wwPDB EM Map/Model Validation Report (i)

Apr 10, 2016 – 02:02 PM BST

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 PDB ID	:	2XRP

This is a wwPDB EM Map/Model Validation Report for a publicly released PDB/EMDB entry.
For rigid body fitted models, validation errors reported here could
stem from errors in the original structure(s) used in the fitting.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
http://wwpdb.org/validation/2016/EMValidationReportHelp

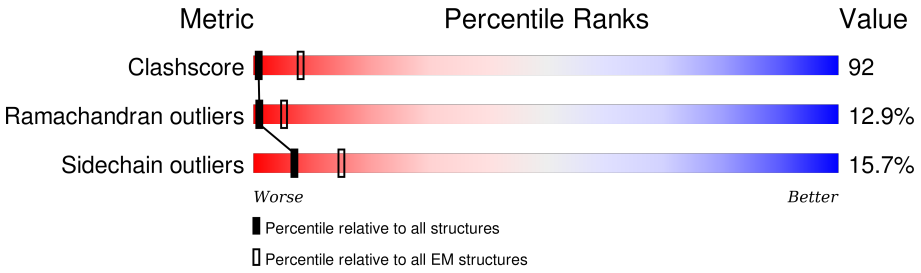
MolProbity	:	4.02b-467
Mogul	:	1.7.1 (RC1), CSD as537be (2016)
Percentile statistics	:	20151230.v01 (using entries in the PDB archive December 30th 2015)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP)	:	trunk27241

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	114402	924
Ramachandran outliers	111179	726
Sidechain outliers	111093	686

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

Mol	Chain	Length	Quality of chain
1	A	445	20% 55% 18% • •
1	C	445	19% 56% 18% • •
1	E	445	21% 55% 18% • •
1	G	445	20% 56% 18% • •
2	B	451	16% 59% 19% • 5%
2	D	451	17% 58% 19% • 5%
2	F	451	17% 59% 18% • 5%
2	H	451	18% 58% 18% • 5%
3	I	145	22% 58% • 19%

2 Entry composition

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
1	A	426	Total	C	N	O	S	0	0
			3350	2105	574	646	25		
1	C	426	Total	C	N	O	S	0	0
			3350	2105	574	646	25		
1	E	426	Total	C	N	O	S	0	0
			3350	2105	574	646	25		
1	G	426	Total	C	N	O	S	0	0
			3350	2105	574	646	25		

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

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

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

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

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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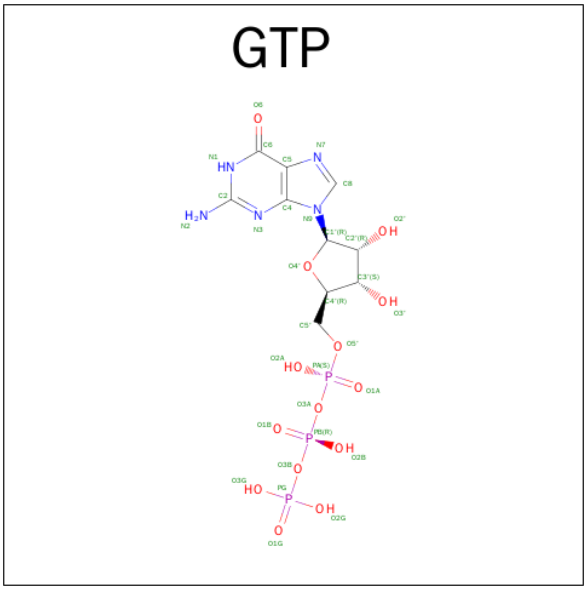
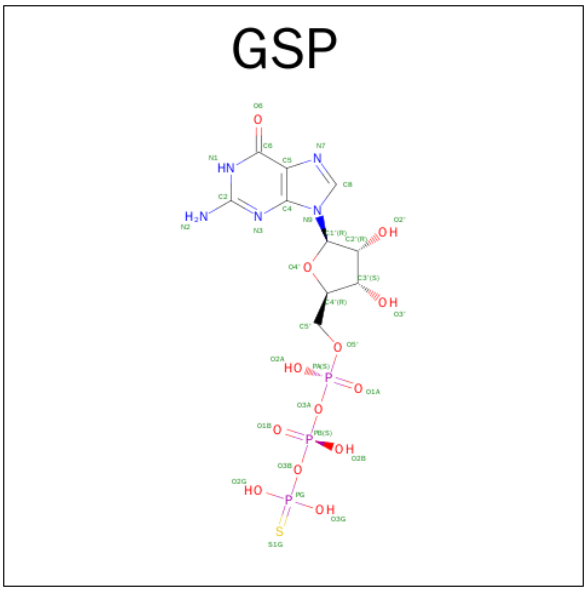
Chain	Residue	Modelled	Actual	Comment	Reference
I	1	GLY	-	EXPRESSION TAG	UNP Q10113

- Molecule 4 is GUANOSINE-5'-TRIPHOSPHATE (three-letter code: GTP) (formula: $C_{10}H_{16}N_5O_{14}P_3$).



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

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



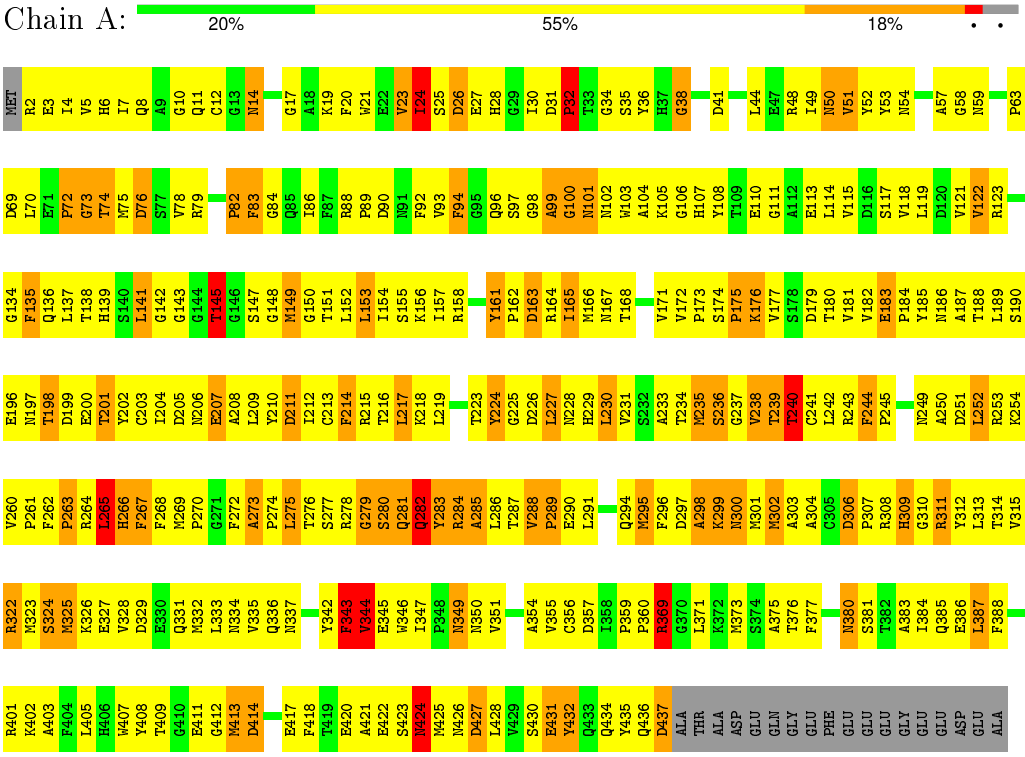
Mol	Chain	Residues	Atoms						AltConf
5	C	1	Total	C	N	O	P	S	0
			32	10	5	13	3	1	
5	A	1	Total	C	N	O	P	S	0
			32	10	5	13	3	1	
5	E	1	Total	C	N	O	P	S	0
			32	10	5	13	3	1	
5	G	1	Total	C	N	O	P	S	0
			32	10	5	13	3	1	

3 Residue-property plots (i)

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

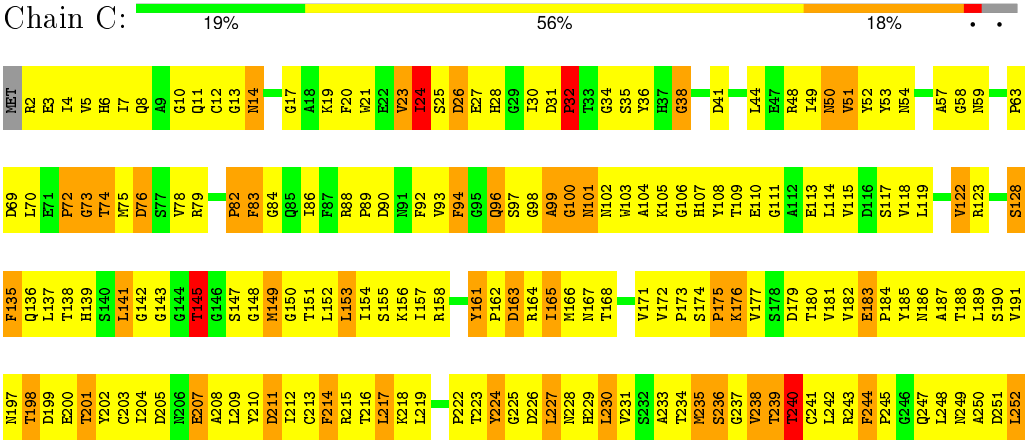
- Molecule 1: TUBULIN BETA CHAIN

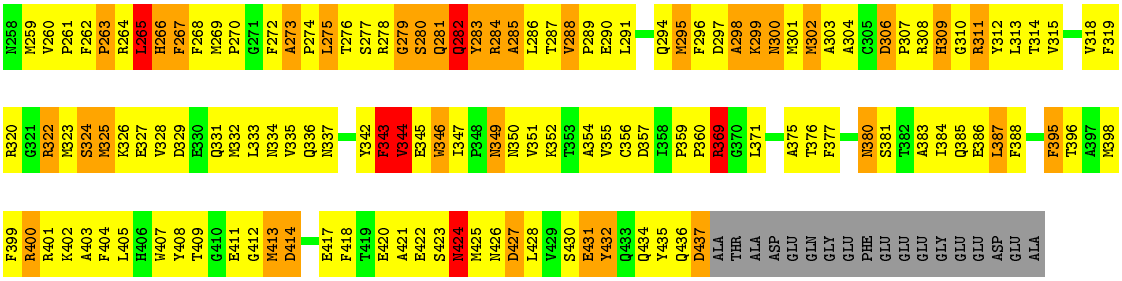
Chain A:



- Molecule 1: TUBULIN BETA CHAIN

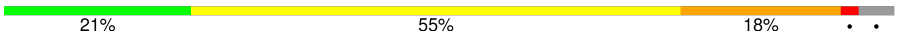
Chain C:

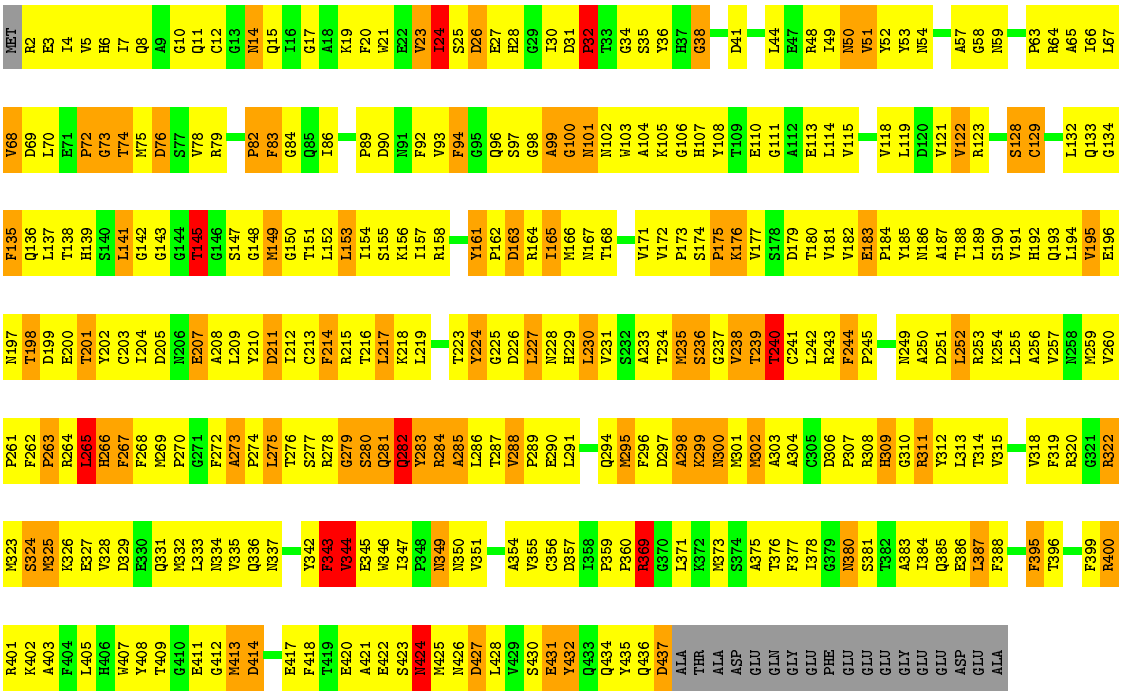




• Molecule 1: TUBULIN BETA CHAIN

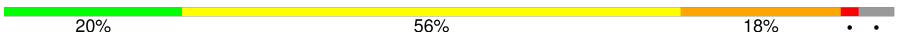
Chain E:

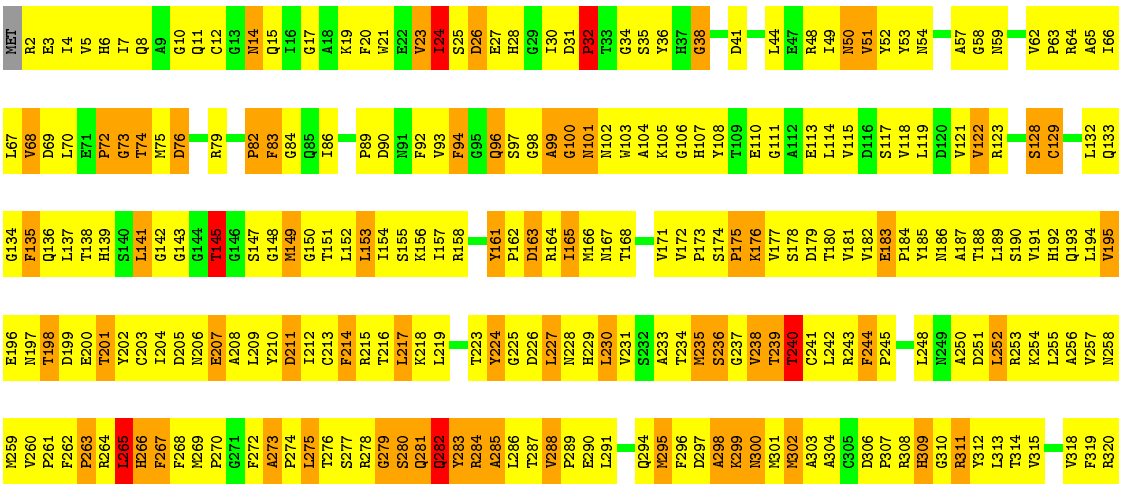


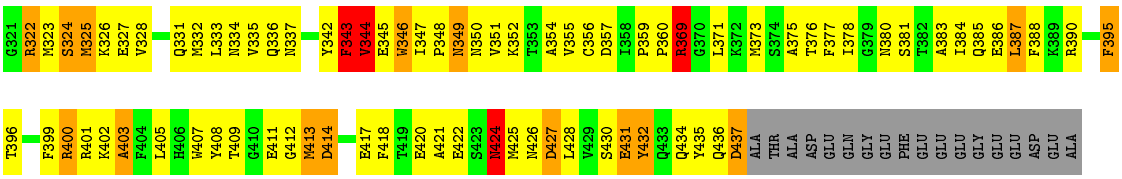


• Molecule 1: TUBULIN BETA CHAIN

Chain G:

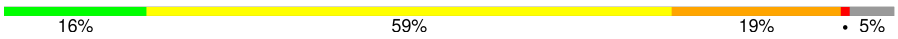


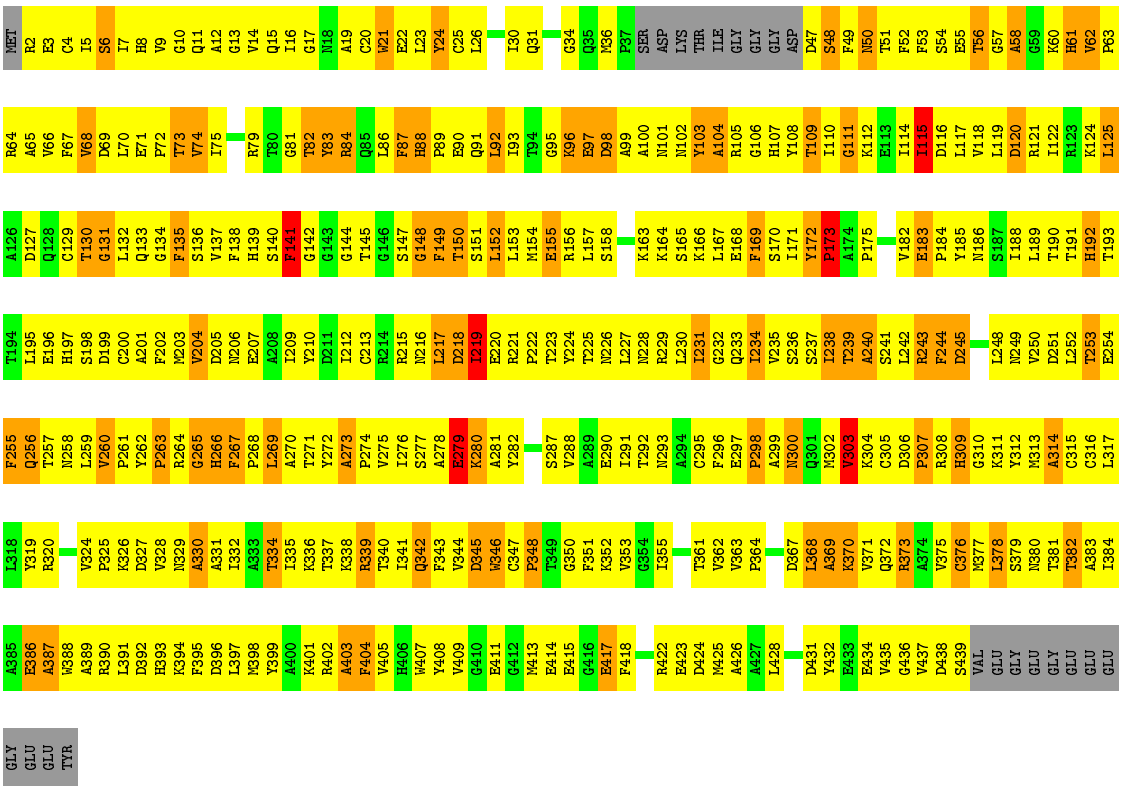




- Molecule 2: TUBULIN ALPHA-1A CHAIN

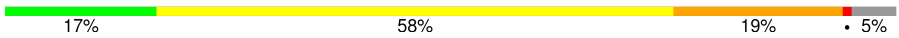
Chain B:

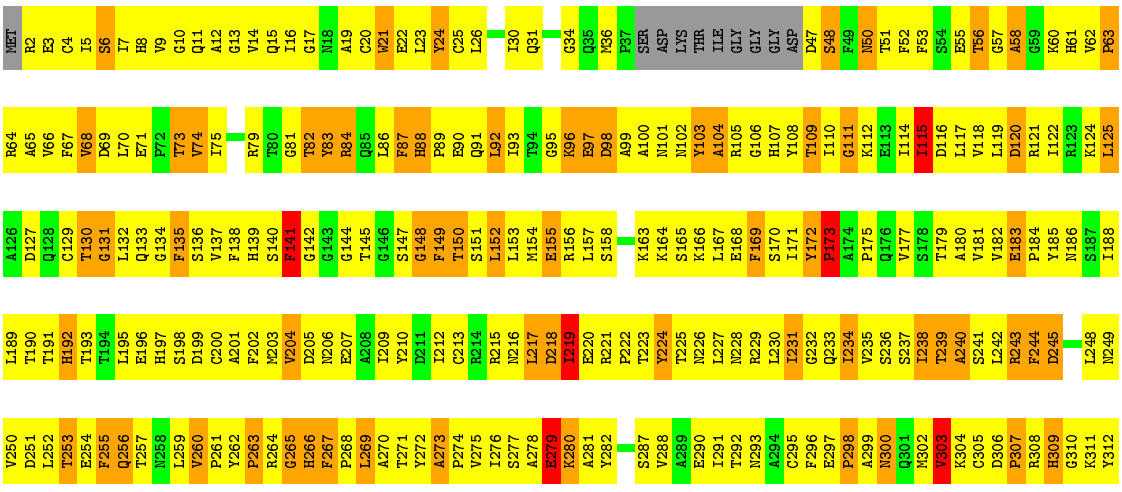


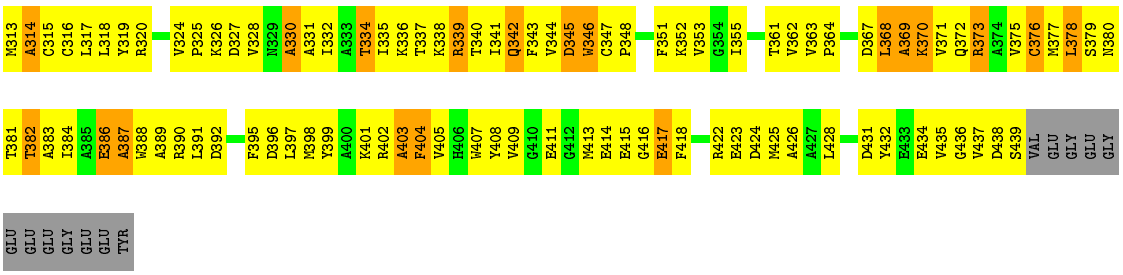


- Molecule 2: TUBULIN ALPHA-1A CHAIN

Chain D:

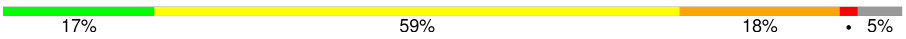


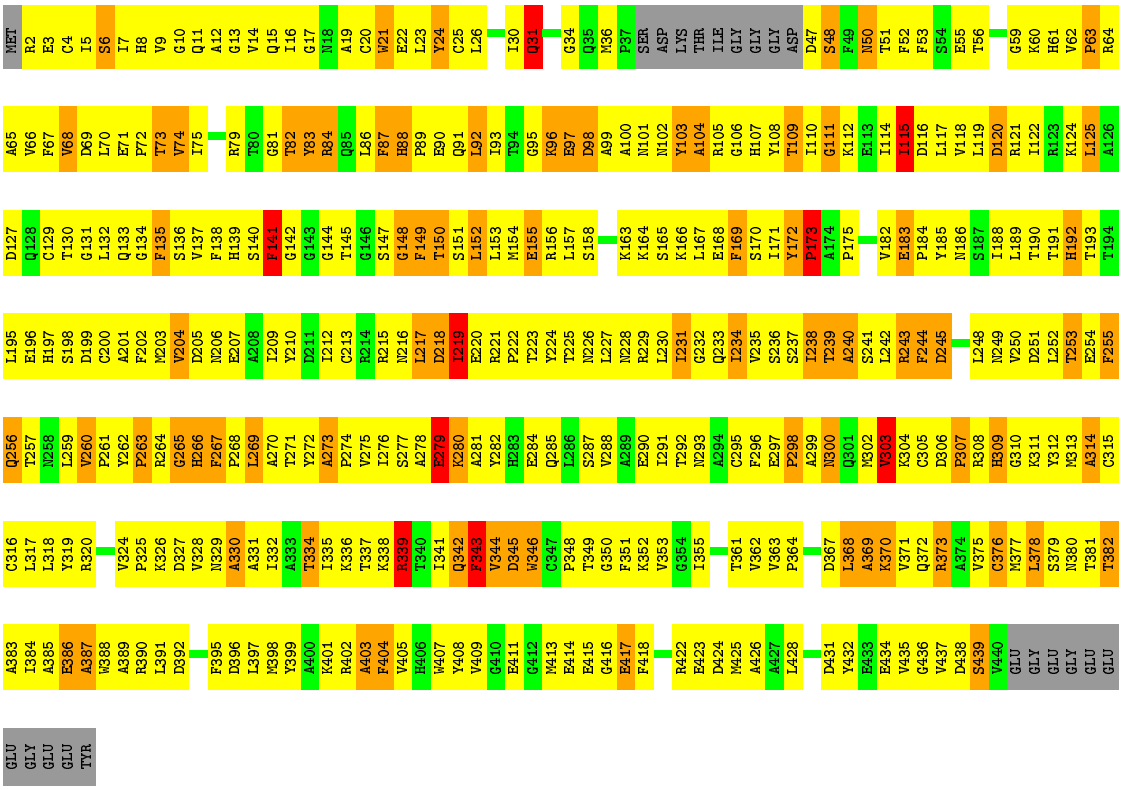




• Molecule 2: TUBULIN ALPHA-1A CHAIN

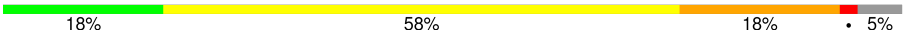
Chain F:

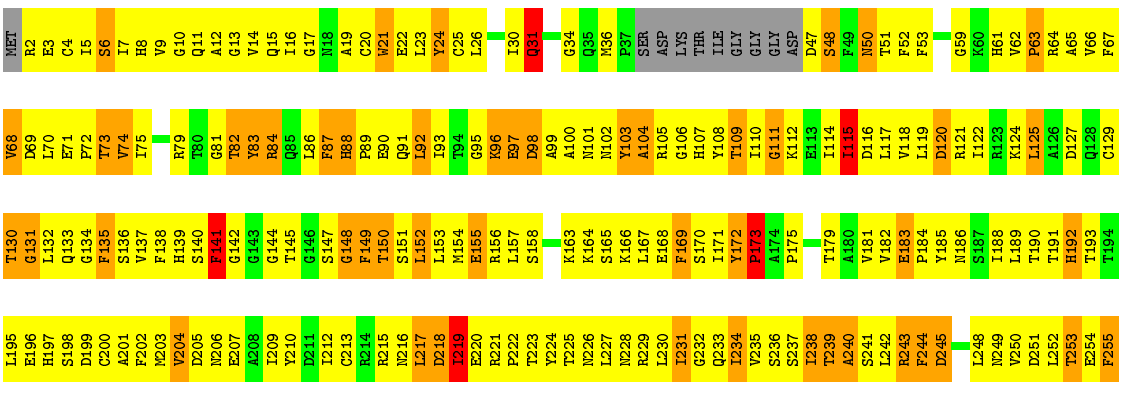


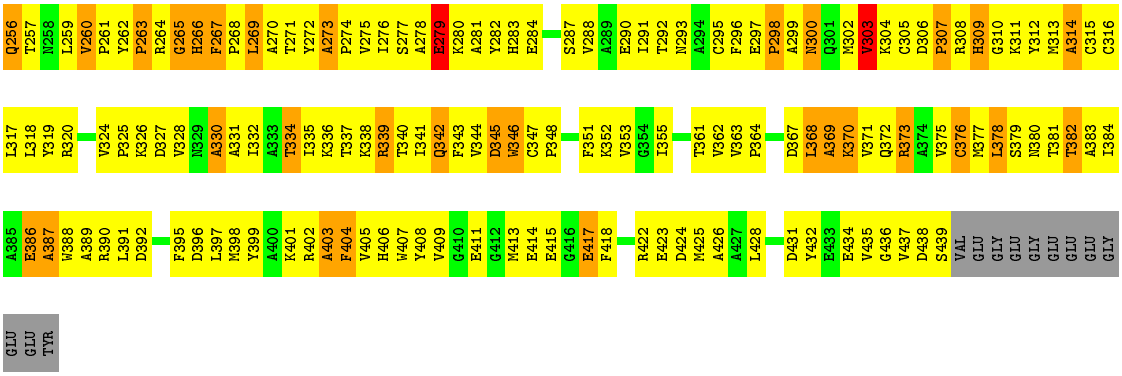


• Molecule 2: TUBULIN ALPHA-1A CHAIN

Chain H:

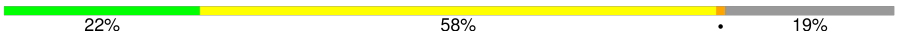


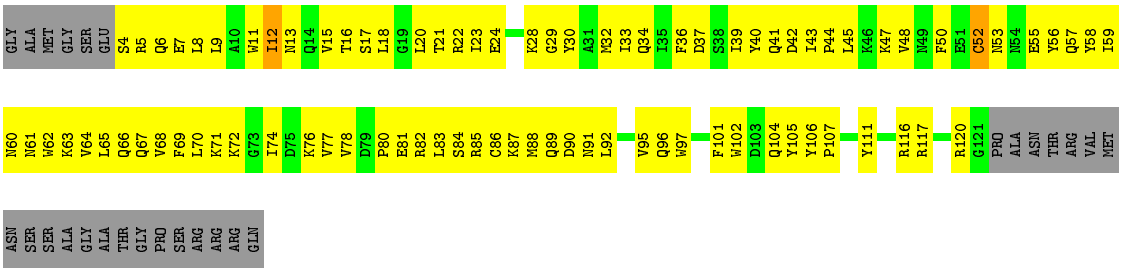




- Molecule 3: MICROTUBULE INTEGRITY PROTEIN MAL3

Chain I:





4 Experimental information (i)

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of images	Not provided	Depositor
Resolution determination method	Not provided	Depositor
CTF correction method	FREALIGN	Depositor
Microscope	FEI TECNAI F20	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/Å^2$)	17	Depositor
Minimum defocus (nm)	700	Depositor
Maximum defocus (nm)	3600	Depositor
Magnification	68000	Depositor
Image detector	GATAN ULTRASCAN 4000 4K CCD CAMERA	Depositor

5 Model quality

5.1 Standard geometry

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

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	#$\|Z\|$ >2	RMSZ	#$\|Z\|$ >2
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(^{o})	Ideal(^{o})
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(^{o})	Ideal(^{o})
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 (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	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	B	32	0	12	6	0
4	D	32	0	12	4	0
4	F	32	0	12	5	0
4	H	32	0	12	4	0
5	A	32	0	12	3	0
5	C	32	0	12	1	0
5	E	32	0	12	3	0
5	G	32	0	12	6	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
1:G:352:LYS:CD	2:H:181:VAL:HG23	1.43	1.46
2:B:5:ILE:HG12	2:B:64:ARG:NH1	1.27	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:H:296:PHE:CE1	2:H:341:ILE:CD1	2.11	1.32
2:B:63:PRO:HG2	2:B:91:GLN:OE1	1.29	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:D:57:GLY:CA	2:D:58:ALA:HB2	1.63	1.28
2:B:57:GLY:CA	2:B: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	5: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
1:G:2:ARG:CZ	2:H:98:ASP:HB3	1.73	1.17
2:F:217:LEU:HD12	2:F:277:SER:CB	1.72	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:H:70:LEU:HD13	2:H:145:THR:OG1	1.48	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:B:243:ARG:NH2	2:B:252:LEU:H	1.45	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
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:E:93:VAL:HG11	1:E:118:VAL:HG22	1.30	1.12
3:I:44:PRO:HB2	3:I:47:LYS:HD3	1.31	1.12
1:C:93:VAL:HG11	1:C:118:VAL:HG22	1.30	1.12
2:H:243:ARG:NH2	2:H:252:LEU:H	1.45	1.12
1:G:258:ASN:HA	2:H:404:PHE:CD2	1.84	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: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:G:352:LYS:CD	2:H:181:VAL:CG2	2.20	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:A:93:VAL:HG11	1:A:118:VAL:HG22	1.30	1.11
2:F:296:PHE:CE2	2:F:335:ILE:HG21	1.84	1.11
1:E:234:THR:HG21	1:E:270:PRO:HB2	1.23	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
1:G:258:ASN:ND2	1:G:352:LYS:HE2	1.67	1.09
1:G:234:THR:HG21	1:G:270:PRO:HB2	1.23	1.09
2:D:56:THR:CA	2:H:284:GLU:CB	2.26	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:F:5:ILE:HG21	2:F:135:PHE:HD2	1.17	1.06
2:F:56:THR:CG2	2:F:62:VAL:CG2	2.33	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:298:PRO:HB3	2:D:307:PRO:HD2	1.36	1.06
2:H:298:PRO:HB3	2:H:307:PRO:HD2	1.36	1.06
2:D:57:GLY:H	2:H:284:GLU:CG	1.51	1.06
1:A:88:ARG:HD3	1:E:283:TYR:HE1	1.18	1.06
2:H:274:PRO:C	2:H:275:VAL:N	2.09	1.06
2:F:11:GLN:HG3	2:F:74:VAL:HG11	1.34	1.06
2:B:109:THR:HG22	2:B:110:ILE:N	1.70	1.05
2:H:109:THR:HG22	2:H:110:ILE:N	1.70	1.05
2:B:274:PRO:C	2:B:275:VAL:N	2.09	1.05
1:A:88:ARG:CD	1:E:283:TYR:HE1	1.69	1.05
1:G:390:ARG:NH2	3:I:56:TYR:HB2	1.71	1.05
2:F:274:PRO:C	2:F:275:VAL:N	2.09	1.05
1:E:172:VAL:HG11	1:E:387:LEU:HD21	1.37	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:H:217:LEU:CD1	2:H:277:SER:HB3	1.86	1.05
2:F:217:LEU:CD1	2:F:277:SER:HB3	1.87	1.05
2:H:296:PHE:CD1	2:H:341:ILE:CD1	2.40	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
1:A:172:VAL:HG11	1:A:387:LEU:HD21	1.37	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
1:G:257:VAL:HG21	2:H:407:TRP:CD1	1.91	1.04
2:F:67:PHE:CE2	2:F:87:PHE:CE2	2.45	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:G:2:ARG:NH2	2:H:98:ASP:HB3	1.74	1.02
1:C:299:LYS:HD3	1:C:299:LYS:H	1.24	1.02
1:G:250:ALA:CB	1:G:254:LYS:CD	2.38	1.02
2:D:109:THR:HG22	2:D:110:ILE:N	1.70	1.02
2:D:62:VAL:HG11	2:D:88:HIS:HD1	1.22	1.02
1:G:352:LYS:HD3	2:H:181:VAL:HG23	1.07	1.02
1:G:248:LEU:CD2	2:H:179:THR:CG2	2.37	1.02
1:G:257:VAL:HG21	2:H:407:TRP:CB	1.77	1.02
2:B:88:HIS:HB2	2:B:91:GLN:HE21	1.22	1.02
1:A:299:LYS:H	1:A:299:LYS:HD3	1.24	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: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
1:E:299:LYS:H	1:E:299:LYS:HD3	1.24	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
2:B:5:ILE:CG1	2:B:64:ARG:HH12	1.67	1.01
2:D:243:ARG:HH21	2:D:252:LEU:N	1.57	1.01
2:F:243:ARG:HH21	2:F:252:LEU:N	1.58	1.01
2:F:88:HIS:HB2	2:F:91:GLN:HE21	1.22	1.01
2:B:56:THR:O	2:B:58:ALA:HB3	1.59	1.01
1:A:236:SER:O	1:A:240:THR:HG23	1.61	1.01
1:G:299:LYS:HD3	1:G:299:LYS:H	1.24	1.01
2:H:243:ARG:HH21	2:H:252:LEU:N	1.57	1.01
1:C:236:SER:O	1:C:240:THR:HG23	1.61	1.01
2:B:243:ARG:HH21	2:B: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
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:D:276:ILE:HG23	2:D:369:ALA:HB2	1.43	0.99
2:B:30:ILE:HD11	2:B:61:HIS:CE1	1.97	0.99
3:I:5:ARG:HG3	3:I:23:ILE:HG13	1.41	0.99
2:B:5:ILE:HG12	2:B:64:ARG:CZ	1.90	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
1:G:253:ARG:CB	2:H:407:TRP:HH2	1.75	0.97
2:H:296:PHE:HE1	2:H:341:ILE:HD11	1.21	0.97
1:G:390:ARG:NH1	3:I:56:TYR:CD2	2.31	0.97
2:B:63:PRO:HG2	2:B:91:GLN:CD	1.85	0.97
2:D:5:ILE:CG2	2:D:135:PHE:HD2	1.78	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:329:ASP:HB3	2:D:177:VAL:CG1	1.93	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
3:I:5:ARG:HD3	3:I:88:MET:HE1	1.46	0.96
2:B:62:VAL:HG12	2:B:63:PRO:HD2	0.96	0.96
1:G:257:VAL:HB	2:H:407:TRP:CD2	2.01	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: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
3:I:21:THR:HG22	3:I:22:ARG:HD2	1.47	0.95
1:A:273:ALA:HB3	1:A:274:PRO:HD3	1.48	0.95
1:G:248:LEU:HD22	2:H:179:THR:HG21	1.46	0.95
1:C:248:LEU:HD22	2:D:179:THR:HG21	1.47	0.95
2:H:251:ASP:N	2:H:254:GLU:HG3	1.82	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
3:I:5:ARG:CG	3:I:23:ILE:HD11	1.96	0.95
2:H:316:CYS:HB3	2:H:378:LEU:HD11	1.48	0.95
2:B:350:GLY:HA2	1:C:181:VAL:HG13	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
1:G:352:LYS:HA	2:H:181:VAL:HG22	1.44	0.95
2:B:251:ASP:N	2:B:254:GLU:HG3	1.82	0.95
2:H:259:LEU:HD11	2:H:378:LEU:HD13	1.47	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
3:I:5:ARG:CG	3:I:23:ILE:CD1	2.44	0.95
2:B:278:ALA:O	2:B: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
2:F:278:ALA:O	2:F:279:GLU:HB3	1.66	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
2:F:259:LEU:HD11	2:F:378:LEU:HD13	1.47	0.94
1:C:281:GLN:O	1:C:283:TYR:N	2.00	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
2:D:52:PHE:CZ	2:D:239:THR:HB	2.02	0.94
1:C:113:GLU:OE1	3:I:87:LYS:HD2	1.66	0.94
2:H:98:ASP:HB2	2:H:105:ARG:HH21	1.31	0.94
2:D:251:ASP:H	2:D:254:GLU:HG3	1.33	0.94
1:A:281:GLN:O	1:A:283:TYR:N	2.00	0.94
2:B:259:LEU:HD11	2:B:378:LEU:HD13	1.47	0.94
2:F:237:SER:HB2	2:F:376:CYS:SG	2.08	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
1:G:70:LEU:H	1:G:145:THR:HG21	1.33	0.94
3:I:45:LEU:CD1	3:I:116:ARG:HB3	1.98	0.94
2:H:217:LEU:HD12	2:H:277:SER:HB3	0.95	0.94
2:F:217:LEU:HD12	2:F:277:SER:HB3	0.95	0.94
2:H:278:ALA:O	2:H:279:GLU:HB3	1.66	0.94
2:H:251:ASP:H	2:H:254:GLU:HG3	1.33	0.93
2:D:56:THR:O	2:H:284:GLU:HB2	1.69	0.93
1:G:253:ARG:HB3	2:H:407:TRP:HH2	1.10	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: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:E:264:ARG:O	1:E:265:LEU:HB3	1.69	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
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
1:G:264:ARG:O	1:G:265:LEU:HB3	1.69	0.92
2:D:62:VAL:HG21	2:D:88:HIS:CE1	2.04	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	5: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:F:151:SER:HB3	2:F:193:THR:HG21	1.51	0.91
2:B:70:LEU:CD1	2:B:145:THR:OG1	2.18	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:D:109:THR:HG22	2:D:110:ILE:H	1.33	0.91
2:B:30:ILE:CD1	2:B:61:HIS:ND1	2.34	0.91
2:B:55:GLU:O	2:B:57:GLY:N	2.03	0.91
1:A:70:LEU:H	1:A:145:THR:HG21	1.33	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
2:D:151:SER:HB3	2:D:193:THR:HG21	1.51	0.90
1:A:88:ARG:HD2	1:E:283:TYR:CE1	2.05	0.90
2:B:52:PHE:CE1	2:B:239:THR:HB	2.07	0.90
1:A:147:SER:O	1:A:151:THR:HB	1.71	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:F:70:LEU:CD1	2:F:145:THR:OG1	2.18	0.90
2:D:5:ILE:CG2	2:D:135:PHE:CD2	2.54	0.90
1:G:352:LYS:HB2	2:H:181:VAL:HG21	1.52	0.90
2:D:56:THR:HA	2:H:284:GLU:CB	2.00	0.90
1:G:147:SER:O	1:G:151:THR:HB	1.71	0.89
2:H:109:THR:HG22	2:H:110:ILE:H	1.33	0.89
2:F:109:THR:HG22	2:F: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)
1:G:257:VAL:HG21	2:H:407:TRP:CD2	2.08	0.89
2:B:343:PHE:CZ	2:B:351:PHE:CE2	2.61	0.89
1:G:264:ARG:HB2	1:G:266:HIS:CD2	2.08	0.89
1:E:102:ASN:HD21	1:E:408:TYR:HA	1.38	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: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
1:A:264:ARG:HB2	1:A:266:HIS:CD2	2.08	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:G:390:ARG:CZ	3:I:56:TYR:CB	2.49	0.88
1:G:390:ARG:NH1	3:I:56:TYR:HB3	1.86	0.88
1:C:8:GLN:OE1	1:C:67:LEU:HD22	1.72	0.88
1:G:258:ASN:HA	2:H:404:PHE:CE2	2.08	0.88
2:F:56:THR:HG23	2:F:62:VAL:HG23	1.56	0.88
3:I:59:ILE:HA	3:I:62:TRP:HD1	1.38	0.88
2:F:339:ARG:HB2	3:I:63:LYS:CE	2.03	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
2:H:296:PHE:CD1	2:H:341:ILE:HD11	2.03	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
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:G:311:ARG:HD3	1:G:342:TYR:HA	1.56	0.88
1:E:311:ARG:HD3	1:E:342:TYR:HA	1.56	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:G:93:VAL:HG11	1:G:118:VAL:CG2	2.03	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
2:D:122:ILE:HD12	2:D:157:LEU:HD21	1.54	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:F:147:SER:HB2	2:F:190:THR:OG1	1.73	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:122:ILE:HD12	2:H:157:LEU:HD21	1.54	0.87
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
3:I:32:MET:SD	3:I:65:LEU:HD22	2.14	0.87
3:I:28:LYS:HA	3:I:58:TYR:CD1	2.09	0.87
1:G:101:ASN:HD21	1:G:143:GLY:HA2	1.38	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:CG	3:I:23:ILE:HG13	2.03	0.87
3:I:5:ARG:HH11	3:I:88:MET:HE3	1.37	0.87
1:A:93:VAL:HG11	1:A:118:VAL:CG2	2.03	0.87
2:H:119:LEU:HD23	2:H:122:ILE:HD11	1.53	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:F:119:LEU:HD23	2:F:122:ILE:HD11	1.53	0.87
2:B:30:ILE:CD1	2:B:61:HIS:CE1	2.57	0.87
1:E:101:ASN:HD21	1:E:143:GLY:HA2	1.38	0.87
1:G:390:ARG:HH22	3:I:56:TYR:CB	1.87	0.87
1:G:6:HIS:CE1	1:G:8:GLN:HG2	2.10	0.87
2:D:5:ILE:HG21	2:D:135:PHE:CD2	2.08	0.87
2:B:109:THR:HG22	2:B:110:ILE:H	1.33	0.87
1:G:248:LEU:CD2	2:H:179:THR:HG22	2.03	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:19:LYS:HG3	1:G:228:ASN:HB3	1.57	0.86
1:C:10:GLY:HA2	1:C:145:THR:HB	1.55	0.86
3:I:68:VAL:HA	3:I:71:LYS:CE	2.04	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
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:E:195:VAL:HG13	1:E:196:GLU:HG2	1.57	0.86
1:C:101:ASN:HD21	1:C:143:GLY:HA2	1.38	0.86
2:H:110:ILE:HG23	2:H:111:GLY:H	1.38	0.86
1:C:19:LYS:HG3	1:C:228:ASN:HB3	1.57	0.86
1:E:19:LYS:HG3	1:E:228:ASN:HB3	1.57	0.86
1:C:109:THR:CG2	3:I:89:GLN:HG2	2.05	0.86
1:A:19:LYS:HG3	1:A:228:ASN:HB3	1.57	0.86
1:A:10:GLY:HA2	1:A:145:THR:HB	1.55	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)
2:B:63:PRO:CG	2:B:91:GLN:OE1	2.20	0.86
1:A:195:VAL:HG13	1:A:196:GLU:HG2	1.57	0.86
1:A:153:LEU:O	1:A:157:ILE:HG12	1.76	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
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
1:C:242:LEU:HD22	1:C:250:ALA:H	1.41	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
2:F:52:PHE:HZ	2:F:239:THR:CG2	1.89	0.85
2:F:5:ILE:HG21	2:F:135:PHE:CD2	2.08	0.85
1:A:242:LEU:HD22	1:A:250:ALA:H	1.41	0.85
1:G:195:VAL:HG13	1:G:196:GLU:HG2	1.57	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: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
1:A:101:ASN:HD21	1:A:143:GLY:HA2	1.38	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: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:E:234:THR:HG21	1:E:270:PRO:CB	2.06	0.85
1:E:153:LEU:O	1:E:157:ILE:HG12	1.75	0.85
1:G:153:LEU:O	1:G:157:ILE:HG12	1.76	0.85
1:A:234:THR:HG21	1:A:270:PRO:CB	2.06	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
1:E:360:PRO:HG2	1:E:371:LEU:HB3	1.56	0.84
2:D:204:VAL:HG11	2:D:231:ILE:HD12	1.59	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
1:A:360:PRO:HG2	1:A:371:LEU:HB3	1.56	0.84
1:A:209:LEU:HB3	1:A:227:LEU:HD22	1.59	0.84
2:H:106:GLY:O	2:H:111:GLY:HA3	1.78	0.84
2:F:2:ARG:NH2	2:F:47:ASP:OD2	2.10	0.84
3:I:56:TYR:O	3:I:59:ILE:HG22	1.77	0.84
2:D:52:PHE:CE1	2:D:239:THR:HB	2.12	0.84
2:B:264:ARG:O	2:B:266:HIS:N	2.09	0.84
2:F:106:GLY:O	2:F:111:GLY:HA3	1.78	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
1:G:257:VAL:CG2	2:H:407:TRP:CD2	2.59	0.84
2:F:264:ARG:HB2	2:F:266:HIS:CD2	2.13	0.84
2:B:234:ILE:HG13	2:B:270:ALA:HB1	1.59	0.84
1:E:4:ILE:HD13	1:E:136:GLN:HE21	1.42	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: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:G:20:PHE:CD1	1:G:235:MET:SD	2.71	0.83
2:H:264:ARG:HB2	2:H:266:HIS:CD2	2.13	0.83
1:G:150:GLY:HA2	1:G:153:LEU:HD22	1.60	0.83
1:E:150:GLY:HA2	1:E:153:LEU:HD22	1.60	0.83
1:C:360:PRO:HG2	1:C:371:LEU:HB3	1.56	0.83
2:F:234:ILE:HG13	2:F:270:ALA:HB1	1.59	0.83
2:H:234:ILE:HG13	2:H:270:ALA:HB1	1.59	0.83
1:C:20:PHE:CD1	1:C:235:MET:SD	2.71	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:C:414:ASP:OD1	3:I:4:SER:CB	2.25	0.83
2:B:264:ARG:HB2	2:B:266:HIS:CD2	2.13	0.83
1:C:324:SER:HB3	1:C:327:GLU:HG2	1.60	0.83
1:G:4:ILE:HD13	1:G:136:GLN:HE21	1.42	0.83
2:H:217:LEU:CD1	2:H:277:SER:CA	2.56	0.83
1:A:191:VAL:HG11	1:A:425:MET:HG3	1.60	0.83
1:A:150:GLY:HA2	1:A:153:LEU:HD22	1.60	0.83
2:F:204:VAL:HG11	2:F:231:ILE:HD12	1.59	0.83

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:147:SER:HB2	1:G:190:SER:HB3	1.60	0.82
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:C:156:LYS:HA	1:C:156:LYS:HE2	1.61	0.82
1:G:242:LEU:HD22	1:G:250:ALA:H	1.42	0.82
1:E:110:GLU:O	1:E:113:GLU:HG2	1.79	0.82
1:A:110:GLU:O	1:A:113:GLU:HG2	1.79	0.82
2:F:346:TRP:CZ3	1:G:403:ALA:HA	2.15	0.82
1:C:101:ASN:ND2	1:C:143:GLY:HA2	1.94	0.82
1:E:156:LYS:HE2	1:E:156:LYS:HA	1.61	0.82
2:H:102:ASN:CG	2:H:407:TRP:HE1	1.83	0.82
2:B:217:LEU:CD1	2:B:277:SER:CA	2.56	0.82
1:G:156:LYS:HE2	1:G:156:LYS:HA	1.61	0.82
1:E:257:VAL:HG13	2:F:407:TRP:CG	2.15	0.82
1:C:329:ASP:HB3	2:D:177:VAL:HG12	1.61	0.82
1:A:101:ASN:ND2	1:A:143:GLY:HA2	1.94	0.82
1:A:156:LYS:HA	1:A:156:LYS:HE2	1.61	0.82
1:C:148:GLY:O	1:C:151:THR:HG22	1.79	0.82
3:I:9:LEU:HD22	3:I:20:LEU:HD22	1.62	0.82
1:C:110:GLU:O	1:C:113:GLU:HG2	1.79	0.82
1:G:101:ASN:ND2	1:G:143:GLY:HA2	1.94	0.82
2:F:52:PHE:CZ	2:F:239:THR:HG21	2.15	0.81
2:D:276:ILE:HG23	2:D:369:ALA:CB	2.10	0.81
1:E:20:PHE:CZ	1:E:24:ILE:HD12	2.15	0.81
2:F:52:PHE:CZ	2:F:239:THR:CB	2.62	0.81
2:B:276:ILE:HG23	2:B:369:ALA:CB	2.10	0.81
1:E:101:ASN:ND2	1:E:143:GLY:HA2	1.94	0.81
2:F:248:LEU:HD23	2:F:353:VAL:O	1.80	0.81
1:E:324:SER:HB3	1:E:327:GLU:HG2	1.60	0.81
1:G:2:ARG:NH2	2:H:98:ASP:CB	2.44	0.81
2:F:337:THR:HG22	3:I:59:ILE:CD1	2.10	0.81
3:I:5:ARG:NH1	3:I:88:MET:CE	2.43	0.81
2:F:109:THR:CG2	2:F:110:ILE:N	2.44	0.81
2:H:276:ILE:HG23	2:H:369:ALA:CB	2.10	0.81
2:F:276:ILE:HG23	2:F:369:ALA:CB	2.10	0.81
2:H:248:LEU:HD23	2:H:353:VAL:O	1.80	0.81
1:G:324:SER:HB3	1:G:327:GLU:HG2	1.60	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:H:52:PHE:CZ	2:H:239:THR:CG2	2.64	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
1:G:20:PHE:CZ	1:G:24:ILE:HD12	2.15	0.81
2:F:52:PHE:CZ	2:F:239:THR:CG2	2.64	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:F:6:SER:HB3	2:F:136:SER:OG	1.81	0.81
3:I:44:PRO:CB	3:I:47:LYS:HD3	2.11	0.81
2:H:6:SER:HB3	2:H:136:SER:OG	1.81	0.81
2:B:217:LEU:CD1	2:B:277:SER:CB	2.55	0.81
2:H:220:GLU:C	2:H:222:PRO:HD3	2.02	0.81
2:B:6:SER:HB3	2:B:136:SER:OG	1.81	0.81
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:D:6:SER:HB3	2:D:136:SER:OG	1.81	0.80
2:B:220:GLU:C	2:B:222:PRO:HD3	2.02	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:G:390:ARG:CZ	3:I:56:TYR:HB2	2.11	0.80
2:B:67:PHE:CE2	2:B:87:PHE:HE2	1.96	0.80
1:A:20:PHE:CZ	1:A:24:ILE:HD12	2.15	0.80
2:D:234:ILE:O	2:D:234:ILE:HD13	1.81	0.80
1:G:257:VAL:O	1:G:257:VAL:HG22	1.78	0.80
1:C:20:PHE:CZ	1:C:24:ILE:HD12	2.15	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
2:F:132:LEU:HD23	2:F:132:LEU:H	1.46	0.80
1:G:352:LYS:HD3	2:H:181:VAL:HG21	1.61	0.80
2:D:70:LEU:CD1	2:D:145:THR:HG23	2.12	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: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
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:132:LEU:HD23	2:B:132:LEU:H	1.46	0.80
3:I:5:ARG:HH11	3:I:88:MET:HE1	1.45	0.80
2:D:52:PHE:CZ	2:D:239:THR:HG21	2.15	0.80
2:B:109:THR:CG2	2:B:110:ILE:N	2.44	0.80
2:B:70:LEU:CD1	2:B:145:THR:HG23	2.12	0.80
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

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:7:ILE:HG22	2:B:66:VAL:HG22	1.63	0.79
1:G:254:LYS:HE3	1:G:352:LYS:NZ	1.97	0.79
2:D:241:SER:O	2:D:244:PHE:HB3	1.82	0.79
2:H:67:PHE:HE2	2:H:87:PHE:CD2	1.99	0.79
1:A:265:LEU:O	1:A:265:LEU:HD12	1.83	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
1:E:236:SER:O	1:E:240:THR:CG2	2.29	0.79
1:G:396:THR:HG23	1:G:422:GLU:OE2	1.83	0.79
2:B:67:PHE:HE2	2:B:87:PHE:CD2	2.00	0.79
2:B:11:GLN:HE21	2:B:74:VAL:HG22	1.47	0.79
1:E:396:THR:HG23	1:E:422:GLU:OE2	1.83	0.79
2:D:132:LEU:H	2:D:132:LEU:HD23	1.46	0.79
2:F:7:ILE:HG22	2:F:66:VAL:HG22	1.63	0.79
2:D:67:PHE:HE2	2:D:87:PHE:CD2	2.00	0.79
2:H:204:VAL:HG13	2:H:209:ILE:HD11	1.66	0.79
2:H:241:SER:O	2:H:244:PHE:HB3	1.82	0.78
1:C:325:MET:HG2	2:D:224:TYR:CE2	2.18	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:D:172:TYR:HD1	2:D:172:TYR:C	1.87	0.78
1:G:259:MET:HA	1:G:314:THR:HG21	1.65	0.78
2:D:7:ILE:HG22	2:D:66:VAL:HG22	1.63	0.78
1:A:413:MET:HG3	1:A:414:ASP:H	1.47	0.78
2:B:204:VAL:HG13	2:B:209:ILE:HD11	1.65	0.78
2:H:172:TYR:C	2:H:172:TYR:HD1	1.87	0.78
2:B:172:TYR:HD1	2:B:172:TYR:C	1.87	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:56:THR:O	2:B:58:ALA:CB	2.30	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
2:B:52:PHE:CZ	2:B:239:THR:CB	2.67	0.78
2:D:204:VAL:HG13	2:D:209:ILE:HD11	1.66	0.78
1:C:205:ASP:OD2	1:C: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:205:ASP:OD2	1:A:304:ALA:HB2	1.84	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: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
2:H:3:GLU:HG2	2:H:51:THR:HA	0.80	0.78
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
2:F:172:TYR:HD1	2:F:172:TYR:C	1.87	0.78
1:E:205:ASP:OD2	1:E:304:ALA:HB2	1.84	0.78
1:G:205:ASP:OD2	1:G:304:ALA:HB2	1.84	0.78
1:G:264:ARG:HB2	1:G:266:HIS:HD2	1.45	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
2:H:11:GLN:HE21	2:H:74:VAL:HG22	1.47	0.78
2:D:267:PHE:N	2:D:267:PHE:CD1	2.49	0.78
2:F:276:ILE:O	2:F:369:ALA:HB2	1.83	0.78
1:E:35:SER:HB3	1:E:59:ASN:HA	1.65	0.78
2:B:296:PHE:CZ	2:B:335:ILE:HG21	2.18	0.78
2:H:296:PHE:CZ	2:H:335:ILE:HG21	2.18	0.78
2:D:155:GLU:HA	2:D:197:HIS:ND1	1.99	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: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
1:G:265:LEU:O	1:G:265:LEU:HD12	1.83	0.77
2:D:199:ASP:HB3	2:D:256:GLN:NE2	1.98	0.77
2:H:5:ILE:HG23	2:H:135:PHE:HB3	1.66	0.77
2:B:223:THR:HB	2:B:225:THR:HG22	1.67	0.77
1:A:35:SER:HB3	1:A:59:ASN:HA	1.65	0.77
2:H:110:ILE:HG23	2:H:111:GLY:N	1.99	0.77
2:F:67:PHE:HD2	2:F:92:LEU:HD23	1.49	0.77
2:B:217:LEU:CD1	2:B:277:SER:HA	2.13	0.77
2:H:276:ILE:O	2:H:369:ALA:HB2	1.84	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:3:GLU:HG2	2:F:51:THR:HA	0.80	0.77
2:H:63:PRO:HD3	2:H:86:LEU:O	1.85	0.77
2:F:267:PHE:N	2:F:267:PHE:CD1	2.49	0.77
2:B:267:PHE:CD1	2:B:267:PHE:N	2.49	0.77
1:G:352:LYS:CB	2:H:181:VAL:HG21	2.13	0.77
2:D:56:THR:HA	2:H:284:GLU:HB3	1.66	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)
3:I:104:GLN:HG3	3:I:105:TYR:CD2	2.20	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:B:11:GLN:HG3	2:B:74:VAL:CG1	2.15	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
2:D:110:ILE:HG23	2:D:111:GLY:N	2.00	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:B:52:PHE:CZ	2:B:239:THR:CG2	2.66	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:D:276:ILE:O	2:D:369:ALA:HB2	1.84	0.77
2:D:231:ILE:HA	2:D:234:ILE:HG22	1.66	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:110:ILE:HG23	2:F:111:GLY:N	1.99	0.77
2:B:67:PHE:HD2	2:B:92:LEU:HD23	1.50	0.77
2:F:11:GLN:HG3	2:F:74:VAL:CG1	2.15	0.77
2:B:30:ILE:HD13	2:B:61:HIS:CG	2.20	0.77
2:H:11:GLN:HG3	2:H:74:VAL:CG1	2.15	0.77
2:B:231:ILE:HA	2:B:234:ILE:HG22	1.66	0.77
2:D:63:PRO:HD3	2:D:86:LEU:O	1.85	0.77
2:B:276:ILE:O	2:B:369:ALA:HB2	1.84	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
2:F:339:ARG:HE	3:I:66:GLN:HB2	1.50	0.76
2:D:67:PHE:HD2	2:D:92:LEU:HD23	1.50	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:F:62:VAL:HG21	2:F:88:HIS:HE1	1.48	0.76
2:B:155:GLU:HA	2:B:197:HIS:ND1	1.99	0.76
2:B:7:ILE:HD12	2:B:153:LEU:HD21	1.68	0.76
2:D:225:THR:O	2:D:229:ARG:HG3	1.86	0.76
2:H:223:THR:HB	2:H:225:THR:HG22	1.67	0.76
2:H:331:ALA:O	2:H:335:ILE:HG12	1.86	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:B:221:ARG:HD3	2:B:221:ARG:O	1.85	0.76
2:F:7:ILE:HD12	2:F:153:LEU:HD21	1.68	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:F:155:GLU:HA	2:F:197:HIS:ND1	1.99	0.76
2:H:221:ARG:HD3	2:H:221:ARG:O	1.85	0.76
1:E:168:THR:HB	1:E:201:THR:HG23	1.68	0.76
3:I:32:MET:HG3	3:I:33:ILE:HD12	1.65	0.76
2:H:234:ILE:HG21	2:H:302:MET:HE3	1.66	0.76
2:D:7:ILE:HD12	2:D:153:LEU:HD21	1.68	0.76
2:F:337:THR:CG2	3:I:59:ILE:HD11	2.16	0.76
2:D:62:VAL:HG21	2:D:88:HIS:HE1	1.48	0.76
2:B:3:GLU:HG2	2:B:51:THR:HA	0.80	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:D:221:ARG:O	2:D:221:ARG:HD3	1.85	0.76
2:H:217:LEU:CD1	2:H:277:SER:HA	2.13	0.76
2:F:163:LYS:O	2:F:164:LYS:HG2	1.86	0.76
1:G:2:ARG:NH2	2:H:98:ASP:CA	2.49	0.75
2:D:70:LEU:CD1	2:D:145:THR:CG2	2.64	0.75
1:C:247:GLN:HB3	2:D:224:TYR:HD2	1.50	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
1:C:168:THR:HB	1:C:201:THR:HG23	1.68	0.75
2:B:70:LEU:CD1	2:B:145:THR:CG2	2.64	0.75
2:F:223:THR:HB	2:F:225:THR:HG22	1.67	0.75
2:D:344:VAL:HG11	2:D:346:TRP:CE2	2.21	0.75
2:B:344:VAL:HG11	2:B:346:TRP:CE2	2.21	0.75
2:D:167:LEU:HG	2:D:200:CYS:HB3	1.69	0.75
2:D:57:GLY:HA2	2:H:284:GLU:HG2	1.67	0.75
2:B:243:ARG:HH21	2:B:252:LEU:H	0.79	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: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
1:A:19:LYS:HG3	1:A: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:H:317:LEU:HB3	2:H:319:TYR:HE1	1.52	0.75
1:E:192:HIS:ND1	1:E:424:ASN:OD1	2.18	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
2:B:167:LEU:HG	2:B:200:CYS:HB3	1.69	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:F:225:THR:O	2:F:229:ARG:HG3	1.86	0.75
2:B:163:LYS:O	2:B:164:LYS:HG2	1.86	0.75
1:G:259:MET:HG2	1:G:314:THR:HG21	1.67	0.74
1:G:176:LYS:HE3	1:G:207:GLU:HG3	1.68	0.74
2:H:425:MET:HE2	2:H:428:LEU:HD23	1.68	0.74
2:B:425:MET:HE2	2:B:428:LEU:HD23	1.68	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:H:298:PRO:HB3	2:H:307:PRO:CD	2.15	0.74
1:A:8:GLN:CD	1:A:67:LEU:HD22	2.08	0.74
2:H:167:LEU:HG	2:H:200:CYS:HB3	1.69	0.74
2:F:167:LEU:HG	2:F:200:CYS:HB3	1.68	0.74
3:I:21:THR:HG22	3:I:22:ARG:CD	2.16	0.74
2:D:298:PRO:HB3	2:D:307:PRO:CD	2.15	0.74
1:A:259:MET:HG2	1:A:314:THR:HG21	1.67	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:F:70:LEU:HD11	2:F:145:THR:HG23	1.70	0.74
1:C:176:LYS:HE3	1:C:207:GLU:HG3	1.68	0.74
2:H:70:LEU:HD11	2:H:145:THR:HG23	1.70	0.74
1:G:8:GLN:CD	1:G:67:LEU:HD22	2.08	0.74
2:D:205:ASP:CB	2:D:303:VAL:HA	2.17	0.74
2:B:362:VAL:HG13	2:B:368:LEU:HD12	1.68	0.74
3:I:15:VAL:HG23	3:I:16:THR:HG23	1.69	0.74
2:B:172:TYR:OH	2:B:387:ALA:HB1	1.87	0.74
2:H:362:VAL:HG13	2:H:368:LEU:HD12	1.68	0.74
1:E:176:LYS:HE3	1:E:207:GLU:HG3	1.68	0.74
1:G:258:ASN:C	2:H:404:PHE:HE2	1.90	0.74
2:D:331:ALA:O	2:D:335:ILE:HG12	1.86	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:E:103:TRP:CZ3	1:E:108:TYR:HE1	2.05	0.74
2:H:104:ALA:CB	2:H:413:MET:HG3	2.18	0.74

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:B:112:LYS:O	2:B:115:ILE:HG22	1.89	0.73
1:C:217:LEU:O	1:C:219:LEU:N	2.22	0.73
1:C:209:LEU:HG	1:C:230:LEU:HD22	1.69	0.73
2:H:172:TYR:OH	2:H:387:ALA:HB1	1.87	0.73
2:F:172:TYR:OH	2:F:387:ALA:HB1	1.87	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
2:F:104:ALA:HB2	2:F:413:MET:HG3	1.71	0.73
2:B:234:ILE:HG21	2:B:302:MET:HE3	1.70	0.73
1:G:242:LEU:HD13	1:G:250:ALA:C	2.08	0.73
2:H:264:ARG:C	2:H:266:HIS:H	1.91	0.73
1:G:258:ASN:CA	2:H:404:PHE:CE2	2.71	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:F:62:VAL:HG11	2:F:88:HIS:ND1	2.04	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
1:G:217:LEU:O	1:G:219:LEU:N	2.22	0.73
1:A:209:LEU:HG	1:A:230:LEU:HD22	1.69	0.73
2:D:425:MET:HE2	2:D:428:LEU:HD23	1.68	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: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:C:257:VAL:HA	2:D:407:TRP:NE1	2.04	0.73
2:B:242:LEU:HG	2:B:250:VAL:O	1.88	0.73
1:A:217:LEU:O	1:A:219:LEU:N	2.22	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
2:F:51:THR:HG21	2:F:243:ARG:CB	2.14	0.73
1:A:103:TRP:CZ3	1:A:108:TYR:HE1	2.05	0.73
1:E:274:PRO:HG2	1:E:371:LEU:HD21	1.70	0.73
1:A:111:GLY:O	1:A:115:VAL:HG23	1.89	0.73
2:B:317:LEU:HB3	2:B:319:TYR:HE1	1.52	0.72
2:H:296:PHE:CE1	2:H:341:ILE:HD12	2.20	0.72
2:F:166:LYS:HE3	2:F:199:ASP:OD1	1.89	0.72
2:F:4:CYS:SG	2:F:252:LEU:HD11	2.27	0.72
2:H:62:VAL:HG11	2:H:88:HIS:ND1	2.04	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:88:ARG:HD3	1:E:283:TYR:CE1	2.11	0.72
1:G:274:PRO:HG2	1:G:371:LEU:HD21	1.70	0.72
1:G:217:LEU:C	1:G:219:LEU:H	1.91	0.72
1:C:111:GLY:O	1:C:115:VAL:HG23	1.89	0.72
1:C:76:ASP:HA	1:C:79:ARG:HG2	1.71	0.72
2:D:166:LYS:HE3	2:D:199:ASP:OD1	1.89	0.72
2:B:166:LYS:HE3	2:B:199:ASP:OD1	1.90	0.72
1:E:217:LEU:C	1:E:219:LEU:H	1.91	0.72
1:A:76:ASP:HA	1:A:79:ARG:HG2	1.71	0.72
2:H:166:LYS:HE3	2:H:199:ASP:OD1	1.90	0.72
1:G:70:LEU:HG	1:G:145:THR:CG2	2.20	0.72
3:I:18:LEU:HD21	3:I:50:PHE:HZ	1.55	0.72
1:E:209:LEU:HG	1:E:230:LEU:HD22	1.69	0.72
1:G:258:ASN:HA	2:H:404:PHE:HD2	1.52	0.72
2:B:264:ARG:C	2:B:266:HIS:H	1.91	0.72
2:D:264:ARG:C	2:D:266:HIS:H	1.91	0.72
2:B:312:TYR:O	2:B:344:VAL:HG23	1.90	0.72
2:F:306:ASP:O	2:F:308:ARG:N	2.20	0.72
2:H:112:LYS:O	2:H:115:ILE:HG22	1.89	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:F:105:ARG:O	2:F:110:ILE:HG22	1.89	0.72
2:D:306:ASP:O	2:D:308:ARG:N	2.20	0.72
2:F:30:ILE:HD13	2:F:61:HIS:CD2	2.24	0.72
2:B:70:LEU:HD11	2:B:145:THR:HG23	1.70	0.72
1:A:274:PRO:HG2	1:A:371:LEU:HD21	1.70	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
2:H:312:TYR:O	2:H:344:VAL:HG23	1.90	0.72
1:G:76:ASP:HA	1:G:79:ARG:HG2	1.71	0.72
2:B:296:PHE:CE1	2:B:341:ILE:HD12	2.20	0.72
2:D:7:ILE:HD11	2:D:137:VAL:HG22	1.71	0.72
2:F:112:LYS:O	2:F:115:ILE:HG22	1.89	0.72
2:B:105:ARG:O	2:B:110:ILE:HG22	1.89	0.72
2:B:7:ILE:HD11	2:B:137:VAL:HG22	1.71	0.72
1:C:6:HIS:HE1	1:C:8:GLN:HG2	1.52	0.72
1:A:70:LEU:HG	1:A:145:THR:CG2	2.20	0.72
1:C:217:LEU:C	1:C:219:LEU:H	1.91	0.72
2:F:172:TYR:CD1	2:F:172:TYR:C	2.62	0.72
1:E:76:ASP:HA	1:E:79:ARG:HG2	1.71	0.72
2:H:259:LEU:HD11	2:H:378:LEU:CD1	2.20	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:259:LEU:HD11	2:D:378:LEU:CD1	2.20	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:B:259:LEU:HD11	2:B:378:LEU:CD1	2.20	0.72
1:A:88:ARG:HD2	1:E:283:TYR:CZ	2.24	0.72
2:D:312:TYR:O	2:D:344:VAL:HG23	1.90	0.72
1:E:325:MET:HA	1:E:325:MET:HE3	1.71	0.72
1:E:111:GLY:O	1:E:115:VAL:HG23	1.89	0.72
2:H:105:ARG:O	2:H:110:ILE:HG22	1.89	0.72
2:D:343:PHE:CZ	2:D:351:PHE:HE2	2.08	0.72
1:A:191:VAL:CG1	1:A:425:MET:HG3	2.19	0.72
2:D:148:GLY:O	2:D:151:SER:HB2	1.91	0.71
2:H:7:ILE:CG1	2:H:137:VAL:HG22	2.20	0.71
2:H:317:LEU:HD12	2:H:351:PHE:HD1	1.55	0.71
2:D:317:LEU:HD12	2:D:351:PHE:HD1	1.55	0.71
1:C:274:PRO:HG2	1:C:371:LEU:HD21	1.70	0.71
2:H:306:ASP:O	2:H:308:ARG:N	2.20	0.71
2:H:7:ILE:HD11	2:H:137:VAL:HG22	1.71	0.71
2:D:7:ILE:CG1	2:D:137:VAL:HG22	2.20	0.71
2:F:7:ILE:HD11	2:F:137:VAL:HG22	1.71	0.71
2:F:7:ILE:CG1	2:F:137:VAL:HG22	2.20	0.71
2:F:339:ARG:HD3	3:I:63:LYS:HZ3	1.54	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:H:148:GLY:O	2:H:151:SER:HB2	1.91	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
1:G:243:ARG:NH2	1:G:252:LEU:HG	2.05	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:356:CYS:SG	1:G: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
3:I:36:PHE:CE2	3:I:65:LEU:HD11	2.26	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:356:CYS:SG	1:A:357:ASP:N	2.62	0.71
1:G:175:PRO:HD2	1:G:207:GLU:OE2	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
2:F:317:LEU:HD12	2:F:351:PHE:HD1	1.55	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:E:10:GLY:O	1:E:14:ASN:HB2	1.90	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: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:A:8:GLN:NE2	1:A:17:GLY:HA3	2.06	0.71
2:H:172:TYR:CD1	2:H:172:TYR:C	2.61	0.71
1:E:175:PRO:HD2	1:E:207:GLU:OE2	1.91	0.71
3:I:23:ILE:HD13	3:I:92:LEU:HD13	1.73	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
1:A:431:GLU:OE1	1:A:432:TYR:HA	1.91	0.71
1:G:191:VAL:CG1	1:G:425:MET:HG3	2.19	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: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
2:D:12:ALA:HB3	2:D: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
1:C:10:GLY:O	1:C:14:ASN:HB2	1.90	0.70
2:F:12:ALA:HB3	2:F:140:SER:OG	1.91	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:260:VAL:HG22	1:C:407:TRP:HE1	1.55	0.70
1:A:10:GLY:O	1:A:14:ASN:HB2	1.90	0.70
2:H:12:ALA:HB3	2:H:140:SER:OG	1.91	0.70
2:H:11:GLN:HE21	2:H:74:VAL:CG2	2.03	0.70
1:A:291:LEU:O	1:A:295:MET:HG3	1.91	0.70
1:G:325:MET:HA	1:G:325:MET:HE3	1.72	0.70
1:C:431:GLU:OE1	1:C:432:TYR:HA	1.91	0.70
1:E:201:THR:OG1	1:E:265:LEU:HD11	1.90	0.70
1:A:175:PRO:HD2	1:A:207:GLU:OE2	1.91	0.70
2:H:242:LEU:HD21	2:H:250:VAL:HB	1.71	0.70
1:E:237:GLY:O	1:E:241:CYS:HB3	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:C:237:GLY:O	1:C:241:CYS:HB3	1.91	0.70
1:C:48:ARG:HG2	1:C:243:ARG:O	1.90	0.70
1:E:48:ARG:HG2	1:E:243:ARG:O	1.90	0.70
2:F:371:VAL:HG12	2:F:372:GLN:H	1.57	0.70
2:F:237:SER:CB	2:F:376:CYS:SG	2.80	0.70
1:A:237:GLY:O	1:A:241:CYS:HB3	1.91	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: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
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:C:201:THR:OG1	1:C:265:LEU:HD11	1.90	0.70
2:F:199:ASP:HB3	2:F:256:GLN:HE21	1.57	0.70
2:B:5:ILE:HG22	2:B:6:SER:N	2.07	0.70
1:E:70:LEU:HG	1:E:145:THR:HG23	1.74	0.70
1:A:70:LEU:HG	1:A:145:THR:HG23	1.74	0.70
1:C:291:LEU:O	1:C:295: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: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:255:LEU:O	1:A:259:MET:HG3	1.91	0.70
1:E:8:GLN:NE2	1:E:17:GLY:HA3	2.06	0.70
1:G:234:THR:CG2	1:G:270:PRO:HB2	2.11	0.70
1:E:234:THR:O	1:E:238:VAL:HG23	1.92	0.70
1:A:260:VAL:HG23	2:B:407:TRP:HE1	1.57	0.70
2:D:205:ASP:HB3	2:D:303:VAL:HA	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:381:THR:C	2:B:383:ALA:H	1.95	0.70
2:H:381:THR:C	2:H:383:ALA:H	1.95	0.70
2:F:242:LEU:HD21	2:F:250:VAL:HB	1.71	0.69
2:D:51:THR:O	2:D:52:PHE:CD1	2.45	0.69
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:H:237:SER:CB	2:H:376:CYS:SG	2.80	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:D:199:ASP:HB3	2:D:256:GLN:HE21	1.57	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
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
1:G:70:LEU:HG	1:G:145:THR:HG23	1.74	0.69
2:D:276:ILE:O	2:D:369:ALA:N	2.25	0.69
2:B:133:GLN:HG2	2:B:243:ARG:HH22	1.57	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:D:67:PHE:CD2	2:D:92:LEU:HD23	2.26	0.69
2:H:67:PHE:CD2	2:H:92:LEU:HD23	2.26	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:248:LEU:HD21	1:C:179:ASP:OD1	1.93	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
1:G:299:LYS:N	1:G:299:LYS:HD3	2.04	0.69
1:C:332:MET:HE3	1:C:351:VAL:HG11	1.74	0.69
2:B:172:TYR:CD1	2:B:172:TYR:C	2.61	0.69
2:F:381:THR:C	2:F:383:ALA:H	1.94	0.69
2:F:133:GLN:HG2	2:F:243:ARG:HH22	1.57	0.69
2:F:285:GLN:OE1	2:F:371:VAL:CG1	2.40	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:205:ASP:HB3	2:F:303:VAL:HA	1.73	0.69
1:G:255:LEU:O	1:G:259:MET:HG3	1.91	0.69
1:G:24:ILE:HD11	1:G:52:TYR:CE2	2.28	0.69
2:H:133:GLN:HG2	2:H:243:ARG:HH22	1.57	0.69
1:G:251:ASP:O	1:G:253:ARG:N	2.26	0.69
2:D:237:SER:CB	2:D:376:CYS:SG	2.80	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:115:ILE:CD1	2:F:119:LEU:HG	2.23	0.69
2:D:30:ILE:HD13	2:D:61:HIS:CD2	2.26	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
1:A:180:THR:HG22	1:A:181:VAL:N	2.07	0.69
2:F:257:THR:HA	1:G:407:TRP:NE1	2.08	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: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
1:G:180:THR:HG22	1:G:181:VAL:N	2.07	0.69
1:G:2:ARG:NH2	2:H:98:ASP:HA	2.09	0.68
2:H:115:ILE:CD1	2:H:119:LEU:HG	2.23	0.68
1:G:253:ARG:CG	2:H:407:TRP:HH2	2.06	0.68
2:D:133:GLN:HG2	2:D:243:ARG:HH22	1.57	0.68
2:B:115:ILE:CD1	2:B:119:LEU:HG	2.23	0.68
1:A:209:LEU:HD23	1:A:227:LEU:HB3	1.75	0.68
3:I:45:LEU:HD12	3:I:116:ARG:CZ	2.24	0.68
2:F:276:ILE:O	2:F:369:ALA:N	2.25	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
1:C:251:ASP:O	1:C:253:ARG:N	2.26	0.68
1:E:257:VAL:HG12	1:E:257:VAL:O	1.93	0.68
1:A:24:ILE:HD11	1:A:52:TYR:CE2	2.28	0.68
2:H:205:ASP:HB3	2:H:303:VAL:HA	1.73	0.68
3:I:62:TRP:HZ2	3:I:84:SER:HA	1.58	0.68
2:H:276:ILE:O	2:H:369:ALA:N	2.25	0.68
1:E:359:PRO:HB2	1:E:360:PRO:HD2	1.74	0.68
2:B:141:PHE:O	2:B:147:SER:HB3	1.94	0.68
2:H:221:ARG:N	2:H:222:PRO:HD3	2.09	0.68
2:D:381:THR:C	2:D:383:ALA:H	1.95	0.68
1:G:243:ARG:HH22	1:G:252:LEU:HG	1.59	0.68
1:C:242:LEU:CD2	1:C:250:ALA:H	2.07	0.68
1:C:24:ILE:HD11	1:C:52:TYR:CE2	2.28	0.68
3:I:85:ARG:HH11	3:I:85:ARG:HA	1.59	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
2:B:102:ASN:HB2	2:B:408:TYR:CE1	2.29	0.68
1:A:103:TRP:HZ3	1:A:108:TYR:HE1	1.42	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)
2:D:56:THR:CA	2:H:284:GLU:HB3	2.18	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
1:A:251:ASP:O	1:A:253:ARG:N	2.26	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
2:H:70:LEU:HD12	2:H:145:THR:CG2	2.24	0.68
2:B:296:PHE:CE2	2:B:335:ILE:CG2	2.73	0.68
1:E:256:ALA:O	1:E:260:VAL:HG22	1.94	0.68
1:E:44:LEU:HD12	1:E:49:ILE:HD13	1.76	0.68
2:F:102:ASN:HB2	2:F:408:TYR:CE1	2.29	0.68
2:F:70:LEU:HD12	2:F:145:THR:CG2	2.24	0.68
3:I:21:THR:CG2	3:I:22:ARG:HD2	2.21	0.68
2:B:70:LEU:HD12	2:B:145:THR:CG2	2.24	0.68
1:C:103:TRP:HZ3	1:C:108:TYR:HE1	1.42	0.68
3:I:4:SER:HG	3:I:6:GLN:HG2	1.57	0.68
1:E:299:LYS:HD3	1:E:299:LYS:N	2.04	0.68
2:D:234:ILE:HG21	2:D:302:MET:HE3	1.75	0.68
1:E:204:ILE:HD13	1:E:231:VAL:HG22	1.76	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
1:E:310:GLY:HA3	1:E:436:GLN:HE21	1.59	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
2:D:115:ILE:CD1	2:D:119:LEU:HG	2.23	0.68
1:G:103:TRP:HZ3	1:G:108:TYR:HE1	1.42	0.68
1:C:299:LYS:HD3	1:C:299:LYS:N	2.04	0.68
2:F:221:ARG:N	2:F:222:PRO:HD3	2.09	0.68
1:A:310:GLY:HA3	1:A:436:GLN:HE21	1.59	0.68
2:H:141:PHE:O	2:H:147:SER:HB3	1.94	0.68
1:C:256:ALA:O	1:C:260:VAL:HG22	1.94	0.68
2:F:141:PHE:O	2:F:147:SER:HB3	1.94	0.68
2:B:217:LEU:HD12	2:B:277:SER:CA	2.23	0.68
1:A:257:VAL:HG12	1:A:257:VAL:O	1.93	0.68
1:C:359:PRO:HB2	1:C:360:PRO:HD2	1.74	0.68
2:H:251:ASP:O	2:H:254:GLU:HB2	1.94	0.67
1:C:257:VAL:O	1:C:257:VAL:HG12	1.93	0.67
2:B:251:ASP:O	2:B:254:GLU:HB2	1.94	0.67
1:A:359:PRO:HB2	1:A:360:PRO:HD2	1.74	0.67
1:A:204:ILE:HD13	1:A:231:VAL:HG22	1.76	0.67

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:66:ILE:C	1:C:67:LEU:HD23	2.15	0.67
2:F:284:GLU:HG2	2:F:284:GLU:O	1.93	0.67
1:C:267:PHE:CD1	1:C:267:PHE:N	2.62	0.67
1:E:4:ILE:HG21	1:E:136:GLN:HG2	1.76	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:109:THR:CG2	3:I:89:GLN:CG	2.73	0.67
1:E:328:VAL:O	1:E:332:MET:HG2	1.95	0.67
2:H:7:ILE:HD12	2:H:153:LEU:CD2	2.24	0.67
1:G:352:LYS:CA	2:H:181:VAL:CG2	2.73	0.67
2:F:7:ILE:HD12	2:F:153:LEU:CD2	2.24	0.67
2:F:3:GLU:HG2	2:F:51:THR:C	2.14	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
1:G:260:VAL:HG23	2:H:406:HIS:CE1	2.29	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:A:250:ALA:HB1	1:A:254:LYS:HB2	1.75	0.67
1:E:276:THR:HB	1:E:281:GLN:CG	2.25	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:A:267:PHE:CD1	1:A:267:PHE:N	2.62	0.67
2:H:95:GLY:O	2:H:97:GLU:N	2.27	0.66
1:C:4:ILE:HG21	1:C:136:GLN:HG2	1.76	0.66
2:D:341:ILE:HG12	2:D:341:ILE:O	1.95	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
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:E:182:VAL:HG23	1:E:186:ASN:HD21	1.60	0.66
1:C:245:PRO:HA	2:D:73:THR:HG21	1.78	0.66
1:G:242:LEU:CD1	1:G:255:LEU:HD11	2.25	0.66
1:C:265:LEU:HD12	1:C:265:LEU:C	2.16	0.66
1:C:44:LEU:HD12	1:C:49:ILE:HD13	1.76	0.66
2:D:343:PHE:HZ	2:D:351:PHE:CE2	2.10	0.66
2:D:95:GLY:O	2:D:97:GLU:N	2.27	0.66
2:F:296:PHE:CE2	2:F:335:ILE:CG2	2.73	0.66
1:A:243:ARG:HH22	1:A:252:LEU:HG	1.59	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:G:265:LEU:C	1:G:265:LEU:HD12	2.16	0.66
3:I:9:LEU:O	3:I:12:ILE:HG22	1.95	0.66
2:H:67:PHE:CD2	2:H:92:LEU:CD2	2.79	0.66
1:A:242:LEU:HD12	1:A:255:LEU:HD11	1.77	0.66
1:G:230:LEU:HD23	1:G:231:VAL:N	2.10	0.66
2:D:175:PRO:HG3	2:D:304:LYS:HG2	1.76	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: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
2:F:67:PHE:CD2	2:F:92:LEU:CD2	2.79	0.66
2:B:67:PHE:CD2	2:B:92:LEU:CD2	2.79	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
1:C:230:LEU:HD23	1:C:231:VAL:N	2.10	0.66
2:B:172:TYR:HD1	2:B:173:PRO:N	1.93	0.66
1:E:267:PHE:N	1:E:267:PHE:CD1	2.62	0.66
1:G:107:HIS:CD2	1:G:151:THR:CG2	2.77	0.66
2:H:100:ALA:CB	2:H:105:ARG:HD3	2.25	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
2:H:3:GLU:HG2	2:H:51:THR:C	2.14	0.66
2:B:68:VAL:HG11	2:B:149:PHE:CZ	2.30	0.66
2:H:313:MET:HB3	2:H:344:VAL:CG2	2.26	0.66
1:G:242:LEU:HD12	1:G:255:LEU:HD11	1.78	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:E:107:HIS:CD2	1:E:151:THR:CG2	2.77	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:325:MET:HE3	1:C:325:MET:HA	1.76	0.66
2:H:152:LEU:HA	2:H:155:GLU:HB2	1.77	0.66
2:H:341:ILE:O	2:H:341:ILE:HG12	1.95	0.66
2:B:63:PRO:CG	2:B:87:PHE:HA	2.26	0.66
1:A:281:GLN:O	1:A:283:TYR:HB2	1.96	0.66
2:H:278:ALA:O	2:H:279:GLU:CB	2.43	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:C:281:GLN:O	1:C:283:TYR:HB2	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:230:LEU:HD23	1:E:231:VAL:N	2.10	0.66
2:B:313:MET:HB3	2:B:344:VAL:CG2	2.26	0.66
1:G:35:SER:HB3	1:G:59:ASN:CA	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
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
1:G:66:ILE:CD1	1:G:122:VAL:HG12	2.26	0.65
2:D:67:PHE:CD2	2:D:92:LEU:CD2	2.79	0.65
2:H:217:LEU:HD11	2:H:367:ASP:O	1.96	0.65
2:F:217:LEU:HD11	2:F:367:ASP:O	1.96	0.65
2:D:217:LEU:HD11	2:D:367:ASP:O	1.96	0.65
2:B:100:ALA:CB	2:B:105:ARG:HD3	2.26	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:H:172:TYR:HD1	2:H:173:PRO:N	1.93	0.65
1:C:352:LYS:NZ	2:D:180:ALA:HA	2.11	0.65
2:D:100:ALA:CB	2:D:105:ARG:HD3	2.25	0.65
2:B:5:ILE:HD11	2:B:64:ARG:HH12	1.59	0.65
2:B:217:LEU:HD11	2:B:367:ASP:O	1.97	0.65
2:B:206:ASN:OD1	2:B:227:LEU:HD13	1.96	0.65
2:H:206:ASN:OD1	2:H:227:LEU:HD13	1.97	0.65
1:G:413:MET:HG2	1:G:418:PHE:HE1	1.61	0.65
2:B:243:ARG:NH2	2:B:252:LEU:N	2.29	0.65
1:E:66:ILE:CD1	1:E:122:VAL:HG12	2.26	0.65
1:A:182:VAL:HG23	1:A:186:ASN:HD21	1.60	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
2:F:172:TYR:HD1	2:F:173:PRO:N	1.93	0.65
1:E:35:SER:HB3	1:E:59:ASN:CA	2.26	0.65
1:A:35:SER:HB3	1:A:59:ASN:CA	2.26	0.65
2:B:296:PHE:CZ	2:B:341:ILE:HD11	2.22	0.65
2:F:100:ALA:CB	2:F:105:ARG:HD3	2.26	0.65
2:F:2:ARG:HH21	1:G:96:GLN:NE2	1.94	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
1:A:66:ILE:CD1	1:A:122:VAL:HG12	2.26	0.65
1:G:267:PHE:CD1	1:G:267:PHE:N	2.62	0.65
2:B:343:PHE:CZ	2:B:351:PHE:HE2	2.08	0.65
2:B:3:GLU:HG2	2:B:51:THR:C	2.15	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
2:H:317:LEU:HD12	2:H:351:PHE:CD1	2.32	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
1:C:35:SER:HB3	1:C:59:ASN:CA	2.26	0.65
2:H:296:PHE:CE2	2:H:335:ILE:CG2	2.73	0.65
2:D:317:LEU:HD12	2:D:351:PHE:CD1	2.32	0.65
2:D:3:GLU:HG2	2:D:51:THR:C	2.15	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
1:G:282:GLN:O	1:G:282:GLN:HG2	1.97	0.65
1:G:281:GLN:O	1:G:283:TYR:HB2	1.96	0.65
2:D:344:VAL:HG12	2:D:345:ASP:N	2.12	0.65
2:H:102:ASN:HB3	2:H:407:TRP:CD1	2.31	0.65
2:B:317:LEU:HD12	2:B:351:PHE:CD1	2.32	0.65
1:E:158:ARG:NE	1:E:197:ASN:O	2.30	0.65
1:E:66:ILE:HD13	1:E:122:VAL:HG12	1.79	0.65
1:E:413:MET:HG2	1:E:418:PHE:HE1	1.61	0.65
2:B:344:VAL:HG12	2:B:345:ASP:N	2.12	0.65
2:B:293:ASN:OD1	2:B:338:LYS:NZ	2.30	0.65
2:F:402:ARG:O	2:F:403:ALA:C	2.35	0.65
2:H:115:ILE:HG23	2:H:116:ASP:N	2.12	0.65
2:D:115:ILE:HG23	2:D:116:ASP:N	2.12	0.65
1:G:66:ILE:HD13	1:G:122:VAL:HG12	1.79	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
1:E:282:GLN:O	1:E:282:GLN:HG2	1.97	0.65
2:H:344:VAL:HG12	2:H:345:ASP:N	2.12	0.65
1:G:241:CYS:O	1:G:244:PHE:HB2	1.97	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
2:H:3:GLU:HA	2:H:51:THR:CB	2.27	0.65
2:B:115:ILE:HG23	2:B:116:ASP:N	2.12	0.65
1:A:422:GLU:O	1:A:426:ASN:HB2	1.97	0.65
1:G:158:ARG:NE	1:G:197:ASN:O	2.30	0.64
1:C:241:CYS:O	1:C:244:PHE:HB2	1.97	0.64
2:F:115:ILE:HG23	2:F:116:ASP:N	2.12	0.64
2:D:3:GLU:HA	2:D:51:THR:CB	2.27	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:93:VAL:CG1	1:A:118:VAL:HG22	2.19	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
2:B:402:ARG:O	2:B:403:ALA:C	2.36	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
3:I:5:ARG:O	3:I:9:LEU:HG	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:A:114:LEU:O	1:A:118:VAL:HG23	1.97	0.64
2:H:293:ASN:OD1	2:H:338:LYS:NZ	2.30	0.64
1:C:158:ARG:NE	1:C:197:ASN:O	2.30	0.64
2:B:3:GLU:HA	2:B:51:THR:CB	2.27	0.64
2:F:209:ILE:HG23	2:F:230:LEU:HD23	1.79	0.64
1:A:431:GLU:O	1:A:434:GLN:HG2	1.97	0.64
2:F:285:GLN:HG3	2:F:371:VAL:HG13	1.79	0.64
1:C:114:LEU:O	1:C:118:VAL:HG23	1.97	0.64
1:G:284:ARG:O	1:G:286:LEU:N	2.31	0.64
2:D:402:ARG:O	2:D:403:ALA:C	2.35	0.64
2:F:293:ASN:OD1	2:F:338:LYS:NZ	2.30	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
1:G:70:LEU:N	1:G:145:THR:HG21	2.11	0.64
3:I:39:ILE:HD13	3:I:101:PHE:CD1	2.32	0.64
2:D:88:HIS:NE2	2:H:283:HIS:CD2	2.65	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
1:E:431:GLU:O	1:E:434:GLN:HG2	1.97	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:E:133:GLN:HG3	1:E:165:ILE:HD11	1.80	0.64
2:B:63:PRO:HG3	2:B:87:PHE:HA	1.80	0.64
1:A:133:GLN:HG3	1:A:165:ILE:HD11	1.80	0.64
1:E:284:ARG:O	1:E:286:LEU:N	2.31	0.64
1:C:247:GLN:HB3	2:D:224:TYR:CD2	2.31	0.64
1:A:284:ARG:O	1:A:286:LEU:N	2.31	0.64
2:H:305:CYS:SG	2:H:384:ILE:HD13	2.37	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
2:B:25:CYS:HB2	2:B:30:ILE:O	1.98	0.64

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:70:LEU:N	1:E:145:THR:HG21	2.11	0.63
2:B:386:GLU:O	2:B:389:ALA:N	2.31	0.63
1:C:427:ASP:O	1:C:430:SER:HB3	1.97	0.63
2:F:152:LEU:HD12	2:F:153:LEU:N	2.14	0.63
2:F:151:SER:O	2:F:155:GLU:HB2	1.98	0.63
1:A:105:LYS:O	1:A:110:GLU:HB2	1.97	0.63
1:A:70:LEU:N	1:A:145:THR:HG21	2.11	0.63
1:C:180:THR:CG2	1:C:181:VAL:N	2.61	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:G:105:LYS:O	1:G:110:GLU:HB2	1.97	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:E:114:LEU:O	1:E:118:VAL:HG23	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
2:F:317:LEU:HD11	2:F:351:PHE:HE1	1.63	0.63
1:C:105:LYS:O	1:C:110:GLU:HB2	1.97	0.63
1:A:299:LYS:O	1:A:300:ASN:HB2	1.98	0.63
2:F:305:CYS:SG	2:F:384:ILE:HD13	2.37	0.63
1:A:318:VAL:HA	1:A:354:ALA:HB3	1.81	0.63
1:G:318:VAL:HA	1:G:354:ALA:HB3	1.81	0.63
1:G:258:ASN:ND2	1:G:352:LYS:CE	2.55	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
3:I:18:LEU:HD21	3:I:50:PHE:CZ	2.34	0.63
1:C:70:LEU:N	1:C:145:THR:HG21	2.11	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
1:C:315:VAL:HG13	1:C:377:PHE:CE1	2.34	0.63
2:D:317:LEU:HB3	2:D:319:TYR:CE1	2.33	0.63
2:D:296:PHE:CZ	2:D:341:ILE:HD11	2.22	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:172:VAL:CG1	1:A:387:LEU:HD21	2.24	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
2:H:7:ILE:HG22	2:H:66:VAL:CG2	2.28	0.63
2:D:151:SER:O	2:D:155:GLU:HB2	1.98	0.63
2:D:56:THR:CB	2:H:284:GLU:HB2	2.29	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:5:ILE:HD13	2:B:64:ARG:HH12	1.59	0.63
2:D:236:SER:O	2:D:240:ALA:HB3	1.99	0.63
1:A:108:TYR:CD1	1:A:413:MET:HE1	2.34	0.63
2:B:209:ILE:HG23	2:B:230:LEU:HD23	1.79	0.63
1:C:254:LYS:NZ	2:D:101:ASN:ND2	2.47	0.62
2:F:102:ASN:OD1	2:F:105:ARG:HB3	1.99	0.62
2:B:236:SER:O	2:B:240:ALA:HB3	1.99	0.62
2:B:152:LEU:HD12	2:B:153:LEU:N	2.14	0.62
1:E:70:LEU:H	1:E:145:THR:CG2	2.10	0.62
2:D:315:CYS:HB3	2:D:377:MET:CE	2.29	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:D:317:LEU:HD11	2:D:351:PHE:HE1	1.63	0.62
2:D:70:LEU:O	2:D:95:GLY:O	2.17	0.62
2:F:7:ILE:HG22	2:F:66:VAL:CG2	2.28	0.62
1:A:4:ILE:HA	1:A:134:GLY:O	1.99	0.62
2:F:315:CYS:HB3	2:F:377:MET:HE2	1.80	0.62
1:E:318:VAL:HA	1:E:354:ALA:HB3	1.81	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
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
2:F:317:LEU:HB3	2:F:319:TYR:CE1	2.33	0.62
2:F:70:LEU:O	2:F:95:GLY:O	2.17	0.62
2:H:236:SER:O	2:H:240:ALA:HB3	1.99	0.62
2:B:70:LEU:O	2:B:95:GLY:O	2.17	0.62
1:E:205:ASP:OD2	1:E:304:ALA:N	2.32	0.62
2:B:315:CYS:HB3	2:B:377:MET:CE	2.29	0.62
2:H:317:LEU:HB3	2:H:319:TYR:CE1	2.33	0.62
1:C:243:ARG:HH21	1:C:252:LEU:H	1.45	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
1:C:172:VAL:CG1	1:C:387:LEU:HD21	2.24	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:205:ASP:OD2	1:C:304:ALA:N	2.32	0.62
1:C:318:VAL:HA	1:C:354:ALA:HB3	1.81	0.62
2:H:62:VAL:CG1	2:H:91:GLN:HE22	2.13	0.62
1:A:137:LEU:HD22	1:A:154:ILE:CG2	2.28	0.62
1:G:230:LEU:O	1:G:233:ALA:HB3	2.00	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
1:A:205:ASP:OD2	1:A:304:ALA:N	2.32	0.62
1:G:205:ASP:OD2	1:G:304:ALA:N	2.32	0.62
2:D:205:ASP:HB2	2:D:303:VAL:HA	1.82	0.62
2:F:315:CYS:HB3	2:F:377:MET:CE	2.29	0.62
2:H:315:CYS:HB3	2:H:377:MET:CE	2.29	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
1:C:4:ILE:HA	1:C:134:GLY:O	1.99	0.62
1:E:253:ARG:O	1:E:256:ALA:N	2.33	0.62
2:D:278:ALA:O	2:D:279:GLU:CB	2.43	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:115:VAL:HG21	1:E:152:LEU:CD2	2.30	0.62
2:F:284:GLU:N	2:F:284:GLU:OE1	2.29	0.62
2:D:293:ASN:HD21	2:D:338:LYS:HZ1	1.47	0.62
3:I:91:ASN:O	3:I:95:VAL:HG23	1.98	0.62
1:G:63:PRO:HD2	1:G:86:ILE:HG12	1.80	0.62
1:G:315:VAL:HG13	1:G:377:PHE:CE1	2.34	0.62
2:D:273:ALA:HB3	2:D:274:PRO:HD3	1.81	0.62
2:F:23:LEU:HD22	2:F:232:GLY:O	1.99	0.62
2:F:3:GLU:HA	2:F:51:THR:CB	2.28	0.62
1:G:70:LEU:CG	1:G:145:THR:HG23	2.30	0.62
2:H:23:LEU:HD22	2:H:232:GLY:O	1.99	0.62
2:F:277:SER:HA	2:F:367:ASP:O	2.00	0.62
1:E:63:PRO:HD2	1:E:86:ILE:HG12	1.80	0.62
1:G:254:LYS:HE3	1:G:352:LYS:CE	2.27	0.62
2:B:317:LEU:HB3	2:B:319:TYR:CE1	2.33	0.62
2:D:269:LEU:O	2:D:378:LEU:HA	1.99	0.62
2:F:7:ILE:CD1	2:F:137:VAL:HG22	2.29	0.62
2:B:23:LEU:HD22	2:B:232:GLY:O	1.99	0.62
2:H:277:SER:HA	2:H:367:ASP:O	2.00	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:7:ILE:CD1	2:B:137:VAL:HG22	2.29	0.62
1:E:108:TYR:CD1	1:E:413:MET:HE1	2.35	0.62
1:C:109:THR:HG22	3:I:89:GLN:CG	2.29	0.62
1:G:211:ASP:OD1	1:G:212:ILE:N	2.33	0.62
1:C:63:PRO:HD2	1:C:86:ILE:HG12	1.80	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:166:LYS:H	2:D:199:ASP:CG	2.03	0.62
2:D:7:ILE:HG22	2:D:66:VAL:CG2	2.28	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
2:B:30:ILE:CD1	2:B:61:HIS:CG	2.82	0.62
2:D:277:SER:HA	2:D:367:ASP:O	2.00	0.62
1:A:243:ARG:HH21	1:A:252:LEU:H	1.45	0.62
2:H:205:ASP:HB2	2:H:303:VAL:HA	1.82	0.62
2:B:205:ASP:HB2	2:B:303:VAL:HA	1.82	0.62
1:A:63:PRO:HD2	1:A:86:ILE:HG12	1.80	0.62
2:H:115:ILE:HG13	2:H:152:LEU:HD13	1.81	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:236:SER:O	2:F:240:ALA:HB3	1.99	0.62
2:B:277:SER:HA	2:B:367:ASP:O	2.00	0.62
1:E:70:LEU:CG	1:E:145:THR:HG23	2.30	0.62
1:C:211:ASP:OD1	1:C:212:ILE:N	2.33	0.62
2:D:267:PHE:HD1	2:D:267:PHE:H	1.47	0.62
2:F:205:ASP:HB2	2:F:303:VAL:HA	1.82	0.62
1:G:115:VAL:HG21	1:G:152:LEU:CD2	2.30	0.62
1:C:249:ASN:OD1	2:D:71:GLU:OE1	2.17	0.62
1:G:253:ARG:O	1:G:256:ALA:N	2.33	0.61
2:H:269:LEU:O	2:H:378:LEU:HA	1.99	0.61
2:D:102:ASN:OD1	2:D:105:ARG:HB3	1.99	0.61
2:D:7:ILE:CD1	2:D:137:VAL:HG22	2.29	0.61
1:E:4:ILE:HA	1:E:134:GLY:O	1.99	0.61
1:A:107:HIS:HD2	1:A:151:THR:CG2	2.12	0.61
2:H:168:GLU:OE1	2:H:198:SER:HB2	2.00	0.61
2:H:243:ARG:NH2	2:H:252:LEU:N	2.29	0.61
2:F:115:ILE:HG13	2:F:152:LEU:HD13	1.82	0.61
3:I:13:ASN:HD22	3:I:18:LEU:HB2	1.65	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
1:A:211:ASP:OD1	1:A:212:ILE:N	2.33	0.61
2:H:345:ASP:C	2:H:347:CYS:H	2.04	0.61
2:H:293:ASN:HD21	2:H:338:LYS:HZ1	1.48	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

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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:273:ALA:HB3	2:F:274:PRO:HD3	1.81	0.61
2:F:269:LEU:O	2:F:378:LEU:HA	1.99	0.61
1:C:88:ARG:HD2	1:G:283:TYR:CE1	2.35	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
3:I:76:LYS:HD3	3:I:77:VAL:N	2.15	0.61
2:F:168:GLU:OE1	2:F:198:SER:HB2	2.01	0.61
1:C:4:ILE:HG23	1:C:134:GLY:O	2.00	0.61
2:F:243:ARG:NH2	2:F:252:LEU:N	2.29	0.61
3:I:39:ILE:HD13	3:I:101:PHE:CE1	2.35	0.61
3:I:37:ASP:OD1	3:I:41:GLN:HA	2.00	0.61
2:D:23:LEU:HD22	2:D:232:GLY:O	1.99	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:114:LEU:HD23	1:C:149:MET:CE	2.30	0.61
1:A:70:LEU:CG	1:A:145:THR:HG23	2.30	0.61
1:E:172:VAL:HG11	1:E:387:LEU:CD2	2.22	0.61
1:A:115:VAL:HG21	1:A:152:LEU:CD2	2.30	0.61
2:F:293:ASN:HD21	2:F:338:LYS:HZ1	1.48	0.61
2:D:217:LEU:HD11	2:D:277:SER:HA	1.82	0.61
2:B:7:ILE:HG22	2:B:66:VAL:CG2	2.28	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
1:C:204:ILE:CD1	1:C:231:VAL:HG13	2.31	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:D:345:ASP:C	2:D:347:CYS:H	2.04	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:390:ARG:CZ	3:I:56:TYR:HB3	2.23	0.61
2:B:273:ALA:HB3	2:B:274:PRO:HD3	1.81	0.61
1:G:245:PRO:HA	2:H:73:THR:HG21	1.83	0.61
1:G:107:HIS:HD2	1:G:151:THR:CG2	2.12	0.61
2:D:115:ILE:HG13	2:D:152:LEU:HD13	1.81	0.61
1:E:4:ILE:HG23	1:E:134:GLY:O	2.00	0.61
2:D:276:ILE:CG2	2:D:369:ALA:HB2	2.27	0.61
1:A:4:ILE:HG23	1:A:134:GLY:O	2.00	0.61
2:H:273:ALA:HB3	2:H:274:PRO:HD3	1.81	0.61
1:C:346:TRP:CD1	2:D:401:LYS:NZ	2.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
2:H:166:LYS:H	2:H:199:ASP:CG	2.03	0.61
1:G:257:VAL:CB	2:H:407:TRP:CE3	2.65	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
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
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
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: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:E:114:LEU:HD23	1:E: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
2:F:339:ARG:HH21	3:I:66:GLN:HB3	1.65	0.60
2:D:62:VAL:CG1	2:D:91:GLN:HE22	2.13	0.60
1:A:279:GLY:O	1:A:282:GLN:HB3	2.01	0.60
2:F:169:PHE:CE2	2:F:235:VAL:HG22	2.36	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
1:C:70:LEU:CG	1:C:145:THR:HG23	2.30	0.60
2:B:169:PHE:CE2	2:B:235:VAL:HG22	2.36	0.60
2:D:362:VAL:HG13	2:D:368:LEU:HB2	1.83	0.60
1:C:128:SER:OG	1:C:129:CYS:N	2.34	0.60
1:E:128:SER:OG	1:E:129:CYS:N	2.34	0.60
2:F:63:PRO:CD	2:F:87:PHE:HA	2.31	0.60
3:I:15:VAL:HG23	3:I:16:THR:N	2.17	0.60
1:G:172:VAL:HG11	1:G:387:LEU:CD2	2.22	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
2:H:169:PHE:CE2	2:H:235:VAL:HG22	2.36	0.60
1:C:324:SER:CB	1:C:327:GLU:HG2	2.30	0.60
1:E:285:ALA:HB1	1:E:290:GLU:HG2	1.82	0.60
2:H:119:LEU:CD2	2:H:122:ILE:HD11	2.28	0.60
1:E:107:HIS:HD2	1:E:151:THR:CG2	2.12	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:5:ILE:HD11	2:B:64:ARG:HH22	1.65	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:332:MET:CE	1:E:351:VAL:HG11	2.32	0.60
1:G:332:MET:CE	1:G:351:VAL:HG11	2.32	0.60
2:F:267:PHE:H	2:F:267:PHE:HD1	1.46	0.60
2:F:191:THR:HG21	2:F:425:MET:SD	2.41	0.60
2:B:191:THR:HG21	2:B:425:MET:SD	2.41	0.60
1:A:128:SER:OG	1:A:129:CYS:N	2.34	0.60
1:G:4:ILE:HG23	1:G:134:GLY:O	2.00	0.60
3:I:16:THR:OG1	3:I:18:LEU:HG	2.02	0.60
3:I:43:ILE:N	3:I:43:ILE:HD12	2.16	0.60
1:C:299:LYS:CD	1:C:299:LYS:H	2.07	0.60
1:A:332:MET:CE	1:A:351:VAL:HG11	2.32	0.60
1:G:332:MET:HE3	1:G:351:VAL:HG11	1.82	0.60
2:B:229:ARG:NH1	2:B:363:VAL:HG21	2.16	0.60
1:E:115:VAL:HG21	1:E:152:LEU:HD23	1.84	0.60
2:D:168:GLU:OE1	2:D:198:SER:HB2	2.00	0.60
2:H:311:LYS:HE3	2:H:342:GLN:CD	2.22	0.60
1:C:54:ASN:ND2	1:C:64:ARG:HD3	2.15	0.60
1:A:49:ILE:O	1:A:51:VAL:N	2.35	0.60
1:C:204:ILE:HG21	1:C:231:VAL:HG22	1.84	0.60
2:D:344:VAL:HG11	2:D:346:TRP:NE1	2.16	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
1:A:115:VAL:HG21	1:A:152:LEU:HD23	1.84	0.60
1:C:115:VAL:HG21	1:C:152:LEU:HD23	1.84	0.60
1:G:115:VAL:HG21	1:G:152:LEU:HD23	1.84	0.60
2:B:311:LYS:HE3	2:B:342:GLN:CD	2.22	0.60
1:E:54:ASN:ND2	1:E:64:ARG:HD3	2.15	0.60
2:B:57:GLY:HA3	2:B:58:ALA:HB2	0.66	0.60
2:H:63:PRO:CD	2:H:87:PHE:HA	2.32	0.60
1:A:141:LEU:N	1:A:141:LEU:CD1	2.65	0.60
1:A:408:TYR:CG	1:A:418:PHE:HZ	2.20	0.60
1:G:279:GLY:O	1:G:282:GLN:HB3	2.01	0.60
1:G:204:ILE:HG21	1:G:231:VAL:HG22	1.84	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:G:324:SER:O	1:G:328:VAL:HG23	2.01	0.60
2:B:119:LEU:CD2	2:B:122:ILE:HD11	2.28	0.60
1:C:408:TYR:CG	1:C:418:PHE:HZ	2.20	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:279:GLY:O	1:E:282:GLN:HB3	2.01	0.60
1:G:172:VAL:CG1	1:G:387:LEU:HD21	2.24	0.60
1:E:324:SER:O	1:E:328:VAL:HG23	2.01	0.60
2:B:167:LEU:HA	2:B:200:CYS:O	2.01	0.60
2:B:362:VAL:HG13	2:B:368:LEU:HB2	1.83	0.60
1:G:161:TYR:C	1:G:163:ASP:H	2.05	0.60
1:G:128:SER:OG	1:G:129:CYS:N	2.34	0.60
1:G:19:LYS:CG	1:G:228:ASN:HB3	2.31	0.60
1:C:49:ILE:O	1:C:51:VAL:N	2.35	0.60
2:F:371:VAL:HG12	2:F:372:GLN:N	2.17	0.60
3:I:43:ILE:H	3:I:43:ILE:HD12	1.65	0.60
2:D:87:PHE:CD1	2:D:87:PHE:N	2.69	0.60
1:A:54:ASN:ND2	1:A:64:ARG:HD3	2.15	0.60
2:H:191:THR:HG21	2:H:425:MET:SD	2.41	0.60
2:F:362:VAL:HG13	2:F:368:LEU:HB2	1.83	0.60
2:D:311:LYS:HE3	2:D:342:GLN:CD	2.22	0.60
1:C:141:LEU:CD1	1:C:141:LEU:N	2.65	0.59
2:B:413:MET:O	2:B:414:GLU:HG3	2.02	0.59
3:I:6:GLN:HG3	3:I:7:GLU:N	2.17	0.59
1:E:102:ASN:ND2	1:E:407:TRP:O	2.35	0.59
2:H:344:VAL:HG11	2:H:346:TRP:NE1	2.16	0.59
2:D:435:VAL:O	2:D:435:VAL:HG12	2.02	0.59
2:H:267:PHE:HD1	2:H:267:PHE:H	1.47	0.59
3:I:78:VAL:O	3:I:80:PRO:HD3	2.02	0.59
1:E:161:TYR:C	1:E:163:ASP:H	2.05	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: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:F:276:ILE:HD11	2:F:280:LYS:HD2	1.84	0.59
2:H:87:PHE:CD1	2:H:87:PHE:N	2.69	0.59
2:D:276:ILE:HD11	2:D:280:LYS:HD2	1.85	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:B:329:ASN:HB3	1:C:210:TYR:HE2	1.67	0.59
1:E:324:SER:CB	1:E:327:GLU:HG2	2.30	0.59
1:E:205:ASP:OD2	1:E:304:ALA:CB	2.50	0.59
2:D:371:VAL:HG12	2:D:372:GLN:N	2.17	0.59
2:F:119:LEU:CD2	2:F:122:ILE:HD11	2.28	0.59
3:I:5:ARG:CD	3:I:23:ILE:HG13	2.32	0.59
2:H:276:ILE:CG2	2:H:369:ALA:HB2	2.26	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:H:435:VAL:HG12	2:H:435:VAL:O	2.02	0.59
1:E:30:ILE:HD13	1:E:53:TYR:CE2	2.38	0.59
2:D:413:MET:O	2:D:414:GLU:HG3	2.02	0.59
3:I:23:ILE:CD1	3:I:92:LEU:HD13	2.31	0.59
2:B:276:ILE:HD11	2:B:280:LYS:HD2	1.85	0.59
2:H:276:ILE:HD11	2:H:280:LYS:HD2	1.84	0.59
1:C:70:LEU:H	1:C:145:THR:CG2	2.10	0.59
1:A:102:ASN:ND2	1:A:407:TRP:O	2.36	0.59
2:H:229:ARG:NH1	2:H:363:VAL:HG21	2.16	0.59
1:G:205:ASP:OD2	1:G:304:ALA:CB	2.50	0.59
2:F:167:LEU:HA	2:F:200:CYS:O	2.01	0.59
1:A:325:MET:HE2	1:A:355:VAL:HG21	1.83	0.59
2:F:435:VAL:O	2:F:435:VAL:HG12	2.02	0.59
1:G:141:LEU:N	1:G:141:LEU:CD1	2.65	0.59
1:E:141:LEU:N	1:E:141:LEU:CD1	2.65	0.59
2:F:115:ILE:O	2:F:115:ILE:HD13	2.02	0.59
2:F:413:MET:O	2:F:414:GLU:HG3	2.02	0.59
2:B:115:ILE:O	2:B:115:ILE:HD13	2.02	0.59
2:F:229:ARG:NH1	2:F:363:VAL:HG21	2.16	0.59
2:B:344:VAL:HG11	2:B:346:TRP:NE1	2.16	0.59
2:H:167:LEU:HA	2:H:200:CYS:O	2.01	0.59
2:B:87:PHE:CD1	2:B:87:PHE:N	2.69	0.59
1:E:68:VAL:CG1	1:E:149:MET:SD	2.90	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:G:30:ILE:HD13	1:G:53:TYR:CE2	2.38	0.59
1:A:161:TYR:C	1:A:163:ASP:H	2.05	0.59
2:H:119:LEU:O	2:H:122:ILE:HG12	2.02	0.59
2:H:407:TRP:O	2:H:411:GLU:HG2	2.02	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
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
1:G:324:SER:CB	1:G:327:GLU:HG2	2.30	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
3:I:33:ILE:HD11	3:I:65:LEU:HB2	1.83	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
1:C:89:PRO:HA	1:C:92:PHE:CD2	2.38	0.59
1:C:325:MET:HG2	2:D:224:TYR:CD2	2.37	0.59
1:C:217:LEU:C	1:C:219:LEU:N	2.55	0.59
1:G:325:MET:HE2	1:G:355:VAL:HG21	1.82	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
2:D:119:LEU:CD2	2:D:122:ILE:HD11	2.28	0.59
2:D:63:PRO:CD	2:D:87:PHE:HA	2.32	0.59
2:B:369:ALA:O	2:B:370:LYS:HB3	2.03	0.59
1:E:183:GLU:HB3	1:E:184:PRO:CD	2.33	0.59
1:A:30:ILE:HD13	1:A:53:TYR:CE2	2.38	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:H:317:LEU:HD11	2:H:351:PHE:CE1	2.38	0.59
2:D:407:TRP:O	2:D:411:GLU:HG2	2.02	0.59
2:F:317:LEU:HD11	2:F:351:PHE:CE1	2.38	0.59
1:G:183:GLU:HB3	1:G:184:PRO:CD	2.33	0.59
1:A:151:THR:OG1	1:A:193:GLN:HB3	2.03	0.59
1:E:89:PRO:HA	1:E:92:PHE:CD2	2.38	0.59
1:A:183:GLU:HB3	1:A:184:PRO:CD	2.33	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
2:D:264:ARG:HB2	2:D:266:HIS:HD2	1.67	0.59
2:F:381:THR:C	2:F:383:ALA:N	2.56	0.59
2:D:317:LEU:HD11	2:D:351:PHE:CE1	2.38	0.58
1:G:89:PRO:HA	1:G:92:PHE:CD2	2.38	0.58
2:F:217:LEU:HD11	2:F:277:SER:HA	1.82	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
1:A:217:LEU:C	1:A:219:LEU:N	2.55	0.58
2:H:381:THR:C	2:H:383:ALA:N	2.56	0.58
2:B:348:PRO:CD	1:C:398:MET:HE3	2.34	0.58
2:D:115:ILE:HD13	2:D:115:ILE:O	2.02	0.58
2:F:6:SER:HA	2:F:136:SER:O	2.03	0.58
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
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
1:A:70:LEU:C	1:A:99:ALA:HB2	2.24	0.58
2:B:248:LEU:CD2	2:B:353:VAL:O	2.49	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:205:ASP:OD2	1:A:304:ALA:CB	2.50	0.58
2:B:381:THR:C	2:B:383:ALA:N	2.56	0.58
2:D:202:PHE:CE1	2:D:378:LEU:HD22	2.38	0.58
2:D:6:SER:HA	2:D:136:SER:O	2.03	0.58
1:A:307:PRO:HB3	1:A:312:TYR:OH	2.04	0.58
3:I:28:LYS:HA	3:I:58:TYR:CE1	2.38	0.58
1:G:349:ASN:HD22	1:G:349:ASN:C	2.06	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
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
2:F:202:PHE:CE1	2:F:378:LEU:HD22	2.38	0.58
1:A:270:PRO:HA	1:A:377:PHE:O	2.04	0.58
1:C:70:LEU:C	1:C:99:ALA:HB2	2.24	0.58
1:E:408:TYR:CG	1:E:418:PHE:HZ	2.20	0.58
1:C:307:PRO:HB3	1:C:312:TYR:OH	2.04	0.58
2:F:248:LEU:CD2	2:F:353:VAL:O	2.49	0.58
1:A:349:ASN:HD22	1:A:349:ASN:C	2.07	0.58
2:F:87:PHE:N	2:F:87:PHE:CD1	2.69	0.58
3:I:101:PHE:O	3:I:105:TYR:HD2	1.86	0.58
2:B:62:VAL:HG13	2:B:63:PRO:HD2	1.78	0.58
2:F:369:ALA:O	2:F:370:LYS:HB3	2.03	0.58
1:C:299:LYS:O	1:C:300:ASN:CB	2.51	0.58
1:G:319:PHE:HA	1:G:375:ALA:HA	1.86	0.58
1:C:88:ARG:HD2	1:G:283:TYR:HE1	1.66	0.58
2:D:381:THR:C	2:D:383:ALA:N	2.56	0.58
1:E:151:THR:OG1	1:E:193:GLN:HB3	2.03	0.58
2:D:67:PHE:CZ	2:D:87:PHE:CE2	2.92	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
1:A:68:VAL:CG1	1:A:149:MET:SD	2.90	0.58
1:E:319:PHE:HA	1:E:375:ALA:HA	1.86	0.58
2:H:102:ASN:ND2	2:H:407:TRP:NE1	2.52	0.58
2:B:6:SER:HA	2:B:136:SER:O	2.03	0.58
2:D:5:ILE:HD12	2:D:64:ARG:HH12	1.69	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
2:F:264:ARG:HB2	2:F:266:HIS:HD2	1.67	0.58
1:C:349:ASN:C	1:C:349:ASN:HD22	2.07	0.58
3:I:50:PHE:CE1	3:I:117:ARG:HD3	2.38	0.58
2:B:88:HIS:HB2	2:B:91:GLN:NE2	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
2:H:248:LEU:CD2	2:H:353:VAL:O	2.49	0.58
1:C:161:TYR:C	1:C:163:ASP:H	2.05	0.58
1:E:349:ASN:C	1:E:349:ASN:HD22	2.06	0.58
2:H:264:ARG:HB2	2:H:266:HIS:HD2	1.67	0.58
2:D:119:LEU:O	2:D:122:ILE:HG12	2.02	0.58
1:G:93:VAL:CG1	1:G:118:VAL:HG22	2.19	0.58
2:D:63:PRO:HG2	2:D:87:PHE:HA	1.86	0.58
1:C:68:VAL:CG1	1:C:149:MET:SD	2.90	0.58
1:A:88:ARG:HG3	1:E:283:TYR:OH	2.04	0.58
1:E:172:VAL:CG1	1:E:387:LEU:HD21	2.24	0.58
1:A:299:LYS:O	1:A:300:ASN:CB	2.51	0.58
2:F:3:GLU:CA	2:F:51:THR:OG1	2.30	0.58
3:I:40:TYR:HE2	3:I:72:LYS:CD	2.17	0.58
2:H:6:SER:HA	2:H:136:SER:O	2.03	0.58
2:F:276:ILE:CG2	2:F:369:ALA:HB2	2.26	0.58
2:B:165:SER:HA	2:B:199:ASP:OD2	2.04	0.58
1:G:299:LYS:O	1:G:300:ASN:CB	2.51	0.58
2:B:268:PRO:HA	2:B:379:SER:O	2.04	0.58
2:F:218:ASP:O	2:F:219:ILE:HG23	2.04	0.58
1:G:352:LYS:HD2	2:H:181:VAL:CG2	2.11	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
2:H:369:ALA:O	2:H:370:LYS:HB3	2.03	0.57
2:H:88:HIS:HB2	2:H:91:GLN:NE2	2.06	0.57
1:C:149:MET:O	1:C:153:LEU:HD13	2.04	0.57
2:B:345:ASP:O	2:B:347:CYS:N	2.37	0.57
2:D:268:PRO:HA	2:D:379:SER:O	2.04	0.57
2:H:165:SER:HA	2:H:199:ASP:OD2	2.04	0.57
2:D:166:LYS:HD2	2:D:197:HIS:O	2.04	0.57
2:F:30:ILE:HD13	2:F:61:HIS:CG	2.38	0.57
2:B:117:LEU:HD11	2:B:121:ARG:HH22	1.69	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:H:67:PHE:CZ	2:H:87:PHE:CE2	2.92	0.57
1:G:320:ARG:O	1:G:359:PRO:HA	2.04	0.57
2:D:345:ASP:O	2:D:347:CYS:N	2.37	0.57
2:D:338:LYS:O	2:D:340:THR:N	2.34	0.57
2:F:268:PRO:HA	2:F:379:SER:O	2.03	0.57
2:H:218:ASP:O	2:H:219:ILE:HG23	2.04	0.57
1:G:253:ARG:O	1:G:254:LYS:C	2.42	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:301:MET:CE	1:G:377:PHE:HE2	2.17	0.57
2:F:166:LYS:HD2	2:F:197:HIS:O	2.04	0.57
3:I:40:TYR:CE2	3:I:72:LYS:HD3	2.39	0.57
2:B:264:ARG:HB2	2:B:266:HIS:HD2	1.67	0.57
2:H:313:MET:O	2:H:314:ALA:HB2	2.04	0.57
2:D:139:HIS:CE1	2:D:170:SER:HB3	2.40	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
1:G:70:LEU:C	1:G:99:ALA:HB2	2.24	0.57
2:F:337:THR:CG2	3:I:59:ILE:CD1	2.79	0.57
2:D:117:LEU:HD11	2:D:121:ARG:HH22	1.69	0.57
2:D:30:ILE:HG12	2:D:36:MET:CB	2.12	0.57
2:B:139:HIS:CE1	2:B:170:SER:HB3	2.40	0.57
1:E:149:MET:O	1:E:153:LEU:HD13	2.05	0.57
1:A:149:MET:O	1:A:153:LEU:HD13	2.05	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:B:313:MET:O	2:B:314:ALA:HB2	2.04	0.57
1:A:180:THR:CG2	1:A:181:VAL:H	2.17	0.57
2:B:436:GLY:C	2:B:438:ASP:H	2.08	0.57
2:H:268:PRO:HA	2:H:379:SER:O	2.04	0.57
2:F:313:MET:O	2:F:314:ALA:HB2	2.04	0.57
2:H:139:HIS:CE1	2:H:170:SER:HB3	2.40	0.57
1:C:253:ARG:O	1:C:254:LYS:C	2.42	0.57
1:E:5:VAL:CG2	1:E:135:PHE:HD2	2.18	0.57
1:G:149:MET:O	1:G:153:LEU:HD13	2.04	0.57
1:G:6:HIS:HB3	1:G:65:ALA:HB2	1.87	0.57
1:C:14:ASN:OD1	1:C:75:MET:HG2	2.05	0.57
1:C:6:HIS:HB3	1:C:65:ALA:HB2	1.87	0.57
1:A:6:HIS:HB3	1:A:65:ALA:HB2	1.87	0.57
1:E:299:LYS:O	1:E:300:ASN:CB	2.51	0.57
1:C:274:PRO:CG	1:C:371:LEU:HD21	2.34	0.57
1:E:320:ARG:O	1:E:359:PRO:HA	2.04	0.57
1:C:248:LEU:CD2	2:D:179:THR:CG2	2.82	0.57
2:H:338:LYS:O	2:H:340:THR:N	2.34	0.57
2:F:436:GLY:C	2:F:438:ASP:H	2.08	0.57
1:G:307:PRO:HB3	1:G:312:TYR:OH	2.04	0.57
2:H:110:ILE:CG2	2:H:111:GLY:H	2.15	0.57
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:5:ILE:HD12	2:H:64:ARG:HH12	1.69	0.57
2:B:216:ASN:O	2:B:217:LEU:HB2	2.05	0.57
1:A:301:MET:CE	1:A:377:PHE:HE2	2.17	0.57
1:E:93:VAL:CG1	1:E:118:VAL:HG22	2.19	0.57
1:E:14:ASN:OD1	1:E:75:MET:HG2	2.05	0.57
1:G:5:VAL:CG2	1:G:135:PHE:HD2	2.18	0.57
1:C:301:MET:CE	1:C:377:PHE:HE2	2.17	0.57
2:F:165:SER:HA	2:F:199:ASP:OD2	2.04	0.57
1:G:14:ASN:OD1	1:G:75:MET:HG2	2.05	0.57
1:E:6:HIS:HB3	1:E:65:ALA:HB2	1.87	0.57
1:A:422:GLU:O	1:A:426:ASN:N	2.37	0.57
1:G:274:PRO:CG	1:G:371:LEU:HD21	2.34	0.57
1:C:320:ARG:O	1:C:359:PRO:HA	2.04	0.57
1:A:283:TYR:C	1:A:284:ARG:HG2	2.25	0.57
2:H:175:PRO:HG3	2:H:304:LYS:CG	2.35	0.57
2:B:175:PRO:HG3	2:B:304:LYS:CG	2.35	0.57
2:D:218:ASP:O	2:D:219:ILE:HG23	2.04	0.57
2:H:436:GLY:C	2:H:438:ASP:H	2.08	0.57
2:B:218:ASP:O	2:B:219:ILE:HG23	2.04	0.57
1:G:257:VAL:O	1:G:257:VAL:CG2	2.50	0.57
1:E:253:ARG:O	1:E:254:LYS:C	2.42	0.57
2:F:67:PHE:CZ	2:F:87:PHE:CE2	2.92	0.57
1:G:422:GLU:O	1:G:426:ASN:N	2.37	0.57
3:I:30:TYR:CD2	3:I:50:PHE:CD1	2.92	0.57
1:E:422:GLU:O	1:E:426:ASN:N	2.37	0.57
2:F:210:TYR:CE1	2:F:227:LEU:HD11	2.40	0.57
2:F:175:PRO:HG3	2:F:304:LYS:CG	2.35	0.57
2:H:209:ILE:CG2	2:H:227:LEU:HD22	2.35	0.57
2:D:248:LEU:CD2	2:D:353:VAL:O	2.49	0.57
2:H:345:ASP:O	2:H:347:CYS:N	2.37	0.57
2:B:338:LYS:O	2:B:340:THR:N	2.34	0.57
1:G:270:PRO:HA	1:G:377:PHE:O	2.04	0.57
2:D:165:SER:HA	2:D:199:ASP:OD2	2.04	0.57
2:D:57:GLY:HA3	2:D:58:ALA:HB2	0.66	0.57
1:E:253:ARG:O	1:E:257:VAL:N	2.33	0.57
2:H:216:ASN:O	2:H:217:LEU:HB2	2.05	0.57
2:F:217:LEU:CD1	2:F:277:SER:CB	2.54	0.57
2:D:216:ASN:O	2:D:217:LEU:HB2	2.05	0.57
1:A:198:THR:HG22	1:A:265:LEU:HD22	1.86	0.57
1:A:19:LYS:CG	1:A:228:ASN:HB3	2.31	0.57
1:G:319:PHE:CD2	1:G:375:ALA:HB2	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:F:209:ILE:CG2	2:F:227:LEU:HD22	2.35	0.57
1:A:30:ILE:HA	1:A:35:SER:O	2.04	0.57
2:D:175:PRO:HG3	2:D:304:LYS:CG	2.35	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:242:LEU:C	2:H:244:PHE:H	2.09	0.57
1:G:2:ARG:HH21	2:H:99:ALA:H	1.50	0.57
2:F:110:ILE:CG2	2:F:111:GLY:H	2.15	0.57
2:H:117:LEU:HD11	2:H:121:ARG:HH22	1.69	0.57
2:B:166:LYS:HD2	2:B:197:HIS:O	2.04	0.57
1:A:14:ASN:OD1	1:A:75:MET:HG2	2.05	0.57
1:E:319:PHE:CD2	1:E:375:ALA:HB2	2.40	0.57
2:B:210:TYR:CE1	2:B:227:LEU:HD11	2.40	0.57
2:H:210:TYR:CE1	2:H:227:LEU:HD11	2.40	0.57
1:G:50:ASN:O	1:G:64:ARG:NH2	2.38	0.56
1:E:50:ASN:O	1:E:64:ARG:NH2	2.38	0.56
2:F:152:LEU:HA	2:F:155:GLU:CB	2.35	0.56
3:I:12:ILE:O	3:I:15:VAL:HG22	2.05	0.56
1:C:422:GLU:O	1:C:426:ASN:N	2.37	0.56
1:E:274:PRO:CG	1:E:371:LEU:HD21	2.34	0.56
2:D:210:TYR:CE1	2:D:227:LEU:HD11	2.41	0.56
1:G:180:THR:CG2	1:G:181:VAL:H	2.17	0.56
1:E:325:MET:HE2	1:E:355:VAL:HG21	1.84	0.56
1:G:198:THR:HG22	1:G:265:LEU:HD22	1.86	0.56
1:E:19:LYS:CG	1:E:228:ASN:HB3	2.31	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:A:320:ARG:O	1:A:359:PRO:HA	2.04	0.56
2:D:209:ILE:CG2	2:D:227:LEU:HD22	2.35	0.56
1:C:30:ILE:HA	1:C:35:SER:O	2.04	0.56
2:F:388:TRP:CE3	2:F:388:TRP:HA	2.41	0.56
1:A:31:ASP:O	1:A:32:PRO:C	2.44	0.56
2:F:382:THR:O	2:F:382:THR:HG22	2.05	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
1:G:165:ILE:H	1:G:165:ILE:HD13	1.71	0.56
1:E:312:TYR:O	1:E:344:VAL:HB	2.05	0.56
2:F:117:LEU:HD11	2:F:121:ARG:HH22	1.69	0.56
3:I:30:TYR:CE2	3:I:50:PHE:CD1	2.92	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:277:SER:O	2:B:280:LYS:HB2	2.06	0.56
2:F:216:ASN:O	2:F:217:LEU:HB2	2.05	0.56
2:H:63:PRO:HG2	2:H:87:PHE:HA	1.86	0.56
2:D:276:ILE:O	2:D:369:ALA:CB	2.52	0.56
1:A:312:TYR:O	1:A:344:VAL:HB	2.05	0.56
1:A:5:VAL:CG2	1:A:135:PHE:HD2	2.18	0.56
1:E:70:LEU:CD1	1:E:145:THR:HG23	2.35	0.56
1:A:319:PHE:HA	1:A:375:ALA:HA	1.86	0.56
1:G:283:TYR:C	1:G:284:ARG:HG2	2.24	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
2:H:362:VAL:HG11	2:H:368:LEU:O	2.04	0.56
1:E:325:MET:HE1	1:E:355:VAL:HG11	1.86	0.56
1:E:180:THR:CG2	1:E:181:VAL:H	2.17	0.56
1:G:272:PHE:HB3	1:G:275:LEU:HD22	1.88	0.56
1:C:31:ASP:O	1:C:32:PRO:C	2.44	0.56
1:A:272:PHE:HB3	1:A:275:LEU:HD22	1.88	0.56
1:E:272:PHE:HB3	1:E:275:LEU:HD22	1.88	0.56
2:F:242:LEU:C	2:F:244:PHE:H	2.09	0.56
2:F:409:VAL:C	2:F:411:GLU:H	2.09	0.56
2:F:408:TYR:CD2	2:F:418:PHE:HZ	2.24	0.56
2:F:3:GLU:HG3	2:F:51:THR:HA	1.74	0.56
1:A:165:ILE:HD13	1:A:165:ILE:H	1.71	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:234:ILE:HB	2:D:302:MET:HE1	1.88	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:D:19:ALA:CB	2:D:228:ASN:HB3	2.35	0.56
2:B:382:THR:O	2:B:382:THR:HG22	2.06	0.56
1:G:312:TYR:O	1:G:344:VAL:HB	2.05	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:139:HIS:HE1	1:E:168:THR:HG23	1.71	0.56
1:G:70:LEU:CD1	1:G:145:THR:HG23	2.35	0.56
3:I:33:ILE:HG23	3:I:43:ILE:HG21	1.87	0.56
2:F:362:VAL:CG1	2:F:368:LEU:HB2	2.35	0.56
2:B:388:TRP:CE3	2:B:388:TRP:HA	2.41	0.56
2:H:382:THR:O	2:H:382:THR:HG22	2.06	0.56
1:E:31:ASP:O	1:E:32:PRO:C	2.44	0.56
1:G:139:HIS:HE1	1:G:168:THR:HG23	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:C:166:MET:HB3	1:C:198:THR:OG1	2.06	0.56
1:C:50:ASN:O	1:C:64:ARG:NH2	2.38	0.56
2:D:242:LEU:C	2:D:244:PHE:H	2.09	0.56
1:E:165:ILE:H	1:E:165:ILE:HD13	1.71	0.56
2:F:63:PRO:HG2	2:F:87:PHE:HA	1.86	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
2:D:277:SER:O	2:D:280:LYS:HB2	2.06	0.56
1:A:253:ARG:O	1:A:254:LYS:C	2.42	0.56
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
2:H:388:TRP:HA	2:H:388:TRP:CE3	2.41	0.56
1:C:272:PHE:HB3	1:C:275:LEU:HD22	1.88	0.56
2:F:19:ALA:CB	2:F:228:ASN:HB3	2.35	0.56
1:C:5:VAL:CG2	1:C:135:PHE:HD2	2.18	0.56
2:D:331:ALA:O	2:D:334:THR:HG22	2.05	0.56
1:E:259:MET:CA	1:E:314:THR:HG21	2.35	0.56
3:I:30:TYR:CE2	3:I:34:GLN:HB2	2.41	0.56
3:I:5:ARG:HD2	3:I:88:MET:HE1	1.81	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
1:C:182:VAL:HG23	1:C:186:ASN:ND2	2.20	0.56
3:I:55:GLU:HA	3:I:58:TYR:HD2	1.61	0.56
1:C:312:TYR:O	1:C:344:VAL:HB	2.05	0.56
1:C:216:THR:O	1:C:217:LEU:HD12	2.05	0.56
2:H:209:ILE:HG22	2:H:227:LEU:HD22	1.88	0.56
1:E:30:ILE:HA	1:E:35:SER:O	2.05	0.56
2:B:362:VAL:HG11	2:B:368:LEU:O	2.04	0.56
2:H:16:ILE:HD12	2:H:171:ILE:HD11	1.88	0.56
2:D:436:GLY:C	2:D:438:ASP:H	2.08	0.56
1:G:311:ARG:HH11	1:G:311:ARG:HG2	1.71	0.56
1:G:311:ARG:HD2	1:G:344:VAL:H	1.71	0.56
1:E:311:ARG:HD2	1:E:344:VAL:H	1.71	0.56
2:F:24:TYR:OH	2:F:239:THR:OG1	2.24	0.56
3:I:20:LEU:HD23	3:I:20:LEU:C	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
2:B:152:LEU:HA	2:B:155:GLU:CB	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:70:LEU:CD1	1:A:145:THR:HG23	2.35	0.56
1:E:210:TYR:HD1	1:E:227:LEU:HD21	1.71	0.56
1:A:216:THR:O	1:A:217:LEU:HD12	2.05	0.56
2:D:362:VAL:HG11	2:D:368:LEU:O	2.04	0.56
2:D:388:TRP:CE3	2:D:388:TRP:HA	2.41	0.56
1:C:223:THR:HG22	1:C:224:TYR:N	2.21	0.56
1:G:19:LYS:O	1:G:23:VAL:HG23	2.06	0.56
2:H:408:TYR:CD2	2:H:418:PHE:HZ	2.24	0.56
1:C:151:THR:OG1	1:C:193:GLN:CB	2.54	0.56
1:C:4:ILE:HD13	1:C:136:GLN:NE2	2.18	0.56
2:F:253:THR:O	2:F:256:GLN:HG2	2.06	0.56
3:I:32:MET:O	3:I:36:PHE:HD2	1.88	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: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:E:283:TYR:C	1:E:284:ARG:HG2	2.24	0.56
1:C:319:PHE:CD2	1:C:375:ALA:HB2	2.40	0.56
1:C:311:ARG:HG2	1:C:311:ARG:HH11	1.71	0.56
2:D:209:ILE:HG22	2:D:227:LEU:HD22	1.88	0.56
1:G:216:THR:O	1:G:217:LEU:HD12	2.05	0.56
2:F:209:ILE:HG22	2:F:227:LEU:HD22	1.88	0.56
2:H:231:ILE:HA	2:H:234:ILE:CG2	2.36	0.56
1:G:223:THR:HG22	1:G:224:TYR:N	2.21	0.56
2:F:16:ILE:HD12	2:F:171:ILE:HD11	1.87	0.56
1:G:424:ASN:HD22	1:G:424:ASN:C	2.09	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:H:276:ILE:O	2:H:369:ALA:CB	2.52	0.56
1:A:191:VAL:HA	1:A:194:LEU:HD12	1.88	0.56
1:A:19:LYS:O	1:A:23:VAL:HG23	2.06	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
1:A:182:VAL:HG23	1:A:186:ASN:ND2	2.20	0.56
2:F:231:ILE:HA	2:F:234:ILE:CG2	2.36	0.56
2:H:362:VAL:CG1	2:H:368:LEU:HB2	2.35	0.56
2:F:362:VAL:HG11	2:F:368:LEU:O	2.04	0.56
2:D:382:THR:HG22	2:D:382:THR:O	2.05	0.56
1:A:223:THR:HG22	1:A:224:TYR:N	2.21	0.56
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:165:ILE:H	1:C:165:ILE:HD13	1.71	0.55
1:E:190:SER:O	1:E:194:LEU:HG	2.06	0.55
1:E:19:LYS:O	1:E:23:VAL:HG23	2.06	0.55
1:C:273:ALA:HB3	1:C:274:PRO:CD	2.29	0.55
1:A:324:SER:C	1:A:326:LYS:N	2.59	0.55
1:C:310:GLY:CA	1:C:436:GLN:HE21	2.19	0.55
2:B:19:ALA:CB	2:B:228:ASN:HB3	2.35	0.55
1:E:223:THR:HG22	1:E:224:TYR:N	2.21	0.55
1:G:190:SER:O	1:G:194:LEU:HG	2.06	0.55
1:C:191:VAL:HA	1:C:194:LEU:HD12	1.87	0.55
1:C:19:LYS:O	1:C:23:VAL:HG23	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
2:D:88:HIS:HB2	2:D:91:GLN:NE2	2.06	0.55
2:B:150:THR:O	2:B:153:LEU:N	2.40	0.55
1:A:273:ALA:CB	1:A:274:PRO:HD3	2.30	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
1:A:204:ILE:HD13	1:A:231:VAL:HG13	1.89	0.55
2:B:209:ILE:HG22	2:B:227:LEU:HD22	1.88	0.55
1:A:310:GLY:CA	1:A:436:GLN:HE21	2.19	0.55
2:H:19:ALA:CB	2:H:228:ASN:HB3	2.35	0.55
1:G:253:ARG:O	1:G:257:VAL:N	2.33	0.55
1:G:119:LEU:O	1:G:123:ARG:HG3	2.06	0.55
3:I:45:LEU:HD13	3:I:116:ARG:HB3	1.86	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:E:273:ALA:CB	1:E:274:PRO:HD3	2.30	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:G:166:MET:HB3	1:G:198:THR:OG1	2.06	0.55
1:G:151:THR:OG1	1:G:193:GLN:CB	2.54	0.55
2:F:331:ALA:O	2:F:334:THR:HG22	2.05	0.55
1:G:182:VAL:HG23	1:G:186:ASN:ND2	2.20	0.55
2:H:5:ILE:HG22	2:H:135:PHE:CD2	2.40	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
1:E:204:ILE:HD13	1:E:231:VAL:HG13	1.89	0.55
2:D:172:TYR:OH	2:D:387:ALA:O	2.24	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:245:PRO:HG3	2:H:73:THR:HG23	1.87	0.55
2:H:150:THR:O	2:H:153:LEU:N	2.40	0.55
2:D:409:VAL:C	2:D:411:GLU:H	2.09	0.55
2:D:5:ILE:HG22	2:D:135:PHE:CD2	2.40	0.55
2:D:64:ARG:O	2:D:64:ARG:HG3	2.07	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: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:G:297:ASP:OD1	1:G:298:ALA:N	2.39	0.55
1:E:216:THR:O	1:E:217:LEU:HD12	2.05	0.55
1:C:324:SER:C	1:C:326:LYS:N	2.59	0.55
1:G:191:VAL:HA	1:G:194:LEU:HD12	1.88	0.55
2:H:331:ALA:O	2:H:334:THR:HG22	2.05	0.55
1:C:139:HIS:HE1	1:C:168:THR:HG23	1.71	0.55
1:E:166:MET:HB3	1:E:198:THR:OG1	2.06	0.55
2:F:30:ILE:O	2:F:30:ILE:HG22	2.07	0.55
2:F:3:GLU:HA	2:F:51:THR:HG1	1.65	0.55
2:B:64:ARG:HG3	2:B:64:ARG:O	2.07	0.55
2:H:3:GLU:HG3	2:H:51:THR:HA	1.75	0.55
1:A:190:SER:O	1:A:194:LEU:HG	2.06	0.55
2:B:253:THR:O	2:B:256:GLN:HG2	2.06	0.55
1:E:67:LEU:N	1:E:67:LEU:HD23	2.22	0.55
1:C:204:ILE:HG21	1:C:231:VAL:CG2	2.36	0.55
1:A:204:ILE:HG21	1:A:231:VAL:CG2	2.36	0.55
1:C:190:SER:O	1:C:194:LEU:HG	2.06	0.55
1:C:424:ASN:C	1:C:424:ASN:HD22	2.09	0.55
2:F:150:THR:O	2:F:153:LEU:N	2.39	0.55
2:F:30:ILE:HG23	2:F:34:GLY:O	2.07	0.55
2:H:64:ARG:O	2:H:64:ARG:HG3	2.07	0.55
1:C:67:LEU:N	1:C:67:LEU:HD23	2.22	0.55
1:E:204:ILE:HG21	1:E:231:VAL:CG2	2.36	0.55
1:C:204:ILE:HD13	1:C:231:VAL:HG13	1.89	0.55
2:B:16:ILE:HD12	2:B:171:ILE:HD11	1.88	0.55
2:H:409:VAL:C	2:H:411:GLU:H	2.09	0.55
1:E:424:ASN:C	1:E:424:ASN:HD22	2.09	0.55
3:I:30:TYR:CE2	3:I:50:PHE:CE1	2.95	0.55
2:D:30:ILE:HD13	2:D:61:HIS:CG	2.41	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
1:A:147:SER:O	1:A:151:THR:CB	2.51	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:67:LEU:N	1:A:67:LEU:HD23	2.22	0.55
1:C:259:MET:CA	1:C:314:THR:HG21	2.35	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
2:D:3:GLU:HG3	2:D:51:THR:HA	1.75	0.55
1:A:4:ILE:HD13	1:A:136:GLN:NE2	2.18	0.55
2:D:16:ILE:HD12	2:D:171:ILE:HD11	1.87	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
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
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:F:64:ARG:O	2:F:64:ARG:HG3	2.06	0.55
2:D:24:TYR:OH	2:D:239:THR:OG1	2.24	0.55
2:B:276:ILE:O	2:B:369:ALA:CB	2.53	0.55
2:H:217:LEU:CD1	2:H:277:SER:CB	2.54	0.55
1:A:239:THR:O	1:A:241:CYS:N	2.40	0.55
1:E:324:SER:C	1:E:326:LYS:N	2.59	0.55
2:D:381:THR:OG1	2:D:383:ALA:HB3	2.07	0.55
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
2:B:5:ILE:O	2:B:136:SER:N	2.40	0.54
1:A:311:ARG:HD2	1:A:344:VAL:H	1.71	0.54
1:A:273:ALA:HB3	1:A:274:PRO:CD	2.29	0.54
1:C:239:THR:O	1:C:241:CYS:N	2.41	0.54
1:C:2:ARG:HH22	2:D:99:ALA:H	1.54	0.54
2:B:24:TYR:OH	2:B:239:THR:OG1	2.24	0.54
1:A:259:MET:CG	1:A:314:THR:HG21	2.36	0.54
2:H:288:VAL:HG22	2:H:373:ARG:NH1	2.22	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:C:210:TYR:HD1	1:C:227:LEU:HD21	1.71	0.54
1:A:210:TYR:HD1	1:A:227:LEU:HD21	1.71	0.54
2:B:381:THR:OG1	2:B:383:ALA:HB3	2.07	0.54
1:A:325:MET:O	1:A:329:ASP:HB2	2.07	0.54
1:G:310:GLY:CA	1:G:436:GLN:HE21	2.19	0.54
2:B:17:GLY:O	2:B:21:TRP:HB2	2.08	0.54
2:H:339:ARG:C	2:H:341:ILE:H	2.11	0.54
1:C:2:ARG:NH2	2:D:98:ASP:HA	2.22	0.54
2:F:6:SER:O	2:F:65:ALA:HB1	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:5:ILE:O	2:D:136:SER:N	2.40	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
1:C:297:ASP:OD1	1:C:298:ALA:N	2.39	0.54
1:E:297:ASP:OD1	1:E:298:ALA:N	2.39	0.54
1:C:325:MET:O	1:C:329:ASP:HB2	2.07	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:F:17:GLY:O	2:F:21:TRP:HB2	2.08	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
2:B:5:ILE:CG2	2:B:6:SER:N	2.70	0.54
1:A:133:GLN:HE21	1:A:252:LEU:HB2	1.73	0.54
2:B:409:VAL:C	2:B:411:GLU:H	2.09	0.54
1:G:204:ILE:HG21	1:G:231:VAL:CG2	2.36	0.54
1:C:323:MET:HG3	1:C:328:VAL:HG21	1.90	0.54
2:B:172:TYR:OH	2:B:387:ALA:O	2.24	0.54
1:E:310:GLY:CA	1:E:436:GLN:HE21	2.19	0.54
1:G:147:SER:O	1:G:151:THR:CB	2.51	0.54
1:C:5:VAL:HG22	1:C:135:PHE:CD2	2.42	0.54
2:D:115:ILE:HD13	2:D:115:ILE:C	2.28	0.54
2:F:288:VAL:HG22	2:F:373:ARG:NH1	2.23	0.54
1:G:67:LEU:N	1:G:67:LEU:HD23	2.22	0.54
2:B:30:ILE:HG23	2:B:34:GLY:O	2.07	0.54
2:H:30:ILE:HG22	2:H:30:ILE:O	2.07	0.54
2:H:6:SER:O	2:H:65:ALA:HB1	2.07	0.54
1:A:323:MET:HG3	1:A:328:VAL:HG21	1.90	0.54
1:E:323:MET:HG3	1:E:328:VAL:HG21	1.90	0.54
1:G:323:MET:HG3	1:G:328:VAL:HG21	1.90	0.54
2:B:293:ASN:HD21	2:B:338:LYS:HZ1	1.53	0.54
2:D:17:GLY:O	2:D:21:TRP:HB2	2.08	0.54
1:G:5:VAL:HG22	1:G:135:PHE:CD2	2.42	0.54
1:G:2:ARG:NH2	2:H:99:ALA:N	2.54	0.54
1:G:343:PHE:O	1:G:344:VAL:O	2.26	0.54
1:G:44:LEU:O	1:G:49:ILE:HG12	2.07	0.54
1:G:4:ILE:CG2	1:G:136:GLN:HG2	2.38	0.54
2:H:115:ILE:HD13	2:H:115:ILE:C	2.28	0.54
1:C:133:GLN:HE21	1:C:252:LEU:HB2	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:301:MET:HE1	1:C:377:PHE:HE2	1.71	0.54
1:E:5:VAL:HG22	1:E:135:PHE:CD2	2.42	0.54
1:E:4:ILE:CG2	1:E:136:GLN:HG2	2.38	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: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:A:44:LEU:O	1:A:49:ILE:HG12	2.07	0.54
1:C:325:MET:CE	1:C:355:VAL:HG11	2.38	0.54
1:G:324:SER:C	1:G:326:LYS:N	2.59	0.54
1:G:239:THR:O	1:G:241:CYS:N	2.41	0.54
2:H:110:ILE:O	2:H:112:LYS:N	2.41	0.54
1:C:427:ASP:OD1	1:C:428:LEU:N	2.41	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
2:D:6:SER:O	2:D:65:ALA:HB1	2.07	0.54
2:B:61:HIS:C	2:B:62:VAL:HG23	2.28	0.54
2:H:62:VAL:CG1	2:H:88:HIS:ND1	2.71	0.54
1:A:5:VAL:HG22	1:A:135:PHE:CD2	2.42	0.54
1:G:322:ARG:HH11	1:G:322:ARG:HG3	1.73	0.54
2:H:102:ASN:CB	2:H:407:TRP:NE1	2.71	0.54
1:C:259:MET:CG	1:C:314:THR:HG21	2.37	0.54
1:E:4:ILE:HD13	1:E:136:GLN:NE2	2.18	0.54
1:G:68:VAL:HG12	1:G:149:MET:CE	2.38	0.54
3:I:70:LEU:HD13	3:I:70:LEU:C	2.28	0.54
2:D:30:ILE:HG23	2:D:34:GLY:O	2.08	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:343:PHE:O	1:C:344:VAL:O	2.26	0.54
2:F:381:THR:OG1	2:F:383:ALA:HB3	2.07	0.54
1:E:325:MET:CE	1:E:355:VAL:HG11	2.38	0.54
1:G:427:ASP:OD1	1:G:428:LEU:N	2.41	0.54
2:D:288:VAL:HG22	2:D:373:ARG:NH1	2.23	0.54
2:D:121:ARG:O	2:D:125:LEU:HB2	2.08	0.54
2:B:115:ILE:C	2:B:115:ILE:HD13	2.28	0.54
2:F:332:ILE:HG22	1:G:177:VAL:HG21	1.90	0.54
2:H:163:LYS:O	2:H:163:LYS:HG2	2.08	0.54
2:D:173:PRO:HB2	2:D:391:LEU:CD1	2.38	0.54
1:G:331:GLN:O	1:G:335:VAL:HG23	2.08	0.54
2:B:324:VAL:O	2:B:327:ASP:HB2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:C:239:THR:HG22	1:C:240:THR:N	2.22	0.54
1:C:44:LEU:O	1:C:49:ILE:HG12	2.07	0.54
2:D:110:ILE:O	2:D:112:LYS:N	2.41	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:D:23:LEU:HD23	2:D:236:SER:CB	2.37	0.54
2:B:163:LYS:HG2	2:B:163:LYS:O	2.08	0.54
2:F:172:TYR:OH	2:F:387:ALA:O	2.24	0.54
1:A:325:MET:CE	1:A:355:VAL:HG11	2.38	0.54
1:G:431:GLU:O	1:G:434:GLN:CG	2.56	0.54
1:E:431:GLU:O	1:E:434:GLN:CG	2.56	0.54
1:E:322:ARG:HG3	1:E:322:ARG:HH11	1.73	0.54
1:G:4:ILE:HD13	1:G:136:GLN:NE2	2.18	0.53
1:C:253:ARG:O	1:C:257:VAL:N	2.33	0.53
2:B:121:ARG:O	2:B:125:LEU:HB2	2.08	0.53
2:B:6:SER:O	2:B:65:ALA:HB1	2.07	0.53
2:H:121:ARG:O	2:H:125:LEU:HB2	2.08	0.53
2:D:215:ARG:C	2:D:216:ASN:HD22	2.12	0.53
1:C:68:VAL:HG12	1:C:149:MET:CE	2.38	0.53
1:E:68:VAL:HG12	1:E:149:MET:CE	2.38	0.53
2:H:381:THR:OG1	2:H:383:ALA:HB3	2.07	0.53
1:A:331:GLN:O	1:A:335:VAL:HG23	2.08	0.53
1:C:331:GLN:O	1:C:335:VAL:HG23	2.08	0.53
1:E:331:GLN:O	1:E:335:VAL:HG23	2.08	0.53
2:H:408:TYR:O	2:H:411:GLU:N	2.39	0.53
1:C:20:PHE:CE1	1:C:24:ILE:HD12	2.43	0.53
1:E:5:VAL:O	1:E:5:VAL:HG23	2.09	0.53
2:F:110:ILE:O	2:F:112:LYS:N	2.41	0.53
2:F:115:ILE:C	2:F:115:ILE:HD13	2.28	0.53
2:F:121:ARG:O	2:F:125:LEU:HB2	2.08	0.53
2:F:9:VAL:CG1	2:F:139:HIS:HB3	2.38	0.53
2:F:243:ARG:CZ	2:F:252:LEU:HG	2.39	0.53
2:B:110:ILE:O	2:B:112:LYS:N	2.41	0.53
2:B:9:VAL:CG1	2:B:139:HIS:HB3	2.38	0.53
2:H:101:ASN:ND2	4:H:500:GTP:O3G	2.42	0.53
1:A:297:ASP:OD1	1:A:298:ALA:N	2.39	0.53
2:F:329:ASN:HB3	1:G:210:TYR:HE2	1.73	0.53
2:F:163:LYS:HG2	2:F:163:LYS:O	2.08	0.53
3:I:76:LYS:HG3	3:I:97:TRP:CD2	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:325:MET:O	1:E:329:ASP:HB2	2.07	0.53
1:G:325:MET:CE	1:G:355:VAL:HG11	2.38	0.53
1:E:31:ASP:HB3	1:E:32:PRO:HD2	1.90	0.53
2:H:243:ARG:CZ	2:H: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:E:44:LEU:O	1:E:49:ILE:HG12	2.07	0.53
2:D:88:HIS:NE2	2:H:283:HIS:CG	2.76	0.53
1:A:20:PHE:CE1	1:A:24:ILE:HD12	2.43	0.53
1:A:5:VAL:HG23	1:A:5:VAL:O	2.09	0.53
2:B:243:ARG:CZ	2:B:252:LEU:HG	2.39	0.53
1:A:68:VAL:HG12	1:A:149:MET:CE	2.38	0.53
2:F:182:VAL:O	2:F:184:PRO:N	2.41	0.53
2:D:163:LYS:O	2:D:163:LYS:HG2	2.08	0.53
1:C:352:LYS:HZ2	2:D:180:ALA:HA	1.73	0.53
1:A:31:ASP:HB3	1:A:32:PRO:HD2	1.89	0.53
1:A:322:ARG:HH11	1:A:322:ARG:HG3	1.73	0.53
1:G:5:VAL:O	1:G:5:VAL:HG23	2.09	0.53
2:H:98:ASP:O	2:H:110:ILE:HD13	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: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:D:5:ILE:O	2:D:135:PHE:HA	2.08	0.53
2:H:5:ILE:HG23	2:H:135:PHE:CB	2.38	0.53
2:B:110:ILE:CG2	2:B:111:GLY:N	2.71	0.53
1:E:21:TRP:CZ2	1:E:65:ALA:HB2	2.44	0.53
2:B:231:ILE:CA	2:B:234:ILE:HG22	2.38	0.53
2:F:234:ILE:HB	2:F:302:MET:HE1	1.90	0.53
2:B:248:LEU:HB3	2:B:355:ILE:H	1.73	0.53
2:H:173:PRO:HB2	2:H:391:LEU:CD1	2.39	0.53
1:C:36:TYR:CZ	1:C:38:GLY:HA3	2.43	0.53
2:D:243:ARG:CZ	2:D:252:LEU:HG	2.39	0.53
1:E:194:LEU:C	1:E:196:GLU:H	2.11	0.53
1:G:248:LEU:CD2	2:H:179:THR:HG21	2.21	0.53
1:A:194:LEU:C	1:A:196:GLU:H	2.11	0.53
2:H:182:VAL:O	2:H:184:PRO:N	2.41	0.53
1:G:213:CYS:SG	1:G:219:LEU:HD23	2.48	0.53
2:F:248:LEU:HB3	2:F:355:ILE:H	1.73	0.53
2:D:248:LEU:HB3	2:D:355:ILE:H	1.73	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)
2:H:9:VAL:CG1	2:H:139:HIS:HB3	2.38	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
2:F:67:PHE:CZ	2:F:87:PHE:HE2	2.27	0.53
2:H:67:PHE:CZ	2:H:87:PHE:HE2	2.27	0.53
1:A:239:THR:HG22	1:A:240:THR:N	2.22	0.53
2:F:101:ASN:ND2	4:F:500:GTP:O3G	2.42	0.53
2:B:147:SER:CB	2:B:190:THR:OG1	2.52	0.53
1:E:213:CYS:SG	1:E:219:LEU:HD23	2.48	0.53
2:H:248:LEU:HB3	2:H:355:ILE:H	1.73	0.53
2:F:173:PRO:HB2	2:F:391:LEU:CD1	2.38	0.53
1:G:31:ASP:HB3	1:G:32:PRO:HD2	1.89	0.53
1:G:27:GLU:O	1:G:27:GLU:HG2	2.08	0.53
1:C:27:GLU:O	1:C:27:GLU:HG2	2.08	0.53
1:G:107:HIS:HD2	1:G:151:THR:HG22	1.72	0.53
1:G:20:PHE:CE1	1:G:24:ILE:HD12	2.42	0.53
2:F:408:TYR:O	2:F:411:GLU:N	2.39	0.53
3:I:20:LEU:HD21	3:I:22:ARG:O	2.09	0.53
2:H:5:ILE:O	2:H:135:PHE:HA	2.08	0.53
1:A:4:ILE:CG2	1:A:136:GLN:HG2	2.38	0.53
1:C:213:CYS:SG	1:C:219:LEU:HD23	2.48	0.53
1:A:229:HIS:ND1	1:A:229:HIS:C	2.62	0.53
2:D:264:ARG:C	2:D:266:HIS:N	2.60	0.53
2:B:182:VAL:O	2:B:184:PRO:N	2.41	0.53
2:D:182:VAL:O	2:D:184:PRO:N	2.41	0.53
2:B:173:PRO:HB2	2:B:391:LEU:CD1	2.39	0.53
1:C:31:ASP:HB3	1:C:32:PRO:HD2	1.89	0.53
1:E:36:TYR:CZ	1:E:38:GLY:HA3	2.43	0.53
1:A:36:TYR:CZ	1:A:38:GLY:HA3	2.43	0.53
1:C:322:ARG:HG3	1:C:322:ARG:HH11	1.73	0.53
1:G:141:LEU:HA	1:G:147:SER:HB3	1.91	0.53
1:G:133:GLN:HE21	1:G:252:LEU:HB2	1.73	0.53
1:G:253:ARG:HB3	2:H:407:TRP:CZ3	2.34	0.53
1:C:198:THR:HG22	1:C:265:LEU:CD2	2.39	0.53
1:C:5:VAL:O	1:C:5:VAL:HG23	2.09	0.53
1:E:141:LEU:HA	1:E:147:SER:HB3	1.91	0.53
2:D:5:ILE:HG23	2:D:135:PHE:CB	2.38	0.53
2:B:23:LEU:HD23	2:B:236:SER:CB	2.37	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:21:TRP:CZ2	1:C:65:ALA:HB2	2.44	0.53
1:G:226:ASP:O	1:G:227:LEU:C	2.46	0.53
1:A:213:CYS:SG	1:A:219:LEU:HD23	2.48	0.53
1:G:36:TYR:CZ	1:G:38:GLY:HA3	2.43	0.53
2:H:147:SER:CB	2:H:190:THR:OG1	2.52	0.53
2:D:101:ASN:ND2	4: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:D:67:PHE:CZ	2:D:87:PHE:HE2	2.27	0.53
2:B:276:ILE:CG2	2:B:369:ALA:HB2	2.26	0.53
1:A:250:ALA:CA	1:A:254:LYS:HE2	2.35	0.53
1:A:21:TRP:CZ2	1:A:65:ALA:HB2	2.44	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
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
1:C:141:LEU:HA	1:C:147:SER:HB3	1.91	0.53
2:D:408:TYR:O	2:D:411:GLU:N	2.39	0.53
2:D:98:ASP:O	2:D:110:ILE:HD13	2.08	0.53
2:F:196:GLU:C	2:F:197:HIS:CD2	2.82	0.53
2:F:5:ILE:HG23	2:F:135:PHE:CB	2.38	0.53
1:G:8:GLN:OE1	1:G:14:ASN:ND2	2.42	0.53
3:I:62:TRP:O	3:I:66:GLN:HG3	2.09	0.53
1:A:168:THR:CB	1:A:201:THR:HG23	2.38	0.53
1:A:264:ARG:HE	1:A:264:ARG:HA	1.74	0.53
2:B:98:ASP:O	2:B:110:ILE:HD13	2.08	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:H:231:ILE:CA	2:H:234:ILE:HG22	2.38	0.53
2:H:172:TYR:OH	2:H:387:ALA:O	2.24	0.53
1:A:431:GLU:O	1:A:434:GLN:CG	2.56	0.53
1:C:431:GLU:O	1:C:434:GLN:CG	2.56	0.53
2:F:324:VAL:O	2:F:327:ASP:HB2	2.08	0.53
1:E:27:GLU:HG2	1:E:27:GLU:O	2.08	0.53
1:C:264:ARG:HA	1:C:264:ARG:HE	1.75	0.52
1:C:4:ILE:CG2	1:C:136:GLN:HG2	2.38	0.52
2:F:5:ILE:O	2:F:135:PHE:HA	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:215:ARG:C	2:B:216:ASN:HD22	2.12	0.52
1:A:107:HIS:HD2	1:A:151:THR:HG22	1.72	0.52
1:G:212:ILE:O	1:G:216:THR:HB	2.09	0.52
1:G:210:TYR:CD1	1:G:227:LEU:HD21	2.44	0.52
2:H:8:HIS:HB3	2:H:13:GLY:O	2.10	0.52
2:F:8:HIS:HB3	2:F:13:GLY:O	2.09	0.52
1:E:168:THR:CB	1:E:201:THR:HG23	2.38	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: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
1:C:209:LEU:O	1:C:210:TYR:C	2.48	0.52
1:A:27:GLU:O	1:A:27:GLU:HG2	2.08	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:B:339:ARG:C	2:B:341:ILE:H	2.11	0.52
1:C:254:LYS:NZ	2:D:101:ASN:CG	2.62	0.52
3:I:101:PHE:CE2	3:I:105:TYR:CE2	2.97	0.52
2:B:5:ILE:O	2:B:135:PHE:HA	2.09	0.52
2:H:215:ARG:C	2:H:216:ASN:HD22	2.12	0.52
1:C:149:MET:O	1:C:149:MET:HG2	2.10	0.52
1:A:149:MET:O	1:A:149:MET:HG2	2.10	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:C:226:ASP:O	1:C:229:HIS:N	2.42	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:231:ILE:N	2:B:231:ILE:HD13	2.24	0.52
2:H:231:ILE:HD13	2:H:231:ILE:N	2.25	0.52
1:C:345:GLU:C	1:C:347:ILE:H	2.13	0.52
1:C:188:THR:HA	1:C:425:MET:CE	2.40	0.52
1:E:107:HIS:HD2	1:E:151:THR:HG22	1.72	0.52
1:E:425:MET:O	1:E:428:LEU:HB3	2.09	0.52
2:F:150:THR:O	2:F:151:SER:C	2.47	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
3:I:30:TYR:HE1	3:I:48:VAL:CG1	2.18	0.52
2:B:67:PHE:CZ	2:B:87:PHE:HE2	2.27	0.52
2:H:24:TYR:OH	2:H:239:THR:OG1	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:25:CYS:HB2	2:H:30:ILE:O	2.10	0.52
2:B:101:ASN:ND2	4:B:500:GTP:O3G	2.42	0.52
1:C:8:GLN:OE1	1:C:14:ASN:ND2	2.42	0.52
1:E:103:TRP:CE2	1:E:189:LEU:HB3	2.45	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
2:B:201:ALA:O	2:B:267:PHE:HA	2.10	0.52
2:H:201:ALA:O	2:H:267:PHE:HA	2.10	0.52
1:A:345:GLU:C	1:A:347:ILE:H	2.13	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
1:E:133:GLN:HE21	1:E:252:LEU:HB2	1.73	0.52
2:F:119:LEU:HD11	2:F:156:ARG:CD	2.40	0.52
3:I:62:TRP:CH2	3:I:83:LEU:HB3	2.44	0.52
2:D:239:THR:O	2:D:240:ALA:C	2.48	0.52
2:D:67:PHE:CE2	2:D:87:PHE:CD2	2.89	0.52
2:D:63:PRO:CG	2:D:87:PHE:HA	2.40	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
1:E:8:GLN:OE1	1:E:14:ASN:ND2	2.42	0.52
1:A:103:TRP:CE2	1:A:189:LEU:HB3	2.45	0.52
2:D:231:ILE:HD13	2:D:231:ILE:N	2.25	0.52
1:E:209:LEU:O	1:E:210:TYR:C	2.48	0.52
1:G:226:ASP:O	1:G:229:HIS:N	2.42	0.52
2:D:344:VAL:HG12	2:D:345:ASP:H	1.74	0.52
2:D:173:PRO:HB2	2:D:391:LEU:HD11	1.92	0.52
2:D:362:VAL:HG13	2:D:368:LEU:CD1	2.38	0.52
2:H:251:ASP:OD1	2:H:252:LEU:N	2.43	0.52
2:D:24:TYR:CE1	2:D:240:ALA:HB2	2.45	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
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:H:344:VAL:HG12	2:H:345:ASP:H	1.74	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:B:191:THR:HG23	2:B:192:HIS:N	2.25	0.52
2:D:191:THR:HG23	2:D:192:HIS:N	2.25	0.52
1:C:49:ILE:O	1:C:50:ASN:C	2.48	0.52
1:E:107:HIS:CD2	1:E:151:THR:HG22	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:424:ASN:ND2	1:E:424:ASN:C	2.61	0.52
1:C:103:TRP:CE2	1:C:189:LEU:HB3	2.45	0.52
1:C:295:MET:SD	1:C:375:ALA:O	2.68	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
2:F:346:TRP:CZ3	1:G:403:ALA:CA	2.91	0.52
2:D:231:ILE:CA	2:D:234:ILE:HG22	2.38	0.52
1:G:229:HIS:C	1:G:229:HIS:ND1	2.62	0.52
1:G:424:ASN:ND2	1:G:424:ASN:C	2.62	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
1:G:103:TRP:CE2	1:G:189:LEU:HB3	2.45	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
1:A:70:LEU:HD12	1:A:145:THR:HG23	1.91	0.52
1:G:320:ARG:HA	1:G:356:CYS:HB3	1.92	0.52
1:A:295:MET:SD	1:A:375:ALA:O	2.68	0.52
2:B:206:ASN:OD1	2:B:227:LEU:CD1	2.58	0.52
2:F:206:ASN:OD1	2:F:227:LEU:CD1	2.57	0.52
1:G:345:GLU:C	1:G:347:ILE:H	2.13	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:B:239:THR:O	2:B:240:ALA:C	2.48	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
1:C:149:MET:O	1:C:153:LEU:HD22	2.10	0.52
2:H:345:ASP:OD2	2:H:439:SER:HB3	2.10	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
2:D:201:ALA:O	2:D:267:PHE:HA	2.10	0.52
1:A:176:LYS:CE	1:A:207:GLU:HG3	2.39	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:O	1:G:260:VAL:HG23	2.10	0.52
1:C:242:LEU:HD22	1:C:250:ALA:N	2.19	0.52
1:C:425:MET:O	1:C:428:LEU:HB3	2.09	0.52
2:D:251:ASP:OD1	2:D:252:LEU:N	2.43	0.52
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:6:SER:HB3	2:D:136:SER:HG	1.75	0.52
2:H:23:LEU:HD23	2:H:236:SER:CB	2.37	0.52
1:A:149:MET:O	1:A:153:LEU:HD22	2.10	0.52
1:C:320:ARG:HA	1:C:356:CYS:HB3	1.92	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:G:251:ASP:O	1:G:252:LEU:C	2.49	0.51
1:E:49:ILE:O	1:E:50:ASN:C	2.48	0.51
2:B:6:SER:HB3	2:B:136:SER:HG	1.76	0.51
1:A:49:ILE:O	1:A:50:ASN:C	2.48	0.51
1:C:70:LEU:HD12	1:C:145:THR:HG23	1.91	0.51
1:G:295:MET:SD	1:G:375:ALA:O	2.68	0.51
1:G:209:LEU:O	1:G:210:TYR:C	2.48	0.51
2:H:206:ASN:OD1	2:H:227:LEU:CD1	2.58	0.51
2:F:173:PRO:HB2	2:F:391:LEU:HD11	1.92	0.51
2:D:8:HIS:HB3	2:D:13:GLY:O	2.10	0.51
2:H:264:ARG:C	2:H:266:HIS:N	2.60	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
3:I:12:ILE:HG23	3:I:13:ASN:N	2.24	0.51
2:B:244:PHE:C	2:B:244:PHE:CD1	2.84	0.51
2:B:244:PHE:CD1	2:B:245:ASP:N	2.76	0.51
2:B:243:ARG:NH2	2:B:251:ASP:OD1	2.44	0.51
2:H:173:PRO:HB2	2:H:391:LEU:HD11	1.92	0.51
2:B:173:PRO:HB2	2:B:391:LEU:HD11	1.92	0.51
2:H:4:CYS:HA	2:H:134:GLY:O	2.10	0.51
2:D:150:THR:O	2:D:151:SER:C	2.47	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
3:I:33:ILE:CD1	3:I:65:LEU:HB2	2.40	0.51
2:B:63:PRO:HG3	2:B:87:PHE:CA	2.40	0.51
2:F:140:SER:O	2:F:142:GLY:N	2.44	0.51
1:C:212:ILE:O	1:C:216:THR:HB	2.09	0.51
1:G:431:GLU:OE1	1:G:432:TYR:CA	2.57	0.51
2:D:417:GLU:HA	2:D:417:GLU:OE1	2.10	0.51
1:G:264:ARG:HE	1:G:264:ARG:HA	1.75	0.51
1:C:296:PHE:CZ	1:C:315:VAL:HG11	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:119:LEU:HD11	2:D:156:ARG:CD	2.40	0.51
2:D:4:CYS:HA	2:D:134:GLY:O	2.10	0.51
1:G:103:TRP:HZ3	1:G:108:TYR:CE1	2.27	0.51
2:B:251:ASP:OD1	2:B:252:LEU:N	2.43	0.51
2:B:144:GLY:H	4:B:500:GTP:PG	2.33	0.51
1:C:103:TRP:HZ3	1:C:108:TYR:CE1	2.27	0.51
2:H:140:SER:O	2:H:142:GLY:N	2.44	0.51
1:E:345:GLU:C	1:E:347:ILE:H	2.13	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:C:168:THR:CB	1:C:201:THR:HG23	2.38	0.51
1:E:5:VAL:CG2	1:E:135:PHE:CD2	2.94	0.51
1:E:260:VAL:HG23	1:E:260:VAL:O	2.10	0.51
1:E:200:GLU:N	1:E:265:LEU:HD13	2.25	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: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
2:B:264:ARG:C	2:B:266:HIS:N	2.60	0.51
1:C:176:LYS:CE	1:C:207:GLU:HG3	2.39	0.51
1:A:431:GLU:OE1	1:A:432:TYR:CA	2.57	0.51
1:C:431:GLU:OE1	1:C:432:TYR:CA	2.57	0.51
2:B:171:ILE:HG22	2:B:171:ILE:O	2.10	0.51
2:F:119:LEU:HA	2:F:122:ILE:HG12	1.93	0.51
2:B:30:ILE:HD12	2:B:61:HIS:ND1	2.22	0.51
2:H:239:THR:O	2:H:240:ALA:C	2.48	0.51
2:H:5:ILE:O	2:H:136:SER:N	2.40	0.51
1:A:424:ASN:C	1:A:424:ASN:ND2	2.62	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
2:F:14:VAL:HG11	2:F:75:ILE:HD13	1.93	0.51
1:C:132:LEU:CD2	1:C:164:ARG:HG3	2.32	0.51
2:H:191:THR:HG23	2:H:192:HIS:N	2.25	0.51
2:F:55:GLU:HG2	2:F:55:GLU:O	2.10	0.51
1:G:188:THR:HA	1:G:425:MET:CE	2.40	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
2:H:63:PRO:CG	2:H:87:PHE:HA	2.40	0.51
1:A:296:PHE:CZ	1:A:315:VAL:HG11	2.46	0.51
1:E:149:MET:O	1:E:153:LEU:HD22	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:G:5:VAL:CG2	1:G:135:PHE:CD2	2.94	0.51
1:G:314:THR:CG2	1:G:315:VAL:N	2.73	0.51
1:G:49:ILE:O	1:G:50:ASN:C	2.48	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
2:H:9:VAL:HG21	2:H:149:PHE:CD1	2.46	0.51
2:F:4:CYS:HA	2:F:134:GLY:O	2.10	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
2:F:70:LEU:CD1	2:F:145:THR:CB	2.89	0.51
2:F:87:PHE:HD1	2:F:87:PHE:H	1.59	0.51
2:H:24:TYR:CE1	2:H:240:ALA:HB2	2.45	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
2:B:14:VAL:HG11	2:B:75:ILE:HD13	1.93	0.51
1:E:149:MET:HG2	1:E:149:MET:O	2.10	0.51
1:C:298:ALA:O	1:C:299:LYS:C	2.50	0.51
1:A:323:MET:HG3	1:A:328:VAL:CG2	2.41	0.51
1:E:431:GLU:OE1	1:E:432:TYR:CA	2.57	0.51
1:G:348:PRO:HD3	2:H:397:LEU:HB3	1.92	0.51
2:H:243:ARG:NH2	2:H:251:ASP:OD1	2.44	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
1:E:296:PHE:CZ	1:E:315:VAL:HG11	2.46	0.51
2:F:133:GLN:CB	2:F:243:ARG:HH12	2.24	0.51
1:G:70:LEU:HD12	1:G:145:THR:HG23	1.91	0.51
3:I:50:PHE:CE1	3:I:117:ARG:CD	2.94	0.51
3:I:69:PHE:HA	3:I:74:ILE:HD12	1.92	0.51
2:H:87:PHE:H	2:H:87:PHE:HD1	1.59	0.51
2:B:196:GLU:O	2:B:197:HIS:CD2	2.64	0.51
1:E:113:GLU:HG3	1:E:114:LEU:N	2.26	0.51
2:H:14:VAL:HG11	2:H:75:ILE:HD13	1.93	0.51
2:F:264:ARG:C	2:F:266:HIS:N	2.60	0.51
2:D:147:SER:CB	2:D:190:THR:OG1	2.52	0.51
1:C:226:ASP:O	1:C:227:LEU:C	2.46	0.51
1:A:226:ASP:O	1:A:227:LEU:C	2.46	0.51
1:E:323:MET:HG3	1:E:328:VAL:CG2	2.41	0.51
2:F:362:VAL:HG13	2:F:368:LEU:CD1	2.38	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:245:PRO:CB	2:H:73:THR:CG2	2.89	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:C:251:ASP:O	1:C:252:LEU:C	2.49	0.51
2:D:133:GLN:HB3	2:D:243:ARG:HH12	1.76	0.51
2:F:239:THR:O	2:F:240:ALA:C	2.48	0.51
2:F:9:VAL:HG21	2:F:149:PHE:CD1	2.45	0.51
1:G:113:GLU:HG3	1:G:114:LEU:N	2.26	0.51
2:D:5:ILE:HG12	2:D:6:SER:N	2.26	0.51
2:B:133:GLN:CB	2:B:243:ARG:HH12	2.24	0.51
1:E:21:TRP:HZ2	1:E:65:ALA:HB2	1.76	0.51
1:A:298:ALA:O	1:A:299:LYS:C	2.50	0.51
1:A:277:SER:OG	1:A:281:GLN:HB2	2.10	0.51
1:C:5:VAL:CG2	1:C:135:PHE:CD2	2.94	0.50
2:D:119:LEU:HA	2:D:122:ILE:HG12	1.93	0.50
2:F:196:GLU:O	2:F:197:HIS:CD2	2.64	0.50
3:I:30:TYR:CE1	3:I:48:VAL:CG1	2.94	0.50
2:B:87:PHE:H	2:B:87:PHE:HD1	1.59	0.50
1:A:260:VAL:O	1:A:260:VAL:HG23	2.10	0.50
2:B:119:LEU:HA	2:B:122:ILE:HG12	1.93	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
1:C:277:SER:OG	1:C:281:GLN:HB2	2.10	0.50
1:G:277:SER:OG	1:G:281:GLN:HB2	2.10	0.50
1:C:323:MET:HG3	1:C:328:VAL:CG2	2.41	0.50
2:D:132:LEU:CD2	2:D:164:LYS:HE3	2.41	0.50
2:B:310:GLY:HA3	2:B:383:ALA:N	2.26	0.50
2:H:171:ILE:HG22	2:H:171:ILE:O	2.10	0.50
2:F:417:GLU:HA	2:F:417:GLU:OE1	2.11	0.50
2:H:417:GLU:OE1	2:H:417:GLU:HA	2.10	0.50
2:D:70:LEU:CD1	2:D:145:THR:CB	2.89	0.50
2:F:243:ARG:NH2	2:F:251:ASP:OD1	2.44	0.50
1:C:109:THR:HG22	3:I:89:GLN:HG3	1.92	0.50
1:G:323:MET:HG3	1:G:328:VAL:CG2	2.41	0.50
2:D:171:ILE:O	2:D:171:ILE:HG22	2.10	0.50
2:D:196:GLU:O	2:D:197:HIS:CD2	2.64	0.50
2:D:87:PHE:HD1	2:D:87:PHE:H	1.59	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
2:F:261:PRO:HB2	2:F:262:TYR:CD2	2.46	0.50
1:C:156:LYS:HA	1:C:156:LYS:CE	2.38	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:132:LEU:CD2	2:H:164:LYS:HE3	2.41	0.50
2:F:191:THR:HG23	2:F:192:HIS:N	2.25	0.50
2:D:310:GLY:HA3	2:D:383:ALA:N	2.27	0.50
1:A:325:MET:HE1	1:A:355:VAL:HG11	1.93	0.50
1:G:257:VAL:O	2:H:404:PHE:CD2	2.64	0.50
2:H:261:PRO:HB2	2:H:262:TYR:CD2	2.46	0.50
1:C:260:VAL:O	1:C:260:VAL:HG23	2.11	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
1:G:21:TRP:HZ2	1:G:65:ALA:HB2	1.76	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:414:ASP:OD1	3:I:4:SER:HB3	2.09	0.50
1:G:298:ALA:O	1:G:299:LYS:C	2.50	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: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
1:C:107:HIS:CD2	1:C:151:THR:HG22	2.45	0.50
1:C:24:ILE:HG22	1:C:25:SER:N	2.27	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:133:GLN:HB3	2:F:243:ARG:HH12	1.76	0.50
1:A:269:MET:HB3	1:A:303:ALA:HB2	1.94	0.50
2:B:122:ILE:CD1	2:B:157:LEU:HD21	2.35	0.50
1:A:260:VAL:HG23	2:B:407:TRP:NE1	2.25	0.50
2:B:70:LEU:CD1	2:B:145:THR:CB	2.89	0.50
2:F:132:LEU:CD2	2:F:164:LYS:HE3	2.41	0.50
2:H:310:GLY:HA3	2:H:383:ALA:N	2.26	0.50
1:C:188:THR:HA	1:C:425:MET:HE3	1.93	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
2:B:62:VAL:HG12	2:B:63:PRO:N	2.25	0.50
2:H:11:GLN:O	2:H:14:VAL:HB	2.12	0.50
1:G:387:LEU:HD23	1:G:388:PHE:CD1	2.47	0.50
1:G:280:SER:O	1:G:282:GLN:N	2.45	0.50
2:H:362:VAL:HG13	2:H:368:LEU:CD1	2.38	0.50
1:C:333:LEU:O	1:C:336:GLN:N	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:49:ILE:HG13	1:G:50:ASN:H	1.76	0.50
2:H:110:ILE:CG2	2:H:111:GLY:N	2.71	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:149:PHE:HE1	2:F:153:LEU:HD22	1.77	0.50
2:F:5:ILE:HG12	2:F:6:SER:N	2.26	0.50
3:I:104:GLN:CG	3:I:105:TYR:CD2	2.94	0.50
3:I:33:ILE:HG21	3:I:43:ILE:HG21	1.94	0.50
1:A:262:PHE:O	1:A:264:ARG:N	2.45	0.50
1:A:173:PRO:HB3	1:A:183:GLU:HG2	1.93	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
1:G:325:MET:HE1	1:G:355:VAL:HG11	1.92	0.50
2:D:16:ILE:HG23	2:D:17:GLY:N	2.26	0.50
1:G:345:GLU:O	1:G:347:ILE:N	2.45	0.50
2:H:98:ASP:CB	2:H:105:ARG:HH21	2.14	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
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
3:I:40:TYR:CE2	3:I:72:LYS:CD	2.95	0.50
1:A:259:MET:HG2	1:A:314:THR:CG2	2.38	0.50
1:A:24:ILE:HG22	1:A:25:SER:N	2.27	0.50
1:C:413:MET:HG3	1:C:414:ASP:N	2.22	0.50
1:A:88:ARG:HD2	1:E:283:TYR:OH	2.11	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:C:369:ARG:C	1:C:369:ARG:HD2	2.32	0.50
2:B:329:ASN:HB3	1:C:210:TYR:CE2	2.46	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
1:G:176:LYS:HG3	1:G:177:VAL:H	1.76	0.50
2:B:132:LEU:CD2	2:B:164:LYS:HE3	2.41	0.50
1:G:431:GLU:HA	1:G:434:GLN:CG	2.42	0.50
1:C:345:GLU:O	1:C:347:ILE:N	2.45	0.50
1:C:269:MET:HB3	1:C:303:ALA:HB2	1.94	0.50
2:D:115:ILE:CG2	2:D:116:ASP:N	2.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
2:F:115:ILE:CG2	2:F:116:ASP:N	2.75	0.50
2:F:5:ILE:O	2:F:136:SER:N	2.40	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
1:C:387:LEU:HD23	1:C:388:PHE:CD1	2.47	0.50
2:D:231:ILE:O	2:D:235:VAL:HG23	2.12	0.50
2:F:231:ILE:O	2:F:235:VAL:HG23	2.12	0.50
2:H:231:ILE:O	2:H:235:VAL:HG23	2.12	0.50
2:B:305:CYS:O	2:B:306:ASP:C	2.49	0.50
2:D:305:CYS:O	2:D:306:ASP:C	2.49	0.50
1:E:431:GLU:HA	1:E:434:GLN:CG	2.42	0.50
1:G:399:PHE:O	1:G:402:LYS:N	2.29	0.50
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
2:H:133:GLN:HB3	2:H:243:ARG:HH12	1.76	0.49
1:C:154:ILE:HG22	1:C:166:MET:HE1	1.94	0.49
2:D:11:GLN:O	2:D:14:VAL:HB	2.12	0.49
1:C:257:VAL:CG1	2:D:407:TRP:CG	2.76	0.49
1:E:240:THR:HG23	1:E:241:CYS:H	1.76	0.49
3:I:44:PRO:HB2	3:I:47:LYS:CD	2.22	0.49
1:A:49:ILE:HG13	1:A:50:ASN:H	1.76	0.49
2:B:12:ALA:CB	2:B:140:SER:OG	2.59	0.49
2:B:11:GLN:O	2:B:14:VAL:HB	2.12	0.49
2:H:12:ALA:CB	2:H:140:SER:OG	2.60	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
2:H:305:CYS:O	2:H:306:ASP:C	2.49	0.49
1:A:431:GLU:HA	1:A:434:GLN:CG	2.42	0.49
1:C:336:GLN:HE22	1:C:349:ASN:ND2	2.10	0.49
1:G:333:LEU:O	1:G:336:GLN:N	2.45	0.49
1:A:333:LEU:O	1:A:336:GLN:N	2.45	0.49
1:E:333:LEU:O	1:E:336:GLN:N	2.45	0.49
1:G:265:LEU:O	1:G:266:HIS:O	2.29	0.49
1:C:240:THR:HG23	1:C:241:CYS:H	1.76	0.49
1:E:265:LEU:O	1:E:266:HIS:O	2.29	0.49
3:I:60:ASN:O	3:I:64:VAL:HG23	2.11	0.49
3:I:40:TYR:HE2	3:I:72:LYS:HE2	1.77	0.49
2:H:5:ILE:HG12	2:H:6:SER:N	2.26	0.49
1:A:168:THR:O	1:A:201:THR:HA	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:149:PHE:HE1	2:B:153:LEU:HD22	1.77	0.49
1:A:8:GLN:HB3	1:A:14:ASN:HA	1.94	0.49
2:F:11:GLN:O	2:F:14:VAL:HB	2.12	0.49
2:D:227:LEU:O	2:D:231:ILE:HG12	2.12	0.49
2:D:184:PRO:HG2	2:D:398:MET:CE	2.40	0.49
1:G:336:GLN:HE22	1:G:349:ASN:ND2	2.10	0.49
1:A:345:GLU:O	1:A:347:ILE:N	2.45	0.49
2:H:328:VAL:O	2:H:330:ALA:N	2.38	0.49
1:E:399:PHE:O	1:E:402:LYS:N	2.29	0.49
2:H:2:ARG:NH1	2:H:47:ASP:CB	2.75	0.49
1:C:383:ALA:C	1:C:385:GLN:H	2.15	0.49
1:G:269:MET:HB3	1:G:303:ALA:HB2	1.94	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:414:GLU:N	2:H:414:GLU:OE1	2.46	0.49
2:D:238:ILE:O	2:D:242:LEU:HB2	2.11	0.49
3:I:62:TRP:CH2	3:I:83:LEU:CB	2.95	0.49
2:F:339:ARG:CB	3:I:63:LYS:HE2	2.33	0.49
1:A:265:LEU:O	1:A:266:HIS:O	2.29	0.49
1:C:113:GLU:HG3	1:C:114:LEU:N	2.26	0.49
1:C:8:GLN:HB3	1:C:14:ASN:HA	1.94	0.49
1:G:369:ARG:HD2	1:G:369:ARG:C	2.32	0.49
1:A:369:ARG:C	1:A:369:ARG:HD2	2.32	0.49
1:A:132:LEU:CD2	1:A:164:ARG:HG3	2.32	0.49
2:H:227:LEU:O	2:H:231:ILE:HG12	2.12	0.49
2:B:188:ILE:O	2:B:191:THR:HG22	2.13	0.49
2:D:192:HIS:CD2	2:D:424:ASP:OD2	2.66	0.49
2:B:402:ARG:O	2:B:403:ALA:O	2.29	0.49
1:G:133:GLN:NE2	1:G:252:LEU:HB2	2.27	0.49
1:E:133:GLN:NE2	1:E:252:LEU:HB2	2.28	0.49
1:A:265:LEU:HD12	1:A:266:HIS:O	2.12	0.49
2:B:414:GLU:OE1	2:B:414:GLU:N	2.46	0.49
1:E:173:PRO:HB3	1:E:183:GLU:HG2	1.93	0.49
1:E:8:GLN:HB3	1:E:14:ASN:HA	1.94	0.49
1:A:156:LYS:HA	1:A:156:LYS:CE	2.38	0.49
2:F:402:ARG:O	2:F:403:ALA:O	2.29	0.49
2:H:16:ILE:HG23	2:H:17:GLY:N	2.26	0.49
2:B:328:VAL:O	2:B:330:ALA:N	2.38	0.49
1:G:168:THR:O	1:G:201:THR:HA	2.12	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:188:THR:HA	1:G:425:MET:HE3	1.92	0.49
1:C:259:MET:HG2	1:C:314:THR:CG2	2.38	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
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
2:F:414:GLU:OE1	2:F:414:GLU:N	2.46	0.49
1:G:8:GLN:HB3	1:G:14:ASN:HA	1.94	0.49
1:G:173:PRO:HB3	1:G:183:GLU:CG	2.42	0.49
3:I:30:TYR:CZ	3:I:34:GLN:HB2	2.48	0.49
2:D:50:ASN:ND2	2:D:53:PHE:O	2.46	0.49
2:B:238:ILE:O	2:B:242:LEU:HB2	2.11	0.49
1:E:173:PRO:HB3	1:E:183:GLU:CG	2.42	0.49
1:G:132:LEU:CD2	1:G:164:ARG:HG3	2.32	0.49
1:C:431:GLU:HA	1:C:434:GLN:CG	2.42	0.49
2:F:16:ILE:HG23	2:F:17:GLY:N	2.26	0.49
2:D:2:ARG:NH1	2:D:47:ASP:CB	2.75	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
2:H:102:ASN:CB	2:H:407:TRP:HE1	2.25	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
2:F:115:ILE:O	2:F:116:ASP:C	2.51	0.49
2:F:62:VAL:HG12	2:F:91:GLN:HE22	1.77	0.49
2:F:62:VAL:O	2:F:63:PRO:O	2.30	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
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:E:369:ARG:C	1:E:369:ARG:HD2	2.32	0.49
1:A:280:SER:O	1:A:282:GLN:N	2.45	0.49
2:F:192:HIS:CD2	2:F:424:ASP:OD2	2.66	0.49
1:E:176:LYS:CE	1:E:207:GLU:HG3	2.39	0.49
1:A:336:GLN:HE22	1:A:349:ASN:ND2	2.10	0.49
1:E:168:THR:O	1:E:201:THR:HA	2.12	0.49
3:I:39:ILE:CD1	3:I:101:PHE:CD1	2.95	0.49
3:I:30:TYR:CE2	3:I:50:PHE:HD1	2.31	0.49
2:D:297:GLU:HG3	2:D:299:ALA:N	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:63:PRO:HD3	2:B:86:LEU:O	2.11	0.49
1:A:133:GLN:NE2	1:A:252:LEU:HB2	2.27	0.49
2:B:105:ARG:HG3	2:B:105:ARG:HH11	1.78	0.49
1:A:413:MET:HG3	1:A:414:ASP:N	2.22	0.49
2:D:261:PRO:HB2	2:D:262:TYR:CD2	2.46	0.49
2:H:402:ARG:O	2:H:403:ALA:O	2.29	0.49
2:H:192:HIS:CD2	2:H:424:ASP:OD2	2.66	0.49
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
1:E:245:PRO:HA	2:F:73:THR:CG2	2.42	0.49
1:G:253:ARG:CD	2:H:407:TRP:HH2	2.24	0.49
1:G:3:GLU:HA	1:G:51:VAL:HA	1.93	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: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
2:B:5:ILE:CG1	2:B:64:ARG:NH2	2.75	0.49
2:H:62:VAL:O	2:H:63:PRO:O	2.30	0.49
1:A:240:THR:HG23	1:A:241:CYS:H	1.76	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:431:GLU:OE1	1:E:432:TYR:N	2.46	0.49
1:A:383:ALA:C	1:A:385:GLN:H	2.15	0.49
1:G:4:ILE:HD12	1:G:239:THR:CG2	2.42	0.49
2:D:158:SER:OG	2:D:197:HIS:HB3	2.13	0.49
2:D:414:GLU:OE1	2:D:414:GLU:N	2.46	0.49
2:F:118:VAL:HG21	2:F:149:PHE:CE2	2.48	0.49
2:F:238:ILE:O	2:F:242:LEU:HB2	2.11	0.49
2:D:62:VAL:O	2:D:63:PRO:O	2.30	0.49
1:A:296:PHE:HZ	1:A:315:VAL:HG11	1.78	0.49
2:B:70:LEU:N	2:B:70:LEU:HD12	2.28	0.49
1:C:69:ASP:HA	1:C:145:THR:HG21	1.95	0.49
2:B:184:PRO:HG2	2:B:398:MET:CE	2.41	0.49
2:F:188:ILE:O	2:F:191:THR:HG22	2.13	0.49
2:H:188:ILE:O	2:H:191:THR:HG22	2.13	0.49
2:B:362:VAL:HG13	2:B:368:LEU:CD1	2.38	0.49
1:E:175:PRO:CD	1:E:207:GLU:OE1	2.61	0.49
1:G:431:GLU:OE1	1:G:432:TYR:N	2.46	0.49
2:D:392:ASP:O	2:D:395:PHE:HB3	2.13	0.49
1:G:24:ILE:HG22	1:G:25:SER:N	2.26	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:308:ARG:HG3	1:G:342:TYR:OH	2.13	0.49
1:G:4:ILE:HG22	1:G:5:VAL:N	2.27	0.49
1:C:133:GLN:NE2	1:C:252:LEU:HB2	2.28	0.49
2:D:155:GLU:OE1	2:D:197:HIS:HE1	1.96	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:297:GLU:HG3	2:F:299:ALA:N	2.28	0.49
2:H:62:VAL:HG12	2:H:91:GLN:HE22	1.77	0.49
1:A:49:ILE:HG13	1:A:50:ASN:N	2.28	0.49
1:C:173:PRO:HB3	1:C:183:GLU:CG	2.42	0.49
1:A:69:ASP:HA	1:A:145:THR:HG21	1.95	0.49
2:F:12:ALA:CB	2:F:140:SER:OG	2.60	0.49
2:B:230:LEU:O	2:B:233:GLN:N	2.35	0.49
1:E:156:LYS:CE	1:E:156:LYS:HA	2.38	0.49
2:H:104:ALA:CB	2:H:408:TYR:HD1	2.26	0.48
2:D:105:ARG:HH11	2:D:105:ARG:HG3	1.78	0.48
2:D:9:VAL:HG11	2:D:150:THR:OG1	2.13	0.48
1:E:257:VAL:HG13	2:F:407:TRP:CD2	2.48	0.48
2:F:115:ILE:HD11	2:F:119:LEU:HG	1.92	0.48
2:F:104:ALA:CB	2:F:408:TYR:HD1	2.26	0.48
3:I:39:ILE:CD1	3:I:101:PHE:HD1	2.26	0.48
1:G:248:LEU:CD1	2:H:179:THR:HG21	2.41	0.48
2:H:297:GLU:HG3	2:H:299:ALA:N	2.28	0.48
3:I:55:GLU:HA	3:I:58:TYR:CE2	2.44	0.48
1:E:132:LEU:CD2	1:E:164:ARG:HG3	2.32	0.48
1:G:211:ASP:OD1	1:G:212:ILE:HG13	2.13	0.48
1:G:176:LYS:CE	1:G:207:GLU:HG3	2.39	0.48
1:G:175:PRO:CD	1:G:207:GLU:OE1	2.61	0.48
2:F:328:VAL:O	2:F:330:ALA:N	2.38	0.48
2:B:2:ARG:NH1	2:B:47:ASP:CB	2.76	0.48
1:G:49:ILE:HG13	1:G:50:ASN:N	2.29	0.48
1:C:2:ARG:NH1	1:C:251:ASP:OD2	2.46	0.48
1:C:49:ILE:HG13	1:C:50:ASN:N	2.28	0.48
1:C:4:ILE:HG22	1:C:5:VAL:N	2.27	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
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
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
2:F:105:ARG:HH11	2:F:105:ARG:HG3	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:155:GLU:OE1	2:F:197:HIS:HE1	1.96	0.48
1:G:173:PRO:HB3	1:G:183:GLU:HG2	1.93	0.48
2:H:50:ASN:ND2	2:H:53:PHE:O	2.46	0.48
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:A:431:GLU:OE1	1:A:432:TYR:N	2.46	0.48
1:C:431:GLU:OE1	1:C:432:TYR:N	2.46	0.48
2:H:392:ASP:O	2:H:395:PHE:HB3	2.13	0.48
1:E:383:ALA:C	1:E:385:GLN:H	2.15	0.48
1:G:383:ALA:C	1:G:385:GLN:H	2.15	0.48
1:G:243:ARG:HD3	1:G:243:ARG:N	2.25	0.48
1:G:2:ARG:NH1	1:G:251:ASP:OD2	2.46	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
1:C:20:PHE:CG	1:C:235:MET:SD	3.07	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:142:GLY:HA3	1:G:183:GLU:OE2	2.13	0.48
3:I:32:MET:CE	3:I:62:TRP:CZ3	2.96	0.48
2:B:297:GLU:HG3	2:B:299:ALA:N	2.28	0.48
2:B:104:ALA:CB	2:B:408:TYR:HD1	2.26	0.48
1:A:173:PRO:HB3	1:A:183:GLU:CG	2.42	0.48
2:H:274:PRO:CB	2:H:371:VAL:HG21	2.43	0.48
1:G:281:GLN:C	1:G:283:TYR:N	2.67	0.48
1:C:308:ARG:HG3	1:C:342:TYR:OH	2.13	0.48
2:B:234:ILE:HB	2:B:302:MET:HE1	1.95	0.48
2:D:163:LYS:C	2:D:164:LYS:HG2	2.33	0.48
2:H:203:MET:SD	2:H:267:PHE:HB3	2.53	0.48
2:H:191:THR:CG2	2:H:192:HIS:N	2.76	0.48
2:H:155:GLU:OE1	2:H:197:HIS:HE1	1.96	0.48
1:C:191:VAL:HG13	1:C:192:HIS:N	2.28	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
1:A:20:PHE:CG	1:A:235:MET:SD	3.07	0.48
1:A:4:ILE:HD12	1:A:239:THR:CG2	2.42	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:H:230:LEU:O	2:H:233:GLN:N	2.35	0.48
2:F:191:THR:CG2	2:F:192:HIS:N	2.76	0.48
2:D:293:ASN:HD21	2:D:338:LYS:NZ	2.11	0.48

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:191:VAL:HG13	1:G:192:HIS:N	2.28	0.48
1:G:264:ARG:NE	1:G:264:ARG:HA	2.29	0.48
1:C:154:ILE:HG22	1:C:166:MET:CE	2.44	0.48
1:C:237:GLY:O	1:C:241:CYS:CB	2.61	0.48
1:C:4:ILE:HD12	1:C:239:THR:CG2	2.42	0.48
2:D:151:SER:OG	2:D:193:THR:HG21	2.13	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:50:ASN:ND2	2:F:53:PHE:O	2.46	0.48
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:176:LYS:HG3	1:C:177:VAL:H	1.78	0.48
2:D:191:THR:CG2	2:D:192:HIS:N	2.76	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
2:F:392:ASP:O	2:F:395:PHE:HB3	2.13	0.48
1:G:20:PHE:CG	1:G:235:MET:SD	3.07	0.48
1:G:301:MET:HE1	1:G:377:PHE:HE2	1.77	0.48
1:C:199:ASP:O	1:C:200:GLU:HG3	2.13	0.48
2:D:115:ILE:HG23	2:D:116:ASP:H	1.79	0.48
2:F:115:ILE:HG23	2:F:116:ASP:H	1.79	0.48
2:F:274:PRO:CB	2:F:371:VAL:HG21	2.43	0.48
2:F:70:LEU:HD12	2:F:70:LEU:N	2.28	0.48
1:G:102:ASN:HB3	1:G:105:LYS:HB2	1.95	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
2:D:6:SER:OG	2:D:65:ALA:HB2	2.14	0.48
1:A:307:PRO:HB3	1:A:312:TYR:CZ	2.49	0.48
1:A:179:ASP:OD2	5:A:1438:GSP:O2'	2.32	0.48
2:F:203:MET:SD	2:F:267:PHE:HB3	2.53	0.48
1:C:175:PRO:CD	1:C:207:GLU:OE1	2.61	0.48
1:A:175:PRO:CD	1:A:207:GLU:OE1	2.61	0.48
1:G:115:VAL:CG2	1:G:152:LEU:HD23	2.44	0.48
2:B:2:ARG:HH21	1:C:96:GLN:NE2	2.12	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
2:H:70:LEU:HD12	2:H:145:THR:HG21	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:D:241:SER:HB3	2:D:320:ARG:NH2	2.29	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
2:F:96:LYS:O	2:F:97:GLU:O	2.31	0.48
3:I:32:MET:SD	3:I:62:TRP:CZ3	3.07	0.48
2:B:6:SER:OG	2:B:65:ALA:HB2	2.14	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: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:G:274:PRO:HG2	1:G:371:LEU:CD2	2.43	0.48
1:E:274:PRO:HG2	1:E:371:LEU:CD2	2.43	0.48
1:C:209:LEU:CD2	1:C:227:LEU:HD13	2.44	0.48
1:E:176:LYS:HG3	1:E:177:VAL:H	1.78	0.48
2:H:293:ASN:HD21	2:H:338:LYS:NZ	2.10	0.48
2:H:102:ASN:CB	2:H:407:TRP:HD1	2.23	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
2:F:70:LEU:HD12	2:F:145:THR:HG21	1.95	0.48
1:G:413:MET:HG3	1:G:414:ASP:N	2.22	0.48
2:B:369:ALA:O	2:B:370:LYS:CB	2.62	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
1:E:102:ASN:HB3	1:E:105:LYS:HB2	1.94	0.48
2:H:11:GLN:NE2	2:H:74:VAL:HG22	2.22	0.48
1:G:209:LEU:O	1:G:213:CYS:N	2.47	0.48
2:F:163:LYS:C	2:F:164:LYS:HG2	2.34	0.48
1:A:176:LYS:HG3	1:A:177:VAL:H	1.78	0.48
1:E:115:VAL:CG2	1:E:152:LEU:HD23	2.44	0.48
1:G:20:PHE:O	1:G:24:ILE:HB	2.14	0.47
1:E:198:THR:HG23	1:E:200:GLU:H	1.79	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
3:I:68:VAL:CA	3:I:71:LYS:HE2	2.31	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: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)
1:A:142:GLY:HA3	1:A:183:GLU:OE2	2.13	0.47
1:A:281:GLN:C	1:A:283:TYR:N	2.67	0.47
2:D:210:TYR:CE1	2:D:227:LEU:HD21	2.49	0.47
1:E:209:LEU:O	1:E:213:CYS:N	2.47	0.47
1:A:211:ASP:OD1	1:A:212:ILE:HG13	2.13	0.47
2:H:163:LYS:C	2:H:164:LYS:HG2	2.34	0.47
2:B:163:LYS:C	2:B:164:LYS:HG2	2.33	0.47
1:C:115:VAL:CG2	1:C:152:LEU:HD23	2.44	0.47
2:F:388:TRP:HA	2:F:388:TRP:HE3	1.79	0.47
2:H:388:TRP:HE3	2:H:388:TRP:HA	1.79	0.47
2:B:293:ASN:HD21	2:B:338:LYS:NZ	2.11	0.47
1:G:399:PHE:O	1:G:400:ARG:C	2.52	0.47
1:A:399:PHE:O	1:A:400:ARG:C	2.52	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
2:D:115:ILE:O	2:D:116:ASP:C	2.51	0.47
2:F:4:CYS:SG	2:F:252:LEU:CD1	3.02	0.47
2:D:62:VAL:HG12	2:D:91:GLN:HE22	1.78	0.47
1:A:20:PHE:O	1:A:24:ILE:HB	2.14	0.47
1:C:70:LEU:O	1:C:99:ALA:HB2	2.15	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
1:C:226:ASP:O	1:C:229:HIS:HB3	2.14	0.47
2:H:175:PRO:HD2	2:H:207:GLU:HB3	1.97	0.47
2:D:345:ASP:C	2:D:347:CYS:N	2.68	0.47
2:D:203:MET:SD	2:D:267:PHE:HB3	2.53	0.47
2:B:386:GLU:O	2:B:388:TRP:N	2.47	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
1:C:198:THR:HG23	1:C:200:GLU:H	1.79	0.47
1:C:20:PHE:O	1:C:24:ILE:HB	2.14	0.47
2:D:107:HIS:CE1	2:D:152:LEU:HB3	2.49	0.47
2:D:154:MET:HA	2:D:157:LEU:HD12	1.96	0.47
2:D:255:PHE:O	2:D:256:GLN:C	2.53	0.47
2:D:104:ALA:HB1	2:D:413:MET:HG3	1.96	0.47
2:D:97:GLU:HB2	2:D:110:ILE:HD11	1.96	0.47
1:G:69:ASP:HA	1:G:145:THR:HG21	1.95	0.47
2:H:369:ALA:O	2:H:370:LYS:CB	2.62	0.47
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
1:A:102:ASN:HB3	1:A:105:LYS:HB2	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:226:ASP:O	1:G:229:HIS:HB3	2.14	0.47
2:F:175:PRO:HD2	2:F:207:GLU:HB3	1.97	0.47
2:D:132:LEU:HD21	2:D:164:LYS:HE3	1.96	0.47
2:B:388:TRP:HE3	2:B:388:TRP:HA	1.79	0.47
1:A:115:VAL:CG2	1:A:152:LEU:HD23	2.44	0.47
2:D:175:PRO:HD2	2:D:207:GLU:HB3	1.96	0.47
1:C:82:PRO:HB2	1:C:83:PHE:H	1.56	0.47
1:C:384:ILE:O	1:C:384:ILE:HG23	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: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:39:ILE:HD11	3:I:102:TRP:HA	1.96	0.47
3:I:33:ILE:HD11	3:I:61:ASN:O	2.14	0.47
2:H:88:HIS:O	2:H:89:PRO:C	2.52	0.47
1:E:70:LEU:O	1:E:99:ALA:HB2	2.15	0.47
1:E:226:ASP:O	1:E:229:HIS:HB3	2.14	0.47
1:C:211:ASP:OD1	1:C:212:ILE:HG13	2.13	0.47
1:A:226:ASP:O	1:A:229:HIS:HB3	2.14	0.47
1:A:209:LEU:CD2	1:A:227:LEU:HD13	2.44	0.47
1:E:175:PRO:O	1:E:176:LYS:C	2.52	0.47
2:D:386:GLU:O	2:D:388:TRP:N	2.47	0.47
2:D:388:TRP:HE3	2:D:388:TRP:HA	1.79	0.47
2:B:175:PRO:HD2	2:B:207:GLU:HB3	1.97	0.47
1:A:384:ILE:HG23	1:A:384:ILE:O	2.14	0.47
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:B:335:ILE:O	2:B:337:THR:N	2.47	0.47
2:H:339:ARG:C	2:H:341:ILE:N	2.68	0.47
1:C:242:LEU:CD1	1:C:250:ALA:HB3	2.45	0.47
2:D:317:LEU:CD1	2:D:351:PHE:CD1	2.97	0.47
1:E:242:LEU:CD1	1:E:250:ALA:HB3	2.45	0.47
1:E:20:PHE:O	1:E:24:ILE:HB	2.15	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:H:117:LEU:HD12	2:H:121:ARG:HH12	1.80	0.47
2:F:369:ALA:O	2:F:370:LYS:CB	2.62	0.47
1:A:242:LEU:CD1	1:A:250:ALA:HB3	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:151:SER:OG	2:B:193:THR:HG21	2.13	0.47
2:B:145:THR:H	4:B:500:GTP:PG	2.37	0.47
1:C:102:ASN:HB3	1:C:105:LYS:HB2	1.95	0.47
1:C:329:ASP:HB3	2:D:177:VAL:HG11	1.91	0.47
1:C:281:GLN:C	1:C:283:TYR:N	2.67	0.47
2:D:147:SER:O	2:D:190:THR:HG23	2.14	0.47
2:H:70:LEU:N	2:H:70:LEU:HD12	2.28	0.47
2:H:97:GLU:HB2	2:H:110:ILE:HD11	1.96	0.47
2:D:148:GLY:O	2:D:151:SER:CB	2.61	0.47
1:G:70:LEU:O	1:G:99:ALA:HB2	2.15	0.47
3:I:5:ARG:CD	3:I:23:ILE:CD1	2.92	0.47
2:B:117:LEU:HD12	2:B:121:ARG:HH12	1.80	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:260:VAL:CG2	2:B:260:VAL:O	2.63	0.47
1:E:387:LEU:O	1:E:387:LEU:HG	2.15	0.47
1:E:209:LEU:CD2	1:E:227:LEU:HD13	2.44	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
2:H:210:TYR:CE1	2:H:227:LEU:HD21	2.49	0.47
1:G:175:PRO:O	1:G:176:LYS:C	2.52	0.47
2:D:191:THR:O	2:D:195:LEU:HB2	2.15	0.47
2:H:384:ILE:HG22	2:H:388:TRP:CD1	2.49	0.47
2:D:396:ASP:O	2:D:397:LEU:C	2.53	0.47
2:B:185:TYR:OH	2:B:399:TYR:HA	2.15	0.47
2:H:104:ALA:HB1	2:H:413:MET:HG3	1.95	0.47
2:H:260:VAL:O	2:H:260:VAL:CG2	2.63	0.47
2:B:339:ARG:C	2:B:341:ILE:N	2.68	0.47
2:H:335:ILE:O	2:H:337:THR:N	2.47	0.47
2:D:11:GLN:O	2:D:15:GLN:HG3	2.15	0.47
2:D:256:GLN:HA	2:D:260:VAL:HG13	1.97	0.47
2:F:151:SER:OG	2:F:193:THR:HG21	2.13	0.47
2:F:260:VAL:CG2	2:F:260:VAL:O	2.62	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
2:F:148:GLY:O	2:F:151:SER:CB	2.61	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:255:PHE:O	2:F:256:GLN:C	2.53	0.47
2:F:407:TRP:O	2:F:411:GLU:CG	2.63	0.47
2:F:88:HIS:O	2:F:89:PRO:C	2.52	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:103:TRP:CE3	1:G:189:LEU:HD13	2.50	0.47
1:A:188:THR:HA	1:A:425:MET:HE3	1.95	0.47
1:A:24:ILE:CD1	1:A:52:TYR:CE2	2.97	0.47
2:B:11:GLN:O	2:B:15:GLN:HG3	2.15	0.47
2:B:155:GLU:HG2	2:B:197:HIS:CE1	2.49	0.47
1:A:269:MET:HE1	1:A:381:SER:OG	2.15	0.47
2:B:155:GLU:HA	2:B:197:HIS:CE1	2.49	0.47
1:C:103:TRP:CE3	1:C:189:LEU:HD13	2.50	0.47
1:E:103:TRP:CE3	1:E:189:LEU:HD13	2.50	0.47
1:E:413:MET:HG3	1:E:414:ASP:N	2.22	0.47
1:A:103:TRP:CE3	1:A:189:LEU:HD13	2.50	0.47
2:F:11:GLN:O	2:F:15:GLN:HG3	2.15	0.47
1:G:387:LEU:O	1:G:387:LEU:HG	2.14	0.47
1:C:387:LEU:O	1:C:387:LEU:HG	2.14	0.47
1:C:274:PRO:HG2	1:C:371:LEU:CD2	2.43	0.47
1:C:101:ASN:ND2	1:C:101:ASN:O	2.48	0.47
1:G:209:LEU:CD2	1:G:227:LEU:HD13	2.44	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
1:C:175:PRO:O	1:C:176:LYS:C	2.52	0.47
2:B:384:ILE:HG22	2:B:388:TRP:CD1	2.49	0.47
1:A:175:PRO:O	1:A:176:LYS:C	2.52	0.47
2:F:384:ILE:HG22	2:F:388:TRP:CD1	2.49	0.47
2:D:384:ILE:HG22	2:D:388:TRP:CD1	2.49	0.47
2:F:434:GLU:C	2:F:436:GLY:H	2.18	0.47
2:D:185:TYR:OH	2:D:399:TYR:HA	2.15	0.47
2:H:185:TYR:OH	2:H:399:TYR:HA	2.15	0.47
2:F:185:TYR:OH	2:F:399:TYR:HA	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:NE	1:C:264:ARG:HA	2.29	0.47
2:D:260:VAL:O	2:D:260:VAL:CG2	2.63	0.47
2:F:335:ILE:O	2:F:337:THR:N	2.47	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
2:B:55:GLU:O	2:B:56:THR:C	2.50	0.47
2:D:117:LEU:HD12	2:D:121:ARG:HH12	1.80	0.47
2:D:88:HIS:O	2:D:89:PRO:C	2.52	0.47
2:B:62:VAL:HA	2:B:86:LEU:O	2.15	0.47
2:H:11:GLN:O	2:H:15:GLN:HG3	2.15	0.47
2:F:11:GLN:NE2	2:F:74:VAL:HG22	2.22	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:297:ASP:OD2	1:A:299:LYS:HE2	2.14	0.47
2:D:230:LEU:O	2:D:233:GLN:N	2.35	0.47
1:E:287:THR:N	1:E:290:GLU:OE1	2.48	0.47
2:B:191:THR:O	2:B:195:LEU:HB2	2.15	0.47
2:F:19:ALA:HB2	2:F:228:ASN:HB3	1.96	0.47
1:E:399:PHE:O	1:E:400:ARG:C	2.52	0.47
1:E:384:ILE:O	1:E:384:ILE:HG23	2.14	0.47
2:D:155:GLU:HG2	2:D:197:HIS:CE1	2.49	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
2:B:88:HIS:O	2:B:89:PRO:C	2.52	0.47
1:A:264:ARG:NE	1:A:264:ARG:HA	2.29	0.47
1:E:103:TRP:HZ3	1:E:108:TYR:CE1	2.27	0.47
1:A:387:LEU:HG	1:A:387:LEU:O	2.15	0.47
2:H:132:LEU:HD21	2:H:164:LYS:HE3	1.96	0.47
1:G:245:PRO:CB	2:H:73:THR:HG21	2.45	0.47
1:G:224:TYR:O	1:G:225:GLY:C	2.53	0.47
2:D:84:ARG:HB3	2:D:84:ARG:HE	1.51	0.47
1:G:352:LYS:CG	2:H:181:VAL:CG2	2.93	0.47
1:C:137:LEU:HD22	1:C:154:ILE:HG23	1.97	0.47
2:F:166:LYS:CE	2:F:199:ASP:OD1	2.62	0.47
3:I:68:VAL:HG23	3:I:69:PHE:N	2.30	0.47
2:D:52:PHE:O	2:D:64:ARG:HB3	2.14	0.47
2:B:63:PRO:HG3	2:B:87:PHE:CG	2.50	0.47
1:A:260:VAL:HG21	2:B:407:TRP:HZ2	1.80	0.47
2:B:97:GLU:HB2	2:B:110:ILE:HD11	1.96	0.47
1:C:297:ASP:OD2	1:C:299:LYS:HE2	2.14	0.47
2:F:261:PRO:HB3	2:F:346:TRP:CH2	2.50	0.47
2:B:147:SER:O	2:B:190:THR:HG23	2.14	0.47
1:G:101:ASN:ND2	1:G:101:ASN:O	2.48	0.47
1:A:101:ASN:ND2	1:A:101:ASN:O	2.48	0.47
1:G:175:PRO:HD2	1:G:207:GLU:CD	2.35	0.47
1:C:175:PRO:HD2	1:C:207:GLU:CD	2.35	0.47
1:G:245:PRO:HB3	2:H:73:THR:HG21	1.97	0.47
2:H:434:GLU:C	2:H:436:GLY:H	2.18	0.47
2:H:396:ASP:O	2:H:397:LEU:C	2.53	0.47
2:H:328:VAL:C	2:H:330:ALA:H	2.15	0.47
2:F:328:VAL:C	2:F:330:ALA:H	2.16	0.47
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
2:H:151:SER:OG	2:H:193:THR:HG21	2.13	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:407:TRP:O	2:H:411:GLU:CG	2.62	0.46
2:H:317:LEU:CD1	2:H:351:PHE:CD1	2.97	0.46
1:C:24:ILE:CD1	1:C:52:TYR:CE2	2.97	0.46
1:E:137:LEU:HD22	1:E:154:ILE:HG23	1.97	0.46
2:F:312:TYR:HD1	2:F:341:ILE:CG2	2.29	0.46
2:F:97:GLU:HB2	2:F:110:ILE:HD11	1.96	0.46
2:H:117:LEU:HD11	2:H:121:ARG:NH2	2.30	0.46
1:A:137:LEU:HD22	1:A:154:ILE:HG23	1.97	0.46
2:B:256:GLN:O	2:B:260:VAL:HG13	2.15	0.46
1:E:179:ASP:OD2	5:E:1438:GSP:O2'	2.32	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:F:332:ILE:HG22	1:G:177:VAL:CG2	2.45	0.46
2:F:132:LEU:H	2:F:132:LEU:CD2	2.23	0.46
2:F:381:THR:O	2:F:383:ALA:N	2.49	0.46
2:B:19:ALA:HB2	2:B:228:ASN:HB3	1.96	0.46
2:H:392:ASP:OD1	2:H:422:ARG:NE	2.48	0.46
2:D:120:ASP:O	2:D:124:LYS:HB2	2.15	0.46
2:B:396:ASP:O	2:B:397:LEU:C	2.53	0.46
1:G:237:GLY:HA3	1:G:376:THR:OG1	2.15	0.46
2:H:155:GLU:HA	2:H:197:HIS:CE1	2.49	0.46
2:D:55:GLU:O	2:D:56:THR:C	2.52	0.46
1:E:137:LEU:HD22	1:E:154:ILE:HG21	1.95	0.46
2:F:117:LEU:HD11	2:F:121:ARG:NH2	2.30	0.46
2:F:23:LEU:CD2	2:F:232:GLY:O	2.64	0.46
2:D:22:GLU:O	2:D:23:LEU:C	2.54	0.46
2:B:63:PRO:CG	2:B:91:GLN:CD	2.72	0.46
2:H:22:GLU:O	2:H:23:LEU:C	2.54	0.46
2:B:243:ARG:NH2	2:B:252:LEU:CB	2.78	0.46
1:E:217:LEU:C	1:E:219:LEU:N	2.55	0.46
1:A:204:ILE:HD13	1:A:231:VAL:CG2	2.45	0.46
1:C:399:PHE:O	1:C:400:ARG:C	2.52	0.46
2:H:381:THR:O	2:H:383:ALA:N	2.49	0.46
2:D:315:CYS:HB3	2:D:377:MET:HE1	1.96	0.46
2:H:436:GLY:O	2:H:438:ASP:N	2.48	0.46
2:H:19:ALA:HB2	2:H:228:ASN:HB3	1.96	0.46
1:E:185:TYR:HD1	1:E:395:PHE:CE1	2.33	0.46
2:H:145:THR:O	2:H:149:PHE:HB3	2.15	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
2:D:155:GLU:HA	2:D:197:HIS:CE1	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:256:GLN:O	2:D:260:VAL:HG13	2.15	0.46
1:E:263:PRO:O	1:E:264:ARG:C	2.52	0.46
3:I:65:LEU:O	3:I:69:PHE:HD1	1.99	0.46
2:D:3:GLU:CD	2:D:50:ASN:O	2.54	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:H:226:ASN:O	2:H:229:ARG:N	2.48	0.46
1:A:287:THR:N	1:A:290:GLU:OE1	2.48	0.46
2:F:132:LEU:HD21	2:F:164:LYS:HE3	1.96	0.46
2:H:132:LEU:CD2	2:H:132:LEU:H	2.23	0.46
2:F:191:THR:O	2:F:195:LEU:HB2	2.15	0.46
1:G:431:GLU:HA	1:G:434:GLN:HG3	1.97	0.46
1:G:245:PRO:CA	2:H:73:THR:HG21	2.44	0.46
2:B:436:GLY:O	2:B:438:ASP:N	2.48	0.46
2:F:436:GLY:O	2:F:438:ASP:N	2.49	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
2:D:324:VAL:HG12	2:D:326:LYS:H	1.81	0.46
2:F:324:VAL:HG12	2:F:326:LYS:H	1.80	0.46
1:G:185:TYR:HD1	1:G:395:PHE:CE1	2.33	0.46
2:F:404:PHE:N	2:F:404:PHE:CD1	2.83	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
2:F:22:GLU:O	2:F:23:LEU:C	2.54	0.46
1:G:390:ARG:NH2	3:I:56:TYR:HB3	2.27	0.46
2:B:23:LEU:CD2	2:B:232:GLY:O	2.64	0.46
2:H:23:LEU:CD2	2:H:232:GLY:O	2.64	0.46
2:B:10:GLY:O	2:B:11:GLN:C	2.53	0.46
2:D:234:ILE:CG1	2:D:270:ALA:HB1	2.38	0.46
1:C:287:THR:N	1:C:290:GLU:OE1	2.48	0.46
1:G:324:SER:OG	1:G:326:LYS:HB3	2.15	0.46
1:C:399:PHE:O	1:C:402:LYS:N	2.29	0.46
2:D:384:ILE:O	2:D:384:ILE:HG22	2.15	0.46
2:D:19:ALA:HB2	2:D:228:ASN:HB3	1.96	0.46
2:F:392:ASP:OD1	2:F:422:ARG:NE	2.48	0.46
1:C:133:GLN:O	1:C:165:ILE:CD1	2.64	0.46
2:D:407:TRP:O	2:D:411:GLU:CG	2.63	0.46
2:F:5:ILE:CG2	2:F:135:PHE:HB3	2.41	0.46
2:F:243:ARG:NH2	2:F:252:LEU:CB	2.78	0.46
2:F:339:ARG:HG3	3:I:63:LYS:HZ1	1.80	0.46
2:F:285:GLN:CG	2:F:371:VAL:HG13	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:104:ALA:HB1	2:F:413:MET:HG3	1.95	0.46
2:F:56:THR:HG21	2:F:62:VAL:CB	2.45	0.46
1:A:133:GLN:O	1:A:165:ILE:CD1	2.64	0.46
1:A:242:LEU:HD11	1:A:250:ALA:HB3	1.97	0.46
1:A:237:GLY:HA3	1:A:376:THR:OG1	2.15	0.46
2:D:210:TYR:CZ	2:D:227:LEU:HD11	2.51	0.46
1:C:204:ILE:HD13	1:C:231:VAL:CG2	2.45	0.46
1:C:324:SER:OG	1:C:326:LYS:HB3	2.15	0.46
1:E:175:PRO:HD2	1:E:207:GLU:CD	2.36	0.46
2:D:381:THR:O	2:D:383:ALA:N	2.49	0.46
2:B:434:GLU:C	2:B:436:GLY:H	2.18	0.46
2:H:324:VAL:HG12	2:H:326:LYS:H	1.81	0.46
2:F:396:ASP:O	2:F:397:LEU:C	2.53	0.46
1:G:242:LEU:HD11	1:G:250:ALA:HB3	1.97	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: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:237:GLY:HA3	1:E:376:THR:OG1	2.15	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
2:F:256:GLN:HA	2:F:260:VAL:HG13	1.97	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:D:23:LEU:CD2	2:D:232:GLY:O	2.64	0.46
1:A:154:ILE:HG22	1:A:166:MET:HE1	1.98	0.46
1:A:243:ARG:N	1:A:243:ARG:HD3	2.26	0.46
2:B:114:ILE:O	2:B:118:VAL:HG23	2.16	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:104:ALA:HB1	2:B:413:MET:HG3	1.95	0.46
2:B:11:GLN:NE2	2:B:74:VAL:HG22	2.22	0.46
1:C:102:ASN:ND2	1:C:104:ALA:HB3	2.31	0.46
1:C:6:HIS:HB3	1:C:21:TRP:HZ2	1.81	0.46
1:E:101:ASN:ND2	1:E:101:ASN:O	2.48	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:E:324:SER:OG	1:E:326:LYS:HB3	2.16	0.46
2:B:132:LEU:CD2	2:B:132:LEU:H	2.23	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:191:THR:O	2:H:195:LEU:HB2	2.15	0.46
1:A:431:GLU:HA	1:A:434:GLN:HG3	1.97	0.46
1:E:431:GLU:HA	1:E:434:GLN:HG3	1.98	0.46
1:A:224:TYR:O	1:A:225:GLY:C	2.53	0.46
2:B:324:VAL:HG12	2:B:326:LYS:H	1.81	0.46
1:G:384:ILE:HG23	1:G:384:ILE:O	2.14	0.46
1:G:257:VAL:CG2	2:H:407:TRP:HB3	2.28	0.46
2:H:148:GLY:O	2:H:151:SER:CB	2.61	0.46
2:D:145:THR:O	2:D:149:PHE:HB3	2.15	0.46
2:F:317:LEU:CD1	2:F:351:PHE:CD1	2.97	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
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
1:E:297:ASP:OD2	1:E:299:LYS:HE2	2.14	0.46
1:G:360:PRO:HG2	1:G:371:LEU:CB	2.38	0.46
1:E:208:ALA:O	1:E:212:ILE:HG13	2.16	0.46
1:G:208:ALA:O	1:G:212:ILE:HG13	2.16	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
1:A:175:PRO:HD2	1:A:207:GLU:CD	2.36	0.46
2:D:434:GLU:C	2:D:436:GLY:H	2.18	0.46
1:C:224:TYR:O	1:C:225:GLY:C	2.53	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
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
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
2:D:70:LEU:HD12	2:D:145:THR:HG21	1.95	0.46
1:E:242:LEU:HD11	1:E:250:ALA:HB3	1.97	0.46
2:F:115:ILE:CG1	2:F:152:LEU:HD13	2.46	0.46
2:F:256:GLN:O	2:F:260:VAL:HG13	2.15	0.46
2:F:30:ILE:HD11	2:F:61:HIS:CD2	2.51	0.46
2:H:63:PRO:HG2	2:H:87:PHE:CG	2.51	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:E:113:GLU:CG	1:E:114:LEU:N	2.79	0.46
1:A:408:TYR:O	1:A:411:GLU:HB2	2.15	0.46
2:F:10:GLY:O	2:F:11:GLN:C	2.53	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:144:GLY:H	4:F:500:GTP:PG	2.39	0.46
2:B:210:TYR:CD1	2:B:227:LEU:HD21	2.51	0.46
1:C:323:MET:CE	1:C:328:VAL:HG22	2.46	0.46
1:A:323:MET:CE	1:A:328:VAL:HG22	2.46	0.46
1:E:323:MET:CE	1:E:328:VAL:HG22	2.46	0.46
1:G:323:MET:CE	1:G:328:VAL:HG22	2.46	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:H:384:ILE:HG22	2:H:384:ILE:O	2.15	0.46
1:C:431:GLU:HA	1:C:434:GLN:HG3	1.97	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
2:H:115:ILE:CG1	2:H:152:LEU:HD13	2.46	0.46
2:H:404:PHE:N	2:H:404:PHE:CD1	2.83	0.46
2:H:413:MET:C	2:H:414:GLU:HG3	2.36	0.46
2:D:413:MET:C	2:D:414:GLU:HG3	2.36	0.46
1:E:196:GLU:O	1:E:197:ASN:OD1	2.34	0.46
1:G:67:LEU:HD12	1:G:92:PHE:CD1	2.51	0.46
3:I:5:ARG:HD2	3:I:23:ILE:HG13	1.97	0.46
2:H:3:GLU:CD	2:H:50:ASN:O	2.54	0.46
1:A:168:THR:N	1:A:200:GLU:O	2.43	0.46
2:B:115:ILE:CG1	2:B:152:LEU:HD13	2.46	0.46
1:C:11:GLN:O	1:C:14:ASN:HB3	2.16	0.46
1:E:6:HIS:HB3	1:E:21:TRP:HZ2	1.81	0.46
1:A:67:LEU:HD12	1:A:92:PHE:CD1	2.51	0.46
1:G:297:ASP:OD2	1:G:299:LYS:HE2	2.14	0.46
1:A:360:PRO:O	1:A:369:ARG:C	2.54	0.46
2:D:226:ASN:O	2:D:229:ARG:N	2.48	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:D:203:MET:SD	2:D:267:PHE:CB	3.04	0.46
2:F:203:MET:SD	2:F:267:PHE:CB	3.04	0.46
2:B:203:MET:SD	2:B:267:PHE:CB	3.04	0.46
2:H:203:MET:SD	2:H:267:PHE:CB	3.04	0.46
1:C:313:LEU:O	1:C:347:ILE:HD12	2.16	0.46
1:A:185:TYR:HD1	1:A:395:PHE:CE1	2.33	0.46
1:G:154:ILE:HD12	1:G:155:SER:N	2.31	0.46
1:G:134:GLY:HA3	1:G:165:ILE:HG12	1.97	0.46
1:G:307:PRO:C	1:G:309:HIS:H	2.18	0.46
2:H:316:CYS:HB3	2:H:378:LEU:HD12	1.95	0.46
1:C:243:ARG:HD3	1:C:243:ARG:N	2.26	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:148:GLY:O	2:D:149:PHE:C	2.55	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
3:I:65:LEU:HD11	3:I:69:PHE:HE1	1.81	0.46
2:H:52:PHE:O	2:H:64:ARG:HB3	2.16	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
1:E:67:LEU:HD12	1:E:92:PHE:CD1	2.51	0.46
1:A:102:ASN:ND2	1:A:104:ALA:HB3	2.31	0.46
1:A:6:HIS:HB3	1:A:21:TRP:HZ2	1.81	0.46
1:C:360:PRO:O	1:C:369:ARG:C	2.54	0.46
2:D:265:GLY:O	2:D:266:HIS:O	2.33	0.46
2:F:226:ASN:O	2:F:229:ARG:N	2.48	0.46
1:E:287:THR:O	1:E:288:VAL:CG2	2.58	0.46
2:B:392:ASP:OD1	2:B:422:ARG:NE	2.48	0.46
2:H:148:GLY:O	2:H:149:PHE:C	2.55	0.45
2:B:317:LEU:CD1	2:B:351:PHE:CE1	2.99	0.45
2:D:10:GLY:O	2:D:11:GLN:C	2.53	0.45
2:D:144:GLY:H	4:D:500:GTP:PG	2.39	0.45
2:D:317:LEU:CD1	2:D:351:PHE:CE1	2.99	0.45
2:D:9:VAL:HG21	2:D:149:PHE:HD1	1.80	0.45
1:E:24:ILE:CD1	1:E:52:TYR:CE2	2.97	0.45
2:F:317:LEU:CD1	2:F:351:PHE:CE1	2.99	0.45
1:G:113:GLU:CG	1:G:114:LEU:N	2.79	0.45
1:A:134:GLY:HA3	1:A:165:ILE:HG12	1.97	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
1:C:408:TYR:O	1:C:411:GLU:HB2	2.15	0.45
1:E:11:GLN:O	1:E:14:ASN:HB3	2.16	0.45
2:H:144:GLY:H	4:H:500:GTP:PG	2.40	0.45
1:E:360:PRO:HG2	1:E:371:LEU:CB	2.38	0.45
2:F:265:GLY:O	2:F:266:HIS:O	2.33	0.45
2:D:210:TYR:CD1	2:D:227:LEU:HD21	2.51	0.45
2:D:204:VAL:HG21	2:D:231:ILE:HG23	1.97	0.45
1:A:209:LEU:HD23	1:A:227:LEU:HD13	1.98	0.45
2:B:265:GLY:O	2:B:266:HIS:O	2.33	0.45
2:B:261:PRO:HA	1:C:404:PHE:CD2	2.51	0.45
2:F:210:TYR:CD1	2:F:227:LEU:HD21	2.51	0.45
2:B:132:LEU:HD21	2:B:164:LYS:HE3	1.96	0.45
2:D:308:ARG:O	2:D:309:HIS:HB3	2.16	0.45
1:G:72:PRO:O	1:G:74:THR:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:120:ASP:O	2:H:124:LYS:HB2	2.15	0.45
1:G:242:LEU:C	1:G:244:PHE:H	2.19	0.45
2:B:334:THR:CG2	2:B:335:ILE:N	2.79	0.45
2:D:114:ILE:O	2:D:118:VAL:HG23	2.16	0.45
1:E:242:LEU:C	1:E:244:PHE:H	2.20	0.45
2:F:148:GLY:O	2:F:149:PHE:C	2.55	0.45
2:B:5:ILE:HD11	2:B:64:ARG:NH2	2.31	0.45
2:D:63:PRO:HD2	2:D:87:PHE:HA	1.98	0.45
2:B:95:GLY:C	2:B:97:GLU:N	2.69	0.45
1:C:72:PRO:O	1:C:74:THR:N	2.49	0.45
1:E:94:PHE:N	1:E:94:PHE:CD1	2.84	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:G:299:LYS:H	1:G:299:LYS:CD	2.07	0.45
1:A:360:PRO:HG2	1:A:371:LEU:CB	2.38	0.45
2:F:210:TYR:CZ	2:F:227:LEU:HD11	2.51	0.45
1:C:175:PRO:HG2	1:C:207:GLU:OE1	2.16	0.45
2:B:326:LYS:HB2	1:C:222:PRO:HG2	1.98	0.45
2:F:120:ASP:O	2:F:124:LYS:HB2	2.15	0.45
2:H:265:GLY:O	2:H:266:HIS:O	2.33	0.45
1:C:134:GLY:HA3	1:C:165:ILE:HG12	1.97	0.45
1:C:23:VAL:O	1:C:25:SER:N	2.50	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
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:196:GLU:O	1:A:197:ASN:OD1	2.34	0.45
1:A:307:PRO:C	1:A:309:HIS:H	2.18	0.45
1:E:72:PRO:O	1:E:74:THR:N	2.49	0.45
1:A:113:GLU:CG	1:A:114:LEU:N	2.79	0.45
2:H:10:GLY:O	2:H:11:GLN:C	2.53	0.45
2:H:271:THR:O	2:H:376:CYS:HA	2.17	0.45
2:D:212:ILE:HD11	2:D:302:MET:H	1.82	0.45
1:C:209:LEU:HD23	1:C:227:LEU:HD13	1.97	0.45
1:A:208:ALA:O	1:A:212:ILE:HG13	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:F:384:ILE:O	2:F:384:ILE:HG22	2.15	0.45
1:E:115:VAL:HG21	1:E:152:LEU:HD21	1.98	0.45
2:H:308:ARG:O	2:H:309:HIS:HB3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:313:LEU:O	1:A:347:ILE:HD12	2.16	0.45
2:B:392:ASP:OD1	2:B:422:ARG:CZ	2.65	0.45
2:D:392:ASP:OD1	2:D:422:ARG:NE	2.48	0.45
2:H:392:ASP:OD1	2:H:422:ARG:CZ	2.64	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:C:257:VAL:O	1:C:257:VAL:CG1	2.64	0.45
2:D:115:ILE:CG1	2:D:152:LEU:HD13	2.46	0.45
2:D:243:ARG:NH2	2:D:252:LEU:HB2	2.30	0.45
2:D:95:GLY:C	2:D:97:GLU:N	2.69	0.45
2:F:271:THR:O	2:F:376:CYS:HA	2.17	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:D:117:LEU:HD11	2:D:121:ARG:NH2	2.30	0.45
1:A:409:THR:HA	1:A:413:MET:HB3	1.99	0.45
1:C:307:PRO:C	1:C:309:HIS:H	2.18	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
1:C:208:ALA:O	1:C:212:ILE:HG13	2.16	0.45
1:A:210:TYR:CE1	1:A:227:LEU:HD11	2.52	0.45
2:D:346:TRP:HZ2	2:D:435:VAL:HG12	1.82	0.45
2:D:172:TYR:HA	2:D:173:PRO:HD3	1.92	0.45
1:G:245:PRO:HB3	2:H:73:THR:HG22	1.98	0.45
2:B:120:ASP:O	2:B:124:LYS:HB2	2.15	0.45
1:C:154:ILE:HD12	1:C:155:SER:N	2.31	0.45
1:C:243:ARG:HH21	1:C:252:LEU:N	2.12	0.45
1:C:194:LEU:O	1:C:265:LEU:HD23	2.16	0.45
2:D:103:TYR:CD1	2:D:148:GLY:HA2	2.52	0.45
1:E:135:PHE:CD1	1:E:135:PHE:N	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:334:THR:CG2	2:F:335:ILE:N	2.79	0.45
2:F:9:VAL:HG21	2:F:149:PHE:HD1	1.80	0.45
3:I:30:TYR:CD2	3:I:50:PHE:CE1	3.05	0.45
2:B:117:LEU:HD11	2:B:121:ARG:NH2	2.30	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:151:SER:HB3	2:B:193:THR:CG2	2.34	0.45
2:B:274:PRO:HB2	2:B:371:VAL:HG21	1.98	0.45
1:C:113:GLU:CG	1:C:114:LEU:N	2.79	0.45
1:G:210:TYR:CE1	1:G:227:LEU:HD11	2.51	0.45
1:G:209:LEU:HD23	1:G:227:LEU:HD13	1.98	0.45
2:B:329:ASN:CB	1:C:210:TYR:HE2	2.29	0.45
2:B:212:ILE:HD11	2:B:302:MET:H	1.82	0.45
2:F:212:ILE:HD11	2:F:302:MET:H	1.82	0.45
1:G:175:PRO:HG2	1:G:207:GLU:OE1	2.17	0.45
2:B:308:ARG:O	2:B:309:HIS:HB3	2.16	0.45
2:D:423:GLU:O	2:D:426:ALA:HB3	2.16	0.45
2:D:392:ASP:OD1	2:D:422:ARG:CZ	2.65	0.45
1:A:245:PRO:HA	2:B:73:THR:CG2	2.46	0.45
1:A:94:PHE:N	1:A:94:PHE:CD1	2.84	0.45
1:A:82:PRO:HB2	1:A:83:PHE:H	1.56	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
2:H:256:GLN:O	2:H:260:VAL:HG13	2.15	0.45
2:B:295:CYS:SG	2:B:375:VAL:HG11	2.57	0.45
1:C:196:GLU:O	1:C:197:ASN:OD1	2.34	0.45
1:E:23:VAL:O	1:E:25:SER:N	2.50	0.45
1:E:242:LEU:HD22	1:E:250:ALA:O	2.17	0.45
2:F:103:TYR:CD1	2:F:148:GLY:HA2	2.52	0.45
2:F:196:GLU:C	2:F:197:HIS:HD2	2.19	0.45
2:F:413:MET:C	2:F:414:GLU:HG3	2.37	0.45
2:F:62:VAL:CG1	2:F:91:GLN:NE2	2.79	0.45
1:G:11:GLN:O	1:G:14:ASN:HB3	2.16	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:409:THR:HA	1:C:413:MET:HB3	1.99	0.45
1:E:408:TYR:O	1:E:411:GLU:HB2	2.16	0.45
2:F:182:VAL:O	2:F:184:PRO:CD	2.65	0.45
1:E:209:LEU:HD23	1:E:227:LEU:HD13	1.98	0.45
2:B:231:ILE:HD13	2:B:231:ILE:H	1.82	0.45
2:F:229:ARG:NH1	2:F:229:ARG:HG2	2.31	0.45
2:F:231:ILE:H	2:F:231:ILE:HD13	1.82	0.45
2:F:204:VAL:HG21	2:F:231:ILE:HG23	1.97	0.45
1:C:324:SER:O	1:C:326:LYS:N	2.50	0.45
1:E:324:SER:O	1:E:326:LYS:N	2.50	0.45
1:A:175:PRO:HG2	1:A:207:GLU:OE1	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:94:PHE:N	1:G:94:PHE:CD1	2.84	0.45
1:G:194:LEU:C	1:G:196:GLU:N	2.70	0.45
2:H:103:TYR:CD1	2:H:148:GLY:HA2	2.52	0.45
2:H:95:GLY:C	2:H:97:GLU:N	2.69	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
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: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
3:I:21:THR:HG22	3:I:22:ARG:NE	2.31	0.45
2:B:5:ILE:CG2	2:B:6:SER:H	2.29	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:H:5:ILE:CG2	2:H:135:PHE:HB3	2.41	0.45
1:A:23:VAL:O	1:A:25:SER:N	2.50	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
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:A:106:GLY:O	1:A:149:MET:HB2	2.16	0.45
1:C:312:TYR:HA	1:C:381:SER:HA	1.99	0.45
2:H:204:VAL:O	2:H:204:VAL:HG12	2.17	0.45
2:H:231:ILE:HD13	2:H:231:ILE:H	1.82	0.45
2:H:212:ILE:HD11	2:H:302:MET:H	1.82	0.45
1:A:324:SER:O	1:A:326:LYS:N	2.50	0.45
1:C:288:VAL:N	1:C:289:PRO:HD2	2.32	0.45
1:G:324:SER:O	1:G:326:LYS:N	2.50	0.45
2:H:346:TRP:HZ2	2:H:435:VAL:HG12	1.81	0.45
2:F:423:GLU:O	2:F:426:ALA:HB3	2.16	0.45
1:E:175:PRO:HG2	1:E:207:GLU:OE1	2.16	0.45
2:F:308:ARG:O	2:F:309:HIS:HB3	2.17	0.45
2:F:268:PRO:CA	2:F:379:SER:O	2.65	0.45
1:A:82:PRO:C	1:A:84:GLY:H	2.20	0.45
2:D:404:PHE:CD1	2:D:404:PHE:N	2.83	0.45
1:G:4:ILE:HD12	1:G:239:THR:HG21	1.98	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:317:LEU:CD1	2:H:351:PHE:CE1	2.99	0.45
2:H:295:CYS:SG	2:H:375:VAL:HG11	2.57	0.45
1:C:242:LEU:C	1:C:244:PHE:H	2.20	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:408:TYR:CG	2:D:418:PHE:HZ	2.34	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:12:CYS:HB2	5:G:1438:GSP:C8	2.52	0.45
1:G:8:GLN:CG	1:G:67:LEU:HD22	2.47	0.45
2:D:63:PRO:HG2	2:D:87:PHE:CG	2.51	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
1:E:8:GLN:CG	1:E:67:LEU:HD22	2.47	0.45
2:H:274:PRO:HB2	2:H:371:VAL:HG21	1.98	0.45
2:D:231:ILE:HD13	2:D:231:ILE:H	1.82	0.45
2:H:210:TYR:CZ	2:H:227:LEU:HD11	2.51	0.45
2:B:344:VAL:CG1	2:B:345:ASP:N	2.78	0.45
1:G:24:ILE:CD1	1:G:52:TYR:CE2	2.97	0.45
1:G:312:TYR:HA	1:G:381:SER:HA	1.99	0.45
2:H:334:THR:CG2	2:H:335:ILE:N	2.79	0.45
1:C:242:LEU:HD22	1:C:250:ALA:O	2.17	0.45
2:F:274:PRO:HB2	2:F:371:VAL:HG21	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
3:I:111:TYR:CE1	3:I:116:ARG:HG3	2.52	0.45
3:I:13:ASN:HA	3:I:13:ASN:HD22	1.55	0.45
3:I:68:VAL:HA	3:I:71:LYS:HE3	1.91	0.45
2:B:54:SER:O	2:B:61:HIS:O	2.35	0.45
1:A:135:PHE:CD1	1:A:135:PHE:N	2.85	0.45
2:B:70:LEU:HD12	2:B:145:THR:HG21	1.95	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:H:210:TYR:CD1	2:H:227:LEU:HD21	2.51	0.45
1:A:288:VAL:N	1:A:289:PRO:HD2	2.32	0.45
2:H:268:PRO:CA	2:H:379:SER:O	2.65	0.45
2:H:423:GLU:O	2:H:426:ALA:HB3	2.16	0.45
1:G:82:PRO:C	1:G:84:GLY:H	2.20	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
2:D:295:CYS:SG	2:D:375:VAL:HG11	2.57	0.45
1:E:194:LEU:O	1:E:265:LEU:HD23	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:295:CYS:SG	2:F:375:VAL:HG11	2.57	0.45
1:G:189:LEU:HD23	1:G:421:ALA:CB	2.47	0.45
1:A:243:ARG:HH21	1:A:252:LEU:N	2.13	0.45
1:C:8:GLN:CG	1:C:67:LEU:HD22	2.47	0.45
1:E:102:ASN:ND2	1:E:104:ALA:HB3	2.31	0.45
1:E:409:THR:HA	1:E:413:MET:HB3	1.98	0.45
1:A:189:LEU:HD23	1:A:421:ALA:CB	2.47	0.45
1:A:8:GLN:CG	1:A:67:LEU:HD22	2.47	0.45
2:H:12:ALA:HB2	4:H:500:GTP:C8	2.52	0.45
1:E:299:LYS:H	1:E:299:LYS:CD	2.07	0.45
1:G:360:PRO:O	1:G:369:ARG:C	2.54	0.45
1:C:210:TYR:CE1	1:C:227:LEU:HD11	2.51	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
2:B:423:GLU:O	2:B:426:ALA:HB3	2.16	0.45
2:B:402:ARG:O	2:B:405:VAL:N	2.49	0.45
2:F:392:ASP:OD1	2:F:422:ARG:CZ	2.65	0.45
2:H:84:ARG:HB3	2:H:84:ARG:HE	1.51	0.45
1:G:23:VAL:O	1:G:25:SER:N	2.50	0.44
1:C:141:LEU:N	1:C:141:LEU:HD12	2.33	0.44
2:D:12:ALA:HB2	4:D:500:GTP:C8	2.52	0.44
1:E:4:ILE:HD12	1:E:239:THR:HG21	1.98	0.44
1:E:167:ASN:HD21	1:E:252:LEU:HD22	1.82	0.44
2:F:2:ARG:HH21	1:G:96:GLN:HE22	1.62	0.44
3:I:106:TYR:HA	3:I:107:PRO:HD2	1.80	0.44
1:A:194:LEU:C	1:A:196:GLU:N	2.70	0.44
1:A:4:ILE:HD12	1:A:239:THR:HG21	1.98	0.44
2:B:12:ALA:HB2	4:B:500:GTP:C8	2.53	0.44
2:B:241:SER:C	2:B:244:PHE:HB3	2.36	0.44
2:F:12:ALA:HB2	4:F:500:GTP:C8	2.52	0.44
1:E:360:PRO:O	1:E:369:ARG:C	2.54	0.44
1:C:280:SER:OG	1:C:281:GLN:N	2.49	0.44
1:A:280:SER:OG	1:A:281:GLN:N	2.49	0.44
2:D:204:VAL:O	2:D:204:VAL:HG12	2.17	0.44
2:D:234:ILE:CD1	2:D:234:ILE:C	2.85	0.44
1:C:288:VAL:N	1:C:289:PRO:CD	2.79	0.44
1:G:313:LEU:O	1:G:347:ILE:HD12	2.16	0.44
1:E:82:PRO:C	1:E:84:GLY:H	2.20	0.44
1:G:167:ASN:HD21	1:G:252:LEU:HD22	1.82	0.44
2:H:153:LEU:O	2:H:157:LEU:HG	2.18	0.44
2:H:9:VAL:HG21	2:H:149:PHE:HD1	1.80	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:255:PHE:O	2:D:259:LEU:N	2.50	0.44
2:D:274:PRO:HB2	2:D:371:VAL:HG21	1.98	0.44
2:D:271:THR:O	2:D:376:CYS:HA	2.17	0.44
1:E:250:ALA:HB1	1:E:254:LYS:CB	2.43	0.44
2:F:153:LEU:O	2:F:157:LEU:HG	2.18	0.44
2:F:30:ILE:O	2:F:31:GLN:O	2.35	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
2:B:121:ARG:HG2	2:B:121:ARG:HH11	1.83	0.44
2:D:62:VAL:CG1	2:D:91:GLN:NE2	2.80	0.44
2:B:49:PHE:HE1	2:B:61:HIS:CE1	2.34	0.44
2:H:62:VAL:CG2	2:H:88:HIS:CE1	2.87	0.44
1:A:141:LEU:N	1:A:141:LEU:HD12	2.32	0.44
2:H:182:VAL:O	2:H:184:PRO:CD	2.65	0.44
2:B:204:VAL:HG12	2:B:204:VAL:O	2.17	0.44
2:H:234:ILE:CD1	2:H:234:ILE:C	2.86	0.44
1:G:288:VAL:N	1:G:289:PRO:CD	2.79	0.44
1:E:288:VAL:N	1:E:289:PRO:HD2	2.32	0.44
1:C:82:PRO:C	1:C:84:GLY:H	2.20	0.44
1:G:260:VAL:HG23	2:H:406:HIS:HE1	1.79	0.44
2:H:7:ILE:HG13	2:H:137:VAL:HG22	1.97	0.44
2:H:152:LEU:C	2:H:152:LEU:HD12	2.38	0.44
1:C:135:PHE:CD1	1:C:135:PHE:N	2.84	0.44
2:D:152:LEU:C	2:D:152:LEU:HD12	2.38	0.44
1:E:52:TYR:HE2	1:E:240:THR:HB	1.82	0.44
2:F:149:PHE:O	2:F:150:THR:C	2.56	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
3:I:48:VAL:O	3:I:48:VAL:HG13	2.16	0.44
1:A:250:ALA:HB1	1:A:254:LYS:CB	2.43	0.44
2:B:255:PHE:O	2:B:259:LEU:N	2.50	0.44
1:C:189:LEU:HD23	1:C:421:ALA:CB	2.47	0.44
1:C:67:LEU:HD12	1:C:92:PHE:CE1	2.52	0.44
1:A:102:ASN:OD1	1:A:408:TYR:CZ	2.70	0.44
1:E:273:ALA:CB	1:E:274:PRO:CD	2.93	0.44
1:C:282:GLN:O	1:C:282:GLN:CG	2.65	0.44
1:A:282:GLN:O	1:A:282:GLN:CG	2.65	0.44
1:C:346:TRP:CG	2:D:401:LYS:HD2	2.52	0.44
2:B:234:ILE:C	2:B:234:ILE:CD1	2.85	0.44
2:F:204:VAL:O	2:F:204:VAL:HG12	2.17	0.44
1:G:287:THR:O	1:G:288:VAL:CG2	2.58	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:288:VAL:N	1:E:289:PRO:CD	2.80	0.44
2:B:182:VAL:O	2:B:184:PRO:CD	2.65	0.44
2:D:182:VAL:O	2:D:184:PRO:CD	2.65	0.44
2:D:172:TYR:CD1	2:D:173:PRO:N	2.80	0.44
2:B:172:TYR:HA	2:B:173:PRO:HD3	1.93	0.44
2:D:175:PRO:CG	2:D:304:LYS:HG2	2.47	0.44
2:B:268:PRO:CA	2:B:379:SER:O	2.65	0.44
1:C:94:PHE:N	1:C:94:PHE:CD1	2.84	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
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
3:I:40:TYR:OH	3:I:72:LYS:HG2	2.18	0.44
2:H:121:ARG:NH1	2:H:121:ARG:HG2	2.33	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:E:67:LEU:HD12	1:E:92:PHE:CE1	2.53	0.44
2:H:362:VAL:HG13	2:H:368:LEU:CG	2.47	0.44
1:E:313:LEU:O	1:E:347:ILE:HD12	2.16	0.44
1:G:52:TYR:HE2	1:G:240:THR:HB	1.83	0.44
2:B:296:PHE:HZ	2:B:351:PHE:HZ	1.66	0.44
1:C:4:ILE:HD12	1:C:239:THR:HG21	1.98	0.44
2:D:7:ILE:HG13	2:D:137:VAL:HG22	1.97	0.44
2:D:7:ILE:HD11	2:D:137:VAL:CG2	2.44	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: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
1:A:67:LEU:HD12	1:A:92:PHE:CE1	2.52	0.44
1:G:295:MET:SD	1:G:375:ALA:HB3	2.57	0.44
1:C:295:MET:SD	1:C:375:ALA:HB3	2.58	0.44
1:A:295:MET:SD	1:A:375:ALA:HB3	2.58	0.44
1:A:212:ILE:O	1:A:212:ILE:HG22	2.18	0.44
2:B:363:VAL:CG1	2:B:364:PRO:HD2	2.48	0.44
2:F:362:VAL:HG13	2:F:368:LEU:CG	2.48	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
1:C:168:THR:N	1:C:200:GLU:O	2.44	0.44
1:G:67:LEU:HD12	1:G:92:PHE:CE1	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:16:THR:O	3:I:17:SER:HB3	2.18	0.44
2:B:64:ARG:HD2	2:B:125:LEU:HD22	1.99	0.44
2:F:276:ILE:CG2	2:F:369:ALA:CB	2.91	0.44
2:B:272:TYR:CE2	2:B:274:PRO:HD2	2.53	0.44
2:B:7:ILE:HD11	2:B:137:VAL:CG2	2.44	0.44
1:C:14:ASN:O	1:C:17:GLY:N	2.51	0.44
1:E:12:CYS:HB2	5:E:1438:GSP:C8	2.52	0.44
1:A:14:ASN:O	1:A:17:GLY:N	2.50	0.44
1:C:360:PRO:HG2	1:C:371:LEU:CB	2.38	0.44
1:E:295:MET:SD	1:E:375:ALA:HB3	2.58	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
2:F:303:VAL:CG1	2:F:303:VAL:O	2.65	0.44
1:C:161:TYR:C	1:C:163:ASP:N	2.71	0.44
2:F:218:ASP:C	2:F:219:ILE:HG12	2.37	0.44
1:G:2:ARG:HD3	2:H:98:ASP:OD2	2.18	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: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:121:ARG:HG2	2:F:121:ARG:HH11	1.82	0.44
2:F:121:ARG:NH1	2:F:121:ARG:HG2	2.33	0.44
2:F:64:ARG:HD2	2:F:125:LEU:HD22	1.99	0.44
2:F:272:TYR:CE2	2:F:274:PRO:HD2	2.53	0.44
3:I:104:GLN:HG3	3:I:105:TYR:N	2.33	0.44
2:H:121:ARG:HH11	2:H:121:ARG:HG2	1.83	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:217:LEU:HD13	2:H:277:SER:N	2.33	0.44
2:F:276:ILE:O	2:F:369:ALA:CA	2.66	0.44
2:B:4:CYS:SG	2:B:252:LEU:CD1	3.02	0.44
1:E:14:ASN:O	1:E:17:GLY:N	2.51	0.44
2:H:272:TYR:CE2	2:H:274:PRO:HD2	2.53	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
1:C:212:ILE:HG22	1:C:212:ILE:O	2.18	0.44
2:F:363:VAL:CG1	2:F:364:PRO:HD2	2.48	0.44
2:H:204:VAL:CG1	2:H:209:ILE:HD11	2.42	0.44
1:A:288:VAL:N	1:A:289:PRO:CD	2.79	0.44
2:D:132:LEU:H	2:D:132:LEU:CD2	2.23	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
2:F:84:ARG:HB3	2:F:84:ARG:HE	1.51	0.44
1:G:307:PRO:C	1:G:309:HIS:N	2.71	0.44
1:G:253:ARG:HD3	2:H:407:TRP:HH2	1.82	0.44
2:H:408:TYR:CG	2:H:418:PHE:HZ	2.34	0.44
1:C:168:THR:CG2	1:C:201:THR:HG23	2.48	0.44
2:D:153:LEU:O	2:D:157:LEU:HG	2.18	0.44
1:G:14:ASN:O	1:G:17:GLY:N	2.50	0.44
3:I:43:ILE:HG22	3:I:44:PRO:N	2.33	0.44
2:D:121:ARG:NH1	2:D:121:ARG:HG2	2.33	0.44
2:D:5:ILE:CG2	2:D:135:PHE:CB	2.96	0.44
2:H:23:LEU:O	2:H:26:LEU:HB3	2.17	0.44
2:B:153:LEU:O	2:B:157:LEU:HG	2.18	0.44
1:E:102:ASN:OD1	1:E:408:TYR:CZ	2.70	0.44
1:E:282:GLN:O	1:E:282:GLN:CG	2.65	0.44
1:G:288:VAL:N	1:G:289:PRO:HD2	2.32	0.44
1:E:288:VAL:C	1:E:290:GLU:N	2.70	0.44
2:H:402:ARG:O	2:H:405:VAL:N	2.49	0.44
2:D:344:VAL:CG1	2:D:345:ASP:N	2.78	0.44
2:F:402:ARG:O	2:F:405:VAL:N	2.49	0.44
2:F:377:MET:HG3	2:F:377:MET:O	2.18	0.44
2:H:377:MET:HG3	2:H:377:MET:O	2.18	0.44
1:G:161:TYR:O	1:G:163:ASP:N	2.51	0.44
1:E:161:TYR:O	1:E:163:ASP:N	2.51	0.44
1:C:161:TYR:O	1:C:163:ASP:N	2.51	0.44
2:D:268:PRO:CA	2:D:379:SER:O	2.65	0.44
2:D:218:ASP:C	2:D:219:ILE:HG12	2.37	0.44
1:G:141:LEU:HD12	1:G:141:LEU:N	2.33	0.44
2:H:105:ARG:O	2:H:110:ILE:CG2	2.64	0.44
2:H:343:PHE:CE1	2:H:351:PHE:HE2	2.36	0.44
1:C:7:ILE:N	1:C:136:GLN:O	2.51	0.44
1:E:141:LEU:HD12	1:E:141:LEU:N	2.33	0.44
1:E:7:ILE:N	1:E:136:GLN:O	2.51	0.44
2:F:409:VAL:C	2:F:411:GLU:N	2.71	0.44
2:F:5:ILE:CG2	2:F:135:PHE:CB	2.95	0.44
1:G:182:VAL:O	1:G:183:GLU:C	2.56	0.44
1:G:102:ASN:OD1	1:G:408:TYR:CZ	2.70	0.44
2:D:23:LEU:O	2:D:26:LEU:HB3	2.17	0.44
2:H:30:ILE:O	2:H:31:GLN:O	2.35	0.44
2:H:276:ILE:O	2:H:369:ALA:CA	2.66	0.44
1:A:7:ILE:N	1:A:136:GLN:O	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:147:SER:HB2	1:A:190:SER:CB	2.41	0.44
1:C:12:CYS:HB2	5:C:1438:GSP:C8	2.52	0.44
2:D:209:ILE:CD1	2:D:231:ILE:HD11	2.47	0.44
1:G:230:LEU:HD21	1:G:302:MET:HE2	1.99	0.44
2:B:209:ILE:CD1	2:B:231:ILE:HD11	2.47	0.44
2:F:209:ILE:CD1	2:F:231:ILE:HD11	2.47	0.44
2:B:346:TRP:HB3	1:C:401:ARG:HG3	1.98	0.44
2:D:303:VAL:O	2:D:303:VAL:CG1	2.64	0.44
2:B:362:VAL:HG13	2:B:368:LEU:CG	2.48	0.44
2:H:303:VAL:CG1	2:H:303:VAL:O	2.65	0.44
2:B:377:MET:HG3	2:B:377:MET:O	2.18	0.44
1:A:161:TYR:O	1:A:163:ASP:N	2.51	0.44
2:B:218:ASP:C	2:B:219:ILE:HG12	2.37	0.44
2:F:8:HIS:HA	2:F:138:PHE:HB2	2.00	0.44
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:154:MET:CE	2:H:166:LYS:HB3	2.48	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:168:THR:CG2	1:E:201:THR:HG23	2.48	0.43
2:F:152:LEU:C	2:F:152:LEU:HD12	2.38	0.43
3:I:30:TYR:CD2	3:I:30:TYR:C	2.87	0.43
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
2:B:149:PHE:O	2:B:150:THR:C	2.56	0.43
1:E:11:GLN:O	1:E:15:GLN:N	2.41	0.43
1:E:6:HIS:HB3	1:E:65:ALA:CB	2.48	0.43
1:A:409:THR:O	1:A:412:GLY:N	2.48	0.43
2:H:230:LEU:O	2:H:231:ILE:C	2.57	0.43
2:B:303:VAL:O	2:B:303:VAL:CG1	2.64	0.43
2:F:310:GLY:HA3	2:F:383:ALA:CA	2.48	0.43
2:H:436:GLY:C	2:H:438:ASP:N	2.72	0.43
2:H:8:HIS:HA	2:H:138:PHE:HB2	1.99	0.43
2:F:13:GLY:C	2:F:16:ILE:HG22	2.38	0.43
2:H:390:ARG:HG3	2:H:390:ARG:HH11	1.83	0.43
2:F:390:ARG:HH11	2:F:390:ARG:HG3	1.83	0.43
2:D:154:MET:CE	2:D:166:LYS:HB3	2.48	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:105:LYS:HG2	1:G:110:GLU:CG	2.48	0.43
1:G:6:HIS:HB3	1:G:65:ALA:CB	2.48	0.43
3:I:12:ILE:HA	3:I:15:VAL:HG22	1.99	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
1:E:182:VAL:O	1:E:183:GLU:C	2.56	0.43
1:G:282:GLN:O	1:G:282:GLN:CG	2.65	0.43
2:D:402:ARG:O	2:D:405:VAL:N	2.49	0.43
2:H:209:ILE:CD1	2:H:231:ILE:HD11	2.47	0.43
2:H:363:VAL:CG1	2:H:364:PRO:HD2	2.48	0.43
2:H:310:GLY:HA3	2:H:383:ALA:CA	2.49	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
2:B:343:PHE:CE1	2:B:351:PHE:HE2	2.36	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
1:C:167:ASN:HD21	1:C:252:LEU:HD22	1.82	0.43
2:D:154:MET:HE3	2:D:166:LYS:HB3	2.00	0.43
2:B:121:ARG:HG2	2:B:121:ARG:NH1	2.33	0.43
1:G:248:LEU:HD21	2:H:179:THR:HG22	1.92	0.43
2:D:64:ARG:HD2	2:D:125:LEU:HD22	1.99	0.43
2:B:217:LEU:HD13	2:B:277:SER:N	2.33	0.43
1:E:409:THR:O	1:E:412:GLY:N	2.48	0.43
1:A:182:VAL:O	1:A:183:GLU:C	2.56	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:F:230:LEU:O	2:F:231:ILE:C	2.57	0.43
2:H:234:ILE:HB	2:H:302:MET:HE1	2.00	0.43
2:B:304:LYS:O	2:B:304:LYS:HG3	2.18	0.43
2:D:377:MET:HG3	2:D:377:MET:O	2.18	0.43
2:H:218:ASP:C	2:H:219:ILE:HG12	2.37	0.43
2:D:13:GLY:C	2:D:16:ILE:HG22	2.38	0.43
1:G:168:THR:CG2	1:G:201:THR:HG23	2.48	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
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:B:103:TYR:O	2:B:104:ALA:C	2.57	0.43
1:E:72:PRO:HG2	1:E:73:GLY:H	1.83	0.43
1:A:105:LYS:HG2	1:A:110:GLU:CG	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:70:LEU:HB2	1:A:99:ALA:CB	2.49	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:288:VAL:C	1:A:290:GLU:N	2.70	0.43
2:B:175:PRO:CG	2:B:304:LYS:HG2	2.47	0.43
2:B:8:HIS:HA	2:B:138:PHE:HB2	1.99	0.43
2:D:8:HIS:HA	2:D:138:PHE:HB2	1.99	0.43
2:F:71:GLU:HA	2:F:72:PRO:HD3	1.89	0.43
2:H:122:ILE:CD1	2:H:157:LEU:HD21	2.35	0.43
1:E:243:ARG:HD3	1:E:243:ARG:N	2.26	0.43
1:A:52:TYR:HE2	1:A:240:THR:HB	1.83	0.43
1:A:167:ASN:HD21	1:A:252:LEU:HD22	1.82	0.43
2:B:252:LEU:O	2:B:253:THR:C	2.56	0.43
1:C:409:THR:O	1:C:412:GLY:N	2.48	0.43
1:E:12:CYS:C	1:E:14:ASN:N	2.71	0.43
1:A:230:LEU:HD21	1:A:302:MET:HE2	2.01	0.43
2:H:425:MET:O	2:H:428:LEU:N	2.45	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
2:D:436:GLY:C	2:D:438:ASP:N	2.72	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:D:328:VAL:O	2:D:330:ALA:N	2.39	0.43
1:A:98:GLY:O	1:A:100:GLY:N	2.49	0.43
1:G:238:VAL:HB	1:G:239:THR:H	1.65	0.43
2:H:378:LEU:HD12	2:H:378:LEU:O	2.19	0.43
2:H:409:VAL:C	2:H:411:GLU:N	2.71	0.43
2:H:7:ILE:HD11	2:H:137:VAL:CG2	2.44	0.43
2:H:292:THR:O	2:H:295:CYS:HB2	2.18	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
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
2:F:56:THR:CG2	2:F:62:VAL:CB	2.95	0.43
3:I:64:VAL:O	3:I:68:VAL:HG13	2.18	0.43
2:B:5:ILE:HG22	2:B:6:SER:H	1.78	0.43
1:A:168:THR:CG2	1:A:201:THR:HG23	2.48	0.43
1:E:102:ASN:ND2	1:E:408:TYR:HA	2.20	0.43
1:A:12:CYS:HB2	5:A:1438:GSP:C8	2.53	0.43
1:A:103:TRP:HB2	1:A:186:ASN:HA	2.01	0.43
1:E:280:SER:OG	1:E:281:GLN:N	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:299:LYS:CD	1:A:299:LYS:H	2.07	0.43
1:G:288:VAL:C	1:G:290:GLU:N	2.70	0.43
2:H:384:ILE:C	2:H:386:GLU:N	2.72	0.43
2:H:13:GLY:C	2:H:16:ILE:HG22	2.38	0.43
1:C:383:ALA:C	1:C:385:GLN:N	2.72	0.43
2:B:390:ARG:HG3	2:B:390:ARG:HH11	1.83	0.43
2:D:390:ARG:HH11	2:D:390:ARG:HG3	1.83	0.43
1:G:253:ARG:HD3	2:H:407:TRP:CH2	2.53	0.43
1:G:253:ARG:O	1:G:257:VAL:HG12	2.19	0.43
1:G:301:MET:O	1:G:303:ALA:N	2.51	0.43
1:G:269:MET:HE1	1:G:381:SER:OG	2.19	0.43
1:C:52:TYR:HE2	1:C:240:THR:HB	1.83	0.43
2:D:166:LYS:CE	2:D:199:ASP:OD1	2.62	0.43
1:E:301:MET:O	1:E:303:ALA:N	2.51	0.43
2:F:292:THR:O	2:F:295:CYS:HB2	2.18	0.43
2:F:378:LEU:O	2:F:378:LEU:HD12	2.19	0.43
2:F:51:THR:CG2	2:F:243:ARG:CB	2.87	0.43
1:G:70:LEU:HB2	1:G:99:ALA:CB	2.49	0.43
2:D:25:CYS:SG	2:D:26:LEU:N	2.92	0.43
2:B:251:ASP:CA	2:B:254:GLU:HG3	2.48	0.43
2:B:378:LEU:HD12	2:B:378:LEU:O	2.19	0.43
1:C:105:LYS:HG2	1:C:110:GLU:CG	2.48	0.43
1:E:103:TRP:HB2	1:E:186:ASN:HA	2.01	0.43
2:D:363:VAL:CG1	2:D:364:PRO:HD2	2.48	0.43
1:E:212:ILE:HG22	1:E:212:ILE:O	2.18	0.43
1:C:230:LEU:HD21	1:C:302:MET:HE2	2.01	0.43
2:B:262:TYR:HB3	2:B:263:PRO:HD2	2.00	0.43
2:D:310:GLY:HA3	2:D:383:ALA:CA	2.49	0.43
1:A:161:TYR:CD1	1:A:161:TYR:N	2.86	0.43
1:C:161:TYR:N	1:C:161:TYR:CD1	2.86	0.43
2:H:8:HIS:CD2	2:H:138:PHE:CD2	3.07	0.43
1:A:383:ALA:C	1:A:385:GLN:N	2.72	0.43
2:H:71:GLU:HA	2:H:72:PRO:HD3	1.89	0.43
1:G:254:LYS:HA	1:G:257:VAL:CG1	2.49	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
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:H:5:ILE:CG1	2:H:6:SER:N	2.82	0.43
1:A:259:MET:HE3	1:A:268:PHE:CE2	2.53	0.43
2:B:105:ARG:O	2:B:110:ILE:CG2	2.65	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:E:105:LYS:HG2	1:E:110:GLU:CG	2.48	0.43
2:F:304:LYS:HG3	2:F:304:LYS:O	2.19	0.43
2:H:234:ILE:CG2	2:H:302:MET:HE3	2.44	0.43
2:F:8:HIS:CD2	2:F:138:PHE:CD2	3.07	0.43
1:G:72:PRO:HG2	1:G:73:GLY:H	1.83	0.43
2:B:84:ARG:HE	2:B:84:ARG:HB3	1.51	0.43
2:H:110:ILE:O	2:H:111:GLY:C	2.58	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:292:THR:O	2:D:295:CYS:HB2	2.18	0.43
2:F:5:ILE:CG1	2:F:6:SER:N	2.82	0.43
2:F:297:GLU:HA	2:F:298:PRO:HD2	1.87	0.43
2:D:5:ILE:CG1	2:D:6:SER:N	2.81	0.43
2:D:280:LYS:O	2:D:282:TYR:N	2.52	0.43
1:A:24:ILE:CG2	1:A:25:SER:N	2.80	0.43
2:B:7:ILE:HG13	2:B:137:VAL:HG22	1.97	0.43
1:C:409:THR:C	1:C:411:GLU:H	2.22	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:A:118:VAL:O	1:A:122:VAL:HG13	2.19	0.43
1:E:210:TYR:O	1:E:214:PHE:N	2.52	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:D:262:TYR:HB3	2:D:263:PRO:HD2	2.00	0.43
1:C:115:VAL:HG21	1:C:152:LEU:HD21	1.99	0.43
2:D:304:LYS:HG3	2:D:304:LYS:O	2.18	0.43
1:G:161:TYR:N	1:G:161:TYR:CD1	2.86	0.43
2:F:16:ILE:CG2	2:F:17:GLY:N	2.82	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
2:F:252:LEU:O	2:F:253:THR:C	2.56	0.43
2:F:339:ARG:NH1	2:F:339:ARG:HG2	2.34	0.43
2:F:104:ALA:HB3	2:F:408:TYR:HD1	1.84	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
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:276:ILE:O	2:B:369:ALA:CA	2.66	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: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
1:A:153:LEU:HD13	1:A:153:LEU:N	2.34	0.43
1:E:359:PRO:CB	1:E:360:PRO:HD2	2.45	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:71:GLU:HA	2:B:72:PRO:HD3	1.89	0.43
1:G:240:THR:HG23	1:G:241:CYS:N	2.33	0.42
2:H:115:ILE:CD1	2:H:115:ILE:C	2.87	0.42
1:C:427:ASP:OD1	1:C:427:ASP:C	2.57	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
2:H:297:GLU:HA	2:H:298:PRO:HD2	1.87	0.42
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
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:A:409:THR:C	1:A:411:GLU:H	2.22	0.42
1:G:212:ILE:HG22	1:G:212:ILE:O	2.18	0.42
1:C:288:VAL:C	1:C:290:GLU:N	2.70	0.42
1:G:115:VAL:HG21	1:G:152:LEU:HD21	1.98	0.42
1:C:333:LEU:O	1:C:334:ASN:C	2.58	0.42
1:A:333:LEU:O	1:A:334:ASN:C	2.58	0.42
2:H:16:ILE:CG2	2:H:17:GLY:N	2.82	0.42
2:D:8:HIS:CD2	2:D:138:PHE:CD2	3.07	0.42
2:H:103:TYR:O	2:H:104:ALA:C	2.57	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
2:H:104:ALA:HB3	2:H:408:TYR:HD1	1.84	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
1:E:26:ASP:C	1:E:28:HIS:H	2.21	0.42
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
3:I:30:TYR:CZ	3:I:50:PHE:HD1	2.37	0.42
2:D:217:LEU:HD13	2:D:277:SER:N	2.33	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
1:C:103:TRP:HB2	1:C:186:ASN:HA	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:108:TYR:CE1	1:C:413:MET:HE1	2.54	0.42
1:C:72:PRO:HG2	1:C:73:GLY:H	1.83	0.42
1:E:153:LEU:HD13	1:E:153:LEU:N	2.34	0.42
2:F:262:TYR:HB3	2:F:263:PRO:HD2	2.01	0.42
2:B:263:PRO:O	2:B:264:ARG:C	2.56	0.42
2:B:231:ILE:C	2:B:233:GLN:N	2.73	0.42
2:F:209:ILE:CD1	2:F:231:ILE:CD1	2.97	0.42
1:G:383:ALA:C	1:G:385:GLN:N	2.72	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
1:G:26:ASP:C	1:G:28:HIS:H	2.21	0.42
2:H:252:LEU:O	2:H:253:THR:C	2.56	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
2:D:30:ILE:HD11	2:D:61:HIS:CD2	2.54	0.42
1:A:301:MET:O	1:A:303:ALA:N	2.51	0.42
1:A:192:HIS:NE2	1:A:420:GLU:HG2	2.34	0.42
1:C:118:VAL:O	1:C:122:VAL:HG13	2.19	0.42
1:E:409:THR:C	1:E:411:GLU:H	2.22	0.42
1:A:102:ASN:ND2	1:A:408:TYR:HA	2.20	0.42
2:D:147:SER:HB2	2:D:186:ASN:O	2.19	0.42
1:C:306:ASP:HA	1:C:307:PRO:HD3	1.92	0.42
1:E:210:TYR:O	1:E:211:ASP:C	2.57	0.42
2:F:204:VAL:CG1	2:F:209:ILE:HD11	2.42	0.42
2:H:209:ILE:CD1	2:H:231:ILE:CD1	2.97	0.42
2:H:363:VAL:HG13	2:H:364:PRO:HD2	2.02	0.42
1:E:310:GLY:HA3	1:E:436:GLN:NE2	2.29	0.42
1:E:161:TYR:CD1	1:E:161:TYR:N	2.86	0.42
1:E:333:LEU:O	1:E:334:ASN:C	2.58	0.42
1:A:185:TYR:HD1	1:A:185:TYR:HA	1.76	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:119:LEU:HD11	2:H:156:ARG:HD3	2.02	0.42
1:C:2:ARG:NH2	2:D:99:ALA:H	2.17	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
1:G:118:VAL:O	1:G:122:VAL:HG13	2.19	0.42
1:G:68:VAL:HG11	1:G:153:LEU:HD21	2.00	0.42
2:H:25:CYS:SG	2:H:26:LEU:N	2.92	0.42
2:H:280:LYS:O	2:H:282:TYR:N	2.52	0.42
2:F:280:LYS:O	2:F:282:TYR:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:106:GLY:O	1:C:149:MET:CA	2.68	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:231:ILE:C	2:D:233:GLN:N	2.73	0.42
1:C:210:TYR:O	1:C:214:PHE:N	2.52	0.42
2:B:209:ILE:CD1	2:B:231:ILE:CD1	2.97	0.42
2:F:363:VAL:HG13	2:F:364:PRO:HD2	2.02	0.42
3:I:77:VAL:HG22	3:I:78:VAL:N	2.35	0.42
1:C:431:GLU:O	1:C:434:GLN:N	2.48	0.42
2:D:213:CYS:O	2:D:219:ILE:HG13	2.20	0.42
1:G:133:GLN:CG	1:G:165:ILE:HD11	2.49	0.42
1:G:311:ARG:NH1	1:G:311:ARG:HG2	2.34	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
2:D:115:ILE:C	2:D:115:ILE:CD1	2.87	0.42
1:E:147:SER:HB2	1:E:190:SER:CB	2.41	0.42
1:E:427:ASP:C	1:E:427:ASP:OD1	2.57	0.42
2:F:115:ILE:C	2:F:115:ILE:CD1	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
2:B:119:LEU:HD11	2:B:156:ARG:HD3	2.01	0.42
1:A:106:GLY:O	1:A:149:MET:CA	2.68	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:C:325:MET:HE2	1:C:355:VAL:CG2	2.47	0.42
1:E:273:ALA:HB1	1:E:291:LEU:HG	2.01	0.42
1:A:210:TYR:O	1:A:214:PHE:N	2.52	0.42
2:H:149:PHE:O	2:H:150:THR:C	2.56	0.42
2:H:262:TYR:HB3	2:H:263:PRO:HD2	2.00	0.42
1:C:250:ALA:CB	1:C:254:LYS:HE2	2.50	0.42
2:D:409:VAL:C	2:D:411:GLU:N	2.71	0.42
2:D:15:GLN:NE2	4:D:500:GTP:N7	2.67	0.42
2:D:11:GLN:NE2	2:D:74:VAL:CG2	2.76	0.42
2:F:119:LEU:HD11	2:F:156:ARG:HD3	2.01	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
3:I:30:TYR:CD2	3:I:50:PHE:HD1	2.36	0.42
2:D:62:VAL:CG1	2:D:88:HIS:ND1	2.71	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:12:CYS:C	1:C:14:ASN:N	2.71	0.42
1:C:153:LEU:N	1:C:153:LEU:HD13	2.34	0.42
1:C:102:ASN:ND2	1:C:408:TYR:HA	2.20	0.42
1:E:118:VAL:O	1:E:122:VAL:HG13	2.19	0.42
1:E:72:PRO:O	1:E:73:GLY:C	2.58	0.42
1:G:359:PRO:CB	1:G:360:PRO:HD2	2.45	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: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
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:D:398:MET:HB2	2:D:398:MET:HE3	1.78	0.42
2:B:363:VAL:HG13	2:B:364:PRO:HD2	2.02	0.42
3:I:76:LYS:HG3	3:I:97:TRP:CZ2	2.54	0.42
1:A:115:VAL:HG21	1:A:152:LEU:HD21	1.98	0.42
1:E:383:ALA:C	1:E:385:GLN:N	2.72	0.42
1:C:185:TYR:HD1	1:C:185:TYR:HA	1.76	0.42
2:H:4:CYS:SG	2:H:252:LEU:CD1	3.02	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:2:ARG:NH1	1:C:251:ASP:CG	2.73	0.42
1:E:154:ILE:HG22	1:E:166:MET:HE1	2.01	0.42
1:E:238:VAL:HB	1:E:239:THR:H	1.66	0.42
1:E:192:HIS:NE2	1:E:420:GLU:HG2	2.34	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:409:THR:C	1:G:411:GLU:H	2.22	0.42
1:A:26:ASP:C	1:A:28:HIS:H	2.21	0.42
1:A:427:ASP:OD1	1:A:427:ASP:C	2.57	0.42
2:B:115:ILE:CD1	2:B:115:ILE:C	2.87	0.42
1:C:409:THR:C	1:C:411:GLU:N	2.73	0.42
1:A:409:THR:C	1:A:411:GLU:N	2.73	0.42
1:A:72:PRO:HG2	1:A:73:GLY:H	1.83	0.42
1:A:273:ALA:HB1	1:A:291:LEU:HG	2.01	0.42
2:D:363:VAL:HG13	2:D:364:PRO:HD2	2.02	0.42
2:H:207:GLU:O	2:H:210:TYR:N	2.51	0.42
2:B:428:LEU:HD12	2:B:428:LEU:HA	1.79	0.42
2:B:175:PRO:HG3	2:B:304:LYS:CB	2.50	0.42
2:F:13:GLY:HA2	2:F:16:ILE:CG2	2.50	0.42
1:A:435:TYR:C	1:A:437:ASP:N	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:171:VAL:HG12	1:G:171:VAL:O	2.20	0.42
1:A:171:VAL:HG12	1:A:171:VAL:O	2.20	0.42
1:G:239:THR:CG2	1:G:240:THR:N	2.80	0.42
2:H:255:PHE:O	2:H:257:THR:N	2.53	0.42
1:C:138:THR:O	1:C:139:HIS:HB3	2.19	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
2:F:255:PHE:O	2:F:257:THR:N	2.53	0.42
2:F:25:CYS:SG	2:F:26:LEU:N	2.92	0.42
2:F:7:ILE:HD11	2:F:137:VAL:CG2	2.44	0.42
3:I:111:TYR:CZ	3:I:116:ARG:HG3	2.54	0.42
2:B:280:LYS:O	2:B:282:TYR:N	2.52	0.42
1:A:2:ARG:NH1	1:A:251:ASP:CG	2.73	0.42
1:A:261:PRO:HB2	1:A:262:PHE:CD2	2.54	0.42
2:B:104:ALA:HB3	2:B:408:TYR:HD1	1.84	0.42
2:B:238:ILE:O	2:B:242:LEU:CB	2.67	0.42
1:E:413:MET:CG	1:E:414:ASP:H	2.27	0.42
1:A:6:HIS:HB3	1:A:65:ALA:CB	2.48	0.42
1:G:273:ALA:HB1	1:G:291:LEU:HG	2.01	0.42
1:A:273:ALA:CB	1:A:274:PRO:CD	2.93	0.42
2:B:147:SER:HB2	2:B:186:ASN:O	2.19	0.42
1:C:311:ARG:NH1	1:C:311:ARG:HG2	2.34	0.42
1:G:35:SER:CB	1:G:59:ASN:HA	2.42	0.42
1:C:35:SER:CB	1:C:59:ASN:HA	2.42	0.42
2:F:425:MET:O	2:F:428:LEU:N	2.45	0.42
1:C:310:GLY:HA3	1:C:436:GLN:NE2	2.29	0.42
2:D:175:PRO:HG3	2:D:304:LYS:CB	2.50	0.42
2:H:13:GLY:HA2	2:H:16:ILE:CG2	2.50	0.42
1:C:435:TYR:C	1:C:437:ASP:N	2.72	0.42
1:E:171:VAL:O	1:E:171:VAL:HG12	2.20	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
2:H:166:LYS:HB2	2:H:199:ASP:OD1	2.20	0.42
2:H:95:GLY:C	2:H:97:GLU:H	2.23	0.42
1:C:199:ASP:C	1:C:265:LEU:HD13	2.40	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:95:GLY:C	2:F:97:GLU:H	2.23	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:138:THR:O	1:A:139:HIS:HB3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:199:ASP:C	1:A:265:LEU:HD13	2.40	0.42
1:E:409:THR:C	1:E:411:GLU:N	2.73	0.42
2:F:15:GLN:NE2	4:F:500:GTP:N7	2.67	0.42
1:G:273:ALA:HB3	1:G:274:PRO:CD	2.29	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:230:LEU:O	2:D:231:ILE:C	2.57	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
2:B:213:CYS:O	2:B:219:ILE:HG13	2.20	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: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
1:G:82:PRO:HB2	1:G:83:PHE:H	1.55	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:243:ARG:NH2	2:H:252:LEU:HG	2.35	0.42
2:H:335:ILE:C	2:H:337:THR:N	2.73	0.42
2:D:119:LEU:HD11	2:D:156:ARG:HD3	2.02	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
3:I:30:TYR:CD1	3:I:50:PHE:HA	2.55	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:343:PHE:CD1	1:A:350:ASN:ND2	2.88	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
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
1:E:106:GLY:O	1:E:149:MET:CA	2.68	0.42
2:D:263:PRO:O	2:D:264:ARG:C	2.56	0.42
2:H:231:ILE:C	2:H:233:GLN:N	2.73	0.42
1:G:333:LEU:HD11	1:G:337:ASN:HD21	1.85	0.42
1:A:333:LEU:HD11	1:A:337:ASN:HD21	1.85	0.42
2:D:328:VAL:C	2:D:330:ALA:N	2.73	0.42
1:A:399:PHE:O	1:A:401:ARG:N	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:98:GLY:O	1:E:100:GLY:N	2.49	0.42
1:C:171:VAL:O	1:C:171:VAL:HG12	2.20	0.42
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
2:B:335:ILE:C	2:B:337:THR:N	2.73	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
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
1:A:307:PRO:O	1:A:309:HIS:N	2.53	0.41
2:H:15:GLN:NE2	4:H:500:GTP:N7	2.67	0.41
1:C:399:PHE:O	1:C:401:ARG:N	2.53	0.41
2:H:362:VAL:HG13	2:H:368:LEU:CB	2.50	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:G:310:GLY:HA3	1:G:436:GLN:NE2	2.29	0.41
2:F:213:CYS:O	2:F:219:ILE:HG13	2.20	0.41
1:G:399:PHE:O	1:G:401:ARG:N	2.53	0.41
1:G:72:PRO:O	1:G:73:GLY:C	2.58	0.41
1:A:249:ASN:OD1	2:B:71:GLU:OE1	2.36	0.41
1:G:435:TYR:C	1:G:437:ASP:N	2.72	0.41
3:I:81:GLU:HG3	3:I:82:ARG:N	2.35	0.41
1:G:259:MET:HE3	1:G:268:PHE:CE2	2.55	0.41
1:G:2:ARG:NH1	1:G:251:ASP:CG	2.73	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: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
2:F:292:THR:HG21	2:F:331:ALA:HB1	2.02	0.41
2:B:95:GLY:C	2:B:97:GLU:H	2.23	0.41
1:E:421:ALA:O	1:E:422:GLU:C	2.58	0.41
1:C:307:PRO:O	1:C:309:HIS:N	2.53	0.41
1:A:175:PRO:O	1:A:177:VAL:N	2.53	0.41
2:F:313:MET:O	2:F:314:ALA:CB	2.68	0.41
2:H:328:VAL:C	2:H:330:ALA:N	2.73	0.41
1:G:254:LYS:HE3	1:G:352:LYS:HZ2	1.83	0.41
2:B:292:THR:HG21	2:B:331:ALA:HB1	2.02	0.41
2:H:292:THR:HG21	2:H:331:ALA:HB1	2.03	0.41
1:C:254:LYS:HZ3	2:D:101:ASN:ND2	2.07	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:257:VAL:CG1	2:D:407:TRP:CD1	2.98	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:421:ALA:O	1:G:422:GLU:C	2.58	0.41
3:I:68:VAL:CG2	3:I:69:PHE:N	2.83	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:E:114:LEU:HD23	1:E:149:MET:HE2	2.01	0.41
1:E:75:MET:HE1	1:E:94:PHE:HB3	2.02	0.41
2:H:11:GLN:NE2	2:H:74:VAL:CG2	2.76	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
1:A:310:GLY:HA3	1:A:436:GLN:NE2	2.29	0.41
1:C:352:LYS:HG2	2:D:181:VAL:HG23	2.02	0.41
2:H:213:CYS:O	2:H:219:ILE:HG13	2.20	0.41
1:G:348:PRO:HG3	2:H:397:LEU:HB2	2.01	0.41
2:B:328:VAL:C	2:B:330:ALA:N	2.73	0.41
1:G:199:ASP:C	1:G:265:LEU:HD13	2.41	0.41
1:G:48:ARG:HG2	1:G:243:ARG:HB3	2.01	0.41
1:C:242:LEU:HB3	1:C:250:ALA:O	2.20	0.41
2:D:95:GLY:C	2:D:97:GLU:H	2.23	0.41
2:F:238:ILE:HD11	2:F:378:LEU:HD23	2.01	0.41
1:G:102:ASN:ND2	1:G:408:TYR:HA	2.20	0.41
3:I:59:ILE:CG2	3:I:60:ASN:N	2.82	0.41
1:A:238:VAL:HB	1:A:239:THR:H	1.65	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:E:182:VAL:O	1:E:184:PRO:N	2.54	0.41
1:A:413:MET:CG	1:A:414:ASP:H	2.26	0.41
2:H:305:CYS:SG	2:H:383:ALA:HB1	2.60	0.41
1:C:333:LEU:HD11	1:C:337:ASN:HD21	1.85	0.41
2:F:401:LYS:C	2:F:403:ALA:H	2.24	0.41
1:E:399:PHE:O	1:E:401:ARG:N	2.53	0.41
1:E:82:PRO:HB2	1:E:83:PHE:H	1.56	0.41
2:H:343:PHE:HZ	2:H:351:PHE:CZ	2.36	0.41
1:C:25:SER:O	1:C:28:HIS:N	2.53	0.41
2:D:152:LEU:CD1	2:D:152:LEU:C	2.89	0.41
2:D:242:LEU:HD11	2:D:250:VAL:HG23	2.02	0.41
1:E:307:PRO:O	1:E:309:HIS:N	2.53	0.41
1:G:182:VAL:O	1:G:184:PRO:N	2.54	0.41
3:I:50:PHE:CD2	3:I:120:ARG:O	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:168:THR:HB	1:A:198:THR:HG21	2.03	0.41
2:B:15:GLN:NE2	4:B:500:GTP:N7	2.67	0.41
1:C:359:PRO:CB	1:C:360:PRO:HD2	2.45	0.41
1:A:359:PRO:CB	1:A:360:PRO:HD2	2.45	0.41
2:F:263:PRO:O	2:F:264:ARG:C	2.56	0.41
1:C:175:PRO:O	1:C:177:VAL:N	2.53	0.41
1:E:175:PRO:O	1:E:177:VAL:N	2.53	0.41
2:B:434:GLU:C	2:B:436:GLY:N	2.74	0.41
1:C:380:ASN:HD22	1:C:380:ASN:C	2.24	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
2:D:11:GLN:CG	2:D:74:VAL:HG21	2.50	0.41
1:E:48:ARG:HG2	1:E:243:ARG:HB3	2.01	0.41
1:G:11:GLN:HB3	5:G:1438:GSP:O1A	2.21	0.41
1:A:243:ARG:HA	1:A:243:ARG:HD3	1.62	0.41
2:B:255:PHE:O	2:B:257:THR:N	2.53	0.41
1:E:105:LYS:HG2	1:E:110:GLU:HG3	2.03	0.41
2:F:11:GLN:CG	2:F:74:VAL:HG21	2.50	0.41
1:E:204:ILE:HD13	1:E:231:VAL:CG2	2.45	0.41
2:F:332:ILE:CD1	2:F:353:VAL:HG22	2.51	0.41
2:B:172:TYR:CD1	2:B:173:PRO:N	2.80	0.41
2:B:362:VAL:HG13	2:B:368:LEU:CB	2.50	0.41
2:B:305:CYS:SG	2:B:383:ALA:HB1	2.60	0.41
2:B:384:ILE:C	2:B:386:GLU:N	2.72	0.41
1:G:333:LEU:O	1:G:334:ASN:C	2.58	0.41
2:F:287:SER:O	2:F:291:ILE:HG12	2.21	0.41
2:H:251:ASP:CA	2:H:254:GLU:HG3	2.48	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
2:D:296:PHE:CG	2:D:341:ILE:HD12	2.53	0.41
2:F:242:LEU:HA	2:F:242:LEU:HD12	1.87	0.41
1:G:106:GLY:O	1:G:149:MET:CA	2.68	0.41
3:I:5:ARG:CA	3:I:23:ILE:HD11	2.51	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:422:GLU:O	1:C:426:ASN:CB	2.67	0.41
1:E:11:GLN:HB3	5:E:1438:GSP:O1A	2.21	0.41
1:A:119:LEU:O	1:A:122:VAL:HG22	2.21	0.41
1:A:12:CYS:C	1:A:14:ASN:N	2.71	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)
1:G:175:PRO:O	1:G:177:VAL:N	2.53	0.41
2:H:401:LYS:C	2:H:403:ALA:H	2.24	0.41
2:F:362:VAL:HG13	2:F:368:LEU:CB	2.50	0.41
2:D:434:GLU:C	2:D:436:GLY:N	2.74	0.41
1:E:185:TYR:HA	1:E:185:TYR:HD1	1.76	0.41
2:D:81:GLY:O	2:D:82:THR:C	2.59	0.41
2:H:287:SER:O	2:H:291:ILE:HG12	2.21	0.41
1:A:380:ASN:C	1:A:380:ASN:HD22	2.24	0.41
2:H:81:GLY:O	2:H:82:THR:C	2.59	0.41
1:G:307:PRO:O	1:G:309:HIS:N	2.53	0.41
2:H:296:PHE:CG	2:H:341:ILE:HD12	2.53	0.41
1:C:417:GLU:O	1:C:420:GLU:HB3	2.21	0.41
2:D:318:LEU:HB2	2:D:376:CYS:SG	2.61	0.41
1:E:135:PHE:CD1	1:E:166:MET:SD	3.13	0.41
1:E:168:THR:HB	1:E:198:THR:HG21	2.03	0.41
1:G:105:LYS:HG2	1:G:110:GLU:HG3	2.03	0.41
1:G:179:ASP:HB2	5:G:1438:GSP:C3'	2.51	0.41
1:G:70:LEU:HB2	1:G:99:ALA:HB2	2.03	0.41
3:I:5:ARG:NH1	3:I:88:MET:HE1	2.25	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: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
1:A:242:LEU:HB3	1:A:250:ALA:O	2.20	0.41
1:C:421:ALA:O	1:C:422:GLU:C	2.58	0.41
1:E:118:VAL:O	1:E:121:VAL:N	2.54	0.41
1:E:70:LEU:HB2	1:E:99:ALA:HB2	2.03	0.41
1:A:105:LYS:HG2	1:A:110:GLU:HG3	2.03	0.41
2:H:221:ARG:N	2:H:222:PRO:CD	2.83	0.41
1:E:35:SER:CB	1:E:59:ASN:HA	2.42	0.41
2:D:362:VAL:HG13	2:D:368:LEU:CB	2.50	0.41
1:E:161:TYR:C	1:E:163:ASP:N	2.71	0.41
1:E:333:LEU:HD11	1:E:337:ASN:HD21	1.85	0.41
2:H:434:GLU:C	2:H:436:GLY:N	2.74	0.41
2:F:328:VAL:C	2:F:330:ALA:N	2.73	0.41
2:F:81:GLY:O	2:F:82:THR:C	2.59	0.41
2:B:81:GLY:O	2:B:82:THR:C	2.59	0.41
1:G:135:PHE:CD1	1:G:166:MET:SD	3.14	0.41
2:H:255:PHE:O	2:H:259:LEU:N	2.50	0.41
1:G:25:SER:O	1:G:28:HIS:N	2.53	0.41
2:B:343:PHE:HZ	2:B:351:PHE:CZ	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:135:PHE:CD1	1:C:166:MET:SD	3.14	0.41
1:C:48:ARG:HG2	1:C:243:ARG:HB3	2.01	0.41
2:D:115:ILE:CG2	2:D:116:ASP:H	2.32	0.41
2:D:251:ASP:CA	2:D:254:GLU:HG3	2.49	0.41
2:D:100:ALA:HB2	2:D:105:ARG:HD3	2.02	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
2:F:242:LEU:HD11	2:F:250:VAL:HG23	2.02	0.41
2:F:61:HIS:O	2:F:62:VAL:C	2.59	0.41
1:E:25:SER:O	1:E:28:HIS:N	2.53	0.41
2:F:272:TYR:O	2:F:300:ASN:ND2	2.54	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
2:B:100:ALA:C	2:B:102:ASN:H	2.24	0.41
2:B:149:PHE:CD1	2:B:150:THR:N	2.89	0.41
1:C:105:LYS:HG2	1:C:110:GLU:HG3	2.03	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
1:C:119:LEU:O	1:C:122:VAL:HG22	2.21	0.41
1:E:183:GLU:HB3	1:E:184:PRO:HD3	2.03	0.41
1:A:183:GLU:HB3	1:A:184:PRO:HD3	2.03	0.41
1:A:206:ASN:HD21	5:A:1438:GSP:H1'	1.85	0.41
1:A:118:VAL:O	1:A:121:VAL:N	2.54	0.41
2:H:11:GLN:CG	2:H:74:VAL:HG21	2.50	0.41
2:F:144:GLY:N	4:F:500:GTP:O3G	2.48	0.41
1:E:273:ALA:HB3	1:E:274:PRO:CD	2.29	0.41
2:F:346:TRP:CZ3	1:G:403:ALA:CB	3.04	0.41
2:D:401:LYS:O	2:D:402:ARG:HB2	2.21	0.41
2:H:332:ILE:CD1	2:H:353:VAL:HG22	2.51	0.41
2:H:401:LYS:O	2:H:402:ARG:HB2	2.21	0.41
2:B:332:ILE:CD1	2:B:353:VAL:HG22	2.51	0.41
2:D:332:ILE:CD1	2:D:353:VAL:HG22	2.51	0.41
1:A:35:SER:CB	1:A:59:ASN:HA	2.42	0.41
2:D:305:CYS:SG	2:D:383:ALA:HB1	2.60	0.41
2:F:401:LYS:O	2:F:402:ARG:HB2	2.21	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:G:161:TYR:C	1:G:163:ASP:N	2.71	0.41
2:F:436:GLY:C	2:F:438:ASP:N	2.72	0.41
2:F:434:GLU:C	2:F:436:GLY:N	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:130:THR:O	2:B:131:GLY:C	2.59	0.41
2:B:287:SER:O	2:B:291:ILE:HG12	2.21	0.41
2:D:130:THR:O	2:D:131:GLY:C	2.59	0.41
1:G:168:THR:HB	1:G:198:THR:HG21	2.03	0.41
2:H:147:SER:OG	2:H:148:GLY:N	2.54	0.41
2:H:238:ILE:HD11	2:H:378:LEU:HD23	2.01	0.41
1:C:20:PHE:CD1	1:C:235:MET:CG	3.04	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
1:E:417:GLU:O	1:E:420:GLU:HB3	2.20	0.41
2:F:149:PHE:CD1	2:F:150:THR:N	2.89	0.41
2:F:23:LEU:HD11	2:F:361:THR:O	2.21	0.41
1:G:183:GLU:HB3	1:G:184:PRO:HD3	2.03	0.41
3:I:43:ILE:H	3:I:43:ILE:CD1	2.30	0.41
3:I:9:LEU:HA	3:I:12:ILE:HG22	2.02	0.41
1:A:135:PHE:CD1	1:A:166:MET:SD	3.14	0.41
1:A:423:SER:O	1:A:424:ASN:C	2.60	0.41
1:A:48:ARG:HG2	1:A:243:ARG:HB3	2.01	0.41
2:B:144:GLY:N	4:B:500:GTP:O3G	2.48	0.41
1:A:114:LEU:HD12	1:A:117:SER:OG	2.21	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
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
1:C:273:ALA:CB	1:C:274:PRO:CD	2.93	0.41
1:C:210:TYR:O	1:C:211:ASP:C	2.57	0.41
2:F:248:LEU:HA	2:F:248:LEU:HD12	1.93	0.41
2:H:172:TYR:CD1	2:H:173:PRO:N	2.80	0.41
2:B:425:MET:O	2:B:426:ALA:C	2.60	0.41
2:D:425:MET:O	2:D:426:ALA:C	2.60	0.41
1:A:78:VAL:O	1:A:84:GLY:HA3	2.22	0.41
1:E:380:ASN:HD22	1:E:380:ASN:C	2.24	0.41
1:G:44:LEU:HD12	1:G:49:ILE:CD1	2.49	0.40
2:H:100:ALA:O	2:H:102:ASN:N	2.49	0.40
1:C:239:THR:CG2	1:C:240:THR:N	2.80	0.40
1:C:23:VAL:O	1:C:24:ILE:C	2.60	0.40
1:C:243:ARG:HD3	1:C:243:ARG:HA	1.62	0.40
2:F:152:LEU:C	2:F:152:LEU:CD1	2.89	0.40
3:I:20:LEU:HD23	3:I:21:THR:C	2.41	0.40
2:H:23:LEU:HD11	2:H:361:THR:O	2.21	0.40
1:A:242:LEU:HD23	1:A:242:LEU:HA	1.76	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:25:SER:O	1:A:28:HIS:N	2.53	0.40
2:B:152:LEU:CD1	2:B:152:LEU:C	2.89	0.40
2:B:272:TYR:O	2:B:300:ASN:ND2	2.54	0.40
1:C:114:LEU:HD12	1:C:117:SER:OG	2.21	0.40
1:C:183:GLU:HB3	1:C:184:PRO:HD3	2.03	0.40
3:I:6:GLN:CG	3:I:7:GLU:N	2.82	0.40
1:E:119:LEU:O	1:E:122:VAL:HG22	2.21	0.40
1:A:182:VAL:O	1:A:184:PRO:N	2.54	0.40
1:G:291:LEU:HD21	1:G:373:MET:HG2	2.03	0.40
1:E:291:LEU:HD21	1:E:373:MET:HG2	2.03	0.40
2:F:184:PRO:CG	2:F:398:MET:HE1	2.37	0.40
2:D:401:LYS:C	2:D:403:ALA:H	2.24	0.40
2:H:397:LEU:HD23	2:H:397:LEU:HA	1.81	0.40
1:C:78:VAL:O	1:C:84:GLY:HA3	2.22	0.40
2:D:287:SER:O	2:D:291:ILE:HG12	2.21	0.40
1:A:405:LEU:O	1:A:405:LEU:HD23	2.21	0.40
1:E:405:LEU:O	1:E:405:LEU:HD23	2.22	0.40
1:G:139:HIS:HE1	1:G:168:THR:CG2	2.34	0.40
1:G:48:ARG:CG	1:G:243:ARG:O	2.66	0.40
1:G:417:GLU:O	1:G:420:GLU:HB3	2.21	0.40
2:H:413:MET:C	2:H:414:GLU:CG	2.90	0.40
2:D:199:ASP:CB	2:D:256:GLN:NE2	2.77	0.40
2:D:413:MET:C	2:D:414:GLU:CG	2.89	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
2:F:251:ASP:CA	2:F:254:GLU:HG3	2.49	0.40
2:F:318:LEU:HB2	2:F:376:CYS:SG	2.61	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
3:I:43:ILE:CG2	3:I:44:PRO:N	2.84	0.40
2:F:342:GLN:NE2	3:I:70:LEU:HD12	2.35	0.40
1:A:202:TYR:CE2	1:A:268:PHE:HD2	2.38	0.40
1:C:182:VAL:O	1:C:184:PRO:N	2.54	0.40
1:E:12:CYS:O	1:E:14:ASN:N	2.55	0.40
2:H:11:GLN:HG3	2:H:74:VAL:HG21	2.03	0.40
2:F:11:GLN:HG3	2:F:74:VAL:HG21	2.03	0.40
1:G:359:PRO:HB2	1:G:360:PRO:CD	2.49	0.40
2:D:226:ASN:O	2:D:227:LEU:C	2.59	0.40
2:H:226:ASN:O	2:H:227:LEU:C	2.59	0.40
1:A:326:LYS:HB3	2:B:222:PRO:HD2	2.03	0.40
2:D:132:LEU:HD23	2:D:132:LEU:N	2.26	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:188:ILE:HD13	2:F:188:ILE:HA	1.97	0.40
2:F:293:ASN:ND2	2:F:338:LYS:NZ	2.69	0.40
1:G:62:VAL:HA	1:G:63:PRO:HD2	1.92	0.40
1:C:202:TYR:CE2	1:C:268:PHE:HD2	2.38	0.40
1:E:435:TYR:C	1:E:437:ASP:N	2.72	0.40
1:G:405:LEU:HD23	1:G:405:LEU:O	2.22	0.40
1:C:405:LEU:HD23	1:C:405:LEU:O	2.22	0.40
1:G:265:LEU:C	1:G:265:LEU:CD1	2.83	0.40
2:H:149:PHE:CD1	2:H:150:THR:N	2.89	0.40
2:H:260:VAL:HA	2:H:261:PRO:HD3	1.95	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
2:D:11:GLN:HG3	2:D:74:VAL:HG21	2.04	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
3:I:56:TYR:CE2	3:I:57:GLN:HG3	2.56	0.40
1:C:12:CYS:O	1:C:13:GLY:C	2.59	0.40
3:I:28:LYS:CG	3:I:58:TYR:HE1	2.19	0.40
1:G:204:ILE:HD13	1:G:231:VAL:CG2	2.45	0.40
2:B:248:LEU:HA	2:B:248:LEU:HD12	1.93	0.40
1:C:35:SER:HB3	1:C:59:ASN:OD1	2.22	0.40
2:H:188:ILE:HA	2:H:188:ILE:HD13	1.97	0.40
1:E:176:LYS:HD2	1:E:207:GLU:HB2	2.03	0.40
3:I:85:ARG:O	3:I:86:CYS:HB2	2.20	0.40
2:H:293:ASN:ND2	2:H:338:LYS:NZ	2.69	0.40
1:G:185:TYR:HD1	1:G:185:TYR:HA	1.76	0.40
2:F:397:LEU:HA	2:F:397:LEU:HD23	1.81	0.40
1:E:78:VAL:O	1:E:84:GLY:HA3	2.21	0.40
2:H:130:THR:O	2:H:131:GLY:C	2.59	0.40
1:E:202:TYR:HE2	1:E:378:ILE:HG21	1.87	0.40
2:B:393:HIS:O	2:B:394:LYS:C	2.60	0.40
1:G:202:TYR:HE2	1:G:378:ILE:HG21	1.87	0.40
2:H:98:ASP:N	2:H:98:ASP:OD1	2.55	0.40
2:D:320:ARG:O	2:D:373:ARG:HA	2.22	0.40
2:D:273:ALA:HB2	2:D:375:VAL:HB	2.03	0.40
2:D:56:THR:HA	2:H:284:GLU:CG	2.49	0.40
2:F:273:ALA:HB2	2:F:375:VAL:HB	2.03	0.40
2:F:98:ASP:N	2:F:98:ASP:OD1	2.55	0.40
1:G:119:LEU:O	1:G:122:VAL:HG22	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:206:ASN:HD21	5:G:1438:GSP:H1'	1.86	0.40
3:I:56:TYR:C	3:I:56:TYR:CD1	2.95	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
1:A:194:LEU:O	1:A:196:GLU:N	2.55	0.40
1:A:20:PHE:CD1	1:A:235:MET:CG	3.04	0.40
2:B:320:ARG:O	2:B:373:ARG:HA	2.22	0.40
2:B:11:GLN:HG3	2:B:74:VAL:HG21	2.04	0.40
1:C:11:GLN:HG3	1:C:74:THR:HG23	2.04	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:291:LEU:HD21	1:A:373:MET:HG2	2.03	0.40
1:A:132:LEU:O	1:A:164:ARG:HD2	2.21	0.40
2:F:226:ASN:O	2:F:227:LEU:C	2.59	0.40
1:A:288:VAL:HG22	1:A:323:MET:HE3	2.04	0.40
2:H:345:ASP:C	2:H:347:CYS:N	2.68	0.40
2:F:425:MET:O	2:F:426:ALA:C	2.60	0.40
2:F:384:ILE:O	2:F:385:ALA:C	2.59	0.40
2:D:384:ILE:C	2:D:386:GLU:N	2.71	0.40
1:G:98:GLY:O	1:G:100:GLY:N	2.49	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
1:C:194:LEU:O	1:C:196:GLU:N	2.55	0.40
1:E:243:ARG:HA	1:E:243:ARG:HD3	1.62	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
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
2:D:217:LEU:HD13	2:D:277:SER:CA	2.49	0.40
1:C:413:MET:CG	1:C:414:ASP:H	2.27	0.40
1:E:11:GLN:HG3	1:E:74:THR:HG23	2.04	0.40
1:C:132:LEU:O	1:C:164:ARG:HD2	2.21	0.40
1:G:176:LYS:HD2	1:G:207:GLU:HB2	2.03	0.40
2:F:343:PHE:HA	2:F:343:PHE:HD1	1.02	0.40
1:C:98:GLY:C	1:C:100:GLY:H	2.24	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 7
1	C	424/445 (95%)	274 (65%)	94 (22%)	56 (13%)	0 7
1	E	424/445 (95%)	273 (64%)	95 (22%)	56 (13%)	0 7
1	G	424/445 (95%)	274 (65%)	94 (22%)	56 (13%)	0 7
2	B	423/451 (94%)	279 (66%)	87 (21%)	57 (14%)	0 7
2	D	423/451 (94%)	281 (66%)	85 (20%)	57 (14%)	0 7
2	F	424/451 (94%)	283 (67%)	86 (20%)	55 (13%)	0 7
2	H	423/451 (94%)	278 (66%)	88 (21%)	57 (14%)	0 7
3	I	116/145 (80%)	112 (97%)	3 (3%)	1 (1%)	21 67
All	All	3505/3729 (94%)	2328 (66%)	726 (21%)	451 (13%)	1 7

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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Mol	Chain	Res	Type
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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Mol	Chain	Res	Type
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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Mol	Chain	Res	Type
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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Mol	Chain	Res	Type
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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Mol	Chain	Res	Type
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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Mol	Chain	Res	Type
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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Mol	Chain	Res	Type
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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Mol	Chain	Res	Type
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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Mol	Chain	Res	Type
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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Mol	Chain	Res	Type
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%)	3 19
1	C	366/381 (96%)	307 (84%)	59 (16%)	3 20
1	E	366/381 (96%)	307 (84%)	59 (16%)	3 20
1	G	366/381 (96%)	307 (84%)	59 (16%)	3 20
2	B	353/377 (94%)	294 (83%)	59 (17%)	3 19
2	D	353/377 (94%)	295 (84%)	58 (16%)	3 19
2	F	360/377 (96%)	302 (84%)	58 (16%)	3 20
2	H	353/377 (94%)	297 (84%)	56 (16%)	3 21
3	I	105/124 (85%)	104 (99%)	1 (1%)	82 92
All	All	2988/3156 (95%)	2519 (84%)	469 (16%)	7 21

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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Mol	Chain	Res	Type
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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Mol	Chain	Res	Type
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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Mol	Chain	Res	Type
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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Mol	Chain	Res	Type
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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Mol	Chain	Res	Type
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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Mol	Chain	Res	Type
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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Mol	Chain	Res	Type
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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Mol	Chain	Res	Type
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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Mol	Chain	Res	Type
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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Mol	Chain	Res	Type
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

Some 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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Mol	Chain	Res	Type
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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Mol	Chain	Res	Type
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

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no carbohydrates in this entry.

5.6 Ligand geometry

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	GSP	A	1438	-	26,34,34	1.92	9 (34%)	27,54,54	3.29	7 (25%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
4	GTP	B	500	-	26,34,34	1.61	4 (15%)	29,54,54	2.40	7 (24%)
5	GSP	C	1438	-	26,34,34	1.92	10 (38%)	27,54,54	3.30	7 (25%)
4	GTP	D	500	-	26,34,34	1.38	3 (11%)	29,54,54	2.31	4 (13%)
5	GSP	E	1438	-	26,34,34	1.92	9 (34%)	27,54,54	3.29	7 (25%)
4	GTP	F	500	-	26,34,34	1.39	3 (11%)	29,54,54	2.31	4 (13%)
5	GSP	G	1438	-	26,34,34	1.91	9 (34%)	27,54,54	3.29	7 (25%)
4	GTP	H	500	-	26,34,34	1.39	3 (11%)	29,54,54	2.32	4 (13%)

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	GSP	A	1438	-	-	0/17/38/38	0/3/3/3
4	GTP	B	500	-	-	0/18/38/38	0/3/3/3
5	GSP	C	1438	-	-	0/17/38/38	0/3/3/3
4	GTP	D	500	-	-	0/18/38/38	0/3/3/3
5	GSP	E	1438	-	-	0/17/38/38	0/3/3/3
4	GTP	F	500	-	-	0/18/38/38	0/3/3/3
5	GSP	G	1438	-	-	0/17/38/38	0/3/3/3
4	GTP	H	500	-	-	0/18/38/38	0/3/3/3

All (50) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	A	1438	GSP	PG-O2G	-2.41	1.48	1.55
5	C	1438	GSP	PG-O2G	-2.39	1.48	1.55
5	E	1438	GSP	PG-O2G	-2.39	1.48	1.55
5	G	1438	GSP	PG-O2G	-2.38	1.48	1.55
4	D	500	GTP	PB-O2B	-2.18	1.45	1.55
4	H	500	GTP	PB-O2B	-2.16	1.45	1.55
4	B	500	GTP	PB-O2B	-2.15	1.45	1.55
4	F	500	GTP	PB-O2B	-2.14	1.46	1.55
5	E	1438	GSP	C8-N7	-2.09	1.30	1.34
5	G	1438	GSP	C8-N7	-2.08	1.30	1.34
5	A	1438	GSP	C8-N7	-2.07	1.30	1.34
5	C	1438	GSP	C8-N7	-2.06	1.30	1.34
5	C	1438	GSP	PG-O3G	-2.02	1.49	1.55
5	E	1438	GSP	PG-O3G	-2.00	1.49	1.55
5	A	1438	GSP	C2'-C3'	2.02	1.58	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	G	1438	GSP	C2'-C3'	2.03	1.58	1.53
4	H	500	GTP	O4'-C1'	2.05	1.44	1.41
5	C	1438	GSP	C2'-C3'	2.05	1.59	1.53
4	D	500	GTP	O4'-C1'	2.05	1.44	1.41
5	G	1438	GSP	C4-N3	2.07	1.39	1.35
4	F	500	GTP	O4'-C1'	2.08	1.44	1.41
5	A	1438	GSP	C4-N3	2.09	1.39	1.35
4	B	500	GTP	O4'-C1'	2.09	1.44	1.41
5	C	1438	GSP	C4-N3	2.14	1.39	1.35
5	E	1438	GSP	C4-N3	2.17	1.39	1.35
5	G	1438	GSP	C6-C5	2.53	1.46	1.41
5	E	1438	GSP	C6-C5	2.53	1.46	1.41
5	G	1438	GSP	C2-N1	2.58	1.40	1.35
5	A	1438	GSP	C6-C5	2.58	1.46	1.41
5	C	1438	GSP	C6-C5	2.59	1.46	1.41
5	E	1438	GSP	C2-N1	2.60	1.40	1.35
5	C	1438	GSP	C2-N1	2.63	1.40	1.35
5	A	1438	GSP	C2-N1	2.64	1.40	1.35
5	E	1438	GSP	O4'-C1'	2.93	1.45	1.41
5	G	1438	GSP	O4'-C1'	2.96	1.45	1.41
5	C	1438	GSP	O4'-C1'	2.97	1.45	1.41
5	A	1438	GSP	O4'-C1'	3.00	1.45	1.41
5	G	1438	GSP	C2'-C1'	3.08	1.58	1.53
5	E	1438	GSP	C2'-C1'	3.09	1.58	1.53
5	C	1438	GSP	C2'-C1'	3.13	1.58	1.53
5	A	1438	GSP	C2'-C1'	3.14	1.58	1.53
4	B	500	GTP	PG-O1G	3.64	1.62	1.50
5	A	1438	GSP	C6-N1	4.39	1.41	1.33
5	G	1438	GSP	C6-N1	4.39	1.41	1.33
5	C	1438	GSP	C6-N1	4.40	1.41	1.33
5	E	1438	GSP	C6-N1	4.42	1.41	1.33
4	F	500	GTP	C6-N1	4.82	1.41	1.33
4	B	500	GTP	C6-N1	4.82	1.41	1.33
4	D	500	GTP	C6-N1	4.83	1.41	1.33
4	H	500	GTP	C6-N1	4.84	1.41	1.33

All (47) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	A	1438	GSP	C5-C6-N1	-10.35	109.99	123.52
5	C	1438	GSP	C5-C6-N1	-10.35	109.99	123.52
5	G	1438	GSP	C5-C6-N1	-10.35	110.00	123.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	E	1438	GSP	C5-C6-N1	-10.33	110.02	123.52
4	H	500	GTP	C5-C6-N1	-7.84	113.27	123.52
4	D	500	GTP	C5-C6-N1	-7.83	113.28	123.52
4	F	500	GTP	C5-C6-N1	-7.80	113.33	123.52
4	B	500	GTP	C5-C6-N1	-7.77	113.37	123.52
5	A	1438	GSP	C1'-N9-C4	-3.88	122.47	126.81
5	G	1438	GSP	C1'-N9-C4	-3.87	122.48	126.81
5	C	1438	GSP	C1'-N9-C4	-3.87	122.49	126.81
5	E	1438	GSP	C1'-N9-C4	-3.86	122.50	126.81
5	C	1438	GSP	N3-C2-N1	-3.71	122.50	127.56
5	E	1438	GSP	N3-C2-N1	-3.70	122.53	127.56
5	A	1438	GSP	N3-C2-N1	-3.68	122.55	127.56
5	G	1438	GSP	N3-C2-N1	-3.68	122.55	127.56
4	H	500	GTP	N3-C2-N1	-3.53	122.75	127.56
4	F	500	GTP	N3-C2-N1	-3.52	122.77	127.56
4	B	500	GTP	N3-C2-N1	-3.50	122.80	127.56
4	D	500	GTP	N3-C2-N1	-3.48	122.83	127.56
5	E	1438	GSP	O4'-C1'-N9	-3.25	101.96	108.11
5	G	1438	GSP	O4'-C1'-N9	-3.25	101.96	108.11
5	C	1438	GSP	O4'-C1'-N9	-3.25	101.97	108.11
5	A	1438	GSP	O4'-C1'-N9	-3.24	101.99	108.11
4	B	500	GTP	O3G-PG-O2G	-2.62	97.83	107.44
4	B	500	GTP	C6-C5-C4	-2.15	118.40	120.86
4	B	500	GTP	O3G-PG-O1G	-2.12	103.71	110.63
4	F	500	GTP	C6-C5-C4	-2.10	118.46	120.86
4	H	500	GTP	C6-C5-C4	-2.09	118.47	120.86
4	B	500	GTP	O2G-PG-O1G	-2.07	103.86	110.63
4	D	500	GTP	C6-C5-C4	-2.07	118.50	120.86
5	C	1438	GSP	O2B-PB-O3B	3.27	119.30	105.27
5	E	1438	GSP	O2B-PB-O3B	3.28	119.32	105.27
5	A	1438	GSP	O2B-PB-O3B	3.28	119.33	105.27
5	G	1438	GSP	O2B-PB-O3B	3.29	119.36	105.27
5	G	1438	GSP	C4'-O4'-C1'	5.21	115.17	109.64
5	E	1438	GSP	C4'-O4'-C1'	5.22	115.17	109.64
5	C	1438	GSP	C4'-O4'-C1'	5.24	115.20	109.64
5	A	1438	GSP	C4'-O4'-C1'	5.26	115.22	109.64
4	B	500	GTP	C6-N1-C2	7.44	124.60	115.88
4	F	500	GTP	C6-N1-C2	7.50	124.67	115.88
4	D	500	GTP	C6-N1-C2	7.50	124.67	115.88
4	H	500	GTP	C6-N1-C2	7.53	124.71	115.88
5	A	1438	GSP	C6-N1-C2	9.58	127.10	115.88
5	G	1438	GSP	C6-N1-C2	9.60	127.13	115.88

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	E	1438	GSP	C6-N1-C2	9.60	127.13	115.88
5	C	1438	GSP	C6-N1-C2	9.62	127.15	115.88

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

8 monomers are involved in 32 short contacts:

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

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.