



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 5, 2026 – 09:18 PM UTC

PDB ID : 3F5N / pdb_00003f5n
Title : Structure of native human neuroserpin
Authors : Ricagno, S.; Caccia, S.; Sorrentino, G.; Bolognesi, M.
Deposited on : 2008-11-04
Resolution : 3.15 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

MolProbity	:	4-5-2 with Phenix2.0
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

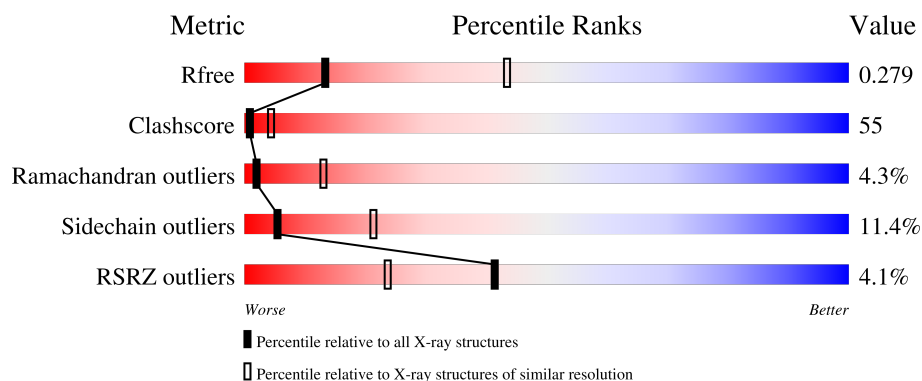
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.15 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	2361 (3.20-3.12)
Clashscore	190562	2486 (3.20-3.12)
Ramachandran outliers	187476	2405 (3.20-3.12)
Sidechain outliers	187428	2404 (3.20-3.12)
RSRZ outliers	180081	2361 (3.20-3.12)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. 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	407	5% 40% 39% 9% 11%
1	B	407	4% 39% 39% 12% 8%
1	C	407	2% 38% 39% 10% 12%
1	D	407	3% 46% 36% 7% 11%
1	E	407	4% 41% 34% 6% 16%

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 14513 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 Neuroserpin.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	364	Total	C	N	O	S	0	0	0
			2925	1872	478	558	17			
1	B	376	Total	C	N	O	S	0	0	0
			3012	1924	495	575	18			
1	C	358	Total	C	N	O	S	0	0	0
			2889	1852	474	546	17			
1	D	363	Total	C	N	O	S	0	0	0
			2924	1874	478	555	17			
1	E	340	Total	C	N	O	S	0	0	0
			2763	1778	451	518	16			

There are 65 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	4	MET	-	initiating methionine	UNP Q99574
A	5	ARG	-	expression tag	UNP Q99574
A	6	GLY	-	expression tag	UNP Q99574
A	7	SER	-	expression tag	UNP Q99574
A	8	HIS	-	expression tag	UNP Q99574
A	9	HIS	-	expression tag	UNP Q99574
A	10	HIS	-	expression tag	UNP Q99574
A	11	HIS	-	expression tag	UNP Q99574
A	12	HIS	-	expression tag	UNP Q99574
A	13	HIS	-	expression tag	UNP Q99574
A	14	THR	-	expression tag	UNP Q99574
A	15	ASP	-	expression tag	UNP Q99574
A	16	PRO	-	expression tag	UNP Q99574
B	4	MET	-	initiating methionine	UNP Q99574
B	5	ARG	-	expression tag	UNP Q99574
B	6	GLY	-	expression tag	UNP Q99574
B	7	SER	-	expression tag	UNP Q99574
B	8	HIS	-	expression tag	UNP Q99574
B	9	HIS	-	expression tag	UNP Q99574

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Chain	Residue	Modelled	Actual	Comment	Reference
B	10	HIS	-	expression tag	UNP Q99574
B	11	HIS	-	expression tag	UNP Q99574
B	12	HIS	-	expression tag	UNP Q99574
B	13	HIS	-	expression tag	UNP Q99574
B	14	THR	-	expression tag	UNP Q99574
B	15	ASP	-	expression tag	UNP Q99574
B	16	PRO	-	expression tag	UNP Q99574
C	4	MET	-	initiating methionine	UNP Q99574
C	5	ARG	-	expression tag	UNP Q99574
C	6	GLY	-	expression tag	UNP Q99574
C	7	SER	-	expression tag	UNP Q99574
C	8	HIS	-	expression tag	UNP Q99574
C	9	HIS	-	expression tag	UNP Q99574
C	10	HIS	-	expression tag	UNP Q99574
C	11	HIS	-	expression tag	UNP Q99574
C	12	HIS	-	expression tag	UNP Q99574
C	13	HIS	-	expression tag	UNP Q99574
C	14	THR	-	expression tag	UNP Q99574
C	15	ASP	-	expression tag	UNP Q99574
C	16	PRO	-	expression tag	UNP Q99574
D	4	MET	-	initiating methionine	UNP Q99574
D	5	ARG	-	expression tag	UNP Q99574
D	6	GLY	-	expression tag	UNP Q99574
D	7	SER	-	expression tag	UNP Q99574
D	8	HIS	-	expression tag	UNP Q99574
D	9	HIS	-	expression tag	UNP Q99574
D	10	HIS	-	expression tag	UNP Q99574
D	11	HIS	-	expression tag	UNP Q99574
D	12	HIS	-	expression tag	UNP Q99574
D	13	HIS	-	expression tag	UNP Q99574
D	14	THR	-	expression tag	UNP Q99574
D	15	ASP	-	expression tag	UNP Q99574
D	16	PRO	-	expression tag	UNP Q99574
E	4	MET	-	initiating methionine	UNP Q99574
E	5	ARG	-	expression tag	UNP Q99574
E	6	GLY	-	expression tag	UNP Q99574
E	7	SER	-	expression tag	UNP Q99574
E	8	HIS	-	expression tag	UNP Q99574
E	9	HIS	-	expression tag	UNP Q99574
E	10	HIS	-	expression tag	UNP Q99574
E	11	HIS	-	expression tag	UNP Q99574
E	12	HIS	-	expression tag	UNP Q99574

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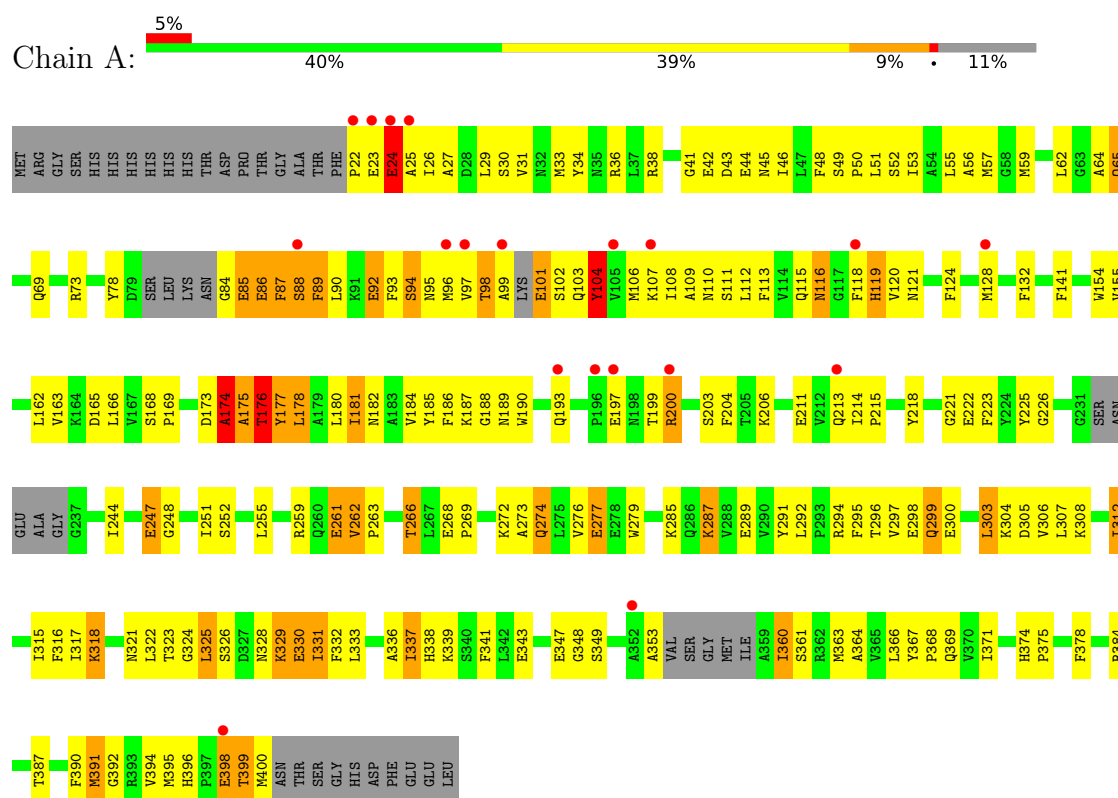
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Chain	Residue	Modelled	Actual	Comment	Reference
E	13	HIS	-	expression tag	UNP Q99574
E	14	THR	-	expression tag	UNP Q99574
E	15	ASP	-	expression tag	UNP Q99574
E	16	PRO	-	expression tag	UNP Q99574

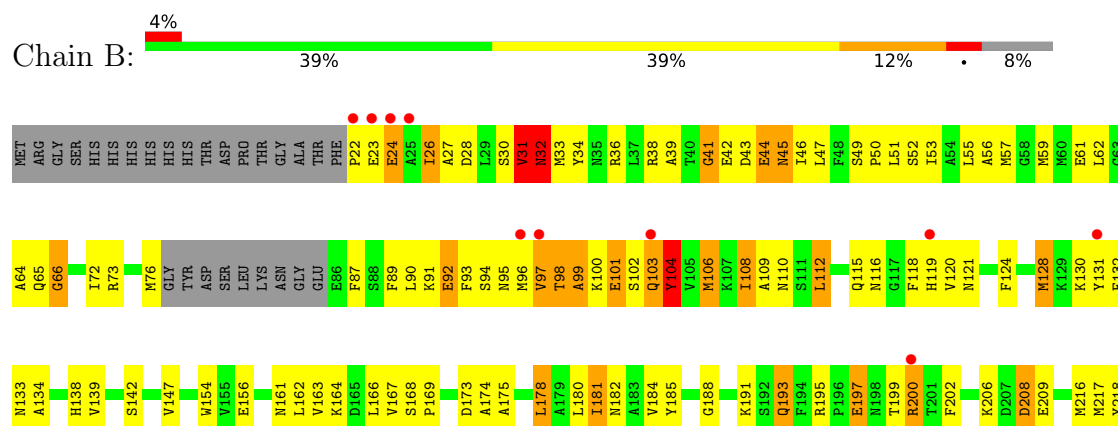
3 Residue-property plots

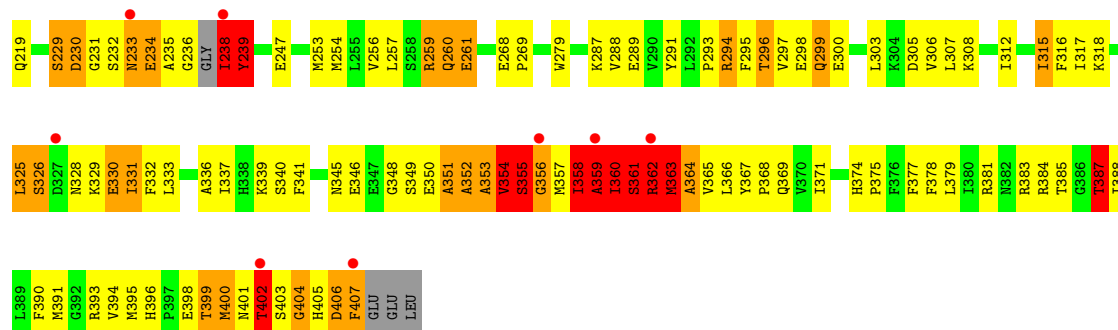
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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

• Molecule 1: Neuroserpin

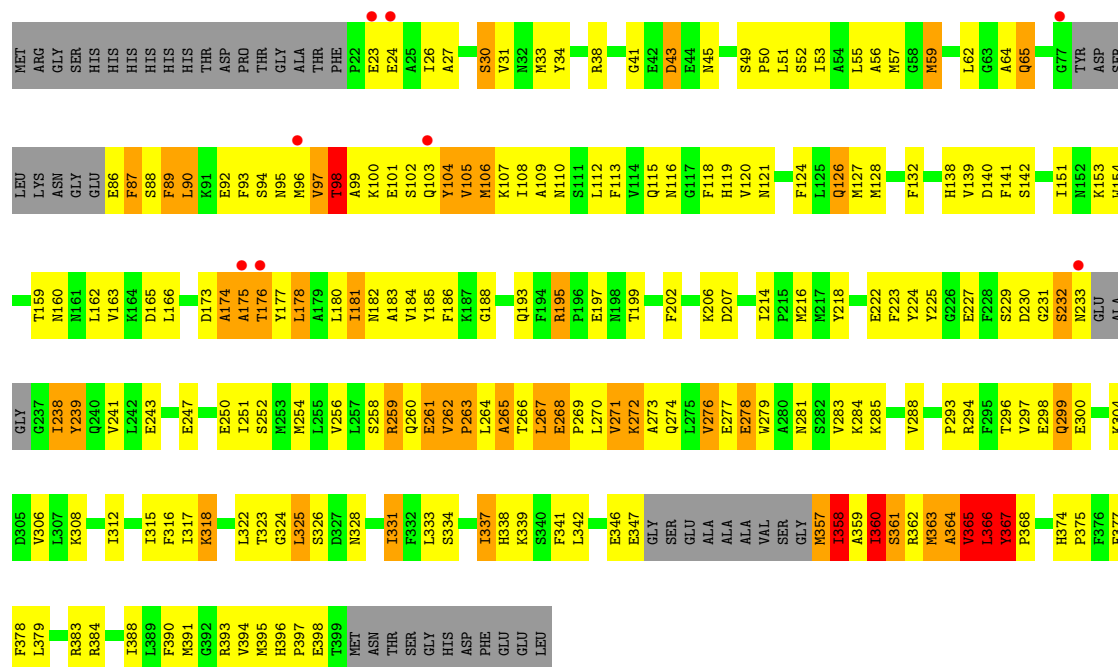


• Molecule 1: Neuroserpin

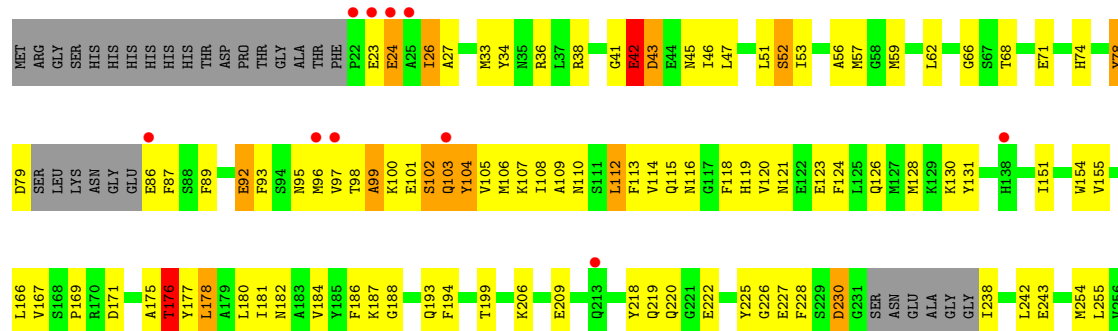


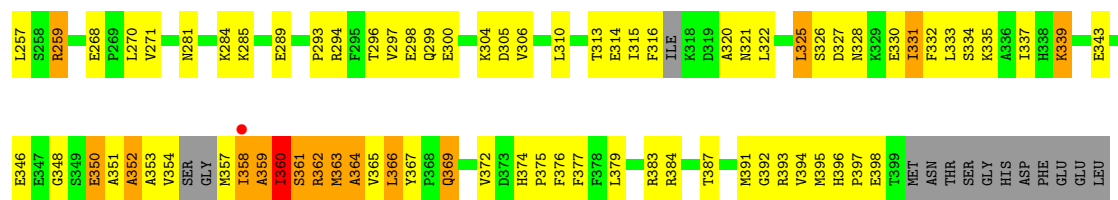


• Molecule 1: Neuroserpin

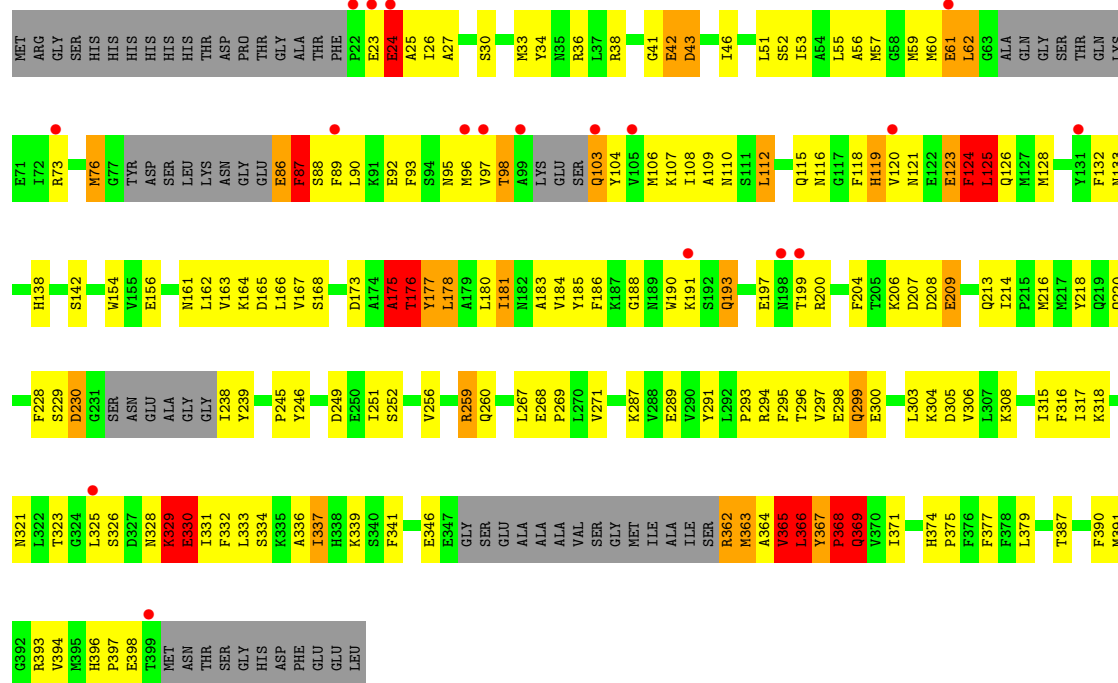
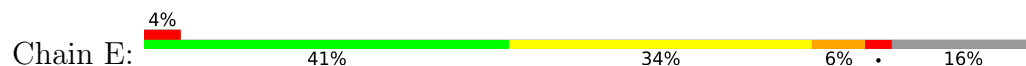


• Molecule 1: Neuroserpin





Molecule 1: Neuroserpin



4 Data and refinement statistics

Property	Value	Source
Space group	I 2 2 2	Depositor
Cell constants a, b, c, α , β , γ	171.80Å 179.18Å 248.26Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	19.98 – 3.15 19.98 – 3.15	Depositor EDS
% Data completeness (in resolution range)	100.0 (19.98-3.15) 99.5 (19.98-3.15)	Depositor EDS
R_{merge}	0.13	Depositor
R_{sym}	0.13	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.10 (at 3.15Å)	Xtriage
Refinement program	REFMAC 5.4.0069	Depositor
R, R_{free}	0.234 , 0.283 0.233 , 0.279	Depositor DCC
R_{free} test set	3356 reflections (5.08%)	wwPDB-VP
Wilson B-factor (Å ²)	83.3	Xtriage
Anisotropy	0.170	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.32 , 112.3	EDS
L-test for twinning ²	$\langle L \rangle = 0.45$, $\langle L^2 \rangle = 0.28$	Xtriage
Estimated twinning fraction	0.012 for $-1/2^*h+1/2^*k+1/2^*l, 1/2^*h-1/2^*k+1/2^*l, h+k$ 0.024 for $-1/2^*h+1/2^*k-1/2^*l, 1/2^*h-1/2^*k-1/2^*l, -h-k$ 0.025 for $k, h, -l$ 0.021 for $-1/2^*h-1/2^*k+1/2^*l, -1/2^*h-1/2^*k-1/2^*l, h-k$ 0.034 for $-1/2^*h-1/2^*k-1/2^*l, -1/2^*h-1/2^*k+1/2^*l, -h+k$	Xtriage
F_o, F_c correlation	0.90	EDS
Total number of atoms	14513	wwPDB-VP
Average B, all atoms (Å ²)	86.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.03% 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, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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	0.65	0/2982	1.10	18/4022 (0.4%)
1	B	0.60	0/3072	1.06	17/4146 (0.4%)
1	C	0.63	0/2946	1.01	7/3974 (0.2%)
1	D	0.52	0/2981	0.91	4/4021 (0.1%)
1	E	0.50	0/2818	0.99	14/3801 (0.4%)
All	All	0.58	0/14799	1.02	60/19964 (0.3%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	1
1	B	0	8
1	C	0	4
1	E	0	6
All	All	0	19

There are no bond length outliers.

All (60) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	176	THR	N-CA-C	-20.59	87.61	113.55
1	B	359	ALA	N-CA-C	14.62	141.94	110.80
1	C	365	VAL	N-CA-C	12.91	129.45	110.09
1	E	175	ALA	N-CA-C	10.63	122.56	110.97
1	B	32	ASN	N-CA-C	-10.61	88.21	110.80
1	E	329	LYS	N-CA-C	10.58	123.81	111.11
1	B	359	ALA	CB-CA-C	-9.90	90.71	110.42
1	B	359	ALA	CA-C-N	9.42	138.93	121.97
1	B	359	ALA	C-N-CA	9.42	138.93	121.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	329	LYS	N-CA-C	8.97	126.09	111.37
1	A	88	SER	N-CA-C	8.81	123.52	111.71
1	B	385	THR	N-CA-C	8.61	120.28	111.07
1	A	329	LYS	CA-C-N	8.11	136.29	121.70
1	A	329	LYS	C-N-CA	8.11	136.29	121.70
1	D	99	ALA	N-CA-C	-7.81	99.08	110.64
1	A	360	ILE	CB-CA-C	-7.72	98.63	111.29
1	C	265	ALA	N-CA-C	-7.67	102.92	111.28
1	A	292	LEU	CA-C-N	-7.48	112.21	120.14
1	A	292	LEU	C-N-CA	-7.48	112.21	120.14
1	B	329	LYS	CA-C-N	7.36	134.95	121.70
1	B	329	LYS	C-N-CA	7.36	134.95	121.70
1	C	102	SER	N-CA-C	6.83	125.34	110.80
1	E	329	LYS	CA-C-N	6.80	133.94	121.70
1	E	329	LYS	C-N-CA	6.80	133.94	121.70
1	C	268	GLU	CB-CA-C	-6.78	96.81	110.17
1	A	88	SER	CA-C-N	6.73	133.82	121.70
1	A	88	SER	C-N-CA	6.73	133.82	121.70
1	B	360	ILE	N-CA-C	6.65	123.18	109.34
1	E	124	PHE	CA-C-N	6.41	133.23	121.70
1	E	124	PHE	C-N-CA	6.41	133.23	121.70
1	E	76	MET	N-CA-C	6.20	118.71	108.48
1	A	78	TYR	N-CA-C	6.15	118.06	111.36
1	C	365	VAL	CB-CA-C	-5.88	103.67	111.13
1	E	366	LEU	N-CA-C	5.87	123.29	110.80
1	A	116	ASN	N-CA-C	5.86	117.74	111.36
1	C	90	LEU	N-CA-C	5.71	117.30	111.14
1	B	31	VAL	N-CA-CB	5.70	116.84	110.51
1	B	387	THR	N-CA-C	-5.69	101.62	110.10
1	A	262	VAL	N-CA-C	5.62	114.07	107.77
1	E	177	TYR	N-CA-C	-5.60	95.31	111.00
1	D	78	TYR	N-CA-C	5.57	118.12	107.75
1	B	238	ILE	CA-C-N	5.55	131.68	121.70
1	B	238	ILE	C-N-CA	5.55	131.68	121.70
1	E	126	GLN	N-CA-C	-5.46	106.75	113.41
1	A	89	PHE	CB-CA-C	5.38	120.33	110.10
1	A	174	ALA	CB-CA-C	5.35	121.07	110.42
1	E	125	LEU	N-CA-C	-5.34	96.05	111.00
1	A	399	THR	N-CA-C	5.31	117.24	108.48
1	C	268	GLU	N-CA-C	5.29	121.50	109.81
1	E	369	GLN	N-CA-CB	5.28	119.41	110.49
1	A	244	ILE	CB-CA-C	-5.24	106.07	110.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	351	ALA	N-CA-C	5.24	117.12	108.48
1	B	363	MET	CB-CA-C	-5.24	102.63	112.00
1	E	368	PRO	N-CA-C	-5.17	101.82	112.47
1	B	294	ARG	N-CA-C	-5.17	102.40	110.10
1	D	331	ILE	N-CA-C	5.14	116.21	109.21
1	E	329	LYS	CA-C-O	-5.09	115.45	120.90
1	A	329	LYS	CA-C-O	-5.07	115.09	121.02
1	D	362	ARG	N-CA-C	5.07	115.89	107.73
1	B	361	SER	N-CA-C	5.04	121.54	110.80

There are no chirality outliers.

All (19) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	175	ALA	Peptide
1	B	238	ILE	Peptide
1	B	31	VAL	Peptide
1	B	358	ILE	Peptide
1	B	359	ALA	Peptide
1	B	360	ILE	Peptide
1	B	362	ARG	Peptide
1	B	387	THR	Peptide
1	B	44	GLU	Peptide
1	C	175	ALA	Peptide
1	C	364	ALA	Peptide
1	C	366	LEU	Peptide
1	C	367	TYR	Peptide
1	E	124	PHE	Peptide
1	E	175	ALA	Peptide
1	E	176	THR	Peptide
1	E	329	LYS	Peptide
1	E	366	LEU	Peptide
1	E	368	PRO	Peptide

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	2925	0	2864	301	0
1	B	3012	0	2954	370	0
1	C	2889	0	2849	371	0
1	D	2924	0	2874	262	0
1	E	2763	0	2719	297	0
All	All	14513	0	14260	1571	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 55.

All (1571) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:59:MET:HG2	1:A:128:MET:CE	1.37	1.54
1:E:364:ALA:CA	1:E:365:VAL:HG23	1.38	1.50
1:C:357:MET:C	1:C:358:ILE:HD12	1.33	1.50
1:B:354:VAL:HB	1:B:355:SER:CA	1.42	1.48
1:E:364:ALA:HA	1:E:365:VAL:CG2	1.43	1.48
1:A:59:MET:CG	1:A:128:MET:HE1	1.43	1.43
1:D:304:LYS:HG3	1:D:316:PHE:CE1	1.58	1.38
1:D:357:MET:CB	1:D:358:ILE:HA	1.51	1.37
1:B:260:GLN:NE2	1:B:261:GLU:H	1.23	1.35
1:A:59:MET:HE1	1:A:110:ASN:CG	1.53	1.30
1:D:357:MET:HB3	1:D:358:ILE:CA	1.62	1.29
1:E:364:ALA:CB	1:E:366:LEU:HB2	1.60	1.29
1:A:84:GLY:HA2	1:A:85:GLU:CB	1.61	1.28
1:B:354:VAL:CB	1:B:355:SER:C	2.07	1.28
1:C:367:TYR:CB	1:C:368:PRO:HA	1.64	1.27
1:E:364:ALA:HB1	1:E:365:VAL:C	1.58	1.26
1:B:119:HIS:O	1:B:326:SER:HB2	1.26	1.23
1:B:354:VAL:HB	1:B:355:SER:C	1.58	1.23
1:A:84:GLY:CA	1:A:85:GLU:HB2	1.61	1.23
1:B:356:GLY:O	1:B:360:ILE:HB	1.14	1.23
1:B:354:VAL:CG1	1:B:355:SER:C	2.11	1.23
1:C:263:PRO:O	1:C:264:LEU:HD23	1.35	1.23
1:A:287:LYS:NZ	1:A:353:ALA:HB1	1.55	1.22
1:E:287:LYS:HD3	1:E:367:TYR:OH	1.38	1.22
1:C:119:HIS:O	1:C:326:SER:HB2	1.42	1.17
1:C:268:GLU:HB2	1:C:269:PRO:HD3	1.20	1.17
1:C:367:TYR:HB3	1:C:368:PRO:CA	1.75	1.17
1:D:238:ILE:HD11	1:D:259:ARG:NH1	1.60	1.16
1:D:51:LEU:CD1	1:D:93:PHE:CD1	2.29	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:260:GLN:HE21	1:B:261:GLU:N	1.43	1.15
1:A:336:ALA:O	1:A:337:ILE:HD12	1.47	1.15
1:D:304:LYS:HG3	1:D:316:PHE:CZ	1.82	1.15
1:E:124:PHE:CZ	1:E:128:MET:HE3	1.82	1.14
1:B:354:VAL:HG12	1:B:355:SER:C	1.68	1.14
1:A:274:GLN:HE21	1:A:274:GLN:CA	1.60	1.14
1:B:354:VAL:CG1	1:B:355:SER:O	1.94	1.13
1:A:59:MET:HE1	1:A:110:ASN:OD1	1.48	1.13
1:A:94:SER:O	1:A:98:THR:HG21	1.46	1.13
1:E:176:THR:O	1:E:334:SER:HB3	1.48	1.13
1:D:51:LEU:HD11	1:D:93:PHE:HB3	1.27	1.12
1:E:86:GLU:HG2	1:E:87:PHE:H	1.02	1.12
1:C:261:GLU:O	1:C:262:VAL:HG23	1.50	1.12
1:B:181:ILE:HD11	1:B:337:ILE:HD12	1.27	1.11
1:E:364:ALA:HB1	1:E:365:VAL:O	1.50	1.11
1:B:33:MET:HE1	1:B:53:ILE:HD12	1.31	1.11
1:B:358:ILE:HG22	1:B:359:ALA:N	1.59	1.10
1:E:119:HIS:O	1:E:326:SER:HB2	1.52	1.10
1:E:362:ARG:HD2	1:E:363:MET:H	1.04	1.10
1:A:59:MET:CE	1:A:110:ASN:CG	2.24	1.09
1:C:231:GLY:O	1:C:232:SER:HB3	1.49	1.09
1:D:359:ALA:O	1:D:360:ILE:HG23	1.51	1.09
1:E:362:ARG:HD2	1:E:363:MET:N	1.67	1.09
1:A:222:GLU:CG	1:A:287:LYS:HG2	1.82	1.08
1:C:367:TYR:HB3	1:C:368:PRO:HA	1.25	1.08
1:B:354:VAL:HG12	1:B:356:GLY:CA	1.84	1.08
1:B:59:MET:HB2	1:B:128:MET:SD	1.93	1.08
1:D:26:ILE:CD1	1:D:93:PHE:HE1	1.65	1.08
1:D:314:GLU:O	1:D:320:ALA:HB2	1.54	1.08
1:B:356:GLY:HA3	1:B:360:ILE:CD1	1.83	1.08
1:B:261:GLU:OE2	1:B:261:GLU:HA	1.50	1.08
1:E:103:GLN:HE21	1:E:103:GLN:CA	1.64	1.07
1:E:259:ARG:NH1	1:E:260:GLN:HB2	1.70	1.07
1:C:163:VAL:HG13	1:C:339:LYS:HD3	1.35	1.07
1:C:268:GLU:HB2	1:C:269:PRO:CD	1.84	1.07
1:B:299:GLN:HE21	1:B:300:GLU:N	1.50	1.07
1:C:103:GLN:HG2	1:C:104:TYR:H	1.09	1.07
1:B:356:GLY:CA	1:B:360:ILE:HD12	1.84	1.06
1:D:119:HIS:O	1:D:326:SER:HB2	1.55	1.06
1:B:354:VAL:HB	1:B:355:SER:HA	1.11	1.06
1:C:195:ARG:HH12	1:C:358:ILE:CA	1.68	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:356:GLY:HA3	1:B:360:ILE:HD12	1.07	1.04
1:C:357:MET:C	1:C:358:ILE:CD1	2.29	1.04
1:A:336:ALA:C	1:A:337:ILE:CD1	2.31	1.04
1:C:89:PHE:HD2	1:C:89:PHE:O	1.40	1.04
1:A:119:HIS:O	1:A:326:SER:HB2	1.58	1.03
1:B:354:VAL:CB	1:B:355:SER:CA	2.32	1.03
1:B:401:ASN:HA	1:B:402:THR:OG1	1.54	1.03
1:D:51:LEU:HD12	1:D:93:PHE:HD1	1.20	1.03
1:E:103:GLN:HE21	1:E:103:GLN:HA	0.91	1.03
1:E:103:GLN:HA	1:E:103:GLN:NE2	1.59	1.03
1:B:360:ILE:HG22	1:B:361:SER:N	1.59	1.03
1:E:364:ALA:CB	1:E:365:VAL:O	2.07	1.03
1:A:274:GLN:HE21	1:A:274:GLN:HA	0.89	1.02
1:A:299:GLN:OE1	1:A:299:GLN:HA	1.57	1.02
1:B:353:ALA:HA	1:B:354:VAL:C	1.83	1.02
1:B:299:GLN:NE2	1:B:300:GLU:H	1.56	1.02
1:D:51:LEU:HD12	1:D:93:PHE:CD1	1.93	1.02
1:B:167:VAL:HG12	1:B:337:ILE:HD13	1.43	1.01
1:A:247:GLU:OE2	1:A:248:GLY:N	1.93	1.01
1:A:287:LYS:NZ	1:A:353:ALA:CB	2.22	1.01
1:B:360:ILE:HG22	1:B:361:SER:H	0.88	1.01
1:E:259:ARG:HD3	1:E:260:GLN:N	1.76	1.01
1:E:362:ARG:HH11	1:E:362:ARG:CG	1.73	1.01
1:A:51:LEU:HD11	1:A:93:PHE:HB3	1.42	1.01
1:A:57:MET:HA	1:A:57:MET:HE2	1.43	1.01
1:A:274:GLN:HA	1:A:274:GLN:NE2	1.68	1.01
1:B:354:VAL:HG12	1:B:356:GLY:N	1.76	1.01
1:C:231:GLY:O	1:C:232:SER:CB	2.08	1.01
1:B:193:GLN:HG3	1:B:349:SER:O	1.58	1.00
1:D:33:MET:HE1	1:D:53:ILE:CD1	1.91	1.00
1:E:364:ALA:HB1	1:E:366:LEU:HB2	1.37	1.00
1:E:86:GLU:HG2	1:E:87:PHE:N	1.51	1.00
1:E:51:LEU:HD11	1:E:93:PHE:CG	1.97	1.00
1:E:364:ALA:HB2	1:E:366:LEU:HB2	1.40	1.00
1:A:222:GLU:HG2	1:A:287:LYS:HG2	1.43	1.00
1:C:89:PHE:HD2	1:C:89:PHE:C	1.69	0.99
1:E:176:THR:O	1:E:334:SER:CB	2.11	0.99
1:A:336:ALA:C	1:A:337:ILE:HD12	1.86	0.99
1:C:359:ALA:O	1:C:360:ILE:HB	1.61	0.99
1:B:238:ILE:HA	1:B:239:TYR:HB3	1.42	0.99
1:B:59:MET:CE	1:B:180:LEU:CD1	2.42	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:193:GLN:HG2	1:A:349:SER:O	1.63	0.98
1:A:221:GLY:HA2	1:A:287:LYS:HE2	1.45	0.98
1:B:299:GLN:NE2	1:B:299:GLN:HA	1.78	0.98
1:C:367:TYR:HB2	1:C:368:PRO:HA	1.42	0.98
1:C:362:ARG:O	1:C:363:MET:CB	2.11	0.98
1:C:358:ILE:HD12	1:C:358:ILE:N	1.77	0.98
1:A:277:GLU:OE2	1:A:277:GLU:HA	1.59	0.97
1:B:356:GLY:O	1:B:360:ILE:CB	2.11	0.97
1:E:362:ARG:HG2	1:E:362:ARG:NH1	1.60	0.97
1:B:232:SER:HB2	1:B:234:GLU:O	1.64	0.97
1:D:363:MET:HG3	1:D:363:MET:O	1.61	0.97
1:B:57:MET:HE2	1:B:57:MET:HA	1.44	0.97
1:C:38:ARG:HH21	1:C:261:GLU:CD	1.73	0.96
1:B:360:ILE:CG2	1:B:361:SER:H	1.78	0.96
1:C:100:LYS:HE3	1:C:105:VAL:CG1	1.93	0.96
1:D:362:ARG:HG2	1:D:363:MET:H	1.29	0.96
1:C:197:GLU:CD	1:C:358:ILE:HG21	1.90	0.96
1:C:263:PRO:O	1:C:264:LEU:CD2	2.11	0.96
1:B:358:ILE:HG22	1:B:359:ALA:H	1.15	0.96
1:C:103:GLN:HG2	1:C:104:TYR:N	1.76	0.96
1:E:163:VAL:CG1	1:E:339:LYS:HE2	1.94	0.96
1:C:262:VAL:O	1:C:262:VAL:HG12	1.62	0.96
1:E:51:LEU:HD11	1:E:93:PHE:HB3	1.45	0.96
1:C:124:PHE:CZ	1:C:128:MET:HE3	2.00	0.96
1:E:362:ARG:HH11	1:E:362:ARG:HG2	0.80	0.96
1:B:401:ASN:HA	1:B:402:THR:CB	1.93	0.96
1:D:360:ILE:O	1:D:361:SER:HB3	1.66	0.95
1:C:142:SER:OG	1:C:174:ALA:HB2	1.66	0.95
1:A:85:GLU:C	1:A:86:GLU:HG3	1.92	0.95
1:B:119:HIS:O	1:B:326:SER:CB	2.15	0.95
1:E:208:ASP:O	1:E:209:GLU:HG2	1.67	0.95
1:D:109:ALA:HB1	1:D:154:TRP:CZ3	2.02	0.95
1:B:260:GLN:NE2	1:B:261:GLU:N	2.06	0.94
1:D:33:MET:HE1	1:D:53:ILE:HD13	1.50	0.94
1:B:62:LEU:HD12	1:B:128:MET:HE2	1.48	0.94
1:B:59:MET:CE	1:B:180:LEU:HD11	1.98	0.94
1:C:263:PRO:HB2	1:C:266:THR:HB	1.47	0.94
1:A:261:GLU:HA	1:A:261:GLU:OE2	1.66	0.94
1:E:208:ASP:O	1:E:209:GLU:CG	2.16	0.94
1:C:93:PHE:HD2	1:C:97:VAL:HG22	1.31	0.94
1:B:59:MET:HE2	1:B:180:LEU:HD11	1.50	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:247:GLU:OE2	1:B:349:SER:HB2	1.68	0.93
1:E:287:LYS:CD	1:E:367:TYR:OH	2.15	0.93
1:C:357:MET:O	1:C:358:ILE:HD12	1.66	0.93
1:E:259:ARG:HH11	1:E:260:GLN:CB	1.80	0.93
1:B:401:ASN:CA	1:B:402:THR:OG1	2.16	0.93
1:D:304:LYS:CG	1:D:316:PHE:CZ	2.51	0.93
1:E:62:LEU:HD12	1:E:128:MET:HE2	1.50	0.93
1:E:299:GLN:HA	1:E:299:GLN:OE1	1.65	0.93
1:C:62:LEU:HG	1:C:87:PHE:HE2	1.34	0.93
1:B:299:GLN:HE21	1:B:299:GLN:CA	1.78	0.93
1:C:195:ARG:HH12	1:C:358:ILE:N	1.66	0.92
1:B:51:LEU:HD11	1:B:93:PHE:CG	2.04	0.92
1:A:103:GLN:O	1:A:104:TYR:HB3	1.66	0.92
1:D:26:ILE:CD1	1:D:93:PHE:CE1	2.53	0.92
1:C:365:VAL:HG12	1:C:366:LEU:H	1.33	0.92
1:E:59:MET:HB2	1:E:128:MET:SD	2.08	0.92
1:C:163:VAL:CG1	1:C:339:LYS:HD3	2.00	0.92
1:C:93:PHE:HD2	1:C:97:VAL:CG2	1.81	0.92
1:C:358:ILE:HD13	1:C:358:ILE:O	1.70	0.92
1:E:51:LEU:HD11	1:E:93:PHE:CB	2.01	0.91
1:D:26:ILE:HD11	1:D:93:PHE:HE1	1.32	0.91
1:E:86:GLU:CG	1:E:87:PHE:N	2.30	0.91
1:B:193:GLN:HE21	1:B:350:GLU:HA	1.35	0.91
1:A:94:SER:C	1:A:98:THR:HG21	1.96	0.91
1:E:57:MET:HE2	1:E:57:MET:HA	1.52	0.91
1:A:222:GLU:HG3	1:A:287:LYS:HG2	1.53	0.91
1:D:51:LEU:HD11	1:D:93:PHE:CB	2.01	0.91
1:E:364:ALA:CB	1:E:365:VAL:C	2.43	0.90
1:A:277:GLU:OE2	1:A:277:GLU:CA	2.17	0.90
1:B:33:MET:HE1	1:B:53:ILE:CD1	2.01	0.90
1:C:56:ALA:HA	1:C:59:MET:HE2	1.53	0.90
1:B:352:ALA:O	1:B:353:ALA:HB2	1.69	0.90
1:B:354:VAL:HG12	1:B:355:SER:O	1.61	0.90
1:B:407:PHE:C	1:B:407:PHE:CD2	2.48	0.90
1:E:33:MET:HE1	1:E:53:ILE:CD1	2.01	0.90
1:E:181:ILE:HD11	1:E:337:ILE:CD1	2.00	0.90
1:C:89:PHE:C	1:C:89:PHE:CD2	2.45	0.90
1:A:287:LYS:HZ3	1:A:353:ALA:HB1	1.26	0.90
1:B:181:ILE:CD1	1:B:337:ILE:HD12	2.02	0.90
1:B:104:TYR:CD1	1:B:104:TYR:O	2.25	0.90
1:B:358:ILE:CG2	1:B:359:ALA:N	2.33	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:267:LEU:CD1	1:C:267:LEU:C	2.44	0.89
1:D:24:GLU:O	1:D:27:ALA:HB3	1.72	0.89
1:A:200:ARG:HH11	1:A:200:ARG:HB2	1.36	0.89
1:C:297:VAL:HG21	1:C:394:VAL:HG22	1.51	0.89
1:D:304:LYS:CG	1:D:316:PHE:CE1	2.51	0.89
1:E:163:VAL:HG13	1:E:339:LYS:CE	2.02	0.89
1:B:356:GLY:C	1:B:360:ILE:HB	1.97	0.89
1:D:359:ALA:O	1:D:360:ILE:CG2	2.20	0.89
1:B:261:GLU:OE2	1:B:261:GLU:CA	2.20	0.89
1:B:405:HIS:O	1:B:406:ASP:HB2	1.73	0.89
1:C:206:LYS:NZ	1:C:396:HIS:HD2	1.70	0.89
1:D:124:PHE:CZ	1:D:128:MET:HE3	2.07	0.89
1:A:336:ALA:C	1:A:337:ILE:HD13	1.98	0.89
1:B:293:PRO:O	1:B:295:PHE:HD2	1.55	0.89
1:B:353:ALA:HB1	1:B:354:VAL:O	1.72	0.89
1:A:59:MET:CB	1:A:128:MET:HE1	2.02	0.88
1:A:86:GLU:O	1:A:89:PHE:HB3	1.72	0.88
1:B:353:ALA:CB	1:B:354:VAL:O	2.21	0.88
1:C:365:VAL:HG12	1:C:366:LEU:N	1.88	0.88
1:D:359:ALA:O	1:D:360:ILE:HG12	1.72	0.88
1:D:366:LEU:HD23	1:D:367:TYR:N	1.88	0.88
1:B:299:GLN:HE21	1:B:299:GLN:C	1.80	0.88
1:C:195:ARG:HH12	1:C:358:ILE:HA	1.37	0.88
1:C:195:ARG:NH1	1:C:358:ILE:HA	1.87	0.88
1:B:299:GLN:NE2	1:B:300:GLU:N	2.17	0.88
1:C:62:LEU:CD2	1:C:87:PHE:HE2	1.85	0.88
1:C:367:TYR:CB	1:C:368:PRO:CA	2.39	0.88
1:B:193:GLN:CG	1:B:349:SER:O	2.20	0.87
1:A:55:LEU:HD23	1:A:90:LEU:HD22	1.56	0.87
1:C:62:LEU:HG	1:C:87:PHE:CE2	2.09	0.87
1:C:93:PHE:CD2	1:C:97:VAL:HG22	2.08	0.87
1:E:156:GLU:OE2	1:E:164:LYS:HG3	1.75	0.86
1:D:118:PHE:HB3	1:D:331:ILE:HD11	1.58	0.86
1:E:119:HIS:O	1:E:326:SER:CB	2.24	0.86
1:C:268:GLU:CB	1:C:269:PRO:HD3	2.06	0.86
1:A:104:TYR:O	1:A:104:TYR:CD1	2.29	0.86
1:C:357:MET:O	1:C:357:MET:SD	2.34	0.86
1:E:109:ALA:HB1	1:E:154:TRP:CZ3	2.11	0.86
1:E:181:ILE:HD11	1:E:337:ILE:HD12	1.55	0.85
1:A:62:LEU:HD21	1:A:87:PHE:CE2	2.12	0.85
1:C:263:PRO:HB2	1:C:266:THR:CB	2.06	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:103:GLN:HG3	1:A:247:GLU:HB3	1.59	0.85
1:B:51:LEU:HD11	1:B:93:PHE:HB3	1.56	0.85
1:B:238:ILE:O	1:B:238:ILE:HG13	1.74	0.85
1:E:120:VAL:HG22	1:E:325:LEU:CD1	2.07	0.85
1:A:366:LEU:C	1:A:366:LEU:HD23	2.02	0.84
1:A:31:VAL:HA	1:A:391:MET:HE1	1.59	0.84
1:B:354:VAL:CB	1:B:355:SER:HA	2.03	0.84
1:E:362:ARG:CD	1:E:363:MET:H	1.88	0.84
1:D:42:GLU:O	1:D:43:ASP:HB3	1.76	0.84
1:A:106:MET:CE	1:A:108:ILE:HD11	2.07	0.84
1:C:118:PHE:CD2	1:C:331:ILE:HG13	2.13	0.84
1:D:362:ARG:CG	1:D:363:MET:H	1.89	0.84
1:C:59:MET:HE1	1:C:110:ASN:OD1	1.78	0.84
1:C:89:PHE:O	1:C:89:PHE:CD2	2.29	0.84
1:E:259:ARG:NH1	1:E:260:GLN:CB	2.39	0.84
1:A:94:SER:O	1:A:98:THR:CG2	2.25	0.84
1:D:304:LYS:HD3	1:D:316:PHE:CG	2.13	0.84
1:E:87:PHE:H	1:E:87:PHE:HD1	1.20	0.84
1:E:163:VAL:HG12	1:E:339:LYS:HE2	1.58	0.84
1:A:104:TYR:HA	1:A:188:GLY:HA2	1.57	0.83
1:A:51:LEU:HD11	1:A:93:PHE:CB	2.09	0.83
1:D:362:ARG:HG2	1:D:363:MET:N	1.93	0.83
1:B:354:VAL:HG11	1:B:355:SER:O	1.79	0.83
1:C:33:MET:HE1	1:C:53:ILE:CD1	2.09	0.83
1:C:362:ARG:O	1:C:363:MET:HB3	1.76	0.83
1:A:59:MET:HG2	1:A:128:MET:HE3	1.55	0.83
1:C:229:SER:HB2	1:D:365:VAL:HG22	1.61	0.83
1:C:43:ASP:CG	1:C:43:ASP:O	2.22	0.82
1:E:191:LYS:HE2	1:E:249:ASP:OD1	1.78	0.82
1:D:304:LYS:HE2	1:D:316:PHE:CD1	2.15	0.82
1:B:353:ALA:CA	1:B:354:VAL:O	2.28	0.82
1:E:364:ALA:HB1	1:E:366:LEU:CB	2.09	0.82
1:B:406:ASP:OD1	1:B:407:PHE:N	2.12	0.82
1:C:261:GLU:O	1:C:262:VAL:CG2	2.26	0.82
1:E:181:ILE:CD1	1:E:337:ILE:HD12	2.09	0.82
1:C:62:LEU:CG	1:C:87:PHE:HE2	1.91	0.81
1:B:120:VAL:HG22	1:B:325:LEU:CD1	2.09	0.81
1:C:175:ALA:HB3	1:C:176:THR:HA	1.62	0.81
1:E:259:ARG:HD3	1:E:260:GLN:H	1.41	0.81
1:A:24:GLU:O	1:A:27:ALA:HB3	1.80	0.81
1:A:399:THR:OG1	1:A:400:MET:N	2.06	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:195:ARG:NH1	1:C:358:ILE:CA	2.44	0.81
1:B:109:ALA:HB1	1:B:154:TRP:CZ3	2.16	0.81
1:B:299:GLN:NE2	1:B:299:GLN:CA	2.38	0.81
1:C:100:LYS:HE3	1:C:105:VAL:HG11	1.62	0.81
1:A:85:GLU:O	1:A:86:GLU:HG3	1.80	0.81
1:B:206:LYS:NZ	1:B:396:HIS:HD2	1.78	0.81
1:E:121:ASN:N	1:E:325:LEU:O	2.13	0.80
1:E:289:GLU:OE1	1:E:369:GLN:NE2	2.14	0.80
1:B:166:LEU:HD23	1:B:181:ILE:HG13	1.64	0.80
1:D:59:MET:HE1	1:D:110:ASN:OD1	1.81	0.80
1:A:106:MET:HE1	1:A:108:ILE:HD11	1.63	0.80
1:B:51:LEU:HD11	1:B:93:PHE:CB	2.12	0.80
1:B:407:PHE:CD2	1:B:407:PHE:O	2.34	0.80
1:C:100:LYS:HE3	1:C:105:VAL:HG13	1.62	0.80
1:E:362:ARG:O	1:E:363:MET:O	2.00	0.80
1:B:166:LEU:CD2	1:B:181:ILE:HG13	2.11	0.80
1:E:287:LYS:HB3	1:E:367:TYR:CE2	2.17	0.80
1:B:353:ALA:HA	1:B:354:VAL:O	1.80	0.80
1:D:359:ALA:O	1:D:360:ILE:CG1	2.29	0.80
1:E:191:LYS:HE3	1:E:245:PRO:HB2	1.62	0.80
1:E:315:ILE:HD11	1:E:316:PHE:CE2	2.16	0.80
1:A:215:PRO:HG2	1:A:294:ARG:HB3	1.63	0.80
1:C:56:ALA:HA	1:C:59:MET:CE	2.11	0.80
1:B:104:TYR:HA	1:B:188:GLY:HA2	1.62	0.79
1:D:374:HIS:HB2	1:D:375:PRO:HD2	1.64	0.79
1:A:62:LEU:CD2	1:A:87:PHE:CE2	2.65	0.79
1:A:206:LYS:HZ3	1:A:396:HIS:HD2	1.30	0.79
1:A:176:THR:O	1:A:177:TYR:HB2	1.82	0.79
1:B:103:GLN:O	1:B:104:TYR:HB3	1.81	0.79
1:B:358:ILE:CG2	1:B:359:ALA:H	1.95	0.79
1:D:26:ILE:HD12	1:D:93:PHE:CE1	2.15	0.79
1:B:354:VAL:CA	1:B:356:GLY:N	2.46	0.79
1:C:267:LEU:HD13	1:C:267:LEU:O	1.83	0.79
1:E:364:ALA:CB	1:E:366:LEU:CB	2.53	0.79
1:D:121:ASN:N	1:D:325:LEU:O	2.15	0.79
1:C:142:SER:OG	1:C:174:ALA:CB	2.31	0.79
1:A:289:GLU:HG3	1:A:369:GLN:NE2	1.97	0.79
1:A:287:LYS:HZ1	1:A:353:ALA:CB	1.94	0.78
1:B:315:ILE:HD11	1:B:316:PHE:CE2	2.17	0.78
1:C:265:ALA:O	1:C:269:PRO:HD2	1.82	0.78
1:C:267:LEU:C	1:C:267:LEU:HD13	2.08	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:43:ASP:OD1	1:A:43:ASP:O	2.01	0.78
1:D:62:LEU:HD21	1:D:87:PHE:CE2	2.17	0.78
1:E:362:ARG:CD	1:E:363:MET:N	2.46	0.78
1:B:352:ALA:O	1:B:353:ALA:CB	2.31	0.78
1:C:195:ARG:HH12	1:C:358:ILE:H	1.30	0.78
1:D:314:GLU:O	1:D:320:ALA:CB	2.32	0.78
1:A:33:MET:HE1	1:A:53:ILE:CD1	2.14	0.78
1:A:289:GLU:HG3	1:A:369:GLN:HE22	1.49	0.78
1:B:357:MET:O	1:B:358:ILE:O	2.01	0.78
1:D:119:HIS:O	1:D:326:SER:CB	2.31	0.78
1:C:193:GLN:OE1	1:C:347:GLU:C	2.26	0.78
1:A:104:TYR:CD1	1:A:104:TYR:C	2.62	0.77
1:B:28:ASP:O	1:B:32:ASN:HB2	1.83	0.77
1:B:368:PRO:HD3	1:D:360:ILE:HG22	1.66	0.77
1:D:104:TYR:HA	1:D:188:GLY:HA2	1.63	0.77
1:B:354:VAL:HG12	1:B:356:GLY:HA3	1.66	0.77
1:C:268:GLU:CB	1:C:269:PRO:CD	2.53	0.77
1:B:351:ALA:O	1:B:352:ALA:HB2	1.84	0.77
1:B:353:ALA:CA	1:B:354:VAL:C	2.57	0.77
1:B:23:GLU:N	1:B:89:PHE:HZ	1.82	0.77
1:C:315:ILE:HD11	1:C:316:PHE:CE2	2.19	0.77
1:B:362:ARG:HG3	1:C:367:TYR:HD1	1.49	0.77
1:A:337:ILE:CD1	1:A:337:ILE:N	2.44	0.77
1:B:206:LYS:NZ	1:B:396:HIS:CD2	2.53	0.77
1:B:405:HIS:O	1:B:406:ASP:CB	2.33	0.77
1:E:86:GLU:HG2	1:E:87:PHE:HD1	1.50	0.77
1:B:360:ILE:CG2	1:B:361:SER:N	2.33	0.76
1:D:51:LEU:CD1	1:D:93:PHE:HD1	1.84	0.76
1:D:57:MET:HE2	1:D:57:MET:HA	1.65	0.76
1:E:97:VAL:HA	1:E:104:TYR:OH	1.85	0.76
1:B:57:MET:HA	1:B:57:MET:CE	2.16	0.76
1:A:374:HIS:HB2	1:A:375:PRO:CD	2.15	0.76
1:B:33:MET:HE3	1:B:306:VAL:HG11	1.67	0.76
1:C:97:VAL:HA	1:C:104:TYR:OH	1.85	0.76
1:E:287:LYS:HD3	1:E:367:TYR:CZ	2.21	0.76
1:A:51:LEU:CD1	1:A:93:PHE:HB3	2.16	0.76
1:B:121:ASN:N	1:B:325:LEU:O	2.18	0.76
1:C:283:VAL:HG23	1:C:283:VAL:O	1.84	0.76
1:C:265:ALA:O	1:C:269:PRO:CD	2.34	0.76
1:C:118:PHE:CD2	1:C:328:ASN:ND2	2.54	0.76
1:C:265:ALA:O	1:C:269:PRO:HG2	1.86	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:120:VAL:HG22	1:C:325:LEU:HD12	1.68	0.76
1:D:120:VAL:HG22	1:D:325:LEU:CD1	2.15	0.76
1:B:407:PHE:C	1:B:407:PHE:HD2	1.94	0.75
1:C:62:LEU:CD2	1:C:87:PHE:CE2	2.70	0.75
1:C:197:GLU:OE2	1:C:358:ILE:HG21	1.85	0.75
1:D:358:ILE:O	1:D:359:ALA:HB2	1.83	0.75
1:C:362:ARG:O	1:C:363:MET:HB2	1.84	0.75
1:A:86:GLU:O	1:A:89:PHE:CB	2.34	0.75
1:B:36:ARG:NH2	1:B:305:ASP:OD1	2.18	0.75
1:D:359:ALA:C	1:D:360:ILE:HG23	2.10	0.75
1:E:115:GLN:HG3	1:E:116:ASN:N	2.02	0.75
1:A:59:MET:CE	1:A:110:ASN:ND2	2.49	0.75
1:D:59:MET:CE	1:D:110:ASN:OD1	2.35	0.75
1:D:62:LEU:CD2	1:D:87:PHE:CE2	2.69	0.75
1:E:259:ARG:HH11	1:E:260:GLN:HB3	1.52	0.74
1:D:178:LEU:CD1	1:D:333:LEU:HA	2.17	0.74
1:A:103:GLN:HB2	1:A:189:ASN:HB2	1.69	0.74
1:A:120:VAL:HG22	1:A:325:LEU:CD1	2.17	0.74
1:D:104:TYR:CD1	1:D:104:TYR:C	2.65	0.74
1:D:297:VAL:HG21	1:D:394:VAL:HG22	1.68	0.74
1:C:186:PHE:HD2	1:C:342:LEU:HD11	1.52	0.74
1:D:101:GLU:O	1:D:102:SER:CB	2.34	0.74
1:D:108:ILE:HD12	1:D:108:ILE:O	1.87	0.74
1:A:222:GLU:HG3	1:A:287:LYS:HE3	1.70	0.74
1:D:104:TYR:CD1	1:D:104:TYR:O	2.40	0.74
1:B:315:ILE:HD13	1:B:333:LEU:HD23	1.68	0.74
1:C:365:VAL:O	1:C:366:LEU:HG	1.88	0.74
1:A:109:ALA:HB1	1:A:154:TRP:CZ3	2.23	0.73
1:A:206:LYS:NZ	1:A:396:HIS:HD2	1.86	0.73
1:C:120:VAL:HG22	1:C:325:LEU:CD1	2.18	0.73
1:A:94:SER:C	1:A:98:THR:CG2	2.61	0.73
1:E:86:GLU:OE1	1:E:87:PHE:CE1	2.41	0.73
1:E:206:LYS:NZ	1:E:396:HIS:HD2	1.86	0.73
1:A:34:TYR:HB2	1:A:391:MET:CE	2.18	0.73
1:D:59:MET:HB2	1:D:128:MET:SD	2.27	0.73
1:C:357:MET:O	1:C:358:ILE:CD1	2.34	0.73
1:E:163:VAL:HG13	1:E:339:LYS:HE3	1.69	0.73
1:A:337:ILE:HD13	1:A:337:ILE:N	2.01	0.73
1:C:178:LEU:CD1	1:C:333:LEU:HA	2.18	0.73
1:B:297:VAL:HG21	1:B:394:VAL:HG22	1.71	0.73
1:D:360:ILE:O	1:D:361:SER:CB	2.36	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:86:GLU:C	1:A:88:SER:H	1.97	0.73
1:A:193:GLN:HG3	1:A:193:GLN:O	1.86	0.73
1:E:163:VAL:HG13	1:E:339:LYS:HE2	1.61	0.73
1:C:100:LYS:CG	1:C:105:VAL:HG13	2.19	0.72
1:C:175:ALA:CB	1:C:176:THR:HA	2.18	0.72
1:B:206:LYS:HZ3	1:B:396:HIS:CD2	2.06	0.72
1:E:118:PHE:HZ	1:E:177:TYR:CD2	2.07	0.72
1:C:59:MET:HB2	1:C:128:MET:SD	2.28	0.72
1:A:274:GLN:CA	1:A:274:GLN:NE2	2.35	0.72
1:E:86:GLU:OE1	1:E:87:PHE:HE1	1.71	0.72
1:D:26:ILE:HD11	1:D:93:PHE:CE1	2.22	0.72
1:D:238:ILE:HD11	1:D:259:ARG:CZ	2.18	0.72
1:D:304:LYS:HG3	1:D:316:PHE:CD1	2.24	0.72
1:E:176:THR:HG22	1:E:334:SER:OG	1.90	0.72
1:B:59:MET:HE3	1:B:180:LEU:HD13	1.70	0.72
1:C:365:VAL:O	1:C:366:LEU:CB	2.37	0.72
1:E:104:TYR:CD1	1:E:104:TYR:C	2.67	0.72
1:E:104:TYR:CD1	1:E:104:TYR:O	2.42	0.72
1:E:115:GLN:HG3	1:E:116:ASN:H	1.54	0.72
1:B:354:VAL:HA	1:B:356:GLY:N	2.05	0.72
1:C:206:LYS:HZ3	1:C:396:HIS:HD2	1.37	0.72
1:E:33:MET:HE1	1:E:53:ILE:HD12	1.72	0.72
1:E:124:PHE:CE2	1:E:128:MET:HE3	2.24	0.72
1:C:365:VAL:CG1	1:C:366:LEU:H	2.03	0.71
1:E:298:GLU:HG3	1:E:341:PHE:HD1	1.56	0.71
1:B:362:ARG:CG	1:C:367:TYR:HD1	2.03	0.71
1:C:206:LYS:HZ3	1:C:396:HIS:CD2	2.08	0.71
1:E:124:PHE:CZ	1:E:128:MET:CE	2.70	0.71
1:C:178:LEU:HD11	1:C:333:LEU:HA	1.72	0.71
1:C:357:MET:C	1:C:357:MET:SD	2.73	0.71
1:B:181:ILE:HD11	1:B:337:ILE:CD1	2.15	0.71
1:C:360:ILE:O	1:C:361:SER:O	2.08	0.71
1:D:52:SER:HB3	1:D:184:VAL:HG21	1.72	0.71
1:E:321:ASN:OD1	1:E:323:THR:HG23	1.90	0.71
1:A:299:GLN:OE1	1:A:299:GLN:CA	2.34	0.71
1:A:315:ILE:HD11	1:A:316:PHE:CE2	2.25	0.71
1:E:299:GLN:OE1	1:E:299:GLN:CA	2.36	0.71
1:E:51:LEU:CD1	1:E:93:PHE:CG	2.74	0.71
1:E:87:PHE:C	1:E:89:PHE:H	1.98	0.71
1:D:366:LEU:HD23	1:D:366:LEU:C	2.15	0.70
1:B:61:GLU:OE2	1:B:73:ARG:HG2	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:191:LYS:CE	1:E:249:ASP:OD1	2.39	0.70
1:B:51:LEU:CD1	1:B:93:PHE:CD1	2.74	0.70
1:C:195:ARG:NH1	1:C:358:ILE:CG2	2.54	0.70
1:C:197:GLU:CD	1:C:358:ILE:CG2	2.65	0.70
1:C:239:TYR:CD1	1:C:239:TYR:N	2.56	0.70
1:D:109:ALA:HB1	1:D:154:TRP:HZ3	1.55	0.70
1:D:118:PHE:CB	1:D:331:ILE:HD11	2.22	0.70
1:D:359:ALA:O	1:D:360:ILE:CB	2.39	0.70
1:E:176:THR:N	1:E:177:TYR:HA	2.06	0.70
1:A:259:ARG:HH21	1:B:362:ARG:NH1	1.89	0.70
1:C:173:ASP:C	1:C:175:ALA:H	1.99	0.70
1:D:366:LEU:C	1:D:366:LEU:CD2	2.65	0.70
1:E:364:ALA:CA	1:E:365:VAL:CG2	2.28	0.70
1:A:99:ALA:O	1:A:101:GLU:OE2	2.10	0.70
1:B:102:SER:O	1:B:103:GLN:CB	2.40	0.70
1:B:351:ALA:O	1:B:352:ALA:CB	2.39	0.70
1:B:356:GLY:CA	1:B:360:ILE:CD1	2.58	0.70
1:E:176:THR:H	1:E:177:TYR:HA	1.55	0.70
1:C:315:ILE:HD13	1:C:333:LEU:HD23	1.74	0.70
1:C:367:TYR:HB3	1:C:368:PRO:C	2.16	0.70
1:D:52:SER:CB	1:D:184:VAL:HG21	2.22	0.70
1:E:43:ASP:CG	1:E:43:ASP:O	2.35	0.70
1:A:46:ILE:O	1:A:392:GLY:CA	2.40	0.70
1:A:101:GLU:OE2	1:A:101:GLU:N	2.24	0.70
1:A:247:GLU:OE2	1:A:247:GLU:C	2.34	0.70
1:B:93:PHE:O	1:B:97:VAL:HG23	1.91	0.69
1:B:260:GLN:HE21	1:B:261:GLU:H	0.72	0.69
1:C:283:VAL:O	1:C:283:VAL:CG2	2.40	0.69
1:D:315:ILE:HD11	1:D:316:PHE:CE2	2.27	0.69
1:A:57:MET:HA	1:A:57:MET:CE	2.20	0.69
1:B:404:GLY:O	1:B:405:HIS:HD2	1.75	0.69
1:D:23:GLU:CD	1:D:89:PHE:HZ	1.99	0.69
1:E:24:GLU:O	1:E:27:ALA:HB3	1.91	0.69
1:C:315:ILE:CD1	1:C:316:PHE:CE2	2.75	0.69
1:A:291:TYR:HB2	1:A:371:ILE:HA	1.75	0.69
1:E:118:PHE:CZ	1:E:177:TYR:CD2	2.80	0.69
1:D:118:PHE:CD2	1:D:328:ASN:ND2	2.60	0.69
1:A:178:LEU:HD13	1:A:333:LEU:HD12	1.75	0.69
1:C:239:TYR:CE2	1:C:266:THR:HG21	2.28	0.69
1:A:59:MET:CG	1:A:128:MET:CE	2.28	0.69
1:A:221:GLY:HA2	1:A:287:LYS:CE	2.23	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:109:ALA:HB1	1:B:154:TRP:HZ3	1.57	0.69
1:B:178:LEU:CD1	1:B:333:LEU:HA	2.22	0.69
1:B:234:GLU:HG2	1:B:235:ALA:HB2	1.73	0.69
1:C:365:VAL:O	1:C:366:LEU:HB2	1.92	0.69
1:E:56:ALA:HA	1:E:110:ASN:HD21	1.55	0.69
1:E:86:GLU:HG2	1:E:87:PHE:CD1	2.27	0.69
1:E:104:TYR:HA	1:E:188:GLY:HA2	1.75	0.69
1:B:59:MET:CE	1:B:180:LEU:HD13	2.22	0.69
1:C:55:LEU:HD23	1:C:90:LEU:HD22	1.73	0.69
1:D:238:ILE:CD1	1:D:259:ARG:NH1	2.49	0.69
1:C:239:TYR:CZ	1:C:266:THR:HG21	2.28	0.68
1:D:351:ALA:O	1:D:352:ALA:HB3	1.92	0.68
1:A:59:MET:HG2	1:A:128:MET:HE1	0.70	0.68
1:C:94:SER:O	1:C:98:THR:HG21	1.94	0.68
1:B:354:VAL:CB	1:B:356:GLY:N	2.56	0.68
1:C:173:ASP:O	1:C:176:THR:HG23	1.92	0.68
1:D:178:LEU:HD11	1:D:333:LEU:HA	1.76	0.68
1:C:173:ASP:O	1:C:175:ALA:N	2.26	0.68
1:D:357:MET:CB	1:D:358:ILE:CA	2.39	0.68
1:A:222:GLU:HB3	1:A:285:LYS:HE2	1.75	0.68
1:D:23:GLU:CD	1:D:89:PHE:CZ	2.72	0.68
1:E:259:ARG:CD	1:E:260:GLN:H	2.06	0.68
1:E:362:ARG:O	1:E:363:MET:C	2.36	0.68
1:A:120:VAL:HG13	1:A:325:LEU:HD12	1.75	0.68
1:C:195:ARG:NH1	1:C:358:ILE:HG23	2.07	0.68
1:B:178:LEU:HD11	1:B:333:LEU:HA	1.76	0.68
1:A:62:LEU:CD2	1:A:87:PHE:HE2	2.05	0.68
1:A:89:PHE:CD2	1:A:93:PHE:HZ	2.12	0.68
1:A:193:GLN:HB3	1:A:348:GLY:C	2.18	0.68
1:C:364:ALA:O	1:C:367:TYR:CE2	2.46	0.68
1:E:86:GLU:O	1:E:88:SER:N	2.27	0.68
1:A:178:LEU:HD11	1:A:333:LEU:HA	1.76	0.67
1:A:193:GLN:CG	1:A:349:SER:O	2.39	0.67
1:E:120:VAL:HG22	1:E:325:LEU:HD12	1.74	0.67
1:B:293:PRO:O	1:B:295:PHE:CD2	2.45	0.67
1:C:186:PHE:HD2	1:C:342:LEU:CD1	2.05	0.67
1:C:262:VAL:O	1:C:262:VAL:CG1	2.36	0.67
1:D:103:GLN:HE21	1:D:104:TYR:H	1.42	0.67
1:B:166:LEU:CD1	1:B:339:LYS:HB3	2.24	0.67
1:C:271:VAL:O	1:C:274:GLN:HG3	1.93	0.67
1:D:51:LEU:HD11	1:D:93:PHE:CG	2.29	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:74:HIS:HA	1:D:78:TYR:HB2	1.75	0.67
1:D:98:THR:O	1:D:99:ALA:C	2.36	0.67
1:E:33:MET:HE3	1:E:306:VAL:HG11	1.77	0.67
1:A:33:MET:HE1	1:A:53:ILE:HD12	1.75	0.67
1:C:93:PHE:CD2	1:C:97:VAL:CG2	2.72	0.67
1:E:175:ALA:O	1:E:177:TYR:CD1	2.48	0.67
1:D:175:ALA:O	1:D:177:TYR:N	2.28	0.67
1:B:115:GLN:HG3	1:B:116:ASN:N	2.10	0.67
1:C:365:VAL:CG1	1:C:366:LEU:N	2.58	0.67
1:D:358:ILE:O	1:D:359:ALA:CB	2.43	0.67
1:E:191:LYS:CE	1:E:245:PRO:HB2	2.24	0.67
1:A:59:MET:CE	1:A:110:ASN:OD1	2.33	0.66
1:A:178:LEU:CD1	1:A:333:LEU:HA	2.25	0.66
1:D:71:GLU:OE2	1:D:314:GLU:CG	2.43	0.66
1:E:166:LEU:CD1	1:E:339:LYS:HB3	2.25	0.66
1:A:118:PHE:HB3	1:A:331:ILE:HD11	1.76	0.66
1:D:51:LEU:HD11	1:D:93:PHE:CD1	2.28	0.66
1:E:364:ALA:HB1	1:E:366:LEU:N	2.11	0.66
1:C:267:LEU:C	1:C:267:LEU:HD12	2.18	0.66
1:C:358:ILE:CD1	1:C:358:ILE:O	2.43	0.66
1:D:68:THR:HG23	1:D:314:GLU:HB3	1.78	0.66
1:B:124:PHE:CZ	1:B:128:MET:CE	2.78	0.66
1:B:124:PHE:CZ	1:B:128:MET:HE3	2.31	0.66
1:B:354:VAL:CG1	1:B:356:GLY:N	2.48	0.66
1:C:277:GLU:O	1:C:279:TRP:N	2.28	0.66
1:C:357:MET:O	1:C:358:ILE:C	2.39	0.66
1:A:206:LYS:NZ	1:A:396:HIS:CD2	2.62	0.66
1:B:50:PRO:HG3	1:B:388:ILE:HG22	1.77	0.66
1:C:24:GLU:O	1:C:27:ALA:HB3	1.96	0.66
1:C:206:LYS:NZ	1:C:396:HIS:CD2	2.59	0.66
1:C:271:VAL:HG12	1:C:272:LYS:N	2.10	0.66
1:A:287:LYS:HZ2	1:A:353:ALA:HB1	1.59	0.65
1:B:356:GLY:CA	1:B:360:ILE:CG1	2.74	0.65
1:C:26:ILE:O	1:C:30:SER:OG	2.13	0.65
1:D:51:LEU:CD1	1:D:93:PHE:CG	2.78	0.65
1:A:124:PHE:O	1:A:128:MET:HG2	1.96	0.65
1:B:401:ASN:HA	1:B:402:THR:CG2	2.25	0.65
1:C:362:ARG:NH1	1:E:371:ILE:HG21	2.10	0.65
1:C:57:MET:HE2	1:C:57:MET:HA	1.79	0.65
1:A:121:ASN:N	1:A:325:LEU:O	2.28	0.65
1:C:265:ALA:O	1:C:269:PRO:CG	2.44	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:106:MET:HE3	1:A:108:ILE:HD11	1.78	0.65
1:E:364:ALA:C	1:E:365:VAL:CG2	2.68	0.65
1:B:102:SER:O	1:B:103:GLN:HB2	1.94	0.65
1:B:206:LYS:NZ	1:B:398:GLU:OE2	2.30	0.65
1:C:33:MET:HE1	1:C:53:ILE:HD12	1.79	0.65
1:D:23:GLU:HG2	1:D:387:THR:OG1	1.97	0.65
1:D:101:GLU:O	1:D:102:SER:HB2	1.96	0.65
1:A:120:VAL:HG22	1:A:325:LEU:HD12	1.79	0.65
1:A:304:LYS:HE2	1:A:316:PHE:CD1	2.32	0.65
1:C:95:ASN:HA	1:C:98:THR:HG22	1.77	0.65
1:D:92:GLU:HG3	1:D:96:MET:CG	2.27	0.65
1:B:236:GLY:O	1:B:238:ILE:HG23	1.96	0.65
1:C:315:ILE:HD12	1:C:316:PHE:CD2	2.32	0.65
1:D:71:GLU:OE2	1:D:314:GLU:HG2	1.95	0.65
1:E:167:VAL:CG1	1:E:337:ILE:HD13	2.26	0.65
1:A:182:ASN:O	1:A:338:HIS:HA	1.96	0.64
1:A:287:LYS:HZ3	1:A:353:ALA:CB	1.99	0.64
1:A:104:TYR:O	1:A:104:TYR:CG	2.50	0.64
1:B:234:GLU:CG	1:B:235:ALA:HB2	2.27	0.64
1:B:377:PHE:CZ	1:B:391:MET:HE3	2.32	0.64
1:E:315:ILE:CD1	1:E:316:PHE:CE2	2.80	0.64
1:E:55:LEU:HD23	1:E:90:LEU:HD22	1.78	0.64
1:E:363:MET:HG3	1:E:364:ALA:N	2.11	0.64
1:C:52:SER:OG	1:C:182:ASN:OD1	2.16	0.64
1:B:62:LEU:CD1	1:B:128:MET:HE2	2.25	0.64
1:C:38:ARG:NH2	1:C:261:GLU:CD	2.53	0.64
1:C:124:PHE:CZ	1:C:128:MET:CE	2.80	0.64
1:C:278:GLU:O	1:C:281:ASN:HB2	1.98	0.64
1:A:277:GLU:OE2	1:A:277:GLU:N	2.31	0.64
1:B:98:THR:O	1:B:100:LYS:N	2.26	0.64
1:E:175:ALA:CB	1:E:176:THR:HA	2.27	0.64
1:C:374:HIS:HB2	1:C:375:PRO:HD2	1.80	0.64
1:D:166:LEU:O	1:D:300:GLU:OE2	2.15	0.64
1:E:36:ARG:NH2	1:E:305:ASP:OD1	2.30	0.64
1:A:33:MET:HG2	1:A:306:VAL:CG1	2.28	0.64
1:B:139:VAL:HB	1:B:147:VAL:HG23	1.80	0.64
1:B:104:TYR:CD1	1:B:104:TYR:C	2.75	0.64
1:A:297:VAL:HG21	1:A:394:VAL:HG22	1.78	0.63
1:B:22:PRO:C	1:B:89:PHE:HZ	2.06	0.63
1:B:51:LEU:HD11	1:B:93:PHE:CD1	2.33	0.63
1:C:224:TYR:HB2	1:C:243:GLU:HB3	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:377:PHE:CE1	1:C:391:MET:HE3	2.33	0.63
1:B:354:VAL:CA	1:B:355:SER:C	2.71	0.63
1:B:404:GLY:O	1:B:405:HIS:CD2	2.51	0.63
1:D:238:ILE:HD11	1:D:259:ARG:HH12	1.60	0.63
1:E:178:LEU:HD12	1:E:332:PHE:O	1.97	0.63
1:E:365:VAL:O	1:E:367:TYR:HB2	1.98	0.63
1:D:315:ILE:HD11	1:D:316:PHE:CZ	2.33	0.63
1:E:56:ALA:CA	1:E:110:ASN:HD21	2.10	0.63
1:C:107:LYS:O	1:C:184:VAL:HA	1.99	0.63
1:A:42:GLU:O	1:A:43:ASP:HB3	1.98	0.63
1:C:86:GLU:O	1:C:87:PHE:C	2.40	0.63
1:C:87:PHE:HD1	1:C:87:PHE:H	1.43	0.63
1:C:264:LEU:O	1:C:267:LEU:N	2.32	0.63
1:D:68:THR:HG23	1:D:314:GLU:CB	2.28	0.63
1:B:118:PHE:CG	1:B:331:ILE:HD11	2.34	0.63
1:D:59:MET:HE3	1:D:180:LEU:HD11	1.81	0.63
1:C:124:PHE:CE1	1:C:128:MET:HE3	2.33	0.63
1:E:165:ASP:CG	1:E:165:ASP:O	2.42	0.63
1:B:45:ASN:H	1:B:395:MET:HG2	1.64	0.62
1:C:277:GLU:C	1:C:279:TRP:N	2.56	0.62
1:D:120:VAL:HG22	1:D:325:LEU:HD12	1.81	0.62
1:D:124:PHE:CZ	1:D:128:MET:CE	2.82	0.62
1:B:296:THR:HG22	1:B:400:MET:HE1	1.80	0.62
1:C:121:ASN:N	1:C:325:LEU:O	2.32	0.62
1:C:264:LEU:C	1:C:267:LEU:H	2.07	0.62
1:E:299:GLN:OE1	1:E:300:GLU:N	2.30	0.62
1:B:162:LEU:HD13	1:B:185:TYR:CE2	2.34	0.62
1:A:52:SER:OG	1:A:182:ASN:OD1	2.18	0.62
1:C:109:ALA:HB1	1:C:154:TRP:CZ3	2.35	0.62
1:B:51:LEU:CD1	1:B:93:PHE:CG	2.82	0.62
1:B:59:MET:HE3	1:B:180:LEU:CD1	2.26	0.62
1:B:233:ASN:O	1:B:234:GLU:HB2	1.99	0.62
1:C:104:TYR:CD1	1:C:104:TYR:C	2.78	0.62
1:B:356:GLY:HA2	1:B:360:ILE:CG1	2.29	0.62
1:B:356:GLY:HA2	1:B:360:ILE:HG13	1.80	0.62
1:C:365:VAL:O	1:C:366:LEU:CG	2.48	0.62
1:E:87:PHE:C	1:E:89:PHE:N	2.55	0.62
1:A:34:TYR:HB2	1:A:391:MET:HE2	1.82	0.62
1:A:46:ILE:O	1:A:392:GLY:HA3	1.99	0.62
1:B:399:THR:C	1:B:400:MET:SD	2.83	0.62
1:C:357:MET:SD	1:C:357:MET:N	2.73	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:291:TYR:HB2	1:B:371:ILE:HA	1.81	0.61
1:D:92:GLU:HG3	1:D:96:MET:HG3	1.82	0.61
1:A:43:ASP:O	1:A:43:ASP:CG	2.43	0.61
1:B:403:SER:O	1:B:405:HIS:N	2.33	0.61
1:A:26:ILE:HD12	1:A:387:THR:HG23	1.83	0.61
1:A:103:GLN:O	1:A:104:TYR:CB	2.44	0.61
1:A:113:PHE:O	1:A:178:LEU:HA	2.00	0.61
1:E:328:ASN:C	1:E:328:ASN:OD1	2.43	0.61
1:E:178:LEU:CD1	1:E:178:LEU:C	2.74	0.61
1:A:36:ARG:NH2	1:A:305:ASP:OD1	2.33	0.61
1:B:400:MET:O	1:B:401:ASN:HB2	2.01	0.61
1:C:267:LEU:CD1	1:C:267:LEU:O	2.46	0.61
1:B:355:SER:O	1:B:357:MET:HG3	2.01	0.61
1:B:354:VAL:CG1	1:B:356:GLY:HA3	2.31	0.61
1:C:232:SER:O	1:C:233:ASN:HB2	2.00	0.61
1:A:118:PHE:CB	1:A:331:ILE:HD11	2.31	0.61
1:B:36:ARG:HH21	1:B:305:ASP:CG	2.07	0.61
1:B:354:VAL:CG1	1:B:356:GLY:CA	2.72	0.61
1:B:361:SER:HB2	1:B:363:MET:HG2	1.80	0.61
1:A:368:PRO:HA	1:D:364:ALA:HA	1.81	0.60
1:D:42:GLU:O	1:D:43:ASP:CB	2.49	0.60
1:E:33:MET:HE1	1:E:53:ILE:HD13	1.83	0.60
1:D:120:VAL:HG13	1:D:325:LEU:HD12	1.82	0.60
1:B:362:ARG:HB2	1:C:367:TYR:CD1	2.36	0.60
1:E:115:GLN:HB3	1:E:118:PHE:CD1	2.36	0.60
1:A:62:LEU:CD1	1:A:132:PHE:HE2	2.14	0.60
1:E:59:MET:HG2	1:E:60:MET:H	1.67	0.60
1:E:287:LYS:CB	1:E:367:TYR:CE2	2.84	0.60
1:B:118:PHE:CD2	1:B:328:ASN:ND2	2.70	0.60
1:B:377:PHE:HZ	1:B:391:MET:HE3	1.65	0.60
1:E:191:LYS:NZ	1:E:249:ASP:OD1	2.34	0.60
1:E:315:ILE:HD12	1:E:316:PHE:CD2	2.35	0.60
1:B:356:GLY:C	1:B:360:ILE:HD12	2.25	0.60
1:D:176:THR:O	1:D:177:TYR:HB2	2.00	0.60
1:D:268:GLU:O	1:D:271:VAL:HG23	2.01	0.60
1:E:366:LEU:C	1:E:367:TYR:O	2.43	0.60
1:B:98:THR:C	1:B:100:LYS:H	2.10	0.60
1:A:274:GLN:HE21	1:A:274:GLN:C	2.10	0.60
1:E:23:GLU:HG2	1:E:387:THR:OG1	2.02	0.60
1:C:186:PHE:CD2	1:C:342:LEU:HD11	2.35	0.60
1:C:267:LEU:O	1:C:270:LEU:HB2	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:304:LYS:CD	1:D:316:PHE:CD1	2.84	0.60
1:C:195:ARG:NH1	1:C:358:ILE:H	1.98	0.59
1:B:166:LEU:HD23	1:B:181:ILE:CG1	2.31	0.59
1:C:62:LEU:HD21	1:C:127:MET:HG2	1.83	0.59
1:C:214:ILE:HD13	1:C:293:PRO:HB3	1.84	0.59
1:C:300:GLU:HB2	1:C:339:LYS:HG3	1.84	0.59
1:E:397:PRO:HD2	1:E:398:GLU:OE1	2.02	0.59
1:A:57:MET:HE2	1:A:57:MET:CA	2.25	0.59
1:A:85:GLU:O	1:A:86:GLU:CG	2.48	0.59
1:B:362:ARG:HG3	1:C:367:TYR:CD1	2.35	0.59
1:A:103:GLN:CG	1:A:247:GLU:HB3	2.32	0.59
1:E:86:GLU:O	1:E:89:PHE:N	2.35	0.59
1:B:52:SER:OG	1:B:182:ASN:OD1	2.19	0.59
1:B:59:MET:CB	1:B:128:MET:SD	2.81	0.59
1:B:193:GLN:HB3	1:B:348:GLY:CA	2.32	0.59
1:A:118:PHE:CD2	1:A:328:ASN:ND2	2.71	0.59
1:C:45:ASN:OD1	1:C:395:MET:N	2.31	0.59
1:D:59:MET:HE3	1:D:180:LEU:CD1	2.33	0.59
1:E:178:LEU:C	1:E:178:LEU:HD13	2.27	0.59
1:D:361:SER:O	1:D:362:ARG:HB2	2.03	0.59
1:A:374:HIS:HB2	1:A:375:PRO:HD2	1.84	0.59
1:B:232:SER:CB	1:B:234:GLU:O	2.47	0.59
1:C:100:LYS:HG3	1:C:105:VAL:HG13	1.84	0.59
1:B:355:SER:O	1:B:357:MET:CG	2.50	0.58
1:D:178:LEU:CD1	1:D:178:LEU:C	2.75	0.58
1:E:208:ASP:O	1:E:209:GLU:HG3	2.03	0.58
1:A:173:ASP:O	1:A:175:ALA:N	2.35	0.58
1:C:178:LEU:CD1	1:C:178:LEU:C	2.76	0.58
1:C:277:GLU:O	1:C:278:GLU:C	2.47	0.58
1:A:261:GLU:OE2	1:A:261:GLU:CA	2.47	0.58
1:E:362:ARG:CG	1:E:362:ARG:NH1	2.43	0.58
1:C:239:TYR:N	1:C:239:TYR:HD1	2.01	0.58
1:C:262:VAL:O	1:C:263:PRO:C	2.47	0.58
1:B:202:PHE:CD1	1:B:216:MET:HB3	2.39	0.58
1:C:115:GLN:HG3	1:C:116:ASN:N	2.17	0.58
1:C:166:LEU:CD2	1:C:181:ILE:HG13	2.33	0.58
1:C:359:ALA:O	1:C:360:ILE:CB	2.43	0.58
1:E:379:LEU:HD23	1:E:391:MET:HB2	1.86	0.58
1:B:57:MET:HE2	1:B:57:MET:CA	2.25	0.58
1:A:251:ILE:HG22	1:A:252:SER:N	2.18	0.58
1:B:208:ASP:O	1:B:209:GLU:HB2	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:104:TYR:CD1	1:C:104:TYR:O	2.57	0.58
1:D:115:GLN:HB3	1:D:118:PHE:CD1	2.39	0.58
1:E:199:THR:HG21	1:E:294:ARG:HH12	1.68	0.58
1:A:89:PHE:CD2	1:A:93:PHE:CZ	2.91	0.58
1:B:33:MET:CE	1:B:53:ILE:HD12	2.20	0.58
1:E:118:PHE:CZ	1:E:177:TYR:HD2	2.22	0.58
1:A:206:LYS:HE2	1:A:396:HIS:HA	1.85	0.57
1:B:400:MET:SD	1:B:400:MET:N	2.77	0.57
1:A:175:ALA:CB	1:A:176:THR:HA	2.34	0.57
1:A:185:TYR:HE1	1:A:341:PHE:CE2	2.22	0.57
1:B:232:SER:C	1:B:234:GLU:N	2.62	0.57
1:B:403:SER:O	1:B:404:GLY:C	2.46	0.57
1:C:185:TYR:CD1	1:C:341:PHE:CD2	2.92	0.57
1:D:105:VAL:O	1:D:186:PHE:HA	2.04	0.57
1:D:304:LYS:HG2	1:D:316:PHE:CZ	2.38	0.57
1:D:351:ALA:O	1:D:352:ALA:CB	2.51	0.57
1:A:86:GLU:C	1:A:88:SER:N	2.61	0.57
1:B:112:LEU:HD13	1:B:180:LEU:HD13	1.85	0.57
1:C:263:PRO:C	1:C:264:LEU:HG	2.28	0.57
1:D:43:ASP:CG	1:D:43:ASP:O	2.46	0.57
1:A:34:TYR:HB2	1:A:391:MET:HE3	1.86	0.57
1:A:93:PHE:C	1:A:95:ASN:H	2.11	0.57
1:C:100:LYS:CE	1:C:105:VAL:CG1	2.77	0.57
1:B:56:ALA:O	1:B:59:MET:HG2	2.05	0.57
1:B:166:LEU:CD1	1:B:339:LYS:CB	2.83	0.57
1:E:36:ARG:NE	1:E:305:ASP:OD2	2.31	0.57
1:A:175:ALA:HB3	1:A:176:THR:HA	1.85	0.57
1:B:178:LEU:CD1	1:B:178:LEU:C	2.77	0.57
1:B:362:ARG:CB	1:C:367:TYR:CD1	2.87	0.57
1:A:163:VAL:CG1	1:A:339:LYS:HD3	2.34	0.57
1:C:178:LEU:C	1:C:178:LEU:HD13	2.29	0.57
1:D:257:LEU:HD11	1:D:374:HIS:CE1	2.39	0.57
1:E:364:ALA:HB2	1:E:366:LEU:CB	2.26	0.57
1:A:364:ALA:HB1	1:D:366:LEU:HD21	1.86	0.57
1:B:162:LEU:HD13	1:B:185:TYR:CZ	2.40	0.57
1:C:261:GLU:C	1:C:262:VAL:HG23	2.27	0.57
1:D:118:PHE:CD2	1:D:331:ILE:CG1	2.87	0.57
1:C:197:GLU:OE2	1:C:358:ILE:CG2	2.51	0.56
1:C:278:GLU:O	1:C:281:ASN:N	2.38	0.56
1:A:64:ALA:C	1:A:65:GLN:HG2	2.30	0.56
1:B:178:LEU:C	1:B:178:LEU:HD13	2.30	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:206:LYS:CE	1:B:396:HIS:HD2	2.18	0.56
1:B:355:SER:O	1:B:357:MET:N	2.33	0.56
1:D:120:VAL:HG22	1:D:325:LEU:HD11	1.85	0.56
1:B:92:GLU:HG3	1:B:96:MET:HB2	1.86	0.56
1:B:260:GLN:HG2	1:B:261:GLU:OE2	2.05	0.56
1:C:89:PHE:HE2	1:C:93:PHE:CD1	2.23	0.56
1:C:193:GLN:CD	1:C:347:GLU:C	2.73	0.56
1:D:47:LEU:HD22	1:D:297:VAL:HG12	1.87	0.56
1:D:62:LEU:CD2	1:D:87:PHE:HE2	2.18	0.56
1:D:304:LYS:CD	1:D:316:PHE:CG	2.87	0.56
1:D:304:LYS:CE	1:D:316:PHE:CD1	2.86	0.56
1:A:45:ASN:OD1	1:A:395:MET:N	2.37	0.56
1:D:36:ARG:NH2	1:D:305:ASP:OD1	2.26	0.56
1:A:23:GLU:N	1:A:89:PHE:HZ	2.02	0.56
1:A:175:ALA:O	1:A:177:TYR:CD1	2.58	0.56
1:E:59:MET:O	1:E:62:LEU:HB2	2.05	0.56
1:C:100:LYS:CE	1:C:105:VAL:HG13	2.33	0.56
1:D:166:LEU:CD1	1:D:339:LYS:HB2	2.36	0.56
1:E:175:ALA:O	1:E:177:TYR:CE1	2.59	0.56
1:B:142:SER:OG	1:B:174:ALA:HB2	2.05	0.56
1:C:166:LEU:HG	1:C:337:ILE:HG21	1.86	0.56
1:A:84:GLY:HA2	1:A:85:GLU:HB2	0.71	0.56
1:A:118:PHE:CD2	1:A:331:ILE:HG13	2.41	0.56
1:C:193:GLN:HG2	1:C:347:GLU:C	2.30	0.56
1:E:41:GLY:O	1:E:42:GLU:C	2.49	0.56
1:E:230:ASP:N	1:E:230:ASP:OD2	2.39	0.56
1:E:175:ALA:HB3	1:E:176:THR:HG23	1.88	0.56
1:E:363:MET:HG3	1:E:364:ALA:H	1.71	0.56
1:A:366:LEU:HD23	1:A:367:TYR:N	2.21	0.56
1:C:346:GLU:O	1:C:347:GLU:C	2.49	0.56
1:D:124:PHE:CE1	1:D:128:MET:HE3	2.41	0.56
1:E:109:ALA:HB1	1:E:154:TRP:HZ3	1.65	0.56
1:E:328:ASN:OD1	1:E:330:GLU:CB	2.54	0.56
1:C:93:PHE:HD2	1:C:97:VAL:HG21	1.66	0.55
1:A:218:TYR:C	1:A:218:TYR:CD2	2.83	0.55
1:B:104:TYR:O	1:B:104:TYR:CG	2.60	0.55
1:B:115:GLN:HB3	1:B:118:PHE:CD1	2.42	0.55
1:B:167:VAL:CG1	1:B:337:ILE:HD13	2.28	0.55
1:B:401:ASN:HA	1:B:402:THR:HG23	1.87	0.55
1:C:393:ARG:O	1:C:393:ARG:HG3	2.04	0.55
1:E:315:ILE:CD1	1:E:316:PHE:CD2	2.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:22:PRO:C	1:B:89:PHE:CZ	2.84	0.55
1:B:315:ILE:CD1	1:B:316:PHE:CE2	2.88	0.55
1:D:379:LEU:HD23	1:D:391:MET:HB3	1.88	0.55
1:C:298:GLU:OE2	1:C:339:LYS:HE3	2.06	0.55
1:D:166:LEU:CD2	1:D:181:ILE:HG23	2.37	0.55
1:D:374:HIS:HB2	1:D:375:PRO:CD	2.32	0.55
1:A:42:GLU:O	1:A:42:GLU:CG	2.54	0.55
1:A:178:LEU:CD1	1:A:178:LEU:C	2.79	0.55
1:A:378:PHE:CD1	1:A:378:PHE:C	2.83	0.55
1:B:102:SER:O	1:B:103:GLN:CG	2.55	0.55
1:B:238:ILE:CA	1:B:239:TYR:HB3	2.27	0.55
1:B:357:MET:HB2	1:C:259:ARG:HH21	1.72	0.55
1:D:51:LEU:HD13	1:D:93:PHE:CD1	2.31	0.55
1:E:363:MET:CG	1:E:364:ALA:H	2.18	0.55
1:B:193:GLN:NE2	1:B:350:GLU:HA	2.15	0.55
1:D:393:ARG:O	1:D:393:ARG:HG3	2.04	0.55
1:E:303:LEU:HB3	1:E:336:ALA:CB	2.37	0.55
1:A:59:MET:HE3	1:A:110:ASN:ND2	2.21	0.55
1:E:61:GLU:OE2	1:E:87:PHE:CZ	2.60	0.55
1:B:317:ILE:HG22	1:B:318:LYS:N	2.21	0.55
1:D:193:GLN:NE2	1:D:350:GLU:HA	2.21	0.55
1:D:230:ASP:HB3	1:D:270:LEU:HD11	1.87	0.55
1:A:206:LYS:HZ3	1:A:396:HIS:CD2	2.17	0.55
1:C:263:PRO:HB2	1:C:266:THR:OG1	2.06	0.55
1:C:38:ARG:HH21	1:C:261:GLU:CG	2.20	0.55
1:E:176:THR:O	1:E:334:SER:HB2	2.01	0.55
1:C:261:GLU:O	1:C:262:VAL:CB	2.54	0.54
1:E:368:PRO:O	1:E:368:PRO:CD	2.51	0.54
1:B:173:ASP:C	1:B:175:ALA:H	2.15	0.54
1:C:118:PHE:CD2	1:C:328:ASN:CG	2.85	0.54
1:C:374:HIS:HB2	1:C:375:PRO:CD	2.38	0.54
1:A:162:LEU:HD13	1:A:185:TYR:CZ	2.43	0.54
1:B:166:LEU:HD21	1:B:181:ILE:HG13	1.89	0.54
1:D:71:GLU:OE2	1:D:314:GLU:HG3	2.07	0.54
1:E:115:GLN:HB3	1:E:118:PHE:HD1	1.72	0.54
1:C:115:GLN:HA	1:C:139:VAL:O	2.07	0.54
1:C:118:PHE:CZ	1:C:177:TYR:CD1	2.95	0.54
1:A:185:TYR:CD1	1:A:341:PHE:CD2	2.95	0.54
1:B:120:VAL:HG22	1:B:325:LEU:HD12	1.87	0.54
1:C:118:PHE:O	1:C:138:HIS:HE1	1.89	0.54
1:E:59:MET:CG	1:E:60:MET:N	2.70	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:95:ASN:CA	1:E:98:THR:HG22	2.38	0.54
1:E:259:ARG:HH12	1:E:260:GLN:HB2	1.67	0.54
1:A:176:THR:O	1:A:177:TYR:CB	2.56	0.54
1:B:234:GLU:CD	1:B:235:ALA:HB2	2.33	0.54
1:B:387:THR:HG22	1:B:388:ILE:O	2.07	0.54
1:C:195:ARG:NH1	1:C:358:ILE:N	2.48	0.54
1:D:56:ALA:HA	1:D:110:ASN:HD21	1.71	0.54
1:A:185:TYR:CE1	1:A:341:PHE:CD2	2.95	0.54
1:E:374:HIS:HB2	1:E:375:PRO:HD2	1.90	0.54
1:A:225:TYR:CG	1:A:226:GLY:N	2.76	0.54
1:B:328:ASN:OD1	1:B:330:GLU:CB	2.55	0.54
1:D:33:MET:CE	1:D:53:ILE:HD13	2.32	0.54
1:C:357:MET:HB2	1:E:213:GLN:HE22	1.72	0.53
1:E:34:TYR:HE2	1:E:38:ARG:HD2	1.73	0.53
1:E:364:ALA:HA	1:E:365:VAL:CB	2.27	0.53
1:E:368:PRO:O	1:E:368:PRO:HD2	2.08	0.53
1:B:328:ASN:OD1	1:B:330:GLU:HB2	2.07	0.53
1:C:52:SER:HB2	1:C:184:VAL:HG21	1.89	0.53
1:C:264:LEU:O	1:C:267:LEU:HB3	2.08	0.53
1:E:206:LYS:NZ	1:E:396:HIS:CD2	2.73	0.53
1:B:59:MET:HE1	1:B:180:LEU:CD1	2.37	0.53
1:C:308:LYS:HA	1:C:312:ILE:O	2.08	0.53
1:E:303:LEU:HB3	1:E:336:ALA:HB1	1.91	0.53
1:A:118:PHE:CD2	1:A:328:ASN:CG	2.87	0.53
1:A:366:LEU:C	1:A:366:LEU:CD2	2.77	0.53
1:B:354:VAL:C	1:B:356:GLY:N	2.65	0.53
1:B:365:VAL:HA	1:D:362:ARG:CB	2.38	0.53
1:D:357:MET:HB3	1:D:358:ILE:HA	0.65	0.53
1:E:328:ASN:OD1	1:E:330:GLU:HB3	2.08	0.53
1:E:329:LYS:CA	1:E:330:GLU:HB2	2.39	0.53
1:B:31:VAL:O	1:B:34:TYR:HB3	2.09	0.53
1:B:178:LEU:HD12	1:B:332:PHE:O	2.08	0.53
1:B:193:GLN:HG2	1:B:349:SER:C	2.33	0.53
1:C:186:PHE:O	1:C:342:LEU:HD12	2.09	0.53
1:D:377:PHE:CZ	1:D:391:MET:HE3	2.44	0.53
1:A:23:GLU:O	1:A:24:GLU:C	2.51	0.53
1:A:175:ALA:O	1:A:177:TYR:CE1	2.62	0.53
1:B:64:ALA:C	1:B:65:GLN:HG2	2.33	0.53
1:C:108:ILE:O	1:C:108:ILE:HD12	2.09	0.53
1:C:239:TYR:OH	1:C:263:PRO:HG2	2.07	0.53
1:E:176:THR:N	1:E:177:TYR:CA	2.71	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:247:GLU:OE2	1:A:247:GLU:CA	2.57	0.53
1:C:163:VAL:HG11	1:C:183:ALA:HB1	1.91	0.53
1:C:315:ILE:HG22	1:C:322:LEU:HD21	1.89	0.53
1:A:93:PHE:HA	1:A:97:VAL:HG22	1.91	0.53
1:A:185:TYR:CD1	1:A:341:PHE:HD2	2.26	0.53
1:A:329:LYS:N	1:A:330:GLU:HB2	2.24	0.53
1:B:374:HIS:HB2	1:B:375:PRO:CD	2.39	0.53
1:C:263:PRO:C	1:C:264:LEU:CG	2.82	0.53
1:D:206:LYS:NZ	1:D:396:HIS:HD2	2.06	0.53
1:D:222:GLU:CD	1:D:285:LYS:HE2	2.34	0.53
1:E:26:ILE:O	1:E:30:SER:OG	2.24	0.53
1:B:26:ILE:O	1:B:30:SER:OG	2.24	0.53
1:B:260:GLN:HE21	1:B:260:GLN:C	2.13	0.53
1:D:178:LEU:C	1:D:178:LEU:HD13	2.33	0.53
1:E:163:VAL:CG1	1:E:339:LYS:CE	2.67	0.53
1:E:214:ILE:HD11	1:E:216:MET:HE2	1.92	0.53
1:B:120:VAL:HG22	1:B:325:LEU:HD11	1.90	0.52
1:D:353:ALA:O	1:D:354:VAL:CG2	2.57	0.52
1:E:218:TYR:C	1:E:218:TYR:CD2	2.87	0.52
1:E:289:GLU:O	1:E:369:GLN:HA	2.09	0.52
1:B:101:GLU:O	1:B:102:SER:HB3	2.09	0.52
1:C:262:VAL:O	1:C:263:PRO:O	2.27	0.52
1:E:191:LYS:HG3	1:E:246:TYR:O	2.10	0.52
1:E:366:LEU:O	1:E:367:TYR:C	2.52	0.52
1:A:120:VAL:HA	1:A:325:LEU:O	2.10	0.52
1:A:328:ASN:OD1	1:A:328:ASN:C	2.52	0.52
1:B:354:VAL:C	1:B:356:GLY:H	2.16	0.52
1:A:85:GLU:C	1:A:86:GLU:CG	2.68	0.52
1:A:93:PHE:O	1:A:95:ASN:N	2.43	0.52
1:B:296:THR:CG2	1:B:400:MET:HE1	2.40	0.52
1:B:315:ILE:HD12	1:B:316:PHE:CG	2.43	0.52
1:B:356:GLY:HA2	1:B:360:ILE:H	1.74	0.52
1:D:45:ASN:OD1	1:D:395:MET:N	2.32	0.52
1:D:304:LYS:CG	1:D:316:PHE:CE2	2.91	0.52
1:E:364:ALA:HB3	1:E:365:VAL:O	2.07	0.52
1:A:115:GLN:HG3	1:A:116:ASN:N	2.24	0.52
1:D:107:LYS:O	1:D:184:VAL:HA	2.08	0.52
1:E:259:ARG:CD	1:E:260:GLN:N	2.60	0.52
1:C:104:TYR:HA	1:C:188:GLY:CA	2.40	0.52
1:C:106:MET:HG2	1:C:186:PHE:HD1	1.75	0.52
1:C:176:THR:H	1:C:177:TYR:HA	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:26:ILE:HD12	1:D:93:PHE:CZ	2.45	0.52
1:D:304:LYS:HD3	1:D:316:PHE:CD2	2.44	0.52
1:A:69:GLN:OE1	1:A:73:ARG:NH2	2.43	0.52
1:D:397:PRO:HD2	1:D:398:GLU:OE1	2.10	0.52
1:E:206:LYS:HZ3	1:E:396:HIS:HD2	1.57	0.52
1:A:23:GLU:HG2	1:A:387:THR:OG1	2.09	0.52
1:C:263:PRO:CB	1:C:266:THR:OG1	2.58	0.52
1:E:364:ALA:C	1:E:365:VAL:O	2.52	0.52
1:A:46:ILE:O	1:A:392:GLY:HA2	2.10	0.51
1:A:162:LEU:HD13	1:A:185:TYR:CE1	2.44	0.51
1:B:294:ARG:HG3	1:B:345:ASN:HA	1.91	0.51
1:C:256:VAL:HG21	1:C:270:LEU:HD13	1.91	0.51
1:E:43:ASP:O	1:E:43:ASP:OD1	2.27	0.51
1:A:222:GLU:CG	1:A:287:LYS:CG	2.73	0.51
1:B:229:SER:C	1:B:231:GLY:H	2.18	0.51
1:D:42:GLU:O	1:D:42:GLU:HG3	2.09	0.51
1:B:118:PHE:CD2	1:B:331:ILE:HG13	2.45	0.51
1:C:93:PHE:C	1:C:95:ASN:H	2.18	0.51
1:E:363:MET:CG	1:E:364:ALA:N	2.72	0.51
1:B:260:GLN:CG	1:B:261:GLU:N	2.73	0.51
1:B:364:ALA:O	1:D:362:ARG:HB3	2.10	0.51
1:C:89:PHE:HE2	1:C:93:PHE:HD1	1.57	0.51
1:C:377:PHE:CZ	1:C:391:MET:HE3	2.45	0.51
1:D:33:MET:HE1	1:D:53:ILE:HD12	1.87	0.51
1:C:100:LYS:CE	1:C:105:VAL:HG11	2.36	0.51
1:C:113:PHE:O	1:C:178:LEU:HA	2.11	0.51
1:C:195:ARG:HH22	1:C:358:ILE:H	1.57	0.51
1:E:61:GLU:OE2	1:E:87:PHE:HZ	1.94	0.51
1:A:363:MET:C	1:D:369:GLN:HB2	2.36	0.51
1:B:46:ILE:HG13	1:B:393:ARG:HE	1.76	0.51
1:B:98:THR:HG23	1:B:99:ALA:N	2.26	0.51
1:D:304:LYS:HG2	1:D:316:PHE:CE2	2.45	0.51
1:E:62:LEU:HB2	1:E:128:MET:HE1	1.93	0.51
1:E:206:LYS:HZ1	1:E:396:HIS:HD2	1.58	0.51
1:A:90:LEU:HD23	1:A:93:PHE:CD1	2.45	0.51
1:C:230:ASP:OD1	1:C:231:GLY:N	2.44	0.51
1:E:120:VAL:HA	1:E:325:LEU:O	2.11	0.51
1:E:364:ALA:HB1	1:E:366:LEU:CA	2.40	0.51
1:A:62:LEU:HD12	1:A:128:MET:SD	2.50	0.51
1:A:85:GLU:O	1:A:86:GLU:CB	2.59	0.51
1:A:328:ASN:OD1	1:A:330:GLU:CB	2.59	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:61:GLU:OE2	1:B:73:ARG:CG	2.59	0.51
1:C:360:ILE:HD11	1:E:291:TYR:CD1	2.46	0.51
1:D:56:ALA:CA	1:D:110:ASN:HD21	2.24	0.51
1:D:108:ILE:HG22	1:D:184:VAL:HG22	1.93	0.51
1:A:315:ILE:HD12	1:A:316:PHE:CG	2.46	0.51
1:C:141:PHE:CE2	1:C:177:TYR:O	2.63	0.51
1:C:239:TYR:OH	1:C:266:THR:HG21	2.10	0.51
1:D:118:PHE:CD2	1:D:331:ILE:HG13	2.45	0.51
1:E:23:GLU:O	1:E:24:GLU:C	2.54	0.51
1:E:118:PHE:CE2	1:E:328:ASN:ND2	2.79	0.51
1:A:317:ILE:CG2	1:A:318:LYS:N	2.74	0.51
1:A:328:ASN:OD1	1:A:330:GLU:HB2	2.10	0.51
1:D:71:GLU:OE1	1:D:313:THR:N	2.33	0.51
1:E:175:ALA:HB3	1:E:176:THR:HA	1.93	0.51
1:A:307:LEU:HD22	1:A:312:ILE:HD12	1.93	0.50
1:B:199:THR:OG1	1:B:346:GLU:OE2	2.19	0.50
1:E:185:TYR:CD1	1:E:341:PHE:HD2	2.29	0.50
1:A:374:HIS:HB2	1:A:375:PRO:HD3	1.93	0.50
1:A:103:GLN:N	1:A:103:GLN:OE1	2.44	0.50
1:C:100:LYS:O	1:C:101:GLU:C	2.55	0.50
1:C:317:ILE:HG22	1:C:318:LYS:N	2.26	0.50
1:C:377:PHE:HE1	1:C:391:MET:HE3	1.76	0.50
1:D:52:SER:OG	1:D:182:ASN:OD1	2.20	0.50
1:E:191:LYS:CE	1:E:249:ASP:HA	2.42	0.50
1:A:200:ARG:HH11	1:A:200:ARG:CB	2.16	0.50
1:B:130:LYS:HE3	1:B:131:TYR:CE1	2.47	0.50
1:B:379:LEU:HD23	1:B:391:MET:HB2	1.93	0.50
1:C:86:GLU:O	1:C:89:PHE:N	2.45	0.50
1:C:206:LYS:HZ1	1:C:396:HIS:HD2	1.56	0.50
1:C:269:PRO:O	1:C:273:ALA:N	2.32	0.50
1:E:120:VAL:HG13	1:E:325:LEU:CD1	2.41	0.50
1:A:52:SER:HB2	1:A:184:VAL:HG21	1.92	0.50
1:A:90:LEU:HD13	1:A:132:PHE:HE1	1.77	0.50
1:A:118:PHE:CD2	1:A:331:ILE:CG1	2.94	0.50
1:C:358:ILE:CD1	1:C:358:ILE:N	2.50	0.50
1:A:118:PHE:HD2	1:A:328:ASN:CG	2.20	0.50
1:A:274:GLN:NE2	1:A:274:GLN:O	2.45	0.50
1:B:56:ALA:CA	1:B:110:ASN:HD21	2.25	0.50
1:E:46:ILE:HB	1:E:393:ARG:HG2	1.94	0.50
1:A:178:LEU:CD1	1:A:332:PHE:O	2.59	0.50
1:B:315:ILE:HD12	1:B:316:PHE:CD2	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:166:LEU:HD21	1:C:181:ILE:HG13	1.94	0.50
1:C:297:VAL:HG21	1:C:394:VAL:CG2	2.34	0.50
1:E:61:GLU:O	1:E:62:LEU:C	2.53	0.50
1:E:120:VAL:HG13	1:E:325:LEU:HD12	1.94	0.50
1:A:111:SER:HB2	1:A:154:TRP:CH2	2.47	0.50
1:A:120:VAL:HG22	1:A:325:LEU:HD11	1.90	0.50
1:B:36:ARG:O	1:B:39:ALA:HB3	2.12	0.50
1:C:357:MET:O	1:C:358:ILE:O	2.28	0.50
1:A:41:GLY:O	1:A:42:GLU:C	2.55	0.50
1:A:317:ILE:HG22	1:A:318:LYS:N	2.26	0.50
1:B:23:GLU:N	1:B:89:PHE:CZ	2.73	0.50
1:B:53:ILE:HD13	1:B:303:LEU:HD11	1.94	0.50
1:B:299:GLN:HE22	1:B:300:GLU:H	1.52	0.50
1:C:162:LEU:HD13	1:C:185:TYR:CZ	2.47	0.50
1:C:277:GLU:C	1:C:279:TRP:H	2.20	0.50
1:D:187:LYS:HG3	1:D:343:GLU:HB3	1.94	0.50
1:D:353:ALA:C	1:D:354:VAL:HG23	2.36	0.50
1:B:142:SER:OG	1:B:174:ALA:CB	2.60	0.49
1:E:43:ASP:OD1	1:E:43:ASP:C	2.54	0.49
1:E:57:MET:HE2	1:E:57:MET:CA	2.35	0.49
1:E:156:GLU:HB3	1:E:161:ASN:HD22	1.76	0.49
1:B:401:ASN:C	1:B:402:THR:OG1	2.54	0.49
1:C:264:LEU:HA	1:C:267:LEU:HB2	1.94	0.49
1:D:57:MET:HA	1:D:57:MET:CE	2.40	0.49
1:E:120:VAL:HA	1:E:326:SER:HB3	1.93	0.49
1:B:50:PRO:CG	1:B:388:ILE:HG22	2.41	0.49
1:C:185:TYR:CD1	1:C:341:PHE:HD2	2.29	0.49
1:C:185:TYR:HD1	1:C:341:PHE:CD2	2.30	0.49
1:E:315:ILE:HD12	1:E:316:PHE:CG	2.47	0.49
1:B:398:GLU:O	1:B:399:THR:O	2.30	0.49
1:C:264:LEU:O	1:C:267:LEU:CB	2.60	0.49
1:B:399:THR:OG1	1:B:400:MET:N	2.44	0.49
1:D:33:MET:HE3	1:D:306:VAL:HG11	1.95	0.49
1:B:398:GLU:OE1	1:B:398:GLU:N	2.28	0.49
1:B:401:ASN:CB	1:B:402:THR:OG1	2.59	0.49
1:E:166:LEU:HD13	1:E:339:LYS:HB3	1.93	0.49
1:B:156:GLU:HG2	1:B:164:LYS:HG2	1.95	0.49
1:B:193:GLN:HG2	1:B:349:SER:O	2.05	0.49
1:C:207:ASP:OD1	1:C:207:ASP:O	2.31	0.49
1:C:304:LYS:O	1:C:308:LYS:HG3	2.12	0.49
1:D:304:LYS:CG	1:D:316:PHE:CD1	2.91	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:199:THR:HG21	1:E:294:ARG:NH1	2.28	0.49
1:A:185:TYR:CE1	1:A:341:PHE:CE2	3.00	0.49
1:C:366:LEU:N	1:C:366:LEU:HD23	2.27	0.49
1:D:178:LEU:HD13	1:D:333:LEU:HD12	1.95	0.49
1:E:23:GLU:CD	1:E:89:PHE:CZ	2.91	0.49
1:E:178:LEU:CD1	1:E:332:PHE:O	2.61	0.49
1:A:23:GLU:C	1:A:25:ALA:N	2.70	0.49
1:A:86:GLU:O	1:A:88:SER:N	2.45	0.49
1:A:115:GLN:HB3	1:A:118:PHE:CD1	2.48	0.49
1:B:260:GLN:CD	1:B:261:GLU:N	2.70	0.49
1:D:175:ALA:O	1:D:177:TYR:CD1	2.66	0.49
1:E:33:MET:HG2	1:E:306:VAL:CG1	2.43	0.49
1:E:366:LEU:O	1:E:367:TYR:O	2.31	0.49
1:A:303:LEU:HB3	1:A:336:ALA:HB1	1.94	0.49
1:C:34:TYR:CE2	1:C:38:ARG:HD2	2.48	0.49
1:C:120:VAL:HG13	1:C:325:LEU:HD12	1.93	0.49
1:D:228:PHE:O	1:D:238:ILE:HA	2.13	0.49
1:B:363:MET:O	1:C:227:GLU:OE2	2.30	0.48
1:C:357:MET:HB2	1:E:213:GLN:NE2	2.27	0.48
1:D:298:GLU:OE2	1:D:339:LYS:HE3	2.13	0.48
1:E:191:LYS:CD	1:E:245:PRO:HB2	2.42	0.48
1:A:93:PHE:O	1:A:97:VAL:HG23	2.12	0.48
1:A:173:ASP:C	1:A:175:ALA:N	2.70	0.48
1:A:336:ALA:O	1:A:337:ILE:CD1	2.31	0.48
1:B:128:MET:HG3	1:B:134:ALA:HB3	1.95	0.48
1:C:362:ARG:HH12	1:E:371:ILE:HG21	1.76	0.48
1:B:91:LYS:O	1:B:95:ASN:HB2	2.12	0.48
1:A:89:PHE:O	1:A:92:GLU:N	2.43	0.48
1:B:298:GLU:HG2	1:B:341:PHE:HD1	1.77	0.48
1:D:103:GLN:NE2	1:D:104:TYR:H	2.08	0.48
1:A:315:ILE:CD1	1:A:316:PHE:CE2	2.96	0.48
1:B:166:LEU:HG	1:B:337:ILE:HG21	1.95	0.48
1:C:23:GLU:O	1:C:24:GLU:C	2.57	0.48
1:C:89:PHE:CE2	1:C:93:PHE:CD1	3.01	0.48
1:C:93:PHE:C	1:C:95:ASN:N	2.69	0.48
1:E:95:ASN:HA	1:E:98:THR:HG22	1.96	0.48
1:E:107:LYS:HB2	1:E:185:TYR:HB3	1.96	0.48
1:E:118:PHE:CD2	1:E:328:ASN:ND2	2.82	0.48
1:E:377:PHE:CZ	1:E:391:MET:HE3	2.47	0.48
1:B:41:GLY:O	1:B:42:GLU:C	2.57	0.48
1:B:315:ILE:CD1	1:B:316:PHE:CD2	2.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:100:LYS:HG2	1:C:105:VAL:HG13	1.92	0.48
1:C:113:PHE:CE2	1:C:151:ILE:HG12	2.48	0.48
1:C:299:GLN:OE1	1:C:300:GLU:N	2.37	0.48
1:D:220:GLN:HB2	1:D:289:GLU:OE2	2.14	0.48
1:E:268:GLU:O	1:E:269:PRO:C	2.57	0.48
1:C:193:GLN:CG	1:C:347:GLU:C	2.86	0.48
1:C:315:ILE:CD1	1:C:316:PHE:CZ	2.97	0.48
1:C:364:ALA:HB1	1:C:367:TYR:HA	1.95	0.48
1:D:363:MET:O	1:D:364:ALA:HB3	2.14	0.48
1:E:52:SER:HB2	1:E:184:VAL:HG21	1.95	0.48
1:B:118:PHE:CE2	1:B:328:ASN:ND2	2.82	0.48
1:B:166:LEU:HD12	1:B:339:LYS:HB2	1.94	0.48
1:C:118:PHE:CD1	1:C:118:PHE:N	2.80	0.48
1:E:97:VAL:HA	1:E:104:TYR:HH	1.77	0.48
1:A:178:LEU:HD13	1:A:178:LEU:C	2.39	0.48
1:A:187:LYS:NZ	1:A:347:GLU:OE2	2.45	0.48
1:D:104:TYR:O	1:D:104:TYR:CG	2.67	0.48
1:D:124:PHE:CE1	1:D:128:MET:CE	2.97	0.48
1:E:23:GLU:C	1:E:25:ALA:N	2.71	0.48
1:E:97:VAL:CA	1:E:104:TYR:OH	2.59	0.48
1:C:118:PHE:CE2	1:C:331:ILE:HG13	2.47	0.48
1:E:229:SER:HA	1:E:238:ILE:HA	1.95	0.48
1:E:293:PRO:O	1:E:295:PHE:HD2	1.96	0.48
1:B:328:ASN:OD1	1:B:328:ASN:C	2.56	0.47
1:D:166:LEU:HD11	1:D:339:LYS:HB2	1.96	0.47
1:E:36:ARG:HH21	1:E:305:ASP:CG	2.22	0.47
1:E:220:GLN:OE1	1:E:289:GLU:HG3	2.14	0.47
1:A:103:GLN:O	1:A:103:GLN:HG2	2.13	0.47
1:B:33:MET:HG2	1:B:306:VAL:CG1	2.44	0.47
1:B:230:ASP:OD1	1:B:230:ASP:N	2.47	0.47
1:E:90:LEU:HD23	1:E:93:PHE:CD1	2.49	0.47
1:E:256:VAL:HB	1:E:377:PHE:HB3	1.95	0.47
1:A:93:PHE:C	1:A:95:ASN:N	2.69	0.47
1:D:300:GLU:HB2	1:D:339:LYS:HG2	1.96	0.47
1:E:24:GLU:HG2	1:E:25:ALA:N	2.26	0.47
1:A:173:ASP:C	1:A:175:ALA:H	2.21	0.47
1:B:296:THR:HG21	1:B:400:MET:HE2	1.96	0.47
1:C:90:LEU:C	1:C:92:GLU:N	2.70	0.47
1:C:254:MET:O	1:C:378:PHE:HA	2.14	0.47
1:B:362:ARG:CG	1:C:367:TYR:CD1	2.93	0.47
1:C:38:ARG:NH2	1:C:261:GLU:HG2	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:173:ASP:C	1:C:175:ALA:N	2.66	0.47
1:D:101:GLU:O	1:D:102:SER:OG	2.33	0.47
1:E:251:ILE:HG22	1:E:252:SER:N	2.30	0.47
1:A:56:ALA:HA	1:A:110:ASN:HD21	1.80	0.47
1:B:120:VAL:HG13	1:B:325:LEU:HD12	1.97	0.47
1:C:62:LEU:HD23	1:C:87:PHE:CE2	2.47	0.47
1:C:176:THR:O	1:C:334:SER:HB2	2.15	0.47
1:D:41:GLY:O	1:D:42:GLU:C	2.57	0.47
1:D:130:LYS:HD3	1:D:131:TYR:CZ	2.49	0.47
1:E:34:TYR:CE2	1:E:38:ARG:HD2	2.50	0.47
1:E:92:GLU:OE2	1:E:96:MET:CE	2.62	0.47
1:A:95:ASN:HA	1:A:98:THR:CG2	2.45	0.47
1:B:163:VAL:CG1	1:B:339:LYS:HG2	2.45	0.47
1:B:197:GLU:H	1:B:197:GLU:HG3	1.41	0.47
1:C:120:VAL:HG13	1:C:325:LEU:O	2.15	0.47
1:D:23:GLU:HG3	1:D:89:PHE:CZ	2.50	0.47
1:E:185:TYR:CE1	1:E:341:PHE:CD2	3.03	0.47
1:B:166:LEU:HD12	1:B:339:LYS:CB	2.43	0.47
1:C:62:LEU:HD21	1:C:87:PHE:CE2	2.50	0.47
1:C:270:LEU:HD23	1:C:270:LEU:HA	1.60	0.46
1:D:315:ILE:CD1	1:D:316:PHE:CZ	2.97	0.46
1:E:178:LEU:CD1	1:E:333:LEU:HA	2.44	0.46
1:A:329:LYS:CA	1:A:330:GLU:HB2	2.46	0.46
1:B:124:PHE:CZ	1:B:128:MET:HE1	2.49	0.46
1:B:199:THR:HG1	1:B:346:GLU:CD	2.22	0.46
1:B:254:MET:HE3	1:B:381:ARG:HD3	1.96	0.46
1:C:64:ALA:C	1:C:65:GLN:HG2	2.39	0.46
1:C:360:ILE:HG21	1:C:362:ARG:NH1	2.30	0.46
1:E:118:PHE:CD2	1:E:328:ASN:CG	2.93	0.46
1:B:106:MET:HE3	1:B:106:MET:HB3	1.84	0.46
1:C:98:THR:C	1:C:100:LYS:H	2.23	0.46
1:C:118:PHE:CE2	1:C:328:ASN:ND2	2.83	0.46
1:D:93:PHE:HD2	1:D:93:PHE:N	2.12	0.46
1:E:23:GLU:HG3	1:E:89:PHE:CE2	2.50	0.46
1:A:178:LEU:CD1	1:A:333:LEU:HD12	2.45	0.46
1:B:287:LYS:HD3	1:B:367:TYR:CZ	2.51	0.46
1:B:379:LEU:HD23	1:B:391:MET:CB	2.45	0.46
1:D:52:SER:CB	1:D:184:VAL:CG2	2.91	0.46
1:D:97:VAL:HA	1:D:104:TYR:OH	2.16	0.46
1:D:315:ILE:CD1	1:D:316:PHE:CE2	2.97	0.46
1:B:24:GLU:O	1:B:27:ALA:HB3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:258:SER:OG	1:C:259:ARG:N	2.49	0.46
1:E:186:PHE:C	1:E:186:PHE:CD2	2.93	0.46
1:A:303:LEU:HB3	1:A:336:ALA:CB	2.45	0.46
1:B:47:LEU:HD13	1:B:378:PHE:HZ	1.80	0.46
1:B:65:GLN:O	1:B:66:GLY:C	2.57	0.46
1:B:365:VAL:HA	1:D:362:ARG:HB2	1.98	0.46
1:D:93:PHE:C	1:D:95:ASN:H	2.23	0.46
1:D:99:ALA:O	1:D:100:LYS:C	2.58	0.46
1:D:175:ALA:O	1:D:176:THR:C	2.58	0.46
1:D:176:THR:O	1:D:334:SER:HB2	2.15	0.46
1:D:358:ILE:H	1:D:358:ILE:HG13	1.58	0.46
1:E:268:GLU:O	1:E:271:VAL:HG23	2.16	0.46
1:B:44:GLU:HA	1:B:45:ASN:HB2	1.98	0.46
1:B:365:VAL:HA	1:D:362:ARG:HB3	1.97	0.46
1:D:225:TYR:CG	1:D:226:GLY:N	2.84	0.46
1:E:259:ARG:CZ	1:E:260:GLN:H	2.28	0.46
1:A:155:VAL:HG21	1:A:166:LEU:HD22	1.98	0.46
1:A:165:ASP:CG	1:A:165:ASP:O	2.58	0.46
1:A:274:GLN:NE2	1:A:274:GLN:C	2.73	0.46
1:A:322:LEU:C	1:A:324:GLY:H	2.24	0.46
1:D:34:TYR:HB2	1:D:391:MET:HE2	1.96	0.46
1:D:93:PHE:N	1:D:93:PHE:CD2	2.82	0.46
1:E:61:GLU:CD	1:E:73:ARG:HE	2.23	0.46
1:A:48:PHE:O	1:A:50:PRO:HD3	2.16	0.46
1:B:102:SER:O	1:B:103:GLN:HG3	2.16	0.46
1:E:87:PHE:N	1:E:87:PHE:CD1	2.70	0.46
1:A:56:ALA:HB1	1:A:180:LEU:HD21	1.98	0.46
1:A:92:GLU:O	1:A:96:MET:N	2.45	0.46
1:B:100:LYS:C	1:B:102:SER:N	2.69	0.46
1:B:260:GLN:HE21	1:B:260:GLN:CA	2.28	0.46
1:C:269:PRO:O	1:C:270:LEU:C	2.58	0.46
1:C:322:LEU:C	1:C:324:GLY:H	2.24	0.46
1:D:243:GLU:OE2	1:D:383:ARG:HD3	2.16	0.46
1:E:162:LEU:HD13	1:E:185:TYR:CZ	2.51	0.46
1:E:185:TYR:CD1	1:E:341:PHE:CD2	3.04	0.46
1:E:317:ILE:HG22	1:E:318:LYS:N	2.31	0.46
1:B:167:VAL:HG12	1:B:337:ILE:CD1	2.28	0.45
1:B:403:SER:O	1:B:405:HIS:HB2	2.16	0.45
1:C:186:PHE:CD2	1:C:342:LEU:CD1	2.92	0.45
1:D:124:PHE:CE2	1:D:128:MET:HE3	2.51	0.45
1:A:141:PHE:CG	1:A:176:THR:OG1	2.69	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:115:GLN:HA	1:B:139:VAL:O	2.16	0.45
1:C:268:GLU:OE1	1:C:272:LYS:NZ	2.45	0.45
1:C:274:GLN:NE2	1:C:388:ILE:HD11	2.31	0.45
1:D:62:LEU:HG	1:D:87:PHE:HE2	1.81	0.45
1:D:315:ILE:HD12	1:D:316:PHE:CG	2.51	0.45
1:A:42:GLU:O	1:A:42:GLU:HG2	2.16	0.45
1:A:112:LEU:HD13	1:A:180:LEU:HD13	1.98	0.45
1:A:223:PHE:O	1:A:285:LYS:HA	2.16	0.45
1:B:193:GLN:CG	1:B:349:SER:C	2.87	0.45
1:C:120:VAL:HA	1:C:325:LEU:O	2.16	0.45
1:D:193:GLN:HB3	1:D:348:GLY:C	2.41	0.45
1:E:61:GLU:CD	1:E:87:PHE:HZ	2.24	0.45
1:E:123:GLU:O	1:E:124:PHE:C	2.59	0.45
1:A:187:LYS:HG3	1:A:343:GLU:HB3	1.97	0.45
1:B:22:PRO:HB2	1:B:23:GLU:H	1.58	0.45
1:C:56:ALA:HA	1:C:110:ASN:HD21	1.81	0.45
1:D:167:VAL:HG12	1:D:337:ILE:HD12	1.99	0.45
1:D:297:VAL:CG2	1:D:394:VAL:HG22	2.42	0.45
1:E:56:ALA:HB1	1:E:180:LEU:HD21	1.99	0.45
1:E:120:VAL:CG2	1:E:325:LEU:CD1	2.88	0.45
1:E:259:ARG:HD3	1:E:259:ARG:C	2.36	0.45
1:A:304:LYS:O	1:A:305:ASP:C	2.60	0.45
1:A:321:ASN:OD1	1:A:323:THR:HG23	2.17	0.45
1:C:379:LEU:HD13	1:C:388:ILE:HD12	1.97	0.45
1:D:23:GLU:OE2	1:D:89:PHE:CZ	2.69	0.45
1:D:33:MET:HG3	1:D:310:LEU:HD11	1.97	0.45
1:D:199:THR:OG1	1:D:346:GLU:OE2	2.32	0.45
1:E:191:LYS:HD2	1:E:245:PRO:HG2	1.97	0.45
1:A:262:VAL:HA	1:A:263:PRO:HD2	1.82	0.45
1:A:298:GLU:OE2	1:A:339:LYS:HE2	2.16	0.45
1:B:202:PHE:HB2	1:B:216:MET:HB2	1.98	0.45
1:C:51:LEU:HD21	1:C:93:PHE:HB3	1.99	0.45
1:D:92:GLU:HA	1:D:96:MET:HG2	1.99	0.45
1:B:34:TYR:O	1:B:38:ARG:HG3	2.16	0.45
1:C:315:ILE:HD11	1:C:316:PHE:CZ	2.52	0.45
1:D:71:GLU:CD	1:D:314:GLU:CG	2.90	0.45
1:D:377:PHE:CE1	1:D:391:MET:HE3	2.52	0.45
1:A:263:PRO:O	1:A:266:THR:HB	2.17	0.45
1:D:372:VAL:CG1	1:D:376:PHE:CD2	3.00	0.45
1:B:52:SER:CB	1:B:184:VAL:HG21	2.47	0.45
1:B:357:MET:C	1:B:358:ILE:O	2.58	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:165:ASP:CG	1:C:165:ASP:O	2.59	0.45
1:E:108:ILE:HG22	1:E:184:VAL:HG22	1.99	0.45
1:E:374:HIS:HB2	1:E:375:PRO:CD	2.47	0.45
1:B:34:TYR:CG	1:B:391:MET:HE2	2.52	0.45
1:C:62:LEU:CD2	1:C:127:MET:HG2	2.47	0.45
1:D:71:GLU:CD	1:D:314:GLU:HG2	2.42	0.45
1:D:155:VAL:HG21	1:D:166:LEU:HD22	1.99	0.45
1:D:379:LEU:HD23	1:D:391:MET:CB	2.47	0.45
1:E:329:LYS:HD2	1:E:329:LYS:HA	1.83	0.45
1:C:59:MET:HE1	1:C:110:ASN:CG	2.40	0.44
1:C:93:PHE:HA	1:C:96:MET:HB3	1.99	0.44
1:C:315:ILE:CD1	1:C:316:PHE:CD2	2.98	0.44
1:C:357:MET:CA	1:C:358:ILE:HD12	2.34	0.44
1:E:193:GLN:CD	1:E:193:GLN:H	2.24	0.44
1:A:62:LEU:HD23	1:A:87:PHE:CE2	2.50	0.44
1:A:399:THR:O	1:A:400:MET:C	2.60	0.44
1:B:62:LEU:HD12	1:B:128:MET:CE	2.34	0.44
1:D:78:TYR:O	1:D:79:ASP:HB3	2.17	0.44
1:B:108:ILE:HD12	1:B:108:ILE:O	2.17	0.44
1:B:229:SER:HA	1:B:238:ILE:HB	1.98	0.44
1:B:288:VAL:HG12	1:B:289:GLU:N	2.33	0.44
1:B:374:HIS:HB2	1:B:375:PRO:HD2	1.99	0.44
1:E:178:LEU:HD13	1:E:333:LEU:HD12	1.98	0.44
1:A:297:VAL:CG2	1:A:394:VAL:HG22	2.45	0.44
1:B:256:VAL:HG21	1:B:279:TRP:CH2	2.52	0.44
1:B:260:GLN:NE2	1:B:261:GLU:HB2	2.32	0.44
1:B:307:LEU:HD22	1:B:312:ILE:HD12	1.98	0.44
1:B:356:GLY:O	1:B:357:MET:C	2.61	0.44
1:C:104:TYR:O	1:C:104:TYR:CG	2.71	0.44
1:C:124:PHE:CE1	1:C:128:MET:CE	2.99	0.44
1:C:166:LEU:HD23	1:C:181:ILE:HG13	1.97	0.44
1:D:186:PHE:CD2	1:D:186:PHE:C	2.95	0.44
1:D:316:PHE:CE1	1:D:333:LEU:HD23	2.52	0.44
1:A:34:TYR:HE2	1:A:38:ARG:HD2	1.82	0.44
1:A:56:ALA:HA	1:A:59:MET:HE3	1.98	0.44
1:A:400:MET:HE3	1:A:400:MET:HB3	1.91	0.44
1:C:23:GLU:CD	1:C:23:GLU:H	2.25	0.44
1:C:89:PHE:O	1:C:92:GLU:HB3	2.17	0.44
1:C:104:TYR:HA	1:C:188:GLY:HA2	1.99	0.44
1:D:243:GLU:OE1	1:D:254:MET:HE2	2.17	0.44
1:E:167:VAL:HG11	1:E:337:ILE:HD13	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:34:TYR:CB	1:A:391:MET:HE3	2.46	0.44
1:A:268:GLU:N	1:A:269:PRO:CD	2.80	0.44
1:A:276:VAL:HG12	1:A:277:GLU:OE2	2.17	0.44
1:B:254:MET:HE3	1:B:254:MET:HB2	1.79	0.44
1:C:202:PHE:HB2	1:C:216:MET:HB2	2.00	0.44
1:D:115:GLN:HG3	1:D:116:ASN:N	2.33	0.44
1:E:103:GLN:CA	1:E:103:GLN:NE2	2.37	0.44
1:E:207:ASP:CG	1:E:375:PRO:HG2	2.43	0.44
1:B:354:VAL:HG12	1:B:357:MET:N	2.31	0.44
1:B:393:ARG:HG3	1:B:393:ARG:O	2.16	0.44
1:C:105:VAL:O	1:C:186:PHE:HA	2.18	0.44
1:C:115:GLN:NE2	1:C:140:ASP:HA	2.33	0.44
1:A:186:PHE:CD2	1:A:186:PHE:C	2.96	0.44
1:A:315:ILE:HD11	1:A:316:PHE:CZ	2.52	0.44
1:B:42:GLU:O	1:B:43:ASP:HB2	2.18	0.44
1:B:100:LYS:C	1:B:102:SER:H	2.26	0.44
1:E:163:VAL:HG11	1:E:183:ALA:HB1	1.99	0.44
1:E:199:THR:C	1:E:200:ARG:HG3	2.42	0.44
1:E:259:ARG:NE	1:E:260:GLN:H	2.15	0.44
1:A:316:PHE:CE1	1:A:333:LEU:HD23	2.53	0.44
1:B:34:TYR:CB	1:B:391:MET:HE2	2.47	0.44
1:B:115:GLN:CG	1:B:116:ASN:N	2.79	0.44
1:B:118:PHE:CE2	1:B:331:ILE:HG13	2.53	0.44
1:C:57:MET:HA	1:C:57:MET:CE	2.43	0.44
1:C:96:MET:HE1	1:C:384:ARG:HH21	1.83	0.44
1:C:112:LEU:HD12	1:C:112:LEU:HA	1.82	0.44
1:E:57:MET:HA	1:E:57:MET:CE	2.29	0.44
1:A:287:LYS:HZ1	1:A:353:ALA:HB2	1.79	0.43
1:D:328:ASN:OD1	1:D:330:GLU:HB2	2.18	0.43
1:D:353:ALA:C	1:D:354:VAL:CG2	2.91	0.43
1:E:328:ASN:OD1	1:E:329:LYS:N	2.51	0.43
1:A:59:MET:HE1	1:A:110:ASN:CB	2.38	0.43
1:A:272:LYS:O	1:A:273:ALA:C	2.60	0.43
1:B:56:ALA:N	1:B:110:ASN:HD21	2.16	0.43
1:B:115:GLN:HB3	1:B:118:PHE:HD1	1.83	0.43
1:B:317:ILE:CG2	1:B:318:LYS:N	2.81	0.43
1:C:112:LEU:HD13	1:C:180:LEU:HD13	2.00	0.43
1:C:251:ILE:HG22	1:C:252:SER:N	2.33	0.43
1:A:56:ALA:CA	1:A:110:ASN:HD21	2.31	0.43
1:D:92:GLU:HG3	1:D:96:MET:HG2	1.99	0.43
1:E:132:PHE:O	1:E:133:ASN:C	2.62	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:287:LYS:NZ	1:A:353:ALA:HB2	2.26	0.43
1:A:295:PHE:CD1	1:A:295:PHE:C	2.97	0.43
1:B:259:ARG:HE	1:B:259:ARG:HB3	1.42	0.43
1:B:354:VAL:HG12	1:B:357:MET:H	1.84	0.43
1:C:49:SER:HB2	1:C:390:PHE:CD1	2.53	0.43
1:C:223:PHE:HD2	1:C:288:VAL:HB	1.84	0.43
1:D:294:ARG:HD3	1:D:346:GLU:OE1	2.19	0.43
1:A:222:GLU:HG2	1:A:287:LYS:CG	2.31	0.43
1:B:98:THR:C	1:B:100:LYS:N	2.75	0.43
1:B:232:SER:C	1:B:234:GLU:H	2.26	0.43
1:B:355:SER:O	1:B:357:MET:HG2	2.18	0.43
1:C:162:LEU:HD13	1:C:185:TYR:CE1	2.54	0.43
1:D:218:TYR:CG	1:D:219:GLN:N	2.86	0.43
1:D:321:ASN:OD1	1:D:321:ASN:C	2.62	0.43
1:A:247:GLU:HG2	1:A:349:SER:OG	2.19	0.43
1:B:72:ILE:O	1:B:76:MET:HG2	2.17	0.43
1:B:257:LEU:HD11	1:B:374:HIS:CE1	2.54	0.43
1:B:260:GLN:HG2	1:B:261:GLU:N	2.33	0.43
1:C:97:VAL:CA	1:C:104:TYR:OH	2.63	0.43
1:C:118:PHE:HD2	1:C:328:ASN:CG	2.26	0.43
1:C:126:GLN:HE21	1:C:126:GLN:HB3	1.54	0.43
1:D:23:GLU:HG3	1:D:89:PHE:CE2	2.54	0.43
1:D:24:GLU:O	1:D:27:ALA:CB	2.56	0.43
1:D:178:LEU:HD12	1:D:332:PHE:O	2.18	0.43
1:D:322:LEU:HD12	1:D:331:ILE:HG22	1.98	0.43
1:A:118:PHE:CG	1:A:331:ILE:HD11	2.53	0.43
1:A:173:ASP:O	1:A:174:ALA:C	2.59	0.43
1:C:89:PHE:O	1:C:92:GLU:CB	2.67	0.43
1:C:103:GLN:CG	1:C:104:TYR:N	2.58	0.43
1:D:46:ILE:O	1:D:392:GLY:HA3	2.19	0.43
1:A:95:ASN:CA	1:A:98:THR:CG2	2.97	0.43
1:B:162:LEU:HB3	1:B:185:TYR:CD1	2.52	0.43
1:B:296:THR:HG21	1:B:400:MET:CE	2.48	0.43
1:C:49:SER:HA	1:C:50:PRO:HD2	1.88	0.43
1:E:297:VAL:HG21	1:E:394:VAL:HG22	1.99	0.43
1:E:365:VAL:O	1:E:367:TYR:CB	2.65	0.43
1:A:175:ALA:HB3	1:A:176:THR:CA	2.49	0.43
1:B:55:LEU:HD23	1:B:90:LEU:HB3	2.01	0.43
1:B:118:PHE:O	1:B:138:HIS:HE1	2.01	0.43
1:B:268:GLU:N	1:B:269:PRO:HD2	2.34	0.43
1:B:315:ILE:HD11	1:B:316:PHE:CZ	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:268:GLU:N	1:C:269:PRO:HD2	2.34	0.43
1:E:287:LYS:CD	1:E:367:TYR:CZ	2.93	0.43
1:A:251:ILE:CG2	1:A:252:SER:N	2.81	0.43
1:B:362:ARG:CB	1:C:367:TYR:HD1	2.29	0.43
1:B:402:THR:O	1:B:403:SER:HB2	2.19	0.43
1:C:300:GLU:HA	1:C:338:HIS:O	2.19	0.43
1:C:322:LEU:C	1:C:324:GLY:N	2.77	0.43
1:E:204:PHE:CD2	1:E:204:PHE:C	2.96	0.43
1:B:100:LYS:O	1:B:102:SER:N	2.51	0.42
1:C:178:LEU:HD12	1:C:178:LEU:H	1.84	0.42
1:C:195:ARG:NH2	1:C:358:ILE:H	2.17	0.42
1:C:238:ILE:C	1:C:239:TYR:CD1	2.97	0.42
1:D:52:SER:HB2	1:D:184:VAL:CG2	2.49	0.42
1:E:304:LYS:HD3	1:E:308:LYS:NZ	2.33	0.42
1:E:329:LYS:N	1:E:330:GLU:HB2	2.34	0.42
1:E:377:PHE:HZ	1:E:391:MET:HE3	1.83	0.42
1:A:84:GLY:CA	1:A:85:GLU:CB	2.46	0.42
1:B:218:TYR:CG	1:B:219:GLN:N	2.87	0.42
1:B:354:VAL:HA	1:B:356:GLY:CA	2.49	0.42
1:C:165:ASP:O	1:C:165:ASP:OD1	2.37	0.42
1:C:166:LEU:CD1	1:C:339:LYS:HB2	2.50	0.42
1:E:112:LEU:HD12	1:E:112:LEU:HA	1.77	0.42
1:B:232:SER:O	1:B:234:GLU:N	2.52	0.42
1:B:303:LEU:HB3	1:B:336:ALA:HB1	2.01	0.42
1:C:31:VAL:HG11	1:C:268:GLU:HG2	2.01	0.42
1:C:33:MET:HE1	1:C:53:ILE:HD13	1.96	0.42
1:C:115:GLN:HB3	1:C:118:PHE:CD1	2.54	0.42
1:D:363:MET:O	1:D:363:MET:CG	2.45	0.42
1:A:222:GLU:HG3	1:A:287:LYS:CG	2.35	0.42
1:B:162:LEU:HD13	1:B:185:TYR:CD2	2.54	0.42
1:B:193:GLN:HB3	1:B:348:GLY:N	2.34	0.42
1:B:260:GLN:HE21	1:B:260:GLN:N	2.17	0.42
1:C:87:PHE:O	1:C:88:SER:C	2.61	0.42
1:C:225:TYR:HA	1:C:241:VAL:O	2.18	0.42
1:D:166:LEU:HD21	1:D:181:ILE:HG23	2.01	0.42
1:E:118:PHE:CD2	1:E:331:ILE:HD11	2.54	0.42
1:A:187:LYS:CG	1:A:343:GLU:HB3	2.49	0.42
1:C:182:ASN:O	1:C:338:HIS:HA	2.19	0.42
1:C:315:ILE:HD12	1:C:316:PHE:CG	2.54	0.42
1:C:358:ILE:CD1	1:C:358:ILE:C	2.90	0.42
1:D:23:GLU:O	1:D:24:GLU:C	2.63	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:193:GLN:HE21	1:D:350:GLU:HA	1.84	0.42
1:E:374:HIS:O	1:E:375:PRO:C	2.63	0.42
1:A:22:PRO:C	1:A:24:GLU:N	2.76	0.42
1:A:89:PHE:CE2	1:A:93:PHE:HZ	2.37	0.42
1:A:109:ALA:HB1	1:A:154:TRP:HZ3	1.77	0.42
1:A:190:TRP:HA	1:A:190:TRP:CE3	2.54	0.42
1:A:211:GLU:HB2	1:B:200:ARG:CZ	2.50	0.42
1:C:178:LEU:CD1	1:C:178:LEU:O	2.68	0.42
1:C:328:ASN:OD1	1:C:328:ASN:C	2.62	0.42
1:D:34:TYR:O	1:D:38:ARG:HG3	2.20	0.42
1:A:173:ASP:OD1	1:A:175:ALA:CB	2.68	0.42
1:A:175:ALA:CB	1:A:176:THR:CA	2.97	0.42
1:A:200:ARG:NH2	1:D:357:MET:HE2	2.35	0.42
1:B:94:SER:O	1:B:98:THR:HG21	2.20	0.42
1:B:239:TYR:CD1	1:B:239:TYR:C	2.98	0.42
1:B:308:LYS:HA	1:B:312:ILE:O	2.20	0.42
1:A:95:ASN:HA	1:A:98:THR:HG23	2.02	0.42
1:A:168:SER:HB2	1:A:169:PRO:CD	2.49	0.42
1:A:173:ASP:OD1	1:A:175:ALA:HB3	2.20	0.42
1:B:94:SER:C	1:B:98:THR:HG21	2.45	0.42
1:D:98:THR:HG23	1:D:99:ALA:N	2.35	0.42
1:C:65:GLN:HG3	1:C:323:THR:OG1	2.20	0.42
1:C:264:LEU:O	1:C:267:LEU:CA	2.67	0.42
1:C:278:GLU:O	1:C:279:TRP:C	2.61	0.42
1:E:55:LEU:HD21	1:E:93:PHE:HB2	2.01	0.42
1:E:173:ASP:C	1:E:175:ALA:H	2.28	0.42
1:B:132:PHE:O	1:B:133:ASN:C	2.62	0.42
1:C:59:MET:HE3	1:C:180:LEU:HD11	2.02	0.42
1:C:163:VAL:HG13	1:C:339:LYS:CD	2.26	0.42
1:C:199:THR:OG1	1:C:346:GLU:OE2	2.37	0.42
1:C:252:SER:HB3	1:C:383:ARG:HD2	2.00	0.42
1:C:268:GLU:O	1:C:269:PRO:C	2.62	0.42
1:C:397:PRO:HD2	1:C:398:GLU:OE1	2.20	0.42
1:D:113:PHE:CE2	1:D:151:ILE:HG12	2.55	0.42
1:D:115:GLN:HB3	1:D:118:PHE:HD1	1.81	0.42
1:E:34:TYR:CE2	1:E:38:ARG:CD	3.03	0.42
1:E:118:PHE:CG	1:E:331:ILE:HD11	2.54	0.42
1:E:184:VAL:HG11	1:E:390:PHE:CZ	2.55	0.42
1:B:298:GLU:HG2	1:B:341:PHE:CD1	2.55	0.41
1:B:298:GLU:CG	1:B:341:PHE:HD1	2.32	0.41
1:C:104:TYR:HA	1:C:188:GLY:HA3	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:159:THR:O	1:C:160:ASN:C	2.61	0.41
1:C:298:GLU:OE2	1:C:339:LYS:CE	2.68	0.41
1:D:230:ASP:OD2	1:D:230:ASP:N	2.49	0.41
1:D:363:MET:O	1:D:364:ALA:CB	2.68	0.41
1:E:92:GLU:OE2	1:E:96:MET:HE2	2.19	0.41
1:A:120:VAL:HG13	1:A:325:LEU:O	2.19	0.41
1:A:178:LEU:HD12	1:A:332:PHE:O	2.20	0.41
1:A:304:LYS:HD3	1:A:308:LYS:HE3	2.02	0.41
1:B:118:PHE:HD2	1:B:328:ASN:CG	2.29	0.41
1:C:223:PHE:O	1:C:285:LYS:HA	2.20	0.41
1:C:260:GLN:HG3	1:C:261:GLU:H	1.85	0.41
1:D:59:MET:CE	1:D:110:ASN:CG	2.93	0.41
1:E:162:LEU:HD13	1:E:185:TYR:CE1	2.55	0.41
1:E:228:PHE:O	1:E:238:ILE:HA	2.20	0.41
1:A:168:SER:CB	1:A:169:PRO:CD	2.99	0.41
1:A:299:GLN:OE1	1:A:300:GLU:N	2.51	0.41
1:B:296:THR:CG2	1:B:400:MET:CE	2.97	0.41
1:B:356:GLY:CA	1:B:360:ILE:HB	2.51	0.41
1:C:197:GLU:OE1	1:C:358:ILE:CG2	2.68	0.41
1:D:112:LEU:HD12	1:D:112:LEU:HA	1.76	0.41
1:E:76:MET:HE3	1:E:76:MET:HB3	1.96	0.41
1:A:33:MET:HE1	1:A:53:ILE:HD13	1.99	0.41
1:A:276:VAL:HA	1:A:279:TRP:CE3	2.55	0.41
1:B:34:TYR:OH	1:B:268:GLU:OE2	2.27	0.41
1:B:62:LEU:CD2	1:B:87:PHE:HE2	2.33	0.41
1:B:91:LYS:HE2	1:B:95:ASN:HD22	1.86	0.41
1:B:332:PHE:N	1:B:332:PHE:CD2	2.89	0.41
1:C:90:LEU:HD13	1:C:132:PHE:HE1	1.85	0.41
1:A:49:SER:HB2	1:A:390:PHE:CE1	2.55	0.41
1:B:217:MET:HE3	1:B:217:MET:HB2	1.89	0.41
1:B:298:GLU:CG	1:B:341:PHE:CD1	3.03	0.41
1:C:197:GLU:O	1:E:200:ARG:HD3	2.20	0.41
1:C:229:SER:HB3	1:D:361:SER:HA	2.02	0.41
1:D:166:LEU:HD12	1:D:339:LYS:HB2	2.03	0.41
1:E:315:ILE:HD13	1:E:333:LEU:HD23	2.03	0.41
1:E:364:ALA:CA	1:E:365:VAL:C	2.90	0.41
1:A:115:GLN:HB3	1:A:118:PHE:CE1	2.55	0.41
1:B:30:SER:O	1:B:31:VAL:C	2.61	0.41
1:B:298:GLU:HA	1:B:340:SER:O	2.21	0.41
1:C:185:TYR:CE1	1:C:341:PHE:CD2	3.08	0.41
1:C:218:TYR:CD2	1:C:218:TYR:C	2.99	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:181:ILE:HD12	1:E:337:ILE:HD12	1.99	0.41
1:A:193:GLN:HB3	1:A:348:GLY:CA	2.50	0.41
1:B:331:ILE:CG2	1:B:332:PHE:N	2.84	0.41
1:C:33:MET:HE3	1:C:306:VAL:HG11	2.02	0.41
1:C:185:TYR:HE1	1:C:341:PHE:CE2	2.38	0.41
1:C:317:ILE:CG2	1:C:318:LYS:N	2.84	0.41
1:D:328:ASN:OD1	1:D:328:ASN:C	2.63	0.41
1:A:166:LEU:CD2	1:A:181:ILE:HG13	2.50	0.41
1:D:120:VAL:HA	1:D:325:LEU:O	2.20	0.41
1:D:242:LEU:HD23	1:D:255:LEU:HD12	2.02	0.41
1:E:190:TRP:HA	1:E:190:TRP:CE3	2.56	0.41
1:A:204:PHE:CD2	1:A:204:PHE:C	2.98	0.41
1:A:206:LYS:HZ1	1:A:396:HIS:HB3	1.86	0.41
1:A:369:GLN:HG2	1:D:364:ALA:H	1.85	0.41
1:B:115:GLN:HG3	1:B:116:ASN:H	1.85	0.41
1:C:95:ASN:HA	1:C:98:THR:CG2	2.49	0.41
1:C:153:LYS:HD2	1:C:153:LYS:HA	1.80	0.41
1:D:23:GLU:O	1:D:26:ILE:N	2.54	0.41
1:D:23:GLU:CG	1:D:89:PHE:CZ	3.04	0.41
1:D:62:LEU:CG	1:D:87:PHE:HE2	2.34	0.41
1:D:106:MET:HG2	1:D:186:PHE:HD1	1.86	0.41
1:D:293:PRO:HD3	1:D:372:VAL:HB	2.02	0.41
1:E:108:ILE:HD12	1:E:108:ILE:O	2.20	0.41
1:E:118:PHE:CD2	1:E:331:ILE:CG1	3.03	0.41
1:E:118:PHE:CB	1:E:331:ILE:HD11	2.51	0.41
1:E:199:THR:OG1	1:E:346:GLU:OE2	2.31	0.41
1:E:208:ASP:C	1:E:209:GLU:CG	2.91	0.41
1:E:214:ILE:HD11	1:E:216:MET:CE	2.50	0.41
1:E:228:PHE:N	1:E:228:PHE:CD2	2.88	0.41
1:E:259:ARG:O	1:E:260:GLN:C	2.64	0.41
1:A:206:LYS:HZ1	1:A:396:HIS:CD2	2.36	0.41
1:B:95:ASN:CA	1:B:98:THR:HG22	2.50	0.41
1:D:194:PHE:CE1	1:D:219:GLN:HG2	2.56	0.41
1:A:107:LYS:HB2	1:A:185:TYR:HB3	2.03	0.40
1:A:360:ILE:HB	1:A:361:SER:H	1.42	0.40
1:C:178:LEU:HD13	1:C:178:LEU:O	2.21	0.40
1:C:263:PRO:O	1:C:264:LEU:CG	2.68	0.40
1:D:176:THR:HA	1:D:334:SER:OG	2.21	0.40
1:E:178:LEU:HD11	1:E:333:LEU:HA	2.04	0.40
1:B:62:LEU:HD23	1:B:62:LEU:HA	1.82	0.40
1:B:115:GLN:HB3	1:B:118:PHE:CE1	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:229:SER:C	1:B:231:GLY:N	2.75	0.40
1:D:327:ASP:OD1	1:D:328:ASN:N	2.54	0.40
1:A:369:GLN:H	1:D:364:ALA:H	1.69	0.40
1:B:168:SER:CB	1:B:169:PRO:CD	3.00	0.40
1:C:64:ALA:O	1:C:65:GLN:HG2	2.21	0.40
1:C:166:LEU:HD12	1:C:339:LYS:HB2	2.04	0.40
1:D:43:ASP:O	1:D:43:ASP:OD1	2.39	0.40
1:D:56:ALA:N	1:D:110:ASN:HD21	2.18	0.40
1:E:199:THR:O	1:E:200:ARG:HG3	2.22	0.40
1:E:214:ILE:HD12	1:E:214:ILE:C	2.45	0.40
1:A:49:SER:HB3	1:A:52:SER:HB3	2.03	0.40
1:A:295:PHE:CE1	1:A:297:VAL:HG23	2.57	0.40
1:A:315:ILE:HG22	1:A:322:LEU:HD21	2.03	0.40
1:C:43:ASP:O	1:C:43:ASP:OD2	2.38	0.40
1:C:57:MET:HE2	1:C:57:MET:CA	2.47	0.40
1:C:294:ARG:NH1	1:C:346:GLU:OE2	2.53	0.40
1:C:365:VAL:H	1:C:365:VAL:HG23	1.57	0.40
1:D:23:GLU:CG	1:D:89:PHE:HZ	2.34	0.40
1:D:169:PRO:C	1:D:171:ASP:H	2.28	0.40
1:B:49:SER:HB2	1:B:390:PHE:CE1	2.56	0.40
1:C:184:VAL:HG11	1:C:390:PHE:CZ	2.56	0.40
1:D:227:GLU:C	1:D:228:PHE:CD2	3.00	0.40
1:D:335:LYS:HD3	1:D:335:LYS:HA	1.94	0.40
1:E:239:TYR:CB	1:E:267:LEU:HD11	2.52	0.40
1:E:294:ARG:NH1	1:E:346:GLU:OE2	2.54	0.40

There are no symmetry-related clashes.

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	354/407 (87%)	316 (89%)	26 (7%)	12 (3%)	3	16

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	B	370/407 (91%)	299 (81%)	45 (12%)	26 (7%)	1	5
1	C	350/407 (86%)	290 (83%)	45 (13%)	15 (4%)	2	13
1	D	353/407 (87%)	310 (88%)	32 (9%)	11 (3%)	3	18
1	E	328/407 (81%)	280 (85%)	37 (11%)	11 (3%)	3	16
All	All	1755/2035 (86%)	1495 (85%)	185 (10%)	75 (4%)	2	13

All (75) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	177	TYR
1	B	103	GLN
1	B	104	TYR
1	B	330	GLU
1	B	352	ALA
1	B	353	ALA
1	B	354	VAL
1	B	356	GLY
1	B	358	ILE
1	B	360	ILE
1	B	361	SER
1	B	364	ALA
1	B	399	THR
1	B	404	GLY
1	B	406	ASP
1	C	232	SER
1	C	262	VAL
1	C	263	PRO
1	C	358	ILE
1	C	360	ILE
1	C	361	SER
1	C	363	MET
1	C	366	LEU
1	D	42	GLU
1	D	176	THR
1	D	360	ILE
1	D	361	SER
1	D	363	MET
1	E	87	PHE
1	E	330	GLU
1	E	363	MET
1	E	365	VAL

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Mol	Chain	Res	Type
1	E	367	TYR
1	E	368	PRO
1	A	86	GLU
1	A	98	THR
1	A	104	TYR
1	A	330	GLU
1	A	398	GLU
1	B	99	ALA
1	B	233	ASN
1	B	234	GLU
1	B	239	TYR
1	C	174	ALA
1	C	278	GLU
1	D	43	ASP
1	D	102	SER
1	D	359	ALA
1	D	364	ALA
1	E	98	THR
1	E	125	LEU
1	A	87	PHE
1	A	174	ALA
1	B	24	GLU
1	B	32	ASN
1	B	355	SER
1	B	402	THR
1	C	99	ALA
1	E	24	GLU
1	A	24	GLU
1	A	85	GLU
1	A	94	SER
1	C	98	THR
1	D	352	ALA
1	B	98	THR
1	D	66	GLY
1	E	42	GLU
1	A	102	SER
1	B	383	ARG
1	C	367	TYR
1	E	369	GLN
1	C	41	GLY
1	B	66	GLY
1	B	41	GLY

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Mol	Chain	Res	Type
1	C	276	VAL

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	319/355 (90%)	283 (89%)	36 (11%)	5	21
1	B	330/355 (93%)	283 (86%)	47 (14%)	3	15
1	C	318/355 (90%)	279 (88%)	39 (12%)	4	19
1	D	320/355 (90%)	291 (91%)	29 (9%)	9	30
1	E	304/355 (86%)	274 (90%)	30 (10%)	7	27
All	All	1591/1775 (90%)	1410 (89%)	181 (11%)	5	21

All (181) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	24	GLU
1	A	29	LEU
1	A	30	SER
1	A	44	GLU
1	A	65	GLN
1	A	92	GLU
1	A	101	GLU
1	A	104	TYR
1	A	119	HIS
1	A	176	THR
1	A	178	LEU
1	A	181	ILE
1	A	197	GLU
1	A	199	THR
1	A	200	ARG
1	A	203	SER
1	A	213	GLN
1	A	214	ILE

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Mol	Chain	Res	Type
1	A	247	GLU
1	A	255	LEU
1	A	261	GLU
1	A	266	THR
1	A	274	GLN
1	A	277	GLU
1	A	287	LYS
1	A	296	THR
1	A	299	GLN
1	A	303	LEU
1	A	312	ILE
1	A	318	LYS
1	A	325	LEU
1	A	331	ILE
1	A	337	ILE
1	A	384	ARG
1	A	391	MET
1	A	398	GLU
1	B	26	ILE
1	B	45	ASN
1	B	92	GLU
1	B	97	VAL
1	B	101	GLU
1	B	104	TYR
1	B	106	MET
1	B	108	ILE
1	B	112	LEU
1	B	128	MET
1	B	161	ASN
1	B	178	LEU
1	B	181	ILE
1	B	191	LYS
1	B	193	GLN
1	B	195	ARG
1	B	197	GLU
1	B	200	ARG
1	B	208	ASP
1	B	229	SER
1	B	230	ASP
1	B	238	ILE
1	B	239	TYR
1	B	253	MET

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Mol	Chain	Res	Type
1	B	259	ARG
1	B	260	GLN
1	B	261	GLU
1	B	296	THR
1	B	299	GLN
1	B	315	ILE
1	B	325	LEU
1	B	326	SER
1	B	331	ILE
1	B	354	VAL
1	B	355	SER
1	B	358	ILE
1	B	360	ILE
1	B	361	SER
1	B	362	ARG
1	B	363	MET
1	B	366	LEU
1	B	369	GLN
1	B	384	ARG
1	B	387	THR
1	B	400	MET
1	B	402	THR
1	B	407	PHE
1	C	30	SER
1	C	43	ASP
1	C	59	MET
1	C	65	GLN
1	C	87	PHE
1	C	89	PHE
1	C	97	VAL
1	C	98	THR
1	C	104	TYR
1	C	105	VAL
1	C	106	MET
1	C	126	GLN
1	C	176	THR
1	C	178	LEU
1	C	181	ILE
1	C	195	ARG
1	C	222	GLU
1	C	238	ILE
1	C	239	TYR

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Mol	Chain	Res	Type
1	C	247	GLU
1	C	250	GLU
1	C	259	ARG
1	C	261	GLU
1	C	267	LEU
1	C	271	VAL
1	C	272	LYS
1	C	276	VAL
1	C	284	LYS
1	C	296	THR
1	C	299	GLN
1	C	318	LYS
1	C	325	LEU
1	C	331	ILE
1	C	337	ILE
1	C	357	MET
1	C	358	ILE
1	C	360	ILE
1	C	365	VAL
1	C	367	TYR
1	D	24	GLU
1	D	26	ILE
1	D	42	GLU
1	D	52	SER
1	D	86	GLU
1	D	92	GLU
1	D	103	GLN
1	D	104	TYR
1	D	112	LEU
1	D	114	VAL
1	D	123	GLU
1	D	126	GLN
1	D	176	THR
1	D	178	LEU
1	D	209	GLU
1	D	230	ASP
1	D	259	ARG
1	D	281	ASN
1	D	284	LYS
1	D	296	THR
1	D	299	GLN
1	D	325	LEU

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Mol	Chain	Res	Type
1	D	339	LYS
1	D	350	GLU
1	D	358	ILE
1	D	360	ILE
1	D	366	LEU
1	D	369	GLN
1	D	384	ARG
1	E	24	GLU
1	E	43	ASP
1	E	61	GLU
1	E	62	LEU
1	E	86	GLU
1	E	87	PHE
1	E	103	GLN
1	E	106	MET
1	E	112	LEU
1	E	119	HIS
1	E	123	GLU
1	E	125	LEU
1	E	138	HIS
1	E	142	SER
1	E	168	SER
1	E	176	THR
1	E	178	LEU
1	E	181	ILE
1	E	193	GLN
1	E	197	GLU
1	E	209	GLU
1	E	230	ASP
1	E	259	ARG
1	E	296	THR
1	E	299	GLN
1	E	329	LYS
1	E	330	GLU
1	E	337	ILE
1	E	362	ARG
1	E	365	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (44) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	110	ASN

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Mol	Chain	Res	Type
1	A	126	GLN
1	A	158	ASN
1	A	193	GLN
1	A	198	ASN
1	A	274	GLN
1	A	369	GLN
1	A	396	HIS
1	B	95	ASN
1	B	110	ASN
1	B	115	GLN
1	B	116	ASN
1	B	126	GLN
1	B	138	HIS
1	B	143	GLN
1	B	158	ASN
1	B	182	ASN
1	B	193	GLN
1	B	198	ASN
1	B	260	GLN
1	B	299	GLN
1	B	396	HIS
1	B	405	HIS
1	C	126	GLN
1	C	138	HIS
1	C	220	GLN
1	C	240	GLN
1	C	396	HIS
1	D	103	GLN
1	D	110	ASN
1	D	126	GLN
1	D	158	ASN
1	D	161	ASN
1	D	193	GLN
1	D	220	GLN
1	D	396	HIS
1	E	103	GLN
1	E	110	ASN
1	E	126	GLN
1	E	161	ASN
1	E	189	ASN
1	E	213	GLN
1	E	374	HIS

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Mol	Chain	Res	Type
1	E	396	HIS

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

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	364/407 (89%)	0.48	19 (5%) 33 19	68, 82, 116, 133	0
1	B	376/407 (92%)	0.35	18 (4%) 35 20	28, 83, 116, 132	0
1	C	358/407 (87%)	0.23	8 (2%) 62 41	63, 83, 108, 135	0
1	D	363/407 (89%)	0.21	11 (3%) 52 32	54, 82, 116, 132	0
1	E	340/407 (83%)	0.58	18 (5%) 32 18	68, 82, 114, 132	0
All	All	1801/2035 (88%)	0.37	74 (4%) 41 24	28, 83, 116, 135	0

All (74) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	233	ASN	5.8
1	B	103	GLN	5.0
1	A	398	GLU	4.7
1	B	96	MET	4.6
1	D	97	VAL	4.6
1	A	23	GLU	4.4
1	E	23	GLU	4.3
1	B	97	VAL	4.2
1	E	61	GLU	4.1
1	B	23	GLU	3.9
1	E	99	ALA	3.9
1	B	24	GLU	3.9
1	D	96	MET	3.9
1	A	97	VAL	3.8
1	D	24	GLU	3.5
1	A	96	MET	3.2
1	B	327	ASP	3.1
1	A	99	ALA	3.1
1	D	23	GLU	3.0
1	E	97	VAL	2.9

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Mol	Chain	Res	Type	RSRZ
1	B	25	ALA	2.8
1	A	24	GLU	2.8
1	A	118	PHE	2.8
1	E	399	THR	2.7
1	E	131	TYR	2.7
1	D	22	PRO	2.7
1	C	24	GLU	2.7
1	A	213	GLN	2.7
1	A	25	ALA	2.7
1	E	105	VAL	2.7
1	D	138	HIS	2.6
1	A	88	SER	2.6
1	B	402	THR	2.5
1	A	22	PRO	2.5
1	D	86	GLU	2.5
1	B	407	PHE	2.5
1	E	96	MET	2.5
1	E	199	THR	2.5
1	D	103	GLN	2.5
1	C	176	THR	2.4
1	E	24	GLU	2.4
1	E	89	PHE	2.4
1	B	359	ALA	2.4
1	B	238	ILE	2.4
1	D	358	ILE	2.4
1	B	131	TYR	2.4
1	B	22	PRO	2.3
1	B	356	GLY	2.3
1	B	200	ARG	2.3
1	D	25	ALA	2.3
1	A	105	VAL	2.3
1	E	191	LYS	2.3
1	B	362	ARG	2.3
1	E	120	VAL	2.3
1	C	23	GLU	2.2
1	A	128	MET	2.2
1	A	196	PRO	2.2
1	C	175	ALA	2.2
1	A	107	LYS	2.2
1	C	77	GLY	2.2
1	E	22	PRO	2.2
1	C	103	GLN	2.2

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Mol	Chain	Res	Type	RSRZ
1	C	96	MET	2.1
1	E	73	ARG	2.1
1	C	233	ASN	2.1
1	E	198	ASN	2.1
1	B	119	HIS	2.1
1	E	325	LEU	2.1
1	A	197	GLU	2.1
1	A	200	ARG	2.1
1	D	213	GLN	2.0
1	E	103	GLN	2.0
1	A	352	ALA	2.0
1	A	193	GLN	2.0

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

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

6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

6.4 Ligands [i](#)

There are no ligands in this entry.

6.5 Other polymers [i](#)

There are no such residues in this entry.