Full wwPDB X-ray Structure Validation Report ⓘ

Apr 28, 2024 – 07:56 am BST

PDB ID	:	1W36
Title	:	RecBCD:DNA complex
Authors	:	Singleton, M.R.; Dillingham, M.S.; Gaudier, M.; C Kowalczykowski, S.; Wigley, D.B.
Deposited on	:	2004-07-13
Resolution	:	3.10 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:

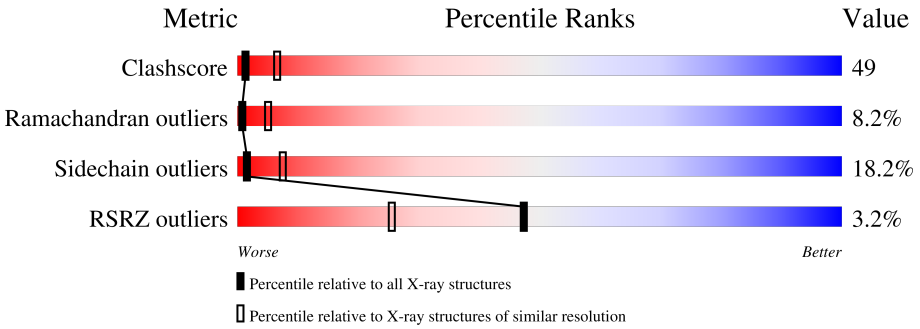
MolProbity	:	4.02b-467
Xtriage (Phenix)	:	1.13
EDS	:	2.36.2
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36.2

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 3.10 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))
Clashscore	141614	1184 (3.10-3.10)
Ramachandran outliers	138981	1141 (3.10-3.10)
Sidechain outliers	138945	1141 (3.10-3.10)
RSRZ outliers	127900	1067 (3.10-3.10)

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 <=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	B	1180	2% 32% 48% 16%
1	E	1180	3% 34% 47% 14%
2	C	1122	2% 37% 45% 15%
2	F	1122	40% 40% 14%
3	D	608	2% 31% 42% 13% 11%
3	G	608	13% 30% 43% 13% 11%
4	Y	43	7% 12% 70% 7% 12%

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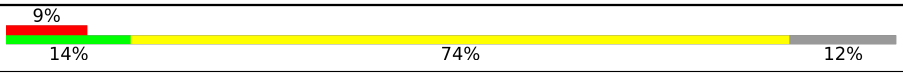
Mol	Chain	Length	Quality of chain
4	Z	43	

2 Entry composition (i)

There are 5 unique types of molecules in this entry. The entry contains 46145 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 protein called EXODEOXYRIBONUCLEASE V BETA CHAIN.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	B	1158	Total	C	N	O	S	0	0	0
			9258	5837	1641	1740	40			
1	E	1158	Total	C	N	O	S	0	0	0
			9258	5837	1641	1740	40			

- Molecule 2 is a protein called EXODEOXYRIBONUCLEASE V GAMMA CHAIN.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	C	1122	Total	C	N	O	S	0	0	1
			9079	5783	1569	1684	43			
2	F	1078	Total	C	N	O	S	0	0	1
			8714	5558	1501	1612	43			

- Molecule 3 is a protein called EXODEOXYRIBONUCLEASE V ALPHA CHAIN.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	D	539	Total	C	N	O	S	0	0	1
			4144	2587	754	785	18			
3	G	539	Total	C	N	O	S	0	0	1
			4144	2587	754	785	18			

- Molecule 4 is a DNA chain called DNA HAIRPIN.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	Y	38	Total	C	N	O	P	0	0	0
			773	371	142	224	36			
4	Z	38	Total	C	N	O	P	0	0	0
			773	371	142	224	36			

- Molecule 5 is CALCIUM ION (three-letter code: CA) (formula: Ca).

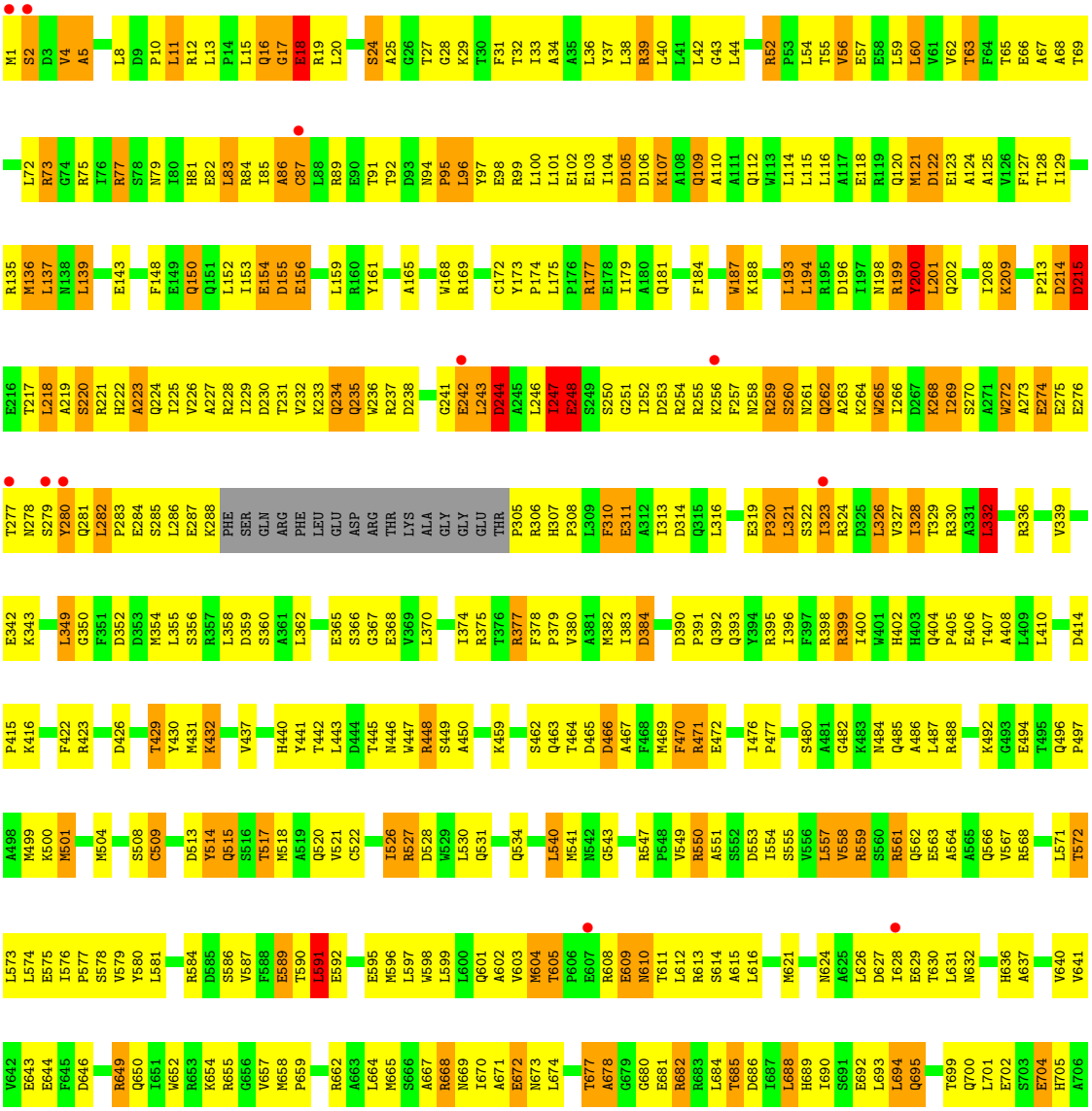
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	B	1	Total Ca 1 1	0	0
5	E	1	Total Ca 1 1	0	0

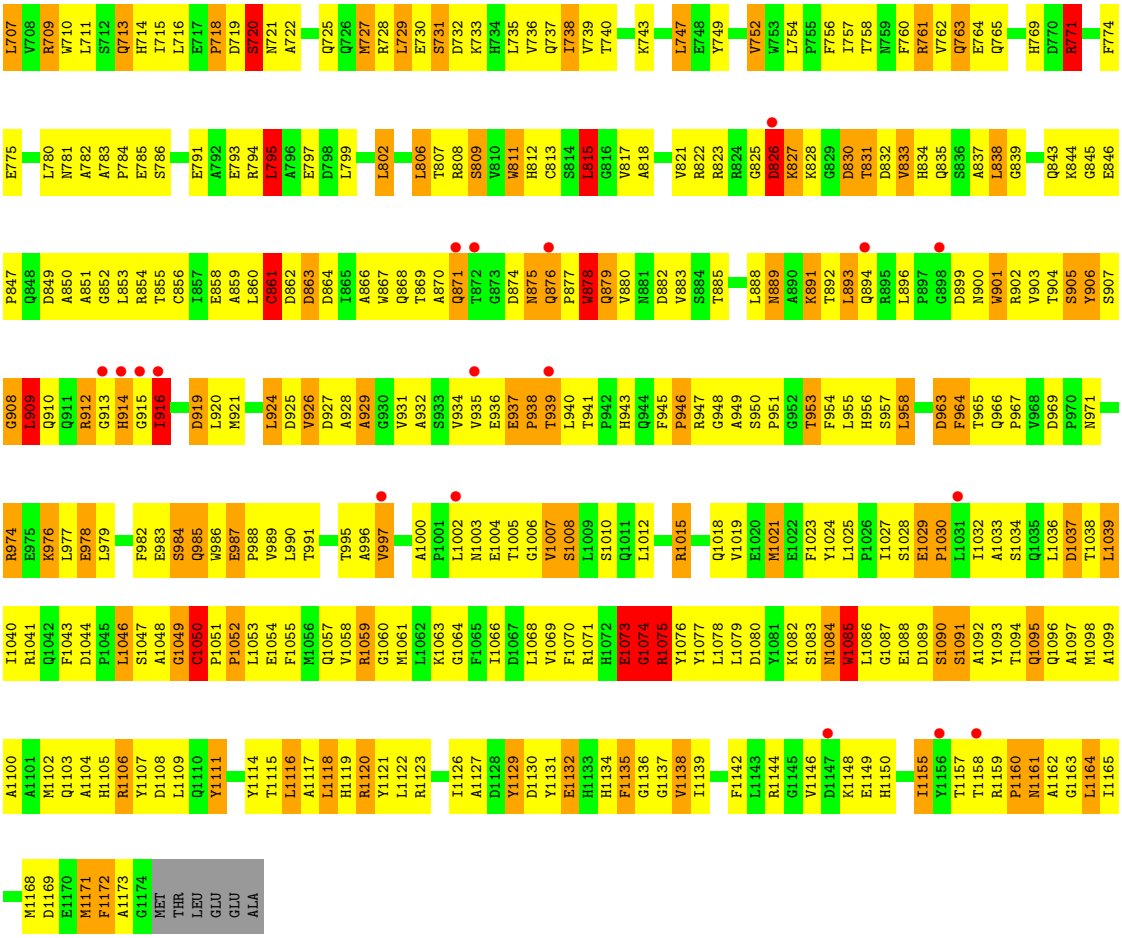
3 Residue-property plots (i)

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

- Molecule 1: EXODEOXYRIBONUCLEASE V BETA CHAIN

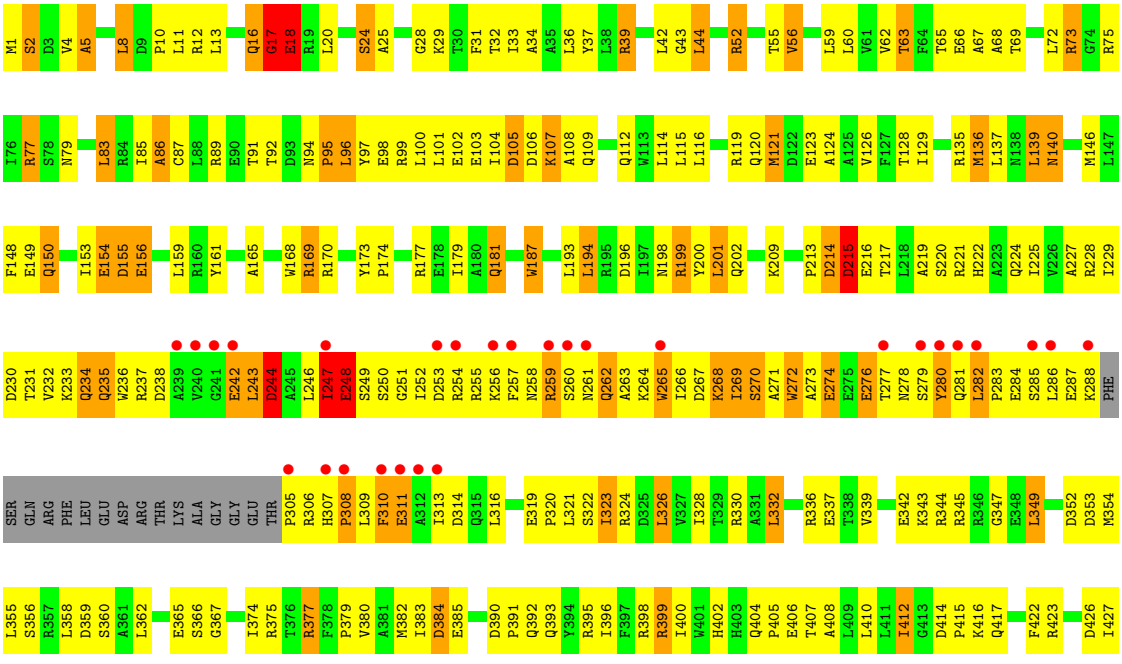
Chain B: 

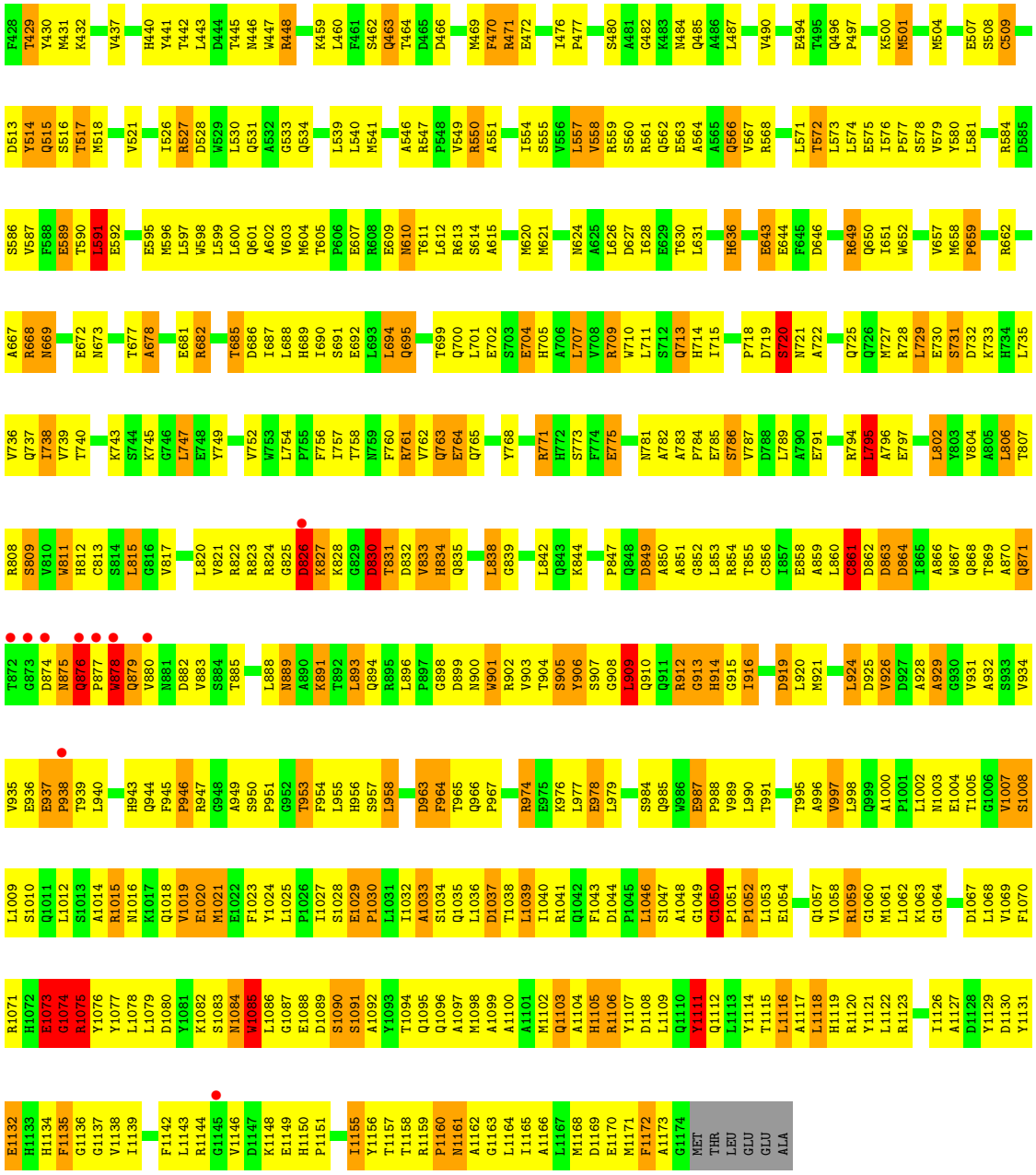




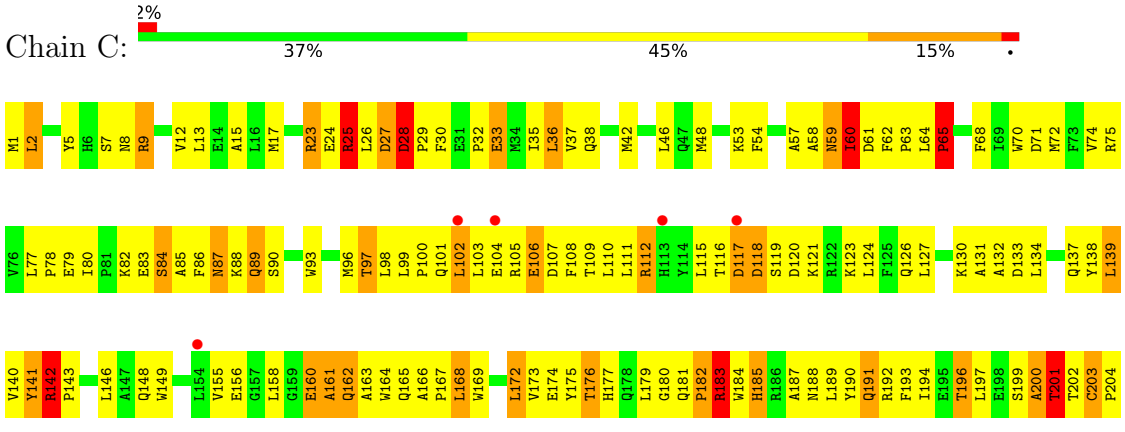
• Molecule 1: EXODEOXYRIBONUCLEASE V BETA CHAIN

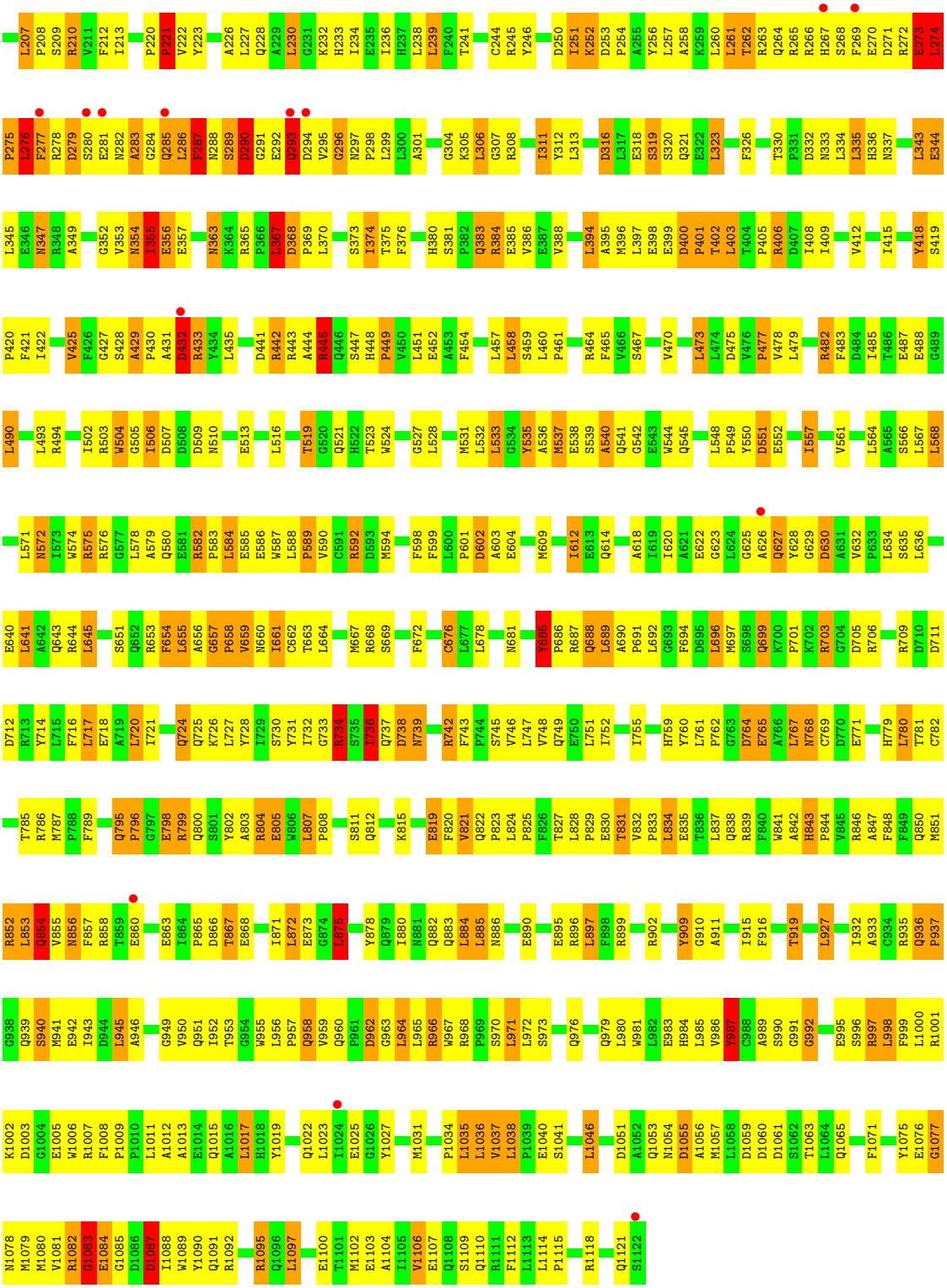
Chain E:





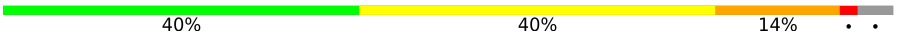
• Molecule 2: EXODEOXYRIBONUCLEASE V GAMMA CHAIN

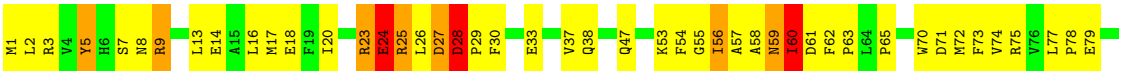


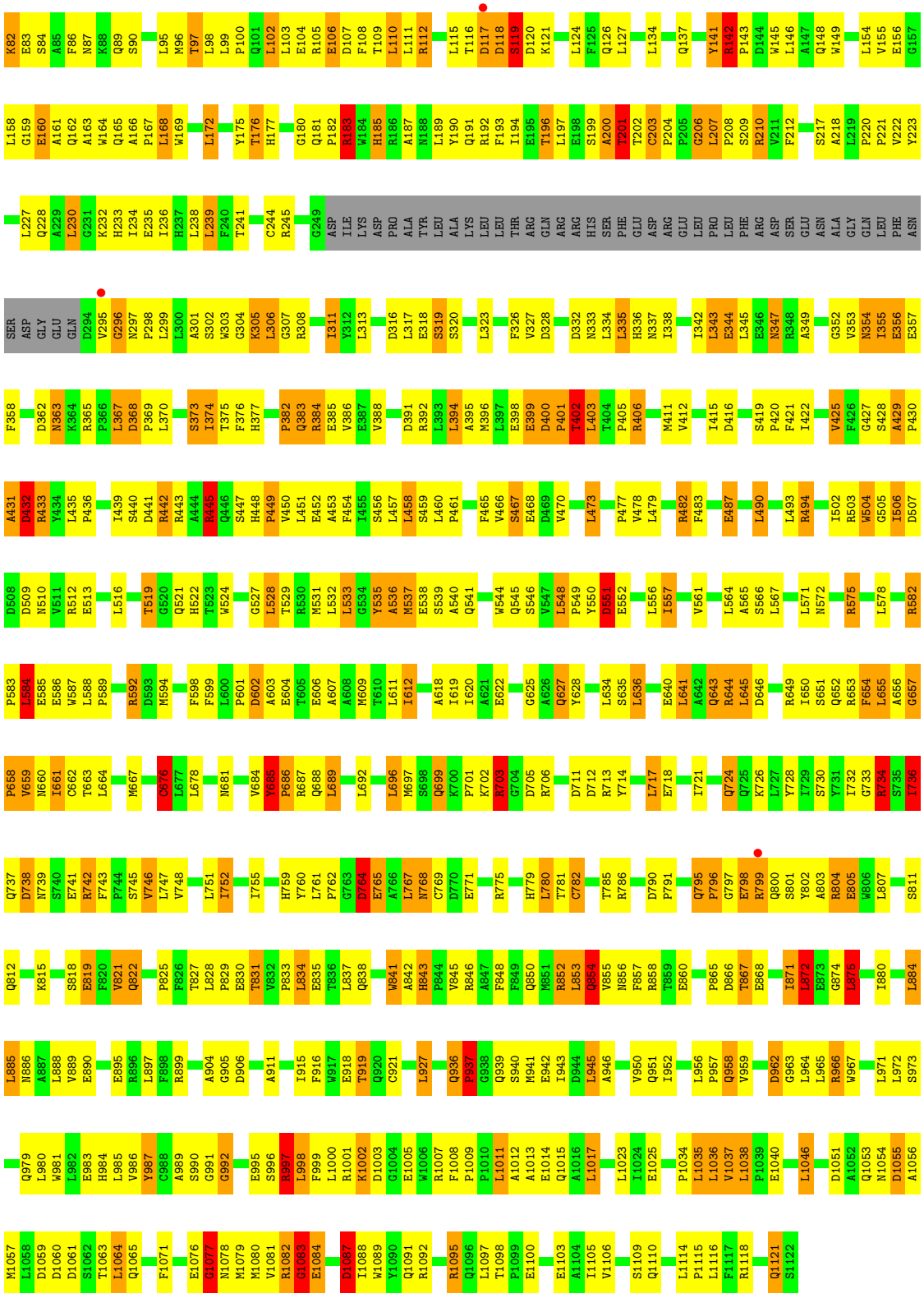


• Molecule 2: EXODEOXYRIBONUCLEASE V GAMMA CHAIN

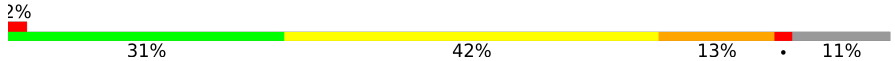
Chain F:

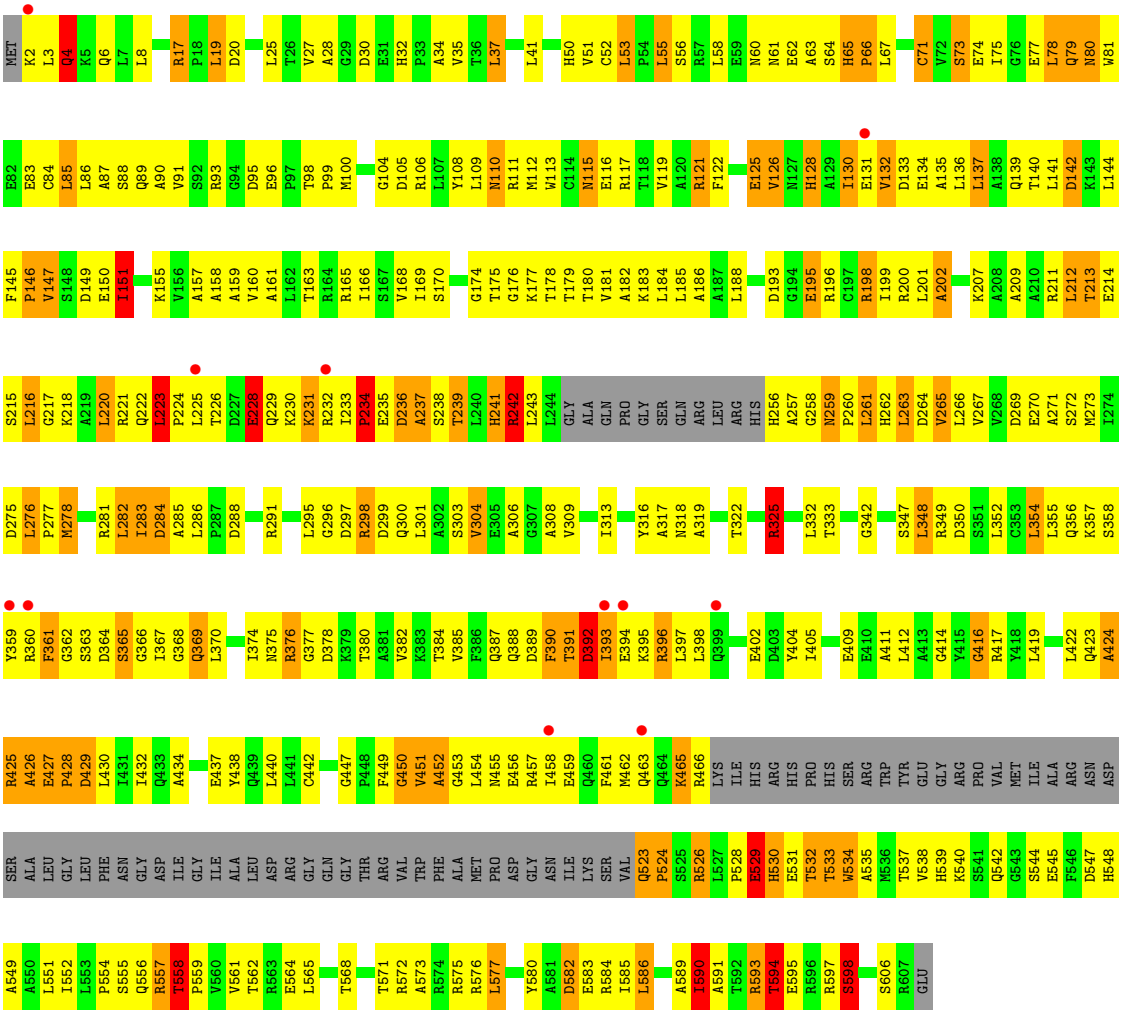






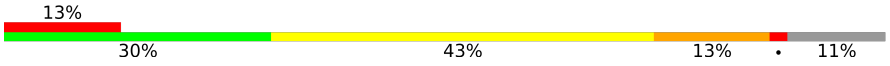
• Molecule 3: EXODEOXYRIBONUCLEASE V ALPHA CHAIN

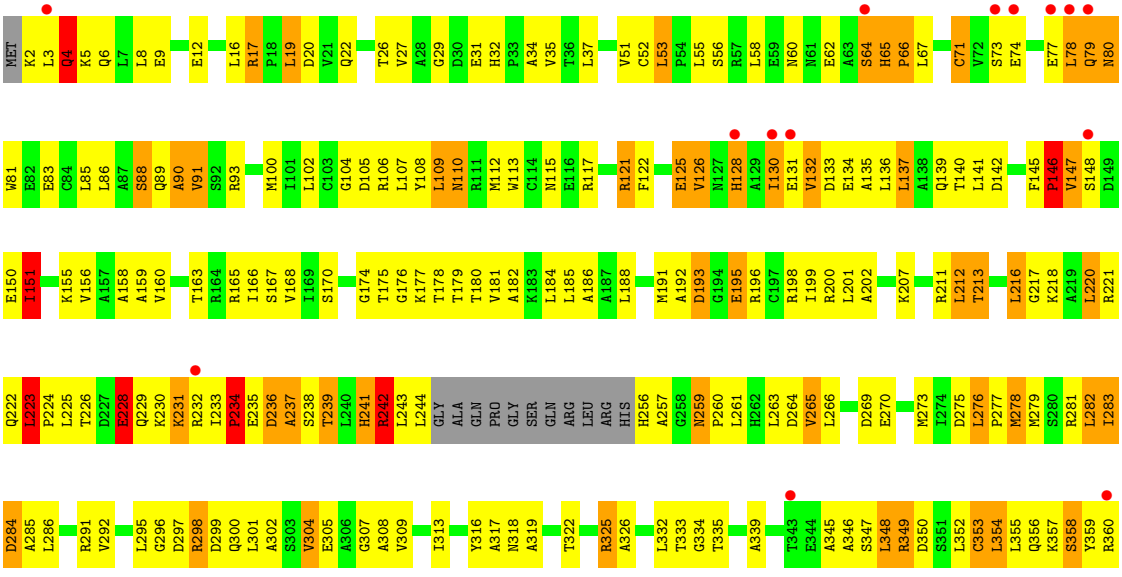


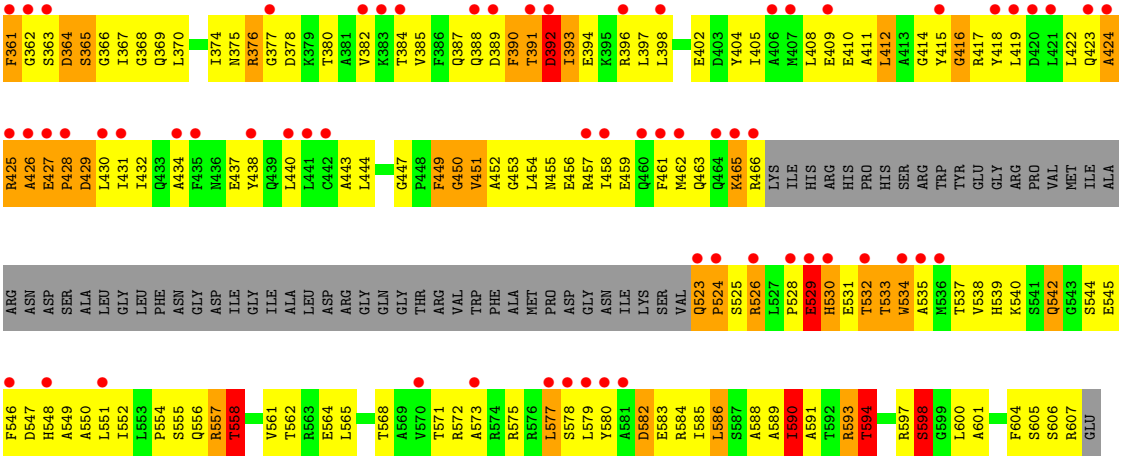


• Molecule 3: EXODEOXYRIBONUCLEASE V ALPHA CHAIN

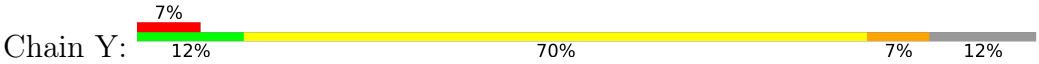
Chain G:

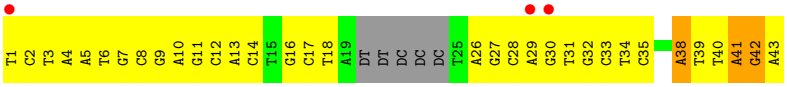




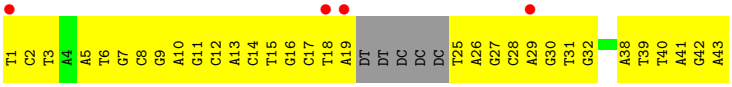


• Molecule 4: DNA HAIRPIN





• Molecule 4: DNA HAIRPIN



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	132.60Å 187.23Å 335.37Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	46.84 – 3.10 46.84 – 3.09	Depositor EDS
% Data completeness (in resolution range)	99.9 (46.84-3.10) 100.0 (46.84-3.09)	Depositor EDS
R_{merge}	0.07	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	4.91 (at 3.06Å)	Xtriage
Refinement program	CNS 1.1	Depositor
R, R_{free}	0.242 , 0.296 0.234 , (Not available)	Depositor DCC
R_{free} test set	No test flags present.	wwPDB-VP
Wilson B-factor (Å^2)	76.3	Xtriage
Anisotropy	0.109	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.31 , 51.1	EDS
L-test for twinning[2]	$< \|L\| > = 0.47$, $< L^2 > = 0.30$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.91	EDS
Total number of atoms	46145	wwPDB-VP
Average B, all atoms (Å^2)	67.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.62% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality (i)

5.1 Standard geometry (i)

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

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	B	0.79	2/9455 (0.0%)	0.98	28/12827 (0.2%)
1	E	0.84	5/9455 (0.1%)	1.01	21/12827 (0.2%)
2	C	0.86	3/9306 (0.0%)	1.02	19/12646 (0.2%)
2	F	0.96	12/8933 (0.1%)	1.05	27/12143 (0.2%)
3	D	0.75	1/4207 (0.0%)	1.00	8/5699 (0.1%)
3	G	0.75	0/4207	0.97	11/5699 (0.2%)
4	Y	0.81	1/866 (0.1%)	0.92	1/1333 (0.1%)
4	Z	0.77	0/866	0.96	1/1333 (0.1%)
All	All	0.84	24/47295 (0.1%)	1.00	116/64507 (0.2%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	B	0	2
1	E	0	2
2	C	0	4
2	F	0	2
4	Y	0	2
All	All	0	12

All (24) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	F	504	TRP	CB-CG	-11.04	1.30	1.50
2	C	504	TRP	CB-CG	-10.43	1.31	1.50
2	F	866	ASP	CB-CG	9.31	1.71	1.51
2	C	866	ASP	CB-CG	8.90	1.70	1.51
1	E	18	GLU	CG-CD	6.86	1.62	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	764	GLU	CG-CD	6.56	1.61	1.51
1	E	18	GLU	CB-CG	6.43	1.64	1.52
2	F	1025	GLU	CG-CD	6.32	1.61	1.51
2	F	1014	GLU	CB-CG	6.11	1.63	1.52
3	D	142	ASP	CB-CG	6.03	1.64	1.51
2	F	921	CYS	CB-SG	-5.92	1.72	1.81
4	Y	42	DG	C3'-O3'	-5.82	1.36	1.44
2	F	676	CYS	CB-SG	-5.61	1.72	1.81
1	B	978	GLU	CG-CD	5.57	1.60	1.51
2	F	504	TRP	CA-CB	-5.53	1.41	1.53
1	B	797	GLU	CG-CD	5.42	1.60	1.51
2	F	24	GLU	CB-CG	5.33	1.62	1.52
2	F	1014	GLU	CG-CD	5.32	1.59	1.51
2	C	504	TRP	CA-CB	-5.28	1.42	1.53
2	F	904	ALA	CA-CB	-5.20	1.41	1.52
1	E	337	GLU	CG-CD	5.18	1.59	1.51
1	E	978	GLU	CG-CD	5.08	1.59	1.51
2	F	684	VAL	CB-CG2	-5.07	1.42	1.52
2	F	24	GLU	CG-CD	5.00	1.59	1.51

All (116) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	C	1083	GLY	N-CA-C	8.85	135.22	113.10
2	C	866	ASP	CB-CG-OD2	8.72	126.15	118.30
2	F	866	ASP	CB-CG-OD2	8.57	126.01	118.30
2	F	1083	GLY	N-CA-C	8.47	134.28	113.10
3	D	104	GLY	N-CA-C	-8.00	93.10	113.10
3	G	104	GLY	N-CA-C	-7.83	93.53	113.10
3	D	325	ARG	NE-CZ-NH1	7.67	124.14	120.30
1	B	795	LEU	CA-CB-CG	7.61	132.81	115.30
1	E	795	LEU	CA-CB-CG	7.40	132.31	115.30
1	B	201	LEU	CA-CB-CG	7.31	132.12	115.30
2	C	427	GLY	N-CA-C	-7.27	94.92	113.10
1	E	169	ARG	NE-CZ-NH1	-7.27	116.66	120.30
1	E	201	LEU	CA-CB-CG	7.23	131.93	115.30
1	E	878	TRP	N-CA-C	-7.17	91.65	111.00
1	E	908	GLY	N-CA-C	-7.12	95.29	113.10
2	F	657	GLY	C-N-CD	-7.12	104.93	120.60
1	E	591	LEU	CA-CB-CG	7.12	131.67	115.30
1	E	913	GLY	N-CA-C	-6.99	95.63	113.10
3	G	531	GLU	N-CA-C	-6.97	92.18	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	E	1083	SER	N-CA-C	-6.97	92.18	111.00
1	B	878	TRP	N-CA-C	-6.93	92.29	111.00
2	F	427	GLY	N-CA-C	-6.88	95.89	113.10
2	F	504	TRP	CA-CB-CG	6.88	126.77	113.70
1	B	244	ASP	N-CA-C	6.80	129.37	111.00
2	F	185	HIS	CB-CA-C	-6.77	96.86	110.40
2	C	800	GLN	N-CA-C	-6.71	92.89	111.00
2	F	504	TRP	CB-CA-C	-6.70	97.00	110.40
1	B	913	GLY	N-CA-C	-6.64	96.50	113.10
2	F	1011	LEU	CA-CB-CG	6.64	130.57	115.30
2	C	1082	ARG	N-CA-C	6.61	128.85	111.00
1	E	199	ARG	NE-CZ-NH1	6.57	123.58	120.30
2	F	703	ARG	NE-CZ-NH1	6.48	123.54	120.30
2	C	657	GLY	C-N-CD	-6.48	106.35	120.60
1	B	247	ILE	N-CA-C	6.46	128.44	111.00
2	C	274	LEU	CA-CB-CG	6.45	130.14	115.30
1	E	1074	GLY	N-CA-C	-6.41	97.09	113.10
2	F	504	TRP	CB-CG-CD2	-6.32	118.39	126.60
1	E	1050	CYS	N-CA-C	6.29	127.99	111.00
2	F	1082	ARG	N-CA-C	6.28	127.97	111.00
1	B	1050	CYS	N-CA-C	6.28	127.96	111.00
2	F	997	ARG	NE-CZ-NH2	-6.28	117.16	120.30
2	F	872	LEU	CA-CB-CG	-6.27	100.87	115.30
3	D	531	GLU	N-CA-C	-6.21	94.23	111.00
2	C	25	ARG	NE-CZ-NH1	6.20	123.40	120.30
1	B	1083	SER	N-CA-C	-6.18	94.31	111.00
1	E	170	ARG	NE-CZ-NH1	-6.18	117.21	120.30
2	F	1087	ASP	N-CA-CB	-6.17	99.50	110.60
2	F	141	TYR	N-CA-C	-6.15	94.40	111.00
2	F	800	GLN	N-CA-C	-6.14	94.42	111.00
1	E	247	ILE	N-CA-C	6.12	127.51	111.00
1	B	908	GLY	N-CA-C	-6.11	97.83	113.10
1	B	276	GLU	N-CA-C	6.08	127.41	111.00
1	B	1074	GLY	N-CA-C	-6.03	98.02	113.10
1	E	861	CYS	N-CA-C	6.02	127.26	111.00
2	C	504	TRP	CB-CA-C	-5.93	98.54	110.40
2	F	82	LYS	N-CA-C	-5.81	95.30	111.00
1	B	199	ARG	NE-CZ-NH1	5.80	123.20	120.30
3	G	16	LEU	CA-CB-CG	5.77	128.57	115.30
2	C	185	HIS	CB-CA-C	-5.77	98.86	110.40
1	B	11	LEU	CA-CB-CG	-5.75	102.09	115.30
3	G	558	THR	N-CA-C	5.74	126.49	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	G	109	LEU	N-CA-C	-5.72	95.57	111.00
1	B	332	LEU	CA-CB-CG	5.71	128.43	115.30
2	C	504	TRP	CB-CG-CD2	-5.69	119.20	126.60
2	F	536	ALA	N-CA-C	-5.69	95.64	111.00
2	F	906	ASP	CB-CG-OD2	5.68	123.41	118.30
1	B	1049	GLY	N-CA-C	-5.66	98.94	113.10
3	D	241	HIS	N-CA-C	-5.66	95.71	111.00
2	F	997	ARG	NE-CZ-NH1	5.65	123.12	120.30
2	C	162	GLN	N-CA-C	-5.65	95.76	111.00
1	B	815	LEU	CA-CB-CG	5.57	128.12	115.30
3	G	230	LYS	N-CA-C	-5.57	95.97	111.00
1	E	17	GLY	N-CA-C	5.53	126.91	113.10
1	E	864	ASP	N-CA-C	-5.50	96.15	111.00
3	D	230	LYS	N-CA-C	-5.47	96.22	111.00
1	E	244	ASP	N-CA-C	5.45	125.71	111.00
1	B	771	ARG	CG-CD-NE	5.44	123.23	111.80
2	C	504	TRP	CA-CB-CG	5.43	124.02	113.70
1	E	907	SER	N-CA-C	-5.43	96.35	111.00
3	G	377	GLY	N-CA-C	5.42	126.65	113.10
1	B	19	ARG	NE-CZ-NH2	-5.42	117.59	120.30
3	G	241	HIS	N-CA-C	-5.41	96.39	111.00
1	B	540	LEU	N-CA-C	-5.39	96.44	111.00
2	F	1077	GLY	N-CA-C	5.39	126.57	113.10
2	F	636	LEU	CA-CB-CG	5.38	127.68	115.30
4	Z	12	DC	N1-C1'-C2'	5.38	122.83	112.60
1	B	321	LEU	CA-CB-CG	5.38	127.67	115.30
1	E	470	PHE	N-CA-C	-5.38	96.49	111.00
3	G	449	PHE	N-CA-C	-5.37	96.51	111.00
3	D	364	ASP	N-CA-C	-5.34	96.57	111.00
1	E	276	GLU	N-CA-C	5.33	125.39	111.00
3	D	558	THR	N-CA-C	5.31	125.33	111.00
1	B	677	THR	N-CA-C	5.29	125.27	111.00
2	C	685	TYR	C-N-CA	-5.26	99.92	122.00
2	C	668	ARG	NE-CZ-NH2	-5.23	117.69	120.30
2	F	551	ASP	N-CA-C	5.23	125.12	111.00
2	F	373	SER	N-CA-C	-5.23	96.89	111.00
1	E	8	LEU	CA-CB-CG	5.22	127.31	115.30
1	B	1059	ARG	N-CA-C	-5.21	96.92	111.00
2	C	33	GLU	N-CA-C	-5.21	96.93	111.00
1	B	861	CYS	N-CA-C	5.20	125.05	111.00
2	F	33	GLU	N-CA-C	-5.18	97.01	111.00
2	C	141	TYR	N-CA-C	-5.17	97.04	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	Y	42	DG	C4'-C3'-C2'	5.16	107.75	103.10
1	B	1006	GLY	N-CA-C	-5.15	100.23	113.10
1	B	907	SER	N-CA-C	-5.14	97.13	111.00
3	G	364	ASP	N-CA-C	-5.12	97.16	111.00
2	C	1087	ASP	N-CA-CB	-5.12	101.39	110.60
1	B	470	PHE	N-CA-C	-5.09	97.25	111.00
1	B	526	ILE	CG1-CB-CG2	-5.08	100.22	111.40
2	F	797	GLY	N-CA-C	5.07	125.77	113.10
3	D	377	GLY	N-CA-C	5.07	125.77	113.10
2	F	305	LYS	CD-CE-NZ	5.06	123.33	111.70
2	C	25	ARG	NE-CZ-NH2	-5.03	117.79	120.30
1	B	591	LEU	CA-CB-CG	5.01	126.83	115.30
3	G	90	ALA	N-CA-C	-5.01	97.48	111.00

There are no chirality outliers.

All (12) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	B	200	TYR	Sidechain
1	B	906	TYR	Sidechain
2	C	418	TYR	Sidechain
2	C	535	TYR	Sidechain
2	C	685	TYR	Sidechain
2	C	987	TYR	Sidechain
1	E	1111	TYR	Sidechain
1	E	906	TYR	Sidechain
2	F	535	TYR	Sidechain
2	F	685	TYR	Sidechain
4	Y	38	DA	Sidechain
4	Y	41	DA	Sidechain

5.2 Too-close contacts (i)

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	B	9258	0	9112	1027	0
1	E	9258	0	9112	939	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	C	9079	0	8877	916	0
2	F	8714	0	8528	717	1
3	D	4144	0	4181	439	0
3	G	4144	0	4181	425	0
4	Y	773	0	432	95	0
4	Z	773	0	432	87	0
5	B	1	0	0	0	0
5	E	1	0	0	0	0
All	All	46145	0	44855	4452	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 49.

All (4452) 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)
4:Y:16:DG:C2'	4:Y:17:DC:H5"	1.69	1.21
1:B:1050:CYS:C	1:B:1052:PRO:HD2	1.63	1.19
2:C:442:ARG:HG3	2:C:442:ARG:HH11	1.05	1.18
1:E:1050:CYS:C	1:E:1052:PRO:HD2	1.64	1.18
3:G:62:GLU:HA	3:G:65:HIS:HB2	1.22	1.17
1:E:375:ARG:HD2	1:E:404:GLN:HG2	1.27	1.16
3:G:462:MET:HE1	3:G:534:TRP:HE1	1.00	1.16
3:D:62:GLU:HA	3:D:65:HIS:HB2	1.23	1.15
2:C:872:LEU:HD13	2:C:916:PHE:CE2	1.82	1.15
4:Z:40:DT:H2"	4:Z:41:DA:H5'	1.15	1.14
2:F:584:LEU:HD12	2:F:620:ILE:HG23	1.31	1.13
1:B:377:ARG:HH11	1:B:377:ARG:HG3	1.07	1.12
2:F:8:ASN:HD21	2:F:343:LEU:HG	1.13	1.11
2:F:442:ARG:HG3	2:F:442:ARG:HH11	1.02	1.11
2:C:733:GLY:HA2	2:C:742:ARG:HG3	1.33	1.11
4:Y:5:DA:H2"	4:Y:6:DT:H5"	1.11	1.11
1:E:1007:VAL:HG12	1:E:1008:SER:H	0.99	1.10
4:Y:16:DG:H2"	4:Y:17:DC:H5"	1.27	1.10
2:C:1037:VAL:HA	2:C:1109:SER:HB3	1.16	1.10
3:D:462:MET:HE1	3:D:534:TRP:HE1	1.12	1.09
2:C:8:ASN:HD21	2:C:343:LEU:HG	1.08	1.09
1:E:179:ILE:HG12	1:E:222:HIS:CD2	1.87	1.09
2:F:733:GLY:HA2	2:F:742:ARG:HG3	1.26	1.09
2:F:38:GLN:HE21	2:F:667:MET:HG3	1.08	1.08
2:F:557:ILE:HD13	2:F:557:ILE:H	1.01	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:462:MET:HE1	3:G:534:TRP:NE1	1.68	1.08
1:B:375:ARG:HD2	1:B:404:GLN:HG2	1.34	1.08
3:G:65:HIS:HB3	3:G:66:PRO:HD2	1.10	1.08
1:B:889:ASN:HD22	1:B:889:ASN:N	1.51	1.07
2:C:557:ILE:HD13	2:C:557:ILE:H	1.12	1.07
2:F:1037:VAL:HA	2:F:1109:SER:HB3	1.33	1.07
1:B:763:GLN:HA	1:B:763:GLN:HE21	1.03	1.07
2:C:258:ALA:HA	2:C:261:LEU:HG	1.31	1.07
3:D:65:HIS:HB3	3:D:66:PRO:HD2	1.08	1.06
1:B:252:ILE:HG23	1:B:254:ARG:H	1.14	1.06
4:Y:28:DC:H1'	4:Y:29:DA:H5'	1.34	1.06
1:B:1127:ALA:HB2	2:C:25:ARG:HD2	1.26	1.06
1:E:504:MET:HE1	1:E:514:TYR:HA	1.08	1.06
2:F:172:LEU:O	2:F:176:THR:HG22	1.53	1.06
1:B:562:GLN:HE22	4:Y:40:DT:H72	1.20	1.06
4:Y:34:DT:H1'	4:Y:35:DC:H5'	1.33	1.06
1:E:1127:ALA:HB2	2:F:25:ARG:HE	1.18	1.05
1:B:1007:VAL:HG12	1:B:1008:SER:H	0.92	1.05
2:C:172:LEU:O	2:C:176:THR:HG22	1.55	1.04
1:B:1007:VAL:HG12	1:B:1008:SER:N	1.71	1.04
1:B:1078:LEU:CD1	1:B:1118:LEU:HD12	1.85	1.04
1:E:377:ARG:HH11	1:E:377:ARG:HG3	1.14	1.04
2:C:1051:ASP:HB3	2:C:1056:ALA:HB3	1.39	1.04
3:D:65:HIS:HB3	3:D:66:PRO:CD	1.88	1.04
1:B:250:SER:HB3	4:Y:29:DA:H4'	1.34	1.03
3:G:597:ARG:O	3:G:598:SER:HB3	1.57	1.03
2:F:104:GLU:HA	2:F:112:ARG:NH1	1.74	1.03
2:F:685:TYR:O	2:F:687:ARG:N	1.90	1.03
1:E:889:ASN:HD22	1:E:889:ASN:N	1.56	1.03
3:D:462:MET:HE1	3:D:534:TRP:NE1	1.74	1.02
1:B:262:GLN:HG2	1:B:277:THR:HG22	1.41	1.02
4:Y:8:DC:H2"	4:Y:9:DG:H5"	1.36	1.02
4:Z:38:DA:H1'	4:Z:39:DT:H5'	1.39	1.02
2:C:678:LEU:HD23	2:C:730:SER:HB3	1.39	1.01
2:F:337:ASN:HD22	2:F:759:HIS:HE1	1.03	1.01
4:Z:5:DA:H2"	4:Z:6:DT:H5"	1.03	1.01
2:C:155:VAL:H	2:C:162:GLN:HE22	1.04	1.01
2:C:641:LEU:HD22	2:C:645:LEU:HD22	1.43	1.01
1:E:925:ASP:H	1:E:953:THR:HG22	1.23	1.00
4:Z:40:DT:C2'	4:Z:41:DA:H5'	1.91	1.00
1:E:877:PRO:HB2	1:E:879:GLN:HG3	1.36	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Z:8:DC:H2"	4:Z:9:DG:H5"	1.44	1.00
3:D:130:ILE:H	3:D:130:ILE:HD12	1.25	1.00
3:D:301:LEU:H	3:D:568:THR:HG21	1.26	0.99
1:B:179:ILE:HG12	1:B:222:HIS:CD2	1.97	0.99
2:C:273:GLU:OE2	2:C:274:LEU:N	1.95	0.99
2:C:363:ASN:HD22	2:C:363:ASN:N	1.59	0.99
3:G:65:HIS:HB3	3:G:66:PRO:CD	1.90	0.99
1:E:221:ARG:O	1:E:225:ILE:HG12	1.62	0.99
4:Z:40:DT:H2"	4:Z:41:DA:C5'	1.92	0.98
2:C:290:ASP:CG	2:C:291:GLY:H	1.62	0.98
1:E:1007:VAL:HG12	1:E:1008:SER:N	1.76	0.98
1:B:262:GLN:HA	1:B:265:TRP:HB3	1.44	0.98
2:C:280:SER:O	2:C:285:GLN:HB3	1.64	0.98
1:B:925:ASP:H	1:B:953:THR:HG22	1.25	0.98
2:C:104:GLU:HA	2:C:112:ARG:NH1	1.79	0.97
1:B:611:THR:HG22	2:C:858:ARG:HH21	1.30	0.97
2:C:742:ARG:HD3	2:C:742:ARG:C	1.84	0.97
3:G:233:ILE:O	3:G:235:GLU:N	1.98	0.97
4:Z:1:DT:H2"	4:Z:2:DC:H5"	1.41	0.97
1:B:823:ARG:HG2	1:B:825:GLY:H	1.30	0.97
4:Z:5:DA:H2"	4:Z:6:DT:C5'	1.95	0.97
1:B:224:GLN:O	1:B:228:ARG:HG3	1.65	0.96
2:F:442:ARG:HH11	2:F:442:ARG:CG	1.76	0.96
3:G:181:VAL:HG21	3:G:295:LEU:HD11	1.45	0.96
2:F:38:GLN:NE2	2:F:667:MET:HG3	1.78	0.96
2:C:939:GLN:HE21	2:C:940:SER:H	1.08	0.96
1:E:947:ARG:HG3	1:E:1086:LEU:HG	1.47	0.96
1:B:877:PRO:HB2	1:B:879:GLN:HG3	1.44	0.96
1:B:924:LEU:HD23	1:B:953:THR:HG21	1.46	0.96
1:B:1052:PRO:HD3	1:B:1106:ARG:NH1	1.81	0.96
4:Y:5:DA:C2'	4:Y:6:DT:H5"	1.94	0.96
1:B:281:GLN:HB3	1:B:283:PRO:HD2	1.45	0.95
2:C:363:ASN:H	2:C:363:ASN:ND2	1.58	0.95
1:E:73:ARG:HB3	1:E:73:ARG:HH11	1.30	0.95
2:F:945:LEU:HD21	2:F:990:SER:OG	1.65	0.95
3:D:181:VAL:HG21	3:D:295:LEU:HD11	1.45	0.95
3:G:301:LEU:H	3:G:568:THR:CG2	1.79	0.95
1:E:262:GLN:HA	1:E:265:TRP:HB3	1.46	0.95
1:B:763:GLN:HA	1:B:763:GLN:NE2	1.79	0.94
2:F:228:GLN:HE22	2:F:318:GLU:H	1.09	0.94
2:C:8:ASN:ND2	2:C:343:LEU:HG	1.82	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:654:PHE:O	2:C:655:LEU:HG	1.67	0.94
3:D:597:ARG:O	3:D:598:SER:HB3	1.67	0.94
1:E:155:ASP:O	1:E:156:GLU:HB2	1.68	0.94
2:F:641:LEU:HD22	2:F:645:LEU:HD22	1.48	0.94
2:C:835:GLU:HA	2:C:838:GLN:HE21	1.33	0.94
4:Z:5:DA:C2'	4:Z:6:DT:H5"	1.97	0.94
3:G:185:LEU:HD12	3:G:232:ARG:CZ	1.98	0.94
1:E:924:LEU:HD23	1:E:953:THR:HG21	1.50	0.94
4:Y:2:DC:H6	4:Y:2:DC:H5'	1.32	0.94
3:D:233:ILE:O	3:D:235:GLU:N	2.00	0.93
1:E:252:ILE:HG23	1:E:254:ARG:H	1.29	0.93
2:C:337:ASN:HD22	2:C:759:HIS:HE1	1.05	0.93
3:D:185:LEU:HB2	3:D:232:ARG:NH2	1.82	0.93
1:B:947:ARG:HG3	1:B:1086:LEU:HG	1.46	0.93
2:F:1051:ASP:HB3	2:F:1056:ALA:HB3	1.47	0.93
1:B:250:SER:CB	4:Y:29:DA:H4'	1.98	0.93
3:D:228:GLU:OE1	3:D:228:GLU:HA	1.64	0.93
4:Y:31:DT:H2"	4:Y:32:DG:H5'	1.51	0.93
2:C:911:ALA:O	2:C:915:ILE:HD12	1.69	0.93
2:F:155:VAL:N	2:F:162:GLN:HE22	1.67	0.93
1:B:221:ARG:O	1:B:225:ILE:HG12	1.69	0.93
4:Z:17:DC:H42	4:Z:27:DG:H1	1.17	0.93
1:E:1052:PRO:HD3	1:E:1106:ARG:NH1	1.83	0.93
3:G:213:THR:HG23	3:G:236:ASP:OD1	1.68	0.93
1:B:281:GLN:CB	1:B:283:PRO:HD2	1.98	0.92
2:C:355:ILE:HD12	2:C:356:GLU:H	1.31	0.92
1:E:1127:ALA:HB2	2:F:25:ARG:NE	1.82	0.92
2:F:388:VAL:HA	2:F:799:ARG:NH1	1.84	0.92
2:F:557:ILE:H	2:F:557:ILE:CD1	1.79	0.92
1:B:1051:PRO:N	1:B:1052:PRO:HD2	1.84	0.92
2:F:363:ASN:HD22	2:F:363:ASN:N	1.68	0.92
1:B:73:ARG:HB3	1:B:73:ARG:HH11	1.34	0.92
2:C:273:GLU:OE2	2:C:274:LEU:HD23	1.69	0.92
2:C:685:TYR:O	2:C:687:ARG:N	2.03	0.92
1:B:658:MET:HB2	1:B:695:GLN:HG3	1.51	0.92
3:G:348:LEU:HD22	3:G:352:LEU:HD11	1.52	0.91
2:F:155:VAL:H	2:F:162:GLN:NE2	1.67	0.91
3:G:301:LEU:H	3:G:568:THR:HG21	1.35	0.91
3:G:130:ILE:H	3:G:130:ILE:HD12	1.35	0.91
1:E:1127:ALA:CB	2:F:25:ARG:HE	1.84	0.91
1:E:564:ALA:HA	1:E:738:ILE:HD11	1.52	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:442:ARG:HG3	2:F:442:ARG:NH1	1.79	0.91
2:C:266:ARG:HB3	2:C:269:PHE:H	1.36	0.91
2:F:699:GLN:O	2:F:701:PRO:HD3	1.70	0.91
2:C:945:LEU:HD21	2:C:990:SER:OG	1.69	0.91
1:E:900:ASN:HD21	1:E:902:ARG:NH2	1.69	0.91
2:F:767:LEU:O	2:F:768:ASN:HB2	1.68	0.91
2:C:768:ASN:HB3	2:C:771:GLU:HB2	1.52	0.90
1:E:649:ARG:HB2	1:E:649:ARG:HH11	1.33	0.90
1:E:824:ARG:HB2	4:Z:10:DA:OP2	1.71	0.90
2:C:276:LEU:HD22	2:C:279:ASP:HB2	1.52	0.90
2:F:557:ILE:HD13	2:F:557:ILE:N	1.85	0.90
1:B:658:MET:HB3	1:B:659:PRO:HD3	1.52	0.90
3:D:301:LEU:H	3:D:568:THR:CG2	1.85	0.90
3:D:447:GLY:O	3:D:453:GLY:HA3	1.72	0.90
1:B:65:THR:HG22	1:B:67:ALA:H	1.35	0.90
1:B:1071:ARG:HH22	2:C:29:PRO:HB2	1.36	0.90
1:E:200:TYR:O	1:E:201:LEU:HB2	1.70	0.90
2:C:250:ASP:OD1	2:C:291:GLY:HA2	1.71	0.90
1:E:1007:VAL:CG1	1:E:1008:SER:H	1.85	0.90
1:E:504:MET:CE	1:E:514:TYR:HA	2.00	0.90
2:F:116:THR:O	2:F:118:ASP:N	2.05	0.90
2:C:38:GLN:HE21	2:C:667:MET:HG3	1.37	0.89
2:C:939:GLN:NE2	2:C:940:SER:H	1.69	0.89
2:F:678:LEU:HD23	2:F:730:SER:HB3	1.54	0.89
2:F:111:LEU:HD13	2:F:127:LEU:HD21	1.51	0.89
2:C:767:LEU:O	2:C:768:ASN:HB2	1.71	0.89
4:Z:16:DG:H2"	4:Z:17:DC:C5'	2.03	0.89
1:B:442:THR:HG21	1:B:476:ILE:HD11	1.55	0.89
1:E:281:GLN:HB3	1:E:283:PRO:HD2	1.52	0.89
2:F:768:ASN:HB3	2:F:771:GLU:HB2	1.53	0.89
2:C:830:GLU:HA	2:C:950:VAL:HG22	1.55	0.89
1:E:1078:LEU:CD1	1:E:1118:LEU:HD12	2.02	0.89
3:G:121:ARG:CB	3:G:121:ARG:HH11	1.85	0.89
2:F:363:ASN:H	2:F:363:ASN:ND2	1.68	0.88
3:D:213:THR:HG23	3:D:236:ASP:OD1	1.72	0.88
1:E:1130:ASP:H	1:E:1134:HIS:CD2	1.92	0.88
2:F:8:ASN:ND2	2:F:343:LEU:HG	1.87	0.88
2:F:519:THR:HG22	2:F:521:GLN:H	1.38	0.88
2:C:737:GLN:HG3	2:C:738:ASP:H	1.38	0.88
1:E:763:GLN:HA	1:E:763:GLN:HE21	1.37	0.88
1:E:823:ARG:HG2	1:E:825:GLY:H	1.35	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:17:GLY:HA2	1:B:408:ALA:HA	1.56	0.88
4:Y:40:DT:H2"	4:Y:41:DA:H5'	1.56	0.88
2:C:258:ALA:HA	2:C:261:LEU:CG	2.02	0.88
2:F:733:GLY:CA	2:F:742:ARG:HG3	2.04	0.88
2:C:228:GLN:HE22	2:C:318:GLU:H	1.20	0.87
2:F:337:ASN:HD22	2:F:759:HIS:CE1	1.92	0.87
1:B:1078:LEU:HD12	1:B:1118:LEU:HD12	1.55	0.87
2:F:433:ARG:HH12	2:F:805:GLU:HG2	1.39	0.87
3:D:530:HIS:C	3:D:532:THR:H	1.76	0.87
3:G:185:LEU:HB2	3:G:232:ARG:NH2	1.88	0.87
2:C:557:ILE:H	2:C:557:ILE:CD1	1.88	0.87
1:E:504:MET:HE1	1:E:514:TYR:CA	2.01	0.87
1:E:987:GLU:O	1:E:991:THR:HG22	1.73	0.87
1:B:148:PHE:H	2:C:126:GLN:NE2	1.73	0.87
1:B:763:GLN:HE21	1:B:763:GLN:CA	1.88	0.87
1:B:854:ARG:HG2	1:B:854:ARG:HH11	1.39	0.87
1:E:669:ASN:HB3	1:E:672:GLU:OE2	1.75	0.87
2:F:737:GLN:HG3	2:F:738:ASP:H	1.38	0.87
1:E:729:LEU:H	1:E:729:LEU:HD22	1.40	0.86
4:Y:2:DC:H2"	4:Y:3:DT:H5'	1.56	0.86
1:E:1051:PRO:N	1:E:1052:PRO:HD2	1.89	0.86
1:B:807:THR:HG22	1:B:808:ARG:HH21	1.40	0.86
3:D:556:GLN:O	3:D:557:ARG:HG3	1.75	0.86
1:E:269:ILE:HG22	1:E:270:SER:H	1.39	0.86
3:G:185:LEU:HD12	3:G:232:ARG:NH1	1.91	0.86
2:C:116:THR:O	2:C:118:ASP:N	2.06	0.86
3:D:281:ARG:HH11	3:D:281:ARG:HG2	1.40	0.86
1:B:1002:LEU:N	1:B:1007:VAL:HG11	1.91	0.86
2:C:112:ARG:HH11	2:C:112:ARG:HG3	1.39	0.85
2:C:1013:ALA:O	2:C:1017:LEU:HD23	1.76	0.85
3:D:259:ASN:N	3:D:260:PRO:HD3	1.91	0.85
1:B:987:GLU:O	1:B:991:THR:HG22	1.74	0.85
1:E:1111:TYR:H	1:E:1111:TYR:HD1	1.24	0.85
2:C:442:ARG:HH11	2:C:442:ARG:CG	1.87	0.85
2:C:584:LEU:HD12	2:C:620:ILE:HG23	1.57	0.85
3:G:447:GLY:O	3:G:453:GLY:HA3	1.75	0.85
1:B:1007:VAL:CG1	1:B:1008:SER:H	1.81	0.85
2:F:192:ARG:O	2:F:196:THR:HG22	1.76	0.85
3:G:402:GLU:O	3:G:405:ILE:HD12	1.75	0.85
4:Z:1:DT:H2"	4:Z:2:DC:C5'	2.07	0.85
2:C:531:MET:HE2	2:C:561:VAL:HG13	1.55	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:159:LEU:HD21	1:E:342:GLU:HG2	1.58	0.85
1:E:590:THR:O	1:E:591:LEU:HB3	1.75	0.85
1:B:198:ASN:HA	1:B:201:LEU:HD12	1.58	0.85
3:D:370:LEU:HD22	3:D:394:GLU:OE2	1.75	0.85
2:F:685:TYR:O	2:F:686:PRO:C	2.09	0.85
2:F:742:ARG:HD3	2:F:742:ARG:C	1.97	0.85
1:B:729:LEU:H	1:B:729:LEU:HD22	1.39	0.85
3:D:185:LEU:HD12	3:D:232:ARG:NH1	1.92	0.85
3:D:354:LEU:H	3:D:354:LEU:HD12	1.41	0.85
1:E:900:ASN:HD21	1:E:902:ARG:HH21	1.24	0.85
1:B:649:ARG:HB2	1:B:649:ARG:HH11	1.40	0.85
2:C:141:TYR:O	2:C:142:ARG:HB2	1.74	0.85
2:C:853:LEU:O	2:C:855:VAL:HG23	1.77	0.85
2:F:155:VAL:H	2:F:162:GLN:HE22	0.87	0.85
2:C:251:ILE:HB	2:C:286:LEU:HD22	1.56	0.84
1:B:377:ARG:HG3	1:B:377:ARG:NH1	1.83	0.84
1:B:997:VAL:HG23	1:B:1146:VAL:HG11	1.59	0.84
3:D:121:ARG:CB	3:D:121:ARG:HH11	1.90	0.84
4:Y:16:DG:H2"	4:Y:17:DC:C5'	2.06	0.84
1:E:233:LYS:O	1:E:237:ARG:HG3	1.76	0.84
2:F:112:ARG:HH11	2:F:112:ARG:HG3	1.41	0.84
3:G:530:HIS:C	3:G:532:THR:H	1.76	0.84
2:F:911:ALA:O	2:F:915:ILE:HD12	1.75	0.84
4:Z:16:DG:H2"	4:Z:17:DC:H5'	1.58	0.84
1:B:945:PHE:CD1	1:B:946:PRO:HD2	2.12	0.84
2:F:363:ASN:HD22	2:F:363:ASN:H	0.86	0.84
1:E:1136:GLY:HA2	1:E:1159:ARG:HD3	1.60	0.84
3:G:275:ASP:OD2	3:G:277:PRO:HD2	1.78	0.84
1:B:228:ARG:HD2	1:B:319:GLU:OE1	1.78	0.84
1:E:690:ILE:HG22	1:E:694:LEU:HD22	1.60	0.84
2:C:257:LEU:HD12	2:C:258:ALA:N	1.92	0.83
4:Y:39:DT:H2"	4:Y:40:DT:H5"	1.60	0.83
2:C:337:ASN:HD22	2:C:759:HIS:CE1	1.95	0.83
3:D:158:ALA:HA	3:D:184:LEU:HD23	1.60	0.83
3:D:256:HIS:ND1	3:D:257:ALA:N	2.25	0.83
1:E:73:ARG:HH11	1:E:73:ARG:CB	1.91	0.83
1:E:262:GLN:HG2	1:E:277:THR:HG22	1.61	0.83
2:C:388:VAL:HA	2:C:799:ARG:NH1	1.94	0.83
3:D:533:THR:C	3:D:535:ALA:H	1.81	0.83
3:G:281:ARG:HG2	3:G:281:ARG:HH11	1.40	0.83
2:C:872:LEU:HD13	2:C:916:PHE:CD2	2.12	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:533:THR:O	3:D:535:ALA:N	2.09	0.83
1:E:705:HIS:CD2	2:F:487:GLU:HG3	2.13	0.83
3:D:185:LEU:HD12	3:D:232:ARG:CZ	2.07	0.83
1:B:527:ARG:HB3	1:B:576:ILE:HD11	1.61	0.83
1:E:807:THR:HG22	1:E:808:ARG:NH2	1.92	0.83
1:B:426:ASP:HB3	1:B:429:THR:CG2	2.09	0.83
1:B:1071:ARG:HH22	2:C:29:PRO:CB	1.91	0.83
1:B:1127:ALA:HB2	2:C:25:ARG:CD	2.07	0.83
1:E:949:ALA:O	1:E:953:THR:HG23	1.78	0.83
2:F:872:LEU:HD13	2:F:916:PHE:CE2	2.14	0.83
1:E:584:ARG:HG2	1:E:584:ARG:HH11	1.44	0.83
1:E:527:ARG:HB3	1:E:576:ILE:HD11	1.61	0.82
2:F:654:PHE:O	2:F:655:LEU:HG	1.79	0.82
3:G:366:GLY:HA3	3:G:393:ILE:HD12	1.61	0.82
1:B:658:MET:HE2	1:B:692:GLU:HA	1.61	0.82
1:B:1111:TYR:H	1:B:1111:TYR:HD1	1.26	0.82
2:C:155:VAL:H	2:C:162:GLN:NE2	1.76	0.82
2:C:442:ARG:HG3	2:C:442:ARG:NH1	1.86	0.82
1:E:1002:LEU:HB2	1:E:1007:VAL:CG1	2.10	0.82
1:E:1085:TRP:HE1	1:E:1087:GLY:HA3	1.44	0.82
1:B:73:ARG:HH11	1:B:73:ARG:CB	1.93	0.82
1:B:1130:ASP:H	1:B:1134:HIS:CD2	1.97	0.82
2:F:9:ARG:HH11	2:F:9:ARG:HG3	1.44	0.82
2:C:9:ARG:HH11	2:C:9:ARG:CG	1.92	0.82
2:C:220:PRO:HD2	2:C:223:TYR:HD1	1.44	0.82
3:D:163:THR:OG1	3:D:325:ARG:NH2	2.11	0.82
3:G:228:GLU:HA	3:G:228:GLU:OE1	1.79	0.82
4:Y:2:DC:H5'	4:Y:2:DC:C6	2.15	0.82
3:D:523:GLN:HB3	3:D:524:PRO:HD2	1.60	0.81
1:E:426:ASP:OD2	1:E:429:THR:HG22	1.80	0.81
1:E:891:LYS:HD2	2:F:802:TYR:CZ	2.15	0.81
3:G:523:GLN:HB3	3:G:524:PRO:HD2	1.59	0.81
2:C:251:ILE:HG21	2:C:286:LEU:HD13	1.60	0.81
1:E:900:ASN:ND2	1:E:902:ARG:HH21	1.77	0.81
1:B:233:LYS:HE3	1:B:265:TRP:CH2	2.15	0.81
1:B:945:PHE:CE2	1:B:955:LEU:HD21	2.15	0.81
1:B:949:ALA:O	1:B:953:THR:HG23	1.80	0.81
2:C:9:ARG:HH11	2:C:9:ARG:HG3	1.45	0.81
2:C:676:CYS:HB3	2:C:728:TYR:HB3	1.62	0.81
2:C:531:MET:CE	2:C:561:VAL:HG13	2.10	0.81
2:C:760:TYR:HE1	2:C:765:GLU:HG3	1.45	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:538:VAL:HG21	3:D:565:LEU:HD21	1.62	0.81
1:E:807:THR:CG2	1:E:808:ARG:HH21	1.93	0.81
2:F:433:ARG:NH1	2:F:805:GLU:HG2	1.95	0.81
4:Y:16:DG:C3'	4:Y:17:DC:H5"	2.08	0.81
1:B:889:ASN:N	1:B:889:ASN:ND2	2.26	0.81
2:C:155:VAL:N	2:C:162:GLN:HE22	1.79	0.81
2:C:767:LEU:HD23	2:C:767:LEU:N	1.96	0.81
1:E:281:GLN:CB	1:E:283:PRO:HD2	2.10	0.81
2:F:540:ALA:O	2:F:541:GLN:HB2	1.81	0.81
1:B:426:ASP:OD2	1:B:429:THR:HG22	1.81	0.81
2:F:9:ARG:HH11	2:F:9:ARG:CG	1.94	0.81
2:F:355:ILE:HD12	2:F:356:GLU:H	1.46	0.81
1:B:709:ARG:NH2	2:C:487:GLU:OE2	2.14	0.80
2:C:540:ALA:O	2:C:541:GLN:HB2	1.80	0.80
1:B:250:SER:HB3	4:Y:29:DA:C4'	2.11	0.80
1:B:705:HIS:CD2	2:C:487:GLU:HG3	2.16	0.80
1:B:1078:LEU:HD22	1:B:1115:THR:HG22	1.61	0.80
3:D:122:PHE:HB2	3:D:283:ILE:HD11	1.62	0.80
1:E:377:ARG:HG3	1:E:377:ARG:NH1	1.90	0.80
1:E:1071:ARG:HD3	1:E:1076:TYR:HE2	1.45	0.80
3:G:122:PHE:CG	3:G:283:ILE:HD11	2.16	0.80
1:B:1121:TYR:CD1	2:C:58:ALA:HB3	2.16	0.80
3:D:174:GLY:O	3:D:357:LYS:HD3	1.81	0.80
3:G:158:ALA:HA	3:G:184:LEU:HD23	1.63	0.80
3:G:547:ASP:HB3	3:G:575:ARG:HD2	1.60	0.80
1:B:564:ALA:HA	1:B:738:ILE:HD11	1.63	0.80
1:B:875:ASN:C	1:B:877:PRO:HD2	2.01	0.80
2:F:582:ARG:HG2	2:F:582:ARG:HH11	1.45	0.80
1:B:925:ASP:H	1:B:953:THR:CG2	1.94	0.80
2:C:846:ARG:HD3	2:C:850:GLN:NE2	1.97	0.80
3:D:182:ALA:HA	3:D:232:ARG:NH2	1.97	0.80
3:G:398:LEU:HD23	3:G:398:LEU:H	1.45	0.80
2:C:146:LEU:HD22	2:C:169:TRP:CE2	2.16	0.80
2:C:204:PRO:HB3	2:C:233:HIS:HB3	1.63	0.80
2:C:767:LEU:HD23	2:C:767:LEU:H	1.47	0.80
1:E:1002:LEU:N	1:E:1007:VAL:HG11	1.95	0.80
2:F:25:ARG:O	2:F:26:LEU:HB3	1.82	0.80
1:E:25:ALA:HB1	1:E:807:THR:HG21	1.64	0.80
1:E:269:ILE:O	1:E:270:SER:HB2	1.80	0.80
1:B:148:PHE:H	2:C:126:GLN:HE22	1.26	0.80
3:D:275:ASP:OD2	3:D:277:PRO:HD2	1.81	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:105:ARG:C	2:C:107:ASP:H	1.84	0.79
2:C:433:ARG:HH12	2:C:805:GLU:HG2	1.47	0.79
1:E:236:TRP:HH2	1:E:280:TYR:CD2	2.00	0.79
2:F:388:VAL:HA	2:F:799:ARG:HH11	1.46	0.79
2:F:1012:ALA:H	2:F:1015:GLN:HE21	1.30	0.79
1:B:8:LEU:HB2	1:B:441:TYR:HB3	1.64	0.79
1:B:562:GLN:HE22	4:Y:40:DT:C7	1.96	0.79
1:B:624:ASN:HB2	1:B:627:ASP:OD2	1.81	0.79
2:F:1036:LEU:O	2:F:1037:VAL:HB	1.80	0.79
1:E:899:ASP:HB3	1:E:1059:ARG:HH12	1.48	0.79
2:F:29:PRO:O	2:F:30:PHE:HB2	1.79	0.79
2:F:137:GLN:HG2	2:F:697:MET:HE1	1.61	0.79
2:F:531:MET:HE3	2:F:561:VAL:HG22	1.62	0.79
2:F:980:LEU:HD13	2:F:998:LEU:HB2	1.64	0.79
3:D:181:VAL:HG21	3:D:295:LEU:CD1	2.11	0.79
4:Z:27:DG:H2"	4:Z:28:DC:OP2	1.82	0.79
1:B:807:THR:HG22	1:B:808:ARG:NH2	1.98	0.79
2:C:676:CYS:CB	2:C:728:TYR:HB3	2.13	0.79
2:F:190:TYR:O	2:F:194:ILE:HD12	1.82	0.79
3:G:256:HIS:ND1	3:G:257:ALA:N	2.29	0.79
2:C:137:GLN:HG2	2:C:697:MET:HE1	1.65	0.79
1:E:230:ASP:HA	1:E:233:LYS:HB2	1.63	0.79
3:G:597:ARG:HD2	3:G:597:ARG:C	2.03	0.79
1:B:194:LEU:HD22	1:B:198:ASN:HB2	1.65	0.79
1:E:875:ASN:C	1:E:877:PRO:HD2	2.04	0.79
3:G:304:VAL:HG21	3:G:564:GLU:HG2	1.65	0.79
2:C:290:ASP:CG	2:C:291:GLY:N	2.34	0.79
1:E:246:LEU:HD12	1:E:305:PRO:HB2	1.64	0.79
1:E:889:ASN:N	1:E:889:ASN:ND2	2.31	0.79
1:E:931:VAL:HG12	1:E:932:ALA:H	1.48	0.79
1:E:947:ARG:CZ	1:E:1086:LEU:HB2	2.13	0.78
1:B:252:ILE:HG23	1:B:254:ARG:N	1.95	0.78
1:E:8:LEU:HB2	1:E:441:TYR:HB3	1.65	0.78
2:F:422:ILE:HD12	2:F:661:ILE:HG21	1.63	0.78
4:Y:8:DC:C2'	4:Y:9:DG:H5"	2.13	0.78
1:B:597:LEU:O	1:B:601:GLN:HG3	1.82	0.78
3:D:259:ASN:H	3:D:260:PRO:HD3	1.47	0.78
1:E:781:ASN:O	1:E:783:ALA:N	2.15	0.78
3:G:556:GLN:O	3:G:557:ARG:HG3	1.84	0.78
1:E:17:GLY:HA2	1:E:408:ALA:HA	1.65	0.78
1:E:332:LEU:H	1:E:332:LEU:CD2	1.97	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:807:THR:HG22	1:E:808:ARG:HH21	1.45	0.78
2:F:142:ARG:HD3	2:F:142:ARG:N	1.95	0.78
2:C:433:ARG:NH1	2:C:805:GLU:HG2	1.97	0.78
1:E:905:SER:O	1:E:906:TYR:HB3	1.83	0.78
3:G:259:ASN:N	3:G:260:PRO:HD3	1.99	0.78
2:C:533:LEU:HD12	2:C:549:PRO:HB3	1.65	0.78
2:C:831:THR:H	2:C:950:VAL:HG13	1.48	0.78
1:B:332:LEU:HD22	1:B:332:LEU:H	1.48	0.78
2:C:234:ILE:HG22	2:C:236:ILE:HG13	1.64	0.78
2:F:337:ASN:ND2	2:F:759:HIS:HE1	1.81	0.78
2:F:676:CYS:HB3	2:F:728:TYR:HB3	1.66	0.78
3:G:130:ILE:O	3:G:132:VAL:HG23	1.84	0.78
1:B:332:LEU:H	1:B:332:LEU:CD2	1.96	0.77
1:B:947:ARG:CZ	1:B:1086:LEU:HB2	2.13	0.77
3:G:533:THR:C	3:G:535:ALA:H	1.86	0.77
1:B:236:TRP:HH2	1:B:280:TYR:CD2	2.03	0.77
1:B:763:GLN:NE2	1:B:763:GLN:CA	2.45	0.77
1:E:754:LEU:HG	1:E:757:ILE:HD13	1.64	0.77
1:E:1015:ARG:H	1:E:1015:ARG:CD	1.97	0.77
2:F:70:TRP:CH2	2:F:84:SER:HB2	2.19	0.77
2:F:760:TYR:HE1	2:F:765:GLU:HG3	1.49	0.77
2:C:75:ARG:NH1	2:C:208:PRO:HD3	1.99	0.77
1:E:541:MET:O	1:E:811:TRP:HZ3	1.68	0.77
1:E:649:ARG:HH11	1:E:649:ARG:CB	1.95	0.77
2:F:385:GLU:HG2	2:F:678:LEU:HD22	1.66	0.77
4:Z:6:DT:H4'	4:Z:6:DT:OP1	1.85	0.77
1:B:905:SER:O	1:B:906:TYR:HB3	1.83	0.77
1:B:1044:ASP:HB3	1:B:1047:SER:OG	1.85	0.77
2:C:111:LEU:HD13	2:C:127:LEU:HD21	1.67	0.77
1:E:18:GLU:HG2	1:E:18:GLU:O	1.84	0.77
1:E:148:PHE:N	2:F:126:GLN:HE22	1.82	0.77
1:E:562:GLN:HE22	4:Z:40:DT:H73	1.49	0.77
2:C:742:ARG:C	2:C:742:ARG:CD	2.52	0.77
3:D:402:GLU:O	3:D:405:ILE:HD12	1.84	0.77
3:D:425:ARG:O	3:D:427:GLU:N	2.17	0.77
3:G:367:ILE:N	3:G:393:ILE:HG21	1.98	0.77
1:B:230:ASP:HA	1:B:233:LYS:HB2	1.67	0.77
1:B:375:ARG:CD	1:B:404:GLN:HG2	2.14	0.77
2:C:506:ILE:HG22	2:C:507:ASP:H	1.49	0.77
3:D:398:LEU:HD23	3:D:398:LEU:H	1.50	0.77
3:G:429:ASP:O	3:G:432:ILE:HB	1.85	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:281:GLN:O	1:B:282:LEU:HB2	1.82	0.77
1:E:501:MET:HG3	1:E:815:LEU:CD2	2.15	0.77
3:G:370:LEU:O	3:G:374:ILE:HG12	1.85	0.77
2:C:29:PRO:O	2:C:30:PHE:HB2	1.83	0.76
1:B:150:GLN:HE21	1:B:150:GLN:HA	1.48	0.76
1:B:900:ASN:HD21	1:B:902:ARG:NH2	1.84	0.76
2:C:592:ARG:HH11	2:C:592:ARG:HB2	1.48	0.76
1:B:541:MET:O	1:B:811:TRP:HZ3	1.68	0.76
3:D:17:ARG:NH1	3:D:20:ASP:OD1	2.18	0.76
3:D:281:ARG:HH11	3:D:281:ARG:CG	1.97	0.76
1:E:150:GLN:HA	1:E:150:GLN:HE21	1.51	0.76
4:Y:40:DT:H2"	4:Y:41:DA:C5'	2.15	0.76
2:F:764:ASP:HB2	2:F:767:LEU:HD21	1.65	0.76
2:F:943:ILE:HG23	2:F:945:LEU:HD23	1.65	0.76
1:B:228:ARG:HD2	1:B:319:GLU:CD	2.05	0.76
1:B:242:GLU:O	1:B:243:LEU:HG	1.85	0.76
1:B:1097:ALA:O	1:B:1100:ALA:HB3	1.86	0.76
2:F:550:TYR:CE2	2:F:552:GLU:HB2	2.20	0.76
1:B:213:PRO:O	1:B:215:ASP:N	2.18	0.76
1:B:874:ASP:O	1:B:875:ASN:HB2	1.85	0.76
1:B:943:HIS:O	1:B:1086:LEU:HD22	1.84	0.76
2:C:703:ARG:HH11	2:C:703:ARG:H	1.34	0.76
3:D:348:LEU:HD22	3:D:352:LEU:HD11	1.65	0.76
1:E:281:GLN:O	1:E:282:LEU:HB2	1.86	0.76
2:C:254:PRO:O	2:C:257:LEU:HG	1.86	0.76
2:C:685:TYR:O	2:C:686:PRO:C	2.17	0.76
3:D:367:ILE:H	3:D:393:ILE:HG21	1.51	0.76
1:E:375:ARG:CD	1:E:404:GLN:HG2	2.13	0.76
1:E:979:LEU:HD23	2:F:588:LEU:HD11	1.67	0.76
1:B:83:LEU:HD13	1:B:114:LEU:HD11	1.67	0.76
2:C:337:ASN:ND2	2:C:759:HIS:HE1	1.82	0.76
3:D:270:GLU:HB3	3:D:273:MET:HE2	1.68	0.76
1:B:199:ARG:NH1	1:B:199:ARG:HB2	2.01	0.76
2:C:142:ARG:HD3	2:C:142:ARG:N	2.00	0.76
2:C:733:GLY:CA	2:C:742:ARG:HG3	2.14	0.76
2:F:207:LEU:HD12	2:F:234:ILE:HD13	1.67	0.76
1:B:728:ARG:HH11	2:C:786:ARG:HH12	1.34	0.76
2:C:80:ILE:HD12	2:C:189:LEU:HD21	1.66	0.76
2:C:104:GLU:OE1	2:C:112:ARG:HD3	1.85	0.76
2:C:9:ARG:HG3	2:C:9:ARG:NH1	1.99	0.75
1:E:362:LEU:HB3	1:E:399:ARG:HG2	1.68	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:155:ASP:O	1:B:156:GLU:HB2	1.85	0.75
1:B:947:ARG:CG	1:B:1086:LEU:HG	2.14	0.75
3:D:261:LEU:HD12	3:D:285:ALA:O	1.85	0.75
3:G:181:VAL:HG21	3:G:295:LEU:CD1	2.15	0.75
3:G:533:THR:O	3:G:535:ALA:N	2.18	0.75
1:B:590:THR:O	1:B:591:LEU:HB3	1.84	0.75
1:B:1111:TYR:O	1:B:1115:THR:HG23	1.87	0.75
2:C:183:ARG:HD2	2:C:183:ARG:N	2.02	0.75
2:C:267:HIS:HA	2:C:323:LEU:HD13	1.69	0.75
1:E:925:ASP:H	1:E:953:THR:CG2	1.97	0.75
2:F:104:GLU:CA	2:F:112:ARG:NH1	2.49	0.75
4:Z:1:DT:C2'	4:Z:2:DC:H5"	2.17	0.75
2:C:1012:ALA:H	2:C:1015:GLN:HE21	1.34	0.75
3:D:256:HIS:CG	3:D:257:ALA:H	2.04	0.75
1:E:562:GLN:NE2	4:Z:40:DT:H73	2.01	0.75
1:E:611:THR:HG22	2:F:858:ARG:HH21	1.50	0.75
3:G:122:PHE:HB2	3:G:283:ILE:HD11	1.68	0.75
1:B:1131:TYR:CZ	1:B:1135:PHE:HD1	2.03	0.75
2:F:207:LEU:HD12	2:F:234:ILE:CD1	2.17	0.75
2:F:384:ARG:HD3	2:F:786:ARG:O	1.85	0.75
1:B:159:LEU:HD21	1:B:342:GLU:HG2	1.69	0.75
1:B:899:ASP:HB3	1:B:1059:ARG:HH12	1.52	0.75
2:C:751:LEU:O	2:C:755:ILE:HG12	1.86	0.75
2:F:228:GLN:HE22	2:F:318:GLU:N	1.85	0.75
2:C:839:ARG:HA	4:Y:1:DT:H3	1.50	0.75
1:E:25:ALA:CB	1:E:807:THR:HG21	2.16	0.75
1:E:947:ARG:NE	1:E:1086:LEU:HB2	2.01	0.75
2:F:38:GLN:HE21	2:F:667:MET:CG	1.95	0.75
1:E:763:GLN:HA	1:E:763:GLN:NE2	1.99	0.74
1:E:947:ARG:CG	1:E:1086:LEU:HG	2.17	0.74
1:E:1071:ARG:HH22	2:F:29:PRO:HB2	1.51	0.74
3:G:201:LEU:HB3	3:G:212:LEU:HD12	1.69	0.74
1:B:681:GLU:O	1:B:685:THR:HG23	1.88	0.74
2:C:742:ARG:CG	2:C:743:PHE:N	2.50	0.74
1:B:148:PHE:N	2:C:126:GLN:HE22	1.84	0.74
2:F:644:ARG:HG3	2:F:644:ARG:HH11	1.51	0.74
3:G:367:ILE:H	3:G:393:ILE:HG21	1.52	0.74
2:C:834:LEU:CD2	2:C:986:VAL:HG21	2.18	0.74
1:E:728:ARG:NH1	2:F:786:ARG:HH22	1.83	0.74
1:E:1131:TYR:CZ	1:E:1135:PHE:HD1	2.04	0.74
3:D:178:THR:HG23	3:D:179:THR:H	1.51	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:531:GLN:HA	1:E:534:GLN:HG3	1.69	0.74
1:E:562:GLN:NE2	4:Z:40:DT:C7	2.51	0.74
2:F:584:LEU:CD1	2:F:620:ILE:HG23	2.14	0.74
2:C:220:PRO:HD2	2:C:223:TYR:CD1	2.22	0.74
3:G:423:GLN:C	3:G:425:ARG:H	1.89	0.74
2:F:742:ARG:HD3	2:F:742:ARG:O	1.87	0.74
1:B:954:PHE:O	1:B:957:SER:HB3	1.87	0.74
2:C:103:LEU:HD11	2:C:115:LEU:HD12	1.68	0.74
2:C:112:ARG:HH11	2:C:112:ARG:CG	2.01	0.74
1:E:888:LEU:C	1:E:889:ASN:HD22	1.91	0.74
2:F:28:ASP:H	2:F:29:PRO:CD	2.00	0.74
1:B:947:ARG:NE	1:B:1086:LEU:HB2	2.03	0.74
2:C:207:LEU:HD12	2:C:234:ILE:HD13	1.70	0.74
3:G:78:LEU:O	3:G:80:ASN:N	2.20	0.74
1:E:1012:LEU:HD21	1:E:1070:PHE:CD2	2.23	0.73
1:E:1172:PHE:CD1	1:E:1172:PHE:C	2.59	0.73
3:G:132:VAL:CG1	3:G:134:GLU:HG2	2.18	0.73
1:B:282:LEU:N	1:B:283:PRO:HD2	2.03	0.73
1:B:531:GLN:HA	1:B:534:GLN:HG3	1.70	0.73
2:C:956:LEU:HD11	2:C:986:VAL:HG12	1.67	0.73
1:E:1015:ARG:H	1:E:1015:ARG:HD2	1.51	0.73
3:G:200:ARG:HG3	3:G:233:ILE:HD12	1.69	0.73
1:B:611:THR:HG22	2:C:858:ARG:NH2	2.01	0.73
1:B:649:ARG:HH11	1:B:649:ARG:CB	1.99	0.73
3:D:370:LEU:O	3:D:374:ILE:HG12	1.88	0.73
1:E:943:HIS:O	1:E:1086:LEU:HD22	1.87	0.73
2:F:1079:MET:SD	4:Z:40:DT:H72	2.29	0.73
2:F:1091:GLN:HA	2:F:1091:GLN:HE21	1.53	0.73
1:B:42:LEU:HB2	1:B:44:LEU:HD13	1.70	0.73
1:B:924:LEU:HD23	1:B:953:THR:CG2	2.19	0.73
2:C:25:ARG:O	2:C:26:LEU:HB3	1.85	0.73
1:E:681:GLU:O	1:E:685:THR:HG23	1.87	0.73
2:C:388:VAL:HA	2:C:799:ARG:HH11	1.50	0.73
3:D:122:PHE:CG	3:D:283:ILE:HD11	2.23	0.73
1:E:426:ASP:HB3	1:E:429:THR:CG2	2.17	0.73
1:B:34:ALA:HB1	1:B:79:ASN:HD22	1.54	0.73
1:B:781:ASN:O	1:B:783:ALA:N	2.21	0.73
3:D:367:ILE:HG13	3:D:393:ILE:CG2	2.17	0.73
1:E:233:LYS:NZ	1:E:269:ILE:HG12	2.04	0.73
1:E:332:LEU:H	1:E:332:LEU:HD22	1.53	0.73
4:Z:6:DT:H2"	4:Z:7:DG:H5'	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:972:LEU:HD12	2:C:1005:GLU:H	1.53	0.73
1:E:626:LEU:O	1:E:630:THR:HG23	1.88	0.73
3:G:366:GLY:HA3	3:G:393:ILE:HG21	1.70	0.73
4:Y:6:DT:H2"	4:Y:7:DG:H5'	1.71	0.73
1:B:262:GLN:HG2	1:B:277:THR:CG2	2.18	0.73
1:B:501:MET:HG3	1:B:815:LEU:CD2	2.19	0.73
1:E:1028:SER:O	1:E:1029:GLU:O	2.06	0.73
1:B:802:LEU:HD22	1:B:806:LEU:HD22	1.69	0.73
1:E:65:THR:HG22	1:E:67:ALA:H	1.54	0.73
1:E:159:LEU:HD13	1:E:159:LEU:O	1.89	0.73
1:E:945:PHE:CD1	1:E:946:PRO:HD2	2.23	0.73
1:E:1097:ALA:O	1:E:1100:ALA:HB3	1.89	0.73
4:Y:30:DG:H2"	4:Y:31:DT:OP2	1.89	0.73
1:B:504:MET:HE1	1:B:517:THR:HG23	1.71	0.72
2:C:28:ASP:H	2:C:29:PRO:CD	2.02	0.72
2:C:1080:MET:HG3	4:Y:5:DA:N3	2.04	0.72
1:B:200:TYR:O	1:B:201:LEU:HB2	1.88	0.72
4:Y:40:DT:C2'	4:Y:41:DA:H5'	2.18	0.72
1:B:56:VAL:HG13	1:B:124:ALA:HA	1.71	0.72
1:B:902:ARG:HH12	1:B:1058:VAL:HG22	1.53	0.72
1:B:966:GLN:HB3	1:B:967:PRO:HD2	1.69	0.72
3:D:423:GLN:C	3:D:425:ARG:H	1.92	0.72
1:B:324:ARG:HG2	1:B:324:ARG:HH11	1.54	0.72
2:C:287:PHE:HD1	2:C:293:GLN:CD	1.93	0.72
2:C:664:LEU:N	2:C:664:LEU:HD12	2.03	0.72
3:D:417:ARG:HH11	3:D:437:GLU:HB3	1.53	0.72
3:D:577:LEU:HG	3:D:577:LEU:O	1.88	0.72
4:Y:12:DC:H4'	4:Y:13:DA:OP1	1.89	0.72
4:Z:8:DC:C2'	4:Z:9:DG:H5"	2.18	0.72
1:B:522:CYS:O	1:B:526:ILE:HD13	1.89	0.72
3:D:233:ILE:O	3:D:233:ILE:HG22	1.90	0.72
1:B:626:LEU:O	1:B:630:THR:HG23	1.89	0.72
2:C:288:ASN:O	2:C:290:ASP:N	2.22	0.72
3:D:256:HIS:CG	3:D:257:ALA:N	2.57	0.72
1:E:871:GLN:OE1	1:E:871:GLN:HA	1.88	0.72
1:B:677:THR:HG22	1:B:677:THR:O	1.90	0.72
1:B:987:GLU:HG3	1:B:988:PRO:HD3	1.70	0.72
3:D:200:ARG:HG3	3:D:233:ILE:HD12	1.72	0.72
3:D:256:HIS:CE1	3:D:257:ALA:HB3	2.25	0.72
1:E:213:PRO:O	1:E:215:ASP:N	2.22	0.72
1:E:508:SER:O	1:E:509:CYS:HB2	1.88	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:354:LEU:H	3:G:354:LEU:HD12	1.55	0.72
1:B:8:LEU:HD23	1:B:13:LEU:HD13	1.72	0.72
3:D:51:VAL:HG21	3:D:276:LEU:HD12	1.70	0.72
3:D:304:VAL:HG21	3:D:564:GLU:HG2	1.70	0.72
1:E:324:ARG:HG2	1:E:324:ARG:HH11	1.55	0.72
1:E:728:ARG:NH1	2:F:786:ARG:NH2	2.38	0.72
2:F:75:ARG:NH1	2:F:208:PRO:HD3	2.05	0.72
2:C:506:ILE:CG2	2:C:507:ASP:N	2.53	0.72
1:E:423:ARG:NH1	4:Z:43:DA:C2	2.57	0.72
1:E:501:MET:HG3	1:E:815:LEU:HD21	1.71	0.72
1:E:1161:ASN:C	1:E:1163:GLY:H	1.93	0.72
2:F:592:ARG:HH11	2:F:592:ARG:HB2	1.51	0.72
1:B:377:ARG:HH11	1:B:377:ARG:CG	1.95	0.72
2:C:104:GLU:CA	2:C:112:ARG:NH1	2.52	0.72
2:C:1022:GLN:HA	2:C:1025:GLU:OE1	1.90	0.72
3:D:130:ILE:O	3:D:132:VAL:HG23	1.90	0.72
1:E:228:ARG:O	1:E:316:LEU:HD21	1.90	0.72
1:E:854:ARG:HH11	1:E:854:ARG:HG2	1.54	0.72
1:E:251:GLY:HA3	1:E:255:ARG:NH2	2.05	0.71
2:F:204:PRO:HB3	2:F:233:HIS:HB3	1.72	0.71
2:C:72:MET:HG3	2:C:230:LEU:HD11	1.71	0.71
2:F:441:ASP:OD2	2:F:662:CYS:HB2	1.90	0.71
3:G:366:GLY:HA3	3:G:393:ILE:CD1	2.20	0.71
4:Y:1:DT:H3'	4:Y:2:DC:H5"	1.70	0.71
4:Z:7:DG:H2"	4:Z:8:DC:OP2	1.90	0.71
1:B:613:ARG:HD2	2:C:854:GLN:O	1.90	0.71
1:B:807:THR:CG2	1:B:808:ARG:HH21	2.03	0.71
2:C:266:ARG:HH11	2:C:269:PHE:HD1	1.34	0.71
2:C:332:ASP:OD1	2:C:332:ASP:N	2.22	0.71
2:C:441:ASP:OD2	2:C:662:CYS:HB2	1.89	0.71
2:C:531:MET:HE3	2:C:561:VAL:HG22	1.72	0.71
2:C:830:GLU:O	2:C:831:THR:HG23	1.91	0.71
1:E:874:ASP:O	1:E:875:ASN:HB2	1.89	0.71
3:G:256:HIS:CG	3:G:257:ALA:H	2.07	0.71
4:Y:31:DT:H2"	4:Y:32:DG:C5'	2.20	0.71
1:E:24:SER:HA	1:E:414:ASP:OD2	1.90	0.71
2:F:447:SER:O	2:F:448:HIS:ND1	2.23	0.71
3:G:459:GLU:O	3:G:463:GLN:HG3	1.91	0.71
3:G:565:LEU:C	3:G:565:LEU:HD23	2.11	0.71
1:E:282:LEU:N	1:E:283:PRO:HD2	2.06	0.71
3:G:417:ARG:HH11	3:G:437:GLU:HB3	1.55	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:177:ARG:HD2	1:B:177:ARG:O	1.90	0.71
1:B:1071:ARG:HD3	1:B:1076:TYR:HE2	1.56	0.71
1:E:771:ARG:HG2	1:E:771:ARG:HH11	1.55	0.71
2:F:183:ARG:H	2:F:183:ARG:HD2	1.54	0.71
2:F:939:GLN:NE2	2:F:940:SER:H	1.87	0.71
1:B:1172:PHE:CG	1:B:1173:ALA:N	2.59	0.71
2:C:165:GLN:HE22	2:C:696:LEU:HD22	1.55	0.71
1:E:1085:TRP:NE1	1:E:1087:GLY:HA3	2.05	0.71
1:B:931:VAL:HG12	1:B:932:ALA:H	1.54	0.71
1:E:728:ARG:NH2	2:F:739:ASN:HA	2.06	0.71
2:F:830:GLU:O	2:F:831:THR:HG23	1.90	0.71
1:E:148:PHE:HB2	2:F:126:GLN:HE21	1.56	0.71
1:E:233:LYS:HE3	1:E:265:TRP:CH2	2.26	0.71
2:F:337:ASN:ND2	2:F:365:ARG:HD2	2.06	0.71
4:Y:33:DC:C6	4:Y:34:DT:H72	2.25	0.71
1:B:799:LEU:HD23	1:B:837:ALA:HB1	1.73	0.71
1:B:871:GLN:OE1	1:B:871:GLN:HA	1.90	0.71
2:C:98:LEU:C	2:C:100:PRO:HD2	2.11	0.71
2:C:760:TYR:CE1	2:C:765:GLU:HG3	2.25	0.71
2:C:1036:LEU:O	2:C:1037:VAL:HB	1.91	0.71
2:F:26:LEU:HG	2:F:27:ASP:N	2.05	0.71
2:F:234:ILE:HG22	2:F:236:ILE:HG13	1.73	0.71
2:F:72:MET:HG3	2:F:230:LEU:HD11	1.73	0.70
3:G:281:ARG:HH11	3:G:281:ARG:CG	2.03	0.70
1:B:92:THR:HG21	1:B:97:TYR:HB2	1.72	0.70
1:B:494:GLU:OE1	1:B:494:GLU:N	2.23	0.70
2:C:355:ILE:HD12	2:C:356:GLU:N	2.05	0.70
2:F:149:TRP:HE1	2:F:162:GLN:HE21	1.39	0.70
4:Z:25:DT:H2"	4:Z:26:DA:OP2	1.89	0.70
2:C:117:ASP:O	2:C:118:ASP:HB3	1.90	0.70
2:C:263:ARG:HA	2:C:273:GLU:HG2	1.72	0.70
2:C:980:LEU:HD13	2:C:998:LEU:HB2	1.73	0.70
1:E:282:LEU:H	1:E:283:PRO:HD2	1.57	0.70
2:F:199:SER:O	2:F:201:THR:N	2.23	0.70
3:G:201:LEU:HB3	3:G:212:LEU:CD1	2.20	0.70
2:C:258:ALA:HA	2:C:261:LEU:CD1	2.22	0.70
2:C:433:ARG:NH1	2:C:803:ALA:HA	2.06	0.70
2:C:699:GLN:O	2:C:701:PRO:HD3	1.91	0.70
1:E:823:ARG:NH2	1:E:828:LYS:HZ2	1.89	0.70
1:B:34:ALA:HB1	1:B:79:ASN:ND2	2.06	0.70
1:B:568:ARG:NH1	1:B:578:SER:OG	2.23	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:115:ASN:HB3	3:D:276:LEU:HD22	1.73	0.70
3:D:135:ALA:O	3:D:139:GLN:HG3	1.91	0.70
3:D:555:SER:O	3:D:556:GLN:HG2	1.92	0.70
1:E:5:ALA:HB2	1:E:440:HIS:HB3	1.73	0.70
1:E:1078:LEU:HD22	1:E:1115:THR:HG22	1.72	0.70
2:F:369:PRO:HD3	2:F:762:PRO:HG3	1.74	0.70
1:B:728:ARG:HH12	2:C:786:ARG:HH22	1.37	0.70
2:C:764:ASP:HB3	2:C:767:LEU:HD11	1.74	0.70
1:E:148:PHE:H	2:F:126:GLN:NE2	1.90	0.70
1:E:268:LYS:HE3	1:E:268:LYS:HA	1.74	0.70
2:F:228:GLN:NE2	2:F:318:GLU:H	1.86	0.70
2:F:406:ARG:N	2:F:658:PRO:HB3	2.06	0.70
1:B:187:TRP:HZ3	1:B:196:ASP:OD2	1.74	0.70
1:B:236:TRP:C	1:B:238:ASP:H	1.95	0.70
1:B:900:ASN:ND2	1:B:902:ARG:HH21	1.89	0.70
2:C:951:GLN:C	2:C:952:ILE:HD12	2.12	0.70
2:C:1037:VAL:CA	2:C:1109:SER:HB3	2.08	0.70
3:D:80:ASN:HB3	3:D:83:GLU:HB3	1.73	0.70
1:E:658:MET:HB2	1:E:695:GLN:HG3	1.73	0.70
2:F:166:ALA:HB3	2:F:167:PRO:HD3	1.74	0.70
4:Z:40:DT:H4'	4:Z:40:DT:OP1	1.91	0.70
1:B:222:HIS:CG	1:B:272:TRP:HH2	2.09	0.70
2:C:966:ARG:HD3	2:C:983:GLU:OE1	1.92	0.70
3:D:78:LEU:O	3:D:80:ASN:N	2.25	0.70
1:E:482:GLY:HA2	1:E:485:GLN:HG2	1.74	0.70
2:F:105:ARG:C	2:F:107:ASP:H	1.95	0.70
4:Y:1:DT:H3'	4:Y:2:DC:C5'	2.21	0.70
2:C:87:ASN:HD21	2:C:90:SER:H	1.39	0.70
2:C:149:TRP:HE1	2:C:162:GLN:HE21	1.39	0.70
1:E:1118:LEU:HD22	1:E:1122:LEU:HG	1.74	0.70
1:B:832:ASP:HA	1:B:834:HIS:CD2	2.27	0.70
1:B:1085:TRP:HE1	1:B:1087:GLY:HA3	1.57	0.70
2:C:376:PHE:CE2	2:C:752:ILE:HG23	2.27	0.70
1:E:101:LEU:HD23	1:E:104:ILE:HD12	1.72	0.70
1:E:1121:TYR:CD1	2:F:58:ALA:HB3	2.27	0.70
1:B:18:GLU:HG2	1:B:18:GLU:O	1.90	0.69
1:E:823:ARG:HG2	1:E:825:GLY:N	2.07	0.69
2:C:26:LEU:HG	2:C:27:ASP:O	1.93	0.69
2:C:834:LEU:HD21	2:C:986:VAL:HG21	1.72	0.69
3:D:175:THR:HG21	3:D:355:LEU:HB3	1.74	0.69
3:G:538:VAL:HG21	3:G:565:LEU:HD21	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1052:PRO:HB3	1:E:1106:ARG:NH1	2.07	0.69
2:F:915:ILE:O	2:F:919:THR:HG23	1.91	0.69
1:B:1102:MET:SD	1:B:1111:TYR:OH	2.51	0.69
2:C:99:LEU:N	2:C:100:PRO:HD2	2.06	0.69
2:F:220:PRO:HD2	2:F:223:TYR:HD1	1.56	0.69
1:B:1078:LEU:HD11	1:B:1118:LEU:HD12	1.72	0.69
2:C:160:GLU:C	2:C:162:GLN:H	1.95	0.69
2:C:292:GLU:O	2:C:295:VAL:HG23	1.92	0.69
2:F:767:LEU:HD23	2:F:767:LEU:H	1.57	0.69
2:F:1036:LEU:O	2:F:1037:VAL:CB	2.39	0.69
1:B:501:MET:HG2	1:B:817:VAL:HG21	1.75	0.69
1:B:508:SER:O	1:B:509:CYS:HB2	1.92	0.69
3:D:367:ILE:N	3:D:393:ILE:HG21	2.08	0.69
2:F:853:LEU:O	2:F:855:VAL:HG23	1.90	0.69
1:B:1172:PHE:C	1:B:1172:PHE:CD1	2.66	0.69
2:C:260:LEU:C	2:C:262:THR:H	1.95	0.69
3:G:213:THR:HG21	3:G:234:PRO:O	1.91	0.69
1:B:597:LEU:HD12	1:B:715:ILE:HD12	1.74	0.69
1:B:1075:ARG:HH11	1:B:1075:ARG:CG	2.04	0.69
2:C:265:ARG:O	2:C:323:LEU:HB2	1.93	0.69
1:E:11:LEU:HD13	1:E:99:ARG:HD2	1.74	0.69
1:E:577:PRO:HB2	1:E:735:LEU:HD22	1.75	0.69
1:E:728:ARG:HH12	2:F:786:ARG:HH22	1.40	0.69
2:F:760:TYR:CE1	2:F:765:GLU:HG3	2.28	0.69
2:F:767:LEU:HD23	2:F:767:LEU:N	2.08	0.69
3:G:4:GLN:HG3	3:G:8:LEU:CD1	2.23	0.69
3:G:207:LYS:HE2	3:G:211:ARG:HH21	1.58	0.69
1:B:730:GLU:O	1:B:731:SER:HB3	1.93	0.69
1:B:1051:PRO:N	1:B:1052:PRO:CD	2.53	0.69
2:C:354:ASN:ND2	2:C:357:GLU:H	1.90	0.69
2:C:454:PHE:CE2	2:C:612:ILE:HG21	2.27	0.69
3:D:122:PHE:CB	3:D:283:ILE:HD11	2.21	0.69
3:D:201:LEU:HB3	3:D:212:LEU:CD1	2.23	0.69
3:D:283:ILE:HG22	3:D:284:ASP:N	2.07	0.69
1:E:328:ILE:O	1:E:332:LEU:HD22	1.93	0.69
1:B:728:ARG:NH1	2:C:786:ARG:HH22	1.91	0.69
2:C:401:PRO:C	2:C:403:LEU:H	1.95	0.69
3:D:221:ARG:HA	3:D:231:LYS:HZ1	1.58	0.69
1:E:179:ILE:HG12	1:E:222:HIS:HD2	1.52	0.69
1:E:281:GLN:HB3	1:E:283:PRO:CD	2.23	0.69
2:C:38:GLN:NE2	2:C:667:MET:HG3	2.09	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:681:ASN:HD21	2:C:732:ILE:H	1.40	0.68
3:D:130:ILE:O	3:D:132:VAL:N	2.26	0.68
3:D:229:GLN:HG2	3:D:231:LYS:HE2	1.73	0.68
3:D:597:ARG:HD2	3:D:597:ARG:C	2.13	0.68
1:E:867:TRP:HZ3	1:E:869:THR:HG22	1.58	0.68
1:E:1015:ARG:HD2	1:E:1015:ARG:N	2.09	0.68
2:F:86:PHE:CZ	2:F:176:THR:HG21	2.28	0.68
2:F:951:GLN:C	2:F:952:ILE:HD12	2.12	0.68
3:G:301:LEU:N	3:G:568:THR:HG21	2.07	0.68
4:Y:39:DT:C2'	4:Y:40:DT:H5"	2.22	0.68
1:B:225:ILE:HG23	1:B:321:LEU:HD23	1.75	0.68
1:B:252:ILE:HG12	1:B:253:ASP:H	1.57	0.68
2:C:164:TRP:O	2:C:168:LEU:HB2	1.92	0.68
1:E:611:THR:HG22	2:F:858:ARG:NH2	2.07	0.68
1:E:954:PHE:O	1:E:957:SER:HB3	1.92	0.68
2:F:582:ARG:HG2	2:F:582:ARG:NH1	2.08	0.68
2:F:835:GLU:HA	2:F:838:GLN:HE21	1.58	0.68
3:G:51:VAL:HG21	3:G:276:LEU:HD12	1.75	0.68
3:G:168:VAL:HB	3:G:352:LEU:HD23	1.75	0.68
1:B:285:SER:HB2	1:B:307:HIS:CE1	2.28	0.68
2:C:557:ILE:HD13	2:C:557:ILE:N	1.98	0.68
2:C:742:ARG:HD3	2:C:742:ARG:O	1.92	0.68
2:C:825:PRO:O	2:C:852:ARG:NH2	2.27	0.68
2:C:942:GLU:OE1	3:D:198:ARG:NH2	2.26	0.68
1:E:233:LYS:HZ2	1:E:269:ILE:HG12	1.56	0.68
2:F:885:LEU:HD11	2:F:927:LEU:HD13	1.76	0.68
3:D:65:HIS:CB	3:D:66:PRO:HD2	2.04	0.68
3:D:132:VAL:HG12	3:D:133:ASP:N	2.08	0.68
2:F:412:VAL:HG12	2:F:678:LEU:HB2	1.74	0.68
2:F:764:ASP:HB3	2:F:767:LEU:HD11	1.74	0.68
2:F:1081:VAL:O	2:F:1082:ARG:HG3	1.93	0.68
1:B:285:SER:HB2	1:B:307:HIS:ND1	2.08	0.68
2:C:161:ALA:HA	2:C:164:TRP:CD1	2.28	0.68
1:E:597:LEU:HD12	1:E:715:ILE:HD12	1.76	0.68
1:E:1052:PRO:C	1:E:1053:LEU:HD23	2.14	0.68
1:B:936:GLU:O	1:B:936:GLU:HG2	1.93	0.68
1:E:1078:LEU:HD12	1:E:1118:LEU:HD12	1.75	0.68
2:F:27:ASP:OD1	2:F:29:PRO:HD3	1.94	0.68
2:F:733:GLY:HA2	2:F:742:ARG:CG	2.16	0.68
1:B:269:ILE:HG22	1:B:270:SER:H	1.59	0.68
1:B:823:ARG:HG2	1:B:825:GLY:N	2.05	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:72:MET:HE3	2:C:207:LEU:HB3	1.75	0.68
2:C:367:LEU:HB3	2:C:761:LEU:HD23	1.74	0.68
1:E:165:ALA:O	1:E:169:ARG:HG3	1.93	0.68
1:E:584:ARG:HG2	1:E:584:ARG:NH1	2.08	0.68
1:E:610:ASN:HD22	1:E:613:ARG:NH1	1.92	0.68
2:F:538:GLU:O	2:F:540:ALA:O	2.12	0.68
1:B:1002:LEU:HB2	1:B:1007:VAL:CG1	2.23	0.68
2:C:644:ARG:HG3	2:C:644:ARG:HH11	1.59	0.68
1:E:1002:LEU:HB2	1:E:1007:VAL:HG13	1.74	0.68
2:F:183:ARG:HD2	2:F:183:ARG:N	2.08	0.68
3:G:256:HIS:CG	3:G:257:ALA:N	2.61	0.68
1:B:504:MET:CE	1:B:514:TYR:HA	2.24	0.68
2:F:347:ASN:ND2	2:F:349:ALA:H	1.91	0.68
3:G:62:GLU:HA	3:G:65:HIS:CB	2.14	0.68
3:G:122:PHE:CB	3:G:283:ILE:HD11	2.23	0.68
1:B:269:ILE:O	1:B:270:SER:HB2	1.94	0.68
1:B:587:VAL:O	1:B:587:VAL:HG12	1.93	0.68
1:B:760:PHE:O	1:B:761:ARG:HB2	1.94	0.68
2:C:245:ARG:HA	2:C:326:PHE:CZ	2.29	0.68
2:C:384:ARG:NH1	2:C:785:THR:O	2.27	0.68
2:C:405:PRO:C	2:C:658:PRO:HB3	2.14	0.68
2:C:478:VAL:CG1	2:C:599:PHE:HB3	2.23	0.68
1:E:42:LEU:HB2	1:E:44:LEU:HD13	1.76	0.68
1:E:231:THR:O	1:E:235:GLN:HG3	1.92	0.68
2:F:104:GLU:OE1	2:F:112:ARG:HD3	1.94	0.68
2:F:146:LEU:HD22	2:F:169:TRP:CE2	2.28	0.68
2:F:703:ARG:HH11	2:F:703:ARG:H	1.41	0.68
2:F:939:GLN:HE21	2:F:940:SER:H	1.39	0.68
3:G:216:LEU:O	3:G:220:LEU:HB2	1.94	0.68
1:B:362:LEU:HB3	1:B:399:ARG:HG2	1.76	0.67
1:B:831:THR:OG1	1:B:831:THR:O	2.10	0.67
2:C:137:GLN:CG	2:C:697:MET:HE1	2.23	0.67
2:C:266:ARG:NH1	2:C:269:PHE:HD1	1.91	0.67
3:D:132:VAL:CG1	3:D:134:GLU:HG2	2.24	0.67
1:E:1051:PRO:N	1:E:1052:PRO:CD	2.56	0.67
1:E:1085:TRP:CD1	1:E:1087:GLY:N	2.62	0.67
2:F:220:PRO:HD2	2:F:223:TYR:CD1	2.29	0.67
3:G:130:ILE:O	3:G:132:VAL:N	2.27	0.67
3:G:182:ALA:HA	3:G:232:ARG:NH2	2.10	0.67
1:B:649:ARG:HG3	1:B:650:GLN:N	2.07	0.67
2:C:997:ARG:NH1	2:C:1007:ARG:HH12	1.91	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:177:ARG:HD2	1:E:177:ARG:O	1.93	0.67
1:E:487:LEU:HD22	1:E:811:TRP:CH2	2.29	0.67
2:F:60:ILE:N	2:F:60:ILE:HD12	2.09	0.67
2:F:112:ARG:HH11	2:F:112:ARG:CG	2.07	0.67
2:F:742:ARG:C	2:F:742:ARG:CD	2.62	0.67
3:G:135:ALA:O	3:G:139:GLN:HG3	1.93	0.67
1:B:251:GLY:HA3	1:B:255:ARG:NH2	2.08	0.67
3:D:322:THR:HG23	3:D:350:ASP:OD1	1.93	0.67
1:E:909:LEU:HD13	1:E:1054:GLU:OE2	1.95	0.67
1:E:1033:ALA:HB1	1:E:1053:LEU:HA	1.75	0.67
2:F:306:LEU:HD23	2:F:306:LEU:C	2.13	0.67
1:B:25:ALA:CB	1:B:807:THR:HG21	2.24	0.67
1:B:577:PRO:HB2	1:B:735:LEU:HD22	1.77	0.67
1:B:900:ASN:HD21	1:B:902:ARG:HH21	1.43	0.67
1:B:1074:GLY:O	1:B:1075:ARG:HB2	1.95	0.67
1:E:159:LEU:HD12	1:E:339:VAL:HG22	1.76	0.67
2:F:9:ARG:HG3	2:F:9:ARG:NH1	2.06	0.67
3:G:417:ARG:NH1	3:G:437:GLU:HB3	2.09	0.67
4:Z:1:DT:C2'	4:Z:2:DC:C5'	2.72	0.67
2:C:207:LEU:HD12	2:C:234:ILE:CD1	2.24	0.67
2:C:936:GLN:HG3	2:C:962:ASP:OD1	1.95	0.67
1:E:1075:ARG:CG	1:E:1075:ARG:HH11	2.07	0.67
2:F:828:LEU:HD12	2:F:829:PRO:HD2	1.76	0.67
4:Z:8:DC:H2"	4:Z:9:DG:C5'	2.23	0.67
4:Z:39:DT:C2'	4:Z:40:DT:H5"	2.25	0.67
1:B:590:THR:O	1:B:592:GLU:N	2.26	0.67
1:B:888:LEU:C	1:B:889:ASN:HD22	1.98	0.67
2:C:251:ILE:HD13	2:C:256:TYR:CD2	2.30	0.67
2:C:1009:PRO:O	2:C:1011:LEU:HD22	1.95	0.67
1:E:658:MET:HB3	1:E:659:PRO:HD3	1.76	0.67
1:E:702:GLU:HB2	2:F:449:PRO:CG	2.25	0.67
1:B:281:GLN:HB3	1:B:283:PRO:CD	2.21	0.67
1:B:577:PRO:HB2	1:B:735:LEU:CD2	2.25	0.67
2:C:355:ILE:CD1	2:C:356:GLU:H	2.05	0.67
3:D:236:ASP:O	3:D:237:ALA:HB3	1.92	0.67
3:G:308:ALA:O	3:G:597:ARG:NH2	2.28	0.67
1:B:5:ALA:HB2	1:B:440:HIS:HB3	1.76	0.67
3:D:456:GLU:O	3:D:458:ILE:N	2.28	0.67
3:D:529:GLU:HA	3:D:529:GLU:OE2	1.94	0.67
1:E:198:ASN:HA	1:E:201:LEU:HD12	1.75	0.67
4:Y:34:DT:C1'	4:Y:35:DC:H5'	2.19	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:159:LEU:O	1:B:159:LEU:HD13	1.93	0.67
1:B:426:ASP:HB3	1:B:429:THR:HG23	1.75	0.67
1:B:732:ASP:HA	1:B:735:LEU:HD12	1.76	0.67
1:B:1136:GLY:HA2	1:B:1159:ARG:HD3	1.75	0.67
3:G:178:THR:HG23	3:G:179:THR:H	1.60	0.67
1:B:935:VAL:O	1:B:935:VAL:HG12	1.95	0.67
3:D:308:ALA:O	3:D:597:ARG:NH2	2.25	0.67
1:E:228:ARG:HD2	1:E:319:GLU:OE2	1.95	0.67
1:E:501:MET:HG2	1:E:817:VAL:HG21	1.77	0.67
1:E:1079:LEU:HD13	1:E:1139:ILE:HB	1.76	0.67
1:E:1142:PHE:O	1:E:1144:ARG:O	2.13	0.67
1:B:624:ASN:H	1:B:627:ASP:HB2	1.60	0.66
2:C:943:ILE:HG22	2:C:952:ILE:O	1.95	0.66
3:D:528:PRO:O	3:D:529:GLU:HB2	1.94	0.66
1:B:282:LEU:N	1:B:283:PRO:CD	2.58	0.66
2:C:971:LEU:CD2	4:Y:4:DA:H5'	2.25	0.66
3:D:175:THR:HG22	3:D:176:GLY:N	2.09	0.66
1:E:587:VAL:HG21	1:E:689:HIS:ND1	2.11	0.66
1:E:649:ARG:CB	1:E:649:ARG:NH1	2.58	0.66
1:E:966:GLN:HB3	1:E:967:PRO:HD2	1.76	0.66
2:F:664:LEU:N	2:F:664:LEU:HD12	2.10	0.66
3:G:4:GLN:HG3	3:G:8:LEU:HD11	1.77	0.66
1:B:504:MET:HE1	1:B:514:TYR:HA	1.77	0.66
2:C:764:ASP:HB2	2:C:767:LEU:HD21	1.76	0.66
3:D:147:VAL:O	3:D:147:VAL:HG12	1.95	0.66
3:D:182:ALA:HA	3:D:232:ARG:HH22	1.60	0.66
1:E:547:ARG:HH11	1:E:547:ARG:HG3	1.61	0.66
1:E:624:ASN:O	1:E:628:ILE:HG12	1.94	0.66
2:F:192:ARG:O	2:F:196:THR:CG2	2.42	0.66
2:F:433:ARG:NH1	2:F:803:ALA:HA	2.10	0.66
1:B:500:LYS:HE3	1:B:868:GLN:HG3	1.77	0.66
1:B:1161:ASN:C	1:B:1163:GLY:H	1.98	0.66
2:C:165:GLN:NE2	2:C:696:LEU:HD22	2.09	0.66
2:F:872:LEU:HD13	2:F:916:PHE:CD2	2.30	0.66
2:C:406:ARG:N	2:C:658:PRO:HB3	2.11	0.66
2:C:731:TYR:HE1	2:C:742:ARG:HE	1.44	0.66
1:E:155:ASP:CG	1:E:156:GLU:H	1.98	0.66
1:E:1074:GLY:O	1:E:1075:ARG:HB2	1.96	0.66
2:F:401:PRO:C	2:F:403:LEU:H	1.98	0.66
2:F:532:LEU:O	2:F:535:TYR:HB3	1.95	0.66
3:G:236:ASP:O	3:G:237:ALA:CB	2.43	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:624:ASN:HB3	1:B:627:ASP:H	1.60	0.66
1:B:945:PHE:HE2	1:B:955:LEU:HD21	1.61	0.66
1:E:377:ARG:HH11	1:E:377:ARG:CG	1.99	0.66
2:F:533:LEU:HD21	2:F:544:TRP:CE3	2.31	0.66
2:F:751:LEU:O	2:F:755:ILE:HG12	1.95	0.66
3:G:177:LYS:O	3:G:180:THR:HG22	1.95	0.66
1:B:621:MET:HE3	1:B:668:ARG:HD2	1.78	0.66
1:B:893:LEU:H	1:B:893:LEU:HD12	1.60	0.66
2:C:70:TRP:CH2	2:C:84:SER:HB2	2.30	0.66
3:D:449:PHE:O	3:D:450:GLY:O	2.14	0.66
4:Y:1:DT:C3'	4:Y:2:DC:H5"	2.25	0.66
1:B:155:ASP:CG	1:B:156:GLU:H	1.98	0.66
1:B:722:ALA:HA	1:B:725:GLN:HG3	1.78	0.66
1:B:771:ARG:HG2	1:B:771:ARG:HH11	1.60	0.66
3:D:185:LEU:HB2	3:D:232:ARG:CZ	2.25	0.66
2:F:401:PRO:O	2:F:403:LEU:N	2.29	0.66
2:F:742:ARG:CG	2:F:743:PHE:N	2.57	0.66
1:B:702:GLU:HB2	2:C:449:PRO:CG	2.25	0.66
1:B:1007:VAL:CG1	1:B:1008:SER:N	2.47	0.66
2:C:207:LEU:N	2:C:207:LEU:HD23	2.11	0.66
2:C:1037:VAL:HG22	2:C:1109:SER:HA	1.78	0.66
2:C:1095:ARG:HB3	2:C:1095:ARG:HH11	1.59	0.66
3:D:130:ILE:H	3:D:130:ILE:CD1	2.01	0.66
3:G:544:SER:O	3:G:545:GLU:HG3	1.96	0.66
1:B:101:LEU:HD23	1:B:104:ILE:HD12	1.78	0.65
2:C:277:PHE:CD1	2:C:278:ARG:HG3	2.32	0.65
2:C:401:PRO:O	2:C:403:LEU:N	2.27	0.65
2:C:846:ARG:HG3	2:C:1089:TRP:CE2	2.31	0.65
1:E:940:LEU:HB2	1:E:989:VAL:HG21	1.78	0.65
2:F:77:LEU:CD2	2:F:196:THR:HG21	2.25	0.65
2:F:298:PRO:O	2:F:301:ALA:HB3	1.96	0.65
2:F:386:VAL:HG12	2:F:425:VAL:HG21	1.78	0.65
2:F:519:THR:CG2	2:F:521:GLN:H	2.09	0.65
1:B:232:VAL:HG21	1:B:316:LEU:HG	1.78	0.65
2:C:1038:LEU:HD13	2:C:1090:TYR:CZ	2.30	0.65
3:D:53:LEU:HD22	3:D:53:LEU:C	2.16	0.65
1:E:1003:ASN:H	1:E:1007:VAL:HG21	1.61	0.65
2:F:641:LEU:CD2	2:F:645:LEU:HD22	2.25	0.65
1:B:228:ARG:HD2	1:B:319:GLU:OE2	1.96	0.65
2:C:61:ASP:C	2:C:63:PRO:HD3	2.15	0.65
2:C:1081:VAL:O	2:C:1082:ARG:HG3	1.95	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:34:ALA:HB1	1:E:79:ASN:ND2	2.11	0.65
1:E:422:PHE:CE1	1:E:423:ARG:HG3	2.30	0.65
2:C:538:GLU:O	2:C:540:ALA:O	2.15	0.65
3:G:17:ARG:NH1	3:G:20:ASP:OD1	2.29	0.65
3:D:89:GLN:OE1	3:D:91:VAL:O	2.15	0.65
1:E:282:LEU:N	1:E:283:PRO:CD	2.60	0.65
1:E:469:MET:SD	1:E:795:LEU:CD1	2.84	0.65
1:E:1012:LEU:HD21	1:E:1070:PHE:HD2	1.62	0.65
1:B:282:LEU:HA	1:B:285:SER:HB3	1.77	0.65
1:B:1085:TRP:CD1	1:B:1087:GLY:N	2.64	0.65
2:C:26:LEU:HG	2:C:27:ASP:N	2.10	0.65
3:D:236:ASP:O	3:D:237:ALA:CB	2.44	0.65
3:D:395:LYS:HZ1	3:D:576:ARG:HD3	1.60	0.65
1:E:1079:LEU:HD12	1:E:1080:ASP:H	1.60	0.65
2:F:142:ARG:NH2	2:F:705:ASP:OD1	2.30	0.65
2:F:654:PHE:O	2:F:654:PHE:CG	2.50	0.65
1:B:924:LEU:HD22	1:B:949:ALA:HB1	1.79	0.65
3:D:121:ARG:HH11	3:D:121:ARG:HB2	1.60	0.65
3:D:216:LEU:O	3:D:220:LEU:HB2	1.96	0.65
1:E:987:GLU:HG3	1:E:988:PRO:HD3	1.79	0.65
2:F:1002:LYS:O	2:F:1003:ASP:HB2	1.94	0.65
3:G:65:HIS:O	3:G:66:PRO:C	2.34	0.65
3:G:462:MET:CE	3:G:534:TRP:HE1	1.94	0.65
1:B:471:ARG:HG3	1:B:472:GLU:OE1	1.96	0.65
2:C:192:ARG:O	2:C:196:THR:HG22	1.96	0.65
2:C:228:GLN:CG	2:C:319:SER:HB3	2.27	0.65
1:E:1003:ASN:H	1:E:1007:VAL:HG11	1.61	0.65
3:G:147:VAL:O	3:G:147:VAL:HG12	1.97	0.65
1:B:11:LEU:HD12	1:B:99:ARG:NH1	2.12	0.65
1:B:399:ARG:HG3	1:B:399:ARG:NH1	2.11	0.65
1:B:574:LEU:O	1:B:575:GLU:HB2	1.96	0.65
1:B:1075:ARG:HH11	1:B:1075:ARG:HG3	1.60	0.65
2:C:288:ASN:C	2:C:290:ASP:N	2.50	0.65
1:E:739:VAL:HG22	1:E:740:THR:N	2.12	0.65
1:E:1102:MET:CA	1:E:1102:MET:HE3	2.27	0.65
1:E:1159:ARG:HG3	1:E:1159:ARG:O	1.97	0.65
3:G:2:LYS:HG2	3:G:3:LEU:N	2.11	0.65
4:Z:18:DT:H1'	4:Z:19:DA:N7	2.12	0.65
2:C:475:ASP:O	2:C:477:PRO:HD3	1.97	0.65
1:E:269:ILE:HG22	1:E:270:SER:N	2.11	0.65
2:F:478:VAL:CG1	2:F:599:PHE:HB3	2.27	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:846:ARG:HG3	2:F:1089:TRP:CE2	2.32	0.65
3:G:605:SER:O	3:G:607:ARG:N	2.30	0.65
1:B:833:VAL:O	1:B:839:GLY:HA3	1.96	0.64
2:C:252:LYS:HG3	2:C:312:TYR:OH	1.96	0.64
2:C:551:ASP:OD2	2:C:551:ASP:N	2.26	0.64
2:C:582:ARG:HG2	2:C:582:ARG:HH11	1.60	0.64
1:E:11:LEU:HD12	1:E:99:ARG:NH1	2.12	0.64
2:F:385:GLU:CG	2:F:678:LEU:HD22	2.27	0.64
2:F:586:GLU:O	2:F:589:PRO:HD2	1.97	0.64
3:G:465:LYS:O	3:G:466:ARG:HB2	1.97	0.64
3:G:551:LEU:HD12	3:G:552:ILE:N	2.12	0.64
1:B:657:VAL:HG21	1:B:707:LEU:CD1	2.27	0.64
1:B:699:THR:C	1:B:700:GLN:HG2	2.16	0.64
2:C:833:PRO:HB3	2:C:835:GLU:OE2	1.98	0.64
1:E:83:LEU:HD13	1:E:114:LEU:HD11	1.79	0.64
1:E:827:LYS:HE2	1:E:831:THR:HG22	1.78	0.64
1:E:1172:PHE:CG	1:E:1173:ALA:N	2.64	0.64
3:G:300:GLN:OE1	3:G:568:THR:HG22	1.97	0.64
3:G:425:ARG:O	3:G:427:GLU:N	2.30	0.64
4:Z:39:DT:C3'	4:Z:40:DT:H5"	2.27	0.64
1:B:1086:LEU:HD23	1:B:1144:ARG:NH1	2.12	0.64
2:C:99:LEU:O	2:C:103:LEU:HG	1.98	0.64
2:C:447:SER:O	2:C:448:HIS:ND1	2.30	0.64
2:C:479:LEU:HD23	2:C:479:LEU:C	2.18	0.64
2:C:956:LEU:HD11	2:C:986:VAL:CG1	2.27	0.64
1:E:25:ALA:HB1	1:E:807:THR:CG2	2.27	0.64
1:E:807:THR:CG2	1:E:808:ARG:NH2	2.56	0.64
1:E:1075:ARG:HH11	1:E:1075:ARG:HG3	1.62	0.64
1:B:269:ILE:HG22	1:B:270:SER:N	2.13	0.64
1:B:332:LEU:CD2	1:B:332:LEU:N	2.59	0.64
2:C:284:GLY:O	2:C:287:PHE:N	2.31	0.64
1:E:677:THR:O	1:E:677:THR:HG22	1.97	0.64
4:Z:29:DA:H2"	4:Z:30:DG:OP2	1.97	0.64
1:B:251:GLY:HA3	1:B:255:ARG:CZ	2.28	0.64
2:C:433:ARG:HH11	2:C:803:ALA:HA	1.63	0.64
2:C:742:ARG:HG2	2:C:743:PHE:N	2.12	0.64
3:D:434:ALA:HA	3:D:437:GLU:OE1	1.97	0.64
2:F:692:LEU:HD12	2:F:692:LEU:H	1.63	0.64
1:B:222:HIS:CE1	1:B:272:TRP:HH2	2.15	0.64
1:B:285:SER:HB2	1:B:307:HIS:CG	2.33	0.64
2:C:105:ARG:O	2:C:107:ASP:N	2.26	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:142:ARG:N	2:C:143:PRO:HD2	2.12	0.64
3:D:597:ARG:HH11	3:D:598:SER:HB2	1.62	0.64
1:E:148:PHE:N	2:F:126:GLN:NE2	2.46	0.64
1:E:924:LEU:HD23	1:E:953:THR:CG2	2.26	0.64
1:E:1075:ARG:HA	1:E:1134:HIS:O	1.98	0.64
2:F:117:ASP:O	2:F:118:ASP:HB3	1.96	0.64
2:F:318:GLU:O	2:F:320:SER:N	2.30	0.64
2:F:742:ARG:HG2	2:F:743:PHE:N	2.12	0.64
1:B:199:ARG:HB2	1:B:199:ARG:HH11	1.62	0.64
1:B:1039:LEU:HD23	1:B:1039:LEU:H	1.62	0.64
2:C:513:GLU:OE1	2:C:575:ARG:NH1	2.31	0.64
2:C:767:LEU:N	2:C:767:LEU:CD2	2.61	0.64
3:D:126:VAL:CG1	3:D:166:ILE:H	2.11	0.64
1:E:722:ALA:HA	1:E:725:GLN:HG3	1.79	0.64
1:B:1003:ASN:H	1:B:1007:VAL:HG21	1.60	0.64
2:C:87:ASN:ND2	2:C:90:SER:H	1.94	0.64
2:C:539:SER:CB	2:C:551:ASP:OD1	2.46	0.64
2:C:955:TRP:NE1	3:D:262:HIS:NE2	2.46	0.64
1:E:39:ARG:HH11	1:E:39:ARG:HG3	1.62	0.64
2:F:885:LEU:HD13	2:F:967:TRP:HD1	1.63	0.64
1:B:1043:PHE:HB3	1:B:1161:ASN:CG	2.19	0.64
2:C:27:ASP:OD1	2:C:29:PRO:HD3	1.98	0.64
2:C:376:PHE:CZ	2:C:752:ILE:HG23	2.32	0.64
1:E:649:ARG:HG3	1:E:650:GLN:N	2.13	0.64
1:E:935:VAL:HG12	1:E:935:VAL:O	1.97	0.64
1:E:1044:ASP:HB3	1:E:1047:SER:OG	1.98	0.64
1:E:1071:ARG:HD3	1:E:1076:TYR:CE2	2.32	0.64
2:F:989:ALA:HB1	2:F:1017:LEU:CD2	2.28	0.64
2:C:532:LEU:O	2:C:535:TYR:HB3	1.97	0.64
2:C:971:LEU:HD23	4:Y:4:DA:H5'	1.78	0.64
2:C:1079:MET:SD	4:Y:40:DT:C7	2.86	0.64
1:E:1132:GLU:HG3	1:E:1159:ARG:NH2	2.13	0.64
3:G:229:GLN:HG2	3:G:231:LYS:HE2	1.80	0.64
3:G:419:LEU:HA	3:G:422:LEU:HD12	1.80	0.64
3:G:455:ASN:O	3:G:459:GLU:HG3	1.98	0.64
1:B:25:ALA:HB1	1:B:807:THR:HG21	1.79	0.63
1:B:562:GLN:NE2	4:Y:40:DT:H72	2.03	0.63
1:B:916:ILE:HD12	2:C:604:GLU:OE2	1.98	0.63
1:B:1052:PRO:HB3	1:B:1106:ARG:NH1	2.13	0.63
3:D:17:ARG:CG	3:D:17:ARG:HH11	2.11	0.63
3:D:530:HIS:CE1	3:D:534:TRP:HZ3	2.16	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1158:THR:HG22	1:E:1159:ARG:N	2.14	0.63
2:F:406:ARG:HG2	2:F:658:PRO:HG3	1.80	0.63
1:B:115:LEU:O	1:B:115:LEU:HG	1.98	0.63
2:C:984:HIS:CE1	2:C:1011:LEU:HD23	2.34	0.63
3:D:168:VAL:HB	3:D:352:LEU:HD23	1.81	0.63
1:E:17:GLY:CA	1:E:408:ALA:HA	2.28	0.63
1:E:251:GLY:HA3	1:E:255:ARG:CZ	2.28	0.63
1:E:1130:ASP:H	1:E:1134:HIS:HD2	1.41	0.63
2:F:699:GLN:C	2:F:701:PRO:HD3	2.19	0.63
1:B:527:ARG:HD2	1:B:528:ASP:N	2.14	0.63
1:B:821:VAL:HG22	1:B:831:THR:HA	1.80	0.63
1:E:494:GLU:OE1	1:E:494:GLU:N	2.30	0.63
2:F:825:PRO:O	2:F:852:ARG:NH2	2.31	0.63
2:F:989:ALA:HB1	2:F:1017:LEU:HD21	1.80	0.63
3:G:236:ASP:O	3:G:237:ALA:HB3	1.96	0.63
4:Y:9:DG:H1'	4:Y:10:DA:OP1	1.98	0.63
4:Z:31:DT:H2"	4:Z:32:DG:C5'	2.27	0.63
1:B:1111:TYR:N	1:B:1111:TYR:CD1	2.66	0.63
3:D:259:ASN:N	3:D:260:PRO:CD	2.60	0.63
1:E:710:TRP:O	1:E:714:HIS:HD2	1.81	0.63
1:B:17:GLY:CA	1:B:408:ALA:HA	2.27	0.63
1:B:414:ASP:OD1	1:B:416:LYS:N	2.30	0.63
1:B:1018:GLN:OE1	1:B:1018:GLN:HA	1.99	0.63
1:B:1033:ALA:HB1	1:B:1053:LEU:HA	1.81	0.63
1:B:1079:LEU:HD13	1:B:1139:ILE:HB	1.79	0.63
2:C:183:ARG:HD2	2:C:183:ARG:H	1.63	0.63
2:C:1091:GLN:HE21	2:C:1091:GLN:HA	1.64	0.63
3:D:242:ARG:HD2	3:D:243:LEU:HD23	1.80	0.63
1:B:459:LYS:HE2	1:B:860:LEU:HB2	1.80	0.63
1:B:728:ARG:NH2	2:C:739:ASN:HA	2.14	0.63
1:B:1002:LEU:H	1:B:1007:VAL:CG1	2.12	0.63
2:C:406:ARG:HG2	2:C:658:PRO:HG3	1.79	0.63
1:E:1084:ASN:O	1:E:1085:TRP:O	2.17	0.63
2:C:160:GLU:O	2:C:162:GLN:N	2.31	0.63
2:F:165:GLN:NE2	2:F:696:LEU:HD22	2.14	0.63
3:G:121:ARG:HH11	3:G:121:ARG:HB3	1.64	0.63
3:G:132:VAL:HG12	3:G:133:ASP:N	2.13	0.63
1:B:252:ILE:HD11	4:Y:16:DG:O4'	1.99	0.63
1:B:925:ASP:N	1:B:953:THR:HG22	2.07	0.63
2:C:318:GLU:OE1	2:C:318:GLU:N	2.32	0.63
2:C:386:VAL:HG12	2:C:425:VAL:HG21	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:839:ARG:HG3	4:Y:1:DT:N3	2.14	0.63
2:F:611:LEU:HD23	2:F:611:LEU:O	1.98	0.63
3:G:366:GLY:CA	3:G:393:ILE:HG21	2.28	0.63
1:B:159:LEU:HD21	1:B:342:GLU:CG	2.29	0.63
1:B:375:ARG:CZ	1:B:404:GLN:NE2	2.62	0.63
1:B:584:ARG:HG2	1:B:584:ARG:HH11	1.63	0.63
1:B:1071:ARG:HD3	1:B:1076:TYR:CE2	2.33	0.63
2:C:335:LEU:HA	2:C:374:ILE:HD11	1.81	0.63
2:C:505:GLY:O	2:C:523:THR:HB	1.98	0.63
3:D:79:GLN:HG3	3:D:80:ASN:N	2.14	0.63
3:D:417:ARG:NH1	3:D:437:GLU:HB3	2.14	0.63
1:E:1105:HIS:CD2	1:E:1105:HIS:N	2.66	0.63
2:F:676:CYS:CB	2:F:728:TYR:HB3	2.29	0.63
1:B:1085:TRP:NE1	1:B:1087:GLY:HA3	2.14	0.62
1:B:1132:GLU:HG3	1:B:1159:ARG:NH2	2.13	0.62
1:B:1158:THR:HG22	1:B:1159:ARG:N	2.14	0.62
2:C:262:THR:O	2:C:263:ARG:HG3	1.99	0.62
2:C:533:LEU:HD12	2:C:549:PRO:CB	2.29	0.62
3:D:366:GLY:HA3	3:D:393:ILE:HD12	1.81	0.62
1:E:73:ARG:HB3	1:E:73:ARG:NH1	2.09	0.62
1:E:649:ARG:HB2	1:E:649:ARG:NH1	2.12	0.62
1:E:978:GLU:O	2:F:588:LEU:HD13	1.99	0.62
2:F:141:TYR:O	2:F:142:ARG:HB2	1.97	0.62
2:F:656:ALA:O	2:F:658:PRO:CD	2.46	0.62
1:B:199:ARG:HH11	1:B:199:ARG:CB	2.12	0.62
2:C:266:ARG:HH11	2:C:269:PHE:HB2	1.64	0.62
3:D:281:ARG:CG	3:D:281:ARG:NH1	2.59	0.62
1:E:514:TYR:O	1:E:515:GLN:HG3	1.99	0.62
1:E:699:THR:C	1:E:700:GLN:HG2	2.19	0.62
2:F:377:HIS:CD2	2:F:728:TYR:CZ	2.87	0.62
1:B:221:ARG:HG2	1:B:323:ILE:HD12	1.80	0.62
1:B:252:ILE:HG21	1:B:254:ARG:HB2	1.80	0.62
2:C:980:LEU:HD23	2:C:980:LEU:C	2.19	0.62
4:Y:10:DA:H2"	4:Y:11:DG:H8	1.64	0.62
1:B:920:LEU:HD11	2:C:448:HIS:CD2	2.34	0.62
1:B:978:GLU:O	2:C:588:LEU:HD13	2.00	0.62
3:D:562:THR:HG21	3:D:594:THR:HG23	1.81	0.62
2:F:945:LEU:HD21	2:F:990:SER:HG	1.64	0.62
3:G:128:HIS:CE1	3:G:130:ILE:HG23	2.34	0.62
3:G:281:ARG:CG	3:G:281:ARG:NH1	2.61	0.62
4:Z:40:DT:H2"	4:Z:41:DA:C4'	2.29	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:646:ASP:O	1:B:649:ARG:HG2	1.99	0.62
3:D:4:GLN:HG3	3:D:8:LEU:HD11	1.81	0.62
1:E:597:LEU:O	1:E:601:GLN:HG3	2.00	0.62
1:E:728:ARG:HH12	2:F:786:ARG:NH2	1.97	0.62
1:E:1077:TYR:CD2	1:E:1137:GLY:HA2	2.34	0.62
2:F:419:SER:HB3	2:F:420:PRO:HD3	1.80	0.62
2:F:1053:GLN:N	2:F:1053:GLN:OE1	2.32	0.62
4:Z:18:DT:H1'	4:Z:19:DA:C8	2.33	0.62
1:B:598:TRP:CZ2	2:C:857:PHE:HB3	2.35	0.62
1:B:682:ARG:NH1	1:B:686:ASP:OD2	2.33	0.62
1:B:974:ARG:HH21	1:B:978:GLU:HB2	1.63	0.62
1:B:1130:ASP:H	1:B:1134:HIS:HD2	1.44	0.62
2:C:582:ARG:HG2	2:C:582:ARG:NH1	2.14	0.62
2:C:737:GLN:HG3	2:C:738:ASP:N	2.13	0.62
2:C:963:GLY:HA2	2:C:987:TYR:OH	1.99	0.62
2:C:1037:VAL:HA	2:C:1109:SER:CB	2.10	0.62
3:D:132:VAL:HG13	3:D:134:GLU:HG2	1.82	0.62
3:D:201:LEU:HB3	3:D:212:LEU:HD12	1.82	0.62
3:D:258:GLY:O	3:D:259:ASN:HB2	2.00	0.62
1:E:673:ASN:OD1	2:F:815:LYS:HG2	1.98	0.62
2:F:895:GLU:HG3	2:F:899:ARG:NH2	2.13	0.62
3:G:207:LYS:HE2	3:G:211:ARG:NH2	2.15	0.62
2:C:989:ALA:HB1	2:C:1017:LEU:CD2	2.29	0.62
1:E:685:THR:HG21	1:E:729:LEU:HD12	1.80	0.62
4:Z:7:DG:OP2	4:Z:7:DG:H2'	1.99	0.62
1:B:604:MET:SD	1:B:704:GLU:HB2	2.39	0.62
1:B:946:PRO:HG3	1:B:982:PHE:HE2	1.65	0.62
2:C:266:ARG:HB3	2:C:269:PHE:N	2.13	0.62
1:E:75:ARG:HE	1:E:79:ASN:HD21	1.45	0.62
1:E:851:ALA:O	1:E:855:THR:HG23	2.00	0.62
2:F:103:LEU:HD11	2:F:115:LEU:HD12	1.81	0.62
1:B:86:ALA:HB1	1:B:92:THR:OG1	2.00	0.62
1:B:362:LEU:O	1:B:399:ARG:HD3	2.00	0.62
1:B:950:SER:N	1:B:951:PRO:HD2	2.14	0.62
1:B:1102:MET:CE	1:B:1107:TYR:HB2	2.29	0.62
3:D:565:LEU:HD23	3:D:565:LEU:C	2.20	0.62
1:E:194:LEU:HD22	1:E:198:ASN:HB2	1.82	0.62
2:F:347:ASN:HD21	2:F:349:ALA:HB3	1.65	0.62
1:B:587:VAL:HG21	1:B:689:HIS:ND1	2.15	0.62
1:B:710:TRP:O	1:B:714:HIS:HD2	1.83	0.62
1:B:946:PRO:HG3	1:B:982:PHE:CE2	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1002:LEU:HB2	1:B:1007:VAL:HG13	1.81	0.62
2:C:142:ARG:N	2:C:143:PRO:CD	2.62	0.62
2:C:288:ASN:O	2:C:289:SER:C	2.39	0.62
1:E:773:SER:OG	1:E:775:GLU:HG3	2.00	0.62
3:G:110:ASN:C	3:G:110:ASN:HD22	2.02	0.62
1:B:637:ALA:O	1:B:640:VAL:HB	2.00	0.61
2:C:9:ARG:HH11	2:C:9:ARG:CB	2.13	0.61
2:C:261:LEU:HD11	2:C:281:GLU:OE1	1.99	0.61
2:C:656:ALA:O	2:C:658:PRO:CD	2.48	0.61
2:C:972:LEU:HA	2:C:1000:LEU:CD1	2.30	0.61
2:C:1051:ASP:CB	2:C:1056:ALA:HB3	2.23	0.61
3:D:597:ARG:O	3:D:598:SER:CB	2.46	0.61
1:B:324:ARG:HG2	1:B:324:ARG:NH1	2.15	0.61
1:B:497:PRO:O	1:B:812:HIS:HD2	1.82	0.61
3:D:462:MET:HE1	3:D:534:TRP:CE2	2.35	0.61
1:E:278:ASN:HA	1:E:281:GLN:OE1	1.99	0.61
1:E:831:THR:O	1:E:831:THR:OG1	2.18	0.61
2:F:972:LEU:HA	2:F:1000:LEU:CD1	2.29	0.61
2:F:1095:ARG:HB3	2:F:1095:ARG:HH11	1.64	0.61
1:B:37:TYR:CZ	1:B:59:LEU:HD12	2.35	0.61
1:B:286:LEU:HA	1:B:306:ARG:HD2	1.81	0.61
1:B:534:GLN:OE1	1:B:880:VAL:HG23	2.00	0.61
1:B:979:LEU:HD23	2:C:588:LEU:HD11	1.81	0.61
1:E:155:ASP:O	1:E:156:GLU:CB	2.46	0.61
1:E:1002:LEU:HB2	1:E:1007:VAL:HG11	1.81	0.61
2:F:550:TYR:CZ	2:F:552:GLU:HB2	2.35	0.61
2:F:592:ARG:O	2:F:592:ARG:HG2	2.00	0.61
2:F:833:PRO:HB3	2:F:835:GLU:OE2	2.00	0.61
2:F:1091:GLN:HA	2:F:1091:GLN:NE2	2.15	0.61
3:G:181:VAL:CG2	3:G:295:LEU:HD21	2.29	0.61
1:B:500:LYS:CE	1:B:868:GLN:HG3	2.30	0.61
2:C:60:ILE:N	2:C:60:ILE:HD12	2.16	0.61
2:C:839:ARG:HB3	2:C:851:MET:HE1	1.81	0.61
1:E:320:PRO:O	1:E:321:LEU:HB2	2.00	0.61
1:E:1149:GLU:C	1:E:1150:HIS:ND1	2.53	0.61
3:G:242:ARG:HD2	3:G:243:LEU:HD23	1.82	0.61
2:C:239:LEU:N	2:C:239:LEU:CD1	2.64	0.61
2:C:760:TYR:HE1	2:C:765:GLU:CG	2.13	0.61
1:E:758:THR:HG22	1:E:758:THR:O	1.99	0.61
1:E:763:GLN:NE2	1:E:763:GLN:CA	2.62	0.61
1:E:1104:ALA:HB3	1:E:1105:HIS:HD2	1.63	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:164:TRP:O	2:F:168:LEU:HB2	2.01	0.61
2:F:741:GLU:OE1	2:F:742:ARG:NH1	2.34	0.61
2:F:936:GLN:HG3	2:F:962:ASP:OD1	2.00	0.61
1:B:514:TYR:O	1:B:515:GLN:CG	2.48	0.61
1:B:1102:MET:CA	1:B:1102:MET:HE3	2.31	0.61
2:C:527:GLY:O	2:C:531:MET:HG3	1.99	0.61
2:C:885:LEU:HD11	2:C:927:LEU:HD13	1.83	0.61
3:D:202:ALA:CB	3:D:242:ARG:NH2	2.63	0.61
3:D:389:ASP:C	3:D:391:THR:H	2.04	0.61
1:E:823:ARG:HH22	1:E:828:LYS:NZ	1.99	0.61
1:E:893:LEU:H	1:E:893:LEU:HD12	1.64	0.61
1:B:320:PRO:O	1:B:321:LEU:HB2	2.00	0.61
1:B:604:MET:HA	1:B:604:MET:CE	2.31	0.61
2:C:164:TRP:C	2:C:167:PRO:HD2	2.21	0.61
2:C:256:TYR:CZ	2:C:316:ASP:OD1	2.52	0.61
2:C:266:ARG:HH21	2:C:272:ARG:NH2	1.98	0.61
3:D:241:HIS:O	3:D:243:LEU:N	2.34	0.61
1:E:136:MET:HG3	1:E:374:ILE:HG12	1.81	0.61
1:E:149:GLU:H	2:F:126:GLN:HE22	1.46	0.61
1:E:909:LEU:HD22	1:E:1054:GLU:CD	2.21	0.61
3:G:382:VAL:O	3:G:385:VAL:HG23	2.00	0.61
4:Y:31:DT:C2'	4:Y:32:DG:H5'	2.29	0.61
1:B:518:MET:HA	1:B:518:MET:HE3	1.82	0.61
1:B:903:VAL:HG21	2:C:48:MET:HE1	1.81	0.61
2:C:5:TYR:HE2	2:C:267:HIS:CD2	2.19	0.61
2:C:232:LYS:CG	2:C:232:LYS:O	2.49	0.61
2:F:199:SER:OG	2:F:200:ALA:N	2.34	0.61
2:F:846:ARG:HD3	2:F:850:GLN:NE2	2.15	0.61
1:B:25:ALA:HB1	1:B:807:THR:CG2	2.31	0.61
1:B:377:ARG:NH1	1:B:377:ARG:CG	2.57	0.61
1:B:391:PRO:N	1:B:429:THR:HG21	2.15	0.61
1:B:669:ASN:HB3	1:B:672:GLU:OE2	2.00	0.61
1:B:909:LEU:HD22	1:B:1054:GLU:CD	2.21	0.61
2:C:141:TYR:O	2:C:142:ARG:CB	2.44	0.61
2:C:976:GLN:HA	2:C:976:GLN:NE2	2.16	0.61
2:C:1078:ASN:OD1	2:C:1081:VAL:HG22	2.01	0.61
3:D:325:ARG:HG3	3:D:350:ASP:HB3	1.82	0.61
3:D:395:LYS:NZ	3:D:576:ARG:HD3	2.15	0.61
1:E:173:TYR:N	1:E:174:PRO:HD2	2.16	0.61
1:E:332:LEU:CD2	1:E:332:LEU:N	2.62	0.61
1:E:1018:GLN:OE1	1:E:1018:GLN:HA	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:52:CYS:SG	3:G:106:ARG:HG2	2.41	0.61
1:B:282:LEU:H	1:B:283:PRO:HD2	1.64	0.61
1:B:558:VAL:O	1:B:740:THR:HA	2.01	0.61
1:B:1025:LEU:CD2	1:B:1116:LEU:HD13	2.31	0.61
3:D:366:GLY:HA3	3:D:393:ILE:HG21	1.83	0.61
3:D:459:GLU:O	3:D:463:GLN:HG3	2.01	0.61
1:E:963:ASP:O	1:E:965:THR:N	2.34	0.61
2:F:28:ASP:N	2:F:29:PRO:CD	2.64	0.61
2:F:118:ASP:O	2:F:119:SER:HB2	2.01	0.61
3:G:175:THR:HG22	3:G:176:GLY:N	2.15	0.61
3:G:325:ARG:HG3	3:G:350:ASP:CG	2.21	0.61
3:G:528:PRO:O	3:G:529:GLU:HB2	2.01	0.61
1:B:955:LEU:O	1:B:958:LEU:HB2	2.01	0.60
2:C:292:GLU:O	2:C:294:ASP:N	2.34	0.60
2:C:885:LEU:HD13	2:C:967:TRP:HD1	1.65	0.60
1:E:55:THR:HG22	1:E:56:VAL:N	2.16	0.60
1:E:602:ALA:HB2	1:E:615:ALA:HB2	1.82	0.60
1:E:1082:LYS:HE2	1:E:1107:TYR:CZ	2.36	0.60
2:F:137:GLN:CG	2:F:697:MET:HE1	2.31	0.60
1:B:610:ASN:HD22	1:B:613:ARG:NH1	1.99	0.60
2:C:831:THR:HG22	2:C:951:GLN:HB2	1.83	0.60
2:C:942:GLU:CD	3:D:198:ARG:HH22	2.04	0.60
3:D:155:LYS:HG2	3:D:333:THR:HG22	1.83	0.60
1:E:1039:LEU:H	1:E:1039:LEU:HD23	1.66	0.60
2:F:5:TYR:N	2:F:5:TYR:CD1	2.69	0.60
2:F:207:LEU:N	2:F:207:LEU:HD23	2.15	0.60
2:F:585:GLU:O	2:F:588:LEU:HB2	2.01	0.60
1:B:719:ASP:CG	1:B:719:ASP:O	2.39	0.60
2:C:88:LYS:HD3	2:C:133:ASP:OD1	2.00	0.60
2:C:678:LEU:HD23	2:C:730:SER:CB	2.25	0.60
3:D:4:GLN:HG3	3:D:8:LEU:CD1	2.32	0.60
3:D:301:LEU:N	3:D:568:THR:HG21	2.08	0.60
3:D:533:THR:C	3:D:535:ALA:N	2.48	0.60
1:E:69:THR:HG21	1:E:128:THR:HG22	1.82	0.60
1:E:940:LEU:CB	1:E:989:VAL:HG21	2.30	0.60
1:E:1002:LEU:CA	1:E:1007:VAL:HG11	2.30	0.60
3:G:175:THR:HG21	3:G:355:LEU:HB3	1.83	0.60
3:G:389:ASP:C	3:G:391:THR:H	2.05	0.60
3:G:455:ASN:ND2	3:G:533:THR:O	2.27	0.60
4:Y:13:DA:H1'	4:Y:14:DC:H5'	1.83	0.60
1:B:504:MET:HE1	1:B:517:THR:CG2	2.32	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:851:ALA:O	1:B:855:THR:HG23	2.01	0.60
1:B:1003:ASN:H	1:B:1007:VAL:HG11	1.65	0.60
2:C:321:GLN:O	2:C:323:LEU:HD23	2.02	0.60
3:D:465:LYS:O	3:D:466:ARG:HB2	2.01	0.60
1:E:426:ASP:CG	1:E:429:THR:HG22	2.22	0.60
1:E:497:PRO:O	1:E:812:HIS:HD2	1.84	0.60
3:G:77:GLU:O	3:G:79:GLN:N	2.33	0.60
3:G:79:GLN:HG3	3:G:80:ASN:N	2.17	0.60
3:G:325:ARG:HG3	3:G:350:ASP:CB	2.31	0.60
2:C:258:ALA:CA	2:C:261:LEU:HG	2.20	0.60
2:C:278:ARG:O	2:C:280:SER:N	2.34	0.60
2:C:1102:MET:O	2:C:1106:VAL:HG23	2.01	0.60
1:E:504:MET:HE3	1:E:514:TYR:HD2	1.67	0.60
3:G:132:VAL:HG13	3:G:134:GLU:HG2	1.83	0.60
1:B:236:TRP:CH2	1:B:280:TYR:CD2	2.89	0.60
1:B:278:ASN:O	1:B:281:GLN:HG3	2.02	0.60
1:B:646:ASP:O	1:B:649:ARG:CG	2.49	0.60
1:B:649:ARG:CB	1:B:649:ARG:NH1	2.63	0.60
1:B:728:ARG:NH1	2:C:786:ARG:NH2	2.48	0.60
2:C:997:ARG:NH1	2:C:1007:ARG:NH1	2.50	0.60
3:D:242:ARG:NH2	3:D:266:LEU:HD11	2.15	0.60
3:D:434:ALA:O	3:D:437:GLU:HB2	2.02	0.60
1:E:55:THR:HG22	1:E:56:VAL:H	1.66	0.60
1:E:282:LEU:HA	1:E:285:SER:HB3	1.84	0.60
1:E:1111:TYR:O	1:E:1115:THR:HG23	2.01	0.60
2:F:737:GLN:HG3	2:F:738:ASP:N	2.12	0.60
3:G:549:ALA:HB3	3:G:573:ALA:HB2	1.84	0.60
2:C:257:LEU:HD12	2:C:258:ALA:H	1.64	0.60
1:E:285:SER:HB2	1:E:307:HIS:ND1	2.16	0.60
1:E:760:PHE:O	1:E:761:ARG:HB2	2.01	0.60
1:E:916:ILE:HG21	2:F:448:HIS:NE2	2.16	0.60
1:E:974:ARG:HH21	1:E:978:GLU:HB2	1.66	0.60
3:G:348:LEU:HD22	3:G:352:LEU:CD1	2.29	0.60
1:B:940:LEU:CB	1:B:989:VAL:HG21	2.32	0.60
1:B:1003:ASN:N	1:B:1007:VAL:HG21	2.17	0.60
3:D:276:LEU:HB3	3:D:277:PRO:HD3	1.83	0.60
1:E:282:LEU:O	1:E:282:LEU:HD13	2.02	0.60
2:F:9:ARG:HH11	2:F:9:ARG:CB	2.14	0.60
2:F:548:LEU:HD22	2:F:549:PRO:HD2	1.82	0.60
2:F:689:LEU:HG	2:F:689:LEU:O	2.01	0.60
3:G:121:ARG:HH11	3:G:121:ARG:HB2	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:246:LEU:HD12	1:B:305:PRO:HB2	1.83	0.60
1:B:946:PRO:CG	1:B:982:PHE:HE2	2.15	0.60
2:C:895:GLU:HG3	2:C:899:ARG:NH2	2.16	0.60
3:D:220:LEU:HD11	3:D:232:ARG:HE	1.67	0.60
1:E:92:THR:HG21	1:E:97:TYR:HB2	1.82	0.60
1:E:1071:ARG:HB3	1:E:1076:TYR:CD2	2.36	0.60
3:G:77:GLU:C	3:G:79:GLN:H	2.04	0.60
3:G:233:ILE:O	3:G:233:ILE:HG22	2.02	0.60
3:G:270:GLU:HB3	3:G:273:MET:HE2	1.83	0.60
3:G:561:VAL:HA	3:G:565:LEU:HD13	1.83	0.60
1:B:891:LYS:HD2	2:C:802:TYR:CZ	2.36	0.60
1:B:1118:LEU:HD22	1:B:1122:LEU:HG	1.84	0.60
2:C:1055:ASP:CG	2:C:1055:ASP:O	2.39	0.60
1:E:729:LEU:H	1:E:729:LEU:CD2	2.13	0.60
1:E:729:LEU:HD22	1:E:729:LEU:N	2.16	0.60
1:E:823:ARG:NH2	1:E:828:LYS:NZ	2.49	0.60
1:E:1059:ARG:HH11	1:E:1059:ARG:HG3	1.67	0.60
2:F:61:ASP:C	2:F:63:PRO:HD3	2.23	0.60
2:F:957:PRO:O	2:F:958:GLN:C	2.40	0.60
1:B:265:TRP:CD2	1:B:265:TRP:O	2.54	0.59
2:C:264:GLN:HB3	2:C:323:LEU:HA	1.83	0.59
2:C:539:SER:HB2	2:C:551:ASP:OD1	2.01	0.59
1:E:771:ARG:HH11	1:E:771:ARG:CG	2.15	0.59
1:E:916:ILE:HD12	2:F:604:GLU:OE2	2.01	0.59
2:F:533:LEU:HD13	2:F:537:MET:HE3	1.84	0.59
2:F:681:ASN:HD21	2:F:732:ILE:H	1.48	0.59
2:F:1055:ASP:O	2:F:1055:ASP:CG	2.40	0.59
1:B:11:LEU:HD13	1:B:99:ARG:HD2	1.84	0.59
1:B:812:HIS:CG	1:B:813:CYS:N	2.70	0.59
1:B:843:GLN:O	1:B:845:GLY:N	2.35	0.59
2:C:228:GLN:HG3	2:C:319:SER:HB3	1.83	0.59
2:C:352:GLY:HA2	2:C:357:GLU:HG3	1.83	0.59
2:C:972:LEU:HD23	2:C:973:SER:N	2.18	0.59
3:D:449:PHE:CZ	3:D:555:SER:HB2	2.36	0.59
1:E:282:LEU:HA	1:E:285:SER:CB	2.32	0.59
1:E:611:THR:CG2	2:F:858:ARG:HH21	2.15	0.59
1:E:657:VAL:HG21	1:E:707:LEU:CD1	2.32	0.59
4:Z:31:DT:H2"	4:Z:32:DG:H5'	1.83	0.59
1:B:233:LYS:NZ	1:B:269:ILE:HG12	2.16	0.59
1:B:1082:LYS:HE2	1:B:1107:TYR:CZ	2.38	0.59
1:B:1089:ASP:O	1:B:1091:SER:N	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:26:LEU:HB2	2:C:210:ARG:HH12	1.66	0.59
2:C:28:ASP:N	2:C:29:PRO:CD	2.64	0.59
2:C:266:ARG:HG2	2:C:268:SER:H	1.67	0.59
2:C:1079:MET:SD	4:Y:40:DT:H73	2.42	0.59
1:E:925:ASP:N	1:E:953:THR:HG22	2.05	0.59
1:E:1003:ASN:N	1:E:1007:VAL:HG21	2.17	0.59
3:G:213:THR:CG2	3:G:236:ASP:OD1	2.45	0.59
3:G:256:HIS:CE1	3:G:257:ALA:HB3	2.37	0.59
3:G:533:THR:C	3:G:535:ALA:N	2.52	0.59
1:B:281:GLN:HE21	1:B:283:PRO:HG2	1.66	0.59
1:B:728:ARG:NH1	2:C:786:ARG:HH12	1.97	0.59
2:C:654:PHE:O	2:C:654:PHE:CG	2.55	0.59
3:D:266:LEU:HD23	3:D:286:LEU:HD21	1.84	0.59
1:E:199:ARG:NH1	1:E:199:ARG:HB2	2.17	0.59
1:E:832:ASP:HA	1:E:834:HIS:CD2	2.37	0.59
1:E:1089:ASP:O	1:E:1091:SER:N	2.36	0.59
2:F:964:LEU:O	2:F:996:SER:HA	2.02	0.59
3:G:182:ALA:HA	3:G:232:ARG:HH22	1.68	0.59
1:B:550:ARG:NH1	1:B:550:ARG:HG2	2.17	0.59
3:D:77:GLU:C	3:D:79:GLN:H	2.06	0.59
1:E:324:ARG:HG2	1:E:324:ARG:NH1	2.18	0.59
1:E:362:LEU:O	1:E:399:ARG:HD3	2.02	0.59
1:E:913:GLY:O	2:F:604:GLU:HG2	2.02	0.59
2:F:160:GLU:C	2:F:162:GLN:H	2.05	0.59
2:F:689:LEU:HD23	2:F:689:LEU:N	2.16	0.59
2:F:965:LEU:HD11	2:F:999:PHE:CE2	2.37	0.59
1:B:280:TYR:N	1:B:280:TYR:CD1	2.71	0.59
1:E:377:ARG:NH1	1:E:377:ARG:CG	2.60	0.59
1:E:534:GLN:OE1	1:E:880:VAL:HG23	2.03	0.59
1:E:979:LEU:HA	2:F:588:LEU:HD13	1.84	0.59
1:E:1102:MET:CE	1:E:1107:TYR:HB2	2.32	0.59
2:F:232:LYS:CG	2:F:232:LYS:O	2.50	0.59
2:F:539:SER:HA	2:F:549:PRO:HG2	1.83	0.59
2:F:1063:THR:O	2:F:1065:GLN:N	2.36	0.59
3:G:91:VAL:HG12	3:G:100:MET:HB2	1.82	0.59
3:G:170:SER:HA	3:G:296:GLY:O	2.02	0.59
4:Z:38:DA:C1'	4:Z:39:DT:H5'	2.24	0.59
1:B:107:LYS:H	1:B:107:LYS:CD	2.15	0.59
1:B:867:TRP:HZ3	1:B:869:THR:HG22	1.65	0.59
1:B:1023:PHE:CZ	1:B:1064:GLY:HA3	2.37	0.59
1:B:1161:ASN:HB2	1:B:1164:LEU:HB2	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:97:THR:HG23	2:C:628:TYR:CE1	2.38	0.59
2:C:166:ALA:HB3	2:C:167:PRO:HD3	1.85	0.59
2:C:409:ILE:HD12	2:C:672:PHE:CE1	2.37	0.59
2:C:656:ALA:O	2:C:658:PRO:HD3	2.03	0.59
1:E:17:GLY:N	1:E:408:ALA:HA	2.17	0.59
2:F:764:ASP:CB	2:F:767:LEU:HD21	2.32	0.59
1:B:69:THR:HG21	1:B:128:THR:HG22	1.84	0.59
1:B:764:GLU:HA	1:B:764:GLU:OE2	2.01	0.59
3:D:263:LEU:HD12	3:D:263:LEU:O	2.03	0.59
3:G:530:HIS:C	3:G:532:THR:N	2.51	0.59
1:B:1071:ARG:HB3	1:B:1076:TYR:CD2	2.38	0.59
3:D:389:ASP:O	3:D:391:THR:N	2.36	0.59
3:D:556:GLN:O	3:D:557:ARG:CG	2.49	0.59
1:E:1161:ASN:O	1:E:1163:GLY:N	2.35	0.59
3:G:449:PHE:CZ	3:G:555:SER:HB2	2.38	0.59
4:Y:1:DT:C2'	4:Y:2:DC:H5"	2.33	0.59
1:B:73:ARG:HH11	1:B:73:ARG:CG	2.14	0.59
1:B:136:MET:HG3	1:B:374:ILE:HG12	1.85	0.59
1:B:821:VAL:HA	1:B:832:ASP:OD1	2.03	0.59
3:D:375:ASN:O	3:D:376:ARG:HG2	2.03	0.59
3:D:537:THR:OG1	3:D:540:LYS:HG3	2.01	0.59
1:E:950:SER:N	1:E:951:PRO:HD2	2.17	0.59
1:E:1015:ARG:CD	1:E:1015:ARG:N	2.66	0.59
2:F:355:ILE:CD1	2:F:356:GLU:H	2.15	0.59
3:G:367:ILE:HG13	3:G:393:ILE:CG2	2.31	0.59
1:B:501:MET:HG3	1:B:815:LEU:HD21	1.84	0.58
1:B:599:LEU:O	1:B:603:VAL:HG23	2.03	0.58
1:B:940:LEU:HB2	1:B:989:VAL:HG21	1.85	0.58
2:C:895:GLU:HG3	2:C:899:ARG:HH22	1.68	0.58
2:C:939:GLN:HE21	2:C:940:SER:N	1.90	0.58
3:D:32:HIS:CE1	3:D:34:ALA:HB2	2.38	0.58
1:E:159:LEU:CD1	1:E:339:VAL:HG22	2.32	0.58
1:E:262:GLN:CA	1:E:265:TRP:HB3	2.28	0.58
1:E:447:TRP:O	1:E:448:ARG:HB2	2.02	0.58
1:E:728:ARG:HH11	2:F:786:ARG:HH12	1.51	0.58
4:Y:17:DC:H2"	4:Y:18:DT:C6	2.37	0.58
1:B:13:LEU:O	1:B:39:ARG:NH2	2.36	0.58
1:B:55:THR:HG22	1:B:56:VAL:N	2.17	0.58
1:B:563:GLU:O	1:B:567:VAL:HG23	2.04	0.58
1:B:1002:LEU:N	1:B:1007:VAL:CG1	2.64	0.58
2:C:736:ILE:H	2:C:736:ILE:HD12	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:885:LEU:HD13	2:C:967:TRP:CD1	2.38	0.58
3:D:182:ALA:O	3:D:232:ARG:NH2	2.37	0.58
1:E:37:TYR:CZ	1:E:59:LEU:HD12	2.38	0.58
1:E:541:MET:O	1:E:811:TRP:CZ3	2.51	0.58
1:E:824:ARG:CB	4:Z:10:DA:OP2	2.48	0.58
2:F:714:TYR:HE2	2:F:718:GLU:OE2	1.86	0.58
1:B:42:LEU:CB	1:B:44:LEU:HD13	2.34	0.58
1:E:888:LEU:C	1:E:889:ASN:ND2	2.55	0.58
1:E:924:LEU:HD22	1:E:949:ALA:HB1	1.86	0.58
2:F:972:LEU:HA	2:F:1000:LEU:HD13	1.84	0.58
4:Z:13:DA:H2"	4:Z:14:DC:OP2	2.02	0.58
1:B:29:LYS:O	1:B:33:ILE:HG13	2.03	0.58
1:B:355:LEU:C	1:B:355:LEU:HD12	2.23	0.58
1:B:763:GLN:NE2	1:B:764:GLU:H	2.01	0.58
1:B:1028:SER:O	1:B:1029:GLU:O	2.21	0.58
2:C:173:VAL:O	2:C:176:THR:HG23	2.03	0.58
2:C:431:ALA:HB3	2:C:432:ASP:OD2	2.02	0.58
2:C:950:VAL:HG12	2:C:951:GLN:O	2.03	0.58
1:E:823:ARG:HH22	1:E:828:LYS:HZ2	1.49	0.58
1:E:1002:LEU:H	1:E:1007:VAL:CG1	2.16	0.58
1:E:1120:ARG:NH1	1:E:1172:PHE:CD2	2.72	0.58
1:E:1127:ALA:CB	2:F:25:ARG:NE	2.55	0.58
2:F:885:LEU:HD13	2:F:967:TRP:CD1	2.38	0.58
3:G:122:PHE:CG	3:G:283:ILE:CD1	2.86	0.58
3:G:185:LEU:HB2	3:G:232:ARG:CZ	2.33	0.58
1:B:915:GLY:C	1:B:916:ILE:HG13	2.24	0.58
1:B:928:ALA:O	1:B:929:ALA:HB2	2.03	0.58
1:B:1025:LEU:HD21	1:B:1116:LEU:HD13	1.86	0.58
2:C:183:ARG:H	2:C:183:ARG:CD	2.15	0.58
3:D:259:ASN:H	3:D:260:PRO:CD	2.16	0.58
3:D:455:ASN:ND2	3:D:533:THR:O	2.29	0.58
2:F:354:ASN:ND2	2:F:357:GLU:H	2.01	0.58
2:F:664:LEU:HD12	2:F:664:LEU:H	1.66	0.58
2:F:966:ARG:HD3	2:F:983:GLU:OE1	2.04	0.58
3:G:163:THR:OG1	3:G:325:ARG:NH2	2.36	0.58
3:G:398:LEU:H	3:G:398:LEU:CD2	2.16	0.58
3:G:597:ARG:HH11	3:G:598:SER:HB2	1.68	0.58
1:B:77:ARG:NE	2:C:749:GLN:HG2	2.18	0.58
1:B:827:LYS:HE2	1:B:831:THR:HG22	1.85	0.58
2:C:385:GLU:HG2	2:C:678:LEU:HD22	1.85	0.58
2:C:405:PRO:HB2	2:C:659:VAL:HG23	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:586:GLU:O	2:C:589:PRO:HD2	2.04	0.58
2:C:830:GLU:HG2	2:C:949:GLY:O	2.03	0.58
3:D:56:SER:C	3:D:58:LEU:H	2.06	0.58
3:D:202:ALA:CB	3:D:242:ARG:HH22	2.17	0.58
1:E:646:ASP:O	1:E:649:ARG:CG	2.52	0.58
1:E:899:ASP:HB3	1:E:1059:ARG:NH1	2.17	0.58
2:F:96:MET:HG3	2:F:124:LEU:HG	1.86	0.58
2:F:228:GLN:CG	2:F:319:SER:HB3	2.33	0.58
4:Y:17:DC:H2'	4:Y:18:DT:H72	1.86	0.58
1:B:250:SER:CB	4:Y:29:DA:C4'	2.77	0.58
1:B:282:LEU:HA	1:B:285:SER:CB	2.34	0.58
1:B:365:GLU:C	1:B:367:GLY:H	2.07	0.58
1:B:399:ARG:HG3	1:B:399:ARG:HH11	1.67	0.58
2:C:246:TYR:CE2	2:C:275:PRO:HD3	2.39	0.58
2:F:644:ARG:HH11	2:F:644:ARG:CG	2.16	0.58
1:B:222:HIS:ND1	1:B:272:TRP:HH2	2.02	0.58
2:C:318:GLU:O	2:C:320:SER:N	2.37	0.58
2:C:504:TRP:CH2	2:C:516:LEU:HD13	2.39	0.58
2:C:963:GLY:HA3	2:C:995:GLU:O	2.03	0.58
3:D:207:LYS:HE2	3:D:211:ARG:HH21	1.68	0.58
2:F:405:PRO:C	2:F:658:PRO:HB3	2.24	0.58
1:B:258:ASN:O	1:B:261:ASN:HB2	2.04	0.58
2:C:246:TYR:CD2	2:C:275:PRO:HD3	2.39	0.58
2:C:1046:LEU:O	2:C:1046:LEU:HD13	2.03	0.58
3:D:91:VAL:HG12	3:D:100:MET:HB2	1.86	0.58
1:E:891:LYS:HD2	2:F:802:TYR:CE1	2.38	0.58
2:F:539:SER:CB	2:F:551:ASP:OD1	2.52	0.58
2:F:551:ASP:OD2	2:F:551:ASP:N	2.31	0.58
1:B:1052:PRO:C	1:B:1053:LEU:HD23	2.25	0.58
2:C:445:ARG:NH1	2:C:452:GLU:OE1	2.37	0.58
3:D:110:ASN:C	3:D:110:ASN:HD22	2.07	0.58
1:E:311:GLU:HA	1:E:314:ASP:OD1	2.03	0.58
1:E:974:ARG:CZ	1:E:978:GLU:OE2	2.51	0.58
2:F:55:GLY:O	2:F:56:ILE:HB	2.04	0.58
2:F:768:ASN:HB3	2:F:771:GLU:CB	2.30	0.58
2:F:991:GLY:O	2:F:992:GLY:C	2.42	0.58
3:G:597:ARG:NH1	3:G:598:SER:HB2	2.19	0.58
1:B:268:LYS:HA	1:B:268:LYS:HE3	1.85	0.57
1:B:716:LEU:HD13	2:C:863:GLU:N	2.19	0.57
1:B:909:LEU:HD13	1:B:1054:GLU:OE2	2.04	0.57
1:B:983:GLU:HB3	1:B:985:GLN:OE1	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:105:ARG:C	2:C:107:ASP:N	2.56	0.57
2:C:737:GLN:C	2:C:739:ASN:H	2.06	0.57
1:E:56:VAL:HG13	1:E:124:ALA:HA	1.86	0.57
1:E:62:VAL:CG2	1:E:383:ILE:HG23	2.34	0.57
1:E:277:THR:O	1:E:277:THR:OG1	2.16	0.57
1:E:352:ASP:O	1:E:356:SER:HB2	2.04	0.57
1:E:423:ARG:NH1	4:Z:43:DA:H2	2.02	0.57
1:E:568:ARG:HH11	1:E:568:ARG:HG3	1.69	0.57
1:E:794:ARG:NH2	1:E:835:GLN:O	2.35	0.57
2:F:533:LEU:HD12	2:F:549:PRO:HB3	1.86	0.57
2:F:984:HIS:CE1	2:F:1011:LEU:HD23	2.38	0.57
1:B:236:TRP:C	1:B:238:ASP:N	2.57	0.57
1:B:280:TYR:HD1	1:B:280:TYR:H	1.52	0.57
2:C:278:ARG:HB3	2:C:282:ASN:HD21	1.68	0.57
2:C:506:ILE:HG22	2:C:507:ASP:N	2.14	0.57
3:D:122:PHE:CE2	3:D:166:ILE:HD11	2.39	0.57
3:D:132:VAL:HG12	3:D:133:ASP:H	1.69	0.57
3:D:440:LEU:HD22	3:D:552:ILE:HD11	1.86	0.57
2:F:764:ASP:HB3	2:F:767:LEU:CD1	2.34	0.57
4:Z:40:DT:C3'	4:Z:41:DA:H5'	2.34	0.57
1:B:253:ASP:O	1:B:256:LYS:HD2	2.03	0.57
1:B:469:MET:SD	1:B:795:LEU:CD1	2.92	0.57
1:B:902:ARG:HH12	1:B:1058:VAL:CG2	2.17	0.57
2:C:251:ILE:HB	2:C:286:LEU:CD2	2.33	0.57
2:C:533:LEU:HD21	2:C:544:TRP:CE3	2.40	0.57
3:D:265:VAL:HA	3:D:291:ARG:O	2.03	0.57
1:E:646:ASP:O	1:E:649:ARG:HG2	2.04	0.57
1:E:1161:ASN:HB2	1:E:1164:LEU:HB2	1.86	0.57
2:F:440:SER:O	2:F:441:ASP:HB2	2.03	0.57
3:G:181:VAL:O	3:G:184:LEU:HB3	2.04	0.57
3:G:345:ALA:O	3:G:349:ARG:HD2	2.04	0.57
1:B:233:LYS:HE3	1:B:265:TRP:CZ3	2.39	0.57
1:B:1015:ARG:H	1:B:1015:ARG:CD	2.16	0.57
1:E:199:ARG:CB	1:E:199:ARG:HH11	2.17	0.57
1:E:1102:MET:SD	1:E:1111:TYR:OH	2.63	0.57
1:E:1149:GLU:O	1:E:1150:HIS:CG	2.57	0.57
3:G:53:LEU:HD22	3:G:53:LEU:C	2.24	0.57
3:G:150:GLU:OE2	3:G:151:ILE:HG22	2.03	0.57
1:B:447:TRP:O	1:B:448:ARG:HB2	2.04	0.57
1:B:611:THR:CG2	2:C:858:ARG:HH21	2.11	0.57
3:D:202:ALA:HB2	3:D:242:ARG:NH2	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:621:MET:HE3	1:E:668:ARG:HD2	1.85	0.57
1:E:936:GLU:O	1:E:936:GLU:HG2	2.04	0.57
2:F:656:ALA:O	2:F:658:PRO:HD3	2.03	0.57
2:F:895:GLU:HG3	2:F:899:ARG:HH22	1.70	0.57
3:G:283:ILE:HG22	3:G:284:ASP:N	2.19	0.57
3:G:555:SER:O	3:G:556:GLN:HG2	2.05	0.57
1:B:225:ILE:HG22	1:B:229:ILE:HD11	1.87	0.57
1:B:1015:ARG:HD2	1:B:1015:ARG:N	2.19	0.57
3:D:128:HIS:CE1	3:D:130:ILE:HG23	2.40	0.57
3:D:213:THR:HG21	3:D:234:PRO:O	2.04	0.57
3:D:395:LYS:NZ	3:D:576:ARG:CD	2.67	0.57
1:E:34:ALA:HB1	1:E:79:ASN:HD22	1.70	0.57
1:E:63:THR:CG2	1:E:384:ASP:OD1	2.53	0.57
1:E:877:PRO:CB	1:E:879:GLN:HG3	2.24	0.57
3:G:51:VAL:HG13	3:G:112:MET:HB3	1.87	0.57
1:B:527:ARG:HD2	1:B:527:ARG:C	2.25	0.57
1:B:667:ALA:C	1:B:669:ASN:H	2.08	0.57
1:B:1002:LEU:CA	1:B:1007:VAL:HG11	2.35	0.57
2:C:295:VAL:O	2:C:296:GLY:C	2.42	0.57
2:C:936:GLN:H	2:C:960:GLN:CD	2.08	0.57
1:E:161:TYR:HD1	1:E:194:LEU:HD12	1.69	0.57
1:E:282:LEU:HB3	1:E:314:ASP:OD1	2.04	0.57
1:E:919:ASP:OD1	2:F:652:GLN:HB2	2.05	0.57
1:E:1094:THR:O	1:E:1096:GLN:N	2.38	0.57
2:F:220:PRO:HG2	2:F:223:TYR:CD1	2.39	0.57
2:F:442:ARG:CG	2:F:442:ARG:NH1	2.48	0.57
2:F:540:ALA:O	2:F:541:GLN:CB	2.48	0.57
4:Z:9:DG:H2"	4:Z:10:DA:H8	1.69	0.57
1:B:55:THR:HG22	1:B:56:VAL:H	1.70	0.57
1:B:217:THR:OG1	1:B:219:ALA:HB3	2.04	0.57
1:B:281:GLN:HG2	1:B:313:ILE:CG2	2.34	0.57
1:B:282:LEU:HB3	1:B:314:ASP:OD1	2.04	0.57
1:B:282:LEU:O	1:B:282:LEU:HD13	2.04	0.57
2:C:733:GLY:HA2	2:C:742:ARG:CG	2.22	0.57
3:D:53:LEU:C	3:D:53:LEU:CD2	2.73	0.57
1:E:86:ALA:HB1	1:E:92:THR:OG1	2.05	0.57
1:E:229:ILE:HA	1:E:316:LEU:HD11	1.87	0.57
1:E:252:ILE:HG12	1:E:253:ASP:H	1.69	0.57
1:E:423:ARG:NH1	4:Z:43:DA:N3	2.48	0.57
1:E:540:LEU:HD12	1:E:547:ARG:CZ	2.34	0.57
2:F:318:GLU:C	2:F:320:SER:H	2.08	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:737:GLN:C	2:F:739:ASN:H	2.07	0.57
3:G:80:ASN:HB3	3:G:83:GLU:HB3	1.87	0.57
3:G:316:TYR:O	3:G:319:ALA:HB3	2.04	0.57
1:B:426:ASP:CG	1:B:429:THR:HG22	2.25	0.57
1:B:728:ARG:NH1	2:C:786:ARG:NH1	2.53	0.57
1:B:1052:PRO:CD	1:B:1106:ARG:NH1	2.64	0.57
2:C:943:ILE:HD11	2:C:956:LEU:HG	1.87	0.57
3:D:122:PHE:HB2	3:D:283:ILE:CD1	2.34	0.57
3:D:367:ILE:HD11	3:D:575:ARG:O	2.05	0.57
1:E:52:ARG:HB3	1:E:52:ARG:HH11	1.69	0.57
3:G:155:LYS:HG2	3:G:333:THR:HG22	1.85	0.57
1:B:1052:PRO:HD3	1:B:1106:ARG:HH12	1.66	0.57
2:C:533:LEU:CD1	2:C:549:PRO:HB3	2.33	0.57
1:E:262:GLN:HG2	1:E:277:THR:CG2	2.33	0.57
1:E:286:LEU:HA	1:E:306:ARG:HD2	1.85	0.57
1:E:963:ASP:O	1:E:964:PHE:C	2.42	0.57
2:F:297:ASN:OD1	2:F:299:LEU:HB2	2.05	0.57
2:F:433:ARG:HH11	2:F:803:ALA:HA	1.68	0.57
3:G:181:VAL:HG22	3:G:295:LEU:HD21	1.85	0.57
1:B:658:MET:HB3	1:B:659:PRO:CD	2.30	0.56
1:B:854:ARG:HG2	1:B:854:ARG:NH1	2.15	0.56
1:B:985:GLN:H	1:B:985:GLN:CD	2.09	0.56
2:C:12:VAL:O	2:C:15:ALA:HB3	2.05	0.56
2:C:764:ASP:HB3	2:C:767:LEU:CD1	2.35	0.56
3:D:366:GLY:HA3	3:D:393:ILE:CD1	2.34	0.56
1:E:487:LEU:HD22	1:E:811:TRP:CZ3	2.40	0.56
2:F:160:GLU:O	2:F:161:ALA:HB3	2.04	0.56
1:B:169:ARG:NE	2:C:504:TRP:HZ2	2.02	0.56
1:B:230:ASP:O	1:B:233:LYS:N	2.36	0.56
1:B:288:LYS:NZ	4:Y:30:DG:OP1	2.38	0.56
1:B:586:SER:O	1:B:589:GLU:OE1	2.23	0.56
1:B:690:ILE:HG22	1:B:694:LEU:HD22	1.85	0.56
2:C:246:TYR:CD2	2:C:274:LEU:HA	2.41	0.56
2:C:654:PHE:O	2:C:655:LEU:CG	2.46	0.56
3:D:62:GLU:HA	3:D:65:HIS:CB	2.15	0.56
1:E:89:ARG:O	1:E:91:THR:HG23	2.05	0.56
1:E:997:VAL:HG23	1:E:1146:VAL:HG11	1.86	0.56
2:F:87:ASN:ND2	2:F:90:SER:H	2.03	0.56
2:F:1071:PHE:C	2:F:1071:PHE:CD2	2.79	0.56
3:G:17:ARG:CG	3:G:17:ARG:HH11	2.18	0.56
3:G:212:LEU:O	3:G:216:LEU:HB2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:221:ARG:HA	3:G:231:LYS:HZ1	1.70	0.56
4:Y:16:DG:H2"	4:Y:17:DC:O4'	2.05	0.56
1:B:136:MET:HG3	1:B:374:ILE:CD1	2.35	0.56
1:B:199:ARG:C	1:B:200:TYR:O	2.41	0.56
1:B:236:TRP:CD1	1:B:236:TRP:O	2.58	0.56
1:B:487:LEU:HD22	1:B:811:TRP:CH2	2.39	0.56
1:B:1105:HIS:CD2	1:B:1105:HIS:N	2.73	0.56
1:B:1126:ILE:CG2	1:B:1129:TYR:HB2	2.35	0.56
2:C:504:TRP:HH2	2:C:516:LEU:HD13	1.69	0.56
3:D:175:THR:HG21	3:D:355:LEU:CB	2.34	0.56
3:D:597:ARG:NH1	3:D:598:SER:HB2	2.20	0.56
1:E:63:THR:HG22	1:E:384:ASP:OD1	2.05	0.56
1:E:762:VAL:HG13	1:E:791:GLU:CD	2.25	0.56
2:F:104:GLU:HA	2:F:112:ARG:HH12	1.64	0.56
2:F:795:GLN:HB3	2:F:796:PRO:CD	2.36	0.56
2:F:867:THR:OG1	2:F:868:GLU:N	2.39	0.56
2:F:915:ILE:O	2:F:919:THR:CG2	2.53	0.56
2:F:965:LEU:HD11	2:F:999:PHE:HE2	1.70	0.56
3:G:126:VAL:CG1	3:G:166:ILE:H	2.17	0.56
3:G:259:ASN:N	3:G:260:PRO:CD	2.68	0.56
3:G:568:THR:O	3:G:572:ARG:HG2	2.06	0.56
4:Y:28:DC:H1'	4:Y:29:DA:C5'	2.23	0.56
1:B:62:VAL:HG22	1:B:383:ILE:HA	1.88	0.56
1:B:729:LEU:H	1:B:729:LEU:CD2	2.13	0.56
2:C:120:ASP:O	2:C:121:LYS:HB2	2.06	0.56
2:C:139:LEU:HD23	2:C:146:LEU:CD1	2.36	0.56
2:C:297:ASN:H	2:C:345:LEU:HD12	1.70	0.56
2:C:333:ASN:HB2	2:C:336:HIS:H	1.70	0.56
2:C:602:ASP:OD1	2:C:603:ALA:N	2.35	0.56
2:C:641:LEU:CD2	2:C:645:LEU:HD22	2.27	0.56
1:E:282:LEU:HA	1:E:285:SER:OG	2.06	0.56
1:E:719:ASP:O	1:E:720:SER:O	2.24	0.56
1:E:1098:MET:O	1:E:1102:MET:HG2	2.05	0.56
2:F:736:ILE:H	2:F:736:ILE:HD12	1.70	0.56
3:G:582:ASP:C	3:G:584:ARG:H	2.09	0.56
1:B:234:GLN:C	1:B:236:TRP:H	2.09	0.56
1:B:482:GLY:HA2	1:B:485:GLN:HG2	1.87	0.56
1:B:541:MET:O	1:B:811:TRP:CZ3	2.54	0.56
1:B:862:ASP:O	1:B:863:ASP:C	2.42	0.56
1:B:1102:MET:HE3	1:B:1102:MET:HA	1.88	0.56
2:C:964:LEU:O	2:C:996:SER:HA	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:980:LEU:CD1	2:C:998:LEU:HB2	2.34	0.56
2:C:989:ALA:HB1	2:C:1017:LEU:HD21	1.86	0.56
2:C:1053:GLN:OE1	2:C:1053:GLN:N	2.38	0.56
2:C:1077:GLY:H	2:C:1083:GLY:HA3	1.69	0.56
3:D:58:LEU:HD22	3:D:81:TRP:CH2	2.41	0.56
1:E:98:GLU:O	1:E:102:GLU:HG3	2.05	0.56
3:G:181:VAL:HG12	3:G:232:ARG:HH12	1.71	0.56
2:C:26:LEU:HB2	2:C:210:ARG:HH22	1.70	0.56
3:D:325:ARG:HG3	3:D:350:ASP:CB	2.35	0.56
3:D:449:PHE:HZ	3:D:555:SER:HB2	1.71	0.56
3:D:462:MET:O	3:D:466:ARG:HA	2.05	0.56
1:E:213:PRO:HD2	1:E:216:GLU:HG3	1.87	0.56
2:F:1063:THR:C	2:F:1065:GLN:N	2.56	0.56
2:F:1078:ASN:OD1	2:F:1081:VAL:HG22	2.05	0.56
1:B:222:HIS:CD2	1:B:272:TRP:HH2	2.24	0.56
1:B:1102:MET:HE3	1:B:1107:TYR:HB2	1.87	0.56
2:C:409:ILE:HD12	2:C:672:PHE:CZ	2.41	0.56
3:D:426:ALA:C	3:D:428:PRO:CD	2.74	0.56
3:D:582:ASP:C	3:D:584:ARG:H	2.09	0.56
1:E:13:LEU:O	1:E:39:ARG:NH2	2.38	0.56
1:E:427:ILE:O	1:E:431:MET:HG3	2.06	0.56
2:F:1063:THR:C	2:F:1065:GLN:H	2.09	0.56
3:G:530:HIS:CE1	3:G:534:TRP:HZ3	2.24	0.56
3:G:562:THR:HG21	3:G:594:THR:HG23	1.88	0.56
1:B:266:ILE:O	1:B:266:ILE:HG22	2.06	0.56
2:C:251:ILE:CD1	2:C:256:TYR:CD2	2.89	0.56
2:C:692:LEU:H	2:C:692:LEU:HD12	1.71	0.56
3:D:221:ARG:HA	3:D:231:LYS:NZ	2.21	0.56
1:E:915:GLY:C	1:E:916:ILE:HG13	2.25	0.56
1:E:1014:ALA:HB3	1:E:1015:ARG:HH11	1.71	0.56
1:E:1034:SER:O	1:E:1037:ASP:HB3	2.05	0.56
1:E:1071:ARG:HH22	2:F:29:PRO:CB	2.19	0.56
1:E:1161:ASN:C	1:E:1163:GLY:N	2.60	0.56
2:F:457:LEU:O	2:F:460:LEU:HG	2.06	0.56
2:F:1080:MET:HG3	4:Z:5:DA:N3	2.21	0.56
3:G:221:ARG:HA	3:G:231:LYS:NZ	2.21	0.56
4:Z:39:DT:H2"	4:Z:40:DT:H5"	1.86	0.56
1:B:159:LEU:HD13	1:B:159:LEU:C	2.26	0.56
1:B:561:ARG:HG2	1:B:561:ARG:HH11	1.69	0.56
1:B:892:THR:HG22	2:C:804:ARG:NE	2.21	0.56
1:B:1015:ARG:H	1:B:1015:ARG:HD2	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:59:ASN:O	2:C:60:ILE:O	2.24	0.56
2:C:318:GLU:C	2:C:320:SER:H	2.08	0.56
2:C:592:ARG:HH11	2:C:592:ARG:CB	2.18	0.56
2:C:1046:LEU:HD21	2:C:1110:GLN:HG3	1.88	0.56
2:C:1059:ASP:OD1	2:C:1059:ASP:O	2.24	0.56
1:E:236:TRP:CD1	1:E:236:TRP:O	2.59	0.56
1:E:426:ASP:HB3	1:E:429:THR:HG22	1.88	0.56
1:E:1073:GLU:O	1:E:1074:GLY:O	2.24	0.56
4:Y:40:DT:H2"	4:Y:41:DA:C4'	2.35	0.56
1:B:200:TYR:C	1:B:202:GLN:H	2.09	0.56
1:B:892:THR:CG2	2:C:804:ARG:HH21	2.18	0.56
1:B:1116:LEU:HD21	1:B:1120:ARG:NH2	2.21	0.56
1:B:1136:GLY:HA2	1:B:1159:ARG:NH1	2.21	0.56
2:C:142:ARG:H	2:C:143:PRO:HD2	1.71	0.56
2:C:943:ILE:CD1	2:C:956:LEU:HG	2.36	0.56
3:D:226:THR:O	3:D:228:GLU:N	2.38	0.56
1:E:518:MET:HA	1:E:518:MET:HE3	1.87	0.56
1:E:1003:ASN:CA	1:E:1007:VAL:HG21	2.36	0.56
2:F:3:ARG:NH1	2:F:235:GLU:OE1	2.39	0.56
2:F:445:ARG:NH1	2:F:452:GLU:OE1	2.38	0.56
2:F:592:ARG:HB2	2:F:592:ARG:NH1	2.21	0.56
2:F:625:GLY:C	2:F:627:GLN:H	2.09	0.56
3:G:389:ASP:O	3:G:391:THR:N	2.34	0.56
1:B:231:THR:O	1:B:235:GLN:HG3	2.06	0.55
1:B:254:ARG:NH2	4:Y:16:DG:OP1	2.39	0.55
1:B:514:TYR:O	1:B:515:GLN:HG3	2.06	0.55
1:B:1142:PHE:O	1:B:1144:ARG:O	2.24	0.55
2:C:5:TYR:N	2:C:5:TYR:CD1	2.74	0.55
1:E:228:ARG:HD2	1:E:319:GLU:CD	2.25	0.55
1:E:265:TRP:CD2	1:E:265:TRP:O	2.59	0.55
1:E:900:ASN:OD1	1:E:900:ASN:O	2.25	0.55
1:E:1012:LEU:CD2	1:E:1070:PHE:CD2	2.88	0.55
2:F:1077:GLY:H	2:F:1083:GLY:CA	2.19	0.55
3:G:276:LEU:HB3	3:G:277:PRO:HD3	1.87	0.55
1:B:415:PRO:HB3	1:B:430:TYR:CE2	2.41	0.55
1:B:540:LEU:HD12	1:B:547:ARG:NH2	2.21	0.55
1:B:769:HIS:HD2	1:B:793:GLU:OE1	1.88	0.55
2:C:8:ASN:ND2	2:C:343:LEU:CG	2.63	0.55
2:C:245:ARG:HA	2:C:326:PHE:CE1	2.41	0.55
2:C:272:ARG:O	2:C:273:GLU:HB2	2.06	0.55
2:C:278:ARG:O	2:C:279:ASP:C	2.44	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:551:LEU:HD12	3:D:552:ILE:N	2.21	0.55
1:E:252:ILE:HD11	4:Z:16:DG:O4'	2.06	0.55
1:E:610:ASN:ND2	1:E:613:ARG:HH12	2.04	0.55
2:F:479:LEU:HD23	2:F:479:LEU:C	2.26	0.55
2:F:980:LEU:CD1	2:F:998:LEU:HB2	2.34	0.55
3:G:212:LEU:HD23	3:G:269:ASP:OD1	2.07	0.55
3:G:385:VAL:CG1	3:G:396:ARG:HD2	2.36	0.55
1:B:562:GLN:NE2	4:Y:40:DT:C7	2.66	0.55
1:B:739:VAL:HG22	1:B:740:THR:N	2.22	0.55
3:D:547:ASP:HB3	3:D:575:ARG:HD2	1.88	0.55
1:E:153:ILE:HG22	1:E:349:LEU:C	2.27	0.55
1:E:398:ARG:HB2	1:E:402:HIS:HB2	1.87	0.55
2:F:26:LEU:HD13	2:F:210:ARG:HH12	1.72	0.55
2:F:848:PHE:CD2	2:F:1034:PRO:HG3	2.42	0.55
3:G:456:GLU:O	3:G:458:ILE:N	2.40	0.55
4:Y:1:DT:C3'	4:Y:2:DC:C5'	2.84	0.55
1:B:281:GLN:HB2	1:B:283:PRO:HD2	1.85	0.55
2:C:28:ASP:H	2:C:29:PRO:HD3	1.69	0.55
2:C:915:ILE:O	2:C:919:THR:HG23	2.07	0.55
2:C:999:PHE:HE1	2:C:1005:GLU:OE1	1.88	0.55
3:D:456:GLU:C	3:D:458:ILE:H	2.09	0.55
1:E:610:ASN:ND2	1:E:613:ARG:NH1	2.54	0.55
1:E:728:ARG:CZ	2:F:739:ASN:HB2	2.36	0.55
1:E:928:ALA:O	1:E:929:ALA:HB2	2.05	0.55
3:G:263:LEU:HD12	3:G:263:LEU:O	2.06	0.55
3:G:423:GLN:O	3:G:425:ARG:N	2.38	0.55
1:B:281:GLN:HE21	1:B:283:PRO:CG	2.19	0.55
1:B:710:TRP:CE2	1:B:714:HIS:NE2	2.75	0.55
1:B:771:ARG:HH11	1:B:771:ARG:CG	2.19	0.55
1:B:893:LEU:HD13	1:B:893:LEU:O	2.06	0.55
2:C:733:GLY:O	2:C:734:ARG:HB3	2.06	0.55
2:C:945:LEU:CD1	2:C:989:ALA:HB3	2.36	0.55
1:E:65:THR:HG22	1:E:66:GLU:N	2.22	0.55
1:E:254:ARG:O	1:E:257:PHE:HB2	2.05	0.55
1:E:417:GLN:HG2	1:E:804:VAL:HG22	1.88	0.55
1:E:518:MET:HE3	1:E:521:VAL:HB	1.87	0.55
2:F:352:GLY:HA2	2:F:357:GLU:HG3	1.89	0.55
2:F:519:THR:HG22	2:F:521:GLN:N	2.16	0.55
2:F:706:ARG:NH1	2:F:711:ASP:OD1	2.40	0.55
3:G:113:TRP:CZ2	3:G:117:ARG:HD2	2.41	0.55
4:Y:9:DG:C1'	4:Y:10:DA:OP1	2.54	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:226:VAL:HG12	1:B:227:ALA:N	2.20	0.55
1:B:423:ARG:NH1	4:Y:43:DA:N3	2.44	0.55
1:B:1002:LEU:HA	1:B:1155:ILE:HD12	1.88	0.55
2:C:991:GLY:O	2:C:992:GLY:C	2.45	0.55
1:E:153:ILE:HG22	1:E:349:LEU:O	2.07	0.55
1:E:227:ALA:O	1:E:231:THR:HG23	2.07	0.55
2:F:199:SER:O	2:F:200:ALA:C	2.45	0.55
2:F:829:PRO:O	2:F:830:GLU:C	2.44	0.55
3:G:132:VAL:HG12	3:G:133:ASP:H	1.71	0.55
1:B:11:LEU:HA	1:B:39:ARG:NH1	2.21	0.55
2:C:75:ARG:HH11	2:C:208:PRO:HD3	1.71	0.55
2:C:116:THR:C	2:C:118:ASP:H	2.10	0.55
2:C:742:ARG:HD3	2:C:743:PHE:N	2.19	0.55
2:C:768:ASN:HB3	2:C:771:GLU:CB	2.31	0.55
2:C:998:LEU:HD22	2:C:1000:LEU:HD21	1.89	0.55
3:D:181:VAL:CG2	3:D:295:LEU:HD21	2.36	0.55
1:E:591:LEU:O	1:E:595:GLU:HG3	2.06	0.55
1:E:730:GLU:OE1	1:E:733:LYS:HD2	2.07	0.55
1:E:1040:ILE:HD11	1:E:1168:MET:HE1	1.87	0.55
2:F:26:LEU:HG	2:F:27:ASP:O	2.07	0.55
2:F:183:ARG:H	2:F:183:ARG:CD	2.11	0.55
3:G:202:ALA:CB	3:G:242:ARG:NH2	2.70	0.55
3:G:430:LEU:O	3:G:434:ALA:HB2	2.07	0.55
1:B:65:THR:HG22	1:B:66:GLU:N	2.21	0.55
1:B:307:HIS:ND1	1:B:310:PHE:HZ	2.04	0.55
1:B:684:LEU:HD12	1:B:684:LEU:O	2.06	0.55
2:C:277:PHE:CE1	2:C:278:ARG:HG3	2.42	0.55
2:C:355:ILE:CD1	2:C:356:GLU:N	2.65	0.55
2:C:1080:MET:HG3	4:Y:5:DA:C4	2.41	0.55
3:D:98:THR:HG23	3:D:99:PRO:HD2	1.89	0.55
3:D:549:ALA:HB3	3:D:573:ALA:HB2	1.89	0.55
1:E:856:CYS:O	1:E:859:ALA:HB3	2.06	0.55
2:F:545:GLN:O	2:F:546:SER:HB2	2.07	0.55
3:G:71:CYS:HB3	3:G:74:GLU:HB3	1.89	0.55
3:G:122:PHE:HB2	3:G:283:ILE:CD1	2.37	0.55
3:G:198:ARG:HD3	3:G:264:ASP:OD2	2.07	0.55
3:G:259:ASN:H	3:G:260:PRO:HD3	1.68	0.55
3:G:345:ALA:C	3:G:349:ARG:HD2	2.27	0.55
3:G:370:LEU:HD22	3:G:394:GLU:OE2	2.06	0.55
4:Y:28:DC:C1'	4:Y:29:DA:H5'	2.22	0.55
1:B:587:VAL:HG11	1:B:690:ILE:HG13	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:731:SER:C	1:B:733:LYS:N	2.56	0.55
1:B:832:ASP:HA	1:B:834:HIS:HD2	1.69	0.55
1:B:1041:ARG:HD2	1:B:1050:CYS:SG	2.47	0.55
2:C:347:ASN:ND2	2:C:349:ALA:H	2.05	0.55
2:C:550:TYR:CE2	2:C:552:GLU:HB2	2.42	0.55
2:C:580:GLN:O	2:C:582:ARG:HD2	2.07	0.55
2:C:945:LEU:HD21	2:C:990:SER:HG	1.71	0.55
1:E:328:ILE:O	1:E:332:LEU:CD2	2.55	0.55
1:E:1102:MET:CE	1:E:1111:TYR:OH	2.55	0.55
2:F:302:SER:O	2:F:305:LYS:HE3	2.07	0.55
2:F:355:ILE:HD12	2:F:356:GLU:N	2.20	0.55
2:F:745:SER:O	2:F:748:VAL:N	2.38	0.55
3:G:136:LEU:O	3:G:140:THR:HG23	2.06	0.55
3:G:175:THR:HG21	3:G:355:LEU:CB	2.36	0.55
1:B:65:THR:HG22	1:B:67:ALA:N	2.14	0.55
1:B:73:ARG:CG	1:B:73:ARG:NH1	2.70	0.55
2:C:234:ILE:CG2	2:C:236:ILE:HG13	2.35	0.55
2:C:287:PHE:O	2:C:288:ASN:C	2.44	0.55
2:C:945:LEU:HD11	2:C:989:ALA:HB3	1.89	0.55
1:E:604:MET:HA	1:E:604:MET:CE	2.36	0.55
1:E:945:PHE:CE2	1:E:955:LEU:HD21	2.42	0.55
2:F:703:ARG:NH1	2:F:703:ARG:HB2	2.22	0.55
2:F:946:ALA:HB2	2:F:951:GLN:HE22	1.71	0.55
3:G:202:ALA:HB2	3:G:242:ARG:NH2	2.21	0.55
4:Y:30:DG:N9	4:Y:31:DT:H72	2.22	0.55
1:B:222:HIS:CE1	1:B:272:TRP:CH2	2.96	0.54
1:B:352:ASP:O	1:B:356:SER:HB2	2.06	0.54
2:C:376:PHE:HB2	2:C:781:THR:HA	1.89	0.54
2:C:841:TRP:HH2	2:C:1112:PHE:CD1	2.25	0.54
3:D:233:ILE:N	3:D:234:PRO:CD	2.70	0.54
1:E:547:ARG:HG3	1:E:547:ARG:NH1	2.22	0.54
1:E:590:THR:O	1:E:592:GLU:N	2.39	0.54
1:E:700:GLN:O	1:E:701:LEU:HD23	2.07	0.54
1:E:1104:ALA:HB3	1:E:1105:HIS:CD2	2.42	0.54
3:G:233:ILE:N	3:G:234:PRO:HD3	2.22	0.54
3:G:256:HIS:CE1	3:G:257:ALA:H	2.24	0.54
1:B:155:ASP:O	1:B:156:GLU:CB	2.56	0.54
1:B:288:LYS:O	1:B:306:ARG:NH1	2.40	0.54
1:B:685:THR:HG21	1:B:729:LEU:HD12	1.88	0.54
2:C:266:ARG:CB	2:C:269:PHE:H	2.16	0.54
2:C:539:SER:C	2:C:540:ALA:O	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:830:GLU:C	2:C:831:THR:HG23	2.27	0.54
2:C:1100:GLU:O	2:C:1103:GLU:HB2	2.08	0.54
3:D:65:HIS:O	3:D:66:PRO:C	2.45	0.54
1:E:590:THR:O	1:E:591:LEU:CB	2.45	0.54
2:F:221:PRO:HG3	2:F:313:LEU:CD1	2.37	0.54
1:B:222:HIS:CG	1:B:272:TRP:CH2	2.94	0.54
1:B:730:GLU:O	1:B:731:SER:CB	2.55	0.54
1:B:760:PHE:O	1:B:761:ARG:CB	2.56	0.54
2:C:279:ASP:O	2:C:283:ALA:N	2.40	0.54
2:C:363:ASN:HD22	2:C:363:ASN:H	0.76	0.54
1:E:221:ARG:NH2	1:E:326:LEU:HB2	2.23	0.54
1:E:568:ARG:NH1	1:E:578:SER:OG	2.40	0.54
1:E:1116:LEU:HD21	1:E:1120:ARG:NH2	2.22	0.54
2:F:228:GLN:NE2	2:F:317:LEU:HB3	2.21	0.54
4:Z:14:DC:H1'	4:Z:15:DT:H5"	1.89	0.54
1:B:73:ARG:HB3	1:B:73:ARG:NH1	2.15	0.54
1:B:253:ASP:C	1:B:255:ARG:H	2.08	0.54
1:B:875:ASN:C	1:B:877:PRO:CD	2.74	0.54
1:B:977:LEU:HD21	1:B:990:LEU:HD22	1.88	0.54
1:B:1034:SER:O	1:B:1037:ASP:HB3	2.07	0.54
1:B:1075:ARG:HA	1:B:1134:HIS:O	2.07	0.54
2:C:335:LEU:HB2	2:C:373:SER:HB2	1.90	0.54
2:C:551:ASP:HB3	3:D:111:ARG:NH2	2.22	0.54
2:C:1071:PHE:C	2:C:1071:PHE:CD2	2.81	0.54
3:D:363:SER:HB3	3:D:365:SER:OG	2.08	0.54
1:E:224:GLN:O	1:E:228:ARG:HG3	2.07	0.54
1:E:1043:PHE:HB3	1:E:1161:ASN:CG	2.28	0.54
1:E:1131:TYR:CZ	1:E:1135:PHE:CD1	2.93	0.54
2:F:28:ASP:H	2:F:29:PRO:HD3	1.73	0.54
2:F:942:GLU:C	2:F:943:ILE:HD12	2.28	0.54
2:F:997:ARG:NH1	2:F:1007:ARG:HH12	2.05	0.54
3:G:122:PHE:CD1	3:G:283:ILE:HD11	2.42	0.54
3:G:242:ARG:NH2	3:G:266:LEU:HD11	2.22	0.54
3:G:387:GLN:O	3:G:389:ASP:N	2.40	0.54
3:G:537:THR:OG1	3:G:540:LYS:HG3	2.07	0.54
1:B:52:ARG:HB3	1:B:52:ARG:HH11	1.73	0.54
1:B:153:ILE:HG22	1:B:349:LEU:C	2.28	0.54
1:B:589:GLU:OE1	1:B:589:GLU:N	2.41	0.54
2:C:98:LEU:HD21	2:C:175:TYR:CD2	2.42	0.54
2:C:192:ARG:O	2:C:196:THR:CG2	2.55	0.54
2:C:401:PRO:C	2:C:403:LEU:N	2.61	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:989:ALA:CB	2:C:1017:LEU:HD22	2.38	0.54
2:C:1035:LEU:O	2:C:1036:LEU:O	2.25	0.54
1:E:252:ILE:HG21	1:E:254:ARG:HB2	1.89	0.54
1:E:590:THR:C	1:E:592:GLU:H	2.10	0.54
1:E:651:ILE:N	1:E:651:ILE:HD13	2.23	0.54
1:E:1111:TYR:CD1	1:E:1111:TYR:N	2.65	0.54
2:F:87:ASN:HD21	2:F:90:SER:H	1.54	0.54
2:F:335:LEU:HB2	2:F:373:SER:HB2	1.89	0.54
3:G:115:ASN:HB3	3:G:276:LEU:HD22	1.89	0.54
3:G:418:TYR:O	3:G:422:LEU:HG	2.06	0.54
1:B:121:MET:C	1:B:123:GLU:H	2.10	0.54
2:C:298:PRO:O	2:C:301:ALA:HB3	2.07	0.54
3:D:242:ARG:HD2	3:D:243:LEU:CD2	2.37	0.54
3:D:256:HIS:O	3:D:259:ASN:C	2.46	0.54
1:E:77:ARG:HB3	1:E:77:ARG:HH11	1.73	0.54
1:E:802:LEU:HD22	1:E:806:LEU:HD22	1.89	0.54
2:F:592:ARG:HH11	2:F:592:ARG:CB	2.20	0.54
3:G:242:ARG:HG3	3:G:243:LEU:N	2.22	0.54
1:B:1074:GLY:O	1:B:1075:ARG:CB	2.55	0.54
2:C:199:SER:O	2:C:201:THR:N	2.40	0.54
2:C:261:LEU:HD13	2:C:281:GLU:OE2	2.08	0.54
2:C:459:SER:O	2:C:460:LEU:C	2.46	0.54
2:C:465:PHE:O	2:C:504:TRP:O	2.26	0.54
2:C:470:VAL:O	2:C:473:LEU:HB2	2.07	0.54
2:C:699:GLN:C	2:C:701:PRO:HD3	2.28	0.54
3:D:175:THR:HG22	3:D:176:GLY:H	1.71	0.54
2:F:106:GLU:HA	2:F:109:THR:OG1	2.08	0.54
2:F:221:PRO:HG3	2:F:313:LEU:HD11	1.88	0.54
3:G:524:PRO:HG2	3:G:525:SER:H	1.73	0.54
1:B:359:ASP:OD2	1:B:395:ARG:NH1	2.38	0.54
1:B:878:TRP:O	1:B:880:VAL:N	2.41	0.54
2:C:298:PRO:HA	2:C:301:ALA:HB3	1.90	0.54
2:C:412:VAL:HG12	2:C:678:LEU:HB2	1.90	0.54
2:C:507:ASP:HB3	2:C:509:ASP:H	1.73	0.54
1:E:459:LYS:HE2	1:E:860:LEU:HB2	1.90	0.54
1:E:601:GLN:OE1	2:F:860:GLU:HB2	2.08	0.54
1:E:624:ASN:H	1:E:627:ASP:HB2	1.73	0.54
1:E:1078:LEU:HD11	1:E:1118:LEU:HD12	1.87	0.54
2:F:767:LEU:N	2:F:767:LEU:CD2	2.71	0.54
2:F:972:LEU:HD23	2:F:973:SER:N	2.23	0.54
3:G:53:LEU:C	3:G:53:LEU:CD2	2.76	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:256:HIS:NE2	3:G:284:ASP:HB3	2.22	0.54
4:Y:16:DG:C3'	4:Y:17:DC:C5'	2.83	0.54
1:B:466:ASP:OD1	1:B:466:ASP:N	2.41	0.54
1:B:1029:GLU:O	1:B:1030:PRO:C	2.47	0.54
2:C:834:LEU:HD12	2:C:838:GLN:HG3	1.89	0.54
2:C:886:ASN:O	2:C:890:GLU:HG2	2.08	0.54
1:E:646:ASP:OD1	1:E:649:ARG:NE	2.41	0.54
1:E:869:THR:O	1:E:871:GLN:N	2.41	0.54
1:E:893:LEU:HB3	2:F:802:TYR:HE2	1.73	0.54
2:F:105:ARG:O	2:F:107:ASP:N	2.34	0.54
2:F:297:ASN:H	2:F:345:LEU:HD12	1.73	0.54
3:G:175:THR:HG22	3:G:176:GLY:H	1.73	0.54
1:B:81:HIS:HA	1:B:118:GLU:OE2	2.08	0.54
1:B:902:ARG:O	1:B:1060:GLY:HA3	2.08	0.54
2:C:867:THR:OG1	2:C:868:GLU:N	2.39	0.54
3:D:56:SER:C	3:D:58:LEU:N	2.60	0.54
3:D:178:THR:HG23	3:D:179:THR:N	2.20	0.54
3:D:198:ARG:HD3	3:D:264:ASP:OD2	2.08	0.54
3:D:269:ASP:OD2	3:D:270:GLU:N	2.39	0.54
3:D:423:GLN:O	3:D:425:ARG:N	2.40	0.54
1:E:731:SER:C	1:E:733:LYS:N	2.57	0.54
1:E:955:LEU:O	1:E:958:LEU:HB2	2.07	0.54
3:G:423:GLN:C	3:G:425:ARG:N	2.60	0.54
1:B:84:ARG:HD2	1:B:115:LEU:N	2.23	0.53
1:B:221:ARG:NH2	1:B:326:LEU:HB2	2.24	0.53
1:B:222:HIS:CD2	1:B:272:TRP:CH2	2.96	0.53
1:B:513:ASP:O	1:B:515:GLN:N	2.41	0.53
1:B:729:LEU:HD22	1:B:729:LEU:N	2.16	0.53
1:B:1114:TYR:O	1:B:1117:ALA:HB3	2.08	0.53
2:C:98:LEU:HD21	2:C:175:TYR:CG	2.43	0.53
2:C:384:ARG:HD3	2:C:786:ARG:O	2.08	0.53
1:E:232:VAL:HG21	1:E:316:LEU:HG	1.89	0.53
1:E:747:LEU:HD23	1:E:749:TYR:OH	2.08	0.53
2:F:332:ASP:OD1	2:F:332:ASP:N	2.36	0.53
2:F:507:ASP:HB3	2:F:509:ASP:H	1.73	0.53
3:G:32:HIS:CE1	3:G:34:ALA:HB2	2.43	0.53
3:G:397:LEU:HD13	3:G:580:TYR:CE2	2.43	0.53
1:B:62:VAL:CG2	1:B:383:ILE:HD12	2.38	0.53
1:B:227:ALA:O	1:B:231:THR:HG23	2.07	0.53
1:B:568:ARG:O	1:B:572:THR:HB	2.08	0.53
2:C:732:ILE:O	2:C:742:ARG:HG3	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:846:ARG:HD3	2:C:850:GLN:HE22	1.70	0.53
2:C:878:TYR:CD1	4:Y:3:DT:H4'	2.43	0.53
3:D:568:THR:O	3:D:572:ARG:HG2	2.08	0.53
1:E:29:LYS:O	1:E:33:ILE:HG13	2.08	0.53
1:E:159:LEU:HD13	1:E:159:LEU:C	2.28	0.53
1:E:234:GLN:C	1:E:236:TRP:H	2.11	0.53
1:E:1032:ILE:H	1:E:1032:ILE:HD12	1.73	0.53
2:F:831:THR:H	2:F:950:VAL:HG13	1.72	0.53
1:B:1003:ASN:CA	1:B:1007:VAL:HG21	2.37	0.53
3:D:389:ASP:O	3:D:391:THR:HG23	2.08	0.53
3:D:429:ASP:O	3:D:432:ILE:HB	2.09	0.53
3:D:582:ASP:O	3:D:584:ARG:N	2.39	0.53
1:E:285:SER:HB2	1:E:307:HIS:CG	2.44	0.53
1:E:728:ARG:NH2	2:F:739:ASN:CA	2.72	0.53
1:E:905:SER:O	1:E:906:TYR:CB	2.51	0.53
1:E:1090:SER:O	1:E:1092:ALA:N	2.42	0.53
1:E:1116:LEU:HD21	1:E:1120:ARG:HH21	1.73	0.53
2:F:9:ARG:HH11	2:F:9:ARG:HB2	1.73	0.53
3:G:239:THR:HG23	3:G:278:MET:SD	2.48	0.53
1:B:15:LEU:HD13	1:B:40:LEU:CD2	2.39	0.53
1:B:228:ARG:O	1:B:316:LEU:HD21	2.08	0.53
1:B:379:PRO:O	1:B:407:THR:HB	2.08	0.53
2:C:250:ASP:CG	2:C:291:GLY:HA2	2.28	0.53
2:C:839:ARG:HB3	2:C:851:MET:CE	2.38	0.53
2:C:981:TRP:HB2	2:C:1008:PHE:CE1	2.44	0.53
1:E:85:ILE:C	1:E:87:CYS:H	2.10	0.53
1:E:730:GLU:O	1:E:731:SER:HB3	2.08	0.53
1:E:1003:ASN:N	1:E:1007:VAL:HG11	2.22	0.53
1:E:1012:LEU:CD2	1:E:1070:PHE:HD2	2.22	0.53
1:B:763:GLN:NE2	1:B:764:GLU:N	2.56	0.53
1:B:896:LEU:C	1:B:896:LEU:HD12	2.28	0.53
1:B:909:LEU:HD22	1:B:1054:GLU:OE2	2.09	0.53
2:C:306:LEU:HD23	2:C:306:LEU:C	2.29	0.53
2:C:354:ASN:HD22	2:C:357:GLU:H	1.55	0.53
2:C:482:ARG:HG2	2:C:482:ARG:NH1	2.23	0.53
2:C:687:ARG:HB2	2:C:712:ASP:OD2	2.09	0.53
1:E:610:ASN:HD22	1:E:613:ARG:HH12	1.53	0.53
1:E:1069:VAL:HA	1:E:1077:TYR:O	2.08	0.53
1:E:1149:GLU:O	1:E:1150:HIS:ND1	2.42	0.53
2:F:519:THR:CG2	2:F:521:GLN:HB2	2.38	0.53
3:G:348:LEU:CD2	3:G:352:LEU:HD11	2.33	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:526:ARG:HA	3:G:526:ARG:HE	1.73	0.53
4:Z:30:DG:OP2	4:Z:30:DG:H8	1.91	0.53
2:C:96:MET:HG3	2:C:124:LEU:HG	1.90	0.53
2:C:644:ARG:HH11	2:C:644:ARG:CG	2.21	0.53
3:D:106:ARG:CZ	3:D:598:SER:O	2.56	0.53
3:D:424:ALA:O	3:D:426:ALA:N	2.42	0.53
1:E:229:ILE:HD11	1:E:321:LEU:HD22	1.89	0.53
1:E:901:TRP:CE3	1:E:1060:GLY:HA2	2.44	0.53
1:E:1135:PHE:CG	1:E:1136:GLY:N	2.74	0.53
2:F:737:GLN:CG	2:F:738:ASP:H	2.12	0.53
3:G:456:GLU:C	3:G:458:ILE:H	2.12	0.53
4:Y:40:DT:H2"	4:Y:41:DA:O4'	2.08	0.53
4:Z:14:DC:H2"	4:Z:15:DT:C5'	2.39	0.53
1:B:136:MET:CE	1:B:374:ILE:HG12	2.39	0.53
3:D:2:LYS:HG2	3:D:3:LEU:N	2.23	0.53
1:E:250:SER:CB	4:Z:29:DA:H4'	2.39	0.53
1:E:263:ALA:O	1:E:266:ILE:HG12	2.09	0.53
1:E:375:ARG:HD2	1:E:404:GLN:CG	2.19	0.53
1:E:1073:GLU:C	1:E:1074:GLY:O	2.44	0.53
1:E:1107:TYR:O	1:E:1111:TYR:CD1	2.62	0.53
3:G:367:ILE:HD13	3:G:573:ALA:O	2.09	0.53
1:B:1106:ARG:HH21	1:B:1108:ASP:CG	2.13	0.53
1:B:1138:VAL:HB	1:B:1158:THR:O	2.09	0.53
2:C:207:LEU:CB	2:C:208:PRO:HD2	2.39	0.53
2:C:238:LEU:HD23	2:C:238:LEU:C	2.28	0.53
2:C:260:LEU:O	2:C:262:THR:N	2.38	0.53
2:C:502:ILE:HD13	2:C:524:TRP:CE3	2.44	0.53
2:C:941:MET:HE3	2:C:959:VAL:HG11	1.91	0.53
2:C:997:ARG:HG2	2:C:997:ARG:HH11	1.73	0.53
1:E:107:LYS:H	1:E:107:LYS:CD	2.22	0.53
1:E:1040:ILE:HD11	1:E:1168:MET:CE	2.39	0.53
1:E:1102:MET:HE3	1:E:1102:MET:HA	1.90	0.53
2:F:73:PHE:CD1	2:F:189:LEU:HD23	2.43	0.53
2:F:431:ALA:O	2:F:432:ASP:C	2.47	0.53
2:F:1040:GLU:HB2	2:F:1084:GLU:OE1	2.09	0.53
2:F:1059:ASP:OD1	2:F:1059:ASP:O	2.27	0.53
1:B:877:PRO:CB	1:B:879:GLN:HG3	2.29	0.53
1:E:222:HIS:CG	1:E:272:TRP:HH2	2.26	0.53
1:E:550:ARG:NH1	1:E:550:ARG:HG2	2.24	0.53
1:E:577:PRO:HB2	1:E:735:LEU:CD2	2.38	0.53
1:E:613:ARG:HD2	2:F:854:GLN:O	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:893:LEU:HB3	2:F:802:TYR:CE2	2.43	0.53
1:E:1052:PRO:HD3	1:E:1106:ARG:HH12	1.67	0.53
2:F:29:PRO:O	2:F:30:PHE:CB	2.52	0.53
2:F:842:ALA:HB2	2:F:979:GLN:OE1	2.09	0.53
3:G:202:ALA:CB	3:G:242:ARG:HH22	2.22	0.53
3:G:233:ILE:N	3:G:234:PRO:CD	2.71	0.53
3:G:597:ARG:O	3:G:598:SER:CB	2.39	0.53
1:B:579:VAL:O	1:B:738:ILE:HG23	2.09	0.53
1:B:1077:TYR:CD2	1:B:1137:GLY:HA2	2.44	0.53
1:E:821:VAL:HG22	1:E:831:THR:HA	1.89	0.53
1:E:1159:ARG:O	1:E:1159:ARG:CG	2.56	0.53
2:F:17:MET:HG3	2:F:212:PHE:CD2	2.44	0.53
2:F:539:SER:C	2:F:540:ALA:O	2.45	0.53
3:G:137:LEU:HD13	3:G:332:LEU:HD22	1.91	0.53
3:G:365:SER:HB3	3:G:390:PHE:CE2	2.44	0.53
3:G:375:ASN:O	3:G:376:ARG:HG2	2.09	0.53
1:B:391:PRO:CD	1:B:429:THR:HG21	2.39	0.52
1:B:893:LEU:HB3	2:C:802:TYR:HE2	1.73	0.52
1:B:900:ASN:ND2	1:B:902:ARG:NH2	2.51	0.52
1:B:1046:LEU:O	1:B:1103:GLN:NE2	2.42	0.52
1:B:1052:PRO:HD3	1:B:1106:ARG:HH11	1.69	0.52
2:C:118:ASP:O	2:C:119:SER:HB2	2.09	0.52
2:C:139:LEU:CD2	2:C:146:LEU:HD13	2.39	0.52
2:C:199:SER:OG	2:C:200:ALA:N	2.40	0.52
2:C:347:ASN:HD22	2:C:347:ASN:C	2.12	0.52
2:C:396:MET:HE3	2:C:726:LYS:HG3	1.90	0.52
2:C:664:LEU:N	2:C:664:LEU:CD1	2.73	0.52
2:C:676:CYS:HA	2:C:728:TYR:O	2.08	0.52
3:D:106:ARG:HB3	3:D:108:TYR:CE1	2.44	0.52
3:D:359:TYR:CD1	3:D:360:ARG:N	2.77	0.52
1:E:739:VAL:CG2	1:E:740:THR:N	2.72	0.52
2:F:416:ASP:OD2	2:F:443:ARG:HG3	2.09	0.52
2:F:513:GLU:OE1	2:F:575:ARG:NH1	2.43	0.52
2:F:1114:LEU:O	2:F:1115:PRO:C	2.45	0.52
3:G:121:ARG:HH11	3:G:121:ARG:CG	2.21	0.52
3:G:125:GLU:OE2	3:G:125:GLU:C	2.47	0.52
1:B:89:ARG:O	1:B:91:THR:HG23	2.10	0.52
1:B:500:LYS:HA	1:B:866:ALA:O	2.09	0.52
1:B:547:ARG:HH11	1:B:547:ARG:HG3	1.73	0.52
1:B:794:ARG:NH2	1:B:795:LEU:HB3	2.24	0.52
2:C:384:ARG:NH1	2:C:384:ARG:HG3	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:833:PRO:HB2	2:C:835:GLU:HG2	1.91	0.52
1:E:731:SER:C	1:E:733:LYS:H	2.12	0.52
1:E:854:ARG:HG2	1:E:854:ARG:NH1	2.24	0.52
1:E:1085:TRP:CD1	1:E:1087:GLY:CA	2.92	0.52
2:F:161:ALA:HA	2:F:164:TRP:CD1	2.44	0.52
2:F:1035:LEU:O	2:F:1036:LEU:O	2.27	0.52
2:C:984:HIS:CD2	2:C:996:SER:OG	2.62	0.52
2:C:1053:GLN:O	2:C:1054:ASN:HB3	2.09	0.52
1:E:896:LEU:O	1:E:896:LEU:HD12	2.09	0.52
1:E:1046:LEU:HD11	1:E:1156:TYR:OH	2.10	0.52
2:F:75:ARG:HH11	2:F:208:PRO:HD3	1.71	0.52
2:F:435:LEU:HD12	2:F:435:LEU:O	2.09	0.52
3:G:396:ARG:O	3:G:397:LEU:HG	2.09	0.52
4:Z:10:DA:H2"	4:Z:11:DG:O5'	2.09	0.52
4:Z:28:DC:N4	4:Z:29:DA:N6	2.57	0.52
1:B:252:ILE:CG2	1:B:254:ARG:HB2	2.39	0.52
1:B:591:LEU:O	1:B:595:GLU:HG3	2.09	0.52
1:B:823:ARG:NH2	1:B:828:LYS:HZ2	2.07	0.52
2:C:478:VAL:HG11	2:C:599:PHE:HB3	1.91	0.52
3:D:79:GLN:C	3:D:81:TRP:H	2.13	0.52
3:D:136:LEU:O	3:D:140:THR:HG23	2.10	0.52
3:D:354:LEU:HD12	3:D:354:LEU:N	2.13	0.52
3:D:555:SER:O	3:D:556:GLN:CG	2.57	0.52
1:E:236:TRP:CH2	1:E:280:TYR:CD2	2.91	0.52
1:E:1132:GLU:HG3	1:E:1159:ARG:HH21	1.73	0.52
1:B:584:ARG:HG2	1:B:584:ARG:NH1	2.23	0.52
1:B:731:SER:C	1:B:733:LYS:H	2.13	0.52
1:B:951:PRO:O	1:B:954:PHE:HB3	2.10	0.52
1:B:1000:ALA:O	1:B:1008:SER:HA	2.09	0.52
1:B:1012:LEU:HD21	1:B:1070:PHE:CD2	2.43	0.52
2:C:9:ARG:HH11	2:C:9:ARG:HB2	1.74	0.52
2:C:279:ASP:HA	2:C:282:ASN:HD22	1.74	0.52
2:C:287:PHE:CD1	2:C:293:GLN:CD	2.78	0.52
2:C:298:PRO:HA	2:C:301:ALA:CB	2.40	0.52
2:C:1091:GLN:HA	2:C:1091:GLN:NE2	2.25	0.52
2:C:1114:LEU:HB3	2:C:1115:PRO:CD	2.39	0.52
3:D:177:LYS:HA	3:D:180:THR:HG22	1.92	0.52
3:D:242:ARG:CD	3:D:243:LEU:HD23	2.40	0.52
1:E:252:ILE:HG23	1:E:254:ARG:N	2.10	0.52
1:E:286:LEU:HD23	1:E:306:ARG:HD2	1.91	0.52
1:E:1106:ARG:HH21	1:E:1108:ASP:CG	2.12	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:99:LEU:O	2:F:103:LEU:HG	2.09	0.52
2:F:1051:ASP:CB	2:F:1056:ALA:HB3	2.30	0.52
3:G:182:ALA:O	3:G:232:ARG:NH2	2.42	0.52
3:G:354:LEU:H	3:G:354:LEU:CD1	2.17	0.52
3:G:565:LEU:HD23	3:G:565:LEU:O	2.09	0.52
1:B:233:LYS:HZ2	1:B:269:ILE:HG12	1.74	0.52
1:B:359:ASP:OD1	1:B:395:ARG:HD2	2.09	0.52
2:C:273:GLU:CD	2:C:274:LEU:HD23	2.30	0.52
2:C:337:ASN:ND2	2:C:365:ARG:HD2	2.24	0.52
2:C:482:ARG:HG2	2:C:482:ARG:HH11	1.74	0.52
2:C:972:LEU:HA	2:C:1000:LEU:HD13	1.91	0.52
3:D:77:GLU:O	3:D:79:GLN:N	2.40	0.52
3:D:212:LEU:O	3:D:216:LEU:HB2	2.10	0.52
1:E:200:TYR:O	1:E:201:LEU:CB	2.44	0.52
1:E:514:TYR:O	1:E:514:TYR:CD1	2.63	0.52
1:E:758:THR:O	1:E:758:THR:CG2	2.58	0.52
1:E:965:THR:OG1	1:E:966:GLN:N	2.42	0.52
3:G:185:LEU:HD12	3:G:232:ARG:NE	2.23	0.52
3:G:309:VAL:O	3:G:313:ILE:HD12	2.10	0.52
1:B:518:MET:HE3	1:B:521:VAL:HB	1.91	0.52
1:B:987:GLU:HG3	1:B:988:PRO:CD	2.37	0.52
1:B:1002:LEU:HD23	1:B:1139:ILE:HG21	1.92	0.52
1:B:1032:ILE:HD12	1:B:1032:ILE:H	1.74	0.52
1:E:390:ASP:HB2	1:E:391:PRO:HD2	1.92	0.52
1:E:658:MET:HE2	1:E:692:GLU:HA	1.91	0.52
2:F:384:ARG:NH1	2:F:785:THR:O	2.42	0.52
2:F:804:ARG:HH11	2:F:804:ARG:HG3	1.73	0.52
1:B:233:LYS:O	1:B:237:ARG:HG3	2.09	0.52
2:C:972:LEU:HD21	2:C:1006:TRP:NE1	2.25	0.52
3:D:538:VAL:HG21	3:D:565:LEU:CD2	2.36	0.52
1:E:236:TRP:C	1:E:238:ASP:H	2.13	0.52
1:E:682:ARG:NH2	1:E:727:MET:O	2.32	0.52
1:E:692:GLU:HG2	2:F:383:GLN:HG3	1.90	0.52
1:B:263:ALA:O	1:B:266:ILE:HG12	2.10	0.52
1:B:587:VAL:O	1:B:587:VAL:CG1	2.58	0.52
1:B:728:ARG:HH12	2:C:786:ARG:NH2	2.03	0.52
1:B:888:LEU:C	1:B:889:ASN:ND2	2.61	0.52
2:C:369:PRO:HD3	2:C:762:PRO:HG3	1.92	0.52
3:D:32:HIS:O	3:D:35:VAL:HG13	2.10	0.52
3:D:169:ILE:HB	3:D:295:LEU:HD23	1.91	0.52
1:E:242:GLU:O	1:E:243:LEU:HG	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:830:GLU:C	2:F:831:THR:HG23	2.29	0.52
3:G:265:VAL:HA	3:G:291:ARG:O	2.09	0.52
1:B:65:THR:HB	1:B:68:ALA:H	1.75	0.52
1:B:332:LEU:N	1:B:332:LEU:HD23	2.24	0.52
1:B:612:LEU:HD22	1:B:616:LEU:CD1	2.40	0.52
1:E:259:ARG:HG3	1:E:280:TYR:OH	2.10	0.52
1:E:514:TYR:O	1:E:515:GLN:CG	2.58	0.52
1:E:896:LEU:HD12	1:E:896:LEU:C	2.30	0.52
2:F:207:LEU:HB2	2:F:234:ILE:HD11	1.92	0.52
2:F:539:SER:HB3	2:F:551:ASP:OD1	2.09	0.52
4:Z:16:DG:H2"	4:Z:17:DC:H5"	1.89	0.52
1:B:63:THR:HG22	1:B:384:ASP:OD1	2.10	0.51
1:B:153:ILE:HG22	1:B:349:LEU:O	2.10	0.51
1:B:307:HIS:ND1	1:B:310:PHE:CZ	2.78	0.51
1:B:1099:ALA:O	1:B:1102:MET:HB2	2.10	0.51
2:C:385:GLU:CG	2:C:678:LEU:HD22	2.40	0.51
3:D:181:VAL:HG12	3:D:232:ARG:HH12	1.75	0.51
3:D:201:LEU:O	3:D:202:ALA:HB2	2.10	0.51
3:D:239:THR:CG2	3:D:278:MET:SD	2.98	0.51
3:D:526:ARG:HA	3:D:526:ARG:HE	1.75	0.51
1:E:379:PRO:O	1:E:407:THR:HB	2.10	0.51
2:F:207:LEU:HB3	2:F:208:PRO:HD2	1.91	0.51
3:G:185:LEU:HD13	3:G:199:ILE:HG21	1.91	0.51
3:G:533:THR:O	3:G:534:TRP:CB	2.56	0.51
1:B:547:ARG:HG3	1:B:547:ARG:NH1	2.25	0.51
1:B:549:VAL:O	1:B:549:VAL:CG2	2.58	0.51
1:B:955:LEU:O	1:B:958:LEU:N	2.43	0.51
2:C:915:ILE:O	2:C:919:THR:CG2	2.58	0.51
3:D:98:THR:HG22	3:D:100:MET:H	1.76	0.51
3:D:451:VAL:O	3:D:454:LEU:N	2.43	0.51
1:E:574:LEU:O	1:E:575:GLU:HB2	2.10	0.51
1:E:955:LEU:O	1:E:958:LEU:N	2.44	0.51
1:E:1041:ARG:HD2	1:E:1050:CYS:SG	2.50	0.51
2:F:142:ARG:HG3	2:F:145:TRP:CE2	2.46	0.51
2:F:160:GLU:O	2:F:162:GLN:N	2.43	0.51
2:F:318:GLU:C	2:F:320:SER:N	2.64	0.51
2:F:447:SER:O	2:F:448:HIS:CG	2.64	0.51
3:G:56:SER:C	3:G:58:LEU:N	2.63	0.51
1:B:187:TRP:HH2	1:B:328:ILE:HD11	1.75	0.51
1:B:215:ASP:OD1	1:B:215:ASP:C	2.48	0.51
1:B:562:GLN:CD	4:Y:40:DT:C4	2.84	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:702:GLU:HB2	2:C:449:PRO:HG3	1.92	0.51
1:B:710:TRP:CZ2	1:B:714:HIS:NE2	2.78	0.51
1:B:728:ARG:O	1:B:728:ARG:HD2	2.11	0.51
2:C:582:ARG:HD3	2:C:587:TRP:CZ2	2.45	0.51
3:D:220:LEU:HD22	3:D:231:LYS:NZ	2.25	0.51
1:E:42:LEU:CB	1:E:44:LEU:HD13	2.40	0.51
1:E:920:LEU:HD11	2:F:448:HIS:CD2	2.46	0.51
2:F:406:ARG:HG2	2:F:658:PRO:CG	2.40	0.51
2:F:411:MET:HA	2:F:662:CYS:O	2.10	0.51
2:F:457:LEU:HB3	2:F:594:MET:CE	2.41	0.51
2:F:533:LEU:HD21	2:F:544:TRP:HE3	1.73	0.51
3:G:56:SER:C	3:G:58:LEU:H	2.12	0.51
3:G:211:ARG:O	3:G:212:LEU:C	2.49	0.51
3:G:412:LEU:N	3:G:412:LEU:HD23	2.25	0.51
1:B:120:GLN:HA	1:B:120:GLN:OE1	2.10	0.51
1:B:143:GLU:OE1	1:B:143:GLU:N	2.43	0.51
1:B:159:LEU:HD11	1:B:339:VAL:HA	1.92	0.51
2:C:236:ILE:O	2:C:236:ILE:HG22	2.11	0.51
2:C:419:SER:HB3	2:C:420:PRO:HD3	1.92	0.51
2:C:804:ARG:HG3	2:C:804:ARG:NH1	2.26	0.51
2:C:835:GLU:HA	2:C:838:GLN:NE2	2.14	0.51
2:C:946:ALA:HB2	2:C:951:GLN:HE22	1.76	0.51
3:D:110:ASN:C	3:D:110:ASN:ND2	2.64	0.51
3:D:177:LYS:CA	3:D:180:THR:HG22	2.41	0.51
3:D:211:ARG:O	3:D:212:LEU:C	2.49	0.51
3:D:233:ILE:N	3:D:234:PRO:HD3	2.25	0.51
1:E:1032:ILE:HD12	1:E:1032:ILE:N	2.26	0.51
2:F:97:THR:HG23	2:F:628:TYR:CE1	2.45	0.51
3:G:565:LEU:C	3:G:565:LEU:CD2	2.79	0.51
1:B:75:ARG:HE	1:B:79:ASN:HD21	1.57	0.51
1:B:177:ARG:HE	1:B:181:GLN:HE21	1.58	0.51
1:B:392:GLN:O	1:B:396:ILE:HG13	2.10	0.51
1:B:602:ALA:HB2	1:B:615:ALA:HB2	1.91	0.51
1:B:1040:ILE:HD11	1:B:1168:MET:HE1	1.91	0.51
2:C:60:ILE:HG21	2:C:62:PHE:CZ	2.45	0.51
2:C:533:LEU:CD1	2:C:537:MET:HE3	2.41	0.51
2:C:664:LEU:HD12	2:C:664:LEU:H	1.73	0.51
2:C:883:GLN:NE2	2:C:897:LEU:HD21	2.26	0.51
3:D:348:LEU:HD22	3:D:352:LEU:CD1	2.35	0.51
3:D:363:SER:HB3	3:D:365:SER:H	1.75	0.51
1:E:177:ARG:HH22	2:F:918:GLU:CD	2.13	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:560:SER:HB2	4:Z:42:DG:OP1	2.11	0.51
1:E:1002:LEU:N	1:E:1007:VAL:CG1	2.68	0.51
1:E:1171:MET:O	1:E:1171:MET:HG3	2.10	0.51
4:Z:27:DG:C2	4:Z:28:DC:N3	2.79	0.51
1:B:148:PHE:N	2:C:126:GLN:NE2	2.47	0.51
1:B:225:ILE:CG2	1:B:321:LEU:HD23	2.39	0.51
1:B:550:ARG:HG2	1:B:550:ARG:HH11	1.74	0.51
1:B:655:ARG:HA	1:B:655:ARG:HH11	1.75	0.51
1:B:869:THR:O	1:B:871:GLN:N	2.43	0.51
2:C:550:TYR:CZ	2:C:552:GLU:HB2	2.45	0.51
2:C:848:PHE:CD2	2:C:1034:PRO:HG3	2.45	0.51
3:D:397:LEU:HD13	3:D:580:TYR:CE2	2.45	0.51
3:D:523:GLN:N	3:D:523:GLN:NE2	2.58	0.51
1:E:280:TYR:N	1:E:280:TYR:CD1	2.78	0.51
1:E:1008:SER:HG	1:E:1010:SER:HG	1.59	0.51
1:E:1052:PRO:CD	1:E:1106:ARG:NH1	2.65	0.51
1:E:1079:LEU:HD12	1:E:1080:ASP:N	2.25	0.51
2:F:200:ALA:O	2:F:202:THR:N	2.44	0.51
2:F:202:THR:C	2:F:203:CYS:SG	2.89	0.51
2:F:582:ARG:HD3	2:F:587:TRP:CZ2	2.45	0.51
2:F:795:GLN:HB3	2:F:796:PRO:HD2	1.91	0.51
2:F:1035:LEU:HD22	2:F:1037:VAL:HG23	1.92	0.51
3:G:102:LEU:HD12	3:G:106:ARG:O	2.10	0.51
3:G:363:SER:HB3	3:G:365:SER:H	1.74	0.51
3:G:385:VAL:HG13	3:G:396:ARG:HD2	1.93	0.51
1:B:1096:GLN:O	1:B:1100:ALA:N	2.43	0.51
2:C:101:GLN:O	2:C:103:LEU:N	2.44	0.51
2:C:137:GLN:HG2	2:C:697:MET:CE	2.39	0.51
2:C:185:HIS:HB2	2:C:187:ALA:H	1.75	0.51
2:C:544:TRP:CE2	2:C:545:GLN:HG2	2.46	0.51
3:D:181:VAL:HG22	3:D:295:LEU:HD21	1.93	0.51
3:D:382:VAL:O	3:D:385:VAL:HG23	2.11	0.51
1:E:136:MET:O	1:E:140:ASN:ND2	2.43	0.51
1:E:763:GLN:NE2	1:E:764:GLU:H	2.09	0.51
1:E:1077:TYR:CE2	1:E:1136:GLY:O	2.64	0.51
2:F:470:VAL:O	2:F:473:LEU:HB2	2.11	0.51
2:F:997:ARG:NH1	2:F:1007:ARG:NH1	2.59	0.51
1:B:1:MET:CG	1:B:2:SER:H	2.24	0.51
1:B:262:GLN:CG	1:B:277:THR:HG22	2.28	0.51
2:C:287:PHE:HD1	2:C:293:GLN:NE2	2.09	0.51
2:C:451:LEU:N	2:C:451:LEU:CD1	2.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:804:ARG:HG3	2:C:804:ARG:HH11	1.74	0.51
2:C:991:GLY:O	2:C:992:GLY:O	2.29	0.51
3:D:37:LEU:HD22	3:D:41:LEU:HD11	1.93	0.51
3:D:182:ALA:CA	3:D:232:ARG:HH22	2.22	0.51
3:D:242:ARG:CD	3:D:261:LEU:HD21	2.41	0.51
1:E:557:LEU:HD11	1:E:808:ARG:HG3	1.91	0.51
1:E:1021:MET:HE2	1:E:1069:VAL:HG21	1.93	0.51
2:F:199:SER:C	2:F:201:THR:N	2.61	0.51
2:F:506:ILE:CG2	2:F:507:ASP:N	2.74	0.51
2:F:510:ASN:HA	2:F:575:ARG:NH1	2.25	0.51
3:G:414:GLY:C	3:G:416:GLY:H	2.14	0.51
3:G:462:MET:HE1	3:G:534:TRP:CE2	2.41	0.51
4:Y:16:DG:H2"	4:Y:17:DC:C4'	2.40	0.51
1:B:1161:ASN:O	1:B:1163:GLY:N	2.43	0.51
2:C:451:LEU:N	2:C:451:LEU:HD12	2.26	0.51
2:C:989:ALA:CB	2:C:1017:LEU:CD2	2.89	0.51
3:D:213:THR:CG2	3:D:236:ASP:OD1	2.52	0.51
1:E:332:LEU:H	1:E:332:LEU:HD23	1.76	0.51
1:E:901:TRP:CD1	1:E:901:TRP:C	2.84	0.51
1:E:1002:LEU:CB	1:E:1007:VAL:HG11	2.41	0.51
2:F:28:ASP:H	2:F:29:PRO:HD2	1.76	0.51
2:F:318:GLU:N	2:F:318:GLU:OE1	2.44	0.51
2:F:401:PRO:C	2:F:403:LEU:N	2.64	0.51
2:F:834:LEU:CD2	2:F:986:VAL:HG21	2.41	0.51
3:G:419:LEU:O	3:G:422:LEU:HB2	2.10	0.51
3:G:427:GLU:N	3:G:428:PRO:CD	2.74	0.51
1:B:540:LEU:HD12	1:B:547:ARG:CZ	2.41	0.51
1:B:769:HIS:CD2	1:B:793:GLU:OE1	2.63	0.51
1:B:905:SER:O	1:B:906:TYR:CB	2.51	0.51
1:B:1073:GLU:O	1:B:1074:GLY:O	2.29	0.51
2:C:257:LEU:HD13	2:C:281:GLU:OE1	2.11	0.51
2:C:395:ALA:O	2:C:398:GLU:HB3	2.11	0.51
3:D:50:HIS:CE1	3:D:306:ALA:HB2	2.46	0.51
1:E:307:HIS:ND1	1:E:310:PHE:HZ	2.08	0.51
1:E:568:ARG:NH1	1:E:578:SER:O	2.43	0.51
1:E:1002:LEU:H	1:E:1007:VAL:HG11	1.71	0.51
1:E:1007:VAL:CG1	1:E:1008:SER:N	2.51	0.51
1:B:875:ASN:O	1:B:877:PRO:N	2.43	0.50
1:B:985:GLN:H	1:B:985:GLN:NE2	2.09	0.50
1:B:1075:ARG:CG	1:B:1075:ARG:NH1	2.65	0.50
2:C:266:ARG:HD2	2:C:269:PHE:HB2	1.91	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:365:SER:HB3	3:D:390:PHE:CE2	2.46	0.50
3:D:367:ILE:HG13	3:D:393:ILE:HG23	1.92	0.50
3:D:387:GLN:O	3:D:389:ASP:N	2.43	0.50
1:E:280:TYR:HD1	1:E:280:TYR:H	1.59	0.50
1:E:893:LEU:HD13	1:E:893:LEU:O	2.11	0.50
2:F:160:GLU:C	2:F:162:GLN:N	2.65	0.50
3:G:242:ARG:HD2	3:G:243:LEU:CD2	2.40	0.50
1:B:487:LEU:HD22	1:B:811:TRP:CZ3	2.45	0.50
1:B:888:LEU:HD12	2:C:811:SER:HB3	1.92	0.50
2:C:32:PRO:HA	2:C:59:ASN:HB3	1.93	0.50
2:C:112:ARG:O	2:C:116:THR:HG23	2.11	0.50
2:C:308:ARG:O	2:C:311:ILE:HG22	2.11	0.50
2:C:584:LEU:CD1	2:C:620:ILE:HG12	2.41	0.50
2:C:761:LEU:HB2	2:C:764:ASP:OD2	2.11	0.50
2:C:951:GLN:O	2:C:952:ILE:HD12	2.11	0.50
2:C:1040:GLU:HB2	2:C:1084:GLU:OE1	2.11	0.50
1:E:1033:ALA:HB1	1:E:1053:LEU:CA	2.41	0.50
2:F:77:LEU:HD21	2:F:193:PHE:HA	1.93	0.50
2:F:1080:MET:HG3	4:Z:5:DA:C4	2.47	0.50
1:B:63:THR:CG2	1:B:384:ASP:OD1	2.60	0.50
1:B:284:GLU:HG3	1:B:285:SER:N	2.26	0.50
1:B:682:ARG:HD3	1:B:682:ARG:C	2.31	0.50
1:B:689:HIS:HE1	1:B:725:GLN:O	1.94	0.50
1:B:849:ASP:HB3	1:B:852:GLY:H	1.76	0.50
1:B:1079:LEU:HD12	1:B:1080:ASP:H	1.76	0.50
1:B:1123:ARG:NH2	1:B:1169:ASP:OD1	2.31	0.50
1:B:1131:TYR:CZ	1:B:1135:PHE:CD1	2.92	0.50
2:C:435:LEU:HD12	2:C:435:LEU:O	2.11	0.50
3:D:544:SER:O	3:D:545:GLU:HG3	2.11	0.50
1:E:264:LYS:C	1:E:266:ILE:H	2.13	0.50
1:E:1046:LEU:CD1	1:E:1156:TYR:OH	2.59	0.50
1:E:1120:ARG:NH1	1:E:1172:PHE:HD2	2.10	0.50
2:F:295:VAL:O	2:F:296:GLY:C	2.50	0.50
2:F:482:ARG:HG2	2:F:482:ARG:NH1	2.26	0.50
2:F:732:ILE:O	2:F:742:ARG:HG3	2.11	0.50
1:B:580:TYR:HA	1:B:738:ILE:O	2.12	0.50
1:B:963:ASP:O	1:B:964:PHE:C	2.50	0.50
1:B:1149:GLU:C	1:B:1150:HIS:ND1	2.65	0.50
2:C:201:THR:HG23	2:C:232:LYS:NZ	2.26	0.50
2:C:250:ASP:OD1	2:C:291:GLY:CA	2.53	0.50
2:C:834:LEU:CD1	2:C:838:GLN:HG3	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:73:ARG:HH11	1:E:73:ARG:CG	2.25	0.50
1:E:115:LEU:HG	1:E:115:LEU:O	2.08	0.50
1:E:854:ARG:O	1:E:858:GLU:HG3	2.12	0.50
2:F:26:LEU:O	2:F:27:ASP:O	2.30	0.50
2:F:137:GLN:HG2	2:F:697:MET:CE	2.37	0.50
2:F:714:TYR:CE2	2:F:718:GLU:OE2	2.64	0.50
3:G:4:GLN:HG3	3:G:8:LEU:HD12	1.94	0.50
3:G:554:PRO:HD2	3:G:561:VAL:HG21	1.94	0.50
4:Y:38:DA:H2"	4:Y:39:DT:OP2	2.11	0.50
1:B:98:GLU:O	1:B:102:GLU:HG3	2.11	0.50
1:B:446:ASN:C	1:B:447:TRP:O	2.49	0.50
1:B:916:ILE:HA	1:B:919:ASP:HB2	1.94	0.50
1:B:1132:GLU:HG3	1:B:1159:ARG:HH21	1.75	0.50
2:C:183:ARG:N	2:C:183:ARG:CD	2.70	0.50
3:D:125:GLU:OE2	3:D:125:GLU:O	2.30	0.50
3:D:202:ALA:HB3	3:D:242:ARG:HH22	1.75	0.50
3:D:267:VAL:O	3:D:267:VAL:HG12	2.11	0.50
3:D:423:GLN:C	3:D:425:ARG:N	2.62	0.50
3:D:586:LEU:C	3:D:586:LEU:CD2	2.80	0.50
1:E:52:ARG:HH11	1:E:52:ARG:CG	2.25	0.50
1:E:271:ALA:C	1:E:273:ALA:H	2.14	0.50
1:E:689:HIS:HE1	1:E:725:GLN:O	1.94	0.50
1:E:974:ARG:NH2	1:E:978:GLU:HG3	2.25	0.50
1:E:1102:MET:HE1	1:E:1107:TYR:HB2	1.91	0.50
2:F:120:ASP:O	2:F:121:LYS:HB2	2.10	0.50
2:F:490:LEU:O	2:F:490:LEU:HD22	2.10	0.50
2:F:527:GLY:O	2:F:531:MET:HG3	2.11	0.50
2:F:848:PHE:O	2:F:852:ARG:HB3	2.12	0.50
3:G:551:LEU:HD12	3:G:552:ILE:H	1.76	0.50
1:B:650:GLN:O	1:B:654:LYS:HG3	2.11	0.50
1:B:1003:ASN:N	1:B:1007:VAL:HG11	2.27	0.50
1:B:1104:ALA:HB3	1:B:1105:HIS:HD2	1.77	0.50
2:C:5:TYR:CD2	2:C:323:LEU:HD11	2.46	0.50
2:C:36:LEU:HD13	2:C:65:PRO:HA	1.92	0.50
2:C:86:PHE:CZ	2:C:176:THR:HG21	2.46	0.50
2:C:199:SER:O	2:C:200:ALA:C	2.49	0.50
2:C:428:SER:O	2:C:429:ALA:C	2.49	0.50
2:C:955:TRP:NE1	3:D:262:HIS:CD2	2.80	0.50
3:D:201:LEU:HD13	3:D:216:LEU:HD12	1.94	0.50
3:D:398:LEU:H	3:D:398:LEU:CD2	2.22	0.50
1:E:29:LYS:HG2	1:E:412:ILE:HD11	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:65:THR:HB	1:E:68:ALA:H	1.76	0.50
1:E:233:LYS:NZ	1:E:269:ILE:CG1	2.73	0.50
1:E:732:ASP:HA	1:E:735:LEU:HD12	1.94	0.50
1:E:861:CYS:SG	1:E:866:ALA:HA	2.52	0.50
2:F:354:ASN:ND2	2:F:356:GLU:HB3	2.27	0.50
3:G:438:TYR:HD1	3:G:548:HIS:HB3	1.75	0.50
1:B:728:ARG:NH2	2:C:739:ASN:CA	2.75	0.50
1:B:1003:ASN:H	1:B:1007:VAL:CG2	2.25	0.50
1:B:1071:ARG:NH2	2:C:29:PRO:HB2	2.16	0.50
2:C:207:LEU:HB3	2:C:208:PRO:HD2	1.93	0.50
2:C:256:TYR:OH	2:C:316:ASP:OD1	2.29	0.50
2:C:795:GLN:HB3	2:C:796:PRO:CD	2.42	0.50
3:D:28:ALA:O	3:D:30:ASP:N	2.40	0.50
3:D:395:LYS:HE3	3:D:576:ARG:HG2	1.93	0.50
2:F:197:LEU:HD13	2:F:230:LEU:HA	1.94	0.50
2:F:841:TRP:O	2:F:842:ALA:C	2.47	0.50
3:G:232:ARG:C	3:G:234:PRO:HD3	2.32	0.50
3:G:325:ARG:HG3	3:G:350:ASP:HB3	1.92	0.50
3:G:409:GLU:C	3:G:411:ALA:H	2.15	0.50
4:Y:10:DA:H2"	4:Y:11:DG:O5'	2.12	0.50
1:B:447:TRP:O	1:B:448:ARG:CB	2.56	0.50
1:B:936:GLU:O	1:B:937:GLU:C	2.50	0.50
1:B:1040:ILE:HD11	1:B:1168:MET:CE	2.41	0.50
2:C:828:LEU:HD12	2:C:829:PRO:HD2	1.93	0.50
3:D:409:GLU:C	3:D:411:ALA:H	2.14	0.50
3:D:586:LEU:O	3:D:586:LEU:HD23	2.12	0.50
1:E:399:ARG:HG3	1:E:399:ARG:NH1	2.27	0.50
1:E:447:TRP:O	1:E:448:ARG:CB	2.58	0.50
1:E:710:TRP:CE2	1:E:714:HIS:NE2	2.80	0.50
1:E:1074:GLY:O	1:E:1075:ARG:CB	2.59	0.50
2:F:165:GLN:HE22	2:F:696:LEU:HD22	1.76	0.50
3:G:367:ILE:N	3:G:393:ILE:CG2	2.73	0.50
4:Y:30:DG:C8	4:Y:31:DT:H72	2.46	0.50
1:B:550:ARG:HH11	1:B:550:ARG:CG	2.23	0.50
1:B:834:HIS:CE1	1:B:847:PRO:HB3	2.47	0.50
2:C:7:SER:HB3	2:C:13:LEU:HD21	1.94	0.50
2:C:36:LEU:HD23	2:C:36:LEU:N	2.27	0.50
2:C:335:LEU:HA	2:C:374:ILE:CD1	2.42	0.50
2:C:540:ALA:O	2:C:541:GLN:CB	2.49	0.50
2:C:782:CYS:O	2:C:782:CYS:SG	2.70	0.50
3:D:19:LEU:HD23	3:D:19:LEU:O	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:256:HIS:CE1	3:D:257:ALA:CB	2.95	0.50
1:E:42:LEU:HD21	1:E:114:LEU:HG	1.94	0.50
1:E:77:ARG:HG3	1:E:121:MET:HG3	1.93	0.50
1:E:258:ASN:O	1:E:261:ASN:HB2	2.12	0.50
1:E:355:LEU:C	1:E:355:LEU:HD12	2.32	0.50
1:E:500:LYS:HE3	1:E:868:GLN:HG3	1.93	0.50
1:E:875:ASN:C	1:E:877:PRO:CD	2.79	0.50
1:E:931:VAL:HG12	1:E:932:ALA:N	2.22	0.50
2:F:77:LEU:HB3	2:F:78:PRO:HD2	1.94	0.50
2:F:532:LEU:HD12	3:G:26:THR:HG21	1.94	0.50
3:G:110:ASN:C	3:G:110:ASN:ND2	2.65	0.50
3:G:243:LEU:O	3:G:244:LEU:HD12	2.12	0.50
1:B:154:GLU:H	1:B:154:GLU:CD	2.15	0.49
1:B:382:MET:HG2	1:B:410:LEU:HD12	1.94	0.49
1:B:719:ASP:O	1:B:720:SER:O	2.30	0.49
1:B:892:THR:HG22	2:C:804:ARG:HE	1.77	0.49
1:B:899:ASP:HB3	1:B:1059:ARG:NH1	2.23	0.49
1:B:977:LEU:HD11	1:B:990:LEU:HD23	1.94	0.49
2:C:160:GLU:C	2:C:162:GLN:N	2.59	0.49
2:C:228:GLN:HE22	2:C:318:GLU:N	1.99	0.49
2:C:1077:GLY:H	2:C:1083:GLY:CA	2.25	0.49
3:D:65:HIS:CB	3:D:66:PRO:CD	2.77	0.49
1:E:199:ARG:HH11	1:E:199:ARG:HB3	1.77	0.49
1:E:500:LYS:HA	1:E:866:ALA:O	2.12	0.49
2:F:102:LEU:CD1	2:F:168:LEU:HD23	2.42	0.49
2:F:355:ILE:HD12	2:F:355:ILE:N	2.27	0.49
2:F:465:PHE:HD1	2:F:510:ASN:HD21	1.60	0.49
3:G:106:ARG:NE	3:G:598:SER:O	2.44	0.49
3:G:582:ASP:O	3:G:584:ARG:N	2.42	0.49
3:G:589:ALA:O	3:G:591:ALA:N	2.45	0.49
4:Y:28:DC:N4	4:Y:29:DA:N6	2.60	0.49
4:Z:10:DA:H2"	4:Z:11:DG:C5'	2.42	0.49
1:B:705:HIS:CG	2:C:487:GLU:HG3	2.47	0.49
1:B:1008:SER:HG	1:B:1010:SER:HG	1.59	0.49
2:C:232:LYS:O	2:C:232:LYS:HG2	2.12	0.49
2:C:843:HIS:CD2	2:C:846:ARG:H	2.30	0.49
3:D:300:GLN:HA	3:D:568:THR:HG22	1.94	0.49
2:F:388:VAL:HG22	2:F:799:ARG:NH1	2.27	0.49
3:G:297:ASP:HB3	3:G:300:GLN:HB2	1.94	0.49
3:G:389:ASP:O	3:G:391:THR:HG23	2.13	0.49
1:B:32:THR:O	1:B:33:ILE:C	2.50	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:826:ASP:O	1:B:827:LYS:C	2.50	0.49
1:B:901:TRP:CE3	1:B:1060:GLY:HA2	2.46	0.49
1:B:1084:ASN:O	1:B:1085:TRP:O	2.30	0.49
2:C:175:TYR:CZ	2:C:179:LEU:HD11	2.47	0.49
2:C:470:VAL:HB	2:C:524:TRP:CZ2	2.48	0.49
2:C:829:PRO:O	2:C:830:GLU:C	2.50	0.49
3:D:242:ARG:HH22	3:D:266:LEU:HD11	1.75	0.49
3:D:298:ARG:HH12	3:D:318:ASN:ND2	2.09	0.49
3:D:526:ARG:O	3:D:526:ARG:HG3	2.11	0.49
1:E:1:MET:CG	1:E:2:SER:H	2.24	0.49
1:E:811:TRP:N	1:E:811:TRP:CD1	2.80	0.49
1:E:955:LEU:O	1:E:956:HIS:C	2.49	0.49
1:E:995:THR:O	1:E:998:LEU:N	2.43	0.49
1:E:1085:TRP:CD1	1:E:1087:GLY:HA3	2.47	0.49
2:F:217:SER:O	2:F:218:ALA:HB2	2.11	0.49
2:F:373:SER:O	2:F:374:ILE:O	2.31	0.49
1:B:499:MET:HA	1:B:813:CYS:O	2.13	0.49
1:B:678:ALA:C	1:B:680:GLY:H	2.15	0.49
1:B:728:ARG:CZ	2:C:739:ASN:HB2	2.42	0.49
1:B:771:ARG:HH21	1:B:793:GLU:HG3	1.77	0.49
2:C:318:GLU:C	2:C:320:SER:N	2.65	0.49
2:C:742:ARG:CD	2:C:743:PHE:N	2.76	0.49
3:D:185:LEU:HD13	3:D:199:ILE:HG21	1.94	0.49
1:E:17:GLY:H	1:E:408:ALA:HA	1.77	0.49
1:E:42:LEU:O	1:E:44:LEU:N	2.46	0.49
1:E:902:ARG:HH12	1:E:1058:VAL:HG22	1.77	0.49
2:F:238:LEU:C	2:F:238:LEU:HD23	2.32	0.49
2:F:303:TRP:N	2:F:303:TRP:CD1	2.77	0.49
1:B:924:LEU:O	1:B:926:VAL:N	2.40	0.49
2:C:82:LYS:O	2:C:83:GLU:HB2	2.12	0.49
2:C:254:PRO:O	2:C:257:LEU:CG	2.60	0.49
2:C:981:TRP:O	2:C:985:LEU:HG	2.12	0.49
3:D:177:LYS:HA	3:D:180:THR:CG2	2.43	0.49
3:D:440:LEU:HD22	3:D:552:ILE:CD1	2.43	0.49
1:E:284:GLU:HA	1:E:287:GLU:OE1	2.12	0.49
1:E:426:ASP:CB	1:E:429:THR:HG22	2.42	0.49
1:E:515:GLN:O	1:E:516:SER:C	2.50	0.49
1:E:604:MET:CE	1:E:649:ARG:NH1	2.75	0.49
1:E:757:ILE:HG23	1:E:757:ILE:O	2.11	0.49
2:F:71:ASP:O	2:F:75:ARG:HG3	2.11	0.49
2:F:1038:LEU:N	2:F:1038:LEU:HD23	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:109:LEU:O	3:G:110:ASN:C	2.50	0.49
3:G:359:TYR:CD1	3:G:360:ARG:N	2.81	0.49
3:G:597:ARG:O	3:G:597:ARG:HD2	2.12	0.49
1:B:233:LYS:NZ	1:B:269:ILE:HA	2.27	0.49
1:B:262:GLN:CA	1:B:265:TRP:HB3	2.31	0.49
1:B:277:THR:O	1:B:277:THR:OG1	2.29	0.49
1:B:1002:LEU:HA	1:B:1155:ILE:CD1	2.42	0.49
1:B:1085:TRP:CD1	1:B:1087:GLY:CA	2.96	0.49
1:B:1085:TRP:CD1	1:B:1087:GLY:HA3	2.48	0.49
2:C:844:PRO:O	2:C:847:ALA:HB3	2.13	0.49
2:C:883:GLN:HE21	2:C:897:LEU:HD21	1.78	0.49
1:E:83:LEU:O	1:E:83:LEU:HD22	2.12	0.49
1:E:682:ARG:NH1	1:E:686:ASP:OD2	2.46	0.49
1:E:1041:ARG:HG2	1:E:1050:CYS:SG	2.52	0.49
1:E:1136:GLY:HA2	1:E:1159:ARG:NH1	2.28	0.49
2:F:61:ASP:O	2:F:63:PRO:HD3	2.12	0.49
2:F:72:MET:HE3	2:F:207:LEU:HB3	1.93	0.49
2:F:306:LEU:HD23	2:F:307:GLY:N	2.27	0.49
3:G:62:GLU:C	3:G:64:SER:H	2.16	0.49
3:G:195:GLU:OE2	3:G:196:ARG:HG2	2.13	0.49
3:G:239:THR:CG2	3:G:278:MET:SD	3.00	0.49
1:B:856:CYS:O	1:B:859:ALA:HB3	2.12	0.49
1:B:1135:PHE:CG	1:B:1136:GLY:N	2.79	0.49
1:E:587:VAL:HG11	1:E:690:ILE:HG13	1.94	0.49
1:E:1050:CYS:CA	1:E:1052:PRO:HD2	2.40	0.49
2:F:236:ILE:O	2:F:236:ILE:HG22	2.12	0.49
2:F:650:ILE:HD13	2:F:650:ILE:N	2.28	0.49
3:G:298:ARG:HH12	3:G:318:ASN:ND2	2.10	0.49
3:G:529:GLU:HA	3:G:529:GLU:OE2	2.13	0.49
1:B:16:GLN:HG3	1:B:16:GLN:O	2.13	0.49
1:B:488:ARG:NH2	1:B:541:MET:HE2	2.27	0.49
1:B:624:ASN:O	1:B:628:ILE:HG12	2.13	0.49
2:C:287:PHE:CD1	2:C:293:GLN:NE2	2.81	0.49
2:C:689:LEU:O	2:C:689:LEU:HG	2.11	0.49
2:C:706:ARG:NH1	2:C:711:ASP:OD1	2.44	0.49
2:C:1088:ILE:HG13	2:C:1089:TRP:H	1.78	0.49
3:D:130:ILE:HD12	3:D:130:ILE:N	2.08	0.49
1:E:285:SER:HB2	1:E:307:HIS:CE1	2.48	0.49
1:E:761:ARG:NH2	4:Z:40:DT:O5'	2.46	0.49
1:E:1102:MET:HE1	1:E:1107:TYR:CB	2.42	0.49
3:G:121:ARG:O	3:G:125:GLU:HB3	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:418:TYR:CE1	3:G:431:ILE:HG23	2.48	0.49
1:B:422:PHE:CE1	1:B:423:ARG:HG3	2.47	0.49
2:C:262:THR:O	2:C:273:GLU:HG3	2.13	0.49
2:C:287:PHE:O	2:C:289:SER:N	2.45	0.49
2:C:764:ASP:CB	2:C:767:LEU:HD21	2.43	0.49
2:C:795:GLN:HB3	2:C:796:PRO:HD2	1.95	0.49
2:C:997:ARG:HH11	2:C:1007:ARG:NH1	2.11	0.49
3:D:73:SER:O	3:D:75:ILE:HG13	2.12	0.49
3:D:276:LEU:CB	3:D:277:PRO:HD3	2.43	0.49
1:E:39:ARG:HG3	1:E:39:ARG:NH1	2.27	0.49
1:E:237:ARG:HE	1:E:266:ILE:CG2	2.26	0.49
1:E:405:PRO:O	1:E:406:GLU:HB2	2.12	0.49
1:E:916:ILE:HA	1:E:919:ASP:HB2	1.95	0.49
1:E:1104:ALA:CB	1:E:1105:HIS:HD2	2.25	0.49
2:F:373:SER:O	2:F:374:ILE:C	2.49	0.49
3:G:367:ILE:HG13	3:G:393:ILE:HG23	1.93	0.49
3:G:444:LEU:O	3:G:450:GLY:HA2	2.13	0.49
1:B:159:LEU:HD12	1:B:339:VAL:HG13	1.94	0.49
1:B:1046:LEU:C	1:B:1048:ALA:H	2.15	0.49
2:C:102:LEU:CD1	2:C:168:LEU:HD23	2.43	0.49
2:C:239:LEU:N	2:C:239:LEU:HD13	2.26	0.49
2:C:347:ASN:ND2	2:C:347:ASN:C	2.67	0.49
3:D:116:GLU:O	3:D:119:VAL:N	2.39	0.49
1:E:278:ASN:C	1:E:284:GLU:OE2	2.51	0.49
1:E:624:ASN:HB2	1:E:627:ASP:OD2	2.12	0.49
1:E:882:ASP:O	1:E:883:VAL:CG2	2.61	0.49
1:B:187:TRP:CZ3	1:B:196:ASP:OD2	2.61	0.48
1:B:1075:ARG:HD3	1:B:1135:PHE:O	2.12	0.48
1:B:1107:TYR:O	1:B:1111:TYR:CD1	2.66	0.48
1:B:1118:LEU:O	1:B:1122:LEU:HG	2.13	0.48
2:C:848:PHE:O	2:C:852:ARG:HB3	2.13	0.48
3:D:370:LEU:HD11	3:D:374:ILE:HD11	1.95	0.48
2:F:74:VAL:HG12	2:F:74:VAL:O	2.12	0.48
1:B:39:ARG:HH11	1:B:39:ARG:HG3	1.77	0.48
1:B:488:ARG:NH2	1:B:541:MET:CE	2.76	0.48
1:B:943:HIS:O	1:B:1086:LEU:CD2	2.57	0.48
1:B:984:SER:C	1:B:986:TRP:H	2.17	0.48
1:B:987:GLU:C	1:B:987:GLU:CD	2.72	0.48
1:B:1102:MET:HE1	1:B:1107:TYR:HB2	1.95	0.48
2:C:737:GLN:C	2:C:739:ASN:N	2.66	0.48
2:C:943:ILE:O	2:C:953:THR:HA	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:972:LEU:HD12	2:C:1005:GLU:N	2.24	0.48
2:C:981:TRP:NE1	2:C:985:LEU:HD11	2.29	0.48
3:D:220:LEU:HD23	3:D:223:LEU:HD21	1.95	0.48
3:D:242:ARG:HD3	3:D:261:LEU:CD2	2.43	0.48
1:E:8:LEU:HD13	1:E:10:PRO:HD3	1.95	0.48
1:E:442:THR:HG22	1:E:443:LEU:N	2.28	0.48
1:E:587:VAL:O	1:E:587:VAL:HG12	2.12	0.48
1:E:604:MET:HE2	1:E:649:ARG:HH12	1.78	0.48
1:E:763:GLN:NE2	1:E:764:GLU:N	2.61	0.48
1:E:1024:TYR:CD2	2:F:47:GLN:HB3	2.48	0.48
2:F:401:PRO:C	2:F:402:THR:HG23	2.33	0.48
3:G:424:ALA:O	3:G:426:ALA:N	2.46	0.48
4:Y:10:DA:C2'	4:Y:11:DG:H8	2.26	0.48
1:B:612:LEU:HD22	1:B:616:LEU:HD11	1.94	0.48
1:B:1068:LEU:HD23	1:B:1079:LEU:HD23	1.95	0.48
2:C:121:LYS:HG2	2:C:124:LEU:HD23	1.95	0.48
2:C:345:LEU:O	2:C:345:LEU:HG	2.13	0.48
2:C:431:ALA:O	2:C:432:ASP:C	2.51	0.48
2:C:584:LEU:HD22	2:C:632:VAL:HG21	1.95	0.48
3:D:556:GLN:O	3:D:557:ARG:CB	2.62	0.48
1:E:365:GLU:C	1:E:367:GLY:H	2.17	0.48
1:E:1049:GLY:O	1:E:1051:PRO:CD	2.61	0.48
2:F:583:PRO:O	2:F:584:LEU:C	2.49	0.48
3:G:22:GLN:O	3:G:26:THR:HG23	2.13	0.48
1:B:242:GLU:O	1:B:243:LEU:CG	2.56	0.48
1:B:265:TRP:O	1:B:265:TRP:CG	2.66	0.48
1:B:518:MET:HA	1:B:518:MET:CE	2.41	0.48
1:B:670:ILE:HG22	1:B:674:LEU:HD12	1.95	0.48
1:B:1032:ILE:HD12	1:B:1032:ILE:N	2.27	0.48
2:C:28:ASP:N	2:C:28:ASP:OD1	2.47	0.48
2:C:333:ASN:H	2:C:336:HIS:HB2	1.77	0.48
2:C:334:LEU:HD21	2:C:755:ILE:HG21	1.96	0.48
3:D:137:LEU:HD13	3:D:332:LEU:HD22	1.95	0.48
3:D:144:LEU:O	3:D:183:LYS:HD3	2.14	0.48
1:E:11:LEU:HD21	1:E:100:LEU:HD23	1.95	0.48
1:E:65:THR:HG22	1:E:66:GLU:H	1.77	0.48
1:E:250:SER:HB3	4:Z:29:DA:H4'	1.94	0.48
1:E:830:ASP:C	1:E:831:THR:HG23	2.33	0.48
1:E:1003:ASN:H	1:E:1007:VAL:CG1	2.27	0.48
1:E:1034:SER:OG	1:E:1035:GLN:N	2.46	0.48
3:G:220:LEU:HD11	3:G:232:ARG:HE	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:597:LEU:O	1:B:597:LEU:HD23	2.13	0.48
1:B:1102:MET:CE	1:B:1111:TYR:OH	2.62	0.48
2:C:261:LEU:CD2	2:C:281:GLU:CD	2.82	0.48
2:C:571:LEU:HD23	2:C:598:PHE:CE2	2.47	0.48
2:C:584:LEU:HD11	2:C:620:ILE:HG12	1.95	0.48
2:C:592:ARG:HB2	2:C:592:ARG:NH1	2.21	0.48
2:C:742:ARG:O	2:C:743:PHE:CD2	2.66	0.48
1:E:213:PRO:C	1:E:215:ASP:H	2.14	0.48
1:E:228:ARG:C	1:E:316:LEU:HD21	2.32	0.48
1:E:269:ILE:O	1:E:270:SER:CB	2.58	0.48
1:E:355:LEU:HD11	1:E:392:GLN:NE2	2.29	0.48
1:E:399:ARG:HG3	1:E:399:ARG:HH11	1.78	0.48
1:E:541:MET:HG2	1:E:546:ALA:HB2	1.94	0.48
1:E:564:ALA:CA	1:E:738:ILE:HD11	2.34	0.48
2:F:99:LEU:N	2:F:100:PRO:HD2	2.28	0.48
2:F:344:GLU:O	2:F:345:LEU:HB3	2.13	0.48
2:F:355:ILE:CD1	2:F:356:GLU:N	2.76	0.48
2:F:482:ARG:HG2	2:F:482:ARG:HH11	1.78	0.48
2:F:522:HIS:HE1	2:F:905:GLY:O	1.96	0.48
2:F:536:ALA:HB2	3:G:109:LEU:HD22	1.96	0.48
2:F:1105:ILE:O	2:F:1106:VAL:C	2.52	0.48
3:G:242:ARG:HG2	3:G:242:ARG:NH1	2.28	0.48
1:B:232:VAL:O	1:B:232:VAL:HG12	2.12	0.48
1:B:284:GLU:HA	1:B:287:GLU:OE1	2.13	0.48
1:B:950:SER:N	1:B:951:PRO:CD	2.76	0.48
1:B:1161:ASN:C	1:B:1163:GLY:N	2.66	0.48
2:C:226:ALA:O	2:C:230:LEU:HB2	2.13	0.48
2:C:872:LEU:HD21	2:C:880:ILE:HD12	1.96	0.48
3:D:79:GLN:HG3	3:D:80:ASN:H	1.77	0.48
3:D:530:HIS:CE1	3:D:534:TRP:CZ3	2.98	0.48
1:E:201:LEU:H	1:E:336:ARG:NH2	2.11	0.48
1:E:255:ARG:C	1:E:257:PHE:H	2.16	0.48
1:E:598:TRP:CZ2	2:F:857:PHE:HB3	2.48	0.48
1:E:1096:GLN:O	1:E:1100:ALA:N	2.46	0.48
2:F:737:GLN:C	2:F:739:ASN:N	2.66	0.48
3:G:242:ARG:HH22	3:G:266:LEU:HD11	1.79	0.48
3:G:427:GLU:N	3:G:428:PRO:HD3	2.29	0.48
3:G:586:LEU:O	3:G:589:ALA:HB3	2.12	0.48
4:Z:30:DG:C8	4:Z:31:DT:H72	2.48	0.48
1:B:700:GLN:O	1:B:701:LEU:HD23	2.14	0.48
1:B:758:THR:HG22	1:B:758:THR:O	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:117:ASP:O	2:C:118:ASP:CB	2.60	0.48
2:C:629:GLY:O	2:C:630:ASP:O	2.32	0.48
2:C:1063:THR:C	2:C:1065:GLN:N	2.67	0.48
3:D:37:LEU:HD22	3:D:41:LEU:CD1	2.44	0.48
3:D:242:ARG:HG3	3:D:243:LEU:N	2.22	0.48
1:E:563:GLU:O	1:E:566:GLN:HB2	2.13	0.48
1:E:832:ASP:HA	1:E:834:HIS:HD2	1.77	0.48
1:E:1102:MET:HE3	1:E:1107:TYR:HB2	1.94	0.48
1:E:1166:ALA:O	1:E:1170:GLU:HG2	2.13	0.48
2:F:26:LEU:HB2	2:F:210:ARG:HH22	1.78	0.48
3:G:79:GLN:C	3:G:81:TRP:H	2.16	0.48
3:G:156:VAL:O	3:G:160:VAL:HG23	2.14	0.48
1:B:250:SER:HB2	4:Y:29:DA:H4'	1.89	0.48
1:B:893:LEU:HB3	2:C:802:TYR:CE2	2.48	0.48
1:B:979:LEU:HA	2:C:588:LEU:HD13	1.95	0.48
2:C:397:LEU:HD23	2:C:403:LEU:HB3	1.96	0.48
2:C:819:GLU:OE2	2:C:821:VAL:HG13	2.14	0.48
2:C:875:LEU:HD11	4:Y:3:DT:H73	1.95	0.48
3:D:125:GLU:O	3:D:125:GLU:HG2	2.14	0.48
1:E:156:GLU:OE2	1:E:343:LYS:HE3	2.14	0.48
1:E:228:ARG:HD2	1:E:319:GLU:OE1	2.13	0.48
1:E:574:LEU:HD23	1:E:574:LEU:HA	1.54	0.48
1:E:1075:ARG:CG	1:E:1075:ARG:NH1	2.67	0.48
2:F:504:TRP:CH2	2:F:516:LEU:HD13	2.49	0.48
2:F:875:LEU:HD11	4:Z:3:DT:H72	1.96	0.48
3:G:4:GLN:HE21	3:G:4:GLN:HB2	1.44	0.48
3:G:402:GLU:C	3:G:405:ILE:HD12	2.33	0.48
1:B:177:ARG:HE	1:B:181:GLN:NE2	2.11	0.48
1:B:375:ARG:NH2	1:B:404:GLN:NE2	2.62	0.48
1:B:665:MET:CE	1:B:671:ALA:HB2	2.44	0.48
1:B:896:LEU:HD12	1:B:896:LEU:O	2.14	0.48
1:B:902:ARG:NH1	1:B:1058:VAL:CG2	2.77	0.48
1:B:912:ARG:HD3	1:B:912:ARG:HA	1.64	0.48
2:C:536:ALA:HB2	3:D:109:LEU:HD22	1.94	0.48
1:E:719:ASP:O	1:E:719:ASP:CG	2.52	0.48
2:F:59:ASN:O	2:F:60:ILE:O	2.32	0.48
2:F:142:ARG:N	2:F:143:PRO:HD2	2.29	0.48
2:F:557:ILE:CD1	2:F:557:ILE:N	2.57	0.48
2:F:760:TYR:HE1	2:F:765:GLU:CG	2.22	0.48
3:G:77:GLU:HG2	3:G:79:GLN:H	1.79	0.48
3:G:220:LEU:CD1	3:G:232:ARG:HG3	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:449:PHE:HZ	3:G:555:SER:HB2	1.78	0.48
4:Y:26:DA:H2"	4:Y:27:DG:OP2	2.14	0.48
1:B:399:ARG:HH11	1:B:399:ARG:CG	2.27	0.48
1:B:530:LEU:HD21	1:B:551:ALA:HA	1.96	0.48
1:B:692:GLU:HG2	2:C:383:GLN:HG3	1.96	0.48
1:B:730:GLU:OE1	1:B:733:LYS:HD2	2.14	0.48
1:B:900:ASN:OD1	1:B:900:ASN:O	2.31	0.48
1:B:1098:MET:O	1:B:1102:MET:HG2	2.13	0.48
2:C:5:TYR:HE2	2:C:267:HIS:HD2	1.60	0.48
2:C:244:CYS:SG	2:C:345:LEU:HB2	2.54	0.48
3:D:207:LYS:HE2	3:D:211:ARG:NH2	2.28	0.48
1:E:276:GLU:HG3	1:E:278:ASN:HD21	1.79	0.48
1:E:414:ASP:OD1	1:E:416:LYS:N	2.44	0.48
2:F:202:THR:OG1	2:F:203:CYS:N	2.46	0.48
2:F:210:ARG:HA	2:F:235:GLU:O	2.13	0.48
2:F:406:ARG:CA	2:F:658:PRO:HB3	2.44	0.48
2:F:713:ARG:HG2	2:F:747:LEU:HD21	1.96	0.48
2:F:1009:PRO:O	2:F:1011:LEU:HD22	2.14	0.48
4:Y:41:DA:H2"	4:Y:42:DG:O5'	2.14	0.48
1:B:281:GLN:O	1:B:282:LEU:CB	2.58	0.47
1:B:1024:TYR:CE1	1:B:1063:LYS:HG2	2.50	0.47
1:B:1171:MET:HG3	1:B:1171:MET:O	2.13	0.47
2:C:77:LEU:HD21	2:C:193:PHE:HA	1.95	0.47
2:C:330:THR:O	2:C:332:ASP:OD1	2.32	0.47
1:E:471:ARG:HG3	1:E:472:GLU:OE1	2.13	0.47
2:F:367:LEU:HB3	2:F:761:LEU:HD23	1.95	0.47
2:F:470:VAL:HB	2:F:524:TRP:CZ2	2.49	0.47
2:F:531:MET:CE	2:F:561:VAL:HG13	2.44	0.47
3:G:357:LYS:HD2	3:G:358:SER:H	1.78	0.47
4:Z:9:DG:H2"	4:Z:10:DA:C8	2.49	0.47
1:B:155:ASP:CG	1:B:156:GLU:N	2.65	0.47
1:B:173:TYR:N	1:B:174:PRO:HD2	2.28	0.47
1:B:280:TYR:N	1:B:280:TYR:HD1	2.10	0.47
1:B:590:THR:O	1:B:591:LEU:CB	2.52	0.47
1:B:673:ASN:OD1	2:C:815:LYS:HG2	2.15	0.47
1:B:762:VAL:HG13	1:B:791:GLU:CD	2.35	0.47
1:B:807:THR:CG2	1:B:808:ARG:NH2	2.71	0.47
1:B:937:GLU:HA	1:B:938:PRO:HD2	1.64	0.47
1:B:1102:MET:HE1	1:B:1111:TYR:CE1	2.49	0.47
2:C:582:ARG:HD3	2:C:587:TRP:CH2	2.48	0.47
2:C:745:SER:O	2:C:748:VAL:N	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:819:GLU:OE1	2:C:820:PHE:N	2.46	0.47
2:C:832:VAL:O	2:C:832:VAL:CG2	2.62	0.47
2:C:878:TYR:O	2:C:882:GLN:HG3	2.13	0.47
2:C:911:ALA:C	2:C:915:ILE:HD12	2.33	0.47
3:D:109:LEU:O	3:D:110:ASN:C	2.53	0.47
1:E:16:GLN:O	1:E:16:GLN:HG3	2.13	0.47
1:E:149:GLU:H	2:F:126:GLN:NE2	2.11	0.47
1:E:384:ASP:O	1:E:385:GLU:HB2	2.14	0.47
1:E:611:THR:CG2	2:F:858:ARG:NH2	2.76	0.47
1:E:682:ARG:HD3	1:E:682:ARG:C	2.35	0.47
1:E:730:GLU:O	1:E:731:SER:CB	2.62	0.47
1:E:1050:CYS:O	1:E:1052:PRO:HD2	2.08	0.47
1:E:1073:GLU:N	1:E:1073:GLU:CD	2.65	0.47
1:E:1118:LEU:O	1:E:1122:LEU:HG	2.13	0.47
2:F:28:ASP:N	2:F:29:PRO:HD2	2.28	0.47
2:F:82:LYS:O	2:F:83:GLU:HB2	2.13	0.47
2:F:405:PRO:HB2	2:F:659:VAL:HG23	1.96	0.47
3:G:241:HIS:O	3:G:243:LEU:N	2.46	0.47
1:B:85:ILE:C	1:B:87:CYS:H	2.17	0.47
1:B:107:LYS:H	1:B:107:LYS:HD3	1.78	0.47
1:B:1003:ASN:C	1:B:1007:VAL:HG21	2.34	0.47
2:C:77:LEU:CD2	2:C:196:THR:HG21	2.44	0.47
2:C:396:MET:CE	2:C:726:LYS:HG3	2.44	0.47
2:C:447:SER:O	2:C:448:HIS:CG	2.67	0.47
2:C:989:ALA:C	2:C:991:GLY:H	2.18	0.47
3:D:125:GLU:OE2	3:D:125:GLU:C	2.53	0.47
3:D:238:SER:OG	3:D:241:HIS:HB2	2.14	0.47
1:E:392:GLN:O	1:E:396:ILE:HG13	2.15	0.47
1:E:472:GLU:OE1	1:E:472:GLU:N	2.38	0.47
1:E:526:ILE:HG22	1:E:576:ILE:HD13	1.95	0.47
1:E:830:ASP:O	1:E:831:THR:HG23	2.15	0.47
2:F:451:LEU:N	2:F:451:LEU:CD1	2.76	0.47
3:G:19:LEU:HD23	3:G:19:LEU:O	2.15	0.47
3:G:174:GLY:O	3:G:357:LYS:HD3	2.14	0.47
3:G:186:ALA:HB1	3:G:225:LEU:HD12	1.96	0.47
1:B:426:ASP:HB3	1:B:429:THR:HG22	1.92	0.47
1:B:601:GLN:OE1	2:C:860:GLU:HB2	2.14	0.47
1:B:794:ARG:NH2	1:B:835:GLN:O	2.44	0.47
2:C:106:GLU:HA	2:C:109:THR:OG1	2.14	0.47
2:C:137:GLN:O	2:C:140:VAL:N	2.43	0.47
2:C:333:ASN:HB2	2:C:336:HIS:HB2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1095:ARG:HB3	2:C:1095:ARG:NH1	2.29	0.47
3:D:159:ALA:O	3:D:163:THR:HG23	2.14	0.47
3:D:165:ARG:O	3:D:291:ARG:HG2	2.14	0.47
3:D:220:LEU:CD1	3:D:232:ARG:NE	2.77	0.47
3:D:456:GLU:C	3:D:458:ILE:N	2.67	0.47
1:E:415:PRO:HB3	1:E:430:TYR:CE2	2.49	0.47
1:E:527:ARG:HD2	1:E:528:ASP:N	2.29	0.47
1:E:624:ASN:HB3	1:E:627:ASP:H	1.79	0.47
1:E:943:HIS:O	1:E:1086:LEU:CD2	2.58	0.47
1:E:1041:ARG:HB2	1:E:1041:ARG:HH11	1.79	0.47
2:F:602:ASP:OD1	2:F:603:ALA:N	2.47	0.47
2:F:828:LEU:HD12	2:F:829:PRO:CD	2.42	0.47
2:F:833:PRO:HB2	2:F:835:GLU:HG2	1.95	0.47
4:Z:41:DA:H2"	4:Z:42:DG:C5'	2.44	0.47
1:B:83:LEU:O	1:B:83:LEU:HD22	2.15	0.47
1:B:626:LEU:HA	2:C:824:LEU:HD21	1.96	0.47
1:B:791:GLU:OE2	1:B:794:ARG:HD3	2.15	0.47
1:B:1085:TRP:HZ2	1:B:1092:ALA:HB1	1.80	0.47
1:B:1148:LYS:H	1:B:1148:LYS:HD2	1.78	0.47
2:C:26:LEU:HD13	2:C:210:ARG:HH12	1.80	0.47
2:C:89:GLN:H	2:C:89:GLN:CD	2.17	0.47
2:C:139:LEU:CD2	2:C:146:LEU:CD1	2.93	0.47
2:C:592:ARG:O	2:C:592:ARG:HG2	2.15	0.47
2:C:980:LEU:HD23	2:C:980:LEU:O	2.14	0.47
3:D:93:ARG:HG2	3:D:93:ARG:HH11	1.79	0.47
3:D:113:TRP:CZ2	3:D:117:ARG:HD2	2.50	0.47
3:D:137:LEU:HD22	3:D:141:LEU:HG	1.97	0.47
3:D:242:ARG:HD3	3:D:261:LEU:HD21	1.96	0.47
3:D:533:THR:O	3:D:534:TRP:CB	2.57	0.47
1:E:177:ARG:HG2	1:E:177:ARG:NH1	2.30	0.47
1:E:527:ARG:NH1	1:E:875:ASN:HB3	2.30	0.47
1:E:900:ASN:ND2	1:E:902:ARG:NH2	2.42	0.47
1:E:1003:ASN:H	1:E:1007:VAL:CG2	2.26	0.47
1:E:1025:LEU:HD21	1:E:1116:LEU:HD13	1.97	0.47
1:E:1096:GLN:O	1:E:1099:ALA:N	2.48	0.47
2:F:26:LEU:HB2	2:F:210:ARG:HH12	1.77	0.47
3:G:220:LEU:HD23	3:G:223:LEU:HD21	1.97	0.47
1:B:222:HIS:CE1	1:B:226:VAL:CG2	2.98	0.47
1:B:226:VAL:O	1:B:229:ILE:HB	2.15	0.47
1:B:504:MET:HE3	1:B:514:TYR:HD2	1.79	0.47
1:B:682:ARG:NH2	1:B:727:MET:O	2.37	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:916:ILE:HG21	2:C:448:HIS:NE2	2.30	0.47
1:B:940:LEU:HB3	1:B:989:VAL:HG21	1.97	0.47
1:B:948:GLY:O	1:B:951:PRO:HG2	2.14	0.47
2:C:72:MET:CE	2:C:207:LEU:HB3	2.44	0.47
2:C:149:TRP:CD2	2:C:166:ALA:HA	2.50	0.47
2:C:457:LEU:HB3	2:C:594:MET:CE	2.44	0.47
2:C:955:TRP:HE1	3:D:262:HIS:CD2	2.33	0.47
2:C:986:VAL:HG12	2:C:987:TYR:N	2.30	0.47
3:D:62:GLU:C	3:D:64:SER:H	2.18	0.47
1:E:62:VAL:HG22	1:E:383:ILE:HA	1.96	0.47
1:E:217:THR:OG1	1:E:219:ALA:HB3	2.15	0.47
1:E:682:ARG:HD3	1:E:682:ARG:O	2.15	0.47
1:E:794:ARG:NH2	1:E:795:LEU:HB3	2.30	0.47
1:E:807:THR:HG21	1:E:808:ARG:HH21	1.75	0.47
2:F:116:THR:C	2:F:118:ASP:H	2.14	0.47
2:F:388:VAL:HA	2:F:799:ARG:HH12	1.77	0.47
2:F:457:LEU:C	2:F:459:SER:H	2.17	0.47
2:F:733:GLY:O	2:F:734:ARG:HB3	2.14	0.47
3:G:89:GLN:OE1	3:G:91:VAL:O	2.32	0.47
3:G:370:LEU:HD13	3:G:396:ARG:HH21	1.79	0.47
4:Y:12:DC:H1'	4:Y:13:DA:H5'	1.97	0.47
1:B:15:LEU:HD13	1:B:40:LEU:HG	1.97	0.47
1:B:259:ARG:HG3	1:B:280:TYR:OH	2.15	0.47
1:B:323:ILE:HD12	1:B:323:ILE:HA	1.65	0.47
1:B:405:PRO:O	1:B:406:GLU:HB2	2.14	0.47
1:B:1127:ALA:CB	2:C:25:ARG:HD2	2.19	0.47
2:C:298:PRO:C	2:C:301:ALA:HB3	2.36	0.47
2:C:742:ARG:O	2:C:743:PHE:CG	2.67	0.47
2:C:883:GLN:O	2:C:884:LEU:C	2.51	0.47
2:C:998:LEU:CD2	2:C:1000:LEU:HD21	2.44	0.47
3:D:551:LEU:HD12	3:D:552:ILE:H	1.80	0.47
1:E:221:ARG:HG2	1:E:323:ILE:HD12	1.96	0.47
1:E:252:ILE:CG2	1:E:254:ARG:HB2	2.43	0.47
1:E:646:ASP:O	1:E:649:ARG:HG3	2.15	0.47
1:E:903:VAL:HG22	1:E:1061:MET:HB2	1.96	0.47
1:E:1126:ILE:HD12	1:E:1126:ILE:N	2.29	0.47
2:F:142:ARG:HG3	2:F:145:TRP:CZ2	2.50	0.47
2:F:164:TRP:C	2:F:167:PRO:HD2	2.34	0.47
2:F:207:LEU:HD12	2:F:234:ILE:HD11	1.96	0.47
2:F:989:ALA:CB	2:F:1017:LEU:CD2	2.93	0.47
3:G:128:HIS:HE1	3:G:130:ILE:HG23	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:276:LEU:O	3:G:276:LEU:HD23	2.14	0.47
3:G:370:LEU:HD11	3:G:374:ILE:HD11	1.97	0.47
3:G:577:LEU:HG	3:G:577:LEU:O	2.15	0.47
4:Z:14:DC:C2'	4:Z:15:DT:H5"	2.44	0.47
1:B:590:THR:C	1:B:592:GLU:H	2.15	0.47
1:B:949:ALA:O	1:B:953:THR:CG2	2.57	0.47
1:B:1095:GLN:HA	1:B:1095:GLN:NE2	2.29	0.47
1:B:1116:LEU:HD21	1:B:1120:ARG:HH21	1.79	0.47
2:C:130:LYS:HE2	2:C:692:LEU:HD21	1.97	0.47
2:C:395:ALA:HA	2:C:802:TYR:OH	2.14	0.47
2:C:457:LEU:HB3	2:C:594:MET:HE2	1.96	0.47
2:C:1075:TYR:CE1	2:C:1085:GLY:HA3	2.50	0.47
3:D:232:ARG:C	3:D:234:PRO:HD3	2.35	0.47
3:D:297:ASP:HB3	3:D:300:GLN:HB2	1.97	0.47
1:E:307:HIS:ND1	1:E:310:PHE:CZ	2.83	0.47
1:E:586:SER:O	1:E:589:GLU:OE1	2.32	0.47
1:E:860:LEU:HG	1:E:860:LEU:O	2.15	0.47
1:E:940:LEU:HD23	1:E:944:GLN:NE2	2.30	0.47
1:E:950:SER:N	1:E:951:PRO:CD	2.77	0.47
1:E:977:LEU:HD21	1:E:990:LEU:HD22	1.96	0.47
2:F:245:ARG:HA	2:F:326:PHE:CZ	2.50	0.47
2:F:327:VAL:HG12	2:F:328:ASP:N	2.29	0.47
2:F:533:LEU:CD1	2:F:537:MET:HE3	2.45	0.47
2:F:846:ARG:HD3	2:F:850:GLN:HE22	1.79	0.47
1:B:15:LEU:HD13	1:B:40:LEU:HD21	1.97	0.47
1:B:152:LEU:HD13	1:B:153:ILE:O	2.15	0.47
1:B:629:GLU:CD	2:C:852:ARG:NH1	2.68	0.47
1:B:963:ASP:O	1:B:965:THR:N	2.48	0.47
1:B:1086:LEU:CD2	1:B:1144:ARG:NH1	2.77	0.47
1:B:1131:TYR:CE1	1:B:1135:PHE:HD1	2.33	0.47
2:C:130:LYS:HB3	2:C:692:LEU:HD22	1.97	0.47
2:C:354:ASN:ND2	2:C:356:GLU:HB3	2.30	0.47
2:C:822:GLN:HE21	2:C:822:GLN:HB3	1.57	0.47
2:C:957:PRO:O	2:C:958:GLN:C	2.52	0.47
3:D:548:HIS:HD2	3:D:576:ARG:NH1	2.13	0.47
1:E:916:ILE:CG2	2:F:448:HIS:NE2	2.76	0.47
1:E:1082:LYS:HE2	1:E:1107:TYR:CE1	2.50	0.47
2:F:89:GLN:CD	2:F:89:GLN:H	2.18	0.47
4:Z:39:DT:H3'	4:Z:40:DT:H5"	1.97	0.47
1:B:52:ARG:HH11	1:B:52:ARG:CG	2.29	0.47
1:B:610:ASN:ND2	1:B:613:ARG:NH1	2.63	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:823:ARG:NH2	1:B:828:LYS:NZ	2.63	0.47
1:B:834:HIS:CD2	1:B:834:HIS:H	2.32	0.47
1:B:892:THR:HG21	2:C:804:ARG:HH21	1.79	0.47
2:C:177:HIS:O	2:C:180:GLY:N	2.42	0.47
2:C:760:TYR:CE1	2:C:765:GLU:CG	2.93	0.47
2:C:856:ASN:N	2:C:856:ASN:ND2	2.63	0.47
2:C:935:ARG:HH21	2:C:958:GLN:HE22	1.62	0.47
1:E:11:LEU:HD21	1:E:100:LEU:CD2	2.45	0.47
1:E:878:TRP:O	1:E:880:VAL:N	2.48	0.47
2:F:1053:GLN:O	2:F:1054:ASN:HB3	2.15	0.47
3:G:192:ALA:O	3:G:193:ASP:C	2.54	0.47
1:B:278:ASN:HA	1:B:281:GLN:OE1	2.15	0.46
1:B:707:LEU:O	1:B:710:TRP:HB3	2.15	0.46
1:B:1028:SER:OG	1:B:1029:GLU:N	2.49	0.46
1:B:1041:ARG:HB2	1:B:1041:ARG:HH11	1.80	0.46
2:C:105:ARG:NH2	2:C:107:ASP:OD2	2.37	0.46
2:C:400:ASP:O	2:C:401:PRO:O	2.33	0.46
3:D:220:LEU:O	3:D:223:LEU:CD2	2.63	0.46
3:D:412:LEU:HD23	3:D:412:LEU:N	2.29	0.46
3:D:537:THR:HG1	3:D:540:LYS:HG3	1.78	0.46
1:E:288:LYS:O	1:E:306:ARG:NH1	2.47	0.46
1:E:332:LEU:N	1:E:332:LEU:HD23	2.29	0.46
1:E:812:HIS:CG	1:E:813:CYS:N	2.83	0.46
1:E:1002:LEU:HA	1:E:1155:ILE:HD12	1.96	0.46
1:E:1120:ARG:HB2	2:F:56:ILE:HD12	1.97	0.46
1:E:1139:ILE:HD13	1:E:1157:THR:HG23	1.97	0.46
2:F:504:TRP:HH2	2:F:516:LEU:HD13	1.80	0.46
2:F:1046:LEU:HD21	2:F:1110:GLN:HG3	1.97	0.46
3:G:593:ARG:O	3:G:594:THR:C	2.54	0.46
4:Z:18:DT:O3'	4:Z:19:DA:H8	1.98	0.46
1:B:17:GLY:N	1:B:408:ALA:HA	2.30	0.46
1:B:426:ASP:CB	1:B:429:THR:HG22	2.45	0.46
1:B:730:GLU:OE1	1:B:730:GLU:HA	2.15	0.46
1:B:966:GLN:HB3	1:B:967:PRO:CD	2.40	0.46
2:C:265:ARG:O	2:C:323:LEU:CB	2.62	0.46
2:C:282:ASN:O	2:C:283:ALA:C	2.54	0.46
2:C:454:PHE:CZ	2:C:458:LEU:HD21	2.50	0.46
3:D:220:LEU:HD22	3:D:231:LYS:HZ3	1.80	0.46
3:D:359:TYR:O	3:D:360:ARG:HG2	2.15	0.46
3:D:554:PRO:HD2	3:D:561:VAL:HG21	1.98	0.46
1:E:104:ILE:HG22	1:E:105:ASP:N	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:169:ARG:NE	2:F:504:TRP:HZ2	2.13	0.46
1:E:568:ARG:O	1:E:572:THR:HB	2.15	0.46
2:F:60:ILE:HD12	2:F:60:ILE:H	1.80	0.46
3:G:132:VAL:HG12	3:G:134:GLU:HG2	1.94	0.46
3:G:354:LEU:HD12	3:G:354:LEU:N	2.24	0.46
3:G:556:GLN:O	3:G:557:ARG:CG	2.59	0.46
4:Y:18:DT:H3	4:Y:26:DA:H61	1.62	0.46
4:Z:6:DT:C2'	4:Z:7:DG:H5'	2.40	0.46
1:B:218:LEU:CD2	1:B:323:ILE:CG1	2.94	0.46
1:B:554:ILE:HG22	1:B:555:SER:N	2.30	0.46
1:B:658:MET:HE1	1:B:692:GLU:HG3	1.97	0.46
1:B:901:TRP:CD1	1:B:901:TRP:C	2.88	0.46
1:B:984:SER:O	1:B:986:TRP:N	2.48	0.46
2:C:367:LEU:O	2:C:368:ASP:CB	2.63	0.46
2:C:380:HIS:O	2:C:381:SER:HB3	2.14	0.46
2:C:742:ARG:HG2	2:C:743:PHE:H	1.79	0.46
2:C:989:ALA:HB1	2:C:1017:LEU:HD22	1.96	0.46
1:E:802:LEU:HD11	1:E:838:LEU:HD23	1.97	0.46
1:E:963:ASP:C	1:E:965:THR:N	2.68	0.46
1:E:1136:GLY:HA2	1:E:1159:ARG:CD	2.40	0.46
2:F:104:GLU:N	2:F:112:ARG:NH1	2.64	0.46
2:F:220:PRO:CD	2:F:223:TYR:HD1	2.27	0.46
2:F:244:CYS:SG	2:F:345:LEU:HB2	2.55	0.46
3:G:316:TYR:CE1	3:G:604:PHE:HB3	2.50	0.46
1:B:431:MET:SD	1:B:472:GLU:HB2	2.56	0.46
1:B:467:ALA:O	1:B:799:LEU:HD13	2.15	0.46
1:B:568:ARG:HH11	1:B:568:ARG:HG3	1.80	0.46
1:B:806:LEU:HD12	1:B:806:LEU:HA	1.74	0.46
1:B:889:ASN:HA	2:C:807:LEU:HD11	1.96	0.46
2:C:583:PRO:O	2:C:586:GLU:N	2.45	0.46
2:C:733:GLY:O	2:C:734:ARG:CB	2.63	0.46
3:D:242:ARG:NH2	3:D:266:LEU:CD1	2.78	0.46
3:D:561:VAL:HA	3:D:565:LEU:HD13	1.97	0.46
1:E:156:GLU:OE2	1:E:343:LYS:CE	2.63	0.46
1:E:323:ILE:HD12	1:E:323:ILE:HA	1.76	0.46
1:E:987:GLU:HG3	1:E:988:PRO:CD	2.43	0.46
2:F:391:ASP:OD2	2:F:801:SER:HA	2.15	0.46
2:F:441:ASP:H	2:F:651:SER:HB3	1.79	0.46
2:F:468:GLU:OE2	2:F:494:ARG:NH1	2.43	0.46
2:F:686:PRO:HD3	2:F:745:SER:OG	2.15	0.46
3:G:177:LYS:C	3:G:180:THR:HG22	2.35	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:458:ILE:HG21	3:G:534:TRP:CD1	2.50	0.46
4:Y:38:DA:H1'	4:Y:39:DT:H5'	1.96	0.46
4:Z:13:DA:H1'	4:Z:14:DC:H5'	1.97	0.46
1:B:559:ARG:HH12	4:Y:42:DG:H21	1.63	0.46
1:B:1033:ALA:HB1	1:B:1053:LEU:CA	2.46	0.46
1:B:1104:ALA:HB3	1:B:1105:HIS:CD2	2.51	0.46
2:C:23:ARG:HG2	2:C:24:GLU:N	2.30	0.46
2:C:93:TRP:CD1	2:C:623:GLY:HA2	2.50	0.46
2:C:278:ARG:O	2:C:281:GLU:N	2.48	0.46
2:C:519:THR:CG2	2:C:521:GLN:H	2.28	0.46
2:C:972:LEU:HA	2:C:1000:LEU:HD12	1.97	0.46
2:C:1088:ILE:HG13	2:C:1089:TRP:N	2.31	0.46
3:D:184:LEU:C	3:D:184:LEU:HD13	2.35	0.46
1:E:155:ASP:CG	1:E:156:GLU:N	2.69	0.46
1:E:267:ASP:C	1:E:269:ILE:H	2.19	0.46
1:E:460:LEU:O	1:E:463:GLN:HG2	2.16	0.46
1:E:760:PHE:CZ	1:E:822:ARG:HG3	2.51	0.46
1:E:1046:LEU:O	1:E:1103:GLN:NE2	2.49	0.46
1:E:1107:TYR:O	1:E:1111:TYR:HD1	1.98	0.46
2:F:220:PRO:CD	2:F:223:TYR:CD1	2.97	0.46
2:F:376:PHE:HB2	2:F:781:THR:HA	1.97	0.46
3:G:456:GLU:C	3:G:458:ILE:N	2.69	0.46
4:Z:39:DT:C3'	4:Z:40:DT:C5'	2.94	0.46
1:B:1159:ARG:HG2	1:B:1159:ARG:HH11	1.81	0.46
2:C:544:TRP:CD2	2:C:545:GLN:HG2	2.50	0.46
2:C:576:ARG:O	2:C:579:ALA:HB3	2.15	0.46
3:D:593:ARG:O	3:D:594:THR:C	2.54	0.46
1:E:268:LYS:HE3	1:E:268:LYS:CA	2.43	0.46
1:E:652:TRP:CE2	1:E:657:VAL:HG22	2.50	0.46
1:E:791:GLU:OE1	1:E:794:ARG:NH1	2.49	0.46
1:E:1067:ASP:HB2	1:E:1080:ASP:HA	1.97	0.46
2:F:435:LEU:HA	2:F:436:PRO:HD3	1.60	0.46
2:F:447:SER:C	2:F:448:HIS:ND1	2.69	0.46
2:F:1001:ARG:O	2:F:1003:ASP:N	2.49	0.46
3:G:578:SER:HB3	3:G:580:TYR:CE1	2.51	0.46
4:Y:17:DC:H2'	4:Y:18:DT:C7	2.46	0.46
1:B:38:LEU:O	1:B:39:ARG:C	2.52	0.46
1:B:241:GLY:O	1:B:243:LEU:N	2.49	0.46
2:C:111:LEU:N	2:C:111:LEU:HD23	2.31	0.46
2:C:131:ALA:O	2:C:132:ALA:C	2.54	0.46
2:C:199:SER:C	2:C:201:THR:N	2.68	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:284:GLY:HA3	2:C:293:GLN:NE2	2.30	0.46
2:C:306:LEU:HD23	2:C:307:GLY:N	2.31	0.46
2:C:540:ALA:C	2:C:542:GLY:H	2.19	0.46
3:D:195:GLU:OE2	3:D:196:ARG:HG2	2.16	0.46
3:D:427:GLU:N	3:D:428:PRO:HD3	2.31	0.46
1:E:1002:LEU:CB	1:E:1007:VAL:CG1	2.88	0.46
1:E:1071:ARG:HB3	1:E:1076:TYR:CE2	2.51	0.46
2:F:376:PHE:CZ	2:F:752:ILE:HG23	2.50	0.46
2:F:454:PHE:CE2	2:F:612:ILE:HG21	2.50	0.46
3:G:136:LEU:HG	3:G:191:MET:HE3	1.97	0.46
3:G:145:PHE:HA	3:G:146:PRO:HD3	1.76	0.46
4:Z:14:DC:H2"	4:Z:15:DT:H5"	1.98	0.46
1:B:62:VAL:CG2	1:B:383:ILE:HG23	2.46	0.46
1:B:165:ALA:O	1:B:169:ARG:HG3	2.16	0.46
1:B:611:THR:HA	2:C:858:ARG:HH22	1.80	0.46
2:C:210:ARG:HH11	2:C:210:ARG:CG	2.28	0.46
2:C:297:ASN:OD1	2:C:299:LEU:HB2	2.16	0.46
2:C:460:LEU:N	2:C:461:PRO:HD2	2.31	0.46
2:C:896:ARG:HB2	2:C:896:ARG:HH11	1.81	0.46
2:C:1087:ASP:O	2:C:1088:ILE:C	2.52	0.46
3:D:220:LEU:CD1	3:D:232:ARG:HG3	2.46	0.46
3:D:239:THR:HG23	3:D:278:MET:SD	2.55	0.46
3:D:564:GLU:O	3:D:568:THR:HG23	2.16	0.46
1:E:255:ARG:C	1:E:257:PHE:N	2.68	0.46
1:E:568:ARG:HG3	1:E:568:ARG:NH1	2.31	0.46
1:E:924:LEU:HD11	2:F:607:ALA:HA	1.98	0.46
1:E:995:THR:O	1:E:996:ALA:C	2.54	0.46
1:E:1102:MET:HE1	1:E:1111:TYR:OH	2.15	0.46
2:F:185:HIS:HB2	2:F:187:ALA:H	1.81	0.46
2:F:362:ASP:OD2	2:F:362:ASP:N	2.48	0.46
2:F:798:GLU:O	2:F:798:GLU:CG	2.63	0.46
2:F:804:ARG:HG3	2:F:804:ARG:NH1	2.30	0.46
3:G:385:VAL:HG22	3:G:396:ARG:CZ	2.46	0.46
4:Y:5:DA:C3'	4:Y:6:DT:H5"	2.45	0.46
1:B:1085:TRP:HD1	1:B:1087:GLY:N	2.12	0.46
2:C:107:ASP:HB3	2:C:108:PHE:HD1	1.81	0.46
2:C:266:ARG:HD2	2:C:269:PHE:CD1	2.51	0.46
3:D:176:GLY:O	3:D:180:THR:HG22	2.16	0.46
3:D:186:ALA:HB1	3:D:225:LEU:HD12	1.98	0.46
3:D:211:ARG:HA	3:D:214:GLU:CG	2.46	0.46
3:D:582:ASP:OD2	3:D:585:ILE:CG1	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:905:SER:HA	1:E:1062:LEU:HD12	1.98	0.46
1:E:921:MET:HE2	1:E:921:MET:HB3	1.74	0.46
1:E:974:ARG:NH2	1:E:978:GLU:CG	2.79	0.46
2:F:98:LEU:HD21	2:F:175:TYR:CD2	2.50	0.46
2:F:142:ARG:CZ	2:F:697:MET:HG3	2.46	0.46
2:F:163:ALA:O	2:F:167:PRO:HG2	2.15	0.46
2:F:333:ASN:H	2:F:336:HIS:HB2	1.81	0.46
1:B:62:VAL:HG22	1:B:383:ILE:HD12	1.98	0.46
1:B:136:MET:HG3	1:B:374:ILE:CG1	2.46	0.46
1:B:222:HIS:CE1	1:B:226:VAL:HG23	2.51	0.46
1:B:362:LEU:HD23	1:B:370:LEU:HD23	1.97	0.46
1:B:641:VAL:HG13	1:B:668:ARG:HH22	1.81	0.46
1:B:875:ASN:ND2	1:B:877:PRO:HG2	2.30	0.46
2:C:141:TYR:HB2	2:C:697:MET:SD	2.56	0.46
2:C:190:TYR:CE1	2:C:191:GLN:HG3	2.50	0.46
2:C:406:ARG:H	2:C:406:ARG:HG3	1.54	0.46
1:E:281:GLN:HG2	1:E:313:ILE:CG2	2.46	0.46
1:E:604:MET:CE	1:E:649:ARG:HH12	2.29	0.46
3:G:165:ARG:HA	3:G:291:ARG:HG2	1.98	0.46
3:G:217:GLY:O	3:G:218:LYS:C	2.54	0.46
4:Y:16:DG:C2'	4:Y:17:DC:C5'	2.64	0.46
1:B:504:MET:HE3	1:B:514:TYR:HA	1.97	0.45
1:B:940:LEU:HD22	1:B:986:TRP:CH2	2.51	0.45
2:C:35:ILE:HG23	2:C:212:PHE:HB2	1.98	0.45
2:C:77:LEU:HB3	2:C:78:PRO:HD2	1.99	0.45
2:C:732:ILE:O	2:C:742:ARG:CG	2.65	0.45
2:C:1061:ASP:O	2:C:1065:GLN:HG3	2.15	0.45
3:D:175:THR:CG2	3:D:176:GLY:N	2.78	0.45
1:E:251:GLY:CA	1:E:255:ARG:CZ	2.94	0.45
1:E:271:ALA:C	1:E:273:ALA:N	2.68	0.45
1:E:1043:PHE:O	1:E:1161:ASN:ND2	2.48	0.45
1:E:1127:ALA:HB2	2:F:25:ARG:CD	2.46	0.45
2:F:717:LEU:HD22	2:F:721:ILE:HG12	1.98	0.45
2:F:843:HIS:CD2	2:F:846:ARG:H	2.34	0.45
3:G:9:GLU:O	3:G:12:GLU:N	2.46	0.45
3:G:91:VAL:CG1	3:G:100:MET:HB2	2.46	0.45
3:G:405:ILE:HA	3:G:408:LEU:HD12	1.97	0.45
1:B:65:THR:O	1:B:69:THR:HG23	2.16	0.45
1:B:281:GLN:NE2	1:B:283:PRO:HG2	2.31	0.45
1:B:449:SER:OG	1:B:450:ALA:N	2.50	0.45
1:B:587:VAL:HG12	1:B:690:ILE:HD11	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:604:MET:HE3	1:B:649:ARG:NH1	2.30	0.45
1:B:678:ALA:C	1:B:680:GLY:N	2.69	0.45
1:B:902:ARG:CZ	1:B:1058:VAL:HG13	2.46	0.45
2:C:146:LEU:HD22	2:C:169:TRP:CD2	2.52	0.45
2:C:388:VAL:HG22	2:C:799:ARG:NH1	2.31	0.45
2:C:400:ASP:C	2:C:401:PRO:O	2.54	0.45
2:C:465:PHE:HD1	2:C:510:ASN:HD21	1.62	0.45
2:C:841:TRP:O	2:C:842:ALA:C	2.53	0.45
3:D:568:THR:HA	3:D:571:THR:OG1	2.16	0.45
2:F:338:ILE:O	2:F:342:ILE:HG13	2.17	0.45
2:F:706:ARG:NH1	2:F:711:ASP:CG	2.70	0.45
3:G:125:GLU:OE2	3:G:125:GLU:O	2.35	0.45
3:G:301:LEU:N	3:G:568:THR:CG2	2.62	0.45
4:Y:7:DG:H2"	4:Y:8:DC:OP2	2.15	0.45
1:B:39:ARG:NH1	1:B:39:ARG:HG3	2.31	0.45
1:B:213:PRO:C	1:B:215:ASP:H	2.14	0.45
1:B:1043:PHE:HB3	1:B:1161:ASN:ND2	2.31	0.45
3:D:17:ARG:H	3:D:17:ARG:HG2	1.53	0.45
3:D:52:CYS:SG	3:D:106:ARG:HG2	2.57	0.45
1:E:29:LYS:NZ	1:E:384:ASP:OD2	2.46	0.45
1:E:52:ARG:CG	1:E:52:ARG:NH1	2.78	0.45
1:E:667:ALA:C	1:E:669:ASN:H	2.18	0.45
1:E:909:LEU:HD22	1:E:1054:GLU:OE2	2.16	0.45
1:E:1049:GLY:C	1:E:1051:PRO:HD3	2.37	0.45
1:E:1136:GLY:CA	1:E:1159:ARG:NH1	2.80	0.45
2:F:227:LEU:HD23	2:F:227:LEU:HA	1.86	0.45
2:F:354:ASN:HD22	2:F:356:GLU:HB3	1.81	0.45
3:G:62:GLU:HB2	3:G:66:PRO:HG2	1.98	0.45
3:G:137:LEU:HD22	3:G:141:LEU:HG	1.98	0.45
4:Z:28:DC:H2"	4:Z:29:DA:O5'	2.16	0.45
1:B:161:TYR:HD1	1:B:194:LEU:HD12	1.82	0.45
1:B:486:ALA:HB1	1:B:543:GLY:N	2.32	0.45
1:B:802:LEU:HD11	1:B:838:LEU:HD23	1.98	0.45
1:B:831:THR:HG21	1:B:850:ALA:N	2.31	0.45
1:B:1159:ARG:HG3	1:B:1159:ARG:O	2.16	0.45
2:C:213:ILE:HB	2:C:238:LEU:HA	1.97	0.45
2:C:260:LEU:C	2:C:262:THR:N	2.67	0.45
2:C:367:LEU:HB3	2:C:368:ASP:H	1.60	0.45
2:C:572:ASN:ND2	2:C:576:ARG:HE	2.15	0.45
2:C:724:GLN:HE21	2:C:724:GLN:HB3	1.46	0.45
3:D:121:ARG:HH11	3:D:121:ARG:CG	2.29	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:217:GLY:O	3:D:220:LEU:N	2.48	0.45
3:D:390:PHE:O	3:D:392:ASP:N	2.50	0.45
1:E:795:LEU:O	1:E:796:ALA:C	2.53	0.45
1:E:831:THR:HG21	1:E:850:ALA:N	2.31	0.45
1:E:1036:LEU:O	1:E:1040:ILE:HG12	2.17	0.45
1:E:1158:THR:HG22	1:E:1159:ARG:H	1.79	0.45
2:F:790:ASP:OD1	2:F:791:PRO:CD	2.64	0.45
2:F:1091:GLN:HE21	2:F:1091:GLN:CA	2.22	0.45
1:B:136:MET:HE3	1:B:374:ILE:HG12	1.97	0.45
1:B:527:ARG:HG2	1:B:527:ARG:HH11	1.82	0.45
1:B:554:ILE:CG2	1:B:555:SER:N	2.79	0.45
1:B:604:MET:CE	1:B:649:ARG:NH1	2.80	0.45
1:B:823:ARG:HH22	1:B:828:LYS:NZ	2.14	0.45
1:B:903:VAL:HG22	1:B:1061:MET:HB2	1.98	0.45
1:B:1018:GLN:NE2	2:C:30:PHE:O	2.50	0.45
1:B:1090:SER:O	1:B:1092:ALA:N	2.50	0.45
2:C:787:MET:HE3	2:C:789:PHE:CE2	2.52	0.45
2:C:875:LEU:HD11	4:Y:3:DT:C7	2.46	0.45
2:C:997:ARG:NH1	2:C:997:ARG:HG2	2.32	0.45
3:D:121:ARG:HH11	3:D:121:ARG:HB3	1.77	0.45
3:D:150:GLU:O	3:D:151:ILE:C	2.55	0.45
3:D:220:LEU:CD1	3:D:232:ARG:HE	2.28	0.45
3:D:438:TYR:HD1	3:D:548:HIS:HB3	1.82	0.45
1:E:398:ARG:NH2	1:E:402:HIS:CE1	2.84	0.45
1:E:1032:ILE:HG22	1:E:1034:SER:H	1.81	0.45
1:E:1116:LEU:CD2	1:E:1116:LEU:O	2.65	0.45
2:F:367:LEU:O	2:F:368:ASP:CB	2.64	0.45
2:F:405:PRO:HB2	2:F:659:VAL:CG2	2.45	0.45
2:F:764:ASP:OD1	2:F:764:ASP:N	2.47	0.45
3:G:455:ASN:ND2	3:G:532:THR:O	2.50	0.45
1:B:527:ARG:NH1	1:B:875:ASN:HB3	2.32	0.45
1:B:831:THR:HG21	1:B:850:ALA:CA	2.47	0.45
1:B:1002:LEU:HB2	1:B:1007:VAL:HG11	1.98	0.45
1:B:1073:GLU:C	1:B:1074:GLY:O	2.54	0.45
2:C:200:ALA:O	2:C:202:THR:N	2.50	0.45
2:C:688:GLN:O	2:C:689:LEU:HB3	2.17	0.45
2:C:706:ARG:NH1	2:C:711:ASP:CG	2.70	0.45
2:C:1081:VAL:O	2:C:1082:ARG:CG	2.63	0.45
3:D:106:ARG:NE	3:D:598:SER:O	2.49	0.45
3:D:126:VAL:HG13	3:D:166:ILE:HD12	1.98	0.45
3:D:147:VAL:O	3:D:147:VAL:CG1	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:209:ALA:HB1	3:D:236:ASP:HB2	1.99	0.45
3:D:430:LEU:O	3:D:434:ALA:HB2	2.16	0.45
1:E:233:LYS:NZ	1:E:269:ILE:HA	2.32	0.45
1:E:590:THR:C	1:E:592:GLU:N	2.70	0.45
1:E:936:GLU:O	1:E:937:GLU:C	2.55	0.45
1:E:1085:TRP:HD1	1:E:1087:GLY:N	2.13	0.45
2:F:23:ARG:O	2:F:25:ARG:N	2.50	0.45
2:F:107:ASP:HB3	2:F:108:PHE:HD1	1.81	0.45
2:F:347:ASN:ND2	2:F:349:ALA:N	2.62	0.45
2:F:640:GLU:HA	2:F:640:GLU:OE2	2.17	0.45
3:G:226:THR:O	3:G:228:GLU:N	2.47	0.45
3:G:241:HIS:HB3	3:G:242:ARG:H	1.37	0.45
3:G:346:ALA:HA	3:G:349:ARG:HD3	1.99	0.45
1:B:268:LYS:HE3	1:B:268:LYS:CA	2.44	0.45
1:B:327:VAL:O	1:B:328:ILE:C	2.54	0.45
1:B:739:VAL:CG2	1:B:740:THR:N	2.79	0.45
1:B:807:THR:CG2	1:B:807:THR:O	2.64	0.45
1:B:867:TRP:CZ3	1:B:869:THR:HG22	2.49	0.45
1:B:995:THR:O	1:B:996:ALA:C	2.55	0.45
1:B:1094:THR:O	1:B:1096:GLN:N	2.49	0.45
1:B:1095:GLN:CA	1:B:1095:GLN:HE21	2.29	0.45
1:B:1115:THR:OG1	1:B:1165:ILE:HD11	2.17	0.45
3:D:121:ARG:O	3:D:125:GLU:HB3	2.16	0.45
1:E:500:LYS:CE	1:E:868:GLN:HG3	2.46	0.45
1:E:909:LEU:HD21	1:E:1106:ARG:HB2	1.99	0.45
2:F:8:ASN:ND2	2:F:343:LEU:CG	2.71	0.45
2:F:112:ARG:NH1	2:F:112:ARG:CG	2.75	0.45
2:F:782:CYS:O	2:F:782:CYS:SG	2.74	0.45
3:G:589:ALA:O	3:G:590:ILE:C	2.54	0.45
1:B:754:LEU:HG	1:B:757:ILE:HD13	1.98	0.45
1:B:939:THR:O	1:B:941:THR:HG23	2.17	0.45
1:B:1021:MET:HG2	2:C:59:ASN:ND2	2.31	0.45
1:B:1082:LYS:HE2	1:B:1107:TYR:CE1	2.52	0.45
2:C:116:THR:OG1	2:C:117:ASP:N	2.49	0.45
2:C:175:TYR:CE2	2:C:179:LEU:HD11	2.52	0.45
2:C:202:THR:OG1	2:C:203:CYS:N	2.48	0.45
2:C:208:PRO:O	2:C:234:ILE:HG13	2.16	0.45
2:C:306:LEU:HD22	2:C:714:TYR:CD2	2.52	0.45
2:C:384:ARG:HG3	2:C:384:ARG:HH11	1.81	0.45
2:C:1036:LEU:O	2:C:1037:VAL:CB	2.57	0.45
3:D:414:GLY:C	3:D:416:GLY:H	2.18	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1025:LEU:CD2	1:E:1116:LEU:HD13	2.47	0.45
1:E:1046:LEU:C	1:E:1048:ALA:H	2.19	0.45
2:F:950:VAL:HG12	2:F:951:GLN:O	2.17	0.45
3:G:3:LEU:O	3:G:5:LYS:N	2.50	0.45
3:G:178:THR:HG23	3:G:179:THR:N	2.28	0.45
4:Z:40:DT:C2'	4:Z:41:DA:C5'	2.72	0.45
1:B:125:ALA:HA	1:B:127:PHE:CZ	2.51	0.45
1:B:621:MET:CE	1:B:668:ARG:HD2	2.45	0.45
1:B:823:ARG:HH22	1:B:828:LYS:HZ2	1.64	0.45
1:B:889:ASN:HD22	1:B:889:ASN:H	1.54	0.45
2:C:28:ASP:N	2:C:29:PRO:HD2	2.32	0.45
2:C:62:PHE:N	2:C:63:PRO:HD3	2.30	0.45
2:C:184:TRP:HA	2:C:188:ASN:HD21	1.82	0.45
2:C:344:GLU:O	2:C:345:LEU:HB3	2.17	0.45
2:C:745:SER:O	2:C:746:VAL:C	2.56	0.45
2:C:807:LEU:O	2:C:808:PRO:C	2.54	0.45
3:D:17:ARG:HG2	3:D:20:ASP:OD2	2.17	0.45
3:D:361:PHE:CD1	3:D:361:PHE:C	2.91	0.45
1:E:199:ARG:NH1	1:E:199:ARG:CB	2.78	0.45
1:E:507:GLU:HA	1:E:850:ALA:CB	2.47	0.45
1:E:1059:ARG:HH11	1:E:1059:ARG:CG	2.30	0.45
2:F:334:LEU:HD11	2:F:755:ILE:HG23	1.98	0.45
2:F:478:VAL:HG11	2:F:599:PHE:HB3	1.98	0.45
2:F:699:GLN:HE21	2:F:699:GLN:HB3	1.54	0.45
2:F:886:ASN:O	2:F:890:GLU:HG2	2.17	0.45
3:G:242:ARG:O	3:G:242:ARG:HD3	2.17	0.45
3:G:426:ALA:C	3:G:428:PRO:CD	2.85	0.45
1:B:15:LEU:HA	1:B:15:LEU:HD23	1.69	0.45
1:B:28:GLY:HA2	1:B:31:PHE:HD1	1.82	0.45
1:B:112:GLN:O	1:B:116:LEU:HG	2.17	0.45
1:B:221:ARG:HG2	1:B:323:ILE:CD1	2.43	0.45
1:B:260:SER:HA	1:B:263:ALA:HB3	1.99	0.45
1:B:974:ARG:CZ	1:B:978:GLU:OE2	2.65	0.45
1:B:1050:CYS:O	1:B:1052:PRO:HD2	2.08	0.45
2:C:334:LEU:HD11	2:C:755:ILE:HG23	1.98	0.45
3:D:455:ASN:O	3:D:459:GLU:HG3	2.17	0.45
2:F:207:LEU:CB	2:F:208:PRO:HD2	2.46	0.45
2:F:304:GLY:HA2	2:F:714:TYR:HD1	1.82	0.45
2:F:531:MET:HE2	2:F:561:VAL:HG13	1.99	0.45
3:G:304:VAL:CG2	3:G:564:GLU:HG2	2.39	0.45
3:G:365:SER:HB3	3:G:390:PHE:CZ	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:398:LEU:HD23	3:G:398:LEU:N	2.24	0.45
1:B:172:CYS:HA	1:B:175:LEU:CD1	2.47	0.44
1:B:423:ARG:HG2	4:Y:43:DA:C2	2.52	0.44
2:C:68:PHE:O	2:C:71:ASP:N	2.50	0.44
2:C:308:ARG:HE	2:C:308:ARG:HB3	1.62	0.44
2:C:731:TYR:HE1	2:C:742:ARG:NE	2.14	0.44
3:D:55:LEU:HA	3:D:55:LEU:HD22	1.67	0.44
3:D:133:ASP:OD2	3:D:136:LEU:HB2	2.17	0.44
3:D:170:SER:HA	3:D:296:GLY:O	2.16	0.44
1:E:65:THR:O	1:E:69:THR:HG23	2.17	0.44
1:E:249:SER:O	1:E:250:SER:C	2.55	0.44
1:E:527:ARG:HD2	1:E:527:ARG:C	2.37	0.44
1:E:557:LEU:N	1:E:557:LEU:HD23	2.31	0.44
1:E:643:GLU:O	1:E:644:GLU:C	2.54	0.44
1:E:860:LEU:O	1:E:860:LEU:CG	2.65	0.44
1:E:1016:ASN:O	2:F:30:PHE:HE1	2.00	0.44
1:E:1070:PHE:CE1	1:E:1077:TYR:HB2	2.52	0.44
2:F:421:PHE:O	2:F:422:ILE:C	2.55	0.44
2:F:466:VAL:HG12	2:F:467:SER:N	2.32	0.44
2:F:565:ALA:HB3	3:G:22:GLN:HG3	1.98	0.44
2:F:951:GLN:O	2:F:952:ILE:HD12	2.16	0.44
3:G:440:LEU:HD22	3:G:552:ILE:HD11	1.98	0.44
4:Z:9:DG:C1'	4:Z:10:DA:OP1	2.66	0.44
1:B:38:LEU:HD11	1:B:79:ASN:HB3	1.98	0.44
1:B:107:LYS:CD	1:B:107:LYS:N	2.79	0.44
1:B:150:GLN:HA	1:B:150:GLN:NE2	2.23	0.44
1:B:328:ILE:O	1:B:332:LEU:CD2	2.65	0.44
1:B:581:LEU:HD11	1:B:737:GLN:OE1	2.17	0.44
1:B:1003:ASN:H	1:B:1007:VAL:CG1	2.29	0.44
2:C:59:ASN:O	2:C:60:ILE:C	2.53	0.44
2:C:311:ILE:CG2	2:C:312:TYR:N	2.80	0.44
2:C:373:SER:O	2:C:374:ILE:C	2.53	0.44
2:C:519:THR:OG1	2:C:909:TYR:CD1	2.70	0.44
3:D:211:ARG:O	3:D:215:SER:OG	2.34	0.44
1:E:924:LEU:CD1	2:F:607:ALA:HA	2.47	0.44
1:E:1028:SER:OG	1:E:1029:GLU:N	2.49	0.44
1:E:1098:MET:HE3	1:E:1142:PHE:CD1	2.52	0.44
1:E:1130:ASP:O	1:E:1134:HIS:HD2	1.99	0.44
2:F:159:GLY:C	2:F:160:GLU:O	2.54	0.44
2:F:459:SER:O	2:F:460:LEU:C	2.54	0.44
2:F:664:LEU:H	2:F:664:LEU:CD1	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:845:VAL:O	2:F:846:ARG:C	2.56	0.44
3:G:62:GLU:C	3:G:64:SER:N	2.71	0.44
3:G:93:ARG:HG2	3:G:93:ARG:HH11	1.83	0.44
3:G:133:ASP:OD2	3:G:136:LEU:HB2	2.18	0.44
3:G:526:ARG:HA	3:G:526:ARG:NE	2.31	0.44
3:G:539:HIS:C	3:G:539:HIS:ND1	2.70	0.44
4:Y:6:DT:C2'	4:Y:7:DG:H5'	2.44	0.44
1:B:8:LEU:HD13	1:B:10:PRO:HD3	1.98	0.44
1:B:282:LEU:CA	1:B:285:SER:HB3	2.47	0.44
1:B:486:ALA:HB1	1:B:543:GLY:CA	2.47	0.44
1:B:646:ASP:O	1:B:649:ARG:HG3	2.16	0.44
1:B:1041:ARG:HG2	1:B:1050:CYS:SG	2.57	0.44
2:C:433:ARG:HE	2:C:433:ARG:HB2	1.57	0.44
2:C:433:ARG:HD3	2:C:802:TYR:O	2.18	0.44
2:C:968:ARG:NH2	4:Y:3:DT:OP1	2.50	0.44
3:D:155:LYS:HE2	3:D:333:THR:HA	1.97	0.44
1:E:28:GLY:HA2	1:E:31:PHE:HD1	1.82	0.44
1:E:236:TRP:C	1:E:238:ASP:N	2.70	0.44
1:E:862:ASP:O	1:E:863:ASP:C	2.55	0.44
2:F:201:THR:HG23	2:F:232:LYS:NZ	2.32	0.44
2:F:369:PRO:HD3	2:F:762:PRO:CG	2.46	0.44
2:F:394:LEU:HD13	2:F:435:LEU:HD23	2.00	0.44
2:F:857:PHE:HB2	2:F:1088:ILE:HD12	1.99	0.44
2:F:943:ILE:HD11	2:F:956:LEU:HG	1.99	0.44
2:F:1114:LEU:HB3	2:F:1115:PRO:CD	2.46	0.44
3:G:109:LEU:HD23	3:G:109:LEU:HA	1.81	0.44
3:G:584:ARG:O	3:G:588:ALA:HB2	2.18	0.44
3:G:600:LEU:O	3:G:601:ALA:C	2.55	0.44
1:B:218:LEU:CD2	1:B:323:ILE:HG12	2.47	0.44
1:B:225:ILE:O	1:B:229:ILE:HD12	2.17	0.44
1:B:332:LEU:H	1:B:332:LEU:HD23	1.77	0.44
1:B:526:ILE:HG22	1:B:576:ILE:HD13	2.00	0.44
1:B:547:ARG:HH22	1:B:553:ASP:CG	2.20	0.44
1:B:684:LEU:O	1:B:688:LEU:HD22	2.18	0.44
1:B:831:THR:C	1:B:833:VAL:H	2.20	0.44
2:C:227:LEU:HA	2:C:227:LEU:HD23	1.70	0.44
2:C:502:ILE:C	2:C:503:ARG:HG2	2.38	0.44
2:C:568:LEU:CD2	2:C:568:LEU:N	2.80	0.44
2:C:640:GLU:HG3	2:C:644:ARG:NH1	2.32	0.44
2:C:798:GLU:HG2	2:C:798:GLU:O	2.17	0.44
2:C:1079:MET:SD	4:Y:40:DT:H71	2.55	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:154:GLU:H	1:E:154:GLU:CD	2.21	0.44
1:E:1105:HIS:N	1:E:1105:HIS:HD2	2.11	0.44
2:F:232:LYS:O	2:F:232:LYS:HG3	2.16	0.44
2:F:524:TRP:O	2:F:528:LEU:HD22	2.18	0.44
2:F:972:LEU:HD12	2:F:1005:GLU:H	1.82	0.44
3:G:177:LYS:CA	3:G:180:THR:HG22	2.48	0.44
3:G:334:GLY:O	3:G:335:THR:HG23	2.16	0.44
3:G:366:GLY:C	3:G:393:ILE:HG21	2.37	0.44
4:Z:9:DG:H1'	4:Z:10:DA:OP1	2.17	0.44
4:Z:41:DA:H2"	4:Z:42:DG:O5'	2.16	0.44
1:B:96:LEU:HD22	1:B:100:LEU:HG	1.98	0.44
1:B:747:LEU:HD23	1:B:749:TYR:OH	2.17	0.44
1:B:1024:TYR:CZ	1:B:1063:LYS:HG2	2.53	0.44
2:C:42:MET:HE2	2:C:42:MET:HB3	1.58	0.44
2:C:99:LEU:N	2:C:100:PRO:CD	2.77	0.44
2:C:659:VAL:HG12	2:C:661:ILE:HD11	1.99	0.44
2:C:958:GLN:HE21	2:C:958:GLN:HB3	1.53	0.44
1:E:32:THR:O	1:E:33:ILE:C	2.56	0.44
1:E:974:ARG:NH2	1:E:978:GLU:HB2	2.33	0.44
2:F:1008:PHE:HA	2:F:1009:PRO:HD3	1.66	0.44
3:G:316:TYR:HE1	3:G:604:PHE:CB	2.30	0.44
3:G:352:LEU:O	3:G:353:CYS:HB2	2.17	0.44
4:Z:2:DC:OP2	4:Z:2:DC:H6	2.00	0.44
1:B:557:LEU:HB2	1:B:754:LEU:HD12	1.98	0.44
1:B:892:THR:CG2	2:C:804:ARG:HE	2.30	0.44
1:B:1015:ARG:CD	1:B:1015:ARG:N	2.77	0.44
1:B:1030:PRO:HD3	1:B:1059:ARG:CG	2.48	0.44
2:C:443:ARG:O	2:C:444:ALA:C	2.56	0.44
2:C:454:PHE:CD2	2:C:612:ILE:HG21	2.52	0.44
2:C:519:THR:HG22	2:C:521:GLN:H	1.83	0.44
2:C:574:TRP:HZ3	2:C:590:VAL:HG13	1.83	0.44
2:C:588:LEU:HD23	2:C:588:LEU:HA	1.42	0.44
2:C:664:LEU:CD1	2:C:664:LEU:H	2.31	0.44
3:D:395:LYS:NZ	3:D:576:ARG:HD2	2.32	0.44
1:E:273:ALA:C	1:E:274:GLU:CG	2.86	0.44
1:E:620:MET:CE	1:E:687:ILE:HD13	2.47	0.44
1:E:823:ARG:C	1:E:825:GLY:H	2.21	0.44
1:E:882:ASP:O	1:E:883:VAL:HG22	2.18	0.44
1:E:914:HIS:NE2	1:E:926:VAL:HG13	2.33	0.44
2:F:220:PRO:HG2	2:F:223:TYR:CE1	2.52	0.44
2:F:433:ARG:HH12	2:F:805:GLU:CG	2.20	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:556:LEU:N	2:F:557:ILE:HD13	2.32	0.44
3:G:27:VAL:HG13	3:G:90:ALA:HB1	2.00	0.44
3:G:177:LYS:HA	3:G:180:THR:HG22	2.00	0.44
1:B:469:MET:SD	1:B:795:LEU:HD12	2.58	0.44
1:B:752:VAL:HG13	1:B:809:SER:HB3	1.99	0.44
2:C:394:LEU:HD12	2:C:394:LEU:HA	1.84	0.44
2:C:601:PRO:HB3	2:C:609:MET:SD	2.58	0.44
3:D:85:LEU:HD23	3:D:85:LEU:HA	1.78	0.44
3:D:145:PHE:HA	3:D:146:PRO:HD3	1.81	0.44
1:E:149:GLU:N	2:F:126:GLN:HE22	2.14	0.44
1:E:469:MET:SD	1:E:795:LEU:HD12	2.56	0.44
1:E:550:ARG:HG2	1:E:550:ARG:HH11	1.80	0.44
2:F:483:PHE:CE2	2:F:567:LEU:HA	2.53	0.44
2:F:649:ARG:C	2:F:650:ILE:HD13	2.38	0.44
3:G:52:CYS:HB3	3:G:108:TYR:CE2	2.53	0.44
3:G:269:ASP:O	3:G:270:GLU:HB2	2.18	0.44
3:G:322:THR:HG23	3:G:350:ASP:OD1	2.17	0.44
1:B:65:THR:HG21	1:B:67:ALA:HB3	2.00	0.44
1:B:1078:LEU:HD11	1:B:1118:LEU:HB2	2.00	0.44
2:C:345:LEU:O	2:C:345:LEU:CG	2.66	0.44
2:C:694:PHE:O	2:C:694:PHE:HD1	2.01	0.44
3:D:157:ALA:HB1	3:D:169:ILE:HD12	2.00	0.44
1:E:728:ARG:NH1	2:F:786:ARG:NH1	2.65	0.44
1:E:914:HIS:CD2	1:E:926:VAL:HG13	2.53	0.44
2:F:26:LEU:C	2:F:27:ASP:O	2.56	0.44
2:F:104:GLU:CA	2:F:112:ARG:HH12	2.27	0.44
2:F:422:ILE:CD1	2:F:661:ILE:HG21	2.39	0.44
2:F:502:ILE:O	2:F:503:ARG:NE	2.43	0.44
2:F:956:LEU:HD11	2:F:986:VAL:HG12	2.00	0.44
3:G:151:ILE:HG23	3:G:151:ILE:O	2.18	0.44
3:G:361:PHE:CD1	3:G:362:GLY:N	2.86	0.44
1:B:129:ILE:HD12	1:B:393:GLN:OE1	2.17	0.44
2:C:539:SER:HB3	2:C:551:ASP:OD1	2.17	0.44
3:D:199:ILE:HB	3:D:232:ARG:HA	1.99	0.44
1:E:375:ARG:HD3	1:E:400:ILE:O	2.18	0.44
1:E:958:LEU:HD12	1:E:958:LEU:HA	1.85	0.44
2:F:17:MET:HG3	2:F:212:PHE:CE2	2.53	0.44
2:F:724:GLN:HE21	2:F:724:GLN:HB3	1.57	0.44
2:F:771:GLU:O	2:F:775:ARG:HG3	2.17	0.44
3:G:366:GLY:HA3	3:G:393:ILE:CG2	2.46	0.44
1:B:82:GLU:O	1:B:83:LEU:C	2.56	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:222:HIS:HE1	1:B:226:VAL:HG21	1.83	0.43
1:B:652:TRP:NE1	1:B:657:VAL:HG22	2.33	0.43
1:B:892:THR:CG2	2:C:804:ARG:NH2	2.81	0.43
2:C:64:LEU:O	2:C:65:PRO:C	2.55	0.43
2:C:295:VAL:O	2:C:297:ASN:N	2.51	0.43
3:D:85:LEU:O	3:D:87:ALA:N	2.51	0.43
3:D:217:GLY:O	3:D:218:LYS:C	2.56	0.43
1:E:177:ARG:HG2	1:E:177:ARG:HH11	1.82	0.43
1:E:262:GLN:HE21	1:E:262:GLN:HB2	1.57	0.43
1:E:268:LYS:HA	1:E:268:LYS:CE	2.40	0.43
1:E:476:ILE:HA	1:E:477:PRO:HD3	1.87	0.43
1:E:504:MET:CE	1:E:517:THR:HG23	2.47	0.43
1:E:513:ASP:O	1:E:515:GLN:N	2.51	0.43
1:E:1003:ASN:C	1:E:1007:VAL:HG21	2.38	0.43
1:E:1023:PHE:CZ	1:E:1064:GLY:HA3	2.53	0.43
1:E:1040:ILE:CD1	1:E:1168:MET:HE1	2.48	0.43
2:F:396:MET:HE3	2:F:726:LYS:HG3	1.99	0.43
2:F:532:LEU:HD21	2:F:561:VAL:HG12	2.00	0.43
2:F:1007:ARG:HB3	2:F:1121:GLN:HA	1.99	0.43
3:G:363:SER:HB3	3:G:365:SER:OG	2.17	0.43
1:B:156:GLU:OE2	1:B:343:LYS:CE	2.66	0.43
1:B:234:GLN:HE21	1:B:234:GLN:HB3	1.50	0.43
1:B:562:GLN:OE1	4:Y:40:DT:C4	2.72	0.43
1:B:931:VAL:HG12	1:B:932:ALA:N	2.28	0.43
1:B:1002:LEU:HD23	1:B:1139:ILE:HG13	2.00	0.43
1:B:1071:ARG:HB3	1:B:1076:TYR:CE2	2.53	0.43
1:B:1120:ARG:NH1	1:B:1172:PHE:CD2	2.86	0.43
1:B:1130:ASP:O	1:B:1134:HIS:HD2	2.00	0.43
2:C:74:VAL:HG12	2:C:74:VAL:O	2.18	0.43
2:C:134:LEU:HA	2:C:134:LEU:HD23	1.54	0.43
2:C:749:GLN:OE1	2:C:752:ILE:HD11	2.18	0.43
2:C:909:TYR:CG	2:C:910:GLY:N	2.86	0.43
3:D:282:LEU:O	3:D:282:LEU:HD23	2.18	0.43
3:D:398:LEU:HG	3:D:398:LEU:O	2.17	0.43
3:D:523:GLN:N	3:D:523:GLN:HE21	2.15	0.43
3:D:529:GLU:O	3:D:530:HIS:C	2.56	0.43
3:D:539:HIS:ND1	3:D:539:HIS:C	2.70	0.43
1:E:129:ILE:HD12	1:E:393:GLN:OE1	2.18	0.43
1:E:316:LEU:HD23	1:E:316:LEU:HA	1.85	0.43
1:E:1034:SER:O	1:E:1037:ASP:N	2.47	0.43
1:E:1043:PHE:HB3	1:E:1161:ASN:ND2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:582:ARG:HD3	2:F:587:TRP:CH2	2.53	0.43
2:F:588:LEU:HD23	2:F:588:LEU:HA	1.60	0.43
3:G:150:GLU:O	3:G:151:ILE:C	2.56	0.43
3:G:180:THR:HG23	3:G:181:VAL:N	2.33	0.43
3:G:326:ALA:HB2	3:G:339:ALA:HB2	2.00	0.43
4:Y:6:DT:H2"	4:Y:7:DG:C8	2.53	0.43
1:B:220:SER:O	1:B:221:ARG:C	2.57	0.43
1:B:247:ILE:HB	1:B:248:GLU:H	1.52	0.43
1:B:398:ARG:HB2	1:B:402:HIS:HB2	1.98	0.43
1:B:414:ASP:OD1	1:B:414:ASP:C	2.56	0.43
1:B:465:ASP:O	1:B:466:ASP:C	2.55	0.43
1:B:1003:ASN:OD1	1:B:1157:THR:HG21	2.17	0.43
2:C:197:LEU:HD22	2:C:233:HIS:CD2	2.53	0.43
2:C:945:LEU:CD1	2:C:989:ALA:CB	2.96	0.43
3:D:62:GLU:C	3:D:64:SER:N	2.69	0.43
3:D:317:ALA:C	3:D:319:ALA:H	2.22	0.43
1:E:237:ARG:HE	1:E:266:ILE:HG23	1.82	0.43
1:E:382:MET:HG2	1:E:410:LEU:HD12	2.00	0.43
1:E:589:GLU:OE1	1:E:589:GLU:N	2.51	0.43
1:E:677:THR:O	1:E:678:ALA:O	2.36	0.43
1:E:891:LYS:CD	2:F:802:TYR:CZ	2.96	0.43
2:F:7:SER:HB3	2:F:13:LEU:HD21	2.00	0.43
2:F:24:GLU:O	2:F:26:LEU:N	2.51	0.43
3:G:302:ALA:HA	3:G:305:GLU:HG2	1.99	0.43
3:G:557:ARG:HB3	3:G:558:THR:H	1.24	0.43
1:B:152:LEU:HD13	1:B:152:LEU:C	2.38	0.43
1:B:264:LYS:C	1:B:266:ILE:H	2.21	0.43
1:B:1073:GLU:N	1:B:1073:GLU:CD	2.69	0.43
1:B:1136:GLY:CA	1:B:1159:ARG:NH1	2.81	0.43
2:C:985:LEU:HD13	2:C:1019:TYR:HB3	1.99	0.43
2:C:998:LEU:HD22	2:C:1000:LEU:CD2	2.48	0.43
2:C:1002:LYS:O	2:C:1003:ASP:HB2	2.19	0.43
2:C:1107:GLU:O	2:C:1110:GLN:HB3	2.18	0.43
3:D:27:VAL:HG13	3:D:90:ALA:HB1	2.00	0.43
3:D:125:GLU:O	3:D:125:GLU:CG	2.66	0.43
3:D:177:LYS:C	3:D:180:THR:HG22	2.39	0.43
3:D:199:ILE:HG23	3:D:265:VAL:HG22	2.01	0.43
3:D:523:GLN:HB3	3:D:524:PRO:CD	2.39	0.43
1:E:20:LEU:HB2	1:E:437:VAL:HG21	1.99	0.43
1:E:121:MET:C	1:E:123:GLU:H	2.20	0.43
1:E:181:GLN:HG2	1:E:270:SER:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:256:LYS:HA	1:E:259:ARG:HD2	1.99	0.43
1:E:760:PHE:O	1:E:761:ARG:CB	2.66	0.43
1:E:1027:ILE:HA	1:E:1172:PHE:CD1	2.54	0.43
1:E:1112:GLN:H	1:E:1112:GLN:HG3	1.47	0.43
2:F:377:HIS:CD2	2:F:728:TYR:CE1	3.06	0.43
2:F:460:LEU:N	2:F:461:PRO:HD2	2.33	0.43
2:F:504:TRP:HB3	2:F:505:GLY:H	1.19	0.43
2:F:529:THR:O	2:F:533:LEU:HB2	2.19	0.43
2:F:981:TRP:NE1	2:F:985:LEU:HD11	2.33	0.43
3:G:200:ARG:CG	3:G:233:ILE:HD12	2.43	0.43
3:G:242:ARG:CD	3:G:243:LEU:HD23	2.46	0.43
3:G:462:MET:O	3:G:466:ARG:HA	2.18	0.43
3:G:568:THR:HA	3:G:571:THR:OG1	2.19	0.43
1:B:328:ILE:O	1:B:329:THR:C	2.56	0.43
1:B:390:ASP:HA	1:B:429:THR:HG21	2.00	0.43
1:B:476:ILE:HA	1:B:477:PRO:HD3	1.83	0.43
1:B:721:ASN:HD22	1:B:721:ASN:N	2.16	0.43
1:B:1023:PHE:CE1	1:B:1066:ILE:HD11	2.53	0.43
1:B:1027:ILE:HA	1:B:1172:PHE:CD1	2.54	0.43
1:B:1050:CYS:CA	1:B:1052:PRO:HD2	2.42	0.43
2:C:84:SER:OG	2:C:85:ALA:N	2.50	0.43
2:C:533:LEU:HD13	2:C:537:MET:HE3	2.00	0.43
2:C:717:LEU:O	2:C:718:GLU:C	2.57	0.43
1:E:215:ASP:OD1	1:E:215:ASP:C	2.56	0.43
1:E:752:VAL:HG13	1:E:809:SER:OG	2.18	0.43
1:E:912:ARG:HA	1:E:912:ARG:HD3	1.71	0.43
1:E:924:LEU:O	1:E:926:VAL:N	2.42	0.43
1:E:947:ARG:NE	1:E:1086:LEU:CB	2.77	0.43
1:E:1002:LEU:H	1:E:1002:LEU:HD12	1.84	0.43
1:E:1123:ARG:NH2	1:E:1169:ASP:OD1	2.37	0.43
1:E:1158:THR:CG2	1:E:1159:ARG:N	2.80	0.43
2:F:448:HIS:HA	2:F:449:PRO:HD3	1.90	0.43
2:F:458:LEU:HD13	2:F:458:LEU:HA	1.68	0.43
2:F:752:ILE:H	2:F:752:ILE:HG13	1.64	0.43
2:F:818:SER:O	2:F:819:GLU:C	2.57	0.43
2:F:819:GLU:OE2	2:F:821:VAL:HG13	2.18	0.43
3:G:450:GLY:O	3:G:454:LEU:HB2	2.18	0.43
1:B:390:ASP:HB2	1:B:391:PRO:HD2	2.00	0.43
1:B:527:ARG:NE	1:B:528:ASP:OD1	2.46	0.43
1:B:577:PRO:HB2	1:B:735:LEU:HD21	2.00	0.43
1:B:718:PRO:HB2	1:B:719:ASP:H	1.55	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:882:ASP:O	1:B:883:VAL:CG2	2.65	0.43
1:B:902:ARG:NH1	1:B:1058:VAL:HG22	2.28	0.43
1:B:976:LYS:HD2	1:B:976:LYS:N	2.33	0.43
2:C:103:LEU:HD11	2:C:115:LEU:CD1	2.44	0.43
2:C:228:GLN:NE2	2:C:318:GLU:H	2.01	0.43
2:C:1063:THR:C	2:C:1065:GLN:H	2.21	0.43
1:E:85:ILE:C	1:E:87:CYS:N	2.72	0.43
1:E:514:TYR:OH	1:E:756:PHE:HA	2.18	0.43
1:E:705:HIS:CG	2:F:487:GLU:HG3	2.52	0.43
1:E:1052:PRO:CB	1:E:1106:ARG:NH1	2.80	0.43
1:E:1090:SER:C	1:E:1092:ALA:N	2.72	0.43
2:F:142:ARG:N	2:F:143:PRO:CD	2.82	0.43
2:F:804:ARG:O	2:F:805:GLU:C	2.55	0.43
2:F:834:LEU:CD1	2:F:834:LEU:C	2.87	0.43
2:F:981:TRP:O	2:F:985:LEU:HG	2.17	0.43
2:F:1061:ASP:O	2:F:1065:GLN:HG3	2.19	0.43
3:G:31:GLU:OE2	3:G:88:SER:HA	2.18	0.43
1:B:20:LEU:HB2	1:B:437:VAL:HG21	2.01	0.43
1:B:172:CYS:O	1:B:173:TYR:C	2.57	0.43
1:B:1158:THR:CG2	1:B:1159:ARG:N	2.80	0.43
2:C:158:LEU:HD12	2:C:162:GLN:CD	2.38	0.43
2:C:654:PHE:O	2:C:654:PHE:CD1	2.72	0.43
2:C:737:GLN:O	2:C:739:ASN:N	2.51	0.43
2:C:1076:GLU:HG3	2:C:1076:GLU:O	2.19	0.43
3:D:161:ALA:HB3	3:D:184:LEU:HD21	2.01	0.43
3:D:395:LYS:HZ2	3:D:576:ARG:HD2	1.84	0.43
1:E:119:ARG:HD3	2:F:302:SER:CB	2.49	0.43
1:E:1019:VAL:O	1:E:1020:GLU:C	2.57	0.43
1:E:1029:GLU:O	1:E:1030:PRO:C	2.57	0.43
1:E:1149:GLU:C	1:E:1150:HIS:CG	2.91	0.43
2:F:103:LEU:O	2:F:104:GLU:C	2.56	0.43
2:F:384:ARG:NH1	2:F:384:ARG:HG3	2.33	0.43
2:F:433:ARG:NH1	2:F:805:GLU:CG	2.75	0.43
2:F:761:LEU:HB2	2:F:764:ASP:OD2	2.19	0.43
2:F:790:ASP:OD1	2:F:791:PRO:HD2	2.18	0.43
3:G:184:LEU:C	3:G:184:LEU:HD13	2.39	0.43
1:B:8:LEU:HD12	1:B:443:LEU:CD2	2.48	0.43
1:B:60:LEU:HB2	1:B:378:PHE:HB3	2.00	0.43
1:B:220:SER:O	1:B:223:ALA:HB3	2.18	0.43
1:B:273:ALA:C	1:B:274:GLU:CG	2.87	0.43
1:B:557:LEU:HD11	1:B:808:ARG:HG3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1095:GLN:NE2	1:B:1095:GLN:CA	2.82	0.43
2:C:220:PRO:O	2:C:223:TYR:HB2	2.17	0.43
2:C:656:ALA:O	2:C:658:PRO:N	2.51	0.43
3:D:51:VAL:HG13	3:D:112:MET:HB3	2.01	0.43
3:D:589:ALA:O	3:D:591:ALA:N	2.52	0.43
1:E:5:ALA:HB2	1:E:440:HIS:CB	2.46	0.43
1:E:52:ARG:HH11	1:E:52:ARG:CB	2.30	0.43
1:E:265:TRP:O	1:E:265:TRP:CG	2.72	0.43
1:E:278:ASN:O	1:E:281:GLN:HG3	2.19	0.43
1:E:707:LEU:O	1:E:710:TRP:HB3	2.19	0.43
1:E:1038:THR:O	1:E:1041:ARG:HB2	2.19	0.43
2:F:822:GLN:HE21	2:F:822:GLN:HB3	1.67	0.43
2:F:831:THR:O	2:F:831:THR:OG1	2.34	0.43
2:F:871:ILE:HA	2:F:871:ILE:HD13	1.40	0.43
2:F:1100:GLU:O	2:F:1103:GLU:HB2	2.18	0.43
3:G:243:LEU:O	3:G:244:LEU:CB	2.66	0.43
3:G:261:LEU:HD12	3:G:285:ALA:O	2.19	0.43
1:B:254:ARG:HD3	1:B:257:PHE:CZ	2.53	0.43
1:B:328:ILE:O	1:B:332:LEU:HD22	2.19	0.43
1:B:527:ARG:O	1:B:531:GLN:HG2	2.19	0.43
2:C:102:LEU:HD13	2:C:108:PHE:CZ	2.54	0.43
2:C:174:GLU:O	2:C:177:HIS:N	2.51	0.43
2:C:287:PHE:HB3	2:C:288:ASN:H	1.61	0.43
2:C:516:LEU:HD23	2:C:516:LEU:HA	1.81	0.43
2:C:582:ARG:HH11	2:C:582:ARG:CG	2.29	0.43
2:C:932:ILE:HG22	2:C:933:ALA:N	2.34	0.43
2:C:1008:PHE:HA	2:C:1009:PRO:HD3	1.65	0.43
3:D:79:GLN:O	3:D:81:TRP:N	2.46	0.43
3:D:216:LEU:HD13	3:D:232:ARG:HD2	1.99	0.43
3:D:325:ARG:HG3	3:D:350:ASP:CG	2.39	0.43
3:D:562:THR:HG21	3:D:594:THR:CG2	2.48	0.43
1:E:250:SER:HB2	4:Z:29:DA:H4'	2.01	0.43
1:E:254:ARG:HB3	1:E:257:PHE:CD1	2.54	0.43
1:E:758:THR:HG22	1:E:820:LEU:HD12	2.00	0.43
1:E:794:ARG:O	1:E:794:ARG:HG2	2.19	0.43
1:E:1028:SER:O	1:E:1029:GLU:C	2.57	0.43
2:F:116:THR:OG1	2:F:117:ASP:N	2.50	0.43
2:F:295:VAL:O	2:F:295:VAL:HG12	2.19	0.43
2:F:451:LEU:HA	2:F:451:LEU:HD12	1.84	0.43
2:F:516:LEU:HD23	2:F:516:LEU:HA	1.82	0.43
2:F:798:GLU:O	2:F:798:GLU:HG2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:991:GLY:O	2:F:992:GLY:O	2.36	0.43
3:G:398:LEU:HG	3:G:398:LEU:O	2.19	0.43
4:Y:9:DG:H2"	4:Y:10:DA:C8	2.54	0.43
1:B:77:ARG:O	1:B:77:ARG:HG2	2.18	0.43
1:B:121:MET:C	1:B:123:GLU:N	2.72	0.43
1:B:198:ASN:O	1:B:200:TYR:O	2.37	0.43
1:B:284:GLU:O	1:B:285:SER:C	2.57	0.43
1:B:728:ARG:NH1	2:C:786:ARG:CZ	2.82	0.43
1:B:908:GLY:O	1:B:1055:PHE:HB3	2.19	0.43
2:C:622:GLU:OE1	2:C:644:ARG:NH2	2.52	0.43
2:C:834:LEU:O	2:C:837:LEU:N	2.46	0.43
2:C:1075:TYR:CE2	2:C:1097:LEU:HG	2.54	0.43
3:D:52:CYS:HB3	3:D:108:TYR:CE2	2.54	0.43
3:D:180:THR:O	3:D:184:LEU:HB2	2.19	0.43
3:D:242:ARG:HG2	3:D:242:ARG:NH1	2.33	0.43
1:E:187:TRP:HZ3	1:E:196:ASP:OD2	2.01	0.43
1:E:417:GLN:HG2	1:E:804:VAL:CG2	2.47	0.43
1:E:490:VAL:HG22	1:E:539:LEU:HB2	2.01	0.43
2:F:406:ARG:H	2:F:406:ARG:HG3	1.41	0.43
2:F:885:LEU:HD23	2:F:885:LEU:HA	1.90	0.43
3:G:278:MET:HE2	3:G:281:ARG:HD2	2.00	0.43
3:G:301:LEU:H	3:G:568:THR:HG23	1.76	0.43
3:G:537:THR:C	3:G:539:HIS:N	2.70	0.43
1:B:11:LEU:HD21	1:B:100:LEU:CD2	2.49	0.42
1:B:265:TRP:O	1:B:265:TRP:CE3	2.71	0.42
1:B:760:PHE:CZ	1:B:822:ARG:HG3	2.54	0.42
1:B:1086:LEU:HD23	1:B:1086:LEU:HA	1.77	0.42
2:C:98:LEU:HD11	2:C:172:LEU:HA	2.00	0.42
2:C:354:ASN:O	2:C:355:ILE:C	2.56	0.42
2:C:421:PHE:O	2:C:422:ILE:C	2.56	0.42
2:C:532:LEU:HD23	2:C:532:LEU:HA	1.79	0.42
3:D:261:LEU:HD12	3:D:285:ALA:C	2.38	0.42
3:D:366:GLY:CA	3:D:393:ILE:HG21	2.48	0.42
3:D:412:LEU:HD13	3:D:462:MET:HG2	2.01	0.42
1:E:308:PRO:HB2	1:E:309:LEU:H	1.58	0.42
1:E:787:VAL:O	1:E:787:VAL:HG12	2.19	0.42
1:E:826:ASP:O	1:E:827:LYS:C	2.56	0.42
1:E:1052:PRO:O	1:E:1053:LEU:HD23	2.19	0.42
2:F:120:ASP:OD1	2:F:120:ASP:N	2.52	0.42
2:F:304:GLY:O	2:F:305:LYS:C	2.57	0.42
2:F:872:LEU:CD2	2:F:880:ILE:HD12	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:884:LEU:O	2:F:888:LEU:HG	2.19	0.42
1:B:109:GLN:O	1:B:110:ALA:C	2.56	0.42
1:B:604:MET:HA	1:B:604:MET:HE3	2.01	0.42
1:B:823:ARG:C	1:B:825:GLY:H	2.23	0.42
1:B:1068:LEU:HD12	1:B:1069:VAL:H	1.83	0.42
2:C:221:PRO:HG3	2:C:313:LEU:CD1	2.49	0.42
2:C:266:ARG:HH21	2:C:272:ARG:HH21	1.66	0.42
2:C:304:GLY:HA2	2:C:714:TYR:HD1	1.83	0.42
2:C:564:LEU:O	2:C:567:LEU:HB3	2.19	0.42
2:C:585:GLU:O	2:C:588:LEU:HB2	2.19	0.42
2:C:618:ALA:O	2:C:622:GLU:HG3	2.18	0.42
2:C:645:LEU:HD12	2:C:645:LEU:HA	1.74	0.42
2:C:1103:GLU:O	2:C:1104:ALA:C	2.56	0.42
3:D:71:CYS:HB3	3:D:74:GLU:HB3	2.00	0.42
3:D:526:ARG:HA	3:D:526:ARG:NE	2.33	0.42
1:E:173:TYR:N	1:E:174:PRO:CD	2.81	0.42
1:E:636:HIS:ND1	1:E:636:HIS:N	2.67	0.42
1:E:795:LEU:C	1:E:797:GLU:N	2.68	0.42
1:E:1009:LEU:HD21	1:E:1079:LEU:CD2	2.49	0.42
2:F:59:ASN:HD22	2:F:59:ASN:HA	1.35	0.42
2:F:412:VAL:O	2:F:663:THR:HA	2.18	0.42
2:F:507:ASP:HB3	2:F:509:ASP:N	2.33	0.42
2:F:786:ARG:HE	2:F:786:ARG:HB2	1.68	0.42
2:F:1076:GLU:O	2:F:1077:GLY:O	2.37	0.42
3:G:32:HIS:O	3:G:35:VAL:HG13	2.20	0.42
4:Y:10:DA:C2'	4:Y:11:DG:C8	3.02	0.42
1:B:963:ASP:C	1:B:965:THR:N	2.71	0.42
2:C:130:LYS:HB3	2:C:692:LEU:CD2	2.49	0.42
2:C:228:GLN:NE2	2:C:319:SER:N	2.67	0.42
2:C:1023:LEU:HA	2:C:1023:LEU:HD23	1.76	0.42
3:D:263:LEU:HD12	3:D:263:LEU:C	2.40	0.42
1:E:148:PHE:H	2:F:126:GLN:HE22	1.46	0.42
1:E:374:ILE:HG21	1:E:400:ILE:HD13	2.01	0.42
1:E:530:LEU:HD21	1:E:551:ALA:HA	2.01	0.42
1:E:599:LEU:O	1:E:603:VAL:HG23	2.19	0.42
1:E:728:ARG:NH1	2:F:786:ARG:CZ	2.81	0.42
1:E:833:VAL:O	1:E:839:GLY:HA3	2.19	0.42
2:F:17:MET:HB2	2:F:239:LEU:HD21	2.01	0.42
2:F:110:LEU:HA	2:F:110:LEU:HD23	1.55	0.42
2:F:134:LEU:HA	2:F:134:LEU:HD23	1.74	0.42
2:F:396:MET:HE1	2:F:726:LYS:HB2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:450:VAL:HA	2:F:453:ALA:HB3	2.01	0.42
2:F:1077:GLY:HA3	2:F:1083:GLY:H	1.84	0.42
3:G:182:ALA:CA	3:G:232:ARG:HH22	2.32	0.42
3:G:529:GLU:O	3:G:530:HIS:C	2.58	0.42
1:B:159:LEU:C	1:B:159:LEU:CD1	2.88	0.42
1:B:257:PHE:N	1:B:257:PHE:CD2	2.88	0.42
1:B:613:ARG:HG2	2:C:855:VAL:HG22	2.01	0.42
1:B:709:ARG:NH1	2:C:475:ASP:OD1	2.49	0.42
1:B:811:TRP:CD1	1:B:811:TRP:N	2.87	0.42
1:B:1078:LEU:HD11	1:B:1118:LEU:CD1	2.45	0.42
1:B:1093:TYR:CD1	1:B:1093:TYR:N	2.87	0.42
2:C:288:ASN:C	2:C:290:ASP:H	2.20	0.42
2:C:989:ALA:HB2	2:C:1017:LEU:HD22	2.01	0.42
1:E:460:LEU:HA	1:E:460:LEU:HD12	1.75	0.42
1:E:574:LEU:HD23	1:E:876:GLN:HA	2.00	0.42
1:E:579:VAL:O	1:E:738:ILE:HG23	2.18	0.42
1:E:621:MET:CE	1:E:668:ARG:HD2	2.50	0.42
1:E:728:ARG:NH1	2:F:739:ASN:OD1	2.52	0.42
1:E:1098:MET:C	1:E:1100:ALA:N	2.69	0.42
1:E:1148:LYS:H	1:E:1148:LYS:HD2	1.84	0.42
1:E:1161:ASN:O	1:E:1162:ALA:HB3	2.18	0.42
2:F:105:ARG:C	2:F:107:ASP:N	2.65	0.42
2:F:177:HIS:O	2:F:180:GLY:N	2.49	0.42
2:F:963:GLY:HA3	2:F:995:GLU:O	2.19	0.42
4:Z:10:DA:H2"	4:Z:11:DG:H5'	2.01	0.42
1:B:24:SER:HA	1:B:414:ASP:OD2	2.19	0.42
1:B:284:GLU:OE1	1:B:288:LYS:HD2	2.18	0.42
1:B:965:THR:OG1	1:B:966:GLN:N	2.53	0.42
2:C:185:HIS:H	2:C:188:ASN:ND2	2.17	0.42
2:C:625:GLY:C	2:C:627:GLN:H	2.23	0.42
2:C:981:TRP:CE2	2:C:985:LEU:HD11	2.54	0.42
3:D:409:GLU:C	3:D:411:ALA:N	2.72	0.42
3:D:582:ASP:OD2	3:D:585:ILE:HG13	2.19	0.42
1:E:233:LYS:HZ3	1:E:269:ILE:CG1	2.32	0.42
1:E:518:MET:HA	1:E:518:MET:CE	2.46	0.42
1:E:668:ARG:O	1:E:669:ASN:C	2.58	0.42
1:E:791:GLU:OE2	1:E:794:ARG:HD3	2.19	0.42
1:E:893:LEU:H	1:E:893:LEU:CD1	2.31	0.42
1:E:1096:GLN:O	1:E:1097:ALA:C	2.57	0.42
2:F:14:GLU:OE1	2:F:18:GLU:OE2	2.38	0.42
2:F:396:MET:CE	2:F:726:LYS:HG3	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:141:LEU:HB3	3:G:155:LYS:HE3	2.00	0.42
3:G:220:LEU:HD22	3:G:231:LYS:HZ3	1.84	0.42
3:G:387:GLN:C	3:G:389:ASP:H	2.22	0.42
4:Y:8:DC:C3'	4:Y:9:DG:H5"	2.47	0.42
4:Z:6:DT:C2'	4:Z:7:DG:C8	3.03	0.42
1:B:104:ILE:HG22	1:B:105:ASP:N	2.35	0.42
1:B:269:ILE:CG2	1:B:270:SER:H	2.22	0.42
1:B:500:LYS:HE3	1:B:868:GLN:CG	2.48	0.42
1:B:843:GLN:C	1:B:845:GLY:H	2.23	0.42
1:B:1023:PHE:HA	2:C:57:ALA:O	2.20	0.42
1:B:1049:GLY:O	1:B:1051:PRO:CD	2.68	0.42
2:C:36:LEU:HB2	2:C:213:ILE:HA	2.00	0.42
2:C:61:ASP:O	2:C:63:PRO:HD3	2.19	0.42
2:C:285:GLN:O	2:C:286:LEU:CB	2.67	0.42
2:C:367:LEU:CB	2:C:761:LEU:HD23	2.48	0.42
2:C:376:PHE:N	2:C:376:PHE:CD1	2.87	0.42
2:C:406:ARG:CA	2:C:658:PRO:HB3	2.50	0.42
2:C:584:LEU:CD1	2:C:620:ILE:HG23	2.38	0.42
2:C:653:ARG:O	2:C:655:LEU:N	2.52	0.42
2:C:669:SER:HB2	2:C:718:GLU:OE1	2.20	0.42
2:C:984:HIS:HE1	2:C:1009:PRO:O	2.01	0.42
2:C:1114:LEU:N	2:C:1115:PRO:HD2	2.34	0.42
3:D:442:CYS:O	3:D:537:THR:HA	2.19	0.42
3:D:451:VAL:O	3:D:452:ALA:C	2.58	0.42
1:E:106:ASP:OD1	1:E:108:ALA:HB3	2.20	0.42
1:E:149:GLU:OE2	2:F:643:GLN:OE1	2.37	0.42
1:E:259:ARG:O	1:E:261:ASN:N	2.53	0.42
1:E:558:VAL:O	1:E:740:THR:HA	2.20	0.42
1:E:709:ARG:O	1:E:713:GLN:NE2	2.53	0.42
1:E:950:SER:OG	2:F:592:ARG:NH2	2.53	0.42
1:E:1003:ASN:O	1:E:1005:THR:N	2.38	0.42
2:F:394:LEU:HD12	2:F:394:LEU:HA	1.79	0.42
2:F:493:LEU:HD13	2:F:564:LEU:HD13	2.02	0.42
2:F:1114:LEU:O	2:F:1116:LEU:N	2.53	0.42
3:G:17:ARG:HG2	3:G:20:ASP:OD2	2.19	0.42
3:G:256:HIS:O	3:G:259:ASN:C	2.57	0.42
1:B:120:GLN:O	1:B:122:ASP:N	2.52	0.42
1:B:156:GLU:OE2	1:B:343:LYS:HE3	2.20	0.42
1:B:576:ILE:HA	1:B:577:PRO:HD2	1.85	0.42
1:B:610:ASN:HD22	1:B:610:ASN:HA	1.66	0.42
1:B:1049:GLY:C	1:B:1051:PRO:HD3	2.40	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1120:ARG:NH2	1:B:1169:ASP:OD2	2.53	0.42
2:C:584:LEU:CD2	2:C:632:VAL:HG21	2.49	0.42
2:C:717:LEU:HD22	2:C:721:ILE:HG12	2.01	0.42
2:C:848:PHE:CE2	2:C:1034:PRO:HD3	2.54	0.42
2:C:1001:ARG:O	2:C:1002:LYS:C	2.57	0.42
3:D:115:ASN:HD22	3:D:115:ASN:HA	1.42	0.42
3:D:396:ARG:O	3:D:397:LEU:HG	2.20	0.42
3:D:562:THR:HB	3:D:594:THR:H	1.84	0.42
1:E:281:GLN:O	1:E:282:LEU:CB	2.61	0.42
2:F:399:GLU:HG2	2:F:400:ASP:N	2.35	0.42
2:F:429:ALA:HA	2:F:430:PRO:HD2	1.67	0.42
2:F:561:VAL:HG12	2:F:561:VAL:O	2.19	0.42
2:F:644:ARG:CG	2:F:644:ARG:NH1	2.81	0.42
2:F:654:PHE:O	2:F:655:LEU:CG	2.58	0.42
2:F:889:VAL:HG11	2:F:967:TRP:CZ2	2.54	0.42
3:G:2:LYS:C	3:G:4:GLN:N	2.73	0.42
3:G:133:ASP:OD2	3:G:136:LEU:CB	2.68	0.42
3:G:364:ASP:O	3:G:368:GLY:HA3	2.20	0.42
4:Z:31:DT:H2"	4:Z:32:DG:H5"	2.00	0.42
1:B:27:THR:O	1:B:447:TRP:CZ3	2.73	0.42
1:B:52:ARG:CG	1:B:52:ARG:NH1	2.82	0.42
1:B:1069:VAL:HA	1:B:1077:TYR:O	2.19	0.42
1:B:1172:PHE:CE2	1:B:1173:ALA:HB2	2.55	0.42
2:C:485:ILE:HD13	2:C:493:LEU:HD11	2.01	0.42
2:C:557:ILE:CD1	2:C:557:ILE:N	2.67	0.42
3:D:77:GLU:HG2	3:D:79:GLN:H	1.85	0.42
1:E:252:ILE:HG12	1:E:253:ASP:N	2.34	0.42
1:E:549:VAL:O	1:E:549:VAL:CG2	2.67	0.42
1:E:550:ARG:HH11	1:E:550:ARG:CG	2.31	0.42
1:E:849:ASP:HB3	1:E:852:GLY:H	1.84	0.42
2:F:56:ILE:HG12	2:F:57:ALA:N	2.35	0.42
2:F:232:LYS:O	2:F:232:LYS:HG2	2.19	0.42
2:F:239:LEU:N	2:F:239:LEU:CD1	2.83	0.42
2:F:571:LEU:HD23	2:F:598:PHE:CE2	2.54	0.42
2:F:618:ALA:O	2:F:619:ILE:C	2.55	0.42
2:F:779:HIS:ND1	2:F:780:LEU:HD13	2.34	0.42
2:F:1013:ALA:O	2:F:1017:LEU:HD23	2.19	0.42
2:F:1087:ASP:O	2:F:1088:ILE:C	2.57	0.42
3:G:220:LEU:HD22	3:G:231:LYS:NZ	2.34	0.42
3:G:414:GLY:C	3:G:416:GLY:N	2.73	0.42
1:B:4:VAL:O	1:B:4:VAL:HG12	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:222:HIS:HA	1:B:272:TRP:CZ2	2.55	0.42
1:B:574:LEU:HA	1:B:574:LEU:HD23	1.53	0.42
1:B:672:GLU:H	1:B:672:GLU:HG3	1.29	0.42
2:C:123:LYS:O	2:C:124:LEU:C	2.58	0.42
2:C:188:ASN:OD1	2:C:188:ASN:C	2.57	0.42
2:C:418:TYR:O	2:C:422:ILE:HG12	2.20	0.42
2:C:872:LEU:CD2	2:C:880:ILE:HD12	2.50	0.42
3:D:17:ARG:NH1	3:D:17:ARG:HG3	2.35	0.42
3:D:98:THR:O	3:D:110:ASN:HB2	2.20	0.42
3:D:133:ASP:OD2	3:D:136:LEU:CB	2.68	0.42
3:D:275:ASP:O	3:D:276:LEU:C	2.58	0.42
3:D:580:TYR:CD1	3:D:580:TYR:N	2.87	0.42
1:E:85:ILE:O	1:E:87:CYS:N	2.53	0.42
1:E:114:LEU:HA	1:E:114:LEU:HD23	1.75	0.42
1:E:827:LYS:HA	1:E:827:LYS:HD2	1.90	0.42
1:E:834:HIS:CD2	1:E:834:HIS:H	2.36	0.42
1:E:940:LEU:HB3	1:E:989:VAL:HG21	2.01	0.42
1:E:1050:CYS:HA	1:E:1052:PRO:HD2	2.01	0.42
1:E:1075:ARG:HD3	1:E:1135:PHE:O	2.19	0.42
2:F:333:ASN:HB2	2:F:336:HIS:H	1.85	0.42
2:F:395:ALA:O	2:F:398:GLU:HB3	2.20	0.42
2:F:685:TYR:CD1	2:F:685:TYR:C	2.89	0.42
2:F:768:ASN:HD22	2:F:771:GLU:H	1.67	0.42
2:F:956:LEU:CD1	2:F:987:TYR:HB2	2.50	0.42
3:G:19:LEU:C	3:G:19:LEU:CD2	2.88	0.42
3:G:216:LEU:HD23	3:G:216:LEU:HA	1.70	0.42
3:G:427:GLU:HG2	3:G:427:GLU:O	2.19	0.42
3:G:530:HIS:CE1	3:G:534:TRP:CZ3	3.06	0.42
1:B:54:LEU:HD22	1:B:379:PRO:HG3	2.01	0.42
1:B:199:ARG:HB2	1:B:199:ARG:CZ	2.50	0.42
1:B:262:GLN:HE21	1:B:262:GLN:HB2	1.56	0.42
1:B:365:GLU:C	1:B:367:GLY:N	2.72	0.42
1:B:501:MET:HG2	1:B:817:VAL:CG2	2.45	0.42
1:B:901:TRP:CD2	1:B:1060:GLY:HA2	2.54	0.42
1:B:921:MET:HB3	1:B:921:MET:HE2	1.78	0.42
1:B:945:PHE:O	1:B:946:PRO:C	2.57	0.42
1:B:1038:THR:O	1:B:1041:ARG:HB2	2.19	0.42
1:B:1116:LEU:O	1:B:1116:LEU:HD22	2.20	0.42
3:D:56:SER:O	3:D:58:LEU:N	2.53	0.42
3:D:122:PHE:CG	3:D:283:ILE:CD1	3.00	0.42
3:D:309:VAL:O	3:D:313:ILE:HD12	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:395:LYS:CE	3:D:576:ARG:HD3	2.50	0.42
1:E:139:LEU:HD12	1:E:139:LEU:HA	1.67	0.42
1:E:282:LEU:HD22	1:E:285:SER:OG	2.20	0.42
1:E:747:LEU:HA	1:E:747:LEU:HD12	1.72	0.42
2:F:95:LEU:HD23	2:F:95:LEU:HA	1.84	0.42
2:F:337:ASN:ND2	2:F:759:HIS:CE1	2.70	0.42
2:F:367:LEU:N	2:F:760:TYR:O	2.51	0.42
2:F:412:VAL:CG1	2:F:678:LEU:HB2	2.48	0.42
2:F:415:ILE:HD11	2:F:439:ILE:HG23	2.02	0.42
2:F:664:LEU:N	2:F:664:LEU:CD1	2.81	0.42
2:F:821:VAL:C	2:F:822:GLN:HG2	2.41	0.42
2:F:843:HIS:CD2	2:F:843:HIS:C	2.92	0.42
3:G:220:LEU:CD2	3:G:220:LEU:O	2.68	0.42
3:G:263:LEU:HD12	3:G:263:LEU:C	2.39	0.42
3:G:286:LEU:HD13	3:G:292:VAL:HG21	2.02	0.42
1:B:179:ILE:HG12	1:B:222:HIS:HD2	1.69	0.41
1:B:355:LEU:HD12	1:B:355:LEU:O	2.19	0.41
1:B:608:ARG:O	1:B:609:GLU:C	2.57	0.41
1:B:610:ASN:HD22	1:B:613:ARG:HH12	1.67	0.41
1:B:935:VAL:O	1:B:935:VAL:CG1	2.67	0.41
2:C:584:LEU:HD13	2:C:584:LEU:HA	1.76	0.41
2:C:780:LEU:HD12	2:C:780:LEU:HA	1.80	0.41
3:D:160:VAL:HG13	3:D:325:ARG:NH1	2.35	0.41
3:D:370:LEU:HD13	3:D:396:ARG:HH21	1.84	0.41
3:D:597:ARG:HH11	3:D:598:SER:CB	2.31	0.41
1:E:73:ARG:HG3	1:E:126:VAL:HG11	2.02	0.41
1:E:563:GLU:O	1:E:567:VAL:HG23	2.20	0.41
1:E:747:LEU:HB3	1:E:749:TYR:CE1	2.54	0.41
3:G:415:TYR:O	3:G:416:GLY:C	2.58	0.41
3:G:597:ARG:C	3:G:597:ARG:CD	2.81	0.41
1:B:27:THR:O	1:B:447:TRP:HZ3	2.02	0.41
1:B:77:ARG:HD2	2:C:746:VAL:HG22	2.01	0.41
1:B:310:PHE:N	1:B:310:PHE:CD2	2.88	0.41
1:B:605:THR:HG23	1:B:605:THR:O	2.21	0.41
1:B:713:GLN:HE21	1:B:713:GLN:HB2	1.71	0.41
1:B:728:ARG:HH22	2:C:739:ASN:HA	1.82	0.41
1:B:1003:ASN:O	1:B:1005:THR:N	2.39	0.41
1:B:1149:GLU:O	1:B:1150:HIS:CG	2.73	0.41
2:C:93:TRP:HB2	2:C:626:ALA:CB	2.50	0.41
2:C:190:TYR:O	2:C:194:ILE:HD12	2.20	0.41
2:C:483:PHE:CE2	2:C:567:LEU:HA	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:942:GLU:C	2:C:943:ILE:HD12	2.39	0.41
2:C:1009:PRO:O	2:C:1011:LEU:CD2	2.66	0.41
3:D:62:GLU:HB2	3:D:66:PRO:HG2	2.02	0.41
3:D:256:HIS:O	3:D:259:ASN:N	2.53	0.41
1:E:1063:LYS:HB3	1:E:1063:LYS:HE2	1.79	0.41
1:E:1172:PHE:CD1	1:E:1173:ALA:N	2.87	0.41
2:F:295:VAL:O	2:F:297:ASN:N	2.52	0.41
2:F:298:PRO:HA	2:F:301:ALA:CB	2.51	0.41
2:F:428:SER:O	2:F:429:ALA:C	2.58	0.41
2:F:1081:VAL:O	2:F:1082:ARG:CG	2.64	0.41
3:G:107:LEU:HD12	3:G:107:LEU:HA	1.78	0.41
1:B:193:LEU:O	1:B:194:LEU:C	2.59	0.41
1:B:694:LEU:HD12	1:B:694:LEU:HA	1.93	0.41
1:B:846:GLU:HA	1:B:847:PRO:HD2	1.89	0.41
1:B:969:ASP:OD1	1:B:971:ASN:N	2.52	0.41
1:B:1029:GLU:O	1:B:1030:PRO:O	2.39	0.41
2:C:33:GLU:OE2	2:C:210:ARG:HD2	2.21	0.41
2:C:257:LEU:HD12	2:C:258:ALA:HB2	2.01	0.41
2:C:397:LEU:HD23	2:C:397:LEU:HA	1.84	0.41
2:C:403:LEU:HA	2:C:403:LEU:HD23	1.69	0.41
2:C:412:VAL:CG1	2:C:678:LEU:HB2	2.49	0.41
3:D:395:LYS:HE3	3:D:576:ARG:CD	2.49	0.41
3:D:419:LEU:HA	3:D:422:LEU:HD12	2.02	0.41
1:E:112:GLN:O	1:E:116:LEU:HG	2.20	0.41
1:E:136:MET:HG3	1:E:374:ILE:CD1	2.50	0.41
1:E:605:THR:O	1:E:605:THR:HG23	2.19	0.41
1:E:842:LEU:HA	1:E:842:LEU:HD23	1.73	0.41
1:E:1086:LEU:HD23	1:E:1086:LEU:HA	1.73	0.41
2:F:234:ILE:CG2	2:F:236:ILE:HG13	2.44	0.41
2:F:972:LEU:HA	2:F:1000:LEU:HD12	2.03	0.41
2:F:1023:LEU:HD23	2:F:1023:LEU:HA	1.74	0.41
3:G:454:LEU:HD23	3:G:454:LEU:HA	1.84	0.41
3:G:586:LEU:C	3:G:586:LEU:CD2	2.89	0.41
4:Y:10:DA:H2"	4:Y:11:DG:C8	2.48	0.41
1:B:432:LYS:HB2	1:B:774:PHE:HD1	1.85	0.41
1:B:641:VAL:HG13	1:B:668:ARG:NH2	2.35	0.41
2:C:207:LEU:HD13	2:C:230:LEU:HD21	2.02	0.41
2:C:266:ARG:O	2:C:267:HIS:C	2.54	0.41
2:C:614:GLN:HE21	2:C:614:GLN:HB3	1.62	0.41
2:C:819:GLU:OE1	2:C:819:GLU:C	2.58	0.41
2:C:841:TRP:CH2	2:C:1112:PHE:CD1	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:394:GLU:O	3:D:395:LYS:CG	2.68	0.41
3:D:589:ALA:O	3:D:590:ILE:C	2.58	0.41
1:E:504:MET:SD	1:E:517:THR:HG21	2.60	0.41
1:E:702:GLU:HB2	2:F:449:PRO:HG3	1.99	0.41
1:E:721:ASN:N	1:E:721:ASN:HD22	2.17	0.41
1:E:1114:TYR:O	1:E:1117:ALA:HB3	2.20	0.41
1:E:1115:THR:OG1	1:E:1165:ILE:HD11	2.20	0.41
2:F:60:ILE:HG21	2:F:62:PHE:CZ	2.56	0.41
2:F:104:GLU:H	2:F:112:ARG:NH1	2.18	0.41
2:F:403:LEU:HA	2:F:403:LEU:HD23	1.82	0.41
2:F:545:GLN:HA	2:F:545:GLN:NE2	2.36	0.41
3:G:51:VAL:HG23	3:G:307:GLY:HA2	2.03	0.41
3:G:58:LEU:O	3:G:62:GLU:OE1	2.38	0.41
3:G:199:ILE:HG23	3:G:265:VAL:HG22	2.02	0.41
3:G:390:PHE:O	3:G:392:ASP:N	2.53	0.41
3:G:451:VAL:O	3:G:452:ALA:C	2.58	0.41
4:Z:39:DT:H3'	4:Z:40:DT:C5'	2.50	0.41
1:B:5:ALA:HB1	1:B:441:TYR:N	2.35	0.41
1:B:332:LEU:O	1:B:336:ARG:HG3	2.20	0.41
1:B:396:ILE:O	1:B:400:ILE:HG13	2.20	0.41
1:B:549:VAL:O	1:B:549:VAL:HG23	2.19	0.41
1:B:899:ASP:CB	1:B:1059:ARG:HH12	2.29	0.41
1:B:927:ASP:HB3	1:B:1107:TYR:OH	2.21	0.41
2:C:506:ILE:HG23	2:C:507:ASP:N	2.33	0.41
2:C:935:ARG:HH21	2:C:958:GLN:NE2	2.17	0.41
3:D:128:HIS:NE2	3:D:130:ILE:HA	2.35	0.41
3:D:369:GLN:HE21	3:D:369:GLN:HB2	1.64	0.41
3:D:385:VAL:CG1	3:D:396:ARG:HD2	2.51	0.41
3:D:402:GLU:C	3:D:404:TYR:H	2.22	0.41
3:D:565:LEU:C	3:D:565:LEU:CD2	2.88	0.41
1:E:11:LEU:HD12	1:E:99:ARG:CZ	2.50	0.41
2:F:104:GLU:H	2:F:112:ARG:HH11	1.67	0.41
2:F:345:LEU:O	2:F:345:LEU:HG	2.20	0.41
2:F:764:ASP:O	2:F:767:LEU:HD21	2.20	0.41
2:F:819:GLU:CD	2:F:821:VAL:HG13	2.41	0.41
2:F:834:LEU:HD21	2:F:986:VAL:HG21	2.02	0.41
3:G:159:ALA:O	3:G:163:THR:HG23	2.21	0.41
3:G:276:LEU:CB	3:G:277:PRO:HD3	2.48	0.41
3:G:426:ALA:C	3:G:428:PRO:HD2	2.41	0.41
3:G:443:ALA:CB	3:G:561:VAL:HG22	2.51	0.41
3:G:542:GLN:HE21	3:G:542:GLN:HB2	1.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:83:LEU:HD13	1:B:114:LEU:CD1	2.45	0.41
1:B:242:GLU:C	1:B:243:LEU:HG	2.40	0.41
1:B:262:GLN:C	1:B:265:TRP:H	2.22	0.41
1:B:843:GLN:C	1:B:845:GLY:N	2.74	0.41
1:B:893:LEU:H	1:B:893:LEU:CD1	2.30	0.41
1:B:1107:TYR:O	1:B:1111:TYR:HD1	2.01	0.41
2:C:107:ASP:HB3	2:C:108:PHE:CD1	2.55	0.41
2:C:137:GLN:O	2:C:138:TYR:C	2.59	0.41
2:C:409:ILE:CD1	2:C:672:PHE:CE1	3.04	0.41
2:C:412:VAL:O	2:C:663:THR:HA	2.21	0.41
2:C:716:PHE:CB	2:C:747:LEU:HD13	2.49	0.41
2:C:737:GLN:CG	2:C:738:ASP:H	2.15	0.41
2:C:935:ARG:HE	2:C:958:GLN:HE22	1.68	0.41
3:D:95:ASP:OD2	3:D:96:GLU:HG3	2.20	0.41
3:D:181:VAL:CG2	3:D:295:LEU:HD11	2.34	0.41
3:D:216:LEU:HA	3:D:216:LEU:HD23	1.66	0.41
3:D:233:ILE:C	3:D:235:GLU:H	2.06	0.41
3:D:272:SER:HB2	3:D:303:SER:OG	2.20	0.41
1:E:63:THR:HG23	1:E:384:ASP:OD1	2.20	0.41
1:E:120:GLN:OE1	1:E:120:GLN:HA	2.19	0.41
1:E:344:ARG:O	1:E:347:GLY:N	2.53	0.41
1:E:359:ASP:OD2	1:E:395:ARG:NH1	2.53	0.41
1:E:672:GLU:H	1:E:672:GLU:HG3	1.43	0.41
1:E:739:VAL:CG2	1:E:740:THR:H	2.32	0.41
1:E:771:ARG:CZ	1:E:789:LEU:HD23	2.49	0.41
1:E:1090:SER:C	1:E:1092:ALA:H	2.24	0.41
2:F:5:TYR:CD2	2:F:16:LEU:HD13	2.56	0.41
2:F:70:TRP:CZ2	2:F:84:SER:HB2	2.55	0.41
2:F:72:MET:CE	2:F:207:LEU:HB3	2.51	0.41
2:F:111:LEU:N	2:F:111:LEU:HD23	2.36	0.41
2:F:457:LEU:C	2:F:459:SER:N	2.74	0.41
2:F:601:PRO:HB2	2:F:606:GLU:HG3	2.03	0.41
2:F:643:GLN:HE21	2:F:643:GLN:HB3	1.56	0.41
2:F:760:TYR:CE1	2:F:765:GLU:CG	3.00	0.41
3:G:438:TYR:HA	3:G:548:HIS:O	2.21	0.41
1:B:561:ARG:HG2	1:B:561:ARG:NH1	2.35	0.41
1:B:604:MET:O	1:B:605:THR:HB	2.20	0.41
1:B:609:GLU:HG2	1:B:613:ARG:NH2	2.35	0.41
1:B:1040:ILE:HG22	1:B:1047:SER:HB2	2.03	0.41
1:B:1051:PRO:O	1:B:1052:PRO:O	2.39	0.41
1:B:1063:LYS:HE2	1:B:1063:LYS:HB3	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1102:MET:HE1	1:B:1107:TYR:CB	2.50	0.41
1:B:1118:LEU:HD23	1:B:1118:LEU:HA	1.79	0.41
2:C:27:ASP:OD1	2:C:28:ASP:OD1	2.38	0.41
2:C:173:VAL:HA	2:C:176:THR:CG2	2.50	0.41
2:C:721:ILE:HD13	2:C:721:ILE:HA	1.86	0.41
2:C:848:PHE:CZ	2:C:1034:PRO:HD3	2.55	0.41
2:C:976:GLN:NE2	2:C:976:GLN:CA	2.83	0.41
3:D:61:ASN:C	3:D:63:ALA:H	2.23	0.41
3:D:87:ALA:O	3:D:89:GLN:HG2	2.21	0.41
3:D:170:SER:O	3:D:354:LEU:HA	2.20	0.41
3:D:220:LEU:O	3:D:223:LEU:HD21	2.20	0.41
3:D:426:ALA:C	3:D:428:PRO:HD3	2.40	0.41
3:D:586:LEU:C	3:D:586:LEU:HD23	2.41	0.41
1:E:531:GLN:C	1:E:533:GLY:N	2.73	0.41
1:E:557:LEU:HB2	1:E:754:LEU:HD12	2.02	0.41
1:E:604:MET:SD	1:E:704:GLU:HB2	2.60	0.41
2:F:149:TRP:HE1	2:F:162:GLN:NE2	2.14	0.41
2:F:308:ARG:O	2:F:311:ILE:HG22	2.21	0.41
2:F:837:LEU:HD23	2:F:837:LEU:HA	1.73	0.41
3:G:58:LEU:HD22	3:G:81:TRP:CH2	2.56	0.41
3:G:133:ASP:O	3:G:134:GLU:C	2.59	0.41
3:G:523:GLN:HB3	3:G:524:PRO:CD	2.40	0.41
1:B:52:ARG:HH11	1:B:52:ARG:CB	2.34	0.41
1:B:282:LEU:H	1:B:283:PRO:CD	2.27	0.41
1:B:597:LEU:HD23	1:B:597:LEU:C	2.41	0.41
1:B:693:LEU:HA	1:B:693:LEU:HD23	1.81	0.41
1:B:831:THR:HG21	1:B:850:ALA:HA	2.01	0.41
1:B:955:LEU:O	1:B:956:HIS:C	2.59	0.41
2:C:17:MET:HG3	2:C:212:PHE:CD2	2.55	0.41
2:C:220:PRO:O	2:C:223:TYR:N	2.53	0.41
2:C:273:GLU:OE2	2:C:273:GLU:CA	2.69	0.41
2:C:444:ALA:O	2:C:445:ARG:C	2.59	0.41
2:C:720:LEU:HD13	2:C:727:LEU:HD22	2.01	0.41
1:E:119:ARG:HD3	2:F:302:SER:HB3	2.03	0.41
1:E:375:ARG:CZ	1:E:404:GLN:NE2	2.84	0.41
1:E:605:THR:C	1:E:607:GLU:H	2.24	0.41
2:F:206:GLY:H	2:F:207:LEU:HD23	1.86	0.41
2:F:302:SER:HG	2:F:303:TRP:HD1	1.64	0.41
2:F:392:ARG:HD3	2:F:392:ARG:HA	1.74	0.41
2:F:625:GLY:C	2:F:627:GLN:N	2.72	0.41
2:F:745:SER:O	2:F:746:VAL:C	2.58	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:941:MET:HE3	2:F:959:VAL:HG11	2.02	0.41
3:G:282:LEU:O	3:G:282:LEU:HD23	2.21	0.41
3:G:300:GLN:CD	3:G:568:THR:HG22	2.41	0.41
3:G:402:GLU:CA	3:G:405:ILE:HD12	2.51	0.41
3:G:418:TYR:CE1	3:G:431:ILE:CG2	3.03	0.41
1:B:5:ALA:HB1	1:B:441:TYR:CA	2.51	0.41
1:B:106:ASP:O	1:B:109:GLN:N	2.51	0.41
1:B:137:LEU:HD12	1:B:137:LEU:HA	1.89	0.41
1:B:209:LYS:HE3	1:B:209:LYS:HB2	1.92	0.41
1:B:359:ASP:CG	1:B:395:ARG:HH11	2.22	0.41
1:B:574:LEU:O	1:B:575:GLU:CB	2.63	0.41
1:B:590:THR:C	1:B:592:GLU:N	2.72	0.41
1:B:858:GLU:O	1:B:861:CYS:HB2	2.21	0.41
1:B:914:HIS:CD2	1:B:926:VAL:HG13	2.56	0.41
1:B:945:PHE:O	1:B:1144:ARG:NH2	2.54	0.41
1:B:958:LEU:HD12	1:B:958:LEU:HA	1.86	0.41
1:B:1036:LEU:O	1:B:1040:ILE:HG12	2.21	0.41
1:B:1079:LEU:HD12	1:B:1080:ASP:N	2.35	0.41
1:B:1111:TYR:HD2	1:B:1138:VAL:HG11	1.86	0.41
2:C:42:MET:CE	2:C:46:LEU:HG	2.50	0.41
2:C:109:THR:HG23	2:C:112:ARG:CZ	2.51	0.41
2:C:163:ALA:O	2:C:167:PRO:HG2	2.20	0.41
2:C:441:ASP:H	2:C:651:SER:HB3	1.86	0.41
2:C:490:LEU:HD22	2:C:490:LEU:O	2.20	0.41
2:C:852:ARG:HA	2:C:852:ARG:HD3	1.82	0.41
2:C:902:ARG:O	2:C:902:ARG:HG2	2.21	0.41
3:D:51:VAL:O	3:D:112:MET:HG3	2.21	0.41
3:D:200:ARG:CG	3:D:233:ILE:HD12	2.47	0.41
3:D:236:ASP:HB2	3:D:237:ALA:H	1.61	0.41
1:E:62:VAL:CG2	1:E:62:VAL:O	2.69	0.41
1:E:146:MET:SD	1:E:349:LEU:HD21	2.61	0.41
1:E:233:LYS:HZ3	1:E:269:ILE:HG12	1.85	0.41
1:E:286:LEU:HA	1:E:306:ARG:CD	2.50	0.41
1:E:937:GLU:HA	1:E:938:PRO:HD2	1.63	0.41
1:E:1051:PRO:O	1:E:1052:PRO:O	2.38	0.41
1:E:1068:LEU:HD12	1:E:1069:VAL:H	1.86	0.41
2:F:105:ARG:NH2	2:F:107:ASP:OD2	2.49	0.41
2:F:109:THR:HG23	2:F:112:ARG:NH2	2.36	0.41
2:F:142:ARG:HH21	2:F:705:ASP:CG	2.23	0.41
2:F:298:PRO:C	2:F:301:ALA:HB3	2.41	0.41
2:F:415:ILE:O	2:F:415:ILE:HG13	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:125:GLU:O	3:G:125:GLU:CG	2.69	0.41
3:G:256:HIS:CE1	3:G:257:ALA:CB	3.03	0.41
3:G:361:PHE:CD1	3:G:361:PHE:C	2.94	0.41
3:G:393:ILE:O	3:G:577:LEU:N	2.51	0.41
3:G:451:VAL:O	3:G:454:LEU:N	2.53	0.41
3:G:582:ASP:OD2	3:G:585:ILE:CG1	2.69	0.41
1:B:282:LEU:HD23	1:B:307:HIS:HB3	2.02	0.41
1:B:920:LEU:HD21	2:C:448:HIS:CE1	2.55	0.41
2:C:2:LEU:HD23	2:C:236:ILE:HG22	2.03	0.41
2:C:251:ILE:CG2	2:C:286:LEU:HD13	2.43	0.41
2:C:285:GLN:O	2:C:286:LEU:HB2	2.21	0.41
2:C:304:GLY:O	2:C:305:LYS:C	2.59	0.41
2:C:343:LEU:HD23	2:C:343:LEU:O	2.21	0.41
2:C:415:ILE:O	2:C:415:ILE:HG13	2.21	0.41
2:C:690:ALA:HA	2:C:691:PRO:HD2	1.88	0.41
2:C:852:ARG:HD2	2:C:852:ARG:O	2.21	0.41
3:D:79:GLN:C	3:D:81:TRP:N	2.74	0.41
3:D:185:LEU:HD12	3:D:232:ARG:NE	2.33	0.41
3:D:325:ARG:NH1	3:D:350:ASP:O	2.54	0.41
3:D:558:THR:HA	3:D:559:PRO:HD3	1.96	0.41
1:E:55:THR:CG2	1:E:56:VAL:N	2.84	0.41
1:E:150:GLN:HA	1:E:150:GLN:NE2	2.29	0.41
1:E:247:ILE:HB	1:E:248:GLU:H	1.47	0.41
1:E:527:ARG:HG2	1:E:527:ARG:HH11	1.85	0.41
1:E:554:ILE:HG22	1:E:555:SER:N	2.35	0.41
1:E:555:SER:HA	1:E:737:GLN:O	2.21	0.41
1:E:600:LEU:HA	1:E:600:LEU:HD23	1.84	0.41
1:E:1135:PHE:C	1:E:1135:PHE:CD2	2.93	0.41
2:F:59:ASN:O	2:F:60:ILE:C	2.60	0.41
2:F:737:GLN:O	2:F:739:ASN:N	2.54	0.41
2:F:1063:THR:O	2:F:1064:LEU:C	2.57	0.41
1:B:527:ARG:CB	1:B:576:ILE:HD11	2.43	0.40
1:B:644:GLU:OE2	1:B:668:ARG:NH2	2.54	0.40
1:B:664:LEU:CD1	1:B:668:ARG:HG3	2.51	0.40
1:B:827:LYS:HA	1:B:827:LYS:HD2	1.89	0.40
1:B:1059:ARG:HG3	1:B:1059:ARG:HH11	1.85	0.40
2:C:204:PRO:CB	2:C:233:HIS:HB3	2.44	0.40
2:C:277:PHE:CD1	2:C:278:ARG:N	2.89	0.40
2:C:373:SER:O	2:C:374:ILE:O	2.39	0.40
2:C:752:ILE:H	2:C:752:ILE:HG13	1.70	0.40
2:C:786:ARG:HE	2:C:786:ARG:HB2	1.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:798:GLU:O	2:C:798:GLU:CG	2.69	0.40
2:C:1027:TYR:O	2:C:1031:MET:HG2	2.21	0.40
3:D:322:THR:HG23	3:D:350:ASP:CG	2.42	0.40
3:D:361:PHE:CD1	3:D:362:GLY:N	2.89	0.40
1:E:96:LEU:HD22	1:E:100:LEU:HG	2.03	0.40
1:E:107:LYS:CD	1:E:107:LYS:N	2.83	0.40
1:E:159:LEU:HD11	1:E:339:VAL:HA	2.03	0.40
1:E:232:VAL:O	1:E:232:VAL:HG12	2.21	0.40
1:E:540:LEU:CD1	1:E:547:ARG:NH2	2.83	0.40
1:E:575:GLU:HG3	1:E:876:GLN:O	2.19	0.40
1:E:587:VAL:CG1	1:E:690:ILE:HG13	2.50	0.40
1:E:730:GLU:OE1	1:E:730:GLU:HA	2.21	0.40
1:E:1116:LEU:O	1:E:1116:LEU:HD22	2.20	0.40
2:F:145:TRP:CZ2	2:F:158:LEU:HD21	2.56	0.40
2:F:358:PHE:O	2:F:358:PHE:CG	2.75	0.40
2:F:582:ARG:HH11	2:F:582:ARG:CG	2.21	0.40
2:F:732:ILE:O	2:F:742:ARG:CG	2.68	0.40
3:G:317:ALA:C	3:G:319:ALA:N	2.74	0.40
3:G:409:GLU:C	3:G:411:ALA:N	2.74	0.40
3:G:427:GLU:HA	3:G:431:ILE:HD11	2.02	0.40
1:B:17:GLY:H	1:B:408:ALA:HA	1.87	0.40
1:B:104:ILE:CG2	1:B:107:LYS:HD2	2.51	0.40
1:B:139:LEU:HD12	1:B:139:LEU:HA	1.68	0.40
1:B:208:ILE:HD13	1:B:780:LEU:HD11	2.03	0.40
1:B:243:LEU:HD23	1:B:259:ARG:CZ	2.51	0.40
1:B:285:SER:CB	1:B:307:HIS:ND1	2.82	0.40
1:B:311:GLU:HA	1:B:314:ASP:OD1	2.20	0.40
1:B:716:LEU:HD13	2:C:863:GLU:H	1.86	0.40
1:B:974:ARG:NH2	1:B:978:GLU:HB2	2.31	0.40
2:C:17:MET:HB2	2:C:239:LEU:HD21	2.02	0.40
3:D:220:LEU:HD11	3:D:232:ARG:HG3	2.04	0.40
3:D:256:HIS:CE1	3:D:257:ALA:H	2.39	0.40
3:D:361:PHE:HD1	3:D:362:GLY:N	2.19	0.40
3:D:412:LEU:HD13	3:D:462:MET:CG	2.51	0.40
1:E:200:TYR:C	1:E:202:GLN:H	2.24	0.40
1:E:442:THR:HG22	1:E:443:LEU:H	1.86	0.40
1:E:713:GLN:HE21	1:E:713:GLN:HB2	1.71	0.40
1:E:1086:LEU:HD23	1:E:1144:ARG:NH1	2.36	0.40
2:F:601:PRO:HB3	2:F:609:MET:SD	2.60	0.40
2:F:622:GLU:OE1	2:F:644:ARG:NH2	2.54	0.40
3:G:79:GLN:HG3	3:G:80:ASN:H	1.83	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:612:LEU:CD2	1:B:616:LEU:HD11	2.50	0.40
1:B:629:GLU:O	1:B:632:ASN:HB2	2.21	0.40
2:C:447:SER:C	2:C:448:HIS:ND1	2.75	0.40
2:C:965:LEU:HD12	2:C:965:LEU:HA	1.80	0.40
2:C:985:LEU:HD12	2:C:1023:LEU:HD12	2.02	0.40
3:D:116:GLU:HG3	3:D:276:LEU:HD11	2.03	0.40
3:D:385:VAL:CG2	3:D:396:ARG:HD2	2.51	0.40
1:E:62:VAL:HG22	1:E:383:ILE:HD12	2.04	0.40
1:E:558:VAL:HG11	1:E:564:ALA:HB2	2.04	0.40
1:E:580:TYR:HA	1:E:738:ILE:O	2.21	0.40
2:F:23:ARG:O	2:F:24:GLU:C	2.59	0.40
2:F:149:TRP:CD2	2:F:166:ALA:HA	2.57	0.40
2:F:383:GLN:HE21	2:F:383:GLN:HB3	1.60	0.40
2:F:533:LEU:HD12	2:F:549:PRO:CB	2.51	0.40
2:F:536:ALA:CB	3:G:109:LEU:HD22	2.50	0.40
2:F:875:LEU:HD11	4:Z:3:DT:C5	2.57	0.40
3:G:77:GLU:C	3:G:79:GLN:N	2.73	0.40
3:G:115:ASN:HD22	3:G:115:ASN:HA	1.53	0.40
3:G:220:LEU:HD11	3:G:232:ARG:HG3	2.03	0.40
3:G:325:ARG:O	3:G:326:ALA:C	2.59	0.40
3:G:410:GLU:H	3:G:410:GLU:HG2	1.68	0.40
4:Z:28:DC:C5	4:Z:29:DA:N7	2.90	0.40
1:B:153:ILE:HG22	1:B:350:GLY:HA2	2.04	0.40
1:B:514:TYR:CD2	1:B:818:ALA:HB2	2.57	0.40
1:B:540:LEU:CD1	1:B:547:ARG:NH2	2.84	0.40
1:B:667:ALA:C	1:B:669:ASN:N	2.72	0.40
1:B:947:ARG:CD	1:B:1086:LEU:HG	2.51	0.40
1:B:1098:MET:C	1:B:1100:ALA:N	2.74	0.40
1:B:1158:THR:HG22	1:B:1159:ARG:H	1.84	0.40
1:B:1161:ASN:O	1:B:1162:ALA:HB3	2.21	0.40
2:C:181:GLN:HA	2:C:182:PRO:HD3	1.97	0.40
2:C:251:ILE:HD13	2:C:256:TYR:HD2	1.80	0.40
2:C:262:THR:O	2:C:263:ARG:CG	2.69	0.40
2:C:287:PHE:HB2	2:C:293:GLN:CB	2.51	0.40
2:C:536:ALA:O	2:C:537:MET:O	2.39	0.40
2:C:779:HIS:ND1	2:C:780:LEU:HD13	2.36	0.40
2:C:979:GLN:OE1	2:C:979:GLN:HA	2.16	0.40
3:D:25:LEU:HA	3:D:25:LEU:HD23	1.89	0.40
1:E:104:ILE:CG2	1:E:105:ASP:N	2.85	0.40
1:E:284:GLU:O	1:E:287:GLU:N	2.54	0.40
1:E:349:LEU:HD12	1:E:353:ASP:HB2	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:446:ASN:C	1:E:447:TRP:O	2.60	0.40
1:E:482:GLY:C	1:E:484:ASN:N	2.75	0.40
1:E:815:LEU:N	1:E:815:LEU:HD13	2.37	0.40
1:E:823:ARG:NH1	1:E:828:LYS:HZ3	2.19	0.40
1:E:1049:GLY:O	1:E:1051:PRO:HD3	2.21	0.40
2:F:74:VAL:O	2:F:74:VAL:CG1	2.70	0.40
2:F:400:ASP:C	2:F:401:PRO:O	2.59	0.40
3:G:79:GLN:O	3:G:81:TRP:N	2.51	0.40
3:G:242:ARG:NH2	3:G:266:LEU:CD1	2.84	0.40
3:G:402:GLU:C	3:G:404:TYR:H	2.23	0.40
3:G:418:TYR:HE1	3:G:431:ILE:CG2	2.35	0.40
3:G:440:LEU:HD23	3:G:550:ALA:HB3	2.04	0.40
3:G:462:MET:HE2	3:G:462:MET:HB2	1.84	0.40
4:Z:17:DC:H1’	4:Z:18:DT:H5’	2.04	0.40
1:B:184:PHE:CE1	1:B:188:LYS:HG2	2.56	0.40
1:B:228:ARG:C	1:B:316:LEU:HD21	2.42	0.40
1:B:281:GLN:HG2	1:B:313:ILE:HG21	2.01	0.40
1:B:482:GLY:O	1:B:484:ASN:N	2.55	0.40
1:B:771:ARG:HA	1:B:771:ARG:HD2	1.90	0.40
1:B:1102:MET:HE1	1:B:1111:TYR:OH	2.21	0.40
2:C:26:LEU:C	2:C:27:ASP:O	2.60	0.40
2:C:207:LEU:CD1	2:C:230:LEU:HD21	2.51	0.40
2:C:347:ASN:ND2	2:C:349:ALA:N	2.69	0.40
2:C:408:ILE:HG22	2:C:409:ILE:N	2.36	0.40
2:C:429:ALA:HA	2:C:430:PRO:HD2	1.64	0.40
2:C:828:LEU:HD12	2:C:829:PRO:CD	2.51	0.40
2:C:1038:LEU:CD1	2:C:1090:TYR:CZ	3.04	0.40
2:C:1063:THR:O	2:C:1065:GLN:N	2.54	0.40
3:D:374:ILE:C	3:D:376:ARG:H	2.25	0.40
3:D:389:ASP:C	3:D:391:THR:N	2.72	0.40
3:D:427:GLU:HG2	3:D:427:GLU:O	2.22	0.40
3:D:537:THR:C	3:D:539:HIS:N	2.73	0.40
1:E:5:ALA:HB1	1:E:441:TYR:N	2.37	0.40
1:E:254:ARG:HD2	1:E:257:PHE:CE1	2.56	0.40
1:E:768:TYR:CE2	1:E:786:SER:HB3	2.56	0.40
1:E:834:HIS:CE1	1:E:847:PRO:HB3	2.56	0.40
1:E:1000:ALA:O	1:E:1008:SER:HA	2.22	0.40
2:F:702:LYS:HE2	2:F:702:LYS:HB3	1.84	0.40
3:G:238:SER:OG	3:G:241:HIS:HB2	2.21	0.40
4:Z:6:DT:H2”	4:Z:7:DG:C8	2.57	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the sym-

metry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:105:ARG:O	2:F:937:PRO:O[3_645]	2.11	0.09

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	B	1154/1180 (98%)	898 (78%)	164 (14%)	92 (8%)	1 5
1	E	1154/1180 (98%)	915 (79%)	147 (13%)	92 (8%)	1 5
2	C	1120/1122 (100%)	873 (78%)	164 (15%)	83 (7%)	1 6
2	F	1074/1122 (96%)	869 (81%)	135 (13%)	70 (6%)	1 8
3	D	533/608 (88%)	390 (73%)	81 (15%)	62 (12%)	0 2
3	G	533/608 (88%)	386 (72%)	90 (17%)	57 (11%)	0 2
All	All	5568/5820 (96%)	4331 (78%)	781 (14%)	456 (8%)	1 5

All (456) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	17	GLY
1	B	95	PRO
1	B	155	ASP
1	B	214	ASP
1	B	244	ASP
1	B	259	ARG
1	B	282	LEU
1	B	463	GLN
1	B	509	CYS
1	B	515	GLN
1	B	609	GLU
1	B	720	SER
1	B	782	ALA

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Mol	Chain	Res	Type
1	B	830	ASP
1	B	844	LYS
1	B	864	ASP
1	B	870	ALA
1	B	875	ASN
1	B	876	GLN
1	B	879	GLN
1	B	912	ARG
1	B	916	ILE
1	B	934	VAL
1	B	938	PRO
1	B	985	GLN
1	B	1050	CYS
1	B	1052	PRO
1	B	1085	TRP
1	B	1090	SER
1	B	1095	GLN
1	B	1161	ASN
2	C	23	ARG
2	C	28	ASP
2	C	60	ILE
2	C	102	LEU
2	C	117	ASP
2	C	142	ARG
2	C	270	GLU
2	C	279	ASP
2	C	287	PHE
2	C	290	ASP
2	C	293	GLN
2	C	368	ASP
2	C	374	ILE
2	C	399	GLU
2	C	433	ARG
2	C	537	MET
2	C	630	ASP
2	C	658	PRO
2	C	689	LEU
2	C	854	GLN
2	C	1036	LEU
2	C	1077	GLY
2	C	1083	GLY
3	D	65	HIS

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Mol	Chain	Res	Type
3	D	78	LEU
3	D	79	GLN
3	D	131	GLU
3	D	151	ILE
3	D	193	ASP
3	D	222	GLN
3	D	228	GLU
3	D	231	LYS
3	D	234	PRO
3	D	242	ARG
3	D	288	ASP
3	D	365	SER
3	D	388	GLN
3	D	390	PHE
3	D	391	THR
3	D	393	ILE
3	D	425	ARG
3	D	426	ALA
3	D	427	GLU
3	D	428	PRO
3	D	529	GLU
3	D	557	ARG
3	D	558	THR
3	D	594	THR
3	D	598	SER
3	D	606	SER
1	E	17	GLY
1	E	95	PRO
1	E	155	ASP
1	E	214	ASP
1	E	244	ASP
1	E	259	ARG
1	E	282	LEU
1	E	463	GLN
1	E	509	CYS
1	E	515	GLN
1	E	678	ALA
1	E	720	SER
1	E	782	ALA
1	E	830	ASP
1	E	864	ASP
1	E	870	ALA

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Mol	Chain	Res	Type
1	E	875	ASN
1	E	879	GLN
1	E	912	ARG
1	E	916	ILE
1	E	934	VAL
1	E	938	PRO
1	E	1050	CYS
1	E	1052	PRO
1	E	1085	TRP
1	E	1090	SER
1	E	1095	GLN
1	E	1160	PRO
1	E	1161	ASN
2	F	23	ARG
2	F	28	ASP
2	F	60	ILE
2	F	117	ASP
2	F	200	ALA
2	F	368	ASP
2	F	374	ILE
2	F	399	GLU
2	F	432	ASP
2	F	433	ARG
2	F	537	MET
2	F	658	PRO
2	F	843	HIS
2	F	854	GLN
2	F	937	PRO
2	F	1036	LEU
2	F	1077	GLY
2	F	1083	GLY
3	G	4	GLN
3	G	65	HIS
3	G	78	LEU
3	G	79	GLN
3	G	131	GLU
3	G	151	ILE
3	G	193	ASP
3	G	222	GLN
3	G	231	LYS
3	G	234	PRO
3	G	242	ARG

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Mol	Chain	Res	Type
3	G	365	SER
3	G	388	GLN
3	G	390	PHE
3	G	391	THR
3	G	393	ILE
3	G	425	ARG
3	G	428	PRO
3	G	529	GLU
3	G	557	ARG
3	G	558	THR
3	G	594	THR
3	G	598	SER
3	G	606	SER
1	B	2	SER
1	B	18	GLU
1	B	24	SER
1	B	121	MET
1	B	156	GLU
1	B	177	ARG
1	B	243	LEU
1	B	247	ILE
1	B	275	GLU
1	B	514	TYR
1	B	678	ALA
1	B	731	SER
1	B	761	ARG
1	B	863	ASP
1	B	910	GLN
1	B	926	VAL
1	B	1007	VAL
1	B	1008	SER
1	B	1057	GLN
1	B	1075	ARG
1	B	1088	GLU
1	B	1091	SER
1	B	1160	PRO
2	C	79	GLU
2	C	118	ASP
2	C	160	GLU
2	C	182	PRO
2	C	183	ARG
2	C	200	ALA

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Mol	Chain	Res	Type
2	C	261	LEU
2	C	262	THR
2	C	283	ALA
2	C	285	GLN
2	C	289	SER
2	C	296	GLY
2	C	319	SER
2	C	401	PRO
2	C	402	THR
2	C	432	ASP
2	C	602	ASP
2	C	654	PHE
2	C	657	GLY
2	C	734	ARG
2	C	768	ASN
2	C	875	LEU
2	C	958	GLN
2	C	992	GLY
3	D	4	GLN
3	D	67	LEU
3	D	85	LEU
3	D	86	LEU
3	D	132	VAL
3	D	147	VAL
3	D	224	PRO
3	D	259	ASN
3	D	392	ASP
3	D	424	ALA
3	D	450	GLY
3	D	451	VAL
3	D	457	ARG
3	D	524	PRO
3	D	530	HIS
3	D	583	GLU
3	D	590	ILE
1	E	18	GLU
1	E	121	MET
1	E	156	GLU
1	E	243	LEU
1	E	248	GLU
1	E	260	SER
1	E	308	PRO

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Mol	Chain	Res	Type
1	E	514	TYR
1	E	609	GLU
1	E	731	SER
1	E	827	LYS
1	E	844	LYS
1	E	863	ASP
1	E	876	GLN
1	E	910	GLN
1	E	964	PHE
1	E	985	GLN
1	E	1007	VAL
1	E	1008	SER
1	E	1015	ARG
1	E	1057	GLN
1	E	1075	ARG
1	E	1091	SER
1	E	1135	PHE
2	F	27	ASP
2	F	102	LEU
2	F	118	ASP
2	F	160	GLU
2	F	201	THR
2	F	296	GLY
2	F	319	SER
2	F	657	GLY
2	F	689	LEU
2	F	703	ARG
2	F	734	ARG
2	F	768	ASN
2	F	875	LEU
2	F	958	GLN
2	F	992	GLY
3	G	85	LEU
3	G	86	LEU
3	G	132	VAL
3	G	147	VAL
3	G	223	LEU
3	G	224	PRO
3	G	228	GLU
3	G	237	ALA
3	G	392	ASP
3	G	424	ALA

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Mol	Chain	Res	Type
3	G	426	ALA
3	G	457	ARG
3	G	524	PRO
3	G	530	HIS
3	G	533	THR
3	G	583	GLU
3	G	590	ILE
1	B	5	ALA
1	B	86	ALA
1	B	200	TYR
1	B	248	GLU
1	B	308	PRO
1	B	471	ARG
1	B	492	LYS
1	B	826	ASP
1	B	827	LYS
1	B	905	SER
1	B	929	ALA
1	B	946	PRO
1	B	964	PHE
1	B	1004	GLU
1	B	1015	ARG
1	B	1030	PRO
1	B	1073	GLU
1	B	1135	PHE
2	C	27	ASP
2	C	54	PHE
2	C	139	LEU
2	C	161	ALA
2	C	201	THR
2	C	273	GLU
2	C	286	LEU
2	C	367	LEU
2	C	445	ARG
2	C	540	ALA
2	C	705	ASP
2	C	831	THR
2	C	843	HIS
2	C	909	TYR
2	C	937	PRO
3	D	80	ASN
3	D	223	LEU

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Mol	Chain	Res	Type
3	D	237	ALA
3	D	376	ARG
3	D	533	THR
1	E	2	SER
1	E	24	SER
1	E	43	GLY
1	E	86	ALA
1	E	215	ASP
1	E	242	GLU
1	E	269	ILE
1	E	669	ASN
1	E	761	ARG
1	E	905	SER
1	E	926	VAL
1	E	929	ALA
1	E	1020	GLU
1	E	1029	GLU
1	E	1088	GLU
2	F	25	ARG
2	F	54	PHE
2	F	79	GLU
2	F	183	ARG
2	F	401	PRO
2	F	402	THR
2	F	584	LEU
2	F	602	ASP
2	F	654	PHE
2	F	685	TYR
2	F	795	GLN
2	F	831	THR
2	F	1002	LYS
3	G	66	PRO
3	G	353	CYS
3	G	376	ARG
3	G	427	GLU
1	B	43	GLY
1	B	215	ASP
1	B	223	ALA
1	B	235	GLN
1	B	260	SER
1	B	269	ILE
1	B	366	SER

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Mol	Chain	Res	Type
1	B	668	ARG
1	B	718	PRO
1	B	937	GLU
1	B	1074	GLY
2	C	25	ARG
2	C	252	LYS
2	C	276	LEU
2	C	738	ASP
2	C	739	ASN
2	C	940	SER
3	D	202	ALA
3	D	465	LYS
3	D	526	ARG
1	E	247	ILE
1	E	366	SER
1	E	581	LEU
1	E	718	PRO
1	E	826	ASP
1	E	937	GLU
1	E	946	PRO
1	E	1004	GLU
1	E	1033	ALA
1	E	1073	GLU
1	E	1119	HIS
2	F	24	GLU
2	F	429	ALA
2	F	431	ALA
2	F	449	PRO
2	F	655	LEU
2	F	659	VAL
2	F	1037	VAL
2	F	1064	LEU
3	G	67	LEU
3	G	148	SER
3	G	465	LYS
3	G	526	ARG
1	B	4	VAL
1	B	122	ASP
1	B	242	GLU
1	B	605	THR
1	B	909	LEU
1	B	1029	GLU

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Mol	Chain	Res	Type
2	C	429	ALA
2	C	685	TYR
2	C	736	ILE
2	C	795	GLN
2	C	1037	VAL
3	D	60	ASN
3	D	146	PRO
3	D	271	ALA
3	D	316	TYR
3	D	396	ARG
3	D	452	ALA
1	E	4	VAL
1	E	5	ALA
1	E	44	LEU
1	E	235	GLN
1	E	270	SER
1	E	668	ARG
1	E	909	LEU
1	E	1074	GLY
1	E	1138	VAL
1	E	1143	LEU
2	F	119	SER
2	F	182	PRO
2	F	736	ILE
2	F	764	ASP
2	F	796	PRO
2	F	841	TRP
3	G	60	ASN
3	G	80	ASN
3	G	416	GLY
3	G	451	VAL
1	B	1119	HIS
1	B	1138	VAL
2	C	355	ILE
2	C	655	LEU
2	C	659	VAL
3	D	66	PRO
1	E	1030	PRO
2	F	445	ARG
2	F	477	PRO
2	F	738	ASP
3	G	146	PRO

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Mol	Chain	Res	Type
3	G	259	ASN
3	G	450	GLY
1	B	328	ILE
2	C	449	PRO
2	C	477	PRO
3	D	368	GLY
1	E	898	GLY
2	F	142	ARG
2	F	874	GLY
2	C	221	PRO
2	C	796	PRO
2	C	1106	VAL
3	D	342	GLY
1	E	1151	PRO
2	F	56	ILE
2	F	382	PRO
2	C	823	PRO
3	D	416	GLY
2	C	65	PRO
2	F	206	GLY
2	F	686	PRO
2	F	20	ILE
3	G	29	GLY

5.3.2 Protein sidechains (i)

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
1	B	981/999 (98%)	796 (81%)	185 (19%)	1 6
1	E	981/999 (98%)	797 (81%)	184 (19%)	1 6
2	C	976/977 (100%)	798 (82%)	178 (18%)	1 7
2	F	937/977 (96%)	769 (82%)	168 (18%)	2 8
3	D	436/492 (89%)	361 (83%)	75 (17%)	2 9
3	G	436/492 (89%)	360 (83%)	76 (17%)	2 9

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
All	All	4747/4936 (96%)	3881 (82%)	866 (18%)	1 7

All (866) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	B	12	ARG
1	B	16	GLN
1	B	18	GLU
1	B	36	LEU
1	B	39	ARG
1	B	52	ARG
1	B	56	VAL
1	B	57	GLU
1	B	60	LEU
1	B	63	THR
1	B	72	LEU
1	B	73	ARG
1	B	77	ARG
1	B	83	LEU
1	B	87	CYS
1	B	94	ASN
1	B	95	PRO
1	B	96	LEU
1	B	103	GLU
1	B	105	ASP
1	B	107	LYS
1	B	109	GLN
1	B	135	ARG
1	B	136	MET
1	B	137	LEU
1	B	139	LEU
1	B	150	GLN
1	B	154	GLU
1	B	168	TRP
1	B	187	TRP
1	B	193	LEU
1	B	194	LEU
1	B	209	LYS
1	B	214	ASP
1	B	215	ASP
1	B	218	LEU
1	B	220	SER

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Mol	Chain	Res	Type
1	B	234	GLN
1	B	244	ASP
1	B	248	GLU
1	B	262	GLN
1	B	265	TRP
1	B	268	LYS
1	B	272	TRP
1	B	274	GLU
1	B	279	SER
1	B	280	TYR
1	B	310	PHE
1	B	311	GLU
1	B	320	PRO
1	B	322	SER
1	B	323	ILE
1	B	326	LEU
1	B	330	ARG
1	B	332	LEU
1	B	349	LEU
1	B	354	MET
1	B	358	LEU
1	B	360	SER
1	B	368	GLU
1	B	377	ARG
1	B	380	VAL
1	B	384	ASP
1	B	399	ARG
1	B	429	THR
1	B	432	LYS
1	B	445	THR
1	B	448	ARG
1	B	462	SER
1	B	464	THR
1	B	466	ASP
1	B	470	PHE
1	B	480	SER
1	B	496	GLN
1	B	501	MET
1	B	517	THR
1	B	520	GLN
1	B	527	ARG
1	B	550	ARG

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Mol	Chain	Res	Type
1	B	557	LEU
1	B	558	VAL
1	B	559	ARG
1	B	561	ARG
1	B	566	GLN
1	B	571	LEU
1	B	572	THR
1	B	573	LEU
1	B	589	GLU
1	B	591	LEU
1	B	596	MET
1	B	604	MET
1	B	610	ASN
1	B	614	SER
1	B	631	LEU
1	B	636	HIS
1	B	643	GLU
1	B	649	ARG
1	B	662	ARG
1	B	672	GLU
1	B	682	ARG
1	B	685	THR
1	B	688	LEU
1	B	694	LEU
1	B	695	GLN
1	B	704	GLU
1	B	707	LEU
1	B	709	ARG
1	B	711	LEU
1	B	713	GLN
1	B	720	SER
1	B	727	MET
1	B	729	LEU
1	B	736	VAL
1	B	738	ILE
1	B	743	LYS
1	B	747	LEU
1	B	752	VAL
1	B	756	PHE
1	B	763	GLN
1	B	765	GLN
1	B	771	ARG

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Mol	Chain	Res	Type
1	B	775	GLU
1	B	784	PRO
1	B	785	GLU
1	B	786	SER
1	B	795	LEU
1	B	802	LEU
1	B	806	LEU
1	B	809	SER
1	B	811	TRP
1	B	815	LEU
1	B	826	ASP
1	B	830	ASP
1	B	831	THR
1	B	833	VAL
1	B	838	LEU
1	B	853	LEU
1	B	861	CYS
1	B	871	GLN
1	B	876	GLN
1	B	878	TRP
1	B	885	THR
1	B	889	ASN
1	B	891	LYS
1	B	893	LEU
1	B	894	GLN
1	B	901	TRP
1	B	904	THR
1	B	909	LEU
1	B	914	HIS
1	B	916	ILE
1	B	919	ASP
1	B	924	LEU
1	B	939	THR
1	B	953	THR
1	B	958	LEU
1	B	963	ASP
1	B	974	ARG
1	B	976	LYS
1	B	984	SER
1	B	987	GLU
1	B	997	VAL
1	B	1019	VAL

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Mol	Chain	Res	Type
1	B	1021	MET
1	B	1037	ASP
1	B	1039	LEU
1	B	1046	LEU
1	B	1050	CYS
1	B	1073	GLU
1	B	1075	ARG
1	B	1084	ASN
1	B	1085	TRP
1	B	1106	ARG
1	B	1109	LEU
1	B	1111	TYR
1	B	1116	LEU
1	B	1118	LEU
1	B	1120	ARG
1	B	1129	TYR
1	B	1132	GLU
1	B	1155	ILE
1	B	1160	PRO
1	B	1164	LEU
1	B	1171	MET
1	B	1172	PHE
2	C	1	MET
2	C	2	LEU
2	C	9	ARG
2	C	25	ARG
2	C	28	ASP
2	C	36	LEU
2	C	37	VAL
2	C	53	LYS
2	C	59	ASN
2	C	60	ILE
2	C	65	PRO
2	C	84	SER
2	C	87	ASN
2	C	89	GLN
2	C	97	THR
2	C	106	GLU
2	C	110	LEU
2	C	112	ARG
2	C	142	ARG
2	C	148	GLN

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Mol	Chain	Res	Type
2	C	156	GLU
2	C	168	LEU
2	C	172	LEU
2	C	176	THR
2	C	183	ARG
2	C	191	GLN
2	C	196	THR
2	C	201	THR
2	C	203	CYS
2	C	207	LEU
2	C	209	SER
2	C	210	ARG
2	C	221	PRO
2	C	222	VAL
2	C	230	LEU
2	C	239	LEU
2	C	241	THR
2	C	251	ILE
2	C	253	ASP
2	C	271	ASP
2	C	273	GLU
2	C	274	LEU
2	C	275	PRO
2	C	276	LEU
2	C	277	PHE
2	C	287	PHE
2	C	290	ASP
2	C	293	GLN
2	C	306	LEU
2	C	311	ILE
2	C	316	ASP
2	C	323	LEU
2	C	335	LEU
2	C	343	LEU
2	C	344	GLU
2	C	347	ASN
2	C	353	VAL
2	C	354	ASN
2	C	355	ILE
2	C	356	GLU
2	C	363	ASN
2	C	367	LEU

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Mol	Chain	Res	Type
2	C	370	LEU
2	C	375	THR
2	C	383	GLN
2	C	384	ARG
2	C	394	LEU
2	C	400	ASP
2	C	402	THR
2	C	403	LEU
2	C	406	ARG
2	C	425	VAL
2	C	432	ASP
2	C	442	ARG
2	C	445	ARG
2	C	458	LEU
2	C	464	ARG
2	C	467	SER
2	C	473	LEU
2	C	482	ARG
2	C	488	GLU
2	C	490	LEU
2	C	494	ARG
2	C	506	ILE
2	C	519	THR
2	C	528	LEU
2	C	533	LEU
2	C	548	LEU
2	C	551	ASP
2	C	557	ILE
2	C	566	SER
2	C	568	LEU
2	C	572	ASN
2	C	575	ARG
2	C	578	LEU
2	C	582	ARG
2	C	584	LEU
2	C	589	PRO
2	C	592	ARG
2	C	612	ILE
2	C	627	GLN
2	C	634	LEU
2	C	635	SER
2	C	636	LEU

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Mol	Chain	Res	Type
2	C	641	LEU
2	C	643	GLN
2	C	645	LEU
2	C	660	ASN
2	C	661	ILE
2	C	676	CYS
2	C	688	GLN
2	C	696	LEU
2	C	699	GLN
2	C	703	ARG
2	C	709	ARG
2	C	717	LEU
2	C	720	LEU
2	C	724	GLN
2	C	725	GLN
2	C	734	ARG
2	C	736	ILE
2	C	742	ARG
2	C	764	ASP
2	C	765	GLU
2	C	767	LEU
2	C	769	CYS
2	C	780	LEU
2	C	798	GLU
2	C	799	ARG
2	C	804	ARG
2	C	805	GLU
2	C	807	LEU
2	C	812	GLN
2	C	819	GLU
2	C	821	VAL
2	C	827	THR
2	C	834	LEU
2	C	852	ARG
2	C	853	LEU
2	C	854	GLN
2	C	856	ASN
2	C	865	PRO
2	C	867	THR
2	C	871	ILE
2	C	872	LEU
2	C	873	GLU

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Mol	Chain	Res	Type
2	C	875	LEU
2	C	884	LEU
2	C	885	LEU
2	C	897	LEU
2	C	919	THR
2	C	927	LEU
2	C	936	GLN
2	C	937	PRO
2	C	945	LEU
2	C	962	ASP
2	C	964	LEU
2	C	966	ARG
2	C	970	SER
2	C	971	LEU
2	C	987	TYR
2	C	997	ARG
2	C	998	LEU
2	C	1017	LEU
2	C	1035	LEU
2	C	1038	LEU
2	C	1041	SER
2	C	1046	LEU
2	C	1055	ASP
2	C	1057	MET
2	C	1060	ASP
2	C	1084	GLU
2	C	1087	ASP
2	C	1092	ARG
2	C	1095	ARG
2	C	1097	LEU
2	C	1118	ARG
2	C	1121	GLN
3	D	4	GLN
3	D	6	GLN
3	D	17	ARG
3	D	19	LEU
3	D	37	LEU
3	D	53	LEU
3	D	55	LEU
3	D	71	CYS
3	D	73	SER
3	D	84	CYS

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Mol	Chain	Res	Type
3	D	88	SER
3	D	105	ASP
3	D	110	ASN
3	D	115	ASN
3	D	121	ARG
3	D	125	GLU
3	D	126	VAL
3	D	128	HIS
3	D	130	ILE
3	D	137	LEU
3	D	142	ASP
3	D	149	ASP
3	D	151	ILE
3	D	188	LEU
3	D	195	GLU
3	D	198	ARG
3	D	212	LEU
3	D	213	THR
3	D	216	LEU
3	D	220	LEU
3	D	223	LEU
3	D	228	GLU
3	D	234	PRO
3	D	236	ASP
3	D	239	THR
3	D	242	ARG
3	D	261	LEU
3	D	263	LEU
3	D	265	VAL
3	D	276	LEU
3	D	278	MET
3	D	282	LEU
3	D	283	ILE
3	D	284	ASP
3	D	298	ARG
3	D	299	ASP
3	D	304	VAL
3	D	325	ARG
3	D	347	SER
3	D	348	LEU
3	D	349	ARG
3	D	354	LEU

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Mol	Chain	Res	Type
3	D	356	GLN
3	D	358	SER
3	D	361	PHE
3	D	369	GLN
3	D	378	ASP
3	D	380	THR
3	D	384	THR
3	D	392	ASP
3	D	429	ASP
3	D	461	PHE
3	D	523	GLN
3	D	529	GLU
3	D	532	THR
3	D	534	TRP
3	D	542	GLN
3	D	577	LEU
3	D	582	ASP
3	D	586	LEU
3	D	590	ILE
3	D	593	ARG
3	D	594	THR
3	D	595	GLU
3	D	598	SER
1	E	12	ARG
1	E	16	GLN
1	E	18	GLU
1	E	36	LEU
1	E	39	ARG
1	E	52	ARG
1	E	56	VAL
1	E	60	LEU
1	E	63	THR
1	E	72	LEU
1	E	73	ARG
1	E	77	ARG
1	E	83	LEU
1	E	94	ASN
1	E	95	PRO
1	E	96	LEU
1	E	103	GLU
1	E	105	ASP
1	E	107	LYS

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Mol	Chain	Res	Type
1	E	109	GLN
1	E	135	ARG
1	E	136	MET
1	E	137	LEU
1	E	139	LEU
1	E	140	ASN
1	E	150	GLN
1	E	154	GLU
1	E	168	TRP
1	E	181	GLN
1	E	187	TRP
1	E	193	LEU
1	E	194	LEU
1	E	209	LYS
1	E	214	ASP
1	E	215	ASP
1	E	220	SER
1	E	234	GLN
1	E	244	ASP
1	E	248	GLU
1	E	262	GLN
1	E	265	TRP
1	E	268	LYS
1	E	272	TRP
1	E	274	GLU
1	E	279	SER
1	E	280	TYR
1	E	310	PHE
1	E	311	GLU
1	E	322	SER
1	E	323	ILE
1	E	326	LEU
1	E	330	ARG
1	E	332	LEU
1	E	345	ARG
1	E	349	LEU
1	E	354	MET
1	E	358	LEU
1	E	360	SER
1	E	377	ARG
1	E	380	VAL
1	E	384	ASP

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Mol	Chain	Res	Type
1	E	399	ARG
1	E	412	ILE
1	E	429	THR
1	E	432	LYS
1	E	445	THR
1	E	448	ARG
1	E	462	SER
1	E	464	THR
1	E	466	ASP
1	E	470	PHE
1	E	471	ARG
1	E	480	SER
1	E	496	GLN
1	E	501	MET
1	E	517	THR
1	E	527	ARG
1	E	550	ARG
1	E	557	LEU
1	E	558	VAL
1	E	559	ARG
1	E	561	ARG
1	E	566	GLN
1	E	571	LEU
1	E	572	THR
1	E	573	LEU
1	E	589	GLU
1	E	591	LEU
1	E	596	MET
1	E	610	ASN
1	E	612	LEU
1	E	614	SER
1	E	631	LEU
1	E	636	HIS
1	E	643	GLU
1	E	649	ARG
1	E	659	PRO
1	E	662	ARG
1	E	682	ARG
1	E	685	THR
1	E	688	LEU
1	E	691	SER
1	E	694	LEU

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Mol	Chain	Res	Type
1	E	695	GLN
1	E	704	GLU
1	E	707	LEU
1	E	709	ARG
1	E	711	LEU
1	E	713	GLN
1	E	720	SER
1	E	729	LEU
1	E	736	VAL
1	E	738	ILE
1	E	743	LYS
1	E	745	LYS
1	E	747	LEU
1	E	763	GLN
1	E	765	GLN
1	E	771	ARG
1	E	775	GLU
1	E	784	PRO
1	E	785	GLU
1	E	786	SER
1	E	795	LEU
1	E	802	LEU
1	E	806	LEU
1	E	809	SER
1	E	811	TRP
1	E	815	LEU
1	E	826	ASP
1	E	830	ASP
1	E	831	THR
1	E	833	VAL
1	E	834	HIS
1	E	838	LEU
1	E	849	ASP
1	E	853	LEU
1	E	861	CYS
1	E	871	GLN
1	E	876	GLN
1	E	878	TRP
1	E	885	THR
1	E	889	ASN
1	E	891	LYS
1	E	893	LEU

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Mol	Chain	Res	Type
1	E	894	GLN
1	E	901	TRP
1	E	904	THR
1	E	909	LEU
1	E	914	HIS
1	E	919	ASP
1	E	924	LEU
1	E	939	THR
1	E	953	THR
1	E	958	LEU
1	E	963	ASP
1	E	974	ARG
1	E	976	LYS
1	E	984	SER
1	E	987	GLU
1	E	997	VAL
1	E	1019	VAL
1	E	1021	MET
1	E	1037	ASP
1	E	1039	LEU
1	E	1046	LEU
1	E	1050	CYS
1	E	1059	ARG
1	E	1073	GLU
1	E	1075	ARG
1	E	1084	ASN
1	E	1085	TRP
1	E	1103	GLN
1	E	1105	HIS
1	E	1106	ARG
1	E	1109	LEU
1	E	1111	TYR
1	E	1116	LEU
1	E	1118	LEU
1	E	1129	TYR
1	E	1132	GLU
1	E	1155	ILE
1	E	1160	PRO
1	E	1172	PHE
2	F	1	MET
2	F	2	LEU
2	F	5	TYR

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Mol	Chain	Res	Type
2	F	9	ARG
2	F	28	ASP
2	F	37	VAL
2	F	53	LYS
2	F	59	ASN
2	F	60	ILE
2	F	65	PRO
2	F	97	THR
2	F	106	GLU
2	F	110	LEU
2	F	112	ARG
2	F	119	SER
2	F	142	ARG
2	F	148	GLN
2	F	154	LEU
2	F	156	GLU
2	F	168	LEU
2	F	172	LEU
2	F	176	THR
2	F	181	GLN
2	F	183	ARG
2	F	191	GLN
2	F	196	THR
2	F	201	THR
2	F	203	CYS
2	F	207	LEU
2	F	209	SER
2	F	210	ARG
2	F	222	VAL
2	F	230	LEU
2	F	239	LEU
2	F	241	THR
2	F	306	LEU
2	F	311	ILE
2	F	316	ASP
2	F	323	LEU
2	F	335	LEU
2	F	343	LEU
2	F	344	GLU
2	F	347	ASN
2	F	353	VAL
2	F	354	ASN

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Mol	Chain	Res	Type
2	F	355	ILE
2	F	356	GLU
2	F	363	ASN
2	F	367	LEU
2	F	370	LEU
2	F	375	THR
2	F	382	PRO
2	F	383	GLN
2	F	384	ARG
2	F	394	LEU
2	F	400	ASP
2	F	402	THR
2	F	403	LEU
2	F	406	ARG
2	F	425	VAL
2	F	432	ASP
2	F	442	ARG
2	F	445	ARG
2	F	456	SER
2	F	458	LEU
2	F	467	SER
2	F	473	LEU
2	F	482	ARG
2	F	487	GLU
2	F	490	LEU
2	F	494	ARG
2	F	506	ILE
2	F	512	ARG
2	F	519	THR
2	F	528	LEU
2	F	533	LEU
2	F	548	LEU
2	F	551	ASP
2	F	557	ILE
2	F	566	SER
2	F	572	ASN
2	F	575	ARG
2	F	578	LEU
2	F	582	ARG
2	F	584	LEU
2	F	592	ARG
2	F	612	ILE

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Mol	Chain	Res	Type
2	F	627	GLN
2	F	634	LEU
2	F	635	SER
2	F	636	LEU
2	F	641	LEU
2	F	643	GLN
2	F	644	ARG
2	F	645	LEU
2	F	646	ASP
2	F	653	ARG
2	F	660	ASN
2	F	661	ILE
2	F	676	CYS
2	F	688	GLN
2	F	696	LEU
2	F	699	GLN
2	F	703	ARG
2	F	712	ASP
2	F	717	LEU
2	F	724	GLN
2	F	734	ARG
2	F	736	ILE
2	F	742	ARG
2	F	746	VAL
2	F	752	ILE
2	F	764	ASP
2	F	765	GLU
2	F	767	LEU
2	F	769	CYS
2	F	780	LEU
2	F	782	CYS
2	F	798	GLU
2	F	799	ARG
2	F	804	ARG
2	F	805	GLU
2	F	807	LEU
2	F	811	SER
2	F	812	GLN
2	F	819	GLU
2	F	821	VAL
2	F	822	GLN
2	F	827	THR

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Mol	Chain	Res	Type
2	F	834	LEU
2	F	852	ARG
2	F	853	LEU
2	F	854	GLN
2	F	856	ASN
2	F	865	PRO
2	F	867	THR
2	F	871	ILE
2	F	872	LEU
2	F	875	LEU
2	F	884	LEU
2	F	885	LEU
2	F	897	LEU
2	F	919	THR
2	F	927	LEU
2	F	936	GLN
2	F	937	PRO
2	F	945	LEU
2	F	962	ASP
2	F	966	ARG
2	F	971	LEU
2	F	987	TYR
2	F	997	ARG
2	F	998	LEU
2	F	1017	LEU
2	F	1035	LEU
2	F	1038	LEU
2	F	1046	LEU
2	F	1055	ASP
2	F	1057	MET
2	F	1060	ASP
2	F	1084	GLU
2	F	1087	ASP
2	F	1092	ARG
2	F	1095	ARG
2	F	1097	LEU
2	F	1098	THR
2	F	1118	ARG
2	F	1121	GLN
3	G	4	GLN
3	G	6	GLN
3	G	17	ARG

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Mol	Chain	Res	Type
3	G	19	LEU
3	G	37	LEU
3	G	53	LEU
3	G	55	LEU
3	G	64	SER
3	G	71	CYS
3	G	73	SER
3	G	88	SER
3	G	91	VAL
3	G	105	ASP
3	G	110	ASN
3	G	121	ARG
3	G	125	GLU
3	G	126	VAL
3	G	128	HIS
3	G	130	ILE
3	G	137	LEU
3	G	142	ASP
3	G	146	PRO
3	G	151	ILE
3	G	167	SER
3	G	188	LEU
3	G	195	GLU
3	G	212	LEU
3	G	213	THR
3	G	216	LEU
3	G	220	LEU
3	G	223	LEU
3	G	228	GLU
3	G	234	PRO
3	G	236	ASP
3	G	239	THR
3	G	242	ARG
3	G	265	VAL
3	G	276	LEU
3	G	278	MET
3	G	279	MET
3	G	282	LEU
3	G	283	ILE
3	G	284	ASP
3	G	298	ARG
3	G	299	ASP

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Mol	Chain	Res	Type
3	G	304	VAL
3	G	325	ARG
3	G	347	SER
3	G	348	LEU
3	G	349	ARG
3	G	354	LEU
3	G	356	GLN
3	G	358	SER
3	G	361	PHE
3	G	369	GLN
3	G	378	ASP
3	G	380	THR
3	G	384	THR
3	G	392	ASP
3	G	412	LEU
3	G	429	ASP
3	G	461	PHE
3	G	523	GLN
3	G	529	GLU
3	G	532	THR
3	G	534	TRP
3	G	542	GLN
3	G	546	PHE
3	G	577	LEU
3	G	579	LEU
3	G	582	ASP
3	G	586	LEU
3	G	590	ILE
3	G	593	ARG
3	G	594	THR
3	G	598	SER

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (272) such sidechains are listed below:

Mol	Chain	Res	Type
1	B	16	GLN
1	B	79	ASN
1	B	94	ASN
1	B	109	GLN
1	B	140	ASN
1	B	150	GLN
1	B	151	GLN

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Mol	Chain	Res	Type
1	B	181	GLN
1	B	222	HIS
1	B	224	GLN
1	B	234	GLN
1	B	235	GLN
1	B	262	GLN
1	B	278	ASN
1	B	281	GLN
1	B	315	GLN
1	B	392	GLN
1	B	403	HIS
1	B	455	ASN
1	B	484	ASN
1	B	485	GLN
1	B	496	GLN
1	B	515	GLN
1	B	562	GLN
1	B	566	GLN
1	B	610	ASN
1	B	689	HIS
1	B	705	HIS
1	B	713	GLN
1	B	721	ASN
1	B	725	GLN
1	B	763	GLN
1	B	769	HIS
1	B	812	HIS
1	B	834	HIS
1	B	835	GLN
1	B	848	GLN
1	B	868	GLN
1	B	875	ASN
1	B	876	GLN
1	B	889	ASN
1	B	894	GLN
1	B	900	ASN
1	B	911	GLN
1	B	944	GLN
1	B	966	GLN
1	B	999	GLN
1	B	1011	GLN
1	B	1018	GLN

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Mol	Chain	Res	Type
1	B	1042	GLN
1	B	1057	GLN
1	B	1095	GLN
1	B	1096	GLN
1	B	1103	GLN
1	B	1105	HIS
1	B	1110	GLN
1	B	1124	HIS
1	B	1134	HIS
1	B	1152	GLN
2	C	8	ASN
2	C	38	GLN
2	C	59	ASN
2	C	87	ASN
2	C	101	GLN
2	C	126	GLN
2	C	162	GLN
2	C	165	GLN
2	C	178	GLN
2	C	191	GLN
2	C	228	GLN
2	C	264	GLN
2	C	267	HIS
2	C	282	ASN
2	C	285	GLN
2	C	293	GLN
2	C	333	ASN
2	C	336	HIS
2	C	337	ASN
2	C	347	ASN
2	C	354	ASN
2	C	363	ASN
2	C	383	GLN
2	C	390	HIS
2	C	423	GLN
2	C	510	ASN
2	C	521	GLN
2	C	522	HIS
2	C	572	ASN
2	C	580	GLN
2	C	614	GLN
2	C	617	GLN

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Mol	Chain	Res	Type
2	C	643	GLN
2	C	647	GLN
2	C	681	ASN
2	C	699	GLN
2	C	724	GLN
2	C	737	GLN
2	C	757	GLN
2	C	759	HIS
2	C	768	ASN
2	C	792	GLN
2	C	795	GLN
2	C	812	GLN
2	C	822	GLN
2	C	838	GLN
2	C	843	HIS
2	C	850	GLN
2	C	856	ASN
2	C	879	GLN
2	C	883	GLN
2	C	939	GLN
2	C	951	GLN
2	C	958	GLN
2	C	984	HIS
2	C	1015	GLN
2	C	1022	GLN
2	C	1065	GLN
2	C	1091	GLN
2	C	1096	GLN
3	D	4	GLN
3	D	6	GLN
3	D	79	GLN
3	D	110	ASN
3	D	115	ASN
3	D	139	GLN
3	D	154	GLN
3	D	289	HIS
3	D	356	GLN
3	D	369	GLN
3	D	388	GLN
3	D	399	GLN
3	D	423	GLN
3	D	433	GLN

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Mol	Chain	Res	Type
3	D	460	GLN
3	D	464	GLN
3	D	523	GLN
3	D	530	HIS
3	D	548	HIS
1	E	16	GLN
1	E	79	ASN
1	E	94	ASN
1	E	109	GLN
1	E	140	ASN
1	E	150	GLN
1	E	151	GLN
1	E	181	GLN
1	E	222	HIS
1	E	224	GLN
1	E	234	GLN
1	E	235	GLN
1	E	262	GLN
1	E	278	ASN
1	E	281	GLN
1	E	315	GLN
1	E	392	GLN
1	E	403	HIS
1	E	455	ASN
1	E	484	ASN
1	E	485	GLN
1	E	496	GLN
1	E	515	GLN
1	E	562	GLN
1	E	610	ASN
1	E	689	HIS
1	E	705	HIS
1	E	713	GLN
1	E	721	ASN
1	E	725	GLN
1	E	763	GLN
1	E	765	GLN
1	E	769	HIS
1	E	812	HIS
1	E	834	HIS
1	E	835	GLN
1	E	848	GLN

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Mol	Chain	Res	Type
1	E	868	GLN
1	E	875	ASN
1	E	876	GLN
1	E	889	ASN
1	E	894	GLN
1	E	900	ASN
1	E	911	GLN
1	E	944	GLN
1	E	966	GLN
1	E	999	GLN
1	E	1018	GLN
1	E	1042	GLN
1	E	1057	GLN
1	E	1095	GLN
1	E	1096	GLN
1	E	1103	GLN
1	E	1105	HIS
1	E	1110	GLN
1	E	1134	HIS
1	E	1152	GLN
2	F	8	ASN
2	F	38	GLN
2	F	52	GLN
2	F	59	ASN
2	F	87	ASN
2	F	101	GLN
2	F	126	GLN
2	F	162	GLN
2	F	165	GLN
2	F	178	GLN
2	F	185	HIS
2	F	191	GLN
2	F	228	GLN
2	F	337	ASN
2	F	347	ASN
2	F	354	ASN
2	F	363	ASN
2	F	383	GLN
2	F	390	HIS
2	F	423	GLN
2	F	446	GLN
2	F	510	ASN

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Mol	Chain	Res	Type
2	F	521	GLN
2	F	522	HIS
2	F	545	GLN
2	F	572	ASN
2	F	617	GLN
2	F	643	GLN
2	F	647	GLN
2	F	681	ASN
2	F	699	GLN
2	F	724	GLN
2	F	725	GLN
2	F	737	GLN
2	F	757	GLN
2	F	759	HIS
2	F	768	ASN
2	F	792	GLN
2	F	795	GLN
2	F	812	GLN
2	F	822	GLN
2	F	838	GLN
2	F	843	HIS
2	F	850	GLN
2	F	879	GLN
2	F	883	GLN
2	F	920	GLN
2	F	939	GLN
2	F	951	GLN
2	F	958	GLN
2	F	984	HIS
2	F	1015	GLN
2	F	1022	GLN
2	F	1065	GLN
2	F	1073	GLN
2	F	1091	GLN
2	F	1096	GLN
2	F	1121	GLN
3	G	4	GLN
3	G	6	GLN
3	G	79	GLN
3	G	110	ASN
3	G	115	ASN
3	G	139	GLN

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Mol	Chain	Res	Type
3	G	154	GLN
3	G	328	GLN
3	G	356	GLN
3	G	369	GLN
3	G	388	GLN
3	G	399	GLN
3	G	423	GLN
3	G	433	GLN
3	G	460	GLN
3	G	464	GLN
3	G	523	GLN
3	G	530	HIS
3	G	548	HIS

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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 monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 2 ligands modelled in this entry, 2 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} 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	B	1158/1180 (98%)	0.01	29 (2%) 57 34	31, 68, 111, 125	0
1	E	1158/1180 (98%)	0.01	38 (3%) 46 24	25, 56, 118, 140	0
2	C	1122/1122 (100%)	-0.05	18 (1%) 72 51	30, 62, 103, 134	0
2	F	1078/1122 (96%)	-0.25	3 (0%) 94 88	22, 43, 76, 108	0
3	D	539/608 (88%)	-0.02	11 (2%) 65 44	34, 70, 110, 127	0
3	G	539/608 (88%)	0.59	77 (14%) 2 1	32, 84, 135, 140	0
4	Y	38/43 (88%)	0.66	3 (7%) 12 5	68, 116, 152, 157	0
4	Z	38/43 (88%)	0.58	4 (10%) 6 2	49, 135, 174, 184	0
All	All	5670/5906 (96%)	0.01	183 (3%) 47 25	22, 60, 120, 184	0

All (183) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	E	307	HIS	13.9
1	E	242	GLU	9.2
3	G	362	GLY	7.3
3	G	423	GLN	7.0
1	E	285	SER	7.0
1	E	310	PHE	6.8
3	G	458	ILE	6.8
3	G	461	PHE	6.7
3	G	424	ALA	6.7
3	G	419	LEU	6.3
3	G	464	GLN	5.8
3	G	530	HIS	5.8
3	G	529	GLU	5.6
1	B	280	TYR	5.5
3	G	426	ALA	5.4
3	G	578	SER	5.4

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Mol	Chain	Res	Type	RSRZ
3	G	462	MET	5.3
1	E	279	SER	5.3
3	G	361	PHE	5.3
3	G	579	LEU	5.3
3	G	420	ASP	5.1
1	E	312	ALA	5.0
1	B	2	SER	5.0
1	E	288	LYS	4.9
3	G	431	ILE	4.7
2	C	285	GLN	4.7
3	G	536	MET	4.7
3	G	425	ARG	4.7
3	G	581	ALA	4.5
1	E	241	GLY	4.4
1	E	277	THR	4.4
1	E	876	GLN	4.4
3	G	360	ARG	4.3
3	G	77	GLU	4.3
2	C	1122	SER	4.3
3	G	428	PRO	4.3
3	D	399	GLN	4.3
3	D	232	ARG	4.2
1	E	873	GLY	4.2
1	E	240	VAL	4.2
3	G	523	GLN	4.1
1	E	256	LYS	4.1
1	E	253	ASP	4.1
4	Z	1	DT	4.1
1	E	280	TYR	4.0
3	G	148	SER	4.0
3	G	407	MET	4.0
3	G	573	ALA	3.9
3	G	528	PRO	3.8
1	E	880	VAL	3.8
1	B	914	HIS	3.7
3	G	388	GLN	3.7
2	C	281	GLU	3.7
1	E	281	GLN	3.7
4	Y	1	DT	3.6
3	G	232	ARG	3.6
3	G	434	ALA	3.6
1	E	308	PRO	3.5

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Mol	Chain	Res	Type	RSRZ
1	B	872	THR	3.5
3	G	430	LEU	3.5
2	C	860	GLU	3.5
3	G	415	TYR	3.4
1	E	874	ASP	3.4
3	G	396	ARG	3.4
3	G	524	PRO	3.4
3	G	128	HIS	3.4
3	G	466	ARG	3.4
4	Z	18	DT	3.3
1	E	239	ALA	3.3
1	B	913	GLY	3.2
3	G	418	TYR	3.2
4	Z	19	DA	3.1
2	F	117	ASP	3.1
3	G	535	ALA	3.1
2	C	280	SER	3.0
3	G	460	GLN	3.0
3	G	398	LEU	3.0
3	G	78	LEU	3.0
3	G	73	SER	3.0
1	E	286	LEU	3.0
3	G	580	TYR	3.0
1	B	87	CYS	3.0
1	B	871	GLN	3.0
1	E	938	PRO	3.0
1	B	1002	LEU	2.9
1	E	265	TRP	2.9
1	E	1145	GLY	2.9
1	E	282	LEU	2.9
3	G	343	THR	2.9
3	G	64	SER	2.9
3	G	534	TRP	2.9
1	E	877	PRO	2.9
1	E	261	ASN	2.9
2	C	269	PHE	2.9
1	B	1158	THR	2.8
1	B	1	MET	2.8
1	E	259	ARG	2.8
3	G	391	THR	2.8
1	B	1031	LEU	2.8
3	D	225	LEU	2.8

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Mol	Chain	Res	Type	RSRZ
1	B	628	ILE	2.8
1	B	939	THR	2.7
3	G	551	LEU	2.7
1	B	826	ASP	2.7
1	B	256	LYS	2.7
3	G	570	VAL	2.7
1	E	878	TRP	2.7
3	G	532	THR	2.7
2	C	102	LEU	2.7
3	G	457	ARG	2.7
3	G	384	THR	2.6
3	D	463	GLN	2.6
1	B	1156	TYR	2.6
3	G	409	GLU	2.6
1	B	935	VAL	2.5
2	C	117	ASP	2.5
3	G	3	LEU	2.5
1	B	894	GLN	2.5
1	B	997	VAL	2.5
1	E	313	ILE	2.5
4	Y	29	DA	2.5
3	D	359	TYR	2.4
3	G	363	SER	2.4
1	B	915	GLY	2.4
2	C	104	GLU	2.4
3	G	440	LEU	2.4
3	G	577	LEU	2.4
3	G	435	PHE	2.4
3	G	465	LYS	2.4
4	Z	29	DA	2.4
3	G	421	LEU	2.4
1	B	607	GLU	2.3
2	C	1024	ILE	2.3
2	F	295	VAL	2.3
4	Y	30	DG	2.3
3	G	130	ILE	2.3
1	E	826	ASP	2.3
2	C	267	HIS	2.3
1	B	898	GLY	2.3
3	G	392	ASP	2.3
3	G	377	GLY	2.2
3	G	383	LYS	2.2

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Mol	Chain	Res	Type	RSRZ
2	C	293	GLN	2.2
2	C	113	HIS	2.2
3	D	393	ILE	2.2
1	E	257	PHE	2.2
1	B	1147	ASP	2.2
1	B	323	ILE	2.2
2	C	294	ASP	2.2
2	F	799	ARG	2.2
3	D	2	LYS	2.2
1	E	260	SER	2.2
3	G	548	HIS	2.2
3	G	131	GLU	2.2
1	E	872	THR	2.2
3	G	546	PHE	2.2
3	G	427	GLU	2.2
3	D	360	ARG	2.2
3	G	382	VAL	2.2
3	D	131	GLU	2.1
1	B	876	GLN	2.1
1	B	916	ILE	2.1
3	G	526	ARG	2.1
1	E	247	ILE	2.1
1	E	254	ARG	2.1
2	C	277	PHE	2.1
1	E	311	GLU	2.1
2	C	432	ASP	2.1
3	D	394	GLU	2.1
1	E	305	PRO	2.1
3	G	79	GLN	2.1
3	G	406	ALA	2.1
2	C	626	ALA	2.0
1	B	279	SER	2.0
3	G	389	ASP	2.0
3	G	438	TYR	2.0
3	G	441	LEU	2.0
1	B	277	THR	2.0
3	G	442	CYS	2.0
1	B	242	GLU	2.0
3	G	74	GLU	2.0
3	D	458	ILE	2.0
2	C	154	LEU	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, 95^{th} 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(Å^2)	Q<0.9
5	CA	B	4000	1/1	0.91	0.17	67,67,67,67	0
5	CA	E	4000	1/1	0.97	0.28	52,52,52,52	0

6.5 Other polymers (i)

There are no such residues in this entry.