



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 08:45 AM GMT

PDB ID : 3FKY
Title : Crystal structure of the glutamine synthetase Gln1deltaN18 from the yeast *Saccharomyces cerevisiae*
Authors : He, Y.X.; Gui, L.; Liu, Y.Z.; Du, Y.; Zhou, Y.Y.; Li, P.; Zhou, C.Z.
Deposited on : 2008-12-18
Resolution : 2.95 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
<http://wwpdb.org/validation/2016/XrayValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Mogul : 1.7 (RC4), CSD as536be (2015)
Xtriage (Phenix) : 1.9-1692
EDS : rb-20026688
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Refmac : 5.8.0135
CCP4 : 6.5.0
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : trunk26865

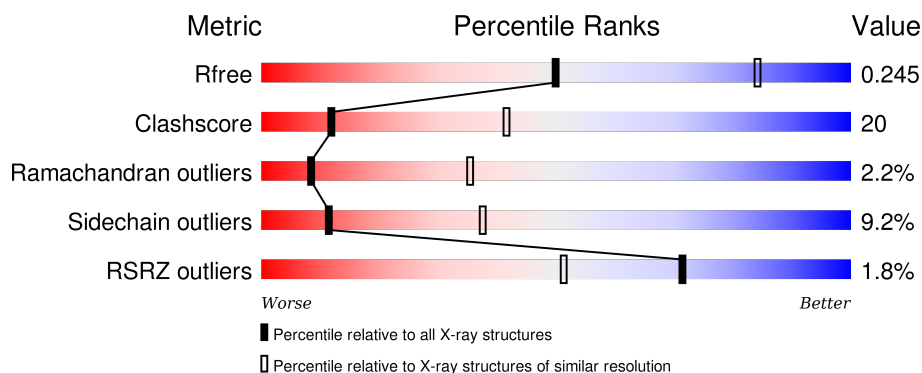
1 Overall quality at a glance ⓘ

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.95 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}	91344	2184 (3.00-2.92)
Clashscore	102246	2552 (3.00-2.92)
Ramachandran outliers	100387	2468 (3.00-2.92)
Sidechain outliers	100360	2471 (3.00-2.92)
RSRZ outliers	91569	2201 (3.00-2.92)

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 on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. 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	370	<div> <div>61% 25% 5% 9%</div> </div>
1	B	370	<div> <div>59% 27% 5% 9%</div> </div>
1	C	370	<div> <div>58% 28% 5% 8%</div> </div>
1	D	370	<div> <div>62% 24% 5% 9%</div> </div>
1	E	370	<div> <div>3% 60% 27% 9%</div> </div>

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Mol	Chain	Length	Quality of chain
1	F	370	
1	G	370	
1	H	370	
1	I	370	
1	J	370	
1	K	370	
1	L	370	
1	M	370	
1	N	370	
1	O	370	
1	P	370	
1	Q	370	
1	R	370	
1	S	370	
1	T	370	

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
2	FLC	C	371	-	-	X	-
2	FLC	D	371	-	-	X	-
2	FLC	E	371	-	-	X	-
2	FLC	I	371	-	-	X	-
2	FLC	K	371	-	-	X	-
2	FLC	O	371	-	-	X	-
2	FLC	R	371	-	-	X	-
2	FLC	S	371	-	-	X	-

2 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 53518 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 Glutamine synthetase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	336	Total	C	N	O	S	0	0	0
			2661	1683	465	496	17			
1	B	336	Total	C	N	O	S	0	0	0
			2661	1683	465	496	17			
1	C	342	Total	C	N	O	S	0	0	0
			2699	1705	471	506	17			
1	D	336	Total	C	N	O	S	0	0	0
			2661	1683	465	496	17			
1	E	336	Total	C	N	O	S	0	0	0
			2661	1683	465	496	17			
1	F	336	Total	C	N	O	S	0	0	0
			2661	1683	465	496	17			
1	G	336	Total	C	N	O	S	0	0	0
			2661	1683	465	496	17			
1	H	336	Total	C	N	O	S	0	0	0
			2661	1683	465	496	17			
1	I	336	Total	C	N	O	S	0	0	0
			2661	1683	465	496	17			
1	J	336	Total	C	N	O	S	0	0	0
			2661	1683	465	496	17			
1	K	336	Total	C	N	O	S	0	0	0
			2661	1683	465	496	17			
1	L	336	Total	C	N	O	S	0	0	0
			2661	1683	465	496	17			
1	M	336	Total	C	N	O	S	0	0	0
			2661	1683	465	496	17			
1	N	336	Total	C	N	O	S	0	0	0
			2661	1683	465	496	17			
1	O	336	Total	C	N	O	S	0	0	0
			2661	1683	465	496	17			
1	P	336	Total	C	N	O	S	0	0	0
			2661	1683	465	496	17			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	Q	336	Total	C	N	O	S	0	0	0
			2661	1683	465	496	17			
1	R	336	Total	C	N	O	S	0	0	0
			2661	1683	465	496	17			
1	S	336	Total	C	N	O	S	0	0	0
			2661	1683	465	496	17			
1	T	336	Total	C	N	O	S	0	0	0
			2661	1683	465	496	17			

There are 40 discrepancies between the modelled and reference sequences:

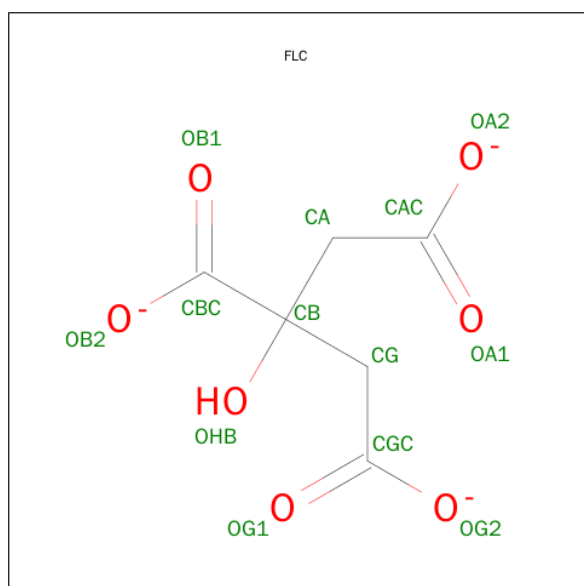
Chain	Residue	Modelled	Actual	Comment	Reference
A	251	ALA	THR	SEE REMARK 999	UNP P32288
A	264	THR	MET	SEE REMARK 999	UNP P32288
B	251	ALA	THR	SEE REMARK 999	UNP P32288
B	264	THR	MET	SEE REMARK 999	UNP P32288
C	251	ALA	THR	SEE REMARK 999	UNP P32288
C	264	THR	MET	SEE REMARK 999	UNP P32288
D	251	ALA	THR	SEE REMARK 999	UNP P32288
D	264	THR	MET	SEE REMARK 999	UNP P32288
E	251	ALA	THR	SEE REMARK 999	UNP P32288
E	264	THR	MET	SEE REMARK 999	UNP P32288
F	251	ALA	THR	SEE REMARK 999	UNP P32288
F	264	THR	MET	SEE REMARK 999	UNP P32288
G	251	ALA	THR	SEE REMARK 999	UNP P32288
G	264	THR	MET	SEE REMARK 999	UNP P32288
H	251	ALA	THR	SEE REMARK 999	UNP P32288
H	264	THR	MET	SEE REMARK 999	UNP P32288
I	251	ALA	THR	SEE REMARK 999	UNP P32288
I	264	THR	MET	SEE REMARK 999	UNP P32288
J	251	ALA	THR	SEE REMARK 999	UNP P32288
J	264	THR	MET	SEE REMARK 999	UNP P32288
K	251	ALA	THR	SEE REMARK 999	UNP P32288
K	264	THR	MET	SEE REMARK 999	UNP P32288
L	251	ALA	THR	SEE REMARK 999	UNP P32288
L	264	THR	MET	SEE REMARK 999	UNP P32288
M	251	ALA	THR	SEE REMARK 999	UNP P32288
M	264	THR	MET	SEE REMARK 999	UNP P32288
N	251	ALA	THR	SEE REMARK 999	UNP P32288
N	264	THR	MET	SEE REMARK 999	UNP P32288
O	251	ALA	THR	SEE REMARK 999	UNP P32288
O	264	THR	MET	SEE REMARK 999	UNP P32288
P	251	ALA	THR	SEE REMARK 999	UNP P32288

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Chain	Residue	Modelled	Actual	Comment	Reference
P	264	THR	MET	SEE REMARK 999	UNP P32288
Q	251	ALA	THR	SEE REMARK 999	UNP P32288
Q	264	THR	MET	SEE REMARK 999	UNP P32288
R	251	ALA	THR	SEE REMARK 999	UNP P32288
R	264	THR	MET	SEE REMARK 999	UNP P32288
S	251	ALA	THR	SEE REMARK 999	UNP P32288
S	264	THR	MET	SEE REMARK 999	UNP P32288
T	251	ALA	THR	SEE REMARK 999	UNP P32288
T	264	THR	MET	SEE REMARK 999	UNP P32288

- Molecule 2 is CITRATE ANION (three-letter code: FLC) (formula: $C_6H_5O_7$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
2	A	1	Total C O 13 6 7	0	0
2	B	1	Total C O 13 6 7	0	0
2	C	1	Total C O 13 6 7	0	0
2	D	1	Total C O 13 6 7	0	0
2	E	1	Total C O 13 6 7	0	0
2	F	1	Total C O 13 6 7	0	0
2	G	1	Total C O 13 6 7	0	0

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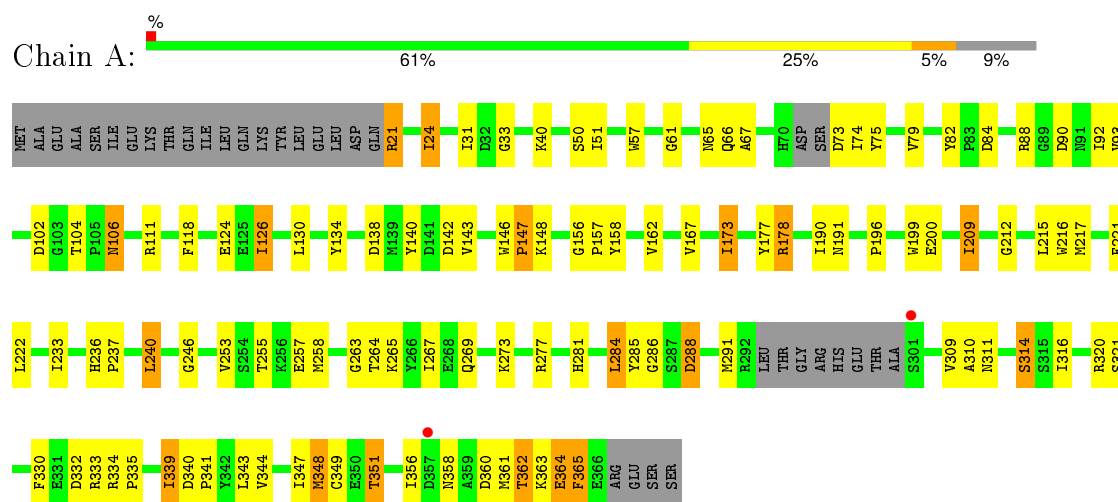
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
2	H	1	Total	C	O	0	0
			13	6	7		
2	I	1	Total	C	O	0	0
			13	6	7		
2	J	1	Total	C	O	0	0
			13	6	7		
2	K	1	Total	C	O	0	0
			13	6	7		
2	L	1	Total	C	O	0	0
			13	6	7		
2	M	1	Total	C	O	0	0
			13	6	7		
2	N	1	Total	C	O	0	0
			13	6	7		
2	O	1	Total	C	O	0	0
			13	6	7		
2	P	1	Total	C	O	0	0
			13	6	7		
2	Q	1	Total	C	O	0	0
			13	6	7		
2	R	1	Total	C	O	0	0
			13	6	7		
2	S	1	Total	C	O	0	0
			13	6	7		
2	T	1	Total	C	O	0	0
			13	6	7		

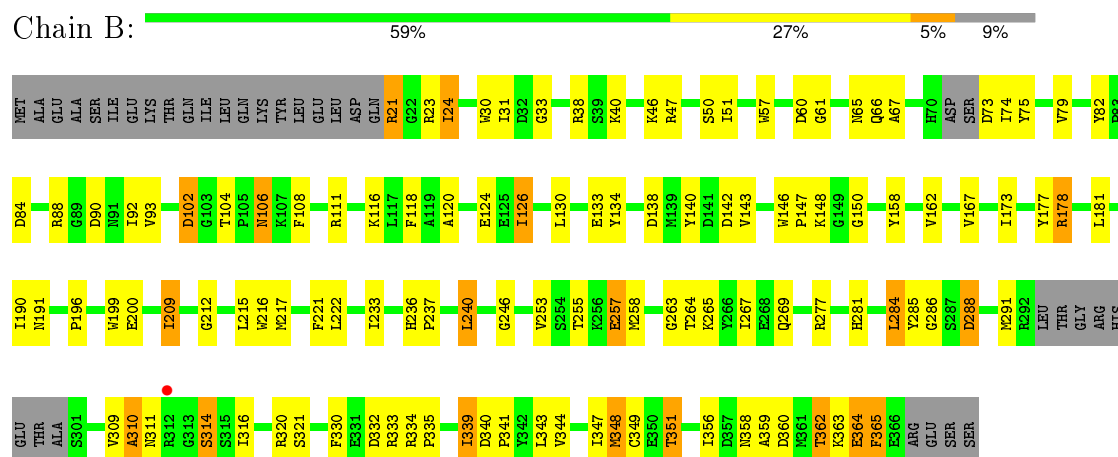
3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry 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.

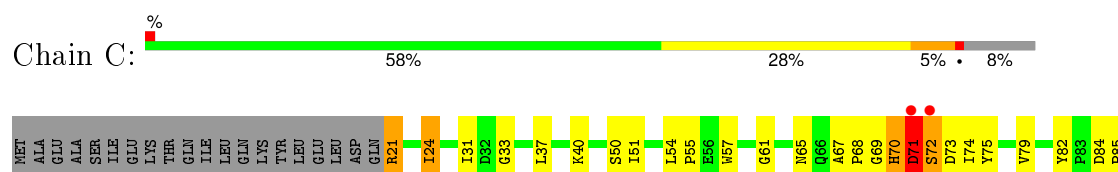
• Molecule 1: Glutamine synthetase

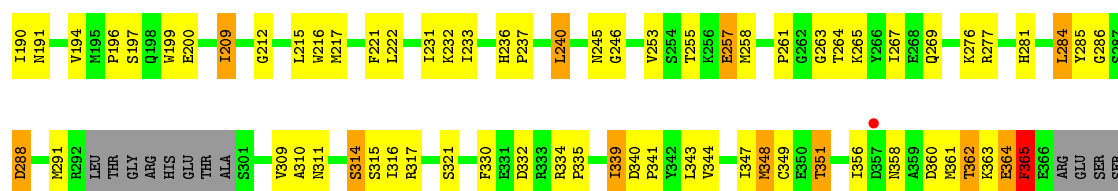


• Molecule 1: Glutamine synthetase

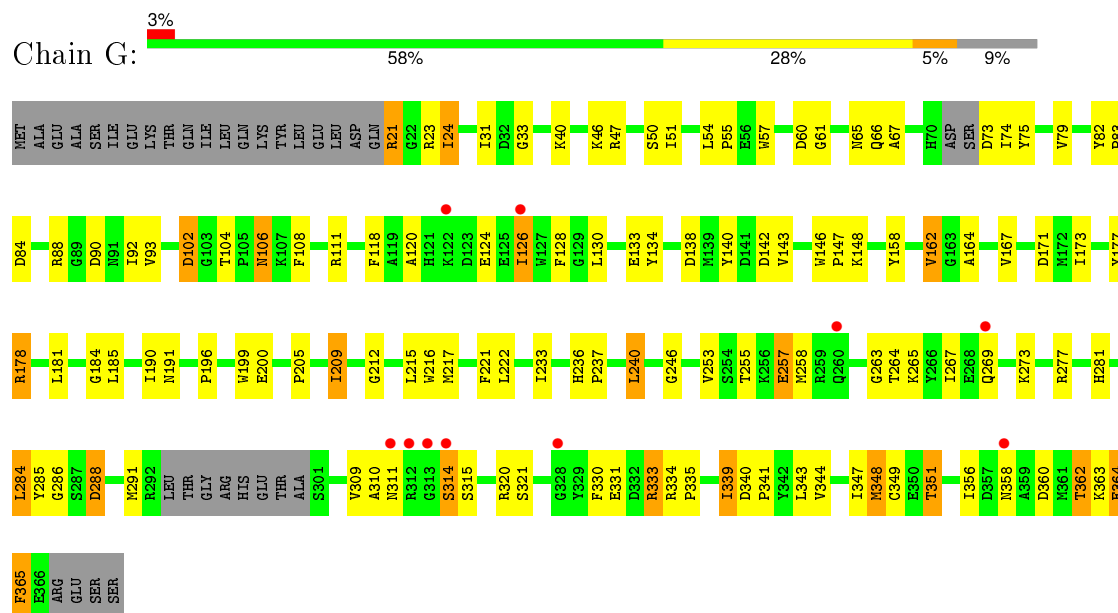


• Molecule 1: Glutamine synthetase

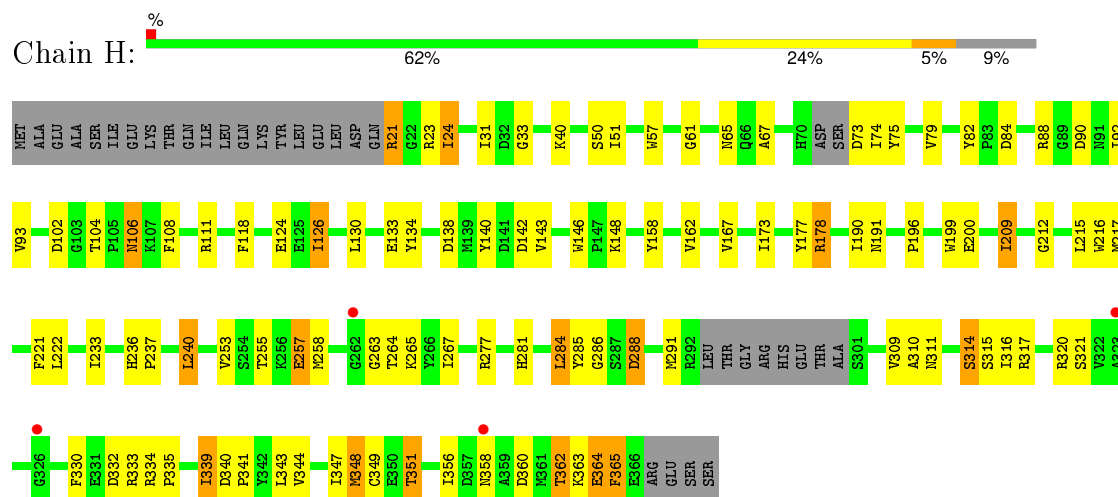




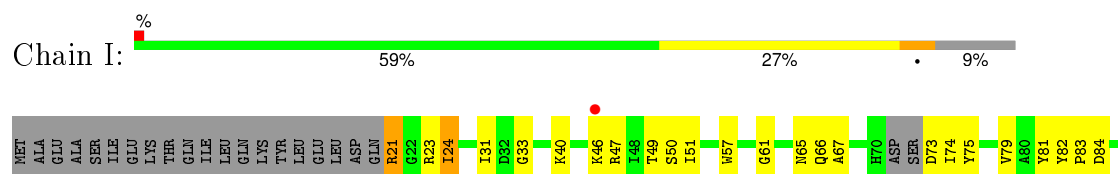
• Molecule 1: Glutamine synthetase

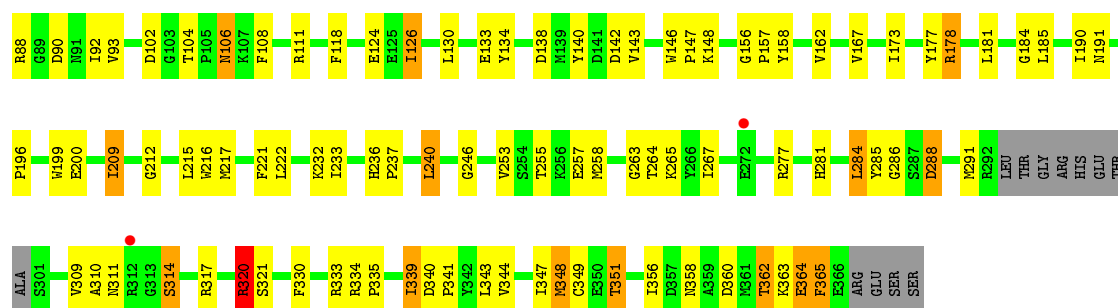


• Molecule 1: Glutamine synthetase

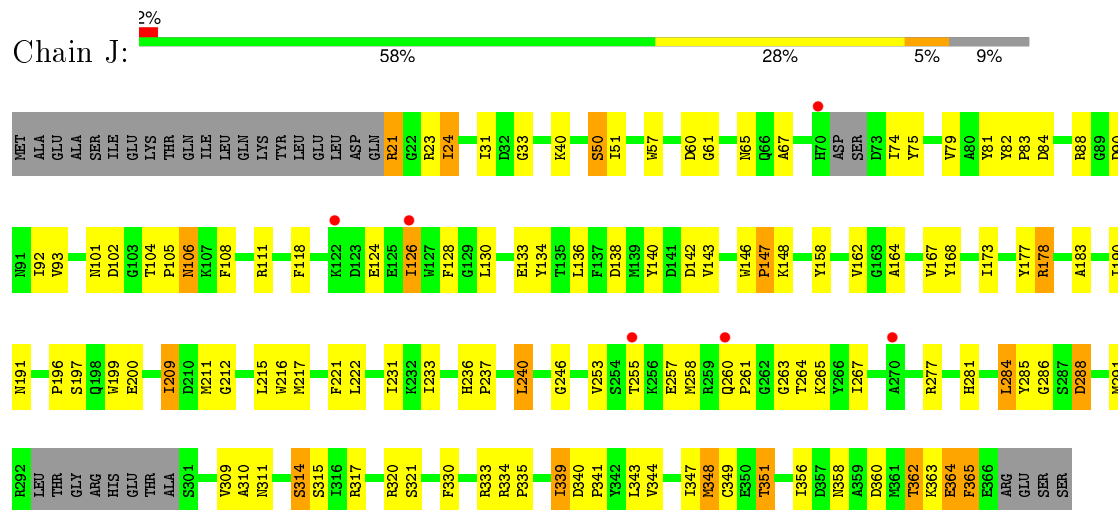


• Molecule 1: Glutamine synthetase

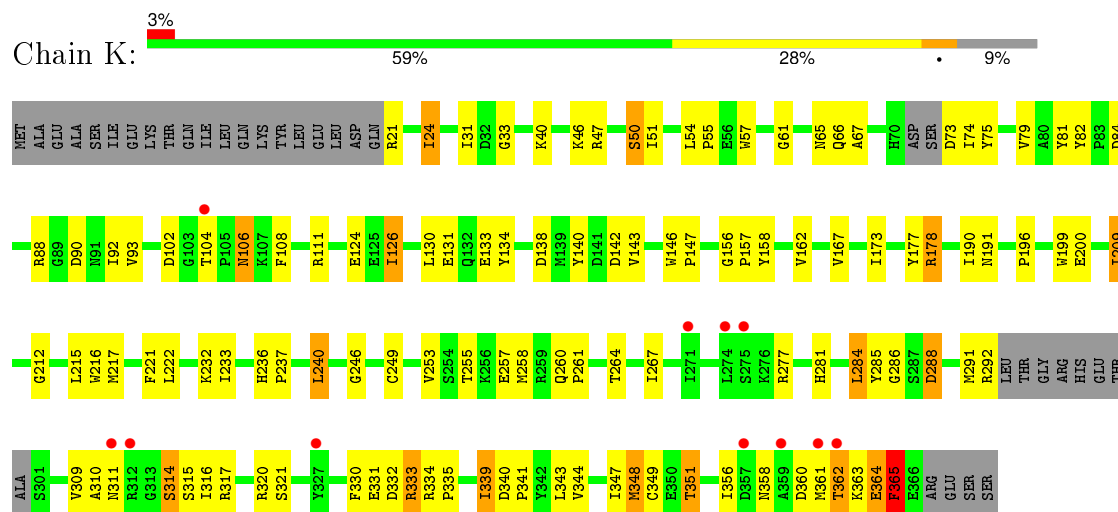




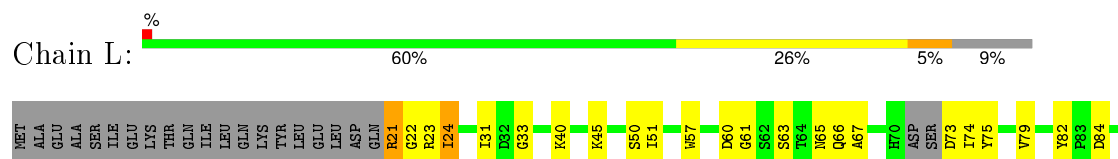
• Molecule 1: Glutamine synthetase

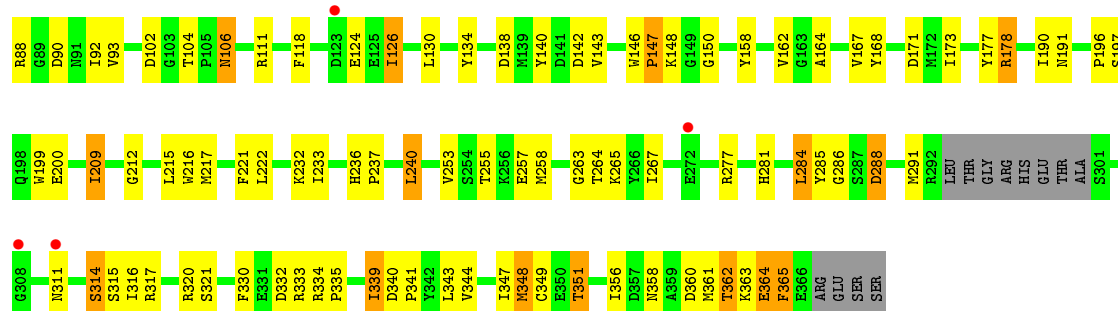


• Molecule 1: Glutamine synthetase

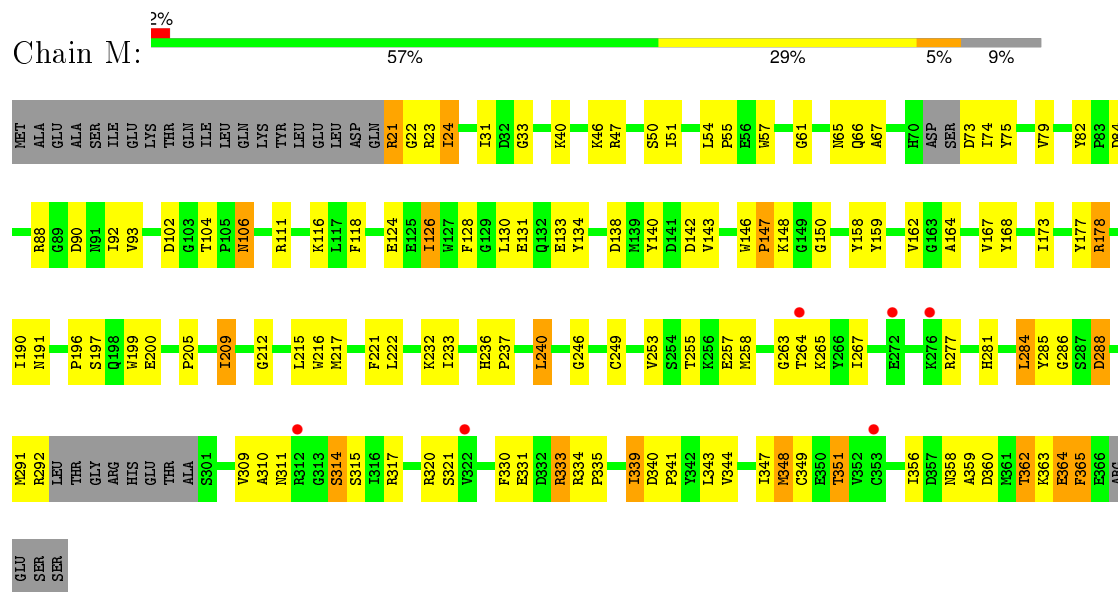


• Molecule 1: Glutamine synthetase

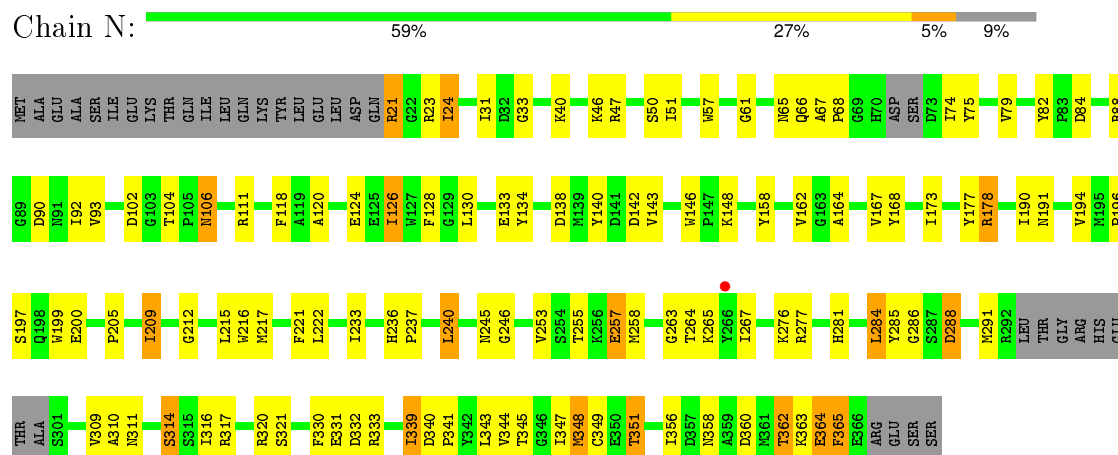




• Molecule 1: Glutamine synthetase

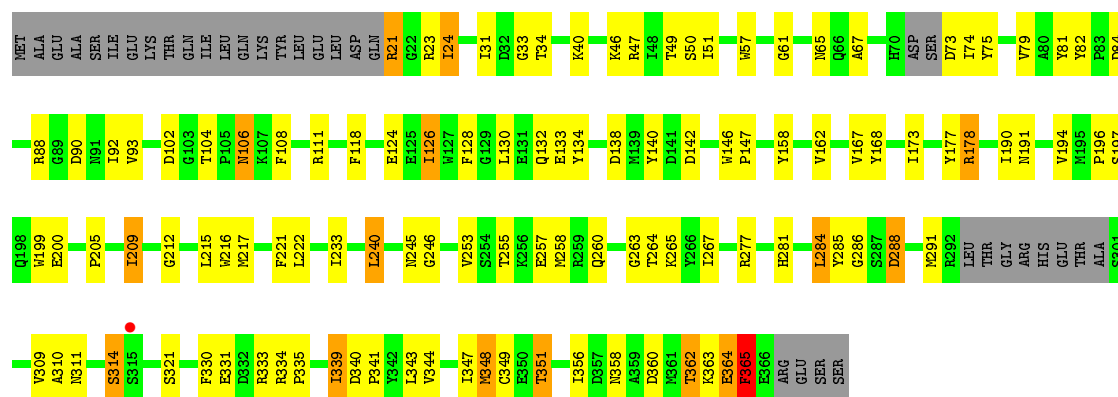


• Molecule 1: Glutamine synthetase

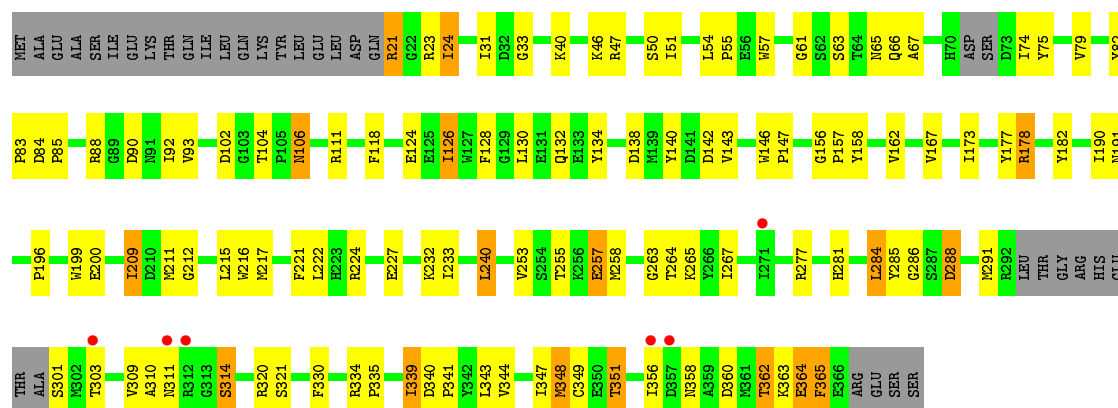


• Molecule 1: Glutamine synthetase

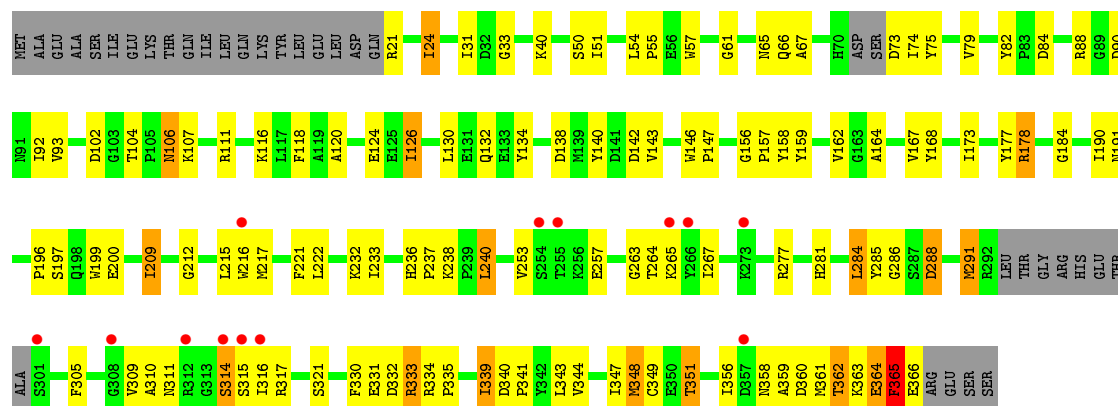




• Molecule 1: Glutamine synthetase

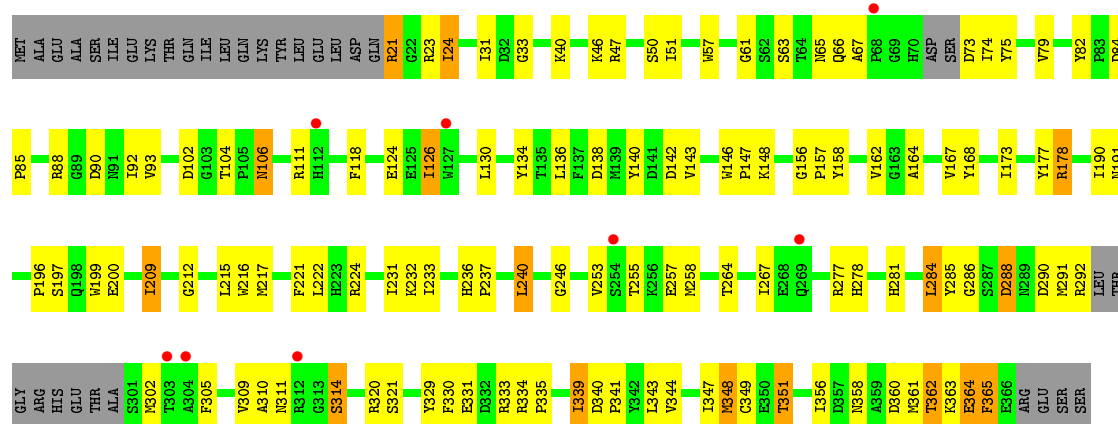


• Molecule 1: Glutamine synthetase

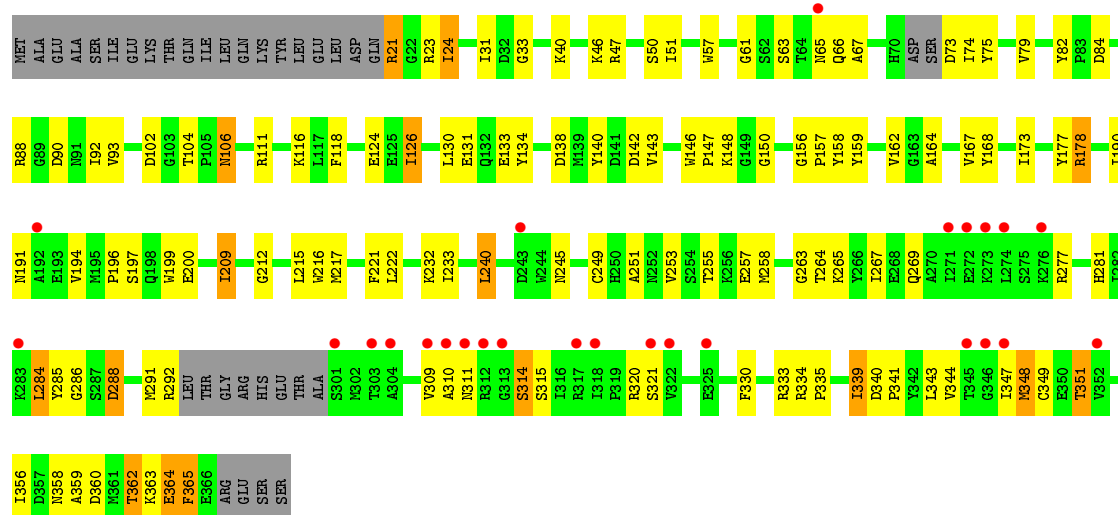


• Molecule 1: Glutamine synthetase

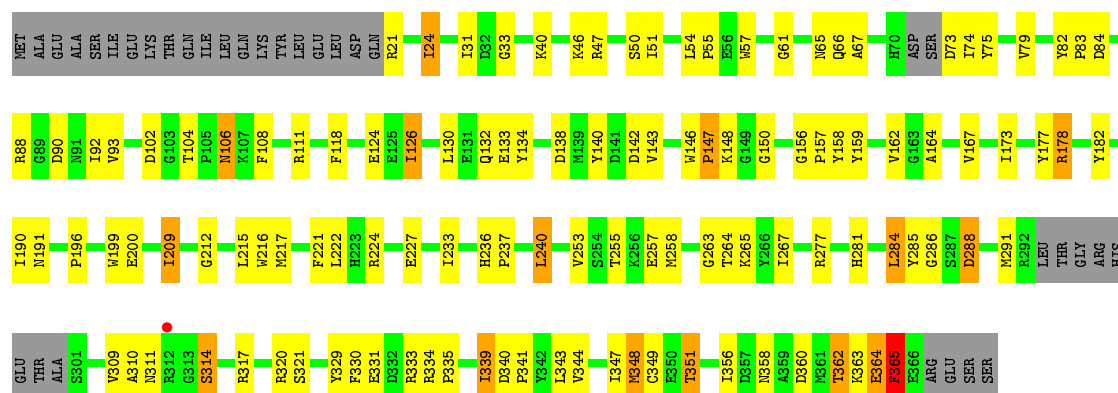




• Molecule 1: Glutamine synthetase



• Molecule 1: Glutamine synthetase



4 Data and refinement statistics

Property	Value	Source
Space group	P 1	Depositor
Cell constants a, b, c, α , β , γ	128.65Å 129.94Å 135.61Å 93.46° 104.61° 104.01°	Depositor
Resolution (Å)	65.22 – 2.95 65.22 – 2.95	Depositor EDS
% Data completeness (in resolution range)	87.1 (65.22-2.95) 90.9 (65.22-2.95)	Depositor EDS
R_{merge}	0.11	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.43 (at 2.96Å)	Xtriage
Refinement program	PHENIX (phenix.refine)	Depositor
R, R_{free}	0.225 , 0.258 0.217 , 0.245	Depositor DCC
R_{free} test set	3299 reflections (2.06%)	DCC
Wilson B-factor (Å ²)	49.0	Xtriage
Anisotropy	0.238	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.38 , 60.6	EDS
Estimated twinning fraction	0.008 for -h,-l,-k	Xtriage
L-test for twinning ²	$\langle L \rangle = 0.48$, $\langle L^2 \rangle = 0.30$	Xtriage
Outliers	0 of 163747 reflections	Xtriage
F_o, F_c correlation	0.91	EDS
Total number of atoms	53518	wwPDB-VP
Average B, all atoms (Å ²)	47.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.17% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.375 respectively for untwinned datasets, and 0.333, 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: FLC

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	0.52	0/2733	0.62	0/3695
1	B	0.52	0/2733	0.62	0/3695
1	C	0.54	0/2772	0.65	1/3750 (0.0%)
1	D	0.51	0/2733	0.61	0/3695
1	E	0.48	0/2733	0.62	0/3695
1	F	0.53	0/2733	0.63	0/3695
1	G	0.50	0/2733	0.61	0/3695
1	H	0.52	0/2733	0.63	0/3695
1	I	0.50	0/2733	0.80	3/3695 (0.1%)
1	J	0.49	0/2733	0.61	0/3695
1	K	0.47	0/2733	0.61	0/3695
1	L	0.48	0/2733	0.61	0/3695
1	M	0.48	0/2733	0.61	0/3695
1	N	0.49	0/2733	0.62	0/3695
1	O	0.49	0/2733	0.61	0/3695
1	P	0.49	0/2733	0.61	0/3695
1	Q	0.51	0/2733	0.62	0/3695
1	R	0.51	0/2733	0.62	0/3695
1	S	0.49	0/2733	0.61	0/3695
1	T	0.48	0/2733	0.61	0/3695
All	All	0.50	0/54699	0.63	4/73955 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	I	0	1

There are no bond length outliers.

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	I	320	ARG	NE-CZ-NH1	-24.86	107.87	120.30
1	I	320	ARG	NE-CZ-NH2	14.53	127.57	120.30
1	I	320	ARG	CD-NE-CZ	13.77	142.88	123.60
1	C	292	ARG	O-C-N	-5.31	114.20	122.70

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	I	320	ARG	Sidechain

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	2661	0	2530	103	0
1	B	2661	0	2530	105	0
1	C	2699	0	2566	125	2
1	D	2661	0	2530	98	2
1	E	2661	0	2530	103	0
1	F	2661	0	2530	125	2
1	G	2661	0	2530	121	0
1	H	2661	0	2530	108	0
1	I	2661	0	2530	104	0
1	J	2661	0	2530	123	0
1	K	2661	0	2530	121	0
1	L	2661	0	2530	115	0
1	M	2661	0	2530	125	0
1	N	2661	0	2530	104	0
1	O	2661	0	2530	100	0
1	P	2661	0	2530	96	2
1	Q	2661	0	2530	102	0
1	R	2661	0	2530	109	0
1	S	2661	0	2530	119	0
1	T	2661	0	2530	110	0
2	A	13	0	5	3	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	B	13	0	5	3	0
2	C	13	0	5	8	0
2	D	13	0	5	5	0
2	E	13	0	5	4	0
2	F	13	0	5	1	0
2	G	13	0	5	3	0
2	H	13	0	5	3	0
2	I	13	0	5	6	0
2	J	13	0	5	3	0
2	K	13	0	5	4	0
2	L	13	0	5	0	0
2	M	13	0	5	3	0
2	N	13	0	5	3	0
2	O	13	0	5	5	0
2	P	13	0	5	1	0
2	Q	13	0	5	2	0
2	R	13	0	5	4	0
2	S	13	0	5	5	0
2	T	13	0	5	2	0
All	All	53518	0	50736	2093	4

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 20.

All (2093) 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:D:178:ARG:HH11	1:D:178:ARG:HG3	1.13	1.14
1:C:70:HIS:O	1:C:72:SER:N	1.82	1.11
1:H:222:LEU:HG	1:H:233:ILE:HD13	1.33	1.10
1:J:260:GLN:HG2	1:K:260:GLN:HG2	1.24	1.10
1:J:222:LEU:HG	1:J:233:ILE:HD13	1.33	1.09
1:R:178:ARG:HH11	1:R:178:ARG:HG3	1.13	1.08
1:P:222:LEU:HG	1:P:233:ILE:HD13	1.37	1.07
1:N:222:LEU:HG	1:N:233:ILE:HD13	1.37	1.07
1:K:178:ARG:HH11	1:K:178:ARG:HG3	1.16	1.07
1:S:178:ARG:HH11	1:S:178:ARG:HG3	1.20	1.06
1:D:222:LEU:HG	1:D:233:ILE:HD13	1.37	1.06
1:Q:178:ARG:HG3	1:Q:178:ARG:HH11	1.18	1.05
1:H:178:ARG:HH11	1:H:178:ARG:HG3	1.20	1.05
1:A:178:ARG:HG3	1:A:178:ARG:HH11	1.20	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:222:LEU:HG	1:A:233:ILE:HD13	1.37	1.05
1:J:178:ARG:HH11	1:J:178:ARG:HG3	1.19	1.04
1:K:222:LEU:HG	1:K:233:ILE:HD13	1.39	1.04
1:E:178:ARG:HH11	1:E:178:ARG:HG3	1.19	1.04
1:F:22:GLY:CA	1:M:47:ARG:HH21	1.71	1.04
1:C:67:ALA:HB1	1:C:72:SER:HA	1.05	1.03
1:G:178:ARG:HH11	1:G:178:ARG:HG3	1.20	1.03
1:J:356:ILE:HG22	1:J:358:ASN:H	1.22	1.03
1:K:356:ILE:HG22	1:K:358:ASN:H	1.23	1.03
1:M:178:ARG:HG3	1:M:178:ARG:HH11	1.20	1.03
1:L:178:ARG:HH11	1:L:178:ARG:HG3	1.19	1.02
1:P:356:ILE:HG22	1:P:358:ASN:H	1.25	1.02
1:N:178:ARG:HH11	1:N:178:ARG:HG3	1.21	1.02
1:P:178:ARG:HG3	1:P:178:ARG:HH11	1.24	1.02
1:C:222:LEU:HG	1:C:233:ILE:HD13	1.41	1.01
1:Q:222:LEU:HG	1:Q:233:ILE:HD13	1.39	1.01
1:T:222:LEU:HG	1:T:233:ILE:HD13	1.41	1.01
1:M:222:LEU:HG	1:M:233:ILE:HD13	1.38	1.01
1:G:222:LEU:HG	1:G:233:ILE:HD13	1.41	1.01
1:B:178:ARG:HG3	1:B:178:ARG:HH11	1.22	1.01
1:B:222:LEU:HG	1:B:233:ILE:HD13	1.43	1.01
1:O:178:ARG:HG3	1:O:178:ARG:HH11	1.23	1.01
1:E:222:LEU:HG	1:E:233:ILE:HD13	1.43	1.00
1:C:292:ARG:O	1:C:293:LEU:C	1.94	1.00
1:D:356:ILE:HG22	1:D:358:ASN:H	1.26	1.00
1:C:178:ARG:HG3	1:C:178:ARG:HH11	1.20	1.00
1:R:222:LEU:HG	1:R:233:ILE:HD13	1.40	1.00
1:E:356:ILE:HG22	1:E:358:ASN:H	1.24	1.00
1:I:222:LEU:HG	1:I:233:ILE:HD13	1.37	1.00
1:F:178:ARG:HH11	1:F:178:ARG:HG3	1.22	0.99
1:O:356:ILE:HG22	1:O:358:ASN:H	1.28	0.99
1:T:356:ILE:HG22	1:T:358:ASN:H	1.25	0.99
1:N:356:ILE:HG22	1:N:358:ASN:H	1.24	0.99
1:M:356:ILE:HG22	1:M:358:ASN:H	1.27	0.99
1:H:356:ILE:HG22	1:H:358:ASN:H	1.25	0.99
1:C:67:ALA:CB	1:C:72:SER:HA	1.93	0.98
1:S:222:LEU:HG	1:S:233:ILE:HD13	1.46	0.98
1:O:222:LEU:HG	1:O:233:ILE:HD13	1.40	0.98
1:A:356:ILE:HG22	1:A:358:ASN:H	1.28	0.98
1:I:178:ARG:HH11	1:I:178:ARG:HG3	1.29	0.98
1:T:178:ARG:HG3	1:T:178:ARG:HH11	1.25	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:356:ILE:HG22	1:L:358:ASN:H	1.25	0.97
1:Q:356:ILE:HG22	1:Q:358:ASN:H	1.30	0.97
1:S:356:ILE:HG22	1:S:358:ASN:H	1.30	0.96
1:R:356:ILE:HG22	1:R:358:ASN:H	1.28	0.96
1:G:356:ILE:HG22	1:G:358:ASN:H	1.30	0.96
1:I:356:ILE:HG22	1:I:358:ASN:H	1.28	0.94
1:F:222:LEU:HG	1:F:233:ILE:HD13	1.49	0.94
1:C:356:ILE:HG22	1:C:358:ASN:H	1.30	0.94
1:S:138:ASP:HB3	1:S:140:TYR:H	1.33	0.94
1:B:356:ILE:HG22	1:B:358:ASN:H	1.27	0.93
1:L:222:LEU:HG	1:L:233:ILE:HD13	1.48	0.93
1:H:138:ASP:HB3	1:H:140:TYR:H	1.35	0.90
1:R:138:ASP:HB3	1:R:140:TYR:H	1.37	0.89
1:E:138:ASP:HB3	1:E:140:TYR:H	1.37	0.89
1:Q:138:ASP:HB3	1:Q:140:TYR:H	1.36	0.89
1:F:356:ILE:HG22	1:F:358:ASN:H	1.37	0.89
1:J:138:ASP:HB3	1:J:140:TYR:H	1.38	0.89
1:D:138:ASP:HB3	1:D:140:TYR:H	1.38	0.88
1:F:138:ASP:HB3	1:F:140:TYR:H	1.37	0.88
1:A:138:ASP:HB3	1:A:140:TYR:H	1.37	0.88
1:N:138:ASP:HB3	1:N:140:TYR:H	1.35	0.88
1:T:339:ILE:HD12	1:T:340:ASP:H	1.38	0.88
1:C:138:ASP:HB3	1:C:140:TYR:H	1.38	0.88
1:I:138:ASP:HB3	1:I:140:TYR:H	1.36	0.88
1:M:138:ASP:HB3	1:M:140:TYR:H	1.38	0.87
1:K:138:ASP:HB3	1:K:140:TYR:H	1.39	0.87
1:C:72:SER:O	1:C:73:ASP:HB3	1.73	0.86
1:L:138:ASP:HB3	1:L:140:TYR:H	1.40	0.86
1:D:339:ILE:HD12	1:D:340:ASP:H	1.40	0.86
1:E:339:ILE:HD12	1:E:340:ASP:H	1.41	0.86
1:T:138:ASP:HB3	1:T:140:TYR:H	1.39	0.86
1:G:138:ASP:HB3	1:G:140:TYR:H	1.39	0.86
1:O:138:ASP:HB3	1:O:140:TYR:H	1.41	0.85
1:N:339:ILE:HD12	1:N:340:ASP:H	1.39	0.85
1:L:339:ILE:HD12	1:L:340:ASP:H	1.41	0.85
1:R:277:ARG:HE	1:R:351:THR:CG2	1.88	0.85
1:G:339:ILE:HD12	1:G:340:ASP:H	1.40	0.85
1:Q:339:ILE:HD12	1:Q:340:ASP:H	1.42	0.84
1:B:138:ASP:HB3	1:B:140:TYR:H	1.40	0.84
1:P:138:ASP:HB3	1:P:140:TYR:H	1.42	0.84
1:S:339:ILE:HD12	1:S:340:ASP:H	1.40	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:356:ILE:CG2	1:F:358:ASN:HB3	2.08	0.83
1:B:339:ILE:HD12	1:B:340:ASP:H	1.40	0.83
1:D:178:ARG:NH1	1:D:178:ARG:HG3	1.92	0.83
1:F:339:ILE:HD12	1:F:340:ASP:H	1.43	0.83
1:Q:277:ARG:HE	1:Q:351:THR:CG2	1.92	0.83
1:J:339:ILE:HD12	1:J:340:ASP:H	1.44	0.82
1:G:47:ARG:HH21	1:L:22:GLY:HA2	1.45	0.82
1:O:339:ILE:HD12	1:O:340:ASP:H	1.45	0.81
1:G:47:ARG:HH21	1:L:22:GLY:CA	1.92	0.81
1:T:356:ILE:CG2	1:T:358:ASN:HB3	2.11	0.81
1:F:22:GLY:HA3	1:M:47:ARG:HH21	1.44	0.80
1:P:339:ILE:HD12	1:P:340:ASP:H	1.46	0.80
1:K:277:ARG:HE	1:K:351:THR:CG2	1.94	0.80
1:I:339:ILE:HD12	1:I:340:ASP:H	1.47	0.80
1:I:356:ILE:CG2	1:I:358:ASN:HB3	2.12	0.80
1:C:339:ILE:HD12	1:C:340:ASP:H	1.46	0.80
1:R:178:ARG:NH1	1:R:178:ARG:HG3	1.93	0.80
1:S:277:ARG:HE	1:S:351:THR:CG2	1.95	0.80
1:J:356:ILE:CG2	1:J:358:ASN:HB3	2.12	0.79
1:R:339:ILE:HD12	1:R:340:ASP:H	1.46	0.79
1:M:277:ARG:HE	1:M:351:THR:CG2	1.95	0.79
1:A:356:ILE:CG2	1:A:358:ASN:HB3	2.12	0.79
1:H:222:LEU:HG	1:H:233:ILE:CD1	2.12	0.79
1:L:277:ARG:HE	1:L:351:THR:CG2	1.96	0.79
1:N:277:ARG:HE	1:N:351:THR:CG2	1.95	0.79
1:C:70:HIS:C	1:C:72:SER:H	1.86	0.79
1:C:356:ILE:CG2	1:C:358:ASN:HB3	2.13	0.79
1:K:339:ILE:HD12	1:K:340:ASP:H	1.45	0.79
1:H:277:ARG:HE	1:H:351:THR:CG2	1.97	0.78
1:E:178:ARG:HG3	1:E:178:ARG:NH1	1.98	0.78
1:H:339:ILE:HD12	1:H:340:ASP:H	1.49	0.78
1:L:356:ILE:CG2	1:L:358:ASN:HB3	2.13	0.78
1:A:277:ARG:HE	1:A:351:THR:CG2	1.97	0.78
1:P:277:ARG:HE	1:P:351:THR:CG2	1.97	0.78
1:Q:284:LEU:HD22	1:Q:365:PHE:CE1	2.18	0.78
1:M:339:ILE:HD12	1:M:340:ASP:H	1.47	0.78
1:C:277:ARG:HE	1:C:351:THR:CG2	1.96	0.78
1:E:356:ILE:CG2	1:E:358:ASN:HB3	2.13	0.78
1:K:356:ILE:CG2	1:K:358:ASN:HB3	2.13	0.78
1:D:277:ARG:HE	1:D:351:THR:CG2	1.97	0.77
1:J:222:LEU:HG	1:J:233:ILE:CD1	2.14	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:22:GLY:CA	1:M:47:ARG:NH2	2.47	0.77
1:G:356:ILE:CG2	1:G:358:ASN:HB3	2.14	0.77
1:B:277:ARG:HE	1:B:351:THR:CG2	1.98	0.77
1:F:277:ARG:HE	1:F:351:THR:CG2	1.97	0.77
1:N:356:ILE:CG2	1:N:358:ASN:HB3	2.15	0.77
1:G:277:ARG:HE	1:G:351:THR:CG2	1.98	0.77
1:A:339:ILE:HD12	1:A:340:ASP:H	1.48	0.76
1:P:356:ILE:CG2	1:P:358:ASN:HB3	2.15	0.76
1:M:178:ARG:NH1	1:M:178:ARG:HG3	1.99	0.76
1:D:178:ARG:CG	1:D:178:ARG:HH11	1.96	0.76
1:R:284:LEU:HD22	1:R:365:PHE:CE1	2.19	0.76
1:N:133:GLU:OE2	2:N:371:FLC:HG2	1.85	0.76
1:D:356:ILE:CG2	1:D:358:ASN:HB3	2.14	0.76
1:O:356:ILE:CG2	1:O:358:ASN:HB3	2.16	0.76
1:Q:356:ILE:CG2	1:Q:358:ASN:HB3	2.15	0.76
1:T:277:ARG:HE	1:T:351:THR:CG2	1.98	0.76
1:O:277:ARG:HE	1:O:351:THR:CG2	1.98	0.76
1:M:311:ASN:HB3	1:M:314:SER:OG	1.86	0.76
1:B:356:ILE:CG2	1:B:358:ASN:HB3	2.16	0.76
1:O:253:VAL:HG21	1:O:348:MET:SD	2.26	0.75
1:H:356:ILE:CG2	1:H:358:ASN:HB3	2.16	0.75
1:A:158:TYR:CE2	1:A:196:PRO:HG3	2.20	0.75
1:S:284:LEU:HD22	1:S:365:PHE:CE1	2.21	0.75
1:R:356:ILE:CG2	1:R:358:ASN:HB3	2.17	0.75
1:K:178:ARG:CG	1:K:178:ARG:HH11	1.99	0.75
1:Q:348:MET:HE2	1:Q:348:MET:HA	1.69	0.75
1:C:178:ARG:HG3	1:C:178:ARG:NH1	1.99	0.74
1:N:178:ARG:HG3	1:N:178:ARG:NH1	2.00	0.74
1:O:284:LEU:HD22	1:O:365:PHE:CE1	2.21	0.74
1:R:277:ARG:HE	1:R:351:THR:HG22	1.50	0.74
1:C:292:ARG:O	1:C:294:THR:HB	1.86	0.74
1:L:158:TYR:CE2	1:L:196:PRO:HG3	2.22	0.74
1:J:260:GLN:CD	1:K:261:PRO:HD2	2.08	0.74
1:J:284:LEU:HD22	1:J:365:PHE:CE1	2.22	0.74
1:J:277:ARG:HE	1:J:351:THR:CG2	1.99	0.74
1:K:356:ILE:HG22	1:K:358:ASN:N	2.02	0.74
1:R:253:VAL:HG21	1:R:348:MET:SD	2.28	0.74
1:A:178:ARG:HG3	1:A:178:ARG:NH1	1.98	0.74
1:D:356:ILE:HG22	1:D:358:ASN:N	2.02	0.73
1:O:217:MET:HE1	1:O:221:PHE:CE1	2.23	0.73
1:T:158:TYR:CE2	1:T:196:PRO:HG3	2.22	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:356:ILE:CG2	1:S:358:ASN:HB3	2.17	0.73
1:O:364:GLU:O	1:O:365:PHE:HD1	1.71	0.73
1:I:347:ILE:O	1:I:351:THR:HG23	1.89	0.73
1:I:284:LEU:HD22	1:I:365:PHE:CE1	2.23	0.73
1:M:356:ILE:CG2	1:M:358:ASN:HB3	2.17	0.73
1:E:61:GLY:HA3	1:E:74:ILE:HD12	1.71	0.73
1:M:158:TYR:CE2	1:M:196:PRO:HG3	2.23	0.73
1:R:178:ARG:HH11	1:R:178:ARG:CG	1.96	0.73
1:C:68:PRO:HD2	1:C:72:SER:N	2.04	0.73
1:S:178:ARG:NH1	1:S:178:ARG:HG3	1.98	0.72
1:J:311:ASN:HB3	1:J:314:SER:OG	1.89	0.72
1:K:311:ASN:HB3	1:K:314:SER:OG	1.89	0.72
1:F:22:GLY:HA2	1:M:47:ARG:HH21	1.51	0.72
1:B:61:GLY:HA3	1:B:74:ILE:HD12	1.71	0.72
1:A:284:LEU:HD22	1:A:365:PHE:CE1	2.23	0.72
1:C:70:HIS:C	1:C:72:SER:N	2.40	0.72
1:L:356:ILE:HG22	1:L:358:ASN:N	2.03	0.72
1:E:277:ARG:HE	1:E:351:THR:CG2	2.02	0.72
1:P:222:LEU:HG	1:P:233:ILE:CD1	2.18	0.72
1:J:356:ILE:HG21	1:J:358:ASN:HB3	1.70	0.72
1:I:158:TYR:CE2	1:I:196:PRO:HG3	2.25	0.72
1:T:284:LEU:HD22	1:T:365:PHE:CE1	2.24	0.72
1:R:158:TYR:CE2	1:R:196:PRO:HG3	2.25	0.72
1:J:178:ARG:CG	1:J:178:ARG:HH11	2.01	0.72
1:J:260:GLN:HG2	1:K:260:GLN:CG	2.13	0.72
1:F:284:LEU:HD22	1:F:365:PHE:CE1	2.25	0.72
1:D:311:ASN:HB3	1:D:314:SER:OG	1.89	0.72
1:A:311:ASN:HB3	1:A:314:SER:OG	1.90	0.72
1:C:293:LEU:N	1:C:293:LEU:HD13	2.05	0.72
1:R:292:ARG:NH1	2:R:371:FLC:OB2	2.23	0.72
1:G:178:ARG:NH1	1:G:178:ARG:HG3	2.00	0.71
1:K:356:ILE:HG21	1:K:358:ASN:HB3	1.71	0.71
1:E:356:ILE:HG21	1:E:358:ASN:HB3	1.71	0.71
1:I:217:MET:HE1	1:I:221:PHE:CE1	2.24	0.71
1:Q:364:GLU:O	1:Q:365:PHE:HD1	1.73	0.71
1:J:347:ILE:O	1:J:351:THR:HG23	1.89	0.71
1:R:311:ASN:HB3	1:R:314:SER:OG	1.91	0.71
1:C:217:MET:HE1	1:C:221:PHE:CE1	2.26	0.71
1:C:364:GLU:O	1:C:365:PHE:HD1	1.74	0.71
1:D:222:LEU:HG	1:D:233:ILE:CD1	2.19	0.71
1:F:364:GLU:O	1:F:365:PHE:HD1	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:217:MET:HE1	1:M:221:PHE:CE1	2.26	0.71
1:K:284:LEU:HD22	1:K:365:PHE:CE1	2.25	0.71
1:F:178:ARG:NH1	1:F:178:ARG:HG3	2.00	0.71
1:T:356:ILE:HG21	1:T:358:ASN:HB3	1.72	0.71
1:T:356:ILE:HG22	1:T:358:ASN:N	2.04	0.71
1:H:73:ASP:OD2	1:I:320:ARG:NH2	2.23	0.71
1:M:148:LYS:CE	1:S:148:LYS:HD2	2.20	0.71
1:R:217:MET:HE1	1:R:221:PHE:CE1	2.26	0.71
1:J:260:GLN:OE1	1:K:261:PRO:HD2	1.91	0.71
1:S:311:ASN:HB3	1:S:314:SER:OG	1.90	0.71
1:I:277:ARG:HE	1:I:351:THR:CG2	2.04	0.71
1:L:311:ASN:HB3	1:L:314:SER:OG	1.90	0.71
1:J:260:GLN:NE2	1:K:261:PRO:HD3	2.05	0.70
1:F:356:ILE:HG22	1:F:358:ASN:N	2.06	0.70
1:Q:311:ASN:HB3	1:Q:314:SER:OG	1.90	0.70
1:A:222:LEU:HG	1:A:233:ILE:CD1	2.20	0.70
1:A:347:ILE:O	1:A:351:THR:HG23	1.91	0.70
1:I:364:GLU:O	1:I:365:PHE:HD1	1.74	0.70
1:O:246:GLY:O	2:O:371:FLC:OG1	2.09	0.70
1:K:178:ARG:HG3	1:K:178:ARG:NH1	1.96	0.70
1:J:356:ILE:HG22	1:J:358:ASN:N	2.01	0.70
1:G:222:LEU:HG	1:G:233:ILE:CD1	2.21	0.70
1:R:222:LEU:HG	1:R:233:ILE:CD1	2.18	0.70
1:L:356:ILE:HG21	1:L:358:ASN:HB3	1.72	0.70
1:T:339:ILE:HD12	1:T:340:ASP:N	2.06	0.70
1:M:148:LYS:HD2	1:S:148:LYS:CE	2.22	0.70
1:T:364:GLU:O	1:T:365:PHE:HD1	1.74	0.70
1:O:133:GLU:OE2	2:O:371:FLC:HG2	1.92	0.70
1:M:284:LEU:HD22	1:M:365:PHE:CE1	2.26	0.70
1:M:348:MET:HE2	1:M:348:MET:HA	1.72	0.70
1:D:356:ILE:HG21	1:D:358:ASN:HB3	1.72	0.70
1:E:356:ILE:HG22	1:E:358:ASN:N	2.03	0.70
1:G:348:MET:HE2	1:G:348:MET:HA	1.74	0.70
1:F:158:TYR:CE2	1:F:196:PRO:HG3	2.27	0.70
1:T:311:ASN:HB3	1:T:314:SER:OG	1.89	0.70
1:Q:111:ARG:NH2	1:Q:209:ILE:HG21	2.07	0.70
1:E:311:ASN:HB3	1:E:314:SER:OG	1.90	0.70
1:T:222:LEU:HG	1:T:233:ILE:CD1	2.19	0.70
1:P:347:ILE:O	1:P:351:THR:HG23	1.90	0.70
1:L:284:LEU:HD22	1:L:365:PHE:CE1	2.26	0.70
1:P:356:ILE:HG21	1:P:358:ASN:HB3	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:347:ILE:O	1:B:351:THR:HG23	1.92	0.70
1:G:61:GLY:HA3	1:G:74:ILE:HD12	1.74	0.70
1:I:222:LEU:HG	1:I:233:ILE:CD1	2.17	0.69
1:O:356:ILE:HG22	1:O:358:ASN:N	2.06	0.69
1:C:348:MET:HA	1:C:348:MET:HE2	1.73	0.69
1:A:364:GLU:O	1:A:365:PHE:HD1	1.75	0.69
1:N:217:MET:HE1	1:N:221:PHE:CE1	2.27	0.69
1:M:178:ARG:CG	1:M:178:ARG:HH11	2.02	0.69
1:J:260:GLN:NE2	1:K:261:PRO:CD	2.55	0.69
1:S:138:ASP:HB2	1:S:142:ASP:H	1.58	0.69
1:B:356:ILE:HG22	1:B:358:ASN:N	2.07	0.69
1:B:348:MET:HA	1:B:348:MET:HE2	1.74	0.69
1:G:284:LEU:HD22	1:G:365:PHE:CE1	2.27	0.69
1:F:356:ILE:HG22	1:F:358:ASN:HB3	1.72	0.69
1:P:311:ASN:HB3	1:P:314:SER:OG	1.92	0.69
1:S:158:TYR:CE2	1:S:196:PRO:HG3	2.27	0.69
1:Q:347:ILE:O	1:Q:351:THR:HG23	1.93	0.69
1:G:46:LYS:HD2	1:L:45:LYS:HD2	1.74	0.69
1:H:284:LEU:HD22	1:H:365:PHE:CE1	2.27	0.69
1:P:284:LEU:HD22	1:P:365:PHE:CE1	2.28	0.69
1:G:311:ASN:HB3	1:G:314:SER:OG	1.92	0.69
1:C:222:LEU:HG	1:C:233:ILE:CD1	2.22	0.69
1:H:356:ILE:HG22	1:H:358:ASN:N	2.05	0.69
1:F:348:MET:HA	1:F:348:MET:HE2	1.75	0.69
1:O:356:ILE:HG21	1:O:358:ASN:HB3	1.75	0.69
1:I:356:ILE:HG22	1:I:358:ASN:N	2.05	0.69
1:E:158:TYR:CE2	1:E:196:PRO:HG3	2.27	0.69
1:I:253:VAL:HG21	1:I:348:MET:SD	2.33	0.68
1:F:311:ASN:HB3	1:F:314:SER:OG	1.93	0.68
1:N:356:ILE:HG22	1:N:358:ASN:N	2.04	0.68
1:E:284:LEU:HD22	1:E:365:PHE:CE1	2.27	0.68
1:A:356:ILE:HG22	1:A:358:ASN:N	2.05	0.68
1:H:217:MET:HE1	1:H:221:PHE:CE1	2.28	0.68
1:I:356:ILE:HG21	1:I:358:ASN:HB3	1.75	0.68
1:K:348:MET:HA	1:K:348:MET:HE2	1.73	0.68
1:E:347:ILE:O	1:E:351:THR:HG23	1.93	0.68
1:Q:158:TYR:CE2	1:Q:196:PRO:HG3	2.28	0.68
1:C:311:ASN:HB3	1:C:314:SER:OG	1.94	0.68
1:K:222:LEU:HG	1:K:233:ILE:CD1	2.22	0.68
1:L:277:ARG:HE	1:L:351:THR:HG22	1.57	0.68
1:T:217:MET:HE1	1:T:221:PHE:CE1	2.29	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:311:ASN:HB3	1:H:314:SER:OG	1.93	0.68
1:A:348:MET:HA	1:A:348:MET:HE2	1.75	0.68
1:I:360:ASP:OD2	1:I:363:LYS:HG3	1.93	0.68
1:P:364:GLU:O	1:P:365:PHE:HD1	1.76	0.68
1:M:356:ILE:HG22	1:M:358:ASN:N	2.05	0.68
1:D:339:ILE:HD12	1:D:340:ASP:N	2.08	0.68
1:N:339:ILE:HD12	1:N:340:ASP:N	2.09	0.68
1:K:61:GLY:HA3	1:K:74:ILE:HD12	1.76	0.68
1:B:356:ILE:HG21	1:B:358:ASN:HB3	1.76	0.68
1:P:348:MET:HE2	1:P:348:MET:HA	1.74	0.68
1:T:360:ASP:OD2	1:T:363:LYS:HG3	1.94	0.68
1:K:158:TYR:CE2	1:K:196:PRO:HG3	2.29	0.68
1:A:178:ARG:CG	1:A:178:ARG:HH11	2.03	0.68
1:S:178:ARG:HH11	1:S:178:ARG:CG	2.03	0.68
1:M:284:LEU:O	1:M:286:GLY:N	2.27	0.68
1:D:360:ASP:OD2	1:D:363:LYS:HG3	1.94	0.68
1:H:284:LEU:O	1:H:286:GLY:N	2.28	0.67
1:D:284:LEU:HD22	1:D:365:PHE:CE1	2.29	0.67
1:Q:61:GLY:HA3	1:Q:74:ILE:HD12	1.76	0.67
1:P:356:ILE:HG22	1:P:358:ASN:N	2.04	0.67
1:C:284:LEU:HD22	1:C:365:PHE:CE1	2.29	0.67
1:K:364:GLU:O	1:K:365:PHE:HD1	1.77	0.67
1:G:158:TYR:CE2	1:G:196:PRO:HG3	2.29	0.67
1:G:356:ILE:HG21	1:G:358:ASN:HB3	1.76	0.67
1:S:277:ARG:HE	1:S:351:THR:HG22	1.60	0.67
1:C:347:ILE:O	1:C:351:THR:HG23	1.94	0.67
1:F:61:GLY:HA3	1:F:74:ILE:HD12	1.75	0.67
1:N:356:ILE:HG21	1:N:358:ASN:HB3	1.75	0.67
1:M:356:ILE:HG21	1:M:358:ASN:HB3	1.77	0.67
1:C:356:ILE:HG21	1:C:358:ASN:HB3	1.76	0.67
1:G:347:ILE:O	1:G:351:THR:HG23	1.94	0.67
1:J:364:GLU:O	1:J:365:PHE:HD1	1.78	0.67
1:M:133:GLU:OE2	2:M:371:FLC:HG2	1.94	0.67
1:O:178:ARG:HG3	1:O:178:ARG:NH1	2.02	0.67
1:C:289:ASN:ND2	1:C:293:LEU:HD23	2.09	0.67
1:C:360:ASP:OD2	1:C:363:LYS:HG3	1.94	0.67
1:L:360:ASP:OD2	1:L:363:LYS:HG3	1.94	0.67
1:D:364:GLU:O	1:D:365:PHE:HD1	1.78	0.67
1:M:61:GLY:HA3	1:M:74:ILE:HD12	1.75	0.67
1:C:67:ALA:HB1	1:C:72:SER:CA	2.01	0.67
1:R:356:ILE:HG22	1:R:358:ASN:N	2.05	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:138:ASP:HB2	1:E:142:ASP:H	1.60	0.67
1:Q:217:MET:HE1	1:Q:221:PHE:CE1	2.30	0.67
1:P:61:GLY:HA3	1:P:74:ILE:HD12	1.75	0.67
1:C:31:ILE:HD13	1:C:216:TRP:CE2	2.29	0.67
1:L:253:VAL:HG21	1:L:348:MET:SD	2.34	0.67
1:I:61:GLY:HA3	1:I:74:ILE:HD12	1.77	0.67
1:Q:138:ASP:HB2	1:Q:142:ASP:H	1.60	0.67
1:C:138:ASP:HB2	1:C:142:ASP:H	1.60	0.67
1:O:347:ILE:O	1:O:351:THR:HG23	1.95	0.67
1:B:217:MET:HE1	1:B:221:PHE:CE1	2.30	0.67
1:D:111:ARG:NH2	1:D:209:ILE:HG21	2.10	0.67
1:H:158:TYR:CE2	1:H:196:PRO:HG3	2.28	0.67
1:G:178:ARG:HH11	1:G:178:ARG:CG	2.02	0.67
1:H:356:ILE:HG21	1:H:358:ASN:HB3	1.76	0.67
1:G:138:ASP:HB2	1:G:142:ASP:H	1.59	0.67
1:Q:284:LEU:O	1:Q:286:GLY:N	2.28	0.67
1:O:311:ASN:HB3	1:O:314:SER:OG	1.94	0.67
1:S:364:GLU:O	1:S:365:PHE:HD1	1.78	0.66
1:C:158:TYR:CE2	1:C:196:PRO:HG3	2.29	0.66
1:S:253:VAL:HG21	1:S:348:MET:SD	2.35	0.66
1:G:356:ILE:HG22	1:G:358:ASN:N	2.08	0.66
1:N:138:ASP:HB2	1:N:142:ASP:H	1.60	0.66
1:P:138:ASP:HB2	1:P:142:ASP:H	1.59	0.66
1:H:347:ILE:O	1:H:351:THR:HG23	1.96	0.66
1:O:61:GLY:HA3	1:O:74:ILE:HD12	1.78	0.66
1:B:364:GLU:O	1:B:365:PHE:HD1	1.77	0.66
1:N:61:GLY:HA3	1:N:74:ILE:HD12	1.77	0.66
1:C:356:ILE:HG22	1:C:358:ASN:HB3	1.77	0.66
1:B:277:ARG:HE	1:B:351:THR:HG22	1.61	0.66
1:A:138:ASP:HB2	1:A:142:ASP:H	1.59	0.66
1:K:277:ARG:HE	1:K:351:THR:HG22	1.61	0.66
1:F:217:MET:HE1	1:F:221:PHE:CE1	2.29	0.66
1:M:222:LEU:HG	1:M:233:ILE:CD1	2.19	0.66
1:G:47:ARG:HE	1:L:22:GLY:HA3	1.59	0.66
1:G:364:GLU:O	1:G:365:PHE:HD1	1.78	0.66
2:B:371:FLC:OG1	2:B:371:FLC:OB1	2.14	0.66
1:N:284:LEU:HD22	1:N:365:PHE:CE1	2.30	0.66
1:Q:253:VAL:HG21	1:Q:348:MET:SD	2.35	0.66
1:L:348:MET:HA	1:L:348:MET:HE2	1.77	0.66
1:N:277:ARG:HE	1:N:351:THR:HG22	1.58	0.66
1:B:311:ASN:HB3	1:B:314:SER:OG	1.94	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:61:GLY:HA3	1:L:74:ILE:HD12	1.76	0.66
1:T:61:GLY:HA3	1:T:74:ILE:HD12	1.77	0.66
1:R:347:ILE:O	1:R:351:THR:HG23	1.96	0.66
1:N:311:ASN:HB3	1:N:314:SER:OG	1.95	0.66
1:E:339:ILE:HD12	1:E:340:ASP:N	2.10	0.66
1:M:277:ARG:HE	1:M:351:THR:HG22	1.59	0.66
1:G:253:VAL:HG21	1:G:348:MET:SD	2.36	0.66
1:F:246:GLY:O	2:F:371:FLC:OG1	2.14	0.66
1:F:178:ARG:CG	1:F:178:ARG:HH11	2.05	0.66
1:Q:356:ILE:HG21	1:Q:358:ASN:HB3	1.78	0.66
1:D:138:ASP:HB2	1:D:142:ASP:H	1.61	0.66
1:I:311:ASN:HB3	1:I:314:SER:OG	1.95	0.66
1:J:61:GLY:HA3	1:J:74:ILE:HD12	1.78	0.66
1:C:70:HIS:O	1:C:71:ASP:C	2.34	0.65
1:M:364:GLU:O	1:M:365:PHE:HD1	1.78	0.65
1:B:158:TYR:CE2	1:B:196:PRO:HG3	2.31	0.65
1:A:217:MET:HE1	1:A:221:PHE:CE1	2.31	0.65
1:S:217:MET:HE1	1:S:221:PHE:CE1	2.31	0.65
1:F:339:ILE:HD12	1:F:340:ASP:N	2.11	0.65
1:B:284:LEU:HD22	1:B:365:PHE:CE1	2.30	0.65
1:O:158:TYR:CE2	1:O:196:PRO:HG3	2.31	0.65
1:A:356:ILE:HG21	1:A:358:ASN:HB3	1.76	0.65
1:H:348:MET:HE2	1:H:348:MET:HA	1.77	0.65
1:Q:217:MET:CE	1:Q:221:PHE:CZ	2.79	0.65
1:L:217:MET:HE1	1:L:221:PHE:CE1	2.31	0.65
1:C:72:SER:O	1:C:73:ASP:CB	2.44	0.65
1:P:178:ARG:HG3	1:P:178:ARG:NH1	2.02	0.65
1:C:292:ARG:O	1:C:294:THR:N	2.30	0.65
1:D:277:ARG:HE	1:D:351:THR:HG22	1.61	0.65
1:F:277:ARG:HE	1:F:351:THR:HG22	1.61	0.65
1:N:222:LEU:HG	1:N:233:ILE:CD1	2.19	0.65
1:S:222:LEU:HG	1:S:233:ILE:CD1	2.24	0.65
1:M:347:ILE:O	1:M:351:THR:HG23	1.95	0.65
1:D:347:ILE:O	1:D:351:THR:HG23	1.97	0.65
1:D:348:MET:HE2	1:D:348:MET:HA	1.77	0.65
1:K:339:ILE:CG1	1:K:344:VAL:HG23	2.26	0.65
1:A:277:ARG:HE	1:A:351:THR:HG22	1.61	0.65
1:J:363:LYS:O	1:J:365:PHE:N	2.30	0.65
1:I:348:MET:HE2	1:I:348:MET:HA	1.77	0.65
1:L:178:ARG:CG	1:L:178:ARG:HH11	2.01	0.65
1:T:356:ILE:HG22	1:T:358:ASN:HB3	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:356:ILE:HG22	1:A:358:ASN:HB3	1.78	0.65
1:T:277:ARG:HE	1:T:351:THR:HG22	1.61	0.65
1:E:284:LEU:O	1:E:286:GLY:N	2.29	0.65
1:I:111:ARG:NH2	1:I:209:ILE:HG21	2.12	0.65
1:R:61:GLY:HA3	1:R:74:ILE:HD12	1.78	0.65
1:J:138:ASP:HB2	1:J:142:ASP:H	1.62	0.65
1:N:178:ARG:CG	1:N:178:ARG:HH11	2.04	0.65
1:S:356:ILE:HG21	1:S:358:ASN:HB3	1.77	0.65
1:R:348:MET:HA	1:R:348:MET:HE2	1.79	0.65
1:B:138:ASP:HB2	1:B:142:ASP:H	1.61	0.65
1:A:284:LEU:O	1:A:286:GLY:N	2.29	0.65
1:M:111:ARG:NH2	1:M:209:ILE:HG21	2.12	0.65
1:C:356:ILE:HG22	1:C:358:ASN:N	2.09	0.65
1:L:339:ILE:HD12	1:L:340:ASP:N	2.12	0.65
1:Q:339:ILE:HD12	1:Q:340:ASP:N	2.12	0.65
1:E:253:VAL:HG21	1:E:348:MET:SD	2.37	0.65
1:L:364:GLU:O	1:L:365:PHE:HD1	1.79	0.65
1:C:61:GLY:HA3	1:C:74:ILE:HD12	1.79	0.64
1:C:178:ARG:HH11	1:C:178:ARG:CG	2.04	0.64
1:Q:356:ILE:HG22	1:Q:358:ASN:N	2.07	0.64
1:I:356:ILE:HG22	1:I:358:ASN:HB3	1.77	0.64
1:H:138:ASP:HB2	1:H:142:ASP:H	1.60	0.64
1:R:138:ASP:HB2	1:R:142:ASP:H	1.62	0.64
1:C:246:GLY:O	2:C:371:FLC:OG1	2.14	0.64
1:S:348:MET:HE2	1:S:348:MET:HA	1.78	0.64
1:F:347:ILE:O	1:F:351:THR:HG23	1.96	0.64
1:D:158:TYR:CE2	1:D:196:PRO:HG3	2.32	0.64
1:P:158:TYR:CE2	1:P:196:PRO:HG3	2.32	0.64
1:G:339:ILE:HD12	1:G:340:ASP:N	2.11	0.64
1:P:277:ARG:HE	1:P:351:THR:HG22	1.63	0.64
1:Q:360:ASP:OD2	1:Q:363:LYS:HG3	1.96	0.64
1:J:217:MET:HE1	1:J:221:PHE:CE1	2.32	0.64
1:B:178:ARG:NH1	1:B:178:ARG:HG3	1.99	0.64
1:R:356:ILE:HG21	1:R:358:ASN:HB3	1.79	0.64
1:S:339:ILE:HD12	1:S:340:ASP:N	2.10	0.64
1:J:348:MET:HA	1:J:348:MET:HE2	1.79	0.64
1:S:347:ILE:O	1:S:351:THR:HG23	1.98	0.64
1:O:277:ARG:HE	1:O:351:THR:HG22	1.61	0.64
1:N:364:GLU:O	1:N:365:PHE:HD1	1.81	0.64
1:J:81:TYR:OH	1:O:49:THR:HG22	1.96	0.64
1:N:126:ILE:HD11	1:N:349:CYS:SG	2.37	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:111:ARG:NH2	1:R:209:ILE:HG21	2.11	0.64
1:F:138:ASP:HB2	1:F:142:ASP:H	1.62	0.64
1:J:339:ILE:CG1	1:J:344:VAL:HG23	2.27	0.64
1:N:347:ILE:O	1:N:351:THR:HG23	1.98	0.64
1:D:253:VAL:HG21	1:D:348:MET:SD	2.37	0.64
1:D:217:MET:HE1	1:D:221:PHE:CE1	2.32	0.64
1:E:348:MET:HE2	1:E:348:MET:HA	1.80	0.64
1:K:217:MET:HE1	1:K:221:PHE:CE1	2.33	0.64
1:P:339:ILE:CG1	1:P:344:VAL:HG23	2.28	0.64
1:K:284:LEU:O	1:K:286:GLY:N	2.31	0.64
1:H:111:ARG:NH2	1:H:209:ILE:HG21	2.13	0.64
1:G:356:ILE:HG22	1:G:358:ASN:HB3	1.80	0.64
1:C:339:ILE:HD12	1:C:340:ASP:N	2.13	0.64
1:P:126:ILE:HD11	1:P:349:CYS:SG	2.38	0.64
1:H:178:ARG:NH1	1:H:178:ARG:HG3	1.99	0.63
1:T:178:ARG:NH1	1:T:178:ARG:HG3	2.02	0.63
1:O:138:ASP:HB2	1:O:142:ASP:H	1.64	0.63
1:L:339:ILE:CG1	1:L:344:VAL:HG23	2.27	0.63
1:N:284:LEU:O	1:N:286:GLY:N	2.30	0.63
1:G:339:ILE:CG1	1:G:344:VAL:HG23	2.28	0.63
1:Q:277:ARG:HE	1:Q:351:THR:HG22	1.61	0.63
1:R:364:GLU:O	1:R:365:PHE:HD1	1.81	0.63
1:G:360:ASP:OD2	1:G:363:LYS:HG3	1.98	0.63
1:P:217:MET:HE1	1:P:221:PHE:CE1	2.32	0.63
1:G:73:ASP:OD2	1:H:320:ARG:NH2	2.31	0.63
1:B:178:ARG:CG	1:B:178:ARG:HH11	2.07	0.63
1:O:222:LEU:HG	1:O:233:ILE:CD1	2.21	0.63
1:H:277:ARG:HE	1:H:351:THR:HG22	1.61	0.63
1:C:277:ARG:HE	1:C:351:THR:HG22	1.63	0.63
1:L:138:ASP:HB2	1:L:142:ASP:H	1.63	0.63
1:H:364:GLU:O	1:H:365:PHE:HD1	1.80	0.63
1:D:190:ILE:HG13	1:D:200:GLU:O	1.98	0.63
1:M:102:ASP:HB2	1:M:104:THR:OG1	1.99	0.63
1:E:178:ARG:HH11	1:E:178:ARG:CG	2.02	0.63
1:F:22:GLY:HA3	1:M:47:ARG:NH2	2.13	0.63
1:Q:222:LEU:HG	1:Q:233:ILE:CD1	2.23	0.63
1:I:339:ILE:HD12	1:I:340:ASP:N	2.14	0.63
1:N:348:MET:HE2	1:N:348:MET:HA	1.81	0.63
1:S:356:ILE:HG22	1:S:358:ASN:N	2.09	0.63
1:J:178:ARG:NH1	1:J:178:ARG:HG3	1.99	0.63
1:L:356:ILE:HG22	1:L:358:ASN:HB3	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:138:ASP:HB2	1:M:142:ASP:H	1.63	0.62
1:J:253:VAL:HG21	1:J:348:MET:SD	2.38	0.62
1:M:339:ILE:CG1	1:M:344:VAL:HG23	2.29	0.62
1:T:138:ASP:HB2	1:T:142:ASP:H	1.64	0.62
1:B:339:ILE:HD12	1:B:340:ASP:N	2.10	0.62
1:O:339:ILE:CG1	1:O:344:VAL:HG23	2.28	0.62
1:R:284:LEU:O	1:R:286:GLY:N	2.31	0.62
1:L:232:LYS:HG2	1:M:164:ALA:HB3	1.81	0.62
1:E:217:MET:HE1	1:E:221:PHE:CE1	2.34	0.62
1:D:339:ILE:CG1	1:D:344:VAL:HG23	2.30	0.62
1:G:277:ARG:HE	1:G:351:THR:HG22	1.64	0.62
1:T:348:MET:HA	1:T:348:MET:HE2	1.80	0.62
1:J:284:LEU:O	1:J:286:GLY:N	2.33	0.62
1:J:158:TYR:CE2	1:J:196:PRO:HG3	2.34	0.62
1:J:31:ILE:HD13	1:J:216:TRP:CE2	2.35	0.62
1:M:173:ILE:HG12	1:M:199:TRP:CD2	2.34	0.62
1:Q:356:ILE:HG22	1:Q:358:ASN:HB3	1.80	0.62
1:G:173:ILE:HG12	1:G:199:TRP:CD2	2.34	0.62
1:D:284:LEU:O	1:D:286:GLY:N	2.32	0.62
1:B:173:ILE:HG12	1:B:199:TRP:CD2	2.35	0.62
1:N:246:GLY:O	2:N:371:FLC:OG1	2.16	0.62
1:R:217:MET:CE	1:R:221:PHE:CZ	2.83	0.62
1:J:356:ILE:HG22	1:J:358:ASN:HB3	1.82	0.62
1:R:360:ASP:OD2	1:R:363:LYS:HG3	1.99	0.62
1:H:61:GLY:HA3	1:H:74:ILE:HD12	1.82	0.62
1:Q:178:ARG:NH1	1:Q:178:ARG:HG3	1.97	0.62
1:H:178:ARG:CG	1:H:178:ARG:HH11	2.03	0.62
1:O:178:ARG:CG	1:O:178:ARG:HH11	2.06	0.62
1:J:339:ILE:HD12	1:J:340:ASP:N	2.13	0.62
1:K:347:ILE:O	1:K:351:THR:HG23	2.00	0.62
1:B:363:LYS:O	1:B:365:PHE:N	2.33	0.62
1:D:61:GLY:HA3	1:D:74:ILE:HD12	1.81	0.62
1:M:253:VAL:HG21	1:M:348:MET:SD	2.39	0.62
1:A:158:TYR:CD2	1:A:196:PRO:HG3	2.34	0.62
1:E:356:ILE:HG22	1:E:358:ASN:HB3	1.81	0.61
1:L:347:ILE:O	1:L:351:THR:HG23	2.00	0.61
1:G:217:MET:HE1	1:G:221:PHE:CE1	2.35	0.61
1:R:339:ILE:HD12	1:R:340:ASP:N	2.15	0.61
1:C:217:MET:CE	1:C:221:PHE:CZ	2.83	0.61
1:N:360:ASP:OD2	1:N:363:LYS:HG3	1.99	0.61
1:A:217:MET:CE	1:A:221:PHE:CZ	2.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:339:ILE:HD12	1:O:340:ASP:N	2.13	0.61
1:T:284:LEU:O	1:T:286:GLY:N	2.33	0.61
1:N:217:MET:CE	1:N:221:PHE:CZ	2.84	0.61
1:E:364:GLU:O	1:E:365:PHE:HD1	1.82	0.61
1:F:232:LYS:HG2	1:G:164:ALA:HB3	1.81	0.61
1:S:61:GLY:HA3	1:S:74:ILE:HD12	1.82	0.61
1:B:222:LEU:HG	1:B:233:ILE:CD1	2.23	0.61
1:K:253:VAL:HG21	1:K:348:MET:SD	2.40	0.61
1:T:347:ILE:O	1:T:351:THR:HG23	1.99	0.61
1:E:222:LEU:HG	1:E:233:ILE:CD1	2.25	0.61
1:J:339:ILE:HG13	1:J:344:VAL:HG23	1.82	0.61
1:J:360:ASP:OD2	1:J:363:LYS:HG3	1.99	0.61
1:G:111:ARG:NH2	1:G:209:ILE:HG21	2.16	0.61
1:E:339:ILE:CG1	1:E:344:VAL:HG23	2.30	0.61
1:K:339:ILE:HD12	1:K:340:ASP:N	2.14	0.61
1:J:246:GLY:O	2:J:371:FLC:OG1	2.18	0.61
1:I:31:ILE:HD13	1:I:216:TRP:CE2	2.36	0.61
1:L:111:ARG:NH2	1:L:209:ILE:HG21	2.14	0.61
1:H:40:LYS:HE3	1:H:57:TRP:CZ2	2.35	0.61
1:I:178:ARG:NH1	1:I:178:ARG:HG3	2.07	0.61
1:C:111:ARG:NH2	1:C:209:ILE:HG21	2.16	0.61
1:A:40:LYS:HE3	1:A:57:TRP:CZ2	2.34	0.61
1:J:261:PRO:HD2	1:K:260:GLN:OE1	1.99	0.61
1:F:356:ILE:HG21	1:F:358:ASN:HB3	1.81	0.61
1:A:339:ILE:CG1	1:A:344:VAL:HG23	2.30	0.61
1:D:217:MET:CE	1:D:221:PHE:CZ	2.84	0.61
1:F:46:LYS:NZ	1:M:21:ARG:O	2.34	0.61
1:J:260:GLN:HE22	1:K:261:PRO:HD3	1.65	0.61
1:N:356:ILE:HG22	1:N:358:ASN:HB3	1.82	0.61
1:K:339:ILE:HG13	1:K:344:VAL:HG23	1.82	0.61
1:A:253:VAL:HG21	1:A:348:MET:SD	2.41	0.61
1:P:253:VAL:HG21	1:P:348:MET:SD	2.39	0.61
1:K:111:ARG:NH2	1:K:209:ILE:HG21	2.15	0.61
1:G:133:GLU:OE2	2:G:371:FLC:HG2	2.01	0.61
1:Q:173:ILE:HG12	1:Q:199:TRP:CD2	2.36	0.61
1:R:31:ILE:HD13	1:R:216:TRP:CE2	2.36	0.61
1:H:21:ARG:HB2	1:I:181:LEU:O	2.00	0.61
1:H:356:ILE:HG22	1:H:358:ASN:HB3	1.83	0.60
1:P:356:ILE:HG22	1:P:358:ASN:HB3	1.83	0.60
1:K:138:ASP:HB2	1:K:142:ASP:H	1.65	0.60
1:I:339:ILE:CG1	1:I:344:VAL:HG23	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:339:ILE:CG1	1:R:344:VAL:HG23	2.31	0.60
1:O:348:MET:HE2	1:O:348:MET:HA	1.84	0.60
1:F:284:LEU:O	1:F:286:GLY:N	2.33	0.60
1:N:158:TYR:CE2	1:N:196:PRO:HG3	2.36	0.60
1:S:102:ASP:HB2	1:S:104:THR:OG1	2.00	0.60
1:H:339:ILE:CG1	1:H:344:VAL:HG23	2.31	0.60
1:S:360:ASP:OD2	1:S:363:LYS:HG3	2.01	0.60
1:J:81:TYR:CZ	1:O:49:THR:HG22	2.36	0.60
1:H:102:ASP:HB2	1:H:104:THR:OG1	2.02	0.60
1:F:222:LEU:HG	1:F:233:ILE:CD1	2.27	0.60
1:I:284:LEU:O	1:I:286:GLY:N	2.33	0.60
1:I:173:ILE:HG12	1:I:199:TRP:CD2	2.36	0.60
1:L:178:ARG:NH1	1:L:178:ARG:HG3	1.99	0.60
1:F:253:VAL:HG21	1:F:348:MET:SD	2.42	0.60
1:H:360:ASP:OD2	1:H:363:LYS:HG3	2.01	0.60
1:P:284:LEU:O	1:P:286:GLY:N	2.33	0.60
1:B:111:ARG:NH2	1:B:209:ILE:HG21	2.17	0.60
1:P:339:ILE:HD12	1:P:340:ASP:N	2.17	0.60
1:K:31:ILE:HD13	1:K:216:TRP:CE2	2.36	0.60
1:G:31:ILE:HD13	1:G:216:TRP:CE2	2.36	0.60
1:T:339:ILE:CG1	1:T:344:VAL:HG23	2.31	0.60
1:N:339:ILE:CG1	1:N:344:VAL:HG23	2.32	0.60
1:J:277:ARG:HE	1:J:351:THR:HG22	1.67	0.60
1:F:21:ARG:HH21	1:G:83:PRO:HG2	1.66	0.60
1:E:102:ASP:HB2	1:E:104:THR:OG1	2.02	0.60
2:T:371:FLC:OB1	2:T:371:FLC:OG1	2.19	0.60
1:N:253:VAL:HG21	1:N:348:MET:SD	2.42	0.60
1:A:339:ILE:HD12	1:A:340:ASP:N	2.16	0.60
1:S:284:LEU:O	1:S:286:GLY:N	2.35	0.60
1:F:23:ARG:NH1	1:G:185:LEU:O	2.30	0.60
1:Q:339:ILE:CG1	1:Q:344:VAL:HG23	2.32	0.59
1:E:360:ASP:OD2	1:E:363:LYS:HG3	2.01	0.59
1:Q:33:GLY:HA3	1:Q:65:ASN:O	2.02	0.59
1:L:31:ILE:HD13	1:L:216:TRP:CE2	2.36	0.59
1:J:261:PRO:HD3	1:K:260:GLN:NE2	2.18	0.59
1:S:356:ILE:HG22	1:S:358:ASN:HB3	1.83	0.59
1:G:47:ARG:NH2	1:L:22:GLY:CA	2.64	0.59
1:P:360:ASP:OD2	1:P:363:LYS:HG3	2.01	0.59
1:L:173:ILE:HG12	1:L:199:TRP:CD2	2.36	0.59
1:R:190:ILE:HG13	1:R:200:GLU:O	2.02	0.59
1:D:31:ILE:HD13	1:D:216:TRP:CE2	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:356:ILE:HG22	1:M:358:ASN:HB3	1.84	0.59
1:M:339:ILE:HD12	1:M:340:ASP:N	2.15	0.59
1:E:277:ARG:HE	1:E:351:THR:HG22	1.67	0.59
1:M:246:GLY:O	2:M:371:FLC:OG1	2.20	0.59
1:C:190:ILE:HG13	1:C:200:GLU:O	2.02	0.59
1:F:339:ILE:CG1	1:F:344:VAL:HG23	2.31	0.59
2:O:371:FLC:CAC	2:O:371:FLC:OB1	2.50	0.59
1:L:284:LEU:O	1:L:286:GLY:N	2.36	0.59
1:P:31:ILE:HD13	1:P:216:TRP:CE2	2.37	0.59
1:F:40:LYS:HE3	1:F:57:TRP:CZ2	2.38	0.59
1:N:40:LYS:HE3	1:N:57:TRP:CZ2	2.37	0.59
1:C:69:GLY:H	1:C:72:SER:HB3	1.68	0.59
1:E:61:GLY:HA3	1:E:74:ILE:CD1	2.31	0.59
1:N:173:ILE:HG12	1:N:199:TRP:CD2	2.37	0.59
1:B:339:ILE:CG1	1:B:344:VAL:HG23	2.32	0.59
1:H:253:VAL:HG21	1:H:348:MET:SD	2.42	0.59
1:H:217:MET:CE	1:H:221:PHE:CZ	2.85	0.59
1:D:126:ILE:HD11	1:D:349:CYS:SG	2.43	0.59
1:Q:190:ILE:HG13	1:Q:200:GLU:O	2.02	0.59
1:M:31:ILE:HD13	1:M:216:TRP:CE2	2.37	0.59
1:S:339:ILE:CG1	1:S:344:VAL:HG23	2.31	0.59
1:I:277:ARG:HE	1:I:351:THR:HG22	1.68	0.59
1:P:363:LYS:O	1:P:365:PHE:N	2.35	0.59
1:I:246:GLY:O	2:I:371:FLC:OG1	2.20	0.59
1:O:356:ILE:HG22	1:O:358:ASN:HB3	1.83	0.59
1:T:253:VAL:HG21	1:T:348:MET:SD	2.43	0.59
1:O:217:MET:CE	1:O:221:PHE:CZ	2.86	0.59
1:C:284:LEU:O	1:C:286:GLY:N	2.36	0.59
1:G:284:LEU:O	1:G:286:GLY:N	2.34	0.59
1:N:363:LYS:O	1:N:365:PHE:N	2.36	0.59
1:T:31:ILE:HD13	1:T:216:TRP:CE2	2.38	0.59
1:S:73:ASP:OD2	1:T:320:ARG:NH2	2.36	0.59
1:B:356:ILE:HG22	1:B:358:ASN:HB3	1.83	0.59
1:K:360:ASP:OD2	1:K:363:LYS:HG3	2.03	0.59
1:M:363:LYS:O	1:M:365:PHE:N	2.36	0.59
1:D:363:LYS:O	1:D:365:PHE:N	2.36	0.59
1:B:133:GLU:OE2	2:B:371:FLC:HG2	2.03	0.59
1:P:190:ILE:HG13	1:P:200:GLU:O	2.03	0.59
1:F:360:ASP:OD2	1:F:363:LYS:HG3	2.03	0.59
1:H:217:MET:HE1	1:H:221:PHE:CZ	2.38	0.59
1:C:173:ILE:HG12	1:C:199:TRP:CD2	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:232:LYS:HG2	1:D:164:ALA:HB3	1.83	0.59
1:C:339:ILE:CG1	1:C:344:VAL:HG23	2.33	0.58
1:T:217:MET:CE	1:T:221:PHE:CZ	2.86	0.58
2:E:371:FLC:OB1	2:E:371:FLC:CAC	2.51	0.58
1:R:102:ASP:HB2	1:R:104:THR:OG1	2.03	0.58
1:Q:31:ILE:HD13	1:Q:216:TRP:CE2	2.37	0.58
1:F:111:ARG:NH2	1:F:209:ILE:HG21	2.18	0.58
1:G:190:ILE:HG13	1:G:200:GLU:O	2.03	0.58
1:L:222:LEU:HG	1:L:233:ILE:CD1	2.26	0.58
1:I:138:ASP:HB2	1:I:142:ASP:H	1.68	0.58
1:I:73:ASP:OD2	1:J:320:ARG:NH2	2.36	0.58
1:R:356:ILE:HG22	1:R:358:ASN:HB3	1.83	0.58
1:D:173:ILE:HG12	1:D:199:TRP:CD2	2.38	0.58
1:C:363:LYS:O	1:C:365:PHE:N	2.36	0.58
1:Q:61:GLY:HA3	1:Q:74:ILE:CD1	2.33	0.58
1:E:40:LYS:HE3	1:E:57:TRP:CZ2	2.39	0.58
1:A:126:ILE:HD11	1:A:349:CYS:SG	2.43	0.58
1:A:61:GLY:HA3	1:A:74:ILE:HD12	1.84	0.58
1:L:148:LYS:NZ	1:T:148:LYS:HD2	2.19	0.58
1:M:190:ILE:HG13	1:M:200:GLU:O	2.04	0.58
1:L:190:ILE:HG13	1:L:200:GLU:O	2.04	0.58
1:S:173:ILE:HG12	1:S:199:TRP:CD2	2.39	0.58
1:A:363:LYS:O	1:A:365:PHE:N	2.37	0.58
1:A:148:LYS:NZ	1:F:148:LYS:HD2	2.18	0.58
1:G:40:LYS:HE3	1:G:57:TRP:CZ2	2.39	0.58
1:S:190:ILE:HG13	1:S:200:GLU:O	2.03	0.58
1:K:356:ILE:HG22	1:K:358:ASN:HB3	1.83	0.58
1:H:339:ILE:HD12	1:H:340:ASP:N	2.16	0.58
1:B:284:LEU:O	1:B:286:GLY:N	2.35	0.58
1:I:190:ILE:HG13	1:I:200:GLU:O	2.04	0.58
1:Q:102:ASP:HB2	1:Q:104:THR:OG1	2.04	0.58
1:K:102:ASP:HB2	1:K:104:THR:OG1	2.04	0.58
1:F:126:ILE:HD11	1:F:349:CYS:SG	2.44	0.58
1:K:178:ARG:CG	1:K:178:ARG:NH1	2.64	0.57
1:S:363:LYS:O	1:S:365:PHE:N	2.37	0.57
1:T:190:ILE:HG13	1:T:200:GLU:O	2.04	0.57
1:K:173:ILE:HG12	1:K:199:TRP:CD2	2.39	0.57
1:T:173:ILE:HG12	1:T:199:TRP:CD2	2.38	0.57
1:S:217:MET:CE	1:S:221:PHE:CZ	2.86	0.57
1:O:173:ILE:HG12	1:O:199:TRP:CD2	2.38	0.57
1:F:173:ILE:HG12	1:F:199:TRP:CD2	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:111:ARG:NH2	1:E:209:ILE:HG21	2.18	0.57
1:D:356:ILE:HG22	1:D:358:ASN:HB3	1.84	0.57
1:G:339:ILE:HG13	1:G:344:VAL:HG23	1.86	0.57
1:N:148:LYS:HD2	1:R:148:LYS:HZ2	1.69	0.57
1:O:111:ARG:NH2	1:O:209:ILE:HG21	2.19	0.57
1:R:33:GLY:HA3	1:R:65:ASN:O	2.03	0.57
1:O:31:ILE:HD13	1:O:216:TRP:CE2	2.39	0.57
1:H:31:ILE:HD13	1:H:216:TRP:CE2	2.39	0.57
1:S:40:LYS:HE3	1:S:57:TRP:CZ2	2.39	0.57
1:A:31:ILE:HD13	1:A:216:TRP:CE2	2.39	0.57
1:C:253:VAL:HG21	1:C:348:MET:SD	2.44	0.57
1:A:360:ASP:OD2	1:A:363:LYS:HG3	2.04	0.57
1:E:363:LYS:O	1:E:365:PHE:N	2.37	0.57
1:K:61:GLY:HA3	1:K:74:ILE:CD1	2.34	0.57
1:J:102:ASP:HB2	1:J:104:THR:OG1	2.05	0.57
1:J:126:ILE:HD11	1:J:349:CYS:SG	2.44	0.57
1:O:339:ILE:HG13	1:O:344:VAL:HG23	1.86	0.57
1:M:360:ASP:OD2	1:M:363:LYS:HG3	2.03	0.57
1:C:133:GLU:OE2	2:C:371:FLC:HG2	2.04	0.57
1:L:148:LYS:HD2	1:T:148:LYS:CE	2.34	0.57
1:N:111:ARG:NH2	1:N:209:ILE:HG21	2.19	0.57
1:Q:178:ARG:CG	1:Q:178:ARG:HH11	2.02	0.57
1:A:281:HIS:HE1	1:A:348:MET:HE2	1.70	0.57
1:B:217:MET:CE	1:B:221:PHE:CZ	2.88	0.57
1:E:264:THR:HA	1:E:267:ILE:HB	1.87	0.57
1:T:40:LYS:HE3	1:T:57:TRP:CZ2	2.40	0.57
1:N:102:ASP:HB2	1:N:104:THR:OG1	2.03	0.57
1:B:339:ILE:HG13	1:B:344:VAL:HG23	1.87	0.57
1:G:61:GLY:HA3	1:G:74:ILE:CD1	2.35	0.57
1:B:31:ILE:HD13	1:B:216:TRP:CE2	2.39	0.57
1:H:173:ILE:HG12	1:H:199:TRP:CD2	2.39	0.57
1:T:111:ARG:NH2	1:T:209:ILE:HG21	2.20	0.57
1:A:190:ILE:HG13	1:A:200:GLU:O	2.04	0.57
1:B:190:ILE:HG13	1:B:200:GLU:O	2.04	0.57
1:M:217:MET:CE	1:M:221:PHE:CZ	2.88	0.56
1:G:246:GLY:O	2:G:371:FLC:OG1	2.23	0.56
1:L:147:PRO:CB	1:T:150:GLY:HA3	2.35	0.56
1:S:292:ARG:NH1	2:S:371:FLC:OB2	2.38	0.56
1:I:363:LYS:O	1:I:365:PHE:N	2.38	0.56
1:Q:67:ALA:HB2	1:Q:74:ILE:HD11	1.87	0.56
1:Q:217:MET:HE1	1:Q:221:PHE:CZ	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:61:GLY:HA3	1:T:74:ILE:CD1	2.35	0.56
1:A:217:MET:HE1	1:A:221:PHE:CZ	2.40	0.56
1:G:217:MET:CE	1:G:221:PHE:CZ	2.88	0.56
1:M:147:PRO:CG	1:S:150:GLY:HA3	2.35	0.56
1:K:190:ILE:HG13	1:K:200:GLU:O	2.06	0.56
1:Q:363:LYS:O	1:Q:365:PHE:N	2.38	0.56
1:A:339:ILE:HG13	1:A:344:VAL:HG23	1.87	0.56
1:O:360:ASP:OD2	1:O:363:LYS:HG3	2.05	0.56
1:E:173:ILE:HG12	1:E:199:TRP:CD2	2.39	0.56
1:C:70:HIS:H	1:C:72:SER:HB3	1.70	0.56
1:C:339:ILE:HG13	1:C:344:VAL:HG23	1.87	0.56
1:F:217:MET:CE	1:F:221:PHE:CZ	2.89	0.56
1:L:148:LYS:CE	1:T:148:LYS:HD2	2.36	0.56
1:L:102:ASP:HB2	1:L:104:THR:OG1	2.06	0.56
1:T:102:ASP:HB2	1:T:104:THR:OG1	2.05	0.56
1:B:61:GLY:HA3	1:B:74:ILE:CD1	2.36	0.56
1:B:73:ASP:OD2	1:C:320:ARG:NH2	2.39	0.56
1:K:284:LEU:HD23	1:K:284:LEU:N	2.21	0.56
1:R:217:MET:HE1	1:R:221:PHE:CZ	2.41	0.56
1:H:21:ARG:CG	1:K:46:LYS:NZ	2.68	0.56
1:R:143:VAL:HG11	1:R:146:TRP:CE2	2.41	0.56
1:C:143:VAL:HG11	1:C:146:TRP:CE2	2.40	0.56
1:B:126:ILE:HD11	1:B:349:CYS:SG	2.46	0.56
1:E:339:ILE:HG13	1:E:344:VAL:HG23	1.88	0.56
1:C:133:GLU:OE1	2:C:371:FLC:HG2	2.05	0.56
1:O:190:ILE:HG13	1:O:200:GLU:O	2.05	0.56
1:F:102:ASP:HB2	1:F:104:THR:OG1	2.06	0.56
1:Q:264:THR:HA	1:Q:267:ILE:HB	1.88	0.56
1:D:339:ILE:HG13	1:D:344:VAL:HG23	1.88	0.56
1:C:31:ILE:CD1	1:C:216:TRP:CE2	2.88	0.56
1:I:133:GLU:OE2	2:I:371:FLC:HG2	2.06	0.56
1:T:79:VAL:HG11	1:T:111:ARG:NE	2.21	0.56
1:I:217:MET:CE	1:I:221:PHE:CZ	2.89	0.55
1:I:61:GLY:HA3	1:I:74:ILE:CD1	2.35	0.55
1:R:61:GLY:HA3	1:R:74:ILE:CD1	2.36	0.55
1:Q:232:LYS:HG2	1:R:164:ALA:HB3	1.88	0.55
1:T:158:TYR:CD2	1:T:196:PRO:HG3	2.40	0.55
1:A:284:LEU:HD23	1:A:284:LEU:N	2.21	0.55
1:D:82:TYR:CE2	1:D:217:MET:HG3	2.41	0.55
1:F:21:ARG:HB2	1:G:181:LEU:O	2.05	0.55
1:M:150:GLY:HA3	1:S:147:PRO:CG	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:264:THR:HA	1:N:267:ILE:HB	1.89	0.55
1:L:33:GLY:HA3	1:L:65:ASN:O	2.07	0.55
1:G:363:LYS:O	1:G:365:PHE:N	2.39	0.55
1:I:102:ASP:HB2	1:I:104:THR:OG1	2.05	0.55
1:P:173:ILE:HG12	1:P:199:TRP:CD2	2.42	0.55
1:E:148:LYS:HZ2	1:G:148:LYS:HD2	1.70	0.55
1:F:264:THR:HA	1:F:267:ILE:HB	1.88	0.55
1:S:111:ARG:NH2	1:S:209:ILE:HG21	2.21	0.55
1:M:158:TYR:CD2	1:M:196:PRO:HG3	2.41	0.55
1:N:61:GLY:HA3	1:N:74:ILE:CD1	2.36	0.55
1:D:217:MET:HE1	1:D:221:PHE:CZ	2.41	0.55
1:J:190:ILE:HG13	1:J:200:GLU:O	2.06	0.55
1:R:264:THR:HA	1:R:267:ILE:HB	1.87	0.55
1:R:173:ILE:HG12	1:R:199:TRP:CD2	2.40	0.55
1:E:158:TYR:CD2	1:E:196:PRO:HG3	2.42	0.55
1:L:217:MET:CE	1:L:221:PHE:CZ	2.90	0.55
1:M:40:LYS:HE3	1:M:57:TRP:CZ2	2.40	0.55
1:C:70:HIS:N	1:C:72:SER:HB3	2.22	0.55
1:N:31:ILE:HD13	1:N:216:TRP:CE2	2.41	0.55
2:H:371:FLC:OG1	2:H:371:FLC:OB1	2.25	0.55
1:S:264:THR:HA	1:S:267:ILE:HB	1.89	0.55
1:C:217:MET:HE1	1:C:221:PHE:CZ	2.42	0.55
1:G:75:TYR:OH	1:H:320:ARG:HB3	2.07	0.55
1:P:217:MET:CE	1:P:221:PHE:CZ	2.90	0.55
1:M:178:ARG:NH1	1:M:178:ARG:CG	2.67	0.55
1:T:217:MET:HE1	1:T:221:PHE:CZ	2.41	0.55
1:L:61:GLY:HA3	1:L:74:ILE:CD1	2.36	0.55
1:D:61:GLY:HA3	1:D:74:ILE:CD1	2.37	0.55
1:S:74:ILE:CG2	1:S:75:TYR:N	2.70	0.55
1:A:173:ILE:HG12	1:A:199:TRP:CD2	2.42	0.55
1:E:190:ILE:HG13	1:E:200:GLU:O	2.06	0.55
1:G:82:TYR:CE2	1:G:217:MET:HG3	2.42	0.54
1:F:31:ILE:HD13	1:F:216:TRP:CE2	2.41	0.54
1:L:339:ILE:HG13	1:L:344:VAL:HG23	1.88	0.54
1:B:253:VAL:HG21	1:B:348:MET:SD	2.47	0.54
1:P:24:ILE:HD11	1:P:90:ASP:HB2	1.88	0.54
1:A:111:ARG:NH2	1:A:209:ILE:HG21	2.21	0.54
1:J:264:THR:HA	1:J:267:ILE:HB	1.87	0.54
1:J:260:GLN:HE22	1:K:261:PRO:CD	2.21	0.54
1:C:178:ARG:CG	1:C:178:ARG:NH1	2.69	0.54
1:T:363:LYS:O	1:T:365:PHE:N	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:82:TYR:CE2	1:B:217:MET:HG3	2.43	0.54
1:J:217:MET:CE	1:J:221:PHE:CZ	2.90	0.54
1:D:102:ASP:HB2	1:D:104:THR:OG1	2.08	0.54
1:P:339:ILE:HG13	1:P:344:VAL:HG23	1.90	0.54
1:T:281:HIS:HE1	1:T:348:MET:HE2	1.73	0.54
1:M:148:LYS:HE3	1:S:148:LYS:HD2	1.89	0.54
1:B:217:MET:HE1	1:B:221:PHE:CZ	2.42	0.54
1:B:360:ASP:OD2	1:B:363:LYS:HG3	2.07	0.54
1:P:111:ARG:NH2	1:P:209:ILE:HG21	2.22	0.54
1:L:40:LYS:HE3	1:L:57:TRP:CZ2	2.42	0.54
1:M:339:ILE:HG13	1:M:344:VAL:HG23	1.88	0.54
1:H:21:ARG:HG3	1:K:46:LYS:NZ	2.22	0.54
1:C:102:ASP:HB2	1:C:104:THR:OG1	2.07	0.54
1:O:126:ILE:HD11	1:O:349:CYS:SG	2.47	0.54
1:K:246:GLY:O	2:K:371:FLC:OG1	2.25	0.54
1:J:24:ILE:HD11	1:J:90:ASP:HB2	1.89	0.54
1:P:264:THR:HA	1:P:267:ILE:HB	1.88	0.54
1:P:360:ASP:OD1	1:P:362:THR:HG23	2.06	0.54
1:M:61:GLY:HA3	1:M:74:ILE:CD1	2.37	0.54
1:P:61:GLY:HA3	1:P:74:ILE:CD1	2.37	0.54
1:J:261:PRO:HD2	1:K:260:GLN:CD	2.28	0.54
1:L:363:LYS:O	1:L:365:PHE:N	2.41	0.54
1:H:74:ILE:CG2	1:H:75:TYR:N	2.71	0.54
1:E:246:GLY:O	2:E:371:FLC:OG2	2.25	0.54
1:B:264:THR:HA	1:B:267:ILE:HB	1.89	0.54
1:F:339:ILE:HG13	1:F:344:VAL:HG23	1.89	0.54
1:O:217:MET:HE1	1:O:221:PHE:CZ	2.43	0.54
1:M:148:LYS:HD2	1:S:148:LYS:NZ	2.22	0.54
1:B:284:LEU:N	1:B:284:LEU:HD23	2.22	0.54
1:H:61:GLY:HA3	1:H:74:ILE:CD1	2.38	0.54
1:N:148:LYS:HD2	1:R:148:LYS:NZ	2.23	0.54
1:L:147:PRO:CG	1:T:150:GLY:HA3	2.38	0.54
1:Q:143:VAL:HG11	1:Q:146:TRP:CE2	2.43	0.54
1:C:217:MET:CE	1:C:221:PHE:CE1	2.91	0.54
1:G:102:ASP:HB2	1:G:104:THR:OG1	2.08	0.54
1:L:158:TYR:CD2	1:L:196:PRO:HG3	2.42	0.53
1:I:82:TYR:CE2	1:I:217:MET:HG3	2.43	0.53
1:C:82:TYR:CE2	1:C:217:MET:HG3	2.43	0.53
1:K:363:LYS:O	1:K:365:PHE:N	2.40	0.53
1:O:61:GLY:HA3	1:O:74:ILE:CD1	2.38	0.53
1:J:82:TYR:CE2	1:J:217:MET:HG3	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:40:LYS:HE3	1:Q:57:TRP:CZ2	2.42	0.53
1:G:126:ILE:HD11	1:G:349:CYS:SG	2.48	0.53
1:P:339:ILE:HG12	1:P:344:VAL:CG2	2.38	0.53
1:I:339:ILE:HG13	1:I:344:VAL:HG23	1.90	0.53
1:H:217:MET:CE	1:H:221:PHE:CE1	2.91	0.53
1:T:126:ILE:HD11	1:T:349:CYS:SG	2.49	0.53
1:P:178:ARG:CG	1:P:178:ARG:HH11	2.07	0.53
1:S:67:ALA:HB2	1:S:74:ILE:HD11	1.90	0.53
1:O:264:THR:HA	1:O:267:ILE:HB	1.89	0.53
1:K:320:ARG:NH2	1:O:73:ASP:OD2	2.42	0.53
1:O:82:TYR:CE2	1:O:217:MET:HG3	2.44	0.53
1:H:363:LYS:O	1:H:365:PHE:N	2.42	0.53
1:E:360:ASP:OD1	1:E:362:THR:HG23	2.09	0.53
1:K:264:THR:HA	1:K:267:ILE:HB	1.91	0.53
1:J:173:ILE:HG12	1:J:199:TRP:CD2	2.43	0.53
1:H:82:TYR:CE2	1:H:217:MET:HG3	2.43	0.53
1:H:158:TYR:CD2	1:H:196:PRO:HG3	2.44	0.53
1:S:61:GLY:HA3	1:S:74:ILE:CD1	2.39	0.53
1:B:102:ASP:HB2	1:B:104:THR:OG1	2.09	0.53
1:L:339:ILE:HG12	1:L:344:VAL:CG2	2.38	0.53
1:M:148:LYS:HG3	1:S:148:LYS:HG3	1.91	0.53
1:F:61:GLY:HA3	1:F:74:ILE:CD1	2.37	0.53
2:S:371:FLC:CAC	2:S:371:FLC:OB1	2.56	0.53
1:E:31:ILE:HD13	1:E:216:TRP:CE2	2.43	0.53
1:F:190:ILE:HG13	1:F:200:GLU:O	2.09	0.53
1:T:178:ARG:CG	1:T:178:ARG:HH11	2.08	0.53
1:O:284:LEU:O	1:O:286:GLY:N	2.40	0.53
1:J:61:GLY:HA3	1:J:74:ILE:CD1	2.38	0.53
1:K:82:TYR:CE2	1:K:217:MET:HG3	2.44	0.53
1:E:217:MET:CE	1:E:221:PHE:CZ	2.92	0.53
1:O:33:GLY:HA3	1:O:65:ASN:O	2.09	0.53
1:R:74:ILE:CG2	1:R:75:TYR:N	2.72	0.52
1:D:74:ILE:CG2	1:D:75:TYR:N	2.72	0.52
1:C:40:LYS:HE3	1:C:57:TRP:CZ2	2.44	0.52
1:H:190:ILE:HG13	1:H:200:GLU:O	2.09	0.52
2:P:371:FLC:OG1	2:P:371:FLC:OB1	2.27	0.52
1:N:178:ARG:CG	1:N:178:ARG:NH1	2.68	0.52
1:R:363:LYS:O	1:R:365:PHE:N	2.42	0.52
1:A:217:MET:CE	1:A:221:PHE:CE1	2.92	0.52
1:T:339:ILE:HG12	1:T:344:VAL:CG2	2.39	0.52
1:J:311:ASN:HB3	1:J:314:SER:HG	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:284:LEU:N	1:L:284:LEU:HD23	2.24	0.52
1:G:360:ASP:OD1	1:G:362:THR:HG23	2.10	0.52
1:P:217:MET:HE1	1:P:221:PHE:CZ	2.44	0.52
1:G:217:MET:HE1	1:G:221:PHE:CZ	2.45	0.52
1:C:293:LEU:HD21	1:C:334:ARG:O	2.10	0.52
1:S:158:TYR:CD2	1:S:196:PRO:HG3	2.44	0.52
1:H:23:ARG:NH1	1:I:185:LEU:O	2.36	0.52
1:M:264:THR:HA	1:M:267:ILE:HB	1.91	0.52
1:N:82:TYR:CE2	1:N:217:MET:HG3	2.45	0.52
1:T:133:GLU:OE2	2:T:371:FLC:HG2	2.10	0.52
1:O:130:LEU:HD12	1:O:215:LEU:HD22	1.91	0.52
1:C:264:THR:HA	1:C:267:ILE:HB	1.91	0.52
1:J:255:THR:OG1	1:J:258:MET:HG3	2.09	0.52
1:D:212:GLY:HA2	1:D:341:PRO:HB2	1.92	0.52
1:B:74:ILE:CG2	1:B:75:TYR:N	2.73	0.52
1:R:158:TYR:CD2	1:R:196:PRO:HG3	2.44	0.52
1:A:147:PRO:HB3	1:F:150:GLY:HA3	1.92	0.52
1:L:24:ILE:HD11	1:L:90:ASP:HB2	1.92	0.52
1:F:255:THR:OG1	1:F:258:MET:HG3	2.10	0.52
1:O:40:LYS:HE3	1:O:57:TRP:CZ2	2.45	0.52
1:T:74:ILE:CG2	1:T:75:TYR:N	2.73	0.52
1:P:40:LYS:HE3	1:P:57:TRP:CZ2	2.44	0.52
1:P:130:LEU:HD12	1:P:215:LEU:HD22	1.91	0.52
1:N:190:ILE:HG13	1:N:200:GLU:O	2.09	0.52
1:O:102:ASP:HB2	1:O:104:THR:OG1	2.10	0.52
1:F:24:ILE:HD11	1:F:90:ASP:HB2	1.92	0.52
1:S:31:ILE:HD13	1:S:216:TRP:CE2	2.45	0.52
1:D:178:ARG:NH1	1:D:178:ARG:CG	2.60	0.52
1:B:75:TYR:OH	1:C:320:ARG:HB3	2.09	0.52
1:A:82:TYR:CE2	1:A:217:MET:HG3	2.45	0.52
1:K:217:MET:CE	1:K:221:PHE:CZ	2.93	0.52
1:E:82:TYR:CE2	1:E:217:MET:HG3	2.45	0.52
1:J:111:ARG:NH2	1:J:209:ILE:HG21	2.24	0.52
1:R:82:TYR:CE2	1:R:217:MET:HG3	2.46	0.51
1:S:217:MET:HE1	1:S:221:PHE:CZ	2.45	0.51
1:R:67:ALA:HB2	1:R:74:ILE:HD11	1.91	0.51
1:K:255:THR:OG1	1:K:258:MET:HG3	2.10	0.51
1:I:264:THR:HA	1:I:267:ILE:HB	1.91	0.51
1:F:178:ARG:NH1	1:F:178:ARG:CG	2.69	0.51
1:L:339:ILE:CG1	1:L:344:VAL:CG2	2.88	0.51
1:O:363:LYS:O	1:O:365:PHE:N	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:31:ILE:HD13	1:C:216:TRP:CZ2	2.44	0.51
1:J:217:MET:HE1	1:J:221:PHE:CZ	2.45	0.51
1:L:147:PRO:HB3	1:T:150:GLY:HA3	1.91	0.51
1:F:130:LEU:HD12	1:F:215:LEU:HD22	1.93	0.51
1:S:126:ILE:HD11	1:S:349:CYS:SG	2.50	0.51
1:G:47:ARG:NE	1:L:22:GLY:HA3	2.26	0.51
1:C:284:LEU:HD23	1:C:284:LEU:N	2.25	0.51
1:A:67:ALA:HB2	1:A:74:ILE:HD11	1.92	0.51
1:K:40:LYS:HE3	1:K:57:TRP:CZ2	2.45	0.51
1:G:264:THR:HA	1:G:267:ILE:HB	1.91	0.51
1:M:73:ASP:OD2	1:N:320:ARG:NH2	2.43	0.51
1:G:178:ARG:NH1	1:G:178:ARG:CG	2.67	0.51
1:E:67:ALA:HB2	1:E:74:ILE:HD11	1.92	0.51
1:L:360:ASP:OD1	1:L:362:THR:HG23	2.11	0.51
1:N:360:ASP:OD1	1:N:362:THR:HG23	2.10	0.51
1:C:133:GLU:OE2	2:C:371:FLC:CG	2.59	0.51
1:A:264:THR:HA	1:A:267:ILE:HB	1.90	0.51
1:J:74:ILE:CG2	1:J:75:TYR:N	2.73	0.51
1:M:134:TYR:CZ	1:M:199:TRP:HB2	2.46	0.51
1:F:315:SER:HB3	1:F:334:ARG:HD3	1.92	0.51
1:H:143:VAL:HG11	1:H:146:TRP:CE2	2.45	0.51
1:A:102:ASP:HB2	1:A:104:THR:OG1	2.10	0.51
1:M:217:MET:HE1	1:M:221:PHE:CZ	2.45	0.51
1:D:284:LEU:HD23	1:D:284:LEU:N	2.25	0.51
1:L:74:ILE:CG2	1:L:75:TYR:N	2.73	0.51
1:A:74:ILE:CG2	1:A:75:TYR:N	2.72	0.51
1:E:126:ILE:HD11	1:E:349:CYS:SG	2.51	0.51
1:C:133:GLU:CD	2:C:371:FLC:HG2	2.31	0.51
1:E:24:ILE:HD11	1:E:90:ASP:HB2	1.92	0.51
1:P:33:GLY:HA3	1:P:65:ASN:O	2.11	0.51
1:I:232:LYS:HG2	1:J:164:ALA:HB3	1.93	0.51
1:R:178:ARG:NH1	1:R:178:ARG:CG	2.61	0.51
1:T:281:HIS:NE2	1:T:351:THR:HG21	2.26	0.51
1:M:217:MET:CE	1:M:221:PHE:CE1	2.94	0.51
1:J:50:SER:HA	1:O:49:THR:O	2.11	0.51
1:Q:31:ILE:CD1	1:Q:216:TRP:CE2	2.94	0.51
1:L:264:THR:HA	1:L:267:ILE:HB	1.93	0.51
1:F:37:LEU:O	1:G:162:VAL:HG13	2.10	0.51
1:E:178:ARG:CG	1:E:178:ARG:NH1	2.66	0.51
1:Q:339:ILE:HG13	1:Q:344:VAL:HG23	1.92	0.51
1:H:339:ILE:HG13	1:H:344:VAL:HG23	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:281:HIS:NE2	1:I:351:THR:HG21	2.26	0.51
1:J:31:ILE:CD1	1:J:216:TRP:CE2	2.93	0.51
1:S:143:VAL:HG11	1:S:146:TRP:CE2	2.46	0.51
1:B:281:HIS:HE1	1:B:348:MET:HE2	1.75	0.51
1:T:82:TYR:CE2	1:T:217:MET:HG3	2.46	0.51
1:M:292:ARG:NH1	2:M:371:FLC:OB2	2.44	0.51
1:A:61:GLY:HA3	1:A:74:ILE:CD1	2.41	0.51
1:O:79:VAL:HG11	1:O:111:ARG:NE	2.25	0.51
1:C:126:ILE:HD11	1:C:349:CYS:SG	2.51	0.51
1:R:84:ASP:HA	1:R:93:VAL:HG23	1.93	0.51
1:M:82:TYR:CE2	1:M:217:MET:HG3	2.46	0.50
1:D:360:ASP:OD1	1:D:362:THR:HG23	2.11	0.50
1:F:217:MET:HE1	1:F:221:PHE:CZ	2.46	0.50
1:S:232:LYS:HG2	1:T:164:ALA:HB3	1.92	0.50
1:R:339:ILE:HG13	1:R:344:VAL:HG23	1.92	0.50
1:P:281:HIS:HE1	1:P:348:MET:HE2	1.76	0.50
1:B:150:GLY:HA3	1:J:147:PRO:HB3	1.93	0.50
1:N:24:ILE:HD11	1:N:90:ASP:HB2	1.93	0.50
1:H:339:ILE:HG12	1:H:344:VAL:CG2	2.41	0.50
1:P:79:VAL:HG11	1:P:111:ARG:NE	2.26	0.50
1:A:147:PRO:CB	1:F:150:GLY:HA3	2.41	0.50
1:K:24:ILE:HD11	1:K:90:ASP:HB2	1.93	0.50
1:A:24:ILE:HD11	1:A:90:ASP:HB2	1.93	0.50
1:C:33:GLY:HA3	1:C:65:ASN:O	2.10	0.50
1:T:264:THR:HA	1:T:267:ILE:HB	1.93	0.50
1:O:339:ILE:HG12	1:O:344:VAL:CG2	2.42	0.50
1:P:339:ILE:HG12	1:P:344:VAL:HG23	1.93	0.50
1:E:74:ILE:CG2	1:E:75:TYR:N	2.73	0.50
1:I:158:TYR:CD2	1:I:196:PRO:HG3	2.45	0.50
1:F:363:LYS:O	1:F:365:PHE:N	2.44	0.50
1:D:40:LYS:HE3	1:D:57:TRP:CZ2	2.46	0.50
1:E:130:LEU:HD12	1:E:215:LEU:HD22	1.92	0.50
1:B:212:GLY:HA2	1:B:341:PRO:HB2	1.93	0.50
1:T:284:LEU:HD23	1:T:284:LEU:N	2.26	0.50
1:P:82:TYR:CE2	1:P:217:MET:HG3	2.46	0.50
1:R:232:LYS:HG2	1:S:164:ALA:HB3	1.94	0.50
1:S:24:ILE:HD11	1:S:90:ASP:HB2	1.94	0.50
1:E:281:HIS:NE2	1:E:351:THR:HG21	2.26	0.50
1:M:148:LYS:HD2	1:S:148:LYS:HZ2	1.75	0.50
1:K:67:ALA:HB2	1:K:74:ILE:HD11	1.93	0.50
1:P:102:ASP:HB2	1:P:104:THR:OG1	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:126:ILE:HD11	1:I:349:CYS:SG	2.51	0.50
1:B:40:LYS:HE3	1:B:57:TRP:CZ2	2.46	0.50
1:C:293:LEU:H	1:C:293:LEU:HD13	1.74	0.50
1:S:281:HIS:HE1	1:S:348:MET:HE2	1.76	0.50
1:B:281:HIS:NE2	1:B:351:THR:HG21	2.27	0.50
1:G:67:ALA:HB2	1:G:74:ILE:HD11	1.93	0.50
1:S:82:TYR:CE2	1:S:217:MET:HG3	2.46	0.50
1:K:31:ILE:CD1	1:K:216:TRP:CE2	2.95	0.50
2:I:371:FLC:OB1	2:I:371:FLC:OG1	2.29	0.50
1:K:339:ILE:CG1	1:K:344:VAL:CG2	2.90	0.50
1:D:31:ILE:CD1	1:D:216:TRP:CE2	2.95	0.50
1:P:232:LYS:HG2	1:Q:164:ALA:HB3	1.94	0.50
1:N:339:ILE:HG13	1:N:344:VAL:HG23	1.93	0.50
1:S:339:ILE:HG12	1:S:344:VAL:CG2	2.41	0.50
1:R:217:MET:CE	1:R:221:PHE:CE1	2.94	0.50
1:G:74:ILE:CG2	1:G:75:TYR:N	2.74	0.50
1:N:217:MET:HE1	1:N:221:PHE:CZ	2.45	0.50
1:S:79:VAL:HG11	1:S:111:ARG:NE	2.26	0.50
1:C:24:ILE:HD11	1:C:90:ASP:HB2	1.94	0.50
1:M:360:ASP:OD1	1:M:362:THR:HG23	2.12	0.49
2:S:371:FLC:OG1	2:S:371:FLC:CBC	2.60	0.49
1:C:73:ASP:OD2	1:D:320:ARG:NH2	2.45	0.49
1:F:74:ILE:CG2	1:F:75:TYR:N	2.75	0.49
1:T:67:ALA:HB2	1:T:74:ILE:HD11	1.94	0.49
1:L:148:LYS:HZ1	1:T:148:LYS:HD2	1.77	0.49
1:N:130:LEU:HD12	1:N:215:LEU:HD22	1.94	0.49
1:K:143:VAL:HG11	1:K:146:TRP:CE2	2.47	0.49
1:T:339:ILE:HG12	1:T:344:VAL:HG23	1.94	0.49
1:N:339:ILE:HG12	1:N:344:VAL:CG2	2.42	0.49
1:S:339:ILE:HG13	1:S:344:VAL:HG23	1.93	0.49
1:O:217:MET:CE	1:O:221:PHE:CE1	2.94	0.49
1:J:67:ALA:HB2	1:J:74:ILE:HD11	1.93	0.49
1:H:67:ALA:HB2	1:H:74:ILE:HD11	1.95	0.49
1:D:133:GLU:OE1	2:D:371:FLC:HG2	2.12	0.49
1:K:130:LEU:HD12	1:K:215:LEU:HD22	1.94	0.49
1:C:67:ALA:HB2	1:C:74:ILE:HD11	1.94	0.49
1:S:178:ARG:NH1	1:S:178:ARG:CG	2.67	0.49
1:M:339:ILE:HG12	1:M:344:VAL:CG2	2.42	0.49
1:I:284:LEU:HD23	1:I:284:LEU:N	2.27	0.49
1:F:364:GLU:O	1:F:365:PHE:CD1	2.61	0.49
1:N:118:PHE:CE1	1:N:126:ILE:HD12	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:33:GLY:HA3	1:M:65:ASN:O	2.12	0.49
1:R:24:ILE:HD11	1:R:90:ASP:HB2	1.95	0.49
1:D:339:ILE:HG12	1:D:344:VAL:CG2	2.41	0.49
1:L:82:TYR:CE2	1:L:217:MET:HG3	2.48	0.49
1:L:173:ILE:HG12	1:L:199:TRP:CE2	2.48	0.49
1:E:148:LYS:HD2	1:G:148:LYS:CE	2.43	0.49
1:E:148:LYS:CE	1:G:148:LYS:HD2	2.43	0.49
1:F:33:GLY:HA3	1:F:65:ASN:O	2.13	0.49
1:E:212:GLY:HA2	1:E:341:PRO:HB2	1.94	0.49
1:I:217:MET:CE	1:I:221:PHE:CE1	2.95	0.49
1:O:74:ILE:CG2	1:O:75:TYR:N	2.74	0.49
1:F:31:ILE:CD1	1:F:216:TRP:CE2	2.96	0.49
1:H:126:ILE:HD11	1:H:349:CYS:SG	2.53	0.49
1:P:66:GLN:HE21	1:P:106:ASN:ND2	2.10	0.49
1:D:24:ILE:HD11	1:D:90:ASP:HB2	1.94	0.49
1:P:178:ARG:CG	1:P:178:ARG:NH1	2.71	0.49
1:G:47:ARG:NH2	1:L:22:GLY:N	2.61	0.49
1:D:281:HIS:HE1	1:D:348:MET:HE2	1.77	0.49
1:P:284:LEU:HD23	1:P:284:LEU:N	2.27	0.49
1:D:217:MET:CE	1:D:221:PHE:CE1	2.96	0.49
1:H:21:ARG:CG	1:K:46:LYS:HZ2	2.25	0.49
1:R:212:GLY:HA2	1:R:341:PRO:HB2	1.95	0.49
1:A:320:ARG:NH2	1:E:73:ASP:OD2	2.46	0.49
1:A:246:GLY:O	2:A:371:FLC:OG2	2.31	0.49
1:I:81:TYR:OH	1:K:50:SER:HB2	2.12	0.49
1:K:126:ILE:HD11	1:K:349:CYS:SG	2.53	0.49
1:J:33:GLY:HA3	1:J:65:ASN:O	2.13	0.49
1:F:158:TYR:CD2	1:F:196:PRO:HG3	2.47	0.49
1:J:106:ASN:ND2	1:J:108:PHE:H	2.11	0.49
1:Q:73:ASP:OD2	1:R:320:ARG:NH2	2.46	0.49
1:D:130:LEU:HD12	1:D:215:LEU:HD22	1.94	0.49
1:Q:178:ARG:NH1	1:Q:178:ARG:CG	2.66	0.49
1:C:289:ASN:ND2	1:C:293:LEU:CD2	2.74	0.49
1:K:339:ILE:HG12	1:K:344:VAL:CG2	2.43	0.49
1:E:281:HIS:HE1	1:E:348:MET:HE2	1.77	0.49
1:N:217:MET:CE	1:N:221:PHE:CE1	2.94	0.49
1:P:67:ALA:HB2	1:P:74:ILE:HD11	1.95	0.49
1:I:74:ILE:CG2	1:I:75:TYR:N	2.76	0.49
1:G:331:GLU:OE1	1:G:333:ARG:HD2	2.13	0.49
1:B:130:LEU:HD12	1:B:215:LEU:HD22	1.95	0.49
1:M:126:ILE:HD11	1:M:349:CYS:SG	2.51	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:212:GLY:HA2	1:G:341:PRO:HB2	1.94	0.49
1:O:24:ILE:HD11	1:O:90:ASP:HB2	1.95	0.49
1:H:264:THR:HA	1:H:267:ILE:HB	1.94	0.49
1:P:339:ILE:CG1	1:P:344:VAL:CG2	2.91	0.49
1:R:339:ILE:HG12	1:R:344:VAL:CG2	2.43	0.49
1:L:281:HIS:NE2	1:L:351:THR:HG21	2.28	0.49
1:F:82:TYR:CE2	1:F:217:MET:HG3	2.48	0.49
1:G:79:VAL:HG11	1:G:111:ARG:NE	2.28	0.49
2:J:371:FLC:OB1	2:J:371:FLC:OG1	2.30	0.49
1:N:148:LYS:HD2	1:R:148:LYS:CE	2.42	0.49
1:J:21:ARG:HB3	1:J:23:ARG:HH21	1.77	0.49
1:H:24:ILE:HD11	1:H:90:ASP:HB2	1.95	0.49
1:T:212:GLY:HA2	1:T:341:PRO:HB2	1.94	0.48
1:D:339:ILE:CG1	1:D:344:VAL:CG2	2.90	0.48
1:Q:158:TYR:CD2	1:Q:196:PRO:HG3	2.48	0.48
1:Q:331:GLU:OE1	1:Q:333:ARG:HD2	2.13	0.48
1:O:360:ASP:OD1	1:O:362:THR:HG23	2.12	0.48
1:I:217:MET:HE1	1:I:221:PHE:CZ	2.47	0.48
1:Q:79:VAL:HG11	1:Q:111:ARG:NE	2.28	0.48
1:Q:74:ILE:CG2	1:Q:75:TYR:N	2.75	0.48
1:F:67:ALA:HB2	1:F:74:ILE:HD11	1.95	0.48
1:K:79:VAL:HG11	1:K:111:ARG:NE	2.28	0.48
1:G:31:ILE:CD1	1:G:216:TRP:CE2	2.96	0.48
1:M:31:ILE:CD1	1:M:216:TRP:CE2	2.96	0.48
1:A:31:ILE:CD1	1:A:216:TRP:CE2	2.96	0.48
1:J:102:ASP:HB2	1:J:104:THR:H	1.78	0.48
1:R:40:LYS:HE3	1:R:57:TRP:CZ2	2.48	0.48
1:G:263:GLY:O	1:G:265:LYS:N	2.45	0.48
1:C:255:THR:OG1	1:C:258:MET:HG3	2.13	0.48
1:F:281:HIS:HE1	1:F:348:MET:HE2	1.78	0.48
1:A:40:LYS:HG3	1:A:57:TRP:CH2	2.49	0.48
1:K:292:ARG:NH1	2:K:371:FLC:OB2	2.46	0.48
1:B:150:GLY:HA3	1:J:147:PRO:CB	2.43	0.48
1:Q:24:ILE:HD11	1:Q:90:ASP:HB2	1.95	0.48
1:D:21:ARG:HB3	1:D:23:ARG:HH21	1.79	0.48
1:P:334:ARG:N	1:P:335:PRO:CD	2.77	0.48
1:O:178:ARG:NH1	1:O:178:ARG:CG	2.71	0.48
1:R:277:ARG:HH21	1:R:351:THR:HG22	1.79	0.48
1:M:281:HIS:HE1	1:M:348:MET:HE2	1.78	0.48
1:S:217:MET:CE	1:S:221:PHE:CE1	2.96	0.48
1:J:24:ILE:HD11	1:J:90:ASP:CB	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:67:ALA:HB2	1:L:74:ILE:HD11	1.95	0.48
1:S:102:ASP:HB2	1:S:104:THR:H	1.78	0.48
1:A:334:ARG:N	1:A:335:PRO:CD	2.77	0.48
1:C:61:GLY:HA3	1:C:74:ILE:CD1	2.42	0.48
1:I:178:ARG:NH1	1:I:178:ARG:CG	2.75	0.48
1:E:339:ILE:HG12	1:E:344:VAL:CG2	2.43	0.48
1:R:339:ILE:HG12	1:R:344:VAL:HG23	1.95	0.48
1:A:148:LYS:CE	1:F:148:LYS:HD2	2.43	0.48
1:G:130:LEU:HD12	1:G:215:LEU:HD22	1.96	0.48
1:L:143:VAL:HG11	1:L:146:TRP:CE2	2.48	0.48
1:J:143:VAL:HG11	1:J:146:TRP:CE2	2.48	0.48
1:O:263:GLY:O	1:O:265:LYS:N	2.47	0.48
1:R:292:ARG:HH11	2:R:371:FLC:CBC	2.27	0.48
1:J:79:VAL:HG11	1:J:111:ARG:NE	2.29	0.48
1:G:24:ILE:HD11	1:G:90:ASP:HB2	1.95	0.48
1:Q:126:ILE:HD11	1:Q:349:CYS:SG	2.54	0.48
1:N:138:ASP:HB3	1:N:140:TYR:N	2.17	0.48
1:J:339:ILE:HG12	1:J:344:VAL:CG2	2.44	0.48
1:O:339:ILE:CG1	1:O:344:VAL:CG2	2.91	0.48
1:M:339:ILE:CG1	1:M:344:VAL:CG2	2.92	0.48
1:D:281:HIS:NE2	1:D:351:THR:HG21	2.29	0.48
1:T:360:ASP:OD1	1:T:362:THR:HG23	2.14	0.48
1:F:25:ILE:HD11	1:G:181:LEU:CD1	2.43	0.48
1:B:24:ILE:HD11	1:B:90:ASP:HB2	1.95	0.48
1:H:315:SER:HB3	1:H:334:ARG:HD3	1.96	0.48
1:N:33:GLY:HA3	1:N:65:ASN:O	2.13	0.48
1:F:84:ASP:HA	1:F:93:VAL:HG23	1.95	0.48
1:Q:253:VAL:HB	1:Q:330:PHE:CZ	2.49	0.48
1:L:31:ILE:CD1	1:L:216:TRP:CE2	2.97	0.48
1:L:212:GLY:HA2	1:L:341:PRO:HB2	1.96	0.48
1:B:143:VAL:HG11	1:B:146:TRP:CE2	2.49	0.48
1:J:263:GLY:O	1:J:265:LYS:N	2.46	0.48
1:F:253:VAL:HB	1:F:330:PHE:CZ	2.49	0.48
1:S:360:ASP:OD1	1:S:362:THR:HG23	2.13	0.48
1:M:148:LYS:CD	1:S:148:LYS:HD2	2.44	0.48
1:K:158:TYR:CD2	1:K:196:PRO:HG3	2.49	0.48
1:P:79:VAL:HG13	1:P:111:ARG:NH2	2.29	0.48
1:T:33:GLY:HA3	1:T:65:ASN:O	2.14	0.48
1:M:255:THR:OG1	1:M:258:MET:HG3	2.14	0.48
1:I:334:ARG:N	1:I:335:PRO:CD	2.77	0.48
1:P:23:ARG:HH22	1:Q:184:GLY:HA2	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:360:ASP:OD1	1:R:362:THR:HG23	2.14	0.47
1:M:74:ILE:CG2	1:M:75:TYR:N	2.77	0.47
1:M:102:ASP:HB2	1:M:104:THR:H	1.79	0.47
1:D:67:ALA:HB2	1:D:74:ILE:HD11	1.94	0.47
1:E:263:GLY:O	1:E:265:LYS:N	2.47	0.47
1:G:255:THR:OG1	1:G:258:MET:HG3	2.14	0.47
1:S:263:GLY:C	1:S:265:LYS:N	2.66	0.47
1:O:84:ASP:HA	1:O:93:VAL:HG23	1.95	0.47
1:K:33:GLY:HA3	1:K:65:ASN:O	2.14	0.47
1:Q:339:ILE:HG12	1:Q:344:VAL:CG2	2.44	0.47
1:Q:360:ASP:OD1	1:Q:362:THR:HG23	2.14	0.47
1:F:284:LEU:HD23	1:F:284:LEU:N	2.28	0.47
1:B:217:MET:CE	1:B:221:PHE:CE1	2.97	0.47
1:I:133:GLU:OE1	2:I:371:FLC:CGC	2.63	0.47
1:R:134:TYR:CZ	1:R:199:TRP:HB2	2.49	0.47
1:H:33:GLY:HA3	1:H:65:ASN:O	2.14	0.47
1:P:320:ARG:NH2	1:T:73:ASP:OD2	2.47	0.47
1:H:178:ARG:CG	1:H:178:ARG:NH1	2.67	0.47
1:A:178:ARG:CG	1:A:178:ARG:NH1	2.66	0.47
1:Q:138:ASP:HB3	1:Q:140:TYR:N	2.18	0.47
1:S:339:ILE:HG12	1:S:344:VAL:HG23	1.96	0.47
1:C:133:GLU:OE1	2:C:371:FLC:CGC	2.62	0.47
1:L:79:VAL:HG11	1:L:111:ARG:NE	2.29	0.47
1:H:102:ASP:HB2	1:H:104:THR:H	1.79	0.47
1:E:133:GLU:OE1	2:E:371:FLC:CGC	2.62	0.47
1:S:84:ASP:HA	1:S:93:VAL:HG23	1.97	0.47
1:A:130:LEU:HD12	1:A:215:LEU:HD22	1.96	0.47
1:Q:130:LEU:HD12	1:Q:215:LEU:HD22	1.96	0.47
1:A:33:GLY:HA3	1:A:65:ASN:O	2.14	0.47
1:J:261:PRO:CD	1:K:260:GLN:NE2	2.77	0.47
1:H:281:HIS:HE1	1:H:348:MET:HE2	1.79	0.47
1:A:281:HIS:NE2	1:A:351:THR:HG21	2.30	0.47
2:C:371:FLC:CAC	2:C:371:FLC:OB1	2.62	0.47
1:R:21:ARG:HB3	1:R:23:ARG:HH21	1.78	0.47
1:F:263:GLY:C	1:F:265:LYS:N	2.66	0.47
1:E:33:GLY:HA3	1:E:65:ASN:O	2.15	0.47
1:K:84:ASP:HA	1:K:93:VAL:HG23	1.97	0.47
1:L:73:ASP:OD2	1:M:320:ARG:NH2	2.47	0.47
1:F:339:ILE:HG12	1:F:344:VAL:CG2	2.44	0.47
1:M:339:ILE:HG12	1:M:344:VAL:HG23	1.97	0.47
1:O:364:GLU:O	1:O:365:PHE:CD1	2.59	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:281:HIS:HE1	1:I:348:MET:HE2	1.79	0.47
1:D:311:ASN:HB3	1:D:314:SER:HG	1.78	0.47
1:L:217:MET:HE1	1:L:221:PHE:CZ	2.48	0.47
1:R:31:ILE:CD1	1:R:216:TRP:CE2	2.97	0.47
1:A:148:LYS:HZ1	1:F:148:LYS:HD2	1.79	0.47
1:J:263:GLY:C	1:J:265:LYS:N	2.67	0.47
1:B:84:ASP:HA	1:B:93:VAL:HG23	1.97	0.47
1:M:130:LEU:HD12	1:M:215:LEU:HD22	1.96	0.47
1:T:339:ILE:HG13	1:T:344:VAL:HG23	1.96	0.47
1:L:339:ILE:HG12	1:L:344:VAL:HG23	1.95	0.47
1:F:339:ILE:CG1	1:F:344:VAL:CG2	2.92	0.47
1:H:339:ILE:HG12	1:H:344:VAL:HG23	1.96	0.47
1:A:339:ILE:CG1	1:A:344:VAL:CG2	2.93	0.47
1:T:217:MET:CE	1:T:221:PHE:CE1	2.98	0.47
1:Q:217:MET:CE	1:Q:221:PHE:CE1	2.95	0.47
1:K:217:MET:CE	1:K:221:PHE:CE1	2.98	0.47
1:S:134:TYR:CZ	1:S:199:TRP:HB2	2.49	0.47
1:E:21:ARG:HB3	1:E:23:ARG:HH21	1.80	0.47
1:H:106:ASN:ND2	1:H:108:PHE:H	2.12	0.47
1:A:66:GLN:HE21	1:A:106:ASN:ND2	2.13	0.47
1:E:255:THR:OG1	1:E:258:MET:HG3	2.15	0.47
1:T:130:LEU:HD12	1:T:215:LEU:HD22	1.96	0.47
1:C:74:ILE:CG2	1:C:75:TYR:N	2.78	0.47
1:C:289:ASN:OD1	1:C:293:LEU:HD22	2.15	0.47
1:J:339:ILE:CG1	1:J:344:VAL:CG2	2.92	0.47
1:Q:364:GLU:O	1:Q:365:PHE:CD1	2.62	0.47
1:Q:311:ASN:H	1:Q:317:ARG:HG3	1.80	0.47
1:F:217:MET:CE	1:F:221:PHE:CE1	2.96	0.47
1:P:118:PHE:CE1	1:P:126:ILE:HD12	2.49	0.47
1:E:133:GLU:OE2	2:E:371:FLC:HG2	2.14	0.47
1:L:148:LYS:HD2	1:T:148:LYS:HE3	1.96	0.47
1:L:102:ASP:HB2	1:L:104:THR:H	1.80	0.47
2:A:371:FLC:OA1	2:A:371:FLC:CBC	2.62	0.47
1:B:309:VAL:O	1:B:310:ALA:C	2.53	0.47
1:P:84:ASP:HA	1:P:93:VAL:HG23	1.96	0.47
1:H:130:LEU:HD12	1:H:215:LEU:HD22	1.97	0.47
1:F:360:ASP:OD1	1:F:362:THR:HG23	2.15	0.47
1:C:240:LEU:HA	1:C:240:LEU:HD23	1.62	0.47
1:P:21:ARG:HB3	1:P:23:ARG:HH21	1.79	0.47
1:O:255:THR:OG1	1:O:258:MET:HG3	2.14	0.47
1:C:315:SER:HB3	1:C:334:ARG:HD3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:339:ILE:CG1	1:T:344:VAL:CG2	2.93	0.47
1:N:343:LEU:HD13	1:N:365:PHE:HE1	1.79	0.47
1:J:217:MET:CE	1:J:221:PHE:CE1	2.98	0.47
1:G:263:GLY:C	1:G:265:LYS:N	2.67	0.47
1:H:334:ARG:N	1:H:335:PRO:CD	2.78	0.47
1:D:263:GLY:O	1:D:265:LYS:N	2.48	0.47
1:A:240:LEU:HA	1:A:240:LEU:HD23	1.58	0.47
1:O:339:ILE:HG12	1:O:344:VAL:HG23	1.97	0.47
1:P:281:HIS:NE2	1:P:351:THR:HG21	2.29	0.47
1:I:360:ASP:OD1	1:I:362:THR:HG23	2.15	0.47
1:C:158:TYR:CD2	1:C:196:PRO:HG3	2.50	0.47
1:A:79:VAL:HG11	1:A:111:ARG:NE	2.30	0.47
1:T:24:ILE:HD11	1:T:90:ASP:HB2	1.97	0.47
1:N:143:VAL:HG11	1:N:146:TRP:CE2	2.50	0.47
1:G:66:GLN:HE21	1:G:106:ASN:ND2	2.12	0.47
1:O:281:HIS:HE1	1:O:348:MET:HE2	1.80	0.46
1:N:67:ALA:HB2	1:N:74:ILE:HD11	1.97	0.46
1:I:31:ILE:CD1	1:I:216:TRP:CE2	2.97	0.46
1:E:102:ASP:HB2	1:E:104:THR:H	1.79	0.46
1:T:31:ILE:CD1	1:T:216:TRP:CE2	2.97	0.46
1:E:148:LYS:HD2	1:G:148:LYS:HE3	1.96	0.46
1:Q:118:PHE:CE1	1:Q:126:ILE:HD12	2.50	0.46
1:D:263:GLY:C	1:D:265:LYS:N	2.68	0.46
1:S:212:GLY:HA2	1:S:341:PRO:HB2	1.97	0.46
1:F:46:LYS:HG3	1:M:22:GLY:HA3	1.96	0.46
1:Q:31:ILE:HD13	1:Q:216:TRP:CZ2	2.50	0.46
1:R:240:LEU:HD23	1:R:240:LEU:HA	1.60	0.46
1:N:24:ILE:HA	1:N:24:ILE:HD13	1.61	0.46
1:O:263:GLY:C	1:O:265:LYS:N	2.69	0.46
1:F:263:GLY:O	1:F:265:LYS:N	2.47	0.46
1:P:240:LEU:HD23	1:P:240:LEU:HA	1.58	0.46
1:R:334:ARG:N	1:R:335:PRO:CD	2.78	0.46
1:J:212:GLY:HA2	1:J:341:PRO:HB2	1.97	0.46
1:I:339:ILE:HG12	1:I:344:VAL:CG2	2.45	0.46
1:K:212:GLY:HA2	1:K:341:PRO:HB2	1.97	0.46
1:H:281:HIS:NE2	1:H:351:THR:HG21	2.30	0.46
1:T:343:LEU:HD13	1:T:365:PHE:HE1	1.80	0.46
1:K:343:LEU:HD13	1:K:365:PHE:HE1	1.81	0.46
1:P:158:TYR:CD2	1:P:196:PRO:HG3	2.50	0.46
1:N:21:ARG:HB3	1:N:23:ARG:HH21	1.79	0.46
1:C:37:LEU:O	1:D:162:VAL:HG13	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:339:ILE:CG1	1:G:344:VAL:CG2	2.93	0.46
1:N:281:HIS:HE1	1:N:348:MET:HE2	1.80	0.46
1:Q:343:LEU:HD13	1:Q:365:PHE:HE1	1.80	0.46
1:G:281:HIS:NE2	1:G:351:THR:HG21	2.31	0.46
1:O:67:ALA:HB2	1:O:74:ILE:HD11	1.97	0.46
1:N:134:TYR:CZ	1:N:199:TRP:HB2	2.51	0.46
2:D:371:FLC:OB1	2:D:371:FLC:OG1	2.33	0.46
1:O:46:LYS:HG2	1:O:47:ARG:O	2.16	0.46
1:I:156:GLY:N	1:I:157:PRO:HD2	2.31	0.46
1:J:236:HIS:HA	1:J:237:PRO:HD3	1.80	0.46
1:D:240:LEU:HA	1:D:240:LEU:HD23	1.59	0.46
1:J:261:PRO:HD3	1:K:260:GLN:HE22	1.80	0.46
1:H:339:ILE:CG1	1:H:344:VAL:CG2	2.94	0.46
1:R:343:LEU:HD13	1:R:365:PHE:HE1	1.80	0.46
1:E:217:MET:CE	1:E:221:PHE:CE1	2.98	0.46
1:A:134:TYR:CZ	1:A:199:TRP:HB2	2.51	0.46
1:C:102:ASP:HB2	1:C:104:THR:H	1.80	0.46
1:K:24:ILE:HD13	1:K:24:ILE:HA	1.54	0.46
1:D:143:VAL:HG11	1:D:146:TRP:CE2	2.50	0.46
1:G:143:VAL:HG11	1:G:146:TRP:CE2	2.51	0.46
1:M:232:LYS:HG2	1:N:164:ALA:HB3	1.97	0.46
1:B:33:GLY:HA3	1:B:65:ASN:O	2.16	0.46
1:G:84:ASP:HA	1:G:93:VAL:HG23	1.98	0.46
1:D:339:ILE:HG12	1:D:344:VAL:HG23	1.98	0.46
1:N:281:HIS:NE2	1:N:351:THR:HG21	2.29	0.46
1:O:284:LEU:HD23	1:O:284:LEU:N	2.31	0.46
1:A:360:ASP:OD1	1:A:362:THR:HG23	2.15	0.46
1:Q:67:ALA:HB2	1:Q:74:ILE:CD1	2.45	0.46
1:J:31:ILE:HD13	1:J:216:TRP:CZ2	2.50	0.46
1:H:133:GLU:OE2	2:H:371:FLC:HG2	2.16	0.46
1:G:118:PHE:CE1	1:G:126:ILE:HD12	2.51	0.46
1:A:255:THR:OG1	1:A:258:MET:HG3	2.16	0.46
1:I:130:LEU:HD12	1:I:215:LEU:HD22	1.98	0.46
1:I:236:HIS:HA	1:I:237:PRO:HD3	1.78	0.46
1:E:339:ILE:HG12	1:E:344:VAL:HG23	1.98	0.46
1:R:347:ILE:N	1:R:361:MET:HG3	2.31	0.46
1:G:339:ILE:HG12	1:G:344:VAL:HG23	1.97	0.46
1:A:339:ILE:HG12	1:A:344:VAL:CG2	2.45	0.46
1:P:343:LEU:HD13	1:P:365:PHE:HE1	1.80	0.46
1:K:102:ASP:HB2	1:K:104:THR:H	1.80	0.46
1:R:126:ILE:HD11	1:R:349:CYS:SG	2.55	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:255:THR:OG1	1:I:258:MET:HG3	2.15	0.46
1:S:66:GLN:HE21	1:S:106:ASN:ND2	2.12	0.46
1:G:339:ILE:HG12	1:G:344:VAL:CG2	2.45	0.46
1:Q:82:TYR:CE2	1:Q:217:MET:HG3	2.51	0.46
1:D:158:TYR:CD2	1:D:196:PRO:HG3	2.51	0.46
1:R:79:VAL:HG11	1:R:111:ARG:NE	2.31	0.46
1:F:23:ARG:NH2	1:G:184:GLY:HA2	2.31	0.46
1:C:134:TYR:CZ	1:C:199:TRP:HB2	2.50	0.46
1:M:147:PRO:HG2	1:S:150:GLY:HA3	1.98	0.46
1:G:309:VAL:O	1:G:310:ALA:C	2.54	0.46
1:I:84:ASP:HA	1:I:93:VAL:HG23	1.98	0.46
1:S:339:ILE:CG1	1:S:344:VAL:CG2	2.94	0.46
1:I:339:ILE:HG12	1:I:344:VAL:HG23	1.98	0.46
1:F:347:ILE:N	1:F:361:MET:HG3	2.30	0.46
1:G:284:LEU:N	1:G:284:LEU:HD23	2.30	0.46
1:F:21:ARG:HB3	1:F:23:ARG:HH21	1.81	0.46
1:F:134:TYR:CZ	1:F:199:TRP:HB2	2.51	0.46
2:K:371:FLC:OB1	2:K:371:FLC:CAC	2.64	0.46
1:K:240:LEU:HA	1:K:240:LEU:HD23	1.55	0.46
1:H:118:PHE:CE1	1:H:126:ILE:HD12	2.51	0.46
1:O:106:ASN:ND2	1:O:108:PHE:H	2.13	0.46
1:B:66:GLN:HE21	1:B:106:ASN:ND2	2.13	0.46
1:S:168:TYR:HB2	1:S:197:SER:HB3	1.97	0.46
1:B:263:GLY:C	1:B:265:LYS:N	2.69	0.46
1:G:54:LEU:HA	1:G:55:PRO:HD2	1.80	0.46
1:K:334:ARG:N	1:K:335:PRO:CD	2.79	0.46
1:L:334:ARG:N	1:L:335:PRO:CD	2.79	0.46
1:B:339:ILE:CG1	1:B:344:VAL:CG2	2.93	0.46
1:C:281:HIS:HE1	1:C:348:MET:HE2	1.80	0.46
1:O:253:VAL:HB	1:O:330:PHE:CZ	2.51	0.46
1:C:364:GLU:O	1:C:365:PHE:CD1	2.62	0.46
1:L:343:LEU:HD13	1:L:365:PHE:HE1	1.81	0.46
1:G:343:LEU:HD13	1:G:365:PHE:HE1	1.81	0.46
1:B:360:ASP:OD1	1:B:362:THR:HG23	2.16	0.46
1:N:74:ILE:CG2	1:N:75:TYR:N	2.78	0.46
1:S:315:SER:HB3	1:S:334:ARG:HD3	1.98	0.46
1:J:40:LYS:HE3	1:J:57:TRP:CZ2	2.51	0.46
1:T:334:ARG:N	1:T:335:PRO:CD	2.78	0.46
1:D:84:ASP:HA	1:D:93:VAL:HG23	1.98	0.46
1:O:212:GLY:HA2	1:O:341:PRO:HB2	1.97	0.46
1:E:339:ILE:CG1	1:E:344:VAL:CG2	2.94	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:148:LYS:HD2	1:S:148:LYS:HE3	1.97	0.45
1:G:158:TYR:CD2	1:G:196:PRO:HG3	2.50	0.45
1:H:23:ARG:NH2	1:I:184:GLY:HA2	2.32	0.45
1:N:40:LYS:HG3	1:N:57:TRP:CH2	2.51	0.45
1:J:134:TYR:CZ	1:J:199:TRP:HB2	2.51	0.45
1:B:24:ILE:HD13	1:B:24:ILE:HA	1.59	0.45
1:K:315:SER:HB3	1:K:334:ARG:HD3	1.98	0.45
1:F:261:PRO:HG2	1:O:260:GLN:HE21	1.81	0.45
1:M:212:GLY:HA2	1:M:341:PRO:HB2	1.97	0.45
1:M:24:ILE:HD11	1:M:90:ASP:HB2	1.98	0.45
1:N:212:GLY:HA2	1:N:341:PRO:HB2	1.99	0.45
1:I:143:VAL:HG11	1:I:146:TRP:CE2	2.51	0.45
1:J:334:ARG:N	1:J:335:PRO:CD	2.79	0.45
1:O:21:ARG:HB3	1:O:23:ARG:HH21	1.81	0.45
1:P:255:THR:OG1	1:P:258:MET:HG3	2.16	0.45
1:L:84:ASP:HA	1:L:93:VAL:HG23	1.97	0.45
1:F:316:ILE:HD13	1:F:332:ASP:HA	1.99	0.45
1:R:281:HIS:NE2	1:R:351:THR:HG21	2.31	0.45
1:K:253:VAL:HB	1:K:330:PHE:CZ	2.51	0.45
1:P:74:ILE:CG2	1:P:75:TYR:N	2.79	0.45
1:K:133:GLU:OE1	2:K:371:FLC:CGC	2.64	0.45
1:M:236:HIS:HA	1:M:237:PRO:HD3	1.74	0.45
1:N:316:ILE:HD13	1:N:332:ASP:HA	1.97	0.45
1:D:264:THR:HA	1:D:267:ILE:HB	1.98	0.45
1:L:236:HIS:HA	1:L:237:PRO:HD3	1.75	0.45
1:Q:84:ASP:HA	1:Q:93:VAL:HG23	1.98	0.45
1:I:24:ILE:HD11	1:I:90:ASP:HB2	1.99	0.45
1:N:339:ILE:CG1	1:N:344:VAL:CG2	2.95	0.45
1:L:74:ILE:HG22	1:L:75:TYR:N	2.31	0.45
1:L:217:MET:CE	1:L:221:PHE:CE1	2.99	0.45
1:Q:316:ILE:HD13	1:Q:332:ASP:HA	1.99	0.45
1:K:31:ILE:HD13	1:K:216:TRP:CZ2	2.50	0.45
1:Q:102:ASP:HB2	1:Q:104:THR:H	1.81	0.45
1:N:148:LYS:CE	1:R:148:LYS:HD2	2.46	0.45
1:N:102:ASP:HB2	1:N:104:THR:H	1.80	0.45
1:G:106:ASN:ND2	1:G:108:PHE:H	2.15	0.45
1:D:73:ASP:OD2	1:E:320:ARG:NH2	2.49	0.45
1:A:263:GLY:C	1:A:265:LYS:N	2.70	0.45
1:S:281:HIS:NE2	1:S:351:THR:HG21	2.32	0.45
1:P:253:VAL:HB	1:P:330:PHE:CZ	2.50	0.45
1:K:360:ASP:OD1	1:K:362:THR:HG23	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:146:TRP:CZ3	1:M:240:LEU:HD12	2.51	0.45
1:P:63:SER:HB2	1:Q:159:TYR:CD2	2.51	0.45
1:B:21:ARG:HB3	1:B:23:ARG:HH21	1.81	0.45
1:Q:134:TYR:CZ	1:Q:199:TRP:HB2	2.50	0.45
1:R:118:PHE:CE1	1:R:126:ILE:HD12	2.52	0.45
1:C:130:LEU:HD12	1:C:215:LEU:HD22	1.99	0.45
1:L:168:TYR:HB2	1:L:197:SER:HB3	1.97	0.45
1:T:46:LYS:HG2	1:T:47:ARG:O	2.17	0.45
1:J:178:ARG:NH1	1:J:178:ARG:CG	2.66	0.45
1:Q:339:ILE:CG1	1:Q:344:VAL:CG2	2.95	0.45
1:I:339:ILE:CG1	1:I:344:VAL:CG2	2.95	0.45
1:J:343:LEU:HD13	1:J:365:PHE:HE1	1.82	0.45
1:N:158:TYR:CD2	1:N:196:PRO:HG3	2.52	0.45
1:B:31:ILE:CD1	1:B:216:TRP:CE2	3.00	0.45
1:M:240:LEU:HD23	1:M:240:LEU:HA	1.55	0.45
1:I:40:LYS:HE3	1:I:57:TRP:CZ2	2.51	0.45
1:N:236:HIS:HA	1:N:237:PRO:HD3	1.78	0.45
1:S:33:GLY:HA3	1:S:65:ASN:O	2.15	0.45
1:N:339:ILE:HG12	1:N:344:VAL:HG23	1.97	0.45
1:Q:212:GLY:HA2	1:Q:341:PRO:HB2	1.99	0.45
1:J:339:ILE:HG12	1:J:344:VAL:HG23	1.98	0.45
1:P:277:ARG:HH21	1:P:351:THR:HG22	1.82	0.45
1:O:158:TYR:CD2	1:O:196:PRO:HG3	2.51	0.45
1:M:173:ILE:HG12	1:M:199:TRP:CE2	2.51	0.45
1:I:134:TYR:CZ	1:I:199:TRP:HB2	2.51	0.45
1:P:31:ILE:CD1	1:P:216:TRP:CE2	3.00	0.45
1:E:40:LYS:HG3	1:E:57:TRP:CH2	2.52	0.45
1:E:79:VAL:HG11	1:E:111:ARG:NE	2.31	0.45
1:S:133:GLU:OE1	2:S:371:FLC:CGC	2.65	0.45
1:T:84:ASP:HA	1:T:93:VAL:HG23	1.98	0.45
1:K:232:LYS:HG2	1:L:164:ALA:HB3	1.97	0.45
1:F:45:LYS:HD2	1:M:46:LYS:HD2	1.99	0.45
1:R:66:GLN:HE21	1:R:106:ASN:ND2	2.15	0.45
1:L:126:ILE:HD11	1:L:349:CYS:SG	2.57	0.45
1:R:136:LEU:HD22	1:R:231:ILE:HG21	1.98	0.45
1:A:253:VAL:HB	1:A:330:PHE:CZ	2.52	0.45
1:M:343:LEU:HD13	1:M:365:PHE:HE1	1.82	0.45
1:T:311:ASN:H	1:T:317:ARG:HG3	1.81	0.45
1:B:246:GLY:O	2:B:371:FLC:OG1	2.35	0.45
1:I:106:ASN:ND2	1:I:108:PHE:H	2.15	0.45
1:T:146:TRP:CH2	1:T:240:LEU:HD12	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:146:TRP:CZ3	1:T:240:LEU:HD12	2.52	0.45
1:O:334:ARG:N	1:O:335:PRO:CD	2.80	0.45
1:H:263:GLY:C	1:H:265:LYS:N	2.70	0.45
1:Q:309:VAL:O	1:Q:310:ALA:C	2.56	0.45
1:I:263:GLY:C	1:I:265:LYS:N	2.71	0.45
1:L:316:ILE:HD13	1:L:332:ASP:HA	1.99	0.45
1:F:356:ILE:HG22	1:F:358:ASN:CB	2.43	0.45
1:Q:340:ASP:HA	1:Q:341:PRO:HD2	1.82	0.45
1:J:284:LEU:HD23	1:J:284:LEU:N	2.32	0.45
1:K:74:ILE:CG2	1:K:75:TYR:N	2.79	0.45
1:S:74:ILE:HG22	1:S:75:TYR:N	2.32	0.45
1:A:31:ILE:HD13	1:A:216:TRP:CZ2	2.52	0.45
1:H:106:ASN:HD21	1:H:108:PHE:HD2	1.65	0.45
1:M:281:HIS:NE2	1:M:351:THR:HG21	2.32	0.44
1:F:281:HIS:NE2	1:F:351:THR:HG21	2.32	0.44
1:G:253:VAL:HB	1:G:330:PHE:CZ	2.51	0.44
1:J:281:HIS:NE2	1:J:351:THR:HG21	2.32	0.44
1:R:292:ARG:NH1	2:R:371:FLC:CBC	2.79	0.44
1:I:209:ILE:HD13	1:I:209:ILE:HA	1.85	0.44
1:C:111:ARG:HG3	1:C:209:ILE:HD12	1.99	0.44
1:H:31:ILE:CD1	1:H:216:TRP:CE2	3.00	0.44
1:E:31:ILE:CD1	1:E:216:TRP:CE2	3.00	0.44
1:S:263:GLY:O	1:S:265:LYS:N	2.50	0.44
1:L:126:ILE:HD13	1:L:349:CYS:HB2	1.98	0.44
1:N:84:ASP:HA	1:N:93:VAL:HG23	1.99	0.44
1:B:148:LYS:CE	1:J:148:LYS:HD2	2.47	0.44
1:B:148:LYS:HD2	1:J:148:LYS:NZ	2.32	0.44
1:E:54:LEU:HA	1:E:55:PRO:HD2	1.77	0.44
1:S:130:LEU:HD12	1:S:215:LEU:HD22	1.99	0.44
1:G:33:GLY:HA3	1:G:65:ASN:O	2.17	0.44
1:F:309:VAL:O	1:F:310:ALA:C	2.56	0.44
1:R:224:ARG:HG3	1:R:224:ARG:HH11	1.82	0.44
1:O:281:HIS:NE2	1:O:351:THR:HG21	2.32	0.44
1:G:31:ILE:HD13	1:G:216:TRP:CZ2	2.53	0.44
1:E:209:ILE:HD13	1:E:209:ILE:HA	1.84	0.44
1:B:118:PHE:CE1	1:B:126:ILE:HD12	2.52	0.44
1:I:309:VAL:O	1:I:310:ALA:C	2.56	0.44
1:Q:334:ARG:N	1:Q:335:PRO:CD	2.81	0.44
1:Q:120:ALA:CB	1:Q:356:ILE:HD11	2.47	0.44
1:K:339:ILE:HG13	1:K:344:VAL:CG2	2.47	0.44
1:P:217:MET:CE	1:P:221:PHE:CE1	3.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:148:LYS:NZ	1:G:148:LYS:HD2	2.32	0.44
1:O:118:PHE:CE1	1:O:126:ILE:HD12	2.52	0.44
1:E:24:ILE:HD13	1:E:24:ILE:HA	1.53	0.44
1:O:24:ILE:HA	1:O:24:ILE:HD13	1.60	0.44
1:G:334:ARG:N	1:G:335:PRO:CD	2.81	0.44
1:S:255:THR:OG1	1:S:258:MET:HG3	2.17	0.44
1:S:63:SER:HB2	1:T:159:TYR:CD2	2.52	0.44
1:N:263:GLY:O	1:N:265:LYS:N	2.51	0.44
1:K:131:GLU:O	1:K:249:CYS:HA	2.18	0.44
1:C:293:LEU:HD12	1:C:300:ALA:HB3	2.00	0.44
1:H:360:ASP:OD1	1:H:362:THR:HG23	2.18	0.44
1:J:158:TYR:CD2	1:J:196:PRO:HG3	2.52	0.44
1:B:79:VAL:HG11	1:B:111:ARG:NE	2.33	0.44
1:E:263:GLY:C	1:E:265:LYS:N	2.69	0.44
1:C:84:ASP:HA	1:C:93:VAL:HG23	1.99	0.44
1:K:340:ASP:HA	1:K:341:PRO:HD2	1.83	0.44
1:J:50:SER:HB2	1:O:81:TYR:OH	2.18	0.44
1:D:74:ILE:HG22	1:D:75:TYR:N	2.32	0.44
1:T:79:VAL:HG13	1:T:111:ARG:NH2	2.32	0.44
1:S:31:ILE:CD1	1:S:216:TRP:CE2	3.00	0.44
1:G:146:TRP:CH2	1:G:240:LEU:HD12	2.52	0.44
1:L:118:PHE:CE1	1:L:126:ILE:HD12	2.52	0.44
1:H:263:GLY:O	1:H:265:LYS:N	2.51	0.44
1:B:148:LYS:HD2	1:J:148:LYS:CE	2.46	0.44
1:H:316:ILE:HD13	1:H:332:ASP:HA	1.99	0.44
1:E:66:GLN:HE21	1:E:106:ASN:ND2	2.16	0.44
1:C:131:GLU:O	1:C:249:CYS:HA	2.17	0.44
1:I:49:THR:HG22	1:K:81:TYR:OH	2.18	0.44
1:Q:116:LYS:HD2	1:Q:359:ALA:HB2	1.98	0.44
1:P:212:GLY:HA2	1:P:341:PRO:HB2	2.00	0.44
1:Q:284:LEU:HD13	1:Q:343:LEU:HB3	1.99	0.44
1:T:364:GLU:O	1:T:365:PHE:CD1	2.64	0.44
1:M:67:ALA:HB2	1:M:74:ILE:HD11	1.99	0.44
1:K:217:MET:HE1	1:K:221:PHE:CZ	2.53	0.44
1:F:173:ILE:HG12	1:F:199:TRP:CE2	2.53	0.44
1:N:148:LYS:HE3	1:R:148:LYS:HD2	1.98	0.44
1:O:31:ILE:CD1	1:O:216:TRP:CE2	3.00	0.44
1:C:146:TRP:CZ3	1:C:240:LEU:HD12	2.53	0.44
1:R:24:ILE:HA	1:R:24:ILE:HD13	1.63	0.44
1:I:212:GLY:HA2	1:I:341:PRO:HB2	1.99	0.44
1:R:130:LEU:HD12	1:R:215:LEU:HD22	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:293:LEU:O	1:C:302:MET:HG2	2.17	0.44
1:C:334:ARG:N	1:C:335:PRO:CD	2.81	0.44
1:B:253:VAL:HB	1:B:330:PHE:CZ	2.52	0.44
1:J:360:ASP:OD1	1:J:362:THR:HG23	2.18	0.44
1:M:79:VAL:HG11	1:M:111:ARG:NE	2.33	0.44
1:J:81:TYR:CE1	1:O:49:THR:HB	2.53	0.44
1:B:134:TYR:CZ	1:B:199:TRP:HB2	2.53	0.44
1:N:111:ARG:HG3	1:N:209:ILE:HD12	1.99	0.44
1:R:146:TRP:CH2	1:R:240:LEU:HD12	2.53	0.44
1:A:146:TRP:CH2	1:A:240:LEU:HD12	2.52	0.44
1:A:316:ILE:HD13	1:A:332:ASP:HA	1.99	0.44
1:L:255:THR:OG1	1:L:258:MET:HG3	2.18	0.44
1:L:263:GLY:C	1:L:265:LYS:N	2.70	0.44
1:J:83:PRO:HD2	1:J:183:ALA:HA	2.00	0.44
2:Q:371:FLC:OB1	2:Q:371:FLC:CAC	2.65	0.44
1:E:240:LEU:HA	1:E:240:LEU:HD23	1.56	0.44
1:H:253:VAL:HB	1:H:330:PHE:CZ	2.53	0.44
1:S:284:LEU:HD13	1:S:343:LEU:HB3	1.99	0.44
1:M:148:LYS:NZ	1:S:148:LYS:HD2	2.32	0.44
1:L:311:ASN:H	1:L:317:ARG:HG3	1.83	0.44
1:J:133:GLU:OE2	2:J:371:FLC:HG2	2.17	0.44
1:E:118:PHE:CE1	1:E:126:ILE:HD12	2.52	0.44
1:S:146:TRP:CZ3	1:S:240:LEU:HD12	2.53	0.44
1:S:194:VAL:HB	1:S:245:ASN:ND2	2.33	0.44
1:B:236:HIS:HA	1:B:237:PRO:HD3	1.80	0.44
1:C:316:ILE:HD13	1:C:332:ASP:HA	2.00	0.44
1:K:106:ASN:ND2	1:K:108:PHE:H	2.16	0.44
1:J:309:VAL:O	1:J:310:ALA:C	2.56	0.44
1:Q:339:ILE:HG12	1:Q:344:VAL:HG23	2.00	0.44
1:F:340:ASP:HA	1:F:341:PRO:HD2	1.87	0.44
1:B:74:ILE:HG22	1:B:75:TYR:N	2.32	0.44
1:E:343:LEU:HD13	1:E:365:PHE:HE1	1.83	0.44
1:J:50:SER:CB	1:O:81:TYR:OH	2.65	0.44
1:G:217:MET:CE	1:G:221:PHE:CE1	3.01	0.44
1:N:31:ILE:CD1	1:N:216:TRP:CE2	3.01	0.44
1:S:118:PHE:CE1	1:S:126:ILE:HD12	2.53	0.44
1:S:146:TRP:CH2	1:S:240:LEU:HD12	2.52	0.44
1:A:143:VAL:HG11	1:A:146:TRP:CE2	2.53	0.44
1:Q:156:GLY:N	1:Q:157:PRO:HD2	2.33	0.44
1:R:156:GLY:N	1:R:157:PRO:HD2	2.33	0.44
1:B:339:ILE:HG12	1:B:344:VAL:CG2	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:339:ILE:CG1	1:C:344:VAL:CG2	2.95	0.43
1:C:253:VAL:HB	1:C:330:PHE:CZ	2.53	0.43
1:T:253:VAL:HB	1:T:330:PHE:CZ	2.52	0.43
1:M:284:LEU:HD23	1:M:284:LEU:N	2.33	0.43
1:D:364:GLU:O	1:D:365:PHE:CD1	2.66	0.43
1:H:40:LYS:HE3	1:H:57:TRP:CH2	2.53	0.43
1:F:23:ARG:HH22	1:G:184:GLY:HA2	1.83	0.43
1:M:118:PHE:CE1	1:M:126:ILE:HD12	2.53	0.43
1:H:24:ILE:HD11	1:H:90:ASP:CB	2.48	0.43
1:G:146:TRP:CZ3	1:G:240:LEU:HD12	2.53	0.43
1:E:168:TYR:HB2	1:E:197:SER:HB3	2.00	0.43
1:J:128:PHE:HB2	1:J:211:MET:HG2	2.00	0.43
1:A:343:LEU:HD13	1:A:365:PHE:HE1	1.83	0.43
1:G:79:VAL:HG13	1:G:111:ARG:NH2	2.33	0.43
1:F:79:VAL:HG11	1:F:111:ARG:NE	2.33	0.43
1:S:133:GLU:OE2	2:S:371:FLC:HG2	2.18	0.43
1:T:143:VAL:HG11	1:T:146:TRP:CE2	2.53	0.43
1:N:263:GLY:C	1:N:265:LYS:N	2.71	0.43
1:A:156:GLY:N	1:A:157:PRO:HD2	2.34	0.43
1:A:73:ASP:OD2	1:B:320:ARG:NH2	2.51	0.43
1:J:136:LEU:HD22	1:J:231:ILE:HG21	2.00	0.43
1:K:236:HIS:HA	1:K:237:PRO:HD3	1.81	0.43
1:N:120:ALA:CB	1:N:356:ILE:HD11	2.48	0.43
1:Q:277:ARG:HH21	1:Q:351:THR:HG22	1.83	0.43
1:C:281:HIS:NE2	1:C:351:THR:HG21	2.34	0.43
1:I:253:VAL:HB	1:I:330:PHE:CZ	2.52	0.43
1:I:343:LEU:HD13	1:I:365:PHE:HE1	1.82	0.43
1:E:143:VAL:HG11	1:E:146:TRP:CE2	2.53	0.43
1:I:67:ALA:HB2	1:I:74:ILE:HD11	2.00	0.43
1:N:126:ILE:CD1	1:N:349:CYS:SG	3.05	0.43
1:M:31:ILE:HD13	1:M:216:TRP:CZ2	2.53	0.43
1:N:79:VAL:HG11	1:N:111:ARG:NE	2.33	0.43
1:F:102:ASP:HB2	1:F:104:THR:H	1.82	0.43
1:S:79:VAL:HG13	1:S:111:ARG:NH2	2.33	0.43
1:A:79:VAL:HG13	1:A:111:ARG:NH2	2.34	0.43
1:Q:24:ILE:HA	1:Q:24:ILE:HD13	1.61	0.43
1:P:46:LYS:HG2	1:P:47:ARG:O	2.19	0.43
1:A:84:ASP:HA	1:A:93:VAL:HG23	2.00	0.43
1:Q:168:TYR:HB2	1:Q:197:SER:HB3	2.00	0.43
1:L:21:ARG:HB3	1:L:23:ARG:HH21	1.84	0.43
1:D:66:GLN:HE21	1:D:106:ASN:ND2	2.15	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:315:SER:HB3	1:D:334:ARG:HD3	2.00	0.43
1:G:60:ASP:OD1	1:G:60:ASP:C	2.57	0.43
1:I:356:ILE:HG22	1:I:358:ASN:CB	2.47	0.43
1:B:158:TYR:CD2	1:B:196:PRO:HG3	2.53	0.43
1:G:134:TYR:CZ	1:G:199:TRP:HB2	2.53	0.43
1:H:21:ARG:HH21	1:I:83:PRO:HG2	1.83	0.43
1:O:134:TYR:CZ	1:O:199:TRP:HB2	2.53	0.43
1:S:40:LYS:HG3	1:S:57:TRP:CH2	2.54	0.43
1:C:146:TRP:CH2	1:C:240:LEU:HD12	2.54	0.43
1:N:21:ARG:HA	1:N:21:ARG:HD3	1.85	0.43
1:L:315:SER:HB3	1:L:334:ARG:HD3	2.01	0.43
1:J:315:SER:HB3	1:J:334:ARG:HD3	1.99	0.43
1:J:84:ASP:HA	1:J:93:VAL:HG23	1.98	0.43
1:L:178:ARG:CG	1:L:178:ARG:NH1	2.66	0.43
1:F:356:ILE:HG21	1:F:356:ILE:HD13	1.80	0.43
1:S:343:LEU:HD13	1:S:365:PHE:HE1	1.83	0.43
2:O:371:FLC:OA1	2:O:371:FLC:CBC	2.63	0.43
1:J:79:VAL:HG13	1:J:111:ARG:NH2	2.32	0.43
1:P:84:ASP:HA	1:P:85:PRO:HD3	1.92	0.43
1:B:265:LYS:O	1:B:269:GLN:HG3	2.19	0.43
1:S:334:ARG:N	1:S:335:PRO:CD	2.82	0.43
1:M:143:VAL:HG11	1:M:146:TRP:CE2	2.53	0.43
1:L:126:ILE:CD1	1:L:349:CYS:HB2	2.48	0.43
1:F:168:TYR:HB2	1:F:197:SER:HB3	2.00	0.43
1:P:128:PHE:HB2	1:P:211:MET:HG2	2.00	0.43
1:O:331:GLU:OE1	1:O:333:ARG:HD2	2.19	0.43
1:G:128:PHE:O	1:G:205:PRO:HA	2.19	0.43
1:G:120:ALA:CB	1:G:356:ILE:HD11	2.48	0.43
1:N:253:VAL:HB	1:N:330:PHE:CZ	2.53	0.43
1:B:67:ALA:HB2	1:B:74:ILE:HD11	1.99	0.43
1:F:158:TYR:CZ	1:F:196:PRO:HG3	2.54	0.43
1:E:284:LEU:N	1:E:284:LEU:HD23	2.34	0.43
1:L:31:ILE:HD13	1:L:216:TRP:CZ2	2.54	0.43
1:T:118:PHE:CE1	1:T:126:ILE:HD12	2.54	0.43
1:I:66:GLN:HE21	1:I:106:ASN:ND2	2.17	0.43
1:P:54:LEU:HA	1:P:55:PRO:HD2	1.76	0.43
1:B:255:THR:OG1	1:B:258:MET:HG3	2.18	0.43
1:A:309:VAL:O	1:A:310:ALA:C	2.57	0.43
1:K:316:ILE:HD13	1:K:332:ASP:HA	2.01	0.43
1:I:33:GLY:HA3	1:I:65:ASN:O	2.18	0.43
1:T:309:VAL:O	1:T:310:ALA:C	2.56	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:281:HIS:HE1	1:Q:348:MET:HE2	1.83	0.43
1:F:343:LEU:HD13	1:F:365:PHE:HE1	1.83	0.43
1:D:132:GLN:O	1:D:200:GLU:HA	2.18	0.43
1:B:173:ILE:HG12	1:B:199:TRP:CE2	2.54	0.43
1:L:134:TYR:CZ	1:L:199:TRP:HB2	2.54	0.43
1:F:31:ILE:HD13	1:F:216:TRP:CZ2	2.53	0.43
2:A:371:FLC:OA1	2:A:371:FLC:HG1	2.17	0.43
1:I:263:GLY:O	1:I:265:LYS:N	2.52	0.43
1:C:54:LEU:HA	1:C:55:PRO:HD2	1.78	0.43
1:O:309:VAL:O	1:O:310:ALA:C	2.57	0.43
1:N:255:THR:OG1	1:N:258:MET:HG3	2.19	0.43
1:N:168:TYR:HB2	1:N:197:SER:HB3	2.00	0.43
1:M:54:LEU:HA	1:M:55:PRO:HD2	1.82	0.43
1:E:331:GLU:OE1	1:E:333:ARG:HD2	2.18	0.43
1:H:257:GLU:H	1:H:257:GLU:HG3	1.60	0.43
1:R:277:ARG:NE	1:R:351:THR:HG22	2.26	0.43
1:R:339:ILE:CG1	1:R:344:VAL:CG2	2.95	0.43
1:G:173:ILE:HG12	1:G:199:TRP:CE2	2.54	0.43
1:T:132:GLN:O	1:T:200:GLU:HA	2.19	0.43
1:T:134:TYR:CZ	1:T:199:TRP:HB2	2.54	0.43
1:D:334:ARG:N	1:D:335:PRO:CD	2.82	0.43
1:A:236:HIS:HA	1:A:237:PRO:HD3	1.80	0.43
1:Q:66:GLN:HE21	1:Q:106:ASN:ND2	2.17	0.43
1:C:236:HIS:HA	1:C:237:PRO:HD3	1.76	0.43
1:C:263:GLY:C	1:C:265:LYS:N	2.71	0.43
1:T:356:ILE:HG22	1:T:358:ASN:CB	2.46	0.43
1:S:138:ASP:HB3	1:S:140:TYR:N	2.16	0.43
1:M:253:VAL:HB	1:M:330:PHE:CZ	2.53	0.43
1:G:281:HIS:HE1	1:G:348:MET:HE2	1.83	0.43
1:M:148:LYS:HD2	1:S:148:LYS:CD	2.48	0.43
1:R:67:ALA:HB2	1:R:74:ILE:CD1	2.49	0.43
1:F:40:LYS:HG3	1:F:57:TRP:CH2	2.53	0.43
2:I:371:FLC:HA1	2:I:371:FLC:OG1	2.16	0.43
1:A:118:PHE:CE1	1:A:126:ILE:HD12	2.53	0.43
1:H:134:TYR:CZ	1:H:199:TRP:HB2	2.54	0.43
1:S:240:LEU:HD23	1:S:240:LEU:HA	1.58	0.43
1:K:126:ILE:HD13	1:K:349:CYS:HB2	1.99	0.43
1:B:263:GLY:O	1:B:265:LYS:N	2.51	0.43
1:Q:315:SER:HB3	1:Q:334:ARG:HD3	2.00	0.43
1:F:240:LEU:HA	1:F:240:LEU:HD23	1.59	0.43
1:T:224:ARG:O	1:T:227:GLU:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:84:ASP:HA	1:H:93:VAL:HG23	2.01	0.43
1:M:334:ARG:N	1:M:335:PRO:CD	2.81	0.43
1:G:21:ARG:HB3	1:G:23:ARG:HH21	1.84	0.43
1:L:66:GLN:HE21	1:L:106:ASN:ND2	2.17	0.43
1:M:128:PHE:O	1:M:205:PRO:HA	2.19	0.43
1:Q:347:ILE:N	1:Q:361:MET:HG3	2.33	0.43
1:J:364:GLU:O	1:J:365:PHE:CD1	2.67	0.43
1:K:311:ASN:H	1:K:317:ARG:HG3	1.83	0.43
1:O:146:TRP:CZ3	1:O:240:LEU:HD12	2.54	0.43
1:K:309:VAL:O	1:K:310:ALA:C	2.57	0.43
1:I:21:ARG:HB3	1:I:23:ARG:HH21	1.84	0.43
1:T:54:LEU:HA	1:T:55:PRO:HD2	1.76	0.43
1:G:257:GLU:H	1:G:257:GLU:HG3	1.61	0.43
1:C:289:ASN:HD21	1:C:293:LEU:CD2	2.32	0.42
1:E:356:ILE:HG22	1:E:358:ASN:CB	2.48	0.42
1:F:120:ALA:CB	1:F:356:ILE:HD11	2.49	0.42
1:L:253:VAL:HB	1:L:330:PHE:CZ	2.54	0.42
1:I:364:GLU:O	1:I:365:PHE:CD1	2.62	0.42
1:J:74:ILE:HG22	1:J:75:TYR:N	2.34	0.42
1:P:126:ILE:CD1	1:P:349:CYS:SG	3.06	0.42
1:R:31:ILE:HD13	1:R:216:TRP:CZ2	2.54	0.42
1:N:173:ILE:HG12	1:N:199:TRP:CE2	2.54	0.42
1:D:118:PHE:CE1	1:D:126:ILE:HD12	2.54	0.42
1:D:134:TYR:CZ	1:D:199:TRP:HB2	2.54	0.42
1:P:40:LYS:HG3	1:P:57:TRP:CH2	2.54	0.42
1:O:24:ILE:HD11	1:O:90:ASP:CB	2.49	0.42
1:H:24:ILE:HA	1:H:24:ILE:HD13	1.61	0.42
1:G:240:LEU:HA	1:G:240:LEU:HD23	1.54	0.42
1:T:236:HIS:HA	1:T:237:PRO:HD3	1.81	0.42
1:R:290:ASP:HA	1:R:302:MET:HG3	2.01	0.42
1:D:331:GLU:OE1	1:D:333:ARG:HD2	2.19	0.42
1:L:150:GLY:HA3	1:T:147:PRO:CG	2.49	0.42
1:A:281:HIS:CE1	1:A:348:MET:HE2	2.51	0.42
1:B:217:MET:HE2	1:B:217:MET:HB3	1.87	0.42
1:H:74:ILE:HG22	1:H:75:TYR:N	2.33	0.42
1:C:79:VAL:HG11	1:C:111:ARG:NE	2.34	0.42
1:M:21:ARG:HB3	1:M:23:ARG:HH21	1.82	0.42
1:K:79:VAL:HG13	1:K:111:ARG:NH2	2.34	0.42
1:R:102:ASP:HB2	1:R:104:THR:H	1.84	0.42
1:I:102:ASP:HB2	1:I:104:THR:H	1.84	0.42
1:A:146:TRP:CZ3	1:A:240:LEU:HD12	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:46:LYS:HG2	1:R:47:ARG:O	2.19	0.42
1:D:232:LYS:HG2	1:E:164:ALA:HB3	2.01	0.42
1:B:257:GLU:HG3	1:B:257:GLU:H	1.52	0.42
1:L:356:ILE:HG22	1:L:358:ASN:CB	2.48	0.42
1:H:284:LEU:N	1:H:284:LEU:HD23	2.33	0.42
1:D:343:LEU:HD13	1:D:365:PHE:HE1	1.82	0.42
1:T:102:ASP:HB2	1:T:104:THR:H	1.84	0.42
1:Q:146:TRP:CZ3	1:Q:240:LEU:HD12	2.54	0.42
1:S:265:LYS:O	1:S:269:GLN:HG3	2.19	0.42
1:I:146:TRP:CZ3	1:I:240:LEU:HD12	2.54	0.42
1:H:309:VAL:O	1:H:310:ALA:C	2.57	0.42
1:B:334:ARG:N	1:B:335:PRO:CD	2.82	0.42
1:F:66:GLN:HE21	1:F:106:ASN:ND2	2.18	0.42
1:L:130:LEU:HD12	1:L:215:LEU:HD22	2.01	0.42
1:P:257:GLU:H	1:P:257:GLU:HG3	1.61	0.42
1:R:253:VAL:HB	1:R:330:PHE:CZ	2.54	0.42
1:H:209:ILE:HA	1:H:209:ILE:HD13	1.94	0.42
1:Q:146:TRP:CH2	1:Q:240:LEU:HD12	2.54	0.42
1:A:24:ILE:HD13	1:A:24:ILE:HA	1.59	0.42
1:R:168:TYR:HB2	1:R:197:SER:HB3	2.01	0.42
1:N:128:PHE:CE2	1:N:345:THR:HB	2.54	0.42
1:T:106:ASN:ND2	1:T:108:PHE:H	2.18	0.42
1:K:156:GLY:N	1:K:157:PRO:HD2	2.34	0.42
1:C:295:GLY:N	1:C:300:ALA:O	2.51	0.42
1:T:178:ARG:NH1	1:T:178:ARG:CG	2.71	0.42
1:H:21:ARG:CG	1:K:46:LYS:HZ3	2.33	0.42
1:H:23:ARG:HH22	1:I:184:GLY:HA2	1.84	0.42
1:D:292:ARG:NH1	2:D:371:FLC:OB2	2.53	0.42
1:E:106:ASN:ND2	1:E:108:PHE:H	2.18	0.42
1:H:212:GLY:HA2	1:H:341:PRO:HB2	2.00	0.42
1:F:73:ASP:OD2	1:G:320:ARG:NH2	2.52	0.42
1:K:54:LEU:HA	1:K:55:PRO:HD2	1.78	0.42
1:T:263:GLY:C	1:T:265:LYS:N	2.72	0.42
1:E:84:ASP:HA	1:E:93:VAL:HG23	2.01	0.42
1:B:60:ASP:C	1:B:60:ASP:OD1	2.57	0.42
1:J:240:LEU:HA	1:J:240:LEU:HD23	1.59	0.42
1:A:356:ILE:HG22	1:A:358:ASN:CB	2.49	0.42
1:C:212:GLY:HA2	1:C:341:PRO:HB2	2.01	0.42
1:M:311:ASN:H	1:M:317:ARG:HG3	1.84	0.42
1:F:311:ASN:H	1:F:317:ARG:HG3	1.84	0.42
1:G:315:SER:HB3	1:G:334:ARG:HD3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:84:ASP:HA	1:M:93:VAL:HG23	2.01	0.42
1:R:255:THR:OG1	1:R:258:MET:HG3	2.19	0.42
1:M:116:LYS:HD2	1:M:359:ALA:HB2	2.01	0.42
1:T:255:THR:OG1	1:T:258:MET:HG3	2.19	0.42
1:P:224:ARG:O	1:P:227:GLU:HB2	2.20	0.42
1:C:292:ARG:O	1:C:294:THR:CB	2.63	0.42
1:T:340:ASP:HA	1:T:341:PRO:HD2	1.86	0.42
1:J:340:ASP:HA	1:J:341:PRO:HD2	1.85	0.42
1:I:277:ARG:HH21	1:I:351:THR:HG22	1.83	0.42
1:G:74:ILE:HG22	1:G:75:TYR:N	2.34	0.42
1:P:67:ALA:HB2	1:P:74:ILE:CD1	2.50	0.42
1:I:31:ILE:HD13	1:I:216:TRP:CZ2	2.54	0.42
1:D:31:ILE:HD13	1:D:216:TRP:CZ2	2.54	0.42
1:A:67:ALA:HB2	1:A:74:ILE:CD1	2.49	0.42
1:K:146:TRP:CH2	1:K:240:LEU:HD12	2.54	0.42
1:B:316:ILE:HD13	1:B:332:ASP:HA	2.02	0.42
1:N:331:GLU:OE1	1:N:333:ARG:HD2	2.20	0.42
1:D:257:GLU:H	1:D:257:GLU:HG3	1.58	0.42
1:B:120:ALA:CB	1:B:356:ILE:HD11	2.50	0.42
1:T:253:VAL:O	1:T:329:TYR:HB2	2.19	0.42
1:J:311:ASN:H	1:J:317:ARG:HG3	1.84	0.42
1:N:67:ALA:HB1	1:N:68:PRO:CD	2.50	0.42
1:O:146:TRP:CH2	1:O:240:LEU:HD12	2.54	0.42
1:K:46:LYS:HG2	1:K:47:ARG:O	2.19	0.42
1:P:134:TYR:CZ	1:P:199:TRP:HB2	2.55	0.42
1:B:240:LEU:HA	1:B:240:LEU:HD23	1.58	0.42
1:J:168:TYR:HB2	1:J:197:SER:HB3	2.01	0.42
1:G:236:HIS:HA	1:G:237:PRO:HD3	1.80	0.42
1:O:168:TYR:HB2	1:O:197:SER:HB3	2.02	0.42
1:R:309:VAL:O	1:R:310:ALA:C	2.58	0.42
1:C:21:ARG:HA	1:C:21:ARG:HD3	1.84	0.42
1:A:339:ILE:HG13	1:A:344:VAL:CG2	2.50	0.42
1:E:74:ILE:HG22	1:E:75:TYR:N	2.34	0.42
1:A:74:ILE:HG22	1:A:75:TYR:N	2.34	0.42
1:M:150:GLY:HA3	1:S:147:PRO:CB	2.50	0.42
1:F:334:ARG:N	1:F:335:PRO:CD	2.82	0.42
1:K:24:ILE:HD11	1:K:90:ASP:CB	2.49	0.42
1:K:66:GLN:HE21	1:K:106:ASN:ND2	2.18	0.42
1:D:106:ASN:ND2	1:D:108:PHE:H	2.18	0.42
1:N:309:VAL:O	1:N:310:ALA:C	2.56	0.42
1:P:309:VAL:O	1:P:310:ALA:C	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:138:ASP:HB3	1:M:140:TYR:N	2.20	0.42
1:L:281:HIS:HE1	1:L:348:MET:HE2	1.85	0.42
1:C:360:ASP:OD1	1:C:362:THR:HG23	2.20	0.42
1:E:146:TRP:HE1	1:E:196:PRO:HB2	1.85	0.42
1:C:133:GLU:OE1	2:C:371:FLC:CG	2.68	0.42
1:S:67:ALA:HB2	1:S:74:ILE:CD1	2.49	0.42
1:M:146:TRP:CH2	1:M:240:LEU:HD12	2.55	0.42
1:I:49:THR:HG22	1:K:81:TYR:CZ	2.54	0.42
1:T:66:GLN:HE21	1:T:106:ASN:ND2	2.17	0.42
1:Q:107:LYS:HA	1:Q:366:GLU:HG3	2.00	0.42
1:Q:54:LEU:HA	1:Q:55:PRO:HD2	1.80	0.42
1:C:148:LYS:HD2	1:I:148:LYS:NZ	2.35	0.42
1:E:309:VAL:O	1:E:310:ALA:C	2.58	0.42
1:A:21:ARG:HB2	1:B:181:LEU:O	2.20	0.42
1:D:191:ASN:C	1:D:191:ASN:ND2	2.73	0.42
1:F:257:GLU:HG3	1:F:257:GLU:H	1.61	0.42
1:Q:305:PHE:C	1:Q:305:PHE:CD2	2.94	0.42
1:O:339:ILE:HG13	1:O:344:VAL:CG2	2.50	0.41
1:P:340:ASP:HA	1:P:341:PRO:HD2	1.83	0.41
1:L:158:TYR:CZ	1:L:196:PRO:HG3	2.55	0.41
1:O:240:LEU:HD23	1:O:240:LEU:HA	1.52	0.41
1:I:79:VAL:HG11	1:I:111:ARG:NE	2.35	0.41
1:D:67:ALA:HB2	1:D:74:ILE:CD1	2.50	0.41
1:G:111:ARG:HG3	1:G:209:ILE:HD12	2.02	0.41
1:B:102:ASP:HB2	1:B:104:THR:H	1.84	0.41
1:I:240:LEU:HD23	1:I:240:LEU:HA	1.54	0.41
1:R:63:SER:HB2	1:S:159:TYR:CD2	2.55	0.41
1:I:46:LYS:HG2	1:I:47:ARG:O	2.20	0.41
1:A:269:GLN:O	1:A:273:LYS:HG3	2.19	0.41
1:E:315:SER:HB3	1:E:334:ARG:HD3	2.01	0.41
1:G:171:ASP:N	1:G:171:ASP:OD1	2.53	0.41
1:Q:263:GLY:C	1:Q:265:LYS:N	2.71	0.41
1:D:138:ASP:HB3	1:D:140:TYR:N	2.20	0.41
1:Q:281:HIS:NE2	1:Q:351:THR:HG21	2.34	0.41
1:S:253:VAL:HB	1:S:330:PHE:CZ	2.55	0.41
1:E:253:VAL:HB	1:E:330:PHE:CZ	2.55	0.41
1:O:133:GLU:OE1	2:O:371:FLC:CGC	2.68	0.41
1:H:217:MET:HE2	1:H:217:MET:HB3	1.80	0.41
1:I:311:ASN:H	1:I:317:ARG:HG3	1.85	0.41
1:H:79:VAL:HG11	1:H:111:ARG:NE	2.35	0.41
1:I:118:PHE:CE1	1:I:126:ILE:HD12	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:143:VAL:HG11	1:P:146:TRP:CE2	2.55	0.41
1:I:146:TRP:CH2	1:I:240:LEU:HD12	2.55	0.41
2:Q:371:FLC:OG1	2:Q:371:FLC:OB1	2.38	0.41
1:M:315:SER:HB3	1:M:334:ARG:HD3	2.01	0.41
1:C:88:ARG:O	1:C:91:ASN:HB2	2.20	0.41
1:N:133:GLU:CD	2:N:371:FLC:HG2	2.41	0.41
1:G:67:ALA:HB2	1:G:74:ILE:CD1	2.49	0.41
1:L:148:LYS:HG3	1:T:148:LYS:HG3	2.01	0.41
1:J:118:PHE:CE1	1:J:126:ILE:HD12	2.55	0.41
1:M:147:PRO:CB	1:S:150:GLY:HA3	2.51	0.41
1:D:133:GLU:OE1	2:D:371:FLC:CG	2.68	0.41
1:C:309:VAL:O	1:C:310:ALA:C	2.57	0.41
1:M:168:TYR:HB2	1:M:197:SER:HB3	2.02	0.41
1:L:63:SER:HB2	1:M:159:TYR:CD2	2.55	0.41
1:F:236:HIS:HA	1:F:237:PRO:HD3	1.74	0.41
1:P:263:GLY:C	1:P:265:LYS:N	2.73	0.41
1:L:171:ASP:N	1:L:171:ASP:OD1	2.53	0.41
1:B:178:ARG:NH1	1:B:178:ARG:CG	2.70	0.41
1:A:138:ASP:HB3	1:A:140:TYR:N	2.20	0.41
1:K:277:ARG:HH21	1:K:351:THR:HG22	1.85	0.41
1:T:74:ILE:HG22	1:T:75:TYR:N	2.35	0.41
1:T:40:LYS:HG3	1:T:57:TRP:CH2	2.55	0.41
1:E:24:ILE:HD11	1:E:90:ASP:CB	2.50	0.41
1:D:133:GLU:OE1	2:D:371:FLC:CGC	2.69	0.41
1:D:23:ARG:HH22	1:E:184:GLY:HA2	1.84	0.41
1:N:240:LEU:HD23	1:N:240:LEU:HA	1.48	0.41
1:R:278:HIS:HA	1:R:334:ARG:HH12	1.86	0.41
1:H:255:THR:OG1	1:H:258:MET:HG3	2.20	0.41
1:M:131:GLU:O	1:M:249:CYS:HA	2.20	0.41
1:F:22:GLY:N	1:M:47:ARG:NH2	2.69	0.41
1:E:138:ASP:HB3	1:E:140:TYR:N	2.19	0.41
1:L:364:GLU:O	1:L:365:PHE:CD1	2.68	0.41
1:C:158:TYR:CZ	1:C:196:PRO:HG3	2.56	0.41
1:G:134:TYR:N	1:G:134:TYR:CD2	2.88	0.41
1:H:40:LYS:HG3	1:H:57:TRP:CH2	2.54	0.41
1:L:40:LYS:HG3	1:L:57:TRP:CH2	2.56	0.41
1:R:84:ASP:HA	1:R:85:PRO:HD3	1.97	0.41
1:K:126:ILE:CD1	1:K:349:CYS:HB2	2.49	0.41
1:N:128:PHE:O	1:N:205:PRO:HA	2.21	0.41
1:T:83:PRO:HB2	1:T:182:TYR:CE2	2.55	0.41
1:M:331:GLU:OE1	1:M:333:ARG:HD2	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:224:ARG:O	1:E:227:GLU:HB2	2.20	0.41
1:M:66:GLN:HE21	1:M:106:ASN:ND2	2.18	0.41
1:S:131:GLU:O	1:S:249:CYS:HA	2.21	0.41
1:J:356:ILE:HG22	1:J:358:ASN:CB	2.49	0.41
1:P:356:ILE:HG22	1:P:358:ASN:CB	2.49	0.41
1:D:340:ASP:HA	1:D:341:PRO:HD2	1.84	0.41
1:C:339:ILE:HG12	1:C:344:VAL:CG2	2.50	0.41
1:J:253:VAL:HB	1:J:330:PHE:CZ	2.55	0.41
1:F:46:LYS:HG2	1:F:47:ARG:O	2.19	0.41
1:S:209:ILE:HD13	1:S:209:ILE:HA	1.92	0.41
1:O:102:ASP:HB2	1:O:104:THR:H	1.85	0.41
1:J:111:ARG:HG3	1:J:209:ILE:HD12	2.02	0.41
1:C:118:PHE:CE1	1:C:126:ILE:HD12	2.56	0.41
1:B:40:LYS:HG3	1:B:57:TRP:CH2	2.56	0.41
1:R:24:ILE:HD11	1:R:90:ASP:CB	2.51	0.41
1:J:106:ASN:HD22	1:J:108:PHE:H	1.69	0.41
1:M:126:ILE:HD13	1:M:349:CYS:HB2	2.03	0.41
1:O:128:PHE:O	1:O:205:PRO:HA	2.20	0.41
1:G:269:GLN:O	1:G:273:LYS:HG3	2.21	0.41
1:S:309:VAL:O	1:S:310:ALA:C	2.59	0.41
1:Q:74:ILE:HG22	1:Q:75:TYR:N	2.36	0.41
1:B:364:GLU:O	1:B:365:PHE:CD1	2.66	0.41
1:J:67:ALA:HB2	1:J:74:ILE:CD1	2.51	0.41
1:H:67:ALA:HB2	1:H:74:ILE:CD1	2.51	0.41
1:A:40:LYS:HE3	1:A:57:TRP:CH2	2.56	0.41
1:A:102:ASP:HB2	1:A:104:THR:H	1.85	0.41
1:D:148:LYS:HE3	1:H:148:LYS:HD2	2.03	0.41
1:P:83:PRO:HB2	1:P:182:TYR:CE2	2.56	0.41
1:J:60:ASP:C	1:J:60:ASP:OD1	2.59	0.41
1:R:281:HIS:HE1	1:R:348:MET:HE2	1.85	0.41
1:K:281:HIS:HE1	1:K:348:MET:HE2	1.85	0.41
1:H:343:LEU:HD13	1:H:365:PHE:HE1	1.85	0.41
1:H:311:ASN:H	1:H:317:ARG:HG3	1.85	0.41
1:M:21:ARG:HD3	1:M:21:ARG:HA	1.88	0.41
2:G:371:FLC:OB1	2:G:371:FLC:OG1	2.39	0.41
1:H:173:ILE:HG12	1:H:199:TRP:CE2	2.56	0.41
1:O:132:GLN:O	1:O:200:GLU:HA	2.20	0.41
1:S:24:ILE:HA	1:S:24:ILE:HD13	1.60	0.41
1:D:148:LYS:CE	1:H:148:LYS:HD2	2.51	0.41
1:T:331:GLU:OE1	1:T:333:ARG:HD2	2.21	0.41
1:R:331:GLU:OE1	1:R:333:ARG:HD2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:331:GLU:OE1	1:K:333:ARG:HD2	2.21	0.41
1:F:87:ARG:HB3	1:G:178:ARG:NH2	2.36	0.41
1:H:356:ILE:HG22	1:H:358:ASN:CB	2.51	0.41
1:B:339:ILE:HG13	1:B:344:VAL:CG2	2.49	0.41
1:F:212:GLY:HA2	1:F:341:PRO:HB2	2.03	0.41
1:K:347:ILE:HA	1:K:361:MET:HG3	2.03	0.41
1:O:284:LEU:HD13	1:O:343:LEU:HB3	2.02	0.41
1:E:67:ALA:HB2	1:E:74:ILE:CD1	2.50	0.41
1:N:311:ASN:H	1:N:317:ARG:HG3	1.85	0.41
1:Q:132:GLN:O	1:Q:200:GLU:HA	2.21	0.41
1:E:31:ILE:HD13	1:E:216:TRP:CZ2	2.55	0.41
1:S:31:ILE:HD13	1:S:216:TRP:CZ2	2.56	0.41
1:K:146:TRP:CZ3	1:K:240:LEU:HD12	2.55	0.41
1:B:146:TRP:CH2	1:B:240:LEU:HD12	2.55	0.41
1:D:146:TRP:CH2	1:D:240:LEU:HD12	2.56	0.41
1:R:224:ARG:NH1	1:R:224:ARG:HG3	2.36	0.41
1:L:263:GLY:O	1:L:265:LYS:N	2.53	0.41
1:L:21:ARG:HA	1:L:21:ARG:HD3	1.87	0.41
1:Q:263:GLY:O	1:Q:265:LYS:N	2.54	0.41
1:O:194:VAL:HB	1:O:245:ASN:ND2	2.35	0.41
1:A:212:GLY:HA2	1:A:341:PRO:HB2	2.02	0.41
1:S:21:ARG:HB3	1:S:23:ARG:HH21	1.85	0.41
1:R:73:ASP:OD2	1:S:320:ARG:NH2	2.54	0.41
1:Q:236:HIS:HA	1:Q:237:PRO:HD3	1.78	0.41
1:F:171:ASP:OD1	1:F:171:ASP:N	2.54	0.41
1:E:60:ASP:OD1	1:E:60:ASP:C	2.59	0.41
1:L:60:ASP:OD1	1:L:60:ASP:C	2.59	0.41
1:B:340:ASP:HA	1:B:341:PRO:HD2	1.85	0.41
1:C:340:ASP:HA	1:C:341:PRO:HD2	1.80	0.41
1:A:277:ARG:HH21	1:A:351:THR:HG22	1.86	0.41
1:B:281:HIS:CE1	1:B:348:MET:HE2	2.56	0.41
1:O:277:ARG:HH21	1:O:351:THR:HG22	1.86	0.41
1:R:246:GLY:O	2:R:371:FLC:OG1	2.39	0.41
1:O:74:ILE:HG22	1:O:75:TYR:N	2.35	0.41
1:H:21:ARG:HB3	1:H:23:ARG:HH21	1.84	0.41
1:P:31:ILE:HD13	1:P:216:TRP:CZ2	2.56	0.41
1:I:133:GLU:OE1	2:I:371:FLC:HG2	2.21	0.41
1:T:31:ILE:HD13	1:T:216:TRP:CZ2	2.55	0.41
1:F:126:ILE:CD1	1:F:349:CYS:HB2	2.51	0.41
1:P:79:VAL:CG1	1:P:111:ARG:CZ	2.99	0.41
1:H:106:ASN:HD22	1:H:108:PHE:H	1.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:263:GLY:O	1:A:265:LYS:N	2.54	0.41
1:J:130:LEU:HD12	1:J:215:LEU:HD22	2.03	0.41
1:K:73:ASP:OD2	1:L:320:ARG:NH2	2.54	0.41
1:M:309:VAL:O	1:M:310:ALA:C	2.59	0.41
1:S:46:LYS:HG2	1:S:47:ARG:O	2.21	0.41
1:S:340:ASP:HA	1:S:341:PRO:HD2	1.83	0.40
1:O:146:TRP:HE1	1:O:196:PRO:HB2	1.86	0.40
1:I:173:ILE:HG12	1:I:199:TRP:CE2	2.56	0.40
1:A:148:LYS:HD2	1:F:148:LYS:CE	2.51	0.40
1:J:104:THR:HA	1:J:105:PRO:HD3	1.94	0.40
1:E:134:TYR:CZ	1:E:199:TRP:HB2	2.56	0.40
1:J:24:ILE:HA	1:J:24:ILE:HD13	1.58	0.40
1:R:236:HIS:HA	1:R:237:PRO:HD3	1.73	0.40
1:Q:238:LYS:HB3	1:Q:291:MET:HE2	2.02	0.40
1:N:257:GLU:H	1:N:257:GLU:HG3	1.62	0.40
1:D:339:ILE:HG13	1:D:344:VAL:CG2	2.50	0.40
1:F:339:ILE:HG13	1:F:344:VAL:CG2	2.51	0.40
1:I:74:ILE:HG22	1:I:75:TYR:N	2.36	0.40
1:T:67:ALA:HB2	1:T:74:ILE:CD1	2.50	0.40
1:P:132:GLN:O	1:P:200:GLU:HA	2.21	0.40
1:F:118:PHE:CE1	1:F:126:ILE:HD12	2.56	0.40
1:F:265:LYS:O	1:F:269:GLN:HG3	2.21	0.40
1:P:146:TRP:CH2	1:P:240:LEU:HD12	2.56	0.40
1:T:240:LEU:HA	1:T:240:LEU:HD23	1.60	0.40
1:F:146:TRP:CH2	1:F:240:LEU:HD12	2.56	0.40
1:S:156:GLY:N	1:S:157:PRO:HD2	2.36	0.40
1:H:236:HIS:HA	1:H:237:PRO:HD3	1.75	0.40
1:T:156:GLY:N	1:T:157:PRO:HD2	2.36	0.40
1:N:66:GLN:HE21	1:N:106:ASN:ND2	2.19	0.40
1:P:156:GLY:N	1:P:157:PRO:HD2	2.36	0.40
1:S:116:LYS:HD2	1:S:359:ALA:HB2	2.04	0.40
1:F:136:LEU:HD22	1:F:231:ILE:HG21	2.03	0.40
1:N:356:ILE:HG22	1:N:358:ASN:CB	2.51	0.40
1:A:364:GLU:O	1:A:365:PHE:CD1	2.65	0.40
1:M:217:MET:HE2	1:M:217:MET:HB3	1.93	0.40
1:R:146:TRP:CZ3	1:R:240:LEU:HD12	2.57	0.40
1:F:132:GLN:O	1:F:200:GLU:HA	2.21	0.40
1:H:146:TRP:CH2	1:H:240:LEU:HD12	2.56	0.40
1:M:126:ILE:CD1	1:M:349:CYS:HB2	2.52	0.40
1:S:130:LEU:CD2	1:S:251:ALA:HA	2.51	0.40
1:B:116:LYS:HD2	1:B:359:ALA:HB2	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:236:HIS:HA	1:D:237:PRO:HD3	1.80	0.40
1:N:46:LYS:HG2	1:N:47:ARG:O	2.22	0.40
1:B:46:LYS:HG2	1:B:47:ARG:O	2.21	0.40
1:D:255:THR:OG1	1:D:258:MET:HG3	2.22	0.40
1:L:240:LEU:HD23	1:L:240:LEU:HA	1.58	0.40
1:G:339:ILE:HG13	1:G:344:VAL:CG2	2.51	0.40
1:K:281:HIS:NE2	1:K:351:THR:HG21	2.36	0.40
1:L:347:ILE:N	1:L:361:MET:HG3	2.37	0.40
1:B:343:LEU:HD13	1:B:365:PHE:HE1	1.86	0.40
1:M:111:ARG:HH21	1:M:209:ILE:HG21	1.85	0.40
1:T:173:ILE:HG12	1:T:199:TRP:CE2	2.57	0.40
1:L:24:ILE:HD11	1:L:90:ASP:CB	2.50	0.40
1:N:146:TRP:CH2	1:N:240:LEU:HD12	2.56	0.40
1:B:106:ASN:ND2	1:B:108:PHE:H	2.20	0.40
1:C:84:ASP:HA	1:C:85:PRO:HD3	1.98	0.40
1:M:263:GLY:O	1:M:265:LYS:N	2.54	0.40
1:F:194:VAL:HB	1:F:245:ASN:ND2	2.36	0.40
1:E:316:ILE:HD13	1:E:332:ASP:HA	2.02	0.40
1:N:194:VAL:HB	1:N:245:ASN:ND2	2.37	0.40
1:R:305:PHE:CD2	1:R:305:PHE:C	2.94	0.40
1:R:253:VAL:O	1:R:329:TYR:HB2	2.22	0.40
1:K:347:ILE:N	1:K:361:MET:HG3	2.37	0.40
1:A:347:ILE:N	1:A:361:MET:HG3	2.36	0.40
1:R:74:ILE:HG22	1:R:75:TYR:N	2.35	0.40
1:K:111:ARG:HG3	1:K:209:ILE:HD12	2.03	0.40
1:K:134:TYR:CZ	1:K:199:TRP:HB2	2.57	0.40
1:H:133:GLU:OE1	2:H:371:FLC:CGC	2.70	0.40
1:K:106:ASN:HD21	1:K:108:PHE:HD2	1.70	0.40
1:B:30:TRP:CE2	1:B:38:ARG:HB2	2.57	0.40

All (4) 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:D:272:GLU:OE1	1:P:301:SER:OG[1_656]	1.97	0.23
1:C:324:LYS:O	1:F:276:LYS:NZ[1_655]	2.06	0.14
1:D:272:GLU:OE1	1:P:303:THR:OG1[1_656]	2.07	0.13
1:C:272:GLU:OE2	1:F:356:ILE:CG2[1_655]	2.15	0.05

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	330/370 (89%)	303 (92%)	20 (6%)	7 (2%)	9	37
1	B	330/370 (89%)	301 (91%)	21 (6%)	8 (2%)	7	33
1	C	338/370 (91%)	305 (90%)	23 (7%)	10 (3%)	5	26
1	D	330/370 (89%)	303 (92%)	20 (6%)	7 (2%)	9	37
1	E	330/370 (89%)	303 (92%)	20 (6%)	7 (2%)	9	37
1	F	330/370 (89%)	303 (92%)	20 (6%)	7 (2%)	9	37
1	G	330/370 (89%)	302 (92%)	21 (6%)	7 (2%)	9	37
1	H	330/370 (89%)	306 (93%)	18 (6%)	6 (2%)	11	42
1	I	330/370 (89%)	306 (93%)	17 (5%)	7 (2%)	9	37
1	J	330/370 (89%)	301 (91%)	22 (7%)	7 (2%)	9	37
1	K	330/370 (89%)	302 (92%)	20 (6%)	8 (2%)	7	33
1	L	330/370 (89%)	303 (92%)	20 (6%)	7 (2%)	9	37
1	M	330/370 (89%)	302 (92%)	21 (6%)	7 (2%)	9	37
1	N	330/370 (89%)	305 (92%)	19 (6%)	6 (2%)	11	42
1	O	330/370 (89%)	303 (92%)	19 (6%)	8 (2%)	7	33
1	P	330/370 (89%)	303 (92%)	20 (6%)	7 (2%)	9	37
1	Q	330/370 (89%)	303 (92%)	19 (6%)	8 (2%)	7	33
1	R	330/370 (89%)	303 (92%)	20 (6%)	7 (2%)	9	37
1	S	330/370 (89%)	302 (92%)	22 (7%)	6 (2%)	11	42
1	T	330/370 (89%)	302 (92%)	20 (6%)	8 (2%)	7	33
All	All	6608/7400 (89%)	6061 (92%)	402 (6%)	145 (2%)	8	35

All (145) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	285	TYR

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Mol	Chain	Res	Type
1	A	364	GLU
1	B	285	TYR
1	B	364	GLU
1	C	70	HIS
1	C	71	ASP
1	C	72	SER
1	C	285	TYR
1	C	364	GLU
1	D	285	TYR
1	D	364	GLU
1	E	285	TYR
1	E	288	ASP
1	E	364	GLU
1	F	285	TYR
1	G	285	TYR
1	H	285	TYR
1	H	364	GLU
1	I	285	TYR
1	I	288	ASP
1	J	285	TYR
1	J	288	ASP
1	J	364	GLU
1	K	285	TYR
1	K	288	ASP
1	L	285	TYR
1	L	364	GLU
1	M	285	TYR
1	M	364	GLU
1	N	285	TYR
1	N	364	GLU
1	O	285	TYR
1	O	288	ASP
1	P	285	TYR
1	P	364	GLU
1	Q	285	TYR
1	Q	288	ASP
1	R	285	TYR
1	R	364	GLU
1	S	285	TYR
1	S	364	GLU
1	T	285	TYR
1	T	364	GLU

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Mol	Chain	Res	Type
1	A	284	LEU
1	A	288	ASP
1	B	284	LEU
1	B	288	ASP
1	C	284	LEU
1	C	288	ASP
1	D	284	LEU
1	D	288	ASP
1	E	284	LEU
1	F	288	ASP
1	F	364	GLU
1	G	106	ASN
1	G	284	LEU
1	G	288	ASP
1	G	364	GLU
1	H	284	LEU
1	H	288	ASP
1	I	284	LEU
1	I	364	GLU
1	J	284	LEU
1	K	284	LEU
1	K	364	GLU
1	L	284	LEU
1	L	288	ASP
1	M	284	LEU
1	M	288	ASP
1	N	288	ASP
1	O	364	GLU
1	P	284	LEU
1	P	288	ASP
1	Q	106	ASN
1	Q	364	GLU
1	R	288	ASP
1	S	284	LEU
1	S	288	ASP
1	T	284	LEU
1	T	288	ASP
1	C	88	ARG
1	C	106	ASN
1	C	293	LEU
1	E	106	ASN
1	F	284	LEU

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Mol	Chain	Res	Type
1	H	88	ARG
1	I	106	ASN
1	J	88	ARG
1	J	106	ASN
1	K	88	ARG
1	N	88	ARG
1	N	284	LEU
1	O	106	ASN
1	O	284	LEU
1	P	88	ARG
1	Q	88	ARG
1	Q	284	LEU
1	R	88	ARG
1	R	106	ASN
1	R	284	LEU
1	T	88	ARG
1	A	88	ARG
1	B	88	ARG
1	D	88	ARG
1	D	106	ASN
1	F	88	ARG
1	H	106	ASN
1	I	88	ARG
1	L	106	ASN
1	M	88	ARG
1	M	106	ASN
1	N	106	ASN
1	O	365	PHE
1	T	106	ASN
1	A	106	ASN
1	A	147	PRO
1	B	106	ASN
1	B	310	ALA
1	E	88	ARG
1	G	88	ARG
1	K	106	ASN
1	L	88	ARG
1	O	88	ARG
1	P	106	ASN
1	Q	365	PHE
1	S	88	ARG
1	S	106	ASN

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Mol	Chain	Res	Type
1	T	365	PHE
1	D	147	PRO
1	F	365	PHE
1	I	147	PRO
1	K	147	PRO
1	K	365	PHE
1	L	147	PRO
1	T	147	PRO
1	B	147	PRO
1	G	147	PRO
1	Q	147	PRO
1	E	147	PRO
1	F	147	PRO
1	J	147	PRO
1	M	147	PRO
1	O	147	PRO
1	R	147	PRO
1	P	147	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	273/304 (90%)	247 (90%)	26 (10%)	11	36
1	B	273/304 (90%)	247 (90%)	26 (10%)	11	36
1	C	277/304 (91%)	248 (90%)	29 (10%)	8	30
1	D	273/304 (90%)	247 (90%)	26 (10%)	11	36
1	E	273/304 (90%)	249 (91%)	24 (9%)	12	40
1	F	273/304 (90%)	249 (91%)	24 (9%)	12	40
1	G	273/304 (90%)	247 (90%)	26 (10%)	11	36
1	H	273/304 (90%)	248 (91%)	25 (9%)	11	37
1	I	273/304 (90%)	247 (90%)	26 (10%)	11	36
1	J	273/304 (90%)	247 (90%)	26 (10%)	11	36

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	K	273/304 (90%)	248 (91%)	25 (9%)	11	37
1	L	273/304 (90%)	248 (91%)	25 (9%)	11	37
1	M	273/304 (90%)	248 (91%)	25 (9%)	11	37
1	N	273/304 (90%)	248 (91%)	25 (9%)	11	37
1	O	273/304 (90%)	248 (91%)	25 (9%)	11	37
1	P	273/304 (90%)	249 (91%)	24 (9%)	12	40
1	Q	273/304 (90%)	248 (91%)	25 (9%)	11	37
1	R	273/304 (90%)	249 (91%)	24 (9%)	12	40
1	S	273/304 (90%)	248 (91%)	25 (9%)	11	37
1	T	273/304 (90%)	249 (91%)	24 (9%)	12	40
All	All	5464/6080 (90%)	4959 (91%)	505 (9%)	11	37

All (505) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	21	ARG
1	A	24	ILE
1	A	50	SER
1	A	51	ILE
1	A	92	ILE
1	A	124	GLU
1	A	126	ILE
1	A	162	VAL
1	A	167	VAL
1	A	173	ILE
1	A	177	TYR
1	A	178	ARG
1	A	191	ASN
1	A	209	ILE
1	A	240	LEU
1	A	257	GLU
1	A	288	ASP
1	A	291	MET
1	A	314	SER
1	A	321	SER
1	A	333	ARG
1	A	339	ILE
1	A	348	MET

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Mol	Chain	Res	Type
1	A	351	THR
1	A	362	THR
1	A	365	PHE
1	B	21	ARG
1	B	24	ILE
1	B	50	SER
1	B	51	ILE
1	B	92	ILE
1	B	102	ASP
1	B	124	GLU
1	B	126	ILE
1	B	162	VAL
1	B	167	VAL
1	B	177	TYR
1	B	178	ARG
1	B	191	ASN
1	B	209	ILE
1	B	240	LEU
1	B	257	GLU
1	B	288	ASP
1	B	291	MET
1	B	314	SER
1	B	321	SER
1	B	333	ARG
1	B	339	ILE
1	B	348	MET
1	B	351	THR
1	B	362	THR
1	B	365	PHE
1	C	21	ARG
1	C	24	ILE
1	C	50	SER
1	C	51	ILE
1	C	71	ASP
1	C	92	ILE
1	C	101	ASN
1	C	124	GLU
1	C	126	ILE
1	C	162	VAL
1	C	167	VAL
1	C	177	TYR
1	C	178	ARG

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Mol	Chain	Res	Type
1	C	191	ASN
1	C	209	ILE
1	C	240	LEU
1	C	257	GLU
1	C	288	ASP
1	C	291	MET
1	C	293	LEU
1	C	294	THR
1	C	314	SER
1	C	321	SER
1	C	333	ARG
1	C	339	ILE
1	C	348	MET
1	C	351	THR
1	C	362	THR
1	C	365	PHE
1	D	21	ARG
1	D	24	ILE
1	D	50	SER
1	D	51	ILE
1	D	92	ILE
1	D	101	ASN
1	D	124	GLU
1	D	126	ILE
1	D	162	VAL
1	D	167	VAL
1	D	177	TYR
1	D	178	ARG
1	D	191	ASN
1	D	209	ILE
1	D	240	LEU
1	D	257	GLU
1	D	276	LYS
1	D	288	ASP
1	D	291	MET
1	D	314	SER
1	D	321	SER
1	D	339	ILE
1	D	348	MET
1	D	351	THR
1	D	362	THR
1	D	365	PHE

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Mol	Chain	Res	Type
1	E	21	ARG
1	E	24	ILE
1	E	50	SER
1	E	51	ILE
1	E	92	ILE
1	E	124	GLU
1	E	126	ILE
1	E	162	VAL
1	E	167	VAL
1	E	177	TYR
1	E	178	ARG
1	E	191	ASN
1	E	209	ILE
1	E	240	LEU
1	E	257	GLU
1	E	288	ASP
1	E	291	MET
1	E	314	SER
1	E	321	SER
1	E	339	ILE
1	E	348	MET
1	E	351	THR
1	E	362	THR
1	E	365	PHE
1	F	21	ARG
1	F	24	ILE
1	F	50	SER
1	F	51	ILE
1	F	92	ILE
1	F	124	GLU
1	F	126	ILE
1	F	162	VAL
1	F	167	VAL
1	F	177	TYR
1	F	178	ARG
1	F	191	ASN
1	F	209	ILE
1	F	240	LEU
1	F	257	GLU
1	F	288	ASP
1	F	291	MET
1	F	314	SER

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Mol	Chain	Res	Type
1	F	321	SER
1	F	339	ILE
1	F	348	MET
1	F	351	THR
1	F	362	THR
1	F	365	PHE
1	G	21	ARG
1	G	24	ILE
1	G	50	SER
1	G	51	ILE
1	G	92	ILE
1	G	102	ASP
1	G	124	GLU
1	G	126	ILE
1	G	162	VAL
1	G	167	VAL
1	G	177	TYR
1	G	178	ARG
1	G	191	ASN
1	G	209	ILE
1	G	240	LEU
1	G	257	GLU
1	G	288	ASP
1	G	291	MET
1	G	314	SER
1	G	321	SER
1	G	333	ARG
1	G	339	ILE
1	G	348	MET
1	G	351	THR
1	G	362	THR
1	G	365	PHE
1	H	21	ARG
1	H	24	ILE
1	H	50	SER
1	H	51	ILE
1	H	92	ILE
1	H	124	GLU
1	H	126	ILE
1	H	162	VAL
1	H	167	VAL
1	H	177	TYR

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Mol	Chain	Res	Type
1	H	178	ARG
1	H	191	ASN
1	H	209	ILE
1	H	240	LEU
1	H	257	GLU
1	H	288	ASP
1	H	291	MET
1	H	314	SER
1	H	321	SER
1	H	333	ARG
1	H	339	ILE
1	H	348	MET
1	H	351	THR
1	H	362	THR
1	H	365	PHE
1	I	21	ARG
1	I	24	ILE
1	I	50	SER
1	I	51	ILE
1	I	92	ILE
1	I	124	GLU
1	I	126	ILE
1	I	162	VAL
1	I	167	VAL
1	I	177	TYR
1	I	178	ARG
1	I	191	ASN
1	I	209	ILE
1	I	240	LEU
1	I	257	GLU
1	I	288	ASP
1	I	291	MET
1	I	314	SER
1	I	320	ARG
1	I	321	SER
1	I	333	ARG
1	I	339	ILE
1	I	348	MET
1	I	351	THR
1	I	362	THR
1	I	365	PHE
1	J	21	ARG

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Mol	Chain	Res	Type
1	J	24	ILE
1	J	50	SER
1	J	51	ILE
1	J	92	ILE
1	J	101	ASN
1	J	124	GLU
1	J	126	ILE
1	J	162	VAL
1	J	167	VAL
1	J	177	TYR
1	J	178	ARG
1	J	191	ASN
1	J	209	ILE
1	J	240	LEU
1	J	257	GLU
1	J	288	ASP
1	J	291	MET
1	J	314	SER
1	J	321	SER
1	J	333	ARG
1	J	339	ILE
1	J	348	MET
1	J	351	THR
1	J	362	THR
1	J	365	PHE
1	K	21	ARG
1	K	24	ILE
1	K	50	SER
1	K	51	ILE
1	K	92	ILE
1	K	124	GLU
1	K	126	ILE
1	K	162	VAL
1	K	167	VAL
1	K	177	TYR
1	K	178	ARG
1	K	191	ASN
1	K	209	ILE
1	K	240	LEU
1	K	257	GLU
1	K	288	ASP
1	K	291	MET

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Mol	Chain	Res	Type
1	K	314	SER
1	K	321	SER
1	K	333	ARG
1	K	339	ILE
1	K	348	MET
1	K	351	THR
1	K	362	THR
1	K	365	PHE
1	L	21	ARG
1	L	24	ILE
1	L	50	SER
1	L	51	ILE
1	L	92	ILE
1	L	124	GLU
1	L	126	ILE
1	L	162	VAL
1	L	167	VAL
1	L	177	TYR
1	L	178	ARG
1	L	191	ASN
1	L	209	ILE
1	L	240	LEU
1	L	257	GLU
1	L	288	ASP
1	L	291	MET
1	L	314	SER
1	L	321	SER
1	L	333	ARG
1	L	339	ILE
1	L	348	MET
1	L	351	THR
1	L	362	THR
1	L	365	PHE
1	M	21	ARG
1	M	24	ILE
1	M	50	SER
1	M	51	ILE
1	M	92	ILE
1	M	124	GLU
1	M	126	ILE
1	M	162	VAL
1	M	167	VAL

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Mol	Chain	Res	Type
1	M	177	TYR
1	M	178	ARG
1	M	191	ASN
1	M	209	ILE
1	M	240	LEU
1	M	257	GLU
1	M	288	ASP
1	M	291	MET
1	M	314	SER
1	M	321	SER
1	M	333	ARG
1	M	339	ILE
1	M	348	MET
1	M	351	THR
1	M	362	THR
1	M	365	PHE
1	N	21	ARG
1	N	24	ILE
1	N	50	SER
1	N	51	ILE
1	N	92	ILE
1	N	124	GLU
1	N	126	ILE
1	N	162	VAL
1	N	167	VAL
1	N	177	TYR
1	N	178	ARG
1	N	191	ASN
1	N	209	ILE
1	N	240	LEU
1	N	257	GLU
1	N	276	LYS
1	N	288	ASP
1	N	291	MET
1	N	314	SER
1	N	321	SER
1	N	339	ILE
1	N	348	MET
1	N	351	THR
1	N	362	THR
1	N	365	PHE
1	O	21	ARG

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Mol	Chain	Res	Type
1	O	24	ILE
1	O	34	THR
1	O	50	SER
1	O	51	ILE
1	O	92	ILE
1	O	124	GLU
1	O	126	ILE
1	O	162	VAL
1	O	167	VAL
1	O	177	TYR
1	O	178	ARG
1	O	191	ASN
1	O	209	ILE
1	O	240	LEU
1	O	257	GLU
1	O	288	ASP
1	O	291	MET
1	O	314	SER
1	O	321	SER
1	O	339	ILE
1	O	348	MET
1	O	351	THR
1	O	362	THR
1	O	365	PHE
1	P	21	ARG
1	P	24	ILE
1	P	50	SER
1	P	51	ILE
1	P	92	ILE
1	P	124	GLU
1	P	126	ILE
1	P	162	VAL
1	P	167	VAL
1	P	177	TYR
1	P	178	ARG
1	P	191	ASN
1	P	209	ILE
1	P	240	LEU
1	P	257	GLU
1	P	288	ASP
1	P	291	MET
1	P	314	SER

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Mol	Chain	Res	Type
1	P	321	SER
1	P	339	ILE
1	P	348	MET
1	P	351	THR
1	P	362	THR
1	P	365	PHE
1	Q	21	ARG
1	Q	24	ILE
1	Q	50	SER
1	Q	51	ILE
1	Q	92	ILE
1	Q	124	GLU
1	Q	126	ILE
1	Q	162	VAL
1	Q	167	VAL
1	Q	177	TYR
1	Q	178	ARG
1	Q	191	ASN
1	Q	209	ILE
1	Q	240	LEU
1	Q	257	GLU
1	Q	288	ASP
1	Q	291	MET
1	Q	314	SER
1	Q	321	SER
1	Q	333	ARG
1	Q	339	ILE
1	Q	348	MET
1	Q	351	THR
1	Q	362	THR
1	Q	365	PHE
1	R	21	ARG
1	R	24	ILE
1	R	50	SER
1	R	51	ILE
1	R	92	ILE
1	R	124	GLU
1	R	126	ILE
1	R	162	VAL
1	R	167	VAL
1	R	177	TYR
1	R	178	ARG

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Mol	Chain	Res	Type
1	R	191	ASN
1	R	209	ILE
1	R	240	LEU
1	R	257	GLU
1	R	288	ASP
1	R	291	MET
1	R	314	SER
1	R	321	SER
1	R	339	ILE
1	R	348	MET
1	R	351	THR
1	R	362	THR
1	R	365	PHE
1	S	21	ARG
1	S	24	ILE
1	S	50	SER
1	S	51	ILE
1	S	92	ILE
1	S	124	GLU
1	S	126	ILE
1	S	162	VAL
1	S	167	VAL
1	S	177	TYR
1	S	178	ARG
1	S	191	ASN
1	S	209	ILE
1	S	240	LEU
1	S	257	GLU
1	S	288	ASP
1	S	291	MET
1	S	314	SER
1	S	321	SER
1	S	333	ARG
1	S	339	ILE
1	S	348	MET
1	S	351	THR
1	S	362	THR
1	S	365	PHE
1	T	21	ARG
1	T	24	ILE
1	T	50	SER
1	T	51	ILE

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Mol	Chain	Res	Type
1	T	92	ILE
1	T	124	GLU
1	T	126	ILE
1	T	162	VAL
1	T	167	VAL
1	T	177	TYR
1	T	178	ARG
1	T	191	ASN
1	T	209	ILE
1	T	240	LEU
1	T	257	GLU
1	T	288	ASP
1	T	291	MET
1	T	314	SER
1	T	321	SER
1	T	339	ILE
1	T	348	MET
1	T	351	THR
1	T	362	THR
1	T	365	PHE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (62) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	36	ASN
1	A	106	ASN
1	A	110	HIS
1	A	245	ASN
1	A	281	HIS
1	B	36	ASN
1	B	106	ASN
1	C	36	ASN
1	C	106	ASN
1	C	110	HIS
1	D	36	ASN
1	D	106	ASN
1	D	191	ASN
1	E	36	ASN
1	E	106	ASN
1	E	110	HIS
1	F	36	ASN
1	F	106	ASN

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Mol	Chain	Res	Type
1	F	245	ASN
1	G	36	ASN
1	G	106	ASN
1	G	110	HIS
1	G	245	ASN
1	H	36	ASN
1	H	106	ASN
1	H	110	HIS
1	I	36	ASN
1	I	106	ASN
1	J	36	ASN
1	J	106	ASN
1	K	36	ASN
1	K	106	ASN
1	K	245	ASN
1	K	281	HIS
1	L	36	ASN
1	L	106	ASN
1	L	110	HIS
1	M	36	ASN
1	M	106	ASN
1	M	110	HIS
1	M	245	ASN
1	N	36	ASN
1	N	106	ASN
1	N	245	ASN
1	O	36	ASN
1	O	106	ASN
1	O	245	ASN
1	O	260	GLN
1	P	36	ASN
1	P	106	ASN
1	Q	36	ASN
1	Q	106	ASN
1	Q	110	HIS
1	R	36	ASN
1	R	106	ASN
1	R	110	HIS
1	S	36	ASN
1	S	106	ASN
1	S	245	ASN
1	T	36	ASN

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Mol	Chain	Res	Type
1	T	106	ASN
1	T	110	HIS

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

5.6 Ligand geometry ⓘ

20 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# $ Z > 2$	Counts	RMSZ	# $ Z > 2$
2	FLC	A	371	-	3,12,12	1.20	0	3,17,17	1.48	1 (33%)
2	FLC	B	371	-	3,12,12	0.88	0	3,17,17	1.89	1 (33%)
2	FLC	C	371	-	3,12,12	1.16	0	3,17,17	2.19	1 (33%)
2	FLC	D	371	-	3,12,12	0.99	0	3,17,17	2.32	1 (33%)
2	FLC	E	371	-	3,12,12	1.20	0	3,17,17	1.47	1 (33%)
2	FLC	F	371	-	3,12,12	0.60	0	3,17,17	1.06	0
2	FLC	G	371	-	3,12,12	0.80	0	3,17,17	0.86	0
2	FLC	H	371	-	3,12,12	0.81	0	3,17,17	1.47	1 (33%)
2	FLC	I	371	-	3,12,12	1.01	0	3,17,17	1.82	1 (33%)
2	FLC	J	371	-	3,12,12	0.51	0	3,17,17	0.71	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
2	FLC	K	371	-	3,12,12	0.87	0	3,17,17	2.08	1 (33%)
2	FLC	L	371	-	3,12,12	0.86	0	3,17,17	0.91	0
2	FLC	M	371	-	3,12,12	0.60	0	3,17,17	0.87	0
2	FLC	N	371	-	3,12,12	0.61	0	3,17,17	0.10	0
2	FLC	O	371	-	3,12,12	1.19	0	3,17,17	2.52	2 (66%)
2	FLC	P	371	-	3,12,12	0.91	0	3,17,17	1.27	0
2	FLC	Q	371	-	3,12,12	0.98	0	3,17,17	1.81	1 (33%)
2	FLC	R	371	-	3,12,12	0.62	0	3,17,17	2.85	1 (33%)
2	FLC	S	371	-	3,12,12	0.54	0	3,17,17	0.55	0
2	FLC	T	371	-	3,12,12	0.88	0	3,17,17	1.39	1 (33%)

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
2	FLC	A	371	-	-	0/6/16/16	0/0/0/0
2	FLC	B	371	-	-	0/6/16/16	0/0/0/0
2	FLC	C	371	-	-	0/6/16/16	0/0/0/0
2	FLC	D	371	-	-	0/6/16/16	0/0/0/0
2	FLC	E	371	-	-	0/6/16/16	0/0/0/0
2	FLC	F	371	-	-	0/6/16/16	0/0/0/0
2	FLC	G	371	-	-	0/6/16/16	0/0/0/0
2	FLC	H	371	-	-	0/6/16/16	0/0/0/0
2	FLC	I	371	-	-	0/6/16/16	0/0/0/0
2	FLC	J	371	-	-	0/6/16/16	0/0/0/0
2	FLC	K	371	-	-	0/6/16/16	0/0/0/0
2	FLC	L	371	-	-	0/6/16/16	0/0/0/0
2	FLC	M	371	-	-	0/6/16/16	0/0/0/0
2	FLC	N	371	-	-	0/6/16/16	0/0/0/0
2	FLC	O	371	-	-	0/6/16/16	0/0/0/0
2	FLC	P	371	-	-	0/6/16/16	0/0/0/0
2	FLC	Q	371	-	-	0/6/16/16	0/0/0/0
2	FLC	R	371	-	-	0/6/16/16	0/0/0/0
2	FLC	S	371	-	-	0/6/16/16	0/0/0/0
2	FLC	T	371	-	-	0/6/16/16	0/0/0/0

There are no bond length outliers.

All (13) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed($^{\circ}$)	Ideal($^{\circ}$)
2	R	371	FLC	CB-CG-CGC	-4.70	107.44	114.96
2	D	371	FLC	CB-CG-CGC	-3.64	109.14	114.96
2	O	371	FLC	CB-CA-CAC	-3.49	109.38	114.96
2	C	371	FLC	CB-CG-CGC	-3.41	109.51	114.96
2	K	371	FLC	CB-CG-CGC	-3.11	109.98	114.96
2	I	371	FLC	CB-CG-CGC	-2.63	110.76	114.96
2	O	371	FLC	CB-CG-CGC	-2.62	110.77	114.96
2	Q	371	FLC	CB-CG-CGC	-2.60	110.80	114.96
2	B	371	FLC	CB-CA-CAC	-2.56	110.86	114.96
2	A	371	FLC	CB-CA-CAC	-2.46	111.02	114.96
2	E	371	FLC	CB-CG-CGC	-2.30	111.28	114.96
2	T	371	FLC	CB-CG-CGC	-2.03	111.72	114.96
2	H	371	FLC	CB-CA-CAC	2.45	118.88	114.96

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

19 monomers are involved in 68 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	A	371	FLC	3	0
2	B	371	FLC	3	0
2	C	371	FLC	8	0
2	D	371	FLC	5	0
2	E	371	FLC	4	0
2	F	371	FLC	1	0
2	G	371	FLC	3	0
2	H	371	FLC	3	0
2	I	371	FLC	6	0
2	J	371	FLC	3	0
2	K	371	FLC	4	0
2	M	371	FLC	3	0
2	N	371	FLC	3	0
2	O	371	FLC	5	0
2	P	371	FLC	1	0
2	Q	371	FLC	2	0
2	R	371	FLC	4	0
2	S	371	FLC	5	0
2	T	371	FLC	2	0

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	336/370 (90%)	0.07	2 (0%) 90 78	27, 43, 69, 96	0
1	B	336/370 (90%)	0.07	1 (0%) 94 87	25, 42, 71, 98	0
1	C	342/370 (92%)	0.18	5 (1%) 76 57	26, 42, 70, 96	0
1	D	336/370 (90%)	0.06	2 (0%) 90 78	26, 43, 69, 97	0
1	E	336/370 (90%)	0.26	12 (3%) 46 28	28, 44, 71, 97	0
1	F	336/370 (90%)	0.06	1 (0%) 94 87	28, 43, 70, 90	0
1	G	336/370 (90%)	0.29	10 (2%) 54 33	26, 45, 72, 94	0
1	H	336/370 (90%)	0.15	4 (1%) 81 63	28, 43, 70, 92	0
1	I	336/370 (90%)	0.03	3 (0%) 85 70	28, 44, 73, 96	0
1	J	336/370 (90%)	0.16	6 (1%) 71 51	28, 44, 72, 94	0
1	K	336/370 (90%)	0.29	11 (3%) 50 31	29, 45, 74, 95	0
1	L	336/370 (90%)	0.14	4 (1%) 81 63	28, 46, 72, 93	0
1	M	336/370 (90%)	0.17	6 (1%) 71 51	30, 46, 74, 95	0
1	N	336/370 (90%)	0.07	1 (0%) 94 87	29, 44, 69, 88	0
1	O	336/370 (90%)	0.04	1 (0%) 94 87	29, 45, 74, 94	0
1	P	336/370 (90%)	0.12	6 (1%) 71 51	28, 46, 73, 99	0
1	Q	336/370 (90%)	0.36	13 (3%) 43 25	31, 48, 76, 97	0
1	R	336/370 (90%)	0.25	8 (2%) 62 41	31, 48, 75, 98	0
1	S	336/370 (90%)	0.45	26 (7%) 16 8	29, 47, 73, 94	0
1	T	336/370 (90%)	-0.00	1 (0%) 94 87	28, 45, 70, 98	0
All	All	6726/7400 (90%)	0.16	123 (1%) 71 51	25, 45, 72, 99	0

All (123) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	P	303	THR	4.5
1	C	326	GLY	4.2
1	K	104	THR	4.1
1	A	357	ASP	4.0
1	B	312	ARG	3.8
1	S	310	ALA	3.7
1	Q	255	THR	3.5
1	E	312	ARG	3.5
1	S	322	VAL	3.3
1	D	312	ARG	3.3
1	Q	315	SER	3.3
1	S	272	GLU	3.2
1	S	311	ASN	3.2
1	H	323	ALA	3.2
1	J	260	GLN	3.2
1	S	345	THR	3.2
1	P	312	ARG	3.2
1	J	255	THR	3.1
1	J	270	ALA	3.1
1	Q	273	LYS	3.1
1	P	311	ASN	3.1
1	M	312	ARG	3.0
1	E	313	GLY	3.0
1	P	356	ILE	3.0
1	S	301	SER	3.0
1	E	357	ASP	3.0
1	G	122	LYS	3.0
1	R	304	ALA	3.0
1	G	312	ARG	2.9
1	K	357	ASP	2.9
1	S	274	LEU	2.9
1	G	313	GLY	2.9
1	G	260	GLN	2.9
1	K	274	LEU	2.8
1	E	311	ASN	2.8
1	L	272	GLU	2.8
1	E	310	ALA	2.7
1	E	301	SER	2.7
1	H	262	GLY	2.7
1	S	309	VAL	2.7
1	C	71	ASP	2.7
1	R	312	ARG	2.6
1	E	308	GLY	2.6

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Mol	Chain	Res	Type	RSRZ
1	E	356	ILE	2.6
1	G	269	GLN	2.6
1	R	127	TRP	2.6
1	S	313	GLY	2.6
1	C	357	ASP	2.6
1	R	112	HIS	2.5
1	G	328	GLY	2.5
1	H	326	GLY	2.5
1	L	308	GLY	2.5
1	M	353	CYS	2.5
1	K	361	MET	2.5
1	M	264	THR	2.5
1	G	311	ASN	2.5
1	E	346	GLY	2.5
1	T	312	ARG	2.5
1	S	303	THR	2.5
1	S	317	ARG	2.5
1	K	362	THR	2.5
1	J	126	ILE	2.5
1	P	271	ILE	2.5
1	F	357	ASP	2.4
1	D	304	ALA	2.4
1	Q	254	SER	2.4
1	R	254	SER	2.4
1	S	273	LYS	2.4
1	S	347	ILE	2.4
1	Q	312	ARG	2.4
1	Q	316	ILE	2.4
1	S	271	ILE	2.4
1	K	327	TYR	2.4
1	M	276	LYS	2.3
1	E	274	LEU	2.3
1	R	303	THR	2.3
1	J	70	HIS	2.3
1	E	303	THR	2.3
1	C	72	SER	2.3
1	Q	314	SER	2.3
1	C	323	ALA	2.3
1	I	312	ARG	2.3
1	K	311	ASN	2.3
1	K	359	ALA	2.3
1	S	325	GLU	2.3

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Mol	Chain	Res	Type	RSRZ
1	S	243	ASP	2.3
1	S	318	ILE	2.3
1	Q	265	LYS	2.3
1	Q	301	SER	2.3
1	Q	308	GLY	2.3
1	S	276	LYS	2.2
1	G	358	ASN	2.2
1	I	46	LYS	2.2
1	S	283	LYS	2.2
1	R	68	PRO	2.2
1	K	271	ILE	2.2
1	S	312	ARG	2.2
1	O	315	SER	2.2
1	P	357	ASP	2.2
1	M	322	VAL	2.2
1	R	269	GLN	2.2
1	H	358	ASN	2.2
1	N	266	TYR	2.2
1	G	126	ILE	2.1
1	I	272	GLU	2.1
1	K	312	ARG	2.1
1	M	272	GLU	2.1
1	Q	266	TYR	2.1
1	S	65	ASN	2.1
1	S	352	VAL	2.1
1	Q	357	ASP	2.1
1	S	346	GLY	2.1
1	K	275	SER	2.1
1	G	314	SER	2.1
1	E	253	VAL	2.1
1	A	301	SER	2.1
1	L	311	ASN	2.0
1	Q	216	TRP	2.0
1	J	122	LYS	2.0
1	S	192	ALA	2.0
1	S	304	ALA	2.0
1	L	123	ASP	2.0
1	S	321	SER	2.0

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

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

6.3 Carbohydrates [i](#)

There are no carbohydrates 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. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å ²)	Q<0.9
2	FLC	N	371	13/13	0.84	0.21	0.92	47,66,105,118	0
2	FLC	I	371	13/13	0.92	0.21	0.70	41,57,75,85	0
2	FLC	K	371	13/13	0.92	0.18	0.23	35,56,68,72	0
2	FLC	L	371	13/13	0.91	0.21	0.01	46,61,83,88	0
2	FLC	M	371	13/13	0.92	0.18	-0.01	58,70,83,87	0
2	FLC	F	371	13/13	0.87	0.17	-0.13	35,54,78,79	0
2	FLC	E	371	13/13	0.87	0.21	-0.14	29,54,76,79	0
2	FLC	Q	371	13/13	0.88	0.20	-0.15	46,53,80,86	0
2	FLC	G	371	13/13	0.93	0.17	-0.16	37,54,61,63	0
2	FLC	R	371	13/13	0.90	0.16	-0.33	52,66,89,94	0
2	FLC	P	371	13/13	0.90	0.18	-0.37	39,54,65,75	0
2	FLC	H	371	13/13	0.92	0.17	-0.39	36,50,74,78	0
2	FLC	S	371	13/13	0.91	0.20	-0.43	51,68,84,89	0
2	FLC	J	371	13/13	0.92	0.15	-0.69	41,53,67,77	0
2	FLC	T	371	13/13	0.91	0.16	-0.78	35,51,61,62	0
2	FLC	B	371	13/13	0.90	0.18	-0.82	29,52,69,76	0
2	FLC	A	371	13/13	0.90	0.13	-1.07	37,46,61,70	0
2	FLC	D	371	13/13	0.94	0.14	-1.40	31,50,58,64	0
2	FLC	O	371	13/13	0.93	0.13	-1.78	37,50,67,69	0
2	FLC	C	371	13/13	0.95	0.13	-2.20	26,39,48,52	0

6.5 Other polymers [i](#)

There are no such residues in this entry.