



# Full wwPDB X-ray Structure Validation Report ⓘ

Nov 11, 2024 – 02:10 PM EST

PDB ID : 1XXH  
Title : ATPgS Bound E. Coli Clamp Loader Complex  
Authors : Kazmirski, S.L.; Podobnik, M.; Weitze, T.F.; O'Donnell, M.; Kuriyan, J.  
Deposited on : 2004-11-05  
Resolution : 3.45 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity : 4.02b-467  
Mogul : 2022.3.0, CSD as543be (2022)  
Xtriage (Phenix) : 1.20.1  
EDS : 3.0  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)  
CCP4 : 9.0.003 (Gargrove)  
Density-Fitness : 1.0.11  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.39

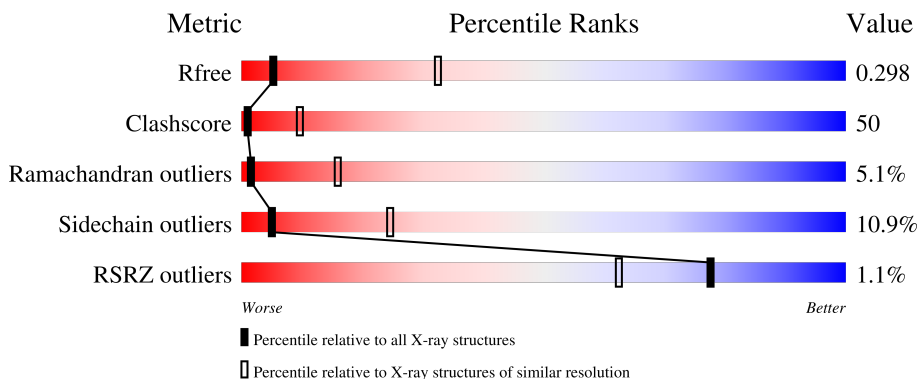
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.45 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
$R_{free}$	164625	1597 (3.52-3.40)
Clashscore	180529	1041 (3.50-3.42)
Ramachandran outliers	177936	1026 (3.50-3.42)
Sidechain outliers	177891	1027 (3.50-3.42)
RSRZ outliers	164620	1596 (3.52-3.40)

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

Mol	Chain	Length	Quality of chain
1	A	343	
1	F	343	
2	B	373	
2	C	373	
2	D	373	

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Mol	Chain	Length	Quality of chain
2	G	373	<p>%</p> <p>42% 48% 7%</p>
2	H	373	<p>%</p> <p>38% 54% 6%</p>
2	I	373	<p>%</p> <p>52% 40% 6%</p>
3	E	334	<p>%</p> <p>28% 55% 15%</p>
3	J	334	<p>%</p> <p>39% 53% 7%</p>

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
5	AGS	I	803	-	-	X	-
6	PO4	C	1300	-	-	X	-
6	PO4	H	1400	-	-	X	-

## 2 Entry composition [i](#)

There are 6 unique types of molecules in this entry. The entry contains 27736 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called DNA polymerase III, delta subunit.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace	
			Total	C	N	O	S				Se
1	A	338	2687	1702	488	487	5	5	0	0	0
1	F	338	2687	1702	488	487	5	5	0	0	0

There are 10 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	1	MSE	MET	modified residue	UNP P28630
A	71	MSE	MET	modified residue	UNP P28630
A	223	MSE	MET	modified residue	UNP P28630
A	285	MSE	MET	modified residue	UNP P28630
A	286	MSE	MET	modified residue	UNP P28630
F	1	MSE	MET	modified residue	UNP P28630
F	71	MSE	MET	modified residue	UNP P28630
F	223	MSE	MET	modified residue	UNP P28630
F	285	MSE	MET	modified residue	UNP P28630
F	286	MSE	MET	modified residue	UNP P28630

- Molecule 2 is a protein called DNA polymerase III subunit gamma.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	B	364	2829	1779	511	523	16	0	0	0
2	C	366	2850	1793	514	527	16	0	0	0
2	D	364	2829	1779	511	523	16	0	0	0
2	G	364	2829	1779	511	523	16	0	0	0
2	H	366	2850	1793	514	527	16	0	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	I	364	2829	1779	511	523	16	0	0	0

- Molecule 3 is a protein called DNA polymerase III, delta prime subunit.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
			Total	C	N	O	S	Se			
3	E	334	2602	1655	468	466	7	6	0	0	0
3	J	334	2602	1655	468	466	7	6	0	0	0

There are 12 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
E	1	MSE	MET	modified residue	UNP P28631
E	35	MSE	MET	modified residue	UNP P28631
E	68	MSE	MET	modified residue	UNP P28631
E	182	MSE	MET	modified residue	UNP P28631
E	253	MSE	MET	modified residue	UNP P28631
E	301	MSE	MET	modified residue	UNP P28631
J	1	MSE	MET	modified residue	UNP P28631
J	35	MSE	MET	modified residue	UNP P28631
J	68	MSE	MET	modified residue	UNP P28631
J	182	MSE	MET	modified residue	UNP P28631
J	253	MSE	MET	modified residue	UNP P28631
J	301	MSE	MET	modified residue	UNP P28631

- Molecule 4 is ZINC ION (three-letter code: ZN) (formula: Zn).

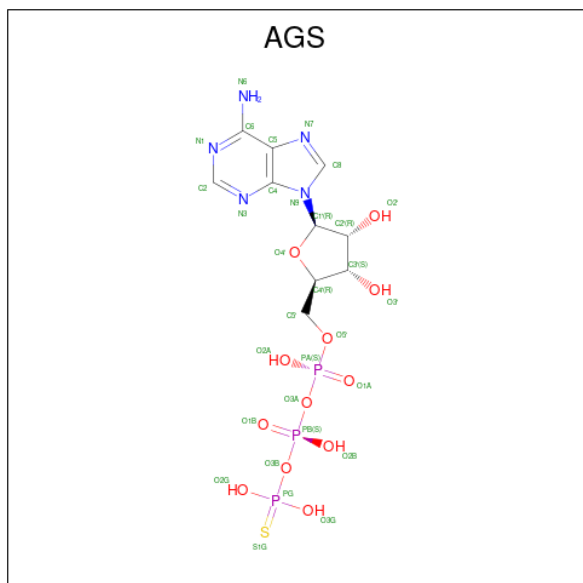
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	B	1	Total	Zn	0	0
			1	1		
4	C	1	Total	Zn	0	0
			1	1		
4	D	1	Total	Zn	0	0
			1	1		
4	E	1	Total	Zn	0	0
			1	1		
4	G	1	Total	Zn	0	0
			1	1		
4	H	1	Total	Zn	0	0
			1	1		

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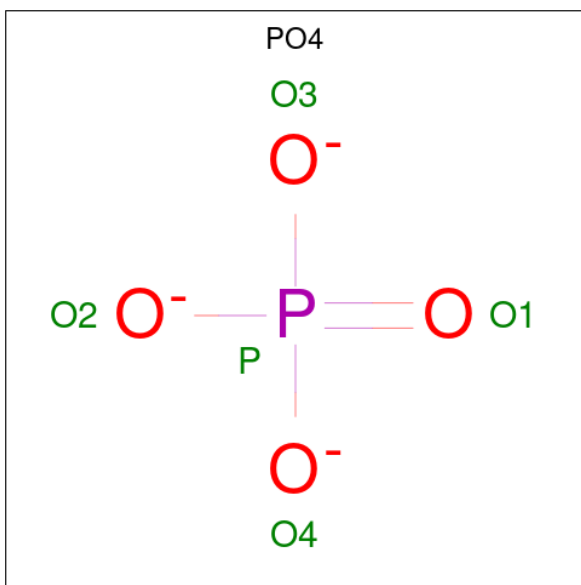
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	I	1	Total Zn 1 1	0	0
4	J	1	Total Zn 1 1	0	0

- Molecule 5 is PHOSPHOTHIOPHOSPHORIC ACID-ADENYLATE ESTER (three-letter code: AGS) (formula: C<sub>10</sub>H<sub>16</sub>N<sub>5</sub>O<sub>12</sub>P<sub>3</sub>S).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	
			Total	C	N	O	P			S
5	B	1	Total 31	10	5	12	3	1	0	0
5	D	1	Total 31	10	5	12	3	1	0	0
5	G	1	Total 31	10	5	12	3	1	0	0
5	I	1	Total 31	10	5	12	3	1	0	0

- Molecule 6 is PHOSPHATE ION (three-letter code: PO4) (formula: O<sub>4</sub>P).

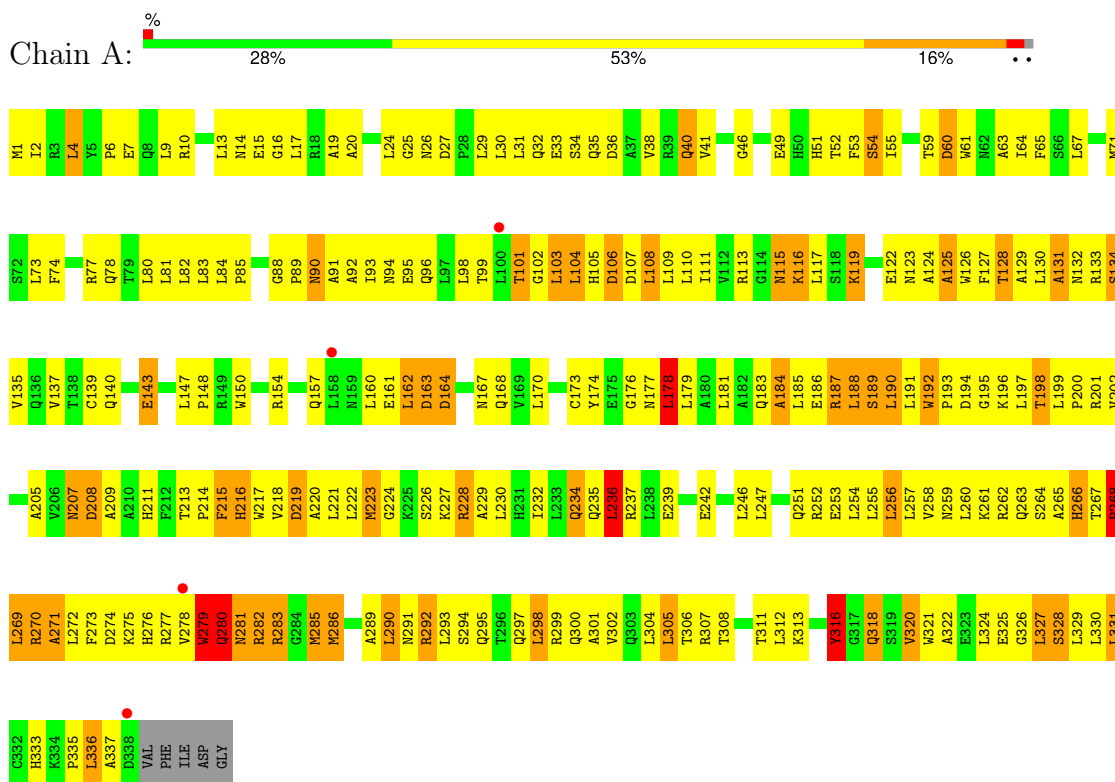


Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
6	C	1	Total	O	P	0	0
			5	4	1		
6	H	1	Total	O	P	0	0
			5	4	1		

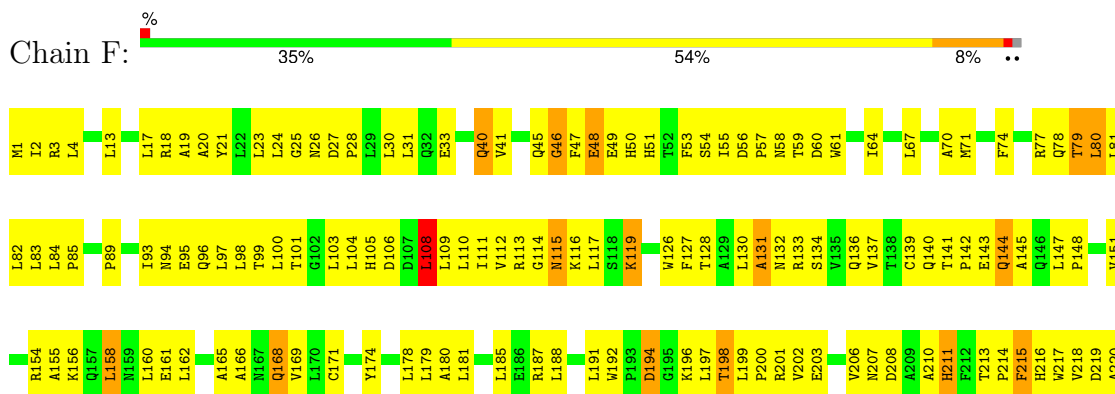
### 3 Residue-property plots

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

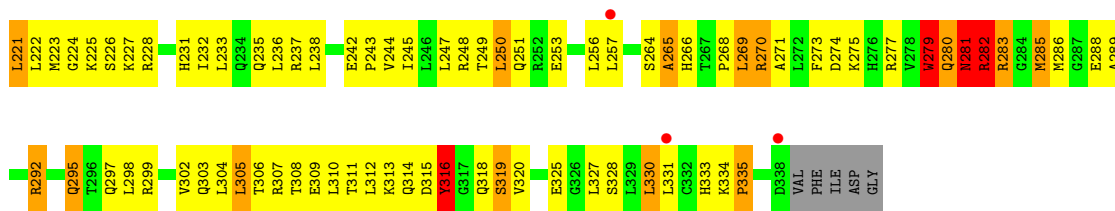
- Molecule 1: DNA polymerase III, delta subunit



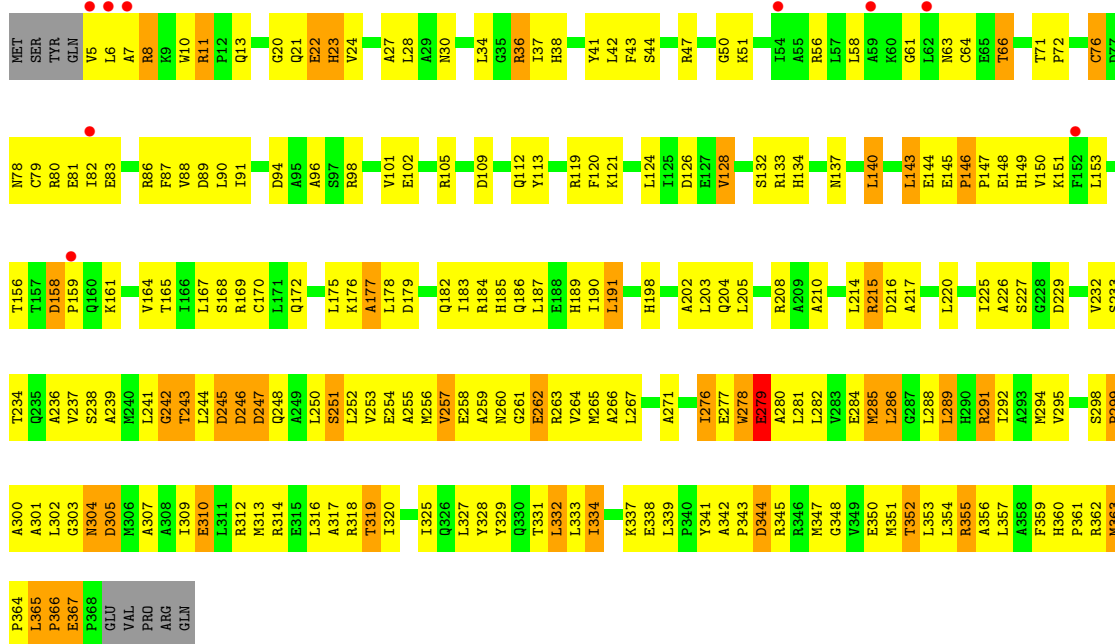
- Molecule 1: DNA polymerase III, delta subunit



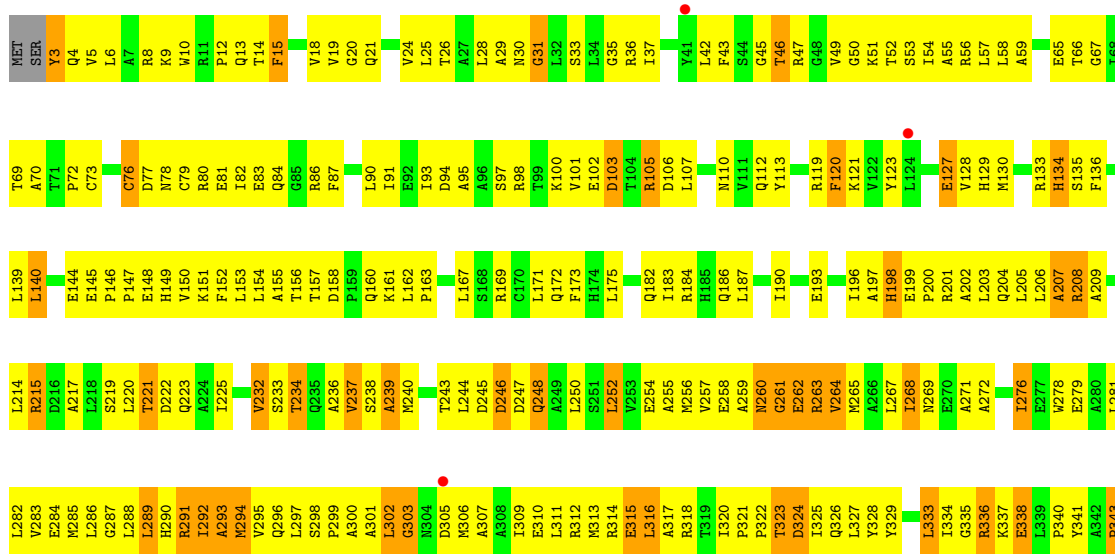




• Molecule 2: DNA polymerase III subunit gamma

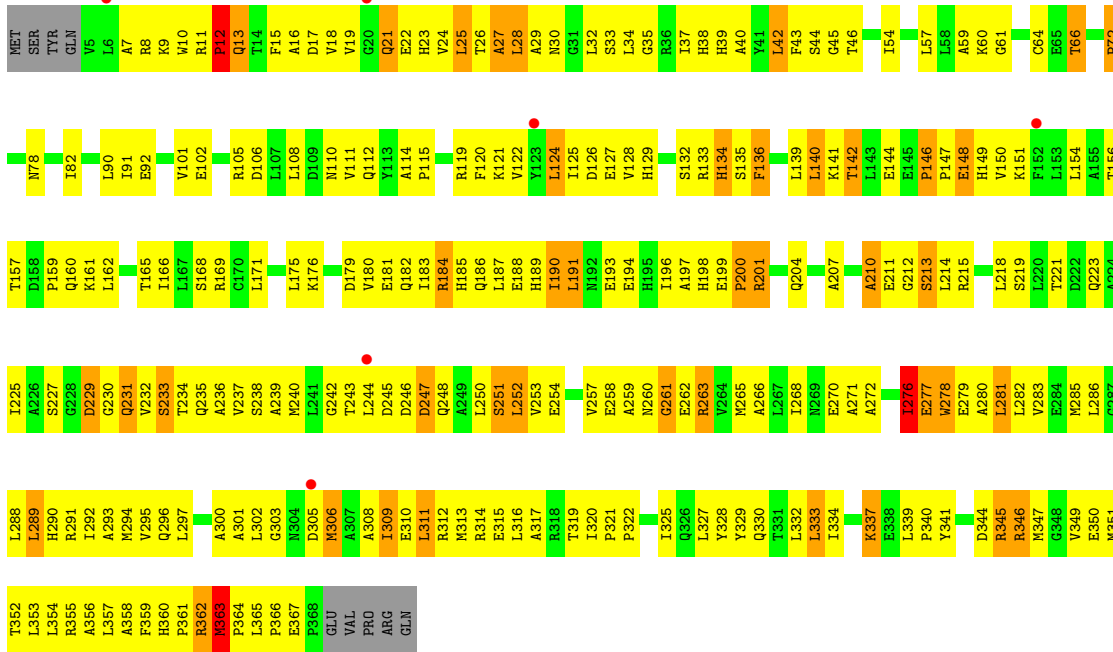


• Molecule 2: DNA polymerase III subunit gamma

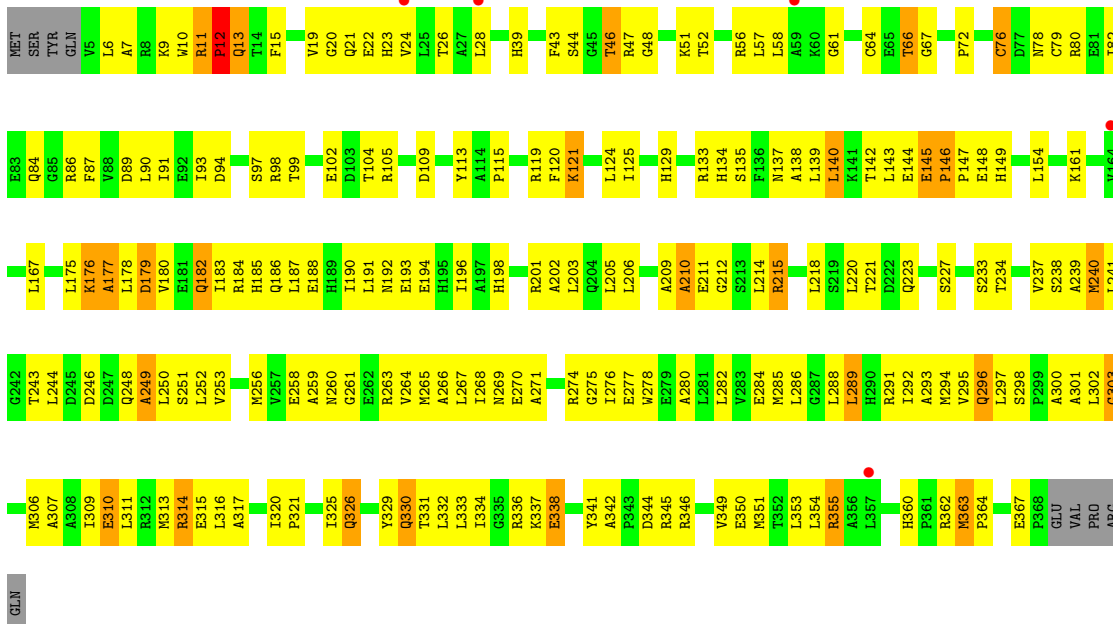




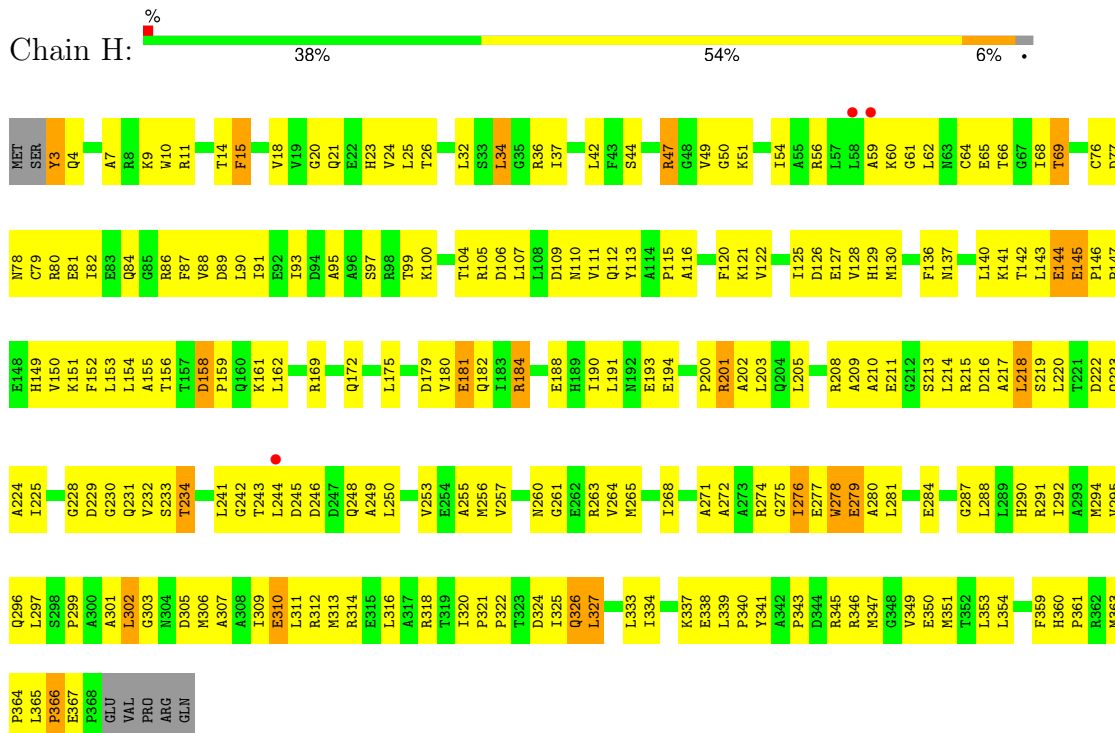
● Molecule 2: DNA polymerase III subunit gamma



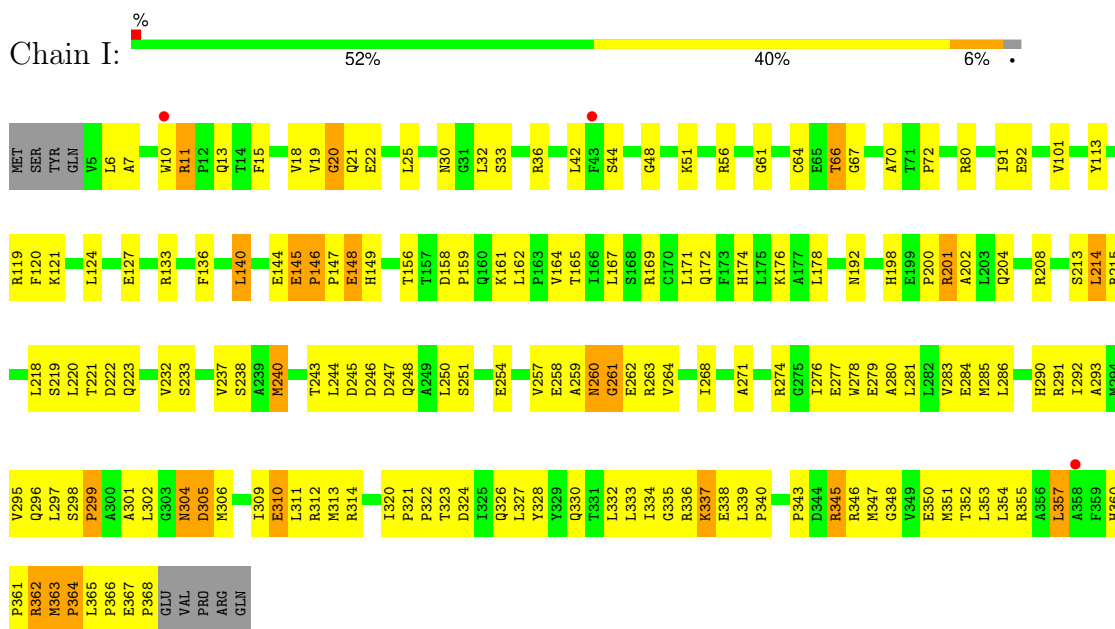
● Molecule 2: DNA polymerase III subunit gamma



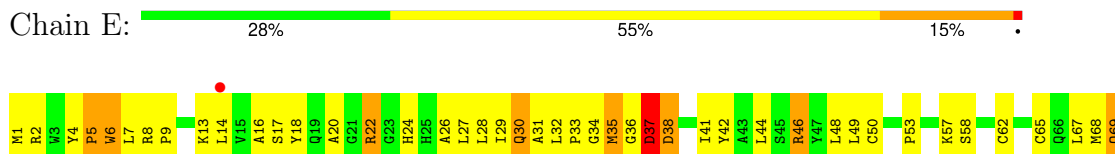
- Molecule 2: DNA polymerase III subunit gamma

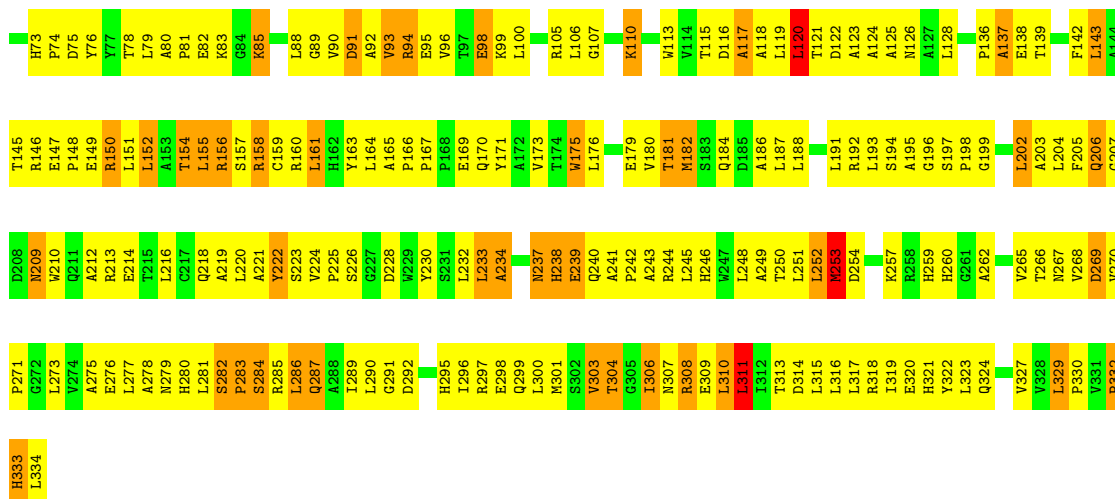


- Molecule 2: DNA polymerase III subunit gamma

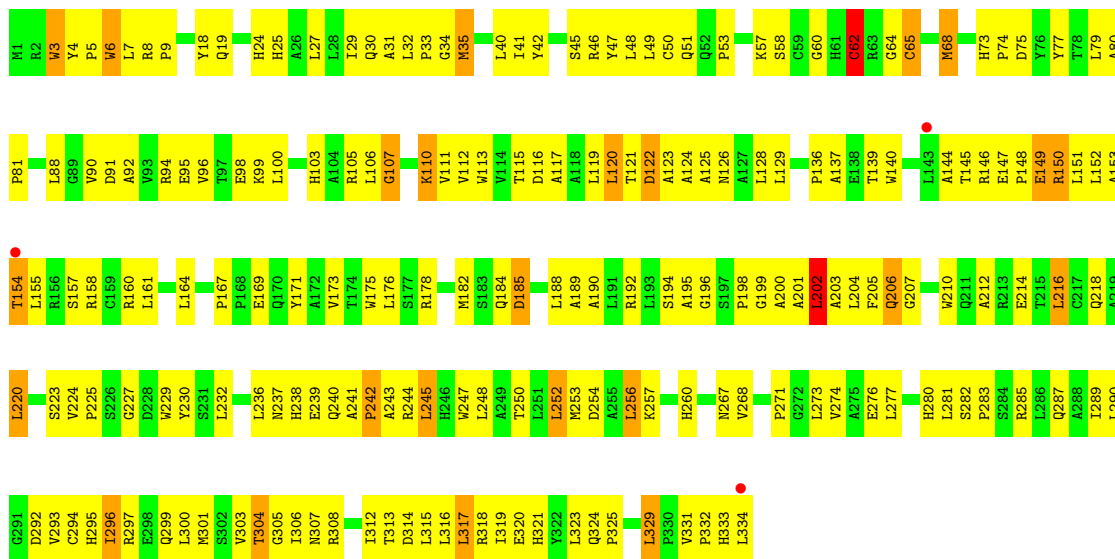


- Molecule 3: DNA polymerase III, delta prime subunit





• Molecule 3: DNA polymerase III, delta prime subunit



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	98.45Å 106.46Å 535.72Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	100.00 – 3.45 100.00 – 3.45	Depositor EDS
% Data completeness (in resolution range)	(Not available) (100.00-3.45) 97.7 (100.00-3.45)	Depositor EDS
$R_{merge}$	(Not available)	Depositor
$R_{sym}$	0.10	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	2.68 (at 3.49Å)	Xtrriage
Refinement program	CNS	Depositor
R, $R_{free}$	0.315 , 0.350 0.256 , 0.298	Depositor DCC
$R_{free}$ test set	7449 reflections (10.10%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	106.7	Xtrriage
Anisotropy	0.595	Xtrriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.32 , 138.1	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.43$ , $\langle L^2 \rangle = 0.26$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
$F_o, F_c$ correlation	0.92	EDS
Total number of atoms	27736	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	158.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.60% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

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

## 5 Model quality i

### 5.1 Standard geometry i

Bond lengths and bond angles in the following residue types are not validated in this section: PO4, AGS, ZN

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
1	A	0.60	3/2731 (0.1%)	0.88	6/3704 (0.2%)
1	F	0.55	2/2731 (0.1%)	0.73	4/3704 (0.1%)
2	B	0.52	1/2876 (0.0%)	0.81	1/3900 (0.0%)
2	C	0.61	0/2898	0.84	0/3930
2	D	0.63	0/2876	0.93	3/3900 (0.1%)
2	G	0.38	0/2876	0.66	1/3900 (0.0%)
2	H	0.29	0/2898	0.58	0/3930
2	I	0.34	0/2876	0.63	1/3900 (0.0%)
3	E	0.54	2/2662 (0.1%)	0.77	4/3624 (0.1%)
3	J	0.37	0/2662	0.56	1/3624 (0.0%)
All	All	0.50	8/28086 (0.0%)	0.75	21/38116 (0.1%)

All (8) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	F	285	MSE	SE-CE	16.36	2.92	1.95
1	A	286	MSE	C-N	11.64	1.54	1.33
1	F	285	MSE	CG-SE	8.13	2.23	1.95
1	A	286	MSE	CG-SE	-8.08	1.68	1.95
3	E	253	MSE	CG-SE	-6.37	1.73	1.95
1	A	285	MSE	SE-CE	5.65	2.28	1.95
3	E	35	MSE	CG-SE	-5.33	1.77	1.95
2	B	285	MET	SD-CE	5.06	2.06	1.77

All (21) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	285	MSE	CG-SE-CE	-15.68	64.40	98.90
1	A	268	PRO	CA-N-CD	-13.61	92.44	111.50
1	F	283	ARG	CA-C-N	-8.30	99.59	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	D	12	PRO	CA-N-CD	-8.17	100.06	111.50
2	G	12	PRO	CA-N-CD	-7.64	100.81	111.50
1	A	283	ARG	CA-C-N	-7.62	100.95	116.20
2	D	191	LEU	CA-CB-CG	-7.10	98.96	115.30
3	J	202	LEU	CA-CB-CG	6.75	130.81	115.30
3	E	333	HIS	N-CA-C	6.29	127.97	111.00
1	A	285	MSE	CG-SE-CE	-6.12	85.43	98.90
1	F	280	GLN	C-N-CA	6.04	136.81	121.70
2	D	303	GLY	N-CA-C	5.87	127.77	113.10
3	E	286	LEU	N-CA-C	-5.83	95.27	111.00
2	B	363	MET	N-CA-C	5.57	126.04	111.00
1	A	280	GLN	CB-CA-C	-5.41	99.57	110.40
1	A	337	ALA	N-CA-C	5.34	125.42	111.00
2	I	171	LEU	N-CA-C	-5.31	96.67	111.00
3	E	120	LEU	CA-CB-CG	5.24	127.35	115.30
3	E	329	LEU	N-CA-C	5.16	124.92	111.00
1	A	283	ARG	C-N-CA	5.07	132.94	122.30
1	F	281	ASN	N-CA-CB	5.03	119.66	110.60

There are no chirality outliers.

There are no planarity outliers.

## 5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	2687	0	2743	371	0
1	F	2687	0	2737	337	6
2	B	2829	0	2881	302	0
2	C	2850	0	2897	334	0
2	D	2829	0	2879	361	0
2	G	2829	0	2881	274	0
2	H	2850	0	2898	276	0
2	I	2829	0	2877	267	6
3	E	2602	0	2605	304	0
3	J	2602	0	2605	238	0
4	B	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	C	1	0	0	0	0
4	D	1	0	0	0	0
4	E	1	0	0	0	0
4	G	1	0	0	0	0
4	H	1	0	0	0	0
4	I	1	0	0	0	0
4	J	1	0	0	0	0
5	B	31	0	12	4	0
5	D	31	0	12	4	0
5	G	31	0	12	2	0
5	I	31	0	12	27	0
6	C	5	0	0	3	0
6	H	5	0	0	4	0
All	All	27736	0	28051	2798	6

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 50.

All (2798) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:71:MSE:SE	1:F:228:ARG:HA	1.53	1.56
2:H:100:LYS:NZ	2:I:133:ARG:CG	1.68	1.54
2:G:10:TRP:CZ2	2:G:193:GLU:HB3	1.47	1.48
1:A:74:PHE:CZ	1:F:206:VAL:HB	1.49	1.47
2:I:223:GLN:NE2	2:I:240:MET:HE1	1.29	1.46
2:B:285:MET:CE	2:B:285:MET:SD	2.06	1.43
2:G:10:TRP:HZ2	2:G:193:GLU:CB	1.28	1.43
1:A:74:PHE:CD1	1:F:203:GLU:HG3	1.53	1.41
2:I:215:ARG:HD3	5:I:803:AGS:C4'	1.48	1.41
2:I:215:ARG:CD	5:I:803:AGS:H4'	1.52	1.39
2:I:21:GLN:HE22	2:I:176:LYS:N	1.17	1.36
1:A:73:LEU:HB2	1:F:207:ASN:OD1	1.24	1.36
2:I:21:GLN:NE2	2:I:176:LYS:H	1.18	1.35
1:F:285:MSE:SE	1:F:285:MSE:CG	2.23	1.35
2:I:6:LEU:HG	2:I:222:ASP:CG	1.42	1.33
2:I:215:ARG:NH1	5:I:803:AGS:H5'2	1.40	1.33
1:A:285:MSE:CE	1:A:285:MSE:SE	2.28	1.31
2:I:215:ARG:HB2	5:I:803:AGS:C4'	1.59	1.30
1:A:71:MSE:CE	1:F:231:HIS:HB2	1.61	1.29
1:F:45:GLN:OE1	1:F:77:ARG:HD3	1.18	1.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:10:TRP:CZ2	2:G:193:GLU:CB	2.12	1.25
1:A:269:LEU:HG	1:A:273:PHE:CE1	1.76	1.21
1:A:74:PHE:CD1	1:F:203:GLU:CG	2.23	1.20
1:F:273:PHE:CD1	1:F:283:ARG:HG3	1.76	1.20
2:I:215:ARG:CZ	5:I:803:AGS:H5'2	1.69	1.20
2:I:200:PRO:CB	2:I:305:ASP:HB2	1.72	1.20
2:G:6:LEU:HB3	2:G:190:ILE:CG2	1.71	1.19
2:D:184:ARG:HH11	2:D:184:ARG:HG3	1.07	1.19
2:G:20:GLY:HA2	2:G:22:GLU:OE2	1.41	1.19
2:I:215:ARG:CB	5:I:803:AGS:O4'	1.91	1.19
1:A:74:PHE:HZ	1:F:206:VAL:CB	1.55	1.18
2:I:215:ARG:HB2	5:I:803:AGS:O4'	1.02	1.18
2:H:326:GLN:HA	2:H:326:GLN:HE21	1.10	1.17
1:F:273:PHE:CE1	1:F:283:ARG:HG3	1.80	1.16
2:I:200:PRO:HB2	2:I:305:ASP:CB	1.75	1.15
2:B:276:ILE:HD11	2:B:281:LEU:HB2	1.29	1.15
1:A:71:MSE:SE	1:F:228:ARG:CA	2.45	1.15
1:F:47:PHE:HD2	1:F:78:GLN:O	1.29	1.15
2:I:355:ARG:HH21	3:J:332:PRO:HD3	1.09	1.14
2:H:100:LYS:HG2	2:I:133:ARG:HB2	1.20	1.14
2:I:215:ARG:CZ	5:I:803:AGS:C5'	2.26	1.14
2:B:76:CYS:SG	2:B:78:ASN:HB2	1.88	1.13
1:F:244:VAL:HG22	1:F:312:LEU:HD21	1.27	1.12
2:H:229:ASP:OD2	2:I:30:ASN:ND2	1.83	1.11
1:A:105:HIS:CE1	1:A:108:LEU:HB2	1.85	1.10
2:G:6:LEU:HB3	2:G:190:ILE:HG21	1.17	1.10
2:B:360:HIS:CD2	2:B:361:PRO:HD2	1.86	1.09
2:B:360:HIS:HD2	2:B:361:PRO:HD2	1.06	1.09
1:F:223:MSE:HG3	1:F:289:ALA:HA	1.26	1.09
1:A:71:MSE:HE1	1:F:231:HIS:CB	1.83	1.09
3:J:303:VAL:HB	3:J:306:ILE:HD11	1.33	1.09
1:A:336:LEU:H	1:A:336:LEU:HD22	1.17	1.08
2:G:248:GLN:O	2:G:250:LEU:N	1.86	1.08
2:D:265:MET:HE1	2:D:354:LEU:HD21	1.35	1.07
2:H:100:LYS:NZ	2:I:133:ARG:HG3	0.75	1.07
1:A:74:PHE:CZ	1:F:206:VAL:CB	2.32	1.07
1:F:47:PHE:CD2	1:F:78:GLN:O	2.07	1.07
2:I:19:VAL:HG12	2:I:178:LEU:HD22	1.35	1.07
2:G:11:ARG:HH22	2:G:52:THR:HG22	1.16	1.06
1:A:74:PHE:HE2	1:F:206:VAL:HG11	1.20	1.06
1:A:119:LYS:HD3	1:A:119:LYS:H	1.19	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:74:PHE:CE1	1:F:203:GLU:O	2.09	1.05
2:G:7:ALA:CB	2:G:218:LEU:HD13	1.86	1.05
2:G:295:VAL:HG22	2:G:301:ALA:HB3	1.38	1.05
2:D:10:TRP:CE2	2:D:190:ILE:HD12	1.90	1.05
2:G:46:THR:HG22	2:G:47:ARG:H	1.20	1.04
2:C:360:HIS:HD2	2:C:361:PRO:HD2	1.17	1.04
2:C:14:THR:HG22	2:C:15:PHE:H	1.22	1.04
2:H:229:ASP:OD2	2:I:30:ASN:CG	1.96	1.03
1:F:45:GLN:OE1	1:F:77:ARG:CD	2.07	1.02
2:I:215:ARG:NE	5:I:803:AGS:H5'1	1.72	1.02
1:F:166:ALA:HB1	1:F:202:VAL:HG21	1.41	1.02
2:C:254:GLU:O	2:C:258:GLU:HG3	1.58	1.02
2:I:6:LEU:HG	2:I:222:ASP:OD2	1.60	1.01
2:B:360:HIS:HD2	2:B:361:PRO:CD	1.73	1.01
2:D:285:MET:HE3	2:D:353:LEU:HD21	1.40	1.00
1:A:71:MSE:CE	1:F:231:HIS:CB	2.38	1.00
2:H:128:VAL:HG11	2:H:154:LEU:HD22	1.42	1.00
2:G:6:LEU:HD11	2:G:191:LEU:HD21	1.43	1.00
1:A:193:PRO:HG3	2:B:36:ARG:HH22	1.27	1.00
1:F:270:ARG:HG2	1:F:283:ARG:NH2	1.77	1.00
2:B:260:ASN:HD22	2:B:263:ARG:HB2	1.24	0.99
3:J:30:GLN:HG3	3:J:148:PRO:HD3	1.40	0.99
1:F:217:TRP:HE1	1:F:233:LEU:HB2	1.28	0.99
2:I:223:GLN:NE2	2:I:240:MET:CE	2.23	0.99
2:B:36:ARG:CB	2:B:36:ARG:HH11	1.76	0.99
2:I:11:ARG:HH21	2:I:56:ARG:HH21	1.07	0.98
2:G:11:ARG:NH2	2:G:52:THR:HG22	1.77	0.98
2:I:215:ARG:CB	5:I:803:AGS:C4'	2.41	0.98
2:H:360:HIS:HD2	2:H:363:MET:H	1.01	0.97
2:I:271:ALA:HB1	2:I:276:ILE:HD12	1.42	0.97
1:F:24:LEU:HD12	1:F:136:GLN:NE2	1.80	0.97
2:G:7:ALA:HB2	2:G:218:LEU:HD13	1.45	0.97
2:B:260:ASN:ND2	2:B:263:ARG:HB2	1.79	0.97
2:G:11:ARG:HH22	2:G:52:THR:CG2	1.77	0.97
2:I:215:ARG:NE	5:I:803:AGS:C5'	2.28	0.97
2:C:245:ASP:O	2:C:247:ASP:N	1.98	0.96
1:A:73:LEU:CB	1:F:207:ASN:OD1	2.13	0.96
2:G:274:ARG:HE	2:G:276:ILE:HD11	1.30	0.96
2:C:128:VAL:HG11	2:C:154:LEU:HD22	1.46	0.96
1:F:304:LEU:HB3	1:F:327:LEU:HD21	1.47	0.95
1:A:74:PHE:CG	1:F:203:GLU:HG3	2.01	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:98:LEU:O	1:F:101:THR:HG22	1.67	0.95
2:H:80:ARG:O	2:H:84:GLN:HG3	1.66	0.95
1:F:282:ARG:HG3	1:F:285:MSE:CE	1.96	0.95
2:C:360:HIS:CD2	2:C:361:PRO:HD2	2.02	0.94
2:D:363:MET:HB3	2:D:364:PRO:HD2	1.49	0.94
2:G:248:GLN:O	2:G:251:SER:N	2.00	0.94
2:D:265:MET:CE	2:D:354:LEU:HD21	1.97	0.94
2:I:223:GLN:CD	2:I:240:MET:HE1	1.87	0.94
1:A:183:GLN:HE21	2:B:172:GLN:H	1.05	0.94
2:B:309:ILE:HG22	2:B:313:MET:HG2	1.50	0.94
2:I:215:ARG:HD3	5:I:803:AGS:C5'	1.97	0.94
3:J:117:ALA:O	3:J:120:LEU:HD22	1.66	0.94
1:A:251:GLN:HE21	1:A:255:LEU:HD11	1.33	0.94
2:H:100:LYS:HZ1	2:I:133:ARG:HG3	1.23	0.94
3:E:303:VAL:HB	3:E:306:ILE:HD11	1.49	0.94
1:A:74:PHE:CE2	1:F:206:VAL:CG1	2.50	0.93
1:A:253:GLU:OE1	1:A:286:MSE:HE1	1.68	0.93
1:F:119:LYS:HD3	1:F:119:LYS:H	1.30	0.93
1:A:74:PHE:CE2	1:F:206:VAL:HG11	2.03	0.93
1:F:299:ARG:HG3	3:J:317:LEU:HD11	1.48	0.93
3:J:253:MSE:HG3	3:J:257:LYS:HE3	1.50	0.93
1:F:270:ARG:HG2	1:F:283:ARG:HH21	1.32	0.93
2:I:215:ARG:CD	5:I:803:AGS:C5'	2.46	0.93
3:J:49:LEU:HD23	3:J:68:MSE:SE	2.20	0.92
3:E:74:PRO:HB3	3:E:105:ARG:HD3	1.51	0.92
1:F:222:LEU:CD1	1:F:285:MSE:HE3	1.99	0.92
1:A:93:ILE:HG12	1:A:96:GLN:OE1	1.69	0.92
2:C:263:ARG:O	2:C:267:LEU:HG	1.70	0.92
2:D:10:TRP:NE1	2:D:190:ILE:HG23	1.84	0.91
1:F:71:MSE:SE	1:F:80:LEU:HD12	2.20	0.91
3:J:46:ARG:CZ	3:J:68:MSE:HG3	2.01	0.91
2:C:243:THR:HG22	2:C:244:LEU:N	1.83	0.91
2:C:343:PRO:O	2:C:344:ASP:HB2	1.68	0.91
2:G:10:TRP:HZ2	2:G:193:GLU:HB3	0.75	0.91
2:I:363:MET:HB3	2:I:364:PRO:HD2	1.53	0.91
3:J:296:ILE:HG21	3:J:315:LEU:HD12	1.53	0.91
2:G:248:GLN:HA	2:G:251:SER:OG	1.69	0.91
2:B:343:PRO:HG2	2:B:347:MET:SD	2.11	0.90
2:G:291:ARG:NH2	2:G:303:GLY:H	1.67	0.90
3:J:4:TYR:H	3:J:7:LEU:HD12	1.33	0.90
1:F:24:LEU:HD12	1:F:136:GLN:HE21	1.34	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:184:ARG:HD3	2:D:185:HIS:N	1.85	0.90
1:F:80:LEU:HD13	1:F:80:LEU:H	1.37	0.90
1:F:48:GLU:OE2	1:F:74:PHE:HZ	1.53	0.90
1:F:71:MSE:HB3	1:F:108:LEU:HD13	1.54	0.90
2:G:6:LEU:HD21	2:G:196:ILE:HD12	1.54	0.90
3:E:296:ILE:HA	3:E:299:GLN:HG3	1.53	0.90
2:I:6:LEU:CG	2:I:222:ASP:CG	2.37	0.89
1:A:150:TRP:CH2	1:A:178:LEU:HD11	2.08	0.89
2:B:351:MET:HE3	2:C:290:HIS:HA	1.54	0.89
2:C:243:THR:CG2	2:C:244:LEU:N	2.33	0.89
2:D:357:LEU:HA	2:D:363:MET:HE3	1.51	0.89
2:I:354:LEU:HD12	3:J:253:MSE:HE1	1.53	0.89
2:C:316:LEU:HD22	2:C:320:ILE:HD11	1.53	0.89
2:D:10:TRP:CD2	2:D:190:ILE:HD12	2.07	0.89
1:A:336:LEU:HD22	1:A:336:LEU:N	1.86	0.89
1:A:125:ALA:O	1:A:128:THR:HG23	1.71	0.88
1:A:147:LEU:HB3	1:A:148:PRO:HD3	1.55	0.88
3:E:79:LEU:HD11	3:E:96:VAL:HG11	1.54	0.88
3:E:121:THR:HG22	3:E:123:ALA:H	1.39	0.88
2:G:11:ARG:HH21	2:G:56:ARG:NH2	1.72	0.88
2:G:10:TRP:HZ2	2:G:193:GLU:HB2	1.34	0.88
1:A:73:LEU:HB2	1:F:207:ASN:CG	1.92	0.88
2:D:108:LEU:O	2:D:111:VAL:HG23	1.73	0.88
1:F:295:GLN:CD	1:F:295:GLN:H	1.75	0.87
2:C:156:THR:HG22	2:C:158:ASP:H	1.37	0.87
2:G:11:ARG:NH2	2:G:56:ARG:NH2	2.23	0.87
2:D:184:ARG:HH11	2:D:184:ARG:CG	1.88	0.87
1:F:48:GLU:HG2	1:F:49:GLU:N	1.88	0.87
2:I:215:ARG:CD	5:I:803:AGS:C4'	2.27	0.87
2:B:44:SER:CB	2:B:159:PRO:HG2	2.05	0.87
1:F:27:ASP:OD2	1:F:30:LEU:HG	1.75	0.87
1:A:281:ASN:O	1:A:283:ARG:N	2.08	0.86
3:E:58:SER:HB3	3:E:65:CYS:SG	2.16	0.86
2:H:261:GLY:HA3	2:I:297:LEU:HD11	1.58	0.86
1:A:74:PHE:CE1	1:F:203:GLU:HG3	2.09	0.86
1:A:74:PHE:HE1	1:F:203:GLU:O	1.58	0.86
2:G:268:ILE:HD11	2:G:353:LEU:HD12	1.56	0.86
2:I:244:LEU:HD11	2:I:276:ILE:HD13	1.58	0.86
2:C:243:THR:CG2	2:C:244:LEU:H	1.88	0.85
2:B:257:VAL:HG11	2:B:320:ILE:HD13	1.58	0.85
2:I:20:GLY:HA2	2:I:22:GLU:OE2	1.76	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:100:LYS:HZ2	2:I:133:ARG:HG3	1.10	0.85
2:B:198:HIS:CD2	2:B:203:LEU:HD11	2.11	0.85
3:J:31:ALA:HB2	3:J:164:LEU:HB3	1.59	0.85
1:A:71:MSE:HE1	1:F:231:HIS:HB2	0.89	0.85
1:A:269:LEU:HG	1:A:273:PHE:HE1	1.42	0.85
3:E:186:ALA:HA	3:E:269:ASP:OD1	1.77	0.85
2:H:326:GLN:HA	2:H:326:GLN:NE2	1.91	0.85
2:H:291:ARG:HA	2:H:294:MET:HB2	1.58	0.85
2:C:198:HIS:HB2	2:C:232:VAL:HG22	1.57	0.85
1:A:1:MSE:HE1	1:A:127:PHE:CZ	2.11	0.85
2:I:248:GLN:HG3	2:I:274:ARG:HH22	1.39	0.85
2:H:88:VAL:HG11	2:H:116:ALA:HB3	1.58	0.84
2:D:363:MET:CB	2:D:364:PRO:HD2	2.05	0.84
1:A:183:GLN:NE2	2:B:172:GLN:H	1.76	0.84
2:G:10:TRP:CZ2	2:G:193:GLU:HB2	2.07	0.84
2:C:259:ALA:HB2	2:C:360:HIS:CE1	2.12	0.84
2:I:215:ARG:CG	5:I:803:AGS:H4'	2.07	0.84
1:A:74:PHE:CD1	1:F:207:ASN:OD1	2.07	0.84
2:H:367:GLU:HG3	2:I:321:PRO:HA	1.58	0.84
2:B:165:THR:O	2:B:168:SER:HB3	1.77	0.84
2:D:354:LEU:HD13	3:E:253:MSE:HE1	1.59	0.84
2:H:201:ARG:HD2	2:H:246:ASP:OD2	1.77	0.84
2:I:11:ARG:HH21	2:I:56:ARG:NH2	1.75	0.84
1:F:273:PHE:CE1	1:F:283:ARG:CG	2.61	0.84
1:A:133:ARG:HH21	2:G:300:ALA:CB	1.90	0.83
2:C:200:PRO:HG2	2:C:305:ASP:OD2	1.77	0.83
2:H:360:HIS:CD2	2:H:363:MET:H	1.93	0.83
2:B:351:MET:SD	2:C:326:GLN:NE2	2.49	0.83
2:I:355:ARG:NH2	3:J:332:PRO:HD3	1.93	0.83
1:A:214:PRO:HA	1:A:236:LEU:HD11	1.60	0.83
2:D:306:MET:HG2	2:D:309:ILE:HD11	1.61	0.83
2:D:184:ARG:HG3	2:D:184:ARG:NH1	1.83	0.83
2:H:24:VAL:HG11	2:H:175:LEU:HD21	1.60	0.83
3:E:333:HIS:O	3:E:334:LEU:HB2	1.78	0.83
3:J:317:LEU:HD13	3:J:318:ARG:N	1.93	0.83
3:J:68:MSE:HA	3:J:68:MSE:HE3	1.60	0.83
3:J:230:TYR:HE1	3:J:313:THR:HG23	1.42	0.83
2:D:223:GLN:HB3	2:D:240:MET:HE1	1.60	0.83
2:D:257:VAL:HG11	2:D:320:ILE:HG12	1.60	0.83
3:E:30:GLN:CG	3:E:163:TYR:HD1	1.93	0.82
2:H:100:LYS:NZ	2:I:133:ARG:CB	2.42	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:215:ARG:CZ	5:I:803:AGS:H5'1	2.02	0.82
1:F:282:ARG:HG3	1:F:285:MSE:HE1	1.59	0.82
2:H:339:LEU:HB3	2:H:340:PRO:HD3	1.59	0.82
3:E:30:GLN:HG2	3:E:163:TYR:HD1	1.44	0.82
2:B:261:GLY:HA3	2:C:297:LEU:HD11	1.61	0.82
2:D:223:GLN:HB3	2:D:240:MET:CE	2.10	0.82
2:G:19:VAL:HG21	2:G:186:GLN:OE1	1.80	0.82
3:E:169:GLU:O	3:E:173:VAL:HG23	1.78	0.82
2:H:84:GLN:O	2:I:144:GLU:OE2	1.98	0.81
2:C:197:ALA:O	2:C:198:HIS:HB3	1.80	0.81
2:I:244:LEU:HD21	2:I:276:ILE:HG12	1.61	0.81
1:A:74:PHE:HZ	1:F:206:VAL:HB	0.75	0.81
1:A:262:ARG:NH2	3:E:320:GLU:OE2	2.13	0.81
2:C:119:ARG:HB2	2:C:120:PHE:CD2	2.15	0.81
2:D:358:ALA:O	2:D:360:HIS:N	2.10	0.81
1:A:193:PRO:HD3	2:B:30:ASN:HD21	1.45	0.81
1:F:304:LEU:HD13	1:F:327:LEU:HD22	1.61	0.81
2:G:6:LEU:HD11	2:G:191:LEU:CD2	2.10	0.81
2:G:250:LEU:HD23	2:G:288:LEU:HD13	1.61	0.81
2:C:268:ILE:HD11	2:C:353:LEU:HD12	1.63	0.81
2:D:42:LEU:HD23	2:D:154:LEU:HB2	1.62	0.81
1:F:282:ARG:CG	1:F:285:MSE:CE	2.58	0.81
1:F:253:GLU:O	1:F:256:LEU:HB3	1.81	0.81
2:G:291:ARG:HH21	2:G:303:GLY:H	1.27	0.81
2:I:6:LEU:CG	2:I:222:ASP:OD2	2.22	0.81
1:A:150:TRP:CZ2	1:A:178:LEU:HD11	2.16	0.80
2:G:20:GLY:CA	2:G:22:GLU:OE2	2.28	0.80
2:D:229:ASP:O	2:D:231:GLN:N	2.12	0.80
2:I:246:ASP:HB3	2:I:248:GLN:HG2	1.63	0.80
1:A:208:ASP:O	2:B:176:LYS:HE2	1.80	0.80
2:G:98:ARG:HH11	2:H:140:LEU:HD22	1.46	0.80
1:A:25:GLY:HA3	1:A:139:CYS:O	1.82	0.80
3:J:35:MSE:HE3	3:J:198:PRO:HD2	1.64	0.80
2:B:302:LEU:HD12	2:B:314:ARG:HH21	1.47	0.80
2:C:128:VAL:HG23	2:C:162:LEU:HD21	1.63	0.80
2:D:10:TRP:CD2	2:D:190:ILE:CD1	2.65	0.80
2:I:223:GLN:CD	2:I:240:MET:CE	2.49	0.80
2:C:236:ALA:O	2:C:239:ALA:HB3	1.81	0.80
2:G:248:GLN:O	2:G:249:ALA:C	2.18	0.80
2:C:14:THR:HG22	2:C:15:PHE:N	1.98	0.79
2:G:271:ALA:HB1	2:G:276:ILE:HD12	1.62	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:259:ALA:HB2	2:B:360:HIS:CE1	2.17	0.79
1:F:223:MSE:HG3	1:F:289:ALA:CA	2.12	0.79
1:F:223:MSE:HE1	1:F:292:ARG:HB2	1.65	0.79
1:A:234:GLN:HA	1:A:237:ARG:HE	1.48	0.79
2:B:248:GLN:HA	2:B:251:SER:HB2	1.64	0.79
1:F:119:LYS:HD3	1:F:119:LYS:N	1.97	0.79
1:A:71:MSE:HE3	1:F:231:HIS:CG	2.17	0.79
2:B:351:MET:CE	2:C:290:HIS:HA	2.12	0.79
3:E:161:LEU:HD12	3:E:161:LEU:H	1.45	0.79
2:H:295:VAL:HG22	2:H:301:ALA:HB3	1.65	0.79
1:A:74:PHE:CZ	1:F:203:GLU:O	2.35	0.79
1:F:142:PRO:HD2	1:F:178:LEU:HD11	1.63	0.79
2:I:215:ARG:NH1	5:I:803:AGS:C5'	2.34	0.79
1:A:105:HIS:HB3	1:F:227:LYS:HD3	1.65	0.79
2:H:42:LEU:HD23	2:H:172:GLN:HG2	1.63	0.79
2:I:223:GLN:HE21	2:I:240:MET:HE1	1.48	0.79
2:B:61:GLY:HA2	2:B:72:PRO:HG3	1.65	0.79
2:G:98:ARG:HD3	2:H:140:LEU:HB3	1.65	0.79
1:A:59:THR:HG22	1:A:60:ASP:N	1.98	0.79
1:A:219:ASP:O	1:A:222:LEU:HB2	1.83	0.79
2:B:140:LEU:HA	2:B:143:LEU:HD22	1.65	0.79
1:A:91:ALA:HA	1:A:94:ASN:ND2	1.98	0.78
2:H:341:TYR:CE2	2:I:337:LYS:HB2	2.18	0.78
3:J:58:SER:HB3	3:J:65:CYS:SG	2.24	0.78
2:G:11:ARG:HH21	2:G:56:ARG:CZ	1.96	0.78
1:F:144:GLN:HG3	1:F:280:GLN:CD	2.04	0.78
2:G:271:ALA:O	2:G:274:ARG:HG2	1.83	0.78
2:B:215:ARG:HD3	5:B:802:AGS:H5'1	1.66	0.78
2:G:239:ALA:HB1	2:H:23:HIS:NE2	1.98	0.78
2:B:42:LEU:HB2	2:B:170:CYS:SG	2.23	0.78
1:F:48:GLU:OE2	1:F:74:PHE:CZ	2.36	0.78
1:F:104:LEU:HB3	1:F:133:ARG:NH1	1.99	0.78
2:G:248:GLN:HA	2:G:251:SER:CB	2.14	0.78
3:E:218:GLN:O	3:E:221:ALA:HB3	1.84	0.78
2:H:100:LYS:CG	2:I:133:ARG:HB2	2.06	0.78
1:F:198:THR:HB	1:F:200:PRO:HD2	1.66	0.78
2:H:113:TYR:HA	2:H:149:HIS:CE1	2.19	0.78
1:F:222:LEU:HD12	1:F:285:MSE:HE3	1.66	0.78
1:F:187:ARG:O	1:F:191:LEU:HD23	1.84	0.77
1:F:282:ARG:HG3	1:F:285:MSE:HE2	1.64	0.77
2:I:6:LEU:HG	2:I:222:ASP:OD1	1.85	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:97:SER:OG	2:C:100:LYS:HD2	1.84	0.77
2:H:137:ASN:HA	2:H:140:LEU:HD12	1.66	0.77
2:I:355:ARG:HH21	3:J:332:PRO:CD	1.96	0.77
2:B:156:THR:HG23	2:B:159:PRO:HG3	1.65	0.77
1:A:193:PRO:CD	2:B:30:ASN:HD21	1.98	0.77
2:B:344:ASP:OD2	2:B:344:ASP:C	2.20	0.77
2:G:341:TYR:O	2:H:333:LEU:HD11	1.85	0.77
2:I:363:MET:CB	2:I:364:PRO:HD2	2.15	0.77
2:B:263:ARG:HG2	2:B:267:LEU:HD13	1.65	0.77
1:F:242:GLU:O	1:F:245:ILE:HG22	1.84	0.77
2:C:287:GLY:O	2:C:290:HIS:HB3	1.83	0.77
2:G:98:ARG:HD3	2:H:140:LEU:HD13	1.67	0.77
2:D:197:ALA:HB3	2:D:231:GLN:HG2	1.67	0.76
2:I:61:GLY:HA2	2:I:72:PRO:HG3	1.66	0.76
3:E:283:PRO:HG2	3:E:284:SER:H	1.50	0.76
1:F:1:MSE:HE1	1:F:127:PHE:CZ	2.20	0.76
2:I:215:ARG:HH11	5:I:803:AGS:H5'2	1.44	0.76
1:A:63:ALA:O	1:A:67:LEU:HG	1.85	0.76
1:A:74:PHE:CE1	1:F:203:GLU:CG	2.66	0.76
1:F:213:THR:H	1:F:216:HIS:HD2	1.33	0.76
2:D:10:TRP:CE2	2:D:190:ILE:HG23	2.21	0.76
2:H:100:LYS:HG2	2:I:133:ARG:CB	2.09	0.76
3:E:158:ARG:HH11	3:E:158:ARG:HG3	1.49	0.76
2:H:11:ARG:HH12	2:I:169:ARG:HH12	1.28	0.76
2:H:136:PHE:O	2:H:140:LEU:HG	1.84	0.76
2:I:348:GLY:O	2:I:351:MET:HB2	1.86	0.76
2:B:36:ARG:HH11	2:B:36:ARG:HB3	1.49	0.76
2:G:46:THR:HG22	2:G:47:ARG:N	2.00	0.76
2:H:179:ASP:HB3	2:H:182:GLN:HB2	1.67	0.76
1:A:74:PHE:CD1	1:F:203:GLU:HG2	2.20	0.75
2:H:359:PHE:CE1	2:I:323:THR:HG23	2.20	0.75
2:H:11:ARG:HH12	2:I:169:ARG:NH1	1.85	0.75
1:A:74:PHE:CZ	1:F:206:VAL:CG1	2.66	0.75
2:C:95:ALA:HB3	2:C:127:GLU:O	1.87	0.75
1:F:304:LEU:HB2	1:F:327:LEU:HD11	1.68	0.75
2:I:201:ARG:NH2	2:I:284:GLU:OE2	2.19	0.75
2:C:37:ILE:HD13	2:C:120:PHE:CE1	2.20	0.75
2:D:259:ALA:CB	2:D:363:MET:HG2	2.15	0.75
1:F:310:LEU:HB3	1:F:314:GLN:NE2	2.01	0.75
2:I:248:GLN:HG3	2:I:274:ARG:NH2	2.01	0.75
1:F:248:ARG:HH21	1:F:309:GLU:CD	1.89	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:198:THR:HB	1:A:200:PRO:HD2	1.69	0.75
1:F:80:LEU:HD13	1:F:80:LEU:N	2.01	0.75
1:A:71:MSE:CE	1:F:231:HIS:CG	2.69	0.75
1:A:133:ARG:HH21	2:G:300:ALA:HB2	1.51	0.75
1:A:190:LEU:HD21	2:B:38:HIS:CE1	2.21	0.75
1:A:281:ASN:C	1:A:283:ARG:H	1.89	0.75
2:B:76:CYS:SG	2:B:78:ASN:CB	2.73	0.75
3:E:246:HIS:O	3:E:250:THR:HG23	1.86	0.75
2:B:81:GLU:HB2	2:B:87:PHE:HD1	1.50	0.74
2:G:6:LEU:HB3	2:G:190:ILE:HG22	1.68	0.74
2:I:257:VAL:O	2:I:360:HIS:HE1	1.70	0.74
1:A:279:TRP:CG	1:A:279:TRP:O	2.40	0.74
3:J:57:LYS:HG3	3:J:58:SER:H	1.52	0.74
3:J:303:VAL:HB	3:J:306:ILE:CD1	2.14	0.74
2:C:147:PRO:HG2	2:C:150:VAL:HB	1.69	0.74
2:G:11:ARG:NH2	2:G:56:ARG:HH21	1.84	0.74
2:D:78:ASN:O	2:D:82:ILE:HG13	1.85	0.74
2:D:354:LEU:CD1	3:E:253:MSE:HE1	2.17	0.74
2:C:42:LEU:HD12	2:C:154:LEU:HB2	1.69	0.74
2:C:119:ARG:HB2	2:C:120:PHE:HD2	1.51	0.74
2:D:119:ARG:HG3	2:D:120:PHE:CD2	2.21	0.74
1:F:13:LEU:HD23	1:F:41:VAL:HG21	1.68	0.74
2:H:202:ALA:HB2	2:H:234:THR:HG23	1.70	0.74
1:F:53:PHE:HZ	1:F:67:LEU:HD13	1.52	0.74
1:F:188:LEU:HD23	1:F:197:LEU:HD13	1.70	0.74
2:H:271:ALA:O	2:H:274:ARG:HG2	1.88	0.74
1:A:52:THR:HG22	1:A:81:LEU:HB3	1.69	0.74
1:A:55:ILE:O	1:A:85:PRO:HG3	1.88	0.74
3:E:292:ASP:OD2	3:E:318:ARG:NH1	2.19	0.74
2:G:274:ARG:NE	2:G:276:ILE:HD11	2.01	0.74
1:A:263:GLN:HB2	1:A:272:LEU:HD21	1.70	0.73
1:F:213:THR:H	1:F:216:HIS:CD2	2.05	0.73
2:B:304:ASN:OD1	2:B:305:ASP:N	2.21	0.73
2:G:67:GLY:HA2	2:G:119:ARG:NH2	2.03	0.73
2:I:148:GLU:CD	2:I:149:HIS:H	1.90	0.73
1:A:260:LEU:HB3	1:A:290:LEU:HD11	1.70	0.73
1:A:272:LEU:O	1:A:275:LYS:HB2	1.88	0.73
1:A:269:LEU:HD11	1:A:273:PHE:CZ	2.23	0.73
2:D:10:TRP:CE2	2:D:190:ILE:CD1	2.70	0.73
1:F:217:TRP:NE1	1:F:233:LEU:HB2	2.00	0.73
1:F:310:LEU:O	1:F:314:GLN:HG3	1.88	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:244:LEU:O	2:B:245:ASP:HB3	1.86	0.73
2:C:343:PRO:O	2:C:344:ASP:CB	2.36	0.73
1:F:281:ASN:O	1:F:283:ARG:N	2.22	0.73
2:G:214:LEU:HD23	5:G:804:AGS:N9	2.03	0.73
1:A:184:ALA:HA	1:A:187:ARG:HD2	1.71	0.73
2:D:363:MET:HB3	2:D:364:PRO:CD	2.18	0.73
2:I:248:GLN:HE21	2:I:248:GLN:HA	1.52	0.73
1:F:279:TRP:CG	1:F:279:TRP:O	2.42	0.73
1:A:251:GLN:NE2	1:A:255:LEU:HD11	2.04	0.73
1:F:282:ARG:CG	1:F:285:MSE:HE2	2.17	0.73
2:G:243:THR:HG21	2:G:274:ARG:HD2	1.69	0.73
2:D:246:ASP:HB3	2:D:248:GLN:HE21	1.54	0.73
2:B:156:THR:CG2	2:B:159:PRO:HG3	2.19	0.72
2:I:215:ARG:HD3	5:I:803:AGS:H4'	0.74	0.72
2:D:248:GLN:O	2:D:252:LEU:HB2	1.90	0.72
2:D:357:LEU:HA	2:D:363:MET:CE	2.18	0.72
2:H:271:ALA:HA	2:H:274:ARG:NE	2.04	0.72
2:I:354:LEU:CD1	3:J:253:MSE:HE1	2.18	0.72
1:A:164:ASP:O	1:A:168:GLN:HG3	1.89	0.72
1:A:269:LEU:HG	1:A:273:PHE:CZ	2.24	0.72
3:E:222:TYR:O	3:E:225:PRO:HD2	1.89	0.72
2:I:7:ALA:HB1	2:I:215:ARG:HG3	1.70	0.72
3:J:121:THR:HG22	3:J:123:ALA:H	1.54	0.72
2:D:315:GLU:O	2:D:319:THR:HG23	1.89	0.72
2:I:6:LEU:HB3	2:I:218:LEU:HB3	1.72	0.72
2:D:276:ILE:HG22	2:D:277:GLU:N	2.05	0.72
2:H:327:LEU:HD21	2:H:361:PRO:HD3	1.70	0.72
1:A:27:ASP:OD1	1:A:29:LEU:HD23	1.90	0.72
2:D:295:VAL:HA	2:D:301:ALA:HB3	1.71	0.72
1:F:80:LEU:HD11	1:F:108:LEU:HD12	1.71	0.72
3:J:230:TYR:CE1	3:J:313:THR:HG23	2.24	0.72
2:G:6:LEU:HD21	2:G:191:LEU:HD23	1.72	0.71
2:H:100:LYS:HE2	2:I:133:ARG:HA	1.72	0.71
1:A:269:LEU:CG	1:A:273:PHE:CE1	2.67	0.71
2:C:243:THR:HG23	2:C:244:LEU:H	1.53	0.71
2:D:9:LYS:NZ	2:D:194:GLU:OE2	2.22	0.71
2:G:10:TRP:CD1	2:G:190:ILE:HG23	2.25	0.71
2:B:56:ARG:HH11	2:B:56:ARG:HG3	1.55	0.71
3:E:253:MSE:HA	3:E:253:MSE:HE3	1.72	0.71
2:I:354:LEU:HD13	3:J:256:LEU:HD22	1.73	0.71
3:J:116:ASP:HA	3:J:144:ALA:O	1.90	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:278:TRP:O	2:B:281:LEU:N	2.24	0.71
2:B:328:TYR:O	2:B:329:TYR:C	2.27	0.71
2:D:25:LEU:HD21	2:D:54:ILE:CD1	2.20	0.71
2:D:150:VAL:O	2:D:151:LYS:HD3	1.90	0.71
2:B:36:ARG:HH11	2:B:36:ARG:HB2	1.55	0.71
2:C:86:ARG:HH12	2:D:141:LYS:HG3	1.55	0.71
2:C:133:ARG:HD3	2:C:133:ARG:N	2.05	0.71
3:E:233:LEU:HD12	3:E:237:ASN:HB2	1.72	0.71
1:F:165:ALA:O	1:F:169:VAL:HG23	1.91	0.71
2:H:213:SER:OG	2:H:216:ASP:HB2	1.91	0.71
1:A:34:SER:O	1:A:38:VAL:HG23	1.90	0.71
2:C:259:ALA:HB2	2:C:360:HIS:ND1	2.05	0.71
2:I:292:ILE:O	2:I:296:GLN:HG3	1.90	0.71
2:G:355:ARG:HD2	2:G:355:ARG:C	2.12	0.70
1:A:181:LEU:O	1:A:185:LEU:HG	1.91	0.70
2:D:10:TRP:NE1	2:D:190:ILE:HD12	2.06	0.70
3:E:237:ASN:O	3:E:238:HIS:HB2	1.91	0.70
1:F:299:ARG:HG3	3:J:317:LEU:CD1	2.20	0.70
3:E:181:THR:O	3:E:182:MSE:HG2	1.91	0.70
2:D:32:LEU:O	2:D:34:LEU:N	2.24	0.70
1:A:308:THR:HG23	1:A:320:VAL:HG22	1.73	0.70
2:I:6:LEU:HD12	2:I:218:LEU:O	1.90	0.70
3:J:41:ILE:HG21	3:J:113:TRP:CD1	2.26	0.70
1:A:140:GLN:OE1	1:A:140:GLN:HA	1.91	0.70
2:C:261:GLY:HA3	2:D:297:LEU:HD21	1.71	0.70
2:C:323:THR:HG22	2:C:324:ASP:N	2.06	0.70
1:F:281:ASN:C	1:F:283:ARG:H	1.95	0.70
2:G:302:LEU:HD13	2:G:310:GLU:HG2	1.73	0.70
3:J:273:LEU:O	3:J:277:LEU:HB2	1.91	0.70
1:A:71:MSE:SE	1:F:231:HIS:CB	2.90	0.70
3:E:163:TYR:CD2	3:E:165:ALA:HB2	2.26	0.70
1:F:48:GLU:HG2	1:F:49:GLU:H	1.56	0.70
1:F:84:LEU:HG	1:F:89:PRO:HG3	1.74	0.70
2:G:9:LYS:HD3	2:G:194:GLU:CD	2.12	0.70
1:A:221:LEU:HD21	1:A:328:SER:CB	2.22	0.70
1:F:25:GLY:HA2	1:F:140:GLN:NE2	2.07	0.70
3:J:252:LEU:HD23	3:J:290:LEU:HA	1.74	0.70
2:C:361:PRO:O	2:C:362:ARG:HD3	1.92	0.70
1:A:281:ASN:C	1:A:283:ARG:N	2.45	0.69
3:E:74:PRO:HB3	3:E:105:ARG:CD	2.19	0.69
3:E:26:ALA:HB1	3:E:159:CYS:HB3	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:200:PRO:HG2	2:H:305:ASP:OD2	1.92	0.69
3:J:117:ALA:HB3	3:J:145:THR:OG1	1.92	0.69
1:A:270:ARG:HG2	1:A:283:ARG:NH2	2.07	0.69
2:B:354:LEU:HD11	2:C:294:MET:HG2	1.75	0.69
2:C:186:GLN:OE1	2:C:186:GLN:HA	1.91	0.69
2:I:6:LEU:HD12	2:I:221:THR:HB	1.73	0.69
2:B:333:LEU:HD11	2:B:337:LYS:HE3	1.75	0.69
2:C:360:HIS:HD2	2:C:361:PRO:CD	1.98	0.69
1:F:299:ARG:CG	3:J:317:LEU:HD11	2.21	0.69
2:C:186:GLN:HG3	2:C:190:ILE:HD11	1.73	0.69
2:D:148:GLU:CD	2:D:149:HIS:H	1.95	0.69
3:E:238:HIS:ND1	3:E:239:GLU:N	2.41	0.69
2:I:144:GLU:C	2:I:146:PRO:HD3	2.13	0.69
3:J:51:GLN:HG2	3:J:62:CYS:SG	2.32	0.69
2:B:78:ASN:HA	2:B:87:PHE:CE1	2.28	0.69
2:C:28:LEU:HD21	2:C:173:PHE:CE2	2.28	0.69
3:E:29:ILE:HD13	3:E:41:ILE:HD11	1.73	0.69
2:I:113:TYR:HD2	2:I:147:PRO:HB3	1.56	0.69
2:B:44:SER:HB2	2:B:159:PRO:HG2	1.74	0.69
1:F:218:VAL:O	1:F:222:LEU:HG	1.92	0.69
2:G:220:LEU:HD23	2:G:223:GLN:HE21	1.58	0.69
2:H:287:GLY:O	2:H:290:HIS:HB3	1.92	0.69
1:A:183:GLN:HE21	2:B:172:GLN:N	1.87	0.69
2:D:183:ILE:HG23	2:D:214:LEU:HD12	1.72	0.69
1:F:25:GLY:O	1:F:115:ASN:HA	1.91	0.69
1:F:144:GLN:HG3	1:F:280:GLN:OE1	1.92	0.69
1:F:247:LEU:HD21	1:F:308:THR:HG21	1.75	0.69
2:G:248:GLN:C	2:G:250:LEU:N	2.44	0.69
2:H:112:GLN:HB2	2:H:121:LYS:NZ	2.07	0.69
1:A:253:GLU:OE1	1:A:286:MSE:CE	2.39	0.69
2:D:366:PRO:HB3	3:E:282:SER:HB2	1.74	0.69
1:F:80:LEU:HD11	1:F:108:LEU:CD1	2.23	0.68
2:G:277:GLU:HG3	2:G:280:ALA:H	1.57	0.68
2:I:10:TRP:HB2	2:I:218:LEU:HD13	1.74	0.68
3:J:45:SER:O	3:J:49:LEU:HB2	1.93	0.68
2:B:360:HIS:CD2	2:B:361:PRO:CD	2.62	0.68
3:E:74:PRO:HD2	3:E:106:LEU:HD11	1.75	0.68
3:E:225:PRO:HA	3:E:280:HIS:ND1	2.08	0.68
2:H:142:THR:O	2:H:146:PRO:HB3	1.92	0.68
1:A:55:ILE:HD12	1:A:84:LEU:HD12	1.75	0.68
2:H:88:VAL:CG1	2:H:116:ALA:HB3	2.22	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:242:GLY:HA3	2:H:277:GLU:HG2	1.74	0.68
1:A:193:PRO:HD3	2:B:30:ASN:ND2	2.07	0.68
3:E:179:GLU:O	3:E:180:VAL:HG23	1.94	0.68
2:C:327:LEU:HD12	2:C:327:LEU:O	1.94	0.68
2:G:220:LEU:HD23	2:G:223:GLN:NE2	2.08	0.68
3:J:256:LEU:HD11	3:J:287:GLN:HG2	1.74	0.68
1:A:154:ARG:O	1:A:157:GLN:HG2	1.94	0.68
1:F:285:MSE:SE	1:F:285:MSE:CE	2.92	0.68
2:C:14:THR:CG2	2:C:15:PHE:H	2.04	0.68
1:F:54:SER:O	1:F:57:PRO:HD2	1.94	0.68
2:G:178:LEU:HD22	2:G:182:GLN:HE21	1.59	0.68
2:D:184:ARG:CG	2:D:184:ARG:NH1	2.48	0.68
2:D:196:ILE:HG22	2:D:197:ALA:N	2.09	0.68
2:D:296:GLN:HE22	2:D:322:PRO:HA	1.57	0.68
3:E:289:ILE:HG23	3:E:319:ILE:HD13	1.75	0.68
1:F:158:LEU:O	1:F:160:LEU:HD13	1.93	0.68
2:G:7:ALA:HB2	2:G:218:LEU:CD1	2.23	0.68
1:F:225:LYS:HG3	1:F:227:LYS:H	1.59	0.68
2:G:9:LYS:CD	2:G:194:GLU:OE1	2.42	0.68
2:G:278:TRP:HE3	2:G:349:VAL:HG21	1.58	0.68
2:G:291:ARG:NH2	2:G:303:GLY:N	2.40	0.68
2:I:208:ARG:NH2	2:I:283:VAL:HG11	2.08	0.68
1:A:214:PRO:HB3	1:A:246:LEU:HD22	1.75	0.67
2:C:198:HIS:CB	2:C:232:VAL:HG22	2.24	0.67
2:C:291:ARG:O	2:C:295:VAL:HG23	1.94	0.67
2:C:329:TYR:CE2	2:C:333:LEU:HD12	2.30	0.67
1:A:17:LEU:HD21	1:A:109:LEU:HD12	1.76	0.67
2:B:61:GLY:CA	2:B:72:PRO:HG3	2.24	0.67
3:J:297:ARG:NH1	3:J:301:MSE:SE	2.78	0.67
1:A:25:GLY:O	1:A:115:ASN:HA	1.94	0.67
2:D:24:VAL:O	2:D:26:THR:N	2.27	0.67
3:E:125:ALA:O	3:E:128:LEU:N	2.26	0.67
2:H:249:ALA:O	2:H:253:VAL:HG23	1.94	0.67
2:I:260:ASN:O	2:I:262:GLU:N	2.28	0.67
1:A:234:GLN:HB3	1:A:237:ARG:HH21	1.58	0.67
1:A:263:GLN:OE1	1:A:272:LEU:HD11	1.93	0.67
2:B:302:LEU:HD12	2:B:314:ARG:NH2	2.09	0.67
2:C:184:ARG:HG2	2:C:184:ARG:HH11	1.59	0.67
2:D:285:MET:CE	2:D:353:LEU:HD21	2.21	0.67
3:E:277:LEU:C	3:E:279:ASN:H	1.98	0.67
3:E:277:LEU:CD2	3:E:281:LEU:HD12	2.25	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:E:282:SER:HB2	3:E:283:PRO:HD2	1.77	0.67
2:G:295:VAL:HG22	2:G:301:ALA:CB	2.21	0.67
2:I:278:TRP:HD1	2:I:345:ARG:HD3	1.59	0.67
2:C:21:GLN:OE1	2:C:175:LEU:HD22	1.94	0.67
2:G:291:ARG:HH21	2:G:303:GLY:N	1.92	0.67
2:I:19:VAL:HG21	2:I:214:LEU:HD21	1.77	0.67
2:C:208:ARG:HG2	2:C:209:ALA:N	2.10	0.67
2:C:261:GLY:O	2:C:264:VAL:N	2.28	0.67
2:D:337:LYS:O	2:D:340:PRO:HD2	1.95	0.67
2:G:238:SER:HA	2:G:241:LEU:O	1.95	0.67
2:H:24:VAL:HG11	2:H:175:LEU:CD2	2.25	0.67
2:I:113:TYR:CD2	2:I:147:PRO:HB3	2.30	0.67
3:E:242:PRO:HG2	3:E:243:ALA:H	1.60	0.67
2:B:264:VAL:CG1	2:B:353:LEU:HD13	2.25	0.67
2:C:65:GLU:HA	2:C:119:ARG:HH21	1.58	0.67
2:C:152:PHE:O	2:C:153:LEU:HD23	1.95	0.67
2:D:277:GLU:HB2	2:D:280:ALA:HB3	1.76	0.67
2:D:292:ILE:HG22	2:D:293:ALA:N	2.08	0.67
1:F:119:LYS:H	1:F:119:LYS:CD	1.95	0.67
2:G:10:TRP:CE2	2:G:193:GLU:HB3	2.23	0.67
1:A:269:LEU:CD1	1:A:273:PHE:CZ	2.78	0.67
2:B:56:ARG:HG3	2:B:56:ARG:NH1	2.09	0.67
2:C:264:VAL:HG12	2:C:265:MET:N	2.09	0.67
2:H:292:ILE:O	2:H:296:GLN:HG3	1.95	0.67
1:A:190:LEU:HD21	2:B:38:HIS:HE1	1.57	0.66
2:C:271:ALA:CB	2:C:276:ILE:HD11	2.25	0.66
3:J:145:THR:HG22	3:J:147:GLU:H	1.60	0.66
2:B:216:ASP:O	2:B:220:LEU:HG	1.96	0.66
3:E:80:ALA:HB1	3:E:81:PRO:HD2	1.77	0.66
2:D:260:ASN:O	2:D:262:GLU:N	2.27	0.66
2:H:149:HIS:ND1	2:H:150:VAL:HG23	2.09	0.66
3:J:241:ALA:N	3:J:242:PRO:HD2	2.09	0.66
2:C:43:PHE:O	2:C:155:ALA:HA	1.96	0.66
2:C:144:GLU:HA	2:C:144:GLU:OE1	1.96	0.66
3:J:201:ALA:HA	3:J:204:LEU:HD22	1.77	0.66
2:B:44:SER:HB3	2:B:159:PRO:HG2	1.77	0.66
2:I:238:SER:HB2	2:I:243:THR:HB	1.75	0.66
1:A:234:GLN:HA	1:A:237:ARG:NE	2.11	0.66
2:B:298:SER:O	2:B:300:ALA:N	2.29	0.66
2:D:10:TRP:CD1	2:D:190:ILE:HD12	2.30	0.66
2:D:15:PHE:HE2	2:D:57:LEU:HB3	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:E:116:ASP:O	3:E:118:ALA:N	2.29	0.66
2:G:220:LEU:HD22	2:G:241:LEU:HD11	1.76	0.66
1:A:74:PHE:CE2	1:F:206:VAL:HB	2.25	0.66
2:D:254:GLU:OE2	2:D:312:ARG:HD3	1.96	0.66
3:E:193:LEU:HD23	3:E:266:THR:HG21	1.78	0.66
2:B:21:GLN:HE22	2:B:175:LEU:HA	1.61	0.66
2:D:221:THR:O	2:D:225:ILE:HG13	1.95	0.66
3:E:50:CYS:SG	3:E:53:PRO:HA	2.36	0.66
2:I:21:GLN:OE1	2:I:176:LYS:O	2.13	0.66
1:A:267:THR:CG2	1:A:271:ALA:HB3	2.25	0.66
2:D:42:LEU:HD22	2:D:43:PHE:N	2.11	0.66
2:D:268:ILE:O	2:D:271:ALA:HB3	1.96	0.66
3:E:238:HIS:H	3:E:308:ARG:HD3	1.61	0.66
2:G:285:MET:HB2	2:G:332:LEU:HD21	1.77	0.66
2:H:91:ILE:HG21	2:H:107:LEU:HD13	1.78	0.66
1:A:291:ASN:O	1:A:292:ARG:HD2	1.95	0.65
2:D:254:GLU:OE2	2:D:312:ARG:CD	2.44	0.65
2:D:259:ALA:HB2	2:D:363:MET:HG2	1.77	0.65
1:F:166:ALA:CB	1:F:202:VAL:HG21	2.22	0.65
1:F:203:GLU:HG2	1:F:207:ASN:ND2	2.11	0.65
1:F:225:LYS:HD3	1:F:226:SER:N	2.11	0.65
2:I:277:GLU:HB2	2:I:280:ALA:HB3	1.75	0.65
2:C:198:HIS:CD2	2:C:203:LEU:HD11	2.31	0.65
2:C:243:THR:HG23	2:C:284:GLU:HG3	1.78	0.65
3:E:306:ILE:HG21	3:E:311:LEU:HD21	1.77	0.65
2:H:326:GLN:HE21	2:H:326:GLN:CA	1.96	0.65
1:A:223:MSE:HE2	1:A:292:ARG:HB2	1.77	0.65
1:A:261:LYS:HE3	1:A:293:LEU:O	1.95	0.65
2:D:353:LEU:O	2:D:357:LEU:HD13	1.96	0.65
1:F:222:LEU:HD13	1:F:285:MSE:HE3	1.78	0.65
2:H:271:ALA:C	2:H:276:ILE:HD11	2.16	0.65
2:I:243:THR:HG22	2:I:245:ASP:H	1.60	0.65
2:C:260:ASN:HD21	2:C:263:ARG:H	1.43	0.65
3:E:158:ARG:HG3	3:E:158:ARG:NH1	2.12	0.65
2:G:82:ILE:HG23	2:G:90:LEU:HD22	1.79	0.65
2:I:215:ARG:CG	5:I:803:AGS:C4'	2.73	0.65
2:I:363:MET:HB3	2:I:364:PRO:CD	2.24	0.65
1:A:221:LEU:HD21	1:A:328:SER:HB3	1.79	0.65
2:B:202:ALA:HB1	2:B:237:VAL:HG21	1.79	0.65
2:B:243:THR:HG22	2:B:246:ASP:HB2	1.76	0.65
3:E:145:THR:HG22	3:E:146:ARG:N	2.10	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:137:ASN:HA	2:H:140:LEU:CD1	2.26	0.65
2:C:198:HIS:HB2	2:C:232:VAL:CG2	2.26	0.65
2:C:265:MET:CE	2:D:294:MET:SD	2.85	0.65
2:G:9:LYS:HD3	2:G:194:GLU:OE1	1.97	0.65
2:I:148:GLU:HA	2:I:148:GLU:OE1	1.97	0.65
1:A:1:MSE:HE1	1:A:127:PHE:CE1	2.31	0.65
1:A:59:THR:CG2	1:A:60:ASP:N	2.60	0.65
2:C:367:GLU:OE2	2:C:368:PRO:N	2.29	0.65
1:F:274:ASP:HA	1:F:279:TRP:CE3	2.31	0.65
1:F:309:GLU:O	1:F:312:LEU:HB3	1.96	0.65
3:J:200:ALA:O	3:J:204:LEU:HD13	1.97	0.65
1:A:124:ALA:O	1:A:126:TRP:N	2.30	0.65
2:B:271:ALA:HB1	2:B:276:ILE:HG21	1.78	0.65
2:G:6:LEU:HD22	2:G:190:ILE:HG22	1.79	0.65
2:I:351:MET:SD	3:J:290:LEU:HD22	2.36	0.65
3:E:14:LEU:HD13	3:E:44:LEU:HD11	1.78	0.65
1:F:281:ASN:C	1:F:283:ARG:N	2.50	0.65
3:E:95:GLU:O	3:E:99:LYS:HB2	1.97	0.65
3:E:307:ASN:O	3:E:309:GLU:N	2.30	0.65
2:H:201:ARG:HE	2:H:205:LEU:HD21	1.61	0.65
2:H:271:ALA:HA	2:H:274:ARG:HE	1.61	0.65
2:C:221:THR:O	2:C:225:ILE:HG13	1.97	0.64
1:F:53:PHE:CZ	1:F:67:LEU:HD22	2.32	0.64
2:I:6:LEU:CD1	2:I:221:THR:HB	2.27	0.64
1:A:74:PHE:CE2	1:F:206:VAL:CB	2.78	0.64
2:B:158:ASP:O	2:B:158:ASP:CG	2.36	0.64
2:D:42:LEU:HD23	2:D:154:LEU:CB	2.26	0.64
2:G:61:GLY:HA2	2:G:72:PRO:HG3	1.79	0.64
2:H:250:LEU:HD22	2:H:309:ILE:HD12	1.79	0.64
2:I:19:VAL:HG12	2:I:178:LEU:CD2	2.21	0.64
2:I:283:VAL:HG22	2:I:336:ARG:NH1	2.13	0.64
2:B:367:GLU:N	2:B:367:GLU:OE2	2.30	0.64
2:C:232:VAL:CG2	2:C:232:VAL:O	2.45	0.64
2:H:279:GLU:HG2	2:H:339:LEU:CD2	2.28	0.64
2:I:268:ILE:HD11	2:I:353:LEU:HD12	1.78	0.64
3:J:238:HIS:ND1	3:J:239:GLU:N	2.45	0.64
1:A:214:PRO:O	1:A:218:VAL:HG23	1.98	0.64
1:A:222:LEU:O	1:A:224:GLY:N	2.31	0.64
2:I:19:VAL:CG1	2:I:178:LEU:HD22	2.22	0.64
2:B:186:GLN:HE21	2:B:190:ILE:HD11	1.63	0.64
3:E:31:ALA:HB2	3:E:164:LEU:HB3	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:25:GLY:HA3	1:F:139:CYS:O	1.97	0.64
2:D:38:HIS:CD2	2:D:40:ALA:H	2.15	0.64
3:E:136:PRO:O	3:E:137:ALA:O	2.15	0.64
1:F:64:ILE:HG12	1:F:96:GLN:HE21	1.61	0.64
2:G:250:LEU:CD2	2:G:288:LEU:HD13	2.28	0.64
2:H:7:ALA:HA	2:H:218:LEU:HD23	1.79	0.64
2:H:93:ILE:HG12	2:I:133:ARG:HH12	1.63	0.64
2:H:279:GLU:HG2	2:H:339:LEU:HD23	1.80	0.64
2:B:260:ASN:HD22	2:B:263:ARG:CB	2.06	0.64
2:B:343:PRO:CG	2:B:347:MET:SD	2.86	0.64
2:G:76:CYS:SG	2:G:78:ASN:HB2	2.38	0.64
2:H:215:ARG:NH1	6:H:1400:PO4:O1	2.30	0.64
2:B:58:LEU:HD23	2:B:153:LEU:HD22	1.79	0.64
2:D:345:ARG:CZ	3:E:150:ARG:HE	2.10	0.64
1:F:295:GLN:H	1:F:295:GLN:NE2	1.96	0.64
2:G:6:LEU:CB	2:G:190:ILE:CG2	2.64	0.64
2:I:246:ASP:CB	2:I:248:GLN:HG2	2.27	0.64
2:B:347:MET:HG3	2:C:290:HIS:CE1	2.33	0.63
3:J:161:LEU:HD12	3:J:161:LEU:H	1.63	0.63
1:A:269:LEU:CG	1:A:273:PHE:CZ	2.81	0.63
2:D:259:ALA:HA	2:D:363:MET:CE	2.28	0.63
2:D:360:HIS:CD2	2:D:363:MET:HG3	2.33	0.63
1:F:225:LYS:HD3	1:F:226:SER:H	1.63	0.63
2:H:128:VAL:HG23	2:H:162:LEU:HD21	1.80	0.63
1:A:71:MSE:SE	1:F:231:HIS:HB2	2.47	0.63
2:D:24:VAL:O	2:D:25:LEU:C	2.36	0.63
3:E:254:ASP:CG	3:E:265:VAL:HG13	2.18	0.63
3:E:289:ILE:HG23	3:E:319:ILE:CD1	2.28	0.63
1:F:61:TRP:HA	1:F:64:ILE:HD13	1.81	0.63
2:H:93:ILE:HG12	2:I:133:ARG:NH1	2.13	0.63
2:H:351:MET:CE	2:I:326:GLN:HE22	2.11	0.63
2:I:279:GLU:HB3	3:J:149:GLU:OE2	1.97	0.63
2:C:293:ALA:HA	2:C:296:GLN:HG3	1.80	0.63
3:E:151:LEU:HD11	3:E:155:LEU:HD12	1.79	0.63
2:B:179:ASP:HB2	2:B:182:GLN:NE2	2.13	0.63
2:C:65:GLU:HA	2:C:119:ARG:NH2	2.13	0.63
2:C:86:ARG:NH1	2:D:141:LYS:HG3	2.12	0.63
3:E:68:MSE:HE3	3:E:73:HIS:CB	2.28	0.63
2:B:350:GLU:OE1	2:C:294:MET:CE	2.47	0.63
2:C:35:GLY:O	2:C:37:ILE:N	2.31	0.63
2:D:27:ALA:O	2:D:28:LEU:C	2.37	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:308:THR:HG23	1:F:320:VAL:HG13	1.81	0.63
2:G:316:LEU:HD22	2:G:320:ILE:HD11	1.80	0.63
2:B:13:GLN:NE2	2:B:83:GLU:OE2	2.31	0.63
2:B:304:ASN:CG	2:B:305:ASP:H	2.01	0.63
2:D:263:ARG:O	2:D:266:ALA:HB3	1.99	0.63
1:F:330:LEU:O	1:F:330:LEU:HD13	1.97	0.63
2:D:184:ARG:HD3	2:D:184:ARG:C	2.19	0.63
3:E:145:THR:HG22	3:E:147:GLU:H	1.64	0.63
2:I:271:ALA:O	2:I:276:ILE:HG13	1.99	0.63
1:A:268:PRO:O	1:A:270:ARG:N	2.30	0.63
2:B:333:LEU:HD13	2:B:333:LEU:C	2.19	0.63
2:I:6:LEU:CB	2:I:218:LEU:HB3	2.29	0.63
2:B:165:THR:HB	2:B:169:ARG:HH12	1.64	0.62
2:D:15:PHE:HD2	2:D:57:LEU:HD13	1.62	0.62
2:G:278:TRP:CE3	2:G:349:VAL:HG21	2.34	0.62
2:C:147:PRO:HB2	2:C:149:HIS:CE1	2.34	0.62
3:E:36:GLY:O	3:E:37:ASP:C	2.38	0.62
3:E:253:MSE:O	3:E:257:LYS:HG3	1.99	0.62
1:F:26:ASN:O	1:F:28:PRO:HD3	1.99	0.62
2:G:6:LEU:CD2	2:G:194:GLU:HG3	2.29	0.62
1:A:331:LEU:N	1:A:331:LEU:HD23	2.14	0.62
1:F:99:THR:O	1:F:103:LEU:HD13	1.99	0.62
2:H:215:ARG:CZ	6:H:1400:PO4:O1	2.47	0.62
2:I:215:ARG:HB2	5:I:803:AGS:C5'	2.28	0.62
2:D:360:HIS:HD2	2:D:363:MET:N	1.97	0.62
3:E:297:ARG:HG2	3:E:298:GLU:N	2.14	0.62
1:A:263:GLN:HG2	1:A:266:HIS:HD2	1.64	0.62
2:C:49:VAL:HG11	2:C:175:LEU:HB3	1.80	0.62
2:C:260:ASN:ND2	2:C:263:ARG:H	1.97	0.62
2:D:260:ASN:OD1	2:D:263:ARG:HB2	1.99	0.62
1:F:299:ARG:O	1:F:302:VAL:HB	1.98	0.62
2:H:257:VAL:HG11	2:H:320:ILE:CD1	2.30	0.62
2:I:295:VAL:HG11	2:I:314:ARG:HG2	1.81	0.62
3:J:30:GLN:CG	3:J:148:PRO:HD3	2.22	0.62
3:J:110:LYS:HB2	3:J:139:THR:HG23	1.82	0.62
1:A:278:VAL:O	1:A:280:GLN:OE1	2.18	0.62
3:E:220:LEU:HD21	3:E:248:LEU:HD13	1.82	0.62
3:J:244:ARG:HG2	3:J:247:TRP:CZ3	2.34	0.62
3:E:30:GLN:CG	3:E:163:TYR:CD1	2.81	0.62
1:F:46:GLY:O	1:F:77:ARG:HB2	1.99	0.62
2:G:288:LEU:O	2:G:292:ILE:HG13	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:100:LYS:HE2	2:I:136:PHE:HD2	1.64	0.62
2:C:97:SER:CB	2:C:100:LYS:HD2	2.30	0.62
1:F:162:LEU:HD11	1:F:185:LEU:HD21	1.82	0.62
2:G:102:GLU:HG3	2:G:105:ARG:NH2	2.14	0.62
2:H:350:GLU:O	2:H:354:LEU:HD12	2.00	0.62
2:B:309:ILE:CG2	2:B:313:MET:HG2	2.28	0.62
1:A:154:ARG:HH11	1:A:157:GLN:HE21	1.46	0.62
2:C:341:TYR:HB2	2:D:333:LEU:HD11	1.81	0.62
2:D:366:PRO:O	2:D:367:GLU:HG3	2.00	0.62
3:E:303:VAL:HB	3:E:306:ILE:CD1	2.26	0.62
2:H:229:ASP:OD2	2:I:30:ASN:OD1	2.18	0.62
3:J:64:GLY:O	3:J:68:MSE:HB2	2.00	0.62
2:C:100:LYS:HD3	2:D:133:ARG:HE	1.65	0.61
2:D:10:TRP:CG	2:D:190:ILE:HD12	2.34	0.61
2:D:129:HIS:HB2	2:D:161:LYS:HB2	1.82	0.61
1:F:93:ILE:HG23	1:F:97:LEU:HD13	1.82	0.61
2:G:248:GLN:O	2:G:250:LEU:C	2.37	0.61
2:H:343:PRO:HB3	2:I:283:VAL:HG13	1.80	0.61
2:B:5:VAL:HG23	2:B:7:ALA:HB3	1.81	0.61
2:C:77:ASP:O	2:C:81:GLU:HG3	2.00	0.61
2:D:285:MET:O	2:D:286:LEU:C	2.39	0.61
1:F:199:LEU:HB3	1:F:200:PRO:HD3	1.82	0.61
1:F:303:GLN:O	1:F:306:THR:HB	2.00	0.61
2:G:316:LEU:HB3	2:G:320:ILE:HD12	1.82	0.61
3:J:90:VAL:HG22	3:J:124:ALA:N	2.15	0.61
2:C:184:ARG:HG2	2:C:184:ARG:NH1	2.15	0.61
2:D:277:GLU:HB2	2:D:280:ALA:CB	2.29	0.61
2:I:363:MET:SD	2:I:364:PRO:HD2	2.40	0.61
2:G:15:PHE:CE2	2:G:57:LEU:HB3	2.36	0.61
2:H:201:ARG:HH21	2:H:205:LEU:HD23	1.64	0.61
2:C:202:ALA:HB2	2:C:234:THR:HA	1.82	0.61
2:B:205:LEU:HD11	2:B:234:THR:HG23	1.82	0.61
2:C:120:PHE:CD2	2:C:120:PHE:N	2.69	0.61
2:C:271:ALA:HB1	2:C:276:ILE:HD11	1.81	0.61
2:D:360:HIS:HD2	2:D:363:MET:H	1.48	0.61
2:G:98:ARG:CG	2:H:169:ARG:HH22	2.13	0.61
2:I:215:ARG:CA	5:I:803:AGS:O4'	2.48	0.61
2:B:44:SER:CB	2:B:159:PRO:CG	2.78	0.61
2:C:15:PHE:CE1	2:C:57:LEU:HB3	2.35	0.61
2:C:58:LEU:HD23	2:C:153:LEU:CD2	2.31	0.61
2:I:11:ARG:NH2	2:I:56:ARG:NH2	2.46	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:38:VAL:HG11	1:A:111:ILE:HD11	1.82	0.61
2:C:259:ALA:HB2	2:C:360:HIS:HD1	1.64	0.61
2:C:265:MET:HE3	2:D:294:MET:SD	2.40	0.61
2:D:180:VAL:O	2:D:181:GLU:C	2.39	0.61
2:D:259:ALA:HB2	2:D:363:MET:CG	2.30	0.61
2:G:186:GLN:O	2:G:190:ILE:HG13	2.01	0.61
3:J:126:ASN:HA	3:J:129:LEU:HD13	1.82	0.61
1:F:47:PHE:HA	1:F:77:ARG:O	1.99	0.61
1:F:202:VAL:O	1:F:206:VAL:HG23	2.01	0.61
2:G:6:LEU:CB	2:G:190:ILE:HG21	2.11	0.61
2:B:76:CYS:O	2:B:80:ARG:HG3	2.01	0.61
1:A:74:PHE:CE1	1:F:203:GLU:C	2.74	0.60
1:A:264:SER:O	1:A:265:ALA:HB3	2.01	0.60
1:A:275:LYS:HA	1:A:275:LYS:HE2	1.83	0.60
2:C:354:LEU:O	2:C:357:LEU:N	2.34	0.60
2:H:21:GLN:OE1	2:H:175:LEU:HB3	2.01	0.60
2:I:56:ARG:HH11	2:I:56:ARG:HG3	1.64	0.60
1:A:222:LEU:CD1	1:A:285:MSE:HE3	2.31	0.60
2:C:278:TRP:CZ2	2:C:346:ARG:HD2	2.36	0.60
2:D:355:ARG:HH21	3:E:332:PRO:HD3	1.66	0.60
1:F:27:ASP:OD2	1:F:178:LEU:HD12	2.01	0.60
2:G:341:TYR:CZ	2:H:337:LYS:HG2	2.36	0.60
2:B:44:SER:HB3	2:B:159:PRO:CG	2.32	0.60
2:B:64:CYS:SG	2:B:66:THR:HB	2.41	0.60
1:F:13:LEU:HD23	1:F:41:VAL:CG2	2.31	0.60
1:F:304:LEU:CB	1:F:327:LEU:HD11	2.32	0.60
3:J:188:LEU:HD23	3:J:268:VAL:HG21	1.84	0.60
3:J:320:GLU:HA	3:J:323:LEU:HD12	1.83	0.60
2:B:226:ALA:O	2:C:26:THR:HG22	2.01	0.60
2:G:274:ARG:HE	2:G:276:ILE:CD1	2.09	0.60
1:A:213:THR:HG22	1:A:215:PHE:H	1.65	0.60
2:C:347:MET:HG2	2:D:290:HIS:CE1	2.36	0.60
2:D:355:ARG:NH1	3:E:287:GLN:HB3	2.16	0.60
3:E:50:CYS:SG	3:E:53:PRO:CA	2.89	0.60
2:H:112:GLN:HB2	2:H:121:LYS:HZ3	1.66	0.60
1:A:130:LEU:O	1:A:132:ASN:N	2.35	0.60
2:C:112:GLN:CD	2:C:121:LYS:HE2	2.22	0.60
2:C:140:LEU:HD13	2:C:169:ARG:NH1	2.17	0.60
2:D:277:GLU:HB3	3:E:149:GLU:HB2	1.84	0.60
3:E:41:ILE:HD12	3:E:142:PHE:HB3	1.83	0.60
1:F:188:LEU:HG	1:F:197:LEU:HD22	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:316:LEU:HA	3:J:319:ILE:HD12	1.84	0.60
2:D:332:LEU:CD2	2:D:352:THR:HG22	2.32	0.60
2:D:357:LEU:HG	2:D:363:MET:HE1	1.84	0.60
2:G:6:LEU:HD23	2:G:194:GLU:HG3	1.82	0.60
2:I:277:GLU:HB3	3:J:149:GLU:HG3	1.82	0.60
3:J:79:LEU:HD13	3:J:112:VAL:HG13	1.84	0.60
1:A:333:HIS:HB3	2:B:298:SER:OG	2.01	0.60
2:H:64:CYS:SG	2:H:66:THR:HB	2.41	0.60
2:H:191:LEU:HD12	2:H:203:LEU:HD21	1.84	0.60
2:H:302:LEU:HD12	2:H:314:ARG:HE	1.65	0.60
2:I:200:PRO:HB2	2:I:305:ASP:HB2	0.80	0.60
3:J:214:GLU:HG2	3:J:218:GLN:HE21	1.66	0.60
2:H:89:ASP:HB3	2:H:121:LYS:HA	1.83	0.60
2:I:198:HIS:HA	2:I:232:VAL:O	2.02	0.60
2:B:243:THR:CG2	2:B:246:ASP:HB2	2.31	0.60
2:D:60:LYS:HA	2:D:82:ILE:HD12	1.83	0.60
1:F:165:ALA:HB1	1:F:199:LEU:HD13	1.84	0.60
2:I:7:ALA:CB	2:I:215:ARG:HG3	2.31	0.60
2:I:158:ASP:CG	2:I:161:LYS:HG2	2.22	0.60
2:I:244:LEU:HD21	2:I:276:ILE:CG1	2.31	0.60
3:J:111:VAL:HA	3:J:140:TRP:O	2.01	0.60
3:J:212:ALA:HB1	3:J:244:ARG:NH2	2.16	0.60
1:A:20:ALA:HB2	1:A:110:LEU:HB3	1.84	0.59
2:B:347:MET:HG3	2:C:290:HIS:ND1	2.17	0.59
2:C:52:THR:O	2:C:55:ALA:HB3	2.02	0.59
2:D:329:TYR:C	2:D:329:TYR:CD2	2.75	0.59
2:G:263:ARG:O	2:G:267:LEU:HG	2.00	0.59
3:J:220:LEU:HA	3:J:232:LEU:HD21	1.83	0.59
1:A:19:ALA:HB3	1:A:133:ARG:HB3	1.85	0.59
2:B:278:TRP:O	2:B:280:ALA:N	2.35	0.59
2:C:18:VAL:HG11	2:C:54:ILE:HD11	1.84	0.59
2:C:59:ALA:O	2:C:82:ILE:HD13	2.00	0.59
2:C:257:VAL:O	2:C:360:HIS:CE1	2.55	0.59
2:C:300:ALA:O	2:C:302:LEU:N	2.35	0.59
2:D:247:ASP:O	2:D:251:SER:HB2	2.02	0.59
2:D:360:HIS:CG	2:D:361:PRO:N	2.70	0.59
3:E:232:LEU:O	3:E:233:LEU:C	2.39	0.59
1:F:130:LEU:HB3	1:F:134:SER:OG	2.02	0.59
1:F:264:SER:O	1:F:265:ALA:HB3	2.01	0.59
1:F:316:TYR:CG	1:F:316:TYR:O	2.55	0.59
2:H:95:ALA:HB3	2:H:127:GLU:O	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:129:HIS:HD2	2:H:161:LYS:HD2	1.66	0.59
1:A:119:LYS:O	1:A:123:ASN:ND2	2.35	0.59
1:A:128:THR:O	1:A:131:ALA:HB3	2.02	0.59
3:E:163:TYR:CE2	3:E:165:ALA:HB2	2.36	0.59
2:G:179:ASP:HB3	2:G:182:GLN:HB2	1.84	0.59
2:G:286:LEU:HG	2:G:332:LEU:HD23	1.83	0.59
2:H:21:GLN:HE22	2:H:49:VAL:CG1	2.15	0.59
2:H:152:PHE:O	2:H:153:LEU:HD23	2.02	0.59
1:A:73:LEU:HB2	1:F:207:ASN:CB	2.31	0.59
2:C:186:GLN:HG3	2:C:190:ILE:CD1	2.32	0.59
2:D:302:LEU:HD13	2:D:310:GLU:OE2	2.03	0.59
2:D:345:ARG:NH2	3:E:150:ARG:HE	2.00	0.59
2:I:18:VAL:CG1	2:I:25:LEU:HD11	2.32	0.59
2:D:111:VAL:CG1	2:D:112:GLN:N	2.65	0.59
2:D:363:MET:CB	2:D:364:PRO:CD	2.79	0.59
1:F:223:MSE:HE1	1:F:292:ARG:CB	2.32	0.59
1:F:251:GLN:HE22	3:J:307:ASN:ND2	2.00	0.59
2:H:21:GLN:OE1	2:H:175:LEU:HD22	2.02	0.59
2:H:78:ASN:O	2:H:82:ILE:HG13	2.01	0.59
3:J:229:TRP:CE3	3:J:319:ILE:HG21	2.37	0.59
1:A:193:PRO:CG	2:B:36:ARG:HH22	2.11	0.59
2:B:81:GLU:HB2	2:B:87:PHE:CD1	2.35	0.59
2:C:120:PHE:HB3	2:C:149:HIS:O	2.01	0.59
3:E:5:PRO:O	3:E:7:LEU:N	2.35	0.59
1:F:174:TYR:HB2	1:F:181:LEU:CD2	2.33	0.59
2:H:272:ALA:HB2	2:H:278:TRP:HH2	1.68	0.59
3:J:4:TYR:HB3	3:J:5:PRO:HD2	1.83	0.59
3:J:253:MSE:O	3:J:253:MSE:HE3	2.02	0.59
1:F:310:LEU:C	1:F:314:GLN:HG3	2.23	0.59
3:J:18:TYR:HB3	3:J:48:LEU:HD21	1.85	0.59
2:B:245:ASP:O	2:B:246:ASP:C	2.40	0.59
2:B:276:ILE:CD1	2:B:281:LEU:HB2	2.20	0.59
2:C:264:VAL:HG13	2:C:353:LEU:HD13	1.84	0.59
2:D:124:LEU:HD22	2:D:124:LEU:C	2.22	0.59
2:D:357:LEU:O	2:D:360:HIS:HB3	2.01	0.59
3:E:20:ALA:HB3	3:E:22:ARG:HD3	1.84	0.59
2:G:144:GLU:C	2:G:146:PRO:HD3	2.23	0.59
2:H:21:GLN:HE22	2:H:49:VAL:HG13	1.68	0.59
2:I:250:LEU:HD21	2:I:312:ARG:HD2	1.84	0.59
2:D:253:VAL:O	2:D:254:GLU:C	2.41	0.59
1:F:279:TRP:O	1:F:279:TRP:CD2	2.56	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:111:VAL:CG1	2:H:150:VAL:HG21	2.33	0.59
3:E:281:LEU:HD21	3:E:323:LEU:HD21	1.84	0.59
1:F:57:PRO:C	1:F:59:THR:H	2.06	0.59
1:F:264:SER:O	1:F:265:ALA:CB	2.51	0.59
2:G:240:MET:HG3	2:G:241:LEU:H	1.68	0.59
2:B:263:ARG:HG2	2:B:267:LEU:CD1	2.32	0.58
2:C:281:LEU:O	2:C:285:MET:HG3	2.02	0.58
2:C:360:HIS:CD2	2:C:361:PRO:CD	2.80	0.58
1:F:211:HIS:CG	1:F:211:HIS:O	2.56	0.58
2:G:295:VAL:HA	2:G:298:SER:O	2.03	0.58
2:H:11:ARG:HH22	2:I:165:THR:HG22	1.68	0.58
2:H:316:LEU:HB3	2:H:320:ILE:HD12	1.85	0.58
2:I:248:GLN:CG	2:I:274:ARG:HH22	2.13	0.58
3:J:92:ALA:O	3:J:96:VAL:HG23	2.03	0.58
1:A:130:LEU:HB3	1:A:134:SER:OG	2.02	0.58
1:A:213:THR:CG2	1:A:215:PHE:HB2	2.33	0.58
2:D:355:ARG:NH2	3:E:332:PRO:HD3	2.17	0.58
3:E:314:ASP:OD2	3:E:318:ARG:NH2	2.37	0.58
1:F:285:MSE:CG	1:F:285:MSE:CE	2.80	0.58
1:F:299:ARG:HG3	3:J:317:LEU:HD21	1.86	0.58
2:G:355:ARG:HD2	2:G:355:ARG:O	2.02	0.58
3:J:29:ILE:HD12	3:J:29:ILE:N	2.17	0.58
2:C:133:ARG:HD3	2:C:133:ARG:H	1.66	0.58
2:C:324:ASP:O	2:C:327:LEU:HB3	2.03	0.58
3:E:220:LEU:HA	3:E:223:SER:HB2	1.85	0.58
1:F:59:THR:O	1:F:60:ASP:HB2	2.02	0.58
2:G:210:ALA:HB2	2:G:220:LEU:HD12	1.85	0.58
2:H:51:LYS:HE2	6:H:1400:PO4:O2	2.03	0.58
1:A:85:PRO:HB2	1:A:88:GLY:H	1.68	0.58
1:A:285:MSE:CE	1:A:285:MSE:CG	2.80	0.58
2:D:360:HIS:CG	2:D:363:MET:HG3	2.38	0.58
3:E:209:ASN:O	3:E:212:ALA:HB3	2.04	0.58
2:G:43:PHE:O	2:G:51:LYS:HD2	2.02	0.58
2:G:252:LEU:O	2:G:252:LEU:HD23	2.03	0.58
2:G:277:GLU:HG2	2:G:280:ALA:HB2	1.84	0.58
3:J:8:ARG:CG	3:J:9:PRO:HD3	2.33	0.58
1:A:54:SER:HA	1:A:83:LEU:HB2	1.86	0.58
1:A:269:LEU:O	1:A:273:PHE:CD1	2.57	0.58
2:B:41:TYR:C	2:B:170:CYS:SG	2.81	0.58
2:B:76:CYS:SG	2:B:78:ASN:N	2.75	0.58
2:C:201:ARG:HG3	2:C:234:THR:HG23	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:246:ASP:HB3	2:D:248:GLN:NE2	2.18	0.58
3:E:214:GLU:O	3:E:218:GLN:HG3	2.04	0.58
1:F:71:MSE:HA	1:F:78:GLN:HE22	1.69	0.58
1:F:247:LEU:HD21	1:F:308:THR:CG2	2.33	0.58
2:I:254:GLU:O	2:I:258:GLU:HG2	2.04	0.58
2:I:261:GLY:HA2	2:I:357:LEU:HD21	1.86	0.58
3:J:188:LEU:HD11	3:J:192:ARG:HE	1.68	0.58
2:B:362:ARG:O	2:B:364:PRO:HD3	2.03	0.58
2:C:49:VAL:HG11	2:C:175:LEU:CB	2.32	0.58
2:D:260:ASN:OD1	2:D:263:ARG:CB	2.51	0.58
1:F:250:LEU:N	1:F:250:LEU:HD23	2.18	0.58
2:C:204:GLN:O	2:C:207:ALA:HB3	2.04	0.58
2:C:367:GLU:CG	2:D:321:PRO:HA	2.34	0.58
2:D:278:TRP:CE2	2:D:346:ARG:HB2	2.39	0.58
3:E:204:LEU:O	3:E:209:ASN:HB2	2.03	0.58
1:F:304:LEU:HD13	1:F:327:LEU:CD2	2.32	0.58
2:G:253:VAL:O	2:G:256:MET:HB3	2.04	0.58
1:A:17:LEU:HD21	1:A:109:LEU:CD1	2.34	0.58
1:A:232:ILE:O	1:A:236:LEU:HB2	2.04	0.58
1:A:293:LEU:HB3	1:A:298:LEU:HD11	1.85	0.58
2:B:63:ASN:O	2:B:78:ASN:ND2	2.25	0.58
2:D:15:PHE:CE2	2:D:57:LEU:HB3	2.38	0.58
2:G:61:GLY:CA	2:G:72:PRO:HG3	2.32	0.58
2:G:239:ALA:HB1	2:H:23:HIS:CD2	2.39	0.58
2:I:6:LEU:HB2	2:I:218:LEU:O	2.04	0.58
2:D:306:MET:C	2:D:308:ALA:H	2.07	0.58
3:E:194:SER:O	3:E:195:ALA:HB3	2.03	0.58
2:G:177:ALA:HB1	2:G:212:GLY:O	2.03	0.58
2:G:191:LEU:HD22	2:G:196:ILE:HB	1.86	0.58
1:A:196:LYS:H	1:A:201:ARG:NH1	2.01	0.58
2:D:91:ILE:HD11	2:D:121:LYS:HE3	1.86	0.58
2:D:148:GLU:HA	2:D:148:GLU:OE1	2.04	0.58
2:D:236:ALA:O	2:D:239:ALA:HB3	2.04	0.58
2:G:362:ARG:O	2:G:363:MET:HB2	2.02	0.58
1:A:119:LYS:HD3	1:A:119:LYS:N	2.04	0.57
2:C:292:ILE:HG12	2:C:313:MET:HE3	1.85	0.57
2:D:144:GLU:C	2:D:146:PRO:HD3	2.24	0.57
2:D:289:LEU:HD12	2:D:329:TYR:HA	1.86	0.57
3:J:111:VAL:HG12	3:J:140:TRP:HB2	1.84	0.57
1:A:273:PHE:HB3	1:A:279:TRP:CB	2.34	0.57
2:C:244:LEU:HD22	2:C:248:GLN:HB2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:314:ARG:HG2	2:C:314:ARG:HH11	1.69	0.57
2:D:19:VAL:HG21	2:D:186:GLN:HG3	1.85	0.57
2:D:185:HIS:ND1	2:D:185:HIS:O	2.37	0.57
2:D:276:ILE:CG2	2:D:277:GLU:N	2.67	0.57
3:E:42:TYR:HE2	3:E:46:ARG:HH12	1.51	0.57
3:E:220:LEU:O	3:E:224:VAL:HG23	2.03	0.57
3:E:321:HIS:CE1	3:E:327:VAL:HG22	2.39	0.57
2:H:21:GLN:O	2:H:25:LEU:HG	2.03	0.57
2:I:309:ILE:HG22	2:I:313:MET:HG2	1.85	0.57
2:B:42:LEU:HD23	2:B:42:LEU:C	2.24	0.57
2:C:80:ARG:O	2:C:84:GLN:HG3	2.04	0.57
3:E:57:LYS:HG3	3:E:58:SER:H	1.68	0.57
1:F:166:ALA:HB1	1:F:202:VAL:CG2	2.25	0.57
3:J:253:MSE:O	3:J:257:LYS:HG3	2.04	0.57
1:A:90:ASN:OD1	1:A:93:ILE:HG13	2.03	0.57
1:A:106:ASP:OD2	1:F:225:LYS:HB2	2.03	0.57
2:B:10:TRP:CE2	2:B:190:ILE:HG23	2.39	0.57
2:B:143:LEU:HD23	2:B:144:GLU:N	2.20	0.57
2:B:251:SER:HB3	2:B:267:LEU:HD21	1.86	0.57
2:C:102:GLU:HA	2:C:105:ARG:HD3	1.87	0.57
2:D:259:ALA:HB1	2:D:363:MET:HG2	1.84	0.57
2:D:363:MET:CG	2:D:364:PRO:HD2	2.34	0.57
2:H:100:LYS:CE	2:I:133:ARG:HA	2.34	0.57
2:I:61:GLY:CA	2:I:72:PRO:HG3	2.34	0.57
1:A:187:ARG:HG2	1:A:188:LEU:N	2.19	0.57
3:E:152:LEU:HD22	3:E:154:THR:CG2	2.34	0.57
3:E:209:ASN:O	3:E:212:ALA:N	2.37	0.57
3:E:270:VAL:HG23	3:E:270:VAL:O	2.03	0.57
1:F:295:GLN:NE2	1:F:295:GLN:N	2.53	0.57
2:G:6:LEU:CD2	2:G:191:LEU:HD23	2.34	0.57
1:A:24:LEU:HD13	1:A:117:LEU:HG	1.86	0.57
1:A:279:TRP:O	1:A:279:TRP:CD2	2.58	0.57
1:A:293:LEU:HB3	1:A:298:LEU:CD1	2.35	0.57
2:C:30:ASN:O	2:C:33:SER:N	2.38	0.57
2:C:232:VAL:O	2:C:232:VAL:HG23	2.05	0.57
2:D:25:LEU:HD21	2:D:54:ILE:HD11	1.86	0.57
3:E:17:SER:HB2	3:E:22:ARG:O	2.04	0.57
3:E:216:LEU:O	3:E:219:ALA:HB3	2.04	0.57
2:H:360:HIS:HD2	2:H:363:MET:N	1.86	0.57
2:I:10:TRP:HB2	2:I:218:LEU:CD1	2.35	0.57
3:E:149:GLU:C	3:E:151:LEU:H	2.08	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:19:VAL:HG12	2:G:178:LEU:CD1	2.35	0.57
3:J:202:LEU:C	3:J:202:LEU:HD22	2.25	0.57
2:B:36:ARG:CB	2:B:36:ARG:NH1	2.58	0.57
2:B:286:LEU:O	2:B:289:LEU:HB2	2.05	0.57
2:C:271:ALA:HB1	2:C:276:ILE:CD1	2.35	0.57
2:C:309:ILE:HG13	2:C:313:MET:HG2	1.87	0.57
3:E:75:ASP:HB3	3:E:110:LYS:HA	1.87	0.57
2:G:64:CYS:SG	2:G:66:THR:HB	2.45	0.57
2:G:82:ILE:HG23	2:G:90:LEU:CD2	2.35	0.57
2:G:214:LEU:HD23	5:G:804:AGS:C8	2.34	0.57
2:H:209:ALA:HB2	2:H:241:LEU:HD11	1.86	0.57
1:A:2:ILE:HB	1:A:135:VAL:HG22	1.87	0.57
2:C:333:LEU:O	2:C:335:GLY:N	2.38	0.57
3:E:90:VAL:HG22	3:E:124:ALA:N	2.19	0.57
3:E:90:VAL:O	3:E:94:ARG:HG3	2.05	0.57
1:F:222:LEU:O	1:F:223:MSE:HB2	2.04	0.57
2:H:302:LEU:HD13	2:H:310:GLU:HG3	1.86	0.57
2:I:286:LEU:HD23	2:I:332:LEU:HD23	1.85	0.57
2:B:242:GLY:O	2:B:244:LEU:HG	2.05	0.57
2:B:253:VAL:O	2:B:256:MET:HB3	2.05	0.57
2:B:362:ARG:O	2:B:364:PRO:CD	2.53	0.57
2:C:271:ALA:C	2:C:276:ILE:HD11	2.25	0.57
2:D:199:GLU:OE1	2:D:233:SER:HB2	2.05	0.57
2:G:10:TRP:HD1	2:G:190:ILE:HG23	1.69	0.57
2:G:98:ARG:CD	2:H:140:LEU:HD13	2.34	0.57
2:G:198:HIS:CD2	2:G:203:LEU:HD11	2.40	0.57
3:J:214:GLU:HG2	3:J:218:GLN:NE2	2.20	0.57
2:B:165:THR:HB	2:B:169:ARG:NH1	2.20	0.56
2:C:296:GLN:OE1	2:C:322:PRO:HB3	2.04	0.56
1:A:6:PRO:HG2	1:A:30:LEU:HD13	1.87	0.56
1:A:222:LEU:HD12	1:A:285:MSE:HE3	1.88	0.56
2:B:238:SER:HA	2:B:241:LEU:O	2.05	0.56
1:F:218:VAL:HG11	1:F:253:GLU:HG3	1.87	0.56
2:G:250:LEU:HD11	2:G:309:ILE:HD13	1.87	0.56
2:H:143:LEU:O	2:H:146:PRO:HD3	2.04	0.56
3:J:296:ILE:CG2	3:J:315:LEU:HD12	2.31	0.56
2:B:184:ARG:HG3	2:B:204:GLN:OE1	2.05	0.56
2:B:259:ALA:HB2	2:B:360:HIS:HE1	1.68	0.56
2:C:234:THR:O	2:C:238:SER:OG	2.17	0.56
2:D:25:LEU:CD2	2:D:54:ILE:HD13	2.35	0.56
2:D:364:PRO:HG3	3:E:260:HIS:CE1	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:17:LEU:HD21	1:F:109:LEU:HD12	1.86	0.56
1:F:24:LEU:HD13	1:F:117:LEU:HG	1.87	0.56
1:F:251:GLN:HE22	3:J:307:ASN:HD21	1.52	0.56
2:H:9:LYS:NZ	2:H:194:GLU:OE1	2.39	0.56
2:H:216:ASP:O	2:H:220:LEU:HG	2.05	0.56
2:I:264:VAL:O	2:I:268:ILE:HG13	2.05	0.56
3:J:32:LEU:HB2	3:J:35:MSE:HG3	1.87	0.56
1:A:27:ASP:O	1:A:31:LEU:HG	2.06	0.56
1:A:259:ASN:O	1:A:262:ARG:HB2	2.04	0.56
1:A:270:ARG:HG2	1:A:283:ARG:HH21	1.67	0.56
2:B:210:ALA:CB	2:B:217:ALA:HB2	2.34	0.56
2:B:359:PHE:HE2	2:C:323:THR:HG1	1.52	0.56
2:D:201:ARG:O	2:D:204:GLN:N	2.39	0.56
3:E:20:ALA:CB	3:E:22:ARG:HD3	2.36	0.56
1:A:59:THR:CG2	1:A:60:ASP:H	2.18	0.56
2:B:252:LEU:CD2	2:B:281:LEU:HD21	2.36	0.56
3:E:68:MSE:HE1	3:E:76:TYR:CB	2.36	0.56
1:A:27:ASP:OD2	1:A:30:LEU:HG	2.06	0.56
1:A:115:ASN:O	1:A:116:LYS:O	2.24	0.56
1:A:260:LEU:CB	1:A:290:LEU:HD11	2.36	0.56
2:D:361:PRO:O	2:D:362:ARG:HB2	2.06	0.56
1:F:64:ILE:CG1	1:F:96:GLN:HE21	2.17	0.56
2:G:28:LEU:HD22	2:G:58:LEU:HD13	1.87	0.56
2:G:258:GLU:HB3	2:G:260:ASN:ND2	2.21	0.56
2:H:50:GLY:O	2:H:54:ILE:HG13	2.06	0.56
2:H:84:GLN:HB3	2:I:144:GLU:OE2	2.06	0.56
3:J:280:HIS:O	3:J:281:LEU:HD23	2.06	0.56
1:A:117:LEU:HB2	1:A:122:GLU:HG3	1.88	0.56
2:B:262:GLU:HG3	2:B:263:ARG:N	2.21	0.56
2:C:285:MET:O	2:C:286:LEU:C	2.43	0.56
2:G:21:GLN:O	2:G:24:VAL:HB	2.05	0.56
2:H:10:TRP:NE1	2:H:190:ILE:HG23	2.21	0.56
2:B:140:LEU:O	2:B:143:LEU:HD23	2.05	0.56
2:D:259:ALA:CB	2:D:363:MET:CG	2.84	0.56
3:E:254:ASP:OD1	3:E:265:VAL:HG13	2.05	0.56
2:G:184:ARG:HG3	2:G:185:HIS:N	2.20	0.56
2:H:223:GLN:HE22	2:I:174:HIS:CE1	2.24	0.56
2:I:140:LEU:HD22	2:I:144:GLU:HG3	1.87	0.56
1:F:156:LYS:O	1:F:156:LYS:HD3	2.06	0.56
2:G:341:TYR:CE2	2:H:337:LYS:HA	2.41	0.56
2:H:32:LEU:HD13	2:H:69:THR:O	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:220:LEU:HD21	3:J:157:SER:OG	2.06	0.56
1:A:71:MSE:SE	1:F:228:ARG:CB	3.04	0.56
2:B:250:LEU:HD23	2:B:312:ARG:CZ	2.35	0.56
2:D:45:GLY:O	2:D:157:THR:HA	2.06	0.56
2:G:261:GLY:HA3	2:H:297:LEU:HD21	1.88	0.56
3:J:8:ARG:HG2	3:J:9:PRO:HD3	1.88	0.56
2:B:277:GLU:O	2:B:278:TRP:C	2.45	0.55
3:E:214:GLU:HG2	3:E:218:GLN:HE21	1.70	0.55
2:G:326:GLN:O	2:G:330:GLN:HB3	2.07	0.55
2:I:251:SER:HB3	2:I:263:ARG:NH2	2.21	0.55
2:I:360:HIS:CG	2:I:363:MET:HG3	2.41	0.55
2:D:272:ALA:HB2	2:D:346:ARG:HH11	1.71	0.55
3:E:296:ILE:O	3:E:297:ARG:C	2.44	0.55
1:F:25:GLY:HA2	1:F:140:GLN:HE21	1.69	0.55
2:G:341:TYR:C	2:H:333:LEU:HD11	2.26	0.55
2:H:284:GLU:OE1	2:H:284:GLU:HA	2.06	0.55
2:I:248:GLN:HA	2:I:248:GLN:NE2	2.20	0.55
2:I:361:PRO:O	2:I:362:ARG:HB2	2.07	0.55
3:J:220:LEU:O	3:J:220:LEU:HD22	2.05	0.55
3:E:313:THR:O	3:E:313:THR:HG22	2.06	0.55
1:F:24:LEU:HB3	1:F:116:LYS:HA	1.88	0.55
1:F:56:ASP:OD1	1:F:85:PRO:HA	2.06	0.55
1:F:282:ARG:HG2	1:F:285:MSE:CE	2.37	0.55
2:G:10:TRP:CH2	2:G:193:GLU:CD	2.79	0.55
2:G:11:ARG:HH21	2:G:56:ARG:NE	2.04	0.55
2:G:333:LEU:CD1	2:G:337:LYS:HE3	2.37	0.55
2:I:291:ARG:HD2	2:I:306:MET:SD	2.45	0.55
2:D:27:ALA:O	2:D:30:ASN:N	2.40	0.55
3:E:280:HIS:O	3:E:281:LEU:HD23	2.07	0.55
1:F:46:GLY:C	1:F:77:ARG:HB2	2.27	0.55
2:H:307:ALA:HA	2:H:310:GLU:HB2	1.87	0.55
2:B:119:ARG:HG3	2:B:120:PHE:CD2	2.42	0.55
2:C:18:VAL:HB	2:C:25:LEU:HD11	1.88	0.55
2:C:245:ASP:O	2:C:246:ASP:C	2.43	0.55
2:G:98:ARG:HD3	2:H:140:LEU:CB	2.35	0.55
2:H:147:PRO:HG2	2:H:150:VAL:HB	1.87	0.55
2:I:56:ARG:HG3	2:I:56:ARG:NH1	2.21	0.55
2:I:80:ARG:HG2	2:I:80:ARG:HH11	1.71	0.55
1:A:274:ASP:HA	1:A:279:TRP:CE3	2.41	0.55
2:B:51:LYS:NZ	5:B:802:AGS:S1G	2.71	0.55
2:B:76:CYS:SG	2:B:79:CYS:N	2.79	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:24:VAL:O	2:C:24:VAL:HG12	2.07	0.55
3:E:151:LEU:HD11	3:E:155:LEU:CD1	2.36	0.55
2:G:7:ALA:CA	2:G:218:LEU:HD13	2.36	0.55
2:G:306:MET:O	2:G:310:GLU:HG3	2.06	0.55
2:H:291:ARG:CA	2:H:294:MET:HB2	2.34	0.55
2:I:113:TYR:HE2	2:I:147:PRO:HG3	1.71	0.55
2:B:178:LEU:HD22	2:B:178:LEU:N	2.22	0.55
2:C:261:GLY:O	2:C:262:GLU:C	2.44	0.55
2:C:263:ARG:NH1	2:C:263:ARG:HG3	2.21	0.55
2:D:144:GLU:OE1	2:D:144:GLU:HA	2.07	0.55
2:D:354:LEU:CD1	3:E:253:MSE:CE	2.85	0.55
2:G:12:PRO:O	2:G:57:LEU:HD21	2.06	0.55
2:H:115:PRO:HG3	2:H:121:LYS:HB2	1.89	0.55
2:H:250:LEU:CD2	2:H:309:ILE:HB	2.37	0.55
2:I:238:SER:CB	2:I:243:THR:HB	2.37	0.55
3:J:35:MSE:HE3	3:J:198:PRO:CD	2.33	0.55
1:A:73:LEU:HD13	1:F:206:VAL:O	2.06	0.55
2:C:215:ARG:NH2	6:C:1300:PO4:O1	2.40	0.55
2:C:316:LEU:HD22	2:C:320:ILE:CD1	2.31	0.55
3:E:241:ALA:N	3:E:242:PRO:HD2	2.21	0.55
3:E:276:GLU:O	3:E:279:ASN:HB2	2.07	0.55
1:F:194:ASP:CB	1:F:201:ARG:HH12	2.19	0.55
2:G:9:LYS:HD2	2:G:194:GLU:OE1	2.06	0.55
2:B:158:ASP:OD2	2:B:161:LYS:HG2	2.06	0.55
2:C:201:ARG:HG3	2:C:234:THR:CG2	2.37	0.55
2:D:306:MET:C	2:D:308:ALA:N	2.60	0.55
1:F:310:LEU:HB3	1:F:314:GLN:CD	2.27	0.55
2:H:11:ARG:NH2	2:I:165:THR:HG22	2.22	0.55
2:H:156:THR:HG22	2:H:158:ASP:H	1.72	0.55
3:J:161:LEU:HD12	3:J:161:LEU:N	2.21	0.55
1:A:102:GLY:HA3	2:G:310:GLU:OE1	2.06	0.55
1:F:270:ARG:CG	1:F:283:ARG:NH2	2.63	0.55
2:G:113:TYR:CD2	2:G:147:PRO:HB3	2.42	0.55
2:H:77:ASP:O	2:H:81:GLU:HG3	2.06	0.55
2:I:215:ARG:CD	5:I:803:AGS:H5'1	2.25	0.55
2:I:347:MET:O	2:I:351:MET:HG2	2.07	0.55
2:D:119:ARG:HG3	2:D:120:PHE:HD2	1.67	0.54
1:F:47:PHE:HD2	1:F:78:GLN:C	2.05	0.54
1:F:315:ASP:O	1:F:316:TYR:C	2.44	0.54
2:G:263:ARG:NE	2:G:267:LEU:HD21	2.22	0.54
2:B:353:LEU:O	2:B:354:LEU:C	2.44	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:200:PRO:HG2	2:C:305:ASP:CG	2.27	0.54
2:C:258:GLU:O	2:C:259:ALA:HB3	2.05	0.54
1:F:217:TRP:CZ3	1:F:250:LEU:HD22	2.42	0.54
2:H:34:LEU:HD13	2:H:36:ARG:NE	2.22	0.54
2:I:240:MET:SD	3:J:157:SER:HA	2.46	0.54
1:A:234:GLN:HA	1:A:237:ARG:HG3	1.89	0.54
2:C:100:LYS:HB3	2:D:133:ARG:NE	2.22	0.54
2:C:217:ALA:O	2:C:221:THR:OG1	2.21	0.54
2:D:124:LEU:HD22	2:D:125:ILE:N	2.21	0.54
3:E:285:ARG:HD3	3:E:323:LEU:HD23	1.90	0.54
1:F:247:LEU:HD12	1:F:312:LEU:HD22	1.89	0.54
2:G:248:GLN:HA	2:G:251:SER:HB2	1.88	0.54
2:H:87:PHE:HB3	2:H:90:LEU:HB3	1.90	0.54
1:A:161:GLU:OE1	1:A:196:LYS:HE2	2.07	0.54
2:D:238:SER:HB2	2:D:243:THR:HB	1.88	0.54
2:D:290:HIS:NE2	2:D:294:MET:HE1	2.22	0.54
3:E:210:TRP:CH2	3:E:213:ARG:NH1	2.76	0.54
1:F:174:TYR:HB2	1:F:181:LEU:HD23	1.89	0.54
1:F:250:LEU:HD23	1:F:250:LEU:H	1.73	0.54
2:G:23:HIS:CE1	2:G:176:LYS:HE3	2.42	0.54
1:A:52:THR:HG22	1:A:81:LEU:HD23	1.90	0.54
2:B:233:SER:O	2:B:237:VAL:HG23	2.07	0.54
2:C:42:LEU:HB3	2:C:172:GLN:HA	1.90	0.54
3:E:296:ILE:CA	3:E:299:GLN:HG3	2.34	0.54
2:G:148:GLU:OE1	2:G:148:GLU:HA	2.06	0.54
2:G:248:GLN:O	2:G:250:LEU:CA	2.56	0.54
2:H:91:ILE:CG2	2:H:107:LEU:HD13	2.37	0.54
2:H:93:ILE:HG21	2:H:104:THR:HG23	1.89	0.54
2:C:15:PHE:HE1	2:C:57:LEU:HB3	1.71	0.54
2:D:82:ILE:HG23	2:D:90:LEU:HD22	1.90	0.54
3:E:199:GLY:O	3:E:202:LEU:HB3	2.08	0.54
3:E:205:PHE:O	3:E:207:GLY:N	2.34	0.54
1:F:299:ARG:HG3	3:J:317:LEU:CG	2.37	0.54
2:G:284:GLU:O	2:G:288:LEU:HG	2.08	0.54
2:H:97:SER:HB3	2:H:100:LYS:HB2	1.89	0.54
3:J:46:ARG:NH1	3:J:68:MSE:HG3	2.22	0.54
2:C:314:ARG:O	2:C:315:GLU:O	2.25	0.54
3:E:13:LYS:O	3:E:16:ALA:HB3	2.06	0.54
3:E:49:LEU:HD23	3:E:68:MSE:SE	2.58	0.54
3:E:202:LEU:HD13	3:E:203:ALA:N	2.23	0.54
2:H:257:VAL:HG11	2:H:320:ILE:HD13	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:212:ALA:HB1	3:J:244:ARG:HH21	1.73	0.54
1:A:187:ARG:O	1:A:190:LEU:HB2	2.07	0.54
1:A:197:LEU:HB3	1:A:202:VAL:CG2	2.38	0.54
2:C:24:VAL:HG13	2:C:173:PHE:CD1	2.42	0.54
2:C:199:GLU:OE2	2:C:201:ARG:NH2	2.39	0.54
2:D:279:GLU:HB3	3:E:149:GLU:OE2	2.08	0.54
3:E:237:ASN:HD22	3:E:238:HIS:N	2.06	0.54
2:G:6:LEU:CD1	2:G:191:LEU:CD2	2.85	0.54
2:G:227:SER:HA	2:H:26:THR:HG22	1.90	0.54
2:G:354:LEU:HD11	2:H:294:MET:SD	2.47	0.54
2:H:201:ARG:HH21	2:H:205:LEU:CD2	2.21	0.54
2:I:51:LYS:NZ	5:I:803:AGS:S1G	2.80	0.54
2:B:245:ASP:OD1	2:B:246:ASP:N	2.41	0.54
2:B:299:PRO:C	2:B:301:ALA:H	2.11	0.54
2:B:339:LEU:HG	2:B:345:ARG:HD3	1.90	0.54
2:C:49:VAL:CG1	2:C:175:LEU:HB3	2.38	0.54
2:D:198:HIS:HA	2:D:232:VAL:O	2.08	0.54
3:E:4:TYR:HB3	3:E:5:PRO:HD2	1.89	0.54
1:F:311:THR:HA	1:F:314:GLN:OE1	2.08	0.54
2:G:338:GLU:HB3	2:H:333:LEU:CD2	2.38	0.54
2:H:100:LYS:CE	2:I:136:PHE:HD2	2.20	0.54
3:J:90:VAL:HG21	3:J:123:ALA:HB3	1.90	0.54
3:J:139:THR:HG22	3:J:140:TRP:N	2.23	0.54
1:A:316:TYR:N	1:A:316:TYR:CD1	2.76	0.54
2:D:60:LYS:HA	2:D:82:ILE:CD1	2.38	0.54
2:D:259:ALA:HA	2:D:363:MET:HE1	1.90	0.54
2:G:188:GLU:O	2:G:192:ASN:ND2	2.41	0.54
2:H:316:LEU:HD22	2:H:320:ILE:HD11	1.90	0.54
2:I:244:LEU:CD1	2:I:276:ILE:HD13	2.34	0.54
3:J:203:ALA:O	3:J:206:GLN:HG2	2.07	0.54
1:A:32:GLN:O	1:A:35:GLN:HB3	2.08	0.53
2:B:285:MET:O	2:B:286:LEU:C	2.47	0.53
3:E:213:ARG:NH2	3:E:267:ASN:OD1	2.41	0.53
2:H:295:VAL:CG2	2:H:301:ALA:HB3	2.36	0.53
2:I:277:GLU:HB2	2:I:280:ALA:CB	2.38	0.53
3:J:304:THR:HG22	3:J:305:GLY:N	2.24	0.53
1:A:82:LEU:HD13	1:A:110:LEU:HD11	1.90	0.53
2:D:38:HIS:HD2	2:D:40:ALA:H	1.54	0.53
2:D:61:GLY:CA	2:D:72:PRO:HG3	2.38	0.53
3:E:233:LEU:CD1	3:E:237:ASN:HB2	2.37	0.53
3:E:321:HIS:O	3:E:327:VAL:HG21	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:19:ALA:HB2	1:F:133:ARG:HD3	1.90	0.53
1:F:217:TRP:HZ2	1:F:328:SER:HG	1.55	0.53
2:G:269:ASN:HA	2:G:346:ARG:HH21	1.71	0.53
3:J:331:VAL:HG13	3:J:332:PRO:HD2	1.90	0.53
2:B:198:HIS:HD2	2:B:203:LEU:HD11	1.66	0.53
2:B:236:ALA:O	2:B:239:ALA:HB3	2.08	0.53
2:C:101:VAL:HG23	2:C:102:GLU:OE2	2.08	0.53
2:D:22:GLU:C	2:D:24:VAL:N	2.62	0.53
2:H:111:VAL:HG11	2:H:150:VAL:HG21	1.90	0.53
2:I:214:LEU:HB3	5:I:803:AGS:C4	2.38	0.53
2:C:98:ARG:O	2:C:101:VAL:HG22	2.07	0.53
2:D:102:GLU:HG2	2:D:106:ASP:OD2	2.07	0.53
2:D:215:ARG:NH1	5:D:801:AGS:O2G	2.41	0.53
3:E:6:TRP:O	3:E:9:PRO:HD2	2.08	0.53
1:F:299:ARG:CG	3:J:317:LEU:HD21	2.39	0.53
2:I:258:GLU:O	2:I:259:ALA:HB3	2.09	0.53
3:J:4:TYR:N	3:J:7:LEU:HD12	2.14	0.53
3:J:51:GLN:HB2	3:J:62:CYS:HB2	1.90	0.53
2:C:302:LEU:O	2:C:303:GLY:O	2.26	0.53
2:C:350:GLU:OE1	2:D:294:MET:HE1	2.09	0.53
3:E:214:GLU:HG2	3:E:218:GLN:NE2	2.23	0.53
3:J:153:ALA:O	3:J:157:SER:OG	2.25	0.53
1:A:262:ARG:NH1	3:E:230:TYR:HB3	2.24	0.53
2:C:263:ARG:HG3	2:C:263:ARG:HH11	1.73	0.53
3:E:203:ALA:HA	3:E:206:GLN:HB2	1.91	0.53
3:E:251:LEU:O	3:E:254:ASP:N	2.39	0.53
1:F:147:LEU:HB3	1:F:148:PRO:HD3	1.90	0.53
1:F:249:THR:HB	1:F:250:LEU:HD23	1.90	0.53
2:G:119:ARG:HG3	2:G:120:PHE:CD2	2.44	0.53
2:I:159:PRO:O	2:I:162:LEU:HB2	2.08	0.53
1:A:103:LEU:C	1:A:103:LEU:HD12	2.28	0.53
2:D:25:LEU:HD21	2:D:54:ILE:HD13	1.89	0.53
2:D:61:GLY:HA2	2:D:72:PRO:HG3	1.91	0.53
3:E:74:PRO:HD2	3:E:106:LEU:CD1	2.38	0.53
3:E:88:LEU:HD23	3:E:89:GLY:N	2.23	0.53
3:E:251:LEU:O	3:E:252:LEU:C	2.46	0.53
3:E:296:ILE:O	3:E:300:LEU:HD12	2.09	0.53
1:F:1:MSE:HE1	1:F:127:PHE:CE1	2.44	0.53
1:F:96:GLN:OE1	1:F:96:GLN:HA	2.08	0.53
1:F:188:LEU:HD21	1:F:202:VAL:HG22	1.91	0.53
1:F:299:ARG:NH1	3:J:321:HIS:ND1	2.57	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:48:GLY:HA3	2:G:215:ARG:H	1.74	0.53
3:J:315:LEU:O	3:J:319:ILE:HG13	2.09	0.53
1:A:213:THR:C	1:A:215:PHE:N	2.62	0.53
1:A:237:ARG:HG2	1:A:321:TRP:CZ3	2.43	0.53
2:B:21:GLN:OE1	2:B:175:LEU:HB3	2.09	0.53
2:B:133:ARG:O	2:B:137:ASN:ND2	2.42	0.53
2:B:191:LEU:HD11	2:B:232:VAL:HG21	1.90	0.53
2:G:309:ILE:HG22	2:G:313:MET:HG2	1.91	0.53
1:A:32:GLN:HE21	1:A:113:ARG:HH22	1.56	0.53
2:B:47:ARG:HD2	5:B:802:AGS:O2G	2.09	0.53
3:E:92:ALA:O	3:E:96:VAL:HG23	2.09	0.53
3:E:279:ASN:C	3:E:281:LEU:H	2.11	0.53
2:H:276:ILE:HD12	2:H:278:TRP:CZ3	2.44	0.53
2:H:295:VAL:HG13	2:H:299:PRO:HA	1.91	0.53
3:J:232:LEU:O	3:J:236:LEU:HG	2.09	0.53
3:J:333:HIS:O	3:J:334:LEU:OXT	2.27	0.53
1:A:6:PRO:HB2	1:A:7:GLU:OE2	2.08	0.53
2:B:210:ALA:HB2	2:B:217:ALA:HB2	1.90	0.53
2:B:316:LEU:O	2:B:317:ALA:C	2.46	0.53
2:D:292:ILE:HG13	2:D:313:MET:CE	2.39	0.53
2:G:341:TYR:O	2:H:333:LEU:CD1	2.56	0.53
2:I:257:VAL:HG11	2:I:320:ILE:HD13	1.91	0.53
2:C:307:ALA:HA	2:C:310:GLU:HB2	1.91	0.52
3:E:277:LEU:HD23	3:E:281:LEU:HD12	1.91	0.52
1:F:55:ILE:HG22	1:F:55:ILE:O	2.09	0.52
2:G:11:ARG:HH21	2:G:56:ARG:HH21	1.47	0.52
2:G:94:ASP:OD2	2:G:97:SER:HB2	2.08	0.52
2:H:60:LYS:HG2	2:H:79:CYS:SG	2.49	0.52
3:J:50:CYS:SG	3:J:53:PRO:HA	2.49	0.52
1:A:59:THR:HG22	1:A:60:ASP:H	1.72	0.52
2:I:271:ALA:HB1	2:I:276:ILE:CD1	2.28	0.52
2:I:357:LEU:HA	2:I:363:MET:CE	2.39	0.52
2:I:364:PRO:HG3	3:J:260:HIS:CE1	2.43	0.52
1:A:71:MSE:SE	1:F:231:HIS:HB3	2.59	0.52
2:C:220:LEU:O	2:C:222:ASP:N	2.42	0.52
2:D:254:GLU:OE2	2:D:312:ARG:HD2	2.08	0.52
1:F:2:ILE:HD11	1:F:18:ARG:HH21	1.73	0.52
3:J:94:ARG:O	3:J:98:GLU:HG2	2.09	0.52
1:A:24:LEU:HB3	1:A:116:LYS:HA	1.91	0.52
3:E:118:ALA:HB2	3:E:145:THR:HG23	1.90	0.52
1:F:19:ALA:CB	1:F:133:ARG:HD3	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:45:GLN:CD	1:F:77:ARG:HD3	2.03	0.52
1:F:57:PRO:C	1:F:59:THR:N	2.63	0.52
3:J:147:GLU:OE2	3:J:150:ARG:HG3	2.08	0.52
1:A:102:GLY:HA3	2:G:310:GLU:CD	2.30	0.52
1:A:289:ALA:C	1:A:291:ASN:H	2.13	0.52
2:D:214:LEU:HD23	5:D:801:AGS:N3	2.23	0.52
2:I:148:GLU:CD	2:I:149:HIS:N	2.62	0.52
2:I:291:ARG:O	2:I:295:VAL:HG23	2.09	0.52
2:C:84:GLN:NE2	2:D:144:GLU:OE2	2.43	0.52
2:C:350:GLU:O	2:C:351:MET:C	2.47	0.52
2:D:268:ILE:HG23	2:D:278:TRP:CH2	2.45	0.52
3:E:145:THR:HG22	3:E:147:GLU:N	2.24	0.52
2:H:219:SER:HA	2:H:222:ASP:OD2	2.09	0.52
2:I:309:ILE:CG2	2:I:313:MET:HG2	2.39	0.52
3:J:50:CYS:SG	3:J:53:PRO:CA	2.97	0.52
3:J:317:LEU:HD22	3:J:317:LEU:C	2.30	0.52
1:F:145:ALA:O	1:F:148:PRO:HD2	2.08	0.52
1:F:221:LEU:HD13	1:F:331:LEU:HD12	1.92	0.52
2:I:21:GLN:NE2	2:I:176:LYS:N	2.00	0.52
2:B:255:ALA:HB2	2:B:263:ARG:HD3	1.92	0.52
2:C:367:GLU:HG3	2:D:321:PRO:HA	1.91	0.52
3:E:155:LEU:C	3:E:157:SER:H	2.13	0.52
1:F:269:LEU:HG	1:F:273:PHE:CE1	2.44	0.52
2:G:7:ALA:CB	2:G:218:LEU:CD1	2.76	0.52
3:J:31:ALA:CB	3:J:164:LEU:HB3	2.35	0.52
1:A:213:THR:O	1:A:216:HIS:HB2	2.10	0.52
1:A:222:LEU:C	1:A:224:GLY:H	2.12	0.52
2:B:44:SER:HB2	2:B:159:PRO:CG	2.40	0.52
2:B:360:HIS:HD2	2:B:361:PRO:N	2.08	0.52
2:C:5:VAL:O	2:C:5:VAL:HG23	2.10	0.52
2:D:268:ILE:HD11	2:D:353:LEU:HD12	1.92	0.52
2:D:292:ILE:HD11	2:D:316:LEU:HD12	1.92	0.52
2:G:139:LEU:O	2:G:143:LEU:HG	2.09	0.52
2:H:268:ILE:HD11	2:H:353:LEU:HD12	1.91	0.52
2:I:145:GLU:N	2:I:146:PRO:HD3	2.25	0.52
2:C:254:GLU:O	2:C:258:GLU:CG	2.47	0.52
2:D:218:LEU:O	2:D:221:THR:N	2.42	0.52
3:E:239:GLU:HA	3:E:308:ARG:NH2	2.25	0.52
1:F:24:LEU:HA	1:F:114:GLY:O	2.10	0.52
2:G:10:TRP:CH2	2:G:193:GLU:OE1	2.63	0.52
2:H:181:GLU:OE1	2:H:184:ARG:HD2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:247:LEU:HD23	1:A:324:LEU:HD21	1.92	0.51
2:B:316:LEU:HD22	2:B:320:ILE:CD1	2.40	0.51
2:D:32:LEU:HD23	2:D:37:ILE:HD11	1.92	0.51
2:D:265:MET:HE3	2:D:354:LEU:HD21	1.90	0.51
2:D:363:MET:SD	2:D:364:PRO:HD2	2.50	0.51
2:I:339:LEU:N	2:I:340:PRO:HD2	2.25	0.51
1:A:105:HIS:CD2	1:A:107:ASP:HB2	2.46	0.51
1:A:105:HIS:ND1	1:A:108:LEU:HB2	2.22	0.51
2:B:318:ARG:CG	2:B:319:THR:N	2.72	0.51
2:C:10:TRP:CE2	2:C:190:ILE:HG23	2.45	0.51
2:C:37:ILE:HD13	2:C:120:PHE:HE1	1.73	0.51
2:C:100:LYS:HB3	2:D:133:ARG:HE	1.75	0.51
2:D:290:HIS:CE1	2:D:294:MET:CE	2.93	0.51
3:E:110:LYS:HD3	3:E:139:THR:OG1	2.09	0.51
3:J:220:LEU:HD23	3:J:232:LEU:HD11	1.92	0.51
3:J:253:MSE:HE2	3:J:257:LYS:HG3	1.93	0.51
3:J:303:VAL:CB	3:J:306:ILE:HD11	2.23	0.51
1:A:223:MSE:HE2	1:A:292:ARG:CB	2.39	0.51
2:B:262:GLU:O	2:B:266:ALA:HB2	2.10	0.51
2:D:244:LEU:HD21	2:D:276:ILE:HD13	1.92	0.51
2:D:265:MET:HG2	3:E:262:ALA:HB2	1.92	0.51
2:D:333:LEU:C	2:D:333:LEU:CD1	2.79	0.51
1:F:50:HIS:ND1	1:F:79:THR:CG2	2.74	0.51
2:H:253:VAL:O	2:H:256:MET:HB3	2.10	0.51
2:I:346:ARG:O	2:I:350:GLU:HG3	2.11	0.51
3:J:149:GLU:C	3:J:151:LEU:H	2.14	0.51
1:A:4:LEU:CD1	1:A:137:VAL:HG22	2.40	0.51
2:D:32:LEU:O	2:D:35:GLY:N	2.41	0.51
2:D:238:SER:O	2:D:242:GLY:N	2.43	0.51
2:D:355:ARG:HH12	3:E:287:GLN:HB3	1.74	0.51
2:G:10:TRP:CZ2	2:G:193:GLU:CD	2.83	0.51
2:H:11:ARG:NH1	2:I:169:ARG:NH1	2.56	0.51
2:I:360:HIS:CD2	2:I:360:HIS:C	2.84	0.51
3:J:225:PRO:HB3	3:J:276:GLU:OE2	2.10	0.51
1:A:74:PHE:CZ	1:F:207:ASN:N	2.79	0.51
1:A:133:ARG:HH21	2:G:300:ALA:HB1	1.73	0.51
1:A:154:ARG:HH11	1:A:157:GLN:NE2	2.08	0.51
2:B:28:LEU:HD11	2:B:43:PHE:HE1	1.75	0.51
2:D:44:SER:HA	2:D:156:THR:O	2.11	0.51
2:D:211:GLU:O	2:D:213:SER:N	2.44	0.51
3:E:220:LEU:HD21	3:E:248:LEU:CD1	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:201:ARG:HA	2:I:204:GLN:HE21	1.76	0.51
2:I:281:LEU:O	2:I:284:GLU:HB2	2.11	0.51
3:J:293:VAL:HA	3:J:315:LEU:HD11	1.92	0.51
2:B:140:LEU:HA	2:B:143:LEU:CD2	2.35	0.51
2:B:232:VAL:O	2:B:232:VAL:HG12	2.10	0.51
2:B:318:ARG:HG3	2:B:319:THR:N	2.25	0.51
2:C:19:VAL:O	2:C:21:GLN:N	2.44	0.51
3:E:92:ALA:O	3:E:95:GLU:HG2	2.10	0.51
3:E:268:VAL:O	3:E:271:PRO:HD3	2.11	0.51
1:F:82:LEU:HB2	1:F:112:VAL:HG22	1.93	0.51
1:F:217:TRP:HZ3	1:F:250:LEU:HD13	1.75	0.51
1:F:304:LEU:HB3	1:F:327:LEU:CD2	2.31	0.51
2:G:98:ARG:NH1	2:H:140:LEU:HD22	2.21	0.51
1:A:20:ALA:CB	1:A:110:LEU:HB3	2.40	0.51
1:A:80:LEU:HG	1:A:82:LEU:HD12	1.93	0.51
2:C:254:GLU:OE1	2:C:312:ARG:NH2	2.41	0.51
3:E:318:ARG:O	3:E:321:HIS:HB3	2.11	0.51
1:F:237:ARG:O	1:F:237:ARG:HG2	2.11	0.51
2:H:44:SER:HB2	2:H:159:PRO:HG3	1.91	0.51
2:H:149:HIS:CE1	2:H:150:VAL:HG23	2.46	0.51
3:J:19:GLN:HB2	3:J:47:TYR:OH	2.11	0.51
1:A:29:LEU:O	1:A:33:GLU:HG3	2.11	0.51
1:A:105:HIS:HE1	1:A:108:LEU:HB2	1.63	0.51
1:A:300:GLN:OE1	1:A:335:PRO:HB2	2.11	0.51
2:B:158:ASP:N	2:B:159:PRO:HD3	2.26	0.51
2:C:14:THR:O	2:C:57:LEU:HD13	2.11	0.51
2:C:28:LEU:HD13	2:C:58:LEU:HD13	1.92	0.51
2:C:367:GLU:OE2	2:C:367:GLU:C	2.49	0.51
3:E:277:LEU:O	3:E:279:ASN:N	2.43	0.51
3:E:286:LEU:O	3:E:289:ILE:N	2.43	0.51
2:G:291:ARG:HH22	2:G:303:GLY:HA3	1.74	0.51
2:I:21:GLN:HE22	2:I:176:LYS:CA	2.13	0.51
1:A:98:LEU:O	1:A:101:THR:HG22	2.11	0.51
2:C:279:GLU:HG3	2:C:336:ARG:HD2	1.93	0.51
2:D:366:PRO:HB3	3:E:282:SER:CB	2.41	0.51
3:E:117:ALA:O	3:E:120:LEU:HD23	2.10	0.51
3:E:317:LEU:O	3:E:320:GLU:HB2	2.10	0.51
2:H:156:THR:HG22	2:H:158:ASP:N	2.26	0.51
3:J:253:MSE:CG	3:J:257:LYS:HE3	2.32	0.51
1:A:298:LEU:CD1	1:A:298:LEU:N	2.73	0.51
1:A:299:ARG:O	1:A:302:VAL:N	2.42	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:276:ILE:HG13	2:B:277:GLU:N	2.26	0.51
2:C:296:GLN:HE21	2:C:317:ALA:HA	1.76	0.51
2:D:128:VAL:HG13	2:D:162:LEU:HD21	1.91	0.51
3:E:298:GLU:HA	3:E:301:MSE:HG3	1.92	0.51
1:F:93:ILE:CG2	1:F:97:LEU:HD13	2.41	0.51
2:G:98:ARG:HD3	2:H:140:LEU:CD1	2.39	0.51
2:G:205:LEU:CD1	2:G:234:THR:HG23	2.40	0.51
2:G:205:LEU:HD11	2:G:234:THR:HG23	1.91	0.51
3:J:320:GLU:O	3:J:323:LEU:HB2	2.11	0.51
1:A:103:LEU:HD12	1:A:103:LEU:O	2.10	0.50
2:B:357:LEU:HB3	2:B:365:LEU:HD21	1.92	0.50
2:C:220:LEU:O	2:C:223:GLN:N	2.44	0.50
2:C:236:ALA:O	2:C:239:ALA:CB	2.57	0.50
2:C:263:ARG:HH11	2:C:263:ARG:CG	2.25	0.50
2:D:229:ASP:OD1	2:D:229:ASP:N	2.45	0.50
3:E:35:MSE:CE	3:E:166:PRO:HA	2.41	0.50
3:E:303:VAL:CG1	3:E:306:ILE:HG12	2.41	0.50
2:G:178:LEU:HD22	2:G:182:GLN:NE2	2.24	0.50
2:G:227:SER:O	2:H:26:THR:HG21	2.11	0.50
2:H:37:ILE:HD13	2:H:151:LYS:HE3	1.93	0.50
2:H:93:ILE:HD13	2:H:104:THR:HG23	1.92	0.50
2:H:224:ALA:O	2:H:228:GLY:N	2.43	0.50
2:I:250:LEU:CD2	2:I:312:ARG:HD2	2.41	0.50
1:A:74:PHE:CG	1:F:207:ASN:OD1	2.60	0.50
1:A:193:PRO:HB2	2:B:34:LEU:HD12	1.91	0.50
1:A:254:LEU:HD23	1:A:305:LEU:HD12	1.93	0.50
3:E:143:LEU:HD22	3:E:143:LEU:N	2.26	0.50
3:E:175:TRP:CD1	3:E:176:LEU:HD23	2.46	0.50
2:G:9:LYS:HB3	2:G:194:GLU:OE2	2.11	0.50
2:G:48:GLY:O	2:G:214:LEU:HB3	2.11	0.50
2:G:98:ARG:CZ	2:H:140:LEU:HD13	2.42	0.50
2:H:327:LEU:HD12	2:H:327:LEU:O	2.10	0.50
1:A:119:LYS:H	1:A:119:LYS:CD	2.01	0.50
2:B:191:LEU:CD2	2:B:198:HIS:HB3	2.41	0.50
2:D:332:LEU:HD23	2:D:352:THR:HG22	1.93	0.50
3:E:249:ALA:O	3:E:250:THR:C	2.50	0.50
1:F:162:LEU:HD11	1:F:185:LEU:CD2	2.40	0.50
2:G:46:THR:CG2	2:G:47:ARG:H	2.01	0.50
2:G:309:ILE:CG2	2:G:313:MET:HG2	2.41	0.50
1:A:289:ALA:O	1:A:291:ASN:N	2.44	0.50
2:D:244:LEU:CD2	2:D:276:ILE:HD13	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:E:125:ALA:O	3:E:128:LEU:HB3	2.12	0.50
1:F:154:ARG:O	1:F:154:ARG:HD2	2.10	0.50
1:F:188:LEU:CD2	1:F:197:LEU:HD13	2.39	0.50
1:F:217:TRP:CZ3	1:F:250:LEU:HD13	2.45	0.50
2:H:225:ILE:HG23	2:H:230:GLY:HA2	1.94	0.50
1:A:74:PHE:CE1	1:F:203:GLU:HG2	2.44	0.50
1:A:177:ASN:OD1	1:A:179:LEU:HB3	2.12	0.50
1:A:262:ARG:NH2	3:E:230:TYR:HB2	2.26	0.50
1:A:271:ALA:O	1:A:275:LYS:HG2	2.12	0.50
2:B:147:PRO:O	2:B:150:VAL:HB	2.11	0.50
2:B:360:HIS:CD2	2:B:361:PRO:N	2.80	0.50
2:C:282:LEU:O	2:C:283:VAL:C	2.49	0.50
2:D:111:VAL:HG13	2:D:112:GLN:N	2.27	0.50
2:D:196:ILE:HG22	2:D:197:ALA:H	1.75	0.50
2:D:346:ARG:O	2:D:347:MET:C	2.47	0.50
3:E:303:VAL:O	3:E:303:VAL:HG12	2.12	0.50
2:G:93:ILE:CG2	2:G:104:THR:HG23	2.42	0.50
2:G:99:THR:HG21	2:H:145:GLU:CB	2.41	0.50
2:I:244:LEU:C	2:I:246:ASP:N	2.65	0.50
2:I:324:ASP:O	2:I:327:LEU:HB3	2.12	0.50
2:B:256:MET:HE1	2:B:328:TYR:HB3	1.94	0.50
2:C:140:LEU:O	2:C:169:ARG:NH1	2.45	0.50
2:C:338:GLU:C	2:C:340:PRO:HD2	2.32	0.50
2:D:42:LEU:HD22	2:D:42:LEU:C	2.30	0.50
3:E:216:LEU:HD23	3:E:216:LEU:C	2.32	0.50
1:F:71:MSE:HA	1:F:78:GLN:NE2	2.26	0.50
1:F:273:PHE:CD1	1:F:283:ARG:CG	2.70	0.50
1:F:285:MSE:HE2	1:F:285:MSE:HB3	1.93	0.50
1:F:295:GLN:CD	1:F:295:GLN:N	2.54	0.50
2:H:245:ASP:HB2	2:H:248:GLN:HG3	1.93	0.50
2:H:277:GLU:O	2:H:279:GLU:N	2.45	0.50
2:B:148:GLU:HG3	2:B:149:HIS:CE1	2.46	0.50
2:B:252:LEU:HD23	2:B:285:MET:SD	2.52	0.50
2:B:354:LEU:O	2:B:355:ARG:C	2.49	0.50
2:C:112:GLN:HB2	2:C:121:LYS:HE2	1.92	0.50
2:C:250:LEU:HB2	2:C:288:LEU:HD13	1.94	0.50
2:C:293:ALA:HB2	2:C:325:ILE:HG21	1.93	0.50
3:E:8:ARG:N	3:E:9:PRO:CD	2.74	0.50
3:E:237:ASN:ND2	3:E:308:ARG:HD2	2.27	0.50
3:E:249:ALA:O	3:E:252:LEU:N	2.45	0.50
1:F:179:LEU:HD21	2:G:167:LEU:CD2	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:91:ILE:HD11	2:I:121:LYS:HE3	1.94	0.50
3:J:282:SER:HB3	3:J:283:PRO:HD2	1.92	0.50
1:A:93:ILE:HG22	1:A:93:ILE:O	2.10	0.50
1:A:192:TRP:HB3	1:A:195:GLY:HA3	1.94	0.50
1:A:268:PRO:C	1:A:270:ARG:N	2.65	0.50
2:B:183:ILE:HG12	2:B:214:LEU:HD13	1.94	0.50
2:B:191:LEU:HD21	2:B:198:HIS:HB3	1.94	0.50
2:B:295:VAL:HA	2:B:301:ALA:HB3	1.92	0.50
2:B:341:TYR:CD1	2:C:337:LYS:HG3	2.47	0.50
2:C:333:LEU:C	2:C:335:GLY:N	2.63	0.50
3:E:32:LEU:HB3	3:E:33:PRO:HD2	1.94	0.50
1:F:104:LEU:HB3	1:F:133:ARG:HH11	1.74	0.50
1:F:144:GLN:OE1	1:F:280:GLN:HG3	2.12	0.50
1:F:161:GLU:HB2	1:F:196:LYS:HA	1.94	0.50
1:F:168:GLN:HA	1:F:171:CYS:SG	2.52	0.50
2:H:210:ALA:HB1	2:H:213:SER:HG	1.77	0.50
3:J:116:ASP:HB3	3:J:119:LEU:HD12	1.93	0.50
3:J:154:THR:O	3:J:157:SER:HB2	2.11	0.50
3:J:196:GLY:O	3:J:198:PRO:HD3	2.10	0.50
1:A:38:VAL:CG1	1:A:111:ILE:HD11	2.42	0.50
1:A:329:LEU:CD1	2:B:291:ARG:HH21	2.25	0.50
2:C:3:TYR:CD2	2:C:3:TYR:N	2.80	0.50
2:C:91:ILE:HD12	2:C:123:TYR:CZ	2.47	0.50
2:D:360:HIS:ND1	2:D:361:PRO:HD2	2.27	0.50
1:F:128:THR:O	1:F:131:ALA:HB3	2.12	0.50
2:H:112:GLN:HB2	2:H:121:LYS:HZ2	1.77	0.50
2:H:191:LEU:CD1	2:H:203:LEU:HD21	2.41	0.50
2:H:351:MET:HE1	2:I:326:GLN:HE22	1.76	0.50
2:I:233:SER:O	2:I:237:VAL:HG23	2.11	0.50
1:A:196:LYS:H	1:A:201:ARG:HH12	1.60	0.49
1:A:295:GLN:CD	1:A:295:GLN:H	2.15	0.49
2:B:164:VAL:HG23	2:B:165:THR:N	2.26	0.49
2:C:58:LEU:HD23	2:C:153:LEU:HD21	1.93	0.49
2:C:65:GLU:C	2:C:67:GLY:H	2.16	0.49
2:C:206:LEU:HD13	2:C:221:THR:HA	1.94	0.49
2:C:343:PRO:HG2	2:C:347:MET:SD	2.52	0.49
2:D:32:LEU:HD23	2:D:37:ILE:CD1	2.42	0.49
2:D:38:HIS:CD2	2:D:39:HIS:H	2.30	0.49
2:D:309:ILE:O	2:D:310:GLU:C	2.48	0.49
2:G:202:ALA:HB1	2:G:237:VAL:HG21	1.94	0.49
2:H:184:ARG:HH12	2:H:203:LEU:CD1	2.25	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:321:PRO:HB2	2:H:324:ASP:OD1	2.12	0.49
1:A:92:ALA:O	1:A:96:GLN:HG3	2.12	0.49
1:A:188:LEU:HD12	1:A:197:LEU:HD21	1.93	0.49
2:C:354:LEU:O	2:C:355:ARG:C	2.50	0.49
1:F:330:LEU:O	1:F:330:LEU:CD1	2.61	0.49
2:I:334:ILE:HG21	3:J:332:PRO:CB	2.42	0.49
2:I:357:LEU:HA	2:I:363:MET:HE1	1.94	0.49
3:J:77:TYR:HE2	3:J:100:LEU:HD21	1.76	0.49
1:A:81:LEU:HD12	1:A:111:ILE:O	2.12	0.49
1:A:101:THR:OG1	1:A:129:ALA:HB3	2.13	0.49
1:A:105:HIS:HE1	1:A:108:LEU:HD12	1.77	0.49
2:B:11:ARG:HH21	2:B:56:ARG:HH21	1.60	0.49
2:C:248:GLN:O	2:C:252:LEU:HD12	2.12	0.49
1:F:257:LEU:HD21	1:F:286:MSE:SE	2.63	0.49
2:I:158:ASP:OD2	2:I:161:LYS:HG2	2.11	0.49
2:I:244:LEU:C	2:I:246:ASP:H	2.15	0.49
2:C:13:GLN:OE1	2:C:83:GLU:OE1	2.30	0.49
2:C:306:MET:O	2:C:309:ILE:HG12	2.12	0.49
2:D:277:GLU:O	2:D:279:GLU:N	2.46	0.49
3:E:118:ALA:HB2	3:E:145:THR:CG2	2.42	0.49
3:E:169:GLU:CD	3:E:192:ARG:HH21	2.16	0.49
2:H:311:LEU:HD13	2:H:312:ARG:N	2.27	0.49
2:I:219:SER:OG	3:J:158:ARG:NH2	2.45	0.49
3:J:7:LEU:HD22	3:J:40:LEU:HB2	1.94	0.49
3:J:297:ARG:HH12	3:J:301:MSE:SE	2.44	0.49
1:A:293:LEU:CB	1:A:298:LEU:HD11	2.42	0.49
1:A:298:LEU:O	1:A:301:ALA:HB3	2.13	0.49
1:A:311:THR:CG2	1:A:318:GLN:HG2	2.42	0.49
2:C:37:ILE:HD11	2:C:151:LYS:HG3	1.93	0.49
2:C:102:GLU:HB3	2:C:105:ARG:NH1	2.27	0.49
2:D:136:PHE:HD1	2:D:166:ILE:HD11	1.77	0.49
3:E:192:ARG:C	3:E:194:SER:H	2.16	0.49
2:G:252:LEU:HD21	2:G:353:LEU:CD1	2.43	0.49
1:A:247:LEU:CD2	1:A:324:LEU:HD21	2.42	0.49
2:C:367:GLU:HG2	2:D:321:PRO:HA	1.95	0.49
2:D:244:LEU:CD1	2:D:276:ILE:HD13	2.42	0.49
2:H:250:LEU:HD21	2:H:312:ARG:HB2	1.95	0.49
2:H:296:GLN:OE1	2:H:322:PRO:HB3	2.11	0.49
1:A:262:ARG:NH1	3:E:228:ASP:OD2	2.46	0.49
1:A:298:LEU:N	1:A:298:LEU:HD13	2.28	0.49
2:C:59:ALA:O	2:C:82:ILE:CD1	2.61	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:261:GLY:CA	2:C:357:LEU:HD21	2.43	0.49
2:C:347:MET:O	2:C:348:GLY:C	2.51	0.49
2:D:10:TRP:HE1	2:D:190:ILE:HG23	1.71	0.49
2:G:10:TRP:CZ2	2:G:193:GLU:CG	2.90	0.49
2:G:179:ASP:OD1	2:G:180:VAL:N	2.46	0.49
2:H:264:VAL:O	2:H:268:ILE:HG13	2.13	0.49
3:J:106:LEU:O	3:J:107:GLY:C	2.50	0.49
1:A:49:GLU:HB2	1:A:77:ARG:O	2.11	0.49
1:A:143:GLU:O	1:A:147:LEU:HB2	2.13	0.49
1:A:259:ASN:O	1:A:262:ARG:N	2.45	0.49
2:D:38:HIS:CG	2:D:39:HIS:H	2.31	0.49
2:D:223:GLN:HB3	2:D:240:MET:HE3	1.91	0.49
2:D:257:VAL:CG1	2:D:320:ILE:HG12	2.36	0.49
3:E:24:HIS:HB2	3:E:160:ARG:CZ	2.43	0.49
3:E:193:LEU:HD23	3:E:266:THR:CG2	2.43	0.49
1:F:31:LEU:HD23	1:F:139:CYS:SG	2.53	0.49
2:G:7:ALA:HB2	2:G:218:LEU:HB3	1.95	0.49
2:G:7:ALA:HB1	2:G:218:LEU:HD13	1.86	0.49
2:G:293:ALA:HB2	2:G:325:ILE:HG21	1.94	0.49
2:H:81:GLU:HB3	2:H:86:ARG:O	2.12	0.49
2:I:309:ILE:O	2:I:311:LEU:N	2.45	0.49
3:J:223:SER:O	3:J:227:GLY:N	2.41	0.49
1:A:170:LEU:HD21	1:A:202:VAL:CG1	2.43	0.49
1:A:264:SER:O	1:A:265:ALA:CB	2.61	0.49
3:E:237:ASN:O	3:E:238:HIS:CB	2.55	0.49
2:G:252:LEU:HD21	2:G:353:LEU:HD11	1.95	0.49
2:G:334:ILE:O	2:G:337:LYS:HB2	2.11	0.49
2:H:65:GLU:HG3	2:H:78:ASN:ND2	2.28	0.49
2:H:277:GLU:O	2:H:280:ALA:N	2.46	0.49
2:H:351:MET:HE3	2:H:354:LEU:HD22	1.94	0.49
1:A:164:ASP:O	1:A:167:ASN:HB3	2.13	0.49
1:A:213:THR:H	1:A:216:HIS:CG	2.31	0.49
2:B:36:ARG:HB2	2:B:36:ARG:NH1	2.27	0.49
2:B:362:ARG:C	2:B:364:PRO:CD	2.81	0.49
2:C:51:LYS:HB2	6:C:1300:PO4:O4	2.13	0.49
2:C:58:LEU:HD23	2:C:153:LEU:HD22	1.94	0.49
2:C:134:HIS:ND1	2:C:135:SER:N	2.61	0.49
2:C:255:ALA:HB2	2:C:263:ARG:NH1	2.28	0.49
2:C:269:ASN:O	2:C:272:ALA:N	2.46	0.49
2:D:82:ILE:O	2:D:82:ILE:HG22	2.13	0.49
2:D:357:LEU:C	2:D:363:MET:SD	2.91	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:E:196:GLY:O	3:E:198:PRO:HD3	2.12	0.49
1:F:2:ILE:HD11	1:F:18:ARG:NH2	2.28	0.49
1:F:213:THR:C	1:F:215:PHE:H	2.15	0.49
2:H:215:ARG:NH1	2:I:164:VAL:HG11	2.28	0.49
2:H:351:MET:HE2	2:I:326:GLN:HE22	1.78	0.49
2:I:285:MET:HB2	2:I:332:LEU:HD21	1.94	0.49
1:A:55:ILE:CG2	1:A:93:ILE:HD13	2.43	0.48
1:A:267:THR:HG22	1:A:271:ALA:HB3	1.95	0.48
2:C:6:LEU:N	2:C:6:LEU:HD23	2.27	0.48
2:C:202:ALA:HB2	2:C:234:THR:CA	2.42	0.48
1:F:53:PHE:CZ	1:F:67:LEU:HD13	2.41	0.48
2:H:281:LEU:HD23	2:H:281:LEU:C	2.32	0.48
3:J:3:TRP:HH2	3:J:8:ARG:HB3	1.78	0.48
1:A:255:LEU:O	1:A:258:VAL:N	2.43	0.48
2:B:265:MET:HG3	2:C:297:LEU:HD21	1.94	0.48
2:C:78:ASN:O	2:C:82:ILE:HG13	2.11	0.48
2:C:327:LEU:HD12	2:C:327:LEU:C	2.32	0.48
2:D:37:ILE:HG22	2:D:38:HIS:N	2.28	0.48
2:D:139:LEU:O	2:D:142:THR:N	2.44	0.48
3:E:18:TYR:HB3	3:E:48:LEU:HD21	1.96	0.48
2:H:51:LYS:HB2	6:H:1400:PO4:O4	2.13	0.48
2:H:281:LEU:HD22	2:H:349:VAL:HG11	1.95	0.48
2:I:64:CYS:SG	2:I:66:THR:HB	2.53	0.48
2:I:257:VAL:HG13	2:I:328:TYR:OH	2.13	0.48
1:A:298:LEU:HD13	1:A:298:LEU:H	1.78	0.48
2:B:250:LEU:HD12	2:B:288:LEU:HD13	1.95	0.48
2:D:7:ALA:HA	2:D:218:LEU:HD13	1.95	0.48
2:D:244:LEU:HD11	2:D:276:ILE:HD13	1.95	0.48
2:D:276:ILE:HG22	2:D:277:GLU:H	1.77	0.48
2:D:344:ASP:HB3	2:D:347:MET:HB2	1.94	0.48
3:E:74:PRO:HB2	3:E:105:ARG:HB2	1.94	0.48
3:E:230:TYR:CD1	3:E:230:TYR:O	2.65	0.48
3:E:307:ASN:O	3:E:308:ARG:C	2.51	0.48
3:J:314:ASP:OD2	3:J:318:ARG:NH2	2.46	0.48
1:A:318:GLN:CG	1:A:318:GLN:O	2.61	0.48
1:A:318:GLN:O	1:A:318:GLN:HG3	2.13	0.48
2:B:352:THR:O	2:B:355:ARG:HB3	2.13	0.48
2:C:257:VAL:O	2:C:360:HIS:HE1	1.95	0.48
2:C:269:ASN:C	2:C:271:ALA:N	2.65	0.48
2:D:142:THR:HG22	2:D:147:PRO:HD3	1.96	0.48
3:E:161:LEU:HD12	3:E:161:LEU:N	2.20	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:101:THR:O	1:F:104:LEU:HG	2.13	0.48
1:F:318:GLN:O	1:F:319:SER:C	2.52	0.48
2:G:125:ILE:HD12	2:G:154:LEU:CD2	2.44	0.48
2:H:144:GLU:OE2	2:H:169:ARG:HD3	2.13	0.48
2:H:278:TRP:HB3	2:H:349:VAL:HG21	1.94	0.48
3:J:90:VAL:HG13	3:J:124:ALA:HA	1.95	0.48
3:J:169:GLU:O	3:J:173:VAL:HG23	2.14	0.48
1:A:36:ASP:O	1:A:40:GLN:HB2	2.13	0.48
2:B:179:ASP:HB3	2:B:182:GLN:HB2	1.95	0.48
2:B:246:ASP:C	2:B:248:GLN:H	2.16	0.48
2:D:12:PRO:C	2:D:13:GLN:HE21	2.17	0.48
2:D:196:ILE:CG2	2:D:197:ALA:N	2.77	0.48
2:D:268:ILE:HD12	2:D:350:GLU:HG2	1.94	0.48
1:F:191:LEU:HD13	2:G:26:THR:CG2	2.43	0.48
2:G:310:GLU:O	2:G:314:ARG:HG2	2.14	0.48
1:A:186:GLU:O	1:A:190:LEU:HD23	2.14	0.48
2:B:28:LEU:HD11	2:B:43:PHE:CE1	2.48	0.48
2:B:145:GLU:O	2:B:147:PRO:HD3	2.13	0.48
2:B:205:LEU:CD1	2:B:234:THR:HG23	2.44	0.48
2:B:225:ILE:O	2:B:229:ASP:N	2.47	0.48
2:C:321:PRO:O	2:C:324:ASP:HB2	2.13	0.48
1:F:222:LEU:HD12	1:F:285:MSE:CE	2.42	0.48
2:I:286:LEU:CD2	2:I:332:LEU:HD23	2.43	0.48
3:J:120:LEU:O	3:J:120:LEU:HD23	2.14	0.48
3:J:241:ALA:O	3:J:244:ARG:N	2.47	0.48
2:B:82:ILE:HG23	2:B:90:LEU:HD22	1.96	0.48
2:C:341:TYR:HB2	2:D:333:LEU:CD1	2.42	0.48
3:E:117:ALA:C	3:E:119:LEU:H	2.17	0.48
1:F:285:MSE:CE	1:F:285:MSE:HG2	2.44	0.48
2:G:99:THR:HG21	2:H:145:GLU:HB3	1.94	0.48
2:G:289:LEU:HD13	2:G:329:TYR:HA	1.96	0.48
2:H:181:GLU:CD	2:H:184:ARG:HD2	2.33	0.48
3:J:295:HIS:O	3:J:299:GLN:HG3	2.14	0.48
1:A:301:ALA:CB	1:A:331:LEU:HD21	2.44	0.48
3:E:285:ARG:O	3:E:289:ILE:HG13	2.14	0.48
1:F:3:ARG:NE	1:F:136:GLN:OE1	2.47	0.48
1:F:98:LEU:HD22	1:F:101:THR:CG2	2.44	0.48
2:G:9:LYS:CD	2:G:194:GLU:CD	2.78	0.48
2:C:37:ILE:O	2:C:37:ILE:HG23	2.14	0.48
2:C:45:GLY:C	2:C:46:THR:O	2.51	0.48
2:C:157:THR:HG22	2:C:157:THR:O	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:346:ARG:O	2:C:347:MET:C	2.52	0.48
2:D:140:LEU:HD11	2:D:165:THR:OG1	2.14	0.48
2:D:250:LEU:HD23	2:D:309:ILE:HG21	1.94	0.48
2:D:260:ASN:O	2:D:260:ASN:OD1	2.32	0.48
2:D:276:ILE:CG2	2:D:277:GLU:H	2.25	0.48
2:G:113:TYR:HD2	2:G:147:PRO:HB3	1.76	0.48
1:A:26:ASN:ND2	1:A:140:GLN:HE22	2.12	0.48
1:A:52:THR:CG2	1:A:81:LEU:HD23	2.44	0.48
1:A:134:SER:O	1:A:135:VAL:HG23	2.14	0.48
1:A:247:LEU:HD21	1:A:308:THR:HG21	1.95	0.48
2:D:24:VAL:O	2:D:27:ALA:N	2.47	0.48
2:D:156:THR:HG21	2:D:159:PRO:HA	1.96	0.48
2:D:290:HIS:NE2	2:D:294:MET:CE	2.77	0.48
3:E:318:ARG:HD2	3:E:322:TYR:HH	1.79	0.48
1:F:304:LEU:HD12	1:F:327:LEU:HD13	1.95	0.48
2:I:257:VAL:O	2:I:257:VAL:HG12	2.14	0.48
1:A:14:ASN:O	1:A:16:GLY:N	2.47	0.47
2:B:128:VAL:O	2:B:128:VAL:HG22	2.14	0.47
2:C:128:VAL:CG1	2:C:154:LEU:HD22	2.32	0.47
2:D:189:HIS:O	2:D:190:ILE:C	2.50	0.47
2:D:262:GLU:O	2:D:266:ALA:HB2	2.13	0.47
3:E:251:LEU:O	3:E:254:ASP:HB2	2.13	0.47
2:H:250:LEU:HD22	2:H:309:ILE:HB	1.95	0.47
2:I:19:VAL:HG21	2:I:214:LEU:CD2	2.44	0.47
3:J:5:PRO:C	3:J:7:LEU:H	2.17	0.47
3:J:268:VAL:O	3:J:271:PRO:HD3	2.14	0.47
1:A:19:ALA:CB	1:A:133:ARG:HD3	2.44	0.47
2:C:245:ASP:O	2:C:248:GLN:N	2.47	0.47
2:D:127:GLU:OE1	2:D:157:THR:HG23	2.14	0.47
3:E:58:SER:CB	3:E:65:CYS:SG	2.97	0.47
2:H:14:THR:HG22	2:H:15:PHE:N	2.28	0.47
1:A:274:ASP:O	1:A:277:ARG:N	2.48	0.47
2:C:136:PHE:CZ	2:C:163:PRO:HG2	2.49	0.47
2:C:260:ASN:OD1	2:C:263:ARG:HB2	2.14	0.47
2:D:237:VAL:O	2:D:239:ALA:N	2.47	0.47
3:E:167:PRO:HB2	3:E:171:TYR:HD1	1.79	0.47
3:E:202:LEU:HD13	3:E:202:LEU:C	2.35	0.47
3:J:155:LEU:C	3:J:157:SER:H	2.17	0.47
2:B:21:GLN:NE2	2:B:175:LEU:HA	2.27	0.47
2:B:227:SER:HA	2:C:26:THR:CG2	2.45	0.47
2:B:242:GLY:O	2:B:244:LEU:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:245:ASP:C	2:C:247:ASP:N	2.66	0.47
2:C:268:ILE:O	2:C:271:ALA:HB3	2.13	0.47
3:E:145:THR:CG2	3:E:146:ARG:N	2.76	0.47
2:I:364:PRO:HG3	3:J:260:HIS:HE1	1.79	0.47
3:J:73:HIS:HE1	3:J:106:LEU:HD22	1.80	0.47
3:J:296:ILE:HA	3:J:299:GLN:HG3	1.97	0.47
1:A:199:LEU:N	1:A:200:PRO:CD	2.78	0.47
1:A:205:ALA:O	1:A:209:ALA:HB2	2.15	0.47
3:E:42:TYR:CE2	3:E:46:ARG:NH1	2.82	0.47
3:E:82:GLU:OE1	3:E:85:LYS:HD3	2.15	0.47
3:E:152:LEU:HD22	3:E:154:THR:HG23	1.97	0.47
3:E:249:ALA:O	3:E:252:LEU:HB2	2.14	0.47
2:G:350:GLU:O	2:G:354:LEU:HG	2.15	0.47
2:I:44:SER:HA	2:I:156:THR:O	2.14	0.47
3:J:5:PRO:O	3:J:7:LEU:N	2.48	0.47
2:C:243:THR:HG23	2:C:284:GLU:CG	2.44	0.47
2:C:362:ARG:C	2:C:363:MET:HG3	2.35	0.47
2:D:18:VAL:HB	2:D:25:LEU:HD11	1.96	0.47
2:D:214:LEU:HD23	5:D:801:AGS:C4	2.45	0.47
2:D:347:MET:O	2:D:351:MET:HG3	2.14	0.47
2:G:243:THR:HG22	2:G:243:THR:O	2.14	0.47
2:G:248:GLN:C	2:G:250:LEU:H	2.18	0.47
2:G:282:LEU:HD13	2:G:336:ARG:HA	1.96	0.47
2:G:342:ALA:C	2:G:344:ASP:H	2.17	0.47
2:H:295:VAL:O	2:H:295:VAL:HG12	2.14	0.47
3:J:3:TRP:CH2	3:J:8:ARG:HB3	2.50	0.47
1:A:179:LEU:HD21	2:B:167:LEU:HD22	1.96	0.47
2:B:5:VAL:C	2:B:7:ALA:N	2.67	0.47
2:B:208:ARG:O	2:B:210:ALA:O	2.33	0.47
2:B:299:PRO:O	2:B:301:ALA:N	2.43	0.47
2:C:244:LEU:HD11	2:C:281:LEU:HD12	1.97	0.47
2:C:344:ASP:HB3	2:C:347:MET:HB2	1.96	0.47
2:D:32:LEU:C	2:D:34:LEU:H	2.16	0.47
2:D:160:GLN:C	2:D:162:LEU:H	2.18	0.47
3:E:225:PRO:HA	3:E:280:HIS:CE1	2.49	0.47
3:E:277:LEU:C	3:E:279:ASN:N	2.64	0.47
1:F:13:LEU:HD12	1:F:21:TYR:OH	2.14	0.47
1:F:71:MSE:O	1:F:105:HIS:HE1	1.97	0.47
2:G:148:GLU:O	2:G:149:HIS:HB2	2.15	0.47
2:H:56:ARG:O	2:H:60:LYS:HB2	2.14	0.47
3:J:32:LEU:HB3	3:J:33:PRO:HD2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:73:HIS:CD2	3:J:75:ASP:H	2.31	0.47
3:J:171:TYR:CD2	3:J:171:TYR:N	2.81	0.47
1:A:59:THR:HG21	1:A:64:ILE:HD11	1.97	0.47
1:A:95:GLU:O	1:A:98:LEU:N	2.47	0.47
2:C:120:PHE:HD2	2:C:120:PHE:N	2.12	0.47
2:C:220:LEU:O	2:C:221:THR:C	2.51	0.47
3:E:122:ASP:O	3:E:126:ASN:OD1	2.33	0.47
2:H:360:HIS:O	2:H:364:PRO:HG3	2.14	0.47
1:A:150:TRP:CH2	1:A:178:LEU:CD1	2.90	0.47
1:A:252:ARG:O	1:A:256:LEU:HB2	2.15	0.47
2:B:179:ASP:HB3	2:B:182:GLN:CB	2.45	0.47
2:B:332:LEU:HD13	2:B:332:LEU:HA	1.73	0.47
2:C:265:MET:HG3	2:D:297:LEU:HD23	1.97	0.47
2:D:22:GLU:O	2:D:24:VAL:N	2.48	0.47
2:D:184:ARG:HD3	2:D:185:HIS:CA	2.45	0.47
2:D:291:ARG:HD2	2:D:306:MET:SD	2.55	0.47
2:H:100:LYS:NZ	2:I:133:ARG:HA	2.30	0.47
2:H:202:ALA:HB2	2:H:234:THR:CG2	2.42	0.47
2:H:346:ARG:O	2:H:350:GLU:HG3	2.15	0.47
1:A:31:LEU:HB3	1:A:113:ARG:HD2	1.97	0.47
2:B:140:LEU:O	2:B:143:LEU:CD2	2.62	0.47
2:B:254:GLU:HA	2:B:257:VAL:HG23	1.95	0.47
2:B:294:MET:HE2	2:B:294:MET:HA	1.97	0.47
2:C:233:SER:O	2:C:234:THR:C	2.52	0.47
2:D:288:LEU:O	2:D:290:HIS:N	2.47	0.47
3:E:24:HIS:HB2	3:E:160:ARG:NH2	2.30	0.47
3:E:323:LEU:O	3:E:324:GLN:C	2.51	0.47
1:F:67:LEU:CD1	1:F:71:MSE:HE3	2.46	0.47
1:F:223:MSE:SE	1:F:292:ARG:HB3	2.65	0.47
2:G:253:VAL:HA	2:G:256:MET:HE3	1.97	0.47
2:H:47:ARG:O	2:H:47:ARG:HG3	2.14	0.47
2:H:327:LEU:CD2	2:H:361:PRO:HD3	2.43	0.47
3:J:155:LEU:C	3:J:155:LEU:HD13	2.35	0.47
1:A:6:PRO:O	1:A:9:LEU:HB3	2.15	0.46
1:A:59:THR:HB	1:A:61:TRP:NE1	2.29	0.46
2:B:42:LEU:HD23	2:B:43:PHE:N	2.30	0.46
2:B:259:ALA:HB2	2:B:360:HIS:ND1	2.30	0.46
2:B:265:MET:HA	2:B:265:MET:HE3	1.98	0.46
2:B:286:LEU:HD21	2:B:333:LEU:HA	1.97	0.46
2:B:342:ALA:O	2:B:343:PRO:C	2.51	0.46
2:C:51:LYS:HB2	2:C:51:LYS:HE3	1.78	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:223:GLN:NE2	2:C:240:MET:HE3	2.30	0.46
2:D:238:SER:CB	2:D:243:THR:HB	2.45	0.46
2:D:355:ARG:HH21	3:E:332:PRO:CD	2.26	0.46
3:E:32:LEU:CD1	3:E:166:PRO:HG2	2.45	0.46
3:E:32:LEU:HD22	3:E:195:ALA:CB	2.45	0.46
2:G:133:ARG:O	2:G:137:ASN:ND2	2.48	0.46
2:G:259:ALA:HB2	2:G:360:HIS:CE1	2.50	0.46
2:G:291:ARG:O	2:G:295:VAL:HG23	2.16	0.46
2:G:313:MET:O	2:G:314:ARG:C	2.53	0.46
2:H:62:LEU:HB3	2:H:120:PHE:CD2	2.51	0.46
2:I:259:ALA:HA	2:I:363:MET:SD	2.55	0.46
3:J:129:LEU:CD1	3:J:129:LEU:H	2.28	0.46
3:J:254:ASP:HA	3:J:257:LYS:HD2	1.97	0.46
1:A:13:LEU:HD12	1:A:13:LEU:HA	1.74	0.46
1:A:190:LEU:HD22	2:B:36:ARG:CZ	2.45	0.46
1:A:226:SER:O	1:A:229:ALA:HB3	2.15	0.46
1:A:306:THR:O	1:A:307:ARG:C	2.54	0.46
1:A:321:TRP:O	1:A:322:ALA:C	2.54	0.46
2:B:98:ARG:O	2:B:101:VAL:HG13	2.14	0.46
2:C:47:ARG:O	2:C:47:ARG:HG3	2.15	0.46
2:C:292:ILE:HG12	2:C:313:MET:CE	2.46	0.46
2:D:105:ARG:HG3	2:D:134:HIS:NE2	2.30	0.46
2:D:288:LEU:C	2:D:290:HIS:N	2.68	0.46
2:D:357:LEU:O	2:D:358:ALA:C	2.53	0.46
3:E:28:LEU:HA	3:E:143:LEU:O	2.15	0.46
1:F:80:LEU:CD1	1:F:108:LEU:HD12	2.44	0.46
2:G:98:ARG:HG3	2:H:169:ARG:HH22	1.79	0.46
2:G:227:SER:HA	2:H:26:THR:CG2	2.45	0.46
2:I:32:LEU:HD13	2:I:70:ALA:HA	1.97	0.46
2:I:259:ALA:CB	2:I:363:MET:SD	3.04	0.46
2:I:361:PRO:O	2:I:362:ARG:CB	2.63	0.46
1:A:213:THR:HB	1:A:216:HIS:ND1	2.30	0.46
1:A:223:MSE:HG3	1:A:289:ALA:HA	1.97	0.46
1:A:226:SER:O	1:A:227:LYS:C	2.54	0.46
2:B:56:ARG:HH11	2:B:56:ARG:CG	2.23	0.46
2:B:113:TYR:CD2	2:B:147:PRO:HB3	2.50	0.46
2:B:226:ALA:HA	2:C:30:ASN:ND2	2.30	0.46
2:D:92:GLU:HG2	2:D:124:LEU:HD12	1.97	0.46
3:E:34:GLY:O	3:E:197:SER:OG	2.34	0.46
3:E:319:ILE:HA	3:E:322:TYR:CD2	2.49	0.46
2:G:140:LEU:HD22	2:G:144:GLU:HG3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:354:LEU:HD22	2:I:293:ALA:HB1	1.97	0.46
3:J:31:ALA:HB2	3:J:164:LEU:CB	2.40	0.46
1:A:102:GLY:HA3	2:G:310:GLU:OE2	2.15	0.46
1:A:129:ALA:C	1:A:131:ALA:N	2.68	0.46
2:B:81:GLU:CB	2:B:87:PHE:HD1	2.23	0.46
2:D:334:ILE:HG21	3:E:332:PRO:HB2	1.97	0.46
3:E:73:HIS:CE1	3:E:106:LEU:HD22	2.50	0.46
1:F:155:ALA:CB	1:F:162:LEU:HD12	2.46	0.46
1:F:199:LEU:N	1:F:200:PRO:CD	2.78	0.46
2:G:209:ALA:CB	2:G:241:LEU:HD13	2.46	0.46
2:H:56:ARG:HG2	2:H:56:ARG:HH11	1.81	0.46
2:I:260:ASN:HB3	2:I:263:ARG:HB3	1.98	0.46
3:J:4:TYR:O	3:J:7:LEU:HB2	2.15	0.46
3:J:80:ALA:HB1	3:J:81:PRO:HD2	1.97	0.46
3:J:240:GLN:O	3:J:244:ARG:HG3	2.15	0.46
3:J:308:ARG:O	3:J:312:ILE:HG13	2.15	0.46
2:B:5:VAL:O	2:B:7:ALA:N	2.48	0.46
2:B:255:ALA:CB	2:B:263:ARG:HD3	2.45	0.46
2:C:5:VAL:O	2:C:6:LEU:C	2.53	0.46
2:C:37:ILE:CD1	2:C:151:LYS:HE3	2.46	0.46
2:C:289:LEU:H	2:C:289:LEU:CD2	2.28	0.46
2:D:10:TRP:CG	2:D:190:ILE:CD1	2.97	0.46
2:D:64:CYS:SG	2:D:66:THR:HB	2.55	0.46
2:D:341:TYR:CD2	3:E:295:HIS:CE1	3.04	0.46
2:G:309:ILE:O	2:G:311:LEU:N	2.48	0.46
2:I:360:HIS:HD2	2:I:361:PRO:N	2.13	0.46
3:J:317:LEU:HD22	3:J:317:LEU:O	2.15	0.46
1:A:276:HIS:O	1:A:277:ARG:HB2	2.16	0.46
2:B:260:ASN:O	2:B:261:GLY:C	2.52	0.46
2:C:6:LEU:O	2:C:8:ARG:N	2.48	0.46
2:D:129:HIS:HD2	2:D:161:LYS:HG3	1.81	0.46
3:E:13:LYS:O	3:E:16:ALA:N	2.48	0.46
3:E:78:THR:O	3:E:78:THR:HG22	2.14	0.46
3:E:281:LEU:CD2	3:E:323:LEU:HD21	2.45	0.46
1:F:273:PHE:HB3	1:F:279:TRP:CB	2.46	0.46
2:I:357:LEU:HD12	2:I:363:MET:HE1	1.97	0.46
1:A:126:TRP:CG	1:A:127:PHE:N	2.83	0.46
1:A:269:LEU:HD11	1:A:273:PHE:HZ	1.79	0.46
2:B:140:LEU:CA	2:B:143:LEU:HD22	2.42	0.46
2:B:299:PRO:C	2:B:301:ALA:N	2.69	0.46
2:C:292:ILE:O	2:C:294:MET:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:302:LEU:CD1	2:C:310:GLU:HG3	2.46	0.46
2:D:10:TRP:NE1	2:D:190:ILE:CG2	2.69	0.46
2:D:11:ARG:O	2:D:13:GLN:NE2	2.48	0.46
3:E:32:LEU:HD12	3:E:166:PRO:CG	2.45	0.46
3:E:281:LEU:O	3:E:282:SER:O	2.33	0.46
1:F:20:ALA:HB2	1:F:110:LEU:HB3	1.96	0.46
1:F:299:ARG:CD	3:J:317:LEU:HD21	2.46	0.46
2:H:184:ARG:HH12	2:H:203:LEU:HD12	1.80	0.46
2:I:334:ILE:HG21	3:J:332:PRO:HB2	1.98	0.46
3:J:50:CYS:SG	3:J:53:PRO:N	2.88	0.46
3:J:185:ASP:OD2	3:J:185:ASP:N	2.49	0.46
3:J:225:PRO:HA	3:J:280:HIS:ND1	2.30	0.46
1:A:221:LEU:HD21	1:A:328:SER:HB2	1.94	0.46
1:A:256:LEU:O	1:A:260:LEU:HG	2.16	0.46
2:B:276:ILE:CD1	2:B:281:LEU:HD13	2.45	0.46
2:B:333:LEU:HD11	2:B:337:LYS:CE	2.45	0.46
2:D:13:GLN:HE21	2:D:13:GLN:N	2.14	0.46
2:D:21:GLN:HE21	2:D:21:GLN:HA	1.81	0.46
2:D:292:ILE:O	2:D:296:GLN:HG3	2.16	0.46
3:E:292:ASP:OD2	3:E:322:TYR:OH	2.33	0.46
2:G:98:ARG:CD	2:H:140:LEU:HB3	2.43	0.46
2:G:330:GLN:HG3	2:G:331:THR:N	2.31	0.46
2:H:223:GLN:NE2	2:I:174:HIS:CE1	2.84	0.46
1:A:106:ASP:OD2	1:F:225:LYS:HE2	2.15	0.46
2:C:30:ASN:O	2:C:31:GLY:C	2.53	0.46
2:D:142:THR:HG22	2:D:147:PRO:CD	2.46	0.46
2:D:237:VAL:C	2:D:239:ALA:N	2.69	0.46
3:E:1:MSE:HE1	3:E:42:TYR:CG	2.51	0.46
3:E:283:PRO:CG	3:E:284:SER:H	2.25	0.46
1:F:45:GLN:CD	1:F:77:ARG:CD	2.66	0.46
1:F:181:LEU:O	1:F:185:LEU:HG	2.15	0.46
1:F:223:MSE:CE	1:F:292:ARG:HB2	2.43	0.46
2:H:18:VAL:HB	2:H:25:LEU:HD11	1.97	0.46
2:H:314:ARG:O	2:H:318:ARG:HG2	2.15	0.46
3:J:182:MSE:HG3	3:J:205:PHE:CE1	2.50	0.46
3:J:205:PHE:O	3:J:207:GLY:N	2.48	0.46
1:A:154:ARG:NH1	1:A:157:GLN:HE21	2.12	0.46
1:A:234:GLN:HB3	1:A:237:ARG:NH2	2.28	0.46
2:B:140:LEU:HD22	2:B:144:GLU:OE1	2.16	0.46
2:B:179:ASP:HB3	2:B:182:GLN:HG3	1.97	0.46
2:C:106:ASP:O	2:C:110:ASN:HB2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:259:ALA:CB	2:C:360:HIS:HD1	2.27	0.46
2:C:302:LEU:CD2	2:C:306:MET:HG3	2.45	0.46
2:D:197:ALA:CB	2:D:231:GLN:HG2	2.44	0.46
2:D:328:TYR:O	2:D:329:TYR:C	2.53	0.46
2:D:339:LEU:HD11	2:D:345:ARG:HG3	1.97	0.46
1:F:147:LEU:N	1:F:148:PRO:CD	2.79	0.46
2:I:354:LEU:HD23	2:I:357:LEU:HD22	1.98	0.46
2:C:42:LEU:HD23	2:C:172:GLN:HG3	1.98	0.45
2:C:310:GLU:O	2:C:311:LEU:C	2.53	0.45
3:E:182:MSE:HA	3:E:182:MSE:HE3	1.98	0.45
1:F:242:GLU:O	1:F:245:ILE:CG2	2.60	0.45
2:H:351:MET:SD	2:I:290:HIS:HA	2.56	0.45
2:I:248:GLN:HE21	2:I:248:GLN:CA	2.20	0.45
2:I:286:LEU:HD21	2:I:332:LEU:HB3	1.98	0.45
1:A:20:ALA:HA	1:A:110:LEU:O	2.16	0.45
1:A:254:LEU:O	1:A:258:VAL:HG23	2.15	0.45
1:A:336:LEU:H	1:A:336:LEU:CD2	2.06	0.45
2:D:21:GLN:HE22	2:D:176:LYS:H	1.65	0.45
2:H:184:ARG:NH1	2:H:188:GLU:HB2	2.31	0.45
3:J:316:LEU:HA	3:J:319:ILE:CD1	2.45	0.45
1:A:19:ALA:CB	1:A:133:ARG:HB3	2.46	0.45
2:C:73:CYS:SG	2:C:76:CYS:HB3	2.56	0.45
3:E:120:LEU:HD12	3:E:125:ALA:N	2.31	0.45
1:F:80:LEU:N	1:F:80:LEU:CD1	2.73	0.45
1:F:271:ALA:O	1:F:275:LYS:HG2	2.15	0.45
2:H:100:LYS:HE2	2:I:136:PHE:CD2	2.48	0.45
2:I:337:LYS:HD2	2:I:337:LYS:O	2.16	0.45
3:J:129:LEU:H	3:J:129:LEU:HD12	1.80	0.45
3:J:202:LEU:C	3:J:202:LEU:CD2	2.84	0.45
1:A:105:HIS:CE1	1:A:108:LEU:HD12	2.51	0.45
2:B:105:ARG:O	2:B:109:ASP:OD2	2.34	0.45
2:B:247:ASP:HB2	2:B:312:ARG:HH12	1.82	0.45
2:B:347:MET:HG3	2:C:290:HIS:CG	2.51	0.45
2:C:136:PHE:HZ	2:C:163:PRO:HG2	1.80	0.45
2:D:257:VAL:HG11	2:D:320:ILE:CG1	2.39	0.45
2:D:332:LEU:HD23	2:D:332:LEU:HA	1.68	0.45
3:E:316:LEU:HD23	3:E:316:LEU:HA	1.68	0.45
1:F:250:LEU:H	1:F:250:LEU:CD2	2.28	0.45
2:G:268:ILE:HD11	2:G:353:LEU:CD1	2.35	0.45
2:H:214:LEU:HD12	2:H:217:ALA:HB3	1.99	0.45
2:I:127:GLU:OE1	2:I:127:GLU:HA	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:220:LEU:CD2	3:J:157:SER:OG	2.64	0.45
3:J:35:MSE:SE	3:J:167:PRO:HD3	2.66	0.45
2:B:10:TRP:CH2	2:B:190:ILE:HA	2.52	0.45
2:B:50:GLY:HA2	5:B:802:AGS:O1A	2.16	0.45
2:B:356:ALA:O	2:B:360:HIS:N	2.49	0.45
2:C:367:GLU:OE2	2:C:368:PRO:CD	2.65	0.45
1:F:56:ASP:N	1:F:57:PRO:CD	2.79	0.45
2:I:15:PHE:O	2:I:18:VAL:HB	2.16	0.45
2:I:248:GLN:NE2	2:I:248:GLN:CA	2.79	0.45
3:J:190:ALA:HB2	3:J:210:TRP:CZ3	2.52	0.45
3:J:271:PRO:O	3:J:274:VAL:HG22	2.16	0.45
1:A:280:GLN:H	1:A:280:GLN:HG2	1.43	0.45
2:B:245:ASP:O	2:B:246:ASP:O	2.35	0.45
2:D:15:PHE:O	2:D:17:ASP:N	2.49	0.45
2:D:115:PRO:HG3	2:D:121:LYS:HB2	1.99	0.45
2:D:201:ARG:HB2	2:D:305:ASP:OD2	2.17	0.45
1:F:299:ARG:HG3	3:J:317:LEU:CD2	2.47	0.45
2:I:309:ILE:O	2:I:310:GLU:C	2.55	0.45
2:I:330:GLN:O	2:I:334:ILE:HG13	2.15	0.45
3:J:27:LEU:HG	3:J:29:ILE:HD11	1.98	0.45
1:A:117:LEU:CB	1:A:122:GLU:HG3	2.46	0.45
2:B:124:LEU:HA	2:B:153:LEU:O	2.17	0.45
2:B:307:ALA:HA	2:B:310:GLU:HG3	1.99	0.45
3:E:91:ASP:O	3:E:92:ALA:C	2.54	0.45
2:G:148:GLU:OE1	2:G:148:GLU:CA	2.65	0.45
2:H:61:GLY:O	2:H:68:ILE:HA	2.17	0.45
2:H:351:MET:HA	2:H:354:LEU:HD13	1.99	0.45
2:B:42:LEU:C	2:B:42:LEU:CD2	2.85	0.45
2:B:94:ASP:OD1	2:B:96:ALA:HB3	2.16	0.45
2:B:304:ASN:CG	2:B:305:ASP:N	2.68	0.45
2:D:13:GLN:C	2:D:57:LEU:HD21	2.37	0.45
2:D:27:ALA:O	2:D:29:ALA:N	2.50	0.45
2:D:179:ASP:O	2:D:182:GLN:HB2	2.16	0.45
2:D:290:HIS:C	2:D:292:ILE:N	2.68	0.45
2:D:292:ILE:HG13	2:D:313:MET:HE1	1.99	0.45
3:E:6:TRP:CH2	3:E:198:PRO:HB2	2.52	0.45
3:E:81:PRO:O	3:E:82:GLU:C	2.55	0.45
3:E:222:TYR:CE1	3:E:226:SER:HB3	2.51	0.45
3:E:333:HIS:ND1	3:E:333:HIS:N	2.65	0.45
1:F:214:PRO:HA	1:F:236:LEU:HD11	1.99	0.45
2:G:44:SER:O	2:G:175:LEU:HB2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:76:CYS:O	2:G:80:ARG:HG3	2.17	0.45
2:G:93:ILE:HG21	2:G:104:THR:HG23	1.99	0.45
2:I:367:GLU:HB3	2:I:368:PRO:HD2	1.99	0.45
1:A:80:LEU:HG	1:A:82:LEU:CD1	2.47	0.45
1:A:207:ASN:HD22	1:A:207:ASN:C	2.20	0.45
2:B:286:LEU:HD21	2:B:333:LEU:CA	2.47	0.45
2:B:307:ALA:HA	2:B:310:GLU:CD	2.37	0.45
2:B:314:ARG:O	2:B:317:ALA:HB3	2.17	0.45
2:C:18:VAL:HG12	2:C:19:VAL:N	2.32	0.45
2:D:288:LEU:C	2:D:290:HIS:H	2.19	0.45
2:D:328:TYR:HD1	2:D:356:ALA:HB1	1.81	0.45
2:D:352:THR:O	2:D:355:ARG:HB3	2.17	0.45
1:F:168:GLN:HE21	1:F:168:GLN:HB2	1.49	0.45
1:F:220:ALA:C	1:F:222:LEU:H	2.20	0.45
2:H:208:ARG:O	2:H:209:ALA:C	2.55	0.45
2:I:119:ARG:HG3	2:I:120:PHE:CD2	2.52	0.45
1:A:228:ARG:H	1:A:228:ARG:HG2	1.42	0.45
2:B:10:TRP:CZ2	2:B:190:ILE:HG23	2.51	0.45
2:B:177:ALA:C	2:B:178:LEU:HD22	2.38	0.45
2:C:15:PHE:CE1	2:C:57:LEU:O	2.70	0.45
2:C:163:PRO:O	2:C:167:LEU:HG	2.17	0.45
2:C:276:ILE:H	2:C:276:ILE:HG13	1.52	0.45
2:D:10:TRP:O	2:D:12:PRO:HD3	2.16	0.45
2:D:134:HIS:CG	2:D:135:SER:N	2.84	0.45
1:F:97:LEU:HD23	1:F:126:TRP:CE3	2.50	0.45
2:G:98:ARG:HD2	2:H:169:ARG:NH2	2.32	0.45
2:G:295:VAL:CG2	2:G:301:ALA:HB3	2.27	0.45
2:H:129:HIS:CD2	2:H:161:LYS:HD2	2.50	0.45
3:J:121:THR:HG22	3:J:122:ASP:N	2.32	0.45
1:A:220:ALA:O	1:A:224:GLY:N	2.50	0.44
2:B:285:MET:HE1	2:B:332:LEU:HD21	1.98	0.44
2:C:6:LEU:C	2:C:8:ARG:N	2.69	0.44
2:C:268:ILE:O	2:C:272:ALA:N	2.45	0.44
2:D:128:VAL:HG13	2:D:129:HIS:N	2.33	0.44
2:D:191:LEU:HD23	2:D:191:LEU:HA	1.68	0.44
2:D:258:GLU:O	2:D:259:ALA:HB3	2.17	0.44
2:D:329:TYR:HD2	2:D:330:GLN:N	2.15	0.44
3:E:98:GLU:H	3:E:98:GLU:HG2	1.61	0.44
1:F:318:GLN:O	1:F:318:GLN:HG3	2.17	0.44
2:H:62:LEU:HB3	2:H:120:PHE:HD2	1.81	0.44
2:H:359:PHE:CZ	2:I:323:THR:HG23	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:60:GLY:N	3:J:65:CYS:SG	2.89	0.44
3:J:245:LEU:O	3:J:248:LEU:HB3	2.16	0.44
1:A:99:THR:C	1:A:101:THR:H	2.20	0.44
1:A:191:LEU:HD23	2:B:27:ALA:HA	1.99	0.44
1:A:223:MSE:CE	1:A:292:ARG:CB	2.96	0.44
2:B:5:VAL:C	2:B:7:ALA:H	2.19	0.44
2:D:302:LEU:HD23	2:D:302:LEU:HA	1.79	0.44
3:E:57:LYS:HD2	3:E:57:LYS:HA	1.79	0.44
3:E:155:LEU:C	3:E:157:SER:N	2.70	0.44
3:E:270:VAL:HG23	3:E:273:LEU:HB3	1.99	0.44
1:F:67:LEU:O	1:F:70:ALA:N	2.50	0.44
1:F:147:LEU:O	1:F:151:VAL:HG23	2.17	0.44
2:G:145:GLU:N	2:G:146:PRO:HD3	2.32	0.44
2:G:309:ILE:O	2:G:310:GLU:C	2.56	0.44
2:H:365:LEU:HB2	2:I:322:PRO:HG3	1.98	0.44
3:J:35:MSE:HA	3:J:35:MSE:HE2	2.00	0.44
3:J:290:LEU:HD23	3:J:294:CYS:HG	1.83	0.44
3:J:317:LEU:HD13	3:J:317:LEU:C	2.36	0.44
2:B:333:LEU:HD13	2:B:334:ILE:N	2.32	0.44
2:C:113:TYR:HD2	2:C:147:PRO:HB3	1.82	0.44
2:C:324:ASP:OD1	2:C:362:ARG:NH2	2.46	0.44
2:D:22:GLU:C	2:D:24:VAL:H	2.21	0.44
2:D:354:LEU:HD13	3:E:253:MSE:CE	2.38	0.44
3:E:68:MSE:HE2	3:E:68:MSE:HA	2.00	0.44
3:E:275:ALA:O	3:E:279:ASN:ND2	2.49	0.44
2:G:313:MET:O	2:G:316:LEU:N	2.50	0.44
2:I:299:PRO:O	2:I:314:ARG:NH2	2.49	0.44
2:I:345:ARG:NH2	3:J:146:ARG:O	2.50	0.44
3:J:241:ALA:HB3	3:J:242:PRO:CD	2.48	0.44
1:A:308:THR:O	1:A:312:LEU:N	2.49	0.44
2:B:8:ARG:HD2	2:B:8:ARG:O	2.17	0.44
2:B:148:GLU:CD	2:B:149:HIS:H	2.21	0.44
2:B:291:ARG:O	2:B:294:MET:HB3	2.17	0.44
2:B:328:TYR:O	2:B:329:TYR:O	2.36	0.44
2:C:100:LYS:HG2	2:D:133:ARG:HG3	1.99	0.44
2:C:171:LEU:HD12	2:C:171:LEU:HA	1.87	0.44
2:C:261:GLY:O	2:C:263:ARG:N	2.51	0.44
2:D:268:ILE:O	2:D:271:ALA:N	2.48	0.44
2:D:295:VAL:HG21	2:D:302:LEU:HG	2.00	0.44
3:E:90:VAL:HA	3:E:124:ALA:HA	2.00	0.44
1:F:237:ARG:O	1:F:238:LEU:HD23	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:126:ASP:HA	2:H:155:ALA:HB3	1.98	0.44
2:H:142:THR:O	2:H:142:THR:HG22	2.17	0.44
2:H:265:MET:SD	2:I:297:LEU:HD23	2.56	0.44
3:J:77:TYR:HE1	3:J:99:LYS:HE2	1.82	0.44
3:J:194:SER:O	3:J:195:ALA:HB3	2.18	0.44
1:A:74:PHE:HD1	1:F:203:GLU:CG	2.17	0.44
1:A:274:ASP:HA	1:A:279:TRP:CZ3	2.52	0.44
2:B:316:LEU:HD23	2:B:316:LEU:HA	1.85	0.44
2:D:132:SER:O	2:D:133:ARG:C	2.54	0.44
2:D:278:TRP:CZ2	2:D:346:ARG:HB2	2.52	0.44
3:E:120:LEU:CD1	3:E:125:ALA:HA	2.47	0.44
1:F:310:LEU:O	1:F:313:LYS:N	2.47	0.44
2:I:202:ALA:HB1	2:I:237:VAL:HG21	2.00	0.44
2:I:365:LEU:HB3	2:I:366:PRO:HD2	2.00	0.44
3:J:94:ARG:HA	3:J:94:ARG:HD3	1.81	0.44
3:J:95:GLU:O	3:J:99:LYS:HB2	2.18	0.44
3:J:155:LEU:C	3:J:157:SER:N	2.70	0.44
2:B:156:THR:HG21	2:B:159:PRO:HG3	2.00	0.44
2:B:158:ASP:O	2:B:158:ASP:OD1	2.36	0.44
2:B:248:GLN:HA	2:B:251:SER:CB	2.42	0.44
2:C:252:LEU:O	2:C:256:MET:N	2.49	0.44
2:C:295:VAL:HG12	2:C:299:PRO:HA	2.00	0.44
2:D:136:PHE:HD1	2:D:166:ILE:CD1	2.31	0.44
1:F:174:TYR:HB2	1:F:181:LEU:HD21	1.98	0.44
2:G:307:ALA:HA	2:G:310:GLU:HG3	1.99	0.44
2:H:100:LYS:NZ	2:I:133:ARG:CA	2.80	0.44
2:I:48:GLY:O	2:I:213:SER:HA	2.16	0.44
3:J:317:LEU:HD13	3:J:318:ARG:CA	2.48	0.44
1:A:221:LEU:HD11	1:A:328:SER:HB3	1.98	0.44
1:A:320:VAL:HG12	1:A:321:TRP:N	2.33	0.44
1:A:324:LEU:HD23	1:A:324:LEU:HA	1.73	0.44
2:B:282:LEU:HD23	2:B:282:LEU:HA	1.67	0.44
2:D:13:GLN:HE21	2:D:13:GLN:CA	2.30	0.44
2:D:250:LEU:C	2:D:252:LEU:N	2.69	0.44
2:D:268:ILE:HG23	2:D:278:TRP:HH2	1.82	0.44
3:E:7:LEU:HD21	3:E:36:GLY:HA3	2.00	0.44
2:H:91:ILE:HD13	2:H:107:LEU:HD22	1.99	0.44
2:I:167:LEU:HD21	2:I:172:GLN:OE1	2.17	0.44
1:A:53:PHE:CD2	1:A:64:ILE:HG12	2.52	0.44
1:A:130:LEU:C	1:A:132:ASN:H	2.21	0.44
1:A:177:ASN:O	1:A:179:LEU:N	2.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:221:LEU:O	1:A:223:MSE:N	2.50	0.44
2:B:227:SER:HA	2:C:26:THR:HG21	1.99	0.44
2:C:52:THR:OG1	2:C:53:SER:N	2.51	0.44
2:C:240:MET:HA	2:D:23:HIS:CB	2.48	0.44
2:C:333:LEU:C	2:C:335:GLY:H	2.21	0.44
2:D:149:HIS:C	2:D:150:VAL:HG23	2.37	0.44
1:F:219:ASP:O	1:F:222:LEU:HB2	2.17	0.44
2:G:289:LEU:CD2	2:G:325:ILE:HG23	2.47	0.44
2:H:3:TYR:CD2	2:H:3:TYR:N	2.86	0.44
2:H:44:SER:CB	2:H:159:PRO:HG3	2.48	0.44
2:I:295:VAL:HG22	2:I:301:ALA:HB3	2.00	0.44
3:J:5:PRO:HG2	3:J:6:TRP:H	1.81	0.44
3:J:125:ALA:O	3:J:128:LEU:HB3	2.17	0.44
3:J:253:MSE:CE	3:J:257:LYS:HG3	2.48	0.44
1:A:105:HIS:HB3	1:F:227:LYS:CD	2.42	0.44
2:B:132:SER:C	2:B:134:HIS:N	2.69	0.44
2:B:179:ASP:O	2:B:183:ILE:HG13	2.18	0.44
2:C:66:THR:O	2:C:66:THR:HG22	2.18	0.44
2:C:328:TYR:O	2:C:329:TYR:C	2.56	0.44
2:C:346:ARG:O	2:C:349:VAL:N	2.51	0.44
2:D:215:ARG:HD2	5:D:801:AGS:H5'1	2.00	0.44
1:F:297:GLN:HG2	1:F:335:PRO:HD3	2.00	0.44
2:G:345:ARG:O	2:G:349:VAL:HG23	2.18	0.44
2:H:279:GLU:HG3	2:H:345:ARG:HH12	1.82	0.44
2:I:277:GLU:O	2:I:280:ALA:N	2.51	0.44
2:I:337:LYS:HE3	2:I:338:GLU:HG2	2.00	0.44
3:J:173:VAL:HG11	3:J:184:GLN:HG3	2.00	0.44
1:A:192:TRP:CH2	1:A:201:ARG:HB3	2.53	0.43
1:A:304:LEU:O	1:A:305:LEU:C	2.57	0.43
2:C:367:GLU:HG3	2:D:321:PRO:CA	2.48	0.43
2:D:260:ASN:CG	2:D:263:ARG:HB2	2.39	0.43
3:E:68:MSE:CE	3:E:73:HIS:HB2	2.48	0.43
3:E:137:ALA:O	3:E:138:GLU:C	2.57	0.43
3:E:295:HIS:O	3:E:296:ILE:C	2.55	0.43
3:E:318:ARG:HD2	3:E:322:TYR:OH	2.18	0.43
1:F:81:LEU:HD13	1:F:111:ILE:HG22	2.00	0.43
1:F:192:TRP:C	1:F:194:ASP:N	2.71	0.43
2:G:124:LEU:O	2:G:124:LEU:HD13	2.18	0.43
2:G:129:HIS:HB2	2:G:161:LYS:HB2	2.00	0.43
2:H:60:LYS:O	2:H:64:CYS:HB2	2.18	0.43
3:J:315:LEU:HD22	3:J:319:ILE:HD11	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:162:LEU:C	1:A:162:LEU:CD2	2.87	0.43
1:A:170:LEU:O	1:A:173:CYS:O	2.36	0.43
1:A:217:TRP:NE1	1:A:221:LEU:HD11	2.33	0.43
2:B:102:GLU:HG3	2:B:105:ARG:NH2	2.33	0.43
2:B:124:LEU:HD13	2:B:124:LEU:C	2.39	0.43
2:C:351:MET:HA	2:C:354:LEU:HD12	2.00	0.43
2:D:257:VAL:O	2:D:257:VAL:HG12	2.17	0.43
2:D:321:PRO:O	2:D:322:PRO:C	2.57	0.43
3:E:1:MSE:HA	3:E:38:ASP:OD2	2.18	0.43
1:F:48:GLU:CG	1:F:49:GLU:N	2.71	0.43
1:F:55:ILE:HB	1:F:83:LEU:O	2.18	0.43
1:F:299:ARG:HH12	3:J:321:HIS:CE1	2.35	0.43
2:G:250:LEU:HD11	2:G:309:ILE:CD1	2.48	0.43
2:H:303:GLY:O	2:H:306:MET:HB2	2.18	0.43
2:I:215:ARG:NH1	5:I:803:AGS:O2A	2.51	0.43
2:B:278:TRP:O	2:B:279:GLU:C	2.56	0.43
2:D:278:TRP:CE3	2:D:349:VAL:HG21	2.53	0.43
3:E:41:ILE:HG21	3:E:113:TRP:CD1	2.54	0.43
3:E:67:LEU:HD23	3:E:67:LEU:HA	1.87	0.43
3:E:333:HIS:HB2	3:E:334:LEU:H	1.54	0.43
1:F:4:LEU:CD1	1:F:137:VAL:HG22	2.48	0.43
1:F:23:LEU:HB2	1:F:113:ARG:HB2	2.00	0.43
1:F:94:ASN:HA	1:F:126:TRP:CD1	2.54	0.43
1:F:274:ASP:HA	1:F:279:TRP:CZ3	2.52	0.43
2:H:339:LEU:HB3	2:H:340:PRO:CD	2.39	0.43
2:I:140:LEU:HD22	2:I:144:GLU:CG	2.47	0.43
3:J:5:PRO:C	3:J:7:LEU:N	2.71	0.43
1:A:176:GLY:O	1:A:178:LEU:N	2.50	0.43
1:A:188:LEU:O	1:A:189:SER:C	2.56	0.43
2:B:124:LEU:HD22	2:B:153:LEU:O	2.18	0.43
2:B:179:ASP:HB3	2:B:182:GLN:H	1.83	0.43
2:B:292:ILE:HD13	2:B:316:LEU:HB2	2.00	0.43
2:C:197:ALA:O	2:C:198:HIS:CB	2.54	0.43
2:C:214:LEU:O	2:C:215:ARG:C	2.54	0.43
2:C:314:ARG:O	2:C:315:GLU:C	2.55	0.43
3:E:149:GLU:C	3:E:151:LEU:N	2.72	0.43
3:E:163:TYR:CE2	3:E:165:ALA:CB	3.00	0.43
1:F:192:TRP:C	1:F:194:ASP:H	2.22	0.43
2:G:48:GLY:HA3	2:G:215:ARG:HB2	2.00	0.43
2:H:295:VAL:HG21	2:H:302:LEU:HG	2.01	0.43
3:J:24:HIS:HD2	3:J:160:ARG:CZ	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:145:THR:HG22	3:J:147:GLU:N	2.31	0.43
1:A:235:GLN:C	1:A:237:ARG:H	2.22	0.43
1:A:255:LEU:O	1:A:256:LEU:C	2.56	0.43
1:A:255:LEU:HD13	3:E:309:GLU:OE2	2.18	0.43
2:B:357:LEU:HD12	2:B:357:LEU:N	2.33	0.43
2:C:250:LEU:O	2:C:254:GLU:HB2	2.17	0.43
2:C:265:MET:HE1	2:D:294:MET:HE2	2.00	0.43
2:D:260:ASN:CG	2:D:263:ARG:CB	2.87	0.43
3:E:4:TYR:CD2	3:E:6:TRP:CZ2	3.06	0.43
3:E:32:LEU:HD12	3:E:166:PRO:HG2	2.01	0.43
3:E:68:MSE:HE3	3:E:73:HIS:HB2	2.01	0.43
3:E:89:GLY:O	3:E:93:VAL:HG23	2.18	0.43
3:E:125:ALA:O	3:E:126:ASN:C	2.56	0.43
3:E:224:VAL:HB	3:E:225:PRO:HD3	2.01	0.43
3:E:296:ILE:HG21	3:E:315:LEU:HD12	2.01	0.43
1:F:248:ARG:CZ	3:J:307:ASN:HB2	2.49	0.43
2:G:56:ARG:HH11	2:G:56:ARG:HG3	1.84	0.43
2:G:206:LEU:HD13	2:G:221:THR:OG1	2.18	0.43
2:H:93:ILE:HB	2:H:125:ILE:HG12	2.01	0.43
2:H:250:LEU:HD13	2:H:313:MET:SD	2.58	0.43
2:H:281:LEU:HD23	2:H:281:LEU:O	2.18	0.43
1:A:329:LEU:HD11	2:B:291:ARG:HH21	1.83	0.43
2:B:298:SER:HA	2:B:299:PRO:HD2	1.71	0.43
2:B:318:ARG:CG	2:B:319:THR:H	2.31	0.43
2:C:133:ARG:H	2:C:133:ARG:CD	2.25	0.43
2:D:210:ALA:O	2:D:211:GLU:C	2.56	0.43
2:D:244:LEU:HD11	2:D:276:ILE:HG23	2.01	0.43
3:E:49:LEU:CD2	3:E:68:MSE:SE	3.16	0.43
1:F:19:ALA:HB3	1:F:133:ARG:HB3	2.00	0.43
1:F:215:PHE:HD2	1:F:215:PHE:HA	1.68	0.43
1:F:273:PHE:HB3	1:F:279:TRP:CG	2.53	0.43
1:F:312:LEU:O	1:F:316:TYR:HA	2.18	0.43
2:G:91:ILE:HD11	2:G:121:LYS:HE3	2.00	0.43
2:G:233:SER:O	2:G:237:VAL:HG23	2.18	0.43
2:G:286:LEU:HD21	2:G:332:LEU:HB3	2.00	0.43
2:H:242:GLY:O	2:H:276:ILE:HG22	2.18	0.43
2:I:243:THR:HG22	2:I:244:LEU:N	2.33	0.43
3:J:151:LEU:O	3:J:152:LEU:C	2.57	0.43
2:B:23:HIS:CE1	2:B:176:LYS:NZ	2.86	0.43
2:B:37:ILE:HG21	2:B:151:LYS:HE3	2.01	0.43
2:B:350:GLU:HB2	2:C:290:HIS:HE1	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:338:GLU:C	2:C:340:PRO:CD	2.87	0.43
2:D:38:HIS:CG	2:D:39:HIS:N	2.87	0.43
2:D:159:PRO:O	2:D:162:LEU:HB2	2.18	0.43
2:D:265:MET:HE3	2:D:354:LEU:HD11	1.99	0.43
2:D:282:LEU:O	2:D:283:VAL:C	2.56	0.43
2:D:320:ILE:HG22	2:D:325:ILE:HG13	2.00	0.43
3:E:30:GLN:HB2	3:E:148:PRO:HD3	2.01	0.43
3:E:68:MSE:CE	3:E:73:HIS:CB	2.95	0.43
1:F:64:ILE:HD12	1:F:64:ILE:N	2.34	0.43
1:F:221:LEU:HD11	1:F:328:SER:HA	2.01	0.43
2:G:244:LEU:HD23	2:G:244:LEU:HA	1.71	0.43
2:H:291:ARG:O	2:H:294:MET:HB2	2.18	0.43
2:H:354:LEU:HD22	2:I:293:ALA:CB	2.48	0.43
2:I:304:ASN:C	2:I:306:MET:H	2.21	0.43
2:I:332:LEU:HA	2:I:352:THR:HG21	1.99	0.43
2:I:366:PRO:O	2:I:367:GLU:HG3	2.18	0.43
1:A:74:PHE:CZ	1:F:203:GLU:HA	2.54	0.43
1:A:150:TRP:CE2	1:A:154:ARG:HG3	2.54	0.43
1:A:213:THR:O	1:A:216:HIS:N	2.44	0.43
2:C:46:THR:HG22	2:C:47:ARG:H	1.83	0.43
2:D:235:GLN:HG2	2:D:236:ALA:N	2.31	0.43
3:E:121:THR:O	3:E:124:ALA:N	2.52	0.43
1:F:78:GLN:O	1:F:79:THR:HB	2.19	0.43
2:G:142:THR:HG23	2:G:147:PRO:HG2	2.01	0.43
2:G:314:ARG:O	2:G:317:ALA:HB3	2.18	0.43
2:H:288:LEU:C	2:H:290:HIS:H	2.22	0.43
2:I:309:ILE:O	2:I:312:ARG:N	2.50	0.43
3:J:303:VAL:HB	3:J:306:ILE:CG1	2.49	0.43
1:A:80:LEU:CD2	1:A:82:LEU:HD11	2.49	0.43
1:A:255:LEU:HD22	3:E:313:THR:HG21	2.01	0.43
2:C:65:GLU:C	2:C:67:GLY:N	2.72	0.43
2:C:70:ALA:C	2:C:72:PRO:HD3	2.39	0.43
2:C:139:LEU:O	2:C:140:LEU:C	2.58	0.43
2:C:237:VAL:O	2:C:238:SER:C	2.56	0.43
2:C:347:MET:HG2	2:D:290:HIS:ND1	2.33	0.43
2:D:114:ALA:HA	2:D:115:PRO:HD3	1.83	0.43
2:D:120:PHE:CE1	2:D:151:LYS:HE2	2.54	0.43
2:D:184:ARG:HB2	2:D:207:ALA:HB2	2.00	0.43
2:G:326:GLN:O	2:G:326:GLN:HG2	2.17	0.43
2:H:351:MET:HE2	2:H:354:LEU:HB2	2.01	0.43
2:I:263:ARG:HH11	2:I:263:ARG:HG3	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:215:PHE:CD2	1:A:282:ARG:NH2	2.86	0.43
1:A:277:ARG:NH1	1:A:277:ARG:HG2	2.33	0.43
2:C:285:MET:O	2:C:288:LEU:N	2.51	0.43
2:C:333:LEU:C	2:C:333:LEU:HD23	2.38	0.43
3:E:143:LEU:N	3:E:143:LEU:CD2	2.81	0.43
2:H:265:MET:HA	2:H:268:ILE:HD12	2.01	0.43
2:H:271:ALA:CB	2:H:276:ILE:HD11	2.48	0.43
2:H:343:PRO:HG2	2:H:347:MET:SD	2.59	0.43
3:J:57:LYS:CG	3:J:58:SER:H	2.28	0.43
3:J:252:LEU:HD23	3:J:290:LEU:CA	2.46	0.43
3:J:296:ILE:HD12	3:J:299:GLN:HE21	1.84	0.43
1:A:230:LEU:HD22	2:B:303:GLY:HA3	2.01	0.42
2:B:176:LYS:C	2:B:177:ALA:O	2.56	0.42
2:B:254:GLU:O	2:B:257:VAL:HG23	2.19	0.42
2:D:281:LEU:O	2:D:281:LEU:HD13	2.18	0.42
2:D:321:PRO:HA	2:D:322:PRO:HD2	1.89	0.42
1:F:47:PHE:CD2	1:F:78:GLN:N	2.86	0.42
2:G:140:LEU:HD22	2:G:144:GLU:CD	2.39	0.42
2:H:179:ASP:CG	2:H:180:VAL:N	2.71	0.42
2:I:201:ARG:NH2	2:I:284:GLU:CD	2.72	0.42
3:J:27:LEU:HD12	3:J:160:ARG:O	2.19	0.42
3:J:41:ILE:HG21	3:J:113:TRP:CG	2.54	0.42
3:J:90:VAL:HG12	3:J:90:VAL:O	2.18	0.42
3:J:289:ILE:O	3:J:293:VAL:HG23	2.19	0.42
3:J:316:LEU:O	3:J:319:ILE:HB	2.19	0.42
1:A:4:LEU:HD11	1:A:137:VAL:HG22	2.01	0.42
2:B:351:MET:HG2	2:C:329:TYR:CE1	2.53	0.42
2:C:285:MET:O	2:C:287:GLY:N	2.52	0.42
2:D:171:LEU:HD12	2:D:171:LEU:HA	1.83	0.42
2:D:188:GLU:O	2:D:189:HIS:C	2.57	0.42
3:E:155:LEU:O	3:E:157:SER:N	2.52	0.42
2:G:313:MET:O	2:G:315:GLU:N	2.52	0.42
2:H:60:LYS:HA	2:H:82:ILE:HD13	2.00	0.42
2:H:260:ASN:CG	2:H:260:ASN:O	2.57	0.42
2:I:158:ASP:CG	2:I:161:LYS:CG	2.87	0.42
2:I:347:MET:SD	3:J:253:MSE:HG2	2.59	0.42
3:J:6:TRP:O	3:J:9:PRO:HD2	2.19	0.42
1:A:65:PHE:CE1	1:A:99:THR:CG2	3.02	0.42
1:A:105:HIS:O	1:A:107:ASP:N	2.53	0.42
1:A:207:ASN:C	1:A:207:ASN:ND2	2.73	0.42
1:A:336:LEU:HD11	2:B:294:MET:HE2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:179:ASP:HB3	2:B:182:GLN:CG	2.49	0.42
2:B:241:LEU:O	2:B:242:GLY:O	2.37	0.42
2:B:254:GLU:C	2:B:256:MET:N	2.73	0.42
2:B:304:ASN:OD1	2:B:305:ASP:HB2	2.19	0.42
2:D:132:SER:O	2:D:134:HIS:N	2.52	0.42
2:D:339:LEU:HD11	2:D:345:ARG:CG	2.48	0.42
2:G:13:GLN:HA	2:G:13:GLN:HE21	1.83	0.42
2:G:115:PRO:HD3	2:G:149:HIS:HB3	2.01	0.42
2:G:261:GLY:O	2:G:265:MET:HG2	2.19	0.42
2:I:113:TYR:HE2	2:I:147:PRO:CG	2.32	0.42
2:I:345:ARG:H	2:I:345:ARG:HG3	1.41	0.42
3:J:24:HIS:CD2	3:J:160:ARG:NE	2.88	0.42
1:A:98:LEU:HD22	1:A:101:THR:HG21	2.01	0.42
1:A:173:CYS:SG	1:A:211:HIS:HE1	2.42	0.42
1:A:333:HIS:CB	2:B:298:SER:OG	2.66	0.42
2:C:206:LEU:O	2:C:209:ALA:HB3	2.19	0.42
2:C:260:ASN:HD21	2:C:263:ARG:HB2	1.84	0.42
2:C:264:VAL:CG1	2:C:353:LEU:HD13	2.47	0.42
2:C:325:ILE:HA	2:C:328:TYR:HD2	1.84	0.42
2:D:126:ASP:OD1	2:D:127:GLU:HG2	2.20	0.42
2:D:280:ALA:N	3:E:149:GLU:OE2	2.50	0.42
3:E:238:HIS:HB3	3:E:244:ARG:NH1	2.34	0.42
1:F:231:HIS:O	1:F:235:GLN:HG2	2.20	0.42
1:F:248:ARG:HD2	1:F:251:GLN:OE1	2.20	0.42
1:F:282:ARG:CG	1:F:285:MSE:HE1	2.33	0.42
2:G:316:LEU:HB3	2:G:320:ILE:CD1	2.48	0.42
2:I:343:PRO:HB3	3:J:297:ARG:HE	1.85	0.42
3:J:58:SER:CB	3:J:65:CYS:SG	3.03	0.42
3:J:250:THR:CB	3:J:267:ASN:HD21	2.33	0.42
1:A:27:ASP:OD2	1:A:30:LEU:CB	2.67	0.42
1:A:147:LEU:HB3	1:A:148:PRO:CD	2.38	0.42
1:A:285:MSE:HB3	1:A:285:MSE:HE2	2.01	0.42
1:A:305:LEU:O	1:A:308:THR:HB	2.18	0.42
2:B:91:ILE:HD11	2:B:112:GLN:NE2	2.34	0.42
2:C:160:GLN:C	2:C:162:LEU:H	2.23	0.42
2:C:351:MET:SD	2:D:329:TYR:CD1	3.13	0.42
3:E:121:THR:C	3:E:123:ALA:N	2.72	0.42
3:E:283:PRO:HG2	3:E:284:SER:N	2.27	0.42
1:F:57:PRO:O	1:F:58:ASN:HB2	2.19	0.42
1:F:108:LEU:O	1:F:108:LEU:HG	2.19	0.42
2:G:148:GLU:O	2:G:149:HIS:CB	2.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:44:SER:HB2	2:H:159:PRO:CG	2.50	0.42
2:H:122:VAL:HG13	2:H:153:LEU:HG	2.02	0.42
2:H:243:THR:HG22	2:H:244:LEU:N	2.34	0.42
2:H:276:ILE:HG22	2:H:277:GLU:H	1.84	0.42
2:H:353:LEU:HD23	2:H:353:LEU:HA	1.90	0.42
3:J:25:HIS:ND1	3:J:25:HIS:N	2.62	0.42
3:J:88:LEU:HB3	3:J:120:LEU:HA	2.01	0.42
3:J:329:LEU:N	3:J:329:LEU:HD23	2.34	0.42
1:A:257:LEU:HD23	1:A:257:LEU:HA	1.82	0.42
2:B:37:ILE:CG2	2:B:151:LYS:HE3	2.49	0.42
2:B:132:SER:O	2:B:134:HIS:N	2.52	0.42
2:B:244:LEU:O	2:B:245:ASP:CB	2.59	0.42
2:B:258:GLU:O	2:B:259:ALA:HB3	2.20	0.42
2:D:102:GLU:HG3	2:D:105:ARG:NH2	2.34	0.42
2:D:112:GLN:OE1	2:D:112:GLN:HA	2.19	0.42
2:D:250:LEU:O	2:D:252:LEU:N	2.53	0.42
2:D:320:ILE:HA	2:D:321:PRO:HD3	1.91	0.42
3:E:73:HIS:CE1	3:E:106:LEU:CD2	3.02	0.42
3:E:289:ILE:CG2	3:E:319:ILE:HD13	2.46	0.42
2:H:34:LEU:HD13	2:H:36:ARG:CZ	2.50	0.42
1:A:209:ALA:O	2:B:176:LYS:HE3	2.19	0.42
1:A:326:GLY:O	1:A:327:LEU:C	2.57	0.42
2:C:269:ASN:O	2:C:271:ALA:N	2.52	0.42
2:D:285:MET:HE3	2:D:353:LEU:CD2	2.30	0.42
3:E:68:MSE:SE	3:E:76:TYR:CD2	3.23	0.42
1:F:26:ASN:O	1:F:26:ASN:OD1	2.38	0.42
1:F:217:TRP:HZ3	1:F:250:LEU:HD22	1.83	0.42
2:I:140:LEU:O	2:I:144:GLU:HG3	2.18	0.42
2:I:192:ASN:OD1	2:I:198:HIS:HE1	2.03	0.42
3:J:42:TYR:O	3:J:46:ARG:HG2	2.19	0.42
1:A:51:HIS:HB3	1:A:53:PHE:HE1	1.85	0.42
1:A:134:SER:HB2	1:A:135:VAL:H	1.68	0.42
1:A:213:THR:HG22	1:A:215:PHE:HB2	2.02	0.42
2:B:264:VAL:HG11	2:B:353:LEU:HD13	2.01	0.42
3:E:50:CYS:SG	3:E:53:PRO:N	2.93	0.42
3:E:74:PRO:CD	3:E:106:LEU:HD11	2.47	0.42
3:E:117:ALA:HA	3:E:120:LEU:HD23	2.01	0.42
3:E:187:LEU:HA	3:E:187:LEU:HD23	1.80	0.42
3:E:238:HIS:CB	3:E:244:ARG:NH1	2.83	0.42
1:F:27:ASP:HB2	1:F:141:THR:OG1	2.20	0.42
1:F:268:PRO:O	1:F:270:ARG:N	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:10:TRP:O	2:G:12:PRO:HD3	2.20	0.42
2:G:264:VAL:CG1	2:G:353:LEU:HD13	2.50	0.42
2:H:137:ASN:O	2:H:141:LYS:HG3	2.20	0.42
2:H:260:ASN:ND2	2:H:263:ARG:HB3	2.35	0.42
3:J:220:LEU:HD22	3:J:224:VAL:HG23	2.01	0.42
3:J:225:PRO:HA	3:J:280:HIS:CE1	2.54	0.42
1:A:262:ARG:NH2	3:E:320:GLU:CD	2.73	0.42
1:A:301:ALA:HB2	1:A:331:LEU:HD21	2.02	0.42
2:B:42:LEU:HD21	2:B:156:THR:HG22	2.01	0.42
2:B:187:LEU:C	2:B:189:HIS:N	2.71	0.42
2:B:309:ILE:O	2:B:312:ARG:N	2.50	0.42
2:D:136:PHE:O	2:D:140:LEU:HB2	2.20	0.42
2:D:353:LEU:C	2:D:355:ARG:N	2.73	0.42
3:E:158:ARG:HA	3:E:158:ARG:HD2	1.81	0.42
3:E:188:LEU:O	3:E:191:LEU:HB3	2.20	0.42
3:E:334:LEU:HD13	3:E:334:LEU:HA	1.78	0.42
1:F:303:GLN:OE1	3:J:314:ASP:OD1	2.38	0.42
2:G:98:ARG:NE	2:H:140:LEU:HD13	2.35	0.42
2:G:209:ALA:O	2:G:211:GLU:N	2.52	0.42
2:G:266:ALA:O	2:G:270:GLU:HB2	2.20	0.42
2:H:231:GLN:C	2:H:233:SER:H	2.23	0.42
2:I:92:GLU:HG2	2:I:124:LEU:HD12	2.02	0.42
2:I:276:ILE:HG22	2:I:277:GLU:N	2.32	0.42
2:I:352:THR:O	2:I:355:ARG:HB3	2.20	0.42
3:J:189:ALA:HB3	3:J:210:TRP:HH2	1.84	0.42
2:B:76:CYS:SG	2:B:78:ASN:CA	3.08	0.42
2:B:164:VAL:CG2	2:B:165:THR:N	2.83	0.42
2:B:185:HIS:O	2:B:185:HIS:ND1	2.50	0.42
2:B:285:MET:CE	2:B:332:LEU:HD21	2.49	0.42
2:B:334:ILE:O	2:B:338:GLU:HG3	2.19	0.42
2:C:320:ILE:HA	2:C:321:PRO:HD3	1.94	0.42
2:D:184:ARG:C	2:D:184:ARG:CD	2.83	0.42
3:E:192:ARG:C	3:E:194:SER:N	2.74	0.42
1:F:40:GLN:HE21	1:F:40:GLN:HB3	1.60	0.42
1:F:174:TYR:CD2	1:F:180:ALA:HB1	2.55	0.42
1:F:334:LYS:H	1:F:334:LYS:HG3	1.66	0.42
2:G:19:VAL:HG12	2:G:178:LEU:HD13	2.01	0.42
2:H:106:ASP:O	2:H:110:ASN:ND2	2.52	0.42
2:I:11:ARG:HH12	5:I:803:AGS:PA	2.42	0.42
2:I:302:LEU:HD13	2:I:310:GLU:HA	2.01	0.42
3:J:176:LEU:C	3:J:178:ARG:H	2.22	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:143:GLU:H	1:A:143:GLU:CD	2.19	0.41
1:A:213:THR:C	1:A:215:PHE:H	2.23	0.41
2:B:88:VAL:HG13	2:B:89:ASP:N	2.35	0.41
2:B:178:LEU:HD13	2:B:178:LEU:HA	1.69	0.41
2:B:179:ASP:HB2	2:B:182:GLN:HE21	1.81	0.41
2:B:359:PHE:HE2	2:C:323:THR:OG1	2.03	0.41
2:C:51:LYS:HE2	6:C:1300:PO4:O3	2.20	0.41
2:D:128:VAL:CG1	2:D:129:HIS:N	2.83	0.41
2:D:132:SER:O	2:D:135:SER:N	2.53	0.41
2:D:290:HIS:CE1	2:D:294:MET:HE3	2.54	0.41
2:D:314:ARG:O	2:D:317:ALA:HB3	2.20	0.41
2:D:332:LEU:HD23	2:D:352:THR:CG2	2.50	0.41
2:D:361:PRO:O	2:D:362:ARG:CB	2.68	0.41
3:E:42:TYR:HE2	3:E:46:ARG:NH1	2.17	0.41
3:E:250:THR:O	3:E:251:LEU:C	2.58	0.41
3:E:292:ASP:CG	3:E:322:TYR:HH	2.22	0.41
3:E:318:ARG:O	3:E:319:ILE:C	2.57	0.41
1:F:191:LEU:HD13	2:G:26:THR:HG21	2.00	0.41
1:F:220:ALA:O	1:F:222:LEU:N	2.53	0.41
2:I:113:TYR:CE2	2:I:147:PRO:CG	3.03	0.41
3:J:158:ARG:CG	3:J:158:ARG:HH11	2.33	0.41
1:A:221:LEU:HA	1:A:221:LEU:HD23	1.63	0.41
2:B:41:TYR:N	2:B:41:TYR:CD1	2.88	0.41
2:C:56:ARG:HG2	2:C:56:ARG:HH11	1.85	0.41
2:C:65:GLU:CA	2:C:119:ARG:HH21	2.30	0.41
2:C:102:GLU:HB3	2:C:105:ARG:HH11	1.84	0.41
2:C:323:THR:CG2	2:C:324:ASP:N	2.74	0.41
2:D:243:THR:HG22	2:D:244:LEU:N	2.36	0.41
2:D:259:ALA:CB	2:D:363:MET:SD	3.08	0.41
2:D:316:LEU:HA	2:D:316:LEU:HD23	1.67	0.41
3:E:279:ASN:C	3:E:281:LEU:N	2.73	0.41
1:F:81:LEU:HA	1:F:111:ILE:O	2.20	0.41
2:G:99:THR:HB	2:H:145:GLU:HB2	2.02	0.41
2:G:201:ARG:HB2	2:G:234:THR:OG1	2.20	0.41
2:G:277:GLU:CG	2:G:280:ALA:HB2	2.49	0.41
2:I:343:PRO:HA	3:J:297:ARG:HH21	1.85	0.41
3:J:116:ASP:HB3	3:J:119:LEU:CD1	2.50	0.41
3:J:324:GLN:HA	3:J:325:PRO:HD3	1.93	0.41
1:A:27:ASP:OD1	1:A:27:ASP:C	2.58	0.41
1:A:74:PHE:CZ	1:F:206:VAL:HG12	2.54	0.41
1:A:98:LEU:HG	1:A:125:ALA:HB1	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:51:HIS:O	1:F:81:LEU:N	2.53	0.41
1:F:55:ILE:HD11	1:F:82:LEU:HG	2.02	0.41
1:F:225:LYS:HZ3	1:F:333:HIS:HE1	1.68	0.41
3:J:73:HIS:HA	3:J:74:PRO:HD3	1.82	0.41
3:J:216:LEU:HD11	3:J:236:LEU:HD21	2.03	0.41
1:A:143:GLU:O	1:A:147:LEU:N	2.50	0.41
2:B:365:LEU:HA	2:B:366:PRO:HD3	1.81	0.41
2:C:245:ASP:HB3	2:C:248:GLN:CG	2.50	0.41
2:C:305:ASP:C	2:C:307:ALA:N	2.72	0.41
2:D:24:VAL:C	2:D:26:THR:N	2.72	0.41
2:D:290:HIS:O	2:D:291:ARG:C	2.59	0.41
3:E:88:LEU:HD23	3:E:88:LEU:C	2.40	0.41
3:E:88:LEU:HD21	3:E:93:VAL:HG22	2.02	0.41
1:F:4:LEU:O	1:F:137:VAL:HA	2.20	0.41
2:G:98:ARG:CB	2:H:169:ARG:HH22	2.33	0.41
2:G:285:MET:CB	2:G:332:LEU:HD21	2.47	0.41
2:H:59:ALA:CB	2:H:122:VAL:HG21	2.51	0.41
1:A:128:THR:O	1:A:131:ALA:CB	2.67	0.41
1:A:220:ALA:C	1:A:222:LEU:N	2.72	0.41
2:B:186:GLN:O	2:B:190:ILE:HG13	2.20	0.41
2:C:187:LEU:HD22	2:C:221:THR:OG1	2.20	0.41
3:E:69:GLN:HE21	3:E:69:GLN:C	2.24	0.41
3:E:161:LEU:H	3:E:161:LEU:CD1	2.23	0.41
3:E:233:LEU:O	3:E:234:ALA:C	2.58	0.41
3:E:307:ASN:O	3:E:310:LEU:N	2.51	0.41
2:G:87:PHE:CE2	2:G:89:ASP:HB2	2.55	0.41
2:G:278:TRP:CH2	2:G:346:ARG:HG3	2.55	0.41
2:I:148:GLU:O	2:I:149:HIS:HB2	2.21	0.41
2:B:22:GLU:O	2:B:24:VAL:N	2.53	0.41
2:B:247:ASP:OD2	2:B:312:ARG:NH1	2.44	0.41
2:C:183:ILE:HD13	2:C:217:ALA:HB2	2.01	0.41
2:C:240:MET:HE3	2:C:240:MET:HB3	1.77	0.41
2:C:351:MET:HG2	2:D:329:TYR:CE1	2.56	0.41
3:E:31:ALA:CB	3:E:164:LEU:HB3	2.49	0.41
2:G:7:ALA:HA	2:G:218:LEU:HD13	2.02	0.41
2:G:183:ILE:O	2:G:187:LEU:HG	2.20	0.41
2:H:272:ALA:N	2:H:276:ILE:HD11	2.35	0.41
2:I:333:LEU:C	2:I:333:LEU:HD13	2.41	0.41
3:J:297:ARG:O	3:J:300:LEU:HB2	2.21	0.41
1:A:105:HIS:CB	1:F:227:LYS:HD3	2.41	0.41
2:C:144:GLU:OE1	2:C:144:GLU:CA	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:202:ALA:HB2	2:C:234:THR:N	2.35	0.41
2:C:205:LEU:O	2:C:206:LEU:C	2.59	0.41
2:C:288:LEU:O	2:C:289:LEU:C	2.59	0.41
2:D:357:LEU:HG	2:D:363:MET:CE	2.49	0.41
1:F:50:HIS:ND1	1:F:79:THR:HG23	2.36	0.41
1:F:275:LYS:HA	1:F:275:LYS:HD3	1.91	0.41
1:A:162:LEU:HD21	1:A:167:ASN:N	2.35	0.41
2:B:71:THR:O	2:B:72:PRO:C	2.59	0.41
2:B:179:ASP:CB	2:B:182:GLN:HB2	2.50	0.41
2:B:253:VAL:O	2:B:257:VAL:HG22	2.21	0.41
2:C:93:ILE:HG23	2:D:133:ARG:HH22	1.84	0.41
2:C:103:ASP:O	2:C:107:LEU:HG	2.21	0.41
2:C:196:ILE:C	2:C:197:ALA:O	2.54	0.41
2:D:59:ALA:HB2	2:D:122:VAL:HG11	2.01	0.41
3:E:27:LEU:HB3	3:E:142:PHE:CD1	2.56	0.41
3:E:37:ASP:CG	3:E:38:ASP:N	2.73	0.41
3:E:136:PRO:O	3:E:137:ALA:C	2.58	0.41
3:E:142:PHE:C	3:E:143:LEU:HD22	2.41	0.41
3:E:242:PRO:CG	3:E:243:ALA:H	2.31	0.41
1:F:70:ALA:C	1:F:71:MSE:HE2	2.40	0.41
1:F:174:TYR:O	1:F:181:LEU:HD21	2.20	0.41
1:F:247:LEU:HD22	1:F:305:LEU:CD2	2.51	0.41
2:G:10:TRP:CH2	2:G:193:GLU:HB2	2.52	0.41
2:G:246:ASP:O	2:G:246:ASP:CG	2.57	0.41
3:J:254:ASP:O	3:J:257:LYS:HB2	2.21	0.41
3:J:296:ILE:HD12	3:J:299:GLN:NE2	2.36	0.41
1:A:41:VAL:O	1:A:41:VAL:HG12	2.19	0.41
2:B:286:LEU:HD21	2:B:333:LEU:N	2.36	0.41
2:C:87:PHE:HB3	2:C:90:LEU:HB3	2.03	0.41
2:C:94:ASP:HB3	2:C:97:SER:HB2	2.02	0.41
2:C:129:HIS:ND1	2:C:156:THR:HG23	2.36	0.41
2:C:220:LEU:C	2:C:222:ASP:N	2.73	0.41
2:C:302:LEU:HD23	2:C:302:LEU:HA	1.73	0.41
2:C:367:GLU:HG2	2:D:322:PRO:HD2	2.03	0.41
2:D:234:THR:HG22	2:D:245:ASP:OD1	2.20	0.41
2:D:272:ALA:CB	2:D:346:ARG:HH11	2.34	0.41
2:D:316:LEU:HD22	2:D:320:ILE:CD1	2.51	0.41
3:E:98:GLU:C	3:E:100:LEU:H	2.24	0.41
3:E:218:GLN:O	3:E:221:ALA:CB	2.61	0.41
3:E:329:LEU:HA	3:E:330:PRO:HD3	1.71	0.41
1:F:93:ILE:C	1:F:95:GLU:H	2.23	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:109:LEU:HD23	1:F:110:LEU:N	2.36	0.41
1:F:223:MSE:HE2	1:F:288:GLU:O	2.21	0.41
2:G:285:MET:O	2:G:289:LEU:HB2	2.21	0.41
2:G:333:LEU:HD11	2:G:337:LYS:HE3	2.03	0.41
2:H:93:ILE:HG21	2:H:104:THR:CG2	2.51	0.41
2:H:93:ILE:HG23	2:H:104:THR:OG1	2.20	0.41
2:H:288:LEU:O	2:H:292:ILE:HG13	2.21	0.41
2:H:292:ILE:HG22	2:H:325:ILE:CD1	2.51	0.41
2:I:240:MET:SD	3:J:157:SER:CA	3.09	0.41
2:I:298:SER:HA	2:I:299:PRO:HD2	1.84	0.41
2:I:335:GLY:O	2:I:338:GLU:N	2.53	0.41
3:J:34:GLY:O	3:J:199:GLY:HA3	2.21	0.41
3:J:41:ILE:HG21	3:J:113:TRP:NE1	2.36	0.41
3:J:77:TYR:CE1	3:J:99:LYS:HE2	2.56	0.41
3:J:90:VAL:HG21	3:J:123:ALA:CB	2.51	0.41
3:J:242:PRO:HG2	3:J:243:ALA:H	1.86	0.41
1:A:322:ALA:O	1:A:325:GLU:HB3	2.20	0.41
2:B:347:MET:O	2:B:348:GLY:C	2.59	0.41
2:C:261:GLY:CA	2:D:297:LEU:HD21	2.44	0.41
2:C:315:GLU:O	2:C:316:LEU:C	2.59	0.41
2:D:32:LEU:C	2:D:34:LEU:N	2.74	0.41
2:D:134:HIS:ND1	2:D:135:SER:N	2.68	0.41
2:D:148:GLU:O	2:D:149:HIS:HB2	2.21	0.41
2:D:235:GLN:O	2:D:236:ALA:C	2.59	0.41
3:E:169:GLU:OE1	3:E:192:ARG:NE	2.49	0.41
3:E:173:VAL:CG1	3:E:184:GLN:HE21	2.34	0.41
1:F:188:LEU:HG	1:F:197:LEU:CD2	2.49	0.41
1:F:233:LEU:HD23	1:F:325:GLU:HG3	2.02	0.41
2:G:243:THR:HG21	2:G:274:ARG:CD	2.44	0.41
3:J:236:LEU:O	3:J:237:ASN:C	2.58	0.41
2:C:15:PHE:CD1	2:C:57:LEU:HB3	2.55	0.40
2:C:29:ALA:O	2:C:33:SER:OG	2.27	0.40
2:C:302:LEU:HD13	2:C:310:GLU:HG3	2.02	0.40
2:D:160:GLN:C	2:D:162:LEU:N	2.74	0.40
2:D:297:LEU:O	2:D:297:LEU:HG	2.20	0.40
2:D:365:LEU:HB3	2:D:366:PRO:HD2	2.02	0.40
3:E:80:ALA:HA	3:E:115:THR:OG1	2.21	0.40
3:E:94:ARG:HH11	3:E:94:ARG:CB	2.33	0.40
3:E:230:TYR:O	3:E:230:TYR:HD1	2.04	0.40
2:G:11:ARG:O	2:G:12:PRO:C	2.59	0.40
2:H:213:SER:HG	2:H:216:ASP:HB2	1.83	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:309:ILE:O	2:H:311:LEU:N	2.54	0.40
1:A:55:ILE:HD11	1:A:82:LEU:HD23	2.02	0.40
1:A:163:ASP:O	1:A:167:ASN:N	2.54	0.40
1:A:297:GLN:HG2	1:A:335:PRO:HG3	2.02	0.40
2:B:338:GLU:O	2:B:339:LEU:C	2.60	0.40
2:C:43:PHE:CD1	2:C:173:PHE:HB2	2.56	0.40
2:C:100:LYS:CB	2:D:133:ARG:HE	2.33	0.40
2:D:15:PHE:CD2	2:D:57:LEU:HD13	2.48	0.40
2:D:21:GLN:CD	2:D:175:LEU:HG	2.41	0.40
2:D:310:GLU:O	2:D:311:LEU:C	2.58	0.40
3:E:73:HIS:HE1	3:E:106:LEU:CD2	2.34	0.40
1:F:232:ILE:O	1:F:236:LEU:N	2.50	0.40
2:G:6:LEU:CB	2:G:190:ILE:HG22	2.45	0.40
2:G:125:ILE:HD12	2:G:154:LEU:HD21	2.04	0.40
2:H:37:ILE:HG23	2:H:37:ILE:O	2.21	0.40
2:H:334:ILE:O	2:H:338:GLU:HG3	2.22	0.40
2:I:178:LEU:HD13	2:I:214:LEU:HD22	2.02	0.40
3:J:57:LYS:HD2	3:J:57:LYS:HA	1.91	0.40
3:J:158:ARG:HH11	3:J:158:ARG:HG3	1.86	0.40
1:A:91:ALA:HA	1:A:94:ASN:HD21	1.83	0.40
1:A:124:ALA:O	1:A:125:ALA:C	2.60	0.40
1:A:273:PHE:HB3	1:A:279:TRP:HB2	2.04	0.40
1:A:295:GLN:HA	1:A:298:LEU:HD22	2.04	0.40
1:A:304:LEU:HD23	1:A:304:LEU:HA	1.88	0.40
2:B:144:GLU:C	2:B:146:PRO:HD3	2.42	0.40
2:B:257:VAL:C	2:B:259:ALA:N	2.74	0.40
2:C:9:LYS:HG2	2:C:9:LYS:O	2.21	0.40
2:C:73:CYS:O	2:C:79:CYS:SG	2.78	0.40
2:D:261:GLY:O	2:D:265:MET:HB2	2.21	0.40
2:D:332:LEU:O	2:D:333:LEU:C	2.58	0.40
3:E:8:ARG:H	3:E:9:PRO:CD	2.35	0.40
3:E:68:MSE:HE3	3:E:73:HIS:CG	2.55	0.40
1:F:105:HIS:CE1	1:F:108:LEU:HB3	2.56	0.40
1:F:211:HIS:O	1:F:211:HIS:ND1	2.55	0.40
2:G:135:SER:O	2:G:138:ALA:HB3	2.21	0.40
2:G:363:MET:N	2:G:364:PRO:CD	2.85	0.40
2:H:243:THR:CG2	2:H:284:GLU:HG3	2.50	0.40
3:J:35:MSE:HE1	3:J:167:PRO:CD	2.51	0.40
1:A:237:ARG:C	1:A:239:GLU:H	2.23	0.40
1:A:292:ARG:HD2	1:A:292:ARG:HA	1.66	0.40
1:A:318:GLN:O	1:A:318:GLN:NE2	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:331:THR:HG23	2:B:355:ARG:HG2	2.02	0.40
2:C:15:PHE:HE1	2:C:57:LEU:O	2.05	0.40
2:C:291:ARG:CG	2:C:291:ARG:HH11	2.34	0.40
2:D:186:GLN:O	2:D:187:LEU:C	2.59	0.40
2:D:237:VAL:O	2:D:238:SER:C	2.60	0.40
2:D:268:ILE:O	2:D:272:ALA:N	2.51	0.40
3:E:94:ARG:HH11	3:E:94:ARG:HB3	1.87	0.40
3:E:156:ARG:HE	3:E:156:ARG:HB3	1.46	0.40
3:E:222:TYR:CE1	3:E:226:SER:CB	3.04	0.40
3:E:237:ASN:HD22	3:E:237:ASN:C	2.25	0.40
3:E:238:HIS:CG	3:E:239:GLU:N	2.88	0.40
1:F:243:PRO:HG2	1:F:244:VAL:H	1.85	0.40
2:G:193:GLU:O	2:G:193:GLU:HG2	2.21	0.40
2:G:294:MET:C	2:G:296:GLN:N	2.74	0.40
2:G:320:ILE:HA	2:G:321:PRO:HD3	1.90	0.40
2:H:15:PHE:HD1	2:H:15:PHE:HA	1.76	0.40
2:H:88:VAL:HG11	2:H:116:ALA:CB	2.41	0.40
2:H:105:ARG:O	2:H:109:ASP:OD2	2.40	0.40
2:H:145:GLU:N	2:H:146:PRO:CD	2.84	0.40
2:H:255:ALA:CB	2:H:264:VAL:HG22	2.51	0.40
2:I:80:ARG:HG2	2:I:80:ARG:NH1	2.36	0.40
3:J:29:ILE:N	3:J:29:ILE:CD1	2.84	0.40
1:A:277:ARG:HG2	1:A:277:ARG:HH11	1.85	0.40
1:A:294:SER:O	1:A:295:GLN:C	2.60	0.40
2:B:143:LEU:CD1	2:B:169:ARG:HB2	2.51	0.40
2:B:265:MET:HG3	2:C:297:LEU:CD2	2.51	0.40
2:G:51:LYS:HG2	2:G:175:LEU:HD22	2.02	0.40
2:G:99:THR:CG2	2:H:145:GLU:HB2	2.51	0.40
2:G:234:THR:O	2:G:234:THR:HG22	2.22	0.40
2:H:261:GLY:O	2:H:264:VAL:N	2.51	0.40
2:H:366:PRO:O	2:H:367:GLU:HG2	2.22	0.40

All (6) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:274:ASP:OD2	2:I:33:SER:O[1_455]	1.82	0.38
1:F:277:ARG:NH2	2:I:67:GLY:CA[1_455]	1.82	0.38
1:F:277:ARG:NE	2:I:66:THR:O[1_455]	1.87	0.33
1:F:277:ARG:CZ	2:I:67:GLY:CA[1_455]	2.03	0.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:277:ARG:NH2	2:I:67:GLY:C[1_455]	2.10	0.10
1:F:277:ARG:NH2	2:I:67:GLY:N[1_455]	2.19	0.01

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	336/343 (98%)	244 (73%)	70 (21%)	22 (6%)	1	12
1	F	336/343 (98%)	270 (80%)	47 (14%)	19 (6%)	1	14
2	B	362/373 (97%)	278 (77%)	62 (17%)	22 (6%)	1	13
2	C	364/373 (98%)	283 (78%)	54 (15%)	27 (7%)	1	9
2	D	362/373 (97%)	261 (72%)	77 (21%)	24 (7%)	1	11
2	G	362/373 (97%)	312 (86%)	39 (11%)	11 (3%)	3	26
2	H	364/373 (98%)	312 (86%)	44 (12%)	8 (2%)	5	32
2	I	362/373 (97%)	335 (92%)	18 (5%)	9 (2%)	4	29
3	E	332/334 (99%)	237 (71%)	68 (20%)	27 (8%)	1	8
3	J	332/334 (99%)	271 (82%)	50 (15%)	11 (3%)	3	25
All	All	3512/3592 (98%)	2803 (80%)	529 (15%)	180 (5%)	1	16

All (180) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	104	LEU
1	A	116	LYS
1	A	125	ALA
1	A	131	ALA
1	A	223	MSE
1	A	269	LEU
1	A	270	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	279	TRP
1	A	282	ARG
1	A	290	LEU
1	A	316	TYR
2	B	245	ASP
2	B	246	ASP
2	B	278	TRP
2	B	279	GLU
2	B	299	PRO
2	B	304	ASN
2	B	310	GLU
2	B	363	MET
2	C	36	ARG
2	C	198	HIS
2	C	246	ASP
2	C	262	GLU
2	C	301	ALA
2	C	303	GLY
2	C	315	GLU
2	C	344	ASP
2	D	27	ALA
2	D	33	SER
2	D	261	GLY
2	D	278	TRP
2	D	359	PHE
3	E	62	CYS
3	E	117	ALA
3	E	137	ALA
3	E	206	GLN
3	E	303	VAL
3	E	304	THR
3	E	308	ARG
1	F	279	TRP
1	F	281	ASN
2	G	179	ASP
2	G	249	ALA
2	G	310	GLU
2	H	278	TRP
2	H	302	LEU
2	I	261	GLY
2	I	310	GLU
2	I	362	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	J	62	CYS
3	J	137	ALA
3	J	304	THR
1	A	15	GLU
1	A	134	SER
1	A	178	LEU
1	A	236	LEU
2	B	20	GLY
2	B	242	GLY
2	B	243	THR
2	B	319	THR
2	C	4	GLN
2	C	20	GLY
2	C	50	GLY
2	C	207	ALA
2	C	237	VAL
2	C	316	LEU
2	D	25	LEU
2	D	28	LEU
2	D	190	ILE
2	D	212	GLY
2	D	227	SER
2	D	230	GLY
3	E	2	ARG
3	E	6	TRP
3	E	85	LYS
3	E	107	GLY
3	E	156	ARG
3	E	238	HIS
3	E	278	ALA
3	E	284	SER
1	F	132	ASN
1	F	210	ALA
1	F	269	LEU
1	F	282	ARG
1	F	316	TYR
1	F	335	PRO
2	G	275	GLY
2	H	275	GLY
3	J	103	HIS
3	J	107	GLY
3	J	206	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	106	ASP
1	A	184	ALA
1	A	281	ASN
2	B	6	LEU
2	B	23	HIS
2	B	366	PRO
2	C	221	THR
2	C	261	GLY
2	C	293	ALA
2	C	333	LEU
2	D	16	ALA
2	D	46	THR
2	D	247	ASP
3	E	37	ASP
3	E	83	LYS
3	E	150	ARG
3	E	287	GLN
1	F	46	GLY
1	F	79	THR
1	F	108	LEU
1	F	131	ALA
1	F	143	GLU
1	F	221	LEU
1	F	270	ARG
2	G	46	THR
2	G	177	ALA
2	G	303	GLY
2	H	211	GLU
2	H	310	GLU
2	I	146	PRO
2	I	299	PRO
2	I	304	ASN
2	I	305	ASP
2	I	364	PRO
3	J	6	TRP
3	J	115	THR
1	A	46	GLY
1	A	90	ASN
2	B	22	GLU
2	B	247	ASP
2	B	286	LEU
2	C	127	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	C	334	ILE
2	D	306	MET
3	E	38	ASP
1	F	319	SER
2	G	146	PRO
2	G	210	ALA
2	G	314	ARG
3	J	150	ARG
1	A	271	ALA
2	B	146	PRO
2	B	177	ALA
2	B	355	ARG
2	C	46	THR
2	C	239	ALA
2	C	264	VAL
2	C	292	ILE
2	C	343	PRO
2	D	276	ILE
2	D	289	LEU
2	D	300	ALA
2	D	362	ARG
2	D	363	MET
3	E	209	ASN
3	E	291	GLY
3	E	311	LEU
1	F	106	ASP
2	H	232	VAL
1	A	89	PRO
2	C	161	LYS
2	D	210	ALA
3	E	234	ALA
1	F	265	ALA
2	G	363	MET
2	H	20	GLY
2	D	101	VAL
2	H	366	PRO
3	J	136	PRO
2	D	146	PRO
3	E	282	SER
3	J	242	PRO
2	D	200	PRO
3	E	5	PRO

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Mol	Chain	Res	Type
3	E	283	PRO
1	F	224	GLY
2	B	128	VAL
2	C	31	GLY
2	I	20	GLY

### 5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	287/286 (100%)	234 (82%)	53 (18%)	<b>1</b> 7
1	F	287/286 (100%)	260 (91%)	27 (9%)	7 <b>29</b>
2	B	301/310 (97%)	271 (90%)	30 (10%)	<b>6</b> 27
2	C	303/310 (98%)	263 (87%)	40 (13%)	<b>3</b> 18
2	D	301/310 (97%)	261 (87%)	40 (13%)	<b>3</b> 18
2	G	301/310 (97%)	274 (91%)	27 (9%)	<b>8</b> 31
2	H	303/310 (98%)	281 (93%)	22 (7%)	<b>11</b> 38
2	I	301/310 (97%)	283 (94%)	18 (6%)	<b>16</b> 44
3	E	270/264 (102%)	232 (86%)	38 (14%)	<b>3</b> 17
3	J	270/264 (102%)	245 (91%)	25 (9%)	<b>7</b> 30
All	All	2924/2960 (99%)	2604 (89%)	320 (11%)	<b>5</b> 24

All (320) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	4	LEU
1	A	10	ARG
1	A	40	GLN
1	A	54	SER
1	A	60	ASP
1	A	78	GLN
1	A	101	THR
1	A	103	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	104	LEU
1	A	108	LEU
1	A	115	ASN
1	A	119	LYS
1	A	128	THR
1	A	143	GLU
1	A	160	LEU
1	A	162	LEU
1	A	163	ASP
1	A	164	ASP
1	A	174	TYR
1	A	178	LEU
1	A	187	ARG
1	A	188	LEU
1	A	189	SER
1	A	190	LEU
1	A	192	TRP
1	A	194	ASP
1	A	198	THR
1	A	207	ASN
1	A	208	ASP
1	A	215	PHE
1	A	216	HIS
1	A	219	ASP
1	A	228	ARG
1	A	234	GLN
1	A	236	LEU
1	A	242	GLU
1	A	256	LEU
1	A	266	HIS
1	A	268	PRO
1	A	279	TRP
1	A	280	GLN
1	A	292	ARG
1	A	298	LEU
1	A	305	LEU
1	A	313	LYS
1	A	316	TYR
1	A	318	GLN
1	A	320	VAL
1	A	327	LEU
1	A	328	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	330	LEU
1	A	331	LEU
1	A	336	LEU
2	B	8	ARG
2	B	11	ARG
2	B	36	ARG
2	B	66	THR
2	B	76	CYS
2	B	86	ARG
2	B	121	LYS
2	B	126	ASP
2	B	140	LEU
2	B	143	LEU
2	B	158	ASP
2	B	191	LEU
2	B	215	ARG
2	B	251	SER
2	B	257	VAL
2	B	262	GLU
2	B	276	ILE
2	B	279	GLU
2	B	284	GLU
2	B	289	LEU
2	B	291	ARG
2	B	305	ASP
2	B	325	ILE
2	B	327	LEU
2	B	332	LEU
2	B	334	ILE
2	B	344	ASP
2	B	352	THR
2	B	365	LEU
2	B	367	GLU
2	C	3	TYR
2	C	12	PRO
2	C	15	PHE
2	C	69	THR
2	C	76	CYS
2	C	103	ASP
2	C	105	ARG
2	C	120	PHE
2	C	130	MET

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	C	134	HIS
2	C	140	LEU
2	C	145	GLU
2	C	146	PRO
2	C	148	GLU
2	C	182	GLN
2	C	193	GLU
2	C	208	ARG
2	C	215	ARG
2	C	219	SER
2	C	232	VAL
2	C	234	THR
2	C	248	GLN
2	C	252	LEU
2	C	260	ASN
2	C	263	ARG
2	C	268	ILE
2	C	276	ILE
2	C	289	LEU
2	C	291	ARG
2	C	294	MET
2	C	298	SER
2	C	302	LEU
2	C	318	ARG
2	C	323	THR
2	C	324	ASP
2	C	336	ARG
2	C	338	GLU
2	C	352	THR
2	C	366	PRO
2	C	367	GLU
2	D	8	ARG
2	D	12	PRO
2	D	13	GLN
2	D	21	GLN
2	D	42	LEU
2	D	66	THR
2	D	72	PRO
2	D	110	ASN
2	D	124	LEU
2	D	134	HIS
2	D	136	PHE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	D	140	LEU
2	D	142	THR
2	D	148	GLU
2	D	168	SER
2	D	169	ARG
2	D	184	ARG
2	D	193	GLU
2	D	200	PRO
2	D	201	ARG
2	D	213	SER
2	D	219	SER
2	D	229	ASP
2	D	231	GLN
2	D	233	SER
2	D	251	SER
2	D	252	LEU
2	D	263	ARG
2	D	270	GLU
2	D	276	ILE
2	D	277	GLU
2	D	281	LEU
2	D	309	ILE
2	D	311	LEU
2	D	327	LEU
2	D	333	LEU
2	D	337	LYS
2	D	345	ARG
2	D	346	ARG
2	D	363	MET
3	E	22	ARG
3	E	30	GLN
3	E	37	ASP
3	E	46	ARG
3	E	69	GLN
3	E	91	ASP
3	E	93	VAL
3	E	94	ARG
3	E	98	GLU
3	E	110	LYS
3	E	120	LEU
3	E	143	LEU
3	E	152	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	E	154	THR
3	E	155	LEU
3	E	158	ARG
3	E	161	LEU
3	E	170	GLN
3	E	175	TRP
3	E	181	THR
3	E	182	MSE
3	E	202	LEU
3	E	222	TYR
3	E	233	LEU
3	E	237	ASN
3	E	239	GLU
3	E	240	GLN
3	E	245	LEU
3	E	252	LEU
3	E	253	MSE
3	E	259	HIS
3	E	269	ASP
3	E	290	LEU
3	E	304	THR
3	E	306	ILE
3	E	310	LEU
3	E	311	LEU
3	E	332	PRO
1	F	33	GLU
1	F	40	GLN
1	F	48	GLU
1	F	80	LEU
1	F	100	LEU
1	F	108	LEU
1	F	115	ASN
1	F	119	LYS
1	F	144	GLN
1	F	158	LEU
1	F	168	GLN
1	F	194	ASP
1	F	198	THR
1	F	208	ASP
1	F	211	HIS
1	F	215	PHE
1	F	250	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	F	266	HIS
1	F	279	TRP
1	F	282	ARG
1	F	292	ARG
1	F	295	GLN
1	F	298	LEU
1	F	305	LEU
1	F	307	ARG
1	F	316	TYR
1	F	330	LEU
2	G	11	ARG
2	G	12	PRO
2	G	13	GLN
2	G	39	HIS
2	G	66	THR
2	G	76	CYS
2	G	79	CYS
2	G	84	GLN
2	G	86	ARG
2	G	109	ASP
2	G	121	LYS
2	G	134	HIS
2	G	140	LEU
2	G	145	GLU
2	G	176	LYS
2	G	182	GLN
2	G	215	ARG
2	G	240	MET
2	G	289	LEU
2	G	296	GLN
2	G	297	LEU
2	G	326	GLN
2	G	330	GLN
2	G	338	GLU
2	G	351	MET
2	G	355	ARG
2	G	367	GLU
2	H	3	TYR
2	H	4	GLN
2	H	15	PHE
2	H	34	LEU
2	H	47	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	H	69	THR
2	H	76	CYS
2	H	99	THR
2	H	130	MET
2	H	144	GLU
2	H	145	GLU
2	H	158	ASP
2	H	181	GLU
2	H	184	ARG
2	H	193	GLU
2	H	201	ARG
2	H	218	LEU
2	H	234	THR
2	H	276	ILE
2	H	279	GLU
2	H	326	GLN
2	H	327	LEU
2	I	11	ARG
2	I	13	GLN
2	I	36	ARG
2	I	42	LEU
2	I	66	THR
2	I	101	VAL
2	I	140	LEU
2	I	145	GLU
2	I	148	GLU
2	I	201	ARG
2	I	214	LEU
2	I	240	MET
2	I	247	ASP
2	I	260	ASN
2	I	337	LYS
2	I	345	ARG
2	I	357	LEU
2	I	363	MET
3	J	3	TRP
3	J	35	MSE
3	J	62	CYS
3	J	65	CYS
3	J	68	MSE
3	J	91	ASP
3	J	105	ARG

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Mol	Chain	Res	Type
3	J	110	LYS
3	J	120	LEU
3	J	122	ASP
3	J	149	GLU
3	J	154	THR
3	J	175	TRP
3	J	185	ASP
3	J	202	LEU
3	J	216	LEU
3	J	220	LEU
3	J	245	LEU
3	J	252	LEU
3	J	256	LEU
3	J	285	ARG
3	J	292	ASP
3	J	296	ILE
3	J	317	LEU
3	J	329	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (98) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	51	HIS
1	A	58	ASN
1	A	105	HIS
1	A	157	GLN
1	A	183	GLN
1	A	207	ASN
1	A	211	HIS
1	A	251	GLN
1	A	266	HIS
1	A	297	GLN
2	B	13	GLN
2	B	30	ASN
2	B	38	HIS
2	B	112	GLN
2	B	160	GLN
2	B	172	GLN
2	B	182	GLN
2	B	186	GLN
2	B	198	HIS
2	B	260	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	B	326	GLN
2	B	360	HIS
2	C	84	GLN
2	C	198	HIS
2	C	223	GLN
2	C	235	GLN
2	C	260	ASN
2	C	304	ASN
2	C	360	HIS
2	D	13	GLN
2	D	21	GLN
2	D	30	ASN
2	D	38	HIS
2	D	110	ASN
2	D	129	HIS
2	D	198	HIS
2	D	231	GLN
2	D	248	GLN
2	D	296	GLN
2	D	360	HIS
3	E	19	GLN
3	E	24	HIS
3	E	69	GLN
3	E	101	ASN
3	E	184	GLN
3	E	209	ASN
3	E	218	GLN
3	E	237	ASN
3	E	307	ASN
3	E	321	HIS
1	F	40	GLN
1	F	51	HIS
1	F	96	GLN
1	F	105	HIS
1	F	140	GLN
1	F	168	GLN
1	F	183	GLN
1	F	216	HIS
1	F	231	HIS
1	F	235	GLN
1	F	333	HIS
2	G	13	GLN

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Mol	Chain	Res	Type
2	G	21	GLN
2	G	30	ASN
2	G	137	ASN
2	G	172	GLN
2	G	182	GLN
2	G	192	ASN
2	G	198	HIS
2	G	223	GLN
2	G	260	ASN
2	G	326	GLN
2	G	360	HIS
2	H	110	ASN
2	H	129	HIS
2	H	174	HIS
2	H	182	GLN
2	H	192	ASN
2	H	198	HIS
2	H	204	GLN
2	H	223	GLN
2	H	326	GLN
2	H	360	HIS
2	I	21	GLN
2	I	160	GLN
2	I	198	HIS
2	I	204	GLN
2	I	223	GLN
2	I	326	GLN
2	I	360	HIS
3	J	19	GLN
3	J	24	HIS
3	J	73	HIS
3	J	101	ASN
3	J	218	GLN
3	J	260	HIS
3	J	299	GLN
3	J	307	ASN

### 5.3.3 RNA

There are no RNA molecules in this entry.

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

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

## 5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

## 5.6 Ligand geometry [i](#)

Of 14 ligands modelled in this entry, 8 are monoatomic - leaving 6 for Mogul analysis.

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	AGS	B	802	-	28,33,33	2.01	4 (14%)	31,52,52	1.28	2 (6%)
6	PO4	H	1400	-	4,4,4	0.40	0	6,6,6	0.38	0
6	PO4	C	1300	-	4,4,4	1.42	1 (25%)	6,6,6	0.90	0
5	AGS	I	803	-	28,33,33	2.02	4 (14%)	31,52,52	1.28	2 (6%)
5	AGS	D	801	-	28,33,33	2.01	4 (14%)	31,52,52	1.28	2 (6%)
5	AGS	G	804	-	28,33,33	2.02	4 (14%)	31,52,52	1.28	2 (6%)

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	AGS	B	802	-	-	5/17/38/38	0/3/3/3
5	AGS	G	804	-	-	5/17/38/38	0/3/3/3
5	AGS	I	803	-	-	5/17/38/38	0/3/3/3
5	AGS	D	801	-	-	5/17/38/38	0/3/3/3

All (17) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	I	803	AGS	PG-S1G	-8.39	1.72	1.90
5	D	801	AGS	PG-S1G	-8.39	1.72	1.90
5	G	804	AGS	PG-S1G	-8.39	1.72	1.90
5	B	802	AGS	PG-S1G	-8.36	1.72	1.90
5	G	804	AGS	C2-N3	3.27	1.37	1.32
5	D	801	AGS	C2-N3	3.26	1.37	1.32
5	I	803	AGS	C2-N3	3.24	1.37	1.32
5	B	802	AGS	C2-N3	3.22	1.37	1.32
5	I	803	AGS	O4'-C1'	2.98	1.44	1.40
5	D	801	AGS	O4'-C1'	2.97	1.44	1.40
5	G	804	AGS	O4'-C1'	2.96	1.44	1.40
5	B	802	AGS	O4'-C1'	2.92	1.44	1.40
6	C	1300	PO4	P-O1	2.45	1.56	1.50
5	D	801	AGS	C2-N1	2.28	1.38	1.33
5	B	802	AGS	C2-N1	2.27	1.38	1.33
5	G	804	AGS	C2-N1	2.27	1.38	1.33
5	I	803	AGS	C2-N1	2.21	1.37	1.33

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	I	803	AGS	C1'-N9-C4	4.67	134.84	126.64
5	G	804	AGS	C1'-N9-C4	4.65	134.82	126.64
5	B	802	AGS	C1'-N9-C4	4.64	134.80	126.64
5	D	801	AGS	C1'-N9-C4	4.63	134.78	126.64
5	B	802	AGS	O3G-PG-O3B	2.34	112.46	104.64
5	I	803	AGS	O3G-PG-O3B	2.33	112.42	104.64
5	D	801	AGS	O3G-PG-O3B	2.33	112.42	104.64
5	G	804	AGS	O3G-PG-O3B	2.32	112.39	104.64

There are no chirality outliers.

All (20) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	B	802	AGS	C5'-O5'-PA-O2A
5	B	802	AGS	C5'-O5'-PA-O3A
5	D	801	AGS	C5'-O5'-PA-O2A
5	D	801	AGS	C5'-O5'-PA-O3A
5	G	804	AGS	C5'-O5'-PA-O2A
5	G	804	AGS	C5'-O5'-PA-O3A
5	I	803	AGS	C5'-O5'-PA-O2A
5	I	803	AGS	C5'-O5'-PA-O3A

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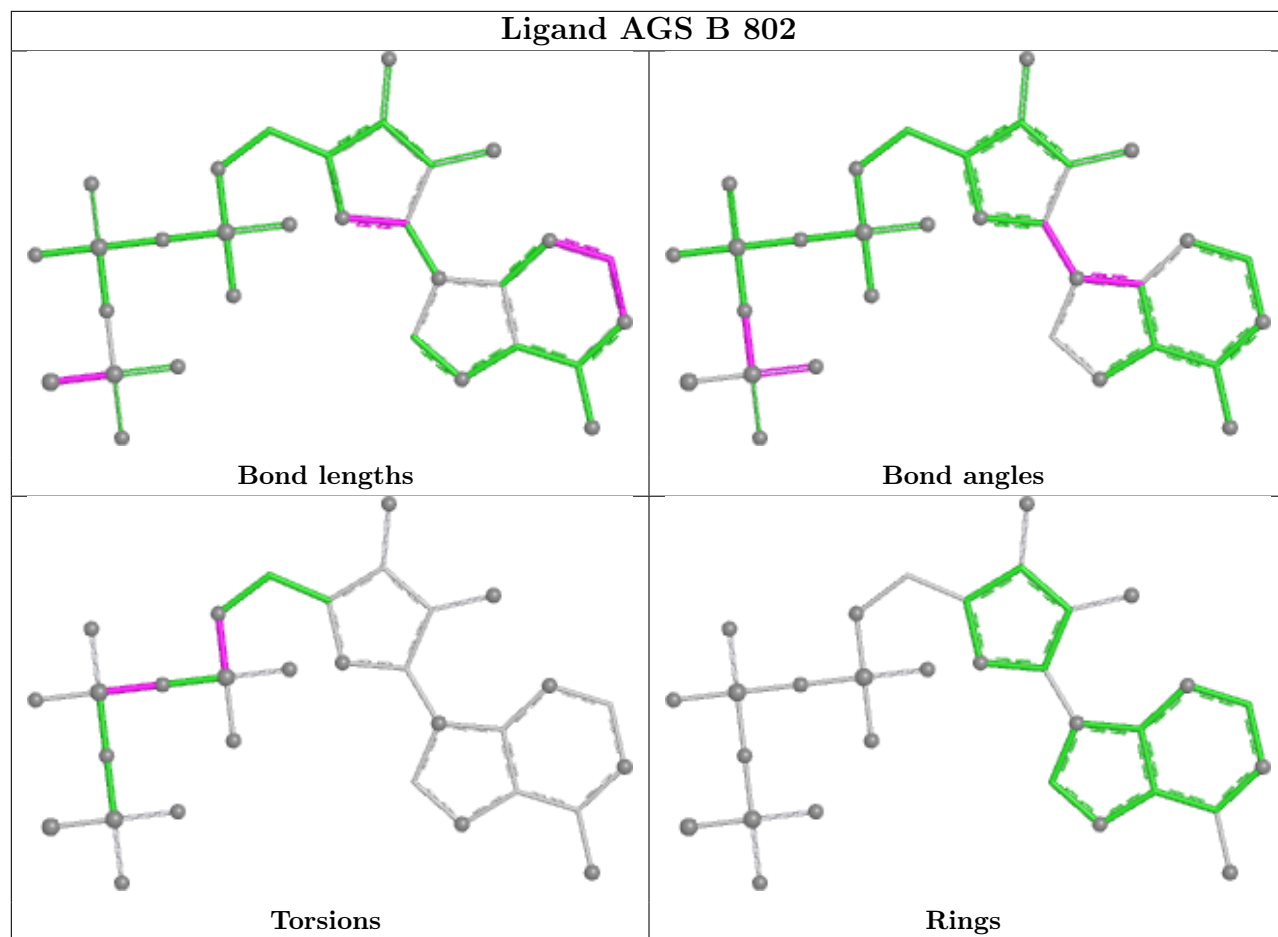
Mol	Chain	Res	Type	Atoms
5	B	802	AGS	PA-O3A-PB-O2B
5	D	801	AGS	PA-O3A-PB-O2B
5	G	804	AGS	PA-O3A-PB-O2B
5	I	803	AGS	PA-O3A-PB-O2B
5	B	802	AGS	C5'-O5'-PA-O1A
5	D	801	AGS	C5'-O5'-PA-O1A
5	G	804	AGS	C5'-O5'-PA-O1A
5	I	803	AGS	C5'-O5'-PA-O1A
5	B	802	AGS	PA-O3A-PB-O1B
5	D	801	AGS	PA-O3A-PB-O1B
5	G	804	AGS	PA-O3A-PB-O1B
5	I	803	AGS	PA-O3A-PB-O1B

There are no ring outliers.

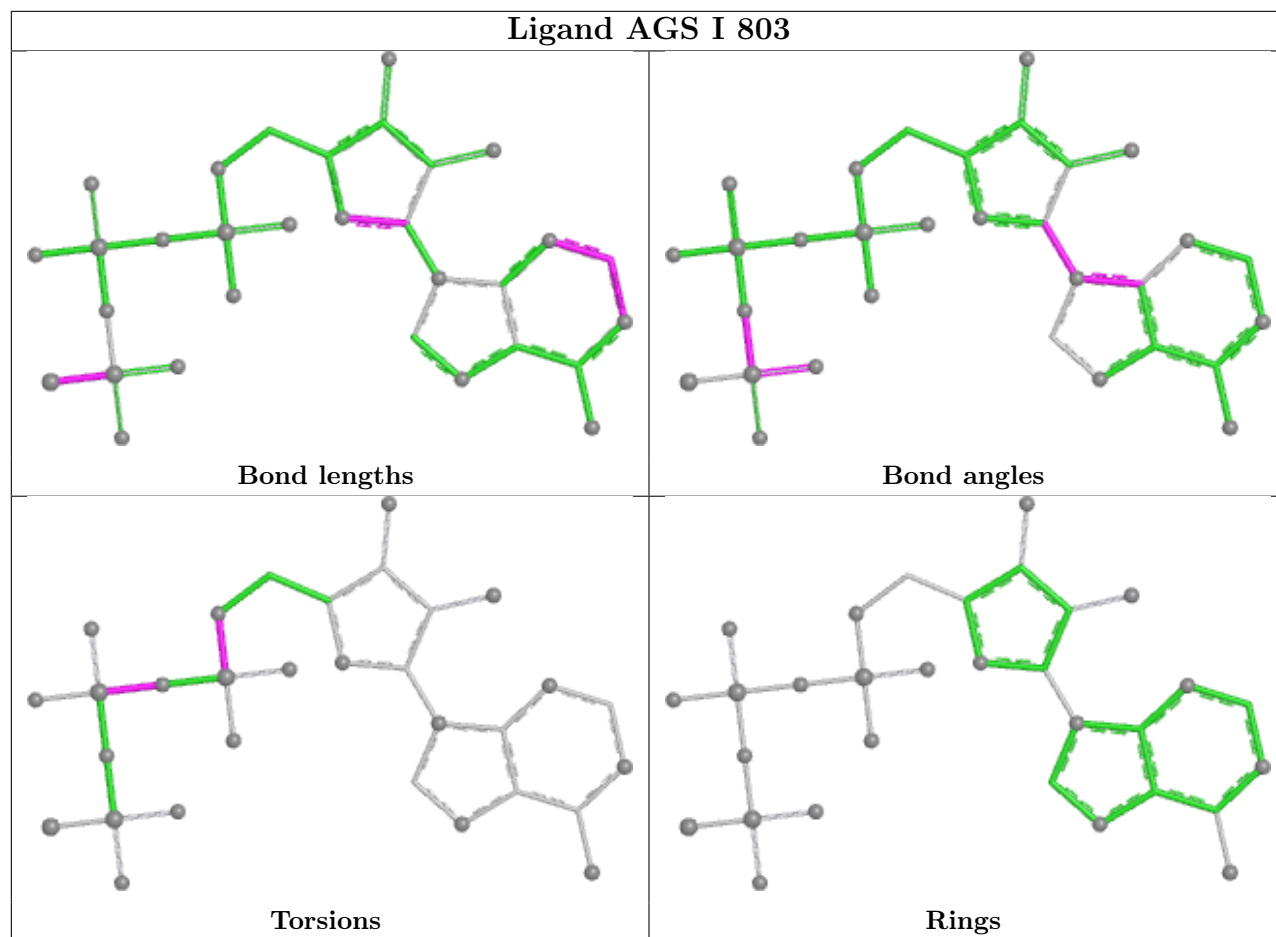
6 monomers are involved in 44 short contacts:

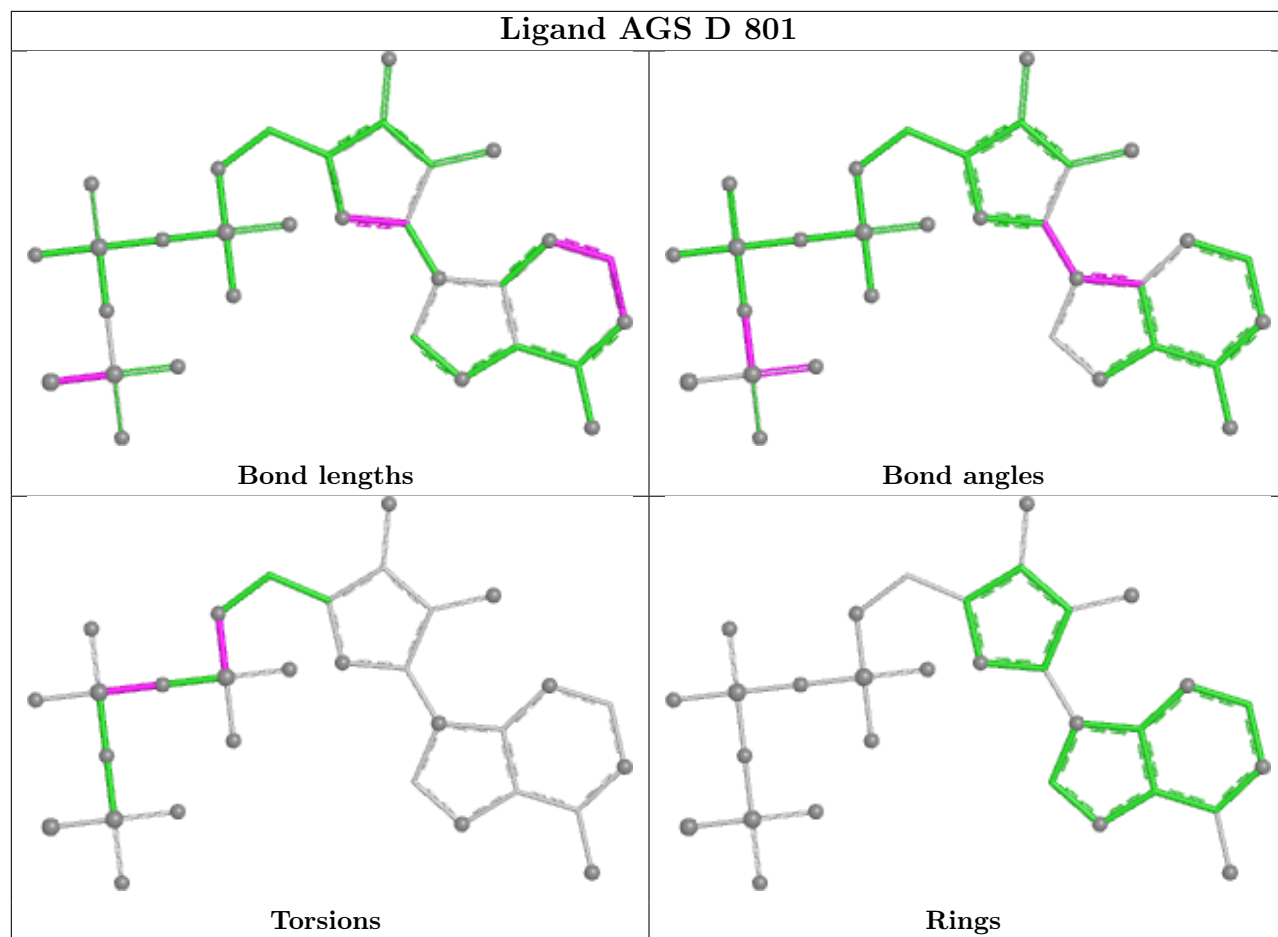
Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	B	802	AGS	4	0
6	H	1400	PO4	4	0
6	C	1300	PO4	3	0
5	I	803	AGS	27	0
5	D	801	AGS	4	0
5	G	804	AGS	2	0

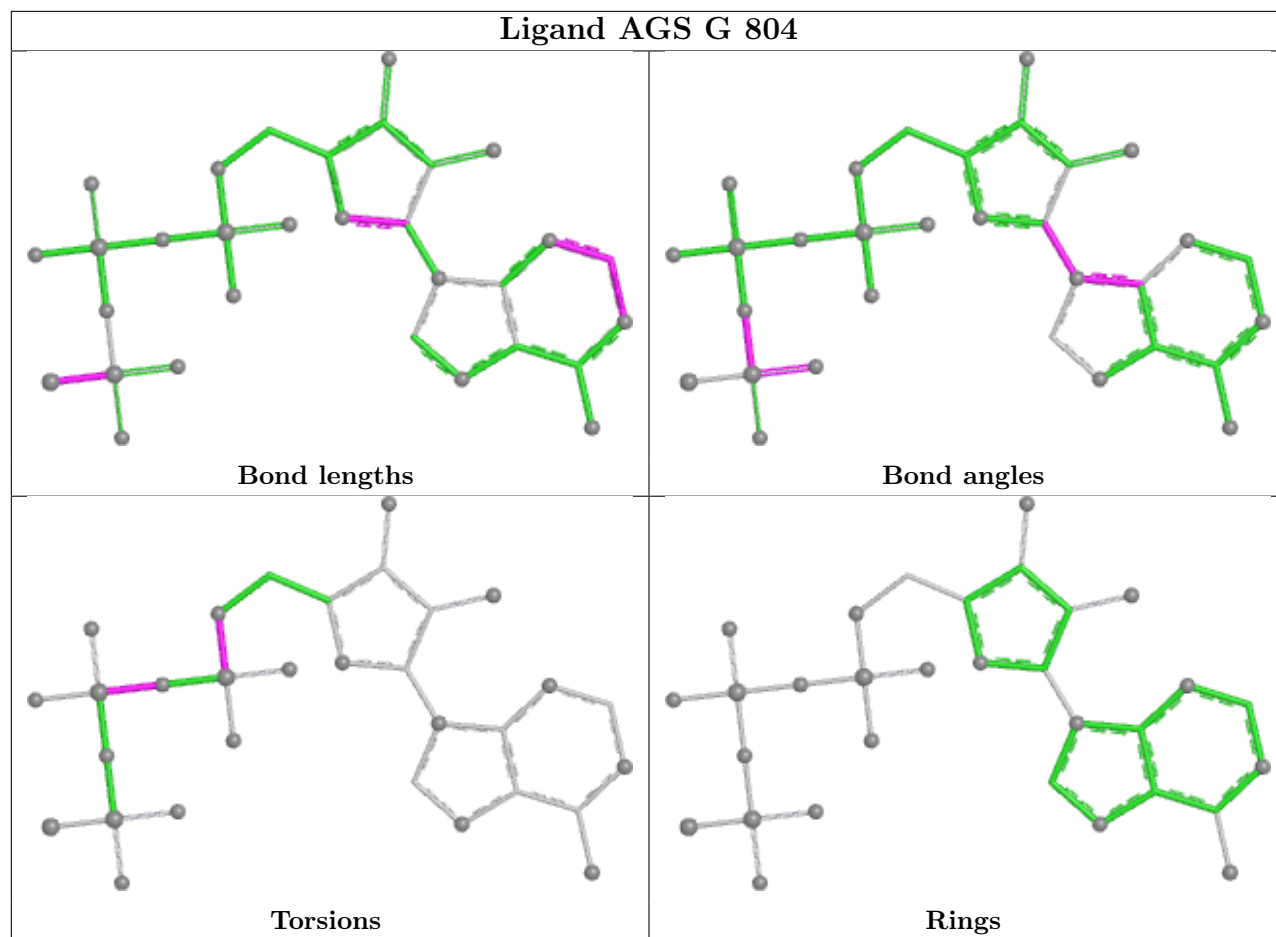
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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











## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	F	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	F	285:MSE	C	286:MSE	N	1.06

## 6 Fit of model and data [i](#)

### 6.1 Protein, DNA and RNA chains [i](#)

In the following table, the column labelled ‘#RSRZ > 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95<sup>th</sup> percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q < 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
1	A	333/343 (97%)	-0.16	4 (1%) 76 60	25, 164, 218, 268	0
1	F	333/343 (97%)	-0.20	3 (0%) 81 66	107, 191, 234, 262	0
2	B	364/373 (97%)	-0.17	9 (2%) 58 43	21, 146, 212, 262	0
2	C	366/373 (98%)	-0.47	3 (0%) 82 69	15, 78, 194, 216	0
2	D	364/373 (97%)	-0.39	6 (1%) 70 54	27, 71, 187, 248	0
2	G	364/373 (97%)	-0.25	5 (1%) 73 57	131, 213, 247, 284	0
2	H	366/373 (98%)	-0.38	3 (0%) 82 69	142, 205, 246, 278	0
2	I	364/373 (97%)	-0.28	3 (0%) 82 69	121, 210, 286, 390	0
3	E	328/334 (98%)	-0.50	1 (0%) 90 84	39, 90, 175, 206	0
3	J	328/334 (98%)	-0.38	3 (0%) 81 66	121, 190, 229, 269	0
All	All	3510/3592 (97%)	-0.32	40 (1%) 77 62	15, 174, 240, 390	0

All (40) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	G	59	ALA	3.9
2	B	5	VAL	3.3
1	F	338	ASP	3.2
1	A	338	ASP	3.2
1	A	158	LEU	3.1
2	B	7	ALA	3.1
2	C	124	LEU	3.1
2	D	6	LEU	3.0
3	J	143	LEU	3.0
3	J	334	LEU	2.8
2	I	43	PHE	2.8
2	D	305	ASP	2.8
3	E	14	LEU	2.8

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Mol	Chain	Res	Type	RSRZ
2	B	54	ILE	2.7
2	C	41	TYR	2.7
1	F	257	LEU	2.6
2	H	58	LEU	2.6
2	B	159	PRO	2.6
2	D	152	PHE	2.5
2	G	164	VAL	2.4
2	G	28	LEU	2.4
2	G	357	LEU	2.4
2	B	82	ILE	2.3
2	B	59	ALA	2.3
2	I	358	ALA	2.3
2	B	62	LEU	2.2
2	C	305	ASP	2.2
1	A	100	LEU	2.2
2	D	123	TYR	2.2
2	D	244	LEU	2.1
2	H	244	LEU	2.1
2	H	59	ALA	2.1
1	F	331	LEU	2.1
2	G	24	VAL	2.1
2	I	10	TRP	2.1
2	B	6	LEU	2.0
1	A	278	VAL	2.0
3	J	154	THR	2.0
2	B	152	PHE	2.0
2	D	20	GLY	2.0

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

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

## 6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.

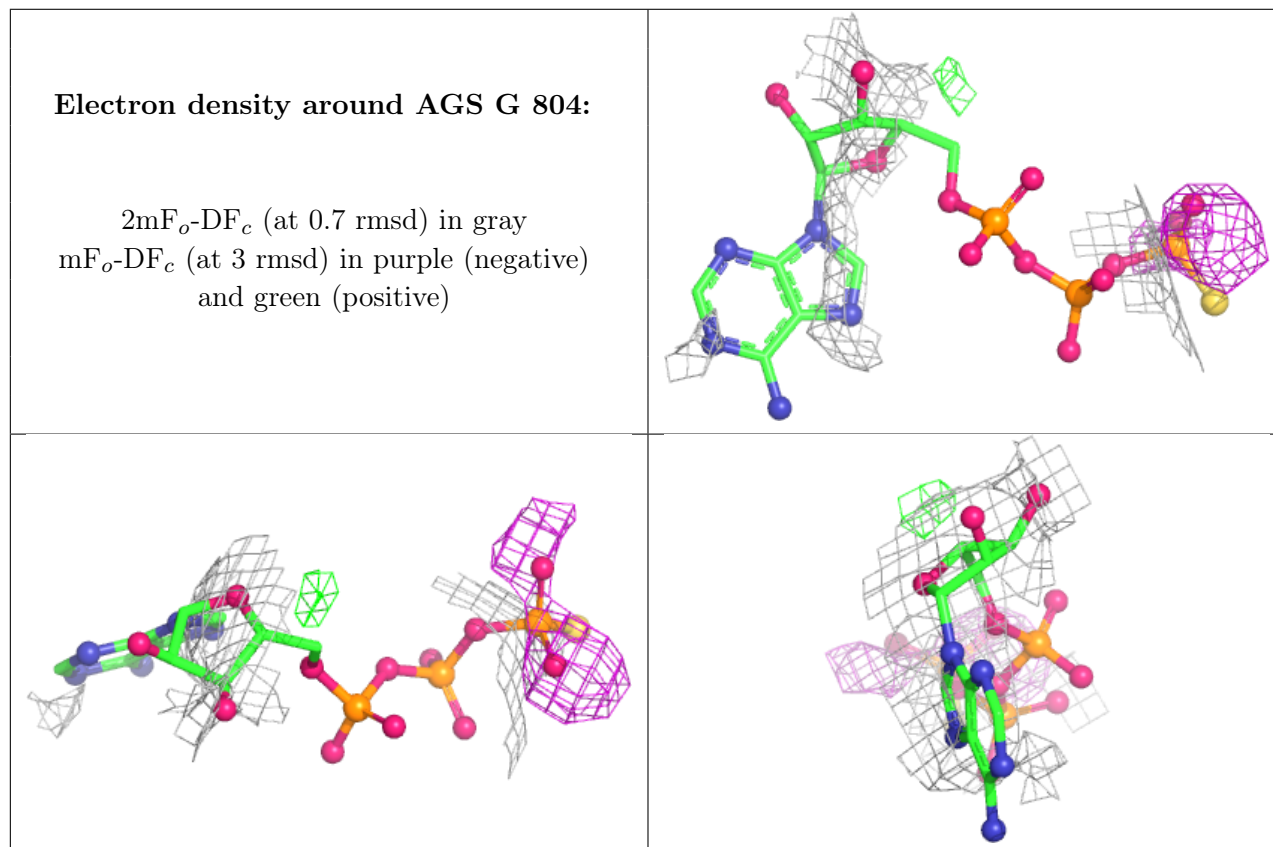
## 6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum,

median, 95<sup>th</sup> percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

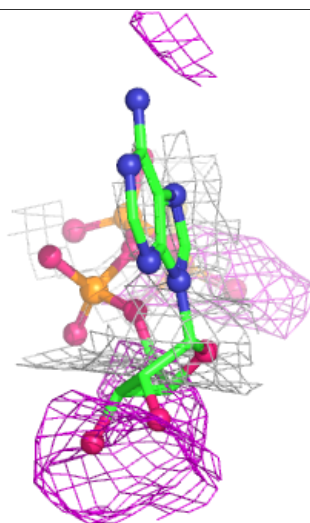
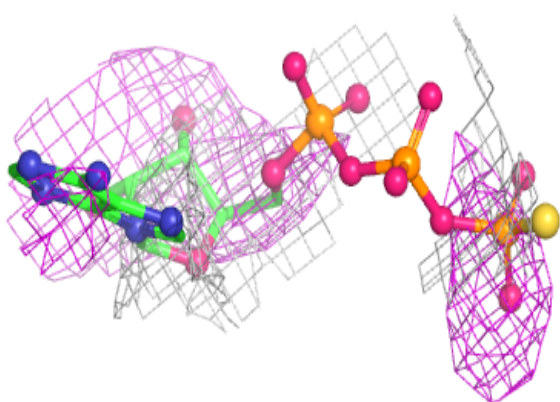
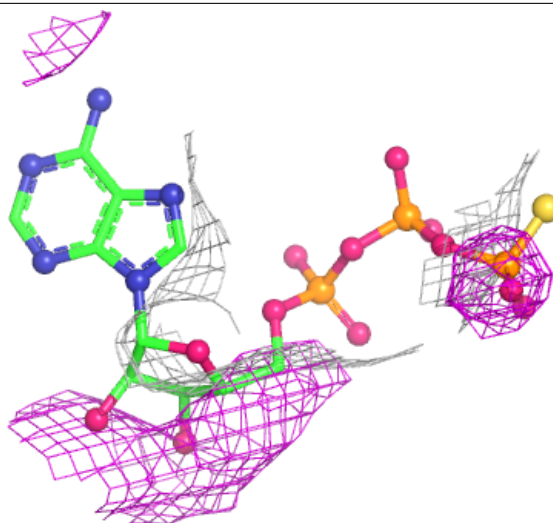
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
5	AGS	G	804	31/31	0.74	0.11	263,263,263,263	0
5	AGS	I	803	31/31	0.82	0.08	265,265,265,265	0
5	AGS	D	801	31/31	0.88	0.11	132,132,132,132	0
6	PO4	H	1400	5/5	0.90	0.06	180,180,180,180	0
5	AGS	B	802	31/31	0.92	0.10	165,165,165,165	0
6	PO4	C	1300	5/5	0.93	0.07	116,116,116,116	0
4	ZN	G	407	1/1	0.93	0.05	200,200,200,200	0
4	ZN	E	404	1/1	0.97	0.09	175,175,175,175	0
4	ZN	H	405	1/1	0.97	0.04	224,224,224,224	0
4	ZN	I	406	1/1	0.97	0.04	160,160,160,160	0
4	ZN	B	403	1/1	0.98	0.04	173,173,173,173	0
4	ZN	C	401	1/1	0.99	0.04	144,144,144,144	0
4	ZN	D	402	1/1	0.99	0.03	94,94,94,94	0
4	ZN	J	408	1/1	0.99	0.05	169,169,169,169	0

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



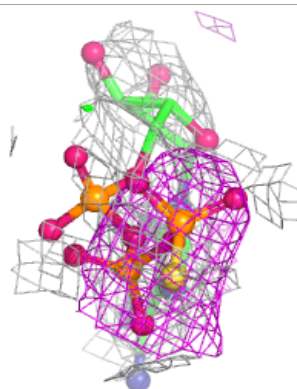
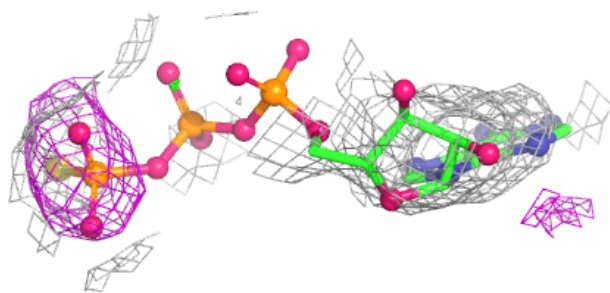
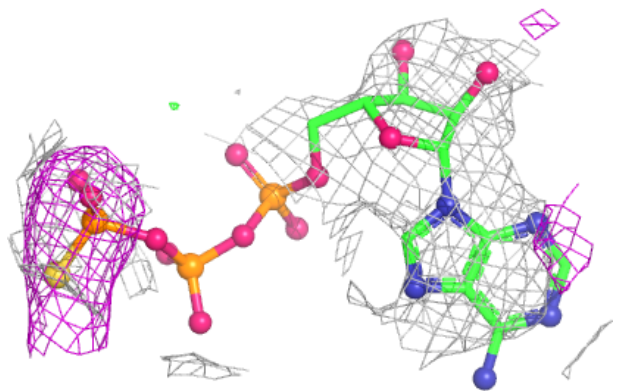
**Electron density around AGS I 803:**

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

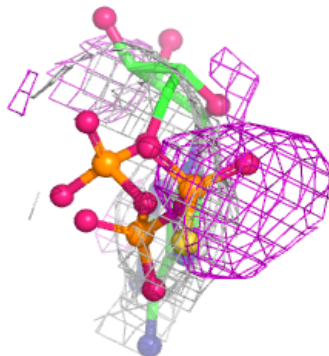
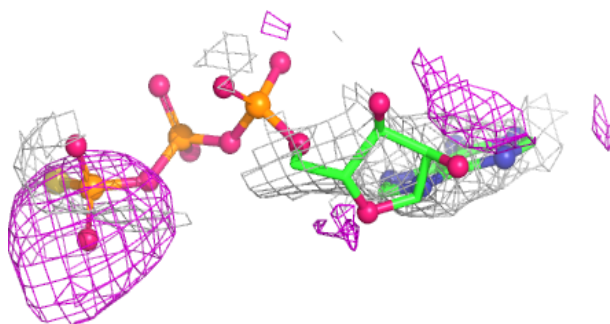
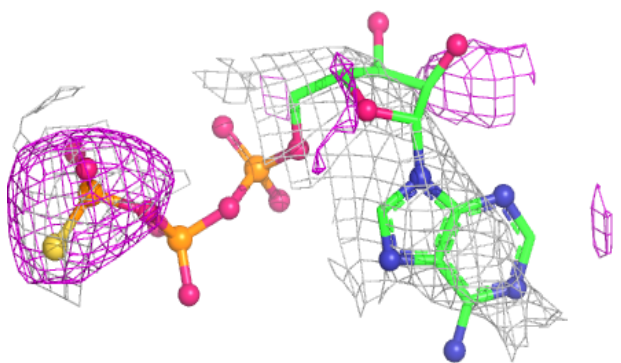


**Electron density around AGS D 801:**

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

**Electron density around AGS B 802:**

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





## 6.5 Other polymers [i](#)

There are no such residues in this entry.