



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 20, 2026 – 02:29 AM UTC

PDB ID : 3HMJ / pdb_00003hmj
Title : Saccharomyces cerevisiae FAS type I
Authors : Johansson, P.; Mulinacci, B.; Koestler, C.; Vollrath, R.; Oesterhelt, D.; Grininger, M.
Deposited on : 2009-05-29
Resolution : 4.00 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	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

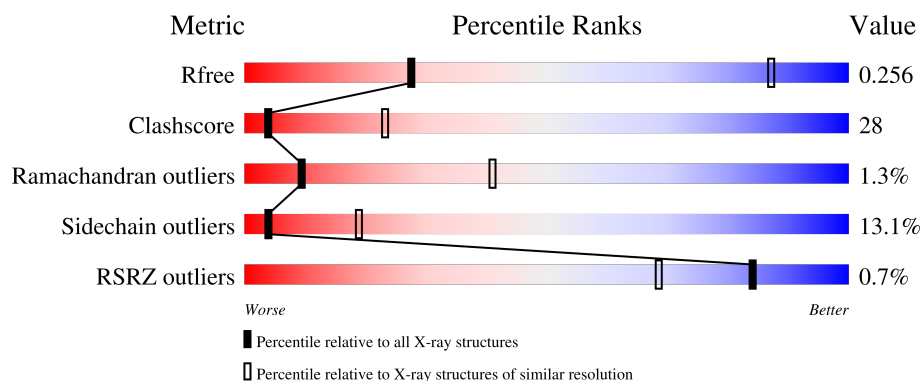
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 4.00 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1082 (4.20-3.80)
Clashscore	190562	1129 (4.20-3.80)
Ramachandran outliers	187476	1064 (4.20-3.80)
Sidechain outliers	187428	1055 (4.20-3.80)
RSRZ outliers	180081	1082 (4.20-3.80)

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

Mol	Chain	Length	Quality of chain
1	A	1887	54% 32% 6% 7%
1	B	1887	54% 33% 6% 7%
1	C	1887	52% 34% 7% 7%
2	G	2051	48% 41% 10% .
2	H	2051	48% 41% 10% .

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Mol	Chain	Length	Quality of chain
2	I	2051	% 49% 40% 10% .

2 Entry composition

There are 4 unique types of molecules in this entry. The entry contains 88830 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.

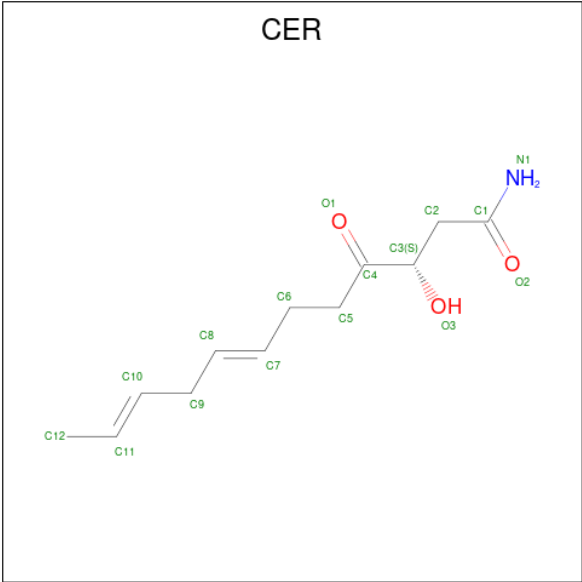
- Molecule 1 is a protein called Fatty acid synthase subunit alpha.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	1750	Total	C	N	O	S	0	0	0
			13572	8594	2292	2637	49			
1	B	1750	Total	C	N	O	S	0	0	0
			13572	8594	2292	2637	49			
1	C	1750	Total	C	N	O	S	0	0	0
			13572	8594	2292	2637	49			

- Molecule 2 is a protein called Fatty acid synthase subunit beta.

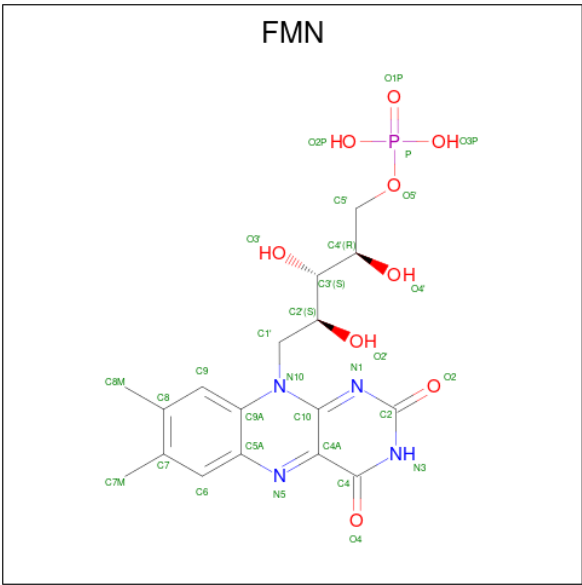
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	G	2033	Total	C	N	O	S	0	0	0
			15995	10253	2660	3026	56			
2	H	2033	Total	C	N	O	S	0	0	0
			15995	10253	2660	3026	56			
2	I	2033	Total	C	N	O	S	0	0	0
			15995	10253	2660	3026	56			

- Molecule 3 is (2S, 3R)-3-HYDROXY-4-OXO-7,10-TRANS,TRANS-DODECADIENAMIDE (CCD ID: CER) (formula: C₁₂H₁₉NO₃).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
3	A	1	Total	C	N	O	0	0
			12	8	1	3		
3	B	1	Total	C	N	O	0	0
			12	8	1	3		
3	C	1	Total	C	N	O	0	0
			12	8	1	3		

- Molecule 4 is FLAVIN MONONUCLEOTIDE (CCD ID: FMN) (formula: C₁₇H₂₁N₄O₉P).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
4	G	1	Total	C	N	O	P	0	0
			31	17	4	9	1		

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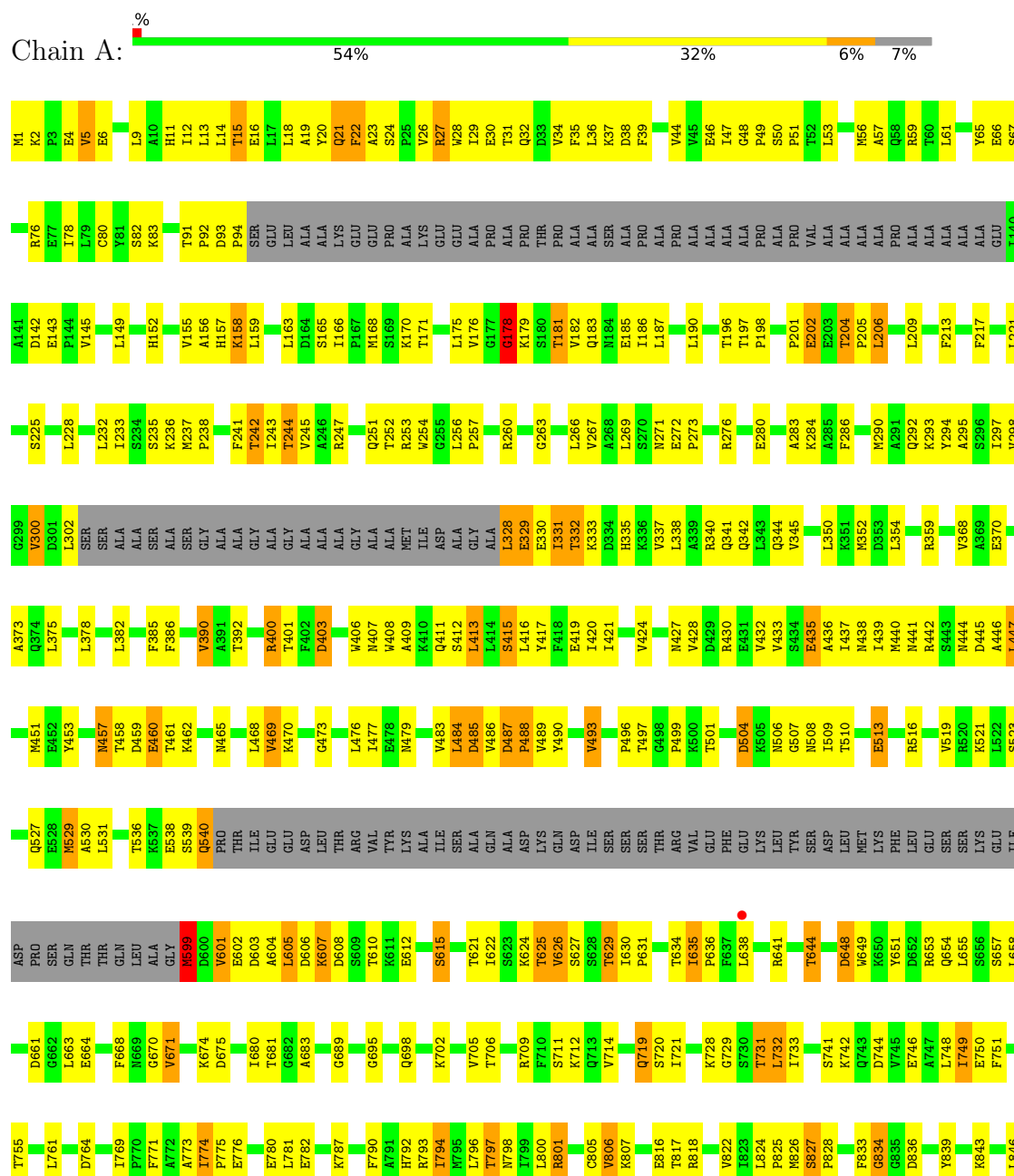
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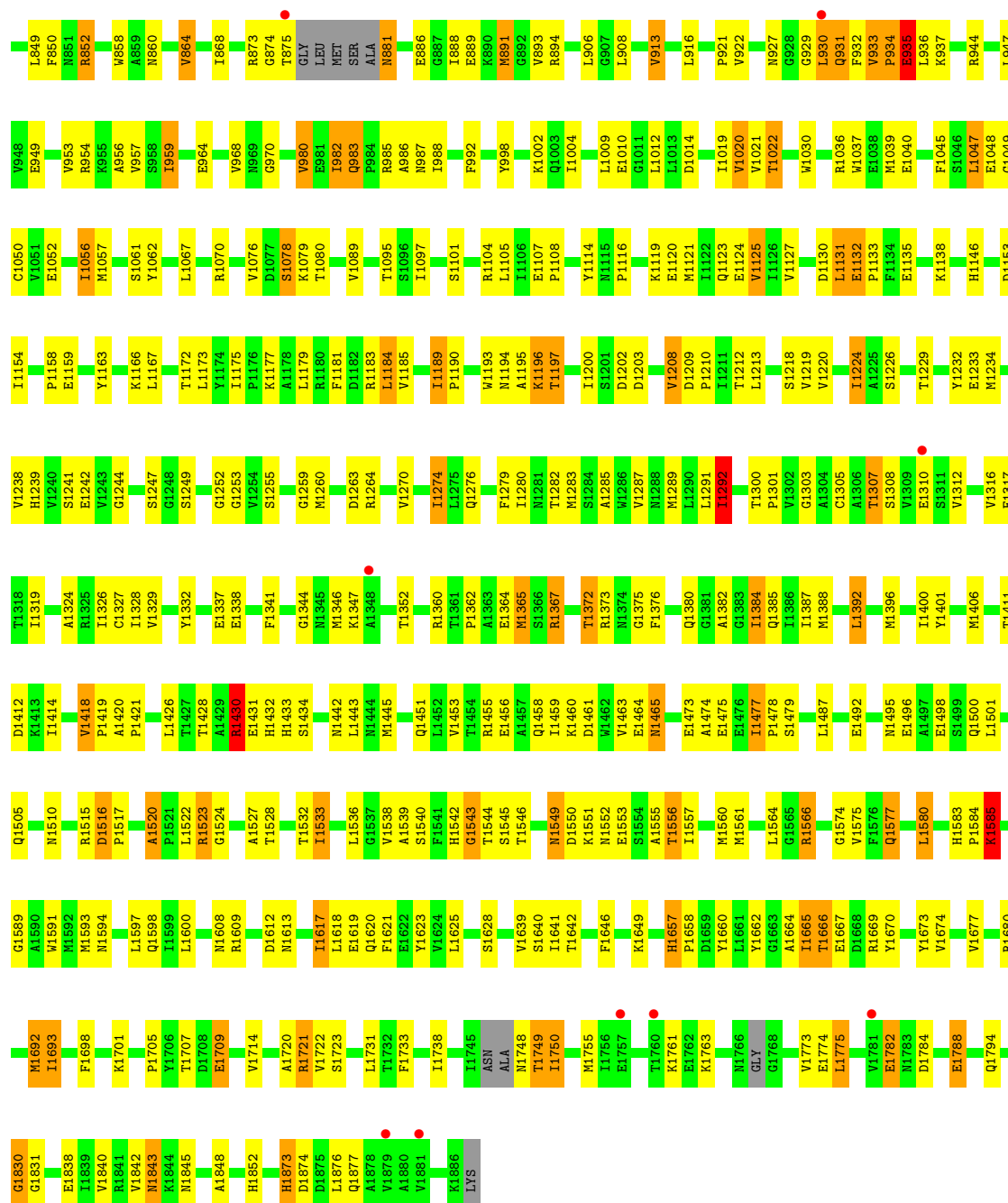
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
4	H	1	Total	C	N	O	P	0	0
			31	17	4	9	1		
4	I	1	Total	C	N	O	P	0	0
			31	17	4	9	1		

3 Residue-property plots

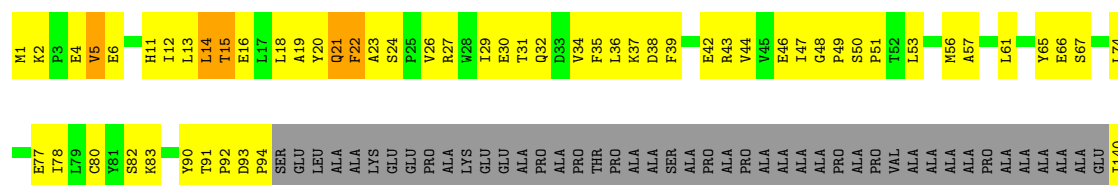
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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: Fatty acid synthase subunit alpha

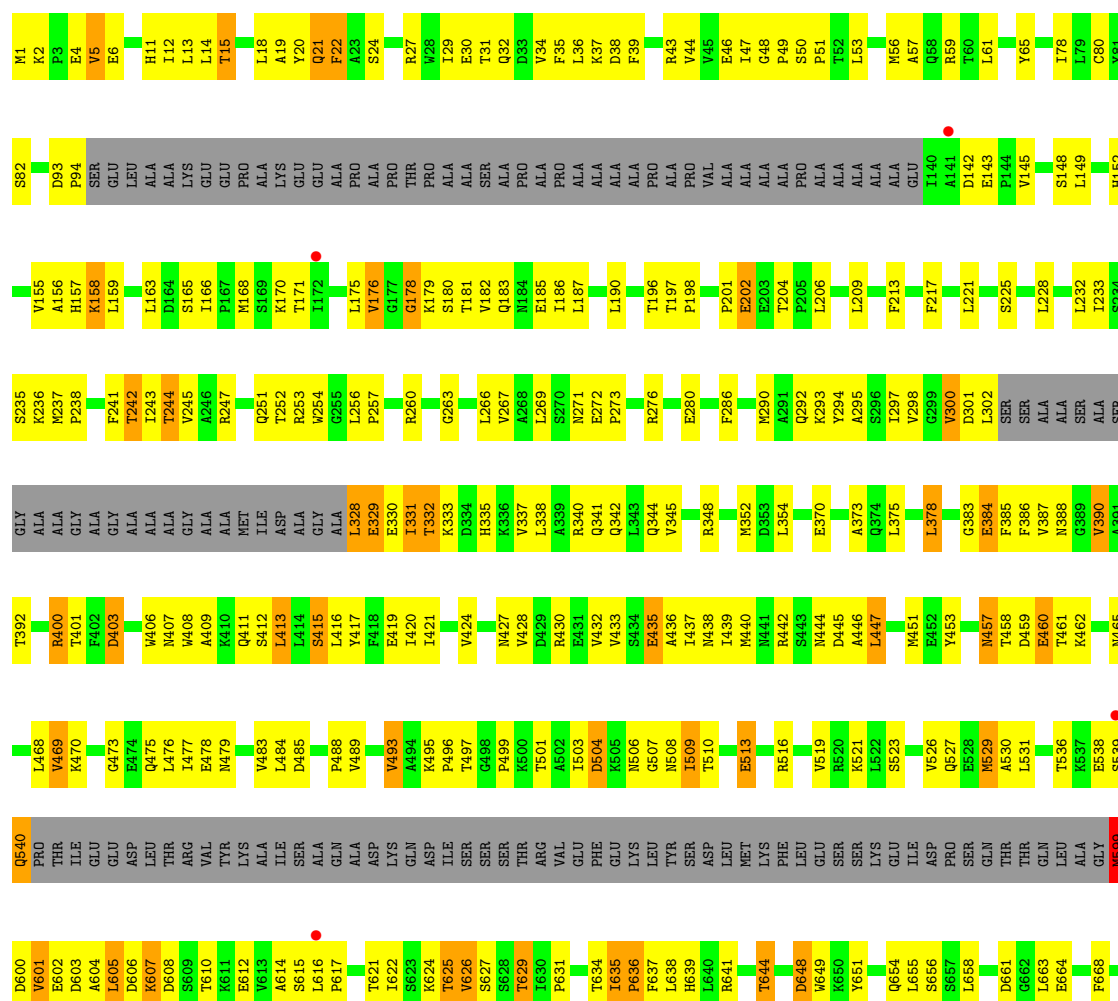


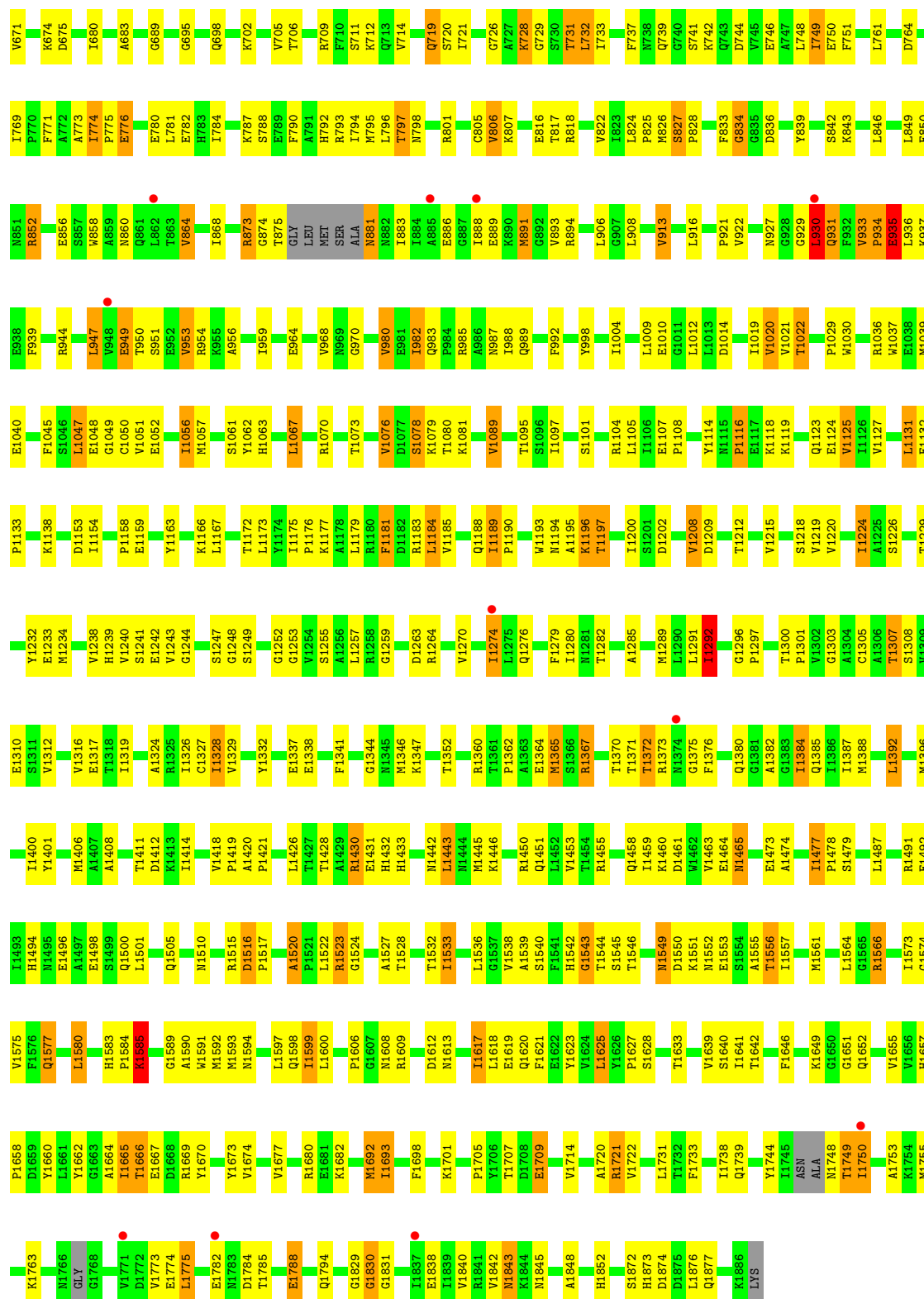


- Molecule 1: Fatty acid synthase subunit alpha





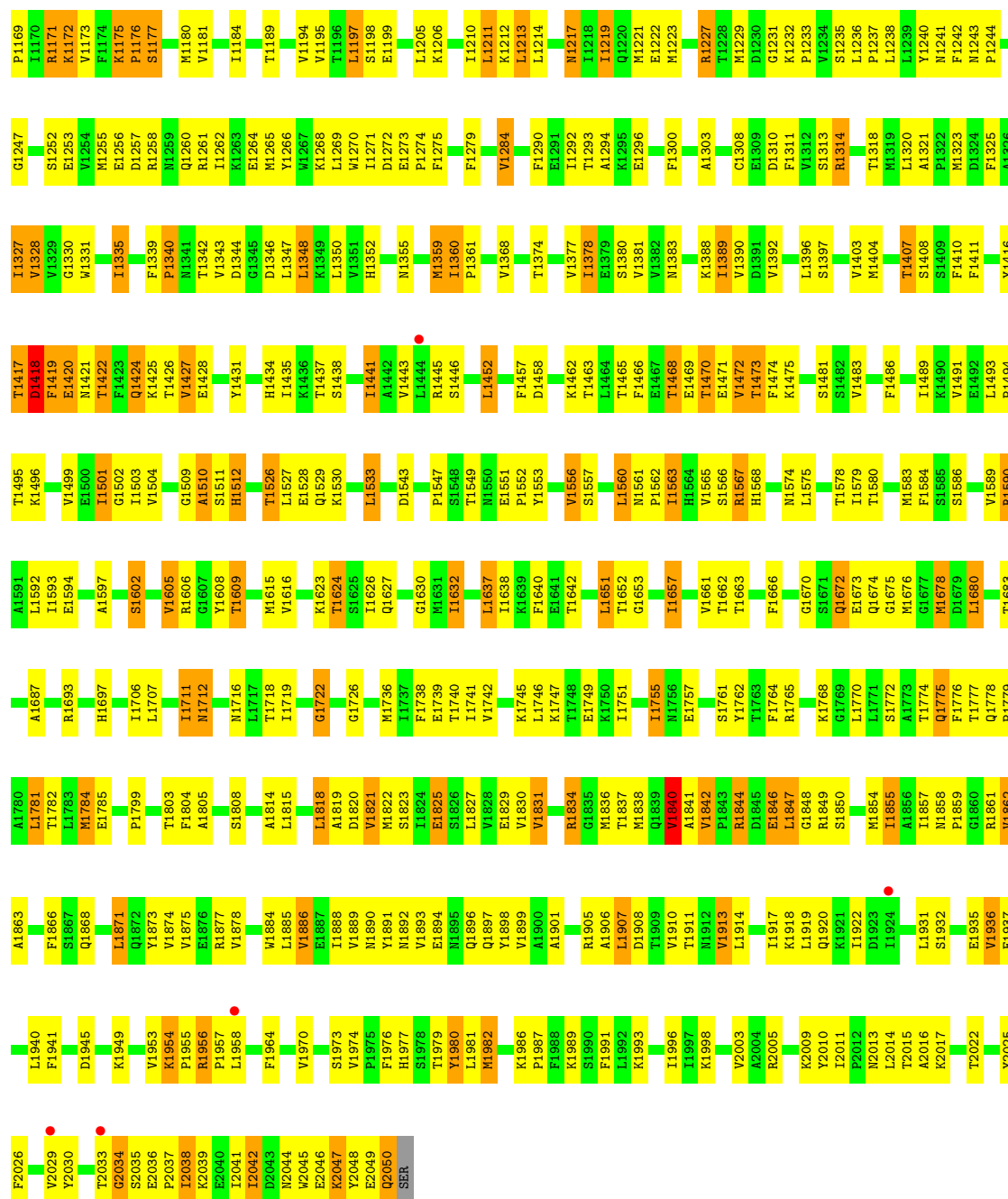




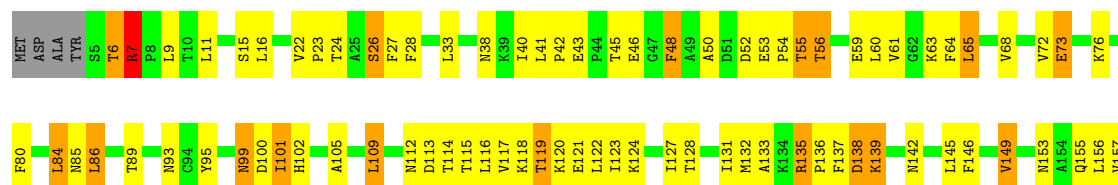
• Molecule 2: Fatty acid synthase subunit beta



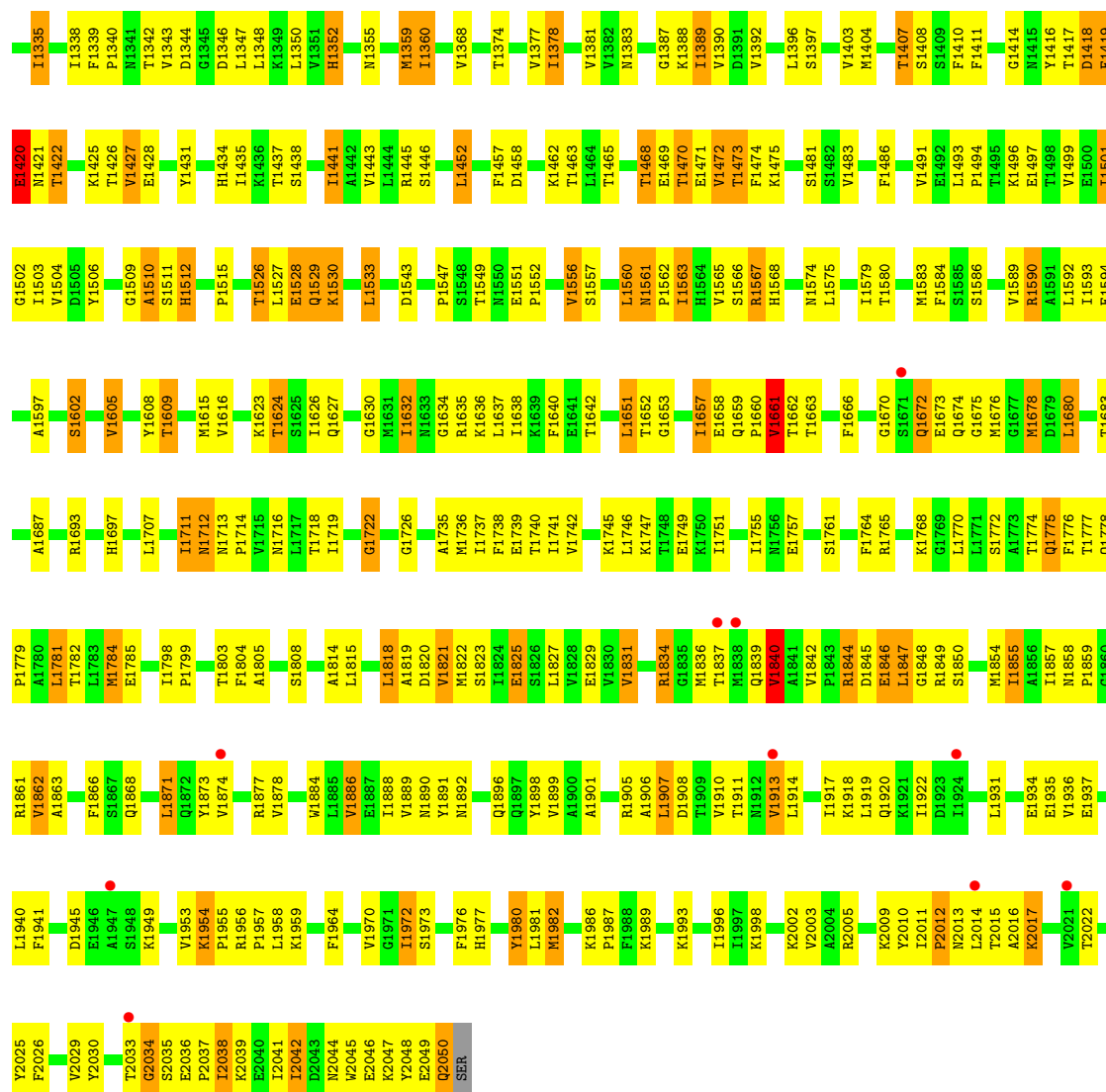




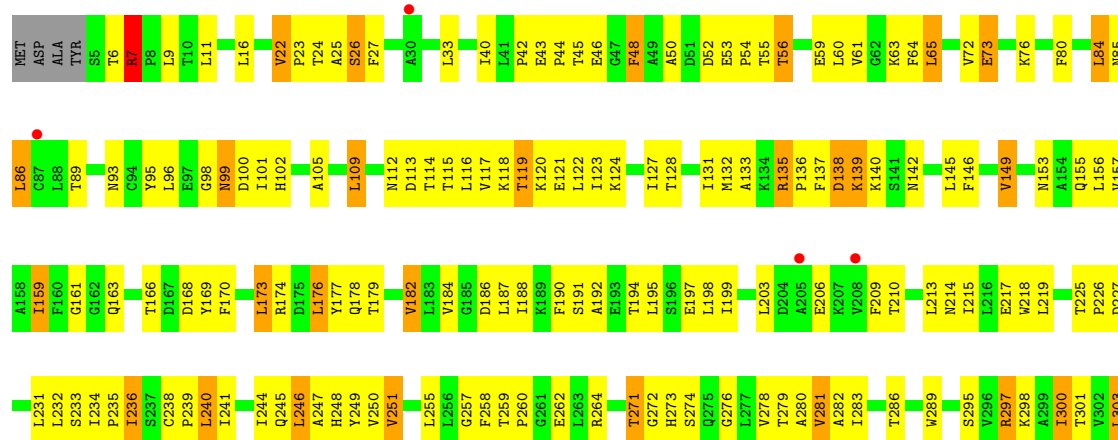
● Molecule 2: Fatty acid synthase subunit beta







• Molecule 2: Fatty acid synthase subunit beta







4 Data and refinement statistics

Property	Value	Source
Space group	P 43 21 2	Depositor
Cell constants a, b, c, α , β , γ	231.88Å 231.88Å 756.78Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	20.00 – 4.00 20.00 – 4.00	Depositor EDS
% Data completeness (in resolution range)	97.3 (20.00-4.00) 96.4 (20.00-4.00)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.71 (at 3.94Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.266 , 0.267 0.255 , 0.256	Depositor DCC
R_{free} test set	8521 reflections (5.07%)	wwPDB-VP
Wilson B-factor (Å ²)	130.2	Xtriage
Anisotropy	0.319	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.24 , 80.1	EDS
L-test for twinning ²	$\langle L \rangle = 0.36$, $\langle L^2 \rangle = 0.19$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.90	EDS
Total number of atoms	88830	wwPDB-VP
Average B, all atoms (Å ²)	168.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.67% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality i

5.1 Standard geometry i

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A	0.58	5/13822 (0.0%)	0.93	38/18682 (0.2%)
1	B	0.57	9/13822 (0.1%)	0.96	37/18682 (0.2%)
1	C	0.57	8/13822 (0.1%)	0.92	30/18682 (0.2%)
2	G	0.56	12/16360 (0.1%)	0.94	43/22198 (0.2%)
2	H	0.55	10/16360 (0.1%)	0.93	47/22198 (0.2%)
2	I	0.54	10/16360 (0.1%)	0.94	53/22198 (0.2%)
All	All	0.56	54/90546 (0.1%)	0.94	248/122640 (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
2	G	0	1
2	H	0	2
2	I	0	1
All	All	0	4

All (54) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	992	PHE	C-N	21.92	1.59	1.33
1	C	992	PHE	C-N	21.64	1.59	1.33
2	I	842	GLY	C-N	19.10	1.59	1.33
2	G	315	PRO	C-N	18.47	1.58	1.33
1	C	485	ASP	C-N	16.78	1.56	1.33
2	G	422	PRO	C-N	15.85	1.50	1.33
2	H	1256	GLU	C-N	15.61	1.55	1.33
2	H	138	ASP	C-N	15.17	1.54	1.33
2	G	1657	ILE	C-N	14.72	1.52	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	181	THR	C-N	14.23	1.50	1.33
2	I	315	PRO	C-N	13.68	1.52	1.33
1	A	668	PHE	C-N	13.36	1.51	1.33
2	I	1980	TYR	C-N	13.26	1.51	1.33
2	H	422	PRO	C-N	12.46	1.48	1.33
2	H	1840	VAL	C-N	12.33	1.53	1.33
2	I	903	TRP	C-N	11.59	1.48	1.33
1	B	181	THR	C-N	-11.16	1.21	1.33
2	G	1256	GLU	C-N	10.97	1.48	1.33
2	G	842	GLY	C-N	10.55	1.48	1.33
2	H	1053	ILE	C-N	10.41	1.48	1.33
2	H	137	PHE	C-N	9.51	1.47	1.33
1	B	932	PHE	C-N	-9.28	1.22	1.33
2	G	1980	TYR	C-N	9.10	1.46	1.33
2	G	903	TRP	C-N	9.09	1.45	1.33
1	B	668	PHE	C-N	9.06	1.46	1.33
1	C	636	PRO	C-N	-8.94	1.21	1.33
2	H	1982	MET	C-N	8.88	1.47	1.33
1	A	1520	ALA	C-N	8.68	1.45	1.34
1	B	1181	PHE	C-N	8.68	1.45	1.33
1	C	1520	ALA	C-N	-8.54	1.22	1.33
2	G	1530	LYS	C-N	8.53	1.44	1.33
1	B	1430	ARG	C-N	-8.37	1.22	1.33
2	I	422	PRO	C-N	8.35	1.42	1.33
2	G	1529	GLN	C-N	-8.30	1.21	1.33
1	A	1181	PHE	C-N	8.09	1.45	1.33
2	H	1839	GLN	C-N	7.93	1.43	1.33
1	B	485	ASP	C-N	7.56	1.44	1.33
2	I	1982	MET	C-N	-7.18	1.23	1.33
2	G	1018	VAL	C-N	-7.05	1.26	1.34
1	B	1118	LYS	C-N	-6.79	1.23	1.33
1	B	1520	ALA	C-N	-6.78	1.25	1.34
2	H	139	LYS	C-N	6.78	1.42	1.33
2	H	1980	TYR	C-N	6.65	1.42	1.33
2	I	137	PHE	C-N	6.63	1.43	1.33
1	C	1116	PRO	C-N	6.32	1.43	1.33
2	G	137	PHE	C-N	6.14	1.43	1.33
2	I	1256	GLU	C-N	6.04	1.42	1.33
1	B	992	PHE	C-N	-5.99	1.26	1.33
1	C	1118	LYS	C-N	5.99	1.42	1.33
2	G	138	ASP	C-N	5.76	1.41	1.33
1	C	1181	PHE	C-N	5.59	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	I	138	ASP	C-N	5.41	1.41	1.33
1	C	668	PHE	C-N	5.38	1.41	1.33
2	I	1018	VAL	C-N	-5.16	1.21	1.33

All (248) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	992	PHE	CA-C-N	-17.47	102.73	120.03
1	B	992	PHE	C-N-CA	-17.47	102.73	120.03
1	B	992	PHE	O-C-N	14.71	137.19	121.60
1	A	992	PHE	CA-C-N	-14.65	105.95	120.31
1	A	992	PHE	C-N-CA	-14.65	105.95	120.31
2	G	842	GLY	O-C-N	-13.74	108.52	122.54
1	B	1116	PRO	O-C-N	-13.59	104.02	122.24
2	G	1053	ILE	O-C-N	-13.23	108.97	123.26
1	C	1520	ALA	O-C-N	12.45	135.22	121.53
2	I	1657	ILE	O-C-N	-11.96	110.75	123.18
1	B	933	VAL	CA-C-N	11.95	132.81	120.14
1	B	933	VAL	C-N-CA	11.95	132.81	120.14
2	I	1982	MET	CA-C-N	11.07	141.89	121.52
2	I	1982	MET	O-C-N	-11.07	107.59	122.43
2	I	1982	MET	C-N-CA	11.07	141.89	121.52
1	B	1116	PRO	CA-C-N	10.01	139.94	121.52
1	B	1116	PRO	C-N-CA	10.01	139.94	121.52
2	I	422	PRO	O-C-N	-9.79	109.42	122.64
1	A	992	PHE	O-C-N	9.52	132.45	121.31
2	I	1657	ILE	CA-C-N	9.48	134.27	120.90
2	I	1657	ILE	C-N-CA	9.48	134.27	120.90
1	A	1520	ALA	O-C-N	9.28	131.44	121.60
2	H	1840	VAL	O-C-N	-8.98	112.29	122.17
2	I	422	PRO	CA-C-N	8.86	135.50	121.95
2	I	422	PRO	C-N-CA	8.86	135.50	121.95
1	A	1430	ARG	O-C-N	-8.83	110.85	122.77
1	C	1750	ILE	N-CA-C	-8.60	104.75	113.10
1	A	1750	ILE	N-CA-C	-8.54	104.82	113.10
1	B	1750	ILE	N-CA-C	-8.52	104.83	113.10
1	B	329	GLU	N-CA-C	-8.38	102.50	112.89
1	C	329	GLU	N-CA-C	-8.36	102.53	112.89
1	A	329	GLU	N-CA-C	-8.30	102.60	112.89
2	G	760	HIS	CA-C-N	7.88	127.60	119.56
2	G	760	HIS	C-N-CA	7.88	127.60	119.56
2	H	1842	VAL	O-C-N	7.84	130.04	121.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	G	7	ARG	CA-C-N	7.81	127.86	119.89
2	G	7	ARG	C-N-CA	7.81	127.86	119.89
2	H	760	HIS	CA-C-N	7.72	127.44	119.56
2	H	760	HIS	C-N-CA	7.72	127.44	119.56
1	C	992	PHE	CA-C-N	-7.46	113.00	120.31
1	C	992	PHE	C-N-CA	-7.46	113.00	120.31
2	H	448	VAL	N-CA-C	7.33	118.57	108.89
2	I	760	HIS	CA-C-N	7.30	127.00	119.56
2	I	760	HIS	C-N-CA	7.30	127.00	119.56
2	I	465	GLY	N-CA-C	-7.29	105.26	115.32
2	H	7	ARG	CA-C-N	7.28	127.31	119.89
2	H	7	ARG	C-N-CA	7.28	127.31	119.89
2	G	794	MET	CA-C-N	7.26	127.02	119.76
2	G	794	MET	C-N-CA	7.26	127.02	119.76
1	C	1116	PRO	O-C-N	-7.25	112.52	122.24
2	I	448	VAL	N-CA-C	7.24	118.44	108.89
2	G	138	ASP	O-C-N	-7.22	113.99	122.87
2	I	7	ARG	CA-C-N	7.16	127.19	119.89
2	I	7	ARG	C-N-CA	7.16	127.19	119.89
2	I	315	PRO	CA-C-N	7.15	130.98	120.90
2	I	315	PRO	C-N-CA	7.15	130.98	120.90
1	B	712	LYS	N-CA-C	-7.02	103.56	111.07
1	C	48	GLY	CA-C-N	7.00	126.25	118.97
1	C	48	GLY	C-N-CA	7.00	126.25	118.97
2	H	138	ASP	O-C-N	-6.90	114.56	122.84
1	B	178	GLY	O-C-N	6.85	131.61	122.70
2	G	465	GLY	N-CA-C	-6.85	105.61	115.27
2	G	448	VAL	N-CA-C	6.80	117.86	108.89
2	I	315	PRO	O-C-N	-6.77	113.50	122.64
1	B	773	ALA	N-CA-C	6.74	118.43	108.60
2	I	794	MET	CA-C-N	6.73	126.49	119.76
2	I	794	MET	C-N-CA	6.73	126.49	119.76
2	H	794	MET	CA-C-N	6.71	126.47	119.76
2	H	794	MET	C-N-CA	6.71	126.47	119.76
1	A	712	LYS	N-CA-C	-6.70	103.91	111.07
2	G	138	ASP	CA-C-N	6.69	134.32	121.54
2	G	138	ASP	C-N-CA	6.69	134.32	121.54
1	B	599	MET	N-CA-C	-6.69	92.27	111.00
1	C	599	MET	N-CA-C	-6.67	92.32	111.00
1	C	773	ALA	N-CA-C	6.66	117.37	108.38
1	A	599	MET	N-CA-C	-6.65	92.37	111.00
1	C	827	SER	CA-C-N	6.65	127.22	120.04

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	827	SER	C-N-CA	6.65	127.22	120.04
2	G	1053	ILE	CA-C-N	6.52	132.36	122.65
2	G	1053	ILE	C-N-CA	6.52	132.36	122.65
1	A	773	ALA	N-CA-C	6.51	118.11	108.60
1	C	1520	ALA	CA-C-N	-6.51	112.47	119.24
1	C	1520	ALA	C-N-CA	-6.51	112.47	119.24
1	C	403	ASP	CA-C-N	6.49	131.81	122.21
1	C	403	ASP	C-N-CA	6.49	131.81	122.21
2	H	465	GLY	N-CA-C	-6.47	106.40	115.32
1	C	1516	ASP	CA-C-N	6.45	127.37	120.47
1	C	1516	ASP	C-N-CA	6.45	127.37	120.47
1	A	1292	ILE	N-CA-C	6.40	117.31	111.81
1	A	48	GLY	CA-C-N	6.36	125.58	118.97
1	A	48	GLY	C-N-CA	6.36	125.58	118.97
2	H	360	LEU	CA-C-N	6.35	126.32	120.03
2	H	360	LEU	C-N-CA	6.35	126.32	120.03
2	G	1954	LYS	CA-C-N	6.31	127.72	119.84
2	G	1954	LYS	C-N-CA	6.31	127.72	119.84
2	H	674	TYR	CA-C-N	6.29	127.70	119.84
2	H	674	TYR	C-N-CA	6.29	127.70	119.84
2	I	360	LEU	CA-C-N	6.26	126.23	120.03
2	I	360	LEU	C-N-CA	6.26	126.23	120.03
1	B	1292	ILE	N-CA-C	6.25	117.19	111.81
2	H	1256	GLU	CA-C-N	-6.23	109.64	121.54
2	H	1256	GLU	C-N-CA	-6.23	109.64	121.54
2	H	1018	VAL	CA-C-N	6.21	126.74	120.04
2	H	1018	VAL	C-N-CA	6.21	126.74	120.04
2	H	1954	LYS	CA-C-N	6.20	127.59	119.84
2	H	1954	LYS	C-N-CA	6.20	127.59	119.84
2	G	1530	LYS	CA-C-N	-6.16	113.28	122.70
2	G	1530	LYS	C-N-CA	-6.16	113.28	122.70
1	C	1692	MET	N-CA-C	-6.13	104.23	111.03
2	I	135	ARG	CA-C-N	6.12	127.49	119.84
2	I	135	ARG	C-N-CA	6.12	127.49	119.84
2	G	360	LEU	CA-C-N	6.12	126.08	120.03
2	G	360	LEU	C-N-CA	6.12	126.08	120.03
2	I	1954	LYS	CA-C-N	6.05	127.41	119.84
2	I	1954	LYS	C-N-CA	6.05	127.41	119.84
1	B	204	THR	CA-C-N	6.03	126.38	119.92
1	B	204	THR	C-N-CA	6.03	126.38	119.92
1	C	1755	MET	N-CA-C	-6.03	106.54	114.31
1	A	1755	MET	N-CA-C	-6.00	106.57	114.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	G	842	GLY	CA-C-N	5.95	132.68	121.97
2	G	842	GLY	C-N-CA	5.95	132.68	121.97
1	C	712	LYS	N-CA-C	-5.94	104.72	111.14
2	H	135	ARG	CA-C-N	5.94	127.27	119.84
2	H	135	ARG	C-N-CA	5.94	127.27	119.84
2	I	1321	ALA	CA-C-N	5.92	125.85	119.76
2	I	1321	ALA	C-N-CA	5.92	125.85	119.76
2	H	1840	VAL	CA-C-N	5.90	134.11	122.31
2	H	1840	VAL	C-N-CA	5.90	134.11	122.31
2	I	842	GLY	O-C-N	-5.84	116.58	122.54
1	B	1755	MET	N-CA-C	-5.82	106.81	114.31
2	I	674	TYR	CA-C-N	5.82	127.11	119.84
2	I	674	TYR	C-N-CA	5.82	127.11	119.84
2	I	1842	VAL	O-C-N	5.81	127.72	121.10
2	G	43	GLU	CA-C-N	5.81	125.82	119.89
2	G	43	GLU	C-N-CA	5.81	125.82	119.89
1	A	178	GLY	O-C-N	-5.77	115.19	122.70
2	G	674	TYR	CA-C-N	5.77	127.06	119.84
2	G	674	TYR	C-N-CA	5.77	127.06	119.84
2	G	135	ARG	CA-C-N	5.76	127.04	119.84
2	G	135	ARG	C-N-CA	5.76	127.04	119.84
1	A	827	SER	CA-C-N	5.71	126.58	120.47
1	A	827	SER	C-N-CA	5.71	126.58	120.47
1	A	178	GLY	CA-C-N	5.67	132.38	121.54
1	A	178	GLY	C-N-CA	5.67	132.38	121.54
1	A	1657	HIS	CA-C-N	5.67	125.79	119.32
1	A	1657	HIS	C-N-CA	5.67	125.79	119.32
2	I	421	LEU	CA-C-N	5.67	126.93	119.84
2	I	421	LEU	C-N-CA	5.67	126.93	119.84
2	I	43	GLU	CA-C-N	5.64	125.59	119.78
2	I	43	GLU	C-N-CA	5.64	125.59	119.78
1	C	204	THR	CA-C-N	5.64	125.96	119.92
1	C	204	THR	C-N-CA	5.64	125.96	119.92
2	H	505	GLY	CA-C-N	5.62	125.39	119.76
2	H	505	GLY	C-N-CA	5.62	125.39	119.76
2	H	690	VAL	CB-CA-C	-5.62	104.47	112.22
2	G	1232	LYS	CA-C-N	5.61	126.85	119.84
2	G	1232	LYS	C-N-CA	5.61	126.85	119.84
1	C	1181	PHE	O-C-N	-5.61	115.18	122.97
2	I	1922	ILE	N-CA-C	5.60	115.34	106.32
1	A	204	THR	CA-C-N	5.60	125.91	119.92
1	A	204	THR	C-N-CA	5.60	125.91	119.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	I	690	VAL	CB-CA-C	-5.59	104.51	112.22
1	A	1692	MET	N-CA-C	-5.58	104.84	111.03
2	G	1657	ILE	O-C-N	-5.58	117.17	123.20
2	H	43	GLU	CA-C-N	5.55	125.50	119.78
2	H	43	GLU	C-N-CA	5.55	125.50	119.78
2	H	1232	LYS	CA-C-N	5.53	126.76	119.84
2	H	1232	LYS	C-N-CA	5.53	126.76	119.84
2	G	505	GLY	CA-C-N	5.53	125.45	119.76
2	G	505	GLY	C-N-CA	5.53	125.45	119.76
2	I	1370	ASP	N-CA-C	5.52	118.03	110.24
2	G	1107	SER	CA-C-N	5.52	126.74	119.84
2	G	1107	SER	C-N-CA	5.52	126.74	119.84
2	I	1175	LYS	CA-C-N	5.52	126.73	119.84
2	I	1175	LYS	C-N-CA	5.52	126.73	119.84
2	I	1232	LYS	CA-C-N	5.50	126.72	119.84
2	I	1232	LYS	C-N-CA	5.50	126.72	119.84
2	G	1321	ALA	CA-C-N	5.48	125.41	119.76
2	G	1321	ALA	C-N-CA	5.48	125.41	119.76
2	H	1321	ALA	CA-C-N	5.46	125.39	119.76
2	H	1321	ALA	C-N-CA	5.46	125.39	119.76
1	A	794	ILE	CB-CA-C	-5.45	104.78	112.14
1	B	540	GLN	N-CA-C	-5.45	95.74	111.00
1	A	540	GLN	N-CA-C	-5.44	95.77	111.00
1	C	540	GLN	N-CA-C	-5.43	95.80	111.00
2	H	2017	LYS	CA-C-N	5.43	126.62	119.84
2	H	2017	LYS	C-N-CA	5.43	126.62	119.84
1	B	1132	GLU	CA-C-N	5.42	125.36	119.78
1	B	1132	GLU	C-N-CA	5.42	125.36	119.78
2	H	1107	SER	CA-C-N	5.40	126.59	119.84
2	H	1107	SER	C-N-CA	5.40	126.59	119.84
1	B	181	THR	CA-C-N	5.39	129.48	120.64
1	B	181	THR	C-N-CA	5.39	129.48	120.64
1	B	445	ASP	N-CA-C	-5.38	105.82	112.38
2	H	421	LEU	CA-C-N	5.36	126.54	119.84
2	H	421	LEU	C-N-CA	5.36	126.54	119.84
1	C	992	PHE	O-C-N	5.35	127.57	121.31
1	B	910	THR	CA-C-N	5.34	126.52	119.84
1	B	910	THR	C-N-CA	5.34	126.52	119.84
1	B	742	LYS	N-CA-C	-5.33	105.47	111.28
1	A	206	LEU	N-CA-C	5.33	117.17	111.36
2	G	690	VAL	CB-CA-C	-5.31	104.90	112.22
2	H	138	ASP	CA-C-N	5.30	131.66	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	H	138	ASP	C-N-CA	5.30	131.66	121.54
2	H	1561	ASN	CA-C-N	5.29	124.79	119.19
2	H	1561	ASN	C-N-CA	5.29	124.79	119.19
1	B	983	GLN	CA-C-N	5.28	125.04	119.76
1	B	983	GLN	C-N-CA	5.28	125.04	119.76
2	G	1175	LYS	CA-C-N	5.27	126.42	119.84
2	G	1175	LYS	C-N-CA	5.27	126.42	119.84
1	A	1641	ILE	CB-CA-C	-5.25	104.94	111.08
2	I	2017	LYS	CA-C-N	5.24	126.39	119.84
2	I	2017	LYS	C-N-CA	5.24	126.39	119.84
2	I	723	HIS	CA-C-N	5.19	124.86	119.56
2	I	723	HIS	C-N-CA	5.19	124.86	119.56
1	A	1132	GLU	CA-C-N	5.19	125.18	119.89
1	A	1132	GLU	C-N-CA	5.19	125.18	119.89
2	H	1798	ILE	N-CA-C	5.19	112.69	107.55
1	C	445	ASP	N-CA-C	-5.18	106.22	112.54
1	B	1418	VAL	CB-CA-C	-5.18	108.86	114.35
1	B	48	GLY	CA-C-N	5.16	124.33	118.97
1	B	48	GLY	C-N-CA	5.16	124.33	118.97
1	A	983	GLN	CA-C-N	5.12	124.89	119.76
1	A	983	GLN	C-N-CA	5.12	124.89	119.76
1	C	1132	GLU	CA-C-N	5.12	125.05	119.78
1	C	1132	GLU	C-N-CA	5.12	125.05	119.78
1	A	445	ASP	N-CA-C	-5.11	106.14	112.38
2	I	875	LEU	CA-C-N	5.11	125.11	119.89
2	I	875	LEU	C-N-CA	5.11	125.11	119.89
2	I	1840	VAL	O-C-N	5.08	127.48	122.04
2	H	1798	ILE	CA-C-N	5.08	125.01	119.78
2	H	1798	ILE	C-N-CA	5.08	125.01	119.78
2	I	22	VAL	N-CA-C	5.08	113.65	107.61
2	I	1561	ASN	CA-C-N	5.08	124.86	119.28
2	I	1561	ASN	C-N-CA	5.08	124.86	119.28
1	B	1692	MET	N-CA-C	-5.07	105.40	111.03
2	G	1018	VAL	CA-C-N	5.05	125.50	120.04
2	G	1018	VAL	C-N-CA	5.05	125.50	120.04
1	B	1028	GLY	CA-C-N	5.05	125.33	119.47
1	B	1028	GLY	C-N-CA	5.05	125.33	119.47
1	A	1418	VAL	CB-CA-C	-5.04	109.00	114.35
1	A	1516	ASP	CA-C-N	5.04	126.99	120.89
1	A	1516	ASP	C-N-CA	5.04	126.99	120.89
1	A	403	ASP	CA-C-N	5.03	129.65	122.21
1	A	403	ASP	C-N-CA	5.03	129.65	122.21

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	1292	ILE	N-CA-C	5.02	116.13	111.81
1	B	206	LEU	N-CA-C	5.00	116.81	111.36
1	B	992	PHE	C-N-CD	5.00	145.52	125.00

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	G	1108	PRO	Peptide
2	H	1108	PRO	Peptide
2	H	1256	GLU	Mainchain
2	I	1108	PRO	Peptide

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	13572	0	13489	696	15
1	B	13572	0	13491	643	6
1	C	13572	0	13491	672	22
2	G	15995	0	15978	1067	32
2	H	15995	0	15978	1074	7
2	I	15995	0	15977	1021	26
3	A	12	0	10	3	0
3	B	12	0	10	4	0
3	C	12	0	10	4	0
4	G	31	0	19	8	0
4	H	31	0	19	5	0
4	I	31	0	19	4	0
All	All	88830	0	88491	4991	54

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 28.

All (4991) 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)
1:A:1749:THR:CB	1:A:1874:ASP:HB3	1.53	1.37
1:B:1749:THR:CB	1:B:1874:ASP:HB3	1.56	1.34
1:B:1749:THR:CB	1:B:1873:HIS:O	1.75	1.32
1:A:1464:GLU:HG3	1:A:1773:VAL:CG1	1.58	1.32
1:C:1749:THR:CB	1:C:1874:ASP:HB3	1.62	1.29
1:A:1464:GLU:CG	1:A:1773:VAL:HG12	1.65	1.26
1:A:1749:THR:CB	1:A:1873:HIS:O	1.88	1.21
1:C:1749:THR:CB	1:C:1874:ASP:CA	2.20	1.19
2:H:1956:ARG:HB2	2:H:1957:PRO:HD3	1.24	1.18
1:C:1749:THR:CB	1:C:1874:ASP:CB	2.22	1.16
1:C:1464:GLU:CG	1:C:1773:VAL:HG12	1.75	1.16
2:G:28:PHE:CE2	2:H:7:ARG:HD2	1.80	1.16
2:G:1859:PRO:HG3	2:G:1871:LEU:HD12	1.29	1.15
1:C:1501:LEU:CD1	1:C:1775:LEU:HD21	1.75	1.15
2:H:1834:ARG:HG2	2:H:1834:ARG:HH11	1.06	1.15
1:C:1460:LYS:NZ	1:C:1774:GLU:OE2	1.80	1.15
1:C:1464:GLU:HG3	1:C:1773:VAL:CG1	1.77	1.14
1:C:1498:GLU:HG3	1:C:1876:LEU:HD13	1.19	1.14
2:H:490:TRP:HE1	2:H:516:THR:HG22	1.12	1.14
2:I:732:TRP:CG	2:I:750:MET:HE3	1.83	1.13
2:H:499:THR:HB	2:H:500:HIS:HD2	1.10	1.12
2:I:490:TRP:HE1	2:I:516:THR:HG22	1.10	1.12
2:G:1956:ARG:HB2	2:G:1957:PRO:HD3	1.23	1.12
2:G:131:ILE:HD12	2:G:182:VAL:HB	1.18	1.12
2:H:131:ILE:HD12	2:H:182:VAL:CB	1.79	1.11
2:I:601:THR:HG21	2:I:618:GLU:O	1.50	1.11
2:I:1956:ARG:HB2	2:I:1957:PRO:HD3	1.23	1.11
1:A:253:ARG:HG3	1:A:254:TRP:HD1	1.15	1.10
1:A:1721:ARG:HG2	1:A:1721:ARG:HH11	1.16	1.10
2:H:601:THR:HG21	2:H:618:GLU:O	1.50	1.10
2:G:601:THR:HG21	2:G:618:GLU:O	1.52	1.10
1:B:1464:GLU:HG3	1:B:1773:VAL:HG12	1.31	1.09
2:G:499:THR:HB	2:G:500:HIS:HD2	1.08	1.09
2:H:131:ILE:CB	2:H:182:VAL:HG11	1.82	1.09
2:I:297:ARG:HD3	2:I:447:ASN:HD21	1.15	1.09
2:G:131:ILE:HB	2:G:182:VAL:HG11	1.31	1.09
2:G:490:TRP:HE1	2:G:516:THR:HG22	1.12	1.08
2:I:499:THR:HB	2:I:500:HIS:HD2	1.07	1.08
1:B:1460:LYS:NZ	1:B:1774:GLU:OE2	1.85	1.08
1:B:1749:THR:CB	1:B:1874:ASP:CB	2.32	1.08
1:A:1749:THR:CB	1:A:1874:ASP:CB	2.31	1.08
1:C:852:ARG:HG2	1:C:852:ARG:HH11	1.14	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1498:GLU:CG	1:C:1876:LEU:HD13	1.84	1.07
2:H:131:ILE:HG21	2:H:182:VAL:HG12	1.35	1.07
2:H:128:THR:HA	2:H:182:VAL:HG21	1.31	1.07
2:I:1227:ARG:HH11	2:I:1227:ARG:HG3	1.18	1.07
2:G:297:ARG:HD3	2:G:447:ASN:HD21	1.17	1.06
2:G:732:TRP:CG	2:G:750:MET:HE3	1.88	1.06
2:G:28:PHE:CZ	2:H:7:ARG:HD2	1.91	1.06
1:C:1367:ARG:NH1	1:C:1372:THR:HB	1.71	1.06
2:I:1834:ARG:HG2	2:I:1834:ARG:HH11	1.16	1.06
2:G:903:TRP:O	2:G:906:THR:HG22	1.57	1.05
2:H:732:TRP:CG	2:H:750:MET:HE3	1.90	1.05
1:C:1721:ARG:HG2	1:C:1721:ARG:HH11	1.19	1.05
2:G:1834:ARG:HG2	2:G:1834:ARG:HH11	1.16	1.05
2:I:7:ARG:HH21	2:I:27:PHE:HB3	1.20	1.05
1:B:253:ARG:HG3	1:B:254:TRP:HD1	1.17	1.04
1:A:1367:ARG:NH1	1:A:1372:THR:HB	1.72	1.04
1:C:253:ARG:HG3	1:C:254:TRP:HD1	1.15	1.04
2:G:932:ILE:HD11	2:G:1042:ALA:HB2	1.36	1.04
2:I:1739:GLU:HB2	2:I:1987:PRO:HB3	1.40	1.04
1:B:1367:ARG:NH1	1:B:1372:THR:HB	1.73	1.04
2:H:1227:ARG:HH11	2:H:1227:ARG:HG3	1.19	1.03
2:I:1054:LEU:HB2	4:I:3051:FMN:HM73	1.40	1.03
2:G:1227:ARG:HG3	2:G:1227:ARG:HH11	1.18	1.03
2:H:297:ARG:HD3	2:H:447:ASN:HD21	1.16	1.03
1:B:1721:ARG:HH11	1:B:1721:ARG:HG2	1.21	1.03
1:C:1460:LYS:HE3	1:C:1774:GLU:CD	1.83	1.03
1:B:1722:VAL:HG11	1:B:1731:LEU:HB3	1.37	1.03
1:C:1722:VAL:HG11	1:C:1731:LEU:HB3	1.37	1.02
2:G:7:ARG:HH21	2:G:27:PHE:HB3	1.22	1.02
1:B:599:MET:HB2	1:B:624:LYS:HD2	1.42	1.02
2:H:7:ARG:HH21	2:H:27:PHE:HB3	1.22	1.02
1:A:852:ARG:HG2	1:A:852:ARG:HH11	1.23	1.02
1:B:852:ARG:HH11	1:B:852:ARG:HG2	1.20	1.02
1:C:1498:GLU:HG3	1:C:1876:LEU:CD1	1.84	1.02
1:C:1501:LEU:HD12	1:C:1775:LEU:HD21	1.38	1.02
2:H:1739:GLU:HB2	2:H:1987:PRO:HB3	1.42	1.02
2:H:1859:PRO:HG3	2:H:1871:LEU:HD12	1.37	1.01
2:I:1859:PRO:HG3	2:I:1871:LEU:HD12	1.41	1.01
2:H:131:ILE:HB	2:H:182:VAL:CG1	1.89	1.01
1:C:1219:VAL:HA	1:C:1384:ILE:HD11	1.40	1.01
2:H:131:ILE:CD1	2:H:182:VAL:HB	1.91	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1014:ASP:H	1:C:1510:ASN:HD21	1.03	1.00
2:H:903:TRP:O	2:H:906:THR:HG22	1.59	1.00
1:A:1722:VAL:HG11	1:A:1731:LEU:HB3	1.40	1.00
2:I:741:HIS:NE2	2:I:855:HIS:CE1	2.30	1.00
1:A:599:MET:HB2	1:A:624:LYS:HD2	1.43	0.99
2:H:1567:ARG:HG3	2:H:1567:ARG:HH11	1.27	0.99
1:C:1749:THR:CB	1:C:1874:ASP:HA	1.90	0.99
1:C:599:MET:HB2	1:C:624:LYS:HD2	1.43	0.99
1:C:253:ARG:HG3	1:C:254:TRP:CD1	1.98	0.99
2:G:499:THR:HB	2:G:500:HIS:CD2	1.97	0.98
2:I:892:ILE:HD11	2:I:903:TRP:CE2	1.98	0.98
1:A:253:ARG:HG3	1:A:254:TRP:CD1	1.98	0.98
1:B:1219:VAL:HA	1:B:1384:ILE:HD11	1.45	0.98
2:H:1803:THR:HG22	2:H:2009:LYS:HA	1.45	0.98
2:H:762:ASN:HD22	2:H:762:ASN:H	1.03	0.98
2:H:131:ILE:HB	2:H:182:VAL:HG11	1.00	0.98
2:I:499:THR:HB	2:I:500:HIS:CD2	1.97	0.98
2:I:903:TRP:O	2:I:906:THR:HG22	1.63	0.98
2:G:1844:ARG:HG2	2:G:1844:ARG:HH11	1.26	0.97
1:A:400:ARG:HG2	1:A:400:ARG:HH11	1.28	0.97
2:G:892:ILE:HD11	2:G:903:TRP:CE2	1.98	0.97
1:A:400:ARG:HH11	1:A:400:ARG:CG	1.76	0.97
2:H:499:THR:HB	2:H:500:HIS:CD2	1.99	0.97
2:H:1172:LYS:HE3	2:H:1574:ASN:OD1	1.64	0.97
1:B:198:PRO:HG3	1:B:209:LEU:HD21	1.47	0.97
1:B:253:ARG:HG3	1:B:254:TRP:CD1	1.99	0.96
1:B:1749:THR:CB	1:B:1873:HIS:C	2.37	0.96
2:H:594:VAL:HB	2:H:617:ILE:HG13	1.44	0.96
2:I:490:TRP:NE1	2:I:516:THR:HG22	1.79	0.96
2:I:762:ASN:H	2:I:762:ASN:HD22	1.08	0.96
1:A:1014:ASP:H	1:A:1510:ASN:HD21	1.10	0.96
2:H:490:TRP:NE1	2:H:516:THR:HG22	1.81	0.96
2:H:131:ILE:HD12	2:H:182:VAL:HB	0.96	0.96
1:A:12:ILE:HD11	2:G:2041:ILE:HD12	1.47	0.95
1:C:198:PRO:HG3	1:C:209:LEU:HD21	1.48	0.95
2:G:490:TRP:NE1	2:G:516:THR:HG22	1.81	0.95
2:H:892:ILE:HD11	2:H:903:TRP:CE2	2.01	0.95
2:H:1567:ARG:HH11	2:H:1567:ARG:CG	1.79	0.95
2:G:1803:THR:HG22	2:G:2009:LYS:HA	1.48	0.95
1:B:1460:LYS:CE	1:B:1773:VAL:O	2.15	0.95
2:I:594:VAL:HB	2:I:617:ILE:HG13	1.46	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1567:ARG:HH11	2:I:1567:ARG:HG3	1.29	0.95
2:I:1567:ARG:HH11	2:I:1567:ARG:CG	1.79	0.95
2:G:652:ILE:H	2:G:658:MET:HE3	1.30	0.95
2:H:1199:GLU:OE2	2:H:1567:ARG:NH1	2.00	0.95
2:G:1741:ILE:HD12	2:G:1986:LYS:HD2	1.47	0.95
2:G:1878:VAL:HG11	2:G:1910:VAL:HG22	1.48	0.95
1:A:198:PRO:HG3	1:A:209:LEU:HD21	1.47	0.95
2:I:741:HIS:CE1	2:I:855:HIS:CE1	2.55	0.95
2:G:1567:ARG:HH11	2:G:1567:ARG:CG	1.80	0.95
1:A:444:ASN:HB2	1:A:447:LEU:H	1.31	0.95
1:B:1464:GLU:HG3	1:B:1773:VAL:CG1	1.95	0.95
2:H:741:HIS:HE1	2:H:845:THR:CG2	1.80	0.95
2:H:835:THR:HG21	2:H:855:HIS:CD2	1.99	0.94
2:G:1739:GLU:HB2	2:G:1987:PRO:HB3	1.43	0.94
2:G:1589:VAL:HA	2:G:1592:LEU:HD12	1.49	0.94
1:B:1460:LYS:HE3	1:B:1773:VAL:O	1.68	0.94
2:H:55:THR:HG22	2:H:56:THR:HG22	1.48	0.94
1:B:444:ASN:HB2	1:B:447:LEU:H	1.31	0.94
1:C:400:ARG:HG2	1:C:400:ARG:HH11	1.33	0.94
1:C:1498:GLU:OE2	1:C:1876:LEU:HA	1.65	0.94
2:I:1741:ILE:HD12	2:I:1986:LYS:HD2	1.49	0.94
1:C:2:LYS:HD2	2:I:2050:GLN:HB3	1.50	0.94
2:I:1878:VAL:HG11	2:I:1910:VAL:HG22	1.50	0.94
2:H:1314:ARG:HH11	2:H:1314:ARG:HG3	1.31	0.94
2:G:762:ASN:H	2:G:762:ASN:HD22	1.03	0.93
2:G:942:THR:HB	2:G:1012:GLN:HG2	1.50	0.93
1:A:1219:VAL:HA	1:A:1384:ILE:HD11	1.45	0.93
1:A:1501:LEU:CD1	1:A:1775:LEU:HD21	1.98	0.93
2:I:741:HIS:HE1	2:I:845:THR:CG2	1.81	0.93
2:H:1845:ASP:HB2	2:H:1849:ARG:H	1.34	0.93
1:B:400:ARG:HH11	1:B:400:ARG:CG	1.81	0.93
2:H:1589:VAL:HA	2:H:1592:LEU:HD12	1.49	0.93
2:G:565:TYR:CZ	2:G:758:ARG:HD2	2.04	0.93
2:I:1314:ARG:HG3	2:I:1314:ARG:HH11	1.32	0.93
1:A:12:ILE:HD11	2:G:2041:ILE:CD1	1.99	0.93
2:I:56:THR:HG23	2:I:59:GLU:HG3	1.49	0.93
1:C:1501:LEU:HD11	1:C:1775:LEU:CD2	1.99	0.93
2:G:1567:ARG:HH11	2:G:1567:ARG:HG3	1.30	0.93
2:G:128:THR:HA	2:G:182:VAL:HG21	1.51	0.92
1:A:1523:ARG:HH11	1:A:1523:ARG:HG3	1.33	0.92
1:C:1523:ARG:HG3	1:C:1523:ARG:HH11	1.32	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1501:LEU:CD1	1:C:1775:LEU:CD2	2.47	0.92
2:H:652:ILE:H	2:H:658:MET:HE3	1.35	0.92
2:I:741:HIS:CE1	2:I:845:THR:CG2	2.52	0.92
2:G:55:THR:HG21	2:G:113:ASP:HB2	1.52	0.92
1:A:152:HIS:CD2	1:A:163:LEU:HB2	2.05	0.92
1:A:1460:LYS:CE	1:A:1773:VAL:O	2.17	0.92
2:G:741:HIS:NE2	2:G:855:HIS:CE1	2.38	0.92
2:G:1844:ARG:HH11	2:G:1844:ARG:CG	1.82	0.92
2:I:55:THR:HG22	2:I:56:THR:HG22	1.51	0.91
2:I:667:LYS:HD2	2:I:697:THR:HG22	1.51	0.91
2:G:1002:HIS:NE2	2:G:1006:MET:HE3	1.86	0.91
2:I:741:HIS:CE1	2:I:845:THR:HG22	2.04	0.91
1:A:1721:ARG:HH11	1:A:1721:ARG:CG	1.84	0.91
1:C:400:ARG:HH11	1:C:400:ARG:CG	1.81	0.91
2:G:1314:ARG:HH11	2:G:1314:ARG:HG3	1.32	0.91
1:C:152:HIS:CD2	1:C:163:LEU:HB2	2.05	0.91
2:G:56:THR:HG23	2:G:59:GLU:HG3	1.50	0.91
2:G:741:HIS:CE1	2:G:855:HIS:CE1	2.57	0.91
2:I:1803:THR:HG22	2:I:2009:LYS:HA	1.51	0.91
2:I:707:PRO:HG3	2:I:716:VAL:HG21	1.52	0.91
1:A:1693:ILE:HD11	2:G:998:GLN:HB2	1.51	0.91
2:H:1054:LEU:HB2	4:H:3051:FMN:HM73	1.51	0.91
1:B:1523:ARG:HH11	1:B:1523:ARG:HG3	1.36	0.91
1:C:1464:GLU:HG3	1:C:1773:VAL:HG12	0.91	0.91
1:C:793:ARG:HA	1:C:797:THR:HG23	1.52	0.90
2:H:1741:ILE:HD12	2:H:1986:LYS:HD2	1.54	0.90
2:I:942:THR:HB	2:I:1012:GLN:HG2	1.52	0.90
2:H:707:PRO:HG3	2:H:716:VAL:HG21	1.54	0.90
1:C:1498:GLU:HG3	1:C:1876:LEU:HB3	1.53	0.90
2:I:1441:ILE:HD11	2:I:1445:ARG:CZ	2.02	0.90
2:G:55:THR:HG22	2:G:56:THR:HG22	1.52	0.90
2:H:565:TYR:CZ	2:H:758:ARG:HD2	2.06	0.90
1:A:1119:LYS:HD3	1:A:1121:MET:HE2	1.54	0.90
1:B:1456:GLU:OE1	1:B:1775:LEU:HD23	1.71	0.89
1:C:1498:GLU:CG	1:C:1876:LEU:HB3	2.02	0.89
2:G:131:ILE:HD12	2:G:182:VAL:CB	2.01	0.89
1:C:1431:GLU:HG3	1:C:1433:HIS:CE1	2.07	0.89
2:G:1847:LEU:H	2:G:1847:LEU:HD12	1.37	0.89
1:C:444:ASN:HB2	1:C:447:LEU:H	1.33	0.89
2:G:594:VAL:HB	2:G:617:ILE:HG13	1.52	0.89
2:I:1002:HIS:NE2	2:I:1006:MET:HE3	1.87	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:793:ARG:HA	1:B:797:THR:HG23	1.54	0.89
1:B:1721:ARG:HH11	1:B:1721:ARG:CG	1.85	0.89
2:I:1589:VAL:HA	2:I:1592:LEU:HD12	1.51	0.89
1:A:253:ARG:HE	1:A:254:TRP:HE1	1.21	0.89
2:G:1441:ILE:HD11	2:G:1445:ARG:CZ	2.02	0.89
2:I:652:ILE:H	2:I:658:MET:HE3	1.34	0.89
2:H:55:THR:HG21	2:H:113:ASP:HB2	1.53	0.89
2:H:1847:LEU:HD12	2:H:1847:LEU:H	1.37	0.89
2:H:56:THR:HG23	2:H:59:GLU:HG3	1.54	0.89
1:A:1474:ALA:HA	1:A:1478:PRO:HG2	1.54	0.88
1:B:1749:THR:CB	1:B:1874:ASP:CA	2.51	0.88
2:G:667:LYS:HD2	2:G:697:THR:HG22	1.55	0.88
1:A:1501:LEU:HD11	1:A:1775:LEU:CD2	2.01	0.88
2:H:667:LYS:HD2	2:H:697:THR:HG22	1.55	0.88
1:A:403:ASP:HB2	1:A:1613:ASN:HD21	1.38	0.88
1:A:1367:ARG:HH12	1:A:1372:THR:HB	1.35	0.88
1:B:31:THR:HG23	2:H:2011:ILE:HG21	1.56	0.88
2:H:942:THR:HB	2:H:1012:GLN:HG2	1.54	0.88
2:I:55:THR:HG21	2:I:113:ASP:HB2	1.53	0.88
2:I:1352:HIS:HE1	2:I:1583:MET:HE2	1.39	0.88
1:B:152:HIS:CD2	1:B:163:LEU:HB2	2.09	0.88
1:B:1367:ARG:HH12	1:B:1372:THR:HB	1.38	0.88
1:B:1464:GLU:CG	1:B:1773:VAL:HG12	2.01	0.88
2:I:1227:ARG:HH11	2:I:1227:ARG:CG	1.87	0.88
1:C:1721:ARG:HH11	1:C:1721:ARG:CG	1.87	0.87
2:G:707:PRO:HG3	2:G:716:VAL:HG21	1.56	0.87
2:H:1441:ILE:HD11	2:H:1445:ARG:CZ	2.04	0.87
2:I:131:ILE:HD12	2:I:182:VAL:HB	1.55	0.87
1:B:1501:LEU:HD11	1:B:1775:LEU:HD21	1.56	0.87
2:G:1422:THR:CG2	2:G:1474:PHE:HB2	2.05	0.87
1:A:793:ARG:HA	1:A:797:THR:HG23	1.53	0.87
1:C:59:ARG:HH11	2:I:1896:GLN:NE2	1.71	0.87
2:I:298:LYS:HG2	2:I:448:VAL:HG22	1.56	0.87
2:I:369:SER:OG	2:I:380:SER:HB3	1.74	0.87
1:C:1498:GLU:OE2	1:C:1876:LEU:CA	2.12	0.87
2:H:131:ILE:CG2	2:H:182:VAL:HG12	2.04	0.87
2:I:1845:ASP:HB2	2:I:1849:ARG:H	1.38	0.87
1:B:260:ARG:HH12	1:B:300:VAL:HG21	1.38	0.87
2:I:932:ILE:HD11	2:I:1042:ALA:HB2	1.57	0.87
1:C:253:ARG:HE	1:C:254:TRP:HE1	1.21	0.87
2:H:1002:HIS:NE2	2:H:1006:MET:HE3	1.90	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:340:ARG:NH1	1:A:344:GLN:HG2	1.88	0.87
1:B:893:VAL:HG11	1:B:930:LEU:HD23	1.55	0.87
2:H:741:HIS:HE1	2:H:845:THR:HG22	1.38	0.86
2:H:1422:THR:CG2	2:H:1474:PHE:HB2	2.04	0.86
1:C:1474:ALA:HA	1:C:1478:PRO:HG2	1.57	0.86
2:H:1878:VAL:HG11	2:H:1910:VAL:HG22	1.55	0.86
2:I:1739:GLU:HB3	2:I:1746:LEU:HD11	1.58	0.86
1:B:1474:ALA:HA	1:B:1478:PRO:HG2	1.58	0.86
2:G:741:HIS:HE1	2:G:845:THR:CG2	1.88	0.86
2:H:1533:LEU:HD13	2:H:1630:GLY:HA2	1.55	0.86
2:I:1054:LEU:CB	4:I:3051:FMN:HM73	2.06	0.86
1:B:400:ARG:HH11	1:B:400:ARG:HG2	1.41	0.85
2:G:1352:HIS:HE1	2:G:1583:MET:HE2	1.39	0.85
2:H:1739:GLU:HB3	2:H:1746:LEU:HD11	1.56	0.85
2:G:741:HIS:CE1	2:G:845:THR:CG2	2.59	0.85
2:I:1533:LEU:HD13	2:I:1630:GLY:HA2	1.59	0.85
2:I:1422:THR:O	2:I:1422:THR:HG23	1.77	0.85
1:A:1749:THR:CB	1:A:1874:ASP:CA	2.55	0.85
2:H:774:ALA:HB1	2:H:1081:HIS:HD2	1.41	0.85
2:I:1847:LEU:H	2:I:1847:LEU:HD12	1.40	0.85
1:B:340:ARG:NH1	1:B:344:GLN:HG2	1.91	0.85
2:G:28:PHE:HE2	2:H:7:ARG:HD2	1.36	0.85
2:H:1844:ARG:CG	2:H:1844:ARG:HH11	1.89	0.85
1:A:1119:LYS:HD3	1:A:1121:MET:CE	2.07	0.85
2:G:28:PHE:CZ	2:H:7:ARG:CD	2.59	0.85
2:H:1844:ARG:HH11	2:H:1844:ARG:HG2	1.41	0.85
2:G:732:TRP:CD2	2:G:750:MET:HE3	2.11	0.84
2:H:297:ARG:HD3	2:H:447:ASN:ND2	1.91	0.84
2:H:732:TRP:CD2	2:H:750:MET:HE3	2.11	0.84
2:H:932:ILE:HD11	2:H:1042:ALA:HB2	1.58	0.84
2:G:369:SER:OG	2:G:380:SER:HB3	1.75	0.84
2:H:777:THR:CG2	2:H:1081:HIS:NE2	2.41	0.84
2:G:131:ILE:HG21	2:G:182:VAL:HG12	1.57	0.84
2:I:732:TRP:CD2	2:I:750:MET:HE3	2.11	0.84
1:C:340:ARG:NH1	1:C:344:GLN:HG2	1.91	0.84
2:I:297:ARG:HD3	2:I:447:ASN:ND2	1.92	0.84
2:H:369:SER:OG	2:H:380:SER:HB3	1.78	0.84
2:H:2038:ILE:HG22	2:H:2042:ILE:HD11	1.60	0.84
1:C:852:ARG:HG2	1:C:852:ARG:NH1	1.93	0.84
2:I:774:ALA:HB2	2:I:1077:ILE:HA	1.58	0.84
1:B:11:HIS:ND1	2:H:1998:LYS:HA	1.93	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1303:GLY:HA2	1:C:1649:LYS:HE2	1.58	0.84
2:I:995:LEU:HD23	2:I:1000:ILE:HD13	1.60	0.84
1:C:31:THR:HG23	2:I:2011:ILE:HG21	1.59	0.84
2:H:741:HIS:CE1	2:H:845:THR:HG22	2.12	0.84
2:G:1425:LYS:HG2	2:G:1471:GLU:HG3	1.58	0.83
2:G:1533:LEU:HD13	2:G:1630:GLY:HA2	1.60	0.83
1:A:980:VAL:HG23	2:G:968:GLN:OE1	1.78	0.83
2:G:774:ALA:HB2	2:G:1077:ILE:HA	1.61	0.83
1:B:253:ARG:HE	1:B:254:TRP:HE1	1.21	0.83
2:G:1227:ARG:HH11	2:G:1227:ARG:CG	1.89	0.83
2:I:774:ALA:HB1	2:I:1081:HIS:HD2	1.43	0.83
1:C:1460:LYS:CE	1:C:1774:GLU:CD	2.50	0.83
2:H:741:HIS:CE1	2:H:845:THR:CG2	2.60	0.83
2:H:1227:ARG:HH11	2:H:1227:ARG:CG	1.90	0.83
2:H:1672:GLN:HG2	2:H:1777:THR:HG23	1.59	0.83
2:I:732:TRP:CD1	2:I:750:MET:HE3	2.13	0.83
2:I:1844:ARG:HG2	2:I:1844:ARG:HH11	1.43	0.83
2:G:1293:THR:HG23	2:G:1296:GLU:H	1.44	0.83
2:I:598:THR:HG22	2:I:622:GLY:HA3	1.61	0.83
1:B:403:ASP:HB2	1:B:1613:ASN:HD21	1.44	0.82
1:A:20:TYR:CG	2:G:2033:THR:OG1	2.32	0.82
2:G:297:ARG:HD3	2:G:447:ASN:ND2	1.94	0.82
2:G:777:THR:CG2	2:G:1081:HIS:NE2	2.41	0.82
2:H:85:ASN:HD22	2:H:135:ARG:HH11	1.26	0.82
1:C:1367:ARG:HH12	1:C:1372:THR:HB	1.37	0.82
2:G:131:ILE:CB	2:G:182:VAL:HG11	2.07	0.82
2:G:298:LYS:HG2	2:G:448:VAL:HG22	1.61	0.82
2:G:1739:GLU:HB3	2:G:1746:LEU:HD11	1.60	0.82
2:I:1672:GLN:HG2	2:I:1777:THR:HG23	1.61	0.82
1:A:36:LEU:HD22	1:A:61:LEU:HD21	1.60	0.82
1:A:1249:SER:HB3	1:A:1280:ILE:HG23	1.62	0.82
1:B:1014:ASP:H	1:B:1510:ASN:HD21	1.28	0.82
2:H:995:LEU:HD23	2:H:1000:ILE:HD13	1.58	0.82
2:I:1931:LEU:HB3	2:I:1935:GLU:HG2	1.62	0.82
2:I:2038:ILE:HG22	2:I:2042:ILE:HD11	1.61	0.82
1:A:335:HIS:HE1	1:B:335:HIS:CE1	1.98	0.82
1:B:12:ILE:HD11	2:H:2041:ILE:CD1	2.10	0.82
1:C:333:LYS:O	1:C:337:VAL:HG23	1.80	0.81
2:G:995:LEU:HD23	2:G:1000:ILE:HD13	1.60	0.81
2:G:1847:LEU:HD13	2:G:1849:ARG:HD2	1.62	0.81
2:I:128:THR:HA	2:I:182:VAL:HG21	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1464:GLU:HG3	1:A:1773:VAL:HG12	0.85	0.81
1:A:1501:LEU:HD11	1:A:1775:LEU:HD21	1.61	0.81
2:H:543:PHE:HB2	2:H:545:GLN:HE22	1.45	0.81
2:H:1159:ILE:HG12	2:H:1168:ASN:HA	1.61	0.81
2:I:1054:LEU:HB2	4:I:3051:FMN:C7M	2.11	0.81
2:I:1844:ARG:HH11	2:I:1844:ARG:CG	1.93	0.81
1:B:1249:SER:HB3	1:B:1280:ILE:HG23	1.62	0.81
2:G:543:PHE:HB2	2:G:545:GLN:HE22	1.46	0.81
2:I:345:THR:HG22	2:I:347:GLU:H	1.46	0.81
2:I:777:THR:CG2	2:I:1081:HIS:NE2	2.43	0.81
2:G:1931:LEU:HB3	2:G:1935:GLU:HG2	1.61	0.81
1:A:1460:LYS:HE2	1:A:1773:VAL:O	1.80	0.81
1:C:59:ARG:HH11	2:I:1896:GLN:HE22	1.25	0.81
2:H:1149:TRP:HA	2:H:1242:PHE:CE1	2.15	0.81
1:B:93:ASP:HB3	1:B:94:PRO:HD2	1.62	0.81
1:B:881:ASN:HA	1:B:944:ARG:NH2	1.96	0.81
1:A:1203:ASP:HB3	1:B:179:LYS:NZ	1.95	0.81
2:G:2038:ILE:HG22	2:G:2042:ILE:HD11	1.60	0.81
1:A:335:HIS:CE1	1:C:335:HIS:HE1	1.98	0.81
2:I:345:THR:HB	2:I:348:GLN:H	1.46	0.81
1:A:93:ASP:HB3	1:A:94:PRO:HD2	1.63	0.81
2:I:1159:ILE:HG12	2:I:1168:ASN:HA	1.63	0.81
1:A:400:ARG:HG2	1:A:400:ARG:NH1	1.91	0.80
2:G:732:TRP:CD1	2:G:750:MET:HE3	2.16	0.80
2:H:1352:HIS:HE1	2:H:1583:MET:HE2	1.46	0.80
2:I:1693:ARG:HD2	2:I:1825:GLU:OE2	1.80	0.80
2:G:1678:MET:HE1	2:G:1707:LEU:HD22	1.63	0.80
1:A:333:LYS:O	1:A:337:VAL:HG23	1.82	0.80
1:A:1552:ASN:O	1:A:1556:THR:HG22	1.80	0.80
2:G:1693:ARG:HD2	2:G:1825:GLU:OE2	1.81	0.80
2:I:584:SER:HB3	2:I:591:PRO:HG3	1.63	0.80
1:B:1030:TRP:CD1	1:B:1580:LEU:HD22	2.17	0.80
2:H:298:LYS:HG2	2:H:448:VAL:HG22	1.63	0.80
2:H:1931:LEU:HB3	2:H:1935:GLU:HG2	1.62	0.80
1:A:20:TYR:CE1	2:G:2035:SER:HB2	2.17	0.80
1:A:340:ARG:HH12	1:A:344:GLN:HG2	1.45	0.80
2:I:259:THR:HG22	2:I:262:GLU:HG3	1.63	0.80
2:G:1672:GLN:HG2	2:G:1777:THR:HG23	1.61	0.80
1:B:36:LEU:HD22	1:B:61:LEU:HD21	1.64	0.80
2:H:1159:ILE:HG12	2:H:1169:PRO:HD3	1.63	0.80
1:B:24:SER:CB	2:H:2014:LEU:HD12	2.11	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:741:HIS:CE1	2:G:845:THR:HG22	2.17	0.80
2:H:1847:LEU:HD13	2:H:1849:ARG:HD2	1.63	0.80
2:I:192:ALA:HA	2:I:215:ILE:HD12	1.64	0.80
1:C:1249:SER:HB3	1:C:1280:ILE:HG23	1.63	0.80
1:C:1460:LYS:CE	1:C:1774:GLU:OE2	2.29	0.80
2:I:1242:PHE:HE2	2:I:1244:PRO:HG3	1.46	0.80
1:A:484:LEU:O	1:A:485:ASP:HB2	1.82	0.79
1:A:1501:LEU:HD12	1:A:1775:LEU:HD21	1.63	0.79
2:H:598:THR:HG22	2:H:622:GLY:HA3	1.64	0.79
2:H:907:VAL:HG21	2:H:921:GLU:HG2	1.64	0.79
2:I:455:ILE:HD11	2:I:469:ARG:HD3	1.63	0.79
2:I:1293:THR:HG23	2:I:1296:GLU:H	1.47	0.79
2:H:1199:GLU:OE2	2:H:1567:ARG:CZ	2.31	0.79
2:I:55:THR:CG2	2:I:113:ASP:HB2	2.12	0.79
1:A:31:THR:HG23	2:G:2011:ILE:HG21	1.64	0.79
1:C:1501:LEU:HD11	1:C:1775:LEU:HD21	1.55	0.79
2:I:1310:ASP:OD2	2:I:1602:SER:HB3	1.82	0.79
2:H:455:ILE:HD11	2:H:469:ARG:HD3	1.63	0.79
2:H:774:ALA:HB2	2:H:1077:ILE:HA	1.64	0.79
2:H:1636:LYS:N	2:H:1657:ILE:O	2.14	0.79
1:A:529:MET:HE1	1:A:894:ARG:HD2	1.65	0.79
2:I:238:CYS:HB2	2:I:239:PRO:HD3	1.64	0.79
2:I:543:PHE:HB2	2:I:545:GLN:HE22	1.46	0.79
2:G:634:ILE:HD11	2:G:649:ILE:HD11	1.63	0.79
2:I:907:VAL:HG21	2:I:921:GLU:HG2	1.65	0.79
2:G:1314:ARG:HH11	2:G:1314:ARG:CG	1.95	0.79
1:A:1749:THR:CB	1:A:1873:HIS:C	2.56	0.79
1:B:260:ARG:NH1	1:B:300:VAL:HG21	1.97	0.79
1:C:403:ASP:HB2	1:C:1613:ASN:HD21	1.46	0.79
2:G:774:ALA:HB1	2:G:1081:HIS:HD2	1.47	0.79
1:B:1303:GLY:HA2	1:B:1649:LYS:HE2	1.63	0.79
2:G:55:THR:CG2	2:G:113:ASP:HB2	2.13	0.79
2:H:105:ALA:HB1	2:H:119:THR:HG23	1.65	0.79
2:H:757:ILE:HG21	2:H:765:LEU:HD13	1.64	0.79
2:I:1847:LEU:HD13	2:I:1849:ARG:HD2	1.64	0.79
1:B:1722:VAL:CG1	1:B:1731:LEU:HB3	2.13	0.78
1:C:1523:ARG:HH11	1:C:1523:ARG:CG	1.96	0.78
2:G:85:ASN:HD22	2:G:135:ARG:HH11	1.28	0.78
2:I:1149:TRP:HA	2:I:1242:PHE:CE1	2.19	0.78
1:C:328:LEU:O	1:C:331:ILE:HG22	1.84	0.78
2:H:345:THR:HB	2:H:348:GLN:H	1.48	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:960:LYS:HE2	2:H:960:LYS:HA	1.65	0.78
2:H:1567:ARG:HG3	2:H:1567:ARG:NH1	1.98	0.78
2:I:85:ASN:HD22	2:I:135:ARG:HH11	1.28	0.78
1:B:12:ILE:HD11	2:H:2041:ILE:HD12	1.63	0.78
2:G:7:ARG:NH2	2:G:27:PHE:HB3	1.99	0.78
2:H:131:ILE:CB	2:H:182:VAL:CG1	2.53	0.78
1:A:328:LEU:O	1:A:331:ILE:HG22	1.84	0.78
1:B:333:LYS:O	1:B:337:VAL:HG23	1.81	0.78
2:I:741:HIS:HE1	2:I:845:THR:HG22	1.41	0.78
2:I:1229:MET:HE2	2:I:1268:LYS:O	1.83	0.78
1:C:1014:ASP:N	1:C:1510:ASN:HD21	1.82	0.78
2:I:138:ASP:O	2:I:139:LYS:HG3	1.83	0.78
2:I:1770:LEU:HD23	2:I:1776:PHE:CE2	2.19	0.78
1:A:2:LYS:HD2	2:G:2050:GLN:HB3	1.66	0.78
1:B:24:SER:O	2:H:1977:HIS:HD2	1.67	0.78
1:B:198:PRO:HG3	1:B:209:LEU:CD2	2.13	0.78
2:H:55:THR:CG2	2:H:113:ASP:HB2	2.13	0.78
1:C:1498:GLU:CG	1:C:1876:LEU:CD1	2.51	0.78
2:I:7:ARG:NH2	2:I:27:PHE:HB3	1.97	0.78
2:I:634:ILE:HD11	2:I:649:ILE:HD11	1.66	0.78
2:G:1227:ARG:HD2	2:G:1565:VAL:HG11	1.66	0.77
2:G:1770:LEU:HD23	2:G:1776:PHE:CE2	2.20	0.77
2:H:1693:ARG:HD2	2:H:1825:GLU:OE2	1.83	0.77
1:A:335:HIS:CE1	1:C:335:HIS:CE1	2.72	0.77
1:C:1463:VAL:HG11	1:C:1877:GLN:HE22	1.48	0.77
2:H:1293:THR:HG23	2:H:1296:GLU:H	1.49	0.77
1:B:529:MET:HA	1:B:529:MET:HE3	1.65	0.77
1:C:1665:ILE:HG13	1:C:1669:ARG:HD3	1.66	0.77
2:G:455:ILE:HD11	2:G:469:ARG:HD3	1.66	0.77
2:G:28:PHE:HZ	2:H:7:ARG:CD	1.97	0.77
2:G:355:LYS:O	2:G:358:SER:HB3	1.84	0.77
2:H:131:ILE:CG2	2:H:182:VAL:CG1	2.63	0.77
2:I:741:HIS:CE1	2:I:855:HIS:NE2	2.52	0.77
1:A:1523:ARG:HH11	1:A:1523:ARG:CG	1.97	0.77
2:H:1310:ASP:OD2	2:H:1602:SER:HB3	1.82	0.77
1:A:24:SER:HB3	2:G:2014:LEU:HD12	1.64	0.77
1:B:1239:HIS:HD2	1:B:1241:SER:OG	1.67	0.77
2:I:1314:ARG:HH11	2:I:1314:ARG:CG	1.98	0.77
2:I:1423:PHE:HD1	2:I:1423:PHE:H	1.30	0.77
1:C:1030:TRP:CD1	1:C:1580:LEU:HD22	2.20	0.77
1:C:1693:ILE:HD11	2:I:998:GLN:HB2	1.67	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:345:THR:HG22	2:G:347:GLU:H	1.47	0.77
2:G:598:THR:HG22	2:G:622:GLY:HA3	1.67	0.77
2:G:1284:VAL:HG13	2:G:1377:VAL:HG22	1.65	0.77
1:B:29:ILE:HG13	2:H:1891:TYR:O	1.85	0.77
1:C:93:ASP:HB3	1:C:94:PRO:HD2	1.65	0.77
1:C:12:ILE:HD11	2:I:2041:ILE:HD12	1.67	0.77
1:C:340:ARG:HH12	1:C:344:GLN:HG2	1.49	0.77
1:C:1030:TRP:NE1	1:C:1580:LEU:HD22	2.00	0.77
2:G:907:VAL:HG21	2:G:921:GLU:HG2	1.65	0.77
1:A:1665:ILE:HG13	1:A:1669:ARG:HD3	1.66	0.76
1:C:529:MET:HE1	1:C:894:ARG:HD2	1.68	0.76
2:H:1834:ARG:HG2	2:H:1834:ARG:NH1	1.86	0.76
2:I:1567:ARG:HG3	2:I:1567:ARG:NH1	2.00	0.76
2:I:1834:ARG:HG2	2:I:1834:ARG:NH1	1.93	0.76
2:I:1956:ARG:CB	2:I:1957:PRO:HD3	2.09	0.76
1:A:1030:TRP:NE1	1:A:1580:LEU:HD22	1.99	0.76
1:B:1030:TRP:NE1	1:B:1580:LEU:HD22	2.00	0.76
2:G:652:ILE:HD13	2:G:658:MET:HE1	1.67	0.76
1:A:198:PRO:HG3	1:A:209:LEU:CD2	2.14	0.76
2:G:1678:MET:HE1	2:G:1707:LEU:CD2	2.15	0.76
1:C:198:PRO:HG3	1:C:209:LEU:CD2	2.15	0.76
2:H:583:PHE:CD2	2:H:764:MET:HE3	2.21	0.76
1:C:400:ARG:HG2	1:C:400:ARG:NH1	1.94	0.76
2:H:762:ASN:HD22	2:H:762:ASN:N	1.82	0.76
1:A:529:MET:HA	1:A:529:MET:HE3	1.68	0.76
2:G:146:PHE:HA	2:G:149:VAL:CG1	2.15	0.76
2:G:345:THR:HB	2:G:348:GLN:H	1.50	0.76
2:H:1678:MET:HE1	2:H:1707:LEU:HD22	1.68	0.76
2:I:355:LYS:O	2:I:358:SER:HB3	1.85	0.76
1:A:1030:TRP:CD1	1:A:1580:LEU:HD22	2.21	0.76
2:G:964:LEU:HD23	2:G:964:LEU:H	1.50	0.76
2:G:1149:TRP:HA	2:G:1242:PHE:CE1	2.20	0.76
2:H:598:THR:OG1	2:H:599:PRO:HD3	1.86	0.76
2:I:652:ILE:HD13	2:I:658:MET:HE1	1.67	0.76
2:I:2015:THR:HG22	2:I:2017:LYS:H	1.51	0.76
1:C:24:SER:O	2:I:1977:HIS:HD2	1.68	0.76
1:C:1722:VAL:CG1	1:C:1731:LEU:HB3	2.14	0.76
2:H:1638:ILE:HD12	2:H:1657:ILE:HG13	1.67	0.76
2:H:1956:ARG:HB2	2:H:1957:PRO:CD	2.12	0.76
1:C:1239:HIS:HD2	1:C:1241:SER:OG	1.68	0.76
2:H:584:SER:HB3	2:H:591:PRO:HG3	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:988:ILE:HD13	1:A:1048:GLU:CB	2.15	0.75
1:B:1501:LEU:CD1	1:B:1775:LEU:HD21	2.16	0.75
2:G:2015:THR:HG22	2:G:2017:LYS:H	1.51	0.75
2:H:317:THR:HG21	2:I:1309:GLU:HG3	1.67	0.75
2:H:1314:ARG:HH11	2:H:1314:ARG:CG	1.97	0.75
2:I:707:PRO:CG	2:I:716:VAL:HG21	2.15	0.75
1:B:340:ARG:HH12	1:B:344:GLN:HG2	1.48	0.75
1:B:1523:ARG:HH11	1:B:1523:ARG:CG	1.98	0.75
2:H:192:ALA:HA	2:H:215:ILE:HD12	1.68	0.75
1:B:1665:ILE:HG13	1:B:1669:ARG:HD3	1.66	0.75
2:G:1159:ILE:HG12	2:G:1168:ASN:HA	1.67	0.75
2:G:1956:ARG:HB2	2:G:1957:PRO:CD	2.11	0.75
2:H:7:ARG:NH2	2:H:27:PHE:HB3	1.99	0.75
2:I:856:LYS:HG2	2:I:1054:LEU:HD12	1.68	0.75
1:A:1460:LYS:HE3	1:A:1773:VAL:O	1.86	0.75
2:G:960:LYS:HE2	2:G:960:LYS:HA	1.67	0.75
2:H:84:LEU:HD13	2:H:133:ALA:HB2	1.69	0.75
2:H:355:LYS:O	2:H:358:SER:HB3	1.85	0.75
1:B:328:LEU:O	1:B:331:ILE:HG22	1.86	0.75
1:B:1460:LYS:HZ1	1:B:1774:GLU:CD	1.92	0.75
2:H:259:THR:HG22	2:H:262:GLU:HG3	1.68	0.75
2:H:1770:LEU:HD23	2:H:1776:PHE:CE2	2.22	0.75
1:A:1498:GLU:HB2	1:A:1876:LEU:HD13	1.67	0.75
1:B:1460:LYS:HE2	1:B:1773:VAL:O	1.86	0.75
1:B:1208:VAL:HG13	1:B:1212:THR:HB	1.68	0.75
2:H:579:VAL:HG23	2:H:1078:HIS:CD2	2.21	0.75
2:H:2015:THR:HG22	2:H:2017:LYS:H	1.51	0.75
1:A:1303:GLY:HA2	1:A:1649:LYS:HE2	1.68	0.75
1:A:1310:GLU:OE1	1:A:1649:LYS:HE3	1.86	0.75
2:G:192:ALA:HA	2:G:215:ILE:HD12	1.67	0.75
2:G:572:ASN:HB3	2:G:576:LYS:H	1.52	0.75
2:H:455:ILE:HD11	2:H:469:ARG:CD	2.17	0.75
2:H:741:HIS:CB	2:H:853:PRO:HB2	2.16	0.75
2:I:960:LYS:HE2	2:I:960:LYS:HA	1.67	0.75
2:I:572:ASN:HB3	2:I:576:LYS:H	1.52	0.75
2:I:757:ILE:HG21	2:I:765:LEU:HD13	1.69	0.75
2:I:1129:ALA:HB2	2:I:1138:TRP:CZ3	2.22	0.75
2:I:1956:ARG:HB2	2:I:1957:PRO:CD	2.11	0.75
2:H:583:PHE:HD2	2:H:764:MET:HE3	1.51	0.74
2:H:943:TRP:CH2	2:H:1016:PRO:HG3	2.22	0.74
2:H:1834:ARG:HH11	2:H:1834:ARG:CG	1.92	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1159:ILE:HG12	2:I:1169:PRO:HD3	1.67	0.74
2:I:1284:VAL:HG13	2:I:1377:VAL:HG22	1.69	0.74
1:A:427:ASN:HD21	1:A:610:THR:H	1.33	0.74
1:B:1552:ASN:O	1:B:1556:THR:HG22	1.88	0.74
2:G:1054:LEU:HB2	4:G:3051:FMN:HM73	1.68	0.74
1:A:20:TYR:CD2	2:G:2033:THR:OG1	2.40	0.74
2:H:1242:PHE:HE2	2:H:1244:PRO:HG3	1.51	0.74
2:I:943:TRP:CH2	2:I:1016:PRO:HG3	2.21	0.74
2:I:1678:MET:HE1	2:I:1707:LEU:HD22	1.69	0.74
2:H:1784:MET:HG3	2:H:1785:GLU:N	2.03	0.74
1:A:335:HIS:CE1	1:B:335:HIS:CE1	2.74	0.74
1:A:1239:HIS:HD2	1:A:1241:SER:OG	1.69	0.74
1:B:335:HIS:HE1	1:C:335:HIS:CE1	2.06	0.74
1:C:749:ILE:HD13	1:C:806:VAL:HG12	1.70	0.74
2:G:1229:MET:HE2	2:G:1268:LYS:O	1.87	0.74
2:H:1129:ALA:HB2	2:H:1138:TRP:CZ3	2.21	0.74
2:H:1672:GLN:HA	2:H:1676:MET:CE	2.18	0.74
2:H:1956:ARG:CB	2:H:1957:PRO:HD3	2.11	0.74
2:I:105:ALA:HB1	2:I:119:THR:HG23	1.67	0.74
2:I:131:ILE:HB	2:I:182:VAL:HG11	1.69	0.74
1:C:1552:ASN:O	1:C:1556:THR:HG22	1.88	0.74
2:G:1310:ASP:OD2	2:G:1602:SER:HB3	1.88	0.74
2:I:835:THR:HG21	2:I:855:HIS:CD2	2.23	0.74
2:I:1323:MET:HE3	2:I:1605:VAL:HG22	1.70	0.74
2:I:2035:SER:HB3	2:I:2038:ILE:HG13	1.69	0.74
1:B:1551:LYS:HD2	1:B:1617:ILE:HG21	1.70	0.74
2:G:705:LEU:HD12	2:G:716:VAL:HG13	1.70	0.74
2:I:741:HIS:CE1	2:I:845:THR:HG21	2.22	0.74
1:A:1456:GLU:OE1	1:A:1775:LEU:HD23	1.87	0.74
2:G:757:ILE:HG21	2:G:765:LEU:HD13	1.67	0.74
1:B:18:LEU:HD21	2:H:1815:LEU:HD12	1.70	0.74
2:I:1889:VAL:HG13	2:I:1977:HIS:HB2	1.69	0.74
1:A:44:VAL:CG1	1:A:78:ILE:HG12	2.18	0.73
1:B:833:PHE:HA	1:B:937:LYS:HD2	1.69	0.73
2:H:7:ARG:NH1	2:H:24:THR:HG23	2.03	0.73
2:H:1194:VAL:HG22	2:H:1212:LYS:HB3	1.70	0.73
2:H:1004:LEU:HD21	2:H:1020:VAL:HG23	1.70	0.73
2:H:1678:MET:HE1	2:H:1707:LEU:CD2	2.18	0.73
1:A:982:ILE:HD11	2:G:965:SER:HB2	1.69	0.73
1:C:36:LEU:HD22	1:C:61:LEU:HD21	1.68	0.73
2:G:1159:ILE:HG12	2:G:1169:PRO:HD3	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:705:LEU:HD12	2:H:716:VAL:HG13	1.70	0.73
1:C:888:ILE:HD11	1:C:930:LEU:HD21	1.71	0.73
2:H:1680:LEU:HD13	2:H:1687:ALA:HB2	1.71	0.73
2:I:1784:MET:HG3	2:I:1785:GLU:N	2.02	0.73
1:B:271:ASN:HD22	1:B:290:MET:HE1	1.51	0.73
2:G:7:ARG:NH1	2:G:24:THR:HG23	2.03	0.73
2:G:105:ALA:HB1	2:G:119:THR:HG23	1.70	0.73
2:H:732:TRP:CD1	2:H:750:MET:HE3	2.23	0.73
2:I:455:ILE:HD11	2:I:469:ARG:CD	2.19	0.73
1:B:749:ILE:HD13	1:B:806:VAL:HG12	1.70	0.73
1:C:1431:GLU:CG	1:C:1433:HIS:CE1	2.72	0.73
2:G:259:THR:HG22	2:G:262:GLU:HG3	1.68	0.73
2:G:777:THR:HG22	2:G:1081:HIS:NE2	2.03	0.73
2:I:7:ARG:NH1	2:I:24:THR:HG23	2.03	0.73
1:A:1551:LYS:HD2	1:A:1617:ILE:HG21	1.70	0.73
2:G:194:THR:HG23	2:G:300:ILE:HD11	1.70	0.73
2:H:345:THR:HG22	2:H:347:GLU:H	1.51	0.73
2:H:1300:PHE:CA	2:H:1556:VAL:HG11	2.19	0.73
2:H:1422:THR:HG21	2:H:1474:PHE:HB2	1.70	0.73
1:C:260:ARG:HH12	1:C:300:VAL:HG21	1.52	0.73
2:G:562:LEU:HG	2:G:793:PRO:HG2	1.71	0.73
2:G:652:ILE:H	2:G:658:MET:CE	2.01	0.73
2:G:1359:MET:HE3	2:G:1404:MET:HB3	1.69	0.73
2:H:194:THR:HG23	2:H:300:ILE:HD11	1.71	0.73
2:H:1331:TRP:CZ2	2:H:1335:ILE:HG13	2.23	0.73
2:H:1355:ASN:HA	2:H:1407:THR:O	1.88	0.73
1:A:271:ASN:HD22	1:A:290:MET:HE1	1.54	0.73
2:H:7:ARG:HH21	2:H:27:PHE:CB	2.01	0.73
2:H:146:PHE:HA	2:H:149:VAL:CG1	2.18	0.73
2:H:1300:PHE:HA	2:H:1556:VAL:HG11	1.70	0.73
1:B:44:VAL:CG1	1:B:78:ILE:HG12	2.18	0.72
2:H:579:VAL:HG23	2:H:1078:HIS:NE2	2.03	0.72
2:H:1284:VAL:HG13	2:H:1377:VAL:HG22	1.71	0.72
2:I:707:PRO:HG3	2:I:716:VAL:CG2	2.18	0.72
2:G:762:ASN:HD22	2:G:762:ASN:N	1.82	0.72
2:I:579:VAL:HG23	2:I:1078:HIS:CD2	2.24	0.72
1:A:655:LEU:HD22	1:A:916:LEU:HD11	1.71	0.72
1:A:1045:PHE:HB3	1:A:1049:GLY:HA3	1.71	0.72
1:C:1208:VAL:HG13	1:C:1212:THR:HB	1.71	0.72
1:C:1551:LYS:HD2	1:C:1617:ILE:HG21	1.70	0.72
2:G:1889:VAL:HG13	2:G:1977:HIS:HB2	1.72	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:128:THR:HA	2:H:182:VAL:CG2	2.16	0.72
2:H:634:ILE:HD11	2:H:649:ILE:HD11	1.71	0.72
1:A:1722:VAL:CG1	1:A:1731:LEU:HB3	2.19	0.72
1:C:473:GLY:O	1:C:477:ILE:HG13	1.88	0.72
2:H:1359:MET:HE3	2:H:1404:MET:HB3	1.71	0.72
2:I:191:SER:HA	2:I:194:THR:HG22	1.71	0.72
2:I:194:THR:HG23	2:I:300:ILE:HD11	1.70	0.72
1:A:24:SER:CB	2:G:2014:LEU:HD12	2.19	0.72
1:C:427:ASN:HD21	1:C:610:THR:H	1.38	0.72
2:H:109:LEU:HD11	2:H:116:LEU:HD23	1.72	0.72
1:A:1208:VAL:HG13	1:A:1212:THR:HB	1.70	0.72
1:B:254:TRP:CZ3	1:B:302:LEU:HD13	2.24	0.72
1:B:1668:ASP:OD2	1:B:1805:VAL:HB	1.90	0.72
2:I:7:ARG:HH21	2:I:27:PHE:CB	1.99	0.72
2:I:777:THR:HG22	2:I:1081:HIS:NE2	2.04	0.72
2:I:1672:GLN:HA	2:I:1676:MET:CE	2.20	0.72
1:B:24:SER:HB3	2:H:2014:LEU:HD12	1.69	0.72
2:G:584:SER:HB3	2:G:591:PRO:HG3	1.70	0.72
2:H:455:ILE:CD1	2:H:469:ARG:HD3	2.20	0.72
2:H:455:ILE:CG1	2:H:469:ARG:HD3	2.20	0.72
2:I:259:THR:HG22	2:I:262:GLU:CG	2.20	0.72
1:B:473:GLY:O	1:B:477:ILE:HG13	1.89	0.72
2:G:598:THR:OG1	2:G:599:PRO:HD3	1.89	0.72
2:G:1680:LEU:HD13	2:G:1687:ALA:HB2	1.71	0.72
2:H:572:ASN:HB3	2:H:576:LYS:H	1.54	0.72
2:G:131:ILE:CD1	2:G:182:VAL:HB	2.09	0.72
2:H:777:THR:HG22	2:H:1081:HIS:NE2	2.04	0.72
2:G:741:HIS:CE1	2:G:845:THR:HG21	2.24	0.72
2:G:741:HIS:CE1	2:G:855:HIS:NE2	2.58	0.72
2:G:751:LEU:HD23	2:G:791:TYR:CE2	2.25	0.72
2:I:84:LEU:HD13	2:I:133:ALA:HB2	1.71	0.72
2:I:1086:LEU:HG	2:I:1092:ASP:HA	1.72	0.72
1:B:1232:TYR:CZ	1:B:1701:LYS:HD2	2.26	0.71
2:G:161:GLY:H	2:G:505:GLY:HA3	1.54	0.71
2:G:1567:ARG:HG3	2:G:1567:ARG:NH1	2.02	0.71
2:I:2036:GLU:HB2	2:I:2037:PRO:HD3	1.72	0.71
1:A:1501:LEU:CD1	1:A:1775:LEU:CD2	2.62	0.71
1:B:888:ILE:HD12	1:B:939:PHE:HE2	1.55	0.71
1:C:59:ARG:NH1	2:I:1896:GLN:NE2	2.38	0.71
2:H:652:ILE:H	2:H:658:MET:CE	2.03	0.71
2:H:741:HIS:NE2	2:H:855:HIS:CE1	2.58	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1030:TRP:NE1	1:B:1580:LEU:CD2	2.54	0.71
2:G:1638:ILE:HD12	2:G:1657:ILE:HD12	1.71	0.71
2:H:1227:ARG:HD2	2:H:1565:VAL:HG11	1.71	0.71
2:I:1670:GLY:H	2:I:1672:GLN:HE21	1.38	0.71
1:A:733:ILE:HD13	1:A:761:LEU:HD11	1.71	0.71
1:A:982:ILE:HD11	2:G:965:SER:CB	2.21	0.71
1:A:983:GLN:NE2	2:G:962:LYS:HD2	2.05	0.71
1:B:2:LYS:HD2	2:H:2050:GLN:HB3	1.72	0.71
2:G:50:ALA:HB3	2:G:53:GLU:HG3	1.72	0.71
2:G:2036:GLU:HB2	2:G:2037:PRO:HD3	1.73	0.71
2:H:1819:ALA:HA	2:H:2005:ARG:HH11	1.55	0.71
2:I:455:ILE:CG1	2:I:469:ARG:HD3	2.21	0.71
2:I:1331:TRP:CZ2	2:I:1335:ILE:HG13	2.25	0.71
1:C:733:ILE:HD13	1:C:761:LEU:HD11	1.72	0.71
2:I:1352:HIS:CE1	2:I:1583:MET:HE2	2.25	0.71
2:H:652:ILE:HD13	2:H:658:MET:HE1	1.71	0.71
2:H:1054:LEU:HB2	4:H:3051:FMN:C7M	2.21	0.71
1:A:1208:VAL:CG1	1:A:1212:THR:HB	2.21	0.71
1:C:1219:VAL:HG22	1:C:1384:ILE:HD12	1.73	0.71
2:G:238:CYS:HB2	2:G:239:PRO:HD3	1.71	0.71
2:G:560:ASN:O	2:G:561:TRP:C	2.34	0.71
2:G:1199:GLU:OE2	2:G:1567:ARG:NH1	2.23	0.71
2:G:1917:ILE:HG23	2:G:1922:ILE:HB	1.72	0.71
2:H:238:CYS:HB2	2:H:239:PRO:HD3	1.71	0.71
2:I:1058:VAL:O	2:I:1061:GLN:HG2	1.90	0.71
1:C:934:PRO:O	1:C:935:GLU:C	2.34	0.71
2:G:109:LEU:HD11	2:G:116:LEU:HD23	1.71	0.71
1:B:18:LEU:HD21	2:H:1815:LEU:CD1	2.20	0.71
1:B:655:LEU:HD22	1:B:916:LEU:HD11	1.72	0.71
1:C:1498:GLU:CB	1:C:1876:LEU:HD13	2.21	0.71
2:G:707:PRO:CG	2:G:716:VAL:HG21	2.20	0.71
2:H:964:LEU:HD23	2:H:964:LEU:H	1.56	0.71
1:C:59:ARG:NH1	2:I:1896:GLN:HE22	1.88	0.70
1:C:459:ASP:HB3	1:C:462:LYS:HG3	1.73	0.70
1:C:1498:GLU:HG3	1:C:1876:LEU:CB	2.09	0.70
2:I:583:PHE:CD2	2:I:764:MET:HE3	2.26	0.70
2:I:751:LEU:HD23	2:I:791:TYR:CE2	2.25	0.70
2:I:1242:PHE:CE2	2:I:1244:PRO:HG3	2.26	0.70
1:A:1119:LYS:HE2	1:A:1341:PHE:CD1	2.27	0.70
1:B:1721:ARG:HG2	1:B:1721:ARG:NH1	2.00	0.70
2:H:562:LEU:O	2:H:566:HIS:HB2	1.90	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:707:PRO:CG	2:H:716:VAL:HG21	2.21	0.70
1:A:1:MET:CE	1:A:6:GLU:HA	2.21	0.70
1:C:12:ILE:HD11	2:I:2041:ILE:CD1	2.21	0.70
1:C:529:MET:HA	1:C:529:MET:HE3	1.74	0.70
1:C:631:PRO:HB2	1:C:634:THR:OG1	1.91	0.70
2:G:1672:GLN:HA	2:G:1676:MET:CE	2.21	0.70
2:H:560:ASN:O	2:H:561:TRP:C	2.33	0.70
2:I:964:LEU:HD23	2:I:964:LEU:H	1.56	0.70
1:C:881:ASN:HA	1:C:944:ARG:NH2	2.06	0.70
2:G:650:ASN:HD21	4:G:3051:FMN:HN3	1.40	0.70
2:I:1680:LEU:HD13	2:I:1687:ALA:HB2	1.72	0.70
1:B:90:TYR:HE2	2:H:1659:GLN:OE1	1.73	0.70
1:B:1208:VAL:CG1	1:B:1212:THR:HB	2.20	0.70
1:B:1501:LEU:HD11	1:B:1775:LEU:CD2	2.22	0.70
2:G:123:ILE:HD11	2:G:533:LEU:CD2	2.21	0.70
2:G:579:VAL:HG23	2:G:1078:HIS:CD2	2.27	0.70
2:G:1676:MET:HE1	2:G:1781:LEU:HD21	1.73	0.70
2:I:455:ILE:CD1	2:I:469:ARG:HD3	2.20	0.70
2:I:748:THR:HB	2:I:749:PRO:HD3	1.74	0.70
1:B:459:ASP:HB3	1:B:462:LYS:HG3	1.73	0.70
2:G:707:PRO:HG3	2:G:716:VAL:CG2	2.22	0.70
2:G:1956:ARG:CB	2:G:1957:PRO:HD3	2.10	0.70
2:I:146:PHE:HA	2:I:149:VAL:CG1	2.20	0.70
2:I:1359:MET:HE3	2:I:1404:MET:HB3	1.72	0.70
1:A:934:PRO:O	1:A:935:GLU:C	2.35	0.70
1:A:1312:VAL:HG22	1:A:1329:VAL:HG11	1.73	0.70
1:B:1:MET:CE	1:B:6:GLU:HA	2.21	0.70
1:B:968:VAL:HG23	2:H:1515:PRO:HG3	1.74	0.70
2:G:1242:PHE:HE2	2:G:1244:PRO:HG3	1.55	0.70
1:C:260:ARG:NH1	1:C:300:VAL:HG21	2.06	0.70
2:G:1355:ASN:HA	2:G:1407:THR:O	1.92	0.70
2:H:234:ILE:HG13	2:H:235:PRO:HD3	1.73	0.70
2:I:1264:GLU:HA	2:I:1275:PHE:CE1	2.27	0.70
1:C:655:LEU:HD22	1:C:916:LEU:HD11	1.74	0.70
2:G:455:ILE:HD11	2:G:469:ARG:CD	2.22	0.70
2:H:741:HIS:CE1	2:H:845:THR:HG21	2.26	0.70
1:A:12:ILE:HA	1:A:15:THR:CG2	2.21	0.70
2:G:1331:TRP:CZ2	2:G:1335:ILE:HG13	2.26	0.70
2:H:2036:GLU:HB2	2:H:2037:PRO:HD3	1.72	0.70
1:A:1232:TYR:CZ	1:A:1701:LYS:HD2	2.27	0.69
2:G:7:ARG:HH21	2:G:27:PHE:CB	2.01	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:499:THR:CB	2:H:500:HIS:HD2	1.99	0.69
2:H:835:THR:HB	2:H:845:THR:HG23	1.73	0.69
2:I:926:LEU:HD13	2:I:947:THR:HG22	1.73	0.69
1:B:427:ASN:HD21	1:B:610:THR:H	1.40	0.69
2:G:1194:VAL:HG22	2:G:1212:LYS:HB3	1.74	0.69
2:G:1422:THR:HG21	2:G:1474:PHE:HB2	1.72	0.69
2:H:1670:GLY:H	2:H:1672:GLN:HE21	1.40	0.69
2:I:1862:VAL:HG11	2:I:1866:PHE:CD1	2.26	0.69
1:A:749:ILE:HD13	1:A:806:VAL:HG12	1.72	0.69
1:C:12:ILE:HA	1:C:15:THR:CG2	2.22	0.69
1:C:852:ARG:HH11	1:C:852:ARG:CG	2.00	0.69
2:G:1054:LEU:HB2	4:G:3051:FMN:C7M	2.22	0.69
2:H:567:PRO:HG3	2:H:781:LEU:CD1	2.22	0.69
2:H:1195:VAL:CG1	2:H:1211:LEU:HB3	2.23	0.69
2:H:1381:VAL:HG13	2:H:1390:VAL:HG22	1.74	0.69
2:I:652:ILE:H	2:I:658:MET:CE	2.04	0.69
1:A:254:TRP:CZ3	1:A:292:GLN:HG3	2.26	0.69
1:B:254:TRP:CZ3	1:B:292:GLN:HG3	2.27	0.69
2:I:1770:LEU:HD23	2:I:1776:PHE:HE2	1.55	0.69
1:B:1:MET:HE3	1:B:5:VAL:HG12	1.74	0.69
2:G:84:LEU:HD13	2:G:133:ALA:HB2	1.75	0.69
2:G:964:LEU:H	2:G:964:LEU:CD2	2.05	0.69
1:A:352:MET:HE2	1:A:354:LEU:CD2	2.22	0.69
1:C:1208:VAL:CG1	1:C:1212:THR:HB	2.23	0.69
2:G:856:LYS:HG2	2:G:1054:LEU:HD12	1.73	0.69
2:H:1889:VAL:HG13	2:H:1977:HIS:CB	2.22	0.69
2:H:1917:ILE:HG23	2:H:1922:ILE:HB	1.74	0.69
1:A:749:ILE:HD11	1:A:805:CYS:HB3	1.75	0.69
1:A:1721:ARG:HG2	1:A:1721:ARG:NH1	1.97	0.69
1:B:1376:PHE:HB3	1:B:1544:THR:HG22	1.74	0.69
2:G:191:SER:HA	2:G:194:THR:HG22	1.74	0.69
2:H:1635:ARG:HG2	2:H:1658:GLU:CD	2.18	0.69
2:I:109:LEU:HD11	2:I:116:LEU:HD23	1.73	0.69
2:I:1194:VAL:HG22	2:I:1212:LYS:HB3	1.75	0.69
1:A:479:ASN:O	1:A:483:VAL:HG23	1.91	0.69
1:A:1693:ILE:CD1	2:G:998:GLN:HB2	2.23	0.69
1:C:253:ARG:HE	1:C:254:TRP:NE1	1.90	0.69
1:C:271:ASN:HD22	1:C:290:MET:HE1	1.57	0.69
2:G:1172:LYS:HE3	2:G:1574:ASN:OD1	1.92	0.69
2:G:1670:GLY:H	2:G:1672:GLN:HE21	1.39	0.69
2:H:663:ILE:HB	2:H:664:PRO:HD3	1.75	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:751:LEU:HD23	2:H:791:TYR:CE2	2.27	0.69
2:H:1889:VAL:HG13	2:H:1977:HIS:HB2	1.72	0.69
2:H:2022:THR:HG23	2:H:2025:TYR:H	1.58	0.69
1:A:631:PRO:HB2	1:A:634:THR:OG1	1.92	0.69
1:C:1460:LYS:NZ	1:C:1774:GLU:CD	2.51	0.69
1:C:1838:GLU:OE1	1:C:1852:HIS:HE1	1.76	0.69
2:G:1264:GLU:HA	2:G:1275:PHE:CE1	2.28	0.69
2:G:1496:LYS:HE2	2:G:1693:ARG:HH21	1.57	0.69
2:H:305:PHE:CE1	2:H:442:ASP:HB3	2.28	0.69
2:H:1172:LYS:CE	2:H:1574:ASN:OD1	2.40	0.69
2:H:1739:GLU:CB	2:H:1987:PRO:HB3	2.21	0.69
2:I:663:ILE:HB	2:I:664:PRO:HD3	1.75	0.69
2:I:768:GLY:HA3	2:I:800:LEU:HD21	1.74	0.69
2:I:1739:GLU:CB	2:I:1987:PRO:HB3	2.20	0.69
1:A:257:PRO:HD2	1:A:260:ARG:HB2	1.75	0.69
1:A:1376:PHE:HB3	1:A:1544:THR:HG22	1.74	0.69
1:C:1021:VAL:HG11	1:C:1597:LEU:HD11	1.74	0.69
1:C:1219:VAL:HA	1:C:1384:ILE:CD1	2.20	0.69
1:C:1431:GLU:OE2	1:C:1433:HIS:HE1	1.76	0.69
2:G:663:ILE:HB	2:G:664:PRO:HD3	1.74	0.69
2:H:54:PRO:HG3	2:H:63:LYS:HG3	1.72	0.69
2:I:499:THR:CB	2:I:500:HIS:HD2	1.95	0.69
2:I:1917:ILE:HG23	2:I:1922:ILE:HB	1.74	0.69
1:A:1406:MET:HE1	1:A:1428:THR:HB	1.74	0.68
1:A:1838:GLU:OE1	1:A:1852:HIS:HE1	1.75	0.68
1:B:529:MET:HE1	1:B:894:ARG:HD2	1.75	0.68
2:H:259:THR:HG22	2:H:262:GLU:CG	2.22	0.68
2:I:234:ILE:HG13	2:I:235:PRO:HD3	1.73	0.68
1:A:1203:ASP:HB3	1:B:179:LYS:HZ3	1.58	0.68
2:G:1058:VAL:O	2:G:1061:GLN:HG2	1.93	0.68
2:I:1678:MET:HE1	2:I:1707:LEU:CD2	2.22	0.68
1:A:1431:GLU:HG3	1:A:1433:HIS:CE1	2.28	0.68
1:C:1045:PHE:HB3	1:C:1049:GLY:HA3	1.74	0.68
1:C:1406:MET:HE1	1:C:1428:THR:HB	1.74	0.68
2:G:2035:SER:HB3	2:G:2038:ILE:HG13	1.74	0.68
2:H:161:GLY:H	2:H:505:GLY:HA3	1.59	0.68
2:H:1101:GLU:HB3	2:H:1147:ILE:HG22	1.76	0.68
1:C:1376:PHE:HB3	1:C:1544:THR:HG22	1.74	0.68
2:G:1834:ARG:HG2	2:G:1834:ARG:NH1	1.93	0.68
2:I:598:THR:CG2	2:I:622:GLY:HA3	2.23	0.68
2:I:1227:ARG:HG3	2:I:1227:ARG:NH1	2.00	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1265:MET:HE1	2:I:1562:PRO:HG2	1.75	0.68
1:A:888:ILE:HD11	1:A:930:LEU:HD21	1.75	0.68
1:B:400:ARG:HG2	1:B:400:ARG:NH1	2.00	0.68
1:B:1312:VAL:HG22	1:B:1329:VAL:HG11	1.73	0.68
1:C:985:ARG:NH1	2:I:953:ARG:CZ	2.57	0.68
2:G:1323:MET:HE3	2:G:1605:VAL:HG22	1.76	0.68
2:I:161:GLY:H	2:I:505:GLY:HA3	1.56	0.68
2:I:187:LEU:HA	2:I:190:PHE:HB3	1.76	0.68
1:B:90:TYR:CE2	2:H:1659:GLN:OE1	2.47	0.68
1:C:1014:ASP:H	1:C:1510:ASN:ND2	1.84	0.68
2:G:54:PRO:HG3	2:G:63:LYS:HG3	1.76	0.68
2:G:259:THR:HG22	2:G:262:GLU:CG	2.22	0.68
2:G:1784:MET:HG3	2:G:1785:GLU:N	2.07	0.68
2:I:594:VAL:HG21	2:I:610:THR:HG21	1.75	0.68
2:I:1638:ILE:HD12	2:I:1657:ILE:HD12	1.75	0.68
1:A:1474:ALA:HA	1:A:1478:PRO:CG	2.24	0.68
1:C:987:ASN:HD22	2:I:957:ARG:HD2	1.58	0.68
2:H:648:GLY:HA3	2:H:678:PHE:CE2	2.29	0.68
2:H:1161:GLN:HB3	2:H:1255:MET:HE3	1.75	0.68
1:A:332:THR:HG22	1:B:331:ILE:HD11	1.76	0.68
1:A:504:ASP:HB3	1:A:508:ASN:H	1.56	0.68
1:C:1460:LYS:HE3	1:C:1774:GLU:OE1	1.92	0.68
2:G:455:ILE:CG1	2:G:469:ARG:HD3	2.23	0.68
2:H:187:LEU:HA	2:H:190:PHE:HB3	1.75	0.68
2:I:305:PHE:CE1	2:I:442:ASP:HB3	2.28	0.68
1:B:1219:VAL:HG22	1:B:1384:ILE:HD12	1.75	0.68
1:C:1310:GLU:OE1	1:C:1649:LYS:HE3	1.93	0.68
2:G:455:ILE:CD1	2:G:469:ARG:HD3	2.24	0.68
2:H:641:ILE:HG12	2:H:645:SER:HB2	1.76	0.68
1:A:1056:ILE:HD13	1:A:1193:TRP:HD1	1.59	0.68
1:B:1838:GLU:OE1	1:B:1852:HIS:HE1	1.76	0.68
2:G:1176:PRO:O	2:G:1177:SER:HB3	1.93	0.68
2:H:1058:VAL:O	2:H:1061:GLN:HG2	1.94	0.68
1:A:1303:GLY:H	1:A:1307:THR:HG22	1.59	0.67
1:A:1594:ASN:O	1:A:1598:GLN:HG3	1.94	0.67
1:B:183:GLN:HE21	1:B:202:GLU:HG2	1.59	0.67
1:C:44:VAL:CG1	1:C:78:ILE:HG12	2.24	0.67
1:C:254:TRP:CZ3	1:C:292:GLN:HG3	2.29	0.67
1:C:1303:GLY:H	1:C:1307:THR:HG22	1.60	0.67
2:G:187:LEU:HA	2:G:190:PHE:HB3	1.74	0.67
2:G:1475:LYS:CG	2:G:1481:SER:HB2	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:707:PRO:HG3	2:H:716:VAL:CG2	2.24	0.67
2:H:191:SER:HA	2:H:194:THR:HG22	1.77	0.67
2:I:583:PHE:HD2	2:I:764:MET:HE3	1.60	0.67
1:C:1232:TYR:CZ	1:C:1701:LYS:HD2	2.29	0.67
1:C:1455:ARG:HH11	1:C:1458:GLN:HE21	1.42	0.67
2:G:163:GLN:HG2	2:G:423:VAL:HG12	1.77	0.67
2:G:1889:VAL:HG13	2:G:1977:HIS:CB	2.24	0.67
2:H:50:ALA:HB3	2:H:53:GLU:HG3	1.76	0.67
2:H:1229:MET:HE2	2:H:1268:LYS:O	1.95	0.67
2:I:579:VAL:HG23	2:I:1078:HIS:NE2	2.10	0.67
1:C:504:ASP:HB3	1:C:508:ASN:H	1.60	0.67
2:G:583:PHE:CD2	2:G:764:MET:HE3	2.29	0.67
2:G:1129:ALA:HB2	2:G:1138:TRP:CZ3	2.30	0.67
2:I:598:THR:OG1	2:I:599:PRO:HD3	1.94	0.67
1:A:459:ASP:HB3	1:A:462:LYS:HG3	1.76	0.67
1:B:1303:GLY:H	1:B:1307:THR:HG22	1.59	0.67
1:C:409:ALA:HB2	1:C:442:ARG:HD2	1.76	0.67
1:C:1056:ILE:HD13	1:C:1193:TRP:HD1	1.60	0.67
1:C:1523:ARG:CG	1:C:1523:ARG:NH1	2.57	0.67
2:G:768:GLY:HA3	2:G:800:LEU:HD21	1.76	0.67
2:G:910:GLN:HE21	2:G:912:ARG:HH21	1.42	0.67
2:H:902:PRO:HG2	2:H:929:LEU:HD21	1.74	0.67
2:I:904:PHE:HB2	2:I:1017:PHE:CD1	2.28	0.67
2:I:910:GLN:HE21	2:I:912:ARG:HH21	1.40	0.67
1:A:1360:ARG:HH11	1:A:1364:GLU:HG2	1.60	0.67
1:B:1039:MET:O	1:B:1609:ARG:NH2	2.27	0.67
2:G:1741:ILE:HG12	2:G:1746:LEU:HD13	1.77	0.67
1:B:1310:GLU:OE1	1:B:1649:LYS:HE3	1.94	0.67
2:G:1161:GLN:HB3	2:G:1255:MET:HE3	1.76	0.67
2:I:1675:GLY:O	2:I:1678:MET:HB2	1.94	0.67
1:A:328:LEU:O	1:A:328:LEU:HD22	1.94	0.67
1:C:746:GLU:O	1:C:750:GLU:HG3	1.95	0.67
2:H:545:GLN:HE21	2:H:545:GLN:H	1.41	0.67
2:H:594:VAL:HG21	2:H:610:THR:HG21	1.77	0.67
2:H:768:GLY:HA3	2:H:800:LEU:HD21	1.77	0.67
2:I:54:PRO:HG3	2:I:63:LYS:HG3	1.75	0.67
2:G:1004:LEU:HD21	2:G:1020:VAL:HG23	1.77	0.67
2:G:1770:LEU:HD23	2:G:1776:PHE:HE2	1.58	0.67
2:H:315:PRO:O	2:I:1314:ARG:NH2	2.28	0.67
2:H:1086:LEU:HG	2:H:1092:ASP:HA	1.77	0.67
2:H:1242:PHE:CE2	2:H:1244:PRO:HG3	2.30	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1264:GLU:HA	2:H:1275:PHE:CE1	2.29	0.67
2:I:703:LEU:HD21	2:I:705:LEU:HD21	1.76	0.67
2:G:353:VAL:HG23	2:G:357:ASN:ND2	2.10	0.67
2:H:1256:GLU:O	2:H:1257:ASP:HB2	1.93	0.67
2:I:1822:MET:HE2	2:I:1996:ILE:HG12	1.77	0.67
2:I:1889:VAL:HG13	2:I:1977:HIS:CB	2.24	0.67
1:A:1030:TRP:NE1	1:A:1580:LEU:CD2	2.57	0.66
1:C:257:PRO:HD2	1:C:260:ARG:HB2	1.76	0.66
1:C:888:ILE:HD12	1:C:939:PHE:HE2	1.60	0.66
2:G:670:ARG:HD3	2:G:699:GLY:O	1.95	0.66
2:H:1159:ILE:CG1	2:H:1169:PRO:HD3	2.24	0.66
2:H:1862:VAL:HG11	2:H:1866:PHE:CD1	2.30	0.66
2:I:50:ALA:HB3	2:I:53:GLU:HG3	1.76	0.66
2:I:163:GLN:HG2	2:I:423:VAL:HG12	1.76	0.66
2:I:1227:ARG:HD2	2:I:1565:VAL:HG11	1.77	0.66
2:I:1676:MET:HE1	2:I:1781:LEU:HD21	1.76	0.66
1:A:473:GLY:O	1:A:477:ILE:HG13	1.95	0.66
1:A:1662:TYR:O	1:A:1665:ILE:HG22	1.95	0.66
1:B:328:LEU:O	1:B:328:LEU:HD22	1.95	0.66
1:B:335:HIS:CE1	1:C:335:HIS:CE1	2.82	0.66
1:B:1406:MET:HE1	1:B:1428:THR:HB	1.77	0.66
1:C:294:TYR:CE1	1:C:298:VAL:HG21	2.29	0.66
1:C:328:LEU:O	1:C:328:LEU:HD22	1.95	0.66
1:C:1430:ARG:HG2	1:C:1430:ARG:O	1.94	0.66
2:G:1352:HIS:CE1	2:G:1583:MET:HE2	2.27	0.66
2:H:670:ARG:HD3	2:H:699:GLY:O	1.95	0.66
2:I:1739:GLU:O	2:I:1987:PRO:HG3	1.95	0.66
2:I:1920:GLN:HG2	2:I:1922:ILE:HD11	1.75	0.66
1:A:183:GLN:HE21	1:A:202:GLU:HG2	1.59	0.66
1:B:27:ARG:HB2	2:H:2016:ALA:HB2	1.76	0.66
1:B:1045:PHE:HB3	1:B:1049:GLY:HA3	1.76	0.66
1:C:460:GLU:HG2	1:C:470:LYS:HD3	1.77	0.66
1:C:507:GLY:N	1:C:954:ARG:HG2	2.11	0.66
1:C:1030:TRP:NE1	1:C:1580:LEU:CD2	2.58	0.66
2:H:910:GLN:HE21	2:H:912:ARG:HH21	1.43	0.66
2:I:750:MET:HG3	2:I:796:PHE:HZ	1.60	0.66
1:A:864:VAL:HG22	1:A:921:PRO:HB3	1.78	0.66
1:B:12:ILE:HA	1:B:15:THR:CG2	2.25	0.66
2:I:705:LEU:HD12	2:I:716:VAL:HG13	1.75	0.66
1:B:504:ASP:HB3	1:B:508:ASN:H	1.60	0.66
2:G:61:VAL:O	2:G:65:LEU:HB2	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1300:PHE:HA	2:G:1556:VAL:HG11	1.77	0.66
2:G:1862:VAL:HG11	2:G:1866:PHE:CD1	2.30	0.66
2:H:741:HIS:CE1	2:H:855:HIS:CE1	2.84	0.66
2:H:826:GLY:HA3	2:H:1061:GLN:HB3	1.75	0.66
2:H:835:THR:HG21	2:H:855:HIS:HD2	1.59	0.66
1:A:253:ARG:HE	1:A:254:TRP:NE1	1.91	0.66
1:A:988:ILE:HD13	1:A:1048:GLU:HB3	1.76	0.66
1:B:1749:THR:CB	1:B:1874:ASP:N	2.58	0.66
2:G:579:VAL:HG23	2:G:1078:HIS:NE2	2.10	0.66
2:H:1986:LYS:N	2:H:1987:PRO:HD2	2.11	0.66
1:A:836:ASP:HB3	1:A:839:TYR:HB3	1.76	0.66
1:B:497:THR:OG1	1:B:513:GLU:HG2	1.95	0.66
1:B:1540:SER:HA	1:B:1575:VAL:HG22	1.78	0.66
1:C:1431:GLU:OE2	1:C:1433:HIS:CE1	2.48	0.66
2:G:1920:GLN:HG2	2:G:1922:ILE:HD11	1.78	0.66
2:H:61:VAL:O	2:H:65:LEU:HB2	1.96	0.66
2:H:904:PHE:HB2	2:H:1017:PHE:CD1	2.30	0.66
2:H:1741:ILE:HG12	2:H:1746:LEU:HD13	1.76	0.66
1:B:733:ILE:HD13	1:B:761:LEU:HD11	1.78	0.66
2:G:1457:PHE:CZ	2:G:1501:ILE:HD11	2.30	0.66
2:G:1808:SER:H	2:G:2013:ASN:ND2	1.93	0.66
2:H:131:ILE:HG21	2:H:182:VAL:CG1	2.18	0.66
2:I:1195:VAL:CG1	2:I:1211:LEU:HB3	2.25	0.66
1:A:254:TRP:CH2	1:A:292:GLN:HG3	2.31	0.66
1:B:1219:VAL:HA	1:B:1384:ILE:CD1	2.24	0.66
1:C:295:ALA:HB2	1:C:302:LEU:HD11	1.77	0.66
2:H:1770:LEU:HD23	2:H:1776:PHE:HE2	1.59	0.66
2:I:1381:VAL:HG13	2:I:1390:VAL:HG22	1.78	0.66
2:I:1808:SER:H	2:I:2013:ASN:ND2	1.94	0.66
1:B:501:THR:N	1:B:886:GLU:OE1	2.21	0.66
1:C:1360:ARG:HH11	1:C:1364:GLU:HG2	1.60	0.66
2:G:33:LEU:HD11	2:G:80:PHE:HD2	1.61	0.66
2:G:843:ILE:HD11	2:G:1055:HIS:HB3	1.78	0.66
2:G:904:PHE:HB2	2:G:1017:PHE:CD1	2.30	0.66
2:G:1352:HIS:CD2	2:G:1410:PHE:CE2	2.84	0.66
2:I:1819:ALA:HA	2:I:2005:ARG:HH11	1.61	0.66
1:A:497:THR:OG1	1:A:513:GLU:HG2	1.96	0.65
1:B:253:ARG:HE	1:B:254:TRP:NE1	1.91	0.65
1:B:529:MET:CG	1:B:638:LEU:HG	2.26	0.65
1:C:1:MET:CE	1:C:6:GLU:HA	2.25	0.65
1:C:1317:GLU:OE1	1:C:1317:GLU:HA	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1976:PHE:HA	2:G:1981:LEU:HD22	1.78	0.65
2:H:1676:MET:HE1	2:H:1781:LEU:HD21	1.78	0.65
2:H:2035:SER:HB3	2:H:2038:ILE:HG13	1.78	0.65
1:B:836:ASP:HB3	1:B:839:TYR:HB3	1.79	0.65
1:C:330:GLU:HA	1:C:333:LYS:HD2	1.79	0.65
1:C:836:ASP:HB3	1:C:839:TYR:HB3	1.77	0.65
1:C:1312:VAL:HG22	1:C:1329:VAL:HG11	1.78	0.65
2:G:1986:LYS:N	2:G:1987:PRO:HD2	2.12	0.65
2:H:1325:PHE:CZ	2:H:1328:VAL:HG11	2.32	0.65
2:I:1782:THR:HG22	2:I:1827:LEU:HD21	1.78	0.65
1:A:27:ARG:HB2	2:G:2016:ALA:HB2	1.77	0.65
2:G:597:MET:HA	4:G:3051:FMN:N5	2.10	0.65
2:G:1417:THR:C	2:G:1419:PHE:H	2.04	0.65
1:A:27:ARG:HD2	1:A:30:GLU:OE2	1.97	0.65
1:A:331:ILE:HD11	1:C:332:THR:HG22	1.79	0.65
1:B:460:GLU:HG2	1:B:470:LYS:HD3	1.78	0.65
1:B:1317:GLU:OE1	1:B:1317:GLU:HA	1.96	0.65
1:C:32:GLN:HA	1:C:35:PHE:CE2	2.31	0.65
2:G:234:ILE:HG13	2:G:235:PRO:HD3	1.77	0.65
2:G:259:THR:HG23	2:G:262:GLU:H	1.62	0.65
2:G:902:PRO:HG2	2:G:929:LEU:HD21	1.79	0.65
2:G:1086:LEU:HG	2:G:1092:ASP:HA	1.77	0.65
2:H:1719:ILE:O	2:H:1761:SER:HB2	1.97	0.65
2:I:251:VAL:O	2:I:255:LEU:HB2	1.96	0.65
1:B:257:PRO:HD2	1:B:260:ARG:HB2	1.78	0.65
1:B:749:ILE:HD11	1:B:805:CYS:HB3	1.77	0.65
2:G:736:ARG:NH1	2:G:769:SER:O	2.29	0.65
1:A:331:ILE:CD1	1:C:332:THR:HG22	2.26	0.65
1:A:1219:VAL:HG22	1:A:1384:ILE:HD12	1.77	0.65
2:G:131:ILE:HG21	2:G:182:VAL:CG1	2.26	0.65
2:I:545:GLN:HE21	2:I:545:GLN:H	1.42	0.65
1:A:968:VAL:O	2:G:1512:HIS:HB2	1.97	0.65
1:C:435:GLU:O	1:C:439:ILE:HG13	1.96	0.65
2:G:561:TRP:O	2:G:562:LEU:C	2.39	0.65
2:G:1381:VAL:HG13	2:G:1390:VAL:HG22	1.77	0.65
2:G:1740:THR:HG22	2:G:1742:VAL:HG23	1.78	0.65
1:B:294:TYR:CE1	1:B:298:VAL:HG21	2.32	0.65
1:C:497:THR:OG1	1:C:513:GLU:HG2	1.97	0.65
2:G:583:PHE:HD2	2:G:764:MET:HE3	1.62	0.65
2:G:826:GLY:HA3	2:G:1061:GLN:HB3	1.77	0.65
2:H:667:LYS:HB2	2:H:698:LEU:HD23	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:748:THR:HB	2:H:749:PRO:HD3	1.78	0.65
1:A:340:ARG:HH12	1:A:344:GLN:CG	2.09	0.65
1:A:529:MET:CG	1:A:638:LEU:HG	2.27	0.65
1:A:1219:VAL:HA	1:A:1384:ILE:CD1	2.23	0.65
1:C:1:MET:HE3	1:C:5:VAL:HG12	1.77	0.65
2:G:259:THR:CG2	2:G:262:GLU:H	2.10	0.65
2:G:1242:PHE:CE2	2:G:1244:PRO:HG3	2.31	0.65
2:G:1418:ASP:O	2:G:1420:GLU:N	2.30	0.65
2:H:567:PRO:HG3	2:H:781:LEU:HD12	1.77	0.65
1:A:294:TYR:CE1	1:A:298:VAL:HG21	2.32	0.65
1:C:11:HIS:ND1	2:I:1998:LYS:HA	2.12	0.65
1:C:1292:ILE:CD1	1:C:1328:ILE:HD11	2.27	0.65
2:G:1822:MET:HE2	2:G:1996:ILE:HG12	1.79	0.65
2:I:1176:PRO:O	2:I:1177:SER:HB3	1.95	0.65
1:B:254:TRP:CH2	1:B:292:GLN:HG3	2.32	0.64
2:G:1841:ALA:O	2:G:1842:VAL:HG23	1.97	0.64
2:H:741:HIS:HB3	2:H:853:PRO:HB2	1.77	0.64
2:H:1195:VAL:HG13	2:H:1211:LEU:HB3	1.80	0.64
2:I:490:TRP:HE1	2:I:516:THR:CG2	2.00	0.64
2:I:1475:LYS:CG	2:I:1481:SER:HB2	2.27	0.64
1:B:599:MET:HB2	1:B:624:LYS:CD	2.24	0.64
1:C:1721:ARG:CG	1:C:1721:ARG:NH1	2.56	0.64
2:G:353:VAL:HG23	2:G:357:ASN:HD22	1.61	0.64
2:G:1906:ALA:O	2:G:1910:VAL:HG23	1.97	0.64
2:H:1859:PRO:O	2:H:1862:VAL:HG13	1.98	0.64
2:I:719:ILE:O	2:I:722:ALA:HB3	1.97	0.64
2:I:1355:ASN:HA	2:I:1407:THR:O	1.97	0.64
1:A:421:ILE:CG1	1:A:469:VAL:HG21	2.28	0.64
1:A:893:VAL:HG11	1:A:930:LEU:HD23	1.80	0.64
1:B:864:VAL:HG22	1:B:921:PRO:HB3	1.77	0.64
1:C:749:ILE:HD11	1:C:805:CYS:HB3	1.78	0.64
2:H:115:THR:HB	2:H:118:LYS:HB2	1.80	0.64
1:B:1460:LYS:NZ	1:B:1774:GLU:CD	2.51	0.64
1:C:604:ALA:HB3	1:C:612:GLU:HG2	1.80	0.64
2:G:138:ASP:O	2:G:139:LYS:HG3	1.97	0.64
2:H:259:THR:HG23	2:H:262:GLU:H	1.63	0.64
2:H:1352:HIS:CD2	2:H:1410:PHE:CE2	2.85	0.64
2:H:1906:ALA:O	2:H:1910:VAL:HG23	1.98	0.64
1:A:1039:MET:O	1:A:1609:ARG:NH2	2.30	0.64
1:B:746:GLU:O	1:B:750:GLU:HG3	1.97	0.64
2:G:490:TRP:HE1	2:G:516:THR:CG2	1.99	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:259:THR:CG2	2:H:262:GLU:H	2.10	0.64
2:H:658:MET:HA	2:H:661:TRP:NE1	2.13	0.64
2:H:1823:SER:OG	2:H:1825:GLU:HG2	1.96	0.64
1:B:504:ASP:HB2	1:B:508:ASN:HB2	1.79	0.64
1:C:1540:SER:HA	1:C:1575:VAL:HG22	1.79	0.64
1:C:1594:ASN:O	1:C:1598:GLN:HG3	1.97	0.64
2:G:1103:PHE:O	2:G:1247:GLY:HA3	1.97	0.64
2:G:1195:VAL:CG1	2:G:1211:LEU:HB3	2.27	0.64
2:G:1840:VAL:O	2:G:1840:VAL:CG1	2.44	0.64
2:H:1323:MET:HE3	2:H:1605:VAL:HG22	1.80	0.64
2:I:61:VAL:O	2:I:65:LEU:HB2	1.96	0.64
2:I:826:GLY:HA3	2:I:1061:GLN:HB3	1.78	0.64
1:A:504:ASP:HB2	1:A:508:ASN:HB2	1.78	0.64
1:A:746:GLU:O	1:A:750:GLU:HG3	1.97	0.64
1:A:1022:THR:HG22	1:A:1226:SER:HB2	1.80	0.64
1:C:833:PHE:HA	1:C:937:LYS:HD2	1.78	0.64
2:G:499:THR:CB	2:G:500:HIS:HD2	1.97	0.64
2:H:1808:SER:H	2:H:2013:ASN:HD21	1.46	0.64
2:I:7:ARG:HE	2:I:27:PHE:HB2	1.62	0.64
2:I:1457:PHE:CZ	2:I:1501:ILE:HD11	2.33	0.64
1:B:330:GLU:HA	1:B:333:LYS:HD2	1.80	0.64
1:B:852:ARG:HG2	1:B:852:ARG:NH1	1.98	0.64
1:C:1194:ASN:HB3	1:C:1197:THR:CG2	2.27	0.64
2:G:1739:GLU:CB	2:G:1987:PRO:HB3	2.23	0.64
2:G:1838:MET:O	2:G:1974:VAL:HG21	1.98	0.64
2:H:232:LEU:O	2:H:232:LEU:HD23	1.98	0.64
2:H:1457:PHE:CZ	2:H:1501:ILE:HD11	2.32	0.64
2:I:648:GLY:HA3	2:I:678:PHE:CE2	2.32	0.64
2:I:2022:THR:HG23	2:I:2025:TYR:H	1.63	0.64
1:A:1317:GLU:HA	1:A:1317:GLU:OE1	1.96	0.64
1:B:421:ILE:CG1	1:B:469:VAL:HG21	2.27	0.64
2:G:545:GLN:HE21	2:G:545:GLN:H	1.46	0.64
2:H:1205:LEU:O	2:H:1206:LYS:HG3	1.97	0.64
2:I:892:ILE:HD11	2:I:903:TRP:NE1	2.12	0.64
2:I:964:LEU:H	2:I:964:LEU:CD2	2.11	0.64
1:A:1:MET:HE3	1:A:5:VAL:HG12	1.80	0.64
1:B:1474:ALA:HA	1:B:1478:PRO:CG	2.27	0.64
2:G:305:PHE:CE1	2:G:442:ASP:HB3	2.32	0.64
2:H:163:GLN:HG2	2:H:423:VAL:HG12	1.79	0.64
2:H:703:LEU:HD21	2:H:705:LEU:HD21	1.79	0.64
2:H:1327:ILE:HG12	2:H:1583:MET:HE3	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1359:MET:SD	2:H:1404:MET:HE2	2.38	0.64
2:I:670:ARG:HD3	2:I:699:GLY:O	1.98	0.64
1:A:152:HIS:HD2	1:A:163:LEU:HB2	1.61	0.63
1:A:1021:VAL:HG11	1:A:1597:LEU:HD11	1.79	0.63
1:C:24:SER:CB	2:I:2014:LEU:HD12	2.27	0.63
1:C:352:MET:HE2	1:C:354:LEU:CD2	2.28	0.63
1:C:934:PRO:O	1:C:936:LEU:N	2.30	0.63
1:C:1474:ALA:HA	1:C:1478:PRO:CG	2.27	0.63
2:G:648:GLY:HA3	2:G:678:PHE:CE2	2.33	0.63
2:H:964:LEU:H	2:H:964:LEU:CD2	2.09	0.63
2:H:1176:PRO:O	2:H:1177:SER:HB3	1.97	0.63
2:H:1266:TYR:CB	2:H:1347:LEU:HD23	2.28	0.63
2:I:641:ILE:HG12	2:I:645:SER:HB2	1.79	0.63
1:A:504:ASP:CB	1:A:508:ASN:H	2.10	0.63
1:B:438:ASN:HD21	1:B:698:GLN:HE21	1.46	0.63
1:C:436:ALA:O	1:C:440:MET:HG3	1.98	0.63
1:C:504:ASP:HB2	1:C:508:ASN:HB2	1.80	0.63
1:C:989:GLN:NE2	2:I:993:GLN:OE1	2.32	0.63
2:G:1205:LEU:O	2:G:1206:LYS:HG3	1.98	0.63
2:G:2022:THR:HG23	2:G:2025:TYR:H	1.63	0.63
2:H:1227:ARG:CG	2:H:1227:ARG:NH1	2.57	0.63
2:H:1808:SER:H	2:H:2013:ASN:ND2	1.95	0.63
2:I:902:PRO:HG2	2:I:929:LEU:HD21	1.79	0.63
2:I:1266:TYR:CB	2:I:1347:LEU:HD23	2.28	0.63
2:I:1279:PHE:HB2	2:I:1340:PRO:HG3	1.79	0.63
2:I:1378:ILE:HD11	2:I:1381:VAL:CG2	2.28	0.63
1:A:956:ALA:O	1:A:959:ILE:HG22	1.98	0.63
1:A:1292:ILE:CD1	1:A:1328:ILE:HD11	2.28	0.63
1:A:1461:ASP:O	1:A:1465:ASN:HB2	1.99	0.63
1:B:992:PHE:CE2	1:B:1399:PRO:HG3	2.34	0.63
1:C:1721:ARG:HG2	1:C:1721:ARG:NH1	2.00	0.63
2:G:7:ARG:HE	2:G:27:PHE:HB2	1.63	0.63
2:G:259:THR:OG1	2:G:260:PRO:HD2	1.97	0.63
2:G:745:ASP:HA	2:G:832:TRP:HH2	1.64	0.63
2:H:353:VAL:HG23	2:H:357:ASN:ND2	2.13	0.63
2:I:1673:GLU:H	2:I:1676:MET:HE3	1.63	0.63
2:I:1890:ASN:HB2	2:I:1899:VAL:HB	1.81	0.63
2:I:1976:PHE:HA	2:I:1981:LEU:HD22	1.81	0.63
1:A:824:LEU:HD12	1:A:846:LEU:HB3	1.80	0.63
1:A:852:ARG:HG2	1:A:852:ARG:NH1	2.00	0.63
1:B:881:ASN:HA	1:B:944:ARG:HH21	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:599:MET:HB2	1:C:624:LYS:CD	2.25	0.63
1:C:680:ILE:HG13	1:C:769:ILE:HB	1.80	0.63
2:G:835:THR:HG21	2:G:855:HIS:CD2	2.33	0.63
2:G:1266:TYR:CB	2:G:1347:LEU:HD23	2.29	0.63
2:H:1740:THR:HG22	2:H:1742:VAL:HG23	1.79	0.63
2:I:1159:ILE:CG1	2:I:1169:PRO:HD3	2.28	0.63
1:B:421:ILE:HG13	1:B:469:VAL:HG21	1.81	0.63
2:G:1738:PHE:CE1	2:G:1837:THR:HG23	2.34	0.63
2:G:1859:PRO:O	2:G:1862:VAL:HG13	1.99	0.63
2:H:598:THR:CG2	2:H:622:GLY:HA3	2.28	0.63
2:I:159:ILE:HD11	2:I:512:LEU:HG	1.80	0.63
2:I:1195:VAL:HG13	2:I:1211:LEU:HB3	1.79	0.63
1:A:330:GLU:HA	1:A:333:LYS:HD2	1.80	0.63
1:A:484:LEU:O	1:A:485:ASP:CB	2.47	0.63
1:B:444:ASN:HB3	1:B:446:ALA:H	1.63	0.63
1:B:1721:ARG:CG	1:B:1721:ARG:NH1	2.55	0.63
2:G:115:THR:HB	2:G:118:LYS:HB2	1.80	0.63
2:G:251:VAL:O	2:G:255:LEU:HB2	1.99	0.63
2:G:1359:MET:SD	2:G:1404:MET:HE2	2.38	0.63
2:H:601:THR:CG2	2:H:618:GLU:O	2.38	0.63
2:H:835:THR:HG22	2:H:845:THR:N	2.14	0.63
2:H:1475:LYS:CG	2:H:1481:SER:HB2	2.29	0.63
2:I:1741:ILE:HG12	2:I:1746:LEU:HD13	1.80	0.63
2:I:1859:PRO:O	2:I:1862:VAL:HG13	1.98	0.63
1:A:436:ALA:O	1:A:440:MET:HG3	1.99	0.63
1:A:1194:ASN:HB3	1:A:1197:THR:CG2	2.28	0.63
2:I:241:ILE:HG23	2:I:506:PRO:HG3	1.81	0.63
2:I:732:TRP:CG	2:I:750:MET:CE	2.73	0.63
1:B:27:ARG:HH21	2:H:2015:THR:HA	1.64	0.63
1:C:864:VAL:HG22	1:C:921:PRO:HB3	1.79	0.63
2:G:748:THR:HB	2:G:749:PRO:HD3	1.78	0.63
2:G:1360:ILE:HG23	2:G:1403:VAL:O	1.99	0.63
2:H:892:ILE:HD11	2:H:903:TRP:NE1	2.14	0.63
2:I:1194:VAL:O	2:I:1194:VAL:HG12	1.99	0.63
1:A:460:GLU:HG2	1:A:470:LYS:HD3	1.79	0.63
1:B:29:ILE:HG13	2:H:1891:TYR:C	2.23	0.63
1:C:742:LYS:HD3	1:C:746:GLU:OE2	1.98	0.63
1:C:1012:LEU:HD23	1:C:1445:MET:HE2	1.80	0.63
2:G:490:TRP:O	2:G:494:THR:HG22	1.99	0.63
2:I:115:THR:HB	2:I:118:LYS:HB2	1.80	0.63
2:I:259:THR:HG23	2:I:262:GLU:H	1.64	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:259:THR:OG1	2:I:260:PRO:HD2	1.98	0.63
1:A:411:GLN:HE22	1:A:1628:SER:H	1.47	0.62
1:B:352:MET:HE2	1:B:354:LEU:CD2	2.29	0.62
1:B:1056:ILE:HD13	1:B:1193:TRP:HD1	1.64	0.62
1:C:956:ALA:O	1:C:959:ILE:HG22	1.98	0.62
1:C:1753:ALA:HB2	1:C:1872:SER:OG	1.98	0.62
2:G:1227:ARG:HG3	2:G:1227:ARG:NH1	2.00	0.62
2:H:33:LEU:HD11	2:H:80:PHE:HD2	1.63	0.62
2:H:1874:VAL:O	2:H:1878:VAL:HG12	1.98	0.62
1:A:13:LEU:HB2	2:G:2026:PHE:CE1	2.34	0.62
1:A:158:LYS:HD3	1:A:185:GLU:HB3	1.81	0.62
1:B:529:MET:HG3	1:B:638:LEU:HG	1.80	0.62
2:G:85:ASN:ND2	2:G:135:ARG:HH11	1.97	0.62
2:G:943:TRP:CH2	2:G:1016:PRO:HG3	2.34	0.62
2:G:1378:ILE:HD11	2:G:1381:VAL:CG2	2.29	0.62
2:H:251:VAL:O	2:H:255:LEU:HB2	1.99	0.62
2:H:1374:THR:HG23	2:H:1396:LEU:HD12	1.81	0.62
2:H:1672:GLN:HA	2:H:1676:MET:HE1	1.80	0.62
2:H:1931:LEU:HD22	2:H:1935:GLU:HG2	1.81	0.62
1:A:1259:GLY:HA2	1:A:1263:ASP:HB2	1.81	0.62
1:C:254:TRP:CH2	1:C:292:GLN:HG3	2.34	0.62
1:C:529:MET:CG	1:C:638:LEU:HG	2.30	0.62
2:G:726:PHE:O	2:G:762:ASN:HB2	1.98	0.62
2:H:750:MET:HG3	2:H:796:PHE:HZ	1.64	0.62
2:H:856:LYS:HG2	2:H:1054:LEU:HD12	1.81	0.62
2:I:324:LEU:HD12	2:I:328:LEU:HG	1.82	0.62
2:I:1472:VAL:HG22	2:I:1483:VAL:HG22	1.81	0.62
2:I:1624:THR:HB	2:I:1642:THR:HG23	1.81	0.62
2:H:871:THR:HB	2:H:872:ILE:HD12	1.80	0.62
2:H:1054:LEU:CB	4:H:3051:FMN:HM73	2.28	0.62
2:H:1472:VAL:HG22	2:H:1483:VAL:HG22	1.79	0.62
2:I:1868:GLN:HG3	2:I:1898:TYR:OH	1.99	0.62
2:I:1906:ALA:O	2:I:1910:VAL:HG23	2.00	0.62
1:A:1292:ILE:HD11	1:A:1328:ILE:HD11	1.81	0.62
1:A:1455:ARG:HH11	1:A:1458:GLN:HE21	1.46	0.62
1:A:1464:GLU:CD	1:A:1773:VAL:HG12	2.23	0.62
1:B:507:GLY:N	1:B:954:ARG:HG2	2.15	0.62
1:B:1584:PRO:HG3	1:B:1591:TRP:CZ3	2.35	0.62
1:C:1039:MET:O	1:C:1609:ARG:NH2	2.31	0.62
1:C:1431:GLU:CD	1:C:1433:HIS:HE1	2.08	0.62
2:G:1102:TYR:HB3	2:G:1244:PRO:HA	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1673:GLU:H	2:G:1676:MET:HE3	1.64	0.62
2:G:1782:THR:HG22	2:G:1827:LEU:HD21	1.81	0.62
2:G:1819:ALA:HA	2:G:2005:ARG:HH11	1.65	0.62
2:H:601:THR:HG22	2:H:601:THR:O	2.00	0.62
2:I:1161:GLN:HB3	2:I:1255:MET:HE3	1.80	0.62
1:B:1455:ARG:HH11	1:B:1458:GLN:HE21	1.47	0.62
1:C:822:VAL:HG12	1:C:824:LEU:HD22	1.82	0.62
2:G:856:LYS:NZ	2:G:1052:CYS:SG	2.69	0.62
2:H:1168:ASN:ND2	2:H:1171:ARG:HB2	2.14	0.62
2:I:464:ASP:HB3	2:I:466:SER:HB3	1.80	0.62
2:I:846:VAL:HG13	2:I:865:TRP:NE1	2.15	0.62
2:I:1740:THR:HG22	2:I:1742:VAL:HG23	1.79	0.62
1:A:749:ILE:CD1	1:A:805:CYS:HB3	2.29	0.62
1:A:1540:SER:HA	1:A:1575:VAL:HG22	1.81	0.62
1:C:233:ILE:HD13	1:C:237:MET:CE	2.30	0.62
2:G:241:ILE:HG23	2:G:506:PRO:HG3	1.80	0.62
2:G:871:THR:HB	2:G:872:ILE:HD12	1.82	0.62
2:G:1908:ASP:HB2	2:G:1958:LEU:HD21	1.81	0.62
2:H:131:ILE:HD12	2:H:182:VAL:CG1	2.29	0.62
2:H:1673:GLU:H	2:H:1676:MET:HE3	1.64	0.62
2:I:184:VAL:HG13	2:I:187:LEU:HD21	1.80	0.62
2:I:259:THR:CG2	2:I:262:GLU:H	2.11	0.62
1:C:444:ASN:HB3	1:C:446:ALA:H	1.65	0.62
2:G:159:ILE:HD11	2:G:512:LEU:HG	1.80	0.62
2:G:641:ILE:HG12	2:G:645:SER:HB2	1.80	0.62
2:G:1300:PHE:CA	2:G:1556:VAL:HG11	2.29	0.62
2:G:1678:MET:HE2	2:G:1711:ILE:HG13	1.82	0.62
2:H:85:ASN:ND2	2:H:135:ARG:HH11	1.96	0.62
2:I:1805:ALA:HB2	2:I:2011:ILE:HB	1.82	0.62
1:A:20:TYR:HE1	2:G:2035:SER:HB2	1.60	0.62
1:A:1523:ARG:CG	1:A:1523:ARG:NH1	2.57	0.62
1:B:27:ARG:HD2	1:B:30:GLU:OE2	2.00	0.62
1:C:501:THR:N	1:C:886:GLU:OE1	2.21	0.62
2:G:517:HIS:C	2:G:517:HIS:CD2	2.78	0.62
2:G:750:MET:HG3	2:G:796:PHE:HZ	1.65	0.62
2:H:490:TRP:O	2:H:494:THR:HG22	2.00	0.62
2:H:1822:MET:HE2	2:H:1996:ILE:HG12	1.82	0.62
1:A:1326:ILE:HG12	1:A:1388:MET:HG3	1.82	0.62
2:G:1719:ILE:O	2:G:1761:SER:HB2	2.00	0.62
2:G:1931:LEU:HD22	2:G:1935:GLU:HG2	1.82	0.62
2:H:1149:TRP:CD1	2:H:1213:LEU:HD12	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:745:ASP:HA	2:I:832:TRP:HH2	1.65	0.62
2:I:1086:LEU:HD12	2:I:1090:TYR:HB2	1.82	0.62
2:I:1823:SER:OG	2:I:1825:GLU:HG2	2.00	0.62
1:C:509:ILE:HG12	1:C:951:SER:HB2	1.82	0.61
1:C:1057:MET:SD	1:C:1097:ILE:HG23	2.40	0.61
2:G:719:ILE:O	2:G:722:ALA:HB3	2.00	0.61
2:G:1199:GLU:OE2	2:G:1567:ARG:CZ	2.46	0.61
2:H:100:ASP:OD2	2:H:102:HIS:HD2	1.82	0.61
2:H:159:ILE:HD11	2:H:512:LEU:HG	1.82	0.61
2:H:1675:GLY:O	2:H:1678:MET:HB2	1.99	0.61
1:A:934:PRO:O	1:A:936:LEU:N	2.33	0.61
1:B:631:PRO:HB2	1:B:634:THR:OG1	2.00	0.61
1:B:1292:ILE:CD1	1:B:1328:ILE:HD11	2.30	0.61
2:H:7:ARG:HE	2:H:27:PHE:HB2	1.64	0.61
2:H:353:VAL:HG23	2:H:357:ASN:HD22	1.65	0.61
1:B:158:LYS:HD3	1:B:185:GLU:HB3	1.82	0.61
1:B:340:ARG:HH12	1:B:344:GLN:CG	2.13	0.61
1:B:824:LEU:HD12	1:B:846:LEU:HB3	1.82	0.61
1:C:1498:GLU:HB2	1:C:1876:LEU:HD13	1.82	0.61
2:H:589:ARG:HB3	2:H:590:PRO:HD2	1.82	0.61
2:H:856:LYS:NZ	2:H:1052:CYS:SG	2.70	0.61
2:H:1528:GLU:O	2:H:1530:LYS:N	2.30	0.61
2:I:860:ARG:HB3	2:I:898:ASP:HB3	1.81	0.61
1:A:1721:ARG:CG	1:A:1721:ARG:NH1	2.52	0.61
1:B:1555:ALA:HA	1:B:1621:PHE:CE1	2.36	0.61
1:C:20:TYR:CE1	2:I:2035:SER:HB2	2.35	0.61
2:G:1739:GLU:O	2:G:1987:PRO:HG3	2.00	0.61
2:H:517:HIS:C	2:H:517:HIS:CD2	2.78	0.61
2:H:835:THR:HG21	2:H:855:HIS:NE2	2.14	0.61
2:H:1378:ILE:HD11	2:H:1381:VAL:CG2	2.31	0.61
2:I:100:ASP:OD2	2:I:102:HIS:HD2	1.83	0.61
2:I:1808:SER:H	2:I:2013:ASN:HD21	1.47	0.61
1:A:24:SER:O	2:G:1977:HIS:HD2	1.84	0.61
1:B:20:TYR:CE1	2:H:2035:SER:HB2	2.35	0.61
1:B:644:THR:HG23	1:B:648:ASP:H	1.65	0.61
1:C:20:TYR:CG	2:I:2033:THR:OG1	2.53	0.61
1:C:1292:ILE:HD11	1:C:1328:ILE:HD11	1.81	0.61
2:G:324:LEU:HD12	2:G:328:LEU:HG	1.81	0.61
2:H:33:LEU:HD11	2:H:80:PHE:CD2	2.35	0.61
2:H:174:ARG:NH2	2:H:225:THR:OG1	2.33	0.61
2:H:1086:LEU:HD12	2:H:1090:TYR:HB2	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1279:PHE:HB2	2:H:1340:PRO:HG3	1.81	0.61
2:H:1419:PHE:O	2:H:1421:ASN:N	2.33	0.61
2:I:56:THR:HG23	2:I:59:GLU:CG	2.28	0.61
1:A:705:VAL:HG23	1:A:732:LEU:HD21	1.82	0.61
1:B:24:SER:O	2:H:1977:HIS:CD2	2.53	0.61
1:B:1431:GLU:HG3	1:B:1433:HIS:CE1	2.36	0.61
1:B:1693:ILE:HD11	2:H:998:GLN:HB2	1.83	0.61
2:H:603:SER:O	2:H:607:VAL:HG12	2.00	0.61
1:A:644:THR:HG23	1:A:648:ASP:H	1.65	0.61
1:A:822:VAL:HG12	1:A:824:LEU:HD22	1.82	0.61
1:B:1194:ASN:HB3	1:B:1197:THR:CG2	2.30	0.61
1:C:24:SER:HB3	2:I:2014:LEU:HD12	1.82	0.61
1:C:824:LEU:HD12	1:C:846:LEU:HB3	1.82	0.61
2:H:561:TRP:O	2:H:562:LEU:C	2.42	0.61
2:I:663:ILE:HG13	2:I:694:TYR:HE1	1.66	0.61
2:I:1325:PHE:CZ	2:I:1328:VAL:HG11	2.36	0.61
2:I:1678:MET:HE2	2:I:1711:ILE:HG13	1.82	0.61
1:B:1052:GLU:O	1:B:1056:ILE:HG23	2.01	0.61
1:B:1594:ASN:O	1:B:1598:GLN:HG3	2.00	0.61
2:H:835:THR:HG22	2:H:844:VAL:C	2.26	0.61
1:A:11:HIS:ND1	2:G:1998:LYS:HA	2.15	0.61
1:A:599:MET:HB2	1:A:624:LYS:CD	2.25	0.61
1:B:1292:ILE:HD11	1:B:1328:ILE:HD11	1.82	0.61
1:B:1360:ARG:HH11	1:B:1364:GLU:HG2	1.66	0.61
2:G:601:THR:O	2:G:601:THR:HG22	2.01	0.61
2:G:1123:ASP:N	2:G:1123:ASP:OD1	2.34	0.61
2:G:1976:PHE:HB3	2:G:1981:LEU:HD21	1.82	0.61
2:H:260:PRO:HD3	2:H:289:TRP:CE2	2.36	0.61
1:C:1501:LEU:HD11	1:C:1775:LEU:HD23	1.79	0.61
2:G:1472:VAL:HG22	2:G:1483:VAL:HG22	1.83	0.61
2:H:184:VAL:HG13	2:H:187:LEU:HD21	1.83	0.61
2:H:1805:ALA:HB2	2:H:2011:ILE:HB	1.83	0.61
2:I:1219:ILE:HD11	2:I:1242:PHE:HB2	1.83	0.61
1:C:504:ASP:CB	1:C:508:ASN:H	2.14	0.60
2:H:846:VAL:HG13	2:H:865:TRP:NE1	2.16	0.60
2:I:565:TYR:CZ	2:I:758:ARG:HD2	2.35	0.60
1:A:32:GLN:HA	1:A:35:PHE:CE2	2.35	0.60
1:C:2:LYS:CD	2:I:2050:GLN:HB3	2.30	0.60
2:G:33:LEU:HD11	2:G:80:PHE:CD2	2.35	0.60
2:G:174:ARG:NH2	2:G:225:THR:OG1	2.34	0.60
2:G:652:ILE:CD1	2:G:658:MET:HE1	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:33:LEU:HD11	2:I:80:PHE:CD2	2.36	0.60
2:I:856:LYS:NZ	2:I:1052:CYS:SG	2.70	0.60
2:I:1221:MET:HE2	2:I:1223:MET:HE1	1.82	0.60
2:I:1300:PHE:HA	2:I:1556:VAL:HG11	1.84	0.60
1:A:232:LEU:HD22	1:A:269:LEU:HA	1.83	0.60
2:G:607:VAL:HA	2:G:617:ILE:HD13	1.82	0.60
2:G:747:HIS:HE1	2:G:780:TYR:OH	1.84	0.60
2:G:1808:SER:H	2:G:2013:ASN:HD21	1.47	0.60
2:G:1844:ARG:CG	2:G:1844:ARG:NH1	2.49	0.60
2:I:1198:SER:HB3	2:I:1205:LEU:HD21	1.82	0.60
2:I:1908:ASP:HB2	2:I:1958:LEU:HD21	1.83	0.60
1:A:20:TYR:OH	2:G:2035:SER:HB2	2.01	0.60
1:A:1842:VAL:O	1:A:1845:ASN:HB2	2.02	0.60
1:B:400:ARG:HH11	1:B:400:ARG:HG3	1.64	0.60
2:G:846:VAL:HG13	2:G:865:TRP:NE1	2.16	0.60
2:H:324:LEU:HD12	2:H:328:LEU:HG	1.84	0.60
2:H:1198:SER:HB3	2:H:1205:LEU:HD21	1.83	0.60
2:H:1219:ILE:HD11	2:H:1242:PHE:HB2	1.83	0.60
2:I:674:TYR:HB3	2:I:676:ILE:HG22	1.84	0.60
2:I:1352:HIS:CD2	2:I:1410:PHE:CE2	2.90	0.60
2:I:1360:ILE:HG23	2:I:1403:VAL:O	2.01	0.60
1:B:509:ILE:HG12	1:B:951:SER:HB2	1.82	0.60
1:B:1523:ARG:CG	1:B:1523:ARG:NH1	2.59	0.60
1:C:221:LEU:O	1:C:225:SER:HB3	2.02	0.60
2:G:61:VAL:HG21	2:G:95:TYR:HE1	1.67	0.60
2:G:499:THR:CB	2:G:500:HIS:CD2	2.80	0.60
2:G:926:LEU:HD13	2:G:947:THR:HG22	1.84	0.60
2:G:1325:PHE:CZ	2:G:1328:VAL:HG11	2.37	0.60
2:H:745:ASP:HA	2:H:832:TRP:HH2	1.66	0.60
2:H:1678:MET:HE2	2:H:1711:ILE:HG13	1.83	0.60
2:I:667:LYS:HB2	2:I:698:LEU:HD23	1.82	0.60
2:I:817:ALA:O	2:I:821:ILE:HG13	2.01	0.60
2:I:1123:ASP:N	2:I:1123:ASP:OD1	2.35	0.60
2:I:1205:LEU:O	2:I:1206:LYS:HG3	2.00	0.60
1:C:644:THR:HG23	1:C:648:ASP:H	1.65	0.60
2:G:816:ASP:HB3	2:G:1048:VAL:HG21	1.83	0.60
2:H:1624:THR:HB	2:H:1642:THR:HG23	1.82	0.60
2:I:589:ARG:HB3	2:I:590:PRO:HD2	1.83	0.60
2:I:1976:PHE:HB3	2:I:1981:LEU:HD21	1.83	0.60
1:A:529:MET:HG3	1:A:638:LEU:HG	1.84	0.60
1:A:1194:ASN:O	1:A:1197:THR:HG23	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:513:GLU:OE2	1:B:873:ARG:NH1	2.33	0.60
2:G:184:VAL:HG13	2:G:187:LEU:HD21	1.84	0.60
2:G:271:THR:OG1	2:G:460:TYR:HB2	2.01	0.60
2:G:732:TRP:CG	2:G:750:MET:CE	2.76	0.60
2:I:33:LEU:HD11	2:I:80:PHE:HD2	1.65	0.60
1:A:233:ILE:HD13	1:A:237:MET:CE	2.32	0.60
1:C:1062:TYR:CD2	1:C:1693:ILE:HG23	2.36	0.60
2:H:1149:TRP:CD1	2:H:1213:LEU:CD1	2.85	0.60
2:H:1739:GLU:O	2:H:1987:PRO:HG3	2.02	0.60
2:I:1986:LYS:N	2:I:1987:PRO:HD2	2.16	0.60
1:B:604:ALA:HB3	1:B:612:GLU:HG2	1.82	0.60
1:B:1657:HIS:ND1	1:B:1658:PRO:HD2	2.17	0.60
1:C:529:MET:HG3	1:C:638:LEU:HG	1.82	0.60
2:G:892:ILE:HD11	2:G:903:TRP:NE1	2.17	0.60
2:H:719:ILE:O	2:H:722:ALA:HB3	2.02	0.60
1:B:1021:VAL:HG11	1:B:1597:LEU:HD11	1.83	0.60
1:B:1057:MET:SD	1:B:1097:ILE:HG23	2.42	0.60
1:C:1662:TYR:O	1:C:1665:ILE:HG22	2.01	0.60
1:C:1842:VAL:O	1:C:1845:ASN:HB2	2.02	0.60
2:G:1672:GLN:HA	2:G:1676:MET:HE1	1.84	0.60
2:H:1093:ASP:HB3	2:H:1096:LYS:HG3	1.84	0.60
2:I:601:THR:O	2:I:601:THR:HG22	2.02	0.60
2:I:741:HIS:CB	2:I:853:PRO:HB2	2.32	0.60
2:I:1874:VAL:O	2:I:1878:VAL:HG12	2.02	0.60
2:I:1989:LYS:O	2:I:1993:LYS:HG3	2.02	0.60
1:A:1119:LYS:HE2	1:A:1341:PHE:CG	2.37	0.59
1:B:1189:ILE:HD12	1:B:1380:GLN:HG3	1.82	0.59
1:C:1461:ASP:O	1:C:1465:ASN:HB2	2.02	0.59
1:C:1585:LYS:HB3	3:C:2748:CER:H52	1.84	0.59
2:G:100:ASP:OD2	2:G:102:HIS:HD2	1.85	0.59
2:G:598:THR:CG2	2:G:622:GLY:HA3	2.30	0.59
2:G:1417:THR:HG22	2:G:1419:PHE:CE2	2.37	0.59
2:G:1425:LYS:HG2	2:G:1471:GLU:CG	2.30	0.59
2:H:1494:PRO:HB2	2:H:1823:SER:HB2	1.84	0.59
1:A:37:LYS:HB2	1:A:65:TYR:HE1	1.67	0.59
1:A:67:SER:OG	2:I:359:HIS:HE1	1.85	0.59
1:A:1475:GLU:CG	1:A:1761:LYS:O	2.50	0.59
1:B:80:CYS:SG	1:B:82:SER:HB3	2.42	0.59
1:B:328:LEU:HD22	1:B:328:LEU:C	2.28	0.59
1:B:1062:TYR:CD2	1:B:1693:ILE:HG23	2.36	0.59
1:B:1184:LEU:HB2	1:B:1352:THR:HG21	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:813:THR:HB	2:H:818:LYS:HE3	1.84	0.59
2:I:163:GLN:CG	2:I:423:VAL:HG12	2.32	0.59
2:I:1378:ILE:HD11	2:I:1381:VAL:HG21	1.84	0.59
1:A:435:GLU:O	1:A:439:ILE:HG13	2.03	0.59
1:B:32:GLN:HA	1:B:35:PHE:CE2	2.38	0.59
1:B:680:ILE:HG13	1:B:769:ILE:HB	1.83	0.59
1:C:705:VAL:HG23	1:C:732:LEU:HD21	1.83	0.59
2:G:594:VAL:HG21	2:G:610:THR:HG21	1.84	0.59
2:G:732:TRP:CD2	2:G:750:MET:CE	2.85	0.59
2:H:1314:ARG:CG	2:H:1314:ARG:NH1	2.62	0.59
2:I:1575:LEU:HD13	2:I:1579:ILE:HD12	1.84	0.59
1:A:1584:PRO:HG3	1:A:1591:TRP:CZ3	2.37	0.59
1:B:221:LEU:O	1:B:225:SER:HB3	2.02	0.59
1:B:1259:GLY:HA2	1:B:1263:ASP:HB2	1.84	0.59
1:C:56:MET:HG3	2:I:1893:VAL:CG2	2.32	0.59
1:C:421:ILE:CG1	1:C:469:VAL:HG21	2.32	0.59
1:C:1561:MET:HE2	1:C:1561:MET:HA	1.85	0.59
2:G:754:TYR:CD2	2:G:794:MET:HG3	2.38	0.59
2:G:1054:LEU:CB	4:G:3051:FMN:HM73	2.31	0.59
2:G:2038:ILE:O	2:G:2042:ILE:HG12	2.02	0.59
2:H:241:ILE:HG23	2:H:506:PRO:HG3	1.83	0.59
2:H:409:PHE:HB3	2:H:833:GLU:OE1	2.02	0.59
2:H:860:ARG:HB3	2:H:898:ASP:HB3	1.83	0.59
2:I:658:MET:HA	2:I:661:TRP:NE1	2.17	0.59
2:I:1293:THR:HG22	2:I:1296:GLU:CD	2.28	0.59
1:A:1432:HIS:CE1	1:A:1434:SER:OG	2.55	0.59
1:A:1749:THR:CB	1:A:1874:ASP:HA	2.31	0.59
1:B:233:ILE:HD13	1:B:237:MET:CE	2.32	0.59
1:B:956:ALA:O	1:B:959:ILE:HG22	2.02	0.59
1:B:1842:VAL:O	1:B:1845:ASN:HB2	2.02	0.59
1:C:1194:ASN:O	1:C:1197:THR:HG23	2.02	0.59
1:C:1492:GLU:O	1:C:1496:GLU:HG3	2.01	0.59
2:G:443:LEU:HD22	2:G:448:VAL:HG11	1.84	0.59
2:G:1805:ALA:HB2	2:G:2011:ILE:HB	1.84	0.59
2:I:85:ASN:ND2	2:I:135:ARG:HH11	1.99	0.59
2:I:402:LEU:O	2:I:402:LEU:HD13	2.02	0.59
2:I:1149:TRP:CD1	2:I:1213:LEU:HD12	2.37	0.59
1:A:290:MET:HA	1:A:290:MET:HE3	1.85	0.59
1:B:504:ASP:CB	1:B:508:ASN:H	2.15	0.59
1:C:1584:PRO:HG3	1:C:1591:TRP:CZ3	2.38	0.59
2:G:603:SER:O	2:G:607:VAL:HG12	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:932:ILE:HD11	2:G:1042:ALA:CB	2.24	0.59
2:G:1195:VAL:HG13	2:G:1211:LEU:HB3	1.84	0.59
2:H:817:ALA:O	2:H:821:ILE:HG13	2.02	0.59
2:H:1293:THR:HG22	2:H:1296:GLU:CD	2.28	0.59
2:I:1422:THR:O	2:I:1422:THR:CG2	2.49	0.59
1:A:417:TYR:OH	1:A:458:THR:HG22	2.02	0.59
1:A:516:ARG:NH2	1:A:889:GLU:OE1	2.35	0.59
1:B:290:MET:HA	1:B:290:MET:HE3	1.85	0.59
1:B:1585:LYS:HB3	3:B:2748:CER:H52	1.85	0.59
1:C:733:ILE:HD12	1:C:761:LEU:HD21	1.85	0.59
2:G:1417:THR:O	2:G:1419:PHE:N	2.30	0.59
2:H:663:ILE:HG13	2:H:694:TYR:HE1	1.66	0.59
2:H:726:PHE:O	2:H:762:ASN:HB2	2.03	0.59
2:I:99:ASN:HA	2:I:550:VAL:CG2	2.32	0.59
2:I:517:HIS:CD2	2:I:517:HIS:C	2.80	0.59
2:I:1086:LEU:HD12	2:I:1090:TYR:CB	2.33	0.59
2:I:1496:LYS:HE2	2:I:1693:ARG:HH21	1.67	0.59
1:A:409:ALA:HB2	1:A:442:ARG:HD2	1.84	0.59
1:A:1748:ASN:C	1:A:1750:ILE:H	2.11	0.59
1:B:1401:TYR:C	1:B:1658:PRO:HG3	2.27	0.59
1:C:352:MET:HE2	1:C:354:LEU:HD21	1.83	0.59
2:G:131:ILE:CG2	2:G:182:VAL:CG1	2.80	0.59
2:G:1417:THR:HG22	2:G:1419:PHE:CD2	2.37	0.59
2:H:455:ILE:HG13	2:H:469:ARG:HD3	1.83	0.59
1:A:50:SER:HB2	1:A:51:PRO:HD3	1.85	0.59
1:A:1002:LYS:NZ	1:A:1782:GLU:HG2	2.17	0.59
1:C:1555:ALA:HA	1:C:1621:PHE:CE1	2.38	0.59
2:G:402:LEU:O	2:G:402:LEU:HD13	2.03	0.59
2:G:1086:LEU:HD12	2:G:1090:TYR:HB2	1.84	0.59
2:H:2038:ILE:O	2:H:2042:ILE:HG12	2.03	0.59
2:I:1672:GLN:HA	2:I:1676:MET:HE1	1.83	0.59
2:I:2046:GLU:C	2:I:2048:TYR:H	2.11	0.59
1:A:233:ILE:HD13	1:A:237:MET:HE2	1.85	0.59
1:A:328:LEU:HD22	1:A:328:LEU:C	2.28	0.59
1:A:440:MET:HB3	1:A:483:VAL:HG21	1.85	0.59
1:B:417:TYR:OH	1:B:458:THR:HG22	2.03	0.59
1:B:1474:ALA:O	1:B:1478:PRO:HD2	2.03	0.59
2:G:1210:ILE:HB	2:G:1222:GLU:HB3	1.85	0.59
2:G:1293:THR:CG2	2:G:1296:GLU:H	2.14	0.59
2:G:1374:THR:HG23	2:G:1396:LEU:HD12	1.85	0.59
2:H:259:THR:OG1	2:H:260:PRO:HD2	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1130:THR:H	2:H:1133:THR:HG23	1.68	0.59
2:I:174:ARG:NH2	2:I:225:THR:OG1	2.36	0.59
2:I:353:VAL:HG23	2:I:357:ASN:ND2	2.18	0.59
2:I:490:TRP:O	2:I:494:THR:HG22	2.03	0.59
1:A:1524:GLY:O	1:A:1528:THR:HG23	2.03	0.58
1:A:1585:LYS:HB3	3:A:2748:CER:H52	1.85	0.58
1:B:1234:MET:HG2	1:B:1326:ILE:HD12	1.85	0.58
1:C:488:PRO:HG3	1:C:728:LYS:HG3	1.83	0.58
2:G:1198:SER:HB3	2:G:1205:LEU:HD21	1.85	0.58
2:G:1279:PHE:HB2	2:G:1340:PRO:HG3	1.85	0.58
1:C:1748:ASN:C	1:C:1750:ILE:H	2.12	0.58
2:G:1378:ILE:HD11	2:G:1381:VAL:HG21	1.85	0.58
2:H:273:HIS:HB3	2:H:512:LEU:HD22	1.85	0.58
2:I:455:ILE:HG13	2:I:469:ARG:HD3	1.85	0.58
1:A:421:ILE:HG12	1:A:469:VAL:HG21	1.85	0.58
1:A:531:LEU:HD21	1:A:629:THR:HG22	1.85	0.58
1:B:1012:LEU:HD23	1:B:1445:MET:HE2	1.84	0.58
1:B:1392:LEU:HD22	1:B:1396:MET:HG3	1.84	0.58
1:C:80:CYS:SG	1:C:82:SER:HB3	2.42	0.58
1:C:749:ILE:CD1	1:C:805:CYS:HB3	2.32	0.58
1:C:1657:HIS:ND1	1:C:1658:PRO:HD2	2.17	0.58
2:G:1149:TRP:CD1	2:G:1213:LEU:HD12	2.38	0.58
2:H:665:LEU:O	2:H:669:LEU:HB2	2.04	0.58
2:H:1010:PRO:O	2:H:1011:MET:HB2	2.03	0.58
2:I:499:THR:CB	2:I:500:HIS:CD2	2.79	0.58
2:I:907:VAL:O	2:I:910:GLN:HB3	2.03	0.58
1:A:1463:VAL:HG11	1:A:1877:GLN:HE22	1.68	0.58
1:B:37:LYS:HB2	1:B:65:TYR:HE1	1.69	0.58
1:C:290:MET:HA	1:C:290:MET:HE3	1.85	0.58
2:G:28:PHE:CZ	2:H:7:ARG:NE	2.70	0.58
2:G:166:THR:HG22	2:G:168:ASP:N	2.19	0.58
2:I:601:THR:CG2	2:I:618:GLU:O	2.39	0.58
2:I:1227:ARG:CG	2:I:1227:ARG:NH1	2.55	0.58
2:I:1374:THR:HG23	2:I:1396:LEU:HD12	1.83	0.58
1:A:260:ARG:HH12	1:A:300:VAL:HG21	1.68	0.58
1:A:444:ASN:HB3	1:A:446:ALA:H	1.66	0.58
1:B:409:ALA:HB2	1:B:442:ARG:HD2	1.86	0.58
1:C:24:SER:O	2:I:1977:HIS:CD2	2.54	0.58
1:C:1233:GLU:OE2	1:C:1680:ARG:NH2	2.36	0.58
2:H:1103:PHE:O	2:H:1247:GLY:HA3	2.03	0.58
2:H:1352:HIS:CE1	2:H:1583:MET:HE2	2.35	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1360:ILE:HG23	2:H:1403:VAL:O	2.04	0.58
2:I:127:ILE:O	2:I:131:ILE:HG13	2.03	0.58
2:I:736:ARG:NH1	2:I:769:SER:O	2.36	0.58
1:B:436:ALA:O	1:B:440:MET:HG3	2.04	0.58
1:C:232:LEU:HD22	1:C:269:LEU:HA	1.83	0.58
2:G:807:ILE:CG2	2:G:1066:ILE:HA	2.34	0.58
2:G:1597:ALA:HB1	2:G:1638:ILE:CD1	2.33	0.58
2:G:1823:SER:OG	2:G:1825:GLU:HG2	2.03	0.58
2:H:271:THR:OG1	2:H:460:TYR:HB2	2.03	0.58
2:H:499:THR:CB	2:H:500:HIS:CD2	2.81	0.58
2:H:762:ASN:H	2:H:762:ASN:ND2	1.85	0.58
2:I:1269:LEU:O	2:I:1560:LEU:HD23	2.03	0.58
1:A:986:ALA:HB2	1:A:1047:LEU:HD13	1.85	0.58
1:B:1461:ASP:O	1:B:1465:ASN:HB2	2.03	0.58
1:C:232:LEU:HD13	1:C:272:GLU:HB2	1.85	0.58
1:C:340:ARG:HH12	1:C:344:GLN:CG	2.13	0.58
1:C:421:ILE:HG13	1:C:469:VAL:HG21	1.84	0.58
1:C:1665:ILE:HD11	1:C:1669:ARG:HG2	1.85	0.58
2:G:131:ILE:CG2	2:G:182:VAL:HG12	2.33	0.58
2:G:907:VAL:O	2:G:910:GLN:HB3	2.02	0.58
2:I:707:PRO:HG2	2:I:730:LEU:HD13	1.85	0.58
1:A:1600:LEU:HD13	1:A:1657:HIS:HA	1.85	0.58
1:C:419:GLU:HG2	1:C:424:VAL:HB	1.86	0.58
1:C:968:VAL:O	2:I:1512:HIS:HB2	2.04	0.58
2:G:260:PRO:HD3	2:G:289:TRP:CE2	2.38	0.58
2:G:565:TYR:OH	2:G:758:ARG:HD2	2.02	0.58
2:G:674:TYR:HB3	2:G:676:ILE:HG22	1.85	0.58
2:G:1159:ILE:CG1	2:G:1169:PRO:HD3	2.33	0.58
2:H:490:TRP:CH2	2:H:512:LEU:HD21	2.39	0.58
2:H:543:PHE:CB	2:H:545:GLN:HE22	2.17	0.58
2:I:942:THR:HG21	2:I:1012:GLN:HA	1.85	0.58
2:I:1719:ILE:O	2:I:1761:SER:HB2	2.01	0.58
1:B:198:PRO:CG	1:B:209:LEU:HD21	2.26	0.58
1:B:286:PHE:O	1:B:290:MET:HG2	2.03	0.58
1:C:1020:VAL:HG13	1:C:1400:ILE:HG23	1.84	0.58
2:G:638:VAL:HA	2:G:641:ILE:HG22	1.86	0.58
2:H:163:GLN:CG	2:H:423:VAL:HG12	2.32	0.58
2:I:786:SER:CB	2:I:794:MET:HE2	2.33	0.58
1:A:20:TYR:CZ	2:G:2035:SER:HB2	2.39	0.58
1:A:198:PRO:CG	1:A:209:LEU:HD21	2.28	0.58
1:A:987:ASN:HD22	2:G:957:ARG:HD2	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:232:LEU:HD22	1:B:269:LEU:HA	1.85	0.58
1:B:749:ILE:CD1	1:B:805:CYS:HB3	2.33	0.58
1:B:1473:GLU:O	1:B:1478:PRO:HD3	2.04	0.58
1:B:1662:TYR:O	1:B:1665:ILE:HG22	2.04	0.58
1:C:27:ARG:HH21	2:I:2015:THR:HA	1.68	0.58
1:C:1247:SER:HB2	1:C:1332:TYR:HE2	1.68	0.58
1:C:1401:TYR:C	1:C:1658:PRO:HG3	2.29	0.58
2:G:232:LEU:O	2:G:232:LEU:HD23	2.03	0.58
2:G:273:HIS:HB3	2:G:512:LEU:HD22	1.86	0.58
2:G:611:THR:CG2	2:G:641:ILE:HG13	2.34	0.58
2:G:817:ALA:O	2:G:821:ILE:HG13	2.04	0.58
2:G:860:ARG:HB3	2:G:898:ASP:HB3	1.85	0.58
2:H:1210:ILE:HB	2:H:1222:GLU:HB3	1.85	0.58
1:A:329:GLU:O	1:A:333:LYS:HG3	2.04	0.57
1:A:1062:TYR:CD2	1:A:1693:ILE:HG23	2.39	0.57
1:A:1189:ILE:HD12	1:A:1380:GLN:HG3	1.86	0.57
1:A:1419:PRO:HB3	1:A:1646:PHE:CZ	2.39	0.57
1:B:419:GLU:HG2	1:B:424:VAL:HB	1.86	0.57
1:B:1247:SER:HB2	1:B:1332:TYR:HE2	1.69	0.57
1:C:433:VAL:O	1:C:437:ILE:HG13	2.04	0.57
1:C:1219:VAL:CA	1:C:1384:ILE:HD11	2.27	0.57
2:G:7:ARG:NH1	2:G:24:THR:HA	2.19	0.57
2:G:56:THR:HG23	2:G:59:GLU:CG	2.29	0.57
2:G:146:PHE:HA	2:G:149:VAL:HG12	1.86	0.57
2:G:376:ASN:HD22	2:G:377:LEU:N	2.02	0.57
2:I:239:PRO:HG3	2:I:304:PHE:HA	1.86	0.57
2:I:376:ASN:HD22	2:I:377:LEU:N	2.02	0.57
2:I:786:SER:HB2	2:I:794:MET:HE2	1.86	0.57
1:A:11:HIS:O	1:A:15:THR:HG22	2.04	0.57
1:A:1056:ILE:CD1	1:A:1193:TRP:HD1	2.17	0.57
1:A:1203:ASP:HB3	1:B:179:LYS:HZ1	1.68	0.57
1:A:1247:SER:HB2	1:A:1332:TYR:HE2	1.66	0.57
1:B:232:LEU:HD13	1:B:272:GLU:HB2	1.87	0.57
1:B:1496:GLU:O	1:B:1500:GLN:HG3	2.03	0.57
1:C:1052:GLU:O	1:C:1056:ILE:HG23	2.04	0.57
2:G:658:MET:HA	2:G:661:TRP:NE1	2.19	0.57
2:G:1149:TRP:CD1	2:G:1213:LEU:CD1	2.87	0.57
2:H:722:ALA:HB1	2:H:723:HIS:CE1	2.38	0.57
2:H:1331:TRP:CE2	2:H:1335:ILE:HG13	2.38	0.57
2:I:726:PHE:O	2:I:762:ASN:HB2	2.04	0.57
2:I:1822:MET:CE	2:I:1996:ILE:HG12	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1538:VAL:HB	1:A:1639:VAL:HG22	1.86	0.57
1:B:50:SER:HB2	1:B:51:PRO:HD3	1.86	0.57
1:B:1022:THR:HG22	1:B:1226:SER:HB2	1.87	0.57
1:B:1125:VAL:HG21	1:B:1175:ILE:HD12	1.86	0.57
1:C:1056:ILE:CD1	1:C:1193:TRP:HD1	2.16	0.57
2:G:826:GLY:O	2:G:827:VAL:HG23	2.03	0.57
2:G:942:THR:HG21	2:G:1012:GLN:HA	1.86	0.57
2:H:124:LYS:HG2	2:H:179:THR:HA	1.86	0.57
2:H:197:GLU:OE1	2:H:197:GLU:HA	2.02	0.57
2:I:762:ASN:H	2:I:762:ASN:ND2	1.88	0.57
1:B:413:LEU:HD13	1:B:451:MET:HG2	1.85	0.57
1:B:705:VAL:HG23	1:B:732:LEU:HD21	1.85	0.57
1:C:183:GLN:HE21	1:C:202:GLU:HG2	1.69	0.57
1:C:929:GLY:C	1:C:931:GLN:H	2.13	0.57
2:G:163:GLN:CG	2:G:423:VAL:HG12	2.33	0.57
2:G:1327:ILE:HG12	2:G:1583:MET:HE3	1.86	0.57
2:H:601:THR:HG22	2:H:620:ALA:H	1.69	0.57
2:H:907:VAL:O	2:H:910:GLN:HB3	2.03	0.57
2:H:1086:LEU:HD12	2:H:1090:TYR:CB	2.34	0.57
2:H:1231:GLY:O	2:H:1233:PRO:HD3	2.04	0.57
2:H:1418:ASP:O	2:H:1419:PHE:C	2.46	0.57
2:H:1567:ARG:HH12	2:H:1568:HIS:HB3	1.70	0.57
2:H:1908:ASP:HB2	2:H:1958:LEU:HD21	1.86	0.57
2:I:145:LEU:O	2:I:149:VAL:HG12	2.03	0.57
2:I:654:VAL:HG23	2:I:683:ALA:HB1	1.87	0.57
1:A:232:LEU:HD13	1:A:272:GLU:HB2	1.85	0.57
1:C:198:PRO:CG	1:C:209:LEU:HD21	2.28	0.57
1:C:771:PHE:CD1	1:C:825:PRO:HG3	2.40	0.57
1:C:1189:ILE:HD12	1:C:1380:GLN:HG3	1.86	0.57
1:C:1600:LEU:HD13	1:C:1657:HIS:HA	1.87	0.57
2:G:562:LEU:O	2:G:566:HIS:HB2	2.05	0.57
2:G:932:ILE:CD1	2:G:1042:ALA:HB2	2.24	0.57
2:G:1010:PRO:O	2:G:1011:MET:HB2	2.05	0.57
2:G:1418:ASP:C	2:G:1420:GLU:N	2.63	0.57
2:H:89:THR:O	2:H:93:ASN:HB2	2.04	0.57
2:H:736:ARG:NH1	2:H:769:SER:O	2.36	0.57
2:I:1130:THR:H	2:I:1133:THR:HG23	1.69	0.57
1:A:604:ALA:HB3	1:A:612:GLU:HG2	1.86	0.57
1:A:828:PRO:HG3	1:A:868:ILE:HG22	1.86	0.57
1:B:980:VAL:HG21	2:H:952:ARG:HH21	1.70	0.57
1:C:251:GLN:HA	1:C:256:LEU:H	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1184:LEU:HB2	1:C:1352:THR:HG21	1.85	0.57
1:C:1473:GLU:O	1:C:1478:PRO:HD3	2.05	0.57
1:C:1749:THR:C	1:C:1874:ASP:HB3	2.29	0.57
2:G:1314:ARG:CG	2:G:1314:ARG:NH1	2.61	0.57
2:G:1954:LYS:HD3	2:G:1958:LEU:HD13	1.86	0.57
2:H:1782:THR:HG22	2:H:1827:LEU:HD21	1.86	0.57
2:I:813:THR:HB	2:I:818:LYS:HE3	1.85	0.57
2:I:2038:ILE:O	2:I:2042:ILE:HG12	2.04	0.57
1:A:655:LEU:CD2	1:A:916:LEU:HD11	2.35	0.57
1:A:988:ILE:HA	1:A:1048:GLU:HG2	1.84	0.57
1:C:328:LEU:HD22	1:C:328:LEU:C	2.30	0.57
2:G:741:HIS:HE1	2:G:845:THR:HG22	1.58	0.57
2:G:1775:GLN:HG2	2:G:1836:MET:SD	2.44	0.57
2:G:1778:GLN:HB3	2:G:1831:VAL:HG13	1.85	0.57
2:G:1890:ASN:HB2	2:G:1899:VAL:HB	1.86	0.57
2:H:61:VAL:HG21	2:H:95:TYR:HE1	1.69	0.57
2:H:166:THR:HG22	2:H:168:ASP:N	2.19	0.57
2:H:561:TRP:CD1	2:H:754:TYR:HE2	2.22	0.57
2:I:665:LEU:O	2:I:669:LEU:HB2	2.05	0.57
1:A:352:MET:HE2	1:A:354:LEU:HD21	1.87	0.57
1:A:680:ILE:HG13	1:A:769:ILE:HB	1.87	0.57
1:A:1285:ALA:O	1:A:1289:MET:HG3	2.04	0.57
1:A:1474:ALA:O	1:A:1478:PRO:HD2	2.04	0.57
1:B:140:ILE:HD13	1:B:255:GLY:O	2.05	0.57
2:G:703:LEU:HD21	2:G:705:LEU:HD21	1.86	0.57
2:G:1266:TYR:CG	2:G:1347:LEU:HD23	2.40	0.57
2:H:1100:VAL:HG21	2:H:1147:ILE:CD1	2.34	0.57
2:H:1123:ASP:OD1	2:H:1123:ASP:N	2.36	0.57
2:H:1575:LEU:HD13	2:H:1579:ILE:HD12	1.85	0.57
2:H:2029:VAL:O	2:H:2033:THR:HG22	2.05	0.57
2:I:273:HIS:HB3	2:I:512:LEU:HD22	1.87	0.57
2:I:353:VAL:HG23	2:I:357:ASN:HD22	1.69	0.57
2:I:1292:ILE:O	2:I:1368:VAL:O	2.23	0.57
1:A:80:CYS:SG	1:A:82:SER:HB3	2.45	0.57
1:A:415:SER:O	1:A:419:GLU:HB2	2.05	0.57
1:B:1577:GLN:HE22	1:B:1591:TRP:C	2.12	0.57
1:C:1474:ALA:O	1:C:1478:PRO:HD2	2.04	0.57
2:G:89:THR:O	2:G:93:ASN:HB2	2.05	0.57
2:G:455:ILE:HG13	2:G:469:ARG:HD3	1.86	0.57
2:G:463:PHE:HD1	2:G:486:LEU:HD13	1.70	0.57
2:G:584:SER:HA	2:G:587:ILE:HG23	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:667:LYS:HB2	2:G:698:LEU:HD23	1.85	0.57
2:G:786:SER:CB	2:G:794:MET:HE2	2.34	0.57
2:G:1168:ASN:ND2	2:G:1171:ARG:HB2	2.20	0.57
2:G:1221:MET:HE2	2:G:1223:MET:HE1	1.85	0.57
2:G:1547:PRO:HD3	2:G:1584:PHE:CE2	2.40	0.57
2:H:127:ILE:O	2:H:131:ILE:HG13	2.04	0.57
2:H:777:THR:CG2	2:H:1081:HIS:CE1	2.88	0.57
2:H:1589:VAL:HG11	2:H:1640:PHE:CE1	2.39	0.57
2:I:463:PHE:HD1	2:I:486:LEU:HD13	1.70	0.57
2:I:777:THR:CG2	2:I:1081:HIS:CE1	2.88	0.57
2:I:807:ILE:CG2	2:I:1066:ILE:HA	2.35	0.57
2:I:1199:GLU:OE2	2:I:1567:ARG:NH1	2.37	0.57
2:I:1359:MET:SD	2:I:1404:MET:HE2	2.45	0.57
1:B:742:LYS:HD3	1:B:746:GLU:OE2	2.05	0.57
1:B:1431:GLU:HB3	1:B:1520:ALA:HB2	1.86	0.57
1:C:341:GLN:O	1:C:345:VAL:HG12	2.05	0.57
2:G:1675:GLY:O	2:G:1678:MET:HB2	2.05	0.57
2:H:565:TYR:OH	2:H:758:ARG:HD2	2.04	0.57
2:H:1266:TYR:CG	2:H:1347:LEU:HD23	2.40	0.57
2:H:1871:LEU:HD22	2:H:1888:ILE:HD11	1.85	0.57
2:H:1976:PHE:HA	2:H:1981:LEU:HD22	1.86	0.57
2:I:607:VAL:HA	2:I:617:ILE:HD13	1.86	0.57
2:I:1210:ILE:HB	2:I:1222:GLU:HB3	1.85	0.57
2:I:1231:GLY:O	2:I:1233:PRO:HD3	2.05	0.57
2:I:2029:VAL:O	2:I:2033:THR:HG22	2.05	0.57
1:A:263:GLY:O	1:A:267:VAL:HG23	2.05	0.56
1:A:742:LYS:HD3	1:A:746:GLU:OE2	2.05	0.56
1:B:152:HIS:HD2	1:B:163:LEU:HB2	1.66	0.56
1:B:251:GLN:HA	1:B:256:LEU:H	1.70	0.56
1:B:964:GLU:HG2	2:H:1515:PRO:HB3	1.86	0.56
1:B:1524:GLY:O	1:B:1528:THR:HG23	2.05	0.56
1:C:893:VAL:HG11	1:C:930:LEU:HD23	1.87	0.56
2:G:653:TYR:CD1	2:G:659:LEU:HD21	2.39	0.56
2:G:1868:GLN:HG3	2:G:1898:TYR:OH	2.04	0.56
2:H:56:THR:HG23	2:H:59:GLU:CG	2.32	0.56
2:H:653:TYR:CD1	2:H:659:LEU:HD21	2.40	0.56
2:H:740:HIS:CE1	2:H:852:GLU:OE1	2.58	0.56
2:I:120:LYS:O	2:I:124:LYS:HG3	2.05	0.56
2:I:2030:TYR:CE1	2:I:2034:GLY:HA2	2.39	0.56
1:A:419:GLU:HG2	1:A:424:VAL:HB	1.86	0.56
1:A:1577:GLN:HE22	1:A:1591:TRP:C	2.13	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:20:TYR:HE1	2:I:2035:SER:HB2	1.69	0.56
1:C:626:VAL:HG23	1:C:664:GLU:OE2	2.05	0.56
1:C:1326:ILE:HG12	1:C:1388:MET:HG3	1.86	0.56
1:C:1431:GLU:CD	1:C:1433:HIS:CE1	2.83	0.56
1:C:1524:GLY:O	1:C:1528:THR:HG23	2.05	0.56
1:C:1538:VAL:HB	1:C:1639:VAL:HG22	1.86	0.56
2:G:28:PHE:HZ	2:H:7:ARG:NE	2.02	0.56
2:G:654:VAL:HG23	2:G:683:ALA:HB1	1.87	0.56
2:G:1672:GLN:HA	2:G:1676:MET:HE3	1.88	0.56
2:G:1804:PHE:CZ	2:G:2010:TYR:HB2	2.40	0.56
2:H:638:VAL:HA	2:H:641:ILE:HG22	1.86	0.56
2:H:732:TRP:CD2	2:H:750:MET:CE	2.87	0.56
2:H:839:PRO:HA	2:H:844:VAL:HG13	1.86	0.56
2:H:926:LEU:HD13	2:H:947:THR:HG22	1.86	0.56
2:I:89:THR:O	2:I:93:ASN:HB2	2.05	0.56
2:I:281:VAL:HG23	2:I:459:VAL:HG11	1.87	0.56
2:I:732:TRP:CD2	2:I:750:MET:CE	2.84	0.56
2:I:741:HIS:HB3	2:I:853:PRO:HB2	1.86	0.56
1:A:1014:ASP:N	1:A:1510:ASN:HD21	1.92	0.56
1:B:152:HIS:CE1	1:B:168:MET:HG3	2.40	0.56
1:B:233:ILE:HD13	1:B:237:MET:HE2	1.87	0.56
1:C:1009:LEU:HD13	1:C:1445:MET:HE1	1.87	0.56
1:C:1577:GLN:HE22	1:C:1591:TRP:C	2.13	0.56
2:G:663:ILE:HG13	2:G:694:TYR:HE1	1.70	0.56
2:G:1086:LEU:HD12	2:G:1090:TYR:CB	2.35	0.56
2:G:1194:VAL:O	2:G:1194:VAL:HG12	2.05	0.56
2:G:1989:LYS:O	2:G:1993:LYS:HG3	2.05	0.56
2:H:522:GLY:HA3	2:H:561:TRP:CZ3	2.40	0.56
2:H:702:TYR:CB	2:H:727:PRO:HB2	2.36	0.56
2:H:1253:GLU:HB3	2:H:1255:MET:HE2	1.87	0.56
2:H:1672:GLN:HA	2:H:1676:MET:HE3	1.87	0.56
2:I:443:LEU:HD22	2:I:448:VAL:HG11	1.87	0.56
2:I:481:ASP:OD2	2:I:485:ARG:NH1	2.38	0.56
2:I:490:TRP:CH2	2:I:512:LEU:HD21	2.40	0.56
2:I:543:PHE:CB	2:I:545:GLN:HE22	2.17	0.56
2:I:1149:TRP:CD1	2:I:1213:LEU:CD1	2.88	0.56
1:B:488:PRO:HG3	1:B:728:LYS:HG3	1.87	0.56
1:B:1748:ASN:C	1:B:1750:ILE:H	2.13	0.56
1:C:635:ILE:HG22	1:C:651:TYR:CD1	2.41	0.56
2:G:813:THR:HB	2:G:818:LYS:HE3	1.87	0.56
2:H:376:ASN:HD22	2:H:377:LEU:N	2.03	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1223:MET:CE	2:H:1238:LEU:HD12	2.35	0.56
2:H:1834:ARG:NH1	2:H:1834:ARG:CG	2.60	0.56
2:I:1672:GLN:HA	2:I:1676:MET:HE3	1.87	0.56
2:I:1722:GLY:N	2:I:1726:GLY:HA3	2.21	0.56
2:I:1804:PHE:CZ	2:I:2010:TYR:HB2	2.40	0.56
1:A:21:GLN:O	2:G:1977:HIS:CD2	2.59	0.56
1:B:411:GLN:HE22	1:B:1628:SER:H	1.52	0.56
1:C:152:HIS:HD2	1:C:163:LEU:HB2	1.63	0.56
2:G:543:PHE:CB	2:G:545:GLN:HE22	2.17	0.56
2:G:758:ARG:NH2	2:G:797:ASP:OD1	2.33	0.56
2:G:1834:ARG:HH11	2:G:1834:ARG:CG	2.03	0.56
2:H:120:LYS:O	2:H:124:LYS:HG3	2.06	0.56
2:H:606:PHE:HZ	2:H:805:VAL:HG11	1.68	0.56
1:A:221:LEU:O	1:A:225:SER:HB3	2.05	0.56
1:A:1057:MET:SD	1:A:1097:ILE:HG23	2.45	0.56
1:B:1419:PRO:HB3	1:B:1646:PHE:CZ	2.40	0.56
1:C:741:SER:HB3	1:C:744:ASP:HB2	1.86	0.56
1:C:1022:THR:HG22	1:C:1226:SER:HB2	1.87	0.56
2:H:1920:GLN:HG2	2:H:1922:ILE:HD11	1.87	0.56
1:B:1009:LEU:HG	1:B:1664:ALA:HB2	1.87	0.56
1:C:695:GLY:HA3	1:C:906:LEU:HD11	1.88	0.56
2:G:634:ILE:HD11	2:G:649:ILE:CD1	2.34	0.56
2:G:1722:GLY:N	2:G:1726:GLY:HA3	2.21	0.56
2:H:443:LEU:HD22	2:H:448:VAL:HG11	1.86	0.56
2:H:463:PHE:HD1	2:H:486:LEU:HD13	1.71	0.56
2:H:1890:ASN:HB2	2:H:1899:VAL:HB	1.88	0.56
2:I:835:THR:HG23	2:I:843:ILE:O	2.05	0.56
2:I:1567:ARG:HH12	2:I:1568:HIS:HB3	1.71	0.56
1:A:152:HIS:CE1	1:A:168:MET:HG3	2.41	0.56
1:A:251:GLN:HA	1:A:256:LEU:H	1.68	0.56
1:A:1036:ARG:NH1	1:A:1040:GLU:OE1	2.39	0.56
1:B:644:THR:HG22	1:B:648:ASP:O	2.06	0.56
1:B:1138:LYS:HG3	1:B:1163:TYR:CE1	2.41	0.56
1:B:1492:GLU:O	1:B:1496:GLU:HG3	2.06	0.56
2:G:577:ILE:HD13	2:G:1097:ILE:CD1	2.35	0.56
2:G:589:ARG:HB3	2:G:590:PRO:HD2	1.87	0.56
2:G:599:PRO:HD2	4:G:3051:FMN:H6	1.88	0.56
2:G:786:SER:HB2	2:G:794:MET:HE2	1.87	0.56
2:H:607:VAL:HA	2:H:617:ILE:HD13	1.88	0.56
2:H:1868:GLN:HG3	2:H:1898:TYR:OH	2.05	0.56
2:I:601:THR:HG22	2:I:620:ALA:H	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:702:TYR:CB	2:I:727:PRO:HB2	2.36	0.56
2:I:774:ALA:HB1	2:I:1081:HIS:CD2	2.33	0.56
2:I:871:THR:HB	2:I:872:ILE:HD12	1.88	0.56
1:B:529:MET:HG2	1:B:638:LEU:CD1	2.35	0.56
1:C:329:GLU:O	1:C:333:LYS:HG3	2.06	0.56
1:C:531:LEU:HD21	1:C:629:THR:HG22	1.88	0.56
1:C:881:ASN:HA	1:C:944:ARG:HH21	1.70	0.56
1:C:1259:GLY:HA2	1:C:1263:ASP:HB2	1.87	0.56
2:G:376:ASN:HD22	2:G:376:ASN:C	2.13	0.56
2:G:702:TYR:CB	2:G:727:PRO:HB2	2.35	0.56
2:G:1130:THR:H	2:G:1133:THR:HG23	1.70	0.56
2:G:1567:ARG:HH12	2:G:1568:HIS:HB3	1.71	0.56
2:H:553:ASN:O	2:H:556:LYS:HE3	2.06	0.56
2:H:1100:VAL:HG21	2:H:1147:ILE:HD13	1.88	0.56
2:H:1194:VAL:O	2:H:1194:VAL:HG12	2.05	0.56
2:H:1355:ASN:CG	2:H:1583:MET:HE1	2.30	0.56
2:H:1778:GLN:HB3	2:H:1831:VAL:HG13	1.88	0.56
2:H:1989:LYS:O	2:H:1993:LYS:HG3	2.06	0.56
2:I:1931:LEU:HD22	2:I:1935:GLU:HG2	1.86	0.56
1:A:1052:GLU:O	1:A:1056:ILE:HG23	2.06	0.56
1:A:1498:GLU:CB	1:A:1876:LEU:HD13	1.83	0.56
1:A:1665:ILE:CG1	1:A:1669:ARG:HD3	2.36	0.56
1:C:1419:PRO:HB3	1:C:1646:PHE:CZ	2.41	0.56
1:C:1749:THR:CA	1:C:1874:ASP:HB3	2.32	0.56
2:G:120:LYS:O	2:G:124:LYS:HG3	2.05	0.56
2:G:1308:CYS:HB3	2:G:1311:PHE:CD2	2.41	0.56
2:G:1874:VAL:O	2:G:1878:VAL:HG12	2.05	0.56
2:H:1308:CYS:HB3	2:H:1311:PHE:CD2	2.41	0.56
2:H:1328:VAL:HG23	2:H:1557:SER:HA	1.88	0.56
2:H:1419:PHE:O	2:H:1420:GLU:C	2.49	0.56
2:I:577:ILE:HD13	2:I:1097:ILE:CD1	2.36	0.56
2:I:826:GLY:HA2	2:I:1060:ALA:HB3	1.88	0.56
2:I:1589:VAL:HG11	2:I:1640:PHE:CE1	2.41	0.56
1:A:295:ALA:HB2	1:A:302:LEU:HD11	1.87	0.55
1:A:1524:GLY:HA2	1:A:1527:ALA:HB3	1.89	0.55
1:B:11:HIS:O	1:B:15:THR:HG22	2.06	0.55
1:B:1233:GLU:OE2	1:B:1680:ARG:NH2	2.40	0.55
1:C:29:ILE:HG13	2:I:1891:TYR:O	2.06	0.55
1:C:1496:GLU:O	1:C:1500:GLN:HG3	2.06	0.55
2:G:1475:LYS:HG3	2:G:1481:SER:HB2	1.88	0.55
2:G:1561:ASN:OD1	2:G:1563:ILE:HB	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:16:LEU:HG	2:H:48:PHE:CZ	2.40	0.55
2:H:239:PRO:HG3	2:H:304:PHE:HA	1.88	0.55
2:H:1493:LEU:HD11	2:H:1499:VAL:CG2	2.36	0.55
2:I:7:ARG:NH1	2:I:24:THR:HA	2.20	0.55
2:I:653:TYR:CD1	2:I:659:LEU:HD21	2.40	0.55
2:I:1308:CYS:HB3	2:I:1311:PHE:CD2	2.40	0.55
1:A:864:VAL:CG2	1:A:921:PRO:HB3	2.36	0.55
1:A:1114:TYR:CD1	1:A:1337:GLU:HG3	2.41	0.55
1:A:1555:ALA:HA	1:A:1621:PHE:CE1	2.41	0.55
1:B:733:ILE:HD12	1:B:761:LEU:HD21	1.88	0.55
1:B:988:ILE:HD13	1:B:1048:GLU:HB3	1.89	0.55
1:B:1538:VAL:HB	1:B:1639:VAL:HG22	1.87	0.55
1:C:335:HIS:HD2	1:C:335:HIS:O	1.89	0.55
2:G:652:ILE:HB	2:G:658:MET:CE	2.36	0.55
2:H:7:ARG:NH1	2:H:24:THR:HA	2.21	0.55
2:I:232:LEU:HD23	2:I:232:LEU:O	2.06	0.55
2:I:1931:LEU:HB3	2:I:1935:GLU:CG	2.35	0.55
1:A:1665:ILE:HD11	1:A:1669:ARG:HG2	1.88	0.55
1:B:433:VAL:O	1:B:437:ILE:HG13	2.07	0.55
1:B:1665:ILE:HD11	1:B:1669:ARG:HG2	1.88	0.55
1:C:12:ILE:HA	1:C:15:THR:HG23	1.88	0.55
1:C:417:TYR:OH	1:C:458:THR:HG22	2.06	0.55
2:G:722:ALA:HB1	2:G:723:HIS:CE1	2.42	0.55
2:G:1931:LEU:HB3	2:G:1935:GLU:CG	2.33	0.55
2:G:2036:GLU:O	2:G:2039:LYS:HG2	2.06	0.55
2:H:490:TRP:HA	2:H:493:THR:CG2	2.36	0.55
2:H:2046:GLU:C	2:H:2048:TYR:H	2.14	0.55
2:I:124:LYS:HG2	2:I:179:THR:HA	1.87	0.55
2:I:634:ILE:HD11	2:I:649:ILE:CD1	2.35	0.55
2:I:1417:THR:C	2:I:1419:PHE:H	2.14	0.55
1:A:825:PRO:HB2	1:A:843:LYS:NZ	2.21	0.55
1:B:1036:ARG:NH1	1:B:1040:GLU:OE1	2.40	0.55
1:C:1347:LYS:O	1:C:1347:LYS:HD3	2.05	0.55
2:G:665:LEU:O	2:G:669:LEU:HB2	2.06	0.55
2:H:1431:TYR:CE1	2:H:1526:THR:HG23	2.41	0.55
1:A:1002:LYS:HZ1	1:A:1782:GLU:HG2	1.72	0.55
1:B:1196:LYS:HE3	1:B:1202:ASP:CG	2.31	0.55
1:C:27:ARG:HD2	1:C:30:GLU:OE2	2.06	0.55
1:C:254:TRP:CZ3	1:C:302:LEU:HD13	2.41	0.55
1:C:807:LYS:HG3	1:C:858:TRP:HB3	1.87	0.55
1:C:1498:GLU:CG	1:C:1876:LEU:CB	2.64	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1475:LYS:HB2	2:G:1481:SER:HB2	1.89	0.55
2:H:1166:VAL:HG12	2:H:1167:SER:N	2.21	0.55
2:H:2038:ILE:HG22	2:H:2042:ILE:CD1	2.36	0.55
2:I:61:VAL:HG21	2:I:95:TYR:HE1	1.72	0.55
2:I:166:THR:HG22	2:I:168:ASP:N	2.21	0.55
2:I:638:VAL:HA	2:I:641:ILE:HG22	1.88	0.55
2:I:926:LEU:HB3	2:I:947:THR:HG22	1.88	0.55
1:A:1238:VAL:HG12	1:A:1239:HIS:N	2.21	0.55
1:A:1498:GLU:CB	1:A:1876:LEU:CD1	2.63	0.55
1:B:413:LEU:CD1	1:B:451:MET:HE3	2.37	0.55
1:C:11:HIS:O	1:C:15:THR:HG22	2.06	0.55
1:C:152:HIS:CE1	1:C:168:MET:HG3	2.41	0.55
1:C:383:GLY:O	1:C:387:VAL:HG23	2.07	0.55
1:C:1125:VAL:HG21	1:C:1175:ILE:HD12	1.88	0.55
2:G:197:GLU:OE1	2:G:197:GLU:HA	2.06	0.55
2:G:1496:LYS:HE2	2:G:1693:ARG:NH2	2.20	0.55
2:H:807:ILE:CG2	2:H:1066:ILE:HA	2.36	0.55
2:I:2015:THR:HG22	2:I:2017:LYS:N	2.21	0.55
1:A:12:ILE:HD11	2:G:2041:ILE:HD11	1.83	0.55
1:A:332:THR:HG22	1:B:331:ILE:CD1	2.36	0.55
1:A:529:MET:HG2	1:A:638:LEU:CD1	2.36	0.55
1:A:771:PHE:CD1	1:A:825:PRO:HG3	2.42	0.55
1:A:1056:ILE:HD13	1:A:1193:TRP:CD1	2.42	0.55
1:A:1233:GLU:OE2	1:A:1680:ARG:NH2	2.40	0.55
1:A:1473:GLU:O	1:A:1478:PRO:HD3	2.06	0.55
1:B:1285:ALA:O	1:B:1289:MET:HG3	2.07	0.55
1:B:1432:HIS:CE1	1:B:1434:SER:OG	2.60	0.55
1:C:883:ILE:HD12	1:C:947:LEU:HD12	1.88	0.55
2:G:239:PRO:HG3	2:G:304:PHE:HA	1.88	0.55
2:H:584:SER:HA	2:H:587:ILE:HG23	1.89	0.55
2:H:707:PRO:HG2	2:H:730:LEU:HD13	1.89	0.55
2:I:603:SER:O	2:I:607:VAL:HG12	2.06	0.55
2:I:1253:GLU:HB3	2:I:1255:MET:HE2	1.89	0.55
2:I:1432:GLN:HB2	2:I:1527:LEU:HD12	1.88	0.55
2:I:1873:TYR:HE1	2:I:1877:ARG:HH21	1.54	0.55
1:C:635:ILE:HG22	1:C:651:TYR:CG	2.42	0.55
2:G:777:THR:CG2	2:G:1081:HIS:CE1	2.89	0.55
2:G:1355:ASN:CG	2:G:1583:MET:HE1	2.32	0.55
2:G:1822:MET:CE	2:G:1996:ILE:HG12	2.37	0.55
2:H:264:ARG:NH1	2:H:456:GLN:HG3	2.22	0.55
2:H:740:HIS:HA	2:H:854:ILE:HD13	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1822:MET:CE	2:H:1996:ILE:HG12	2.37	0.55
2:I:741:HIS:CE1	2:I:855:HIS:CD2	2.95	0.55
2:I:1427:VAL:O	2:I:1427:VAL:HG12	2.07	0.55
1:A:56:MET:HG3	2:G:1893:VAL:CG2	2.37	0.55
1:A:982:ILE:HG13	2:G:965:SER:N	2.22	0.55
1:B:440:MET:HE3	1:B:483:VAL:HG21	1.89	0.55
1:C:50:SER:HB2	1:C:51:PRO:HD3	1.88	0.55
1:C:176:VAL:HG12	1:C:178:GLY:H	1.72	0.55
2:G:127:ILE:O	2:G:131:ILE:HG13	2.07	0.55
2:G:747:HIS:O	2:G:751:LEU:HB2	2.07	0.55
2:G:835:THR:HG23	2:G:843:ILE:O	2.06	0.55
2:G:1624:THR:HB	2:G:1642:THR:HG23	1.86	0.55
2:H:402:LEU:O	2:H:402:LEU:HD13	2.07	0.55
2:H:1350:LEU:HD11	2:H:1410:PHE:HB3	1.89	0.55
2:H:1567:ARG:CG	2:H:1567:ARG:NH1	2.50	0.55
2:H:1697:HIS:CE1	2:H:1829:GLU:HG2	2.42	0.55
2:H:1844:ARG:CG	2:H:1844:ARG:NH1	2.58	0.55
2:I:1010:PRO:O	2:I:1011:MET:HB2	2.05	0.55
2:I:1168:ASN:ND2	2:I:1171:ARG:HB2	2.22	0.55
1:A:1392:LEU:HD22	1:A:1396:MET:HG3	1.89	0.55
1:B:49:PRO:O	1:B:82:SER:HB2	2.07	0.55
1:B:1123:GLN:HG3	1:B:1124:GLU:N	2.22	0.55
1:B:1566:ARG:HB3	1:B:1623:TYR:CE1	2.42	0.55
1:C:1455:ARG:NH2	1:C:1459:ILE:HG12	2.22	0.55
2:G:264:ARG:NH1	2:G:456:GLN:HG3	2.22	0.55
2:H:1475:LYS:HB2	2:H:1481:SER:HB2	1.88	0.55
2:H:2036:GLU:O	2:H:2039:LYS:HG2	2.07	0.55
2:I:260:PRO:HD3	2:I:289:TRP:CE2	2.42	0.55
2:I:652:ILE:CD1	2:I:658:MET:HE1	2.35	0.55
2:I:1624:THR:HB	2:I:1642:THR:OG1	2.06	0.55
1:A:1194:ASN:HB3	1:A:1197:THR:HG22	1.88	0.54
1:B:1373:ARG:HB2	1:B:1545:SER:O	2.07	0.54
1:C:1501:LEU:O	1:C:1505:GLN:HG3	2.07	0.54
2:G:598:THR:HG23	4:G:3051:FMN:O4	2.06	0.54
2:G:1227:ARG:CG	2:G:1227:ARG:NH1	2.56	0.54
2:G:1313:SER:O	2:G:1314:ARG:HD3	2.07	0.54
2:H:1159:ILE:HG12	2:H:1169:PRO:CD	2.36	0.54
2:I:1493:LEU:HD11	2:I:1499:VAL:CG2	2.37	0.54
1:A:236:LYS:HE2	1:A:273:PRO:O	2.07	0.54
1:A:733:ILE:CD1	1:A:761:LEU:HD11	2.37	0.54
1:A:741:SER:HB3	1:A:744:ASP:HB2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1455:ARG:NH2	1:A:1459:ILE:HG12	2.22	0.54
1:B:263:GLY:O	1:B:267:VAL:HG23	2.07	0.54
1:B:352:MET:HE2	1:B:354:LEU:HD21	1.89	0.54
1:B:771:PHE:CD1	1:B:825:PRO:HG3	2.42	0.54
1:C:286:PHE:O	1:C:290:MET:HG2	2.07	0.54
1:C:1373:ARG:HB2	1:C:1545:SER:O	2.07	0.54
2:G:464:ASP:HB3	2:G:466:SER:HB3	1.88	0.54
2:G:1678:MET:CE	2:G:1707:LEU:HD22	2.35	0.54
2:G:1859:PRO:CG	2:G:1871:LEU:HD12	2.20	0.54
2:H:1976:PHE:HB3	2:H:1981:LEU:HD21	1.89	0.54
2:I:131:ILE:HD12	2:I:182:VAL:CB	2.33	0.54
2:I:145:LEU:HD21	2:I:156:LEU:HD21	1.89	0.54
2:I:606:PHE:HZ	2:I:805:VAL:HG11	1.71	0.54
2:I:1331:TRP:CE2	2:I:1335:ILE:HG13	2.42	0.54
1:A:142:ASP:CG	1:A:257:PRO:HB2	2.32	0.54
1:A:430:ARG:NH2	1:A:605:LEU:HD13	2.23	0.54
2:G:332:GLU:OE2	2:G:394:ARG:HD3	2.07	0.54
2:G:462:THR:HB	2:G:482:CYS:SG	2.48	0.54
2:G:1292:ILE:O	2:G:1368:VAL:O	2.25	0.54
2:H:1497:GLU:OE1	2:H:2002:LYS:HE3	2.07	0.54
2:H:2015:THR:HG22	2:H:2017:LYS:N	2.21	0.54
2:I:197:GLU:OE1	2:I:197:GLU:HA	2.05	0.54
2:I:1567:ARG:CG	2:I:1567:ARG:NH1	2.50	0.54
1:A:20:TYR:CD1	2:G:2033:THR:HG21	2.42	0.54
1:A:413:LEU:CD1	1:A:451:MET:HE3	2.38	0.54
1:A:733:ILE:HD12	1:A:761:LEU:HD21	1.89	0.54
1:A:1475:GLU:HG2	1:A:1761:LYS:O	2.06	0.54
2:H:490:TRP:HE1	2:H:516:THR:CG2	2.01	0.54
2:H:611:THR:CG2	2:H:641:ILE:HG13	2.38	0.54
2:H:1102:TYR:HB3	2:H:1244:PRO:HA	1.90	0.54
2:I:376:ASN:HD22	2:I:376:ASN:C	2.14	0.54
2:I:490:TRP:HA	2:I:493:THR:CG2	2.38	0.54
2:I:1093:ASP:HB3	2:I:1096:LYS:HG3	1.89	0.54
2:I:1166:VAL:HG12	2:I:1167:SER:N	2.23	0.54
1:A:183:GLN:O	1:A:187:LEU:HG	2.08	0.54
1:A:1501:LEU:CD1	1:A:1775:LEU:CG	2.86	0.54
1:A:1657:HIS:ND1	1:A:1658:PRO:HD2	2.21	0.54
1:B:1501:LEU:O	1:B:1505:GLN:HG3	2.08	0.54
1:B:1749:THR:CB	1:B:1874:ASP:HA	2.33	0.54
1:C:479:ASN:O	1:C:483:VAL:HG23	2.07	0.54
2:G:344:LEU:HB3	2:G:349:VAL:HG23	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1575:LEU:HD13	2:G:1579:ILE:HD12	1.89	0.54
2:H:85:ASN:HD22	2:H:135:ARG:NH1	2.02	0.54
2:H:732:TRP:CG	2:H:750:MET:CE	2.79	0.54
2:I:584:SER:HA	2:I:587:ILE:HG23	1.89	0.54
2:I:1327:ILE:HG12	2:I:1583:MET:HE3	1.89	0.54
2:I:1475:LYS:HB2	2:I:1481:SER:HB2	1.89	0.54
2:I:1547:PRO:HD3	2:I:1584:PHE:CE2	2.43	0.54
1:A:1234:MET:CE	1:A:1326:ILE:HG21	2.38	0.54
1:B:385:PHE:HD2	1:B:787:LYS:HA	1.73	0.54
1:B:824:LEU:HD11	1:B:849:LEU:HD12	1.89	0.54
1:C:1123:GLN:HG3	1:C:1124:GLU:N	2.23	0.54
2:G:807:ILE:HG21	2:G:1066:ILE:HA	1.88	0.54
2:G:1697:HIS:CE1	2:G:1829:GLU:HG2	2.43	0.54
2:G:2030:TYR:CE1	2:G:2034:GLY:HA2	2.43	0.54
2:G:2046:GLU:C	2:G:2048:TYR:H	2.15	0.54
2:H:464:ASP:HB3	2:H:466:SER:HB3	1.90	0.54
2:H:786:SER:HB2	2:H:794:MET:HE2	1.90	0.54
2:H:1547:PRO:HD3	2:H:1584:PHE:CE2	2.42	0.54
2:I:123:ILE:HD11	2:I:533:LEU:CD2	2.37	0.54
2:I:611:THR:CG2	2:I:641:ILE:HG13	2.37	0.54
2:I:652:ILE:HB	2:I:658:MET:CE	2.37	0.54
2:I:1417:THR:O	2:I:1419:PHE:N	2.30	0.54
2:I:1778:GLN:HB3	2:I:1831:VAL:HG13	1.88	0.54
1:A:1184:LEU:HB2	1:A:1352:THR:HG21	1.89	0.54
1:B:23:ALA:O	2:H:1977:HIS:HA	2.07	0.54
1:B:1460:LYS:HE3	1:B:1774:GLU:CD	2.33	0.54
2:G:1428:GLU:HB2	2:G:1468:THR:HG22	1.88	0.54
2:G:1749:GLU:OE2	2:G:1840:VAL:CG1	2.56	0.54
1:B:236:LYS:HE2	1:B:273:PRO:O	2.07	0.54
1:B:280:GLU:HG2	1:B:280:GLU:O	2.08	0.54
1:B:655:LEU:CD2	1:B:916:LEU:HD11	2.38	0.54
1:C:56:MET:HE2	2:I:1897:GLN:OE1	2.07	0.54
2:G:601:THR:CG2	2:G:618:GLU:O	2.41	0.54
2:H:786:SER:CB	2:H:794:MET:HE2	2.38	0.54
2:H:964:LEU:CD2	2:H:964:LEU:N	2.70	0.54
2:H:1378:ILE:HD11	2:H:1381:VAL:HG21	1.90	0.54
2:I:99:ASN:HA	2:I:550:VAL:HG21	1.90	0.54
2:I:545:GLN:H	2:I:545:GLN:NE2	2.06	0.54
2:I:722:ALA:HB1	2:I:723:HIS:CE1	2.42	0.54
2:I:1452:LEU:HA	2:I:1502:GLY:HA3	1.88	0.54
1:A:1012:LEU:HD23	1:A:1445:MET:HE2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1496:GLU:O	1:A:1500:GLN:HG3	2.07	0.54
1:B:695:GLY:HA3	1:B:906:LEU:HD11	1.90	0.54
1:C:37:LYS:HB2	1:C:65:TYR:HE1	1.72	0.54
1:C:413:LEU:CD1	1:C:451:MET:HE3	2.38	0.54
1:C:1477:ILE:H	1:C:1478:PRO:CD	2.20	0.54
2:I:826:GLY:O	2:I:827:VAL:HG23	2.07	0.54
1:A:340:ARG:HH12	1:A:344:GLN:NE2	2.06	0.54
1:A:625:THR:HG23	1:A:661:ASP:OD1	2.08	0.54
1:A:644:THR:HG22	1:A:648:ASP:O	2.08	0.54
1:A:1138:LYS:HG3	1:A:1163:TYR:CE1	2.43	0.54
1:B:635:ILE:HG22	1:B:651:TYR:CG	2.43	0.54
1:B:1600:LEU:HD13	1:B:1657:HIS:HA	1.90	0.54
1:C:516:ARG:NH2	1:C:889:GLU:OE1	2.41	0.54
1:C:1682:LYS:HB3	2:I:994:PHE:CE2	2.43	0.54
2:G:1231:GLY:O	2:G:1233:PRO:HD3	2.08	0.54
2:I:332:GLU:OE2	2:I:394:ARG:HD3	2.08	0.54
2:I:868:PHE:HB3	2:I:873:PHE:CE2	2.43	0.54
2:I:1172:LYS:HE3	2:I:1574:ASN:OD1	2.08	0.54
1:A:1125:VAL:HG21	1:A:1175:ILE:HD12	1.88	0.53
1:B:1010:GLU:HA	1:B:1664:ALA:HA	1.89	0.53
1:C:529:MET:HG2	1:C:638:LEU:CD1	2.39	0.53
1:C:1194:ASN:HB3	1:C:1197:THR:HG22	1.89	0.53
2:H:146:PHE:HA	2:H:149:VAL:HG12	1.89	0.53
2:H:652:ILE:CD1	2:H:658:MET:HE1	2.38	0.53
2:H:1313:SER:O	2:H:1314:ARG:HD3	2.09	0.53
2:H:1325:PHE:CE1	2:H:1328:VAL:HG11	2.43	0.53
2:I:754:TYR:CD2	2:I:794:MET:HG3	2.42	0.53
1:A:1120:GLU:O	1:A:1121:MET:CG	2.56	0.53
1:A:1566:ARG:HB3	1:A:1623:TYR:CE1	2.42	0.53
1:B:807:LYS:HG3	1:B:858:TRP:HB3	1.90	0.53
1:B:1009:LEU:HD13	1:B:1445:MET:HE1	1.88	0.53
1:C:233:ILE:HD13	1:C:237:MET:HE2	1.88	0.53
1:C:825:PRO:HB2	1:C:843:LYS:NZ	2.24	0.53
2:G:1331:TRP:CE2	2:G:1335:ILE:HG13	2.43	0.53
2:H:606:PHE:CE1	2:H:811:VAL:HG13	2.43	0.53
2:H:1177:SER:O	2:H:1180:MET:HG2	2.08	0.53
2:I:615:TYR:CZ	2:I:1074:MET:HB3	2.42	0.53
2:I:1844:ARG:CG	2:I:1844:ARG:NH1	2.61	0.53
2:I:1954:LYS:HD3	2:I:1958:LEU:HD13	1.89	0.53
1:A:1123:GLN:HB2	1:A:1177:LYS:HE2	1.90	0.53
1:A:1153:ASP:OD2	1:B:359:ARG:NH2	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1392:LEU:CD2	1:A:1396:MET:HG3	2.38	0.53
1:B:1194:ASN:O	1:B:1197:THR:HG23	2.08	0.53
1:C:236:LYS:HE2	1:C:273:PRO:O	2.08	0.53
2:G:376:ASN:C	2:G:376:ASN:ND2	2.67	0.53
2:G:1269:LEU:O	2:G:1560:LEU:HD23	2.08	0.53
2:H:281:VAL:HG23	2:H:459:VAL:HG11	1.90	0.53
2:H:674:TYR:HB3	2:H:676:ILE:HG22	1.88	0.53
2:H:826:GLY:O	2:H:827:VAL:HG23	2.07	0.53
2:I:234:ILE:CG1	2:I:235:PRO:HD3	2.38	0.53
2:I:491:GLU:HA	2:I:494:THR:HG22	1.89	0.53
2:I:582:LYS:HE2	2:I:1108:PRO:HB3	1.91	0.53
2:I:873:PHE:CD1	2:I:1026:GLU:HB2	2.43	0.53
1:A:807:LYS:HG3	1:A:858:TRP:HB3	1.91	0.53
1:A:1373:ARG:HB2	1:A:1545:SER:O	2.08	0.53
1:B:1020:VAL:HG13	1:B:1400:ILE:HG23	1.91	0.53
1:B:1392:LEU:CD2	1:B:1396:MET:HG3	2.38	0.53
1:C:263:GLY:O	1:C:267:VAL:HG23	2.08	0.53
1:C:824:LEU:HD11	1:C:849:LEU:HD12	1.90	0.53
2:G:741:HIS:CB	2:G:853:PRO:HB2	2.38	0.53
2:G:892:ILE:HG12	2:G:903:TRP:CG	2.43	0.53
2:G:964:LEU:CD2	2:G:964:LEU:N	2.68	0.53
2:H:55:THR:CG2	2:H:56:THR:HG22	2.30	0.53
2:I:271:THR:OG1	2:I:460:TYR:HB2	2.08	0.53
2:I:1745:LYS:HE2	2:I:1747:LYS:HG2	1.91	0.53
1:A:421:ILE:HG13	1:A:469:VAL:HG21	1.89	0.53
1:B:2:LYS:HE2	1:B:4:GLU:CD	2.34	0.53
1:B:607:LYS:HG2	1:B:608:ASP:N	2.23	0.53
1:B:751:PHE:CZ	1:B:761:LEU:HD13	2.42	0.53
1:B:1665:ILE:CG1	1:B:1669:ARG:HD3	2.36	0.53
1:C:158:LYS:HD3	1:C:185:GLU:HB3	1.91	0.53
1:C:985:ARG:HH12	2:I:953:ARG:CZ	2.21	0.53
2:G:707:PRO:HG2	2:G:730:LEU:HD13	1.90	0.53
2:H:173:LEU:HD13	2:H:219:LEU:HD21	1.90	0.53
2:H:816:ASP:HB3	2:H:1048:VAL:HG21	1.91	0.53
2:H:1804:PHE:CZ	2:H:2010:TYR:HB2	2.44	0.53
2:I:526:ARG:HH11	2:I:558:ASN:HD21	1.55	0.53
2:I:1102:TYR:HB3	2:I:1244:PRO:HA	1.91	0.53
2:I:1177:SER:O	2:I:1180:MET:HG2	2.09	0.53
2:I:1314:ARG:CG	2:I:1314:ARG:NH1	2.63	0.53
2:I:1431:TYR:CE1	2:I:1526:THR:HG22	2.44	0.53
2:I:1567:ARG:HG3	2:I:1568:HIS:N	2.22	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:50:SER:HB2	1:A:51:PRO:CD	2.39	0.53
1:A:635:ILE:HG22	1:A:651:TYR:CG	2.43	0.53
1:A:1020:VAL:HG13	1:A:1400:ILE:HG23	1.90	0.53
1:A:1665:ILE:HG12	1:A:1666:THR:N	2.23	0.53
2:G:913:ASP:H	2:G:916:THR:CG2	2.22	0.53
2:G:1253:GLU:HB3	2:G:1255:MET:HE2	1.89	0.53
2:G:2015:THR:HG22	2:G:2017:LYS:N	2.22	0.53
2:H:652:ILE:HB	2:H:658:MET:CE	2.39	0.53
2:H:1784:MET:HE2	2:H:1784:MET:O	2.08	0.53
2:I:1293:THR:HG22	2:I:1296:GLU:CG	2.39	0.53
2:I:2036:GLU:HG2	2:I:2039:LYS:NZ	2.23	0.53
1:A:1492:GLU:O	1:A:1496:GLU:HG3	2.09	0.53
1:B:1123:GLN:HB2	1:B:1177:LYS:HE2	1.91	0.53
1:C:1012:LEU:HD23	1:C:1445:MET:CE	2.39	0.53
1:C:1037:TRP:HB2	1:C:1598:GLN:OE1	2.09	0.53
2:G:346:GLN:HA	2:G:377:LEU:HD21	1.89	0.53
2:G:606:PHE:HZ	2:G:805:VAL:HG11	1.74	0.53
2:G:1166:VAL:HG12	2:G:1167:SER:N	2.23	0.53
2:H:402:LEU:HD12	2:H:404:GLN:HG2	1.90	0.53
2:H:774:ALA:HB1	2:H:1081:HIS:CD2	2.32	0.53
2:H:1913:VAL:O	2:H:1917:ILE:HG13	2.08	0.53
1:A:385:PHE:HD2	1:A:787:LYS:HA	1.74	0.53
1:A:483:VAL:O	1:A:486:VAL:N	2.42	0.53
1:A:1014:ASP:H	1:A:1510:ASN:ND2	1.93	0.53
1:A:1401:TYR:C	1:A:1658:PRO:HG3	2.33	0.53
1:B:12:ILE:HA	1:B:15:THR:HG23	1.90	0.53
1:C:1524:GLY:HA2	1:C:1527:ALA:HB3	1.91	0.53
2:G:85:ASN:HD22	2:G:135:ARG:NH1	2.03	0.53
2:G:490:TRP:CH2	2:G:512:LEU:HD21	2.43	0.53
2:G:750:MET:CG	2:G:796:PHE:HZ	2.21	0.53
2:G:1148:ASN:C	2:G:1148:ASN:HD22	2.17	0.53
2:H:346:GLN:HA	2:H:377:LEU:HD21	1.91	0.53
2:H:1040:LEU:HD21	2:H:1048:VAL:HA	1.89	0.53
2:H:1452:LEU:HA	2:H:1502:GLY:HA3	1.90	0.53
2:H:1954:LYS:HD3	2:H:1958:LEU:HD13	1.90	0.53
2:I:892:ILE:HG12	2:I:903:TRP:CG	2.44	0.53
2:I:1040:LEU:HD21	2:I:1048:VAL:HA	1.90	0.53
2:I:1441:ILE:HD11	2:I:1445:ARG:NH2	2.23	0.53
2:I:1861:ARG:HD2	2:I:1964:PHE:O	2.08	0.53
2:I:2038:ILE:HG22	2:I:2042:ILE:CD1	2.37	0.53
1:A:12:ILE:HA	1:A:15:THR:HG23	1.88	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1455:ARG:O	1:A:1459:ILE:HG13	2.08	0.53
1:C:1036:ARG:NH1	1:C:1040:GLU:OE1	2.41	0.53
2:G:281:VAL:HG23	2:G:459:VAL:HG11	1.91	0.53
2:G:1040:LEU:HD21	2:G:1048:VAL:HA	1.90	0.53
2:G:2038:ILE:HG22	2:G:2042:ILE:CD1	2.37	0.53
2:H:1528:GLU:C	2:H:1530:LYS:H	2.17	0.53
2:H:1745:LYS:HE2	2:H:1747:LYS:HG2	1.91	0.53
2:I:240:LEU:O	2:I:244:ILE:HG13	2.08	0.53
2:I:871:THR:HG21	2:I:887:LYS:NZ	2.24	0.53
2:I:1266:TYR:CG	2:I:1347:LEU:HD23	2.43	0.53
2:I:2035:SER:HB3	2:I:2038:ILE:CG1	2.37	0.53
1:B:1326:ILE:HG12	1:B:1388:MET:HG3	1.91	0.53
1:C:625:THR:HG23	1:C:661:ASP:OD1	2.09	0.53
1:C:1285:ALA:O	1:C:1289:MET:HG3	2.09	0.53
2:G:102:HIS:HE1	2:G:180:TYR:OH	1.92	0.53
2:G:1861:ARG:HD2	2:G:1964:PHE:O	2.09	0.53
2:H:234:ILE:CG1	2:H:235:PRO:HD3	2.39	0.53
2:H:455:ILE:HG12	2:H:469:ARG:HG2	1.91	0.53
2:H:1101:GLU:HB2	2:H:1147:ILE:O	2.09	0.53
2:H:1697:HIS:HE1	2:H:1829:GLU:HG2	1.74	0.53
2:I:264:ARG:NH1	2:I:456:GLN:HG3	2.24	0.53
1:A:529:MET:HG2	1:A:638:LEU:HG	1.89	0.52
1:B:340:ARG:HH12	1:B:344:GLN:NE2	2.08	0.52
1:C:864:VAL:CG2	1:C:921:PRO:HB3	2.39	0.52
2:G:55:THR:CG2	2:G:56:THR:HG22	2.33	0.52
2:I:606:PHE:CE1	2:I:811:VAL:HG13	2.44	0.52
2:I:1040:LEU:O	2:I:1046:GLN:HG3	2.09	0.52
1:A:156:ALA:HA	1:A:166:ILE:CD1	2.39	0.52
1:A:341:GLN:O	1:A:345:VAL:HG12	2.09	0.52
1:A:986:ALA:CA	1:A:1047:LEU:HD13	2.39	0.52
1:B:12:ILE:HD11	2:H:2041:ILE:HD11	1.89	0.52
1:B:529:MET:HE3	1:B:529:MET:CA	2.39	0.52
1:B:1234:MET:CE	1:B:1326:ILE:HG21	2.40	0.52
2:H:145:LEU:O	2:H:149:VAL:HG12	2.10	0.52
2:H:1159:ILE:CG1	2:H:1169:PRO:CD	2.87	0.52
2:H:1427:VAL:HG12	2:H:1427:VAL:O	2.08	0.52
2:H:1697:HIS:HE1	2:H:1829:GLU:CG	2.22	0.52
2:H:2026:PHE:CD2	2:H:2045:TRP:HZ3	2.27	0.52
2:I:465:GLY:HA2	2:I:493:THR:HA	1.91	0.52
2:I:598:THR:O	2:I:602:VAL:HB	2.09	0.52
2:I:2036:GLU:O	2:I:2039:LYS:HG2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:784:ILE:HG23	1:B:788:SER:HB2	1.92	0.52
1:B:980:VAL:HG21	2:H:952:ARG:NH2	2.24	0.52
1:C:1056:ILE:HD13	1:C:1193:TRP:CD1	2.41	0.52
1:C:1305:CYS:SG	1:C:1583:HIS:NE2	2.82	0.52
2:G:615:TYR:CZ	2:G:1074:MET:HB3	2.44	0.52
2:H:194:THR:CG2	2:H:300:ILE:HD11	2.39	0.52
2:H:768:GLY:HA3	2:H:800:LEU:CD2	2.39	0.52
2:I:418:ASN:N	2:I:418:ASN:HD22	2.07	0.52
1:A:335:HIS:HD2	1:A:335:HIS:O	1.92	0.52
1:A:824:LEU:HD11	1:A:849:LEU:HD12	1.89	0.52
1:B:329:GLU:O	1:B:333:LYS:HG3	2.08	0.52
1:C:260:ARG:HH12	1:C:300:VAL:CG2	2.22	0.52
1:C:530:ALA:HA	1:C:636:PRO:HB3	1.91	0.52
1:C:1411:THR:HG22	1:C:1412:ASP:N	2.24	0.52
2:G:490:TRP:HA	2:G:493:THR:CG2	2.40	0.52
2:G:1159:ILE:HG12	2:G:1169:PRO:CD	2.39	0.52
2:G:1359:MET:CE	2:G:1404:MET:HB3	2.39	0.52
2:G:1438:SER:O	2:G:1441:ILE:HG23	2.09	0.52
2:H:955:GLU:HG2	2:H:987:TYR:CE2	2.45	0.52
2:I:1486:PHE:HA	2:I:1504:VAL:O	2.10	0.52
1:A:988:ILE:HD13	1:A:1048:GLU:CA	2.39	0.52
1:A:1303:GLY:C	1:A:1307:THR:HG22	2.35	0.52
1:C:142:ASP:CG	1:C:257:PRO:HB2	2.34	0.52
1:C:406:TRP:CE3	1:C:1619:GLU:HG3	2.44	0.52
1:C:465:ASN:O	1:C:469:VAL:HG23	2.10	0.52
2:G:145:LEU:HD21	2:G:156:LEU:HD21	1.91	0.52
2:G:871:THR:HG21	2:G:887:LYS:NZ	2.25	0.52
2:G:1389:ILE:HG13	2:G:1411:PHE:HD1	1.75	0.52
2:H:754:TYR:CD2	2:H:794:MET:HG3	2.44	0.52
2:H:1722:GLY:N	2:H:1726:GLY:HA3	2.24	0.52
2:I:741:HIS:HE1	2:I:855:HIS:NE2	2.06	0.52
2:I:1300:PHE:CA	2:I:1556:VAL:HG11	2.40	0.52
2:I:1350:LEU:HD11	2:I:1410:PHE:HB3	1.91	0.52
2:I:1438:SER:O	2:I:1441:ILE:HG23	2.08	0.52
2:I:1475:LYS:HG3	2:I:1481:SER:HB2	1.92	0.52
2:I:1774:THR:HA	2:I:1777:THR:HB	1.92	0.52
1:A:501:THR:N	1:A:886:GLU:OE1	2.30	0.52
1:A:826:MET:HE1	1:A:850:PHE:CZ	2.45	0.52
1:A:998:TYR:CE2	1:A:1667:GLU:HB2	2.44	0.52
1:A:1477:ILE:H	1:A:1478:PRO:CD	2.21	0.52
1:B:341:GLN:O	1:B:345:VAL:HG12	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1475:LYS:CB	2:G:1481:SER:HB2	2.39	0.52
2:G:1567:ARG:HH11	2:G:1567:ARG:HG2	1.72	0.52
2:G:1593:ILE:HD13	2:G:1626:ILE:HD13	1.92	0.52
2:G:1932:SER:O	2:G:1936:VAL:HG22	2.10	0.52
2:I:702:TYR:HB2	2:I:727:PRO:HB2	1.92	0.52
2:I:964:LEU:CD2	2:I:964:LEU:N	2.72	0.52
2:I:1418:ASP:C	2:I:1420:GLU:H	2.18	0.52
1:A:2:LYS:CD	2:G:2050:GLN:HB3	2.38	0.52
1:A:59:ARG:HH11	2:G:1896:GLN:NE2	2.07	0.52
1:A:430:ARG:NH1	1:A:493:VAL:O	2.40	0.52
1:A:1305:CYS:SG	1:A:1583:HIS:NE2	2.83	0.52
2:G:955:GLU:HG2	2:G:987:TYR:CE2	2.45	0.52
2:G:2026:PHE:CD2	2:G:2045:TRP:HZ3	2.27	0.52
2:H:376:ASN:HD22	2:H:376:ASN:C	2.18	0.52
2:H:615:TYR:CZ	2:H:1074:MET:HB3	2.43	0.52
2:H:747:HIS:O	2:H:751:LEU:HB2	2.10	0.52
2:H:1292:ILE:O	2:H:1368:VAL:O	2.27	0.52
2:H:1776:PHE:O	2:H:1779:PRO:HD2	2.09	0.52
2:I:913:ASP:H	2:I:916:THR:CG2	2.23	0.52
2:I:1004:LEU:HD21	2:I:1020:VAL:HG23	1.91	0.52
2:I:1159:ILE:HG12	2:I:1169:PRO:CD	2.39	0.52
1:B:529:MET:HG2	1:B:638:LEU:HG	1.92	0.52
1:B:893:VAL:HG11	1:B:930:LEU:CD2	2.36	0.52
1:C:27:ARG:HB2	2:I:2016:ALA:HB2	1.91	0.52
1:C:607:LYS:HG2	1:C:608:ASP:N	2.24	0.52
2:G:926:LEU:HB3	2:G:947:THR:HG22	1.92	0.52
2:G:1177:SER:O	2:G:1180:MET:HG2	2.09	0.52
2:H:418:ASN:HD22	2:H:418:ASN:N	2.08	0.52
2:H:599:PRO:HD2	4:H:3051:FMN:H6	1.92	0.52
2:I:751:LEU:HD23	2:I:791:TYR:CZ	2.44	0.52
2:I:1282:ARG:HH21	2:I:1423:PHE:HB3	1.74	0.52
2:I:1597:ALA:HB1	2:I:1638:ILE:CD1	2.39	0.52
2:I:1918:LYS:HG2	2:I:1919:LEU:HD23	1.92	0.52
1:A:521:LYS:HE2	1:A:605:LEU:HD11	1.92	0.52
1:A:705:VAL:CG2	1:A:732:LEU:HD21	2.39	0.52
1:A:1475:GLU:HG3	1:A:1761:LYS:O	2.10	0.52
1:C:340:ARG:HH12	1:C:344:GLN:NE2	2.08	0.52
1:C:705:VAL:CG2	1:C:732:LEU:HD21	2.40	0.52
2:G:121:GLU:HA	2:G:124:LYS:HD2	1.91	0.52
2:G:176:LEU:HD22	2:G:247:ALA:HB1	1.90	0.52
2:G:768:GLY:HA3	2:G:800:LEU:CD2	2.38	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1093:ASP:HB3	2:G:1096:LYS:HG3	1.90	0.52
2:G:1265:MET:HE1	2:G:1562:PRO:HG2	1.92	0.52
2:G:1745:LYS:HD3	2:G:1747:LYS:HE2	1.91	0.52
2:G:1873:TYR:CE1	2:G:1877:ARG:NE	2.75	0.52
2:H:278:VAL:HG11	2:H:303:LEU:HD13	1.92	0.52
2:H:553:ASN:O	2:H:556:LYS:CE	2.58	0.52
2:I:273:HIS:CB	2:I:512:LEU:HD22	2.40	0.52
2:I:747:HIS:O	2:I:751:LEU:HB2	2.10	0.52
2:I:1223:MET:CE	2:I:1238:LEU:HD12	2.40	0.52
1:A:280:GLU:O	1:A:280:GLU:HG2	2.10	0.52
1:A:607:LYS:HG2	1:A:608:ASP:N	2.25	0.52
1:A:674:LYS:O	1:A:675:ASP:HB2	2.09	0.52
1:A:1183:ARG:NH1	1:A:1344:GLY:HA2	2.24	0.52
1:C:156:ALA:HA	1:C:166:ILE:CD1	2.40	0.52
2:G:278:VAL:HG11	2:G:303:LEU:HD13	1.92	0.52
2:H:281:VAL:HG12	2:H:282:ALA:N	2.24	0.52
2:H:577:ILE:HD13	2:H:1097:ILE:CD1	2.40	0.52
2:H:892:ILE:HG12	2:H:903:TRP:CG	2.45	0.52
2:I:1871:LEU:HD22	2:I:1888:ILE:HD11	1.92	0.52
2:I:2026:PHE:CD2	2:I:2045:TRP:HZ3	2.27	0.52
1:A:881:ASN:HA	1:A:944:ARG:NH2	2.25	0.51
1:B:142:ASP:CG	1:B:257:PRO:HB2	2.35	0.51
1:B:985:ARG:HH12	2:H:953:ARG:NH2	2.07	0.51
1:B:1056:ILE:CD1	1:B:1193:TRP:HD1	2.22	0.51
1:B:1238:VAL:HG12	1:B:1239:HIS:N	2.25	0.51
1:B:1303:GLY:C	1:B:1307:THR:HG22	2.35	0.51
1:C:1665:ILE:CG1	1:C:1669:ARG:HD3	2.36	0.51
2:G:234:ILE:CG1	2:G:235:PRO:HD3	2.40	0.51
2:G:624:TYR:HB2	2:G:630:MET:HE3	1.92	0.51
2:G:1774:THR:HA	2:G:1777:THR:HB	1.90	0.51
2:H:654:VAL:HG23	2:H:683:ALA:HB1	1.92	0.51
2:I:376:ASN:C	2:I:376:ASN:ND2	2.68	0.51
2:I:1745:LYS:HD3	2:I:1747:LYS:HE2	1.93	0.51
1:A:1123:GLN:HG3	1:A:1124:GLU:N	2.24	0.51
1:A:1411:THR:HG22	1:A:1412:ASP:N	2.25	0.51
1:B:413:LEU:C	1:B:415:SER:H	2.17	0.51
1:B:1104:ARG:O	1:B:1185:VAL:HG13	2.11	0.51
1:C:156:ALA:HA	1:C:166:ILE:HD12	1.92	0.51
1:C:1238:VAL:HG12	1:C:1239:HIS:N	2.25	0.51
1:C:1303:GLY:N	1:C:1307:THR:HG22	2.26	0.51
1:C:1840:VAL:HG23	1:C:1848:ALA:HB3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:730:LEU:C	2:G:730:LEU:HD12	2.35	0.51
2:H:131:ILE:CD1	2:H:182:VAL:CG1	2.88	0.51
2:H:1173:VAL:HB	2:H:1221:MET:HE1	1.92	0.51
2:I:42:PRO:HG2	2:I:52:ASP:CG	2.35	0.51
2:I:715:GLN:O	2:I:719:ILE:HG12	2.10	0.51
2:I:1697:HIS:CE1	2:I:1829:GLU:HG2	2.45	0.51
2:I:1868:GLN:HG3	2:I:1898:TYR:CZ	2.45	0.51
1:A:1303:GLY:N	1:A:1307:THR:HG22	2.25	0.51
1:A:1411:THR:HG22	1:A:1412:ASP:H	1.76	0.51
1:A:1474:ALA:HA	1:A:1478:PRO:CD	2.41	0.51
1:B:985:ARG:NH1	2:H:953:ARG:CZ	2.73	0.51
1:C:46:GLU:OE1	1:C:53:LEU:HB2	2.11	0.51
2:G:124:LYS:HG2	2:G:179:THR:HA	1.90	0.51
2:G:213:LEU:O	2:G:213:LEU:HG	2.10	0.51
2:G:489:LYS:O	2:G:493:THR:HG22	2.10	0.51
2:G:702:TYR:HB2	2:G:727:PRO:HB2	1.93	0.51
2:G:1293:THR:HG22	2:G:1296:GLU:CG	2.40	0.51
2:G:1328:VAL:HG23	2:G:1557:SER:HA	1.92	0.51
2:G:1493:LEU:HD11	2:G:1499:VAL:CG2	2.40	0.51
2:H:545:GLN:H	2:H:545:GLN:NE2	2.07	0.51
2:H:758:ARG:NH2	2:H:797:ASP:OD1	2.35	0.51
2:H:1293:THR:HG22	2:H:1296:GLU:CG	2.41	0.51
2:H:1475:LYS:CB	2:H:1481:SER:HB2	2.40	0.51
2:I:573:LYS:C	2:I:575:GLY:H	2.19	0.51
2:I:1148:ASN:C	2:I:1148:ASN:HD22	2.19	0.51
1:A:12:ILE:CD1	2:G:2041:ILE:CD1	2.83	0.51
1:B:335:HIS:O	1:B:335:HIS:HD2	1.93	0.51
1:B:1411:THR:HG22	1:B:1412:ASP:N	2.26	0.51
1:C:983:GLN:NE2	2:I:962:LYS:HD2	2.25	0.51
2:G:654:VAL:O	2:G:654:VAL:HG12	2.09	0.51
2:G:1081:HIS:O	2:G:1085:LEU:HB2	2.10	0.51
2:H:582:LYS:HE2	2:H:1108:PRO:HB3	1.92	0.51
2:H:1081:HIS:O	2:H:1085:LEU:HB2	2.10	0.51
2:H:1475:LYS:HG3	2:H:1481:SER:HB2	1.93	0.51
2:H:1491:VAL:HB	2:H:1501:ILE:HD12	1.92	0.51
2:I:652:ILE:HD12	2:I:652:ILE:N	2.25	0.51
2:I:1475:LYS:CB	2:I:1481:SER:HB2	2.41	0.51
2:I:1884:TRP:NE1	2:I:1905:ARG:HH21	2.09	0.51
1:C:1021:VAL:HG21	1:C:1593:MET:HE2	1.92	0.51
2:G:816:ASP:HB3	2:G:1048:VAL:CG2	2.41	0.51
2:G:1293:THR:HG22	2:G:1296:GLU:CD	2.35	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:42:PRO:HG2	2:H:52:ASP:CG	2.36	0.51
2:H:1561:ASN:OD1	2:H:1563:ILE:HB	2.10	0.51
2:I:460:TYR:HA	2:I:466:SER:O	2.11	0.51
1:A:157:HIS:HE1	1:A:228:LEU:HD22	1.76	0.51
1:A:1840:VAL:HG23	1:A:1848:ALA:HB3	1.91	0.51
1:B:338:LEU:O	1:B:342:GLN:HG3	2.10	0.51
1:B:415:SER:O	1:B:419:GLU:HB2	2.10	0.51
1:B:529:MET:HA	1:B:529:MET:CE	2.36	0.51
1:B:1194:ASN:HB3	1:B:1197:THR:HG22	1.91	0.51
1:B:1477:ILE:H	1:B:1478:PRO:CD	2.24	0.51
1:B:1840:VAL:HG23	1:B:1848:ALA:HB3	1.92	0.51
1:C:644:THR:HG22	1:C:648:ASP:O	2.10	0.51
1:C:1303:GLY:C	1:C:1307:THR:HG22	2.35	0.51
2:G:145:LEU:O	2:G:149:VAL:HG12	2.10	0.51
2:G:1417:THR:CG2	2:G:1419:PHE:CE2	2.93	0.51
2:G:1427:VAL:O	2:G:1427:VAL:HG12	2.09	0.51
2:H:55:THR:HB	2:H:59:GLU:OE2	2.10	0.51
2:H:432:LEU:HB3	2:H:484:ILE:HG23	1.92	0.51
2:H:1417:THR:C	2:H:1419:PHE:H	2.19	0.51
2:H:1493:LEU:HD11	2:H:1499:VAL:HG21	1.93	0.51
2:I:1015:VAL:HG11	2:I:1017:PHE:CE1	2.45	0.51
1:A:1310:GLU:OE1	1:A:1649:LYS:CE	2.56	0.51
1:C:2:LYS:HE2	1:C:4:GLU:CD	2.35	0.51
2:G:1431:TYR:CE1	2:G:1526:THR:HG23	2.45	0.51
2:G:1579:ILE:HD11	2:G:1615:MET:SD	2.51	0.51
2:G:1589:VAL:HG11	2:G:1640:PHE:CE1	2.45	0.51
2:G:1764:PHE:HB2	2:G:1770:LEU:HD21	1.93	0.51
2:H:260:PRO:HD3	2:H:289:TRP:CZ2	2.46	0.51
2:H:1716:ASN:OD1	2:H:1765:ARG:HA	2.11	0.51
2:I:306:ILE:HA	2:I:439:ILE:CD1	2.40	0.51
2:I:624:TYR:HB2	2:I:630:MET:HE3	1.92	0.51
2:I:1428:GLU:HB2	2:I:1468:THR:HG22	1.93	0.51
2:I:1566:SER:HB3	2:I:1568:HIS:CE1	2.45	0.51
1:A:254:TRP:HZ3	1:A:292:GLN:HG3	1.75	0.51
1:A:465:ASN:O	1:A:469:VAL:HG23	2.11	0.51
1:A:1498:GLU:HB2	1:A:1876:LEU:CD1	2.37	0.51
1:B:864:VAL:CG2	1:B:921:PRO:HB3	2.40	0.51
1:C:513:GLU:OE2	1:C:873:ARG:NH1	2.44	0.51
1:C:1009:LEU:HG	1:C:1664:ALA:HB2	1.93	0.51
1:C:1123:GLN:HB2	1:C:1177:LYS:HE2	1.93	0.51
1:C:1233:GLU:CD	1:C:1680:ARG:HH21	2.19	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1411:THR:HG22	1:C:1412:ASP:H	1.75	0.51
2:G:1986:LYS:HA	2:G:1989:LYS:HB3	1.92	0.51
2:H:533:LEU:HD13	2:H:545:GLN:HG3	1.92	0.51
2:H:624:TYR:HB2	2:H:630:MET:HE3	1.92	0.51
2:H:667:LYS:HD2	2:H:697:THR:CG2	2.35	0.51
2:H:1236:LEU:HD11	2:H:1262:ILE:HG12	1.92	0.51
2:I:157:VAL:HG11	2:I:496:PHE:CZ	2.46	0.51
2:I:346:GLN:HA	2:I:377:LEU:HD21	1.92	0.51
2:I:950:PHE:O	2:I:954:VAL:HG23	2.11	0.51
1:A:2:LYS:HE2	1:A:4:GLU:CD	2.36	0.51
1:B:11:HIS:C	1:B:11:HIS:CD2	2.89	0.51
1:B:826:MET:HE1	1:B:850:PHE:CZ	2.46	0.51
1:B:1705:PRO:HB2	1:B:1733:PHE:CE1	2.46	0.51
1:C:733:ILE:CD1	1:C:761:LEU:HD11	2.40	0.51
2:G:16:LEU:HG	2:G:48:PHE:CZ	2.45	0.51
2:G:443:LEU:HD22	2:G:448:VAL:CG1	2.41	0.51
2:G:566:HIS:O	2:G:568:LYS:HG3	2.10	0.51
2:G:871:THR:HG21	2:G:887:LYS:HZ2	1.76	0.51
2:G:1422:THR:CG2	2:G:1422:THR:O	2.59	0.51
2:H:332:GLU:OE2	2:H:394:ARG:HD3	2.10	0.51
2:H:461:ASP:HB3	2:H:464:ASP:HB2	1.93	0.51
2:H:807:ILE:HG21	2:H:1066:ILE:HA	1.92	0.51
2:I:807:ILE:HG21	2:I:1066:ILE:HA	1.93	0.51
2:I:1313:SER:O	2:I:1314:ARG:HD3	2.11	0.51
1:A:400:ARG:HH11	1:A:400:ARG:HG3	1.67	0.51
1:A:889:GLU:HG3	1:A:893:VAL:O	2.11	0.51
1:B:822:VAL:HG12	1:B:824:LEU:HD22	1.93	0.51
1:B:1455:ARG:NH2	1:B:1459:ILE:HG12	2.26	0.51
1:B:1665:ILE:HG12	1:B:1666:THR:N	2.25	0.51
1:C:157:HIS:HE1	1:C:228:LEU:HD22	1.75	0.51
1:C:411:GLN:HE22	1:C:1628:SER:H	1.58	0.51
2:G:418:ASN:HD22	2:G:418:ASN:N	2.09	0.51
2:G:751:LEU:HD23	2:G:791:TYR:CZ	2.46	0.51
2:G:868:PHE:HB3	2:G:873:PHE:CE2	2.46	0.51
2:G:1135:GLU:OE2	2:G:1175:LYS:HE3	2.11	0.51
2:G:1418:ASP:C	2:G:1420:GLU:H	2.19	0.51
2:G:1452:LEU:HA	2:G:1502:GLY:HA3	1.92	0.51
2:H:233:SER:HA	2:H:424:ALA:CB	2.41	0.51
2:H:460:TYR:HA	2:H:466:SER:O	2.11	0.51
2:H:741:HIS:HB2	2:H:853:PRO:O	2.11	0.51
2:H:1678:MET:CE	2:H:1707:LEU:HD22	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:2026:PHE:HD2	2:H:2045:TRP:HZ3	1.59	0.51
1:A:635:ILE:HG22	1:A:651:TYR:CD1	2.46	0.50
1:A:985:ARG:NH1	2:G:953:ARG:CZ	2.74	0.50
1:A:1105:LEU:HD23	1:A:1185:VAL:HG22	1.93	0.50
1:A:1487:LEU:C	1:A:1487:LEU:HD23	2.35	0.50
1:B:50:SER:HB2	1:B:51:PRO:CD	2.40	0.50
1:B:386:PHE:O	1:B:390:VAL:HB	2.11	0.50
1:B:1524:GLY:HA2	1:B:1527:ALA:HB3	1.93	0.50
2:G:194:THR:CG2	2:G:300:ILE:HD11	2.41	0.50
2:G:601:THR:HG22	2:G:620:ALA:H	1.75	0.50
2:G:1223:MET:CE	2:G:1238:LEU:HD12	2.40	0.50
2:G:1697:HIS:HE1	2:G:1829:GLU:HG2	1.74	0.50
2:H:408:PRO:HG3	2:H:836:TYR:CD2	2.46	0.50
2:I:1493:LEU:HD11	2:I:1499:VAL:HG21	1.93	0.50
2:I:1776:PHE:O	2:I:1779:PRO:HD2	2.10	0.50
1:A:433:VAL:O	1:A:437:ILE:HG13	2.12	0.50
1:A:489:VAL:CG2	1:A:670:GLY:C	2.84	0.50
1:A:1533:ILE:HD11	1:A:1564:LEU:HD13	1.93	0.50
1:B:635:ILE:HG22	1:B:651:TYR:CD1	2.46	0.50
1:B:1158:PRO:HD2	1:B:1159:GLU:OE2	2.10	0.50
1:B:1411:THR:HG22	1:B:1412:ASP:H	1.75	0.50
1:C:11:HIS:C	1:C:11:HIS:CD2	2.89	0.50
1:C:34:VAL:O	1:C:38:ASP:HB2	2.11	0.50
1:C:655:LEU:CD2	1:C:916:LEU:HD11	2.41	0.50
1:C:674:LYS:O	1:C:675:ASP:HB2	2.11	0.50
1:C:828:PRO:HG3	1:C:868:ILE:HG22	1.94	0.50
1:C:1196:LYS:HE3	1:C:1202:ASP:CG	2.37	0.50
2:G:7:ARG:CZ	2:G:24:THR:HA	2.41	0.50
2:G:526:ARG:HH11	2:G:558:ASN:HD21	1.59	0.50
2:H:1597:ALA:HB1	2:H:1638:ILE:CD1	2.41	0.50
2:H:1861:ARG:HD2	2:H:1964:PHE:O	2.12	0.50
2:I:85:ASN:HD22	2:I:135:ARG:NH1	2.04	0.50
2:I:281:VAL:HG12	2:I:282:ALA:N	2.25	0.50
2:I:611:THR:HA	2:I:615:TYR:O	2.11	0.50
2:I:750:MET:CG	2:I:796:PHE:HZ	2.24	0.50
2:I:1776:PHE:C	2:I:1779:PRO:HD2	2.37	0.50
1:A:20:TYR:CE1	2:G:2033:THR:HG21	2.47	0.50
1:A:24:SER:O	2:G:1977:HIS:CD2	2.65	0.50
1:A:34:VAL:O	1:A:38:ASP:HB2	2.10	0.50
1:A:59:ARG:HH11	2:G:1896:GLN:HE22	1.58	0.50
1:B:601:VAL:O	1:B:602:GLU:C	2.54	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:539:SER:O	1:C:540:GLN:C	2.52	0.50
2:G:1272:ASP:O	2:G:1273:GLU:HG3	2.11	0.50
2:G:1918:LYS:HG2	2:G:1919:LEU:HD23	1.93	0.50
2:H:344:LEU:HB3	2:H:349:VAL:HG23	1.94	0.50
2:H:491:GLU:HA	2:H:494:THR:HG22	1.93	0.50
2:H:1774:THR:HA	2:H:1777:THR:HB	1.93	0.50
2:H:1775:GLN:HG2	2:H:1836:MET:SD	2.51	0.50
2:I:173:LEU:HD13	2:I:219:LEU:HD21	1.94	0.50
2:I:1027:ILE:O	2:I:1031:LYS:HB2	2.11	0.50
2:I:1945:ASP:O	2:I:1949:LYS:HG3	2.10	0.50
1:A:286:PHE:O	1:A:290:MET:HG2	2.10	0.50
1:B:421:ILE:HG12	1:B:469:VAL:HG21	1.93	0.50
1:B:1303:GLY:N	1:B:1307:THR:HG22	2.25	0.50
1:C:280:GLU:O	1:C:280:GLU:HG2	2.11	0.50
1:C:415:SER:O	1:C:419:GLU:HB2	2.12	0.50
1:C:702:LYS:HE2	1:C:729:GLY:O	2.11	0.50
1:C:1116:PRO:HB2	1:C:1184:LEU:HD12	1.93	0.50
2:G:281:VAL:HG12	2:G:282:ALA:N	2.26	0.50
2:G:545:GLN:H	2:G:545:GLN:NE2	2.09	0.50
2:H:463:PHE:CE1	2:H:486:LEU:HD22	2.47	0.50
2:H:1031:LYS:O	2:H:1032:ASP:C	2.54	0.50
2:H:1102:TYR:CE2	2:H:1152:ALA:HB2	2.47	0.50
2:H:1148:ASN:ND2	2:H:1151:HIS:H	2.08	0.50
2:H:1389:ILE:HG13	2:H:1411:PHE:HD1	1.76	0.50
2:H:1435:ILE:O	2:H:1435:ILE:HG22	2.10	0.50
2:I:1491:VAL:HB	2:I:1501:ILE:HD12	1.93	0.50
2:I:1673:GLU:N	2:I:1676:MET:HE3	2.27	0.50
1:A:1004:ILE:HG22	1:A:1660:TYR:CE2	2.46	0.50
1:B:156:ALA:HA	1:B:166:ILE:CD1	2.41	0.50
1:B:156:ALA:HA	1:B:166:ILE:HD12	1.93	0.50
1:C:1431:GLU:HB3	1:C:1520:ALA:HB2	1.92	0.50
2:G:611:THR:HA	2:G:615:TYR:O	2.11	0.50
2:G:663:ILE:HB	2:G:664:PRO:CD	2.40	0.50
2:G:676:ILE:O	2:G:676:ILE:HG12	2.11	0.50
2:G:784:GLU:O	2:G:787:THR:HB	2.11	0.50
2:G:1871:LEU:HD22	2:G:1888:ILE:HD11	1.93	0.50
2:H:730:LEU:C	2:H:730:LEU:HD12	2.36	0.50
2:H:1428:GLU:HB2	2:H:1468:THR:HG22	1.94	0.50
2:I:955:GLU:HG2	2:I:987:TYR:CE2	2.46	0.50
2:I:1135:GLU:OE2	2:I:1175:LYS:HE3	2.12	0.50
2:I:1716:ASN:OD1	2:I:1765:ARG:HA	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:2035:SER:HB3	2:I:2038:ILE:CD1	2.40	0.50
1:A:487:ASP:O	1:A:488:PRO:O	2.30	0.50
1:A:1523:ARG:NH2	1:A:1564:LEU:O	2.45	0.50
1:C:985:ARG:HH12	2:I:953:ARG:NH2	2.09	0.50
1:C:1019:ILE:HG21	1:C:1316:VAL:HG22	1.94	0.50
1:C:1474:ALA:HA	1:C:1478:PRO:CD	2.42	0.50
2:G:774:ALA:HB1	2:G:1081:HIS:CD2	2.37	0.50
2:G:1350:LEU:HD11	2:G:1410:PHE:HB3	1.94	0.50
2:G:1359:MET:HE3	2:G:1359:MET:HA	1.94	0.50
2:G:1840:VAL:O	2:G:1840:VAL:HG12	2.11	0.50
2:H:826:GLY:HA2	2:H:1060:ALA:HB3	1.94	0.50
2:H:1776:PHE:C	2:H:1779:PRO:HD2	2.37	0.50
2:H:2036:GLU:HG2	2:H:2039:LYS:NZ	2.27	0.50
2:I:712:ALA:O	2:I:715:GLN:HB3	2.12	0.50
2:I:866:LYS:O	2:I:870:GLU:HG3	2.12	0.50
2:I:1953:VAL:O	2:I:1953:VAL:HG12	2.11	0.50
1:A:12:ILE:CD1	2:G:2041:ILE:HD11	2.41	0.50
1:A:359:ARG:NH2	1:C:1153:ASP:OD2	2.43	0.50
1:A:1104:ARG:O	1:A:1185:VAL:HG13	2.12	0.50
1:B:20:TYR:OH	2:H:2035:SER:HB2	2.12	0.50
1:B:825:PRO:HB2	1:B:843:LYS:NZ	2.27	0.50
1:B:1347:LYS:O	1:B:1347:LYS:HD3	2.11	0.50
1:C:13:LEU:HB2	2:I:2026:PHE:CE1	2.45	0.50
2:G:440:ASN:ND2	2:G:477:GLU:HG2	2.26	0.50
2:G:463:PHE:C	2:G:463:PHE:CD2	2.90	0.50
2:G:894:ARG:NH1	2:G:898:ASP:OD2	2.43	0.50
2:G:1678:MET:HE2	2:G:1711:ILE:CG1	2.41	0.50
2:H:121:GLU:HA	2:H:124:LYS:HD2	1.93	0.50
2:H:161:GLY:HA3	2:H:506:PRO:HD2	1.93	0.50
2:H:463:PHE:C	2:H:463:PHE:CD2	2.90	0.50
2:H:638:VAL:HG22	2:H:675:PRO:HG2	1.93	0.50
2:H:1673:GLU:N	2:H:1676:MET:HE3	2.27	0.50
2:I:1986:LYS:HA	2:I:1989:LYS:HB3	1.93	0.50
1:A:413:LEU:C	1:A:415:SER:H	2.18	0.50
1:A:930:LEU:HD22	1:A:933:VAL:HG11	1.93	0.50
1:A:1196:LYS:HE3	1:A:1202:ASP:CG	2.36	0.50
1:B:408:TRP:CZ3	1:B:1628:SER:HB3	2.47	0.50
1:C:157:HIS:CE1	1:C:228:LEU:HD22	2.47	0.50
1:C:328:LEU:HD13	1:C:329:GLU:N	2.27	0.50
1:C:702:LYS:HD3	1:C:731:THR:CG2	2.41	0.50
1:C:1009:LEU:CD1	1:C:1445:MET:HE1	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:24:THR:O	2:G:26:SER:N	2.44	0.50
2:G:60:LEU:O	2:G:63:LYS:HB2	2.12	0.50
2:G:306:ILE:HA	2:G:439:ILE:CD1	2.42	0.50
2:G:606:PHE:CE1	2:G:811:VAL:HG13	2.46	0.50
2:G:682:GLY:O	2:G:683:ALA:HB3	2.12	0.50
2:G:1567:ARG:HG3	2:G:1568:HIS:N	2.20	0.50
2:G:1776:PHE:O	2:G:1779:PRO:HD2	2.12	0.50
2:G:2035:SER:HB3	2:G:2038:ILE:CD1	2.42	0.50
2:H:747:HIS:HE1	2:H:780:TYR:OH	1.95	0.50
2:H:2035:SER:HB3	2:H:2038:ILE:CD1	2.42	0.50
2:I:344:LEU:HB3	2:I:349:VAL:HG23	1.93	0.50
1:A:156:ALA:HA	1:A:166:ILE:HD12	1.93	0.50
1:A:1116:PRO:HB2	1:A:1184:LEU:HD12	1.94	0.50
1:A:1125:VAL:HG21	1:A:1175:ILE:CD1	2.42	0.50
1:A:1347:LYS:O	1:A:1347:LYS:HD3	2.11	0.50
1:A:1459:ILE:O	1:A:1463:VAL:HG23	2.12	0.50
1:B:46:GLU:OE1	1:B:53:LEU:HB2	2.12	0.50
1:C:385:PHE:HD2	1:C:787:LYS:HA	1.77	0.50
1:C:1566:ARG:HB3	1:C:1623:TYR:CE1	2.46	0.50
1:C:1705:PRO:HB2	1:C:1733:PHE:CE1	2.46	0.50
2:G:428:HIS:CD2	2:G:488:VAL:HG23	2.47	0.50
2:G:1552:PRO:O	2:G:1556:VAL:HG23	2.12	0.50
2:G:1697:HIS:HE1	2:G:1829:GLU:CG	2.25	0.50
2:G:1716:ASN:OD1	2:G:1765:ARG:HA	2.12	0.50
2:H:7:ARG:CZ	2:H:24:THR:HA	2.42	0.50
2:H:441:LYS:O	2:H:444:VAL:HG12	2.12	0.50
2:H:1004:LEU:HD21	2:H:1020:VAL:CG2	2.41	0.50
2:H:2030:TYR:CE1	2:H:2034:GLY:HA2	2.46	0.50
2:I:455:ILE:HG12	2:I:469:ARG:HG2	1.93	0.50
2:I:777:THR:HG23	2:I:1081:HIS:CE1	2.47	0.50
1:B:413:LEU:HB2	1:B:439:ILE:HD13	1.94	0.49
1:B:1451:GLN:OE1	1:B:1451:GLN:HA	2.12	0.49
1:B:1533:ILE:HG13	1:B:1564:LEU:HB3	1.94	0.49
1:C:1665:ILE:HG12	1:C:1666:THR:N	2.27	0.49
2:G:131:ILE:CB	2:G:182:VAL:CG1	2.85	0.49
2:G:1441:ILE:HD11	2:G:1445:ARG:NH2	2.25	0.49
2:G:1678:MET:HE1	2:G:1707:LEU:HD23	1.94	0.49
2:G:1868:GLN:HG3	2:G:1898:TYR:CZ	2.48	0.49
2:G:2029:VAL:O	2:G:2033:THR:HG22	2.12	0.49
2:H:777:THR:HG23	2:H:1081:HIS:CE1	2.47	0.49
2:H:1227:ARG:HG3	2:H:1227:ARG:NH1	2.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:7:ARG:HE	2:I:27:PHE:CB	2.24	0.49
2:I:72:VAL:HG12	2:I:73:GLU:N	2.27	0.49
2:I:1031:LYS:O	2:I:1032:ASP:C	2.54	0.49
2:I:1632:ILE:HG23	2:I:1632:ILE:O	2.12	0.49
1:A:335:HIS:O	1:A:338:LEU:HB3	2.12	0.49
1:A:1460:LYS:HE3	1:A:1774:GLU:HA	1.94	0.49
1:B:674:LYS:O	1:B:675:ASP:HB2	2.11	0.49
1:B:1125:VAL:HG21	1:B:1175:ILE:CD1	2.42	0.49
1:B:1474:ALA:HA	1:B:1478:PRO:CD	2.41	0.49
1:C:413:LEU:HD11	1:C:451:MET:HE3	1.94	0.49
2:H:7:ARG:HE	2:H:27:PHE:CB	2.26	0.49
2:H:28:PHE:CE1	2:I:27:PHE:CE2	3.00	0.49
2:H:871:THR:HG21	2:H:887:LYS:NZ	2.26	0.49
2:H:1148:ASN:HD22	2:H:1151:HIS:H	1.60	0.49
2:H:1162:ASP:O	2:H:1163:LYS:HB2	2.11	0.49
2:H:1745:LYS:HD3	2:H:1747:LYS:HE2	1.94	0.49
2:I:24:THR:O	2:I:26:SER:N	2.45	0.49
2:I:60:LEU:O	2:I:63:LYS:HB2	2.11	0.49
2:I:259:THR:HG22	2:I:262:GLU:CB	2.41	0.49
2:I:274:SER:OG	2:I:428:HIS:HE1	1.95	0.49
1:A:483:VAL:O	1:A:484:LEU:C	2.56	0.49
1:A:1276:GLN:O	1:A:1282:THR:HG21	2.13	0.49
1:A:1501:LEU:CD1	1:A:1775:LEU:HG	2.43	0.49
1:C:889:GLU:HG3	1:C:893:VAL:O	2.13	0.49
1:C:1264:ARG:NH1	1:C:1270:VAL:HB	2.27	0.49
1:C:1455:ARG:O	1:C:1459:ILE:HG13	2.12	0.49
2:G:42:PRO:HG2	2:G:52:ASP:CG	2.38	0.49
2:G:463:PHE:CE1	2:G:486:LEU:HD22	2.47	0.49
2:G:463:PHE:HD2	2:G:463:PHE:O	1.95	0.49
2:G:1486:PHE:HA	2:G:1504:VAL:O	2.12	0.49
2:G:1493:LEU:HD11	2:G:1499:VAL:HG21	1.93	0.49
2:H:894:ARG:NH1	2:H:898:ASP:OD2	2.41	0.49
2:H:1221:MET:HE2	2:H:1223:MET:HE1	1.93	0.49
2:H:1846:GLU:C	2:H:1848:GLY:H	2.19	0.49
2:I:324:LEU:HD12	2:I:324:LEU:O	2.12	0.49
1:A:529:MET:HA	1:A:529:MET:CE	2.42	0.49
1:A:1189:ILE:HG23	1:A:1190:PRO:HD2	1.95	0.49
1:A:1460:LYS:CG	1:A:1773:VAL:O	2.60	0.49
1:C:790:PHE:CE2	1:C:794:ILE:HD11	2.48	0.49
1:C:1392:LEU:HD22	1:C:1396:MET:HG3	1.93	0.49
2:G:677:GLN:O	2:G:678:PHE:HB3	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:706:LYS:HE2	2:G:731:GLN:OE1	2.13	0.49
2:G:950:PHE:O	2:G:954:VAL:HG23	2.13	0.49
2:G:1173:VAL:HB	2:G:1221:MET:HE1	1.94	0.49
2:G:1427:VAL:HG22	2:G:1469:GLU:HG2	1.94	0.49
2:H:273:HIS:CB	2:H:512:LEU:HD22	2.41	0.49
2:H:682:GLY:O	2:H:683:ALA:HB3	2.13	0.49
2:H:942:THR:HG21	2:H:1012:GLN:HA	1.95	0.49
2:H:1889:VAL:HG13	2:H:1977:HIS:HB3	1.93	0.49
2:I:238:CYS:CB	2:I:239:PRO:HD3	2.40	0.49
2:I:1293:THR:CG2	2:I:1296:GLU:H	2.20	0.49
1:A:20:TYR:CD1	2:G:2033:THR:OG1	2.59	0.49
1:A:46:GLU:OE1	1:A:53:LEU:HB2	2.12	0.49
1:A:929:GLY:C	1:A:931:GLN:H	2.19	0.49
1:A:1234:MET:HG2	1:A:1326:ILE:HD12	1.94	0.49
1:B:435:GLU:O	1:B:439:ILE:HG13	2.12	0.49
1:B:1305:CYS:SG	1:B:1583:HIS:NE2	2.85	0.49
1:C:50:SER:HB2	1:C:51:PRO:CD	2.43	0.49
1:C:1050:CYS:HB3	1:C:1089:VAL:HG12	1.94	0.49
2:G:1738:PHE:HE1	2:G:1837:THR:HG23	1.76	0.49
2:H:598:THR:O	2:H:602:VAL:HB	2.11	0.49
2:H:1303:ALA:HB2	2:H:1556:VAL:HG21	1.93	0.49
2:H:1417:THR:O	2:H:1419:PHE:N	2.45	0.49
2:I:272:GLY:HA3	2:I:276:GLY:C	2.37	0.49
1:A:157:HIS:CE1	1:A:228:LEU:HD22	2.48	0.49
1:A:489:VAL:HG22	1:A:671:VAL:N	2.28	0.49
1:A:1451:GLN:OE1	1:A:1451:GLN:HA	2.12	0.49
1:B:170:LYS:HD3	1:B:175:LEU:HD23	1.93	0.49
1:B:764:ASP:OD2	1:B:818:ARG:HD3	2.11	0.49
1:B:1362:PRO:HA	1:B:1365:MET:HG3	1.94	0.49
1:B:1600:LEU:HD11	1:B:1655:VAL:HG12	1.94	0.49
2:G:465:GLY:HA2	2:G:493:THR:HA	1.95	0.49
2:G:1223:MET:HE3	2:G:1238:LEU:HD12	1.95	0.49
2:G:1676:MET:HE1	2:G:1781:LEU:CD2	2.43	0.49
2:H:7:ARG:HH11	2:H:24:THR:HG23	1.75	0.49
2:H:22:VAL:HG11	2:H:27:PHE:HA	1.94	0.49
2:H:138:ASP:O	2:H:139:LYS:HG3	2.12	0.49
2:H:369:SER:O	2:H:370:LEU:HD23	2.13	0.49
2:H:674:TYR:HA	2:H:1164:MET:HE1	1.93	0.49
2:H:715:GLN:O	2:H:719:ILE:HG12	2.13	0.49
2:H:1566:SER:HB3	2:H:1568:HIS:CE1	2.47	0.49
2:I:7:ARG:CZ	2:I:24:THR:HA	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:16:LEU:HG	2:I:48:PHE:CZ	2.48	0.49
2:I:55:THR:CG2	2:I:56:THR:HG22	2.33	0.49
2:I:161:GLY:HA3	2:I:506:PRO:HD2	1.93	0.49
2:I:1015:VAL:HG13	2:I:1017:PHE:CE2	2.47	0.49
2:I:1265:MET:CE	2:I:1562:PRO:HG2	2.41	0.49
2:I:1435:ILE:HG22	2:I:1435:ILE:O	2.12	0.49
1:A:18:LEU:HD21	2:G:1815:LEU:HD12	1.95	0.49
1:A:256:LEU:HD22	1:A:260:ARG:HB3	1.94	0.49
1:A:328:LEU:HD13	1:A:329:GLU:N	2.27	0.49
1:A:826:MET:HE1	1:A:850:PHE:CE2	2.47	0.49
1:A:1264:ARG:NH1	1:A:1270:VAL:HB	2.28	0.49
1:A:1705:PRO:HB2	1:A:1733:PHE:CE1	2.47	0.49
1:B:539:SER:O	1:B:540:GLN:C	2.54	0.49
1:B:1105:LEU:HD23	1:B:1185:VAL:HG22	1.94	0.49
1:C:636:PRO:HB2	1:C:638:LEU:O	2.13	0.49
1:C:980:VAL:HG23	2:I:968:GLN:OE1	2.13	0.49
1:C:1487:LEU:HD23	1:C:1487:LEU:C	2.38	0.49
2:G:272:GLY:HA3	2:G:276:GLY:C	2.38	0.49
2:G:618:GLU:HG2	2:G:678:PHE:CZ	2.48	0.49
2:G:1266:TYR:HB2	2:G:1347:LEU:HD23	1.95	0.49
2:H:161:GLY:N	2:H:505:GLY:HA3	2.25	0.49
2:H:455:ILE:HD11	2:H:469:ARG:NE	2.27	0.49
2:H:463:PHE:O	2:H:463:PHE:HD2	1.96	0.49
2:H:1873:TYR:HE1	2:H:1877:ARG:HH21	1.59	0.49
2:I:740:HIS:CE1	2:I:852:GLU:OE1	2.65	0.49
2:I:1169:PRO:O	2:I:1173:VAL:HG23	2.13	0.49
2:I:1873:TYR:CE2	2:I:1940:LEU:HD21	2.47	0.49
1:A:21:GLN:HG3	2:G:2013:ASN:HB2	1.93	0.49
1:B:1642:THR:HG22	1:B:1652:GLN:HG3	1.93	0.49
1:C:982:ILE:HD11	2:I:965:SER:HB2	1.95	0.49
1:C:1114:TYR:CD1	1:C:1337:GLU:HG3	2.48	0.49
2:G:157:VAL:HG11	2:G:496:PHE:CZ	2.47	0.49
2:G:491:GLU:HA	2:G:494:THR:HG22	1.95	0.49
2:H:173:LEU:O	2:H:173:LEU:HD22	2.13	0.49
2:H:569:LEU:HD12	2:H:1090:TYR:CD1	2.48	0.49
2:H:702:TYR:HB2	2:H:727:PRO:HB2	1.94	0.49
2:H:932:ILE:HD12	2:H:939:PHE:HD1	1.78	0.49
2:H:1593:ILE:O	2:H:1597:ALA:HB3	2.12	0.49
2:H:1634:GLY:HA3	2:H:1799:PRO:HA	1.94	0.49
2:H:1666:PHE:CD1	2:H:1814:ALA:HA	2.48	0.49
2:I:11:LEU:HD11	2:I:64:PHE:CD2	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:573:LYS:HE3	2:I:1101:GLU:OE1	2.12	0.49
2:I:597:MET:H	2:I:601:THR:HB	1.78	0.49
1:A:1021:VAL:HG21	1:A:1593:MET:HE2	1.94	0.49
1:A:1219:VAL:CA	1:A:1384:ILE:HD11	2.31	0.49
1:A:1362:PRO:HA	1:A:1365:MET:HG3	1.95	0.49
1:B:186:ILE:O	1:B:190:LEU:HG	2.13	0.49
1:C:18:LEU:HD21	2:I:1815:LEU:HD12	1.94	0.49
1:C:20:TYR:CD2	2:I:2033:THR:OG1	2.66	0.49
1:C:267:VAL:HG12	1:C:290:MET:CE	2.42	0.49
1:C:1020:VAL:CG1	1:C:1400:ILE:HG23	2.42	0.49
2:G:161:GLY:N	2:G:505:GLY:HA3	2.24	0.49
2:G:273:HIS:CB	2:G:512:LEU:HD22	2.42	0.49
2:G:1130:THR:H	2:G:1133:THR:CG2	2.26	0.49
2:H:428:HIS:HD2	2:H:486:LEU:O	1.96	0.49
2:H:1265:MET:HE1	2:H:1562:PRO:HG2	1.93	0.49
2:H:1749:GLU:OE2	2:H:1840:VAL:HG13	2.12	0.49
2:I:173:LEU:O	2:I:173:LEU:HD22	2.13	0.49
2:I:306:ILE:HA	2:I:439:ILE:HD13	1.94	0.49
2:I:1567:ARG:HH11	2:I:1567:ARG:HG2	1.70	0.49
1:A:1009:LEU:HG	1:A:1664:ALA:HB2	1.95	0.49
1:A:1022:THR:HG22	1:A:1226:SER:CB	2.43	0.49
1:A:1749:THR:CB	1:A:1874:ASP:N	2.75	0.49
1:B:1312:VAL:CG2	1:B:1329:VAL:HG11	2.39	0.49
1:C:32:GLN:NE2	1:C:57:ALA:HA	2.28	0.49
1:C:335:HIS:O	1:C:335:HIS:CD2	2.65	0.49
2:G:173:LEU:O	2:G:173:LEU:HD22	2.13	0.49
2:G:259:THR:HG22	2:G:262:GLU:CB	2.43	0.49
2:G:560:ASN:O	2:G:560:ASN:OD1	2.30	0.49
2:G:653:TYR:HD1	2:G:659:LEU:HD21	1.78	0.49
2:G:715:GLN:O	2:G:719:ILE:HG12	2.13	0.49
2:G:807:ILE:HD12	2:G:1063:THR:HG23	1.95	0.49
2:G:1666:PHE:CD1	2:G:1814:ALA:HA	2.48	0.49
2:G:1913:VAL:O	2:G:1917:ILE:HG13	2.12	0.49
2:G:2036:GLU:HG2	2:G:2039:LYS:NZ	2.28	0.49
2:H:860:ARG:HB2	2:H:1049:GLN:HG3	1.94	0.49
2:I:428:HIS:HD2	2:I:486:LEU:O	1.95	0.49
2:I:881:VAL:N	2:I:882:PRO:CD	2.76	0.49
2:I:1223:MET:HE2	2:I:1223:MET:HB2	1.73	0.49
2:I:1567:ARG:NH1	2:I:1568:HIS:HB3	2.28	0.49
2:I:1846:GLU:C	2:I:1848:GLY:H	2.20	0.49
1:A:1021:VAL:HG22	1:A:1387:ILE:HG22	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1312:VAL:CG2	1:A:1329:VAL:HG11	2.41	0.48
1:B:182:VAL:O	1:B:186:ILE:HG13	2.12	0.48
1:B:916:LEU:HD22	1:B:922:VAL:HG22	1.94	0.48
1:B:1753:ALA:HB2	1:B:1872:SER:OG	2.13	0.48
1:C:1105:LEU:HD23	1:C:1185:VAL:HG22	1.94	0.48
1:C:1693:ILE:CD1	2:I:998:GLN:HB2	2.40	0.48
2:G:402:LEU:HD12	2:G:404:GLN:HG2	1.95	0.48
2:G:573:LYS:C	2:G:575:GLY:H	2.21	0.48
2:G:598:THR:O	2:G:602:VAL:HB	2.13	0.48
2:H:272:GLY:HA3	2:H:276:GLY:C	2.38	0.48
2:H:455:ILE:C	2:H:455:ILE:HD12	2.38	0.48
2:H:465:GLY:HA2	2:H:493:THR:HA	1.95	0.48
2:H:739:GLY:HA2	2:H:1054:LEU:HG	1.95	0.48
2:H:1148:ASN:HD22	2:H:1148:ASN:C	2.21	0.48
2:H:1931:LEU:HB3	2:H:1935:GLU:CG	2.36	0.48
2:I:161:GLY:N	2:I:505:GLY:HA3	2.24	0.48
2:I:663:ILE:HB	2:I:664:PRO:CD	2.42	0.48
2:I:835:THR:HG22	2:I:844:VAL:HA	1.95	0.48
2:I:1697:HIS:HE1	2:I:1829:GLU:CG	2.26	0.48
1:A:11:HIS:CD2	1:A:11:HIS:C	2.92	0.48
1:B:29:ILE:HG12	2:H:1892:ASN:C	2.37	0.48
1:B:187:LEU:HD22	1:B:201:PRO:HB2	1.94	0.48
1:B:465:ASN:O	1:B:469:VAL:HG23	2.12	0.48
1:B:1842:VAL:O	1:B:1843:ASN:C	2.57	0.48
1:C:601:VAL:O	1:C:602:GLU:C	2.56	0.48
2:G:11:LEU:HD11	2:G:64:PHE:CD2	2.48	0.48
2:G:551:THR:C	2:G:553:ASN:H	2.20	0.48
2:G:566:HIS:O	2:G:567:PRO:C	2.57	0.48
2:G:597:MET:H	2:G:601:THR:HB	1.77	0.48
2:G:1745:LYS:HE2	2:G:1747:LYS:HG2	1.95	0.48
2:G:1776:PHE:C	2:G:1779:PRO:HD2	2.38	0.48
2:H:259:THR:HG22	2:H:262:GLU:CB	2.42	0.48
2:H:306:ILE:HA	2:H:439:ILE:CD1	2.42	0.48
2:H:901:LYS:NZ	2:H:1031:LYS:O	2.46	0.48
2:H:1272:ASP:O	2:H:1273:GLU:HG3	2.13	0.48
2:H:1868:GLN:HG3	2:H:1898:TYR:CZ	2.48	0.48
2:I:629:GLY:O	2:I:632:ALA:HB3	2.13	0.48
2:I:682:GLY:O	2:I:683:ALA:HB3	2.13	0.48
2:I:970:TYR:O	2:I:973:LEU:HB2	2.14	0.48
2:I:1674:GLN:OE1	2:I:1712:ASN:HA	2.13	0.48
1:A:1477:ILE:H	1:A:1478:PRO:HD3	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1842:VAL:O	1:A:1843:ASN:C	2.57	0.48
1:B:157:HIS:HE1	1:B:228:LEU:HD22	1.77	0.48
1:C:233:ILE:HD13	1:C:237:MET:HE3	1.94	0.48
1:C:256:LEU:HD22	1:C:260:ARG:HB3	1.95	0.48
1:C:1305:CYS:SG	3:C:2748:CER:C5	3.01	0.48
1:C:1523:ARG:NH2	1:C:1564:LEU:O	2.46	0.48
2:G:7:ARG:HE	2:G:27:PHE:CB	2.25	0.48
2:G:533:LEU:HD13	2:G:545:GLN:HG3	1.94	0.48
2:G:754:TYR:CE2	2:G:794:MET:HG3	2.48	0.48
2:G:1330:GLY:HA2	2:G:1374:THR:HG21	1.94	0.48
2:G:1428:GLU:HG2	2:G:1470:THR:HG22	1.94	0.48
2:H:33:LEU:HD21	2:H:80:PHE:CE2	2.49	0.48
2:H:40:ILE:O	2:H:42:PRO:HD3	2.13	0.48
2:H:463:PHE:CD1	2:H:486:LEU:HD22	2.48	0.48
2:H:955:GLU:HG2	2:H:987:TYR:HE2	1.78	0.48
2:H:1223:MET:HE3	2:H:1238:LEU:HD12	1.95	0.48
2:I:278:VAL:HG11	2:I:303:LEU:HD13	1.95	0.48
2:I:1130:THR:H	2:I:1133:THR:CG2	2.25	0.48
2:I:1873:TYR:CE1	2:I:1877:ARG:NE	2.77	0.48
1:A:340:ARG:HH12	1:A:344:GLN:HE21	1.60	0.48
1:A:1009:LEU:HD13	1:A:1445:MET:HE1	1.95	0.48
1:B:328:LEU:HD13	1:B:329:GLU:N	2.29	0.48
1:B:332:THR:HG22	1:C:331:ILE:CD1	2.44	0.48
1:B:335:HIS:O	1:B:338:LEU:HB3	2.14	0.48
1:B:702:LYS:HD3	1:B:731:THR:CG2	2.44	0.48
1:B:1460:LYS:CE	1:B:1774:GLU:CD	2.86	0.48
1:C:331:ILE:HG23	1:C:332:THR:N	2.28	0.48
1:C:413:LEU:C	1:C:415:SER:H	2.21	0.48
2:G:455:ILE:HG12	2:G:469:ARG:HG2	1.94	0.48
2:G:720:ALA:HA	2:G:728:ILE:CD1	2.43	0.48
2:G:1980:TYR:HD1	2:G:1981:LEU:HD12	1.79	0.48
2:H:428:HIS:CD2	2:H:488:VAL:HG23	2.49	0.48
2:H:995:LEU:HB3	2:H:1000:ILE:HD11	1.94	0.48
2:H:1422:THR:HG23	2:H:1474:PHE:CD1	2.48	0.48
2:H:1624:THR:HB	2:H:1642:THR:OG1	2.14	0.48
2:I:146:PHE:HA	2:I:149:VAL:HG12	1.92	0.48
2:I:249:TYR:CD2	2:I:283:ILE:HD11	2.48	0.48
2:I:402:LEU:HD12	2:I:404:GLN:HG2	1.94	0.48
2:I:455:ILE:HG13	2:I:455:ILE:O	2.13	0.48
2:I:551:THR:HG22	2:I:552:SER:N	2.29	0.48
2:I:593:LEU:HD21	2:I:800:LEU:HB3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:995:LEU:HB3	2:I:1000:ILE:HD11	1.95	0.48
2:I:1850:SER:HB2	2:I:1973:SER:HB2	1.95	0.48
1:A:1714:VAL:HG22	1:A:1738:ILE:HD11	1.96	0.48
1:B:21:GLN:HG3	2:H:2013:ASN:HB2	1.95	0.48
1:B:408:TRP:CH2	1:B:1628:SER:HB3	2.47	0.48
1:B:998:TYR:CE2	1:B:1667:GLU:HB2	2.49	0.48
1:C:988:ILE:HD13	1:C:1048:GLU:CB	2.43	0.48
1:C:1477:ILE:H	1:C:1478:PRO:HD3	1.78	0.48
1:C:1642:THR:HG22	1:C:1652:GLN:HG3	1.96	0.48
2:G:995:LEU:HB3	2:G:1000:ILE:HD11	1.96	0.48
2:G:1567:ARG:CG	2:G:1567:ARG:NH1	2.51	0.48
2:H:145:LEU:HD21	2:H:156:LEU:HD21	1.95	0.48
2:H:1100:VAL:CG2	2:H:1147:ILE:HG21	2.43	0.48
2:H:1918:LYS:HG2	2:H:1919:LEU:HD23	1.96	0.48
2:H:1953:VAL:O	2:H:1953:VAL:HG12	2.14	0.48
2:H:1986:LYS:HA	2:H:1989:LYS:HB3	1.95	0.48
2:I:569:LEU:HD12	2:I:1090:TYR:CD1	2.48	0.48
2:I:1081:HIS:O	2:I:1085:LEU:HB2	2.14	0.48
2:I:1266:TYR:HB2	2:I:1347:LEU:HD23	1.95	0.48
2:I:1382:VAL:HA	2:I:1422:THR:OG1	2.12	0.48
1:A:19:ALA:O	1:A:22:PHE:HB2	2.14	0.48
1:A:20:TYR:CE1	2:G:2033:THR:CG2	2.97	0.48
1:A:444:ASN:HB2	1:A:447:LEU:N	2.14	0.48
1:A:1135:GLU:CD	1:B:242:THR:HG21	2.38	0.48
1:B:503:ILE:HD12	1:B:950:THR:HG21	1.96	0.48
1:C:430:ARG:NH1	1:C:493:VAL:O	2.44	0.48
1:C:764:ASP:OD2	1:C:818:ARG:HD3	2.12	0.48
2:G:72:VAL:HG12	2:G:73:GLU:N	2.28	0.48
2:G:569:LEU:HD12	2:G:1090:TYR:CD1	2.48	0.48
2:G:593:LEU:HD21	2:G:800:LEU:HB3	1.96	0.48
2:G:1213:LEU:O	2:G:1214:LEU:HD23	2.12	0.48
2:G:1673:GLU:N	2:G:1676:MET:HE3	2.27	0.48
2:H:99:ASN:HA	2:H:550:VAL:HG21	1.95	0.48
2:H:369:SER:C	2:H:370:LEU:HD23	2.38	0.48
2:H:376:ASN:C	2:H:376:ASN:ND2	2.70	0.48
2:H:397:LYS:HB3	2:H:416:PHE:CE2	2.48	0.48
2:H:784:GLU:O	2:H:787:THR:HB	2.13	0.48
2:H:1632:ILE:HG23	2:H:1632:ILE:O	2.13	0.48
2:I:7:ARG:HH11	2:I:24:THR:HG23	1.77	0.48
2:I:121:GLU:HA	2:I:124:LYS:HD2	1.96	0.48
2:I:533:LEU:HG	2:I:533:LEU:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:551:THR:C	2:I:553:ASN:H	2.22	0.48
2:I:586:LEU:HD12	2:I:764:MET:SD	2.54	0.48
2:I:1159:ILE:CG1	2:I:1169:PRO:CD	2.90	0.48
2:I:1678:MET:HE2	2:I:1711:ILE:CG1	2.43	0.48
2:I:1738:PHE:CE1	2:I:1837:THR:HG23	2.48	0.48
1:A:182:VAL:O	1:A:186:ILE:HG13	2.14	0.48
1:A:420:ILE:HG22	1:A:469:VAL:HG22	1.96	0.48
1:A:988:ILE:HA	1:A:1048:GLU:CG	2.44	0.48
1:C:852:ARG:NH1	1:C:852:ARG:CG	2.66	0.48
1:C:1276:GLN:O	1:C:1282:THR:HG21	2.13	0.48
1:C:1300:THR:HA	1:C:1301:PRO:HD3	1.67	0.48
1:C:1312:VAL:CG2	1:C:1329:VAL:HG11	2.44	0.48
1:C:1396:MET:O	1:C:1680:ARG:NH1	2.46	0.48
1:C:1451:GLN:HA	1:C:1451:GLN:OE1	2.13	0.48
1:C:1617:ILE:O	1:C:1620:GLN:HG2	2.13	0.48
2:G:240:LEU:O	2:G:244:ILE:HG13	2.13	0.48
2:G:455:ILE:C	2:G:455:ILE:HD12	2.39	0.48
2:G:762:ASN:H	2:G:762:ASN:ND2	1.85	0.48
2:G:1590:ARG:HG3	2:G:1608:TYR:CD2	2.48	0.48
2:G:1846:GLU:C	2:G:1848:GLY:H	2.20	0.48
2:G:2026:PHE:HD2	2:G:2045:TRP:HZ3	1.59	0.48
2:H:561:TRP:CZ3	2:H:792:PRO:HB2	2.49	0.48
2:H:751:LEU:HD23	2:H:791:TYR:CZ	2.49	0.48
2:H:1674:GLN:OE1	2:H:1712:ASN:HA	2.12	0.48
2:I:667:LYS:HD2	2:I:697:THR:CG2	2.35	0.48
2:I:762:ASN:HD22	2:I:762:ASN:N	1.88	0.48
2:I:1697:HIS:HE1	2:I:1829:GLU:HG2	1.77	0.48
2:I:1784:MET:HE2	2:I:1784:MET:O	2.14	0.48
1:A:1037:TRP:HB2	1:A:1598:GLN:OE1	2.13	0.48
1:B:625:THR:HG23	1:B:661:ASP:OD1	2.13	0.48
1:B:790:PHE:CE2	1:B:794:ILE:HD11	2.47	0.48
1:B:1056:ILE:HD13	1:B:1193:TRP:CD1	2.45	0.48
1:B:1183:ARG:NH1	1:B:1344:GLY:HA2	2.29	0.48
1:C:888:ILE:HD12	1:C:939:PHE:CE2	2.47	0.48
1:C:1738:ILE:O	1:C:1739:GLN:HB2	2.14	0.48
2:G:1180:MET:HB2	2:G:1197:LEU:HD21	1.95	0.48
2:H:169:TYR:CG	2:H:170:PHE:N	2.81	0.48
2:H:214:ASN:ND2	2:H:217:GLU:HB2	2.27	0.48
2:H:317:THR:HG21	2:I:1309:GLU:CG	2.42	0.48
2:H:490:TRP:HA	2:H:493:THR:HG22	1.96	0.48
2:H:597:MET:H	2:H:601:THR:HB	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1040:LEU:O	2:H:1046:GLN:HG3	2.13	0.48
2:H:2036:GLU:HG2	2:H:2039:LYS:HZ1	1.79	0.48
2:I:845:THR:HG22	2:I:855:HIS:CD2	2.49	0.48
2:I:1325:PHE:CE1	2:I:1328:VAL:HG11	2.49	0.48
2:I:1586:SER:O	2:I:1590:ARG:HB2	2.14	0.48
1:A:427:ASN:HB2	1:A:468:LEU:HD21	1.95	0.48
1:A:695:GLY:HA3	1:A:906:LEU:HD11	1.94	0.48
1:B:243:ILE:O	1:B:247:ARG:HG3	2.13	0.48
2:G:306:ILE:HA	2:G:439:ILE:HD13	1.96	0.48
2:G:432:LEU:HB3	2:G:484:ILE:HG23	1.96	0.48
2:G:481:ASP:OD2	2:G:485:ARG:NH1	2.47	0.48
2:G:566:HIS:C	2:G:566:HIS:ND1	2.72	0.48
2:H:489:LYS:O	2:H:493:THR:HG22	2.13	0.48
2:H:868:PHE:HB3	2:H:873:PHE:CE2	2.48	0.48
2:I:772:GLY:O	2:I:804:ARG:HD3	2.14	0.48
1:A:328:LEU:N	1:A:330:GLU:H	2.12	0.48
1:A:413:LEU:HD11	1:A:451:MET:HE3	1.95	0.48
1:A:927:ASN:O	1:A:929:GLY:N	2.41	0.48
1:A:1561:MET:HE2	1:A:1561:MET:HA	1.96	0.48
1:A:1639:VAL:HG12	1:A:1640:SER:N	2.28	0.48
1:B:328:LEU:N	1:B:330:GLU:H	2.11	0.48
1:B:683:ALA:HA	1:B:689:GLY:HA3	1.95	0.48
1:B:930:LEU:HD23	1:B:930:LEU:HA	1.67	0.48
1:B:1233:GLU:CD	1:B:1680:ARG:HH21	2.22	0.48
1:B:1319:ILE:HA	1:B:1324:ALA:O	2.13	0.48
1:C:386:PHE:O	1:C:390:VAL:HB	2.14	0.48
1:C:751:PHE:CZ	1:C:761:LEU:HD13	2.49	0.48
2:G:173:LEU:HD13	2:G:219:LEU:HD21	1.94	0.48
2:G:461:ASP:HB3	2:G:464:ASP:HB2	1.95	0.48
2:G:1148:ASN:ND2	2:G:1151:HIS:H	2.12	0.48
2:G:1325:PHE:CE1	2:G:1328:VAL:HG11	2.48	0.48
2:H:157:VAL:HG11	2:H:496:PHE:CZ	2.49	0.48
2:H:232:LEU:HD21	2:H:423:VAL:HA	1.95	0.48
2:H:573:LYS:C	2:H:575:GLY:H	2.21	0.48
2:H:706:LYS:HE2	2:H:731:GLN:OE1	2.14	0.48
2:I:214:ASN:ND2	2:I:217:GLU:HB2	2.28	0.48
2:I:489:LYS:O	2:I:493:THR:HG22	2.13	0.48
2:I:753:MET:O	2:I:757:ILE:HG13	2.14	0.48
2:I:1159:ILE:HG22	2:I:1160:THR:N	2.28	0.48
2:I:2026:PHE:HD2	2:I:2045:TRP:HZ3	1.60	0.48
1:A:187:LEU:HD22	1:A:201:PRO:HB2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1646:PHE:CE1	3:B:2748:CER:H31	2.49	0.47
1:C:529:MET:HG2	1:C:638:LEU:HG	1.95	0.47
1:C:1392:LEU:CD2	1:C:1396:MET:HG3	2.44	0.47
2:G:22:VAL:HG11	2:G:27:PHE:HA	1.96	0.47
2:G:567:PRO:HG3	2:G:781:LEU:CD1	2.44	0.47
2:G:1027:ILE:O	2:G:1031:LYS:HB2	2.14	0.47
2:G:1566:SER:HB3	2:G:1568:HIS:CE1	2.49	0.47
2:H:873:PHE:CD1	2:H:1026:GLU:HB2	2.49	0.47
2:H:943:TRP:CZ2	2:H:1016:PRO:HG3	2.49	0.47
2:H:1590:ARG:NH2	2:H:1594:GLU:OE2	2.47	0.47
2:I:176:LEU:HD22	2:I:247:ALA:HB1	1.96	0.47
2:I:594:VAL:CG2	2:I:610:THR:HG21	2.44	0.47
2:I:900:GLN:NE2	2:I:1051:THR:HA	2.28	0.47
2:I:1015:VAL:HA	2:I:1016:PRO:HD3	1.74	0.47
2:I:1834:ARG:NH1	2:I:1834:ARG:CG	2.66	0.47
1:A:176:VAL:HG12	1:A:178:GLY:H	1.79	0.47
1:A:529:MET:CE	1:A:894:ARG:HD2	2.38	0.47
1:A:1501:LEU:O	1:A:1505:GLN:HG3	2.14	0.47
1:B:256:LEU:HD22	1:B:260:ARG:HB3	1.95	0.47
1:B:451:MET:HE1	1:B:476:LEU:HB3	1.96	0.47
1:B:1367:ARG:HH12	1:B:1372:THR:CB	2.20	0.47
1:C:427:ASN:HB2	1:C:468:LEU:HD21	1.95	0.47
1:C:1021:VAL:HG11	1:C:1597:LEU:CD1	2.44	0.47
1:C:1125:VAL:HG21	1:C:1175:ILE:CD1	2.43	0.47
2:G:40:ILE:O	2:G:42:PRO:HD3	2.14	0.47
2:G:777:THR:HG23	2:G:1081:HIS:CE1	2.49	0.47
2:H:159:ILE:CG2	2:H:501:ILE:HG22	2.44	0.47
2:H:213:LEU:HG	2:H:213:LEU:O	2.14	0.47
2:H:551:THR:C	2:H:553:ASN:H	2.21	0.47
2:H:950:PHE:O	2:H:954:VAL:HG23	2.13	0.47
2:H:1749:GLU:OE2	2:H:1840:VAL:CG1	2.62	0.47
2:I:573:LYS:C	2:I:575:GLY:N	2.72	0.47
2:I:2036:GLU:HG2	2:I:2039:LYS:HZ1	1.78	0.47
1:A:683:ALA:HA	1:A:689:GLY:HA3	1.95	0.47
1:A:852:ARG:HB3	1:A:858:TRP:HZ2	1.80	0.47
1:A:1238:VAL:CG1	1:A:1242:GLU:HB2	2.44	0.47
1:B:335:HIS:C	1:B:335:HIS:CD2	2.92	0.47
1:B:530:ALA:HA	1:B:636:PRO:HB3	1.97	0.47
1:B:807:LYS:C	1:B:807:LYS:HD3	2.39	0.47
1:B:1116:PRO:HB2	1:B:1184:LEU:HD12	1.95	0.47
1:B:1209:ASP:OD2	1:B:1253:GLY:HA2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:826:MET:HE1	1:C:850:PHE:CZ	2.49	0.47
1:C:1010:GLU:HA	1:C:1664:ALA:HA	1.95	0.47
1:C:1516:ASP:HA	1:C:1517:PRO:HD3	1.66	0.47
2:G:428:HIS:HD2	2:G:486:LEU:O	1.97	0.47
2:G:804:ARG:NH2	2:G:1068:GLU:OE1	2.48	0.47
2:G:1624:THR:HB	2:G:1642:THR:OG1	2.15	0.47
2:G:1666:PHE:CD1	2:G:1814:ALA:HB2	2.49	0.47
2:H:589:ARG:HB3	2:H:590:PRO:CD	2.43	0.47
2:H:1438:SER:O	2:H:1441:ILE:HG23	2.13	0.47
2:I:871:THR:HG21	2:I:887:LYS:HZ2	1.79	0.47
2:I:926:LEU:HB3	2:I:947:THR:CG2	2.43	0.47
2:I:1579:ILE:HD11	2:I:1615:MET:SD	2.53	0.47
1:C:370:GLU:O	1:C:373:ALA:HB3	2.14	0.47
1:C:526:VAL:HG12	1:C:626:VAL:HG11	1.96	0.47
1:C:987:ASN:HD22	2:I:957:ARG:CD	2.26	0.47
1:C:998:TYR:CE2	1:C:1667:GLU:HB2	2.49	0.47
1:C:1133:PRO:HG3	1:C:1166:LYS:HG3	1.96	0.47
1:C:1138:LYS:HG3	1:C:1163:TYR:CE1	2.48	0.47
2:G:33:LEU:HD21	2:G:80:PHE:CE2	2.50	0.47
2:G:169:TYR:CG	2:G:170:PHE:N	2.83	0.47
2:G:512:LEU:O	2:G:516:THR:HG23	2.15	0.47
2:G:1784:MET:HE2	2:G:1784:MET:O	2.14	0.47
2:H:597:MET:HA	4:H:3051:FMN:N5	2.30	0.47
2:H:634:ILE:HD11	2:H:649:ILE:CD1	2.40	0.47
2:H:1425:LYS:HG2	2:H:1471:GLU:HG3	1.95	0.47
2:H:1472:VAL:CG2	2:H:1483:VAL:HG22	2.44	0.47
2:H:1486:PHE:HA	2:H:1504:VAL:O	2.14	0.47
2:I:233:SER:HA	2:I:424:ALA:CB	2.44	0.47
2:I:562:LEU:HG	2:I:793:PRO:CB	2.44	0.47
2:I:1676:MET:HE1	2:I:1781:LEU:CD2	2.45	0.47
2:I:1804:PHE:CD2	2:I:1818:LEU:HD22	2.49	0.47
1:A:1012:LEU:HD23	1:A:1445:MET:CE	2.43	0.47
1:A:1208:VAL:HG11	1:A:1212:THR:HB	1.96	0.47
1:A:1319:ILE:HA	1:A:1324:ALA:O	2.14	0.47
1:B:20:TYR:CG	2:H:2033:THR:OG1	2.67	0.47
1:B:331:ILE:HG23	1:B:332:THR:N	2.29	0.47
1:B:531:LEU:HD21	1:B:629:THR:HG22	1.97	0.47
1:B:1021:VAL:HG21	1:B:1593:MET:HE2	1.96	0.47
1:B:1244:GLY:C	1:B:1327:CYS:HB2	2.38	0.47
1:B:1477:ILE:H	1:B:1478:PRO:HD3	1.79	0.47
1:C:328:LEU:N	1:C:330:GLU:H	2.12	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1303:GLY:CA	1:C:1649:LYS:HE2	2.36	0.47
2:G:123:ILE:CD1	2:G:533:LEU:CD2	2.93	0.47
2:G:463:PHE:CD1	2:G:486:LEU:HD22	2.48	0.47
2:G:652:ILE:HB	2:G:658:MET:HE1	1.97	0.47
2:G:1651:LEU:O	2:G:1652:THR:HG23	2.14	0.47
2:G:1949:LYS:O	2:G:1953:VAL:HG23	2.15	0.47
2:H:455:ILE:HG13	2:H:455:ILE:O	2.13	0.47
2:H:750:MET:CG	2:H:796:PHE:HZ	2.25	0.47
2:H:860:ARG:H	2:H:1049:GLN:HG3	1.79	0.47
2:H:2037:PRO:O	2:H:2041:ILE:HG13	2.15	0.47
2:I:55:THR:HB	2:I:59:GLU:OE2	2.13	0.47
2:I:350:GLN:HA	2:I:353:VAL:HG13	1.96	0.47
2:I:873:PHE:CE1	2:I:1026:GLU:HB2	2.49	0.47
2:I:1378:ILE:O	2:I:1378:ILE:HG12	2.14	0.47
2:I:1418:ASP:C	2:I:1420:GLU:N	2.68	0.47
2:I:2037:PRO:O	2:I:2041:ILE:HG13	2.14	0.47
1:A:983:GLN:HE22	2:G:962:LYS:HD2	1.77	0.47
1:B:157:HIS:CE1	1:B:228:LEU:HD22	2.49	0.47
1:B:1305:CYS:SG	3:B:2748:CER:C5	3.03	0.47
1:C:335:HIS:O	1:C:338:LEU:HB3	2.14	0.47
2:G:1031:LYS:O	2:G:1032:ASP:C	2.57	0.47
2:G:1422:THR:O	2:G:1422:THR:HG23	2.14	0.47
2:H:355:LYS:HE2	2:H:355:LYS:HB3	1.65	0.47
2:H:579:VAL:CG2	2:H:1078:HIS:CD2	2.95	0.47
2:H:652:ILE:HD12	2:H:652:ILE:N	2.30	0.47
2:H:751:LEU:HD23	2:H:791:TYR:CD2	2.49	0.47
2:H:1854:MET:CG	2:H:1901:ALA:HB2	2.45	0.47
2:I:455:ILE:HD11	2:I:469:ARG:NE	2.29	0.47
2:I:553:ASN:O	2:I:556:LYS:HE3	2.15	0.47
2:I:706:LYS:HE2	2:I:731:GLN:OE1	2.15	0.47
2:I:748:THR:CB	2:I:749:PRO:HD3	2.44	0.47
2:I:1103:PHE:O	2:I:1247:GLY:HA3	2.14	0.47
2:I:1389:ILE:HG13	2:I:1411:PHE:HD1	1.80	0.47
2:I:1590:ARG:NH2	2:I:1594:GLU:OE2	2.48	0.47
1:A:243:ILE:O	1:A:247:ARG:HG3	2.14	0.47
1:A:406:TRP:CE3	1:A:1619:GLU:HG3	2.49	0.47
1:A:413:LEU:HD13	1:A:451:MET:HG2	1.97	0.47
1:A:930:LEU:CD2	1:A:933:VAL:HG11	2.44	0.47
1:A:1010:GLU:HA	1:A:1664:ALA:HA	1.97	0.47
1:A:1061:SER:HB2	1:A:1078:SER:HB3	1.96	0.47
1:A:1158:PRO:HD2	1:A:1159:GLU:OE2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:34:VAL:O	1:B:38:ASP:HB2	2.14	0.47
1:B:705:VAL:CG2	1:B:732:LEU:HD21	2.43	0.47
1:B:826:MET:HE1	1:B:850:PHE:CE2	2.50	0.47
1:B:827:SER:HA	1:B:828:PRO:HD3	1.73	0.47
1:B:874:GLY:O	1:B:875:THR:C	2.58	0.47
1:B:889:GLU:HG3	1:B:893:VAL:O	2.15	0.47
1:B:968:VAL:O	2:H:1512:HIS:HB2	2.14	0.47
1:B:1276:GLN:O	1:B:1282:THR:HG21	2.14	0.47
1:C:254:TRP:HZ3	1:C:292:GLN:HG3	1.77	0.47
1:C:338:LEU:O	1:C:342:GLN:HG3	2.15	0.47
1:C:475:GLN:CD	1:C:614:ALA:HB2	2.40	0.47
1:C:1183:ARG:NH1	1:C:1344:GLY:HA2	2.30	0.47
1:C:1305:CYS:SG	1:C:1585:LYS:HA	2.55	0.47
2:G:232:LEU:HD21	2:G:423:VAL:HA	1.97	0.47
2:G:369:SER:O	2:G:370:LEU:HD23	2.14	0.47
2:G:629:GLY:O	2:G:632:ALA:HB3	2.15	0.47
2:G:1102:TYR:HB3	2:G:1244:PRO:CA	2.44	0.47
2:G:1567:ARG:NH1	2:G:1568:HIS:HB3	2.28	0.47
2:G:1884:TRP:NE1	2:G:1905:ARG:HH21	2.13	0.47
2:H:11:LEU:HD11	2:H:64:PHE:CD2	2.50	0.47
2:H:176:LEU:HD22	2:H:247:ALA:HB1	1.95	0.47
2:H:520:LYS:O	2:H:521:ASP:C	2.58	0.47
2:H:560:ASN:O	2:H:560:ASN:OD1	2.33	0.47
2:H:606:PHE:HZ	2:H:805:VAL:CG1	2.28	0.47
2:H:741:HIS:HE1	2:H:845:THR:HG21	1.61	0.47
2:H:967:ILE:HD12	2:H:972:LEU:HD22	1.96	0.47
2:H:1130:THR:H	2:H:1133:THR:CG2	2.27	0.47
2:H:1378:ILE:O	2:H:1378:ILE:HG12	2.13	0.47
2:H:1819:ALA:CA	2:H:2005:ARG:HH11	2.26	0.47
2:H:1980:TYR:HD1	2:H:1981:LEU:HD12	1.79	0.47
2:I:22:VAL:HG11	2:I:27:PHE:HA	1.97	0.47
2:I:443:LEU:HD22	2:I:448:VAL:CG1	2.45	0.47
2:I:461:ASP:HB3	2:I:464:ASP:HB2	1.95	0.47
2:I:730:LEU:C	2:I:730:LEU:HD12	2.40	0.47
2:I:747:HIS:HE1	2:I:780:TYR:OH	1.97	0.47
2:I:768:GLY:HA3	2:I:800:LEU:CD2	2.41	0.47
2:I:955:GLU:HG2	2:I:987:TYR:HE2	1.79	0.47
2:I:1004:LEU:CD2	2:I:1019:PRO:HB2	2.44	0.47
2:I:1148:ASN:ND2	2:I:1151:HIS:H	2.13	0.47
1:A:988:ILE:HD13	1:A:1048:GLU:HA	1.97	0.47
1:B:253:ARG:O	1:B:254:TRP:CD1	2.68	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1009:LEU:CD1	1:B:1445:MET:HE1	2.45	0.47
1:B:1523:ARG:NH2	1:B:1564:LEU:O	2.48	0.47
1:C:440:MET:HE3	1:C:483:VAL:HG21	1.95	0.47
1:C:1544:THR:O	1:C:1545:SER:HB3	2.15	0.47
2:G:55:THR:HB	2:G:59:GLU:OE2	2.14	0.47
2:G:1159:ILE:CG1	2:G:1169:PRO:CD	2.93	0.47
2:G:1418:ASP:O	2:G:1419:PHE:C	2.58	0.47
2:G:1666:PHE:CE1	2:G:1814:ALA:HA	2.50	0.47
2:G:1873:TYR:CE2	2:G:1940:LEU:HD21	2.49	0.47
2:H:586:LEU:HD12	2:H:764:MET:SD	2.55	0.47
2:H:826:GLY:HA3	2:H:1061:GLN:CB	2.44	0.47
2:H:1004:LEU:CD2	2:H:1019:PRO:HB2	2.44	0.47
2:I:194:THR:CG2	2:I:300:ILE:HD11	2.40	0.47
1:B:1305:CYS:SG	3:B:2748:CER:H51	2.54	0.47
1:C:18:LEU:HD21	2:I:1815:LEU:CD1	2.45	0.47
1:C:237:MET:HG3	1:C:241:PHE:HB3	1.95	0.47
2:G:507:GLY:O	2:G:508:GLY:C	2.58	0.47
2:G:772:GLY:O	2:G:804:ARG:HD3	2.15	0.47
2:G:826:GLY:HA2	2:G:1060:ALA:HB3	1.97	0.47
2:G:1850:SER:HB2	2:G:1973:SER:HB2	1.96	0.47
2:H:127:ILE:HD12	2:H:180:TYR:HD2	1.80	0.47
2:H:131:ILE:CD1	2:H:182:VAL:CB	2.71	0.47
2:I:606:PHE:HZ	2:I:805:VAL:CG1	2.28	0.47
2:I:1553:TYR:OH	2:I:1583:MET:HB3	2.15	0.47
2:I:2046:GLU:C	2:I:2048:TYR:N	2.73	0.47
1:A:29:ILE:HG13	2:G:1891:TYR:O	2.15	0.47
1:A:36:LEU:CD2	1:A:61:LEU:HD21	2.37	0.47
1:A:56:MET:HE2	2:G:1897:GLN:OE1	2.14	0.47
1:A:335:HIS:C	1:A:335:HIS:CD2	2.92	0.47
1:A:1009:LEU:CD1	1:A:1445:MET:HE1	2.45	0.47
1:A:1430:ARG:O	1:A:1430:ARG:HG2	2.15	0.47
1:A:1830:GLY:HA2	1:A:1831:GLY:HA2	1.57	0.47
1:B:32:GLN:NE2	1:B:57:ALA:HA	2.29	0.47
1:B:254:TRP:HZ3	1:B:292:GLN:HG3	1.76	0.47
1:B:413:LEU:HD11	1:B:451:MET:HE3	1.96	0.47
1:B:780:GLU:O	1:B:781:LEU:C	2.58	0.47
1:B:883:ILE:HD12	1:B:947:LEU:HD12	1.97	0.47
1:B:1561:MET:HA	1:B:1561:MET:HE2	1.97	0.47
1:C:1189:ILE:HG23	1:C:1190:PRO:HD2	1.97	0.47
1:C:1842:VAL:O	1:C:1843:ASN:C	2.57	0.47
2:G:739:GLY:HA2	2:G:1054:LEU:HG	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:745:ASP:HA	2:G:832:TRP:CH2	2.48	0.47
2:G:881:VAL:N	2:G:882:PRO:CD	2.78	0.47
2:G:1273:GLU:HB3	2:G:1274:PRO:CD	2.45	0.47
2:G:1493:LEU:HB3	2:G:1494:PRO:HD2	1.96	0.47
2:G:1844:ARG:HG2	2:G:1844:ARG:NH1	2.09	0.47
2:H:238:CYS:CB	2:H:239:PRO:HD3	2.43	0.47
2:H:720:ALA:HA	2:H:728:ILE:CD1	2.45	0.47
2:H:1015:VAL:HG11	2:H:1017:PHE:CE1	2.50	0.47
2:H:1273:GLU:HB3	2:H:1274:PRO:CD	2.45	0.47
2:H:1428:GLU:HG2	2:H:1470:THR:HG22	1.97	0.47
2:H:1473:THR:O	2:H:1481:SER:HB3	2.15	0.47
2:H:1764:PHE:HB2	2:H:1770:LEU:HD21	1.97	0.47
2:I:490:TRP:HA	2:I:493:THR:HG22	1.96	0.47
1:A:186:ILE:O	1:A:190:LEU:HG	2.14	0.46
1:A:702:LYS:HD3	1:A:731:THR:CG2	2.44	0.46
1:B:1544:THR:O	1:B:1545:SER:HB3	2.15	0.46
1:C:709:ARG:O	1:C:714:VAL:HG21	2.16	0.46
1:C:930:LEU:CD2	1:C:933:VAL:HG11	2.45	0.46
2:G:249:TYR:CD2	2:G:283:ILE:HD11	2.50	0.46
2:G:1015:VAL:HG11	2:G:1017:PHE:CE1	2.50	0.46
2:G:2035:SER:HB3	2:G:2038:ILE:CG1	2.41	0.46
2:H:7:ARG:NH2	2:H:24:THR:O	2.48	0.46
2:H:440:ASN:ND2	2:H:477:GLU:HG2	2.30	0.46
2:I:99:ASN:HA	2:I:550:VAL:HG23	1.97	0.46
2:I:533:LEU:HD13	2:I:545:GLN:HG3	1.97	0.46
2:I:1913:VAL:O	2:I:1917:ILE:HG13	2.15	0.46
1:A:183:GLN:NE2	1:A:202:GLU:HG2	2.29	0.46
1:A:780:GLU:O	1:A:781:LEU:C	2.59	0.46
1:A:908:LEU:HA	1:A:913:VAL:HG21	1.96	0.46
1:A:1056:ILE:HG13	1:A:1057:MET:N	2.30	0.46
1:A:1238:VAL:CG1	1:A:1239:HIS:N	2.78	0.46
1:B:1133:PRO:HG3	1:B:1166:LYS:HG3	1.97	0.46
1:C:293:LYS:O	1:C:297:ILE:HG13	2.15	0.46
1:C:499:PRO:HD3	1:C:516:ARG:HH21	1.80	0.46
1:C:1646:PHE:CE1	3:C:2748:CER:H31	2.50	0.46
2:G:279:THR:O	2:G:283:ILE:HB	2.15	0.46
2:G:598:THR:CB	2:G:599:PRO:HD3	2.46	0.46
2:G:652:ILE:N	2:G:652:ILE:HD12	2.29	0.46
2:G:732:TRP:CE2	2:G:750:MET:HE3	2.48	0.46
2:H:101:ILE:H	2:H:101:ILE:HG13	1.30	0.46
2:H:218:TRP:HB3	2:H:225:THR:OG1	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:736:ARG:H	2:H:736:ARG:HG3	1.55	0.46
2:H:926:LEU:HB3	2:H:947:THR:HG22	1.97	0.46
2:H:1258:ARG:O	2:H:1262:ILE:HG13	2.15	0.46
2:H:1269:LEU:O	2:H:1560:LEU:HD23	2.15	0.46
2:H:1804:PHE:CD2	2:H:1818:LEU:HD22	2.50	0.46
2:I:213:LEU:O	2:I:213:LEU:HG	2.16	0.46
2:I:345:THR:HG22	2:I:347:GLU:N	2.23	0.46
2:I:758:ARG:NH2	2:I:797:ASP:OD1	2.38	0.46
2:I:1080:GLY:O	2:I:1084:LYS:HG3	2.15	0.46
2:I:1148:ASN:HD22	2:I:1151:HIS:H	1.63	0.46
1:A:232:LEU:HD13	1:A:272:GLU:CB	2.44	0.46
1:A:539:SER:O	1:A:540:GLN:C	2.52	0.46
1:A:702:LYS:HE2	1:A:729:GLY:O	2.15	0.46
1:B:14:LEU:HD11	2:H:1821:VAL:HG11	1.97	0.46
1:B:237:MET:HG3	1:B:241:PHE:HB3	1.97	0.46
1:B:1114:TYR:CD1	1:B:1337:GLU:HG3	2.50	0.46
1:B:1239:HIS:CD2	1:B:1241:SER:H	2.33	0.46
1:B:1639:VAL:CG1	1:B:1640:SER:N	2.79	0.46
1:C:186:ILE:O	1:C:190:LEU:HG	2.15	0.46
1:C:420:ILE:HG22	1:C:469:VAL:HG22	1.96	0.46
1:C:908:LEU:HA	1:C:913:VAL:HG21	1.96	0.46
1:C:1004:ILE:HG22	1:C:1660:TYR:CE2	2.49	0.46
2:G:7:ARG:NH2	2:G:24:THR:O	2.48	0.46
2:G:9:LEU:HB2	2:G:27:PHE:HE1	1.81	0.46
2:G:826:GLY:HA3	2:G:1061:GLN:CB	2.44	0.46
2:G:1422:THR:HG23	2:G:1474:PHE:CD1	2.51	0.46
2:G:1579:ILE:HG22	2:G:1580:THR:O	2.15	0.46
2:H:72:VAL:HG12	2:H:73:GLU:N	2.30	0.46
2:H:350:GLN:HA	2:H:353:VAL:HG13	1.97	0.46
2:H:598:THR:CB	2:H:599:PRO:HD3	2.44	0.46
2:H:879:LYS:HA	2:H:879:LYS:HD3	1.71	0.46
2:H:1079:ASP:O	2:H:1082:ILE:HG22	2.16	0.46
2:H:1419:PHE:C	2:H:1421:ASN:N	2.71	0.46
2:H:1552:PRO:O	2:H:1556:VAL:HG23	2.15	0.46
2:H:1567:ARG:HG3	2:H:1568:HIS:N	2.23	0.46
2:H:1945:ASP:O	2:H:1949:LYS:HG3	2.15	0.46
2:I:826:GLY:HA3	2:I:1061:GLN:CB	2.46	0.46
2:I:1173:VAL:HB	2:I:1221:MET:HE1	1.97	0.46
2:I:1593:ILE:HD13	2:I:1626:ILE:HD13	1.97	0.46
1:A:338:LEU:O	1:A:342:GLN:HG3	2.16	0.46
1:A:986:ALA:CB	1:A:1047:LEU:HD13	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1009:LEU:HA	1:A:1445:MET:HE2	1.96	0.46
1:A:1233:GLU:CD	1:A:1680:ARG:HH21	2.24	0.46
1:A:1544:THR:O	1:A:1545:SER:HB3	2.15	0.46
1:A:1639:VAL:CG1	1:A:1640:SER:N	2.78	0.46
1:A:1646:PHE:CE1	3:A:2748:CER:H31	2.50	0.46
1:B:741:SER:HB3	1:B:744:ASP:HB2	1.97	0.46
1:B:1305:CYS:SG	1:B:1585:LYS:HA	2.56	0.46
1:C:784:ILE:HG23	1:C:788:SER:HB2	1.98	0.46
1:C:889:GLU:C	1:C:891:MET:H	2.24	0.46
1:C:1238:VAL:CG1	1:C:1242:GLU:HB2	2.45	0.46
2:G:355:LYS:HB3	2:G:355:LYS:HE2	1.64	0.46
2:G:624:TYR:CB	2:G:630:MET:HE3	2.45	0.46
2:G:1749:GLU:OE2	2:G:1840:VAL:HG13	2.16	0.46
2:H:573:LYS:HE3	2:H:1101:GLU:OE1	2.15	0.46
2:H:807:ILE:HD12	2:H:1063:THR:HG23	1.96	0.46
2:H:881:VAL:N	2:H:882:PRO:CD	2.79	0.46
2:H:1266:TYR:HB2	2:H:1347:LEU:HD23	1.97	0.46
2:H:1666:PHE:CD1	2:H:1814:ALA:HB2	2.49	0.46
2:H:1908:ASP:HA	2:H:1911:THR:HG22	1.98	0.46
2:I:131:ILE:HG21	2:I:182:VAL:HG12	1.97	0.46
2:I:1272:ASP:O	2:I:1273:GLU:HG3	2.15	0.46
2:I:1624:THR:HB	2:I:1642:THR:CG2	2.43	0.46
2:I:1764:PHE:HB2	2:I:1770:LEU:HD21	1.97	0.46
1:A:26:VAL:CG2	2:G:1890:ASN:ND2	2.78	0.46
1:A:1050:CYS:HB3	1:A:1089:VAL:HG12	1.98	0.46
1:B:183:GLN:NE2	1:B:202:GLU:HG2	2.29	0.46
1:B:1618:LEU:HD23	1:B:1621:PHE:CE2	2.51	0.46
1:C:256:LEU:HA	1:C:257:PRO:HD3	1.72	0.46
1:C:335:HIS:CD2	1:C:335:HIS:C	2.91	0.46
2:G:109:LEU:HD11	2:G:116:LEU:CD2	2.41	0.46
2:G:455:ILE:HG13	2:G:455:ILE:O	2.14	0.46
2:G:520:LYS:O	2:G:521:ASP:C	2.58	0.46
2:G:702:TYR:HB3	2:G:727:PRO:HB2	1.97	0.46
2:G:873:PHE:CD1	2:G:1026:GLU:HB2	2.50	0.46
2:G:1834:ARG:NH1	2:G:1834:ARG:CG	2.68	0.46
2:H:1169:PRO:O	2:H:1173:VAL:HG23	2.15	0.46
2:H:1195:VAL:HG13	2:H:1211:LEU:CB	2.44	0.46
2:H:1441:ILE:HD11	2:H:1445:ARG:NH2	2.27	0.46
2:H:1567:ARG:NH1	2:H:1568:HIS:HB3	2.29	0.46
2:H:1638:ILE:HD12	2:H:1657:ILE:CG1	2.43	0.46
2:I:584:SER:CB	2:I:591:PRO:HG3	2.41	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1666:PHE:CD1	2:I:1814:ALA:HA	2.50	0.46
1:A:170:LYS:HD3	1:A:175:LEU:HD23	1.97	0.46
1:B:702:LYS:HE2	1:B:729:GLY:O	2.15	0.46
1:B:1303:GLY:CA	1:B:1649:LYS:HE2	2.40	0.46
1:C:243:ILE:O	1:C:247:ARG:HG3	2.16	0.46
1:C:1319:ILE:HA	1:C:1324:ALA:O	2.14	0.46
1:C:1362:PRO:HA	1:C:1365:MET:HG3	1.97	0.46
1:C:1367:ARG:HH12	1:C:1372:THR:CB	2.20	0.46
1:C:1533:ILE:HD11	1:C:1564:LEU:HD13	1.98	0.46
2:G:209:PHE:CE2	2:G:213:LEU:HD22	2.51	0.46
2:G:214:ASN:ND2	2:G:217:GLU:HB2	2.30	0.46
2:G:309:ARG:HD3	2:G:309:ARG:HA	1.64	0.46
2:G:441:LYS:O	2:G:444:VAL:HG12	2.15	0.46
2:G:669:LEU:HA	2:G:669:LEU:HD12	1.62	0.46
2:G:719:ILE:HG12	2:G:719:ILE:H	1.57	0.46
2:G:844:VAL:HG22	2:G:858:ALA:HB2	1.98	0.46
2:G:1886:VAL:HG22	2:G:1906:ALA:HB1	1.97	0.46
2:H:321:PRO:HD2	2:I:1599:ASP:OD1	2.16	0.46
2:H:582:LYS:HE2	2:H:761:PRO:O	2.16	0.46
2:H:1884:TRP:NE1	2:H:1905:ARG:HH21	2.13	0.46
2:I:835:THR:HG22	2:I:844:VAL:C	2.40	0.46
2:I:843:ILE:HD11	2:I:1055:HIS:HB3	1.98	0.46
2:I:1071:LYS:HE3	2:I:1075:ASP:OD2	2.14	0.46
2:I:1932:SER:O	2:I:1936:VAL:HG22	2.16	0.46
2:I:2026:PHE:HB3	2:I:2042:ILE:HD13	1.98	0.46
1:A:601:VAL:O	1:A:602:GLU:C	2.59	0.46
1:A:709:ARG:O	1:A:714:VAL:HG21	2.16	0.46
1:A:807:LYS:HD3	1:A:807:LYS:C	2.40	0.46
1:A:1270:VAL:HG11	1:A:1274:ILE:HD13	1.97	0.46
1:A:1617:ILE:O	1:A:1620:GLN:HG2	2.16	0.46
1:B:792:HIS:CE1	1:B:796:LEU:HD23	2.51	0.46
1:C:774:ILE:HA	1:C:775:PRO:HD3	1.74	0.46
1:C:1263:ASP:HB2	1:C:1270:VAL:HG21	1.98	0.46
1:C:1577:GLN:NE2	1:C:1591:TRP:HB3	2.30	0.46
2:G:553:ASN:O	2:G:556:LYS:HE3	2.16	0.46
2:G:1378:ILE:O	2:G:1378:ILE:HG12	2.13	0.46
2:G:1854:MET:CG	2:G:1901:ALA:HB2	2.46	0.46
2:H:306:ILE:HA	2:H:439:ILE:HD13	1.96	0.46
2:H:481:ASP:OD2	2:H:485:ARG:NH1	2.48	0.46
2:H:653:TYR:HD1	2:H:659:LEU:HD21	1.80	0.46
2:H:845:THR:HG22	2:H:855:HIS:CD2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1180:MET:HB2	2:H:1197:LEU:HD21	1.98	0.46
2:H:1624:THR:HB	2:H:1642:THR:CG2	2.45	0.46
2:H:1738:PHE:CE1	2:H:1837:THR:HG23	2.50	0.46
2:H:1850:SER:HB2	2:H:1973:SER:HB2	1.97	0.46
2:H:1858:ASN:HA	2:H:1896:GLN:O	2.16	0.46
2:I:109:LEU:HD11	2:I:116:LEU:CD2	2.43	0.46
2:I:109:LEU:HD22	2:I:114:THR:HG23	1.96	0.46
2:I:589:ARG:HB3	2:I:590:PRO:CD	2.43	0.46
2:I:653:TYR:HD1	2:I:659:LEU:HD21	1.79	0.46
2:I:860:ARG:HB2	2:I:1049:GLN:HG3	1.97	0.46
1:A:37:LYS:HB2	1:A:65:TYR:CE1	2.48	0.46
1:A:49:PRO:O	1:A:82:SER:HB2	2.16	0.46
1:A:427:ASN:ND2	1:A:610:THR:H	2.08	0.46
1:B:1021:VAL:HG22	1:B:1387:ILE:HG22	1.98	0.46
1:B:1595:GLY:O	1:B:1599:ILE:HG13	2.15	0.46
1:C:182:VAL:O	1:C:186:ILE:HG13	2.16	0.46
1:C:1244:GLY:C	1:C:1327:CYS:HB2	2.41	0.46
2:G:131:ILE:CG2	2:G:182:VAL:HG11	2.43	0.46
2:G:785:TRP:CG	2:G:786:SER:N	2.83	0.46
2:G:845:THR:HG22	2:G:855:HIS:CD2	2.50	0.46
2:G:955:GLU:HG2	2:G:987:TYR:HE2	1.80	0.46
2:G:1168:ASN:HA	2:G:1169:PRO:HD3	1.81	0.46
2:G:1303:ALA:HB2	2:G:1556:VAL:HG21	1.98	0.46
2:G:2037:PRO:O	2:G:2041:ILE:HG13	2.16	0.46
2:H:60:LEU:O	2:H:63:LYS:HB2	2.16	0.46
2:H:551:THR:HG22	2:H:552:SER:N	2.30	0.46
2:H:1344:ASP:O	2:H:1416:TYR:HE2	1.99	0.46
2:H:1427:VAL:HG22	2:H:1469:GLU:HG2	1.96	0.46
2:H:1491:VAL:HB	2:H:1501:ILE:CD1	2.45	0.46
2:H:1651:LEU:O	2:H:1652:THR:HG23	2.16	0.46
2:H:1873:TYR:CE1	2:H:1877:ARG:NE	2.77	0.46
2:I:490:TRP:CZ2	2:I:512:LEU:HD21	2.51	0.46
2:I:1180:MET:HB3	2:I:1199:GLU:HG2	1.98	0.46
2:I:1417:THR:C	2:I:1419:PHE:N	2.74	0.46
2:I:1543:ASP:OD1	2:I:1623:LYS:HG2	2.15	0.46
1:A:35:PHE:HA	1:A:39:PHE:HD2	1.81	0.46
1:A:331:ILE:HG23	1:A:332:THR:N	2.31	0.46
1:A:507:GLY:N	1:A:954:ARG:HG2	2.31	0.46
1:C:1209:ASP:OD2	1:C:1253:GLY:HA2	2.16	0.46
2:G:123:ILE:HD11	2:G:533:LEU:HD22	1.98	0.46
2:G:970:TYR:O	2:G:973:LEU:HB2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1418:ASP:O	2:G:1421:ASN:N	2.43	0.46
2:H:236:ILE:C	2:H:236:ILE:HD13	2.40	0.46
2:H:490:TRP:CZ2	2:H:512:LEU:HD21	2.51	0.46
2:H:702:TYR:HB3	2:H:727:PRO:HB2	1.97	0.46
2:H:1227:ARG:NE	2:H:1565:VAL:HG12	2.30	0.46
2:H:1236:LEU:HA	2:H:1237:PRO:HD3	1.78	0.46
2:H:1359:MET:CE	2:H:1404:MET:HB3	2.44	0.46
2:H:1374:THR:HG23	2:H:1396:LEU:CD1	2.46	0.46
2:I:740:HIS:HE1	2:I:852:GLU:OE1	1.99	0.46
2:I:860:ARG:H	2:I:1049:GLN:HG3	1.80	0.46
2:I:1228:THR:HG21	2:I:1234:VAL:HG23	1.98	0.46
2:I:1418:ASP:O	2:I:1420:GLU:N	2.49	0.46
1:A:386:PHE:O	1:A:390:VAL:HB	2.16	0.46
1:A:1709:GLU:H	1:A:1709:GLU:HG3	1.46	0.46
1:B:143:GLU:H	1:B:260:ARG:HG2	1.81	0.46
1:C:1459:ILE:O	1:C:1463:VAL:HG23	2.16	0.46
2:G:233:SER:HA	2:G:424:ALA:CB	2.46	0.46
2:G:1311:PHE:HD1	2:G:1320:LEU:O	1.99	0.46
2:G:1435:ILE:O	2:G:1435:ILE:HG22	2.15	0.46
2:H:913:ASP:H	2:H:916:THR:CG2	2.29	0.46
2:H:1021:LEU:HD22	2:H:1021:LEU:HA	1.58	0.46
2:I:232:LEU:HD21	2:I:423:VAL:HA	1.98	0.46
2:I:391:LEU:CD2	2:I:394:ARG:NH2	2.78	0.46
2:I:670:ARG:HD2	2:I:676:ILE:O	2.16	0.46
2:I:751:LEU:HD11	2:I:789:PHE:CD1	2.51	0.46
2:I:785:TRP:CG	2:I:786:SER:N	2.84	0.46
2:I:844:VAL:HG22	2:I:858:ALA:HB2	1.97	0.46
2:I:1222:GLU:HG3	2:I:1235:SER:OG	2.16	0.46
2:I:1282:ARG:NH2	2:I:1423:PHE:HB3	2.31	0.46
2:I:1503:ILE:HG22	2:I:1504:VAL:C	2.41	0.46
2:I:1561:ASN:OD1	2:I:1563:ILE:HB	2.15	0.46
1:A:411:GLN:NE2	1:A:1628:SER:H	2.13	0.45
1:A:529:MET:HE3	1:A:529:MET:CA	2.43	0.45
1:A:792:HIS:CE1	1:A:796:LEU:HD23	2.51	0.45
1:A:1533:ILE:HG13	1:A:1564:LEU:HB3	1.98	0.45
1:A:1557:ILE:HD11	1:A:1642:THR:HG21	1.97	0.45
1:B:516:ARG:NH2	1:B:889:GLU:OE1	2.49	0.45
1:B:881:ASN:HA	1:B:944:ARG:HH22	1.78	0.45
1:B:1234:MET:HG2	1:B:1326:ILE:CD1	2.46	0.45
1:C:400:ARG:HH11	1:C:400:ARG:HG3	1.72	0.45
1:C:1040:GLU:HB2	1:C:1580:LEU:HD12	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1376:PHE:CB	1:C:1544:THR:HG22	2.45	0.45
1:C:1573:ILE:HG23	1:C:1627:PRO:HG3	1.98	0.45
2:G:159:ILE:CG2	2:G:501:ILE:HG22	2.46	0.45
2:G:1586:SER:O	2:G:1590:ARG:HB2	2.16	0.45
2:G:1738:PHE:CD1	2:G:1837:THR:HG23	2.51	0.45
2:H:391:LEU:CD2	2:H:394:ARG:NH2	2.80	0.45
2:H:677:GLN:O	2:H:678:PHE:HB3	2.15	0.45
2:H:1135:GLU:OE2	2:H:1175:LYS:HE3	2.15	0.45
2:H:1388:LYS:HE3	2:H:1418:ASP:OD2	2.16	0.45
2:H:1593:ILE:HD13	2:H:1626:ILE:HD13	1.97	0.45
2:H:1666:PHE:CE1	2:H:1814:ALA:HA	2.50	0.45
2:H:1873:TYR:CE1	2:H:1877:ARG:NH2	2.83	0.45
2:H:2026:PHE:HB3	2:H:2042:ILE:HD13	1.98	0.45
2:I:807:ILE:HD12	2:I:1063:THR:HG23	1.98	0.45
1:A:408:TRP:CZ3	1:A:1628:SER:HB3	2.51	0.45
1:A:764:ASP:OD2	1:A:818:ARG:HD3	2.17	0.45
1:A:1114:TYR:CE1	1:A:1337:GLU:HG3	2.50	0.45
1:B:2:LYS:HE2	1:B:4:GLU:OE1	2.15	0.45
1:B:19:ALA:O	1:B:22:PHE:HB2	2.15	0.45
1:B:26:VAL:HG13	2:H:2013:ASN:ND2	2.31	0.45
1:B:719:GLN:HG3	1:B:720:SER:N	2.31	0.45
1:B:1431:GLU:OE2	1:B:1433:HIS:HE1	2.00	0.45
1:C:170:LYS:HD3	1:C:175:LEU:HD23	1.97	0.45
1:C:430:ARG:NH2	1:C:605:LEU:HD13	2.31	0.45
2:G:161:GLY:HA3	2:G:506:PRO:HD2	1.98	0.45
2:G:191:SER:HA	2:G:194:THR:CG2	2.46	0.45
2:G:1219:ILE:HD11	2:G:1242:PHE:HB2	1.98	0.45
2:G:1222:GLU:HG3	2:G:1235:SER:OG	2.16	0.45
2:G:1472:VAL:CG2	2:G:1483:VAL:HG22	2.46	0.45
2:G:1976:PHE:HA	2:G:1981:LEU:CD2	2.46	0.45
2:H:246:LEU:HD12	2:H:246:LEU:HA	1.85	0.45
2:H:324:LEU:HD12	2:H:324:LEU:O	2.16	0.45
2:H:612:ASN:HD21	2:H:641:ILE:HA	1.81	0.45
2:H:1579:ILE:HG22	2:H:1580:THR:O	2.16	0.45
2:H:1678:MET:HE1	2:H:1707:LEU:HD23	1.94	0.45
2:H:1768:LYS:HE2	2:H:1772:SER:HB3	1.98	0.45
2:I:369:SER:O	2:I:370:LEU:HD23	2.16	0.45
2:I:455:ILE:C	2:I:455:ILE:HD12	2.42	0.45
2:I:601:THR:HB	2:I:620:ALA:HB2	1.98	0.45
2:I:669:LEU:HD12	2:I:669:LEU:HA	1.65	0.45
1:A:18:LEU:HD21	2:G:1815:LEU:CD1	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:751:PHE:CZ	1:A:761:LEU:HD13	2.51	0.45
1:A:825:PRO:HB2	1:A:843:LYS:HZ2	1.80	0.45
1:A:1367:ARG:HH12	1:A:1372:THR:CB	2.18	0.45
1:A:1431:GLU:OE2	1:A:1523:ARG:NH1	2.48	0.45
1:B:37:LYS:HB2	1:B:65:TYR:CE1	2.51	0.45
1:B:235:SER:HA	1:B:276:ARG:NH2	2.32	0.45
1:B:444:ASN:HB2	1:B:447:LEU:N	2.15	0.45
1:B:1639:VAL:HG12	1:B:1640:SER:N	2.31	0.45
1:C:827:SER:HA	1:C:828:PRO:HD3	1.70	0.45
1:C:982:ILE:HD11	2:I:965:SER:CB	2.46	0.45
2:G:247:ALA:O	2:G:251:VAL:HG13	2.15	0.45
2:G:460:TYR:HA	2:G:466:SER:O	2.17	0.45
2:G:562:LEU:HG	2:G:793:PRO:CG	2.43	0.45
2:G:860:ARG:HB2	2:G:1049:GLN:HG3	1.97	0.45
2:G:2049:GLU:O	2:G:2050:GLN:C	2.59	0.45
2:H:249:TYR:CD2	2:H:283:ILE:HD11	2.52	0.45
2:H:439:ILE:HD12	2:H:484:ILE:CD1	2.46	0.45
2:H:562:LEU:HG	2:H:793:PRO:CB	2.47	0.45
2:H:624:TYR:CB	2:H:630:MET:HE3	2.46	0.45
2:H:1590:ARG:HG3	2:H:1608:TYR:CD2	2.51	0.45
2:I:618:GLU:HG2	2:I:678:PHE:CZ	2.51	0.45
2:I:739:GLY:HA2	2:I:1054:LEU:HG	1.97	0.45
2:I:1180:MET:HB2	2:I:1197:LEU:HD21	1.97	0.45
2:I:1775:GLN:HG2	2:I:1836:MET:SD	2.57	0.45
2:I:1854:MET:CG	2:I:1901:ALA:HB2	2.47	0.45
2:I:1868:GLN:HG3	2:I:1898:TYR:HH	1.81	0.45
1:A:168:MET:HA	1:A:206:LEU:HB2	1.98	0.45
1:A:625:THR:HG23	1:A:627:SER:H	1.82	0.45
1:A:630:ILE:O	1:A:653:ARG:NH2	2.48	0.45
1:A:798:ASN:HA	1:A:801:ARG:HB2	1.98	0.45
1:B:32:GLN:NE2	1:B:57:ALA:CA	2.80	0.45
1:B:988:ILE:HD13	1:B:1048:GLU:CB	2.47	0.45
1:B:1310:GLU:OE1	1:B:1649:LYS:CE	2.62	0.45
1:C:1533:ILE:HG13	1:C:1564:LEU:HB3	1.98	0.45
2:G:582:LYS:HE2	2:G:1108:PRO:HB3	1.97	0.45
2:G:807:ILE:HA	2:G:818:LYS:HG2	1.97	0.45
2:G:1015:VAL:HG13	2:G:1017:PHE:CE2	2.52	0.45
2:G:1148:ASN:HD22	2:G:1151:HIS:H	1.63	0.45
2:G:1314:ARG:HD3	2:G:1314:ARG:HA	1.62	0.45
2:G:1844:ARG:HA	2:G:1849:ARG:O	2.16	0.45
2:H:566:HIS:O	2:H:567:PRO:C	2.59	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:601:THR:CG2	2:H:601:THR:O	2.65	0.45
2:H:835:THR:CB	2:H:845:THR:HG23	2.43	0.45
2:H:1735:ALA:O	2:H:1737:ILE:HG13	2.16	0.45
2:I:463:PHE:CE1	2:I:486:LEU:HD22	2.51	0.45
2:I:507:GLY:O	2:I:508:GLY:C	2.59	0.45
2:I:1199:GLU:OE2	2:I:1567:ARG:CZ	2.65	0.45
2:I:1327:ILE:HD12	2:I:1327:ILE:HA	1.80	0.45
2:I:1609:THR:O	2:I:1653:GLY:HA3	2.16	0.45
1:A:143:GLU:H	1:A:260:ARG:HG2	1.81	0.45
1:A:293:LYS:O	1:A:297:ILE:HG13	2.16	0.45
1:B:1019:ILE:HG21	1:B:1316:VAL:HG22	1.98	0.45
1:B:1020:VAL:CG1	1:B:1400:ILE:HG23	2.46	0.45
1:B:1061:SER:HB2	1:B:1078:SER:HB3	1.99	0.45
1:B:1376:PHE:CB	1:B:1544:THR:HG22	2.45	0.45
1:B:1464:GLU:HG3	1:B:1773:VAL:HG11	1.91	0.45
1:C:1104:ARG:O	1:C:1185:VAL:HG13	2.17	0.45
1:C:1682:LYS:HB3	2:I:994:PHE:CD2	2.51	0.45
2:G:357:ASN:OD1	2:G:365:GLN:HB3	2.16	0.45
2:G:1953:VAL:O	2:G:1953:VAL:HG12	2.16	0.45
2:H:24:THR:O	2:H:26:SER:N	2.49	0.45
2:H:319:LEU:HD22	2:H:319:LEU:HA	1.68	0.45
2:H:573:LYS:C	2:H:575:GLY:N	2.75	0.45
2:H:611:THR:HA	2:H:615:TYR:O	2.16	0.45
2:H:659:LEU:HD12	2:H:659:LEU:HA	1.82	0.45
2:H:754:TYR:CE2	2:H:794:MET:HG3	2.52	0.45
2:H:1027:ILE:O	2:H:1031:LYS:HB2	2.16	0.45
2:H:1383:ASN:HD21	2:H:1418:ASP:CB	2.30	0.45
2:H:1503:ILE:HG22	2:H:1504:VAL:C	2.41	0.45
2:I:894:ARG:NH1	2:I:898:ASP:OD2	2.42	0.45
2:I:938:TRP:CD1	2:I:944:ARG:HG3	2.52	0.45
2:I:1976:PHE:CB	2:I:1981:LEU:CD2	2.94	0.45
1:A:658:LEU:HD13	1:A:916:LEU:HD12	1.99	0.45
1:A:1120:GLU:O	1:A:1121:MET:HG3	2.16	0.45
1:B:332:THR:HG22	1:C:331:ILE:HD11	1.98	0.45
1:B:1533:ILE:HD11	1:B:1564:LEU:HD13	1.98	0.45
1:C:143:GLU:H	1:C:260:ARG:HG2	1.81	0.45
1:C:197:THR:HG22	1:C:198:PRO:O	2.15	0.45
1:C:225:SER:OG	1:C:266:LEU:HD21	2.16	0.45
1:C:529:MET:HA	1:C:529:MET:CE	2.45	0.45
1:C:1491:ARG:NH1	1:C:1744:TYR:O	2.50	0.45
2:G:142:ASN:HB2	2:G:550:VAL:HG13	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:315:PRO:O	2:H:1314:ARG:NH2	2.50	0.45
2:G:712:ALA:O	2:G:715:GLN:HB3	2.16	0.45
2:G:949:ASP:HB3	2:G:1006:MET:CE	2.47	0.45
2:G:1080:GLY:O	2:G:1084:LYS:HG3	2.16	0.45
2:G:1241:ASN:N	2:G:1252:SER:O	2.49	0.45
2:G:1466:PHE:HE2	2:G:1489:ILE:HD13	1.81	0.45
2:G:1976:PHE:CB	2:G:1981:LEU:CD2	2.95	0.45
2:H:618:GLU:HG2	2:H:678:PHE:CZ	2.52	0.45
2:H:1085:LEU:HD12	2:H:1085:LEU:HA	1.85	0.45
2:H:1159:ILE:HG22	2:H:1160:THR:N	2.32	0.45
2:H:1161:GLN:CB	2:H:1255:MET:HE3	2.45	0.45
2:H:1325:PHE:O	2:H:1328:VAL:HG12	2.16	0.45
2:I:23:PRO:HG2	2:I:86:LEU:HD11	1.98	0.45
2:I:440:ASN:ND2	2:I:477:GLU:HG2	2.31	0.45
2:I:1195:VAL:HG13	2:I:1211:LEU:CB	2.46	0.45
2:I:1637:LEU:HD23	2:I:1637:LEU:HA	1.79	0.45
1:A:1300:THR:HA	1:A:1301:PRO:HD3	1.70	0.45
1:B:66:GLU:OE1	1:B:66:GLU:HA	2.15	0.45
1:B:1593:MET:HE3	1:B:1597:LEU:HG	1.99	0.45
1:C:21:GLN:HG3	2:I:2013:ASN:HB2	1.98	0.45
1:C:521:LYS:HB3	1:C:523:SER:HB3	1.98	0.45
1:C:1305:CYS:SG	3:C:2748:CER:H51	2.57	0.45
1:C:1670:TYR:O	1:C:1674:VAL:HG23	2.17	0.45
2:G:665:LEU:O	2:G:665:LEU:HD22	2.17	0.45
2:G:754:TYR:CG	2:G:794:MET:HG2	2.51	0.45
2:G:1858:ASN:ND2	2:G:1861:ARG:HG3	2.32	0.45
2:G:1873:TYR:HE1	2:G:1877:ARG:HH21	1.59	0.45
2:H:594:VAL:CG2	2:H:610:THR:HG21	2.45	0.45
2:H:2035:SER:HB3	2:H:2038:ILE:CG1	2.44	0.45
2:I:478:ARG:O	2:I:482:CYS:HB2	2.17	0.45
2:I:784:GLU:O	2:I:787:THR:HB	2.17	0.45
2:I:1949:LYS:O	2:I:1953:VAL:HG23	2.17	0.45
1:A:1239:HIS:CD2	1:A:1241:SER:H	2.35	0.45
1:A:1443:LEU:HD23	1:A:1443:LEU:HA	1.75	0.45
1:B:1004:ILE:HG22	1:B:1660:TYR:CE2	2.52	0.45
1:B:1239:HIS:HE1	1:B:1714:VAL:O	2.00	0.45
1:B:1459:ILE:O	1:B:1463:VAL:HG23	2.17	0.45
1:B:1584:PRO:CG	1:B:1591:TRP:CZ3	3.00	0.45
2:G:101:ILE:H	2:G:101:ILE:HG13	1.31	0.45
2:G:218:TRP:HB3	2:G:225:THR:OG1	2.16	0.45
2:G:350:GLN:HA	2:G:353:VAL:HG13	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:455:ILE:HD11	2:G:469:ARG:NE	2.32	0.45
2:G:879:LYS:HD3	2:G:879:LYS:HA	1.68	0.45
2:H:1100:VAL:HG23	2:H:1147:ILE:HB	1.99	0.45
2:H:1845:ASP:HB2	2:H:1849:ARG:N	2.15	0.45
2:I:161:GLY:H	2:I:505:GLY:CA	2.28	0.45
2:I:355:LYS:HB3	2:I:355:LYS:HE2	1.70	0.45
2:I:612:ASN:C	2:I:614:GLY:H	2.25	0.45
2:I:654:VAL:O	2:I:654:VAL:HG12	2.17	0.45
2:I:677:GLN:O	2:I:678:PHE:HB3	2.17	0.45
2:I:943:TRP:CZ2	2:I:1016:PRO:HG3	2.52	0.45
2:I:1258:ARG:O	2:I:1262:ILE:HG13	2.17	0.45
2:I:1308:CYS:HB3	2:I:1311:PHE:CE2	2.51	0.45
1:B:340:ARG:HH12	1:B:344:GLN:HE21	1.64	0.45
1:B:420:ILE:HG22	1:B:469:VAL:HG22	1.99	0.45
1:B:1487:LEU:HD23	1:B:1487:LEU:C	2.41	0.45
1:B:1617:ILE:O	1:B:1620:GLN:HG2	2.17	0.45
1:C:378:LEU:HD12	1:C:378:LEU:HA	1.84	0.45
1:C:927:ASN:O	1:C:929:GLY:N	2.41	0.45
2:G:1227:ARG:CZ	2:G:1565:VAL:HG12	2.47	0.45
2:G:1491:VAL:HB	2:G:1501:ILE:HD12	1.99	0.45
2:G:1543:ASP:OD1	2:G:1623:LYS:HG2	2.16	0.45
2:G:1736:MET:HE2	2:G:1736:MET:HA	1.98	0.45
2:H:512:LEU:O	2:H:516:THR:HG23	2.17	0.45
2:H:785:TRP:CG	2:H:786:SER:N	2.84	0.45
2:I:653:TYR:OH	2:I:690:VAL:HG11	2.17	0.45
2:I:1491:VAL:HB	2:I:1501:ILE:CD1	2.47	0.45
1:A:204:THR:HA	1:A:205:PRO:HD3	1.85	0.45
1:A:335:HIS:O	1:A:335:HIS:CD2	2.69	0.45
1:A:1516:ASP:HA	1:A:1517:PRO:HD3	1.61	0.45
1:B:32:GLN:HE21	1:B:57:ALA:HB2	1.82	0.45
1:B:43:ARG:O	2:H:1662:THR:HA	2.16	0.45
1:B:44:VAL:HG13	1:B:78:ILE:HG12	1.98	0.45
1:B:67:SER:OG	2:G:359:HIS:HE1	1.99	0.45
1:B:196:THR:O	1:B:213:PHE:HE2	2.00	0.45
1:B:1119:LYS:HE2	1:B:1341:PHE:CG	2.52	0.45
1:B:1300:THR:HA	1:B:1301:PRO:HD3	1.69	0.45
1:C:478:GLU:OE1	1:C:478:GLU:HA	2.17	0.45
1:C:916:LEU:HD22	1:C:922:VAL:HG22	1.99	0.45
1:C:1061:SER:HB2	1:C:1078:SER:HB3	1.99	0.45
1:C:1234:MET:HE3	1:C:1326:ILE:HG21	1.99	0.45
2:G:109:LEU:HD23	2:G:109:LEU:HA	1.79	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1325:PHE:O	2:G:1328:VAL:HG12	2.17	0.45
2:G:1389:ILE:HG13	2:G:1411:PHE:CD1	2.52	0.45
2:H:641:ILE:HG12	2:H:645:SER:CB	2.46	0.45
2:H:1270:TRP:C	2:H:1271:ILE:HD13	2.42	0.45
2:I:231:LEU:HA	2:I:236:ILE:HD12	1.99	0.45
2:I:298:LYS:HG2	2:I:448:VAL:CG2	2.38	0.45
2:I:1256:GLU:O	2:I:1257:ASP:HB2	2.17	0.45
1:A:242:THR:HG22	1:A:243:ILE:H	1.81	0.44
1:A:636:PRO:HB2	1:A:638:LEU:O	2.16	0.44
1:A:1283:MET:O	1:A:1287:VAL:HG23	2.18	0.44
1:B:13:LEU:HB2	2:H:2026:PHE:CE1	2.52	0.44
1:B:411:GLN:NE2	1:B:1628:SER:H	2.15	0.44
1:B:427:ASN:HB2	1:B:468:LEU:HD21	1.99	0.44
1:B:612:GLU:O	1:B:615:SER:HB3	2.17	0.44
1:B:626:VAL:HG23	1:B:664:GLU:OE2	2.17	0.44
1:B:733:ILE:CD1	1:B:761:LEU:HD11	2.46	0.44
1:B:1029:PRO:HA	1:B:1188:GLN:O	2.17	0.44
1:B:1455:ARG:HD2	1:B:1455:ARG:HA	1.86	0.44
1:C:253:ARG:O	1:C:254:TRP:CD1	2.70	0.44
1:C:641:ARG:HD3	1:C:649:TRP:O	2.17	0.44
1:C:1257:LEU:HD23	1:C:1257:LEU:HA	1.83	0.44
1:C:1494:HIS:CE1	1:C:1877:GLN:CG	2.99	0.44
2:G:607:VAL:O	2:G:611:THR:HB	2.17	0.44
2:G:717:ILE:O	2:G:720:ALA:HB3	2.18	0.44
2:G:741:HIS:HE1	2:G:855:HIS:NE2	2.13	0.44
2:G:741:HIS:HB3	2:G:853:PRO:HB2	1.98	0.44
2:G:926:LEU:HB3	2:G:947:THR:CG2	2.46	0.44
2:G:1071:LYS:HE3	2:G:1075:ASP:OD2	2.16	0.44
2:G:1294:ALA:HA	2:G:1368:VAL:CG2	2.47	0.44
2:G:1855:ILE:HB	2:G:1907:LEU:HD12	2.00	0.44
2:H:109:LEU:HD22	2:H:114:THR:HG23	1.99	0.44
2:H:443:LEU:HD22	2:H:448:VAL:CG1	2.46	0.44
2:H:1308:CYS:HB3	2:H:1311:PHE:CE2	2.52	0.44
2:H:1321:ALA:HA	2:H:1322:PRO:HD3	1.84	0.44
2:H:1529:GLN:O	2:H:1632:ILE:HG13	2.16	0.44
2:I:369:SER:C	2:I:370:LEU:HD23	2.41	0.44
2:I:1159:ILE:CG2	2:I:1160:THR:N	2.81	0.44
2:I:1589:VAL:HG21	2:I:1651:LEU:HD12	1.99	0.44
1:A:225:SER:OG	1:A:266:LEU:HD21	2.16	0.44
1:A:1373:ARG:NE	1:A:1550:ASP:HB2	2.32	0.44
1:A:1549:ASN:ND2	1:A:1549:ASN:C	2.76	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1666:THR:HG23	1:A:1669:ARG:CB	2.47	0.44
1:B:168:MET:HA	1:B:206:LEU:HB2	2.00	0.44
1:B:256:LEU:HA	1:B:257:PRO:HD3	1.73	0.44
1:B:330:GLU:O	1:B:330:GLU:HG2	2.16	0.44
1:C:1234:MET:HG2	1:C:1326:ILE:HD12	1.98	0.44
1:C:1238:VAL:CG1	1:C:1239:HIS:N	2.80	0.44
1:C:1460:LYS:CE	1:C:1774:GLU:OE1	2.59	0.44
2:G:7:ARG:HH11	2:G:24:THR:HG23	1.76	0.44
2:G:595:PRO:HD3	2:G:800:LEU:HB2	1.99	0.44
2:G:1609:THR:O	2:G:1653:GLY:HA3	2.16	0.44
2:H:120:LYS:HB3	2:H:124:LYS:HE3	1.99	0.44
2:H:560:ASN:H	2:H:564:GLU:HG2	1.82	0.44
2:H:854:ILE:HG22	2:H:856:LYS:HG3	1.99	0.44
2:H:865:TRP:CD1	2:H:865:TRP:C	2.95	0.44
2:H:1330:GLY:HA2	2:H:1374:THR:HG21	1.98	0.44
2:H:1543:ASP:OD1	2:H:1623:LYS:HG2	2.17	0.44
2:H:1678:MET:HE2	2:H:1711:ILE:CG1	2.46	0.44
2:I:191:SER:HA	2:I:194:THR:CG2	2.43	0.44
2:I:441:LYS:O	2:I:444:VAL:HG12	2.17	0.44
2:I:659:LEU:HD12	2:I:659:LEU:HA	1.84	0.44
2:I:1054:LEU:HB3	4:I:3051:FMN:HM73	1.96	0.44
2:I:1303:ALA:HB2	2:I:1556:VAL:HG21	1.98	0.44
2:I:1314:ARG:HD3	2:I:1314:ARG:HA	1.64	0.44
1:A:27:ARG:HH21	2:G:2015:THR:HA	1.82	0.44
1:A:267:VAL:HG12	1:A:290:MET:CE	2.48	0.44
1:A:1431:GLU:HB3	1:A:1520:ALA:HB2	1.99	0.44
1:B:183:GLN:O	1:B:187:LEU:HG	2.17	0.44
1:B:225:SER:OG	1:B:266:LEU:HD21	2.18	0.44
1:B:479:ASN:O	1:B:483:VAL:HG23	2.17	0.44
1:B:655:LEU:HD23	1:B:655:LEU:HA	1.82	0.44
1:B:833:PHE:O	1:B:834:GLY:O	2.35	0.44
1:C:180:SER:O	1:C:183:GLN:N	2.50	0.44
1:C:627:SER:HB3	1:C:661:ASP:CG	2.41	0.44
2:G:120:LYS:HB3	2:G:124:LYS:HE3	1.99	0.44
2:G:231:LEU:HA	2:G:236:ILE:HD12	2.00	0.44
2:G:566:HIS:O	2:G:567:PRO:O	2.34	0.44
2:G:612:ASN:C	2:G:614:GLY:H	2.24	0.44
2:G:1015:VAL:HA	2:G:1016:PRO:HD3	1.79	0.44
2:H:161:GLY:H	2:H:505:GLY:CA	2.29	0.44
2:H:427:PHE:HB3	2:H:428:HIS:ND1	2.32	0.44
2:H:607:VAL:O	2:H:611:THR:HB	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:871:THR:HG21	2:H:887:LYS:HZ2	1.83	0.44
2:I:703:LEU:HD21	2:I:705:LEU:CD2	2.45	0.44
2:I:780:TYR:HB2	2:I:799:PHE:CE2	2.53	0.44
2:I:901:LYS:NZ	2:I:1031:LYS:O	2.51	0.44
2:I:1223:MET:HE3	2:I:1238:LEU:HD12	2.00	0.44
2:I:1735:ALA:O	2:I:1737:ILE:HG13	2.17	0.44
2:I:1757:GLU:H	2:I:1757:GLU:HG3	1.50	0.44
1:A:66:GLU:OE1	1:A:66:GLU:HA	2.17	0.44
1:A:1020:VAL:CG1	1:A:1400:ILE:HG23	2.47	0.44
1:A:1056:ILE:CD1	1:A:1193:TRP:CD1	3.00	0.44
1:B:32:GLN:HE22	1:B:57:ALA:N	2.16	0.44
1:B:232:LEU:HD13	1:B:272:GLU:CB	2.47	0.44
1:B:253:ARG:C	1:B:254:TRP:HD1	2.25	0.44
1:B:1040:GLU:OE2	1:B:1577:GLN:HB2	2.18	0.44
1:C:625:THR:HG23	1:C:627:SER:H	1.83	0.44
1:C:929:GLY:C	1:C:931:GLN:N	2.76	0.44
1:C:930:LEU:HD23	1:C:930:LEU:HA	1.76	0.44
1:C:1022:THR:HG22	1:C:1226:SER:CB	2.47	0.44
1:C:1657:HIS:CG	1:C:1658:PRO:HD2	2.53	0.44
2:G:932:ILE:HD12	2:G:939:PHE:HD1	1.83	0.44
2:G:1590:ARG:NH2	2:G:1594:GLU:OE2	2.50	0.44
2:G:1873:TYR:CE1	2:G:1877:ARG:NH2	2.84	0.44
2:G:1908:ASP:HA	2:G:1911:THR:HG22	2.00	0.44
2:G:1945:ASP:O	2:G:1949:LYS:HG3	2.17	0.44
2:H:209:PHE:CE2	2:H:213:LEU:HD22	2.52	0.44
2:H:663:ILE:HB	2:H:664:PRO:CD	2.44	0.44
2:H:778:TYR:N	2:H:779:PRO:CD	2.80	0.44
2:H:1311:PHE:HD1	2:H:1320:LEU:O	2.00	0.44
2:H:1697:HIS:CE1	2:H:1829:GLU:CG	3.00	0.44
2:I:665:LEU:O	2:I:665:LEU:HD22	2.18	0.44
2:I:1162:ASP:O	2:I:1163:LYS:HB2	2.16	0.44
2:I:1330:GLY:HA2	2:I:1374:THR:HG21	1.99	0.44
2:I:1418:ASP:OD1	2:I:1420:GLU:HG3	2.17	0.44
2:I:1651:LEU:HD23	2:I:1651:LEU:HA	1.73	0.44
2:I:1819:ALA:O	2:I:1820:ASP:C	2.61	0.44
1:B:233:ILE:HD13	1:B:237:MET:HE3	2.00	0.44
1:B:496:PRO:HB2	1:B:519:VAL:HG12	1.99	0.44
1:C:44:VAL:HG13	1:C:78:ILE:HG12	1.99	0.44
1:C:503:ILE:HD12	1:C:950:THR:HG21	1.98	0.44
2:G:109:LEU:HD22	2:G:114:THR:HG23	2.00	0.44
2:G:297:ARG:O	2:G:301:THR:HG22	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:490:TRP:HA	2:G:493:THR:HG22	1.98	0.44
2:G:589:ARG:HB3	2:G:590:PRO:CD	2.48	0.44
2:G:1632:ILE:HG23	2:G:1632:ILE:O	2.16	0.44
2:H:109:LEU:HD11	2:H:116:LEU:CD2	2.43	0.44
2:H:600:CYS:SG	2:H:806:MET:HE3	2.58	0.44
2:H:641:ILE:CG1	2:H:645:SER:HB2	2.45	0.44
2:H:949:ASP:HB3	2:H:1006:MET:CE	2.47	0.44
2:I:9:LEU:HB2	2:I:27:PHE:HE1	1.82	0.44
2:I:245:GLN:HG2	2:I:505:GLY:HA2	2.00	0.44
2:I:468:LEU:O	2:I:471:LEU:HB2	2.18	0.44
2:I:835:THR:HG22	2:I:844:VAL:CA	2.48	0.44
2:I:1590:ARG:HG3	2:I:1608:TYR:CD2	2.53	0.44
1:A:1022:THR:CG2	1:A:1226:SER:OG	2.66	0.44
1:A:1305:CYS:SG	1:A:1585:LYS:HA	2.57	0.44
1:A:1372:THR:O	1:A:1373:ARG:C	2.61	0.44
1:B:267:VAL:HG12	1:B:290:MET:CE	2.48	0.44
1:B:1238:VAL:CG1	1:B:1239:HIS:N	2.81	0.44
1:B:1516:ASP:HA	1:B:1517:PRO:HD3	1.65	0.44
1:C:503:ILE:HD11	1:C:947:LEU:HD22	1.98	0.44
1:C:1557:ILE:HD11	1:C:1642:THR:HG21	2.00	0.44
2:G:551:THR:HG22	2:G:552:SER:N	2.31	0.44
2:G:751:LEU:HD23	2:G:791:TYR:CD2	2.53	0.44
2:G:751:LEU:HD11	2:G:789:PHE:CD1	2.53	0.44
2:H:305:PHE:CD1	2:H:442:ASP:HB3	2.53	0.44
2:H:807:ILE:HA	2:H:818:LYS:HG2	1.99	0.44
2:H:1389:ILE:HG13	2:H:1411:PHE:CD1	2.52	0.44
2:I:40:ILE:O	2:I:42:PRO:HD3	2.17	0.44
2:I:159:ILE:CG2	2:I:501:ILE:HG22	2.47	0.44
2:I:305:PHE:CD1	2:I:442:ASP:HB3	2.52	0.44
2:I:463:PHE:C	2:I:463:PHE:CD2	2.94	0.44
2:I:720:ALA:HA	2:I:728:ILE:CD1	2.47	0.44
2:I:949:ASP:HB3	2:I:1006:MET:HE1	1.99	0.44
2:I:1257:ASP:O	2:I:1261:ARG:HG3	2.17	0.44
2:I:1896:GLN:HE21	2:I:1896:GLN:HB3	1.58	0.44
1:A:458:THR:OG1	1:A:470:LYS:HD2	2.18	0.44
1:A:1194:ASN:OD1	1:A:1196:LYS:HB2	2.18	0.44
1:A:1220:VAL:O	1:A:1224:ILE:HG12	2.18	0.44
1:A:1464:GLU:HG3	1:A:1773:VAL:HG11	1.77	0.44
1:B:881:ASN:CG	1:B:881:ASN:O	2.61	0.44
1:B:1012:LEU:HD23	1:B:1445:MET:CE	2.48	0.44
1:B:1195:ALA:HB1	1:B:1200:ILE:HD12	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1346:MET:HE1	1:C:1419:PRO:HG3	2.00	0.44
1:C:1673:TYR:CZ	1:C:1677:VAL:HG21	2.51	0.44
2:G:1043:VAL:O	2:G:1044:VAL:C	2.60	0.44
2:H:507:GLY:O	2:H:508:GLY:C	2.60	0.44
2:H:551:THR:C	2:H:553:ASN:N	2.75	0.44
2:H:652:ILE:HB	2:H:658:MET:HE1	1.99	0.44
2:H:1579:ILE:HD11	2:H:1615:MET:SD	2.58	0.44
2:I:184:VAL:HG12	2:I:188:ILE:HG12	1.99	0.44
2:I:297:ARG:O	2:I:301:THR:HG22	2.18	0.44
2:I:517:HIS:CE1	2:I:540:ASP:O	2.71	0.44
2:I:865:TRP:CD1	2:I:865:TRP:C	2.95	0.44
2:I:1739:GLU:HB2	2:I:1987:PRO:CB	2.29	0.44
2:I:1976:PHE:HB3	2:I:1981:LEU:CD2	2.48	0.44
1:A:499:PRO:HD3	1:A:516:ARG:HH21	1.83	0.44
1:A:530:ALA:HA	1:A:636:PRO:HB3	1.99	0.44
1:A:1133:PRO:HG3	1:A:1166:LYS:HG3	1.99	0.44
1:B:20:TYR:CD2	2:H:2033:THR:OG1	2.71	0.44
1:B:42:GLU:O	1:B:77:GLU:N	2.47	0.44
1:B:1037:TRP:HB2	1:B:1598:GLN:OE1	2.18	0.44
1:B:1455:ARG:O	1:B:1459:ILE:HG13	2.18	0.44
1:C:187:LEU:HD22	1:C:201:PRO:HB2	1.99	0.44
1:C:706:THR:HB	1:C:737:PHE:HB3	2.00	0.44
1:C:852:ARG:HB3	1:C:858:TRP:HZ2	1.83	0.44
1:C:1234:MET:CE	1:C:1326:ILE:HG21	2.48	0.44
1:C:1270:VAL:HG11	1:C:1274:ILE:HD13	1.99	0.44
2:G:615:TYR:CE2	2:G:1074:MET:HB3	2.52	0.44
2:G:1257:ASP:O	2:G:1261:ARG:HG3	2.18	0.44
2:G:1270:TRP:C	2:G:1271:ILE:HD13	2.41	0.44
2:G:1551:GLU:HB2	2:G:1552:PRO:HD3	2.00	0.44
2:G:1589:VAL:HG21	2:G:1651:LEU:HD12	1.99	0.44
2:G:1662:THR:HB	2:G:1799:PRO:HG2	1.99	0.44
2:H:184:VAL:HG12	2:H:188:ILE:HG12	2.00	0.44
2:H:780:TYR:HB2	2:H:799:PHE:CE2	2.53	0.44
2:H:938:TRP:CE2	2:H:944:ARG:HG3	2.52	0.44
2:H:1228:THR:HG21	2:H:1234:VAL:HG23	2.00	0.44
2:H:2049:GLU:O	2:H:2050:GLN:C	2.61	0.44
2:I:142:ASN:HB2	2:I:550:VAL:HG13	1.99	0.44
2:I:338:MET:HE2	2:I:423:VAL:HG21	1.99	0.44
2:I:1043:VAL:O	2:I:1044:VAL:C	2.61	0.44
2:I:1091:GLY:C	2:I:1093:ASP:H	2.26	0.44
2:I:1359:MET:HE2	2:I:1359:MET:HB3	1.84	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1579:ILE:HG22	2:I:1580:THR:O	2.18	0.44
2:I:1666:PHE:CE1	2:I:1814:ALA:HA	2.53	0.44
2:I:1886:VAL:HG22	2:I:1906:ALA:HB1	1.98	0.44
1:A:1501:LEU:HD11	1:A:1775:LEU:CG	2.47	0.44
1:B:1430:ARG:O	1:B:1430:ARG:HG2	2.18	0.44
1:C:295:ALA:HB1	1:C:300:VAL:O	2.18	0.44
1:C:453:TYR:CD2	1:C:453:TYR:C	2.96	0.44
1:C:833:PHE:O	1:C:834:GLY:O	2.36	0.44
1:C:1181:PHE:CZ	1:C:1341:PHE:HA	2.53	0.44
1:C:1291:LEU:HD21	1:C:1698:PHE:CE1	2.53	0.44
2:G:159:ILE:HD11	2:G:512:LEU:CG	2.48	0.44
2:G:459:VAL:HG12	2:G:468:LEU:HD12	2.00	0.44
2:G:463:PHE:C	2:G:463:PHE:HD2	2.25	0.44
2:G:901:LYS:NZ	2:G:1031:LYS:O	2.50	0.44
2:G:1004:LEU:CD2	2:G:1019:PRO:HB2	2.48	0.44
2:H:102:HIS:HE1	2:H:180:TYR:OH	2.00	0.44
2:H:1496:LYS:HE2	2:H:1693:ARG:HH21	1.82	0.44
2:H:1739:GLU:HB2	2:H:1987:PRO:CB	2.30	0.44
2:I:169:TYR:CD1	2:I:169:TYR:C	2.96	0.44
2:I:218:TRP:HB3	2:I:225:THR:OG1	2.18	0.44
2:I:246:LEU:O	2:I:250:VAL:HG23	2.18	0.44
2:I:600:CYS:SG	2:I:806:MET:HE3	2.58	0.44
2:I:914:LEU:HD21	2:I:1003:PHE:CD2	2.53	0.44
2:I:1493:LEU:HB3	2:I:1494:PRO:CD	2.48	0.44
2:I:1684:SER:O	2:I:1688:GLN:HG3	2.18	0.44
1:A:181:THR:O	1:A:185:GLU:HG3	2.18	0.43
1:A:406:TRP:CE3	1:A:407:ASN:HB2	2.53	0.43
1:A:933:VAL:O	1:A:933:VAL:HG22	2.18	0.43
1:A:1234:MET:HE3	1:A:1326:ILE:HG21	2.00	0.43
1:B:35:PHE:HA	1:B:39:PHE:HD2	1.83	0.43
1:B:93:ASP:O	1:B:94:PRO:C	2.60	0.43
1:B:888:ILE:HD12	1:B:939:PHE:CE2	2.43	0.43
1:B:1129:GLU:OE1	1:C:348:ARG:HD3	2.18	0.43
1:C:1332:TYR:HB3	1:C:1382:ALA:CB	2.48	0.43
1:C:1373:ARG:NE	1:C:1550:ASP:HB2	2.33	0.43
2:G:245:GLN:HG2	2:G:505:GLY:HA2	1.99	0.43
2:G:257:GLY:C	2:G:258:PHE:HD1	2.26	0.43
2:G:543:PHE:CB	2:G:545:GLN:NE2	2.81	0.43
2:G:566:HIS:ND1	2:G:567:PRO:HD2	2.33	0.43
2:G:726:PHE:HA	2:G:727:PRO:HD3	1.89	0.43
2:G:753:MET:O	2:G:757:ILE:HG13	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:866:LYS:O	2:G:870:GLU:HG3	2.18	0.43
2:G:1236:LEU:HD11	2:G:1262:ILE:HG12	1.99	0.43
2:H:9:LEU:HB2	2:H:27:PHE:HE1	1.83	0.43
2:H:123:ILE:HD11	2:H:533:LEU:CD2	2.48	0.43
2:H:567:PRO:CG	2:H:781:LEU:CD1	2.94	0.43
2:H:670:ARG:HD2	2:H:676:ILE:O	2.18	0.43
2:H:1222:GLU:HG3	2:H:1235:SER:OG	2.17	0.43
2:H:1586:SER:O	2:H:1590:ARG:HB2	2.17	0.43
2:H:1638:ILE:CD1	2:H:1657:ILE:HG13	2.41	0.43
2:I:427:PHE:HB3	2:I:428:HIS:ND1	2.33	0.43
2:I:432:LEU:HB3	2:I:484:ILE:HG23	2.00	0.43
2:I:932:ILE:HD12	2:I:939:PHE:HD1	1.83	0.43
2:I:1427:VAL:HG22	2:I:1469:GLU:HG2	1.99	0.43
2:I:1551:GLU:HB2	2:I:1552:PRO:HD3	2.00	0.43
2:I:1782:THR:CG2	2:I:1827:LEU:HD21	2.45	0.43
1:A:626:VAL:HG23	1:A:664:GLU:OE2	2.18	0.43
1:A:881:ASN:O	1:A:881:ASN:CG	2.61	0.43
1:A:930:LEU:HD23	1:A:930:LEU:HA	1.75	0.43
1:A:1584:PRO:CG	1:A:1591:TRP:CZ3	3.02	0.43
1:B:1279:PHE:HB2	1:B:1282:THR:HG23	2.00	0.43
1:C:168:MET:HA	1:C:206:LEU:HB2	2.00	0.43
1:C:196:THR:O	1:C:213:PHE:HE2	2.01	0.43
1:C:1279:PHE:HB2	1:C:1282:THR:HG23	2.00	0.43
1:C:1720:ALA:O	1:C:1721:ARG:HG2	2.17	0.43
2:G:195:LEU:O	2:G:199:ILE:HG13	2.18	0.43
2:G:560:ASN:OD1	2:G:560:ASN:C	2.62	0.43
2:G:573:LYS:C	2:G:575:GLY:N	2.75	0.43
2:G:581:THR:O	2:G:585:LYS:HB2	2.18	0.43
2:G:754:TYR:CD2	2:G:794:MET:CG	3.01	0.43
2:G:900:GLN:NE2	2:G:1051:THR:HA	2.32	0.43
2:G:1195:VAL:HG13	2:G:1211:LEU:CB	2.48	0.43
2:G:1227:ARG:CD	2:G:1565:VAL:HG11	2.44	0.43
2:H:463:PHE:C	2:H:463:PHE:HD2	2.26	0.43
2:H:666:ILE:HG22	2:H:698:LEU:HD22	2.00	0.43
2:H:2046:GLU:C	2:H:2048:TYR:N	2.75	0.43
2:I:428:HIS:CD2	2:I:488:VAL:HG23	2.53	0.43
2:I:751:LEU:HD23	2:I:791:TYR:CD2	2.53	0.43
2:I:938:TRP:CE2	2:I:944:ARG:HG3	2.53	0.43
2:I:1778:GLN:HB2	2:I:1779:PRO:HD3	2.00	0.43
2:I:1976:PHE:HA	2:I:1981:LEU:CD2	2.48	0.43
1:A:28:TRP:HB3	2:G:1892:ASN:HA	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:235:SER:HA	1:A:276:ARG:NH2	2.32	0.43
1:A:237:MET:HG3	1:A:241:PHE:HB3	2.00	0.43
1:A:411:GLN:O	1:A:415:SER:HB2	2.18	0.43
1:A:1209:ASP:OD2	1:A:1253:GLY:HA2	2.19	0.43
1:B:529:MET:HE2	1:B:637:PHE:CB	2.48	0.43
1:B:1014:ASP:N	1:B:1510:ASN:HD21	2.06	0.43
1:B:1248:GLY:HA3	1:B:1301:PRO:HD2	1.99	0.43
1:C:340:ARG:HH12	1:C:344:GLN:HE21	1.65	0.43
1:C:421:ILE:HG12	1:C:469:VAL:HG21	1.98	0.43
1:C:627:SER:HB3	1:C:661:ASP:OD1	2.18	0.43
1:C:639:HIS:HB2	1:C:656:SER:OG	2.18	0.43
1:C:988:ILE:HD13	1:C:1048:GLU:HB3	2.01	0.43
1:C:1056:ILE:CD1	1:C:1193:TRP:CD1	2.99	0.43
2:G:1327:ILE:HD12	2:G:1327:ILE:HA	1.79	0.43
2:G:1346:ASP:C	2:G:1346:ASP:OD1	2.61	0.43
2:G:1473:THR:O	2:G:1481:SER:HB3	2.18	0.43
2:G:1768:LYS:HE2	2:G:1772:SER:HB3	2.00	0.43
2:H:439:ILE:HD12	2:H:484:ILE:HD11	1.99	0.43
2:H:732:TRP:CH2	2:H:749:PRO:HG2	2.53	0.43
2:H:772:GLY:O	2:H:804:ARG:HD3	2.18	0.43
2:H:856:LYS:CE	2:H:1052:CYS:SG	3.06	0.43
2:H:970:TYR:O	2:H:973:LEU:HB2	2.18	0.43
2:I:159:ILE:HG12	2:I:512:LEU:HD23	2.01	0.43
2:I:572:ASN:CB	2:I:576:LYS:H	2.27	0.43
2:I:754:TYR:CG	2:I:794:MET:HG2	2.53	0.43
2:I:843:ILE:HD13	2:I:1055:HIS:O	2.18	0.43
2:I:1158:PHE:C	2:I:1159:ILE:HD13	2.43	0.43
2:I:1241:ASN:N	2:I:1252:SER:O	2.50	0.43
2:I:1624:THR:CB	2:I:1642:THR:HG23	2.47	0.43
1:B:176:VAL:HG12	1:B:178:GLY:H	1.83	0.43
1:B:1592:MET:HE2	1:B:1641:ILE:HG23	2.00	0.43
1:C:980:VAL:HG21	2:I:952:ARG:HH21	1.83	0.43
2:G:967:ILE:HD12	2:G:972:LEU:HD22	2.00	0.43
2:G:1016:PRO:HD2	2:G:1017:PHE:CE2	2.53	0.43
2:G:1040:LEU:O	2:G:1046:GLN:HG3	2.19	0.43
2:G:1162:ASP:O	2:G:1163:LYS:HB2	2.19	0.43
2:G:1308:CYS:HB3	2:G:1311:PHE:CE2	2.53	0.43
2:G:1674:GLN:OE1	2:G:1712:ASN:HA	2.18	0.43
2:G:1804:PHE:CD2	2:G:1818:LEU:HD22	2.53	0.43
2:G:2046:GLU:C	2:G:2048:TYR:N	2.77	0.43
2:H:257:GLY:C	2:H:258:PHE:HD1	2.26	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:309:ARG:HD3	2:H:309:ARG:HA	1.63	0.43
2:H:1359:MET:HE2	2:H:1359:MET:HB3	1.82	0.43
2:I:430:HIS:CE1	2:I:431:LEU:HD13	2.53	0.43
2:I:439:ILE:HD12	2:I:484:ILE:CD1	2.48	0.43
2:I:835:THR:HG21	2:I:855:HIS:NE2	2.33	0.43
2:I:1210:ILE:HG22	2:I:1210:ILE:O	2.18	0.43
2:I:1325:PHE:O	2:I:1328:VAL:HG12	2.18	0.43
2:I:1428:GLU:HG2	2:I:1470:THR:HG22	1.99	0.43
1:A:254:TRP:CZ3	1:A:302:LEU:HD13	2.53	0.43
1:A:496:PRO:HB2	1:A:519:VAL:HG12	2.01	0.43
1:A:893:VAL:HG11	1:A:930:LEU:CD2	2.46	0.43
1:A:1244:GLY:C	1:A:1327:CYS:HB2	2.44	0.43
1:A:1291:LEU:HD21	1:A:1698:PHE:CE1	2.53	0.43
1:A:1375:GLY:HA2	1:A:1546:THR:HG22	2.01	0.43
1:A:1553:GLU:HA	1:A:1556:THR:HG23	2.01	0.43
1:A:1556:THR:O	1:A:1560:MET:HG2	2.18	0.43
1:A:1673:TYR:CZ	1:A:1677:VAL:HG21	2.53	0.43
1:B:242:THR:HB	1:B:244:THR:HB	2.01	0.43
1:C:221:LEU:HD23	1:C:221:LEU:HA	1.89	0.43
1:C:235:SER:HA	1:C:276:ARG:NH2	2.33	0.43
1:C:1021:VAL:HG22	1:C:1387:ILE:HG22	2.01	0.43
1:C:1625:LEU:O	1:C:1627:PRO:HD3	2.18	0.43
2:G:156:LEU:HD23	2:G:500:HIS:HB2	1.99	0.43
2:G:397:LYS:HB3	2:G:416:PHE:CE2	2.53	0.43
2:G:653:TYR:OH	2:G:690:VAL:HG11	2.18	0.43
2:G:1458:ASP:O	2:G:1462:LYS:HE3	2.19	0.43
2:G:1493:LEU:HB3	2:G:1494:PRO:CD	2.48	0.43
2:H:566:HIS:ND1	2:H:566:HIS:C	2.75	0.43
2:H:726:PHE:HA	2:H:727:PRO:HD3	1.88	0.43
2:H:745:ASP:HA	2:H:832:TRP:CH2	2.51	0.43
2:H:1015:VAL:HG13	2:H:1017:PHE:CE2	2.53	0.43
2:H:1422:THR:CG2	2:H:1422:THR:O	2.66	0.43
2:I:397:LYS:HB3	2:I:416:PHE:CE2	2.53	0.43
2:I:439:ILE:HD12	2:I:484:ILE:HD11	1.99	0.43
2:I:551:THR:C	2:I:553:ASN:N	2.76	0.43
2:I:562:LEU:HD23	2:I:562:LEU:HA	1.79	0.43
2:I:852:GLU:H	2:I:852:GLU:HG3	1.39	0.43
2:I:972:LEU:HD23	2:I:979:ALA:HB2	2.00	0.43
2:I:1496:LYS:CE	2:I:1693:ARG:HH21	2.31	0.43
2:I:1651:LEU:O	2:I:1652:THR:HG23	2.17	0.43
2:I:1784:MET:HE3	2:I:1784:MET:HB2	1.93	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:242:THR:HB	1:A:244:THR:HB	2.00	0.43
1:A:627:SER:HB2	1:A:657:SER:CB	2.48	0.43
1:A:641:ARG:HD3	1:A:649:TRP:O	2.18	0.43
1:A:790:PHE:CE2	1:A:794:ILE:HD11	2.53	0.43
1:A:874:GLY:O	1:A:875:THR:C	2.60	0.43
1:B:889:GLU:C	1:B:891:MET:H	2.25	0.43
1:B:1208:VAL:HG11	1:B:1212:THR:HB	1.97	0.43
1:B:1270:VAL:HG11	1:B:1274:ILE:HD13	2.00	0.43
1:C:232:LEU:HD13	1:C:272:GLU:CB	2.48	0.43
1:C:1446:LYS:O	1:C:1450:ARG:HG3	2.18	0.43
2:G:99:ASN:HA	2:G:550:VAL:CG2	2.49	0.43
2:G:419:ARG:HG3	2:G:420:PHE:N	2.33	0.43
2:G:1091:GLY:C	2:G:1093:ASP:H	2.26	0.43
2:G:1889:VAL:HG13	2:G:1977:HIS:HB3	1.97	0.43
2:H:73:GLU:OE2	2:H:76:LYS:HD2	2.18	0.43
2:H:160:PHE:CE2	2:H:504:PHE:HB2	2.54	0.43
2:H:360:LEU:HA	2:H:361:PRO:HD3	1.90	0.43
2:H:732:TRP:CE2	2:H:750:MET:HE3	2.53	0.43
2:H:1241:ASN:N	2:H:1252:SER:O	2.51	0.43
2:H:1528:GLU:C	2:H:1530:LYS:N	2.76	0.43
2:H:1660:PRO:O	2:H:1661:VAL:C	2.61	0.43
2:I:279:THR:O	2:I:283:ILE:HB	2.19	0.43
2:I:1079:ASP:O	2:I:1082:ILE:HG22	2.19	0.43
2:I:1236:LEU:HD22	2:I:1238:LEU:HG	1.99	0.43
2:I:1959:LYS:O	2:I:1959:LYS:HG2	2.19	0.43
1:A:489:VAL:HG23	1:A:671:VAL:C	2.44	0.43
1:A:988:ILE:CD1	1:A:1048:GLU:HA	2.48	0.43
1:A:1431:GLU:OE2	1:A:1433:HIS:HE1	2.02	0.43
1:B:370:GLU:O	1:B:373:ALA:HB3	2.19	0.43
1:B:1219:VAL:CA	1:B:1384:ILE:HD11	2.32	0.43
1:B:1234:MET:HE3	1:B:1326:ILE:HG21	2.00	0.43
1:C:49:PRO:O	1:C:82:SER:HB2	2.19	0.43
1:C:451:MET:HE1	1:C:476:LEU:HG	2.01	0.43
1:C:1248:GLY:HA3	1:C:1301:PRO:HD2	2.01	0.43
1:C:1375:GLY:HA2	1:C:1546:THR:HG22	1.99	0.43
1:C:1539:ALA:O	1:C:1574:GLY:HA2	2.18	0.43
1:C:1553:GLU:HA	1:C:1556:THR:HG23	2.01	0.43
1:C:1599:ILE:HD11	1:C:1606:PRO:HD2	2.01	0.43
2:G:184:VAL:HG12	2:G:188:ILE:HG12	2.00	0.43
2:G:324:LEU:HD12	2:G:324:LEU:O	2.18	0.43
2:G:854:ILE:HG22	2:G:856:LYS:HG3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:2036:GLU:HG2	2:G:2039:LYS:HZ1	1.84	0.43
2:H:629:GLY:O	2:H:632:ALA:HB3	2.18	0.43
2:H:643:LYS:HA	2:H:1163:LYS:HG2	1.99	0.43
2:H:653:TYR:OH	2:H:690:VAL:HG11	2.18	0.43
2:I:7:ARG:NH2	2:I:24:THR:O	2.52	0.43
2:I:607:VAL:O	2:I:611:THR:HB	2.18	0.43
2:I:949:ASP:HB3	2:I:1006:MET:CE	2.48	0.43
2:I:1509:GLY:O	2:I:1510:ALA:C	2.61	0.43
2:I:2049:GLU:O	2:I:2050:GLN:C	2.62	0.43
1:A:335:HIS:ND1	1:C:335:HIS:HE1	2.17	0.43
1:A:644:THR:HG23	1:A:648:ASP:N	2.34	0.43
1:A:827:SER:HA	1:A:828:PRO:HD3	1.70	0.43
1:B:681:THR:HA	1:B:706:THR:OG1	2.19	0.43
1:B:1375:GLY:HA2	1:B:1546:THR:HG22	2.01	0.43
1:B:1446:LYS:O	1:B:1450:ARG:HG3	2.19	0.43
1:B:1498:GLU:HG2	1:B:1876:LEU:HB3	1.89	0.43
1:C:93:ASP:O	1:C:94:PRO:C	2.61	0.43
1:C:384:GLU:O	1:C:388:ASN:HB2	2.19	0.43
1:C:1158:PRO:HD2	1:C:1159:GLU:OE2	2.18	0.43
2:G:324:LEU:O	2:G:328:LEU:HG	2.18	0.43
2:G:601:THR:O	2:G:601:THR:CG2	2.67	0.43
2:G:860:ARG:H	2:G:1049:GLN:HG3	1.83	0.43
2:G:1004:LEU:HD21	2:G:1020:VAL:CG2	2.48	0.43
2:G:1175:LYS:HG3	2:G:1176:PRO:HD2	2.00	0.43
2:H:1567:ARG:HH11	2:H:1567:ARG:HG2	1.72	0.43
2:H:1940:LEU:HD12	2:H:1941:PHE:N	2.34	0.43
2:I:169:TYR:CG	2:I:170:PHE:N	2.87	0.43
2:I:425:SER:HA	2:I:426:PRO:HD3	1.78	0.43
2:I:846:VAL:CG1	2:I:865:TRP:NE1	2.82	0.43
2:I:1168:ASN:HA	2:I:1169:PRO:HD3	1.84	0.43
2:I:1552:PRO:O	2:I:1556:VAL:HG23	2.19	0.43
2:I:2030:TYR:CD1	2:I:2034:GLY:HA2	2.54	0.43
1:A:833:PHE:HA	1:A:937:LYS:HD2	2.00	0.43
1:A:1431:GLU:CG	1:A:1433:HIS:CE1	3.00	0.43
1:A:1670:TYR:O	1:A:1674:VAL:HG23	2.18	0.43
1:B:460:GLU:CG	1:B:470:LYS:HD3	2.48	0.43
1:B:1431:GLU:CG	1:B:1433:HIS:CE1	3.02	0.43
1:B:1657:HIS:HA	1:B:1658:PRO:HD3	1.89	0.43
1:C:780:GLU:O	1:C:781:LEU:C	2.61	0.43
1:C:1600:LEU:HD11	1:C:1655:VAL:HG12	2.00	0.43
2:G:15:SER:H	2:G:48:PHE:HE2	1.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:28:PHE:CE2	2:H:7:ARG:CD	2.73	0.43
2:G:369:SER:C	2:G:370:LEU:HD23	2.43	0.43
2:G:486:LEU:HA	2:G:487:PRO:HD3	1.90	0.43
2:G:835:THR:HG22	2:G:844:VAL:HA	2.00	0.43
2:G:884:LEU:HD22	2:G:1021:LEU:CD1	2.49	0.43
2:G:1219:ILE:HB	2:G:1240:TYR:HB2	2.01	0.43
2:G:1784:MET:HE3	2:G:1784:MET:HB2	1.87	0.43
2:G:1875:VAL:HG22	2:G:1910:VAL:HG11	2.01	0.43
2:G:2042:ILE:HG12	2:G:2042:ILE:H	1.39	0.43
2:H:543:PHE:CB	2:H:545:GLN:NE2	2.81	0.43
2:H:717:ILE:HG23	2:H:760:HIS:CE1	2.54	0.43
2:H:1862:VAL:HG22	2:H:1863:ALA:N	2.33	0.43
2:I:209:PHE:CE2	2:I:213:LEU:HD22	2.53	0.43
2:I:615:TYR:CE2	2:I:1074:MET:HB3	2.53	0.43
2:I:702:TYR:HB3	2:I:727:PRO:HB2	2.00	0.43
2:I:967:ILE:HD12	2:I:972:LEU:HD22	2.00	0.43
2:I:1355:ASN:CG	2:I:1583:MET:HE1	2.44	0.43
2:I:1561:ASN:HA	2:I:1562:PRO:HD3	1.80	0.43
2:I:1662:THR:HB	2:I:1799:PRO:HG2	2.00	0.43
2:I:1873:TYR:CE1	2:I:1877:ARG:NH2	2.81	0.43
1:A:32:GLN:HE22	1:A:57:ALA:N	2.16	0.43
1:A:44:VAL:HG11	1:A:78:ILE:HG12	1.96	0.43
1:A:196:THR:O	1:A:213:PHE:HE2	2.01	0.43
1:A:460:GLU:CG	1:A:470:LYS:HD3	2.49	0.43
1:A:1107:GLU:HA	1:A:1108:PRO:HD3	1.90	0.43
1:A:1498:GLU:HG2	1:A:1876:LEU:HB3	1.68	0.43
1:B:260:ARG:HH12	1:B:300:VAL:CG2	2.20	0.43
1:B:411:GLN:O	1:B:415:SER:HB2	2.18	0.43
1:B:1283:MET:O	1:B:1287:VAL:HG23	2.18	0.43
1:B:1553:GLU:HA	1:B:1556:THR:HG23	2.00	0.43
1:C:852:ARG:NH1	1:C:856:GLU:OE1	2.52	0.43
1:C:1047:LEU:O	1:C:1051:VAL:HG23	2.19	0.43
1:C:1107:GLU:HA	1:C:1108:PRO:HD3	1.89	0.43
1:C:1208:VAL:HG11	1:C:1212:THR:HB	1.98	0.43
2:G:339:LEU:HD23	2:G:419:ARG:O	2.19	0.43
2:G:441:LYS:O	2:G:445:LYS:HG3	2.18	0.43
2:G:551:THR:C	2:G:553:ASN:N	2.75	0.43
2:G:634:ILE:CD1	2:G:649:ILE:HD11	2.43	0.43
2:G:1339:PHE:N	2:G:1340:PRO:CD	2.82	0.43
2:G:1348:LEU:HD12	2:G:1348:LEU:HA	1.81	0.43
2:G:1858:ASN:HA	2:G:1896:GLN:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:595:PRO:HD3	2:H:800:LEU:HB2	2.01	0.43
2:H:1293:THR:CG2	2:H:1296:GLU:H	2.24	0.43
2:I:950:PHE:O	2:I:953:ARG:HB3	2.19	0.43
1:A:2:LYS:HE2	1:A:4:GLU:OE1	2.19	0.42
1:A:155:VAL:O	1:A:159:LEU:HG	2.19	0.42
1:A:233:ILE:HD13	1:A:237:MET:HE3	2.01	0.42
1:A:705:VAL:HG23	1:A:732:LEU:CD2	2.48	0.42
1:A:1396:MET:O	1:A:1680:ARG:NH1	2.52	0.42
1:A:1539:ALA:O	1:A:1574:GLY:HA2	2.18	0.42
1:B:335:HIS:O	1:B:335:HIS:CD2	2.70	0.42
1:B:350:LEU:HB2	1:B:352:MET:HG2	2.01	0.42
1:B:430:ARG:NH2	1:B:605:LEU:HD13	2.33	0.42
1:B:1050:CYS:HB3	1:B:1089:VAL:HG12	2.00	0.42
1:B:1263:ASP:HB2	1:B:1270:VAL:HG21	2.00	0.42
1:C:1175:ILE:HA	1:C:1176:PRO:HD3	1.89	0.42
1:C:1243:VAL:O	1:C:1296:GLY:HA3	2.18	0.42
2:G:23:PRO:HG2	2:G:86:LEU:HD11	2.00	0.42
2:G:561:TRP:O	2:G:563:GLU:N	2.51	0.42
2:H:55:THR:HB	2:H:59:GLU:CD	2.44	0.42
2:H:169:TYR:CD1	2:H:169:TYR:C	2.97	0.42
2:H:1257:ASP:O	2:H:1261:ARG:HG3	2.19	0.42
2:H:1458:ASP:O	2:H:1462:LYS:HE3	2.19	0.42
2:H:1847:LEU:H	2:H:1847:LEU:CD1	2.12	0.42
2:I:7:ARG:CG	2:I:22:VAL:O	2.67	0.42
2:I:516:THR:O	2:I:519:ASN:HB2	2.19	0.42
2:I:736:ARG:H	2:I:736:ARG:HG3	1.57	0.42
2:I:835:THR:HB	2:I:845:THR:HG23	2.01	0.42
2:I:1311:PHE:HD1	2:I:1320:LEU:O	2.02	0.42
2:I:1878:VAL:CG1	2:I:1910:VAL:HG22	2.36	0.42
1:A:32:GLN:NE2	1:A:57:ALA:HA	2.34	0.42
1:A:1195:ALA:HB1	1:A:1200:ILE:HD12	2.02	0.42
1:A:1495:ASN:HD22	1:A:1495:ASN:HA	1.67	0.42
1:B:12:ILE:CD1	2:H:2041:ILE:HD11	2.49	0.42
1:B:1119:LYS:HE2	1:B:1341:PHE:CD1	2.54	0.42
1:C:949:GLU:O	1:C:953:VAL:CG1	2.67	0.42
1:C:1239:HIS:HE1	1:C:1714:VAL:O	2.02	0.42
1:C:1308:SER:HB3	1:C:1589:GLY:HA3	2.01	0.42
1:C:1618:LEU:HD23	1:C:1621:PHE:CE2	2.55	0.42
1:C:1657:HIS:CE1	1:C:1658:PRO:HD2	2.54	0.42
2:G:238:CYS:CB	2:G:239:PRO:HD3	2.45	0.42
2:G:612:ASN:HD21	2:G:641:ILE:HA	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1320:LEU:HD12	2:G:1320:LEU:HA	1.88	0.42
2:H:127:ILE:HD12	2:H:180:TYR:CD2	2.54	0.42
2:H:245:GLN:HG2	2:H:505:GLY:HA2	2.00	0.42
2:H:274:SER:OG	2:H:428:HIS:HE1	2.02	0.42
2:H:279:THR:O	2:H:283:ILE:HB	2.20	0.42
2:H:612:ASN:C	2:H:614:GLY:H	2.27	0.42
2:H:654:VAL:O	2:H:654:VAL:HG12	2.18	0.42
2:H:665:LEU:O	2:H:665:LEU:HD22	2.19	0.42
2:H:866:LYS:O	2:H:870:GLU:HG3	2.19	0.42
2:H:938:TRP:CD1	2:H:944:ARG:HG3	2.53	0.42
2:H:1070:ILE:CD1	2:H:1074:MET:HG2	2.49	0.42
2:H:1149:TRP:HA	2:H:1242:PHE:CD1	2.54	0.42
2:H:1173:VAL:CG2	2:H:1221:MET:HE1	2.49	0.42
2:H:1335:ILE:O	2:H:1338:ILE:HG12	2.19	0.42
2:I:503:ASP:O	2:I:530:ALA:HB3	2.19	0.42
2:I:538:ASP:HB2	2:I:540:ASP:HB2	2.01	0.42
2:I:652:ILE:HB	2:I:658:MET:HE1	1.99	0.42
2:I:810:GLU:OE2	2:I:1070:ILE:N	2.43	0.42
2:I:856:LYS:CE	2:I:1052:CYS:SG	3.07	0.42
2:I:896:ASN:O	2:I:1050:ARG:NH2	2.52	0.42
2:I:1321:ALA:HA	2:I:1322:PRO:HD3	1.83	0.42
2:I:1666:PHE:CD1	2:I:1814:ALA:HB2	2.54	0.42
1:A:451:MET:HE1	1:A:476:LEU:HG	2.00	0.42
1:A:1131:LEU:HD12	1:A:1131:LEU:HA	1.76	0.42
1:A:1132:GLU:HA	1:A:1133:PRO:HD3	1.94	0.42
1:B:155:VAL:HG22	1:B:186:ILE:CG2	2.50	0.42
1:B:280:GLU:O	1:B:284:LYS:HG3	2.20	0.42
1:B:828:PRO:HG3	1:B:868:ILE:HG22	2.00	0.42
1:B:908:LEU:HA	1:B:913:VAL:HG21	2.00	0.42
1:B:1145:LYS:HD3	1:B:1154:ILE:HG12	2.01	0.42
1:B:1420:ALA:HA	1:B:1421:PRO:HD3	1.74	0.42
1:C:253:ARG:C	1:C:254:TRP:HD1	2.26	0.42
1:C:408:TRP:CH2	1:C:1628:SER:HB3	2.55	0.42
1:C:1114:TYR:CE1	1:C:1337:GLU:HG3	2.55	0.42
2:G:421:LEU:HA	2:G:422:PRO:HD3	1.81	0.42
2:G:543:PHE:HB2	2:G:545:GLN:NE2	2.25	0.42
2:G:586:LEU:HD12	2:G:764:MET:SD	2.59	0.42
2:G:1290:PHE:C	2:G:1290:PHE:CD2	2.98	0.42
2:G:1986:LYS:N	2:G:1987:PRO:CD	2.82	0.42
2:G:2026:PHE:HB3	2:G:2042:ILE:HD13	2.00	0.42
2:H:38:ASN:HA	2:H:41:LEU:HD12	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:240:LEU:HD12	2:H:240:LEU:HA	1.78	0.42
2:H:258:PHE:N	2:H:258:PHE:CD1	2.87	0.42
2:H:967:ILE:CD1	2:H:972:LEU:HD22	2.50	0.42
2:H:1080:GLY:O	2:H:1084:LYS:HG3	2.19	0.42
2:H:1359:MET:HE3	2:H:1359:MET:HA	2.01	0.42
2:H:1383:ASN:HD21	2:H:1418:ASP:HB3	1.84	0.42
2:H:1497:GLU:OE1	2:H:2002:LYS:CE	2.66	0.42
2:H:1551:GLU:HB2	2:H:1552:PRO:HD3	2.00	0.42
2:I:190:PHE:O	2:I:194:THR:HG22	2.19	0.42
2:I:234:ILE:HG13	2:I:235:PRO:CD	2.46	0.42
2:I:309:ARG:HA	2:I:309:ARG:HD3	1.61	0.42
2:I:726:PHE:HA	2:I:727:PRO:HD3	1.86	0.42
2:I:778:TYR:N	2:I:779:PRO:CD	2.82	0.42
2:I:1085:LEU:HD12	2:I:1085:LEU:HA	1.82	0.42
2:I:1360:ILE:HG23	2:I:1403:VAL:C	2.44	0.42
1:A:453:TYR:CD2	1:A:453:TYR:C	2.96	0.42
1:A:460:GLU:H	1:A:460:GLU:HG3	1.34	0.42
1:B:1:MET:HE3	1:B:6:GLU:HA	2.01	0.42
1:C:21:GLN:HE21	1:C:21:GLN:HB3	1.69	0.42
1:C:406:TRP:CE3	1:C:407:ASN:HB2	2.53	0.42
1:C:798:ASN:HA	1:C:801:ARG:HB2	2.02	0.42
1:C:1219:VAL:CA	1:C:1384:ILE:CD1	2.94	0.42
2:G:503:ASP:OD2	2:G:513:GLY:N	2.50	0.42
2:G:949:ASP:HB3	2:G:1006:MET:HE1	2.01	0.42
2:G:1878:VAL:CG1	2:G:1910:VAL:HG22	2.34	0.42
2:H:176:LEU:CD2	2:H:184:VAL:HG21	2.50	0.42
2:H:536:ASN:HD21	2:H:540:ASP:HB3	1.84	0.42
2:H:741:HIS:CE1	2:H:855:HIS:NE2	2.88	0.42
2:H:1159:ILE:HG13	2:H:1169:PRO:CD	2.50	0.42
2:H:1346:ASP:C	2:H:1346:ASP:OD1	2.62	0.42
2:H:1427:VAL:HG22	2:H:1469:GLU:CG	2.50	0.42
2:H:1934:GLU:CD	2:H:1934:GLU:H	2.28	0.42
2:H:1986:LYS:N	2:H:1987:PRO:CD	2.81	0.42
2:I:120:LYS:HB3	2:I:124:LYS:HE3	2.01	0.42
2:I:441:LYS:O	2:I:445:LYS:HG3	2.19	0.42
2:I:674:TYR:HA	2:I:675:PRO:HD3	1.69	0.42
2:I:1102:TYR:HB3	2:I:1244:PRO:CA	2.49	0.42
2:I:1175:LYS:HG3	2:I:1176:PRO:HD2	2.00	0.42
2:I:1590:ARG:HG3	2:I:1608:TYR:CG	2.54	0.42
2:I:2042:ILE:HG12	2:I:2042:ILE:H	1.36	0.42
1:A:382:LEU:HA	1:A:382:LEU:HD23	1.79	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1195:ALA:CB	1:A:1213:LEU:HD13	2.49	0.42
1:B:20:TYR:HE1	2:H:2035:SER:HB2	1.82	0.42
1:B:157:HIS:CE1	1:B:269:LEU:HD11	2.55	0.42
1:B:272:GLU:HA	1:B:273:PRO:HD3	1.92	0.42
1:B:453:TYR:CD2	1:B:453:TYR:C	2.98	0.42
1:B:1022:THR:HG22	1:B:1226:SER:CB	2.49	0.42
1:B:1385:GLN:HE21	1:B:1385:GLN:HB3	1.66	0.42
1:B:1534:ASP:OD1	1:B:1566:ARG:HD3	2.19	0.42
1:C:32:GLN:NE2	1:C:57:ALA:CA	2.82	0.42
1:C:408:TRP:CZ3	1:C:1628:SER:HB3	2.54	0.42
1:C:413:LEU:O	1:C:413:LEU:HG	2.19	0.42
1:C:1455:ARG:HD2	1:C:1455:ARG:HA	1.82	0.42
1:C:1549:ASN:ND2	1:C:1549:ASN:C	2.77	0.42
2:G:517:HIS:CE1	2:G:540:ASP:O	2.73	0.42
2:G:638:VAL:HG22	2:G:675:PRO:HG2	2.01	0.42
2:G:1135:GLU:HG2	2:G:1176:PRO:HG2	2.02	0.42
2:G:1359:MET:HE2	2:G:1359:MET:HB3	1.83	0.42
2:G:1503:ILE:HG22	2:G:1504:VAL:C	2.44	0.42
2:H:676:ILE:O	2:H:676:ILE:HG12	2.17	0.42
2:H:751:LEU:HD11	2:H:789:PHE:CD1	2.55	0.42
2:H:1149:TRP:NE1	2:H:1213:LEU:HD12	2.34	0.42
2:H:1294:ALA:HA	2:H:1368:VAL:CG2	2.49	0.42
2:I:463:PHE:CD1	2:I:486:LEU:HD22	2.54	0.42
2:I:754:TYR:CE2	2:I:794:MET:HG3	2.53	0.42
2:I:1678:MET:CE	2:I:1707:LEU:HD22	2.41	0.42
1:A:413:LEU:O	1:A:413:LEU:HG	2.17	0.42
1:A:529:MET:HG2	1:A:638:LEU:CG	2.50	0.42
1:A:1420:ALA:HA	1:A:1421:PRO:HD3	1.75	0.42
1:B:706:THR:HB	1:B:737:PHE:HB3	2.01	0.42
1:B:982:ILE:HG23	2:H:956:GLU:HG2	2.01	0.42
1:B:1239:HIS:CD2	1:B:1241:SER:OG	2.59	0.42
1:B:1784:ASP:O	1:B:1788:GLU:HB2	2.20	0.42
1:C:406:TRP:CD2	1:C:1619:GLU:HG3	2.55	0.42
1:C:1220:VAL:O	1:C:1224:ILE:HG12	2.19	0.42
1:C:1639:VAL:CG1	1:C:1640:SER:N	2.82	0.42
2:G:1180:MET:HB3	2:G:1199:GLU:HG2	2.00	0.42
2:H:60:LEU:O	2:H:60:LEU:HD23	2.20	0.42
2:H:345:THR:HG22	2:H:347:GLU:N	2.25	0.42
2:H:562:LEU:HG	2:H:793:PRO:HG2	2.02	0.42
2:H:900:GLN:NE2	2:H:1051:THR:HA	2.34	0.42
2:H:949:ASP:HB3	2:H:1006:MET:HE1	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:33:LEU:HD21	2:I:80:PHE:CE2	2.54	0.42
2:I:298:LYS:HA	2:I:448:VAL:CG2	2.49	0.42
2:I:1217:ASN:HD22	2:I:1217:ASN:HA	1.60	0.42
2:I:1243:ASN:C	2:I:1243:ASN:OD1	2.63	0.42
2:I:1344:ASP:O	2:I:1416:TYR:HE2	2.02	0.42
1:A:181:THR:HG22	1:A:185:GLU:OE2	2.19	0.42
1:A:489:VAL:CG2	1:A:671:VAL:N	2.83	0.42
1:A:1019:ILE:HG13	1:A:1316:VAL:HG13	2.01	0.42
1:A:1263:ASP:HB2	1:A:1270:VAL:HG21	2.01	0.42
1:B:242:THR:HG22	1:B:243:ILE:H	1.83	0.42
1:B:625:THR:HG23	1:B:627:SER:H	1.84	0.42
1:B:1238:VAL:CG1	1:B:1242:GLU:HB2	2.49	0.42
1:B:1244:GLY:O	1:B:1327:CYS:HB2	2.20	0.42
1:B:1264:ARG:NH1	1:B:1270:VAL:HB	2.35	0.42
1:B:1682:LYS:HB3	2:H:994:PHE:CE2	2.54	0.42
1:C:330:GLU:HG2	1:C:330:GLU:O	2.18	0.42
1:C:438:ASN:HD21	1:C:698:GLN:HE21	1.66	0.42
1:C:1067:LEU:HD23	1:C:1067:LEU:HA	1.76	0.42
2:G:810:GLU:OE2	2:G:1070:ILE:N	2.44	0.42
2:G:856:LYS:CE	2:G:1052:CYS:SG	3.08	0.42
2:G:938:TRP:CE2	2:G:944:ARG:HG3	2.54	0.42
2:G:1044:VAL:HG21	2:G:1050:ARG:NE	2.34	0.42
2:G:1149:TRP:NE1	2:G:1213:LEU:HD12	2.35	0.42
2:H:567:PRO:HG3	2:H:781:LEU:HD11	1.99	0.42
2:H:581:THR:O	2:H:585:LYS:HB2	2.20	0.42
2:H:712:ALA:O	2:H:716:VAL:HG23	2.20	0.42
2:H:754:TYR:CG	2:H:794:MET:HG2	2.55	0.42
2:H:804:ARG:NH1	2:H:1062:PHE:O	2.52	0.42
2:H:1175:LYS:HG3	2:H:1176:PRO:HD2	2.02	0.42
2:H:1339:PHE:N	2:H:1340:PRO:CD	2.83	0.42
2:I:44:PRO:HA	2:I:53:GLU:OE2	2.19	0.42
2:I:73:GLU:OE2	2:I:76:LYS:HD2	2.18	0.42
2:I:703:LEU:CD2	2:I:705:LEU:HG	2.50	0.42
2:I:732:TRP:CE2	2:I:750:MET:HE3	2.53	0.42
2:I:740:HIS:HA	2:I:854:ILE:HD13	2.01	0.42
2:I:745:ASP:HA	2:I:832:TRP:CH2	2.49	0.42
2:I:1129:ALA:HB2	2:I:1138:TRP:CH2	2.55	0.42
2:I:1273:GLU:HB3	2:I:1274:PRO:CD	2.50	0.42
2:I:1989:LYS:NZ	2:I:2037:PRO:HG2	2.35	0.42
1:A:408:TRP:CH2	1:A:1628:SER:HB3	2.55	0.42
1:A:655:LEU:HD23	1:A:655:LEU:HA	1.81	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:800:LEU:HD23	1:A:800:LEU:HA	1.84	0.42
1:A:987:ASN:HD22	2:G:957:ARG:CD	2.30	0.42
1:A:1260:MET:HB2	1:A:1274:ILE:HD12	2.02	0.42
1:B:458:THR:OG1	1:B:470:LYS:HD2	2.20	0.42
1:B:798:ASN:HA	1:B:801:ARG:HB2	2.02	0.42
1:B:1830:GLY:HA2	1:B:1831:GLY:HA2	1.57	0.42
1:C:2:LYS:HE2	1:C:4:GLU:OE1	2.19	0.42
1:C:37:LYS:HB2	1:C:65:TYR:CE1	2.52	0.42
1:C:155:VAL:O	1:C:159:LEU:HG	2.19	0.42
1:C:301:ASP:C	1:C:302:LEU:HG	2.45	0.42
1:C:749:ILE:HD11	1:C:805:CYS:C	2.44	0.42
1:C:874:GLY:O	1:C:875:THR:C	2.63	0.42
1:C:1310:GLU:OE1	1:C:1649:LYS:CE	2.65	0.42
2:G:7:ARG:NH1	2:G:24:THR:CG2	2.79	0.42
2:G:184:VAL:HG12	2:G:184:VAL:O	2.19	0.42
2:G:237:SER:O	2:G:241:ILE:HG13	2.20	0.42
2:G:258:PHE:HD1	2:G:258:PHE:N	2.18	0.42
2:G:732:TRP:CH2	2:G:749:PRO:HG2	2.55	0.42
2:G:827:VAL:HG21	2:G:840:THR:CG2	2.49	0.42
2:G:1014:PRO:HG2	2:G:1032:ASP:HB2	2.01	0.42
2:G:1079:ASP:O	2:G:1082:ILE:HG22	2.19	0.42
2:G:1217:ASN:HD22	2:G:1217:ASN:HA	1.62	0.42
2:G:1383:ASN:OD1	2:G:1388:LYS:HG3	2.20	0.42
2:H:33:LEU:HD13	2:H:68:VAL:HG22	2.02	0.42
2:H:844:VAL:HG22	2:H:858:ALA:HB2	2.01	0.42
2:H:1223:MET:HE2	2:H:1223:MET:HB2	1.69	0.42
2:H:1642:THR:HB	2:H:1651:LEU:HB2	2.01	0.42
2:H:1854:MET:HE2	2:H:1972:ILE:HD12	2.01	0.42
2:I:732:TRP:CH2	2:I:749:PRO:HG2	2.55	0.42
1:A:155:VAL:HG22	1:A:186:ILE:CG2	2.50	0.42
1:A:444:ASN:CB	1:A:446:ALA:H	2.32	0.42
1:A:453:TYR:O	1:A:457:ASN:HB2	2.20	0.42
1:A:889:GLU:C	1:A:891:MET:H	2.27	0.42
1:A:1332:TYR:HB3	1:A:1382:ALA:CB	2.50	0.42
1:A:1618:LEU:HD23	1:A:1621:PHE:CE2	2.54	0.42
1:B:20:TYR:CZ	2:H:2035:SER:HB2	2.53	0.42
1:B:31:THR:CG2	2:H:2011:ILE:HG21	2.40	0.42
1:B:44:VAL:HG11	1:B:78:ILE:HG12	2.00	0.42
1:B:1189:ILE:HG23	1:B:1190:PRO:HD2	2.01	0.42
1:B:1539:ALA:O	1:B:1574:GLY:HA2	2.20	0.42
1:B:1705:PRO:HB2	1:B:1733:PHE:CD1	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1154:ILE:O	1:C:1154:ILE:HG13	2.20	0.42
1:C:1244:GLY:HA3	1:C:1297:PRO:HD2	2.02	0.42
2:G:865:TRP:CD1	2:G:865:TRP:C	2.97	0.42
2:G:892:ILE:HD11	2:G:903:TRP:CD2	2.51	0.42
2:G:1161:GLN:CB	2:G:1255:MET:HE3	2.47	0.42
2:G:1417:THR:C	2:G:1419:PHE:N	2.69	0.42
2:G:1666:PHE:CD1	2:G:1814:ALA:CB	3.02	0.42
2:G:1840:VAL:O	2:G:1840:VAL:HG13	2.18	0.42
2:G:2036:GLU:HB2	2:G:2037:PRO:CD	2.48	0.42
2:H:433:VAL:N	2:H:434:PRO:CD	2.83	0.42
2:H:641:ILE:CD1	2:H:645:SER:HB2	2.50	0.42
2:H:995:LEU:HB3	2:H:1000:ILE:CD1	2.50	0.42
2:H:1889:VAL:HG22	2:H:1977:HIS:O	2.19	0.42
2:I:257:GLY:C	2:I:258:PHE:HD1	2.27	0.42
2:I:360:LEU:HA	2:I:361:PRO:HD3	1.89	0.42
2:I:879:LYS:HD3	2:I:879:LYS:HA	1.73	0.42
2:I:1135:GLU:HG2	2:I:1176:PRO:HG2	2.02	0.42
2:I:1593:ILE:O	2:I:1597:ALA:HB3	2.20	0.42
1:A:32:GLN:HE21	1:A:57:ALA:HB2	1.85	0.42
1:A:350:LEU:HD23	1:A:350:LEU:HA	1.89	0.42
1:A:521:LYS:HB3	1:A:523:SER:HB3	2.01	0.42
1:A:998:TYR:CD2	1:A:1667:GLU:HG3	2.55	0.42
1:B:140:ILE:CG2	1:B:141:ALA:N	2.83	0.42
1:B:438:ASN:ND2	1:B:698:GLN:HE21	2.14	0.42
1:B:1175:ILE:HA	1:B:1176:PRO:HD3	1.89	0.42
1:C:19:ALA:O	1:C:22:PHE:HB2	2.19	0.42
1:C:180:SER:O	1:C:181:THR:C	2.62	0.42
1:C:529:MET:HE2	1:C:637:PHE:CB	2.50	0.42
1:C:1029:PRO:HA	1:C:1188:GLN:O	2.20	0.42
1:C:1370:THR:HG22	1:C:1371:THR:N	2.35	0.42
1:C:1592:MET:HE2	1:C:1641:ILE:HG23	2.01	0.42
1:C:1593:MET:HE3	1:C:1597:LEU:HG	2.01	0.42
2:G:298:LYS:HA	2:G:448:VAL:CG2	2.50	0.42
2:G:427:PHE:HB3	2:G:428:HIS:ND1	2.34	0.42
2:G:468:LEU:O	2:G:471:LEU:HB2	2.20	0.42
2:G:670:ARG:HD2	2:G:676:ILE:O	2.20	0.42
2:G:736:ARG:H	2:G:736:ARG:HG3	1.59	0.42
2:G:1236:LEU:HA	2:G:1237:PRO:HD3	1.76	0.42
2:G:1360:ILE:HA	2:G:1361:PRO:HD3	1.91	0.42
2:G:1782:THR:CG2	2:G:1827:LEU:HD21	2.48	0.42
2:H:23:PRO:HG2	2:H:86:LEU:HD11	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:234:ILE:HG13	2:H:235:PRO:CD	2.47	0.42
2:H:421:LEU:HA	2:H:422:PRO:HD3	1.78	0.42
2:H:1159:ILE:CG2	2:H:1160:THR:N	2.82	0.42
2:H:1180:MET:HB3	2:H:1199:GLU:HG2	2.02	0.42
2:H:1343:VAL:O	2:H:1343:VAL:HG22	2.20	0.42
2:H:1666:PHE:CD1	2:H:1814:ALA:CB	3.03	0.42
2:H:1855:ILE:HB	2:H:1907:LEU:HD12	2.01	0.42
2:H:2036:GLU:HB2	2:H:2037:PRO:CD	2.47	0.42
2:I:258:PHE:N	2:I:258:PHE:CD1	2.87	0.42
2:I:804:ARG:NH2	2:I:1068:GLU:OE1	2.53	0.42
2:I:1214:LEU:HD11	2:I:1220:GLN:NE2	2.35	0.42
2:I:1335:ILE:O	2:I:1338:ILE:HG12	2.20	0.42
2:I:1738:PHE:HE1	2:I:1837:THR:HG23	1.85	0.42
1:A:32:GLN:NE2	1:A:57:ALA:CA	2.83	0.41
1:A:1019:ILE:HG21	1:A:1316:VAL:HG22	2.01	0.41
1:A:1279:PHE:HB2	1:A:1282:THR:HG23	2.01	0.41
1:A:1308:SER:HB3	1:A:1589:GLY:HA3	2.01	0.41
1:A:1657:HIS:CG	1:A:1658:PRO:HD2	2.55	0.41
1:B:1019:ILE:HG13	1:B:1316:VAL:HG13	2.02	0.41
1:B:1673:TYR:CZ	1:B:1677:VAL:HG21	2.55	0.41
1:C:12:ILE:HD11	2:I:2041:ILE:HD11	2.01	0.41
1:C:616:LEU:HB2	1:C:617:PRO:HD3	2.01	0.41
1:C:635:ILE:CG2	1:C:651:TYR:CG	3.03	0.41
1:C:1215:VAL:O	1:C:1219:VAL:HG23	2.20	0.41
2:G:439:ILE:HD12	2:G:484:ILE:HD11	2.01	0.41
2:G:638:VAL:HA	2:G:641:ILE:CG2	2.50	0.41
2:G:1128:LYS:HG2	2:G:1181:VAL:HG22	2.02	0.41
2:G:1496:LYS:CE	2:G:1693:ARG:HH21	2.28	0.41
2:G:1579:ILE:CD1	2:G:1615:MET:SD	3.08	0.41
2:H:240:LEU:O	2:H:244:ILE:HG13	2.19	0.41
2:H:258:PHE:HD1	2:H:258:PHE:N	2.18	0.41
2:H:896:ASN:O	2:H:1050:ARG:NH2	2.53	0.41
2:H:1173:VAL:CB	2:H:1221:MET:HE1	2.50	0.41
2:H:2010:TYR:O	2:H:2012:PRO:HD3	2.20	0.41
2:I:441:LYS:HG2	2:I:445:LYS:HE3	2.02	0.41
2:I:512:LEU:O	2:I:516:THR:HG23	2.20	0.41
2:I:659:LEU:O	2:I:663:ILE:HG12	2.20	0.41
2:I:1697:HIS:CE1	2:I:1829:GLU:CG	3.03	0.41
2:I:1815:LEU:O	2:I:1821:VAL:HG23	2.20	0.41
2:I:1980:TYR:HD1	2:I:1981:LEU:HD12	1.85	0.41
1:A:28:TRP:CE2	1:A:53:LEU:HD22	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:29:ILE:HD13	2:G:1894:GLU:HA	2.01	0.41
1:A:50:SER:CB	1:A:51:PRO:CD	2.98	0.41
1:A:56:MET:HB2	1:A:56:MET:HE3	1.72	0.41
1:A:280:GLU:O	1:A:284:LYS:HG3	2.21	0.41
1:A:340:ARG:NH1	1:A:344:GLN:CG	2.70	0.41
1:A:983:GLN:HE21	2:G:962:LYS:HD2	1.80	0.41
1:C:12:ILE:O	1:C:15:THR:HG23	2.20	0.41
1:C:56:MET:HE3	1:C:56:MET:HB2	1.79	0.41
1:C:1584:PRO:CG	1:C:1591:TRP:CZ3	3.03	0.41
2:G:236:ILE:HD13	2:G:236:ILE:C	2.45	0.41
2:G:717:ILE:HG23	2:G:760:HIS:CE1	2.55	0.41
2:G:992:GLU:OE1	2:G:992:GLU:HA	2.20	0.41
2:G:1553:TYR:OH	2:G:1583:MET:HB3	2.20	0.41
2:G:1755:ILE:HD11	2:G:1762:TYR:HB2	2.03	0.41
2:G:1868:GLN:HG3	2:G:1898:TYR:HH	1.84	0.41
2:G:2035:SER:OG	2:G:2037:PRO:HD2	2.21	0.41
2:H:15:SER:H	2:H:48:PHE:HE2	1.66	0.41
2:H:142:ASN:HB2	2:H:550:VAL:HG13	2.01	0.41
2:H:584:SER:CB	2:H:591:PRO:HG3	2.46	0.41
2:H:1713:ASN:HA	2:H:1714:PRO:HD3	1.89	0.41
2:I:84:LEU:HD23	2:I:84:LEU:HA	1.89	0.41
2:I:139:LYS:O	2:I:140:LYS:C	2.63	0.41
2:I:524:GLY:HA2	2:I:558:ASN:O	2.20	0.41
2:I:592:LEU:O	2:I:616:THR:HG23	2.19	0.41
2:I:1149:TRP:HA	2:I:1242:PHE:CD1	2.54	0.41
2:I:1495:THR:O	2:I:1496:LYS:HB2	2.20	0.41
1:A:1666:THR:HG23	1:A:1669:ARG:HB2	2.01	0.41
1:A:1784:ASP:O	1:A:1788:GLU:HB2	2.20	0.41
1:B:253:ARG:C	1:B:254:TRP:CD1	2.98	0.41
1:B:455:ILE:HD13	1:B:455:ILE:HA	1.84	0.41
1:B:852:ARG:HB3	1:B:858:TRP:HZ2	1.83	0.41
1:B:1047:LEU:O	1:B:1051:VAL:HG23	2.20	0.41
1:C:792:HIS:CE1	1:C:796:LEU:HD23	2.55	0.41
1:C:881:ASN:O	1:C:881:ASN:CG	2.63	0.41
1:C:1047:LEU:HD23	1:C:1047:LEU:HA	1.89	0.41
1:C:1208:VAL:HG13	1:C:1209:ASP:O	2.20	0.41
2:G:667:LYS:HD2	2:G:697:THR:CG2	2.38	0.41
2:G:888:ARG:O	2:G:892:ILE:HB	2.21	0.41
2:G:1258:ARG:O	2:G:1262:ILE:HG13	2.20	0.41
2:G:1359:MET:HB3	2:G:1606:ARG:NH2	2.35	0.41
2:G:1380:SER:HB3	2:G:1424:GLN:HB2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1624:THR:HB	2:G:1642:THR:CG2	2.50	0.41
2:H:1314:ARG:HD3	2:H:1314:ARG:HA	1.63	0.41
2:I:195:LEU:O	2:I:199:ILE:HG13	2.20	0.41
2:I:339:LEU:HD23	2:I:419:ARG:O	2.20	0.41
2:I:581:THR:O	2:I:585:LYS:HB2	2.20	0.41
2:I:807:ILE:HA	2:I:818:LYS:HG2	2.02	0.41
2:I:832:TRP:CD1	2:I:832:TRP:C	2.98	0.41
2:I:1493:LEU:HB3	2:I:1494:PRO:HD2	2.02	0.41
1:A:12:ILE:O	1:A:15:THR:HG23	2.20	0.41
1:A:28:TRP:CZ2	1:A:53:LEU:HD22	2.56	0.41
1:A:330:GLU:O	1:A:330:GLU:HG2	2.20	0.41
1:A:1154:ILE:O	1:A:1154:ILE:HG13	2.19	0.41
1:A:1305:CYS:SG	3:A:2748:CER:C5	3.08	0.41
1:A:1720:ALA:O	1:A:1721:ARG:HG2	2.21	0.41
1:B:378:LEU:HD12	1:B:378:LEU:HA	1.75	0.41
1:B:992:PHE:CD2	1:B:1399:PRO:HG3	2.55	0.41
1:B:1216:LEU:HD23	1:B:1216:LEU:HA	1.93	0.41
1:B:1448:ARG:HD2	1:B:1508:TRP:O	2.21	0.41
1:C:495:LYS:HA	1:C:496:PRO:HD3	1.86	0.41
1:C:496:PRO:HB2	1:C:519:VAL:HG12	2.02	0.41
1:C:521:LYS:HE2	1:C:605:LEU:HD11	2.02	0.41
1:C:719:GLN:HG3	1:C:720:SER:N	2.35	0.41
2:G:439:ILE:HD12	2:G:484:ILE:CD1	2.50	0.41
2:G:760:HIS:HA	2:G:761:PRO:HD3	1.85	0.41
2:G:846:VAL:HG13	2:G:865:TRP:CD1	2.55	0.41
2:G:950:PHE:O	2:G:953:ARG:HB3	2.20	0.41
2:H:455:ILE:HG12	2:H:469:ARG:CG	2.49	0.41
2:H:561:TRP:CG	2:H:754:TYR:HE2	2.39	0.41
2:H:601:THR:HB	2:H:620:ALA:HB2	2.01	0.41
2:H:1043:VAL:O	2:H:1044:VAL:C	2.62	0.41
2:H:1071:LYS:HE3	2:H:1075:ASP:OD2	2.20	0.41
2:H:1736:MET:HE2	2:H:1736:MET:HA	2.01	0.41
2:H:1886:VAL:HG22	2:H:1906:ALA:HB1	2.02	0.41
2:I:156:LEU:HD23	2:I:500:HIS:HB2	2.02	0.41
2:I:258:PHE:HD1	2:I:258:PHE:N	2.18	0.41
2:I:654:VAL:CG2	2:I:683:ALA:HB1	2.50	0.41
2:I:1021:LEU:HD22	2:I:1021:LEU:HA	1.61	0.41
2:I:1290:PHE:C	2:I:1290:PHE:CD2	2.98	0.41
2:I:1457:PHE:CD2	2:I:1459:LEU:HD23	2.55	0.41
2:I:1458:ASP:O	2:I:1462:LYS:HE3	2.21	0.41
1:A:9:LEU:HD21	2:G:2047:LYS:HD2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:12:ILE:O	1:A:16:GLU:HG2	2.20	0.41
1:A:82:SER:OG	1:A:83:LYS:HG3	2.20	0.41
1:A:93:ASP:O	1:A:94:PRO:C	2.63	0.41
1:A:1477:ILE:N	1:A:1478:PRO:CD	2.83	0.41
1:B:2:LYS:CD	2:H:2050:GLN:HB3	2.44	0.41
1:B:453:TYR:O	1:B:457:ASN:HB2	2.21	0.41
1:B:504:ASP:CB	1:B:508:ASN:HB2	2.49	0.41
1:B:949:GLU:O	1:B:953:VAL:HG12	2.21	0.41
1:B:1232:TYR:CE2	1:B:1701:LYS:HD2	2.55	0.41
1:B:1244:GLY:HA3	1:B:1297:PRO:HD2	2.03	0.41
1:B:1257:LEU:HA	1:B:1257:LEU:HD23	1.76	0.41
1:B:1303:GLY:H	1:B:1307:THR:CG2	2.31	0.41
1:B:1308:SER:HB3	1:B:1589:GLY:HA3	2.03	0.41
1:C:242:THR:HB	1:C:244:THR:HB	2.02	0.41
1:C:1408:ALA:O	1:C:1651:GLY:HA2	2.21	0.41
1:C:1443:LEU:HD23	1:C:1443:LEU:HA	1.77	0.41
1:C:1830:GLY:HA2	1:C:1831:GLY:HA2	1.57	0.41
2:G:598:THR:O	2:G:599:PRO:C	2.63	0.41
2:G:1243:ASN:OD1	2:G:1243:ASN:C	2.63	0.41
2:G:1706:ILE:HD12	2:G:1706:ILE:HA	1.89	0.41
2:G:1862:VAL:HG22	2:G:1863:ALA:N	2.36	0.41
2:H:231:LEU:HA	2:H:236:ILE:HD12	2.03	0.41
2:H:339:LEU:HD23	2:H:419:ARG:O	2.20	0.41
2:H:478:ARG:O	2:H:482:CYS:HB2	2.20	0.41
2:H:1819:ALA:O	2:H:1820:ASP:C	2.63	0.41
2:I:177:TYR:CD1	2:I:188:ILE:HG21	2.55	0.41
2:I:566:HIS:ND1	2:I:567:PRO:HD2	2.35	0.41
2:I:572:ASN:HD22	2:I:572:ASN:HA	1.70	0.41
2:I:712:ALA:O	2:I:716:VAL:HG23	2.21	0.41
2:I:780:TYR:HB2	2:I:799:PHE:HE2	1.85	0.41
2:I:800:LEU:HD23	2:I:800:LEU:H	1.85	0.41
2:I:1236:LEU:HD23	2:I:1236:LEU:C	2.46	0.41
2:I:1940:LEU:HD12	2:I:1941:PHE:N	2.35	0.41
1:A:253:ARG:C	1:A:254:TRP:HD1	2.28	0.41
1:A:370:GLU:O	1:A:373:ALA:HB3	2.20	0.41
1:A:932:PHE:O	1:A:934:PRO:HD3	2.20	0.41
1:A:1542:HIS:O	1:A:1543:GLY:C	2.64	0.41
1:A:1584:PRO:C	1:A:1585:LYS:HG2	2.46	0.41
1:A:1842:VAL:O	1:A:1843:ASN:O	2.39	0.41
1:B:238:PRO:CG	1:B:283:ALA:HB2	2.50	0.41
1:B:406:TRP:CD2	1:B:1619:GLU:HG3	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:495:LYS:HA	1:B:496:PRO:HD3	1.89	0.41
1:B:1066:ASN:HD22	1:B:1071:PRO:HA	1.86	0.41
1:B:1464:GLU:CD	1:B:1773:VAL:HG12	2.43	0.41
1:C:253:ARG:C	1:C:254:TRP:CD1	2.98	0.41
1:C:1709:GLU:H	1:C:1709:GLU:HG3	1.42	0.41
1:C:1784:ASP:O	1:C:1788:GLU:HB2	2.20	0.41
2:G:490:TRP:CZ2	2:G:512:LEU:HD21	2.55	0.41
2:G:563:GLU:O	2:G:564:GLU:C	2.64	0.41
2:G:597:MET:HA	4:G:3051:FMN:C5A	2.51	0.41
2:G:754:TYR:CG	2:G:794:MET:CG	3.04	0.41
2:G:1169:PRO:O	2:G:1173:VAL:HG23	2.20	0.41
2:G:1352:HIS:HD2	2:G:1410:PHE:CD2	2.38	0.41
2:G:1495:THR:O	2:G:1496:LYS:HB2	2.20	0.41
2:G:1642:THR:HB	2:G:1651:LEU:HB2	2.01	0.41
2:G:1815:LEU:O	2:G:1821:VAL:HG23	2.20	0.41
2:G:1979:THR:O	2:G:1982:MET:HB2	2.21	0.41
2:H:712:ALA:O	2:H:715:GLN:HB3	2.20	0.41
2:H:717:ILE:CG2	2:H:760:HIS:CE1	3.04	0.41
2:H:722:ALA:CB	2:H:723:HIS:CE1	3.04	0.41
2:H:950:PHE:O	2:H:953:ARG:HB3	2.20	0.41
2:H:1091:GLY:C	2:H:1093:ASP:H	2.27	0.41
2:H:1236:LEU:HD22	2:H:1238:LEU:HG	2.03	0.41
2:H:1290:PHE:CD2	2:H:1290:PHE:C	2.99	0.41
2:H:1676:MET:HE1	2:H:1781:LEU:CD2	2.49	0.41
2:H:1680:LEU:HD13	2:H:1687:ALA:CB	2.45	0.41
2:I:96:LEU:C	2:I:98:GLY:H	2.29	0.41
2:I:624:TYR:CB	2:I:630:MET:HE3	2.50	0.41
2:I:638:VAL:HG22	2:I:675:PRO:HG2	2.03	0.41
2:I:663:ILE:HG13	2:I:694:TYR:CE1	2.51	0.41
2:I:1423:PHE:CD1	2:I:1423:PHE:N	2.71	0.41
2:I:1736:MET:HA	2:I:1736:MET:HE2	2.03	0.41
1:A:1:MET:HE3	1:A:6:GLU:HA	1.99	0.41
1:A:32:GLN:O	1:A:36:LEU:HB2	2.21	0.41
1:A:774:ILE:HA	1:A:775:PRO:HD3	1.76	0.41
1:A:988:ILE:HD13	1:A:1048:GLU:CG	2.50	0.41
1:B:1105:LEU:HD23	1:B:1105:LEU:HA	1.89	0.41
1:B:1126:ILE:CD1	1:B:1172:THR:HG22	2.51	0.41
1:B:1666:THR:HG23	1:B:1669:ARG:CB	2.50	0.41
1:C:35:PHE:HA	1:C:39:PHE:HD2	1.86	0.41
1:C:1009:LEU:HA	1:C:1445:MET:HE2	2.03	0.41
1:C:1119:LYS:HE2	1:C:1341:PHE:CG	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1131:LEU:HA	1:C:1131:LEU:HD12	1.69	0.41
1:C:1418:VAL:N	1:C:1419:PRO:CD	2.83	0.41
2:G:246:LEU:HD12	2:G:246:LEU:HA	1.82	0.41
2:G:425:SER:HA	2:G:426:PRO:HD3	1.79	0.41
2:G:503:ASP:C	2:G:503:ASP:OD1	2.63	0.41
2:G:571:LYS:HB2	2:G:1099:ALA:HB2	2.02	0.41
2:G:587:ILE:HD11	2:G:589:ARG:HB2	2.03	0.41
2:G:835:THR:HG21	2:G:855:HIS:NE2	2.35	0.41
2:G:843:ILE:CD1	2:G:1055:HIS:HB3	2.50	0.41
2:G:1344:ASP:O	2:G:1416:TYR:HE2	2.03	0.41
2:G:1427:VAL:HG22	2:G:1469:GLU:CG	2.51	0.41
2:H:11:LEU:HD23	2:H:11:LEU:HA	1.93	0.41
2:H:821:ILE:HA	2:H:857:ILE:HD11	2.02	0.41
2:H:827:VAL:HG12	2:H:828:PRO:O	2.19	0.41
2:H:1128:LYS:HG2	2:H:1181:VAL:HG22	2.01	0.41
2:I:159:ILE:HD11	2:I:512:LEU:CG	2.49	0.41
2:I:463:PHE:O	2:I:463:PHE:HD2	2.04	0.41
2:I:595:PRO:HD3	2:I:800:LEU:HB2	2.01	0.41
2:I:634:ILE:CD1	2:I:649:ILE:HD11	2.44	0.41
2:I:1270:TRP:C	2:I:1271:ILE:HD13	2.45	0.41
2:I:1357:TYR:HD1	2:I:1406:VAL:HG22	1.85	0.41
2:I:1601:VAL:O	2:I:1602:SER:C	2.63	0.41
2:I:1642:THR:HB	2:I:1651:LEU:HB2	2.03	0.41
2:I:1981:LEU:HD12	2:I:1981:LEU:N	2.36	0.41
1:A:16:GLU:OE2	1:A:16:GLU:HA	2.21	0.41
1:A:91:THR:HA	1:A:92:PRO:HD3	1.81	0.41
1:A:441:ASN:OD1	1:A:488:PRO:HA	2.21	0.41
1:A:1239:HIS:HE1	1:A:1714:VAL:O	2.03	0.41
1:B:521:LYS:HB3	1:B:523:SER:HB3	2.03	0.41
1:B:949:GLU:O	1:B:953:VAL:CG1	2.68	0.41
1:C:529:MET:CE	1:C:894:ARG:HD2	2.46	0.41
1:C:658:LEU:HD13	1:C:916:LEU:HD12	2.02	0.41
1:C:1420:ALA:HA	1:C:1421:PRO:HD3	1.78	0.41
2:G:123:ILE:CD1	2:G:533:LEU:HD23	2.50	0.41
2:G:131:ILE:HD12	2:G:182:VAL:CG1	2.49	0.41
2:G:236:ILE:HG12	2:G:240:LEU:HD22	2.02	0.41
2:G:270:ALA:O	2:G:459:VAL:HA	2.20	0.41
2:G:1070:ILE:HD13	2:G:1070:ILE:O	2.21	0.41
2:G:1428:GLU:CG	2:G:1468:THR:HG22	2.51	0.41
2:H:159:ILE:HG12	2:H:512:LEU:HD23	2.02	0.41
2:H:320:PRO:HA	2:H:321:PRO:HD3	1.92	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:674:TYR:HA	2:H:675:PRO:HD3	1.73	0.41
2:H:719:ILE:HG12	2:H:719:ILE:H	1.63	0.41
2:H:805:VAL:O	2:H:805:VAL:HG12	2.21	0.41
2:H:1662:THR:HB	2:H:1799:PRO:HG2	2.02	0.41
2:H:1959:LYS:O	2:H:1959:LYS:HG2	2.20	0.41
2:I:304:PHE:CD1	2:I:304:PHE:C	2.99	0.41
2:I:478:ARG:C	2:I:478:ARG:HD3	2.45	0.41
2:I:705:LEU:HD23	2:I:705:LEU:HA	1.80	0.41
2:I:786:SER:HB3	2:I:794:MET:HE2	2.02	0.41
2:I:1343:VAL:O	2:I:1343:VAL:HG22	2.20	0.41
2:I:1374:THR:HG23	2:I:1396:LEU:CD1	2.49	0.41
2:I:1631:MET:HE3	2:I:1631:MET:HB3	1.87	0.41
2:I:2035:SER:OG	2:I:2037:PRO:HD2	2.21	0.41
1:A:152:HIS:HD2	1:A:163:LEU:CB	2.32	0.41
1:A:253:ARG:O	1:A:254:TRP:CD1	2.74	0.41
1:A:438:ASN:HD21	1:A:698:GLN:HE21	1.68	0.41
1:A:489:VAL:HG22	1:A:670:GLY:C	2.46	0.41
1:A:612:GLU:O	1:A:615:SER:HB3	2.21	0.41
1:A:719:GLN:HG3	1:A:720:SER:N	2.36	0.41
1:A:930:LEU:HD22	1:A:933:VAL:CG1	2.51	0.41
1:A:1135:GLU:OE2	1:B:244:THR:OG1	2.31	0.41
1:A:1346:MET:HE1	1:A:1419:PRO:HG3	2.02	0.41
1:B:56:MET:HE3	1:B:56:MET:HB2	1.83	0.41
1:B:444:ASN:CB	1:B:446:ALA:H	2.31	0.41
1:B:1418:VAL:N	1:B:1419:PRO:CD	2.83	0.41
1:B:1618:LEU:HD23	1:B:1621:PHE:HE2	1.85	0.41
1:B:1657:HIS:CG	1:B:1658:PRO:HD2	2.55	0.41
1:B:1709:GLU:H	1:B:1709:GLU:HG3	1.45	0.41
1:C:32:GLN:HE22	1:C:57:ALA:N	2.19	0.41
1:C:453:TYR:O	1:C:457:ASN:HB2	2.19	0.41
1:C:683:ALA:HA	1:C:689:GLY:HA3	2.02	0.41
1:C:739:GLN:HB3	1:C:794:ILE:HG23	2.03	0.41
1:C:825:PRO:HB2	1:C:843:LYS:HZ2	1.85	0.41
1:C:949:GLU:O	1:C:953:VAL:HG12	2.21	0.41
1:C:1076:VAL:CG1	1:C:1081:LYS:HA	2.50	0.41
1:C:1239:HIS:CD2	1:C:1241:SER:H	2.38	0.41
1:C:1431:GLU:HG3	1:C:1431:GLU:O	2.19	0.41
1:C:1542:HIS:O	1:C:1543:GLY:C	2.64	0.41
1:C:1705:PRO:HB2	1:C:1733:PHE:CD1	2.56	0.41
1:C:1748:ASN:C	1:C:1750:ILE:N	2.78	0.41
1:C:1829:GLY:O	1:C:1830:GLY:O	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1842:VAL:O	1:C:1843:ASN:O	2.39	0.41
2:G:258:PHE:N	2:G:258:PHE:CD1	2.87	0.41
2:G:260:PRO:HD3	2:G:289:TRP:CZ2	2.54	0.41
2:G:735:GLY:O	2:G:741:HIS:CD2	2.73	0.41
2:G:748:THR:CB	2:G:749:PRO:HD3	2.47	0.41
2:G:780:TYR:HB2	2:G:799:PHE:CE2	2.56	0.41
2:G:995:LEU:HB3	2:G:1000:ILE:CD1	2.50	0.41
2:G:1210:ILE:O	2:G:1210:ILE:HG22	2.19	0.41
2:G:1352:HIS:CD2	2:G:1410:PHE:CD2	3.09	0.41
2:G:1509:GLY:O	2:G:1510:ALA:C	2.63	0.41
2:G:1778:GLN:HB2	2:G:1779:PRO:HD3	2.02	0.41
2:G:1884:TRP:HB3	2:G:1885:LEU:H	1.74	0.41
2:G:1889:VAL:HG22	2:G:1977:HIS:O	2.20	0.41
2:G:1981:LEU:HD12	2:G:1981:LEU:N	2.36	0.41
2:G:1989:LYS:NZ	2:G:2037:PRO:HG2	2.35	0.41
2:H:195:LEU:O	2:H:199:ILE:HG13	2.20	0.41
2:H:425:SER:HA	2:H:426:PRO:HD3	1.78	0.41
2:H:615:TYR:CE2	2:H:1074:MET:HB3	2.56	0.41
2:H:624:TYR:CG	2:H:630:MET:HE3	2.56	0.41
2:H:750:MET:CA	2:H:750:MET:HE2	2.50	0.41
2:H:753:MET:O	2:H:757:ILE:HG13	2.21	0.41
2:H:804:ARG:NH2	2:H:1068:GLU:OE1	2.54	0.41
2:H:827:VAL:HG21	2:H:840:THR:CG2	2.51	0.41
2:H:892:ILE:HD11	2:H:903:TRP:CD2	2.53	0.41
2:H:1213:LEU:O	2:H:1214:LEU:HD23	2.19	0.41
2:H:1243:ASN:OD1	2:H:1243:ASN:C	2.63	0.41
2:H:1270:TRP:HZ3	2:H:1347:LEU:HD21	1.85	0.41
2:H:1300:PHE:CB	2:H:1556:VAL:HG11	2.50	0.41
2:H:1509:GLY:O	2:H:1510:ALA:C	2.63	0.41
2:H:1589:VAL:HG21	2:H:1651:LEU:HD12	2.02	0.41
2:H:1815:LEU:O	2:H:1821:VAL:HG23	2.21	0.41
2:H:1868:GLN:HG3	2:H:1898:TYR:HH	1.83	0.41
2:I:248:HIS:CE1	2:I:531:GLY:HA2	2.55	0.41
2:I:520:LYS:O	2:I:521:ASP:C	2.62	0.41
2:I:582:LYS:HE2	2:I:761:PRO:O	2.21	0.41
2:I:827:VAL:HG12	2:I:828:PRO:O	2.20	0.41
2:I:1219:ILE:HB	2:I:1240:TYR:HB2	2.03	0.41
2:I:1514:ASN:HA	2:I:1515:PRO:HD3	1.86	0.41
2:I:1579:ILE:CD1	2:I:1615:MET:SD	3.09	0.41
1:A:36:LEU:O	1:A:76:ARG:NH1	2.53	0.41
1:A:908:LEU:O	1:A:913:VAL:HG22	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1705:PRO:HB2	1:A:1733:PHE:CD1	2.56	0.41
1:B:32:GLN:HE22	1:B:57:ALA:CA	2.34	0.41
1:B:82:SER:OG	1:B:83:LYS:HG3	2.20	0.41
1:B:187:LEU:CD2	1:B:201:PRO:HB2	2.51	0.41
1:B:197:THR:HG22	1:B:198:PRO:O	2.21	0.41
1:B:427:ASN:ND2	1:B:610:THR:H	2.14	0.41
1:B:489:VAL:HG22	1:B:670:GLY:HA3	2.02	0.41
1:B:504:ASP:O	1:B:954:ARG:HD3	2.21	0.41
1:B:1029:PRO:HG2	1:B:1581:THR:O	2.21	0.41
1:C:237:MET:HA	1:C:238:PRO:HD3	1.93	0.41
1:C:294:TYR:CZ	1:C:298:VAL:HG21	2.55	0.41
1:C:427:ASN:HB2	1:C:468:LEU:CD2	2.51	0.41
1:C:644:THR:HG23	1:C:648:ASP:N	2.34	0.41
1:C:1019:ILE:HG13	1:C:1316:VAL:HG13	2.03	0.41
1:C:1666:THR:HG23	1:C:1669:ARG:CB	2.51	0.41
2:G:44:PRO:HA	2:G:53:GLU:OE2	2.21	0.41
2:G:339:LEU:HB2	2:G:386:LEU:HD22	2.03	0.41
2:G:455:ILE:HD13	2:G:457:ILE:O	2.21	0.41
2:H:1063:THR:O	2:H:1063:THR:HG22	2.21	0.41
2:H:1387:GLY:HA2	2:H:1414:GLY:O	2.21	0.41
2:H:1949:LYS:O	2:H:1953:VAL:HG23	2.21	0.41
2:I:118:LYS:O	2:I:121:GLU:HB2	2.20	0.41
2:I:319:LEU:HD22	2:I:319:LEU:HA	1.67	0.41
2:I:717:ILE:O	2:I:720:ALA:HB3	2.21	0.41
2:I:754:TYR:CG	2:I:794:MET:CG	3.04	0.41
2:I:827:VAL:HG21	2:I:840:THR:CG2	2.51	0.41
2:I:1327:ILE:O	2:I:1331:TRP:HB2	2.21	0.41
2:I:2020:GLN:HA	2:I:2020:GLN:NE2	2.36	0.41
1:A:29:ILE:HG13	2:G:1891:TYR:C	2.45	0.40
1:A:29:ILE:HG21	2:G:1894:GLU:HB2	2.04	0.40
1:A:197:THR:HG22	1:A:198:PRO:O	2.21	0.40
1:A:232:LEU:O	1:A:236:LYS:HB2	2.21	0.40
1:A:681:THR:HA	1:A:706:THR:OG1	2.21	0.40
1:A:929:GLY:C	1:A:931:GLN:N	2.79	0.40
1:A:1418:VAL:N	1:A:1419:PRO:CD	2.84	0.40
1:B:91:THR:HA	1:B:92:PRO:HD3	1.81	0.40
1:B:413:LEU:C	1:B:415:SER:N	2.79	0.40
1:B:483:VAL:O	1:B:483:VAL:HG12	2.21	0.40
1:B:933:VAL:HA	1:B:934:PRO:HD3	1.63	0.40
1:B:989:GLN:NE2	2:H:993:GLN:OE1	2.53	0.40
1:B:998:TYR:CD2	1:B:1667:GLU:HG3	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1056:ILE:HG13	1:B:1057:MET:N	2.36	0.40
1:B:1557:ILE:HD11	1:B:1642:THR:HG21	2.03	0.40
1:C:187:LEU:CD2	1:C:201:PRO:HB2	2.51	0.40
1:C:1308:SER:OG	1:C:1590:ALA:N	2.54	0.40
1:C:1584:PRO:C	1:C:1585:LYS:HG2	2.46	0.40
2:G:73:GLU:OE2	2:G:76:LYS:HD2	2.21	0.40
2:G:159:ILE:HG12	2:G:512:LEU:HD23	2.03	0.40
2:G:430:HIS:CE1	2:G:431:LEU:HD13	2.56	0.40
2:G:786:SER:HB3	2:G:794:MET:HE2	2.02	0.40
2:G:938:TRP:CD1	2:G:944:ARG:HG3	2.56	0.40
2:G:1343:VAL:O	2:G:1343:VAL:HG22	2.20	0.40
2:G:1819:ALA:O	2:G:1820:ASP:C	2.64	0.40
2:G:1844:ARG:HD2	2:G:1848:GLY:O	2.21	0.40
2:H:338:MET:HG3	2:H:423:VAL:HG21	2.02	0.40
2:H:478:ARG:HD3	2:H:478:ARG:C	2.46	0.40
2:H:888:ARG:O	2:H:892:ILE:HB	2.21	0.40
2:H:1227:ARG:CZ	2:H:1565:VAL:HG12	2.51	0.40
2:I:247:ALA:O	2:I:251:VAL:HG13	2.21	0.40
2:I:280:ALA:O	2:I:283:ILE:HG22	2.21	0.40
2:I:846:VAL:CG2	2:I:866:LYS:HB2	2.51	0.40
2:I:1880:LYS:HE3	2:I:1880:LYS:HB2	1.90	0.40
2:I:1889:VAL:HG21	2:I:1901:ALA:HB3	2.03	0.40
2:I:2036:GLU:HB2	2:I:2037:PRO:CD	2.47	0.40
2:I:2039:LYS:HA	2:I:2042:ILE:HG13	2.03	0.40
1:A:23:ALA:O	2:G:1977:HIS:HA	2.20	0.40
1:A:44:VAL:HG13	1:A:78:ILE:HG12	1.99	0.40
1:A:451:MET:HE1	1:A:476:LEU:HB3	2.04	0.40
1:A:833:PHE:O	1:A:834:GLY:O	2.39	0.40
1:A:1021:VAL:HG11	1:A:1597:LEU:CD1	2.50	0.40
1:A:1146:HIS:O	1:A:1146:HIS:HD2	2.04	0.40
1:A:1665:ILE:HD11	1:A:1669:ARG:CG	2.51	0.40
1:B:1583:HIS:HA	1:B:1584:PRO:HD3	1.84	0.40
1:B:1829:GLY:O	1:B:1830:GLY:O	2.39	0.40
1:C:148:SER:O	1:C:152:HIS:HB2	2.21	0.40
1:C:411:GLN:O	1:C:415:SER:HB2	2.21	0.40
1:C:1105:LEU:HD23	1:C:1105:LEU:HA	1.84	0.40
1:C:1233:GLU:CD	1:C:1680:ARG:NH2	2.78	0.40
2:G:562:LEU:HD23	2:G:562:LEU:HA	1.85	0.40
2:G:601:THR:HB	2:G:620:ALA:HB2	2.01	0.40
2:G:638:VAL:O	2:G:641:ILE:HG22	2.20	0.40
2:G:805:VAL:O	2:G:805:VAL:HG12	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:827:VAL:HG12	2:G:828:PRO:O	2.21	0.40
2:G:832:TRP:CD1	2:G:832:TRP:C	2.99	0.40
2:G:1227:ARG:NE	2:G:1565:VAL:HG12	2.36	0.40
2:G:1678:MET:HG2	2:G:1711:ILE:HG12	2.03	0.40
2:G:1940:LEU:HD12	2:G:1941:PHE:N	2.37	0.40
2:H:203:LEU:HD12	2:H:203:LEU:HA	1.91	0.40
2:H:462:THR:HB	2:H:482:CYS:SG	2.61	0.40
2:H:590:PRO:HA	2:H:591:PRO:HD3	1.81	0.40
2:H:638:VAL:HA	2:H:641:ILE:CG2	2.52	0.40
2:H:723:HIS:ND1	2:H:723:HIS:N	2.70	0.40
2:H:960:LYS:HA	2:H:960:LYS:CE	2.44	0.40
2:H:1214:LEU:HD11	2:H:1220:GLN:NE2	2.36	0.40
2:H:1506:TYR:CZ	2:H:1515:PRO:HG2	2.56	0.40
2:H:1609:THR:O	2:H:1653:GLY:HA3	2.21	0.40
2:I:55:THR:HB	2:I:59:GLU:CD	2.46	0.40
2:I:236:ILE:C	2:I:236:ILE:HD13	2.45	0.40
2:I:246:LEU:HA	2:I:246:LEU:HD12	1.79	0.40
2:I:536:ASN:HD21	2:I:540:ASP:HB3	1.85	0.40
2:I:543:PHE:CB	2:I:545:GLN:NE2	2.82	0.40
2:I:703:LEU:HD23	2:I:705:LEU:HG	2.04	0.40
2:I:816:ASP:HB3	2:I:1048:VAL:HG21	2.03	0.40
2:I:1091:GLY:O	2:I:1093:ASP:N	2.55	0.40
2:I:1339:PHE:N	2:I:1340:PRO:CD	2.85	0.40
2:I:1359:MET:HB3	2:I:1606:ARG:NH2	2.36	0.40
2:I:1889:VAL:HG13	2:I:1977:HIS:HB3	2.00	0.40
1:A:238:PRO:CG	1:A:283:ALA:HB2	2.51	0.40
1:A:852:ARG:NH1	1:A:852:ARG:CG	2.73	0.40
1:B:221:LEU:HD23	1:B:221:LEU:HA	1.94	0.40
1:B:293:LYS:O	1:B:297:ILE:HG13	2.20	0.40
1:B:774:ILE:HA	1:B:775:PRO:HD3	1.74	0.40
1:B:1303:GLY:CA	1:B:1307:THR:HG22	2.52	0.40
1:B:1346:MET:HE1	1:B:1419:PRO:HG3	2.03	0.40
1:C:43:ARG:O	2:I:1662:THR:HA	2.22	0.40
1:C:776:GLU:OE1	1:C:795:MET:HE1	2.22	0.40
1:C:1303:GLY:CA	1:C:1307:THR:HG22	2.52	0.40
2:G:248:HIS:CE1	2:G:531:GLY:HA2	2.56	0.40
2:G:319:LEU:HA	2:G:319:LEU:HD22	1.62	0.40
2:G:391:LEU:CD2	2:G:394:ARG:NH2	2.85	0.40
2:G:441:LYS:HG2	2:G:445:LYS:HE3	2.02	0.40
2:G:582:LYS:HE2	2:G:761:PRO:O	2.22	0.40
2:G:852:GLU:H	2:G:852:GLU:HG3	1.40	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1360:ILE:HG23	2:G:1403:VAL:C	2.45	0.40
2:G:1637:LEU:HD23	2:G:1637:LEU:HA	1.77	0.40
2:G:1875:VAL:HA	2:G:1878:VAL:CG1	2.52	0.40
2:H:517:HIS:HB2	2:H:527:VAL:HG21	2.04	0.40
2:H:517:HIS:CE1	2:H:540:ASP:O	2.75	0.40
2:H:560:ASN:O	2:H:562:LEU:N	2.54	0.40
2:H:810:GLU:OE2	2:H:1070:ILE:N	2.45	0.40
2:H:912:ARG:HB2	2:H:916:THR:HG23	2.03	0.40
2:H:1166:VAL:CG1	2:H:1167:SER:N	2.85	0.40
2:H:1199:GLU:CD	2:H:1567:ARG:NH1	2.77	0.40
2:H:1597:ALA:HB1	2:H:1657:ILE:HD12	2.02	0.40
2:H:1845:ASP:CG	2:H:1849:ARG:HB2	2.46	0.40
2:I:612:ASN:HD21	2:I:641:ILE:HA	1.84	0.40
2:I:864:LEU:HD13	2:I:894:ARG:HB3	2.04	0.40
2:I:1213:LEU:O	2:I:1214:LEU:HD23	2.20	0.40
2:I:1271:ILE:HG22	2:I:1273:GLU:HB2	2.04	0.40
2:I:1855:ILE:HB	2:I:1907:LEU:HD12	2.02	0.40
1:A:157:HIS:CE1	1:A:269:LEU:HD11	2.57	0.40
1:A:427:ASN:O	1:A:427:ASN:CG	2.64	0.40
1:A:916:LEU:HD22	1:A:922:VAL:HG22	2.02	0.40
1:A:1209:ASP:OD1	1:A:1210:PRO:HD2	2.21	0.40
1:A:1593:MET:HE3	1:A:1597:LEU:HG	2.04	0.40
1:B:12:ILE:O	1:B:16:GLU:HG2	2.20	0.40
1:B:74:LEU:HD12	1:B:74:LEU:O	2.22	0.40
1:B:509:ILE:H	1:B:509:ILE:HG13	1.50	0.40
1:B:1233:GLU:CD	1:B:1680:ARG:NH2	2.79	0.40
1:B:1370:THR:HG22	1:B:1371:THR:N	2.36	0.40
1:C:406:TRP:CZ3	1:C:407:ASN:HB2	2.57	0.40
1:C:655:LEU:HA	1:C:655:LEU:HD23	1.79	0.40
1:C:1063:HIS:CE1	1:C:1067:LEU:CD2	3.04	0.40
1:C:1195:ALA:HB1	1:C:1200:ILE:HD12	2.03	0.40
1:C:1639:VAL:HG12	1:C:1640:SER:N	2.35	0.40
1:C:1749:THR:O	1:C:1874:ASP:HB3	2.21	0.40
2:G:260:PRO:HD3	2:G:289:TRP:CD2	2.56	0.40
2:H:538:ASP:HB2	2:H:540:ASP:HB2	2.03	0.40
2:H:607:VAL:HG23	2:H:617:ILE:CG2	2.51	0.40
2:H:1173:VAL:HG21	2:H:1221:MET:HE1	2.04	0.40
2:H:1281:PRO:O	2:H:1378:ILE:HG23	2.22	0.40
2:H:1593:ILE:HD13	2:H:1626:ILE:CD1	2.51	0.40
2:H:1716:ASN:HA	2:H:1770:LEU:HD11	2.04	0.40
2:H:1819:ALA:C	2:H:2005:ARG:NH1	2.80	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:240:LEU:HD12	2:I:240:LEU:HA	1.81	0.40
2:I:717:ILE:CG2	2:I:760:HIS:CE1	3.05	0.40
2:I:812:LYS:HD3	2:I:812:LYS:HA	1.82	0.40
1:A:350:LEU:HB2	1:A:352:MET:HG2	2.03	0.40
1:A:427:ASN:HB2	1:A:468:LEU:CD2	2.51	0.40
1:A:1748:ASN:C	1:A:1750:ILE:N	2.77	0.40
1:B:709:ARG:O	1:B:714:VAL:HG21	2.21	0.40
1:B:1577:GLN:NE2	1:B:1591:TRP:HB3	2.36	0.40
1:B:1584:PRO:C	1:B:1585:LYS:HG2	2.46	0.40
1:C:187:LEU:HD11	1:C:202:GLU:HG3	2.03	0.40
1:C:413:LEU:HD13	1:C:451:MET:HG2	2.03	0.40
2:G:119:THR:HG22	2:G:120:LYS:N	2.36	0.40
2:G:139:LYS:O	2:G:140:LYS:C	2.64	0.40
2:G:533:LEU:O	2:G:533:LEU:HG	2.21	0.40
2:G:606:PHE:HZ	2:G:805:VAL:CG1	2.33	0.40
2:G:1158:PHE:C	2:G:1159:ILE:HD13	2.46	0.40
2:G:1830:VAL:HA	2:G:1991:PHE:HE2	1.86	0.40
2:G:2039:LYS:HA	2:G:2042:ILE:HG13	2.03	0.40
2:H:156:LEU:HD23	2:H:500:HIS:HB2	2.04	0.40
2:H:233:SER:HA	2:H:424:ALA:HB3	2.03	0.40
2:H:283:ILE:HD12	2:H:283:ILE:HA	1.89	0.40
2:H:298:LYS:HA	2:H:448:VAL:CG2	2.52	0.40
2:H:441:LYS:O	2:H:445:LYS:HG3	2.22	0.40
2:H:630:MET:HE3	2:H:630:MET:HB2	1.94	0.40
2:H:816:ASP:HB3	2:H:1048:VAL:CG2	2.52	0.40
2:H:1223:MET:HE3	2:H:1238:LEU:CD1	2.51	0.40
2:H:1327:ILE:HA	2:H:1327:ILE:HD12	1.77	0.40
2:I:225:THR:HA	2:I:226:PRO:HD3	1.98	0.40
2:I:601:THR:O	2:I:601:THR:CG2	2.68	0.40

All (54) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1784:ASP:CA	2:G:1087:HIS:CE1[7_655]	0.16	2.04
1:A:1784:ASP:CG	2:I:1087:HIS:CE1[7_545]	0.52	1.68
1:C:1784:ASP:C	2:G:1087:HIS:NE2[7_655]	0.54	1.66
1:C:1784:ASP:CB	2:G:1087:HIS:ND1[7_655]	0.56	1.64
1:A:1784:ASP:OD2	2:I:1087:HIS:ND1[7_545]	0.58	1.62
1:B:1480:GLU:OE2	2:H:290:GLU:CB[6_555]	0.74	1.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1784:ASP:CB	2:G:1087:HIS:CG[7_655]	0.83	1.37
1:A:1784:ASP:CG	2:I:1087:HIS:NE2[7_545]	0.91	1.29
1:A:1784:ASP:CB	2:I:1087:HIS:NE2[7_545]	0.97	1.23
1:A:1784:ASP:OD2	2:I:1087:HIS:CE1[7_545]	1.05	1.15
1:C:1784:ASP:CA	2:G:1087:HIS:ND1[7_655]	1.19	1.01
1:A:1784:ASP:OD2	2:I:1087:HIS:CG[7_545]	1.20	1.00
1:C:1784:ASP:O	2:G:1087:HIS:NE2[7_655]	1.22	0.98
1:B:1480:GLU:CD	2:H:290:GLU:CB[6_555]	1.29	0.91
2:G:77:VAL:CB	2:I:1929:LYS:CD[6_455]	1.31	0.89
1:A:1784:ASP:OD1	2:I:1087:HIS:CE1[7_545]	1.38	0.82
1:C:1784:ASP:C	2:G:1087:HIS:CE1[7_655]	1.38	0.82
1:C:1784:ASP:CA	2:G:1087:HIS:NE2[7_655]	1.42	0.78
1:B:1480:GLU:OE2	2:H:290:GLU:CG[6_555]	1.43	0.77
1:C:1784:ASP:N	2:G:1087:HIS:CE1[7_655]	1.46	0.74
2:G:77:VAL:CG2	2:I:1929:LYS:NZ[6_455]	1.46	0.74
1:C:1784:ASP:CG	2:G:1087:HIS:ND1[7_655]	1.47	0.73
2:G:77:VAL:CG2	2:I:1929:LYS:CE[6_455]	1.51	0.69
1:A:1784:ASP:OD2	2:I:1087:HIS:NE2[7_545]	1.60	0.60
1:A:1784:ASP:CG	2:I:1087:HIS:ND1[7_545]	1.64	0.56
1:C:1784:ASP:CB	2:G:1087:HIS:CE1[7_655]	1.64	0.56
2:G:79:GLN:OE1	2:I:1930:SER:O[6_455]	1.64	0.56
1:A:1784:ASP:OD2	2:I:1087:HIS:CD2[7_545]	1.68	0.52
1:C:1785:THR:N	2:G:1087:HIS:NE2[7_655]	1.70	0.50
2:G:77:VAL:CB	2:I:1929:LYS:CE[6_455]	1.71	0.49
1:C:1784:ASP:CB	2:G:1087:HIS:CD2[7_655]	1.81	0.39
1:B:1480:GLU:OE1	2:H:290:GLU:CB[6_555]	1.83	0.37
1:A:1784:ASP:CB	2:I:1087:HIS:CE1[7_545]	1.84	0.36
1:C:1784:ASP:C	2:G:1087:HIS:CD2[7_655]	1.86	0.34
2:G:77:VAL:O	2:I:1929:LYS:CB[6_455]	1.92	0.28
2:G:77:VAL:O	2:I:1929:LYS:CA[6_455]	1.93	0.27
1:A:1784:ASP:CG	2:I:1087:HIS:CD2[7_545]	1.94	0.26
2:G:77:VAL:CG1	2:I:1929:LYS:CD[6_455]	1.95	0.25
1:C:1784:ASP:CG	2:G:1087:HIS:CG[7_655]	1.97	0.23
2:G:77:VAL:O	2:I:1929:LYS:CG[6_455]	1.97	0.23
1:A:1784:ASP:OD1	2:I:1087:HIS:NE2[7_545]	1.98	0.22
1:C:1784:ASP:N	2:G:1087:HIS:ND1[7_655]	1.98	0.22
1:C:1784:ASP:CB	2:G:1087:HIS:CB[7_655]	2.03	0.17
1:C:1784:ASP:OD2	2:G:1087:HIS:CB[7_655]	2.03	0.17
2:H:6:THR:CG2	2:I:1935:GLU:OE2[6_455]	2.05	0.15
2:H:6:THR:CG2	2:I:1935:GLU:CD[6_455]	2.06	0.14
1:C:1784:ASP:OD1	2:G:1087:HIS:ND1[7_655]	2.11	0.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1784:ASP:CB	2:G:1087:HIS:NE2[7_655]	2.11	0.09
1:C:1784:ASP:O	2:G:1087:HIS:CD2[7_655]	2.12	0.08
1:C:1784:ASP:CA	2:G:1087:HIS:CG[7_655]	2.13	0.07
1:A:1784:ASP:CB	2:I:1087:HIS:CD2[7_545]	2.15	0.05
2:G:77:VAL:CB	2:I:1929:LYS:CG[6_455]	2.15	0.05
1:A:852:ARG:NH2	1:B:837:GLY:O[7_645]	2.19	0.01
1:B:1480:GLU:OE1	2:H:290:GLU:CA[6_555]	2.19	0.01

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	1736/1887 (92%)	1614 (93%)	100 (6%)	22 (1%)	9	41
1	B	1736/1887 (92%)	1619 (93%)	100 (6%)	17 (1%)	12	45
1	C	1736/1887 (92%)	1618 (93%)	96 (6%)	22 (1%)	9	41
2	G	2029/2051 (99%)	1825 (90%)	173 (8%)	31 (2%)	8	38
2	H	2029/2051 (99%)	1826 (90%)	173 (8%)	30 (2%)	8	38
2	I	2029/2051 (99%)	1829 (90%)	174 (9%)	26 (1%)	9	41
All	All	11295/11814 (96%)	10331 (92%)	816 (7%)	148 (1%)	9	41

All (148) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	488	PRO
1	A	504	ASP
1	A	538	GLU
1	A	605	LEU
1	A	834	GLY
1	A	935	GLU
1	A	1763	LYS
1	A	1830	GLY

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Mol	Chain	Res	Type
1	A	1843	ASN
1	B	504	ASP
1	B	538	GLU
1	B	605	LEU
1	B	834	GLY
1	B	1763	LYS
1	B	1830	GLY
1	B	1843	ASN
1	C	504	ASP
1	C	538	GLU
1	C	605	LEU
1	C	834	GLY
1	C	935	GLU
1	C	1763	LYS
1	C	1830	GLY
1	C	1843	ASN
2	G	521	ASP
2	G	561	TRP
2	G	1177	SER
2	G	1955	PRO
2	H	521	ASP
2	H	561	TRP
2	H	1418	ASP
2	H	1955	PRO
2	I	521	ASP
2	I	1955	PRO
1	A	1252	GLY
1	A	1585	LYS
1	A	1608	ASN
1	B	179	LYS
1	B	1252	GLY
1	B	1585	LYS
1	B	1608	ASN
1	C	1252	GLY
1	C	1585	LYS
1	C	1608	ASN
2	G	203	LEU
2	G	562	LEU
2	G	1044	VAL
2	G	1418	ASP
2	G	1419	PHE
2	G	1722	GLY

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Mol	Chain	Res	Type
2	H	203	LEU
2	H	1044	VAL
2	H	1177	SER
2	H	1420	GLU
2	H	1529	GLN
2	H	1722	GLY
2	I	203	LEU
2	I	1044	VAL
2	I	1177	SER
2	I	1418	ASP
2	I	1722	GLY
1	A	179	LYS
1	A	1749	THR
1	B	1749	THR
1	C	1749	THR
2	G	112	ASN
2	G	139	LYS
2	G	567	PRO
2	G	1101	GLU
2	G	2034	GLY
2	H	112	ASN
2	H	562	LEU
2	H	1101	GLU
2	I	374	ALA
2	I	1092	ASP
2	I	1101	GLU
2	I	2034	GLY
2	G	25	ALA
2	G	26	SER
2	G	374	ALA
2	G	742	SER
2	G	769	SER
2	G	1092	ASP
2	G	1510	ALA
2	H	26	SER
2	H	374	ALA
2	H	567	PRO
2	H	742	SER
2	H	823	ALA
2	H	1510	ALA
2	H	2034	GLY
2	I	26	SER

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Mol	Chain	Res	Type
2	I	112	ASN
2	I	742	SER
2	I	1419	PHE
1	A	485	ASP
1	A	1130	ASP
1	A	1477	ILE
1	A	1536	LEU
1	B	970	GLY
1	B	1477	ILE
1	C	179	LYS
1	C	934	PRO
1	C	1477	ILE
2	H	769	SER
2	H	1092	ASP
2	H	1257	ASP
2	I	25	ALA
2	I	136	PRO
2	I	769	SER
2	I	823	ALA
2	I	1510	ALA
1	A	178	GLY
1	A	970	GLY
1	C	930	LEU
1	C	970	GLY
1	C	1536	LEU
2	G	574	SER
2	H	1419	PHE
2	I	139	LYS
2	I	574	SER
1	A	1543	GLY
1	B	1543	GLY
1	C	1543	GLY
2	G	136	PRO
2	G	335	PRO
2	H	136	PRO
2	H	335	PRO
2	H	1661	VAL
1	B	178	GLY
2	G	1340	PRO
2	G	1956	ARG
2	H	772	GLY
1	A	934	PRO

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Mol	Chain	Res	Type
1	C	178	GLY
1	C	1240	VAL
2	G	772	GLY
2	G	1176	PRO
2	G	1840	VAL
2	I	772	GLY
1	B	726	GLY
1	C	726	GLY
2	G	470	VAL
2	H	470	VAL
2	H	2012	PRO
2	I	335	PRO
2	I	1956	ARG
2	I	1340	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	1460/1566 (93%)	1283 (88%)	177 (12%)	5	21
1	B	1460/1566 (93%)	1288 (88%)	172 (12%)	5	21
1	C	1460/1566 (93%)	1280 (88%)	180 (12%)	4	20
2	G	1772/1789 (99%)	1521 (86%)	251 (14%)	3	17
2	H	1772/1789 (99%)	1524 (86%)	248 (14%)	3	17
2	I	1772/1789 (99%)	1526 (86%)	246 (14%)	3	17
All	All	9696/10065 (96%)	8422 (87%)	1274 (13%)	4	19

All (1274) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	5	VAL
1	A	14	LEU
1	A	15	THR
1	A	21	GLN

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Mol	Chain	Res	Type
1	A	22	PHE
1	A	27	ARG
1	A	47	ILE
1	A	145	VAL
1	A	149	LEU
1	A	158	LYS
1	A	165	SER
1	A	171	THR
1	A	202	GLU
1	A	217	PHE
1	A	242	THR
1	A	244	THR
1	A	245	VAL
1	A	252	THR
1	A	300	VAL
1	A	328	LEU
1	A	331	ILE
1	A	332	THR
1	A	368	VAL
1	A	375	LEU
1	A	378	LEU
1	A	390	VAL
1	A	392	THR
1	A	400	ARG
1	A	401	THR
1	A	412	SER
1	A	413	LEU
1	A	415	SER
1	A	416	LEU
1	A	428	VAL
1	A	432	VAL
1	A	435	GLU
1	A	447	LEU
1	A	457	ASN
1	A	460	GLU
1	A	461	THR
1	A	469	VAL
1	A	484	LEU
1	A	487	ASP
1	A	490	TYR
1	A	493	VAL
1	A	506	ASN

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Mol	Chain	Res	Type
1	A	509	ILE
1	A	510	THR
1	A	513	GLU
1	A	527	GLN
1	A	529	MET
1	A	536	THR
1	A	599	MET
1	A	601	VAL
1	A	603	ASP
1	A	606	ASP
1	A	607	LYS
1	A	615	SER
1	A	621	THR
1	A	622	ILE
1	A	625	THR
1	A	626	VAL
1	A	629	THR
1	A	635	ILE
1	A	644	THR
1	A	648	ASP
1	A	654	GLN
1	A	663	LEU
1	A	671	VAL
1	A	711	SER
1	A	719	GLN
1	A	721	ILE
1	A	728	LYS
1	A	731	THR
1	A	732	LEU
1	A	748	LEU
1	A	749	ILE
1	A	755	THR
1	A	774	ILE
1	A	776	GLU
1	A	782	GLU
1	A	797	THR
1	A	801	ARG
1	A	806	VAL
1	A	816	GLU
1	A	817	THR
1	A	852	ARG
1	A	860	ASN

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Mol	Chain	Res	Type
1	A	864	VAL
1	A	873	ARG
1	A	881	ASN
1	A	891	MET
1	A	913	VAL
1	A	930	LEU
1	A	931	GLN
1	A	933	VAL
1	A	935	GLU
1	A	947	LEU
1	A	949	GLU
1	A	953	VAL
1	A	957	VAL
1	A	959	ILE
1	A	964	GLU
1	A	980	VAL
1	A	982	ILE
1	A	1020	VAL
1	A	1022	THR
1	A	1047	LEU
1	A	1056	ILE
1	A	1067	LEU
1	A	1070	ARG
1	A	1076	VAL
1	A	1078	SER
1	A	1079	LYS
1	A	1080	THR
1	A	1095	THR
1	A	1101	SER
1	A	1125	VAL
1	A	1127	VAL
1	A	1131	LEU
1	A	1167	LEU
1	A	1172	THR
1	A	1173	LEU
1	A	1179	LEU
1	A	1184	LEU
1	A	1189	ILE
1	A	1196	LYS
1	A	1197	THR
1	A	1208	VAL
1	A	1218	SER

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Mol	Chain	Res	Type
1	A	1224	ILE
1	A	1229	THR
1	A	1255	SER
1	A	1274	ILE
1	A	1292	ILE
1	A	1307	THR
1	A	1338	GLU
1	A	1365	MET
1	A	1367	ARG
1	A	1372	THR
1	A	1384	ILE
1	A	1385	GLN
1	A	1392	LEU
1	A	1414	ILE
1	A	1426	LEU
1	A	1430	ARG
1	A	1442	ASN
1	A	1453	VAL
1	A	1465	ASN
1	A	1479	SER
1	A	1515	ARG
1	A	1522	LEU
1	A	1523	ARG
1	A	1532	THR
1	A	1533	ILE
1	A	1549	ASN
1	A	1556	THR
1	A	1566	ARG
1	A	1577	GLN
1	A	1580	LEU
1	A	1585	LYS
1	A	1612	ASP
1	A	1617	ILE
1	A	1625	LEU
1	A	1665	ILE
1	A	1666	THR
1	A	1692	MET
1	A	1693	ILE
1	A	1707	THR
1	A	1709	GLU
1	A	1721	ARG
1	A	1723	SER

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Mol	Chain	Res	Type
1	A	1775	LEU
1	A	1782	GLU
1	A	1788	GLU
1	A	1794	GLN
1	A	1873	HIS
1	B	5	VAL
1	B	14	LEU
1	B	15	THR
1	B	21	GLN
1	B	22	PHE
1	B	47	ILE
1	B	145	VAL
1	B	149	LEU
1	B	158	LYS
1	B	165	SER
1	B	171	THR
1	B	202	GLU
1	B	217	PHE
1	B	242	THR
1	B	244	THR
1	B	245	VAL
1	B	252	THR
1	B	300	VAL
1	B	328	LEU
1	B	331	ILE
1	B	332	THR
1	B	375	LEU
1	B	378	LEU
1	B	390	VAL
1	B	392	THR
1	B	400	ARG
1	B	401	THR
1	B	412	SER
1	B	413	LEU
1	B	415	SER
1	B	416	LEU
1	B	428	VAL
1	B	432	VAL
1	B	435	GLU
1	B	447	LEU
1	B	457	ASN
1	B	460	GLU

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Mol	Chain	Res	Type
1	B	461	THR
1	B	469	VAL
1	B	484	LEU
1	B	489	VAL
1	B	493	VAL
1	B	506	ASN
1	B	509	ILE
1	B	510	THR
1	B	513	GLU
1	B	527	GLN
1	B	529	MET
1	B	536	THR
1	B	599	MET
1	B	600	ASP
1	B	601	VAL
1	B	603	ASP
1	B	606	ASP
1	B	607	LYS
1	B	615	SER
1	B	621	THR
1	B	622	ILE
1	B	625	THR
1	B	626	VAL
1	B	629	THR
1	B	635	ILE
1	B	644	THR
1	B	648	ASP
1	B	654	GLN
1	B	663	LEU
1	B	671	VAL
1	B	711	SER
1	B	719	GLN
1	B	721	ILE
1	B	728	LYS
1	B	731	THR
1	B	732	LEU
1	B	748	LEU
1	B	749	ILE
1	B	774	ILE
1	B	776	GLU
1	B	782	GLU
1	B	797	THR

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Mol	Chain	Res	Type
1	B	806	VAL
1	B	813	ARG
1	B	816	GLU
1	B	817	THR
1	B	852	ARG
1	B	860	ASN
1	B	864	VAL
1	B	873	ARG
1	B	881	ASN
1	B	891	MET
1	B	913	VAL
1	B	930	LEU
1	B	931	GLN
1	B	933	VAL
1	B	947	LEU
1	B	949	GLU
1	B	953	VAL
1	B	964	GLU
1	B	980	VAL
1	B	982	ILE
1	B	1020	VAL
1	B	1022	THR
1	B	1047	LEU
1	B	1056	ILE
1	B	1067	LEU
1	B	1070	ARG
1	B	1073	THR
1	B	1076	VAL
1	B	1078	SER
1	B	1079	LYS
1	B	1080	THR
1	B	1095	THR
1	B	1101	SER
1	B	1125	VAL
1	B	1127	VAL
1	B	1131	LEU
1	B	1167	LEU
1	B	1172	THR
1	B	1173	LEU
1	B	1179	LEU
1	B	1184	LEU
1	B	1189	ILE

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Mol	Chain	Res	Type
1	B	1196	LYS
1	B	1197	THR
1	B	1208	VAL
1	B	1218	SER
1	B	1224	ILE
1	B	1229	THR
1	B	1255	SER
1	B	1274	ILE
1	B	1292	ILE
1	B	1307	THR
1	B	1327	CYS
1	B	1338	GLU
1	B	1365	MET
1	B	1367	ARG
1	B	1372	THR
1	B	1384	ILE
1	B	1385	GLN
1	B	1392	LEU
1	B	1414	ILE
1	B	1426	LEU
1	B	1430	ARG
1	B	1442	ASN
1	B	1453	VAL
1	B	1465	ASN
1	B	1479	SER
1	B	1510	ASN
1	B	1515	ARG
1	B	1522	LEU
1	B	1523	ARG
1	B	1532	THR
1	B	1533	ILE
1	B	1556	THR
1	B	1566	ARG
1	B	1577	GLN
1	B	1580	LEU
1	B	1585	LYS
1	B	1612	ASP
1	B	1617	ILE
1	B	1625	LEU
1	B	1665	ILE
1	B	1666	THR
1	B	1692	MET

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Mol	Chain	Res	Type
1	B	1693	ILE
1	B	1707	THR
1	B	1709	GLU
1	B	1721	ARG
1	B	1775	LEU
1	B	1782	GLU
1	B	1788	GLU
1	B	1794	GLN
1	B	1873	HIS
1	C	5	VAL
1	C	14	LEU
1	C	15	THR
1	C	21	GLN
1	C	22	PHE
1	C	47	ILE
1	C	145	VAL
1	C	149	LEU
1	C	158	LYS
1	C	165	SER
1	C	171	THR
1	C	176	VAL
1	C	202	GLU
1	C	217	PHE
1	C	242	THR
1	C	244	THR
1	C	245	VAL
1	C	252	THR
1	C	300	VAL
1	C	328	LEU
1	C	331	ILE
1	C	332	THR
1	C	375	LEU
1	C	378	LEU
1	C	384	GLU
1	C	390	VAL
1	C	392	THR
1	C	400	ARG
1	C	401	THR
1	C	412	SER
1	C	413	LEU
1	C	415	SER
1	C	416	LEU

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Mol	Chain	Res	Type
1	C	428	VAL
1	C	432	VAL
1	C	435	GLU
1	C	447	LEU
1	C	457	ASN
1	C	460	GLU
1	C	461	THR
1	C	469	VAL
1	C	484	LEU
1	C	489	VAL
1	C	493	VAL
1	C	506	ASN
1	C	509	ILE
1	C	510	THR
1	C	513	GLU
1	C	527	GLN
1	C	529	MET
1	C	536	THR
1	C	599	MET
1	C	600	ASP
1	C	601	VAL
1	C	603	ASP
1	C	606	ASP
1	C	607	LYS
1	C	615	SER
1	C	621	THR
1	C	622	ILE
1	C	625	THR
1	C	626	VAL
1	C	629	THR
1	C	635	ILE
1	C	644	THR
1	C	648	ASP
1	C	654	GLN
1	C	663	LEU
1	C	671	VAL
1	C	711	SER
1	C	719	GLN
1	C	721	ILE
1	C	728	LYS
1	C	731	THR
1	C	732	LEU

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Mol	Chain	Res	Type
1	C	748	LEU
1	C	749	ILE
1	C	774	ILE
1	C	776	GLU
1	C	782	GLU
1	C	797	THR
1	C	806	VAL
1	C	816	GLU
1	C	817	THR
1	C	842	SER
1	C	852	ARG
1	C	860	ASN
1	C	864	VAL
1	C	873	ARG
1	C	881	ASN
1	C	891	MET
1	C	913	VAL
1	C	930	LEU
1	C	931	GLN
1	C	933	VAL
1	C	935	GLU
1	C	947	LEU
1	C	949	GLU
1	C	953	VAL
1	C	964	GLU
1	C	980	VAL
1	C	982	ILE
1	C	1020	VAL
1	C	1022	THR
1	C	1047	LEU
1	C	1056	ILE
1	C	1067	LEU
1	C	1070	ARG
1	C	1073	THR
1	C	1076	VAL
1	C	1078	SER
1	C	1079	LYS
1	C	1080	THR
1	C	1089	VAL
1	C	1095	THR
1	C	1101	SER
1	C	1125	VAL

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Mol	Chain	Res	Type
1	C	1127	VAL
1	C	1131	LEU
1	C	1167	LEU
1	C	1172	THR
1	C	1173	LEU
1	C	1179	LEU
1	C	1184	LEU
1	C	1189	ILE
1	C	1196	LYS
1	C	1197	THR
1	C	1208	VAL
1	C	1218	SER
1	C	1224	ILE
1	C	1229	THR
1	C	1255	SER
1	C	1274	ILE
1	C	1292	ILE
1	C	1307	THR
1	C	1328	ILE
1	C	1338	GLU
1	C	1365	MET
1	C	1367	ARG
1	C	1372	THR
1	C	1384	ILE
1	C	1385	GLN
1	C	1392	LEU
1	C	1414	ILE
1	C	1426	LEU
1	C	1430	ARG
1	C	1432	HIS
1	C	1442	ASN
1	C	1443	LEU
1	C	1453	VAL
1	C	1465	ASN
1	C	1479	SER
1	C	1515	ARG
1	C	1522	LEU
1	C	1523	ARG
1	C	1532	THR
1	C	1533	ILE
1	C	1549	ASN
1	C	1556	THR

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Mol	Chain	Res	Type
1	C	1566	ARG
1	C	1577	GLN
1	C	1580	LEU
1	C	1585	LYS
1	C	1599	ILE
1	C	1612	ASP
1	C	1617	ILE
1	C	1625	LEU
1	C	1633	THR
1	C	1665	ILE
1	C	1666	THR
1	C	1692	MET
1	C	1693	ILE
1	C	1707	THR
1	C	1709	GLU
1	C	1721	ARG
1	C	1775	LEU
1	C	1782	GLU
1	C	1788	GLU
1	C	1794	GLN
1	C	1873	HIS
2	G	6	THR
2	G	7	ARG
2	G	45	THR
2	G	46	GLU
2	G	48	PHE
2	G	56	THR
2	G	65	LEU
2	G	73	GLU
2	G	84	LEU
2	G	86	LEU
2	G	99	ASN
2	G	101	ILE
2	G	109	LEU
2	G	117	VAL
2	G	119	THR
2	G	122	LEU
2	G	132	MET
2	G	149	VAL
2	G	153	ASN
2	G	155	GLN
2	G	159	ILE

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Mol	Chain	Res	Type
2	G	173	LEU
2	G	176	LEU
2	G	178	GLN
2	G	182	VAL
2	G	186	ASP
2	G	198	LEU
2	G	206	GLU
2	G	210	THR
2	G	227	ASP
2	G	236	ILE
2	G	240	LEU
2	G	246	LEU
2	G	251	VAL
2	G	271	THR
2	G	281	VAL
2	G	283	ILE
2	G	286	THR
2	G	295	SER
2	G	297	ARG
2	G	300	ILE
2	G	303	LEU
2	G	319	LEU
2	G	339	LEU
2	G	340	SER
2	G	342	SER
2	G	344	LEU
2	G	353	VAL
2	G	368	ILE
2	G	371	VAL
2	G	389	LEU
2	G	392	THR
2	G	402	LEU
2	G	418	ASN
2	G	425	SER
2	G	431	LEU
2	G	438	LEU
2	G	448	VAL
2	G	455	ILE
2	G	462	THR
2	G	471	LEU
2	G	476	SER
2	G	478	ARG

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Mol	Chain	Res	Type
2	G	479	ILE
2	G	482	CYS
2	G	492	THR
2	G	499	THR
2	G	501	ILE
2	G	545	GLN
2	G	553	ASN
2	G	562	LEU
2	G	566	HIS
2	G	573	LYS
2	G	574	SER
2	G	586	LEU
2	G	587	ILE
2	G	598	THR
2	G	607	VAL
2	G	611	THR
2	G	616	THR
2	G	631	THR
2	G	665	LEU
2	G	669	LEU
2	G	670	ARG
2	G	676	ILE
2	G	680	THR
2	G	681	ILE
2	G	693	GLU
2	G	714	SER
2	G	719	ILE
2	G	723	HIS
2	G	730	LEU
2	G	733	THR
2	G	736	ARG
2	G	740	HIS
2	G	741	HIS
2	G	751	LEU
2	G	762	ASN
2	G	775	ASP
2	G	777	THR
2	G	787	THR
2	G	794	MET
2	G	797	ASP
2	G	807	ILE
2	G	810	GLU

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Mol	Chain	Res	Type
2	G	825	THR
2	G	832	TRP
2	G	835	THR
2	G	844	VAL
2	G	846	VAL
2	G	852	GLU
2	G	855	HIS
2	G	857	ILE
2	G	869	ASP
2	G	880	LEU
2	G	881	VAL
2	G	892	ILE
2	G	907	VAL
2	G	929	LEU
2	G	945	THR
2	G	953	ARG
2	G	964	LEU
2	G	971	SER
2	G	993	GLN
2	G	1015	VAL
2	G	1020	VAL
2	G	1021	LEU
2	G	1024	ARG
2	G	1048	VAL
2	G	1066	ILE
2	G	1070	ILE
2	G	1082	ILE
2	G	1109	VAL
2	G	1123	ASP
2	G	1124	SER
2	G	1145	SER
2	G	1148	ASN
2	G	1159	ILE
2	G	1160	THR
2	G	1171	ARG
2	G	1172	LYS
2	G	1184	ILE
2	G	1189	THR
2	G	1197	LEU
2	G	1211	LEU
2	G	1213	LEU
2	G	1217	ASN

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Mol	Chain	Res	Type
2	G	1219	ILE
2	G	1227	ARG
2	G	1260	GLN
2	G	1284	VAL
2	G	1314	ARG
2	G	1318	THR
2	G	1327	ILE
2	G	1328	VAL
2	G	1335	ILE
2	G	1342	THR
2	G	1348	LEU
2	G	1359	MET
2	G	1360	ILE
2	G	1378	ILE
2	G	1389	ILE
2	G	1392	VAL
2	G	1397	SER
2	G	1407	THR
2	G	1408	SER
2	G	1417	THR
2	G	1418	ASP
2	G	1420	GLU
2	G	1422	THR
2	G	1424	GLN
2	G	1426	THR
2	G	1427	VAL
2	G	1434	HIS
2	G	1437	THR
2	G	1441	ILE
2	G	1443	VAL
2	G	1446	SER
2	G	1452	LEU
2	G	1463	THR
2	G	1465	THR
2	G	1468	THR
2	G	1470	THR
2	G	1472	VAL
2	G	1473	THR
2	G	1501	ILE
2	G	1511	SER
2	G	1512	HIS
2	G	1526	THR

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Mol	Chain	Res	Type
2	G	1527	LEU
2	G	1528	GLU
2	G	1533	LEU
2	G	1549	THR
2	G	1556	VAL
2	G	1560	LEU
2	G	1563	ILE
2	G	1567	ARG
2	G	1578	THR
2	G	1590	ARG
2	G	1602	SER
2	G	1605	VAL
2	G	1609	THR
2	G	1616	VAL
2	G	1624	THR
2	G	1627	GLN
2	G	1632	ILE
2	G	1637	LEU
2	G	1651	LEU
2	G	1661	VAL
2	G	1663	THR
2	G	1672	GLN
2	G	1678	MET
2	G	1680	LEU
2	G	1683	THR
2	G	1711	ILE
2	G	1712	ASN
2	G	1718	THR
2	G	1751	ILE
2	G	1755	ILE
2	G	1757	GLU
2	G	1775	GLN
2	G	1781	LEU
2	G	1784	MET
2	G	1818	LEU
2	G	1821	VAL
2	G	1825	GLU
2	G	1831	VAL
2	G	1834	ARG
2	G	1840	VAL
2	G	1842	VAL
2	G	1844	ARG

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Mol	Chain	Res	Type
2	G	1846	GLU
2	G	1847	LEU
2	G	1855	ILE
2	G	1857	ILE
2	G	1862	VAL
2	G	1871	LEU
2	G	1886	VAL
2	G	1907	LEU
2	G	1913	VAL
2	G	1914	LEU
2	G	1936	VAL
2	G	1937	GLU
2	G	1970	VAL
2	G	1982	MET
2	G	2003	VAL
2	G	2038	ILE
2	G	2042	ILE
2	G	2044	ASN
2	G	2047	LYS
2	G	2050	GLN
2	H	6	THR
2	H	7	ARG
2	H	45	THR
2	H	46	GLU
2	H	48	PHE
2	H	55	THR
2	H	56	THR
2	H	65	LEU
2	H	73	GLU
2	H	84	LEU
2	H	86	LEU
2	H	99	ASN
2	H	101	ILE
2	H	109	LEU
2	H	117	VAL
2	H	119	THR
2	H	122	LEU
2	H	132	MET
2	H	149	VAL
2	H	153	ASN
2	H	155	GLN
2	H	159	ILE

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Mol	Chain	Res	Type
2	H	173	LEU
2	H	176	LEU
2	H	178	GLN
2	H	182	VAL
2	H	186	ASP
2	H	198	LEU
2	H	206	GLU
2	H	210	THR
2	H	227	ASP
2	H	236	ILE
2	H	240	LEU
2	H	246	LEU
2	H	251	VAL
2	H	271	THR
2	H	281	VAL
2	H	283	ILE
2	H	286	THR
2	H	295	SER
2	H	297	ARG
2	H	300	ILE
2	H	303	LEU
2	H	317	THR
2	H	319	LEU
2	H	339	LEU
2	H	340	SER
2	H	342	SER
2	H	344	LEU
2	H	353	VAL
2	H	368	ILE
2	H	371	VAL
2	H	389	LEU
2	H	392	THR
2	H	402	LEU
2	H	418	ASN
2	H	425	SER
2	H	431	LEU
2	H	438	LEU
2	H	448	VAL
2	H	455	ILE
2	H	462	THR
2	H	471	LEU
2	H	476	SER

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Mol	Chain	Res	Type
2	H	478	ARG
2	H	479	ILE
2	H	482	CYS
2	H	492	THR
2	H	499	THR
2	H	545	GLN
2	H	553	ASN
2	H	562	LEU
2	H	566	HIS
2	H	574	SER
2	H	586	LEU
2	H	587	ILE
2	H	598	THR
2	H	607	VAL
2	H	611	THR
2	H	616	THR
2	H	631	THR
2	H	665	LEU
2	H	669	LEU
2	H	670	ARG
2	H	676	ILE
2	H	680	THR
2	H	681	ILE
2	H	693	GLU
2	H	714	SER
2	H	719	ILE
2	H	723	HIS
2	H	730	LEU
2	H	733	THR
2	H	736	ARG
2	H	740	HIS
2	H	741	HIS
2	H	751	LEU
2	H	762	ASN
2	H	775	ASP
2	H	777	THR
2	H	787	THR
2	H	794	MET
2	H	797	ASP
2	H	807	ILE
2	H	810	GLU
2	H	825	THR

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Mol	Chain	Res	Type
2	H	832	TRP
2	H	835	THR
2	H	844	VAL
2	H	846	VAL
2	H	852	GLU
2	H	855	HIS
2	H	857	ILE
2	H	869	ASP
2	H	880	LEU
2	H	881	VAL
2	H	892	ILE
2	H	907	VAL
2	H	929	LEU
2	H	945	THR
2	H	964	LEU
2	H	971	SER
2	H	993	GLN
2	H	1012	GLN
2	H	1015	VAL
2	H	1021	LEU
2	H	1024	ARG
2	H	1048	VAL
2	H	1066	ILE
2	H	1070	ILE
2	H	1082	ILE
2	H	1095	SER
2	H	1109	VAL
2	H	1123	ASP
2	H	1145	SER
2	H	1148	ASN
2	H	1159	ILE
2	H	1160	THR
2	H	1171	ARG
2	H	1172	LYS
2	H	1184	ILE
2	H	1189	THR
2	H	1197	LEU
2	H	1211	LEU
2	H	1213	LEU
2	H	1219	ILE
2	H	1227	ARG
2	H	1260	GLN

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Mol	Chain	Res	Type
2	H	1284	VAL
2	H	1314	ARG
2	H	1318	THR
2	H	1327	ILE
2	H	1328	VAL
2	H	1335	ILE
2	H	1342	THR
2	H	1348	LEU
2	H	1352	HIS
2	H	1359	MET
2	H	1360	ILE
2	H	1378	ILE
2	H	1389	ILE
2	H	1392	VAL
2	H	1397	SER
2	H	1407	THR
2	H	1408	SER
2	H	1420	GLU
2	H	1422	THR
2	H	1426	THR
2	H	1427	VAL
2	H	1434	HIS
2	H	1437	THR
2	H	1441	ILE
2	H	1443	VAL
2	H	1446	SER
2	H	1452	LEU
2	H	1463	THR
2	H	1465	THR
2	H	1468	THR
2	H	1470	THR
2	H	1472	VAL
2	H	1473	THR
2	H	1501	ILE
2	H	1511	SER
2	H	1512	HIS
2	H	1526	THR
2	H	1527	LEU
2	H	1528	GLU
2	H	1530	LYS
2	H	1533	LEU
2	H	1549	THR

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Mol	Chain	Res	Type
2	H	1556	VAL
2	H	1560	LEU
2	H	1563	ILE
2	H	1567	ARG
2	H	1590	ARG
2	H	1602	SER
2	H	1605	VAL
2	H	1609	THR
2	H	1616	VAL
2	H	1624	THR
2	H	1627	GLN
2	H	1632	ILE
2	H	1637	LEU
2	H	1651	LEU
2	H	1657	ILE
2	H	1661	VAL
2	H	1663	THR
2	H	1672	GLN
2	H	1678	MET
2	H	1680	LEU
2	H	1683	THR
2	H	1711	ILE
2	H	1712	ASN
2	H	1718	THR
2	H	1751	ILE
2	H	1755	ILE
2	H	1757	GLU
2	H	1775	GLN
2	H	1781	LEU
2	H	1784	MET
2	H	1818	LEU
2	H	1821	VAL
2	H	1825	GLU
2	H	1831	VAL
2	H	1834	ARG
2	H	1840	VAL
2	H	1844	ARG
2	H	1846	GLU
2	H	1847	LEU
2	H	1855	ILE
2	H	1857	ILE
2	H	1862	VAL

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Mol	Chain	Res	Type
2	H	1871	LEU
2	H	1886	VAL
2	H	1907	LEU
2	H	1913	VAL
2	H	1914	LEU
2	H	1936	VAL
2	H	1937	GLU
2	H	1970	VAL
2	H	1972	ILE
2	H	1982	MET
2	H	2003	VAL
2	H	2038	ILE
2	H	2042	ILE
2	H	2044	ASN
2	H	2047	LYS
2	H	2050	GLN
2	I	6	THR
2	I	7	ARG
2	I	45	THR
2	I	46	GLU
2	I	48	PHE
2	I	56	THR
2	I	65	LEU
2	I	73	GLU
2	I	84	LEU
2	I	86	LEU
2	I	99	ASN
2	I	101	ILE
2	I	109	LEU
2	I	117	VAL
2	I	119	THR
2	I	122	LEU
2	I	132	MET
2	I	149	VAL
2	I	153	ASN
2	I	155	GLN
2	I	159	ILE
2	I	173	LEU
2	I	176	LEU
2	I	178	GLN
2	I	182	VAL
2	I	186	ASP

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Mol	Chain	Res	Type
2	I	198	LEU
2	I	206	GLU
2	I	210	THR
2	I	227	ASP
2	I	236	ILE
2	I	240	LEU
2	I	246	LEU
2	I	251	VAL
2	I	271	THR
2	I	281	VAL
2	I	286	THR
2	I	295	SER
2	I	297	ARG
2	I	300	ILE
2	I	303	LEU
2	I	319	LEU
2	I	339	LEU
2	I	340	SER
2	I	342	SER
2	I	344	LEU
2	I	353	VAL
2	I	368	ILE
2	I	371	VAL
2	I	389	LEU
2	I	392	THR
2	I	402	LEU
2	I	418	ASN
2	I	425	SER
2	I	431	LEU
2	I	438	LEU
2	I	444	VAL
2	I	446	ASN
2	I	448	VAL
2	I	455	ILE
2	I	462	THR
2	I	471	LEU
2	I	476	SER
2	I	478	ARG
2	I	479	ILE
2	I	482	CYS
2	I	492	THR
2	I	499	THR

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Mol	Chain	Res	Type
2	I	501	ILE
2	I	545	GLN
2	I	553	ASN
2	I	562	LEU
2	I	574	SER
2	I	586	LEU
2	I	587	ILE
2	I	598	THR
2	I	607	VAL
2	I	611	THR
2	I	616	THR
2	I	631	THR
2	I	665	LEU
2	I	669	LEU
2	I	670	ARG
2	I	676	ILE
2	I	680	THR
2	I	681	ILE
2	I	693	GLU
2	I	714	SER
2	I	719	ILE
2	I	723	HIS
2	I	730	LEU
2	I	733	THR
2	I	736	ARG
2	I	740	HIS
2	I	741	HIS
2	I	750	MET
2	I	751	LEU
2	I	762	ASN
2	I	777	THR
2	I	787	THR
2	I	794	MET
2	I	797	ASP
2	I	807	ILE
2	I	810	GLU
2	I	825	THR
2	I	832	TRP
2	I	835	THR
2	I	844	VAL
2	I	846	VAL
2	I	852	GLU

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Mol	Chain	Res	Type
2	I	855	HIS
2	I	857	ILE
2	I	869	ASP
2	I	880	LEU
2	I	881	VAL
2	I	892	ILE
2	I	907	VAL
2	I	929	LEU
2	I	945	THR
2	I	964	LEU
2	I	971	SER
2	I	993	GLN
2	I	1012	GLN
2	I	1015	VAL
2	I	1020	VAL
2	I	1021	LEU
2	I	1024	ARG
2	I	1048	VAL
2	I	1066	ILE
2	I	1070	ILE
2	I	1082	ILE
2	I	1109	VAL
2	I	1123	ASP
2	I	1145	SER
2	I	1148	ASN
2	I	1159	ILE
2	I	1160	THR
2	I	1171	ARG
2	I	1172	LYS
2	I	1184	ILE
2	I	1189	THR
2	I	1197	LEU
2	I	1211	LEU
2	I	1213	LEU
2	I	1217	ASN
2	I	1219	ILE
2	I	1227	ARG
2	I	1260	GLN
2	I	1284	VAL
2	I	1314	ARG
2	I	1318	THR
2	I	1327	ILE

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Mol	Chain	Res	Type
2	I	1328	VAL
2	I	1335	ILE
2	I	1342	THR
2	I	1348	LEU
2	I	1352	HIS
2	I	1359	MET
2	I	1360	ILE
2	I	1378	ILE
2	I	1389	ILE
2	I	1392	VAL
2	I	1397	SER
2	I	1407	THR
2	I	1408	SER
2	I	1420	GLU
2	I	1421	ASN
2	I	1423	PHE
2	I	1426	THR
2	I	1427	VAL
2	I	1434	HIS
2	I	1437	THR
2	I	1441	ILE
2	I	1443	VAL
2	I	1446	SER
2	I	1452	LEU
2	I	1463	THR
2	I	1468	THR
2	I	1470	THR
2	I	1472	VAL
2	I	1473	THR
2	I	1501	ILE
2	I	1511	SER
2	I	1512	HIS
2	I	1527	LEU
2	I	1528	GLU
2	I	1533	LEU
2	I	1549	THR
2	I	1556	VAL
2	I	1560	LEU
2	I	1563	ILE
2	I	1565	VAL
2	I	1567	ARG
2	I	1590	ARG

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Mol	Chain	Res	Type
2	I	1602	SER
2	I	1605	VAL
2	I	1609	THR
2	I	1616	VAL
2	I	1624	THR
2	I	1627	GLN
2	I	1632	ILE
2	I	1637	LEU
2	I	1651	LEU
2	I	1661	VAL
2	I	1663	THR
2	I	1672	GLN
2	I	1678	MET
2	I	1680	LEU
2	I	1683	THR
2	I	1711	ILE
2	I	1712	ASN
2	I	1718	THR
2	I	1736	MET
2	I	1751	ILE
2	I	1755	ILE
2	I	1757	GLU
2	I	1775	GLN
2	I	1781	LEU
2	I	1784	MET
2	I	1818	LEU
2	I	1821	VAL
2	I	1825	GLU
2	I	1831	VAL
2	I	1834	ARG
2	I	1840	VAL
2	I	1844	ARG
2	I	1846	GLU
2	I	1847	LEU
2	I	1855	ILE
2	I	1857	ILE
2	I	1862	VAL
2	I	1871	LEU
2	I	1886	VAL
2	I	1907	LEU
2	I	1913	VAL
2	I	1914	LEU

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Mol	Chain	Res	Type
2	I	1936	VAL
2	I	1937	GLU
2	I	1970	VAL
2	I	1982	MET
2	I	2003	VAL
2	I	2038	ILE
2	I	2042	ILE
2	I	2044	ASN
2	I	2047	LYS
2	I	2050	GLN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (311) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	7	GLN
1	A	21	GLN
1	A	32	GLN
1	A	58	GLN
1	A	63	ASN
1	A	157	HIS
1	A	183	GLN
1	A	214	GLN
1	A	271	ASN
1	A	335	HIS
1	A	344	GLN
1	A	356	ASN
1	A	374	GLN
1	A	379	ASN
1	A	411	GLN
1	A	422	HIS
1	A	427	ASN
1	A	438	ASN
1	A	475	GLN
1	A	527	GLN
1	A	618	ASN
1	A	694	GLN
1	A	738	ASN
1	A	758	ASN
1	A	783	HIS
1	A	792	HIS
1	A	829	ASN
1	A	860	ASN

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Mol	Chain	Res	Type
1	A	898	GLN
1	A	983	GLN
1	A	987	ASN
1	A	989	GLN
1	A	1000	GLN
1	A	1003	GLN
1	A	1063	HIS
1	A	1064	ASN
1	A	1066	ASN
1	A	1146	HIS
1	A	1239	HIS
1	A	1385	GLN
1	A	1432	HIS
1	A	1433	HIS
1	A	1442	ASN
1	A	1458	GLN
1	A	1482	GLN
1	A	1494	HIS
1	A	1495	ASN
1	A	1510	ASN
1	A	1542	HIS
1	A	1549	ASN
1	A	1577	GLN
1	A	1610	ASN
1	A	1652	GLN
1	A	1690	ASN
1	A	1794	GLN
1	A	1802	GLN
1	A	1852	HIS
1	B	11	HIS
1	B	21	GLN
1	B	32	GLN
1	B	58	GLN
1	B	63	ASN
1	B	157	HIS
1	B	183	GLN
1	B	214	GLN
1	B	271	ASN
1	B	335	HIS
1	B	344	GLN
1	B	374	GLN
1	B	411	GLN

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Mol	Chain	Res	Type
1	B	427	ASN
1	B	438	ASN
1	B	475	GLN
1	B	527	GLN
1	B	618	ASN
1	B	694	GLN
1	B	738	ASN
1	B	739	GLN
1	B	792	HIS
1	B	829	ASN
1	B	860	ASN
1	B	898	GLN
1	B	987	ASN
1	B	989	GLN
1	B	1000	GLN
1	B	1003	GLN
1	B	1063	HIS
1	B	1064	ASN
1	B	1066	ASN
1	B	1146	HIS
1	B	1239	HIS
1	B	1385	GLN
1	B	1432	HIS
1	B	1433	HIS
1	B	1442	ASN
1	B	1458	GLN
1	B	1482	GLN
1	B	1494	HIS
1	B	1495	ASN
1	B	1505	GLN
1	B	1510	ASN
1	B	1542	HIS
1	B	1552	ASN
1	B	1563	HIS
1	B	1577	GLN
1	B	1610	ASN
1	B	1652	GLN
1	B	1690	ASN
1	B	1695	ASN
1	B	1794	GLN
1	B	1802	GLN
1	B	1852	HIS

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Mol	Chain	Res	Type
1	C	7	GLN
1	C	11	HIS
1	C	21	GLN
1	C	32	GLN
1	C	58	GLN
1	C	63	ASN
1	C	157	HIS
1	C	183	GLN
1	C	214	GLN
1	C	271	ASN
1	C	335	HIS
1	C	344	GLN
1	C	374	GLN
1	C	411	GLN
1	C	427	ASN
1	C	438	ASN
1	C	475	GLN
1	C	527	GLN
1	C	618	ASN
1	C	694	GLN
1	C	738	ASN
1	C	758	ASN
1	C	783	HIS
1	C	792	HIS
1	C	829	ASN
1	C	860	ASN
1	C	898	GLN
1	C	987	ASN
1	C	989	GLN
1	C	1000	GLN
1	C	1003	GLN
1	C	1063	HIS
1	C	1064	ASN
1	C	1066	ASN
1	C	1146	HIS
1	C	1239	HIS
1	C	1385	GLN
1	C	1432	HIS
1	C	1433	HIS
1	C	1442	ASN
1	C	1458	GLN
1	C	1482	GLN

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Mol	Chain	Res	Type
1	C	1495	ASN
1	C	1510	ASN
1	C	1542	HIS
1	C	1549	ASN
1	C	1552	ASN
1	C	1563	HIS
1	C	1577	GLN
1	C	1610	ASN
1	C	1652	GLN
1	C	1690	ASN
1	C	1695	ASN
1	C	1794	GLN
1	C	1852	HIS
1	C	1877	GLN
2	G	34	GLN
2	G	85	ASN
2	G	102	HIS
2	G	178	GLN
2	G	359	HIS
2	G	376	ASN
2	G	418	ASN
2	G	428	HIS
2	G	430	HIS
2	G	440	ASN
2	G	447	ASN
2	G	500	HIS
2	G	517	HIS
2	G	545	GLN
2	G	558	ASN
2	G	572	ASN
2	G	612	ASN
2	G	650	ASN
2	G	718	ASN
2	G	740	HIS
2	G	741	HIS
2	G	747	HIS
2	G	752	GLN
2	G	762	ASN
2	G	855	HIS
2	G	900	GLN
2	G	910	GLN
2	G	1046	GLN

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Mol	Chain	Res	Type
2	G	1148	ASN
2	G	1217	ASN
2	G	1220	GLN
2	G	1259	ASN
2	G	1260	GLN
2	G	1341	ASN
2	G	1352	HIS
2	G	1355	ASN
2	G	1367	GLN
2	G	1384	GLN
2	G	1432	GLN
2	G	1595	ASN
2	G	1672	GLN
2	G	1697	HIS
2	G	1890	ASN
2	G	1896	GLN
2	G	1977	HIS
2	G	1995	ASN
2	G	2013	ASN
2	G	2020	GLN
2	H	34	GLN
2	H	85	ASN
2	H	102	HIS
2	H	178	GLN
2	H	359	HIS
2	H	376	ASN
2	H	418	ASN
2	H	428	HIS
2	H	430	HIS
2	H	440	ASN
2	H	447	ASN
2	H	500	HIS
2	H	517	HIS
2	H	545	GLN
2	H	558	ASN
2	H	572	ASN
2	H	612	ASN
2	H	650	ASN
2	H	718	ASN
2	H	740	HIS
2	H	741	HIS
2	H	747	HIS

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Mol	Chain	Res	Type
2	H	752	GLN
2	H	762	ASN
2	H	900	GLN
2	H	910	GLN
2	H	1046	GLN
2	H	1148	ASN
2	H	1217	ASN
2	H	1220	GLN
2	H	1246	ASN
2	H	1259	ASN
2	H	1260	GLN
2	H	1341	ASN
2	H	1352	HIS
2	H	1355	ASN
2	H	1367	GLN
2	H	1384	GLN
2	H	1432	GLN
2	H	1595	ASN
2	H	1672	GLN
2	H	1697	HIS
2	H	1756	ASN
2	H	1890	ASN
2	H	1896	GLN
2	H	1977	HIS
2	H	2013	ASN
2	H	2020	GLN
2	I	34	GLN
2	I	85	ASN
2	I	102	HIS
2	I	178	GLN
2	I	359	HIS
2	I	376	ASN
2	I	418	ASN
2	I	428	HIS
2	I	430	HIS
2	I	440	ASN
2	I	447	ASN
2	I	500	HIS
2	I	517	HIS
2	I	545	GLN
2	I	558	ASN
2	I	572	ASN

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Mol	Chain	Res	Type
2	I	612	ASN
2	I	740	HIS
2	I	741	HIS
2	I	747	HIS
2	I	752	GLN
2	I	762	ASN
2	I	855	HIS
2	I	910	GLN
2	I	1046	GLN
2	I	1148	ASN
2	I	1217	ASN
2	I	1220	GLN
2	I	1246	ASN
2	I	1259	ASN
2	I	1260	GLN
2	I	1341	ASN
2	I	1352	HIS
2	I	1355	ASN
2	I	1367	GLN
2	I	1384	GLN
2	I	1421	ASN
2	I	1432	GLN
2	I	1595	ASN
2	I	1672	GLN
2	I	1697	HIS
2	I	1890	ASN
2	I	1896	GLN
2	I	1977	HIS
2	I	1995	ASN
2	I	2013	ASN
2	I	2020	GLN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

6 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# $ Z > 2$	Counts	RMSZ	# $ Z > 2$
3	CER	A	2748	-	11,11,15	4.18	3 (27%)	11,13,17	4.44	4 (36%)
4	FMN	G	3051	-	33,33,33	6.45	22 (66%)	48,50,50	1.36	6 (12%)
4	FMN	H	3051	-	33,33,33	6.35	21 (63%)	48,50,50	1.36	7 (14%)
3	CER	B	2748	-	11,11,15	4.17	3 (27%)	11,13,17	4.27	4 (36%)
3	CER	C	2748	-	11,11,15	4.19	3 (27%)	11,13,17	4.43	4 (36%)
4	FMN	I	3051	-	33,33,33	6.45	24 (72%)	48,50,50	1.36	8 (16%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	CER	A	2748	-	-	4/12/12/16	-
4	FMN	G	3051	-	-	5/18/18/18	0/3/3/3
4	FMN	H	3051	-	-	5/18/18/18	0/3/3/3
3	CER	B	2748	-	-	4/12/12/16	-
3	CER	C	2748	-	-	4/12/12/16	-
4	FMN	I	3051	-	-	5/18/18/18	0/3/3/3

All (76) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	G	3051	FMN	C6-C7	13.44	1.57	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	I	3051	FMN	C6-C7	13.08	1.57	1.39
4	H	3051	FMN	C6-C7	12.77	1.57	1.39
4	I	3051	FMN	C6-C5A	12.55	1.59	1.40
4	I	3051	FMN	C9-C8	12.37	1.56	1.39
4	G	3051	FMN	C9-C9A	12.36	1.59	1.39
4	G	3051	FMN	C6-C5A	12.26	1.58	1.40
3	C	2748	CER	O1-C4	12.25	1.41	1.21
3	A	2748	CER	O1-C4	12.23	1.41	1.21
4	H	3051	FMN	C9-C9A	12.22	1.59	1.39
3	B	2748	CER	O1-C4	12.19	1.41	1.21
4	I	3051	FMN	C9-C9A	12.16	1.59	1.39
4	H	3051	FMN	C6-C5A	12.05	1.58	1.40
4	G	3051	FMN	C9-C8	11.92	1.55	1.39
4	H	3051	FMN	C9-C8	11.74	1.55	1.39
4	G	3051	FMN	O4-C4	10.03	1.42	1.23
4	H	3051	FMN	O4-C4	9.91	1.42	1.23
4	I	3051	FMN	O4-C4	9.72	1.42	1.23
4	G	3051	FMN	C4A-N5	9.59	1.51	1.30
4	I	3051	FMN	C4A-N5	9.31	1.50	1.30
4	H	3051	FMN	C4A-N5	9.27	1.50	1.30
4	I	3051	FMN	C9A-C5A	9.10	1.55	1.41
4	G	3051	FMN	C9A-C5A	8.74	1.55	1.41
4	H	3051	FMN	O2-C2	8.56	1.41	1.24
4	I	3051	FMN	O2-C2	8.48	1.41	1.24
4	H	3051	FMN	C9A-C5A	8.40	1.54	1.41
4	G	3051	FMN	O2-C2	8.25	1.40	1.24
4	I	3051	FMN	C8-C7	7.51	1.59	1.40
4	G	3051	FMN	C2-N1	7.41	1.53	1.36
4	G	3051	FMN	C10-N1	7.29	1.48	1.33
4	H	3051	FMN	C2-N1	7.25	1.53	1.36
4	H	3051	FMN	C10-N1	7.20	1.47	1.33
4	I	3051	FMN	C2-N1	7.19	1.52	1.36
4	G	3051	FMN	C8-C7	7.10	1.58	1.40
4	H	3051	FMN	C8-C7	6.92	1.57	1.40
4	I	3051	FMN	C10-N1	6.90	1.47	1.33
4	I	3051	FMN	C5A-N5	6.66	1.51	1.39
4	I	3051	FMN	C10-N10	6.66	1.51	1.37
4	H	3051	FMN	C10-N10	6.65	1.51	1.37
4	G	3051	FMN	C10-N10	6.59	1.51	1.37
4	H	3051	FMN	C2-N3	6.57	1.53	1.39
4	G	3051	FMN	C5A-N5	6.52	1.51	1.39
4	H	3051	FMN	C4-N3	6.40	1.50	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	H	3051	FMN	C5A-N5	6.39	1.51	1.39
4	G	3051	FMN	C2-N3	6.19	1.52	1.39
4	G	3051	FMN	C4-N3	6.06	1.50	1.38
4	I	3051	FMN	C4-N3	6.04	1.50	1.38
4	I	3051	FMN	C2-N3	6.04	1.52	1.39
4	G	3051	FMN	C9A-N10	5.25	1.50	1.41
4	H	3051	FMN	C9A-N10	4.97	1.49	1.41
4	I	3051	FMN	C9A-N10	4.93	1.49	1.41
3	C	2748	CER	C1-N1	4.47	1.47	1.32
3	B	2748	CER	C1-N1	4.46	1.47	1.32
3	A	2748	CER	C1-N1	4.40	1.47	1.32
4	G	3051	FMN	C4A-C10	3.63	1.54	1.44
3	B	2748	CER	C5-C4	3.55	1.56	1.51
3	C	2748	CER	C5-C4	3.52	1.55	1.51
3	A	2748	CER	C5-C4	3.44	1.55	1.51
4	H	3051	FMN	C4A-C10	3.32	1.53	1.44
4	H	3051	FMN	C1'-C2'	3.26	1.57	1.52
4	I	3051	FMN	C4A-C10	3.22	1.53	1.44
4	I	3051	FMN	P-O2P	3.17	1.66	1.54
4	I	3051	FMN	C1'-C2'	3.12	1.57	1.52
4	H	3051	FMN	P-O2P	3.04	1.66	1.54
4	G	3051	FMN	C1'-C2'	3.02	1.56	1.52
4	G	3051	FMN	P-O2P	3.01	1.66	1.54
4	I	3051	FMN	P-O3P	2.96	1.65	1.54
4	H	3051	FMN	P-O3P	2.92	1.65	1.54
4	G	3051	FMN	P-O3P	2.71	1.64	1.54
4	G	3051	FMN	C4A-C4	2.45	1.53	1.44
4	I	3051	FMN	C8M-C8	2.43	1.55	1.51
4	H	3051	FMN	C4A-C4	2.33	1.53	1.44
4	I	3051	FMN	C7M-C7	2.25	1.55	1.51
4	I	3051	FMN	C4A-C4	2.23	1.52	1.44
4	I	3051	FMN	C5'-C4'	2.11	1.54	1.51
4	G	3051	FMN	C7M-C7	2.03	1.54	1.51

All (33) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	2748	CER	O1-C4-C3	-11.11	108.66	120.07
3	C	2748	CER	O1-C4-C3	-11.09	108.69	120.07
3	B	2748	CER	O1-C4-C3	-10.73	109.06	120.07
3	C	2748	CER	O1-C4-C5	-8.10	107.97	121.68
3	A	2748	CER	O1-C4-C5	-8.05	108.06	121.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	B	2748	CER	O1-C4-C5	-7.70	108.64	121.68
4	I	3051	FMN	C4'-C3'-C2'	-3.58	107.62	113.57
4	H	3051	FMN	C4'-C3'-C2'	-3.52	107.71	113.57
4	G	3051	FMN	C4'-C3'-C2'	-3.50	107.74	113.57
3	A	2748	CER	C6-C5-C4	-3.41	108.47	114.00
3	A	2748	CER	C5-C4-C3	-3.36	110.87	117.77
3	C	2748	CER	C6-C5-C4	-3.36	108.56	114.00
3	B	2748	CER	C5-C4-C3	-3.28	111.03	117.77
3	C	2748	CER	C5-C4-C3	-3.27	111.05	117.77
4	I	3051	FMN	C4A-C10-N10	3.15	120.99	116.48
4	G	3051	FMN	C4A-C10-N10	3.15	120.98	116.48
4	H	3051	FMN	C4A-C10-N10	3.12	120.94	116.48
3	B	2748	CER	C6-C5-C4	-3.11	108.95	114.00
4	G	3051	FMN	C10-C4A-N5	-2.81	119.08	124.81
4	H	3051	FMN	C10-C4A-N5	-2.75	119.20	124.81
4	I	3051	FMN	C4-N3-C2	-2.58	121.05	125.64
4	I	3051	FMN	C10-C4A-N5	-2.55	119.59	124.81
4	G	3051	FMN	C4-N3-C2	-2.43	121.33	125.64
4	H	3051	FMN	C4-N3-C2	-2.37	121.44	125.64
4	H	3051	FMN	O2-C2-N1	-2.26	118.04	121.80
4	I	3051	FMN	O4-C4-C4A	-2.20	120.72	126.53
4	G	3051	FMN	C5A-C9A-N10	2.10	119.86	117.97
4	I	3051	FMN	O2-C2-N1	-2.09	118.33	121.80
4	H	3051	FMN	O5'-C5'-C4'	-2.03	103.94	109.36
4	I	3051	FMN	C4A-C4-N3	2.03	118.41	113.25
4	I	3051	FMN	C9A-C5A-N5	-2.01	120.32	122.45
4	G	3051	FMN	O2-C2-N1	-2.01	118.46	121.80
4	H	3051	FMN	O4-C4-C4A	-2.00	121.24	126.53

There are no chirality outliers.

All (27) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	A	2748	CER	C2-C3-C4-O1
3	B	2748	CER	C2-C3-C4-O1
3	C	2748	CER	C2-C3-C4-O1
4	G	3051	FMN	C2'-C3'-C4'-C5'
4	G	3051	FMN	O3'-C3'-C4'-C5'
4	H	3051	FMN	C2'-C3'-C4'-C5'
4	H	3051	FMN	O3'-C3'-C4'-C5'
4	I	3051	FMN	C2'-C3'-C4'-C5'
4	I	3051	FMN	O3'-C3'-C4'-C5'

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Mol	Chain	Res	Type	Atoms
4	I	3051	FMN	C2'-C3'-C4'-O4'
4	H	3051	FMN	O3'-C3'-C4'-O4'
4	I	3051	FMN	O3'-C3'-C4'-O4'
4	H	3051	FMN	C2'-C3'-C4'-O4'
3	A	2748	CER	O2-C1-C2-C3
3	B	2748	CER	O2-C1-C2-C3
3	C	2748	CER	O2-C1-C2-C3
4	G	3051	FMN	C2'-C3'-C4'-O4'
3	A	2748	CER	N1-C1-C2-C3
3	B	2748	CER	N1-C1-C2-C3
3	C	2748	CER	N1-C1-C2-C3
4	G	3051	FMN	O3'-C3'-C4'-O4'
3	C	2748	CER	C5-C6-C7-C8
3	A	2748	CER	C5-C6-C7-C8
3	B	2748	CER	C5-C6-C7-C8
4	G	3051	FMN	C4'-C5'-O5'-P
4	H	3051	FMN	C4'-C5'-O5'-P
4	I	3051	FMN	C4'-C5'-O5'-P

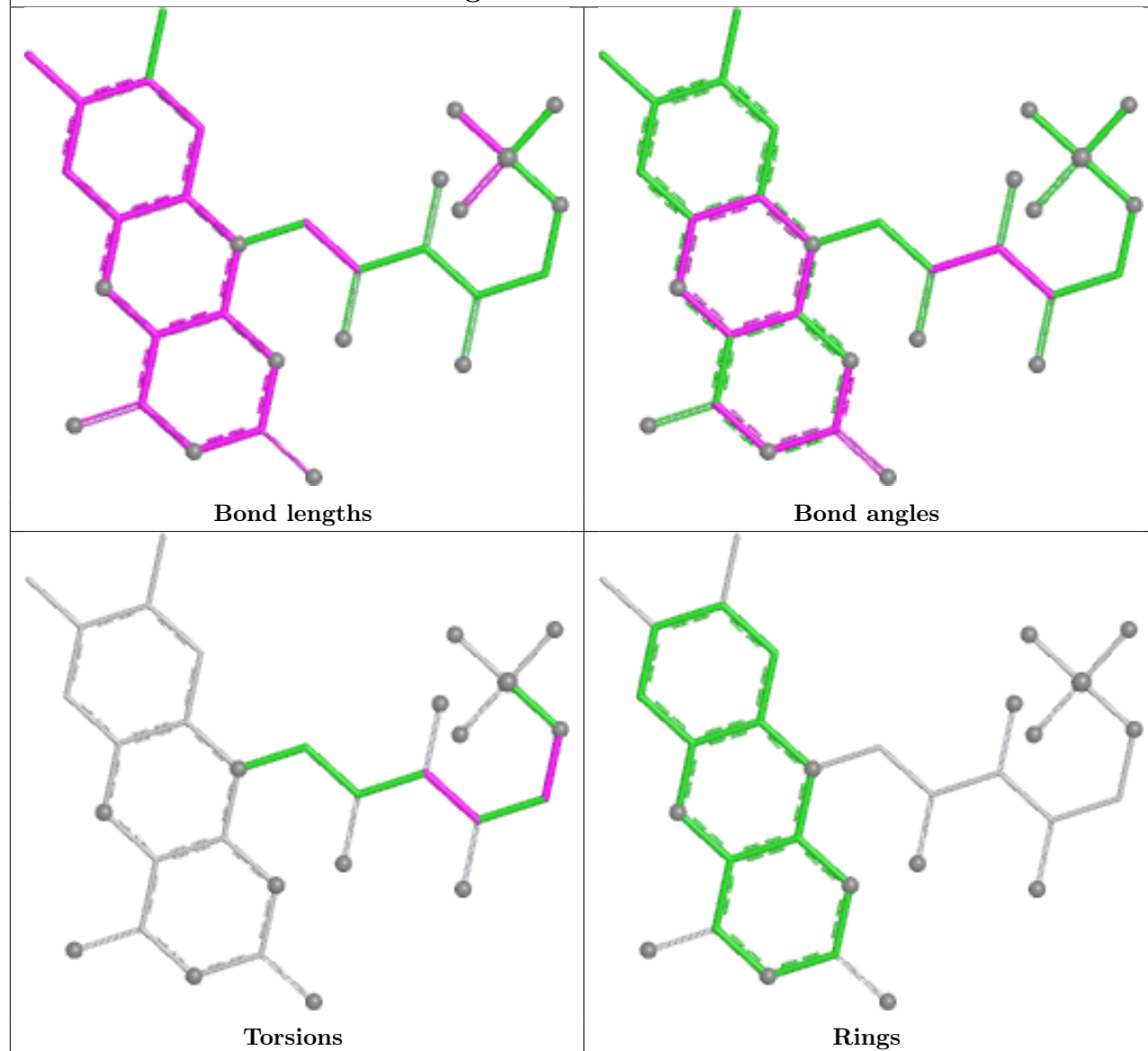
There are no ring outliers.

6 monomers are involved in 28 short contacts:

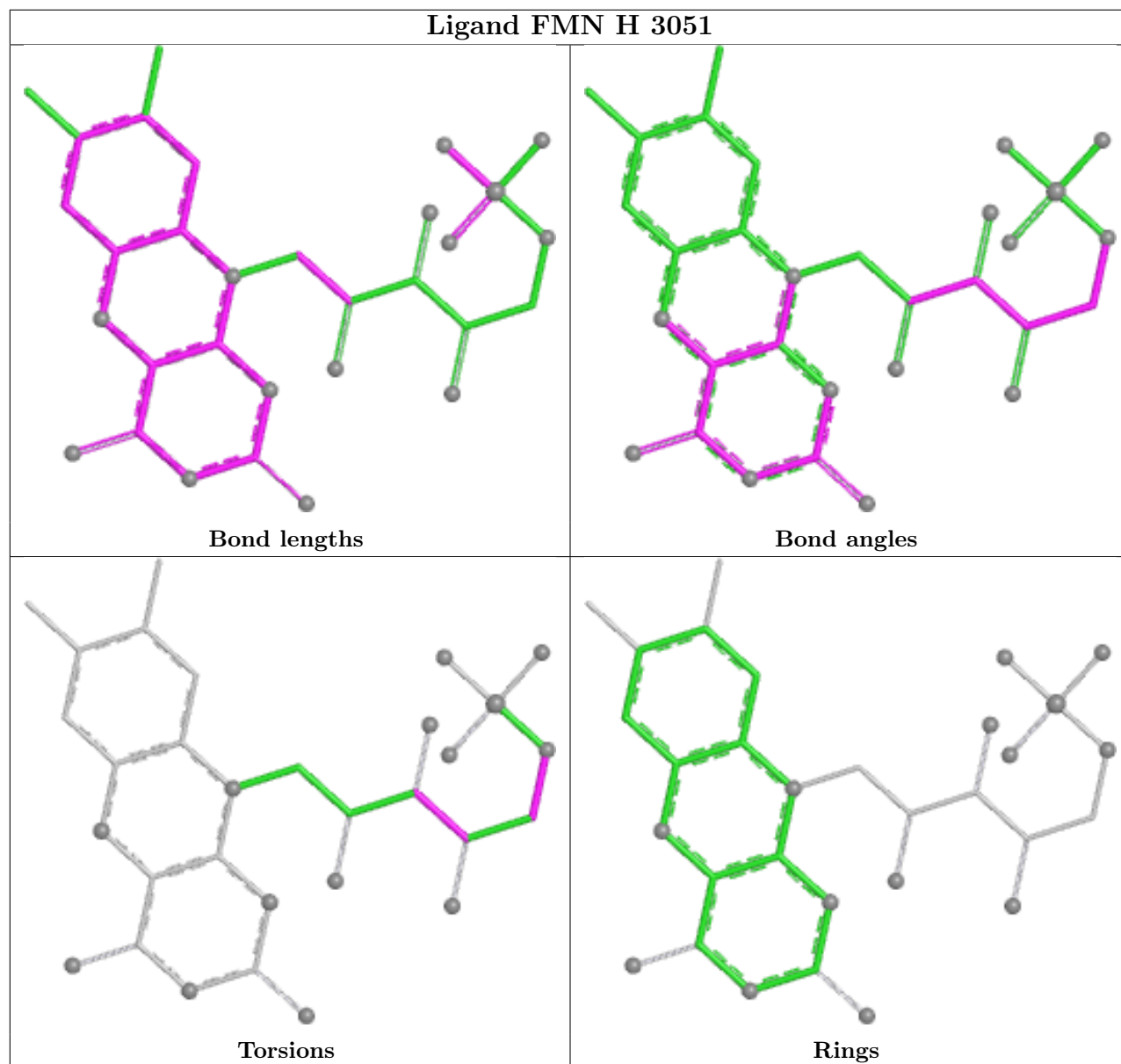
Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	A	2748	CER	3	0
4	G	3051	FMN	8	0
4	H	3051	FMN	5	0
3	B	2748	CER	4	0
3	C	2748	CER	4	0
4	I	3051	FMN	4	0

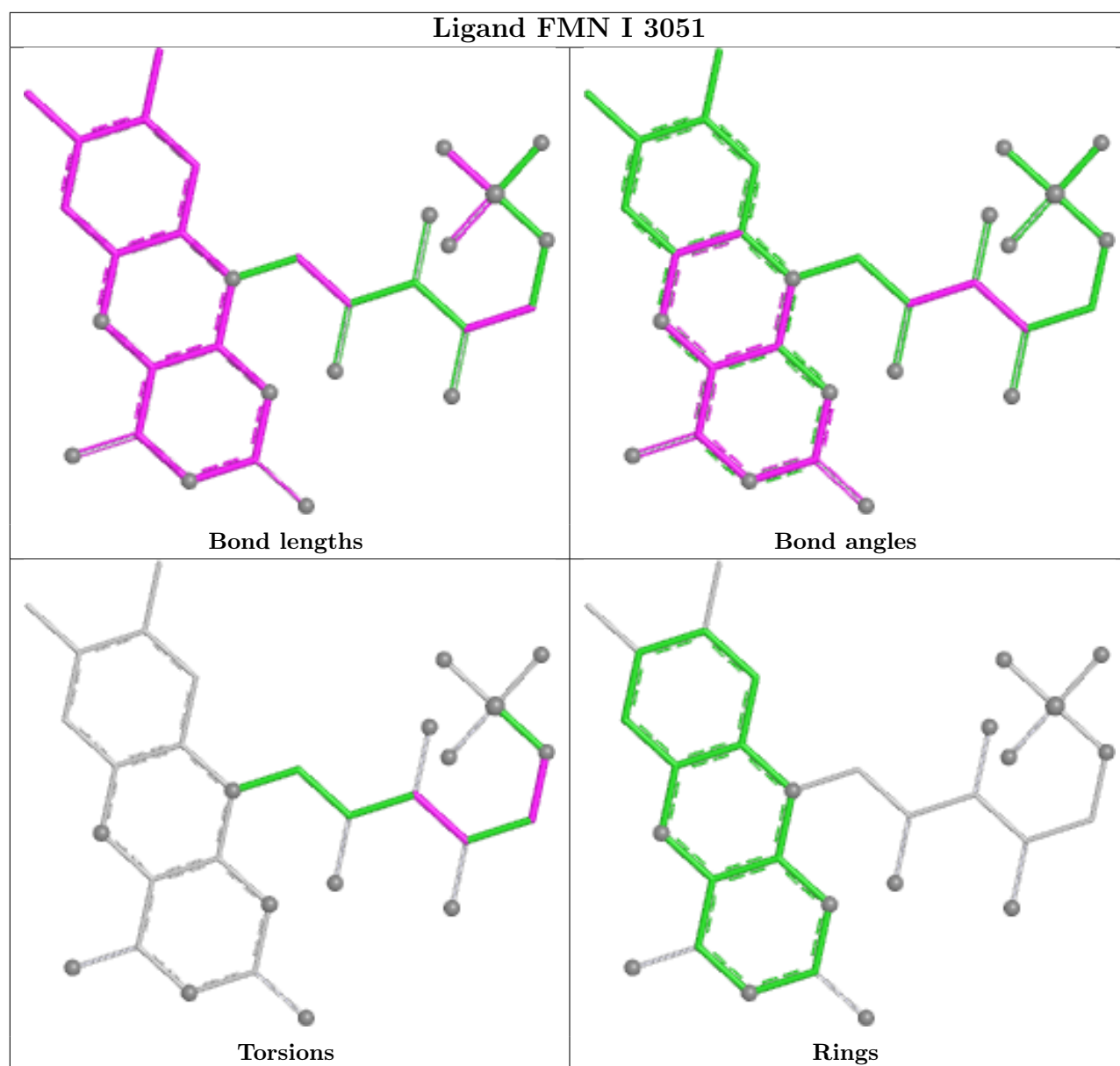
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

Ligand FMN G 3051



Ligand FMN H 3051





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, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q < 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ > 2		OWAB(Å ²)	Q < 0.9
1	A	1750/1887 (92%)	-0.03	10 (0%)	85 71	95, 134, 347, 457	0
1	B	1750/1887 (92%)	-0.06	10 (0%)	85 71	96, 132, 302, 419	0
1	C	1750/1887 (92%)	-0.01	15 (0%)	81 64	98, 135, 423, 568	0
2	G	2033/2051 (99%)	-0.10	13 (0%)	85 71	131, 169, 218, 267	0
2	H	2033/2051 (99%)	-0.05	11 (0%)	87 73	130, 170, 215, 265	0
2	I	2033/2051 (99%)	-0.07	15 (0%)	84 68	131, 171, 215, 261	0
All	All	11349/11814 (96%)	-0.05	74 (0%)	84 68	95, 162, 239, 568	0

All (74) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	I	1924	ILE	6.9
2	I	205	ALA	4.8
2	H	2014	LEU	4.6
1	B	1837	ILE	3.9
2	G	1958	LEU	3.4
2	I	87	CYS	3.4
1	C	885	ALA	3.4
2	H	1924	ILE	3.4
1	C	948	VAL	3.2
2	I	30	ALA	3.2
2	I	1219	ILE	3.2
2	H	1913	VAL	3.1
2	G	2033	THR	3.1
1	A	930	LEU	3.1
2	I	1928	GLN	3.1
2	H	2033	THR	3.0
2	G	356	THR	3.0
2	G	137	PHE	3.0
2	I	1927	LEU	3.0

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Mol	Chain	Res	Type	RSRZ
1	C	539	SER	2.9
1	C	888	ILE	2.9
1	A	1881	VAL	2.9
1	C	172	ILE	2.9
1	C	1274	ILE	2.8
1	A	1781	VAL	2.8
1	A	1310	GLU	2.7
2	I	1922	ILE	2.7
1	B	930	LEU	2.7
2	I	512	LEU	2.7
2	G	2029	VAL	2.6
2	G	1924	ILE	2.6
1	A	1760	THR	2.6
1	C	1750	ILE	2.5
1	A	1879	VAL	2.5
2	H	408	PRO	2.4
1	B	1811	GLY	2.4
1	C	1782	GLU	2.4
1	C	930	LEU	2.4
1	C	1771	VAL	2.3
2	H	1874	VAL	2.3
2	G	1444	LEU	2.3
1	C	616	LEU	2.3
2	H	2021	VAL	2.3
1	C	1837	ILE	2.3
1	A	1348	ALA	2.3
2	G	77	VAL	2.3
1	A	875	THR	2.3
1	B	875	THR	2.3
1	B	1855	ALA	2.3
2	I	2010	TYR	2.2
1	B	1879	VAL	2.2
2	G	68	VAL	2.2
2	H	1671	SER	2.2
2	G	716	VAL	2.2
2	I	208	VAL	2.2
2	H	1947	ALA	2.2
1	A	1757	GLU	2.2
2	I	366	VAL	2.2
1	B	1777	THR	2.2
2	H	1837	THR	2.2
2	I	1923	ASP	2.2

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Mol	Chain	Res	Type	RSRZ
2	I	634	ILE	2.2
1	C	862	LEU	2.2
2	G	1074	MET	2.1
1	C	1374	ASN	2.1
1	B	1787	ILE	2.1
1	B	250	LEU	2.1
1	C	141	ALA	2.1
2	I	1721	PHE	2.1
1	A	638	LEU	2.0
2	G	644	GLY	2.0
2	G	1161	GLN	2.0
1	B	1456	GLU	2.0
2	H	1838	MET	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 oligosaccharides in this entry.

6.4 Ligands [i](#)

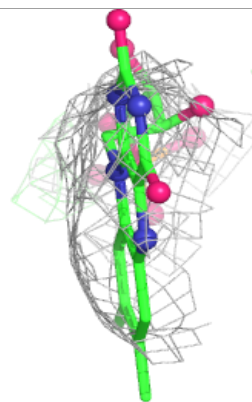
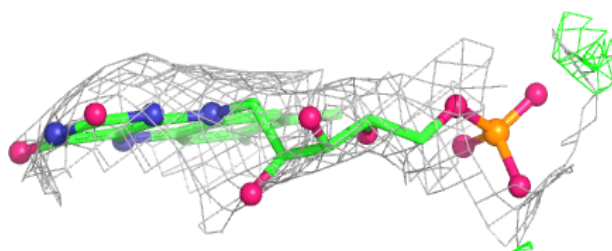
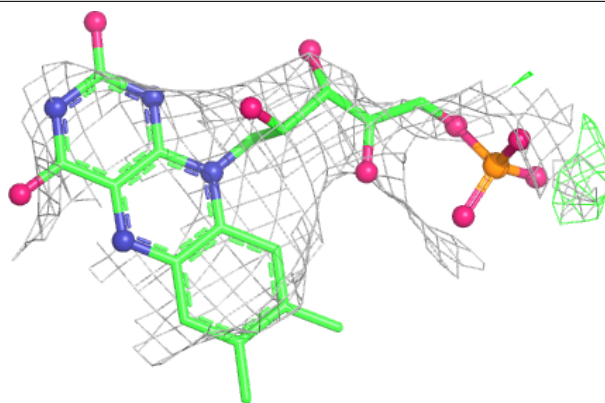
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
3	CER	A	2748	12/16	0.80	0.17	67,131,240,249	0
4	FMN	H	3051	31/31	0.84	0.10	131,157,181,186	0
4	FMN	G	3051	31/31	0.85	0.11	135,158,184,203	0
4	FMN	I	3051	31/31	0.88	0.11	129,161,178,201	0
3	CER	B	2748	12/16	0.90	0.12	67,131,249,250	0
3	CER	C	2748	12/16	0.91	0.22	67,131,249,250	0

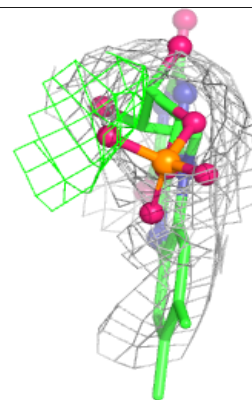
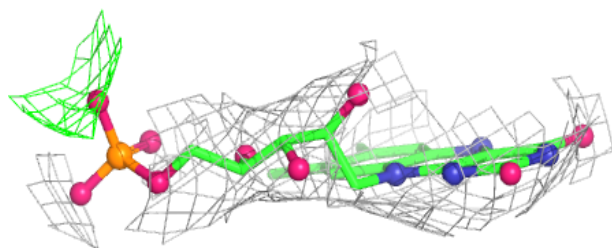
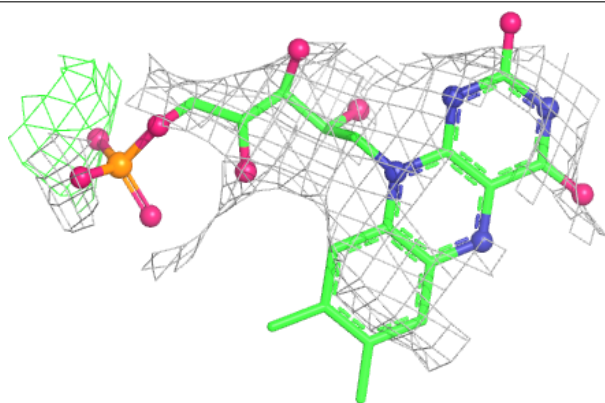
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around FMN H 3051:

$2mF_o - DF_c$ (at 0.7 rmsd) in gray
 $mF_o - DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)

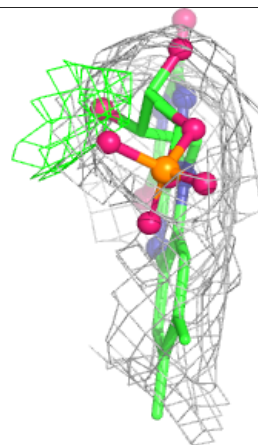
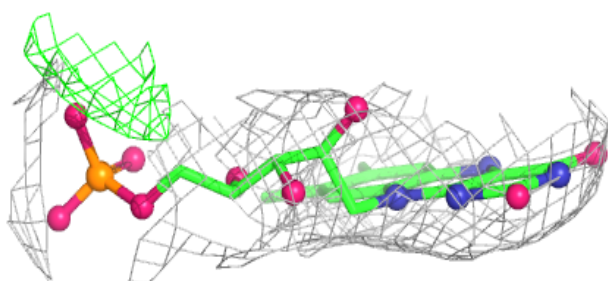
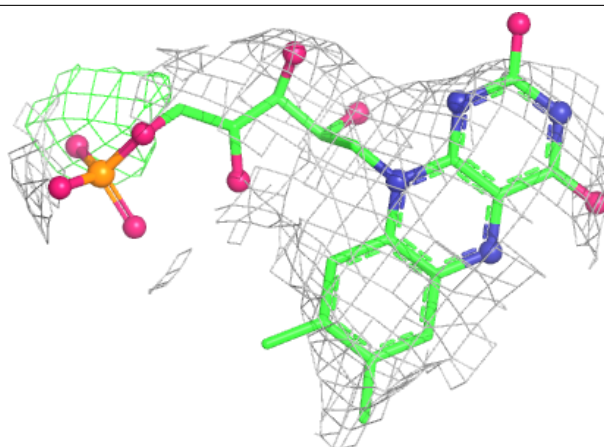
**Electron density around FMN G 3051:**

$2mF_o - DF_c$ (at 0.7 rmsd) in gray
 $mF_o - DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around FMN I 3051:

$2mF_o - DF_c$ (at 0.7 rmsd) in gray
 $mF_o - DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)



6.5 Other polymers [i](#)

There are no such residues in this entry.