0.46
2:F:1092:VAL:HG13	2:F:1094:ILE:HG12	1.96	0.46
2:F:1252:ASN:HD22	2:F:1252:ASN:H	1.61	0.46
1:A:65:A:C5	1:A:66:U:C4	3.04	0.46
2:B:477:ASN:ND2	2:B:481:VAL:HG21	2.30	0.46
2:B:687:GLY:HA3	2:B:689:ALA:O	2.16	0.46
2:F:165:ARG:NH2	2:F:168:PHE:HZ	2.06	0.46
2:F:1122:ARG:HD3	2:F:1134:PHE:CZ	2.50	0.46
2:F:1336:TYR:N	2:F:1336:TYR:CD1	2.83	0.46
1:A:27:G:N2	1:A:44:U:OP2	2.49	0.46
2:B:32:PHE:O	2:B:42:SER:HB2	2.15	0.46
2:B:114:GLU:CD	2:B:120:GLY:O	2.50	0.46
2:B:272:ASP:O	2:B:276:ASP:HB2	2.16	0.46
2:B:469:SER:HB3	2:B:471:GLU:HG2	1.96	0.46
2:B:923:GLU:OE2	2:B:925:ARG:NH2	2.46	0.46
2:B:1122:ARG:HD3	2:B:1134:PHE:CZ	2.50	0.46
2:B:1257:LEU:N	2:B:1257:LEU:CD1	2.73	0.46
2:F:338:LEU:CD1	2:F:384:ASP:O	2.64	0.46
2:F:637:LYS:O	2:F:640:ALA:HB3	2.15	0.46
2:F:992:VAL:HA	2:F:995:THR:OG1	2.16	0.46
2:B:393:LEU:HB2	2:B:398:LEU:CD1	2.46	0.45
2:B:531:THR:OG1	2:B:532:GLU:N	2.49	0.45
2:B:655:ARG:H	2:B:655:ARG:HG2	1.46	0.45
2:B:864:ARG:O	2:B:875:VAL:HG21	2.16	0.45
2:B:1100:VAL:HG13	2:B:1140:ALA:O	2.16	0.45
2:F:393:LEU:HB2	2:F:398:LEU:CD1	2.46	0.45
2:F:393:LEU:HA	2:F:398:LEU:HB2	1.98	0.45
2:F:531:THR:OG1	2:F:532:GLU:N	2.49	0.45
2:F:864:ARG:O	2:F:875:VAL:HG21	2.16	0.45
2:F:1257:LEU:CD1	2:F:1257:LEU:N	2.73	0.45
2:B:963:VAL:HG21	2:B:990:ASN:HD21	1.76	0.45
1:E:65:A:C5	1:E:66:U:C4	3.04	0.45
2:F:223:GLU:HA	2:F:226:ILE:HG12	1.98	0.45
2:F:272:ASP:O	2:F:276:ASP:HB2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:350:ILE:CG2	2:F:351:PHE:CD2	2.99	0.45
2:F:1206:LEU:CD1	2:F:1210:ARG:CZ	2.94	0.45
3:G:6:DC:H2''	3:G:7:DC:O5'	2.15	0.45
2:B:350:ILE:CG2	2:B:351:PHE:CD2	2.99	0.45
2:B:691:ARG:HB2	2:B:691:ARG:HE	1.62	0.45
2:B:1038:PHE:HD1	2:B:1038:PHE:C	2.20	0.45
2:F:78:ARG:CD	2:F:165:ARG:HH11	2.26	0.45
2:F:320:SER:O	2:F:323:LYS:HB3	2.17	0.45
2:F:457:ARG:HB2	2:F:467:ARG:NH1	2.32	0.45
2:F:603:ASP:OD1	2:F:606:PHE:HB2	2.16	0.45
2:F:680:LEU:HD12	2:F:680:LEU:HA	1.76	0.45
2:F:923:GLU:OE2	2:F:925:ARG:NH2	2.46	0.45
2:F:1038:PHE:HD1	2:F:1038:PHE:C	2.20	0.45
2:F:1100:VAL:HG13	2:F:1140:ALA:O	2.16	0.45
1:A:64:U:OP1	2:B:1102:THR:OG1	2.26	0.45
2:B:393:LEU:HA	2:B:398:LEU:HB2	1.98	0.45
2:B:452:VAL:HG13	2:B:482:VAL:HG11	1.98	0.45
2:B:457:ARG:HB2	2:B:467:ARG:NH1	2.32	0.45
2:B:568:TYR:HD2	2:B:569:PHE:CD2	2.35	0.45
2:B:603:ASP:OD1	2:B:606:PHE:HB2	2.15	0.45
2:B:679:ILE:HA	2:B:682:PHE:HB2	1.99	0.45
2:B:839:ASP:O	2:B:856:VAL:N	2.47	0.45
2:B:1206:LEU:CD1	2:B:1210:ARG:CZ	2.94	0.45
3:C:6:DC:H2''	3:C:7:DC:O5'	2.15	0.45
4:D:7:DG:C2	4:D:8:DT:C2	3.04	0.45
2:F:27:VAL:CG1	2:F:1086:VAL:CG1	2.88	0.45
2:F:184:LEU:HD12	2:F:296:LEU:CA	2.34	0.45
2:F:452:VAL:HG13	2:F:482:VAL:HG11	1.98	0.45
2:F:679:ILE:HA	2:F:682:PHE:HB2	1.99	0.45
1:A:53:G:C4	1:A:62:G:N2	2.84	0.45
2:B:223:GLU:HA	2:B:226:ILE:HG12	1.98	0.45
2:B:277:ASN:ND2	2:B:653:ARG:CD	2.75	0.45
2:F:94:ASP:CB	2:F:152:ARG:HD3	2.47	0.45
2:F:492:ILE:O	2:F:496:THR:HG23	2.16	0.45
2:F:568:TYR:HD2	2:F:569:PHE:CD2	2.35	0.45
2:F:849:ASP:CG	2:F:854:ASN:HB3	2.37	0.45
4:H:7:DG:C2	4:H:8:DT:C2	3.04	0.45
2:B:94:ASP:CB	2:B:152:ARG:HD3	2.47	0.45
2:B:520:VAL:HG21	2:B:591:LEU:HD23	1.98	0.45
2:B:949:LEU:HD23	2:B:951:ARG:NH2	2.32	0.45
2:F:655:ARG:H	2:F:655:ARG:HG2	1.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:740:THR:O	2:F:743:VAL:HB	2.17	0.45
2:F:838:VAL:HG23	2:F:857:LEU:CD1	2.46	0.45
2:B:78:ARG:CD	2:B:165:ARG:HH11	2.26	0.45
2:B:740:THR:O	2:B:743:VAL:HB	2.17	0.45
2:B:838:VAL:HG23	2:B:857:LEU:CD1	2.46	0.45
2:B:1113:LYS:O	2:B:1113:LYS:HG3	2.16	0.45
2:B:1257:LEU:O	2:B:1261:GLN:N	2.43	0.45
2:F:244:LEU:O	2:F:246:LEU:O	2.35	0.45
2:F:520:VAL:HG21	2:F:591:LEU:HD23	1.97	0.45
2:F:949:LEU:HD23	2:F:951:ARG:NH2	2.32	0.45
2:B:118:ILE:HG22	2:B:119:PHE:CE2	2.52	0.45
2:B:492:ILE:O	2:B:496:THR:HG23	2.16	0.45
2:B:756:PRO:HD2	2:B:953:VAL:CG2	2.47	0.45
2:B:849:ASP:CG	2:B:854:ASN:HB3	2.37	0.45
2:B:1062:LEU:HD21	2:B:1063:ILE:CG1	2.39	0.45
1:E:53:G:C4	1:E:62:G:N2	2.84	0.45
2:F:93:VAL:CG2	2:F:151:LEU:HD23	2.47	0.45
2:F:841:ILE:CD1	2:F:900:LEU:HD21	2.47	0.45
2:F:1113:LYS:HG3	2:F:1113:LYS:O	2.16	0.45
2:B:184:LEU:HD12	2:B:296:LEU:CA	2.34	0.45
2:B:473:ILE:HG12	2:B:481:VAL:HG11	1.98	0.45
2:B:658:GLY:C	2:B:659:TRP:CD1	2.90	0.45
2:B:830:ILE:HD13	2:B:831:ASN:N	2.31	0.45
2:B:841:ILE:CD1	2:B:900:LEU:HD21	2.46	0.45
2:B:847:LEU:O	2:B:847:LEU:HD23	2.17	0.45
2:F:207:ASP:CB	2:F:210:ALA:CB	2.56	0.45
2:F:277:ASN:ND2	2:F:653:ARG:CD	2.75	0.45
2:F:610:GLU:O	2:F:613:GLU:HB3	2.17	0.45
2:F:658:GLY:C	2:F:659:TRP:CD1	2.90	0.45
2:F:756:PRO:HD2	2:F:953:VAL:CG2	2.47	0.45
2:F:784:ILE:O	2:F:788:ILE:CG1	2.64	0.45
2:F:839:ASP:O	2:F:856:VAL:N	2.47	0.45
2:B:234:LYS:C	2:B:234:LYS:CD	2.85	0.45
2:B:977:GLU:HG3	2:B:1310:ILE:HG21	1.95	0.45
2:B:1108:GLU:HG3	3:C:9:DC:H5"	1.99	0.45
2:F:118:ILE:HG22	2:F:119:PHE:CE2	2.52	0.45
2:B:186:ILE:HD13	2:B:186:ILE:HA	1.86	0.44
2:B:450:TYR:OH	2:B:627:GLU:HG3	2.17	0.44
2:B:610:GLU:O	2:B:613:GLU:HB3	2.17	0.44
2:B:782:LYS:O	2:B:786:GLU:HG3	2.17	0.44
2:F:49:GLY:HA2	2:F:1092:VAL:CG2	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:519:THR:OG1	2:F:589:ALA:HB2	2.16	0.44
2:F:553:PHE:CE1	2:F:559:VAL:CG2	3.00	0.44
2:F:812:TYR:CD1	2:F:812:TYR:O	2.71	0.44
2:F:979:ASN:OD1	2:F:981:TYR:HD1	1.98	0.44
2:F:1108:GLU:HG3	3:G:9:DC:H5"	1.99	0.44
2:B:812:TYR:O	2:B:812:TYR:CD1	2.71	0.44
2:B:1108:GLU:CG	3:C:9:DC:H5"	2.47	0.44
2:F:206:VAL:HG23	2:F:206:VAL:O	2.17	0.44
2:F:473:ILE:HG12	2:F:481:VAL:HG11	1.98	0.44
2:F:606:PHE:CE2	2:F:612:ASN:OD1	2.70	0.44
2:F:830:ILE:HD13	2:F:831:ASN:N	2.31	0.44
2:F:838:VAL:HG23	2:F:857:LEU:HD12	1.99	0.44
2:F:847:LEU:O	2:F:847:LEU:HD23	2.17	0.44
2:F:1143:VAL:HG22	2:F:1197:LYS:HA	1.98	0.44
2:B:49:GLY:HA2	2:B:1092:VAL:CG2	2.47	0.44
2:B:207:ASP:CB	2:B:210:ALA:CB	2.56	0.44
2:B:553:PHE:CE1	2:B:559:VAL:CG2	3.00	0.44
2:B:784:ILE:O	2:B:788:ILE:CG1	2.64	0.44
2:B:838:VAL:HG23	2:B:857:LEU:HD12	2.00	0.44
2:B:902:LYS:HE3	2:B:907:GLY:O	2.17	0.44
2:B:926:GLN:C	2:B:929:LYS:HG3	2.38	0.44
2:F:45:LYS:HE3	2:F:45:LYS:HB3	1.78	0.44
2:F:234:LYS:CD	2:F:234:LYS:C	2.85	0.44
2:F:746:GLU:O	2:F:750:VAL:N	2.33	0.44
2:F:782:LYS:O	2:F:786:GLU:HG3	2.17	0.44
2:F:926:GLN:C	2:F:929:LYS:HG3	2.38	0.44
2:F:1062:LEU:HD21	2:F:1063:ILE:CG1	2.39	0.44
2:F:1076:LYS:O	2:F:1080:PHE:CD2	2.70	0.44
2:F:1257:LEU:O	2:F:1261:GLN:N	2.43	0.44
2:B:20:VAL:O	2:B:27:VAL:HG23	2.18	0.44
2:B:206:VAL:HG23	2:B:206:VAL:O	2.18	0.44
2:B:256:PHE:CE2	2:B:282:ILE:HD13	2.53	0.44
2:B:519:THR:OG1	2:B:589:ALA:HB2	2.16	0.44
2:B:606:PHE:CE2	2:B:612:ASN:OD1	2.70	0.44
2:B:923:GLU:HG2	2:B:928:THR:OG1	2.17	0.44
2:B:1076:LYS:O	2:B:1080:PHE:CD2	2.70	0.44
2:B:1143:VAL:HG22	2:B:1197:LYS:HA	1.98	0.44
2:F:20:VAL:O	2:F:27:VAL:HG23	2.18	0.44
2:F:249:THR:HG23	2:F:265:GLN:HE22	1.81	0.44
2:F:265:GLN:O	2:F:271:TYR:HD1	2.00	0.44
2:F:450:TYR:OH	2:F:627:GLU:HG3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:507:VAL:HG11	2:F:660:GLY:C	2.37	0.44
2:F:623:LEU:HD12	2:F:623:LEU:HA	1.51	0.44
2:F:974:LYS:HE2	2:F:982:HIS:CD2	2.53	0.44
2:F:979:ASN:ND2	2:F:981:TYR:CB	2.80	0.44
2:B:666:LEU:HA	2:B:666:LEU:HD23	1.63	0.44
2:B:678:THR:O	2:B:682:PHE:N	2.42	0.44
2:B:974:LYS:HE2	2:B:982:HIS:CD2	2.53	0.44
2:B:1122:ARG:CG	2:B:1134:PHE:HE2	2.31	0.44
3:C:2:DA:H1'	3:C:3:DA:OP1	2.18	0.44
1:E:78:A:C5	1:E:79:G:N7	2.85	0.44
2:F:89:GLU:OE1	2:F:92:LYS:HD2	2.16	0.44
2:F:550:ASP:HA	2:F:554:LYS:HG3	1.98	0.44
2:F:691:ARG:HB2	2:F:691:ARG:HE	1.62	0.44
2:F:692:ASN:CB	2:F:695:GLN:HG3	2.45	0.44
2:F:832:ARG:HH11	2:F:835:ASP:CG	2.10	0.44
2:F:902:LYS:HE3	2:F:907:GLY:O	2.17	0.44
3:G:2:DA:H1'	3:G:3:DA:OP1	2.18	0.44
2:B:692:ASN:CB	2:B:695:GLN:HG3	2.45	0.44
2:B:979:ASN:OD1	2:B:981:TYR:CD1	2.62	0.44
2:F:256:PHE:CE2	2:F:282:ILE:HD13	2.53	0.44
2:F:923:GLU:HG2	2:F:928:THR:OG1	2.17	0.44
2:F:1108:GLU:CG	3:G:9:DC:H5''	2.47	0.44
2:F:1122:ARG:CG	2:F:1134:PHE:HE2	2.31	0.44
1:A:24:U:O2	2:B:105:PHE:CE1	2.63	0.44
2:B:106:LEU:HD23	2:B:110:ASP:HB3	1.99	0.44
2:B:156:LEU:HD23	2:B:156:LEU:HA	1.80	0.44
2:B:265:GLN:O	2:B:271:TYR:HD1	1.99	0.44
2:B:780:ARG:NH1	2:B:812:TYR:CE2	2.66	0.44
2:B:1291:LEU:HD23	2:B:1291:LEU:HA	1.82	0.44
2:F:186:ILE:HD13	2:F:186:ILE:HA	1.86	0.44
2:F:234:LYS:HD3	2:F:234:LYS:C	2.38	0.44
2:F:386:THR:OG1	2:F:389:LEU:HB2	2.18	0.44
2:F:431:PRO:O	2:F:434:LYS:HG2	2.17	0.44
2:F:513:LEU:O	2:F:516:GLU:HB2	2.18	0.44
2:F:568:TYR:CZ	2:F:573:GLU:OE2	2.70	0.44
2:F:969:ASP:C	2:F:970:PHE:HD2	2.21	0.44
2:F:1185:LYS:HA	2:F:1185:LYS:HD2	1.77	0.44
2:F:1292:SER:CA	2:F:1296:LYS:HE3	2.48	0.44
1:A:45:U:C5'	2:B:402:GLN:HG2	2.43	0.44
1:A:61:C:OP1	2:B:70:ARG:CZ	2.66	0.44
1:A:94:U:H2'	1:A:95:G:C8	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:507:VAL:HG11	2:B:660:GLY:C	2.37	0.44
2:B:530:VAL:O	2:B:578:VAL:HG23	2.18	0.44
2:B:550:ASP:HA	2:B:554:LYS:HG3	1.99	0.44
2:B:568:TYR:CZ	2:B:573:GLU:OE2	2.70	0.44
2:B:1203:LEU:HD13	2:B:1213:MET:HG3	1.97	0.44
1:E:61:C:OP1	2:F:70:ARG:CZ	2.66	0.44
2:F:351:PHE:N	2:F:351:PHE:HD2	2.16	0.44
2:F:678:THR:O	2:F:682:PHE:N	2.42	0.44
2:F:975:VAL:HG23	2:F:1233:VAL:HG12	2.00	0.44
2:F:1203:LEU:HD13	2:F:1213:MET:HG3	1.97	0.44
2:F:1291:LEU:HD23	2:F:1291:LEU:HA	1.82	0.44
1:A:53:G:OP1	2:B:1123:LYS:HG3	2.18	0.44
1:A:78:A:C5	1:A:79:G:N7	2.85	0.44
2:B:89:GLU:OE1	2:B:92:LYS:HD2	2.16	0.44
2:B:234:LYS:HD3	2:B:234:LYS:C	2.38	0.44
2:B:248:LEU:HD13	2:B:248:LEU:HA	1.77	0.44
2:B:513:LEU:O	2:B:516:GLU:HB2	2.18	0.44
1:E:45:U:C5'	2:F:402:GLN:HG2	2.43	0.44
1:E:94:U:H2'	1:E:95:G:C8	2.53	0.44
2:F:10:ALA:O	2:F:17:GLY:N	2.45	0.44
2:F:342:GLN:OE1	2:F:384:ASP:CA	2.66	0.44
2:F:530:VAL:O	2:F:578:VAL:HG23	2.18	0.44
2:F:1360:ILE:HG22	2:F:1362:LEU:HD23	2.00	0.44
1:A:64:U:O5'	1:A:64:U:H6	2.01	0.43
2:B:70:ARG:HH11	2:B:454:PRO:HG3	1.78	0.43
2:B:317:LEU:CD2	2:B:414:ILE:CD1	2.95	0.43
2:B:431:PRO:O	2:B:434:LYS:HG2	2.17	0.43
2:B:679:ILE:HG12	2:B:704:PHE:HE1	1.71	0.43
2:B:969:ASP:C	2:B:970:PHE:HD2	2.21	0.43
2:B:1235:PHE:CE2	2:B:1266:LEU:CD1	3.01	0.43
2:B:1292:SER:CA	2:B:1296:LYS:HE3	2.48	0.43
2:B:1360:ILE:HG22	2:B:1362:LEU:HD23	2.00	0.43
2:F:184:LEU:CD1	2:F:295:ASN:O	2.67	0.43
2:F:317:LEU:CD2	2:F:414:ILE:CD1	2.95	0.43
2:F:1219:GLU:HG3	2:F:1220:LEU:H	1.83	0.43
2:B:184:LEU:CD1	2:B:295:ASN:O	2.67	0.43
2:B:568:TYR:CD2	2:B:569:PHE:CD2	3.06	0.43
2:B:649:LYS:HA	2:B:652:LYS:HD3	2.00	0.43
2:B:874:GLU:HA	2:B:877:LYS:CD	2.42	0.43
2:B:1219:GLU:HG3	2:B:1220:LEU:H	1.84	0.43
1:E:64:U:H6	1:E:64:U:O5'	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:341:GLN:HE21	2:F:342:GLN:N	2.16	0.43
2:F:345:GLU:HG2	2:F:346:LYS:H	1.83	0.43
2:F:568:TYR:CD2	2:F:569:PHE:CD2	3.06	0.43
2:F:1235:PHE:CE2	2:F:1266:LEU:CD1	3.01	0.43
1:A:24:U:C1'	2:B:105:PHE:HE1	2.27	0.43
2:B:94:ASP:HB2	2:B:152:ARG:HH11	1.83	0.43
2:B:345:GLU:HG2	2:B:346:LYS:H	1.83	0.43
2:B:851:SER:H	2:B:851:SER:HG	1.43	0.43
2:B:944:ASP:OD1	2:B:948:LYS:O	2.36	0.43
2:B:1031:LYS:NZ	2:B:1031:LYS:HB2	2.32	0.43
2:F:248:LEU:HD22	2:F:248:LEU:HA	1.83	0.43
2:F:291:LEU:HD23	2:F:292:ALA:N	2.33	0.43
2:F:374:LYS:O	2:F:374:LYS:HG2	2.18	0.43
2:F:641:HIS:CD2	2:F:642:LEU:N	2.87	0.43
2:F:944:ASP:OD1	2:F:948:LYS:O	2.36	0.43
2:F:1216:SER:CB	4:H:6:DG:C3'	2.96	0.43
1:A:15:U:H5''	2:B:70:ARG:NH1	2.33	0.43
2:B:45:LYS:HE3	2:B:45:LYS:HB3	1.77	0.43
2:B:291:LEU:HD23	2:B:292:ALA:N	2.33	0.43
2:B:328:HIS:O	2:B:332:LEU:N	2.51	0.43
2:B:374:LYS:HG2	2:B:374:LYS:O	2.18	0.43
2:B:451:TYR:HA	2:B:491:PHE:CD1	2.53	0.43
2:B:623:LEU:HD12	2:B:623:LEU:HA	1.52	0.43
2:B:641:HIS:CD2	2:B:642:LEU:N	2.87	0.43
2:B:1232:TYR:HH	2:B:1268:GLU:HG2	1.79	0.43
1:E:53:G:OP1	2:F:1123:LYS:HG3	2.18	0.43
2:F:1251:ASP:CA	2:F:1254:GLN:OE1	2.60	0.43
2:B:687:GLY:CA	2:B:688:PHE:C	2.85	0.43
2:B:1216:SER:CB	4:D:6:DG:C3'	2.96	0.43
2:F:94:ASP:HB2	2:F:152:ARG:HH11	1.83	0.43
2:F:212:LEU:HD13	2:F:212:LEU:HA	1.79	0.43
2:F:649:LYS:HA	2:F:652:LYS:HD3	2.00	0.43
1:A:49:A:P	2:B:76:LYS:HE2	2.58	0.43
1:A:70:C:H2'	1:A:71:U:H6	1.82	0.43
2:B:341:GLN:HE21	2:B:342:GLN:N	2.16	0.43
2:B:686:ASP:OD2	2:B:691:ARG:CB	2.63	0.43
2:B:737:ILE:HD13	2:B:931:VAL:HG22	2.00	0.43
2:B:832:ARG:HH11	2:B:835:ASP:CG	2.10	0.43
2:B:1185:LYS:HA	2:B:1185:LYS:HD2	1.77	0.43
2:B:1325:LYS:HB3	2:B:1330:THR:HA	1.99	0.43
1:E:49:A:P	2:F:76:LYS:HE2	2.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:328:HIS:O	2:F:332:LEU:N	2.51	0.43
2:F:541:SER:O	2:F:545:LYS:HG3	2.18	0.43
2:F:780:ARG:NH1	2:F:812:TYR:CE2	2.66	0.43
2:F:1325:LYS:HB3	2:F:1330:THR:HA	1.99	0.43
2:B:212:LEU:HD13	2:B:212:LEU:HA	1.79	0.43
2:B:233:LYS:HG3	2:F:543:GLU:OE1	2.19	0.43
2:B:556:ASN:O	2:B:595:HIS:NE2	2.51	0.43
2:B:1135:ASP:CG	2:B:1136:SER:N	2.72	0.43
1:E:15:U:H5''	2:F:70:ARG:NH1	2.33	0.43
2:F:451:TYR:HA	2:F:491:PHE:CD1	2.53	0.43
2:F:464:TRP:HD1	2:F:490:SER:HB3	1.84	0.43
2:F:780:ARG:H	2:F:780:ARG:HG2	1.66	0.43
2:B:541:SER:O	2:B:545:LYS:HG3	2.18	0.43
2:F:138:LEU:HD21	2:F:153:LEU:HD22	2.00	0.43
2:F:216:LEU:HD23	2:F:216:LEU:H	1.82	0.43
2:F:395:ARG:O	2:F:396:GLU:CB	2.54	0.43
2:F:1135:ASP:CG	2:F:1136:SER:N	2.72	0.43
2:B:138:LEU:HD21	2:B:153:LEU:HD22	2.00	0.43
2:B:464:TRP:HD1	2:B:490:SER:HB3	1.84	0.43
2:B:516:GLU:O	2:B:520:VAL:HG23	2.18	0.43
2:F:362:TYR:C	2:F:362:TYR:HD2	2.22	0.43
2:F:488:ALA:O	2:F:491:PHE:HB3	2.19	0.43
2:F:556:ASN:O	2:F:595:HIS:NE2	2.51	0.43
2:F:737:ILE:HD13	2:F:931:VAL:HG22	2.00	0.43
2:B:10:ALA:O	2:B:17:GLY:N	2.45	0.43
2:B:380:LEU:HD11	2:B:398:LEU:HD11	2.00	0.43
2:B:402:GLN:OE1	2:B:402:GLN:HA	2.19	0.43
2:F:156:LEU:HD23	2:F:156:LEU:HA	1.80	0.43
2:F:874:GLU:HA	2:F:877:LYS:CD	2.42	0.43
1:A:36:A:C5	1:A:37:U:H1'	2.54	0.42
2:B:216:LEU:HD23	2:B:216:LEU:H	1.82	0.42
2:B:233:LYS:HE3	2:F:547:ALA:HB2	2.01	0.42
2:B:488:ALA:O	2:B:491:PHE:HB3	2.19	0.42
2:B:625:LEU:HD13	2:B:659:TRP:CH2	2.53	0.42
2:B:1292:SER:CB	2:B:1296:LYS:NZ	2.80	0.42
2:B:1324:PHE:O	2:B:1331:ILE:N	2.41	0.42
2:F:256:PHE:CE2	2:F:282:ILE:HG21	2.54	0.42
2:F:1062:LEU:CD2	2:F:1063:ILE:N	2.73	0.42
2:F:1292:SER:CB	2:F:1296:LYS:NZ	2.80	0.42
2:F:1295:ASN:O	2:F:1298:ARG:HG3	2.19	0.42
2:B:256:PHE:CE2	2:B:282:ILE:HG21	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:341:GLN:NE2	2:B:341:GLN:C	2.73	0.42
2:B:432:PHE:CD1	2:B:432:PHE:C	2.91	0.42
2:B:627:GLU:N	2:B:627:GLU:CD	2.73	0.42
2:B:765:ARG:HH22	2:B:848:LYS:CE	2.32	0.42
2:B:846:PHE:CZ	2:B:913:LYS:HD3	2.55	0.42
2:B:1177:ASN:ND2	2:B:1180:ASP:CG	2.73	0.42
2:B:1235:PHE:CZ	2:B:1266:LEU:HD13	2.53	0.42
2:B:1251:ASP:CA	2:B:1254:GLN:OE1	2.60	0.42
2:B:1295:ASN:O	2:B:1298:ARG:HG3	2.19	0.42
1:E:12:U:H2'	1:E:13:A:H8	1.84	0.42
1:E:36:A:C5	1:E:37:U:H1'	2.54	0.42
1:E:70:C:H2'	1:E:71:U:H6	1.82	0.42
2:F:70:ARG:HH11	2:F:454:PRO:HG3	1.78	0.42
2:F:234:LYS:CD	2:F:235:ASN:ND2	2.79	0.42
2:F:324:ARG:CZ	2:F:400:ARG:CD	2.97	0.42
2:F:525:THR:HG23	2:F:545:LYS:HZ1	1.84	0.42
2:F:627:GLU:N	2:F:627:GLU:CD	2.73	0.42
2:F:846:PHE:CZ	2:F:913:LYS:HD3	2.55	0.42
2:F:856:VAL:HG12	2:F:857:LEU:N	2.34	0.42
2:F:1265:TYR:O	2:F:1268:GLU:HB2	2.18	0.42
1:A:17:G:O2'	2:B:168:PHE:CE1	2.72	0.42
1:A:27:G:H1'	2:B:129:HIS:ND1	2.33	0.42
1:A:31:U:H2'	1:A:32:A:O4'	2.20	0.42
1:A:48:A:H2'	1:A:49:A:C8	2.55	0.42
2:B:312:ILE:H	2:B:312:ILE:HG13	1.68	0.42
2:B:359:TYR:CZ	2:B:363:ILE:HD11	2.54	0.42
2:B:388:GLU:O	2:B:391:VAL:N	2.52	0.42
2:B:849:ASP:OD2	2:B:854:ASN:CB	2.67	0.42
2:B:856:VAL:HG12	2:B:857:LEU:N	2.34	0.42
2:B:1002:PRO:O	2:B:1005:GLU:HB2	2.19	0.42
2:F:341:GLN:NE2	2:F:341:GLN:C	2.73	0.42
2:F:380:LEU:HD11	2:F:398:LEU:HD11	2.00	0.42
2:F:402:GLN:OE1	2:F:402:GLN:HA	2.20	0.42
2:F:516:GLU:O	2:F:520:VAL:HG23	2.18	0.42
2:F:625:LEU:HD13	2:F:659:TRP:CH2	2.53	0.42
2:F:849:ASP:OD2	2:F:854:ASN:CB	2.67	0.42
2:F:1002:PRO:O	2:F:1005:GLU:HB2	2.19	0.42
2:F:1235:PHE:CZ	2:F:1266:LEU:HD13	2.53	0.42
1:A:12:U:H2'	1:A:13:A:H8	1.84	0.42
2:B:234:LYS:CD	2:B:235:ASN:ND2	2.79	0.42
2:B:311:GLU:H	2:B:311:GLU:CD	2.21	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:318:SER:HG	2:B:418:GLU:CD	2.16	0.42
2:B:423:LEU:HD12	2:B:437:ARG:HG3	2.00	0.42
2:B:1062:LEU:CD2	2:B:1063:ILE:N	2.73	0.42
2:B:1105:PHE:O	2:B:1137:PRO:HA	2.20	0.42
2:B:1114:ARG:HH12	4:D:9:DA:P	2.41	0.42
1:E:27:G:H1'	2:F:129:HIS:ND1	2.34	0.42
1:E:31:U:H2'	1:E:32:A:O4'	2.20	0.42
2:F:63:ARG:HA	2:F:66:ARG:HD3	2.01	0.42
2:F:148:LYS:N	2:F:429:PHE:CZ	2.81	0.42
2:F:380:LEU:O	2:F:386:THR:HG21	2.20	0.42
2:F:423:LEU:HD12	2:F:437:ARG:HG3	2.00	0.42
2:F:765:ARG:HH22	2:F:848:LYS:CE	2.32	0.42
2:F:1105:PHE:O	2:F:1137:PRO:HA	2.20	0.42
2:F:1177:ASN:ND2	2:F:1180:ASP:CG	2.73	0.42
2:B:333:THR:O	2:B:337:ALA:CB	2.67	0.42
2:B:451:TYR:O	2:B:464:TRP:NE1	2.51	0.42
2:B:499:ASP:HB3	2:B:502:LEU:O	2.19	0.42
1:E:48:A:H2'	1:E:49:A:C8	2.55	0.42
2:F:224:ASN:O	2:F:228:GLN:NE2	2.52	0.42
2:F:253:LYS:HB2	2:F:262:ALA:H	1.84	0.42
2:B:63:ARG:HA	2:B:66:ARG:HD3	2.01	0.42
2:B:386:THR:O	2:B:386:THR:OG1	2.37	0.42
2:B:448:ILE:H	2:B:448:ILE:HG13	1.69	0.42
1:E:24:U:C1'	2:F:105:PHE:HE1	2.27	0.42
1:E:45:U:HO2'	2:F:135:ILE:H	1.68	0.42
2:F:173:ASP:O	2:F:174:LEU:HD12	2.19	0.42
2:F:311:GLU:H	2:F:311:GLU:CD	2.21	0.42
2:F:451:TYR:O	2:F:464:TRP:NE1	2.51	0.42
2:F:756:PRO:O	2:F:953:VAL:HG22	2.20	0.42
2:F:796:LEU:HD23	2:F:796:LEU:HA	1.80	0.42
2:F:1221:GLN:HE21	2:F:1320:ALA:HB2	1.79	0.42
2:F:1324:PHE:O	2:F:1331:ILE:N	2.41	0.42
2:B:224:ASN:O	2:B:228:GLN:NE2	2.52	0.42
2:F:78:ARG:HG2	2:F:443:ILE:HG23	2.01	0.42
2:F:499:ASP:HB3	2:F:502:LEU:O	2.19	0.42
2:F:883:TRP:CZ3	2:F:900:LEU:HB3	2.54	0.42
2:F:974:LYS:NZ	2:F:976:ARG:NH1	2.68	0.42
2:F:1232:TYR:OH	2:F:1268:GLU:HB3	2.20	0.42
2:F:1245:LEU:HD13	2:F:1252:ASN:OD1	2.20	0.42
1:A:45:U:HO2'	2:B:135:ILE:H	1.68	0.42
2:B:249:THR:CG2	2:B:265:GLN:HE21	2.28	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:253:LYS:HB2	2:B:262:ALA:H	1.84	0.42
2:B:756:PRO:O	2:B:953:VAL:HG22	2.20	0.42
2:F:139:ARG:HH22	2:F:415:HIS:CD2	2.37	0.42
2:F:324:ARG:CZ	2:F:400:ARG:CG	2.98	0.42
2:F:333:THR:O	2:F:337:ALA:CB	2.67	0.42
2:F:432:PHE:CD1	2:F:432:PHE:C	2.91	0.42
2:F:448:ILE:H	2:F:448:ILE:HG13	1.69	0.42
2:F:1000:LYS:CE	2:F:1045:PHE:CD2	2.96	0.42
2:F:1114:ARG:HH12	4:H:9:DA:P	2.41	0.42
1:A:42:A:HO2'	1:A:43:G:P	2.42	0.42
1:A:43:G:O2'	2:B:363:ILE:HG13	2.19	0.42
2:B:48:ILE:HD11	2:B:984:ALA:O	2.19	0.42
2:B:119:PHE:CD2	2:B:119:PHE:N	2.87	0.42
2:B:351:PHE:N	2:B:351:PHE:HD2	2.16	0.42
2:F:48:ILE:HD11	2:F:984:ALA:O	2.19	0.42
2:F:66:ARG:NH2	2:F:462:PHE:CE2	2.61	0.42
2:F:255:ASN:HD22	2:F:256:PHE:HE1	1.65	0.42
2:F:829:ASP:OD1	2:F:831:ASN:N	2.53	0.42
2:F:1295:ASN:OD1	2:F:1298:ARG:NH2	2.53	0.42
2:B:78:ARG:HG2	2:B:443:ILE:HG23	2.02	0.42
2:B:139:ARG:HH22	2:B:415:HIS:CD2	2.37	0.42
2:B:173:ASP:O	2:B:174:LEU:HD12	2.19	0.42
2:B:395:ARG:O	2:B:396:GLU:CB	2.53	0.42
2:B:429:PHE:HD2	2:B:429:PHE:H	1.68	0.42
2:B:739:GLN:OE1	2:B:1352:ILE:HD11	2.19	0.42
2:B:883:TRP:CZ3	2:B:900:LEU:HB3	2.54	0.42
2:B:1205:GLU:HB2	2:B:1211:LYS:HG3	2.02	0.42
2:B:1220:LEU:CD2	2:B:1342:VAL:HG21	2.50	0.42
2:B:1245:LEU:HD13	2:B:1252:ASN:OD1	2.20	0.42
2:B:1295:ASN:OD1	2:B:1298:ARG:NH2	2.53	0.42
3:C:3:DA:H2''	3:C:4:DT:O5'	2.20	0.42
2:F:421:ALA:O	2:F:425:ARG:HB2	2.19	0.42
2:F:423:LEU:N	2:F:423:LEU:CD2	2.82	0.42
2:F:503:PRO:CD	2:F:711:ALA:HB1	2.50	0.42
2:F:506:LYS:H	2:F:506:LYS:HG2	1.65	0.42
2:F:683:LEU:HA	2:F:683:LEU:HD23	1.70	0.42
2:F:1240:SER:OG	2:F:1310:ILE:HD12	2.20	0.42
2:B:86:PHE:CE2	2:B:155:TYR:HB2	2.55	0.41
2:B:271:TYR:CD2	2:B:271:TYR:C	2.93	0.41
2:B:421:ALA:O	2:B:425:ARG:HB2	2.19	0.41
2:B:760:VAL:HG11	2:B:990:ASN:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:829:ASP:OD1	2:B:831:ASN:N	2.53	0.41
2:B:1000:LYS:CE	2:B:1045:PHE:CD2	2.96	0.41
2:B:1154:SER:O	2:B:1155:LYS:HB2	2.20	0.41
2:B:1212:ARG:CZ	2:B:1336:TYR:CE2	3.01	0.41
2:B:1213:MET:O	2:B:1221:GLN:N	2.52	0.41
1:E:10:U:H2'	1:E:11:C:C6	2.55	0.41
1:E:43:G:O2'	2:F:363:ILE:HG13	2.19	0.41
2:F:1212:ARG:NH2	2:F:1280:VAL:O	2.53	0.41
3:G:3:DA:H2''	3:G:4:DT:O5'	2.20	0.41
1:A:10:U:H2'	1:A:11:C:C6	2.55	0.41
1:A:92:G:C2	1:A:93:G:C4	3.08	0.41
2:B:244:LEU:HD11	2:B:264:LEU:O	2.19	0.41
2:B:256:PHE:CD2	2:B:282:ILE:HG21	2.54	0.41
2:B:780:ARG:H	2:B:780:ARG:HG2	1.67	0.41
2:B:1091:GLN:NE2	2:B:1091:GLN:C	2.73	0.41
2:B:1204:PHE:CE2	2:B:1342:VAL:HG11	2.55	0.41
2:F:119:PHE:CD2	2:F:119:PHE:N	2.87	0.41
2:F:336:LYS:CG	2:F:347:TYR:HE2	2.32	0.41
2:F:429:PHE:HD2	2:F:429:PHE:H	1.68	0.41
2:F:739:GLN:OE1	2:F:1352:ILE:HD11	2.19	0.41
2:B:423:LEU:N	2:B:423:LEU:CD2	2.82	0.41
2:B:447:ARG:HG2	2:B:448:ILE:O	2.20	0.41
2:B:535:ARG:HG2	2:B:536:LYS:H	1.86	0.41
2:B:1000:LYS:CG	2:B:1073:VAL:HG11	2.50	0.41
1:E:92:G:C2	1:E:93:G:C4	3.08	0.41
2:F:86:PHE:CE2	2:F:155:TYR:HB2	2.55	0.41
2:F:271:TYR:CD2	2:F:271:TYR:C	2.93	0.41
2:F:286:TYR:O	2:F:289:LEU:HB2	2.21	0.41
2:F:760:VAL:HG11	2:F:990:ASN:O	2.20	0.41
2:F:1000:LYS:HE2	2:F:1064:GLU:CB	2.44	0.41
2:F:1091:GLN:NE2	2:F:1091:GLN:C	2.73	0.41
2:F:1118:LYS:HA	2:F:1118:LYS:HD3	1.79	0.41
2:F:1154:SER:O	2:F:1155:LYS:HB2	2.20	0.41
2:F:1220:LEU:CD2	2:F:1342:VAL:HG21	2.50	0.41
2:B:286:TYR:O	2:B:289:LEU:HB2	2.20	0.41
2:B:1000:LYS:HE2	2:B:1064:GLU:CB	2.44	0.41
2:B:1141:TYR:OH	2:B:1175:GLU:OE2	2.21	0.41
2:B:1153:LYS:O	2:B:1155:LYS:HG3	2.20	0.41
2:B:1178:PRO:O	2:B:1182:LEU:N	2.42	0.41
2:B:1212:ARG:NH2	2:B:1280:VAL:O	2.53	0.41
2:B:1240:SER:OG	2:B:1310:ILE:HD12	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:5:DA:C2	4:D:9:DA:C2	3.08	0.41
4:D:4:DT:C4	4:D:5:DA:N1	2.88	0.41
4:D:8:DT:H2''	4:D:9:DA:H5'	2.02	0.41
1:E:8:G:C2	3:G:22:DA:C2	3.09	0.41
2:F:256:PHE:CD2	2:F:282:ILE:HG21	2.54	0.41
2:F:290:PHE:O	2:F:293:ALA:HB3	2.20	0.41
2:F:535:ARG:HG2	2:F:536:LYS:H	1.86	0.41
2:F:1205:GLU:HB2	2:F:1211:LYS:HG3	2.02	0.41
4:H:8:DT:H2''	4:H:9:DA:H5'	2.02	0.41
1:A:8:G:C2	3:C:22:DA:C2	3.09	0.41
2:B:252:PHE:CE1	2:B:278:LEU:HD21	2.55	0.41
2:B:290:PHE:O	2:B:293:ALA:HB3	2.20	0.41
2:B:336:LYS:CG	2:B:347:TYR:HE2	2.32	0.41
2:B:1302:ILE:O	2:B:1306:ALA:CA	2.69	0.41
2:F:82:LEU:HB3	2:F:155:TYR:HE1	1.85	0.41
2:F:122:ILE:O	2:F:126:VAL:HG23	2.21	0.41
2:F:244:LEU:CD2	2:F:266:LEU:CD1	2.97	0.41
2:F:244:LEU:HD11	2:F:264:LEU:O	2.19	0.41
2:F:525:THR:CG2	2:F:690:ASN:HB3	2.31	0.41
2:F:641:HIS:CD2	2:F:642:LEU:H	2.38	0.41
2:F:1178:PRO:O	2:F:1182:LEU:N	2.43	0.41
2:F:1204:PHE:CE2	2:F:1342:VAL:HG11	2.55	0.41
2:F:1213:MET:O	2:F:1221:GLN:N	2.52	0.41
2:F:1302:ILE:O	2:F:1306:ALA:CA	2.69	0.41
4:H:4:DT:C4	4:H:5:DA:N1	2.88	0.41
2:B:82:LEU:HB3	2:B:155:TYR:HE1	1.85	0.41
2:B:186:ILE:CD1	2:B:203:ALA:CB	2.99	0.41
2:B:255:ASN:HD22	2:B:256:PHE:HE1	1.65	0.41
2:B:536:LYS:HB2	2:B:536:LYS:HE2	1.83	0.41
2:B:852:ILE:CG1	5:B:1401:SO4:O1	2.60	0.41
2:B:1000:LYS:CD	2:B:1045:PHE:CE2	3.04	0.41
2:B:1221:GLN:HE21	2:B:1320:ALA:HB2	1.79	0.41
2:F:252:PHE:CE1	2:F:278:LEU:HD21	2.55	0.41
2:F:447:ARG:HG2	2:F:448:ILE:O	2.20	0.41
2:F:1000:LYS:CG	2:F:1073:VAL:HG11	2.50	0.41
2:F:1244:LYS:NZ	2:F:1244:LYS:HB2	2.36	0.41
2:F:1314:THR:CG2	2:F:1324:PHE:CD2	3.03	0.41
2:B:122:ILE:O	2:B:126:VAL:HG23	2.21	0.41
2:B:600:ILE:O	2:B:647:VAL:CG1	2.58	0.41
2:B:758:ASN:OD1	2:B:954:LYS:NZ	2.44	0.41
1:E:74:A:H3'	1:E:75:A:H8	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:40:ARG:CZ	2:F:43:ILE:HD13	2.50	0.41
2:F:186:ILE:CD1	2:F:203:ALA:CB	2.99	0.41
2:F:390:LEU:HA	2:F:390:LEU:HD23	1.81	0.41
2:F:896:LYS:O	2:F:900:LEU:HG	2.19	0.41
2:F:1000:LYS:CD	2:F:1045:PHE:CE2	3.04	0.41
3:G:5:DA:C2	4:H:9:DA:C2	3.08	0.41
1:A:74:A:H3'	1:A:75:A:H8	1.86	0.41
2:B:641:HIS:HD2	2:B:642:LEU:CG	2.16	0.41
2:B:683:LEU:HA	2:B:683:LEU:HD23	1.70	0.41
2:B:896:LYS:O	2:B:900:LEU:HG	2.20	0.41
2:B:1244:LYS:NZ	2:B:1244:LYS:HB2	2.36	0.41
1:E:64:U:OP1	2:F:1102:THR:OG1	2.26	0.41
2:F:165:ARG:C	2:F:415:HIS:ND1	2.74	0.41
2:F:1153:LYS:O	2:F:1155:LYS:HG3	2.20	0.41
2:B:40:ARG:CZ	2:B:43:ILE:HD13	2.50	0.41
2:B:107:VAL:O	2:B:111:LYS:N	2.54	0.41
2:B:244:LEU:CD2	2:B:266:LEU:CD1	2.97	0.41
2:B:256:PHE:N	2:B:256:PHE:CD1	2.89	0.41
2:B:393:LEU:O	2:B:396:GLU:N	2.44	0.41
2:B:451:TYR:HB2	2:B:488:ALA:HA	2.03	0.41
2:B:641:HIS:CD2	2:B:642:LEU:H	2.38	0.41
2:B:777:SER:OG	4:D:2:DT:O5'	2.01	0.41
2:B:1314:THR:CG2	2:B:1324:PHE:CD2	3.03	0.41
2:B:1321:PRO:HB2	2:B:1333:ARG:HD2	2.02	0.41
2:F:256:PHE:N	2:F:256:PHE:CD1	2.89	0.41
2:F:393:LEU:O	2:F:396:GLU:N	2.44	0.41
2:F:536:LYS:HB2	2:F:536:LYS:HE2	1.83	0.41
2:F:685:SER:O	2:F:685:SER:OG	2.26	0.41
2:F:758:ASN:OD1	2:F:954:LYS:NZ	2.44	0.41
2:F:1321:PRO:HB2	2:F:1333:ARG:HD2	2.02	0.41
2:B:154:ILE:O	2:B:155:TYR:C	2.58	0.41
2:B:165:ARG:C	2:B:415:HIS:ND1	2.74	0.41
2:B:294:LYS:O	2:B:297:SER:HB3	2.21	0.41
2:B:436:ASN:ND2	2:B:436:ASN:N	2.69	0.41
2:B:1122:ARG:HG3	2:B:1134:PHE:HE2	1.86	0.41
2:B:1335:ARG:C	2:B:1336:TYR:HD1	2.24	0.41
1:E:43:G:N2	2:F:360:ALA:HA	2.35	0.41
2:F:107:VAL:O	2:F:111:LYS:N	2.54	0.41
2:F:246:LEU:N	2:F:246:LEU:HD12	2.36	0.41
2:F:841:ILE:CD1	2:F:900:LEU:HG	2.51	0.41
2:F:925:ARG:C	2:F:929:LYS:HE3	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:1122:ARG:HG3	2:F:1134:PHE:HE2	1.86	0.41
1:A:26:A:H2'	1:A:27:G:C8	2.56	0.40
2:B:355:SER:OG	2:B:356:LYS:HG2	2.21	0.40
2:B:945:GLU:CD	2:B:946:ASN:N	2.73	0.40
2:B:1203:LEU:HD13	2:B:1213:MET:CG	2.51	0.40
2:B:1304:GLU:C	2:B:1327:PHE:HE1	2.24	0.40
2:F:436:ASN:ND2	2:F:436:ASN:N	2.69	0.40
2:F:616:LEU:O	2:F:619:ILE:HG22	2.21	0.40
2:F:1304:GLU:C	2:F:1327:PHE:HE1	2.24	0.40
2:B:249:THR:CG2	2:B:265:GLN:HE22	2.29	0.40
2:B:534:MET:H	2:B:534:MET:HG2	1.58	0.40
2:B:596:ASP:CG	2:B:656:TYR:OH	2.53	0.40
2:B:841:ILE:CD1	2:B:900:LEU:HG	2.51	0.40
2:B:925:ARG:C	2:B:929:LYS:HE3	2.41	0.40
2:F:350:ILE:CG2	2:F:351:PHE:HE2	2.34	0.40
2:F:1139:VAL:HA	2:F:1167:THR:HA	2.03	0.40
2:F:1246:LYS:HZ2	2:F:1246:LYS:CB	2.29	0.40
2:B:454:PRO:HD2	2:B:463:ALA:HA	2.02	0.40
2:B:616:LEU:O	2:B:619:ILE:HG22	2.21	0.40
2:B:784:ILE:O	2:B:788:ILE:CD1	2.69	0.40
2:B:924:THR:O	2:B:929:LYS:CE	2.69	0.40
2:B:1246:LYS:NZ	2:B:1246:LYS:CB	2.73	0.40
1:E:42:A:HO2'	1:E:43:G:P	2.43	0.40
1:E:54:G:H22	1:E:61:C:H1'	1.87	0.40
2:F:294:LYS:O	2:F:297:SER:HB3	2.21	0.40
2:F:311:GLU:N	2:F:311:GLU:CD	2.73	0.40
2:F:341:GLN:HE21	2:F:341:GLN:C	2.25	0.40
2:F:355:SER:OG	2:F:356:LYS:HG2	2.21	0.40
2:F:451:TYR:HB2	2:F:488:ALA:HA	2.03	0.40
2:F:561:VAL:HG23	2:F:585:ASP:O	2.21	0.40
2:F:1335:ARG:C	2:F:1336:TYR:HD1	2.25	0.40
2:B:6:SER:O	2:B:21:ILE:HG12	2.22	0.40
2:B:38:THR:CG2	2:B:39:ASP:N	2.84	0.40
2:B:51:LEU:HD13	2:B:1352:ILE:O	2.22	0.40
2:B:70:ARG:NH1	2:B:454:PRO:HG2	2.35	0.40
2:B:184:LEU:CD1	2:B:295:ASN:C	2.90	0.40
2:B:311:GLU:N	2:B:311:GLU:CD	2.73	0.40
2:B:341:GLN:HE21	2:B:341:GLN:C	2.25	0.40
2:B:594:TYR:OH	2:B:604:LYS:NZ	2.48	0.40
2:B:842:VAL:HG13	2:B:847:LEU:HD22	2.03	0.40
2:B:1139:VAL:HA	2:B:1167:THR:HA	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1286:ASN:O	2:B:1289:LYS:CB	2.69	0.40
1:E:26:A:H2'	1:E:27:G:C8	2.56	0.40
1:E:67:C:P	2:F:739:GLN:HE22	2.43	0.40
2:F:38:THR:CG2	2:F:39:ASP:N	2.84	0.40
2:F:51:LEU:HD13	2:F:1352:ILE:O	2.22	0.40
2:F:184:LEU:CD1	2:F:295:ASN:C	2.90	0.40
2:F:245:SER:CB	2:F:296:LEU:HD22	2.51	0.40
2:F:842:VAL:HG13	2:F:847:LEU:HD22	2.02	0.40
2:F:1203:LEU:HD13	2:F:1213:MET:CG	2.51	0.40
1:A:67:C:P	2:B:739:GLN:HE22	2.43	0.40
2:B:81:TYR:CE2	2:B:475:PRO:HD3	2.56	0.40
2:B:350:ILE:CG2	2:B:351:PHE:HE2	2.33	0.40
2:B:406:ASP:OD1	2:B:407:ASN:ND2	2.54	0.40
2:B:514:LEU:O	2:B:515:TYR:C	2.58	0.40
2:B:561:VAL:HG23	2:B:585:ASP:O	2.21	0.40
2:B:568:TYR:HD2	2:B:569:PHE:CE2	2.40	0.40
2:B:678:THR:O	2:B:681:ASP:HB2	2.21	0.40
2:B:710:LYS:HE2	2:B:710:LYS:HB2	1.81	0.40
2:B:979:ASN:OD1	2:B:981:TYR:N	2.55	0.40
1:E:52:A:H1'	2:F:1169:MET:CE	2.52	0.40
2:F:154:ILE:O	2:F:155:TYR:C	2.58	0.40
2:F:244:LEU:HD12	2:F:250:PRO:CG	2.45	0.40
2:F:454:PRO:HD2	2:F:463:ALA:HA	2.02	0.40
2:F:534:MET:H	2:F:534:MET:HG2	1.58	0.40
2:F:600:ILE:O	2:F:647:VAL:CG1	2.58	0.40
2:F:641:HIS:HD2	2:F:642:LEU:CG	2.16	0.40
2:F:811:LEU:O	2:F:814:TYR:HB3	2.22	0.40
2:F:924:THR:O	2:F:929:LYS:CE	2.69	0.40
2:F:945:GLU:CD	2:F:946:ASN:N	2.73	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 X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	B	1318/1368 (96%)	1279 (97%)	39 (3%)	0	100	100
2	F	1318/1368 (96%)	1281 (97%)	37 (3%)	0	100	100
All	All	2636/2736 (96%)	2560 (97%)	76 (3%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	B	1186/1225 (97%)	942 (79%)	244 (21%)	1	6
2	F	1186/1225 (97%)	942 (79%)	244 (21%)	1	6
All	All	2372/2450 (97%)	1884 (79%)	488 (21%)	1	6

All (488) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	B	4	LYS
2	B	9	LEU
2	B	40	ARG
2	B	47	LEU
2	B	57	GLU
2	B	62	THR
2	B	72	TYR
2	B	76	LYS
2	B	96	SER
2	B	104	SER
2	B	106	LEU
2	B	107	VAL
2	B	111	LYS
2	B	114	GLU
2	B	121	ASN
2	B	165	ARG
2	B	167	HIS
2	B	177	ASP

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Mol	Chain	Res	Type
2	B	181	VAL
2	B	183	LYS
2	B	184	LEU
2	B	195	LEU
2	B	204	SER
2	B	209	LYS
2	B	216	LEU
2	B	218	LYS
2	B	233	LYS
2	B	234	LYS
2	B	245	SER
2	B	246	LEU
2	B	248	LEU
2	B	252	PHE
2	B	254	SER
2	B	265	GLN
2	B	268	LYS
2	B	270	THR
2	B	274	ASP
2	B	275	LEU
2	B	278	LEU
2	B	279	LEU
2	B	289	LEU
2	B	294	LYS
2	B	301	LEU
2	B	302	LEU
2	B	304	ASP
2	B	305	ILE
2	B	309	ASN
2	B	311	GLU
2	B	317	LEU
2	B	318	SER
2	B	321	MET
2	B	323	LYS
2	B	338	LEU
2	B	341	GLN
2	B	342	GLN
2	B	348	LYS
2	B	352	PHE
2	B	368	SER
2	B	376	ILE
2	B	377	LYS

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Mol	Chain	Res	Type
2	B	382	LYS
2	B	383	MET
2	B	384	ASP
2	B	387	GLU
2	B	388	GLU
2	B	390	LEU
2	B	397	ASP
2	B	398	LEU
2	B	404	THR
2	B	405	PHE
2	B	407	ASN
2	B	419	LEU
2	B	423	LEU
2	B	425	ARG
2	B	429	PHE
2	B	432	PHE
2	B	434	LYS
2	B	436	ASN
2	B	442	LYS
2	B	445	THR
2	B	455	LEU
2	B	460	SER
2	B	468	LYS
2	B	469	SER
2	B	479	GLU
2	B	490	SER
2	B	502	LEU
2	B	506	LYS
2	B	508	LEU
2	B	510	LYS
2	B	513	LEU
2	B	514	LEU
2	B	531	THR
2	B	532	GLU
2	B	535	ARG
2	B	536	LYS
2	B	540	LEU
2	B	543	GLU
2	B	546	LYS
2	B	550	ASP
2	B	555	THR
2	B	556	ASN

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Mol	Chain	Res	Type
2	B	557	ARG
2	B	571	LYS
2	B	574	CYS
2	B	577	SER
2	B	580	ILE
2	B	583	VAL
2	B	585	ASP
2	B	598	LEU
2	B	601	ILE
2	B	602	LYS
2	B	610	GLU
2	B	627	GLU
2	B	631	MET
2	B	636	LEU
2	B	653	ARG
2	B	655	ARG
2	B	673	LYS
2	B	675	SER
2	B	677	LYS
2	B	685	SER
2	B	688	PHE
2	B	691	ARG
2	B	694	MET
2	B	701	SER
2	B	703	THR
2	B	709	GLN
2	B	710	LYS
2	B	718	ASP
2	B	719	SER
2	B	730	SER
2	B	740	THR
2	B	751	MET
2	B	753	ARG
2	B	776	ASN
2	B	777	SER
2	B	778	ARG
2	B	779	GLU
2	B	782	LYS
2	B	785	GLU
2	B	788	ILE
2	B	791	LEU
2	B	795	ILE

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Mol	Chain	Res	Type
2	B	796	LEU
2	B	803	ASN
2	B	814	TYR
2	B	820	ARG
2	B	822	MET
2	B	828	LEU
2	B	830	ILE
2	B	833	LEU
2	B	834	SER
2	B	837	ASP
2	B	844	GLN
2	B	845	SER
2	B	847	LEU
2	B	850	ASP
2	B	851	SER
2	B	853	ASP
2	B	859	ARG
2	B	861	ASP
2	B	866	LYS
2	B	867	SER
2	B	877	LYS
2	B	885	GLN
2	B	887	LEU
2	B	893	THR
2	B	895	ARG
2	B	905	ARG
2	B	910	GLU
2	B	911	LEU
2	B	933	GLN
2	B	938	ARG
2	B	940	ASN
2	B	964	SER
2	B	968	LYS
2	B	974	LYS
2	B	977	GLU
2	B	980	ASN
2	B	1006	SER
2	B	1007	GLU
2	B	1031	LYS
2	B	1035	LYS
2	B	1038	PHE
2	B	1045	PHE

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Mol	Chain	Res	Type
2	B	1047	LYS
2	B	1060	ARG
2	B	1062	LEU
2	B	1082	THR
2	B	1087	LEU
2	B	1089	MET
2	B	1091	GLN
2	B	1106	SER
2	B	1113	LYS
2	B	1135	ASP
2	B	1136	SER
2	B	1148	LYS
2	B	1150	GLU
2	B	1151	LYS
2	B	1154	SER
2	B	1156	LYS
2	B	1158	LYS
2	B	1171	ARG
2	B	1174	PHE
2	B	1175	GLU
2	B	1191	LYS
2	B	1197	LYS
2	B	1202	SER
2	B	1206	LEU
2	B	1207	GLU
2	B	1214	LEU
2	B	1224	ASN
2	B	1230	SER
2	B	1231	LYS
2	B	1233	VAL
2	B	1241	HIS
2	B	1242	TYR
2	B	1243	GLU
2	B	1244	LYS
2	B	1246	LYS
2	B	1252	ASN
2	B	1254	GLN
2	B	1255	LYS
2	B	1257	LEU
2	B	1266	LEU
2	B	1268	GLU
2	B	1272	GLN

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Mol	Chain	Res	Type
2	B	1274	SER
2	B	1277	SER
2	B	1282	LEU
2	B	1284	ASP
2	B	1288	ASP
2	B	1291	LEU
2	B	1292	SER
2	B	1296	LYS
2	B	1299	ASP
2	B	1307	GLU
2	B	1311	HIS
2	B	1315	LEU
2	B	1325	LYS
2	B	1329	THR
2	B	1337	THR
2	B	1344	ASP
2	F	4	LYS
2	F	9	LEU
2	F	23	ASP
2	F	40	ARG
2	F	47	LEU
2	F	57	GLU
2	F	62	THR
2	F	72	TYR
2	F	76	LYS
2	F	96	SER
2	F	104	SER
2	F	106	LEU
2	F	107	VAL
2	F	111	LYS
2	F	114	GLU
2	F	121	ASN
2	F	165	ARG
2	F	167	HIS
2	F	177	ASP
2	F	181	VAL
2	F	183	LYS
2	F	184	LEU
2	F	195	LEU
2	F	204	SER
2	F	209	LYS
2	F	216	LEU

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Mol	Chain	Res	Type
2	F	218	LYS
2	F	233	LYS
2	F	234	LYS
2	F	246	LEU
2	F	252	PHE
2	F	254	SER
2	F	265	GLN
2	F	268	LYS
2	F	270	THR
2	F	274	ASP
2	F	275	LEU
2	F	278	LEU
2	F	279	LEU
2	F	289	LEU
2	F	294	LYS
2	F	301	LEU
2	F	302	LEU
2	F	304	ASP
2	F	305	ILE
2	F	309	ASN
2	F	311	GLU
2	F	317	LEU
2	F	318	SER
2	F	320	SER
2	F	321	MET
2	F	323	LYS
2	F	338	LEU
2	F	341	GLN
2	F	342	GLN
2	F	348	LYS
2	F	352	PHE
2	F	362	TYR
2	F	368	SER
2	F	376	ILE
2	F	377	LYS
2	F	383	MET
2	F	384	ASP
2	F	387	GLU
2	F	388	GLU
2	F	390	LEU
2	F	397	ASP
2	F	398	LEU

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Mol	Chain	Res	Type
2	F	404	THR
2	F	405	PHE
2	F	407	ASN
2	F	419	LEU
2	F	423	LEU
2	F	425	ARG
2	F	429	PHE
2	F	432	PHE
2	F	434	LYS
2	F	436	ASN
2	F	442	LYS
2	F	445	THR
2	F	455	LEU
2	F	460	SER
2	F	468	LYS
2	F	469	SER
2	F	479	GLU
2	F	490	SER
2	F	502	LEU
2	F	506	LYS
2	F	508	LEU
2	F	510	LYS
2	F	513	LEU
2	F	514	LEU
2	F	531	THR
2	F	532	GLU
2	F	535	ARG
2	F	536	LYS
2	F	540	LEU
2	F	543	GLU
2	F	546	LYS
2	F	550	ASP
2	F	555	THR
2	F	556	ASN
2	F	557	ARG
2	F	571	LYS
2	F	574	CYS
2	F	577	SER
2	F	580	ILE
2	F	583	VAL
2	F	585	ASP
2	F	598	LEU

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Mol	Chain	Res	Type
2	F	601	ILE
2	F	602	LYS
2	F	610	GLU
2	F	627	GLU
2	F	631	MET
2	F	636	LEU
2	F	653	ARG
2	F	655	ARG
2	F	673	LYS
2	F	675	SER
2	F	677	LYS
2	F	685	SER
2	F	688	PHE
2	F	691	ARG
2	F	694	MET
2	F	701	SER
2	F	703	THR
2	F	709	GLN
2	F	718	ASP
2	F	719	SER
2	F	730	SER
2	F	740	THR
2	F	751	MET
2	F	753	ARG
2	F	776	ASN
2	F	777	SER
2	F	778	ARG
2	F	779	GLU
2	F	782	LYS
2	F	785	GLU
2	F	788	ILE
2	F	791	LEU
2	F	795	ILE
2	F	796	LEU
2	F	803	ASN
2	F	814	TYR
2	F	820	ARG
2	F	822	MET
2	F	828	LEU
2	F	830	ILE
2	F	833	LEU
2	F	834	SER

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Mol	Chain	Res	Type
2	F	837	ASP
2	F	844	GLN
2	F	845	SER
2	F	847	LEU
2	F	850	ASP
2	F	851	SER
2	F	853	ASP
2	F	859	ARG
2	F	861	ASP
2	F	866	LYS
2	F	867	SER
2	F	877	LYS
2	F	885	GLN
2	F	887	LEU
2	F	893	THR
2	F	895	ARG
2	F	905	ARG
2	F	910	GLU
2	F	911	LEU
2	F	933	GLN
2	F	938	ARG
2	F	940	ASN
2	F	964	SER
2	F	968	LYS
2	F	974	LYS
2	F	976	ARG
2	F	977	GLU
2	F	980	ASN
2	F	1006	SER
2	F	1007	GLU
2	F	1031	LYS
2	F	1035	LYS
2	F	1038	PHE
2	F	1045	PHE
2	F	1047	LYS
2	F	1060	ARG
2	F	1062	LEU
2	F	1082	THR
2	F	1087	LEU
2	F	1089	MET
2	F	1091	GLN
2	F	1106	SER

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Mol	Chain	Res	Type
2	F	1113	LYS
2	F	1130	LYS
2	F	1135	ASP
2	F	1136	SER
2	F	1148	LYS
2	F	1150	GLU
2	F	1151	LYS
2	F	1154	SER
2	F	1156	LYS
2	F	1158	LYS
2	F	1171	ARG
2	F	1174	PHE
2	F	1175	GLU
2	F	1191	LYS
2	F	1197	LYS
2	F	1202	SER
2	F	1206	LEU
2	F	1207	GLU
2	F	1214	LEU
2	F	1224	ASN
2	F	1230	SER
2	F	1231	LYS
2	F	1233	VAL
2	F	1241	HIS
2	F	1242	TYR
2	F	1243	GLU
2	F	1244	LYS
2	F	1246	LYS
2	F	1252	ASN
2	F	1254	GLN
2	F	1255	LYS
2	F	1257	LEU
2	F	1266	LEU
2	F	1272	GLN
2	F	1274	SER
2	F	1277	SER
2	F	1282	LEU
2	F	1284	ASP
2	F	1288	ASP
2	F	1291	LEU
2	F	1292	SER
2	F	1296	LYS

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Mol	Chain	Res	Type
2	F	1299	ASP
2	F	1307	GLU
2	F	1311	HIS
2	F	1315	LEU
2	F	1325	LYS
2	F	1329	THR
2	F	1337	THR
2	F	1344	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (47) such sidechains are listed below:

Mol	Chain	Res	Type
2	B	178	ASN
2	B	235	ASN
2	B	265	GLN
2	B	277	ASN
2	B	281	GLN
2	B	295	ASN
2	B	341	GLN
2	B	407	ASN
2	B	412	HIS
2	B	413	GLN
2	B	641	HIS
2	B	650	GLN
2	B	690	ASN
2	B	776	ASN
2	B	844	GLN
2	B	854	ASN
2	B	1041	ASN
2	B	1221	GLN
2	B	1241	HIS
2	B	1252	ASN
2	B	1256	GLN
2	B	1272	GLN
2	B	1317	ASN
2	F	178	ASN
2	F	235	ASN
2	F	265	GLN
2	F	277	ASN
2	F	281	GLN
2	F	295	ASN
2	F	341	GLN

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Mol	Chain	Res	Type
2	F	369	GLN
2	F	407	ASN
2	F	412	HIS
2	F	413	GLN
2	F	641	HIS
2	F	650	GLN
2	F	690	ASN
2	F	776	ASN
2	F	844	GLN
2	F	854	ASN
2	F	1041	ASN
2	F	1221	GLN
2	F	1241	HIS
2	F	1252	ASN
2	F	1256	GLN
2	F	1272	GLN
2	F	1317	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	A	93/98 (94%)	31 (33%)	4 (4%)
1	E	93/98 (94%)	31 (33%)	4 (4%)
All	All	186/196 (94%)	62 (33%)	8 (4%)

All (62) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	A	9	U
1	A	11	C
1	A	20	G
1	A	24	U
1	A	27	G
1	A	28	A
1	A	29	G
1	A	34	A
1	A	35	A
1	A	37	U
1	A	38	A
1	A	39	G
1	A	40	C

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Mol	Chain	Res	Type
1	A	42	A
1	A	43	G
1	A	44	U
1	A	51	A
1	A	54	G
1	A	56	U
1	A	57	A
1	A	59	U
1	A	68	A
1	A	69	A
1	A	73	G
1	A	74	A
1	A	82	G
1	A	87	G
1	A	88	A
1	A	89	G
1	A	91	C
1	A	92	G
1	E	9	U
1	E	11	C
1	E	20	G
1	E	24	U
1	E	27	G
1	E	28	A
1	E	29	G
1	E	34	A
1	E	35	A
1	E	37	U
1	E	38	A
1	E	39	G
1	E	40	C
1	E	42	A
1	E	43	G
1	E	44	U
1	E	51	A
1	E	54	G
1	E	56	U
1	E	57	A
1	E	59	U
1	E	68	A
1	E	69	A
1	E	73	G

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Mol	Chain	Res	Type
1	E	74	A
1	E	82	G
1	E	87	G
1	E	88	A
1	E	89	G
1	E	91	C
1	E	92	G

All (8) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	A	8	G
1	A	27	G
1	A	42	A
1	A	68	A
1	E	8	G
1	E	27	G
1	E	42	A
1	E	68	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 oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

2 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
5	SO4	F	1401	-	4,4,4	0.98	0	6,6,6	1.66	1 (16%)
5	SO4	B	1401	-	4,4,4	0.98	0	6,6,6	1.66	1 (16%)

There are no bond length outliers.

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	1401	SO4	O4-S-O3	3.83	125.39	109.06
5	F	1401	SO4	O4-S-O3	3.83	125.39	109.06

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

2 monomers are involved in 4 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	F	1401	SO4	1	0
5	B	1401	SO4	3	0

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data [i](#)

6.1 Protein, DNA and RNA chains [i](#)

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å ²)	Q<0.9
1	A	94/98 (95%)	-1.68	0	100	100	7, 25, 69, 93	0
1	E	94/98 (95%)	-1.65	0	100	100	11, 39, 87, 112	0
2	B	1326/1368 (96%)	-1.27	1 (0%)	92	88	5, 26, 65, 117	0
2	F	1326/1368 (96%)	-1.21	7 (0%)	87	72	11, 40, 74, 131	0
3	C	25/26 (96%)	-1.28	0	100	100	9, 17, 64, 79	0
3	G	25/26 (96%)	-0.94	0	100	100	19, 29, 78, 84	0
4	D	11/11 (100%)	-1.42	0	100	100	18, 32, 95, 99	0
4	H	11/11 (100%)	-1.07	0	100	100	27, 56, 102, 112	0
All	All	2912/3006 (96%)	-1.26	8 (0%)	90	79	5, 33, 74, 131	0

All (8) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	B	543	GLU	3.9
2	F	29	SER	3.9
2	F	31	LYS	3.1
2	F	896	LYS	2.6
2	F	46	ASN	2.5
2	F	899	ASN	2.5
2	F	895	ARG	2.2
2	F	30	LYS	2.0

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

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

6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
5	SO4	F	1401	5/5	0.99	0.03	30,30,30,30	0
5	SO4	B	1401	5/5	1.00	0.03	30,30,30,30	0

6.5 Other polymers [i](#)

There are no such residues in this entry.