



Full wwPDB X-ray Structure Validation Report ⓘ

May 16, 2020 – 07:38 pm BST

PDB ID : 5X41
Title : 3.5Å resolution structure of a cobalt energy-coupling factor transporter using LCP method-CbiMQO
Authors : Bao, Z.; Qi, X.; Zhao, W.; Li, D.; Zhang, P.
Deposited on : 2017-02-09
Resolution : 3.47 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 following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

MolProbity : 4.02b-467
Xtriage (Phenix) : 1.13
EDS : 2.11
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.11

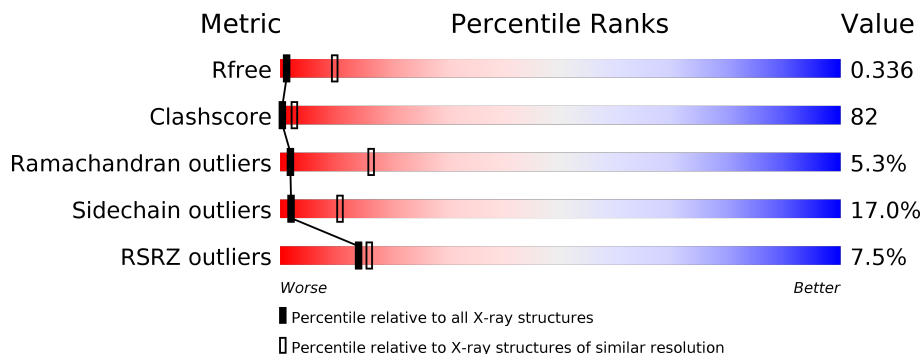
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.47 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.



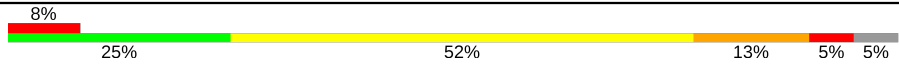
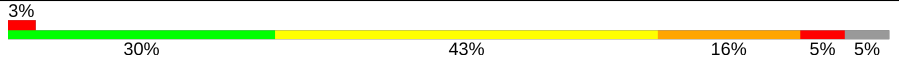
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1379 (3.56-3.40)
Clashscore	141614	1461 (3.56-3.40)
Ramachandran outliers	138981	1424 (3.56-3.40)
Sidechain outliers	138945	1425 (3.56-3.40)
RSRZ outliers	127900	1289 (3.56-3.40)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on 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	280	<div style="display: flex; align-items: center;"> <div style="width: 14%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 23%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 45%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 23%; height: 10px; background-color: orange; margin-right: 5px;"></div> <div style="width: 6%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 6%; height: 10px; background-color: grey;"></div> </div>
1	B	280	<div style="display: flex; align-items: center;"> <div style="width: 10%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 27%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 46%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 17%; height: 10px; background-color: orange; margin-right: 5px;"></div> <div style="width: 8%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 8%; height: 10px; background-color: grey;"></div> </div>
1	C	280	<div style="display: flex; align-items: center;"> <div style="width: 6%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 34%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 45%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 15%; height: 10px; background-color: orange; margin-right: 5px;"></div> <div style="width: 5%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 5%; height: 10px; background-color: grey;"></div> </div>
1	D	280	<div style="display: flex; align-items: center;"> <div style="width: 9%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 34%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 45%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 14%; height: 10px; background-color: orange; margin-right: 5px;"></div> <div style="width: 5%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 5%; height: 10px; background-color: grey;"></div> </div>
2	E	222	<div style="display: flex; align-items: center;"> <div style="width: 2%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 40%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 44%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 9%; height: 10px; background-color: orange; margin-right: 5px;"></div> <div style="width: 7%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 7%; height: 10px; background-color: grey;"></div> </div>
2	M	222	<div style="display: flex; align-items: center;"> <div style="width: 4%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 45%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 40%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 7%; height: 10px; background-color: orange; margin-right: 5px;"></div> <div style="width: 7%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 7%; height: 10px; background-color: grey;"></div> </div>

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Mol	Chain	Length	Quality of chain
3	F	256	
3	Q	256	

2 Entry composition [i](#)

There are 3 unique types of molecules in this entry. The entry contains 14359 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 Cobalt ABC transporter ATP-binding protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	263	Total 1935	C 1221	N 349	O 362	S 3	0	0	0
1	B	258	Total 1899	C 1197	N 345	O 353	S 4	0	0	0
1	C	270	Total 1986	C 1251	N 362	O 369	S 4	0	0	0
1	D	267	Total 1964	C 1237	N 357	O 366	S 4	0	0	0

- Molecule 2 is a protein called Cobalt transport protein CbiM.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	M	207	Total 1470	C 975	N 236	O 252	S 7	0	0	0
2	E	207	Total 1470	C 975	N 236	O 252	S 7	0	0	0

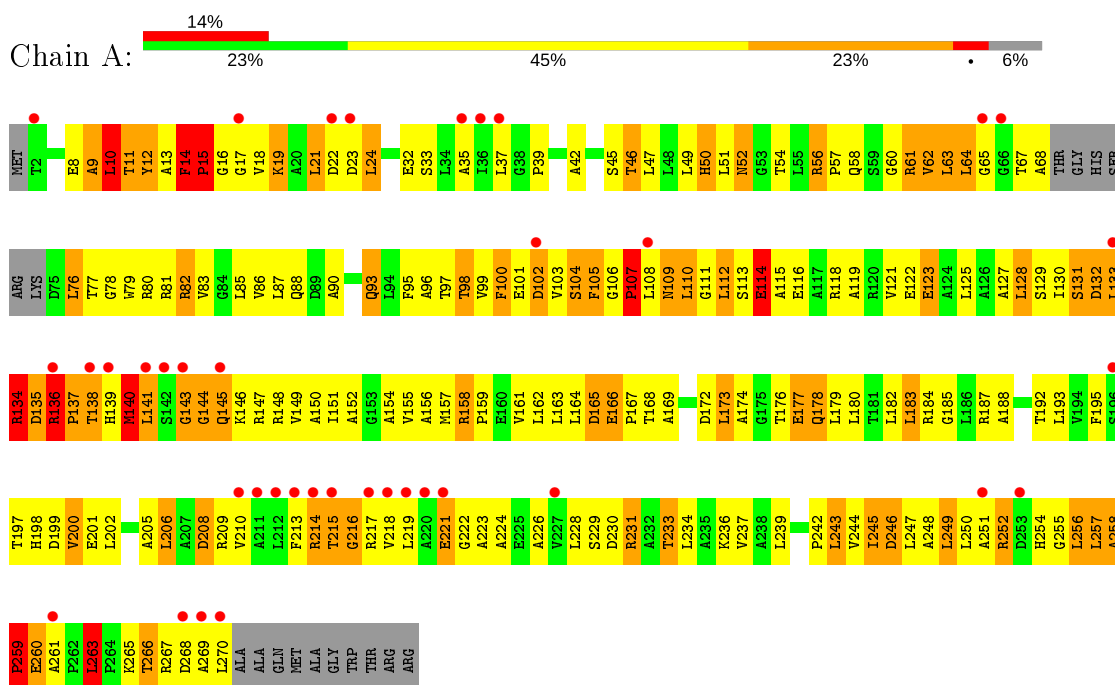
- Molecule 3 is a protein called Uncharacterized protein CbiQ.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	Q	243	Total 1815	C 1175	N 333	O 301	S 6	0	0	0
3	F	244	Total 1820	C 1178	N 334	O 302	S 6	0	0	0

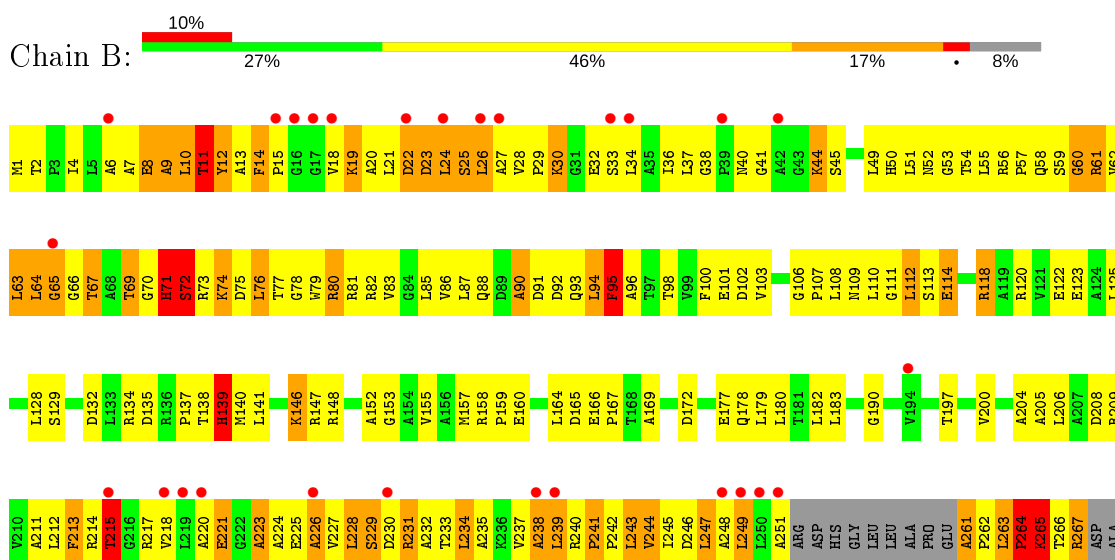
3 Residue-property plots [i](#)

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of 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: Cobalt ABC transporter ATP-binding protein

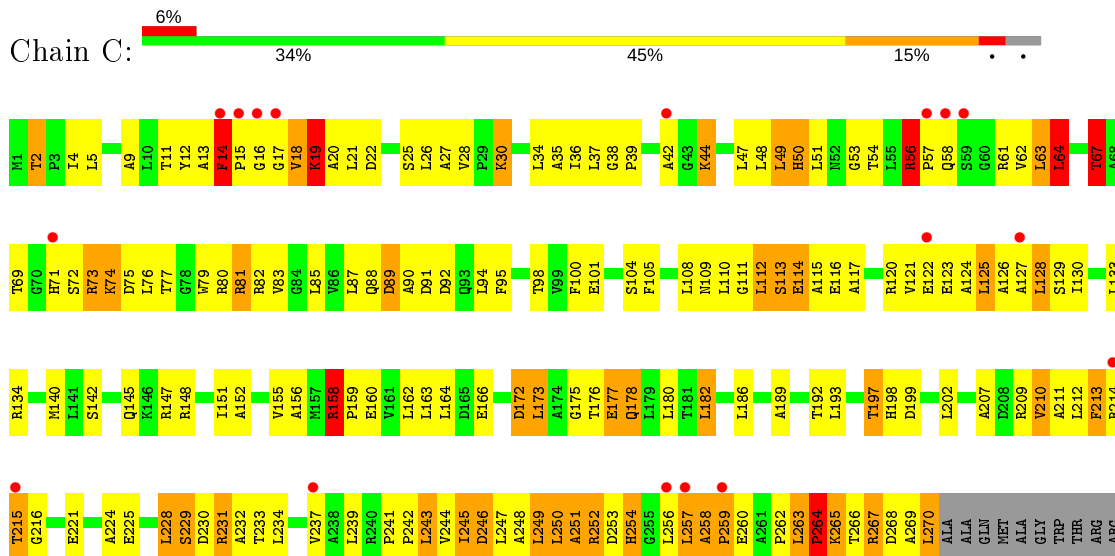


- Molecule 1: Cobalt ABC transporter ATP-binding protein

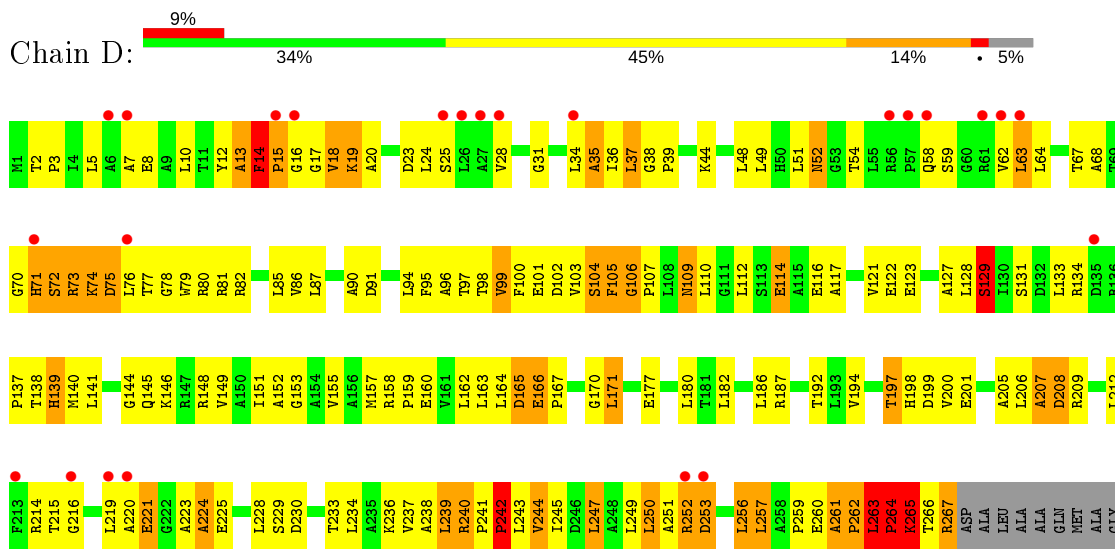


LEU
ALA
ALA
GLN
MET
ALA
GLY
TRP
ARG
ARG

• Molecule 1: Cobalt ABC transporter ATP-binding protein

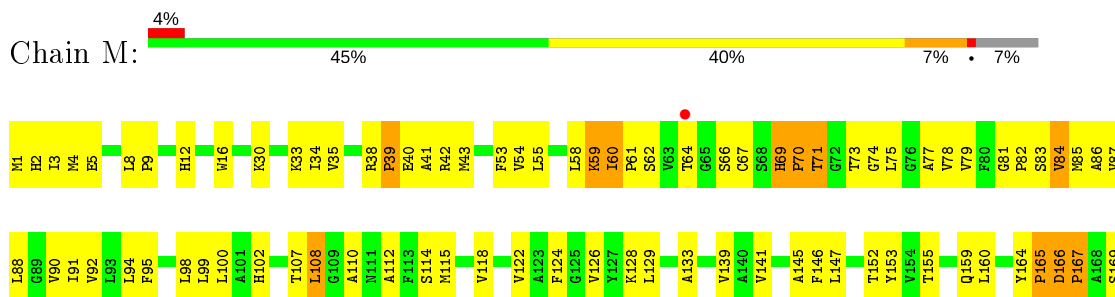


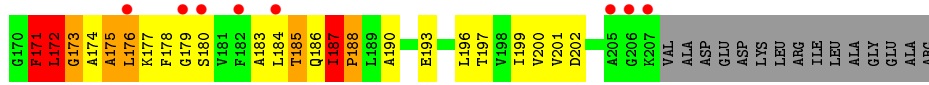
• Molecule 1: Cobalt ABC transporter ATP-binding protein



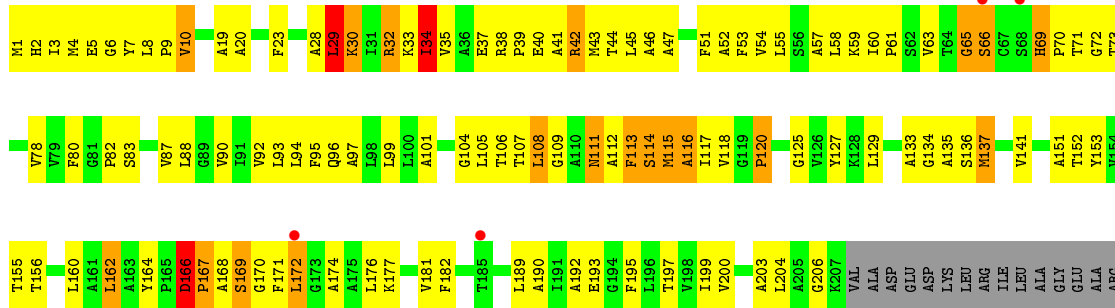
TRP
THR
ARG
ARG

• Molecule 2: Cobalt transport protein CbiM

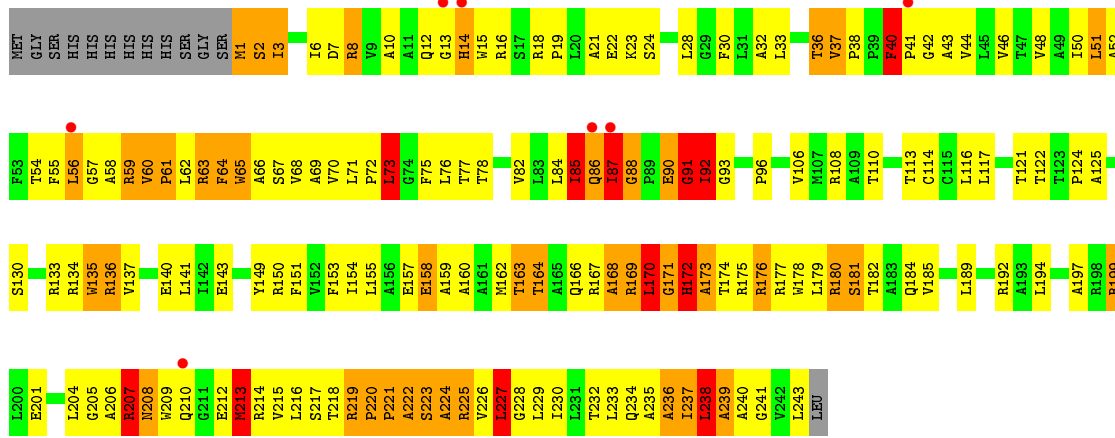




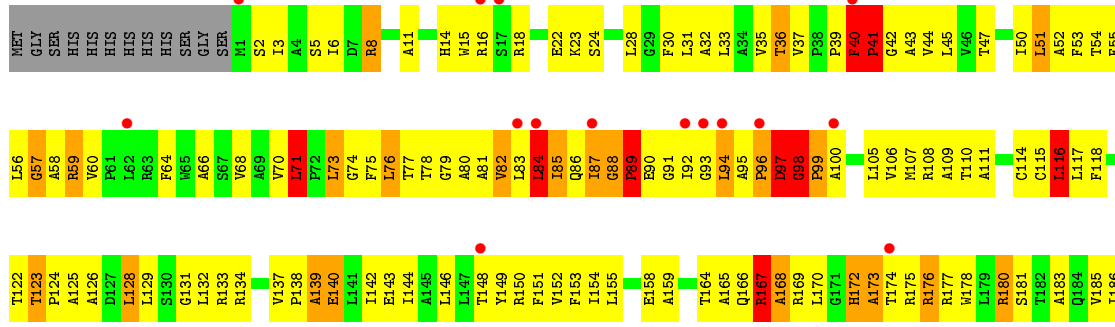
• Molecule 2: Cobalt transport protein CbiM



• Molecule 3: Uncharacterized protein CbiQ



• Molecule 3: Uncharacterized protein CbiQ





4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	96.16Å 135.04Å 204.42Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	47.96 – 3.47 47.96 – 3.47	Depositor EDS
% Data completeness (in resolution range)	97.5 (47.96-3.47) 97.5 (47.96-3.47)	Depositor EDS
R_{merge}	0.17	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.53 (at 3.48Å)	Xtrriage
Refinement program	PHENIX 1.9_1692	Depositor
R, R_{free}	0.299 , 0.335 0.306 , 0.336	Depositor DCC
R_{free} test set	1727 reflections (5.04%)	wwPDB-VP
Wilson B-factor (Å ²)	99.3	Xtrriage
Anisotropy	0.800	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.31 , 63.2	EDS
L-test for twinning ²	$\langle L \rangle = 0.46$, $\langle L^2 \rangle = 0.29$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.86	EDS
Total number of atoms	14359	wwPDB-VP
Average B, all atoms (Å ²)	72.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.56% 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	0.68	2/1960 (0.1%)	1.04	16/2665 (0.6%)
1	B	0.58	1/1923 (0.1%)	1.07	19/2611 (0.7%)
1	C	0.69	3/2013 (0.1%)	1.16	30/2736 (1.1%)
1	D	0.75	3/1990 (0.2%)	1.12	21/2704 (0.8%)
2	E	0.65	0/1504	0.96	7/2055 (0.3%)
2	M	0.64	2/1504 (0.1%)	0.95	10/2055 (0.5%)
3	F	0.70	2/1855 (0.1%)	1.25	31/2532 (1.2%)
3	Q	0.73	2/1850 (0.1%)	1.15	21/2525 (0.8%)
All	All	0.68	15/14599 (0.1%)	1.10	155/19883 (0.8%)

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	2
1	B	0	4
1	C	0	6
1	D	0	1
2	E	0	4
2	M	0	1
3	F	0	8
3	Q	0	13
All	All	0	39

All (15) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	242	PRO	N-CD	13.57	1.66	1.47
3	F	89	PRO	N-CD	5.77	1.55	1.47
1	A	200	VAL	CB-CG1	-5.75	1.40	1.52
3	Q	41	PRO	N-CD	5.61	1.55	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	57	PRO	N-CD	5.34	1.55	1.47
1	A	107	PRO	N-CD	5.34	1.55	1.47
1	B	241	PRO	N-CD	5.26	1.55	1.47
1	C	39	PRO	N-CD	5.26	1.55	1.47
2	M	167	PRO	N-CD	5.25	1.55	1.47
1	C	159	PRO	N-CD	5.24	1.55	1.47
2	M	188	PRO	N-CD	5.11	1.54	1.47
1	D	259	PRO	N-CD	5.08	1.54	1.47
3	F	41	PRO	N-CD	5.05	1.54	1.47
1	D	264	PRO	N-CD	5.03	1.54	1.47
3	Q	61	PRO	N-CD	5.00	1.54	1.47

All (155) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	2	SER	N-CA-CB	-15.41	87.39	110.50
1	D	205	ALA	CB-CA-C	14.15	131.33	110.10
3	F	58	ALA	CB-CA-C	13.42	130.23	110.10
3	F	139	ALA	CB-CA-C	-13.00	90.61	110.10
3	Q	207	ARG	N-CA-CB	-11.81	89.35	110.60
3	Q	173	ALA	N-CA-CB	-11.51	93.99	110.10
3	Q	207	ARG	CB-CA-C	11.44	133.28	110.40
3	Q	92	ILE	CB-CA-C	10.87	133.34	111.60
1	C	64	LEU	CB-CA-C	-10.85	89.59	110.20
3	Q	92	ILE	C-N-CA	10.33	144.00	122.30
2	E	57	ALA	CB-CA-C	-10.20	94.80	110.10
1	C	9	ALA	N-CA-CB	9.50	123.39	110.10
3	Q	73	LEU	CB-CA-C	-9.39	92.36	110.20
1	D	165	ASP	CB-CA-C	9.38	129.16	110.40
1	D	221	GLU	N-CA-CB	-9.19	94.05	110.60
3	F	139	ALA	N-CA-C	9.12	135.63	111.00
2	E	29	LEU	CA-CB-CG	9.07	136.17	115.30
1	B	66	GLY	N-CA-C	8.89	135.33	113.10
1	D	14	PHE	N-CA-C	8.83	134.84	111.00
1	B	228	LEU	CB-CA-C	8.78	126.88	110.20
2	M	79	VAL	CB-CA-C	-8.78	94.72	111.40
1	B	60	GLY	N-CA-C	-8.65	91.47	113.10
2	M	184	LEU	CB-CA-C	8.58	126.49	110.20
3	F	59	ARG	N-CA-CB	8.52	125.94	110.60
1	D	242	PRO	CA-N-CD	-8.46	99.66	111.50
3	F	140	GLU	N-CA-CB	-8.43	95.43	110.60
1	A	9	ALA	N-CA-C	-8.35	88.46	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	264	PRO	N-CA-C	-8.29	90.56	112.10
2	M	185	THR	N-CA-CB	-8.25	94.62	110.30
1	D	207	ALA	CB-CA-C	-8.23	97.76	110.10
3	F	224	ALA	CB-CA-C	7.94	122.01	110.10
3	Q	207	ARG	N-CA-C	-7.93	89.58	111.00
1	B	221	GLU	N-CA-C	7.82	132.10	111.00
1	B	90	ALA	CB-CA-C	-7.81	98.39	110.10
1	D	206	LEU	N-CA-CB	-7.72	94.95	110.40
3	F	172	HIS	N-CA-C	-7.44	90.92	111.00
3	F	209	TRP	CB-CA-C	-7.36	95.67	110.40
2	E	166	ASP	C-N-CD	-7.32	104.49	120.60
1	D	206	LEU	CB-CA-C	7.26	124.00	110.20
1	B	67	THR	N-CA-CB	7.23	124.04	110.30
1	D	106	GLY	C-N-CD	-7.20	104.76	120.60
3	F	71	LEU	CA-CB-CG	7.15	131.75	115.30
3	Q	92	ILE	N-CA-C	-7.12	91.77	111.00
3	F	206	ALA	CB-CA-C	7.09	120.74	110.10
3	F	116	LEU	CA-CB-CG	7.07	131.56	115.30
1	C	211	ALA	N-CA-CB	-7.04	100.25	110.10
1	B	14	PHE	CB-CA-C	6.89	124.18	110.40
1	C	110	LEU	CA-CB-CG	6.87	131.10	115.30
3	Q	173	ALA	N-CA-C	6.87	129.55	111.00
1	B	94	LEU	CB-CA-C	-6.85	97.18	110.20
1	A	14	PHE	C-N-CD	6.85	142.78	128.40
3	F	88	GLY	N-CA-C	6.84	130.21	113.10
1	D	14	PHE	N-CA-CB	-6.81	98.34	110.60
1	A	93	GLN	N-CA-CB	-6.78	98.39	110.60
2	M	59	LYS	CD-CE-NZ	-6.75	96.16	111.70
3	F	76	LEU	CA-CB-CG	6.75	130.82	115.30
1	B	263	LEU	C-N-CD	6.74	142.56	128.40
1	A	76	LEU	CB-CA-C	-6.71	97.46	110.20
1	B	215	THR	N-CA-C	-6.64	93.06	111.00
1	C	64	LEU	N-CA-C	6.60	128.83	111.00
3	F	97	ASP	N-CA-CB	-6.60	98.73	110.60
1	B	238	ALA	CB-CA-C	-6.57	100.24	110.10
1	A	33	SER	N-CA-CB	-6.57	100.65	110.50
1	B	139	HIS	CB-CA-C	-6.51	97.39	110.40
1	A	107	PRO	CA-N-CD	-6.48	102.42	111.50
2	M	81	GLY	C-N-CD	6.48	142.00	128.40
1	C	210	VAL	CB-CA-C	-6.44	99.16	111.40
3	F	82	VAL	CB-CA-C	-6.43	99.19	111.40
1	B	205	ALA	CB-CA-C	6.42	119.73	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	111	ALA	CB-CA-C	-6.41	100.48	110.10
3	F	217	SER	CB-CA-C	6.39	122.24	110.10
2	M	79	VAL	N-CA-C	6.37	128.20	111.00
3	Q	13	GLY	N-CA-C	-6.37	97.18	113.10
1	C	30	LYS	CB-CA-C	-6.33	97.73	110.40
1	A	10	LEU	CB-CA-C	-6.33	98.18	110.20
2	E	10	VAL	N-CA-C	6.31	128.04	111.00
3	F	68	VAL	CB-CA-C	-6.30	99.42	111.40
1	C	94	LEU	CB-CA-C	-6.30	98.23	110.20
1	C	19	LYS	CB-CA-C	-6.28	97.84	110.40
3	Q	137	VAL	C-N-CD	6.27	141.57	128.40
1	D	239	LEU	CB-CA-C	-6.24	98.34	110.20
3	Q	172	HIS	N-CA-C	6.23	127.83	111.00
1	C	172	ASP	CB-CA-C	-6.21	97.97	110.40
1	D	171	LEU	CB-CA-C	-6.17	98.48	110.20
1	C	20	ALA	N-CA-C	6.17	127.65	111.00
1	C	258	ALA	C-N-CD	6.17	141.35	128.40
2	M	187	ILE	C-N-CD	6.16	141.34	128.40
1	C	182	LEU	CA-CB-CG	-6.15	101.16	115.30
1	B	241	PRO	C-N-CD	6.13	141.28	128.40
3	Q	220	PRO	C-N-CD	6.12	141.26	128.40
1	D	14	PHE	C-N-CD	6.11	141.23	128.40
3	F	58	ALA	N-CA-CB	-6.09	101.57	110.10
1	A	263	LEU	C-N-CD	6.08	141.17	128.40
1	C	14	PHE	C-N-CD	6.06	141.13	128.40
2	M	59	LYS	CA-CB-CG	-6.05	100.09	113.40
3	Q	219	ARG	C-N-CD	6.05	141.10	128.40
3	F	219	ARG	C-N-CD	6.04	141.09	128.40
1	A	136	ARG	C-N-CD	6.04	141.09	128.40
1	A	229	SER	CB-CA-C	-6.04	98.63	110.10
3	F	41	PRO	CA-N-CD	-6.02	103.07	111.50
1	D	224	ALA	CB-CA-C	-5.98	101.12	110.10
1	C	166	GLU	C-N-CD	5.97	140.94	128.40
1	D	221	GLU	N-CA-C	5.95	127.05	111.00
1	D	240	ARG	C-N-CD	5.92	140.82	128.40
3	Q	213	MET	N-CA-CB	5.88	121.19	110.60
3	Q	60	VAL	C-N-CD	5.88	140.75	128.40
3	Q	37	VAL	C-N-CD	5.87	140.72	128.40
1	A	58	GLN	CB-CA-C	5.86	122.11	110.40
1	A	258	ALA	C-N-CD	5.81	140.60	128.40
3	Q	38	PRO	C-N-CD	5.79	140.56	128.40
1	C	22	ASP	N-CA-CB	-5.75	100.25	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	262	PRO	CA-N-CD	-5.75	103.45	111.50
1	D	263	LEU	C-N-CD	5.75	140.46	128.40
3	Q	170	LEU	CA-CB-CG	-5.72	102.15	115.30
1	C	158	ARG	C-N-CD	5.70	140.36	128.40
1	C	49	LEU	CB-CA-C	-5.63	99.51	110.20
2	M	166	ASP	C-N-CD	5.61	140.18	128.40
3	F	73	LEU	CA-CB-CG	5.61	128.19	115.30
1	A	200	VAL	CA-CB-CG1	-5.60	102.50	110.90
2	E	82	PRO	N-CA-CB	-5.58	96.46	102.60
1	C	56	ARG	C-N-CD	5.55	140.05	128.40
2	E	10	VAL	CB-CA-C	-5.54	100.87	111.40
1	C	259	PRO	CA-N-CD	-5.53	103.75	111.50
3	F	57	GLY	N-CA-C	-5.53	99.29	113.10
1	C	38	GLY	C-N-CD	5.52	140.00	128.40
3	F	40	PHE	C-N-CD	5.52	139.99	128.40
1	C	20	ALA	N-CA-CB	-5.48	102.43	110.10
1	D	35	ALA	CB-CA-C	5.47	118.30	110.10
1	A	259	PRO	CA-N-CD	-5.44	103.88	111.50
3	Q	40	PHE	C-N-CD	5.42	139.78	128.40
1	A	15	PRO	CA-N-CD	-5.42	103.92	111.50
3	F	173	ALA	N-CA-CB	5.38	117.64	110.10
1	C	228	LEU	CA-CB-CG	-5.38	102.93	115.30
2	M	98	LEU	CB-CA-C	5.37	120.40	110.20
3	F	71	LEU	CB-CG-CD1	5.36	120.11	111.00
1	D	129	SER	CB-CA-C	-5.35	99.94	110.10
3	F	208	ASN	N-CA-CB	-5.34	100.98	110.60
1	C	49	LEU	C-N-CA	5.32	134.99	121.70
1	A	215	THR	N-CA-C	-5.30	96.68	111.00
3	F	173	ALA	N-CA-C	-5.28	96.74	111.00
1	C	123	GLU	CB-CA-C	5.25	120.90	110.40
3	F	209	TRP	N-CA-CB	5.25	120.05	110.60
3	Q	14	HIS	CB-CA-C	-5.24	99.93	110.40
1	D	37	LEU	CA-CB-CG	5.24	127.34	115.30
1	B	95	PHE	N-CA-C	5.22	125.08	111.00
1	B	108	LEU	CB-CA-C	-5.16	100.40	110.20
3	F	225	ARG	N-CA-CB	-5.16	101.32	110.60
1	B	264	PRO	CA-N-CD	-5.14	104.30	111.50
1	C	95	PHE	N-CA-CB	-5.14	101.35	110.60
1	C	25	SER	CB-CA-C	-5.11	100.40	110.10
1	B	261	ALA	N-CA-C	5.09	124.75	111.00
2	E	20	ALA	CB-CA-C	-5.07	102.50	110.10
1	B	206	LEU	N-CA-CB	-5.04	100.33	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	67	THR	N-CA-C	-5.01	97.46	111.00
1	D	165	ASP	N-CA-C	-5.01	97.47	111.00

There are no chirality outliers.

All (39) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	165	ASP	Peptide
1	A	216	GLY	Peptide
1	B	223	ALA	Peptide
1	B	226	ALA	Peptide
1	B	65	GLY	Mainchain
1	B	95	PHE	Peptide
1	C	114	GLU	Peptide
1	C	251	ALA	Peptide
1	C	254	HIS	Peptide
1	C	263	LEU	Peptide
1	C	264	PRO	Peptide
1	C	62	VAL	Peptide
1	D	13	ALA	Peptide
2	E	114	SER	Peptide
2	E	115	MET	Peptide
2	E	116	ALA	Peptide
2	E	166	ASP	Peptide
3	F	123	THR	Mainchain
3	F	167	ARG	Peptide
3	F	168	ALA	Peptide
3	F	176	ARG	Peptide
3	F	208	ASN	Peptide
3	F	71	LEU	Peptide
3	F	97	ASP	Peptide
3	F	98	GLY	Peptide
2	M	187	ILE	Peptide
3	Q	1	MET	Peptide
3	Q	136	ARG	Peptide
3	Q	155	LEU	Mainchain
3	Q	171	GLY	Peptide
3	Q	2	SER	Peptide
3	Q	84	LEU	Peptide
3	Q	85	ILE	Peptide
3	Q	86	GLN	Peptide
3	Q	87	ILE	Peptide

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Mol	Chain	Res	Type	Group
3	Q	88	GLY	Peptide
3	Q	91	GLY	Peptide
3	Q	92	ILE	Peptide
3	Q	93	GLY	Peptide

5.2 Too-close contacts [\(i\)](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1935	0	2015	510	4
1	B	1899	0	1989	430	2
1	C	1986	0	2074	323	0
1	D	1964	0	2055	285	0
2	E	1470	0	1540	181	0
2	M	1470	0	1540	144	0
3	F	1820	0	1951	383	4
3	Q	1815	0	1948	357	2
All	All	14359	0	15112	2429	8

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 82.

All (2429) 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:B:50:HIS:CE1	1:B:57:PRO:HG3	1.26	1.70
2:E:61:PRO:HD3	3:F:178:TRP:CZ3	1.25	1.63
1:C:243:LEU:CD2	1:D:243:LEU:HD21	1.16	1.61
1:C:252:ARG:CB	1:C:257:LEU:HD23	1.16	1.61
1:B:10:LEU:CD1	1:B:21:LEU:CD2	1.80	1.59
3:F:84:LEU:CD2	3:F:94:LEU:HD23	1.32	1.57
1:C:231:ARG:HD3	1:C:249:LEU:CD2	1.35	1.56
1:B:10:LEU:HD11	1:B:21:LEU:CD2	1.34	1.56
1:B:24:LEU:HD11	1:B:218:VAL:CG1	1.35	1.55
1:B:247:LEU:HD11	1:B:249:LEU:CD2	1.13	1.55
1:C:252:ARG:HG2	1:C:257:LEU:CB	1.38	1.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:85:ILE:HG12	3:F:92:ILE:CG2	1.10	1.53
3:Q:65:TRP:CZ3	3:Q:117:LEU:HD12	1.36	1.52
1:B:24:LEU:CD1	1:B:218:VAL:HG13	1.37	1.52
1:A:24:LEU:CD1	1:A:218:VAL:HG23	1.34	1.51
1:C:263:LEU:HD22	1:C:264:PRO:CD	1.40	1.50
1:C:231:ARG:CZ	1:C:249:LEU:HD21	1.38	1.50
1:B:24:LEU:CD2	1:B:218:VAL:N	1.70	1.50
1:B:50:HIS:CE1	1:B:57:PRO:CG	1.91	1.50
1:C:252:ARG:C	1:C:257:LEU:HD21	1.26	1.50
3:Q:62:LEU:CB	3:Q:64:PHE:H	1.22	1.50
1:C:252:ARG:CG	1:C:257:LEU:HB3	1.42	1.48
3:F:132:LEU:CD2	3:F:137:VAL:HG21	1.40	1.47
3:Q:62:LEU:CA	3:Q:64:PHE:H	1.26	1.47
1:B:247:LEU:CD1	1:B:249:LEU:CD2	1.90	1.47
3:F:85:ILE:CG1	3:F:92:ILE:CG2	1.91	1.46
1:A:255:GLY:CA	1:A:257:LEU:HD11	1.45	1.46
3:Q:62:LEU:HB2	3:Q:64:PHE:N	1.28	1.45
1:C:252:ARG:O	1:C:257:LEU:CD2	1.64	1.45
3:F:97:ASP:O	3:F:99:PRO:CD	1.64	1.45
3:F:85:ILE:CG1	3:F:92:ILE:HG23	1.47	1.45
1:C:231:ARG:NE	1:C:249:LEU:HD21	1.28	1.44
1:A:24:LEU:HD11	1:A:218:VAL:CG2	1.48	1.42
1:A:99:VAL:CG2	1:A:136:ARG:O	1.63	1.42
1:B:24:LEU:HD21	1:B:218:VAL:N	1.25	1.41
1:C:243:LEU:CD2	1:D:243:LEU:CD2	1.99	1.41
3:Q:2:SER:HA	3:Q:3:ILE:CG2	1.48	1.41
1:A:208:ASP:C	1:A:224:ALA:HB2	1.37	1.41
1:B:24:LEU:CD1	1:B:218:VAL:CG1	1.93	1.41
1:C:73:ARG:NH2	1:C:80:ARG:NH1	1.62	1.40
1:A:125:LEU:CD2	1:A:130:ILE:HD11	1.48	1.40
1:C:243:LEU:HD22	1:D:243:LEU:CD2	1.52	1.39
3:Q:62:LEU:HB2	3:Q:64:PHE:CA	1.50	1.39
1:A:255:GLY:C	1:A:257:LEU:CD1	1.87	1.39
1:C:231:ARG:CD	1:C:249:LEU:CD2	1.99	1.38
1:C:252:ARG:CG	1:C:257:LEU:HD23	1.51	1.38
1:A:252:ARG:HA	1:A:257:LEU:CG	1.44	1.38
3:Q:2:SER:CA	3:Q:3:ILE:HG23	1.54	1.38
1:C:252:ARG:HG2	1:C:257:LEU:CD2	1.56	1.35
2:M:60:ILE:HD12	3:Q:179:LEU:CD1	1.55	1.35
1:A:255:GLY:C	1:A:257:LEU:HD11	1.45	1.35
1:B:24:LEU:HD23	1:B:217:ARG:CA	1.57	1.35

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:16:GLY:O	3:F:8:ARG:NH1	1.57	1.35
1:A:125:LEU:HD22	1:A:130:ILE:CD1	1.56	1.34
3:Q:30:PHE:CE1	3:Q:234:GLN:HG2	1.61	1.33
1:A:259:PRO:O	1:A:265:LYS:HE2	1.19	1.33
3:Q:162:MET:CE	3:Q:192:ARG:NH1	1.90	1.33
1:B:247:LEU:CD1	1:B:249:LEU:HD22	1.55	1.33
1:C:252:ARG:C	1:C:257:LEU:CD2	1.94	1.31
1:C:122:GLU:OE1	1:C:134:ARG:NH1	1.63	1.31
1:B:50:HIS:ND1	1:B:57:PRO:HG3	1.44	1.30
1:C:252:ARG:HG2	1:C:257:LEU:CG	1.58	1.30
3:F:132:LEU:HD21	3:F:137:VAL:CG2	1.62	1.30
1:B:82:ARG:NH2	1:B:160:GLU:OE2	1.64	1.30
2:E:5:GLU:OE1	2:E:105:LEU:N	1.62	1.30
2:E:42:ARG:CD	3:F:211:GLY:O	1.80	1.29
3:F:84:LEU:CD2	3:F:94:LEU:CD2	2.10	1.29
2:E:61:PRO:CD	3:F:178:TRP:CZ3	2.16	1.28
1:C:252:ARG:CA	1:C:257:LEU:HD23	1.64	1.27
1:C:252:ARG:CG	1:C:257:LEU:CB	2.05	1.27
1:B:24:LEU:CG	1:B:218:VAL:HG13	1.64	1.27
1:C:17:GLY:O	1:C:18:VAL:HG22	1.33	1.27
2:E:58:LEU:O	2:E:69:HIS:NE2	1.67	1.27
1:A:255:GLY:O	1:A:257:LEU:CD1	1.78	1.26
1:B:50:HIS:CE1	1:B:57:PRO:CD	2.18	1.26
2:E:58:LEU:O	2:E:69:HIS:CD2	1.89	1.26
3:Q:61:PRO:O	3:Q:63:ARG:HB2	1.33	1.25
3:Q:65:TRP:CZ3	3:Q:117:LEU:CD1	2.18	1.25
1:C:252:ARG:CB	1:C:257:LEU:CD2	2.12	1.25
1:D:261:ALA:CB	1:D:262:PRO:HD3	1.67	1.24
1:B:10:LEU:CD1	1:B:21:LEU:HD23	1.47	1.24
1:A:114:GLU:CG	1:C:2:THR:HG21	1.65	1.24
1:C:256:LEU:CD2	1:C:258:ALA:HB2	1.66	1.23
3:F:236:ALA:O	3:F:237:ILE:O	1.56	1.23
3:F:212:GLU:O	3:F:213:MET:HG2	1.36	1.23
1:C:252:ARG:CG	1:C:257:LEU:CD2	2.13	1.23
1:B:73:ARG:O	1:B:74:LYS:NZ	1.70	1.23
1:B:10:LEU:O	1:B:59:SER:O	1.56	1.23
1:A:76:LEU:O	1:A:79:TRP:N	1.72	1.23
1:B:24:LEU:CG	1:B:218:VAL:CG1	2.13	1.23
1:B:224:ALA:O	1:B:228:LEU:HG	1.33	1.22
1:C:243:LEU:HD22	1:D:243:LEU:CG	1.68	1.22
3:Q:174:THR:OG1	3:Q:177:ARG:HG3	1.34	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:132:LEU:CD2	3:F:137:VAL:CG2	2.15	1.22
1:A:208:ASP:O	1:A:224:ALA:HB2	1.35	1.22
2:M:82:PRO:HD3	2:M:124:PHE:CE2	1.75	1.22
3:Q:66:ALA:O	3:Q:70:VAL:HG23	1.34	1.22
1:A:64:LEU:HD11	1:A:67:THR:OG1	1.41	1.21
1:B:139:HIS:ND1	1:B:139:HIS:O	1.74	1.21
1:A:109:ASN:ND2	3:Q:177:ARG:HH11	1.38	1.21
1:B:13:ALA:HA	1:B:20:ALA:CB	1.71	1.20
1:D:261:ALA:HB3	1:D:262:PRO:CD	1.72	1.20
3:F:11:ALA:HB1	3:F:16:ARG:NH2	1.57	1.19
3:Q:62:LEU:CA	3:Q:64:PHE:N	2.05	1.19
1:C:224:ALA:O	1:C:228:LEU:HD12	1.40	1.19
3:F:209:TRP:HD1	3:F:210:GLN:O	1.23	1.18
3:Q:62:LEU:CB	3:Q:64:PHE:N	1.89	1.18
3:Q:65:TRP:CE3	3:Q:117:LEU:CD1	2.27	1.17
1:B:71:HIS:O	1:B:74:LYS:NZ	1.75	1.17
1:C:231:ARG:NE	1:C:249:LEU:CD2	2.06	1.17
3:Q:166:GLN:O	3:Q:168:ALA:O	1.63	1.16
3:Q:91:GLY:HA3	3:Q:92:ILE:HG23	1.21	1.16
3:Q:238:LEU:HD13	3:Q:239:ALA:N	1.60	1.16
1:A:56:ARG:HD2	1:A:57:PRO:N	1.60	1.16
1:A:255:GLY:C	1:A:257:LEU:HD13	1.63	1.16
1:B:247:LEU:CD1	1:B:249:LEU:HD23	1.58	1.16
1:C:61:ARG:NH2	1:C:63:LEU:HD11	1.61	1.16
3:F:84:LEU:HD23	3:F:94:LEU:CD2	1.74	1.15
3:Q:238:LEU:CD1	3:Q:239:ALA:N	2.09	1.15
3:Q:162:MET:HE3	3:Q:192:ARG:NH1	1.61	1.15
3:F:84:LEU:HD21	3:F:94:LEU:CD2	1.73	1.15
3:Q:22:GLU:OE2	3:Q:226:VAL:CG2	1.94	1.15
1:B:50:HIS:HE1	1:B:57:PRO:N	1.44	1.15
2:E:60:ILE:HG22	2:E:61:PRO:O	1.45	1.15
1:A:112:LEU:HD12	1:A:116:GLU:HB2	1.21	1.15
1:A:255:GLY:H	1:A:257:LEU:HD21	1.10	1.14
1:A:128:LEU:O	1:A:182:LEU:CD1	1.95	1.14
1:B:60:GLY:O	1:B:61:ARG:HD2	1.45	1.14
1:A:99:VAL:HG21	1:A:135:ASP:C	1.66	1.14
2:E:61:PRO:HD3	3:F:178:TRP:CH2	1.83	1.14
1:A:24:LEU:HD12	1:A:218:VAL:N	1.63	1.14
3:F:242:VAL:HG13	3:F:243:LEU:HD22	1.23	1.14
1:B:244:VAL:HG22	1:B:245:ILE:N	1.61	1.13
1:D:101:GLU:C	1:D:104:SER:OG	1.86	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:10:LEU:HD13	1:B:21:LEU:CD2	1.60	1.13
3:Q:208:ASN:O	3:Q:209:TRP:HE3	1.28	1.13
3:F:98:GLY:N	3:F:99:PRO:HD3	1.58	1.13
1:D:105:PHE:CE1	1:D:109:ASN:OD1	2.01	1.13
3:Q:30:PHE:HE1	3:Q:234:GLN:CG	1.60	1.13
1:B:70:GLY:O	1:B:75:ASP:HB3	1.49	1.12
1:B:9:ALA:HB3	1:B:10:LEU:CA	1.79	1.12
1:D:101:GLU:O	1:D:104:SER:OG	1.64	1.12
3:Q:163:THR:HB	3:Q:167:ARG:HH22	1.08	1.12
3:Q:174:THR:HG23	3:Q:177:ARG:CD	1.78	1.12
1:B:32:GLU:HG2	1:B:33:SER:N	1.57	1.12
1:A:139:HIS:CD2	1:A:146:LYS:NZ	2.17	1.12
1:A:223:ALA:HB3	1:A:226:ALA:HB3	1.12	1.12
1:D:243:LEU:HD23	1:D:244:VAL:N	1.64	1.12
1:C:251:ALA:O	1:C:254:HIS:O	1.67	1.12
1:C:13:ALA:O	1:C:14:PHE:HB2	1.49	1.12
3:F:85:ILE:HD12	3:F:95:ALA:HA	1.26	1.12
1:C:263:LEU:CD2	1:C:264:PRO:CD	2.26	1.12
3:Q:62:LEU:CB	3:Q:64:PHE:CA	2.27	1.12
1:B:96:ALA:CB	1:B:102:ASP:OD2	1.98	1.11
3:Q:65:TRP:CE3	3:Q:117:LEU:HD13	1.83	1.11
3:Q:174:THR:H	3:Q:177:ARG:HD3	1.14	1.11
1:A:134:ARG:N	1:A:135:ASP:HB2	1.66	1.11
1:B:24:LEU:HD23	1:B:217:ARG:HA	1.13	1.11
1:A:103:VAL:HG11	1:A:121:VAL:HG13	1.31	1.11
1:B:10:LEU:HD11	1:B:21:LEU:CG	1.78	1.11
1:B:7:ALA:O	1:B:25:SER:HA	1.48	1.11
1:B:70:GLY:N	1:B:75:ASP:OD2	1.84	1.11
1:D:105:PHE:HE1	1:D:109:ASN:OD1	1.33	1.11
2:E:104:GLY:HA3	2:E:107:THR:OG1	1.48	1.11
3:F:97:ASP:C	3:F:99:PRO:CD	2.19	1.11
3:Q:162:MET:CE	3:Q:192:ARG:HH12	1.59	1.11
1:A:99:VAL:HG23	1:A:136:ARG:O	1.45	1.11
1:C:122:GLU:CD	1:C:134:ARG:HH12	1.55	1.11
3:F:85:ILE:CD1	3:F:92:ILE:HG21	1.80	1.11
1:D:72:SER:N	1:D:73:ARG:HA	1.66	1.10
1:A:252:ARG:HA	1:A:257:LEU:HG	1.13	1.10
1:A:62:VAL:O	1:A:63:LEU:HG	1.49	1.10
1:B:9:ALA:HB3	1:B:10:LEU:HA	1.30	1.10
2:E:116:ALA:HB1	2:E:117:ILE:HA	1.27	1.10
3:F:24:SER:O	3:F:28:LEU:HD12	1.51	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:174:THR:HG23	3:Q:177:ARG:HD2	1.30	1.10
1:C:252:ARG:CD	1:C:257:LEU:HB3	1.80	1.10
3:Q:162:MET:HE2	3:Q:192:ARG:HH12	1.03	1.10
1:C:231:ARG:CZ	1:C:249:LEU:CD2	2.30	1.09
1:C:263:LEU:CD2	1:C:264:PRO:HD2	1.82	1.09
1:C:73:ARG:HG2	3:F:174:THR:HG23	1.16	1.09
1:C:173:LEU:HA	1:C:176:THR:HG22	1.29	1.09
1:C:61:ARG:HH21	1:C:63:LEU:CD1	1.64	1.09
1:A:223:ALA:HB3	1:A:226:ALA:CB	1.83	1.09
1:B:24:LEU:HD11	1:B:218:VAL:HG11	1.33	1.09
1:B:24:LEU:HG	1:B:218:VAL:HG12	1.22	1.09
1:B:32:GLU:OE2	1:B:209:ARG:HG3	1.52	1.09
2:E:42:ARG:NE	3:F:211:GLY:O	1.86	1.09
3:F:16:ARG:NH1	3:F:124:PRO:HG2	1.65	1.09
1:B:244:VAL:CG2	1:B:245:ILE:H	1.61	1.09
3:F:209:TRP:CD1	3:F:210:GLN:O	2.06	1.08
2:E:169:SER:HB2	3:F:86:GLN:HG3	1.20	1.08
3:Q:223:SER:HB3	3:Q:225:ARG:HG2	1.24	1.08
1:A:139:HIS:CD2	1:A:146:LYS:HZ3	1.71	1.08
1:B:61:ARG:NH2	1:B:71:HIS:HE1	1.51	1.08
1:A:10:LEU:HG	1:A:10:LEU:O	1.50	1.07
1:A:230:ASP:CG	1:A:233:THR:OG1	1.93	1.07
1:B:71:HIS:O	1:B:73:ARG:N	1.87	1.07
1:D:96:ALA:HB3	1:D:102:ASP:CB	1.83	1.07
1:A:99:VAL:HG22	1:A:136:ARG:O	1.24	1.07
1:A:97:THR:HA	1:A:138:THR:OG1	1.53	1.07
3:Q:201:GLU:HG3	3:Q:210:GLN:HG3	1.35	1.07
1:B:24:LEU:HD23	1:B:217:ARG:C	1.75	1.07
3:F:212:GLU:O	3:F:213:MET:CG	2.03	1.07
1:A:112:LEU:CD1	1:A:116:GLU:HB2	1.85	1.06
1:A:259:PRO:O	1:A:265:LYS:CE	2.02	1.06
3:F:16:ARG:HH11	3:F:124:PRO:CG	1.67	1.06
2:E:112:ALA:O	2:E:116:ALA:O	1.73	1.06
1:A:134:ARG:HA	1:A:135:ASP:O	1.54	1.06
1:B:21:LEU:O	1:B:22:ASP:O	1.73	1.06
1:C:252:ARG:HB3	1:C:257:LEU:HD23	1.30	1.06
1:B:32:GLU:HG2	1:B:33:SER:H	0.93	1.06
1:C:120:ARG:HH12	1:C:158:ARG:HD2	1.16	1.06
1:A:230:ASP:CG	1:A:233:THR:HG1	1.56	1.05
2:E:104:GLY:CA	2:E:107:THR:OG1	2.03	1.05
1:A:114:GLU:HG3	1:C:2:THR:CG2	1.86	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:243:LEU:HD22	1:D:243:LEU:CD1	1.85	1.05
2:E:169:SER:CB	3:F:86:GLN:HG3	1.86	1.05
1:B:238:ALA:O	1:B:239:LEU:HD13	1.57	1.05
1:C:122:GLU:OE1	1:C:134:ARG:CZ	2.03	1.05
3:Q:174:THR:OG1	3:Q:177:ARG:CG	2.04	1.05
1:C:61:ARG:HH21	1:C:63:LEU:HD11	1.08	1.05
3:F:212:GLU:C	3:F:213:MET:HG2	1.67	1.05
1:A:10:LEU:HD22	1:A:21:LEU:HG	1.38	1.04
1:A:255:GLY:O	1:A:257:LEU:HD13	1.47	1.04
3:F:85:ILE:CD1	3:F:92:ILE:CG2	2.34	1.04
1:D:256:LEU:HG	1:D:257:LEU:HD23	1.06	1.04
1:A:255:GLY:HA3	1:A:257:LEU:HD11	1.07	1.04
2:M:60:ILE:HD12	3:Q:179:LEU:HD12	1.39	1.04
2:M:166:ASP:OD2	2:M:169:SER:N	1.90	1.04
1:A:208:ASP:HA	1:A:224:ALA:CB	1.88	1.03
1:A:249:LEU:HD23	1:A:249:LEU:H	1.20	1.03
1:B:60:GLY:O	1:B:61:ARG:CD	2.05	1.03
3:F:139:ALA:O	3:F:142:ILE:CD1	2.06	1.03
1:B:50:HIS:ND1	1:B:57:PRO:CG	2.10	1.03
1:C:263:LEU:HD22	1:C:264:PRO:HD2	1.34	1.02
3:Q:85:ILE:HB	3:Q:86:GLN:HB3	1.36	1.02
1:A:132:ASP:HB3	1:A:133:LEU:HA	1.39	1.02
1:A:269:ALA:HB1	1:A:270:LEU:HB2	1.42	1.02
1:A:114:GLU:OE2	1:A:114:GLU:N	1.93	1.02
1:A:208:ASP:CA	1:A:224:ALA:HB2	1.88	1.02
1:D:261:ALA:HB3	1:D:262:PRO:HD3	1.29	1.02
1:B:8:GLU:HA	1:B:25:SER:HB3	1.41	1.02
1:C:231:ARG:HD3	1:C:249:LEU:HD23	1.04	1.02
3:F:85:ILE:CG1	3:F:92:ILE:HG21	1.79	1.02
1:B:32:GLU:HG3	1:B:208:ASP:HB2	1.42	1.02
1:C:17:GLY:O	1:C:18:VAL:CG2	2.08	1.02
1:A:252:ARG:CA	1:A:257:LEU:CG	2.38	1.01
1:C:113:SER:OG	1:C:115:ALA:HB3	1.60	1.01
1:A:255:GLY:N	1:A:257:LEU:HD21	1.75	1.01
3:Q:30:PHE:HE1	3:Q:234:GLN:HG2	0.87	1.01
1:C:231:ARG:HD3	1:C:249:LEU:HD22	1.40	1.01
3:F:45:LEU:H	3:F:45:LEU:HD12	1.26	1.01
3:Q:65:TRP:CE3	3:Q:117:LEU:HD12	1.94	1.01
3:Q:162:MET:HE3	3:Q:192:ARG:CZ	1.90	1.01
1:B:10:LEU:HD11	1:B:21:LEU:HD21	1.04	1.01
3:Q:66:ALA:O	3:Q:70:VAL:CG2	2.07	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:13:ALA:HA	1:B:20:ALA:HB2	1.41	1.01
1:C:256:LEU:HD22	1:C:258:ALA:HB2	1.40	1.01
1:D:96:ALA:HB3	1:D:102:ASP:HB2	1.42	1.01
3:F:85:ILE:HD12	3:F:95:ALA:CA	1.89	1.01
3:F:85:ILE:HG12	3:F:92:ILE:HG22	1.39	1.01
1:B:7:ALA:O	1:B:25:SER:CA	2.09	1.01
3:F:22:GLU:OE2	3:F:222:ALA:CB	2.08	1.00
1:A:255:GLY:HA3	1:A:257:LEU:CD1	1.91	1.00
1:D:96:ALA:CB	1:D:102:ASP:HA	1.91	1.00
1:A:263:LEU:HD12	1:A:263:LEU:H	1.22	1.00
2:M:166:ASP:HB2	2:M:173:GLY:HA3	1.40	1.00
1:B:221:GLU:CD	1:B:221:GLU:O	2.00	1.00
1:D:230:ASP:OD1	1:D:233:THR:N	1.93	0.99
1:C:19:LYS:HG2	1:C:19:LYS:O	1.58	0.99
2:M:61:PRO:HD2	3:Q:179:LEU:HD13	1.44	0.99
1:C:122:GLU:OE1	1:C:134:ARG:NH2	1.96	0.99
3:Q:86:GLN:HG3	3:Q:87:ILE:HG13	1.44	0.99
3:F:47:THR:O	3:F:50:ILE:HG22	1.61	0.99
1:D:256:LEU:CG	1:D:257:LEU:HD23	1.92	0.99
2:M:60:ILE:CD1	3:Q:179:LEU:HD12	1.93	0.99
1:C:113:SER:OG	1:C:115:ALA:CB	2.11	0.98
3:F:97:ASP:O	3:F:99:PRO:HD2	0.83	0.98
3:Q:22:GLU:OE2	3:Q:226:VAL:HG21	1.59	0.98
3:Q:162:MET:CE	3:Q:192:ARG:CZ	2.41	0.98
1:C:243:LEU:HD22	1:D:243:LEU:HD21	1.05	0.98
2:M:60:ILE:CD1	3:Q:179:LEU:CD1	2.41	0.98
3:Q:238:LEU:CD1	3:Q:239:ALA:H	1.70	0.98
3:F:16:ARG:HH11	3:F:124:PRO:HG2	0.84	0.98
1:B:118:ARG:HB3	1:B:118:ARG:HH11	1.29	0.98
3:F:166:GLN:O	3:F:168:ALA:O	1.80	0.98
1:D:74:LYS:HA	1:D:77:THR:OG1	1.62	0.98
1:A:76:LEU:HD13	1:A:80:ARG:HG2	1.43	0.98
1:B:247:LEU:HD11	1:B:249:LEU:HD22	1.18	0.98
1:D:17:GLY:O	1:D:18:VAL:HG12	1.65	0.97
1:C:252:ARG:O	1:C:257:LEU:HD21	0.81	0.97
1:B:96:ALA:HB1	1:B:102:ASP:OD2	1.64	0.97
1:B:26:LEU:HD12	1:B:27:ALA:N	1.79	0.97
1:A:259:PRO:HD2	1:A:265:LYS:CE	1.95	0.97
1:A:173:LEU:O	1:A:177:GLU:OE1	1.81	0.97
1:A:252:ARG:CA	1:A:257:LEU:HG	1.94	0.97
1:D:71:HIS:CE1	1:D:73:ARG:HG3	1.99	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:100:LEU:CD2	3:Q:3:ILE:HG21	1.94	0.97
3:Q:162:MET:HE2	3:Q:192:ARG:NH1	1.65	0.97
3:Q:62:LEU:HA	3:Q:63:ARG:CB	1.95	0.97
1:B:204:ALA:O	1:B:261:ALA:HB1	1.62	0.97
1:C:263:LEU:CD2	1:C:264:PRO:HD3	1.89	0.97
1:A:24:LEU:HD12	1:A:218:VAL:H	1.21	0.97
1:D:260:GLU:N	1:D:260:GLU:OE2	1.97	0.97
3:F:98:GLY:N	3:F:99:PRO:CD	2.28	0.97
3:Q:177:ARG:O	3:Q:181:SER:OG	1.81	0.97
3:Q:62:LEU:HA	3:Q:64:PHE:N	1.76	0.97
1:A:208:ASP:C	1:A:224:ALA:CB	2.33	0.96
3:Q:208:ASN:O	3:Q:209:TRP:CE3	2.15	0.96
1:B:24:LEU:CD2	1:B:218:VAL:HG13	1.94	0.96
3:Q:223:SER:HB3	3:Q:225:ARG:CG	1.95	0.96
1:A:247:LEU:HA	1:A:250:LEU:HD12	1.48	0.96
3:Q:65:TRP:O	3:Q:68:VAL:N	1.99	0.96
1:B:13:ALA:CA	1:B:20:ALA:CB	2.43	0.96
1:B:204:ALA:O	1:B:261:ALA:CB	2.14	0.96
1:C:252:ARG:CA	1:C:257:LEU:CD2	2.30	0.96
1:D:96:ALA:HB2	1:D:102:ASP:HA	1.47	0.96
2:E:61:PRO:HD3	3:F:178:TRP:CE3	2.00	0.96
3:Q:61:PRO:O	3:Q:63:ARG:CB	2.15	0.95
1:A:208:ASP:O	1:A:224:ALA:CB	2.15	0.95
1:B:50:HIS:CE1	1:B:57:PRO:N	2.32	0.95
1:B:74:LYS:O	1:B:77:THR:OG1	1.85	0.95
1:B:9:ALA:HB3	1:B:10:LEU:C	1.86	0.95
3:Q:130:SER:OG	3:Q:219:ARG:NH1	2.00	0.95
3:Q:238:LEU:HD12	3:Q:239:ALA:H	1.30	0.95
3:Q:163:THR:HB	3:Q:167:ARG:NH2	1.80	0.95
3:Q:174:THR:HG1	3:Q:177:ARG:HG3	1.22	0.94
1:A:15:PRO:HG3	3:Q:8:ARG:HD3	1.48	0.94
1:A:100:PHE:O	1:A:104:SER:OG	1.85	0.94
1:D:109:ASN:HD22	1:D:109:ASN:H	1.02	0.94
3:F:30:PHE:HE1	3:F:234:GLN:HG2	1.33	0.94
1:B:120:ARG:HH21	1:B:158:ARG:CZ	1.81	0.94
1:B:221:GLU:O	1:B:221:GLU:CG	2.11	0.94
3:F:78:THR:O	3:F:82:VAL:HG13	1.68	0.94
3:Q:91:GLY:CA	3:Q:92:ILE:HG23	1.97	0.94
1:B:32:GLU:CG	1:B:208:ASP:HB2	1.98	0.94
1:D:249:LEU:O	1:D:251:ALA:N	2.01	0.94
1:D:261:ALA:HB1	1:D:262:PRO:HD3	1.50	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:71:HIS:CE1	1:D:73:ARG:HH21	1.84	0.94
1:B:24:LEU:HD23	1:B:218:VAL:N	1.57	0.94
1:A:14:PHE:HB3	1:A:18:VAL:CG2	1.97	0.94
1:B:10:LEU:CD1	1:B:21:LEU:HD21	1.63	0.94
1:C:243:LEU:HD21	1:D:243:LEU:HD21	0.95	0.93
3:F:39:PRO:C	3:F:41:PRO:HA	1.88	0.93
1:C:243:LEU:HD21	1:D:243:LEU:CD2	1.78	0.93
1:C:243:LEU:HD22	1:D:243:LEU:HD11	1.49	0.93
2:E:8:LEU:HD12	2:E:9:PRO:HD2	1.50	0.93
3:Q:66:ALA:HA	3:Q:69:ALA:HB3	1.49	0.93
3:F:204:LEU:O	3:F:208:ASN:O	1.84	0.93
3:F:85:ILE:HD11	3:F:92:ILE:HG21	1.45	0.93
1:A:10:LEU:HD22	1:A:21:LEU:CG	1.76	0.93
1:B:244:VAL:HG22	1:B:245:ILE:H	0.77	0.93
1:A:114:GLU:HG3	1:C:2:THR:HG21	0.94	0.93
1:A:10:LEU:HD23	1:A:24:LEU:HB3	1.49	0.93
2:E:41:ALA:O	2:E:44:THR:OG1	1.85	0.93
1:A:97:THR:O	1:A:138:THR:N	2.01	0.93
1:A:99:VAL:CG2	1:A:135:ASP:C	2.38	0.93
1:C:263:LEU:HD22	1:C:264:PRO:HD3	0.94	0.93
2:E:42:ARG:HD3	3:F:211:GLY:O	1.68	0.93
1:C:231:ARG:HH12	1:C:250:LEU:HD21	1.33	0.92
1:D:76:LEU:O	1:D:80:ARG:CG	2.18	0.92
3:F:237:ILE:O	3:F:240:ALA:N	2.02	0.92
1:A:255:GLY:CA	1:A:257:LEU:CD1	2.32	0.92
1:A:147:ARG:NH1	1:A:166:GLU:O	2.02	0.92
1:C:73:ARG:HG2	3:F:174:THR:CG2	1.99	0.92
1:C:19:LYS:O	1:C:19:LYS:CG	2.13	0.92
1:D:101:GLU:CA	1:D:104:SER:OG	2.18	0.92
1:B:139:HIS:O	1:B:139:HIS:CG	2.22	0.92
1:C:73:ARG:O	1:C:74:LYS:C	2.07	0.92
1:A:109:ASN:ND2	3:Q:177:ARG:NH1	2.16	0.92
1:C:12:TYR:OH	1:C:14:PHE:CE1	2.23	0.92
2:M:82:PRO:HD3	2:M:124:PHE:CZ	2.03	0.92
3:F:177:ARG:HB3	3:F:180:ARG:HD2	1.51	0.91
1:A:103:VAL:CG1	1:A:121:VAL:HG13	2.01	0.91
1:B:24:LEU:HG	1:B:218:VAL:CG1	1.86	0.91
1:A:62:VAL:O	1:A:63:LEU:CG	2.18	0.91
1:A:83:VAL:HG22	1:A:161:VAL:HB	1.52	0.91
1:C:112:LEU:HB3	1:C:116:GLU:HB3	1.52	0.91
1:C:252:ARG:NE	1:C:257:LEU:HB3	1.85	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:62:LEU:HB2	3:Q:65:TRP:N	1.84	0.91
2:M:82:PRO:CD	2:M:124:PHE:CE2	2.54	0.91
1:B:69:THR:HB	1:B:75:ASP:OD2	1.70	0.91
1:B:73:ARG:O	1:B:74:LYS:CD	2.18	0.91
3:F:177:ARG:HB3	3:F:180:ARG:HB2	1.50	0.91
1:A:103:VAL:HG12	1:A:121:VAL:HG22	1.53	0.91
1:A:15:PRO:C	1:A:17:GLY:HA2	1.92	0.91
1:A:76:LEU:HB2	1:A:79:TRP:HB3	1.51	0.91
1:D:96:ALA:CB	1:D:102:ASP:CA	2.49	0.91
1:D:109:ASN:HD22	1:D:109:ASN:N	1.68	0.91
3:F:158:GLU:OE1	3:F:192:ARG:NH2	2.03	0.90
3:Q:65:TRP:HZ3	3:Q:117:LEU:HD12	1.30	0.90
1:B:26:LEU:HD21	1:B:34:LEU:HD21	1.52	0.90
3:F:42:GLY:O	3:F:45:LEU:HD12	1.70	0.90
1:C:249:LEU:HG	1:C:250:LEU:CD2	2.01	0.90
1:A:112:LEU:HD12	1:A:116:GLU:CB	2.00	0.90
1:A:64:LEU:HD11	1:A:67:THR:HG1	1.35	0.90
1:D:76:LEU:O	1:D:80:ARG:HG2	1.69	0.90
2:M:62:SER:OG	2:M:188:PRO:HB3	1.71	0.90
3:Q:238:LEU:O	3:Q:241:GLY:N	2.04	0.90
1:A:13:ALA:HB1	1:A:19:LYS:H	1.34	0.90
3:F:42:GLY:HA2	3:F:45:LEU:CD1	2.02	0.90
3:Q:168:ALA:C	3:Q:170:LEU:H	1.71	0.90
1:B:8:GLU:CA	1:B:25:SER:HB3	2.02	0.90
3:F:22:GLU:OE2	3:F:222:ALA:HB1	1.70	0.90
1:A:252:ARG:HA	1:A:257:LEU:CB	2.00	0.89
1:B:10:LEU:O	1:B:11:THR:OG1	1.87	0.89
1:B:224:ALA:O	1:B:228:LEU:CG	2.20	0.89
3:Q:85:ILE:HD12	3:Q:86:GLN:NE2	1.87	0.89
1:B:265:LYS:HD2	1:B:267:ARG:N	1.86	0.89
1:B:9:ALA:CB	1:B:10:LEU:CA	2.47	0.89
3:F:139:ALA:O	3:F:142:ILE:HD12	1.69	0.89
1:A:132:ASP:CA	1:A:134:ARG:HB2	2.03	0.89
1:A:185:GLY:O	1:A:188:ALA:HB3	1.73	0.89
1:B:24:LEU:CD2	1:B:217:ARG:HA	2.01	0.89
1:B:32:GLU:CG	1:B:33:SER:H	1.83	0.89
1:A:269:ALA:HB1	1:A:270:LEU:CB	2.02	0.89
2:M:164:TYR:O	2:M:165:PRO:O	1.89	0.89
3:Q:15:TRP:H	3:Q:16:ARG:NH2	1.70	0.89
1:B:247:LEU:HD12	1:B:249:LEU:HB2	1.53	0.89
3:F:97:ASP:C	3:F:99:PRO:HD2	1.84	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:60:ILE:HD12	3:Q:179:LEU:HD11	1.54	0.89
3:F:92:ILE:HG13	3:F:93:GLY:H	1.38	0.88
1:A:132:ASP:HA	1:A:134:ARG:HB2	1.56	0.88
1:A:97:THR:O	1:A:138:THR:OG1	1.90	0.88
3:F:177:ARG:O	3:F:180:ARG:CB	2.22	0.88
1:A:147:ARG:O	1:A:151:ILE:HG13	1.74	0.88
1:B:74:LYS:HG2	1:B:75:ASP:H	1.38	0.88
1:D:71:HIS:HE1	1:D:73:ARG:HH21	1.17	0.88
1:A:208:ASP:CA	1:A:224:ALA:CB	2.48	0.88
1:B:120:ARG:HH21	1:B:158:ARG:NE	1.71	0.88
1:B:61:ARG:NH2	1:B:71:HIS:CE1	2.42	0.88
1:B:224:ALA:HB1	1:B:228:LEU:HD23	1.54	0.88
1:B:70:GLY:O	1:B:74:LYS:NZ	2.06	0.88
3:F:236:ALA:O	3:F:237:ILE:C	2.09	0.88
1:B:13:ALA:CA	1:B:20:ALA:HB3	2.03	0.88
1:C:231:ARG:NH1	1:C:249:LEU:HD21	1.88	0.88
2:E:41:ALA:O	2:E:45:LEU:HD12	1.74	0.88
1:C:73:ARG:CZ	1:C:76:LEU:HD13	2.04	0.87
1:C:58:GLN:N	1:C:58:GLN:OE1	2.07	0.87
3:Q:22:GLU:OE2	3:Q:226:VAL:HG23	1.72	0.87
3:Q:82:VAL:HA	3:Q:85:ILE:HD11	1.57	0.87
3:Q:82:VAL:O	3:Q:85:ILE:HG12	1.72	0.87
1:D:95:PHE:HE2	3:F:213:MET:HB2	1.40	0.87
1:A:8:GLU:HB3	1:A:61:ARG:HB3	1.55	0.87
1:B:60:GLY:O	1:B:61:ARG:NE	2.06	0.87
3:Q:235:ALA:O	3:Q:238:LEU:HB3	1.75	0.87
1:C:15:PRO:O	3:F:8:ARG:HG2	1.75	0.87
1:B:24:LEU:HD21	1:B:218:VAL:CA	2.03	0.86
1:C:224:ALA:O	1:C:228:LEU:CD1	2.22	0.86
1:D:101:GLU:HA	1:D:104:SER:OG	1.75	0.86
3:F:93:GLY:O	3:F:94:LEU:HB2	1.75	0.86
3:Q:228:GLY:O	3:Q:232:THR:HG23	1.75	0.86
3:F:177:ARG:O	3:F:180:ARG:HB3	1.75	0.86
3:F:22:GLU:OE2	3:F:222:ALA:HB2	1.75	0.86
1:B:50:HIS:NE2	1:B:57:PRO:HG3	1.88	0.86
3:F:16:ARG:NH1	3:F:124:PRO:CG	2.32	0.86
1:B:234:LEU:HD13	1:B:235:ALA:CA	2.05	0.86
1:A:223:ALA:CB	1:A:226:ALA:CB	2.53	0.86
1:C:231:ARG:NH1	1:C:249:LEU:CD2	2.39	0.86
1:A:76:LEU:HD12	1:A:76:LEU:C	1.95	0.86
1:D:63:LEU:HD12	1:D:67:THR:O	1.75	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:72:SER:O	1:C:76:LEU:HB2	1.74	0.86
3:Q:163:THR:HG22	3:Q:167:ARG:HH12	1.38	0.86
1:B:10:LEU:HD13	1:B:21:LEU:HD23	0.86	0.85
1:C:243:LEU:CD2	1:D:243:LEU:CG	2.46	0.85
1:A:132:ASP:HB3	1:A:133:LEU:CA	2.05	0.85
1:C:173:LEU:HA	1:C:176:THR:CG2	2.05	0.85
3:F:85:ILE:HG12	3:F:92:ILE:HG21	1.41	0.85
1:A:15:PRO:HD2	1:A:18:VAL:HG13	1.58	0.85
1:B:62:VAL:CG1	1:B:79:TRP:CZ2	2.58	0.85
1:B:13:ALA:HA	1:B:20:ALA:HB3	1.58	0.85
1:D:244:VAL:HG21	1:D:261:ALA:O	1.75	0.85
3:Q:174:THR:N	3:Q:177:ARG:HD3	1.92	0.85
1:B:32:GLU:HG3	1:B:208:ASP:CB	2.06	0.85
1:A:102:ASP:O	3:Q:169:ARG:NH1	2.09	0.85
1:C:231:ARG:NH1	1:C:250:LEU:HD21	1.92	0.85
3:F:31:LEU:O	3:F:35:VAL:HG23	1.77	0.85
3:Q:143:GLU:CD	3:Q:212:GLU:O	2.15	0.85
3:Q:62:LEU:HB2	3:Q:64:PHE:C	1.96	0.85
1:B:60:GLY:C	1:B:61:ARG:HD2	1.96	0.85
1:A:147:ARG:HH22	1:A:169:ALA:HB3	1.41	0.85
1:C:256:LEU:CD2	1:C:258:ALA:CB	2.52	0.84
1:A:129:SER:HB3	1:A:182:LEU:HD11	1.57	0.84
1:A:15:PRO:CD	1:A:18:VAL:HG22	2.07	0.84
1:B:24:LEU:HD11	1:B:218:VAL:HG13	0.90	0.84
1:D:105:PHE:CD1	1:D:109:ASN:ND2	2.45	0.84
3:F:22:GLU:CG	3:F:222:ALA:CB	2.56	0.84
1:A:113:SER:O	1:A:115:ALA:N	2.10	0.84
1:C:120:ARG:HG2	1:C:120:ARG:HH11	1.43	0.84
1:C:252:ARG:O	1:C:257:LEU:CG	2.25	0.84
2:E:116:ALA:CB	2:E:117:ILE:HA	2.08	0.84
1:C:256:LEU:HD23	1:C:258:ALA:N	1.92	0.84
1:D:105:PHE:HD1	1:D:109:ASN:HD21	1.21	0.84
1:D:71:HIS:N	1:D:75:ASP:OD2	2.11	0.84
1:B:74:LYS:HG2	1:B:75:ASP:N	1.93	0.84
3:F:11:ALA:CB	3:F:16:ARG:NH2	2.39	0.84
2:M:82:PRO:HG3	2:M:124:PHE:CE1	2.13	0.84
1:B:247:LEU:HD12	1:B:249:LEU:CD2	2.06	0.84
1:B:234:LEU:HD13	1:B:235:ALA:N	1.93	0.84
1:B:10:LEU:CD1	1:B:21:LEU:CG	2.47	0.83
1:B:50:HIS:CG	1:B:57:PRO:HG3	2.13	0.83
1:C:173:LEU:CA	1:C:176:THR:HG22	2.06	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:11:ALA:CB	3:F:16:ARG:CZ	2.56	0.83
1:A:95:PHE:CE2	3:Q:166:GLN:HG3	2.13	0.83
3:Q:37:VAL:CG1	3:Q:42:GLY:HA3	2.08	0.83
1:C:30:LYS:O	1:C:192:THR:OG1	1.95	0.83
1:C:73:ARG:HH21	1:C:80:ARG:NH1	1.69	0.83
3:Q:168:ALA:O	3:Q:170:LEU:N	2.11	0.83
1:A:15:PRO:CD	1:A:18:VAL:HG13	2.08	0.83
3:F:50:ILE:O	3:F:54:THR:HG23	1.78	0.83
2:M:100:LEU:HD21	3:Q:3:ILE:HG21	1.58	0.83
1:B:50:HIS:CE1	1:B:57:PRO:HD3	2.12	0.83
1:B:96:ALA:HB2	1:B:102:ASP:OD2	1.78	0.83
3:F:172:HIS:CD2	3:F:178:TRP:CD1	2.66	0.83
3:F:30:PHE:CE1	3:F:234:GLN:HG2	2.13	0.83
1:A:139:HIS:HD2	1:A:146:LYS:CE	1.90	0.83
1:B:234:LEU:HD13	1:B:235:ALA:HA	1.60	0.83
1:B:9:ALA:CB	1:B:10:LEU:C	2.46	0.83
1:D:110:LEU:HD11	1:D:157:MET:HB3	1.61	0.83
1:A:144:GLY:O	1:A:147:ARG:N	2.11	0.83
1:A:257:LEU:H	1:A:257:LEU:HD22	1.44	0.83
1:B:114:GLU:O	1:B:118:ARG:HG3	1.79	0.83
1:B:73:ARG:O	1:B:74:LYS:CE	2.25	0.83
1:D:13:ALA:HB2	1:D:19:LYS:HA	1.61	0.83
1:D:98:THR:HG22	1:D:101:GLU:OE2	1.78	0.83
1:D:261:ALA:HB3	1:D:262:PRO:HD2	1.60	0.82
1:D:14:PHE:CE2	1:D:15:PRO:HB3	2.14	0.82
1:A:244:VAL:HG13	1:A:245:ILE:N	1.94	0.82
1:B:32:GLU:CD	1:B:209:ARG:HG3	1.99	0.82
2:M:59:LYS:HG3	2:M:69:HIS:HD2	1.42	0.82
3:Q:163:THR:CG2	3:Q:167:ARG:HH12	1.91	0.82
1:A:132:ASP:CB	1:A:133:LEU:HA	2.08	0.82
1:C:73:ARG:NH2	1:C:80:ARG:HH11	1.72	0.82
1:D:256:LEU:HG	1:D:257:LEU:CD2	2.01	0.82
3:F:50:ILE:HG23	3:F:51:LEU:CD2	2.09	0.82
1:A:97:THR:CA	1:A:138:THR:OG1	2.27	0.82
3:Q:82:VAL:O	3:Q:85:ILE:CG1	2.28	0.82
2:E:4:MET:O	2:E:107:THR:HG21	1.80	0.82
1:A:95:PHE:CZ	3:Q:166:GLN:HG3	2.14	0.82
1:C:231:ARG:CD	1:C:249:LEU:HD23	1.85	0.82
1:A:152:ALA:O	1:A:155:VAL:HG22	1.79	0.81
1:A:247:LEU:O	1:A:251:ALA:N	2.13	0.81
1:C:15:PRO:O	3:F:8:ARG:CG	2.28	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:42:ARG:HD2	3:F:211:GLY:O	1.78	0.81
3:Q:15:TRP:H	3:Q:16:ARG:HH21	1.23	0.81
1:A:10:LEU:HD11	1:A:21:LEU:O	1.80	0.81
1:A:178:GLN:OE1	1:A:178:GLN:N	2.14	0.81
1:B:13:ALA:N	1:B:20:ALA:HB3	1.96	0.81
1:C:111:GLY:O	1:C:113:SER:N	2.12	0.81
3:F:97:ASP:C	3:F:99:PRO:HD3	1.94	0.81
3:Q:19:PRO:HB2	3:Q:222:ALA:HB2	1.62	0.81
1:A:249:LEU:HG	1:A:250:LEU:H	1.45	0.81
3:F:132:LEU:HD23	3:F:137:VAL:CG2	2.11	0.81
1:A:132:ASP:C	1:A:134:ARG:HB2	2.01	0.81
1:B:10:LEU:HD11	1:B:21:LEU:HG	1.62	0.81
1:B:13:ALA:CA	1:B:20:ALA:HB2	2.06	0.81
1:D:71:HIS:CE1	1:D:73:ARG:CG	2.63	0.81
2:E:174:ALA:HA	2:E:177:LYS:HE2	1.63	0.81
3:Q:174:THR:HG23	3:Q:177:ARG:HD3	1.62	0.81
1:B:234:LEU:O	1:B:234:LEU:HD22	1.79	0.81
1:B:73:ARG:HA	1:B:76:LEU:HD11	1.62	0.81
3:Q:143:GLU:OE1	3:Q:212:GLU:O	1.98	0.81
3:Q:174:THR:CG2	3:Q:177:ARG:CD	2.58	0.81
1:A:122:GLU:HG3	1:A:123:GLU:N	1.94	0.81
1:A:15:PRO:HD3	1:A:18:VAL:HG22	1.63	0.81
1:A:256:LEU:C	1:A:257:LEU:HD13	2.01	0.81
1:D:105:PHE:HE1	1:D:109:ASN:CG	1.83	0.81
1:B:242:PRO:O	1:B:244:VAL:HG12	1.81	0.80
1:B:50:HIS:HE1	1:B:57:PRO:CD	1.71	0.80
1:D:105:PHE:O	1:D:109:ASN:ND2	2.14	0.80
1:B:24:LEU:CD2	1:B:217:ARG:CA	2.51	0.80
1:C:252:ARG:CG	1:C:257:LEU:CG	2.34	0.80
3:F:47:THR:O	3:F:51:LEU:HD23	1.82	0.80
1:B:6:ALA:O	1:B:63:LEU:HD22	1.81	0.80
1:C:252:ARG:HG2	1:C:257:LEU:HB3	0.94	0.80
2:E:58:LEU:C	2:E:69:HIS:NE2	2.29	0.80
1:B:139:HIS:CD2	3:Q:153:PHE:HB3	2.16	0.80
1:A:223:ALA:CB	1:A:226:ALA:HB3	2.03	0.80
1:A:10:LEU:CG	1:A:10:LEU:O	2.29	0.80
1:B:11:THR:CB	1:B:59:SER:O	2.30	0.80
1:C:248:ALA:O	1:C:252:ARG:HB2	1.80	0.80
3:Q:62:LEU:CA	3:Q:63:ARG:HB2	2.12	0.80
1:C:114:GLU:N	1:C:115:ALA:HB3	1.95	0.80
1:D:162:LEU:HD23	1:D:164:LEU:HD11	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:110:LEU:HD12	1:A:111:GLY:H	1.46	0.80
1:A:99:VAL:HG21	1:A:136:ARG:N	1.97	0.80
1:B:62:VAL:HG11	1:B:79:TRP:CZ2	2.16	0.80
1:A:145:GLN:OE1	1:A:148:ARG:NH1	2.14	0.80
1:B:73:ARG:O	1:B:74:LYS:CG	2.30	0.80
3:Q:201:GLU:HG3	3:Q:210:GLN:CG	2.12	0.80
1:B:24:LEU:CD1	1:B:218:VAL:HG11	1.98	0.80
1:C:249:LEU:HG	1:C:250:LEU:HD23	1.64	0.80
1:C:256:LEU:HD21	1:C:258:ALA:HB2	1.64	0.80
2:E:108:LEU:HD23	2:E:109:GLY:N	1.97	0.80
1:A:24:LEU:CG	1:A:218:VAL:HG23	2.11	0.80
1:B:62:VAL:HG11	1:B:79:TRP:HZ2	1.47	0.80
2:M:82:PRO:CD	2:M:124:PHE:CZ	2.64	0.80
1:D:37:LEU:HD12	1:D:38:GLY:H	1.45	0.79
1:B:71:HIS:H	1:B:71:HIS:CD2	1.96	0.79
3:F:165:ALA:O	3:F:168:ALA:O	2.00	0.79
2:M:42:ARG:HD3	3:Q:213:MET:HE2	1.62	0.79
1:D:262:PRO:O	1:D:264:PRO:HD3	1.83	0.79
3:Q:19:PRO:HG3	3:Q:220:PRO:HG2	1.65	0.79
3:Q:22:GLU:OE2	3:Q:222:ALA:HB1	1.83	0.79
1:A:14:PHE:H	1:A:18:VAL:CG2	1.96	0.79
3:F:85:ILE:HG12	3:F:92:ILE:HG23	0.80	0.79
1:A:14:PHE:HB3	1:A:18:VAL:HG21	1.64	0.79
1:C:231:ARG:CD	1:C:249:LEU:HD22	2.00	0.79
1:D:105:PHE:CE1	1:D:109:ASN:CG	2.56	0.79
3:Q:2:SER:HB2	3:Q:3:ILE:HG12	1.64	0.79
1:A:10:LEU:CD2	1:A:21:LEU:HG	2.13	0.79
1:C:256:LEU:O	1:C:257:LEU:HD12	1.83	0.79
1:C:73:ARG:NH1	1:C:76:LEU:HD13	1.97	0.79
3:F:132:LEU:HD21	3:F:137:VAL:HG21	0.79	0.79
1:A:10:LEU:HD11	1:A:21:LEU:C	2.03	0.79
2:M:100:LEU:HD23	3:Q:3:ILE:HG21	1.62	0.79
1:A:103:VAL:O	1:A:107:PRO:HD2	1.83	0.79
1:A:259:PRO:HD2	1:A:265:LYS:HE2	1.64	0.79
1:A:24:LEU:O	1:A:24:LEU:HD23	1.83	0.78
1:D:256:LEU:O	1:D:256:LEU:HD12	1.83	0.78
1:D:63:LEU:HD11	1:D:68:ALA:HB2	1.65	0.78
3:F:11:ALA:HB1	3:F:16:ARG:CZ	2.12	0.78
2:M:153:TYR:OH	2:M:179:GLY:O	2.00	0.78
2:M:179:GLY:O	2:M:183:ALA:HB2	1.82	0.78
3:Q:160:ALA:O	3:Q:164:THR:OG1	1.99	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:69:ALA:O	3:Q:72:PRO:HD2	1.83	0.78
1:A:230:ASP:OD1	1:A:233:THR:OG1	1.95	0.78
1:A:52:ASN:OD1	1:A:54:THR:OG1	2.01	0.78
1:A:64:LEU:HD12	1:A:67:THR:H	1.46	0.78
1:B:11:THR:HB	1:B:59:SER:O	1.83	0.78
3:F:167:ARG:HG2	3:F:172:HIS:CG	2.18	0.78
2:E:42:ARG:CZ	3:F:211:GLY:O	2.32	0.78
3:F:50:ILE:HG23	3:F:51:LEU:HD23	1.63	0.78
1:A:16:GLY:N	1:A:17:GLY:HA2	1.98	0.78
1:B:247:LEU:HD11	1:B:249:LEU:HD23	0.80	0.78
1:B:50:HIS:ND1	1:B:57:PRO:CD	2.42	0.78
1:B:221:GLU:O	1:B:221:GLU:HG2	1.84	0.78
1:B:234:LEU:HD23	1:B:239:LEU:CB	2.14	0.78
1:A:269:ALA:CB	1:A:270:LEU:HB2	2.14	0.78
1:D:129:SER:O	1:D:129:SER:OG	1.96	0.78
1:A:14:PHE:HE2	3:Q:8:ARG:HD2	1.46	0.78
1:A:259:PRO:HG2	1:A:265:LYS:NZ	1.98	0.78
1:A:99:VAL:HG23	1:A:135:ASP:CA	2.14	0.78
1:C:263:LEU:CD1	1:C:264:PRO:HD2	2.14	0.78
1:A:62:VAL:HG12	1:A:63:LEU:H	1.49	0.78
1:D:13:ALA:CB	1:D:19:LYS:HA	2.13	0.78
3:Q:22:GLU:CG	3:Q:222:ALA:HB1	2.15	0.78
3:Q:21:ALA:HB3	3:Q:222:ALA:HB3	1.66	0.78
1:A:62:VAL:O	1:A:63:LEU:CB	2.32	0.77
3:Q:163:THR:CB	3:Q:167:ARG:HH12	1.97	0.77
3:Q:62:LEU:HA	3:Q:63:ARG:HB2	1.65	0.77
1:A:122:GLU:HG3	1:A:123:GLU:H	1.46	0.77
1:A:147:ARG:HH12	1:A:168:THR:N	1.82	0.77
1:A:179:LEU:HD12	1:A:179:LEU:O	1.84	0.77
3:Q:62:LEU:HB3	3:Q:64:PHE:CB	2.15	0.77
1:A:135:ASP:HA	1:A:136:ARG:C	2.05	0.77
1:A:147:ARG:NH1	1:A:167:PRO:C	2.37	0.77
3:F:76:LEU:O	3:F:80:ALA:N	2.12	0.77
1:C:124:ALA:O	1:C:127:ALA:N	2.18	0.77
3:Q:86:GLN:HG3	3:Q:87:ILE:CG1	2.14	0.77
3:F:84:LEU:HD23	3:F:94:LEU:HD23	0.78	0.77
1:B:247:LEU:HD13	1:B:249:LEU:HD22	1.66	0.77
3:Q:65:TRP:HE3	3:Q:117:LEU:HD13	1.49	0.77
1:A:144:GLY:O	1:A:146:LYS:N	2.18	0.77
3:F:42:GLY:O	3:F:45:LEU:CD1	2.33	0.77
1:B:18:VAL:HG22	1:B:19:LYS:N	1.98	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:65:GLY:O	2:E:66:SER:O	2.03	0.77
1:C:56:ARG:HB3	1:C:71:HIS:CD2	2.19	0.77
1:D:240:ARG:HG2	1:D:241:PRO:HD2	1.67	0.77
1:B:87:LEU:H	1:B:93:GLN:NE2	1.84	0.76
1:C:120:ARG:NH1	1:C:158:ARG:HD2	1.99	0.76
3:F:52:ALA:O	3:F:56:LEU:HD13	1.84	0.76
3:Q:174:THR:CG2	3:Q:177:ARG:HD2	2.13	0.76
1:B:12:TYR:C	1:B:20:ALA:HB3	2.06	0.76
1:C:124:ALA:O	1:C:126:ALA:N	2.18	0.76
3:F:22:GLU:HG3	3:F:222:ALA:CB	2.15	0.76
3:F:84:LEU:HD21	3:F:94:LEU:HD21	1.65	0.76
1:A:109:ASN:HD22	3:Q:177:ARG:HH11	1.26	0.76
1:D:96:ALA:HB3	1:D:102:ASP:CA	2.12	0.76
3:Q:54:THR:HG22	3:Q:55:PHE:CD1	2.20	0.76
1:B:118:ARG:HH11	1:B:118:ARG:CB	1.96	0.76
1:B:30:LYS:NZ	1:B:190:GLY:O	2.19	0.76
2:M:172:LEU:HD13	2:M:173:GLY:N	2.01	0.76
2:M:53:PHE:HB2	2:M:92:VAL:HG13	1.67	0.76
3:Q:90:GLU:O	3:Q:92:ILE:N	2.18	0.76
1:A:107:PRO:O	1:A:110:LEU:HB3	1.86	0.76
1:C:252:ARG:HG3	1:C:257:LEU:CB	2.11	0.76
1:D:233:THR:O	1:D:236:LYS:HB2	1.86	0.76
3:Q:167:ARG:HH11	3:Q:167:ARG:HG3	1.51	0.76
3:Q:22:GLU:CD	3:Q:222:ALA:HB1	2.06	0.76
1:A:269:ALA:HB1	1:A:270:LEU:CA	2.16	0.76
3:F:181:SER:O	3:F:185:VAL:HG23	1.86	0.76
2:M:100:LEU:HD23	3:Q:3:ILE:CG2	2.15	0.76
1:C:225:GLU:O	1:C:229:SER:OG	2.03	0.76
1:D:72:SER:H	1:D:73:ARG:HA	1.47	0.76
1:A:114:GLU:H	1:A:114:GLU:CD	1.86	0.75
1:A:147:ARG:NH2	1:A:169:ALA:HB3	2.01	0.75
1:A:52:ASN:ND2	1:A:85:LEU:HD22	2.01	0.75
1:D:13:ALA:HB2	1:D:19:LYS:CA	2.16	0.75
1:D:63:LEU:CD1	1:D:68:ALA:HB2	2.15	0.75
1:A:128:LEU:O	1:A:182:LEU:HD13	1.83	0.75
1:A:56:ARG:HD2	1:A:57:PRO:CD	2.15	0.75
1:D:209:ARG:NH2	1:D:221:GLU:OE2	2.18	0.75
1:B:209:ARG:NH1	1:B:221:GLU:OE2	2.20	0.75
2:E:73:THR:HG23	2:E:120:PRO:HD3	1.67	0.75
1:B:139:HIS:HD2	3:Q:153:PHE:HB3	1.51	0.75
3:Q:86:GLN:C	3:Q:87:ILE:HG13	2.06	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:76:LEU:N	1:B:76:LEU:HD22	2.02	0.75
3:F:11:ALA:HB2	3:F:16:ARG:NH1	2.01	0.75
1:D:244:VAL:CG2	1:D:261:ALA:O	2.34	0.75
1:B:80:ARG:HH11	1:B:80:ARG:HG2	1.52	0.75
1:A:14:PHE:CE2	3:Q:8:ARG:HD2	2.21	0.75
2:E:164:TYR:O	2:E:166:ASP:N	2.19	0.75
1:D:13:ALA:HB1	1:D:18:VAL:O	1.87	0.75
1:B:50:HIS:ND1	1:B:57:PRO:HD3	2.02	0.74
1:D:17:GLY:O	1:D:18:VAL:CG1	2.35	0.74
3:F:188:ALA:O	3:F:191:PRO:HG2	1.86	0.74
3:Q:30:PHE:CE1	3:Q:234:GLN:CG	2.47	0.74
1:D:71:HIS:NE2	1:D:73:ARG:CG	2.51	0.74
3:F:22:GLU:HG3	3:F:222:ALA:HB2	1.68	0.74
1:B:230:ASP:O	1:B:233:THR:OG1	2.04	0.74
1:C:130:ILE:HB	1:C:133:LEU:HD12	1.70	0.74
2:E:114:SER:HB2	2:E:152:THR:HB	1.69	0.74
3:Q:30:PHE:CD1	3:Q:234:GLN:HG2	2.20	0.74
1:A:8:GLU:CB	1:A:61:ARG:HB3	2.17	0.74
2:M:176:LEU:HD23	2:M:176:LEU:N	2.03	0.74
1:A:243:LEU:CD2	1:B:243:LEU:HG	2.17	0.74
1:C:265:LYS:O	1:C:266:THR:HG22	1.87	0.74
1:D:243:LEU:HD23	1:D:244:VAL:CA	2.16	0.74
3:Q:62:LEU:CA	3:Q:63:ARG:CB	2.65	0.74
1:A:24:LEU:CD1	1:A:218:VAL:CG2	2.29	0.74
1:C:15:PRO:HB3	3:F:5:SER:HA	1.70	0.74
1:A:134:ARG:CA	1:A:135:ASP:HB2	2.18	0.74
1:A:147:ARG:HH22	1:A:169:ALA:CB	2.01	0.74
1:A:96:ALA:O	1:A:138:THR:HG23	1.87	0.74
1:B:14:PHE:CE2	1:B:15:PRO:O	2.41	0.74
1:B:24:LEU:HD21	1:B:218:VAL:HG13	1.64	0.74
1:B:4:ILE:HG22	1:B:30:LYS:H	1.52	0.74
1:A:221:GLU:OE1	1:A:222:GLY:HA3	1.88	0.74
1:C:71:HIS:O	1:C:76:LEU:HD12	1.87	0.74
2:E:117:ILE:N	2:E:117:ILE:HD12	2.03	0.74
2:E:169:SER:HA	3:F:86:GLN:NE2	2.02	0.74
1:D:91:ASP:OD1	3:F:150:ARG:NH2	2.20	0.74
3:Q:170:LEU:HD13	3:Q:172:HIS:H	1.53	0.74
1:A:10:LEU:CD2	1:A:21:LEU:CG	2.50	0.73
1:B:1:MET:HG2	1:B:2:THR:H	1.53	0.73
1:D:243:LEU:CD2	1:D:244:VAL:N	2.50	0.73
1:D:76:LEU:O	1:D:80:ARG:CD	2.36	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:181:SER:O	3:Q:184:GLN:N	2.19	0.73
3:F:55:PHE:O	3:F:59:ARG:HA	1.88	0.73
3:F:132:LEU:HD22	3:F:137:VAL:HG21	1.66	0.73
3:F:85:ILE:HD13	3:F:92:ILE:HG12	1.68	0.73
3:F:85:ILE:HB	3:F:94:LEU:N	2.03	0.73
1:A:257:LEU:N	1:A:257:LEU:HD22	2.04	0.73
1:D:187:ARG:NH1	1:D:208:ASP:OD2	2.21	0.73
1:D:51:LEU:O	1:D:79:TRP:NE1	2.20	0.73
1:A:76:LEU:HD13	1:A:80:ARG:CG	2.18	0.73
3:Q:91:GLY:HA3	3:Q:92:ILE:CG2	2.12	0.73
1:A:242:PRO:O	1:A:245:ILE:CG2	2.36	0.73
1:A:255:GLY:CA	1:A:257:LEU:HD21	2.18	0.73
1:B:73:ARG:O	1:B:74:LYS:HG2	1.89	0.73
1:B:62:VAL:CG1	1:B:79:TRP:CH2	2.71	0.73
3:F:22:GLU:CG	3:F:222:ALA:HB2	2.17	0.73
1:A:249:LEU:CD2	1:A:249:LEU:H	1.95	0.73
1:C:92:ASP:OD1	3:F:192:ARG:NH1	2.17	0.73
3:F:166:GLN:C	3:F:168:ALA:O	2.26	0.73
1:A:110:LEU:HD12	1:A:111:GLY:N	2.02	0.73
1:B:73:ARG:C	1:B:74:LYS:HD3	2.09	0.73
3:F:85:ILE:CD1	3:F:92:ILE:HG23	2.12	0.73
3:F:209:TRP:HD1	3:F:210:GLN:C	1.91	0.73
1:A:139:HIS:CD2	1:A:146:LYS:CE	2.70	0.72
1:A:180:LEU:O	1:A:184:ARG:HG3	1.88	0.72
2:M:172:LEU:O	2:M:172:LEU:HD22	1.89	0.72
3:F:209:TRP:CD1	3:F:210:GLN:N	2.57	0.72
3:F:50:ILE:CG2	3:F:51:LEU:HD23	2.19	0.72
1:C:242:PRO:O	1:C:245:ILE:CG2	2.36	0.72
1:D:265:LYS:O	1:D:266:THR:OG1	2.06	0.72
1:A:128:LEU:O	1:A:182:LEU:HD11	1.85	0.72
1:A:260:GLU:N	1:A:260:GLU:OE2	2.21	0.72
1:D:237:VAL:HG23	1:D:239:LEU:HG	1.70	0.72
2:E:95:PHE:HB3	2:E:99:LEU:HD12	1.70	0.72
2:M:82:PRO:HG3	2:M:124:PHE:CZ	2.24	0.72
3:Q:19:PRO:CB	3:Q:222:ALA:HB2	2.19	0.72
3:Q:32:ALA:O	3:Q:36:THR:OG1	2.05	0.72
1:A:10:LEU:HD12	1:A:11:THR:CA	2.19	0.72
1:A:76:LEU:HB2	1:A:79:TRP:CB	2.19	0.72
3:F:173:ALA:O	3:F:174:THR:HG23	1.90	0.72
1:A:108:LEU:O	1:A:108:LEU:HD23	1.90	0.72
1:B:24:LEU:CG	1:B:218:VAL:HG12	1.90	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:64:LEU:CD2	1:B:64:LEU:H	2.02	0.72
1:D:243:LEU:CD2	1:D:244:VAL:HG22	2.20	0.72
2:M:176:LEU:HD23	2:M:176:LEU:H	1.54	0.72
3:Q:91:GLY:N	3:Q:92:ILE:HG12	2.05	0.72
1:A:98:THR:HA	1:A:137:PRO:HA	1.70	0.72
1:D:63:LEU:HD12	1:D:67:THR:C	2.10	0.72
1:B:147:ARG:NH1	1:B:166:GLU:O	2.22	0.72
1:B:10:LEU:CD1	1:B:21:LEU:HG	2.19	0.72
1:B:265:LYS:HD2	1:B:266:THR:C	2.09	0.72
1:D:71:HIS:NE2	1:D:73:ARG:HG3	2.05	0.72
1:A:14:PHE:H	1:A:18:VAL:HG23	1.53	0.72
1:C:4:ILE:HD11	1:C:160:GLU:OE1	1.89	0.72
1:C:263:LEU:HD13	1:C:264:PRO:N	2.03	0.72
3:F:237:ILE:HG22	3:F:238:LEU:N	2.03	0.72
1:B:12:TYR:HA	1:B:58:GLN:OE1	1.90	0.72
1:C:122:GLU:CD	1:C:134:ARG:NH1	2.25	0.71
1:D:72:SER:N	1:D:73:ARG:CA	2.51	0.71
2:M:62:SER:OG	2:M:188:PRO:CB	2.38	0.71
1:B:32:GLU:OE2	1:B:209:ARG:CG	2.36	0.71
1:B:70:GLY:O	1:B:75:ASP:CB	2.32	0.71
2:E:42:ARG:NH2	3:F:143:GLU:OE1	2.19	0.71
1:B:7:ALA:O	1:B:25:SER:CB	2.38	0.71
1:B:73:ARG:CA	1:B:76:LEU:HD11	2.19	0.71
3:F:41:PRO:HB2	3:F:44:VAL:CG2	2.19	0.71
3:Q:22:GLU:CD	3:Q:226:VAL:HG21	2.11	0.71
1:A:214:ARG:HG2	1:A:237:VAL:HG12	1.71	0.71
1:D:106:GLY:N	1:D:107:PRO:CD	2.51	0.71
3:Q:7:ASP:OD2	3:Q:149:TYR:OH	2.07	0.71
1:D:73:ARG:O	1:D:76:LEU:N	2.21	0.71
2:E:116:ALA:HB1	2:E:117:ILE:CA	2.15	0.71
1:B:247:LEU:HD12	1:B:249:LEU:CB	2.20	0.71
3:F:39:PRO:O	3:F:41:PRO:HA	1.89	0.71
2:M:60:ILE:HD12	3:Q:179:LEU:HD13	1.67	0.71
1:B:234:LEU:HD21	1:B:239:LEU:C	2.11	0.71
1:C:252:ARG:HB3	1:C:257:LEU:CD2	2.00	0.71
1:D:70:GLY:CA	1:D:75:ASP:OD2	2.38	0.71
1:C:15:PRO:O	3:F:8:ARG:HD3	1.91	0.71
1:B:14:PHE:CD2	1:B:15:PRO:O	2.44	0.71
3:F:191:PRO:O	3:F:194:LEU:N	2.24	0.71
2:M:199:ILE:O	2:M:202:ASP:HB3	1.91	0.71
1:A:139:HIS:HD2	1:A:146:LYS:HE2	1.55	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:52:ASN:HB3	1:A:163:LEU:HD12	1.73	0.70
1:A:112:LEU:CD1	1:A:116:GLU:CB	2.62	0.70
1:A:64:LEU:HD13	1:A:65:GLY:H	1.55	0.70
1:D:106:GLY:O	1:D:110:LEU:HG	1.91	0.70
2:E:111:ASN:N	2:E:111:ASN:HD22	1.89	0.70
3:F:242:VAL:CG1	3:F:243:LEU:HD22	2.14	0.70
3:Q:62:LEU:CB	3:Q:65:TRP:N	2.54	0.70
1:A:132:ASP:OD2	1:A:134:ARG:NE	2.24	0.70
1:A:143:GLY:O	1:A:146:LYS:HB2	1.91	0.70
1:A:249:LEU:HG	1:A:250:LEU:N	2.05	0.70
1:B:73:ARG:C	1:B:74:LYS:HZ2	1.90	0.70
1:D:105:PHE:CE1	1:D:109:ASN:ND2	2.58	0.70
1:C:61:ARG:NH2	1:C:63:LEU:CD1	2.36	0.70
1:C:263:LEU:HD13	1:C:264:PRO:CD	2.21	0.70
1:A:257:LEU:N	1:A:257:LEU:HD13	2.03	0.70
1:B:62:VAL:CG1	1:B:79:TRP:HZ2	2.02	0.70
3:Q:243:LEU:HD12	3:Q:243:LEU:O	1.90	0.70
1:A:13:ALA:HB1	1:A:19:LYS:N	2.05	0.70
1:C:17:GLY:C	1:C:18:VAL:HG22	2.12	0.70
1:C:90:ALA:O	1:C:92:ASP:N	2.25	0.70
3:F:22:GLU:CD	3:F:222:ALA:HB2	2.12	0.70
2:M:59:LYS:CG	2:M:69:HIS:HD2	2.04	0.70
1:A:256:LEU:O	1:A:256:LEU:HD22	1.92	0.70
3:F:85:ILE:HG21	3:F:92:ILE:C	2.12	0.70
1:D:76:LEU:O	1:D:80:ARG:NE	2.25	0.70
1:B:212:LEU:HB2	1:B:220:ALA:HB3	1.74	0.69
1:C:252:ARG:HE	1:C:257:LEU:HB3	1.57	0.69
2:E:40:GLU:OE1	3:F:198:ARG:NH1	2.19	0.69
3:F:51:LEU:HD21	3:F:114:CYS:SG	2.31	0.69
3:F:177:ARG:CB	3:F:180:ARG:HD2	2.21	0.69
3:F:42:GLY:HA2	3:F:45:LEU:HD13	1.74	0.69
3:Q:133:ARG:HH21	3:Q:134:ARG:NH1	1.90	0.69
1:C:243:LEU:HB2	1:D:243:LEU:HD11	1.74	0.69
1:D:71:HIS:CE1	1:D:73:ARG:HD2	2.26	0.69
2:M:129:LEU:O	2:M:133:ALA:N	2.25	0.69
3:Q:62:LEU:CB	3:Q:64:PHE:CB	2.70	0.69
1:A:147:ARG:NH2	1:A:169:ALA:O	2.26	0.69
1:A:24:LEU:HD11	1:A:218:VAL:HG23	0.70	0.69
1:B:114:GLU:OE2	1:B:118:ARG:NE	2.24	0.69
1:A:213:PHE:HE1	1:A:216:GLY:C	1.95	0.69
1:A:223:ALA:CB	1:A:226:ALA:HB2	2.22	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:62:VAL:HG21	1:A:79:TRP:HH2	1.56	0.69
1:C:73:ARG:NH1	1:C:76:LEU:CD1	2.56	0.69
2:E:104:GLY:C	2:E:107:THR:OG1	2.31	0.69
3:Q:90:GLU:C	3:Q:92:ILE:HG12	2.12	0.69
1:A:62:VAL:HG12	1:A:63:LEU:N	2.06	0.69
1:A:8:GLU:HG3	1:A:9:ALA:N	2.07	0.69
1:B:265:LYS:HB2	1:B:267:ARG:O	1.93	0.69
1:D:225:GLU:CD	1:D:225:GLU:H	1.94	0.69
1:B:234:LEU:HD23	1:B:239:LEU:HB2	1.74	0.69
2:M:82:PRO:CG	2:M:124:PHE:CZ	2.76	0.69
2:M:60:ILE:HD11	2:M:196:LEU:HD13	1.75	0.69
1:A:134:ARG:CA	1:A:135:ASP:O	2.37	0.69
1:B:87:LEU:H	1:B:93:GLN:HE22	1.40	0.69
1:C:173:LEU:HD13	1:C:176:THR:HG21	1.74	0.69
1:D:112:LEU:HD21	1:D:116:GLU:HB2	1.73	0.69
1:D:138:THR:HA	1:D:141:LEU:HD12	1.75	0.69
1:A:208:ASP:HA	1:A:224:ALA:HB1	1.70	0.69
1:B:76:LEU:H	1:B:76:LEU:HD22	1.57	0.69
1:C:263:LEU:HD13	1:C:264:PRO:HD2	1.75	0.69
1:D:71:HIS:CE1	1:D:73:ARG:NH2	2.58	0.69
1:B:12:TYR:HB3	1:B:21:LEU:HB3	1.73	0.68
1:C:231:ARG:CD	1:C:249:LEU:HD21	1.86	0.68
1:C:263:LEU:O	1:C:265:LYS:HG2	1.93	0.68
1:D:109:ASN:ND2	1:D:109:ASN:H	1.85	0.68
1:A:13:ALA:CB	1:A:19:LYS:H	2.06	0.68
1:C:90:ALA:C	1:C:92:ASP:H	1.96	0.68
3:F:131:GLY:O	3:F:134:ARG:CG	2.41	0.68
3:F:92:ILE:HG13	3:F:93:GLY:N	2.08	0.68
2:M:83:SER:O	2:M:86:ALA:N	2.25	0.68
1:B:63:LEU:HD22	1:B:63:LEU:H	1.59	0.68
3:Q:163:THR:CB	3:Q:167:ARG:HH22	1.98	0.68
1:A:15:PRO:HD3	1:A:18:VAL:CG2	2.24	0.68
1:A:255:GLY:O	1:A:257:LEU:HD11	1.63	0.68
1:A:64:LEU:HD11	1:A:67:THR:CB	2.24	0.68
2:M:193:GLU:HA	2:M:196:LEU:HB3	1.76	0.68
3:Q:58:ALA:O	3:Q:59:ARG:C	2.28	0.68
1:B:10:LEU:C	1:B:11:THR:OG1	2.31	0.68
3:Q:140:GLU:N	3:Q:140:GLU:OE1	2.19	0.68
1:A:128:LEU:O	1:A:182:LEU:HD12	1.91	0.68
1:A:139:HIS:NE2	1:A:146:LYS:NZ	2.39	0.68
1:A:246:ASP:O	1:A:249:LEU:CD1	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:177:GLU:OE2	1:B:240:ARG:NH2	2.26	0.68
1:C:15:PRO:O	3:F:8:ARG:CD	2.41	0.68
1:D:82:ARG:NH2	1:D:160:GLU:OE2	2.27	0.68
1:C:15:PRO:CB	3:F:5:SER:HA	2.24	0.68
3:F:85:ILE:HG21	3:F:92:ILE:O	1.94	0.68
3:Q:238:LEU:HD13	3:Q:239:ALA:CA	2.24	0.68
3:Q:66:ALA:HA	3:Q:69:ALA:CB	2.21	0.68
1:B:230:ASP:HB3	1:B:233:THR:OG1	1.93	0.68
1:C:172:ASP:HB2	1:C:175:GLY:H	1.58	0.68
1:C:243:LEU:O	1:C:246:ASP:N	2.27	0.68
3:F:212:GLU:O	3:F:213:MET:CB	2.42	0.68
3:Q:19:PRO:HA	3:Q:220:PRO:HD2	1.76	0.68
1:A:259:PRO:HD2	1:A:265:LYS:HE3	1.74	0.67
1:B:110:LEU:HD13	1:B:157:MET:SD	2.34	0.67
3:F:212:GLU:O	3:F:213:MET:CE	2.41	0.67
1:B:24:LEU:HD21	1:B:218:VAL:CG1	2.22	0.67
1:B:64:LEU:HD23	1:B:64:LEU:H	1.57	0.67
1:C:152:ALA:HA	1:C:155:VAL:HG22	1.76	0.67
1:A:76:LEU:CD1	1:A:80:ARG:HG2	2.21	0.67
1:B:11:THR:O	1:B:12:TYR:HB2	1.93	0.67
1:B:50:HIS:CE1	1:B:57:PRO:CA	2.77	0.67
1:D:128:LEU:HD13	1:D:152:ALA:HB2	1.77	0.67
2:E:108:LEU:C	2:E:108:LEU:HD23	2.15	0.67
2:E:133:ALA:O	2:E:135:ALA:N	2.26	0.67
3:F:85:ILE:HB	3:F:94:LEU:H	1.58	0.67
2:M:177:LYS:O	2:M:180:SER:N	2.18	0.67
1:B:118:ARG:HB3	1:B:118:ARG:NH1	2.05	0.67
1:B:26:LEU:HD12	1:B:27:ALA:H	1.56	0.67
1:C:249:LEU:C	1:C:249:LEU:HD12	2.15	0.67
1:A:37:LEU:HD11	1:A:200:VAL:HG12	1.75	0.67
1:A:93:GLN:HE21	1:A:150:ALA:HB1	1.59	0.67
1:B:204:ALA:O	1:B:261:ALA:HB3	1.95	0.67
1:C:88:GLN:O	1:C:89:ASP:HB2	1.94	0.67
1:D:256:LEU:C	1:D:256:LEU:HD12	2.14	0.67
3:F:131:GLY:O	3:F:134:ARG:HG3	1.95	0.67
3:F:177:ARG:O	3:F:180:ARG:HB2	1.94	0.67
1:C:71:HIS:O	1:C:76:LEU:CD1	2.43	0.67
2:E:35:VAL:HG12	2:E:41:ALA:HB3	1.76	0.67
2:E:169:SER:HA	3:F:86:GLN:HE21	1.58	0.67
2:E:177:LYS:HZ2	3:F:86:GLN:HG2	1.60	0.67
2:E:177:LYS:NZ	3:F:86:GLN:HG2	2.10	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:87:ILE:O	3:F:91:GLY:HA2	1.94	0.67
1:A:114:GLU:CG	1:C:2:THR:CG2	2.59	0.67
1:A:10:LEU:HD12	1:A:11:THR:HA	1.77	0.67
1:A:139:HIS:CD2	1:A:146:LYS:HZ1	2.09	0.67
1:B:10:LEU:O	1:B:60:GLY:CA	2.42	0.67
3:Q:54:THR:HG22	3:Q:55:PHE:HD1	1.59	0.67
1:B:234:LEU:C	1:B:234:LEU:HD22	2.16	0.67
1:C:243:LEU:CD2	1:D:243:LEU:HD11	2.25	0.67
1:C:266:THR:C	1:C:267:ARG:HG2	2.14	0.67
2:E:177:LYS:NZ	3:F:86:GLN:CG	2.57	0.67
1:A:8:GLU:O	1:A:9:ALA:C	2.34	0.67
3:Q:37:VAL:HG11	3:Q:42:GLY:HA3	1.75	0.67
1:A:173:LEU:C	1:A:177:GLU:OE1	2.33	0.66
1:B:227:VAL:O	1:B:229:SER:N	2.28	0.66
1:B:8:GLU:C	1:B:25:SER:HB3	2.16	0.66
3:Q:61:PRO:C	3:Q:63:ARG:HB2	2.13	0.66
1:B:74:LYS:H	1:B:76:LEU:HD21	1.59	0.66
2:E:166:ASP:CB	2:E:167:PRO:HD3	2.25	0.66
2:E:169:SER:OG	2:E:170:GLY:O	2.13	0.66
2:M:82:PRO:O	2:M:85:MET:HB2	1.96	0.66
3:Q:162:MET:HE1	3:Q:192:ARG:NH2	2.09	0.66
1:B:73:ARG:H	1:B:74:LYS:HZ1	1.43	0.66
1:C:263:LEU:HD13	1:C:263:LEU:C	2.15	0.66
3:Q:233:LEU:HD23	3:Q:233:LEU:C	2.15	0.66
3:Q:85:ILE:HB	3:Q:86:GLN:CB	2.20	0.66
3:Q:238:LEU:O	3:Q:240:ALA:N	2.29	0.66
3:Q:238:LEU:O	3:Q:239:ALA:C	2.33	0.66
2:M:82:PRO:CG	2:M:124:PHE:CE2	2.79	0.66
1:B:63:LEU:HD13	1:B:63:LEU:N	2.10	0.66
1:C:252:ARG:HG3	1:C:257:LEU:CA	2.26	0.66
3:F:11:ALA:HB1	3:F:16:ARG:HH22	1.58	0.66
3:Q:243:LEU:HD12	3:Q:243:LEU:C	2.15	0.66
1:A:215:THR:HG22	1:A:216:GLY:H	1.61	0.66
1:C:252:ARG:CG	1:C:257:LEU:CA	2.74	0.66
1:A:242:PRO:O	1:A:245:ILE:HG22	1.96	0.66
1:A:267:ARG:HG2	1:A:268:ASP:H	1.60	0.66
1:B:73:ARG:H	1:B:74:LYS:NZ	1.93	0.66
1:B:90:ALA:O	1:B:94:LEU:HG	1.95	0.66
1:B:9:ALA:HB3	1:B:10:LEU:O	1.95	0.66
1:D:240:ARG:CG	1:D:241:PRO:HD2	2.25	0.66
3:F:139:ALA:O	3:F:142:ILE:HD11	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:95:ALA:C	3:F:97:ASP:H	2.00	0.66
2:M:172:LEU:C	2:M:172:LEU:HD22	2.16	0.66
3:Q:227:LEU:HD12	3:Q:227:LEU:C	2.16	0.66
1:A:246:ASP:O	1:A:249:LEU:HD11	1.94	0.66
1:C:48:LEU:HD22	1:C:163:LEU:HB3	1.78	0.66
1:C:73:ARG:NH2	1:C:80:ARG:CZ	2.55	0.66
1:C:72:SER:OG	1:C:74:LYS:CE	2.44	0.66
2:E:61:PRO:CG	3:F:178:TRP:CZ3	2.79	0.66
3:F:201:GLU:CG	3:F:210:GLN:OE1	2.44	0.66
3:Q:87:ILE:HG22	3:Q:88:GLY:N	2.10	0.66
1:C:12:TYR:OH	1:C:14:PHE:CD1	2.44	0.65
1:D:264:PRO:O	1:D:265:LYS:HB2	1.96	0.65
3:F:41:PRO:HB2	3:F:44:VAL:HG23	1.77	0.65
1:A:99:VAL:CG2	1:A:135:ASP:CA	2.73	0.65
1:B:50:HIS:CE1	1:B:57:PRO:CB	2.77	0.65
1:B:80:ARG:NH1	1:B:80:ARG:HG2	2.11	0.65
1:C:120:ARG:HH12	1:C:158:ARG:CD	2.02	0.65
1:C:14:PHE:CD2	1:C:15:PRO:HD2	2.32	0.65
1:C:47:LEU:HD22	1:C:213:PHE:HZ	1.61	0.65
1:C:242:PRO:O	1:C:245:ILE:HG22	1.96	0.65
1:A:114:GLU:HG2	1:C:2:THR:HG21	1.73	0.65
3:Q:62:LEU:HB2	3:Q:65:TRP:H	1.56	0.65
1:B:18:VAL:CG2	1:B:19:LYS:N	2.58	0.65
1:D:38:GLY:O	1:D:44:LYS:NZ	2.25	0.65
1:A:107:PRO:O	1:A:112:LEU:HB2	1.96	0.65
1:A:145:GLN:NE2	1:A:145:GLN:HA	2.11	0.65
1:A:63:LEU:HD22	1:A:67:THR:C	2.16	0.65
1:A:88:GLN:N	1:A:165:ASP:OD1	2.30	0.65
1:B:32:GLU:CG	1:B:33:SER:N	2.44	0.65
3:Q:167:ARG:C	3:Q:168:ALA:O	2.26	0.65
3:F:85:ILE:CB	3:F:92:ILE:HG23	2.24	0.65
1:A:8:GLU:O	1:A:10:LEU:N	2.29	0.65
1:B:263:LEU:HD23	1:B:263:LEU:O	1.96	0.65
2:E:41:ALA:C	2:E:45:LEU:HD12	2.16	0.65
3:F:47:THR:O	3:F:50:ILE:CG2	2.42	0.65
3:Q:51:LEU:HD21	3:Q:114:CYS:SG	2.37	0.65
3:Q:65:TRP:O	3:Q:68:VAL:HG23	1.97	0.65
1:A:147:ARG:HH22	1:A:169:ALA:CA	2.10	0.65
1:B:10:LEU:O	1:B:60:GLY:HA3	1.96	0.65
1:C:13:ALA:HB1	1:C:18:VAL:O	1.96	0.65
3:F:223:SER:O	3:F:225:ARG:N	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:42:GLY:CA	3:F:45:LEU:CD1	2.75	0.65
3:Q:23:LYS:NZ	3:Q:122:THR:O	2.29	0.65
1:C:251:ALA:O	1:C:254:HIS:C	2.34	0.64
3:Q:168:ALA:C	3:Q:170:LEU:N	2.43	0.64
3:Q:19:PRO:CG	3:Q:220:PRO:HG2	2.27	0.64
1:A:231:ARG:HH11	1:A:231:ARG:HB3	1.62	0.64
1:A:99:VAL:HG22	1:A:136:ARG:C	2.16	0.64
1:B:263:LEU:C	1:B:263:LEU:HD23	2.17	0.64
2:M:78:VAL:HG11	2:M:141:VAL:HG22	1.78	0.64
1:A:99:VAL:HG23	1:A:135:ASP:N	2.12	0.64
1:B:9:ALA:HB1	1:B:11:THR:OG1	1.96	0.64
1:B:223:ALA:O	1:B:227:VAL:HG23	1.97	0.64
1:B:50:HIS:CD2	1:B:57:PRO:HG3	2.33	0.64
2:M:177:LYS:N	2:M:177:LYS:HD3	2.13	0.64
1:A:147:ARG:NH1	1:A:168:THR:N	2.44	0.64
1:D:106:GLY:N	1:D:107:PRO:HD2	2.11	0.64
1:A:62:VAL:HG21	1:A:79:TRP:CH2	2.32	0.64
1:A:63:LEU:HD23	1:A:68:ALA:HA	1.78	0.64
1:A:87:LEU:HD23	1:A:88:GLN:HG2	1.79	0.64
1:C:246:ASP:O	1:C:250:LEU:HD23	1.97	0.64
1:D:71:HIS:CE1	1:D:73:ARG:CD	2.80	0.64
1:D:73:ARG:H	1:D:74:LYS:NZ	1.95	0.64
3:F:85:ILE:CD1	3:F:95:ALA:HA	2.15	0.64
1:A:105:PHE:O	1:A:109:ASN:HB2	1.98	0.64
1:A:10:LEU:O	1:A:23:ASP:HA	1.98	0.64
1:B:1:MET:HG2	1:B:2:THR:N	2.11	0.64
1:C:74:LYS:HG3	1:C:75:ASP:HB2	1.78	0.64
3:Q:2:SER:HB2	3:Q:3:ILE:CG1	2.25	0.64
3:Q:73:LEU:O	3:Q:77:THR:HG23	1.97	0.64
1:C:73:ARG:HG2	3:F:173:ALA:O	1.97	0.64
1:D:95:PHE:CE2	3:F:213:MET:HB2	2.27	0.64
2:M:55:LEU:HD11	2:M:75:LEU:HD23	1.78	0.64
3:Q:106:VAL:O	3:Q:110:THR:HG23	1.97	0.64
3:Q:166:GLN:O	3:Q:171:GLY:N	2.29	0.64
1:A:14:PHE:HB3	1:A:18:VAL:HG22	1.76	0.64
1:A:243:LEU:HD21	1:B:243:LEU:HG	1.80	0.64
1:A:56:ARG:C	1:A:56:ARG:HD2	2.18	0.64
1:C:242:PRO:O	1:C:245:ILE:HG23	1.98	0.64
2:E:43:MET:CG	3:F:200:LEU:HD23	2.28	0.64
3:F:22:GLU:CD	3:F:222:ALA:CB	2.66	0.64
2:M:40:GLU:HA	3:Q:210:GLN:HE22	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:242:PRO:O	1:A:245:ILE:HG23	1.98	0.64
1:A:76:LEU:C	1:A:78:GLY:N	2.51	0.64
1:A:76:LEU:HD12	1:A:77:THR:N	2.13	0.64
1:B:62:VAL:HG13	1:B:79:TRP:CZ2	2.30	0.64
1:B:96:ALA:CB	1:B:102:ASP:CG	2.65	0.64
3:F:84:LEU:HD23	3:F:94:LEU:HA	1.79	0.64
1:A:108:LEU:O	1:A:110:LEU:O	2.16	0.63
1:A:122:GLU:HG3	1:A:123:GLU:HG3	1.80	0.63
1:A:246:ASP:OD1	1:A:250:LEU:HD11	1.97	0.63
3:F:140:GLU:O	3:F:144:ILE:HG13	1.98	0.63
2:M:61:PRO:HD2	3:Q:179:LEU:CD1	2.26	0.63
1:A:97:THR:C	1:A:138:THR:HG1	1.97	0.63
1:A:95:PHE:CE2	3:Q:166:GLN:CG	2.82	0.63
1:A:128:LEU:HD13	1:A:182:LEU:HD12	1.81	0.63
1:A:242:PRO:O	1:A:243:LEU:O	2.16	0.63
1:A:76:LEU:CD1	1:A:80:ARG:CG	2.76	0.63
1:C:13:ALA:O	1:C:14:PHE:CB	2.35	0.63
1:D:103:VAL:HG13	1:D:153:GLY:HA2	1.81	0.63
2:M:100:LEU:CD2	3:Q:3:ILE:CG2	2.72	0.63
1:A:109:ASN:HD21	3:Q:177:ARG:HH11	1.43	0.63
1:A:243:LEU:HD23	1:B:243:LEU:HG	1.79	0.63
1:B:122:GLU:CD	1:B:134:ARG:HH12	1.98	0.63
1:B:11:THR:OG1	1:B:59:SER:O	2.15	0.63
1:C:210:VAL:HG23	1:C:224:ALA:HA	1.80	0.63
1:A:10:LEU:HD12	1:A:11:THR:N	2.14	0.63
1:A:152:ALA:O	1:A:155:VAL:CG2	2.47	0.63
1:D:13:ALA:CB	1:D:18:VAL:O	2.45	0.63
1:D:139:HIS:HD2	3:F:153:PHE:CG	2.16	0.63
3:Q:174:THR:OG1	3:Q:177:ARG:CB	2.47	0.63
3:Q:201:GLU:CG	3:Q:210:GLN:HG3	2.19	0.63
1:A:99:VAL:HG21	1:A:135:ASP:O	1.99	0.63
1:C:73:ARG:N	1:C:73:ARG:HD2	2.12	0.63
1:D:70:GLY:O	1:D:71:HIS:HB2	1.98	0.63
3:F:56:LEU:HD12	3:F:56:LEU:N	2.13	0.63
1:A:267:ARG:HG2	1:A:268:ASP:N	2.13	0.63
1:D:13:ALA:CA	1:D:19:LYS:HA	2.29	0.63
1:D:230:ASP:OD2	1:D:233:THR:OG1	2.15	0.63
2:M:177:LYS:O	2:M:178:PHE:C	2.36	0.63
1:C:72:SER:OG	1:C:74:LYS:HE3	1.99	0.63
3:Q:163:THR:HG22	3:Q:167:ARG:NH1	2.11	0.63
1:B:264:PRO:O	1:B:265:LYS:HB3	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:214:ARG:CG	1:A:237:VAL:HG12	2.29	0.62
1:A:76:LEU:C	1:A:79:TRP:H	1.98	0.62
3:F:176:ARG:O	3:F:178:TRP:N	2.31	0.62
3:Q:62:LEU:HB3	3:Q:64:PHE:HB2	1.80	0.62
1:A:209:ARG:HG3	1:A:209:ARG:HH11	1.63	0.62
1:A:99:VAL:CG2	1:A:136:ARG:N	2.61	0.62
1:A:244:VAL:CG1	1:A:245:ILE:N	2.61	0.62
1:D:97:THR:HG21	3:F:126:ALA:CB	2.29	0.62
2:M:74:GLY:HA3	2:M:145:ALA:HB2	1.81	0.62
2:M:58:LEU:O	2:M:70:PRO:HD2	1.98	0.62
1:A:134:ARG:HA	1:A:135:ASP:C	2.13	0.62
1:A:76:LEU:CD1	1:A:76:LEU:C	2.62	0.62
1:D:71:HIS:CG	1:D:72:SER:H	2.18	0.62
3:F:87:ILE:HG22	3:F:89:PRO:HA	1.80	0.62
1:A:52:ASN:HD21	1:A:85:LEU:HD22	1.64	0.62
2:E:61:PRO:CD	3:F:178:TRP:CE3	2.72	0.62
2:M:172:LEU:O	2:M:175:ALA:HB3	1.98	0.62
1:A:97:THR:C	1:A:138:THR:OG1	2.38	0.62
1:A:56:ARG:CD	1:A:57:PRO:N	2.51	0.62
1:B:52:ASN:OD1	1:B:53:GLY:N	2.32	0.62
1:D:71:HIS:N	1:D:75:ASP:HB2	2.14	0.62
3:Q:33:LEU:O	3:Q:36:THR:OG1	2.17	0.62
1:A:259:PRO:CD	1:A:265:LYS:HE2	2.30	0.62
3:Q:240:ALA:O	3:Q:243:LEU:HD23	2.00	0.62
1:B:244:VAL:CG2	1:B:245:ILE:N	2.33	0.62
1:C:249:LEU:HG	1:C:250:LEU:HD22	1.82	0.62
1:C:54:THR:HG21	3:F:164:THR:HG23	1.81	0.62
1:D:16:GLY:H	1:D:18:VAL:HG12	1.65	0.62
2:E:33:LYS:HD2	2:E:33:LYS:H	1.63	0.61
1:C:252:ARG:HG3	1:C:257:LEU:HA	1.82	0.61
1:D:13:ALA:HB2	1:D:19:LYS:HB3	1.81	0.61
2:E:182:PHE:CE1	3:F:78:THR:HG21	2.36	0.61
1:A:259:PRO:C	1:A:265:LYS:HE2	2.12	0.61
3:F:84:LEU:HD21	3:F:94:LEU:CG	2.30	0.61
3:Q:159:ALA:O	3:Q:163:THR:OG1	2.18	0.61
1:B:11:THR:O	1:B:57:PRO:HB3	2.00	0.61
1:C:120:ARG:HG2	1:C:120:ARG:NH1	2.08	0.61
2:M:30:LYS:HA	2:M:33:LYS:HG2	1.82	0.61
1:A:134:ARG:HG2	1:A:134:ARG:O	1.99	0.61
1:B:72:SER:O	1:B:73:ARG:HD2	2.01	0.61
3:F:125:ALA:O	3:F:128:LEU:N	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:164:TYR:C	2:M:165:PRO:O	2.38	0.61
1:A:269:ALA:HB1	1:A:270:LEU:HA	1.81	0.61
1:C:214:ARG:CG	1:C:215:THR:H	2.13	0.61
1:A:135:ASP:HA	1:A:136:ARG:O	2.01	0.61
1:B:10:LEU:O	1:B:59:SER:C	2.36	0.61
1:B:73:ARG:C	1:B:74:LYS:CD	2.69	0.61
2:M:171:PHE:O	2:M:173:GLY:N	2.34	0.61
3:Q:22:GLU:CG	3:Q:222:ALA:CB	2.79	0.61
1:A:214:ARG:O	1:A:217:ARG:N	2.22	0.61
1:B:9:ALA:CB	1:B:10:LEU:HA	2.05	0.61
2:E:162:LEU:HD13	2:E:171:PHE:CD1	2.36	0.61
3:F:97:ASP:HB2	3:F:98:GLY:HA2	1.82	0.61
3:Q:238:LEU:HD12	3:Q:239:ALA:N	1.95	0.61
3:Q:86:GLN:CG	3:Q:87:ILE:HG13	2.27	0.61
1:B:213:PHE:HB3	1:B:218:VAL:HA	1.83	0.61
1:A:147:ARG:HH11	1:A:167:PRO:C	2.02	0.60
1:C:72:SER:O	1:C:76:LEU:CB	2.48	0.60
1:D:243:LEU:HD22	1:D:244:VAL:HG22	1.82	0.60
1:D:70:GLY:N	1:D:75:ASP:OD2	2.34	0.60
3:F:155:LEU:HD23	3:F:189:LEU:HD11	1.81	0.60
3:F:32:ALA:O	3:F:36:THR:OG1	2.19	0.60
3:F:85:ILE:CD1	3:F:92:ILE:HG12	2.31	0.60
1:A:259:PRO:CD	1:A:265:LYS:CE	2.76	0.60
1:B:107:PRO:HA	1:B:110:LEU:HB3	1.82	0.60
3:F:85:ILE:HD12	3:F:95:ALA:N	2.15	0.60
1:A:244:VAL:HG13	1:A:245:ILE:H	1.62	0.60
1:A:8:GLU:HG3	1:A:9:ALA:H	1.65	0.60
1:C:64:LEU:N	1:C:67:THR:O	2.34	0.60
1:D:13:ALA:HA	1:D:18:VAL:O	2.01	0.60
2:M:183:ALA:O	2:M:187:ILE:HD12	2.00	0.60
1:A:259:PRO:HG2	1:A:265:LYS:HZ1	1.65	0.60
1:C:14:PHE:CG	1:C:15:PRO:HD3	2.36	0.60
3:F:215:VAL:O	3:F:216:LEU:HD23	2.02	0.60
3:F:237:ILE:O	3:F:239:ALA:N	2.35	0.60
1:B:24:LEU:CD2	1:B:217:ARG:C	2.44	0.60
1:D:17:GLY:C	1:D:18:VAL:HG12	2.22	0.60
2:M:173:GLY:O	2:M:177:LYS:HG2	2.02	0.60
3:Q:14:HIS:HD1	3:Q:15:TRP:HD1	1.50	0.60
1:A:147:ARG:HH22	1:A:169:ALA:N	2.00	0.60
1:B:18:VAL:CG2	1:B:19:LYS:H	2.14	0.60
1:B:86:VAL:HA	1:B:93:GLN:HE22	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:73:LEU:HA	3:F:76:LEU:HG	1.83	0.60
1:A:144:GLY:O	1:A:145:GLN:C	2.40	0.60
1:A:56:ARG:CD	1:A:57:PRO:CD	2.80	0.60
1:B:50:HIS:HE1	1:B:56:ARG:C	2.05	0.60
2:E:39:PRO:HB2	3:F:211:GLY:HA2	1.83	0.60
2:M:61:PRO:CG	3:Q:179:LEU:HB2	2.32	0.60
3:Q:22:GLU:CD	3:Q:226:VAL:CG2	2.70	0.60
1:A:107:PRO:HG3	1:A:156:ALA:O	2.02	0.60
1:B:231:ARG:O	1:B:234:LEU:HD12	2.02	0.60
1:C:26:LEU:HD12	1:C:27:ALA:H	1.67	0.60
1:A:132:ASP:OD1	1:A:134:ARG:NH1	2.35	0.59
1:A:46:THR:HA	1:A:49:LEU:HD12	1.83	0.59
1:C:249:LEU:CD1	1:C:250:LEU:HD22	2.32	0.59
2:E:43:MET:HG3	3:F:200:LEU:HD23	1.84	0.59
1:A:185:GLY:O	1:A:188:ALA:CB	2.48	0.59
1:A:201:GLU:OE2	1:A:205:ALA:HB2	2.02	0.59
1:B:234:LEU:HD23	1:B:239:LEU:HB3	1.84	0.59
1:B:204:ALA:HB1	1:B:261:ALA:CB	2.32	0.59
1:D:244:VAL:HG11	1:D:262:PRO:O	2.01	0.59
2:E:41:ALA:HB1	2:E:45:LEU:HD11	1.83	0.59
3:F:15:TRP:CZ2	3:F:57:GLY:CA	2.85	0.59
1:B:11:THR:N	1:B:22:ASP:O	2.33	0.59
1:B:61:ARG:HH21	1:B:71:HIS:HE1	1.47	0.59
1:A:168:THR:HG21	1:A:176:THR:HG23	1.85	0.59
1:A:265:LYS:O	1:A:265:LYS:HG2	2.01	0.59
1:C:199:ASP:HB3	1:C:202:LEU:HB3	1.83	0.59
3:Q:22:GLU:HG3	3:Q:222:ALA:CB	2.33	0.59
3:Q:223:SER:C	3:Q:225:ARG:H	2.06	0.59
3:Q:62:LEU:C	3:Q:64:PHE:H	2.03	0.59
2:E:116:ALA:HB2	2:E:120:PRO:HG2	1.84	0.59
1:C:14:PHE:CG	1:C:15:PRO:CD	2.86	0.59
1:C:14:PHE:CD2	1:C:15:PRO:CD	2.86	0.59
3:Q:162:MET:HE1	3:Q:192:ARG:HH22	1.67	0.59
3:Q:167:ARG:NH1	3:Q:167:ARG:HG3	2.17	0.59
1:B:74:LYS:N	1:B:76:LEU:HD21	2.16	0.59
3:F:11:ALA:HB2	3:F:16:ARG:CZ	2.33	0.59
3:F:71:LEU:HD13	3:F:74:GLY:HA3	1.85	0.59
3:Q:143:GLU:OE2	3:Q:212:GLU:O	2.20	0.59
3:Q:21:ALA:HB3	3:Q:222:ALA:CB	2.32	0.59
1:A:247:LEU:CA	1:A:250:LEU:HD12	2.27	0.59
2:E:61:PRO:HG3	3:F:178:TRP:CE3	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:201:GLU:HG3	3:F:210:GLN:OE1	2.03	0.59
1:B:227:VAL:O	1:B:228:LEU:C	2.41	0.59
1:D:13:ALA:HB1	1:D:18:VAL:C	2.24	0.59
2:E:169:SER:CA	3:F:86:GLN:HG3	2.33	0.59
2:E:39:PRO:HB2	3:F:211:GLY:CA	2.33	0.59
2:E:7:TYR:OH	3:F:79:GLY:HA3	2.02	0.59
1:A:108:LEU:C	1:A:108:LEU:HD23	2.23	0.58
1:A:132:ASP:HA	1:A:134:ARG:CB	2.31	0.58
1:A:168:THR:CG2	1:A:176:THR:HG23	2.32	0.58
1:A:261:ALA:O	1:A:263:LEU:O	2.21	0.58
2:E:117:ILE:HG22	2:E:117:ILE:O	2.03	0.58
1:A:252:ARG:HA	1:A:257:LEU:HB2	1.86	0.58
1:C:98:THR:HG22	1:C:100:PHE:H	1.67	0.58
1:D:79:TRP:HD1	1:D:79:TRP:O	1.85	0.58
3:F:77:THR:HA	3:F:80:ALA:HB3	1.84	0.58
2:M:71:THR:O	2:M:73:THR:N	2.36	0.58
3:Q:227:LEU:HG	3:Q:228:GLY:N	2.18	0.58
3:Q:82:VAL:HA	3:Q:85:ILE:CD1	2.29	0.58
1:A:96:ALA:HB1	1:A:101:GLU:HG2	1.86	0.58
1:A:10:LEU:HD21	1:A:22:ASP:N	2.17	0.58
1:A:214:ARG:O	1:A:215:THR:C	2.41	0.58
2:E:166:ASP:HB2	2:E:167:PRO:HD3	1.82	0.58
3:F:139:ALA:O	3:F:142:ILE:CG1	2.51	0.58
1:A:133:LEU:N	1:A:134:ARG:HB2	2.17	0.58
1:D:51:LEU:O	1:D:79:TRP:CZ2	2.57	0.58
1:B:234:LEU:HD21	1:B:239:LEU:O	2.03	0.58
3:Q:16:ARG:HD2	3:Q:122:THR:O	2.03	0.58
3:Q:54:THR:CG2	3:Q:55:PHE:CE1	2.85	0.58
1:C:73:ARG:CG	3:F:173:ALA:O	2.52	0.58
1:B:96:ALA:HB2	1:B:102:ASP:CG	2.24	0.58
1:B:69:THR:CB	1:B:75:ASP:OD2	2.48	0.58
1:D:13:ALA:CA	1:D:18:VAL:O	2.52	0.58
1:D:18:VAL:HG13	1:D:18:VAL:O	2.03	0.58
1:D:252:ARG:HB3	1:D:253:ASP:OD2	2.03	0.58
3:Q:19:PRO:CD	3:Q:220:PRO:HG2	2.33	0.58
1:A:174:ALA:HA	1:A:177:GLU:OE1	2.03	0.58
1:A:13:ALA:HB2	1:A:19:LYS:HA	1.85	0.58
1:C:265:LYS:O	1:C:266:THR:CG2	2.51	0.58
3:Q:238:LEU:C	3:Q:238:LEU:HD13	2.20	0.58
1:A:52:ASN:HD22	1:A:85:LEU:HB2	1.67	0.58
1:B:106:GLY:O	1:B:110:LEU:HB2	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:75:ASP:O	1:B:78:GLY:N	2.36	0.58
3:F:201:GLU:HB2	3:F:210:GLN:OE1	2.03	0.58
3:Q:65:TRP:CD1	3:Q:66:ALA:N	2.72	0.58
1:C:242:PRO:O	1:C:243:LEU:C	2.41	0.58
2:E:4:MET:CE	3:F:109:ALA:HB1	2.34	0.58
1:A:14:PHE:H	1:A:18:VAL:HG22	1.69	0.57
1:B:24:LEU:CG	1:B:218:VAL:N	2.64	0.57
3:Q:180:ARG:CG	3:Q:180:ARG:HH11	2.17	0.57
1:A:128:LEU:O	1:A:129:SER:HB3	2.03	0.57
1:A:252:ARG:CB	1:A:257:LEU:HB2	2.34	0.57
1:B:227:VAL:C	1:B:229:SER:N	2.56	0.57
1:D:71:HIS:CG	1:D:72:SER:N	2.72	0.57
3:F:142:ILE:HD12	3:F:143:GLU:HG3	1.85	0.57
3:F:139:ALA:O	3:F:143:GLU:HG3	2.04	0.57
1:B:111:GLY:O	1:B:112:LEU:HD12	2.04	0.57
1:D:52:ASN:OD1	1:D:52:ASN:C	2.42	0.57
2:E:169:SER:HB2	3:F:86:GLN:CG	2.14	0.57
1:A:51:LEU:O	1:A:79:TRP:CZ2	2.57	0.57
1:C:263:LEU:CG	1:C:264:PRO:HD2	2.34	0.57
1:C:75:ASP:O	1:C:79:TRP:N	2.28	0.57
3:Q:176:ARG:HG3	3:Q:176:ARG:HH11	1.69	0.57
3:Q:33:LEU:O	3:Q:37:VAL:N	2.28	0.57
1:A:131:SER:O	1:A:132:ASP:HB2	2.04	0.57
1:A:166:GLU:HB3	1:A:169:ALA:HB2	1.86	0.57
3:F:144:ILE:O	3:F:148:THR:OG1	2.13	0.57
1:D:94:LEU:O	3:F:150:ARG:NE	2.38	0.57
3:F:174:THR:C	3:F:176:ARG:H	2.08	0.57
3:F:209:TRP:CD1	3:F:210:GLN:C	2.73	0.57
2:M:177:LYS:NZ	3:Q:87:ILE:HG21	2.20	0.57
1:A:256:LEU:N	1:A:257:LEU:HD13	2.17	0.57
1:A:64:LEU:H	1:A:64:LEU:HD12	1.69	0.57
1:B:13:ALA:HA	1:B:20:ALA:N	2.19	0.57
1:B:95:PHE:CG	1:B:96:ALA:N	2.73	0.57
1:B:96:ALA:HB1	1:B:102:ASP:CG	2.24	0.57
1:D:166:GLU:OE1	1:D:198:HIS:ND1	2.36	0.57
1:D:85:LEU:HD12	1:D:86:VAL:H	1.70	0.57
3:F:131:GLY:O	3:F:134:ARG:HG2	2.05	0.57
1:B:101:GLU:O	3:Q:215:VAL:HG13	2.04	0.57
3:Q:40:PHE:CD2	3:Q:40:PHE:N	2.73	0.57
3:Q:60:VAL:HG13	3:Q:60:VAL:O	2.04	0.57
1:A:39:PRO:HG2	1:A:42:ALA:HB2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:260:GLU:O	1:D:260:GLU:HG2	2.05	0.57
3:Q:54:THR:HG22	3:Q:55:PHE:CE1	2.39	0.57
1:A:13:ALA:CB	1:A:19:LYS:HA	2.35	0.57
1:A:255:GLY:CA	1:A:257:LEU:CD2	2.83	0.57
1:B:225:GLU:O	1:B:226:ALA:HB3	2.05	0.57
1:B:245:ILE:HD12	1:B:245:ILE:O	2.05	0.57
2:E:52:ALA:O	2:E:55:LEU:HB3	2.04	0.57
3:F:195:THR:OG1	3:F:196:ARG:N	2.38	0.57
3:F:59:ARG:O	3:F:60:VAL:C	2.43	0.57
3:Q:86:GLN:O	3:Q:87:ILE:HG13	2.03	0.57
1:A:141:LEU:CD1	1:A:145:GLN:HB2	2.35	0.57
1:C:176:THR:O	1:C:180:LEU:HG	2.05	0.57
1:C:265:LYS:C	1:C:266:THR:CG2	2.74	0.57
2:E:177:LYS:O	2:E:181:VAL:HG23	2.05	0.57
3:Q:86:GLN:O	3:Q:87:ILE:HD12	2.04	0.57
2:M:177:LYS:H	2:M:177:LYS:HD3	1.70	0.56
1:A:134:ARG:H	1:A:135:ASP:HB2	1.63	0.56
1:A:199:ASP:O	1:A:202:LEU:HB3	2.04	0.56
1:B:227:VAL:C	1:B:229:SER:H	2.08	0.56
1:C:178:GLN:C	1:C:178:GLN:HE21	2.08	0.56
2:E:114:SER:HB3	2:E:156:THR:HG23	1.87	0.56
2:E:71:THR:O	2:E:193:GLU:OE2	2.23	0.56
3:Q:61:PRO:HG2	3:Q:62:LEU:H	1.70	0.56
1:A:98:THR:OG1	1:A:99:VAL:N	2.38	0.56
1:C:231:ARG:NH1	1:C:250:LEU:CD2	2.66	0.56
1:D:128:LEU:HA	1:D:182:LEU:HD22	1.86	0.56
1:D:14:PHE:CD2	1:D:15:PRO:N	2.73	0.56
3:F:6:ILE:HG12	3:F:64:PHE:HZ	1.70	0.56
3:Q:2:SER:C	3:Q:3:ILE:HG13	2.26	0.56
1:A:76:LEU:C	1:A:78:GLY:H	2.08	0.56
1:B:140:MET:SD	3:Q:8:ARG:HB2	2.45	0.56
1:C:256:LEU:HD23	1:C:258:ALA:H	1.70	0.56
1:C:256:LEU:HD23	1:C:258:ALA:CA	2.34	0.56
1:D:71:HIS:N	1:D:75:ASP:CG	2.58	0.56
2:E:29:LEU:HD12	2:E:33:LYS:NZ	2.20	0.56
3:F:212:GLU:C	3:F:213:MET:CG	2.48	0.56
2:M:178:PHE:CE1	3:Q:82:VAL:HG21	2.41	0.56
1:A:125:LEU:CD2	1:A:130:ILE:CD1	2.41	0.56
1:A:246:ASP:O	1:A:250:LEU:HD12	2.05	0.56
2:E:30:LYS:HA	2:E:33:LYS:CD	2.36	0.56
2:E:177:LYS:HZ2	3:F:86:GLN:CG	2.19	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:184:ARG:O	1:A:187:ARG:HB3	2.06	0.56
3:F:132:LEU:CD2	3:F:137:VAL:CB	2.83	0.56
1:A:15:PRO:HD2	1:A:18:VAL:H	1.69	0.56
1:B:26:LEU:HD12	1:B:26:LEU:C	2.26	0.56
1:C:11:THR:HA	1:C:21:LEU:O	2.04	0.56
1:B:6:ALA:HB3	1:B:63:LEU:HD21	1.88	0.56
1:B:69:THR:C	1:B:75:ASP:OD2	2.43	0.56
1:A:133:LEU:N	1:A:134:ARG:HA	2.21	0.56
1:B:164:LEU:HD23	1:B:167:PRO:HB3	1.88	0.56
1:B:244:VAL:HG22	1:B:245:ILE:HG13	1.88	0.56
1:C:5:LEU:HD21	1:C:51:LEU:HD22	1.88	0.56
1:D:13:ALA:HB2	1:D:19:LYS:CB	2.35	0.56
3:Q:44:VAL:O	3:Q:48:VAL:HG23	2.06	0.56
1:A:10:LEU:HD23	1:A:24:LEU:CB	2.30	0.56
1:A:56:ARG:HD3	1:A:57:PRO:HD2	1.87	0.56
1:A:64:LEU:HD12	1:A:67:THR:N	2.19	0.56
1:C:47:LEU:HD22	1:C:213:PHE:CZ	2.41	0.56
1:D:165:ASP:O	1:D:166:GLU:C	2.42	0.56
2:E:42:ARG:NH2	3:F:212:GLU:HA	2.21	0.56
2:E:53:PHE:HE2	3:F:3:ILE:HD12	1.69	0.56
3:F:55:PHE:O	3:F:59:ARG:N	2.35	0.56
1:A:76:LEU:HD12	1:A:76:LEU:O	2.06	0.55
1:B:82:ARG:CZ	1:B:160:GLU:OE2	2.48	0.55
1:C:42:ALA:O	1:C:213:PHE:HD2	1.88	0.55
1:D:12:TYR:O	1:D:20:ALA:N	2.38	0.55
3:F:172:HIS:NE2	3:F:178:TRP:CD1	2.74	0.55
2:M:176:LEU:O	2:M:180:SER:OG	2.23	0.55
3:Q:55:PHE:N	3:Q:55:PHE:CD1	2.72	0.55
1:A:246:ASP:HA	1:A:249:LEU:CD1	2.36	0.55
1:A:249:LEU:HD23	1:A:249:LEU:N	2.05	0.55
2:E:30:LYS:O	2:E:30:LYS:HG3	2.06	0.55
3:F:167:ARG:HG2	3:F:172:HIS:ND1	2.21	0.55
1:A:32:GLU:OE1	1:A:32:GLU:HA	2.05	0.55
1:C:128:LEU:HA	1:C:182:LEU:HD13	1.88	0.55
2:E:10:VAL:HG22	3:F:35:VAL:HG12	1.88	0.55
2:M:174:ALA:HA	2:M:177:LYS:HG2	1.87	0.55
3:Q:91:GLY:C	3:Q:92:ILE:HG23	2.25	0.55
1:A:96:ALA:CB	1:A:101:GLU:HG2	2.36	0.55
1:A:110:LEU:CD1	1:A:111:GLY:H	2.15	0.55
1:A:15:PRO:HD2	1:A:18:VAL:N	2.21	0.55
1:A:56:ARG:CD	1:A:57:PRO:HD2	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:96:ALA:HB3	1:A:101:GLU:HG3	1.89	0.55
3:F:85:ILE:CG2	3:F:92:ILE:HG23	2.35	0.55
2:M:180:SER:HA	2:M:183:ALA:CB	2.37	0.55
3:Q:86:GLN:O	3:Q:87:ILE:CG1	2.54	0.55
1:A:179:LEU:HD11	1:A:183:LEU:CD2	2.36	0.55
1:A:24:LEU:CD1	1:A:218:VAL:H	2.06	0.55
1:A:248:ALA:HA	1:A:251:ALA:HB3	1.88	0.55
1:A:64:LEU:HD13	1:A:65:GLY:N	2.22	0.55
3:F:50:ILE:HG23	3:F:51:LEU:HD22	1.86	0.55
3:Q:163:THR:HB	3:Q:167:ARG:CZ	2.35	0.55
1:A:10:LEU:HD23	1:A:24:LEU:H	1.72	0.55
1:A:141:LEU:HD12	1:A:145:GLN:HB2	1.89	0.55
1:A:270:LEU:O	1:A:270:LEU:HD23	2.06	0.55
1:B:128:LEU:HD22	1:B:148:ARG:O	2.06	0.55
1:D:134:ARG:HH21	3:F:218:THR:HG21	1.70	0.55
1:D:137:PRO:HD3	3:F:16:ARG:NH2	2.22	0.55
3:Q:208:ASN:C	3:Q:208:ASN:HD22	2.10	0.55
3:Q:233:LEU:HD23	3:Q:233:LEU:O	2.07	0.55
3:Q:87:ILE:CG2	3:Q:88:GLY:N	2.68	0.55
1:A:128:LEU:C	1:A:182:LEU:HD13	2.27	0.55
1:B:10:LEU:O	1:B:11:THR:CB	2.55	0.55
1:B:232:ALA:O	1:B:235:ALA:HB3	2.07	0.55
3:F:116:LEU:HD12	3:F:117:LEU:HD12	1.88	0.55
3:Q:135:TRP:CD1	3:Q:135:TRP:N	2.74	0.55
3:Q:238:LEU:CD1	3:Q:239:ALA:CA	2.81	0.55
3:Q:70:VAL:O	3:Q:73:LEU:N	2.39	0.55
1:C:17:GLY:O	1:C:19:LYS:N	2.36	0.55
1:D:237:VAL:O	1:D:238:ALA:HB3	2.06	0.55
1:D:260:GLU:H	1:D:260:GLU:CD	2.10	0.55
2:E:104:GLY:CA	2:E:107:THR:HG1	2.16	0.55
2:E:42:ARG:CZ	3:F:212:GLU:HA	2.37	0.55
1:B:120:ARG:NH2	1:B:158:ARG:NE	2.49	0.55
1:C:64:LEU:HD12	1:C:69:THR:HG22	1.89	0.55
1:D:51:LEU:O	1:D:79:TRP:CE2	2.60	0.55
3:F:223:SER:C	3:F:225:ARG:H	2.10	0.55
1:A:86:VAL:HB	1:A:164:LEU:HB3	1.88	0.55
1:A:76:LEU:O	1:A:79:TRP:CA	2.54	0.55
1:B:10:LEU:CD2	1:B:21:LEU:HD21	2.37	0.55
1:D:197:THR:OG1	1:D:198:HIS:N	2.40	0.55
3:F:40:PHE:N	3:F:41:PRO:HA	2.15	0.55
3:F:42:GLY:HA2	3:F:45:LEU:HD11	1.85	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:70:VAL:O	3:F:73:LEU:HB3	2.06	0.55
1:C:198:HIS:NE2	1:D:170:GLY:O	2.40	0.54
1:C:37:LEU:O	1:C:212:LEU:HA	2.07	0.54
2:M:146:PHE:CD2	2:M:147:LEU:HD23	2.42	0.54
2:M:177:LYS:NZ	3:Q:87:ILE:CG2	2.68	0.54
1:A:78:GLY:O	1:A:82:ARG:HG2	2.07	0.54
1:C:124:ALA:C	1:C:126:ALA:N	2.60	0.54
2:E:137:MET:O	2:E:141:VAL:HG13	2.08	0.54
3:Q:15:TRP:C	3:Q:16:ARG:HD3	2.28	0.54
3:Q:2:SER:HA	3:Q:3:ILE:CB	2.29	0.54
1:A:133:LEU:O	1:A:133:LEU:HG	2.07	0.54
1:A:10:LEU:O	1:A:23:ASP:N	2.39	0.54
1:B:234:LEU:CD2	1:B:239:LEU:CB	2.85	0.54
1:B:64:LEU:HD23	1:B:64:LEU:O	2.07	0.54
1:C:42:ALA:O	1:C:213:PHE:CD2	2.60	0.54
1:D:5:LEU:HD21	1:D:51:LEU:HB3	1.88	0.54
3:F:95:ALA:O	3:F:97:ASP:N	2.39	0.54
3:Q:214:ARG:HH11	3:Q:214:ARG:HG3	1.72	0.54
1:B:13:ALA:H	1:B:58:GLN:HE22	1.54	0.54
1:B:73:ARG:CB	1:B:74:LYS:HD3	2.37	0.54
1:C:73:ARG:HH21	1:C:80:ARG:HH11	1.35	0.54
2:E:3:ILE:HB	2:E:111:ASN:HD21	1.72	0.54
2:E:55:LEU:HD21	2:E:72:GLY:HA3	1.89	0.54
3:F:150:ARG:HG2	3:F:154:ILE:HD11	1.89	0.54
1:A:259:PRO:CG	1:A:265:LYS:HZ1	2.20	0.54
1:B:6:ALA:HB3	1:B:63:LEU:CD2	2.38	0.54
1:C:64:LEU:HD21	1:C:82:ARG:NH1	2.22	0.54
3:F:242:VAL:C	3:F:244:LEU:H	2.10	0.54
1:A:103:VAL:HG12	1:A:121:VAL:CG2	2.31	0.54
1:A:242:PRO:O	1:A:243:LEU:C	2.45	0.54
1:D:137:PRO:HD3	3:F:16:ARG:HH22	1.72	0.54
2:E:200:VAL:HG23	3:F:183:ALA:HB1	1.89	0.54
3:F:209:TRP:C	3:F:209:TRP:CD1	2.81	0.54
2:E:137:MET:HG3	2:E:137:MET:O	2.07	0.54
2:E:42:ARG:NE	3:F:143:GLU:OE1	2.41	0.54
1:A:96:ALA:CB	1:A:101:GLU:CG	2.85	0.54
1:A:57:PRO:HG2	1:A:60:GLY:HA3	1.90	0.54
1:D:78:GLY:O	1:D:81:ARG:N	2.40	0.54
2:E:63:VAL:O	2:E:63:VAL:HG12	2.08	0.54
1:B:12:TYR:O	1:B:21:LEU:N	2.33	0.54
3:F:132:LEU:O	3:F:132:LEU:HD23	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:105:PHE:HD2	3:F:169:ARG:HD3	1.73	0.54
3:F:172:HIS:CD2	3:F:178:TRP:HD1	2.25	0.54
1:D:225:GLU:O	1:D:229:SER:OG	2.18	0.54
2:E:169:SER:OG	2:E:170:GLY:N	2.41	0.54
1:A:108:LEU:C	1:A:110:LEU:O	2.46	0.53
1:C:243:LEU:CD2	1:D:243:LEU:HG	2.37	0.53
1:D:105:PHE:HD1	1:D:109:ASN:ND2	1.92	0.53
2:E:30:LYS:HA	2:E:33:LYS:HD3	1.90	0.53
2:E:61:PRO:CD	3:F:178:TRP:HZ3	2.10	0.53
3:Q:162:MET:CE	3:Q:192:ARG:NH2	2.65	0.53
3:Q:185:VAL:O	3:Q:189:LEU:HB2	2.08	0.53
1:B:92:ASP:OD2	3:Q:199:ARG:HD2	2.08	0.53
1:D:98:THR:HA	1:D:137:PRO:HA	1.90	0.53
2:E:54:VAL:O	2:E:55:LEU:C	2.47	0.53
2:E:97:ALA:O	2:E:101:ALA:HA	2.08	0.53
3:Q:82:VAL:O	3:Q:85:ILE:HG13	2.09	0.53
1:A:123:GLU:O	1:A:127:ALA:N	2.23	0.53
1:B:9:ALA:CB	1:B:11:THR:OG1	2.56	0.53
2:E:4:MET:O	2:E:107:THR:CG2	2.56	0.53
3:F:219:ARG:HD2	3:F:219:ARG:O	2.08	0.53
1:A:141:LEU:HD12	1:A:145:GLN:CB	2.38	0.53
1:A:51:LEU:O	1:A:79:TRP:HZ2	1.90	0.53
1:A:99:VAL:HG23	1:A:135:ASP:HA	1.91	0.53
1:B:36:ILE:HA	1:B:211:ALA:HB3	1.90	0.53
1:C:112:LEU:CB	1:C:116:GLU:HB3	2.22	0.53
1:D:200:VAL:CG1	1:D:239:LEU:HD13	2.39	0.53
2:E:43:MET:HE3	3:F:210:GLN:CG	2.38	0.53
3:F:236:ALA:O	3:F:239:ALA:HB3	2.08	0.53
3:Q:217:SER:OG	3:Q:219:ARG:HG3	2.08	0.53
3:Q:86:GLN:C	3:Q:87:ILE:CG1	2.77	0.53
1:B:132:ASP:OD1	1:B:132:ASP:N	2.42	0.53
1:B:214:ARG:HG3	1:B:215:THR:H	1.74	0.53
1:B:73:ARG:HB2	1:B:74:LYS:HD3	1.89	0.53
1:D:109:ASN:ND2	1:D:109:ASN:N	2.43	0.53
1:A:133:LEU:N	1:A:134:ARG:CA	2.72	0.53
1:B:4:ILE:O	1:B:4:ILE:HD12	2.08	0.53
1:C:36:ILE:O	1:C:36:ILE:HG13	2.09	0.53
1:A:252:ARG:HG2	1:A:257:LEU:HB2	1.89	0.53
1:A:50:HIS:CD2	1:A:57:PRO:HD3	2.43	0.53
1:B:103:VAL:HG13	1:B:153:GLY:HA2	1.91	0.53
1:C:197:THR:OG1	1:C:198:HIS:N	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:224:ALA:C	1:C:228:LEU:HD12	2.24	0.53
1:C:51:LEU:O	1:C:83:VAL:HG11	2.09	0.53
1:C:56:ARG:HB3	1:C:71:HIS:NE2	2.24	0.53
2:E:93:LEU:HA	2:E:96:GLN:HG3	1.91	0.53
1:A:10:LEU:C	1:A:10:LEU:HD12	2.29	0.53
1:A:246:ASP:O	1:A:250:LEU:CD1	2.57	0.53
1:B:231:ARG:O	1:B:234:LEU:CD1	2.57	0.53
1:C:263:LEU:CD1	1:C:264:PRO:CD	2.82	0.53
3:F:223:SER:C	3:F:225:ARG:N	2.59	0.53
3:F:238:LEU:O	3:F:242:VAL:HG12	2.09	0.53
3:Q:167:ARG:O	3:Q:168:ALA:O	2.27	0.53
1:D:243:LEU:HD23	1:D:244:VAL:HG22	1.91	0.53
3:F:85:ILE:HG21	3:F:93:GLY:HA2	1.91	0.53
2:M:8:LEU:HG	2:M:9:PRO:HD2	1.90	0.53
3:Q:227:LEU:CG	3:Q:228:GLY:N	2.72	0.53
3:Q:24:SER:O	3:Q:28:LEU:HB2	2.09	0.53
1:B:64:LEU:N	1:B:64:LEU:HD23	2.22	0.52
2:E:203:ALA:O	2:E:206:GLY:N	2.41	0.52
3:F:85:ILE:HG13	3:F:86:GLN:H	1.74	0.52
1:B:13:ALA:C	1:B:20:ALA:HB2	2.29	0.52
1:B:44:LYS:HG2	1:B:213:PHE:CZ	2.44	0.52
1:C:124:ALA:O	1:C:125:LEU:C	2.48	0.52
1:C:263:LEU:CG	1:C:264:PRO:CD	2.87	0.52
2:E:114:SER:OG	2:E:115:MET:N	2.43	0.52
2:E:204:LEU:HD11	3:F:187:ALA:HA	1.91	0.52
3:F:85:ILE:HG21	3:F:93:GLY:CA	2.38	0.52
2:M:173:GLY:O	2:M:177:LYS:HE2	2.09	0.52
3:Q:54:THR:CG2	3:Q:55:PHE:CD1	2.91	0.52
1:B:221:GLU:O	1:B:221:GLU:OE2	2.27	0.52
1:D:71:HIS:H	1:D:75:ASP:CG	2.12	0.52
3:Q:151:PHE:HA	3:Q:154:ILE:HG13	1.92	0.52
1:A:96:ALA:HB3	1:A:101:GLU:CG	2.40	0.52
1:A:99:VAL:CG2	1:A:136:ARG:C	2.65	0.52
1:D:157:MET:SD	3:F:207:ARG:HB3	2.50	0.52
3:F:139:ALA:O	3:F:142:ILE:HG13	2.10	0.52
2:M:82:PRO:HG3	2:M:124:PHE:CD1	2.44	0.52
3:Q:15:TRP:CE2	3:Q:57:GLY:O	2.63	0.52
1:B:204:ALA:HB1	1:B:261:ALA:HB2	1.90	0.52
1:C:49:LEU:HB3	1:C:54:THR:HB	1.92	0.52
1:D:133:LEU:HD11	1:D:145:GLN:NE2	2.24	0.52
1:D:99:VAL:O	1:D:102:ASP:N	2.38	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:58:LEU:O	2:E:69:HIS:CE1	2.55	0.52
1:D:137:PRO:CD	3:F:16:ARG:HH22	2.23	0.52
3:Q:170:LEU:HD13	3:Q:170:LEU:C	2.30	0.52
1:A:214:ARG:HB2	1:A:219:LEU:HD23	1.92	0.52
1:B:246:ASP:O	1:B:247:LEU:HD22	2.09	0.52
1:C:243:LEU:CB	1:D:243:LEU:HD11	2.40	0.52
1:D:37:LEU:HD12	1:D:38:GLY:N	2.19	0.52
3:F:84:LEU:CD2	3:F:94:LEU:CG	2.86	0.52
1:A:10:LEU:CD2	1:A:24:LEU:HB3	2.33	0.52
1:B:243:LEU:N	1:B:243:LEU:CD2	2.72	0.52
2:E:104:GLY:O	2:E:108:LEU:N	2.43	0.52
3:F:56:LEU:CD1	3:F:56:LEU:N	2.73	0.52
2:M:174:ALA:HB1	2:M:178:PHE:CE2	2.44	0.52
1:C:17:GLY:C	1:C:19:LYS:H	2.11	0.52
2:E:164:TYR:HB3	3:F:83:LEU:CD1	2.40	0.52
3:Q:62:LEU:HA	3:Q:63:ARG:HB3	1.85	0.52
1:A:8:GLU:HB2	1:A:61:ARG:HD2	1.91	0.52
1:A:86:VAL:HA	1:A:93:GLN:HE22	1.75	0.52
1:B:85:LEU:HD21	1:B:87:LEU:HD21	1.91	0.52
1:D:117:ALA:O	1:D:121:VAL:HG23	2.10	0.52
1:D:16:GLY:N	1:D:17:GLY:CA	2.72	0.52
1:D:230:ASP:CG	1:D:233:THR:HB	2.31	0.52
3:F:195:THR:O	3:F:198:ARG:N	2.35	0.52
2:M:87:VAL:O	2:M:91:ILE:HG13	2.10	0.52
1:A:198:HIS:HB3	1:B:172:ASP:HA	1.90	0.52
1:C:214:ARG:CG	1:C:215:THR:N	2.73	0.52
1:D:71:HIS:HE1	1:D:73:ARG:HD2	1.74	0.52
3:F:212:GLU:OE1	3:F:212:GLU:N	2.40	0.52
2:M:59:LYS:HG3	2:M:69:HIS:CD2	2.34	0.52
3:Q:176:ARG:CG	3:Q:176:ARG:HH11	2.23	0.52
3:Q:86:GLN:O	3:Q:87:ILE:CD1	2.58	0.52
1:B:9:ALA:HB1	1:B:10:LEU:C	2.28	0.51
1:C:178:GLN:CA	1:C:178:GLN:NE2	2.73	0.51
1:D:243:LEU:HD23	1:D:244:VAL:H	1.65	0.51
3:Q:15:TRP:N	3:Q:16:ARG:HH21	1.99	0.51
1:A:179:LEU:HD11	1:A:183:LEU:HD21	1.92	0.51
1:A:64:LEU:CD1	1:A:65:GLY:H	2.20	0.51
1:B:32:GLU:HG2	1:B:208:ASP:HB2	1.86	0.51
1:B:74:LYS:N	1:B:76:LEU:CD2	2.73	0.51
3:F:142:ILE:HD12	3:F:143:GLU:N	2.26	0.51
3:Q:10:ALA:O	3:Q:124:PRO:HG3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:133:ARG:NH2	3:Q:134:ARG:NH1	2.56	0.51
1:A:247:LEU:HD21	1:B:263:LEU:CD1	2.40	0.51
1:C:230:ASP:OD1	1:C:232:ALA:HB3	2.11	0.51
3:F:85:ILE:CB	3:F:94:LEU:H	2.22	0.51
1:A:166:GLU:OE1	1:A:198:HIS:NE2	2.43	0.51
1:B:114:GLU:CD	1:B:118:ARG:HD2	2.30	0.51
2:E:30:LYS:O	2:E:34:ILE:HG13	2.10	0.51
3:F:15:TRP:CZ2	3:F:57:GLY:HA2	2.46	0.51
3:F:42:GLY:C	3:F:45:LEU:HD12	2.30	0.51
1:A:10:LEU:CD1	1:A:11:THR:HA	2.40	0.51
1:B:6:ALA:O	1:B:62:VAL:HG23	2.11	0.51
1:C:90:ALA:C	1:C:92:ASP:N	2.64	0.51
2:E:7:TYR:OH	3:F:79:GLY:CA	2.57	0.51
3:F:168:ALA:O	3:F:169:ARG:HB2	2.10	0.51
2:M:172:LEU:HD13	2:M:172:LEU:C	2.30	0.51
2:M:177:LYS:HZ3	3:Q:87:ILE:HG21	1.76	0.51
1:A:244:VAL:CG1	1:A:245:ILE:H	2.23	0.51
1:C:231:ARG:HH11	1:C:249:LEU:CD2	2.22	0.51
1:C:252:ARG:HA	1:C:254:HIS:O	2.10	0.51
1:D:13:ALA:HA	1:D:19:LYS:HA	1.92	0.51
3:F:118:PHE:O	3:F:122:THR:HG23	2.10	0.51
2:M:166:ASP:OD1	2:M:167:PRO:HD2	2.10	0.51
2:M:174:ALA:CA	2:M:177:LYS:HG2	2.40	0.51
3:Q:163:THR:HB	3:Q:167:ARG:NH1	2.26	0.51
3:Q:207:ARG:C	3:Q:209:TRP:H	2.14	0.51
1:A:15:PRO:CD	1:A:18:VAL:CG1	2.86	0.51
1:A:252:ARG:CG	1:A:257:LEU:HB2	2.41	0.51
1:A:8:GLU:HB2	1:A:61:ARG:CD	2.41	0.51
1:B:138:THR:C	1:B:140:MET:H	2.14	0.51
1:B:52:ASN:ND2	1:B:85:LEU:HD22	2.25	0.51
1:C:13:ALA:HA	1:C:19:LYS:HA	1.93	0.51
1:C:212:LEU:HD21	1:C:234:LEU:HD23	1.92	0.51
1:D:128:LEU:O	1:D:129:SER:HB3	2.11	0.51
1:D:145:GLN:O	1:D:149:VAL:HG23	2.10	0.51
3:F:106:VAL:O	3:F:110:THR:HG23	2.11	0.51
3:F:87:ILE:HG22	3:F:88:GLY:N	2.26	0.51
2:M:64:THR:HG23	2:M:66:SER:H	1.76	0.51
1:A:24:LEU:CD1	1:A:218:VAL:N	2.53	0.51
1:A:64:LEU:CD1	1:A:65:GLY:N	2.74	0.51
1:B:13:ALA:HA	1:B:20:ALA:CA	2.37	0.51
1:C:113:SER:OG	1:C:115:ALA:HB1	2.08	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:70:GLY:H	1:D:75:ASP:CG	2.14	0.51
1:D:73:ARG:O	1:D:76:LEU:HB2	2.11	0.51
3:Q:55:PHE:HD1	3:Q:55:PHE:N	2.08	0.51
1:B:76:LEU:N	1:B:76:LEU:CD2	2.73	0.51
3:F:201:GLU:CB	3:F:210:GLN:OE1	2.59	0.51
1:D:71:HIS:N	1:D:75:ASP:CB	2.74	0.51
1:A:183:LEU:HD13	1:A:193:LEU:HD13	1.92	0.50
3:F:14:HIS:CD2	3:F:15:TRP:CD1	2.99	0.50
2:M:180:SER:HA	2:M:183:ALA:HB3	1.91	0.50
1:B:4:ILE:HG22	1:B:30:LYS:N	2.25	0.50
1:D:105:PHE:O	1:D:105:PHE:HD1	1.94	0.50
1:D:75:ASP:O	1:D:79:TRP:HB3	2.10	0.50
3:Q:117:LEU:O	3:Q:121:THR:OG1	2.21	0.50
1:B:223:ALA:HB3	1:B:225:GLU:O	2.12	0.50
2:E:167:PRO:HD2	2:E:168:ALA:N	2.26	0.50
3:F:75:PHE:O	3:F:78:THR:HB	2.12	0.50
1:C:64:LEU:HB2	1:C:69:THR:HG22	1.94	0.50
2:E:61:PRO:CD	3:F:178:TRP:CH2	2.72	0.50
3:F:228:GLY:O	3:F:232:THR:HG23	2.10	0.50
3:Q:54:THR:HG21	3:Q:55:PHE:HE1	1.76	0.50
1:A:144:GLY:C	1:A:146:LYS:N	2.62	0.50
1:A:15:PRO:O	1:A:17:GLY:HA2	2.12	0.50
1:B:18:VAL:HG22	1:B:19:LYS:H	1.68	0.50
1:D:7:ALA:O	1:D:25:SER:HA	2.11	0.50
1:D:71:HIS:ND1	1:D:72:SER:N	2.60	0.50
1:A:243:LEU:O	1:A:246:ASP:N	2.44	0.50
1:C:250:LEU:CD2	1:C:250:LEU:N	2.75	0.50
1:D:157:MET:CE	3:F:207:ARG:HB3	2.42	0.50
2:E:5:GLU:HA	2:E:107:THR:CG2	2.42	0.50
3:F:172:HIS:CE1	3:F:178:TRP:NE1	2.79	0.50
3:F:73:LEU:O	3:F:76:LEU:HG	2.11	0.50
2:M:1:MET:HG3	2:M:2:HIS:ND1	2.27	0.50
2:M:30:LYS:O	2:M:34:ILE:HG13	2.12	0.50
2:M:82:PRO:HD3	2:M:124:PHE:HE2	1.63	0.50
1:B:265:LYS:HD3	1:B:267:ARG:C	2.32	0.50
1:C:12:TYR:CD2	1:C:13:ALA:O	2.65	0.50
2:M:171:PHE:C	2:M:171:PHE:CD2	2.85	0.50
1:C:178:GLN:CA	1:C:178:GLN:HE21	2.24	0.50
3:Q:175:ARG:O	3:Q:178:TRP:N	2.44	0.50
1:A:113:SER:O	1:A:114:GLU:C	2.50	0.50
1:A:14:PHE:CD1	1:A:14:PHE:C	2.85	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:37:GLU:OE1	2:E:38:ARG:HG3	2.12	0.49
3:F:23:LYS:HE2	3:F:123:THR:OG1	2.11	0.49
2:E:42:ARG:CZ	3:F:211:GLY:C	2.80	0.49
2:M:12:HIS:O	2:M:16:TRP:N	2.45	0.49
1:A:109:ASN:HD22	3:Q:177:ARG:NH1	1.94	0.49
1:B:123:GLU:OE1	1:B:158:ARG:NH1	2.44	0.49
1:A:247:LEU:HD21	1:B:263:LEU:HD12	1.94	0.49
1:B:6:ALA:HA	1:B:27:ALA:HA	1.94	0.49
1:C:114:GLU:N	1:C:115:ALA:CB	2.72	0.49
1:C:72:SER:OG	1:C:74:LYS:HB3	2.12	0.49
1:D:244:VAL:O	1:D:247:LEU:N	2.45	0.49
3:F:237:ILE:HG22	3:F:238:LEU:H	1.76	0.49
1:B:109:ASN:HD22	3:Q:209:TRP:HB2	1.78	0.49
1:B:71:HIS:N	1:B:71:HIS:CD2	2.71	0.49
1:C:142:SER:OG	1:C:145:GLN:HG3	2.12	0.49
1:D:35:ALA:HB2	1:D:207:ALA:HB2	1.93	0.49
1:D:71:HIS:CD2	1:D:73:ARG:HG3	2.46	0.49
2:E:125:GLY:O	2:E:129:LEU:HB2	2.11	0.49
1:A:35:ALA:HB2	1:A:195:PHE:CZ	2.47	0.49
1:A:255:GLY:HA3	1:A:257:LEU:CG	2.42	0.49
1:A:62:VAL:O	1:A:63:LEU:HB2	2.09	0.49
1:B:37:LEU:HB3	1:B:212:LEU:HD23	1.93	0.49
1:D:34:LEU:HD22	1:D:36:ILE:HD13	1.95	0.49
1:D:73:ARG:HG2	1:D:76:LEU:HD13	1.95	0.49
1:D:79:TRP:CD1	1:D:79:TRP:C	2.86	0.49
3:F:39:PRO:HB2	3:F:107:MET:SD	2.52	0.49
3:F:47:THR:C	3:F:50:ILE:HG22	2.29	0.49
3:F:86:GLN:OE1	3:F:88:GLY:N	2.45	0.49
3:Q:19:PRO:HG2	3:Q:222:ALA:HA	1.94	0.49
1:A:248:ALA:HB1	1:A:260:GLU:HB3	1.93	0.49
1:A:263:LEU:CD1	1:A:263:LEU:H	2.00	0.49
1:B:247:LEU:HD13	1:B:248:ALA:H	1.77	0.49
1:D:208:ASP:O	1:D:224:ALA:N	2.45	0.49
2:E:176:LEU:HD23	2:E:176:LEU:O	2.13	0.49
2:E:30:LYS:HB2	2:E:33:LYS:HZ3	1.78	0.49
2:E:53:PHE:CD2	2:E:53:PHE:C	2.85	0.49
2:E:61:PRO:CG	3:F:178:TRP:CE3	2.96	0.49
3:F:85:ILE:CG2	3:F:94:LEU:H	2.25	0.49
3:Q:226:VAL:O	3:Q:230:ILE:HG13	2.12	0.49
1:A:87:LEU:HD23	1:A:88:GLN:N	2.27	0.49
1:C:173:LEU:C	1:C:176:THR:HG22	2.32	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:73:ARG:CZ	1:C:76:LEU:CD1	2.84	0.49
2:E:193:GLU:O	2:E:197:THR:HG23	2.12	0.49
3:F:174:THR:C	3:F:176:ARG:N	2.65	0.49
2:M:4:MET:HE3	3:Q:75:PHE:HD2	1.77	0.49
3:Q:2:SER:CB	3:Q:3:ILE:HG12	2.39	0.49
3:Q:60:VAL:HG13	3:Q:62:LEU:O	2.13	0.49
1:A:230:ASP:OD2	1:A:233:THR:OG1	2.27	0.49
1:C:249:LEU:CG	1:C:250:LEU:CD2	2.85	0.49
1:D:14:PHE:CD2	1:D:14:PHE:C	2.85	0.49
1:D:96:ALA:HB3	1:D:102:ASP:CG	2.32	0.49
2:E:200:VAL:HG23	3:F:183:ALA:CB	2.43	0.49
3:Q:164:THR:N	3:Q:167:ARG:NH2	2.60	0.49
3:Q:223:SER:O	3:Q:225:ARG:N	2.46	0.49
3:Q:227:LEU:HG	3:Q:228:GLY:H	1.78	0.49
1:A:125:LEU:HD22	1:A:130:ILE:HD11	0.63	0.49
1:A:164:LEU:CD1	1:A:167:PRO:HG3	2.42	0.49
1:C:231:ARG:HH11	1:C:249:LEU:HD23	1.76	0.49
1:C:256:LEU:CD2	1:C:258:ALA:CA	2.89	0.49
1:C:266:THR:OG1	1:C:267:ARG:N	2.45	0.49
1:C:56:ARG:CB	1:C:71:HIS:NE2	2.76	0.49
3:Q:133:ARG:NH2	3:Q:134:ARG:HH11	2.10	0.49
3:Q:194:LEU:O	3:Q:197:ALA:HB3	2.12	0.49
1:A:105:PHE:CD2	1:A:105:PHE:C	2.85	0.49
1:B:120:ARG:HH21	1:B:158:ARG:NH2	2.11	0.49
1:B:61:ARG:HD2	1:B:61:ARG:N	2.27	0.49
1:C:256:LEU:C	1:C:257:LEU:HD12	2.32	0.49
1:C:44:LYS:HD3	1:C:44:LYS:H	1.76	0.49
1:C:73:ARG:NH2	1:C:76:LEU:HD13	2.27	0.49
2:M:177:LYS:N	2:M:177:LYS:CD	2.73	0.49
1:B:118:ARG:HH11	1:B:118:ARG:CG	2.25	0.49
1:B:13:ALA:N	1:B:58:GLN:HE22	2.10	0.49
1:B:64:LEU:CG	1:B:64:LEU:O	2.61	0.49
1:B:79:TRP:O	1:B:83:VAL:HG23	2.13	0.49
1:D:37:LEU:HD21	1:D:200:VAL:HG12	1.95	0.49
3:F:41:PRO:HB2	3:F:44:VAL:HG21	1.91	0.49
1:A:255:GLY:O	1:A:256:LEU:HB3	2.13	0.48
1:D:72:SER:H	1:D:73:ARG:HG3	1.78	0.48
1:D:95:PHE:CE2	3:F:213:MET:CB	2.96	0.48
3:F:56:LEU:O	3:F:57:GLY:C	2.52	0.48
2:M:55:LEU:O	2:M:58:LEU:HB2	2.13	0.48
1:A:185:GLY:O	1:A:188:ALA:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:44:LYS:HG2	1:B:213:PHE:CE2	2.48	0.48
1:D:209:ARG:HD2	1:D:223:ALA:HA	1.95	0.48
1:D:219:LEU:HD21	1:D:236:LYS:HD2	1.95	0.48
3:Q:54:THR:CG2	3:Q:55:PHE:HE1	2.25	0.48
1:A:242:PRO:HB2	1:A:245:ILE:HG22	1.96	0.48
1:B:138:THR:O	1:B:140:MET:N	2.46	0.48
1:C:101:GLU:O	1:C:104:SER:HB2	2.13	0.48
1:C:98:THR:HB	1:C:101:GLU:HG3	1.94	0.48
1:D:212:LEU:HD11	1:D:234:LEU:HD23	1.95	0.48
3:F:86:GLN:OE1	3:F:87:ILE:N	2.46	0.48
1:A:14:PHE:N	1:A:18:VAL:CG2	2.72	0.48
1:A:63:LEU:CD2	1:A:68:ALA:HA	2.41	0.48
1:A:79:TRP:C	1:A:79:TRP:CD1	2.87	0.48
1:B:213:PHE:HB2	1:B:217:ARG:O	2.13	0.48
1:B:10:LEU:CG	1:B:21:LEU:HD21	2.39	0.48
1:B:28:VAL:HG22	1:B:34:LEU:HD22	1.95	0.48
1:B:40:ASN:CG	1:B:41:GLY:H	2.09	0.48
1:B:8:GLU:HB2	1:B:61:ARG:O	2.13	0.48
1:B:8:GLU:HA	1:B:25:SER:CB	2.28	0.48
1:D:95:PHE:HE2	3:F:213:MET:CB	2.19	0.48
2:E:108:LEU:HD23	2:E:109:GLY:CA	2.43	0.48
2:E:55:LEU:CD1	3:F:186:ILE:HD13	2.44	0.48
3:F:78:THR:C	3:F:82:VAL:HG13	2.33	0.48
2:M:166:ASP:CB	2:M:173:GLY:HA3	2.27	0.48
3:Q:236:ALA:O	3:Q:238:LEU:N	2.46	0.48
1:A:10:LEU:HD23	1:A:24:LEU:N	2.28	0.48
1:D:71:HIS:NE2	1:D:73:ARG:HG2	2.26	0.48
1:D:94:LEU:O	3:F:150:ARG:CZ	2.61	0.48
3:F:212:GLU:O	3:F:213:MET:HE3	2.13	0.48
2:M:62:SER:HG	2:M:188:PRO:CB	2.25	0.48
3:Q:16:ARG:HD3	3:Q:16:ARG:N	2.29	0.48
3:Q:223:SER:C	3:Q:225:ARG:N	2.66	0.48
1:B:96:ALA:HB1	1:B:102:ASP:HB2	1.93	0.48
1:B:234:LEU:CD2	1:B:239:LEU:HB2	2.41	0.48
1:C:177:GLU:CG	1:C:178:GLN:N	2.77	0.48
2:E:88:LEU:O	2:E:92:VAL:HG23	2.13	0.48
2:M:100:LEU:HD23	3:Q:3:ILE:HG22	1.95	0.48
2:M:38:ARG:HA	2:M:39:PRO:HD2	1.64	0.48
3:Q:170:LEU:HD12	3:Q:173:ALA:HB2	1.94	0.48
3:Q:43:ALA:HA	3:Q:46:VAL:HB	1.94	0.48
1:A:76:LEU:CD1	1:A:80:ARG:HG3	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:39:PRO:CB	3:F:211:GLY:HA2	2.44	0.48
2:M:83:SER:O	2:M:84:VAL:C	2.48	0.48
1:B:135:ASP:HB3	3:Q:218:THR:HG21	1.96	0.48
1:C:151:ILE:O	1:C:155:VAL:HG13	2.14	0.48
1:C:242:PRO:O	1:C:243:LEU:O	2.32	0.48
1:C:256:LEU:HD23	1:C:258:ALA:CB	2.41	0.48
1:D:16:GLY:N	1:D:17:GLY:HA2	2.29	0.48
3:F:148:THR:O	3:F:152:VAL:HG23	2.14	0.48
1:A:269:ALA:CB	1:A:270:LEU:CA	2.85	0.48
1:B:71:HIS:HB2	1:B:72:SER:H	1.49	0.48
1:C:114:GLU:H	1:C:115:ALA:HB3	1.78	0.48
1:C:21:LEU:HD11	1:C:50:HIS:CD2	2.48	0.48
1:D:157:MET:O	1:D:159:PRO:HD3	2.13	0.48
3:F:159:ALA:HB2	3:F:189:LEU:CD2	2.44	0.48
2:M:2:HIS:CE1	2:M:102:HIS:HE2	2.32	0.48
3:Q:130:SER:O	3:Q:133:ARG:HB3	2.12	0.48
3:Q:212:GLU:O	3:Q:213:MET:HG3	2.13	0.48
3:Q:62:LEU:CB	3:Q:64:PHE:C	2.70	0.48
1:A:16:GLY:N	1:A:17:GLY:CA	2.73	0.48
1:A:45:SER:O	1:A:49:LEU:HG	2.13	0.48
1:A:90:ALA:O	1:A:93:GLN:HB3	2.14	0.48
1:B:147:ARG:NH2	1:B:169:ALA:O	2.45	0.48
1:B:247:LEU:HD12	1:B:249:LEU:H	1.79	0.48
1:C:129:SER:OG	1:C:129:SER:O	2.28	0.48
1:C:98:THR:HG22	1:C:100:PHE:N	2.29	0.48
1:B:165:ASP:OD1	1:B:166:GLU:HG2	2.14	0.47
1:D:95:PHE:CE1	1:D:105:PHE:CD2	3.02	0.47
2:E:189:LEU:O	2:E:190:ALA:C	2.49	0.47
3:F:78:THR:O	3:F:81:ALA:N	2.44	0.47
2:M:122:VAL:O	2:M:126:VAL:HG23	2.14	0.47
1:C:231:ARG:HH12	1:C:250:LEU:CD2	2.15	0.47
1:D:141:LEU:HD22	1:D:145:GLN:HB3	1.96	0.47
2:E:167:PRO:HD2	2:E:168:ALA:H	1.79	0.47
2:E:5:GLU:OE1	2:E:105:LEU:CA	2.57	0.47
2:M:178:PHE:HE1	3:Q:82:VAL:HG21	1.79	0.47
2:M:185:THR:O	2:M:188:PRO:HD2	2.14	0.47
1:A:215:THR:HG22	1:A:216:GLY:N	2.29	0.47
1:C:228:LEU:O	1:C:241:PRO:HB3	2.15	0.47
3:F:82:VAL:HG23	3:F:83:LEU:N	2.29	0.47
3:F:95:ALA:HB1	3:F:96:PRO:HD2	1.95	0.47
2:E:46:ALA:HB3	3:F:151:PHE:CD1	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:180:ARG:NH1	3:Q:180:ARG:CG	2.74	0.47
1:A:128:LEU:HD13	1:A:128:LEU:O	2.14	0.47
1:A:132:ASP:OD2	1:A:134:ARG:NH1	2.47	0.47
1:A:10:LEU:O	1:A:23:ASP:CA	2.61	0.47
1:A:252:ARG:CA	1:A:257:LEU:HB2	2.44	0.47
1:C:242:PRO:HB2	1:C:245:ILE:HG22	1.96	0.47
2:E:41:ALA:O	2:E:44:THR:N	2.47	0.47
2:E:46:ALA:HB3	3:F:151:PHE:CE1	2.49	0.47
3:Q:213:MET:O	3:Q:215:VAL:HG23	2.14	0.47
3:Q:70:VAL:HG13	3:Q:73:LEU:HD22	1.97	0.47
1:A:24:LEU:HD12	1:A:217:ARG:C	2.30	0.47
1:B:64:LEU:HG	1:B:64:LEU:O	2.13	0.47
1:D:82:ARG:NE	1:D:160:GLU:OE2	2.48	0.47
1:D:177:GLU:HA	1:D:180:LEU:HD12	1.97	0.47
2:E:43:MET:SD	3:F:200:LEU:HD23	2.55	0.47
2:E:4:MET:C	2:E:107:THR:HG21	2.35	0.47
3:Q:180:ARG:HG3	3:Q:180:ARG:HH11	1.79	0.47
3:F:242:VAL:HG13	3:F:243:LEU:N	2.30	0.47
3:F:45:LEU:N	3:F:45:LEU:HD12	2.08	0.47
2:M:171:PHE:C	2:M:171:PHE:HD2	2.18	0.47
2:M:186:GLN:O	2:M:186:GLN:HG3	2.14	0.47
1:A:24:LEU:C	1:A:24:LEU:HD23	2.33	0.47
1:B:79:TRP:CD1	1:B:83:VAL:HG21	2.50	0.47
2:E:118:VAL:HG21	2:E:155:THR:HG21	1.97	0.47
2:M:4:MET:HG3	2:M:5:GLU:N	2.29	0.47
3:Q:224:ALA:O	3:Q:227:LEU:HB3	2.15	0.47
1:A:21:LEU:HD11	1:A:47:LEU:HD13	1.97	0.47
1:A:233:THR:O	1:A:236:LYS:HG2	2.15	0.47
1:A:263:LEU:HD12	1:A:263:LEU:N	2.07	0.47
1:B:118:ARG:NH1	1:B:118:ARG:CG	2.75	0.47
1:B:204:ALA:HB1	1:B:261:ALA:HB1	1.96	0.47
1:C:21:LEU:CD1	1:C:50:HIS:CD2	2.97	0.47
1:C:64:LEU:CD2	1:C:82:ARG:NH1	2.77	0.47
3:F:14:HIS:HD2	3:F:15:TRP:HD1	1.62	0.47
2:M:171:PHE:C	2:M:173:GLY:H	2.18	0.47
3:Q:62:LEU:CG	3:Q:65:TRP:N	2.57	0.47
1:B:51:LEU:O	1:B:83:VAL:HG11	2.15	0.47
1:C:13:ALA:CB	1:C:18:VAL:O	2.63	0.47
3:F:155:LEU:HD21	3:F:193:ALA:HB2	1.97	0.47
3:F:30:PHE:HB3	3:F:115:CYS:SG	2.55	0.47
2:M:59:LYS:CG	2:M:69:HIS:CD2	2.93	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:14:PHE:CE2	3:Q:8:ARG:CD	2.96	0.47
1:D:70:GLY:C	1:D:75:ASP:HB2	2.35	0.47
2:M:43:MET:CE	3:Q:210:GLN:HE21	2.28	0.47
3:Q:158:GLU:HG3	3:Q:192:ARG:HH11	1.79	0.47
1:D:31:GLY:N	1:D:192:THR:OG1	2.47	0.46
1:D:36:ILE:O	1:D:44:LYS:HD2	2.15	0.46
2:E:129:LEU:HA	2:E:129:LEU:HD12	1.48	0.46
3:F:225:ARG:O	3:F:228:GLY:N	2.48	0.46
3:F:50:ILE:HG23	3:F:51:LEU:N	2.28	0.46
3:Q:163:THR:CB	3:Q:167:ARG:NH1	2.73	0.46
3:Q:2:SER:CA	3:Q:3:ILE:CG1	2.93	0.46
1:A:145:GLN:O	1:A:149:VAL:HG23	2.15	0.46
1:A:86:VAL:HG13	1:A:93:GLN:NE2	2.30	0.46
1:C:105:PHE:CD2	3:F:169:ARG:HD3	2.50	0.46
2:E:41:ALA:HB1	2:E:45:LEU:CD1	2.44	0.46
1:D:134:ARG:HH21	3:F:218:THR:CG2	2.27	0.46
1:B:118:ARG:HG2	3:Q:216:LEU:HD13	1.98	0.46
3:Q:61:PRO:HG2	3:Q:62:LEU:N	2.29	0.46
1:A:56:ARG:HD2	1:A:57:PRO:CA	2.42	0.46
1:B:4:ILE:CG2	1:B:30:LYS:H	2.25	0.46
1:B:80:ARG:HG2	3:Q:206:ALA:O	2.15	0.46
1:D:63:LEU:HD13	1:D:68:ALA:HB2	1.96	0.46
2:E:28:ALA:N	2:E:87:VAL:HG21	2.31	0.46
2:E:40:GLU:HG2	3:F:210:GLN:HE22	1.79	0.46
2:M:166:ASP:CG	2:M:169:SER:H	2.03	0.46
1:A:223:ALA:HB1	1:A:226:ALA:HB2	1.94	0.46
1:B:7:ALA:HA	1:B:62:VAL:HA	1.97	0.46
1:C:186:LEU:HD23	1:C:186:LEU:HA	1.75	0.46
2:M:88:LEU:O	2:M:92:VAL:N	2.40	0.46
1:B:96:ALA:HB1	1:B:102:ASP:CB	2.46	0.46
1:C:214:ARG:HG3	1:C:215:THR:H	1.81	0.46
1:D:123:GLU:OE2	1:D:158:ARG:NH2	2.38	0.46
2:E:59:LYS:O	2:E:60:ILE:HG12	2.15	0.46
2:E:78:VAL:HG13	2:E:127:TYR:CZ	2.51	0.46
3:F:146:LEU:O	3:F:149:TYR:HB3	2.16	0.46
2:M:83:SER:O	2:M:85:MET:N	2.49	0.46
2:M:4:MET:SD	3:Q:76:LEU:HD23	2.55	0.46
1:C:177:GLU:HG2	1:C:178:GLN:N	2.30	0.46
1:D:137:PRO:HB2	1:D:139:HIS:CE1	2.50	0.46
3:Q:224:ALA:C	3:Q:227:LEU:HB3	2.36	0.46
3:Q:2:SER:HA	3:Q:3:ILE:HG23	0.60	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:113:SER:C	1:A:115:ALA:H	2.17	0.46
1:A:35:ALA:HB3	1:A:210:VAL:HG22	1.97	0.46
1:B:234:LEU:C	1:B:234:LEU:HD13	2.34	0.46
2:E:95:PHE:O	2:E:99:LEU:N	2.38	0.46
3:F:222:ALA:HB1	3:F:226:VAL:CG2	2.46	0.46
1:A:122:GLU:CG	1:A:123:GLU:H	2.24	0.46
1:A:13:ALA:CB	1:A:19:LYS:N	2.72	0.46
1:B:263:LEU:HG	1:B:264:PRO:O	2.16	0.46
1:C:244:VAL:HG13	1:C:245:ILE:N	2.30	0.46
1:C:249:LEU:CG	1:C:250:LEU:HD22	2.43	0.46
1:D:13:ALA:CB	1:D:19:LYS:CA	2.84	0.46
1:D:212:LEU:HG	1:D:220:ALA:O	2.16	0.46
3:F:85:ILE:HG21	3:F:93:GLY:N	2.31	0.46
2:M:90:VAL:HG13	2:M:108:LEU:HD11	1.97	0.46
3:Q:174:THR:CB	3:Q:177:ARG:HG3	2.37	0.46
1:B:38:GLY:O	1:B:44:LYS:NZ	2.20	0.46
1:B:44:LYS:HG3	1:B:44:LYS:H	1.44	0.46
1:C:129:SER:HB3	1:C:182:LEU:HD11	1.98	0.46
1:D:10:LEU:O	1:D:23:ASP:N	2.49	0.46
1:D:250:LEU:C	1:D:252:ARG:H	2.19	0.46
2:E:60:ILE:CG2	2:E:61:PRO:O	2.38	0.46
3:F:42:GLY:C	3:F:45:LEU:CD1	2.85	0.46
2:M:60:ILE:HA	2:M:60:ILE:HD13	1.73	0.46
1:A:158:ARG:N	1:A:159:PRO:HD3	2.31	0.46
1:A:24:LEU:HD11	1:A:218:VAL:HG22	1.75	0.46
1:A:49:LEU:HB3	1:A:54:THR:HB	1.97	0.46
1:C:42:ALA:HB1	1:C:213:PHE:HB3	1.97	0.46
1:C:231:ARG:NH1	1:C:249:LEU:HD23	2.27	0.46
1:C:72:SER:OG	1:C:74:LYS:CG	2.64	0.46
2:E:65:GLY:O	2:E:66:SER:C	2.55	0.46
1:A:139:HIS:O	1:A:140:MET:HB2	2.15	0.45
1:A:234:LEU:HB3	1:A:239:LEU:O	2.16	0.45
1:A:259:PRO:O	1:A:265:LYS:CD	2.61	0.45
1:B:37:LEU:HD13	1:B:197:THR:HG23	1.98	0.45
1:B:234:LEU:O	1:B:237:VAL:HG22	2.16	0.45
1:B:24:LEU:CD2	1:B:218:VAL:CG1	2.63	0.45
1:C:265:LYS:C	1:C:266:THR:HG23	2.37	0.45
1:C:72:SER:HG	1:C:74:LYS:HB3	1.80	0.45
1:D:261:ALA:CB	1:D:262:PRO:CD	2.32	0.45
2:E:29:LEU:HD12	2:E:33:LYS:HZ2	1.80	0.45
3:Q:206:ALA:C	3:Q:207:ARG:O	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:83:VAL:CG2	1:A:161:VAL:HB	2.35	0.45
1:B:243:LEU:C	1:B:244:VAL:CG1	2.85	0.45
1:B:63:LEU:CB	1:B:67:THR:O	2.65	0.45
1:C:249:LEU:HD12	1:C:249:LEU:O	2.16	0.45
2:E:6:GLY:O	3:F:109:ALA:HA	2.16	0.45
2:M:95:PHE:HB3	2:M:99:LEU:HD12	1.98	0.45
3:Q:66:ALA:O	3:Q:70:VAL:HG22	2.10	0.45
1:A:85:LEU:HA	1:A:163:LEU:O	2.16	0.45
1:D:199:ASP:OD1	1:D:201:GLU:HB2	2.16	0.45
3:F:84:LEU:CD2	3:F:94:LEU:HD21	2.28	0.45
3:Q:205:GLY:O	3:Q:207:ARG:O	2.35	0.45
3:Q:65:TRP:HA	3:Q:68:VAL:HG23	1.98	0.45
1:A:134:ARG:CA	1:A:135:ASP:CB	2.86	0.45
1:A:47:LEU:O	1:A:51:LEU:HG	2.16	0.45
1:C:73:ARG:O	1:C:74:LYS:O	2.32	0.45
1:D:230:ASP:CG	1:D:233:THR:CB	2.85	0.45
2:E:172:LEU:HD12	2:E:172:LEU:O	2.17	0.45
3:Q:3:ILE:HD12	3:Q:3:ILE:O	2.15	0.45
1:A:147:ARG:HH12	1:A:169:ALA:H	1.65	0.45
1:B:103:VAL:HG21	1:B:125:LEU:HD21	1.97	0.45
1:B:152:ALA:HA	1:B:155:VAL:HG22	1.98	0.45
1:B:24:LEU:HD21	1:B:218:VAL:CB	2.47	0.45
1:C:49:LEU:O	1:C:54:THR:N	2.43	0.45
2:E:4:MET:SD	3:F:109:ALA:HB1	2.56	0.45
1:A:14:PHE:N	1:A:18:VAL:HG22	2.32	0.45
1:B:9:ALA:CB	1:B:10:LEU:O	2.61	0.45
1:C:248:ALA:O	1:C:251:ALA:HB3	2.16	0.45
1:D:105:PHE:O	1:D:105:PHE:CD1	2.70	0.45
2:E:65:GLY:C	2:E:66:SER:O	2.55	0.45
1:D:140:MET:CG	3:F:8:ARG:HH21	2.29	0.45
1:A:214:ARG:CZ	1:A:237:VAL:HA	2.46	0.45
1:B:10:LEU:HD12	1:B:11:THR:H	1.81	0.45
1:B:243:LEU:O	1:B:244:VAL:HG13	2.17	0.45
1:B:265:LYS:CD	1:B:267:ARG:C	2.85	0.45
1:B:50:HIS:ND1	1:B:55:LEU:O	2.49	0.45
1:D:2:THR:HA	1:D:3:PRO:HD3	1.78	0.45
2:E:151:ALA:O	2:E:155:THR:OG1	2.20	0.45
2:M:74:GLY:HA3	2:M:145:ALA:CB	2.45	0.45
3:Q:15:TRP:CD2	3:Q:58:ALA:HB2	2.52	0.45
1:A:270:LEU:C	1:A:270:LEU:HD23	2.37	0.45
1:C:234:LEU:HB3	1:C:239:LEU:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:139:HIS:HD2	3:F:153:PHE:CD1	2.34	0.45
2:M:71:THR:C	2:M:73:THR:H	2.20	0.45
3:Q:163:THR:C	3:Q:167:ARG:CZ	2.86	0.45
1:A:157:MET:HB3	1:A:157:MET:HE3	1.86	0.45
1:A:64:LEU:CD1	1:A:67:THR:H	2.25	0.45
1:C:100:PHE:CD2	1:C:121:VAL:HG11	2.52	0.45
1:C:252:ARG:O	1:C:257:LEU:CD1	2.65	0.45
1:C:72:SER:C	1:C:76:LEU:HB2	2.37	0.45
1:D:106:GLY:HA3	1:D:107:PRO:HD3	1.73	0.45
1:D:137:PRO:CG	3:F:16:ARG:HH22	2.30	0.45
2:E:117:ILE:N	2:E:117:ILE:CD1	2.73	0.45
3:F:14:HIS:HD2	3:F:15:TRP:CD1	2.35	0.45
2:E:46:ALA:CB	3:F:151:PHE:CD1	3.00	0.45
3:Q:90:GLU:O	3:Q:91:GLY:C	2.56	0.45
1:A:256:LEU:N	1:A:257:LEU:HD22	2.32	0.44
1:A:79:TRP:O	1:A:79:TRP:HD1	1.99	0.44
1:A:86:VAL:HG13	1:A:93:GLN:HE22	1.81	0.44
1:B:114:GLU:CD	1:B:118:ARG:CD	2.85	0.44
1:B:4:ILE:HG21	1:B:30:LYS:HA	1.98	0.44
1:D:28:VAL:HG22	1:D:34:LEU:HD13	1.98	0.44
2:E:111:ASN:N	2:E:111:ASN:ND2	2.60	0.44
2:E:44:THR:O	2:E:47:ALA:HB3	2.17	0.44
2:M:146:PHE:HD2	2:M:147:LEU:HD23	1.81	0.44
1:A:128:LEU:HD22	1:A:128:LEU:HA	1.81	0.44
1:A:13:ALA:CB	1:A:19:LYS:CA	2.95	0.44
1:A:209:ARG:NH1	1:A:209:ARG:HG3	2.30	0.44
1:B:44:LYS:NZ	1:B:197:THR:O	2.50	0.44
1:B:9:ALA:HA	1:B:23:ASP:HB2	2.00	0.44
2:E:192:ALA:O	2:E:195:PHE:N	2.51	0.44
2:E:23:PHE:HB3	2:E:117:ILE:HG12	1.99	0.44
3:F:85:ILE:HG21	3:F:92:ILE:HG23	1.99	0.44
3:Q:170:LEU:C	3:Q:170:LEU:CD1	2.85	0.44
1:B:114:GLU:OE1	3:Q:216:LEU:HD13	2.17	0.44
1:A:252:ARG:N	1:A:257:LEU:HG	2.32	0.44
1:B:4:ILE:HA	1:B:65:GLY:HA2	1.98	0.44
2:E:105:LEU:O	2:E:108:LEU:HB3	2.16	0.44
3:F:11:ALA:HB2	3:F:16:ARG:HH12	1.79	0.44
3:F:200:LEU:HG	3:F:204:LEU:HD13	2.00	0.44
3:F:85:ILE:HG13	3:F:86:GLN:N	2.32	0.44
1:A:101:GLU:OE2	1:A:101:GLU:HA	2.15	0.44
1:A:110:LEU:C	1:A:112:LEU:H	2.21	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:64:LEU:CD1	1:A:67:THR:N	2.81	0.44
1:B:11:THR:CA	1:B:21:LEU:O	2.65	0.44
1:B:13:ALA:HB1	1:B:18:VAL:O	2.18	0.44
1:C:231:ARG:CZ	1:C:250:LEU:HD21	2.47	0.44
1:D:16:GLY:CA	1:D:17:GLY:C	2.86	0.44
1:D:49:LEU:HA	1:D:49:LEU:HD23	1.84	0.44
3:Q:19:PRO:HD3	3:Q:220:PRO:HG2	1.98	0.44
3:Q:2:SER:C	3:Q:3:ILE:CG1	2.86	0.44
3:Q:82:VAL:C	3:Q:85:ILE:HG12	2.36	0.44
1:A:112:LEU:HD12	1:A:116:GLU:C	2.38	0.44
1:B:223:ALA:HB1	1:B:225:GLU:HB3	2.00	0.44
1:B:21:LEU:C	1:B:22:ASP:O	2.44	0.44
1:B:265:LYS:CD	1:B:265:LYS:C	2.85	0.44
1:D:63:LEU:CD1	1:D:68:ALA:CB	2.91	0.44
2:E:71:THR:O	2:E:193:GLU:CD	2.56	0.44
2:M:3:ILE:HG22	2:M:107:THR:HG21	1.99	0.44
2:M:107:THR:O	2:M:110:ALA:HB3	2.18	0.44
1:B:94:LEU:O	3:Q:150:ARG:NH2	2.50	0.44
1:A:106:GLY:O	1:A:109:ASN:HB3	2.18	0.44
1:A:132:ASP:CG	1:A:134:ARG:HH11	2.20	0.44
1:A:15:PRO:CD	1:A:18:VAL:CG2	2.85	0.44
1:B:11:THR:O	1:B:12:TYR:CB	2.62	0.44
1:B:36:ILE:HG21	1:B:44:LYS:HB3	2.00	0.44
1:D:200:VAL:HG23	1:D:242:PRO:HG3	2.00	0.44
2:E:118:VAL:HG11	2:E:155:THR:OG1	2.18	0.44
1:C:15:PRO:HB2	3:F:5:SER:HA	2.00	0.44
2:M:174:ALA:HA	2:M:177:LYS:CG	2.48	0.44
3:Q:178:TRP:CD1	3:Q:178:TRP:O	2.70	0.44
1:A:113:SER:C	1:A:115:ALA:N	2.66	0.44
1:A:147:ARG:CZ	1:A:166:GLU:O	2.65	0.44
3:F:132:LEU:CD2	3:F:137:VAL:HG23	2.31	0.44
2:M:60:ILE:CD1	2:M:196:LEU:HD13	2.44	0.44
3:Q:238:LEU:HD13	3:Q:239:ALA:HA	2.00	0.44
1:A:64:LEU:HG	1:A:67:THR:O	2.18	0.44
1:B:10:LEU:HD21	1:B:21:LEU:HD21	2.00	0.44
2:E:19:ALA:C	2:E:113:PHE:HE1	2.20	0.44
2:M:2:HIS:CE1	2:M:115:MET:SD	3.11	0.44
1:A:8:GLU:HB2	1:A:61:ARG:NE	2.32	0.44
1:B:12:TYR:O	1:B:20:ALA:HB3	2.17	0.44
1:B:73:ARG:C	1:B:74:LYS:CG	2.86	0.44
1:D:95:PHE:CE1	1:D:105:PHE:HD2	2.36	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:240:ARG:HE	1:D:240:ARG:HB2	1.59	0.44
2:E:152:THR:OG1	2:E:153:TYR:N	2.50	0.44
2:E:42:ARG:CZ	3:F:143:GLU:OE1	2.66	0.44
3:F:205:GLY:O	3:F:208:ASN:N	2.51	0.44
2:M:171:PHE:C	2:M:173:GLY:N	2.72	0.44
3:Q:133:ARG:NH2	3:Q:219:ARG:NH2	2.66	0.44
1:A:133:LEU:CA	1:A:134:ARG:HB2	2.48	0.43
1:B:71:HIS:C	1:B:73:ARG:N	2.67	0.43
1:C:104:SER:O	1:C:108:LEU:HD13	2.18	0.43
1:D:144:GLY:O	1:D:148:ARG:HG3	2.19	0.43
1:D:224:ALA:O	1:D:228:LEU:N	2.41	0.43
3:Q:65:TRP:O	3:Q:67:SER:N	2.52	0.43
1:A:119:ALA:HA	1:A:122:GLU:HB3	2.00	0.43
1:A:129:SER:OG	1:A:129:SER:O	2.31	0.43
1:A:255:GLY:CA	1:A:257:LEU:CG	2.95	0.43
1:B:76:LEU:CD2	1:B:77:THR:H	2.31	0.43
1:B:76:LEU:HD23	1:B:77:THR:N	2.32	0.43
3:F:105:LEU:HA	3:F:105:LEU:HD12	1.57	0.43
3:F:84:LEU:HD21	3:F:94:LEU:HG	2.00	0.43
3:Q:174:THR:CG2	3:Q:177:ARG:HD3	2.37	0.43
1:A:164:LEU:O	1:A:195:PHE:HA	2.18	0.43
1:B:231:ARG:O	1:B:234:LEU:HB3	2.18	0.43
1:B:62:VAL:CG1	1:B:79:TRP:HH2	2.26	0.43
1:B:72:SER:O	1:B:73:ARG:HG2	2.18	0.43
1:C:252:ARG:HE	1:C:257:LEU:CB	2.28	0.43
1:C:85:LEU:HD12	1:C:163:LEU:HB2	1.99	0.43
1:D:214:ARG:HD2	1:D:215:THR:HG23	2.00	0.43
1:D:264:PRO:HB2	1:D:265:LYS:H	1.65	0.43
2:E:71:THR:O	2:E:193:GLU:OE1	2.36	0.43
3:F:192:ARG:HE	3:F:192:ARG:HB3	1.68	0.43
3:F:210:GLN:HG2	3:F:211:GLY:H	1.83	0.43
1:B:109:ASN:HD22	3:Q:209:TRP:CB	2.31	0.43
3:Q:70:VAL:HA	3:Q:73:LEU:HD13	2.00	0.43
1:C:64:LEU:CD2	1:C:82:ARG:HH12	2.32	0.43
1:C:72:SER:OG	1:C:74:LYS:CB	2.66	0.43
1:D:75:ASP:N	1:D:75:ASP:OD1	2.52	0.43
2:E:51:PHE:HE1	3:F:186:ILE:HG23	1.83	0.43
3:Q:237:ILE:HG22	3:Q:237:ILE:O	2.17	0.43
1:A:145:GLN:NE2	1:A:145:GLN:CA	2.78	0.43
1:B:135:ASP:OD1	1:B:135:ASP:N	2.52	0.43
1:B:247:LEU:CG	1:B:249:LEU:HD23	2.41	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:140:MET:O	1:C:140:MET:HG2	2.18	0.43
1:C:182:LEU:HD23	1:C:182:LEU:HA	1.66	0.43
1:C:230:ASP:OD2	1:C:233:THR:OG1	2.31	0.43
1:C:247:LEU:HA	1:C:247:LEU:HD13	1.79	0.43
1:D:252:ARG:HD2	1:D:252:ARG:HA	1.68	0.43
2:E:116:ALA:CB	2:E:117:ILE:CA	2.87	0.43
3:F:176:ARG:CG	3:F:177:ARG:H	2.31	0.43
3:F:176:ARG:CG	3:F:177:ARG:N	2.81	0.43
3:F:155:LEU:CD2	3:F:189:LEU:HD11	2.48	0.43
3:F:225:ARG:O	3:F:229:LEU:N	2.41	0.43
3:F:97:ASP:HB2	3:F:98:GLY:CA	2.42	0.43
1:A:112:LEU:HA	1:A:112:LEU:HD13	1.87	0.43
1:A:76:LEU:O	1:A:78:GLY:N	2.51	0.43
1:B:18:VAL:HG22	1:B:19:LYS:HG2	1.99	0.43
1:B:240:ARG:HG2	1:B:241:PRO:HD2	2.00	0.43
1:B:6:ALA:O	1:B:63:LEU:CD2	2.60	0.43
1:C:120:ARG:CG	1:C:120:ARG:NH1	2.73	0.43
1:C:209:ARG:NH1	1:C:221:GLU:OE2	2.52	0.43
2:M:107:THR:O	2:M:110:ALA:N	2.51	0.43
2:M:16:TRP:CZ2	2:M:159:GLN:HG2	2.54	0.43
1:B:98:THR:HA	1:B:137:PRO:HA	2.01	0.43
1:B:24:LEU:HD23	1:B:217:ARG:CB	2.40	0.43
2:E:104:GLY:O	2:E:108:LEU:HB2	2.19	0.43
2:E:32:ARG:HD3	3:F:140:GLU:OE2	2.19	0.43
2:E:69:HIS:C	2:E:189:LEU:HD11	2.39	0.43
3:Q:37:VAL:O	3:Q:108:ARG:NH2	2.46	0.43
1:B:128:LEU:HD13	1:B:152:ALA:HB2	2.00	0.43
1:C:270:LEU:HD23	1:C:270:LEU:HA	1.87	0.43
3:F:239:ALA:O	3:F:243:LEU:HD23	2.19	0.43
1:A:15:PRO:CD	1:A:18:VAL:H	2.32	0.43
1:A:259:PRO:O	1:A:259:PRO:HD2	2.19	0.43
1:B:100:PHE:CE1	1:B:134:ARG:NH2	2.87	0.43
1:B:109:ASN:O	3:Q:208:ASN:ND2	2.39	0.43
1:C:17:GLY:C	1:C:19:LYS:N	2.72	0.43
1:C:268:ASP:OD1	1:D:253:ASP:OD2	2.36	0.43
1:D:24:LEU:HD12	1:D:216:GLY:O	2.17	0.43
1:D:49:LEU:HD22	1:D:54:THR:HG21	2.01	0.43
3:F:143:GLU:OE1	3:F:212:GLU:HA	2.18	0.43
3:F:208:ASN:N	3:F:208:ASN:OD1	2.50	0.43
3:F:95:ALA:C	3:F:97:ASP:N	2.65	0.43
2:M:201:VAL:O	2:M:201:VAL:HG12	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:116:LEU:HD12	3:Q:116:LEU:HA	1.79	0.43
3:Q:236:ALA:C	3:Q:238:LEU:N	2.72	0.43
1:B:177:GLU:HA	1:B:180:LEU:HD12	2.01	0.43
1:B:200:VAL:HG11	1:B:239:LEU:HG	2.01	0.43
1:C:12:TYR:CE2	1:C:14:PHE:CD1	3.07	0.43
1:C:28:VAL:HG22	1:C:34:LEU:HD23	2.01	0.43
1:D:63:LEU:CD1	1:D:67:THR:C	2.86	0.43
2:E:166:ASP:OD2	2:E:177:LYS:HE3	2.19	0.43
3:F:205:GLY:O	3:F:206:ALA:C	2.57	0.43
3:F:33:LEU:O	3:F:37:VAL:HB	2.19	0.43
2:M:75:LEU:CD2	2:M:200:VAL:HG11	2.49	0.43
1:B:179:LEU:O	1:B:182:LEU:N	2.52	0.42
1:B:40:ASN:OD1	1:B:41:GLY:N	2.30	0.42
1:C:18:VAL:HG23	1:C:19:LYS:N	2.34	0.42
1:D:209:ARG:HH21	1:D:221:GLU:CD	2.20	0.42
2:E:160:LEU:HA	2:E:160:LEU:HD23	1.88	0.42
3:F:15:TRP:CD1	3:F:18:ARG:HD3	2.54	0.42
2:M:82:PRO:CG	2:M:124:PHE:CD2	3.02	0.42
2:M:155:THR:O	2:M:159:GLN:HG3	2.19	0.42
3:Q:2:SER:CA	3:Q:3:ILE:CB	2.93	0.42
1:A:166:GLU:HA	1:A:167:PRO:HD3	1.84	0.42
1:A:10:LEU:HG	1:A:23:ASP:N	2.34	0.42
1:A:259:PRO:HG2	1:A:265:LYS:CE	2.48	0.42
1:A:76:LEU:HD12	1:A:77:THR:CA	2.48	0.42
1:C:114:GLU:O	1:C:117:ALA:HB3	2.19	0.42
1:C:42:ALA:CB	1:C:213:PHE:HB3	2.49	0.42
2:E:5:GLU:HA	2:E:107:THR:HG23	2.01	0.42
2:E:114:SER:OG	2:E:115:MET:HG2	2.18	0.42
2:E:94:LEU:HD23	2:E:94:LEU:HA	1.89	0.42
2:M:74:GLY:O	2:M:77:ALA:HB3	2.19	0.42
2:M:5:GLU:HB3	3:Q:113:THR:OG1	2.20	0.42
3:Q:170:LEU:HD22	3:Q:170:LEU:HA	1.61	0.42
1:A:244:VAL:O	1:A:245:ILE:C	2.53	0.42
1:D:140:MET:HG3	3:F:8:ARG:HH21	1.83	0.42
1:D:70:GLY:C	1:D:75:ASP:OD2	2.55	0.42
3:Q:52:ALA:O	3:Q:56:LEU:N	2.40	0.42
1:A:162:LEU:HA	1:A:162:LEU:HD12	1.91	0.42
1:D:75:ASP:O	1:D:79:TRP:CB	2.67	0.42
2:E:3:ILE:HD12	2:E:111:ASN:ND2	2.34	0.42
2:M:35:VAL:HG22	2:M:41:ALA:HB3	2.00	0.42
3:Q:243:LEU:CD1	3:Q:243:LEU:C	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:136:ARG:HE	1:A:141:LEU:HG	1.84	0.42
1:A:168:THR:OG1	1:A:202:LEU:HD22	2.20	0.42
1:B:243:LEU:C	1:B:244:VAL:HG12	2.40	0.42
1:B:265:LYS:CD	1:B:266:THR:C	2.85	0.42
1:C:128:LEU:HD22	1:C:148:ARG:O	2.19	0.42
2:M:173:GLY:C	2:M:175:ALA:N	2.73	0.42
3:Q:163:THR:C	3:Q:167:ARG:NH2	2.73	0.42
3:Q:179:LEU:HA	3:Q:179:LEU:HD12	1.85	0.42
3:Q:192:ARG:HB2	3:Q:192:ARG:HE	1.67	0.42
1:A:252:ARG:C	1:A:252:ARG:CD	2.88	0.42
1:C:127:ALA:O	1:C:182:LEU:HD22	2.20	0.42
1:D:114:GLU:CD	1:D:114:GLU:H	2.22	0.42
1:D:138:THR:HA	1:D:141:LEU:CD1	2.48	0.42
1:D:256:LEU:CD1	1:D:257:LEU:HD23	2.47	0.42
1:D:267:ARG:O	1:D:267:ARG:NE	2.53	0.42
3:F:125:ALA:O	3:F:129:LEU:HD12	2.20	0.42
3:F:137:VAL:HA	3:F:138:PRO:HD3	1.93	0.42
3:F:42:GLY:O	3:F:43:ALA:C	2.58	0.42
2:M:160:LEU:HA	2:M:160:LEU:HD23	1.80	0.42
3:Q:70:VAL:O	3:Q:71:LEU:C	2.58	0.42
1:B:138:THR:HA	1:B:141:LEU:HD12	2.00	0.42
1:B:82:ARG:HE	1:B:82:ARG:HB3	1.62	0.42
1:C:124:ALA:C	1:C:126:ALA:H	2.23	0.42
1:C:21:LEU:HD11	1:C:50:HIS:HD2	1.83	0.42
1:D:151:ILE:O	1:D:155:VAL:HG13	2.20	0.42
2:E:113:PHE:O	2:E:118:VAL:HG23	2.19	0.42
2:E:7:TYR:O	2:E:7:TYR:CD2	2.73	0.42
1:A:132:ASP:CG	1:A:134:ARG:NH1	2.72	0.42
1:A:132:ASP:HB3	1:A:133:LEU:CB	2.49	0.42
1:A:14:PHE:CB	1:A:18:VAL:HG22	2.46	0.42
1:A:247:LEU:HA	1:A:247:LEU:HD13	1.79	0.42
1:B:243:LEU:HD23	1:B:243:LEU:H	1.84	0.42
1:C:176:THR:HG23	1:C:177:GLU:N	2.34	0.42
1:C:252:ARG:NE	1:C:257:LEU:CB	2.71	0.42
1:C:252:ARG:CG	1:C:257:LEU:HA	2.46	0.42
1:D:245:ILE:O	1:D:249:LEU:HG	2.20	0.42
1:D:58:GLN:CD	1:D:58:GLN:H	2.23	0.42
1:D:74:LYS:C	1:D:76:LEU:N	2.73	0.42
3:F:15:TRP:CH2	3:F:57:GLY:HA3	2.55	0.42
2:E:182:PHE:HE1	3:F:78:THR:HG21	1.84	0.42
3:F:82:VAL:CG2	3:F:83:LEU:N	2.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:163:THR:C	3:Q:167:ARG:NH1	2.73	0.42
3:Q:189:LEU:HA	3:Q:189:LEU:HD12	1.89	0.42
3:Q:37:VAL:HG11	3:Q:42:GLY:CA	2.45	0.42
1:B:265:LYS:HD2	1:B:267:ARG:CA	2.48	0.42
1:B:62:VAL:HG12	1:B:79:TRP:HH2	1.85	0.42
1:C:35:ALA:HB2	1:C:207:ALA:HB2	2.02	0.42
1:C:64:LEU:HD21	1:C:82:ARG:HH12	1.84	0.42
1:D:137:PRO:HD2	1:D:140:MET:HE2	2.02	0.42
2:E:51:PHE:CE1	3:F:186:ILE:HG23	2.55	0.42
2:M:54:VAL:O	2:M:58:LEU:HD13	2.20	0.42
3:Q:208:ASN:ND2	3:Q:208:ASN:C	2.73	0.42
1:A:115:ALA:O	1:A:118:ARG:HB3	2.20	0.42
1:A:224:ALA:O	1:A:228:LEU:HD12	2.20	0.42
1:C:186:LEU:O	1:C:189:ALA:N	2.53	0.42
1:D:207:ALA:O	1:D:224:ALA:HB2	2.19	0.42
1:D:39:PRO:O	1:D:44:LYS:NZ	2.52	0.42
2:E:19:ALA:O	2:E:113:PHE:HE1	2.03	0.42
3:Q:233:LEU:O	3:Q:236:ALA:HB3	2.19	0.42
1:A:259:PRO:CG	1:A:265:LYS:NZ	2.74	0.41
1:A:62:VAL:CG1	1:A:63:LEU:H	2.15	0.41
1:B:148:ARG:NH2	1:B:178:GLN:HE22	2.18	0.41
1:B:18:VAL:CG2	1:B:19:LYS:HG2	2.50	0.41
1:C:109:ASN:HB3	3:F:170:LEU:HB2	2.02	0.41
1:D:186:LEU:HD23	1:D:186:LEU:HA	1.86	0.41
3:F:66:ALA:O	3:F:70:VAL:HG23	2.20	0.41
2:M:146:PHE:HD1	2:M:190:ALA:O	2.02	0.41
3:Q:62:LEU:CB	3:Q:64:PHE:HB2	2.44	0.41
1:A:78:GLY:O	1:A:81:ARG:HB3	2.20	0.41
1:B:120:ARG:NH2	1:B:158:ARG:CZ	2.64	0.41
1:B:243:LEU:CD2	1:B:243:LEU:H	2.34	0.41
1:C:263:LEU:CD1	1:C:263:LEU:C	2.86	0.41
1:D:16:GLY:N	1:D:17:GLY:C	2.73	0.41
1:D:252:ARG:C	1:D:253:ASP:CG	2.78	0.41
3:F:116:LEU:CD1	3:F:117:LEU:HD12	2.49	0.41
1:B:10:LEU:HD12	1:B:11:THR:N	2.35	0.41
1:B:114:GLU:CD	1:B:118:ARG:NE	2.73	0.41
1:B:138:THR:C	1:B:140:MET:N	2.73	0.41
1:B:200:VAL:CG1	1:B:239:LEU:HG	2.51	0.41
1:D:79:TRP:O	1:D:79:TRP:CD1	2.70	0.41
2:E:55:LEU:HD12	3:F:186:ILE:HD13	2.02	0.41
3:F:172:HIS:CE1	3:F:178:TRP:HE1	2.38	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:15:TRP:HB3	3:F:18:ARG:HB2	2.03	0.41
3:F:51:LEU:N	3:F:51:LEU:CD2	2.83	0.41
2:M:114:SER:HA	2:M:118:VAL:HB	2.02	0.41
3:Q:141:LEU:N	3:Q:141:LEU:HD23	2.35	0.41
3:Q:170:LEU:HD13	3:Q:172:HIS:N	2.30	0.41
3:Q:204:LEU:C	3:Q:206:ALA:N	2.73	0.41
3:Q:69:ALA:O	3:Q:72:PRO:CD	2.63	0.41
1:A:132:ASP:CG	1:A:134:ARG:NE	2.73	0.41
1:A:251:ALA:O	1:A:255:GLY:HA3	2.20	0.41
1:B:157:MET:O	1:B:159:PRO:HD3	2.20	0.41
1:B:19:LYS:HG2	1:B:19:LYS:H	1.55	0.41
1:C:212:LEU:HD23	1:C:237:VAL:HG21	2.02	0.41
1:C:61:ARG:HE	1:C:61:ARG:HB2	1.67	0.41
1:D:140:MET:CG	3:F:8:ARG:HE	2.34	0.41
1:D:16:GLY:HA3	1:D:18:VAL:HB	2.03	0.41
1:D:16:GLY:N	1:D:18:VAL:HG12	2.34	0.41
1:D:48:LEU:HD22	1:D:163:LEU:HB3	2.02	0.41
3:F:151:PHE:O	3:F:155:LEU:HD12	2.19	0.41
2:M:152:THR:OG1	2:M:153:TYR:N	2.52	0.41
3:Q:176:ARG:NH1	3:Q:176:ARG:CG	2.79	0.41
2:M:61:PRO:HG2	3:Q:179:LEU:HB2	2.02	0.41
3:Q:78:THR:O	3:Q:82:VAL:HG23	2.20	0.41
1:D:127:ALA:O	1:D:182:LEU:HD22	2.20	0.41
1:D:249:LEU:HD23	1:D:249:LEU:HA	1.93	0.41
1:D:28:VAL:HG22	1:D:34:LEU:CD1	2.50	0.41
2:E:2:HIS:ND1	2:E:115:MET:CE	2.83	0.41
1:A:15:PRO:HD2	1:A:18:VAL:CG1	2.40	0.41
1:A:180:LEU:HD21	1:A:206:LEU:HB2	2.03	0.41
1:A:213:PHE:HE1	1:A:216:GLY:CA	2.34	0.41
1:B:49:LEU:O	1:B:54:THR:HB	2.20	0.41
1:B:64:LEU:N	1:B:64:LEU:CD2	2.73	0.41
1:D:163:LEU:HD23	1:D:194:VAL:HB	2.01	0.41
2:E:33:LYS:O	2:E:35:VAL:N	2.53	0.41
3:F:105:LEU:O	3:F:108:ARG:N	2.53	0.41
1:A:131:SER:O	1:A:132:ASP:CB	2.60	0.41
1:A:166:GLU:HG3	1:A:197:THR:HA	2.01	0.41
1:A:221:GLU:CD	1:A:222:GLY:HA3	2.41	0.41
1:B:234:LEU:CD2	1:B:239:LEU:C	2.85	0.41
1:B:37:LEU:HD12	1:B:38:GLY:H	1.85	0.41
2:E:60:ILE:HG23	2:E:61:PRO:HD2	2.02	0.41
3:F:85:ILE:CG2	3:F:92:ILE:O	2.66	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:265:LYS:HE3	1:B:266:THR:O	2.21	0.41
1:B:4:ILE:O	1:B:65:GLY:N	2.46	0.41
1:B:64:LEU:CD2	1:B:64:LEU:O	2.68	0.41
1:C:120:ARG:HD3	1:C:156:ALA:O	2.21	0.41
1:C:162:LEU:HD23	1:C:164:LEU:HD11	2.02	0.41
1:C:53:GLY:HA3	1:C:79:TRP:CZ3	2.55	0.41
1:C:77:THR:O	1:C:81:ARG:N	2.54	0.41
1:D:90:ALA:O	1:D:94:LEU:HG	2.21	0.41
1:D:97:THR:HG21	3:F:126:ALA:HB3	2.02	0.41
2:E:195:PHE:O	2:E:199:ILE:HG13	2.20	0.41
2:M:90:VAL:O	2:M:94:LEU:HG	2.21	0.41
3:Q:65:TRP:HZ3	3:Q:117:LEU:CB	2.33	0.41
3:Q:201:GLU:HG3	3:Q:210:GLN:CD	2.40	0.41
3:Q:2:SER:CB	3:Q:3:ILE:CG1	2.96	0.41
3:Q:87:ILE:HG22	3:Q:88:GLY:CA	2.51	0.41
1:A:24:LEU:HB2	1:A:217:ARG:HA	2.02	0.41
1:C:112:LEU:O	1:C:113:SER:CB	2.69	0.41
1:D:212:LEU:HD11	1:D:234:LEU:CD2	2.50	0.41
2:E:5:GLU:HA	2:E:107:THR:HG21	2.03	0.41
2:M:172:LEU:CD2	2:M:172:LEU:C	2.85	0.41
2:M:95:PHE:O	2:M:99:LEU:HB2	2.21	0.41
3:Q:2:SER:CA	3:Q:3:ILE:CG2	2.42	0.41
1:A:100:PHE:HA	1:A:100:PHE:HD1	1.72	0.41
1:A:161:VAL:HG22	1:A:192:THR:HB	2.02	0.41
1:A:221:GLU:CD	1:A:222:GLY:CA	2.90	0.41
1:B:34:LEU:HA	1:B:209:ARG:O	2.20	0.41
1:D:7:ALA:HB2	1:D:62:VAL:HG22	2.01	0.41
3:F:71:LEU:HD13	3:F:74:GLY:CA	2.48	0.41
2:M:193:GLU:O	2:M:197:THR:HG23	2.21	0.41
3:Q:15:TRP:CZ2	3:Q:57:GLY:O	2.74	0.41
3:Q:50:ILE:HG23	3:Q:51:LEU:HD23	2.03	0.41
1:A:121:VAL:O	1:A:121:VAL:HG12	2.21	0.41
1:A:255:GLY:C	1:A:257:LEU:CD2	2.90	0.41
1:B:45:SER:OG	1:B:88:GLN:NE2	2.54	0.41
1:C:231:ARG:NH1	1:C:246:ASP:OD2	2.54	0.41
2:E:92:VAL:O	2:E:96:GLN:HG3	2.21	0.41
3:F:22:GLU:HG3	3:F:222:ALA:HB3	1.98	0.41
3:F:242:VAL:HG13	3:F:243:LEU:H	1.86	0.41
3:F:42:GLY:O	3:F:45:LEU:HD13	2.19	0.41
2:M:128:LYS:HG2	2:M:129:LEU:HD12	2.02	0.41
3:Q:224:ALA:HA	3:Q:227:LEU:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:141:LEU:HA	1:A:141:LEU:HD23	1.80	0.40
1:B:224:ALA:O	1:B:228:LEU:CD2	2.68	0.40
1:D:224:ALA:HB3	1:D:225:GLU:OE2	2.21	0.40
1:D:243:LEU:HD23	1:D:244:VAL:CG2	2.50	0.40
1:D:138:THR:OG1	3:F:150:ARG:NH1	2.54	0.40
1:A:12:TYR:CD2	1:A:12:TYR:C	2.95	0.40
1:B:91:ASP:OD1	1:B:146:LYS:NZ	2.45	0.40
1:D:87:LEU:HD11	3:F:203:GLY:HA2	2.02	0.40
2:M:83:SER:OG	2:M:84:VAL:N	2.54	0.40
3:Q:221:PRO:O	3:Q:223:SER:N	2.54	0.40
3:Q:224:ALA:HB1	3:Q:227:LEU:HD23	2.03	0.40
3:Q:85:ILE:HD12	3:Q:86:GLN:HE21	1.79	0.40
1:A:259:PRO:HG2	1:A:265:LYS:HZ3	1.84	0.40
1:B:214:ARG:O	1:B:215:THR:CB	2.70	0.40
1:B:36:ILE:HG23	1:B:213:PHE:CE2	2.56	0.40
1:B:8:GLU:O	1:B:10:LEU:N	2.55	0.40
1:D:99:VAL:O	1:D:100:PHE:C	2.59	0.40
3:F:150:ARG:HG2	3:F:154:ILE:CD1	2.51	0.40
3:F:186:ILE:O	3:F:187:ALA:C	2.58	0.40
3:F:192:ARG:O	3:F:196:ARG:HB2	2.20	0.40
3:F:225:ARG:HG2	3:F:225:ARG:HH11	1.87	0.40
2:M:160:LEU:HB3	2:M:178:PHE:CE2	2.56	0.40
2:M:187:ILE:O	2:M:187:ILE:HG22	2.21	0.40
1:B:103:VAL:HG21	1:B:125:LEU:CD2	2.52	0.40
1:B:129:SER:O	1:B:129:SER:OG	2.37	0.40
1:C:162:LEU:HD23	1:C:193:LEU:HD22	2.04	0.40
1:C:177:GLU:OE1	1:C:178:GLN:HB2	2.22	0.40
1:D:171:LEU:HD23	1:D:171:LEU:HA	1.88	0.40
1:D:37:LEU:HD11	1:D:239:LEU:CD1	2.52	0.40
1:D:5:LEU:HD13	1:D:64:LEU:HD12	2.04	0.40
2:E:7:TYR:CE1	3:F:105:LEU:HD21	2.57	0.40
3:F:124:PRO:O	3:F:125:ALA:C	2.58	0.40
3:F:242:VAL:C	3:F:244:LEU:N	2.73	0.40
3:F:50:ILE:HD12	3:F:50:ILE:HA	1.82	0.40
2:M:174:ALA:C	2:M:177:LYS:HG2	2.42	0.40
2:M:64:THR:HG22	2:M:188:PRO:CG	2.51	0.40
1:A:154:ALA:HB1	1:A:162:LEU:HD11	2.02	0.40
1:B:231:ARG:HD2	1:B:241:PRO:HD3	2.03	0.40
2:E:127:TYR:HE2	2:E:141:VAL:HG12	1.87	0.40
3:F:118:PHE:CE1	3:F:122:THR:HG21	2.57	0.40

All (8) symmetry-related close contacts are listed below. The label for Atom-2 includes the sym-

metry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:113:SER:CB	1:A:254:HIS:CE1[4_479]	1.33	0.87
1:B:251:ALA:CB	3:F:100:ALA:CB[2_374]	1.51	0.69
1:A:113:SER:OG	1:A:254:HIS:NE2[4_479]	1.58	0.62
1:A:113:SER:OG	1:A:254:HIS:CE1[4_479]	1.66	0.54
1:A:113:SER:CB	1:A:254:HIS:NE2[4_479]	2.02	0.18
3:Q:243:LEU:C	3:F:225:ARG:NH1[3_459]	2.08	0.12
1:B:61:ARG:NH1	3:F:212:GLU:OE2[4_569]	2.11	0.09
3:Q:243:LEU:CA	3:F:225:ARG:CZ[3_459]	2.19	0.01

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	259/280 (92%)	206 (80%)	36 (14%)	17 (7%)	1	12
1	B	254/280 (91%)	202 (80%)	38 (15%)	14 (6%)	2	16
1	C	268/280 (96%)	224 (84%)	32 (12%)	12 (4%)	2	20
1	D	265/280 (95%)	221 (83%)	33 (12%)	11 (4%)	3	22
2	E	205/222 (92%)	160 (78%)	39 (19%)	6 (3%)	4	29
2	M	205/222 (92%)	176 (86%)	20 (10%)	9 (4%)	2	20
3	F	242/256 (94%)	186 (77%)	42 (17%)	14 (6%)	1	14
3	Q	241/256 (94%)	182 (76%)	40 (17%)	19 (8%)	1	9
All	All	1939/2076 (93%)	1557 (80%)	280 (14%)	102 (5%)	2	16

All (102) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	63	LEU
1	A	114	GLU
1	A	140	MET

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Mol	Chain	Res	Type
1	A	145	GLN
1	A	243	LEU
1	B	9	ALA
1	B	22	ASP
1	B	30	LYS
1	B	71	HIS
1	B	72	SER
2	M	165	PRO
3	Q	3	ILE
3	Q	91	GLY
3	Q	168	ALA
3	Q	169	ARG
3	Q	238	LEU
3	Q	239	ALA
1	C	14	PHE
1	C	91	ASP
1	C	112	LEU
1	C	243	LEU
1	C	269	ALA
1	D	250	LEU
1	D	264	PRO
2	E	66	SER
2	E	134	GLY
3	F	87	ILE
3	F	213	MET
3	F	237	ILE
3	F	238	LEU
1	A	144	GLY
1	A	266	THR
1	B	12	TYR
1	B	113	SER
1	B	264	PRO
2	M	172	LEU
2	M	175	ALA
3	Q	73	LEU
3	Q	213	MET
3	Q	222	ALA
3	Q	224	ALA
1	C	113	SER
1	C	125	LEU
1	C	259	PRO
1	C	267	ARG

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Mol	Chain	Res	Type
1	D	261	ALA
1	D	262	PRO
3	F	40	PHE
3	F	84	LEU
3	F	224	ALA
1	A	14	PHE
1	A	15	PRO
1	A	62	VAL
1	A	134	ARG
1	A	135	ASP
1	A	259	PRO
1	B	215	THR
2	M	171	PHE
3	Q	125	ALA
3	Q	182	THR
3	Q	227	LEU
1	C	215	THR
1	D	14	PHE
1	D	18	VAL
1	D	71	HIS
1	D	167	PRO
1	D	265	LYS
3	F	94	LEU
1	A	137	PRO
1	A	206	LEU
1	B	11	THR
1	B	244	VAL
1	B	262	PRO
1	B	265	LYS
2	M	112	ALA
3	Q	12	GLN
3	F	41	PRO
3	F	96	PRO
1	A	143	GLY
2	M	84	VAL
2	M	173	GLY
3	Q	87	ILE
3	Q	221	PRO
3	Q	236	ALA
1	C	216	GLY
1	D	99	VAL
1	D	263	LEU

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Mol	Chain	Res	Type
3	F	99	PRO
1	B	29	PRO
3	Q	96	PRO
2	E	65	GLY
3	F	71	LEU
3	F	98	GLY
1	A	258	ALA
2	M	39	PRO
2	M	70	PRO
1	C	18	VAL
2	E	34	ILE
2	E	90	VAL
3	F	191	PRO
3	Q	237	ILE
2	E	167	PRO

5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	197/209 (94%)	142 (72%)	55 (28%)	0	2
1	B	194/209 (93%)	159 (82%)	35 (18%)	1	8
1	C	202/209 (97%)	168 (83%)	34 (17%)	2	11
1	D	200/209 (96%)	167 (84%)	33 (16%)	2	12
2	E	143/155 (92%)	123 (86%)	20 (14%)	3	17
2	M	143/155 (92%)	134 (94%)	9 (6%)	18	50
3	F	179/190 (94%)	155 (87%)	24 (13%)	4	19
3	Q	179/190 (94%)	145 (81%)	34 (19%)	1	7
All	All	1437/1526 (94%)	1193 (83%)	244 (17%)	2	11

All (244) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	10	LEU
1	A	11	THR
1	A	12	TYR
1	A	14	PHE
1	A	19	LYS
1	A	21	LEU
1	A	24	LEU
1	A	46	THR
1	A	50	HIS
1	A	52	ASN
1	A	56	ARG
1	A	61	ARG
1	A	64	LEU
1	A	82	ARG
1	A	98	THR
1	A	100	PHE
1	A	102	ASP
1	A	104	SER
1	A	105	PHE
1	A	107	PRO
1	A	109	ASN
1	A	110	LEU
1	A	112	LEU
1	A	114	GLU
1	A	123	GLU
1	A	128	LEU
1	A	131	SER
1	A	132	ASP
1	A	133	LEU
1	A	134	ARG
1	A	136	ARG
1	A	138	THR
1	A	140	MET
1	A	141	LEU
1	A	158	ARG
1	A	166	GLU
1	A	172	ASP
1	A	173	LEU
1	A	177	GLU
1	A	178	GLN
1	A	183	LEU
1	A	208	ASP
1	A	214	ARG

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Mol	Chain	Res	Type
1	A	221	GLU
1	A	231	ARG
1	A	233	THR
1	A	245	ILE
1	A	246	ASP
1	A	249	LEU
1	A	252	ARG
1	A	256	LEU
1	A	257	LEU
1	A	260	GLU
1	A	263	LEU
1	A	266	THR
1	B	8	GLU
1	B	10	LEU
1	B	11	THR
1	B	19	LYS
1	B	23	ASP
1	B	24	LEU
1	B	25	SER
1	B	26	LEU
1	B	44	LYS
1	B	61	ARG
1	B	63	LEU
1	B	64	LEU
1	B	69	THR
1	B	71	HIS
1	B	72	SER
1	B	74	LYS
1	B	76	LEU
1	B	80	ARG
1	B	81	ARG
1	B	112	LEU
1	B	114	GLU
1	B	118	ARG
1	B	139	HIS
1	B	146	LYS
1	B	183	LEU
1	B	213	PHE
1	B	229	SER
1	B	231	ARG
1	B	234	LEU
1	B	239	LEU

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Mol	Chain	Res	Type
1	B	243	LEU
1	B	247	LEU
1	B	249	LEU
1	B	265	LYS
1	B	267	ARG
2	M	60	ILE
2	M	67	CYS
2	M	69	HIS
2	M	71	THR
2	M	108	LEU
2	M	139	VAL
2	M	171	PHE
2	M	172	LEU
2	M	176	LEU
3	Q	1	MET
3	Q	6	ILE
3	Q	8	ARG
3	Q	18	ARG
3	Q	36	THR
3	Q	40	PHE
3	Q	51	LEU
3	Q	56	LEU
3	Q	59	ARG
3	Q	63	ARG
3	Q	64	PHE
3	Q	65	TRP
3	Q	85	ILE
3	Q	90	GLU
3	Q	135	TRP
3	Q	136	ARG
3	Q	157	GLU
3	Q	158	GLU
3	Q	163	THR
3	Q	164	THR
3	Q	170	LEU
3	Q	172	HIS
3	Q	176	ARG
3	Q	180	ARG
3	Q	181	SER
3	Q	199	ARG
3	Q	207	ARG
3	Q	208	ASN

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Mol	Chain	Res	Type
3	Q	213	MET
3	Q	223	SER
3	Q	225	ARG
3	Q	227	LEU
3	Q	229	LEU
3	Q	238	LEU
1	C	2	THR
1	C	14	PHE
1	C	19	LYS
1	C	44	LYS
1	C	50	HIS
1	C	56	ARG
1	C	63	LEU
1	C	64	LEU
1	C	67	THR
1	C	73	ARG
1	C	74	LYS
1	C	81	ARG
1	C	87	LEU
1	C	89	ASP
1	C	128	LEU
1	C	147	ARG
1	C	158	ARG
1	C	173	LEU
1	C	177	GLU
1	C	178	GLN
1	C	197	THR
1	C	213	PHE
1	C	229	SER
1	C	231	ARG
1	C	245	ILE
1	C	246	ASP
1	C	249	LEU
1	C	250	LEU
1	C	252	ARG
1	C	253	ASP
1	C	257	LEU
1	C	260	GLU
1	C	265	LYS
1	C	270	LEU
1	D	8	GLU
1	D	14	PHE

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Mol	Chain	Res	Type
1	D	15	PRO
1	D	19	LYS
1	D	52	ASN
1	D	59	SER
1	D	63	LEU
1	D	72	SER
1	D	73	ARG
1	D	74	LYS
1	D	75	ASP
1	D	104	SER
1	D	105	PHE
1	D	109	ASN
1	D	114	GLU
1	D	122	GLU
1	D	129	SER
1	D	131	SER
1	D	139	HIS
1	D	146	LYS
1	D	166	GLU
1	D	197	THR
1	D	208	ASP
1	D	242	PRO
1	D	244	VAL
1	D	247	LEU
1	D	252	ARG
1	D	253	ASP
1	D	256	LEU
1	D	257	LEU
1	D	263	LEU
1	D	265	LYS
1	D	267	ARG
2	E	1	MET
2	E	29	LEU
2	E	30	LYS
2	E	32	ARG
2	E	34	ILE
2	E	42	ARG
2	E	69	HIS
2	E	70	PRO
2	E	80	PHE
2	E	83	SER
2	E	106	THR

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Mol	Chain	Res	Type
2	E	108	LEU
2	E	111	ASN
2	E	113	PHE
2	E	120	PRO
2	E	136	SER
2	E	137	MET
2	E	162	LEU
2	E	169	SER
2	E	172	LEU
3	F	8	ARG
3	F	36	THR
3	F	40	PHE
3	F	41	PRO
3	F	51	LEU
3	F	53	PHE
3	F	71	LEU
3	F	84	LEU
3	F	85	ILE
3	F	89	PRO
3	F	90	GLU
3	F	116	LEU
3	F	128	LEU
3	F	133	ARG
3	F	167	ARG
3	F	175	ARG
3	F	180	ARG
3	F	189	LEU
3	F	196	ARG
3	F	199	ARG
3	F	218	THR
3	F	219	ARG
3	F	225	ARG
3	F	237	ILE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (20) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	93	GLN
1	A	109	ASN
1	A	139	HIS
1	B	50	HIS
1	B	71	HIS

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Mol	Chain	Res	Type
1	B	88	GLN
1	B	93	GLN
2	M	69	HIS
3	Q	86	GLN
3	Q	208	ASN
3	Q	210	GLN
1	C	178	GLN
1	D	71	HIS
1	D	109	ASN
1	D	139	HIS
2	E	2	HIS
2	E	69	HIS
2	E	96	GLN
3	F	14	HIS
3	F	172	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 carbohydrates 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	263/280 (93%)	0.84	38 (14%) 2 3	28, 91, 141, 154	0
1	B	258/280 (92%)	0.73	27 (10%) 6 8	56, 80, 111, 132	0
1	C	270/280 (96%)	0.52	17 (6%) 20 20	54, 65, 99, 134	0
1	D	267/280 (95%)	0.45	24 (8%) 9 11	48, 62, 84, 113	0
2	E	207/222 (93%)	0.11	4 (1%) 66 63	53, 62, 81, 116	0
2	M	207/222 (93%)	0.27	9 (4%) 35 33	56, 62, 86, 147	0
3	F	244/256 (95%)	0.44	20 (8%) 11 13	53, 62, 114, 148	0
3	Q	243/256 (94%)	0.26	7 (2%) 51 48	51, 69, 85, 122	0
All	All	1959/2076 (94%)	0.47	146 (7%) 14 16	28, 68, 110, 154	0

All (146) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	142	SER	11.4
1	B	249	LEU	9.6
1	B	250	LEU	8.0
3	F	96	PRO	7.6
1	A	65	GLY	6.6
1	C	71	HIS	6.2
1	A	66	GLY	5.3
1	A	220	ALA	5.0
3	F	211	GLY	4.9
1	B	218	VAL	4.7
1	A	22	ASP	4.6
1	A	270	LEU	4.5
3	F	83	LEU	4.5
1	B	6	ALA	4.5
1	A	227	VAL	4.4
1	B	226	ALA	4.4

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Mol	Chain	Res	Type	RSRZ
1	A	143	GLY	4.4
3	F	93	GLY	4.4
1	A	217	ARG	4.3
1	D	62	VAL	4.3
1	A	218	VAL	4.2
1	B	251	ALA	4.1
1	C	58	GLN	4.1
2	M	205	ALA	4.0
1	B	239	LEU	4.0
1	C	17	GLY	3.9
1	B	15	PRO	3.9
1	D	15	PRO	3.8
2	M	206	GLY	3.8
1	A	219	LEU	3.7
3	F	174	THR	3.7
1	A	108	LEU	3.6
3	Q	86	GLN	3.6
1	A	17	GLY	3.6
1	B	219	LEU	3.6
1	B	16	GLY	3.6
1	B	26	LEU	3.6
1	C	257	LEU	3.6
2	M	207	LYS	3.5
3	F	92	ILE	3.5
1	B	33	SER	3.5
1	A	213	PHE	3.4
1	A	269	ALA	3.4
3	F	40	PHE	3.3
1	A	268	ASP	3.3
3	Q	13	GLY	3.3
1	B	34	LEU	3.3
1	A	210	VAL	3.3
1	D	76	LEU	3.2
2	E	66	SER	3.2
1	B	215	THR	3.2
1	C	256	LEU	3.1
1	B	194	VAL	3.1
1	D	27	ALA	3.1
1	B	230	ASP	3.1
1	B	27	ALA	3.1
1	C	259	PRO	3.0
1	A	212	LEU	3.0

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Mol	Chain	Res	Type	RSRZ
1	D	135	ASP	3.0
3	F	219	ARG	3.0
1	C	42	ALA	3.0
1	D	220	ALA	3.0
1	D	61	ARG	3.0
1	B	65	GLY	3.0
1	A	36	ILE	3.0
1	A	35	ALA	3.0
3	F	100	ALA	2.9
1	B	42	ALA	2.9
3	Q	41	PRO	2.8
3	F	210	GLN	2.8
1	A	136	ARG	2.8
1	D	6	ALA	2.8
1	A	251	ALA	2.7
1	A	141	LEU	2.7
1	A	253	ASP	2.7
1	A	139	HIS	2.7
2	M	180	SER	2.7
1	A	214	ARG	2.7
1	B	220	ALA	2.7
3	Q	14	HIS	2.7
3	F	62	LEU	2.6
1	A	215	THR	2.6
3	F	16	ARG	2.6
1	B	238	ALA	2.6
2	M	182	PHE	2.6
1	D	71	HIS	2.6
2	M	184	LEU	2.5
1	C	14	PHE	2.5
3	F	220	PRO	2.5
3	F	222	ALA	2.5
1	A	145	GLN	2.5
3	F	94	LEU	2.5
1	A	138	THR	2.5
1	D	213	PHE	2.5
1	B	39	PRO	2.5
3	F	17	SER	2.5
1	B	17	GLY	2.5
1	C	57	PRO	2.5
1	C	15	PRO	2.4
1	A	221	GLU	2.4

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Mol	Chain	Res	Type	RSRZ
1	A	133	LEU	2.4
1	D	28	VAL	2.4
1	B	18	VAL	2.4
1	C	59	SER	2.4
1	D	58	GLN	2.4
1	A	196	SER	2.4
1	A	2	THR	2.4
1	B	24	LEU	2.4
1	D	252	ARG	2.3
1	B	248	ALA	2.3
1	D	253	ASP	2.3
1	B	22	ASP	2.3
1	A	23	ASP	2.3
1	C	16	GLY	2.3
3	Q	210	GLN	2.3
3	F	84	LEU	2.3
3	Q	87	ILE	2.3
1	A	261	ALA	2.2
1	C	214	ARG	2.2
1	D	56	ARG	2.2
1	D	26	LEU	2.2
1	D	57	PRO	2.2
1	D	219	LEU	2.2
2	E	68	SER	2.2
3	F	1	MET	2.2
1	C	127	ALA	2.2
3	F	148	THR	2.2
2	M	179	GLY	2.2
3	F	87	ILE	2.2
1	D	25	SER	2.2
1	C	215	THR	2.2
1	C	122	GLU	2.1
1	D	16	GLY	2.1
1	A	211	ALA	2.1
1	D	34	LEU	2.1
1	D	216	GLY	2.1
2	M	176	LEU	2.1
2	E	185	THR	2.1
1	D	7	ALA	2.1
3	Q	56	LEU	2.1
2	E	172	LEU	2.0
1	A	102	ASP	2.0

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Mol	Chain	Res	Type	RSRZ
1	A	37	LEU	2.0
1	D	63	LEU	2.0
2	M	64	THR	2.0
1	C	237	VAL	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 carbohydrates 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.