Full wwPDB X-ray Structure Validation Report ⓘ

Jun 16, 2024 – 01:53 PM EDT

PDB ID	:	2B8K
Title	:	12-subunit RNA Polymerase II
Authors	:	Meyer, P.A.; Ye, P.; Zhang, M.; Suh, M.H.; Fu, J.
Deposited on	:	2005-10-07
Resolution	:	4.15 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

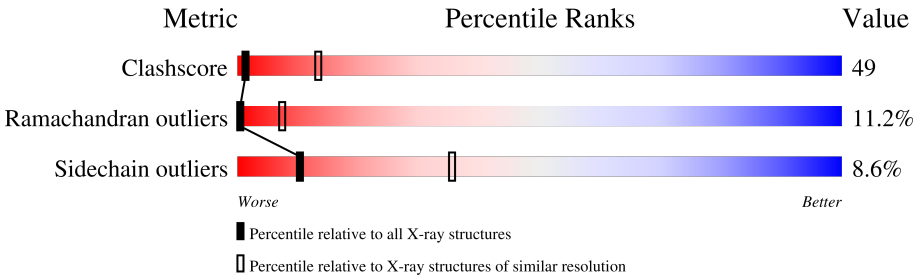
MolProbity	:	4.02b-467
Xtriage (Phenix)	:	1.20.1
EDS	:	2.37.1
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.37.1

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 4.15 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
Clashscore	141614	1028 (4.52-3.80)
Ramachandran outliers	138981	1005 (4.54-3.78)
Sidechain outliers	138945	1024 (4.54-3.76)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5%

Mol	Chain	Length	Quality of chain
1	A	1733	27% 43% 10% • 18%
2	B	1224	29% 48% 12% • 9%
3	C	318	23% 47% 12% • 16%
4	D	221	30% 42% 10% 18%
5	E	215	40% 53% 6%
6	F	155	17% 31% 6% • 46%
7	G	215	30% 42% 7% 20%
8	H	146	32% 49% 10% 9%

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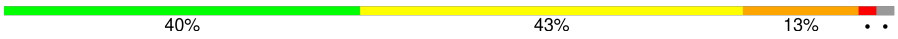
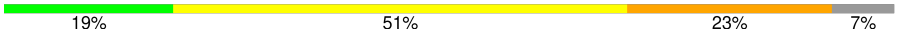
Mol	Chain	Length	Quality of chain
9	I	122	
10	J	70	
11	K	120	
12	L	70	

2 Entry composition (i)

There are 13 unique types of molecules in this entry. The entry contains 31040 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 DNA-directed RNA polymerase II largest subunit.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	1416	Total	C	N	O	S	0	0	0
			11140	7021	1946	2111	62			

- Molecule 2 is a protein called DNA-directed RNA polymerase II 140 kDa polypeptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	1114	Total	C	N	O	S	0	0	0
			8800	5573	1540	1633	54			

- Molecule 3 is a protein called DNA-directed RNA polymerase II 45 kDa polypeptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	266	Total	C	N	O	S	0	0	0
			2095	1317	348	417	13			

- Molecule 4 is a protein called DNA-directed RNA polymerase II 32 kDa polypeptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	182	Total	C	N	O	S	0	0	0
			1373	851	243	277	2			

- Molecule 5 is a protein called DNA-directed RNA polymerases I, II, and III 27 kDa polypeptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	E	214	Total	C	N	O	S	0	0	0
			1752	1111	309	321	11			

- Molecule 6 is a protein called DNA-directed RNA polymerases I, II, and III 23 kDa polypeptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	F	84	Total	C	N	O	S	0	0	0
			679	434	115	127	3			

- Molecule 7 is a protein called DNA-directed RNA polymerase II 19 kDa polypeptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	G	171	Total	C	N	O	S	0	0	0
			1339	861	222	248	8			

There are 44 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
G	172	SER	-	EXPRESSION TAG	UNP P34087
G	173	HIS	-	EXPRESSION TAG	UNP P34087
G	174	GLU	-	EXPRESSION TAG	UNP P34087
G	175	LYS	-	EXPRESSION TAG	UNP P34087
G	176	ARG	-	EXPRESSION TAG	UNP P34087
G	177	ARG	-	EXPRESSION TAG	UNP P34087
G	178	TRP	-	EXPRESSION TAG	UNP P34087
G	179	LYS	-	EXPRESSION TAG	UNP P34087
G	180	LYS	-	EXPRESSION TAG	UNP P34087
G	181	ASN	-	EXPRESSION TAG	UNP P34087
G	182	PHE	-	EXPRESSION TAG	UNP P34087
G	183	ILE	-	EXPRESSION TAG	UNP P34087
G	184	ALA	-	EXPRESSION TAG	UNP P34087
G	185	VAL	-	EXPRESSION TAG	UNP P34087
G	186	SER	-	EXPRESSION TAG	UNP P34087
G	187	ALA	-	EXPRESSION TAG	UNP P34087
G	188	ALA	-	EXPRESSION TAG	UNP P34087
G	189	ASN	-	EXPRESSION TAG	UNP P34087
G	190	ARG	-	EXPRESSION TAG	UNP P34087
G	191	PHE	-	EXPRESSION TAG	UNP P34087
G	192	LYS	-	EXPRESSION TAG	UNP P34087
G	193	LYS	-	EXPRESSION TAG	UNP P34087
G	194	ILE	-	EXPRESSION TAG	UNP P34087
G	195	SER	-	EXPRESSION TAG	UNP P34087
G	196	SER	-	EXPRESSION TAG	UNP P34087
G	197	SER	-	EXPRESSION TAG	UNP P34087
G	198	GLY	-	EXPRESSION TAG	UNP P34087
G	199	ALA	-	EXPRESSION TAG	UNP P34087
G	200	LEU	-	EXPRESSION TAG	UNP P34087
G	201	ASP	-	EXPRESSION TAG	UNP P34087
G	202	TYR	-	EXPRESSION TAG	UNP P34087

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Chain	Residue	Modelled	Actual	Comment	Reference
G	203	ASP	-	EXPRESSION TAG	UNP P34087
G	204	ILE	-	EXPRESSION TAG	UNP P34087
G	205	PRO	-	EXPRESSION TAG	UNP P34087
G	206	THR	-	EXPRESSION TAG	UNP P34087
G	207	THR	-	EXPRESSION TAG	UNP P34087
G	208	ALA	-	EXPRESSION TAG	UNP P34087
G	209	SER	-	EXPRESSION TAG	UNP P34087
G	210	GLU	-	EXPRESSION TAG	UNP P34087
G	211	ASN	-	EXPRESSION TAG	UNP P34087
G	212	LEU	-	EXPRESSION TAG	UNP P34087
G	213	TYR	-	EXPRESSION TAG	UNP P34087
G	214	PHE	-	EXPRESSION TAG	UNP P34087
G	215	GLN	-	EXPRESSION TAG	UNP P34087

- Molecule 8 is a protein called DNA-directed RNA polymerases I, II, and III 14.5 kDa polypeptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	H	133	Total	C	N	O	S	0	0	0
			1068	673	180	211	4			

- Molecule 9 is a protein called DNA-directed RNA polymerase II subunit 9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	I	119	Total	C	N	O	S	0	0	0
			971	596	179	186	10			

- Molecule 10 is a protein called DNA-directed RNA polymerases I/II/III subunit 10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	J	65	Total	C	N	O	S	0	0	0
			532	339	93	94	6			

- Molecule 11 is a protein called DNA-directed RNA polymerase II 13.6 kDa polypeptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	K	115	Total	C	N	O	S	0	0	1
			920	590	157	171	2			

- Molecule 12 is a protein called DNA-directed RNA polymerases I, II, and III 7.7 kDa polypeptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	L	46	Total	C	N	O	S	0	0	0
			363	224	72	63	4			

- Molecule 13 is ZINC ION (three-letter code: ZN) (formula: Zn).

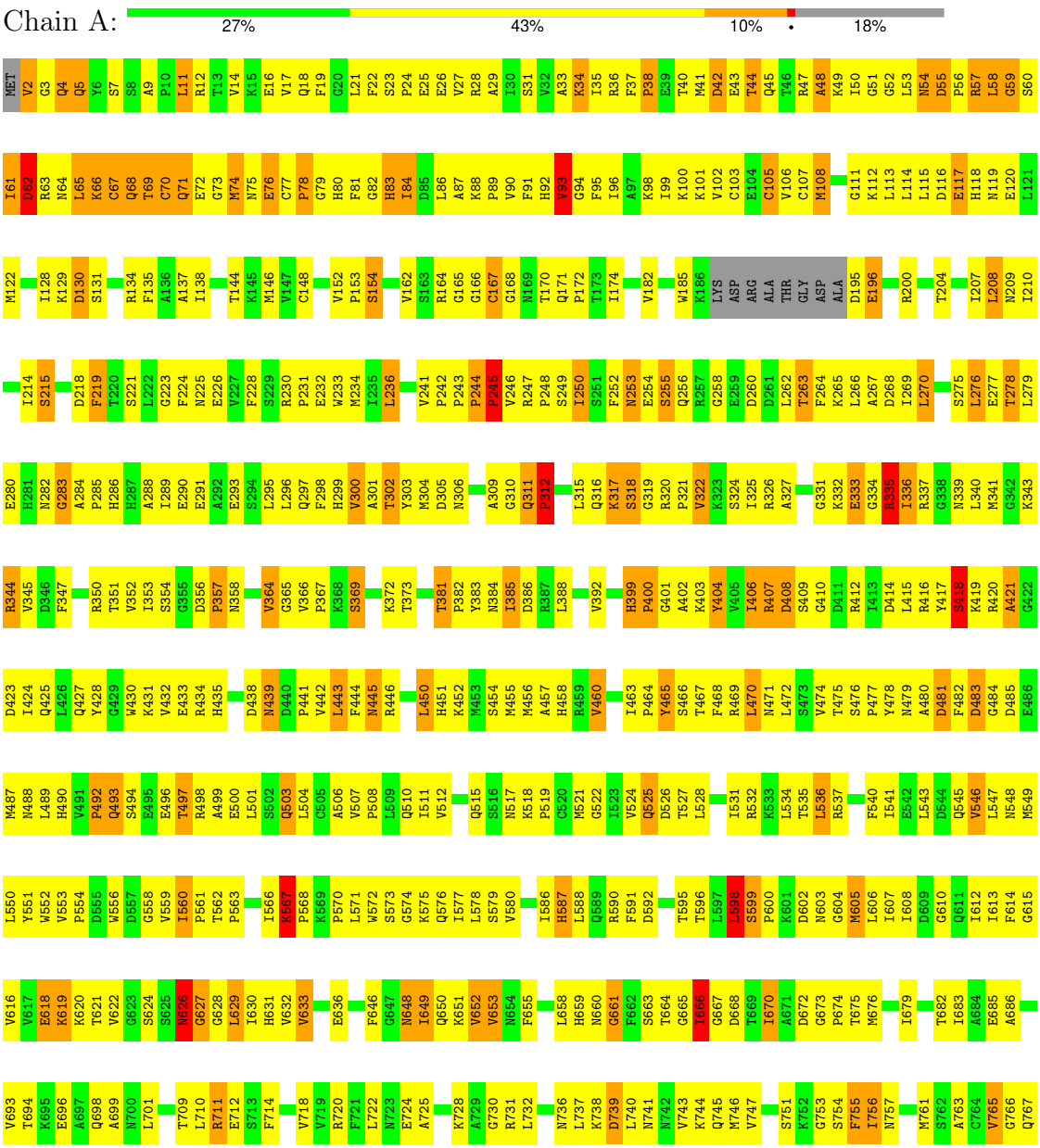
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
13	A	2	Total	Zn	0	0
			2	2		
13	B	1	Total	Zn	0	0
			1	1		
13	C	1	Total	Zn	0	0
			1	1		
13	I	2	Total	Zn	0	0
			2	2		
13	J	1	Total	Zn	0	0
			1	1		
13	L	1	Total	Zn	0	0
			1	1		

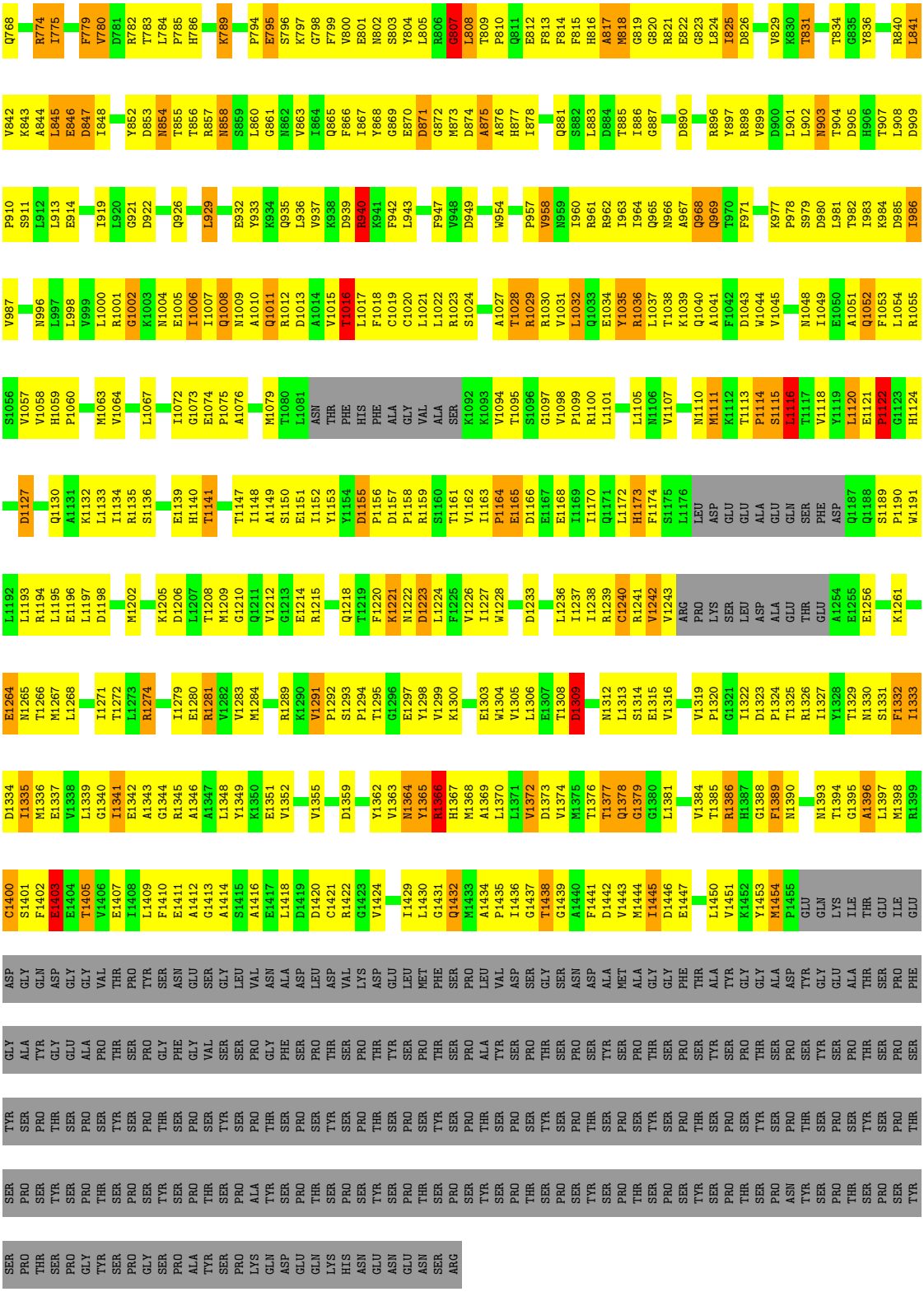
3 Residue-property plots (i)

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

- Molecule 1: DNA-directed RNA polymerase II largest subunit

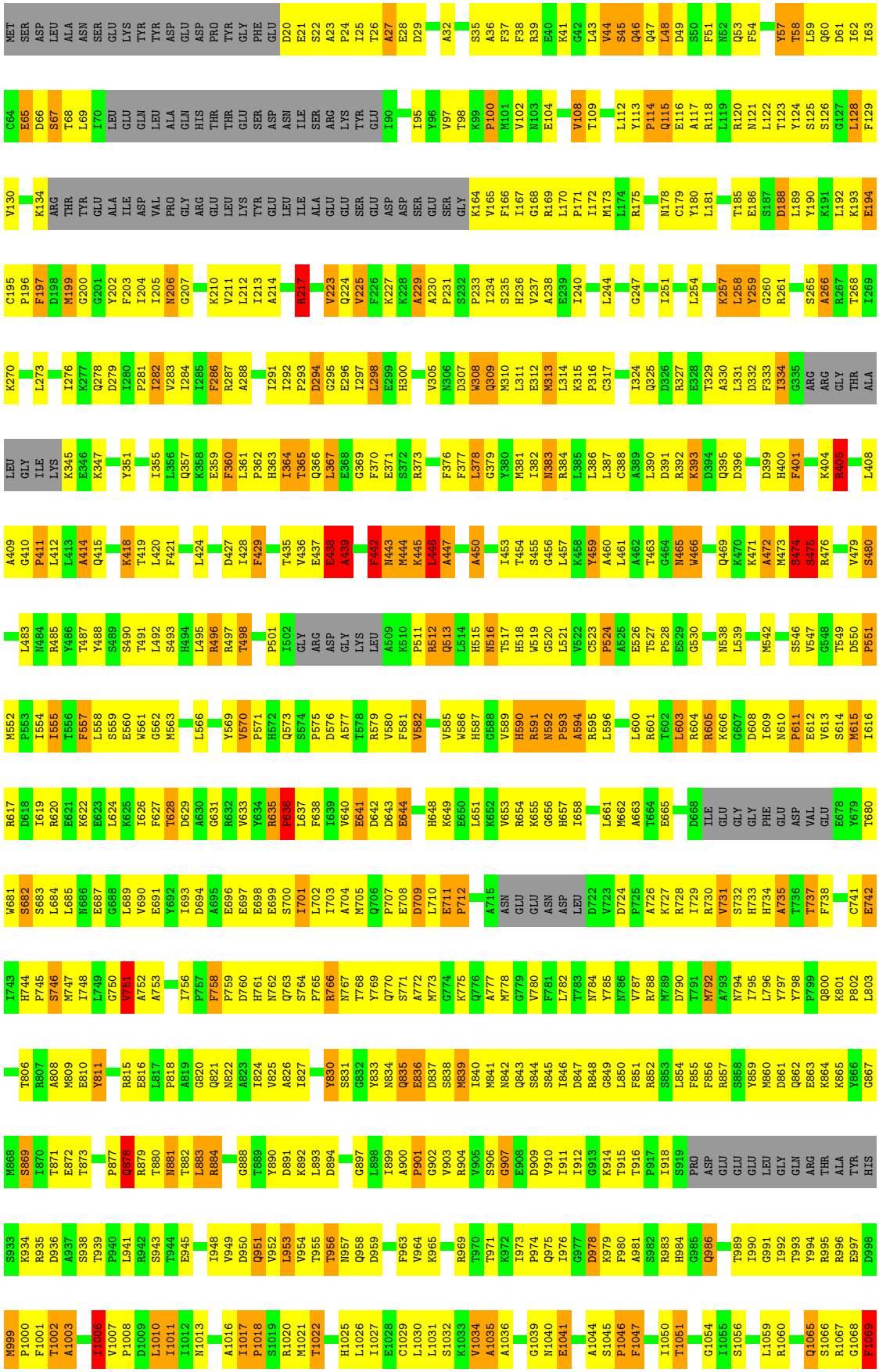
Chain A:

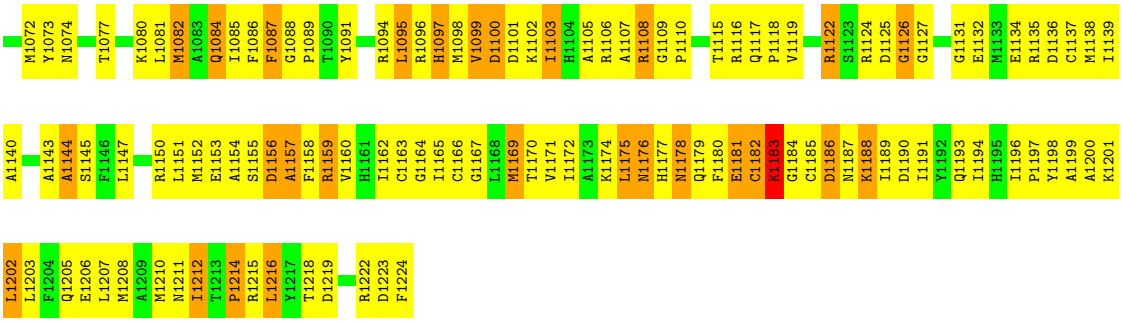




• Molecule 2: DNA-directed RNA polymerase II 140 kDa polypeptide

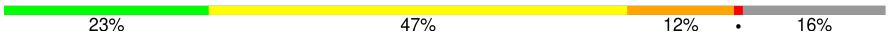
Chain B:

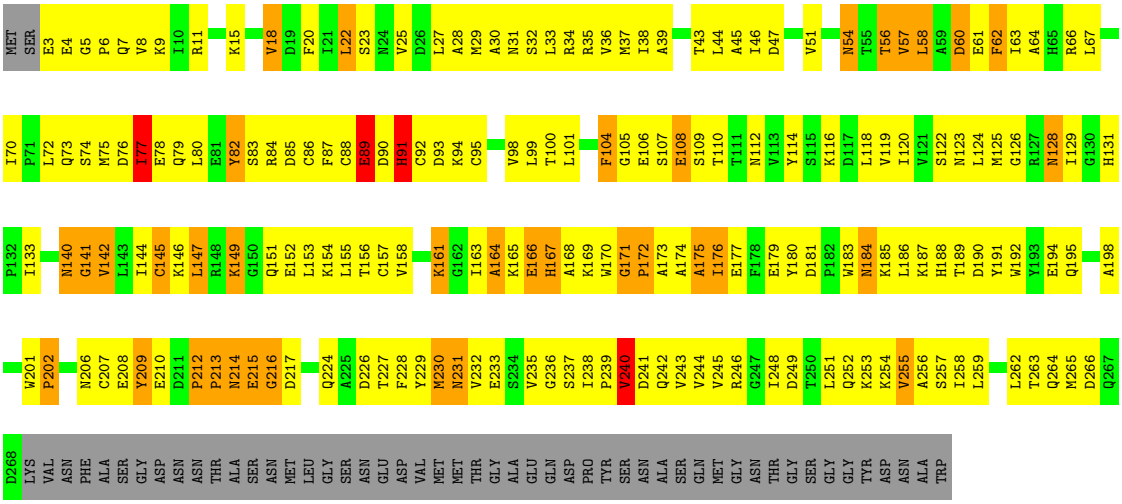




• Molecule 3: DNA-directed RNA polymerase II 45 kDa polypeptide

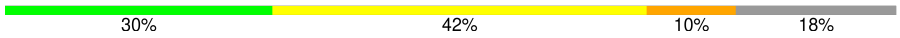
Chain C:

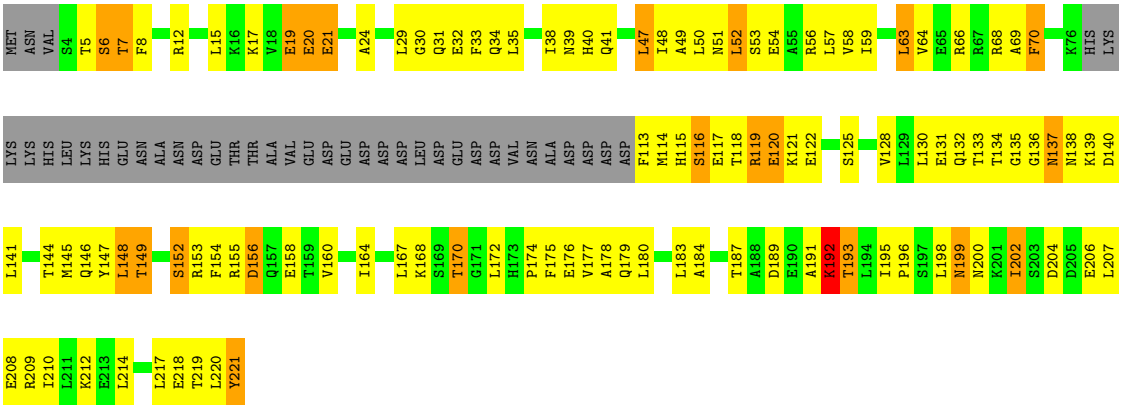




• Molecule 4: DNA-directed RNA polymerase II 32 kDa polypeptide

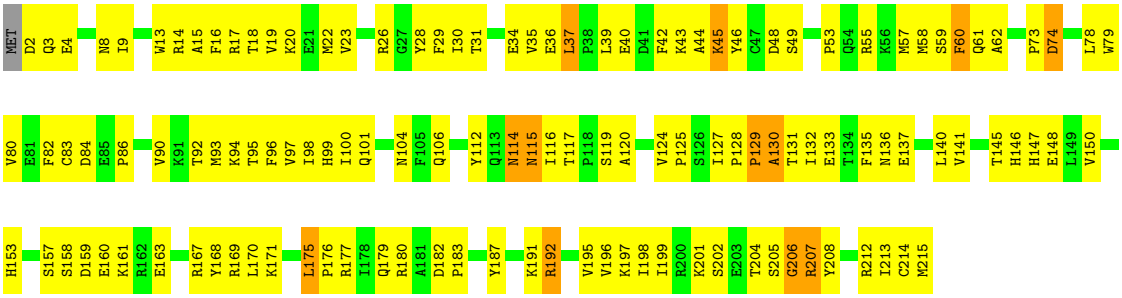
Chain D:





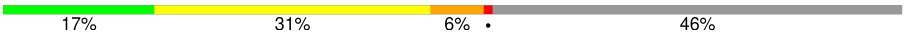
• Molecule 5: DNA-directed RNA polymerases I, II, and III 27 kDa polypeptide

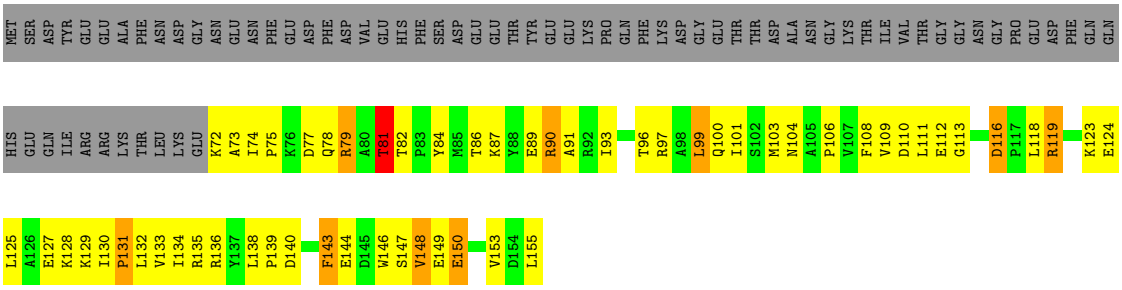
Chain E:



• Molecule 6: DNA-directed RNA polymerases I, II, and III 23 kDa polypeptide

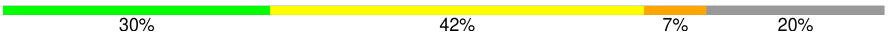
Chain F:

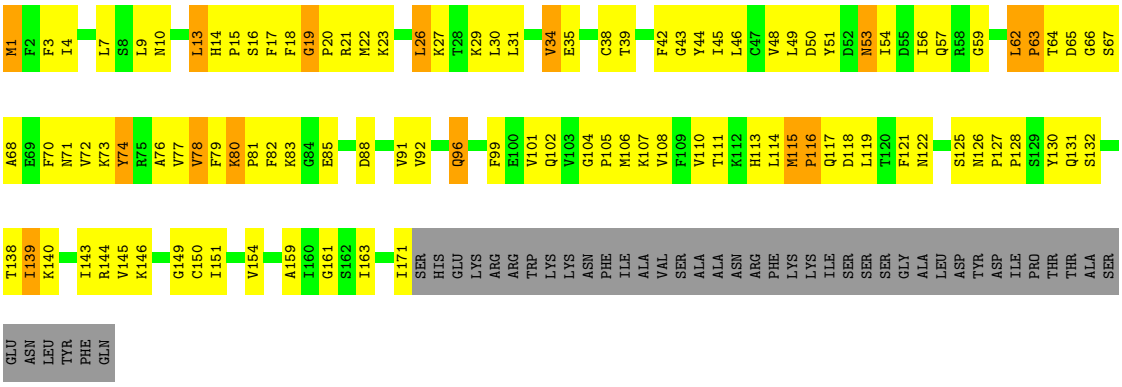




• Molecule 7: DNA-directed RNA polymerase II 19 kDa polypeptide

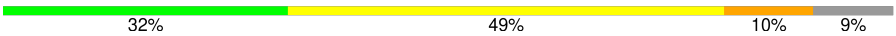
Chain G:

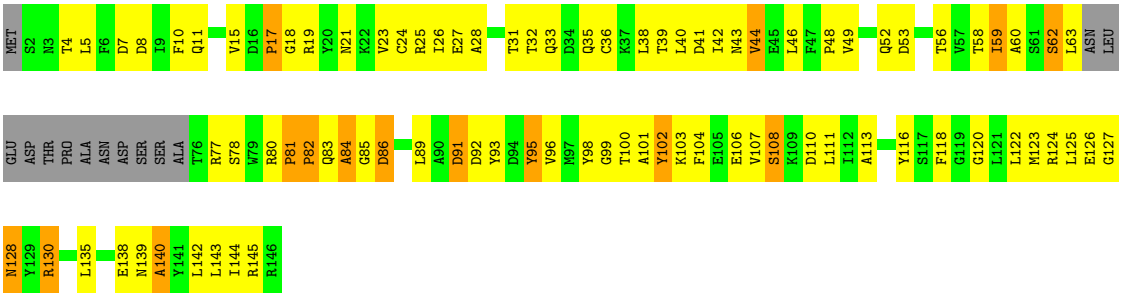




• Molecule 8: DNA-directed RNA polymerases I, II, and III 14.5 kDa polypeptide

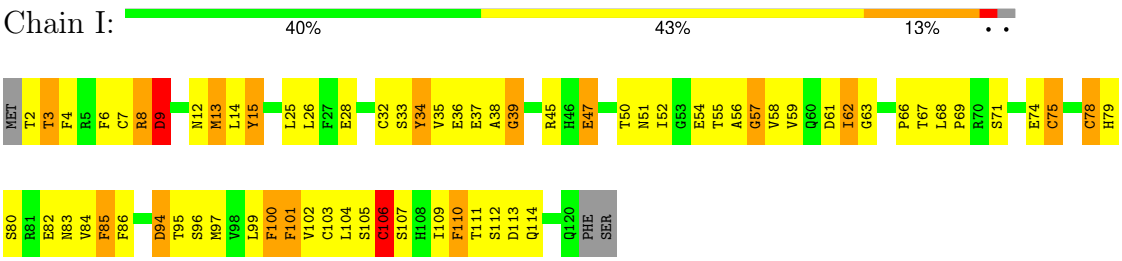
Chain H:





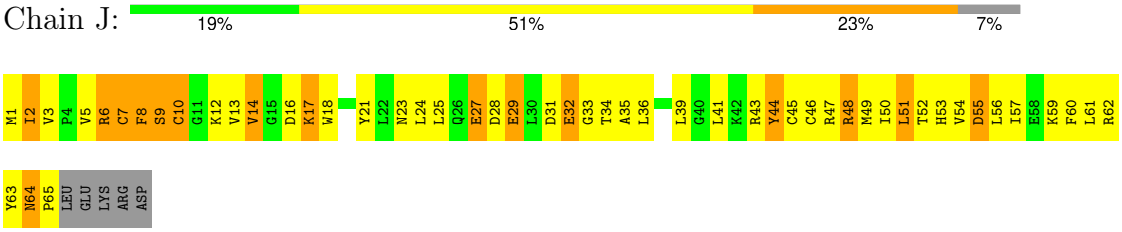
• Molecule 9: DNA-directed RNA polymerase II subunit 9

Chain I:



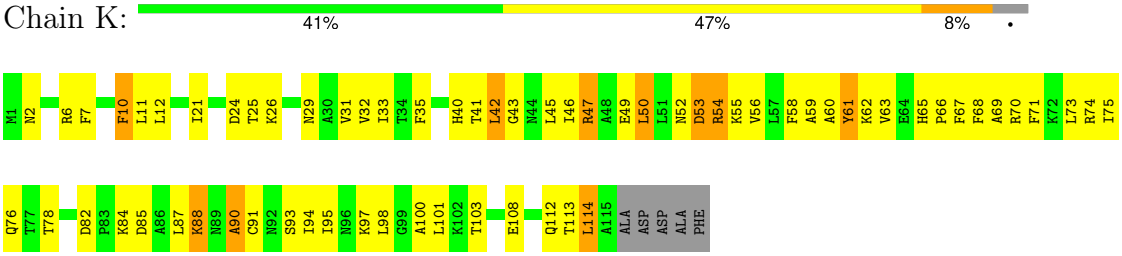
• Molecule 10: DNA-directed RNA polymerases I/II/III subunit 10

Chain J:



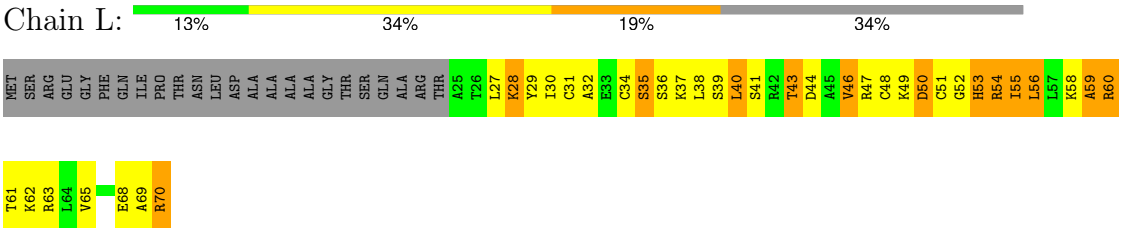
• Molecule 11: DNA-directed RNA polymerase II 13.6 kDa polypeptide

Chain K:



• Molecule 12: DNA-directed RNA polymerases I, II, and III 7.7 kDa polypeptide

Chain L:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	C 2 2 21	Depositor
Cell constants a, b, c, α, β, γ	220.69Å 394.33Å 281.31Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	158.11 – 4.15 161.46 – 4.15	Depositor EDS
% Data completeness (in resolution range)	(Not available) (158.11-4.15) 83.4 (161.46-4.15)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.20 (at 4.15Å)	Xtriage
Refinement program		Depositor
R, R_{free}	0.387 , (Not available) 0.306 , (Not available)	Depositor DCC
R_{free} test set	No test flags present.	wwPDB-VP
Wilson B-factor (Å^2)	118.6	Xtriage
Anisotropy	0.584	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.31 , 155.3	EDS
L-test for twinning[2]	$< \|L\| > = 0.46$, $< L^2 > = 0.29$	Xtriage
Estimated twinning fraction	0.023 for 1/2*h-1/2*k,-3/2*h-1/2*k,-l 0.023 for 1/2*h+1/2*k,3/2*h-1/2*k,-l	Xtriage
F_o,F_c correlation	0.82	EDS
Total number of atoms	31040	wwPDB-VP
Average B, all atoms (Å^2)	169.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.01% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

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

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	0.49	3/11339 (0.0%)	0.75	9/15334 (0.1%)
2	B	0.53	6/8971 (0.1%)	0.97	25/12103 (0.2%)
3	C	0.52	0/2133	0.76	0/2891
4	D	0.49	0/1382	0.81	3/1862 (0.2%)
5	E	0.44	0/1788	0.64	0/2406
6	F	0.53	0/691	0.78	0/933
7	G	0.53	0/1367	0.74	0/1844
8	H	0.40	0/1086	0.66	0/1470
9	I	0.83	1/989 (0.1%)	0.94	3/1331 (0.2%)
10	J	0.54	0/541	0.90	1/727 (0.1%)
11	K	0.50	0/938	0.68	0/1267
12	L	0.55	0/365	0.79	0/485
All	All	0.52	10/31590 (0.0%)	0.82	41/42653 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	2
2	B	1	10
3	C	0	1
9	I	0	1
All	All	1	14

All (10) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	I	39	GLY	C-N	-21.36	0.84	1.34
2	B	442	PHE	C-N	-8.69	1.14	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	446	LEU	N-CA	-8.12	1.30	1.46
2	B	439	ALA	C-N	7.40	1.51	1.34
1	A	1274	ARG	C-N	-6.45	1.21	1.33
2	B	475	SER	C-N	6.28	1.48	1.34
1	A	807	GLY	C-N	-5.97	1.20	1.34
2	B	405	ARG	C-N	-5.69	1.21	1.34
1	A	1141	THR	C-N	-5.33	1.21	1.34
2	B	476	ARG	C-N	-5.12	1.22	1.34

All (41) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	475	SER	CB-CA-C	-51.20	12.82	110.10
9	I	39	GLY	O-C-N	-18.15	93.66	122.70
2	B	439	ALA	N-CA-CB	-16.49	87.01	110.10
2	B	442	PHE	C-N-CA	15.77	161.13	121.70
2	B	476	ARG	C-N-CA	-15.07	84.02	121.70
2	B	445	LYS	C-N-CA	-14.85	84.58	121.70
2	B	446	LEU	CA-CB-CG	-13.57	84.09	115.30
2	B	471	LYS	C-N-CA	13.15	154.59	121.70
2	B	475	SER	N-CA-CB	10.93	126.90	110.50
2	B	438	GLU	CA-C-N	10.76	140.87	117.20
2	B	439	ALA	CA-C-N	-10.06	95.07	117.20
2	B	438	GLU	CB-CA-C	-9.87	90.65	110.40
2	B	446	LEU	N-CA-CB	-9.85	90.70	110.40
2	B	476	ARG	CA-C-N	8.81	136.58	117.20
10	J	10	CYS	CA-CB-SG	8.64	129.56	114.00
1	A	1274	ARG	C-N-CA	-8.46	104.54	122.30
2	B	438	GLU	CA-C-O	-8.45	102.36	120.10
1	A	1274	ARG	O-C-N	8.13	137.03	123.20
2	B	442	PHE	O-C-N	-7.94	109.99	122.70
2	B	474	SER	CA-C-N	-7.83	99.97	117.20
1	A	1274	ARG	CA-C-N	-7.44	101.33	116.20
2	B	439	ALA	CA-C-O	-7.36	104.65	120.10
4	D	120	GLU	N-CA-C	-6.89	92.39	111.00
2	B	476	ARG	N-CA-C	6.84	129.48	111.00
4	D	119	ARG	CA-C-N	-6.35	103.24	117.20
2	B	446	LEU	N-CA-C	-6.25	94.12	111.00
9	I	39	GLY	CA-C-N	6.22	130.89	117.20
1	A	1141	THR	O-C-N	6.15	132.54	122.70
2	B	476	ARG	O-C-N	-6.09	112.96	122.70
2	B	471	LYS	CA-C-N	-6.04	103.91	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1141	THR	CA-C-N	-5.99	104.02	117.20
2	B	405	ARG	O-C-N	-5.95	113.18	122.70
2	B	445	LYS	N-CA-C	5.62	126.19	111.00
2	B	444	MET	C-N-CA	5.44	135.29	121.70
1	A	1403	GLU	N-CA-C	5.35	125.44	111.00
2	B	1185	CYS	N-CA-C	-5.34	96.59	111.00
1	A	567	LYS	C-N-CD	5.32	139.56	128.40
1	A	452	LYS	N-CA-C	-5.19	96.98	111.00
9	I	39	GLY	C-N-CA	5.16	134.60	121.70
4	D	7	THR	N-CA-C	5.14	124.88	111.00
1	A	344	ARG	N-CA-C	-5.05	97.36	111.00

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
2	B	475	SER	CA

All (14) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	303	TYR	Sidechain
1	A	807	GLY	Mainchain
2	B	217	ARG	Mainchain
2	B	405	ARG	Mainchain
2	B	438	GLU	Peptide
2	B	439	ALA	Mainchain,Peptide
2	B	442	PHE	Peptide
2	B	445	LYS	Peptide
2	B	474	SER	Mainchain,Peptide
2	B	475	SER	Mainchain
3	C	82	TYR	Sidechain
9	I	39	GLY	Mainchain

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	11140	0	11218	1169	0
2	B	8800	0	8777	947	0
3	C	2095	0	2053	241	0
4	D	1373	0	1312	144	0
5	E	1752	0	1776	149	0
6	F	679	0	701	94	0
7	G	1339	0	1357	145	0
8	H	1068	0	1040	107	0
9	I	971	0	929	91	0
10	J	532	0	542	93	0
11	K	920	0	929	83	0
12	L	363	0	387	47	0
13	A	2	0	0	0	0
13	B	1	0	0	0	0
13	C	1	0	0	0	0
13	I	2	0	0	0	0
13	J	1	0	0	0	0
13	L	1	0	0	0	0
All	All	31040	0	31021	3039	0

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

All (3039) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:469:GLN:CA	2:B:474:SER:CB	1.80	1.51
4:D:119:ARG:N	4:D:121:LYS:HB2	1.46	1.30
4:D:113:PHE:CB	4:D:156:ASP:OD1	1.78	1.30
4:D:118:THR:HA	4:D:121:LYS:CB	1.64	1.27
2:B:435:THR:CG2	2:B:439:ALA:HB2	1.63	1.26
1:A:315:LEU:HD11	2:B:472:ALA:O	1.40	1.22
1:A:77:CYS:O	1:A:78:PRO:O	1.65	1.13
10:J:5:VAL:HG12	10:J:6:ARG:HG3	1.30	1.12
4:D:118:THR:HA	4:D:121:LYS:HB3	1.32	1.11
1:A:768:GLN:HG2	1:A:816:HIS:HA	1.22	1.09
7:G:138:THR:HG22	7:G:139:ILE:H	1.12	1.09
2:B:435:THR:HG21	2:B:439:ALA:CB	1.83	1.08
1:A:53:LEU:HD23	1:A:54:ASN:N	1.69	1.08
1:A:315:LEU:CD1	2:B:472:ALA:O	2.00	1.07
2:B:273:LEU:HB2	2:B:276:ILE:HD12	1.37	1.07
4:D:40:HIS:HB3	7:G:73:LYS:NZ	1.70	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:469:GLN:N	2:B:474:SER:CB	2.18	1.06
1:A:798:GLY:HA2	1:A:815:PHE:CD1	1.92	1.04
8:H:100:THR:HG23	8:H:138:GLU:HA	1.37	1.04
1:A:768:GLN:CG	1:A:816:HIS:HA	1.87	1.03
1:A:254:GLU:HB2	2:B:935:ARG:HH12	1.24	1.03
4:D:118:THR:CA	4:D:121:LYS:CB	2.37	1.03
4:D:48:ILE:HG21	7:G:4:ILE:HB	1.40	1.02
1:A:855:THR:HG21	1:A:857:ARG:HE	1.22	1.01
1:A:1161:THR:HG22	1:A:1163:ILE:H	1.23	1.01
6:F:93:ILE:HD11	6:F:134:ILE:HD11	1.42	1.01
4:D:118:THR:HA	4:D:121:LYS:HB2	1.41	1.01
4:D:118:THR:CA	4:D:121:LYS:HB2	1.91	1.00
4:D:118:THR:C	4:D:121:LYS:HB2	1.81	0.99
7:G:15:PRO:HA	7:G:18:PHE:CD1	1.96	0.99
2:B:23:ALA:HB1	2:B:24:PRO:HD2	1.45	0.98
2:B:46:GLN:HG3	2:B:47:GLN:H	1.28	0.98
2:B:65:GLU:HG3	2:B:66:ASP:H	1.27	0.98
1:A:53:LEU:HD23	1:A:54:ASN:H	1.26	0.98
2:B:549:THR:HG22	2:B:550:ASP:H	1.24	0.98
1:A:779:PHE:HE1	1:A:785:PRO:HD3	1.28	0.97
2:B:806:THR:HG22	2:B:808:ALA:H	1.27	0.97
2:B:189:LEU:HA	2:B:192:LEU:HD12	1.45	0.97
7:G:7:LEU:HB2	7:G:74:TYR:CE2	2.00	0.96
4:D:117:GLU:H	4:D:155:ARG:HH12	1.07	0.96
2:B:800:GLN:HB3	10:J:52:THR:HG21	1.46	0.96
1:A:77:CYS:O	1:A:77:CYS:SG	2.24	0.95
1:A:754:SER:H	1:A:757:ASN:HD22	1.11	0.95
4:D:47:LEU:HD13	4:D:48:ILE:H	1.31	0.95
3:C:142:VAL:H	10:J:16:ASP:HB3	1.31	0.95
1:A:563:PRO:HG3	1:A:572:TRP:CZ2	2.00	0.94
1:A:1329:THR:HG22	1:A:1331:SER:H	1.30	0.94
3:C:166:GLU:HG3	11:K:10:PHE:HZ	1.31	0.94
1:A:963:ILE:HD11	1:A:1048:ASN:HB3	1.50	0.94
2:B:806:THR:N	2:B:809:MET:HE3	1.82	0.93
2:B:824:ILE:HG22	2:B:1087:PHE:HE2	1.31	0.93
9:I:85:PHE:H	9:I:85:PHE:HD2	1.06	0.93
11:K:47:ARG:HB3	11:K:47:ARG:HH11	1.32	0.93
1:A:84:ILE:HD11	1:A:270:LEU:HD13	1.51	0.93
4:D:119:ARG:H	4:D:121:LYS:HB2	1.25	0.92
1:A:768:GLN:HG2	1:A:816:HIS:CA	1.98	0.92
9:I:34:TYR:HD2	9:I:35:VAL:N	1.67	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1072:MET:HE3	2:B:1085:ILE:HB	1.52	0.92
3:C:39:ALA:HA	3:C:164:ALA:HB3	1.47	0.92
1:A:709:THR:HG22	1:A:711:ARG:H	1.32	0.92
1:A:901:LEU:H	1:A:926:GLN:NE2	1.67	0.92
8:H:4:THR:HA	8:H:60:ALA:HB2	1.51	0.92
6:F:81:THR:HG21	6:F:136:ARG:HD3	1.52	0.92
1:A:567:LYS:HB3	8:H:96:VAL:H	1.35	0.91
3:C:47:ASP:HA	12:L:69:ALA:HB3	1.50	0.90
4:D:134:THR:HG22	4:D:136:GLY:H	1.36	0.90
1:A:567:LYS:HD3	8:H:95:TYR:CD2	2.06	0.90
9:I:7:CYS:HB3	9:I:14:LEU:HD21	1.53	0.90
1:A:40:THR:HG22	1:A:41:MET:HG3	1.52	0.90
2:B:1224:PHE:HE2	5:E:171:LYS:HG3	1.37	0.90
1:A:399:HIS:HB3	1:A:400:PRO:HD3	1.51	0.90
1:A:1017:LEU:HB2	5:E:206:GLY:H	1.38	0.89
5:E:180:ARG:HH21	5:E:192:ARG:HB2	1.38	0.89
2:B:515:HIS:H	2:B:518:HIS:HD2	1.19	0.89
2:B:212:LEU:HD23	2:B:480:SER:HB2	1.55	0.88
10:J:3:VAL:HG21	10:J:18:TRP:HB2	1.54	0.88
11:K:65:HIS:HD2	11:K:67:PHE:H	1.21	0.88
2:B:1072:MET:CE	2:B:1085:ILE:HB	2.03	0.88
9:I:34:TYR:CD2	9:I:35:VAL:N	2.42	0.88
1:A:1242:VAL:HG12	1:A:1243:VAL:H	1.38	0.88
4:D:118:THR:CA	4:D:121:LYS:HB3	2.01	0.88
2:B:1201:LYS:HE2	2:B:1205:GLN:OE1	1.72	0.88
1:A:567:LYS:CG	1:A:568:PRO:HD2	2.04	0.87
3:C:44:LEU:HB2	3:C:77:ILE:HD11	1.53	0.87
3:C:57:VAL:HG11	10:J:60:PHE:HB3	1.57	0.87
2:B:98:THR:O	2:B:126:SER:HB2	1.73	0.87
1:A:524:VAL:HG12	1:A:525:GLN:H	1.37	0.87
10:J:16:ASP:OD1	10:J:17:LYS:HD2	1.75	0.87
2:B:800:GLN:HB3	10:J:52:THR:CG2	2.04	0.86
8:H:81:PRO:HB2	8:H:82:PRO:HD2	1.56	0.86
1:A:560:ILE:HG13	8:H:78:SER:HB2	1.56	0.86
1:A:55:ASP:C	1:A:57:ARG:H	1.72	0.86
1:A:254:GLU:HB2	2:B:935:ARG:NH1	1.90	0.86
2:B:168:GLY:H	2:B:450:ALA:HB1	1.38	0.86
7:G:1:MET:SD	7:G:79:PHE:CD1	2.69	0.86
4:D:119:ARG:N	4:D:121:LYS:CB	2.36	0.86
4:D:144:THR:O	4:D:148:LEU:HB2	1.75	0.86
2:B:233:PRO:HG2	2:B:234:ILE:HD12	1.58	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:435:THR:HG21	2:B:439:ALA:HB2	0.88	0.86
1:A:1189:SER:O	1:A:1241:ARG:HD3	1.75	0.86
1:A:1094:VAL:HG13	1:A:1113:THR:HG21	1.58	0.85
3:C:164:ALA:HA	3:C:167:HIS:O	1.76	0.85
5:E:22:MET:HE3	5:E:26:ARG:HE	1.41	0.85
1:A:903:ASN:HD22	1:A:904:THR:N	1.73	0.85
9:I:75:CYS:SG	9:I:79:HIS:N	2.49	0.85
7:G:138:THR:HG22	7:G:139:ILE:N	1.92	0.85
10:J:57:ILE:HA	10:J:60:PHE:HD2	1.41	0.85
1:A:70:CYS:O	1:A:72:GLU:HG2	1.76	0.85
1:A:351:THR:HB	2:B:1103:ILE:HD12	1.59	0.85
2:B:465:ASN:HD22	2:B:465:ASN:N	1.73	0.85
4:D:40:HIS:HB3	7:G:73:LYS:HZ1	1.41	0.84
4:D:118:THR:C	4:D:121:LYS:CB	2.46	0.84
1:A:56:PRO:O	1:A:57:ARG:HG3	1.75	0.84
1:A:1445:ILE:H	1:A:1445:ILE:HD12	1.39	0.84
2:B:363:HIS:O	2:B:364:ILE:HB	1.77	0.84
7:G:1:MET:SD	7:G:79:PHE:HD1	2.00	0.84
1:A:79:GLY:HA3	1:A:243:PRO:CG	2.08	0.84
2:B:483:LEU:HD11	2:B:491:THR:HG23	1.58	0.84
5:E:94:LYS:HE2	5:E:98:ILE:HD11	1.57	0.84
1:A:598:LEU:HA	8:H:122:LEU:HD13	1.59	0.84
3:C:20:PHE:HE1	3:C:22:LEU:HD12	1.42	0.84
5:E:19:VAL:O	5:E:23:VAL:HG23	1.78	0.84
2:B:705:MET:H	2:B:710:LEU:HD12	1.42	0.83
2:B:589:VAL:HG12	2:B:590:HIS:H	1.40	0.83
1:A:779:PHE:CE1	1:A:785:PRO:HD3	2.13	0.83
2:B:435:THR:CG2	2:B:439:ALA:CB	2.47	0.83
2:B:1096:ARG:O	2:B:1097:HIS:HB2	1.79	0.83
3:C:47:ASP:HA	12:L:69:ALA:CB	2.06	0.83
3:C:232:VAL:HG21	3:C:244:VAL:HG22	1.58	0.83
10:J:64:ASN:HB3	10:J:65:PRO:CD	2.08	0.83
2:B:882:THR:HG22	2:B:884:ARG:H	1.44	0.83
1:A:567:LYS:HG3	1:A:568:PRO:HD2	1.60	0.83
2:B:806:THR:H	2:B:809:MET:HE3	1.42	0.83
7:G:13:LEU:HD21	7:G:17:PHE:HB2	1.61	0.83
1:A:1332:PHE:H	1:A:1332:PHE:HD2	1.26	0.83
2:B:515:HIS:HD2	2:B:517:THR:H	1.27	0.83
2:B:37:PHE:CE1	2:B:41:LYS:HG3	2.13	0.83
2:B:955:THR:HG23	12:L:54:ARG:O	1.78	0.83
1:A:335:ARG:NH1	2:B:1202:LEU:HD13	1.94	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1329:THR:HG22	1:A:1331:SER:N	1.93	0.82
2:B:401:PHE:HA	2:B:404:LYS:HG3	1.61	0.82
8:H:23:VAL:HG22	8:H:43:ASN:HA	1.61	0.82
7:G:34:VAL:HG12	7:G:45:ILE:HG21	1.61	0.82
2:B:577:ALA:HB1	2:B:589:VAL:HG11	1.62	0.82
2:B:842:ASN:ND2	2:B:845:SER:H	1.77	0.82
2:B:282:ILE:HD12	2:B:382:ILE:HD13	1.60	0.82
3:C:43:THR:HG22	3:C:44:LEU:N	1.93	0.82
3:C:66:ARG:NH2	10:J:5:VAL:HG23	1.94	0.82
7:G:128:PRO:O	7:G:138:THR:HG23	1.78	0.82
2:B:847:ASP:HB3	3:C:167:HIS:NE2	1.95	0.82
3:C:262:LEU:HD11	11:K:87:LEU:HD23	1.62	0.82
3:C:213:PRO:O	3:C:214:ASN:HB2	1.76	0.82
1:A:438:ASP:O	1:A:439:ASN:HB2	1.78	0.81
1:A:534:LEU:O	1:A:574:GLY:HA3	1.81	0.81
2:B:1007:VAL:HG22	2:B:1008:PRO:HD2	1.61	0.81
8:H:40:LEU:HD13	8:H:123:MET:HB2	1.60	0.81
1:A:1155:ASP:OD2	1:A:1161:THR:HG23	1.80	0.81
4:D:170:THR:CG2	4:D:172:LEU:HG	2.11	0.81
1:A:868:TYR:CE1	1:A:1064:VAL:HG11	2.15	0.81
4:D:118:THR:O	4:D:122:GLU:N	2.13	0.81
1:A:886:ILE:HD11	1:A:943:LEU:HB3	1.62	0.81
3:C:56:THR:HG22	3:C:57:VAL:H	1.46	0.81
1:A:254:GLU:HG3	2:B:935:ARG:HH22	1.45	0.81
1:A:249:SER:O	1:A:250:ILE:HG13	1.81	0.80
1:A:340:LEU:HD13	1:A:1429:ILE:HG23	1.61	0.80
2:B:1163:CYS:SG	2:B:1165:ILE:HB	2.21	0.80
1:A:93:VAL:HG13	1:A:301:ALA:HB1	1.62	0.80
2:B:918:ILE:HB	2:B:935:ARG:HD2	1.62	0.80
2:B:102:VAL:HG23	2:B:112:LEU:HB2	1.62	0.80
1:A:709:THR:HG23	9:I:94:ASP:HA	1.63	0.80
2:B:35:SER:HA	2:B:811:TYR:HE2	1.45	0.80
2:B:1162:ILE:HG22	2:B:1163:CYS:H	1.47	0.80
3:C:212:PRO:HB3	3:C:213:PRO:HD2	1.63	0.80
1:A:741:ASN:HD22	1:A:744:LYS:H	1.26	0.80
1:A:1118:VAL:HG12	1:A:1327:ILE:HG13	1.63	0.79
1:A:356:ASP:HB2	1:A:469:ARG:NH1	1.97	0.79
1:A:670:ILE:HG23	1:A:805:LEU:HD21	1.63	0.79
2:B:25:ILE:HD11	2:B:653:VAL:O	1.82	0.79
4:D:130:LEU:C	4:D:132:GLN:H	1.86	0.79
8:H:42:ILE:HG23	8:H:95:TYR:HE1	1.47	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:14:VAL:CG1	10:J:50:ILE:HD11	2.12	0.79
8:H:102:TYR:OH	8:H:122:LEU:HD22	1.82	0.79
11:K:113:THR:O	11:K:114:LEU:HB2	1.81	0.79
4:D:153:ARG:NH2	4:D:184:ALA:HA	1.98	0.79
1:A:67:CYS:O	1:A:70:CYS:HB3	1.82	0.79
1:A:285:PRO:HG2	1:A:288:ALA:HB3	1.64	0.79
2:B:1065:GLN:HE21	2:B:1067:ARG:H	1.29	0.79
10:J:64:ASN:HB3	10:J:65:PRO:HD3	1.64	0.79
1:A:353:ILE:HG21	1:A:487:MET:HE3	1.63	0.79
1:A:503:GLN:HE21	6:F:90:ARG:HH21	1.28	0.79
5:E:135:PHE:HD2	5:E:140:LEU:HD21	1.45	0.79
1:A:1341:ILE:HG23	1:A:1342:GLU:N	1.98	0.78
2:B:611:PRO:HB3	2:B:685:LEU:HD11	1.64	0.78
5:E:29:PHE:O	5:E:30:ILE:HG13	1.82	0.78
1:A:858:ASN:ND2	1:A:860:LEU:H	1.81	0.78
1:A:335:ARG:HA	1:A:339:ASN:HB2	1.64	0.78
1:A:1329:THR:H	1:A:1335:ILE:HD11	1.49	0.78
2:B:1034:VAL:HG12	2:B:1035:ALA:N	1.98	0.78
3:C:32:SER:O	3:C:36:VAL:HG23	1.82	0.78
2:B:120:ARG:HG2	2:B:955:THR:HG21	1.65	0.78
7:G:23:LYS:HG3	7:G:56:ILE:HD11	1.64	0.78
11:K:45:LEU:HG	11:K:94:ILE:HD13	1.65	0.78
1:A:76:GLU:HG3	1:A:76:GLU:O	1.81	0.78
9:I:34:TYR:HE2	9:I:36:GLU:HB3	1.49	0.78
2:B:361:LEU:HD21	2:B:377:PHE:CD2	2.19	0.78
2:B:200:GLY:HA2	2:B:202:TYR:CE2	2.19	0.77
1:A:388:LEU:O	1:A:392:VAL:HG23	1.85	0.77
1:A:1341:ILE:HD12	1:A:1379:GLY:O	1.85	0.77
2:B:613:VAL:HG13	2:B:627:PHE:O	1.85	0.77
1:A:340:LEU:HD21	2:B:1200:ALA:N	1.99	0.77
3:C:98:VAL:C	3:C:99:LEU:HD23	2.05	0.77
2:B:579:ARG:HB2	2:B:586:TRP:NE1	2.00	0.77
1:A:1116:LEU:N	1:A:1308:THR:HG22	2.00	0.77
2:B:37:PHE:CD1	2:B:41:LYS:HG3	2.20	0.77
2:B:879:ARG:HH11	2:B:883:LEU:HD22	1.50	0.77
5:E:117:THR:HG22	5:E:119:SER:H	1.50	0.77
1:A:855:THR:HG21	1:A:857:ARG:NE	1.97	0.77
1:A:855:THR:HG23	1:A:857:ARG:HG3	1.67	0.77
7:G:81:PRO:HG3	7:G:106:MET:SD	2.25	0.77
1:A:590:ARG:HG3	1:A:590:ARG:NH1	2.00	0.77
2:B:1159:ARG:HD3	2:B:1193:GLN:HG3	1.64	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:43:THR:HG22	3:C:44:LEU:H	1.48	0.77
3:C:77:ILE:HG23	3:C:161:LYS:HE3	1.67	0.77
11:K:21:ILE:HG12	11:K:33:ILE:HG12	1.67	0.77
5:E:175:LEU:HD23	5:E:176:PRO:HD2	1.66	0.76
1:A:445:ASN:HB2	1:A:455:MET:HG2	1.67	0.76
1:A:588:LEU:O	1:A:606:LEU:HA	1.85	0.76
1:A:798:GLY:HA2	1:A:815:PHE:HD1	1.43	0.76
2:B:1065:GLN:HE21	2:B:1066:SER:N	1.82	0.76
4:D:40:HIS:HB3	7:G:73:LYS:HZ3	1.45	0.76
1:A:590:ARG:HG3	1:A:590:ARG:HH11	1.51	0.76
2:B:778:MET:HE1	2:B:1094:ARG:HD3	1.66	0.76
2:B:859:TYR:OH	2:B:941:LEU:HD12	1.86	0.76
2:B:999:MET:HG3	2:B:1000:PRO:HD2	1.68	0.76
1:A:265:LYS:HZ3	1:A:322:VAL:HG13	1.49	0.76
2:B:446:LEU:O	2:B:447:ALA:CB	2.34	0.76
4:D:66:ARG:HD2	4:D:133:THR:HB	1.68	0.76
2:B:53:GLN:HG2	2:B:547:VAL:HG22	1.67	0.76
5:E:192:ARG:HH11	5:E:192:ARG:HG3	1.51	0.76
1:A:87:ALA:HB3	1:A:276:LEU:HD23	1.67	0.76
2:B:763:GLN:HG2	2:B:765:PRO:HD2	1.66	0.76
2:B:801:LYS:O	10:J:52:THR:HG23	1.86	0.76
1:A:768:GLN:NE2	1:A:816:HIS:ND1	2.35	0.75
7:G:43:GLY:HA3	7:G:80:LYS:HB3	1.68	0.75
11:K:46:ILE:O	11:K:50:LEU:HB2	1.85	0.75
1:A:23:SER:HB3	1:A:233:TRP:CZ2	2.21	0.75
1:A:528:LEU:O	1:A:531:ILE:HG22	1.86	0.75
2:B:899:ILE:HD11	2:B:911:ILE:HA	1.68	0.75
1:A:356:ASP:HB2	1:A:469:ARG:HH11	1.50	0.75
2:B:408:LEU:HG	2:B:409:ALA:H	1.52	0.75
2:B:1165:ILE:HD13	4:D:17:LYS:CB	2.17	0.75
2:B:172:ILE:HD13	2:B:178:ASN:HB3	1.69	0.75
2:B:642:ASP:HB3	2:B:649:LYS:CD	2.17	0.75
2:B:863:GLU:OE2	2:B:873:THR:HA	1.85	0.75
2:B:955:THR:HG22	2:B:956:THR:N	2.00	0.75
2:B:953:LEU:HD21	2:B:965:LYS:HB2	1.68	0.75
1:A:23:SER:HB3	1:A:233:TRP:CE2	2.21	0.75
1:A:1409:LEU:HD13	2:B:1207:LEU:HD21	1.67	0.75
2:B:521:LEU:HD22	2:B:633:VAL:HG12	1.68	0.75
5:E:90:VAL:HG23	5:E:120:ALA:HA	1.69	0.75
8:H:59:ILE:HG22	8:H:60:ALA:N	2.02	0.74
1:A:244:PRO:HB2	1:A:245:PRO:HD3	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:836:TYR:CE2	1:A:840:ARG:HD2	2.22	0.74
1:A:91:PHE:HB2	1:A:297:GLN:NE2	2.01	0.74
1:A:590:ARG:NH2	1:A:620:LYS:HB3	2.01	0.74
2:B:1069:PHE:H	2:B:1069:PHE:HD1	1.34	0.74
1:A:1422:ARG:HH22	2:B:1224:PHE:C	1.90	0.74
2:B:37:PHE:HE2	2:B:542:MET:HA	1.52	0.74
7:G:115:MET:HB3	7:G:116:PRO:HD2	1.69	0.74
1:A:164:ARG:HG3	1:A:165:GLY:H	1.52	0.74
2:B:806:THR:HG22	2:B:808:ALA:N	2.03	0.74
2:B:978:ASP:OD2	2:B:1098:MET:HG2	1.88	0.74
2:B:1065:GLN:NE2	2:B:1067:ARG:H	1.84	0.74
7:G:15:PRO:HA	7:G:18:PHE:CE1	2.22	0.74
1:A:351:THR:HB	2:B:1103:ILE:CD1	2.18	0.74
2:B:955:THR:HG22	2:B:956:THR:H	1.53	0.74
5:E:198:ILE:HD11	5:E:212:ARG:HG3	1.69	0.74
1:A:754:SER:H	1:A:757:ASN:ND2	1.86	0.74
1:A:87:ALA:CB	1:A:276:LEU:HD23	2.18	0.73
1:A:535:THR:HG21	1:A:616:VAL:HA	1.70	0.73
1:A:1450:LEU:O	1:A:1450:LEU:HG	1.88	0.73
4:D:47:LEU:HD13	4:D:48:ILE:N	2.03	0.73
1:A:1114:PRO:O	1:A:1115:SER:O	2.06	0.73
1:A:1312:ASN:O	1:A:1316:VAL:HG23	1.88	0.73
2:B:580:VAL:HG22	2:B:624:LEU:HB3	1.69	0.73
5:E:2:ASP:O	5:E:3:GLN:HG2	1.87	0.73
11:K:65:HIS:CD2	11:K:67:PHE:H	2.05	0.73
1:A:1323:ASP:OD1	1:A:1325:THR:HB	1.88	0.73
2:B:871:THR:HG22	2:B:872:GLU:O	1.88	0.73
1:A:567:LYS:NZ	8:H:46:LEU:HB2	2.03	0.73
1:A:800:VAL:HG22	1:A:812:GLU:HB3	1.70	0.73
5:E:16:PHE:CZ	5:E:20:LYS:HE2	2.24	0.73
8:H:81:PRO:CB	8:H:82:PRO:HD2	2.19	0.73
12:L:30:ILE:O	12:L:56:LEU:HA	1.89	0.73
1:A:1402:PHE:CE1	1:A:1403:GLU:HG3	2.23	0.73
1:A:164:ARG:HG3	1:A:165:GLY:N	2.04	0.73
2:B:847:ASP:HB3	3:C:167:HIS:CD2	2.24	0.73
1:A:1445:ILE:HD12	1:A:1445:ILE:N	2.04	0.73
5:E:22:MET:HE3	5:E:26:ARG:NE	2.04	0.73
2:B:1169:MET:HE1	2:B:1201:LYS:HA	1.71	0.73
4:D:130:LEU:O	4:D:132:GLN:N	2.22	0.73
12:L:48:CYS:HB3	12:L:51:CYS:O	1.88	0.73
2:B:378:LEU:HD12	2:B:378:LEU:O	1.88	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:766:ARG:HH22	2:B:1020:ARG:HH11	1.37	0.73
8:H:36:CYS:HA	8:H:126:GLU:O	1.89	0.73
10:J:5:VAL:HG12	10:J:6:ARG:CG	2.15	0.73
1:A:55:ASP:C	1:A:57:ARG:N	2.41	0.72
1:A:1420:ASP:HB3	1:A:1422:ARG:HG3	1.71	0.72
2:B:1183:LYS:N	2:B:1183:LYS:HE3	2.03	0.72
3:C:166:GLU:HG3	11:K:10:PHE:CZ	2.21	0.72
1:A:1424:VAL:HG11	2:B:1139:ILE:HD13	1.69	0.72
2:B:616:ILE:HG13	2:B:697:GLU:HG3	1.70	0.72
7:G:18:PHE:HA	7:G:22:MET:HE2	1.70	0.72
10:J:36:LEU:HD12	10:J:47:ARG:NH1	2.04	0.72
12:L:32:ALA:HB3	12:L:55:ILE:HD12	1.72	0.72
2:B:745:PRO:O	2:B:748:ILE:HG12	1.89	0.72
6:F:111:LEU:C	6:F:113:GLY:H	1.90	0.72
1:A:1121:GLU:HG2	1:A:1122:PRO:HD2	1.72	0.72
2:B:401:PHE:HD2	2:B:521:LEU:HD12	1.54	0.72
2:B:701:ILE:HD11	2:B:703:ILE:HD11	1.72	0.72
6:F:138:LEU:HB3	6:F:139:PRO:HD2	1.72	0.72
1:A:1437:GLY:O	1:A:1439:GLY:N	2.23	0.72
2:B:642:ASP:O	2:B:644:GLU:N	2.22	0.72
1:A:335:ARG:HH12	2:B:1202:LEU:HD13	1.54	0.72
2:B:400:HIS:ND1	2:B:517:THR:HG21	2.05	0.72
2:B:1115:THR:HG22	2:B:1117:GLN:HG3	1.71	0.72
1:A:741:ASN:HD21	1:A:743:VAL:HB	1.54	0.72
5:E:213:ILE:HG12	5:E:214:CYS:H	1.54	0.72
8:H:59:ILE:HG22	8:H:60:ALA:H	1.54	0.72
1:A:321:PRO:O	1:A:322:VAL:HB	1.88	0.71
1:A:899:VAL:HB	1:A:929:LEU:CD1	2.20	0.71
1:A:1004:ASN:ND2	5:E:167:ARG:HD2	2.05	0.71
2:B:411:PRO:O	2:B:414:ALA:HB3	1.88	0.71
3:C:175:ALA:O	3:C:176:ILE:HG13	1.90	0.71
2:B:365:THR:HG23	2:B:367:LEU:H	1.54	0.71
3:C:73:GLN:HB3	3:C:131:HIS:H	1.55	0.71
1:A:1239:ARG:HH22	1:A:1241:ARG:NH2	1.88	0.71
1:A:1332:PHE:HD2	1:A:1332:PHE:N	1.86	0.71
2:B:594:ALA:HA	2:B:617:ARG:NH1	2.05	0.71
1:A:853:ASP:OD1	1:A:855:THR:HB	1.89	0.71
2:B:39:ARG:NH2	2:B:665:GLU:HG2	2.04	0.71
2:B:516:ASN:HD22	2:B:516:ASN:N	1.87	0.71
1:A:808:LEU:HD23	1:A:813:PHE:HA	1.71	0.71
2:B:227:LYS:HB2	2:B:395:GLN:OE1	1.90	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:230:ARG:H	1:A:233:TRP:HE3	1.34	0.71
1:A:504:LEU:HD11	6:F:91:ALA:HB1	1.73	0.71
1:A:1329:THR:CG2	1:A:1331:SER:H	2.03	0.71
1:A:91:PHE:HB2	1:A:297:GLN:HE22	1.54	0.71
4:D:5:THR:O	4:D:6:SER:O	2.07	0.71
5:E:202:SER:OG	5:E:204:THR:HG22	1.88	0.71
2:B:1182:CYS:O	2:B:1182:CYS:SG	2.48	0.71
1:A:475:THR:HG23	1:A:476:SER:N	2.05	0.71
2:B:603:LEU:HD13	2:B:608:ASP:HB2	1.72	0.71
1:A:441:PRO:HD2	1:A:498:ARG:NH2	2.06	0.70
1:A:567:LYS:CD	1:A:568:PRO:HD2	2.20	0.70
1:A:858:ASN:C	1:A:858:ASN:HD22	1.94	0.70
9:I:71:SER:OG	9:I:83:ASN:HB2	1.91	0.70
11:K:47:ARG:HB3	11:K:47:ARG:NH1	2.04	0.70
11:K:50:LEU:HD11	11:K:75:ILE:HD13	1.73	0.70
1:A:92:HIS:O	1:A:94:GLY:N	2.24	0.70
1:A:913:LEU:HD12	1:A:914:GLU:N	2.05	0.70
2:B:393:LYS:HA	2:B:393:LYS:HE3	1.74	0.70
1:A:75:ASN:O	1:A:76:GLU:HB3	1.91	0.70
1:A:384:ASN:OD1	1:A:388:LEU:HD12	1.91	0.70
1:A:463:ILE:HD12	1:A:469:ARG:HD2	1.73	0.70
5:E:179:GLN:HB2	5:E:182:ASP:HB2	1.73	0.70
2:B:65:GLU:HG3	2:B:66:ASP:N	2.05	0.70
2:B:549:THR:HG22	2:B:550:ASP:N	2.05	0.70
2:B:830:TYR:CE2	2:B:1000:PRO:HD3	2.27	0.70
2:B:1006:ILE:HD13	10:J:44:TYR:CE2	2.27	0.70
2:B:1099:VAL:O	2:B:1101:ASP:N	2.24	0.70
1:A:302:THR:HA	1:A:305:ASP:O	1.91	0.70
1:A:794:PRO:HG2	1:A:795:GLU:OE2	1.92	0.70
1:A:567:LYS:HB3	8:H:96:VAL:N	2.05	0.70
2:B:766:ARG:NH2	2:B:1020:ARG:HH11	1.90	0.70
1:A:1424:VAL:HG13	1:A:1436:ILE:HD11	1.74	0.70
3:C:167:HIS:CE1	12:L:70:ARG:HB3	2.27	0.70
4:D:40:HIS:CB	7:G:73:LYS:HZ3	2.05	0.70
7:G:80:LYS:HD3	7:G:80:LYS:N	2.06	0.70
1:A:225:ASN:HD22	1:A:228:PHE:H	1.39	0.70
1:A:466:SER:O	2:B:1103:ILE:HD11	1.92	0.70
1:A:1239:ARG:HH22	1:A:1241:ARG:HH22	1.40	0.70
2:B:737:THR:HG21	9:I:66:PRO:HA	1.74	0.70
2:B:770:GLN:OE1	2:B:983:ARG:HA	1.92	0.70
1:A:666:ILE:HD12	1:A:667:GLY:H	1.57	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:333:PHE:O	2:B:334:ILE:HG13	1.92	0.69
2:B:708:GLU:O	2:B:710:LEU:N	2.25	0.69
4:D:33:PHE:CE1	7:G:80:LYS:HE3	2.27	0.69
1:A:901:LEU:HD22	1:A:919:ILE:CG2	2.22	0.69
2:B:579:ARG:HB2	2:B:586:TRP:HE1	1.56	0.69
2:B:642:ASP:HB3	2:B:649:LYS:CG	2.21	0.69
3:C:20:PHE:CE1	3:C:22:LEU:HD12	2.25	0.69
8:H:113:ALA:HB2	8:H:126:GLU:HG3	1.72	0.69
1:A:1308:THR:HG23	1:A:1309:ASP:N	2.06	0.69
2:B:446:LEU:O	2:B:447:ALA:HB3	1.92	0.69
2:B:728:ARG:HH12	2:B:1047:PHE:HB3	1.57	0.69
4:D:170:THR:HG21	4:D:172:LEU:HG	1.73	0.69
1:A:79:GLY:HA3	1:A:243:PRO:HG2	1.74	0.69
1:A:541:ILE:HD13	1:A:549:MET:HE1	1.72	0.69
1:A:901:LEU:HG	1:A:926:GLN:HE21	1.57	0.69
2:B:593:PRO:HG2	2:B:617:ARG:NH2	2.06	0.69
2:B:953:LEU:HD23	2:B:953:LEU:O	1.92	0.69
7:G:138:THR:CG2	7:G:139:ILE:H	1.96	0.69
1:A:14:VAL:HG21	2:B:1216:LEU:HD13	1.74	0.69
1:A:1438:THR:HB	2:B:1144:ALA:HB3	1.74	0.69
2:B:1099:VAL:CG1	2:B:1100:ASP:N	2.56	0.69
2:B:1159:ARG:HB3	2:B:1159:ARG:NH1	2.06	0.69
3:C:184:ASN:ND2	3:C:187:LYS:HA	2.07	0.69
1:A:248:PRO:O	1:A:260:ASP:HB2	1.93	0.69
1:A:1139:GLU:O	1:A:1274:ARG:O	2.08	0.69
2:B:654:ARG:H	2:B:657:HIS:HD2	1.38	0.69
2:B:707:PRO:O	2:B:711:GLU:HG3	1.93	0.69
2:B:1017:ILE:HB	2:B:1018:PRO:HD3	1.74	0.69
3:C:45:ALA:HA	3:C:72:LEU:HD12	1.75	0.69
1:A:107:CYS:N	1:A:114:LEU:HD21	2.08	0.69
1:A:254:GLU:CG	2:B:935:ARG:HH22	2.06	0.69
1:A:856:THR:HB	1:A:865:GLN:HB2	1.75	0.69
2:B:211:VAL:O	2:B:480:SER:HA	1.91	0.69
2:B:1065:GLN:HE21	2:B:1067:ARG:N	1.91	0.69
4:D:29:LEU:HD22	7:G:82:PHE:CE2	2.28	0.69
1:A:254:GLU:CB	2:B:935:ARG:HH12	2.03	0.69
1:A:106:VAL:HG13	1:A:112:LYS:O	1.93	0.69
1:A:675:THR:O	1:A:679:ILE:HG13	1.93	0.69
2:B:1197:PRO:HG2	2:B:1200:ALA:CB	2.22	0.69
3:C:172:PRO:O	3:C:235:VAL:HG23	1.93	0.69
7:G:18:PHE:HA	7:G:22:MET:CE	2.22	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1291:VAL:HG13	1:A:1292:PRO:HD2	1.74	0.68
2:B:351:TYR:CE1	2:B:355:ILE:HD11	2.28	0.68
2:B:642:ASP:HB3	2:B:649:LYS:HG3	1.74	0.68
2:B:778:MET:CE	2:B:1094:ARG:HD3	2.22	0.68
2:B:975:GLN:HG2	2:B:976:ILE:H	1.56	0.68
7:G:14:HIS:CD2	7:G:16:SER:HB2	2.27	0.68
1:A:427:GLN:HG3	1:A:430:TRP:CZ2	2.28	0.68
2:B:46:GLN:HG3	2:B:47:GLN:N	2.07	0.68
8:H:4:THR:HA	8:H:60:ALA:CB	2.22	0.68
2:B:95:ILE:HG13	2:B:130:VAL:HG22	1.75	0.68
4:D:48:ILE:CG2	7:G:4:ILE:HB	2.19	0.68
12:L:38:LEU:O	12:L:39:SER:HB3	1.93	0.68
1:A:152:VAL:CG1	1:A:153:PRO:HD2	2.24	0.68
1:A:1002:GLY:HA3	1:A:1007:ILE:HG21	1.75	0.68
3:C:263:THR:C	3:C:265:MET:H	1.97	0.68
5:E:124:VAL:HG13	5:E:132:ILE:HB	1.74	0.68
1:A:19:PHE:O	1:A:1416:ALA:HA	1.93	0.68
2:B:1087:PHE:HD2	2:B:1088:GLY:N	1.90	0.68
11:K:31:VAL:HG12	11:K:32:VAL:N	2.08	0.68
1:A:337:ARG:HD3	2:B:1132:GLU:OE1	1.94	0.68
6:F:97:ARG:O	6:F:101:ILE:HG13	1.93	0.68
1:A:78:PRO:HA	2:B:1201:LYS:NZ	2.08	0.68
1:A:979:SER:OG	1:A:981:LEU:HG	1.94	0.68
2:B:563:MET:HE3	2:B:580:VAL:HB	1.76	0.68
1:A:1120:LEU:O	1:A:1323:ASP:HB2	1.93	0.68
1:A:1209:MET:HE1	1:A:1236:LEU:HB3	1.75	0.68
2:B:615:MET:HB3	2:B:626:ILE:HG12	1.76	0.68
3:C:114:TYR:HB3	3:C:140:ASN:O	1.93	0.68
4:D:34:GLN:O	4:D:47:LEU:HD23	1.94	0.68
6:F:125:LEU:HG	6:F:125:LEU:O	1.94	0.68
8:H:93:TYR:HB3	8:H:144:ILE:O	1.93	0.68
2:B:635:ARG:NH2	2:B:742:GLU:OE2	2.26	0.68
1:A:54:ASN:HB3	1:A:247:ARG:HH12	1.59	0.68
1:A:809:THR:OG1	1:A:812:GLU:HG3	1.94	0.68
2:B:1197:PRO:HG2	2:B:1200:ALA:HB2	1.76	0.68
3:C:179:GLU:HG2	3:C:180:TYR:N	2.08	0.68
5:E:135:PHE:HB3	5:E:140:LEU:HD11	1.74	0.68
9:I:101:PHE:N	9:I:101:PHE:CD1	2.61	0.68
1:A:311:GLN:HB3	1:A:312:PRO:HD3	1.76	0.67
2:B:370:PHE:HE2	2:B:373:ARG:HH11	1.42	0.67
6:F:86:THR:OG1	6:F:89:GLU:HG3	1.93	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:13:MET:HG3	9:I:14:LEU:N	2.09	0.67
1:A:84:ILE:O	1:A:84:ILE:HG23	1.95	0.67
1:A:351:THR:HG22	2:B:1103:ILE:HA	1.75	0.67
1:A:385:ILE:HG22	1:A:386:ASP:N	2.09	0.67
2:B:521:LEU:HB3	2:B:633:VAL:HG11	1.75	0.67
4:D:117:GLU:N	4:D:155:ARG:HH12	1.87	0.67
6:F:90:ARG:HD3	6:F:155:LEU:CD1	2.24	0.67
7:G:14:HIS:ND1	7:G:15:PRO:HD2	2.09	0.67
2:B:1073:TYR:CE2	2:B:1080:LYS:HG2	2.29	0.67
3:C:18:VAL:HG12	3:C:18:VAL:O	1.94	0.67
1:A:68:GLN:C	1:A:70:CYS:H	1.95	0.67
1:A:107:CYS:H	1:A:114:LEU:HD21	1.57	0.67
1:A:388:LEU:HD22	1:A:432:VAL:HG21	1.76	0.67
1:A:866:PHE:O	1:A:867:ILE:HG13	1.94	0.67
1:A:1394:THR:HG21	1:A:1398:MET:SD	2.35	0.67
2:B:515:HIS:CD2	2:B:517:THR:H	2.11	0.67
2:B:999:MET:HA	2:B:999:MET:CE	2.25	0.67
4:D:117:GLU:H	4:D:155:ARG:NH1	1.87	0.67
1:A:35:ILE:HG22	1:A:35:ILE:O	1.94	0.67
1:A:344:ARG:HD2	2:B:1118:PRO:O	1.95	0.67
1:A:450:LEU:HD12	1:A:450:LEU:N	2.09	0.67
1:A:869:GLY:O	5:E:204:THR:HG21	1.95	0.67
1:A:902:LEU:HG	1:A:926:GLN:HG3	1.76	0.67
1:A:986:ILE:HG22	1:A:987:VAL:N	2.10	0.67
1:A:1424:VAL:HG13	1:A:1436:ILE:CD1	2.24	0.67
2:B:36:ALA:HA	2:B:39:ARG:HD2	1.76	0.67
2:B:112:LEU:HD12	2:B:113:TYR:H	1.58	0.67
2:B:831:SER:HB3	2:B:994:TYR:OH	1.95	0.67
2:B:1002:THR:HG23	2:B:1006:ILE:HG13	1.77	0.67
6:F:82:THR:HG22	6:F:84:TYR:H	1.58	0.67
6:F:97:ARG:HD3	6:F:130:ILE:HG23	1.77	0.67
7:G:30:LEU:HD13	7:G:72:VAL:HG11	1.77	0.67
7:G:143:ILE:HG22	7:G:144:ARG:N	2.09	0.67
1:A:804:TYR:OH	1:A:816:HIS:NE2	2.28	0.67
2:B:1162:ILE:HG22	2:B:1163:CYS:N	2.09	0.67
3:C:43:THR:CG2	3:C:44:LEU:H	2.08	0.67
3:C:67:LEU:HD11	3:C:155:LEU:CD1	2.25	0.67
2:B:995:ARG:HH12	3:C:165:LYS:HG2	1.59	0.67
2:B:996:ARG:NH1	3:C:38:ILE:HG23	2.10	0.67
9:I:111:THR:HG22	9:I:112:SER:N	2.09	0.67
1:A:23:SER:HA	1:A:233:TRP:CD1	2.30	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:69:THR:C	1:A:71:GLN:H	1.98	0.67
2:B:824:ILE:CG2	2:B:1087:PHE:HE2	2.08	0.67
2:B:839:MET:HG3	2:B:1010:LEU:HD11	1.77	0.67
2:B:980:PHE:CE2	2:B:1094:ARG:HG3	2.30	0.67
4:D:122:GLU:HA	4:D:125:SER:OG	1.95	0.67
1:A:1227:ILE:HG22	1:A:1228:TRP:N	2.10	0.66
2:B:378:LEU:O	2:B:382:ILE:HG13	1.95	0.66
4:D:53:SER:HB3	4:D:152:SER:CB	2.25	0.66
9:I:50:THR:HG22	9:I:52:ILE:H	1.59	0.66
2:B:192:LEU:O	2:B:193:LYS:HB2	1.94	0.66
2:B:569:TYR:CE1	2:B:589:VAL:HG21	2.30	0.66
1:A:63:ARG:HA	1:A:74:MET:SD	2.34	0.66
1:A:75:ASN:O	1:A:76:GLU:CB	2.43	0.66
1:A:979:SER:OG	1:A:980:ASP:N	2.28	0.66
2:B:134:LYS:NZ	2:B:444:MET:N	2.40	0.66
2:B:1223:ASP:O	2:B:1224:PHE:HB2	1.94	0.66
12:L:40:LEU:HD13	12:L:44:ASP:HB3	1.77	0.66
2:B:770:GLN:CD	2:B:983:ARG:HA	2.16	0.66
3:C:238:ILE:CG2	3:C:242:GLN:HB2	2.25	0.66
6:F:90:ARG:HG3	6:F:91:ALA:N	2.11	0.66
3:C:66:ARG:HH21	10:J:5:VAL:HG23	1.60	0.66
3:C:177:GLU:HB2	3:C:231:ASN:HB3	1.78	0.66
4:D:176:GLU:C	4:D:178:ALA:H	1.98	0.66
9:I:34:TYR:CE2	9:I:36:GLU:HB3	2.30	0.66
1:A:875:ALA:HA	1:A:878:ILE:HD12	1.77	0.66
2:B:465:ASN:HD22	2:B:465:ASN:H	1.43	0.66
2:B:902:GLY:O	12:L:65:VAL:HG11	1.95	0.66
2:B:999:MET:HA	2:B:999:MET:HE3	1.77	0.66
2:B:1159:ARG:HB3	2:B:1159:ARG:HH11	1.61	0.66
3:C:189:THR:HG22	3:C:190:ASP:H	1.59	0.66
1:A:1115:SER:O	1:A:1116:LEU:HB3	1.96	0.66
3:C:189:THR:HG22	3:C:190:ASP:N	2.11	0.66
1:A:319:GLY:HA3	2:B:472:ALA:HB3	1.78	0.66
1:A:372:LYS:HA	1:A:435:HIS:ND1	2.11	0.66
2:B:557:PHE:C	2:B:557:PHE:CD2	2.68	0.66
2:B:1001:PHE:CE1	2:B:1073:TYR:HB2	2.31	0.66
5:E:15:ALA:O	5:E:19:VAL:HG23	1.94	0.66
5:E:46:TYR:CD2	5:E:58:MET:HG2	2.31	0.66
1:A:399:HIS:O	1:A:401:GLY:N	2.28	0.66
1:A:1107:VAL:HG12	1:A:1107:VAL:O	1.96	0.66
2:B:39:ARG:HH21	2:B:665:GLU:HG2	1.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:186:LEU:HD21	3:C:224:GLN:O	1.95	0.66
8:H:81:PRO:CB	8:H:82:PRO:CD	2.73	0.66
2:B:1202:LEU:O	2:B:1206:GLU:HG3	1.96	0.66
7:G:7:LEU:HD11	7:G:45:ILE:HD11	1.78	0.66
1:A:843:LYS:HD3	1:A:846:GLU:OE2	1.95	0.65
1:A:1441:PHE:CZ	6:F:89:GLU:HA	2.31	0.65
2:B:642:ASP:HA	2:B:649:LYS:HA	1.77	0.65
2:B:847:ASP:C	2:B:849:GLY:H	1.98	0.65
2:B:1045:SER:O	2:B:1046:PRO:O	2.14	0.65
3:C:43:THR:CG2	3:C:44:LEU:N	2.59	0.65
7:G:34:VAL:CG1	7:G:45:ILE:HG21	2.26	0.65
9:I:52:ILE:HG13	9:I:52:ILE:O	1.95	0.65
1:A:1161:THR:HG22	1:A:1163:ILE:N	2.04	0.65
4:D:176:GLU:O	4:D:178:ALA:N	2.26	0.65
9:I:102:VAL:HG12	9:I:103:CYS:N	2.12	0.65
1:A:332:LYS:HG3	1:A:333:GLU:HG2	1.79	0.65
1:A:1293:SER:OG	1:A:1294:PRO:HD2	1.97	0.65
2:B:880:THR:O	2:B:881:ASN:HB2	1.96	0.65
2:B:1182:CYS:C	2:B:1183:LYS:HE3	2.16	0.65
3:C:152:GLU:OE2	3:C:154:LYS:HE3	1.95	0.65
3:C:179:GLU:HG2	3:C:180:TYR:H	1.61	0.65
12:L:58:LYS:O	12:L:58:LYS:HG2	1.96	0.65
5:E:84:ASP:O	5:E:86:PRO:HD3	1.96	0.65
8:H:56:THR:HB	8:H:145:ARG:HG2	1.78	0.65
1:A:23:SER:HA	1:A:233:TRP:NE1	2.12	0.65
1:A:541:ILE:HD13	1:A:549:MET:CE	2.25	0.65
2:B:758:PHE:CE2	2:B:1044:ALA:HA	2.32	0.65
2:B:857:ARG:HD2	2:B:945:GLU:OE1	1.96	0.65
2:B:952:VAL:HG12	2:B:953:LEU:H	1.61	0.65
2:B:975:GLN:O	2:B:990:ILE:HD12	1.97	0.65
2:B:1172:ILE:HG22	2:B:1172:ILE:O	1.96	0.65
1:A:442:VAL:HB	1:A:489:LEU:HD11	1.77	0.65
1:A:743:VAL:O	1:A:747:VAL:HG23	1.97	0.65
2:B:1007:VAL:CG2	2:B:1008:PRO:HD2	2.26	0.65
3:C:183:TRP:CZ2	3:C:207:CYS:HB3	2.32	0.65
2:B:601:ARG:O	2:B:605:ARG:HG3	1.97	0.65
2:B:604:ARG:NH2	2:B:613:VAL:O	2.29	0.65
8:H:38:LEU:HD12	8:H:124:ARG:O	1.96	0.65
12:L:39:SER:O	12:L:40:LEU:HG	1.97	0.65
1:A:535:THR:HG23	1:A:575:LYS:HE2	1.79	0.65
2:B:622:LYS:HE2	9:I:59:VAL:HG22	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:157:SER:OG	5:E:160:GLU:HG3	1.97	0.65
6:F:111:LEU:HD12	6:F:111:LEU:N	2.12	0.65
7:G:1:MET:HE3	7:G:80:LYS:C	2.17	0.65
7:G:91:VAL:HB	7:G:139:ILE:O	1.95	0.65
9:I:51:ASN:O	9:I:54:GLU:HG3	1.96	0.65
1:A:18:GLN:HB2	2:B:1215:ARG:HB2	1.77	0.65
1:A:1348:LEU:HG	1:A:1372:VAL:HG23	1.78	0.65
1:A:69:THR:O	1:A:71:GLN:N	2.29	0.65
1:A:295:LEU:O	1:A:298:PHE:HB3	1.97	0.65
1:A:541:ILE:HG22	1:A:546:VAL:HG23	1.79	0.65
2:B:731:VAL:HG12	2:B:732:SER:H	1.62	0.65
2:B:798:TYR:HE2	3:C:62:PHE:CE2	2.15	0.65
2:B:850:LEU:HD12	2:B:851:PHE:H	1.62	0.65
5:E:48:ASP:CG	5:E:49:SER:H	1.99	0.65
5:E:124:VAL:HG13	5:E:132:ILE:HD12	1.79	0.65
10:J:57:ILE:HA	10:J:60:PHE:CD2	2.30	0.65
1:A:547:LEU:HD22	11:K:58:PHE:CD1	2.32	0.64
2:B:798:TYR:HE2	3:C:62:PHE:CZ	2.14	0.64
3:C:147:LEU:HB2	3:C:151:GLN:HB2	1.78	0.64
4:D:118:THR:O	4:D:122:GLU:HB2	1.97	0.64
5:E:22:MET:CE	5:E:26:ARG:HH21	2.11	0.64
1:A:315:LEU:HD13	2:B:472:ALA:O	1.92	0.64
2:B:1224:PHE:CE2	5:E:171:LYS:HG3	2.28	0.64
1:A:567:LYS:HE3	8:H:46:LEU:HD12	1.78	0.64
2:B:653:VAL:CG2	2:B:689:LEU:HB3	2.27	0.64
2:B:899:ILE:CD1	2:B:911:ILE:HA	2.27	0.64
6:F:135:ARG:HD3	6:F:143:PHE:CD2	2.32	0.64
1:A:2:VAL:HG21	2:B:1158:PHE:N	2.11	0.64
1:A:88:LYS:HE3	1:A:280:GLU:OE2	1.97	0.64
2:B:842:ASN:HD22	2:B:845:SER:CB	2.11	0.64
2:B:1051:THR:HB	2:B:1054:GLY:H	1.60	0.64
1:A:1348:LEU:HG	1:A:1372:VAL:CG2	2.27	0.64
3:C:165:LYS:O	11:K:6:ARG:NH1	2.30	0.64
5:E:176:PRO:O	5:E:212:ARG:HA	1.96	0.64
5:E:213:ILE:HG12	5:E:214:CYS:N	2.12	0.64
1:A:55:ASP:CG	1:A:55:ASP:O	2.32	0.64
1:A:384:ASN:CG	1:A:388:LEU:HD12	2.17	0.64
1:A:1039:LYS:HG3	1:A:1043:ASP:OD2	1.98	0.64
2:B:704:ALA:HB3	2:B:741:CYS:SG	2.37	0.64
2:B:1056:SER:HB3	2:B:1066:SER:HB2	1.78	0.64
2:B:1085:ILE:N	2:B:1085:ILE:HD12	2.12	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:119:ARG:HH11	6:F:119:ARG:HG3	1.61	0.64
7:G:59:GLY:HA3	7:G:70:PHE:CD2	2.33	0.64
1:A:154:SER:HB3	1:A:162:VAL:HG21	1.79	0.64
1:A:672:ASP:HB2	1:A:736:ASN:OD1	1.98	0.64
2:B:217:ARG:HD2	2:B:217:ARG:C	2.18	0.64
3:C:123:ASN:HD22	3:C:125:MET:HG2	1.60	0.64
4:D:56:ARG:HA	4:D:148:LEU:HD13	1.79	0.64
1:A:665:GLY:HA2	2:B:1026:LEU:HD21	1.78	0.64
1:A:897:TYR:HD2	1:A:936:LEU:HD13	1.62	0.64
1:A:1193:LEU:HD12	1:A:1194:ARG:N	2.13	0.64
2:B:197:PHE:CZ	2:B:816:GLU:HG2	2.32	0.64
2:B:229:ALA:HB1	2:B:231:PRO:HD2	1.79	0.64
2:B:357:GLN:O	2:B:366:GLN:HA	1.97	0.64
2:B:710:LEU:HA	2:B:733:HIS:HB3	1.79	0.64
3:C:99:LEU:HA	3:C:119:VAL:O	1.98	0.64
1:A:404:TYR:HB2	1:A:433:GLU:HB2	1.80	0.63
1:A:500:GLU:OE2	2:B:1145:SER:HB2	1.98	0.63
1:A:590:ARG:HH21	1:A:620:LYS:HB3	1.61	0.63
1:A:903:ASN:HD22	1:A:903:ASN:C	1.97	0.63
1:A:47:ARG:HH12	1:A:254:GLU:HG2	1.63	0.63
1:A:353:ILE:HD13	1:A:487:MET:HE2	1.80	0.63
1:A:844:ALA:C	1:A:845:LEU:HD23	2.17	0.63
2:B:860:MET:HG2	2:B:861:ASP:N	2.14	0.63
6:F:86:THR:HG23	6:F:89:GLU:OE1	1.98	0.63
7:G:9:LEU:HD12	7:G:10:ASN:H	1.63	0.63
9:I:101:PHE:HD1	9:I:101:PHE:H	1.46	0.63
11:K:53:ASP:HB3	11:K:56:VAL:HG23	1.79	0.63
1:A:1261:LYS:O	1:A:1264:GLU:HB3	1.99	0.63
3:C:66:ARG:NH1	10:J:2:ILE:HG21	2.13	0.63
10:J:47:ARG:HG2	10:J:47:ARG:HH11	1.64	0.63
12:L:31:CYS:HB3	12:L:35:SER:N	2.13	0.63
1:A:646:PHE:O	1:A:650:GLN:HG3	1.99	0.63
1:A:1341:ILE:CG2	1:A:1342:GLU:N	2.62	0.63
4:D:50:LEU:HD11	7:G:4:ILE:HD11	1.79	0.63
1:A:886:ILE:HG22	1:A:887:GLY:N	2.13	0.63
1:A:1121:GLU:CG	1:A:1122:PRO:HD2	2.29	0.63
1:A:1341:ILE:HG23	1:A:1342:GLU:H	1.61	0.63
3:C:168:ALA:O	3:C:170:TRP:N	2.30	0.63
8:H:89:LEU:C	8:H:91:ASP:H	2.02	0.63
8:H:99:GLY:N	8:H:118:PHE:HD2	1.97	0.63
1:A:720:ARG:O	1:A:724:GLU:HB2	1.97	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1206:ASP:HB3	1:A:1274:ARG:HH12	1.64	0.63
2:B:580:VAL:HG22	2:B:624:LEU:CB	2.27	0.63
2:B:824:ILE:HG22	2:B:1087:PHE:CE2	2.23	0.63
2:B:1065:GLN:NE2	2:B:1066:SER:N	2.47	0.63
9:I:8:ARG:CG	9:I:34:TYR:HE1	2.12	0.63
1:A:899:VAL:HB	1:A:929:LEU:HD11	1.80	0.63
1:A:1191:TRP:CD1	1:A:1256:GLU:HB2	2.33	0.63
2:B:879:ARG:NH1	2:B:883:LEU:HD22	2.13	0.63
3:C:212:PRO:CB	3:C:213:PRO:HD2	2.29	0.63
11:K:49:GLU:HG3	11:K:94:ILE:CG1	2.29	0.63
12:L:32:ALA:HB3	12:L:55:ILE:CD1	2.27	0.63
2:B:63:ILE:O	2:B:67:SER:HB3	1.98	0.63
2:B:862:GLN:HG2	2:B:963:PHE:HD1	1.63	0.63
4:D:56:ARG:HB2	4:D:148:LEU:HD22	1.80	0.63
1:A:366:VAL:HG21	1:A:460:VAL:HG22	1.81	0.63
1:A:670:ILE:HG23	1:A:805:LEU:CD2	2.28	0.63
1:A:1224:LEU:HD12	1:A:1241:ARG:O	1.98	0.63
2:B:1165:ILE:HG22	2:B:1166:CYS:N	2.13	0.63
1:A:524:VAL:HG12	1:A:525:GLN:N	2.12	0.62
2:B:437:GLU:CA	2:B:438:GLU:N	2.62	0.62
2:B:999:MET:HE2	2:B:1000:PRO:HD2	1.81	0.62
4:D:191:ALA:O	4:D:193:THR:N	2.32	0.62
6:F:93:ILE:HD11	6:F:134:ILE:CD1	2.26	0.62
7:G:110:VAL:HG22	7:G:161:GLY:O	1.97	0.62
11:K:49:GLU:HG3	11:K:94:ILE:HG12	1.80	0.62
1:A:255:SER:OG	2:B:918:ILE:HG23	1.99	0.62
1:A:1027:ALA:O	1:A:1031:VAL:HG23	1.99	0.62
2:B:23:ALA:HB1	2:B:24:PRO:CD	2.26	0.62
2:B:399:ASP:O	2:B:515:HIS:CG	2.52	0.62
2:B:906:SER:O	2:B:941:LEU:HD23	1.99	0.62
7:G:23:LYS:HG3	7:G:56:ILE:CD1	2.29	0.62
9:I:6:PHE:HB3	9:I:12:ASN:O	1.99	0.62
1:A:1007:ILE:C	1:A:1009:ASN:H	2.02	0.62
1:A:1021:LEU:O	1:A:1024:SER:HB3	1.99	0.62
1:A:1120:LEU:HD12	1:A:1120:LEU:N	2.15	0.62
1:A:1325:THR:O	5:E:148:GLU:HB2	1.99	0.62
2:B:1180:PHE:HB3	2:B:1191:ILE:HD12	1.80	0.62
6:F:89:GLU:OE2	6:F:134:ILE:HG21	1.99	0.62
1:A:981:LEU:HD21	1:A:1038:THR:C	2.19	0.62
1:A:1332:PHE:N	1:A:1332:PHE:CD2	2.58	0.62
1:A:1454:MET:O	1:A:1454:MET:HG3	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:121:ASN:HA	2:B:207:GLY:CA	2.29	0.62
1:A:134:ARG:O	1:A:134:ARG:HG2	1.99	0.62
1:A:722:LEU:O	1:A:725:ALA:HB3	1.99	0.62
1:A:4:GLN:O	1:A:5:GLN:O	2.17	0.62
1:A:114:LEU:HD13	1:A:171:GLN:OE1	1.99	0.62
2:B:365:THR:HG23	2:B:367:LEU:HG	1.82	0.62
2:B:465:ASN:N	2:B:465:ASN:ND2	2.45	0.62
8:H:126:GLU:C	8:H:130:ARG:HH22	2.02	0.62
1:A:1074:GLU:HB3	1:A:1075:PRO:CD	2.30	0.62
6:F:111:LEU:HD12	6:F:111:LEU:H	1.65	0.62
1:A:49:LYS:HE2	1:A:61:ILE:HD12	1.81	0.62
1:A:129:LYS:O	1:A:130:ASP:HB2	1.99	0.62
1:A:382:PRO:HB3	1:A:428:TYR:HE2	1.65	0.62
1:A:467:THR:O	1:A:469:ARG:HG3	2.00	0.62
1:A:503:GLN:HE21	6:F:90:ARG:NH2	1.96	0.62
1:A:591:PHE:HA	1:A:595:THR:HG21	1.80	0.62
2:B:43:LEU:HD11	2:B:811:TYR:O	1.99	0.62
2:B:953:LEU:CD2	2:B:965:LYS:HB2	2.28	0.62
1:A:590:ARG:HB3	1:A:605:MET:N	2.15	0.62
2:B:97:VAL:HG12	2:B:178:ASN:HD21	1.64	0.62
2:B:212:LEU:CD2	2:B:480:SER:HB2	2.29	0.62
2:B:247:GLY:H	2:B:418:LYS:NZ	1.98	0.62
2:B:604:ARG:NH1	2:B:691:GLU:OE2	2.31	0.62
1:A:407:ARG:HG2	1:A:430:TRP:CH2	2.35	0.62
2:B:217:ARG:HE	2:B:405:ARG:HB2	1.65	0.62
2:B:515:HIS:H	2:B:518:HIS:CD2	2.10	0.62
4:D:54:GLU:O	4:D:58:VAL:HG23	1.99	0.62
5:E:207:ARG:CB	5:E:207:ARG:HH11	2.13	0.62
2:B:205:ILE:O	2:B:207:GLY:N	2.32	0.61
2:B:549:THR:H	2:B:628:THR:HG23	1.65	0.61
3:C:238:ILE:HG23	3:C:242:GLN:HB2	1.81	0.61
10:J:53:HIS:C	10:J:53:HIS:CD2	2.73	0.61
11:K:47:ARG:HH11	11:K:47:ARG:CB	2.11	0.61
4:D:198:LEU:O	4:D:200:ASN:N	2.33	0.61
7:G:1:MET:SD	7:G:1:MET:C	2.78	0.61
7:G:74:TYR:H	7:G:74:TYR:HD2	1.46	0.61
1:A:475:THR:CG2	1:A:476:SER:N	2.63	0.61
2:B:314:LEU:O	2:B:317:CYS:HB3	2.00	0.61
2:B:852:ARG:HH22	12:L:70:ARG:C	2.04	0.61
5:E:157:SER:C	5:E:159:ASP:H	2.03	0.61
11:K:21:ILE:HG23	11:K:31:VAL:HG11	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:118:ARG:HH22	2:B:194:GLU:CD	2.04	0.61
2:B:1152:MET:CE	2:B:1157:ALA:HA	2.29	0.61
5:E:78:LEU:HD23	5:E:79:TRP:N	2.15	0.61
9:I:111:THR:HG22	9:I:112:SER:H	1.65	0.61
10:J:12:LYS:O	10:J:14:VAL:HG23	2.00	0.61
1:A:783:THR:HG21	1:A:815:PHE:CE2	2.35	0.61
2:B:401:PHE:HB2	2:B:517:THR:OG1	2.01	0.61
2:B:606:LYS:HD2	2:B:608:ASP:OD2	2.01	0.61
3:C:244:VAL:O	3:C:248:ILE:HG13	2.00	0.61
5:E:23:VAL:HG13	5:E:78:LEU:HD13	1.80	0.61
1:A:481:ASP:OD1	1:A:485:ASP:OD2	2.18	0.61
1:A:738:LYS:HB2	1:A:740:LEU:HG	1.83	0.61
1:A:90:VAL:HG13	1:A:297:GLN:HA	1.82	0.61
1:A:224:PHE:CE2	1:A:231:PRO:HG3	2.36	0.61
8:H:100:THR:OG1	8:H:138:GLU:HG3	2.00	0.61
1:A:144:THR:O	1:A:146:MET:HG3	2.01	0.61
2:B:882:THR:HG22	2:B:884:ARG:N	2.13	0.61
1:A:119:ASN:O	1:A:122:MET:HB3	2.01	0.61
1:A:265:LYS:NZ	1:A:322:VAL:HG22	2.15	0.61
2:B:171:PRO:HD2	2:B:457:LEU:HD13	1.82	0.61
2:B:822:ASN:O	10:J:48:ARG:NH1	2.34	0.61
1:A:412:ARG:NH2	2:B:1108:ARG:NH1	2.48	0.61
1:A:907:THR:CG2	1:A:908:LEU:N	2.63	0.61
1:A:1291:VAL:HG13	1:A:1292:PRO:CD	2.31	0.61
4:D:156:ASP:C	4:D:158:GLU:H	2.03	0.61
9:I:26:LEU:HD23	9:I:37:GLU:HA	1.83	0.61
9:I:105:SER:O	9:I:106:CYS:HB3	2.01	0.61
1:A:590:ARG:O	1:A:591:PHE:HB2	2.01	0.60
1:A:1345:ARG:HG3	1:A:1376:THR:HG21	1.83	0.60
2:B:197:PHE:HZ	2:B:816:GLU:HG2	1.65	0.60
2:B:1115:THR:O	2:B:1116:ARG:HB2	2.01	0.60
1:A:867:ILE:HD12	5:E:208:TYR:HE1	1.65	0.60
1:A:1063:MET:HG3	1:A:1436:ILE:HG23	1.82	0.60
2:B:745:PRO:O	2:B:747:MET:N	2.33	0.60
2:B:949:VAL:HG12	2:B:950:ASP:N	2.15	0.60
4:D:144:THR:HG21	7:G:46:LEU:HD13	1.83	0.60
1:A:108:MET:SD	1:A:210:ILE:HD13	2.41	0.60
1:A:384:ASN:O	1:A:386:ASP:N	2.34	0.60
1:A:1299:VAL:HG12	1:A:1300:LYS:N	2.15	0.60
2:B:731:VAL:HG12	2:B:732:SER:N	2.16	0.60
2:B:1001:PHE:CE2	3:C:34:ARG:CZ	2.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:208:GLU:O	3:C:210:GLU:N	2.35	0.60
4:D:56:ARG:HD3	4:D:149:THR:HA	1.82	0.60
1:A:152:VAL:HG12	1:A:153:PRO:HD2	1.83	0.60
1:A:613:ILE:O	1:A:614:PHE:HB3	2.01	0.60
4:D:220:LEU:O	4:D:221:TYR:HD1	1.85	0.60
12:L:31:CYS:SG	12:L:34:CYS:N	2.69	0.60
2:B:361:LEU:HD21	2:B:377:PHE:HD2	1.66	0.60
2:B:642:ASP:HB3	2:B:649:LYS:HD2	1.82	0.60
2:B:744:HIS:CG	2:B:745:PRO:HD2	2.37	0.60
1:A:69:THR:C	1:A:71:GLN:N	2.55	0.60
1:A:590:ARG:HD2	1:A:605:MET:HB3	1.81	0.60
2:B:622:LYS:CE	9:I:59:VAL:HG22	2.32	0.60
2:B:121:ASN:HA	2:B:207:GLY:HA2	1.81	0.60
2:B:787:VAL:O	2:B:787:VAL:HG12	2.02	0.60
3:C:22:LEU:HD13	3:C:230:MET:CE	2.32	0.60
5:E:94:LYS:CE	5:E:98:ILE:HD11	2.31	0.60
7:G:122:ASN:ND2	7:G:125:SER:HB3	2.16	0.60
9:I:62:ILE:O	9:I:62:ILE:HG12	2.01	0.60
1:A:325:ILE:HG21	2:B:1210:MET:HG3	1.84	0.60
1:A:774:ARG:NH2	1:A:797:LYS:HB2	2.17	0.60
2:B:373:ARG:HG3	2:B:566:LEU:HD23	1.84	0.60
2:B:980:PHE:HE2	2:B:1094:ARG:CG	2.14	0.60
9:I:85:PHE:HD1	9:I:99:LEU:HD13	1.67	0.60
11:K:60:ALA:O	11:K:73:LEU:HD12	2.01	0.60
11:K:65:HIS:HD2	11:K:67:PHE:N	1.98	0.60
1:A:666:ILE:HD11	2:B:1067:ARG:O	2.02	0.60
2:B:287:ARG:NH1	2:B:324:ILE:O	2.34	0.60
9:I:85:PHE:CD2	9:I:85:PHE:N	2.60	0.60
1:A:399:HIS:CB	1:A:400:PRO:HD3	2.28	0.60
2:B:859:TYR:CZ	2:B:941:LEU:HD12	2.37	0.60
2:B:1099:VAL:HG12	2:B:1100:ASP:N	2.17	0.60
3:C:238:ILE:HG22	3:C:243:VAL:HG23	1.83	0.60
7:G:14:HIS:HD2	7:G:16:SER:HB2	1.66	0.60
1:A:146:MET:HA	1:A:171:GLN:HB2	1.83	0.59
1:A:1444:MET:HE2	6:F:135:ARG:HB2	1.83	0.59
2:B:469:GLN:CA	2:B:474:SER:CA	2.76	0.59
12:L:60:ARG:HG2	12:L:61:THR:H	1.67	0.59
1:A:265:LYS:NZ	1:A:322:VAL:HG13	2.17	0.59
1:A:913:LEU:HD12	1:A:914:GLU:H	1.66	0.59
1:A:1097:GLY:O	1:A:1100:ARG:HB3	2.01	0.59
1:A:1105:LEU:HD22	1:A:1384:VAL:HG21	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1313:LEU:O	1:A:1315:GLU:N	2.35	0.59
2:B:955:THR:CG2	2:B:956:THR:H	2.15	0.59
2:B:1180:PHE:O	2:B:1181:GLU:O	2.20	0.59
3:C:66:ARG:NH1	3:C:144:ILE:O	2.35	0.59
7:G:3:PHE:CD1	7:G:80:LYS:NZ	2.70	0.59
7:G:51:TYR:C	7:G:51:TYR:CD2	2.75	0.59
1:A:728:LYS:O	1:A:732:LEU:HG	2.01	0.59
1:A:853:ASP:OD1	1:A:855:THR:CB	2.51	0.59
1:A:1059:HIS:ND1	6:F:86:THR:HA	2.17	0.59
1:A:1341:ILE:CG2	1:A:1342:GLU:H	2.15	0.59
2:B:172:ILE:HD13	2:B:178:ASN:CB	2.32	0.59
2:B:205:ILE:N	2:B:205:ILE:HD12	2.17	0.59
2:B:778:MET:HE1	2:B:1094:ARG:CD	2.31	0.59
2:B:980:PHE:HD2	2:B:1094:ARG:HA	1.67	0.59
1:A:195:ASP:O	1:A:196:GLU:HB3	2.03	0.59
1:A:782:ARG:NH2	2:B:699:GLU:O	2.34	0.59
1:A:1116:LEU:HG	1:A:1308:THR:HB	1.83	0.59
1:A:1430:LEU:HB2	1:A:1432:GLN:HG3	1.85	0.59
2:B:265:SER:O	2:B:266:ALA:HB3	2.02	0.59
2:B:758:PHE:CE1	2:B:1027:ILE:HG22	2.37	0.59
3:C:254:LYS:O	3:C:256:ALA:N	2.35	0.59
9:I:102:VAL:CG1	9:I:103:CYS:N	2.65	0.59
12:L:27:LEU:O	12:L:28:LYS:HG2	2.03	0.59
1:A:971:PHE:CE2	1:A:1040:GLN:HG2	2.37	0.59
2:B:834:ASN:HB3	2:B:840:ILE:HG13	1.84	0.59
3:C:45:ALA:HA	3:C:72:LEU:CD1	2.31	0.59
4:D:202:ILE:HG21	4:D:207:LEU:HB2	1.82	0.59
11:K:10:PHE:N	11:K:10:PHE:CD2	2.71	0.59
1:A:12:ARG:HD2	2:B:1218:THR:HB	1.83	0.59
1:A:107:CYS:SG	1:A:171:GLN:HG2	2.42	0.59
1:A:1155:ASP:OD1	1:A:1161:THR:HA	2.03	0.59
2:B:29:ASP:HB3	2:B:658:ILE:HD13	1.83	0.59
2:B:310:MET:O	2:B:313:MET:HB2	2.02	0.59
4:D:33:PHE:CZ	7:G:80:LYS:HE3	2.38	0.59
12:L:43:THR:HG22	12:L:43:THR:O	2.02	0.59
1:A:472:LEU:HD11	2:B:835:GLN:NE2	2.17	0.59
1:A:663:SER:OG	1:A:664:THR:N	2.36	0.59
1:A:866:PHE:C	1:A:867:ILE:HG13	2.22	0.59
2:B:460:ALA:HB1	2:B:466:TRP:CZ3	2.38	0.59
3:C:124:LEU:O	3:C:125:MET:HB2	2.01	0.59
6:F:111:LEU:C	6:F:113:GLY:N	2.56	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:17:PRO:HB3	8:H:24:CYS:SG	2.43	0.59
11:K:63:VAL:HG23	11:K:63:VAL:O	2.03	0.59
1:A:50:ILE:O	1:A:52:GLY:N	2.28	0.59
2:B:1031:LEU:HD23	2:B:1044:ALA:HB2	1.85	0.59
2:B:1099:VAL:HG12	2:B:1100:ASP:H	1.67	0.59
5:E:131:THR:HG21	5:E:191:LYS:NZ	2.18	0.59
8:H:91:ASP:C	8:H:93:TYR:H	2.05	0.59
9:I:2:THR:O	9:I:3:THR:C	2.39	0.59
1:A:1015:VAL:HG12	1:A:1019:CYS:SG	2.42	0.59
1:A:1140:HIS:CE1	1:A:1272:THR:HG23	2.38	0.59
5:E:198:ILE:CD1	5:E:212:ARG:HG3	2.32	0.59
7:G:106:MET:CG	7:G:107:LYS:N	2.66	0.59
7:G:119:LEU:HD12	7:G:131:GLN:O	2.02	0.59
8:H:44:VAL:O	8:H:44:VAL:HG12	2.03	0.59
10:J:14:VAL:O	10:J:14:VAL:HG12	2.03	0.59
1:A:50:ILE:C	1:A:52:GLY:H	2.06	0.58
1:A:518:LYS:HE2	1:A:624:SER:O	2.02	0.58
1:A:1063:MET:CG	1:A:1436:ILE:HG23	2.33	0.58
1:A:1166:ASP:OD2	1:A:1239:ARG:HD2	2.03	0.58
1:A:1349:TYR:CE1	1:A:1368:MET:HE3	2.38	0.58
2:B:616:ILE:HD12	2:B:616:ILE:N	2.18	0.58
3:C:35:ARG:NH1	11:K:41:THR:OG1	2.35	0.58
1:A:78:PRO:HA	2:B:1201:LYS:HZ2	1.69	0.58
1:A:185:TRP:CZ3	1:A:200:ARG:HG2	2.37	0.58
1:A:401:GLY:C	1:A:435:HIS:HD2	2.06	0.58
1:A:549:MET:SD	1:A:577:ILE:HD11	2.43	0.58
2:B:811:TYR:N	2:B:811:TYR:CD1	2.71	0.58
11:K:65:HIS:CD2	11:K:67:PHE:HB2	2.38	0.58
12:L:53:HIS:O	12:L:55:ILE:HG12	2.04	0.58
1:A:384:ASN:O	1:A:385:ILE:C	2.41	0.58
1:A:472:LEU:O	1:A:475:THR:HB	2.03	0.58
1:A:658:LEU:HD23	1:A:659:HIS:CE1	2.38	0.58
1:A:783:THR:HG21	1:A:815:PHE:CZ	2.38	0.58
1:A:1436:ILE:O	1:A:1437:GLY:C	2.42	0.58
2:B:516:ASN:N	2:B:516:ASN:ND2	2.51	0.58
2:B:737:THR:CG2	9:I:66:PRO:HA	2.33	0.58
2:B:955:THR:CG2	2:B:956:THR:N	2.67	0.58
3:C:254:LYS:O	3:C:258:ILE:HD13	2.04	0.58
4:D:128:VAL:O	4:D:132:GLN:HG3	2.03	0.58
4:D:153:ARG:HH22	4:D:184:ALA:HA	1.68	0.58
1:A:407:ARG:HB3	1:A:430:TRP:CE2	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:868:TYR:HD2	1:A:1058:VAL:HG21	1.68	0.58
5:E:39:LEU:O	5:E:42:PHE:HB3	2.02	0.58
5:E:114:ASN:O	5:E:115:ASN:HB3	2.03	0.58
9:I:55:THR:HG21	9:I:109:ILE:HD13	1.84	0.58
10:J:23:ASN:C	10:J:25:LEU:H	2.05	0.58
1:A:231:PRO:HA	1:A:234:MET:HE2	1.85	0.58
1:A:998:LEU:H	1:A:998:LEU:HD12	1.69	0.58
1:A:1164:PRO:HG2	1:A:1165:GLU:H	1.69	0.58
2:B:359:GLU:O	2:B:362:PRO:HD3	2.04	0.58
2:B:840:ILE:HB	2:B:1011:ILE:HB	1.84	0.58
3:C:241:ASP:O	3:C:245:VAL:HG23	2.03	0.58
4:D:134:THR:CG2	4:D:135:GLY:N	2.66	0.58
5:E:78:LEU:HD23	5:E:78:LEU:C	2.24	0.58
9:I:8:ARG:HG3	9:I:34:TYR:CE1	2.38	0.58
10:J:44:TYR:HA	10:J:47:ARG:HB2	1.85	0.58
11:K:12:LEU:H	11:K:12:LEU:HD12	1.68	0.58
1:A:135:PHE:C	1:A:137:ALA:H	2.06	0.58
1:A:469:ARG:NH2	2:B:991:GLY:O	2.36	0.58
2:B:118:ARG:HH11	2:B:204:ILE:HD11	1.68	0.58
2:B:616:ILE:CG1	2:B:697:GLU:HA	2.33	0.58
3:C:235:VAL:HG13	10:J:13:VAL:CG2	2.34	0.58
4:D:130:LEU:HD22	4:D:134:THR:OG1	2.03	0.58
8:H:143:LEU:HD12	8:H:143:LEU:N	2.19	0.58
11:K:58:PHE:HB3	11:K:76:GLN:HB3	1.84	0.58
1:A:446:ARG:HD3	1:A:480:ALA:HB2	1.86	0.58
1:A:560:ILE:HG13	8:H:78:SER:CB	2.32	0.58
1:A:746:MET:HE3	2:B:1018:PRO:HG2	1.85	0.58
1:A:965:GLN:O	1:A:968:GLN:HB2	2.04	0.58
2:B:604:ARG:HH22	2:B:614:SER:HA	1.69	0.58
2:B:705:MET:N	2:B:710:LEU:HD12	2.16	0.58
5:E:14:ARG:HH21	5:E:141:VAL:CG1	2.17	0.58
6:F:109:VAL:HG11	6:F:123:LYS:HG2	1.85	0.58
1:A:35:ILE:HA	1:A:52:GLY:O	2.04	0.58
1:A:665:GLY:O	1:A:667:GLY:N	2.37	0.58
1:A:1385:THR:HG22	1:A:1386:ARG:N	2.18	0.58
4:D:40:HIS:CB	7:G:73:LYS:NZ	2.55	0.58
4:D:130:LEU:C	4:D:132:GLN:N	2.54	0.58
1:A:11:LEU:HB2	2:B:1193:GLN:OE1	2.04	0.58
1:A:49:LYS:HZ1	1:A:61:ILE:N	2.02	0.58
1:A:63:ARG:HA	1:A:74:MET:CE	2.33	0.58
1:A:278:THR:O	1:A:282:ASN:HB2	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1116:LEU:HD11	1:A:1118:VAL:HG13	1.86	0.58
2:B:196:PRO:HG2	2:B:197:PHE:H	1.68	0.58
2:B:1001:PHE:HE2	3:C:34:ARG:CZ	2.17	0.58
3:C:31:ASN:O	3:C:32:SER:C	2.42	0.58
4:D:192:LYS:HB3	4:D:192:LYS:HZ3	1.66	0.58
1:A:2:VAL:HG21	2:B:1157:ALA:C	2.25	0.58
1:A:115:LEU:O	1:A:122:MET:HE2	2.02	0.58
1:A:471:ASN:OD1	1:A:472:LEU:N	2.36	0.58
2:B:224:GLN:O	2:B:238:ALA:HA	2.04	0.58
2:B:899:ILE:HD11	2:B:910:VAL:O	2.04	0.58
7:G:7:LEU:CD1	7:G:45:ILE:HD11	2.33	0.58
8:H:18:GLY:O	8:H:19:ARG:HB2	2.04	0.58
1:A:2:VAL:HG21	2:B:1158:PHE:CA	2.34	0.57
1:A:1035:TYR:O	1:A:1037:LEU:N	2.37	0.57
1:A:1327:ILE:HG22	5:E:147:HIS:HE1	1.69	0.57
1:A:1444:MET:O	6:F:132:LEU:HA	2.04	0.57
2:B:54:PHE:HA	2:B:58:THR:HB	1.86	0.57
2:B:247:GLY:H	2:B:418:LYS:HZ1	1.50	0.57
2:B:838:SER:HB2	2:B:989:THR:O	2.03	0.57
4:D:51:ASN:O	4:D:54:GLU:HB3	2.04	0.57
5:E:90:VAL:HA	5:E:120:ALA:HB2	1.85	0.57
6:F:99:LEU:HD12	6:F:99:LEU:O	2.04	0.57
1:A:503:GLN:NE2	6:F:90:ARG:HH21	2.00	0.57
1:A:698:GLN:HA	9:I:97:MET:O	2.04	0.57
1:A:1030:ARG:NH1	1:A:1035:TYR:OH	2.37	0.57
1:A:1400:CYS:SG	1:A:1409:LEU:HG	2.44	0.57
2:B:102:VAL:CG2	2:B:112:LEU:HD22	2.34	0.57
2:B:850:LEU:HD12	2:B:851:PHE:N	2.19	0.57
2:B:911:ILE:HD11	2:B:941:LEU:HD13	1.86	0.57
5:E:180:ARG:HH21	5:E:192:ARG:CB	2.15	0.57
7:G:3:PHE:CE1	7:G:80:LYS:HE2	2.39	0.57
9:I:14:LEU:HA	9:I:28:GLU:O	2.04	0.57
1:A:262:LEU:O	1:A:264:PHE:N	2.37	0.57
1:A:310:GLY:O	1:A:312:PRO:HD2	2.03	0.57
1:A:532:ARG:HH22	1:A:745:GLN:HG2	1.67	0.57
1:A:658:LEU:HD13	2:B:831:SER:HA	1.86	0.57
1:A:863:VAL:HG11	1:A:866:PHE:CD2	2.40	0.57
2:B:283:VAL:O	2:B:286:PHE:N	2.37	0.57
2:B:825:VAL:CG1	2:B:826:ALA:N	2.67	0.57
8:H:98:TYR:C	8:H:118:PHE:HD2	2.08	0.57
10:J:3:VAL:HA	10:J:53:HIS:CE1	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1051:ALA:O	1:A:1055:ARG:HG3	2.04	0.57
2:B:180:TYR:HD1	2:B:180:TYR:H	1.51	0.57
2:B:244:LEU:HD21	2:B:366:GLN:NE2	2.20	0.57
2:B:1099:VAL:C	2:B:1101:ASP:H	2.07	0.57
2:B:1152:MET:HE3	2:B:1157:ALA:HA	1.86	0.57
3:C:36:VAL:HG21	3:C:251:LEU:HD22	1.86	0.57
2:B:833:TYR:N	2:B:833:TYR:CD1	2.73	0.57
6:F:103:MET:O	6:F:104:ASN:HB2	2.03	0.57
9:I:55:THR:CG2	9:I:58:VAL:HG21	2.34	0.57
1:A:61:ILE:O	1:A:63:ARG:N	2.38	0.57
1:A:81:PHE:CZ	2:B:1208:MET:HE2	2.39	0.57
1:A:774:ARG:O	1:A:775:ILE:C	2.43	0.57
2:B:117:ALA:HA	2:B:122:LEU:HD12	1.85	0.57
2:B:435:THR:HG23	2:B:439:ALA:CB	2.33	0.57
10:J:3:VAL:HG21	10:J:18:TRP:CB	2.31	0.57
1:A:265:LYS:HE2	1:A:322:VAL:CG1	2.35	0.57
1:A:289:ILE:C	1:A:291:GLU:H	2.07	0.57
1:A:1074:GLU:HB3	1:A:1075:PRO:HD3	1.87	0.57
1:A:1198:ASP:O	1:A:1202:MET:HG2	2.05	0.57
1:A:1362:TYR:CD1	1:A:1363:VAL:N	2.73	0.57
1:A:1364:ASN:HD22	1:A:1365:TYR:N	2.02	0.57
2:B:258:LEU:HG	2:B:258:LEU:O	2.05	0.57
2:B:364:ILE:HG12	2:B:585:VAL:HG13	1.86	0.57
2:B:615:MET:C	2:B:616:ILE:HD12	2.25	0.57
6:F:75:PRO:O	6:F:77:ASP:O	2.23	0.57
11:K:90:ALA:O	11:K:94:ILE:HG13	2.04	0.57
1:A:382:PRO:HD3	1:A:428:TYR:CD2	2.40	0.57
2:B:35:SER:O	2:B:39:ARG:HG3	2.05	0.57
10:J:14:VAL:HG12	10:J:50:ILE:HD11	1.86	0.57
1:A:321:PRO:O	1:A:322:VAL:CB	2.53	0.57
1:A:356:ASP:OD2	11:K:65:HIS:HE1	1.88	0.57
1:A:714:PHE:O	1:A:718:VAL:HG23	2.05	0.57
3:C:76:ASP:O	3:C:79:GLN:HG2	2.05	0.57
3:C:146:LYS:C	3:C:147:LEU:HD23	2.26	0.57
4:D:59:ILE:HG21	4:D:145:MET:SD	2.45	0.57
8:H:99:GLY:N	8:H:118:PHE:CD2	2.72	0.57
1:A:853:ASP:O	1:A:854:ASN:HB2	2.04	0.57
1:A:958:VAL:O	1:A:958:VAL:HG12	2.05	0.57
1:A:1396:ALA:O	1:A:1398:MET:N	2.38	0.57
2:B:351:TYR:O	2:B:355:ILE:HG13	2.05	0.57
2:B:957:ASN:O	2:B:959:ASP:N	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:189:ASP:O	4:D:193:THR:HB	2.05	0.57
7:G:1:MET:O	7:G:3:PHE:CE1	2.58	0.57
11:K:82:ASP:OD1	11:K:84:LYS:N	2.38	0.57
1:A:590:ARG:HH11	1:A:590:ARG:CG	2.18	0.56
2:B:46:GLN:CG	2:B:47:GLN:H	2.10	0.56
2:B:114:PRO:O	2:B:116:GLU:N	2.38	0.56
2:B:949:VAL:HG12	2:B:950:ASP:H	1.70	0.56
2:B:952:VAL:HG12	2:B:953:LEU:N	2.20	0.56
7:G:35:GLU:OE2	7:G:48:VAL:HG23	2.05	0.56
1:A:47:ARG:HH12	1:A:254:GLU:CG	2.18	0.56
1:A:244:PRO:CB	1:A:245:PRO:HD3	2.34	0.56
1:A:311:GLN:HB3	1:A:312:PRO:CD	2.33	0.56
1:A:1127:ASP:HB3	1:A:1130:GLN:CB	2.35	0.56
1:A:1214:GLU:O	1:A:1218:GLN:HG2	2.05	0.56
2:B:205:ILE:N	2:B:205:ILE:CD1	2.68	0.56
2:B:1103:ILE:O	2:B:1122:ARG:NH1	2.38	0.56
2:B:1196:ILE:HB	2:B:1197:PRO:HD2	1.86	0.56
3:C:239:PRO:HB2	3:C:241:ASP:OD1	2.05	0.56
6:F:81:THR:HG21	6:F:136:ARG:CD	2.32	0.56
7:G:1:MET:HG3	7:G:85:GLU:OE2	2.05	0.56
10:J:1:MET:N	10:J:56:LEU:N	2.53	0.56
12:L:47:ARG:HH11	12:L:47:ARG:HG3	1.70	0.56
1:A:21:LEU:HG	1:A:1413:GLY:O	2.06	0.56
1:A:67:CYS:O	1:A:68:GLN:HB2	2.04	0.56
1:A:79:GLY:HA3	1:A:243:PRO:HG3	1.86	0.56
1:A:108:MET:SD	1:A:108:MET:N	2.79	0.56
1:A:252:PHE:O	1:A:256:GLN:NE2	2.39	0.56
1:A:265:LYS:N	1:A:265:LYS:HD2	2.20	0.56
1:A:490:HIS:HB3	2:B:1150:ARG:NH1	2.20	0.56
1:A:940:ARG:HG2	1:A:940:ARG:HH11	1.71	0.56
1:A:1418:LEU:HD23	2:B:1222:ARG:HD2	1.86	0.56
2:B:190:TYR:CE2	10:J:62:ARG:HB3	2.40	0.56
3:C:60:ASP:OD2	12:L:60:ARG:NH2	2.39	0.56
5:E:22:MET:HE3	5:E:26:ARG:HH21	1.70	0.56
6:F:90:ARG:HD3	6:F:155:LEU:HD11	1.87	0.56
6:F:109:VAL:HG12	6:F:110:ASP:N	2.20	0.56
6:F:130:ILE:O	6:F:148:VAL:HG21	2.06	0.56
7:G:1:MET:SD	7:G:1:MET:O	2.63	0.56
9:I:74:GLU:HA	9:I:80:SER:O	2.06	0.56
1:A:1283:VAL:HG12	1:A:1284:MET:N	2.21	0.56
1:A:1444:MET:CE	6:F:135:ARG:HB2	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:882:THR:HB	2:B:934:LYS:O	2.05	0.56
3:C:56:THR:HG22	3:C:57:VAL:N	2.16	0.56
1:A:492:PRO:O	1:A:493:GLN:NE2	2.38	0.56
1:A:567:LYS:CG	1:A:568:PRO:CD	2.79	0.56
1:A:852:TYR:CE2	1:A:1060:PRO:HB2	2.40	0.56
2:B:35:SER:HA	2:B:811:TYR:CE2	2.35	0.56
2:B:579:ARG:HG2	2:B:579:ARG:HH11	1.69	0.56
5:E:93:MET:SD	5:E:97:VAL:HG23	2.46	0.56
7:G:99:PHE:HZ	7:G:163:ILE:HD13	1.70	0.56
8:H:83:GLN:C	8:H:85:GLY:H	2.08	0.56
8:H:116:TYR:HB2	8:H:123:MET:HB3	1.86	0.56
12:L:36:SER:O	12:L:37:LYS:C	2.44	0.56
1:A:475:THR:CG2	1:A:476:SER:H	2.19	0.56
1:A:586:ILE:HG22	1:A:587:HIS:N	2.21	0.56
1:A:666:ILE:CD1	1:A:667:GLY:H	2.18	0.56
1:A:836:TYR:CD2	1:A:840:ARG:HD2	2.40	0.56
1:A:907:THR:HG22	1:A:908:LEU:N	2.20	0.56
1:A:1010:ALA:HA	1:A:1013:ASP:OD2	2.06	0.56
1:A:1029:ARG:HH11	1:A:1029:ARG:HG3	1.70	0.56
2:B:549:THR:CG2	2:B:550:ASP:H	2.06	0.56
2:B:980:PHE:CD2	2:B:1094:ARG:HA	2.40	0.56
5:E:3:GLN:HG3	5:E:4:GLU:N	2.21	0.56
7:G:7:LEU:O	7:G:73:LYS:HD2	2.05	0.56
9:I:68:LEU:HB3	9:I:84:VAL:HG23	1.87	0.56
10:J:53:HIS:CD2	10:J:54:VAL:N	2.74	0.56
1:A:71:GLN:C	1:A:73:GLY:H	2.09	0.56
2:B:295:GLY:H	2:B:298:LEU:HD23	1.70	0.56
2:B:1001:PHE:CE2	3:C:34:ARG:NE	2.73	0.56
2:B:1162:ILE:HD11	2:B:1194:ILE:HD13	1.87	0.56
5:E:192:ARG:HG3	5:E:192:ARG:NH1	2.21	0.56
7:G:51:TYR:O	7:G:54:ILE:HG13	2.06	0.56
9:I:25:LEU:HB3	9:I:38:ALA:HB2	1.88	0.56
1:A:722:LEU:HD22	1:A:799:PHE:CD1	2.41	0.56
1:A:857:ARG:HD3	1:A:861:GLY:O	2.06	0.56
1:A:899:VAL:HB	1:A:929:LEU:HD12	1.87	0.56
2:B:604:ARG:NH2	2:B:614:SER:HA	2.21	0.56
2:B:705:MET:H	2:B:710:LEU:CD1	2.14	0.56
3:C:174:ALA:O	3:C:175:ALA:HB2	2.05	0.56
1:A:3:GLY:O	1:A:4:GLN:HB2	2.06	0.56
1:A:35:ILE:HG22	1:A:84:ILE:HD12	1.86	0.56
1:A:269:ILE:HG12	1:A:299:HIS:HB3	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:666:ILE:HD12	1:A:666:ILE:N	2.21	0.56
1:A:844:ALA:O	1:A:845:LEU:HD23	2.05	0.56
1:A:855:THR:CG2	1:A:857:ARG:HE	2.07	0.56
1:A:897:TYR:CD2	1:A:936:LEU:HD13	2.40	0.56
1:A:1299:VAL:HG12	1:A:1300:LYS:H	1.71	0.56
2:B:637:LEU:HD12	2:B:693:ILE:HD12	1.88	0.56
2:B:1034:VAL:C	2:B:1036:ALA:H	2.09	0.56
3:C:51:VAL:HG22	3:C:155:LEU:HD22	1.88	0.56
7:G:111:THR:HB	7:G:114:LEU:HB2	1.88	0.56
1:A:427:GLN:HB2	1:A:430:TRP:CD1	2.41	0.56
1:A:547:LEU:HD22	11:K:58:PHE:CE1	2.41	0.56
1:A:858:ASN:ND2	1:A:858:ASN:C	2.59	0.56
2:B:308:TRP:CH2	9:I:45:ARG:HG2	2.41	0.56
2:B:984:HIS:CG	2:B:1025:HIS:HB2	2.41	0.56
3:C:252:GLN:HG3	11:K:95:ILE:HG23	1.87	0.56
8:H:81:PRO:HB2	8:H:82:PRO:CD	2.30	0.56
1:A:49:LYS:NZ	1:A:61:ILE:HG13	2.22	0.55
1:A:268:ASP:HB3	1:A:299:HIS:ND1	2.21	0.55
2:B:129:PHE:HA	2:B:165:VAL:O	2.06	0.55
2:B:710:LEU:O	2:B:711:GLU:HG2	2.06	0.55
5:E:23:VAL:O	5:E:28:TYR:HB2	2.07	0.55
7:G:56:ILE:O	7:G:57:GLN:HB2	2.06	0.55
7:G:79:PHE:CZ	7:G:106:MET:HE2	2.41	0.55
1:A:416:ARG:C	1:A:417:TYR:HD2	2.09	0.55
2:B:29:ASP:HB3	2:B:658:ILE:CD1	2.36	0.55
2:B:527:THR:OG1	2:B:528:PRO:HD2	2.06	0.55
2:B:843:GLN:O	2:B:846:ILE:HB	2.07	0.55
5:E:197:LYS:HE2	5:E:199:ILE:HD11	1.87	0.55
7:G:88:ASP:HB3	7:G:144:ARG:HA	1.88	0.55
1:A:114:LEU:O	1:A:115:LEU:HG	2.07	0.55
1:A:845:LEU:HB3	1:A:848:ILE:HD12	1.88	0.55
1:A:963:ILE:HD13	1:A:1049:ILE:HG12	1.87	0.55
1:A:1279:ILE:HD11	1:A:1316:VAL:HG21	1.88	0.55
4:D:68:ARG:C	4:D:70:PHE:H	2.09	0.55
6:F:90:ARG:HD3	6:F:155:LEU:HD12	1.88	0.55
1:A:265:LYS:HD2	1:A:265:LYS:H	1.72	0.55
1:A:1242:VAL:O	1:A:1243:VAL:HB	2.07	0.55
1:A:1438:THR:HB	2:B:1144:ALA:CB	2.37	0.55
2:B:195:CYS:SG	2:B:197:PHE:HB2	2.47	0.55
2:B:745:PRO:C	2:B:747:MET:H	2.09	0.55
8:H:95:TYR:HB3	8:H:144:ILE:HB	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:268:ASP:HB3	1:A:299:HIS:CE1	2.41	0.55
1:A:458:HIS:CE1	1:A:507:VAL:HG21	2.41	0.55
1:A:730:GLY:O	1:A:732:LEU:N	2.40	0.55
2:B:763:GLN:HG2	2:B:765:PRO:CD	2.35	0.55
2:B:865:LYS:NZ	2:B:869:SER:HA	2.22	0.55
4:D:52:LEU:HD21	4:D:147:TYR:HE2	1.70	0.55
1:A:1017:LEU:CB	5:E:205:SER:HA	2.37	0.55
1:A:1373:ASP:HA	1:A:1376:THR:HG22	1.89	0.55
3:C:5:GLY:O	3:C:7:GLN:HG3	2.06	0.55
6:F:118:LEU:HD12	6:F:118:LEU:O	2.07	0.55
7:G:145:VAL:HG12	7:G:146:LYS:N	2.21	0.55
11:K:21:ILE:HG23	11:K:31:VAL:CG1	2.36	0.55
1:A:504:LEU:HD12	1:A:504:LEU:N	2.21	0.55
1:A:1032:LEU:O	1:A:1036:ARG:HD3	2.07	0.55
1:A:1279:ILE:HD11	1:A:1316:VAL:CG2	2.37	0.55
2:B:223:VAL:HG11	2:B:381:MET:HG2	1.88	0.55
2:B:526:GLU:OE2	2:B:752:ALA:HB2	2.06	0.55
2:B:746:SER:HB2	2:B:1046:PRO:HG2	1.89	0.55
2:B:1165:ILE:CD1	4:D:17:LYS:CB	2.85	0.55
5:E:29:PHE:C	5:E:30:ILE:HG13	2.26	0.55
7:G:17:PHE:C	7:G:19:GLY:H	2.10	0.55
8:H:89:LEU:HB3	8:H:91:ASP:OD1	2.07	0.55
10:J:44:TYR:HA	10:J:47:ARG:CB	2.37	0.55
1:A:166:GLY:O	1:A:167:CYS:SG	2.65	0.55
1:A:567:LYS:CB	1:A:568:PRO:CD	2.85	0.55
1:A:1409:LEU:HD13	2:B:1207:LEU:CD2	2.36	0.55
2:B:57:TYR:CD1	2:B:57:TYR:N	2.74	0.55
2:B:199:MET:N	2:B:199:MET:SD	2.79	0.55
2:B:971:THR:OG1	3:C:61:GLU:HG3	2.07	0.55
1:A:185:TRP:HZ3	1:A:200:ARG:HG2	1.71	0.55
1:A:548:ASN:HA	11:K:60:ALA:HB1	1.89	0.55
2:B:38:PHE:HD1	2:B:811:TYR:CD2	2.24	0.55
2:B:97:VAL:HG12	2:B:178:ASN:ND2	2.22	0.55
2:B:324:ILE:HD13	2:B:330:ALA:HA	1.88	0.55
2:B:806:THR:HA	2:B:1045:SER:OG	2.07	0.55
3:C:39:ALA:CA	3:C:164:ALA:HB3	2.28	0.55
7:G:125:SER:OG	7:G:128:PRO:HA	2.07	0.55
8:H:100:THR:HG22	8:H:101:ALA:N	2.21	0.55
1:A:56:PRO:O	1:A:57:ARG:CG	2.51	0.55
1:A:98:LYS:O	1:A:99:ILE:C	2.45	0.55
1:A:658:LEU:HD23	1:A:659:HIS:HE1	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1227:ILE:HG22	1:A:1228:TRP:H	1.70	0.55
2:B:114:PRO:HG2	2:B:115:GLN:H	1.71	0.55
2:B:603:LEU:HB3	2:B:609:ILE:CD1	2.37	0.55
2:B:696:GLU:O	2:B:699:GLU:HB2	2.07	0.55
2:B:893:LEU:HD11	2:B:910:VAL:HG11	1.88	0.55
2:B:1115:THR:CG2	2:B:1117:GLN:HG3	2.36	0.55
6:F:96:THR:O	6:F:100:GLN:HG3	2.07	0.55
11:K:12:LEU:HD12	11:K:12:LEU:N	2.21	0.55
2:B:95:ILE:CG1	2:B:130:VAL:HG22	2.37	0.54
2:B:492:LEU:O	2:B:495:LEU:N	2.40	0.54
2:B:493:SER:HA	2:B:751:VAL:HG21	1.90	0.54
2:B:1082:MET:O	3:C:189:THR:HG23	2.07	0.54
3:C:3:GLU:HG2	3:C:4:GLU:N	2.22	0.54
3:C:31:ASN:OD1	3:C:34:ARG:NH1	2.40	0.54
7:G:27:LYS:O	7:G:30:LEU:HB3	2.07	0.54
1:A:262:LEU:C	1:A:264:PHE:H	2.11	0.54
1:A:800:VAL:CG1	1:A:808:LEU:HG	2.38	0.54
1:A:1220:PHE:O	1:A:1221:LYS:HB2	2.08	0.54
5:E:35:VAL:C	5:E:37:LEU:H	2.09	0.54
6:F:77:ASP:C	6:F:79:ARG:H	2.10	0.54
10:J:1:MET:H2	10:J:56:LEU:N	2.06	0.54
11:K:61:TYR:C	11:K:61:TYR:CD2	2.78	0.54
1:A:90:VAL:HG12	1:A:91:PHE:N	2.22	0.54
1:A:350:ARG:HB2	1:A:488:ASN:OD1	2.07	0.54
1:A:598:LEU:HD22	8:H:25:ARG:NH1	2.22	0.54
1:A:873:MET:HG2	1:A:957:PRO:HB3	1.89	0.54
1:A:1372:VAL:O	1:A:1376:THR:HG22	2.08	0.54
2:B:125:SER:HA	2:B:171:PRO:HA	1.89	0.54
9:I:82:GLU:HB3	9:I:104:LEU:HD12	1.90	0.54
1:A:399:HIS:HB3	1:A:400:PRO:CD	2.30	0.54
1:A:666:ILE:H	2:B:1026:LEU:HD22	1.72	0.54
1:A:896:ARG:NH2	1:A:1030:ARG:NH2	2.55	0.54
2:B:1034:VAL:CG1	2:B:1035:ALA:N	2.67	0.54
3:C:22:LEU:HD13	3:C:230:MET:HE3	1.87	0.54
4:D:156:ASP:C	4:D:158:GLU:N	2.60	0.54
11:K:47:ARG:HD3	11:K:59:ALA:O	2.08	0.54
1:A:265:LYS:CE	1:A:322:VAL:HG13	2.37	0.54
1:A:842:VAL:HG11	2:B:1136:ASP:OD2	2.07	0.54
1:A:939:ASP:O	1:A:943:LEU:HG	2.07	0.54
4:D:24:ALA:HA	7:G:83:LYS:O	2.08	0.54
11:K:47:ARG:O	11:K:47:ARG:HD2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:464:PRO:HG2	1:A:465:TYR:HD1	1.73	0.54
2:B:640:VAL:O	2:B:641:GLU:C	2.46	0.54
2:B:1180:PHE:HB3	2:B:1191:ILE:CD1	2.38	0.54
3:C:18:VAL:HG23	3:C:240:VAL:HB	1.90	0.54
5:E:46:TYR:CE2	5:E:58:MET:HA	2.43	0.54
8:H:41:ASP:OD2	8:H:122:LEU:N	2.41	0.54
2:B:582:VAL:HG23	2:B:626:ILE:HB	1.89	0.54
2:B:980:PHE:HE1	2:B:990:ILE:HD11	1.73	0.54
4:D:51:ASN:O	4:D:52:LEU:O	2.25	0.54
1:A:694:THR:O	1:A:698:GLN:HG3	2.08	0.54
1:A:1118:VAL:O	1:A:1305:VAL:HG13	2.08	0.54
2:B:235:SER:OG	2:B:236:HIS:CD2	2.61	0.54
2:B:872:GLU:HA	2:B:915:THR:O	2.08	0.54
3:C:8:VAL:HG12	3:C:9:LYS:N	2.23	0.54
3:C:226:ASP:O	3:C:227:THR:HB	2.07	0.54
1:A:311:GLN:O	1:A:312:PRO:C	2.47	0.54
2:B:53:GLN:HG2	2:B:547:VAL:CG2	2.35	0.54
2:B:315:LYS:N	2:B:316:PRO:HD2	2.23	0.54
2:B:557:PHE:C	2:B:557:PHE:HD2	2.09	0.54
2:B:880:THR:HB	2:B:934:LYS:HD2	1.90	0.54
3:C:18:VAL:CG2	3:C:240:VAL:HB	2.37	0.54
3:C:166:GLU:O	3:C:167:HIS:HB2	2.08	0.54
3:C:258:ILE:HD12	3:C:258:ILE:N	2.22	0.54
1:A:364:VAL:O	1:A:364:VAL:HG13	2.08	0.54
1:A:381:THR:HG23	1:A:383:TYR:H	1.73	0.54
1:A:417:TYR:N	1:A:417:TYR:CD2	2.75	0.54
2:B:847:ASP:C	2:B:849:GLY:N	2.61	0.54
9:I:32:CYS:SG	9:I:33:SER:N	2.81	0.54
1:A:47:ARG:O	1:A:48:ALA:HB2	2.08	0.53
1:A:93:VAL:CG1	1:A:301:ALA:HB1	2.37	0.53
1:A:503:GLN:C	1:A:504:LEU:HD12	2.29	0.53
1:A:567:LYS:HB2	1:A:568:PRO:CD	2.39	0.53
2:B:465:ASN:H	2:B:465:ASN:ND2	2.04	0.53
3:C:98:VAL:O	3:C:99:LEU:HD23	2.08	0.53
3:C:263:THR:C	3:C:265:MET:N	2.61	0.53
11:K:50:LEU:HD11	11:K:75:ILE:CD1	2.36	0.53
1:A:847:ASP:OD1	1:A:848:ILE:HG13	2.08	0.53
1:A:1017:LEU:HB3	5:E:205:SER:HA	1.89	0.53
1:A:1115:SER:C	1:A:1308:THR:HG22	2.28	0.53
2:B:39:ARG:HG2	2:B:39:ARG:HH11	1.72	0.53
2:B:579:ARG:N	2:B:589:VAL:HG13	2.22	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1074:ASN:HB2	2:B:1081:LEU:HD21	1.90	0.53
4:D:56:ARG:HD2	4:D:149:THR:OG1	2.08	0.53
5:E:207:ARG:HH11	5:E:207:ARG:HB3	1.72	0.53
10:J:43:ARG:HG3	10:J:45:CYS:SG	2.47	0.53
2:B:777:ALA:HA	2:B:1095:LEU:HA	1.90	0.53
2:B:841:MET:SD	2:B:846:ILE:HD11	2.49	0.53
1:A:528:LEU:HD23	1:A:751:SER:HA	1.91	0.53
1:A:886:ILE:HD11	1:A:943:LEU:CB	2.35	0.53
1:A:1004:ASN:OD1	1:A:1005:GLU:N	2.42	0.53
1:A:1323:ASP:C	1:A:1325:THR:H	2.12	0.53
2:B:213:ILE:HD12	2:B:497:ARG:HB3	1.90	0.53
2:B:234:ILE:HD12	2:B:234:ILE:N	2.23	0.53
2:B:1050:ILE:HG22	2:B:1051:THR:N	2.24	0.53
2:B:1068:GLY:O	2:B:1069:PHE:O	2.27	0.53
4:D:29:LEU:HD22	7:G:82:PHE:CD2	2.43	0.53
4:D:63:LEU:HD13	4:D:133:THR:OG1	2.09	0.53
4:D:202:ILE:CG2	4:D:207:LEU:HB2	2.38	0.53
5:E:9:ILE:HD11	5:E:53:PRO:HD3	1.90	0.53
5:E:90:VAL:O	5:E:90:VAL:HG22	2.08	0.53
5:E:116:ILE:HG22	5:E:117:THR:N	2.23	0.53
10:J:44:TYR:HD2	10:J:44:TYR:N	2.07	0.53
1:A:244:PRO:O	1:A:247:ARG:N	2.41	0.53
1:A:546:VAL:O	1:A:550:LEU:HG	2.08	0.53
1:A:618:GLU:O	1:A:620:LYS:N	2.42	0.53
1:A:1007:ILE:C	1:A:1009:ASN:N	2.62	0.53
1:A:1377:THR:O	1:A:1379:GLY:N	2.41	0.53
2:B:281:PRO:O	2:B:283:VAL:N	2.41	0.53
2:B:377:PHE:C	2:B:379:GLY:N	2.62	0.53
2:B:615:MET:CB	2:B:626:ILE:HG12	2.39	0.53
2:B:803:LEU:CD1	2:B:1032:SER:HB3	2.38	0.53
2:B:999:MET:HE2	2:B:1000:PRO:CD	2.38	0.53
3:C:235:VAL:HG13	10:J:13:VAL:HG23	1.89	0.53
4:D:191:ALA:C	4:D:193:THR:H	2.11	0.53
5:E:78:LEU:HD21	5:E:80:VAL:HG23	1.89	0.53
9:I:13:MET:O	9:I:14:LEU:HD23	2.08	0.53
10:J:44:TYR:N	10:J:44:TYR:CD2	2.76	0.53
1:A:545:GLN:O	1:A:546:VAL:C	2.46	0.53
1:A:590:ARG:HB2	1:A:605:MET:HB3	1.90	0.53
1:A:874:ASP:N	1:A:1058:VAL:HG22	2.24	0.53
1:A:881:GLN:NE2	1:A:958:VAL:O	2.38	0.53
1:A:1007:ILE:O	1:A:1009:ASN:N	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1336:MET:CE	1:A:1381:LEU:HG	2.39	0.53
2:B:496:ARG:HB3	2:B:496:ARG:HH11	1.73	0.53
2:B:526:GLU:HG2	2:B:538:ASN:HD22	1.74	0.53
2:B:833:TYR:N	2:B:833:TYR:HD1	2.06	0.53
2:B:1102:LYS:O	2:B:1103:ILE:C	2.47	0.53
9:I:61:ASP:C	9:I:63:GLY:H	2.12	0.53
1:A:427:GLN:HG3	1:A:430:TRP:CE2	2.43	0.53
1:A:817:ALA:O	1:A:819:GLY:N	2.41	0.53
1:A:1120:LEU:HD13	1:A:1304:TRP:O	2.09	0.53
4:D:53:SER:HB3	4:D:152:SER:CA	2.38	0.53
5:E:55:ARG:HD2	5:E:83:CYS:O	2.08	0.53
7:G:1:MET:SD	7:G:79:PHE:CE1	3.02	0.53
1:A:306:ASN:HD21	1:A:322:VAL:HB	1.73	0.53
1:A:598:LEU:O	1:A:599:SER:C	2.47	0.53
1:A:814:PHE:O	1:A:817:ALA:HB3	2.08	0.53
1:A:852:TYR:CD2	1:A:1060:PRO:HB2	2.44	0.53
1:A:1094:VAL:HG12	1:A:1095:THR:N	2.24	0.53
9:I:8:ARG:HG2	9:I:34:TYR:HE1	1.73	0.53
1:A:34:LYS:HB3	1:A:36:ARG:HE	1.73	0.53
1:A:43:GLU:O	1:A:44:THR:HB	2.09	0.53
1:A:263:THR:HG22	1:A:263:THR:O	2.09	0.53
1:A:366:VAL:CG2	1:A:460:VAL:HG22	2.39	0.53
1:A:577:ILE:HA	1:A:580:VAL:HG23	1.91	0.53
1:A:1365:TYR:O	1:A:1367:HIS:N	2.42	0.53
2:B:65:GLU:CG	2:B:66:ASP:H	2.12	0.53
2:B:798:TYR:CE2	3:C:62:PHE:CE2	2.97	0.53
2:B:879:ARG:HH11	2:B:883:LEU:CD2	2.20	0.53
9:I:50:THR:CG2	9:I:52:ILE:HG12	2.38	0.53
1:A:77:CYS:O	1:A:78:PRO:C	2.40	0.53
1:A:89:PRO:HB2	1:A:204:THR:HG22	1.91	0.53
1:A:90:VAL:CG1	1:A:297:GLN:HA	2.39	0.53
1:A:901:LEU:CG	1:A:926:GLN:HE21	2.22	0.53
2:B:39:ARG:HG2	2:B:39:ARG:NH1	2.23	0.53
2:B:483:LEU:HD11	2:B:491:THR:CG2	2.34	0.53
2:B:654:ARG:H	2:B:657:HIS:CD2	2.23	0.53
2:B:948:ILE:HG22	2:B:949:VAL:O	2.09	0.53
2:B:1107:ALA:O	2:B:1108:ARG:HG2	2.09	0.53
3:C:39:ALA:HA	3:C:164:ALA:CB	2.31	0.53
3:C:73:GLN:NE2	3:C:74:SER:H	2.06	0.53
4:D:116:SER:O	4:D:117:GLU:CB	2.57	0.53
6:F:101:ILE:HD11	6:F:124:GLU:OE1	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:44:TYR:HD2	10:J:44:TYR:H	1.55	0.53
1:A:92:HIS:HB3	1:A:95:PHE:HB2	1.89	0.52
1:A:241:VAL:HG13	1:A:266:LEU:HD13	1.91	0.52
1:A:401:GLY:C	1:A:435:HIS:CD2	2.82	0.52
1:A:534:LEU:O	1:A:534:LEU:HG	2.07	0.52
1:A:548:ASN:OD1	11:K:60:ALA:HB1	2.09	0.52
1:A:673:GLY:O	1:A:676:MET:HB2	2.09	0.52
2:B:1039:GLY:HA2	10:J:51:LEU:HD21	1.91	0.52
2:B:1208:MET:O	2:B:1211:ASN:N	2.40	0.52
3:C:147:LEU:HD12	3:C:151:GLN:O	2.09	0.52
6:F:73:ALA:HA	6:F:143:PHE:CE1	2.43	0.52
1:A:42:ASP:HB3	1:A:45:GLN:H	1.73	0.52
2:B:401:PHE:CD2	2:B:521:LEU:HD12	2.40	0.52
2:B:589:VAL:HG12	2:B:590:HIS:N	2.17	0.52
8:H:127:GLY:O	8:H:128:ASN:HB2	2.10	0.52
1:A:18:GLN:O	2:B:1215:ARG:HG2	2.10	0.52
1:A:18:GLN:CB	2:B:1215:ARG:HB2	2.39	0.52
1:A:463:ILE:HB	1:A:464:PRO:HD2	1.91	0.52
1:A:768:GLN:HG2	1:A:816:HIS:N	2.24	0.52
1:A:1322:ILE:O	1:A:1324:PRO:HD3	2.10	0.52
2:B:785:TYR:CD1	2:B:785:TYR:C	2.82	0.52
10:J:3:VAL:HA	10:J:53:HIS:ND1	2.24	0.52
1:A:299:HIS:C	1:A:301:ALA:H	2.11	0.52
1:A:1343:ALA:HB2	5:E:150:VAL:HG22	1.92	0.52
2:B:57:TYR:N	2:B:57:TYR:HD1	2.08	0.52
2:B:189:LEU:O	2:B:192:LEU:N	2.28	0.52
3:C:27:LEU:O	3:C:28:ALA:C	2.47	0.52
4:D:33:PHE:CZ	7:G:80:LYS:CE	2.92	0.52
4:D:118:THR:O	4:D:122:GLU:CB	2.57	0.52
5:E:157:SER:C	5:E:159:ASP:N	2.60	0.52
1:A:353:ILE:HG21	1:A:487:MET:CE	2.37	0.52
1:A:1116:LEU:HB2	1:A:1329:THR:OG1	2.08	0.52
2:B:810:GLU:HB2	2:B:815:ARG:HH22	1.74	0.52
4:D:167:LEU:O	4:D:170:THR:OG1	2.23	0.52
5:E:22:MET:HE3	5:E:26:ARG:NH2	2.23	0.52
5:E:161:LYS:HD2	5:E:195:VAL:HG23	1.92	0.52
5:E:168:TYR:HB2	5:E:170:LEU:HG	1.90	0.52
6:F:81:THR:HB	6:F:136:ARG:HH11	1.75	0.52
1:A:265:LYS:HZ1	1:A:322:VAL:HG22	1.73	0.52
1:A:353:ILE:HG21	1:A:487:MET:HG3	1.91	0.52
1:A:1208:THR:HG22	1:A:1210:GLY:H	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1242:VAL:HG12	1:A:1243:VAL:N	2.17	0.52
4:D:192:LYS:HZ3	4:D:199:ASN:HA	1.75	0.52
6:F:109:VAL:HG13	6:F:127:GLU:OE1	2.09	0.52
7:G:26:LEU:O	7:G:27:LYS:C	2.48	0.52
1:A:92:HIS:O	1:A:95:PHE:N	2.34	0.52
2:B:44:VAL:O	2:B:45:SER:C	2.48	0.52
7:G:111:THR:HG22	7:G:113:HIS:H	1.74	0.52
8:H:31:THR:O	8:H:31:THR:HG22	2.10	0.52
1:A:64:ASN:O	1:A:65:LEU:C	2.48	0.52
1:A:84:ILE:HD11	1:A:270:LEU:CD1	2.34	0.52
1:A:504:LEU:HD11	6:F:91:ALA:CB	2.39	0.52
1:A:578:LEU:HD23	1:A:612:ILE:CD1	2.39	0.52
1:A:628:GLY:O	1:A:632:VAL:HG23	2.10	0.52
1:A:632:VAL:O	1:A:633:VAL:C	2.48	0.52
1:A:1327:ILE:HG22	5:E:147:HIS:CE1	2.45	0.52
2:B:1107:ALA:O	2:B:1108:ARG:O	2.28	0.52
3:C:239:PRO:O	3:C:241:ASP:N	2.43	0.52
7:G:26:LEU:O	7:G:29:LYS:N	2.43	0.52
8:H:4:THR:CA	8:H:60:ALA:HB2	2.34	0.52
9:I:100:PHE:N	9:I:100:PHE:CD1	2.78	0.52
1:A:40:THR:HG22	1:A:41:MET:CG	2.32	0.52
1:A:418:SER:O	1:A:420:ARG:N	2.43	0.52
1:A:630:ILE:HD13	1:A:646:PHE:CZ	2.45	0.52
2:B:311:LEU:O	2:B:312:GLU:C	2.48	0.52
2:B:1022:THR:HG23	2:B:1022:THR:O	2.10	0.52
2:B:1132:GLU:O	2:B:1135:ARG:HB3	2.09	0.52
4:D:47:LEU:HD11	7:G:3:PHE:CD2	2.45	0.52
5:E:168:TYR:CB	5:E:170:LEU:HG	2.40	0.52
8:H:113:ALA:HB1	8:H:125:LEU:O	2.09	0.52
9:I:85:PHE:HD2	9:I:85:PHE:N	1.88	0.52
10:J:45:CYS:O	10:J:48:ARG:HG3	2.10	0.52
1:A:767:GLN:NE2	1:A:774:ARG:HB3	2.24	0.52
1:A:885:THR:O	1:A:940:ARG:HD2	2.10	0.52
1:A:1030:ARG:HG3	1:A:1034:GLU:OE2	2.09	0.52
1:A:1164:PRO:O	1:A:1166:ASP:N	2.43	0.52
2:B:555:ILE:HD11	2:B:587:HIS:CE1	2.44	0.52
3:C:76:ASP:O	3:C:77:ILE:C	2.48	0.52
6:F:130:ILE:O	6:F:148:VAL:CG2	2.58	0.52
8:H:139:ASN:O	8:H:140:ALA:HB2	2.08	0.52
9:I:55:THR:HG22	9:I:58:VAL:HG21	1.92	0.52
10:J:27:GLU:C	10:J:29:GLU:H	2.13	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:31:VAL:CG1	11:K:32:VAL:N	2.72	0.52
1:A:253:ASN:HB3	2:B:935:ARG:NH2	2.25	0.51
1:A:283:GLY:O	1:A:285:PRO:HD3	2.10	0.51
1:A:306:ASN:ND2	1:A:322:VAL:HB	2.24	0.51
1:A:1334:ASP:O	1:A:1336:MET:N	2.43	0.51
2:B:240:ILE:HG23	2:B:240:ILE:O	2.09	0.51
2:B:1034:VAL:HG12	2:B:1035:ALA:H	1.75	0.51
3:C:181:ASP:OD2	3:C:185:LYS:N	2.41	0.51
8:H:59:ILE:O	8:H:60:ALA:HB3	2.10	0.51
12:L:40:LEU:HD22	12:L:44:ASP:CG	2.31	0.51
1:A:23:SER:O	1:A:24:PRO:C	2.48	0.51
1:A:353:ILE:CD1	1:A:487:MET:HE2	2.38	0.51
1:A:567:LYS:HZ1	8:H:46:LEU:HB2	1.75	0.51
1:A:901:LEU:HD22	1:A:919:ILE:HG21	1.92	0.51
2:B:616:ILE:HG13	2:B:697:GLU:HA	1.92	0.51
2:B:843:GLN:HB2	2:B:993:THR:HB	1.91	0.51
2:B:997:GLU:CD	2:B:997:GLU:H	2.13	0.51
3:C:215:GLU:O	3:C:217:ASP:N	2.43	0.51
3:C:258:ILE:N	3:C:258:ILE:CD1	2.73	0.51
7:G:62:LEU:HB3	7:G:63:PRO:CD	2.39	0.51
12:L:34:CYS:SG	12:L:51:CYS:SG	3.08	0.51
1:A:55:ASP:N	1:A:56:PRO:HD3	2.24	0.51
1:A:854:ASN:HB3	1:A:1000:LEU:HD21	1.91	0.51
2:B:900:ALA:HB3	12:L:61:THR:OG1	2.10	0.51
2:B:999:MET:HB3	2:B:1007:VAL:HG21	1.92	0.51
3:C:263:THR:O	3:C:265:MET:N	2.43	0.51
6:F:79:ARG:HG3	6:F:144:GLU:OE1	2.10	0.51
7:G:49:LEU:HG	7:G:76:ALA:HA	1.93	0.51
7:G:80:LYS:O	7:G:80:LYS:HG2	2.10	0.51
9:I:85:PHE:CD1	9:I:99:LEU:HD13	2.45	0.51
11:K:7:PHE:HA	11:K:10:PHE:CE2	2.45	0.51
1:A:93:VAL:HG22	1:A:301:ALA:HA	1.92	0.51
1:A:365:GLY:O	1:A:468:PHE:HA	2.11	0.51
1:A:817:ALA:O	1:A:818:MET:C	2.48	0.51
1:A:1127:ASP:HB3	1:A:1130:GLN:HB3	1.92	0.51
1:A:1157:ASP:C	1:A:1159:ARG:H	2.14	0.51
2:B:460:ALA:HB1	2:B:466:TRP:CE3	2.45	0.51
7:G:150:CYS:C	7:G:151:ILE:HG13	2.31	0.51
8:H:27:GLU:HA	8:H:38:LEU:O	2.11	0.51
8:H:40:LEU:CD1	8:H:123:MET:HB2	2.35	0.51
11:K:85:ASP:O	11:K:88:LYS:HB2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:18:GLN:HB3	2:B:1215:ARG:HG3	1.91	0.51
1:A:134:ARG:O	1:A:138:ILE:HG13	2.11	0.51
1:A:757:ASN:HA	2:B:1021:MET:SD	2.50	0.51
1:A:877:HIS:C	1:A:878:ILE:HG13	2.29	0.51
1:A:901:LEU:HG	1:A:926:GLN:NE2	2.25	0.51
2:B:108:VAL:HG12	2:B:109:THR:H	1.74	0.51
2:B:240:ILE:CG2	2:B:254:LEU:HB3	2.41	0.51
2:B:637:LEU:O	2:B:690:VAL:HG13	2.10	0.51
2:B:877:PRO:C	2:B:878:GLN:HG3	2.31	0.51
1:A:482:PHE:C	1:A:484:GLY:H	2.13	0.51
1:A:1063:MET:SD	1:A:1436:ILE:HG12	2.50	0.51
1:A:1161:THR:OG1	1:A:1239:ARG:NH2	2.44	0.51
1:A:1289:ARG:HD2	1:A:1303:GLU:OE2	2.10	0.51
2:B:300:HIS:CE1	2:B:376:PHE:CE1	2.99	0.51
4:D:64:VAL:C	4:D:66:ARG:H	2.14	0.51
4:D:175:PHE:HZ	7:G:85:GLU:HG3	1.75	0.51
4:D:210:ILE:O	4:D:214:LEU:HG	2.10	0.51
1:A:58:LEU:HD22	1:A:80:HIS:O	2.11	0.51
1:A:68:GLN:O	1:A:70:CYS:N	2.43	0.51
1:A:903:ASN:ND2	1:A:905:ASP:H	2.09	0.51
1:A:1076:ALA:HA	1:A:1079:MET:CE	2.41	0.51
2:B:181:LEU:HD22	2:B:189:LEU:HD22	1.91	0.51
2:B:862:GLN:HG2	2:B:963:PHE:CD1	2.44	0.51
3:C:77:ILE:CG2	3:C:161:LYS:HE3	2.39	0.51
7:G:117:GLN:O	7:G:119:LEU:N	2.43	0.51
10:J:23:ASN:C	10:J:25:LEU:N	2.64	0.51
1:A:60:SER:C	1:A:61:ILE:HG13	2.30	0.51
1:A:829:VAL:C	1:A:831:THR:H	2.14	0.51
1:A:870:GLU:HB2	5:E:204:THR:HG21	1.92	0.51
1:A:903:ASN:C	1:A:903:ASN:ND2	2.64	0.51
1:A:979:SER:HG	1:A:981:LEU:HG	1.76	0.51
2:B:765:PRO:O	2:B:768:THR:N	2.44	0.51
3:C:145:CYS:HA	10:J:2:ILE:HD11	1.92	0.51
5:E:22:MET:CE	5:E:26:ARG:NH2	2.74	0.51
1:A:382:PRO:HD3	1:A:428:TYR:CE2	2.45	0.51
1:A:608:ILE:HB	1:A:613:ILE:HD11	1.92	0.51
1:A:746:MET:CE	2:B:1018:PRO:HG2	2.40	0.51
1:A:783:THR:HG22	1:A:784:LEU:HG	1.93	0.51
1:A:845:LEU:O	1:A:846:GLU:C	2.49	0.51
1:A:1305:VAL:HG12	1:A:1306:LEU:N	2.25	0.51
2:B:284:ILE:HG12	2:B:324:ILE:HD12	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:521:LEU:HD13	2:B:633:VAL:HB	1.93	0.51
2:B:780:VAL:HG12	2:B:782:LEU:O	2.10	0.51
3:C:91:HIS:HD2	3:C:91:HIS:O	1.93	0.51
5:E:14:ARG:HH21	5:E:141:VAL:HG12	1.73	0.51
1:A:367:PRO:HA	1:A:463:ILE:O	2.10	0.51
1:A:483:ASP:O	2:B:979:LYS:HE3	2.11	0.51
1:A:577:ILE:O	1:A:580:VAL:HG23	2.11	0.51
1:A:874:ASP:CA	1:A:1058:VAL:HG22	2.42	0.51
3:C:30:ALA:O	3:C:33:LEU:HB3	2.11	0.51
4:D:66:ARG:O	4:D:70:PHE:HB2	2.10	0.51
9:I:13:MET:HG3	9:I:14:LEU:H	1.75	0.51
1:A:37:PHE:N	1:A:37:PHE:CD1	2.79	0.50
1:A:207:ILE:O	1:A:208:LEU:C	2.48	0.50
1:A:265:LYS:HE2	1:A:322:VAL:HG13	1.93	0.50
1:A:823:GLY:O	1:A:825:ILE:N	2.44	0.50
1:A:1120:LEU:CD1	1:A:1120:LEU:H	2.24	0.50
2:B:63:ILE:HD12	2:B:421:PHE:CE2	2.46	0.50
2:B:230:ALA:N	2:B:231:PRO:HD2	2.25	0.50
2:B:728:ARG:NH1	2:B:1047:PHE:HB3	2.26	0.50
2:B:806:THR:CG2	2:B:808:ALA:HB3	2.41	0.50
2:B:1174:LYS:O	2:B:1176:ASN:HB2	2.11	0.50
3:C:215:GLU:O	3:C:216:GLY:C	2.50	0.50
1:A:24:PRO:HD2	1:A:233:TRP:CD1	2.46	0.50
2:B:179:CYS:SG	2:B:181:LEU:HB2	2.52	0.50
2:B:435:THR:CG2	2:B:437:GLU:HB2	2.42	0.50
2:B:773:MET:C	2:B:775:LYS:H	2.13	0.50
3:C:6:PRO:HB3	3:C:25:VAL:HG12	1.92	0.50
7:G:13:LEU:CD2	7:G:17:PHE:HB2	2.39	0.50
11:K:69:ALA:O	11:K:70:ARG:HB3	2.10	0.50
1:A:58:LEU:O	1:A:59:GLY:O	2.30	0.50
1:A:244:PRO:CB	1:A:245:PRO:CD	2.89	0.50
1:A:356:ASP:O	1:A:358:ASN:N	2.42	0.50
1:A:388:LEU:HD22	1:A:432:VAL:CG2	2.41	0.50
1:A:567:LYS:HD3	8:H:95:TYR:CG	2.46	0.50
1:A:873:MET:C	1:A:1058:VAL:CG2	2.80	0.50
1:A:901:LEU:HD22	1:A:919:ILE:HG22	1.91	0.50
2:B:1006:ILE:HD13	10:J:44:TYR:HE2	1.73	0.50
3:C:18:VAL:O	3:C:20:PHE:HD2	1.95	0.50
3:C:46:ILE:HG13	3:C:72:LEU:HD11	1.93	0.50
3:C:163:ILE:O	3:C:165:LYS:N	2.45	0.50
3:C:191:TYR:HD2	3:C:201:TRP:CD1	2.28	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:32:GLU:O	10:J:34:THR:N	2.44	0.50
10:J:53:HIS:HD2	10:J:54:VAL:N	2.08	0.50
1:A:414:ASP:OD1	1:A:416:ARG:HG3	2.11	0.50
1:A:567:LYS:HD2	1:A:568:PRO:HD2	1.92	0.50
1:A:840:ARG:O	1:A:841:LEU:C	2.47	0.50
1:A:982:THR:HB	1:A:985:ASP:H	1.76	0.50
1:A:1028:THR:O	1:A:1032:LEU:HD12	2.12	0.50
2:B:364:ILE:HG22	2:B:365:THR:N	2.26	0.50
2:B:603:LEU:HB3	2:B:609:ILE:HG13	1.92	0.50
2:B:653:VAL:HG23	2:B:689:LEU:HB3	1.93	0.50
2:B:953:LEU:HD23	2:B:965:LYS:H	1.76	0.50
2:B:984:HIS:CD2	2:B:1025:HIS:HB2	2.46	0.50
7:G:1:MET:O	7:G:3:PHE:CD1	2.64	0.50
7:G:117:GLN:C	7:G:119:LEU:H	2.15	0.50
8:H:84:ALA:C	8:H:86:ASP:H	2.15	0.50
1:A:116:ASP:O	1:A:118:HIS:N	2.45	0.50
1:A:215:SER:HB3	1:A:218:ASP:OD2	2.12	0.50
1:A:466:SER:HB3	2:B:1103:ILE:HG12	1.93	0.50
1:A:809:THR:H	1:A:812:GLU:HB2	1.76	0.50
2:B:360:PHE:C	2:B:360:PHE:CD2	2.85	0.50
2:B:980:PHE:HE2	2:B:1094:ARG:CB	2.24	0.50
2:B:1039:GLY:HA2	10:J:51:LEU:CD2	2.42	0.50
2:B:1110:PRO:O	2:B:1119:VAL:HG13	2.11	0.50
3:C:90:ASP:O	3:C:91:HIS:CB	2.60	0.50
3:C:168:ALA:C	3:C:170:TRP:N	2.64	0.50
7:G:9:LEU:HG	7:G:10:ASN:N	2.27	0.50
8:H:27:GLU:HG2	8:H:39:THR:HG23	1.93	0.50
12:L:27:LEU:HD13	12:L:37:LYS:HE2	1.94	0.50
1:A:14:VAL:CG2	2:B:1216:LEU:HD13	2.40	0.50
1:A:443:LEU:O	1:A:489:LEU:HD12	2.12	0.50
1:A:765:VAL:HG12	1:A:766:GLY:N	2.26	0.50
1:A:1004:ASN:O	1:A:1008:GLN:HB2	2.12	0.50
1:A:1094:VAL:HG13	1:A:1113:THR:CG2	2.37	0.50
1:A:1410:PHE:HA	2:B:1212:ILE:CD1	2.41	0.50
2:B:642:ASP:CB	2:B:649:LYS:HA	2.41	0.50
2:B:1183:LYS:N	2:B:1183:LYS:CE	2.71	0.50
3:C:54:ASN:HB2	3:C:153:LEU:HD12	1.92	0.50
5:E:96:PHE:CZ	5:E:100:ILE:HD11	2.46	0.50
5:E:128:PRO:HA	5:E:129:PRO:C	2.32	0.50
7:G:17:PHE:N	7:G:17:PHE:CD2	2.78	0.50
1:A:784:LEU:HB3	1:A:785:PRO:HD2	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:853:ASP:OD1	1:A:855:THR:N	2.43	0.50
1:A:868:TYR:CE1	1:A:1064:VAL:CG1	2.91	0.50
1:A:909:ASP:O	1:A:911:SER:N	2.45	0.50
2:B:235:SER:C	2:B:236:HIS:HD2	2.14	0.50
2:B:496:ARG:NH1	2:B:539:LEU:HB2	2.27	0.50
2:B:831:SER:CB	2:B:994:TYR:OH	2.60	0.50
3:C:98:VAL:HG23	3:C:122:SER:HB3	1.93	0.50
9:I:69:PRO:HG2	9:I:85:PHE:CD2	2.46	0.50
9:I:100:PHE:N	9:I:100:PHE:HD1	2.09	0.50
1:A:311:GLN:CB	1:A:312:PRO:HD3	2.42	0.50
1:A:326:ARG:HH22	1:A:1407:GLU:HG3	1.77	0.50
1:A:567:LYS:HB3	8:H:95:TYR:HA	1.93	0.50
1:A:996:ASN:O	1:A:998:LEU:HD12	2.10	0.50
2:B:558:LEU:C	2:B:560:GLU:H	2.15	0.50
2:B:973:ILE:HG23	2:B:974:PRO:HD2	1.93	0.50
2:B:1002:THR:HG21	2:B:1006:ILE:HD12	1.93	0.50
5:E:92:THR:O	5:E:95:THR:HB	2.11	0.50
9:I:50:THR:HG22	9:I:51:ASN:N	2.26	0.50
1:A:317:LYS:O	1:A:318:SER:CB	2.60	0.50
1:A:629:LEU:O	1:A:633:VAL:HG23	2.12	0.50
1:A:1451:VAL:C	1:A:1453:TYR:H	2.16	0.50
2:B:327:ARG:O	2:B:331:LEU:HD13	2.11	0.50
2:B:466:TRP:CE3	2:B:466:TRP:HA	2.46	0.50
2:B:758:PHE:CE1	2:B:1027:ILE:CG2	2.95	0.50
2:B:1166:CYS:SG	2:B:1166:CYS:O	2.69	0.50
4:D:134:THR:HG22	4:D:135:GLY:N	2.27	0.50
7:G:80:LYS:O	7:G:82:PHE:CE1	2.65	0.50
9:I:102:VAL:CG1	9:I:103:CYS:H	2.24	0.50
1:A:218:ASP:HA	1:A:221:SER:OG	2.12	0.49
1:A:406:ILE:HG13	1:A:431:LYS:HB2	1.93	0.49
1:A:512:VAL:HA	1:A:519:PRO:HA	1.93	0.49
1:A:852:TYR:HA	1:A:1060:PRO:HB3	1.94	0.49
1:A:1319:VAL:HG13	1:A:1320:PRO:HD2	1.94	0.49
2:B:734:HIS:O	2:B:735:ALA:HB2	2.12	0.49
2:B:1040:ASN:O	2:B:1041:GLU:C	2.50	0.49
2:B:1084:GLN:OE1	3:C:189:THR:CG2	2.59	0.49
7:G:81:PRO:HA	7:G:85:GLU:OE1	2.12	0.49
8:H:102:TYR:N	8:H:102:TYR:CD2	2.80	0.49
9:I:4:PHE:HE1	9:I:6:PHE:HE2	1.58	0.49
9:I:99:LEU:C	9:I:100:PHE:HD1	2.16	0.49
10:J:27:GLU:O	10:J:29:GLU:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:102:VAL:HG22	2:B:112:LEU:HD22	1.94	0.49
2:B:370:PHE:HE2	2:B:373:ARG:NH1	2.08	0.49
2:B:437:GLU:CB	2:B:439:ALA:HA	2.42	0.49
2:B:882:THR:O	2:B:883:LEU:HB2	2.11	0.49
2:B:916:THR:O	2:B:935:ARG:HG3	2.12	0.49
2:B:1065:GLN:NE2	2:B:1067:ARG:N	2.54	0.49
4:D:56:ARG:NH2	4:D:57:LEU:HD21	2.26	0.49
1:A:316:GLN:O	1:A:317:LYS:C	2.50	0.49
1:A:545:GLN:O	1:A:548:ASN:N	2.46	0.49
1:A:1017:LEU:HB2	5:E:206:GLY:N	2.17	0.49
2:B:552:MET:C	2:B:554:ILE:H	2.15	0.49
3:C:99:LEU:HD23	3:C:99:LEU:N	2.26	0.49
7:G:143:ILE:CG2	7:G:144:ARG:N	2.75	0.49
2:B:1174:LYS:O	2:B:1176:ASN:N	2.44	0.49
3:C:99:LEU:HD12	3:C:118:LEU:HD13	1.94	0.49
5:E:22:MET:HE3	5:E:26:ARG:CZ	2.42	0.49
6:F:119:ARG:HG3	6:F:119:ARG:NH1	2.26	0.49
6:F:124:GLU:HB3	6:F:130:ILE:HG12	1.94	0.49
10:J:7:CYS:SG	10:J:49:MET:HE3	2.53	0.49
1:A:369:SER:CB	11:K:2:ASN:OD1	2.60	0.49
1:A:416:ARG:C	1:A:417:TYR:CD2	2.85	0.49
1:A:535:THR:CG2	1:A:616:VAL:HA	2.40	0.49
1:A:540:PHE:HB3	1:A:571:LEU:HD23	1.95	0.49
1:A:741:ASN:ND2	1:A:743:VAL:HB	2.24	0.49
1:A:763:ALA:O	1:A:803:SER:HB3	2.11	0.49
1:A:1045:VAL:O	1:A:1049:ILE:HG13	2.13	0.49
2:B:38:PHE:CD1	2:B:811:TYR:CD2	3.01	0.49
2:B:401:PHE:N	2:B:517:THR:OG1	2.28	0.49
2:B:515:HIS:CD2	2:B:517:THR:HG23	2.48	0.49
1:A:61:ILE:HG22	1:A:62:ASP:H	1.78	0.49
1:A:62:ASP:HB3	1:A:64:ASN:ND2	2.28	0.49
1:A:351:THR:HG21	2:B:1103:ILE:HG13	1.95	0.49
1:A:357:PRO:HD2	2:B:833:TYR:CE1	2.47	0.49
1:A:1280:GLU:O	1:A:1281:ARG:O	2.30	0.49
2:B:616:ILE:HG12	2:B:697:GLU:HA	1.95	0.49
2:B:758:PHE:HE1	2:B:1027:ILE:HG22	1.77	0.49
12:L:48:CYS:SG	12:L:49:LYS:N	2.85	0.49
1:A:399:HIS:CG	1:A:400:PRO:N	2.78	0.49
1:A:960:ILE:O	1:A:961:ARG:C	2.50	0.49
1:A:1006:ILE:HD12	5:E:163:GLU:HG3	1.94	0.49
1:A:1053:PHE:C	1:A:1055:ARG:H	2.15	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:563:MET:HA	2:B:589:VAL:O	2.13	0.49
2:B:744:HIS:HD2	2:B:746:SER:OG	1.95	0.49
2:B:890:TYR:O	2:B:892:LYS:N	2.45	0.49
3:C:140:ASN:O	3:C:141:GLY:O	2.30	0.49
7:G:53:ASN:HD22	7:G:53:ASN:N	2.09	0.49
9:I:111:THR:HG22	9:I:113:ASP:N	2.27	0.49
12:L:49:LYS:O	12:L:50:ASP:CB	2.60	0.49
1:A:244:PRO:HG2	1:A:245:PRO:CD	2.43	0.49
1:A:300:VAL:O	1:A:300:VAL:HG12	2.12	0.49
1:A:877:HIS:O	1:A:878:ILE:CG1	2.60	0.49
1:A:1130:GLN:O	1:A:1134:ILE:HG13	2.12	0.49
1:A:1364:ASN:O	1:A:1365:TYR:C	2.50	0.49
2:B:361:LEU:N	2:B:362:PRO:CD	2.75	0.49
4:D:153:ARG:C	4:D:154:PHE:CD1	2.86	0.49
8:H:41:ASP:O	8:H:42:ILE:HG13	2.13	0.49
1:A:38:PRO:HA	1:A:270:LEU:HD23	1.95	0.49
1:A:50:ILE:C	1:A:52:GLY:N	2.64	0.49
1:A:269:ILE:CG1	1:A:299:HIS:HB3	2.42	0.49
1:A:442:VAL:O	1:A:457:ALA:HA	2.12	0.49
1:A:857:ARG:NH1	6:F:139:PRO:HB2	2.27	0.49
1:A:1073:GLY:O	1:A:1076:ALA:HB3	2.13	0.49
2:B:287:ARG:HG2	2:B:292:ILE:HA	1.93	0.49
2:B:903:VAL:HG12	2:B:904:ARG:N	2.28	0.49
3:C:168:ALA:C	3:C:170:TRP:H	2.16	0.49
3:C:254:LYS:C	3:C:256:ALA:H	2.15	0.49
4:D:138:ASN:OD1	4:D:141:LEU:HB2	2.13	0.49
6:F:89:GLU:HB3	6:F:134:ILE:HD13	1.95	0.49
8:H:99:GLY:HA3	8:H:118:PHE:HA	1.95	0.49
1:A:1001:ARG:O	1:A:1002:GLY:O	2.31	0.49
1:A:1369:ALA:O	1:A:1370:LEU:C	2.51	0.49
2:B:223:VAL:CG1	2:B:381:MET:HG2	2.42	0.49
2:B:308:TRP:CZ3	9:I:45:ARG:HB3	2.47	0.49
3:C:77:ILE:O	3:C:79:GLN:N	2.46	0.49
3:C:243:VAL:O	3:C:243:VAL:HG12	2.11	0.49
4:D:115:HIS:CB	4:D:155:ARG:NH2	2.76	0.49
7:G:96:GLN:HA	7:G:121:PHE:CE2	2.48	0.49
1:A:40:THR:CG2	1:A:41:MET:HG3	2.36	0.48
1:A:785:PRO:HG2	1:A:786:HIS:HD2	1.78	0.48
1:A:867:ILE:HD12	5:E:208:TYR:CE1	2.46	0.48
1:A:1005:GLU:O	1:A:1009:ASN:HB2	2.12	0.48
1:A:1349:TYR:HB2	1:A:1372:VAL:HG21	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:251:ILE:O	2:B:251:ILE:HG22	2.13	0.48
2:B:1087:PHE:HD2	2:B:1088:GLY:H	1.58	0.48
2:B:1187:ASN:OD1	2:B:1188:LYS:N	2.40	0.48
3:C:107:SER:C	3:C:109:SER:H	2.16	0.48
4:D:195:ILE:HG22	4:D:198:LEU:HG	1.95	0.48
5:E:202:SER:HB3	5:E:205:SER:O	2.13	0.48
7:G:1:MET:O	7:G:1:MET:CE	2.61	0.48
7:G:91:VAL:HG12	7:G:92:VAL:N	2.28	0.48
1:A:16:GLU:HB3	1:A:1418:LEU:HD11	1.95	0.48
1:A:174:ILE:HG23	1:A:182:VAL:O	2.13	0.48
1:A:981:LEU:CD2	1:A:1039:LYS:HA	2.42	0.48
1:A:1120:LEU:HD12	1:A:1120:LEU:H	1.78	0.48
1:A:1197:LEU:HD12	1:A:1209:MET:HE1	1.96	0.48
2:B:125:SER:HA	2:B:172:ILE:H	1.78	0.48
5:E:29:PHE:O	5:E:30:ILE:CG1	2.59	0.48
5:E:55:ARG:C	5:E:57:MET:H	2.17	0.48
7:G:26:LEU:HD12	7:G:56:ILE:HD13	1.95	0.48
11:K:108:GLU:O	11:K:112:GLN:HG2	2.12	0.48
1:A:402:ALA:CB	1:A:434:ARG:HA	2.43	0.48
1:A:794:PRO:C	1:A:796:SER:H	2.15	0.48
1:A:1369:ALA:O	1:A:1373:ASP:OD2	2.31	0.48
1:A:1388:GLY:O	1:A:1390:ASN:N	2.46	0.48
2:B:472:ALA:HB1	2:B:473:MET:HA	1.95	0.48
2:B:523:CYS:SG	2:B:524:PRO:HD2	2.54	0.48
2:B:550:ASP:OD1	2:B:551:PRO:HD2	2.13	0.48
2:B:642:ASP:CA	2:B:649:LYS:HA	2.41	0.48
2:B:800:GLN:HB3	10:J:52:THR:HG22	1.92	0.48
3:C:11:ARG:HD3	3:C:209:TYR:CE2	2.48	0.48
10:J:32:GLU:O	10:J:35:ALA:N	2.47	0.48
1:A:311:GLN:CB	1:A:312:PRO:CD	2.91	0.48
1:A:622:VAL:O	1:A:622:VAL:HG22	2.13	0.48
1:A:683:ILE:HD13	1:A:801:GLU:HG3	1.95	0.48
2:B:189:LEU:O	2:B:192:LEU:HB2	2.13	0.48
2:B:360:PHE:O	2:B:361:LEU:C	2.51	0.48
3:C:47:ASP:CA	12:L:69:ALA:CB	2.87	0.48
3:C:66:ARG:NH2	10:J:3:VAL:O	2.45	0.48
5:E:153:HIS:HB3	5:E:196:VAL:HG11	1.94	0.48
8:H:91:ASP:O	8:H:93:TYR:N	2.46	0.48
12:L:46:VAL:CG1	12:L:56:LEU:HD12	2.43	0.48
1:A:68:GLN:C	1:A:70:CYS:N	2.65	0.48
1:A:244:PRO:O	1:A:246:VAL:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:299:HIS:C	1:A:301:ALA:N	2.67	0.48
1:A:340:LEU:HD13	1:A:1429:ILE:CG2	2.38	0.48
1:A:420:ARG:O	1:A:421:ALA:C	2.51	0.48
1:A:872:GLY:O	1:A:1058:VAL:HG23	2.14	0.48
1:A:1342:GLU:CG	5:E:198:ILE:HD13	2.43	0.48
2:B:387:LEU:O	2:B:392:ARG:HB2	2.14	0.48
2:B:455:SER:O	2:B:456:GLY:C	2.52	0.48
3:C:112:ASN:HD22	3:C:112:ASN:N	2.12	0.48
4:D:192:LYS:HB3	4:D:192:LYS:NZ	2.28	0.48
8:H:84:ALA:C	8:H:86:ASP:N	2.66	0.48
1:A:77:CYS:C	1:A:78:PRO:O	2.45	0.48
1:A:299:HIS:O	1:A:301:ALA:N	2.46	0.48
1:A:898:ARG:HB2	1:A:933:TYR:CE1	2.49	0.48
1:A:1120:LEU:N	1:A:1120:LEU:CD1	2.76	0.48
1:A:1209:MET:CE	1:A:1236:LEU:HB3	2.42	0.48
2:B:872:GLU:CD	2:B:914:LYS:HE2	2.33	0.48
2:B:1034:VAL:O	2:B:1036:ALA:N	2.46	0.48
2:B:1197:PRO:HG2	2:B:1200:ALA:HB3	1.92	0.48
3:C:25:VAL:HG23	3:C:228:PHE:CE1	2.48	0.48
3:C:105:GLY:O	3:C:149:LYS:O	2.32	0.48
6:F:127:GLU:O	6:F:129:LYS:HG3	2.14	0.48
10:J:16:ASP:OD1	10:J:17:LYS:N	2.43	0.48
10:J:48:ARG:HD2	10:J:49:MET:N	2.29	0.48
12:L:52:GLY:O	12:L:53:HIS:C	2.52	0.48
1:A:254:GLU:O	1:A:256:GLN:N	2.47	0.48
1:A:326:ARG:HG2	1:A:327:ALA:N	2.29	0.48
1:A:399:HIS:CB	1:A:400:PRO:CD	2.88	0.48
1:A:577:ILE:C	1:A:579:SER:N	2.65	0.48
1:A:730:GLY:C	1:A:732:LEU:N	2.67	0.48
2:B:459:TYR:C	2:B:459:TYR:CD2	2.86	0.48
2:B:756:ILE:O	2:B:759:PRO:HD3	2.14	0.48
5:E:13:TRP:O	5:E:16:PHE:HB3	2.14	0.48
5:E:94:LYS:HE2	5:E:98:ILE:CD1	2.38	0.48
10:J:48:ARG:HE	10:J:49:MET:HE2	1.79	0.48
11:K:24:ASP:OD1	11:K:26:LYS:HB2	2.13	0.48
1:A:41:MET:HB3	1:A:48:ALA:O	2.13	0.48
1:A:332:LYS:O	1:A:334:GLY:N	2.46	0.48
1:A:340:LEU:HD21	2:B:1200:ALA:CA	2.43	0.48
1:A:341:MET:CE	2:B:1135:ARG:NH1	2.77	0.48
1:A:573:SER:O	1:A:576:GLN:HB2	2.12	0.48
1:A:738:LYS:C	1:A:740:LEU:H	2.15	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1291:VAL:HG13	1:A:1292:PRO:N	2.29	0.48
1:A:1420:ASP:O	1:A:1421:CYS:HB2	2.13	0.48
2:B:210:LYS:HG3	2:B:461:LEU:O	2.13	0.48
2:B:552:MET:HA	2:B:555:ILE:HB	1.96	0.48
2:B:593:PRO:HG2	2:B:617:ARG:CZ	2.43	0.48
2:B:995:ARG:NH1	3:C:165:LYS:HG2	2.27	0.48
2:B:1159:ARG:HD3	2:B:1193:GLN:CG	2.37	0.48
3:C:46:ILE:HG23	3:C:157:CYS:HB3	1.96	0.48
5:E:153:HIS:HB3	5:E:196:VAL:CG1	2.44	0.48
12:L:34:CYS:O	12:L:35:SER:C	2.52	0.48
1:A:730:GLY:C	1:A:732:LEU:H	2.18	0.48
1:A:1441:PHE:HZ	6:F:89:GLU:HA	1.78	0.48
2:B:234:ILE:HD12	2:B:234:ILE:H	1.79	0.48
2:B:383:ASN:O	2:B:384:ARG:C	2.53	0.48
2:B:1187:ASN:HD21	2:B:1190:ASP:HB3	1.79	0.48
3:C:147:LEU:HD23	3:C:147:LEU:N	2.28	0.48
4:D:38:ILE:HG22	4:D:39:ASN:O	2.14	0.48
4:D:64:VAL:C	4:D:66:ARG:N	2.67	0.48
7:G:80:LYS:HD3	7:G:80:LYS:H	1.77	0.48
8:H:138:GLU:O	8:H:139:ASN:C	2.52	0.48
1:A:1101:LEU:O	1:A:1101:LEU:HD12	2.13	0.48
1:A:1333:ILE:HG22	1:A:1334:ASP:N	2.29	0.48
3:C:194:GLU:O	3:C:195:GLN:HG3	2.14	0.48
11:K:93:SER:O	11:K:97:LYS:HG3	2.14	0.48
1:A:21:LEU:HD11	1:A:1414:ALA:HA	1.95	0.47
1:A:35:ILE:CG2	1:A:84:ILE:HD12	2.44	0.47
1:A:71:GLN:O	1:A:73:GLY:N	2.38	0.47
1:A:553:VAL:HG22	1:A:652:VAL:CG2	2.44	0.47
1:A:807:GLY:O	1:A:808:LEU:O	2.32	0.47
1:A:1265:ASN:C	1:A:1267:MET:N	2.67	0.47
1:A:1369:ALA:O	1:A:1372:VAL:HG12	2.14	0.47
1:A:1450:LEU:HD11	6:F:108:PHE:CZ	2.49	0.47
2:B:192:LEU:O	2:B:193:LYS:CB	2.62	0.47
2:B:558:LEU:O	2:B:560:GLU:N	2.47	0.47
2:B:773:MET:C	2:B:775:LYS:N	2.65	0.47
2:B:1084:GLN:C	2:B:1085:ILE:HD12	2.35	0.47
3:C:86:CYS:SG	3:C:92:CYS:SG	3.12	0.47
3:C:183:TRP:O	3:C:185:LYS:N	2.48	0.47
3:C:254:LYS:C	3:C:256:ALA:N	2.67	0.47
6:F:140:ASP:C	6:F:140:ASP:OD1	2.52	0.47
7:G:115:MET:HB3	7:G:116:PRO:CD	2.41	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:13:VAL:C	10:J:14:VAL:HG23	2.34	0.47
1:A:450:LEU:HD12	1:A:450:LEU:H	1.78	0.47
1:A:567:LYS:HD2	1:A:568:PRO:CD	2.45	0.47
1:A:598:LEU:CA	8:H:122:LEU:HD13	2.39	0.47
2:B:102:VAL:CG2	2:B:112:LEU:HB2	2.41	0.47
2:B:542:MET:HG2	2:B:747:MET:HB3	1.96	0.47
2:B:803:LEU:HD12	2:B:1032:SER:HB3	1.95	0.47
2:B:918:ILE:HD12	2:B:935:ARG:HD3	1.97	0.47
4:D:20:GLU:O	4:D:21:GLU:O	2.32	0.47
4:D:176:GLU:C	4:D:178:ALA:N	2.63	0.47
5:E:169:ARG:HH12	6:F:74:ILE:HD11	1.77	0.47
7:G:143:ILE:HG22	7:G:144:ARG:H	1.77	0.47
1:A:444:PHE:HB2	1:A:458:HIS:HD2	1.79	0.47
1:A:699:ALA:HB3	1:A:701:LEU:HG	1.96	0.47
1:A:1057:VAL:HG12	1:A:1058:VAL:N	2.29	0.47
1:A:1141:THR:OG1	1:A:1205:LYS:HD3	2.14	0.47
1:A:1222:ASN:O	1:A:1223:ASP:HB3	2.14	0.47
1:A:1451:VAL:O	1:A:1454:MET:HG2	2.15	0.47
2:B:603:LEU:HD13	2:B:608:ASP:CB	2.43	0.47
2:B:653:VAL:HG22	2:B:689:LEU:HB3	1.95	0.47
2:B:806:THR:HG22	2:B:808:ALA:CB	2.44	0.47
2:B:806:THR:HG22	2:B:808:ALA:HB3	1.94	0.47
2:B:844:SER:O	2:B:847:ASP:HB2	2.14	0.47
2:B:847:ASP:O	2:B:849:GLY:N	2.47	0.47
2:B:882:THR:HG21	2:B:935:ARG:HA	1.95	0.47
2:B:954:VAL:O	12:L:55:ILE:O	2.31	0.47
3:C:167:HIS:CD2	3:C:168:ALA:H	2.31	0.47
4:D:35:LEU:HD12	4:D:35:LEU:N	2.29	0.47
5:E:124:VAL:HA	5:E:132:ILE:HD12	1.95	0.47
10:J:16:ASP:O	10:J:18:TRP:N	2.47	0.47
1:A:166:GLY:O	1:A:167:CYS:CB	2.62	0.47
1:A:167:CYS:SG	1:A:167:CYS:O	2.72	0.47
1:A:500:GLU:OE2	1:A:1438:THR:HG21	2.14	0.47
1:A:901:LEU:N	1:A:926:GLN:NE2	2.50	0.47
1:A:1220:PHE:CD1	1:A:1224:LEU:HD23	2.49	0.47
2:B:185:THR:H	2:B:188:ASP:HB2	1.80	0.47
3:C:35:ARG:NH1	11:K:41:THR:H	2.12	0.47
3:C:209:TYR:HD1	3:C:209:TYR:H	1.60	0.47
6:F:132:LEU:HD23	6:F:132:LEU:N	2.29	0.47
1:A:231:PRO:C	1:A:233:TRP:H	2.18	0.47
1:A:279:LEU:O	1:A:284:ALA:HB2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:381:THR:CG2	1:A:383:TYR:H	2.27	0.47
2:B:437:GLU:HB2	2:B:439:ALA:HA	1.96	0.47
2:B:461:LEU:N	2:B:461:LEU:HD12	2.29	0.47
2:B:520:GLY:HA2	2:B:748:ILE:HG22	1.95	0.47
2:B:950:ASP:O	2:B:951:GLN:HB2	2.13	0.47
4:D:137:ASN:C	4:D:137:ASN:HD22	2.17	0.47
10:J:2:ILE:HG12	10:J:57:ILE:HD12	1.95	0.47
11:K:52:ASN:O	11:K:54:ARG:N	2.48	0.47
1:A:105:CYS:O	1:A:114:LEU:HG	2.15	0.47
1:A:496:GLU:O	1:A:499:ALA:HB3	2.15	0.47
1:A:500:GLU:OE2	2:B:1145:SER:CB	2.63	0.47
1:A:553:VAL:HG13	1:A:648:ASN:HB3	1.97	0.47
1:A:648:ASN:O	1:A:649:ILE:C	2.53	0.47
1:A:673:GLY:N	1:A:674:PRO:HD2	2.30	0.47
1:A:929:LEU:HD23	1:A:983:ILE:HG21	1.96	0.47
1:A:963:ILE:HD11	1:A:1048:ASN:CB	2.33	0.47
1:A:1127:ASP:HB3	1:A:1130:GLN:HB2	1.96	0.47
1:A:1162:VAL:O	1:A:1162:VAL:HG12	2.14	0.47
2:B:123:THR:O	2:B:125:SER:N	2.47	0.47
2:B:750:GLY:O	2:B:751:VAL:C	2.53	0.47
2:B:893:LEU:HD11	2:B:910:VAL:CG1	2.44	0.47
2:B:999:MET:HG2	2:B:1007:VAL:HG22	1.97	0.47
2:B:1214:PRO:O	2:B:1214:PRO:HG2	2.15	0.47
3:C:91:HIS:O	3:C:91:HIS:CD2	2.67	0.47
3:C:133:ILE:HD12	3:C:237:SER:HA	1.96	0.47
3:C:255:VAL:O	3:C:255:VAL:HG12	2.14	0.47
4:D:206:GLU:C	4:D:208:GLU:N	2.68	0.47
8:H:58:THR:HB	8:H:143:LEU:HD13	1.96	0.47
8:H:110:ASP:O	8:H:128:ASN:ND2	2.48	0.47
1:A:774:ARG:H	1:A:774:ARG:HG2	1.50	0.47
1:A:775:ILE:HD12	1:A:818:MET:SD	2.54	0.47
1:A:977:LYS:HB3	1:A:978:PRO:HD2	1.95	0.47
1:A:1237:ILE:HG22	1:A:1238:ILE:N	2.29	0.47
2:B:225:VAL:HA	2:B:237:VAL:O	2.14	0.47
2:B:333:PHE:C	2:B:334:ILE:HG13	2.34	0.47
2:B:373:ARG:CG	2:B:566:LEU:HD23	2.44	0.47
2:B:613:VAL:HG22	2:B:628:THR:HA	1.96	0.47
3:C:70:ILE:HD11	3:C:144:ILE:HG12	1.97	0.47
3:C:86:CYS:SG	3:C:88:CYS:SG	3.10	0.47
3:C:112:ASN:HB2	3:C:114:TYR:CE1	2.50	0.47
4:D:40:HIS:CE1	4:D:41:GLN:HG3	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:35:VAL:O	5:E:37:LEU:N	2.48	0.47
5:E:161:LYS:C	5:E:163:GLU:H	2.17	0.47
8:H:15:VAL:HG22	8:H:26:ILE:HD11	1.96	0.47
8:H:58:THR:HG22	8:H:59:ILE:H	1.79	0.47
10:J:56:LEU:O	10:J:59:LYS:N	2.45	0.47
12:L:46:VAL:O	12:L:46:VAL:HG12	2.14	0.47
1:A:335:ARG:O	1:A:336:ILE:C	2.52	0.47
1:A:510:GLN:OE1	1:A:510:GLN:HA	2.14	0.47
2:B:118:ARG:HG2	2:B:204:ILE:HD13	1.97	0.47
2:B:205:ILE:O	2:B:206:ASN:C	2.52	0.47
2:B:284:ILE:HG23	2:B:324:ILE:CD1	2.45	0.47
2:B:879:ARG:O	2:B:880:THR:HB	2.15	0.47
3:C:238:ILE:HD11	3:C:246:ARG:NH1	2.30	0.47
3:C:253:LYS:O	3:C:256:ALA:HB3	2.15	0.47
6:F:131:PRO:C	6:F:132:LEU:HD23	2.35	0.47
6:F:143:PHE:C	6:F:143:PHE:CD1	2.89	0.47
7:G:13:LEU:O	7:G:67:SER:HA	2.15	0.47
1:A:236:LEU:N	1:A:236:LEU:HD23	2.30	0.47
1:A:277:GLU:C	1:A:279:LEU:H	2.17	0.47
1:A:298:PHE:O	1:A:301:ALA:HB3	2.15	0.47
1:A:344:ARG:HG2	1:A:344:ARG:HH11	1.80	0.47
1:A:475:THR:HG23	1:A:476:SER:H	1.76	0.47
1:A:552:TRP:O	1:A:554:PRO:HD3	2.13	0.47
1:A:1098:VAL:N	1:A:1099:PRO:HD2	2.30	0.47
2:B:230:ALA:N	2:B:231:PRO:CD	2.78	0.47
2:B:594:ALA:HA	2:B:617:ARG:HH12	1.76	0.47
3:C:179:GLU:O	3:C:180:TYR:HB3	2.14	0.47
3:C:214:ASN:HB3	3:C:217:ASP:OD2	2.14	0.47
5:E:157:SER:O	5:E:159:ASP:N	2.48	0.47
5:E:161:LYS:C	5:E:163:GLU:N	2.68	0.47
7:G:44:TYR:O	7:G:78:VAL:HA	2.14	0.47
1:A:2:VAL:HG21	2:B:1158:PHE:HA	1.97	0.47
1:A:2:VAL:CG2	2:B:1158:PHE:HA	2.45	0.47
1:A:551:TYR:CE2	11:K:62:LYS:HE2	2.49	0.47
1:A:1019:CYS:O	1:A:1023:ARG:N	2.45	0.47
2:B:114:PRO:O	2:B:117:ALA:N	2.48	0.47
3:C:242:GLN:C	3:C:244:VAL:H	2.18	0.47
6:F:81:THR:HB	6:F:136:ARG:NH1	2.30	0.47
8:H:59:ILE:CG2	8:H:60:ALA:N	2.73	0.47
10:J:23:ASN:O	10:J:25:LEU:N	2.48	0.47
1:A:262:LEU:C	1:A:264:PHE:N	2.66	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:863:VAL:HG11	1:A:866:PHE:CE2	2.49	0.46
1:A:886:ILE:CD1	1:A:943:LEU:HB3	2.41	0.46
1:A:1261:LYS:HA	1:A:1264:GLU:HB3	1.96	0.46
1:A:1441:PHE:HB2	6:F:135:ARG:O	2.15	0.46
2:B:27:ALA:O	2:B:29:ASP:N	2.48	0.46
2:B:168:GLY:HA2	2:B:454:THR:OG1	2.15	0.46
2:B:305:VAL:O	2:B:305:VAL:HG12	2.15	0.46
2:B:653:VAL:HG22	2:B:689:LEU:HD13	1.97	0.46
2:B:681:TRP:O	2:B:683:SER:N	2.49	0.46
2:B:864:LYS:N	2:B:872:GLU:OE1	2.45	0.46
2:B:1160:VAL:HG11	2:B:1169:MET:SD	2.55	0.46
6:F:77:ASP:C	6:F:79:ARG:N	2.67	0.46
8:H:82:PRO:O	8:H:84:ALA:N	2.35	0.46
9:I:61:ASP:O	9:I:63:GLY:N	2.48	0.46
1:A:134:ARG:HD3	1:A:221:SER:O	2.15	0.46
1:A:319:GLY:CA	2:B:472:ALA:HB3	2.44	0.46
1:A:332:LYS:HG3	1:A:333:GLU:N	2.30	0.46
1:A:335:ARG:CA	1:A:339:ASN:HB2	2.40	0.46
1:A:408:ASP:C	1:A:410:GLY:H	2.18	0.46
1:A:1076:ALA:HA	1:A:1079:MET:HE2	1.97	0.46
1:A:1343:ALA:HB2	5:E:150:VAL:CG2	2.45	0.46
2:B:104:GLU:OE1	12:L:54:ARG:NH2	2.49	0.46
2:B:205:ILE:HG22	2:B:206:ASN:N	2.30	0.46
2:B:711:GLU:H	2:B:712:PRO:HD2	1.80	0.46
2:B:1034:VAL:HG23	2:B:1059:LEU:HD13	1.97	0.46
3:C:259:LEU:CD1	11:K:91:CYS:HB2	2.45	0.46
4:D:47:LEU:CD1	4:D:48:ILE:N	2.77	0.46
4:D:154:PHE:HB2	4:D:160:VAL:HG22	1.97	0.46
5:E:145:THR:HG21	5:E:187:TYR:CE2	2.50	0.46
6:F:109:VAL:HG21	6:F:124:GLU:HA	1.97	0.46
7:G:14:HIS:HD2	7:G:16:SER:CB	2.28	0.46
7:G:77:VAL:O	7:G:77:VAL:HG12	2.14	0.46
1:A:402:ALA:HB1	1:A:433:GLU:O	2.15	0.46
1:A:525:GLN:CD	2:B:836:GLU:HG2	2.36	0.46
1:A:605:MET:HE2	1:A:607:ILE:HG13	1.97	0.46
1:A:1431:GLY:HA3	2:B:1152:MET:SD	2.55	0.46
2:B:204:ILE:C	2:B:205:ILE:HD12	2.36	0.46
2:B:376:PHE:HB3	2:B:586:TRP:CZ3	2.49	0.46
2:B:843:GLN:O	2:B:844:SER:C	2.54	0.46
3:C:33:LEU:O	3:C:34:ARG:C	2.54	0.46
3:C:146:LYS:HB2	10:J:61:LEU:HD11	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:118:THR:C	4:D:122:GLU:N	2.69	0.46
6:F:147:SER:OG	6:F:150:GLU:HG3	2.15	0.46
7:G:43:GLY:CA	7:G:80:LYS:HB3	2.42	0.46
11:K:46:ILE:O	11:K:46:ILE:HG22	2.15	0.46
1:A:89:PRO:C	1:A:204:THR:HG21	2.36	0.46
1:A:95:PHE:O	1:A:96:ILE:C	2.53	0.46
1:A:871:ASP:HB3	5:E:204:THR:HG23	1.96	0.46
2:B:298:LEU:HD13	2:B:314:LEU:HD13	1.97	0.46
2:B:865:LYS:HE2	2:B:871:THR:OG1	2.15	0.46
2:B:1174:LYS:O	2:B:1175:LEU:C	2.53	0.46
3:C:82:TYR:O	3:C:83:SER:C	2.54	0.46
5:E:129:PRO:O	5:E:130:ALA:O	2.34	0.46
7:G:14:HIS:CD2	7:G:16:SER:CB	2.98	0.46
7:G:108:VAL:HG13	7:G:159:ALA:O	2.16	0.46
1:A:1019:CYS:O	1:A:1022:LEU:N	2.48	0.46
2:B:405:ARG:HA	2:B:631:GLY:O	2.16	0.46
2:B:563:MET:CE	2:B:580:VAL:HB	2.43	0.46
2:B:654:ARG:O	2:B:656:GLY:N	2.48	0.46
2:B:834:ASN:HA	2:B:838:SER:O	2.15	0.46
2:B:842:ASN:ND2	2:B:845:SER:OG	2.44	0.46
6:F:132:LEU:O	6:F:148:VAL:HG22	2.15	0.46
7:G:117:GLN:C	7:G:119:LEU:N	2.69	0.46
7:G:121:PHE:HB2	7:G:130:TYR:CE2	2.50	0.46
8:H:62:SER:O	8:H:63:LEU:C	2.54	0.46
8:H:89:LEU:C	8:H:91:ASP:N	2.68	0.46
8:H:93:TYR:N	8:H:93:TYR:CD1	2.84	0.46
12:L:38:LEU:O	12:L:39:SER:CB	2.63	0.46
1:A:17:VAL:HA	2:B:1215:ARG:O	2.15	0.46
1:A:26:GLU:O	1:A:27:VAL:C	2.54	0.46
1:A:608:ILE:HG13	1:A:613:ILE:HD12	1.97	0.46
1:A:655:PHE:O	1:A:658:LEU:HB3	2.16	0.46
1:A:1015:VAL:O	1:A:1018:PHE:N	2.49	0.46
2:B:108:VAL:CG1	2:B:109:THR:H	2.28	0.46
2:B:168:GLY:N	2:B:450:ALA:HB1	2.19	0.46
2:B:854:LEU:HB3	2:B:856:PHE:HE1	1.81	0.46
2:B:1001:PHE:CD1	2:B:1001:PHE:C	2.89	0.46
2:B:1152:MET:O	2:B:1154:ALA:N	2.49	0.46
3:C:67:LEU:HD11	3:C:155:LEU:HD12	1.97	0.46
3:C:133:ILE:CD1	3:C:237:SER:HA	2.45	0.46
3:C:181:ASP:OD1	3:C:186:LEU:HD13	2.16	0.46
5:E:161:LYS:O	5:E:163:GLU:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:59:ALA:HA	11:K:74:ARG:O	2.15	0.46
1:A:7:SER:CB	2:B:1175:LEU:HD22	2.45	0.46
1:A:626:ASN:O	1:A:628:GLY:N	2.44	0.46
1:A:817:ALA:HA	2:B:764:SER:OG	2.16	0.46
1:A:901:LEU:O	1:A:921:GLY:N	2.48	0.46
1:A:1195:LEU:HD11	1:A:1267:MET:CE	2.46	0.46
1:A:1227:ILE:CG2	1:A:1228:TRP:N	2.78	0.46
2:B:582:VAL:HG12	2:B:587:HIS:NE2	2.30	0.46
2:B:979:LYS:HG3	2:B:989:THR:HG22	1.98	0.46
2:B:1001:PHE:CD2	3:C:34:ARG:NH2	2.84	0.46
3:C:142:VAL:N	10:J:16:ASP:HB3	2.14	0.46
4:D:66:ARG:CD	4:D:133:THR:HB	2.43	0.46
9:I:110:PHE:H	9:I:110:PHE:HD2	1.64	0.46
12:L:27:LEU:HD23	12:L:27:LEU:N	2.30	0.46
1:A:563:PRO:HG3	1:A:572:TRP:CE2	2.49	0.46
1:A:1435:PRO:O	1:A:1436:ILE:HG13	2.15	0.46
2:B:579:ARG:CB	2:B:586:TRP:HE1	2.24	0.46
2:B:1084:GLN:HG2	3:C:201:TRP:CZ2	2.51	0.46
2:B:1147:LEU:CD2	2:B:1151:LEU:HD22	2.46	0.46
2:B:1186:ASP:C	2:B:1186:ASP:OD1	2.54	0.46
5:E:17:ARG:O	5:E:20:LYS:HB2	2.16	0.46
6:F:99:LEU:HD12	6:F:99:LEU:C	2.36	0.46
7:G:127:PRO:HG2	7:G:138:THR:HG21	1.98	0.46
1:A:43:GLU:O	1:A:44:THR:CB	2.64	0.46
1:A:92:HIS:HB2	1:A:236:LEU:HD21	1.96	0.46
1:A:1116:LEU:C	1:A:1116:LEU:HD12	2.36	0.46
1:A:1265:ASN:O	1:A:1268:LEU:N	2.41	0.46
2:B:511:PRO:O	2:B:512:ARG:C	2.54	0.46
2:B:745:PRO:C	2:B:747:MET:N	2.68	0.46
2:B:873:THR:O	2:B:914:LYS:HA	2.16	0.46
2:B:1007:VAL:HG22	2:B:1008:PRO:CD	2.38	0.46
3:C:66:ARG:CZ	10:J:2:ILE:HG21	2.46	0.46
3:C:76:ASP:OD2	3:C:128:ASN:N	2.49	0.46
4:D:19:GLU:O	4:D:21:GLU:N	2.49	0.46
9:I:56:ALA:O	9:I:57:GLY:O	2.34	0.46
10:J:8:PHE:H	10:J:49:MET:CE	2.28	0.46
1:A:84:ILE:O	1:A:84:ILE:CG2	2.63	0.46
1:A:373:THR:HG21	2:B:1105:ALA:HB3	1.98	0.46
1:A:603:ASN:HB3	1:A:604:GLY:H	1.57	0.46
1:A:614:PHE:CD1	1:A:614:PHE:C	2.89	0.46
1:A:761:MET:HA	1:A:804:TYR:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:800:VAL:HG13	1:A:808:LEU:HG	1.98	0.46
1:A:1161:THR:CG2	1:A:1163:ILE:HG13	2.46	0.46
2:B:589:VAL:CG1	2:B:590:HIS:H	2.11	0.46
2:B:642:ASP:CB	2:B:649:LYS:HG3	2.42	0.46
2:B:726:ALA:HB1	2:B:1051:THR:HG21	1.97	0.46
2:B:882:THR:CG2	2:B:884:ARG:HB2	2.46	0.46
2:B:893:LEU:HD22	2:B:897:GLY:C	2.36	0.46
3:C:90:ASP:O	3:C:90:ASP:OD1	2.33	0.46
4:D:54:GLU:OE1	4:D:164:ILE:HD11	2.16	0.46
6:F:99:LEU:HD21	7:G:64:THR:O	2.16	0.46
8:H:142:LEU:C	8:H:143:LEU:HD12	2.36	0.46
9:I:4:PHE:HE1	9:I:6:PHE:CE2	2.34	0.46
9:I:75:CYS:SG	9:I:80:SER:N	2.85	0.46
11:K:58:PHE:HB3	11:K:76:GLN:HE21	1.81	0.46
1:A:82:GLY:O	1:A:241:VAL:N	2.42	0.45
1:A:1132:LYS:O	1:A:1134:ILE:N	2.49	0.45
1:A:1150:SER:O	1:A:1151:GLU:HG3	2.15	0.45
1:A:1342:GLU:HG3	5:E:198:ILE:HD13	1.98	0.45
2:B:39:ARG:HH21	2:B:665:GLU:CG	2.26	0.45
2:B:180:TYR:CD1	2:B:180:TYR:N	2.82	0.45
2:B:333:PHE:O	2:B:334:ILE:CG1	2.61	0.45
2:B:365:THR:HG23	2:B:367:LEU:N	2.27	0.45
2:B:546:SER:OG	2:B:631:GLY:N	2.39	0.45
2:B:638:PHE:HB2	2:B:741:CYS:O	2.16	0.45
2:B:729:ILE:O	2:B:729:ILE:HG22	2.15	0.45
2:B:969:ARG:NH1	3:C:61:GLU:OE1	2.49	0.45
2:B:981:ALA:HB3	2:B:1095:LEU:HD21	1.97	0.45
2:B:1189:ILE:HG22	2:B:1190:ASP:N	2.31	0.45
3:C:6:PRO:HB3	3:C:25:VAL:CG1	2.45	0.45
3:C:70:ILE:HG12	3:C:142:VAL:HG11	1.98	0.45
3:C:104:PHE:HD2	3:C:105:GLY:N	2.14	0.45
3:C:242:GLN:C	3:C:244:VAL:N	2.68	0.45
4:D:180:LEU:HD23	4:D:180:LEU:HA	1.75	0.45
5:E:22:MET:HE1	5:E:26:ARG:HH21	1.81	0.45
1:A:853:ASP:O	1:A:854:ASN:CB	2.64	0.45
1:A:921:GLY:O	1:A:922:ASP:C	2.53	0.45
1:A:1100:ARG:NH2	1:A:1351:GLU:HG2	2.31	0.45
1:A:1280:GLU:O	1:A:1281:ARG:C	2.55	0.45
1:A:1336:MET:HE2	1:A:1381:LEU:HG	1.97	0.45
2:B:766:ARG:HD3	2:B:766:ARG:HA	1.70	0.45
2:B:785:TYR:C	2:B:787:VAL:H	2.19	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:839:MET:HG3	2:B:1010:LEU:CD1	2.44	0.45
2:B:990:ILE:HG22	2:B:991:GLY:N	2.31	0.45
6:F:128:LYS:HD3	6:F:149:GLU:O	2.15	0.45
8:H:7:ASP:O	8:H:8:ASP:HB2	2.15	0.45
8:H:33:GLN:C	8:H:35:GLN:H	2.18	0.45
11:K:24:ASP:OD2	11:K:74:ARG:NH1	2.49	0.45
1:A:250:ILE:O	1:A:258:GLY:HA3	2.16	0.45
1:A:474:VAL:HG22	1:A:474:VAL:O	2.16	0.45
1:A:600:PRO:C	1:A:602:ASP:H	2.19	0.45
1:A:871:ASP:OD1	1:A:1366:ARG:NH2	2.49	0.45
2:B:293:PRO:HG2	2:B:296:GLU:HB3	1.98	0.45
2:B:1050:ILE:CG2	2:B:1051:THR:N	2.78	0.45
3:C:105:GLY:HA3	3:C:149:LYS:O	2.17	0.45
5:E:55:ARG:C	5:E:57:MET:N	2.69	0.45
7:G:106:MET:HG2	7:G:107:LYS:N	2.31	0.45
7:G:115:MET:CB	7:G:116:PRO:HD2	2.41	0.45
9:I:8:ARG:NE	9:I:9:ASP:OD1	2.41	0.45
9:I:15:TYR:N	9:I:15:TYR:CD1	2.84	0.45
11:K:31:VAL:HG12	11:K:32:VAL:H	1.79	0.45
1:A:108:MET:HB3	1:A:210:ILE:CD1	2.47	0.45
1:A:369:SER:HB3	11:K:2:ASN:HD21	1.80	0.45
1:A:524:VAL:CG1	1:A:525:GLN:H	2.18	0.45
1:A:567:LYS:CB	8:H:95:TYR:HA	2.46	0.45
1:A:765:VAL:HG21	1:A:808:LEU:HD11	1.99	0.45
1:A:874:ASP:O	1:A:876:ALA:N	2.50	0.45
1:A:947:PHE:CD2	1:A:954:TRP:CZ2	3.04	0.45
2:B:113:TYR:CD2	2:B:192:LEU:HD22	2.51	0.45
2:B:324:ILE:CG2	2:B:325:GLN:N	2.80	0.45
2:B:1060:ARG:HA	2:B:1060:ARG:HD2	1.53	0.45
2:B:1207:LEU:HB3	2:B:1212:ILE:HG22	1.99	0.45
3:C:100:THR:HG22	3:C:101:LEU:N	2.31	0.45
3:C:123:ASN:ND2	3:C:125:MET:SD	2.90	0.45
3:C:259:LEU:HD11	11:K:91:CYS:HB2	1.99	0.45
5:E:192:ARG:HH11	5:E:192:ARG:CG	2.26	0.45
6:F:106:PRO:HG2	7:G:19:GLY:HA2	1.97	0.45
6:F:111:LEU:O	6:F:113:GLY:N	2.48	0.45
8:H:111:LEU:HD23	8:H:127:GLY:O	2.16	0.45
12:L:30:ILE:HG22	12:L:31:CYS:N	2.32	0.45
1:A:28:ARG:O	1:A:29:ALA:C	2.55	0.45
1:A:34:LYS:HD3	1:A:34:LYS:N	2.31	0.45
1:A:353:ILE:HB	1:A:470:LEU:CD2	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:626:ASN:O	1:A:631:HIS:CD2	2.69	0.45
2:B:115:GLN:HG2	2:B:193:LYS:HB2	1.98	0.45
2:B:115:GLN:HG2	2:B:193:LYS:CB	2.46	0.45
2:B:329:THR:O	2:B:332:ASP:HB3	2.16	0.45
2:B:784:ASN:O	2:B:788:ARG:HG3	2.17	0.45
3:C:73:GLN:HE21	3:C:74:SER:H	1.65	0.45
8:H:11:GLN:O	8:H:28:ALA:HB1	2.17	0.45
1:A:95:PHE:CD1	1:A:234:MET:HG2	2.51	0.45
1:A:407:ARG:HG2	1:A:430:TRP:CZ3	2.52	0.45
1:A:492:PRO:HB2	1:A:497:THR:HG22	1.98	0.45
1:A:709:THR:HG22	1:A:710:LEU:N	2.32	0.45
1:A:929:LEU:CD2	1:A:983:ILE:HG21	2.47	0.45
1:A:1057:VAL:HG12	1:A:1058:VAL:H	1.82	0.45
1:A:1156:PRO:HA	1:A:1190:PRO:CB	2.46	0.45
1:A:1283:VAL:HG12	1:A:1284:MET:H	1.81	0.45
1:A:1343:ALA:O	1:A:1346:ALA:HB3	2.16	0.45
1:A:1377:THR:O	1:A:1378:GLN:C	2.54	0.45
2:B:560:GLU:O	2:B:561:TRP:CD1	2.69	0.45
2:B:906:SER:O	2:B:907:GLY:O	2.34	0.45
6:F:116:ASP:C	6:F:116:ASP:OD1	2.55	0.45
7:G:31:LEU:HD22	7:G:48:VAL:HG21	1.99	0.45
1:A:71:GLN:C	1:A:73:GLY:N	2.69	0.45
1:A:984:LYS:O	1:A:985:ASP:C	2.54	0.45
1:A:1011:GLN:NE2	1:A:1015:VAL:HG21	2.31	0.45
1:A:1053:PHE:O	1:A:1055:ARG:N	2.50	0.45
2:B:130:VAL:HG23	2:B:167:ILE:HD12	1.98	0.45
2:B:515:HIS:HD2	2:B:517:THR:N	2.05	0.45
3:C:63:ILE:O	3:C:64:ALA:C	2.55	0.45
3:C:144:ILE:O	3:C:145:CYS:HB3	2.17	0.45
5:E:135:PHE:CD2	5:E:140:LEU:HD21	2.37	0.45
9:I:111:THR:CG2	9:I:112:SER:N	2.77	0.45
10:J:47:ARG:NH1	10:J:47:ARG:HG2	2.30	0.45
1:A:499:ALA:O	1:A:503:GLN:HB2	2.17	0.45
1:A:896:ARG:NH2	1:A:1030:ARG:HH21	2.14	0.45
2:B:284:ILE:HD13	2:B:333:PHE:HD2	1.81	0.45
2:B:1065:GLN:HE21	2:B:1066:SER:CA	2.30	0.45
2:B:1182:CYS:O	2:B:1183:LYS:C	2.54	0.45
3:C:36:VAL:HG21	3:C:251:LEU:HB2	1.98	0.45
8:H:58:THR:HG22	8:H:59:ILE:N	2.31	0.45
8:H:123:MET:HG2	8:H:124:ARG:N	2.31	0.45
8:H:143:LEU:C	8:H:144:ILE:HG13	2.37	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:21:TYR:HB2	10:J:39:LEU:CD1	2.46	0.45
1:A:524:VAL:HG12	1:A:525:GLN:HE21	1.81	0.45
1:A:668:ASP:HA	1:A:741:ASN:OD1	2.17	0.45
1:A:767:GLN:HB2	1:A:799:PHE:HD1	1.82	0.45
1:A:971:PHE:HE2	1:A:1040:GLN:HG2	1.80	0.45
1:A:1153:TYR:CD2	1:A:1163:ILE:HD11	2.52	0.45
1:A:1409:LEU:O	1:A:1412:ALA:HB3	2.17	0.45
1:A:1445:ILE:H	1:A:1445:ILE:CD1	2.19	0.45
2:B:345:LYS:O	2:B:347:LYS:HG2	2.17	0.45
2:B:581:PHE:HA	2:B:585:VAL:O	2.17	0.45
2:B:640:VAL:O	2:B:640:VAL:HG12	2.17	0.45
2:B:661:LEU:C	2:B:663:ALA:H	2.19	0.45
2:B:826:ALA:HB2	2:B:1008:PRO:HB3	1.99	0.45
2:B:1008:PRO:HB2	2:B:1010:LEU:O	2.17	0.45
3:C:38:ILE:HA	3:C:173:ALA:HB2	1.98	0.45
4:D:51:ASN:ND2	4:D:54:GLU:OE2	2.50	0.45
5:E:136:ASN:OD1	5:E:137:GLU:N	2.50	0.45
7:G:48:VAL:HG13	7:G:74:TYR:HD1	1.82	0.45
9:I:111:THR:HG21	9:I:113:ASP:HB2	1.99	0.45
12:L:58:LYS:O	12:L:59:ALA:O	2.35	0.45
1:A:755:PHE:O	1:A:756:ILE:C	2.55	0.45
1:A:1438:THR:O	1:A:1438:THR:HG22	2.17	0.45
2:B:308:TRP:CZ3	9:I:45:ARG:HG2	2.51	0.45
2:B:882:THR:O	2:B:883:LEU:CB	2.65	0.45
2:B:899:ILE:O	2:B:952:VAL:HG21	2.16	0.45
2:B:1087:PHE:CD2	2:B:1088:GLY:N	2.80	0.45
2:B:1137:CYS:O	2:B:1140:ALA:HB3	2.17	0.45
3:C:246:ARG:HA	3:C:249:ASP:HB3	1.99	0.45
4:D:115:HIS:O	4:D:116:SER:CB	2.64	0.45
5:E:124:VAL:CG1	5:E:132:ILE:HB	2.43	0.45
8:H:4:THR:O	8:H:5:LEU:HD23	2.17	0.45
1:A:164:ARG:CG	1:A:165:GLY:H	2.19	0.44
1:A:325:ILE:O	1:A:326:ARG:C	2.55	0.44
1:A:352:VAL:HG12	1:A:353:ILE:N	2.32	0.44
1:A:382:PRO:CB	1:A:428:TYR:HE2	2.30	0.44
1:A:556:TRP:CZ2	1:A:558:GLY:HA2	2.52	0.44
1:A:1451:VAL:C	1:A:1453:TYR:N	2.70	0.44
2:B:237:VAL:HG12	2:B:238:ALA:N	2.31	0.44
2:B:308:TRP:HA	2:B:311:LEU:HD12	1.99	0.44
2:B:769:TYR:O	2:B:772:ALA:N	2.50	0.44
2:B:838:SER:CB	2:B:989:THR:O	2.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:256:ALA:C	3:C:258:ILE:H	2.19	0.44
4:D:153:ARG:HB3	4:D:154:PHE:CE1	2.52	0.44
4:D:192:LYS:NZ	4:D:199:ASN:HA	2.30	0.44
5:E:114:ASN:O	5:E:115:ASN:CB	2.65	0.44
7:G:14:HIS:CE1	7:G:15:PRO:HD2	2.52	0.44
8:H:116:TYR:HE2	8:H:140:ALA:CB	2.30	0.44
11:K:42:LEU:O	11:K:46:ILE:HG13	2.17	0.44
11:K:95:ILE:O	11:K:98:LEU:HB2	2.17	0.44
1:A:53:LEU:CD2	1:A:54:ASN:N	2.61	0.44
1:A:243:PRO:O	1:A:244:PRO:C	2.56	0.44
1:A:701:LEU:HD21	9:I:114:GLN:HB2	1.98	0.44
1:A:1018:PHE:O	1:A:1021:LEU:HB3	2.17	0.44
1:A:1265:ASN:O	1:A:1267:MET:N	2.50	0.44
2:B:410:GLY:O	2:B:412:LEU:N	2.50	0.44
2:B:753:ALA:HA	2:B:756:ILE:HD12	2.00	0.44
2:B:794:ASN:C	2:B:795:ILE:HD12	2.37	0.44
2:B:1197:PRO:O	2:B:1200:ALA:N	2.48	0.44
4:D:135:GLY:C	4:D:137:ASN:H	2.21	0.44
8:H:25:ARG:HA	8:H:41:ASP:HA	1.98	0.44
10:J:51:LEU:O	10:J:51:LEU:HD12	2.17	0.44
1:A:278:THR:O	1:A:278:THR:HG22	2.17	0.44
1:A:595:THR:O	1:A:596:THR:HG23	2.18	0.44
1:A:709:THR:HB	1:A:712:GLU:HG3	1.99	0.44
1:A:841:LEU:O	1:A:845:LEU:HG	2.16	0.44
1:A:963:ILE:HD13	1:A:1049:ILE:CG1	2.47	0.44
1:A:1006:ILE:HD12	5:E:163:GLU:CG	2.47	0.44
1:A:1335:ILE:O	1:A:1335:ILE:CG2	2.65	0.44
1:A:1348:LEU:O	1:A:1352:VAL:HG23	2.16	0.44
1:A:1349:TYR:CA	1:A:1372:VAL:HG21	2.47	0.44
1:A:1409:LEU:CD1	2:B:1207:LEU:HD21	2.42	0.44
2:B:258:LEU:O	2:B:259:TYR:O	2.35	0.44
2:B:1072:MET:HE3	2:B:1085:ILE:HD13	2.00	0.44
3:C:44:LEU:HD23	3:C:45:ALA:N	2.33	0.44
3:C:89:GLU:O	3:C:90:ASP:HB3	2.15	0.44
3:C:226:ASP:O	3:C:227:THR:CB	2.66	0.44
4:D:68:ARG:C	4:D:70:PHE:N	2.70	0.44
11:K:53:ASP:O	11:K:55:LYS:N	2.50	0.44
1:A:18:GLN:H	2:B:1215:ARG:HB2	1.82	0.44
1:A:33:ALA:O	1:A:83:HIS:HD2	1.99	0.44
1:A:49:LYS:HZ3	1:A:61:ILE:HG13	1.83	0.44
1:A:58:LEU:HD13	1:A:243:PRO:HA	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:103:CYS:O	1:A:106:VAL:O	2.35	0.44
1:A:152:VAL:HG12	1:A:153:PRO:CD	2.47	0.44
1:A:590:ARG:HH21	1:A:620:LYS:CB	2.28	0.44
1:A:1001:ARG:HG2	1:A:1001:ARG:HH11	1.82	0.44
1:A:1339:LEU:HD13	5:E:147:HIS:CD2	2.53	0.44
1:A:1370:LEU:O	1:A:1374:VAL:HG23	2.17	0.44
1:A:1373:ASP:HA	1:A:1376:THR:CG2	2.47	0.44
2:B:26:THR:O	2:B:29:ASP:HB2	2.18	0.44
2:B:307:ASP:O	2:B:309:GLN:N	2.50	0.44
2:B:519:TRP:C	2:B:519:TRP:CD1	2.91	0.44
2:B:570:VAL:HG23	2:B:573:GLN:HB3	1.99	0.44
2:B:825:VAL:HG12	2:B:826:ALA:N	2.32	0.44
2:B:1084:GLN:N	2:B:1084:GLN:NE2	2.66	0.44
2:B:1110:PRO:HG3	2:B:1124:ARG:O	2.18	0.44
3:C:27:LEU:O	3:C:30:ALA:N	2.50	0.44
4:D:53:SER:HB3	4:D:152:SER:HA	1.98	0.44
5:E:31:THR:OG1	5:E:34:GLU:N	2.50	0.44
7:G:73:LYS:HE3	7:G:74:TYR:O	2.17	0.44
8:H:128:ASN:CG	8:H:128:ASN:O	2.54	0.44
1:A:350:ARG:HH11	1:A:350:ARG:HG3	1.83	0.44
1:A:982:THR:O	1:A:985:ASP:HB2	2.16	0.44
2:B:181:LEU:CD2	2:B:189:LEU:HD22	2.47	0.44
2:B:758:PHE:N	2:B:759:PRO:CD	2.80	0.44
3:C:77:ILE:C	3:C:79:GLN:H	2.20	0.44
6:F:103:MET:CE	7:G:66:GLY:H	2.29	0.44
7:G:45:ILE:HD13	7:G:45:ILE:HA	1.90	0.44
7:G:119:LEU:HD13	7:G:132:SER:HB2	2.00	0.44
8:H:10:PHE:N	8:H:10:PHE:CD1	2.85	0.44
9:I:106:CYS:O	9:I:107:SER:HB2	2.16	0.44
1:A:224:PHE:CZ	1:A:231:PRO:HG3	2.52	0.44
1:A:244:PRO:HG2	1:A:245:PRO:HD2	1.99	0.44
1:A:282:ASN:O	1:A:284:ALA:N	2.51	0.44
1:A:336:ILE:HG22	1:A:337:ARG:N	2.32	0.44
1:A:427:GLN:HB2	1:A:430:TRP:NE1	2.32	0.44
1:A:559:VAL:O	1:A:559:VAL:HG12	2.17	0.44
1:A:652:VAL:O	1:A:653:VAL:C	2.56	0.44
2:B:108:VAL:HG12	2:B:109:THR:N	2.33	0.44
2:B:113:TYR:HB3	2:B:114:PRO:HD2	2.00	0.44
2:B:562:GLY:HA3	2:B:590:HIS:CE1	2.53	0.44
2:B:579:ARG:HA	2:B:589:VAL:HG13	1.99	0.44
2:B:624:LEU:HD12	2:B:624:LEU:HA	1.84	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:680:THR:O	2:B:684:LEU:HD12	2.18	0.44
2:B:859:TYR:CE1	2:B:941:LEU:HD12	2.53	0.44
2:B:1017:ILE:CB	2:B:1018:PRO:HD3	2.44	0.44
2:B:1081:LEU:O	2:B:1082:MET:C	2.55	0.44
2:B:1177:HIS:O	2:B:1179:GLN:N	2.50	0.44
3:C:91:HIS:ND1	3:C:158:VAL:HG11	2.33	0.44
3:C:248:ILE:HG23	11:K:98:LEU:HD22	1.99	0.44
4:D:170:THR:HB	4:D:172:LEU:H	1.83	0.44
7:G:115:MET:CB	7:G:116:PRO:CD	2.96	0.44
11:K:35:PHE:CD1	11:K:71:PHE:CE1	3.05	0.44
11:K:58:PHE:CB	11:K:76:GLN:HE21	2.31	0.44
1:A:44:THR:O	1:A:45:GLN:HB2	2.17	0.44
1:A:247:ARG:O	1:A:247:ARG:HG3	2.18	0.44
1:A:508:PRO:O	1:A:511:ILE:HG13	2.18	0.44
1:A:800:VAL:HG11	1:A:808:LEU:HG	2.00	0.44
1:A:1101:LEU:HB2	1:A:1355:VAL:HG11	1.99	0.44
1:A:1441:PHE:CE2	6:F:89:GLU:HG2	2.52	0.44
2:B:840:ILE:CG2	2:B:994:TYR:HD1	2.30	0.44
2:B:846:ILE:HG23	2:B:974:PRO:HG2	1.99	0.44
3:C:189:THR:CG2	3:C:190:ASP:H	2.29	0.44
4:D:138:ASN:C	4:D:140:ASP:N	2.70	0.44
9:I:8:ARG:CG	9:I:34:TYR:CE1	2.94	0.44
12:L:40:LEU:HB3	12:L:41:SER:H	1.57	0.44
1:A:47:ARG:HH22	1:A:254:GLU:HA	1.83	0.44
1:A:51:GLY:HA2	1:A:56:PRO:HA	2.00	0.44
1:A:547:LEU:HD22	11:K:58:PHE:HD1	1.78	0.44
1:A:932:GLU:O	1:A:936:LEU:HG	2.18	0.44
1:A:1036:ARG:HG2	1:A:1036:ARG:HH11	1.83	0.44
2:B:62:ILE:HG23	2:B:418:LYS:HG2	1.99	0.44
2:B:400:HIS:CG	2:B:517:THR:HG21	2.53	0.44
2:B:424:LEU:O	2:B:428:ILE:HG13	2.18	0.44
2:B:765:PRO:O	2:B:767:ASN:N	2.51	0.44
3:C:83:SER:O	3:C:85:ASP:N	2.51	0.44
6:F:103:MET:HE1	7:G:65:ASP:HB2	2.00	0.44
7:G:15:PRO:O	7:G:16:SER:C	2.56	0.44
7:G:139:ILE:HG22	7:G:140:LYS:N	2.31	0.44
11:K:47:ARG:HD2	11:K:47:ARG:C	2.38	0.44
1:A:92:HIS:HD2	1:A:304:MET:HE1	1.83	0.44
1:A:494:SER:H	1:A:497:THR:HB	1.82	0.44
1:A:526:ASP:OD1	2:B:1013:ASN:ND2	2.49	0.44
1:A:883:LEU:CD2	1:A:1021:LEU:HB2	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1053:PHE:C	1:A:1055:ARG:N	2.70	0.44
1:A:1132:LYS:O	1:A:1135:ARG:N	2.51	0.44
2:B:60:GLN:O	2:B:63:ILE:HG22	2.18	0.44
2:B:129:PHE:CD2	2:B:166:PHE:HA	2.53	0.44
2:B:172:ILE:CG2	2:B:173:MET:N	2.81	0.44
2:B:203:PHE:N	2:B:203:PHE:CD1	2.86	0.44
2:B:730:ARG:O	2:B:731:VAL:O	2.36	0.44
3:C:22:LEU:HD13	3:C:230:MET:HE1	1.99	0.44
7:G:18:PHE:HZ	7:G:68:ALA:HB2	1.83	0.44
12:L:61:THR:CG2	12:L:63:ARG:HG2	2.48	0.44
1:A:86:LEU:HD13	1:A:90:VAL:HG23	2.00	0.43
1:A:93:VAL:CG2	1:A:301:ALA:HA	2.48	0.43
1:A:455:MET:HE1	2:B:1134:GLU:HB3	2.00	0.43
1:A:456:MET:HB2	1:A:478:TYR:OH	2.18	0.43
1:A:541:ILE:HG21	1:A:549:MET:HE3	1.98	0.43
1:A:578:LEU:HD23	1:A:612:ILE:HD11	2.00	0.43
1:A:626:ASN:C	1:A:628:GLY:H	2.21	0.43
2:B:744:HIS:CD2	2:B:745:PRO:HD2	2.52	0.43
2:B:862:GLN:O	2:B:914:LYS:HE3	2.18	0.43
2:B:1178:ASN:O	2:B:1179:GLN:C	2.56	0.43
3:C:161:LYS:O	3:C:170:TRP:NE1	2.51	0.43
5:E:212:ARG:HG3	5:E:212:ARG:HH11	1.82	0.43
7:G:3:PHE:CD1	7:G:80:LYS:HE2	2.53	0.43
8:H:40:LEU:HD21	8:H:142:LEU:HD21	2.00	0.43
10:J:13:VAL:O	10:J:14:VAL:CG2	2.66	0.43
1:A:215:SER:O	1:A:218:ASP:HB2	2.17	0.43
1:A:660:ASN:O	1:A:661:GLY:O	2.36	0.43
1:A:682:THR:HG23	1:A:728:LYS:HE3	2.00	0.43
1:A:823:GLY:C	1:A:825:ILE:N	2.72	0.43
2:B:58:THR:O	2:B:62:ILE:HG13	2.18	0.43
2:B:134:LYS:HD2	2:B:442:PHE:HA	1.08	0.43
2:B:549:THR:CG2	2:B:550:ASP:N	2.74	0.43
2:B:824:ILE:CD1	10:J:48:ARG:NH1	2.81	0.43
2:B:1181:GLU:O	2:B:1182:CYS:HB2	2.18	0.43
5:E:22:MET:O	5:E:26:ARG:HG3	2.18	0.43
8:H:82:PRO:C	8:H:84:ALA:H	2.17	0.43
10:J:53:HIS:CD2	10:J:54:VAL:C	2.92	0.43
11:K:100:ALA:O	11:K:103:THR:HB	2.18	0.43
1:A:41:MET:O	1:A:42:ASP:C	2.56	0.43
1:A:135:PHE:C	1:A:137:ALA:N	2.70	0.43
1:A:347:PHE:H	2:B:1107:ALA:HA	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:500:GLU:OE1	2:B:1143:ALA:C	2.57	0.43
1:A:737:LEU:HA	1:A:737:LEU:HD23	1.70	0.43
2:B:237:VAL:HG22	2:B:257:LYS:HA	1.99	0.43
2:B:282:ILE:CD1	2:B:382:ILE:HD13	2.37	0.43
2:B:785:TYR:C	2:B:787:VAL:N	2.71	0.43
4:D:49:ALA:HB2	4:D:174:PRO:HB3	1.99	0.43
5:E:124:VAL:HB	5:E:125:PRO:HD3	1.99	0.43
7:G:9:LEU:CD1	7:G:10:ASN:H	2.30	0.43
9:I:103:CYS:HB3	9:I:107:SER:H	1.83	0.43
12:L:61:THR:HG22	12:L:63:ARG:HG2	2.01	0.43
1:A:89:PRO:HB2	1:A:204:THR:CG2	2.48	0.43
1:A:1450:LEU:CD1	6:F:108:PHE:CZ	3.02	0.43
2:B:414:ALA:O	2:B:415:GLN:C	2.57	0.43
3:C:80:LEU:HD11	3:C:95:CYS:CA	2.48	0.43
3:C:90:ASP:O	3:C:91:HIS:HB3	2.16	0.43
6:F:138:LEU:CB	6:F:139:PRO:HD2	2.45	0.43
9:I:34:TYR:CD2	9:I:34:TYR:C	2.90	0.43
12:L:47:ARG:HG3	12:L:47:ARG:NH1	2.33	0.43
1:A:289:ILE:O	1:A:291:GLU:N	2.50	0.43
1:A:401:GLY:O	1:A:435:HIS:CD2	2.71	0.43
1:A:441:PRO:HD2	1:A:498:ARG:CZ	2.49	0.43
1:A:1124:HIS:HB3	1:A:1130:GLN:HG2	2.01	0.43
1:A:1209:MET:SD	1:A:1236:LEU:HD22	2.59	0.43
1:A:1453:TYR:O	1:A:1454:MET:HB3	2.18	0.43
2:B:51:PHE:HB2	2:B:173:MET:CE	2.48	0.43
2:B:293:PRO:HG2	2:B:296:GLU:CB	2.47	0.43
2:B:294:ASP:O	2:B:296:GLU:N	2.48	0.43
2:B:294:ASP:OD2	2:B:294:ASP:N	2.50	0.43
2:B:418:LYS:O	2:B:420:LEU:N	2.51	0.43
2:B:661:LEU:C	2:B:663:ALA:N	2.71	0.43
2:B:694:ASP:O	2:B:698:GLU:HB2	2.18	0.43
2:B:702:LEU:HD12	2:B:703:ILE:H	1.84	0.43
2:B:763:GLN:HG2	2:B:765:PRO:CG	2.48	0.43
2:B:1099:VAL:C	2:B:1101:ASP:N	2.71	0.43
4:D:138:ASN:O	4:D:140:ASP:N	2.52	0.43
8:H:11:GLN:HA	8:H:53:ASP:O	2.18	0.43
8:H:103:LYS:HG2	8:H:104:PHE:N	2.34	0.43
9:I:75:CYS:SG	9:I:79:HIS:CA	3.07	0.43
1:A:65:LEU:O	1:A:66:LYS:C	2.57	0.43
1:A:427:GLN:O	1:A:428:TYR:C	2.56	0.43
1:A:608:ILE:HD12	1:A:613:ILE:CD1	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1215:ARG:HA	1:A:1215:ARG:HD2	1.72	0.43
1:A:1401:SER:O	1:A:1402:PHE:HB2	2.18	0.43
2:B:593:PRO:O	2:B:596:LEU:N	2.52	0.43
2:B:603:LEU:HB3	2:B:609:ILE:HD11	1.99	0.43
2:B:1072:MET:HE1	2:B:1085:ILE:HB	1.94	0.43
5:E:43:LYS:O	5:E:45:LYS:N	2.48	0.43
10:J:53:HIS:NE2	10:J:55:ASP:HA	2.33	0.43
10:J:64:ASN:CB	10:J:65:PRO:CD	2.88	0.43
1:A:18:GLN:O	2:B:1215:ARG:CG	2.66	0.43
1:A:29:ALA:HB1	2:B:1184:GLY:HA2	2.00	0.43
1:A:33:ALA:HB1	1:A:35:ILE:HG13	2.00	0.43
1:A:552:TRP:HE3	1:A:651:LYS:HB3	1.83	0.43
1:A:666:ILE:CD1	1:A:667:GLY:N	2.80	0.43
1:A:825:ILE:HG22	1:A:826:ASP:N	2.33	0.43
1:A:854:ASN:CB	1:A:1000:LEU:HD21	2.48	0.43
1:A:1148:ILE:HB	1:A:1196:GLU:O	2.18	0.43
1:A:1340:GLY:O	1:A:1343:ALA:N	2.43	0.43
1:A:1435:PRO:HA	1:A:1439:GLY:O	2.18	0.43
2:B:32:ALA:O	2:B:35:SER:HB2	2.19	0.43
2:B:63:ILE:HA	2:B:421:PHE:CE2	2.54	0.43
2:B:286:PHE:CD1	2:B:297:ILE:HG23	2.53	0.43
2:B:1177:HIS:C	2:B:1179:GLN:H	2.22	0.43
3:C:58:LEU:CD2	3:C:58:LEU:N	2.81	0.43
3:C:238:ILE:HD11	3:C:246:ARG:HH11	1.83	0.43
3:C:262:LEU:HD23	3:C:262:LEU:HA	1.75	0.43
5:E:35:VAL:C	5:E:37:LEU:N	2.72	0.43
5:E:175:LEU:HA	5:E:176:PRO:HD3	1.91	0.43
6:F:89:GLU:HB3	6:F:134:ILE:CD1	2.48	0.43
8:H:40:LEU:HD22	8:H:123:MET:CE	2.49	0.43
9:I:8:ARG:HG3	9:I:34:TYR:CD1	2.54	0.43
1:A:100:LYS:O	1:A:102:VAL:N	2.52	0.43
1:A:148:CYS:O	1:A:168:GLY:HA2	2.19	0.43
1:A:309:ALA:C	1:A:311:GLN:H	2.21	0.43
1:A:498:ARG:O	1:A:501:LEU:N	2.47	0.43
1:A:853:ASP:OD1	1:A:855:THR:HG22	2.18	0.43
1:A:942:PHE:C	1:A:942:PHE:CD2	2.91	0.43
1:A:1029:ARG:HG3	1:A:1029:ARG:NH1	2.34	0.43
2:B:521:LEU:HB3	2:B:633:VAL:CG1	2.46	0.43
2:B:753:ALA:HA	2:B:756:ILE:CD1	2.48	0.43
2:B:936:ASP:OD1	2:B:938:SER:N	2.43	0.43
2:B:1029:CYS:HA	2:B:1089:PRO:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1031:LEU:CD2	2:B:1044:ALA:HB2	2.48	0.43
3:C:90:ASP:O	3:C:90:ASP:CG	2.56	0.43
4:D:52:LEU:CD2	4:D:147:TYR:HE2	2.32	0.43
1:A:224:PHE:CD2	1:A:231:PRO:HG3	2.54	0.43
1:A:535:THR:O	1:A:575:LYS:HG3	2.19	0.43
1:A:575:LYS:NZ	1:A:615:GLY:H	2.16	0.43
1:A:577:ILE:O	1:A:578:LEU:C	2.56	0.43
1:A:1385:THR:HG22	1:A:1386:ARG:H	1.84	0.43
2:B:291:ILE:HD13	2:B:300:HIS:CD2	2.53	0.43
2:B:1001:PHE:HD2	3:C:34:ARG:HH21	1.66	0.43
2:B:1106:ARG:HD3	2:B:1127:GLY:CA	2.49	0.43
3:C:70:ILE:HD11	3:C:144:ILE:CG1	2.49	0.43
4:D:51:ASN:OD1	4:D:52:LEU:O	2.36	0.43
5:E:18:THR:O	5:E:19:VAL:C	2.55	0.43
7:G:9:LEU:CG	7:G:10:ASN:N	2.81	0.43
8:H:15:VAL:HG22	8:H:26:ILE:CG1	2.49	0.43
9:I:110:PHE:CD2	9:I:110:PHE:N	2.85	0.43
1:A:12:ARG:O	2:B:1194:ILE:HG22	2.18	0.43
1:A:42:ASP:HB3	1:A:45:GLN:HA	2.00	0.43
1:A:116:ASP:O	1:A:117:GLU:C	2.57	0.43
1:A:210:ILE:O	1:A:214:ILE:HG13	2.19	0.43
1:A:679:ILE:O	1:A:682:THR:N	2.51	0.43
1:A:693:VAL:HA	1:A:696:GLU:HB3	2.01	0.43
1:A:940:ARG:HG2	1:A:940:ARG:NH1	2.34	0.43
1:A:1226:VAL:HG22	1:A:1240:CYS:HB3	2.00	0.43
1:A:1342:GLU:OE2	5:E:212:ARG:NH1	2.51	0.43
2:B:164:LYS:NZ	2:B:443:ASN:CA	2.81	0.43
2:B:552:MET:C	2:B:554:ILE:N	2.72	0.43
2:B:582:VAL:HA	2:B:626:ILE:O	2.19	0.43
2:B:603:LEU:HD22	2:B:603:LEU:HA	1.86	0.43
2:B:794:ASN:O	2:B:795:ILE:HD12	2.18	0.43
3:C:189:THR:CG2	3:C:190:ASP:N	2.80	0.43
3:C:208:GLU:C	3:C:210:GLU:H	2.22	0.43
4:D:53:SER:CB	4:D:153:ARG:H	2.32	0.43
9:I:111:THR:CG2	9:I:113:ASP:HB2	2.49	0.43
10:J:41:LEU:CD1	10:J:50:ILE:HG13	2.49	0.43
10:J:41:LEU:HD11	10:J:50:ILE:HG13	2.00	0.43
1:A:42:ASP:O	1:A:44:THR:N	2.45	0.42
1:A:608:ILE:C	1:A:610:GLY:N	2.72	0.42
1:A:1015:VAL:O	1:A:1016:THR:C	2.57	0.42
1:A:1039:LYS:HE3	1:A:1043:ASP:OD2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1444:MET:O	6:F:133:VAL:N	2.48	0.42
1:A:1450:LEU:HD11	6:F:108:PHE:HZ	1.85	0.42
2:B:1162:ILE:CG2	2:B:1163:CYS:H	2.25	0.42
3:C:92:CYS:O	3:C:94:LYS:N	2.52	0.42
3:C:101:LEU:HD12	3:C:101:LEU:HA	1.80	0.42
4:D:51:ASN:O	4:D:52:LEU:C	2.57	0.42
8:H:38:LEU:HD13	8:H:125:LEU:CD1	2.49	0.42
8:H:80:ARG:HA	8:H:81:PRO:HD3	1.77	0.42
9:I:83:ASN:HA	9:I:102:VAL:O	2.19	0.42
9:I:84:VAL:HG13	9:I:84:VAL:O	2.19	0.42
10:J:2:ILE:HG22	10:J:3:VAL:O	2.18	0.42
10:J:56:LEU:O	10:J:57:ILE:C	2.58	0.42
1:A:92:HIS:CD2	1:A:304:MET:HE1	2.54	0.42
1:A:779:PHE:CE1	1:A:785:PRO:CD	2.93	0.42
1:A:901:LEU:H	1:A:926:GLN:HE21	1.56	0.42
2:B:128:LEU:HD12	2:B:128:LEU:HA	1.87	0.42
2:B:257:LYS:N	2:B:270:LYS:O	2.53	0.42
3:C:33:LEU:HG	3:C:37:MET:CE	2.50	0.42
7:G:66:GLY:O	7:G:67:SER:C	2.56	0.42
7:G:145:VAL:CG1	7:G:146:LYS:N	2.81	0.42
8:H:91:ASP:C	8:H:93:TYR:N	2.72	0.42
10:J:31:ASP:O	10:J:32:GLU:C	2.58	0.42
11:K:101:LEU:O	11:K:101:LEU:HD23	2.19	0.42
1:A:41:MET:O	1:A:50:ILE:HG13	2.20	0.42
1:A:116:ASP:C	1:A:118:HIS:N	2.71	0.42
1:A:120:GLU:C	1:A:122:MET:N	2.70	0.42
1:A:275:SER:O	1:A:279:LEU:HG	2.19	0.42
1:A:367:PRO:HB3	1:A:465:TYR:O	2.19	0.42
1:A:415:LEU:HD23	1:A:415:LEU:HA	1.75	0.42
1:A:443:LEU:HD11	1:A:455:MET:SD	2.59	0.42
1:A:457:ALA:HB3	1:A:506:ALA:HA	2.01	0.42
1:A:682:THR:HA	1:A:685:GLU:HG2	2.00	0.42
1:A:853:ASP:OD1	1:A:855:THR:CG2	2.66	0.42
1:A:935:GLN:C	1:A:937:VAL:N	2.72	0.42
1:A:1289:ARG:NH1	1:A:1326:ARG:NH1	2.67	0.42
1:A:1446:ASP:HB2	6:F:133:VAL:CG2	2.49	0.42
2:B:167:ILE:HG22	2:B:453:ILE:HD12	2.01	0.42
2:B:1106:ARG:HG3	2:B:1107:ALA:N	2.34	0.42
2:B:1117:GLN:HE21	2:B:1199:ALA:HB2	1.84	0.42
2:B:1182:CYS:O	2:B:1183:LYS:O	2.37	0.42
3:C:22:LEU:HD23	3:C:25:VAL:HG21	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:92:CYS:C	3:C:94:LYS:N	2.72	0.42
4:D:206:GLU:C	4:D:208:GLU:H	2.23	0.42
5:E:48:ASP:CG	5:E:49:SER:N	2.69	0.42
5:E:129:PRO:O	5:E:130:ALA:C	2.57	0.42
6:F:81:THR:HG1	6:F:146:TRP:HZ2	1.65	0.42
7:G:1:MET:HE1	7:G:80:LYS:H	1.85	0.42
7:G:21:ARG:HD3	7:G:21:ARG:HA	1.85	0.42
1:A:87:ALA:HB1	1:A:276:LEU:HD23	2.00	0.42
1:A:339:ASN:O	1:A:343:LYS:HG2	2.20	0.42
1:A:477:PRO:HG2	1:A:521:MET:HG2	2.00	0.42
1:A:522:GLY:O	1:A:646:PHE:HE2	2.01	0.42
1:A:1111:MET:CE	1:A:1330:ASN:OD1	2.68	0.42
1:A:1116:LEU:CD1	1:A:1118:VAL:HG13	2.48	0.42
1:A:1168:GLU:O	1:A:1172:LEU:HG	2.19	0.42
2:B:20:ASP:O	2:B:22:SER:N	2.45	0.42
2:B:235:SER:C	2:B:236:HIS:CD2	2.93	0.42
2:B:436:VAL:O	2:B:436:VAL:HG12	2.18	0.42
2:B:591:ARG:O	2:B:592:ASN:C	2.56	0.42
2:B:596:LEU:O	2:B:600:LEU:HG	2.19	0.42
4:D:33:PHE:CE2	7:G:80:LYS:NZ	2.72	0.42
4:D:146:GLN:O	4:D:147:TYR:C	2.57	0.42
5:E:101:GLN:NE2	5:E:127:ILE:HG21	2.34	0.42
5:E:205:SER:O	5:E:206:GLY:C	2.58	0.42
7:G:10:ASN:OD1	7:G:71:ASN:HA	2.19	0.42
1:A:242:PRO:O	1:A:247:ARG:NE	2.52	0.42
1:A:277:GLU:O	1:A:279:LEU:N	2.52	0.42
1:A:298:PHE:HD2	1:A:299:HIS:CD2	2.37	0.42
1:A:306:ASN:ND2	1:A:322:VAL:CG1	2.83	0.42
1:A:383:TYR:CD2	1:A:383:TYR:N	2.86	0.42
1:A:1195:LEU:HD11	1:A:1267:MET:HE3	2.01	0.42
1:A:1335:ILE:HG23	1:A:1339:LEU:HD12	2.01	0.42
1:A:1381:LEU:HD23	1:A:1381:LEU:HA	1.77	0.42
2:B:288:ALA:HA	2:B:331:LEU:HD12	2.02	0.42
2:B:390:LEU:O	2:B:391:ASP:C	2.58	0.42
2:B:408:LEU:HD12	2:B:408:LEU:HA	1.86	0.42
2:B:708:GLU:O	2:B:709:ASP:C	2.58	0.42
2:B:1115:THR:CG2	2:B:1117:GLN:CG	2.97	0.42
3:C:31:ASN:O	3:C:35:ARG:HG3	2.18	0.42
3:C:75:MET:O	3:C:246:ARG:NH2	2.49	0.42
3:C:179:GLU:CG	3:C:180:TYR:N	2.81	0.42
4:D:206:GLU:O	4:D:208:GLU:N	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:81:PRO:C	7:G:82:PHE:CD1	2.93	0.42
7:G:99:PHE:CD1	7:G:99:PHE:C	2.93	0.42
7:G:149:GLY:O	7:G:159:ALA:HB1	2.20	0.42
8:H:123:MET:HE1	8:H:142:LEU:HD11	2.01	0.42
1:A:23:SER:CB	1:A:233:TRP:NE1	2.82	0.42
1:A:685:GLU:HG3	1:A:686:ALA:N	2.33	0.42
1:A:807:GLY:HA2	2:B:760:ASP:O	2.19	0.42
1:A:901:LEU:HA	1:A:907:THR:OG1	2.20	0.42
1:A:1161:THR:HG22	1:A:1163:ILE:HG13	2.02	0.42
1:A:1410:PHE:C	1:A:1412:ALA:H	2.23	0.42
2:B:233:PRO:HG2	2:B:234:ILE:CD1	2.40	0.42
3:C:257:SER:C	3:C:258:ILE:HD12	2.40	0.42
6:F:123:LYS:O	6:F:124:GLU:C	2.58	0.42
7:G:88:ASP:OD2	7:G:88:ASP:N	2.49	0.42
9:I:101:PHE:HD1	9:I:110:PHE:O	2.02	0.42
1:A:76:GLU:O	1:A:76:GLU:CG	2.57	0.42
1:A:356:ASP:OD2	11:K:65:HIS:CE1	2.71	0.42
1:A:481:ASP:OD1	1:A:483:ASP:OD2	2.38	0.42
1:A:497:THR:HG22	1:A:498:ARG:N	2.34	0.42
1:A:570:PRO:C	1:A:571:LEU:HD12	2.40	0.42
1:A:606:LEU:HB3	1:A:614:PHE:CE2	2.54	0.42
1:A:817:ALA:O	1:A:820:GLY:N	2.52	0.42
2:B:693:ILE:HD13	2:B:701:ILE:HD13	2.00	0.42
2:B:900:ALA:O	2:B:903:VAL:HG23	2.19	0.42
3:C:170:TRP:O	3:C:171:GLY:C	2.57	0.42
5:E:90:VAL:CA	5:E:120:ALA:HB2	2.49	0.42
7:G:50:ASP:O	7:G:51:TYR:C	2.58	0.42
10:J:1:MET:HE2	10:J:60:PHE:CE2	2.54	0.42
11:K:12:LEU:H	11:K:12:LEU:CD1	2.32	0.42
11:K:45:LEU:HG	11:K:94:ILE:CD1	2.43	0.42
1:A:31:SER:OG	1:A:82:GLY:HA2	2.19	0.42
1:A:73:GLY:O	1:A:75:ASN:N	2.52	0.42
1:A:218:ASP:O	1:A:219:PHE:C	2.56	0.42
1:A:341:MET:HE3	2:B:1135:ARG:NH1	2.34	0.42
1:A:427:GLN:HB2	1:A:430:TRP:CE2	2.55	0.42
1:A:711:ARG:HA	9:I:97:MET:HE1	2.01	0.42
1:A:966:ASN:O	1:A:967:ALA:C	2.57	0.42
2:B:193:LYS:HD3	2:B:787:VAL:HG11	2.01	0.42
2:B:278:GLN:HG2	2:B:279:ASP:H	1.85	0.42
2:B:758:PHE:HB3	2:B:761:HIS:CD2	2.55	0.42
2:B:855:PHE:CD1	2:B:855:PHE:C	2.90	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1032:SER:O	2:B:1036:ALA:HB2	2.19	0.42
2:B:1034:VAL:C	2:B:1036:ALA:N	2.72	0.42
4:D:113:PHE:CA	4:D:156:ASP:OD1	2.60	0.42
5:E:201:LYS:HA	5:E:206:GLY:O	2.20	0.42
9:I:58:VAL:O	9:I:58:VAL:HG12	2.19	0.42
9:I:111:THR:CG2	9:I:112:SER:H	2.31	0.42
10:J:1:MET:HE2	10:J:1:MET:HB2	1.75	0.42
1:A:78:PRO:HA	2:B:1201:LYS:HZ1	1.82	0.42
1:A:296:LEU:O	1:A:297:GLN:C	2.59	0.42
1:A:466:SER:HB2	2:B:1099:VAL:HG11	2.02	0.42
1:A:567:LYS:HG3	1:A:568:PRO:CD	2.39	0.42
1:A:1111:MET:H	1:A:1111:MET:HG2	1.56	0.42
1:A:1147:THR:HA	1:A:1197:LEU:HD23	2.00	0.42
1:A:1334:ASP:C	1:A:1336:MET:N	2.73	0.42
2:B:604:ARG:HG3	2:B:611:PRO:HA	2.02	0.42
2:B:651:LEU:HD11	2:B:707:PRO:CB	2.49	0.42
2:B:762:ASN:OD1	2:B:1022:THR:HA	2.19	0.42
2:B:770:GLN:OE1	2:B:983:ARG:CA	2.66	0.42
2:B:911:ILE:HG22	2:B:912:ILE:HG13	2.00	0.42
2:B:1084:GLN:NE2	2:B:1084:GLN:H	2.17	0.42
2:B:1152:MET:HE1	2:B:1157:ALA:HA	2.02	0.42
2:B:1197:PRO:O	2:B:1200:ALA:HB3	2.20	0.42
2:B:1198:TYR:CD2	2:B:1198:TYR:C	2.93	0.42
2:B:1223:ASP:HB3	2:B:1224:PHE:H	1.72	0.42
4:D:7:THR:CB	7:G:42:PHE:CZ	3.03	0.42
5:E:112:TYR:CZ	5:E:136:ASN:HB2	2.54	0.42
5:E:124:VAL:HG13	5:E:132:ILE:CB	2.45	0.42
6:F:97:ARG:NH1	6:F:100:GLN:OE1	2.53	0.42
11:K:31:VAL:CG1	11:K:32:VAL:H	2.31	0.42
11:K:68:PHE:N	11:K:68:PHE:CD2	2.86	0.42
1:A:231:PRO:O	1:A:233:TRP:N	2.52	0.42
1:A:306:ASN:HB2	1:A:324:SER:HB3	2.02	0.42
1:A:341:MET:HE1	1:A:843:LYS:HZ3	1.85	0.42
1:A:414:ASP:OD1	1:A:416:ARG:CG	2.68	0.42
1:A:537:ARG:NH1	8:H:120:GLY:O	2.44	0.42
1:A:935:GLN:O	1:A:936:LEU:C	2.59	0.42
1:A:1334:ASP:C	1:A:1336:MET:H	2.23	0.42
2:B:54:PHE:CE2	2:B:59:LEU:HD13	2.55	0.42
2:B:986:GLN:OE1	2:B:986:GLN:HA	2.20	0.42
2:B:1006:ILE:HG22	10:J:45:CYS:HB3	2.02	0.42
2:B:1106:ARG:NH2	2:B:1109:GLY:H	2.17	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:183:TRP:CE2	3:C:207:CYS:HB3	2.54	0.42
5:E:177:ARG:O	5:E:212:ARG:CD	2.68	0.42
6:F:93:ILE:HD13	6:F:148:VAL:HG13	2.02	0.42
11:K:49:GLU:HG3	11:K:94:ILE:HG13	2.00	0.42
11:K:113:THR:O	11:K:114:LEU:CB	2.63	0.42
1:A:7:SER:C	1:A:9:ALA:H	2.23	0.41
1:A:667:GLY:HA3	3:C:192:TRP:CH2	2.55	0.41
1:A:765:VAL:HG23	1:A:802:ASN:O	2.20	0.41
1:A:896:ARG:HD3	1:A:897:TYR:HE1	1.84	0.41
1:A:1010:ALA:O	1:A:1013:ASP:HB2	2.20	0.41
2:B:351:TYR:CD1	2:B:355:ILE:HD11	2.53	0.41
2:B:710:LEU:C	2:B:711:GLU:HG2	2.40	0.41
2:B:954:VAL:HA	2:B:964:VAL:HG22	2.01	0.41
2:B:1131:GLY:O	2:B:1132:GLU:C	2.58	0.41
2:B:1187:ASN:OD1	2:B:1189:ILE:N	2.52	0.41
2:B:1216:LEU:N	2:B:1216:LEU:HD23	2.35	0.41
4:D:153:ARG:O	4:D:154:PHE:CG	2.73	0.41
10:J:34:THR:O	10:J:35:ALA:C	2.59	0.41
1:A:55:ASP:N	1:A:56:PRO:CD	2.83	0.41
1:A:106:VAL:HA	1:A:114:LEU:HD21	2.03	0.41
1:A:269:ILE:HD11	1:A:300:VAL:HA	2.01	0.41
1:A:365:GLY:HA3	1:A:463:ILE:CD1	2.51	0.41
1:A:416:ARG:O	1:A:417:TYR:HD2	2.03	0.41
2:B:307:ASP:O	2:B:308:TRP:C	2.58	0.41
2:B:437:GLU:OE1	2:B:439:ALA:O	2.38	0.41
2:B:701:ILE:HG13	2:B:702:LEU:N	2.35	0.41
2:B:796:LEU:HD12	2:B:852:ARG:O	2.19	0.41
2:B:834:ASN:ND2	2:B:1013:ASN:HB2	2.34	0.41
2:B:992:ILE:HD11	11:K:66:PRO:HB2	2.01	0.41
2:B:1219:ASP:OD1	2:B:1219:ASP:O	2.38	0.41
3:C:80:LEU:HD22	3:C:129:ILE:HD13	2.01	0.41
4:D:217:LEU:O	4:D:219:THR:N	2.53	0.41
5:E:82:PHE:CD1	5:E:82:PHE:N	2.88	0.41
6:F:74:ILE:HG23	6:F:75:PRO:HD2	2.01	0.41
8:H:127:GLY:HA3	8:H:130:ARG:NH2	2.35	0.41
10:J:3:VAL:HG21	10:J:18:TRP:CG	2.55	0.41
11:K:58:PHE:HE2	11:K:74:ARG:HE	1.57	0.41
1:A:53:LEU:HD22	1:A:54:ASN:HD22	1.85	0.41
1:A:90:VAL:HG13	1:A:297:GLN:OE1	2.20	0.41
1:A:152:VAL:HG13	1:A:153:PRO:HD2	1.97	0.41
1:A:331:GLY:O	1:A:332:LYS:HB3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:586:ILE:CG2	1:A:587:HIS:N	2.83	0.41
1:A:596:THR:C	1:A:598:LEU:N	2.73	0.41
1:A:1115:SER:OG	1:A:1116:LEU:N	2.53	0.41
1:A:1206:ASP:O	1:A:1274:ARG:NH1	2.51	0.41
1:A:1279:ILE:HG23	1:A:1308:THR:OG1	2.19	0.41
1:A:1299:VAL:CG1	1:A:1300:LYS:N	2.83	0.41
1:A:1344:GLY:O	1:A:1345:ARG:C	2.56	0.41
2:B:309:GLN:HG3	9:I:52:ILE:HD11	2.02	0.41
2:B:595:ARG:O	2:B:596:LEU:C	2.59	0.41
2:B:619:ILE:O	2:B:622:LYS:N	2.51	0.41
2:B:635:ARG:HB2	2:B:636:PRO:HD2	2.02	0.41
2:B:654:ARG:C	2:B:656:GLY:H	2.23	0.41
2:B:769:TYR:C	2:B:771:SER:N	2.73	0.41
2:B:801:LYS:O	10:J:52:THR:CG2	2.63	0.41
2:B:827:ILE:O	2:B:827:ILE:HG22	2.19	0.41
3:C:229:TYR:CD1	3:C:229:TYR:N	2.88	0.41
3:C:232:VAL:HG21	3:C:244:VAL:CG2	2.42	0.41
4:D:179:GLN:O	4:D:183:LEU:HB2	2.20	0.41
5:E:61:GLN:HG2	5:E:62:ALA:N	2.35	0.41
5:E:116:ILE:CG2	5:E:117:THR:N	2.83	0.41
5:E:133:GLU:HB3	5:E:135:PHE:HE1	1.84	0.41
8:H:106:GLU:O	8:H:108:SER:N	2.48	0.41
1:A:19:PHE:HB3	1:A:1413:GLY:HA2	2.02	0.41
1:A:241:VAL:HA	1:A:242:PRO:HD2	1.87	0.41
1:A:399:HIS:O	1:A:400:PRO:C	2.58	0.41
1:A:450:LEU:N	1:A:450:LEU:CD1	2.80	0.41
1:A:1041:ALA:O	1:A:1044:TRP:HB3	2.20	0.41
1:A:1118:VAL:O	1:A:1118:VAL:HG23	2.21	0.41
2:B:205:ILE:CG2	2:B:206:ASN:N	2.83	0.41
2:B:214:ALA:HB3	2:B:498:THR:HA	2.01	0.41
2:B:579:ARG:CA	2:B:589:VAL:HG13	2.51	0.41
2:B:610:ASN:O	2:B:612:GLU:N	2.53	0.41
2:B:638:PHE:HD2	2:B:690:VAL:HG22	1.86	0.41
2:B:731:VAL:CG1	2:B:732:SER:H	2.27	0.41
4:D:138:ASN:O	4:D:141:LEU:N	2.54	0.41
5:E:23:VAL:O	5:E:28:TYR:HD1	2.03	0.41
6:F:72:LYS:O	6:F:73:ALA:HB3	2.19	0.41
1:A:774:ARG:CZ	1:A:797:LYS:CB	2.98	0.41
1:A:1072:ILE:O	1:A:1075:PRO:HD2	2.20	0.41
2:B:37:PHE:CE1	2:B:41:LYS:CG	2.96	0.41
2:B:170:LEU:HA	2:B:171:PRO:HD2	1.94	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:211:VAL:HG23	2:B:483:LEU:HB2	2.03	0.41
2:B:291:ILE:HD13	2:B:300:HIS:NE2	2.35	0.41
2:B:298:LEU:N	2:B:298:LEU:CD2	2.83	0.41
2:B:366:GLN:O	2:B:367:LEU:O	2.38	0.41
2:B:479:VAL:O	2:B:480:SER:HB3	2.20	0.41
2:B:552:MET:O	2:B:554:ILE:N	2.53	0.41
2:B:637:LEU:HD23	2:B:742:GLU:HA	2.02	0.41
2:B:790:ASP:OD2	2:B:790:ASP:N	2.51	0.41
2:B:918:ILE:HG21	2:B:935:ARG:NH1	2.36	0.41
2:B:1030:LEU:HD12	2:B:1030:LEU:HA	1.92	0.41
2:B:1164:GLY:HA3	2:B:1190:ASP:OD2	2.21	0.41
3:C:116:LYS:HD3	3:C:140:ASN:HA	2.03	0.41
3:C:236:GLY:C	3:C:238:ILE:N	2.73	0.41
4:D:170:THR:HG22	4:D:172:LEU:HG	1.99	0.41
4:D:209:ARG:O	4:D:212:LYS:HB2	2.20	0.41
5:E:124:VAL:N	5:E:125:PRO:HD2	2.36	0.41
5:E:127:ILE:O	5:E:130:ALA:HB3	2.19	0.41
6:F:143:PHE:C	6:F:143:PHE:HD1	2.23	0.41
1:A:808:LEU:CD2	1:A:813:PHE:HA	2.46	0.41
1:A:809:THR:O	1:A:810:PRO:C	2.59	0.41
1:A:877:HIS:C	1:A:878:ILE:CG1	2.88	0.41
1:A:1193:LEU:HD12	1:A:1193:LEU:C	2.41	0.41
1:A:1332:PHE:HA	1:A:1335:ILE:HB	2.03	0.41
2:B:130:VAL:CG2	2:B:167:ILE:HD12	2.50	0.41
2:B:435:THR:C	2:B:437:GLU:H	2.23	0.41
2:B:820:GLY:C	2:B:1091:TYR:CE1	2.94	0.41
2:B:839:MET:HE1	2:B:980:PHE:CB	2.51	0.41
2:B:948:ILE:C	2:B:949:VAL:O	2.56	0.41
3:C:240:VAL:O	3:C:244:VAL:HG23	2.21	0.41
8:H:83:GLN:C	8:H:85:GLY:N	2.73	0.41
1:A:264:PHE:O	1:A:267:ALA:HB3	2.20	0.41
1:A:444:PHE:CB	1:A:458:HIS:CD2	3.03	0.41
1:A:446:ARG:NH1	1:A:479:ASN:O	2.53	0.41
1:A:566:ILE:O	1:A:567:LYS:O	2.39	0.41
1:A:567:LYS:CE	8:H:46:LEU:HB2	2.51	0.41
1:A:599:SER:HB2	1:A:603:ASN:H	1.85	0.41
1:A:1127:ASP:O	1:A:1130:GLN:HB3	2.20	0.41
1:A:1333:ILE:O	1:A:1337:GLU:HG3	2.21	0.41
2:B:69:LEU:HD22	2:B:429:PHE:CE1	2.56	0.41
2:B:204:ILE:O	2:B:204:ILE:HG22	2.21	0.41
2:B:542:MET:CG	2:B:747:MET:HB3	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:593:PRO:O	2:B:595:ARG:N	2.53	0.41
2:B:687:GLU:O	2:B:689:LEU:HG	2.20	0.41
2:B:792:MET:HA	2:B:856:PHE:O	2.19	0.41
2:B:1029:CYS:HB3	2:B:1086:PHE:CZ	2.55	0.41
3:C:15:LYS:O	3:C:240:VAL:HG22	2.20	0.41
3:C:99:LEU:HD22	3:C:120:ILE:HG12	2.01	0.41
3:C:123:ASN:HD21	3:C:125:MET:HA	1.85	0.41
5:E:60:PHE:CE2	5:E:80:VAL:HB	2.56	0.41
11:K:65:HIS:CG	11:K:66:PRO:HD2	2.56	0.41
1:A:95:PHE:O	1:A:98:LYS:N	2.49	0.41
1:A:408:ASP:O	1:A:410:GLY:N	2.53	0.41
1:A:444:PHE:CB	1:A:458:HIS:HD2	2.33	0.41
1:A:636:GLU:OE2	1:A:962:ARG:NH1	2.51	0.41
1:A:829:VAL:C	1:A:831:THR:N	2.74	0.41
1:A:852:TYR:CD2	1:A:1060:PRO:CB	3.03	0.41
1:A:1291:VAL:HA	1:A:1292:PRO:HD3	1.87	0.41
1:A:1389:PHE:CD1	1:A:1389:PHE:C	2.94	0.41
1:A:1410:PHE:HA	1:A:1410:PHE:HD2	1.77	0.41
2:B:810:GLU:CB	2:B:815:ARG:HH22	2.33	0.41
2:B:1085:ILE:N	2:B:1085:ILE:CD1	2.81	0.41
3:C:94:LYS:HE3	3:C:94:LYS:HB2	1.86	0.41
4:D:191:ALA:C	4:D:193:THR:N	2.73	0.41
5:E:127:ILE:O	5:E:127:ILE:HG13	2.21	0.41
5:E:145:THR:HG21	5:E:187:TYR:CD2	2.56	0.41
5:E:195:VAL:HG12	5:E:196:VAL:N	2.36	0.41
7:G:31:LEU:CD2	7:G:48:VAL:HG21	2.51	0.41
7:G:49:LEU:N	7:G:49:LEU:HD23	2.35	0.41
12:L:62:LYS:O	12:L:63:ARG:C	2.59	0.41
1:A:70:CYS:O	1:A:71:GLN:C	2.59	0.41
1:A:231:PRO:C	1:A:233:TRP:N	2.74	0.41
1:A:249:SER:HB2	1:A:250:ILE:H	1.66	0.41
1:A:276:LEU:O	1:A:279:LEU:N	2.47	0.41
1:A:353:ILE:HD13	1:A:487:MET:CE	2.50	0.41
1:A:472:LEU:O	1:A:475:THR:CB	2.68	0.41
1:A:474:VAL:C	1:A:477:PRO:HD2	2.41	0.41
1:A:482:PHE:O	1:A:484:GLY:N	2.53	0.41
1:A:527:THR:O	1:A:531:ILE:HB	2.21	0.41
1:A:621:THR:O	1:A:629:LEU:HB2	2.21	0.41
1:A:744:LYS:O	1:A:747:VAL:N	2.54	0.41
1:A:807:GLY:C	1:A:808:LEU:O	2.59	0.41
1:A:822:GLU:O	1:A:825:ILE:HB	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:875:ALA:HA	1:A:878:ILE:CD1	2.48	0.41
1:A:964:ILE:O	1:A:965:GLN:C	2.59	0.41
1:A:1027:ALA:O	1:A:1028:THR:C	2.59	0.41
1:A:1059:HIS:CE1	6:F:87:LYS:H	2.39	0.41
1:A:1157:ASP:O	1:A:1159:ARG:N	2.54	0.41
1:A:1226:VAL:HG12	1:A:1227:ILE:N	2.35	0.41
1:A:1242:VAL:O	1:A:1243:VAL:CB	2.68	0.41
1:A:1313:LEU:C	1:A:1315:GLU:H	2.24	0.41
1:A:1364:ASN:HD22	1:A:1364:ASN:C	2.24	0.41
2:B:121:ASN:ND2	2:B:207:GLY:HA3	2.36	0.41
2:B:487:THR:CG2	2:B:488:TYR:N	2.84	0.41
2:B:519:TRP:HE1	2:B:635:ARG:NH2	2.19	0.41
2:B:603:LEU:HB3	2:B:609:ILE:CG1	2.50	0.41
2:B:662:MET:HA	2:B:665:GLU:HB2	2.03	0.41
2:B:758:PHE:O	2:B:760:ASP:N	2.54	0.41
2:B:901:PRO:O	2:B:949:VAL:HB	2.21	0.41
2:B:918:ILE:HD12	2:B:935:ARG:CD	2.51	0.41
2:B:1068:GLY:O	2:B:1069:PHE:C	2.59	0.41
2:B:1208:MET:HA	2:B:1212:ILE:O	2.20	0.41
4:D:113:PHE:N	4:D:156:ASP:OD1	2.52	0.41
4:D:193:THR:O	4:D:196:PRO:HD3	2.21	0.41
5:E:98:ILE:O	5:E:100:ILE:N	2.54	0.41
6:F:111:LEU:N	6:F:111:LEU:CD1	2.83	0.41
7:G:1:MET:HE3	7:G:80:LYS:O	2.20	0.41
8:H:40:LEU:CD2	8:H:142:LEU:HD21	2.50	0.41
8:H:48:PRO:O	8:H:49:VAL:HG23	2.20	0.41
8:H:96:VAL:HA	8:H:142:LEU:O	2.21	0.41
9:I:61:ASP:C	9:I:63:GLY:N	2.73	0.41
11:K:10:PHE:CD1	11:K:11:LEU:CD2	3.04	0.41
1:A:172:PRO:HD3	1:A:185:TRP:HE1	1.86	0.41
1:A:277:GLU:C	1:A:279:LEU:N	2.73	0.41
1:A:326:ARG:NH2	1:A:1407:GLU:HG3	2.36	0.41
1:A:874:ASP:O	1:A:875:ALA:C	2.59	0.41
1:A:1011:GLN:O	1:A:1012:ARG:C	2.60	0.41
1:A:1059:HIS:CE1	6:F:86:THR:HA	2.55	0.41
2:B:100:PRO:HD2	2:B:180:TYR:CE1	2.55	0.41
2:B:496:ARG:HB3	2:B:496:ARG:NH1	2.35	0.41
2:B:758:PHE:HZ	2:B:1031:LEU:HD22	1.86	0.41
2:B:821:GLN:NE2	2:B:851:PHE:HA	2.35	0.41
2:B:822:ASN:ND2	10:J:52:THR:HG21	2.36	0.41
2:B:842:ASN:HD21	2:B:845:SER:H	1.60	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:856:PHE:CD1	2:B:856:PHE:N	2.89	0.41
2:B:910:VAL:HG12	2:B:911:ILE:N	2.35	0.41
2:B:952:VAL:O	2:B:953:LEU:HB3	2.21	0.41
5:E:167:ARG:HD3	5:E:167:ARG:HA	1.78	0.41
1:A:7:SER:HB2	2:B:1175:LEU:HD22	2.03	0.40
1:A:69:THR:O	1:A:71:GLN:HG2	2.20	0.40
1:A:244:PRO:HB2	1:A:245:PRO:CD	2.41	0.40
1:A:255:SER:O	1:A:256:GLN:HG3	2.20	0.40
1:A:269:ILE:CD1	1:A:300:VAL:HA	2.51	0.40
1:A:332:LYS:C	1:A:334:GLY:H	2.25	0.40
1:A:343:LYS:HE2	2:B:1156:ASP:OD2	2.21	0.40
1:A:779:PHE:O	1:A:780:VAL:C	2.59	0.40
1:A:789:LYS:HE3	9:I:67:THR:HB	2.03	0.40
1:A:1031:VAL:O	1:A:1031:VAL:HG12	2.20	0.40
1:A:1136:SER:O	1:A:1274:ARG:HG2	2.21	0.40
2:B:281:PRO:HG2	2:B:284:ILE:HG13	2.03	0.40
2:B:515:HIS:O	2:B:518:HIS:HB2	2.20	0.40
2:B:579:ARG:HG2	2:B:579:ARG:NH1	2.35	0.40
2:B:622:LYS:HE3	9:I:59:VAL:HG22	2.03	0.40
2:B:836:GLU:O	2:B:837:ASP:HB2	2.21	0.40
2:B:1080:LYS:HD2	3:C:188:HIS:HB2	2.03	0.40
2:B:1200:ALA:O	2:B:1203:LEU:HB3	2.21	0.40
3:C:8:VAL:HG12	3:C:9:LYS:H	1.84	0.40
3:C:62:PHE:O	3:C:66:ARG:HG3	2.21	0.40
4:D:138:ASN:HD21	7:G:35:GLU:HB3	1.86	0.40
6:F:135:ARG:NH1	6:F:143:PHE:CE2	2.90	0.40
12:L:29:TYR:N	12:L:29:TYR:CD2	2.88	0.40
1:A:23:SER:O	1:A:25:GLU:N	2.55	0.40
1:A:560:ILE:HA	1:A:561:PRO:HD2	1.95	0.40
1:A:626:ASN:HB3	1:A:627:GLY:H	1.70	0.40
2:B:48:LEU:O	2:B:49:ASP:C	2.59	0.40
2:B:295:GLY:N	2:B:298:LEU:HD23	2.34	0.40
2:B:511:PRO:O	2:B:513:GLN:N	2.54	0.40
2:B:575:PRO:HG2	2:B:576:ASP:H	1.86	0.40
2:B:838:SER:CA	2:B:989:THR:O	2.70	0.40
2:B:854:LEU:HD23	2:B:854:LEU:HA	1.83	0.40
2:B:983:ARG:HD2	2:B:1091:TYR:HB3	2.02	0.40
2:B:1002:THR:O	2:B:1003:ALA:C	2.59	0.40
2:B:1124:ARG:O	2:B:1125:ASP:CB	2.68	0.40
3:C:91:HIS:CD2	3:C:91:HIS:C	2.94	0.40
3:C:206:ASN:OD1	3:C:229:TYR:CD2	2.74	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:156:ASP:O	4:D:158:GLU:N	2.54	0.40
5:E:16:PHE:O	5:E:17:ARG:C	2.59	0.40
6:F:109:VAL:HG23	6:F:124:GLU:HG2	2.03	0.40
8:H:40:LEU:HD22	8:H:123:MET:HE3	2.03	0.40
8:H:62:SER:OG	8:H:63:LEU:N	2.53	0.40
9:I:95:THR:HG22	9:I:96:SER:N	2.36	0.40
10:J:2:ILE:CG2	10:J:3:VAL:N	2.83	0.40
1:A:23:SER:HB3	1:A:233:TRP:NE1	2.35	0.40
1:A:289:ILE:C	1:A:291:GLU:N	2.73	0.40
1:A:324:SER:O	1:A:325:ILE:C	2.56	0.40
1:A:618:GLU:O	1:A:619:LYS:C	2.60	0.40
1:A:649:ILE:O	1:A:653:VAL:HG23	2.22	0.40
1:A:1019:CYS:O	1:A:1020:CYS:C	2.60	0.40
1:A:1163:ILE:HG22	1:A:1164:PRO:HD2	2.03	0.40
1:A:1265:ASN:C	1:A:1267:MET:H	2.23	0.40
1:A:1434:ALA:CB	1:A:1436:ILE:HD12	2.52	0.40
2:B:487:THR:O	2:B:490:SER:HB3	2.21	0.40
2:B:800:GLN:CA	10:J:52:THR:HG22	2.51	0.40
2:B:802:PRO:HB3	2:B:1091:TYR:CD2	2.57	0.40
2:B:822:ASN:HD22	10:J:52:THR:HG21	1.86	0.40
2:B:827:ILE:HD12	2:B:1086:PHE:HD2	1.86	0.40
2:B:980:PHE:HE2	2:B:1094:ARG:HB2	1.85	0.40
3:C:73:GLN:HE21	3:C:74:SER:N	2.19	0.40
3:C:181:ASP:CG	3:C:186:LEU:HD13	2.42	0.40
5:E:14:ARG:NH2	5:E:141:VAL:HG12	2.37	0.40
6:F:99:LEU:O	6:F:103:MET:CG	2.69	0.40
7:G:44:TYR:O	7:G:78:VAL:HG12	2.22	0.40
7:G:101:VAL:HG12	7:G:102:GLN:N	2.35	0.40
12:L:55:ILE:HG12	12:L:55:ILE:H	1.53	0.40
1:A:24:PRO:O	1:A:28:ARG:HG3	2.21	0.40
1:A:335:ARG:HB3	1:A:336:ILE:H	1.65	0.40
1:A:403:LYS:O	1:A:404:TYR:CG	2.74	0.40
1:A:418:SER:C	1:A:420:ARG:H	2.25	0.40
1:A:535:THR:HG22	1:A:536:LEU:N	2.36	0.40
1:A:958:VAL:HG22	1:A:1052:GLN:HB3	2.03	0.40
1:A:1173:HIS:C	1:A:1174:PHE:CD1	2.94	0.40
1:A:1293:SER:HB2	1:A:1299:VAL:HG23	2.03	0.40
2:B:801:LYS:N	10:J:52:THR:HG22	2.36	0.40
2:B:1183:LYS:HE3	2:B:1183:LYS:O	2.20	0.40
3:C:11:ARG:NH2	3:C:206:ASN:OD1	2.54	0.40
4:D:31:GLN:O	4:D:34:GLN:HG3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:8:ASN:OD1	5:E:8:ASN:O	2.40	0.40
5:E:117:THR:O	5:E:120:ALA:N	2.45	0.40
6:F:75:PRO:HG2	6:F:78:GLN:HB2	2.04	0.40
9:I:34:TYR:O	9:I:35:VAL:CG2	2.69	0.40
10:J:1:MET:HE2	10:J:60:PHE:HE2	1.86	0.40
11:K:40:HIS:O	11:K:41:THR:C	2.59	0.40
1:A:70:CYS:O	1:A:70:CYS:SG	2.78	0.40
1:A:603:ASN:O	1:A:604:GLY:C	2.60	0.40
1:A:785:PRO:HG2	1:A:786:HIS:CD2	2.56	0.40
1:A:1149:ALA:HB2	9:I:47:GLU:HA	2.03	0.40
1:A:1205:LYS:O	1:A:1206:ASP:C	2.60	0.40
1:A:1372:VAL:CG1	1:A:1373:ASP:N	2.82	0.40
1:A:1385:THR:CG2	1:A:1386:ARG:N	2.84	0.40
2:B:45:SER:O	2:B:46:GLN:C	2.60	0.40
2:B:126:SER:O	2:B:169:ARG:HA	2.22	0.40
2:B:235:SER:O	2:B:236:HIS:HD2	2.04	0.40
2:B:258:LEU:O	2:B:258:LEU:CG	2.66	0.40
2:B:386:LEU:O	2:B:388:CYS:N	2.55	0.40
2:B:700:SER:O	2:B:701:ILE:HG22	2.22	0.40
2:B:841:MET:O	2:B:993:THR:HA	2.21	0.40
2:B:1119:VAL:HG22	2:B:1126:GLY:HA2	2.03	0.40
2:B:1135:ARG:O	2:B:1138:MET:N	2.54	0.40
3:C:238:ILE:CG2	3:C:243:VAL:HG23	2.50	0.40
4:D:51:ASN:C	4:D:52:LEU:O	2.59	0.40
4:D:196:PRO:C	4:D:198:LEU:H	2.23	0.40
4:D:204:ASP:O	4:D:208:GLU:HB2	2.22	0.40
5:E:98:ILE:O	5:E:99:HIS:C	2.59	0.40
7:G:104:GLY:HA3	7:G:105:PRO:HD2	1.96	0.40
10:J:16:ASP:OD1	10:J:16:ASP:N	2.54	0.40
11:K:43:GLY:HA3	11:K:61:TYR:CE1	2.56	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	A	1406/1733 (81%)	949 (68%)	293 (21%)	164 (12%)	0 6
2	B	1096/1224 (90%)	744 (68%)	226 (21%)	126 (12%)	0 6
3	C	264/318 (83%)	159 (60%)	66 (25%)	39 (15%)	0 3
4	D	178/221 (80%)	124 (70%)	35 (20%)	19 (11%)	0 8
5	E	212/215 (99%)	147 (69%)	50 (24%)	15 (7%)	1 17
6	F	82/155 (53%)	64 (78%)	14 (17%)	4 (5%)	2 23
7	G	169/215 (79%)	131 (78%)	26 (15%)	12 (7%)	1 17
8	H	129/146 (88%)	84 (65%)	29 (22%)	16 (12%)	0 5
9	I	117/122 (96%)	79 (68%)	31 (26%)	7 (6%)	1 20
10	J	63/70 (90%)	37 (59%)	10 (16%)	16 (25%)	0 1
11	K	113/120 (94%)	89 (79%)	18 (16%)	6 (5%)	2 22
12	L	44/70 (63%)	19 (43%)	14 (32%)	11 (25%)	0 1
All	All	3873/4609 (84%)	2626 (68%)	812 (21%)	435 (11%)	0 7

All (435) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	5	GLN
1	A	48	ALA
1	A	54	ASN
1	A	55	ASP
1	A	57	ARG
1	A	62	ASP
1	A	65	LEU
1	A	74	MET
1	A	76	GLU
1	A	78	PRO
1	A	93	VAL
1	A	130	ASP
1	A	154	SER
1	A	167	CYS
1	A	250	ILE
1	A	255	SER
1	A	286	HIS
1	A	311	GLN
1	A	322	VAL

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Mol	Chain	Res	Type
1	A	333	GLU
1	A	335	ARG
1	A	385	ILE
1	A	418	SER
1	A	423	ASP
1	A	424	ILE
1	A	536	LEU
1	A	567	LYS
1	A	619	LYS
1	A	626	ASN
1	A	666	ILE
1	A	808	LEU
1	A	968	GLN
1	A	1002	GLY
1	A	1036	ARG
1	A	1115	SER
1	A	1122	PRO
1	A	1223	ASP
1	A	1281	ARG
1	A	1314	SER
1	A	1341	ILE
1	A	1365	TYR
1	A	1366	ARG
1	A	1378	GLN
1	A	1397	LEU
1	A	1403	GLU
1	A	1405	THR
1	A	1438	THR
2	B	108	VAL
2	B	115	GLN
2	B	186	GLU
2	B	206	ASN
2	B	258	LEU
2	B	259	TYR
2	B	334	ILE
2	B	367	LEU
2	B	443	ASN
2	B	472	ALA
2	B	629	ASP
2	B	643	ASP
2	B	709	ASP
2	B	727	LYS

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Mol	Chain	Res	Type
2	B	731	VAL
2	B	746	SER
2	B	751	VAL
2	B	881	ASN
2	B	891	ASP
2	B	907	GLY
2	B	958	GLN
2	B	1006	ILE
2	B	1046	PRO
2	B	1069	PHE
2	B	1100	ASP
2	B	1108	ARG
2	B	1156	ASP
2	B	1171	VAL
2	B	1175	LEU
2	B	1181	GLU
2	B	1182	CYS
2	B	1183	LYS
2	B	1186	ASP
2	B	1188	LYS
3	C	56	THR
3	C	78	GLU
3	C	91	HIS
3	C	141	GLY
3	C	149	LYS
3	C	156	THR
3	C	161	LYS
3	C	184	ASN
3	C	202	PRO
3	C	209	TYR
3	C	213	PRO
3	C	214	ASN
3	C	215	GLU
3	C	231	ASN
3	C	240	VAL
4	D	6	SER
4	D	8	PHE
4	D	12	ARG
4	D	19	GLU
4	D	20	GLU
4	D	21	GLU
4	D	52	LEU

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Mol	Chain	Res	Type
4	D	114	MET
4	D	116	SER
4	D	120	GLU
4	D	131	GLU
4	D	177	VAL
4	D	192	LYS
4	D	199	ASN
5	E	106	GLN
5	E	130	ALA
7	G	62	LEU
7	G	63	PRO
7	G	139	ILE
8	H	81	PRO
8	H	128	ASN
8	H	140	ALA
9	I	9	ASP
9	I	106	CYS
10	J	2	ILE
10	J	6	ARG
10	J	8	PHE
10	J	9	SER
10	J	17	LYS
10	J	28	ASP
10	J	32	GLU
10	J	64	ASN
11	K	114	LEU
12	L	50	ASP
12	L	53	HIS
12	L	59	ALA
1	A	4	GLN
1	A	42	ASP
1	A	44	THR
1	A	59	GLY
1	A	61	ILE
1	A	66	LYS
1	A	70	CYS
1	A	101	LYS
1	A	111	GLY
1	A	113	LEU
1	A	244	PRO
1	A	263	THR
1	A	290	GLU

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Mol	Chain	Res	Type
1	A	312	PRO
1	A	318	SER
1	A	336	ILE
1	A	364	VAL
1	A	409	SER
1	A	421	ALA
1	A	483	ASP
1	A	661	GLY
1	A	753	GLY
1	A	765	VAL
1	A	775	ILE
1	A	780	VAL
1	A	789	LYS
1	A	818	MET
1	A	824	LEU
1	A	846	GLU
1	A	847	ASP
1	A	875	ALA
1	A	986	ILE
1	A	1008	GLN
1	A	1016	THR
1	A	1116	LEU
1	A	1120	LEU
1	A	1133	LEU
1	A	1165	GLU
1	A	1212	VAL
1	A	1221	LYS
1	A	1233	ASP
1	A	1335	ILE
1	A	1377	THR
1	A	1386	ARG
1	A	1389	PHE
1	A	1393	ASN
2	B	21	GLU
2	B	28	GLU
2	B	45	SER
2	B	46	GLN
2	B	114	PRO
2	B	229	ALA
2	B	260	GLY
2	B	266	ALA
2	B	282	ILE

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Mol	Chain	Res	Type
2	B	308	TRP
2	B	446	LEU
2	B	447	ALA
2	B	475	SER
2	B	513	GLN
2	B	559	SER
2	B	641	GLU
2	B	655	LYS
2	B	869	SER
2	B	888	GLY
2	B	1003	ALA
2	B	1035	ALA
2	B	1041	GLU
2	B	1126	GLY
2	B	1153	GLU
2	B	1155	SER
2	B	1157	ALA
2	B	1167	GLY
2	B	1176	ASN
2	B	1178	ASN
3	C	84	ARG
3	C	87	PHE
3	C	110	THR
3	C	142	VAL
3	C	164	ALA
3	C	169	LYS
3	C	175	ALA
3	C	216	GLY
3	C	255	VAL
3	C	264	GLN
4	D	15	LEU
4	D	218	GLU
5	E	36	GLU
5	E	44	ALA
5	E	59	SER
5	E	73	PRO
5	E	74	ASP
5	E	192	ARG
5	E	206	GLY
6	F	81	THR
7	G	118	ASP
7	G	154	VAL

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Mol	Chain	Res	Type
8	H	32	THR
8	H	59	ILE
8	H	82	PRO
8	H	84	ALA
8	H	92	ASP
8	H	107	VAL
9	I	3	THR
9	I	57	GLY
9	I	62	ILE
10	J	14	VAL
10	J	29	GLU
10	J	33	GLY
11	K	53	ASP
12	L	35	SER
1	A	58	LEU
1	A	71	GLN
1	A	117	GLU
1	A	131	SER
1	A	170	THR
1	A	219	PHE
1	A	223	GLY
1	A	232	GLU
1	A	253	ASN
1	A	278	THR
1	A	317	LYS
1	A	357	PRO
1	A	399	HIS
1	A	419	LYS
1	A	439	ASN
1	A	465	TYR
1	A	517	ASN
1	A	543	LEU
1	A	592	ASP
1	A	605	MET
1	A	731	ARG
1	A	817	ALA
1	A	940	ARG
1	A	1164	PRO
1	A	1309	ASP
1	A	1411	GLU
2	B	58	THR
2	B	383	ASN

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Mol	Chain	Res	Type
2	B	450	ALA
2	B	512	ARG
2	B	571	PRO
2	B	590	HIS
2	B	591	ARG
2	B	605	ARG
2	B	648	HIS
2	B	682	SER
2	B	711	GLU
2	B	738	PHE
2	B	792	MET
2	B	797	TYR
2	B	848	ARG
2	B	878	GLN
2	B	884	ARG
2	B	943	SER
2	B	1017	ILE
2	B	1082	MET
3	C	60	ASP
3	C	89	GLU
3	C	93	ASP
3	C	167	HIS
5	E	115	ASN
7	G	53	ASN
8	H	17	PRO
8	H	77	ARG
8	H	108	SER
8	H	135	LEU
9	I	78	CYS
10	J	24	LEU
10	J	51	LEU
10	J	55	ASP
11	K	54	ARG
11	K	88	LYS
12	L	40	LEU
12	L	54	ARG
1	A	69	THR
1	A	276	LEU
1	A	283	GLY
1	A	400	PRO
1	A	756	ILE
1	A	795	GLU

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Mol	Chain	Res	Type
1	A	910	PRO
1	A	958	VAL
1	A	1011	GLN
1	A	1028	THR
1	A	1114	PRO
1	A	1240	CYS
1	A	1242	VAL
1	A	1395	GLY
2	B	67	SER
2	B	68	THR
2	B	100	PRO
2	B	124	TYR
2	B	257	LYS
2	B	369	GLY
2	B	419	THR
2	B	459	TYR
2	B	594	ALA
2	B	620	ARG
2	B	735	ALA
2	B	883	LEU
2	B	951	GLN
2	B	1011	ILE
2	B	1097	HIS
2	B	1144	ALA
3	C	77	ILE
3	C	198	ALA
4	D	30	GLY
4	D	168	LYS
7	G	19	GLY
7	G	26	LEU
8	H	44	VAL
8	H	52	GLN
9	I	47	GLU
10	J	27	GLU
11	K	29	ASN
12	L	43	THR
12	L	56	LEU
12	L	60	ARG
1	A	68	GLN
1	A	128	ILE
1	A	226	GLU
1	A	598	LEU

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Mol	Chain	Res	Type
1	A	599	SER
1	A	633	VAL
1	A	648	ASN
1	A	649	ILE
1	A	739	ASP
1	A	755	PHE
1	A	841	LEU
1	A	871	ASP
1	A	969	GLN
1	A	1054	LEU
1	A	1266	THR
1	A	1297	GLU
1	A	1396	ALA
2	B	27	ALA
2	B	48	LEU
2	B	65	GLU
2	B	197	PHE
2	B	309	GLN
2	B	414	ALA
2	B	418	LYS
2	B	530	GLY
2	B	636	PRO
2	B	758	PHE
2	B	766	ARG
2	B	867	GLY
2	B	1016	ALA
3	C	108	GLU
5	E	40	GLU
5	E	45	LYS
6	F	112	GLU
6	F	150	GLU
7	G	34	VAL
1	A	84	ILE
1	A	245	PRO
1	A	492	PRO
1	A	525	GLN
1	A	1158	PRO
2	B	313	MET
2	B	364	ILE
2	B	480	SER
2	B	836	GLU
2	B	1214	PRO

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Mol	Chain	Res	Type
3	C	18	VAL
3	C	176	ILE
3	C	230	MET
4	D	69	ALA
5	E	158	SER
7	G	115	MET
8	H	21	ASN
10	J	63	TYR
11	K	90	ALA
12	L	28	LYS
12	L	46	VAL
1	A	196	GLU
1	A	300	VAL
1	A	627	GLY
2	B	501	PRO
2	B	611	PRO
2	B	712	PRO
3	C	172	PRO
3	C	212	PRO
1	A	652	VAL
1	A	653	VAL
2	B	551	PRO
5	E	37	LEU
1	A	546	VAL
1	A	825	ILE
1	A	1379	GLY
1	A	1454	MET
2	B	411	PRO
2	B	818	PRO
2	B	1018	PRO
3	C	171	GLY
2	B	524	PRO
3	C	126	GLY
6	F	131	PRO
7	G	20	PRO
7	G	116	PRO
2	B	592	ASN
5	E	129	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	1239/1520 (82%)	1135 (92%)	104 (8%)	11 36
2	B	952/1061 (90%)	865 (91%)	87 (9%)	9 32
3	C	234/274 (85%)	212 (91%)	22 (9%)	8 30
4	D	138/200 (69%)	122 (88%)	16 (12%)	5 24
5	E	196/197 (100%)	187 (95%)	9 (5%)	27 53
6	F	74/137 (54%)	65 (88%)	9 (12%)	5 22
7	G	152/190 (80%)	142 (93%)	10 (7%)	16 43
8	H	117/128 (91%)	111 (95%)	6 (5%)	24 51
9	I	113/116 (97%)	99 (88%)	14 (12%)	4 22
10	J	60/65 (92%)	54 (90%)	6 (10%)	7 28
11	K	99/102 (97%)	92 (93%)	7 (7%)	14 41
12	L	40/57 (70%)	37 (92%)	3 (8%)	13 40
All	All	3414/4047 (84%)	3121 (91%)	293 (9%)	10 35

All (293) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	2	VAL
1	A	11	LEU
1	A	22	PHE
1	A	34	LYS
1	A	38	PRO
1	A	62	ASP
1	A	67	CYS
1	A	83	HIS
1	A	93	VAL
1	A	105	CYS
1	A	108	MET
1	A	208	LEU
1	A	209	ASN
1	A	215	SER

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Mol	Chain	Res	Type
1	A	236	LEU
1	A	245	PRO
1	A	270	LEU
1	A	293	GLU
1	A	302	THR
1	A	312	PRO
1	A	320	ARG
1	A	335	ARG
1	A	345	VAL
1	A	354	SER
1	A	369	SER
1	A	381	THR
1	A	404	TYR
1	A	406	ILE
1	A	407	ARG
1	A	408	ASP
1	A	418	SER
1	A	425	GLN
1	A	443	LEU
1	A	445	ASN
1	A	450	LEU
1	A	451	HIS
1	A	454	SER
1	A	460	VAL
1	A	470	LEU
1	A	481	ASP
1	A	493	GLN
1	A	497	THR
1	A	503	GLN
1	A	515	GLN
1	A	560	ILE
1	A	562	THR
1	A	587	HIS
1	A	598	LEU
1	A	618	GLU
1	A	626	ASN
1	A	629	LEU
1	A	666	ILE
1	A	670	ILE
1	A	711	ARG
1	A	739	ASP
1	A	774	ARG

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Mol	Chain	Res	Type
1	A	779	PHE
1	A	821	ARG
1	A	831	THR
1	A	834	THR
1	A	845	LEU
1	A	854	ASN
1	A	858	ASN
1	A	890	ASP
1	A	903	ASN
1	A	929	LEU
1	A	940	ARG
1	A	949	ASP
1	A	969	GLN
1	A	1006	ILE
1	A	1016	THR
1	A	1029	ARG
1	A	1032	LEU
1	A	1035	TYR
1	A	1052	GLN
1	A	1067	LEU
1	A	1110	ASN
1	A	1111	MET
1	A	1116	LEU
1	A	1122	PRO
1	A	1127	ASP
1	A	1152	ILE
1	A	1155	ASP
1	A	1170	ILE
1	A	1173	HIS
1	A	1264	GLU
1	A	1271	ILE
1	A	1291	VAL
1	A	1295	THR
1	A	1298	TYR
1	A	1309	ASP
1	A	1332	PHE
1	A	1333	ILE
1	A	1359	ASP
1	A	1364	ASN
1	A	1366	ARG
1	A	1372	VAL
1	A	1400	CYS

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Mol	Chain	Res	Type
1	A	1405	THR
1	A	1432	GLN
1	A	1442	ASP
1	A	1443	VAL
1	A	1445	ILE
1	A	1447	GLU
2	B	44	VAL
2	B	57	TYR
2	B	61	ASP
2	B	128	LEU
2	B	175	ARG
2	B	188	ASP
2	B	194	GLU
2	B	199	MET
2	B	217	ARG
2	B	223	VAL
2	B	225	VAL
2	B	261	ARG
2	B	268	THR
2	B	286	PHE
2	B	294	ASP
2	B	298	LEU
2	B	360	PHE
2	B	365	THR
2	B	371	GLU
2	B	378	LEU
2	B	393	LYS
2	B	396	ASP
2	B	401	PHE
2	B	427	ASP
2	B	429	PHE
2	B	446	LEU
2	B	463	THR
2	B	465	ASN
2	B	466	TRP
2	B	485	ARG
2	B	496	ARG
2	B	498	THR
2	B	516	ASN
2	B	555	ILE
2	B	557	PHE
2	B	570	VAL

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Mol	Chain	Res	Type
2	B	582	VAL
2	B	593	PRO
2	B	603	LEU
2	B	615	MET
2	B	628	THR
2	B	635	ARG
2	B	636	PRO
2	B	644	GLU
2	B	682	SER
2	B	701	ILE
2	B	724	ASP
2	B	737	THR
2	B	742	GLU
2	B	751	VAL
2	B	811	TYR
2	B	830	TYR
2	B	835	GLN
2	B	839	MET
2	B	878	GLN
2	B	894	ASP
2	B	901	PRO
2	B	909	ASP
2	B	939	THR
2	B	953	LEU
2	B	956	THR
2	B	978	ASP
2	B	986	GLN
2	B	999	MET
2	B	1002	THR
2	B	1006	ILE
2	B	1010	LEU
2	B	1022	THR
2	B	1034	VAL
2	B	1047	PHE
2	B	1051	THR
2	B	1065	GLN
2	B	1069	PHE
2	B	1077	THR
2	B	1084	GLN
2	B	1087	PHE
2	B	1095	LEU
2	B	1099	VAL

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Mol	Chain	Res	Type
2	B	1103	ILE
2	B	1122	ARG
2	B	1159	ARG
2	B	1169	MET
2	B	1170	THR
2	B	1183	LYS
2	B	1202	LEU
2	B	1212	ILE
2	B	1216	LEU
3	C	22	LEU
3	C	23	SER
3	C	29	MET
3	C	54	ASN
3	C	57	VAL
3	C	58	LEU
3	C	62	PHE
3	C	77	ILE
3	C	89	GLU
3	C	91	HIS
3	C	104	PHE
3	C	106	GLU
3	C	108	GLU
3	C	128	ASN
3	C	140	ASN
3	C	145	CYS
3	C	147	LEU
3	C	166	GLU
3	C	202	PRO
3	C	233	GLU
3	C	240	VAL
3	C	266	ASP
4	D	32	GLU
4	D	47	LEU
4	D	63	LEU
4	D	70	PHE
4	D	137	ASN
4	D	139	LYS
4	D	148	LEU
4	D	149	THR
4	D	152	SER
4	D	156	ASP
4	D	170	THR

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Mol	Chain	Res	Type
4	D	187	THR
4	D	192	LYS
4	D	193	THR
4	D	202	ILE
4	D	221	TYR
5	E	60	PHE
5	E	74	ASP
5	E	104	ASN
5	E	114	ASN
5	E	146	HIS
5	E	175	LEU
5	E	183	PRO
5	E	207	ARG
5	E	215	MET
6	F	79	ARG
6	F	81	THR
6	F	90	ARG
6	F	99	LEU
6	F	116	ASP
6	F	119	ARG
6	F	143	PHE
6	F	148	VAL
6	F	153	VAL
7	G	1	MET
7	G	13	LEU
7	G	38	CYS
7	G	39	THR
7	G	74	TYR
7	G	78	VAL
7	G	80	LYS
7	G	96	GLN
7	G	126	ASN
7	G	171	ILE
8	H	62	SER
8	H	86	ASP
8	H	91	ASP
8	H	95	TYR
8	H	102	TYR
8	H	130	ARG
9	I	8	ARG
9	I	9	ASP
9	I	13	MET

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Mol	Chain	Res	Type
9	I	15	TYR
9	I	34	TYR
9	I	75	CYS
9	I	78	CYS
9	I	85	PHE
9	I	86	PHE
9	I	94	ASP
9	I	100	PHE
9	I	101	PHE
9	I	106	CYS
9	I	110	PHE
10	J	7	CYS
10	J	9	SER
10	J	10	CYS
10	J	44	TYR
10	J	46	CYS
10	J	48	ARG
11	K	10	PHE
11	K	25	THR
11	K	42	LEU
11	K	47	ARG
11	K	50	LEU
11	K	61	TYR
11	K	78	THR
12	L	55	ILE
12	L	68	GLU
12	L	70	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (77) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	54	ASN
1	A	64	ASN
1	A	68	GLN
1	A	92	HIS
1	A	225	ASN
1	A	256	GLN
1	A	282	ASN
1	A	299	HIS
1	A	306	ASN
1	A	339	ASN
1	A	358	ASN

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Mol	Chain	Res	Type
1	A	435	HIS
1	A	445	ASN
1	A	479	ASN
1	A	493	GLN
1	A	503	GLN
1	A	517	ASN
1	A	525	GLN
1	A	603	ASN
1	A	611	GLN
1	A	631	HIS
1	A	654	ASN
1	A	741	ASN
1	A	757	ASN
1	A	768	GLN
1	A	786	HIS
1	A	858	ASN
1	A	877	HIS
1	A	903	ASN
1	A	926	GLN
1	A	1106	ASN
1	A	1140	HIS
1	A	1265	ASN
1	A	1364	ASN
2	B	60	GLN
2	B	121	ASN
2	B	178	ASN
2	B	215	GLN
2	B	236	HIS
2	B	366	GLN
2	B	465	ASN
2	B	484	ASN
2	B	515	HIS
2	B	518	HIS
2	B	538	ASN
2	B	734	HIS
2	B	744	HIS
2	B	821	GLN
2	B	842	ASN
2	B	975	GLN
2	B	1015	HIS
2	B	1065	GLN
2	B	1076	HIS

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Mol	Chain	Res	Type
2	B	1117	GLN
3	C	73	GLN
3	C	112	ASN
3	C	123	ASN
3	C	167	HIS
3	C	231	ASN
3	C	252	GLN
4	D	40	HIS
4	D	137	ASN
4	D	179	GLN
5	E	8	ASN
5	E	101	GLN
5	E	104	ASN
5	E	114	ASN
5	E	147	HIS
7	G	14	HIS
7	G	53	ASN
7	G	126	ASN
9	I	12	ASN
9	I	60	GLN
9	I	89	GLN
10	J	53	HIS
11	K	65	HIS
11	K	76	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

There are no monosaccharides in this entry.

5.6 Ligand geometry

Of 8 ligands modelled in this entry, 8 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	A	1
2	B	1
9	I	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A	807:GLY	C	808:LEU	N	1.20
1	B	442:PHE	C	443:ASN	N	1.14
1	I	39:GLY	C	40:SER	N	0.84

6 Fit of model and data

6.1 Protein, DNA and RNA chains

Unable to reproduce the depositors R factor - this section is therefore empty.

6.2 Non-standard residues in protein, DNA, RNA chains

Unable to reproduce the depositors R factor - this section is therefore empty.

6.3 Carbohydrates

Unable to reproduce the depositors R factor - this section is therefore empty.

6.4 Ligands

Unable to reproduce the depositors R factor - this section is therefore empty.

6.5 Other polymers

Unable to reproduce the depositors R factor - this section is therefore empty.