



## Full wwPDB EM Validation Report ⓘ

Nov 20, 2022 – 04:54 pm GMT

PDB ID : 4ABO  
EMDB ID : EMD-2005  
Title : Mal3 CH domain homology model and mammalian tubulin (2XRP) docked into the 8.6-Angstrom cryo-EM map of Mal3-GTPgammaS-microtubules  
Authors : Maurer, S.P.; Fourniol, F.J.; Bohner, G.; Moores, C.A.; Surrey, T.  
Deposited on : 2011-12-09  
Resolution : 8.60 Å(reported)  
Based on initial model : 2XRP

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

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

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>.

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

EMDB validation analysis : 0.0.1.dev43  
Mogul : 1.8.4, CSD as541be (2020)  
MolProbity : 4.02b-467  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
MapQ : 1.9.9  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.31.2

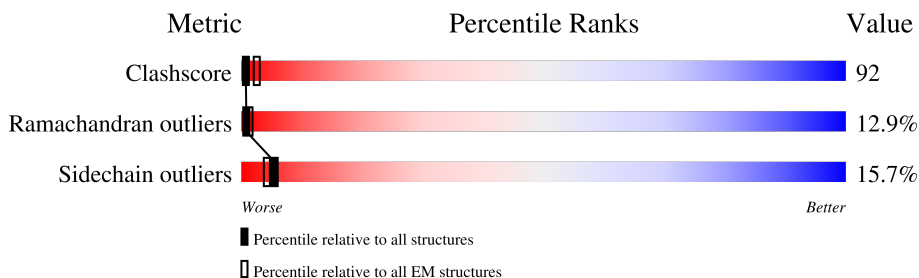
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 8.60 Å.

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



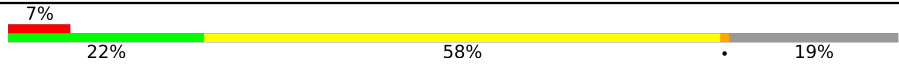
Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ . The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion  $< 40\%$ ). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	445	
1	C	445	
1	E	445	
1	G	445	
2	B	451	
2	D	451	
2	F	451	
2	H	451	

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Mol	Chain	Length	Quality of chain
3	I	145	

## 2 Entry composition i

There are 5 unique types of molecules in this entry. The entry contains 27996 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called TUBULIN BETA CHAIN.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	426	Total 3350	C 2105	N 574	O 646	S 25	0	0
1	C	426	Total 3350	C 2105	N 574	O 646	S 25	0	0
1	E	426	Total 3350	C 2105	N 574	O 646	S 25	0	0
1	G	426	Total 3350	C 2105	N 574	O 646	S 25	0	0

- Molecule 2 is a protein called TUBULIN ALPHA-1A CHAIN.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	B	429	Total 3333	C 2114	N 568	O 630	S 21	0	0
2	D	429	Total 3333	C 2114	N 568	O 630	S 21	0	0
2	F	430	Total 3357	C 2125	N 571	O 640	S 21	0	1
2	H	429	Total 3333	C 2114	N 568	O 630	S 21	0	0

- Molecule 3 is a protein called MICROTUBULE INTEGRITY PROTEIN MAL3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	I	118	Total 984	C 628	N 173	O 178	S 5	0	1

There are 4 discrepancies between the modelled and reference sequences:

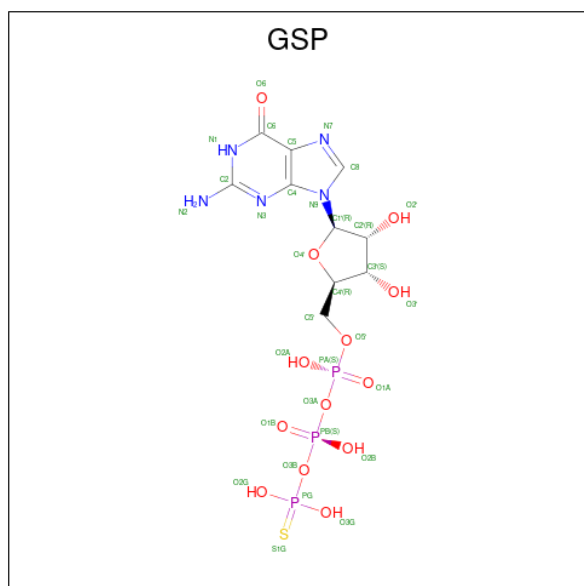
Chain	Residue	Modelled	Actual	Comment	Reference
I	-2	GLY	-	expression tag	UNP Q10113
I	-1	ALA	-	expression tag	UNP Q10113
I	0	MET	-	expression tag	UNP Q10113

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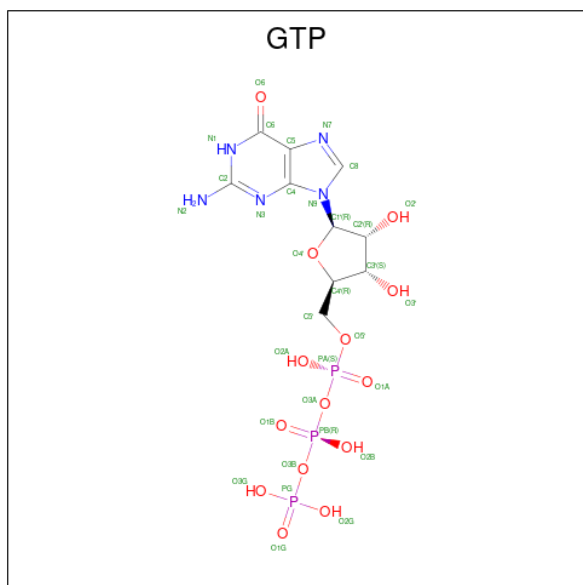
Chain	Residue	Modelled	Actual	Comment	Reference
I	1	GLY	-	expression tag	UNP Q10113

- Molecule 4 is 5'-GUANOSINE-DIPHOSPHATE-MONOTHIOPHOSPHATE (three-letter code: GSP) (formula:  $C_{10}H_{16}N_5O_{13}P_3S$ ).



Mol	Chain	Residues	Atoms					AltConf	
			Total	C	N	O	P		S
4	A	1	Total	C	N	O	P	S	0
			32	10	5	13	3	1	
4	C	1	Total	C	N	O	P	S	0
			32	10	5	13	3	1	
4	E	1	Total	C	N	O	P	S	0
			32	10	5	13	3	1	
4	G	1	Total	C	N	O	P	S	0
			32	10	5	13	3	1	

- Molecule 5 is GUANOSINE-5'-TRIPHOSPHATE (three-letter code: GTP) (formula:  $C_{10}H_{16}N_5O_{14}P_3$ ).



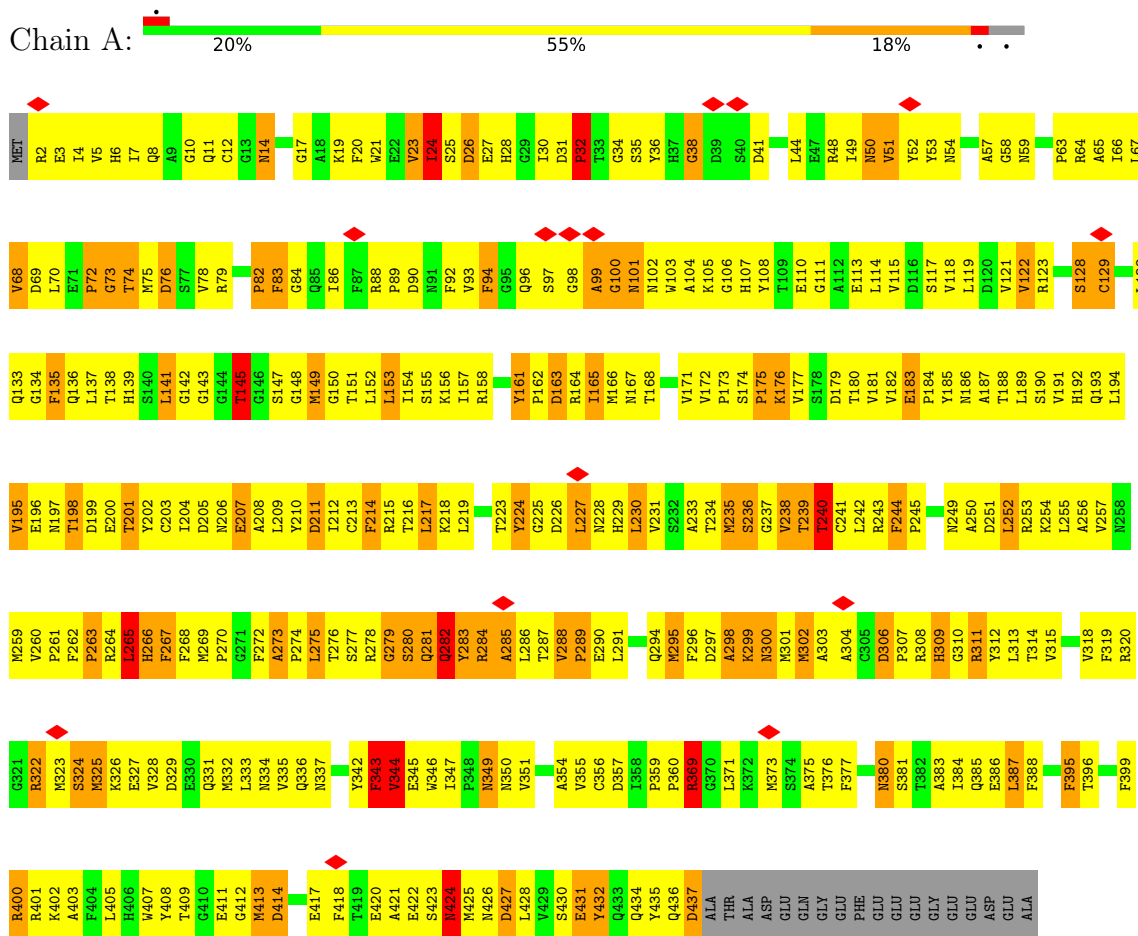
Mol	Chain	Residues	Atoms				AltConf		
			Total	C	N	O		P	
5	B	1	Total	32	10	5	14	3	0
5	D	1	Total	32	10	5	14	3	0
5	F	1	Total	32	10	5	14	3	0
5	H	1	Total	32	10	5	14	3	0

### 3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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.

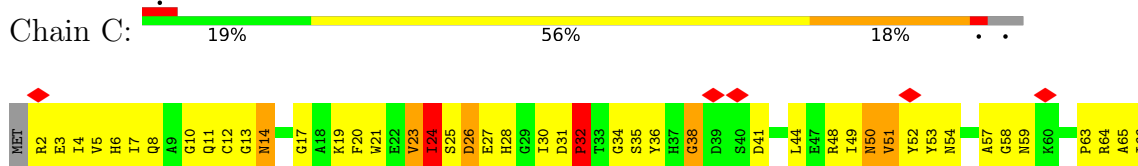
#### • Molecule 1: TUBULIN BETA CHAIN

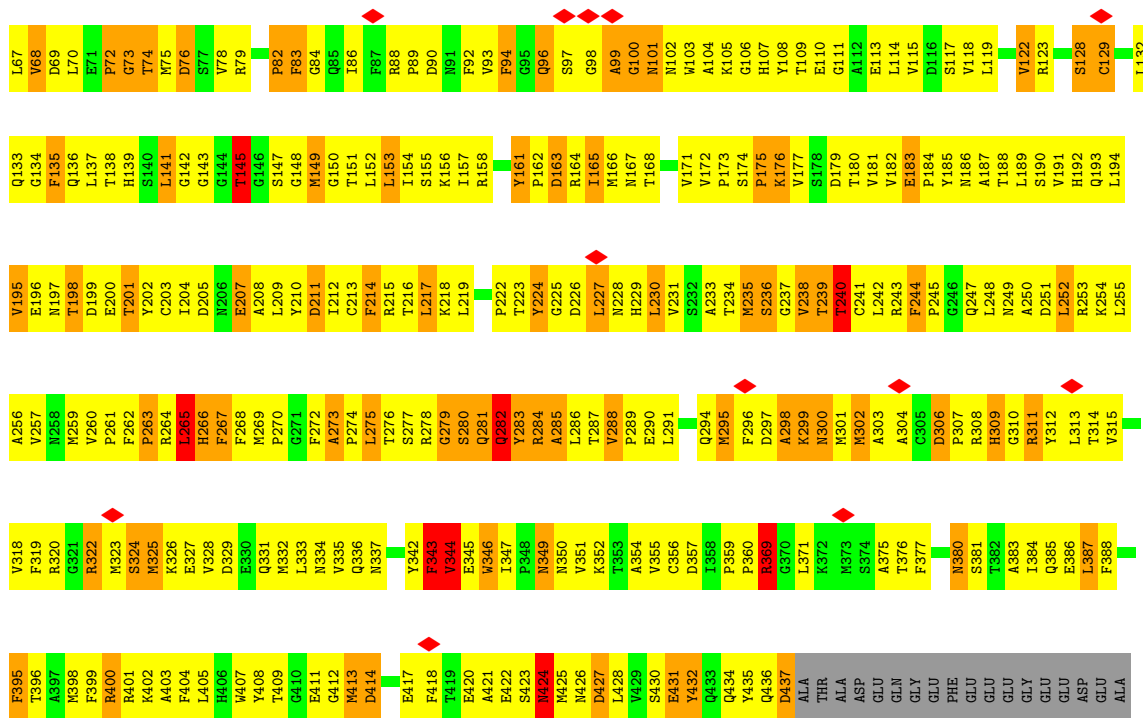
Chain A:



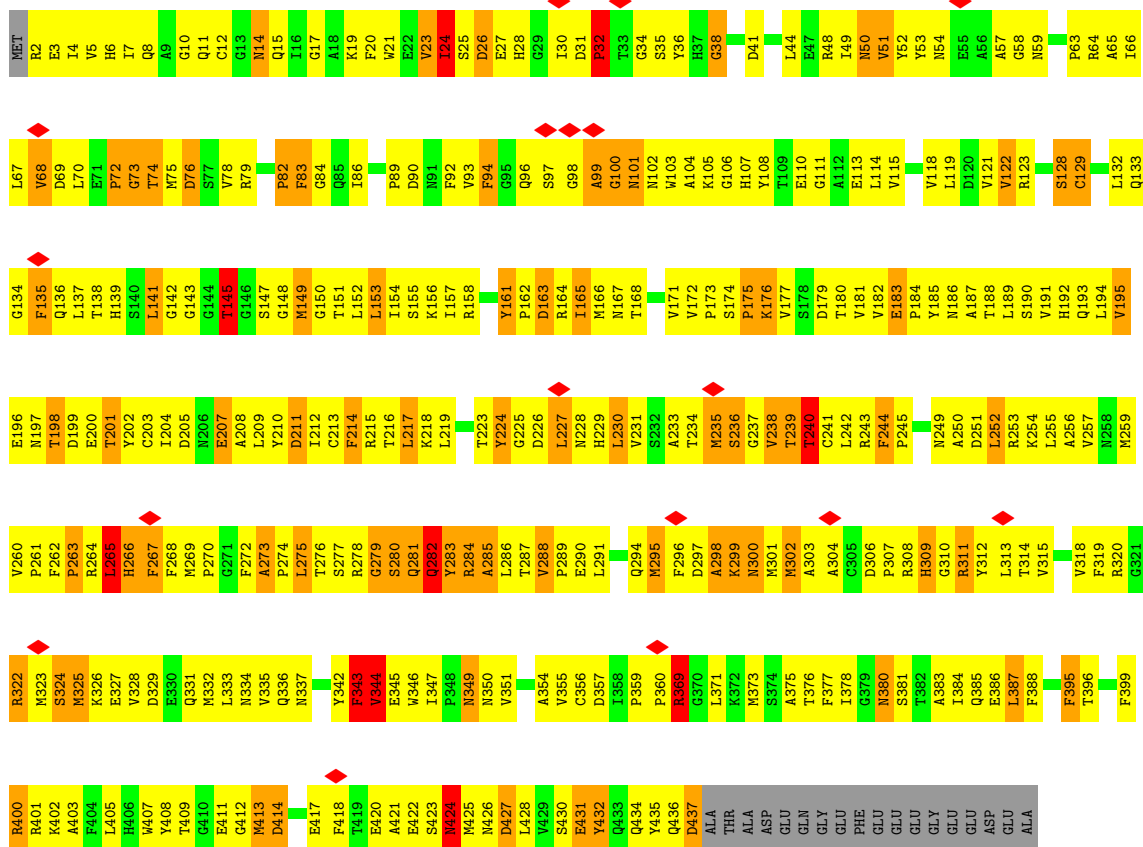
#### • Molecule 1: TUBULIN BETA CHAIN

Chain C:



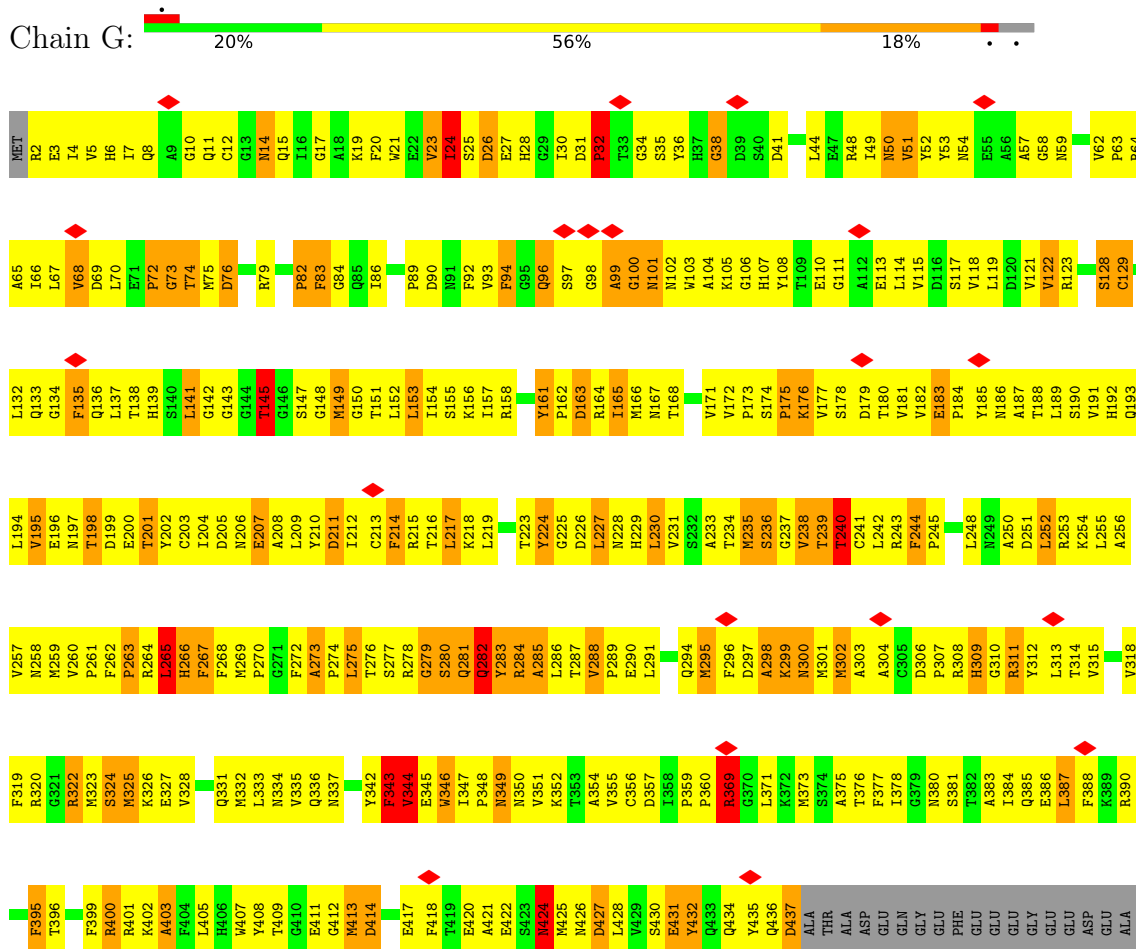


• Molecule 1: TUBULIN BETA CHAIN

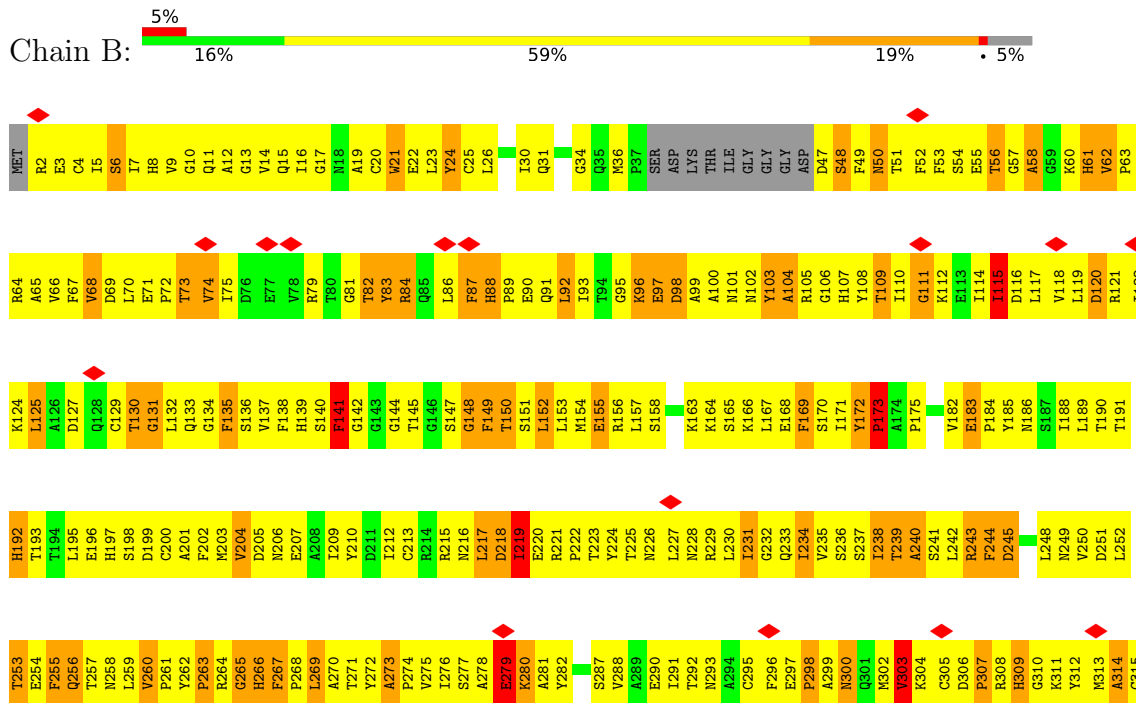




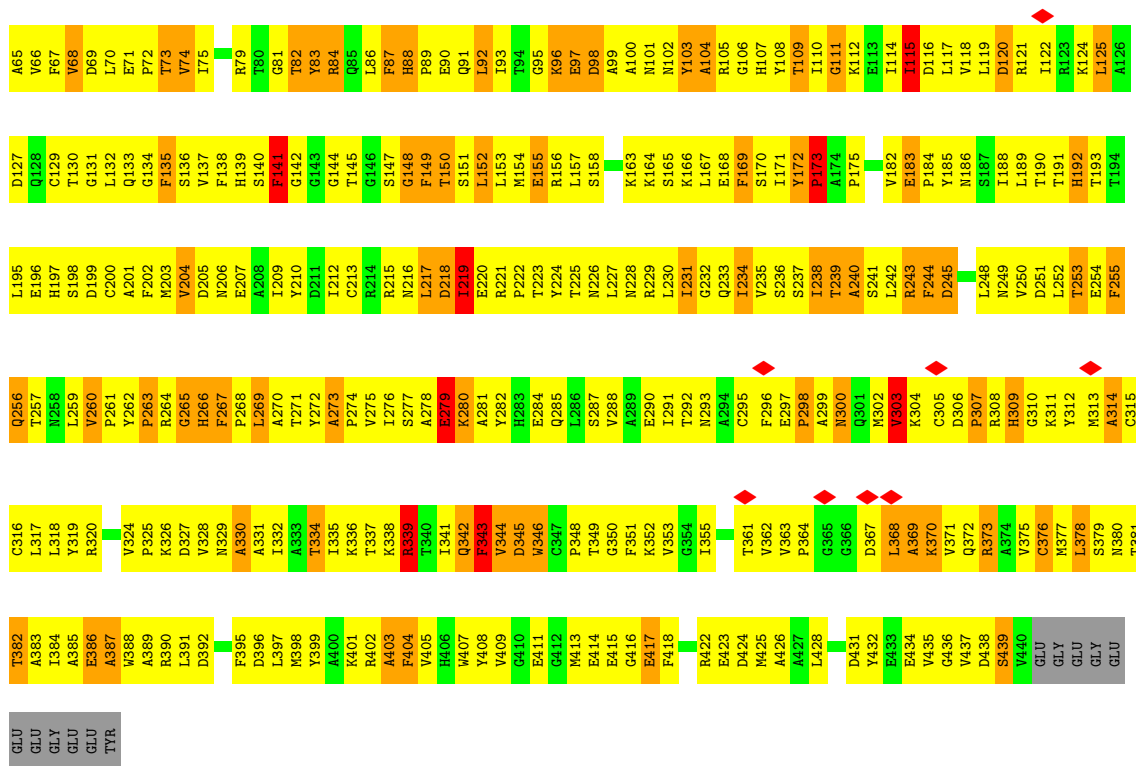
• Molecule 1: TUBULIN BETA CHAIN



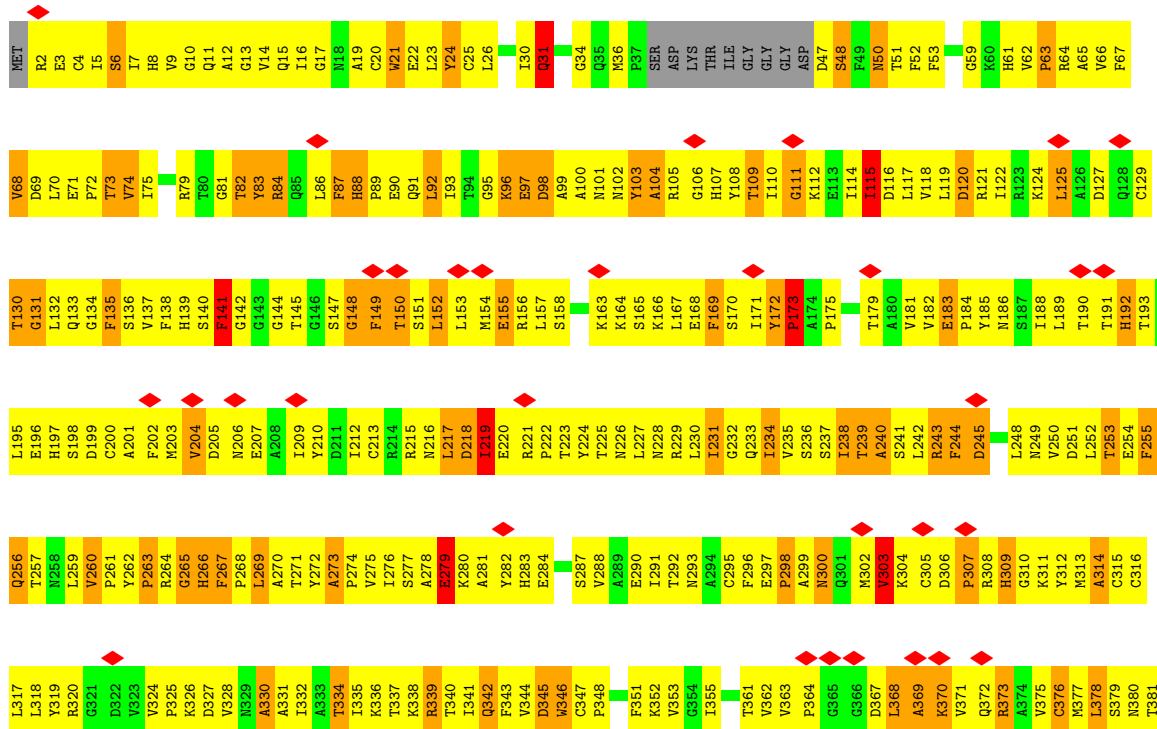
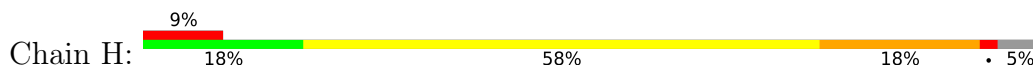
• Molecule 2: TUBULIN ALPHA-1A CHAIN

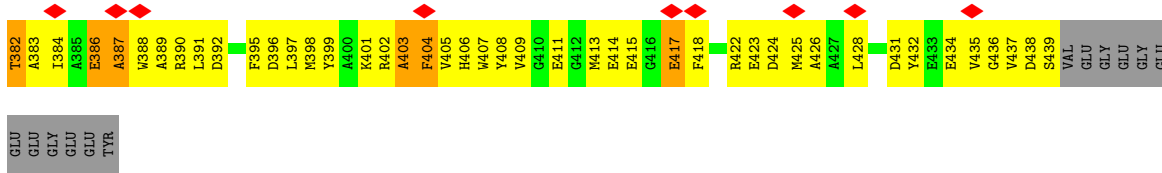




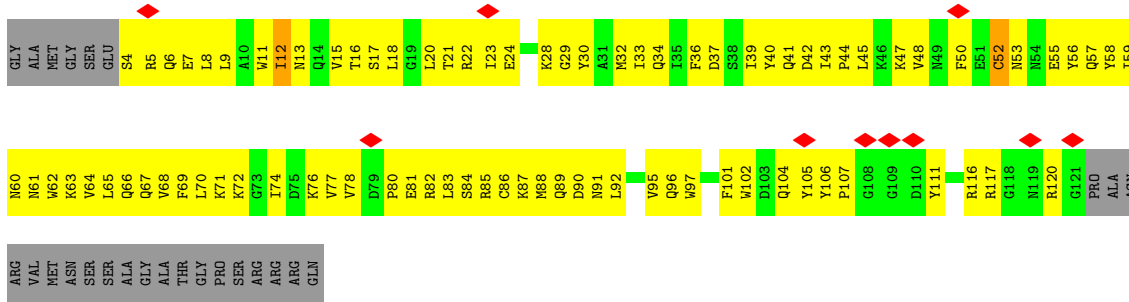


• Molecule 2: TUBULIN ALPHA-1A CHAIN





• Molecule 3: MICROTUBULE INTEGRITY PROTEIN MAL3



## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	HELICAL, twist=Not provided°, rise=Not provided Å, axial sym=Not provided	Depositor
Number of particles used	129000	Depositor
Resolution determination method	Not provided	
CTF correction method	FREALIGN	Depositor
Microscope	FEI TECNAI F20	Depositor
Voltage (kV)	200	Depositor
Electron dose ( $e^-/\text{Å}^2$ )	17	Depositor
Minimum defocus (nm)	700	Depositor
Maximum defocus (nm)	3600	Depositor
Magnification	68000	Depositor
Image detector	GATAN ULTRASCAN 4000 (4k x 4k)	Depositor
Maximum map value	8.564	Depositor
Minimum map value	-3.887	Depositor
Average map value	0.982	Depositor
Map value standard deviation	1.791	Depositor
Recommended contour level	1.9	Depositor
Map size (Å)	110.0, 110.0, 198.0	wwPDB
Map dimensions	50, 50, 90	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	2.2, 2.2, 2.2	Depositor

## 5 Model quality i

### 5.1 Standard geometry i

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

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	0.51	0/3425	0.76	2/4640 (0.0%)
1	C	0.51	0/3425	0.76	2/4640 (0.0%)
1	E	0.51	0/3425	0.76	2/4640 (0.0%)
1	G	0.51	0/3425	0.76	2/4640 (0.0%)
2	B	0.82	3/3409 (0.1%)	0.77	3/4627 (0.1%)
2	D	0.82	3/3409 (0.1%)	0.78	3/4627 (0.1%)
2	F	0.87	4/3433 (0.1%)	1.55	24/4659 (0.5%)
2	H	0.82	3/3409 (0.1%)	0.78	3/4627 (0.1%)
3	I	0.93	0/1006	1.08	0/1357
All	All	0.70	13/28366 (0.0%)	0.91	41/38457 (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
2	F	0	3

All (13) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	92	LEU	C-N	28.00	1.98	1.34
2	H	92	LEU	C-N	27.98	1.98	1.34
2	B	92	LEU	C-N	27.95	1.98	1.34
2	F	92	LEU	C-N	27.91	1.98	1.34
2	F	298	PRO	C-N	17.31	1.73	1.34
2	H	298	PRO	C-N	17.30	1.73	1.34
2	B	298	PRO	C-N	17.26	1.73	1.34
2	D	298	PRO	C-N	17.25	1.73	1.34
2	F	68	VAL	C-N	14.37	1.67	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	68	VAL	C-N	14.35	1.67	1.34
2	H	68	VAL	C-N	14.35	1.67	1.34
2	B	68	VAL	C-N	14.32	1.67	1.34
2	F	346	TRP	CE2-CZ2	-5.97	1.29	1.39

All (41) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	439	SER	O-C-N	-56.45	32.38	122.70
2	F	346	TRP	CD2-CE2-CZ2	-48.00	64.70	122.30
2	F	346	TRP	CZ3-CH2-CZ2	-31.44	83.87	121.60
2	F	346	TRP	CH2-CZ2-CE2	16.26	133.66	117.40
2	F	346	TRP	CE3-CZ3-CH2	-15.77	103.85	121.20
2	F	346	TRP	NE1-CE2-CD2	-10.83	96.47	107.30
2	F	346	TRP	NE1-CE2-CZ2	10.74	142.21	130.40
2	F	346	TRP	CG-CD2-CE3	-10.32	124.61	133.90
2	F	343	PHE	CB-CG-CD1	-9.13	114.41	120.80
2	F	343	PHE	CA-CB-CG	-8.04	94.59	113.90
2	F	343	PHE	CG-CD2-CE2	-7.78	112.25	120.80
2	F	346	TRP	CD2-CE3-CZ3	7.70	128.81	118.80
2	F	344	VAL	CA-CB-CG1	-7.43	99.76	110.90
2	B	68	VAL	O-C-N	-7.12	111.30	122.70
2	D	68	VAL	O-C-N	-7.11	111.32	122.70
2	F	68	VAL	O-C-N	-7.08	111.37	122.70
2	H	68	VAL	O-C-N	-7.08	111.38	122.70
2	F	298	PRO	O-C-N	-6.73	111.94	122.70
2	D	298	PRO	O-C-N	-6.71	111.96	122.70
2	H	298	PRO	O-C-N	-6.71	111.97	122.70
2	B	298	PRO	O-C-N	-6.67	112.03	122.70
2	F	346	TRP	CA-CB-CG	6.63	126.31	113.70
2	F	346	TRP	CB-CA-C	-6.30	97.80	110.40
2	F	346	TRP	N-CA-CB	6.21	121.77	110.60
2	F	69	ASP	CB-CG-OD1	6.14	123.83	118.30
2	H	69	ASP	CB-CG-OD1	6.14	123.83	118.30
2	D	69	ASP	CB-CG-OD1	6.12	123.81	118.30
2	B	69	ASP	CB-CG-OD1	6.11	123.80	118.30
1	G	235	MET	CG-SD-CE	6.10	109.96	100.20
2	F	343	PHE	CB-CA-C	-6.10	98.20	110.40
1	C	235	MET	CG-SD-CE	6.08	109.94	100.20
1	E	235	MET	CG-SD-CE	6.07	109.92	100.20
1	A	235	MET	CG-SD-CE	6.07	109.91	100.20
2	F	346	TRP	CD1-NE1-CE2	5.44	113.90	109.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	217	LEU	N-CA-C	-5.40	96.42	111.00
1	E	217	LEU	N-CA-C	-5.39	96.44	111.00
1	C	217	LEU	N-CA-C	-5.39	96.46	111.00
1	A	217	LEU	N-CA-C	-5.38	96.47	111.00
2	F	344	VAL	CA-CB-CG2	5.34	118.91	110.90
2	F	345	ASP	CB-CG-OD1	-5.32	113.51	118.30
2	F	339	ARG	NE-CZ-NH1	-5.15	117.73	120.30

There are no chirality outliers.

All (3) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	F	342	GLN	Peptide
2	F	345	ASP	Peptide
2	F	439	SER	Mainchain

## 5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3350	0	3228	537	0
1	C	3350	0	3228	595	0
1	E	3350	0	3228	537	0
1	G	3350	0	3228	667	0
2	B	3333	0	3222	646	0
2	D	3333	0	3222	680	0
2	F	3357	0	3254	655	0
2	H	3333	0	3222	725	0
3	I	984	0	963	242	0
4	A	32	0	12	3	0
4	C	32	0	12	1	0
4	E	32	0	12	3	0
4	G	32	0	12	6	0
5	B	32	0	12	6	0
5	D	32	0	12	4	0
5	F	32	0	12	5	0
5	H	32	0	12	4	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
All	All	27996	0	26891	5033	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 92.

All (5033) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:257:VAL:HG21	2:H:407:TRP:CG	1.28	1.66
2:B:296:PHE:CE1	2:B:341:ILE:HD11	1.32	1.62
2:H:296:PHE:CE1	2:H:341:ILE:HD11	1.32	1.61
2:D:296:PHE:CE1	2:D:341:ILE:HD11	1.32	1.59
2:D:57:GLY:N	2:H:284:GLU:HG3	1.27	1.50
1:G:390:ARG:HH12	3:I:56:TYR:CB	1.23	1.49
2:D:57:GLY:N	2:H:284:GLU:CG	1.76	1.48
1:G:390:ARG:NH1	3:I:56:TYR:CG	1.80	1.48
2:B:5:ILE:HG12	2:B:64:ARG:NH1	1.27	1.46
1:G:352:LYS:CD	2:H:181:VAL:HG23	1.43	1.46
1:G:250:ALA:CB	1:G:254:LYS:HD3	1.44	1.45
1:G:253:ARG:HB3	2:H:407:TRP:CH2	1.53	1.44
2:B:57:GLY:HA3	2:B:58:ALA:CB	1.45	1.42
2:B:298:PRO:C	2:B:299:ALA:N	1.73	1.42
2:D:298:PRO:C	2:D:299:ALA:N	1.73	1.41
1:G:248:LEU:HD22	2:H:179:THR:CG2	1.49	1.40
2:D:56:THR:C	2:H:284:GLU:HB2	1.05	1.39
2:H:298:PRO:C	2:H:299:ALA:N	1.73	1.39
2:D:56:THR:C	2:H:284:GLU:CB	1.92	1.37
2:F:298:PRO:C	2:F:299:ALA:N	1.73	1.37
1:G:257:VAL:CG2	2:H:407:TRP:CB	2.02	1.36
1:G:257:VAL:CG2	2:H:407:TRP:CG	2.06	1.35
2:F:3:GLU:CG	2:F:51:THR:HA	1.57	1.34
2:D:3:GLU:CG	2:D:51:THR:HA	1.57	1.34
2:B:3:GLU:CG	2:B:51:THR:HA	1.57	1.34
2:H:3:GLU:CG	2:H:51:THR:HA	1.57	1.33
2:B:296:PHE:CE1	2:B:341:ILE:CD1	2.11	1.33
2:D:57:GLY:HA3	2:D:58:ALA:CB	1.45	1.33
2:B:63:PRO:HG2	2:B:91:GLN:OE1	1.29	1.32
2:H:296:PHE:CE1	2:H:341:ILE:CD1	2.11	1.32
2:D:296:PHE:CE1	2:D:341:ILE:CD1	2.11	1.32
2:F:2:ARG:NH1	2:F:47:ASP:OD2	1.62	1.30
1:G:352:LYS:HD3	2:H:181:VAL:CG2	1.60	1.30

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:3:GLU:HG2	2:H:51:THR:CA	1.60	1.30
1:G:257:VAL:HG23	2:H:407:TRP:CB	1.57	1.30
2:F:3:GLU:HG2	2:F:51:THR:CA	1.60	1.30
2:B:3:GLU:HG2	2:B:51:THR:CA	1.60	1.30
2:D:3:GLU:HG2	2:D:51:THR:CA	1.60	1.29
1:G:257:VAL:CG2	2:H:407:TRP:HB2	1.59	1.29
2:B:57:GLY:CA	2:B:58:ALA:HB2	1.63	1.28
2:D:57:GLY:CA	2:D:58:ALA:HB2	1.63	1.28
2:D:56:THR:CA	2:H:284:GLU:HB2	1.66	1.24
2:B:62:VAL:CG1	2:B:63:PRO:HD2	1.67	1.23
2:F:3:GLU:HA	2:F:51:THR:OG1	1.36	1.23
1:G:390:ARG:NH1	3:I:56:TYR:CB	1.94	1.22
1:G:257:VAL:HB	2:H:407:TRP:CE3	1.73	1.22
2:B:5:ILE:CG1	2:B:64:ARG:NH1	2.05	1.20
3:I:5:ARG:HG3	3:I:23:ILE:CD1	1.70	1.19
3:I:5:ARG:HG3	3:I:23:ILE:CG1	1.72	1.18
2:B:217:LEU:HD12	2:B:277:SER:CB	1.72	1.18
2:F:92:LEU:C	2:F:93:ILE:N	1.98	1.17
2:F:254:GLU:OE2	4:G:1438:GSP:S1G	2.02	1.17
2:H:217:LEU:HD12	2:H:277:SER:CB	1.72	1.17
1:G:254:LYS:CE	1:G:352:LYS:HE3	1.73	1.17
2:F:217:LEU:HD12	2:F:277:SER:CB	1.72	1.17
1:G:2:ARG:CZ	2:H:98:ASP:HB3	1.73	1.17
2:H:92:LEU:C	2:H:93:ILE:N	1.98	1.17
2:D:217:LEU:HD12	2:D:277:SER:CB	1.72	1.16
2:B:5:ILE:CD1	2:B:64:ARG:HH12	1.58	1.16
2:B:92:LEU:C	2:B:93:ILE:N	1.98	1.16
2:D:92:LEU:C	2:D:93:ILE:N	1.98	1.16
3:I:5:ARG:HH11	3:I:88:MET:CE	1.58	1.15
2:B:62:VAL:HG12	2:B:63:PRO:CD	1.76	1.15
2:D:30:ILE:HG12	2:D:36:MET:HB3	1.19	1.15
2:B:70:LEU:HD13	2:B:145:THR:OG1	1.48	1.14
2:D:70:LEU:HD13	2:D:145:THR:OG1	1.49	1.13
2:D:243:ARG:NH2	2:D:252:LEU:H	1.45	1.13
2:B:243:ARG:NH2	2:B:252:LEU:H	1.45	1.13
1:C:257:VAL:HG13	2:D:407:TRP:CG	1.83	1.13
2:F:70:LEU:HD13	2:F:145:THR:OG1	1.49	1.13
2:H:70:LEU:HD13	2:H:145:THR:OG1	1.48	1.13
2:D:296:PHE:CE2	2:D:335:ILE:HG21	1.84	1.13
1:G:390:ARG:HH22	3:I:56:TYR:HB2	1.11	1.12
1:C:234:THR:HG21	1:C:270:PRO:HB2	1.23	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:296:PHE:CE2	2:B:335:ILE:HG21	1.84	1.12
1:E:93:VAL:HG11	1:E:118:VAL:HG22	1.30	1.12
2:F:243:ARG:NH2	2:F:252:LEU:H	1.46	1.12
2:H:30:ILE:HG12	2:H:36:MET:HB3	1.17	1.12
1:C:93:VAL:HG11	1:C:118:VAL:HG22	1.30	1.12
3:I:44:PRO:HB2	3:I:47:LYS:HD3	1.31	1.12
2:F:30:ILE:HG12	2:F:36:MET:HB3	1.17	1.12
1:G:93:VAL:HG11	1:G:118:VAL:HG22	1.30	1.12
1:G:258:ASN:HA	2:H:404:PHE:CD2	1.84	1.12
2:H:243:ARG:NH2	2:H:252:LEU:H	1.45	1.12
1:A:234:THR:HG21	1:A:270:PRO:HB2	1.23	1.11
2:H:296:PHE:CE2	2:H:335:ILE:HG21	1.84	1.11
1:A:93:VAL:HG11	1:A:118:VAL:HG22	1.30	1.11
2:B:30:ILE:HG12	2:B:36:MET:HB3	1.19	1.11
1:C:413:MET:O	3:I:4:SER:HB3	1.47	1.11
1:G:352:LYS:CD	2:H:181:VAL:CG2	2.20	1.11
1:E:234:THR:HG21	1:E:270:PRO:HB2	1.23	1.11
2:F:296:PHE:CE2	2:F:335:ILE:HG21	1.84	1.11
2:F:51:THR:HG21	2:F:243:ARG:HB3	1.29	1.10
1:G:352:LYS:HD2	2:H:181:VAL:HG23	1.24	1.10
2:B:67:PHE:HE2	2:B:87:PHE:CE2	1.68	1.10
2:F:56:THR:HG21	2:F:62:VAL:CG2	1.82	1.10
2:H:67:PHE:HE2	2:H:87:PHE:CE2	1.68	1.10
2:F:67:PHE:HE2	2:F:87:PHE:CE2	1.69	1.09
2:D:56:THR:CA	2:H:284:GLU:CB	2.26	1.09
1:G:234:THR:HG21	1:G:270:PRO:HB2	1.23	1.09
1:G:258:ASN:ND2	1:G:352:LYS:HE2	1.67	1.09
2:D:67:PHE:HE2	2:D:87:PHE:CE2	1.68	1.09
2:F:56:THR:CG2	2:F:62:VAL:HG23	1.82	1.09
2:D:5:ILE:HG21	2:D:135:PHE:HD2	1.17	1.08
2:F:2:ARG:CZ	2:F:47:ASP:OD2	2.00	1.08
2:B:11:GLN:HG3	2:B:74:VAL:HG11	1.34	1.07
2:H:5:ILE:HG21	2:H:135:PHE:HD2	1.17	1.07
2:D:56:THR:O	2:D:58:ALA:HB3	1.54	1.07
2:F:298:PRO:HB3	2:F:307:PRO:HD2	1.36	1.07
2:B:298:PRO:HB3	2:B:307:PRO:HD2	1.36	1.06
2:F:109:THR:HG22	2:F:110:ILE:N	1.70	1.06
2:H:11:GLN:HG3	2:H:74:VAL:HG11	1.34	1.06
2:D:274:PRO:C	2:D:275:VAL:N	2.09	1.06
2:D:298:PRO:HB3	2:D:307:PRO:HD2	1.36	1.06
2:F:5:ILE:HG21	2:F:135:PHE:HD2	1.17	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:56:THR:CG2	2:F:62:VAL:CG2	2.33	1.06
2:H:298:PRO:HB3	2:H:307:PRO:HD2	1.36	1.06
1:A:88:ARG:HD3	1:E:283:TYR:HE1	1.18	1.06
2:D:57:GLY:H	2:H:284:GLU:CG	1.51	1.06
2:F:11:GLN:HG3	2:F:74:VAL:HG11	1.34	1.06
2:H:274:PRO:C	2:H:275:VAL:N	2.09	1.06
2:B:109:THR:HG22	2:B:110:ILE:N	1.70	1.05
1:A:88:ARG:CD	1:E:283:TYR:HE1	1.69	1.05
2:B:274:PRO:C	2:B:275:VAL:N	2.09	1.05
2:H:109:THR:HG22	2:H:110:ILE:N	1.70	1.05
1:E:172:VAL:HG11	1:E:387:LEU:HD21	1.37	1.05
2:F:274:PRO:C	2:F:275:VAL:N	2.09	1.05
1:G:390:ARG:NH2	3:I:56:TYR:HB2	1.71	1.05
2:D:57:GLY:N	2:H:284:GLU:CB	2.14	1.05
2:D:217:LEU:CD1	2:D:277:SER:HB3	1.87	1.05
2:D:296:PHE:CD1	2:D:341:ILE:CD1	2.40	1.05
2:F:217:LEU:CD1	2:F:277:SER:HB3	1.87	1.05
2:H:217:LEU:CD1	2:H:277:SER:HB3	1.86	1.05
1:A:172:VAL:HG11	1:A:387:LEU:HD21	1.37	1.04
2:B:217:LEU:CD1	2:B:277:SER:HB3	1.87	1.04
1:G:172:VAL:HG11	1:G:387:LEU:HD21	1.37	1.04
2:H:296:PHE:CD1	2:H:341:ILE:CD1	2.40	1.04
2:B:296:PHE:CD1	2:B:341:ILE:CD1	2.40	1.04
2:D:11:GLN:HG3	2:D:74:VAL:HG11	1.34	1.04
2:H:67:PHE:CE2	2:H:87:PHE:CE2	2.45	1.04
2:D:67:PHE:CE2	2:D:87:PHE:CE2	2.45	1.04
2:F:67:PHE:CE2	2:F:87:PHE:CE2	2.45	1.04
1:G:257:VAL:HG21	2:H:407:TRP:CD1	1.91	1.04
1:C:172:VAL:HG11	1:C:387:LEU:HD21	1.37	1.03
2:B:67:PHE:CE2	2:B:87:PHE:CE2	2.45	1.03
1:C:299:LYS:H	1:C:299:LYS:HD3	1.24	1.02
1:G:2:ARG:NH2	2:H:98:ASP:HB3	1.74	1.02
2:D:62:VAL:HG11	2:D:88:HIS:HD1	1.22	1.02
2:D:109:THR:HG22	2:D:110:ILE:N	1.70	1.02
1:G:250:ALA:CB	1:G:254:LYS:CD	2.38	1.02
1:G:248:LEU:CD2	2:H:179:THR:CG2	2.37	1.02
1:G:352:LYS:HD3	2:H:181:VAL:HG23	1.07	1.02
1:A:299:LYS:HD3	1:A:299:LYS:H	1.24	1.02
2:B:88:HIS:HB2	2:B:91:GLN:HE21	1.22	1.02
1:G:257:VAL:HG21	2:H:407:TRP:CB	1.77	1.02
2:D:88:HIS:HB2	2:D:91:GLN:HE21	1.22	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:299:LYS:H	1:E:299:LYS:HD3	1.24	1.01
1:G:253:ARG:CB	2:H:407:TRP:CH2	2.43	1.01
1:G:258:ASN:O	2:H:404:PHE:HE2	1.42	1.01
2:B:5:ILE:CG1	2:B:64:ARG:HH12	1.67	1.01
1:G:250:ALA:HB2	1:G:254:LYS:CD	1.88	1.01
3:I:5:ARG:HG3	3:I:23:ILE:HD11	1.35	1.01
1:A:236:SER:O	1:A:240:THR:HG23	1.61	1.01
2:B:56:THR:O	2:B:58:ALA:HB3	1.59	1.01
2:D:243:ARG:HH21	2:D:252:LEU:N	1.57	1.01
2:F:88:HIS:HB2	2:F:91:GLN:HE21	1.22	1.01
2:F:243:ARG:HH21	2:F:252:LEU:N	1.58	1.01
1:G:299:LYS:HD3	1:G:299:LYS:H	1.24	1.01
2:B:243:ARG:HH21	2:B:252:LEU:N	1.57	1.01
1:C:236:SER:O	1:C:240:THR:HG23	1.61	1.01
2:H:243:ARG:HH21	2:H:252:LEU:N	1.57	1.01
1:E:236:SER:O	1:E:240:THR:HG23	1.61	1.00
2:F:2:ARG:HH12	2:F:47:ASP:CG	1.63	1.00
2:H:88:HIS:HB2	2:H:91:GLN:HE21	1.22	1.00
2:D:296:PHE:HE1	2:D:341:ILE:HD11	1.21	1.00
1:G:250:ALA:HB1	1:G:254:LYS:HD3	1.39	1.00
2:D:276:ILE:HG23	2:D:369:ALA:HB2	1.43	0.99
1:G:236:SER:O	1:G:240:THR:HG23	1.61	0.99
1:G:250:ALA:HB2	1:G:254:LYS:HD3	1.01	0.99
3:I:37:ASP:HA	3:I:43:ILE:HD13	1.42	0.99
2:B:30:ILE:HD11	2:B:61:HIS:CE1	1.97	0.99
2:B:5:ILE:HG12	2:B:64:ARG:CZ	1.90	0.99
3:I:5:ARG:HG3	3:I:23:ILE:HG13	1.41	0.99
2:B:52:PHE:HZ	2:B:239:THR:HG21	1.27	0.99
2:H:276:ILE:HG23	2:H:369:ALA:HB2	1.43	0.99
2:B:276:ILE:HG23	2:B:369:ALA:HB2	1.43	0.98
2:B:296:PHE:HE1	2:B:341:ILE:HD11	1.21	0.98
1:G:254:LYS:HE2	1:G:352:LYS:CE	1.90	0.98
2:F:56:THR:HG21	2:F:62:VAL:HG21	1.42	0.98
3:I:55:GLU:HA	3:I:58:TYR:CD2	1.99	0.98
1:G:248:LEU:HD22	2:H:179:THR:HG22	1.43	0.98
2:F:276:ILE:HG23	2:F:369:ALA:HB2	1.43	0.97
2:B:63:PRO:HG2	2:B:91:GLN:CD	1.85	0.97
1:G:253:ARG:CB	2:H:407:TRP:HH2	1.75	0.97
1:G:390:ARG:NH1	3:I:56:TYR:CD2	2.31	0.97
2:H:296:PHE:HE1	2:H:341:ILE:HD11	1.21	0.97
1:C:329:ASP:HB3	2:D:177:VAL:CG1	1.93	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:5:ILE:CG2	2:D:135:PHE:HD2	1.78	0.97
2:F:312:TYR:H	2:F:341:ILE:HG21	1.28	0.96
3:I:68:VAL:HA	3:I:71:LYS:HE2	1.45	0.96
2:H:5:ILE:CG2	2:H:135:PHE:HD2	1.78	0.96
1:A:88:ARG:CD	1:E:283:TYR:CE1	2.48	0.96
2:B:62:VAL:HG12	2:B:63:PRO:HD2	0.96	0.96
3:I:5:ARG:HD3	3:I:88:MET:HE1	1.46	0.96
2:F:5:ILE:CG2	2:F:135:PHE:HD2	1.78	0.96
2:F:30:ILE:CG1	2:F:36:MET:HB3	1.96	0.96
1:G:257:VAL:HB	2:H:407:TRP:CD2	2.01	0.96
1:G:273:ALA:HB3	1:G:274:PRO:HD3	1.48	0.96
1:C:273:ALA:HB3	1:C:274:PRO:HD3	1.48	0.96
2:D:278:ALA:O	2:D:279:GLU:HB3	1.66	0.96
1:E:273:ALA:HB3	1:E:274:PRO:HD3	1.48	0.96
1:A:273:ALA:HB3	1:A:274:PRO:HD3	1.48	0.95
3:I:21:THR:HG22	3:I:22:ARG:HD2	1.47	0.95
1:C:248:LEU:HD22	2:D:179:THR:HG21	1.47	0.95
1:G:248:LEU:HD22	2:H:179:THR:HG21	1.46	0.95
2:F:2:ARG:NH1	2:F:47:ASP:CG	2.17	0.95
2:H:30:ILE:CG1	2:H:36:MET:HB3	1.96	0.95
2:H:251:ASP:N	2:H:254:GLU:HG3	1.82	0.95
3:I:5:ARG:CG	3:I:23:ILE:HD11	1.96	0.95
2:B:350:GLY:HA2	1:C:181:VAL:HG13	1.48	0.95
2:H:316:CYS:HB3	2:H:378:LEU:HD11	1.48	0.95
2:D:251:ASP:N	2:D:254:GLU:HG3	1.82	0.95
2:D:316:CYS:HB3	2:D:378:LEU:HD11	1.49	0.95
2:B:251:ASP:N	2:B:254:GLU:HG3	1.82	0.95
1:G:352:LYS:HA	2:H:181:VAL:HG22	1.44	0.95
2:B:278:ALA:O	2:B:279:GLU:HB3	1.66	0.95
2:D:259:LEU:HD11	2:D:378:LEU:HD13	1.47	0.95
2:F:98:ASP:HB2	2:F:105:ARG:HH21	1.31	0.95
2:F:251:ASP:N	2:F:254:GLU:HG3	1.82	0.95
2:H:259:LEU:HD11	2:H:378:LEU:HD13	1.47	0.95
3:I:5:ARG:CG	3:I:23:ILE:CD1	2.44	0.95
2:F:278:ALA:O	2:F:279:GLU:HB3	1.66	0.95
2:F:316:CYS:HB3	2:F:378:LEU:HD11	1.48	0.95
2:F:337:THR:HG22	3:I:59:ILE:HD11	1.49	0.95
1:G:254:LYS:HE2	1:G:352:LYS:HE3	0.97	0.94
3:I:5:ARG:CD	3:I:88:MET:HE1	1.97	0.94
1:C:281:GLN:O	1:C:283:TYR:N	2.00	0.94
2:F:259:LEU:HD11	2:F:378:LEU:HD13	1.47	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:217:LEU:HD12	2:D:277:SER:HB3	0.95	0.94
1:G:281:GLN:O	1:G:283:TYR:N	2.00	0.94
1:C:113:GLU:OE1	3:I:87:LYS:HD2	1.66	0.94
2:D:52:PHE:CZ	2:D:239:THR:HB	2.02	0.94
1:A:281:GLN:O	1:A:283:TYR:N	2.00	0.94
2:D:251:ASP:H	2:D:254:GLU:HG3	1.33	0.94
2:H:98:ASP:HB2	2:H:105:ARG:HH21	1.31	0.94
2:B:259:LEU:HD11	2:B:378:LEU:HD13	1.47	0.94
2:B:251:ASP:H	2:B:254:GLU:HG3	1.33	0.94
2:B:316:CYS:HB3	2:B:378:LEU:HD11	1.49	0.94
2:F:237:SER:HB2	2:F:376:CYS:SG	2.08	0.94
2:F:217:LEU:HD12	2:F:277:SER:HB3	0.95	0.94
1:G:70:LEU:H	1:G:145:THR:HG21	1.33	0.94
2:H:217:LEU:HD12	2:H:277:SER:HB3	0.95	0.94
2:H:278:ALA:O	2:H:279:GLU:HB3	1.66	0.94
3:I:45:LEU:CD1	3:I:116:ARG:HB3	1.98	0.94
2:D:56:THR:O	2:H:284:GLU:HB2	1.69	0.93
2:H:251:ASP:H	2:H:254:GLU:HG3	1.33	0.93
2:B:57:GLY:CA	2:B:58:ALA:CB	2.30	0.93
2:B:217:LEU:HD12	2:B:277:SER:HB3	0.95	0.93
1:C:132:LEU:HD23	1:C:164:ARG:HG3	1.50	0.93
1:G:253:ARG:HB3	2:H:407:TRP:HH2	1.10	0.93
1:E:70:LEU:H	1:E:145:THR:HG21	1.33	0.93
2:B:237:SER:HB2	2:B:376:CYS:SG	2.08	0.93
1:E:281:GLN:O	1:E:283:TYR:N	2.00	0.93
2:H:237:SER:HB2	2:H:376:CYS:SG	2.08	0.93
2:D:237:SER:HB2	2:D:376:CYS:SG	2.08	0.93
1:A:132:LEU:HD23	1:A:164:ARG:HG3	1.50	0.93
1:E:132:LEU:HD23	1:E:164:ARG:HG3	1.50	0.93
1:E:264:ARG:O	1:E:265:LEU:HB3	1.69	0.93
2:D:52:PHE:HZ	2:D:239:THR:HG21	1.34	0.93
2:F:184:PRO:HG2	2:F:398:MET:HE1	1.51	0.93
2:H:52:PHE:CZ	2:H:239:THR:HB	2.04	0.93
2:B:98:ASP:HB2	2:B:105:ARG:HH21	1.31	0.92
1:G:132:LEU:HD23	1:G:164:ARG:HG3	1.50	0.92
1:C:264:ARG:O	1:C:265:LEU:HB3	1.69	0.92
2:D:98:ASP:HB2	2:D:105:ARG:HH21	1.31	0.92
2:F:251:ASP:H	2:F:254:GLU:HG3	1.33	0.92
2:D:62:VAL:HG21	2:D:88:HIS:CE1	2.04	0.92
1:G:264:ARG:O	1:G:265:LEU:HB3	1.69	0.92
2:F:62:VAL:HG21	2:F:88:HIS:CE1	2.03	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:40:TYR:HH	3:I:101:PHE:HZ	1.10	0.92
2:H:151:SER:HB3	2:H:193:THR:HG21	1.51	0.92
2:H:62:VAL:HG21	2:H:88:HIS:CE1	2.04	0.92
1:A:264:ARG:O	1:A:265:LEU:HB3	1.69	0.92
2:B:151:SER:HB3	2:B:193:THR:HG21	1.51	0.92
2:F:52:PHE:CZ	2:F:239:THR:HB	2.05	0.91
1:G:179:ASP:OD2	4:G:1438:GSP:O2'	1.89	0.91
2:F:339:ARG:HB2	3:I:63:LYS:HE2	1.49	0.91
2:H:52:PHE:HZ	2:H:239:THR:HG21	1.35	0.91
3:I:28:LYS:HG2	3:I:58:TYR:HE1	1.35	0.91
2:B:70:LEU:CD1	2:B:145:THR:OG1	2.18	0.91
2:F:151:SER:HB3	2:F:193:THR:HG21	1.51	0.91
2:D:70:LEU:CD1	2:D:145:THR:OG1	2.18	0.91
2:F:346:TRP:HZ3	1:G:403:ALA:HA	1.35	0.91
1:C:147:SER:O	1:C:151:THR:HB	1.71	0.91
2:B:30:ILE:CD1	2:B:61:HIS:ND1	2.34	0.91
2:D:109:THR:HG22	2:D:110:ILE:H	1.33	0.91
1:A:70:LEU:H	1:A:145:THR:HG21	1.33	0.91
2:B:55:GLU:O	2:B:57:GLY:N	2.03	0.91
2:H:70:LEU:CD1	2:H:145:THR:OG1	2.18	0.91
1:G:254:LYS:CE	1:G:352:LYS:CE	2.49	0.90
1:A:88:ARG:HD2	1:E:283:TYR:CE1	2.05	0.90
2:D:151:SER:HB3	2:D:193:THR:HG21	1.51	0.90
1:A:147:SER:O	1:A:151:THR:HB	1.71	0.90
2:B:52:PHE:CE1	2:B:239:THR:HB	2.07	0.90
2:B:30:ILE:CG1	2:B:36:MET:HB3	2.02	0.90
2:D:296:PHE:CD1	2:D:341:ILE:HD11	2.03	0.90
2:F:52:PHE:HZ	2:F:239:THR:HG21	1.35	0.90
1:E:147:SER:O	1:E:151:THR:HB	1.71	0.90
2:F:5:ILE:CG2	2:F:135:PHE:CD2	2.54	0.90
2:H:184:PRO:HG2	2:H:398:MET:HE1	1.53	0.90
1:C:70:LEU:H	1:C:145:THR:HG21	1.33	0.90
2:H:5:ILE:CG2	2:H:135:PHE:CD2	2.54	0.90
2:D:5:ILE:CG2	2:D:135:PHE:CD2	2.54	0.90
2:F:70:LEU:CD1	2:F:145:THR:OG1	2.18	0.90
2:D:56:THR:HA	2:H:284:GLU:CB	2.00	0.90
1:G:352:LYS:HB2	2:H:181:VAL:HG21	1.52	0.90
1:G:147:SER:O	1:G:151:THR:HB	1.71	0.89
2:F:109:THR:HG22	2:F:110:ILE:H	1.33	0.89
2:H:109:THR:HG22	2:H:110:ILE:H	1.33	0.89
2:D:30:ILE:CG1	2:D:36:MET:HB3	2.02	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:343:PHE:CZ	2:B:351:PHE:CE2	2.61	0.89
1:G:257:VAL:HG21	2:H:407:TRP:CD2	2.08	0.89
1:E:102:ASN:HD21	1:E:408:TYR:HA	1.38	0.89
1:G:264:ARG:HB2	1:G:266:HIS:CD2	2.08	0.89
2:H:343:PHE:CZ	2:H:351:PHE:CE2	2.60	0.89
2:D:147:SER:HB2	2:D:190:THR:OG1	1.73	0.89
1:A:264:ARG:HB2	1:A:266:HIS:CD2	2.08	0.89
1:E:264:ARG:HB2	1:E:266:HIS:CD2	2.08	0.89
1:G:102:ASN:HD21	1:G:408:TYR:HA	1.38	0.89
2:B:110:ILE:HG23	2:B:111:GLY:H	1.38	0.89
2:B:119:LEU:HD23	2:B:122:ILE:HD11	1.53	0.89
1:C:8:GLN:OE1	1:C:67:LEU:HD22	1.72	0.88
1:G:390:ARG:NH1	3:I:56:TYR:HB3	1.86	0.88
1:G:390:ARG:CZ	3:I:56:TYR:CB	2.49	0.88
2:F:56:THR:HG23	2:F:62:VAL:HG23	1.56	0.88
2:F:339:ARG:HB2	3:I:63:LYS:CE	2.03	0.88
1:G:258:ASN:HA	2:H:404:PHE:CE2	2.08	0.88
3:I:59:ILE:HA	3:I:62:TRP:HD1	1.38	0.88
2:H:147:SER:HB2	2:H:190:THR:OG1	1.73	0.88
2:B:296:PHE:CD1	2:B:341:ILE:HD11	2.03	0.88
2:D:119:LEU:HD23	2:D:122:ILE:HD11	1.53	0.88
2:F:122:ILE:HD12	2:F:157:LEU:HD21	1.54	0.88
1:A:8:GLN:OE1	1:A:67:LEU:HD22	1.72	0.88
2:B:147:SER:HB2	2:B:190:THR:OG1	1.73	0.88
1:C:264:ARG:HB2	1:C:266:HIS:CD2	2.08	0.88
2:D:343:PHE:CZ	2:D:351:PHE:CE2	2.61	0.88
1:E:93:VAL:HG11	1:E:118:VAL:CG2	2.03	0.88
2:H:296:PHE:CD1	2:H:341:ILE:HD11	2.03	0.88
1:A:311:ARG:HD3	1:A:342:TYR:HA	1.56	0.88
1:C:93:VAL:HG11	1:C:118:VAL:CG2	2.03	0.88
1:E:311:ARG:HD3	1:E:342:TYR:HA	1.56	0.88
1:G:311:ARG:HD3	1:G:342:TYR:HA	1.56	0.88
1:A:102:ASN:HD21	1:A:408:TYR:HA	1.38	0.88
1:C:311:ARG:HD3	1:C:342:TYR:HA	1.56	0.88
1:G:93:VAL:HG11	1:G:118:VAL:CG2	2.03	0.88
2:B:63:PRO:CD	2:B:87:PHE:HA	2.03	0.88
1:C:102:ASN:HD21	1:C:408:TYR:HA	1.38	0.88
2:D:122:ILE:HD12	2:D:157:LEU:HD21	1.54	0.88
2:B:122:ILE:HD12	2:B:157:LEU:HD21	1.54	0.88
1:E:8:GLN:OE1	1:E:67:LEU:HD22	1.73	0.88
2:F:147:SER:HB2	2:F:190:THR:OG1	1.73	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:110:ILE:HG23	2:D:111:GLY:H	1.38	0.87
1:G:8:GLN:OE1	1:G:67:LEU:HD22	1.73	0.87
1:G:101:ASN:HD21	1:G:143:GLY:HA2	1.38	0.87
2:H:122:ILE:HD12	2:H:157:LEU:HD21	1.54	0.87
3:I:28:LYS:HA	3:I:58:TYR:CD1	2.09	0.87
3:I:32:MET:SD	3:I:65:LEU:HD22	2.14	0.87
1:A:93:VAL:HG11	1:A:118:VAL:CG2	2.03	0.87
1:G:2:ARG:CZ	2:H:98:ASP:CB	2.52	0.87
1:G:257:VAL:CB	2:H:407:TRP:CD2	2.57	0.87
3:I:5:ARG:HH11	3:I:88:MET:HE3	1.37	0.87
3:I:5:ARG:CG	3:I:23:ILE:HG13	2.03	0.87
2:D:57:GLY:CA	2:H:284:GLU:CG	2.52	0.87
2:F:110:ILE:HG23	2:F:111:GLY:H	1.38	0.87
1:G:248:LEU:HD22	2:H:179:THR:HG23	1.56	0.87
2:H:119:LEU:HD23	2:H:122:ILE:HD11	1.53	0.87
2:B:30:ILE:CD1	2:B:61:HIS:CE1	2.57	0.87
2:F:119:LEU:HD23	2:F:122:ILE:HD11	1.53	0.87
1:E:101:ASN:HD21	1:E:143:GLY:HA2	1.38	0.87
2:B:109:THR:HG22	2:B:110:ILE:H	1.33	0.87
2:D:5:ILE:HG21	2:D:135:PHE:CD2	2.08	0.87
1:G:6:HIS:CE1	1:G:8:GLN:HG2	2.10	0.87
1:G:390:ARG:HH22	3:I:56:TYR:CB	1.87	0.87
1:A:6:HIS:CE1	1:A:8:GLN:HG2	2.10	0.87
1:C:276:THR:HB	1:C:281:GLN:HG3	1.56	0.87
1:G:248:LEU:CD2	2:H:179:THR:HG22	2.03	0.87
1:C:10:GLY:HA2	1:C:145:THR:HB	1.55	0.86
1:G:19:LYS:HG3	1:G:228:ASN:HB3	1.57	0.86
1:C:6:HIS:CE1	1:C:8:GLN:HG2	2.10	0.86
1:E:6:HIS:CE1	1:E:8:GLN:HG2	2.10	0.86
3:I:68:VAL:HA	3:I:71:LYS:CE	2.04	0.86
2:D:52:PHE:HZ	2:D:239:THR:CG2	1.88	0.86
1:C:153:LEU:O	1:C:157:ILE:HG12	1.75	0.86
1:C:101:ASN:HD21	1:C:143:GLY:HA2	1.38	0.86
1:E:195:VAL:HG13	1:E:196:GLU:HG2	1.57	0.86
1:C:19:LYS:HG3	1:C:228:ASN:HB3	1.57	0.86
1:C:109:THR:CG2	3:I:89:GLN:HG2	2.05	0.86
1:E:19:LYS:HG3	1:E:228:ASN:HB3	1.57	0.86
2:H:110:ILE:HG23	2:H:111:GLY:H	1.38	0.86
1:A:10:GLY:HA2	1:A:145:THR:HB	1.55	0.86
1:A:19:LYS:HG3	1:A:228:ASN:HB3	1.57	0.86
1:A:276:THR:HB	1:A:281:GLN:HG3	1.56	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:153:LEU:O	1:A:157:ILE:HG12	1.76	0.86
1:A:195:VAL:HG13	1:A:196:GLU:HG2	1.57	0.86
2:B:63:PRO:CG	2:B:91:GLN:OE1	2.20	0.86
2:B:52:PHE:CZ	2:B:239:THR:HG21	2.11	0.86
2:B:63:PRO:HD3	2:B:87:PHE:HA	1.56	0.86
2:H:5:ILE:HG21	2:H:135:PHE:CD2	2.08	0.86
1:C:242:LEU:HD22	1:C:250:ALA:H	1.41	0.86
2:H:264:ARG:O	2:H:266:HIS:N	2.09	0.86
2:H:296:PHE:CD1	2:H:341:ILE:HD12	2.08	0.86
2:D:296:PHE:CD1	2:D:341:ILE:HD12	2.08	0.85
1:E:276:THR:HB	1:E:281:GLN:HG3	1.56	0.85
1:A:242:LEU:HD22	1:A:250:ALA:H	1.41	0.85
2:F:5:ILE:HG21	2:F:135:PHE:CD2	2.08	0.85
2:F:52:PHE:HZ	2:F:239:THR:CG2	1.89	0.85
2:B:296:PHE:CD1	2:B:341:ILE:HD12	2.08	0.85
2:D:57:GLY:CA	2:D:58:ALA:CB	2.30	0.85
2:F:264:ARG:O	2:F:266:HIS:N	2.09	0.85
1:G:195:VAL:HG13	1:G:196:GLU:HG2	1.57	0.85
1:A:101:ASN:HD21	1:A:143:GLY:HA2	1.38	0.85
1:C:195:VAL:HG13	1:C:196:GLU:HG2	1.57	0.85
1:G:10:GLY:HA2	1:G:145:THR:HB	1.55	0.85
1:G:360:PRO:HG2	1:G:371:LEU:HB3	1.56	0.85
2:H:52:PHE:HZ	2:H:239:THR:CG2	1.88	0.85
2:D:62:VAL:CG1	2:D:88:HIS:HD1	1.90	0.85
1:E:10:GLY:HA2	1:E:145:THR:HB	1.55	0.85
1:E:153:LEU:O	1:E:157:ILE:HG12	1.75	0.85
1:E:234:THR:HG21	1:E:270:PRO:CB	2.06	0.85
1:G:234:THR:HG21	1:G:270:PRO:CB	2.06	0.85
1:G:352:LYS:HA	2:H:181:VAL:CG2	2.06	0.85
1:A:234:THR:HG21	1:A:270:PRO:CB	2.06	0.85
1:G:153:LEU:O	1:G:157:ILE:HG12	1.76	0.85
1:C:4:ILE:HD13	1:C:136:GLN:HE21	1.42	0.85
1:C:234:THR:HG21	1:C:270:PRO:CB	2.06	0.85
1:C:257:VAL:HG13	2:D:407:TRP:CD2	2.11	0.85
1:G:276:THR:HB	1:G:281:GLN:HG3	1.56	0.84
1:C:346:TRP:HB2	2:D:401:LYS:HD2	1.56	0.84
2:D:234:ILE:HG13	2:D:270:ALA:HB1	1.59	0.84
1:E:209:LEU:HB3	1:E:227:LEU:HD22	1.59	0.84
1:G:209:LEU:HB3	1:G:227:LEU:HD22	1.59	0.84
1:A:4:ILE:HD13	1:A:136:GLN:HE21	1.42	0.84
1:C:209:LEU:HB3	1:C:227:LEU:HD22	1.59	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:349:THR:HG21	1:G:178:SER:HB2	1.59	0.84
2:D:204:VAL:HG11	2:D:231:ILE:HD12	1.59	0.84
1:E:360:PRO:HG2	1:E:371:LEU:HB3	1.56	0.84
1:A:209:LEU:HB3	1:A:227:LEU:HD22	1.59	0.84
1:A:360:PRO:HG2	1:A:371:LEU:HB3	1.56	0.84
1:G:390:ARG:NH2	3:I:56:TYR:CB	2.40	0.84
3:I:4:SER:OG	3:I:6:GLN:HG2	1.77	0.84
2:B:264:ARG:O	2:B:266:HIS:N	2.09	0.84
2:D:52:PHE:CE1	2:D:239:THR:HB	2.12	0.84
2:F:2:ARG:NH2	2:F:47:ASP:OD2	2.10	0.84
2:H:106:GLY:O	2:H:111:GLY:HA3	1.78	0.84
3:I:56:TYR:O	3:I:59:ILE:HG22	1.77	0.84
2:D:52:PHE:CZ	2:D:239:THR:CB	2.60	0.84
2:D:264:ARG:HB2	2:D:266:HIS:CD2	2.13	0.84
2:F:106:GLY:O	2:F:111:GLY:HA3	1.78	0.84
2:B:234:ILE:HG13	2:B:270:ALA:HB1	1.59	0.84
2:F:264:ARG:HB2	2:F:266:HIS:CD2	2.13	0.84
1:G:257:VAL:CG2	2:H:407:TRP:CD2	2.59	0.84
1:A:3:GLU:O	1:A:133:GLN:HB3	1.78	0.84
2:B:106:GLY:O	2:B:111:GLY:HA3	1.78	0.84
1:E:4:ILE:HD13	1:E:136:GLN:HE21	1.42	0.84
1:C:3:GLU:O	1:C:133:GLN:HB3	1.78	0.84
2:D:57:GLY:CA	2:H:284:GLU:HG2	2.08	0.84
1:C:360:PRO:HG2	1:C:371:LEU:HB3	1.56	0.83
1:E:150:GLY:HA2	1:E:153:LEU:HD22	1.60	0.83
2:F:234:ILE:HG13	2:F:270:ALA:HB1	1.59	0.83
1:G:20:PHE:CD1	1:G:235:MET:SD	2.71	0.83
1:G:150:GLY:HA2	1:G:153:LEU:HD22	1.60	0.83
2:H:234:ILE:HG13	2:H:270:ALA:HB1	1.59	0.83
2:H:264:ARG:HB2	2:H:266:HIS:CD2	2.13	0.83
2:B:264:ARG:HB2	2:B:266:HIS:CD2	2.13	0.83
1:C:20:PHE:CD1	1:C:235:MET:SD	2.71	0.83
1:C:324:SER:HB3	1:C:327:GLU:HG2	1.60	0.83
1:C:414:ASP:OD1	3:I:4:SER:CB	2.25	0.83
1:E:3:GLU:O	1:E:133:GLN:HB3	1.78	0.83
2:F:51:THR:CG2	2:F:243:ARG:HB3	2.09	0.83
1:A:150:GLY:HA2	1:A:153:LEU:HD22	1.60	0.83
1:A:191:VAL:HG11	1:A:425:MET:HG3	1.60	0.83
2:F:204:VAL:HG11	2:F:231:ILE:HD12	1.59	0.83
1:G:4:ILE:HD13	1:G:136:GLN:HE21	1.42	0.83
1:G:287:THR:O	1:G:288:VAL:HG23	1.78	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:217:LEU:CD1	2:H:277:SER:CA	2.56	0.83
1:A:324:SER:HB3	1:A:327:GLU:HG2	1.60	0.83
2:F:217:LEU:CD1	2:F:277:SER:CA	2.56	0.83
1:A:287:THR:O	1:A:288:VAL:HG23	1.78	0.83
2:B:204:VAL:HG11	2:B:231:ILE:HD12	1.59	0.83
1:G:3:GLU:O	1:G:133:GLN:HB3	1.78	0.83
2:H:52:PHE:CE1	2:H:239:THR:HB	2.13	0.83
1:A:20:PHE:CD1	1:A:235:MET:SD	2.71	0.83
2:B:316:CYS:HB3	2:B:378:LEU:CD1	2.08	0.83
2:D:106:GLY:O	2:D:111:GLY:HA3	1.78	0.83
2:D:217:LEU:CD1	2:D:277:SER:CA	2.56	0.83
2:D:264:ARG:O	2:D:266:HIS:N	2.09	0.83
2:F:316:CYS:HB3	2:F:378:LEU:CD1	2.08	0.83
2:H:204:VAL:HG11	2:H:231:ILE:HD12	1.59	0.83
1:E:20:PHE:CD1	1:E:235:MET:SD	2.71	0.83
1:E:148:GLY:O	1:E:151:THR:HG22	1.79	0.83
1:E:287:THR:O	1:E:288:VAL:HG23	1.79	0.83
1:G:191:VAL:HG11	1:G:425:MET:HG3	1.60	0.83
1:C:150:GLY:HA2	1:C:153:LEU:HD22	1.60	0.83
2:D:316:CYS:HB3	2:D:378:LEU:CD1	2.08	0.83
2:H:151:SER:CB	2:H:193:THR:HG21	2.09	0.83
2:H:316:CYS:HB3	2:H:378:LEU:CD1	2.08	0.83
2:B:151:SER:CB	2:B:193:THR:HG21	2.09	0.83
1:C:287:THR:O	1:C:288:VAL:HG23	1.78	0.83
2:F:23:LEU:HD23	2:F:236:SER:HB2	1.61	0.83
2:F:52:PHE:CE1	2:F:239:THR:HB	2.14	0.83
1:G:148:GLY:O	1:G:151:THR:HG22	1.79	0.83
2:B:52:PHE:CZ	2:B:239:THR:HB	2.14	0.83
1:E:191:VAL:HG11	1:E:425:MET:HG3	1.60	0.83
2:H:23:LEU:HD23	2:H:236:SER:HB2	1.61	0.83
1:A:148:GLY:O	1:A:151:THR:HG22	1.79	0.82
1:C:147:SER:HB2	1:C:190:SER:HB3	1.60	0.82
1:C:191:VAL:HG11	1:C:425:MET:HG3	1.60	0.82
1:C:248:LEU:CD2	2:D:179:THR:HG21	2.08	0.82
2:D:67:PHE:CE2	2:D:87:PHE:HE2	1.96	0.82
1:E:242:LEU:HD22	1:E:250:ALA:H	1.41	0.82
2:F:151:SER:CB	2:F:193:THR:HG21	2.09	0.82
1:A:147:SER:HB2	1:A:190:SER:HB3	1.60	0.82
2:B:23:LEU:HD23	2:B:236:SER:HB2	1.61	0.82
2:D:151:SER:CB	2:D:193:THR:HG21	2.09	0.82
2:H:52:PHE:CZ	2:H:239:THR:CB	2.62	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:147:SER:HB2	1:E:190:SER:HB3	1.60	0.82
1:G:110:GLU:O	1:G:113:GLU:HG2	1.79	0.82
1:G:147:SER:HB2	1:G:190:SER:HB3	1.60	0.82
1:C:156:LYS:HE2	1:C:156:LYS:HA	1.61	0.82
1:A:110:GLU:O	1:A:113:GLU:HG2	1.79	0.82
1:C:101:ASN:ND2	1:C:143:GLY:HA2	1.94	0.82
1:E:110:GLU:O	1:E:113:GLU:HG2	1.79	0.82
1:E:156:LYS:HE2	1:E:156:LYS:HA	1.61	0.82
2:F:346:TRP:CZ3	1:G:403:ALA:HA	2.15	0.82
1:G:242:LEU:HD22	1:G:250:ALA:H	1.42	0.82
2:B:217:LEU:CD1	2:B:277:SER:CA	2.56	0.82
1:G:156:LYS:HA	1:G:156:LYS:HE2	1.61	0.82
2:H:102:ASN:CG	2:H:407:TRP:HE1	1.83	0.82
1:A:101:ASN:ND2	1:A:143:GLY:HA2	1.94	0.82
1:A:156:LYS:HE2	1:A:156:LYS:HA	1.61	0.82
1:C:329:ASP:HB3	2:D:177:VAL:HG12	1.61	0.82
1:E:257:VAL:HG13	2:F:407:TRP:CG	2.15	0.82
1:C:110:GLU:O	1:C:113:GLU:HG2	1.79	0.82
1:C:148:GLY:O	1:C:151:THR:HG22	1.79	0.82
1:G:101:ASN:ND2	1:G:143:GLY:HA2	1.94	0.82
3:I:9:LEU:HD22	3:I:20:LEU:HD22	1.62	0.82
2:D:276:ILE:HG23	2:D:369:ALA:CB	2.10	0.81
2:F:52:PHE:CZ	2:F:239:THR:HG21	2.15	0.81
2:B:276:ILE:HG23	2:B:369:ALA:CB	2.10	0.81
1:E:20:PHE:CZ	1:E:24:ILE:HD12	2.15	0.81
1:E:101:ASN:ND2	1:E:143:GLY:HA2	1.94	0.81
1:E:324:SER:HB3	1:E:327:GLU:HG2	1.60	0.81
2:F:52:PHE:CZ	2:F:239:THR:CB	2.62	0.81
2:F:248:LEU:HD23	2:F:353:VAL:O	1.80	0.81
2:F:109:THR:CG2	2:F:110:ILE:N	2.44	0.81
2:F:276:ILE:HG23	2:F:369:ALA:CB	2.10	0.81
2:F:337:THR:HG22	3:I:59:ILE:CD1	2.10	0.81
1:G:2:ARG:NH2	2:H:98:ASP:CB	2.44	0.81
1:G:324:SER:HB3	1:G:327:GLU:HG2	1.60	0.81
2:H:248:LEU:HD23	2:H:353:VAL:O	1.80	0.81
2:H:276:ILE:HG23	2:H:369:ALA:CB	2.10	0.81
3:I:5:ARG:NH1	3:I:88:MET:CE	2.43	0.81
2:H:52:PHE:CZ	2:H:239:THR:CG2	2.64	0.81
2:H:109:THR:CG2	2:H:110:ILE:N	2.44	0.81
3:I:37:ASP:OD2	3:I:45:LEU:HD11	1.81	0.81
2:D:23:LEU:HD23	2:D:236:SER:HB2	1.61	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:52:PHE:CZ	2:D:239:THR:CG2	2.64	0.81
2:F:52:PHE:CZ	2:F:239:THR:CG2	2.64	0.81
1:G:20:PHE:CZ	1:G:24:ILE:HD12	2.15	0.81
3:I:65:LEU:O	3:I:68:VAL:HG22	1.80	0.81
2:H:52:PHE:CZ	2:H:239:THR:HG21	2.15	0.81
2:B:217:LEU:CD1	2:B:277:SER:CB	2.55	0.81
2:F:6:SER:HB3	2:F:136:SER:OG	1.81	0.81
2:H:6:SER:HB3	2:H:136:SER:OG	1.81	0.81
2:H:220:GLU:C	2:H:222:PRO:HD3	2.02	0.81
3:I:44:PRO:CB	3:I:47:LYS:HD3	2.11	0.81
2:B:6:SER:HB3	2:B:136:SER:OG	1.81	0.81
2:B:220:GLU:C	2:B:222:PRO:HD3	2.02	0.80
2:D:6:SER:HB3	2:D:136:SER:OG	1.81	0.80
2:F:30:ILE:HG12	2:F:36:MET:CB	2.08	0.80
2:F:67:PHE:CE2	2:F:87:PHE:HE2	1.96	0.80
2:F:220:GLU:C	2:F:222:PRO:HD3	2.02	0.80
1:G:346:TRP:HB2	2:H:401:LYS:HG3	1.61	0.80
1:A:20:PHE:CZ	1:A:24:ILE:HD12	2.15	0.80
2:B:67:PHE:CE2	2:B:87:PHE:HE2	1.96	0.80
1:G:390:ARG:CZ	3:I:56:TYR:HB2	2.11	0.80
2:D:234:ILE:HD13	2:D:234:ILE:O	1.81	0.80
2:B:52:PHE:HZ	2:B:239:THR:CG2	1.94	0.80
2:B:248:LEU:HD23	2:B:353:VAL:O	1.80	0.80
1:C:20:PHE:CZ	1:C:24:ILE:HD12	2.15	0.80
2:F:132:LEU:HD23	2:F:132:LEU:H	1.46	0.80
1:G:257:VAL:HG22	1:G:257:VAL:O	1.78	0.80
2:D:70:LEU:CD1	2:D:145:THR:HG23	2.12	0.80
2:D:220:GLU:C	2:D:222:PRO:HD3	2.02	0.80
2:D:248:LEU:HD23	2:D:353:VAL:O	1.80	0.80
1:G:352:LYS:HD3	2:H:181:VAL:HG21	1.61	0.80
2:H:67:PHE:CE2	2:H:87:PHE:HE2	1.96	0.80
2:H:132:LEU:HD23	2:H:132:LEU:H	1.46	0.80
2:B:132:LEU:HD23	2:B:132:LEU:H	1.46	0.80
2:H:70:LEU:CD1	2:H:145:THR:HG23	2.12	0.80
2:H:313:MET:HB3	2:H:344:VAL:HG21	1.63	0.80
2:B:70:LEU:CD1	2:B:145:THR:HG23	2.12	0.80
2:B:109:THR:CG2	2:B:110:ILE:N	2.44	0.80
2:D:52:PHE:CZ	2:D:239:THR:HG21	2.15	0.80
3:I:5:ARG:HH11	3:I:88:MET:HE1	1.45	0.80
2:B:5:ILE:CG1	2:B:64:ARG:CZ	2.56	0.80
1:C:68:VAL:HG12	1:C:149:MET:SD	2.22	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:236:SER:O	1:C:240:THR:CG2	2.29	0.80
2:F:70:LEU:CD1	2:F:145:THR:HG23	2.12	0.80
3:I:52:CYS:SG	3:I:57:GLN:HB2	2.22	0.80
1:A:68:VAL:HG12	1:A:149:MET:SD	2.22	0.80
1:A:236:SER:O	1:A:240:THR:CG2	2.29	0.80
1:C:264:ARG:HB2	1:C:266:HIS:HD2	1.45	0.80
1:E:68:VAL:HG12	1:E:149:MET:SD	2.22	0.80
2:H:30:ILE:HG12	2:H:36:MET:CB	2.09	0.80
2:B:184:PRO:HG2	2:B:398:MET:HE1	1.64	0.80
2:D:313:MET:HB3	2:D:344:VAL:HG21	1.63	0.80
2:B:241:SER:O	2:B:244:PHE:HB3	1.82	0.79
2:F:241:SER:O	2:F:244:PHE:HB3	1.82	0.79
2:H:7:ILE:HG22	2:H:66:VAL:HG22	1.63	0.79
2:H:234:ILE:O	2:H:234:ILE:HD13	1.81	0.79
2:B:234:ILE:O	2:B:234:ILE:HD13	1.81	0.79
1:C:346:TRP:CB	2:D:401:LYS:HD2	2.13	0.79
2:D:3:GLU:HG2	2:D:51:THR:HA	0.80	0.79
2:D:109:THR:CG2	2:D:110:ILE:N	2.44	0.79
2:F:234:ILE:O	2:F:234:ILE:HD13	1.82	0.79
2:F:339:ARG:HB3	3:I:66:GLN:OE1	1.82	0.79
1:A:234:THR:CG2	1:A:270:PRO:HB2	2.11	0.79
2:B:313:MET:HB3	2:B:344:VAL:HG21	1.63	0.79
1:C:234:THR:CG2	1:C:270:PRO:HB2	2.11	0.79
2:D:184:PRO:HG2	2:D:398:MET:HE1	1.64	0.79
1:G:68:VAL:HG12	1:G:149:MET:SD	2.22	0.79
2:F:67:PHE:HE2	2:F:87:PHE:CD2	2.00	0.79
1:G:413:MET:HG3	1:G:414:ASP:H	1.47	0.79
2:H:102:ASN:CG	2:H:407:TRP:NE1	2.36	0.79
1:A:259:MET:HA	1:A:314:THR:HG21	1.65	0.79
1:E:413:MET:HG3	1:E:414:ASP:H	1.47	0.79
2:F:311:LYS:HD3	2:F:344:VAL:HG13	1.62	0.79
1:G:54:ASN:HD21	1:G:64:ARG:HD3	1.46	0.79
3:I:9:LEU:HD22	3:I:20:LEU:CD2	2.13	0.79
1:E:234:THR:CG2	1:E:270:PRO:HB2	2.11	0.79
1:E:259:MET:HA	1:E:314:THR:HG21	1.65	0.79
1:G:236:SER:O	1:G:240:THR:CG2	2.29	0.79
2:H:102:ASN:ND2	2:H:407:TRP:CD1	2.51	0.79
1:A:264:ARG:HB2	1:A:266:HIS:HD2	1.45	0.79
2:B:7:ILE:HG22	2:B:66:VAL:HG22	1.63	0.79
1:C:54:ASN:HD21	1:C:64:ARG:HD3	1.46	0.79
1:C:259:MET:HA	1:C:314:THR:HG21	1.65	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:54:ASN:HD21	1:E:64:ARG:HD3	1.46	0.79
1:A:265:LEU:O	1:A:265:LEU:HD12	1.83	0.79
2:D:241:SER:O	2:D:244:PHE:HB3	1.82	0.79
1:G:254:LYS:HE3	1:G:352:LYS:NZ	1.97	0.79
2:H:67:PHE:HE2	2:H:87:PHE:CD2	1.99	0.79
2:B:11:GLN:HE21	2:B:74:VAL:HG22	1.47	0.79
2:B:67:PHE:HE2	2:B:87:PHE:CD2	2.00	0.79
1:C:265:LEU:HD12	1:C:265:LEU:O	1.83	0.79
2:D:56:THR:O	2:D:58:ALA:CB	2.30	0.79
2:D:132:LEU:HD23	2:D:132:LEU:H	1.46	0.79
1:E:236:SER:O	1:E:240:THR:CG2	2.29	0.79
1:E:396:THR:HG23	1:E:422:GLU:OE2	1.83	0.79
1:G:396:THR:HG23	1:G:422:GLU:OE2	1.83	0.79
2:D:67:PHE:HE2	2:D:87:PHE:CD2	2.00	0.79
2:F:7:ILE:HG22	2:F:66:VAL:HG22	1.63	0.79
2:H:204:VAL:HG13	2:H:209:ILE:HD11	1.66	0.79
1:C:325:MET:HG2	2:D:224:TYR:CE2	2.18	0.78
2:D:172:TYR:HD1	2:D:172:TYR:C	1.87	0.78
2:F:204:VAL:HG13	2:F:209:ILE:HD11	1.65	0.78
2:F:350:GLY:HA2	1:G:181:VAL:HG13	1.63	0.78
2:H:241:SER:O	2:H:244:PHE:HB3	1.82	0.78
1:A:413:MET:HG3	1:A:414:ASP:H	1.47	0.78
2:B:172:TYR:C	2:B:172:TYR:HD1	1.87	0.78
2:B:204:VAL:HG13	2:B:209:ILE:HD11	1.65	0.78
2:D:7:ILE:HG22	2:D:66:VAL:HG22	1.63	0.78
1:G:259:MET:HA	1:G:314:THR:HG21	1.65	0.78
2:H:172:TYR:C	2:H:172:TYR:HD1	1.87	0.78
2:B:56:THR:O	2:B:58:ALA:CB	2.30	0.78
2:F:5:ILE:HG23	2:F:135:PHE:HB3	1.66	0.78
2:F:199:ASP:HB3	2:F:256:GLN:NE2	1.98	0.78
2:B:52:PHE:CZ	2:B:239:THR:CB	2.67	0.78
1:C:205:ASP:OD2	1:C:304:ALA:HB2	1.84	0.78
2:D:204:VAL:HG13	2:D:209:ILE:HD11	1.66	0.78
2:H:199:ASP:HB3	2:H:256:GLN:NE2	1.99	0.78
3:I:30:TYR:HE1	3:I:48:VAL:HG11	1.48	0.78
1:A:205:ASP:OD2	1:A:304:ALA:HB2	1.84	0.78
1:C:257:VAL:HA	2:D:407:TRP:CE2	2.19	0.78
2:D:11:GLN:HE21	2:D:74:VAL:HG22	1.47	0.78
2:D:55:GLU:O	2:D:57:GLY:N	2.17	0.78
2:D:57:GLY:N	2:H:284:GLU:HG2	1.95	0.78
1:A:396:THR:HG23	1:A:422:GLU:OE2	1.83	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:199:ASP:HB3	2:B:256:GLN:NE2	1.98	0.78
1:C:396:THR:HG23	1:C:422:GLU:OE2	1.83	0.78
1:C:413:MET:HG3	1:C:414:ASP:H	1.47	0.78
1:E:205:ASP:OD2	1:E:304:ALA:HB2	1.84	0.78
2:F:172:TYR:HD1	2:F:172:TYR:C	1.87	0.78
2:F:285:GLN:OE1	2:F:371:VAL:HG12	1.82	0.78
2:F:312:TYR:HB2	2:F:341:ILE:HD13	1.66	0.78
1:G:205:ASP:OD2	1:G:304:ALA:HB2	1.84	0.78
2:H:3:GLU:HG2	2:H:51:THR:HA	0.80	0.78
2:D:267:PHE:N	2:D:267:PHE:CD1	2.49	0.78
1:E:265:LEU:HD12	1:E:265:LEU:O	1.83	0.78
2:F:296:PHE:CZ	2:F:335:ILE:HG21	2.19	0.78
1:G:264:ARG:HB2	1:G:266:HIS:HD2	1.45	0.78
2:H:11:GLN:HE21	2:H:74:VAL:HG22	1.47	0.78
1:E:35:SER:HB3	1:E:59:ASN:HA	1.65	0.78
2:F:276:ILE:O	2:F:369:ALA:HB2	1.83	0.78
1:A:54:ASN:HD21	1:A:64:ARG:HD3	1.46	0.78
2:B:110:ILE:HG23	2:B:111:GLY:N	1.99	0.78
2:B:296:PHE:CZ	2:B:335:ILE:HG21	2.18	0.78
2:D:155:GLU:HA	2:D:197:HIS:ND1	1.99	0.78
2:F:11:GLN:HE21	2:F:74:VAL:HG22	1.47	0.78
1:G:35:SER:HB3	1:G:59:ASN:HA	1.65	0.78
2:H:296:PHE:CZ	2:H:335:ILE:HG21	2.18	0.78
1:A:35:SER:HB3	1:A:59:ASN:HA	1.65	0.77
2:B:223:THR:HB	2:B:225:THR:HG22	1.67	0.77
2:D:199:ASP:HB3	2:D:256:GLN:NE2	1.98	0.77
1:G:265:LEU:HD12	1:G:265:LEU:O	1.83	0.77
2:H:5:ILE:HG23	2:H:135:PHE:HB3	1.66	0.77
2:B:217:LEU:CD1	2:B:277:SER:HA	2.13	0.77
2:D:217:LEU:CD1	2:D:277:SER:HA	2.13	0.77
2:D:223:THR:HB	2:D:225:THR:HG22	1.67	0.77
2:F:67:PHE:HD2	2:F:92:LEU:HD23	1.49	0.77
2:H:110:ILE:HG23	2:H:111:GLY:N	1.99	0.77
2:H:276:ILE:O	2:H:369:ALA:HB2	1.84	0.77
2:B:267:PHE:N	2:B:267:PHE:CD1	2.49	0.77
2:F:3:GLU:HG2	2:F:51:THR:HA	0.80	0.77
2:F:267:PHE:N	2:F:267:PHE:CD1	2.49	0.77
2:H:63:PRO:HD3	2:H:86:LEU:O	1.85	0.77
2:D:56:THR:HA	2:H:284:GLU:HB3	1.66	0.77
1:G:352:LYS:CB	2:H:181:VAL:HG21	2.13	0.77
3:I:5:ARG:CB	3:I:23:ILE:HD11	2.14	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:11:GLN:HG3	2:B:74:VAL:CG1	2.15	0.77
2:D:5:ILE:HG23	2:D:135:PHE:HB3	1.66	0.77
2:D:217:LEU:CD1	2:D:277:SER:CB	2.55	0.77
2:F:231:ILE:HA	2:F:234:ILE:HG22	1.66	0.77
2:H:231:ILE:HA	2:H:234:ILE:HG22	1.66	0.77
3:I:104:GLN:HG3	3:I:105:TYR:CD2	2.20	0.77
2:B:52:PHE:CZ	2:B:239:THR:CG2	2.66	0.77
2:D:110:ILE:HG23	2:D:111:GLY:N	2.00	0.77
2:D:231:ILE:HA	2:D:234:ILE:HG22	1.66	0.77
2:D:276:ILE:O	2:D:369:ALA:HB2	1.84	0.77
2:D:296:PHE:CZ	2:D:335:ILE:HG21	2.18	0.77
2:F:63:PRO:HD3	2:F:86:LEU:O	1.85	0.77
2:F:217:LEU:CD1	2:F:277:SER:HA	2.14	0.77
2:H:67:PHE:HD2	2:H:92:LEU:HD23	1.49	0.77
2:B:67:PHE:HD2	2:B:92:LEU:HD23	1.50	0.77
1:C:198:THR:O	1:C:265:LEU:HD22	1.85	0.77
1:E:264:ARG:HB2	1:E:266:HIS:HD2	1.45	0.77
2:F:11:GLN:HG3	2:F:74:VAL:CG1	2.15	0.77
2:F:110:ILE:HG23	2:F:111:GLY:N	1.99	0.77
2:B:30:ILE:HD13	2:B:61:HIS:CG	2.20	0.77
2:B:231:ILE:HA	2:B:234:ILE:HG22	1.66	0.77
2:H:11:GLN:HG3	2:H:74:VAL:CG1	2.15	0.77
2:B:276:ILE:O	2:B:369:ALA:HB2	1.84	0.77
2:D:63:PRO:HD3	2:D:86:LEU:O	1.85	0.77
2:F:221:ARG:O	2:F:221:ARG:HD3	1.85	0.77
2:H:267:PHE:N	2:H:267:PHE:CD1	2.49	0.77
2:H:155:GLU:HA	2:H:197:HIS:ND1	1.99	0.77
1:C:192:HIS:ND1	1:C:424:ASN:OD1	2.18	0.76
2:F:331:ALA:O	2:F:335:ILE:HG12	1.86	0.76
1:A:198:THR:O	1:A:265:LEU:HD22	1.85	0.76
2:B:225:THR:O	2:B:229:ARG:HG3	1.86	0.76
1:C:35:SER:HB3	1:C:59:ASN:HA	1.65	0.76
2:D:67:PHE:HD2	2:D:92:LEU:HD23	1.50	0.76
2:F:339:ARG:HE	3:I:66:GLN:HB2	1.50	0.76
2:B:7:ILE:HD12	2:B:153:LEU:HD21	1.68	0.76
2:B:155:GLU:HA	2:B:197:HIS:ND1	1.99	0.76
2:D:225:THR:O	2:D:229:ARG:HG3	1.86	0.76
2:F:62:VAL:HG21	2:F:88:HIS:HE1	1.48	0.76
2:H:223:THR:HB	2:H:225:THR:HG22	1.67	0.76
2:B:221:ARG:O	2:B:221:ARG:HD3	1.85	0.76
1:E:198:THR:O	1:E:265:LEU:HD22	1.85	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:331:ALA:O	2:H:335:ILE:HG12	1.86	0.76
2:F:7:ILE:HD12	2:F:153:LEU:HD21	1.68	0.76
2:F:155:GLU:HA	2:F:197:HIS:ND1	1.99	0.76
1:G:168:THR:HB	1:G:201:THR:HG23	1.68	0.76
1:G:198:THR:O	1:G:265:LEU:HD22	1.85	0.76
2:H:7:ILE:HD12	2:H:153:LEU:HD21	1.68	0.76
2:H:221:ARG:O	2:H:221:ARG:HD3	1.85	0.76
1:E:168:THR:HB	1:E:201:THR:HG23	1.68	0.76
2:H:234:ILE:HG21	2:H:302:MET:HE3	1.66	0.76
3:I:32:MET:HG3	3:I:33:ILE:HD12	1.65	0.76
1:A:168:THR:HB	1:A:201:THR:HG23	1.68	0.76
1:A:192:HIS:ND1	1:A:424:ASN:OD1	2.18	0.76
2:B:3:GLU:HG2	2:B:51:THR:HA	0.80	0.76
2:D:7:ILE:HD12	2:D:153:LEU:HD21	1.68	0.76
2:D:62:VAL:HG21	2:D:88:HIS:HE1	1.48	0.76
2:D:221:ARG:HD3	2:D:221:ARG:O	1.85	0.76
2:F:337:THR:CG2	3:I:59:ILE:HD11	2.16	0.76
2:F:163:LYS:O	2:F:164:LYS:HG2	1.86	0.76
2:H:217:LEU:CD1	2:H:277:SER:HA	2.13	0.76
1:C:247:GLN:HB3	2:D:224:TYR:HD2	1.50	0.75
2:D:70:LEU:CD1	2:D:145:THR:CG2	2.64	0.75
1:G:2:ARG:NH2	2:H:98:ASP:CA	2.49	0.75
2:H:70:LEU:CD1	2:H:145:THR:CG2	2.64	0.75
2:H:163:LYS:O	2:H:164:LYS:HG2	1.86	0.75
2:H:344:VAL:HG11	2:H:346:TRP:CE2	2.21	0.75
2:B:70:LEU:CD1	2:B:145:THR:CG2	2.64	0.75
2:B:344:VAL:HG11	2:B:346:TRP:CE2	2.21	0.75
1:C:168:THR:HB	1:C:201:THR:HG23	1.68	0.75
2:D:167:LEU:HG	2:D:200:CYS:HB3	1.69	0.75
2:D:344:VAL:HG11	2:D:346:TRP:CE2	2.21	0.75
2:F:223:THR:HB	2:F:225:THR:HG22	1.67	0.75
2:B:243:ARG:HH21	2:B:252:LEU:H	0.79	0.75
2:D:57:GLY:HA2	2:H:284:GLU:HG2	1.67	0.75
2:F:70:LEU:CD1	2:F:145:THR:CG2	2.64	0.75
1:C:259:MET:HG2	1:C:314:THR:HG21	1.67	0.75
2:H:62:VAL:HG21	2:H:88:HIS:HE1	1.48	0.75
2:H:225:THR:O	2:H:229:ARG:HG3	1.85	0.75
1:A:19:LYS:HG3	1:A:228:ASN:CB	2.17	0.75
1:C:19:LYS:HG3	1:C:228:ASN:CB	2.17	0.75
1:E:19:LYS:HG3	1:E:228:ASN:CB	2.17	0.75
2:F:425:MET:HE2	2:F:428:LEU:HD23	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:167:LEU:HG	2:B:200:CYS:HB3	1.69	0.75
2:D:163:LYS:O	2:D:164:LYS:HG2	1.86	0.75
2:D:362:VAL:HG13	2:D:368:LEU:HD12	1.68	0.75
1:E:192:HIS:ND1	1:E:424:ASN:OD1	2.18	0.75
2:H:317:LEU:HB3	2:H:319:TYR:HE1	1.52	0.75
2:B:163:LYS:O	2:B:164:LYS:HG2	1.86	0.75
2:F:225:THR:O	2:F:229:ARG:HG3	1.86	0.75
2:F:317:LEU:HB3	2:F:319:TYR:HE1	1.52	0.75
3:I:45:LEU:O	3:I:48:VAL:HG12	1.86	0.75
2:B:425:MET:HE2	2:B:428:LEU:HD23	1.68	0.74
1:G:176:LYS:HE3	1:G:207:GLU:HG3	1.68	0.74
1:G:259:MET:HG2	1:G:314:THR:HG21	1.67	0.74
2:H:425:MET:HE2	2:H:428:LEU:HD23	1.68	0.74
1:A:8:GLN:CD	1:A:67:LEU:HD22	2.08	0.74
2:B:331:ALA:O	2:B:335:ILE:HG12	1.86	0.74
2:D:243:ARG:HH21	2:D:252:LEU:H	0.79	0.74
1:E:259:MET:HG2	1:E:314:THR:HG21	1.67	0.74
2:F:167:LEU:HG	2:F:200:CYS:HB3	1.68	0.74
2:H:167:LEU:HG	2:H:200:CYS:HB3	1.69	0.74
2:H:298:PRO:HB3	2:H:307:PRO:CD	2.15	0.74
1:A:259:MET:HG2	1:A:314:THR:HG21	1.67	0.74
2:D:298:PRO:HB3	2:D:307:PRO:CD	2.15	0.74
3:I:21:THR:HG22	3:I:22:ARG:CD	2.16	0.74
1:C:176:LYS:HE3	1:C:207:GLU:HG3	1.68	0.74
2:F:70:LEU:HD11	2:F:145:THR:HG23	1.70	0.74
1:G:19:LYS:HG3	1:G:228:ASN:CB	2.17	0.74
1:G:192:HIS:ND1	1:G:424:ASN:OD1	2.18	0.74
2:B:362:VAL:HG13	2:B:368:LEU:HD12	1.68	0.74
2:D:205:ASP:CB	2:D:303:VAL:HA	2.17	0.74
1:G:8:GLN:CD	1:G:67:LEU:HD22	2.08	0.74
2:H:70:LEU:HD11	2:H:145:THR:HG23	1.70	0.74
2:B:172:TYR:OH	2:B:387:ALA:HB1	1.87	0.74
1:E:176:LYS:HE3	1:E:207:GLU:HG3	1.68	0.74
2:H:362:VAL:HG13	2:H:368:LEU:HD12	1.68	0.74
3:I:15:VAL:HG23	3:I:16:THR:HG23	1.69	0.74
2:D:331:ALA:O	2:D:335:ILE:HG12	1.86	0.74
1:E:103:TRP:CZ3	1:E:108:TYR:HE1	2.05	0.74
1:E:250:ALA:HA	1:E:254:LYS:HE2	1.68	0.74
1:G:6:HIS:HE1	1:G:8:GLN:HG2	1.52	0.74
1:G:258:ASN:C	2:H:404:PHE:HE2	1.90	0.74
1:A:250:ALA:HA	1:A:254:LYS:HE2	1.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:306:ASP:O	2:B:308:ARG:N	2.20	0.74
1:C:8:GLN:CD	1:C:67:LEU:HD22	2.07	0.74
1:C:242:LEU:HD13	1:C:250:ALA:C	2.08	0.74
1:E:8:GLN:CD	1:E:67:LEU:HD22	2.08	0.74
2:F:339:ARG:HD2	2:F:342:GLN:HA	1.70	0.74
2:F:362:VAL:HG13	2:F:368:LEU:HD12	1.68	0.74
1:G:390:ARG:NH1	3:I:56:TYR:CD1	2.55	0.74
2:H:104:ALA:CB	2:H:413:MET:HG3	2.18	0.74
1:C:250:ALA:HA	1:C:254:LYS:HE2	1.68	0.74
2:D:104:ALA:CB	2:D:413:MET:HG3	2.18	0.74
2:F:205:ASP:CB	2:F:303:VAL:HA	2.17	0.74
1:G:258:ASN:O	2:H:404:PHE:CE2	2.35	0.74
2:H:205:ASP:CB	2:H:303:VAL:HA	2.17	0.74
3:I:30:TYR:CE1	3:I:48:VAL:HG11	2.23	0.74
1:A:176:LYS:HE3	1:A:207:GLU:HG3	1.68	0.74
2:B:205:ASP:CB	2:B:303:VAL:HA	2.17	0.74
1:G:103:TRP:CZ3	1:G:108:TYR:HE1	2.05	0.74
3:I:12:ILE:O	3:I:12:ILE:HD13	1.87	0.74
2:B:298:PRO:HB3	2:B:307:PRO:CD	2.15	0.73
2:D:172:TYR:C	2:D:172:TYR:CD1	2.61	0.73
2:F:264:ARG:C	2:F:266:HIS:H	1.91	0.73
2:H:104:ALA:HB2	2:H:413:MET:HG3	1.70	0.73
1:A:242:LEU:HD13	1:A:250:ALA:C	2.08	0.73
2:D:172:TYR:OH	2:D:387:ALA:HB1	1.87	0.73
2:F:104:ALA:CB	2:F:413:MET:HG3	2.18	0.73
2:H:102:ASN:CB	2:H:407:TRP:CD1	2.71	0.73
3:I:37:ASP:CA	3:I:43:ILE:HD13	2.18	0.73
3:I:76:LYS:HG3	3:I:97:TRP:CE2	2.23	0.73
1:A:6:HIS:HE1	1:A:8:GLN:HG2	1.52	0.73
2:B:103:TYR:CD2	2:B:189:LEU:HD13	2.24	0.73
1:C:103:TRP:CZ3	1:C:108:TYR:HE1	2.05	0.73
2:D:4:CYS:SG	2:D:252:LEU:HD11	2.27	0.73
2:B:4:CYS:SG	2:B:252:LEU:HD11	2.27	0.73
2:B:104:ALA:HB2	2:B:413:MET:HG3	1.71	0.73
2:B:104:ALA:CB	2:B:413:MET:HG3	2.18	0.73
1:C:113:GLU:OE1	3:I:87:LYS:CD	2.37	0.73
2:D:296:PHE:CE1	2:D:341:ILE:HD12	2.20	0.73
2:F:103:TYR:CD2	2:F:189:LEU:HD13	2.24	0.73
2:F:298:PRO:HB3	2:F:307:PRO:CD	2.15	0.73
2:H:4:CYS:SG	2:H:252:LEU:HD11	2.27	0.73
2:B:112:LYS:O	2:B:115:ILE:HG22	1.89	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:209:LEU:HG	1:C:230:LEU:HD22	1.69	0.73
1:C:217:LEU:O	1:C:219:LEU:N	2.22	0.73
2:D:103:TYR:CD2	2:D:189:LEU:HD13	2.24	0.73
2:D:317:LEU:HB3	2:D:319:TYR:HE1	1.52	0.73
1:E:242:LEU:HD13	1:E:250:ALA:C	2.08	0.73
2:F:172:TYR:OH	2:F:387:ALA:HB1	1.87	0.73
2:H:172:TYR:OH	2:H:387:ALA:HB1	1.87	0.73
2:B:234:ILE:HG21	2:B:302:MET:HE3	1.70	0.73
2:F:104:ALA:HB2	2:F:413:MET:HG3	1.71	0.73
2:H:103:TYR:CD2	2:H:189:LEU:HD13	2.24	0.73
2:H:242:LEU:HG	2:H:250:VAL:O	1.88	0.73
1:A:209:LEU:HG	1:A:230:LEU:HD22	1.69	0.73
1:C:257:VAL:HG13	2:D:407:TRP:CD1	2.22	0.73
2:D:104:ALA:HB2	2:D:413:MET:HG3	1.71	0.73
2:D:425:MET:HE2	2:D:428:LEU:HD23	1.68	0.73
1:E:6:HIS:HE1	1:E:8:GLN:HG2	1.52	0.73
1:E:217:LEU:O	1:E:219:LEU:N	2.22	0.73
2:F:62:VAL:HG11	2:F:88:HIS:ND1	2.04	0.73
1:G:217:LEU:O	1:G:219:LEU:N	2.22	0.73
1:G:242:LEU:HD13	1:G:250:ALA:C	2.08	0.73
1:G:258:ASN:CA	2:H:404:PHE:CE2	2.71	0.73
2:H:264:ARG:C	2:H:266:HIS:H	1.91	0.73
1:A:217:LEU:O	1:A:219:LEU:N	2.22	0.73
2:B:242:LEU:HG	2:B:250:VAL:O	1.88	0.73
1:C:257:VAL:HA	2:D:407:TRP:NE1	2.04	0.73
2:D:105:ARG:O	2:D:110:ILE:HG22	1.89	0.73
2:D:242:LEU:HG	2:D:250:VAL:O	1.88	0.73
1:G:2:ARG:NH1	2:H:98:ASP:HB3	2.04	0.73
2:H:243:ARG:HH21	2:H:252:LEU:H	0.79	0.73
2:D:70:LEU:HD11	2:D:145:THR:HG23	1.70	0.73
2:F:242:LEU:HG	2:F:250:VAL:O	1.88	0.73
1:G:209:LEU:HG	1:G:230:LEU:HD22	1.69	0.73
1:A:103:TRP:CZ3	1:A:108:TYR:HE1	2.05	0.73
1:A:111:GLY:O	1:A:115:VAL:HG23	1.89	0.73
1:E:274:PRO:HG2	1:E:371:LEU:HD21	1.70	0.73
2:F:51:THR:HG21	2:F:243:ARG:CB	2.14	0.73
1:A:88:ARG:HD3	1:E:283:TYR:CE1	2.11	0.72
2:B:317:LEU:HB3	2:B:319:TYR:HE1	1.52	0.72
1:C:76:ASP:HA	1:C:79:ARG:HG2	1.71	0.72
1:C:111:GLY:O	1:C:115:VAL:HG23	1.89	0.72
2:F:4:CYS:SG	2:F:252:LEU:HD11	2.27	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:166:LYS:HE3	2:F:199:ASP:OD1	1.89	0.72
1:G:217:LEU:C	1:G:219:LEU:H	1.91	0.72
1:G:274:PRO:HG2	1:G:371:LEU:HD21	1.70	0.72
2:H:62:VAL:HG11	2:H:88:HIS:ND1	2.04	0.72
2:H:296:PHE:CE1	2:H:341:ILE:HD12	2.20	0.72
1:A:76:ASP:HA	1:A:79:ARG:HG2	1.71	0.72
2:B:166:LYS:HE3	2:B:199:ASP:OD1	1.90	0.72
2:D:166:LYS:HE3	2:D:199:ASP:OD1	1.89	0.72
1:E:217:LEU:C	1:E:219:LEU:H	1.91	0.72
1:E:209:LEU:HG	1:E:230:LEU:HD22	1.69	0.72
1:G:70:LEU:HG	1:G:145:THR:CG2	2.20	0.72
2:H:166:LYS:HE3	2:H:199:ASP:OD1	1.90	0.72
3:I:18:LEU:HD21	3:I:50:PHE:HZ	1.55	0.72
2:B:264:ARG:C	2:B:266:HIS:H	1.91	0.72
2:B:312:TYR:O	2:B:344:VAL:HG23	1.90	0.72
2:D:264:ARG:C	2:D:266:HIS:H	1.91	0.72
2:F:306:ASP:O	2:F:308:ARG:N	2.20	0.72
1:G:258:ASN:HA	2:H:404:PHE:HD2	1.52	0.72
1:C:191:VAL:CG1	1:C:425:MET:HG3	2.19	0.72
2:D:112:LYS:O	2:D:115:ILE:HG22	1.89	0.72
2:D:306:ASP:O	2:D:308:ARG:N	2.20	0.72
2:F:105:ARG:O	2:F:110:ILE:HG22	1.89	0.72
2:H:112:LYS:O	2:H:115:ILE:HG22	1.89	0.72
1:A:274:PRO:HG2	1:A:371:LEU:HD21	1.70	0.72
2:B:70:LEU:HD11	2:B:145:THR:HG23	1.70	0.72
2:F:30:ILE:HD13	2:F:61:HIS:CD2	2.24	0.72
1:G:111:GLY:O	1:G:115:VAL:HG23	1.89	0.72
1:E:70:LEU:HG	1:E:145:THR:CG2	2.20	0.72
1:G:76:ASP:HA	1:G:79:ARG:HG2	1.71	0.72
2:H:312:TYR:O	2:H:344:VAL:HG23	1.90	0.72
1:A:70:LEU:HG	1:A:145:THR:CG2	2.20	0.72
2:B:7:ILE:HD11	2:B:137:VAL:HG22	1.71	0.72
2:B:105:ARG:O	2:B:110:ILE:HG22	1.89	0.72
2:B:296:PHE:CE1	2:B:341:ILE:HD12	2.20	0.72
1:C:6:HIS:HE1	1:C:8:GLN:HG2	1.52	0.72
1:C:217:LEU:C	1:C:219:LEU:H	1.91	0.72
2:D:7:ILE:HD11	2:D:137:VAL:HG22	1.71	0.72
1:E:76:ASP:HA	1:E:79:ARG:HG2	1.71	0.72
2:F:112:LYS:O	2:F:115:ILE:HG22	1.89	0.72
2:F:172:TYR:C	2:F:172:TYR:CD1	2.62	0.72
1:A:88:ARG:HD2	1:E:283:TYR:CZ	2.24	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:259:LEU:HD11	2:B:378:LEU:CD1	2.20	0.72
2:D:259:LEU:HD11	2:D:378:LEU:CD1	2.20	0.72
2:D:312:TYR:O	2:D:344:VAL:HG23	1.90	0.72
1:E:111:GLY:O	1:E:115:VAL:HG23	1.89	0.72
1:E:325:MET:HA	1:E:325:MET:HE3	1.71	0.72
2:F:243:ARG:HH21	2:F:252:LEU:H	0.79	0.72
2:F:259:LEU:HD11	2:F:378:LEU:CD1	2.20	0.72
2:H:259:LEU:HD11	2:H:378:LEU:CD1	2.20	0.72
1:A:191:VAL:CG1	1:A:425:MET:HG3	2.19	0.72
2:D:343:PHE:CZ	2:D:351:PHE:HE2	2.08	0.72
2:H:105:ARG:O	2:H:110:ILE:HG22	1.89	0.72
2:D:148:GLY:O	2:D:151:SER:HB2	1.91	0.71
1:C:274:PRO:HG2	1:C:371:LEU:HD21	1.70	0.71
2:D:317:LEU:HD12	2:D:351:PHE:HD1	1.55	0.71
2:H:7:ILE:CG1	2:H:137:VAL:HG22	2.20	0.71
2:H:306:ASP:O	2:H:308:ARG:N	2.20	0.71
2:H:317:LEU:HD12	2:H:351:PHE:HD1	1.55	0.71
1:A:217:LEU:C	1:A:219:LEU:H	1.91	0.71
1:A:325:MET:HA	1:A:325:MET:HE3	1.71	0.71
2:D:7:ILE:CG1	2:D:137:VAL:HG22	2.20	0.71
2:F:7:ILE:CG1	2:F:137:VAL:HG22	2.20	0.71
2:F:7:ILE:HD11	2:F:137:VAL:HG22	1.71	0.71
2:F:339:ARG:HD3	3:I:63:LYS:HZ3	1.54	0.71
2:H:7:ILE:HD11	2:H:137:VAL:HG22	1.71	0.71
2:D:11:GLN:HG3	2:D:74:VAL:CG1	2.15	0.71
2:F:148:GLY:O	2:F:151:SER:HB2	1.91	0.71
2:H:148:GLY:O	2:H:151:SER:HB2	1.91	0.71
2:B:317:LEU:HD12	2:B:351:PHE:HD1	1.55	0.71
2:D:242:LEU:HD21	2:D:250:VAL:HB	1.71	0.71
1:E:191:VAL:CG1	1:E:425:MET:HG3	2.19	0.71
1:G:10:GLY:O	1:G:14:ASN:HB2	1.90	0.71
1:G:243:ARG:NH2	1:G:252:LEU:HG	2.05	0.71
1:G:356:CYS:SG	1:G:357:ASP:N	2.62	0.71
1:A:356:CYS:SG	1:A:357:ASP:N	2.62	0.71
2:B:5:ILE:CD1	2:B:64:ARG:NH1	2.38	0.71
1:C:70:LEU:HG	1:C:145:THR:CG2	2.20	0.71
1:C:356:CYS:SG	1:C:357:ASP:N	2.62	0.71
2:D:11:GLN:HE21	2:D:74:VAL:CG2	2.03	0.71
2:D:57:GLY:H	2:H:284:GLU:HG3	0.64	0.71
1:E:243:ARG:NH2	1:E:252:LEU:HG	2.05	0.71
2:F:311:LYS:HA	2:F:341:ILE:HG22	1.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:175:PRO:HD2	1:G:207:GLU:OE2	1.91	0.71
3:I:36:PHE:CE2	3:I:65:LEU:HD11	2.26	0.71
2:B:11:GLN:HE21	2:B:74:VAL:CG2	2.03	0.71
2:B:148:GLY:O	2:B:151:SER:HB2	1.91	0.71
1:C:243:ARG:NH2	1:C:252:LEU:HG	2.05	0.71
1:C:254:LYS:HZ2	2:D:101:ASN:CG	1.93	0.71
1:E:10:GLY:O	1:E:14:ASN:HB2	1.90	0.71
2:F:317:LEU:HD12	2:F:351:PHE:HD1	1.55	0.71
1:A:8:GLN:NE2	1:A:17:GLY:HA3	2.06	0.71
1:A:243:ARG:NH2	1:A:252:LEU:HG	2.05	0.71
1:C:8:GLN:NE2	1:C:17:GLY:HA3	2.06	0.71
1:E:175:PRO:HD2	1:E:207:GLU:OE2	1.91	0.71
2:H:172:TYR:C	2:H:172:TYR:CD1	2.61	0.71
2:H:343:PHE:CZ	2:H:351:PHE:HE2	2.08	0.71
3:I:5:ARG:NH1	3:I:88:MET:HE3	2.02	0.71
1:A:431:GLU:OE1	1:A:432:TYR:HA	1.91	0.71
2:B:62:VAL:CG1	2:B:63:PRO:CD	2.50	0.71
2:F:11:GLN:HE21	2:F:74:VAL:CG2	2.03	0.71
3:I:23:ILE:HD13	3:I:92:LEU:HD13	1.73	0.71
1:A:201:THR:OG1	1:A:265:LEU:HD11	1.90	0.71
2:B:12:ALA:HB3	2:B:140:SER:OG	1.91	0.71
2:B:242:LEU:HD21	2:B:250:VAL:HB	1.71	0.71
1:C:175:PRO:HD2	1:C:207:GLU:OE2	1.91	0.71
1:C:245:PRO:HA	2:D:73:THR:CG2	2.21	0.71
1:G:191:VAL:CG1	1:G:425:MET:HG3	2.19	0.71
1:C:255:LEU:O	1:C:259:MET:HG3	1.91	0.70
1:G:291:LEU:O	1:G:295:MET:HG3	1.91	0.70
1:G:431:GLU:OE1	1:G:432:TYR:HA	1.91	0.70
1:C:10:GLY:O	1:C:14:ASN:HB2	1.90	0.70
2:D:12:ALA:HB3	2:D:140:SER:OG	1.91	0.70
2:F:12:ALA:HB3	2:F:140:SER:OG	1.91	0.70
2:F:51:THR:O	2:F:52:PHE:CD1	2.44	0.70
1:G:8:GLN:NE2	1:G:17:GLY:HA3	2.06	0.70
2:H:51:THR:O	2:H:52:PHE:CD1	2.44	0.70
2:B:7:ILE:CG1	2:B:137:VAL:HG22	2.20	0.70
1:C:70:LEU:HG	1:C:145:THR:HG23	1.73	0.70
1:E:356:CYS:SG	1:E:357:ASP:N	2.62	0.70
2:F:234:ILE:HG21	2:F:302:MET:HE3	1.73	0.70
1:G:201:THR:OG1	1:G:265:LEU:HD11	1.90	0.70
1:G:352:LYS:CB	2:H:181:VAL:CG2	2.69	0.70
3:I:33:ILE:CG2	3:I:43:ILE:HG21	2.22	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:10:GLY:O	1:A:14:ASN:HB2	1.90	0.70
1:A:291:LEU:O	1:A:295:MET:HG3	1.91	0.70
2:B:260:VAL:HG22	1:C:407:TRP:HE1	1.55	0.70
1:C:431:GLU:OE1	1:C:432:TYR:HA	1.91	0.70
1:G:325:MET:HA	1:G:325:MET:HE3	1.72	0.70
2:H:11:GLN:HE21	2:H:74:VAL:CG2	2.03	0.70
2:H:12:ALA:HB3	2:H:140:SER:OG	1.91	0.70
1:A:175:PRO:HD2	1:A:207:GLU:OE2	1.91	0.70
1:E:201:THR:OG1	1:E:265:LEU:HD11	1.90	0.70
1:A:48:ARG:HG2	1:A:243:ARG:O	1.90	0.70
2:B:244:PHE:HD1	2:B:245:ASP:N	1.90	0.70
1:E:237:GLY:O	1:E:241:CYS:HB3	1.90	0.70
2:H:242:LEU:HD21	2:H:250:VAL:HB	1.71	0.70
1:A:237:GLY:O	1:A:241:CYS:HB3	1.91	0.70
1:C:48:ARG:HG2	1:C:243:ARG:O	1.90	0.70
1:C:237:GLY:O	1:C:241:CYS:HB3	1.91	0.70
1:E:48:ARG:HG2	1:E:243:ARG:O	1.90	0.70
1:E:291:LEU:O	1:E:295:MET:HG3	1.91	0.70
1:E:431:GLU:OE1	1:E:432:TYR:HA	1.91	0.70
2:F:237:SER:CB	2:F:376:CYS:SG	2.80	0.70
2:F:371:VAL:HG12	2:F:372:GLN:H	1.57	0.70
2:H:371:VAL:HG12	2:H:372:GLN:H	1.57	0.70
3:I:28:LYS:HG2	3:I:58:TYR:CE1	2.23	0.70
1:A:70:LEU:HG	1:A:145:THR:HG23	1.74	0.70
2:B:5:ILE:HG22	2:B:6:SER:N	2.07	0.70
1:C:201:THR:OG1	1:C:265:LEU:HD11	1.90	0.70
1:C:291:LEU:O	1:C:295:MET:HG3	1.91	0.70
1:E:70:LEU:HG	1:E:145:THR:HG23	1.74	0.70
2:F:199:ASP:HB3	2:F:256:GLN:HE21	1.57	0.70
1:G:48:ARG:HG2	1:G:243:ARG:O	1.90	0.70
2:H:199:ASP:HB3	2:H:256:GLN:HE21	1.57	0.70
1:A:255:LEU:O	1:A:259:MET:HG3	1.91	0.70
1:C:234:THR:O	1:C:238:VAL:HG23	1.92	0.70
1:C:254:LYS:HZ3	2:D:101:ASN:HD21	1.40	0.70
1:E:8:GLN:NE2	1:E:17:GLY:HA3	2.06	0.70
1:E:255:LEU:O	1:E:259:MET:HG3	1.91	0.70
2:F:244:PHE:HD1	2:F:245:ASP:N	1.89	0.70
1:A:260:VAL:HG23	2:B:407:TRP:HE1	1.57	0.70
2:B:381:THR:C	2:B:383:ALA:H	1.95	0.70
2:D:205:ASP:HB3	2:D:303:VAL:HA	1.73	0.70
1:E:234:THR:O	1:E:238:VAL:HG23	1.92	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:234:THR:CG2	1:G:270:PRO:HB2	2.11	0.70
2:H:381:THR:C	2:H:383:ALA:H	1.95	0.70
1:A:234:THR:O	1:A:238:VAL:HG23	1.92	0.69
2:B:371:VAL:HG12	2:B:372:GLN:H	1.57	0.69
2:D:51:THR:O	2:D:52:PHE:CD1	2.45	0.69
2:F:242:LEU:HD21	2:F:250:VAL:HB	1.71	0.69
2:H:237:SER:CB	2:H:376:CYS:SG	2.80	0.69
2:B:199:ASP:HB3	2:B:256:GLN:HE21	1.57	0.69
2:B:205:ASP:HB3	2:B:303:VAL:HA	1.73	0.69
2:D:199:ASP:HB3	2:D:256:GLN:HE21	1.57	0.69
1:G:234:THR:O	1:G:238:VAL:HG23	1.92	0.69
1:G:257:VAL:HG23	2:H:407:TRP:HB2	0.77	0.69
2:H:343:PHE:HZ	2:H:351:PHE:CE2	2.10	0.69
2:B:133:GLN:HG2	2:B:243:ARG:HH22	1.57	0.69
2:D:276:ILE:O	2:D:369:ALA:N	2.25	0.69
1:G:70:LEU:HG	1:G:145:THR:HG23	1.74	0.69
1:G:237:GLY:O	1:G:241:CYS:HB3	1.90	0.69
2:H:244:PHE:HD1	2:H:245:ASP:N	1.90	0.69
2:D:67:PHE:CD2	2:D:92:LEU:HD23	2.26	0.69
2:D:371:VAL:HG12	2:D:372:GLN:H	1.57	0.69
2:F:67:PHE:CD2	2:F:92:LEU:HD23	2.26	0.69
2:H:67:PHE:CD2	2:H:92:LEU:HD23	2.26	0.69
2:B:248:LEU:HD21	1:C:179:ASP:OD1	1.93	0.69
1:E:24:ILE:HD11	1:E:52:TYR:CE2	2.28	0.69
3:I:18:LEU:CD2	3:I:50:PHE:HZ	2.05	0.69
2:B:172:TYR:C	2:B:172:TYR:CD1	2.61	0.69
1:C:332:MET:HE3	1:C:351:VAL:HG11	1.74	0.69
2:F:257:THR:HA	1:G:407:TRP:CD1	2.28	0.69
2:F:311:LYS:CD	2:F:344:VAL:HG13	2.23	0.69
2:F:381:THR:C	2:F:383:ALA:H	1.94	0.69
1:G:299:LYS:HD3	1:G:299:LYS:N	2.04	0.69
2:B:237:SER:CB	2:B:376:CYS:SG	2.80	0.69
1:C:209:LEU:HD23	1:C:227:LEU:HB3	1.75	0.69
2:F:133:GLN:HG2	2:F:243:ARG:HH22	1.57	0.69
2:F:205:ASP:HB3	2:F:303:VAL:HA	1.73	0.69
2:F:285:GLN:OE1	2:F:371:VAL:CG1	2.40	0.69
1:A:180:THR:HG22	1:A:181:VAL:N	2.07	0.69
2:B:67:PHE:CD2	2:B:92:LEU:HD23	2.26	0.69
2:B:276:ILE:O	2:B:369:ALA:N	2.25	0.69
1:C:180:THR:HG22	1:C:181:VAL:N	2.07	0.69
2:D:30:ILE:HD13	2:D:61:HIS:CD2	2.26	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:237:SER:CB	2:D:376:CYS:SG	2.80	0.69
2:F:115:ILE:CD1	2:F:119:LEU:HG	2.23	0.69
1:G:24:ILE:HD11	1:G:52:TYR:CE2	2.28	0.69
1:G:251:ASP:O	1:G:253:ARG:N	2.26	0.69
1:G:255:LEU:O	1:G:259:MET:HG3	1.91	0.69
2:H:133:GLN:HG2	2:H:243:ARG:HH22	1.57	0.69
2:F:257:THR:HA	1:G:407:TRP:NE1	2.08	0.69
1:C:88:ARG:CD	1:G:283:TYR:HE1	2.06	0.69
1:C:109:THR:HG23	3:I:89:GLN:HG2	1.75	0.69
2:D:244:PHE:HD1	2:D:245:ASP:N	1.89	0.69
1:E:251:ASP:O	1:E:253:ARG:N	2.26	0.69
1:G:180:THR:HG22	1:G:181:VAL:N	2.07	0.69
1:A:209:LEU:HD23	1:A:227:LEU:HB3	1.75	0.68
2:B:115:ILE:CD1	2:B:119:LEU:HG	2.23	0.68
2:D:133:GLN:HG2	2:D:243:ARG:HH22	1.57	0.68
1:G:2:ARG:NH2	2:H:98:ASP:HA	2.09	0.68
1:G:253:ARG:CG	2:H:407:TRP:HH2	2.06	0.68
2:H:115:ILE:CD1	2:H:119:LEU:HG	2.23	0.68
1:A:242:LEU:CD2	1:A:250:ALA:H	2.06	0.68
1:A:332:MET:HE3	1:A:351:VAL:HG11	1.74	0.68
2:F:276:ILE:O	2:F:369:ALA:N	2.25	0.68
3:I:45:LEU:HD12	3:I:116:ARG:CZ	2.24	0.68
1:A:24:ILE:HD11	1:A:52:TYR:CE2	2.28	0.68
1:C:251:ASP:O	1:C:253:ARG:N	2.26	0.68
1:E:257:VAL:O	1:E:257:VAL:HG12	1.93	0.68
2:H:205:ASP:HB3	2:H:303:VAL:HA	1.73	0.68
2:B:141:PHE:O	2:B:147:SER:HB3	1.94	0.68
2:D:381:THR:C	2:D:383:ALA:H	1.95	0.68
1:E:359:PRO:HB2	1:E:360:PRO:HD2	1.74	0.68
2:H:221:ARG:N	2:H:222:PRO:HD3	2.09	0.68
2:H:276:ILE:O	2:H:369:ALA:N	2.25	0.68
3:I:62:TRP:HZ2	3:I:84:SER:HA	1.58	0.68
1:C:24:ILE:HD11	1:C:52:TYR:CE2	2.28	0.68
1:C:242:LEU:CD2	1:C:250:ALA:H	2.07	0.68
1:G:243:ARG:HH22	1:G:252:LEU:HG	1.59	0.68
3:I:85:ARG:HH11	3:I:85:ARG:HA	1.59	0.68
1:A:103:TRP:HZ3	1:A:108:TYR:HE1	1.42	0.68
2:B:102:ASN:HB2	2:B:408:TYR:CE1	2.29	0.68
2:D:102:ASN:HB2	2:D:408:TYR:CE1	2.29	0.68
1:E:242:LEU:CD2	1:E:250:ALA:H	2.07	0.68
1:G:359:PRO:HB2	1:G:360:PRO:HD2	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:251:ASP:O	1:A:253:ARG:N	2.26	0.68
2:D:56:THR:CA	2:H:284:GLU:HB3	2.18	0.68
2:D:141:PHE:O	2:D:147:SER:HB3	1.94	0.68
2:D:221:ARG:N	2:D:222:PRO:HD3	2.09	0.68
1:E:180:THR:HG22	1:E:181:VAL:N	2.07	0.68
1:E:243:ARG:HH22	1:E:252:LEU:HG	1.59	0.68
1:G:248:LEU:HD13	2:H:179:THR:HG21	1.75	0.68
2:B:70:LEU:HD12	2:B:145:THR:CG2	2.24	0.68
2:B:296:PHE:CE2	2:B:335:ILE:CG2	2.73	0.68
1:C:103:TRP:HZ3	1:C:108:TYR:HE1	1.42	0.68
1:C:204:ILE:HD13	1:C:231:VAL:HG22	1.76	0.68
1:C:310:GLY:HA3	1:C:436:GLN:HE21	1.59	0.68
2:D:234:ILE:HG21	2:D:302:MET:HE3	1.75	0.68
1:E:44:LEU:HD12	1:E:49:ILE:HD13	1.76	0.68
1:E:204:ILE:HD13	1:E:231:VAL:HG22	1.76	0.68
1:E:256:ALA:O	1:E:260:VAL:HG22	1.94	0.68
1:E:299:LYS:HD3	1:E:299:LYS:N	2.04	0.68
1:E:310:GLY:HA3	1:E:436:GLN:HE21	1.59	0.68
2:F:70:LEU:HD12	2:F:145:THR:CG2	2.24	0.68
2:F:102:ASN:HB2	2:F:408:TYR:CE1	2.29	0.68
2:H:70:LEU:HD12	2:H:145:THR:CG2	2.24	0.68
3:I:4:SER:HG	3:I:6:GLN:HG2	1.57	0.68
3:I:21:THR:CG2	3:I:22:ARG:HD2	2.21	0.68
1:A:310:GLY:HA3	1:A:436:GLN:HE21	1.59	0.68
1:C:299:LYS:HD3	1:C:299:LYS:N	2.04	0.68
2:D:115:ILE:CD1	2:D:119:LEU:HG	2.23	0.68
2:F:221:ARG:N	2:F:222:PRO:HD3	2.09	0.68
1:G:103:TRP:HZ3	1:G:108:TYR:HE1	1.42	0.68
1:G:242:LEU:CD2	1:G:250:ALA:H	2.07	0.68
2:H:102:ASN:HB2	2:H:408:TYR:CE1	2.29	0.68
1:A:257:VAL:O	1:A:257:VAL:HG12	1.93	0.68
2:B:217:LEU:HD12	2:B:277:SER:CA	2.23	0.68
1:C:256:ALA:O	1:C:260:VAL:HG22	1.94	0.68
1:C:359:PRO:HB2	1:C:360:PRO:HD2	1.74	0.68
2:F:141:PHE:O	2:F:147:SER:HB3	1.94	0.68
2:H:141:PHE:O	2:H:147:SER:HB3	1.94	0.68
1:A:204:ILE:HD13	1:A:231:VAL:HG22	1.76	0.67
1:A:359:PRO:HB2	1:A:360:PRO:HD2	1.74	0.67
2:B:251:ASP:O	2:B:254:GLU:HB2	1.94	0.67
1:C:257:VAL:O	1:C:257:VAL:HG12	1.93	0.67
1:C:328:VAL:O	1:C:332:MET:HG2	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:310:GLY:HA3	1:G:436:GLN:HE21	1.59	0.67
2:H:251:ASP:O	2:H:254:GLU:HB2	1.94	0.67
1:A:256:ALA:O	1:A:260:VAL:HG22	1.94	0.67
1:A:299:LYS:HD3	1:A:299:LYS:N	2.04	0.67
1:A:328:VAL:O	1:A:332:MET:HG2	1.95	0.67
2:B:95:GLY:O	2:B:97:GLU:N	2.27	0.67
1:C:325:MET:CE	1:C:355:VAL:HG21	2.24	0.67
2:D:22:GLU:HG3	2:D:83:TYR:OH	1.95	0.67
1:E:209:LEU:HD23	1:E:227:LEU:HB3	1.75	0.67
1:E:325:MET:CE	1:E:355:VAL:HG21	2.24	0.67
1:G:44:LEU:HD12	1:G:49:ILE:HD13	1.76	0.67
1:G:204:ILE:HD13	1:G:231:VAL:HG22	1.76	0.67
1:G:256:ALA:O	1:G:260:VAL:HG22	1.94	0.67
3:I:45:LEU:HD12	3:I:116:ARG:HB3	1.76	0.67
2:B:221:ARG:N	2:B:222:PRO:HD3	2.09	0.67
2:D:70:LEU:HD12	2:D:145:THR:CG2	2.24	0.67
1:G:325:MET:CE	1:G:355:VAL:HG21	2.24	0.67
1:G:328:VAL:O	1:G:332:MET:HG2	1.95	0.67
1:A:4:ILE:HG21	1:A:136:GLN:HG2	1.76	0.67
1:A:66:ILE:C	1:A:67:LEU:HD23	2.15	0.67
2:D:296:PHE:CE2	2:D:335:ILE:CG2	2.73	0.67
1:E:66:ILE:C	1:E:67:LEU:HD23	2.15	0.67
2:F:175:PRO:HG3	2:F:304:LYS:HG2	1.76	0.67
1:G:4:ILE:HG21	1:G:136:GLN:HG2	1.76	0.67
2:H:22:GLU:HG3	2:H:83:TYR:OH	1.95	0.67
2:H:217:LEU:HD12	2:H:277:SER:CA	2.23	0.67
1:A:325:MET:CE	1:A:355:VAL:HG21	2.24	0.67
2:D:7:ILE:HD12	2:D:153:LEU:CD2	2.24	0.67
3:I:59:ILE:HA	3:I:62:TRP:CD1	2.27	0.67
2:B:7:ILE:HD12	2:B:153:LEU:CD2	2.24	0.67
2:B:49:PHE:CE1	2:B:61:HIS:HE1	2.12	0.67
2:B:175:PRO:HG3	2:B:304:LYS:HG2	1.76	0.67
2:D:251:ASP:O	2:D:254:GLU:HB2	1.94	0.67
1:E:103:TRP:HZ3	1:E:108:TYR:HE1	1.42	0.67
1:E:332:MET:HE3	1:E:351:VAL:HG11	1.75	0.67
2:F:251:ASP:O	2:F:254:GLU:HB2	1.94	0.67
1:G:209:LEU:HD23	1:G:227:LEU:HB3	1.75	0.67
2:B:22:GLU:HG3	2:B:83:TYR:OH	1.95	0.67
2:B:341:ILE:O	2:B:341:ILE:HG12	1.95	0.67
2:B:343:PHE:HZ	2:B:351:PHE:CE2	2.10	0.67
1:C:66:ILE:C	1:C:67:LEU:HD23	2.15	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:267:PHE:N	1:C:267:PHE:CD1	2.62	0.67
2:F:284:GLU:O	2:F:284:GLU:HG2	1.93	0.67
1:G:66:ILE:C	1:G:67:LEU:HD23	2.15	0.67
1:C:109:THR:CG2	3:I:89:GLN:CG	2.73	0.67
1:E:4:ILE:HG21	1:E:136:GLN:HG2	1.76	0.67
1:E:328:VAL:O	1:E:332:MET:HG2	1.95	0.67
2:F:22:GLU:HG3	2:F:83:TYR:OH	1.95	0.67
2:F:30:ILE:CD1	2:F:61:HIS:CD2	2.78	0.67
1:G:390:ARG:NH1	3:I:56:TYR:HB2	1.99	0.67
3:I:42:ASP:OD1	3:I:43:ILE:HD12	1.95	0.67
1:C:276:THR:HB	1:C:281:GLN:CG	2.25	0.67
2:D:172:TYR:HD1	2:D:173:PRO:N	1.93	0.67
2:F:3:GLU:HG2	2:F:51:THR:C	2.14	0.67
2:F:7:ILE:HD12	2:F:153:LEU:CD2	2.24	0.67
1:G:352:LYS:CA	2:H:181:VAL:CG2	2.73	0.67
2:H:7:ILE:HD12	2:H:153:LEU:CD2	2.24	0.67
1:A:250:ALA:HB1	1:A:254:LYS:HB2	1.75	0.67
1:A:267:PHE:N	1:A:267:PHE:CD1	2.62	0.67
1:A:276:THR:HB	1:A:281:GLN:CG	2.25	0.67
2:B:315:CYS:HB3	2:B:377:MET:HE2	1.75	0.67
1:C:107:HIS:CD2	1:C:151:THR:CG2	2.77	0.67
2:D:152:LEU:HA	2:D:155:GLU:HB2	1.76	0.67
1:E:242:LEU:CD1	1:E:255:LEU:HD11	2.25	0.67
1:E:276:THR:HB	1:E:281:GLN:CG	2.25	0.67
1:G:260:VAL:HG23	2:H:406:HIS:CE1	2.29	0.67
1:A:44:LEU:HD12	1:A:49:ILE:HD13	1.76	0.66
2:B:152:LEU:HA	2:B:155:GLU:HB2	1.77	0.66
1:C:4:ILE:HG21	1:C:136:GLN:HG2	1.76	0.66
1:C:245:PRO:HA	2:D:73:THR:HG21	1.78	0.66
2:D:341:ILE:HG12	2:D:341:ILE:O	1.95	0.66
1:E:182:VAL:HG23	1:E:186:ASN:HD21	1.60	0.66
1:E:250:ALA:HB1	1:E:254:LYS:HB2	1.75	0.66
2:F:95:GLY:O	2:F:97:GLU:N	2.27	0.66
2:H:95:GLY:O	2:H:97:GLU:N	2.27	0.66
1:A:243:ARG:HH22	1:A:252:LEU:HG	1.59	0.66
1:C:44:LEU:HD12	1:C:49:ILE:HD13	1.76	0.66
1:C:265:LEU:HD12	1:C:265:LEU:C	2.16	0.66
2:D:95:GLY:O	2:D:97:GLU:N	2.27	0.66
2:D:343:PHE:HZ	2:D:351:PHE:CE2	2.10	0.66
2:F:296:PHE:CE2	2:F:335:ILE:CG2	2.73	0.66
1:G:242:LEU:CD1	1:G:255:LEU:HD11	2.25	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:175:PRO:HG3	2:H:304:LYS:HG2	1.76	0.66
1:A:242:LEU:HD12	1:A:255:LEU:HD11	1.77	0.66
2:D:175:PRO:HG3	2:D:304:LYS:HG2	1.76	0.66
1:G:230:LEU:HD23	1:G:231:VAL:N	2.10	0.66
1:G:265:LEU:HD12	1:G:265:LEU:C	2.16	0.66
2:H:67:PHE:CD2	2:H:92:LEU:CD2	2.79	0.66
3:I:9:LEU:O	3:I:12:ILE:HG22	1.95	0.66
1:E:242:LEU:HD12	1:E:255:LEU:HD11	1.77	0.66
2:F:68:VAL:HG11	2:F:149:PHE:CZ	2.31	0.66
3:I:87:LYS:HE2	3:I:90:ASP:OD2	1.96	0.66
1:A:242:LEU:CD1	1:A:255:LEU:HD11	2.25	0.66
1:A:265:LEU:HD12	1:A:265:LEU:C	2.16	0.66
2:B:67:PHE:CD2	2:B:92:LEU:CD2	2.79	0.66
2:B:172:TYR:HD1	2:B:173:PRO:N	1.93	0.66
1:C:230:LEU:HD23	1:C:231:VAL:N	2.10	0.66
1:C:243:ARG:HH22	1:C:252:LEU:HG	1.59	0.66
1:E:265:LEU:HD12	1:E:265:LEU:C	2.16	0.66
1:E:267:PHE:CD1	1:E:267:PHE:N	2.62	0.66
2:F:67:PHE:CD2	2:F:92:LEU:CD2	2.79	0.66
2:B:68:VAL:HG11	2:B:149:PHE:CZ	2.30	0.66
1:C:250:ALA:HB1	1:C:254:LYS:HB2	1.75	0.66
2:D:62:VAL:HG11	2:D:88:HIS:ND1	2.05	0.66
1:G:107:HIS:CD2	1:G:151:THR:CG2	2.77	0.66
2:H:3:GLU:HG2	2:H:51:THR:C	2.14	0.66
2:H:100:ALA:CB	2:H:105:ARG:HD3	2.25	0.66
2:H:313:MET:HB3	2:H:344:VAL:CG2	2.26	0.66
1:A:107:HIS:CD2	1:A:151:THR:CG2	2.77	0.66
1:C:93:VAL:CG1	1:C:118:VAL:HG22	2.19	0.66
1:C:242:LEU:CD1	1:C:255:LEU:HD11	2.25	0.66
1:C:242:LEU:HD12	1:C:255:LEU:HD11	1.78	0.66
1:C:325:MET:HE3	1:C:325:MET:HA	1.76	0.66
1:E:107:HIS:CD2	1:E:151:THR:CG2	2.77	0.66
1:G:242:LEU:HD12	1:G:255:LEU:HD11	1.78	0.66
1:A:281:GLN:O	1:A:283:TYR:HB2	1.96	0.66
2:B:63:PRO:CG	2:B:87:PHE:HA	2.26	0.66
2:H:152:LEU:HA	2:H:155:GLU:HB2	1.77	0.66
2:H:278:ALA:O	2:H:279:GLU:CB	2.43	0.66
2:H:341:ILE:O	2:H:341:ILE:HG12	1.95	0.66
2:B:313:MET:HB3	2:B:344:VAL:CG2	2.26	0.66
1:C:281:GLN:O	1:C:283:TYR:HB2	1.96	0.66
1:E:230:LEU:HD23	1:E:231:VAL:N	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:35:SER:HB3	1:G:59:ASN:CA	2.26	0.66
2:H:68:VAL:HG11	2:H:149:PHE:CZ	2.31	0.66
2:H:372:GLN:O	2:H:373:ARG:HB3	1.96	0.66
1:A:172:VAL:HG11	1:A:387:LEU:CD2	2.22	0.66
1:A:230:LEU:HD23	1:A:231:VAL:N	2.10	0.66
2:D:313:MET:HB3	2:D:344:VAL:CG2	2.26	0.66
2:F:372:GLN:O	2:F:373:ARG:HB3	1.96	0.66
1:G:182:VAL:HG23	1:G:186:ASN:HD21	1.60	0.66
2:B:100:ALA:CB	2:B:105:ARG:HD3	2.26	0.65
1:C:352:LYS:NZ	2:D:180:ALA:HA	2.11	0.65
2:D:67:PHE:CD2	2:D:92:LEU:CD2	2.79	0.65
2:D:217:LEU:HD11	2:D:367:ASP:O	1.96	0.65
1:E:281:GLN:O	1:E:283:TYR:HB2	1.96	0.65
2:F:206:ASN:OD1	2:F:227:LEU:HD13	1.96	0.65
2:F:217:LEU:HD11	2:F:367:ASP:O	1.96	0.65
1:G:66:ILE:CD1	1:G:122:VAL:HG12	2.26	0.65
2:H:172:TYR:HD1	2:H:173:PRO:N	1.93	0.65
2:H:217:LEU:HD11	2:H:367:ASP:O	1.96	0.65
2:B:5:ILE:HD11	2:B:64:ARG:HH12	1.59	0.65
2:B:206:ASN:OD1	2:B:227:LEU:HD13	1.96	0.65
2:B:217:LEU:HD11	2:B:367:ASP:O	1.97	0.65
2:D:100:ALA:CB	2:D:105:ARG:HD3	2.25	0.65
2:H:206:ASN:OD1	2:H:227:LEU:HD13	1.97	0.65
1:A:35:SER:HB3	1:A:59:ASN:CA	2.26	0.65
1:A:182:VAL:HG23	1:A:186:ASN:HD21	1.60	0.65
2:B:243:ARG:NH2	2:B:252:LEU:N	2.29	0.65
1:C:172:VAL:HG11	1:C:387:LEU:CD2	2.22	0.65
2:D:206:ASN:OD1	2:D:227:LEU:HD13	1.97	0.65
1:E:35:SER:HB3	1:E:59:ASN:CA	2.26	0.65
1:E:66:ILE:CD1	1:E:122:VAL:HG12	2.26	0.65
2:F:172:TYR:HD1	2:F:173:PRO:N	1.93	0.65
1:G:413:MET:HG2	1:G:418:PHE:HE1	1.61	0.65
1:A:66:ILE:CD1	1:A:122:VAL:HG12	2.26	0.65
2:B:296:PHE:CZ	2:B:341:ILE:HD11	2.22	0.65
1:C:66:ILE:CD1	1:C:122:VAL:HG12	2.26	0.65
1:C:182:VAL:HG23	1:C:186:ASN:HD21	1.60	0.65
2:F:2:ARG:HH21	1:G:96:GLN:NE2	1.94	0.65
2:F:100:ALA:CB	2:F:105:ARG:HD3	2.26	0.65
1:G:267:PHE:N	1:G:267:PHE:CD1	2.62	0.65
2:B:3:GLU:HG2	2:B:51:THR:C	2.15	0.65
2:B:343:PHE:CZ	2:B:351:PHE:HE2	2.08	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:108:TYR:CD1	1:C:413:MET:HE1	2.31	0.65
1:C:35:SER:HB3	1:C:59:ASN:CA	2.26	0.65
2:D:271:THR:HG23	2:D:300:ASN:O	1.97	0.65
2:F:152:LEU:HA	2:F:155:GLU:HB2	1.77	0.65
2:F:278:ALA:O	2:F:279:GLU:CB	2.43	0.65
2:H:317:LEU:HD12	2:H:351:PHE:CD1	2.32	0.65
2:B:49:PHE:CE1	2:B:61:HIS:CE1	2.84	0.65
1:C:422:GLU:O	1:C:426:ASN:HB2	1.97	0.65
2:D:3:GLU:HG2	2:D:51:THR:C	2.15	0.65
2:D:317:LEU:HD12	2:D:351:PHE:CD1	2.32	0.65
2:D:344:VAL:HG12	2:D:345:ASP:N	2.12	0.65
1:G:281:GLN:O	1:G:283:TYR:HB2	1.96	0.65
1:G:282:GLN:HG2	1:G:282:GLN:O	1.97	0.65
2:H:296:PHE:CE2	2:H:335:ILE:CG2	2.73	0.65
2:B:293:ASN:OD1	2:B:338:LYS:NZ	2.30	0.65
2:B:317:LEU:HD12	2:B:351:PHE:CD1	2.32	0.65
2:B:344:VAL:HG12	2:B:345:ASP:N	2.12	0.65
1:E:66:ILE:HD13	1:E:122:VAL:HG12	1.79	0.65
1:E:158:ARG:NE	1:E:197:ASN:O	2.30	0.65
1:E:413:MET:HG2	1:E:418:PHE:HE1	1.61	0.65
2:F:402:ARG:O	2:F:403:ALA:C	2.35	0.65
2:H:102:ASN:HB3	2:H:407:TRP:CD1	2.31	0.65
1:A:66:ILE:HD13	1:A:122:VAL:HG12	1.79	0.65
1:A:413:MET:HG2	1:A:418:PHE:HE1	1.61	0.65
2:D:115:ILE:HG23	2:D:116:ASP:N	2.12	0.65
1:E:282:GLN:O	1:E:282:GLN:HG2	1.97	0.65
1:G:66:ILE:HD13	1:G:122:VAL:HG12	1.79	0.65
2:H:115:ILE:HG23	2:H:116:ASP:N	2.12	0.65
2:H:344:VAL:HG12	2:H:345:ASP:N	2.12	0.65
1:A:422:GLU:O	1:A:426:ASN:HB2	1.97	0.65
2:B:115:ILE:HG23	2:B:116:ASP:N	2.12	0.65
2:D:68:VAL:HG11	2:D:149:PHE:CZ	2.31	0.65
2:F:317:LEU:HD12	2:F:351:PHE:CD1	2.32	0.65
1:G:241:CYS:O	1:G:244:PHE:HB2	1.97	0.65
2:H:3:GLU:HA	2:H:51:THR:CB	2.27	0.65
1:A:93:VAL:CG1	1:A:118:VAL:HG22	2.19	0.64
1:A:158:ARG:NE	1:A:197:ASN:O	2.30	0.64
2:B:271:THR:HG23	2:B:300:ASN:O	1.97	0.64
2:B:402:ARG:O	2:B:403:ALA:C	2.36	0.64
1:C:241:CYS:O	1:C:244:PHE:HB2	1.97	0.64
2:D:3:GLU:HA	2:D:51:THR:CB	2.27	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:115:ILE:HG23	2:F:116:ASP:N	2.12	0.64
1:G:158:ARG:NE	1:G:197:ASN:O	2.30	0.64
2:H:209:ILE:HG23	2:H:230:LEU:HD23	1.79	0.64
2:H:402:ARG:O	2:H:403:ALA:C	2.36	0.64
1:A:114:LEU:O	1:A:118:VAL:HG23	1.97	0.64
1:A:241:CYS:O	1:A:244:PHE:HB2	1.97	0.64
2:B:372:GLN:O	2:B:373:ARG:HB3	1.96	0.64
1:G:250:ALA:HB1	1:G:254:LYS:CD	2.18	0.64
1:G:250:ALA:HB1	1:G:254:LYS:HB3	1.78	0.64
2:H:293:ASN:OD1	2:H:338:LYS:NZ	2.30	0.64
3:I:5:ARG:O	3:I:9:LEU:HG	1.97	0.64
1:A:431:GLU:O	1:A:434:GLN:HG2	1.97	0.64
2:B:3:GLU:HA	2:B:51:THR:CB	2.27	0.64
1:C:158:ARG:NE	1:C:197:ASN:O	2.30	0.64
2:F:209:ILE:HG23	2:F:230:LEU:HD23	1.79	0.64
1:C:114:LEU:O	1:C:118:VAL:HG23	1.97	0.64
2:D:402:ARG:O	2:D:403:ALA:C	2.35	0.64
2:F:285:GLN:HG3	2:F:371:VAL:HG13	1.79	0.64
2:F:293:ASN:OD1	2:F:338:LYS:NZ	2.30	0.64
1:G:284:ARG:O	1:G:286:LEU:N	2.31	0.64
1:C:66:ILE:HD13	1:C:122:VAL:HG12	1.79	0.64
1:C:431:GLU:O	1:C:434:GLN:HG2	1.97	0.64
2:D:88:HIS:NE2	2:H:283:HIS:CD2	2.65	0.64
1:E:431:GLU:O	1:E:434:GLN:HG2	1.97	0.64
1:G:70:LEU:N	1:G:145:THR:HG21	2.11	0.64
1:G:133:GLN:HG3	1:G:165:ILE:HD11	1.80	0.64
1:G:427:ASP:O	1:G:430:SER:HB3	1.97	0.64
3:I:39:ILE:HD13	3:I:101:PHE:CD1	2.32	0.64
1:A:133:GLN:HG3	1:A:165:ILE:HD11	1.80	0.64
1:A:284:ARG:O	1:A:286:LEU:N	2.31	0.64
2:B:63:PRO:HG3	2:B:87:PHE:HA	1.80	0.64
1:C:133:GLN:HG3	1:C:165:ILE:HD11	1.80	0.64
1:C:192:HIS:O	1:C:195:VAL:HG12	1.98	0.64
1:C:247:GLN:HB3	2:D:224:TYR:CD2	2.31	0.64
1:E:133:GLN:HG3	1:E:165:ILE:HD11	1.80	0.64
1:E:284:ARG:O	1:E:286:LEU:N	2.31	0.64
2:H:305:CYS:SG	2:H:384:ILE:HD13	2.37	0.64
2:B:25:CYS:HB2	2:B:30:ILE:O	1.98	0.64
1:E:241:CYS:O	1:E:244:PHE:HB2	1.97	0.64
1:E:427:ASP:O	1:E:430:SER:HB3	1.97	0.64
2:F:271:THR:HG23	2:F:300:ASN:O	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:180:THR:CG2	1:G:181:VAL:N	2.61	0.64
2:H:271:THR:HG23	2:H:300:ASN:O	1.97	0.64
1:A:192:HIS:O	1:A:195:VAL:HG12	1.98	0.64
2:B:234:ILE:HD13	2:B:234:ILE:C	2.18	0.64
1:C:284:ARG:O	1:C:286:LEU:N	2.31	0.64
1:C:325:MET:HE2	1:C:355:VAL:HG21	1.79	0.64
1:C:413:MET:HG2	1:C:418:PHE:HE1	1.61	0.64
2:D:293:ASN:OD1	2:D:338:LYS:NZ	2.30	0.64
2:D:372:GLN:O	2:D:373:ARG:HB3	1.96	0.64
1:E:422:GLU:O	1:E:426:ASN:HB2	1.97	0.64
1:G:258:ASN:CA	2:H:404:PHE:CD2	2.70	0.64
2:H:234:ILE:HD13	2:H:234:ILE:C	2.18	0.64
1:A:282:GLN:HG2	1:A:282:GLN:O	1.97	0.64
2:B:317:LEU:HD11	2:B:351:PHE:HE1	1.63	0.64
2:D:25:CYS:HB2	2:D:30:ILE:O	1.98	0.64
2:D:30:ILE:CD1	2:D:61:HIS:CD2	2.81	0.64
2:H:296:PHE:CZ	2:H:341:ILE:HD11	2.22	0.64
3:I:20:LEU:HD21	3:I:22:ARG:C	2.19	0.64
1:C:113:GLU:OE1	3:I:87:LYS:CE	2.45	0.64
1:C:282:GLN:O	1:C:282:GLN:HG2	1.97	0.64
2:D:243:ARG:NH2	2:D:252:LEU:N	2.29	0.64
2:D:296:PHE:CZ	2:D:341:ILE:CD1	2.79	0.64
2:D:305:CYS:SG	2:D:384:ILE:HD13	2.37	0.64
1:E:180:THR:CG2	1:E:181:VAL:N	2.61	0.64
1:G:276:THR:HB	1:G:281:GLN:CG	2.25	0.64
2:H:151:SER:O	2:H:155:GLU:HB2	1.98	0.64
2:H:386:GLU:O	2:H:389:ALA:N	2.31	0.64
2:B:175:PRO:HG2	2:B:207:GLU:OE1	1.98	0.63
2:B:305:CYS:SG	2:B:384:ILE:HD13	2.37	0.63
2:D:209:ILE:HG23	2:D:230:LEU:HD23	1.79	0.63
1:E:192:HIS:O	1:E:195:VAL:HG12	1.98	0.63
2:F:386:GLU:O	2:F:389:ALA:N	2.31	0.63
1:G:245:PRO:HB3	2:H:73:THR:CG2	2.29	0.63
3:I:29:GLY:O	3:I:33:ILE:HD13	1.98	0.63
1:A:180:THR:CG2	1:A:181:VAL:N	2.61	0.63
2:D:175:PRO:HG2	2:D:207:GLU:OE1	1.98	0.63
1:E:105:LYS:O	1:E:110:GLU:HB2	1.97	0.63
1:G:431:GLU:O	1:G:434:GLN:HG2	1.97	0.63
1:A:427:ASP:O	1:A:430:SER:HB3	1.97	0.63
2:B:386:GLU:O	2:B:389:ALA:N	2.31	0.63
1:E:70:LEU:N	1:E:145:THR:HG21	2.11	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:317:LEU:HD11	2:H:351:PHE:HE1	1.63	0.63
3:I:8:LEU:HD11	3:I:96:GLN:HG2	1.80	0.63
1:A:70:LEU:N	1:A:145:THR:HG21	2.11	0.63
1:A:105:LYS:O	1:A:110:GLU:HB2	1.97	0.63
1:C:180:THR:CG2	1:C:181:VAL:N	2.61	0.63
1:C:427:ASP:O	1:C:430:SER:HB3	1.97	0.63
2:F:151:SER:O	2:F:155:GLU:HB2	1.98	0.63
2:F:152:LEU:HD12	2:F:153:LEU:N	2.14	0.63
1:A:315:VAL:HG13	1:A:377:PHE:CE1	2.34	0.63
2:B:151:SER:O	2:B:155:GLU:HB2	1.98	0.63
1:C:299:LYS:O	1:C:300:ASN:HB2	1.97	0.63
2:D:234:ILE:HD13	2:D:234:ILE:C	2.18	0.63
2:D:386:GLU:O	2:D:389:ALA:N	2.31	0.63
1:E:114:LEU:O	1:E:118:VAL:HG23	1.98	0.63
1:G:105:LYS:O	1:G:110:GLU:HB2	1.97	0.63
1:G:192:HIS:O	1:G:195:VAL:HG12	1.98	0.63
2:H:152:LEU:HD12	2:H:153:LEU:N	2.14	0.63
1:A:299:LYS:O	1:A:300:ASN:HB2	1.98	0.63
1:A:318:VAL:HA	1:A:354:ALA:HB3	1.81	0.63
1:C:105:LYS:O	1:C:110:GLU:HB2	1.97	0.63
2:F:305:CYS:SG	2:F:384:ILE:HD13	2.37	0.63
2:F:317:LEU:HD11	2:F:351:PHE:HE1	1.63	0.63
1:G:318:VAL:HA	1:G:354:ALA:HB3	1.81	0.63
1:C:70:LEU:N	1:C:145:THR:HG21	2.11	0.63
2:D:152:LEU:HD12	2:D:153:LEU:N	2.14	0.63
1:G:70:LEU:H	1:G:145:THR:CG2	2.10	0.63
1:G:258:ASN:ND2	1:G:352:LYS:CE	2.55	0.63
1:G:299:LYS:O	1:G:300:ASN:HB2	1.98	0.63
2:H:175:PRO:HG2	2:H:207:GLU:OE1	1.98	0.63
3:I:18:LEU:HD21	3:I:50:PHE:CZ	2.34	0.63
1:A:172:VAL:CG1	1:A:387:LEU:HD21	2.24	0.63
1:C:315:VAL:HG13	1:C:377:PHE:CE1	2.34	0.63
2:D:296:PHE:CZ	2:D:341:ILE:HD11	2.22	0.63
2:D:317:LEU:HB3	2:D:319:TYR:CE1	2.33	0.63
1:E:299:LYS:O	1:E:300:ASN:HB2	1.97	0.63
2:F:234:ILE:HD13	2:F:234:ILE:C	2.18	0.63
1:G:114:LEU:O	1:G:118:VAL:HG23	1.97	0.63
1:G:422:GLU:O	1:G:426:ASN:HB2	1.97	0.63
1:A:108:TYR:CD1	1:A:413:MET:HE1	2.34	0.63
2:B:5:ILE:HD13	2:B:64:ARG:HH12	1.59	0.63
2:B:209:ILE:HG23	2:B:230:LEU:HD23	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:56:THR:CB	2:H:284:GLU:HB2	2.29	0.63
2:D:151:SER:O	2:D:155:GLU:HB2	1.98	0.63
2:D:236:SER:O	2:D:240:ALA:HB3	1.99	0.63
2:H:7:ILE:HG22	2:H:66:VAL:CG2	2.28	0.63
2:B:152:LEU:HD12	2:B:153:LEU:N	2.14	0.62
2:B:236:SER:O	2:B:240:ALA:HB3	1.99	0.62
1:C:254:LYS:NZ	2:D:101:ASN:ND2	2.47	0.62
2:D:315:CYS:HB3	2:D:377:MET:CE	2.29	0.62
1:E:70:LEU:H	1:E:145:THR:CG2	2.10	0.62
2:F:102:ASN:OD1	2:F:105:ARG:HB3	1.99	0.62
1:A:4:ILE:HA	1:A:134:GLY:O	1.99	0.62
2:D:70:LEU:O	2:D:95:GLY:O	2.17	0.62
2:D:317:LEU:HD11	2:D:351:PHE:HE1	1.63	0.62
1:E:318:VAL:HA	1:E:354:ALA:HB3	1.81	0.62
2:F:7:ILE:HG22	2:F:66:VAL:CG2	2.28	0.62
2:F:315:CYS:HB3	2:F:377:MET:HE2	1.80	0.62
1:G:2:ARG:HH21	2:H:98:ASP:HA	1.64	0.62
2:H:102:ASN:OD1	2:H:105:ARG:HB3	1.99	0.62
2:B:70:LEU:O	2:B:95:GLY:O	2.17	0.62
2:B:315:CYS:HB3	2:B:377:MET:CE	2.29	0.62
1:C:137:LEU:HD22	1:C:154:ILE:CG2	2.28	0.62
1:E:137:LEU:HD22	1:E:154:ILE:CG2	2.28	0.62
1:E:205:ASP:OD2	1:E:304:ALA:N	2.32	0.62
2:F:70:LEU:O	2:F:95:GLY:O	2.17	0.62
2:F:317:LEU:HB3	2:F:319:TYR:CE1	2.33	0.62
1:G:137:LEU:HD22	1:G:154:ILE:CG2	2.28	0.62
1:G:258:ASN:C	2:H:404:PHE:CE2	2.71	0.62
2:H:236:SER:O	2:H:240:ALA:HB3	1.99	0.62
2:B:258:ASN:OD1	1:C:180:THR:HG23	1.98	0.62
2:B:278:ALA:O	2:B:279:GLU:CB	2.43	0.62
2:B:353:VAL:HB	1:C:179:ASP:OD1	1.99	0.62
1:C:172:VAL:CG1	1:C:387:LEU:HD21	2.24	0.62
1:C:205:ASP:OD2	1:C:304:ALA:N	2.32	0.62
1:C:243:ARG:HH21	1:C:252:LEU:H	1.45	0.62
1:C:318:VAL:HA	1:C:354:ALA:HB3	1.81	0.62
1:E:243:ARG:HH21	1:E:252:LEU:H	1.45	0.62
2:F:62:VAL:CG1	2:F:91:GLN:HE22	2.13	0.62
2:H:317:LEU:HB3	2:H:319:TYR:CE1	2.33	0.62
1:A:137:LEU:HD22	1:A:154:ILE:CG2	2.28	0.62
1:A:205:ASP:OD2	1:A:304:ALA:N	2.32	0.62
2:D:205:ASP:HB2	2:D:303:VAL:HA	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:175:PRO:HG2	2:F:207:GLU:OE1	1.98	0.62
2:F:315:CYS:HB3	2:F:377:MET:CE	2.29	0.62
1:G:205:ASP:OD2	1:G:304:ALA:N	2.32	0.62
1:G:230:LEU:O	1:G:233:ALA:HB3	2.00	0.62
2:H:62:VAL:CG1	2:H:91:GLN:HE22	2.13	0.62
2:H:315:CYS:HB3	2:H:377:MET:CE	2.29	0.62
1:C:4:ILE:HA	1:C:134:GLY:O	1.99	0.62
2:D:278:ALA:O	2:D:279:GLU:CB	2.43	0.62
2:D:293:ASN:HD21	2:D:338:LYS:HZ1	1.47	0.62
1:E:115:VAL:HG21	1:E:152:LEU:CD2	2.30	0.62
1:E:211:ASP:OD1	1:E:212:ILE:N	2.33	0.62
1:E:230:LEU:O	1:E:233:ALA:HB3	2.00	0.62
1:E:253:ARG:O	1:E:256:ALA:N	2.33	0.62
2:F:284:GLU:OE1	2:F:284:GLU:N	2.29	0.62
1:G:63:PRO:HD2	1:G:86:ILE:HG12	1.80	0.62
1:G:243:ARG:HH21	1:G:252:LEU:H	1.45	0.62
2:H:70:LEU:O	2:H:95:GLY:O	2.17	0.62
3:I:91:ASN:O	3:I:95:VAL:HG23	1.98	0.62
2:D:273:ALA:HB3	2:D:274:PRO:HD3	1.81	0.62
1:E:63:PRO:HD2	1:E:86:ILE:HG12	1.80	0.62
2:F:3:GLU:HA	2:F:51:THR:CB	2.28	0.62
2:F:23:LEU:HD22	2:F:232:GLY:O	1.99	0.62
2:F:277:SER:HA	2:F:367:ASP:O	2.00	0.62
1:G:70:LEU:CG	1:G:145:THR:HG23	2.30	0.62
1:G:315:VAL:HG13	1:G:377:PHE:CE1	2.34	0.62
2:H:23:LEU:HD22	2:H:232:GLY:O	1.99	0.62
2:B:7:ILE:CD1	2:B:137:VAL:HG22	2.29	0.62
2:B:23:LEU:HD22	2:B:232:GLY:O	1.99	0.62
2:B:118:VAL:HG11	2:B:149:PHE:HZ	1.65	0.62
2:B:166:LYS:H	2:B:199:ASP:CG	2.03	0.62
2:B:317:LEU:HB3	2:B:319:TYR:CE1	2.33	0.62
1:C:63:PRO:HD2	1:C:86:ILE:HG12	1.80	0.62
1:C:109:THR:HG22	3:I:89:GLN:CG	2.29	0.62
2:D:269:LEU:O	2:D:378:LEU:HA	1.99	0.62
1:E:108:TYR:CD1	1:E:413:MET:HE1	2.35	0.62
2:F:7:ILE:CD1	2:F:137:VAL:HG22	2.29	0.62
1:G:211:ASP:OD1	1:G:212:ILE:N	2.33	0.62
1:G:254:LYS:HE3	1:G:352:LYS:CE	2.27	0.62
2:H:277:SER:HA	2:H:367:ASP:O	2.00	0.62
1:A:63:PRO:HD2	1:A:86:ILE:HG12	1.80	0.62
1:A:243:ARG:HH21	1:A:252:LEU:H	1.45	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:30:ILE:CD1	2:B:61:HIS:CG	2.82	0.62
2:B:205:ASP:HB2	2:B:303:VAL:HA	1.82	0.62
2:B:296:PHE:CZ	2:B:341:ILE:CD1	2.80	0.62
1:C:253:ARG:O	1:C:256:ALA:N	2.33	0.62
2:D:7:ILE:HG22	2:D:66:VAL:CG2	2.28	0.62
2:D:166:LYS:H	2:D:199:ASP:CG	2.03	0.62
2:D:277:SER:HA	2:D:367:ASP:O	2.00	0.62
2:F:118:VAL:HG11	2:F:149:PHE:HZ	1.65	0.62
2:F:339:ARG:HE	3:I:66:GLN:CB	2.12	0.62
1:G:258:ASN:OD1	2:H:181:VAL:HB	1.99	0.62
2:H:7:ILE:CD1	2:H:137:VAL:HG22	2.29	0.62
2:H:205:ASP:HB2	2:H:303:VAL:HA	1.82	0.62
2:B:277:SER:HA	2:B:367:ASP:O	2.00	0.62
1:C:211:ASP:OD1	1:C:212:ILE:N	2.33	0.62
1:C:249:ASN:OD1	2:D:71:GLU:OE1	2.17	0.62
2:D:267:PHE:HD1	2:D:267:PHE:H	1.47	0.62
1:E:70:LEU:CG	1:E:145:THR:HG23	2.30	0.62
1:E:315:VAL:HG13	1:E:377:PHE:CE1	2.34	0.62
2:F:166:LYS:H	2:F:199:ASP:CG	2.03	0.62
2:F:205:ASP:HB2	2:F:303:VAL:HA	1.82	0.62
2:F:236:SER:O	2:F:240:ALA:HB3	1.99	0.62
1:G:115:VAL:HG21	1:G:152:LEU:CD2	2.30	0.62
2:H:115:ILE:HG13	2:H:152:LEU:HD13	1.81	0.62
1:A:107:HIS:HD2	1:A:151:THR:CG2	2.12	0.61
2:D:7:ILE:CD1	2:D:137:VAL:HG22	2.29	0.61
2:D:102:ASN:OD1	2:D:105:ARG:HB3	1.99	0.61
1:E:4:ILE:HA	1:E:134:GLY:O	1.99	0.61
1:G:253:ARG:O	1:G:256:ALA:N	2.33	0.61
2:H:168:GLU:OE1	2:H:198:SER:HB2	2.00	0.61
2:H:269:LEU:O	2:H:378:LEU:HA	1.99	0.61
1:A:211:ASP:OD1	1:A:212:ILE:N	2.33	0.61
1:A:253:ARG:O	1:A:256:ALA:N	2.33	0.61
2:B:269:LEU:O	2:B:378:LEU:HA	1.99	0.61
2:F:115:ILE:HG13	2:F:152:LEU:HD13	1.82	0.61
2:H:243:ARG:NH2	2:H:252:LEU:N	2.29	0.61
2:H:293:ASN:HD21	2:H:338:LYS:HZ1	1.48	0.61
2:H:345:ASP:C	2:H:347:CYS:H	2.04	0.61
3:I:13:ASN:HD22	3:I:18:LEU:HB2	1.65	0.61
1:A:204:ILE:CD1	1:A:231:VAL:HG13	2.30	0.61
2:B:345:ASP:C	2:B:347:CYS:H	2.04	0.61
1:C:88:ARG:HD2	1:G:283:TYR:CE1	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:118:VAL:HG11	2:D:149:PHE:HZ	1.65	0.61
2:F:168:GLU:OE1	2:F:198:SER:HB2	2.01	0.61
2:F:269:LEU:O	2:F:378:LEU:HA	1.99	0.61
2:F:273:ALA:HB3	2:F:274:PRO:HD3	1.81	0.61
1:G:4:ILE:HA	1:G:134:GLY:O	1.99	0.61
2:H:118:VAL:HG11	2:H:149:PHE:HZ	1.65	0.61
2:H:296:PHE:CZ	2:H:341:ILE:CD1	2.79	0.61
3:I:76:LYS:HD3	3:I:77:VAL:N	2.15	0.61
1:A:70:LEU:CG	1:A:145:THR:HG23	2.30	0.61
1:A:115:VAL:HG21	1:A:152:LEU:CD2	2.30	0.61
2:B:62:VAL:HG11	2:B:88:HIS:ND1	2.15	0.61
2:B:102:ASN:OD1	2:B:105:ARG:HB3	1.99	0.61
2:B:115:ILE:HG13	2:B:152:LEU:HD13	1.81	0.61
1:C:4:ILE:HG23	1:C:134:GLY:O	2.00	0.61
1:C:114:LEU:HD23	1:C:149:MET:CE	2.30	0.61
2:D:23:LEU:HD22	2:D:232:GLY:O	1.99	0.61
1:E:172:VAL:HG11	1:E:387:LEU:CD2	2.22	0.61
2:F:243:ARG:NH2	2:F:252:LEU:N	2.29	0.61
2:F:293:ASN:HD21	2:F:338:LYS:HZ1	1.48	0.61
3:I:37:ASP:OD1	3:I:41:GLN:HA	2.00	0.61
3:I:39:ILE:HD13	3:I:101:PHE:CE1	2.35	0.61
1:A:230:LEU:O	1:A:233:ALA:HB3	2.00	0.61
1:A:324:SER:C	1:A:326:LYS:H	2.03	0.61
2:B:7:ILE:HG22	2:B:66:VAL:CG2	2.28	0.61
1:C:204:ILE:CD1	1:C:231:VAL:HG13	2.31	0.61
2:D:217:LEU:HD11	2:D:277:SER:HA	1.82	0.61
2:D:345:ASP:C	2:D:347:CYS:H	2.04	0.61
1:E:204:ILE:CD1	1:E:231:VAL:HG13	2.30	0.61
1:G:204:ILE:CD1	1:G:231:VAL:HG13	2.30	0.61
2:B:273:ALA:HB3	2:B:274:PRO:HD3	1.81	0.61
1:C:107:HIS:HD2	1:C:151:THR:CG2	2.12	0.61
1:G:108:TYR:CD1	1:G:413:MET:HE1	2.36	0.61
1:G:245:PRO:HA	2:H:73:THR:HG21	1.83	0.61
1:G:390:ARG:CZ	3:I:56:TYR:HB3	2.23	0.61
1:A:4:ILE:HG23	1:A:134:GLY:O	2.00	0.61
1:C:230:LEU:O	1:C:233:ALA:HB3	2.00	0.61
1:C:285:ALA:HB1	1:C:290:GLU:HG2	1.82	0.61
1:C:346:TRP:CD1	2:D:401:LYS:NZ	2.65	0.61
2:D:115:ILE:HG13	2:D:152:LEU:HD13	1.81	0.61
2:D:276:ILE:CG2	2:D:369:ALA:HB2	2.27	0.61
1:E:4:ILE:HG23	1:E:134:GLY:O	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:107:HIS:HD2	1:G:151:THR:CG2	2.12	0.61
2:H:273:ALA:HB3	2:H:274:PRO:HD3	1.81	0.61
1:A:114:LEU:HD23	1:A:149:MET:CE	2.30	0.61
1:E:324:SER:C	1:E:326:LYS:H	2.03	0.61
1:G:257:VAL:CB	2:H:407:TRP:CE3	2.65	0.61
2:H:166:LYS:H	2:H:199:ASP:CG	2.03	0.61
2:H:315:CYS:HB3	2:H:377:MET:HE2	1.81	0.61
2:B:217:LEU:HD11	2:B:277:SER:HA	1.83	0.61
1:C:324:SER:C	1:C:326:LYS:H	2.03	0.61
2:B:267:PHE:H	2:B:267:PHE:HD1	1.47	0.61
1:C:115:VAL:HG21	1:C:152:LEU:CD2	2.30	0.61
1:C:254:LYS:NZ	2:D:101:ASN:HD21	1.98	0.61
1:C:279:GLY:O	1:C:282:GLN:HB3	2.01	0.61
1:G:285:ALA:HB1	1:G:290:GLU:HG2	1.82	0.61
1:E:114:LEU:HD23	1:E:149:MET:CE	2.30	0.60
1:G:54:ASN:ND2	1:G:64:ARG:HD3	2.15	0.60
1:G:114:LEU:HD23	1:G:149:MET:CE	2.30	0.60
1:G:324:SER:C	1:G:326:LYS:H	2.03	0.60
2:H:362:VAL:HG13	2:H:368:LEU:HB2	1.83	0.60
1:A:279:GLY:O	1:A:282:GLN:HB3	2.01	0.60
1:A:285:ALA:HB1	1:A:290:GLU:HG2	1.82	0.60
1:A:324:SER:CB	1:A:327:GLU:HG2	2.30	0.60
2:B:168:GLU:OE1	2:B:198:SER:HB2	2.00	0.60
2:D:62:VAL:CG1	2:D:91:GLN:HE22	2.13	0.60
2:F:169:PHE:CE2	2:F:235:VAL:HG22	2.36	0.60
2:F:339:ARG:HH21	3:I:66:GLN:HB3	1.65	0.60
2:B:169:PHE:CE2	2:B:235:VAL:HG22	2.36	0.60
1:C:70:LEU:CG	1:C:145:THR:HG23	2.30	0.60
1:C:128:SER:OG	1:C:129:CYS:N	2.34	0.60
2:D:362:VAL:HG13	2:D:368:LEU:HB2	1.83	0.60
1:E:128:SER:OG	1:E:129:CYS:N	2.34	0.60
1:C:324:SER:CB	1:C:327:GLU:HG2	2.30	0.60
2:D:229:ARG:NH1	2:D:363:VAL:HG21	2.16	0.60
1:E:204:ILE:HG21	1:E:231:VAL:HG22	1.84	0.60
1:E:285:ALA:HB1	1:E:290:GLU:HG2	1.82	0.60
2:F:63:PRO:CD	2:F:87:PHE:HA	2.31	0.60
1:G:172:VAL:HG11	1:G:387:LEU:CD2	2.22	0.60
2:H:169:PHE:CE2	2:H:235:VAL:HG22	2.36	0.60
3:I:15:VAL:HG23	3:I:16:THR:N	2.17	0.60
1:A:128:SER:OG	1:A:129:CYS:N	2.34	0.60
2:B:5:ILE:HD11	2:B:64:ARG:HH22	1.65	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:191:THR:HG21	2:B:425:MET:SD	2.41	0.60
1:C:324:SER:O	1:C:328:VAL:HG23	2.01	0.60
1:C:332:MET:CE	1:C:351:VAL:HG11	2.32	0.60
1:E:107:HIS:HD2	1:E:151:THR:CG2	2.12	0.60
1:E:332:MET:CE	1:E:351:VAL:HG11	2.32	0.60
2:F:191:THR:HG21	2:F:425:MET:SD	2.41	0.60
2:F:267:PHE:HD1	2:F:267:PHE:H	1.46	0.60
1:G:332:MET:CE	1:G:351:VAL:HG11	2.32	0.60
2:H:119:LEU:CD2	2:H:122:ILE:HD11	2.28	0.60
1:A:332:MET:CE	1:A:351:VAL:HG11	2.32	0.60
2:B:229:ARG:NH1	2:B:363:VAL:HG21	2.16	0.60
1:C:299:LYS:H	1:C:299:LYS:CD	2.07	0.60
2:D:168:GLU:OE1	2:D:198:SER:HB2	2.00	0.60
1:E:115:VAL:HG21	1:E:152:LEU:HD23	1.84	0.60
1:G:4:ILE:HG23	1:G:134:GLY:O	2.00	0.60
1:G:332:MET:HE3	1:G:351:VAL:HG11	1.82	0.60
2:H:311:LYS:HE3	2:H:342:GLN:CD	2.22	0.60
3:I:16:THR:OG1	3:I:18:LEU:HG	2.02	0.60
3:I:43:ILE:HD12	3:I:43:ILE:N	2.16	0.60
1:A:49:ILE:O	1:A:51:VAL:N	2.35	0.60
1:A:115:VAL:HG21	1:A:152:LEU:HD23	1.84	0.60
2:B:311:LYS:HE3	2:B:342:GLN:CD	2.22	0.60
1:C:54:ASN:ND2	1:C:64:ARG:HD3	2.15	0.60
1:C:115:VAL:HG21	1:C:152:LEU:HD23	1.84	0.60
1:C:204:ILE:HG21	1:C:231:VAL:HG22	1.84	0.60
2:D:167:LEU:HA	2:D:200:CYS:O	2.01	0.60
2:D:191:THR:HG21	2:D:425:MET:SD	2.41	0.60
2:D:344:VAL:HG11	2:D:346:TRP:NE1	2.16	0.60
1:G:115:VAL:HG21	1:G:152:LEU:HD23	1.84	0.60
1:A:141:LEU:N	1:A:141:LEU:CD1	2.65	0.60
1:A:204:ILE:HG21	1:A:231:VAL:HG22	1.84	0.60
1:A:324:SER:O	1:A:328:VAL:HG23	2.01	0.60
1:A:408:TYR:CG	1:A:418:PHE:HZ	2.20	0.60
2:B:57:GLY:HA3	2:B:58:ALA:HB2	0.66	0.60
1:E:54:ASN:ND2	1:E:64:ARG:HD3	2.15	0.60
1:G:204:ILE:HG21	1:G:231:VAL:HG22	1.84	0.60
1:G:279:GLY:O	1:G:282:GLN:HB3	2.01	0.60
1:G:324:SER:O	1:G:328:VAL:HG23	2.01	0.60
2:H:63:PRO:CD	2:H:87:PHE:HA	2.32	0.60
2:B:119:LEU:CD2	2:B:122:ILE:HD11	2.28	0.60
2:B:167:LEU:HA	2:B:200:CYS:O	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:362:VAL:HG13	2:B:368:LEU:HB2	1.83	0.60
1:C:408:TYR:CG	1:C:418:PHE:HZ	2.20	0.60
1:E:279:GLY:O	1:E:282:GLN:HB3	2.01	0.60
1:E:324:SER:O	1:E:328:VAL:HG23	2.01	0.60
1:G:128:SER:OG	1:G:129:CYS:N	2.34	0.60
1:G:161:TYR:C	1:G:163:ASP:H	2.05	0.60
1:G:172:VAL:CG1	1:G:387:LEU:HD21	2.24	0.60
1:A:54:ASN:ND2	1:A:64:ARG:HD3	2.15	0.60
1:C:49:ILE:O	1:C:51:VAL:N	2.35	0.60
2:D:87:PHE:N	2:D:87:PHE:CD1	2.69	0.60
2:D:311:LYS:HE3	2:D:342:GLN:CD	2.22	0.60
2:F:362:VAL:HG13	2:F:368:LEU:HB2	1.83	0.60
2:F:371:VAL:HG12	2:F:372:GLN:N	2.17	0.60
1:G:19:LYS:CG	1:G:228:ASN:HB3	2.31	0.60
2:H:191:THR:HG21	2:H:425:MET:SD	2.41	0.60
3:I:43:ILE:HD12	3:I:43:ILE:H	1.65	0.60
2:B:413:MET:O	2:B:414:GLU:HG3	2.02	0.59
1:C:141:LEU:N	1:C:141:LEU:CD1	2.65	0.59
2:D:435:VAL:O	2:D:435:VAL:HG12	2.02	0.59
1:E:102:ASN:ND2	1:E:407:TRP:O	2.35	0.59
1:E:161:TYR:C	1:E:163:ASP:H	2.05	0.59
2:H:267:PHE:H	2:H:267:PHE:HD1	1.47	0.59
2:H:344:VAL:HG11	2:H:346:TRP:NE1	2.16	0.59
3:I:6:GLN:HG3	3:I:7:GLU:N	2.17	0.59
3:I:78:VAL:O	3:I:80:PRO:HD3	2.02	0.59
2:B:329:ASN:HB3	1:C:210:TYR:HE2	1.67	0.59
2:B:371:VAL:HG12	2:B:372:GLN:N	2.17	0.59
1:C:102:ASN:ND2	1:C:407:TRP:O	2.35	0.59
2:D:276:ILE:HD11	2:D:280:LYS:HD2	1.85	0.59
1:E:205:ASP:OD2	1:E:304:ALA:CB	2.50	0.59
1:E:324:SER:CB	1:E:327:GLU:HG2	2.30	0.59
2:F:276:ILE:HD11	2:F:280:LYS:HD2	1.84	0.59
1:G:2:ARG:NH2	2:H:99:ALA:H	2.00	0.59
1:G:102:ASN:ND2	1:G:407:TRP:O	2.35	0.59
2:H:87:PHE:N	2:H:87:PHE:CD1	2.69	0.59
2:H:102:ASN:CG	2:H:407:TRP:CD1	2.75	0.59
2:H:413:MET:O	2:H:414:GLU:HG3	2.02	0.59
1:C:248:LEU:HD22	2:D:179:THR:CG2	2.27	0.59
2:D:169:PHE:CE2	2:D:235:VAL:HG22	2.36	0.59
2:D:371:VAL:HG12	2:D:372:GLN:N	2.17	0.59
1:E:30:ILE:HD13	1:E:53:TYR:CE2	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:119:LEU:CD2	2:F:122:ILE:HD11	2.28	0.59
2:H:276:ILE:CG2	2:H:369:ALA:HB2	2.26	0.59
2:H:435:VAL:HG12	2:H:435:VAL:O	2.02	0.59
3:I:5:ARG:CD	3:I:23:ILE:HG13	2.32	0.59
1:A:102:ASN:ND2	1:A:407:TRP:O	2.36	0.59
1:A:325:MET:HE2	1:A:355:VAL:HG21	1.83	0.59
2:B:276:ILE:HD11	2:B:280:LYS:HD2	1.85	0.59
1:C:70:LEU:H	1:C:145:THR:CG2	2.10	0.59
2:D:413:MET:O	2:D:414:GLU:HG3	2.02	0.59
2:F:167:LEU:HA	2:F:200:CYS:O	2.01	0.59
2:F:435:VAL:O	2:F:435:VAL:HG12	2.02	0.59
1:G:205:ASP:OD2	1:G:304:ALA:CB	2.50	0.59
2:H:229:ARG:NH1	2:H:363:VAL:HG21	2.16	0.59
2:H:276:ILE:HD11	2:H:280:LYS:HD2	1.84	0.59
3:I:23:ILE:CD1	3:I:92:LEU:HD13	2.31	0.59
2:B:115:ILE:HD13	2:B:115:ILE:O	2.02	0.59
2:B:344:VAL:HG11	2:B:346:TRP:NE1	2.16	0.59
1:E:141:LEU:CD1	1:E:141:LEU:N	2.65	0.59
2:F:115:ILE:O	2:F:115:ILE:HD13	2.02	0.59
2:F:229:ARG:NH1	2:F:363:VAL:HG21	2.16	0.59
2:F:413:MET:O	2:F:414:GLU:HG3	2.02	0.59
1:G:141:LEU:N	1:G:141:LEU:CD1	2.65	0.59
2:H:167:LEU:HA	2:H:200:CYS:O	2.01	0.59
1:A:161:TYR:C	1:A:163:ASP:H	2.05	0.59
2:B:87:PHE:N	2:B:87:PHE:CD1	2.69	0.59
2:B:435:VAL:O	2:B:435:VAL:HG12	2.02	0.59
1:C:205:ASP:OD2	1:C:304:ALA:CB	2.50	0.59
1:E:68:VAL:CG1	1:E:149:MET:SD	2.90	0.59
1:G:30:ILE:HD13	1:G:53:TYR:CE2	2.38	0.59
2:B:317:LEU:HD11	2:B:351:PHE:CE1	2.38	0.59
1:C:19:LYS:CG	1:C:228:ASN:HB3	2.31	0.59
1:E:49:ILE:O	1:E:51:VAL:N	2.35	0.59
2:F:407:TRP:O	2:F:411:GLU:HG2	2.02	0.59
1:G:324:SER:CB	1:G:327:GLU:HG2	2.30	0.59
2:H:119:LEU:O	2:H:122:ILE:HG12	2.02	0.59
2:H:217:LEU:HD11	2:H:277:SER:HA	1.82	0.59
2:H:371:VAL:HG12	2:H:372:GLN:N	2.17	0.59
2:H:407:TRP:O	2:H:411:GLU:HG2	2.02	0.59
1:C:89:PRO:HA	1:C:92:PHE:CD2	2.38	0.59
1:C:217:LEU:C	1:C:219:LEU:N	2.55	0.59
1:C:325:MET:HG2	2:D:224:TYR:CD2	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:369:ALA:O	2:D:370:LYS:HB3	2.03	0.59
2:F:119:LEU:O	2:F:122:ILE:HG12	2.02	0.59
1:G:68:VAL:CG1	1:G:149:MET:SD	2.90	0.59
1:G:325:MET:HE2	1:G:355:VAL:HG21	1.82	0.59
3:I:33:ILE:HD11	3:I:65:LEU:HB2	1.83	0.59
1:A:30:ILE:HD13	1:A:53:TYR:CE2	2.38	0.59
2:B:369:ALA:O	2:B:370:LYS:HB3	2.03	0.59
1:C:30:ILE:HD13	1:C:53:TYR:CE2	2.38	0.59
1:C:349:ASN:O	2:D:181:VAL:HG13	2.03	0.59
2:D:63:PRO:CD	2:D:87:PHE:HA	2.32	0.59
2:D:119:LEU:CD2	2:D:122:ILE:HD11	2.28	0.59
1:E:183:GLU:HB3	1:E:184:PRO:CD	2.33	0.59
1:G:49:ILE:O	1:G:51:VAL:N	2.35	0.59
2:H:115:ILE:O	2:H:115:ILE:HD13	2.02	0.59
1:A:70:LEU:H	1:A:145:THR:CG2	2.10	0.59
1:A:89:PRO:HA	1:A:92:PHE:CD2	2.38	0.59
1:A:151:THR:OG1	1:A:193:GLN:HB3	2.03	0.59
1:A:183:GLU:HB3	1:A:184:PRO:CD	2.33	0.59
2:D:264:ARG:HB2	2:D:266:HIS:HD2	1.67	0.59
2:D:407:TRP:O	2:D:411:GLU:HG2	2.02	0.59
1:E:89:PRO:HA	1:E:92:PHE:CD2	2.38	0.59
2:F:317:LEU:HD11	2:F:351:PHE:CE1	2.38	0.59
2:F:381:THR:C	2:F:383:ALA:N	2.56	0.59
1:G:183:GLU:HB3	1:G:184:PRO:CD	2.33	0.59
2:H:317:LEU:HD11	2:H:351:PHE:CE1	2.38	0.59
1:A:217:LEU:C	1:A:219:LEU:N	2.55	0.58
2:B:348:PRO:CD	1:C:398:MET:HE3	2.34	0.58
2:B:407:TRP:O	2:B:411:GLU:HG2	2.02	0.58
1:C:183:GLU:HB3	1:C:184:PRO:CD	2.33	0.58
2:D:317:LEU:HD11	2:D:351:PHE:CE1	2.38	0.58
2:F:217:LEU:HD11	2:F:277:SER:HA	1.82	0.58
1:G:89:PRO:HA	1:G:92:PHE:CD2	2.38	0.58
2:H:381:THR:C	2:H:383:ALA:N	2.56	0.58
1:A:70:LEU:C	1:A:99:ALA:HB2	2.24	0.58
1:A:205:ASP:OD2	1:A:304:ALA:CB	2.50	0.58
2:B:30:ILE:HG12	2:B:36:MET:CB	2.12	0.58
2:B:119:LEU:O	2:B:122:ILE:HG12	2.02	0.58
2:B:248:LEU:CD2	2:B:353:VAL:O	2.49	0.58
2:B:381:THR:C	2:B:383:ALA:N	2.56	0.58
2:D:115:ILE:O	2:D:115:ILE:HD13	2.02	0.58
2:F:6:SER:HA	2:F:136:SER:O	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:88:HIS:HB2	2:F:91:GLN:NE2	2.06	0.58
1:G:408:TYR:CG	1:G:418:PHE:HZ	2.20	0.58
1:A:307:PRO:HB3	1:A:312:TYR:OH	2.04	0.58
2:D:6:SER:HA	2:D:136:SER:O	2.03	0.58
2:D:202:PHE:CE1	2:D:378:LEU:HD22	2.38	0.58
1:G:349:ASN:C	1:G:349:ASN:HD22	2.06	0.58
3:I:28:LYS:HA	3:I:58:TYR:CE1	2.38	0.58
1:A:270:PRO:HA	1:A:377:PHE:O	2.04	0.58
1:A:349:ASN:C	1:A:349:ASN:HD22	2.07	0.58
1:C:70:LEU:C	1:C:99:ALA:HB2	2.24	0.58
1:C:151:THR:OG1	1:C:193:GLN:HB3	2.03	0.58
1:C:270:PRO:HA	1:C:377:PHE:O	2.04	0.58
1:C:307:PRO:HB3	1:C:312:TYR:OH	2.04	0.58
1:E:408:TYR:CG	1:E:418:PHE:HZ	2.20	0.58
2:F:202:PHE:CE1	2:F:378:LEU:HD22	2.38	0.58
2:F:248:LEU:CD2	2:F:353:VAL:O	2.49	0.58
1:G:151:THR:OG1	1:G:193:GLN:HB3	2.03	0.58
2:H:202:PHE:CE1	2:H:378:LEU:HD22	2.38	0.58
2:B:62:VAL:HG13	2:B:63:PRO:HD2	1.78	0.58
1:C:88:ARG:HD2	1:G:283:TYR:HE1	1.66	0.58
1:C:299:LYS:O	1:C:300:ASN:CB	2.51	0.58
2:D:381:THR:C	2:D:383:ALA:N	2.56	0.58
2:F:87:PHE:CD1	2:F:87:PHE:N	2.69	0.58
2:F:369:ALA:O	2:F:370:LYS:HB3	2.03	0.58
1:G:319:PHE:HA	1:G:375:ALA:HA	1.86	0.58
3:I:101:PHE:O	3:I:105:TYR:HD2	1.86	0.58
1:A:68:VAL:CG1	1:A:149:MET:SD	2.90	0.58
2:B:110:ILE:CG2	2:B:111:GLY:H	2.15	0.58
1:C:414:ASP:OD1	3:I:4:SER:OG	2.20	0.58
2:D:67:PHE:CZ	2:D:87:PHE:CE2	2.92	0.58
1:E:151:THR:OG1	1:E:193:GLN:HB3	2.03	0.58
1:E:319:PHE:HA	1:E:375:ALA:HA	1.86	0.58
2:B:6:SER:HA	2:B:136:SER:O	2.03	0.58
2:B:63:PRO:HG3	2:B:87:PHE:CB	2.34	0.58
2:B:202:PHE:CE1	2:B:378:LEU:HD22	2.38	0.58
1:C:349:ASN:HD22	1:C:349:ASN:C	2.07	0.58
2:D:5:ILE:HD12	2:D:64:ARG:HH12	1.69	0.58
2:F:264:ARG:HB2	2:F:266:HIS:HD2	1.67	0.58
2:H:102:ASN:ND2	2:H:407:TRP:NE1	2.52	0.58
2:B:88:HIS:HB2	2:B:91:GLN:NE2	2.05	0.58
1:C:161:TYR:C	1:C:163:ASP:H	2.05	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:70:LEU:C	1:E:99:ALA:HB2	2.24	0.58
1:E:349:ASN:C	1:E:349:ASN:HD22	2.06	0.58
2:H:248:LEU:CD2	2:H:353:VAL:O	2.49	0.58
3:I:50:PHE:CE1	3:I:117:ARG:HD3	2.38	0.58
1:A:88:ARG:HG3	1:E:283:TYR:OH	2.04	0.58
1:A:299:LYS:O	1:A:300:ASN:CB	2.51	0.58
1:C:68:VAL:CG1	1:C:149:MET:SD	2.90	0.58
2:D:63:PRO:HG2	2:D:87:PHE:HA	1.86	0.58
2:D:119:LEU:O	2:D:122:ILE:HG12	2.02	0.58
1:E:172:VAL:CG1	1:E:387:LEU:HD21	2.24	0.58
1:G:93:VAL:CG1	1:G:118:VAL:HG22	2.19	0.58
2:H:264:ARG:HB2	2:H:266:HIS:HD2	1.67	0.58
2:B:165:SER:HA	2:B:199:ASP:OD2	2.04	0.58
2:B:268:PRO:HA	2:B:379:SER:O	2.04	0.58
2:F:3:GLU:CA	2:F:51:THR:OG1	2.30	0.58
2:F:218:ASP:O	2:F:219:ILE:HG23	2.04	0.58
2:F:276:ILE:CG2	2:F:369:ALA:HB2	2.26	0.58
1:G:299:LYS:O	1:G:300:ASN:CB	2.51	0.58
2:H:6:SER:HA	2:H:136:SER:O	2.03	0.58
3:I:40:TYR:HE2	3:I:72:LYS:CD	2.17	0.58
2:B:345:ASP:O	2:B:347:CYS:N	2.37	0.57
1:C:149:MET:O	1:C:153:LEU:HD13	2.04	0.57
2:D:268:PRO:HA	2:D:379:SER:O	2.04	0.57
1:E:301:MET:CE	1:E:377:PHE:HE2	2.17	0.57
2:F:5:ILE:HD12	2:F:64:ARG:HH12	1.68	0.57
1:G:352:LYS:HD2	2:H:181:VAL:CG2	2.11	0.57
2:H:88:HIS:HB2	2:H:91:GLN:NE2	2.06	0.57
2:H:369:ALA:O	2:H:370:LYS:HB3	2.03	0.57
2:B:51:THR:O	2:B:52:PHE:CD1	2.57	0.57
2:B:67:PHE:CZ	2:B:87:PHE:CE2	2.92	0.57
2:B:117:LEU:HD11	2:B:121:ARG:HH22	1.69	0.57
2:D:166:LYS:HD2	2:D:197:HIS:O	2.04	0.57
2:D:338:LYS:O	2:D:340:THR:N	2.34	0.57
2:D:345:ASP:O	2:D:347:CYS:N	2.37	0.57
2:F:30:ILE:HD13	2:F:61:HIS:CG	2.38	0.57
2:F:268:PRO:HA	2:F:379:SER:O	2.03	0.57
1:G:320:ARG:O	1:G:359:PRO:HA	2.04	0.57
2:H:67:PHE:CZ	2:H:87:PHE:CE2	2.92	0.57
2:H:165:SER:HA	2:H:199:ASP:OD2	2.04	0.57
2:H:218:ASP:O	2:H:219:ILE:HG23	2.04	0.57
2:B:264:ARG:HB2	2:B:266:HIS:HD2	1.67	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:166:LYS:HD2	2:F:197:HIS:O	2.04	0.57
1:G:253:ARG:O	1:G:254:LYS:C	2.42	0.57
1:G:301:MET:CE	1:G:377:PHE:HE2	2.17	0.57
2:H:313:MET:O	2:H:314:ALA:HB2	2.04	0.57
3:I:40:TYR:CE2	3:I:72:LYS:HD3	2.39	0.57
1:A:149:MET:O	1:A:153:LEU:HD13	2.05	0.57
1:A:180:THR:CG2	1:A:181:VAL:H	2.17	0.57
2:B:139:HIS:CE1	2:B:170:SER:HB3	2.40	0.57
2:B:313:MET:O	2:B:314:ALA:HB2	2.04	0.57
2:B:436:GLY:C	2:B:438:ASP:H	2.08	0.57
1:C:180:THR:CG2	1:C:181:VAL:H	2.17	0.57
1:C:283:TYR:C	1:C:284:ARG:HG2	2.25	0.57
2:D:30:ILE:HG12	2:D:36:MET:CB	2.12	0.57
2:D:117:LEU:HD11	2:D:121:ARG:HH22	1.69	0.57
2:D:139:HIS:CE1	2:D:170:SER:HB3	2.40	0.57
1:E:149:MET:O	1:E:153:LEU:HD13	2.05	0.57
1:E:270:PRO:HA	1:E:377:PHE:O	2.04	0.57
1:E:307:PRO:HB3	1:E:312:TYR:OH	2.04	0.57
2:F:139:HIS:CE1	2:F:170:SER:HB3	2.40	0.57
2:F:313:MET:O	2:F:314:ALA:HB2	2.04	0.57
2:F:337:THR:CG2	3:I:59:ILE:CD1	2.79	0.57
1:G:70:LEU:C	1:G:99:ALA:HB2	2.24	0.57
2:H:268:PRO:HA	2:H:379:SER:O	2.04	0.57
1:A:6:HIS:HB3	1:A:65:ALA:HB2	1.87	0.57
1:C:6:HIS:HB3	1:C:65:ALA:HB2	1.87	0.57
1:C:14:ASN:OD1	1:C:75:MET:HG2	2.05	0.57
1:C:248:LEU:CD2	2:D:179:THR:CG2	2.82	0.57
1:C:253:ARG:O	1:C:254:LYS:C	2.42	0.57
1:C:274:PRO:CG	1:C:371:LEU:HD21	2.34	0.57
1:E:5:VAL:CG2	1:E:135:PHE:HD2	2.18	0.57
1:E:299:LYS:O	1:E:300:ASN:CB	2.51	0.57
1:E:320:ARG:O	1:E:359:PRO:HA	2.04	0.57
2:F:436:GLY:C	2:F:438:ASP:H	2.08	0.57
1:G:6:HIS:HB3	1:G:65:ALA:HB2	1.87	0.57
1:G:149:MET:O	1:G:153:LEU:HD13	2.04	0.57
2:H:139:HIS:CE1	2:H:170:SER:HB3	2.40	0.57
2:H:338:LYS:O	2:H:340:THR:N	2.34	0.57
1:A:301:MET:CE	1:A:377:PHE:HE2	2.17	0.57
2:B:216:ASN:O	2:B:217:LEU:HB2	2.05	0.57
1:E:14:ASN:OD1	1:E:75:MET:HG2	2.05	0.57
1:E:93:VAL:CG1	1:E:118:VAL:HG22	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:198:THR:HG22	1:E:265:LEU:HD22	1.86	0.57
2:F:312:TYR:H	2:F:341:ILE:CG2	2.12	0.57
1:G:307:PRO:HB3	1:G:312:TYR:OH	2.04	0.57
2:H:5:ILE:HD12	2:H:64:ARG:HH12	1.69	0.57
2:H:110:ILE:CG2	2:H:111:GLY:H	2.15	0.57
1:A:283:TYR:C	1:A:284:ARG:HG2	2.25	0.57
1:A:422:GLU:O	1:A:426:ASN:N	2.37	0.57
2:B:175:PRO:HG3	2:B:304:LYS:CG	2.35	0.57
2:B:218:ASP:O	2:B:219:ILE:HG23	2.04	0.57
1:C:301:MET:CE	1:C:377:PHE:HE2	2.17	0.57
1:C:320:ARG:O	1:C:359:PRO:HA	2.04	0.57
2:D:218:ASP:O	2:D:219:ILE:HG23	2.04	0.57
1:E:6:HIS:HB3	1:E:65:ALA:HB2	1.87	0.57
2:F:165:SER:HA	2:F:199:ASP:OD2	2.04	0.57
1:G:5:VAL:CG2	1:G:135:PHE:HD2	2.18	0.57
1:G:14:ASN:OD1	1:G:75:MET:HG2	2.05	0.57
1:G:274:PRO:CG	1:G:371:LEU:HD21	2.34	0.57
2:H:175:PRO:HG3	2:H:304:LYS:CG	2.35	0.57
2:H:436:GLY:C	2:H:438:ASP:H	2.08	0.57
2:B:338:LYS:O	2:B:340:THR:N	2.34	0.57
2:D:248:LEU:CD2	2:D:353:VAL:O	2.49	0.57
1:E:253:ARG:O	1:E:254:LYS:C	2.42	0.57
1:E:422:GLU:O	1:E:426:ASN:N	2.37	0.57
2:F:67:PHE:CZ	2:F:87:PHE:CE2	2.92	0.57
2:F:175:PRO:HG3	2:F:304:LYS:CG	2.35	0.57
2:F:210:TYR:CE1	2:F:227:LEU:HD11	2.40	0.57
1:G:257:VAL:CG2	1:G:257:VAL:O	2.50	0.57
1:G:422:GLU:O	1:G:426:ASN:N	2.37	0.57
2:H:209:ILE:CG2	2:H:227:LEU:HD22	2.35	0.57
2:H:345:ASP:O	2:H:347:CYS:N	2.37	0.57
3:I:30:TYR:CD2	3:I:50:PHE:CD1	2.92	0.57
1:A:19:LYS:CG	1:A:228:ASN:HB3	2.31	0.57
1:A:30:ILE:HA	1:A:35:SER:O	2.04	0.57
1:A:198:THR:HG22	1:A:265:LEU:HD22	1.86	0.57
1:A:274:PRO:CG	1:A:371:LEU:HD21	2.34	0.57
2:B:209:ILE:CG2	2:B:227:LEU:HD22	2.35	0.57
2:D:57:GLY:HA3	2:D:58:ALA:HB2	0.66	0.57
2:D:165:SER:HA	2:D:199:ASP:OD2	2.04	0.57
2:D:175:PRO:HG3	2:D:304:LYS:CG	2.35	0.57
2:D:216:ASN:O	2:D:217:LEU:HB2	2.05	0.57
1:E:253:ARG:O	1:E:257:VAL:N	2.33	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:209:ILE:CG2	2:F:227:LEU:HD22	2.35	0.57
2:F:217:LEU:CD1	2:F:277:SER:CB	2.54	0.57
1:G:270:PRO:HA	1:G:377:PHE:O	2.04	0.57
1:G:319:PHE:CD2	1:G:375:ALA:HB2	2.40	0.57
2:H:216:ASN:O	2:H:217:LEU:HB2	2.05	0.57
1:A:14:ASN:OD1	1:A:75:MET:HG2	2.05	0.57
2:B:166:LYS:HD2	2:B:197:HIS:O	2.04	0.57
2:B:210:TYR:CE1	2:B:227:LEU:HD11	2.40	0.57
1:E:319:PHE:CD2	1:E:375:ALA:HB2	2.40	0.57
2:F:110:ILE:CG2	2:F:111:GLY:H	2.15	0.57
1:G:2:ARG:HH21	2:H:99:ALA:H	1.50	0.57
1:G:257:VAL:O	2:H:404:PHE:HD2	1.88	0.57
1:G:352:LYS:CA	2:H:181:VAL:HG22	2.25	0.57
2:H:117:LEU:HD11	2:H:121:ARG:HH22	1.69	0.57
2:H:210:TYR:CE1	2:H:227:LEU:HD11	2.40	0.57
2:H:242:LEU:C	2:H:244:PHE:H	2.09	0.57
1:C:422:GLU:O	1:C:426:ASN:N	2.37	0.56
2:D:210:TYR:CE1	2:D:227:LEU:HD11	2.41	0.56
1:E:50:ASN:O	1:E:64:ARG:NH2	2.38	0.56
1:E:274:PRO:CG	1:E:371:LEU:HD21	2.34	0.56
1:E:325:MET:HE2	1:E:355:VAL:HG21	1.84	0.56
2:F:152:LEU:HA	2:F:155:GLU:CB	2.35	0.56
1:G:50:ASN:O	1:G:64:ARG:NH2	2.38	0.56
1:G:180:THR:CG2	1:G:181:VAL:H	2.17	0.56
3:I:12:ILE:O	3:I:15:VAL:HG22	2.05	0.56
1:A:31:ASP:O	1:A:32:PRO:C	2.44	0.56
1:A:320:ARG:O	1:A:359:PRO:HA	2.04	0.56
2:B:30:ILE:HD13	2:B:61:HIS:ND1	2.17	0.56
2:B:242:LEU:C	2:B:244:PHE:H	2.09	0.56
1:C:30:ILE:HA	1:C:35:SER:O	2.04	0.56
2:D:209:ILE:CG2	2:D:227:LEU:HD22	2.35	0.56
1:E:19:LYS:CG	1:E:228:ASN:HB3	2.31	0.56
2:F:382:THR:HG22	2:F:382:THR:O	2.05	0.56
2:F:388:TRP:CE3	2:F:388:TRP:HA	2.41	0.56
1:G:198:THR:HG22	1:G:265:LEU:HD22	1.86	0.56
1:A:5:VAL:CG2	1:A:135:PHE:HD2	2.18	0.56
1:A:272:PHE:HB3	1:A:275:LEU:HD22	1.88	0.56
1:A:312:TYR:O	1:A:344:VAL:HB	2.05	0.56
1:A:319:PHE:HA	1:A:375:ALA:HA	1.86	0.56
2:B:277:SER:O	2:B:280:LYS:HB2	2.06	0.56
1:C:31:ASP:O	1:C:32:PRO:C	2.44	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:276:ILE:O	2:D:369:ALA:CB	2.52	0.56
2:D:313:MET:O	2:D:314:ALA:HB2	2.04	0.56
2:D:362:VAL:CG1	2:D:368:LEU:HB2	2.35	0.56
1:E:70:LEU:CD1	1:E:145:THR:HG23	2.35	0.56
1:E:180:THR:CG2	1:E:181:VAL:H	2.17	0.56
1:E:272:PHE:HB3	1:E:275:LEU:HD22	1.88	0.56
1:E:312:TYR:O	1:E:344:VAL:HB	2.05	0.56
1:E:325:MET:HE1	1:E:355:VAL:HG11	1.86	0.56
2:F:117:LEU:HD11	2:F:121:ARG:HH22	1.69	0.56
2:F:216:ASN:O	2:F:217:LEU:HB2	2.05	0.56
1:G:165:ILE:H	1:G:165:ILE:HD13	1.71	0.56
1:G:272:PHE:HB3	1:G:275:LEU:HD22	1.88	0.56
1:G:283:TYR:C	1:G:284:ARG:HG2	2.24	0.56
2:H:63:PRO:HG2	2:H:87:PHE:HA	1.86	0.56
2:H:152:LEU:HA	2:H:155:GLU:CB	2.35	0.56
2:H:166:LYS:HD2	2:H:197:HIS:O	2.04	0.56
2:H:362:VAL:HG11	2:H:368:LEU:O	2.04	0.56
3:I:30:TYR:CE2	3:I:50:PHE:CD1	2.92	0.56
1:A:165:ILE:H	1:A:165:ILE:HD13	1.71	0.56
2:B:382:THR:O	2:B:382:THR:HG22	2.06	0.56
1:C:113:GLU:OE1	3:I:87:LYS:NZ	2.37	0.56
1:C:319:PHE:HA	1:C:375:ALA:HA	1.86	0.56
2:D:19:ALA:CB	2:D:228:ASN:HB3	2.35	0.56
2:D:234:ILE:HB	2:D:302:MET:HE1	1.88	0.56
2:F:3:GLU:HG3	2:F:51:THR:HA	1.74	0.56
2:F:242:LEU:C	2:F:244:PHE:H	2.09	0.56
2:F:408:TYR:CD2	2:F:418:PHE:HZ	2.24	0.56
2:F:409:VAL:C	2:F:411:GLU:H	2.09	0.56
1:G:30:ILE:HA	1:G:35:SER:O	2.04	0.56
1:G:31:ASP:O	1:G:32:PRO:C	2.44	0.56
2:B:388:TRP:HA	2:B:388:TRP:CE3	2.41	0.56
1:C:198:THR:HG22	1:C:265:LEU:HD22	1.86	0.56
2:D:152:LEU:HA	2:D:155:GLU:CB	2.35	0.56
1:E:31:ASP:O	1:E:32:PRO:C	2.44	0.56
1:E:139:HIS:HE1	1:E:168:THR:HG23	1.71	0.56
2:F:362:VAL:CG1	2:F:368:LEU:HB2	2.35	0.56
1:G:70:LEU:CD1	1:G:145:THR:HG23	2.35	0.56
1:G:312:TYR:O	1:G:344:VAL:HB	2.05	0.56
2:H:382:THR:O	2:H:382:THR:HG22	2.06	0.56
3:I:33:ILE:HG23	3:I:43:ILE:HG21	1.87	0.56
1:A:253:ARG:O	1:A:254:LYS:C	2.42	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:319:PHE:CD2	1:A:375:ALA:HB2	2.40	0.56
2:B:231:ILE:HA	2:B:234:ILE:CG2	2.36	0.56
2:B:362:VAL:CG1	2:B:368:LEU:HB2	2.35	0.56
1:C:50:ASN:O	1:C:64:ARG:NH2	2.38	0.56
1:C:166:MET:HB3	1:C:198:THR:OG1	2.06	0.56
1:C:272:PHE:HB3	1:C:275:LEU:HD22	1.88	0.56
2:D:242:LEU:C	2:D:244:PHE:H	2.09	0.56
2:D:277:SER:O	2:D:280:LYS:HB2	2.06	0.56
1:E:165:ILE:HD13	1:E:165:ILE:H	1.71	0.56
2:F:19:ALA:CB	2:F:228:ASN:HB3	2.35	0.56
2:F:63:PRO:HG2	2:F:87:PHE:HA	1.86	0.56
1:G:139:HIS:HE1	1:G:168:THR:HG23	1.71	0.56
1:G:259:MET:CA	1:G:314:THR:HG21	2.35	0.56
2:H:253:THR:O	2:H:256:GLN:HG2	2.06	0.56
2:H:388:TRP:HA	2:H:388:TRP:CE3	2.41	0.56
3:I:29:GLY:O	3:I:32:MET:HG2	2.06	0.56
3:I:70:LEU:O	3:I:70:LEU:HD13	2.06	0.56
1:A:259:MET:CA	1:A:314:THR:HG21	2.35	0.56
1:A:311:ARG:HG2	1:A:311:ARG:HH11	1.71	0.56
2:B:362:VAL:HG11	2:B:368:LEU:O	2.04	0.56
1:C:5:VAL:CG2	1:C:135:PHE:HD2	2.18	0.56
1:C:182:VAL:HG23	1:C:186:ASN:ND2	2.20	0.56
1:C:216:THR:O	1:C:217:LEU:HD12	2.05	0.56
1:C:312:TYR:O	1:C:344:VAL:HB	2.05	0.56
2:D:331:ALA:O	2:D:334:THR:HG22	2.05	0.56
2:D:436:GLY:C	2:D:438:ASP:H	2.08	0.56
1:E:30:ILE:HA	1:E:35:SER:O	2.05	0.56
1:E:259:MET:CA	1:E:314:THR:HG21	2.35	0.56
2:H:16:ILE:HD12	2:H:171:ILE:HD11	1.88	0.56
2:H:209:ILE:HG22	2:H:227:LEU:HD22	1.88	0.56
3:I:5:ARG:HD2	3:I:88:MET:HE1	1.81	0.56
3:I:30:TYR:CE2	3:I:34:GLN:HB2	2.41	0.56
3:I:55:GLU:HA	3:I:58:TYR:HD2	1.61	0.56
1:A:70:LEU:CD1	1:A:145:THR:HG23	2.35	0.56
1:A:216:THR:O	1:A:217:LEU:HD12	2.05	0.56
2:B:152:LEU:HA	2:B:155:GLU:CB	2.35	0.56
1:C:223:THR:HG22	1:C:224:TYR:N	2.21	0.56
2:D:362:VAL:HG11	2:D:368:LEU:O	2.04	0.56
2:D:388:TRP:HA	2:D:388:TRP:CE3	2.41	0.56
1:E:210:TYR:HD1	1:E:227:LEU:HD21	1.71	0.56
1:E:311:ARG:HD2	1:E:344:VAL:H	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:24:TYR:OH	2:F:239:THR:OG1	2.24	0.56
1:G:311:ARG:HG2	1:G:311:ARG:HH11	1.71	0.56
1:G:311:ARG:HD2	1:G:344:VAL:H	1.71	0.56
3:I:20:LEU:C	3:I:20:LEU:HD23	2.27	0.56
3:I:30:TYR:HE2	3:I:34:GLN:OE1	1.88	0.56
3:I:72:LYS:HB3	3:I:74:ILE:HG13	1.88	0.56
1:A:50:ASN:O	1:A:64:ARG:NH2	2.38	0.56
1:A:119:LEU:O	1:A:123:ARG:HG3	2.06	0.56
1:A:166:MET:HB3	1:A:198:THR:OG1	2.06	0.56
1:A:424:ASN:C	1:A:424:ASN:HD22	2.09	0.56
1:C:4:ILE:HD13	1:C:136:GLN:NE2	2.18	0.56
1:C:151:THR:OG1	1:C:193:GLN:CB	2.54	0.56
1:C:311:ARG:HG2	1:C:311:ARG:HH11	1.71	0.56
1:C:319:PHE:CD2	1:C:375:ALA:HB2	2.40	0.56
2:D:209:ILE:HG22	2:D:227:LEU:HD22	1.88	0.56
1:E:283:TYR:C	1:E:284:ARG:HG2	2.24	0.56
2:F:16:ILE:HD12	2:F:171:ILE:HD11	1.87	0.56
2:F:209:ILE:HG22	2:F:227:LEU:HD22	1.88	0.56
2:F:253:THR:O	2:F:256:GLN:HG2	2.06	0.56
1:G:19:LYS:O	1:G:23:VAL:HG23	2.06	0.56
1:G:216:THR:O	1:G:217:LEU:HD12	2.05	0.56
1:G:223:THR:HG22	1:G:224:TYR:N	2.21	0.56
2:H:231:ILE:HA	2:H:234:ILE:CG2	2.36	0.56
2:H:408:TYR:CD2	2:H:418:PHE:HZ	2.24	0.56
3:I:32:MET:O	3:I:36:PHE:HD2	1.88	0.56
1:A:19:LYS:O	1:A:23:VAL:HG23	2.06	0.56
1:A:182:VAL:HG23	1:A:186:ASN:ND2	2.20	0.56
1:A:191:VAL:HA	1:A:194:LEU:HD12	1.88	0.56
1:A:223:THR:HG22	1:A:224:TYR:N	2.21	0.56
2:B:408:TYR:CD2	2:B:418:PHE:HZ	2.24	0.56
1:C:119:LEU:O	1:C:123:ARG:HG3	2.06	0.56
2:D:382:THR:O	2:D:382:THR:HG22	2.05	0.56
1:E:151:THR:OG1	1:E:193:GLN:CB	2.54	0.56
1:E:191:VAL:HA	1:E:194:LEU:HD12	1.88	0.56
2:F:231:ILE:HA	2:F:234:ILE:CG2	2.36	0.56
2:F:362:VAL:HG11	2:F:368:LEU:O	2.04	0.56
1:G:424:ASN:C	1:G:424:ASN:HD22	2.09	0.56
2:H:276:ILE:O	2:H:369:ALA:CB	2.52	0.56
2:H:362:VAL:CG1	2:H:368:LEU:HB2	2.35	0.56
1:A:324:SER:C	1:A:326:LYS:N	2.59	0.55
2:B:19:ALA:CB	2:B:228:ASN:HB3	2.35	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:331:ALA:O	2:B:334:THR:HG22	2.05	0.55
1:C:147:SER:O	1:C:151:THR:CB	2.51	0.55
1:C:165:ILE:HD13	1:C:165:ILE:H	1.71	0.55
1:C:273:ALA:HB3	1:C:274:PRO:CD	2.29	0.55
1:C:310:GLY:CA	1:C:436:GLN:HE21	2.19	0.55
1:E:19:LYS:O	1:E:23:VAL:HG23	2.06	0.55
1:E:190:SER:O	1:E:194:LEU:HG	2.06	0.55
1:E:223:THR:HG22	1:E:224:TYR:N	2.21	0.55
1:A:204:ILE:HD13	1:A:231:VAL:HG13	1.89	0.55
1:A:273:ALA:CB	1:A:274:PRO:HD3	2.30	0.55
1:A:310:GLY:CA	1:A:436:GLN:HE21	2.19	0.55
2:B:150:THR:O	2:B:153:LEU:N	2.40	0.55
2:B:209:ILE:HG22	2:B:227:LEU:HD22	1.88	0.55
1:C:19:LYS:O	1:C:23:VAL:HG23	2.06	0.55
1:C:191:VAL:HA	1:C:194:LEU:HD12	1.87	0.55
2:D:88:HIS:HB2	2:D:91:GLN:NE2	2.06	0.55
2:D:150:THR:O	2:D:153:LEU:N	2.40	0.55
2:D:408:TYR:CD2	2:D:418:PHE:HZ	2.24	0.55
1:E:250:ALA:CA	1:E:254:LYS:HE2	2.35	0.55
1:E:311:ARG:HG2	1:E:311:ARG:HH11	1.71	0.55
1:G:190:SER:O	1:G:194:LEU:HG	2.06	0.55
1:G:204:ILE:HD13	1:G:231:VAL:HG13	1.89	0.55
1:G:210:TYR:HD1	1:G:227:LEU:HD21	1.71	0.55
2:H:19:ALA:CB	2:H:228:ASN:HB3	2.35	0.55
2:D:231:ILE:HA	2:D:234:ILE:CG2	2.36	0.55
2:D:315:CYS:HB3	2:D:377:MET:HE2	1.87	0.55
1:E:273:ALA:CB	1:E:274:PRO:HD3	2.30	0.55
2:F:276:ILE:O	2:F:369:ALA:CB	2.52	0.55
2:F:277:SER:O	2:F:280:LYS:HB2	2.06	0.55
1:G:119:LEU:O	1:G:123:ARG:HG3	2.06	0.55
1:G:253:ARG:O	1:G:257:VAL:N	2.33	0.55
3:I:45:LEU:HD13	3:I:116:ARG:HB3	1.86	0.55
1:A:139:HIS:HE1	1:A:168:THR:HG23	1.71	0.55
1:C:70:LEU:CD1	1:C:145:THR:HG23	2.35	0.55
2:D:172:TYR:OH	2:D:387:ALA:O	2.24	0.55
1:E:204:ILE:HD13	1:E:231:VAL:HG13	1.89	0.55
2:F:331:ALA:O	2:F:334:THR:HG22	2.05	0.55
1:G:151:THR:OG1	1:G:193:GLN:CB	2.54	0.55
1:G:166:MET:HB3	1:G:198:THR:OG1	2.06	0.55
1:G:182:VAL:HG23	1:G:186:ASN:ND2	2.20	0.55
1:G:245:PRO:HG3	2:H:73:THR:HG23	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:5:ILE:HG22	2:H:135:PHE:CD2	2.40	0.55
1:A:151:THR:OG1	1:A:193:GLN:CB	2.54	0.55
2:B:253:THR:HG21	1:C:105:LYS:NZ	2.21	0.55
1:C:324:SER:C	1:C:326:LYS:N	2.59	0.55
2:D:5:ILE:HG22	2:D:135:PHE:CD2	2.40	0.55
2:D:64:ARG:HG3	2:D:64:ARG:O	2.07	0.55
2:D:409:VAL:C	2:D:411:GLU:H	2.09	0.55
1:E:119:LEU:O	1:E:123:ARG:HG3	2.06	0.55
1:E:182:VAL:HG23	1:E:186:ASN:ND2	2.20	0.55
1:E:216:THR:O	1:E:217:LEU:HD12	2.05	0.55
1:G:297:ASP:OD1	1:G:298:ALA:N	2.39	0.55
2:H:150:THR:O	2:H:153:LEU:N	2.40	0.55
1:A:190:SER:O	1:A:194:LEU:HG	2.06	0.55
1:A:204:ILE:HG21	1:A:231:VAL:CG2	2.36	0.55
2:B:64:ARG:HG3	2:B:64:ARG:O	2.07	0.55
2:B:253:THR:O	2:B:256:GLN:HG2	2.06	0.55
1:C:139:HIS:HE1	1:C:168:THR:HG23	1.71	0.55
1:C:204:ILE:HG21	1:C:231:VAL:CG2	2.36	0.55
1:E:67:LEU:HD23	1:E:67:LEU:N	2.22	0.55
1:E:166:MET:HB3	1:E:198:THR:OG1	2.06	0.55
2:F:3:GLU:HA	2:F:51:THR:HG1	1.65	0.55
2:F:30:ILE:O	2:F:30:ILE:HG22	2.07	0.55
1:G:191:VAL:HA	1:G:194:LEU:HD12	1.88	0.55
2:H:3:GLU:HG3	2:H:51:THR:HA	1.75	0.55
2:H:331:ALA:O	2:H:334:THR:HG22	2.05	0.55
2:B:16:ILE:HD12	2:B:171:ILE:HD11	1.88	0.55
1:C:67:LEU:HD23	1:C:67:LEU:N	2.22	0.55
1:C:190:SER:O	1:C:194:LEU:HG	2.06	0.55
1:C:204:ILE:HD13	1:C:231:VAL:HG13	1.89	0.55
1:C:424:ASN:HD22	1:C:424:ASN:C	2.09	0.55
1:E:204:ILE:HG21	1:E:231:VAL:CG2	2.36	0.55
2:F:30:ILE:HG23	2:F:34:GLY:O	2.07	0.55
2:F:150:THR:O	2:F:153:LEU:N	2.39	0.55
2:H:64:ARG:HG3	2:H:64:ARG:O	2.07	0.55
1:A:67:LEU:HD23	1:A:67:LEU:N	2.22	0.55
1:A:147:SER:O	1:A:151:THR:CB	2.51	0.55
2:D:30:ILE:HD13	2:D:61:HIS:CG	2.41	0.55
1:E:424:ASN:HD22	1:E:424:ASN:C	2.09	0.55
2:H:30:ILE:HG23	2:H:34:GLY:O	2.07	0.55
2:H:277:SER:O	2:H:280:LYS:HB2	2.06	0.55
2:H:409:VAL:C	2:H:411:GLU:H	2.09	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:30:TYR:CE2	3:I:50:PHE:CE1	2.95	0.55
1:A:4:ILE:HD13	1:A:136:GLN:NE2	2.18	0.55
1:C:259:MET:CA	1:C:314:THR:HG21	2.35	0.55
2:D:3:GLU:HG3	2:D:51:THR:HA	1.75	0.55
2:D:16:ILE:HD12	2:D:171:ILE:HD11	1.87	0.55
1:E:239:THR:HG22	1:E:240:THR:N	2.22	0.55
1:E:257:VAL:HA	2:F:407:TRP:CE2	2.42	0.55
1:A:239:THR:O	1:A:241:CYS:N	2.40	0.55
2:B:276:ILE:O	2:B:369:ALA:CB	2.53	0.55
2:D:24:TYR:OH	2:D:239:THR:OG1	2.24	0.55
2:D:118:VAL:HG21	2:D:149:PHE:CZ	2.42	0.55
2:D:253:THR:O	2:D:256:GLN:HG2	2.06	0.55
2:D:381:THR:OG1	2:D:383:ALA:HB3	2.07	0.55
1:E:147:SER:O	1:E:151:THR:CB	2.51	0.55
1:E:259:MET:CG	1:E:314:THR:HG21	2.36	0.55
1:E:324:SER:C	1:E:326:LYS:N	2.59	0.55
2:F:64:ARG:HG3	2:F:64:ARG:O	2.06	0.55
2:F:118:VAL:HG21	2:F:149:PHE:CZ	2.42	0.55
2:F:339:ARG:HB2	3:I:63:LYS:CD	2.37	0.55
2:H:217:LEU:CD1	2:H:277:SER:CB	2.54	0.55
1:A:273:ALA:HB3	1:A:274:PRO:CD	2.29	0.54
1:A:311:ARG:HD2	1:A:344:VAL:H	1.71	0.54
2:B:5:ILE:O	2:B:136:SER:N	2.40	0.54
2:F:339:ARG:HD3	3:I:63:LYS:NZ	2.21	0.54
3:I:21:THR:HG21	3:I:22:ARG:NH1	2.22	0.54
1:A:210:TYR:HD1	1:A:227:LEU:HD21	1.71	0.54
1:A:259:MET:CG	1:A:314:THR:HG21	2.36	0.54
1:A:325:MET:O	1:A:329:ASP:HB2	2.07	0.54
2:B:17:GLY:O	2:B:21:TRP:HB2	2.08	0.54
2:B:24:TYR:OH	2:B:239:THR:OG1	2.24	0.54
2:B:381:THR:OG1	2:B:383:ALA:HB3	2.07	0.54
1:C:2:ARG:HH22	2:D:99:ALA:H	1.54	0.54
1:C:210:TYR:HD1	1:C:227:LEU:HD21	1.71	0.54
1:C:239:THR:O	1:C:241:CYS:N	2.41	0.54
1:C:273:ALA:CB	1:C:274:PRO:HD3	2.30	0.54
1:C:311:ARG:HD2	1:C:344:VAL:H	1.71	0.54
1:G:310:GLY:CA	1:G:436:GLN:HE21	2.19	0.54
2:H:288:VAL:HG22	2:H:373:ARG:NH1	2.22	0.54
2:B:67:PHE:CE2	2:B:87:PHE:CD2	2.89	0.54
2:B:118:VAL:HG21	2:B:149:PHE:CZ	2.42	0.54
2:B:288:VAL:HG22	2:B:373:ARG:NH1	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2:ARG:NH2	2:D:98:ASP:HA	2.22	0.54
1:C:297:ASP:OD1	1:C:298:ALA:N	2.39	0.54
1:C:325:MET:O	1:C:329:ASP:HB2	2.07	0.54
2:D:5:ILE:O	2:D:136:SER:N	2.40	0.54
1:E:297:ASP:OD1	1:E:298:ALA:N	2.39	0.54
2:F:6:SER:O	2:F:65:ALA:HB1	2.07	0.54
2:F:17:GLY:O	2:F:21:TRP:HB2	2.08	0.54
1:G:273:ALA:CB	1:G:274:PRO:HD3	2.30	0.54
2:H:17:GLY:O	2:H:21:TRP:HB2	2.08	0.54
2:H:339:ARG:C	2:H:341:ILE:H	2.11	0.54
1:A:133:GLN:HE21	1:A:252:LEU:HB2	1.73	0.54
2:B:5:ILE:CG2	2:B:6:SER:N	2.70	0.54
2:B:172:TYR:OH	2:B:387:ALA:O	2.24	0.54
2:B:409:VAL:C	2:B:411:GLU:H	2.09	0.54
1:C:323:MET:HG3	1:C:328:VAL:HG21	1.90	0.54
1:E:310:GLY:CA	1:E:436:GLN:HE21	2.19	0.54
1:G:204:ILE:HG21	1:G:231:VAL:CG2	2.36	0.54
1:G:239:THR:HG22	1:G:240:THR:N	2.22	0.54
1:G:259:MET:CG	1:G:314:THR:HG21	2.36	0.54
2:H:118:VAL:HG21	2:H:149:PHE:CZ	2.42	0.54
3:I:36:PHE:CZ	3:I:69:PHE:CZ	2.96	0.54
1:A:323:MET:HG3	1:A:328:VAL:HG21	1.90	0.54
2:B:30:ILE:HG23	2:B:34:GLY:O	2.07	0.54
2:B:293:ASN:HD21	2:B:338:LYS:HZ1	1.53	0.54
1:C:5:VAL:HG22	1:C:135:PHE:CD2	2.42	0.54
2:D:17:GLY:O	2:D:21:TRP:HB2	2.08	0.54
2:D:115:ILE:HD13	2:D:115:ILE:C	2.28	0.54
1:E:323:MET:HG3	1:E:328:VAL:HG21	1.90	0.54
2:F:288:VAL:HG22	2:F:373:ARG:NH1	2.23	0.54
1:G:67:LEU:HD23	1:G:67:LEU:N	2.22	0.54
1:G:147:SER:O	1:G:151:THR:CB	2.51	0.54
1:G:323:MET:HG3	1:G:328:VAL:HG21	1.90	0.54
2:H:6:SER:O	2:H:65:ALA:HB1	2.07	0.54
2:H:30:ILE:HG22	2:H:30:ILE:O	2.07	0.54
1:A:44:LEU:O	1:A:49:ILE:HG12	2.07	0.54
1:A:253:ARG:O	1:A:257:VAL:N	2.33	0.54
1:A:343:PHE:O	1:A:344:VAL:O	2.26	0.54
1:A:427:ASP:OD1	1:A:428:LEU:N	2.41	0.54
1:C:133:GLN:HE21	1:C:252:LEU:HB2	1.73	0.54
1:C:301:MET:HE1	1:C:377:PHE:HE2	1.71	0.54
1:C:325:MET:CE	1:C:355:VAL:HG11	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4:ILE:CG2	1:E:136:GLN:HG2	2.38	0.54
1:E:5:VAL:HG22	1:E:135:PHE:CD2	2.42	0.54
1:E:343:PHE:O	1:E:344:VAL:O	2.26	0.54
2:F:5:ILE:HG22	2:F:135:PHE:CD2	2.40	0.54
1:G:2:ARG:NH2	2:H:99:ALA:N	2.54	0.54
1:G:4:ILE:CG2	1:G:136:GLN:HG2	2.38	0.54
1:G:5:VAL:HG22	1:G:135:PHE:CD2	2.42	0.54
1:G:44:LEU:O	1:G:49:ILE:HG12	2.07	0.54
1:G:324:SER:C	1:G:326:LYS:N	2.59	0.54
1:G:343:PHE:O	1:G:344:VAL:O	2.26	0.54
2:H:115:ILE:HD13	2:H:115:ILE:C	2.28	0.54
1:A:5:VAL:HG22	1:A:135:PHE:CD2	2.42	0.54
2:B:61:HIS:C	2:B:62:VAL:HG23	2.28	0.54
1:C:427:ASP:OD1	1:C:428:LEU:N	2.41	0.54
2:D:6:SER:O	2:D:65:ALA:HB1	2.07	0.54
2:D:110:ILE:CG2	2:D:111:GLY:H	2.15	0.54
1:E:427:ASP:OD1	1:E:428:LEU:N	2.41	0.54
1:G:239:THR:O	1:G:241:CYS:N	2.41	0.54
1:G:322:ARG:HH11	1:G:322:ARG:HG3	1.73	0.54
2:H:62:VAL:CG1	2:H:88:HIS:ND1	2.71	0.54
2:H:110:ILE:O	2:H:112:LYS:N	2.41	0.54
2:B:3:GLU:HG3	2:B:51:THR:HA	1.75	0.54
2:B:408:TYR:O	2:B:411:GLU:N	2.39	0.54
1:C:259:MET:CG	1:C:314:THR:HG21	2.37	0.54
1:C:343:PHE:O	1:C:344:VAL:O	2.26	0.54
2:D:30:ILE:HG23	2:D:34:GLY:O	2.08	0.54
1:E:4:ILE:HD13	1:E:136:GLN:NE2	2.18	0.54
1:E:325:MET:CE	1:E:355:VAL:HG11	2.38	0.54
2:F:381:THR:OG1	2:F:383:ALA:HB3	2.07	0.54
1:G:68:VAL:HG12	1:G:149:MET:CE	2.38	0.54
2:H:102:ASN:CB	2:H:407:TRP:NE1	2.71	0.54
3:I:70:LEU:HD13	3:I:70:LEU:C	2.28	0.54
2:B:115:ILE:HD13	2:B:115:ILE:C	2.28	0.54
2:B:324:VAL:O	2:B:327:ASP:HB2	2.08	0.54
2:D:121:ARG:O	2:D:125:LEU:HB2	2.08	0.54
2:D:173:PRO:HB2	2:D:391:LEU:CD1	2.38	0.54
2:D:288:VAL:HG22	2:D:373:ARG:NH1	2.23	0.54
2:D:324:VAL:O	2:D:327:ASP:HB2	2.08	0.54
1:E:249:ASN:OD1	2:F:71:GLU:OE1	2.25	0.54
2:F:332:ILE:HG22	1:G:177:VAL:HG21	1.90	0.54
1:G:331:GLN:O	1:G:335:VAL:HG23	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:427:ASP:OD1	1:G:428:LEU:N	2.41	0.54
2:H:163:LYS:O	2:H:163:LYS:HG2	2.08	0.54
1:A:325:MET:CE	1:A:355:VAL:HG11	2.38	0.54
2:B:163:LYS:O	2:B:163:LYS:HG2	2.08	0.54
1:C:44:LEU:O	1:C:49:ILE:HG12	2.07	0.54
1:C:239:THR:HG22	1:C:240:THR:N	2.22	0.54
2:D:23:LEU:HD23	2:D:236:SER:CB	2.37	0.54
2:D:110:ILE:O	2:D:112:LYS:N	2.41	0.54
1:E:322:ARG:HH11	1:E:322:ARG:HG3	1.73	0.54
1:E:431:GLU:O	1:E:434:GLN:CG	2.56	0.54
2:F:110:ILE:CG2	2:F:111:GLY:N	2.71	0.54
2:F:147:SER:CB	2:F:190:THR:OG1	2.52	0.54
2:F:172:TYR:OH	2:F:387:ALA:O	2.24	0.54
1:G:431:GLU:O	1:G:434:GLN:CG	2.56	0.54
1:A:331:GLN:O	1:A:335:VAL:HG23	2.08	0.53
2:B:6:SER:O	2:B:65:ALA:HB1	2.07	0.53
2:B:121:ARG:O	2:B:125:LEU:HB2	2.08	0.53
1:C:68:VAL:HG12	1:C:149:MET:CE	2.38	0.53
1:C:253:ARG:O	1:C:257:VAL:N	2.33	0.53
1:C:331:GLN:O	1:C:335:VAL:HG23	2.08	0.53
2:D:215:ARG:C	2:D:216:ASN:HD22	2.12	0.53
1:E:68:VAL:HG12	1:E:149:MET:CE	2.38	0.53
1:E:331:GLN:O	1:E:335:VAL:HG23	2.08	0.53
1:G:4:ILE:HD13	1:G:136:GLN:NE2	2.18	0.53
2:H:121:ARG:O	2:H:125:LEU:HB2	2.08	0.53
2:H:381:THR:OG1	2:H:383:ALA:HB3	2.07	0.53
1:A:297:ASP:OD1	1:A:298:ALA:N	2.39	0.53
2:B:9:VAL:CG1	2:B:139:HIS:HB3	2.38	0.53
2:B:110:ILE:O	2:B:112:LYS:N	2.41	0.53
1:C:20:PHE:CE1	1:C:24:ILE:HD12	2.43	0.53
1:E:5:VAL:HG23	1:E:5:VAL:O	2.09	0.53
1:E:31:ASP:HB3	1:E:32:PRO:HD2	1.90	0.53
1:E:325:MET:O	1:E:329:ASP:HB2	2.07	0.53
2:F:9:VAL:CG1	2:F:139:HIS:HB3	2.38	0.53
2:F:110:ILE:O	2:F:112:LYS:N	2.41	0.53
2:F:115:ILE:HD13	2:F:115:ILE:C	2.28	0.53
2:F:121:ARG:O	2:F:125:LEU:HB2	2.08	0.53
2:F:163:LYS:O	2:F:163:LYS:HG2	2.08	0.53
2:F:243:ARG:CZ	2:F:252:LEU:HG	2.39	0.53
2:F:329:ASN:HB3	1:G:210:TYR:HE2	1.73	0.53
1:G:325:MET:CE	1:G:355:VAL:HG11	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:101:ASN:ND2	5:H:500:GTP:O3G	2.42	0.53
2:H:408:TYR:O	2:H:411:GLU:N	2.39	0.53
3:I:76:LYS:HG3	3:I:97:TRP:CD2	2.43	0.53
1:A:5:VAL:HG23	1:A:5:VAL:O	2.09	0.53
1:A:20:PHE:CE1	1:A:24:ILE:HD12	2.43	0.53
1:A:31:ASP:HB3	1:A:32:PRO:HD2	1.89	0.53
1:A:68:VAL:HG12	1:A:149:MET:CE	2.38	0.53
1:A:322:ARG:HG3	1:A:322:ARG:HH11	1.73	0.53
2:B:243:ARG:CZ	2:B:252:LEU:HG	2.39	0.53
1:C:194:LEU:C	1:C:196:GLU:H	2.11	0.53
1:C:250:ALA:CA	1:C:254:LYS:HE2	2.35	0.53
1:C:352:LYS:HZ2	2:D:180:ALA:HA	1.73	0.53
2:D:88:HIS:NE2	2:H:283:HIS:CG	2.76	0.53
2:D:163:LYS:O	2:D:163:LYS:HG2	2.08	0.53
1:E:44:LEU:O	1:E:49:ILE:HG12	2.07	0.53
2:F:182:VAL:O	2:F:184:PRO:N	2.41	0.53
2:H:243:ARG:CZ	2:H:252:LEU:HG	2.39	0.53
2:B:110:ILE:CG2	2:B:111:GLY:N	2.71	0.53
2:B:231:ILE:CA	2:B:234:ILE:HG22	2.38	0.53
2:B:248:LEU:HB3	2:B:355:ILE:H	1.73	0.53
1:C:36:TYR:CZ	1:C:38:GLY:HA3	2.43	0.53
2:D:5:ILE:O	2:D:135:PHE:HA	2.08	0.53
2:D:9:VAL:CG1	2:D:139:HIS:HB3	2.38	0.53
1:E:20:PHE:CE1	1:E:24:ILE:HD12	2.43	0.53
1:E:21:TRP:CZ2	1:E:65:ALA:HB2	2.44	0.53
1:E:239:THR:O	1:E:241:CYS:N	2.40	0.53
1:E:257:VAL:HA	2:F:407:TRP:NE1	2.24	0.53
2:F:234:ILE:HB	2:F:302:MET:HE1	1.90	0.53
1:G:5:VAL:HG23	1:G:5:VAL:O	2.09	0.53
2:H:5:ILE:HG23	2:H:135:PHE:CB	2.38	0.53
2:H:98:ASP:O	2:H:110:ILE:HD13	2.08	0.53
2:H:173:PRO:HB2	2:H:391:LEU:CD1	2.39	0.53
1:A:194:LEU:C	1:A:196:GLU:H	2.11	0.53
2:D:243:ARG:CZ	2:D:252:LEU:HG	2.39	0.53
2:D:248:LEU:HB3	2:D:355:ILE:H	1.73	0.53
1:E:194:LEU:C	1:E:196:GLU:H	2.11	0.53
2:F:248:LEU:HB3	2:F:355:ILE:H	1.73	0.53
1:G:213:CYS:SG	1:G:219:LEU:HD23	2.48	0.53
1:G:248:LEU:CD2	2:H:179:THR:HG21	2.21	0.53
2:H:182:VAL:O	2:H:184:PRO:N	2.41	0.53
2:H:324:VAL:O	2:H:327:ASP:HB2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:239:THR:HG22	1:A:240:THR:N	2.22	0.53
2:B:147:SER:CB	2:B:190:THR:OG1	2.52	0.53
1:C:27:GLU:O	1:C:27:GLU:HG2	2.08	0.53
1:C:107:HIS:HD2	1:C:151:THR:HG22	1.72	0.53
2:D:56:THR:CB	2:H:284:GLU:CB	2.85	0.53
1:E:198:THR:HG22	1:E:265:LEU:CD2	2.39	0.53
1:E:213:CYS:SG	1:E:219:LEU:HD23	2.48	0.53
2:F:67:PHE:CZ	2:F:87:PHE:HE2	2.27	0.53
2:F:101:ASN:ND2	5:F:500:GTP:O3G	2.42	0.53
2:F:173:PRO:HB2	2:F:391:LEU:CD1	2.38	0.53
1:G:27:GLU:HG2	1:G:27:GLU:O	2.08	0.53
1:G:31:ASP:HB3	1:G:32:PRO:HD2	1.89	0.53
2:H:9:VAL:CG1	2:H:139:HIS:HB3	2.38	0.53
2:H:67:PHE:CZ	2:H:87:PHE:HE2	2.27	0.53
2:H:248:LEU:HB3	2:H:355:ILE:H	1.73	0.53
1:A:4:ILE:CG2	1:A:136:GLN:HG2	2.38	0.53
1:A:36:TYR:CZ	1:A:38:GLY:HA3	2.43	0.53
1:A:229:HIS:C	1:A:229:HIS:ND1	2.62	0.53
2:B:173:PRO:HB2	2:B:391:LEU:CD1	2.39	0.53
2:B:182:VAL:O	2:B:184:PRO:N	2.41	0.53
1:C:31:ASP:HB3	1:C:32:PRO:HD2	1.89	0.53
1:C:213:CYS:SG	1:C:219:LEU:HD23	2.48	0.53
1:C:322:ARG:HH11	1:C:322:ARG:HG3	1.73	0.53
2:D:182:VAL:O	2:D:184:PRO:N	2.41	0.53
2:D:264:ARG:C	2:D:266:HIS:N	2.60	0.53
1:E:36:TYR:CZ	1:E:38:GLY:HA3	2.43	0.53
2:F:408:TYR:O	2:F:411:GLU:N	2.39	0.53
1:G:20:PHE:CE1	1:G:24:ILE:HD12	2.42	0.53
1:G:107:HIS:HD2	1:G:151:THR:HG22	1.72	0.53
2:H:5:ILE:O	2:H:135:PHE:HA	2.08	0.53
3:I:20:LEU:HD21	3:I:22:ARG:O	2.09	0.53
1:A:141:LEU:HA	1:A:147:SER:HB3	1.91	0.53
1:A:198:THR:HG22	1:A:265:LEU:CD2	2.39	0.53
1:A:213:CYS:SG	1:A:219:LEU:HD23	2.48	0.53
2:B:23:LEU:HD23	2:B:236:SER:CB	2.37	0.53
1:C:5:VAL:O	1:C:5:VAL:HG23	2.09	0.53
1:C:21:TRP:CZ2	1:C:65:ALA:HB2	2.44	0.53
1:C:198:THR:HG22	1:C:265:LEU:CD2	2.39	0.53
2:D:5:ILE:HG23	2:D:135:PHE:CB	2.38	0.53
1:E:141:LEU:HA	1:E:147:SER:HB3	1.91	0.53
1:G:36:TYR:CZ	1:G:38:GLY:HA3	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:133:GLN:HE21	1:G:252:LEU:HB2	1.73	0.53
1:G:141:LEU:HA	1:G:147:SER:HB3	1.91	0.53
1:G:226:ASP:O	1:G:227:LEU:C	2.46	0.53
1:G:253:ARG:HB3	2:H:407:TRP:CZ3	2.34	0.53
1:A:21:TRP:CZ2	1:A:65:ALA:HB2	2.44	0.53
1:A:250:ALA:CA	1:A:254:LYS:HE2	2.35	0.53
2:B:276:ILE:CG2	2:B:369:ALA:HB2	2.26	0.53
1:C:210:TYR:CD1	1:C:227:LEU:HD21	2.44	0.53
1:C:229:HIS:ND1	1:C:229:HIS:C	2.62	0.53
2:D:67:PHE:CZ	2:D:87:PHE:HE2	2.27	0.53
2:D:101:ASN:ND2	5:D:500:GTP:O3G	2.42	0.53
2:D:196:GLU:C	2:D:197:HIS:CD2	2.82	0.53
2:D:244:PHE:CD1	2:D:245:ASP:N	2.76	0.53
2:D:339:ARG:C	2:D:341:ILE:H	2.11	0.53
2:F:98:ASP:O	2:F:110:ILE:HD13	2.08	0.53
1:G:21:TRP:CZ2	1:G:65:ALA:HB2	2.44	0.53
2:H:147:SER:CB	2:H:190:THR:OG1	2.52	0.53
1:A:168:THR:CB	1:A:201:THR:HG23	2.38	0.53
1:A:264:ARG:HA	1:A:264:ARG:HE	1.74	0.53
1:A:431:GLU:O	1:A:434:GLN:CG	2.56	0.53
2:B:98:ASP:O	2:B:110:ILE:HD13	2.08	0.53
1:C:141:LEU:HA	1:C:147:SER:HB3	1.91	0.53
1:C:431:GLU:O	1:C:434:GLN:CG	2.56	0.53
2:D:98:ASP:O	2:D:110:ILE:HD13	2.08	0.53
2:D:408:TYR:O	2:D:411:GLU:N	2.39	0.53
1:E:27:GLU:O	1:E:27:GLU:HG2	2.08	0.53
2:F:5:ILE:HG23	2:F:135:PHE:CB	2.38	0.53
2:F:196:GLU:C	2:F:197:HIS:CD2	2.82	0.53
2:F:231:ILE:N	2:F:231:ILE:HD13	2.24	0.53
2:F:231:ILE:CA	2:F:234:ILE:HG22	2.38	0.53
2:F:324:VAL:O	2:F:327:ASP:HB2	2.08	0.53
1:G:8:GLN:OE1	1:G:14:ASN:ND2	2.42	0.53
1:G:194:LEU:C	1:G:196:GLU:H	2.11	0.53
1:G:198:THR:HG22	1:G:265:LEU:CD2	2.39	0.53
2:H:150:THR:O	2:H:151:SER:C	2.47	0.53
2:H:172:TYR:OH	2:H:387:ALA:O	2.24	0.53
2:H:231:ILE:CA	2:H:234:ILE:HG22	2.38	0.53
3:I:62:TRP:O	3:I:66:GLN:HG3	2.09	0.53
1:A:107:HIS:HD2	1:A:151:THR:HG22	1.72	0.52
2:B:215:ARG:C	2:B:216:ASN:HD22	2.12	0.52
1:C:4:ILE:CG2	1:C:136:GLN:HG2	2.38	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:264:ARG:HA	1:C:264:ARG:HE	1.75	0.52
2:F:5:ILE:O	2:F:135:PHE:HA	2.08	0.52
2:F:8:HIS:HB3	2:F:13:GLY:O	2.09	0.52
1:G:210:TYR:CD1	1:G:227:LEU:HD21	2.44	0.52
1:G:212:ILE:O	1:G:216:THR:HB	2.09	0.52
2:H:8:HIS:HB3	2:H:13:GLY:O	2.10	0.52
1:A:27:GLU:HG2	1:A:27:GLU:O	2.08	0.52
1:C:209:LEU:O	1:C:210:TYR:C	2.48	0.52
1:E:168:THR:CB	1:E:201:THR:HG23	2.38	0.52
1:E:212:ILE:O	1:E:216:THR:HB	2.09	0.52
1:E:226:ASP:O	1:E:229:HIS:N	2.42	0.52
2:F:244:PHE:CD1	2:F:245:ASP:N	2.76	0.52
3:I:20:LEU:HD23	3:I:22:ARG:N	2.24	0.52
1:A:149:MET:O	1:A:149:MET:HG2	2.10	0.52
1:A:209:LEU:O	1:A:210:TYR:C	2.48	0.52
1:A:210:TYR:CD1	1:A:227:LEU:HD21	2.44	0.52
1:A:226:ASP:O	1:A:229:HIS:N	2.42	0.52
2:B:5:ILE:O	2:B:135:PHE:HA	2.09	0.52
2:B:231:ILE:HD13	2:B:231:ILE:N	2.24	0.52
2:B:339:ARG:C	2:B:341:ILE:H	2.11	0.52
1:C:149:MET:O	1:C:149:MET:HG2	2.10	0.52
1:C:226:ASP:O	1:C:229:HIS:N	2.42	0.52
1:C:254:LYS:NZ	2:D:101:ASN:CG	2.62	0.52
1:C:345:GLU:C	1:C:347:ILE:H	2.13	0.52
2:D:206:ASN:OD1	2:D:227:LEU:CD1	2.58	0.52
1:E:229:HIS:C	1:E:229:HIS:ND1	2.62	0.52
1:G:425:MET:O	1:G:428:LEU:HB3	2.09	0.52
2:H:102:ASN:HB3	2:H:407:TRP:NE1	2.24	0.52
2:H:215:ARG:C	2:H:216:ASN:HD22	2.12	0.52
2:H:231:ILE:HD13	2:H:231:ILE:N	2.25	0.52
3:I:101:PHE:CE2	3:I:105:TYR:CE2	2.97	0.52
1:A:345:GLU:C	1:A:347:ILE:H	2.13	0.52
2:B:67:PHE:CZ	2:B:87:PHE:HE2	2.27	0.52
2:B:101:ASN:ND2	5:B:500:GTP:O3G	2.42	0.52
2:B:201:ALA:O	2:B:267:PHE:HA	2.10	0.52
1:C:8:GLN:OE1	1:C:14:ASN:ND2	2.42	0.52
1:C:188:THR:HA	1:C:425:MET:CE	2.40	0.52
1:E:103:TRP:CE2	1:E:189:LEU:HB3	2.45	0.52
1:E:107:HIS:HD2	1:E:151:THR:HG22	1.72	0.52
1:E:210:TYR:CD1	1:E:227:LEU:HD21	2.44	0.52
1:E:226:ASP:O	1:E:227:LEU:C	2.46	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:425:MET:O	1:E:428:LEU:HB3	2.09	0.52
2:F:23:LEU:HD23	2:F:236:SER:CB	2.37	0.52
2:F:25:CYS:HB2	2:F:30:ILE:O	2.10	0.52
2:F:62:VAL:CG1	2:F:88:HIS:ND1	2.71	0.52
2:F:150:THR:O	2:F:151:SER:C	2.47	0.52
2:H:24:TYR:OH	2:H:239:THR:OG1	2.24	0.52
2:H:25:CYS:HB2	2:H:30:ILE:O	2.10	0.52
2:H:201:ALA:O	2:H:267:PHE:HA	2.10	0.52
3:I:30:TYR:HE1	3:I:48:VAL:CG1	2.18	0.52
1:A:103:TRP:CE2	1:A:189:LEU:HB3	2.45	0.52
2:B:119:LEU:HD11	2:B:156:ARG:CD	2.40	0.52
2:B:196:GLU:C	2:B:197:HIS:CD2	2.82	0.52
2:D:63:PRO:CG	2:D:87:PHE:HA	2.40	0.52
2:D:67:PHE:CE2	2:D:87:PHE:CD2	2.89	0.52
2:D:173:PRO:HB2	2:D:391:LEU:HD11	1.92	0.52
2:D:231:ILE:HD13	2:D:231:ILE:N	2.25	0.52
2:D:239:THR:O	2:D:240:ALA:C	2.48	0.52
2:D:344:VAL:HG12	2:D:345:ASP:H	1.74	0.52
2:D:362:VAL:HG13	2:D:368:LEU:CD1	2.38	0.52
1:E:8:GLN:OE1	1:E:14:ASN:ND2	2.42	0.52
1:E:133:GLN:HE21	1:E:252:LEU:HB2	1.73	0.52
1:E:209:LEU:O	1:E:210:TYR:C	2.48	0.52
2:F:119:LEU:HD11	2:F:156:ARG:CD	2.40	0.52
1:G:226:ASP:O	1:G:229:HIS:N	2.42	0.52
2:H:119:LEU:HD11	2:H:156:ARG:CD	2.40	0.52
2:H:151:SER:HB3	2:H:193:THR:CG2	2.34	0.52
2:H:196:GLU:C	2:H:197:HIS:CD2	2.82	0.52
3:I:62:TRP:CH2	3:I:83:LEU:HB3	2.44	0.52
1:A:8:GLN:OE1	1:A:14:ASN:ND2	2.42	0.52
1:A:320:ARG:HA	1:A:356:CYS:HB3	1.92	0.52
2:B:191:THR:HG23	2:B:192:HIS:N	2.25	0.52
2:D:24:TYR:CE1	2:D:240:ALA:HB2	2.45	0.52
2:D:191:THR:HG23	2:D:192:HIS:N	2.25	0.52
2:D:345:ASP:OD2	2:D:439:SER:HB3	2.09	0.52
2:F:201:ALA:O	2:F:267:PHE:HA	2.10	0.52
2:F:215:ARG:C	2:F:216:ASN:HD22	2.11	0.52
2:H:67:PHE:CE2	2:H:87:PHE:CD2	2.89	0.52
2:H:251:ASP:OD1	2:H:252:LEU:N	2.43	0.52
2:H:344:VAL:HG12	2:H:345:ASP:H	1.74	0.52
1:C:49:ILE:O	1:C:50:ASN:C	2.48	0.52
1:C:103:TRP:CE2	1:C:189:LEU:HB3	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:295:MET:SD	1:C:375:ALA:O	2.68	0.52
2:D:231:ILE:CA	2:D:234:ILE:HG22	2.38	0.52
1:E:107:HIS:CD2	1:E:151:THR:HG22	2.45	0.52
1:E:295:MET:SD	1:E:375:ALA:O	2.68	0.52
1:E:320:ARG:HA	1:E:356:CYS:HB3	1.92	0.52
1:E:424:ASN:C	1:E:424:ASN:ND2	2.61	0.52
2:F:346:TRP:CZ3	1:G:403:ALA:CA	2.91	0.52
1:G:229:HIS:C	1:G:229:HIS:ND1	2.62	0.52
1:A:70:LEU:HD12	1:A:145:THR:HG23	1.91	0.52
1:A:295:MET:SD	1:A:375:ALA:O	2.68	0.52
2:B:24:TYR:CE1	2:B:240:ALA:HB2	2.45	0.52
2:B:150:THR:O	2:B:151:SER:C	2.47	0.52
2:B:206:ASN:OD1	2:B:227:LEU:CD1	2.58	0.52
2:D:11:GLN:NE2	2:D:74:VAL:HG22	2.22	0.52
1:E:264:ARG:HA	1:E:264:ARG:HE	1.75	0.52
2:F:206:ASN:OD1	2:F:227:LEU:CD1	2.57	0.52
1:G:103:TRP:CE2	1:G:189:LEU:HB3	2.45	0.52
1:G:320:ARG:HA	1:G:356:CYS:HB3	1.92	0.52
1:G:345:GLU:C	1:G:347:ILE:H	2.13	0.52
1:G:424:ASN:C	1:G:424:ASN:ND2	2.62	0.52
1:A:176:LYS:CE	1:A:207:GLU:HG3	2.39	0.52
1:A:188:THR:HA	1:A:425:MET:CE	2.40	0.52
1:A:200:GLU:N	1:A:265:LEU:HD13	2.25	0.52
1:A:425:MET:O	1:A:428:LEU:HB3	2.10	0.52
2:B:4:CYS:HA	2:B:134:GLY:O	2.10	0.52
2:B:239:THR:O	2:B:240:ALA:C	2.48	0.52
2:B:344:VAL:HG12	2:B:345:ASP:H	1.75	0.52
2:B:345:ASP:OD2	2:B:439:SER:HB3	2.09	0.52
1:C:149:MET:O	1:C:153:LEU:HD22	2.10	0.52
1:C:200:GLU:N	1:C:265:LEU:HD13	2.25	0.52
2:D:88:HIS:CD2	2:H:283:HIS:CE1	2.98	0.52
2:D:201:ALA:O	2:D:267:PHE:HA	2.10	0.52
2:H:345:ASP:OD2	2:H:439:SER:HB3	2.10	0.52
1:A:149:MET:O	1:A:153:LEU:HD22	2.10	0.52
2:B:8:HIS:HB3	2:B:13:GLY:O	2.10	0.52
2:B:417:GLU:OE1	2:B:417:GLU:HA	2.10	0.52
1:C:242:LEU:HD22	1:C:250:ALA:N	2.19	0.52
1:C:320:ARG:HA	1:C:356:CYS:HB3	1.92	0.52
1:C:425:MET:O	1:C:428:LEU:HB3	2.09	0.52
2:D:6:SER:HB3	2:D:136:SER:HG	1.75	0.52
2:D:251:ASP:OD1	2:D:252:LEU:N	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:244:PHE:CD1	2:F:244:PHE:C	2.83	0.52
2:F:251:ASP:OD1	2:F:252:LEU:N	2.43	0.52
1:G:107:HIS:CD2	1:G:151:THR:HG22	2.45	0.52
1:G:168:THR:CB	1:G:201:THR:HG23	2.38	0.52
1:G:260:VAL:HG23	1:G:260:VAL:O	2.10	0.52
2:H:23:LEU:HD23	2:H:236:SER:CB	2.37	0.52
1:A:49:ILE:O	1:A:50:ASN:C	2.48	0.51
2:B:6:SER:HB3	2:B:136:SER:HG	1.76	0.51
1:C:70:LEU:HD12	1:C:145:THR:HG23	1.91	0.51
2:D:8:HIS:HB3	2:D:13:GLY:O	2.10	0.51
1:E:49:ILE:O	1:E:50:ASN:C	2.48	0.51
2:F:173:PRO:HB2	2:F:391:LEU:HD11	1.92	0.51
1:G:209:LEU:O	1:G:210:TYR:C	2.48	0.51
1:G:251:ASP:O	1:G:252:LEU:C	2.49	0.51
1:G:295:MET:SD	1:G:375:ALA:O	2.68	0.51
2:H:206:ASN:OD1	2:H:227:LEU:CD1	2.58	0.51
2:B:173:PRO:HB2	2:B:391:LEU:HD11	1.92	0.51
2:B:243:ARG:NH2	2:B:251:ASP:OD1	2.44	0.51
2:B:244:PHE:CD1	2:B:244:PHE:C	2.84	0.51
2:B:244:PHE:CD1	2:B:245:ASP:N	2.76	0.51
1:C:254:LYS:NZ	2:D:101:ASN:OD1	2.26	0.51
2:D:243:ARG:NH2	2:D:251:ASP:OD1	2.44	0.51
1:E:188:THR:HA	1:E:425:MET:CE	2.40	0.51
2:F:63:PRO:CG	2:F:87:PHE:HA	2.40	0.51
2:F:67:PHE:CE2	2:F:87:PHE:CD2	2.89	0.51
1:G:149:MET:O	1:G:153:LEU:HD22	2.10	0.51
2:H:173:PRO:HB2	2:H:391:LEU:HD11	1.92	0.51
2:H:264:ARG:C	2:H:266:HIS:N	2.60	0.51
3:I:12:ILE:HG23	3:I:13:ASN:N	2.24	0.51
2:B:63:PRO:HG3	2:B:87:PHE:CA	2.40	0.51
1:C:212:ILE:O	1:C:216:THR:HB	2.09	0.51
2:D:150:THR:O	2:D:151:SER:C	2.47	0.51
2:D:417:GLU:HA	2:D:417:GLU:OE1	2.10	0.51
1:E:251:ASP:O	1:E:252:LEU:C	2.49	0.51
1:E:314:THR:CG2	1:E:315:VAL:N	2.73	0.51
2:F:140:SER:O	2:F:142:GLY:N	2.44	0.51
1:G:431:GLU:OE1	1:G:432:TYR:CA	2.57	0.51
2:H:4:CYS:HA	2:H:134:GLY:O	2.10	0.51
3:I:33:ILE:CD1	3:I:65:LEU:HB2	2.40	0.51
2:B:144:GLY:H	5:B:500:GTP:PG	2.33	0.51
2:B:251:ASP:OD1	2:B:252:LEU:N	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:103:TRP:HZ3	1:C:108:TYR:CE1	2.27	0.51
1:C:296:PHE:CZ	1:C:315:VAL:HG11	2.46	0.51
2:D:4:CYS:HA	2:D:134:GLY:O	2.10	0.51
2:D:119:LEU:HD11	2:D:156:ARG:CD	2.40	0.51
1:E:345:GLU:C	1:E:347:ILE:H	2.13	0.51
1:G:103:TRP:HZ3	1:G:108:TYR:CE1	2.27	0.51
1:G:264:ARG:HA	1:G:264:ARG:HE	1.75	0.51
2:H:140:SER:O	2:H:142:GLY:N	2.44	0.51
1:A:21:TRP:HZ2	1:A:65:ALA:HB2	1.76	0.51
1:A:212:ILE:O	1:A:216:THR:HB	2.10	0.51
1:A:431:GLU:OE1	1:A:432:TYR:CA	2.57	0.51
2:B:171:ILE:O	2:B:171:ILE:HG22	2.10	0.51
2:B:264:ARG:C	2:B:266:HIS:N	2.60	0.51
1:C:168:THR:CB	1:C:201:THR:HG23	2.38	0.51
1:C:176:LYS:CE	1:C:207:GLU:HG3	2.39	0.51
1:C:431:GLU:OE1	1:C:432:TYR:CA	2.57	0.51
1:E:5:VAL:CG2	1:E:135:PHE:CD2	2.94	0.51
1:E:200:GLU:N	1:E:265:LEU:HD13	2.25	0.51
1:E:260:VAL:O	1:E:260:VAL:HG23	2.10	0.51
2:F:24:TYR:CE1	2:F:240:ALA:HB2	2.45	0.51
1:G:149:MET:O	1:G:149:MET:HG2	2.10	0.51
1:G:200:GLU:N	1:G:265:LEU:HD13	2.25	0.51
2:H:244:PHE:CD1	2:H:244:PHE:C	2.83	0.51
1:A:424:ASN:C	1:A:424:ASN:ND2	2.62	0.51
2:B:30:ILE:HD12	2:B:61:HIS:ND1	2.22	0.51
2:B:133:GLN:HB3	2:B:243:ARG:HH12	1.76	0.51
2:B:140:SER:O	2:B:142:GLY:N	2.44	0.51
1:C:21:TRP:HZ2	1:C:65:ALA:HB2	1.76	0.51
1:C:132:LEU:CD2	1:C:164:ARG:HG3	2.32	0.51
2:F:14:VAL:HG11	2:F:75:ILE:HD13	1.93	0.51
2:F:55:GLU:O	2:F:55:GLU:HG2	2.10	0.51
2:F:119:LEU:HA	2:F:122:ILE:HG12	1.93	0.51
2:H:5:ILE:O	2:H:136:SER:N	2.40	0.51
2:H:191:THR:HG23	2:H:192:HIS:N	2.25	0.51
2:H:239:THR:O	2:H:240:ALA:C	2.48	0.51
1:A:296:PHE:CZ	1:A:315:VAL:HG11	2.46	0.51
1:C:314:THR:CG2	1:C:315:VAL:N	2.73	0.51
2:D:122:ILE:CD1	2:D:157:LEU:HD21	2.35	0.51
1:E:149:MET:O	1:E:153:LEU:HD22	2.10	0.51
1:E:277:SER:OG	1:E:281:GLN:HB2	2.10	0.51
2:F:171:ILE:HG22	2:F:171:ILE:O	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:188:THR:HA	1:G:425:MET:CE	2.40	0.51
2:H:63:PRO:CG	2:H:87:PHE:HA	2.40	0.51
1:A:5:VAL:CG2	1:A:135:PHE:CD2	2.94	0.51
1:A:314:THR:CG2	1:A:315:VAL:N	2.73	0.51
1:A:323:MET:HG3	1:A:328:VAL:CG2	2.41	0.51
2:B:14:VAL:HG11	2:B:75:ILE:HD13	1.93	0.51
1:C:298:ALA:O	1:C:299:LYS:C	2.50	0.51
1:E:149:MET:O	1:E:149:MET:HG2	2.10	0.51
1:E:431:GLU:OE1	1:E:432:TYR:CA	2.57	0.51
2:F:4:CYS:HA	2:F:134:GLY:O	2.10	0.51
2:F:70:LEU:CD1	2:F:145:THR:CB	2.89	0.51
2:F:87:PHE:H	2:F:87:PHE:HD1	1.59	0.51
2:F:151:SER:HB3	2:F:193:THR:CG2	2.34	0.51
2:F:341:ILE:O	2:F:342:GLN:HB2	2.10	0.51
1:G:5:VAL:CG2	1:G:135:PHE:CD2	2.94	0.51
1:G:49:ILE:O	1:G:50:ASN:C	2.48	0.51
1:G:314:THR:CG2	1:G:315:VAL:N	2.73	0.51
1:G:348:PRO:HD3	2:H:397:LEU:HB3	1.92	0.51
2:H:9:VAL:HG21	2:H:149:PHE:CD1	2.46	0.51
2:H:24:TYR:CE1	2:H:240:ALA:HB2	2.45	0.51
2:H:119:LEU:HA	2:H:122:ILE:HG12	1.93	0.51
2:H:133:GLN:CB	2:H:243:ARG:HH12	2.24	0.51
2:H:244:PHE:CD1	2:H:245:ASP:N	2.76	0.51
1:A:226:ASP:O	1:A:227:LEU:C	2.46	0.51
2:B:196:GLU:O	2:B:197:HIS:CD2	2.64	0.51
1:C:226:ASP:O	1:C:227:LEU:C	2.46	0.51
2:D:14:VAL:HG11	2:D:75:ILE:HD13	1.93	0.51
2:D:133:GLN:CB	2:D:243:ARG:HH12	2.24	0.51
2:D:147:SER:CB	2:D:190:THR:OG1	2.52	0.51
1:E:113:GLU:HG3	1:E:114:LEU:N	2.26	0.51
1:E:296:PHE:CZ	1:E:315:VAL:HG11	2.46	0.51
1:E:323:MET:HG3	1:E:328:VAL:CG2	2.41	0.51
2:F:133:GLN:CB	2:F:243:ARG:HH12	2.24	0.51
2:F:264:ARG:C	2:F:266:HIS:N	2.60	0.51
2:F:362:VAL:HG13	2:F:368:LEU:CD1	2.38	0.51
1:G:70:LEU:HD12	1:G:145:THR:HG23	1.91	0.51
1:G:245:PRO:CB	2:H:73:THR:CG2	2.89	0.51
2:H:14:VAL:HG11	2:H:75:ILE:HD13	1.93	0.51
2:H:87:PHE:HD1	2:H:87:PHE:H	1.59	0.51
2:H:243:ARG:NH2	2:H:251:ASP:OD1	2.44	0.51
3:I:50:PHE:CE1	3:I:117:ARG:CD	2.94	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:69:PHE:HA	3:I:74:ILE:HD12	1.92	0.51
1:A:277:SER:OG	1:A:281:GLN:HB2	2.10	0.51
1:A:298:ALA:O	1:A:299:LYS:C	2.50	0.51
2:B:133:GLN:CB	2:B:243:ARG:HH12	2.24	0.51
1:C:251:ASP:O	1:C:252:LEU:C	2.49	0.51
2:D:5:ILE:HG12	2:D:6:SER:N	2.26	0.51
2:D:133:GLN:HB3	2:D:243:ARG:HH12	1.76	0.51
1:E:21:TRP:HZ2	1:E:65:ALA:HB2	1.76	0.51
2:F:9:VAL:HG21	2:F:149:PHE:CD1	2.45	0.51
2:F:239:THR:O	2:F:240:ALA:C	2.48	0.51
1:G:113:GLU:HG3	1:G:114:LEU:N	2.26	0.51
1:G:296:PHE:CZ	1:G:315:VAL:HG11	2.46	0.51
2:H:70:LEU:CD1	2:H:145:THR:CB	2.89	0.51
1:A:260:VAL:HG23	1:A:260:VAL:O	2.10	0.50
2:B:87:PHE:HD1	2:B:87:PHE:H	1.59	0.50
2:B:119:LEU:HA	2:B:122:ILE:HG12	1.93	0.50
2:B:310:GLY:HA3	2:B:383:ALA:N	2.26	0.50
1:C:5:VAL:CG2	1:C:135:PHE:CD2	2.94	0.50
1:C:277:SER:OG	1:C:281:GLN:HB2	2.10	0.50
1:C:323:MET:HG3	1:C:328:VAL:CG2	2.41	0.50
2:D:119:LEU:HA	2:D:122:ILE:HG12	1.93	0.50
2:D:132:LEU:CD2	2:D:164:LYS:HE3	2.41	0.50
1:E:70:LEU:HD12	1:E:145:THR:HG23	1.91	0.50
1:E:298:ALA:O	1:E:299:LYS:C	2.50	0.50
2:F:196:GLU:O	2:F:197:HIS:CD2	2.64	0.50
2:F:417:GLU:OE1	2:F:417:GLU:HA	2.11	0.50
1:G:277:SER:OG	1:G:281:GLN:HB2	2.10	0.50
2:H:171:ILE:HG22	2:H:171:ILE:O	2.10	0.50
2:H:417:GLU:OE1	2:H:417:GLU:HA	2.10	0.50
3:I:30:TYR:CE1	3:I:48:VAL:CG1	2.94	0.50
1:C:109:THR:HG22	3:I:89:GLN:HG3	1.92	0.50
2:D:70:LEU:CD1	2:D:145:THR:CB	2.89	0.50
2:D:171:ILE:O	2:D:171:ILE:HG22	2.10	0.50
2:F:243:ARG:NH2	2:F:251:ASP:OD1	2.44	0.50
1:G:323:MET:HG3	1:G:328:VAL:CG2	2.41	0.50
1:A:107:HIS:CD2	1:A:151:THR:HG22	2.45	0.50
1:A:251:ASP:O	1:A:252:LEU:C	2.49	0.50
1:A:325:MET:HE1	1:A:355:VAL:HG11	1.93	0.50
1:C:156:LYS:HA	1:C:156:LYS:CE	2.38	0.50
2:D:87:PHE:HD1	2:D:87:PHE:H	1.59	0.50
2:D:196:GLU:O	2:D:197:HIS:CD2	2.64	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:310:GLY:HA3	2:D:383:ALA:N	2.27	0.50
2:F:191:THR:HG23	2:F:192:HIS:N	2.25	0.50
2:F:261:PRO:HB2	2:F:262:TYR:CD2	2.46	0.50
2:H:132:LEU:CD2	2:H:164:LYS:HE3	2.41	0.50
1:A:242:LEU:HD22	1:A:250:ALA:N	2.19	0.50
2:B:9:VAL:HG21	2:B:149:PHE:CD1	2.46	0.50
1:C:173:PRO:HB3	1:C:183:GLU:HG2	1.93	0.50
1:C:260:VAL:HG23	1:C:260:VAL:O	2.11	0.50
1:C:414:ASP:OD1	3:I:4:SER:HB3	2.09	0.50
1:C:424:ASN:C	1:C:424:ASN:ND2	2.62	0.50
2:D:9:VAL:HG21	2:D:149:PHE:CD1	2.46	0.50
2:D:402:ARG:O	2:D:403:ALA:O	2.29	0.50
2:F:305:CYS:O	2:F:306:ASP:C	2.49	0.50
2:F:310:GLY:HA3	2:F:383:ALA:N	2.26	0.50
1:G:21:TRP:HZ2	1:G:65:ALA:HB2	1.76	0.50
1:G:257:VAL:O	2:H:404:PHE:CD2	2.64	0.50
1:G:298:ALA:O	1:G:299:LYS:C	2.50	0.50
2:H:261:PRO:HB2	2:H:262:TYR:CD2	2.46	0.50
1:A:260:VAL:HG23	2:B:407:TRP:NE1	2.25	0.50
1:A:269:MET:HB3	1:A:303:ALA:HB2	1.94	0.50
2:B:70:LEU:CD1	2:B:145:THR:CB	2.89	0.50
2:B:122:ILE:CD1	2:B:157:LEU:HD21	2.35	0.50
1:C:24:ILE:HG22	1:C:25:SER:N	2.27	0.50
1:C:107:HIS:CD2	1:C:151:THR:HG22	2.45	0.50
1:C:262:PHE:O	1:C:264:ARG:N	2.45	0.50
2:F:98:ASP:CB	2:F:105:ARG:HH21	2.14	0.50
2:F:132:LEU:CD2	2:F:164:LYS:HE3	2.41	0.50
2:F:133:GLN:HB3	2:F:243:ARG:HH12	1.76	0.50
1:G:265:LEU:HD12	1:G:266:HIS:O	2.12	0.50
2:H:196:GLU:O	2:H:197:HIS:CD2	2.64	0.50
2:H:310:GLY:HA3	2:H:383:ALA:N	2.26	0.50
2:B:62:VAL:HG12	2:B:63:PRO:N	2.25	0.50
1:C:188:THR:HA	1:C:425:MET:HE3	1.93	0.50
1:C:333:LEU:O	1:C:336:GLN:N	2.45	0.50
2:D:12:ALA:CB	2:D:140:SER:OG	2.59	0.50
2:D:140:SER:O	2:D:142:GLY:N	2.44	0.50
1:E:49:ILE:HG13	1:E:50:ASN:H	1.76	0.50
1:E:336:GLN:HE22	1:E:349:ASN:ND2	2.10	0.50
1:E:345:GLU:O	1:E:347:ILE:N	2.45	0.50
1:G:280:SER:O	1:G:282:GLN:N	2.45	0.50
1:G:387:LEU:HD23	1:G:388:PHE:CD1	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:11:GLN:O	2:H:14:VAL:HB	2.12	0.50
2:H:362:VAL:HG13	2:H:368:LEU:CD1	2.38	0.50
1:A:173:PRO:HB3	1:A:183:GLU:HG2	1.93	0.50
1:A:262:PHE:O	1:A:264:ARG:N	2.45	0.50
1:A:387:LEU:HD23	1:A:388:PHE:CD1	2.47	0.50
2:B:261:PRO:HB2	2:B:262:TYR:CD2	2.46	0.50
2:D:16:ILE:HG23	2:D:17:GLY:N	2.26	0.50
2:D:115:ILE:HD11	2:D:119:LEU:HG	1.92	0.50
1:E:259:MET:HG2	1:E:314:THR:CG2	2.38	0.50
1:E:301:MET:HE1	1:E:377:PHE:HE2	1.75	0.50
2:F:5:ILE:HG12	2:F:6:SER:N	2.26	0.50
2:F:149:PHE:HE1	2:F:153:LEU:HD22	1.77	0.50
1:G:49:ILE:HG13	1:G:50:ASN:H	1.76	0.50
1:G:325:MET:HE1	1:G:355:VAL:HG11	1.92	0.50
1:G:345:GLU:O	1:G:347:ILE:N	2.45	0.50
2:H:110:ILE:CG2	2:H:111:GLY:N	2.71	0.50
3:I:33:ILE:HG21	3:I:43:ILE:HG21	1.94	0.50
3:I:104:GLN:CG	3:I:105:TYR:CD2	2.94	0.50
1:A:24:ILE:HG22	1:A:25:SER:N	2.27	0.50
1:A:88:ARG:HD2	1:E:283:TYR:OH	2.11	0.50
1:A:259:MET:HG2	1:A:314:THR:CG2	2.38	0.50
2:B:132:LEU:CD2	2:B:164:LYS:HE3	2.41	0.50
2:B:227:LEU:O	2:B:231:ILE:HG12	2.12	0.50
2:B:231:ILE:O	2:B:235:VAL:HG23	2.12	0.50
2:B:329:ASN:HB3	1:C:210:TYR:CE2	2.46	0.50
1:C:168:THR:O	1:C:201:THR:HA	2.12	0.50
1:C:265:LEU:O	1:C:266:HIS:O	2.29	0.50
1:C:345:GLU:O	1:C:347:ILE:N	2.45	0.50
1:C:369:ARG:HD2	1:C:369:ARG:C	2.32	0.50
1:C:413:MET:HG3	1:C:414:ASP:N	2.22	0.50
2:D:244:PHE:CD1	2:D:244:PHE:C	2.83	0.50
1:E:265:LEU:HD12	1:E:266:HIS:O	2.12	0.50
1:E:269:MET:HB3	1:E:303:ALA:HB2	1.94	0.50
1:E:280:SER:O	1:E:282:GLN:N	2.45	0.50
1:E:387:LEU:HD23	1:E:388:PHE:CD1	2.47	0.50
1:G:176:LYS:HG3	1:G:177:VAL:H	1.76	0.50
1:G:431:GLU:HA	1:G:434:GLN:CG	2.42	0.50
2:H:98:ASP:CB	2:H:105:ARG:HH21	2.14	0.50
3:I:40:TYR:CE2	3:I:72:LYS:CD	2.95	0.50
1:A:103:TRP:HZ3	1:A:108:TYR:CE1	2.27	0.50
1:A:113:GLU:HG3	1:A:114:LEU:N	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:305:CYS:O	2:B:306:ASP:C	2.49	0.50
1:C:269:MET:HB3	1:C:303:ALA:HB2	1.94	0.50
1:C:387:LEU:HD23	1:C:388:PHE:CD1	2.47	0.50
2:D:115:ILE:CG2	2:D:116:ASP:N	2.75	0.50
2:D:231:ILE:O	2:D:235:VAL:HG23	2.12	0.50
2:D:305:CYS:O	2:D:306:ASP:C	2.49	0.50
1:E:188:THR:HA	1:E:425:MET:HE3	1.92	0.50
1:E:262:PHE:O	1:E:264:ARG:N	2.45	0.50
1:E:431:GLU:HA	1:E:434:GLN:CG	2.42	0.50
2:F:5:ILE:O	2:F:136:SER:N	2.40	0.50
2:F:115:ILE:CG2	2:F:116:ASP:N	2.75	0.50
2:F:231:ILE:O	2:F:235:VAL:HG23	2.12	0.50
1:G:399:PHE:O	1:G:402:LYS:N	2.29	0.50
2:H:231:ILE:O	2:H:235:VAL:HG23	2.12	0.50
1:A:49:ILE:HG13	1:A:50:ASN:H	1.76	0.49
1:A:333:LEU:O	1:A:336:GLN:N	2.45	0.49
1:A:431:GLU:HA	1:A:434:GLN:CG	2.42	0.49
2:B:11:GLN:O	2:B:14:VAL:HB	2.12	0.49
2:B:12:ALA:CB	2:B:140:SER:OG	2.59	0.49
1:C:154:ILE:HG22	1:C:166:MET:HE1	1.94	0.49
1:C:257:VAL:CG1	2:D:407:TRP:CG	2.76	0.49
1:C:336:GLN:HE22	1:C:349:ASN:ND2	2.10	0.49
2:D:11:GLN:O	2:D:14:VAL:HB	2.12	0.49
1:E:240:THR:HG23	1:E:241:CYS:H	1.76	0.49
1:E:333:LEU:O	1:E:336:GLN:N	2.45	0.49
2:F:227:LEU:O	2:F:231:ILE:HG12	2.12	0.49
2:F:230:LEU:O	2:F:233:GLN:N	2.35	0.49
1:G:240:THR:HG23	1:G:241:CYS:H	1.76	0.49
1:G:262:PHE:O	1:G:264:ARG:N	2.45	0.49
1:G:333:LEU:O	1:G:336:GLN:N	2.45	0.49
2:H:12:ALA:CB	2:H:140:SER:OG	2.60	0.49
2:H:133:GLN:HB3	2:H:243:ARG:HH12	1.76	0.49
2:H:305:CYS:O	2:H:306:ASP:C	2.49	0.49
3:I:44:PRO:HB2	3:I:47:LYS:CD	2.22	0.49
1:A:8:GLN:HB3	1:A:14:ASN:HA	1.94	0.49
1:A:168:THR:O	1:A:201:THR:HA	2.12	0.49
1:A:345:GLU:O	1:A:347:ILE:N	2.45	0.49
2:B:149:PHE:HE1	2:B:153:LEU:HD22	1.77	0.49
1:C:240:THR:HG23	1:C:241:CYS:H	1.76	0.49
1:C:383:ALA:C	1:C:385:GLN:H	2.15	0.49
2:D:184:PRO:HG2	2:D:398:MET:CE	2.40	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:227:LEU:O	2:D:231:ILE:HG12	2.12	0.49
1:E:265:LEU:O	1:E:266:HIS:O	2.29	0.49
1:E:399:PHE:O	1:E:402:LYS:N	2.29	0.49
2:F:11:GLN:O	2:F:14:VAL:HB	2.12	0.49
1:G:265:LEU:O	1:G:266:HIS:O	2.29	0.49
1:G:336:GLN:HE22	1:G:349:ASN:ND2	2.10	0.49
2:H:2:ARG:NH1	2:H:47:ASP:CB	2.75	0.49
2:H:5:ILE:HG12	2:H:6:SER:N	2.26	0.49
2:H:328:VAL:O	2:H:330:ALA:N	2.38	0.49
3:I:40:TYR:HE2	3:I:72:LYS:HE2	1.77	0.49
3:I:60:ASN:O	3:I:64:VAL:HG23	2.11	0.49
1:A:132:LEU:CD2	1:A:164:ARG:HG3	2.32	0.49
1:A:265:LEU:O	1:A:266:HIS:O	2.29	0.49
1:A:369:ARG:HD2	1:A:369:ARG:C	2.32	0.49
2:B:188:ILE:O	2:B:191:THR:HG22	2.13	0.49
2:B:402:ARG:O	2:B:403:ALA:O	2.29	0.49
1:C:8:GLN:HB3	1:C:14:ASN:HA	1.94	0.49
1:C:113:GLU:HG3	1:C:114:LEU:N	2.26	0.49
2:D:192:HIS:CD2	2:D:424:ASP:OD2	2.66	0.49
2:D:238:ILE:O	2:D:242:LEU:HB2	2.11	0.49
2:F:339:ARG:CB	3:I:63:LYS:HE2	2.33	0.49
1:G:269:MET:HB3	1:G:303:ALA:HB2	1.94	0.49
1:G:369:ARG:HD2	1:G:369:ARG:C	2.32	0.49
2:H:115:ILE:CG2	2:H:116:ASP:N	2.75	0.49
2:H:149:PHE:HE1	2:H:153:LEU:HD22	1.77	0.49
2:H:227:LEU:O	2:H:231:ILE:HG12	2.12	0.49
2:H:414:GLU:OE1	2:H:414:GLU:N	2.46	0.49
3:I:62:TRP:CH2	3:I:83:LEU:CB	2.95	0.49
1:A:156:LYS:HA	1:A:156:LYS:CE	2.38	0.49
1:A:265:LEU:HD12	1:A:266:HIS:O	2.12	0.49
2:B:328:VAL:O	2:B:330:ALA:N	2.38	0.49
2:B:414:GLU:OE1	2:B:414:GLU:N	2.46	0.49
1:E:8:GLN:HB3	1:E:14:ASN:HA	1.94	0.49
1:E:133:GLN:NE2	1:E:252:LEU:HB2	2.28	0.49
1:E:173:PRO:HB3	1:E:183:GLU:HG2	1.93	0.49
2:F:402:ARG:O	2:F:403:ALA:O	2.29	0.49
1:G:133:GLN:NE2	1:G:252:LEU:HB2	2.27	0.49
2:H:16:ILE:HG23	2:H:17:GLY:N	2.26	0.49
2:B:238:ILE:O	2:B:242:LEU:HB2	2.11	0.49
1:C:3:GLU:HA	1:C:51:VAL:HA	1.93	0.49
1:C:49:ILE:HG13	1:C:50:ASN:H	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:259:MET:HG2	1:C:314:THR:CG2	2.38	0.49
1:C:431:GLU:HA	1:C:434:GLN:CG	2.42	0.49
2:D:2:ARG:NH1	2:D:47:ASP:CB	2.75	0.49
2:D:50:ASN:ND2	2:D:53:PHE:O	2.46	0.49
2:D:118:VAL:HG21	2:D:149:PHE:CE2	2.48	0.49
1:E:3:GLU:HA	1:E:51:VAL:HA	1.93	0.49
1:E:4:ILE:HG22	1:E:5:VAL:N	2.27	0.49
1:E:173:PRO:HB3	1:E:183:GLU:CG	2.42	0.49
2:F:16:ILE:HG23	2:F:17:GLY:N	2.26	0.49
2:F:414:GLU:N	2:F:414:GLU:OE1	2.46	0.49
1:G:8:GLN:HB3	1:G:14:ASN:HA	1.94	0.49
1:G:132:LEU:CD2	1:G:164:ARG:HG3	2.32	0.49
1:G:168:THR:O	1:G:201:THR:HA	2.12	0.49
1:G:173:PRO:HB3	1:G:183:GLU:CG	2.42	0.49
1:G:188:THR:HA	1:G:425:MET:HE3	1.92	0.49
1:G:259:MET:HG2	1:G:314:THR:CG2	2.38	0.49
1:G:309:HIS:NE2	3:I:53:ASN:OD1	2.45	0.49
3:I:30:TYR:CZ	3:I:34:GLN:HB2	2.48	0.49
1:A:3:GLU:HA	1:A:51:VAL:HA	1.93	0.49
1:A:4:ILE:HG22	1:A:5:VAL:N	2.27	0.49
1:A:280:SER:O	1:A:282:GLN:N	2.45	0.49
1:A:336:GLN:HE22	1:A:349:ASN:ND2	2.10	0.49
2:B:115:ILE:HD11	2:B:119:LEU:HG	1.92	0.49
2:B:118:VAL:HG21	2:B:149:PHE:CE2	2.48	0.49
2:B:242:LEU:C	2:B:244:PHE:N	2.66	0.49
1:C:265:LEU:HD12	1:C:266:HIS:O	2.12	0.49
2:D:98:ASP:CB	2:D:105:ARG:HH21	2.14	0.49
1:E:176:LYS:CE	1:E:207:GLU:HG3	2.39	0.49
1:E:369:ARG:HD2	1:E:369:ARG:C	2.32	0.49
2:F:62:VAL:O	2:F:63:PRO:O	2.30	0.49
2:F:62:VAL:HG12	2:F:91:GLN:HE22	1.77	0.49
2:F:115:ILE:O	2:F:116:ASP:C	2.51	0.49
2:F:192:HIS:CD2	2:F:424:ASP:OD2	2.66	0.49
2:H:102:ASN:CB	2:H:407:TRP:HE1	2.25	0.49
2:H:115:ILE:O	2:H:116:ASP:C	2.51	0.49
2:H:115:ILE:HD11	2:H:119:LEU:HG	1.92	0.49
2:H:238:ILE:O	2:H:242:LEU:HB2	2.11	0.49
1:A:133:GLN:NE2	1:A:252:LEU:HB2	2.27	0.49
1:A:413:MET:HG3	1:A:414:ASP:N	2.22	0.49
2:B:63:PRO:HD3	2:B:86:LEU:O	2.11	0.49
2:B:105:ARG:HH11	2:B:105:ARG:HG3	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:192:HIS:CD2	2:B:424:ASP:OD2	2.66	0.49
2:B:348:PRO:HD2	1:C:398:MET:CE	2.42	0.49
2:B:392:ASP:O	2:B:395:PHE:HB3	2.13	0.49
2:D:261:PRO:HB2	2:D:262:TYR:CD2	2.46	0.49
2:D:297:GLU:HG3	2:D:299:ALA:N	2.28	0.49
1:E:168:THR:O	1:E:201:THR:HA	2.12	0.49
1:E:245:PRO:HA	2:F:73:THR:CG2	2.42	0.49
2:H:192:HIS:CD2	2:H:424:ASP:OD2	2.66	0.49
2:H:402:ARG:O	2:H:403:ALA:O	2.29	0.49
3:I:30:TYR:CE2	3:I:50:PHE:HD1	2.31	0.49
3:I:39:ILE:CD1	3:I:101:PHE:CD1	2.95	0.49
1:A:240:THR:HG23	1:A:241:CYS:H	1.76	0.49
1:A:383:ALA:C	1:A:385:GLN:H	2.15	0.49
2:B:5:ILE:CG1	2:B:64:ARG:NH2	2.75	0.49
2:B:96:LYS:O	2:B:97:GLU:O	2.31	0.49
2:D:188:ILE:O	2:D:191:THR:HG22	2.13	0.49
1:E:24:ILE:HG22	1:E:25:SER:N	2.27	0.49
1:E:296:PHE:HZ	1:E:315:VAL:HG11	1.78	0.49
1:E:431:GLU:OE1	1:E:432:TYR:N	2.46	0.49
1:G:3:GLU:HA	1:G:51:VAL:HA	1.93	0.49
1:G:253:ARG:CD	2:H:407:TRP:HH2	2.24	0.49
2:H:62:VAL:O	2:H:63:PRO:O	2.30	0.49
2:H:118:VAL:HG21	2:H:149:PHE:CE2	2.48	0.49
2:H:242:LEU:C	2:H:244:PHE:N	2.66	0.49
1:A:296:PHE:HZ	1:A:315:VAL:HG11	1.78	0.49
2:B:70:LEU:HD12	2:B:70:LEU:N	2.28	0.49
2:B:184:PRO:HG2	2:B:398:MET:CE	2.41	0.49
2:B:362:VAL:HG13	2:B:368:LEU:CD1	2.38	0.49
1:C:69:ASP:HA	1:C:145:THR:HG21	1.95	0.49
2:D:62:VAL:O	2:D:63:PRO:O	2.30	0.49
2:D:158:SER:OG	2:D:197:HIS:HB3	2.13	0.49
2:D:392:ASP:O	2:D:395:PHE:HB3	2.13	0.49
2:D:414:GLU:OE1	2:D:414:GLU:N	2.46	0.49
1:E:175:PRO:CD	1:E:207:GLU:OE1	2.61	0.49
2:F:118:VAL:HG21	2:F:149:PHE:CE2	2.48	0.49
2:F:188:ILE:O	2:F:191:THR:HG22	2.13	0.49
2:F:238:ILE:O	2:F:242:LEU:HB2	2.11	0.49
1:G:4:ILE:HD12	1:G:239:THR:CG2	2.42	0.49
1:G:431:GLU:OE1	1:G:432:TYR:N	2.46	0.49
2:H:188:ILE:O	2:H:191:THR:HG22	2.13	0.49
1:A:49:ILE:HG13	1:A:50:ASN:N	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:69:ASP:HA	1:A:145:THR:HG21	1.95	0.49
2:B:230:LEU:O	2:B:233:GLN:N	2.35	0.49
1:C:133:GLN:NE2	1:C:252:LEU:HB2	2.28	0.49
1:C:173:PRO:HB3	1:C:183:GLU:CG	2.42	0.49
2:D:155:GLU:OE1	2:D:197:HIS:HE1	1.96	0.49
1:E:156:LYS:HA	1:E:156:LYS:CE	2.38	0.49
1:E:191:VAL:HG13	1:E:192:HIS:N	2.28	0.49
1:E:237:GLY:O	1:E:241:CYS:CB	2.61	0.49
2:F:12:ALA:CB	2:F:140:SER:OG	2.60	0.49
2:F:297:GLU:HG3	2:F:299:ALA:N	2.28	0.49
1:G:4:ILE:HG22	1:G:5:VAL:N	2.27	0.49
1:G:24:ILE:HG22	1:G:25:SER:N	2.26	0.49
1:G:308:ARG:HG3	1:G:342:TYR:OH	2.13	0.49
2:H:62:VAL:HG12	2:H:91:GLN:HE22	1.77	0.49
2:B:2:ARG:NH1	2:B:47:ASP:CB	2.76	0.48
2:D:9:VAL:HG11	2:D:150:THR:OG1	2.13	0.48
2:D:105:ARG:HH11	2:D:105:ARG:HG3	1.78	0.48
1:E:132:LEU:CD2	1:E:164:ARG:HG3	2.32	0.48
1:E:257:VAL:HG13	2:F:407:TRP:CD2	2.48	0.48
2:F:104:ALA:CB	2:F:408:TYR:HD1	2.26	0.48
2:F:115:ILE:HD11	2:F:119:LEU:HG	1.92	0.48
2:F:328:VAL:O	2:F:330:ALA:N	2.38	0.48
1:G:175:PRO:CD	1:G:207:GLU:OE1	2.61	0.48
1:G:176:LYS:CE	1:G:207:GLU:HG3	2.39	0.48
1:G:211:ASP:OD1	1:G:212:ILE:HG13	2.13	0.48
1:G:248:LEU:CD1	2:H:179:THR:HG21	2.41	0.48
2:H:104:ALA:CB	2:H:408:TYR:HD1	2.26	0.48
2:H:297:GLU:HG3	2:H:299:ALA:N	2.28	0.48
3:I:39:ILE:CD1	3:I:101:PHE:HD1	2.26	0.48
3:I:55:GLU:HA	3:I:58:TYR:CE2	2.44	0.48
1:A:431:GLU:OE1	1:A:432:TYR:N	2.46	0.48
1:C:2:ARG:NH1	1:C:251:ASP:OD2	2.46	0.48
1:C:4:ILE:HG22	1:C:5:VAL:N	2.27	0.48
1:C:49:ILE:HG13	1:C:50:ASN:N	2.28	0.48
1:C:431:GLU:OE1	1:C:432:TYR:N	2.46	0.48
2:D:96:LYS:O	2:D:97:GLU:O	2.31	0.48
2:D:99:ALA:O	2:D:100:ALA:HB3	2.14	0.48
2:D:149:PHE:HE1	2:D:153:LEU:HD22	1.77	0.48
2:D:242:LEU:C	2:D:244:PHE:N	2.66	0.48
1:E:2:ARG:NH1	1:E:251:ASP:OD2	2.46	0.48
1:E:49:ILE:HG13	1:E:50:ASN:N	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:142:GLY:HA3	1:E:183:GLU:OE2	2.13	0.48
1:E:281:GLN:C	1:E:283:TYR:N	2.67	0.48
1:E:383:ALA:C	1:E:385:GLN:H	2.15	0.48
2:F:105:ARG:HH11	2:F:105:ARG:HG3	1.78	0.48
2:F:155:GLU:OE1	2:F:197:HIS:HE1	1.96	0.48
1:G:49:ILE:HG13	1:G:50:ASN:N	2.29	0.48
1:G:173:PRO:HB3	1:G:183:GLU:HG2	1.93	0.48
1:G:383:ALA:C	1:G:385:GLN:H	2.15	0.48
2:H:50:ASN:ND2	2:H:53:PHE:O	2.46	0.48
2:H:392:ASP:O	2:H:395:PHE:HB3	2.13	0.48
1:A:173:PRO:HB3	1:A:183:GLU:CG	2.42	0.48
2:B:104:ALA:CB	2:B:408:TYR:HD1	2.26	0.48
2:B:234:ILE:HB	2:B:302:MET:HE1	1.95	0.48
2:B:297:GLU:HG3	2:B:299:ALA:N	2.28	0.48
1:C:20:PHE:CG	1:C:235:MET:SD	3.07	0.48
1:C:308:ARG:HG3	1:C:342:TYR:OH	2.13	0.48
2:D:163:LYS:C	2:D:164:LYS:HG2	2.33	0.48
2:D:274:PRO:CB	2:D:371:VAL:HG21	2.43	0.48
1:E:257:VAL:HG13	2:F:407:TRP:CD1	2.48	0.48
2:F:242:LEU:C	2:F:244:PHE:N	2.66	0.48
1:G:2:ARG:NH1	1:G:251:ASP:OD2	2.46	0.48
1:G:142:GLY:HA3	1:G:183:GLU:OE2	2.13	0.48
1:G:243:ARG:N	1:G:243:ARG:HD3	2.25	0.48
1:G:281:GLN:C	1:G:283:TYR:N	2.67	0.48
1:G:296:PHE:HZ	1:G:315:VAL:HG11	1.78	0.48
2:H:9:VAL:HG11	2:H:150:THR:OG1	2.13	0.48
2:H:191:THR:CG2	2:H:192:HIS:N	2.76	0.48
2:H:203:MET:SD	2:H:267:PHE:HB3	2.53	0.48
2:H:274:PRO:CB	2:H:371:VAL:HG21	2.43	0.48
3:I:32:MET:CE	3:I:62:TRP:CZ3	2.96	0.48
1:A:4:ILE:HD12	1:A:239:THR:CG2	2.42	0.48
1:A:20:PHE:CG	1:A:235:MET:SD	3.07	0.48
2:B:16:ILE:HG23	2:B:17:GLY:N	2.26	0.48
2:B:328:VAL:C	2:B:330:ALA:H	2.15	0.48
1:C:191:VAL:HG13	1:C:192:HIS:N	2.28	0.48
1:C:280:SER:O	1:C:282:GLN:N	2.45	0.48
1:C:346:TRP:HB3	2:D:401:LYS:NZ	2.28	0.48
2:D:293:ASN:HD21	2:D:338:LYS:NZ	2.11	0.48
1:E:154:ILE:HG22	1:E:166:MET:CE	2.44	0.48
2:F:6:SER:OG	2:F:65:ALA:HB2	2.14	0.48
2:F:191:THR:CG2	2:F:192:HIS:N	2.76	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:155:GLU:OE1	2:H:197:HIS:HE1	1.96	0.48
2:H:230:LEU:O	2:H:233:GLN:N	2.35	0.48
1:A:2:ARG:NH1	1:A:251:ASP:OD2	2.46	0.48
1:A:209:LEU:O	1:A:213:CYS:N	2.47	0.48
2:B:50:ASN:ND2	2:B:53:PHE:O	2.46	0.48
2:B:99:ALA:O	2:B:100:ALA:HB3	2.14	0.48
2:B:155:GLU:OE1	2:B:197:HIS:HE1	1.96	0.48
2:B:191:THR:CG2	2:B:192:HIS:N	2.76	0.48
2:B:253:THR:O	2:B:254:GLU:C	2.52	0.48
1:C:137:LEU:HD22	1:C:154:ILE:HG21	1.94	0.48
1:C:307:PRO:HB3	1:C:312:TYR:CZ	2.49	0.48
2:D:70:LEU:HD12	2:D:70:LEU:N	2.28	0.48
2:D:104:ALA:CB	2:D:408:TYR:HD1	2.26	0.48
2:D:110:ILE:CG2	2:D:111:GLY:N	2.71	0.48
2:D:328:VAL:C	2:D:330:ALA:H	2.16	0.48
1:E:4:ILE:HD12	1:E:239:THR:CG2	2.42	0.48
1:E:20:PHE:CG	1:E:235:MET:SD	3.07	0.48
1:E:199:ASP:O	1:E:200:GLU:HG3	2.13	0.48
1:E:211:ASP:OD1	1:E:212:ILE:HG13	2.13	0.48
1:E:308:ARG:HG3	1:E:342:TYR:OH	2.13	0.48
2:F:9:VAL:HG11	2:F:150:THR:OG1	2.13	0.48
2:F:386:GLU:O	2:F:388:TRP:N	2.47	0.48
1:G:154:ILE:HG22	1:G:166:MET:CE	2.44	0.48
2:H:6:SER:OG	2:H:65:ALA:HB2	2.14	0.48
2:H:96:LYS:O	2:H:97:GLU:O	2.31	0.48
2:H:99:ALA:O	2:H:100:ALA:HB3	2.14	0.48
3:I:37:ASP:HA	3:I:43:ILE:CD1	2.29	0.48
3:I:62:TRP:HH2	3:I:83:LEU:HB3	1.77	0.48
1:A:154:ILE:HG22	1:A:166:MET:CE	2.44	0.48
1:A:237:GLY:O	1:A:241:CYS:CB	2.61	0.48
1:A:399:PHE:O	1:A:402:LYS:N	2.29	0.48
2:B:9:VAL:HG11	2:B:150:THR:OG1	2.13	0.48
2:B:203:MET:SD	2:B:267:PHE:HB3	2.53	0.48
1:C:209:LEU:O	1:C:213:CYS:N	2.47	0.48
1:C:287:THR:O	1:C:288:VAL:CG2	2.58	0.48
1:C:296:PHE:HZ	1:C:315:VAL:HG11	1.78	0.48
2:D:253:THR:O	2:D:254:GLU:C	2.52	0.48
2:F:11:GLN:NE2	2:F:74:VAL:CG2	2.76	0.48
2:F:293:ASN:HD21	2:F:338:LYS:NZ	2.11	0.48
1:G:156:LYS:HA	1:G:156:LYS:CE	2.38	0.48
2:H:105:ARG:HG3	2:H:105:ARG:HH11	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:191:VAL:HG13	1:A:192:HIS:N	2.28	0.48
1:A:199:ASP:O	1:A:200:GLU:HG3	2.13	0.48
1:A:308:ARG:HG3	1:A:342:TYR:OH	2.13	0.48
2:B:158:SER:OG	2:B:197:HIS:HB3	2.13	0.48
1:C:4:ILE:HD12	1:C:239:THR:CG2	2.42	0.48
1:C:154:ILE:HG22	1:C:166:MET:CE	2.44	0.48
1:C:176:LYS:HG3	1:C:177:VAL:H	1.78	0.48
1:C:237:GLY:O	1:C:241:CYS:CB	2.61	0.48
2:D:151:SER:OG	2:D:193:THR:HG21	2.13	0.48
2:D:191:THR:CG2	2:D:192:HIS:N	2.76	0.48
2:F:50:ASN:ND2	2:F:53:PHE:O	2.46	0.48
2:F:99:ALA:O	2:F:100:ALA:HB3	2.14	0.48
2:F:158:SER:OG	2:F:197:HIS:HB3	2.13	0.48
2:F:253:THR:O	2:F:254:GLU:C	2.52	0.48
2:F:392:ASP:O	2:F:395:PHE:HB3	2.13	0.48
1:G:191:VAL:HG13	1:G:192:HIS:N	2.28	0.48
1:G:264:ARG:HA	1:G:264:ARG:NE	2.29	0.48
2:H:386:GLU:O	2:H:388:TRP:N	2.47	0.48
3:I:85:ARG:HA	3:I:85:ARG:NH1	2.27	0.48
1:A:175:PRO:CD	1:A:207:GLU:OE1	2.61	0.48
1:A:179:ASP:OD2	4:A:1438:GSP:O2'	2.32	0.48
1:A:307:PRO:HB3	1:A:312:TYR:CZ	2.49	0.48
2:B:2:ARG:HH21	1:C:96:GLN:NE2	2.12	0.48
1:C:175:PRO:CD	1:C:207:GLU:OE1	2.61	0.48
1:C:199:ASP:O	1:C:200:GLU:HG3	2.13	0.48
2:D:6:SER:OG	2:D:65:ALA:HB2	2.14	0.48
2:D:115:ILE:HG23	2:D:116:ASP:H	1.79	0.48
2:F:70:LEU:HD12	2:F:70:LEU:N	2.28	0.48
2:F:115:ILE:HG23	2:F:116:ASP:H	1.79	0.48
2:F:203:MET:SD	2:F:267:PHE:HB3	2.53	0.48
2:F:274:PRO:CB	2:F:371:VAL:HG21	2.43	0.48
1:G:20:PHE:CG	1:G:235:MET:SD	3.07	0.48
1:G:102:ASN:HB3	1:G:105:LYS:HB2	1.95	0.48
1:G:115:VAL:CG2	1:G:152:LEU:HD23	2.44	0.48
1:G:301:MET:HE1	1:G:377:PHE:HE2	1.77	0.48
3:I:12:ILE:HD13	3:I:12:ILE:C	2.34	0.48
3:I:40:TYR:HE2	3:I:72:LYS:CE	2.26	0.48
3:I:62:TRP:CZ2	3:I:84:SER:HA	2.43	0.48
1:A:137:LEU:HD22	1:A:154:ILE:HG21	1.95	0.48
1:A:198:THR:HG23	1:A:200:GLU:H	1.79	0.48
2:B:6:SER:OG	2:B:65:ALA:HB2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:274:PRO:CB	2:B:371:VAL:HG21	2.43	0.48
1:C:142:GLY:HA3	1:C:183:GLU:OE2	2.13	0.48
1:C:209:LEU:CD2	1:C:227:LEU:HD13	2.44	0.48
2:D:241:SER:HB3	2:D:320:ARG:NH2	2.29	0.48
1:E:176:LYS:HG3	1:E:177:VAL:H	1.78	0.48
1:E:274:PRO:HG2	1:E:371:LEU:CD2	2.43	0.48
2:F:96:LYS:O	2:F:97:GLU:O	2.31	0.48
2:F:147:SER:O	2:F:190:THR:HG23	2.14	0.48
2:F:155:GLU:HG2	2:F:197:HIS:CE1	2.49	0.48
1:G:198:THR:HG23	1:G:200:GLU:H	1.79	0.48
1:G:199:ASP:O	1:G:200:GLU:HG3	2.13	0.48
1:G:274:PRO:HG2	1:G:371:LEU:CD2	2.43	0.48
2:H:70:LEU:HD12	2:H:145:THR:HG21	1.95	0.48
2:H:147:SER:O	2:H:190:THR:HG23	2.14	0.48
2:H:155:GLU:HG2	2:H:197:HIS:CE1	2.49	0.48
2:H:293:ASN:HD21	2:H:338:LYS:NZ	2.10	0.48
3:I:32:MET:SD	3:I:62:TRP:CZ3	3.07	0.48
1:A:176:LYS:HG3	1:A:177:VAL:H	1.78	0.48
2:B:115:ILE:O	2:B:116:ASP:C	2.51	0.48
2:B:255:PHE:O	2:B:256:GLN:C	2.53	0.48
2:B:369:ALA:O	2:B:370:LYS:CB	2.62	0.48
2:D:335:ILE:O	2:D:337:THR:N	2.47	0.48
2:D:339:ARG:C	2:D:341:ILE:N	2.68	0.48
1:E:102:ASN:HB3	1:E:105:LYS:HB2	1.94	0.48
1:E:115:VAL:CG2	1:E:152:LEU:HD23	2.44	0.48
2:F:70:LEU:HD12	2:F:145:THR:HG21	1.95	0.48
2:F:163:LYS:C	2:F:164:LYS:HG2	2.34	0.48
1:G:209:LEU:O	1:G:213:CYS:N	2.47	0.48
1:G:413:MET:HG3	1:G:414:ASP:N	2.22	0.48
2:H:11:GLN:NE2	2:H:74:VAL:HG22	2.22	0.48
2:H:102:ASN:CB	2:H:407:TRP:HD1	2.23	0.48
1:A:142:GLY:HA3	1:A:183:GLU:OE2	2.13	0.47
1:A:211:ASP:OD1	1:A:212:ILE:HG13	2.13	0.47
1:A:281:GLN:C	1:A:283:TYR:N	2.67	0.47
1:A:399:PHE:O	1:A:400:ARG:C	2.52	0.47
2:B:107:HIS:CE1	2:B:152:LEU:HB3	2.49	0.47
2:B:115:ILE:HG23	2:B:116:ASP:H	1.79	0.47
2:B:115:ILE:CG2	2:B:116:ASP:N	2.75	0.47
2:B:154:MET:HA	2:B:157:LEU:HD12	1.97	0.47
2:B:163:LYS:C	2:B:164:LYS:HG2	2.33	0.47
2:B:241:SER:HB3	2:B:320:ARG:NH2	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:293:ASN:HD21	2:B:338:LYS:NZ	2.11	0.47
1:C:115:VAL:CG2	1:C:152:LEU:HD23	2.44	0.47
2:D:210:TYR:CE1	2:D:227:LEU:HD21	2.49	0.47
1:E:198:THR:HG23	1:E:200:GLU:H	1.79	0.47
1:E:209:LEU:O	1:E:213:CYS:N	2.47	0.47
1:E:264:ARG:HA	1:E:264:ARG:NE	2.29	0.47
2:F:107:HIS:CE1	2:F:152:LEU:HB3	2.49	0.47
2:F:388:TRP:HA	2:F:388:TRP:HE3	1.79	0.47
1:G:20:PHE:O	1:G:24:ILE:HB	2.14	0.47
1:G:399:PHE:O	1:G:400:ARG:C	2.52	0.47
2:H:163:LYS:C	2:H:164:LYS:HG2	2.34	0.47
2:H:388:TRP:HA	2:H:388:TRP:HE3	1.79	0.47
3:I:68:VAL:CA	3:I:71:LYS:HE2	2.31	0.47
1:A:20:PHE:O	1:A:24:ILE:HB	2.14	0.47
1:A:70:LEU:O	1:A:99:ALA:HB2	2.14	0.47
1:A:274:PRO:HG2	1:A:371:LEU:CD2	2.43	0.47
2:B:386:GLU:O	2:B:388:TRP:N	2.47	0.47
1:C:70:LEU:O	1:C:99:ALA:HB2	2.15	0.47
1:C:226:ASP:O	1:C:229:HIS:HB3	2.14	0.47
2:D:62:VAL:HG12	2:D:91:GLN:HE22	1.78	0.47
2:D:115:ILE:O	2:D:116:ASP:C	2.51	0.47
2:D:203:MET:SD	2:D:267:PHE:HB3	2.53	0.47
2:D:345:ASP:C	2:D:347:CYS:N	2.68	0.47
2:F:4:CYS:SG	2:F:252:LEU:CD1	3.02	0.47
2:H:175:PRO:HD2	2:H:207:GLU:HB3	1.97	0.47
2:H:241:SER:HB3	2:H:320:ARG:NH2	2.29	0.47
2:H:253:THR:O	2:H:254:GLU:C	2.52	0.47
1:A:102:ASN:HB3	1:A:105:LYS:HB2	1.95	0.47
1:A:115:VAL:CG2	1:A:152:LEU:HD23	2.44	0.47
2:B:388:TRP:HA	2:B:388:TRP:HE3	1.79	0.47
1:C:20:PHE:O	1:C:24:ILE:HB	2.14	0.47
1:C:82:PRO:HB2	1:C:83:PHE:H	1.56	0.47
1:C:198:THR:HG23	1:C:200:GLU:H	1.79	0.47
1:C:384:ILE:O	1:C:384:ILE:HG23	2.14	0.47
2:D:97:GLU:HB2	2:D:110:ILE:HD11	1.96	0.47
2:D:104:ALA:HB1	2:D:413:MET:HG3	1.96	0.47
2:D:107:HIS:CE1	2:D:152:LEU:HB3	2.49	0.47
2:D:132:LEU:HD21	2:D:164:LYS:HE3	1.96	0.47
2:D:154:MET:HA	2:D:157:LEU:HD12	1.96	0.47
2:D:175:PRO:HD2	2:D:207:GLU:HB3	1.96	0.47
2:D:255:PHE:O	2:D:256:GLN:C	2.53	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:369:ALA:O	2:D:370:LYS:CB	2.62	0.47
1:E:69:ASP:HA	1:E:145:THR:HG21	1.95	0.47
2:F:175:PRO:HD2	2:F:207:GLU:HB3	1.97	0.47
1:G:69:ASP:HA	1:G:145:THR:HG21	1.95	0.47
1:G:226:ASP:O	1:G:229:HIS:HB3	2.14	0.47
1:G:253:ARG:CG	2:H:407:TRP:CH2	2.92	0.47
2:H:115:ILE:HG23	2:H:116:ASP:H	1.80	0.47
2:H:369:ALA:O	2:H:370:LYS:CB	2.62	0.47
1:A:209:LEU:CD2	1:A:227:LEU:HD13	2.44	0.47
1:A:226:ASP:O	1:A:229:HIS:HB3	2.14	0.47
1:A:384:ILE:O	1:A:384:ILE:HG23	2.14	0.47
2:B:175:PRO:HD2	2:B:207:GLU:HB3	1.97	0.47
1:C:211:ASP:OD1	1:C:212:ILE:HG13	2.13	0.47
2:D:386:GLU:O	2:D:388:TRP:N	2.47	0.47
2:D:388:TRP:HA	2:D:388:TRP:HE3	1.79	0.47
1:E:70:LEU:O	1:E:99:ALA:HB2	2.15	0.47
1:E:175:PRO:O	1:E:176:LYS:C	2.52	0.47
1:E:226:ASP:O	1:E:229:HIS:HB3	2.14	0.47
1:G:137:LEU:HD22	1:G:154:ILE:HG21	1.94	0.47
1:G:242:LEU:HD22	1:G:250:ALA:N	2.19	0.47
2:H:88:HIS:O	2:H:89:PRO:C	2.52	0.47
2:H:154:MET:HA	2:H:157:LEU:HD12	1.97	0.47
2:H:158:SER:OG	2:H:197:HIS:HB3	2.13	0.47
3:I:33:ILE:HD11	3:I:61:ASN:O	2.14	0.47
3:I:39:ILE:HD11	3:I:102:TRP:HA	1.96	0.47
1:A:242:LEU:CD1	1:A:250:ALA:HB3	2.45	0.47
2:B:145:THR:H	5:B:500:GTP:PG	2.37	0.47
2:B:151:SER:OG	2:B:193:THR:HG21	2.13	0.47
2:B:335:ILE:O	2:B:337:THR:N	2.47	0.47
1:C:102:ASN:HB3	1:C:105:LYS:HB2	1.95	0.47
1:C:242:LEU:CD1	1:C:250:ALA:HB3	2.45	0.47
1:C:281:GLN:C	1:C:283:TYR:N	2.67	0.47
1:C:329:ASP:HB3	2:D:177:VAL:HG11	1.91	0.47
2:D:147:SER:O	2:D:190:THR:HG23	2.14	0.47
2:D:317:LEU:CD1	2:D:351:PHE:CD1	2.97	0.47
1:E:20:PHE:O	1:E:24:ILE:HB	2.15	0.47
1:E:242:LEU:CD1	1:E:250:ALA:HB3	2.45	0.47
1:E:307:PRO:HB3	1:E:312:TYR:CZ	2.49	0.47
2:F:117:LEU:HD12	2:F:121:ARG:HH12	1.80	0.47
2:F:241:SER:HB3	2:F:320:ARG:NH2	2.29	0.47
2:F:369:ALA:O	2:F:370:LYS:CB	2.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:242:LEU:CD1	1:G:250:ALA:HB3	2.45	0.47
1:G:254:LYS:HE3	1:G:352:LYS:HZ1	1.77	0.47
1:G:307:PRO:HB3	1:G:312:TYR:CZ	2.49	0.47
2:H:107:HIS:CE1	2:H:152:LEU:HB3	2.49	0.47
2:H:117:LEU:HD12	2:H:121:ARG:HH12	1.80	0.47
2:H:339:ARG:C	2:H:341:ILE:N	2.68	0.47
1:A:263:PRO:O	1:A:264:ARG:C	2.52	0.47
2:B:98:ASP:CB	2:B:105:ARG:HH21	2.14	0.47
2:B:117:LEU:HD12	2:B:121:ARG:HH12	1.80	0.47
2:B:185:TYR:OH	2:B:399:TYR:HA	2.15	0.47
2:B:260:VAL:O	2:B:260:VAL:CG2	2.63	0.47
2:D:148:GLY:O	2:D:151:SER:CB	2.61	0.47
2:D:191:THR:O	2:D:195:LEU:HB2	2.15	0.47
2:D:396:ASP:O	2:D:397:LEU:C	2.53	0.47
1:E:209:LEU:CD2	1:E:227:LEU:HD13	2.44	0.47
1:E:387:LEU:O	1:E:387:LEU:HG	2.15	0.47
2:F:210:TYR:CE1	2:F:227:LEU:HD21	2.49	0.47
2:F:234:ILE:CG1	2:F:270:ALA:HB1	2.38	0.47
1:G:70:LEU:O	1:G:99:ALA:HB2	2.15	0.47
1:G:175:PRO:O	1:G:176:LYS:C	2.52	0.47
2:H:70:LEU:HD12	2:H:70:LEU:N	2.28	0.47
2:H:97:GLU:HB2	2:H:110:ILE:HD11	1.96	0.47
2:H:210:TYR:CE1	2:H:227:LEU:HD21	2.49	0.47
2:H:384:ILE:HG22	2:H:388:TRP:CD1	2.49	0.47
3:I:5:ARG:CD	3:I:23:ILE:CD1	2.92	0.47
1:A:24:ILE:CD1	1:A:52:TYR:CE2	2.97	0.47
1:A:103:TRP:CE3	1:A:189:LEU:HD13	2.50	0.47
1:A:175:PRO:O	1:A:176:LYS:C	2.52	0.47
1:A:188:THR:HA	1:A:425:MET:HE3	1.95	0.47
1:A:269:MET:HE1	1:A:381:SER:OG	2.15	0.47
2:B:11:GLN:O	2:B:15:GLN:HG3	2.15	0.47
2:B:155:GLU:HA	2:B:197:HIS:CE1	2.49	0.47
2:B:155:GLU:HG2	2:B:197:HIS:CE1	2.49	0.47
2:B:210:TYR:CE1	2:B:227:LEU:HD21	2.49	0.47
2:B:234:ILE:CG1	2:B:270:ALA:HB1	2.38	0.47
2:B:339:ARG:C	2:B:341:ILE:N	2.68	0.47
2:B:384:ILE:HG22	2:B:388:TRP:CD1	2.49	0.47
1:C:101:ASN:ND2	1:C:101:ASN:O	2.48	0.47
1:C:103:TRP:CE3	1:C:189:LEU:HD13	2.50	0.47
1:C:175:PRO:O	1:C:176:LYS:C	2.52	0.47
1:C:274:PRO:HG2	1:C:371:LEU:CD2	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:387:LEU:O	1:C:387:LEU:HG	2.14	0.47
2:D:11:GLN:O	2:D:15:GLN:HG3	2.15	0.47
2:D:185:TYR:OH	2:D:399:TYR:HA	2.15	0.47
2:D:256:GLN:HA	2:D:260:VAL:HG13	1.97	0.47
2:D:384:ILE:HG22	2:D:388:TRP:CD1	2.49	0.47
1:E:103:TRP:CE3	1:E:189:LEU:HD13	2.50	0.47
1:E:168:THR:N	1:E:200:GLU:O	2.43	0.47
1:E:242:LEU:HD22	1:E:250:ALA:N	2.19	0.47
1:E:413:MET:HG3	1:E:414:ASP:N	2.22	0.47
2:F:11:GLN:O	2:F:15:GLN:HG3	2.15	0.47
2:F:88:HIS:O	2:F:89:PRO:C	2.52	0.47
2:F:148:GLY:O	2:F:151:SER:CB	2.61	0.47
2:F:151:SER:OG	2:F:193:THR:HG21	2.13	0.47
2:F:154:MET:HA	2:F:157:LEU:HD12	1.97	0.47
2:F:155:GLU:HA	2:F:197:HIS:CE1	2.49	0.47
2:F:185:TYR:OH	2:F:399:TYR:HA	2.15	0.47
2:F:255:PHE:O	2:F:256:GLN:C	2.53	0.47
2:F:260:VAL:CG2	2:F:260:VAL:O	2.62	0.47
2:F:384:ILE:HG22	2:F:388:TRP:CD1	2.49	0.47
2:F:407:TRP:O	2:F:411:GLU:CG	2.63	0.47
2:F:434:GLU:C	2:F:436:GLY:H	2.18	0.47
1:G:103:TRP:CE3	1:G:189:LEU:HD13	2.50	0.47
1:G:209:LEU:CD2	1:G:227:LEU:HD13	2.44	0.47
1:G:387:LEU:O	1:G:387:LEU:HG	2.14	0.47
2:H:104:ALA:HB1	2:H:413:MET:HG3	1.95	0.47
2:H:185:TYR:OH	2:H:399:TYR:HA	2.15	0.47
2:H:260:VAL:O	2:H:260:VAL:CG2	2.63	0.47
2:H:335:ILE:O	2:H:337:THR:N	2.47	0.47
1:A:297:ASP:OD2	1:A:299:LYS:HE2	2.14	0.47
2:B:55:GLU:O	2:B:56:THR:C	2.50	0.47
2:B:62:VAL:HA	2:B:86:LEU:O	2.15	0.47
2:B:191:THR:O	2:B:195:LEU:HB2	2.15	0.47
2:B:317:LEU:CD1	2:B:351:PHE:CD1	2.97	0.47
1:C:263:PRO:O	1:C:264:ARG:C	2.52	0.47
1:C:264:ARG:HA	1:C:264:ARG:NE	2.29	0.47
2:D:88:HIS:O	2:D:89:PRO:C	2.52	0.47
2:D:117:LEU:HD12	2:D:121:ARG:HH12	1.80	0.47
2:D:230:LEU:O	2:D:233:GLN:N	2.35	0.47
2:D:260:VAL:O	2:D:260:VAL:CG2	2.63	0.47
1:E:287:THR:N	1:E:290:GLU:OE1	2.48	0.47
1:E:384:ILE:O	1:E:384:ILE:HG23	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:399:PHE:O	1:E:400:ARG:C	2.52	0.47
2:F:11:GLN:NE2	2:F:74:VAL:HG22	2.22	0.47
2:F:19:ALA:HB2	2:F:228:ASN:HB3	1.96	0.47
2:F:335:ILE:O	2:F:337:THR:N	2.47	0.47
2:H:11:GLN:O	2:H:15:GLN:HG3	2.15	0.47
3:I:13:ASN:ND2	3:I:18:LEU:HB2	2.29	0.47
3:I:67:GLN:O	3:I:71:LYS:HG3	2.15	0.47
1:A:264:ARG:HA	1:A:264:ARG:NE	2.29	0.47
1:A:387:LEU:HG	1:A:387:LEU:O	2.15	0.47
2:B:88:HIS:O	2:B:89:PRO:C	2.52	0.47
2:D:84:ARG:HE	2:D:84:ARG:HB3	1.51	0.47
2:D:155:GLU:HG2	2:D:197:HIS:CE1	2.49	0.47
1:E:103:TRP:HZ3	1:E:108:TYR:CE1	2.27	0.47
1:G:224:TYR:O	1:G:225:GLY:C	2.53	0.47
1:G:245:PRO:CB	2:H:73:THR:HG21	2.45	0.47
2:H:132:LEU:HD21	2:H:164:LYS:HE3	1.96	0.47
3:I:105:TYR:O	3:I:107:PRO:HD3	2.14	0.47
3:I:106:TYR:OH	3:I:111:TYR:HB2	2.15	0.47
1:A:101:ASN:ND2	1:A:101:ASN:O	2.48	0.47
1:A:260:VAL:HG21	2:B:407:TRP:HZ2	1.80	0.47
2:B:63:PRO:HG3	2:B:87:PHE:CG	2.50	0.47
2:B:97:GLU:HB2	2:B:110:ILE:HD11	1.96	0.47
2:B:147:SER:O	2:B:190:THR:HG23	2.14	0.47
1:C:137:LEU:HD22	1:C:154:ILE:HG23	1.97	0.47
1:C:175:PRO:HD2	1:C:207:GLU:CD	2.35	0.47
1:C:297:ASP:OD2	1:C:299:LYS:HE2	2.14	0.47
2:D:52:PHE:O	2:D:64:ARG:HB3	2.14	0.47
2:F:166:LYS:CE	2:F:199:ASP:OD1	2.62	0.47
2:F:261:PRO:HB3	2:F:346:TRP:CH2	2.50	0.47
2:F:328:VAL:C	2:F:330:ALA:H	2.16	0.47
1:G:101:ASN:ND2	1:G:101:ASN:O	2.48	0.47
1:G:175:PRO:HD2	1:G:207:GLU:CD	2.35	0.47
1:G:245:PRO:HB3	2:H:73:THR:HG21	1.97	0.47
1:G:352:LYS:CG	2:H:181:VAL:CG2	2.93	0.47
2:H:328:VAL:C	2:H:330:ALA:H	2.15	0.47
2:H:396:ASP:O	2:H:397:LEU:C	2.53	0.47
2:H:434:GLU:C	2:H:436:GLY:H	2.18	0.47
3:I:68:VAL:HG23	3:I:69:PHE:N	2.30	0.47
1:A:137:LEU:HD22	1:A:154:ILE:HG23	1.97	0.46
2:B:19:ALA:HB2	2:B:228:ASN:HB3	1.96	0.46
2:B:256:GLN:O	2:B:260:VAL:HG13	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:396:ASP:O	2:B:397:LEU:C	2.53	0.46
1:C:24:ILE:CD1	1:C:52:TYR:CE2	2.97	0.46
2:D:120:ASP:O	2:D:124:LYS:HB2	2.15	0.46
1:E:137:LEU:HD22	1:E:154:ILE:HG23	1.97	0.46
1:E:179:ASP:OD2	4:E:1438:GSP:O2'	2.32	0.46
2:F:97:GLU:HB2	2:F:110:ILE:HD11	1.96	0.46
2:F:132:LEU:H	2:F:132:LEU:CD2	2.23	0.46
2:F:312:TYR:HD1	2:F:341:ILE:CG2	2.29	0.46
2:F:332:ILE:HG22	1:G:177:VAL:CG2	2.45	0.46
2:F:381:THR:O	2:F:383:ALA:N	2.49	0.46
1:G:137:LEU:HD22	1:G:154:ILE:HG23	1.97	0.46
1:G:168:THR:N	1:G:200:GLU:O	2.43	0.46
1:G:217:LEU:C	1:G:219:LEU:N	2.55	0.46
1:G:287:THR:N	1:G:290:GLU:OE1	2.48	0.46
2:H:117:LEU:HD11	2:H:121:ARG:NH2	2.30	0.46
2:H:151:SER:OG	2:H:193:THR:HG21	2.13	0.46
2:H:317:LEU:CD1	2:H:351:PHE:CD1	2.97	0.46
2:H:392:ASP:OD1	2:H:422:ARG:NE	2.48	0.46
2:H:407:TRP:O	2:H:411:GLU:CG	2.62	0.46
1:A:204:ILE:HD13	1:A:231:VAL:CG2	2.45	0.46
2:B:63:PRO:CG	2:B:91:GLN:CD	2.72	0.46
2:B:243:ARG:NH2	2:B:252:LEU:CB	2.78	0.46
1:C:399:PHE:O	1:C:400:ARG:C	2.52	0.46
2:D:22:GLU:O	2:D:23:LEU:C	2.54	0.46
2:D:55:GLU:O	2:D:56:THR:C	2.52	0.46
2:D:315:CYS:HB3	2:D:377:MET:HE1	1.96	0.46
1:E:137:LEU:HD22	1:E:154:ILE:HG21	1.95	0.46
1:E:185:TYR:HD1	1:E:395:PHE:CE1	2.33	0.46
1:E:217:LEU:C	1:E:219:LEU:N	2.55	0.46
2:F:23:LEU:CD2	2:F:232:GLY:O	2.64	0.46
2:F:117:LEU:HD11	2:F:121:ARG:NH2	2.30	0.46
1:G:237:GLY:HA3	1:G:376:THR:OG1	2.15	0.46
2:H:19:ALA:HB2	2:H:228:ASN:HB3	1.96	0.46
2:H:22:GLU:O	2:H:23:LEU:C	2.54	0.46
2:H:155:GLU:HA	2:H:197:HIS:CE1	2.49	0.46
2:H:381:THR:O	2:H:383:ALA:N	2.49	0.46
2:H:436:GLY:O	2:H:438:ASP:N	2.48	0.46
1:A:287:THR:N	1:A:290:GLU:OE1	2.48	0.46
2:B:3:GLU:CD	2:B:50:ASN:O	2.54	0.46
2:B:407:TRP:O	2:B:411:GLU:CG	2.63	0.46
2:B:436:GLY:O	2:B:438:ASP:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:3:GLU:CD	2:D:50:ASN:O	2.54	0.46
2:D:155:GLU:HA	2:D:197:HIS:CE1	2.49	0.46
2:D:256:GLN:O	2:D:260:VAL:HG13	2.15	0.46
2:D:324:VAL:HG12	2:D:326:LYS:H	1.81	0.46
2:D:436:GLY:O	2:D:438:ASP:N	2.48	0.46
1:E:224:TYR:O	1:E:225:GLY:C	2.53	0.46
1:E:263:PRO:O	1:E:264:ARG:C	2.52	0.46
2:F:132:LEU:HD21	2:F:164:LYS:HE3	1.96	0.46
2:F:191:THR:O	2:F:195:LEU:HB2	2.15	0.46
2:F:324:VAL:HG12	2:F:326:LYS:H	1.80	0.46
2:F:404:PHE:CD1	2:F:404:PHE:N	2.83	0.46
2:F:436:GLY:O	2:F:438:ASP:N	2.49	0.46
1:G:185:TYR:HD1	1:G:395:PHE:CE1	2.33	0.46
1:G:245:PRO:CA	2:H:73:THR:HG21	2.44	0.46
1:G:431:GLU:HA	1:G:434:GLN:HG3	1.97	0.46
2:H:132:LEU:H	2:H:132:LEU:CD2	2.23	0.46
2:H:145:THR:O	2:H:149:PHE:HB3	2.15	0.46
2:H:226:ASN:O	2:H:229:ARG:N	2.48	0.46
2:H:243:ARG:NH2	2:H:252:LEU:CB	2.78	0.46
2:H:255:PHE:O	2:H:256:GLN:C	2.53	0.46
3:I:65:LEU:O	3:I:69:PHE:HD1	1.99	0.46
2:B:10:GLY:O	2:B:11:GLN:C	2.53	0.46
2:B:23:LEU:CD2	2:B:232:GLY:O	2.64	0.46
1:C:287:THR:N	1:C:290:GLU:OE1	2.48	0.46
1:C:399:PHE:O	1:C:402:LYS:N	2.29	0.46
2:D:19:ALA:HB2	2:D:228:ASN:HB3	1.96	0.46
2:D:234:ILE:CG1	2:D:270:ALA:HB1	2.38	0.46
2:D:384:ILE:HG22	2:D:384:ILE:O	2.15	0.46
2:F:22:GLU:O	2:F:23:LEU:C	2.54	0.46
2:F:392:ASP:OD1	2:F:422:ARG:NE	2.48	0.46
1:G:262:PHE:HA	1:G:263:PRO:HD2	1.65	0.46
1:G:263:PRO:O	1:G:264:ARG:C	2.52	0.46
1:G:324:SER:OG	1:G:326:LYS:HB3	2.15	0.46
1:G:390:ARG:NH2	3:I:56:TYR:HB3	2.27	0.46
2:H:23:LEU:CD2	2:H:232:GLY:O	2.64	0.46
1:A:133:GLN:O	1:A:165:ILE:CD1	2.64	0.46
1:A:237:GLY:HA3	1:A:376:THR:OG1	2.15	0.46
1:A:242:LEU:HD11	1:A:250:ALA:HB3	1.97	0.46
2:B:434:GLU:C	2:B:436:GLY:H	2.18	0.46
1:C:133:GLN:O	1:C:165:ILE:CD1	2.64	0.46
1:C:204:ILE:HD13	1:C:231:VAL:CG2	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:324:SER:OG	1:C:326:LYS:HB3	2.15	0.46
2:D:210:TYR:CZ	2:D:227:LEU:HD11	2.51	0.46
2:D:381:THR:O	2:D:383:ALA:N	2.49	0.46
2:D:407:TRP:O	2:D:411:GLU:CG	2.63	0.46
1:E:175:PRO:HD2	1:E:207:GLU:CD	2.36	0.46
2:F:5:ILE:CG2	2:F:135:PHE:HB3	2.41	0.46
2:F:56:THR:HG21	2:F:62:VAL:CB	2.45	0.46
2:F:104:ALA:HB1	2:F:413:MET:HG3	1.95	0.46
2:F:243:ARG:NH2	2:F:252:LEU:CB	2.78	0.46
2:F:285:GLN:CG	2:F:371:VAL:HG13	2.45	0.46
2:F:339:ARG:HG3	3:I:63:LYS:HZ1	1.80	0.46
2:F:396:ASP:O	2:F:397:LEU:C	2.53	0.46
2:H:324:VAL:HG12	2:H:326:LYS:H	1.81	0.46
1:A:154:ILE:HG22	1:A:166:MET:HE1	1.98	0.46
1:A:224:TYR:O	1:A:225:GLY:C	2.53	0.46
1:A:243:ARG:N	1:A:243:ARG:HD3	2.26	0.46
1:A:287:THR:O	1:A:288:VAL:CG2	2.58	0.46
1:A:324:SER:OG	1:A:326:LYS:HB3	2.15	0.46
1:A:431:GLU:HA	1:A:434:GLN:HG3	1.97	0.46
2:B:11:GLN:NE2	2:B:74:VAL:HG22	2.22	0.46
2:B:104:ALA:HB1	2:B:413:MET:HG3	1.95	0.46
2:B:114:ILE:O	2:B:118:VAL:HG23	2.16	0.46
2:B:132:LEU:H	2:B:132:LEU:CD2	2.23	0.46
2:B:145:THR:O	2:B:149:PHE:HB3	2.15	0.46
2:B:256:GLN:HA	2:B:260:VAL:HG13	1.97	0.46
2:B:324:VAL:HG12	2:B:326:LYS:H	1.81	0.46
1:C:6:HIS:HB3	1:C:21:TRP:HZ2	1.81	0.46
1:C:102:ASN:ND2	1:C:104:ALA:HB3	2.31	0.46
2:D:23:LEU:CD2	2:D:232:GLY:O	2.64	0.46
2:D:243:ARG:NH2	2:D:252:LEU:CB	2.78	0.46
2:D:316:CYS:HB3	2:D:378:LEU:HD12	1.95	0.46
1:E:101:ASN:ND2	1:E:101:ASN:O	2.48	0.46
1:E:237:GLY:HA3	1:E:376:THR:OG1	2.15	0.46
1:E:324:SER:OG	1:E:326:LYS:HB3	2.16	0.46
1:E:431:GLU:HA	1:E:434:GLN:HG3	1.98	0.46
2:F:2:ARG:O	2:F:51:THR:OG1	2.21	0.46
2:F:63:PRO:HG2	2:F:87:PHE:CG	2.51	0.46
2:F:63:PRO:HD2	2:F:87:PHE:HA	1.97	0.46
2:F:114:ILE:O	2:F:118:VAL:HG23	2.16	0.46
2:F:145:THR:O	2:F:149:PHE:HB3	2.15	0.46
2:F:243:ARG:NH2	2:F:252:LEU:HB2	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:256:GLN:HA	2:F:260:VAL:HG13	1.97	0.46
1:G:242:LEU:HD11	1:G:250:ALA:HB3	1.97	0.46
1:G:384:ILE:O	1:G:384:ILE:HG23	2.14	0.46
2:H:114:ILE:O	2:H:118:VAL:HG23	2.15	0.46
2:H:166:LYS:CE	2:H:199:ASP:OD1	2.62	0.46
2:H:191:THR:O	2:H:195:LEU:HB2	2.15	0.46
1:A:175:PRO:HD2	1:A:207:GLU:CD	2.36	0.46
2:B:22:GLU:O	2:B:23:LEU:C	2.54	0.46
2:B:119:LEU:HD11	2:B:156:ARG:HD2	1.97	0.46
2:B:210:TYR:CZ	2:B:227:LEU:HD11	2.51	0.46
2:B:226:ASN:O	2:B:229:ARG:N	2.48	0.46
2:B:381:THR:O	2:B:383:ALA:N	2.49	0.46
2:B:404:PHE:CD1	2:B:404:PHE:N	2.83	0.46
1:C:185:TYR:HD1	1:C:395:PHE:CE1	2.33	0.46
1:C:224:TYR:O	1:C:225:GLY:C	2.53	0.46
2:D:145:THR:O	2:D:149:PHE:HB3	2.15	0.46
2:D:434:GLU:C	2:D:436:GLY:H	2.18	0.46
1:E:208:ALA:O	1:E:212:ILE:HG13	2.16	0.46
1:E:297:ASP:OD2	1:E:299:LYS:HE2	2.14	0.46
2:F:317:LEU:CD1	2:F:351:PHE:CD1	2.97	0.46
1:G:208:ALA:O	1:G:212:ILE:HG13	2.16	0.46
1:G:257:VAL:CG2	2:H:407:TRP:HB3	2.28	0.46
1:G:360:PRO:HG2	1:G:371:LEU:CB	2.38	0.46
2:H:148:GLY:O	2:H:151:SER:CB	2.61	0.46
3:I:5:ARG:HB2	3:I:23:ILE:HD11	1.98	0.46
3:I:43:ILE:HG13	3:I:68:VAL:HG11	1.98	0.46
1:A:323:MET:CE	1:A:328:VAL:HG22	2.46	0.46
1:A:408:TYR:O	1:A:411:GLU:HB2	2.15	0.46
2:B:210:TYR:CD1	2:B:227:LEU:HD21	2.51	0.46
2:B:346:TRP:HZ2	2:B:435:VAL:HG12	1.81	0.46
2:B:384:ILE:HG22	2:B:384:ILE:O	2.15	0.46
2:B:413:MET:C	2:B:414:GLU:HG3	2.36	0.46
1:C:67:LEU:HD12	1:C:92:PHE:CD1	2.51	0.46
1:C:237:GLY:HA3	1:C:376:THR:OG1	2.15	0.46
1:C:242:LEU:HD11	1:C:250:ALA:HB3	1.97	0.46
1:C:323:MET:CE	1:C:328:VAL:HG22	2.46	0.46
1:C:431:GLU:HA	1:C:434:GLN:HG3	1.97	0.46
2:D:70:LEU:HD12	2:D:145:THR:HG21	1.95	0.46
1:E:113:GLU:CG	1:E:114:LEU:N	2.79	0.46
1:E:242:LEU:HD11	1:E:250:ALA:HB3	1.97	0.46
1:E:323:MET:CE	1:E:328:VAL:HG22	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:10:GLY:O	2:F:11:GLN:C	2.53	0.46
2:F:30:ILE:HD11	2:F:61:HIS:CD2	2.51	0.46
2:F:115:ILE:CG1	2:F:152:LEU:HD13	2.46	0.46
2:F:144:GLY:H	5:F:500:GTP:PG	2.39	0.46
2:F:256:GLN:O	2:F:260:VAL:HG13	2.15	0.46
1:G:323:MET:CE	1:G:328:VAL:HG22	2.46	0.46
2:H:63:PRO:HG2	2:H:87:PHE:CG	2.51	0.46
2:H:243:ARG:NH2	2:H:252:LEU:HB2	2.30	0.46
2:H:256:GLN:HA	2:H:260:VAL:HG13	1.97	0.46
2:H:384:ILE:HG22	2:H:384:ILE:O	2.15	0.46
1:A:67:LEU:HD12	1:A:92:PHE:CD1	2.51	0.46
1:A:168:THR:N	1:A:200:GLU:O	2.43	0.46
1:A:185:TYR:HD1	1:A:395:PHE:CE1	2.33	0.46
1:A:360:PRO:O	1:A:369:ARG:C	2.54	0.46
2:B:115:ILE:CG1	2:B:152:LEU:HD13	2.46	0.46
2:B:203:MET:SD	2:B:267:PHE:CB	3.04	0.46
1:C:11:GLN:O	1:C:14:ASN:HB3	2.16	0.46
1:C:313:LEU:O	1:C:347:ILE:HD12	2.16	0.46
2:D:203:MET:SD	2:D:267:PHE:CB	3.04	0.46
2:D:226:ASN:O	2:D:229:ARG:N	2.48	0.46
2:D:413:MET:C	2:D:414:GLU:HG3	2.36	0.46
1:E:6:HIS:HB3	1:E:21:TRP:HZ2	1.81	0.46
1:E:196:GLU:O	1:E:197:ASN:OD1	2.34	0.46
2:F:203:MET:SD	2:F:267:PHE:CB	3.04	0.46
1:G:67:LEU:HD12	1:G:92:PHE:CD1	2.51	0.46
1:G:133:GLN:O	1:G:165:ILE:CD1	2.64	0.46
1:G:196:GLU:O	1:G:197:ASN:OD1	2.34	0.46
1:G:297:ASP:OD2	1:G:299:LYS:HE2	2.14	0.46
2:H:3:GLU:CD	2:H:50:ASN:O	2.54	0.46
2:H:115:ILE:CG1	2:H:152:LEU:HD13	2.46	0.46
2:H:203:MET:SD	2:H:267:PHE:CB	3.04	0.46
2:H:204:VAL:HG21	2:H:231:ILE:HG23	1.97	0.46
2:H:234:ILE:CG1	2:H:270:ALA:HB1	2.38	0.46
2:H:404:PHE:CD1	2:H:404:PHE:N	2.83	0.46
2:H:413:MET:C	2:H:414:GLU:HG3	2.36	0.46
3:I:5:ARG:HD2	3:I:23:ILE:HG13	1.97	0.46
1:A:6:HIS:HB3	1:A:21:TRP:HZ2	1.81	0.46
1:A:102:ASN:ND2	1:A:104:ALA:HB3	2.31	0.46
2:B:148:GLY:O	2:B:151:SER:CB	2.61	0.46
2:B:316:CYS:HB3	2:B:378:LEU:HD12	1.95	0.46
2:B:392:ASP:OD1	2:B:422:ARG:NE	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:243:ARG:N	1:C:243:ARG:HD3	2.26	0.46
1:C:360:PRO:O	1:C:369:ARG:C	2.54	0.46
2:D:148:GLY:O	2:D:149:PHE:C	2.55	0.46
2:D:265:GLY:O	2:D:266:HIS:O	2.33	0.46
1:E:67:LEU:HD12	1:E:92:PHE:CD1	2.51	0.46
1:E:287:THR:O	1:E:288:VAL:CG2	2.58	0.46
2:F:226:ASN:O	2:F:229:ARG:N	2.48	0.46
2:F:311:LYS:HA	2:F:341:ILE:CG2	2.44	0.46
1:G:6:HIS:HB3	1:G:21:TRP:HZ2	1.81	0.46
1:G:134:GLY:HA3	1:G:165:ILE:HG12	1.97	0.46
1:G:154:ILE:HD12	1:G:155:SER:N	2.31	0.46
1:G:307:PRO:C	1:G:309:HIS:H	2.18	0.46
2:H:52:PHE:O	2:H:64:ARG:HB3	2.16	0.46
2:H:316:CYS:HB3	2:H:378:LEU:HD12	1.95	0.46
3:I:65:LEU:HD11	3:I:69:PHE:HE1	1.81	0.46
1:A:134:GLY:HA3	1:A:165:ILE:HG12	1.97	0.45
1:A:209:LEU:HD23	1:A:227:LEU:HD13	1.98	0.45
2:B:132:LEU:HD21	2:B:164:LYS:HE3	1.96	0.45
2:B:148:GLY:O	2:B:149:PHE:C	2.55	0.45
2:B:196:GLU:C	2:B:197:HIS:HD2	2.19	0.45
2:B:261:PRO:HA	1:C:404:PHE:CD2	2.51	0.45
2:B:265:GLY:O	2:B:266:HIS:O	2.33	0.45
2:B:317:LEU:CD1	2:B:351:PHE:CE1	2.99	0.45
1:C:408:TYR:O	1:C:411:GLU:HB2	2.15	0.45
2:D:9:VAL:HG21	2:D:149:PHE:HD1	1.80	0.45
2:D:10:GLY:O	2:D:11:GLN:C	2.53	0.45
2:D:144:GLY:H	5:D:500:GTP:PG	2.39	0.45
2:D:204:VAL:HG21	2:D:231:ILE:HG23	1.97	0.45
2:D:210:TYR:CD1	2:D:227:LEU:HD21	2.51	0.45
2:D:308:ARG:O	2:D:309:HIS:HB3	2.16	0.45
2:D:317:LEU:CD1	2:D:351:PHE:CE1	2.99	0.45
1:E:11:GLN:O	1:E:14:ASN:HB3	2.16	0.45
1:E:24:ILE:CD1	1:E:52:TYR:CE2	2.97	0.45
1:E:360:PRO:HG2	1:E:371:LEU:CB	2.38	0.45
2:F:210:TYR:CD1	2:F:227:LEU:HD21	2.51	0.45
2:F:265:GLY:O	2:F:266:HIS:O	2.33	0.45
2:F:317:LEU:CD1	2:F:351:PHE:CE1	2.99	0.45
1:G:72:PRO:O	1:G:74:THR:N	2.50	0.45
1:G:113:GLU:CG	1:G:114:LEU:N	2.79	0.45
2:H:120:ASP:O	2:H:124:LYS:HB2	2.15	0.45
2:H:144:GLY:H	5:H:500:GTP:PG	2.40	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:148:GLY:O	2:H:149:PHE:C	2.55	0.45
1:A:11:GLN:O	1:A:14:ASN:HB3	2.16	0.45
1:A:72:PRO:O	1:A:74:THR:N	2.50	0.45
1:A:360:PRO:HG2	1:A:371:LEU:CB	2.38	0.45
2:B:5:ILE:HD11	2:B:64:ARG:NH2	2.31	0.45
2:B:95:GLY:C	2:B:97:GLU:N	2.69	0.45
2:B:326:LYS:HB2	1:C:222:PRO:HG2	1.98	0.45
2:B:334:THR:CG2	2:B:335:ILE:N	2.79	0.45
1:C:72:PRO:O	1:C:74:THR:N	2.49	0.45
1:C:175:PRO:HG2	1:C:207:GLU:OE1	2.16	0.45
2:D:63:PRO:HD2	2:D:87:PHE:HA	1.98	0.45
2:D:114:ILE:O	2:D:118:VAL:HG23	2.16	0.45
1:E:94:PHE:CD1	1:E:94:PHE:N	2.84	0.45
1:E:242:LEU:C	1:E:244:PHE:H	2.20	0.45
2:F:120:ASP:O	2:F:124:LYS:HB2	2.15	0.45
2:F:148:GLY:O	2:F:149:PHE:C	2.55	0.45
2:F:210:TYR:CZ	2:F:227:LEU:HD11	2.51	0.45
1:G:242:LEU:C	1:G:244:PHE:H	2.19	0.45
1:G:299:LYS:H	1:G:299:LYS:CD	2.07	0.45
1:A:113:GLU:CG	1:A:114:LEU:N	2.79	0.45
1:A:196:GLU:O	1:A:197:ASN:OD1	2.34	0.45
1:A:208:ALA:O	1:A:212:ILE:HG13	2.16	0.45
1:A:307:PRO:C	1:A:309:HIS:H	2.18	0.45
1:A:313:LEU:O	1:A:347:ILE:HD12	2.16	0.45
2:B:204:VAL:HG21	2:B:231:ILE:HG23	1.98	0.45
2:B:229:ARG:NH1	2:B:229:ARG:HG2	2.31	0.45
2:B:392:ASP:OD1	2:B:422:ARG:CZ	2.65	0.45
1:C:23:VAL:O	1:C:25:SER:N	2.50	0.45
1:C:134:GLY:HA3	1:C:165:ILE:HG12	1.97	0.45
1:C:209:LEU:HD23	1:C:227:LEU:HD13	1.97	0.45
2:D:212:ILE:HD11	2:D:302:MET:H	1.82	0.45
2:D:392:ASP:OD1	2:D:422:ARG:NE	2.48	0.45
1:E:72:PRO:O	1:E:74:THR:N	2.49	0.45
1:E:115:VAL:HG21	1:E:152:LEU:HD21	1.98	0.45
1:E:133:GLN:O	1:E:165:ILE:CD1	2.64	0.45
1:E:134:GLY:HA3	1:E:165:ILE:HG12	1.97	0.45
2:F:52:PHE:O	2:F:64:ARG:HB3	2.16	0.45
2:F:384:ILE:HG22	2:F:384:ILE:O	2.15	0.45
2:H:10:GLY:O	2:H:11:GLN:C	2.53	0.45
2:H:265:GLY:O	2:H:266:HIS:O	2.33	0.45
2:H:271:THR:O	2:H:376:CYS:HA	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:308:ARG:O	2:H:309:HIS:HB3	2.17	0.45
2:H:392:ASP:OD1	2:H:422:ARG:CZ	2.64	0.45
3:I:5:ARG:HD3	3:I:23:ILE:HD12	1.96	0.45
3:I:32:MET:HE3	3:I:62:TRP:CZ3	2.50	0.45
1:A:210:TYR:CE1	1:A:227:LEU:HD11	2.52	0.45
1:A:409:THR:HA	1:A:413:MET:HB3	1.99	0.45
2:B:120:ASP:O	2:B:124:LYS:HB2	2.15	0.45
1:C:208:ALA:O	1:C:212:ILE:HG13	2.16	0.45
1:C:257:VAL:O	1:C:257:VAL:CG1	2.64	0.45
1:C:307:PRO:C	1:C:309:HIS:H	2.18	0.45
2:D:95:GLY:C	2:D:97:GLU:N	2.69	0.45
2:D:115:ILE:CG1	2:D:152:LEU:HD13	2.46	0.45
2:D:117:LEU:HD11	2:D:121:ARG:NH2	2.30	0.45
2:D:172:TYR:HA	2:D:173:PRO:HD3	1.92	0.45
2:D:243:ARG:NH2	2:D:252:LEU:HB2	2.30	0.45
2:D:346:TRP:HZ2	2:D:435:VAL:HG12	1.82	0.45
1:E:210:TYR:CE1	1:E:227:LEU:HD11	2.52	0.45
1:E:230:LEU:HD21	1:E:302:MET:HE2	1.98	0.45
2:F:3:GLU:CD	2:F:50:ASN:O	2.54	0.45
2:F:62:VAL:CG2	2:F:88:HIS:CE1	2.87	0.45
2:F:95:GLY:C	2:F:97:GLU:N	2.69	0.45
2:F:271:THR:O	2:F:376:CYS:HA	2.17	0.45
1:G:245:PRO:HB3	2:H:73:THR:HG22	1.98	0.45
1:G:250:ALA:HB1	1:G:254:LYS:CB	2.44	0.45
2:H:119:LEU:HD11	2:H:156:ARG:HD2	1.97	0.45
2:H:196:GLU:C	2:H:197:HIS:HD2	2.19	0.45
1:A:82:PRO:HB2	1:A:83:PHE:H	1.56	0.45
1:A:94:PHE:N	1:A:94:PHE:CD1	2.84	0.45
1:A:154:ILE:HD12	1:A:155:SER:N	2.31	0.45
1:A:194:LEU:O	1:A:265:LEU:HD23	2.16	0.45
1:A:245:PRO:HA	2:B:73:THR:CG2	2.46	0.45
2:B:117:LEU:HD11	2:B:121:ARG:NH2	2.30	0.45
2:B:151:SER:HB3	2:B:193:THR:CG2	2.34	0.45
2:B:212:ILE:HD11	2:B:302:MET:H	1.82	0.45
2:B:274:PRO:HB2	2:B:371:VAL:HG21	1.98	0.45
2:B:308:ARG:O	2:B:309:HIS:HB3	2.16	0.45
2:B:329:ASN:CB	1:C:210:TYR:HE2	2.29	0.45
1:C:113:GLU:CG	1:C:114:LEU:N	2.79	0.45
1:C:154:ILE:HD12	1:C:155:SER:N	2.31	0.45
1:C:194:LEU:O	1:C:265:LEU:HD23	2.16	0.45
1:C:243:ARG:HH21	1:C:252:LEU:N	2.12	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:103:TYR:CD1	2:D:148:GLY:HA2	2.52	0.45
2:D:392:ASP:OD1	2:D:422:ARG:CZ	2.65	0.45
2:D:423:GLU:O	2:D:426:ALA:HB3	2.16	0.45
1:E:135:PHE:N	1:E:135:PHE:CD1	2.85	0.45
1:E:154:ILE:HD12	1:E:155:SER:N	2.31	0.45
1:E:257:VAL:O	1:E:257:VAL:CG1	2.64	0.45
2:F:9:VAL:HG21	2:F:149:PHE:HD1	1.80	0.45
2:F:212:ILE:HD11	2:F:302:MET:H	1.82	0.45
2:F:334:THR:CG2	2:F:335:ILE:N	2.79	0.45
1:G:175:PRO:HG2	1:G:207:GLU:OE1	2.17	0.45
1:G:209:LEU:HD23	1:G:227:LEU:HD13	1.98	0.45
1:G:210:TYR:CE1	1:G:227:LEU:HD11	2.51	0.45
2:H:62:VAL:CG1	2:H:91:GLN:NE2	2.80	0.45
2:H:63:PRO:HD2	2:H:87:PHE:HA	1.98	0.45
3:I:30:TYR:CD2	3:I:50:PHE:CE1	3.05	0.45
1:A:175:PRO:HG2	1:A:207:GLU:OE1	2.17	0.45
2:B:231:ILE:HD13	2:B:231:ILE:H	1.82	0.45
2:B:295:CYS:SG	2:B:375:VAL:HG11	2.57	0.45
2:B:408:TYR:CG	2:B:418:PHE:HZ	2.34	0.45
1:C:106:GLY:O	1:C:149:MET:HB2	2.17	0.45
1:C:196:GLU:O	1:C:197:ASN:OD1	2.34	0.45
1:C:324:SER:O	1:C:326:LYS:N	2.50	0.45
1:C:409:THR:HA	1:C:413:MET:HB3	1.99	0.45
1:E:23:VAL:O	1:E:25:SER:N	2.50	0.45
1:E:209:LEU:HD23	1:E:227:LEU:HD13	1.98	0.45
1:E:242:LEU:HD22	1:E:250:ALA:O	2.17	0.45
1:E:324:SER:O	1:E:326:LYS:N	2.50	0.45
1:E:408:TYR:O	1:E:411:GLU:HB2	2.16	0.45
2:F:62:VAL:CG1	2:F:91:GLN:NE2	2.79	0.45
2:F:103:TYR:CD1	2:F:148:GLY:HA2	2.52	0.45
2:F:182:VAL:O	2:F:184:PRO:CD	2.65	0.45
2:F:196:GLU:C	2:F:197:HIS:HD2	2.19	0.45
2:F:204:VAL:HG21	2:F:231:ILE:HG23	1.97	0.45
2:F:229:ARG:NH1	2:F:229:ARG:HG2	2.31	0.45
2:F:231:ILE:HD13	2:F:231:ILE:H	1.82	0.45
2:F:413:MET:C	2:F:414:GLU:HG3	2.37	0.45
1:G:11:GLN:O	1:G:14:ASN:HB3	2.16	0.45
1:G:94:PHE:N	1:G:94:PHE:CD1	2.84	0.45
1:G:135:PHE:N	1:G:135:PHE:CD1	2.85	0.45
1:G:194:LEU:O	1:G:265:LEU:HD23	2.16	0.45
1:G:237:GLY:O	1:G:241:CYS:CB	2.61	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:256:GLN:O	2:H:260:VAL:HG13	2.15	0.45
1:A:23:VAL:O	1:A:25:SER:N	2.50	0.45
1:A:82:PRO:C	1:A:84:GLY:H	2.20	0.45
1:A:106:GLY:O	1:A:149:MET:HB2	2.16	0.45
1:A:242:LEU:C	1:A:244:PHE:H	2.20	0.45
1:A:312:TYR:HA	1:A:381:SER:HA	1.99	0.45
1:A:324:SER:O	1:A:326:LYS:N	2.50	0.45
2:B:5:ILE:CG2	2:B:6:SER:H	2.29	0.45
2:B:103:TYR:CD1	2:B:148:GLY:HA2	2.52	0.45
2:B:243:ARG:NH2	2:B:252:LEU:HB2	2.30	0.45
1:C:288:VAL:N	1:C:289:PRO:HD2	2.32	0.45
1:C:312:TYR:HA	1:C:381:SER:HA	1.99	0.45
2:D:5:ILE:CG2	2:D:135:PHE:HB3	2.41	0.45
2:D:62:VAL:CG2	2:D:88:HIS:CE1	2.87	0.45
2:D:119:LEU:HD11	2:D:156:ARG:HD2	1.97	0.45
2:D:334:THR:CG2	2:D:335:ILE:N	2.79	0.45
2:D:404:PHE:CD1	2:D:404:PHE:N	2.83	0.45
1:E:175:PRO:HG2	1:E:207:GLU:OE1	2.16	0.45
1:E:194:LEU:C	1:E:196:GLU:N	2.70	0.45
2:F:119:LEU:HD11	2:F:156:ARG:HD2	1.97	0.45
2:F:268:PRO:CA	2:F:379:SER:O	2.65	0.45
2:F:308:ARG:O	2:F:309:HIS:HB3	2.17	0.45
2:F:316:CYS:HB3	2:F:378:LEU:HD12	1.94	0.45
2:F:339:ARG:O	2:F:339:ARG:HG2	2.17	0.45
2:F:423:GLU:O	2:F:426:ALA:HB3	2.16	0.45
1:G:194:LEU:C	1:G:196:GLU:N	2.70	0.45
1:G:324:SER:O	1:G:326:LYS:N	2.50	0.45
2:H:5:ILE:CG2	2:H:135:PHE:HB3	2.41	0.45
2:H:95:GLY:C	2:H:97:GLU:N	2.69	0.45
2:H:103:TYR:CD1	2:H:148:GLY:HA2	2.52	0.45
2:H:204:VAL:O	2:H:204:VAL:HG12	2.17	0.45
2:H:212:ILE:HD11	2:H:302:MET:H	1.82	0.45
2:H:231:ILE:HD13	2:H:231:ILE:H	1.82	0.45
2:H:346:TRP:HZ2	2:H:435:VAL:HG12	1.81	0.45
3:I:21:THR:HG22	3:I:22:ARG:NE	2.31	0.45
1:A:242:LEU:HD22	1:A:250:ALA:O	2.17	0.45
2:B:9:VAL:HG21	2:B:149:PHE:HD1	1.80	0.45
2:B:271:THR:O	2:B:376:CYS:HA	2.17	0.45
2:B:344:VAL:CG1	2:B:345:ASP:N	2.78	0.45
1:C:242:LEU:C	1:C:244:PHE:H	2.20	0.45
2:D:63:PRO:HG2	2:D:87:PHE:CG	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:151:SER:HB3	2:D:193:THR:CG2	2.34	0.45
2:D:196:GLU:C	2:D:197:HIS:HD2	2.19	0.45
2:D:231:ILE:HD13	2:D:231:ILE:H	1.82	0.45
2:D:408:TYR:CG	2:D:418:PHE:HZ	2.34	0.45
1:E:8:GLN:CG	1:E:67:LEU:HD22	2.47	0.45
1:E:24:ILE:CG2	1:E:25:SER:N	2.80	0.45
1:E:307:PRO:C	1:E:309:HIS:H	2.18	0.45
1:E:312:TYR:HA	1:E:381:SER:HA	1.99	0.45
1:G:4:ILE:HD12	1:G:239:THR:HG21	1.98	0.45
1:G:8:GLN:CG	1:G:67:LEU:HD22	2.47	0.45
1:G:12:CYS:HB2	4:G:1438:GSP:C8	2.52	0.45
1:G:24:ILE:CG2	1:G:25:SER:N	2.80	0.45
1:G:257:VAL:O	2:H:404:PHE:HB3	2.15	0.45
2:H:210:TYR:CZ	2:H:227:LEU:HD11	2.51	0.45
2:H:274:PRO:HB2	2:H:371:VAL:HG21	1.98	0.45
2:H:295:CYS:SG	2:H:375:VAL:HG11	2.57	0.45
2:H:317:LEU:CD1	2:H:351:PHE:CE1	2.99	0.45
1:A:135:PHE:N	1:A:135:PHE:CD1	2.85	0.45
1:A:288:VAL:N	1:A:289:PRO:HD2	2.32	0.45
2:B:54:SER:O	2:B:61:HIS:O	2.35	0.45
2:B:70:LEU:HD12	2:B:145:THR:HG21	1.95	0.45
1:C:242:LEU:HD22	1:C:250:ALA:O	2.17	0.45
1:E:106:GLY:O	1:E:149:MET:HB2	2.17	0.45
1:E:189:LEU:HD23	1:E:421:ALA:CB	2.47	0.45
2:F:274:PRO:HB2	2:F:371:VAL:HG21	1.99	0.45
1:G:24:ILE:CD1	1:G:52:TYR:CE2	2.97	0.45
1:G:82:PRO:C	1:G:84:GLY:H	2.20	0.45
1:G:312:TYR:HA	1:G:381:SER:HA	1.99	0.45
1:G:408:TYR:O	1:G:411:GLU:HB2	2.15	0.45
1:G:409:THR:HA	1:G:413:MET:HB3	1.99	0.45
2:H:210:TYR:CD1	2:H:227:LEU:HD21	2.51	0.45
2:H:268:PRO:CA	2:H:379:SER:O	2.65	0.45
2:H:334:THR:CG2	2:H:335:ILE:N	2.79	0.45
2:H:423:GLU:O	2:H:426:ALA:HB3	2.16	0.45
3:I:13:ASN:HD22	3:I:13:ASN:HA	1.55	0.45
3:I:68:VAL:HA	3:I:71:LYS:HE3	1.91	0.45
3:I:111:TYR:CE1	3:I:116:ARG:HG3	2.52	0.45
1:A:8:GLN:CG	1:A:67:LEU:HD22	2.47	0.45
1:A:189:LEU:HD23	1:A:421:ALA:CB	2.47	0.45
1:A:243:ARG:HH21	1:A:252:LEU:N	2.13	0.45
2:B:402:ARG:O	2:B:405:VAL:N	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:423:GLU:O	2:B:426:ALA:HB3	2.16	0.45
1:C:8:GLN:CG	1:C:67:LEU:HD22	2.47	0.45
1:C:210:TYR:CE1	1:C:227:LEU:HD11	2.51	0.45
2:D:295:CYS:SG	2:D:375:VAL:HG11	2.57	0.45
1:E:102:ASN:ND2	1:E:104:ALA:HB3	2.31	0.45
1:E:194:LEU:O	1:E:265:LEU:HD23	2.16	0.45
1:E:299:LYS:H	1:E:299:LYS:CD	2.07	0.45
1:E:409:THR:HA	1:E:413:MET:HB3	1.98	0.45
2:F:295:CYS:SG	2:F:375:VAL:HG11	2.57	0.45
2:F:392:ASP:OD1	2:F:422:ARG:CZ	2.65	0.45
1:G:189:LEU:HD23	1:G:421:ALA:CB	2.47	0.45
1:G:242:LEU:HD22	1:G:250:ALA:O	2.17	0.45
1:G:257:VAL:HG11	2:H:407:TRP:CE2	2.51	0.45
1:G:360:PRO:O	1:G:369:ARG:C	2.54	0.45
2:H:12:ALA:HB2	5:H:500:GTP:C8	2.52	0.45
2:H:84:ARG:HE	2:H:84:ARG:HB3	1.51	0.45
2:H:229:ARG:NH1	2:H:229:ARG:HG2	2.31	0.45
2:H:344:VAL:CG1	2:H:345:ASP:N	2.78	0.45
1:A:4:ILE:HD12	1:A:239:THR:HG21	1.98	0.44
1:A:194:LEU:C	1:A:196:GLU:N	2.70	0.44
1:A:280:SER:OG	1:A:281:GLN:N	2.49	0.44
2:B:12:ALA:HB2	5:B:500:GTP:C8	2.53	0.44
2:B:241:SER:C	2:B:244:PHE:HB3	2.36	0.44
1:C:141:LEU:N	1:C:141:LEU:HD12	2.33	0.44
1:C:280:SER:OG	1:C:281:GLN:N	2.49	0.44
1:C:288:VAL:N	1:C:289:PRO:CD	2.79	0.44
2:D:12:ALA:HB2	5:D:500:GTP:C8	2.52	0.44
2:D:204:VAL:O	2:D:204:VAL:HG12	2.17	0.44
2:D:234:ILE:C	2:D:234:ILE:CD1	2.85	0.44
1:E:4:ILE:HD12	1:E:239:THR:HG21	1.98	0.44
1:E:82:PRO:C	1:E:84:GLY:H	2.20	0.44
1:E:167:ASN:HD21	1:E:252:LEU:HD22	1.82	0.44
1:E:360:PRO:O	1:E:369:ARG:C	2.54	0.44
2:F:2:ARG:HH21	1:G:96:GLN:HE22	1.62	0.44
2:F:12:ALA:HB2	5:F:500:GTP:C8	2.52	0.44
1:G:23:VAL:O	1:G:25:SER:N	2.50	0.44
1:G:313:LEU:O	1:G:347:ILE:HD12	2.16	0.44
3:I:106:TYR:HA	3:I:107:PRO:HD2	1.80	0.44
1:A:141:LEU:N	1:A:141:LEU:HD12	2.32	0.44
2:B:49:PHE:HE1	2:B:61:HIS:CE1	2.34	0.44
2:B:121:ARG:HG2	2:B:121:ARG:HH11	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:204:VAL:O	2:B:204:VAL:HG12	2.17	0.44
1:C:82:PRO:C	1:C:84:GLY:H	2.20	0.44
2:D:62:VAL:CG1	2:D:91:GLN:NE2	2.80	0.44
2:D:255:PHE:O	2:D:259:LEU:N	2.50	0.44
2:D:271:THR:O	2:D:376:CYS:HA	2.17	0.44
2:D:274:PRO:HB2	2:D:371:VAL:HG21	1.98	0.44
1:E:250:ALA:HB1	1:E:254:LYS:CB	2.43	0.44
1:E:288:VAL:N	1:E:289:PRO:HD2	2.32	0.44
2:F:30:ILE:O	2:F:31:GLN:O	2.35	0.44
2:F:153:LEU:O	2:F:157:LEU:HG	2.18	0.44
1:G:102:ASN:ND2	1:G:104:ALA:HB3	2.31	0.44
1:G:106:GLY:O	1:G:149:MET:HB2	2.16	0.44
1:G:167:ASN:HD21	1:G:252:LEU:HD22	1.82	0.44
1:G:288:VAL:N	1:G:289:PRO:CD	2.79	0.44
2:H:9:VAL:HG21	2:H:149:PHE:HD1	1.80	0.44
2:H:62:VAL:CG2	2:H:88:HIS:CE1	2.87	0.44
2:H:153:LEU:O	2:H:157:LEU:HG	2.18	0.44
2:H:182:VAL:O	2:H:184:PRO:CD	2.65	0.44
2:H:234:ILE:C	2:H:234:ILE:CD1	2.86	0.44
1:A:102:ASN:OD1	1:A:408:TYR:CZ	2.70	0.44
1:A:250:ALA:HB1	1:A:254:LYS:CB	2.43	0.44
1:A:282:GLN:O	1:A:282:GLN:CG	2.65	0.44
2:B:172:TYR:HA	2:B:173:PRO:HD3	1.93	0.44
2:B:182:VAL:O	2:B:184:PRO:CD	2.65	0.44
2:B:234:ILE:C	2:B:234:ILE:CD1	2.85	0.44
2:B:255:PHE:O	2:B:259:LEU:N	2.50	0.44
2:B:268:PRO:CA	2:B:379:SER:O	2.65	0.44
1:C:67:LEU:HD12	1:C:92:PHE:CE1	2.52	0.44
1:C:94:PHE:N	1:C:94:PHE:CD1	2.84	0.44
1:C:135:PHE:CD1	1:C:135:PHE:N	2.84	0.44
1:C:189:LEU:HD23	1:C:421:ALA:CB	2.47	0.44
1:C:282:GLN:O	1:C:282:GLN:CG	2.65	0.44
1:C:346:TRP:CG	2:D:401:LYS:HD2	2.52	0.44
2:D:152:LEU:HD12	2:D:152:LEU:C	2.38	0.44
2:D:172:TYR:CD1	2:D:173:PRO:N	2.80	0.44
2:D:175:PRO:CG	2:D:304:LYS:HG2	2.47	0.44
2:D:182:VAL:O	2:D:184:PRO:CD	2.65	0.44
1:E:52:TYR:HE2	1:E:240:THR:HB	1.82	0.44
1:E:273:ALA:CB	1:E:274:PRO:CD	2.93	0.44
1:E:288:VAL:N	1:E:289:PRO:CD	2.80	0.44
2:F:149:PHE:O	2:F:150:THR:C	2.56	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:204:VAL:O	2:F:204:VAL:HG12	2.17	0.44
2:F:241:SER:C	2:F:244:PHE:HB3	2.36	0.44
2:F:408:TYR:CG	2:F:418:PHE:HZ	2.34	0.44
1:G:260:VAL:HG23	2:H:406:HIS:HE1	1.79	0.44
1:G:287:THR:O	1:G:288:VAL:CG2	2.58	0.44
2:H:7:ILE:HG13	2:H:137:VAL:HG22	1.97	0.44
2:H:152:LEU:HD12	2:H:152:LEU:C	2.38	0.44
3:I:48:VAL:O	3:I:48:VAL:HG13	2.16	0.44
1:A:167:ASN:HA	1:A:200:GLU:O	2.17	0.44
1:C:102:ASN:OD1	1:C:408:TYR:CZ	2.70	0.44
1:C:194:LEU:C	1:C:196:GLU:N	2.70	0.44
2:D:272:TYR:CE2	2:D:274:PRO:HD2	2.53	0.44
1:E:67:LEU:HD12	1:E:92:PHE:CE1	2.53	0.44
1:E:313:LEU:O	1:E:347:ILE:HD12	2.16	0.44
2:F:7:ILE:HG13	2:F:137:VAL:HG22	1.97	0.44
2:F:296:PHE:HZ	2:F:351:PHE:HZ	1.66	0.44
2:F:312:TYR:N	2:F:341:ILE:HG21	2.13	0.44
1:G:409:THR:O	1:G:412:GLY:N	2.48	0.44
2:H:121:ARG:HG2	2:H:121:ARG:NH1	2.33	0.44
2:H:362:VAL:HG13	2:H:368:LEU:CG	2.47	0.44
3:I:40:TYR:OH	3:I:72:LYS:HG2	2.18	0.44
1:A:67:LEU:HD12	1:A:92:PHE:CE1	2.52	0.44
1:A:212:ILE:O	1:A:212:ILE:HG22	2.18	0.44
1:A:295:MET:SD	1:A:375:ALA:HB3	2.58	0.44
2:B:152:LEU:HD12	2:B:152:LEU:C	2.38	0.44
2:B:154:MET:CE	2:B:166:LYS:HB3	2.48	0.44
2:B:296:PHE:HZ	2:B:351:PHE:HZ	1.66	0.44
2:B:363:VAL:CG1	2:B:364:PRO:HD2	2.48	0.44
1:C:4:ILE:HD12	1:C:239:THR:HG21	1.98	0.44
1:C:295:MET:SD	1:C:375:ALA:HB3	2.58	0.44
2:D:7:ILE:HD11	2:D:137:VAL:CG2	2.44	0.44
2:D:7:ILE:HG13	2:D:137:VAL:HG22	1.97	0.44
2:D:121:ARG:HG2	2:D:121:ARG:HH11	1.83	0.44
2:F:217:LEU:HD13	2:F:277:SER:N	2.32	0.44
2:F:362:VAL:HG13	2:F:368:LEU:CG	2.48	0.44
1:G:52:TYR:HE2	1:G:240:THR:HB	1.83	0.44
1:G:295:MET:SD	1:G:375:ALA:HB3	2.57	0.44
1:A:14:ASN:O	1:A:17:GLY:N	2.50	0.44
2:B:7:ILE:HD11	2:B:137:VAL:CG2	2.44	0.44
2:B:64:ARG:HD2	2:B:125:LEU:HD22	1.99	0.44
2:B:272:TYR:CE2	2:B:274:PRO:HD2	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:14:ASN:O	1:C:17:GLY:N	2.51	0.44
1:C:161:TYR:C	1:C:163:ASP:N	2.71	0.44
1:C:168:THR:N	1:C:200:GLU:O	2.44	0.44
1:C:360:PRO:HG2	1:C:371:LEU:CB	2.38	0.44
2:D:229:ARG:NH1	2:D:229:ARG:HG2	2.31	0.44
2:D:362:VAL:HG13	2:D:368:LEU:CG	2.48	0.44
1:E:12:CYS:HB2	4:E:1438:GSP:C8	2.52	0.44
1:E:295:MET:SD	1:E:375:ALA:HB3	2.58	0.44
2:F:218:ASP:C	2:F:219:ILE:HG12	2.37	0.44
2:F:276:ILE:CG2	2:F:369:ALA:CB	2.91	0.44
2:F:303:VAL:O	2:F:303:VAL:CG1	2.65	0.44
1:G:67:LEU:HD12	1:G:92:PHE:CE1	2.52	0.44
2:H:241:SER:C	2:H:244:PHE:HB3	2.36	0.44
2:H:296:PHE:HZ	2:H:351:PHE:HZ	1.66	0.44
3:I:16:THR:O	3:I:17:SER:HB3	2.18	0.44
1:A:288:VAL:N	1:A:289:PRO:CD	2.79	0.44
2:B:4:CYS:SG	2:B:252:LEU:CD1	3.02	0.44
1:C:212:ILE:O	1:C:212:ILE:HG22	2.18	0.44
1:C:248:LEU:HD21	2:D:179:THR:HG21	1.97	0.44
1:C:307:PRO:C	1:C:309:HIS:N	2.71	0.44
2:D:132:LEU:H	2:D:132:LEU:CD2	2.23	0.44
2:D:252:LEU:O	2:D:253:THR:C	2.56	0.44
2:D:296:PHE:HZ	2:D:351:PHE:HZ	1.66	0.44
2:D:343:PHE:CE1	2:D:351:PHE:HE2	2.36	0.44
1:E:14:ASN:O	1:E:17:GLY:N	2.51	0.44
1:E:167:ASN:HA	1:E:200:GLU:O	2.17	0.44
1:E:243:ARG:HH21	1:E:252:LEU:N	2.12	0.44
2:F:64:ARG:HD2	2:F:125:LEU:HD22	1.99	0.44
2:F:84:ARG:HE	2:F:84:ARG:HB3	1.51	0.44
2:F:121:ARG:HH11	2:F:121:ARG:HG2	1.82	0.44
2:F:121:ARG:HG2	2:F:121:ARG:NH1	2.33	0.44
2:F:272:TYR:CE2	2:F:274:PRO:HD2	2.53	0.44
2:F:276:ILE:O	2:F:369:ALA:CA	2.66	0.44
2:F:363:VAL:CG1	2:F:364:PRO:HD2	2.48	0.44
1:G:2:ARG:HD3	2:H:98:ASP:OD2	2.18	0.44
2:H:5:ILE:CG2	2:H:135:PHE:CB	2.95	0.44
2:H:64:ARG:HD2	2:H:125:LEU:HD22	1.99	0.44
2:H:121:ARG:HG2	2:H:121:ARG:HH11	1.83	0.44
2:H:204:VAL:CG1	2:H:209:ILE:HD11	2.42	0.44
2:H:217:LEU:HD13	2:H:277:SER:N	2.33	0.44
2:H:272:TYR:CE2	2:H:274:PRO:HD2	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:76:LYS:HD3	3:I:77:VAL:H	1.82	0.44
3:I:104:GLN:HG3	3:I:105:TYR:N	2.33	0.44
2:B:153:LEU:O	2:B:157:LEU:HG	2.18	0.44
1:C:161:TYR:O	1:C:163:ASP:N	2.51	0.44
1:C:168:THR:CG2	1:C:201:THR:HG23	2.48	0.44
2:D:5:ILE:CG2	2:D:135:PHE:CB	2.96	0.44
2:D:121:ARG:HG2	2:D:121:ARG:NH1	2.33	0.44
2:D:153:LEU:O	2:D:157:LEU:HG	2.18	0.44
2:D:218:ASP:C	2:D:219:ILE:HG12	2.37	0.44
2:D:268:PRO:CA	2:D:379:SER:O	2.65	0.44
2:D:344:VAL:CG1	2:D:345:ASP:N	2.78	0.44
1:E:102:ASN:OD1	1:E:408:TYR:CZ	2.70	0.44
1:E:161:TYR:O	1:E:163:ASP:N	2.51	0.44
1:E:282:GLN:O	1:E:282:GLN:CG	2.65	0.44
1:E:288:VAL:C	1:E:290:GLU:N	2.70	0.44
2:F:377:MET:HG3	2:F:377:MET:O	2.18	0.44
2:F:402:ARG:O	2:F:405:VAL:N	2.49	0.44
1:G:14:ASN:O	1:G:17:GLY:N	2.50	0.44
1:G:161:TYR:O	1:G:163:ASP:N	2.51	0.44
1:G:253:ARG:HD3	2:H:407:TRP:HH2	1.82	0.44
1:G:288:VAL:N	1:G:289:PRO:HD2	2.32	0.44
1:G:307:PRO:C	1:G:309:HIS:N	2.71	0.44
2:H:23:LEU:O	2:H:26:LEU:HB3	2.17	0.44
2:H:377:MET:HG3	2:H:377:MET:O	2.18	0.44
2:H:402:ARG:O	2:H:405:VAL:N	2.49	0.44
2:H:408:TYR:CG	2:H:418:PHE:HZ	2.34	0.44
3:I:43:ILE:HG22	3:I:44:PRO:N	2.33	0.44
1:A:7:ILE:N	1:A:136:GLN:O	2.51	0.44
1:A:147:SER:HB2	1:A:190:SER:CB	2.41	0.44
1:A:161:TYR:O	1:A:163:ASP:N	2.51	0.44
2:B:209:ILE:CD1	2:B:231:ILE:HD11	2.47	0.44
2:B:218:ASP:C	2:B:219:ILE:HG12	2.37	0.44
2:B:346:TRP:HB3	1:C:401:ARG:HG3	1.98	0.44
2:B:362:VAL:HG13	2:B:368:LEU:CG	2.48	0.44
2:B:377:MET:HG3	2:B:377:MET:O	2.18	0.44
1:C:7:ILE:N	1:C:136:GLN:O	2.51	0.44
1:C:12:CYS:HB2	4:C:1438:GSP:C8	2.52	0.44
2:D:23:LEU:O	2:D:26:LEU:HB3	2.17	0.44
2:D:209:ILE:CD1	2:D:231:ILE:HD11	2.47	0.44
2:D:303:VAL:O	2:D:303:VAL:CG1	2.64	0.44
1:E:7:ILE:N	1:E:136:GLN:O	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:141:LEU:N	1:E:141:LEU:HD12	2.33	0.44
2:F:5:ILE:CG2	2:F:135:PHE:CB	2.95	0.44
2:F:8:HIS:HA	2:F:138:PHE:HB2	2.00	0.44
2:F:209:ILE:CD1	2:F:231:ILE:HD11	2.47	0.44
2:F:409:VAL:C	2:F:411:GLU:N	2.71	0.44
1:G:102:ASN:OD1	1:G:408:TYR:CZ	2.70	0.44
1:G:141:LEU:N	1:G:141:LEU:HD12	2.33	0.44
1:G:182:VAL:O	1:G:183:GLU:C	2.56	0.44
1:G:230:LEU:HD21	1:G:302:MET:HE2	1.99	0.44
2:H:30:ILE:O	2:H:31:GLN:O	2.35	0.44
2:H:105:ARG:O	2:H:110:ILE:CG2	2.64	0.44
2:H:276:ILE:O	2:H:369:ALA:CA	2.66	0.44
2:H:303:VAL:O	2:H:303:VAL:CG1	2.65	0.44
2:H:343:PHE:CE1	2:H:351:PHE:HE2	2.36	0.44
1:A:239:THR:O	1:A:240:THR:C	2.56	0.43
1:A:307:PRO:C	1:A:309:HIS:N	2.71	0.43
1:A:409:THR:O	1:A:412:GLY:N	2.48	0.43
2:B:149:PHE:O	2:B:150:THR:C	2.56	0.43
2:B:303:VAL:O	2:B:303:VAL:CG1	2.64	0.43
1:C:167:ASN:HA	1:C:200:GLU:O	2.17	0.43
2:D:241:SER:C	2:D:244:PHE:HB3	2.36	0.43
1:E:6:HIS:HB3	1:E:65:ALA:CB	2.48	0.43
1:E:11:GLN:O	1:E:15:GLN:N	2.41	0.43
1:E:168:THR:CG2	1:E:201:THR:HG23	2.48	0.43
2:F:13:GLY:C	2:F:16:ILE:HG22	2.38	0.43
2:F:152:LEU:HD12	2:F:152:LEU:C	2.38	0.43
2:F:310:GLY:HA3	2:F:383:ALA:CA	2.48	0.43
2:F:390:ARG:HH11	2:F:390:ARG:HG3	1.83	0.43
1:G:7:ILE:N	1:G:136:GLN:O	2.51	0.43
1:G:243:ARG:HH21	1:G:252:LEU:N	2.12	0.43
1:G:254:LYS:HA	1:G:257:VAL:HG12	1.99	0.43
1:G:258:ASN:HD21	1:G:352:LYS:HE2	1.69	0.43
2:H:8:HIS:HA	2:H:138:PHE:HB2	1.99	0.43
2:H:154:MET:CE	2:H:166:LYS:HB3	2.48	0.43
2:H:230:LEU:O	2:H:231:ILE:C	2.57	0.43
2:H:390:ARG:HH11	2:H:390:ARG:HG3	1.83	0.43
2:H:436:GLY:C	2:H:438:ASP:N	2.72	0.43
3:I:30:TYR:CD2	3:I:30:TYR:C	2.87	0.43
2:B:23:LEU:O	2:B:26:LEU:HB3	2.17	0.43
1:C:182:VAL:O	1:C:183:GLU:C	2.56	0.43
2:D:154:MET:CE	2:D:166:LYS:HB3	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:402:ARG:O	2:D:405:VAL:N	2.49	0.43
1:E:182:VAL:O	1:E:183:GLU:C	2.56	0.43
2:F:122:ILE:CD1	2:F:157:LEU:HD21	2.35	0.43
2:F:154:MET:CE	2:F:166:LYS:HB3	2.48	0.43
1:G:6:HIS:HB3	1:G:65:ALA:CB	2.48	0.43
1:G:105:LYS:HG2	1:G:110:GLU:CG	2.48	0.43
1:G:282:GLN:O	1:G:282:GLN:CG	2.65	0.43
2:H:209:ILE:CD1	2:H:231:ILE:HD11	2.47	0.43
2:H:310:GLY:HA3	2:H:383:ALA:CA	2.49	0.43
2:H:363:VAL:CG1	2:H:364:PRO:HD2	2.48	0.43
3:I:12:ILE:HA	3:I:15:VAL:HG22	1.99	0.43
1:A:182:VAL:O	1:A:183:GLU:C	2.56	0.43
2:B:121:ARG:HG2	2:B:121:ARG:NH1	2.33	0.43
2:B:217:LEU:HD13	2:B:277:SER:N	2.33	0.43
2:B:304:LYS:HG3	2:B:304:LYS:O	2.18	0.43
2:B:343:PHE:CE1	2:B:351:PHE:HE2	2.36	0.43
1:C:167:ASN:HD21	1:C:252:LEU:HD22	1.82	0.43
1:C:239:THR:O	1:C:240:THR:C	2.56	0.43
1:C:250:ALA:HB1	1:C:254:LYS:CB	2.44	0.43
2:D:13:GLY:C	2:D:16:ILE:HG22	2.38	0.43
2:D:64:ARG:HD2	2:D:125:LEU:HD22	1.99	0.43
2:D:154:MET:HE3	2:D:166:LYS:HB3	2.00	0.43
2:D:377:MET:HG3	2:D:377:MET:O	2.18	0.43
1:E:409:THR:O	1:E:412:GLY:N	2.48	0.43
2:F:230:LEU:O	2:F:231:ILE:C	2.57	0.43
1:G:154:ILE:HG22	1:G:166:MET:HE1	2.00	0.43
1:G:167:ASN:HA	1:G:200:GLU:O	2.17	0.43
1:G:239:THR:O	1:G:240:THR:C	2.56	0.43
1:G:248:LEU:HD21	2:H:179:THR:HG22	1.92	0.43
1:G:273:ALA:CB	1:G:274:PRO:CD	2.93	0.43
1:G:282:GLN:HB3	1:G:282:GLN:HE21	1.50	0.43
2:H:218:ASP:C	2:H:219:ILE:HG12	2.37	0.43
2:H:234:ILE:HB	2:H:302:MET:HE1	2.00	0.43
1:A:70:LEU:HB2	1:A:99:ALA:CB	2.49	0.43
1:A:105:LYS:HG2	1:A:110:GLU:CG	2.48	0.43
1:A:288:VAL:C	1:A:290:GLU:N	2.70	0.43
2:B:8:HIS:HA	2:B:138:PHE:HB2	1.99	0.43
2:B:103:TYR:O	2:B:104:ALA:C	2.57	0.43
2:B:175:PRO:CG	2:B:304:LYS:HG2	2.47	0.43
2:B:292:THR:O	2:B:295:CYS:HB2	2.18	0.43
1:C:24:ILE:CG2	1:C:25:SER:N	2.80	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:8:HIS:HA	2:D:138:PHE:HB2	1.99	0.43
1:E:72:PRO:HG2	1:E:73:GLY:H	1.83	0.43
1:E:307:PRO:C	1:E:309:HIS:N	2.71	0.43
2:F:23:LEU:O	2:F:26:LEU:HB3	2.17	0.43
2:F:71:GLU:HA	2:F:72:PRO:HD3	1.89	0.43
1:G:168:THR:CG2	1:G:201:THR:HG23	2.48	0.43
1:G:280:SER:OG	1:G:281:GLN:N	2.49	0.43
2:H:304:LYS:HG3	2:H:304:LYS:O	2.18	0.43
1:A:52:TYR:HE2	1:A:240:THR:HB	1.83	0.43
1:A:98:GLY:O	1:A:100:GLY:N	2.49	0.43
1:A:167:ASN:HD21	1:A:252:LEU:HD22	1.82	0.43
1:A:230:LEU:HD21	1:A:302:MET:HE2	2.01	0.43
2:B:8:HIS:CD2	2:B:138:PHE:CD2	3.07	0.43
2:B:13:GLY:C	2:B:16:ILE:HG22	2.38	0.43
2:B:252:LEU:O	2:B:253:THR:C	2.56	0.43
2:B:310:GLY:HA3	2:B:383:ALA:CA	2.49	0.43
2:B:436:GLY:C	2:B:438:ASP:N	2.72	0.43
1:C:409:THR:O	1:C:412:GLY:N	2.48	0.43
2:D:328:VAL:O	2:D:330:ALA:N	2.39	0.43
2:D:436:GLY:C	2:D:438:ASP:N	2.72	0.43
1:E:12:CYS:C	1:E:14:ASN:N	2.71	0.43
1:E:243:ARG:N	1:E:243:ARG:HD3	2.26	0.43
2:H:122:ILE:CD1	2:H:157:LEU:HD21	2.35	0.43
2:H:425:MET:O	2:H:428:LEU:N	2.45	0.43
1:A:12:CYS:HB2	4:A:1438:GSP:C8	2.53	0.43
1:A:103:TRP:HB2	1:A:186:ASN:HA	2.01	0.43
1:A:168:THR:CG2	1:A:201:THR:HG23	2.48	0.43
1:A:299:LYS:H	1:A:299:LYS:CD	2.07	0.43
2:B:5:ILE:HG22	2:B:6:SER:H	1.78	0.43
2:B:390:ARG:HH11	2:B:390:ARG:HG3	1.83	0.43
1:C:383:ALA:C	1:C:385:GLN:N	2.72	0.43
2:D:100:ALA:O	2:D:102:ASN:N	2.49	0.43
2:D:378:LEU:HD12	2:D:378:LEU:O	2.19	0.43
2:D:390:ARG:HG3	2:D:390:ARG:HH11	1.83	0.43
1:E:102:ASN:ND2	1:E:408:TYR:HA	2.20	0.43
1:E:239:THR:O	1:E:240:THR:C	2.56	0.43
1:E:269:MET:HE1	1:E:381:SER:OG	2.19	0.43
1:E:280:SER:OG	1:E:281:GLN:N	2.49	0.43
2:F:56:THR:CG2	2:F:62:VAL:CB	2.95	0.43
1:G:238:VAL:HB	1:G:239:THR:H	1.65	0.43
1:G:288:VAL:C	1:G:290:GLU:N	2.70	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:7:ILE:HD11	2:H:137:VAL:CG2	2.44	0.43
2:H:13:GLY:C	2:H:16:ILE:HG22	2.38	0.43
2:H:292:THR:O	2:H:295:CYS:HB2	2.18	0.43
2:H:378:LEU:HD12	2:H:378:LEU:O	2.19	0.43
2:H:384:ILE:C	2:H:386:GLU:N	2.72	0.43
2:H:409:VAL:C	2:H:411:GLU:N	2.71	0.43
3:I:64:VAL:O	3:I:68:VAL:HG13	2.18	0.43
1:A:161:TYR:N	1:A:161:TYR:CD1	2.86	0.43
1:A:383:ALA:C	1:A:385:GLN:N	2.72	0.43
2:B:251:ASP:CA	2:B:254:GLU:HG3	2.48	0.43
2:B:262:TYR:HB3	2:B:263:PRO:HD2	2.00	0.43
2:B:378:LEU:HD12	2:B:378:LEU:O	2.19	0.43
1:C:52:TYR:HE2	1:C:240:THR:HB	1.83	0.43
1:C:105:LYS:HG2	1:C:110:GLU:CG	2.48	0.43
1:C:161:TYR:N	1:C:161:TYR:CD1	2.86	0.43
1:C:230:LEU:HD21	1:C:302:MET:HE2	2.01	0.43
2:D:25:CYS:SG	2:D:26:LEU:N	2.92	0.43
2:D:166:LYS:CE	2:D:199:ASP:OD1	2.62	0.43
2:D:310:GLY:HA3	2:D:383:ALA:CA	2.49	0.43
2:D:363:VAL:CG1	2:D:364:PRO:HD2	2.48	0.43
1:E:103:TRP:HB2	1:E:186:ASN:HA	2.01	0.43
1:E:212:ILE:O	1:E:212:ILE:HG22	2.18	0.43
1:E:301:MET:O	1:E:303:ALA:N	2.51	0.43
2:F:51:THR:CG2	2:F:243:ARG:CB	2.87	0.43
2:F:292:THR:O	2:F:295:CYS:HB2	2.18	0.43
2:F:378:LEU:HD12	2:F:378:LEU:O	2.19	0.43
1:G:70:LEU:HB2	1:G:99:ALA:CB	2.49	0.43
1:G:253:ARG:O	1:G:257:VAL:HG12	2.19	0.43
1:G:253:ARG:HD3	2:H:407:TRP:CH2	2.53	0.43
1:G:269:MET:HE1	1:G:381:SER:OG	2.19	0.43
1:G:301:MET:O	1:G:303:ALA:N	2.51	0.43
2:H:8:HIS:CD2	2:H:138:PHE:CD2	3.07	0.43
2:H:71:GLU:HA	2:H:72:PRO:HD3	1.89	0.43
1:A:259:MET:HE3	1:A:268:PHE:CE2	2.53	0.43
2:B:84:ARG:HE	2:B:84:ARG:HB3	1.51	0.43
2:B:105:ARG:O	2:B:110:ILE:CG2	2.65	0.43
2:B:110:ILE:O	2:B:111:GLY:C	2.57	0.43
2:B:166:LYS:CE	2:B:199:ASP:OD1	2.62	0.43
1:C:26:ASP:C	1:C:28:HIS:H	2.21	0.43
2:D:242:LEU:HD12	2:D:242:LEU:HA	1.87	0.43
1:E:105:LYS:HG2	1:E:110:GLU:CG	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:8:HIS:CD2	2:F:138:PHE:CD2	3.07	0.43
2:F:103:TYR:O	2:F:104:ALA:C	2.57	0.43
2:F:110:ILE:O	2:F:111:GLY:C	2.57	0.43
2:F:304:LYS:HG3	2:F:304:LYS:O	2.19	0.43
1:G:72:PRO:HG2	1:G:73:GLY:H	1.83	0.43
1:G:254:LYS:HA	1:G:257:VAL:CG1	2.49	0.43
2:H:5:ILE:CG1	2:H:6:SER:N	2.82	0.43
2:H:234:ILE:CG2	2:H:302:MET:HE3	2.44	0.43
1:A:24:ILE:CG2	1:A:25:SER:N	2.80	0.43
1:A:118:VAL:O	1:A:122:VAL:HG13	2.19	0.43
2:B:7:ILE:HG13	2:B:137:VAL:HG22	1.97	0.43
1:C:115:VAL:HG21	1:C:152:LEU:HD21	1.99	0.43
1:C:409:THR:C	1:C:411:GLU:H	2.22	0.43
2:D:5:ILE:CG1	2:D:6:SER:N	2.81	0.43
2:D:103:TYR:O	2:D:104:ALA:C	2.57	0.43
2:D:110:ILE:O	2:D:111:GLY:C	2.58	0.43
2:D:262:TYR:HB3	2:D:263:PRO:HD2	2.00	0.43
2:D:280:LYS:O	2:D:282:TYR:N	2.52	0.43
2:D:292:THR:O	2:D:295:CYS:HB2	2.18	0.43
2:D:304:LYS:HG3	2:D:304:LYS:O	2.18	0.43
1:E:68:VAL:HG11	1:E:153:LEU:HD21	2.00	0.43
1:E:70:LEU:HB2	1:E:99:ALA:CB	2.49	0.43
1:E:210:TYR:O	1:E:214:PHE:N	2.52	0.43
2:F:5:ILE:CG1	2:F:6:SER:N	2.82	0.43
2:F:16:ILE:CG2	2:F:17:GLY:N	2.82	0.43
2:F:297:GLU:HA	2:F:298:PRO:HD2	1.87	0.43
1:G:161:TYR:CD1	1:G:161:TYR:N	2.86	0.43
1:G:210:TYR:O	1:G:211:ASP:C	2.57	0.43
1:G:210:TYR:O	1:G:214:PHE:N	2.52	0.43
2:H:110:ILE:O	2:H:111:GLY:C	2.58	0.43
1:A:153:LEU:HD13	1:A:153:LEU:N	2.34	0.43
1:A:210:TYR:O	1:A:211:ASP:C	2.57	0.43
1:A:431:GLU:O	1:A:434:GLN:N	2.48	0.43
2:B:25:CYS:SG	2:B:26:LEU:N	2.92	0.43
2:B:63:PRO:HG3	2:B:87:PHE:CD2	2.54	0.43
2:B:71:GLU:HA	2:B:72:PRO:HD3	1.89	0.43
2:B:276:ILE:O	2:B:369:ALA:CA	2.66	0.43
1:C:68:VAL:HG11	1:C:153:LEU:HD21	2.00	0.43
1:C:70:LEU:HB2	1:C:99:ALA:CB	2.49	0.43
2:D:149:PHE:O	2:D:150:THR:C	2.56	0.43
2:D:238:ILE:O	2:D:242:LEU:CB	2.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:276:ILE:O	2:D:369:ALA:CA	2.66	0.43
1:E:359:PRO:CB	1:E:360:PRO:HD2	2.45	0.43
2:F:104:ALA:HB3	2:F:408:TYR:HD1	1.84	0.43
2:F:252:LEU:O	2:F:253:THR:C	2.56	0.43
2:F:339:ARG:HG2	2:F:339:ARG:NH1	2.34	0.43
1:G:103:TRP:HB2	1:G:186:ASN:HA	2.01	0.43
3:I:22:ARG:HB3	3:I:24:GLU:OE1	2.19	0.43
3:I:92:LEU:O	3:I:96:GLN:HG3	2.19	0.43
1:A:240:THR:HG23	1:A:241:CYS:N	2.33	0.42
1:A:250:ALA:CB	1:A:254:LYS:HE2	2.49	0.42
1:A:306:ASP:HA	1:A:307:PRO:HD3	1.91	0.42
1:A:333:LEU:O	1:A:334:ASN:C	2.58	0.42
1:A:409:THR:C	1:A:411:GLU:H	2.22	0.42
2:B:409:VAL:C	2:B:411:GLU:N	2.71	0.42
1:C:72:PRO:O	1:C:73:GLY:C	2.58	0.42
1:C:288:VAL:C	1:C:290:GLU:N	2.70	0.42
1:C:333:LEU:O	1:C:334:ASN:C	2.58	0.42
1:C:427:ASP:OD1	1:C:427:ASP:C	2.57	0.42
2:D:8:HIS:CD2	2:D:138:PHE:CD2	3.07	0.42
1:E:147:SER:CB	1:E:190:SER:HB3	2.42	0.42
1:E:250:ALA:CB	1:E:254:LYS:HE2	2.49	0.42
1:G:115:VAL:HG21	1:G:152:LEU:HD21	1.98	0.42
1:G:212:ILE:O	1:G:212:ILE:HG22	2.18	0.42
1:G:240:THR:HG23	1:G:241:CYS:N	2.33	0.42
2:H:16:ILE:CG2	2:H:17:GLY:N	2.82	0.42
2:H:115:ILE:CD1	2:H:115:ILE:C	2.87	0.42
2:H:297:GLU:HA	2:H:298:PRO:HD2	1.87	0.42
1:A:187:ALA:O	1:A:188:THR:C	2.57	0.42
2:B:199:ASP:CB	2:B:256:GLN:NE2	2.77	0.42
2:B:231:ILE:C	2:B:233:GLN:N	2.73	0.42
2:B:263:PRO:O	2:B:264:ARG:C	2.56	0.42
1:C:72:PRO:HG2	1:C:73:GLY:H	1.83	0.42
1:C:103:TRP:HB2	1:C:186:ASN:HA	2.01	0.42
1:C:108:TYR:CE1	1:C:413:MET:HE1	2.54	0.42
1:C:192:HIS:NE2	1:C:420:GLU:HG2	2.34	0.42
2:D:4:CYS:SG	2:D:252:LEU:CD1	3.02	0.42
2:D:217:LEU:HD13	2:D:277:SER:N	2.33	0.42
1:E:26:ASP:C	1:E:28:HIS:H	2.21	0.42
1:E:153:LEU:HD13	1:E:153:LEU:N	2.34	0.42
2:F:209:ILE:CD1	2:F:231:ILE:CD1	2.97	0.42
2:F:262:TYR:HB3	2:F:263:PRO:HD2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:339:ARG:NH1	2:F:342:GLN:HG2	2.34	0.42
1:G:153:LEU:HD13	1:G:153:LEU:N	2.34	0.42
1:G:383:ALA:C	1:G:385:GLN:N	2.72	0.42
2:H:103:TYR:O	2:H:104:ALA:C	2.57	0.42
2:H:104:ALA:HB3	2:H:408:TYR:HD1	1.84	0.42
2:H:238:ILE:O	2:H:242:LEU:CB	2.67	0.42
2:H:242:LEU:HD12	2:H:242:LEU:HA	1.87	0.42
3:I:30:TYR:CZ	3:I:50:PHE:HD1	2.37	0.42
1:A:102:ASN:ND2	1:A:408:TYR:HA	2.20	0.42
1:A:185:TYR:HD1	1:A:185:TYR:HA	1.76	0.42
1:A:192:HIS:NE2	1:A:420:GLU:HG2	2.34	0.42
1:A:301:MET:O	1:A:303:ALA:N	2.51	0.42
1:C:118:VAL:O	1:C:122:VAL:HG13	2.19	0.42
1:C:187:ALA:O	1:C:188:THR:C	2.57	0.42
1:C:240:THR:HG23	1:C:241:CYS:N	2.33	0.42
1:C:306:ASP:HA	1:C:307:PRO:HD3	1.92	0.42
2:D:30:ILE:HD11	2:D:61:HIS:CD2	2.54	0.42
2:D:147:SER:HB2	2:D:186:ASN:O	2.19	0.42
1:E:161:TYR:N	1:E:161:TYR:CD1	2.86	0.42
1:E:210:TYR:O	1:E:211:ASP:C	2.57	0.42
1:E:310:GLY:HA3	1:E:436:GLN:NE2	2.29	0.42
1:E:333:LEU:O	1:E:334:ASN:C	2.58	0.42
1:E:409:THR:C	1:E:411:GLU:H	2.22	0.42
2:F:204:VAL:CG1	2:F:209:ILE:HD11	2.42	0.42
1:G:26:ASP:C	1:G:28:HIS:H	2.21	0.42
1:G:147:SER:CB	1:G:190:SER:HB3	2.42	0.42
1:G:254:LYS:CA	1:G:257:VAL:HG12	2.49	0.42
2:H:209:ILE:CD1	2:H:231:ILE:CD1	2.97	0.42
2:H:252:LEU:O	2:H:253:THR:C	2.56	0.42
2:H:363:VAL:HG13	2:H:364:PRO:HD2	2.02	0.42
2:B:209:ILE:CD1	2:B:231:ILE:CD1	2.97	0.42
1:C:2:ARG:NH2	2:D:99:ALA:H	2.17	0.42
1:C:106:GLY:O	1:C:149:MET:CA	2.68	0.42
1:C:210:TYR:O	1:C:214:PHE:N	2.52	0.42
1:C:431:GLU:O	1:C:434:GLN:N	2.48	0.42
2:D:204:VAL:CG1	2:D:209:ILE:HD11	2.42	0.42
2:D:209:ILE:CD1	2:D:231:ILE:CD1	2.97	0.42
2:D:213:CYS:O	2:D:219:ILE:HG13	2.20	0.42
2:D:231:ILE:C	2:D:233:GLN:N	2.73	0.42
1:E:138:THR:O	1:E:139:HIS:HB3	2.19	0.42
1:E:240:THR:HG23	1:E:241:CYS:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:280:LYS:O	2:F:282:TYR:N	2.52	0.42
2:F:363:VAL:HG13	2:F:364:PRO:HD2	2.02	0.42
1:G:68:VAL:HG11	1:G:153:LEU:HD21	2.00	0.42
1:G:118:VAL:O	1:G:122:VAL:HG13	2.19	0.42
1:G:147:SER:HB2	1:G:190:SER:CB	2.41	0.42
1:G:192:HIS:NE2	1:G:420:GLU:HG2	2.34	0.42
2:H:25:CYS:SG	2:H:26:LEU:N	2.92	0.42
2:H:119:LEU:HD11	2:H:156:ARG:HD3	2.02	0.42
2:H:280:LYS:O	2:H:282:TYR:N	2.52	0.42
3:I:77:VAL:HG22	3:I:78:VAL:N	2.35	0.42
1:A:68:VAL:HG11	1:A:153:LEU:HD21	2.00	0.42
1:A:72:PRO:O	1:A:73:GLY:C	2.58	0.42
1:A:106:GLY:O	1:A:149:MET:CA	2.68	0.42
1:A:210:TYR:O	1:A:214:PHE:N	2.52	0.42
2:B:119:LEU:HD11	2:B:156:ARG:HD3	2.01	0.42
2:B:296:PHE:CG	2:B:341:ILE:HD12	2.53	0.42
1:C:147:SER:HB2	1:C:190:SER:CB	2.41	0.42
1:C:301:MET:HE1	1:C:377:PHE:CE2	2.54	0.42
1:C:301:MET:O	1:C:303:ALA:N	2.51	0.42
1:C:325:MET:HE2	1:C:355:VAL:CG2	2.47	0.42
2:D:115:ILE:CD1	2:D:115:ILE:C	2.87	0.42
1:E:147:SER:HB2	1:E:190:SER:CB	2.41	0.42
1:E:273:ALA:HB1	1:E:291:LEU:HG	2.01	0.42
1:E:427:ASP:OD1	1:E:427:ASP:C	2.57	0.42
2:F:115:ILE:CD1	2:F:115:ILE:C	2.88	0.42
2:F:238:ILE:O	2:F:242:LEU:CB	2.67	0.42
1:G:11:GLN:O	1:G:15:GLN:N	2.41	0.42
1:G:12:CYS:C	1:G:14:ASN:N	2.71	0.42
1:G:133:GLN:CG	1:G:165:ILE:HD11	2.49	0.42
1:G:311:ARG:HG2	1:G:311:ARG:NH1	2.34	0.42
1:A:115:VAL:HG21	1:A:152:LEU:HD21	1.98	0.42
2:B:204:VAL:CG1	2:B:209:ILE:HD11	2.42	0.42
2:B:230:LEU:O	2:B:231:ILE:C	2.57	0.42
2:B:363:VAL:HG13	2:B:364:PRO:HD2	2.02	0.42
1:C:12:CYS:C	1:C:14:ASN:N	2.71	0.42
1:C:102:ASN:ND2	1:C:408:TYR:HA	2.20	0.42
1:C:153:LEU:HD13	1:C:153:LEU:N	2.34	0.42
1:C:185:TYR:HD1	1:C:185:TYR:HA	1.76	0.42
1:C:250:ALA:CB	1:C:254:LYS:HE2	2.50	0.42
2:D:11:GLN:NE2	2:D:74:VAL:CG2	2.76	0.42
2:D:15:GLN:NE2	5:D:500:GTP:N7	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:62:VAL:CG1	2:D:88:HIS:ND1	2.71	0.42
2:D:398:MET:HE3	2:D:398:MET:HB2	1.78	0.42
2:D:409:VAL:C	2:D:411:GLU:N	2.71	0.42
1:E:72:PRO:O	1:E:73:GLY:C	2.58	0.42
1:E:118:VAL:O	1:E:122:VAL:HG13	2.19	0.42
1:E:383:ALA:C	1:E:385:GLN:N	2.72	0.42
2:F:119:LEU:HD11	2:F:156:ARG:HD3	2.01	0.42
2:F:175:PRO:HG3	2:F:304:LYS:CB	2.50	0.42
2:F:175:PRO:CG	2:F:304:LYS:HG2	2.47	0.42
1:G:359:PRO:CB	1:G:360:PRO:HD2	2.45	0.42
1:G:409:THR:C	1:G:411:GLU:N	2.73	0.42
1:G:413:MET:CG	1:G:414:ASP:H	2.27	0.42
2:H:149:PHE:O	2:H:150:THR:C	2.56	0.42
2:H:175:PRO:HG3	2:H:304:LYS:CB	2.50	0.42
2:H:175:PRO:CG	2:H:304:LYS:HG2	2.47	0.42
2:H:262:TYR:HB3	2:H:263:PRO:HD2	2.00	0.42
3:I:30:TYR:CD2	3:I:50:PHE:HD1	2.36	0.42
3:I:76:LYS:HG3	3:I:97:TRP:CZ2	2.54	0.42
1:A:26:ASP:C	1:A:28:HIS:H	2.21	0.42
1:A:72:PRO:HG2	1:A:73:GLY:H	1.83	0.42
1:A:171:VAL:HG12	1:A:171:VAL:O	2.20	0.42
1:A:273:ALA:HB1	1:A:291:LEU:HG	2.01	0.42
1:A:409:THR:C	1:A:411:GLU:N	2.73	0.42
1:A:427:ASP:OD1	1:A:427:ASP:C	2.57	0.42
1:A:435:TYR:C	1:A:437:ASP:N	2.72	0.42
2:B:115:ILE:CD1	2:B:115:ILE:C	2.87	0.42
2:B:175:PRO:HG3	2:B:304:LYS:CB	2.50	0.42
2:B:428:LEU:HD12	2:B:428:LEU:HA	1.79	0.42
1:C:2:ARG:NH1	1:C:251:ASP:CG	2.73	0.42
1:C:133:GLN:CG	1:C:165:ILE:HD11	2.49	0.42
1:C:261:PRO:HB2	1:C:262:PHE:CD2	2.54	0.42
1:C:409:THR:C	1:C:411:GLU:N	2.73	0.42
2:D:363:VAL:HG13	2:D:364:PRO:HD2	2.02	0.42
1:E:154:ILE:HG22	1:E:166:MET:HE1	2.01	0.42
1:E:192:HIS:NE2	1:E:420:GLU:HG2	2.34	0.42
1:E:238:VAL:HB	1:E:239:THR:H	1.66	0.42
2:F:13:GLY:HA2	2:F:16:ILE:CG2	2.50	0.42
2:F:100:ALA:O	2:F:102:ASN:N	2.49	0.42
2:F:255:PHE:O	2:F:259:LEU:N	2.50	0.42
1:G:171:VAL:O	1:G:171:VAL:HG12	2.20	0.42
1:G:409:THR:C	1:G:411:GLU:H	2.22	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:4:CYS:SG	2:H:252:LEU:CD1	3.02	0.42
2:H:207:GLU:O	2:H:210:TYR:N	2.51	0.42
1:A:2:ARG:NH1	1:A:251:ASP:CG	2.73	0.42
1:A:6:HIS:HB3	1:A:65:ALA:CB	2.48	0.42
1:A:261:PRO:HB2	1:A:262:PHE:CD2	2.54	0.42
1:A:273:ALA:CB	1:A:274:PRO:CD	2.93	0.42
2:B:104:ALA:HB3	2:B:408:TYR:HD1	1.84	0.42
2:B:147:SER:HB2	2:B:186:ASN:O	2.19	0.42
2:B:238:ILE:O	2:B:242:LEU:CB	2.67	0.42
2:B:280:LYS:O	2:B:282:TYR:N	2.52	0.42
1:C:35:SER:CB	1:C:59:ASN:HA	2.42	0.42
1:C:138:THR:O	1:C:139:HIS:HB3	2.19	0.42
1:C:310:GLY:HA3	1:C:436:GLN:NE2	2.29	0.42
1:C:311:ARG:HG2	1:C:311:ARG:NH1	2.34	0.42
1:C:435:TYR:C	1:C:437:ASP:N	2.72	0.42
2:D:175:PRO:HG3	2:D:304:LYS:CB	2.50	0.42
2:D:343:PHE:HZ	2:D:351:PHE:CZ	2.36	0.42
1:E:133:GLN:CG	1:E:165:ILE:HD11	2.49	0.42
1:E:171:VAL:O	1:E:171:VAL:HG12	2.20	0.42
1:E:413:MET:CG	1:E:414:ASP:H	2.27	0.42
2:F:7:ILE:HD11	2:F:137:VAL:CG2	2.44	0.42
2:F:25:CYS:SG	2:F:26:LEU:N	2.92	0.42
2:F:255:PHE:O	2:F:257:THR:N	2.53	0.42
2:F:425:MET:O	2:F:428:LEU:N	2.45	0.42
1:G:35:SER:CB	1:G:59:ASN:HA	2.42	0.42
1:G:239:THR:CG2	1:G:240:THR:N	2.80	0.42
1:G:273:ALA:HB1	1:G:291:LEU:HG	2.01	0.42
2:H:13:GLY:HA2	2:H:16:ILE:CG2	2.50	0.42
2:H:255:PHE:O	2:H:257:THR:N	2.53	0.42
3:I:111:TYR:CZ	3:I:116:ARG:HG3	2.54	0.42
1:A:138:THR:O	1:A:139:HIS:HB3	2.20	0.42
1:A:199:ASP:C	1:A:265:LEU:HD13	2.40	0.42
2:B:13:GLY:HA2	2:B:16:ILE:CG2	2.50	0.42
2:B:16:ILE:CG2	2:B:17:GLY:N	2.82	0.42
2:B:213:CYS:O	2:B:219:ILE:HG13	2.20	0.42
1:C:199:ASP:C	1:C:265:LEU:HD13	2.40	0.42
1:C:273:ALA:HB1	1:C:291:LEU:HG	2.01	0.42
1:C:343:PHE:CD1	1:C:350:ASN:ND2	2.88	0.42
2:D:13:GLY:HA2	2:D:16:ILE:CG2	2.50	0.42
2:D:16:ILE:CG2	2:D:17:GLY:N	2.82	0.42
2:D:230:LEU:O	2:D:231:ILE:C	2.57	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:409:THR:C	1:E:411:GLU:N	2.73	0.42
2:F:15:GLN:NE2	5:F:500:GTP:N7	2.67	0.42
2:F:95:GLY:C	2:F:97:GLU:H	2.23	0.42
2:F:115:ILE:CG2	2:F:116:ASP:H	2.32	0.42
2:F:147:SER:HB2	2:F:186:ASN:O	2.19	0.42
2:F:234:ILE:C	2:F:234:ILE:CD1	2.86	0.42
2:F:428:LEU:HD12	2:F:428:LEU:HA	1.78	0.42
1:G:82:PRO:HB2	1:G:83:PHE:H	1.55	0.42
1:G:242:LEU:HB3	1:G:250:ALA:O	2.20	0.42
1:G:261:PRO:HB2	1:G:262:PHE:CD2	2.54	0.42
1:G:273:ALA:HB3	1:G:274:PRO:CD	2.29	0.42
2:H:95:GLY:C	2:H:97:GLU:H	2.23	0.42
2:H:166:LYS:HB2	2:H:199:ASP:OD1	2.20	0.42
3:I:12:ILE:CG2	3:I:13:ASN:N	2.82	0.42
3:I:15:VAL:CG2	3:I:16:THR:N	2.82	0.42
1:A:133:GLN:CG	1:A:165:ILE:HD11	2.49	0.42
1:A:311:ARG:HG2	1:A:311:ARG:NH1	2.34	0.42
1:A:333:LEU:HD11	1:A:337:ASN:HD21	1.85	0.42
1:A:343:PHE:CD1	1:A:350:ASN:ND2	2.88	0.42
1:A:399:PHE:O	1:A:401:ARG:N	2.53	0.42
2:B:11:GLN:NE2	2:B:74:VAL:CG2	2.76	0.42
2:B:11:GLN:CG	2:B:74:VAL:HG21	2.50	0.42
2:B:100:ALA:O	2:B:102:ASN:N	2.49	0.42
2:B:115:ILE:CG2	2:B:116:ASP:H	2.33	0.42
2:B:243:ARG:NH2	2:B:252:LEU:HG	2.35	0.42
1:C:171:VAL:O	1:C:171:VAL:HG12	2.20	0.42
2:D:119:LEU:HD11	2:D:156:ARG:HD3	2.02	0.42
2:D:263:PRO:O	2:D:264:ARG:C	2.56	0.42
2:D:328:VAL:C	2:D:330:ALA:N	2.73	0.42
1:E:98:GLY:O	1:E:100:GLY:N	2.49	0.42
1:E:106:GLY:O	1:E:149:MET:CA	2.68	0.42
1:E:242:LEU:HB3	1:E:250:ALA:O	2.20	0.42
1:E:311:ARG:HG2	1:E:311:ARG:NH1	2.34	0.42
2:F:166:LYS:HB2	2:F:199:ASP:OD1	2.20	0.42
2:F:243:ARG:NH2	2:F:252:LEU:HG	2.35	0.42
1:G:333:LEU:HD11	1:G:337:ASN:HD21	1.85	0.42
1:G:427:ASP:OD1	1:G:427:ASP:C	2.57	0.42
2:H:115:ILE:CG2	2:H:116:ASP:H	2.33	0.42
2:H:147:SER:HB2	2:H:186:ASN:O	2.19	0.42
2:H:231:ILE:C	2:H:233:GLN:N	2.73	0.42
2:H:243:ARG:NH2	2:H:252:LEU:HG	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:335:ILE:C	2:H:337:THR:N	2.73	0.42
3:I:30:TYR:CD1	3:I:50:PHE:HA	2.55	0.42
1:A:249:ASN:OD1	2:B:71:GLU:OE1	2.36	0.41
1:A:307:PRO:O	1:A:309:HIS:N	2.53	0.41
2:B:335:ILE:C	2:B:337:THR:N	2.73	0.41
1:C:399:PHE:O	1:C:401:ARG:N	2.53	0.41
2:D:105:ARG:O	2:D:110:ILE:CG2	2.64	0.41
2:D:238:ILE:HD11	2:D:378:LEU:HD23	2.01	0.41
2:D:425:MET:O	2:D:428:LEU:N	2.45	0.41
2:D:428:LEU:HD12	2:D:428:LEU:HA	1.79	0.41
1:E:187:ALA:O	1:E:188:THR:C	2.57	0.41
1:E:343:PHE:CD1	1:E:350:ASN:ND2	2.88	0.41
2:F:105:ARG:O	2:F:110:ILE:CG2	2.64	0.41
2:F:213:CYS:O	2:F:219:ILE:HG13	2.20	0.41
1:G:72:PRO:O	1:G:73:GLY:C	2.58	0.41
1:G:138:THR:O	1:G:139:HIS:HB3	2.20	0.41
1:G:187:ALA:O	1:G:188:THR:C	2.57	0.41
1:G:310:GLY:HA3	1:G:436:GLN:NE2	2.29	0.41
1:G:399:PHE:O	1:G:401:ARG:N	2.53	0.41
1:G:435:TYR:C	1:G:437:ASP:N	2.72	0.41
2:H:15:GLN:NE2	5:H:500:GTP:N7	2.67	0.41
2:H:362:VAL:HG13	2:H:368:LEU:CB	2.50	0.41
3:I:81:GLU:HG3	3:I:82:ARG:N	2.35	0.41
1:A:175:PRO:O	1:A:177:VAL:N	2.53	0.41
2:B:95:GLY:C	2:B:97:GLU:H	2.23	0.41
1:C:307:PRO:O	1:C:309:HIS:N	2.53	0.41
2:D:104:ALA:HB3	2:D:408:TYR:HD1	1.84	0.41
1:E:199:ASP:C	1:E:265:LEU:HD13	2.41	0.41
1:E:261:PRO:HB2	1:E:262:PHE:CD2	2.54	0.41
1:E:421:ALA:O	1:E:422:GLU:C	2.58	0.41
2:F:292:THR:HG21	2:F:331:ALA:HB1	2.02	0.41
2:F:313:MET:O	2:F:314:ALA:CB	2.68	0.41
1:G:2:ARG:NH1	1:G:251:ASP:CG	2.73	0.41
1:G:259:MET:HE3	1:G:268:PHE:CE2	2.55	0.41
1:G:343:PHE:CD1	1:G:350:ASN:ND2	2.88	0.41
2:H:242:LEU:HD11	2:H:250:VAL:HG23	2.02	0.41
2:H:328:VAL:C	2:H:330:ALA:N	2.73	0.41
1:A:147:SER:CB	1:A:190:SER:HB3	2.42	0.41
1:A:239:THR:CG2	1:A:240:THR:N	2.81	0.41
1:A:310:GLY:HA3	1:A:436:GLN:NE2	2.29	0.41
2:B:292:THR:HG21	2:B:331:ALA:HB1	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:328:VAL:C	2:B:330:ALA:N	2.73	0.41
1:C:254:LYS:HZ3	2:D:101:ASN:ND2	2.07	0.41
1:C:257:VAL:CG1	2:D:407:TRP:CD1	2.98	0.41
1:C:352:LYS:HG2	2:D:181:VAL:HG23	2.02	0.41
1:E:75:MET:HE1	1:E:94:PHE:HB3	2.02	0.41
1:E:114:LEU:HD23	1:E:149:MET:HE2	2.01	0.41
2:F:231:ILE:C	2:F:233:GLN:N	2.73	0.41
2:F:305:CYS:SG	2:F:383:ALA:HB1	2.60	0.41
2:F:335:ILE:C	2:F:337:THR:N	2.73	0.41
1:G:118:VAL:O	1:G:121:VAL:N	2.54	0.41
1:G:254:LYS:HE3	1:G:352:LYS:HZ2	1.83	0.41
1:G:348:PRO:HG3	2:H:397:LEU:HB2	2.01	0.41
1:G:421:ALA:O	1:G:422:GLU:C	2.58	0.41
2:H:11:GLN:NE2	2:H:74:VAL:CG2	2.76	0.41
2:H:213:CYS:O	2:H:219:ILE:HG13	2.20	0.41
2:H:292:THR:HG21	2:H:331:ALA:HB1	2.03	0.41
3:I:68:VAL:CG2	3:I:69:PHE:N	2.83	0.41
1:A:238:VAL:HB	1:A:239:THR:H	1.65	0.41
1:A:413:MET:CG	1:A:414:ASP:H	2.26	0.41
1:A:417:GLU:O	1:A:420:GLU:HB3	2.21	0.41
1:C:6:HIS:HB3	1:C:65:ALA:CB	2.48	0.41
1:C:242:LEU:HB3	1:C:250:ALA:O	2.20	0.41
1:C:333:LEU:HD11	1:C:337:ASN:HD21	1.85	0.41
2:D:95:GLY:C	2:D:97:GLU:H	2.23	0.41
1:E:82:PRO:HB2	1:E:83:PHE:H	1.56	0.41
1:E:182:VAL:O	1:E:184:PRO:N	2.54	0.41
1:E:399:PHE:O	1:E:401:ARG:N	2.53	0.41
2:F:238:ILE:HD11	2:F:378:LEU:HD23	2.01	0.41
2:F:401:LYS:C	2:F:403:ALA:H	2.24	0.41
1:G:48:ARG:HG2	1:G:243:ARG:HB3	2.01	0.41
1:G:102:ASN:ND2	1:G:408:TYR:HA	2.20	0.41
1:G:199:ASP:C	1:G:265:LEU:HD13	2.41	0.41
2:H:305:CYS:SG	2:H:383:ALA:HB1	2.60	0.41
3:I:59:ILE:CG2	3:I:60:ASN:N	2.82	0.41
1:A:168:THR:HB	1:A:198:THR:HG21	2.03	0.41
1:A:359:PRO:CB	1:A:360:PRO:HD2	2.45	0.41
2:B:15:GLN:NE2	5:B:500:GTP:N7	2.67	0.41
2:B:434:GLU:C	2:B:436:GLY:N	2.74	0.41
1:C:25:SER:O	1:C:28:HIS:N	2.53	0.41
1:C:175:PRO:O	1:C:177:VAL:N	2.53	0.41
1:C:359:PRO:CB	1:C:360:PRO:HD2	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:380:ASN:C	1:C:380:ASN:HD22	2.24	0.41
2:D:152:LEU:C	2:D:152:LEU:CD1	2.89	0.41
2:D:242:LEU:HD11	2:D:250:VAL:HG23	2.02	0.41
1:E:175:PRO:O	1:E:177:VAL:N	2.53	0.41
1:E:307:PRO:O	1:E:309:HIS:N	2.53	0.41
2:F:263:PRO:O	2:F:264:ARG:C	2.56	0.41
1:G:182:VAL:O	1:G:184:PRO:N	2.54	0.41
2:H:343:PHE:HZ	2:H:351:PHE:CZ	2.36	0.41
3:I:50:PHE:CD2	3:I:120:ARG:O	2.74	0.41
1:A:243:ARG:HD3	1:A:243:ARG:HA	1.62	0.41
2:B:172:TYR:CD1	2:B:173:PRO:N	2.80	0.41
2:B:255:PHE:O	2:B:257:THR:N	2.53	0.41
2:B:305:CYS:SG	2:B:383:ALA:HB1	2.60	0.41
2:B:362:VAL:HG13	2:B:368:LEU:CB	2.50	0.41
2:B:384:ILE:C	2:B:386:GLU:N	2.72	0.41
2:D:11:GLN:CG	2:D:74:VAL:HG21	2.50	0.41
2:D:243:ARG:NH2	2:D:252:LEU:HG	2.35	0.41
2:D:255:PHE:O	2:D:257:THR:N	2.53	0.41
2:D:292:THR:HG21	2:D:331:ALA:HB1	2.02	0.41
1:E:48:ARG:HG2	1:E:243:ARG:HB3	2.01	0.41
1:E:105:LYS:HG2	1:E:110:GLU:HG3	2.03	0.41
1:E:204:ILE:HD13	1:E:231:VAL:CG2	2.45	0.41
2:F:11:GLN:CG	2:F:74:VAL:HG21	2.50	0.41
2:F:287:SER:O	2:F:291:ILE:HG12	2.21	0.41
2:F:332:ILE:CD1	2:F:353:VAL:HG22	2.51	0.41
1:G:11:GLN:HB3	4:G:1438:GSP:O1A	2.21	0.41
1:G:333:LEU:O	1:G:334:ASN:C	2.58	0.41
1:A:12:CYS:C	1:A:14:ASN:N	2.71	0.41
1:A:119:LEU:O	1:A:122:VAL:HG22	2.21	0.41
1:A:380:ASN:C	1:A:380:ASN:HD22	2.24	0.41
2:B:238:ILE:HD11	2:B:378:LEU:HD23	2.01	0.41
1:C:114:LEU:HD23	1:C:149:MET:HE1	2.02	0.41
1:C:147:SER:CB	1:C:190:SER:HB3	2.42	0.41
1:C:168:THR:HB	1:C:198:THR:HG21	2.03	0.41
1:C:422:GLU:O	1:C:426:ASN:CB	2.67	0.41
2:D:81:GLY:O	2:D:82:THR:C	2.59	0.41
2:D:296:PHE:CG	2:D:341:ILE:HD12	2.53	0.41
2:D:434:GLU:C	2:D:436:GLY:N	2.74	0.41
1:E:11:GLN:HB3	4:E:1438:GSP:O1A	2.21	0.41
1:E:185:TYR:HD1	1:E:185:TYR:HA	1.76	0.41
2:F:207:GLU:O	2:F:210:TYR:N	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:242:LEU:HD12	2:F:242:LEU:HA	1.87	0.41
2:F:362:VAL:HG13	2:F:368:LEU:CB	2.50	0.41
1:G:106:GLY:O	1:G:149:MET:CA	2.68	0.41
1:G:175:PRO:O	1:G:177:VAL:N	2.53	0.41
2:H:81:GLY:O	2:H:82:THR:C	2.59	0.41
2:H:251:ASP:CA	2:H:254:GLU:HG3	2.48	0.41
2:H:287:SER:O	2:H:291:ILE:HG12	2.21	0.41
2:H:401:LYS:C	2:H:403:ALA:H	2.24	0.41
3:I:5:ARG:CA	3:I:23:ILE:HD11	2.51	0.41
1:A:105:LYS:HG2	1:A:110:GLU:HG3	2.03	0.41
1:A:242:LEU:HB3	1:A:250:ALA:O	2.20	0.41
2:B:23:LEU:HD11	2:B:361:THR:O	2.21	0.41
2:B:34:GLY:O	2:B:61:HIS:HB2	2.20	0.41
2:B:81:GLY:O	2:B:82:THR:C	2.59	0.41
1:C:417:GLU:O	1:C:420:GLU:HB3	2.21	0.41
1:C:421:ALA:O	1:C:422:GLU:C	2.58	0.41
2:D:23:LEU:HD11	2:D:361:THR:O	2.21	0.41
2:D:61:HIS:O	2:D:62:VAL:C	2.59	0.41
2:D:318:LEU:HB2	2:D:376:CYS:SG	2.61	0.41
2:D:362:VAL:HG13	2:D:368:LEU:CB	2.50	0.41
1:E:35:SER:CB	1:E:59:ASN:HA	2.42	0.41
1:E:70:LEU:HB2	1:E:99:ALA:HB2	2.03	0.41
1:E:118:VAL:O	1:E:121:VAL:N	2.54	0.41
1:E:135:PHE:CD1	1:E:166:MET:SD	3.13	0.41
1:E:161:TYR:C	1:E:163:ASP:N	2.71	0.41
1:E:168:THR:HB	1:E:198:THR:HG21	2.03	0.41
1:E:333:LEU:HD11	1:E:337:ASN:HD21	1.85	0.41
2:F:81:GLY:O	2:F:82:THR:C	2.59	0.41
2:F:328:VAL:C	2:F:330:ALA:N	2.73	0.41
1:G:70:LEU:HB2	1:G:99:ALA:HB2	2.03	0.41
1:G:105:LYS:HG2	1:G:110:GLU:HG3	2.03	0.41
1:G:179:ASP:HB2	4:G:1438:GSP:C3'	2.51	0.41
1:G:307:PRO:O	1:G:309:HIS:N	2.53	0.41
2:H:221:ARG:N	2:H:222:PRO:CD	2.83	0.41
2:H:296:PHE:CG	2:H:341:ILE:HD12	2.53	0.41
2:H:434:GLU:C	2:H:436:GLY:N	2.74	0.41
3:I:5:ARG:NH1	3:I:88:MET:HE1	2.25	0.41
1:A:35:SER:CB	1:A:59:ASN:HA	2.42	0.41
1:A:118:VAL:O	1:A:121:VAL:N	2.54	0.41
1:A:183:GLU:HB3	1:A:184:PRO:HD3	2.03	0.41
1:A:206:ASN:HD21	4:A:1438:GSP:H1'	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:100:ALA:C	2:B:102:ASN:H	2.24	0.41
2:B:130:THR:O	2:B:131:GLY:C	2.59	0.41
2:B:149:PHE:CD1	2:B:150:THR:N	2.89	0.41
2:B:166:LYS:HB2	2:B:199:ASP:OD1	2.20	0.41
2:B:242:LEU:HD11	2:B:250:VAL:HG23	2.02	0.41
2:B:253:THR:HG21	1:C:105:LYS:HZ2	1.85	0.41
2:B:287:SER:O	2:B:291:ILE:HG12	2.21	0.41
2:B:332:ILE:CD1	2:B:353:VAL:HG22	2.51	0.41
2:B:343:PHE:HZ	2:B:351:PHE:CZ	2.36	0.41
2:B:401:LYS:C	2:B:403:ALA:H	2.24	0.41
2:B:401:LYS:O	2:B:402:ARG:HB2	2.21	0.41
1:C:48:ARG:HG2	1:C:243:ARG:HB3	2.01	0.41
1:C:105:LYS:HG2	1:C:110:GLU:HG3	2.03	0.41
1:C:119:LEU:O	1:C:122:VAL:HG22	2.21	0.41
1:C:135:PHE:CD1	1:C:166:MET:SD	3.14	0.41
2:D:100:ALA:HB2	2:D:105:ARG:HD3	2.02	0.41
2:D:115:ILE:CG2	2:D:116:ASP:H	2.32	0.41
2:D:130:THR:O	2:D:131:GLY:C	2.59	0.41
2:D:251:ASP:CA	2:D:254:GLU:HG3	2.49	0.41
2:D:305:CYS:SG	2:D:383:ALA:HB1	2.60	0.41
2:D:332:ILE:CD1	2:D:353:VAL:HG22	2.51	0.41
2:D:401:LYS:O	2:D:402:ARG:HB2	2.21	0.41
2:D:414:GLU:C	2:D:416:GLY:N	2.74	0.41
1:E:2:ARG:NH1	1:E:251:ASP:CG	2.73	0.41
1:E:25:SER:O	1:E:28:HIS:N	2.53	0.41
1:E:183:GLU:HB3	1:E:184:PRO:HD3	2.03	0.41
1:E:273:ALA:HB3	1:E:274:PRO:CD	2.29	0.41
2:F:61:HIS:O	2:F:62:VAL:C	2.59	0.41
2:F:144:GLY:N	5:F:500:GTP:O3G	2.48	0.41
2:F:242:LEU:HD11	2:F:250:VAL:HG23	2.02	0.41
2:F:272:TYR:O	2:F:300:ASN:ND2	2.54	0.41
2:F:346:TRP:CZ3	1:G:403:ALA:CB	3.04	0.41
2:F:401:LYS:O	2:F:402:ARG:HB2	2.21	0.41
2:F:434:GLU:C	2:F:436:GLY:N	2.74	0.41
2:F:436:GLY:C	2:F:438:ASP:N	2.72	0.41
1:G:25:SER:O	1:G:28:HIS:N	2.53	0.41
1:G:135:PHE:CD1	1:G:166:MET:SD	3.14	0.41
1:G:161:TYR:C	1:G:163:ASP:N	2.71	0.41
2:H:11:GLN:CG	2:H:74:VAL:HG21	2.50	0.41
2:H:255:PHE:O	2:H:259:LEU:N	2.50	0.41
2:H:332:ILE:CD1	2:H:353:VAL:HG22	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:401:LYS:O	2:H:402:ARG:HB2	2.21	0.41
3:I:15:VAL:HG23	3:I:16:THR:H	1.83	0.41
3:I:40:TYR:HE2	3:I:72:LYS:HD3	1.77	0.41
1:A:48:ARG:HG2	1:A:243:ARG:HB3	2.01	0.41
1:A:78:VAL:O	1:A:84:GLY:HA3	2.22	0.41
1:A:114:LEU:HD12	1:A:117:SER:OG	2.21	0.41
1:A:135:PHE:CD1	1:A:166:MET:SD	3.14	0.41
1:A:421:ALA:O	1:A:422:GLU:C	2.58	0.41
1:A:422:GLU:O	1:A:426:ASN:CB	2.67	0.41
1:A:423:SER:O	1:A:424:ASN:C	2.60	0.41
2:B:144:GLY:N	5:B:500:GTP:O3G	2.48	0.41
2:B:425:MET:O	2:B:426:ALA:C	2.60	0.41
1:C:20:PHE:CD1	1:C:235:MET:CG	3.04	0.41
1:C:210:TYR:O	1:C:211:ASP:C	2.57	0.41
1:C:273:ALA:CB	1:C:274:PRO:CD	2.93	0.41
1:C:423:SER:O	1:C:424:ASN:C	2.60	0.41
2:D:149:PHE:CD1	2:D:150:THR:N	2.89	0.41
2:D:425:MET:O	2:D:426:ALA:C	2.60	0.41
1:E:380:ASN:C	1:E:380:ASN:HD22	2.24	0.41
1:E:417:GLU:O	1:E:420:GLU:HB3	2.20	0.41
2:F:23:LEU:HD11	2:F:361:THR:O	2.21	0.41
2:F:149:PHE:CD1	2:F:150:THR:N	2.89	0.41
2:F:248:LEU:HD12	2:F:248:LEU:HA	1.93	0.41
1:G:168:THR:HB	1:G:198:THR:HG21	2.03	0.41
1:G:183:GLU:HB3	1:G:184:PRO:HD3	2.03	0.41
2:H:147:SER:OG	2:H:148:GLY:N	2.54	0.41
2:H:172:TYR:CD1	2:H:173:PRO:N	2.80	0.41
2:H:238:ILE:HD11	2:H:378:LEU:HD23	2.01	0.41
2:H:272:TYR:O	2:H:300:ASN:ND2	2.54	0.41
2:H:318:LEU:HB2	2:H:376:CYS:SG	2.61	0.41
3:I:9:LEU:HA	3:I:12:ILE:HG22	2.02	0.41
3:I:43:ILE:H	3:I:43:ILE:CD1	2.30	0.41
1:A:25:SER:O	1:A:28:HIS:N	2.53	0.40
1:A:182:VAL:O	1:A:184:PRO:N	2.54	0.40
1:A:242:LEU:HD23	1:A:242:LEU:HA	1.76	0.40
1:A:405:LEU:HD23	1:A:405:LEU:O	2.21	0.40
2:B:152:LEU:C	2:B:152:LEU:CD1	2.89	0.40
2:B:272:TYR:O	2:B:300:ASN:ND2	2.54	0.40
1:C:23:VAL:O	1:C:24:ILE:C	2.60	0.40
1:C:78:VAL:O	1:C:84:GLY:HA3	2.22	0.40
1:C:114:LEU:HD12	1:C:117:SER:OG	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:183:GLU:HB3	1:C:184:PRO:HD3	2.03	0.40
1:C:239:THR:CG2	1:C:240:THR:N	2.80	0.40
1:C:243:ARG:HD3	1:C:243:ARG:HA	1.62	0.40
2:D:287:SER:O	2:D:291:ILE:HG12	2.21	0.40
2:D:401:LYS:C	2:D:403:ALA:H	2.24	0.40
1:E:119:LEU:O	1:E:122:VAL:HG22	2.21	0.40
1:E:291:LEU:HD21	1:E:373:MET:HG2	2.03	0.40
1:E:405:LEU:HD23	1:E:405:LEU:O	2.22	0.40
2:F:152:LEU:C	2:F:152:LEU:CD1	2.89	0.40
2:F:184:PRO:CG	2:F:398:MET:HE1	2.37	0.40
1:G:44:LEU:HD12	1:G:49:ILE:CD1	2.49	0.40
1:G:291:LEU:HD21	1:G:373:MET:HG2	2.03	0.40
2:H:23:LEU:HD11	2:H:361:THR:O	2.21	0.40
2:H:100:ALA:O	2:H:102:ASN:N	2.49	0.40
2:H:397:LEU:HD23	2:H:397:LEU:HA	1.81	0.40
3:I:6:GLN:CG	3:I:7:GLU:N	2.82	0.40
3:I:20:LEU:HD23	3:I:21:THR:C	2.41	0.40
1:A:202:TYR:CE2	1:A:268:PHE:HD2	2.38	0.40
1:A:326:LYS:HB3	2:B:222:PRO:HD2	2.03	0.40
1:C:182:VAL:O	1:C:184:PRO:N	2.54	0.40
1:C:202:TYR:CE2	1:C:268:PHE:HD2	2.38	0.40
1:C:405:LEU:HD23	1:C:405:LEU:O	2.22	0.40
2:D:132:LEU:HD23	2:D:132:LEU:N	2.26	0.40
2:D:199:ASP:CB	2:D:256:GLN:NE2	2.77	0.40
2:D:226:ASN:O	2:D:227:LEU:C	2.59	0.40
2:D:413:MET:C	2:D:414:GLU:CG	2.89	0.40
1:E:12:CYS:O	1:E:14:ASN:N	2.55	0.40
1:E:139:HIS:HE1	1:E:168:THR:CG2	2.34	0.40
1:E:259:MET:HE3	1:E:268:PHE:CE2	2.57	0.40
1:E:435:TYR:C	1:E:437:ASP:N	2.72	0.40
2:F:11:GLN:HG3	2:F:74:VAL:HG21	2.03	0.40
2:F:188:ILE:HD13	2:F:188:ILE:HA	1.97	0.40
2:F:251:ASP:CA	2:F:254:GLU:HG3	2.49	0.40
2:F:293:ASN:ND2	2:F:338:LYS:NZ	2.69	0.40
2:F:318:LEU:HB2	2:F:376:CYS:SG	2.61	0.40
2:F:342:GLN:NE2	3:I:70:LEU:HD12	2.35	0.40
2:F:413:MET:C	2:F:414:GLU:CG	2.90	0.40
1:G:12:CYS:O	1:G:14:ASN:N	2.55	0.40
1:G:48:ARG:CG	1:G:243:ARG:O	2.66	0.40
1:G:62:VAL:HA	1:G:63:PRO:HD2	1.92	0.40
1:G:139:HIS:HE1	1:G:168:THR:CG2	2.34	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:359:PRO:HB2	1:G:360:PRO:CD	2.49	0.40
1:G:405:LEU:HD23	1:G:405:LEU:O	2.22	0.40
1:G:417:GLU:O	1:G:420:GLU:HB3	2.21	0.40
2:H:11:GLN:HG3	2:H:74:VAL:HG21	2.03	0.40
2:H:226:ASN:O	2:H:227:LEU:C	2.59	0.40
2:H:413:MET:C	2:H:414:GLU:CG	2.90	0.40
3:I:43:ILE:CG2	3:I:44:PRO:N	2.84	0.40
2:B:248:LEU:HD12	2:B:248:LEU:HA	1.93	0.40
2:B:393:HIS:O	2:B:394:LYS:C	2.60	0.40
1:C:12:CYS:O	1:C:13:GLY:C	2.59	0.40
1:C:35:SER:HB3	1:C:59:ASN:OD1	2.22	0.40
2:D:11:GLN:HG3	2:D:74:VAL:HG21	2.04	0.40
2:D:166:LYS:HB2	2:D:199:ASP:OD1	2.20	0.40
2:D:272:TYR:O	2:D:300:ASN:ND2	2.54	0.40
2:D:335:ILE:C	2:D:337:THR:N	2.73	0.40
1:E:78:VAL:O	1:E:84:GLY:HA3	2.21	0.40
1:E:176:LYS:HD2	1:E:207:GLU:HB2	2.03	0.40
1:E:202:TYR:HE2	1:E:378:ILE:HG21	1.87	0.40
1:E:423:SER:O	1:E:424:ASN:C	2.60	0.40
2:F:147:SER:OG	2:F:148:GLY:N	2.54	0.40
2:F:320:ARG:O	2:F:373:ARG:HA	2.22	0.40
2:F:397:LEU:HD23	2:F:397:LEU:HA	1.81	0.40
1:G:185:TYR:HD1	1:G:185:TYR:HA	1.76	0.40
1:G:204:ILE:HD13	1:G:231:VAL:CG2	2.45	0.40
1:G:265:LEU:C	1:G:265:LEU:CD1	2.83	0.40
2:H:130:THR:O	2:H:131:GLY:C	2.59	0.40
2:H:149:PHE:CD1	2:H:150:THR:N	2.89	0.40
2:H:188:ILE:HD13	2:H:188:ILE:HA	1.97	0.40
2:H:260:VAL:HA	2:H:261:PRO:HD3	1.95	0.40
2:H:293:ASN:ND2	2:H:338:LYS:NZ	2.69	0.40
3:I:28:LYS:CG	3:I:58:TYR:HE1	2.19	0.40
3:I:56:TYR:CE2	3:I:57:GLN:HG3	2.56	0.40
3:I:85:ARG:O	3:I:86:CYS:HB2	2.20	0.40
1:A:11:GLN:HA	1:A:74:THR:HG21	2.03	0.40
1:A:11:GLN:HG3	1:A:74:THR:HG23	2.04	0.40
1:A:20:PHE:CD1	1:A:235:MET:CG	3.04	0.40
1:A:132:LEU:O	1:A:164:ARG:HD2	2.21	0.40
1:A:194:LEU:O	1:A:196:GLU:N	2.55	0.40
1:A:288:VAL:HG22	1:A:323:MET:HE3	2.04	0.40
1:A:291:LEU:HD21	1:A:373:MET:HG2	2.03	0.40
2:B:11:GLN:HG3	2:B:74:VAL:HG21	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:320:ARG:O	2:B:373:ARG:HA	2.22	0.40
1:C:11:GLN:HG3	1:C:74:THR:HG23	2.04	0.40
2:D:56:THR:HA	2:H:284:GLU:CG	2.49	0.40
2:D:273:ALA:HB2	2:D:375:VAL:HB	2.03	0.40
2:D:320:ARG:O	2:D:373:ARG:HA	2.22	0.40
2:D:384:ILE:C	2:D:386:GLU:N	2.71	0.40
2:F:98:ASP:OD1	2:F:98:ASP:N	2.55	0.40
2:F:226:ASN:O	2:F:227:LEU:C	2.59	0.40
2:F:273:ALA:HB2	2:F:375:VAL:HB	2.03	0.40
2:F:384:ILE:O	2:F:385:ALA:C	2.59	0.40
2:F:425:MET:O	2:F:426:ALA:C	2.60	0.40
1:G:98:GLY:O	1:G:100:GLY:N	2.49	0.40
1:G:119:LEU:O	1:G:122:VAL:HG22	2.21	0.40
1:G:202:TYR:HE2	1:G:378:ILE:HG21	1.87	0.40
1:G:206:ASN:HD21	4:G:1438:GSP:H1'	1.86	0.40
2:H:61:HIS:O	2:H:62:VAL:C	2.59	0.40
2:H:62:VAL:HG13	2:H:63:PRO:HD2	2.04	0.40
2:H:98:ASP:OD1	2:H:98:ASP:N	2.55	0.40
2:H:345:ASP:C	2:H:347:CYS:N	2.68	0.40
3:I:56:TYR:CD1	3:I:56:TYR:C	2.95	0.40
1:C:98:GLY:C	1:C:100:GLY:H	2.24	0.40
1:C:132:LEU:O	1:C:164:ARG:HD2	2.21	0.40
1:C:194:LEU:O	1:C:196:GLU:N	2.55	0.40
1:C:413:MET:CG	1:C:414:ASP:H	2.27	0.40
2:D:217:LEU:HD13	2:D:277:SER:CA	2.49	0.40
1:E:11:GLN:HG3	1:E:74:THR:HG23	2.04	0.40
1:E:243:ARG:HD3	1:E:243:ARG:HA	1.62	0.40
2:F:343:PHE:HD1	2:F:343:PHE:HA	1.02	0.40
2:F:414:GLU:C	2:F:416:GLY:N	2.74	0.40
1:G:114:LEU:HD12	1:G:117:SER:OG	2.21	0.40
1:G:150:GLY:HA2	1:G:153:LEU:CD2	2.42	0.40
1:G:176:LYS:HD2	1:G:207:GLU:HB2	2.03	0.40
1:G:194:LEU:O	1:G:196:GLU:N	2.55	0.40
1:G:202:TYR:CE2	1:G:268:PHE:HD2	2.38	0.40
2:H:100:ALA:HB2	2:H:105:ARG:HD3	2.02	0.40
2:H:263:PRO:O	2:H:264:ARG:C	2.56	0.40
3:I:11:TRP:O	3:I:15:VAL:HG13	2.21	0.40
3:I:30:TYR:OH	3:I:117:ARG:HG2	2.21	0.40
3:I:62:TRP:CH2	3:I:83:LEU:HB2	2.57	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 PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	424/445 (95%)	274 (65%)	94 (22%)	56 (13%)	0	5
1	C	424/445 (95%)	274 (65%)	94 (22%)	56 (13%)	0	5
1	E	424/445 (95%)	273 (64%)	95 (22%)	56 (13%)	0	5
1	G	424/445 (95%)	274 (65%)	94 (22%)	56 (13%)	0	5
2	B	423/451 (94%)	279 (66%)	87 (21%)	57 (14%)	0	4
2	D	423/451 (94%)	281 (66%)	85 (20%)	57 (14%)	0	4
2	F	424/451 (94%)	283 (67%)	86 (20%)	55 (13%)	0	5
2	H	423/451 (94%)	278 (66%)	88 (21%)	57 (14%)	0	4
3	I	116/145 (80%)	112 (97%)	3 (3%)	1 (1%)	17	57
All	All	3505/3729 (94%)	2328 (66%)	726 (21%)	451 (13%)	1	5

All (451) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	23	VAL
1	A	24	ILE
1	A	32	PRO
1	A	50	ASN
1	A	82	PRO
1	A	97	SER
1	A	128	SER
1	A	176	LYS
1	A	183	GLU
1	A	218	LYS
1	A	238	VAL
1	A	239	THR
1	A	240	THR
1	A	252	LEU
1	A	263	PRO
1	A	266	HIS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	273	ALA
1	A	278	ARG
1	A	280	SER
1	A	281	GLN
1	A	282	GLN
1	A	288	VAL
1	A	294	GLN
1	A	295	MET
1	A	343	PHE
1	A	344	VAL
1	A	346	TRP
1	A	369	ARG
1	A	403	ALA
2	B	56	THR
2	B	58	ALA
2	B	96	LYS
2	B	97	GLU
2	B	108	TYR
2	B	109	THR
2	B	141	PHE
2	B	183	GLU
2	B	217	LEU
2	B	240	ALA
2	B	249	ASN
2	B	255	PHE
2	B	266	HIS
2	B	309	HIS
2	B	346	TRP
2	B	370	LYS
2	B	387	ALA
2	B	403	ALA
2	B	437	VAL
1	C	23	VAL
1	C	24	ILE
1	C	32	PRO
1	C	50	ASN
1	C	82	PRO
1	C	97	SER
1	C	128	SER
1	C	176	LYS
1	C	183	GLU
1	C	218	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	238	VAL
1	C	239	THR
1	C	240	THR
1	C	252	LEU
1	C	263	PRO
1	C	266	HIS
1	C	273	ALA
1	C	278	ARG
1	C	280	SER
1	C	281	GLN
1	C	282	GLN
1	C	288	VAL
1	C	294	GLN
1	C	295	MET
1	C	343	PHE
1	C	344	VAL
1	C	346	TRP
1	C	369	ARG
1	C	403	ALA
2	D	56	THR
2	D	58	ALA
2	D	63	PRO
2	D	96	LYS
2	D	97	GLU
2	D	108	TYR
2	D	109	THR
2	D	141	PHE
2	D	183	GLU
2	D	217	LEU
2	D	240	ALA
2	D	249	ASN
2	D	255	PHE
2	D	266	HIS
2	D	309	HIS
2	D	346	TRP
2	D	370	LYS
2	D	387	ALA
2	D	403	ALA
2	D	437	VAL
1	E	23	VAL
1	E	24	ILE
1	E	32	PRO

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	E	50	ASN
1	E	82	PRO
1	E	97	SER
1	E	128	SER
1	E	176	LYS
1	E	183	GLU
1	E	218	LYS
1	E	238	VAL
1	E	239	THR
1	E	240	THR
1	E	252	LEU
1	E	263	PRO
1	E	266	HIS
1	E	273	ALA
1	E	278	ARG
1	E	280	SER
1	E	281	GLN
1	E	282	GLN
1	E	288	VAL
1	E	294	GLN
1	E	295	MET
1	E	343	PHE
1	E	344	VAL
1	E	346	TRP
1	E	369	ARG
1	E	403	ALA
2	F	63	PRO
2	F	96	LYS
2	F	97	GLU
2	F	108	TYR
2	F	109	THR
2	F	141	PHE
2	F	183	GLU
2	F	217	LEU
2	F	240	ALA
2	F	249	ASN
2	F	255	PHE
2	F	266	HIS
2	F	309	HIS
2	F	370	LYS
2	F	387	ALA
2	F	403	ALA

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	F	437	VAL
1	G	23	VAL
1	G	24	ILE
1	G	32	PRO
1	G	50	ASN
1	G	82	PRO
1	G	97	SER
1	G	128	SER
1	G	176	LYS
1	G	183	GLU
1	G	218	LYS
1	G	238	VAL
1	G	239	THR
1	G	240	THR
1	G	252	LEU
1	G	263	PRO
1	G	266	HIS
1	G	273	ALA
1	G	278	ARG
1	G	280	SER
1	G	281	GLN
1	G	282	GLN
1	G	288	VAL
1	G	294	GLN
1	G	295	MET
1	G	343	PHE
1	G	344	VAL
1	G	346	TRP
1	G	369	ARG
1	G	403	ALA
2	H	63	PRO
2	H	96	LYS
2	H	97	GLU
2	H	108	TYR
2	H	109	THR
2	H	141	PHE
2	H	183	GLU
2	H	217	LEU
2	H	240	ALA
2	H	249	ASN
2	H	255	PHE
2	H	266	HIS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	H	309	HIS
2	H	346	TRP
2	H	370	LYS
2	H	387	ALA
2	H	403	ALA
2	H	437	VAL
1	A	38	GLY
1	A	73	GLY
1	A	175	PRO
1	A	265	LEU
1	A	279	GLY
1	A	298	ALA
1	A	300	ASN
1	A	311	ARG
2	B	24	TYR
2	B	73	THR
2	B	83	TYR
2	B	103	TYR
2	B	111	GLY
2	B	131	GLY
2	B	218	ASP
2	B	219	ILE
2	B	238	ILE
2	B	265	GLY
2	B	281	ALA
2	B	314	ALA
2	B	339	ARG
2	B	342	GLN
2	B	373	ARG
2	B	386	GLU
1	C	38	GLY
1	C	73	GLY
1	C	175	PRO
1	C	265	LEU
1	C	279	GLY
1	C	298	ALA
1	C	300	ASN
1	C	311	ARG
2	D	73	THR
2	D	83	TYR
2	D	103	TYR
2	D	111	GLY

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	D	131	GLY
2	D	218	ASP
2	D	219	ILE
2	D	238	ILE
2	D	265	GLY
2	D	281	ALA
2	D	314	ALA
2	D	339	ARG
2	D	342	GLN
2	D	373	ARG
2	D	386	GLU
1	E	38	GLY
1	E	73	GLY
1	E	175	PRO
1	E	265	LEU
1	E	279	GLY
1	E	298	ALA
1	E	300	ASN
1	E	311	ARG
2	F	24	TYR
2	F	73	THR
2	F	83	TYR
2	F	111	GLY
2	F	131	GLY
2	F	218	ASP
2	F	219	ILE
2	F	238	ILE
2	F	265	GLY
2	F	281	ALA
2	F	314	ALA
2	F	373	ARG
2	F	386	GLU
1	G	38	GLY
1	G	73	GLY
1	G	175	PRO
1	G	265	LEU
1	G	279	GLY
1	G	298	ALA
1	G	300	ASN
1	G	311	ARG
2	H	24	TYR
2	H	73	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	H	83	TYR
2	H	103	TYR
2	H	111	GLY
2	H	131	GLY
2	H	218	ASP
2	H	219	ILE
2	H	238	ILE
2	H	265	GLY
2	H	281	ALA
2	H	314	ALA
2	H	339	ARG
2	H	342	GLN
2	H	373	ARG
2	H	386	GLU
3	I	52	CYS
1	A	34	GLY
1	A	83	PHE
1	A	99	ALA
1	A	100	GLY
1	A	302	MET
1	A	386	GLU
2	B	48	SER
2	B	104	ALA
2	B	148	GLY
2	B	149	PHE
2	B	173	PRO
2	B	239	THR
2	B	245	ASP
2	B	263	PRO
2	B	279	GLU
2	B	330	ALA
2	B	336	LYS
2	B	369	ALA
1	C	83	PHE
1	C	99	ALA
1	C	100	GLY
1	C	302	MET
1	C	386	GLU
2	D	24	TYR
2	D	48	SER
2	D	104	ALA
2	D	148	GLY

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	D	149	PHE
2	D	173	PRO
2	D	239	THR
2	D	245	ASP
2	D	263	PRO
2	D	279	GLU
2	D	330	ALA
2	D	336	LYS
2	D	369	ALA
1	E	34	GLY
1	E	83	PHE
1	E	99	ALA
1	E	100	GLY
1	E	302	MET
1	E	386	GLU
2	F	48	SER
2	F	59	GLY
2	F	103	TYR
2	F	104	ALA
2	F	148	GLY
2	F	149	PHE
2	F	173	PRO
2	F	239	THR
2	F	245	ASP
2	F	263	PRO
2	F	279	GLU
2	F	330	ALA
2	F	336	LYS
2	F	339	ARG
2	F	369	ALA
1	G	34	GLY
1	G	83	PHE
1	G	99	ALA
1	G	100	GLY
1	G	302	MET
1	G	386	GLU
2	H	48	SER
2	H	59	GLY
2	H	104	ALA
2	H	148	GLY
2	H	149	PHE
2	H	173	PRO

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	H	239	THR
2	H	245	ASP
2	H	263	PRO
2	H	279	GLU
2	H	330	ALA
2	H	336	LYS
2	H	369	ALA
1	A	96	GLN
1	A	395	PHE
2	B	300	ASN
2	B	348	PRO
1	C	34	GLY
1	C	96	GLN
1	C	395	PHE
2	D	129	CYS
2	D	300	ASN
2	D	348	PRO
1	E	96	GLN
1	E	395	PHE
2	F	300	ASN
2	F	348	PRO
1	G	96	GLN
1	G	395	PHE
2	H	129	CYS
2	H	300	ASN
2	H	348	PRO
1	A	57	ALA
1	A	74	THR
1	A	285	ALA
1	A	424	ASN
2	B	129	CYS
2	B	256	GLN
2	B	303	VAL
2	B	307	PRO
2	B	382	THR
1	C	57	ALA
1	C	74	THR
1	C	285	ALA
1	C	424	ASN
2	D	256	GLN
2	D	303	VAL
2	D	307	PRO

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	D	382	THR
1	E	57	ALA
1	E	74	THR
1	E	285	ALA
2	F	129	CYS
2	F	256	GLN
2	F	303	VAL
2	F	307	PRO
2	F	382	THR
1	G	57	ALA
1	G	74	THR
1	G	285	ALA
1	G	424	ASN
2	H	256	GLN
2	H	303	VAL
2	H	307	PRO
2	H	382	THR
1	A	51	VAL
1	A	58	GLY
1	A	145	THR
1	A	162	PRO
1	A	400	ARG
2	B	62	VAL
2	B	273	ALA
1	C	51	VAL
1	C	58	GLY
1	C	145	THR
1	C	162	PRO
1	C	400	ARG
2	D	273	ALA
1	E	51	VAL
1	E	58	GLY
1	E	145	THR
1	E	162	PRO
1	E	400	ARG
1	E	424	ASN
2	F	273	ALA
1	G	58	GLY
1	G	145	THR
1	G	162	PRO
1	G	400	ARG
2	H	273	ALA

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Mol	Chain	Res	Type
1	A	195	VAL
1	C	195	VAL
1	E	195	VAL
2	F	31	GLN
1	G	51	VAL
1	G	195	VAL
2	H	31	GLN
2	B	115	ILE
1	C	72	PRO
2	D	115	ILE
1	E	72	PRO
2	F	115	ILE
2	H	115	ILE
1	A	72	PRO
1	G	72	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 PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	366/381 (96%)	306 (84%)	60 (16%)	2	12
1	C	366/381 (96%)	307 (84%)	59 (16%)	2	13
1	E	366/381 (96%)	307 (84%)	59 (16%)	2	13
1	G	366/381 (96%)	307 (84%)	59 (16%)	2	13
2	B	353/377 (94%)	294 (83%)	59 (17%)	2	12
2	D	353/377 (94%)	295 (84%)	58 (16%)	2	12
2	F	360/377 (96%)	302 (84%)	58 (16%)	2	13
2	H	353/377 (94%)	297 (84%)	56 (16%)	2	13
3	I	105/124 (85%)	104 (99%)	1 (1%)	76	86
All	All	2988/3156 (95%)	2519 (84%)	469 (16%)	5	14

All (469) residues with a non-rotameric sidechain are listed below:



Mol	Chain	Res	Type
1	A	14	ASN
1	A	24	ILE
1	A	26	ASP
1	A	32	PRO
1	A	41	ASP
1	A	68	VAL
1	A	76	ASP
1	A	90	ASP
1	A	94	PHE
1	A	101	ASN
1	A	122	VAL
1	A	129	CYS
1	A	135	PHE
1	A	141	LEU
1	A	145	THR
1	A	149	MET
1	A	153	LEU
1	A	161	TYR
1	A	163	ASP
1	A	165	ILE
1	A	174	SER
1	A	198	THR
1	A	201	THR
1	A	203	CYS
1	A	207	GLU
1	A	211	ASP
1	A	214	PHE
1	A	215	ARG
1	A	224	TYR
1	A	227	LEU
1	A	230	LEU
1	A	236	SER
1	A	240	THR
1	A	244	PHE
1	A	265	LEU
1	A	267	PHE
1	A	275	LEU
1	A	282	GLN
1	A	283	TYR
1	A	284	ARG
1	A	289	PRO
1	A	299	LYS
1	A	306	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	309	HIS
1	A	322	ARG
1	A	324	SER
1	A	325	MET
1	A	343	PHE
1	A	344	VAL
1	A	349	ASN
1	A	369	ARG
1	A	380	ASN
1	A	387	LEU
1	A	413	MET
1	A	414	ASP
1	A	424	ASN
1	A	427	ASP
1	A	431	GLU
1	A	432	TYR
1	A	437	ASP
2	B	6	SER
2	B	20	CYS
2	B	21	TRP
2	B	31	GLN
2	B	48	SER
2	B	50	ASN
2	B	60	LYS
2	B	61	HIS
2	B	74	VAL
2	B	79	ARG
2	B	82	THR
2	B	84	ARG
2	B	87	PHE
2	B	88	HIS
2	B	90	GLU
2	B	98	ASP
2	B	115	ILE
2	B	120	ASP
2	B	125	LEU
2	B	127	ASP
2	B	130	THR
2	B	135	PHE
2	B	141	PHE
2	B	150	THR
2	B	152	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	B	155	GLU
2	B	169	PHE
2	B	172	TYR
2	B	173	PRO
2	B	183	GLU
2	B	192	HIS
2	B	204	VAL
2	B	219	ILE
2	B	224	TYR
2	B	231	ILE
2	B	234	ILE
2	B	243	ARG
2	B	244	PHE
2	B	253	THR
2	B	260	VAL
2	B	267	PHE
2	B	269	LEU
2	B	279	GLU
2	B	280	LYS
2	B	290	GLU
2	B	303	VAL
2	B	325	PRO
2	B	334	THR
2	B	345	ASP
2	B	352	LYS
2	B	368	LEU
2	B	376	CYS
2	B	378	LEU
2	B	380	ASN
2	B	404	PHE
2	B	415	GLU
2	B	417	GLU
2	B	431	ASP
2	B	432	TYR
1	C	14	ASN
1	C	24	ILE
1	C	26	ASP
1	C	32	PRO
1	C	41	ASP
1	C	68	VAL
1	C	76	ASP
1	C	90	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	94	PHE
1	C	101	ASN
1	C	122	VAL
1	C	129	CYS
1	C	135	PHE
1	C	141	LEU
1	C	145	THR
1	C	149	MET
1	C	153	LEU
1	C	161	TYR
1	C	163	ASP
1	C	165	ILE
1	C	174	SER
1	C	198	THR
1	C	201	THR
1	C	203	CYS
1	C	207	GLU
1	C	211	ASP
1	C	214	PHE
1	C	215	ARG
1	C	224	TYR
1	C	227	LEU
1	C	230	LEU
1	C	236	SER
1	C	240	THR
1	C	244	PHE
1	C	265	LEU
1	C	267	PHE
1	C	275	LEU
1	C	282	GLN
1	C	283	TYR
1	C	284	ARG
1	C	299	LYS
1	C	306	ASP
1	C	309	HIS
1	C	322	ARG
1	C	324	SER
1	C	325	MET
1	C	343	PHE
1	C	344	VAL
1	C	349	ASN
1	C	369	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	380	ASN
1	C	387	LEU
1	C	413	MET
1	C	414	ASP
1	C	424	ASN
1	C	427	ASP
1	C	431	GLU
1	C	432	TYR
1	C	437	ASP
2	D	6	SER
2	D	20	CYS
2	D	21	TRP
2	D	31	GLN
2	D	48	SER
2	D	50	ASN
2	D	60	LYS
2	D	74	VAL
2	D	79	ARG
2	D	82	THR
2	D	84	ARG
2	D	87	PHE
2	D	88	HIS
2	D	90	GLU
2	D	98	ASP
2	D	115	ILE
2	D	120	ASP
2	D	125	LEU
2	D	127	ASP
2	D	130	THR
2	D	135	PHE
2	D	141	PHE
2	D	150	THR
2	D	152	LEU
2	D	155	GLU
2	D	169	PHE
2	D	172	TYR
2	D	173	PRO
2	D	183	GLU
2	D	192	HIS
2	D	204	VAL
2	D	219	ILE
2	D	224	TYR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	D	231	ILE
2	D	234	ILE
2	D	243	ARG
2	D	244	PHE
2	D	253	THR
2	D	260	VAL
2	D	267	PHE
2	D	269	LEU
2	D	279	GLU
2	D	280	LYS
2	D	290	GLU
2	D	303	VAL
2	D	325	PRO
2	D	334	THR
2	D	345	ASP
2	D	352	LYS
2	D	368	LEU
2	D	376	CYS
2	D	378	LEU
2	D	380	ASN
2	D	404	PHE
2	D	415	GLU
2	D	417	GLU
2	D	431	ASP
2	D	432	TYR
1	E	14	ASN
1	E	24	ILE
1	E	26	ASP
1	E	32	PRO
1	E	41	ASP
1	E	68	VAL
1	E	76	ASP
1	E	90	ASP
1	E	94	PHE
1	E	101	ASN
1	E	122	VAL
1	E	129	CYS
1	E	135	PHE
1	E	141	LEU
1	E	145	THR
1	E	149	MET
1	E	153	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	E	161	TYR
1	E	163	ASP
1	E	165	ILE
1	E	174	SER
1	E	198	THR
1	E	201	THR
1	E	203	CYS
1	E	207	GLU
1	E	211	ASP
1	E	214	PHE
1	E	215	ARG
1	E	224	TYR
1	E	227	LEU
1	E	230	LEU
1	E	236	SER
1	E	240	THR
1	E	244	PHE
1	E	265	LEU
1	E	267	PHE
1	E	275	LEU
1	E	282	GLN
1	E	283	TYR
1	E	284	ARG
1	E	299	LYS
1	E	306	ASP
1	E	309	HIS
1	E	322	ARG
1	E	324	SER
1	E	325	MET
1	E	343	PHE
1	E	344	VAL
1	E	349	ASN
1	E	369	ARG
1	E	380	ASN
1	E	387	LEU
1	E	413	MET
1	E	414	ASP
1	E	424	ASN
1	E	427	ASP
1	E	431	GLU
1	E	432	TYR
1	E	437	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	F	6	SER
2	F	20	CYS
2	F	21	TRP
2	F	31	GLN
2	F	48	SER
2	F	50	ASN
2	F	60	LYS
2	F	74	VAL
2	F	79	ARG
2	F	82	THR
2	F	84	ARG
2	F	87	PHE
2	F	88	HIS
2	F	90	GLU
2	F	98	ASP
2	F	115	ILE
2	F	120	ASP
2	F	125	LEU
2	F	127	ASP
2	F	130	THR
2	F	135	PHE
2	F	141	PHE
2	F	150	THR
2	F	152	LEU
2	F	155	GLU
2	F	169	PHE
2	F	172	TYR
2	F	173	PRO
2	F	183	GLU
2	F	192	HIS
2	F	204	VAL
2	F	219	ILE
2	F	224	TYR
2	F	231	ILE
2	F	234	ILE
2	F	243	ARG
2	F	244	PHE
2	F	253	THR
2	F	260	VAL
2	F	267	PHE
2	F	269	LEU
2	F	279	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	F	280	LYS
2	F	290	GLU
2	F	303	VAL
2	F	325	PRO
2	F	334	THR
2	F	343	PHE
2	F	352	LYS
2	F	368	LEU
2	F	376	CYS
2	F	378	LEU
2	F	380	ASN
2	F	404	PHE
2	F	415	GLU
2	F	417	GLU
2	F	431	ASP
2	F	432	TYR
1	G	14	ASN
1	G	24	ILE
1	G	26	ASP
1	G	32	PRO
1	G	41	ASP
1	G	68	VAL
1	G	76	ASP
1	G	90	ASP
1	G	94	PHE
1	G	101	ASN
1	G	122	VAL
1	G	129	CYS
1	G	135	PHE
1	G	141	LEU
1	G	145	THR
1	G	149	MET
1	G	153	LEU
1	G	161	TYR
1	G	163	ASP
1	G	165	ILE
1	G	174	SER
1	G	198	THR
1	G	201	THR
1	G	203	CYS
1	G	207	GLU
1	G	211	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	G	214	PHE
1	G	215	ARG
1	G	224	TYR
1	G	227	LEU
1	G	230	LEU
1	G	236	SER
1	G	240	THR
1	G	244	PHE
1	G	265	LEU
1	G	267	PHE
1	G	275	LEU
1	G	282	GLN
1	G	283	TYR
1	G	284	ARG
1	G	299	LYS
1	G	306	ASP
1	G	309	HIS
1	G	322	ARG
1	G	324	SER
1	G	325	MET
1	G	343	PHE
1	G	344	VAL
1	G	349	ASN
1	G	369	ARG
1	G	380	ASN
1	G	387	LEU
1	G	413	MET
1	G	414	ASP
1	G	424	ASN
1	G	427	ASP
1	G	431	GLU
1	G	432	TYR
1	G	437	ASP
2	H	6	SER
2	H	20	CYS
2	H	21	TRP
2	H	31	GLN
2	H	48	SER
2	H	50	ASN
2	H	74	VAL
2	H	79	ARG
2	H	82	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	H	84	ARG
2	H	87	PHE
2	H	88	HIS
2	H	90	GLU
2	H	98	ASP
2	H	115	ILE
2	H	120	ASP
2	H	125	LEU
2	H	127	ASP
2	H	130	THR
2	H	135	PHE
2	H	141	PHE
2	H	150	THR
2	H	152	LEU
2	H	155	GLU
2	H	169	PHE
2	H	172	TYR
2	H	173	PRO
2	H	183	GLU
2	H	192	HIS
2	H	204	VAL
2	H	219	ILE
2	H	224	TYR
2	H	231	ILE
2	H	234	ILE
2	H	243	ARG
2	H	244	PHE
2	H	253	THR
2	H	260	VAL
2	H	267	PHE
2	H	269	LEU
2	H	279	GLU
2	H	290	GLU
2	H	303	VAL
2	H	325	PRO
2	H	334	THR
2	H	345	ASP
2	H	352	LYS
2	H	368	LEU
2	H	376	CYS
2	H	378	LEU
2	H	380	ASN

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Mol	Chain	Res	Type
2	H	404	PHE
2	H	415	GLU
2	H	417	GLU
2	H	431	ASP
2	H	432	TYR
3	I	12	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (128) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	14	ASN
1	A	91	ASN
1	A	101	ASN
1	A	102	ASN
1	A	107	HIS
1	A	136	GLN
1	A	139	HIS
1	A	197	ASN
1	A	282	GLN
1	A	331	GLN
1	A	334	ASN
1	A	337	ASN
1	A	349	ASN
1	A	380	ASN
1	A	406	HIS
1	A	436	GLN
2	B	11	GLN
2	B	15	GLN
2	B	28	HIS
2	B	50	ASN
2	B	61	HIS
2	B	91	GLN
2	B	101	ASN
2	B	133	GLN
2	B	139	HIS
2	B	197	HIS
2	B	216	ASN
2	B	226	ASN
2	B	256	GLN
2	B	309	HIS
2	B	380	ASN
1	C	14	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	91	ASN
1	C	96	GLN
1	C	102	ASN
1	C	107	HIS
1	C	136	GLN
1	C	139	HIS
1	C	197	ASN
1	C	206	ASN
1	C	282	GLN
1	C	331	GLN
1	C	334	ASN
1	C	337	ASN
1	C	349	ASN
1	C	380	ASN
1	C	406	HIS
1	C	436	GLN
2	D	11	GLN
2	D	15	GLN
2	D	28	HIS
2	D	50	ASN
2	D	61	HIS
2	D	91	GLN
2	D	133	GLN
2	D	197	HIS
2	D	216	ASN
2	D	226	ASN
2	D	256	GLN
2	D	309	HIS
2	D	380	ASN
1	E	14	ASN
1	E	91	ASN
1	E	101	ASN
1	E	102	ASN
1	E	107	HIS
1	E	136	GLN
1	E	139	HIS
1	E	197	ASN
1	E	282	GLN
1	E	331	GLN
1	E	334	ASN
1	E	337	ASN
1	E	349	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	E	380	ASN
1	E	406	HIS
1	E	436	GLN
2	F	11	GLN
2	F	15	GLN
2	F	28	HIS
2	F	35	GLN
2	F	50	ASN
2	F	61	HIS
2	F	91	GLN
2	F	128	GLN
2	F	133	GLN
2	F	139	HIS
2	F	197	HIS
2	F	216	ASN
2	F	226	ASN
2	F	256	GLN
2	F	309	HIS
2	F	380	ASN
1	G	14	ASN
1	G	91	ASN
1	G	96	GLN
1	G	102	ASN
1	G	107	HIS
1	G	136	GLN
1	G	139	HIS
1	G	197	ASN
1	G	282	GLN
1	G	331	GLN
1	G	334	ASN
1	G	337	ASN
1	G	349	ASN
1	G	380	ASN
1	G	406	HIS
1	G	436	GLN
2	H	11	GLN
2	H	15	GLN
2	H	28	HIS
2	H	50	ASN
2	H	91	GLN
2	H	101	ASN
2	H	128	GLN

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Mol	Chain	Res	Type
2	H	133	GLN
2	H	139	HIS
2	H	197	HIS
2	H	216	ASN
2	H	226	ASN
2	H	256	GLN
2	H	283	HIS
2	H	309	HIS
2	H	380	ASN
2	H	406	HIS
3	I	13	ASN
3	I	67	GLN

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

### 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

### 5.6 Ligand geometry [i](#)

8 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
5	GTP	D	500	-	26,34,34	1.32	5 (19%)	32,54,54	1.16	3 (9%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
4	GSP	G	1438	-	26,34,34	1.61	5 (19%)	27,54,54	1.59	5 (18%)
5	GTP	H	500	-	26,34,34	1.32	5 (19%)	32,54,54	1.15	3 (9%)
5	GTP	F	500	-	26,34,34	1.33	4 (15%)	32,54,54	1.15	3 (9%)
5	GTP	B	500	-	26,34,34	1.55	5 (19%)	32,54,54	1.59	4 (12%)
4	GSP	E	1438	-	26,34,34	1.61	4 (15%)	27,54,54	1.59	5 (18%)
4	GSP	A	1438	-	26,34,34	1.61	5 (19%)	27,54,54	1.59	5 (18%)
4	GSP	C	1438	-	26,34,34	1.62	5 (19%)	27,54,54	1.60	5 (18%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	GTP	D	500	-	-	3/18/38/38	0/3/3/3
4	GSP	G	1438	-	-	5/17/38/38	0/3/3/3
5	GTP	H	500	-	-	3/18/38/38	0/3/3/3
5	GTP	F	500	-	-	3/18/38/38	0/3/3/3
5	GTP	B	500	-	-	3/18/38/38	0/3/3/3
4	GSP	E	1438	-	-	5/17/38/38	0/3/3/3
4	GSP	A	1438	-	-	5/17/38/38	0/3/3/3
4	GSP	C	1438	-	-	5/17/38/38	0/3/3/3

All (38) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	500	GTP	C5-C6	-3.71	1.39	1.47
5	D	500	GTP	C5-C6	-3.70	1.39	1.47
5	F	500	GTP	C5-C6	-3.68	1.39	1.47
5	H	500	GTP	C5-C6	-3.67	1.40	1.47
5	B	500	GTP	PG-O1G	3.65	1.62	1.50
4	A	1438	GSP	C2'-C1'	3.21	1.58	1.53
4	C	1438	GSP	C2'-C1'	3.20	1.58	1.53
4	A	1438	GSP	O4'-C1'	3.18	1.45	1.41
4	E	1438	GSP	C2'-C1'	3.16	1.58	1.53
4	C	1438	GSP	O4'-C1'	3.16	1.45	1.41
4	G	1438	GSP	C2'-C1'	3.15	1.58	1.53
4	G	1438	GSP	O4'-C1'	3.14	1.45	1.41
4	E	1438	GSP	O4'-C1'	3.12	1.45	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	H	500	GTP	C6-N1	2.61	1.41	1.37
5	D	500	GTP	C6-N1	2.60	1.41	1.37
5	B	500	GTP	C6-N1	2.59	1.41	1.37
5	F	500	GTP	C6-N1	2.59	1.41	1.37
4	E	1438	GSP	C8-N7	-2.57	1.30	1.35
4	G	1438	GSP	C8-N7	-2.55	1.30	1.35
4	A	1438	GSP	C8-N7	-2.55	1.30	1.35
4	C	1438	GSP	C8-N7	-2.54	1.30	1.35
5	B	500	GTP	C8-N7	-2.45	1.30	1.35
5	F	500	GTP	C8-N7	-2.40	1.30	1.35
5	H	500	GTP	C8-N7	-2.39	1.31	1.35
5	D	500	GTP	C8-N7	-2.38	1.31	1.35
5	B	500	GTP	O4'-C1'	2.26	1.44	1.41
5	F	500	GTP	O4'-C1'	2.25	1.44	1.41
5	D	500	GTP	O4'-C1'	2.22	1.44	1.41
5	H	500	GTP	O4'-C1'	2.21	1.44	1.41
4	E	1438	GSP	C6-N1	2.11	1.41	1.37
4	C	1438	GSP	C6-N1	2.08	1.41	1.37
4	A	1438	GSP	C6-N1	2.07	1.41	1.37
4	G	1438	GSP	C6-N1	2.07	1.41	1.37
4	C	1438	GSP	C2'-C3'	2.05	1.59	1.53
4	G	1438	GSP	C2'-C3'	2.04	1.58	1.53
5	D	500	GTP	PB-O2B	-2.02	1.45	1.55
4	A	1438	GSP	C2'-C3'	2.02	1.58	1.53
5	H	500	GTP	PB-O2B	-2.01	1.45	1.55

All (33) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	C	1438	GSP	O6-C6-N1	5.53	127.18	120.65
4	G	1438	GSP	O6-C6-N1	5.50	127.14	120.65
4	A	1438	GSP	O6-C6-N1	5.49	127.13	120.65
4	E	1438	GSP	O6-C6-N1	5.49	127.13	120.65
5	B	500	GTP	O2G-PG-O3B	5.05	121.56	104.64
5	B	500	GTP	O3G-PG-O3B	4.41	119.44	104.64
5	D	500	GTP	O2G-PG-O3B	2.98	114.62	104.64
5	F	500	GTP	O2G-PG-O3B	2.94	114.48	104.64
5	H	500	GTP	O2G-PG-O3B	2.91	114.41	104.64
5	B	500	GTP	O3G-PG-O2G	-2.57	97.83	107.64
5	D	500	GTP	O3G-PG-O3B	2.52	113.09	104.64
5	H	500	GTP	O3G-PG-O3B	2.50	113.03	104.64
5	F	500	GTP	O3G-PG-O3B	2.49	112.98	104.64

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	G	1438	GSP	PA-O3A-PB	-2.41	124.54	132.83
4	C	1438	GSP	PA-O3A-PB	-2.40	124.58	132.83
4	A	1438	GSP	PA-O3A-PB	-2.40	124.58	132.83
4	E	1438	GSP	PA-O3A-PB	-2.40	124.59	132.83
4	C	1438	GSP	O3G-PG-O3B	2.33	112.43	104.64
4	E	1438	GSP	O3G-PG-O3B	2.33	112.42	104.64
4	G	1438	GSP	O3G-PG-O3B	2.33	112.41	104.64
4	A	1438	GSP	O3G-PG-O3B	2.32	112.37	104.64
4	A	1438	GSP	C5-C6-N1	-2.25	109.99	113.95
4	C	1438	GSP	C5-C6-N1	-2.25	109.99	113.95
4	G	1438	GSP	C5-C6-N1	-2.24	110.00	113.95
4	E	1438	GSP	C5-C6-N1	-2.23	110.02	113.95
4	G	1438	GSP	O2A-PA-O1A	2.10	122.64	112.24
4	C	1438	GSP	O2A-PA-O1A	2.09	122.59	112.24
4	E	1438	GSP	O2A-PA-O1A	2.09	122.58	112.24
4	A	1438	GSP	O2A-PA-O1A	2.09	122.58	112.24
5	H	500	GTP	O5'-C5'-C4'	2.05	116.06	108.99
5	D	500	GTP	O5'-C5'-C4'	2.05	116.04	108.99
5	B	500	GTP	O5'-C5'-C4'	2.03	115.99	108.99
5	F	500	GTP	O5'-C5'-C4'	2.03	115.98	108.99

There are no chirality outliers.

All (32) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	A	1438	GSP	C5'-O5'-PA-O2A
4	A	1438	GSP	O4'-C4'-C5'-O5'
4	A	1438	GSP	C3'-C4'-C5'-O5'
4	C	1438	GSP	C5'-O5'-PA-O2A
4	C	1438	GSP	O4'-C4'-C5'-O5'
4	C	1438	GSP	C3'-C4'-C5'-O5'
4	E	1438	GSP	C5'-O5'-PA-O2A
4	E	1438	GSP	O4'-C4'-C5'-O5'
4	E	1438	GSP	C3'-C4'-C5'-O5'
4	G	1438	GSP	C5'-O5'-PA-O2A
4	G	1438	GSP	O4'-C4'-C5'-O5'
4	G	1438	GSP	C3'-C4'-C5'-O5'
5	D	500	GTP	C3'-C4'-C5'-O5'
5	F	500	GTP	C3'-C4'-C5'-O5'
5	B	500	GTP	C3'-C4'-C5'-O5'
5	H	500	GTP	C3'-C4'-C5'-O5'
5	B	500	GTP	O4'-C4'-C5'-O5'

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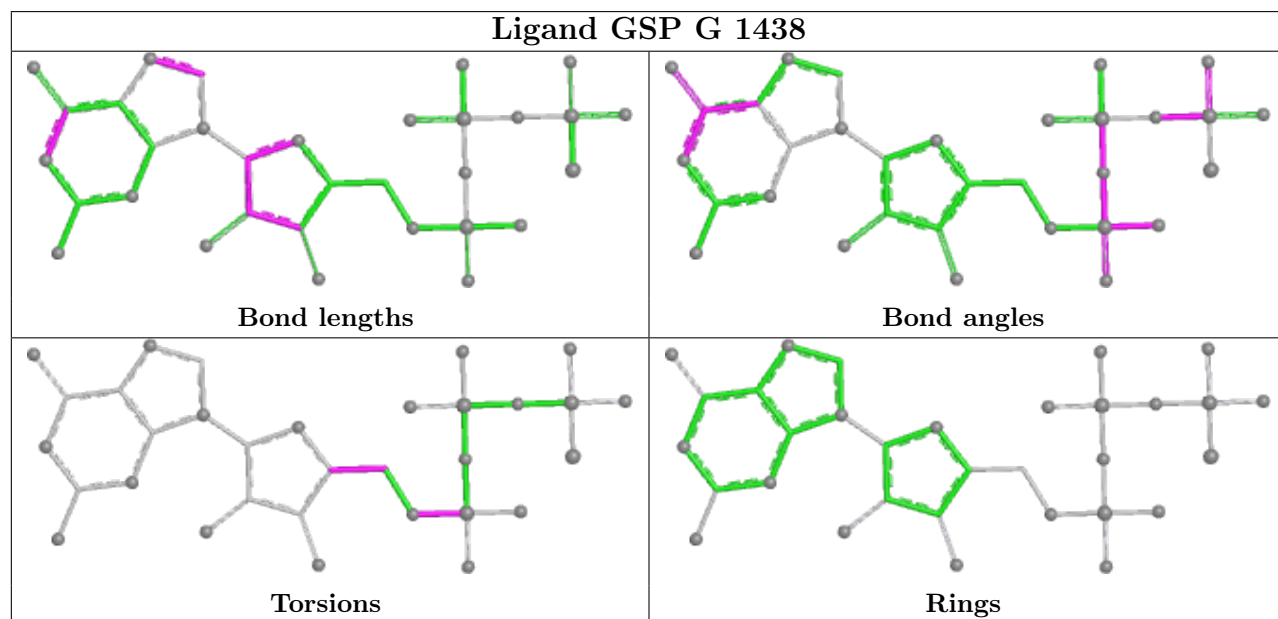
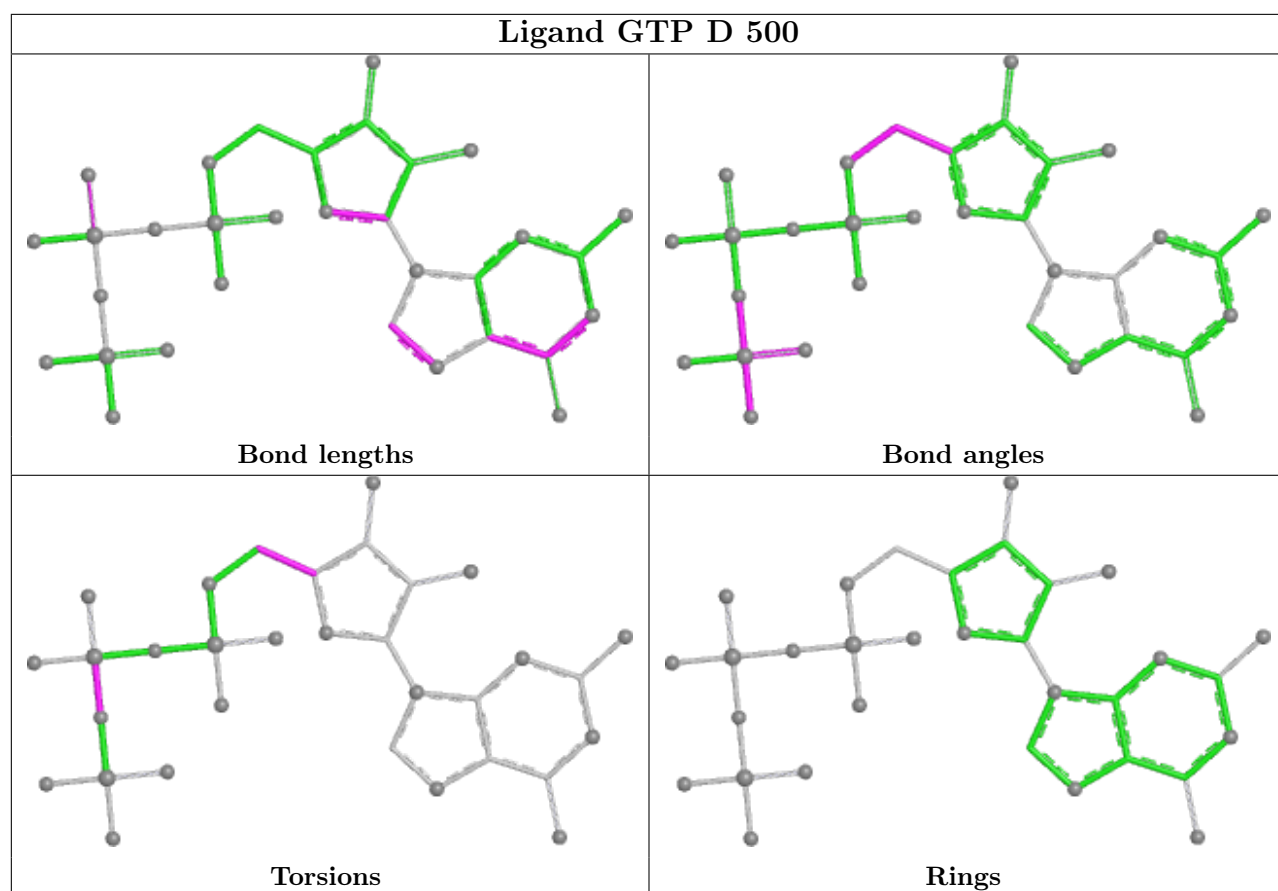
Mol	Chain	Res	Type	Atoms
5	D	500	GTP	O4'-C4'-C5'-O5'
5	F	500	GTP	O4'-C4'-C5'-O5'
5	H	500	GTP	O4'-C4'-C5'-O5'
4	A	1438	GSP	C5'-O5'-PA-O3A
4	C	1438	GSP	C5'-O5'-PA-O3A
4	E	1438	GSP	C5'-O5'-PA-O3A
4	G	1438	GSP	C5'-O5'-PA-O3A
5	B	500	GTP	PG-O3B-PB-O1B
5	D	500	GTP	PG-O3B-PB-O1B
5	F	500	GTP	PG-O3B-PB-O1B
5	H	500	GTP	PG-O3B-PB-O1B
4	A	1438	GSP	C5'-O5'-PA-O1A
4	C	1438	GSP	C5'-O5'-PA-O1A
4	E	1438	GSP	C5'-O5'-PA-O1A
4	G	1438	GSP	C5'-O5'-PA-O1A

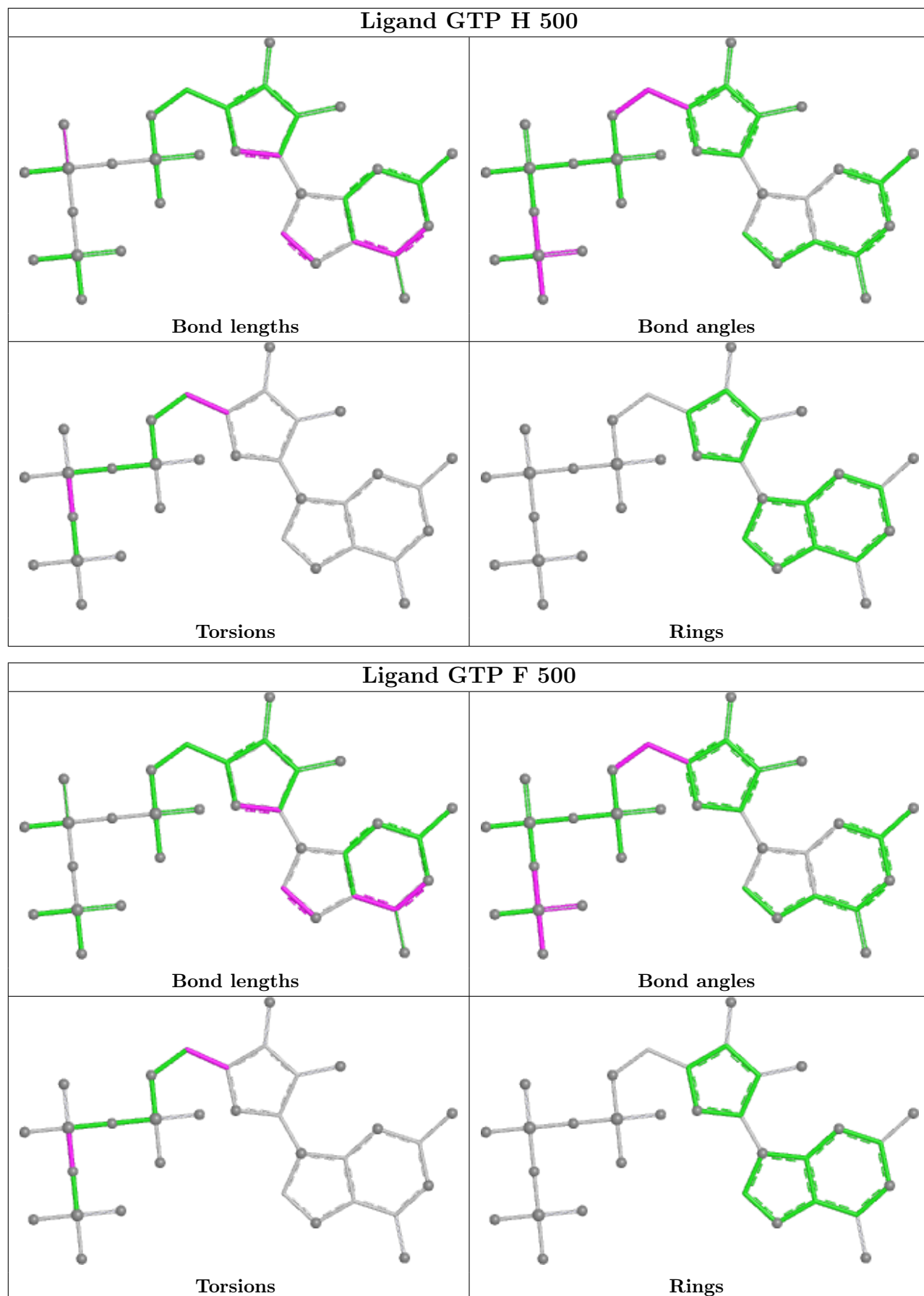
There are no ring outliers.

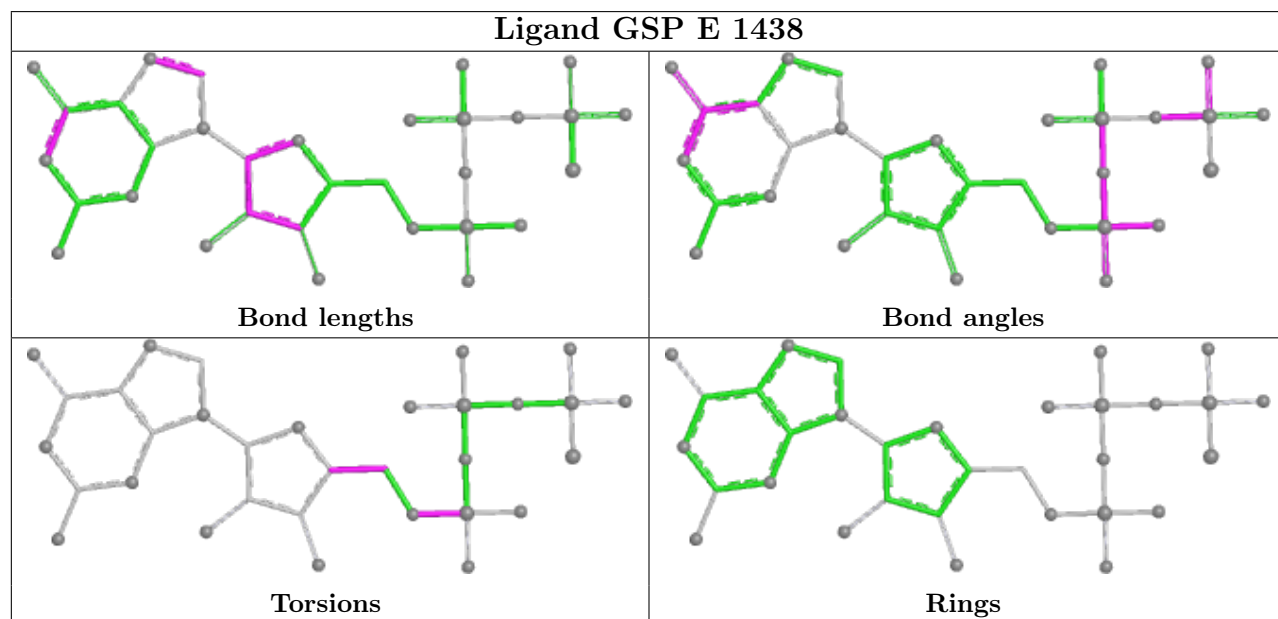
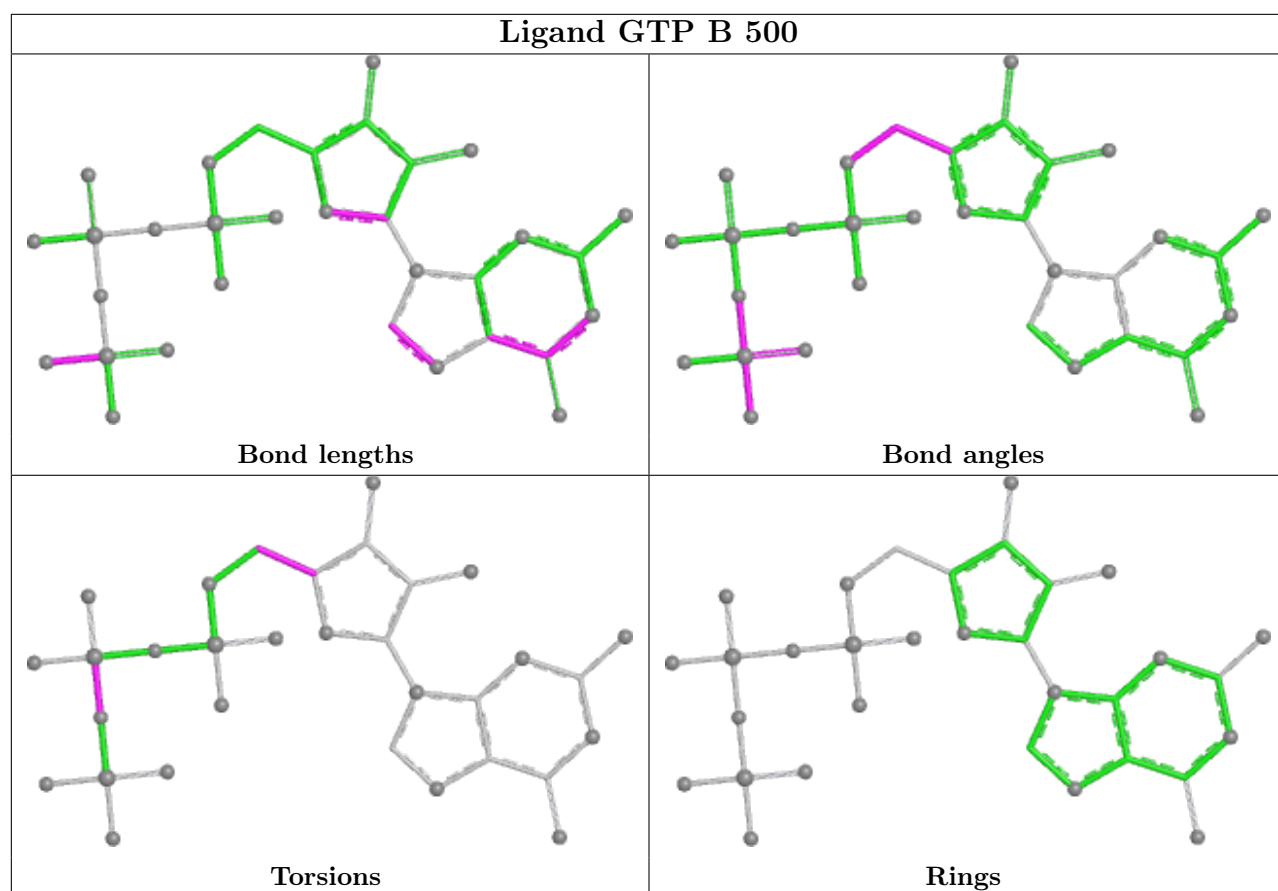
8 monomers are involved in 32 short contacts:

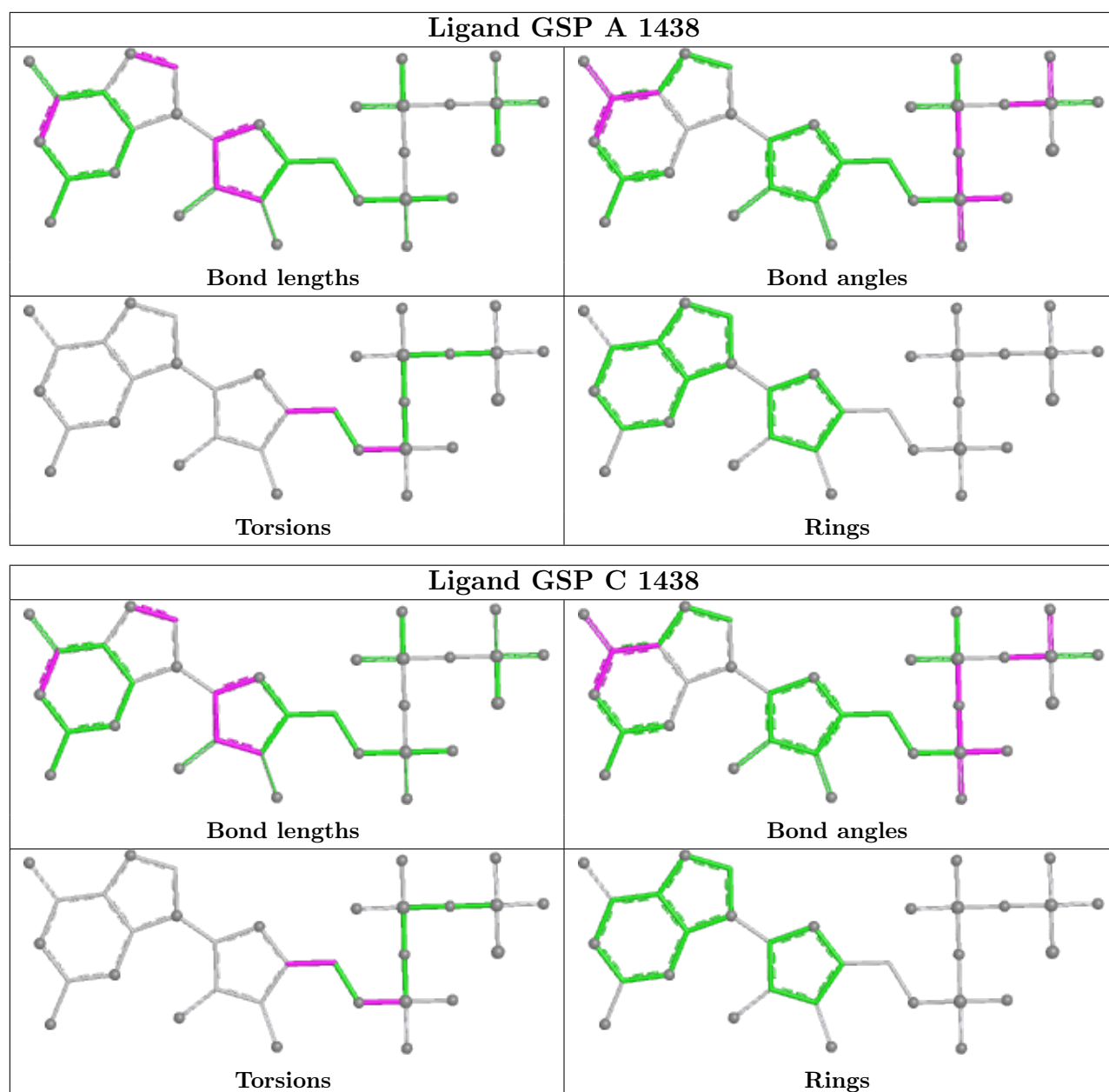
Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	D	500	GTP	4	0
4	G	1438	GSP	6	0
5	H	500	GTP	4	0
5	F	500	GTP	5	0
5	B	500	GTP	6	0
4	E	1438	GSP	3	0
4	A	1438	GSP	3	0
4	C	1438	GSP	1	0

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









## 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
2	B	4
2	D	4

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Mol	Chain	Number of breaks
2	F	4
2	H	4

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	B	274:PRO	C	275:VAL	N	2.09
1	D	274:PRO	C	275:VAL	N	2.09
1	F	274:PRO	C	275:VAL	N	2.09
1	H	274:PRO	C	275:VAL	N	2.09
1	B	92:LEU	C	93:ILE	N	1.98
1	D	92:LEU	C	93:ILE	N	1.98
1	F	92:LEU	C	93:ILE	N	1.98
1	H	92:LEU	C	93:ILE	N	1.98
1	B	298:PRO	C	299:ALA	N	1.73
1	D	298:PRO	C	299:ALA	N	1.73
1	F	298:PRO	C	299:ALA	N	1.73
1	H	298:PRO	C	299:ALA	N	1.73
1	B	68:VAL	C	69:ASP	N	1.67
1	D	68:VAL	C	69:ASP	N	1.67
1	F	68:VAL	C	69:ASP	N	1.67
1	H	68:VAL	C	69:ASP	N	1.67



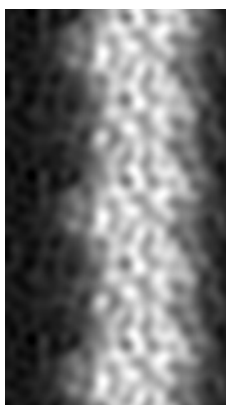
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-2005. These allow visual inspection of the internal detail of the map and identification of artifacts.

No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

### 6.1 Orthogonal projections [i](#)

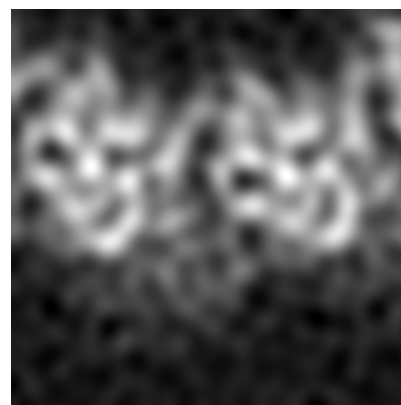
#### 6.1.1 Primary map



X



Y

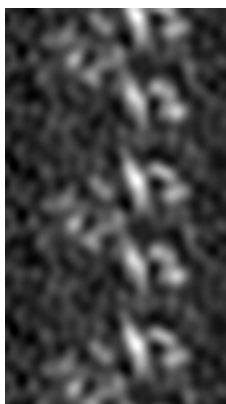


Z

The images above show the map projected in three orthogonal directions.

### 6.2 Central slices [i](#)

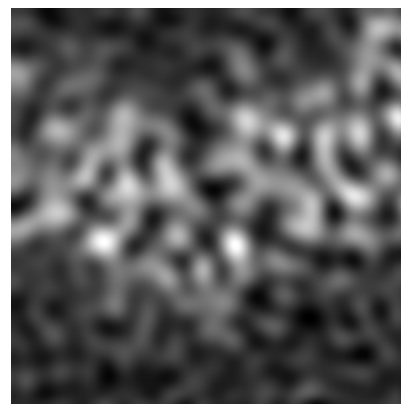
#### 6.2.1 Primary map



X Index: 25



Y Index: 25

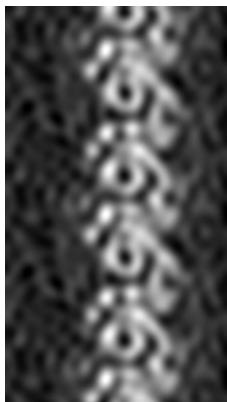


Z Index: 45

The images above show central slices of the map in three orthogonal directions.

## 6.3 Largest variance slices [i](#)

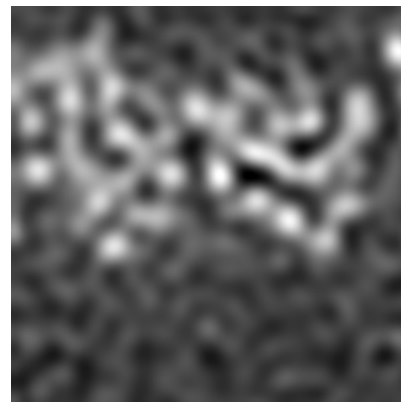
### 6.3.1 Primary map



X Index: 34



Y Index: 24



Z Index: 52

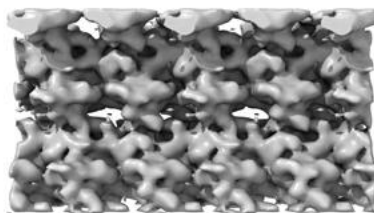
The images above show the largest variance slices of the map in three orthogonal directions.

## 6.4 Orthogonal surface views [i](#)

### 6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 1.9. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

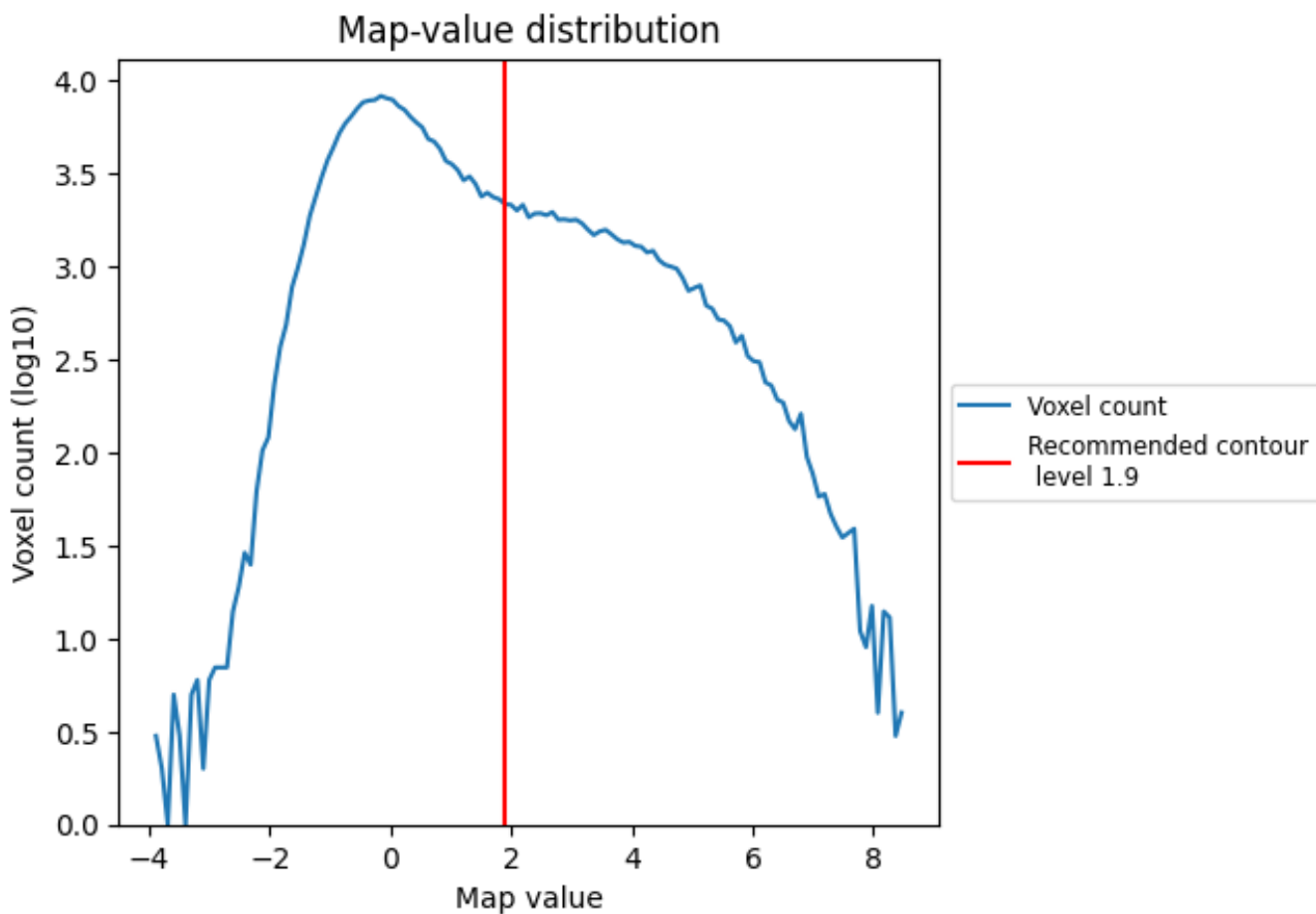
## 6.5 Mask visualisation

This section was not generated. No masks/segmentation were deposited.

## 7 Map analysis [i](#)

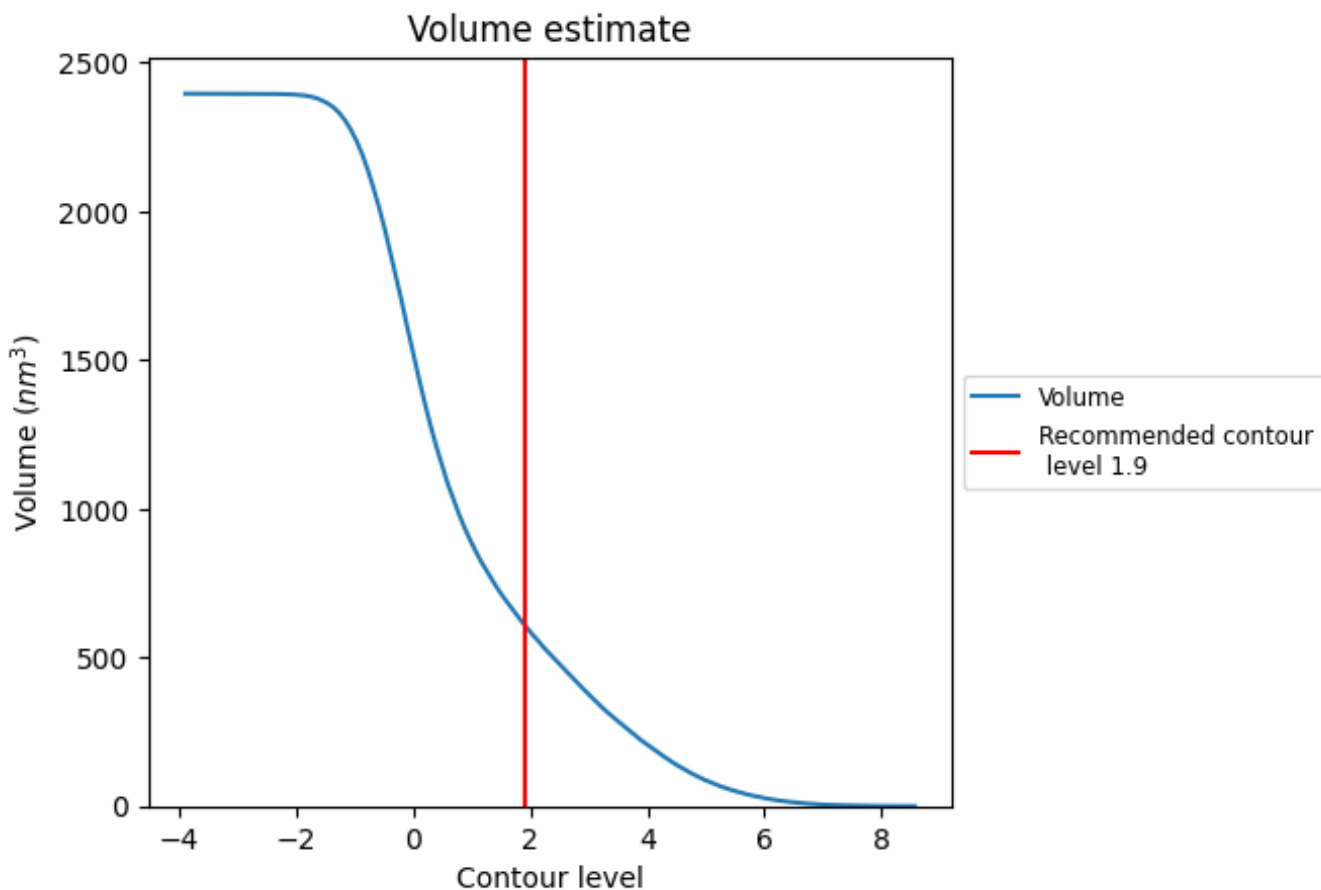
This section contains the results of statistical analysis of the map.

### 7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 611 nm<sup>3</sup>; this corresponds to an approximate mass of 552 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

## 7.3 Rotationally averaged power spectrum [i](#)

This section was not generated. The rotationally averaged power spectrum is only generated for cubic maps.

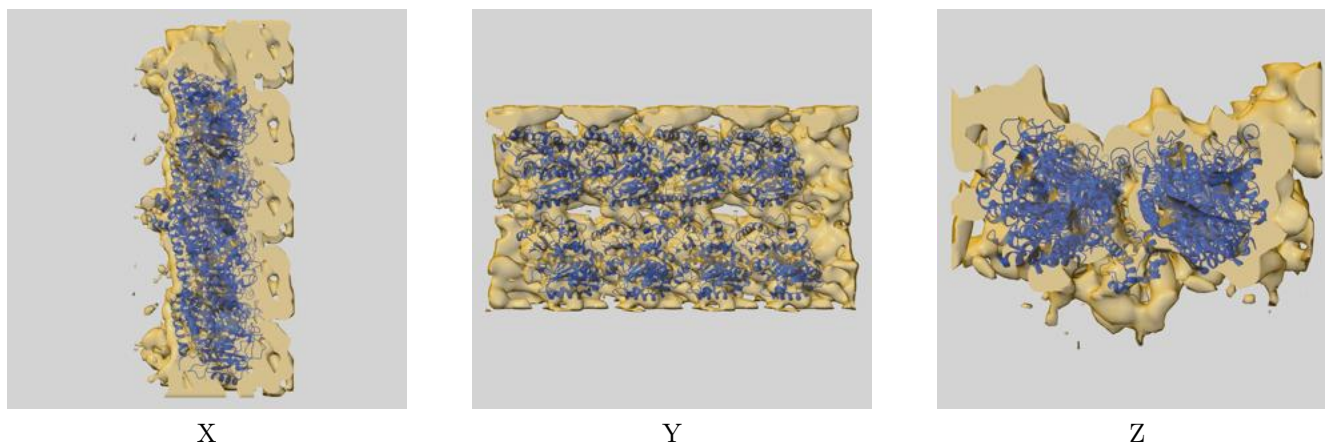
## 8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

## 9 Map-model fit [i](#)

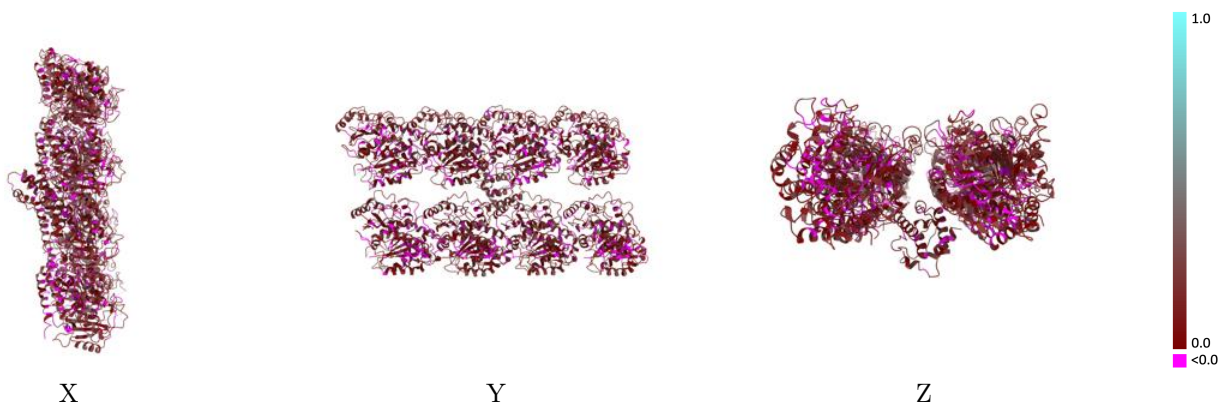
This section contains information regarding the fit between EMDB map EMD-2005 and PDB model 4ABO. Per-residue inclusion information can be found in section [3](#) on page [7](#).

### 9.1 Map-model overlay [i](#)



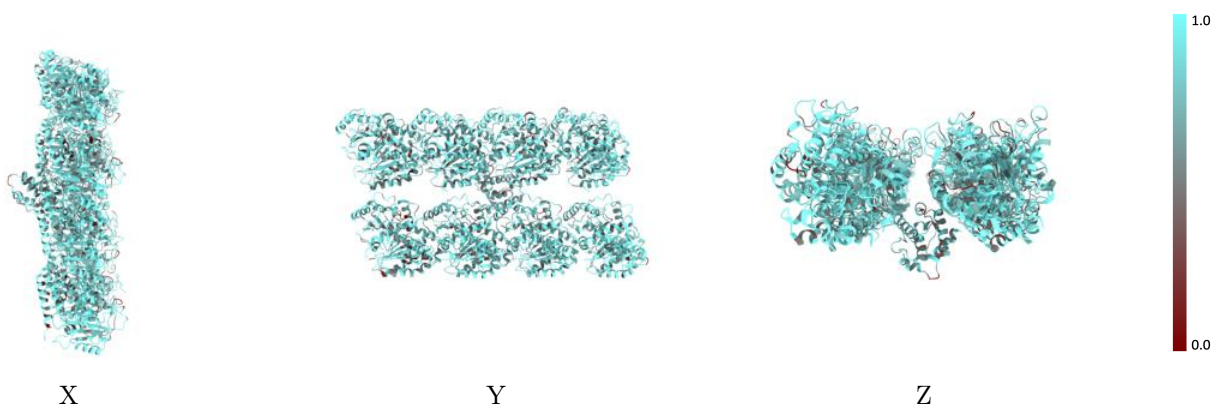
The images above show the 3D surface view of the map at the recommended contour level 1.9 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

## 9.2 Q-score mapped to coordinate model [\(i\)](#)



The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

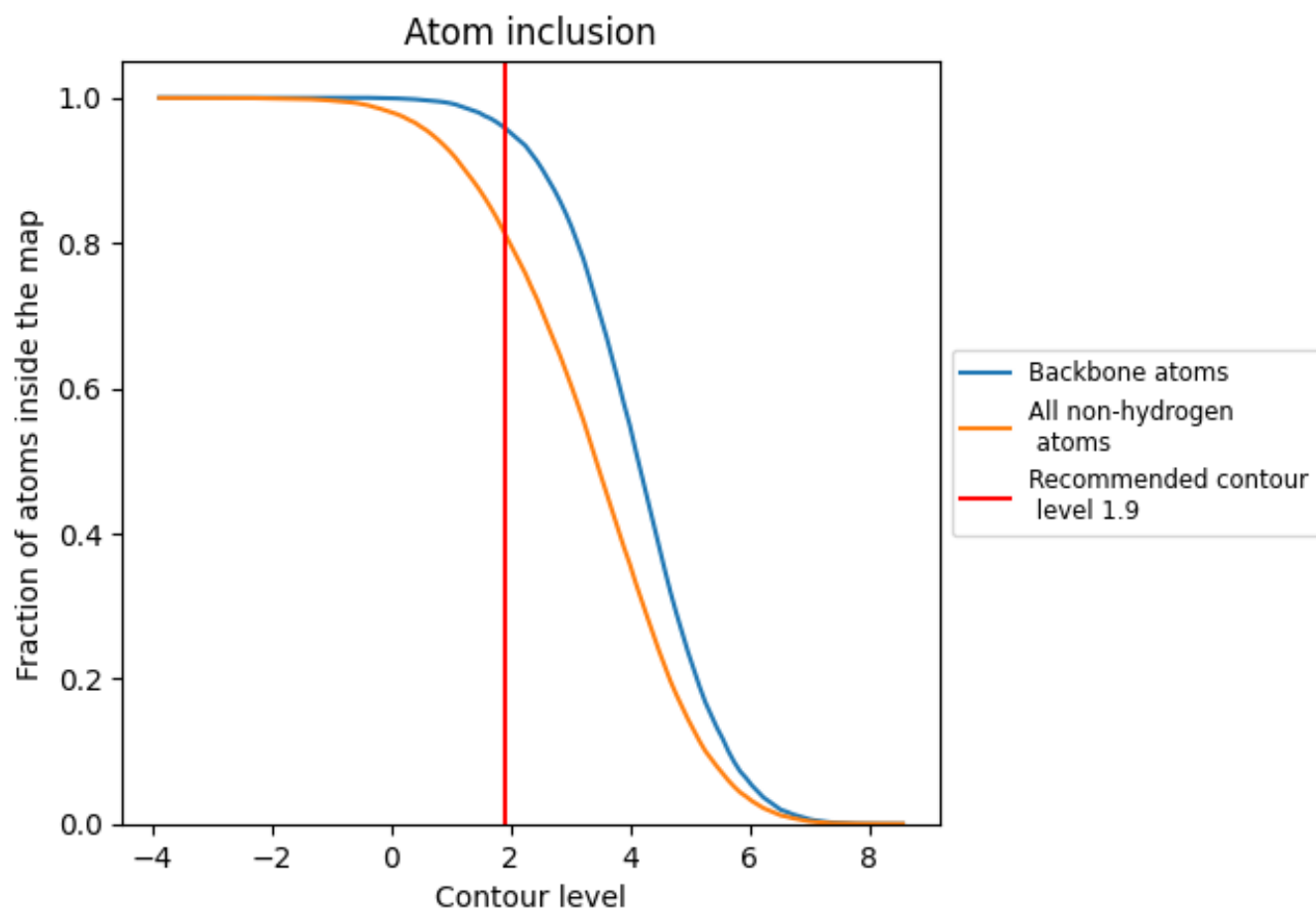
## 9.3 Atom inclusion mapped to coordinate model [\(i\)](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (1.9).























## 9.4 Atom inclusion [i](#)



At the recommended contour level, 96% of all backbone atoms, 81% of all non-hydrogen atoms, are inside the map.

## 9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (1.9) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8127	 0.1190
A	 0.8234	 0.1280
B	 0.8110	 0.1180
C	 0.8258	 0.1270
D	 0.8043	 0.1150
E	 0.8303	 0.1170
F	 0.8211	 0.1250
G	 0.8252	 0.1230
H	 0.7879	 0.0940
I	 0.7168	 0.1380

